



# Full wwPDB NMR Structure Validation Report ⓘ

Jun 18, 2024 – 12:19 PM JST

PDB ID : 8K2R  
BMRB ID : 36580  
Title : The structure of HtpG M domain in complex with unstructured D131D binding site b  
Authors : Qu, X.; Huang, C.  
Deposited on : 2023-07-13

This is a Full wwPDB NMR Structure Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/NMRValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
wwPDB-RCI : v\_1n\_11\_5\_13\_A (Berjanski et al., 2005)  
PANAV : Wang et al. (2010)  
wwPDB-ShiftChecker : v1.2  
BMRB Restraints Analysis : v1.2  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.37.1

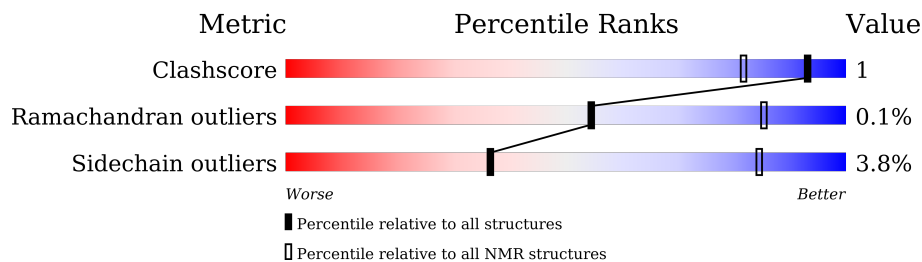
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*SOLUTION NMR*

The overall completeness of chemical shifts assignment is 25%.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



| Metric                | Whole archive (#Entries) | NMR archive (#Entries) |
|-----------------------|--------------------------|------------------------|
| Clashscore            | 158937                   | 12864                  |
| Ramachandran outliers | 154571                   | 11451                  |
| Sidechain outliers    | 154315                   | 11428                  |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the experimental data. The red, orange, yellow and green segments indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. A cyan segment indicates the fraction of residues that are not part of the well-defined cores, and a grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1   | A     | 268    | <br>96%          |
| 2   | B     | 75     | <br>95% 5%       |

## 2 Ensemble composition and analysis

This entry contains 20 models. Model 17 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *lowest energy*.

The following residues are included in the computation of the global validation metrics.

| Well-defined (core) protein residues |                       |                   |              |
|--------------------------------------|-----------------------|-------------------|--------------|
| Well-defined core                    | Residue range (total) | Backbone RMSD (Å) | Medoid model |
| 1                                    | A:232-A:489 (258)     | 1.16              | 17           |

Ill-defined regions of proteins are excluded from the global statistics.

Ligands and non-protein polymers are included in the analysis.

The models can be grouped into 4 clusters. No single-model clusters were found.

| Cluster number | Models              |
|----------------|---------------------|
| 1              | 6, 7, 8, 12, 18, 19 |
| 2              | 4, 5, 9, 13, 20     |
| 3              | 1, 2, 10, 15, 17    |
| 4              | 3, 11, 14, 16       |

### 3 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 5513 atoms, of which 2743 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Molecular chaperone HtpG (Fragment).

| Mol | Chain | Residues | Atoms |      |      |     |     |   | Trace |
|-----|-------|----------|-------|------|------|-----|-----|---|-------|
|     |       |          | Total | C    | H    | N   | O   | S |       |
| 1   | A     | 265      | 4332  | 1390 | 2146 | 371 | 418 | 7 | 0     |

There are 3 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment        | Reference      |
|-------|---------|----------|--------|----------------|----------------|
| A     | 227     | GLY      | -      | expression tag | UNP A0A7A6VTW3 |
| A     | 228     | HIS      | -      | expression tag | UNP A0A7A6VTW3 |
| A     | 229     | MET      | -      | expression tag | UNP A0A7A6VTW3 |

- Molecule 2 is a protein called Disordered protein(D131D).

| Mol | Chain | Residues | Atoms |     |     |     |     |   | Trace |
|-----|-------|----------|-------|-----|-----|-----|-----|---|-------|
|     |       |          | Total | C   | H   | N   | O   | S |       |
| 2   | B     | 71       | 1181  | 370 | 597 | 107 | 106 | 1 | 0     |

There are 4 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment        | Reference  |
|-------|---------|----------|--------|----------------|------------|
| B     | 597     | LEU      | -      | expression tag | UNP P00644 |
| B     | 598     | GLU      | -      | expression tag | UNP P00644 |
| B     | 599     | HIS      | -      | expression tag | UNP P00644 |
| B     | 600     | MET      | -      | expression tag | UNP P00644 |

## 4 Residue-property plots

### 4.1 Average score per residue in the NMR ensemble

These plots are provided for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outliers are shown as green connectors. Residues which are classified as ill-defined in the NMR ensemble, are shown in cyan with an underline colour-coded according to the previous scheme. Residues which were present in the experimental sample, but not modelled in the final structure are shown in grey.

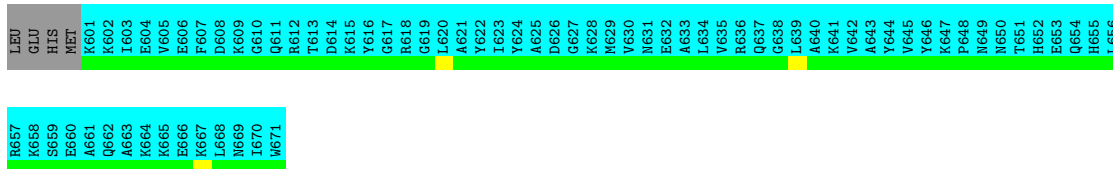
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A:  96%



- Molecule 2: Disordered protein(D131D)

Chain B:  95%




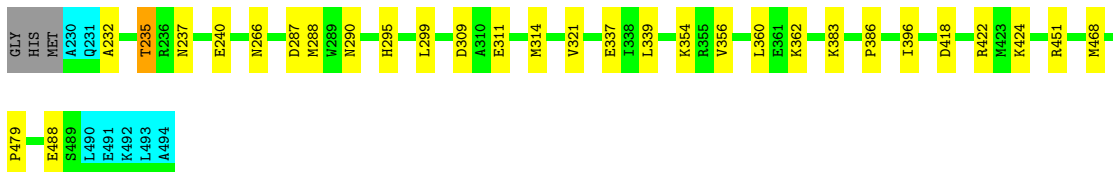
### 4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

#### 4.2.1 Score per residue for model 1

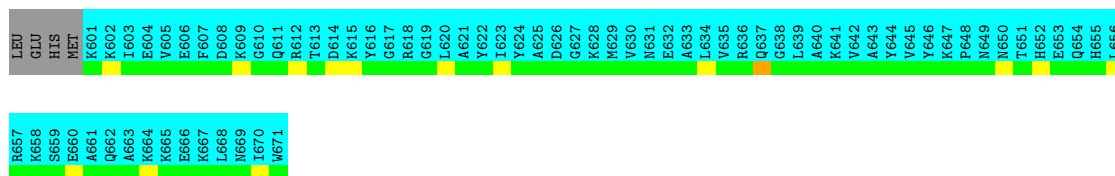
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A:  85%




- Molecule 2: Disordered protein(D131D)

Chain B:  95% 5%



#### 4.2.2 Score per residue for model 2

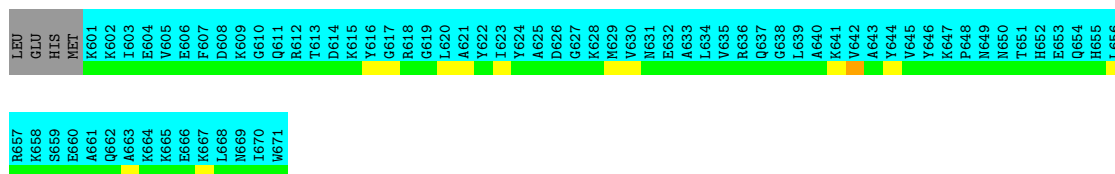
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A:  87% 9% . . .



- Molecule 2: Disordered protein(D131D)

Chain B:  95% 5%



#### 4.2.3 Score per residue for model 3

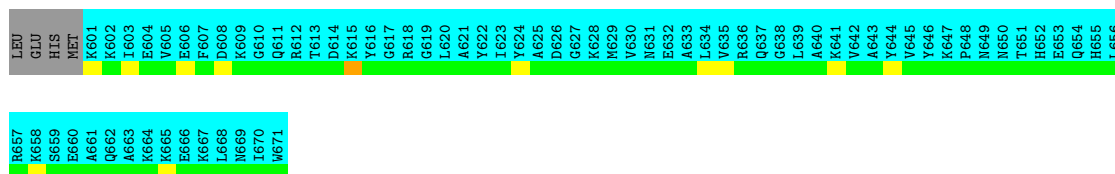
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A:  87% 9% . . .




- Molecule 2: Disordered protein(D131D)

Chain B:  95% 5%



#### 4.2.4 Score per residue for model 4

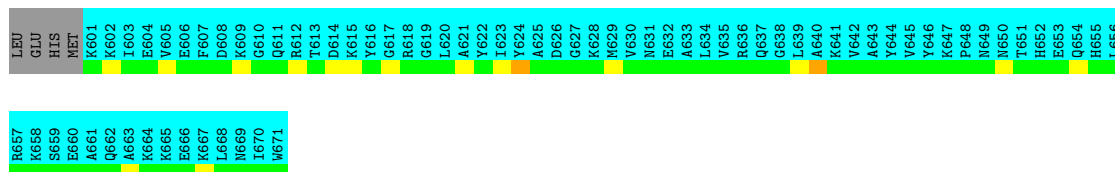
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A:  88% 8% ..




- Molecule 2: Disordered protein(D131D)

Chain B:  95% 5%



#### 4.2.5 Score per residue for model 5

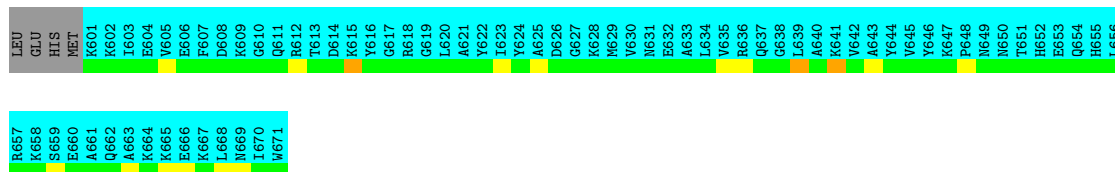
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A:  84% 12% ..




- Molecule 2: Disordered protein(D131D)

Chain B:  95% 5%



#### 4.2.6 Score per residue for model 6

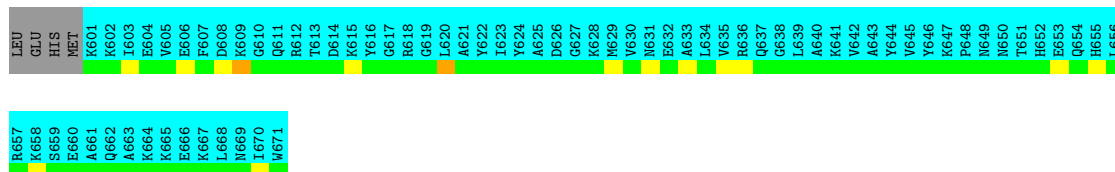
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A:  89% 7% ..



- Molecule 2: Disordered protein(D131D)

Chain B: 95% 5%



#### 4.2.7 Score per residue for model 7

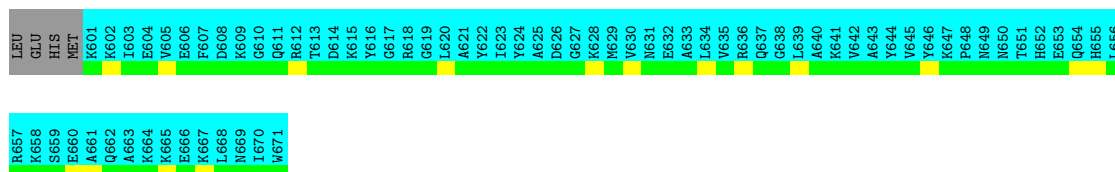
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A: 88% 9% ..



- Molecule 2: Disordered protein(D131D)

Chain B: 95% 5%



#### 4.2.8 Score per residue for model 8

- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A: 88% 8% ..

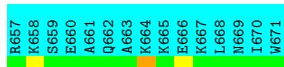


- Molecule 2: Disordered protein(D131D)

Chain B: 95% 5%







#### 4.2.9 Score per residue for model 9

- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A: 91% 5% ..



- Molecule 2: Disordered protein(D131D)

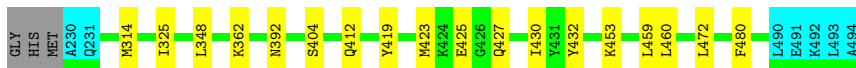
Chain B: 95% 5%



#### 4.2.10 Score per residue for model 10

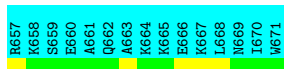
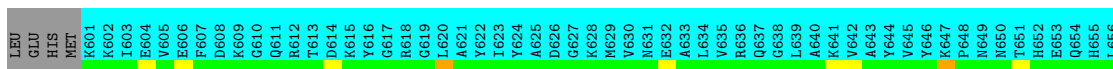
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A: 90% 7% ..



- Molecule 2: Disordered protein(D131D)

Chain B: 95% 5%



#### 4.2.11 Score per residue for model 11

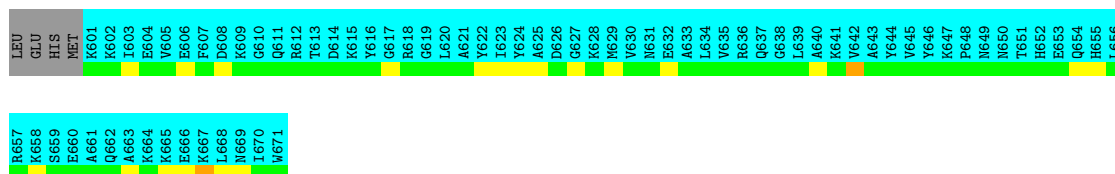
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A: 87% 9% ..



- Molecule 2: Disordered protein(D131D)

Chain B: 95% 5%



#### 4.2.12 Score per residue for model 12

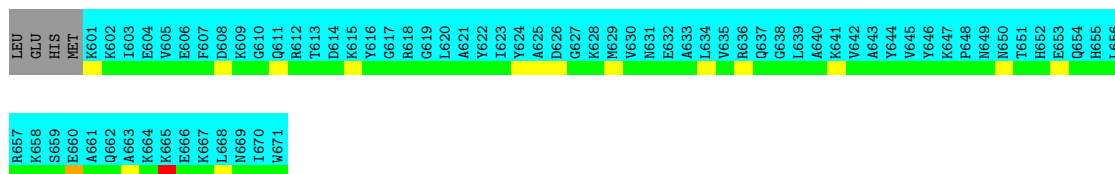
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A: 91% 5% ..



- Molecule 2: Disordered protein(D131D)

Chain B: 95% 5%



#### 4.2.13 Score per residue for model 13

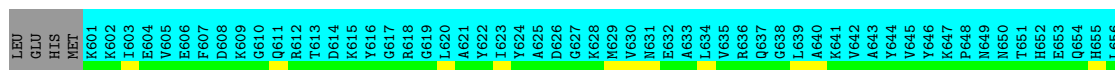
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A: 90% 6% ..



- Molecule 2: Disordered protein(D131D)

Chain B: 95% 5%

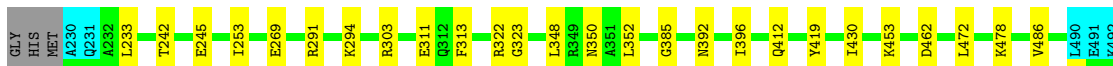




#### 4.2.14 Score per residue for model 14

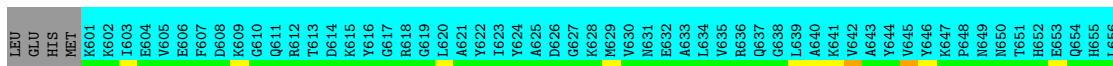
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A: 87% 10%



- Molecule 2: Disordered protein(D131D)

Chain B: 95% 5%



#### 4.2.15 Score per residue for model 15

- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A: 91% 5%



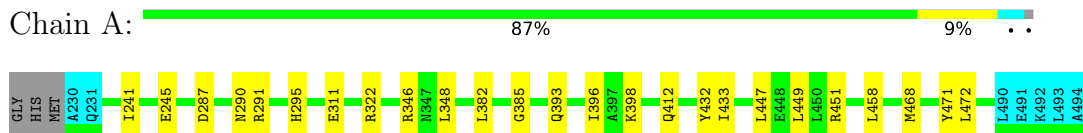
- Molecule 2: Disordered protein(D131D)

Chain B: 95% 5%

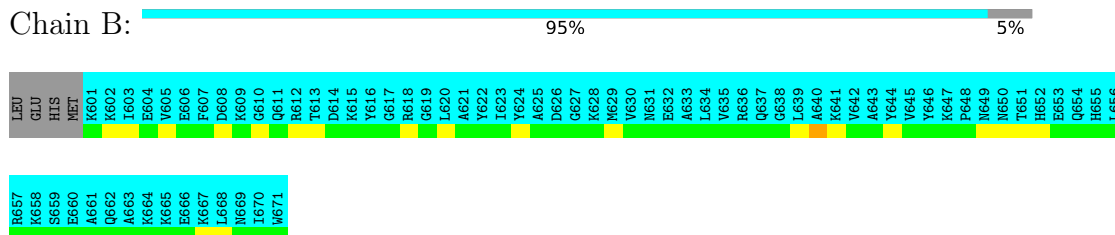


#### 4.2.16 Score per residue for model 16

- Molecule 1: Molecular chaperone HtpG (Fragment)

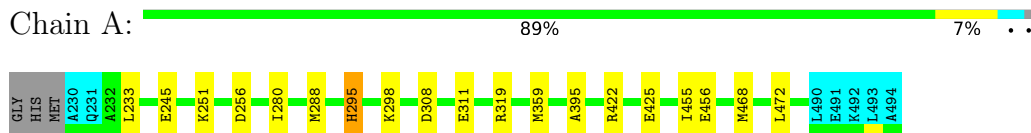


- Molecule 2: Disordered protein(D131D)

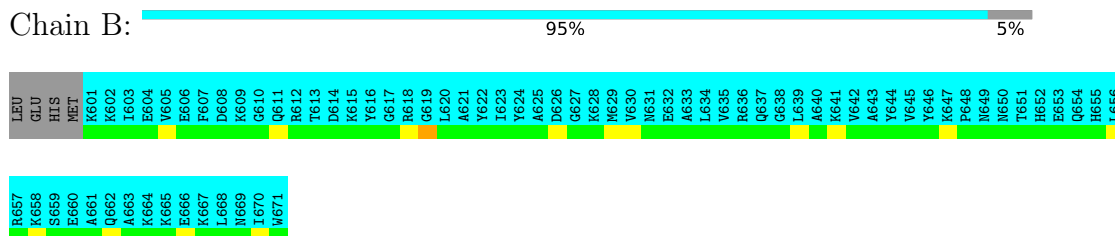


#### 4.2.17 Score per residue for model 17 (medoid)

- Molecule 1: Molecular chaperone HtpG (Fragment)

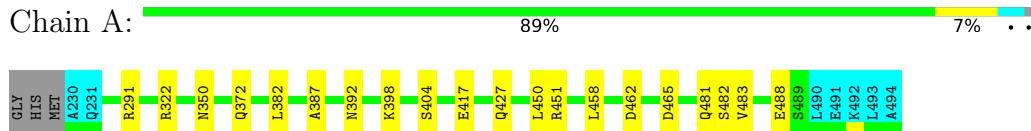


- Molecule 2: Disordered protein(D131D)



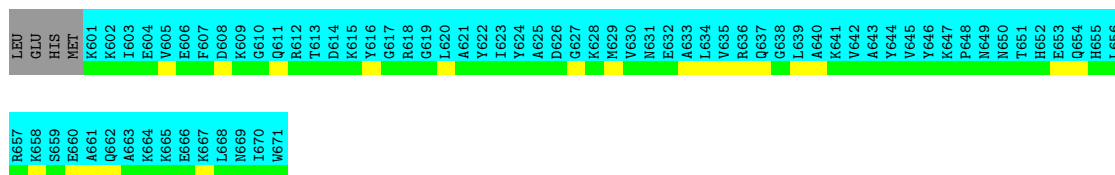
#### 4.2.18 Score per residue for model 18

- Molecule 1: Molecular chaperone HtpG (Fragment)



- Molecule 2: Disordered protein(D131D)





#### 4.2.19 Score per residue for model 19

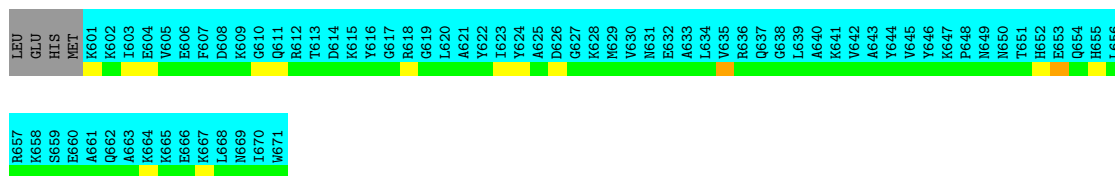
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A: 90% 6% ..



- Molecule 2: Disordered protein(D131D)

Chain B: 95% 5%



#### 4.2.20 Score per residue for model 20

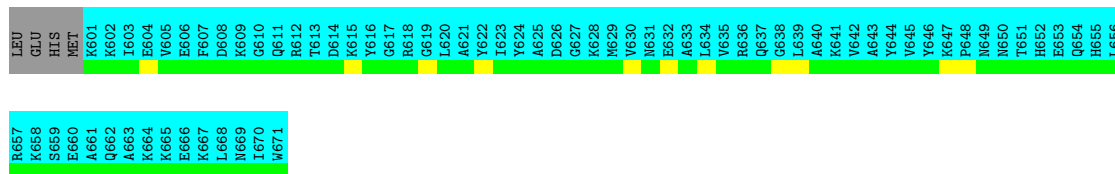
- Molecule 1: Molecular chaperone HtpG (Fragment)

Chain A: 90% 6% ..



- Molecule 2: Disordered protein(D131D)

Chain B: 95% 5%



## 5 Refinement protocol and experimental data overview

The models were refined using the following method: *molecular dynamics*.

Of the 100 calculated structures, 20 were deposited, based on the following criterion: *target function*.

The following table shows the software used for structure solution, optimisation and refinement.

| Software name | Classification        | Version |
|---------------|-----------------------|---------|
| CNS           | refinement            |         |
| CYANA         | structure calculation |         |

The following table shows chemical shift validation statistics as aggregates over all chemical shift files. Detailed validation can be found in section 7 of this report.

|  |                |
|--|----------------|
| Chemical shift file(s)                       | working_cs.cif |
| Number of chemical shift lists               | 1              |
| Total number of shifts                       | 955            |
| Number of shifts mapped to atoms             | 955            |
| Number of unparsed shifts                    | 0              |
| Number of shifts with mapping errors         | 0              |
| Number of shifts with mapping warnings       | 0              |
| Assignment completeness (well-defined parts) | 25%            |

## 6 Model quality i

### 6.1 Standard geometry i

There are no covalent bond-length or bond-angle outliers.

There are no bond-length outliers.

There are no bond-angle outliers.

There are no chirality outliers.

There are no planarity outliers.

### 6.2 Too-close contacts i

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in each chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes averaged over the ensemble.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes |
|-----|-------|-------|----------|----------|---------|
| 1   | A     | 2133  | 2087     | 2080     | 5±2     |
| 2   | B     | 0     | 0        | 0        | 0±0     |
| All | All   | 42660 | 41740    | 41600    | 107     |

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 1.

All unique clashes are listed below, sorted by their clash magnitude.

| Atom-1           | Atom-2           | Clash(Å) | Distance(Å) | Models |       |
|------------------|------------------|----------|-------------|--------|-------|
|                  |                  |          |             | Worst  | Total |
| 1:A:285:PRO:HG3  | 1:A:322:ARG:HH22 | 0.62     | 1.54        | 4      | 1     |
| 1:A:288:MET:SD   | 1:A:319:ARG:HG3  | 0.60     | 2.37        | 3      | 2     |
| 1:A:404:SER:HB3  | 1:A:458:LEU:HD23 | 0.57     | 1.76        | 15     | 2     |
| 1:A:434:THR:HB   | 1:A:466:GLU:HG2  | 0.57     | 1.76        | 11     | 1     |
| 1:A:468:MET:SD   | 1:A:472:LEU:HD12 | 0.55     | 2.41        | 17     | 5     |
| 1:A:237:ASN:HB2  | 1:A:240:GLU:HG2  | 0.54     | 1.78        | 1      | 1     |
| 1:A:314:MET:SD   | 1:A:321:VAL:HB   | 0.53     | 2.44        | 1      | 1     |
| 1:A:385:GLY:HA3  | 1:A:396:ILE:HG21 | 0.52     | 1.80        | 13     | 5     |
| 1:A:427:GLN:HE21 | 1:A:455:ILE:HG23 | 0.51     | 1.66        | 8      | 1     |
| 1:A:423:MET:SD   | 1:A:478:LYS:HG2  | 0.51     | 2.46        | 8      | 1     |
| 1:A:233:LEU:HD11 | 1:A:245:GLU:HB3  | 0.50     | 1.82        | 17     | 3     |
| 1:A:317:TYR:HB2  | 1:A:388:GLU:HG3  | 0.50     | 1.82        | 15     | 1     |
| 1:A:462:ASP:HB3  | 1:A:465:ASP:HB3  | 0.49     | 1.83        | 5      | 1     |

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| Atom-1           | Atom-2           | Clash(Å) | Distance(Å) | Models |       |
|------------------|------------------|----------|-------------|--------|-------|
|                  |                  |          |             | Worst  | Total |
| 1:A:462:ASP:HB3  | 1:A:465:ASP:HB2  | 0.49     | 1.83        | 18     | 1     |
| 1:A:404:SER:HB3  | 1:A:458:LEU:HD13 | 0.49     | 1.85        | 18     | 1     |
| 1:A:287:ASP:HB2  | 1:A:294:LYS:HG2  | 0.49     | 1.84        | 20     | 1     |
| 1:A:423:MET:HA   | 1:A:427:GLN:NE2  | 0.49     | 2.21        | 5      | 1     |
| 1:A:295:HIS:HB3  | 1:A:319:ARG:HG3  | 0.49     | 1.83        | 17     | 1     |
| 1:A:432:TYR:HD1  | 1:A:460:LEU:HD11 | 0.48     | 1.68        | 4      | 2     |
| 1:A:383:LYS:HG3  | 1:A:468:MET:SD   | 0.48     | 2.48        | 7      | 1     |
| 1:A:460:LEU:HD21 | 1:A:469:MET:HG3  | 0.48     | 1.85        | 7      | 1     |
| 1:A:390:PHE:HA   | 1:A:393:GLN:HB2  | 0.48     | 1.85        | 11     | 1     |
| 1:A:450:LEU:HD11 | 1:A:483:VAL:HG11 | 0.47     | 1.85        | 19     | 2     |
| 1:A:383:LYS:HD2  | 1:A:464:ILE:HG23 | 0.47     | 1.87        | 2      | 2     |
| 1:A:254:ALA:HB1  | 1:A:322:ARG:HH11 | 0.47     | 1.69        | 4      | 1     |
| 1:A:462:ASP:HB2  | 1:A:465:ASP:HB3  | 0.46     | 1.86        | 12     | 2     |
| 1:A:280:ILE:HG13 | 1:A:359:MET:SD   | 0.46     | 2.50        | 17     | 1     |
| 1:A:433:ILE:HG21 | 1:A:447:LEU:HD23 | 0.46     | 1.86        | 16     | 1     |
| 1:A:241:ILE:HG23 | 1:A:245:GLU:HG2  | 0.46     | 1.86        | 16     | 1     |
| 1:A:234:TRP:O    | 1:A:275:THR:HG21 | 0.46     | 2.12        | 13     | 1     |
| 1:A:287:ASP:HA   | 1:A:290:ASN:HB2  | 0.45     | 1.88        | 16     | 2     |
| 1:A:299:LEU:HD22 | 1:A:339:LEU:HD11 | 0.45     | 1.87        | 1      | 1     |
| 1:A:264:SER:HB2  | 1:A:359:MET:SD   | 0.45     | 2.52        | 7      | 2     |
| 1:A:383:LYS:HB3  | 1:A:468:MET:SD   | 0.45     | 2.52        | 1      | 1     |
| 1:A:432:TYR:CD2  | 1:A:460:LEU:HD11 | 0.45     | 2.47        | 12     | 2     |
| 1:A:469:MET:SD   | 1:A:472:LEU:HD12 | 0.45     | 2.52        | 15     | 1     |
| 1:A:422:ARG:HB3  | 1:A:456:GLU:HG2  | 0.45     | 1.87        | 17     | 1     |
| 1:A:472:LEU:HB3  | 1:A:480:PHE:CE1  | 0.45     | 2.47        | 10     | 1     |
| 1:A:295:HIS:HB2  | 1:A:319:ARG:O    | 0.45     | 2.12        | 20     | 2     |
| 1:A:242:THR:HG22 | 1:A:245:GLU:HG2  | 0.45     | 1.88        | 14     | 1     |
| 1:A:289:TRP:CH2  | 1:A:380:LEU:HB2  | 0.44     | 2.47        | 4      | 2     |
| 1:A:298:LYS:HA   | 1:A:308:ASP:HA   | 0.44     | 1.89        | 3      | 2     |
| 1:A:432:TYR:HE1  | 1:A:480:PHE:HB3  | 0.44     | 1.72        | 6      | 1     |
| 1:A:463:ARG:H    | 1:A:463:ARG:HD2  | 0.44     | 1.72        | 8      | 1     |
| 1:A:237:ASN:HB3  | 1:A:240:GLU:HG2  | 0.44     | 1.89        | 5      | 1     |
| 1:A:347:ASN:HA   | 1:A:350:ASN:ND2  | 0.43     | 2.27        | 8      | 1     |
| 1:A:386:PRO:HD3  | 1:A:396:ILE:HG21 | 0.43     | 1.89        | 1      | 1     |
| 1:A:291:ARG:HD2  | 1:A:291:ARG:H    | 0.43     | 1.74        | 14     | 1     |
| 1:A:419:TYR:CD2  | 1:A:430:ILE:HG23 | 0.43     | 2.48        | 10     | 1     |
| 1:A:313:PHE:HB3  | 1:A:352:LEU:HD12 | 0.43     | 1.91        | 14     | 1     |
| 1:A:258:ASN:HB3  | 1:A:282:SER:OG   | 0.43     | 2.13        | 7      | 1     |
| 1:A:291:ARG:H    | 1:A:291:ARG:HD3  | 0.43     | 1.73        | 9      | 1     |
| 1:A:396:ILE:O    | 1:A:400:LEU:HG   | 0.43     | 2.14        | 7      | 2     |
| 1:A:373:THR:O    | 1:A:377:GLN:HG2  | 0.42     | 2.15        | 2      | 2     |

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| Atom-1           | Atom-2           | Clash(Å) | Distance(Å) | Models |       |
|------------------|------------------|----------|-------------|--------|-------|
|                  |                  |          |             | Worst  | Total |
| 1:A:361:GLU:O    | 1:A:365:LYS:HG2  | 0.42     | 2.13        | 9      | 1     |
| 1:A:442:LYS:HA   | 1:A:447:LEU:HD21 | 0.42     | 1.90        | 11     | 1     |
| 1:A:432:TYR:HD1  | 1:A:458:LEU:HB3  | 0.42     | 1.74        | 16     | 1     |
| 1:A:432:TYR:HB2  | 1:A:460:LEU:HD13 | 0.42     | 1.90        | 6      | 1     |
| 1:A:429:LYS:NZ   | 1:A:481:GLN:HB2  | 0.42     | 2.30        | 9      | 1     |
| 1:A:404:SER:HA   | 1:A:459:LEU:HG   | 0.42     | 1.90        | 19     | 2     |
| 1:A:429:LYS:HD3  | 1:A:481:GLN:HB2  | 0.42     | 1.92        | 5      | 1     |
| 1:A:307:MET:SD   | 1:A:336:ARG:HB2  | 0.41     | 2.55        | 11     | 1     |
| 1:A:356:VAL:O    | 1:A:360:LEU:HG   | 0.41     | 2.15        | 1      | 1     |
| 1:A:317:TYR:HB3  | 1:A:384:GLU:HB2  | 0.41     | 1.92        | 11     | 1     |
| 1:A:280:ILE:HG12 | 1:A:359:MET:SD   | 0.41     | 2.55        | 3      | 1     |
| 1:A:364:ALA:HB1  | 1:A:401:ARG:NH2  | 0.41     | 2.30        | 6      | 2     |
| 1:A:232:ALA:O    | 1:A:235:THR:HG22 | 0.41     | 2.16        | 1      | 1     |
| 1:A:251:LYS:HA   | 1:A:256:ASP:O    | 0.41     | 2.16        | 17     | 1     |
| 1:A:395:ALA:HA   | 1:A:398:LYS:HD3  | 0.41     | 1.93        | 4      | 1     |
| 1:A:386:PRO:HG2  | 1:A:400:LEU:HD11 | 0.40     | 1.92        | 2      | 1     |
| 1:A:468:MET:SD   | 1:A:469:MET:HE2  | 0.40     | 2.56        | 5      | 1     |
| 1:A:419:TYR:CE2  | 1:A:430:ILE:HG23 | 0.40     | 2.51        | 14     | 1     |
| 1:A:429:LYS:HZ2  | 1:A:429:LYS:HB3  | 0.40     | 1.76        | 3      | 1     |
| 1:A:423:MET:SD   | 1:A:427:GLN:CB   | 0.40     | 3.09        | 10     | 1     |
| 1:A:432:TYR:CE1  | 1:A:480:PHE:HB3  | 0.40     | 2.51        | 11     | 1     |
| 1:A:350:ASN:O    | 1:A:354:LYS:HD3  | 0.40     | 2.15        | 2      | 1     |
| 1:A:383:LYS:HA   | 1:A:468:MET:SD   | 0.40     | 2.56        | 3      | 1     |
| 1:A:288:MET:HE1  | 1:A:320:PHE:HB3  | 0.40     | 1.92        | 11     | 1     |
| 1:A:397:ALA:HB1  | 1:A:416:LEU:HD12 | 0.40     | 1.93        | 6      | 1     |
| 1:A:465:ASP:O    | 1:A:469:MET:HG2  | 0.40     | 2.17        | 15     | 1     |
| 1:A:253:ILE:HD13 | 1:A:323:GLY:HA2  | 0.40     | 1.94        | 14     | 1     |

## 6.3 Torsion angles [i](#)

### 6.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR entries. The Analysed column shows the number of residues for which the backbone conformation was analysed and the total number of residues.

| Mol | Chain | Analysed      | Favoured      | Allowed    | Outliers   | Percentiles |
|-----|-------|---------------|---------------|------------|------------|-------------|
| 1   | A     | 258/268 (96%) | 250±2 (97±1%) | 8±2 (3±1%) | 0±0 (0±0%) | 54 85       |
| 2   | B     | 0             | -             | -          | -          | -           |

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| Mol | Chain | Analysed        | Favoured   | Allowed  | Outliers | Percentiles |
|-----|-------|-----------------|------------|----------|----------|-------------|
| All | All   | 5160/6860 (75%) | 4990 (97%) | 167 (3%) | 3 (0%)   | 54 85       |

All 2 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1   | A     | 232 | ALA  | 2              |
| 1   | A     | 487 | ASP  | 1              |

### 6.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR entries. The Analysed column shows the number of residues for which the sidechain conformation was analysed and the total number of residues.

| Mol | Chain | Analysed        | Rotameric     | Outliers   | Percentiles |
|-----|-------|-----------------|---------------|------------|-------------|
| 1   | A     | 233/240 (97%)   | 224±3 (96±1%) | 9±3 (4±1%) | 36 84       |
| 2   | B     | 0               | -             | -          | -           |
| All | All   | 4660/6060 (77%) | 4485 (96%)    | 175 (4%)   | 36 84       |

All 60 unique residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1   | A     | 311 | GLU  | 10             |
| 1   | A     | 348 | LEU  | 10             |
| 1   | A     | 295 | HIS  | 8              |
| 1   | A     | 322 | ARG  | 8              |
| 1   | A     | 291 | ARG  | 8              |
| 1   | A     | 314 | MET  | 7              |
| 1   | A     | 453 | LYS  | 7              |
| 1   | A     | 451 | ARG  | 6              |
| 1   | A     | 425 | GLU  | 6              |
| 1   | A     | 325 | ILE  | 5              |
| 1   | A     | 382 | LEU  | 5              |
| 1   | A     | 288 | MET  | 4              |
| 1   | A     | 362 | LYS  | 4              |
| 1   | A     | 488 | GLU  | 4              |
| 1   | A     | 269 | GLU  | 4              |
| 1   | A     | 472 | LEU  | 4              |

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| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1   | A     | 303 | ARG  | 4              |
| 1   | A     | 393 | GLN  | 4              |
| 1   | A     | 309 | ASP  | 3              |
| 1   | A     | 350 | ASN  | 3              |
| 1   | A     | 293 | HIS  | 3              |
| 1   | A     | 294 | LYS  | 3              |
| 1   | A     | 355 | ARG  | 3              |
| 1   | A     | 412 | GLN  | 3              |
| 1   | A     | 337 | GLU  | 2              |
| 1   | A     | 422 | ARG  | 2              |
| 1   | A     | 424 | LYS  | 2              |
| 1   | A     | 248 | GLU  | 2              |
| 1   | A     | 417 | GLU  | 2              |
| 1   | A     | 471 | TYR  | 2              |
| 1   | A     | 273 | GLU  | 2              |
| 1   | A     | 463 | ARG  | 2              |
| 1   | A     | 433 | ILE  | 2              |
| 1   | A     | 376 | GLN  | 2              |
| 1   | A     | 478 | LYS  | 2              |
| 1   | A     | 466 | GLU  | 2              |
| 1   | A     | 346 | ARG  | 2              |
| 1   | A     | 235 | THR  | 1              |
| 1   | A     | 266 | ASN  | 1              |
| 1   | A     | 418 | ASP  | 1              |
| 1   | A     | 319 | ARG  | 1              |
| 1   | A     | 469 | MET  | 1              |
| 1   | A     | 365 | LYS  | 1              |
| 1   | A     | 298 | LYS  | 1              |
| 1   | A     | 358 | GLN  | 1              |
| 1   | A     | 447 | LEU  | 1              |
| 1   | A     | 448 | GLU  | 1              |
| 1   | A     | 487 | ASP  | 1              |
| 1   | A     | 340 | GLN  | 1              |
| 1   | A     | 465 | ASP  | 1              |
| 1   | A     | 429 | LYS  | 1              |
| 1   | A     | 251 | LYS  | 1              |
| 1   | A     | 271 | LYS  | 1              |
| 1   | A     | 470 | ASN  | 1              |
| 1   | A     | 462 | ASP  | 1              |
| 1   | A     | 316 | ASN  | 1              |
| 1   | A     | 372 | GLN  | 1              |
| 1   | A     | 398 | LYS  | 1              |

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| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1   | A     | 383 | LYS  | 1              |
| 1   | A     | 369 | GLU  | 1              |

### 6.3.3 RNA [i](#)

There are no RNA molecules in this entry.

## 6.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

## 6.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 6.6 Ligand geometry [i](#)

There are no ligands in this entry.

## 6.7 Other polymers [i](#)

There are no such molecules in this entry.

## 6.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 7 Chemical shift validation [i](#)

The completeness of assignment taking into account all chemical shift lists is 25% for the well-defined parts and 20% for the entire structure.

### 7.1 Chemical shift list 1

File name: working\_cs.cif

Chemical shift list name: *assigned\_chem\_shift\_list\_0*

#### 7.1.1 Bookkeeping [i](#)

The following table shows the results of parsing the chemical shift list and reports the number of nuclei with statistically unusual chemical shifts.

|   |     |
|---|-----|
| Total number of shifts                  | 955 |
| Number of shifts mapped to atoms        | 955 |
| Number of unparsed shifts               | 0   |
| Number of shifts with mapping errors    | 0   |
| Number of shifts with mapping warnings  | 0   |
| Number of shift outliers (ShiftChecker) | 10  |

#### 7.1.2 Chemical shift referencing [i](#)

The following table shows the suggested chemical shift referencing corrections.

| Nucleus                | # values | Correction $\pm$ precision, ppm | Suggested action           |
|------------------------|----------|---------------------------------|----------------------------|
| $^{13}\text{C}_\alpha$ | 255      | $-0.01 \pm 0.09$                | None needed ( $< 0.5$ ppm) |
| $^{13}\text{C}_\beta$  | 246      | $0.94 \pm 0.09$                 | Should be checked          |
| $^{13}\text{C}'$       | 0        | —                               | None (insufficient data)   |
| $^{15}\text{N}$        | 227      | $-0.03 \pm 0.26$                | None needed ( $< 0.5$ ppm) |

#### 7.1.3 Completeness of resonance assignments [i](#)

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 25%, i.e. 927 atoms were assigned a chemical shift out of a possible 3647. 0 out of 41 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

|           | Total          | $^1\text{H}$  | $^{13}\text{C}$ | $^{15}\text{N}$ |
|-----------|----------------|---------------|-----------------|-----------------|
| Backbone  | 688/1282 (54%) | 220/516 (43%) | 248/516 (48%)   | 220/250 (88%)   |
| Sidechain | 239/2019 (12%) | 0/1302 (0%)   | 239/633 (38%)   | 0/84 (0%)       |

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|          | Total          | <sup>1</sup> H | <sup>13</sup> C | <sup>15</sup> N |
|----------|----------------|----------------|-----------------|-----------------|
| Aromatic | 0/346 (0%)     | 0/167 (0%)     | 0/159 (0%)      | 0/20 (0%)       |
| Overall  | 927/3647 (25%) | 220/1985 (11%) | 487/1308 (37%)  | 220/354 (62%)   |

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 20%, i.e. 955 atoms were assigned a chemical shift out of a possible 4767. 0 out of 53 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

|           | Total          | <sup>1</sup> H | <sup>13</sup> C | <sup>15</sup> N |
|-----------|----------------|----------------|-----------------|-----------------|
| Backbone  | 709/1675 (42%) | 227/676 (34%)  | 255/672 (38%)   | 227/327 (69%)   |
| Sidechain | 246/2663 (9%)  | 0/1715 (0%)    | 246/831 (30%)   | 0/117 (0%)      |
| Aromatic  | 0/429 (0%)     | 0/206 (0%)     | 0/198 (0%)      | 0/25 (0%)       |
| Overall   | 955/4767 (20%) | 227/2597 (9%)  | 501/1701 (29%)  | 227/469 (48%)   |

#### 7.1.4 Statistically unusual chemical shifts [i](#)

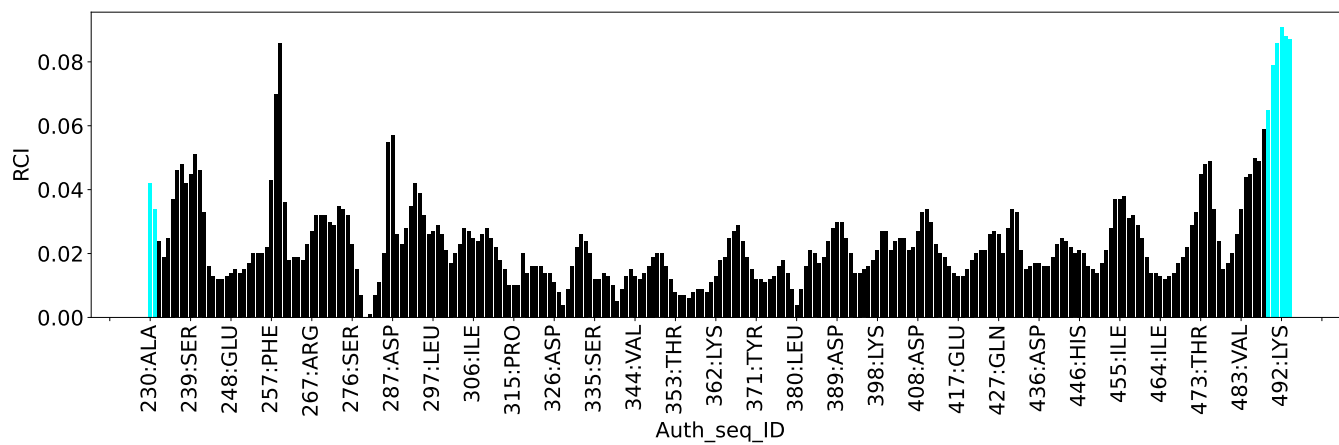
The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|-----|------|------|------------|---------------------|---------|
| 1       | A     | 279 | TYR  | H    | 117.59     | 4.70 – 11.88        | 152.2   |
| 1       | A     | 328 | SER  | H    | 31.14      | 5.45 – 11.10        | 40.5    |
| 1       | A     | 340 | GLN  | H    | 29.41      | 5.39 – 11.05        | 37.5    |
| 1       | A     | 279 | TYR  | N    | 9.63       | 100.12 – 140.79     | -27.2   |
| 1       | A     | 380 | LEU  | CB   | 57.53      | 33.11 – 51.34       | 8.4     |
| 1       | A     | 335 | SER  | CB   | 51.64      | 56.28 – 71.32       | -8.1    |
| 1       | A     | 462 | ASP  | CB   | 53.22      | 32.98 – 48.76       | 7.8     |
| 1       | A     | 380 | LEU  | CA   | 40.90      | 45.17 – 66.21       | -7.0    |
| 1       | A     | 360 | LEU  | CB   | 30.11      | 33.11 – 51.34       | -6.7    |
| 1       | A     | 353 | THR  | CB   | 58.99      | 61.12 – 78.27       | -6.2    |

#### 7.1.5 Random Coil Index (RCI) plots [i](#)

The image below reports *random coil index* values for the protein chains in the structure. The height of each bar gives a probability of a given residue to be disordered, as predicted from the available chemical shifts and the amino acid sequence. A value above 0.2 is an indication of significant predicted disorder. The colour of the bar shows whether the residue is in the well-defined core (black) or in the ill-defined residue ranges (cyan), as described in section 2 on ensemble composition. If well-defined core and ill-defined regions are not identified then it is shown as gray bars.

Random coil index (RCI) for chain A:



## 8 NMR restraints analysis

### 8.1 Conformationally restricting restraints

The following table provides the summary of experimentally observed NMR restraints in different categories. Restraints are classified into different categories based on the sequence separation of the atoms involved.

| Description  | Value |
|--|-------|
| Total distance restraints                                | 3999  |
| Intra-residue ( $ i-j =0$ )                              | 0     |
| Sequential ( $ i-j =1$ )                                 | 840   |
| Medium range ( $ i-j >1$ and $ i-j <5$ )                 | 1269  |
| Long range ( $ i-j \geq 5$ )                             | 1872  |
| Inter-chain  | 18    |
| Hydrogen bond restraints                                 | 0     |
| Disulfide bond restraints                                | 0     |
| Total dihedral-angle restraints                          | 0     |
| Number of unmapped restraints                            | 0     |
| Number of restraints per residue                         | 10.9  |
| Number of long range restraints per residue <sup>1</sup> | 5.1   |

<sup>1</sup>Long range hydrogen bonds and disulfide bonds are counted as long range restraints while calculating the number of long range restraints per residue

### 8.2 Residual restraint violations

This section provides the overview of the restraint violations analysis. The violations are binned as small, medium and large violations based on its absolute value. Average number of violations per model is calculated by dividing the total number of violations in each bin by the size of the ensemble.

#### 8.2.1 Average number of distance violations per model

Distance violations less than 0.1 Å are not included in the calculation.

| Bins (Å)         | Average number of violations per model | Max (Å) |
|------------------|--|---------|
| 0.1-0.2 (Small)  | 42.2                                   | 0.2     |
| 0.2-0.5 (Medium) | 97.3                                   | 0.5     |
| >0.5 (Large)     | 53.4                                   | 6.06    |



### 8.2.2 Average number of dihedral-angle violations per model

Dihedral-angle violations less than  $1^\circ$  are not included in the calculation. There are no dihedral-angle violations

## 9 Distance violation analysis i

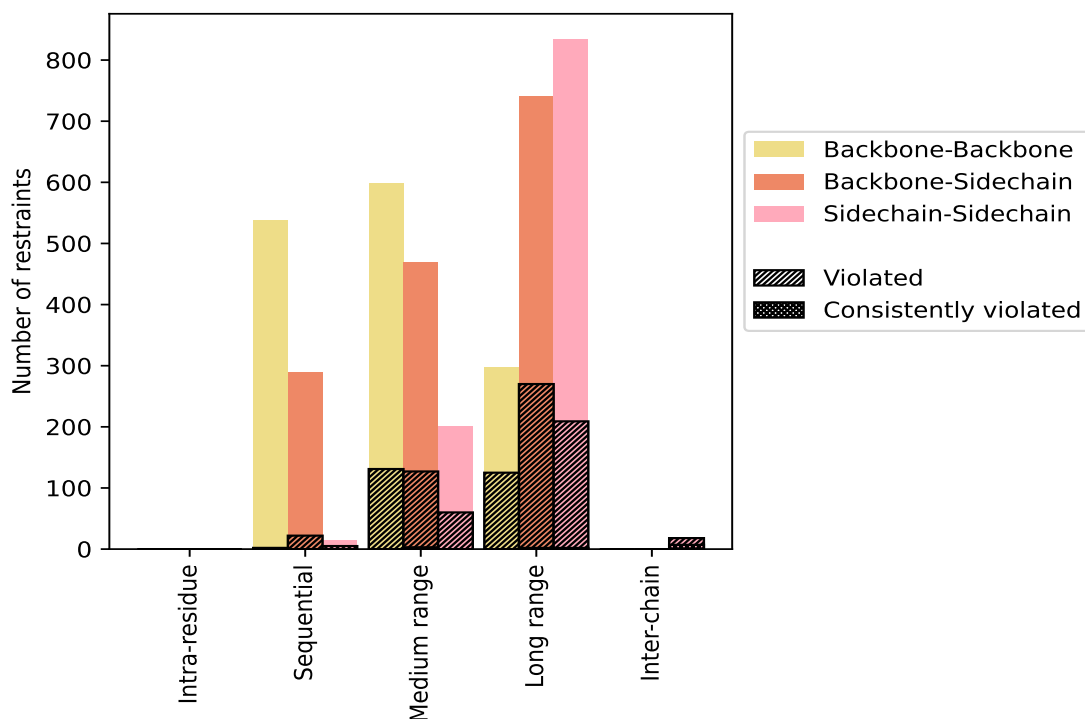
### 9.1 Summary of distance violations i

The following table shows the summary of distance violations in different restraint categories based on the sequence separation of the atoms involved. Each category is further sub-divided into three sub-categories based on the atoms involved. Violations less than 0.1 Å are not included in the statistics.

| Restrains type  | Count | % <sup>1</sup> | Violated <sup>3</sup> |                |                | Consistently Violated <sup>4</sup> |                |                |
|---|-------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
|   |       |                | Count                 | % <sup>2</sup> | % <sup>1</sup> | Count                              | % <sup>2</sup> | % <sup>1</sup> |
| <b>Intra-residue (<math> i-j =0</math>)</b>                                 | 0     | 0.0            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| Backbone-Backbone   | 0     | 0.0            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| Backbone-Sidechain  | 0     | 0.0            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| Sidechain-Sidechain   | 0     | 0.0            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| <b>Sequential (<math> i-j =1</math>)</b>                                    | 840   | 21.0           | 29                    | 3.5            | 0.7            | 0                                  | 0.0            | 0.0            |
| Backbone-Backbone   | 537   | 13.4           | 2                     | 0.4            | 0.1            | 0                                  | 0.0            | 0.0            |
| Backbone-Sidechain  | 289   | 7.2            | 22                    | 7.6            | 0.6            | 0                                  | 0.0            | 0.0            |
| Sidechain-Sidechain   | 14    | 0.4            | 5                     | 35.7           | 0.1            | 0                                  | 0.0            | 0.0            |
| <b>Medium range (<math> i-j &gt;1</math> &amp; <math> i-j &lt;5</math>)</b> | 1269  | 31.7           | 318                   | 25.1           | 8.0            | 3                                  | 0.2            | 0.1            |
| Backbone-Backbone   | 599   | 15.0           | 131                   | 21.9           | 3.3            | 0                                  | 0.0            | 0.0            |
| Backbone-Sidechain  | 469   | 11.7           | 127                   | 27.1           | 3.2            | 3                                  | 0.6            | 0.1            |
| Sidechain-Sidechain   | 201   | 5.0            | 60                    | 29.9           | 1.5            | 0                                  | 0.0            | 0.0            |
| <b>Long range (<math> i-j \geq 5</math>)</b>                                | 1872  | 46.8           | 604                   | 32.3           | 15.1           | 4                                  | 0.2            | 0.1            |
| Backbone-Backbone   | 297   | 7.4            | 125                   | 42.1           | 3.1            | 0                                  | 0.0            | 0.0            |
| Backbone-Sidechain  | 741   | 18.5           | 270                   | 36.4           | 6.8            | 2                                  | 0.3            | 0.1            |
| Sidechain-Sidechain   | 834   | 20.9           | 209                   | 25.1           | 5.2            | 2                                  | 0.2            | 0.1            |
| <b>Inter-chain</b>  | 18    | 0.5            | 18                    | 100.0          | 0.5            | 7                                  | 38.9           | 0.2            |
| Backbone-Backbone   | 0     | 0.0            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| Backbone-Sidechain  | 0     | 0.0            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| Sidechain-Sidechain   | 18    | 0.5            | 18                    | 100.0          | 0.5            | 7                                  | 38.9           | 0.2            |
| <b>Hydrogen bond</b>  | 0     | 0.0            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| <b>Disulfide bond</b>   | 0     | 0.0            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| <b>Total</b>  | 3999  | 100.0          | 969                   | 24.2           | 24.2           | 14                                 | 0.4            | 0.4            |
| Backbone-Backbone   | 1433  | 35.8           | 258                   | 18.0           | 6.5            | 0                                  | 0.0            | 0.0            |
| Backbone-Sidechain  | 1499  | 37.5           | 419                   | 28.0           | 10.5           | 5                                  | 0.3            | 0.1            |
| Sidechain-Sidechain   | 1067  | 26.7           | 292                   | 27.4           | 7.3            | 9                                  | 0.8            | 0.2            |

<sup>1</sup> percentage calculated with respect to the total number of distance restraints, <sup>2</sup> percentage calculated with respect to the number of restraints in a particular restraint category, <sup>3</sup> violated in at least one model, <sup>4</sup> violated in all the models

### 9.1.1 Bar chart : Distribution of distance restraints and violations [i](#)



Violated and consistently violated restraints are shown using different hatch patterns in their respective categories. The hydrogen bonds and disulfid bonds are counted in their appropriate category on the x-axis

## 9.2 Distance violation statistics for each model [i](#)

The following table provides the distance violation statistics for each model in the ensemble. Violations less than 0.1 Å are not included in the statistics.

| Model ID | Number of violations |                 |                 |                 |                 |       | Mean (Å) | Max (Å) | SD <sup>6</sup> (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
|          | IR <sup>1</sup>      | SQ <sup>2</sup> | MR <sup>3</sup> | LR <sup>4</sup> | IC <sup>5</sup> | Total |          |         |                     |            |
| 1        | 0                    | 4               | 63              | 108             | 14              | 189   | 0.45     | 2.78    | 0.38                | 0.37       |
| 2        | 0                    | 9               | 71              | 103             | 12              | 195   | 0.46     | 6.06    | 0.57                | 0.36       |
| 3        | 0                    | 6               | 56              | 129             | 12              | 203   | 0.45     | 3.55    | 0.46                | 0.34       |
| 4        | 0                    | 9               | 71              | 114             | 16              | 210   | 0.47     | 3.84    | 0.49                | 0.36       |
| 5        | 0                    | 5               | 65              | 99              | 17              | 186   | 0.56     | 5.92    | 0.82                | 0.37       |
| 6        | 0                    | 5               | 55              | 93              | 13              | 166   | 0.48     | 3.3     | 0.59                | 0.3        |
| 7        | 0                    | 8               | 54              | 135             | 15              | 212   | 0.49     | 4.59    | 0.56                | 0.36       |
| 8        | 0                    | 11              | 66              | 104             | 14              | 195   | 0.49     | 4.07    | 0.6                 | 0.36       |
| 9        | 0                    | 7               | 58              | 106             | 15              | 186   | 0.52     | 5.13    | 0.73                | 0.39       |
| 10       | 0                    | 7               | 66              | 110             | 17              | 200   | 0.51     | 4.51    | 0.6                 | 0.36       |

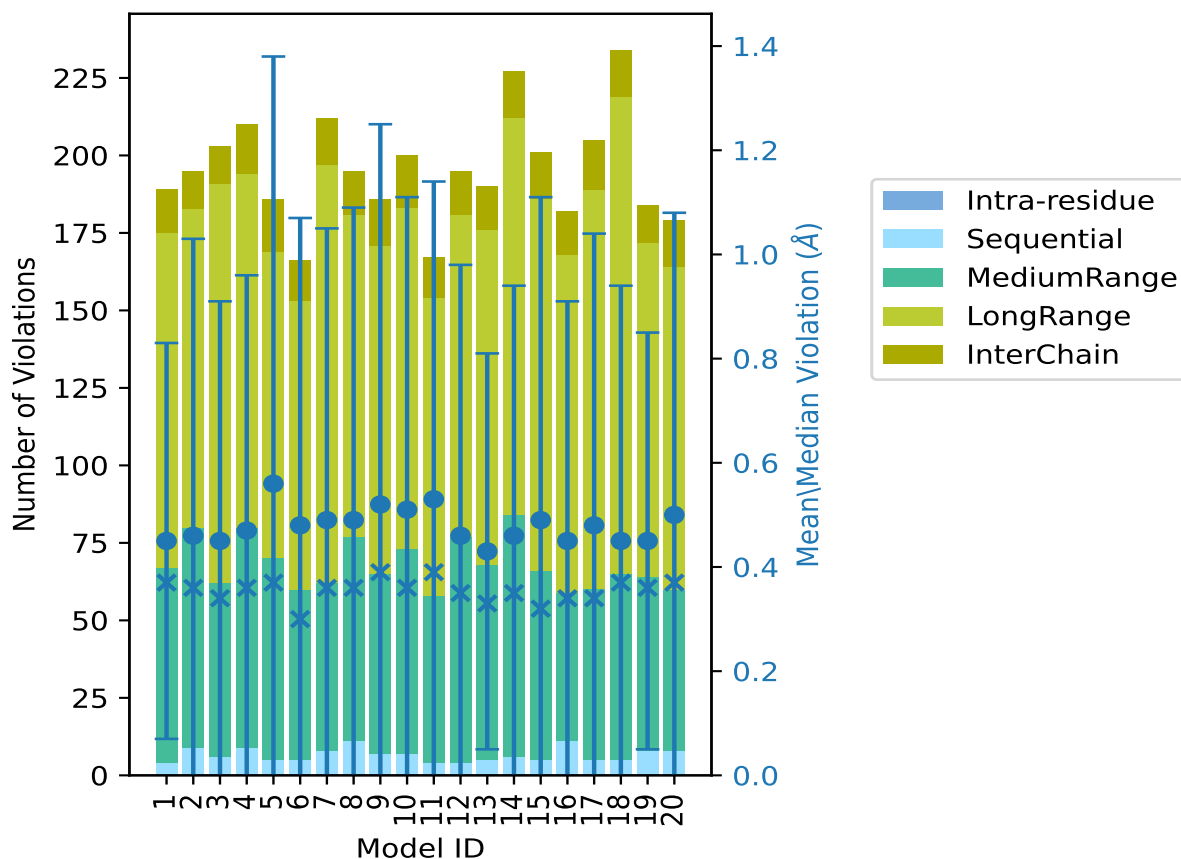
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| Model ID | Number of violations |                 |                 |                 |                 | Total | Mean (Å) | Max (Å) | SD <sup>6</sup> (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
|          | IR <sup>1</sup>      | SQ <sup>2</sup> | MR <sup>3</sup> | LR <sup>4</sup> | IC <sup>5</sup> |       |          |         |                     |            |
| 11       | 0                    | 4               | 54              | 96              | 13              | 167   | 0.53     | 3.54    | 0.61                | 0.39       |
| 12       | 0                    | 4               | 73              | 104             | 14              | 195   | 0.46     | 3.64    | 0.52                | 0.35       |
| 13       | 0                    | 5               | 63              | 108             | 14              | 190   | 0.43     | 3.2     | 0.38                | 0.33       |
| 14       | 0                    | 6               | 78              | 128             | 15              | 227   | 0.46     | 4.41    | 0.48                | 0.35       |
| 15       | 0                    | 5               | 61              | 120             | 15              | 201   | 0.49     | 4.54    | 0.62                | 0.32       |
| 16       | 0                    | 11              | 48              | 109             | 14              | 182   | 0.45     | 3.98    | 0.46                | 0.34       |
| 17       | 0                    | 5               | 55              | 129             | 16              | 205   | 0.48     | 3.36    | 0.56                | 0.34       |
| 18       | 0                    | 5               | 60              | 154             | 15              | 234   | 0.45     | 3.71    | 0.49                | 0.37       |
| 19       | 0                    | 8               | 56              | 108             | 12              | 184   | 0.45     | 2.58    | 0.4                 | 0.36       |
| 20       | 0                    | 8               | 52              | 104             | 15              | 179   | 0.5      | 4.18    | 0.58                | 0.37       |

<sup>1</sup>Intra-residue restraints, <sup>2</sup>Sequential restraints, <sup>3</sup>Medium range restraints, <sup>4</sup>Long range restraints, <sup>5</sup>Inter-chain restraints, <sup>6</sup>Standard deviation

### 9.2.1 Bar graph : Distance Violation statistics for each model [\(i\)](#)



The mean(dot),median(x) and the standard deviation are shown in blue with respect to the y axis on the right

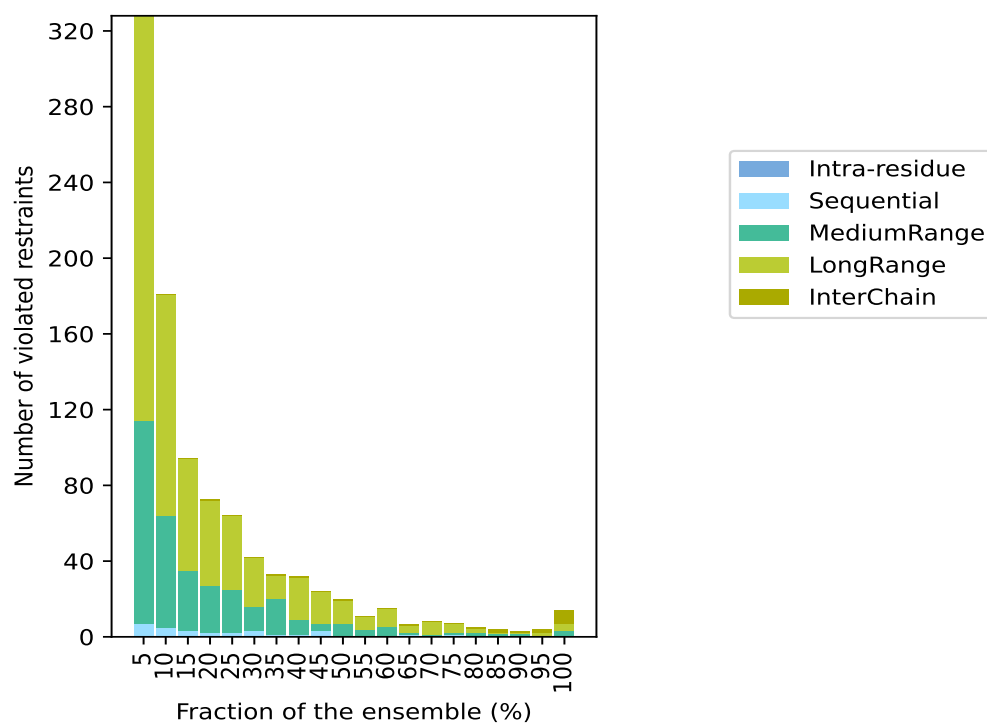
### 9.3 Distance violation statistics for the ensemble

Violation analysis may find that some restraints are violated in few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of the ensemble. In total, 3030(IR:0, SQ:811, MR:951, LR:1268, IC:0) restraints are not violated in the ensemble.

| Number of violated restraints |                 |                 |                 |                 |       | Fraction of the ensemble |       |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-------|--------------------------|-------|
| IR <sup>1</sup>               | SQ <sup>2</sup> | MR <sup>3</sup> | LR <sup>4</sup> | IC <sup>5</sup> | Total | Count <sup>6</sup>       | %     |
| 0                             | 7               | 107             | 214             | 0               | 328   | 1                        | 5.0   |
| 0                             | 5               | 59              | 117             | 0               | 181   | 2                        | 10.0  |
| 0                             | 3               | 32              | 59              | 0               | 94    | 3                        | 15.0  |
| 0                             | 2               | 25              | 45              | 1               | 73    | 4                        | 20.0  |
| 0                             | 2               | 23              | 39              | 0               | 64    | 5                        | 25.0  |
| 0                             | 3               | 13              | 26              | 0               | 42    | 6                        | 30.0  |
| 0                             | 1               | 19              | 12              | 1               | 33    | 7                        | 35.0  |
| 0                             | 1               | 8               | 22              | 1               | 32    | 8                        | 40.0  |
| 0                             | 3               | 4               | 17              | 0               | 24    | 9                        | 45.0  |
| 0                             | 0               | 7               | 12              | 1               | 20    | 10                       | 50.0  |
| 0                             | 0               | 4               | 7               | 0               | 11    | 11                       | 55.0  |
| 0                             | 0               | 5               | 10              | 0               | 15    | 12                       | 60.0  |
| 0                             | 1               | 1               | 4               | 1               | 7     | 13                       | 65.0  |
| 0                             | 0               | 1               | 7               | 0               | 8     | 14                       | 70.0  |
| 0                             | 1               | 1               | 5               | 0               | 7     | 15                       | 75.0  |
| 0                             | 0               | 2               | 2               | 1               | 5     | 16                       | 80.0  |
| 0                             | 0               | 2               | 0               | 2               | 4     | 17                       | 85.0  |
| 0                             | 0               | 2               | 0               | 1               | 3     | 18                       | 90.0  |
| 0                             | 0               | 0               | 2               | 2               | 4     | 19                       | 95.0  |
| 0                             | 0               | 3               | 4               | 7               | 14    | 20                       | 100.0 |

<sup>1</sup>Intra-residue restraints, <sup>2</sup>Sequential restraints, <sup>3</sup>Medium range restraints, <sup>4</sup>Long range restraints, <sup>5</sup>Inter-chain restraints, <sup>6</sup> Number of models with violations

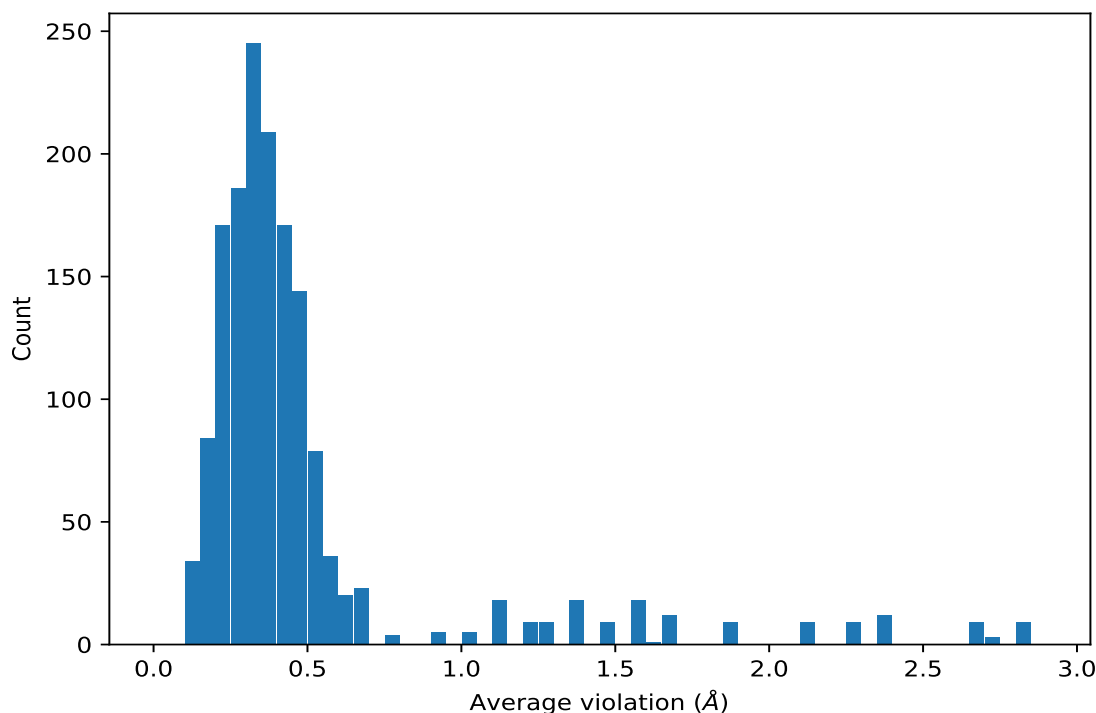
### 9.3.1 Bar graph : Distance violation statistics for the ensemble [i](#)



## 9.4 Most violated distance restraints in the ensemble [i](#)

### 9.4.1 Histogram : Distribution of mean distance violations [i](#)

The following histogram shows the distribution of the average value of the violation. The average is calculated for each restraint that is violated in more than one model over all the violated models in the ensemble



#### 9.4.2 Table: Most violated distance restraints [i](#)

The following table provides the mean and the standard deviation of the violation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 20                  | 2.81     | 1.33                | 2.57       |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 20                  | 2.81     | 1.33                | 2.57       |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 20                  | 2.81     | 1.33                | 2.57       |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 20                  | 2.81     | 1.33                | 2.57       |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 20                  | 2.81     | 1.33                | 2.57       |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 20                  | 2.81     | 1.33                | 2.57       |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 20                  | 2.81     | 1.33                | 2.57       |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 20                  | 2.81     | 1.33                | 2.57       |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 20                  | 2.81     | 1.33                | 2.57       |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 20                  | 2.66     | 1.09                | 2.76       |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 20                  | 2.66     | 1.09                | 2.76       |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 20                  | 2.66     | 1.09                | 2.76       |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 20                  | 2.66     | 1.09                | 2.76       |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 20                  | 2.66     | 1.09                | 2.76       |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 20                  | 2.66     | 1.09                | 2.76       |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 20                  | 2.66     | 1.09                | 2.76       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 20                  | 2.66     | 1.09                | 2.76       |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 20                  | 2.66     | 1.09                | 2.76       |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 20                  | 2.39     | 0.91                | 2.56       |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 20                  | 2.39     | 0.91                | 2.56       |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 20                  | 2.39     | 0.91                | 2.56       |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 20                  | 2.39     | 0.91                | 2.56       |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 20                  | 2.39     | 0.91                | 2.56       |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 20                  | 2.39     | 0.91                | 2.56       |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 20                  | 2.39     | 0.91                | 2.56       |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 20                  | 2.39     | 0.91                | 2.56       |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 20                  | 2.39     | 0.91                | 2.56       |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 20                  | 2.38     | 1.22                | 2.13       |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 20                  | 2.38     | 1.22                | 2.13       |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 20                  | 2.38     | 1.22                | 2.13       |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 20                  | 2.11     | 0.68                | 2.3        |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 20                  | 2.11     | 0.68                | 2.3        |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 20                  | 2.11     | 0.68                | 2.3        |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 20                  | 2.11     | 0.68                | 2.3        |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 20                  | 2.11     | 0.68                | 2.3        |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 20                  | 2.11     | 0.68                | 2.3        |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 20                  | 2.11     | 0.68                | 2.3        |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 20                  | 2.11     | 0.68                | 2.3        |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 20                  | 2.11     | 0.68                | 2.3        |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 20                  | 1.89     | 1.02                | 1.85       |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 20                  | 1.89     | 1.02                | 1.85       |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 20                  | 1.89     | 1.02                | 1.85       |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 20                  | 1.89     | 1.02                | 1.85       |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 20                  | 1.89     | 1.02                | 1.85       |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 20                  | 1.89     | 1.02                | 1.85       |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 20                  | 1.89     | 1.02                | 1.85       |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 20                  | 1.89     | 1.02                | 1.85       |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 20                  | 1.89     | 1.02                | 1.85       |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 20                  | 1.57     | 0.89                | 1.56       |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 20                  | 1.57     | 0.89                | 1.56       |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 20                  | 1.57     | 0.89                | 1.56       |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 20                  | 1.57     | 0.89                | 1.56       |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 20                  | 1.57     | 0.89                | 1.56       |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 20                  | 1.57     | 0.89                | 1.56       |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 20                  | 1.57     | 0.89                | 1.56       |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 20                  | 1.57     | 0.89                | 1.56       |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 20                  | 1.57     | 0.89                | 1.56       |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 20                  | 0.67     | 0.1                 | 0.69       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 20                  | 0.67     | 0.14                | 0.67       |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 20                  | 0.67     | 0.14                | 0.67       |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 20                  | 0.67     | 0.14                | 0.67       |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 20                  | 0.67     | 0.14                | 0.67       |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 20                  | 0.67     | 0.14                | 0.67       |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 20                  | 0.67     | 0.14                | 0.67       |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 20                  | 0.67     | 0.14                | 0.67       |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 20                  | 0.67     | 0.14                | 0.67       |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 20                  | 0.67     | 0.14                | 0.67       |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 20                  | 0.59     | 0.09                | 0.62       |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 20                  | 0.59     | 0.09                | 0.62       |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 20                  | 0.59     | 0.09                | 0.62       |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 20                  | 0.53     | 0.12                | 0.56       |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 20                  | 0.46     | 0.14                | 0.53       |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 20                  | 0.36     | 0.06                | 0.37       |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 20                  | 0.34     | 0.12                | 0.36       |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 19                  | 2.25     | 0.62                | 2.1        |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 19                  | 2.25     | 0.62                | 2.1        |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 19                  | 2.25     | 0.62                | 2.1        |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 19                  | 2.25     | 0.62                | 2.1        |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 19                  | 2.25     | 0.62                | 2.1        |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 19                  | 2.25     | 0.62                | 2.1        |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 19                  | 2.25     | 0.62                | 2.1        |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 19                  | 2.25     | 0.62                | 2.1        |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 19                  | 2.25     | 0.62                | 2.1        |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 19                  | 1.25     | 0.73                | 0.99       |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 19                  | 1.25     | 0.73                | 0.99       |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 19                  | 1.25     | 0.73                | 0.99       |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 19                  | 1.25     | 0.73                | 0.99       |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 19                  | 1.25     | 0.73                | 0.99       |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 19                  | 1.25     | 0.73                | 0.99       |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 19                  | 1.25     | 0.73                | 0.99       |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 19                  | 1.25     | 0.73                | 0.99       |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 19                  | 1.25     | 0.73                | 0.99       |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 19                  | 0.6      | 0.08                | 0.6        |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 19                  | 0.6      | 0.08                | 0.6        |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 19                  | 0.6      | 0.08                | 0.6        |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 19                  | 0.6      | 0.08                | 0.6        |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 19                  | 0.6      | 0.08                | 0.6        |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 19                  | 0.6      | 0.08                | 0.6        |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 19                  | 0.6      | 0.08                | 0.6        |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 19                  | 0.6      | 0.08                | 0.6        |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 19                  | 0.6      | 0.08                | 0.6        |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 19                  | 0.52     | 0.15                | 0.57       |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 18                  | 1.58     | 0.81                | 1.56       |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 18                  | 1.58     | 0.81                | 1.56       |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 18                  | 1.58     | 0.81                | 1.56       |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 18                  | 1.58     | 0.81                | 1.56       |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 18                  | 1.58     | 0.81                | 1.56       |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 18                  | 1.58     | 0.81                | 1.56       |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 18                  | 1.58     | 0.81                | 1.56       |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 18                  | 1.58     | 0.81                | 1.56       |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 18                  | 1.58     | 0.81                | 1.56       |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 18                  | 0.46     | 0.12                | 0.48       |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 18                  | 0.42     | 0.08                | 0.44       |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 17                  | 1.69     | 1.03                | 2.06       |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 17                  | 1.69     | 1.03                | 2.06       |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 17                  | 1.69     | 1.03                | 2.06       |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 17                  | 1.69     | 1.03                | 2.06       |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 17                  | 1.69     | 1.03                | 2.06       |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 17                  | 1.69     | 1.03                | 2.06       |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 17                  | 1.69     | 1.03                | 2.06       |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 17                  | 1.69     | 1.03                | 2.06       |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 17                  | 1.69     | 1.03                | 2.06       |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 17                  | 1.49     | 1.51                | 0.8        |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 17                  | 1.49     | 1.51                | 0.8        |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 17                  | 1.49     | 1.51                | 0.8        |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 17                  | 1.49     | 1.51                | 0.8        |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 17                  | 1.49     | 1.51                | 0.8        |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 17                  | 1.49     | 1.51                | 0.8        |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 17                  | 1.49     | 1.51                | 0.8        |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 17                  | 1.49     | 1.51                | 0.8        |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 17                  | 1.49     | 1.51                | 0.8        |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 17                  | 0.33     | 0.11                | 0.35       |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 17                  | 0.33     | 0.11                | 0.35       |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 17                  | 0.33     | 0.11                | 0.35       |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 17                  | 0.3      | 0.14                | 0.3        |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 16                  | 1.37     | 0.98                | 1.18       |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 16                  | 1.37     | 0.98                | 1.18       |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 16                  | 1.37     | 0.98                | 1.18       |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 16                  | 1.37     | 0.98                | 1.18       |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 16                  | 1.37     | 0.98                | 1.18       |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 16                  | 1.37     | 0.98                | 1.18       |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 16                  | 1.37     | 0.98                | 1.18       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 16                  | 1.37     | 0.98                | 1.18       |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 16                  | 1.37     | 0.98                | 1.18       |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 16                  | 0.66     | 0.07                | 0.64       |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 16                  | 0.66     | 0.07                | 0.64       |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 16                  | 0.66     | 0.07                | 0.64       |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 16                  | 0.58     | 0.16                | 0.62       |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 16                  | 0.58     | 0.16                | 0.62       |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 16                  | 0.4      | 0.13                | 0.42       |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 16                  | 0.4      | 0.13                | 0.42       |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 16                  | 0.31     | 0.12                | 0.26       |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 16                  | 0.31     | 0.12                | 0.26       |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 16                  | 0.31     | 0.12                | 0.26       |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 15                  | 1.63     | 1.23                | 1.15       |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 15                  | 0.66     | 0.07                | 0.65       |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 15                  | 0.66     | 0.07                | 0.65       |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 15                  | 0.57     | 0.13                | 0.64       |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 15                  | 0.5      | 0.13                | 0.54       |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 15                  | 0.5      | 0.13                | 0.54       |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 15                  | 0.45     | 0.06                | 0.46       |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 15                  | 0.45     | 0.06                | 0.46       |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 15                  | 0.33     | 0.09                | 0.34       |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 15                  | 0.33     | 0.09                | 0.34       |
| (1,189)  | 1:242:A:THR:H    | 1:246:A:TYR:H    | 15                  | 0.33     | 0.15                | 0.43       |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 14                  | 0.48     | 0.16                | 0.54       |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 14                  | 0.48     | 0.16                | 0.54       |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 14                  | 0.48     | 0.16                | 0.54       |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 14                  | 0.48     | 0.16                | 0.54       |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 14                  | 0.45     | 0.17                | 0.52       |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 14                  | 0.42     | 0.15                | 0.42       |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 14                  | 0.42     | 0.15                | 0.42       |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 14                  | 0.42     | 0.15                | 0.42       |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 14                  | 0.42     | 0.15                | 0.42       |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 14                  | 0.39     | 0.15                | 0.36       |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 14                  | 0.39     | 0.15                | 0.36       |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 14                  | 0.38     | 0.09                | 0.41       |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 14                  | 0.38     | 0.09                | 0.41       |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 14                  | 0.35     | 0.12                | 0.34       |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 14                  | 0.35     | 0.12                | 0.34       |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2  | 14                  | 0.34     | 0.13                | 0.4        |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3  | 14                  | 0.34     | 0.13                | 0.4        |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2  | 14                  | 0.34     | 0.13                | 0.4        |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3  | 14                  | 0.34     | 0.13                | 0.4        |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 14                  | 0.27     | 0.08                | 0.29       |
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 14                  | 0.27     | 0.08                | 0.29       |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 13                  | 1.37     | 0.78                | 1.51       |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 13                  | 1.37     | 0.78                | 1.51       |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 13                  | 1.37     | 0.78                | 1.51       |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 13                  | 1.37     | 0.78                | 1.51       |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 13                  | 1.37     | 0.78                | 1.51       |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 13                  | 1.37     | 0.78                | 1.51       |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 13                  | 1.37     | 0.78                | 1.51       |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 13                  | 1.37     | 0.78                | 1.51       |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 13                  | 1.37     | 0.78                | 1.51       |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD11 | 13                  | 0.46     | 0.14                | 0.51       |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD12 | 13                  | 0.46     | 0.14                | 0.51       |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD13 | 13                  | 0.46     | 0.14                | 0.51       |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 13                  | 0.42     | 0.16                | 0.42       |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 13                  | 0.34     | 0.12                | 0.3        |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 13                  | 0.34     | 0.12                | 0.3        |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 13                  | 0.34     | 0.12                | 0.3        |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 13                  | 0.33     | 0.11                | 0.32       |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 13                  | 0.33     | 0.11                | 0.32       |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 13                  | 0.33     | 0.11                | 0.32       |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 13                  | 0.31     | 0.11                | 0.36       |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 13                  | 0.3      | 0.05                | 0.31       |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 13                  | 0.3      | 0.05                | 0.31       |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 13                  | 0.3      | 0.05                | 0.31       |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 12                  | 0.49     | 0.19                | 0.5        |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 12                  | 0.49     | 0.19                | 0.5        |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 12                  | 0.49     | 0.19                | 0.5        |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 12                  | 0.49     | 0.19                | 0.5        |
| (1,1726) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HB   | 12                  | 0.46     | 0.11                | 0.43       |
| (1,1726) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HB   | 12                  | 0.46     | 0.11                | 0.43       |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 12                  | 0.45     | 0.15                | 0.46       |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 12                  | 0.42     | 0.16                | 0.38       |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 12                  | 0.42     | 0.16                | 0.38       |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 12                  | 0.42     | 0.16                | 0.38       |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 12                  | 0.41     | 0.15                | 0.42       |
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 12                  | 0.4      | 0.12                | 0.4        |
| (1,3170) | 1:430:A:ILE:H    | 1:481:A:GLN:H    | 12                  | 0.39     | 0.1                 | 0.43       |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 12                  | 0.39     | 0.18                | 0.38       |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 12                  | 0.39     | 0.18                | 0.38       |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 12                  | 0.39     | 0.18                | 0.38       |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 12                  | 0.36     | 0.1                 | 0.34       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,974)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:H    | 12                  | 0.34     | 0.11                | 0.34       |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 12                  | 0.32     | 0.08                | 0.32       |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 12                  | 0.28     | 0.14                | 0.26       |
| (1,470)  | 1:260:A:PRO:HA   | 1:283:A:GLN:H    | 12                  | 0.28     | 0.14                | 0.25       |
| (1,821)  | 1:278:A:LEU:HA   | 1:322:A:ARG:H    | 12                  | 0.23     | 0.09                | 0.2        |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD1  | 12                  | 0.23     | 0.06                | 0.22       |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD2  | 12                  | 0.23     | 0.06                | 0.22       |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 11                  | 0.58     | 0.09                | 0.6        |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB2  | 11                  | 0.51     | 0.1                 | 0.52       |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB3  | 11                  | 0.51     | 0.1                 | 0.52       |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB2  | 11                  | 0.51     | 0.1                 | 0.52       |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB3  | 11                  | 0.51     | 0.1                 | 0.52       |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 11                  | 0.45     | 0.18                | 0.51       |
| (1,451)  | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 11                  | 0.43     | 0.19                | 0.47       |
| (1,915)  | 1:282:A:SER:HA   | 1:378:A:PHE:HZ   | 11                  | 0.4      | 0.18                | 0.39       |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 11                  | 0.38     | 0.12                | 0.36       |
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 11                  | 0.38     | 0.12                | 0.36       |
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 11                  | 0.38     | 0.12                | 0.36       |
| (1,3674) | 1:462:A:ASP:HB2  | 1:464:A:ILE:H    | 11                  | 0.36     | 0.11                | 0.37       |
| (1,3674) | 1:462:A:ASP:HB3  | 1:464:A:ILE:H    | 11                  | 0.36     | 0.11                | 0.37       |
| (1,3235) | 1:432:A:TYR:H    | 1:482:A:SER:HA   | 11                  | 0.32     | 0.07                | 0.31       |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 11                  | 0.28     | 0.11                | 0.27       |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 11                  | 0.28     | 0.11                | 0.27       |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 11                  | 0.28     | 0.11                | 0.27       |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE21 | 11                  | 0.27     | 0.1                 | 0.34       |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE22 | 11                  | 0.27     | 0.1                 | 0.34       |
| (1,471)  | 1:260:A:PRO:HA   | 1:282:A:SER:H    | 11                  | 0.25     | 0.09                | 0.2        |
| (1,3972) | 1:318:A:LEU:HD11 | 2:622:B:TYR:HE1  | 10                  | 1.67     | 1.29                | 1.36       |
| (1,3972) | 1:318:A:LEU:HD12 | 2:622:B:TYR:HE1  | 10                  | 1.67     | 1.29                | 1.36       |
| (1,3972) | 1:318:A:LEU:HD13 | 2:622:B:TYR:HE1  | 10                  | 1.67     | 1.29                | 1.36       |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG2  | 10                  | 0.55     | 0.2                 | 0.6        |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG3  | 10                  | 0.55     | 0.2                 | 0.6        |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG2  | 10                  | 0.55     | 0.2                 | 0.6        |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG3  | 10                  | 0.55     | 0.2                 | 0.6        |
| (1,2122) | 1:361:A:GLU:HG3  | 1:401:A:ARG:HH22 | 10                  | 0.55     | 0.2                 | 0.61       |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD21 | 10                  | 0.47     | 0.19                | 0.55       |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD22 | 10                  | 0.47     | 0.19                | 0.55       |
| (1,3245) | 1:432:A:TYR:HB2  | 1:458:A:LEU:H    | 10                  | 0.46     | 0.06                | 0.45       |
| (1,3245) | 1:432:A:TYR:HB3  | 1:458:A:LEU:H    | 10                  | 0.46     | 0.06                | 0.45       |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG21 | 10                  | 0.45     | 0.2                 | 0.5        |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG22 | 10                  | 0.45     | 0.2                 | 0.5        |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG23 | 10                  | 0.45     | 0.2                 | 0.5        |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG21 | 10                  | 0.45     | 0.2                 | 0.5        |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG22 | 10                  | 0.45     | 0.2                 | 0.5        |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG23 | 10                  | 0.45     | 0.2                 | 0.5        |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG21 | 10                  | 0.45     | 0.2                 | 0.5        |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG22 | 10                  | 0.45     | 0.2                 | 0.5        |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG23 | 10                  | 0.45     | 0.2                 | 0.5        |
| (1,1452) | 1:313:A:PHE:HZ   | 1:345:A:THR:HA   | 10                  | 0.43     | 0.22                | 0.56       |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA2  | 10                  | 0.43     | 0.17                | 0.39       |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA3  | 10                  | 0.43     | 0.17                | 0.39       |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB2  | 10                  | 0.42     | 0.16                | 0.5        |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB3  | 10                  | 0.42     | 0.16                | 0.5        |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG21 | 10                  | 0.41     | 0.07                | 0.39       |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG22 | 10                  | 0.41     | 0.07                | 0.39       |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG23 | 10                  | 0.41     | 0.07                | 0.39       |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG21 | 10                  | 0.41     | 0.07                | 0.39       |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG22 | 10                  | 0.41     | 0.07                | 0.39       |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG23 | 10                  | 0.41     | 0.07                | 0.39       |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG2  | 10                  | 0.39     | 0.16                | 0.44       |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG3  | 10                  | 0.39     | 0.16                | 0.44       |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG2  | 10                  | 0.39     | 0.16                | 0.44       |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG3  | 10                  | 0.39     | 0.16                | 0.44       |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG11 | 10                  | 0.35     | 0.15                | 0.36       |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG12 | 10                  | 0.35     | 0.15                | 0.36       |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG13 | 10                  | 0.35     | 0.15                | 0.36       |
| (1,2982) | 1:417:A:GLU:HG2  | 1:475:A:PHE:HZ   | 10                  | 0.35     | 0.07                | 0.34       |
| (1,2982) | 1:417:A:GLU:HG3  | 1:475:A:PHE:HZ   | 10                  | 0.35     | 0.07                | 0.34       |
| (1,3567) | 1:450:A:LEU:HA   | 1:454:A:GLY:H    | 10                  | 0.34     | 0.13                | 0.36       |
| (1,3135) | 1:428:A:GLU:HA   | 1:478:A:LYS:HA   | 10                  | 0.34     | 0.16                | 0.29       |
| (1,1037) | 1:290:A:ASN:HB2  | 1:292:A:ASP:H    | 10                  | 0.29     | 0.08                | 0.34       |
| (1,1037) | 1:290:A:ASN:HB3  | 1:292:A:ASP:H    | 10                  | 0.29     | 0.08                | 0.34       |
| (1,2824) | 1:404:A:SER:H    | 1:414:A:VAL:HB   | 10                  | 0.26     | 0.13                | 0.23       |
| (1,1937) | 1:350:A:ASN:HA   | 1:353:A:THR:H    | 10                  | 0.26     | 0.09                | 0.26       |
| (1,2989) | 1:417:A:GLU:HA   | 1:420:A:VAL:HB   | 10                  | 0.25     | 0.08                | 0.23       |
| (1,376)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HA   | 10                  | 0.23     | 0.05                | 0.23       |
| (1,376)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HA   | 10                  | 0.23     | 0.05                | 0.23       |
| (1,3635) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HD1  | 9                   | 1.0      | 0.56                | 0.81       |
| (1,3635) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE1  | 9                   | 1.0      | 0.56                | 0.81       |
| (1,3635) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE1  | 9                   | 1.0      | 0.56                | 0.81       |
| (1,3635) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE2  | 9                   | 1.0      | 0.56                | 0.81       |
| (1,3635) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE2  | 9                   | 1.0      | 0.56                | 0.81       |
| (1,2565) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD1  | 9                   | 0.9      | 0.42                | 1.0        |
| (1,2565) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD1  | 9                   | 0.9      | 0.42                | 1.0        |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2565) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD1  | 9                   | 0.9      | 0.42                | 1.0        |
| (1,2565) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD2  | 9                   | 0.9      | 0.42                | 1.0        |
| (1,2565) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD2  | 9                   | 0.9      | 0.42                | 1.0        |
| (1,3882) | 1:485:A:LYS:HB2  | 1:487:A:ASP:HB3  | 9                   | 0.53     | 0.12                | 0.57       |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD21 | 9                   | 0.52     | 0.13                | 0.56       |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD22 | 9                   | 0.52     | 0.13                | 0.56       |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB1  | 9                   | 0.5      | 0.18                | 0.5        |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB2  | 9                   | 0.5      | 0.18                | 0.5        |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB3  | 9                   | 0.5      | 0.18                | 0.5        |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB1  | 9                   | 0.5      | 0.18                | 0.5        |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB2  | 9                   | 0.5      | 0.18                | 0.5        |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB3  | 9                   | 0.5      | 0.18                | 0.5        |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD2  | 9                   | 0.43     | 0.14                | 0.43       |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD3  | 9                   | 0.43     | 0.14                | 0.43       |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB2  | 9                   | 0.42     | 0.14                | 0.39       |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB3  | 9                   | 0.42     | 0.14                | 0.39       |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB2  | 9                   | 0.42     | 0.14                | 0.39       |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB3  | 9                   | 0.42     | 0.14                | 0.39       |
| (1,1367) | 1:307:A:MET:HE1  | 1:339:A:LEU:H    | 9                   | 0.41     | 0.17                | 0.34       |
| (1,1367) | 1:307:A:MET:HE2  | 1:339:A:LEU:H    | 9                   | 0.41     | 0.17                | 0.34       |
| (1,1367) | 1:307:A:MET:HE3  | 1:339:A:LEU:H    | 9                   | 0.41     | 0.17                | 0.34       |
| (1,3144) | 1:429:A:LYS:HD2  | 1:489:A:SER:HA   | 9                   | 0.37     | 0.09                | 0.35       |
| (1,3144) | 1:429:A:LYS:HD3  | 1:489:A:SER:HA   | 9                   | 0.37     | 0.09                | 0.35       |
| (1,3329) | 1:435:A:ALA:H    | 1:461:A:SER:HA   | 9                   | 0.37     | 0.07                | 0.38       |
| (1,1321) | 1:302:A:GLN:HA   | 1:328:A:SER:HA   | 9                   | 0.37     | 0.09                | 0.38       |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE1  | 9                   | 0.34     | 0.14                | 0.37       |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE2  | 9                   | 0.34     | 0.14                | 0.37       |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE3  | 9                   | 0.34     | 0.14                | 0.37       |
| (1,2575) | 1:388:A:GLU:HA   | 1:390:A:PHE:H    | 9                   | 0.34     | 0.1                 | 0.3        |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD2  | 9                   | 0.34     | 0.2                 | 0.31       |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD3  | 9                   | 0.34     | 0.2                 | 0.31       |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD2  | 9                   | 0.34     | 0.2                 | 0.31       |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD3  | 9                   | 0.34     | 0.2                 | 0.31       |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD2  | 9                   | 0.34     | 0.2                 | 0.31       |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD3  | 9                   | 0.34     | 0.2                 | 0.31       |
| (1,1933) | 1:350:A:ASN:HA   | 1:354:A:LYS:H    | 9                   | 0.33     | 0.16                | 0.33       |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB2  | 9                   | 0.32     | 0.13                | 0.24       |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB3  | 9                   | 0.32     | 0.13                | 0.24       |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD21 | 9                   | 0.31     | 0.15                | 0.28       |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD22 | 9                   | 0.31     | 0.15                | 0.28       |
| (1,3476) | 1:445:A:PRO:HG2  | 1:446:A:HIS:H    | 9                   | 0.31     | 0.08                | 0.31       |
| (1,3476) | 1:445:A:PRO:HG3  | 1:446:A:HIS:H    | 9                   | 0.31     | 0.08                | 0.31       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3143) | 1:429:A:LYS:HD2  | 1:489:A:SER:H    | 9                   | 0.31     | 0.17                | 0.22       |
| (1,3143) | 1:429:A:LYS:HD3  | 1:489:A:SER:H    | 9                   | 0.31     | 0.17                | 0.22       |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD2  | 9                   | 0.31     | 0.09                | 0.29       |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD3  | 9                   | 0.31     | 0.09                | 0.29       |
| (1,1024) | 1:289:A:TRP:HH2  | 1:381:A:VAL:HA   | 9                   | 0.31     | 0.1                 | 0.32       |
| (1,1023) | 1:289:A:TRP:HZ2  | 1:381:A:VAL:H    | 9                   | 0.29     | 0.13                | 0.32       |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG11 | 9                   | 0.21     | 0.07                | 0.23       |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG12 | 9                   | 0.21     | 0.07                | 0.23       |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG13 | 9                   | 0.21     | 0.07                | 0.23       |
| (1,1843) | 1:342:A:SER:HB2  | 1:343:A:THR:H    | 9                   | 0.15     | 0.03                | 0.14       |
| (1,1843) | 1:342:A:SER:HB3  | 1:343:A:THR:H    | 9                   | 0.15     | 0.03                | 0.14       |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG11 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG12 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG13 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG11 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG12 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG13 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG11 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG12 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG13 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG21 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG22 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG23 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG21 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG22 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG23 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG21 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG22 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG23 | 8                   | 1.11     | 0.7                 | 0.86       |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB2  | 8                   | 0.67     | 0.1                 | 0.7        |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB3  | 8                   | 0.67     | 0.1                 | 0.7        |
| (1,3315) | 1:434:A:THR:HA   | 1:461:A:SER:HA   | 8                   | 0.6      | 0.13                | 0.62       |
| (1,102)  | 1:234:A:TRP:HE1  | 1:235:A:THR:HB   | 8                   | 0.55     | 0.03                | 0.55       |
| (1,3178) | 1:430:A:ILE:HD11 | 1:479:A:PRO:HA   | 8                   | 0.52     | 0.13                | 0.55       |
| (1,3178) | 1:430:A:ILE:HD12 | 1:479:A:PRO:HA   | 8                   | 0.52     | 0.13                | 0.55       |
| (1,3178) | 1:430:A:ILE:HD13 | 1:479:A:PRO:HA   | 8                   | 0.52     | 0.13                | 0.55       |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB2  | 8                   | 0.5      | 0.11                | 0.46       |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB3  | 8                   | 0.5      | 0.11                | 0.46       |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB2  | 8                   | 0.5      | 0.11                | 0.46       |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB3  | 8                   | 0.5      | 0.11                | 0.46       |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB2  | 8                   | 0.5      | 0.11                | 0.46       |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB3  | 8                   | 0.5      | 0.11                | 0.46       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,309)  | 1:249:A:PHE:HE2  | 1:298:A:LYS:HD3  | 8                   | 0.49     | 0.21                | 0.61       |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE1  | 8                   | 0.49     | 0.07                | 0.51       |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE2  | 8                   | 0.49     | 0.07                | 0.51       |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE3  | 8                   | 0.49     | 0.07                | 0.51       |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE1  | 8                   | 0.49     | 0.07                | 0.51       |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE2  | 8                   | 0.49     | 0.07                | 0.51       |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE3  | 8                   | 0.49     | 0.07                | 0.51       |
| (1,2427) | 1:380:A:LEU:HD11 | 1:463:A:ARG:H    | 8                   | 0.45     | 0.23                | 0.59       |
| (1,2427) | 1:380:A:LEU:HD12 | 1:463:A:ARG:H    | 8                   | 0.45     | 0.23                | 0.59       |
| (1,2427) | 1:380:A:LEU:HD13 | 1:463:A:ARG:H    | 8                   | 0.45     | 0.23                | 0.59       |
| (1,2755) | 1:402:A:PHE:HD2  | 1:460:A:LEU:HD13 | 8                   | 0.44     | 0.3                 | 0.31       |
| (1,2755) | 1:402:A:PHE:HD1  | 1:460:A:LEU:HD13 | 8                   | 0.44     | 0.3                 | 0.31       |
| (1,2755) | 1:402:A:PHE:HD1  | 1:460:A:LEU:HD12 | 8                   | 0.44     | 0.3                 | 0.31       |
| (1,2755) | 1:402:A:PHE:HD2  | 1:460:A:LEU:HD11 | 8                   | 0.44     | 0.3                 | 0.31       |
| (1,2755) | 1:402:A:PHE:HD2  | 1:460:A:LEU:HD12 | 8                   | 0.44     | 0.3                 | 0.31       |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE2  | 8                   | 0.43     | 0.1                 | 0.45       |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE3  | 8                   | 0.43     | 0.1                 | 0.45       |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE2  | 8                   | 0.43     | 0.1                 | 0.45       |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE3  | 8                   | 0.43     | 0.1                 | 0.45       |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD11 | 8                   | 0.42     | 0.06                | 0.44       |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD12 | 8                   | 0.42     | 0.06                | 0.44       |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD13 | 8                   | 0.42     | 0.06                | 0.44       |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD11 | 8                   | 0.42     | 0.1                 | 0.4        |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD12 | 8                   | 0.42     | 0.1                 | 0.4        |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD13 | 8                   | 0.42     | 0.1                 | 0.4        |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD11 | 8                   | 0.42     | 0.1                 | 0.4        |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD12 | 8                   | 0.42     | 0.1                 | 0.4        |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD13 | 8                   | 0.42     | 0.1                 | 0.4        |
| (1,703)  | 1:273:A:GLU:H    | 1:328:A:SER:H    | 8                   | 0.4      | 0.12                | 0.42       |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB2  | 8                   | 0.4      | 0.1                 | 0.38       |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB3  | 8                   | 0.4      | 0.1                 | 0.38       |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB2  | 8                   | 0.4      | 0.1                 | 0.38       |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB3  | 8                   | 0.4      | 0.1                 | 0.38       |
| (1,85)   | 1:234:A:TRP:HE1  | 1:275:A:THR:HB   | 8                   | 0.39     | 0.15                | 0.35       |
| (1,3536) | 1:449:A:LEU:HA   | 1:453:A:LYS:H    | 8                   | 0.37     | 0.17                | 0.38       |
| (1,2317) | 1:374:A:PHE:HZ   | 1:382:A:LEU:H    | 8                   | 0.35     | 0.16                | 0.34       |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE21 | 8                   | 0.35     | 0.09                | 0.39       |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE22 | 8                   | 0.35     | 0.09                | 0.39       |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG2  | 8                   | 0.35     | 0.21                | 0.24       |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG3  | 8                   | 0.35     | 0.21                | 0.24       |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG2  | 8                   | 0.35     | 0.21                | 0.24       |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG3  | 8                   | 0.35     | 0.21                | 0.24       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1140) | 1:297:A:LEU:HA   | 1:309:A:ASP:HA   | 8                   | 0.34     | 0.1                 | 0.36       |
| (1,1318) | 1:302:A:GLN:H    | 1:329:A:ASP:H    | 8                   | 0.31     | 0.09                | 0.29       |
| (1,565)  | 1:263:A:TRP:HD1  | 1:265:A:HIS:HA   | 8                   | 0.28     | 0.12                | 0.28       |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD11 | 8                   | 0.28     | 0.12                | 0.24       |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD12 | 8                   | 0.28     | 0.12                | 0.24       |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD13 | 8                   | 0.28     | 0.12                | 0.24       |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD1  | 8                   | 0.27     | 0.11                | 0.24       |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD2  | 8                   | 0.27     | 0.11                | 0.24       |
| (1,3214) | 1:431:A:TYR:H    | 1:458:A:LEU:H    | 8                   | 0.24     | 0.1                 | 0.22       |
| (1,1219) | 1:299:A:LEU:H    | 1:306:A:ILE:H    | 8                   | 0.23     | 0.12                | 0.19       |
| (1,635)  | 1:267:A:ARG:HA   | 1:274:A:TYR:HD1  | 8                   | 0.21     | 0.09                | 0.17       |
| (1,635)  | 1:267:A:ARG:HA   | 1:274:A:TYR:HD2  | 8                   | 0.21     | 0.09                | 0.17       |
| (1,3248) | 1:432:A:TYR:HA   | 1:457:A:VAL:HA   | 8                   | 0.21     | 0.09                | 0.19       |
| (1,764)  | 1:276:A:SER:HB2  | 1:326:A:ASP:H    | 8                   | 0.2      | 0.11                | 0.14       |
| (1,764)  | 1:276:A:SER:HB3  | 1:326:A:ASP:H    | 8                   | 0.2      | 0.11                | 0.14       |
| (1,2574) | 1:388:A:GLU:H    | 1:390:A:PHE:H    | 8                   | 0.17     | 0.04                | 0.16       |
| (1,763)  | 1:276:A:SER:HA   | 1:326:A:ASP:H    | 8                   | 0.14     | 0.03                | 0.14       |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG11 | 7                   | 2.74     | 1.73                | 2.43       |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG12 | 7                   | 2.74     | 1.73                | 2.43       |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG13 | 7                   | 2.74     | 1.73                | 2.43       |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE21 | 7                   | 0.65     | 0.07                | 0.65       |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE22 | 7                   | 0.65     | 0.07                | 0.65       |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE21 | 7                   | 0.65     | 0.07                | 0.65       |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE22 | 7                   | 0.65     | 0.07                | 0.65       |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG2  | 7                   | 0.63     | 0.21                | 0.68       |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG3  | 7                   | 0.63     | 0.21                | 0.68       |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG21 | 7                   | 0.61     | 0.07                | 0.63       |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG22 | 7                   | 0.61     | 0.07                | 0.63       |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG23 | 7                   | 0.61     | 0.07                | 0.63       |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD2  | 7                   | 0.56     | 0.18                | 0.63       |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD3  | 7                   | 0.56     | 0.18                | 0.63       |
| (1,2426) | 1:380:A:LEU:HD22 | 1:464:A:ILE:H    | 7                   | 0.52     | 0.14                | 0.58       |
| (2,9)    | 1:338:A:ILE:HD11 | 1:342:A:SER:H    | 7                   | 0.52     | 0.13                | 0.52       |
| (2,9)    | 1:338:A:ILE:HD12 | 1:342:A:SER:H    | 7                   | 0.52     | 0.13                | 0.52       |
| (2,9)    | 1:338:A:ILE:HD13 | 1:342:A:SER:H    | 7                   | 0.52     | 0.13                | 0.52       |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG2  | 7                   | 0.45     | 0.22                | 0.48       |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG3  | 7                   | 0.45     | 0.22                | 0.48       |
| (1,1505) | 1:315:A:PRO:HD2  | 1:350:A:ASN:HA   | 7                   | 0.44     | 0.17                | 0.54       |
| (1,1505) | 1:315:A:PRO:HD3  | 1:350:A:ASN:HA   | 7                   | 0.44     | 0.17                | 0.54       |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD21 | 7                   | 0.43     | 0.15                | 0.47       |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD22 | 7                   | 0.43     | 0.15                | 0.47       |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD21 | 7                   | 0.43     | 0.15                | 0.47       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD22 | 7                   | 0.43     | 0.15                | 0.47       |
| (1,3154) | 1:429:A:LYS:HA   | 1:480:A:PHE:HA   | 7                   | 0.4      | 0.16                | 0.45       |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB2  | 7                   | 0.39     | 0.1                 | 0.45       |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB3  | 7                   | 0.39     | 0.1                 | 0.45       |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB2  | 7                   | 0.39     | 0.1                 | 0.45       |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB3  | 7                   | 0.39     | 0.1                 | 0.45       |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB2  | 7                   | 0.39     | 0.16                | 0.41       |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB3  | 7                   | 0.39     | 0.16                | 0.41       |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG2  | 7                   | 0.38     | 0.06                | 0.4        |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG3  | 7                   | 0.38     | 0.06                | 0.4        |
| (1,1674) | 1:325:A:ILE:HD11 | 1:327:A:SER:H    | 7                   | 0.37     | 0.16                | 0.42       |
| (1,1674) | 1:325:A:ILE:HD12 | 1:327:A:SER:H    | 7                   | 0.37     | 0.16                | 0.42       |
| (1,1674) | 1:325:A:ILE:HD13 | 1:327:A:SER:H    | 7                   | 0.37     | 0.16                | 0.42       |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB2  | 7                   | 0.36     | 0.19                | 0.48       |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB3  | 7                   | 0.36     | 0.19                | 0.48       |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB2  | 7                   | 0.36     | 0.19                | 0.48       |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB3  | 7                   | 0.36     | 0.19                | 0.48       |
| (1,1069) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HA   | 7                   | 0.36     | 0.11                | 0.29       |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE2  | 7                   | 0.34     | 0.2                 | 0.21       |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE3  | 7                   | 0.34     | 0.2                 | 0.21       |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE2  | 7                   | 0.34     | 0.2                 | 0.21       |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE3  | 7                   | 0.34     | 0.2                 | 0.21       |
| (1,976)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:HD21 | 7                   | 0.34     | 0.1                 | 0.4        |
| (1,976)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:HD22 | 7                   | 0.34     | 0.1                 | 0.4        |
| (1,2632) | 1:393:A:GLN:HA   | 1:396:A:ILE:HB   | 7                   | 0.33     | 0.17                | 0.26       |
| (1,3353) | 1:436:A:ASP:HA   | 1:461:A:SER:HA   | 7                   | 0.32     | 0.21                | 0.25       |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE21 | 7                   | 0.31     | 0.13                | 0.33       |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE22 | 7                   | 0.31     | 0.13                | 0.33       |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE21 | 7                   | 0.31     | 0.13                | 0.33       |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE22 | 7                   | 0.31     | 0.13                | 0.33       |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB2  | 7                   | 0.28     | 0.15                | 0.35       |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB3  | 7                   | 0.28     | 0.15                | 0.35       |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB2  | 7                   | 0.28     | 0.15                | 0.35       |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB3  | 7                   | 0.28     | 0.15                | 0.35       |
| (1,1762) | 1:335:A:SER:H    | 1:339:A:LEU:H    | 7                   | 0.27     | 0.15                | 0.21       |
| (1,3155) | 1:429:A:LYS:HB2  | 1:480:A:PHE:HA   | 7                   | 0.27     | 0.16                | 0.23       |
| (1,3155) | 1:429:A:LYS:HB3  | 1:480:A:PHE:HA   | 7                   | 0.27     | 0.16                | 0.23       |
| (1,293)  | 1:248:A:GLU:HA   | 1:251:A:LYS:H    | 7                   | 0.26     | 0.06                | 0.27       |
| (1,382)  | 1:251:A:LYS:HA   | 1:255:A:HIS:HA   | 7                   | 0.25     | 0.08                | 0.24       |
| (1,1938) | 1:350:A:ASN:HA   | 1:353:A:THR:HB   | 7                   | 0.23     | 0.08                | 0.22       |
| (1,1053) | 1:293:A:HIS:HB2  | 1:295:A:HIS:H    | 7                   | 0.22     | 0.1                 | 0.18       |
| (1,1053) | 1:293:A:HIS:HB3  | 1:295:A:HIS:H    | 7                   | 0.22     | 0.1                 | 0.18       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD1  | 7                   | 0.21     | 0.08                | 0.18       |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD2  | 7                   | 0.21     | 0.08                | 0.18       |
| (1,3935) | 1:490:A:LEU:HA   | 1:494:A:ALA:H    | 7                   | 0.21     | 0.06                | 0.2        |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB2  | 7                   | 0.17     | 0.06                | 0.14       |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB3  | 7                   | 0.17     | 0.06                | 0.14       |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB2  | 7                   | 0.17     | 0.06                | 0.14       |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB3  | 7                   | 0.17     | 0.06                | 0.14       |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB2  | 7                   | 0.17     | 0.06                | 0.14       |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB3  | 7                   | 0.17     | 0.06                | 0.14       |
| (1,1882) | 1:345:A:THR:HB   | 1:346:A:ARG:H    | 7                   | 0.17     | 0.03                | 0.16       |
| (1,988)  | 1:287:A:ASP:HB2  | 1:293:A:HIS:HA   | 6                   | 0.58     | 0.19                | 0.66       |
| (1,988)  | 1:287:A:ASP:HB3  | 1:293:A:HIS:HA   | 6                   | 0.58     | 0.19                | 0.66       |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD11 | 6                   | 0.53     | 0.06                | 0.54       |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD12 | 6                   | 0.53     | 0.06                | 0.54       |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD13 | 6                   | 0.53     | 0.06                | 0.54       |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD11 | 6                   | 0.53     | 0.06                | 0.54       |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD12 | 6                   | 0.53     | 0.06                | 0.54       |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD13 | 6                   | 0.53     | 0.06                | 0.54       |
| (1,1511) | 1:315:A:PRO:HG2  | 1:319:A:ARG:H    | 6                   | 0.52     | 0.16                | 0.56       |
| (1,1511) | 1:315:A:PRO:HG3  | 1:319:A:ARG:H    | 6                   | 0.52     | 0.16                | 0.56       |
| (1,2875) | 1:406:A:HIS:HB2  | 1:414:A:VAL:HB   | 6                   | 0.5      | 0.13                | 0.52       |
| (1,2875) | 1:406:A:HIS:HB3  | 1:414:A:VAL:HB   | 6                   | 0.5      | 0.13                | 0.52       |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD21 | 6                   | 0.5      | 0.24                | 0.42       |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD22 | 6                   | 0.5      | 0.24                | 0.42       |
| (1,684)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:H    | 6                   | 0.49     | 0.21                | 0.47       |
| (1,684)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:H    | 6                   | 0.49     | 0.21                | 0.47       |
| (1,2288) | 1:372:A:GLN:HE21 | 1:376:A:GLN:H    | 6                   | 0.47     | 0.12                | 0.48       |
| (1,2288) | 1:372:A:GLN:HE22 | 1:376:A:GLN:H    | 6                   | 0.47     | 0.12                | 0.48       |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG2  | 6                   | 0.46     | 0.19                | 0.48       |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG3  | 6                   | 0.46     | 0.19                | 0.48       |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG2  | 6                   | 0.46     | 0.19                | 0.48       |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG3  | 6                   | 0.46     | 0.19                | 0.48       |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG21 | 6                   | 0.44     | 0.11                | 0.45       |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG22 | 6                   | 0.44     | 0.11                | 0.45       |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG23 | 6                   | 0.44     | 0.11                | 0.45       |
| (1,2425) | 1:380:A:LEU:HB2  | 1:464:A:ILE:H    | 6                   | 0.42     | 0.15                | 0.42       |
| (1,2425) | 1:380:A:LEU:HB3  | 1:464:A:ILE:H    | 6                   | 0.42     | 0.15                | 0.42       |
| (1,1658) | 1:322:A:ARG:HD2  | 1:323:A:GLY:H    | 6                   | 0.4      | 0.1                 | 0.38       |
| (1,1658) | 1:322:A:ARG:HD3  | 1:323:A:GLY:H    | 6                   | 0.4      | 0.1                 | 0.38       |
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB2  | 6                   | 0.38     | 0.1                 | 0.36       |
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB3  | 6                   | 0.38     | 0.1                 | 0.36       |
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB2  | 6                   | 0.38     | 0.1                 | 0.36       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB3  | 6                   | 0.38     | 0.1                 | 0.36       |
| (1,2937) | 1:414:A:VAL:HG21 | 1:419:A:TYR:HA   | 6                   | 0.38     | 0.12                | 0.39       |
| (1,2937) | 1:414:A:VAL:HG22 | 1:419:A:TYR:HA   | 6                   | 0.38     | 0.12                | 0.39       |
| (1,2937) | 1:414:A:VAL:HG23 | 1:419:A:TYR:HA   | 6                   | 0.38     | 0.12                | 0.39       |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG2  | 6                   | 0.38     | 0.23                | 0.32       |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG3  | 6                   | 0.38     | 0.23                | 0.32       |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG2  | 6                   | 0.38     | 0.23                | 0.32       |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG3  | 6                   | 0.38     | 0.23                | 0.32       |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB2  | 6                   | 0.37     | 0.19                | 0.29       |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB3  | 6                   | 0.37     | 0.19                | 0.29       |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB2  | 6                   | 0.36     | 0.15                | 0.26       |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB3  | 6                   | 0.36     | 0.15                | 0.26       |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB2  | 6                   | 0.36     | 0.15                | 0.26       |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB3  | 6                   | 0.36     | 0.15                | 0.26       |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB2  | 6                   | 0.36     | 0.15                | 0.26       |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB3  | 6                   | 0.36     | 0.15                | 0.26       |
| (1,153)  | 1:238:A:LYS:HE2  | 1:264:A:SER:HA   | 6                   | 0.36     | 0.15                | 0.44       |
| (1,153)  | 1:238:A:LYS:HE3  | 1:264:A:SER:HA   | 6                   | 0.36     | 0.15                | 0.44       |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD1  | 6                   | 0.34     | 0.11                | 0.38       |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD2  | 6                   | 0.34     | 0.11                | 0.38       |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD1  | 6                   | 0.34     | 0.11                | 0.38       |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD2  | 6                   | 0.34     | 0.11                | 0.38       |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD1  | 6                   | 0.34     | 0.11                | 0.38       |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD2  | 6                   | 0.34     | 0.11                | 0.38       |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD1  | 6                   | 0.33     | 0.15                | 0.34       |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD2  | 6                   | 0.33     | 0.15                | 0.34       |
| (1,2337) | 1:375:A:TRP:HD1  | 1:413:A:THR:HA   | 6                   | 0.32     | 0.16                | 0.28       |
| (1,1324) | 1:302:A:GLN:H    | 1:327:A:SER:H    | 6                   | 0.32     | 0.13                | 0.3        |
| (1,2)    | 1:230:A:ALA:H    | 1:231:A:GLN:H    | 6                   | 0.31     | 0.08                | 0.33       |
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB2  | 6                   | 0.3      | 0.15                | 0.26       |
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB3  | 6                   | 0.3      | 0.15                | 0.26       |
| (1,2855) | 1:405:A:THR:HB   | 1:451:A:ARG:HA   | 6                   | 0.3      | 0.18                | 0.26       |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD11 | 6                   | 0.3      | 0.11                | 0.32       |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD12 | 6                   | 0.3      | 0.11                | 0.32       |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD13 | 6                   | 0.3      | 0.11                | 0.32       |
| (1,3222) | 1:431:A:TYR:HD1  | 1:456:A:GLU:H    | 6                   | 0.29     | 0.11                | 0.26       |
| (1,3222) | 1:431:A:TYR:HD2  | 1:456:A:GLU:H    | 6                   | 0.29     | 0.11                | 0.26       |
| (1,2914) | 1:410:A:SER:HA   | 1:438:A:TYR:HE1  | 6                   | 0.28     | 0.18                | 0.22       |
| (1,2914) | 1:410:A:SER:HA   | 1:438:A:TYR:HE2  | 6                   | 0.28     | 0.18                | 0.22       |
| (1,2914) | 1:410:A:SER:HA   | 1:438:A:TYR:HD1  | 6                   | 0.28     | 0.18                | 0.22       |
| (1,2914) | 1:410:A:SER:HA   | 1:438:A:TYR:HD2  | 6                   | 0.28     | 0.18                | 0.22       |
| (1,1334) | 1:303:A:ARG:H    | 1:327:A:SER:H    | 6                   | 0.27     | 0.14                | 0.22       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD2  | 6                   | 0.27     | 0.08                | 0.24       |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD3  | 6                   | 0.27     | 0.08                | 0.24       |
| (1,2133) | 1:361:A:GLU:HA   | 1:365:A:LYS:H    | 6                   | 0.27     | 0.15                | 0.24       |
| (1,3492) | 1:447:A:LEU:HA   | 1:483:A:VAL:HB   | 6                   | 0.25     | 0.1                 | 0.25       |
| (1,848)  | 1:279:A:TYR:H    | 1:322:A:ARG:H    | 6                   | 0.23     | 0.12                | 0.24       |
| (1,1223) | 1:299:A:LEU:H    | 1:305:A:PHE:HA   | 6                   | 0.23     | 0.13                | 0.18       |
| (1,1167) | 1:298:A:LYS:HA   | 1:309:A:ASP:HA   | 6                   | 0.22     | 0.18                | 0.16       |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB2  | 6                   | 0.22     | 0.09                | 0.24       |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB3  | 6                   | 0.22     | 0.09                | 0.24       |
| (1,2203) | 1:365:A:LYS:HA   | 1:367:A:ASP:H    | 6                   | 0.2      | 0.06                | 0.22       |
| (1,520)  | 1:261:A:LEU:H    | 1:279:A:TYR:HD1  | 6                   | 0.2      | 0.07                | 0.18       |
| (1,520)  | 1:261:A:LEU:H    | 1:279:A:TYR:HD2  | 6                   | 0.2      | 0.07                | 0.18       |
| (1,3807) | 1:475:A:PHE:H    | 1:479:A:PRO:HA   | 6                   | 0.19     | 0.06                | 0.21       |
| (1,614)  | 1:266:A:ASN:H    | 1:276:A:SER:H    | 6                   | 0.18     | 0.05                | 0.16       |
| (1,542)  | 1:262:A:THR:H    | 1:279:A:TYR:HB2  | 6                   | 0.17     | 0.03                | 0.17       |
| (1,542)  | 1:262:A:THR:H    | 1:279:A:TYR:HB3  | 6                   | 0.17     | 0.03                | 0.17       |
| (1,513)  | 1:261:A:LEU:H    | 1:281:A:PRO:HA   | 6                   | 0.16     | 0.05                | 0.15       |
| (1,1382) | 1:307:A:MET:HB2  | 1:308:A:ASP:H    | 6                   | 0.12     | 0.01                | 0.12       |
| (1,1382) | 1:307:A:MET:HB3  | 1:308:A:ASP:H    | 6                   | 0.12     | 0.01                | 0.12       |
| (1,1013) | 1:288:A:MET:HA   | 1:294:A:LYS:H    | 5                   | 0.59     | 0.16                | 0.63       |
| (1,986)  | 1:287:A:ASP:HB2  | 1:294:A:LYS:H    | 5                   | 0.59     | 0.04                | 0.58       |
| (1,986)  | 1:287:A:ASP:HB3  | 1:294:A:LYS:H    | 5                   | 0.59     | 0.04                | 0.58       |
| (1,37)   | 1:233:A:LEU:HD11 | 1:249:A:PHE:H    | 5                   | 0.55     | 0.12                | 0.58       |
| (1,37)   | 1:233:A:LEU:HD12 | 1:249:A:PHE:H    | 5                   | 0.55     | 0.12                | 0.58       |
| (1,37)   | 1:233:A:LEU:HD13 | 1:249:A:PHE:H    | 5                   | 0.55     | 0.12                | 0.58       |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG2  | 5                   | 0.54     | 0.16                | 0.64       |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG3  | 5                   | 0.54     | 0.16                | 0.64       |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD21 | 5                   | 0.53     | 0.12                | 0.52       |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD22 | 5                   | 0.53     | 0.12                | 0.52       |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD23 | 5                   | 0.53     | 0.12                | 0.52       |
| (1,3360) | 1:437:A:SER:HA   | 1:462:A:ASP:HA   | 5                   | 0.51     | 0.19                | 0.56       |
| (1,2927) | 1:412:A:GLN:HA   | 1:414:A:VAL:HB   | 5                   | 0.47     | 0.24                | 0.54       |
| (1,2915) | 1:410:A:SER:HB3  | 1:438:A:TYR:HD2  | 5                   | 0.47     | 0.19                | 0.39       |
| (1,2915) | 1:410:A:SER:HB3  | 1:438:A:TYR:HD1  | 5                   | 0.47     | 0.19                | 0.39       |
| (1,2915) | 1:410:A:SER:HB2  | 1:438:A:TYR:HD1  | 5                   | 0.47     | 0.19                | 0.39       |
| (1,139)  | 1:237:A:ASN:HD21 | 1:239:A:SER:H    | 5                   | 0.45     | 0.08                | 0.42       |
| (1,139)  | 1:237:A:ASN:HD22 | 1:239:A:SER:H    | 5                   | 0.45     | 0.08                | 0.42       |
| (1,1989) | 1:354:A:LYS:HA   | 1:392:A:ASN:HD21 | 5                   | 0.44     | 0.13                | 0.44       |
| (1,1989) | 1:354:A:LYS:HA   | 1:392:A:ASN:HD22 | 5                   | 0.44     | 0.13                | 0.44       |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB2  | 5                   | 0.44     | 0.07                | 0.46       |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB3  | 5                   | 0.44     | 0.07                | 0.46       |
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD2  | 5                   | 0.42     | 0.17                | 0.43       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD3  | 5                   | 0.42     | 0.17                | 0.43       |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD2  | 5                   | 0.42     | 0.1                 | 0.45       |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD3  | 5                   | 0.42     | 0.1                 | 0.45       |
| (1,1374) | 1:307:A:MET:HE1  | 1:335:A:SER:HA   | 5                   | 0.41     | 0.13                | 0.47       |
| (1,1374) | 1:307:A:MET:HE2  | 1:335:A:SER:HA   | 5                   | 0.41     | 0.13                | 0.47       |
| (1,1374) | 1:307:A:MET:HE3  | 1:335:A:SER:HA   | 5                   | 0.41     | 0.13                | 0.47       |
| (1,3845) | 1:481:A:GLN:HG2  | 1:487:A:ASP:H    | 5                   | 0.4      | 0.11                | 0.43       |
| (1,3845) | 1:481:A:GLN:HG3  | 1:487:A:ASP:H    | 5                   | 0.4      | 0.11                | 0.43       |
| (1,123)  | 1:236:A:ARG:HB2  | 1:240:A:GLU:H    | 5                   | 0.39     | 0.15                | 0.43       |
| (1,123)  | 1:236:A:ARG:HB3  | 1:240:A:GLU:H    | 5                   | 0.39     | 0.15                | 0.43       |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD11 | 5                   | 0.39     | 0.06                | 0.39       |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD12 | 5                   | 0.39     | 0.06                | 0.39       |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD13 | 5                   | 0.39     | 0.06                | 0.39       |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD11 | 5                   | 0.39     | 0.06                | 0.39       |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD12 | 5                   | 0.39     | 0.06                | 0.39       |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD13 | 5                   | 0.39     | 0.06                | 0.39       |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD11 | 5                   | 0.39     | 0.06                | 0.39       |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD12 | 5                   | 0.39     | 0.06                | 0.39       |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD13 | 5                   | 0.39     | 0.06                | 0.39       |
| (1,3311) | 1:434:A:THR:HB   | 1:466:A:GLU:HA   | 5                   | 0.38     | 0.08                | 0.43       |
| (1,2887) | 1:407:A:THR:HG21 | 1:408:A:ASP:H    | 5                   | 0.38     | 0.09                | 0.39       |
| (1,2887) | 1:407:A:THR:HG22 | 1:408:A:ASP:H    | 5                   | 0.38     | 0.09                | 0.39       |
| (1,2887) | 1:407:A:THR:HG23 | 1:408:A:ASP:H    | 5                   | 0.38     | 0.09                | 0.39       |
| (1,2487) | 1:383:A:LYS:HE2  | 1:402:A:PHE:HA   | 5                   | 0.38     | 0.15                | 0.36       |
| (1,2487) | 1:383:A:LYS:HE3  | 1:402:A:PHE:HA   | 5                   | 0.38     | 0.15                | 0.36       |
| (1,1776) | 1:336:A:ARG:HA   | 1:340:A:GLN:H    | 5                   | 0.37     | 0.13                | 0.47       |
| (1,1992) | 1:354:A:LYS:HG2  | 1:392:A:ASN:HD21 | 5                   | 0.37     | 0.06                | 0.38       |
| (1,1992) | 1:354:A:LYS:HG2  | 1:392:A:ASN:HD22 | 5                   | 0.37     | 0.06                | 0.38       |
| (1,1992) | 1:354:A:LYS:HG3  | 1:392:A:ASN:HD21 | 5                   | 0.37     | 0.06                | 0.38       |
| (1,1992) | 1:354:A:LYS:HG3  | 1:392:A:ASN:HD22 | 5                   | 0.37     | 0.06                | 0.38       |
| (1,3121) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HA   | 5                   | 0.36     | 0.1                 | 0.39       |
| (1,3121) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HA   | 5                   | 0.36     | 0.1                 | 0.39       |
| (1,3136) | 1:428:A:GLU:HG2  | 1:478:A:LYS:HA   | 5                   | 0.36     | 0.14                | 0.33       |
| (1,3136) | 1:428:A:GLU:HG3  | 1:478:A:LYS:HA   | 5                   | 0.36     | 0.14                | 0.33       |
| (1,564)  | 1:263:A:TRP:HE1  | 1:265:A:HIS:H    | 5                   | 0.36     | 0.17                | 0.34       |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG2  | 5                   | 0.36     | 0.17                | 0.36       |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG3  | 5                   | 0.36     | 0.17                | 0.36       |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG2  | 5                   | 0.36     | 0.17                | 0.36       |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG3  | 5                   | 0.36     | 0.17                | 0.36       |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG2  | 5                   | 0.36     | 0.17                | 0.36       |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG3  | 5                   | 0.36     | 0.17                | 0.36       |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG21 | 5                   | 0.36     | 0.14                | 0.35       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG22 | 5                   | 0.36     | 0.14                | 0.35       |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG23 | 5                   | 0.36     | 0.14                | 0.35       |
| (1,219)  | 1:244:A:GLU:HA   | 1:248:A:GLU:H    | 5                   | 0.35     | 0.09                | 0.39       |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD11 | 5                   | 0.34     | 0.17                | 0.28       |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD12 | 5                   | 0.34     | 0.17                | 0.28       |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD13 | 5                   | 0.34     | 0.17                | 0.28       |
| (1,3447) | 1:442:A:LYS:HA   | 1:447:A:LEU:HD11 | 5                   | 0.34     | 0.04                | 0.31       |
| (1,3447) | 1:442:A:LYS:HA   | 1:447:A:LEU:HD12 | 5                   | 0.34     | 0.04                | 0.31       |
| (1,3447) | 1:442:A:LYS:HA   | 1:447:A:LEU:HD13 | 5                   | 0.34     | 0.04                | 0.31       |
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB2  | 5                   | 0.33     | 0.16                | 0.35       |
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB3  | 5                   | 0.33     | 0.16                | 0.35       |
| (1,2123) | 1:361:A:GLU:HA   | 1:399:A:LEU:HA   | 5                   | 0.32     | 0.13                | 0.28       |
| (1,2861) | 1:405:A:THR:HA   | 1:408:A:ASP:HA   | 5                   | 0.32     | 0.08                | 0.34       |
| (1,1022) | 1:289:A:TRP:HH2  | 1:381:A:VAL:H    | 5                   | 0.31     | 0.1                 | 0.27       |
| (1,2380) | 1:376:A:GLN:HE21 | 1:412:A:GLN:H    | 5                   | 0.31     | 0.14                | 0.26       |
| (1,2380) | 1:376:A:GLN:HE22 | 1:412:A:GLN:H    | 5                   | 0.31     | 0.14                | 0.26       |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD11 | 5                   | 0.3      | 0.09                | 0.34       |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD12 | 5                   | 0.3      | 0.09                | 0.34       |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD13 | 5                   | 0.3      | 0.09                | 0.34       |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD11 | 5                   | 0.3      | 0.09                | 0.34       |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD12 | 5                   | 0.3      | 0.09                | 0.34       |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD13 | 5                   | 0.3      | 0.09                | 0.34       |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD11 | 5                   | 0.3      | 0.09                | 0.34       |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD12 | 5                   | 0.3      | 0.09                | 0.34       |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD13 | 5                   | 0.3      | 0.09                | 0.34       |
| (1,2344) | 1:375:A:TRP:HZ2  | 1:402:A:PHE:HA   | 5                   | 0.29     | 0.15                | 0.32       |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB2  | 5                   | 0.28     | 0.12                | 0.25       |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB3  | 5                   | 0.28     | 0.12                | 0.25       |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB2  | 5                   | 0.28     | 0.12                | 0.25       |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB3  | 5                   | 0.28     | 0.12                | 0.25       |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB2  | 5                   | 0.28     | 0.12                | 0.25       |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB3  | 5                   | 0.28     | 0.12                | 0.25       |
| (1,3943) | 1:490:A:LEU:HA   | 1:492:A:LYS:H    | 5                   | 0.28     | 0.11                | 0.32       |
| (1,2827) | 1:404:A:SER:H    | 1:413:A:THR:H    | 5                   | 0.27     | 0.12                | 0.31       |
| (1,1090) | 1:296:A:GLY:H    | 1:311:A:GLU:HA   | 5                   | 0.26     | 0.14                | 0.21       |
| (1,2353) | 1:375:A:TRP:HZ3  | 1:400:A:LEU:HA   | 5                   | 0.26     | 0.11                | 0.3        |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB2  | 5                   | 0.25     | 0.09                | 0.3        |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB3  | 5                   | 0.25     | 0.09                | 0.3        |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG11 | 5                   | 0.25     | 0.11                | 0.29       |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG12 | 5                   | 0.25     | 0.11                | 0.29       |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG13 | 5                   | 0.25     | 0.11                | 0.29       |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG11 | 5                   | 0.25     | 0.11                | 0.29       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG12 | 5                   | 0.25     | 0.11                | 0.29       |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG13 | 5                   | 0.25     | 0.11                | 0.29       |
| (1,3208) | 1:431:A:TYR:HB2  | 1:482:A:SER:HA   | 5                   | 0.24     | 0.13                | 0.19       |
| (1,3208) | 1:431:A:TYR:HB3  | 1:482:A:SER:HA   | 5                   | 0.24     | 0.13                | 0.19       |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD11 | 5                   | 0.24     | 0.12                | 0.2        |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD12 | 5                   | 0.24     | 0.12                | 0.2        |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD13 | 5                   | 0.24     | 0.12                | 0.2        |
| (1,2566) | 1:387:A:ALA:H    | 1:468:A:MET:HA   | 5                   | 0.24     | 0.16                | 0.18       |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD11 | 5                   | 0.24     | 0.12                | 0.18       |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD12 | 5                   | 0.24     | 0.12                | 0.18       |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD13 | 5                   | 0.24     | 0.12                | 0.18       |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD11 | 5                   | 0.24     | 0.12                | 0.18       |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD12 | 5                   | 0.24     | 0.12                | 0.18       |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD13 | 5                   | 0.24     | 0.12                | 0.18       |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD11 | 5                   | 0.24     | 0.12                | 0.18       |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD12 | 5                   | 0.24     | 0.12                | 0.18       |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD13 | 5                   | 0.24     | 0.12                | 0.18       |
| (1,1139) | 1:297:A:LEU:H    | 1:309:A:ASP:HA   | 5                   | 0.23     | 0.05                | 0.23       |
| (1,3231) | 1:432:A:TYR:H    | 1:483:A:VAL:H    | 5                   | 0.23     | 0.08                | 0.21       |
| (1,95)   | 1:234:A:TRP:HA   | 1:246:A:TYR:HE2  | 5                   | 0.23     | 0.09                | 0.22       |
| (1,2398) | 1:378:A:PHE:HA   | 1:382:A:LEU:H    | 5                   | 0.23     | 0.08                | 0.29       |
| (1,2108) | 1:360:A:LEU:HD21 | 1:364:A:ALA:H    | 5                   | 0.23     | 0.04                | 0.21       |
| (1,2108) | 1:360:A:LEU:HD22 | 1:364:A:ALA:H    | 5                   | 0.23     | 0.04                | 0.21       |
| (1,2108) | 1:360:A:LEU:HD23 | 1:364:A:ALA:H    | 5                   | 0.23     | 0.04                | 0.21       |
| (1,2985) | 1:417:A:GLU:HB2  | 1:421:A:SER:H    | 5                   | 0.23     | 0.09                | 0.18       |
| (1,2985) | 1:417:A:GLU:HB3  | 1:421:A:SER:H    | 5                   | 0.23     | 0.09                | 0.18       |
| (1,3749) | 1:469:A:MET:HA   | 1:471:A:TYR:H    | 5                   | 0.22     | 0.1                 | 0.17       |
| (1,3857) | 1:481:A:GLN:HE21 | 1:482:A:SER:H    | 5                   | 0.21     | 0.05                | 0.21       |
| (1,3857) | 1:481:A:GLN:HE22 | 1:482:A:SER:H    | 5                   | 0.21     | 0.05                | 0.21       |
| (1,1626) | 1:320:A:PHE:HZ   | 1:374:A:PHE:HZ   | 5                   | 0.21     | 0.1                 | 0.21       |
| (1,2107) | 1:360:A:LEU:HA   | 1:364:A:ALA:H    | 5                   | 0.2      | 0.08                | 0.17       |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD11 | 5                   | 0.2      | 0.05                | 0.19       |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD12 | 5                   | 0.2      | 0.05                | 0.19       |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD13 | 5                   | 0.2      | 0.05                | 0.19       |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD11 | 5                   | 0.19     | 0.06                | 0.16       |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD12 | 5                   | 0.19     | 0.06                | 0.16       |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD13 | 5                   | 0.19     | 0.06                | 0.16       |
| (1,3153) | 1:429:A:LYS:HA   | 1:480:A:PHE:H    | 5                   | 0.19     | 0.05                | 0.19       |
| (1,2250) | 1:370:A:LYS:HA   | 1:373:A:THR:HB   | 5                   | 0.19     | 0.03                | 0.19       |
| (1,2968) | 1:416:A:LEU:HA   | 1:420:A:VAL:H    | 5                   | 0.16     | 0.07                | 0.12       |
| (1,111)  | 1:235:A:THR:H    | 1:265:A:HIS:HE1  | 5                   | 0.13     | 0.03                | 0.12       |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD21 | 4                   | 1.24     | 0.7                 | 1.35       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD22 | 4                   | 1.24     | 0.7                 | 1.35       |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD23 | 4                   | 1.24     | 0.7                 | 1.35       |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD21 | 4                   | 1.24     | 0.7                 | 1.35       |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD22 | 4                   | 1.24     | 0.7                 | 1.35       |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD23 | 4                   | 1.24     | 0.7                 | 1.35       |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD21 | 4                   | 1.24     | 0.7                 | 1.35       |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD22 | 4                   | 1.24     | 0.7                 | 1.35       |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD23 | 4                   | 1.24     | 0.7                 | 1.35       |
| (2,5)    | 1:290:A:ASN:HB2  | 1:293:A:HIS:HA   | 4                   | 0.62     | 0.14                | 0.68       |
| (2,5)    | 1:290:A:ASN:HB3  | 1:293:A:HIS:HA   | 4                   | 0.62     | 0.14                | 0.68       |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD11 | 4                   | 0.55     | 0.04                | 0.56       |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD12 | 4                   | 0.55     | 0.04                | 0.56       |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD13 | 4                   | 0.55     | 0.04                | 0.56       |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD11 | 4                   | 0.55     | 0.04                | 0.56       |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD12 | 4                   | 0.55     | 0.04                | 0.56       |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD13 | 4                   | 0.55     | 0.04                | 0.56       |
| (1,2135) | 1:361:A:GLU:HG2  | 1:365:A:LYS:HG2  | 4                   | 0.54     | 0.07                | 0.52       |
| (1,2135) | 1:361:A:GLU:HG2  | 1:365:A:LYS:HG3  | 4                   | 0.54     | 0.07                | 0.52       |
| (1,2135) | 1:361:A:GLU:HG3  | 1:365:A:LYS:HG2  | 4                   | 0.54     | 0.07                | 0.52       |
| (1,2135) | 1:361:A:GLU:HG3  | 1:365:A:LYS:HG3  | 4                   | 0.54     | 0.07                | 0.52       |
| (1,352)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:H    | 4                   | 0.51     | 0.1                 | 0.54       |
| (1,352)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:H    | 4                   | 0.51     | 0.1                 | 0.54       |
| (1,2563) | 1:387:A:ALA:HA   | 1:471:A:TYR:HE1  | 4                   | 0.5      | 0.06                | 0.5        |
| (1,2563) | 1:387:A:ALA:HA   | 1:471:A:TYR:HE2  | 4                   | 0.5      | 0.06                | 0.5        |
| (1,1020) | 1:289:A:TRP:HH2  | 1:384:A:GLU:HG2  | 4                   | 0.49     | 0.08                | 0.5        |
| (1,1020) | 1:289:A:TRP:HH2  | 1:384:A:GLU:HG3  | 4                   | 0.49     | 0.08                | 0.5        |
| (1,2382) | 1:376:A:GLN:HG2  | 1:412:A:GLN:HE21 | 4                   | 0.48     | 0.16                | 0.56       |
| (1,2382) | 1:376:A:GLN:HG2  | 1:412:A:GLN:HE22 | 4                   | 0.48     | 0.16                | 0.56       |
| (1,2382) | 1:376:A:GLN:HG3  | 1:412:A:GLN:HE21 | 4                   | 0.48     | 0.16                | 0.56       |
| (1,2382) | 1:376:A:GLN:HG3  | 1:412:A:GLN:HE22 | 4                   | 0.48     | 0.16                | 0.56       |
| (1,3634) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE1  | 4                   | 0.48     | 0.16                | 0.48       |
| (1,3634) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE2  | 4                   | 0.48     | 0.16                | 0.48       |
| (1,3634) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE1  | 4                   | 0.48     | 0.16                | 0.48       |
| (1,3634) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE2  | 4                   | 0.48     | 0.16                | 0.48       |
| (1,3634) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE1  | 4                   | 0.48     | 0.16                | 0.48       |
| (1,3634) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE2  | 4                   | 0.48     | 0.16                | 0.48       |
| (1,3081) | 1:423:A:MET:HE1  | 1:427:A:GLN:HB2  | 4                   | 0.47     | 0.12                | 0.5        |
| (1,3081) | 1:423:A:MET:HE1  | 1:427:A:GLN:HB3  | 4                   | 0.47     | 0.12                | 0.5        |
| (1,3081) | 1:423:A:MET:HE2  | 1:427:A:GLN:HB2  | 4                   | 0.47     | 0.12                | 0.5        |
| (1,3081) | 1:423:A:MET:HE2  | 1:427:A:GLN:HB3  | 4                   | 0.47     | 0.12                | 0.5        |
| (1,3081) | 1:423:A:MET:HE3  | 1:427:A:GLN:HB2  | 4                   | 0.47     | 0.12                | 0.5        |
| (1,3081) | 1:423:A:MET:HE3  | 1:427:A:GLN:HB3  | 4                   | 0.47     | 0.12                | 0.5        |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1422) | 1:312:A:GLN:HE21 | 1:340:A:GLN:HA   | 4                   | 0.46     | 0.04                | 0.48       |
| (1,1422) | 1:312:A:GLN:HE22 | 1:340:A:GLN:HA   | 4                   | 0.46     | 0.04                | 0.48       |
| (1,2873) | 1:406:A:HIS:HA   | 1:422:A:ARG:HD2  | 4                   | 0.46     | 0.22                | 0.46       |
| (1,2873) | 1:406:A:HIS:HA   | 1:422:A:ARG:HD3  | 4                   | 0.46     | 0.22                | 0.46       |
| (1,2619) | 1:393:A:GLN:HE21 | 1:474:A:GLU:H    | 4                   | 0.45     | 0.14                | 0.52       |
| (1,2619) | 1:393:A:GLN:HE22 | 1:474:A:GLU:H    | 4                   | 0.45     | 0.14                | 0.52       |
| (1,2694) | 1:398:A:LYS:HA   | 1:475:A:PHE:HZ   | 4                   | 0.45     | 0.11                | 0.44       |
| (1,1486) | 1:314:A:MET:HB2  | 1:319:A:ARG:H    | 4                   | 0.44     | 0.16                | 0.46       |
| (1,1486) | 1:314:A:MET:HB3  | 1:319:A:ARG:H    | 4                   | 0.44     | 0.16                | 0.46       |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG21 | 4                   | 0.44     | 0.19                | 0.5        |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG22 | 4                   | 0.44     | 0.19                | 0.5        |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG23 | 4                   | 0.44     | 0.19                | 0.5        |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG21 | 4                   | 0.44     | 0.19                | 0.5        |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG22 | 4                   | 0.44     | 0.19                | 0.5        |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG23 | 4                   | 0.44     | 0.19                | 0.5        |
| (1,1951) | 1:351:A:ALA:HA   | 1:354:A:LYS:HD2  | 4                   | 0.43     | 0.13                | 0.43       |
| (1,1951) | 1:351:A:ALA:HA   | 1:354:A:LYS:HD3  | 4                   | 0.43     | 0.13                | 0.43       |
| (1,3187) | 1:430:A:ILE:HD11 | 1:474:A:GLU:HA   | 4                   | 0.42     | 0.06                | 0.42       |
| (1,3187) | 1:430:A:ILE:HD12 | 1:474:A:GLU:HA   | 4                   | 0.42     | 0.06                | 0.42       |
| (1,3187) | 1:430:A:ILE:HD13 | 1:474:A:GLU:HA   | 4                   | 0.42     | 0.06                | 0.42       |
| (1,1490) | 1:314:A:MET:HB2  | 1:318:A:LEU:H    | 4                   | 0.42     | 0.09                | 0.46       |
| (1,1490) | 1:314:A:MET:HB3  | 1:318:A:LEU:H    | 4                   | 0.42     | 0.09                | 0.46       |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE1  | 4                   | 0.42     | 0.17                | 0.45       |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE2  | 4                   | 0.42     | 0.17                | 0.45       |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE3  | 4                   | 0.42     | 0.17                | 0.45       |
| (1,2764) | 1:402:A:PHE:H    | 1:414:A:VAL:HB   | 4                   | 0.42     | 0.15                | 0.42       |
| (1,1859) | 1:344:A:VAL:HB   | 1:348:A:LEU:H    | 4                   | 0.41     | 0.15                | 0.46       |
| (1,719)  | 1:274:A:TYR:HD1  | 1:348:A:LEU:HD21 | 4                   | 0.41     | 0.12                | 0.4        |
| (1,719)  | 1:274:A:TYR:HD2  | 1:348:A:LEU:HD22 | 4                   | 0.41     | 0.12                | 0.4        |
| (1,719)  | 1:274:A:TYR:HD2  | 1:348:A:LEU:HD23 | 4                   | 0.41     | 0.12                | 0.4        |
| (1,3165) | 1:429:A:LYS:HB2  | 1:431:A:TYR:HE1  | 4                   | 0.4      | 0.23                | 0.29       |
| (1,3165) | 1:429:A:LYS:HB2  | 1:431:A:TYR:HE2  | 4                   | 0.4      | 0.23                | 0.29       |
| (1,3165) | 1:429:A:LYS:HB3  | 1:431:A:TYR:HE2  | 4                   | 0.4      | 0.23                | 0.29       |
| (1,454)  | 1:257:A:PHE:H    | 1:258:A:ASN:HD21 | 4                   | 0.4      | 0.05                | 0.4        |
| (1,454)  | 1:257:A:PHE:H    | 1:258:A:ASN:HD22 | 4                   | 0.4      | 0.05                | 0.4        |
| (1,3128) | 1:427:A:GLN:HG2  | 1:429:A:LYS:H    | 4                   | 0.39     | 0.09                | 0.41       |
| (1,3128) | 1:427:A:GLN:HG3  | 1:429:A:LYS:H    | 4                   | 0.39     | 0.09                | 0.41       |
| (1,3846) | 1:481:A:GLN:HE21 | 1:486:A:VAL:H    | 4                   | 0.38     | 0.1                 | 0.38       |
| (1,3846) | 1:481:A:GLN:HE22 | 1:486:A:VAL:H    | 4                   | 0.38     | 0.1                 | 0.38       |
| (1,3137) | 1:428:A:GLU:HA   | 1:478:A:LYS:HG2  | 4                   | 0.38     | 0.11                | 0.4        |
| (1,3137) | 1:428:A:GLU:HA   | 1:478:A:LYS:HG3  | 4                   | 0.38     | 0.11                | 0.4        |
| (1,3561) | 1:450:A:LEU:HD11 | 1:456:A:GLU:H    | 4                   | 0.37     | 0.14                | 0.4        |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3561) | 1:450:A:LEU:HD12 | 1:456:A:GLU:H    | 4                   | 0.37     | 0.14                | 0.4        |
| (1,3561) | 1:450:A:LEU:HD13 | 1:456:A:GLU:H    | 4                   | 0.37     | 0.14                | 0.4        |
| (1,1487) | 1:314:A:MET:HB2  | 1:319:A:ARG:HA   | 4                   | 0.36     | 0.1                 | 0.36       |
| (1,1487) | 1:314:A:MET:HB3  | 1:319:A:ARG:HA   | 4                   | 0.36     | 0.1                 | 0.36       |
| (1,2790) | 1:403:A:ALA:HA   | 1:414:A:VAL:HB   | 4                   | 0.36     | 0.14                | 0.4        |
| (1,2621) | 1:393:A:GLN:HE21 | 1:473:A:THR:H    | 4                   | 0.35     | 0.12                | 0.39       |
| (1,2621) | 1:393:A:GLN:HE22 | 1:473:A:THR:H    | 4                   | 0.35     | 0.12                | 0.39       |
| (1,1416) | 1:312:A:GLN:HB2  | 1:349:A:ARG:HD2  | 4                   | 0.34     | 0.06                | 0.34       |
| (1,1416) | 1:312:A:GLN:HB2  | 1:349:A:ARG:HD3  | 4                   | 0.34     | 0.06                | 0.34       |
| (1,1416) | 1:312:A:GLN:HB3  | 1:349:A:ARG:HD2  | 4                   | 0.34     | 0.06                | 0.34       |
| (1,1416) | 1:312:A:GLN:HB3  | 1:349:A:ARG:HD3  | 4                   | 0.34     | 0.06                | 0.34       |
| (1,3740) | 1:469:A:MET:HE1  | 1:473:A:THR:H    | 4                   | 0.33     | 0.13                | 0.34       |
| (1,3740) | 1:469:A:MET:HE2  | 1:473:A:THR:H    | 4                   | 0.33     | 0.13                | 0.34       |
| (1,3740) | 1:469:A:MET:HE3  | 1:473:A:THR:H    | 4                   | 0.33     | 0.13                | 0.34       |
| (1,3767) | 1:472:A:LEU:HD23 | 1:480:A:PHE:HE2  | 4                   | 0.32     | 0.12                | 0.38       |
| (1,3767) | 1:472:A:LEU:HD21 | 1:480:A:PHE:HE1  | 4                   | 0.32     | 0.12                | 0.38       |
| (1,3767) | 1:472:A:LEU:HD22 | 1:480:A:PHE:HE2  | 4                   | 0.32     | 0.12                | 0.38       |
| (1,2488) | 1:383:A:LYS:HE2  | 1:402:A:PHE:HZ   | 4                   | 0.32     | 0.15                | 0.3        |
| (1,2488) | 1:383:A:LYS:HE3  | 1:402:A:PHE:HZ   | 4                   | 0.32     | 0.15                | 0.3        |
| (1,3082) | 1:423:A:MET:HA   | 1:427:A:GLN:HE21 | 4                   | 0.32     | 0.12                | 0.38       |
| (1,3082) | 1:423:A:MET:HA   | 1:427:A:GLN:HE22 | 4                   | 0.32     | 0.12                | 0.38       |
| (2,14)   | 1:442:A:LYS:H    | 1:461:A:SER:HB2  | 4                   | 0.32     | 0.16                | 0.26       |
| (2,14)   | 1:442:A:LYS:H    | 1:461:A:SER:HB3  | 4                   | 0.32     | 0.16                | 0.26       |
| (1,1858) | 1:344:A:VAL:HA   | 1:348:A:LEU:H    | 4                   | 0.32     | 0.16                | 0.29       |
| (1,550)  | 1:263:A:TRP:HA   | 1:359:A:MET:HG2  | 4                   | 0.32     | 0.1                 | 0.36       |
| (1,550)  | 1:263:A:TRP:HA   | 1:359:A:MET:HG3  | 4                   | 0.32     | 0.1                 | 0.36       |
| (1,2166) | 1:363:A:LEU:HA   | 1:367:A:ASP:HB2  | 4                   | 0.31     | 0.13                | 0.3        |
| (1,2166) | 1:363:A:LEU:HA   | 1:367:A:ASP:HB3  | 4                   | 0.31     | 0.13                | 0.3        |
| (1,2871) | 1:406:A:HIS:HA   | 1:456:A:GLU:HG2  | 4                   | 0.31     | 0.16                | 0.22       |
| (1,2871) | 1:406:A:HIS:HA   | 1:456:A:GLU:HG3  | 4                   | 0.31     | 0.16                | 0.22       |
| (1,2828) | 1:404:A:SER:H    | 1:412:A:GLN:HA   | 4                   | 0.3      | 0.09                | 0.3        |
| (1,1051) | 1:293:A:HIS:HE1  | 1:309:A:ASP:HB2  | 4                   | 0.29     | 0.18                | 0.26       |
| (1,1051) | 1:293:A:HIS:HE1  | 1:309:A:ASP:HB3  | 4                   | 0.29     | 0.18                | 0.26       |
| (1,3309) | 1:434:A:THR:HB   | 1:466:A:GLU:H    | 4                   | 0.29     | 0.16                | 0.3        |
| (1,960)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HB2  | 4                   | 0.28     | 0.14                | 0.3        |
| (1,960)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HB3  | 4                   | 0.28     | 0.14                | 0.3        |
| (1,960)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HB2  | 4                   | 0.28     | 0.14                | 0.3        |
| (1,960)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HB3  | 4                   | 0.28     | 0.14                | 0.3        |
| (1,2736) | 1:401:A:ARG:HD2  | 1:414:A:VAL:H    | 4                   | 0.28     | 0.07                | 0.27       |
| (1,2736) | 1:401:A:ARG:HD3  | 1:414:A:VAL:H    | 4                   | 0.28     | 0.07                | 0.27       |
| (1,1354) | 1:305:A:PHE:HE2  | 1:307:A:MET:HA   | 4                   | 0.27     | 0.11                | 0.24       |
| (1,2980) | 1:417:A:GLU:H    | 1:475:A:PHE:HZ   | 4                   | 0.27     | 0.09                | 0.23       |

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| Key      | Atom-1          | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (1,1889) | 1:346:A:ARG:HA  | 1:349:A:ARG:HG2  | 4                   | 0.26     | 0.1                 | 0.26       |
| (1,1994) | 1:354:A:LYS:HA  | 1:358:A:GLN:H    | 4                   | 0.26     | 0.1                 | 0.24       |
| (1,3164) | 1:429:A:LYS:HB2 | 1:431:A:TYR:HE1  | 4                   | 0.26     | 0.21                | 0.15       |
| (1,3164) | 1:429:A:LYS:HB2 | 1:431:A:TYR:HE2  | 4                   | 0.26     | 0.21                | 0.15       |
| (1,3164) | 1:429:A:LYS:HB3 | 1:431:A:TYR:HE1  | 4                   | 0.26     | 0.21                | 0.15       |
| (1,3164) | 1:429:A:LYS:HB3 | 1:431:A:TYR:HE2  | 4                   | 0.26     | 0.21                | 0.15       |
| (1,700)  | 1:273:A:GLU:HB2 | 1:329:A:ASP:H    | 4                   | 0.25     | 0.2                 | 0.15       |
| (1,700)  | 1:273:A:GLU:HB3 | 1:329:A:ASP:H    | 4                   | 0.25     | 0.2                 | 0.15       |
| (1,2848) | 1:405:A:THR:H   | 1:457:A:VAL:HB   | 4                   | 0.25     | 0.08                | 0.26       |
| (1,2445) | 1:381:A:VAL:HA  | 1:385:A:GLY:H    | 4                   | 0.24     | 0.15                | 0.18       |
| (1,1768) | 1:335:A:SER:H   | 1:338:A:ILE:HD11 | 4                   | 0.24     | 0.13                | 0.2        |
| (1,1768) | 1:335:A:SER:H   | 1:338:A:ILE:HD12 | 4                   | 0.24     | 0.13                | 0.2        |
| (1,1768) | 1:335:A:SER:H   | 1:338:A:ILE:HD13 | 4                   | 0.24     | 0.13                | 0.2        |
| (1,3133) | 1:428:A:GLU:HG2 | 1:479:A:PRO:HD2  | 4                   | 0.23     | 0.06                | 0.25       |
| (1,3133) | 1:428:A:GLU:HG2 | 1:479:A:PRO:HD3  | 4                   | 0.23     | 0.06                | 0.25       |
| (1,3133) | 1:428:A:GLU:HG3 | 1:479:A:PRO:HD2  | 4                   | 0.23     | 0.06                | 0.25       |
| (1,3133) | 1:428:A:GLU:HG3 | 1:479:A:PRO:HD3  | 4                   | 0.23     | 0.06                | 0.25       |
| (1,2912) | 1:410:A:SER:HB2 | 1:438:A:TYR:HD1  | 4                   | 0.23     | 0.1                 | 0.2        |
| (1,2912) | 1:410:A:SER:HB2 | 1:438:A:TYR:HD2  | 4                   | 0.23     | 0.1                 | 0.2        |
| (1,2912) | 1:410:A:SER:HB3 | 1:438:A:TYR:HD1  | 4                   | 0.23     | 0.1                 | 0.2        |
| (1,2912) | 1:410:A:SER:HB3 | 1:438:A:TYR:HD2  | 4                   | 0.23     | 0.1                 | 0.2        |
| (1,2200) | 1:365:A:LYS:HA  | 1:368:A:ALA:HA   | 4                   | 0.22     | 0.11                | 0.22       |
| (1,3076) | 1:423:A:MET:HE1 | 1:429:A:LYS:H    | 4                   | 0.22     | 0.05                | 0.24       |
| (1,3076) | 1:423:A:MET:HE2 | 1:429:A:LYS:H    | 4                   | 0.22     | 0.05                | 0.24       |
| (1,3076) | 1:423:A:MET:HE3 | 1:429:A:LYS:H    | 4                   | 0.22     | 0.05                | 0.24       |
| (1,2524) | 1:385:A:GLY:HA2 | 1:389:A:ASP:H    | 4                   | 0.21     | 0.05                | 0.23       |
| (1,2524) | 1:385:A:GLY:HA3 | 1:389:A:ASP:H    | 4                   | 0.21     | 0.05                | 0.23       |
| (1,879)  | 1:280:A:ILE:HA  | 1:321:A:VAL:HA   | 4                   | 0.21     | 0.1                 | 0.2        |
| (1,61)   | 1:234:A:TRP:HH2 | 1:324:A:LEU:HD11 | 4                   | 0.21     | 0.06                | 0.22       |
| (1,61)   | 1:234:A:TRP:HH2 | 1:324:A:LEU:HD12 | 4                   | 0.21     | 0.06                | 0.22       |
| (1,61)   | 1:234:A:TRP:HH2 | 1:324:A:LEU:HD13 | 4                   | 0.21     | 0.06                | 0.22       |
| (1,3174) | 1:430:A:ILE:H   | 1:480:A:PHE:HA   | 4                   | 0.21     | 0.06                | 0.24       |
| (1,174)  | 1:240:A:GLU:HA  | 1:242:A:THR:H    | 4                   | 0.21     | 0.04                | 0.2        |
| (1,1349) | 1:305:A:PHE:HZ  | 1:308:A:ASP:HA   | 4                   | 0.2      | 0.06                | 0.21       |
| (1,680)  | 1:271:A:LYS:HA  | 1:273:A:GLU:H    | 4                   | 0.18     | 0.06                | 0.18       |
| (1,2013) | 1:355:A:ARG:HA  | 1:358:A:GLN:H    | 4                   | 0.18     | 0.11                | 0.14       |
| (1,218)  | 1:243:A:ASP:HB2 | 1:244:A:GLU:H    | 4                   | 0.18     | 0.05                | 0.18       |
| (1,218)  | 1:243:A:ASP:HB3 | 1:244:A:GLU:H    | 4                   | 0.18     | 0.05                | 0.18       |
| (1,3218) | 1:431:A:TYR:H   | 1:457:A:VAL:HA   | 4                   | 0.16     | 0.02                | 0.16       |
| (1,1810) | 1:339:A:LEU:HA  | 1:345:A:THR:H    | 4                   | 0.16     | 0.04                | 0.15       |
| (1,251)  | 1:246:A:TYR:HE1 | 1:263:A:TRP:HE1  | 4                   | 0.15     | 0.03                | 0.16       |
| (1,251)  | 1:246:A:TYR:HE2 | 1:263:A:TRP:HE1  | 4                   | 0.15     | 0.03                | 0.16       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,210)  | 1:243:A:ASP:H    | 1:246:A:TYR:H    | 4                   | 0.13     | 0.01                | 0.13       |
| (1,3529) | 1:449:A:LEU:HD21 | 1:494:A:ALA:H    | 3                   | 0.57     | 0.06                | 0.59       |
| (1,3529) | 1:449:A:LEU:HD22 | 1:494:A:ALA:H    | 3                   | 0.57     | 0.06                | 0.59       |
| (1,3529) | 1:449:A:LEU:HD23 | 1:494:A:ALA:H    | 3                   | 0.57     | 0.06                | 0.59       |
| (1,2048) | 1:357:A:LEU:HD11 | 1:392:A:ASN:H    | 3                   | 0.55     | 0.11                | 0.62       |
| (1,2048) | 1:357:A:LEU:HD12 | 1:392:A:ASN:H    | 3                   | 0.55     | 0.11                | 0.62       |
| (1,2048) | 1:357:A:LEU:HD13 | 1:392:A:ASN:H    | 3                   | 0.55     | 0.11                | 0.62       |
| (1,2590) | 1:390:A:PHE:HD1  | 1:471:A:TYR:HB2  | 3                   | 0.53     | 0.26                | 0.68       |
| (1,2590) | 1:390:A:PHE:HD1  | 1:471:A:TYR:HB3  | 3                   | 0.53     | 0.26                | 0.68       |
| (1,2590) | 1:390:A:PHE:HD2  | 1:471:A:TYR:HB2  | 3                   | 0.53     | 0.26                | 0.68       |
| (1,2590) | 1:390:A:PHE:HD2  | 1:471:A:TYR:HB3  | 3                   | 0.53     | 0.26                | 0.68       |
| (1,705)  | 1:273:A:GLU:HG2  | 1:328:A:SER:H    | 3                   | 0.5      | 0.05                | 0.49       |
| (1,705)  | 1:273:A:GLU:HG3  | 1:328:A:SER:H    | 3                   | 0.5      | 0.05                | 0.49       |
| (1,2695) | 1:398:A:LYS:HD2  | 1:475:A:PHE:HZ   | 3                   | 0.49     | 0.11                | 0.56       |
| (1,2695) | 1:398:A:LYS:HD3  | 1:475:A:PHE:HZ   | 3                   | 0.49     | 0.11                | 0.56       |
| (1,757)  | 1:276:A:SER:HB2  | 1:355:A:ARG:HG2  | 3                   | 0.48     | 0.12                | 0.4        |
| (1,757)  | 1:276:A:SER:HB3  | 1:355:A:ARG:HG2  | 3                   | 0.48     | 0.12                | 0.4        |
| (1,1959) | 1:352:A:LEU:HD21 | 1:356:A:VAL:H    | 3                   | 0.48     | 0.1                 | 0.51       |
| (1,1959) | 1:352:A:LEU:HD22 | 1:356:A:VAL:H    | 3                   | 0.48     | 0.1                 | 0.51       |
| (1,1959) | 1:352:A:LEU:HD23 | 1:356:A:VAL:H    | 3                   | 0.48     | 0.1                 | 0.51       |
| (1,110)  | 1:235:A:THR:HG1  | 1:267:A:ARG:HD2  | 3                   | 0.47     | 0.19                | 0.55       |
| (1,110)  | 1:235:A:THR:HG1  | 1:267:A:ARG:HD3  | 3                   | 0.47     | 0.19                | 0.55       |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD21 | 3                   | 0.47     | 0.16                | 0.5        |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD22 | 3                   | 0.47     | 0.16                | 0.5        |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD23 | 3                   | 0.47     | 0.16                | 0.5        |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD21 | 3                   | 0.47     | 0.16                | 0.5        |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD22 | 3                   | 0.47     | 0.16                | 0.5        |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD23 | 3                   | 0.47     | 0.16                | 0.5        |
| (1,3633) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HD1  | 3                   | 0.47     | 0.09                | 0.41       |
| (1,3633) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HD2  | 3                   | 0.47     | 0.09                | 0.41       |
| (1,3633) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HD1  | 3                   | 0.47     | 0.09                | 0.41       |
| (1,3633) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HD2  | 3                   | 0.47     | 0.09                | 0.41       |
| (1,3633) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HD1  | 3                   | 0.47     | 0.09                | 0.41       |
| (1,3633) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HD2  | 3                   | 0.47     | 0.09                | 0.41       |
| (1,70)   | 1:234:A:TRP:HE1  | 1:303:A:ARG:HD2  | 3                   | 0.47     | 0.03                | 0.47       |
| (1,70)   | 1:234:A:TRP:HE1  | 1:303:A:ARG:HD3  | 3                   | 0.47     | 0.03                | 0.47       |
| (1,2381) | 1:376:A:GLN:HA   | 1:412:A:GLN:HE21 | 3                   | 0.45     | 0.15                | 0.49       |
| (1,2381) | 1:376:A:GLN:HA   | 1:412:A:GLN:HE22 | 3                   | 0.45     | 0.15                | 0.49       |
| (1,3482) | 1:446:A:HIS:HA   | 1:483:A:VAL:HB   | 3                   | 0.45     | 0.15                | 0.54       |
| (1,2357) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HE2  | 3                   | 0.44     | 0.15                | 0.53       |
| (1,2357) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HE3  | 3                   | 0.44     | 0.15                | 0.53       |
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD11 | 3                   | 0.43     | 0.15                | 0.51       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD12 | 3                   | 0.43     | 0.15                | 0.51       |
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD13 | 3                   | 0.43     | 0.15                | 0.51       |
| (1,3070) | 1:423:A:MET:HA   | 1:456:A:GLU:H    | 3                   | 0.43     | 0.08                | 0.42       |
| (1,2432) | 1:380:A:LEU:HA   | 1:384:A:GLU:H    | 3                   | 0.4      | 0.12                | 0.35       |
| (1,3294) | 1:433:A:ILE:HB   | 1:441:A:ALA:HA   | 3                   | 0.4      | 0.18                | 0.52       |
| (1,3362) | 1:437:A:SER:HA   | 1:461:A:SER:HA   | 3                   | 0.4      | 0.19                | 0.49       |
| (1,21)   | 1:232:A:ALA:H    | 1:235:A:THR:H    | 3                   | 0.39     | 0.16                | 0.47       |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD11 | 3                   | 0.39     | 0.19                | 0.33       |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD12 | 3                   | 0.39     | 0.19                | 0.33       |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD13 | 3                   | 0.39     | 0.19                | 0.33       |
| (1,1964) | 1:352:A:LEU:HA   | 1:355:A:ARG:HD2  | 3                   | 0.39     | 0.15                | 0.31       |
| (1,1964) | 1:352:A:LEU:HA   | 1:355:A:ARG:HD3  | 3                   | 0.39     | 0.15                | 0.31       |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE1  | 3                   | 0.38     | 0.04                | 0.4        |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE2  | 3                   | 0.38     | 0.04                | 0.4        |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE3  | 3                   | 0.38     | 0.04                | 0.4        |
| (1,2077) | 1:359:A:MET:HG2  | 1:363:A:LEU:H    | 3                   | 0.38     | 0.12                | 0.4        |
| (1,2077) | 1:359:A:MET:HG3  | 1:363:A:LEU:H    | 3                   | 0.38     | 0.12                | 0.4        |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD11 | 3                   | 0.37     | 0.2                 | 0.36       |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD12 | 3                   | 0.37     | 0.2                 | 0.36       |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD13 | 3                   | 0.37     | 0.2                 | 0.36       |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD11 | 3                   | 0.37     | 0.2                 | 0.36       |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD12 | 3                   | 0.37     | 0.2                 | 0.36       |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD13 | 3                   | 0.37     | 0.2                 | 0.36       |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD11 | 3                   | 0.37     | 0.2                 | 0.36       |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD12 | 3                   | 0.37     | 0.2                 | 0.36       |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD13 | 3                   | 0.37     | 0.2                 | 0.36       |
| (1,1996) | 1:354:A:LYS:HA   | 1:358:A:GLN:HE21 | 3                   | 0.37     | 0.14                | 0.31       |
| (1,1996) | 1:354:A:LYS:HA   | 1:358:A:GLN:HE22 | 3                   | 0.37     | 0.14                | 0.31       |
| (1,439)  | 1:255:A:HIS:HE1  | 1:308:A:ASP:HB2  | 3                   | 0.36     | 0.18                | 0.34       |
| (1,439)  | 1:255:A:HIS:HE1  | 1:308:A:ASP:HB3  | 3                   | 0.36     | 0.18                | 0.34       |
| (1,1570) | 1:317:A:TYR:HA   | 1:320:A:PHE:HE1  | 3                   | 0.36     | 0.19                | 0.46       |
| (1,1570) | 1:317:A:TYR:HA   | 1:320:A:PHE:HE2  | 3                   | 0.36     | 0.19                | 0.46       |
| (1,346)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HE3  | 3                   | 0.36     | 0.17                | 0.25       |
| (1,2484) | 1:383:A:LYS:HB2  | 1:464:A:ILE:HD11 | 3                   | 0.35     | 0.16                | 0.37       |
| (1,2484) | 1:383:A:LYS:HB2  | 1:464:A:ILE:HD12 | 3                   | 0.35     | 0.16                | 0.37       |
| (1,2484) | 1:383:A:LYS:HB2  | 1:464:A:ILE:HD13 | 3                   | 0.35     | 0.16                | 0.37       |
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD11 | 3                   | 0.35     | 0.16                | 0.37       |
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD12 | 3                   | 0.35     | 0.16                | 0.37       |
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD13 | 3                   | 0.35     | 0.16                | 0.37       |
| (1,3301) | 1:434:A:THR:H    | 1:484:A:SER:H    | 3                   | 0.35     | 0.09                | 0.36       |
| (1,291)  | 1:248:A:GLU:HA   | 1:252:A:HIS:H    | 3                   | 0.35     | 0.14                | 0.43       |
| (1,1909) | 1:348:A:LEU:HA   | 1:352:A:LEU:H    | 3                   | 0.34     | 0.04                | 0.32       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3841) | 1:481:A:GLN:HG2  | 1:489:A:SER:HA   | 3                   | 0.34     | 0.16                | 0.31       |
| (1,3841) | 1:481:A:GLN:HG3  | 1:489:A:SER:HA   | 3                   | 0.34     | 0.16                | 0.31       |
| (1,371)  | 1:251:A:LYS:HE2  | 1:259:A:ASP:HA   | 3                   | 0.33     | 0.04                | 0.36       |
| (1,371)  | 1:251:A:LYS:HE3  | 1:259:A:ASP:HA   | 3                   | 0.33     | 0.04                | 0.36       |
| (1,549)  | 1:263:A:TRP:H    | 1:359:A:MET:HG2  | 3                   | 0.33     | 0.14                | 0.35       |
| (1,549)  | 1:263:A:TRP:H    | 1:359:A:MET:HG3  | 3                   | 0.33     | 0.14                | 0.35       |
| (1,1074) | 1:295:A:HIS:HA   | 1:309:A:ASP:HA   | 3                   | 0.33     | 0.21                | 0.19       |
| (1,1471) | 1:314:A:MET:HA   | 1:353:A:THR:H    | 3                   | 0.32     | 0.04                | 0.32       |
| (1,1432) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HG2  | 3                   | 0.32     | 0.21                | 0.23       |
| (1,1432) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HG3  | 3                   | 0.32     | 0.21                | 0.23       |
| (1,1432) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HG2  | 3                   | 0.32     | 0.21                | 0.23       |
| (1,1432) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HG3  | 3                   | 0.32     | 0.21                | 0.23       |
| (1,2348) | 1:375:A:TRP:HZ3  | 1:401:A:ARG:H    | 3                   | 0.32     | 0.09                | 0.34       |
| (1,252)  | 1:246:A:TYR:HE1  | 1:263:A:TRP:HE1  | 3                   | 0.31     | 0.06                | 0.32       |
| (1,252)  | 1:246:A:TYR:HD1  | 1:263:A:TRP:HE1  | 3                   | 0.31     | 0.06                | 0.32       |
| (1,1997) | 1:354:A:LYS:HB2  | 1:358:A:GLN:HE21 | 3                   | 0.31     | 0.15                | 0.35       |
| (1,1997) | 1:354:A:LYS:HB2  | 1:358:A:GLN:HE22 | 3                   | 0.31     | 0.15                | 0.35       |
| (1,1997) | 1:354:A:LYS:HB3  | 1:358:A:GLN:HE21 | 3                   | 0.31     | 0.15                | 0.35       |
| (1,1997) | 1:354:A:LYS:HB3  | 1:358:A:GLN:HE22 | 3                   | 0.31     | 0.15                | 0.35       |
| (1,144)  | 1:237:A:ASN:HD21 | 1:238:A:LYS:H    | 3                   | 0.31     | 0.18                | 0.3        |
| (1,144)  | 1:237:A:ASN:HD22 | 1:238:A:LYS:H    | 3                   | 0.31     | 0.18                | 0.3        |
| (1,458)  | 1:258:A:ASN:HD21 | 1:283:A:GLN:HE21 | 3                   | 0.31     | 0.06                | 0.35       |
| (1,458)  | 1:258:A:ASN:HD21 | 1:283:A:GLN:HE22 | 3                   | 0.31     | 0.06                | 0.35       |
| (1,458)  | 1:258:A:ASN:HD22 | 1:283:A:GLN:HE21 | 3                   | 0.31     | 0.06                | 0.35       |
| (1,458)  | 1:258:A:ASN:HD22 | 1:283:A:GLN:HE22 | 3                   | 0.31     | 0.06                | 0.35       |
| (1,570)  | 1:264:A:SER:HB2  | 1:359:A:MET:HA   | 3                   | 0.3      | 0.14                | 0.25       |
| (1,570)  | 1:264:A:SER:HB3  | 1:359:A:MET:HA   | 3                   | 0.3      | 0.14                | 0.25       |
| (1,3918) | 1:488:A:GLU:HA   | 1:491:A:GLU:HA   | 3                   | 0.3      | 0.14                | 0.36       |
| (1,1415) | 1:312:A:GLN:HA   | 1:349:A:ARG:HD2  | 3                   | 0.3      | 0.03                | 0.29       |
| (1,1415) | 1:312:A:GLN:HA   | 1:349:A:ARG:HD3  | 3                   | 0.3      | 0.03                | 0.29       |
| (1,3150) | 1:429:A:LYS:HD2  | 1:481:A:GLN:HB2  | 3                   | 0.3      | 0.08                | 0.25       |
| (1,3150) | 1:429:A:LYS:HD2  | 1:481:A:GLN:HB3  | 3                   | 0.3      | 0.08                | 0.25       |
| (1,3150) | 1:429:A:LYS:HD3  | 1:481:A:GLN:HB2  | 3                   | 0.3      | 0.08                | 0.25       |
| (1,3150) | 1:429:A:LYS:HD3  | 1:481:A:GLN:HB3  | 3                   | 0.3      | 0.08                | 0.25       |
| (1,3028) | 1:419:A:TYR:HA   | 1:422:A:ARG:HD2  | 3                   | 0.29     | 0.16                | 0.21       |
| (1,3028) | 1:419:A:TYR:HA   | 1:422:A:ARG:HD3  | 3                   | 0.29     | 0.16                | 0.21       |
| (1,3522) | 1:448:A:GLU:HA   | 1:451:A:ARG:H    | 3                   | 0.28     | 0.11                | 0.29       |
| (1,525)  | 1:262:A:THR:HB   | 1:370:A:LYS:HD2  | 3                   | 0.28     | 0.21                | 0.15       |
| (1,525)  | 1:262:A:THR:HB   | 1:370:A:LYS:HD3  | 3                   | 0.28     | 0.21                | 0.15       |
| (1,2794) | 1:403:A:ALA:HA   | 1:413:A:THR:H    | 3                   | 0.28     | 0.08                | 0.23       |
| (1,673)  | 1:270:A:GLY:H    | 1:273:A:GLU:HA   | 3                   | 0.28     | 0.14                | 0.19       |
| (1,1420) | 1:312:A:GLN:HE21 | 1:340:A:GLN:H    | 3                   | 0.28     | 0.12                | 0.22       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1420) | 1:312:A:GLN:HE22 | 1:340:A:GLN:H    | 3                   | 0.28     | 0.12                | 0.22       |
| (1,2631) | 1:393:A:GLN:HA   | 1:396:A:ILE:H    | 3                   | 0.28     | 0.07                | 0.25       |
| (1,3112) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HA   | 3                   | 0.27     | 0.13                | 0.24       |
| (1,3112) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HA   | 3                   | 0.27     | 0.13                | 0.24       |
| (1,3113) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HB2  | 3                   | 0.27     | 0.11                | 0.2        |
| (1,3113) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HB3  | 3                   | 0.27     | 0.11                | 0.2        |
| (1,3113) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HB2  | 3                   | 0.27     | 0.11                | 0.2        |
| (1,3113) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HB3  | 3                   | 0.27     | 0.11                | 0.2        |
| (1,3185) | 1:430:A:ILE:HD11 | 1:475:A:PHE:H    | 3                   | 0.27     | 0.1                 | 0.34       |
| (1,3185) | 1:430:A:ILE:HD12 | 1:475:A:PHE:H    | 3                   | 0.27     | 0.1                 | 0.34       |
| (1,3185) | 1:430:A:ILE:HD13 | 1:475:A:PHE:H    | 3                   | 0.27     | 0.1                 | 0.34       |
| (1,2813) | 1:404:A:SER:HB2  | 1:458:A:LEU:HA   | 3                   | 0.27     | 0.1                 | 0.24       |
| (1,2813) | 1:404:A:SER:HB3  | 1:458:A:LEU:HA   | 3                   | 0.27     | 0.1                 | 0.24       |
| (1,1578) | 1:318:A:LEU:HA   | 1:382:A:LEU:HA   | 3                   | 0.26     | 0.11                | 0.21       |
| (1,2227) | 1:368:A:ALA:HA   | 1:371:A:TYR:H    | 3                   | 0.26     | 0.09                | 0.27       |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD11 | 3                   | 0.26     | 0.09                | 0.27       |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD12 | 3                   | 0.26     | 0.09                | 0.27       |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD13 | 3                   | 0.26     | 0.09                | 0.27       |
| (1,2892) | 1:408:A:ASP:HA   | 1:442:A:LYS:HE2  | 3                   | 0.26     | 0.09                | 0.21       |
| (1,2892) | 1:408:A:ASP:HA   | 1:442:A:LYS:HE3  | 3                   | 0.26     | 0.09                | 0.21       |
| (1,353)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:HB2  | 3                   | 0.25     | 0.06                | 0.28       |
| (1,353)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:HB3  | 3                   | 0.25     | 0.06                | 0.28       |
| (1,353)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:HB2  | 3                   | 0.25     | 0.06                | 0.28       |
| (1,353)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:HB3  | 3                   | 0.25     | 0.06                | 0.28       |
| (1,648)  | 1:268:A:VAL:HB   | 1:274:A:TYR:H    | 3                   | 0.25     | 0.04                | 0.24       |
| (1,3817) | 1:475:A:PHE:HE2  | 1:476:A:ASP:HB2  | 3                   | 0.25     | 0.05                | 0.23       |
| (1,3817) | 1:475:A:PHE:HD2  | 1:476:A:ASP:HB2  | 3                   | 0.25     | 0.05                | 0.23       |
| (1,3817) | 1:475:A:PHE:HD2  | 1:476:A:ASP:HB3  | 3                   | 0.25     | 0.05                | 0.23       |
| (1,8)    | 1:231:A:GLN:HG2  | 1:236:A:ARG:HG2  | 3                   | 0.25     | 0.1                 | 0.27       |
| (1,8)    | 1:231:A:GLN:HG2  | 1:236:A:ARG:HG3  | 3                   | 0.25     | 0.1                 | 0.27       |
| (1,8)    | 1:231:A:GLN:HG3  | 1:236:A:ARG:HG2  | 3                   | 0.25     | 0.1                 | 0.27       |
| (1,8)    | 1:231:A:GLN:HG3  | 1:236:A:ARG:HG3  | 3                   | 0.25     | 0.1                 | 0.27       |
| (1,2880) | 1:407:A:THR:H    | 1:409:A:SER:H    | 3                   | 0.25     | 0.06                | 0.21       |
| (1,1353) | 1:305:A:PHE:HE1  | 1:307:A:MET:HA   | 3                   | 0.24     | 0.12                | 0.16       |
| (1,1353) | 1:305:A:PHE:HE2  | 1:307:A:MET:HA   | 3                   | 0.24     | 0.12                | 0.16       |
| (1,1621) | 1:320:A:PHE:HE1  | 1:378:A:PHE:HB2  | 3                   | 0.24     | 0.08                | 0.23       |
| (1,1621) | 1:320:A:PHE:HE1  | 1:378:A:PHE:HB3  | 3                   | 0.24     | 0.08                | 0.23       |
| (1,1621) | 1:320:A:PHE:HE2  | 1:378:A:PHE:HB2  | 3                   | 0.24     | 0.08                | 0.23       |
| (1,1621) | 1:320:A:PHE:HE2  | 1:378:A:PHE:HB3  | 3                   | 0.24     | 0.08                | 0.23       |
| (1,2351) | 1:375:A:TRP:HE3  | 1:400:A:LEU:HA   | 3                   | 0.24     | 0.04                | 0.22       |
| (1,180)  | 1:241:A:ILE:HB   | 1:246:A:TYR:HD1  | 3                   | 0.23     | 0.1                 | 0.19       |
| (1,180)  | 1:241:A:ILE:HB   | 1:246:A:TYR:HD2  | 3                   | 0.23     | 0.1                 | 0.19       |

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| Key      | Atom-1           | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (1,620)  | 1:266:A:ASN:HB2  | 1:274:A:TYR:HE1 | 3                   | 0.23     | 0.09                | 0.22       |
| (1,620)  | 1:266:A:ASN:HB2  | 1:274:A:TYR:HE2 | 3                   | 0.23     | 0.09                | 0.22       |
| (1,620)  | 1:266:A:ASN:HB3  | 1:274:A:TYR:HE1 | 3                   | 0.23     | 0.09                | 0.22       |
| (1,620)  | 1:266:A:ASN:HB3  | 1:274:A:TYR:HE2 | 3                   | 0.23     | 0.09                | 0.22       |
| (1,966)  | 1:285:A:PRO:HD2  | 1:288:A:MET:HE1 | 3                   | 0.23     | 0.11                | 0.19       |
| (1,966)  | 1:285:A:PRO:HD2  | 1:288:A:MET:HE2 | 3                   | 0.23     | 0.11                | 0.19       |
| (1,966)  | 1:285:A:PRO:HD2  | 1:288:A:MET:HE3 | 3                   | 0.23     | 0.11                | 0.19       |
| (1,966)  | 1:285:A:PRO:HD3  | 1:288:A:MET:HE1 | 3                   | 0.23     | 0.11                | 0.19       |
| (1,966)  | 1:285:A:PRO:HD3  | 1:288:A:MET:HE2 | 3                   | 0.23     | 0.11                | 0.19       |
| (1,966)  | 1:285:A:PRO:HD3  | 1:288:A:MET:HE3 | 3                   | 0.23     | 0.11                | 0.19       |
| (1,3540) | 1:449:A:LEU:HA   | 1:452:A:LYS:H   | 3                   | 0.23     | 0.11                | 0.16       |
| (1,158)  | 1:238:A:LYS:HA   | 1:241:A:ILE:HB  | 3                   | 0.23     | 0.04                | 0.21       |
| (1,347)  | 1:250:A:TYR:HE1  | 1:260:A:PRO:HA  | 3                   | 0.22     | 0.13                | 0.16       |
| (1,347)  | 1:250:A:TYR:HE2  | 1:260:A:PRO:HA  | 3                   | 0.22     | 0.13                | 0.16       |
| (1,2988) | 1:417:A:GLU:HA   | 1:420:A:VAL:H   | 3                   | 0.22     | 0.09                | 0.17       |
| (1,1676) | 1:325:A:ILE:HD11 | 1:327:A:SER:HB2 | 3                   | 0.22     | 0.09                | 0.21       |
| (1,1676) | 1:325:A:ILE:HD11 | 1:327:A:SER:HB3 | 3                   | 0.22     | 0.09                | 0.21       |
| (1,1676) | 1:325:A:ILE:HD12 | 1:327:A:SER:HB2 | 3                   | 0.22     | 0.09                | 0.21       |
| (1,1676) | 1:325:A:ILE:HD12 | 1:327:A:SER:HB3 | 3                   | 0.22     | 0.09                | 0.21       |
| (1,1676) | 1:325:A:ILE:HD13 | 1:327:A:SER:HB2 | 3                   | 0.22     | 0.09                | 0.21       |
| (1,1676) | 1:325:A:ILE:HD13 | 1:327:A:SER:HB3 | 3                   | 0.22     | 0.09                | 0.21       |
| (1,1910) | 1:348:A:LEU:HD11 | 1:352:A:LEU:H   | 3                   | 0.21     | 0.04                | 0.21       |
| (1,1910) | 1:348:A:LEU:HD12 | 1:352:A:LEU:H   | 3                   | 0.21     | 0.04                | 0.21       |
| (1,1910) | 1:348:A:LEU:HD13 | 1:352:A:LEU:H   | 3                   | 0.21     | 0.04                | 0.21       |
| (1,1945) | 1:351:A:ALA:HA   | 1:355:A:ARG:H   | 3                   | 0.21     | 0.03                | 0.22       |
| (1,2913) | 1:410:A:SER:HA   | 1:438:A:TYR:HE1 | 3                   | 0.2      | 0.03                | 0.22       |
| (1,2913) | 1:410:A:SER:HA   | 1:438:A:TYR:HE2 | 3                   | 0.2      | 0.03                | 0.22       |
| (1,1035) | 1:290:A:ASN:H    | 1:292:A:ASP:H   | 3                   | 0.2      | 0.05                | 0.23       |
| (1,1897) | 1:347:A:ASN:HA   | 1:351:A:ALA:H   | 3                   | 0.2      | 0.08                | 0.21       |
| (1,3785) | 1:474:A:GLU:HA   | 1:480:A:PHE:H   | 3                   | 0.2      | 0.1                 | 0.14       |
| (1,2911) | 1:410:A:SER:HA   | 1:438:A:TYR:HD1 | 3                   | 0.17     | 0.04                | 0.17       |
| (1,2911) | 1:410:A:SER:HA   | 1:438:A:TYR:HD2 | 3                   | 0.17     | 0.04                | 0.17       |
| (1,127)  | 1:236:A:ARG:HB2  | 1:237:A:ASN:H   | 3                   | 0.17     | 0.04                | 0.17       |
| (1,127)  | 1:236:A:ARG:HB3  | 1:237:A:ASN:H   | 3                   | 0.17     | 0.04                | 0.17       |
| (1,1320) | 1:302:A:GLN:H    | 1:328:A:SER:HA  | 3                   | 0.16     | 0.04                | 0.16       |
| (1,3519) | 1:448:A:GLU:HB2  | 1:452:A:LYS:H   | 3                   | 0.16     | 0.02                | 0.17       |
| (1,3519) | 1:448:A:GLU:HB3  | 1:452:A:LYS:H   | 3                   | 0.16     | 0.02                | 0.17       |
| (1,509)  | 1:261:A:LEU:H    | 1:282:A:SER:H   | 3                   | 0.15     | 0.02                | 0.16       |
| (1,3598) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HB2 | 3                   | 0.15     | 0.04                | 0.13       |
| (1,3598) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HB3 | 3                   | 0.15     | 0.04                | 0.13       |
| (1,1954) | 1:351:A:ALA:HA   | 1:353:A:THR:HB  | 3                   | 0.14     | 0.02                | 0.14       |
| (1,3744) | 1:469:A:MET:HA   | 1:472:A:LEU:H   | 3                   | 0.14     | 0.02                | 0.15       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG21 | 3                   | 0.13     | 0.0                 | 0.13       |
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG22 | 3                   | 0.13     | 0.0                 | 0.13       |
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG23 | 3                   | 0.13     | 0.0                 | 0.13       |
| (1,3103) | 1:424:A:LYS:HB2  | 1:425:A:GLU:HG2  | 2                   | 0.76     | 0.08                | 0.76       |
| (1,3103) | 1:424:A:LYS:HB2  | 1:425:A:GLU:HG3  | 2                   | 0.76     | 0.08                | 0.76       |
| (1,3103) | 1:424:A:LYS:HB3  | 1:425:A:GLU:HG2  | 2                   | 0.76     | 0.08                | 0.76       |
| (1,3103) | 1:424:A:LYS:HB3  | 1:425:A:GLU:HG3  | 2                   | 0.76     | 0.08                | 0.76       |
| (1,1425) | 1:312:A:GLN:HG2  | 1:339:A:LEU:HA   | 2                   | 0.65     | 0.05                | 0.65       |
| (1,1425) | 1:312:A:GLN:HG3  | 1:339:A:LEU:HA   | 2                   | 0.65     | 0.05                | 0.65       |
| (1,1638) | 1:320:A:PHE:HA   | 1:322:A:ARG:HG2  | 2                   | 0.64     | 0.06                | 0.64       |
| (1,1638) | 1:320:A:PHE:HA   | 1:322:A:ARG:HG3  | 2                   | 0.64     | 0.06                | 0.64       |
| (1,2505) | 1:384:A:GLU:HA   | 1:468:A:MET:HA   | 2                   | 0.61     | 0.03                | 0.61       |
| (1,1081) | 1:296:A:GLY:H    | 1:319:A:ARG:HA   | 2                   | 0.56     | 0.04                | 0.56       |
| (1,3480) | 1:446:A:HIS:HE1  | 1:484:A:SER:HA   | 2                   | 0.54     | 0.03                | 0.54       |
| (1,3074) | 1:423:A:MET:HE1  | 1:430:A:ILE:HA   | 2                   | 0.54     | 0.12                | 0.54       |
| (1,3074) | 1:423:A:MET:HE2  | 1:430:A:ILE:HA   | 2                   | 0.54     | 0.12                | 0.54       |
| (1,3074) | 1:423:A:MET:HE3  | 1:430:A:ILE:HA   | 2                   | 0.54     | 0.12                | 0.54       |
| (1,864)  | 1:280:A:ILE:HD11 | 1:371:A:TYR:HE1  | 2                   | 0.52     | 0.08                | 0.52       |
| (1,864)  | 1:280:A:ILE:HD11 | 1:371:A:TYR:HE2  | 2                   | 0.52     | 0.08                | 0.52       |
| (1,864)  | 1:280:A:ILE:HD12 | 1:371:A:TYR:HE1  | 2                   | 0.52     | 0.08                | 0.52       |
| (1,864)  | 1:280:A:ILE:HD12 | 1:371:A:TYR:HE2  | 2                   | 0.52     | 0.08                | 0.52       |
| (1,864)  | 1:280:A:ILE:HD13 | 1:371:A:TYR:HE1  | 2                   | 0.52     | 0.08                | 0.52       |
| (1,864)  | 1:280:A:ILE:HD13 | 1:371:A:TYR:HE2  | 2                   | 0.52     | 0.08                | 0.52       |
| (1,3126) | 1:427:A:GLN:HG2  | 1:430:A:ILE:HA   | 2                   | 0.52     | 0.15                | 0.52       |
| (1,3126) | 1:427:A:GLN:HG3  | 1:430:A:ILE:HA   | 2                   | 0.52     | 0.15                | 0.52       |
| (1,1430) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HA   | 2                   | 0.52     | 0.05                | 0.52       |
| (1,1430) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HA   | 2                   | 0.52     | 0.05                | 0.52       |
| (1,927)  | 1:283:A:GLN:HA   | 1:377:A:GLN:HA   | 2                   | 0.5      | 0.03                | 0.5        |
| (1,2483) | 1:383:A:LYS:HD2  | 1:465:A:ASP:HA   | 2                   | 0.5      | 0.18                | 0.5        |
| (1,2483) | 1:383:A:LYS:HD3  | 1:465:A:ASP:HA   | 2                   | 0.5      | 0.18                | 0.5        |
| (1,2849) | 1:405:A:THR:HG21 | 1:457:A:VAL:HB   | 2                   | 0.48     | 0.05                | 0.48       |
| (1,2849) | 1:405:A:THR:HG22 | 1:457:A:VAL:HB   | 2                   | 0.48     | 0.05                | 0.48       |
| (1,2849) | 1:405:A:THR:HG23 | 1:457:A:VAL:HB   | 2                   | 0.48     | 0.05                | 0.48       |
| (1,440)  | 1:255:A:HIS:HB2  | 1:294:A:LYS:HE2  | 2                   | 0.48     | 0.1                 | 0.48       |
| (1,440)  | 1:255:A:HIS:HB2  | 1:294:A:LYS:HE3  | 2                   | 0.48     | 0.1                 | 0.48       |
| (1,440)  | 1:255:A:HIS:HB3  | 1:294:A:LYS:HE2  | 2                   | 0.48     | 0.1                 | 0.48       |
| (1,440)  | 1:255:A:HIS:HB3  | 1:294:A:LYS:HE3  | 2                   | 0.48     | 0.1                 | 0.48       |
| (1,1391) | 1:309:A:ASP:HB2  | 1:311:A:GLU:HB2  | 2                   | 0.48     | 0.15                | 0.48       |
| (1,1391) | 1:309:A:ASP:HB2  | 1:311:A:GLU:HB3  | 2                   | 0.48     | 0.15                | 0.48       |
| (1,1391) | 1:309:A:ASP:HB3  | 1:311:A:GLU:HB2  | 2                   | 0.48     | 0.15                | 0.48       |
| (1,1391) | 1:309:A:ASP:HB3  | 1:311:A:GLU:HB3  | 2                   | 0.48     | 0.15                | 0.48       |
| (1,2444) | 1:381:A:VAL:HA   | 1:464:A:ILE:HD11 | 2                   | 0.48     | 0.12                | 0.48       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2444) | 1:381:A:VAL:HA   | 1:464:A:ILE:HD12 | 2                   | 0.48     | 0.12                | 0.48       |
| (1,2444) | 1:381:A:VAL:HA   | 1:464:A:ILE:HD13 | 2                   | 0.48     | 0.12                | 0.48       |
| (1,3072) | 1:423:A:MET:HE1  | 1:431:A:TYR:HD1  | 2                   | 0.48     | 0.13                | 0.48       |
| (1,3072) | 1:423:A:MET:HE1  | 1:431:A:TYR:HD2  | 2                   | 0.48     | 0.13                | 0.48       |
| (1,3072) | 1:423:A:MET:HE2  | 1:431:A:TYR:HD1  | 2                   | 0.48     | 0.13                | 0.48       |
| (1,3072) | 1:423:A:MET:HE2  | 1:431:A:TYR:HD2  | 2                   | 0.48     | 0.13                | 0.48       |
| (1,3072) | 1:423:A:MET:HE3  | 1:431:A:TYR:HD1  | 2                   | 0.48     | 0.13                | 0.48       |
| (1,3072) | 1:423:A:MET:HE3  | 1:431:A:TYR:HD2  | 2                   | 0.48     | 0.13                | 0.48       |
| (1,3422) | 1:441:A:ALA:H    | 1:461:A:SER:HB2  | 2                   | 0.47     | 0.02                | 0.47       |
| (1,3422) | 1:441:A:ALA:H    | 1:461:A:SER:HB3  | 2                   | 0.47     | 0.02                | 0.47       |
| (1,1166) | 1:298:A:LYS:HG2  | 1:309:A:ASP:H    | 2                   | 0.46     | 0.0                 | 0.46       |
| (1,1166) | 1:298:A:LYS:HG3  | 1:309:A:ASP:H    | 2                   | 0.46     | 0.0                 | 0.46       |
| (1,869)  | 1:280:A:ILE:HD11 | 1:360:A:LEU:HA   | 2                   | 0.45     | 0.01                | 0.45       |
| (1,869)  | 1:280:A:ILE:HD12 | 1:360:A:LEU:HA   | 2                   | 0.45     | 0.01                | 0.45       |
| (1,869)  | 1:280:A:ILE:HD13 | 1:360:A:LEU:HA   | 2                   | 0.45     | 0.01                | 0.45       |
| (1,3079) | 1:423:A:MET:HE1  | 1:428:A:GLU:HA   | 2                   | 0.45     | 0.01                | 0.45       |
| (1,3079) | 1:423:A:MET:HE2  | 1:428:A:GLU:HA   | 2                   | 0.45     | 0.01                | 0.45       |
| (1,3079) | 1:423:A:MET:HE3  | 1:428:A:GLU:HA   | 2                   | 0.45     | 0.01                | 0.45       |
| (1,3840) | 1:481:A:GLN:HG2  | 1:489:A:SER:H    | 2                   | 0.45     | 0.05                | 0.45       |
| (1,3840) | 1:481:A:GLN:HG3  | 1:489:A:SER:H    | 2                   | 0.45     | 0.05                | 0.45       |
| (1,1066) | 1:295:A:HIS:HB2  | 1:320:A:PHE:HA   | 2                   | 0.45     | 0.15                | 0.45       |
| (1,1066) | 1:295:A:HIS:HB3  | 1:320:A:PHE:HA   | 2                   | 0.45     | 0.15                | 0.45       |
| (1,1527) | 1:316:A:ASN:H    | 1:349:A:ARG:HD2  | 2                   | 0.44     | 0.24                | 0.44       |
| (1,1527) | 1:316:A:ASN:H    | 1:349:A:ARG:HD3  | 2                   | 0.44     | 0.24                | 0.44       |
| (1,103)  | 1:235:A:THR:H    | 1:303:A:ARG:HD2  | 2                   | 0.44     | 0.11                | 0.44       |
| (1,103)  | 1:235:A:THR:H    | 1:303:A:ARG:HD3  | 2                   | 0.44     | 0.11                | 0.44       |
| (1,3071) | 1:423:A:MET:HE1  | 1:431:A:TYR:H    | 2                   | 0.44     | 0.01                | 0.44       |
| (1,3071) | 1:423:A:MET:HE2  | 1:431:A:TYR:H    | 2                   | 0.44     | 0.01                | 0.44       |
| (1,3071) | 1:423:A:MET:HE3  | 1:431:A:TYR:H    | 2                   | 0.44     | 0.01                | 0.44       |
| (1,2898) | 1:409:A:SER:H    | 1:442:A:LYS:HE2  | 2                   | 0.42     | 0.18                | 0.42       |
| (1,2898) | 1:409:A:SER:H    | 1:442:A:LYS:HE3  | 2                   | 0.42     | 0.18                | 0.42       |
| (1,3636) | 1:458:A:LEU:HD11 | 1:469:A:MET:HE1  | 2                   | 0.42     | 0.3                 | 0.42       |
| (1,3636) | 1:458:A:LEU:HD11 | 1:469:A:MET:HE2  | 2                   | 0.42     | 0.3                 | 0.42       |
| (1,3636) | 1:458:A:LEU:HD11 | 1:469:A:MET:HE3  | 2                   | 0.42     | 0.3                 | 0.42       |
| (1,3636) | 1:458:A:LEU:HD12 | 1:469:A:MET:HE1  | 2                   | 0.42     | 0.3                 | 0.42       |
| (1,3636) | 1:458:A:LEU:HD12 | 1:469:A:MET:HE2  | 2                   | 0.42     | 0.3                 | 0.42       |
| (1,3636) | 1:458:A:LEU:HD12 | 1:469:A:MET:HE3  | 2                   | 0.42     | 0.3                 | 0.42       |
| (1,3636) | 1:458:A:LEU:HD13 | 1:469:A:MET:HE1  | 2                   | 0.42     | 0.3                 | 0.42       |
| (1,3636) | 1:458:A:LEU:HD13 | 1:469:A:MET:HE2  | 2                   | 0.42     | 0.3                 | 0.42       |
| (1,3636) | 1:458:A:LEU:HD13 | 1:469:A:MET:HE3  | 2                   | 0.42     | 0.3                 | 0.42       |
| (1,3927) | 1:489:A:SER:HB2  | 1:493:A:LEU:HD11 | 2                   | 0.42     | 0.14                | 0.42       |
| (1,3927) | 1:489:A:SER:HB2  | 1:493:A:LEU:HD12 | 2                   | 0.42     | 0.14                | 0.42       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3927) | 1:489:A:SER:HB2  | 1:493:A:LEU:HD13 | 2                   | 0.42     | 0.14                | 0.42       |
| (1,3927) | 1:489:A:SER:HB3  | 1:493:A:LEU:HD11 | 2                   | 0.42     | 0.14                | 0.42       |
| (1,3927) | 1:489:A:SER:HB3  | 1:493:A:LEU:HD12 | 2                   | 0.42     | 0.14                | 0.42       |
| (1,3927) | 1:489:A:SER:HB3  | 1:493:A:LEU:HD13 | 2                   | 0.42     | 0.14                | 0.42       |
| (1,3940) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HB2  | 2                   | 0.41     | 0.02                | 0.41       |
| (1,3940) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HB3  | 2                   | 0.41     | 0.02                | 0.41       |
| (1,3940) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HB2  | 2                   | 0.41     | 0.02                | 0.41       |
| (1,3940) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HB3  | 2                   | 0.41     | 0.02                | 0.41       |
| (1,3940) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HB2  | 2                   | 0.41     | 0.02                | 0.41       |
| (1,3940) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HB3  | 2                   | 0.41     | 0.02                | 0.41       |
| (1,5)    | 1:231:A:GLN:HG2  | 1:236:A:ARG:H    | 2                   | 0.4      | 0.14                | 0.4        |
| (1,5)    | 1:231:A:GLN:HG3  | 1:236:A:ARG:H    | 2                   | 0.4      | 0.14                | 0.4        |
| (1,3063) | 1:422:A:ARG:HB2  | 1:427:A:GLN:HE21 | 2                   | 0.4      | 0.1                 | 0.4        |
| (1,3063) | 1:422:A:ARG:HB2  | 1:427:A:GLN:HE22 | 2                   | 0.4      | 0.1                 | 0.4        |
| (1,3063) | 1:422:A:ARG:HB3  | 1:427:A:GLN:HE21 | 2                   | 0.4      | 0.1                 | 0.4        |
| (1,3063) | 1:422:A:ARG:HB3  | 1:427:A:GLN:HE22 | 2                   | 0.4      | 0.1                 | 0.4        |
| (1,1077) | 1:295:A:HIS:HB2  | 1:296:A:GLY:H    | 2                   | 0.4      | 0.02                | 0.4        |
| (1,1077) | 1:295:A:HIS:HB3  | 1:296:A:GLY:H    | 2                   | 0.4      | 0.02                | 0.4        |
| (1,3332) | 1:435:A:ALA:H    | 1:460:A:LEU:H    | 2                   | 0.4      | 0.19                | 0.4        |
| (1,975)  | 1:286:A:TRP:HZ3  | 1:290:A:ASN:HA   | 2                   | 0.4      | 0.01                | 0.4        |
| (1,1010) | 1:288:A:MET:HA   | 1:319:A:ARG:HD2  | 2                   | 0.4      | 0.14                | 0.4        |
| (1,1010) | 1:288:A:MET:HA   | 1:319:A:ARG:HD3  | 2                   | 0.4      | 0.14                | 0.4        |
| (1,2882) | 1:407:A:THR:HG21 | 1:409:A:SER:H    | 2                   | 0.4      | 0.04                | 0.4        |
| (1,2882) | 1:407:A:THR:HG22 | 1:409:A:SER:H    | 2                   | 0.4      | 0.04                | 0.4        |
| (1,2882) | 1:407:A:THR:HG23 | 1:409:A:SER:H    | 2                   | 0.4      | 0.04                | 0.4        |
| (1,3090) | 1:424:A:LYS:HE2  | 1:455:A:ILE:HA   | 2                   | 0.4      | 0.11                | 0.4        |
| (1,3090) | 1:424:A:LYS:HE3  | 1:455:A:ILE:HA   | 2                   | 0.4      | 0.11                | 0.4        |
| (1,3471) | 1:445:A:PRO:HA   | 1:448:A:GLU:HG2  | 2                   | 0.4      | 0.14                | 0.4        |
| (1,3471) | 1:445:A:PRO:HA   | 1:448:A:GLU:HG3  | 2                   | 0.4      | 0.14                | 0.4        |
| (1,2594) | 1:390:A:PHE:HA   | 1:393:A:GLN:HA   | 2                   | 0.39     | 0.18                | 0.39       |
| (1,2823) | 1:404:A:SER:H    | 1:414:A:VAL:H    | 2                   | 0.39     | 0.03                | 0.39       |
| (1,2839) | 1:405:A:THR:HA   | 1:459:A:LEU:HD11 | 2                   | 0.39     | 0.01                | 0.39       |
| (1,2839) | 1:405:A:THR:HA   | 1:459:A:LEU:HD12 | 2                   | 0.39     | 0.01                | 0.39       |
| (1,2839) | 1:405:A:THR:HA   | 1:459:A:LEU:HD13 | 2                   | 0.39     | 0.01                | 0.39       |
| (1,145)  | 1:238:A:LYS:HD2  | 1:267:A:ARG:H    | 2                   | 0.38     | 0.05                | 0.38       |
| (1,145)  | 1:238:A:LYS:HD3  | 1:267:A:ARG:H    | 2                   | 0.38     | 0.05                | 0.38       |
| (1,2083) | 1:359:A:MET:HA   | 1:362:A:LYS:HD2  | 2                   | 0.38     | 0.16                | 0.38       |
| (1,2083) | 1:359:A:MET:HA   | 1:362:A:LYS:HD3  | 2                   | 0.38     | 0.16                | 0.38       |
| (1,2210) | 1:367:A:ASP:H    | 1:371:A:TYR:H    | 2                   | 0.38     | 0.19                | 0.38       |
| (1,2697) | 1:398:A:LYS:HA   | 1:475:A:PHE:HE1  | 2                   | 0.38     | 0.26                | 0.38       |
| (1,3199) | 1:431:A:TYR:HE1  | 1:489:A:SER:HA   | 2                   | 0.38     | 0.12                | 0.38       |
| (1,3199) | 1:431:A:TYR:HE2  | 1:489:A:SER:HA   | 2                   | 0.38     | 0.12                | 0.38       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3601) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HD21 | 2                   | 0.38     | 0.13                | 0.38       |
| (1,3601) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HD22 | 2                   | 0.38     | 0.13                | 0.38       |
| (1,3601) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HD23 | 2                   | 0.38     | 0.13                | 0.38       |
| (1,3601) | 1:453:A:LYS:HG3  | 1:493:A:LEU:HD21 | 2                   | 0.38     | 0.13                | 0.38       |
| (1,3601) | 1:453:A:LYS:HG3  | 1:493:A:LEU:HD22 | 2                   | 0.38     | 0.13                | 0.38       |
| (1,3601) | 1:453:A:LYS:HG3  | 1:493:A:LEU:HD23 | 2                   | 0.38     | 0.13                | 0.38       |
| (1,1298) | 1:301:A:VAL:H    | 1:306:A:ILE:HB   | 2                   | 0.38     | 0.09                | 0.38       |
| (1,2429) | 1:380:A:LEU:HA   | 1:462:A:ASP:HB2  | 2                   | 0.38     | 0.03                | 0.38       |
| (1,2429) | 1:380:A:LEU:HA   | 1:462:A:ASP:HB3  | 2                   | 0.38     | 0.03                | 0.38       |
| (1,2830) | 1:404:A:SER:H    | 1:407:A:THR:HB   | 2                   | 0.38     | 0.2                 | 0.38       |
| (1,3083) | 1:423:A:MET:HB2  | 1:427:A:GLN:HE21 | 2                   | 0.38     | 0.12                | 0.38       |
| (1,3083) | 1:423:A:MET:HB2  | 1:427:A:GLN:HE22 | 2                   | 0.38     | 0.12                | 0.38       |
| (1,3083) | 1:423:A:MET:HB3  | 1:427:A:GLN:HE21 | 2                   | 0.38     | 0.12                | 0.38       |
| (1,3083) | 1:423:A:MET:HB3  | 1:427:A:GLN:HE22 | 2                   | 0.38     | 0.12                | 0.38       |
| (1,1118) | 1:297:A:LEU:HA   | 1:322:A:ARG:HD2  | 2                   | 0.37     | 0.12                | 0.37       |
| (1,1118) | 1:297:A:LEU:HA   | 1:322:A:ARG:HD3  | 2                   | 0.37     | 0.12                | 0.37       |
| (1,1543) | 1:317:A:TYR:HD1  | 1:389:A:ASP:HB2  | 2                   | 0.37     | 0.15                | 0.37       |
| (1,1543) | 1:317:A:TYR:HD1  | 1:389:A:ASP:HB3  | 2                   | 0.37     | 0.15                | 0.37       |
| (1,1543) | 1:317:A:TYR:HD2  | 1:389:A:ASP:HB2  | 2                   | 0.37     | 0.15                | 0.37       |
| (1,1543) | 1:317:A:TYR:HD2  | 1:389:A:ASP:HB3  | 2                   | 0.37     | 0.15                | 0.37       |
| (1,3039) | 1:420:A:VAL:HB   | 1:475:A:PHE:HZ   | 2                   | 0.36     | 0.04                | 0.36       |
| (1,456)  | 1:258:A:ASN:HB2  | 1:283:A:GLN:HB2  | 2                   | 0.36     | 0.21                | 0.36       |
| (1,456)  | 1:258:A:ASN:HB2  | 1:283:A:GLN:HB3  | 2                   | 0.36     | 0.21                | 0.36       |
| (1,456)  | 1:258:A:ASN:HB3  | 1:283:A:GLN:HB2  | 2                   | 0.36     | 0.21                | 0.36       |
| (1,456)  | 1:258:A:ASN:HB3  | 1:283:A:GLN:HB3  | 2                   | 0.36     | 0.21                | 0.36       |
| (1,1847) | 1:343:A:THR:HG21 | 1:347:A:ASN:HD21 | 2                   | 0.36     | 0.18                | 0.36       |
| (1,1847) | 1:343:A:THR:HG21 | 1:347:A:ASN:HD22 | 2                   | 0.36     | 0.18                | 0.36       |
| (1,1847) | 1:343:A:THR:HG22 | 1:347:A:ASN:HD21 | 2                   | 0.36     | 0.18                | 0.36       |
| (1,1847) | 1:343:A:THR:HG22 | 1:347:A:ASN:HD22 | 2                   | 0.36     | 0.18                | 0.36       |
| (1,1847) | 1:343:A:THR:HG23 | 1:347:A:ASN:HD21 | 2                   | 0.36     | 0.18                | 0.36       |
| (1,1847) | 1:343:A:THR:HG23 | 1:347:A:ASN:HD22 | 2                   | 0.36     | 0.18                | 0.36       |
| (1,1884) | 1:346:A:ARG:HA   | 1:350:A:ASN:H    | 2                   | 0.35     | 0.12                | 0.35       |
| (1,3096) | 1:424:A:LYS:H    | 1:427:A:GLN:HB2  | 2                   | 0.35     | 0.1                 | 0.35       |
| (1,3096) | 1:424:A:LYS:H    | 1:427:A:GLN:HB3  | 2                   | 0.35     | 0.1                 | 0.35       |
| (1,1973) | 1:353:A:THR:HG21 | 1:392:A:ASN:HB2  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,1973) | 1:353:A:THR:HG21 | 1:392:A:ASN:HB3  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,1973) | 1:353:A:THR:HG22 | 1:392:A:ASN:HB2  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,1973) | 1:353:A:THR:HG22 | 1:392:A:ASN:HB3  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,1973) | 1:353:A:THR:HG23 | 1:392:A:ASN:HB2  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,1973) | 1:353:A:THR:HG23 | 1:392:A:ASN:HB3  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,2859) | 1:405:A:THR:HG21 | 1:442:A:LYS:HA   | 2                   | 0.34     | 0.05                | 0.34       |
| (1,2859) | 1:405:A:THR:HG22 | 1:442:A:LYS:HA   | 2                   | 0.34     | 0.05                | 0.34       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2859) | 1:405:A:THR:HG23 | 1:442:A:LYS:HA   | 2                   | 0.34     | 0.05                | 0.34       |
| (1,3091) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HA   | 2                   | 0.34     | 0.05                | 0.34       |
| (1,3091) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HA   | 2                   | 0.34     | 0.05                | 0.34       |
| (1,3254) | 1:433:A:ILE:HA   | 1:484:A:SER:H    | 2                   | 0.34     | 0.05                | 0.34       |
| (1,1003) | 1:288:A:MET:HG2  | 1:381:A:VAL:HG21 | 2                   | 0.34     | 0.06                | 0.34       |
| (1,1003) | 1:288:A:MET:HG2  | 1:381:A:VAL:HG22 | 2                   | 0.34     | 0.06                | 0.34       |
| (1,1003) | 1:288:A:MET:HG2  | 1:381:A:VAL:HG23 | 2                   | 0.34     | 0.06                | 0.34       |
| (1,1003) | 1:288:A:MET:HG3  | 1:381:A:VAL:HG21 | 2                   | 0.34     | 0.06                | 0.34       |
| (1,1003) | 1:288:A:MET:HG3  | 1:381:A:VAL:HG22 | 2                   | 0.34     | 0.06                | 0.34       |
| (1,1003) | 1:288:A:MET:HG3  | 1:381:A:VAL:HG23 | 2                   | 0.34     | 0.06                | 0.34       |
| (1,1008) | 1:288:A:MET:HE1  | 1:320:A:PHE:HB2  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,1008) | 1:288:A:MET:HE1  | 1:320:A:PHE:HB3  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,1008) | 1:288:A:MET:HE2  | 1:320:A:PHE:HB2  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,1008) | 1:288:A:MET:HE2  | 1:320:A:PHE:HB3  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,1008) | 1:288:A:MET:HE3  | 1:320:A:PHE:HB2  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,1008) | 1:288:A:MET:HE3  | 1:320:A:PHE:HB3  | 2                   | 0.34     | 0.05                | 0.34       |
| (1,2737) | 1:401:A:ARG:HD2  | 1:414:A:VAL:HA   | 2                   | 0.34     | 0.14                | 0.34       |
| (1,2737) | 1:401:A:ARG:HD3  | 1:414:A:VAL:HA   | 2                   | 0.34     | 0.14                | 0.34       |
| (1,3000) | 1:418:A:ASP:HA   | 1:421:A:SER:HB2  | 2                   | 0.34     | 0.02                | 0.34       |
| (1,3000) | 1:418:A:ASP:HA   | 1:421:A:SER:HB3  | 2                   | 0.34     | 0.02                | 0.34       |
| (1,961)  | 1:285:A:PRO:HG2  | 1:294:A:LYS:HB2  | 2                   | 0.33     | 0.2                 | 0.33       |
| (1,961)  | 1:285:A:PRO:HG2  | 1:294:A:LYS:HB3  | 2                   | 0.33     | 0.2                 | 0.33       |
| (1,961)  | 1:285:A:PRO:HG3  | 1:294:A:LYS:HB2  | 2                   | 0.33     | 0.2                 | 0.33       |
| (1,961)  | 1:285:A:PRO:HG3  | 1:294:A:LYS:HB3  | 2                   | 0.33     | 0.2                 | 0.33       |
| (1,3477) | 1:446:A:HIS:HD2  | 1:490:A:LEU:HD11 | 2                   | 0.33     | 0.17                | 0.33       |
| (1,3477) | 1:446:A:HIS:HD2  | 1:490:A:LEU:HD12 | 2                   | 0.33     | 0.17                | 0.33       |
| (1,3477) | 1:446:A:HIS:HD2  | 1:490:A:LEU:HD13 | 2                   | 0.33     | 0.17                | 0.33       |
| (1,3530) | 1:449:A:LEU:HD11 | 1:494:A:ALA:HA   | 2                   | 0.33     | 0.18                | 0.33       |
| (1,3530) | 1:449:A:LEU:HD12 | 1:494:A:ALA:HA   | 2                   | 0.33     | 0.18                | 0.33       |
| (1,3530) | 1:449:A:LEU:HD13 | 1:494:A:ALA:HA   | 2                   | 0.33     | 0.18                | 0.33       |
| (1,3530) | 1:449:A:LEU:HD21 | 1:494:A:ALA:HA   | 2                   | 0.33     | 0.18                | 0.33       |
| (1,3530) | 1:449:A:LEU:HD22 | 1:494:A:ALA:HA   | 2                   | 0.33     | 0.18                | 0.33       |
| (1,3530) | 1:449:A:LEU:HD23 | 1:494:A:ALA:HA   | 2                   | 0.33     | 0.18                | 0.33       |
| (1,2336) | 1:375:A:TRP:HZ2  | 1:468:A:MET:HE1  | 2                   | 0.33     | 0.03                | 0.33       |
| (1,2336) | 1:375:A:TRP:HZ2  | 1:468:A:MET:HE2  | 2                   | 0.33     | 0.03                | 0.33       |
| (1,2336) | 1:375:A:TRP:HZ2  | 1:468:A:MET:HE3  | 2                   | 0.33     | 0.03                | 0.33       |
| (1,3389) | 1:438:A:TYR:HE1  | 1:442:A:LYS:HD2  | 2                   | 0.32     | 0.01                | 0.32       |
| (1,3389) | 1:438:A:TYR:HE1  | 1:442:A:LYS:HD3  | 2                   | 0.32     | 0.01                | 0.32       |
| (1,3389) | 1:438:A:TYR:HE2  | 1:442:A:LYS:HD2  | 2                   | 0.32     | 0.01                | 0.32       |
| (1,3389) | 1:438:A:TYR:HE2  | 1:442:A:LYS:HD3  | 2                   | 0.32     | 0.01                | 0.32       |
| (1,1493) | 1:314:A:MET:HB2  | 1:316:A:ASN:HA   | 2                   | 0.32     | 0.04                | 0.32       |
| (1,1493) | 1:314:A:MET:HB3  | 1:316:A:ASN:HA   | 2                   | 0.32     | 0.04                | 0.32       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,693)  | 1:272:A:GLN:HB2  | 1:274:A:TYR:H    | 2                   | 0.32     | 0.0                 | 0.32       |
| (1,693)  | 1:272:A:GLN:HB3  | 1:274:A:TYR:H    | 2                   | 0.32     | 0.0                 | 0.32       |
| (1,2620) | 1:393:A:GLN:HE21 | 1:474:A:GLU:HB2  | 2                   | 0.32     | 0.03                | 0.32       |
| (1,2620) | 1:393:A:GLN:HE21 | 1:474:A:GLU:HB3  | 2                   | 0.32     | 0.03                | 0.32       |
| (1,2620) | 1:393:A:GLN:HE22 | 1:474:A:GLU:HB2  | 2                   | 0.32     | 0.03                | 0.32       |
| (1,2620) | 1:393:A:GLN:HE22 | 1:474:A:GLU:HB3  | 2                   | 0.32     | 0.03                | 0.32       |
| (1,473)  | 1:260:A:PRO:HA   | 1:281:A:PRO:HA   | 2                   | 0.32     | 0.12                | 0.32       |
| (1,963)  | 1:285:A:PRO:HG2  | 1:288:A:MET:H    | 2                   | 0.32     | 0.12                | 0.32       |
| (1,963)  | 1:285:A:PRO:HG3  | 1:288:A:MET:H    | 2                   | 0.32     | 0.12                | 0.32       |
| (1,1871) | 1:345:A:THR:HA   | 1:349:A:ARG:H    | 2                   | 0.32     | 0.12                | 0.32       |
| (1,2642) | 1:394:A:GLU:HA   | 1:398:A:LYS:H    | 2                   | 0.32     | 0.08                | 0.32       |
| (1,2696) | 1:398:A:LYS:HA   | 1:475:A:PHE:HE1  | 2                   | 0.32     | 0.16                | 0.32       |
| (1,2696) | 1:398:A:LYS:HA   | 1:475:A:PHE:HE2  | 2                   | 0.32     | 0.16                | 0.32       |
| (1,3095) | 1:424:A:LYS:H    | 1:427:A:GLN:H    | 2                   | 0.32     | 0.08                | 0.32       |
| (1,1373) | 1:307:A:MET:HE1  | 1:335:A:SER:H    | 2                   | 0.31     | 0.12                | 0.31       |
| (1,1373) | 1:307:A:MET:HE2  | 1:335:A:SER:H    | 2                   | 0.31     | 0.12                | 0.31       |
| (1,1373) | 1:307:A:MET:HE3  | 1:335:A:SER:H    | 2                   | 0.31     | 0.12                | 0.31       |
| (1,1701) | 1:329:A:ASP:HB2  | 1:344:A:VAL:HG21 | 2                   | 0.3      | 0.08                | 0.3        |
| (1,1701) | 1:329:A:ASP:HB2  | 1:344:A:VAL:HG22 | 2                   | 0.3      | 0.08                | 0.3        |
| (1,1701) | 1:329:A:ASP:HB2  | 1:344:A:VAL:HG23 | 2                   | 0.3      | 0.08                | 0.3        |
| (1,1701) | 1:329:A:ASP:HB3  | 1:344:A:VAL:HG21 | 2                   | 0.3      | 0.08                | 0.3        |
| (1,1701) | 1:329:A:ASP:HB3  | 1:344:A:VAL:HG22 | 2                   | 0.3      | 0.08                | 0.3        |
| (1,1701) | 1:329:A:ASP:HB3  | 1:344:A:VAL:HG23 | 2                   | 0.3      | 0.08                | 0.3        |
| (1,3523) | 1:448:A:GLU:HA   | 1:451:A:ARG:HB2  | 2                   | 0.3      | 0.02                | 0.3        |
| (1,3523) | 1:448:A:GLU:HA   | 1:451:A:ARG:HB3  | 2                   | 0.3      | 0.02                | 0.3        |
| (1,970)  | 1:285:A:PRO:HG2  | 1:287:A:ASP:H    | 2                   | 0.3      | 0.03                | 0.3        |
| (1,970)  | 1:285:A:PRO:HG3  | 1:287:A:ASP:H    | 2                   | 0.3      | 0.03                | 0.3        |
| (1,1445) | 1:313:A:PHE:HA   | 1:349:A:ARG:H    | 2                   | 0.3      | 0.07                | 0.3        |
| (1,1506) | 1:315:A:PRO:HA   | 1:349:A:ARG:HD2  | 2                   | 0.3      | 0.16                | 0.3        |
| (1,1506) | 1:315:A:PRO:HA   | 1:349:A:ARG:HD3  | 2                   | 0.3      | 0.16                | 0.3        |
| (1,1816) | 1:339:A:LEU:HA   | 1:342:A:SER:H    | 2                   | 0.3      | 0.12                | 0.3        |
| (1,2797) | 1:403:A:ALA:HA   | 1:412:A:GLN:HA   | 2                   | 0.29     | 0.02                | 0.29       |
| (1,2910) | 1:410:A:SER:HA   | 1:459:A:LEU:HD11 | 2                   | 0.29     | 0.15                | 0.29       |
| (1,2910) | 1:410:A:SER:HA   | 1:459:A:LEU:HD12 | 2                   | 0.29     | 0.15                | 0.29       |
| (1,2910) | 1:410:A:SER:HA   | 1:459:A:LEU:HD13 | 2                   | 0.29     | 0.15                | 0.29       |
| (1,3605) | 1:453:A:LYS:HG2  | 1:455:A:ILE:HD11 | 2                   | 0.29     | 0.07                | 0.29       |
| (1,3605) | 1:453:A:LYS:HG2  | 1:455:A:ILE:HD12 | 2                   | 0.29     | 0.07                | 0.29       |
| (1,3605) | 1:453:A:LYS:HG2  | 1:455:A:ILE:HD13 | 2                   | 0.29     | 0.07                | 0.29       |
| (1,3605) | 1:453:A:LYS:HG3  | 1:455:A:ILE:HD11 | 2                   | 0.29     | 0.07                | 0.29       |
| (1,3605) | 1:453:A:LYS:HG3  | 1:455:A:ILE:HD12 | 2                   | 0.29     | 0.07                | 0.29       |
| (1,3605) | 1:453:A:LYS:HG3  | 1:455:A:ILE:HD13 | 2                   | 0.29     | 0.07                | 0.29       |
| (1,408)  | 1:253:A:ILE:HB   | 1:298:A:LYS:H    | 2                   | 0.29     | 0.06                | 0.29       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2838) | 1:405:A:THR:H    | 1:459:A:LEU:H    | 2                   | 0.29     | 0.0                 | 0.29       |
| (1,3700) | 1:465:A:ASP:HA   | 1:468:A:MET:H    | 2                   | 0.29     | 0.08                | 0.29       |
| (1,3942) | 1:490:A:LEU:H    | 1:492:A:LYS:H    | 2                   | 0.29     | 0.18                | 0.29       |
| (1,222)  | 1:244:A:GLU:H    | 1:247:A:LYS:H    | 2                   | 0.28     | 0.18                | 0.28       |
| (1,2810) | 1:404:A:SER:HA   | 1:459:A:LEU:HD11 | 2                   | 0.28     | 0.08                | 0.28       |
| (1,2810) | 1:404:A:SER:HA   | 1:459:A:LEU:HD12 | 2                   | 0.28     | 0.08                | 0.28       |
| (1,2810) | 1:404:A:SER:HA   | 1:459:A:LEU:HD13 | 2                   | 0.28     | 0.08                | 0.28       |
| (1,3099) | 1:424:A:LYS:HG2  | 1:427:A:GLN:HE21 | 2                   | 0.28     | 0.08                | 0.28       |
| (1,3099) | 1:424:A:LYS:HG2  | 1:427:A:GLN:HE22 | 2                   | 0.28     | 0.08                | 0.28       |
| (1,3099) | 1:424:A:LYS:HG3  | 1:427:A:GLN:HE21 | 2                   | 0.28     | 0.08                | 0.28       |
| (1,3099) | 1:424:A:LYS:HG3  | 1:427:A:GLN:HE22 | 2                   | 0.28     | 0.08                | 0.28       |
| (1,3788) | 1:474:A:GLU:HA   | 1:479:A:PRO:HA   | 2                   | 0.28     | 0.03                | 0.28       |
| (1,2314) | 1:374:A:PHE:HZ   | 1:399:A:LEU:HD11 | 2                   | 0.28     | 0.13                | 0.28       |
| (1,2314) | 1:374:A:PHE:HZ   | 1:399:A:LEU:HD12 | 2                   | 0.28     | 0.13                | 0.28       |
| (1,2314) | 1:374:A:PHE:HZ   | 1:399:A:LEU:HD13 | 2                   | 0.28     | 0.13                | 0.28       |
| (1,1958) | 1:352:A:LEU:HA   | 1:356:A:VAL:H    | 2                   | 0.28     | 0.12                | 0.28       |
| (1,2825) | 1:404:A:SER:H    | 1:414:A:VAL:HG11 | 2                   | 0.28     | 0.08                | 0.28       |
| (1,2825) | 1:404:A:SER:H    | 1:414:A:VAL:HG12 | 2                   | 0.28     | 0.08                | 0.28       |
| (1,2825) | 1:404:A:SER:H    | 1:414:A:VAL:HG13 | 2                   | 0.28     | 0.08                | 0.28       |
| (1,1419) | 1:312:A:GLN:HB2  | 1:345:A:THR:HG21 | 2                   | 0.27     | 0.11                | 0.27       |
| (1,1419) | 1:312:A:GLN:HB2  | 1:345:A:THR:HG22 | 2                   | 0.27     | 0.11                | 0.27       |
| (1,1419) | 1:312:A:GLN:HB2  | 1:345:A:THR:HG23 | 2                   | 0.27     | 0.11                | 0.27       |
| (1,1419) | 1:312:A:GLN:HB3  | 1:345:A:THR:HG21 | 2                   | 0.27     | 0.11                | 0.27       |
| (1,1419) | 1:312:A:GLN:HB3  | 1:345:A:THR:HG22 | 2                   | 0.27     | 0.11                | 0.27       |
| (1,1419) | 1:312:A:GLN:HB3  | 1:345:A:THR:HG23 | 2                   | 0.27     | 0.11                | 0.27       |
| (1,423)  | 1:254:A:ALA:HA   | 1:323:A:GLY:H    | 2                   | 0.26     | 0.01                | 0.26       |
| (1,685)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:HB1  | 2                   | 0.26     | 0.12                | 0.26       |
| (1,685)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:HB2  | 2                   | 0.26     | 0.12                | 0.26       |
| (1,685)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:HB3  | 2                   | 0.26     | 0.12                | 0.26       |
| (1,685)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:HB1  | 2                   | 0.26     | 0.12                | 0.26       |
| (1,685)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:HB2  | 2                   | 0.26     | 0.12                | 0.26       |
| (1,685)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:HB3  | 2                   | 0.26     | 0.12                | 0.26       |
| (1,2132) | 1:361:A:GLU:HA   | 1:371:A:TYR:HE1  | 2                   | 0.26     | 0.06                | 0.26       |
| (1,2862) | 1:405:A:THR:HG21 | 1:408:A:ASP:HA   | 2                   | 0.26     | 0.08                | 0.26       |
| (1,2862) | 1:405:A:THR:HG22 | 1:408:A:ASP:HA   | 2                   | 0.26     | 0.08                | 0.26       |
| (1,2862) | 1:405:A:THR:HG23 | 1:408:A:ASP:HA   | 2                   | 0.26     | 0.08                | 0.26       |
| (1,3351) | 1:436:A:ASP:HA   | 1:463:A:ARG:HA   | 2                   | 0.26     | 0.04                | 0.26       |
| (1,3917) | 1:488:A:GLU:HA   | 1:491:A:GLU:H    | 2                   | 0.26     | 0.16                | 0.26       |
| (1,690)  | 1:272:A:GLN:HG2  | 1:344:A:VAL:HG11 | 2                   | 0.26     | 0.13                | 0.26       |
| (1,690)  | 1:272:A:GLN:HG2  | 1:344:A:VAL:HG12 | 2                   | 0.26     | 0.13                | 0.26       |
| (1,690)  | 1:272:A:GLN:HG2  | 1:344:A:VAL:HG13 | 2                   | 0.26     | 0.13                | 0.26       |
| (1,690)  | 1:272:A:GLN:HG3  | 1:344:A:VAL:HG11 | 2                   | 0.26     | 0.13                | 0.26       |

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| Key      | Atom-1          | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (1,690)  | 1:272:A:GLN:HG3 | 1:344:A:VAL:HG12 | 2                   | 0.26     | 0.13                | 0.26       |
| (1,690)  | 1:272:A:GLN:HG3 | 1:344:A:VAL:HG13 | 2                   | 0.26     | 0.13                | 0.26       |
| (1,1154) | 1:298:A:LYS:HB2 | 1:324:A:LEU:HB2  | 2                   | 0.26     | 0.02                | 0.26       |
| (1,1154) | 1:298:A:LYS:HB2 | 1:324:A:LEU:HB3  | 2                   | 0.26     | 0.02                | 0.26       |
| (1,1154) | 1:298:A:LYS:HB3 | 1:324:A:LEU:HB2  | 2                   | 0.26     | 0.02                | 0.26       |
| (1,1154) | 1:298:A:LYS:HB3 | 1:324:A:LEU:HB3  | 2                   | 0.26     | 0.02                | 0.26       |
| (1,3478) | 1:446:A:HIS:HD2 | 1:486:A:VAL:HG21 | 2                   | 0.26     | 0.1                 | 0.26       |
| (1,3478) | 1:446:A:HIS:HD2 | 1:486:A:VAL:HG22 | 2                   | 0.26     | 0.1                 | 0.26       |
| (1,3478) | 1:446:A:HIS:HD2 | 1:486:A:VAL:HG23 | 2                   | 0.26     | 0.1                 | 0.26       |
| (1,130)  | 1:237:A:ASN:HA  | 1:265:A:HIS:HE1  | 2                   | 0.25     | 0.01                | 0.25       |
| (1,2365) | 1:375:A:TRP:HA  | 1:379:A:GLY:H    | 2                   | 0.25     | 0.06                | 0.25       |
| (1,707)  | 1:273:A:GLU:H   | 1:327:A:SER:HA   | 2                   | 0.24     | 0.08                | 0.24       |
| (1,1215) | 1:299:A:LEU:H   | 1:307:A:MET:H    | 2                   | 0.24     | 0.12                | 0.24       |
| (1,2360) | 1:375:A:TRP:HZ2 | 1:383:A:LYS:HG2  | 2                   | 0.24     | 0.15                | 0.24       |
| (1,2360) | 1:375:A:TRP:HZ2 | 1:383:A:LYS:HG3  | 2                   | 0.24     | 0.15                | 0.24       |
| (1,3915) | 1:488:A:GLU:HA  | 1:492:A:LYS:H    | 2                   | 0.24     | 0.05                | 0.24       |
| (1,958)  | 1:285:A:PRO:HG2 | 1:320:A:PHE:HA   | 2                   | 0.24     | 0.04                | 0.24       |
| (1,958)  | 1:285:A:PRO:HG3 | 1:320:A:PHE:HA   | 2                   | 0.24     | 0.04                | 0.24       |
| (1,2323) | 1:374:A:PHE:HZ  | 1:378:A:PHE:HB2  | 2                   | 0.24     | 0.04                | 0.24       |
| (1,2323) | 1:374:A:PHE:HZ  | 1:378:A:PHE:HB3  | 2                   | 0.24     | 0.04                | 0.24       |
| (1,1132) | 1:297:A:LEU:H   | 1:310:A:ALA:H    | 2                   | 0.24     | 0.07                | 0.24       |
| (1,2811) | 1:404:A:SER:HB2 | 1:458:A:LEU:H    | 2                   | 0.24     | 0.11                | 0.24       |
| (1,2811) | 1:404:A:SER:HB3 | 1:458:A:LEU:H    | 2                   | 0.24     | 0.11                | 0.24       |
| (1,3078) | 1:423:A:MET:HE1 | 1:428:A:GLU:H    | 2                   | 0.24     | 0.11                | 0.24       |
| (1,3078) | 1:423:A:MET:HE2 | 1:428:A:GLU:H    | 2                   | 0.24     | 0.11                | 0.24       |
| (1,3078) | 1:423:A:MET:HE3 | 1:428:A:GLU:H    | 2                   | 0.24     | 0.11                | 0.24       |
| (1,914)  | 1:282:A:SER:H   | 1:378:A:PHE:HZ   | 2                   | 0.24     | 0.0                 | 0.24       |
| (1,2893) | 1:408:A:ASP:HB2 | 1:442:A:LYS:HE2  | 2                   | 0.24     | 0.13                | 0.24       |
| (1,2893) | 1:408:A:ASP:HB2 | 1:442:A:LYS:HE3  | 2                   | 0.24     | 0.13                | 0.24       |
| (1,2893) | 1:408:A:ASP:HB3 | 1:442:A:LYS:HE2  | 2                   | 0.24     | 0.13                | 0.24       |
| (1,2893) | 1:408:A:ASP:HB3 | 1:442:A:LYS:HE3  | 2                   | 0.24     | 0.13                | 0.24       |
| (1,112)  | 1:235:A:THR:HA  | 1:265:A:HIS:HE1  | 2                   | 0.23     | 0.11                | 0.23       |
| (1,2793) | 1:403:A:ALA:H   | 1:413:A:THR:H    | 2                   | 0.23     | 0.05                | 0.23       |
| (1,23)   | 1:232:A:ALA:HB1 | 1:235:A:THR:HB   | 2                   | 0.23     | 0.08                | 0.23       |
| (1,23)   | 1:232:A:ALA:HB2 | 1:235:A:THR:HB   | 2                   | 0.23     | 0.08                | 0.23       |
| (1,23)   | 1:232:A:ALA:HB3 | 1:235:A:THR:HB   | 2                   | 0.23     | 0.08                | 0.23       |
| (1,3365) | 1:437:A:SER:H   | 1:441:A:ALA:H    | 2                   | 0.23     | 0.07                | 0.23       |
| (1,2593) | 1:390:A:PHE:HA  | 1:393:A:GLN:H    | 2                   | 0.22     | 0.08                | 0.22       |
| (1,675)  | 1:270:A:GLY:H   | 1:272:A:GLN:H    | 2                   | 0.22     | 0.08                | 0.22       |
| (1,2781) | 1:403:A:ALA:H   | 1:459:A:LEU:H    | 2                   | 0.22     | 0.02                | 0.22       |
| (1,2640) | 1:394:A:GLU:HA  | 1:475:A:PHE:HA   | 2                   | 0.22     | 0.06                | 0.22       |
| (1,723)  | 1:274:A:TYR:H   | 1:328:A:SER:H    | 2                   | 0.22     | 0.08                | 0.22       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3255) | 1:433:A:ILE:HB   | 1:484:A:SER:H    | 2                   | 0.22     | 0.01                | 0.22       |
| (1,701)  | 1:273:A:GLU:H    | 1:329:A:ASP:HA   | 2                   | 0.21     | 0.05                | 0.21       |
| (1,3570) | 1:450:A:LEU:HA   | 1:453:A:LYS:H    | 2                   | 0.21     | 0.01                | 0.21       |
| (1,84)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HB   | 2                   | 0.21     | 0.03                | 0.21       |
| (1,1130) | 1:297:A:LEU:H    | 1:311:A:GLU:HA   | 2                   | 0.21     | 0.09                | 0.21       |
| (1,2358) | 1:375:A:TRP:HZ2  | 1:383:A:LYS:HE2  | 2                   | 0.2      | 0.1                 | 0.2        |
| (1,2358) | 1:375:A:TRP:HZ2  | 1:383:A:LYS:HE3  | 2                   | 0.2      | 0.1                 | 0.2        |
| (1,2808) | 1:404:A:SER:HB2  | 1:459:A:LEU:H    | 2                   | 0.2      | 0.05                | 0.2        |
| (1,2808) | 1:404:A:SER:HB3  | 1:459:A:LEU:H    | 2                   | 0.2      | 0.05                | 0.2        |
| (1,2945) | 1:415:A:SER:H    | 1:419:A:TYR:H    | 2                   | 0.2      | 0.1                 | 0.2        |
| (1,653)  | 1:268:A:VAL:HB   | 1:273:A:GLU:HA   | 2                   | 0.2      | 0.09                | 0.2        |
| (1,877)  | 1:280:A:ILE:HA   | 1:322:A:ARG:H    | 2                   | 0.2      | 0.02                | 0.2        |
| (1,1883) | 1:345:A:THR:HB   | 1:346:A:ARG:HB2  | 2                   | 0.2      | 0.01                | 0.2        |
| (1,1883) | 1:345:A:THR:HB   | 1:346:A:ARG:HB3  | 2                   | 0.2      | 0.01                | 0.2        |
| (1,2199) | 1:365:A:LYS:HA   | 1:368:A:ALA:H    | 2                   | 0.2      | 0.02                | 0.2        |
| (1,2448) | 1:381:A:VAL:HA   | 1:384:A:GLU:H    | 2                   | 0.19     | 0.04                | 0.19       |
| (1,3364) | 1:437:A:SER:HA   | 1:461:A:SER:HB2  | 2                   | 0.19     | 0.04                | 0.19       |
| (1,3364) | 1:437:A:SER:HA   | 1:461:A:SER:HB3  | 2                   | 0.19     | 0.04                | 0.19       |
| (1,2831) | 1:404:A:SER:H    | 1:406:A:HIS:H    | 2                   | 0.18     | 0.02                | 0.18       |
| (1,876)  | 1:280:A:ILE:H    | 1:322:A:ARG:H    | 2                   | 0.18     | 0.01                | 0.18       |
| (1,1197) | 1:299:A:LEU:HA   | 1:325:A:ILE:H    | 2                   | 0.18     | 0.01                | 0.18       |
| (1,1278) | 1:301:A:VAL:HG11 | 1:332:A:LEU:HD11 | 2                   | 0.18     | 0.01                | 0.18       |
| (1,1278) | 1:301:A:VAL:HG11 | 1:332:A:LEU:HD12 | 2                   | 0.18     | 0.01                | 0.18       |
| (1,1278) | 1:301:A:VAL:HG11 | 1:332:A:LEU:HD13 | 2                   | 0.18     | 0.01                | 0.18       |
| (1,1278) | 1:301:A:VAL:HG12 | 1:332:A:LEU:HD11 | 2                   | 0.18     | 0.01                | 0.18       |
| (1,1278) | 1:301:A:VAL:HG12 | 1:332:A:LEU:HD12 | 2                   | 0.18     | 0.01                | 0.18       |
| (1,1278) | 1:301:A:VAL:HG12 | 1:332:A:LEU:HD13 | 2                   | 0.18     | 0.01                | 0.18       |
| (1,1278) | 1:301:A:VAL:HG13 | 1:332:A:LEU:HD11 | 2                   | 0.18     | 0.01                | 0.18       |
| (1,1278) | 1:301:A:VAL:HG13 | 1:332:A:LEU:HD12 | 2                   | 0.18     | 0.01                | 0.18       |
| (1,1278) | 1:301:A:VAL:HG13 | 1:332:A:LEU:HD13 | 2                   | 0.18     | 0.01                | 0.18       |
| (1,752)  | 1:275:A:THR:HG21 | 1:324:A:LEU:HD21 | 2                   | 0.18     | 0.06                | 0.18       |
| (1,752)  | 1:275:A:THR:HG21 | 1:324:A:LEU:HD22 | 2                   | 0.18     | 0.06                | 0.18       |
| (1,752)  | 1:275:A:THR:HG21 | 1:324:A:LEU:HD23 | 2                   | 0.18     | 0.06                | 0.18       |
| (1,752)  | 1:275:A:THR:HG22 | 1:324:A:LEU:HD21 | 2                   | 0.18     | 0.06                | 0.18       |
| (1,752)  | 1:275:A:THR:HG22 | 1:324:A:LEU:HD22 | 2                   | 0.18     | 0.06                | 0.18       |
| (1,752)  | 1:275:A:THR:HG22 | 1:324:A:LEU:HD23 | 2                   | 0.18     | 0.06                | 0.18       |
| (1,752)  | 1:275:A:THR:HG23 | 1:324:A:LEU:HD21 | 2                   | 0.18     | 0.06                | 0.18       |
| (1,752)  | 1:275:A:THR:HG23 | 1:324:A:LEU:HD22 | 2                   | 0.18     | 0.06                | 0.18       |
| (1,752)  | 1:275:A:THR:HG23 | 1:324:A:LEU:HD23 | 2                   | 0.18     | 0.06                | 0.18       |
| (1,1791) | 1:337:A:GLU:H    | 1:340:A:GLN:H    | 2                   | 0.18     | 0.03                | 0.18       |
| (1,2260) | 1:371:A:TYR:HE1  | 1:399:A:LEU:HA   | 2                   | 0.18     | 0.06                | 0.18       |
| (1,2260) | 1:371:A:TYR:HE2  | 1:399:A:LEU:HA   | 2                   | 0.18     | 0.06                | 0.18       |

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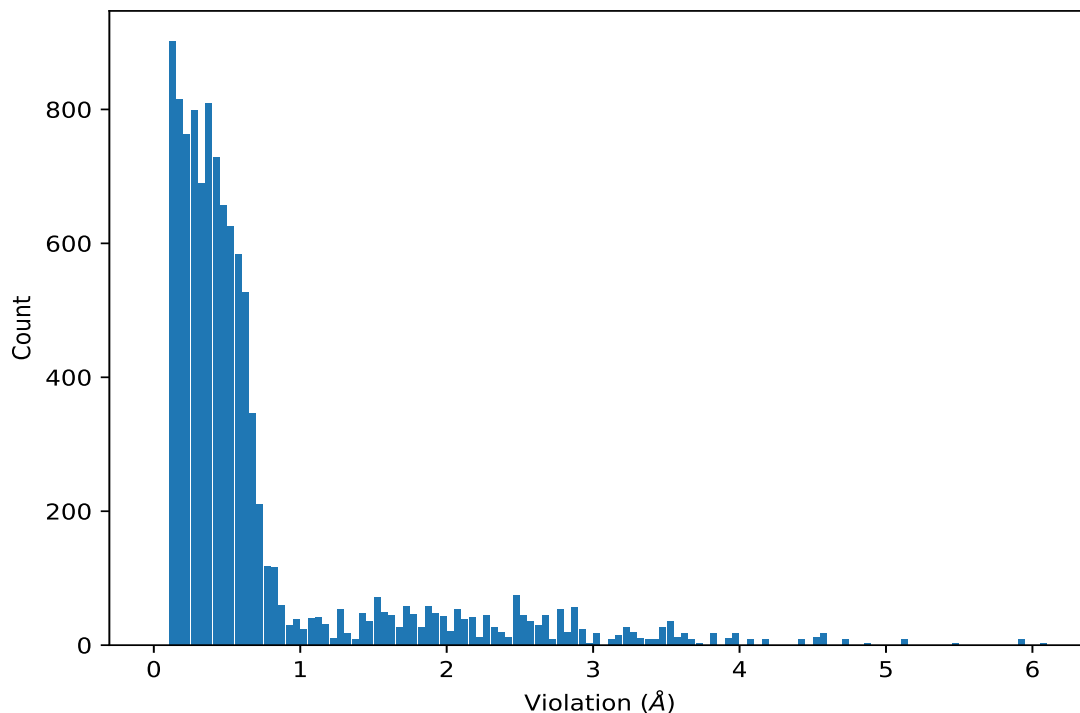
| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2433) | 1:380:A:LEU:H    | 1:383:A:LYS:H    | 2                   | 0.18     | 0.03                | 0.18       |
| (1,3777) | 1:473:A:THR:HB   | 1:480:A:PHE:H    | 2                   | 0.18     | 0.08                | 0.18       |
| (1,282)  | 1:247:A:LYS:HA   | 1:250:A:TYR:H    | 2                   | 0.17     | 0.06                | 0.17       |
| (1,2807) | 1:404:A:SER:HA   | 1:459:A:LEU:H    | 2                   | 0.17     | 0.06                | 0.17       |
| (1,3238) | 1:432:A:TYR:HB2  | 1:460:A:LEU:H    | 2                   | 0.17     | 0.06                | 0.17       |
| (1,3238) | 1:432:A:TYR:HB3  | 1:460:A:LEU:H    | 2                   | 0.17     | 0.06                | 0.17       |
| (1,3688) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HE3  | 2                   | 0.17     | 0.06                | 0.17       |
| (1,3688) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HE3  | 2                   | 0.17     | 0.06                | 0.17       |
| (1,3688) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HE3  | 2                   | 0.17     | 0.06                | 0.17       |
| (1,1479) | 1:314:A:MET:H    | 1:349:A:ARG:HD2  | 2                   | 0.17     | 0.07                | 0.17       |
| (1,1479) | 1:314:A:MET:H    | 1:349:A:ARG:HD3  | 2                   | 0.17     | 0.07                | 0.17       |
| (1,3858) | 1:482:A:SER:H    | 1:485:A:LYS:H    | 2                   | 0.17     | 0.04                | 0.17       |
| (1,1827) | 1:340:A:GLN:HA   | 1:342:A:SER:H    | 2                   | 0.16     | 0.04                | 0.16       |
| (1,52)   | 1:233:A:LEU:HA   | 1:235:A:THR:H    | 2                   | 0.15     | 0.04                | 0.15       |
| (1,740)  | 1:275:A:THR:H    | 1:328:A:SER:H    | 2                   | 0.15     | 0.04                | 0.15       |
| (1,2340) | 1:375:A:TRP:HD1  | 1:412:A:GLN:HE21 | 2                   | 0.15     | 0.0                 | 0.15       |
| (1,2340) | 1:375:A:TRP:HD1  | 1:412:A:GLN:HE22 | 2                   | 0.15     | 0.0                 | 0.15       |
| (1,1610) | 1:319:A:ARG:HA   | 1:321:A:VAL:HB   | 2                   | 0.15     | 0.04                | 0.15       |
| (1,2544) | 1:386:A:PRO:HG2  | 1:397:A:ALA:H    | 2                   | 0.14     | 0.02                | 0.14       |
| (1,2544) | 1:386:A:PRO:HG3  | 1:397:A:ALA:H    | 2                   | 0.14     | 0.02                | 0.14       |
| (1,2739) | 1:401:A:ARG:HD2  | 1:413:A:THR:HA   | 2                   | 0.14     | 0.03                | 0.14       |
| (1,2739) | 1:401:A:ARG:HD3  | 1:413:A:THR:HA   | 2                   | 0.14     | 0.03                | 0.14       |
| (1,2816) | 1:404:A:SER:HA   | 1:457:A:VAL:HB   | 2                   | 0.14     | 0.02                | 0.14       |
| (1,2961) | 1:416:A:LEU:HB2  | 1:475:A:PHE:HZ   | 2                   | 0.13     | 0.02                | 0.13       |
| (1,2961) | 1:416:A:LEU:HB3  | 1:475:A:PHE:HZ   | 2                   | 0.13     | 0.02                | 0.13       |
| (1,3171) | 1:430:A:ILE:HA   | 1:481:A:GLN:H    | 2                   | 0.13     | 0.01                | 0.13       |
| (1,3742) | 1:469:A:MET:HE1  | 1:473:A:THR:HA   | 2                   | 0.13     | 0.02                | 0.13       |
| (1,3742) | 1:469:A:MET:HE2  | 1:473:A:THR:HA   | 2                   | 0.13     | 0.02                | 0.13       |
| (1,3742) | 1:469:A:MET:HE3  | 1:473:A:THR:HA   | 2                   | 0.13     | 0.02                | 0.13       |
| (1,24)   | 1:232:A:ALA:H    | 1:235:A:THR:HG21 | 2                   | 0.12     | 0.02                | 0.12       |
| (1,24)   | 1:232:A:ALA:H    | 1:235:A:THR:HG22 | 2                   | 0.12     | 0.02                | 0.12       |
| (1,24)   | 1:232:A:ALA:H    | 1:235:A:THR:HG23 | 2                   | 0.12     | 0.02                | 0.12       |
| (1,3563) | 1:450:A:LEU:HA   | 1:455:A:ILE:H    | 2                   | 0.12     | 0.02                | 0.12       |
| (1,3622) | 1:456:A:GLU:HG2  | 1:457:A:VAL:H    | 2                   | 0.12     | 0.01                | 0.12       |
| (1,3622) | 1:456:A:GLU:HG3  | 1:457:A:VAL:H    | 2                   | 0.12     | 0.01                | 0.12       |
| (1,1277) | 1:301:A:VAL:HB   | 1:332:A:LEU:HD11 | 2                   | 0.12     | 0.01                | 0.12       |
| (1,1277) | 1:301:A:VAL:HB   | 1:332:A:LEU:HD12 | 2                   | 0.12     | 0.01                | 0.12       |
| (1,1277) | 1:301:A:VAL:HB   | 1:332:A:LEU:HD13 | 2                   | 0.12     | 0.01                | 0.12       |
| (1,1788) | 1:337:A:GLU:HA   | 1:341:A:ASP:H    | 2                   | 0.12     | 0.01                | 0.12       |
| (1,3405) | 1:439:A:ALA:HA   | 1:442:A:LYS:HB2  | 2                   | 0.12     | 0.01                | 0.12       |
| (1,3405) | 1:439:A:ALA:HA   | 1:442:A:LYS:HB3  | 2                   | 0.12     | 0.01                | 0.12       |
| (1,452)  | 1:257:A:PHE:H    | 1:258:A:ASN:H    | 2                   | 0.12     | 0.0                 | 0.12       |

<sup>1</sup>Number of violated models, <sup>2</sup>Standard deviation

## 9.5 All violated distance restraints [i](#)

### 9.5.1 Histogram : Distribution of distance violations [i](#)

The following histogram shows the distribution of the absolute value of the violation for all violated restraints in the ensemble.



### 9.5.2 Table : All distance violations [i](#)

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 2        | 6.06          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 2        | 6.06          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 2        | 6.06          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 5        | 5.92          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 5        | 5.92          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 5        | 5.92          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 5        | 5.92          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 5        | 5.92          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 5        | 5.92          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 5        | 5.92          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 5        | 5.92          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 5        | 5.92          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG11 | 5        | 5.46          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG12 | 5        | 5.46          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG13 | 5        | 5.46          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 9        | 5.13          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 9        | 5.13          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 9        | 5.13          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 9        | 5.13          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 9        | 5.13          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 9        | 5.13          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 9        | 5.13          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 9        | 5.13          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 9        | 5.13          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG11 | 9        | 4.88          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG12 | 9        | 4.88          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG13 | 9        | 4.88          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 9        | 4.7           |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 9        | 4.7           |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 9        | 4.7           |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 9        | 4.7           |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 9        | 4.7           |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 9        | 4.7           |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 9        | 4.7           |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 9        | 4.7           |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 9        | 4.7           |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 7        | 4.59          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 7        | 4.59          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 7        | 4.59          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 7        | 4.59          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 7        | 4.59          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 7        | 4.59          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 7        | 4.59          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 7        | 4.59          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 7        | 4.59          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 5        | 4.57          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 5        | 4.57          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 5        | 4.57          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 5        | 4.57          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 5        | 4.57          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 5        | 4.57          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 5        | 4.57          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 5        | 4.57          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 5        | 4.57          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 15       | 4.54          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 15       | 4.54          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 15       | 4.54          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 10       | 4.51          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 10       | 4.51          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 10       | 4.51          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 10       | 4.51          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 10       | 4.51          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 10       | 4.51          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 10       | 4.51          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 10       | 4.51          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 10       | 4.51          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 14       | 4.41          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 14       | 4.41          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 14       | 4.41          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 14       | 4.41          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 14       | 4.41          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 14       | 4.41          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 14       | 4.41          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 14       | 4.41          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 14       | 4.41          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 20       | 4.18          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 20       | 4.18          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 20       | 4.18          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 20       | 4.18          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 20       | 4.18          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 20       | 4.18          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 20       | 4.18          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 20       | 4.18          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 20       | 4.18          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 8        | 4.07          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 8        | 4.07          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 8        | 4.07          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 8        | 4.07          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 8        | 4.07          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 8        | 4.07          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 8        | 4.07          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 8        | 4.07          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 8        | 4.07          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 9        | 3.99          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 9        | 3.99          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 9        | 3.99          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 9        | 3.99          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 9        | 3.99          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 9        | 3.99          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 9        | 3.99          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 9        | 3.99          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 9        | 3.99          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 16       | 3.98          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 16       | 3.98          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 16       | 3.98          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 16       | 3.98          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 16       | 3.98          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 16       | 3.98          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 16       | 3.98          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 16       | 3.98          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 16       | 3.98          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 8        | 3.93          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 8        | 3.92          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 8        | 3.92          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 8        | 3.92          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 8        | 3.92          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 8        | 3.92          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 8        | 3.92          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 8        | 3.92          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 8        | 3.92          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 8        | 3.92          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 4        | 3.84          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 4        | 3.84          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 4        | 3.84          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 4        | 3.84          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 4        | 3.84          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 4        | 3.84          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 4        | 3.84          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 4        | 3.84          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 4        | 3.84          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 15       | 3.83          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 15       | 3.83          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 15       | 3.83          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 15       | 3.83          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 15       | 3.83          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 15       | 3.83          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 15       | 3.83          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 15       | 3.83          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 15       | 3.83          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 18       | 3.71          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 18       | 3.71          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 18       | 3.71          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 8        | 3.65          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 8        | 3.65          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 8        | 3.65          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 8        | 3.65          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 8        | 3.65          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 8        | 3.65          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 8        | 3.65          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 8        | 3.65          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 8        | 3.65          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 12       | 3.64          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 12       | 3.64          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 12       | 3.64          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 12       | 3.64          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 12       | 3.64          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 12       | 3.64          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 12       | 3.64          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 12       | 3.64          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 12       | 3.64          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 18       | 3.6           |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 18       | 3.6           |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 18       | 3.6           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 18       | 3.6           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 18       | 3.6           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 18       | 3.6           |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 18       | 3.6           |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 18       | 3.6           |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 18       | 3.6           |
| (1,3972) | 1:318:A:LEU:HD11 | 2:622:B:TYR:HE1  | 2        | 3.57          |
| (1,3972) | 1:318:A:LEU:HD12 | 2:622:B:TYR:HE1  | 2        | 3.57          |
| (1,3972) | 1:318:A:LEU:HD13 | 2:622:B:TYR:HE1  | 2        | 3.57          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 3        | 3.55          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 3        | 3.55          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 3        | 3.55          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 3        | 3.55          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 3        | 3.55          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 3        | 3.55          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 3        | 3.55          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 3        | 3.55          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 3        | 3.55          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 11       | 3.54          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 11       | 3.54          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 11       | 3.54          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 11       | 3.54          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 11       | 3.54          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 11       | 3.54          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 11       | 3.54          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 11       | 3.54          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 11       | 3.54          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 7        | 3.52          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 7        | 3.52          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 7        | 3.52          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 7        | 3.52          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 7        | 3.52          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 7        | 3.52          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 7        | 3.52          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 7        | 3.52          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 7        | 3.52          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 9        | 3.51          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 9        | 3.51          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 9        | 3.51          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 9        | 3.51          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 9        | 3.51          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 9        | 3.51          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 9        | 3.51          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 9        | 3.51          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 9        | 3.51          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 10       | 3.51          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 10       | 3.51          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 10       | 3.51          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 10       | 3.51          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 10       | 3.51          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 10       | 3.51          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 10       | 3.51          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 10       | 3.51          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 10       | 3.51          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 4        | 3.49          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 4        | 3.49          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 4        | 3.49          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 4        | 3.49          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 4        | 3.49          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 4        | 3.49          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 4        | 3.49          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 4        | 3.49          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 4        | 3.49          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 20       | 3.46          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 20       | 3.46          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 20       | 3.46          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 20       | 3.46          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 20       | 3.46          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 20       | 3.46          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 20       | 3.46          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 20       | 3.46          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 20       | 3.46          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 12       | 3.45          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 12       | 3.45          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 12       | 3.45          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 12       | 3.45          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 12       | 3.45          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 12       | 3.45          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 12       | 3.45          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 12       | 3.45          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 12       | 3.45          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 11       | 3.44          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 11       | 3.44          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 11       | 3.44          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 11       | 3.44          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 11       | 3.44          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 11       | 3.44          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 11       | 3.44          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 11       | 3.44          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 11       | 3.44          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 17       | 3.36          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 17       | 3.36          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 17       | 3.36          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 17       | 3.36          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 17       | 3.36          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 17       | 3.36          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 17       | 3.36          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 17       | 3.36          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 17       | 3.36          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 18       | 3.32          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 6        | 3.3           |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 6        | 3.3           |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 6        | 3.3           |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 6        | 3.3           |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 6        | 3.3           |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 6        | 3.3           |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 6        | 3.3           |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 6        | 3.3           |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 6        | 3.3           |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 10       | 3.29          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 5        | 3.26          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 5        | 3.26          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 5        | 3.26          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 5        | 3.26          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 5        | 3.26          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 5        | 3.26          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 5        | 3.26          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 5        | 3.26          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 5        | 3.26          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 11       | 3.25          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 11       | 3.25          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 11       | 3.25          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 11       | 3.25          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 11       | 3.25          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 11       | 3.25          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 11       | 3.25          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 11       | 3.25          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 11       | 3.25          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 11       | 3.23          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 11       | 3.23          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 11       | 3.23          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 11       | 3.23          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 11       | 3.23          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 11       | 3.23          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 11       | 3.23          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 11       | 3.23          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 11       | 3.23          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 17       | 3.21          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 17       | 3.21          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 17       | 3.21          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 17       | 3.21          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 17       | 3.21          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 17       | 3.21          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 17       | 3.21          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 17       | 3.21          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 17       | 3.21          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 13       | 3.2           |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 13       | 3.2           |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 13       | 3.2           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 13       | 3.2           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 13       | 3.2           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 13       | 3.2           |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 13       | 3.2           |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 13       | 3.2           |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 13       | 3.2           |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 6        | 3.19          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 6        | 3.19          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 6        | 3.19          |
| (1,3972) | 1:318:A:LEU:HD11 | 2:622:B:TYR:HE1  | 17       | 3.17          |
| (1,3972) | 1:318:A:LEU:HD12 | 2:622:B:TYR:HE1  | 17       | 3.17          |
| (1,3972) | 1:318:A:LEU:HD13 | 2:622:B:TYR:HE1  | 17       | 3.17          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 5        | 3.16          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 5        | 3.16          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 5        | 3.16          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 5        | 3.16          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 5        | 3.16          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 5        | 3.16          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 5        | 3.16          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 5        | 3.16          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 5        | 3.16          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 5        | 3.14          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 5        | 3.14          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 5        | 3.14          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 5        | 3.14          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 5        | 3.14          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 5        | 3.14          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 5        | 3.14          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 5        | 3.14          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 5        | 3.14          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 12       | 3.03          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 12       | 3.03          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 12       | 3.03          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 12       | 3.03          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 12       | 3.03          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 12       | 3.03          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 12       | 3.03          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 12       | 3.03          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 12       | 3.03          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 9        | 3.0           |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 9        | 3.0           |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 9        | 3.0           |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 9        | 3.0           |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 9        | 3.0           |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 9        | 3.0           |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 9        | 3.0           |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 9        | 3.0           |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 9        | 3.0           |
| (1,3972) | 1:318:A:LEU:HD11 | 2:622:B:TYR:HE1  | 15       | 2.96          |
| (1,3972) | 1:318:A:LEU:HD12 | 2:622:B:TYR:HE1  | 15       | 2.96          |
| (1,3972) | 1:318:A:LEU:HD13 | 2:622:B:TYR:HE1  | 15       | 2.96          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 12       | 2.93          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 12       | 2.93          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 12       | 2.93          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 11       | 2.92          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 11       | 2.92          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 11       | 2.92          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 11       | 2.92          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 11       | 2.92          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 11       | 2.92          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 11       | 2.92          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 11       | 2.92          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 11       | 2.92          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG11 | 15       | 2.9           |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG12 | 15       | 2.9           |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG13 | 15       | 2.9           |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 6        | 2.9           |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 6        | 2.9           |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 6        | 2.9           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 6        | 2.9           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 6        | 2.9           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 6        | 2.9           |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 6        | 2.9           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 6        | 2.9           |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 6        | 2.9           |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 20       | 2.89          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 20       | 2.89          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 20       | 2.89          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 20       | 2.89          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 20       | 2.89          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 20       | 2.89          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 20       | 2.89          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 20       | 2.89          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 20       | 2.89          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 6        | 2.88          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 6        | 2.88          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 6        | 2.88          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 6        | 2.88          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 6        | 2.88          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 6        | 2.88          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 6        | 2.88          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 6        | 2.88          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 6        | 2.88          |
| (1,3972) | 1:318:A:LEU:HD11 | 2:622:B:TYR:HE1  | 10       | 2.88          |
| (1,3972) | 1:318:A:LEU:HD12 | 2:622:B:TYR:HE1  | 10       | 2.88          |
| (1,3972) | 1:318:A:LEU:HD13 | 2:622:B:TYR:HE1  | 10       | 2.88          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 17       | 2.88          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 17       | 2.88          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 17       | 2.88          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 17       | 2.88          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 17       | 2.88          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 17       | 2.88          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 17       | 2.88          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 17       | 2.88          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 17       | 2.88          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 3        | 2.88          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 3        | 2.88          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 3        | 2.88          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 3        | 2.88          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 3        | 2.88          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 3        | 2.88          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 3        | 2.88          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 3        | 2.88          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 3        | 2.88          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 7        | 2.86          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 7        | 2.86          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 7        | 2.86          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 7        | 2.86          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 7        | 2.86          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 7        | 2.86          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 7        | 2.86          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 7        | 2.86          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 7        | 2.86          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 15       | 2.86          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 15       | 2.86          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 15       | 2.86          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 15       | 2.86          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 15       | 2.86          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 15       | 2.86          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 15       | 2.86          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 15       | 2.86          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 15       | 2.86          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 4        | 2.84          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 17       | 2.83          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 17       | 2.83          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 17       | 2.83          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 17       | 2.83          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 17       | 2.83          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 17       | 2.83          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 17       | 2.83          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 17       | 2.83          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 17       | 2.83          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 7        | 2.82          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 7        | 2.82          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 7        | 2.82          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 7        | 2.82          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 7        | 2.82          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 7        | 2.82          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 7        | 2.82          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 7        | 2.82          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 7        | 2.82          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 5        | 2.79          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 5        | 2.79          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 5        | 2.79          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 5        | 2.79          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 5        | 2.79          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 5        | 2.79          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 5        | 2.79          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 5        | 2.79          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 5        | 2.79          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 6        | 2.79          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 6        | 2.79          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 6        | 2.79          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 6        | 2.79          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 6        | 2.79          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 6        | 2.79          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 6        | 2.79          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 6        | 2.79          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 6        | 2.79          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 1        | 2.78          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 1        | 2.78          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 1        | 2.78          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 1        | 2.78          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 1        | 2.78          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 1        | 2.78          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 1        | 2.78          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 1        | 2.78          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 1        | 2.78          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 20       | 2.77          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 20       | 2.77          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 20       | 2.77          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 20       | 2.77          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 20       | 2.77          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 20       | 2.77          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 20       | 2.77          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 20       | 2.77          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 20       | 2.77          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 15       | 2.75          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 15       | 2.75          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 15       | 2.75          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 15       | 2.75          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 15       | 2.75          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 15       | 2.75          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 15       | 2.75          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 15       | 2.75          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 15       | 2.75          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 11       | 2.75          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 11       | 2.75          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 11       | 2.75          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 11       | 2.75          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 11       | 2.75          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 11       | 2.75          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 11       | 2.75          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 11       | 2.75          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 11       | 2.75          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 16       | 2.72          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 16       | 2.72          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 16       | 2.72          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 16       | 2.72          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 16       | 2.72          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 16       | 2.72          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 16       | 2.72          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 16       | 2.72          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 16       | 2.72          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 8        | 2.68          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 8        | 2.68          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 8        | 2.68          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 8        | 2.68          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 8        | 2.68          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 8        | 2.68          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 8        | 2.68          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 8        | 2.68          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 8        | 2.68          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 12       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 12       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 12       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 12       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 12       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 12       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 12       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 12       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 12       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 20       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 20       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 20       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 20       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 20       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 20       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 20       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 20       | 2.67          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 20       | 2.67          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 3        | 2.66          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 3        | 2.66          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 3        | 2.66          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 3        | 2.66          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 3        | 2.66          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 3        | 2.66          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 3        | 2.66          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 3        | 2.66          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 3        | 2.66          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 5        | 2.65          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 5        | 2.65          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 5        | 2.65          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 5        | 2.65          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 5        | 2.65          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 5        | 2.65          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 5        | 2.65          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 5        | 2.65          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 5        | 2.65          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 14       | 2.64          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 14       | 2.64          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 14       | 2.64          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 14       | 2.64          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 14       | 2.64          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 14       | 2.64          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 14       | 2.64          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 14       | 2.64          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 14       | 2.64          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 4        | 2.64          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 4        | 2.64          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 4        | 2.64          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 4        | 2.64          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 4        | 2.64          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 4        | 2.64          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 4        | 2.64          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 4        | 2.64          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 4        | 2.64          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 10       | 2.64          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 10       | 2.64          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 10       | 2.64          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 10       | 2.61          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 10       | 2.61          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 10       | 2.61          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 10       | 2.61          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 10       | 2.61          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 10       | 2.61          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 10       | 2.61          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 10       | 2.61          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 10       | 2.61          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 14       | 2.59          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 14       | 2.59          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 14       | 2.59          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 14       | 2.59          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 14       | 2.59          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 14       | 2.59          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 14       | 2.59          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 14       | 2.59          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 14       | 2.59          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 19       | 2.58          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 19       | 2.58          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 19       | 2.58          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 19       | 2.58          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 19       | 2.58          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 19       | 2.58          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 19       | 2.58          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 19       | 2.58          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 19       | 2.58          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 17       | 2.56          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 17       | 2.56          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 17       | 2.56          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 17       | 2.56          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 17       | 2.56          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 17       | 2.56          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 17       | 2.56          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 17       | 2.56          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 17       | 2.56          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 7        | 2.55          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 7        | 2.55          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 7        | 2.55          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 7        | 2.55          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 7        | 2.55          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 7        | 2.55          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 7        | 2.55          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 7        | 2.55          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 7        | 2.55          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG11 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG12 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG13 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG11 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG12 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG13 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG11 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG12 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG13 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG21 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG22 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG23 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG21 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG22 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG23 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG21 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG22 | 18       | 2.54          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG23 | 18       | 2.54          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 18       | 2.52          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 18       | 2.52          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 18       | 2.52          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 18       | 2.52          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 18       | 2.52          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 18       | 2.52          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 18       | 2.52          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 18       | 2.52          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 18       | 2.52          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 5        | 2.52          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 5        | 2.52          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 5        | 2.52          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 5        | 2.52          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 5        | 2.52          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 5        | 2.52          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 5        | 2.52          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 5        | 2.52          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 5        | 2.52          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 3        | 2.5           |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 3        | 2.5           |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 3        | 2.5           |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 3        | 2.5           |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 3        | 2.5           |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 3        | 2.5           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 3        | 2.5           |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 3        | 2.5           |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 3        | 2.5           |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 10       | 2.49          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 10       | 2.49          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 10       | 2.49          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 10       | 2.49          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 10       | 2.49          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 10       | 2.49          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 10       | 2.49          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 10       | 2.49          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 10       | 2.49          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 20       | 2.49          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 20       | 2.49          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 20       | 2.49          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 20       | 2.49          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 20       | 2.49          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 20       | 2.49          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 20       | 2.49          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 20       | 2.49          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 20       | 2.49          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 15       | 2.48          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 15       | 2.48          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 15       | 2.48          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 15       | 2.48          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 15       | 2.48          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 15       | 2.48          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 15       | 2.48          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 15       | 2.48          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 15       | 2.48          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 13       | 2.47          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 13       | 2.47          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 13       | 2.47          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 13       | 2.47          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 13       | 2.47          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 13       | 2.47          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 13       | 2.47          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 13       | 2.47          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 13       | 2.47          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 18       | 2.47          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 18       | 2.47          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 18       | 2.47          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 18       | 2.47          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 18       | 2.47          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 18       | 2.47          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 18       | 2.47          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 18       | 2.47          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 18       | 2.47          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 6        | 2.46          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 6        | 2.46          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 6        | 2.46          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 6        | 2.46          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 6        | 2.46          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 6        | 2.46          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 6        | 2.46          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 6        | 2.46          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 6        | 2.46          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 5        | 2.46          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 5        | 2.46          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 5        | 2.46          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 5        | 2.46          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 5        | 2.46          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 5        | 2.46          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 5        | 2.46          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 5        | 2.46          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 5        | 2.46          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 10       | 2.45          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 10       | 2.45          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 10       | 2.45          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 10       | 2.45          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 10       | 2.45          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 10       | 2.45          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 10       | 2.45          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 10       | 2.45          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 10       | 2.45          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 16       | 2.45          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 16       | 2.45          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 16       | 2.45          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG11 | 7        | 2.43          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG12 | 7        | 2.43          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG13 | 7        | 2.43          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 15       | 2.42          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 15       | 2.42          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 15       | 2.42          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 15       | 2.42          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 15       | 2.42          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 15       | 2.42          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 15       | 2.42          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 15       | 2.42          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 15       | 2.42          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 2        | 2.37          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 17       | 2.36          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 17       | 2.36          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 17       | 2.36          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 17       | 2.36          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 17       | 2.36          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 17       | 2.36          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 17       | 2.36          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 17       | 2.36          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 17       | 2.36          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 11       | 2.35          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 11       | 2.35          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 11       | 2.35          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 11       | 2.35          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 11       | 2.35          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 11       | 2.35          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 11       | 2.35          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 11       | 2.35          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 11       | 2.35          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 19       | 2.31          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 19       | 2.31          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 19       | 2.31          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 19       | 2.31          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 19       | 2.31          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 19       | 2.31          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 19       | 2.31          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 19       | 2.31          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 19       | 2.31          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 8        | 2.31          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 8        | 2.31          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 8        | 2.31          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 8        | 2.31          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 8        | 2.31          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 8        | 2.31          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 8        | 2.31          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 8        | 2.31          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 8        | 2.31          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 6        | 2.3           |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 6        | 2.3           |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 6        | 2.3           |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 6        | 2.3           |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 6        | 2.3           |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 6        | 2.3           |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 6        | 2.3           |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 6        | 2.3           |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 6        | 2.3           |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 14       | 2.29          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 14       | 2.29          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 14       | 2.29          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 14       | 2.29          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 14       | 2.29          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 14       | 2.29          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 14       | 2.29          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 14       | 2.29          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 14       | 2.29          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 7        | 2.28          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 7        | 2.28          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 7        | 2.28          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 7        | 2.28          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 7        | 2.28          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 7        | 2.28          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 7        | 2.28          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 7        | 2.28          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 7        | 2.28          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 5        | 2.28          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 5        | 2.28          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 5        | 2.28          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 5        | 2.28          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 5        | 2.28          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 5        | 2.28          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 5        | 2.28          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 5        | 2.28          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 5        | 2.28          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 1        | 2.27          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 1        | 2.27          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 1        | 2.27          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 1        | 2.27          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 1        | 2.27          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 1        | 2.27          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 1        | 2.27          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 1        | 2.27          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 1        | 2.27          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 6        | 2.25          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 6        | 2.25          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 6        | 2.25          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 6        | 2.25          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 6        | 2.25          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 6        | 2.25          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 6        | 2.25          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 6        | 2.25          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 6        | 2.25          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 7        | 2.24          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 7        | 2.24          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 7        | 2.24          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 7        | 2.24          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 7        | 2.24          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 7        | 2.24          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 7        | 2.24          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 7        | 2.24          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 7        | 2.24          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 8        | 2.21          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 8        | 2.21          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 8        | 2.21          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 1        | 2.18          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 1        | 2.18          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 1        | 2.18          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 1        | 2.18          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 1        | 2.18          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 1        | 2.18          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 1        | 2.18          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 1        | 2.18          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 1        | 2.18          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 17       | 2.18          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 17       | 2.18          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 17       | 2.18          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 17       | 2.18          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 17       | 2.18          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 17       | 2.18          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 17       | 2.18          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 17       | 2.18          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 17       | 2.18          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 7        | 2.18          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 7        | 2.18          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 7        | 2.18          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 12       | 2.17          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 12       | 2.17          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 12       | 2.17          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 12       | 2.17          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 12       | 2.17          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 12       | 2.17          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 12       | 2.17          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 12       | 2.17          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 12       | 2.17          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 1        | 2.16          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 1        | 2.16          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 1        | 2.16          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 20       | 2.16          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 20       | 2.16          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 20       | 2.16          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 20       | 2.16          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 20       | 2.16          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 20       | 2.16          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 20       | 2.16          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 20       | 2.16          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 20       | 2.16          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 14       | 2.11          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 14       | 2.11          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 14       | 2.11          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 14       | 2.11          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 14       | 2.11          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 14       | 2.11          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 14       | 2.11          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 14       | 2.11          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 14       | 2.11          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 4        | 2.1           |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 4        | 2.1           |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 4        | 2.1           |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 17       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 17       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 17       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 17       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 17       | 2.1           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 17       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 17       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 17       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 17       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 19       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 19       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 19       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 19       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 19       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 19       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 19       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 19       | 2.1           |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 19       | 2.1           |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 15       | 2.1           |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 15       | 2.1           |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 15       | 2.1           |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 15       | 2.1           |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 15       | 2.1           |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 15       | 2.1           |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 15       | 2.1           |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 15       | 2.1           |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 15       | 2.1           |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 19       | 2.09          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 19       | 2.09          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 19       | 2.09          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 19       | 2.09          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 19       | 2.09          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 19       | 2.09          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 19       | 2.09          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 19       | 2.09          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 19       | 2.09          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 18       | 2.08          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 18       | 2.08          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 18       | 2.08          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 18       | 2.08          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 18       | 2.08          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 18       | 2.08          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 18       | 2.08          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 18       | 2.08          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 18       | 2.08          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 3        | 2.07          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 3        | 2.07          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 3        | 2.07          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 3        | 2.07          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 3        | 2.07          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 3        | 2.07          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 3        | 2.07          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 3        | 2.07          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 3        | 2.07          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 8        | 2.07          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 8        | 2.07          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 8        | 2.07          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 8        | 2.07          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 8        | 2.07          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 8        | 2.07          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 8        | 2.07          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 8        | 2.07          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 8        | 2.07          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 12       | 2.06          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 12       | 2.06          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 12       | 2.06          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 12       | 2.06          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 12       | 2.06          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 12       | 2.06          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 12       | 2.06          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 12       | 2.06          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 12       | 2.06          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 6        | 2.06          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 6        | 2.06          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 6        | 2.06          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 6        | 2.06          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 6        | 2.06          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 6        | 2.06          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 6        | 2.06          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 6        | 2.06          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 6        | 2.06          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 17       | 2.04          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 17       | 2.04          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 17       | 2.04          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 17       | 2.04          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 17       | 2.04          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 17       | 2.04          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 17       | 2.04          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 17       | 2.04          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 17       | 2.04          |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD21 | 5        | 2.04          |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD22 | 5        | 2.04          |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD23 | 5        | 2.04          |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD21 | 5        | 2.04          |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD22 | 5        | 2.04          |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD23 | 5        | 2.04          |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD21 | 5        | 2.04          |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD22 | 5        | 2.04          |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD23 | 5        | 2.04          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG11 | 17       | 2.03          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG12 | 17       | 2.03          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG13 | 17       | 2.03          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 3        | 1.99          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 3        | 1.99          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 3        | 1.99          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 6        | 1.99          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 11       | 1.98          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 11       | 1.98          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 11       | 1.98          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 14       | 1.97          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 14       | 1.97          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 14       | 1.97          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 14       | 1.97          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 14       | 1.97          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 14       | 1.97          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 14       | 1.97          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 14       | 1.97          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 14       | 1.97          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 13       | 1.97          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 13       | 1.97          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 13       | 1.97          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 13       | 1.97          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 13       | 1.97          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 13       | 1.97          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 13       | 1.97          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 13       | 1.97          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 13       | 1.97          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 2        | 1.96          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 2        | 1.96          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 2        | 1.96          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 2        | 1.96          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 2        | 1.96          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 2        | 1.96          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 2        | 1.96          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 2        | 1.96          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 2        | 1.96          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 20       | 1.96          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 20       | 1.96          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 20       | 1.96          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 20       | 1.96          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 20       | 1.96          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 20       | 1.96          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 20       | 1.96          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 20       | 1.96          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 20       | 1.96          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 2        | 1.93          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 2        | 1.93          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 2        | 1.93          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 2        | 1.93          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 2        | 1.93          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 2        | 1.93          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 2        | 1.93          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 2        | 1.93          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 2        | 1.93          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 16       | 1.92          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 16       | 1.92          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 16       | 1.92          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 16       | 1.92          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 16       | 1.92          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 16       | 1.92          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 16       | 1.92          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 16       | 1.92          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 16       | 1.92          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 4        | 1.91          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 4        | 1.91          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 4        | 1.91          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 4        | 1.91          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 4        | 1.91          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 4        | 1.91          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 4        | 1.91          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 4        | 1.91          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 4        | 1.91          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 2        | 1.9           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 2        | 1.9           |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 2        | 1.9           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 2        | 1.9           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 2        | 1.9           |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 2        | 1.9           |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 2        | 1.9           |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 2        | 1.9           |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 2        | 1.9           |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 13       | 1.9           |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 13       | 1.9           |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 13       | 1.9           |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 7        | 1.9           |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 7        | 1.9           |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 7        | 1.9           |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 7        | 1.9           |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 7        | 1.9           |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 7        | 1.9           |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 7        | 1.9           |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 7        | 1.9           |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 7        | 1.9           |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 10       | 1.89          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 10       | 1.89          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 10       | 1.89          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 10       | 1.89          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 10       | 1.89          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 10       | 1.89          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 10       | 1.89          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 10       | 1.89          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 10       | 1.89          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 19       | 1.89          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 19       | 1.88          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 19       | 1.88          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 19       | 1.88          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 19       | 1.88          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 19       | 1.88          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 19       | 1.88          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 19       | 1.88          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 19       | 1.88          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 19       | 1.88          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 17       | 1.88          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 17       | 1.88          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 17       | 1.88          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 17       | 1.88          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 17       | 1.88          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 17       | 1.88          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 17       | 1.88          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 17       | 1.88          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 17       | 1.88          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 14       | 1.86          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 14       | 1.86          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 14       | 1.86          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 14       | 1.86          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 14       | 1.86          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 14       | 1.86          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 14       | 1.86          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 14       | 1.86          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 14       | 1.86          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 15       | 1.86          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 15       | 1.86          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 15       | 1.86          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 15       | 1.86          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 15       | 1.86          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 15       | 1.86          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 15       | 1.86          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 15       | 1.86          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 15       | 1.86          |
| (1,3972) | 1:318:A:LEU:HD11 | 2:622:B:TYR:HE1  | 20       | 1.86          |
| (1,3972) | 1:318:A:LEU:HD12 | 2:622:B:TYR:HE1  | 20       | 1.86          |
| (1,3972) | 1:318:A:LEU:HD13 | 2:622:B:TYR:HE1  | 20       | 1.86          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 18       | 1.85          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 18       | 1.85          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 18       | 1.85          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 18       | 1.85          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 18       | 1.85          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 18       | 1.85          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 18       | 1.85          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 18       | 1.85          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 18       | 1.85          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 4        | 1.84          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 4        | 1.84          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 4        | 1.84          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 4        | 1.84          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 4        | 1.84          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 4        | 1.84          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 4        | 1.84          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 4        | 1.84          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 4        | 1.84          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 15       | 1.83          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 15       | 1.83          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 15       | 1.83          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 15       | 1.83          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 15       | 1.83          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 15       | 1.83          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 15       | 1.83          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 15       | 1.83          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 15       | 1.83          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 3        | 1.82          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 3        | 1.82          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 3        | 1.82          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 3        | 1.82          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 3        | 1.82          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 3        | 1.82          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 3        | 1.82          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 3        | 1.82          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 3        | 1.82          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 2        | 1.79          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 2        | 1.79          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 2        | 1.79          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 2        | 1.79          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 2        | 1.79          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 2        | 1.79          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 2        | 1.79          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 2        | 1.79          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 2        | 1.79          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 1        | 1.78          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 1        | 1.78          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 1        | 1.78          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 1        | 1.78          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 1        | 1.78          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 1        | 1.78          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 1        | 1.78          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 1        | 1.78          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 1        | 1.78          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 15       | 1.78          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 15       | 1.78          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 15       | 1.78          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 15       | 1.78          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 15       | 1.78          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 15       | 1.78          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 15       | 1.78          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 15       | 1.78          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 15       | 1.78          |
| (1,3635) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE1  | 16       | 1.78          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG11 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG12 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG13 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG11 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG12 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG13 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG11 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG12 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG13 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG21 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG22 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG23 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG21 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG22 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG23 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG21 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG22 | 11       | 1.77          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG23 | 11       | 1.77          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 14       | 1.74          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 14       | 1.74          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 14       | 1.74          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 14       | 1.74          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 14       | 1.74          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 14       | 1.74          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 14       | 1.74          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 14       | 1.74          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 14       | 1.74          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 16       | 1.73          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 16       | 1.73          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 16       | 1.73          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 16       | 1.73          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 16       | 1.73          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 16       | 1.73          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 16       | 1.73          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 16       | 1.73          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 16       | 1.73          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 19       | 1.73          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 19       | 1.73          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 19       | 1.73          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 19       | 1.73          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 19       | 1.73          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 19       | 1.73          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 19       | 1.73          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 19       | 1.73          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 19       | 1.73          |
| (1,3635) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HD1  | 3        | 1.72          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 4        | 1.71          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 4        | 1.71          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 4        | 1.71          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 4        | 1.71          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 4        | 1.71          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 4        | 1.71          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 4        | 1.71          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 4        | 1.71          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 4        | 1.71          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 10       | 1.71          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 10       | 1.71          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 10       | 1.71          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 10       | 1.71          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 10       | 1.71          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 10       | 1.71          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 10       | 1.71          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 10       | 1.71          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 10       | 1.71          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 19       | 1.7           |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 19       | 1.7           |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 19       | 1.7           |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD21 | 4        | 1.7           |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD22 | 4        | 1.7           |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD23 | 4        | 1.7           |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD21 | 4        | 1.7           |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD22 | 4        | 1.7           |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD23 | 4        | 1.7           |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD21 | 4        | 1.7           |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD22 | 4        | 1.7           |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD23 | 4        | 1.7           |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 6        | 1.66          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 6        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 6        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 6        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 6        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 6        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 6        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 6        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 6        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 8        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 8        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 8        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 8        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 8        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 8        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 8        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 8        | 1.66          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 8        | 1.66          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 14       | 1.65          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 14       | 1.65          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 14       | 1.65          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 14       | 1.65          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 14       | 1.65          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 14       | 1.65          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 14       | 1.65          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 14       | 1.65          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 14       | 1.65          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 3        | 1.62          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 3        | 1.62          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 3        | 1.62          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 3        | 1.62          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 3        | 1.62          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 3        | 1.62          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 3        | 1.62          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 3        | 1.62          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 3        | 1.62          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 6        | 1.62          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 6        | 1.62          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 6        | 1.62          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 6        | 1.62          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 6        | 1.62          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 6        | 1.62          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 6        | 1.62          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 6        | 1.62          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 6        | 1.62          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 20       | 1.62          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 20       | 1.62          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 20       | 1.62          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 20       | 1.62          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 20       | 1.62          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 20       | 1.62          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 20       | 1.62          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 20       | 1.62          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 20       | 1.62          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 9        | 1.62          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 9        | 1.62          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 9        | 1.62          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 9        | 1.62          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 9        | 1.62          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 9        | 1.62          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 9        | 1.62          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 9        | 1.62          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 9        | 1.62          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 11       | 1.61          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 11       | 1.61          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 11       | 1.61          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 11       | 1.61          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 11       | 1.61          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 11       | 1.61          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 11       | 1.61          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 11       | 1.61          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 11       | 1.61          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 10       | 1.59          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 10       | 1.59          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 10       | 1.59          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 10       | 1.59          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 10       | 1.59          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 10       | 1.59          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 10       | 1.59          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 10       | 1.59          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 10       | 1.59          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 11       | 1.59          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 11       | 1.59          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 11       | 1.59          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 11       | 1.59          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 11       | 1.59          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 11       | 1.59          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 11       | 1.59          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 11       | 1.59          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 11       | 1.59          |
| (1,2565) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD1  | 10       | 1.59          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 9        | 1.58          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 9        | 1.58          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 9        | 1.58          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 9        | 1.58          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 9        | 1.58          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 9        | 1.58          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 9        | 1.58          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 9        | 1.58          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 9        | 1.58          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 1        | 1.58          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 1        | 1.58          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 1        | 1.58          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 1        | 1.58          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 1        | 1.58          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 1        | 1.58          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 1        | 1.58          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 1        | 1.58          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 1        | 1.58          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 16       | 1.57          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 16       | 1.57          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 16       | 1.57          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 16       | 1.57          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 16       | 1.57          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 16       | 1.57          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 16       | 1.57          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 16       | 1.57          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 16       | 1.57          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 14       | 1.56          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 14       | 1.56          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 14       | 1.56          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 2        | 1.54          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 2        | 1.54          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 2        | 1.54          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 2        | 1.54          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 2        | 1.54          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 2        | 1.54          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 2        | 1.54          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 2        | 1.54          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 2        | 1.54          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 13       | 1.54          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 13       | 1.54          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 13       | 1.54          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 13       | 1.54          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 13       | 1.54          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 13       | 1.54          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 13       | 1.54          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 13       | 1.54          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 13       | 1.54          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 12       | 1.54          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 12       | 1.54          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 12       | 1.54          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 12       | 1.54          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 12       | 1.54          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 12       | 1.54          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 12       | 1.54          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 12       | 1.54          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 12       | 1.54          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 1        | 1.54          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 1        | 1.54          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 1        | 1.54          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 1        | 1.54          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 1        | 1.54          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 1        | 1.54          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 1        | 1.54          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 1        | 1.54          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 1        | 1.54          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 20       | 1.53          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 20       | 1.53          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 20       | 1.53          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 20       | 1.53          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 20       | 1.53          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 20       | 1.53          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 20       | 1.53          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 20       | 1.53          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 20       | 1.53          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 16       | 1.51          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 16       | 1.51          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 16       | 1.51          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 16       | 1.51          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 16       | 1.51          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 16       | 1.51          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 16       | 1.51          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 16       | 1.51          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 16       | 1.51          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 2        | 1.51          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 2        | 1.51          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 2        | 1.51          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 2        | 1.51          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 2        | 1.51          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 2        | 1.51          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 2        | 1.51          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 2        | 1.51          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 2        | 1.51          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 16       | 1.51          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 16       | 1.51          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 16       | 1.51          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 16       | 1.51          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 16       | 1.51          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 16       | 1.51          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 16       | 1.51          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 16       | 1.51          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 16       | 1.51          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 7        | 1.48          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 7        | 1.48          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 7        | 1.48          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 7        | 1.48          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 7        | 1.48          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 7        | 1.48          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 7        | 1.48          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 7        | 1.48          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 7        | 1.48          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 13       | 1.48          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 13       | 1.48          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 13       | 1.48          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 13       | 1.48          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 13       | 1.48          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 13       | 1.48          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 13       | 1.48          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 13       | 1.48          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 13       | 1.48          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 2        | 1.48          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 2        | 1.48          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 2        | 1.48          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 2        | 1.48          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 2        | 1.48          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 2        | 1.48          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 2        | 1.48          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 2        | 1.48          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 2        | 1.48          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 9        | 1.47          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 9        | 1.47          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 9        | 1.47          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 9        | 1.47          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 9        | 1.47          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 9        | 1.47          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 9        | 1.47          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 9        | 1.47          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 9        | 1.47          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 11       | 1.43          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 11       | 1.43          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 11       | 1.43          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 11       | 1.43          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 11       | 1.43          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 11       | 1.43          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 11       | 1.43          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 11       | 1.43          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 11       | 1.43          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 13       | 1.43          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 13       | 1.43          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 13       | 1.43          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 13       | 1.43          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 13       | 1.43          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 13       | 1.43          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 13       | 1.43          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 13       | 1.43          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 13       | 1.43          |
| (1,3635) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE2  | 19       | 1.43          |
| (1,3635) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE1  | 4        | 1.42          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 11       | 1.41          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 11       | 1.41          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 11       | 1.41          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 11       | 1.41          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 11       | 1.41          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 11       | 1.41          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 11       | 1.41          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 11       | 1.41          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 11       | 1.41          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG11 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG12 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG13 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG11 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG12 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG13 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG11 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG12 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG13 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG21 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG22 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG23 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG21 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG22 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG23 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG21 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG22 | 14       | 1.4           |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG23 | 14       | 1.4           |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 19       | 1.38          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 19       | 1.38          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 19       | 1.38          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 19       | 1.38          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 19       | 1.38          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 19       | 1.38          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 19       | 1.38          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 19       | 1.38          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 19       | 1.38          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 13       | 1.33          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 13       | 1.33          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 13       | 1.33          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 13       | 1.33          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 13       | 1.33          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 13       | 1.33          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 13       | 1.33          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 13       | 1.33          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 13       | 1.33          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 14       | 1.33          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 14       | 1.33          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 14       | 1.33          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 14       | 1.33          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 14       | 1.33          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 14       | 1.33          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 14       | 1.33          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 14       | 1.33          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 14       | 1.33          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 10       | 1.29          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 10       | 1.29          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 10       | 1.29          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 10       | 1.29          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 10       | 1.29          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 10       | 1.29          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 10       | 1.29          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 10       | 1.29          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 10       | 1.29          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 16       | 1.28          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 16       | 1.28          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 16       | 1.28          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 16       | 1.28          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 16       | 1.28          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 16       | 1.28          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 16       | 1.28          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 16       | 1.28          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 16       | 1.28          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 1        | 1.28          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 1        | 1.28          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 1        | 1.28          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 1        | 1.28          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 1        | 1.28          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 1        | 1.28          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 1        | 1.28          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 1        | 1.28          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 1        | 1.28          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 12       | 1.27          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 12       | 1.27          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 12       | 1.27          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 12       | 1.27          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 12       | 1.27          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 12       | 1.27          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 12       | 1.27          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 12       | 1.27          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 12       | 1.27          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 2        | 1.26          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 2        | 1.26          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 2        | 1.26          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 2        | 1.26          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 2        | 1.26          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 2        | 1.26          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 2        | 1.26          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 2        | 1.26          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 2        | 1.26          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 1        | 1.25          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 1        | 1.25          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 1        | 1.25          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 1        | 1.25          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 1        | 1.25          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 1        | 1.25          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 1        | 1.25          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 1        | 1.25          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 1        | 1.25          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 18       | 1.24          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 18       | 1.24          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 18       | 1.24          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 18       | 1.24          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 18       | 1.24          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 18       | 1.24          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 18       | 1.24          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 18       | 1.24          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 18       | 1.24          |
| (1,2565) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD1  | 12       | 1.21          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 9        | 1.18          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 9        | 1.18          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 9        | 1.18          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 9        | 1.18          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 9        | 1.18          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 9        | 1.18          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 9        | 1.18          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 9        | 1.18          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 9        | 1.18          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 17       | 1.17          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 17       | 1.17          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 17       | 1.17          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 15       | 1.17          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 15       | 1.17          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 15       | 1.17          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 15       | 1.17          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 15       | 1.17          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 15       | 1.17          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 15       | 1.17          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 15       | 1.17          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 15       | 1.17          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 5        | 1.15          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 5        | 1.15          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 5        | 1.15          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 5        | 1.15          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 5        | 1.15          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 5        | 1.15          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 5        | 1.15          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 5        | 1.15          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 5        | 1.15          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 1        | 1.15          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 10       | 1.14          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 10       | 1.14          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 10       | 1.14          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 10       | 1.14          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 10       | 1.14          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 10       | 1.14          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 10       | 1.14          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 10       | 1.14          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 10       | 1.14          |
| (1,2565) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD2  | 14       | 1.14          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 8        | 1.12          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 8        | 1.12          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 8        | 1.12          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 8        | 1.12          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 8        | 1.12          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 8        | 1.12          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 8        | 1.12          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 8        | 1.12          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 8        | 1.12          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 10       | 1.12          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 10       | 1.12          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 10       | 1.12          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 10       | 1.12          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 10       | 1.12          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 10       | 1.12          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 10       | 1.12          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 10       | 1.12          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 10       | 1.12          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG11 | 10       | 1.11          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG12 | 10       | 1.11          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG13 | 10       | 1.11          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 8        | 1.11          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 8        | 1.11          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 8        | 1.11          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 8        | 1.11          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 8        | 1.11          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 8        | 1.11          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 8        | 1.11          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 8        | 1.11          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 8        | 1.11          |
| (1,2755) | 1:402:A:PHE:HD2  | 1:460:A:LEU:HD11 | 14       | 1.1           |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD21 | 13       | 1.09          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD22 | 13       | 1.09          |
| (1,3969) | 1:399:A:LEU:HD11 | 2:620:B:LEU:HD23 | 13       | 1.09          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD21 | 13       | 1.09          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD22 | 13       | 1.09          |
| (1,3969) | 1:399:A:LEU:HD12 | 2:620:B:LEU:HD23 | 13       | 1.09          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD21 | 13       | 1.09          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD22 | 13       | 1.09          |
| (1,3969) | 1:399:A:LEU:HD13 | 2:620:B:LEU:HD23 | 13       | 1.09          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 12       | 1.09          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 12       | 1.09          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 12       | 1.09          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 12       | 1.09          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 12       | 1.09          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 12       | 1.09          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 12       | 1.09          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 12       | 1.09          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 12       | 1.09          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 5        | 1.08          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 5        | 1.08          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 5        | 1.08          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 14       | 1.07          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 14       | 1.07          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 14       | 1.07          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 14       | 1.07          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 14       | 1.07          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 14       | 1.07          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 14       | 1.07          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 14       | 1.07          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 14       | 1.07          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 14       | 1.07          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 14       | 1.07          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 14       | 1.07          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 14       | 1.07          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 14       | 1.07          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 14       | 1.07          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 14       | 1.07          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 14       | 1.07          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 14       | 1.07          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 5        | 1.05          |
| (1,2565) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD1  | 4        | 1.04          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 16       | 1.02          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 16       | 1.02          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 16       | 1.02          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 16       | 1.02          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 16       | 1.02          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 16       | 1.02          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 16       | 1.02          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 16       | 1.02          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 16       | 1.02          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 20       | 1.01          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 20       | 1.01          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 20       | 1.01          |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD21 | 17       | 1.0           |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD22 | 17       | 1.0           |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD23 | 17       | 1.0           |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD21 | 17       | 1.0           |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD22 | 17       | 1.0           |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD23 | 17       | 1.0           |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD21 | 17       | 1.0           |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD22 | 17       | 1.0           |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD23 | 17       | 1.0           |
| (1,2565) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD1  | 18       | 1.0           |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 19       | 0.99          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 19       | 0.99          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 19       | 0.99          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 19       | 0.99          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 19       | 0.99          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 19       | 0.99          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 19       | 0.99          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 19       | 0.99          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 19       | 0.99          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 12       | 0.97          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 12       | 0.97          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 12       | 0.97          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 12       | 0.97          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 12       | 0.97          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 12       | 0.97          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 12       | 0.97          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 12       | 0.97          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 12       | 0.97          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 8        | 0.97          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 8        | 0.97          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 8        | 0.97          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 8        | 0.97          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 8        | 0.97          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 8        | 0.97          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 8        | 0.97          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 8        | 0.97          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 8        | 0.97          |
| (1,3971) | 1:314:A:MET:HE1  | 2:622:B:TYR:HE2  | 9        | 0.96          |
| (1,3971) | 1:314:A:MET:HE2  | 2:622:B:TYR:HE2  | 9        | 0.96          |
| (1,3971) | 1:314:A:MET:HE3  | 2:622:B:TYR:HE2  | 9        | 0.96          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG21 | 16       | 0.95          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG22 | 16       | 0.95          |
| (1,3976) | 1:464:A:ILE:HD11 | 2:630:B:VAL:HG23 | 16       | 0.95          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG21 | 16       | 0.95          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG22 | 16       | 0.95          |
| (1,3976) | 1:464:A:ILE:HD12 | 2:630:B:VAL:HG23 | 16       | 0.95          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG21 | 16       | 0.95          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG22 | 16       | 0.95          |
| (1,3976) | 1:464:A:ILE:HD13 | 2:630:B:VAL:HG23 | 16       | 0.95          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB1  | 4        | 0.94          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB2  | 4        | 0.94          |
| (1,3967) | 1:396:A:ILE:HD11 | 2:621:B:ALA:HB3  | 4        | 0.94          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB1  | 4        | 0.94          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB2  | 4        | 0.94          |
| (1,3967) | 1:396:A:ILE:HD12 | 2:621:B:ALA:HB3  | 4        | 0.94          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB1  | 4        | 0.94          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB2  | 4        | 0.94          |
| (1,3967) | 1:396:A:ILE:HD13 | 2:621:B:ALA:HB3  | 4        | 0.94          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 1        | 0.92          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 1        | 0.92          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 1        | 0.92          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 1        | 0.92          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 1        | 0.92          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 1        | 0.92          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 1        | 0.92          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 1        | 0.92          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 1        | 0.92          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 14       | 0.92          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 2        | 0.9           |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 2        | 0.9           |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 2        | 0.9           |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 2        | 0.9           |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 2        | 0.9           |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 2        | 0.9           |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 2        | 0.9           |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 2        | 0.9           |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 2        | 0.9           |
| (1,2565) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD2  | 17       | 0.9           |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 20       | 0.89          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 20       | 0.89          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 20       | 0.89          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 20       | 0.89          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 20       | 0.89          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 20       | 0.89          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 20       | 0.89          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 20       | 0.89          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 20       | 0.89          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 3        | 0.89          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 3        | 0.89          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 3        | 0.89          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 3        | 0.89          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 3        | 0.89          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 3        | 0.89          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 3        | 0.89          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 3        | 0.89          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 3        | 0.89          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 7        | 0.88          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 7        | 0.88          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG11 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG12 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG13 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG11 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG12 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG13 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG11 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG12 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG13 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG21 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG22 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG23 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG21 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG22 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG23 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG21 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG22 | 10       | 0.87          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG23 | 10       | 0.87          |
| (1,3972) | 1:318:A:LEU:HD11 | 2:622:B:TYR:HE1  | 9        | 0.87          |
| (1,3972) | 1:318:A:LEU:HD12 | 2:622:B:TYR:HE1  | 9        | 0.87          |
| (1,3972) | 1:318:A:LEU:HD13 | 2:622:B:TYR:HE1  | 9        | 0.87          |
| (1,3118) | 1:427:A:GLN:HG2  | 1:493:A:LEU:HD11 | 15       | 0.87          |
| (1,3118) | 1:427:A:GLN:HG2  | 1:493:A:LEU:HD12 | 15       | 0.87          |
| (1,3118) | 1:427:A:GLN:HG2  | 1:493:A:LEU:HD13 | 15       | 0.87          |
| (1,3118) | 1:427:A:GLN:HG3  | 1:493:A:LEU:HD11 | 15       | 0.87          |
| (1,3118) | 1:427:A:GLN:HG3  | 1:493:A:LEU:HD12 | 15       | 0.87          |
| (1,3118) | 1:427:A:GLN:HG3  | 1:493:A:LEU:HD13 | 15       | 0.87          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG2  | 3        | 0.87          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG3  | 3        | 0.87          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD21 | 3        | 0.86          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD22 | 3        | 0.86          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 17       | 0.85          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 17       | 0.85          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 17       | 0.85          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 17       | 0.85          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 17       | 0.85          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 17       | 0.85          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 17       | 0.85          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 17       | 0.85          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 17       | 0.85          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG11 | 4        | 0.84          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG12 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG13 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG11 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG12 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG13 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG11 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG12 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG13 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG21 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG22 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG23 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG21 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG22 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG23 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG21 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG22 | 4        | 0.84          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG23 | 4        | 0.84          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 12       | 0.84          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 12       | 0.84          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 12       | 0.84          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 12       | 0.84          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 12       | 0.84          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 12       | 0.84          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 12       | 0.84          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 12       | 0.84          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 12       | 0.84          |
| (1,3103) | 1:424:A:LYS:HB2  | 1:425:A:GLU:HG2  | 8        | 0.84          |
| (1,3103) | 1:424:A:LYS:HB2  | 1:425:A:GLU:HG3  | 8        | 0.84          |
| (1,3103) | 1:424:A:LYS:HB3  | 1:425:A:GLU:HG2  | 8        | 0.84          |
| (1,3103) | 1:424:A:LYS:HB3  | 1:425:A:GLU:HG3  | 8        | 0.84          |
| (1,2915) | 1:410:A:SER:HB3  | 1:438:A:TYR:HD1  | 7        | 0.84          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 3        | 0.84          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 3        | 0.83          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 3        | 0.83          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 3        | 0.83          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 3        | 0.83          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 3        | 0.83          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 3        | 0.83          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 3        | 0.83          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 3        | 0.83          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 3        | 0.83          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG2  | 11       | 0.83          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG3  | 11       | 0.83          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG2  | 11       | 0.83          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG3  | 11       | 0.83          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 2        | 0.82          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 2        | 0.82          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 2        | 0.82          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 2        | 0.82          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 2        | 0.82          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 2        | 0.82          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 2        | 0.82          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 2        | 0.82          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 2        | 0.82          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 3        | 0.82          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 3        | 0.82          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 3        | 0.82          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 3        | 0.82          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 3        | 0.82          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 3        | 0.82          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 3        | 0.82          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 3        | 0.82          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 3        | 0.82          |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG2  | 15       | 0.82          |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG3  | 15       | 0.82          |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG2  | 15       | 0.82          |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG3  | 15       | 0.82          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 3        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 3        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 3        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 3        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 3        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 3        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 3        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 3        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 3        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 7        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 7        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 7        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 7        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 7        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 7        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 7        | 0.81          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 7        | 0.81          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 7        | 0.81          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 18       | 0.81          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 18       | 0.81          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 18       | 0.81          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 18       | 0.81          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 18       | 0.81          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 18       | 0.81          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 18       | 0.81          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 18       | 0.81          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 18       | 0.81          |
| (1,3635) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE2  | 18       | 0.81          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 14       | 0.8           |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 14       | 0.8           |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 14       | 0.8           |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 14       | 0.8           |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 14       | 0.8           |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 14       | 0.8           |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 14       | 0.8           |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 14       | 0.8           |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 14       | 0.8           |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 9        | 0.8           |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 9        | 0.8           |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 9        | 0.8           |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 9        | 0.8           |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 9        | 0.8           |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 9        | 0.8           |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 9        | 0.8           |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 9        | 0.8           |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 9        | 0.8           |
| (1,3165) | 1:429:A:LYS:HB3  | 1:431:A:TYR:HE2  | 7        | 0.8           |
| (1,349)  | 1:250:A:TYR:HD2  | 1:260:A:PRO:HB3  | 4        | 0.8           |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 8        | 0.79          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 8        | 0.79          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 8        | 0.79          |
| (1,3315) | 1:434:A:THR:HA   | 1:461:A:SER:HA   | 13       | 0.78          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 3        | 0.78          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 3        | 0.78          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 3        | 0.78          |
| (1,2927) | 1:412:A:GLN:HA   | 1:414:A:VAL:HB   | 11       | 0.78          |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG2  | 12       | 0.78          |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG3  | 12       | 0.78          |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG2  | 12       | 0.78          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG3  | 12       | 0.78          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD2  | 16       | 0.78          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD3  | 16       | 0.78          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD21 | 1        | 0.78          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD22 | 1        | 0.78          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 12       | 0.77          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 12       | 0.77          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 12       | 0.77          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 12       | 0.77          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 12       | 0.77          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 12       | 0.77          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 12       | 0.77          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 12       | 0.77          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 12       | 0.77          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB2  | 4        | 0.77          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB3  | 4        | 0.77          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB1  | 14       | 0.77          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB2  | 14       | 0.77          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB3  | 14       | 0.77          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB1  | 14       | 0.77          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB2  | 14       | 0.77          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB3  | 14       | 0.77          |
| (1,1811) | 1:339:A:LEU:HD21 | 1:345:A:THR:H    | 14       | 0.77          |
| (1,1811) | 1:339:A:LEU:HD22 | 1:345:A:THR:H    | 14       | 0.77          |
| (1,1811) | 1:339:A:LEU:HD23 | 1:345:A:THR:H    | 14       | 0.77          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 7        | 0.77          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG21 | 8        | 0.76          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG22 | 8        | 0.76          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG23 | 8        | 0.76          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG21 | 8        | 0.76          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG22 | 8        | 0.76          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG23 | 8        | 0.76          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG21 | 8        | 0.76          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG22 | 8        | 0.76          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG23 | 8        | 0.76          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 6        | 0.76          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 6        | 0.76          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 6        | 0.76          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 6        | 0.76          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 6        | 0.76          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 6        | 0.76          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 6        | 0.76          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 6        | 0.76          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 6        | 0.76          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD21 | 19       | 0.76          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD22 | 19       | 0.76          |
| (1,3977) | 1:458:A:LEU:HD11 | 2:634:B:LEU:HD23 | 19       | 0.76          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD21 | 19       | 0.76          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD22 | 19       | 0.76          |
| (1,3977) | 1:458:A:LEU:HD12 | 2:634:B:LEU:HD23 | 19       | 0.76          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD21 | 19       | 0.76          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD22 | 19       | 0.76          |
| (1,3977) | 1:458:A:LEU:HD13 | 2:634:B:LEU:HD23 | 19       | 0.76          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 16       | 0.76          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 16       | 0.76          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 16       | 0.76          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 16       | 0.76          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 16       | 0.76          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 16       | 0.76          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 16       | 0.76          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 16       | 0.76          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 16       | 0.76          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG2  | 10       | 0.76          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG3  | 10       | 0.76          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG2  | 10       | 0.76          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG3  | 10       | 0.76          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB2  | 12       | 0.76          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB3  | 12       | 0.76          |
| (1,1013) | 1:288:A:MET:HA   | 1:294:A:LYS:H    | 11       | 0.76          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 9        | 0.75          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 9        | 0.75          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 9        | 0.75          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 9        | 0.75          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 9        | 0.75          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 9        | 0.75          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 9        | 0.75          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 9        | 0.75          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 9        | 0.75          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 14       | 0.75          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 14       | 0.75          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 14       | 0.75          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 14       | 0.75          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 14       | 0.75          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 14       | 0.75          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 14       | 0.75          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 14       | 0.75          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 14       | 0.75          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 19       | 0.75          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 19       | 0.75          |
| (1,2628) | 1:393:A:GLN:HG2  | 1:397:A:ALA:H    | 9        | 0.75          |
| (1,2628) | 1:393:A:GLN:HG3  | 1:397:A:ALA:H    | 9        | 0.75          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 3        | 0.75          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 3        | 0.75          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 3        | 0.75          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 3        | 0.75          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 3        | 0.75          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 3        | 0.75          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 3        | 0.75          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 3        | 0.75          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 3        | 0.75          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 19       | 0.75          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 19       | 0.75          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 1        | 0.75          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 14       | 0.75          |
| (1,684)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:H    | 7        | 0.75          |
| (1,684)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:H    | 7        | 0.75          |
| (2,5)    | 1:290:A:ASN:HB2  | 1:293:A:HIS:HA   | 12       | 0.74          |
| (2,5)    | 1:290:A:ASN:HB3  | 1:293:A:HIS:HA   | 12       | 0.74          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 13       | 0.74          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 13       | 0.74          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 13       | 0.74          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 13       | 0.74          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 13       | 0.74          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 13       | 0.74          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 13       | 0.74          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 13       | 0.74          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 13       | 0.74          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 4        | 0.74          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 4        | 0.74          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 4        | 0.74          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 4        | 0.74          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 4        | 0.74          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 4        | 0.74          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 4        | 0.74          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 4        | 0.74          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 4        | 0.74          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 5        | 0.74          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 5        | 0.74          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG2  | 20       | 0.74          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG3  | 20       | 0.74          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 17       | 0.74          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 17       | 0.74          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 17       | 0.74          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 18       | 0.74          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 18       | 0.74          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 18       | 0.74          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE21 | 14       | 0.74          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE22 | 14       | 0.74          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE21 | 14       | 0.74          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE22 | 14       | 0.74          |
| (1,2590) | 1:390:A:PHE:HD1  | 1:471:A:TYR:HB2  | 18       | 0.74          |
| (1,2590) | 1:390:A:PHE:HD1  | 1:471:A:TYR:HB3  | 18       | 0.74          |
| (1,2590) | 1:390:A:PHE:HD2  | 1:471:A:TYR:HB2  | 18       | 0.74          |
| (1,2590) | 1:390:A:PHE:HD2  | 1:471:A:TYR:HB3  | 18       | 0.74          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 12       | 0.74          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 20       | 0.74          |
| (2,5)    | 1:290:A:ASN:HB2  | 1:293:A:HIS:HA   | 9        | 0.73          |
| (2,5)    | 1:290:A:ASN:HB3  | 1:293:A:HIS:HA   | 9        | 0.73          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 4        | 0.73          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 4        | 0.73          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 4        | 0.73          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 4        | 0.73          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 4        | 0.73          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 4        | 0.73          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 4        | 0.73          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 4        | 0.73          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 4        | 0.73          |
| (1,3636) | 1:458:A:LEU:HD11 | 1:469:A:MET:HE1  | 18       | 0.73          |
| (1,3636) | 1:458:A:LEU:HD11 | 1:469:A:MET:HE2  | 18       | 0.73          |
| (1,3636) | 1:458:A:LEU:HD11 | 1:469:A:MET:HE3  | 18       | 0.73          |
| (1,3636) | 1:458:A:LEU:HD12 | 1:469:A:MET:HE1  | 18       | 0.73          |
| (1,3636) | 1:458:A:LEU:HD12 | 1:469:A:MET:HE2  | 18       | 0.73          |
| (1,3636) | 1:458:A:LEU:HD12 | 1:469:A:MET:HE3  | 18       | 0.73          |
| (1,3636) | 1:458:A:LEU:HD13 | 1:469:A:MET:HE1  | 18       | 0.73          |
| (1,3636) | 1:458:A:LEU:HD13 | 1:469:A:MET:HE2  | 18       | 0.73          |
| (1,3636) | 1:458:A:LEU:HD13 | 1:469:A:MET:HE3  | 18       | 0.73          |
| (1,3360) | 1:437:A:SER:HA   | 1:462:A:ASP:HA   | 15       | 0.73          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 6        | 0.73          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 6        | 0.73          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 9        | 0.73          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 9        | 0.73          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB2  | 19       | 0.73          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB3  | 19       | 0.73          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE21 | 4        | 0.73          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE22 | 4        | 0.73          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE21 | 4        | 0.73          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE22 | 4        | 0.73          |
| (1,2565) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD1  | 2        | 0.73          |
| (1,684)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:H    | 4        | 0.73          |
| (1,684)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:H    | 4        | 0.73          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 19       | 0.72          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 19       | 0.72          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 19       | 0.72          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 19       | 0.72          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 19       | 0.72          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 19       | 0.72          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 19       | 0.72          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 19       | 0.72          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 19       | 0.72          |
| (1,3635) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE2  | 14       | 0.72          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 13       | 0.72          |
| (1,3178) | 1:430:A:ILE:HD11 | 1:479:A:PRO:HA   | 19       | 0.72          |
| (1,3178) | 1:430:A:ILE:HD12 | 1:479:A:PRO:HA   | 19       | 0.72          |
| (1,3178) | 1:430:A:ILE:HD13 | 1:479:A:PRO:HA   | 19       | 0.72          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 13       | 0.72          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 13       | 0.72          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 13       | 0.72          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 13       | 0.72          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 13       | 0.72          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 13       | 0.72          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB2  | 10       | 0.72          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB3  | 10       | 0.72          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA2  | 7        | 0.72          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA3  | 7        | 0.72          |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 7        | 0.72          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 2        | 0.72          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 13       | 0.72          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 20       | 0.72          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 20       | 0.72          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 20       | 0.72          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG21 | 7        | 0.71          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG22 | 7        | 0.71          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG23 | 7        | 0.71          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG21 | 7        | 0.71          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG22 | 7        | 0.71          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG23 | 7        | 0.71          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG21 | 7        | 0.71          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG22 | 7        | 0.71          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG23 | 7        | 0.71          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 5        | 0.71          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 5        | 0.71          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 5        | 0.71          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 5        | 0.71          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 5        | 0.71          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 5        | 0.71          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 5        | 0.71          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 5        | 0.71          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 5        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG11 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG12 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG13 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG11 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG12 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG13 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG11 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG12 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG13 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG21 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG22 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG23 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG21 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG22 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG23 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG21 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG22 | 7        | 0.71          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG23 | 7        | 0.71          |
| (1,3898) | 1:486:A:VAL:HG11 | 1:488:A:GLU:HA   | 6        | 0.71          |
| (1,3898) | 1:486:A:VAL:HG12 | 1:488:A:GLU:HA   | 6        | 0.71          |
| (1,3898) | 1:486:A:VAL:HG13 | 1:488:A:GLU:HA   | 6        | 0.71          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG2  | 16       | 0.71          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG3  | 16       | 0.71          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG2  | 16       | 0.71          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG3  | 16       | 0.71          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 8        | 0.71          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 8        | 0.71          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 15       | 0.71          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 15       | 0.71          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG2  | 6        | 0.71          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG3  | 6        | 0.71          |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 4        | 0.71          |
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD2  | 13       | 0.71          |
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD3  | 13       | 0.71          |
| (1,2122) | 1:361:A:GLU:HG3  | 1:401:A:ARG:HH22 | 6        | 0.71          |
| (1,2122) | 1:361:A:GLU:HG3  | 1:401:A:ARG:HH22 | 13       | 0.71          |
| (1,1452) | 1:313:A:PHE:HZ   | 1:345:A:THR:HA   | 20       | 0.71          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 18       | 0.71          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 16       | 0.71          |
| (2,9)    | 1:338:A:ILE:HD11 | 1:342:A:SER:H    | 17       | 0.7           |
| (2,9)    | 1:338:A:ILE:HD12 | 1:342:A:SER:H    | 17       | 0.7           |
| (2,9)    | 1:338:A:ILE:HD13 | 1:342:A:SER:H    | 17       | 0.7           |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 5        | 0.7           |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 5        | 0.7           |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 5        | 0.7           |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 5        | 0.7           |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 5        | 0.7           |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 5        | 0.7           |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 5        | 0.7           |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 5        | 0.7           |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 5        | 0.7           |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB2  | 7        | 0.7           |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB3  | 7        | 0.7           |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB2  | 7        | 0.7           |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB3  | 7        | 0.7           |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB2  | 7        | 0.7           |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB3  | 7        | 0.7           |
| (1,3634) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE1  | 16       | 0.7           |
| (1,3634) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE2  | 16       | 0.7           |
| (1,3634) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE1  | 16       | 0.7           |
| (1,3634) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE2  | 16       | 0.7           |
| (1,3634) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE1  | 16       | 0.7           |
| (1,3634) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE2  | 16       | 0.7           |
| (1,3315) | 1:434:A:THR:HA   | 1:461:A:SER:HA   | 12       | 0.7           |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG2  | 19       | 0.7           |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG3  | 19       | 0.7           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 4        | 0.7           |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 4        | 0.7           |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 4        | 0.7           |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 4        | 0.7           |
| (1,1638) | 1:320:A:PHE:HA   | 1:322:A:ARG:HG2  | 4        | 0.7           |
| (1,1638) | 1:320:A:PHE:HA   | 1:322:A:ARG:HG3  | 4        | 0.7           |
| (1,1511) | 1:315:A:PRO:HG2  | 1:319:A:ARG:H    | 7        | 0.7           |
| (1,1511) | 1:315:A:PRO:HG3  | 1:319:A:ARG:H    | 7        | 0.7           |
| (1,1425) | 1:312:A:GLN:HG2  | 1:339:A:LEU:HA   | 18       | 0.7           |
| (1,1425) | 1:312:A:GLN:HG3  | 1:339:A:LEU:HA   | 18       | 0.7           |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 9        | 0.7           |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 9        | 0.7           |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 10       | 0.7           |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 10       | 0.7           |
| (1,988)  | 1:287:A:ASP:HB2  | 1:293:A:HIS:HA   | 9        | 0.7           |
| (1,988)  | 1:287:A:ASP:HB3  | 1:293:A:HIS:HA   | 9        | 0.7           |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 15       | 0.7           |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 18       | 0.7           |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 3        | 0.7           |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 3        | 0.7           |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 3        | 0.7           |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD21 | 12       | 0.7           |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD22 | 12       | 0.7           |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 4        | 0.69          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 4        | 0.69          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 4        | 0.69          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 4        | 0.69          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 4        | 0.69          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 4        | 0.69          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 4        | 0.69          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 4        | 0.69          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 4        | 0.69          |
| (1,3882) | 1:485:A:LYS:HB2  | 1:487:A:ASP:HB3  | 14       | 0.69          |
| (1,3627) | 1:457:A:VAL:HB   | 1:459:A:LEU:HD21 | 16       | 0.69          |
| (1,3627) | 1:457:A:VAL:HB   | 1:459:A:LEU:HD22 | 16       | 0.69          |
| (1,3627) | 1:457:A:VAL:HB   | 1:459:A:LEU:HD23 | 16       | 0.69          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 7        | 0.69          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 7        | 0.69          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 7        | 0.69          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 7        | 0.69          |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG2  | 13       | 0.69          |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG3  | 13       | 0.69          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 12       | 0.69          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 12       | 0.69          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 12       | 0.69          |
| (1,2873) | 1:406:A:HIS:HA   | 1:422:A:ARG:HD2  | 15       | 0.69          |
| (1,2873) | 1:406:A:HIS:HA   | 1:422:A:ARG:HD3  | 15       | 0.69          |
| (1,2755) | 1:402:A:PHE:HD1  | 1:460:A:LEU:HD12 | 17       | 0.69          |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE2  | 7        | 0.69          |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE3  | 7        | 0.69          |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE2  | 7        | 0.69          |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE3  | 7        | 0.69          |
| (1,2122) | 1:361:A:GLU:HG3  | 1:401:A:ARG:HH22 | 11       | 0.69          |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 14       | 0.69          |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 16       | 0.69          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 2        | 0.69          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 2        | 0.69          |
| (1,1013) | 1:288:A:MET:HA   | 1:294:A:LYS:H    | 3        | 0.69          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 2        | 0.69          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 2        | 0.69          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 2        | 0.69          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD2  | 11       | 0.69          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD3  | 11       | 0.69          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 13       | 0.69          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG21 | 2        | 0.69          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG22 | 2        | 0.69          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG23 | 2        | 0.69          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 15       | 0.68          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 15       | 0.68          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 15       | 0.68          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 15       | 0.68          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 15       | 0.68          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 15       | 0.68          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 15       | 0.68          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 15       | 0.68          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 15       | 0.68          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 18       | 0.68          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 18       | 0.68          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 18       | 0.68          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 18       | 0.68          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 18       | 0.68          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 18       | 0.68          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 18       | 0.68          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 18       | 0.68          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 18       | 0.68          |
| (1,3315) | 1:434:A:THR:HA   | 1:461:A:SER:HA   | 1        | 0.68          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB2  | 16       | 0.68          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB3  | 16       | 0.68          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB2  | 16       | 0.68          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB3  | 16       | 0.68          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 1        | 0.68          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 1        | 0.68          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 1        | 0.68          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 1        | 0.68          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG2  | 9        | 0.68          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG3  | 9        | 0.68          |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 11       | 0.68          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB2  | 16       | 0.68          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB3  | 16       | 0.68          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB2  | 17       | 0.68          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB3  | 17       | 0.68          |
| (1,2590) | 1:390:A:PHE:HD1  | 1:471:A:TYR:HB2  | 12       | 0.68          |
| (1,2590) | 1:390:A:PHE:HD1  | 1:471:A:TYR:HB3  | 12       | 0.68          |
| (1,2590) | 1:390:A:PHE:HD2  | 1:471:A:TYR:HB2  | 12       | 0.68          |
| (1,2590) | 1:390:A:PHE:HD2  | 1:471:A:TYR:HB3  | 12       | 0.68          |
| (1,2122) | 1:361:A:GLU:HG3  | 1:401:A:ARG:HH22 | 7        | 0.68          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 9        | 0.68          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 9        | 0.68          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 9        | 0.68          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 9        | 0.68          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 18       | 0.68          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 18       | 0.68          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 18       | 0.68          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 18       | 0.68          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD2  | 9        | 0.68          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD3  | 9        | 0.68          |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG2  | 1        | 0.68          |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG3  | 1        | 0.68          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 11       | 0.68          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 11       | 0.68          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 11       | 0.68          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 11       | 0.68          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 11       | 0.68          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 11       | 0.68          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 11       | 0.68          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 11       | 0.68          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 11       | 0.68          |
| (1,1527) | 1:316:A:ASN:H    | 1:349:A:ARG:HD2  | 15       | 0.68          |
| (1,1527) | 1:316:A:ASN:H    | 1:349:A:ARG:HD3  | 15       | 0.68          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD11 | 19       | 0.68          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD12 | 19       | 0.68          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD13 | 19       | 0.68          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 10       | 0.68          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 19       | 0.68          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 6        | 0.68          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 1        | 0.68          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 10       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 10       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 10       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 10       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 10       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 10       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 10       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 10       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 10       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 17       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 17       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 17       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 17       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 17       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 17       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 17       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 17       | 0.67          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 17       | 0.67          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 13       | 0.67          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 13       | 0.67          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 13       | 0.67          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 13       | 0.67          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 13       | 0.67          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 13       | 0.67          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 13       | 0.67          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 13       | 0.67          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 13       | 0.67          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 4        | 0.67          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 19       | 0.67          |
| (1,3360) | 1:437:A:SER:HA   | 1:462:A:ASP:HA   | 5        | 0.67          |
| (1,3353) | 1:436:A:ASP:HA   | 1:461:A:SER:HA   | 20       | 0.67          |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 18       | 0.67          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3126) | 1:427:A:GLN:HG2  | 1:430:A:ILE:HA   | 11       | 0.67          |
| (1,3126) | 1:427:A:GLN:HG3  | 1:430:A:ILE:HA   | 11       | 0.67          |
| (1,3103) | 1:424:A:LYS:HB2  | 1:425:A:GLU:HG2  | 9        | 0.67          |
| (1,3103) | 1:424:A:LYS:HB2  | 1:425:A:GLU:HG3  | 9        | 0.67          |
| (1,3103) | 1:424:A:LYS:HB3  | 1:425:A:GLU:HG2  | 9        | 0.67          |
| (1,3103) | 1:424:A:LYS:HB3  | 1:425:A:GLU:HG3  | 9        | 0.67          |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB2  | 10       | 0.67          |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB3  | 10       | 0.67          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 16       | 0.67          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 16       | 0.67          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 16       | 0.67          |
| (1,2483) | 1:383:A:LYS:HD2  | 1:465:A:ASP:HA   | 17       | 0.67          |
| (1,2483) | 1:383:A:LYS:HD3  | 1:465:A:ASP:HA   | 17       | 0.67          |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 15       | 0.67          |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 15       | 0.67          |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 15       | 0.67          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD21 | 13       | 0.67          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD22 | 13       | 0.67          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD21 | 13       | 0.67          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD22 | 13       | 0.67          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD21 | 9        | 0.67          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD22 | 9        | 0.67          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 14       | 0.67          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 14       | 0.67          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 14       | 0.67          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 14       | 0.67          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 14       | 0.67          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 14       | 0.67          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 14       | 0.67          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 14       | 0.67          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 14       | 0.67          |
| (1,988)  | 1:287:A:ASP:HB2  | 1:293:A:HIS:HA   | 1        | 0.67          |
| (1,988)  | 1:287:A:ASP:HB3  | 1:293:A:HIS:HA   | 1        | 0.67          |
| (1,986)  | 1:287:A:ASP:HB2  | 1:294:A:LYS:H    | 12       | 0.67          |
| (1,986)  | 1:287:A:ASP:HB3  | 1:294:A:LYS:H    | 12       | 0.67          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 6        | 0.67          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 8        | 0.67          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 8        | 0.67          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 8        | 0.67          |
| (1,451)  | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 20       | 0.67          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD2  | 11       | 0.67          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD3  | 11       | 0.67          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD2  | 11       | 0.67          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD3  | 11       | 0.67          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD2  | 11       | 0.67          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD3  | 11       | 0.67          |
| (1,309)  | 1:249:A:PHE:HE2  | 1:298:A:LYS:HD3  | 5        | 0.67          |
| (1,309)  | 1:249:A:PHE:HE2  | 1:298:A:LYS:HD3  | 9        | 0.67          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 10       | 0.67          |
| (1,37)   | 1:233:A:LEU:HD11 | 1:249:A:PHE:H    | 5        | 0.67          |
| (1,37)   | 1:233:A:LEU:HD12 | 1:249:A:PHE:H    | 5        | 0.67          |
| (1,37)   | 1:233:A:LEU:HD13 | 1:249:A:PHE:H    | 5        | 0.67          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 1        | 0.66          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 1        | 0.66          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 1        | 0.66          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 1        | 0.66          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 1        | 0.66          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 1        | 0.66          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 1        | 0.66          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 1        | 0.66          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 1        | 0.66          |
| (1,3550) | 1:450:A:LEU:HD21 | 1:490:A:LEU:HA   | 14       | 0.66          |
| (1,3550) | 1:450:A:LEU:HD22 | 1:490:A:LEU:HA   | 14       | 0.66          |
| (1,3550) | 1:450:A:LEU:HD23 | 1:490:A:LEU:HA   | 14       | 0.66          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB2  | 14       | 0.66          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB3  | 14       | 0.66          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB2  | 14       | 0.66          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB3  | 14       | 0.66          |
| (1,3135) | 1:428:A:GLU:HA   | 1:478:A:LYS:HA   | 8        | 0.66          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG2  | 13       | 0.66          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG3  | 13       | 0.66          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG2  | 13       | 0.66          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG3  | 13       | 0.66          |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD11 | 4        | 0.66          |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD12 | 4        | 0.66          |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD13 | 4        | 0.66          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 1        | 0.66          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 1        | 0.66          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 1        | 0.66          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 19       | 0.66          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 19       | 0.66          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 19       | 0.66          |
| (1,2914) | 1:410:A:SER:HA   | 1:438:A:TYR:HE1  | 12       | 0.66          |
| (1,2873) | 1:406:A:HIS:HA   | 1:422:A:ARG:HD2  | 8        | 0.66          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2873) | 1:406:A:HIS:HA   | 1:422:A:ARG:HD3  | 8        | 0.66          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE21 | 1        | 0.66          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE22 | 1        | 0.66          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE21 | 1        | 0.66          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE22 | 1        | 0.66          |
| (1,2135) | 1:361:A:GLU:HG2  | 1:365:A:LYS:HG2  | 11       | 0.66          |
| (1,2135) | 1:361:A:GLU:HG2  | 1:365:A:LYS:HG3  | 11       | 0.66          |
| (1,2135) | 1:361:A:GLU:HG3  | 1:365:A:LYS:HG2  | 11       | 0.66          |
| (1,2135) | 1:361:A:GLU:HG3  | 1:365:A:LYS:HG3  | 11       | 0.66          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD2  | 5        | 0.66          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD3  | 5        | 0.66          |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG2  | 8        | 0.66          |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG3  | 8        | 0.66          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 20       | 0.66          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 20       | 0.66          |
| (1,988)  | 1:287:A:ASP:HB2  | 1:293:A:HIS:HA   | 3        | 0.66          |
| (1,988)  | 1:287:A:ASP:HB3  | 1:293:A:HIS:HA   | 3        | 0.66          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 13       | 0.66          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 13       | 0.66          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 13       | 0.66          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 17       | 0.66          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 17       | 0.66          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 17       | 0.66          |
| (1,309)  | 1:249:A:PHE:HE2  | 1:298:A:LYS:HD3  | 6        | 0.66          |
| (1,309)  | 1:249:A:PHE:HE2  | 1:298:A:LYS:HD3  | 13       | 0.66          |
| (1,110)  | 1:235:A:THR:HG1  | 1:267:A:ARG:HD2  | 5        | 0.66          |
| (1,110)  | 1:235:A:THR:HG1  | 1:267:A:ARG:HD3  | 5        | 0.66          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 3        | 0.66          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 4        | 0.66          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 18       | 0.66          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 6        | 0.65          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 6        | 0.65          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 6        | 0.65          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 6        | 0.65          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 6        | 0.65          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 6        | 0.65          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 6        | 0.65          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 6        | 0.65          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 6        | 0.65          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 2        | 0.65          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 12       | 0.65          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD21 | 19       | 0.65          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD22 | 19       | 0.65          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD23 | 19       | 0.65          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 1        | 0.65          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 1        | 0.65          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 2        | 0.65          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 2        | 0.65          |
| (1,3074) | 1:423:A:MET:HE1  | 1:430:A:ILE:HA   | 2        | 0.65          |
| (1,3074) | 1:423:A:MET:HE2  | 1:430:A:ILE:HA   | 2        | 0.65          |
| (1,3074) | 1:423:A:MET:HE3  | 1:430:A:ILE:HA   | 2        | 0.65          |
| (1,2927) | 1:412:A:GLN:HA   | 1:414:A:VAL:HB   | 15       | 0.65          |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD11 | 8        | 0.65          |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD12 | 8        | 0.65          |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD13 | 8        | 0.65          |
| (1,2875) | 1:406:A:HIS:HB2  | 1:414:A:VAL:HB   | 15       | 0.65          |
| (1,2875) | 1:406:A:HIS:HB3  | 1:414:A:VAL:HB   | 15       | 0.65          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE21 | 17       | 0.65          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE22 | 17       | 0.65          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE21 | 17       | 0.65          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE22 | 17       | 0.65          |
| (1,2427) | 1:380:A:LEU:HD11 | 1:463:A:ARG:H    | 11       | 0.65          |
| (1,2427) | 1:380:A:LEU:HD12 | 1:463:A:ARG:H    | 11       | 0.65          |
| (1,2427) | 1:380:A:LEU:HD13 | 1:463:A:ARG:H    | 11       | 0.65          |
| (1,2427) | 1:380:A:LEU:HD11 | 1:463:A:ARG:H    | 13       | 0.65          |
| (1,2427) | 1:380:A:LEU:HD12 | 1:463:A:ARG:H    | 13       | 0.65          |
| (1,2427) | 1:380:A:LEU:HD13 | 1:463:A:ARG:H    | 13       | 0.65          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 16       | 0.65          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 16       | 0.65          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 16       | 0.65          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 16       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB1  | 11       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB2  | 11       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB3  | 11       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB1  | 11       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB2  | 11       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB3  | 11       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB1  | 13       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB2  | 13       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB3  | 13       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB1  | 13       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB2  | 13       | 0.65          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB3  | 13       | 0.65          |
| (1,1726) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HB   | 19       | 0.65          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1726) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HB   | 19       | 0.65          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 18       | 0.65          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 18       | 0.65          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 18       | 0.65          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 18       | 0.65          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 18       | 0.65          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 18       | 0.65          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 18       | 0.65          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 18       | 0.65          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 18       | 0.65          |
| (1,1511) | 1:315:A:PRO:HG2  | 1:319:A:ARG:H    | 10       | 0.65          |
| (1,1511) | 1:315:A:PRO:HG3  | 1:319:A:ARG:H    | 10       | 0.65          |
| (1,1505) | 1:315:A:PRO:HD2  | 1:350:A:ASN:HA   | 10       | 0.65          |
| (1,1505) | 1:315:A:PRO:HD3  | 1:350:A:ASN:HA   | 10       | 0.65          |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD21 | 18       | 0.65          |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD22 | 18       | 0.65          |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD23 | 18       | 0.65          |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD21 | 18       | 0.65          |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD22 | 18       | 0.65          |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD23 | 18       | 0.65          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 9        | 0.65          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 9        | 0.65          |
| (1,988)  | 1:287:A:ASP:HB2  | 1:293:A:HIS:HA   | 2        | 0.65          |
| (1,988)  | 1:287:A:ASP:HB3  | 1:293:A:HIS:HA   | 2        | 0.65          |
| (1,988)  | 1:287:A:ASP:HB2  | 1:293:A:HIS:HA   | 17       | 0.65          |
| (1,988)  | 1:287:A:ASP:HB3  | 1:293:A:HIS:HA   | 17       | 0.65          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 5        | 0.65          |
| (1,757)  | 1:276:A:SER:HB2  | 1:355:A:ARG:HG2  | 7        | 0.65          |
| (1,757)  | 1:276:A:SER:HB3  | 1:355:A:ARG:HG2  | 7        | 0.65          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 12       | 0.65          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 12       | 0.65          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 12       | 0.65          |
| (1,85)   | 1:234:A:TRP:HE1  | 1:275:A:THR:HB   | 12       | 0.65          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 8        | 0.64          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 1        | 0.64          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 7        | 0.64          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 18       | 0.64          |
| (1,3315) | 1:434:A:THR:HA   | 1:461:A:SER:HA   | 19       | 0.64          |
| (1,3313) | 1:434:A:THR:HA   | 1:465:A:ASP:HB2  | 4        | 0.64          |
| (1,3313) | 1:434:A:THR:HA   | 1:465:A:ASP:HB3  | 4        | 0.64          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD21 | 18       | 0.64          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD22 | 18       | 0.64          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD23 | 18       | 0.64          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB2  | 17       | 0.64          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB3  | 17       | 0.64          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB2  | 17       | 0.64          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB3  | 17       | 0.64          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 17       | 0.64          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 17       | 0.64          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 18       | 0.64          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 18       | 0.64          |
| (1,2901) | 1:409:A:SER:HB2  | 1:413:A:THR:HG21 | 18       | 0.64          |
| (1,2901) | 1:409:A:SER:HB2  | 1:413:A:THR:HG22 | 18       | 0.64          |
| (1,2901) | 1:409:A:SER:HB2  | 1:413:A:THR:HG23 | 18       | 0.64          |
| (1,2901) | 1:409:A:SER:HB3  | 1:413:A:THR:HG21 | 18       | 0.64          |
| (1,2901) | 1:409:A:SER:HB3  | 1:413:A:THR:HG22 | 18       | 0.64          |
| (1,2901) | 1:409:A:SER:HB3  | 1:413:A:THR:HG23 | 18       | 0.64          |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 16       | 0.64          |
| (1,2860) | 1:405:A:THR:HG21 | 1:442:A:LYS:HG2  | 12       | 0.64          |
| (1,2860) | 1:405:A:THR:HG21 | 1:442:A:LYS:HG3  | 12       | 0.64          |
| (1,2860) | 1:405:A:THR:HG22 | 1:442:A:LYS:HG2  | 12       | 0.64          |
| (1,2860) | 1:405:A:THR:HG22 | 1:442:A:LYS:HG3  | 12       | 0.64          |
| (1,2860) | 1:405:A:THR:HG23 | 1:442:A:LYS:HG2  | 12       | 0.64          |
| (1,2860) | 1:405:A:THR:HG23 | 1:442:A:LYS:HG3  | 12       | 0.64          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 1        | 0.64          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 1        | 0.64          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 1        | 0.64          |
| (1,2697) | 1:398:A:LYS:HA   | 1:475:A:PHE:HE1  | 7        | 0.64          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB2  | 7        | 0.64          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB3  | 7        | 0.64          |
| (1,2505) | 1:384:A:GLU:HA   | 1:468:A:MET:HA   | 10       | 0.64          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG2  | 6        | 0.64          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG3  | 6        | 0.64          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG2  | 6        | 0.64          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG3  | 6        | 0.64          |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG2  | 14       | 0.64          |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG3  | 14       | 0.64          |
| (1,1726) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HB   | 11       | 0.64          |
| (1,1726) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HB   | 11       | 0.64          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 5        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 5        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 5        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 5        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 5        | 0.64          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 5        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 5        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 5        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 5        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 8        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 8        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 8        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 8        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 8        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 8        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 8        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 8        | 0.64          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 8        | 0.64          |
| (1,1511) | 1:315:A:PRO:HG2  | 1:319:A:ARG:H    | 12       | 0.64          |
| (1,1511) | 1:315:A:PRO:HG3  | 1:319:A:ARG:H    | 12       | 0.64          |
| (1,1367) | 1:307:A:MET:HE1  | 1:339:A:LEU:H    | 18       | 0.64          |
| (1,1367) | 1:307:A:MET:HE2  | 1:339:A:LEU:H    | 18       | 0.64          |
| (1,1367) | 1:307:A:MET:HE3  | 1:339:A:LEU:H    | 18       | 0.64          |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 17       | 0.64          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 1        | 0.64          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 1        | 0.64          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 13       | 0.64          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 13       | 0.64          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 11       | 0.64          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 10       | 0.64          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 10       | 0.64          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 10       | 0.64          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 2        | 0.64          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 11       | 0.64          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG21 | 17       | 0.64          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG22 | 17       | 0.64          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG23 | 17       | 0.64          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG21 | 20       | 0.64          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG22 | 20       | 0.64          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG23 | 20       | 0.64          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 1        | 0.63          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 1        | 0.63          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 1        | 0.63          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 1        | 0.63          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 1        | 0.63          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 1        | 0.63          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 1        | 0.63          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 1        | 0.63          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 1        | 0.63          |
| (1,3882) | 1:485:A:LYS:HB2  | 1:487:A:ASP:HB3  | 20       | 0.63          |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD11 | 7        | 0.63          |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD12 | 7        | 0.63          |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD13 | 7        | 0.63          |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD11 | 7        | 0.63          |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD12 | 7        | 0.63          |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD13 | 7        | 0.63          |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD11 | 7        | 0.63          |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD12 | 7        | 0.63          |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD13 | 7        | 0.63          |
| (1,3326) | 1:435:A:ALA:H    | 1:465:A:ASP:HB2  | 4        | 0.63          |
| (1,3326) | 1:435:A:ALA:H    | 1:465:A:ASP:HB3  | 4        | 0.63          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 9        | 0.63          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 9        | 0.63          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 9        | 0.63          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 9        | 0.63          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 17       | 0.63          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 17       | 0.63          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 17       | 0.63          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 17       | 0.63          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG2  | 1        | 0.63          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG3  | 1        | 0.63          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG2  | 1        | 0.63          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG3  | 1        | 0.63          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 3        | 0.63          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 3        | 0.63          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 20       | 0.63          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 20       | 0.63          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD11 | 3        | 0.63          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD12 | 3        | 0.63          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD13 | 3        | 0.63          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD11 | 3        | 0.63          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD12 | 3        | 0.63          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD13 | 3        | 0.63          |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG2  | 20       | 0.63          |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG3  | 20       | 0.63          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG2  | 2        | 0.63          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG3  | 2        | 0.63          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 5        | 0.63          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 5        | 0.63          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 5        | 0.63          |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 5        | 0.63          |
| (1,2427) | 1:380:A:LEU:HD11 | 1:463:A:ARG:H    | 2        | 0.63          |
| (1,2427) | 1:380:A:LEU:HD12 | 1:463:A:ARG:H    | 2        | 0.63          |
| (1,2427) | 1:380:A:LEU:HD13 | 1:463:A:ARG:H    | 2        | 0.63          |
| (1,2427) | 1:380:A:LEU:HD11 | 1:463:A:ARG:H    | 3        | 0.63          |
| (1,2427) | 1:380:A:LEU:HD12 | 1:463:A:ARG:H    | 3        | 0.63          |
| (1,2427) | 1:380:A:LEU:HD13 | 1:463:A:ARG:H    | 3        | 0.63          |
| (1,2426) | 1:380:A:LEU:HD22 | 1:464:A:ILE:H    | 11       | 0.63          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE1  | 17       | 0.63          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE2  | 17       | 0.63          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE3  | 17       | 0.63          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA2  | 4        | 0.63          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA3  | 4        | 0.63          |
| (1,2288) | 1:372:A:GLN:HE21 | 1:376:A:GLN:H    | 12       | 0.63          |
| (1,2288) | 1:372:A:GLN:HE22 | 1:376:A:GLN:H    | 12       | 0.63          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 7        | 0.63          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 7        | 0.63          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 7        | 0.63          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 7        | 0.63          |
| (1,2048) | 1:357:A:LEU:HD11 | 1:392:A:ASN:H    | 14       | 0.63          |
| (1,2048) | 1:357:A:LEU:HD12 | 1:392:A:ASN:H    | 14       | 0.63          |
| (1,2048) | 1:357:A:LEU:HD13 | 1:392:A:ASN:H    | 14       | 0.63          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD2  | 20       | 0.63          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD3  | 20       | 0.63          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD21 | 3        | 0.63          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD22 | 3        | 0.63          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD21 | 14       | 0.63          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD22 | 14       | 0.63          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD21 | 16       | 0.63          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD22 | 16       | 0.63          |
| (1,1391) | 1:309:A:ASP:HB2  | 1:311:A:GLU:HB2  | 18       | 0.63          |
| (1,1391) | 1:309:A:ASP:HB2  | 1:311:A:GLU:HB3  | 18       | 0.63          |
| (1,1391) | 1:309:A:ASP:HB3  | 1:311:A:GLU:HB2  | 18       | 0.63          |
| (1,1391) | 1:309:A:ASP:HB3  | 1:311:A:GLU:HB3  | 18       | 0.63          |
| (1,1013) | 1:288:A:MET:HA   | 1:294:A:LYS:H    | 15       | 0.63          |
| (1,915)  | 1:282:A:SER:HA   | 1:378:A:PHE:HZ   | 6        | 0.63          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 19       | 0.63          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 9        | 0.63          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG21 | 19       | 0.63          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG22 | 19       | 0.63          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG23 | 19       | 0.63          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,9)    | 1:338:A:ILE:HD11 | 1:342:A:SER:H    | 7        | 0.62          |
| (2,9)    | 1:338:A:ILE:HD12 | 1:342:A:SER:H    | 7        | 0.62          |
| (2,9)    | 1:338:A:ILE:HD13 | 1:342:A:SER:H    | 7        | 0.62          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 11       | 0.62          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 11       | 0.62          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 11       | 0.62          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 11       | 0.62          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 11       | 0.62          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 11       | 0.62          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 11       | 0.62          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 11       | 0.62          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 11       | 0.62          |
| (2,5)    | 1:290:A:ASN:HB2  | 1:293:A:HIS:HA   | 7        | 0.62          |
| (2,5)    | 1:290:A:ASN:HB3  | 1:293:A:HIS:HA   | 7        | 0.62          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 20       | 0.62          |
| (1,3904) | 1:487:A:ASP:HA   | 1:491:A:GLU:HB2  | 14       | 0.62          |
| (1,3904) | 1:487:A:ASP:HA   | 1:491:A:GLU:HB3  | 14       | 0.62          |
| (1,3888) | 1:486:A:VAL:HG11 | 1:491:A:GLU:HA   | 14       | 0.62          |
| (1,3888) | 1:486:A:VAL:HG12 | 1:491:A:GLU:HA   | 14       | 0.62          |
| (1,3888) | 1:486:A:VAL:HG13 | 1:491:A:GLU:HA   | 14       | 0.62          |
| (1,3882) | 1:485:A:LYS:HB2  | 1:487:A:ASP:HB3  | 12       | 0.62          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB2  | 3        | 0.62          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB3  | 3        | 0.62          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB2  | 3        | 0.62          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB3  | 3        | 0.62          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB2  | 3        | 0.62          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB3  | 3        | 0.62          |
| (1,3529) | 1:449:A:LEU:HD21 | 1:494:A:ALA:H    | 16       | 0.62          |
| (1,3529) | 1:449:A:LEU:HD22 | 1:494:A:ALA:H    | 16       | 0.62          |
| (1,3529) | 1:449:A:LEU:HD23 | 1:494:A:ALA:H    | 16       | 0.62          |
| (1,3164) | 1:429:A:LYS:HB2  | 1:431:A:TYR:HE1  | 7        | 0.62          |
| (1,3164) | 1:429:A:LYS:HB2  | 1:431:A:TYR:HE2  | 7        | 0.62          |
| (1,3164) | 1:429:A:LYS:HB3  | 1:431:A:TYR:HE1  | 7        | 0.62          |
| (1,3164) | 1:429:A:LYS:HB3  | 1:431:A:TYR:HE2  | 7        | 0.62          |
| (1,3145) | 1:429:A:LYS:HB2  | 1:489:A:SER:HB2  | 7        | 0.62          |
| (1,3145) | 1:429:A:LYS:HB2  | 1:489:A:SER:HB3  | 7        | 0.62          |
| (1,3145) | 1:429:A:LYS:HB3  | 1:489:A:SER:HB2  | 7        | 0.62          |
| (1,3145) | 1:429:A:LYS:HB3  | 1:489:A:SER:HB3  | 7        | 0.62          |
| (1,3136) | 1:428:A:GLU:HG2  | 1:478:A:LYS:HA   | 16       | 0.62          |
| (1,3136) | 1:428:A:GLU:HG3  | 1:478:A:LYS:HA   | 16       | 0.62          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG2  | 15       | 0.62          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG3  | 15       | 0.62          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG2  | 15       | 0.62          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG3  | 15       | 0.62          |
| (1,3080) | 1:423:A:MET:HB2  | 1:427:A:GLN:HB2  | 7        | 0.62          |
| (1,3080) | 1:423:A:MET:HB2  | 1:427:A:GLN:HB3  | 7        | 0.62          |
| (1,3080) | 1:423:A:MET:HB3  | 1:427:A:GLN:HB2  | 7        | 0.62          |
| (1,3080) | 1:423:A:MET:HB3  | 1:427:A:GLN:HB3  | 7        | 0.62          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG2  | 8        | 0.62          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG3  | 8        | 0.62          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 5        | 0.62          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 5        | 0.62          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 5        | 0.62          |
| (1,2700) | 1:398:A:LYS:HG2  | 1:417:A:GLU:HG2  | 10       | 0.62          |
| (1,2700) | 1:398:A:LYS:HG2  | 1:417:A:GLU:HG3  | 10       | 0.62          |
| (1,2700) | 1:398:A:LYS:HG3  | 1:417:A:GLU:HG2  | 10       | 0.62          |
| (1,2700) | 1:398:A:LYS:HG3  | 1:417:A:GLU:HG3  | 10       | 0.62          |
| (1,2426) | 1:380:A:LEU:HD22 | 1:464:A:ILE:H    | 5        | 0.62          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 20       | 0.62          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 20       | 0.62          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 20       | 0.62          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 20       | 0.62          |
| (1,2122) | 1:361:A:GLU:HG3  | 1:401:A:ARG:HH22 | 19       | 0.62          |
| (1,2048) | 1:357:A:LEU:HD11 | 1:392:A:ASN:H    | 20       | 0.62          |
| (1,2048) | 1:357:A:LEU:HD12 | 1:392:A:ASN:H    | 20       | 0.62          |
| (1,2048) | 1:357:A:LEU:HD13 | 1:392:A:ASN:H    | 20       | 0.62          |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 18       | 0.62          |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 18       | 0.62          |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 18       | 0.62          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 14       | 0.62          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 16       | 0.62          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 16       | 0.62          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 16       | 0.62          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 16       | 0.62          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 16       | 0.62          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 16       | 0.62          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 16       | 0.62          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 16       | 0.62          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 16       | 0.62          |
| (1,1486) | 1:314:A:MET:HB2  | 1:319:A:ARG:H    | 8        | 0.62          |
| (1,1486) | 1:314:A:MET:HB3  | 1:319:A:ARG:H    | 8        | 0.62          |
| (1,1452) | 1:313:A:PHE:HZ   | 1:345:A:THR:HA   | 4        | 0.62          |
| (1,1074) | 1:295:A:HIS:HA   | 1:309:A:ASP:HA   | 18       | 0.62          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 6        | 0.62          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 6        | 0.62          |
| (1,989)  | 1:287:A:ASP:HB2  | 1:292:A:ASP:H    | 3        | 0.62          |
| (1,989)  | 1:287:A:ASP:HB3  | 1:292:A:ASP:H    | 3        | 0.62          |
| (1,915)  | 1:282:A:SER:HA   | 1:378:A:PHE:HZ   | 4        | 0.62          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 6        | 0.62          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 6        | 0.62          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 6        | 0.62          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 19       | 0.62          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 19       | 0.62          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 19       | 0.62          |
| (1,470)  | 1:260:A:PRO:HA   | 1:283:A:GLN:H    | 20       | 0.62          |
| (1,451)  | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 10       | 0.62          |
| (1,352)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:H    | 3        | 0.62          |
| (1,352)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:H    | 3        | 0.62          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 9        | 0.62          |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 11       | 0.62          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 8        | 0.62          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG21 | 4        | 0.62          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG22 | 4        | 0.62          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG23 | 4        | 0.62          |
| (1,37)   | 1:233:A:LEU:HD11 | 1:249:A:PHE:H    | 18       | 0.62          |
| (1,37)   | 1:233:A:LEU:HD12 | 1:249:A:PHE:H    | 18       | 0.62          |
| (1,37)   | 1:233:A:LEU:HD13 | 1:249:A:PHE:H    | 18       | 0.62          |
| (2,9)    | 1:338:A:ILE:HD11 | 1:342:A:SER:H    | 15       | 0.61          |
| (2,9)    | 1:338:A:ILE:HD12 | 1:342:A:SER:H    | 15       | 0.61          |
| (2,9)    | 1:338:A:ILE:HD13 | 1:342:A:SER:H    | 15       | 0.61          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 10       | 0.61          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 8        | 0.61          |
| (1,3353) | 1:436:A:ASP:HA   | 1:461:A:SER:HA   | 16       | 0.61          |
| (1,3072) | 1:423:A:MET:HE1  | 1:431:A:TYR:HD1  | 18       | 0.61          |
| (1,3072) | 1:423:A:MET:HE1  | 1:431:A:TYR:HD2  | 18       | 0.61          |
| (1,3072) | 1:423:A:MET:HE2  | 1:431:A:TYR:HD1  | 18       | 0.61          |
| (1,3072) | 1:423:A:MET:HE2  | 1:431:A:TYR:HD2  | 18       | 0.61          |
| (1,3072) | 1:423:A:MET:HE3  | 1:431:A:TYR:HD1  | 18       | 0.61          |
| (1,3072) | 1:423:A:MET:HE3  | 1:431:A:TYR:HD2  | 18       | 0.61          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 2        | 0.61          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 2        | 0.61          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 2        | 0.61          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 4        | 0.61          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 4        | 0.61          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 4        | 0.61          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 7        | 0.61          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 7        | 0.61          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 7        | 0.61          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 14       | 0.61          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 14       | 0.61          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 14       | 0.61          |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 1        | 0.61          |
| (1,2425) | 1:380:A:LEU:HB2  | 1:464:A:ILE:H    | 2        | 0.61          |
| (1,2425) | 1:380:A:LEU:HB3  | 1:464:A:ILE:H    | 2        | 0.61          |
| (1,2381) | 1:376:A:GLN:HA   | 1:412:A:GLN:HE21 | 7        | 0.61          |
| (1,2381) | 1:376:A:GLN:HA   | 1:412:A:GLN:HE22 | 7        | 0.61          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG21 | 2        | 0.61          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG22 | 2        | 0.61          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG23 | 2        | 0.61          |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG21 | 2        | 0.61          |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG22 | 2        | 0.61          |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG23 | 2        | 0.61          |
| (1,2317) | 1:374:A:PHE:HZ   | 1:382:A:LEU:H    | 19       | 0.61          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 5        | 0.61          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 5        | 0.61          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 5        | 0.61          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 5        | 0.61          |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 19       | 0.61          |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 19       | 0.61          |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 19       | 0.61          |
| (1,1989) | 1:354:A:LYS:HA   | 1:392:A:ASN:HD21 | 2        | 0.61          |
| (1,1989) | 1:354:A:LYS:HA   | 1:392:A:ASN:HD22 | 2        | 0.61          |
| (1,1951) | 1:351:A:ALA:HA   | 1:354:A:LYS:HD2  | 20       | 0.61          |
| (1,1951) | 1:351:A:ALA:HA   | 1:354:A:LYS:HD3  | 20       | 0.61          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 1        | 0.61          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 17       | 0.61          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 17       | 0.61          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 17       | 0.61          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 17       | 0.61          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 17       | 0.61          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 17       | 0.61          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 17       | 0.61          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 17       | 0.61          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 17       | 0.61          |
| (1,1432) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HG2  | 9        | 0.61          |
| (1,1432) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HG3  | 9        | 0.61          |
| (1,1432) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HG2  | 9        | 0.61          |
| (1,1432) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HG3  | 9        | 0.61          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1167) | 1:298:A:LYS:HA   | 1:309:A:ASP:HA   | 9        | 0.61          |
| (1,1081) | 1:296:A:GLY:H    | 1:319:A:ARG:HA   | 6        | 0.61          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 15       | 0.61          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 15       | 0.61          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 7        | 0.61          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 7        | 0.61          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 7        | 0.61          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD2  | 1        | 0.61          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD3  | 1        | 0.61          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD2  | 1        | 0.61          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD3  | 1        | 0.61          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD2  | 1        | 0.61          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD3  | 1        | 0.61          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 14       | 0.61          |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 4        | 0.61          |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 9        | 0.61          |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 15       | 0.61          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 15       | 0.61          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG21 | 4        | 0.61          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG22 | 4        | 0.61          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG23 | 4        | 0.61          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 16       | 0.6           |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 16       | 0.6           |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 16       | 0.6           |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 16       | 0.6           |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 16       | 0.6           |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 16       | 0.6           |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 16       | 0.6           |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 16       | 0.6           |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 16       | 0.6           |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 18       | 0.6           |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 18       | 0.6           |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 18       | 0.6           |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 18       | 0.6           |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 18       | 0.6           |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 18       | 0.6           |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 18       | 0.6           |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 18       | 0.6           |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 18       | 0.6           |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 5        | 0.6           |
| (1,3761) | 1:471:A:TYR:HA   | 1:473:A:THR:HG21 | 10       | 0.6           |
| (1,3761) | 1:471:A:TYR:HA   | 1:473:A:THR:HG22 | 10       | 0.6           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3761) | 1:471:A:TYR:HA   | 1:473:A:THR:HG23 | 10       | 0.6           |
| (1,3633) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HD1  | 16       | 0.6           |
| (1,3633) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HD2  | 16       | 0.6           |
| (1,3633) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HD1  | 16       | 0.6           |
| (1,3633) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HD2  | 16       | 0.6           |
| (1,3633) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HD1  | 16       | 0.6           |
| (1,3633) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HD2  | 16       | 0.6           |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 15       | 0.6           |
| (1,3315) | 1:434:A:THR:HA   | 1:461:A:SER:HA   | 9        | 0.6           |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB2  | 12       | 0.6           |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB3  | 12       | 0.6           |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB2  | 12       | 0.6           |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB3  | 12       | 0.6           |
| (1,3178) | 1:430:A:ILE:HD11 | 1:479:A:PRO:HA   | 17       | 0.6           |
| (1,3178) | 1:430:A:ILE:HD12 | 1:479:A:PRO:HA   | 17       | 0.6           |
| (1,3178) | 1:430:A:ILE:HD13 | 1:479:A:PRO:HA   | 17       | 0.6           |
| (1,3144) | 1:429:A:LYS:HD2  | 1:489:A:SER:HA   | 1        | 0.6           |
| (1,3144) | 1:429:A:LYS:HD3  | 1:489:A:SER:HA   | 1        | 0.6           |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG2  | 18       | 0.6           |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG3  | 18       | 0.6           |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG2  | 18       | 0.6           |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG3  | 18       | 0.6           |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD11 | 3        | 0.6           |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD12 | 3        | 0.6           |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD13 | 3        | 0.6           |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD11 | 3        | 0.6           |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD12 | 3        | 0.6           |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD13 | 3        | 0.6           |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD11 | 9        | 0.6           |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD12 | 9        | 0.6           |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD13 | 9        | 0.6           |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD11 | 9        | 0.6           |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD12 | 9        | 0.6           |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD13 | 9        | 0.6           |
| (1,3081) | 1:423:A:MET:HE1  | 1:427:A:GLN:HB2  | 4        | 0.6           |
| (1,3081) | 1:423:A:MET:HE1  | 1:427:A:GLN:HB3  | 4        | 0.6           |
| (1,3081) | 1:423:A:MET:HE2  | 1:427:A:GLN:HB2  | 4        | 0.6           |
| (1,3081) | 1:423:A:MET:HE2  | 1:427:A:GLN:HB3  | 4        | 0.6           |
| (1,3081) | 1:423:A:MET:HE3  | 1:427:A:GLN:HB2  | 4        | 0.6           |
| (1,3081) | 1:423:A:MET:HE3  | 1:427:A:GLN:HB3  | 4        | 0.6           |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB2  | 5        | 0.6           |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB3  | 5        | 0.6           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 4        | 0.6           |
| (1,2898) | 1:409:A:SER:H    | 1:442:A:LYS:HE2  | 2        | 0.6           |
| (1,2898) | 1:409:A:SER:H    | 1:442:A:LYS:HE3  | 2        | 0.6           |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 10       | 0.6           |
| (1,2855) | 1:405:A:THR:HB   | 1:451:A:ARG:HA   | 13       | 0.6           |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 2        | 0.6           |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 2        | 0.6           |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 2        | 0.6           |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE21 | 12       | 0.6           |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE22 | 12       | 0.6           |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE21 | 12       | 0.6           |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE22 | 12       | 0.6           |
| (1,2444) | 1:381:A:VAL:HA   | 1:464:A:ILE:HD11 | 17       | 0.6           |
| (1,2444) | 1:381:A:VAL:HA   | 1:464:A:ILE:HD12 | 17       | 0.6           |
| (1,2444) | 1:381:A:VAL:HA   | 1:464:A:ILE:HD13 | 17       | 0.6           |
| (1,2122) | 1:361:A:GLU:HG3  | 1:401:A:ARG:HH22 | 17       | 0.6           |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB1  | 19       | 0.6           |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB2  | 19       | 0.6           |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB3  | 19       | 0.6           |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB1  | 19       | 0.6           |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB2  | 19       | 0.6           |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB3  | 19       | 0.6           |
| (1,1964) | 1:352:A:LEU:HA   | 1:355:A:ARG:HD2  | 20       | 0.6           |
| (1,1964) | 1:352:A:LEU:HA   | 1:355:A:ARG:HD3  | 20       | 0.6           |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 17       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 1        | 0.6           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 1        | 0.6           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 1        | 0.6           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 1        | 0.6           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 1        | 0.6           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 1        | 0.6           |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 1        | 0.6           |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 1        | 0.6           |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 1        | 0.6           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 13       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 13       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 13       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 13       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 13       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 13       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 13       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 13       | 0.6           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 13       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 20       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 20       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 20       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 20       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 20       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 20       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 20       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 20       | 0.6           |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 20       | 0.6           |
| (1,1452) | 1:313:A:PHE:HZ   | 1:345:A:THR:HA   | 15       | 0.6           |
| (1,1425) | 1:312:A:GLN:HG2  | 1:339:A:LEU:HA   | 16       | 0.6           |
| (1,1425) | 1:312:A:GLN:HG3  | 1:339:A:LEU:HA   | 16       | 0.6           |
| (1,1367) | 1:307:A:MET:HE1  | 1:339:A:LEU:H    | 16       | 0.6           |
| (1,1367) | 1:307:A:MET:HE2  | 1:339:A:LEU:H    | 16       | 0.6           |
| (1,1367) | 1:307:A:MET:HE3  | 1:339:A:LEU:H    | 16       | 0.6           |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 9        | 0.6           |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 9        | 0.6           |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 12       | 0.6           |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 12       | 0.6           |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 13       | 0.6           |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 13       | 0.6           |
| (1,1069) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HA   | 18       | 0.6           |
| (1,1066) | 1:295:A:HIS:HB2  | 1:320:A:PHE:HA   | 9        | 0.6           |
| (1,1066) | 1:295:A:HIS:HB3  | 1:320:A:PHE:HA   | 9        | 0.6           |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 14       | 0.6           |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 14       | 0.6           |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 12       | 0.6           |
| (1,1020) | 1:289:A:TRP:HH2  | 1:384:A:GLU:HG2  | 9        | 0.6           |
| (1,1020) | 1:289:A:TRP:HH2  | 1:384:A:GLU:HG3  | 9        | 0.6           |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 16       | 0.6           |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 14       | 0.6           |
| (1,915)  | 1:282:A:SER:HA   | 1:378:A:PHE:HZ   | 1        | 0.6           |
| (1,864)  | 1:280:A:ILE:HD11 | 1:371:A:TYR:HE1  | 11       | 0.6           |
| (1,864)  | 1:280:A:ILE:HD11 | 1:371:A:TYR:HE2  | 11       | 0.6           |
| (1,864)  | 1:280:A:ILE:HD12 | 1:371:A:TYR:HE1  | 11       | 0.6           |
| (1,864)  | 1:280:A:ILE:HD12 | 1:371:A:TYR:HE2  | 11       | 0.6           |
| (1,864)  | 1:280:A:ILE:HD13 | 1:371:A:TYR:HE1  | 11       | 0.6           |
| (1,864)  | 1:280:A:ILE:HD13 | 1:371:A:TYR:HE2  | 11       | 0.6           |
| (1,700)  | 1:273:A:GLU:HB2  | 1:329:A:ASP:H    | 8        | 0.6           |
| (1,700)  | 1:273:A:GLU:HB3  | 1:329:A:ASP:H    | 8        | 0.6           |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB2  | 1        | 0.6           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB3  | 1        | 0.6           |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 5        | 0.6           |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 5        | 0.6           |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 5        | 0.6           |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD21 | 8        | 0.6           |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD22 | 8        | 0.6           |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD21 | 20       | 0.6           |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD22 | 20       | 0.6           |
| (1,451)  | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 5        | 0.6           |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 10       | 0.6           |
| (1,147)  | 1:238:A:LYS:HD2  | 1:266:A:ASN:HD21 | 9        | 0.6           |
| (1,147)  | 1:238:A:LYS:HD2  | 1:266:A:ASN:HD22 | 9        | 0.6           |
| (1,147)  | 1:238:A:LYS:HD3  | 1:266:A:ASN:HD21 | 9        | 0.6           |
| (1,147)  | 1:238:A:LYS:HD3  | 1:266:A:ASN:HD22 | 9        | 0.6           |
| (2,14)   | 1:442:A:LYS:H    | 1:461:A:SER:HB2  | 8        | 0.59          |
| (2,14)   | 1:442:A:LYS:H    | 1:461:A:SER:HB3  | 8        | 0.59          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 13       | 0.59          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 20       | 0.59          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB2  | 20       | 0.59          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB3  | 20       | 0.59          |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB2  | 20       | 0.59          |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB3  | 20       | 0.59          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB2  | 20       | 0.59          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB3  | 20       | 0.59          |
| (1,3529) | 1:449:A:LEU:HD21 | 1:494:A:ALA:H    | 10       | 0.59          |
| (1,3529) | 1:449:A:LEU:HD22 | 1:494:A:ALA:H    | 10       | 0.59          |
| (1,3529) | 1:449:A:LEU:HD23 | 1:494:A:ALA:H    | 10       | 0.59          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 3        | 0.59          |
| (1,3332) | 1:435:A:ALA:H    | 1:460:A:LEU:H    | 20       | 0.59          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG2  | 3        | 0.59          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG3  | 3        | 0.59          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG2  | 3        | 0.59          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG3  | 3        | 0.59          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG2  | 3        | 0.59          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG3  | 3        | 0.59          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG2  | 3        | 0.59          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG3  | 3        | 0.59          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG2  | 19       | 0.59          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG3  | 19       | 0.59          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG2  | 19       | 0.59          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG3  | 19       | 0.59          |
| (1,3089) | 1:424:A:LYS:H    | 1:455:A:ILE:HA   | 1        | 0.59          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2871) | 1:406:A:HIS:HA   | 1:456:A:GLU:HG2  | 7        | 0.59          |
| (1,2871) | 1:406:A:HIS:HA   | 1:456:A:GLU:HG3  | 7        | 0.59          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE21 | 5        | 0.59          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE22 | 5        | 0.59          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE21 | 5        | 0.59          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE22 | 5        | 0.59          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 4        | 0.59          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 4        | 0.59          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA2  | 20       | 0.59          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA3  | 20       | 0.59          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 4        | 0.59          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 19       | 0.59          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 19       | 0.59          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 19       | 0.59          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 19       | 0.59          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 19       | 0.59          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 19       | 0.59          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 19       | 0.59          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 19       | 0.59          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 19       | 0.59          |
| (1,1452) | 1:313:A:PHE:HZ   | 1:345:A:THR:HA   | 16       | 0.59          |
| (1,1367) | 1:307:A:MET:HE1  | 1:339:A:LEU:H    | 9        | 0.59          |
| (1,1367) | 1:307:A:MET:HE2  | 1:339:A:LEU:H    | 9        | 0.59          |
| (1,1367) | 1:307:A:MET:HE3  | 1:339:A:LEU:H    | 9        | 0.59          |
| (1,1315) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD11 | 18       | 0.59          |
| (1,1315) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD12 | 18       | 0.59          |
| (1,1315) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD13 | 18       | 0.59          |
| (1,1315) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD11 | 18       | 0.59          |
| (1,1315) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD12 | 18       | 0.59          |
| (1,1315) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD13 | 18       | 0.59          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD11 | 4        | 0.59          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD12 | 4        | 0.59          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD13 | 4        | 0.59          |
| (1,1013) | 1:288:A:MET:HA   | 1:294:A:LYS:H    | 19       | 0.59          |
| (1,990)  | 1:287:A:ASP:HB2  | 1:292:A:ASP:HB2  | 3        | 0.59          |
| (1,990)  | 1:287:A:ASP:HB2  | 1:292:A:ASP:HB3  | 3        | 0.59          |
| (1,990)  | 1:287:A:ASP:HB3  | 1:292:A:ASP:HB2  | 3        | 0.59          |
| (1,990)  | 1:287:A:ASP:HB3  | 1:292:A:ASP:HB3  | 3        | 0.59          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 1        | 0.59          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 1        | 0.59          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 1        | 0.59          |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD21 | 20       | 0.59          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD22 | 20       | 0.59          |
| (1,439)  | 1:255:A:HIS:HE1  | 1:308:A:ASP:HB2  | 9        | 0.59          |
| (1,439)  | 1:255:A:HIS:HE1  | 1:308:A:ASP:HB3  | 9        | 0.59          |
| (1,346)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HE3  | 18       | 0.59          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 3        | 0.59          |
| (1,139)  | 1:237:A:ASN:HD21 | 1:239:A:SER:H    | 1        | 0.59          |
| (1,139)  | 1:237:A:ASN:HD22 | 1:239:A:SER:H    | 1        | 0.59          |
| (1,102)  | 1:234:A:TRP:HE1  | 1:235:A:THR:HB   | 4        | 0.59          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 18       | 0.58          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 18       | 0.58          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 18       | 0.58          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 18       | 0.58          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 18       | 0.58          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 18       | 0.58          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 18       | 0.58          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 18       | 0.58          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 18       | 0.58          |
| (1,3882) | 1:485:A:LYS:HB2  | 1:487:A:ASP:HB3  | 4        | 0.58          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB2  | 6        | 0.58          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB3  | 6        | 0.58          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB2  | 6        | 0.58          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB3  | 6        | 0.58          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB2  | 6        | 0.58          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB3  | 6        | 0.58          |
| (1,3536) | 1:449:A:LEU:HA   | 1:453:A:LYS:H    | 20       | 0.58          |
| (1,3480) | 1:446:A:HIS:HE1  | 1:484:A:SER:HA   | 13       | 0.58          |
| (1,3362) | 1:437:A:SER:HA   | 1:461:A:SER:HA   | 20       | 0.58          |
| (1,3154) | 1:429:A:LYS:HA   | 1:480:A:PHE:HA   | 14       | 0.58          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 9        | 0.58          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 9        | 0.58          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 9        | 0.58          |
| (1,2875) | 1:406:A:HIS:HB2  | 1:414:A:VAL:HB   | 2        | 0.58          |
| (1,2875) | 1:406:A:HIS:HB3  | 1:414:A:VAL:HB   | 2        | 0.58          |
| (1,2830) | 1:404:A:SER:H    | 1:407:A:THR:HB   | 13       | 0.58          |
| (1,2764) | 1:402:A:PHE:H    | 1:414:A:VAL:HB   | 11       | 0.58          |
| (1,2695) | 1:398:A:LYS:HD2  | 1:475:A:PHE:HZ   | 9        | 0.58          |
| (1,2695) | 1:398:A:LYS:HD3  | 1:475:A:PHE:HZ   | 9        | 0.58          |
| (1,2694) | 1:398:A:LYS:HA   | 1:475:A:PHE:HZ   | 18       | 0.58          |
| (1,2594) | 1:390:A:PHE:HA   | 1:393:A:GLN:HA   | 5        | 0.58          |
| (1,2563) | 1:387:A:ALA:HA   | 1:471:A:TYR:HE1  | 4        | 0.58          |
| (1,2563) | 1:387:A:ALA:HA   | 1:471:A:TYR:HE2  | 4        | 0.58          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 1        | 0.58          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 1        | 0.58          |
| (1,2505) | 1:384:A:GLU:HA   | 1:468:A:MET:HA   | 13       | 0.58          |
| (1,2426) | 1:380:A:LEU:HD22 | 1:464:A:ILE:H    | 3        | 0.58          |
| (1,2426) | 1:380:A:LEU:HD22 | 1:464:A:ILE:H    | 17       | 0.58          |
| (1,2425) | 1:380:A:LEU:HB2  | 1:464:A:ILE:H    | 7        | 0.58          |
| (1,2425) | 1:380:A:LEU:HB3  | 1:464:A:ILE:H    | 7        | 0.58          |
| (1,2382) | 1:376:A:GLN:HG2  | 1:412:A:GLN:HE21 | 9        | 0.58          |
| (1,2382) | 1:376:A:GLN:HG2  | 1:412:A:GLN:HE22 | 9        | 0.58          |
| (1,2382) | 1:376:A:GLN:HG3  | 1:412:A:GLN:HE21 | 9        | 0.58          |
| (1,2382) | 1:376:A:GLN:HG3  | 1:412:A:GLN:HE22 | 9        | 0.58          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG21 | 6        | 0.58          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG22 | 6        | 0.58          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG23 | 6        | 0.58          |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG21 | 6        | 0.58          |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG22 | 6        | 0.58          |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG23 | 6        | 0.58          |
| (1,2337) | 1:375:A:TRP:HD1  | 1:413:A:THR:HA   | 14       | 0.58          |
| (1,2210) | 1:367:A:ASP:H    | 1:371:A:TYR:H    | 12       | 0.58          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 3        | 0.58          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 3        | 0.58          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 3        | 0.58          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 3        | 0.58          |
| (1,1959) | 1:352:A:LEU:HD21 | 1:356:A:VAL:H    | 2        | 0.58          |
| (1,1959) | 1:352:A:LEU:HD22 | 1:356:A:VAL:H    | 2        | 0.58          |
| (1,1959) | 1:352:A:LEU:HD23 | 1:356:A:VAL:H    | 2        | 0.58          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 18       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD11 | 13       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD12 | 13       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD13 | 13       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD11 | 13       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD12 | 13       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD13 | 13       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD11 | 15       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD12 | 15       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD13 | 15       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD11 | 15       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD12 | 15       | 0.58          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD13 | 15       | 0.58          |
| (1,1674) | 1:325:A:ILE:HD11 | 1:327:A:SER:H    | 15       | 0.58          |
| (1,1674) | 1:325:A:ILE:HD12 | 1:327:A:SER:H    | 15       | 0.58          |
| (1,1674) | 1:325:A:ILE:HD13 | 1:327:A:SER:H    | 15       | 0.58          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 12       | 0.58          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 12       | 0.58          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 12       | 0.58          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 12       | 0.58          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 12       | 0.58          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 12       | 0.58          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 12       | 0.58          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 12       | 0.58          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 12       | 0.58          |
| (1,1505) | 1:315:A:PRO:HD2  | 1:350:A:ASN:HA   | 15       | 0.58          |
| (1,1505) | 1:315:A:PRO:HD3  | 1:350:A:ASN:HA   | 15       | 0.58          |
| (1,1334) | 1:303:A:ARG:H    | 1:327:A:SER:H    | 19       | 0.58          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 14       | 0.58          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 14       | 0.58          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 17       | 0.58          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 17       | 0.58          |
| (1,986)  | 1:287:A:ASP:HB2  | 1:294:A:LYS:H    | 9        | 0.58          |
| (1,986)  | 1:287:A:ASP:HB3  | 1:294:A:LYS:H    | 9        | 0.58          |
| (1,986)  | 1:287:A:ASP:HB2  | 1:294:A:LYS:H    | 17       | 0.58          |
| (1,986)  | 1:287:A:ASP:HB3  | 1:294:A:LYS:H    | 17       | 0.58          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 15       | 0.58          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 15       | 0.58          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 15       | 0.58          |
| (1,525)  | 1:262:A:THR:HB   | 1:370:A:LYS:HD2  | 5        | 0.58          |
| (1,525)  | 1:262:A:THR:HB   | 1:370:A:LYS:HD3  | 5        | 0.58          |
| (1,451)  | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 11       | 0.58          |
| (1,440)  | 1:255:A:HIS:HB2  | 1:294:A:LYS:HE2  | 10       | 0.58          |
| (1,440)  | 1:255:A:HIS:HB2  | 1:294:A:LYS:HE3  | 10       | 0.58          |
| (1,440)  | 1:255:A:HIS:HB3  | 1:294:A:LYS:HE2  | 10       | 0.58          |
| (1,440)  | 1:255:A:HIS:HB3  | 1:294:A:LYS:HE3  | 10       | 0.58          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 5        | 0.58          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 7        | 0.58          |
| (1,123)  | 1:236:A:ARG:HB2  | 1:240:A:GLU:H    | 2        | 0.58          |
| (1,123)  | 1:236:A:ARG:HB3  | 1:240:A:GLU:H    | 2        | 0.58          |
| (1,102)  | 1:234:A:TRP:HE1  | 1:235:A:THR:HB   | 19       | 0.58          |
| (1,88)   | 1:234:A:TRP:HB2  | 1:265:A:HIS:HD2  | 7        | 0.58          |
| (1,88)   | 1:234:A:TRP:HB3  | 1:265:A:HIS:HD2  | 7        | 0.58          |
| (1,37)   | 1:233:A:LEU:HD11 | 1:249:A:PHE:H    | 8        | 0.58          |
| (1,37)   | 1:233:A:LEU:HD12 | 1:249:A:PHE:H    | 8        | 0.58          |
| (1,37)   | 1:233:A:LEU:HD13 | 1:249:A:PHE:H    | 8        | 0.58          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 8        | 0.57          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 8        | 0.57          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 8        | 0.57          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 8        | 0.57          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 8        | 0.57          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 8        | 0.57          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 8        | 0.57          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 8        | 0.57          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 8        | 0.57          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 13       | 0.57          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 13       | 0.57          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 13       | 0.57          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 13       | 0.57          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 13       | 0.57          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 13       | 0.57          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 13       | 0.57          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 13       | 0.57          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 13       | 0.57          |
| (1,3972) | 1:318:A:LEU:HD11 | 2:622:B:TYR:HE1  | 1        | 0.57          |
| (1,3972) | 1:318:A:LEU:HD12 | 2:622:B:TYR:HE1  | 1        | 0.57          |
| (1,3972) | 1:318:A:LEU:HD13 | 2:622:B:TYR:HE1  | 1        | 0.57          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 8        | 0.57          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 8        | 0.57          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 8        | 0.57          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 8        | 0.57          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 8        | 0.57          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 8        | 0.57          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 8        | 0.57          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 8        | 0.57          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 8        | 0.57          |
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB2  | 2        | 0.57          |
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB3  | 2        | 0.57          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 11       | 0.57          |
| (1,3882) | 1:485:A:LYS:HB2  | 1:487:A:ASP:HB3  | 3        | 0.57          |
| (1,3536) | 1:449:A:LEU:HA   | 1:453:A:LYS:H    | 8        | 0.57          |
| (1,3482) | 1:446:A:HIS:HA   | 1:483:A:VAL:HB   | 13       | 0.57          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 17       | 0.57          |
| (1,3271) | 1:433:A:ILE:H    | 1:459:A:LEU:HD21 | 16       | 0.57          |
| (1,3271) | 1:433:A:ILE:H    | 1:459:A:LEU:HD22 | 16       | 0.57          |
| (1,3271) | 1:433:A:ILE:H    | 1:459:A:LEU:HD23 | 16       | 0.57          |
| (1,3245) | 1:432:A:TYR:HB2  | 1:458:A:LEU:H    | 17       | 0.57          |
| (1,3245) | 1:432:A:TYR:HB3  | 1:458:A:LEU:H    | 17       | 0.57          |
| (1,3178) | 1:430:A:ILE:HD11 | 1:479:A:PRO:HA   | 12       | 0.57          |
| (1,3178) | 1:430:A:ILE:HD12 | 1:479:A:PRO:HA   | 12       | 0.57          |
| (1,3178) | 1:430:A:ILE:HD13 | 1:479:A:PRO:HA   | 12       | 0.57          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 4        | 0.57          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 4        | 0.57          |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG2  | 10       | 0.57          |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG3  | 10       | 0.57          |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG2  | 10       | 0.57          |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG3  | 10       | 0.57          |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG2  | 10       | 0.57          |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG3  | 10       | 0.57          |
| (1,2937) | 1:414:A:VAL:HG21 | 1:419:A:TYR:HA   | 16       | 0.57          |
| (1,2937) | 1:414:A:VAL:HG22 | 1:419:A:TYR:HA   | 16       | 0.57          |
| (1,2937) | 1:414:A:VAL:HG23 | 1:419:A:TYR:HA   | 16       | 0.57          |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 18       | 0.57          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 8        | 0.57          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 8        | 0.57          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 8        | 0.57          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB2  | 14       | 0.57          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB3  | 14       | 0.57          |
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD11 | 7        | 0.57          |
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD12 | 7        | 0.57          |
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD13 | 7        | 0.57          |
| (1,2432) | 1:380:A:LEU:HA   | 1:384:A:GLU:H    | 11       | 0.57          |
| (1,2382) | 1:376:A:GLN:HG2  | 1:412:A:GLN:HE21 | 3        | 0.57          |
| (1,2382) | 1:376:A:GLN:HG2  | 1:412:A:GLN:HE22 | 3        | 0.57          |
| (1,2382) | 1:376:A:GLN:HG3  | 1:412:A:GLN:HE21 | 3        | 0.57          |
| (1,2382) | 1:376:A:GLN:HG3  | 1:412:A:GLN:HE22 | 3        | 0.57          |
| (1,2357) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HE2  | 17       | 0.57          |
| (1,2357) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HE3  | 17       | 0.57          |
| (1,2317) | 1:374:A:PHE:HZ   | 1:382:A:LEU:H    | 16       | 0.57          |
| (1,2288) | 1:372:A:GLN:HE21 | 1:376:A:GLN:H    | 11       | 0.57          |
| (1,2288) | 1:372:A:GLN:HE22 | 1:376:A:GLN:H    | 11       | 0.57          |
| (1,2122) | 1:361:A:GLU:HG3  | 1:401:A:ARG:HH22 | 9        | 0.57          |
| (1,2122) | 1:361:A:GLU:HG3  | 1:401:A:ARG:HH22 | 16       | 0.57          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD2  | 12       | 0.57          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD3  | 12       | 0.57          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD21 | 11       | 0.57          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD22 | 11       | 0.57          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 19       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 4        | 0.57          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 4        | 0.57          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 4        | 0.57          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 4        | 0.57          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 4        | 0.57          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 4        | 0.57          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 4        | 0.57          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 4        | 0.57          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 4        | 0.57          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 10       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 10       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 10       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 10       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 10       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 10       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 10       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 10       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 10       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 15       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 15       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 15       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 15       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 15       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 15       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 15       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 15       | 0.57          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 15       | 0.57          |
| (1,1638) | 1:320:A:PHE:HA   | 1:322:A:ARG:HG2  | 2        | 0.57          |
| (1,1638) | 1:320:A:PHE:HA   | 1:322:A:ARG:HG3  | 2        | 0.57          |
| (1,1430) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HA   | 10       | 0.57          |
| (1,1430) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HA   | 10       | 0.57          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 7        | 0.57          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 7        | 0.57          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD11 | 18       | 0.57          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD12 | 18       | 0.57          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD13 | 18       | 0.57          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB2  | 9        | 0.57          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB3  | 9        | 0.57          |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB2  | 9        | 0.57          |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB3  | 9        | 0.57          |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 3        | 0.57          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 4        | 0.57          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 9        | 0.57          |
| (1,915)  | 1:282:A:SER:HA   | 1:378:A:PHE:HZ   | 13       | 0.57          |
| (1,705)  | 1:273:A:GLU:HG2  | 1:328:A:SER:H    | 8        | 0.57          |
| (1,705)  | 1:273:A:GLU:HG3  | 1:328:A:SER:H    | 8        | 0.57          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB2  | 13       | 0.57          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB3  | 13       | 0.57          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD21 | 3        | 0.57          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD22 | 3        | 0.57          |
| (1,456)  | 1:258:A:ASN:HB2  | 1:283:A:GLN:HB2  | 1        | 0.57          |
| (1,456)  | 1:258:A:ASN:HB2  | 1:283:A:GLN:HB3  | 1        | 0.57          |
| (1,456)  | 1:258:A:ASN:HB3  | 1:283:A:GLN:HB2  | 1        | 0.57          |
| (1,456)  | 1:258:A:ASN:HB3  | 1:283:A:GLN:HB3  | 1        | 0.57          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD2  | 19       | 0.57          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD3  | 19       | 0.57          |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 3        | 0.57          |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 6        | 0.57          |
| (1,150)  | 1:238:A:LYS:HG2  | 1:265:A:HIS:HE1  | 5        | 0.57          |
| (1,150)  | 1:238:A:LYS:HG3  | 1:265:A:HIS:HE1  | 5        | 0.57          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 16       | 0.57          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG11 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG12 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG13 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG11 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG12 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG13 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG11 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG12 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG13 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG21 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG22 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG23 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG21 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG22 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG23 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG21 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG22 | 3        | 0.56          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG23 | 3        | 0.56          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 15       | 0.56          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 15       | 0.56          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 15       | 0.56          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 15       | 0.56          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 15       | 0.56          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 15       | 0.56          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 15       | 0.56          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 15       | 0.56          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 15       | 0.56          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 12       | 0.56          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 12       | 0.56          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 12       | 0.56          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 12       | 0.56          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 12       | 0.56          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 12       | 0.56          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 12       | 0.56          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 12       | 0.56          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 12       | 0.56          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 9        | 0.56          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 14       | 0.56          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 14       | 0.56          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 14       | 0.56          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 3        | 0.56          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 3        | 0.56          |
| (1,3747) | 1:469:A:MET:HE1  | 1:472:A:LEU:HD11 | 17       | 0.56          |
| (1,3747) | 1:469:A:MET:HE1  | 1:472:A:LEU:HD12 | 17       | 0.56          |
| (1,3747) | 1:469:A:MET:HE1  | 1:472:A:LEU:HD13 | 17       | 0.56          |
| (1,3747) | 1:469:A:MET:HE2  | 1:472:A:LEU:HD11 | 17       | 0.56          |
| (1,3747) | 1:469:A:MET:HE2  | 1:472:A:LEU:HD12 | 17       | 0.56          |
| (1,3747) | 1:469:A:MET:HE2  | 1:472:A:LEU:HD13 | 17       | 0.56          |
| (1,3747) | 1:469:A:MET:HE3  | 1:472:A:LEU:HD11 | 17       | 0.56          |
| (1,3747) | 1:469:A:MET:HE3  | 1:472:A:LEU:HD12 | 17       | 0.56          |
| (1,3747) | 1:469:A:MET:HE3  | 1:472:A:LEU:HD13 | 17       | 0.56          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB2  | 8        | 0.56          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB3  | 8        | 0.56          |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB2  | 8        | 0.56          |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB3  | 8        | 0.56          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB2  | 8        | 0.56          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB3  | 8        | 0.56          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB2  | 4        | 0.56          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB3  | 4        | 0.56          |
| (1,3360) | 1:437:A:SER:HA   | 1:462:A:ASP:HA   | 18       | 0.56          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB2  | 4        | 0.56          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB3  | 4        | 0.56          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB2  | 4        | 0.56          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB3  | 4        | 0.56          |
| (1,3143) | 1:429:A:LYS:HD2  | 1:489:A:SER:H    | 8        | 0.56          |
| (1,3143) | 1:429:A:LYS:HD3  | 1:489:A:SER:H    | 8        | 0.56          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 13       | 0.56          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 13       | 0.56          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 13       | 0.56          |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 8        | 0.56          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2695) | 1:398:A:LYS:HD2  | 1:475:A:PHE:HZ   | 7        | 0.56          |
| (1,2695) | 1:398:A:LYS:HD3  | 1:475:A:PHE:HZ   | 7        | 0.56          |
| (1,2632) | 1:393:A:GLN:HA   | 1:396:A:ILE:HB   | 17       | 0.56          |
| (1,2382) | 1:376:A:GLN:HG2  | 1:412:A:GLN:HE21 | 4        | 0.56          |
| (1,2382) | 1:376:A:GLN:HG2  | 1:412:A:GLN:HE22 | 4        | 0.56          |
| (1,2382) | 1:376:A:GLN:HG3  | 1:412:A:GLN:HE21 | 4        | 0.56          |
| (1,2382) | 1:376:A:GLN:HG3  | 1:412:A:GLN:HE22 | 4        | 0.56          |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 8        | 0.56          |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 8        | 0.56          |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 8        | 0.56          |
| (1,1996) | 1:354:A:LYS:HA   | 1:358:A:GLN:HE21 | 4        | 0.56          |
| (1,1996) | 1:354:A:LYS:HA   | 1:358:A:GLN:HE22 | 4        | 0.56          |
| (1,1989) | 1:354:A:LYS:HA   | 1:392:A:ASN:HD21 | 10       | 0.56          |
| (1,1989) | 1:354:A:LYS:HA   | 1:392:A:ASN:HD22 | 10       | 0.56          |
| (1,1726) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HB   | 1        | 0.56          |
| (1,1726) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HB   | 1        | 0.56          |
| (1,1452) | 1:313:A:PHE:HZ   | 1:345:A:THR:HA   | 3        | 0.56          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 8        | 0.56          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 8        | 0.56          |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 15       | 0.56          |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 18       | 0.56          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 11       | 0.56          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 11       | 0.56          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 12       | 0.56          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 12       | 0.56          |
| (1,1030) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HD11 | 13       | 0.56          |
| (1,1030) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HD12 | 13       | 0.56          |
| (1,1030) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HD13 | 13       | 0.56          |
| (1,986)  | 1:287:A:ASP:HB2  | 1:294:A:LYS:H    | 1        | 0.56          |
| (1,986)  | 1:287:A:ASP:HB3  | 1:294:A:LYS:H    | 1        | 0.56          |
| (1,986)  | 1:287:A:ASP:HB2  | 1:294:A:LYS:H    | 7        | 0.56          |
| (1,986)  | 1:287:A:ASP:HB3  | 1:294:A:LYS:H    | 7        | 0.56          |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 16       | 0.56          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 16       | 0.56          |
| (1,868)  | 1:280:A:ILE:HD11 | 1:360:A:LEU:H    | 18       | 0.56          |
| (1,868)  | 1:280:A:ILE:HD12 | 1:360:A:LEU:H    | 18       | 0.56          |
| (1,868)  | 1:280:A:ILE:HD13 | 1:360:A:LEU:H    | 18       | 0.56          |
| (1,719)  | 1:274:A:TYR:HD1  | 1:348:A:LEU:HD21 | 9        | 0.56          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB2  | 16       | 0.56          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB3  | 16       | 0.56          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 11       | 0.56          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 11       | 0.56          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 11       | 0.56          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD21 | 10       | 0.56          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD22 | 10       | 0.56          |
| (1,451)  | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 8        | 0.56          |
| (1,309)  | 1:249:A:PHE:HE2  | 1:298:A:LYS:HD3  | 15       | 0.56          |
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB2  | 10       | 0.56          |
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB3  | 10       | 0.56          |
| (1,102)  | 1:234:A:TRP:HE1  | 1:235:A:THR:HB   | 2        | 0.56          |
| (1,37)   | 1:233:A:LEU:HD11 | 1:249:A:PHE:H    | 19       | 0.56          |
| (1,37)   | 1:233:A:LEU:HD12 | 1:249:A:PHE:H    | 19       | 0.56          |
| (1,37)   | 1:233:A:LEU:HD13 | 1:249:A:PHE:H    | 19       | 0.56          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 9        | 0.55          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 9        | 0.55          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 9        | 0.55          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 9        | 0.55          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 9        | 0.55          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 9        | 0.55          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 9        | 0.55          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 9        | 0.55          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 9        | 0.55          |
| (1,3927) | 1:489:A:SER:HB2  | 1:493:A:LEU:HD11 | 3        | 0.55          |
| (1,3927) | 1:489:A:SER:HB2  | 1:493:A:LEU:HD12 | 3        | 0.55          |
| (1,3927) | 1:489:A:SER:HB2  | 1:493:A:LEU:HD13 | 3        | 0.55          |
| (1,3927) | 1:489:A:SER:HB3  | 1:493:A:LEU:HD11 | 3        | 0.55          |
| (1,3927) | 1:489:A:SER:HB3  | 1:493:A:LEU:HD12 | 3        | 0.55          |
| (1,3927) | 1:489:A:SER:HB3  | 1:493:A:LEU:HD13 | 3        | 0.55          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 1        | 0.55          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 16       | 0.55          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 16       | 0.55          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 16       | 0.55          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE2  | 5        | 0.55          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE3  | 5        | 0.55          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE2  | 5        | 0.55          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE3  | 5        | 0.55          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE2  | 16       | 0.55          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE3  | 16       | 0.55          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE2  | 16       | 0.55          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE3  | 16       | 0.55          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB2  | 9        | 0.55          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB3  | 9        | 0.55          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB2  | 9        | 0.55          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB3  | 9        | 0.55          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 8        | 0.55          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 8        | 0.55          |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 10       | 0.55          |
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 10       | 0.55          |
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 10       | 0.55          |
| (1,3671) | 1:462:A:ASP:H    | 1:465:A:ASP:HB2  | 4        | 0.55          |
| (1,3671) | 1:462:A:ASP:H    | 1:465:A:ASP:HB3  | 4        | 0.55          |
| (1,3178) | 1:430:A:ILE:HD11 | 1:479:A:PRO:HA   | 18       | 0.55          |
| (1,3178) | 1:430:A:ILE:HD12 | 1:479:A:PRO:HA   | 18       | 0.55          |
| (1,3178) | 1:430:A:ILE:HD13 | 1:479:A:PRO:HA   | 18       | 0.55          |
| (1,3155) | 1:429:A:LYS:HB2  | 1:480:A:PHE:HA   | 20       | 0.55          |
| (1,3155) | 1:429:A:LYS:HB3  | 1:480:A:PHE:HA   | 20       | 0.55          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB2  | 18       | 0.55          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB3  | 18       | 0.55          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB2  | 18       | 0.55          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB3  | 18       | 0.55          |
| (1,3135) | 1:428:A:GLU:HA   | 1:478:A:LYS:HA   | 15       | 0.55          |
| (1,3037) | 1:420:A:VAL:HG11 | 1:478:A:LYS:HE2  | 14       | 0.55          |
| (1,3037) | 1:420:A:VAL:HG11 | 1:478:A:LYS:HE3  | 14       | 0.55          |
| (1,3037) | 1:420:A:VAL:HG12 | 1:478:A:LYS:HE2  | 14       | 0.55          |
| (1,3037) | 1:420:A:VAL:HG12 | 1:478:A:LYS:HE3  | 14       | 0.55          |
| (1,3037) | 1:420:A:VAL:HG13 | 1:478:A:LYS:HE2  | 14       | 0.55          |
| (1,3037) | 1:420:A:VAL:HG13 | 1:478:A:LYS:HE3  | 14       | 0.55          |
| (1,2938) | 1:414:A:VAL:HG21 | 1:418:A:ASP:H    | 6        | 0.55          |
| (1,2938) | 1:414:A:VAL:HG22 | 1:418:A:ASP:H    | 6        | 0.55          |
| (1,2938) | 1:414:A:VAL:HG23 | 1:418:A:ASP:H    | 6        | 0.55          |
| (1,2764) | 1:402:A:PHE:H    | 1:414:A:VAL:HB   | 10       | 0.55          |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG2  | 10       | 0.55          |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG3  | 10       | 0.55          |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG2  | 10       | 0.55          |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG3  | 10       | 0.55          |
| (1,2643) | 1:394:A:GLU:HG2  | 1:398:A:LYS:H    | 8        | 0.55          |
| (1,2643) | 1:394:A:GLU:HG3  | 1:398:A:LYS:H    | 8        | 0.55          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE21 | 18       | 0.55          |
| (1,2595) | 1:390:A:PHE:HE1  | 1:393:A:GLN:HE22 | 18       | 0.55          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE21 | 18       | 0.55          |
| (1,2595) | 1:390:A:PHE:HE2  | 1:393:A:GLN:HE22 | 18       | 0.55          |
| (1,2427) | 1:380:A:LEU:HD11 | 1:463:A:ARG:H    | 16       | 0.55          |
| (1,2427) | 1:380:A:LEU:HD12 | 1:463:A:ARG:H    | 16       | 0.55          |
| (1,2427) | 1:380:A:LEU:HD13 | 1:463:A:ARG:H    | 16       | 0.55          |
| (1,2426) | 1:380:A:LEU:HD22 | 1:464:A:ILE:H    | 14       | 0.55          |
| (1,2380) | 1:376:A:GLN:HE21 | 1:412:A:GLN:H    | 8        | 0.55          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2380) | 1:376:A:GLN:HE22 | 1:412:A:GLN:H    | 8        | 0.55          |
| (1,2281) | 1:372:A:GLN:HE21 | 1:412:A:GLN:H    | 17       | 0.55          |
| (1,2281) | 1:372:A:GLN:HE22 | 1:412:A:GLN:H    | 17       | 0.55          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG2  | 8        | 0.55          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG3  | 8        | 0.55          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG2  | 8        | 0.55          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG3  | 8        | 0.55          |
| (1,2083) | 1:359:A:MET:HA   | 1:362:A:LYS:HD2  | 10       | 0.55          |
| (1,2083) | 1:359:A:MET:HA   | 1:362:A:LYS:HD3  | 10       | 0.55          |
| (1,1933) | 1:350:A:ASN:HA   | 1:354:A:LYS:H    | 1        | 0.55          |
| (1,1859) | 1:344:A:VAL:HB   | 1:348:A:LEU:H    | 19       | 0.55          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 13       | 0.55          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD11 | 19       | 0.55          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD12 | 19       | 0.55          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD13 | 19       | 0.55          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD11 | 19       | 0.55          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD12 | 19       | 0.55          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD13 | 19       | 0.55          |
| (1,1725) | 1:331:A:PRO:HD2  | 1:339:A:LEU:HD21 | 14       | 0.55          |
| (1,1725) | 1:331:A:PRO:HD2  | 1:339:A:LEU:HD22 | 14       | 0.55          |
| (1,1725) | 1:331:A:PRO:HD2  | 1:339:A:LEU:HD23 | 14       | 0.55          |
| (1,1725) | 1:331:A:PRO:HD3  | 1:339:A:LEU:HD21 | 14       | 0.55          |
| (1,1725) | 1:331:A:PRO:HD3  | 1:339:A:LEU:HD22 | 14       | 0.55          |
| (1,1725) | 1:331:A:PRO:HD3  | 1:339:A:LEU:HD23 | 14       | 0.55          |
| (1,1525) | 1:316:A:ASN:H    | 1:388:A:GLU:HG2  | 10       | 0.55          |
| (1,1525) | 1:316:A:ASN:H    | 1:388:A:GLU:HG3  | 10       | 0.55          |
| (1,1452) | 1:313:A:PHE:HZ   | 1:345:A:THR:HA   | 18       | 0.55          |
| (1,1428) | 1:312:A:GLN:H    | 1:339:A:LEU:HD11 | 14       | 0.55          |
| (1,1428) | 1:312:A:GLN:H    | 1:339:A:LEU:HD12 | 14       | 0.55          |
| (1,1428) | 1:312:A:GLN:H    | 1:339:A:LEU:HD13 | 14       | 0.55          |
| (1,974)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:H    | 14       | 0.55          |
| (1,897)  | 1:281:A:PRO:HG2  | 1:322:A:ARG:HG2  | 4        | 0.55          |
| (1,897)  | 1:281:A:PRO:HG2  | 1:322:A:ARG:HG3  | 4        | 0.55          |
| (1,897)  | 1:281:A:PRO:HG3  | 1:322:A:ARG:HG2  | 4        | 0.55          |
| (1,897)  | 1:281:A:PRO:HG3  | 1:322:A:ARG:HG3  | 4        | 0.55          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB2  | 20       | 0.55          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB3  | 20       | 0.55          |
| (1,564)  | 1:263:A:TRP:HE1  | 1:265:A:HIS:H    | 2        | 0.55          |
| (1,564)  | 1:263:A:TRP:HE1  | 1:265:A:HIS:H    | 15       | 0.55          |
| (1,352)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:H    | 18       | 0.55          |
| (1,352)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:H    | 18       | 0.55          |
| (1,110)  | 1:235:A:THR:HG1  | 1:267:A:ARG:HD2  | 8        | 0.55          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,110)  | 1:235:A:THR:HG1  | 1:267:A:ARG:HD3  | 8        | 0.55          |
| (1,103)  | 1:235:A:THR:H    | 1:303:A:ARG:HD2  | 3        | 0.55          |
| (1,103)  | 1:235:A:THR:H    | 1:303:A:ARG:HD3  | 3        | 0.55          |
| (1,102)  | 1:234:A:TRP:HE1  | 1:235:A:THR:HB   | 14       | 0.55          |
| (1,102)  | 1:234:A:TRP:HE1  | 1:235:A:THR:HB   | 18       | 0.55          |
| (1,85)   | 1:234:A:TRP:HE1  | 1:275:A:THR:HB   | 13       | 0.55          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 7        | 0.55          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG21 | 5        | 0.55          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG22 | 5        | 0.55          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG23 | 5        | 0.55          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG21 | 15       | 0.54          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG22 | 15       | 0.54          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG23 | 15       | 0.54          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG21 | 15       | 0.54          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG22 | 15       | 0.54          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG23 | 15       | 0.54          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG21 | 15       | 0.54          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG22 | 15       | 0.54          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG23 | 15       | 0.54          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE1  | 4        | 0.54          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE2  | 4        | 0.54          |
| (1,3974) | 1:472:A:LEU:HD11 | 2:629:B:MET:HE3  | 4        | 0.54          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE1  | 4        | 0.54          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE2  | 4        | 0.54          |
| (1,3974) | 1:472:A:LEU:HD12 | 2:629:B:MET:HE3  | 4        | 0.54          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE1  | 4        | 0.54          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE2  | 4        | 0.54          |
| (1,3974) | 1:472:A:LEU:HD13 | 2:629:B:MET:HE3  | 4        | 0.54          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 6        | 0.54          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 6        | 0.54          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 6        | 0.54          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 6        | 0.54          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 6        | 0.54          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 6        | 0.54          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 6        | 0.54          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 6        | 0.54          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 6        | 0.54          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 15       | 0.54          |
| (1,3841) | 1:481:A:GLN:HG2  | 1:489:A:SER:HA   | 1        | 0.54          |
| (1,3841) | 1:481:A:GLN:HG3  | 1:489:A:SER:HA   | 1        | 0.54          |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 9        | 0.54          |
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 9        | 0.54          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 9        | 0.54          |
| (1,3536) | 1:449:A:LEU:HA   | 1:453:A:LYS:H    | 1        | 0.54          |
| (1,3482) | 1:446:A:HIS:HA   | 1:483:A:VAL:HB   | 3        | 0.54          |
| (1,3315) | 1:434:A:THR:HA   | 1:461:A:SER:HA   | 17       | 0.54          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB2  | 13       | 0.54          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB3  | 13       | 0.54          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB2  | 13       | 0.54          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB3  | 13       | 0.54          |
| (1,3178) | 1:430:A:ILE:HD11 | 1:479:A:PRO:HA   | 3        | 0.54          |
| (1,3178) | 1:430:A:ILE:HD12 | 1:479:A:PRO:HA   | 3        | 0.54          |
| (1,3178) | 1:430:A:ILE:HD13 | 1:479:A:PRO:HA   | 3        | 0.54          |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD11 | 16       | 0.54          |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD12 | 16       | 0.54          |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD13 | 16       | 0.54          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD11 | 16       | 0.54          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD12 | 16       | 0.54          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD13 | 16       | 0.54          |
| (1,2927) | 1:412:A:GLN:HA   | 1:414:A:VAL:HB   | 10       | 0.54          |
| (1,2824) | 1:404:A:SER:H    | 1:414:A:VAL:HB   | 11       | 0.54          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG11 | 17       | 0.54          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG12 | 17       | 0.54          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG13 | 17       | 0.54          |
| (1,2619) | 1:393:A:GLN:HE21 | 1:474:A:GLU:H    | 5        | 0.54          |
| (1,2619) | 1:393:A:GLN:HE22 | 1:474:A:GLU:H    | 5        | 0.54          |
| (1,2575) | 1:388:A:GLU:HA   | 1:390:A:PHE:H    | 15       | 0.54          |
| (1,2566) | 1:387:A:ALA:H    | 1:468:A:MET:HA   | 10       | 0.54          |
| (1,2488) | 1:383:A:LYS:HE2  | 1:402:A:PHE:HZ   | 7        | 0.54          |
| (1,2488) | 1:383:A:LYS:HE3  | 1:402:A:PHE:HZ   | 7        | 0.54          |
| (1,2484) | 1:383:A:LYS:HB2  | 1:464:A:ILE:HD11 | 5        | 0.54          |
| (1,2484) | 1:383:A:LYS:HB2  | 1:464:A:ILE:HD12 | 5        | 0.54          |
| (1,2484) | 1:383:A:LYS:HB2  | 1:464:A:ILE:HD13 | 5        | 0.54          |
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD11 | 5        | 0.54          |
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD12 | 5        | 0.54          |
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD13 | 5        | 0.54          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 2        | 0.54          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 2        | 0.54          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 2        | 0.54          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 2        | 0.54          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 13       | 0.54          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 13       | 0.54          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 13       | 0.54          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 13       | 0.54          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2197) | 1:365:A:LYS:HE2 | 1:398:A:LYS:HG2  | 18       | 0.54          |
| (1,2197) | 1:365:A:LYS:HE2 | 1:398:A:LYS:HG3  | 18       | 0.54          |
| (1,2197) | 1:365:A:LYS:HE3 | 1:398:A:LYS:HG2  | 18       | 0.54          |
| (1,2197) | 1:365:A:LYS:HE3 | 1:398:A:LYS:HG3  | 18       | 0.54          |
| (1,2135) | 1:361:A:GLU:HG2 | 1:365:A:LYS:HG2  | 9        | 0.54          |
| (1,2135) | 1:361:A:GLU:HG2 | 1:365:A:LYS:HG3  | 9        | 0.54          |
| (1,2135) | 1:361:A:GLU:HG3 | 1:365:A:LYS:HG2  | 9        | 0.54          |
| (1,2135) | 1:361:A:GLU:HG3 | 1:365:A:LYS:HG3  | 9        | 0.54          |
| (1,1885) | 1:346:A:ARG:HA  | 1:350:A:ASN:HD21 | 15       | 0.54          |
| (1,1885) | 1:346:A:ARG:HA  | 1:350:A:ASN:HD22 | 15       | 0.54          |
| (1,1858) | 1:344:A:VAL:HA  | 1:348:A:LEU:H    | 19       | 0.54          |
| (1,1854) | 1:343:A:THR:HA  | 1:345:A:THR:HB   | 3        | 0.54          |
| (1,1854) | 1:343:A:THR:HA  | 1:345:A:THR:HB   | 8        | 0.54          |
| (1,1778) | 1:336:A:ARG:HA  | 1:340:A:GLN:HB2  | 18       | 0.54          |
| (1,1778) | 1:336:A:ARG:HA  | 1:340:A:GLN:HB3  | 18       | 0.54          |
| (1,1726) | 1:331:A:PRO:HB2 | 1:338:A:ILE:HB   | 13       | 0.54          |
| (1,1726) | 1:331:A:PRO:HB3 | 1:338:A:ILE:HB   | 13       | 0.54          |
| (1,1505) | 1:315:A:PRO:HD2 | 1:350:A:ASN:HA   | 5        | 0.54          |
| (1,1505) | 1:315:A:PRO:HD3 | 1:350:A:ASN:HA   | 5        | 0.54          |
| (1,1505) | 1:315:A:PRO:HD2 | 1:350:A:ASN:HA   | 12       | 0.54          |
| (1,1505) | 1:315:A:PRO:HD3 | 1:350:A:ASN:HA   | 12       | 0.54          |
| (1,1486) | 1:314:A:MET:HB2 | 1:319:A:ARG:H    | 3        | 0.54          |
| (1,1486) | 1:314:A:MET:HB3 | 1:319:A:ARG:H    | 3        | 0.54          |
| (1,1418) | 1:312:A:GLN:HA  | 1:345:A:THR:HG21 | 18       | 0.54          |
| (1,1418) | 1:312:A:GLN:HA  | 1:345:A:THR:HG22 | 18       | 0.54          |
| (1,1418) | 1:312:A:GLN:HA  | 1:345:A:THR:HG23 | 18       | 0.54          |
| (1,1367) | 1:307:A:MET:HE1 | 1:339:A:LEU:H    | 10       | 0.54          |
| (1,1367) | 1:307:A:MET:HE2 | 1:339:A:LEU:H    | 10       | 0.54          |
| (1,1367) | 1:307:A:MET:HE3 | 1:339:A:LEU:H    | 10       | 0.54          |
| (1,1249) | 1:300:A:TYR:H   | 1:313:A:PHE:HE1  | 10       | 0.54          |
| (1,1249) | 1:300:A:TYR:H   | 1:313:A:PHE:HE2  | 10       | 0.54          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD11 | 1        | 0.54          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD12 | 1        | 0.54          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD13 | 1        | 0.54          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD11 | 17       | 0.54          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD12 | 17       | 0.54          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD13 | 17       | 0.54          |
| (1,1090) | 1:296:A:GLY:H   | 1:311:A:GLU:HA   | 15       | 0.54          |
| (1,1070) | 1:295:A:HIS:HE1 | 1:316:A:ASN:HD21 | 10       | 0.54          |
| (1,1070) | 1:295:A:HIS:HE1 | 1:316:A:ASN:HD22 | 10       | 0.54          |
| (1,1044) | 1:291:A:ARG:HA  | 1:293:A:HIS:HA   | 15       | 0.54          |
| (1,974)  | 1:286:A:TRP:HE3 | 1:290:A:ASN:H    | 6        | 0.54          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE1  | 1        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE2  | 1        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE3  | 1        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE1  | 1        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE2  | 1        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE3  | 1        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE1  | 2        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE2  | 2        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE3  | 2        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE1  | 2        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE2  | 2        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE3  | 2        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE1  | 7        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE2  | 7        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE3  | 7        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE1  | 7        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE2  | 7        | 0.54          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE3  | 7        | 0.54          |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 10       | 0.54          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 10       | 0.54          |
| (1,703)  | 1:273:A:GLU:H    | 1:328:A:SER:H    | 12       | 0.54          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB2  | 4        | 0.54          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB3  | 4        | 0.54          |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD21 | 3        | 0.54          |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD22 | 3        | 0.54          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 16       | 0.54          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 12       | 0.54          |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 7        | 0.54          |
| (1,21)   | 1:232:A:ALA:H    | 1:235:A:THR:H    | 11       | 0.54          |
| (1,5)    | 1:231:A:GLN:HG2  | 1:236:A:ARG:H    | 6        | 0.54          |
| (1,5)    | 1:231:A:GLN:HG3  | 1:236:A:ARG:H    | 6        | 0.54          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 20       | 0.53          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 14       | 0.53          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 7        | 0.53          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 7        | 0.53          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 18       | 0.53          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 18       | 0.53          |
| (1,3561) | 1:450:A:LEU:HD11 | 1:456:A:GLU:H    | 18       | 0.53          |
| (1,3561) | 1:450:A:LEU:HD12 | 1:456:A:GLU:H    | 18       | 0.53          |
| (1,3561) | 1:450:A:LEU:HD13 | 1:456:A:GLU:H    | 18       | 0.53          |
| (1,3471) | 1:445:A:PRO:HA   | 1:448:A:GLU:HG2  | 13       | 0.53          |
| (1,3471) | 1:445:A:PRO:HA   | 1:448:A:GLU:HG3  | 13       | 0.53          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3315) | 1:434:A:THR:HA   | 1:461:A:SER:HA   | 7        | 0.53          |
| (1,3294) | 1:433:A:ILE:HB   | 1:441:A:ALA:HA   | 10       | 0.53          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB2  | 19       | 0.53          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB3  | 19       | 0.53          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB2  | 19       | 0.53          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB3  | 19       | 0.53          |
| (1,3245) | 1:432:A:TYR:HB2  | 1:458:A:LEU:H    | 4        | 0.53          |
| (1,3245) | 1:432:A:TYR:HB3  | 1:458:A:LEU:H    | 4        | 0.53          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 6        | 0.53          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 6        | 0.53          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 6        | 0.53          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 8        | 0.53          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 8        | 0.53          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 8        | 0.53          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 8        | 0.53          |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD11 | 7        | 0.53          |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD12 | 7        | 0.53          |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD13 | 7        | 0.53          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD11 | 7        | 0.53          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD12 | 7        | 0.53          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD13 | 7        | 0.53          |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG2  | 6        | 0.53          |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG3  | 6        | 0.53          |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG2  | 6        | 0.53          |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG3  | 6        | 0.53          |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG2  | 6        | 0.53          |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG3  | 6        | 0.53          |
| (1,3070) | 1:423:A:MET:HA   | 1:456:A:GLU:H    | 18       | 0.53          |
| (1,3060) | 1:422:A:ARG:HB2  | 1:456:A:GLU:HB2  | 2        | 0.53          |
| (1,3060) | 1:422:A:ARG:HB2  | 1:456:A:GLU:HB3  | 2        | 0.53          |
| (1,3060) | 1:422:A:ARG:HB3  | 1:456:A:GLU:HB2  | 2        | 0.53          |
| (1,3060) | 1:422:A:ARG:HB3  | 1:456:A:GLU:HB3  | 2        | 0.53          |
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 5        | 0.53          |
| (1,2875) | 1:406:A:HIS:HB2  | 1:414:A:VAL:HB   | 20       | 0.53          |
| (1,2875) | 1:406:A:HIS:HB3  | 1:414:A:VAL:HB   | 20       | 0.53          |
| (1,2849) | 1:405:A:THR:HG21 | 1:457:A:VAL:HB   | 5        | 0.53          |
| (1,2849) | 1:405:A:THR:HG22 | 1:457:A:VAL:HB   | 5        | 0.53          |
| (1,2849) | 1:405:A:THR:HG23 | 1:457:A:VAL:HB   | 5        | 0.53          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG11 | 2        | 0.53          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG12 | 2        | 0.53          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG13 | 2        | 0.53          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG11 | 8        | 0.53          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG12 | 8        | 0.53          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG13 | 8        | 0.53          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB2  | 14       | 0.53          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB3  | 14       | 0.53          |
| (1,2487) | 1:383:A:LYS:HE2  | 1:402:A:PHE:HA   | 2        | 0.53          |
| (1,2487) | 1:383:A:LYS:HE3  | 1:402:A:PHE:HA   | 2        | 0.53          |
| (1,2357) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HE2  | 10       | 0.53          |
| (1,2357) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HE3  | 10       | 0.53          |
| (1,1859) | 1:344:A:VAL:HB   | 1:348:A:LEU:H    | 10       | 0.53          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 2        | 0.53          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 6        | 0.53          |
| (1,1847) | 1:343:A:THR:HG21 | 1:347:A:ASN:HD21 | 2        | 0.53          |
| (1,1847) | 1:343:A:THR:HG21 | 1:347:A:ASN:HD22 | 2        | 0.53          |
| (1,1847) | 1:343:A:THR:HG22 | 1:347:A:ASN:HD21 | 2        | 0.53          |
| (1,1847) | 1:343:A:THR:HG22 | 1:347:A:ASN:HD22 | 2        | 0.53          |
| (1,1847) | 1:343:A:THR:HG23 | 1:347:A:ASN:HD21 | 2        | 0.53          |
| (1,1847) | 1:343:A:THR:HG23 | 1:347:A:ASN:HD22 | 2        | 0.53          |
| (1,1658) | 1:322:A:ARG:HD2  | 1:323:A:GLY:H    | 19       | 0.53          |
| (1,1658) | 1:322:A:ARG:HD3  | 1:323:A:GLY:H    | 19       | 0.53          |
| (1,1324) | 1:302:A:GLN:H    | 1:327:A:SER:H    | 16       | 0.53          |
| (1,1051) | 1:293:A:HIS:HE1  | 1:309:A:ASP:HB2  | 16       | 0.53          |
| (1,1051) | 1:293:A:HIS:HE1  | 1:309:A:ASP:HB3  | 16       | 0.53          |
| (1,1010) | 1:288:A:MET:HA   | 1:319:A:ARG:HD2  | 2        | 0.53          |
| (1,1010) | 1:288:A:MET:HA   | 1:319:A:ARG:HD3  | 2        | 0.53          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE1  | 10       | 0.53          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE2  | 10       | 0.53          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE3  | 10       | 0.53          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE1  | 10       | 0.53          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE2  | 10       | 0.53          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE3  | 10       | 0.53          |
| (1,961)  | 1:285:A:PRO:HG2  | 1:294:A:LYS:HB2  | 15       | 0.53          |
| (1,961)  | 1:285:A:PRO:HG2  | 1:294:A:LYS:HB3  | 15       | 0.53          |
| (1,961)  | 1:285:A:PRO:HG3  | 1:294:A:LYS:HB2  | 15       | 0.53          |
| (1,961)  | 1:285:A:PRO:HG3  | 1:294:A:LYS:HB3  | 15       | 0.53          |
| (1,927)  | 1:283:A:GLN:HA   | 1:377:A:GLN:HA   | 8        | 0.53          |
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB2  | 13       | 0.53          |
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB3  | 13       | 0.53          |
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB2  | 13       | 0.53          |
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB3  | 13       | 0.53          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 4        | 0.53          |
| (1,352)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:H    | 1        | 0.53          |
| (1,352)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:H    | 1        | 0.53          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 11       | 0.53          |
| (1,144)  | 1:237:A:ASN:HD21 | 1:238:A:LYS:H    | 7        | 0.53          |
| (1,144)  | 1:237:A:ASN:HD22 | 1:238:A:LYS:H    | 7        | 0.53          |
| (1,102)  | 1:234:A:TRP:HE1  | 1:235:A:THR:HB   | 5        | 0.53          |
| (1,102)  | 1:234:A:TRP:HE1  | 1:235:A:THR:HB   | 17       | 0.53          |
| (2,9)    | 1:338:A:ILE:HD11 | 1:342:A:SER:H    | 14       | 0.52          |
| (2,9)    | 1:338:A:ILE:HD12 | 1:342:A:SER:H    | 14       | 0.52          |
| (2,9)    | 1:338:A:ILE:HD13 | 1:342:A:SER:H    | 14       | 0.52          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG21 | 18       | 0.52          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG22 | 18       | 0.52          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG23 | 18       | 0.52          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG21 | 18       | 0.52          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG22 | 18       | 0.52          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG23 | 18       | 0.52          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG21 | 18       | 0.52          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG22 | 18       | 0.52          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG23 | 18       | 0.52          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 20       | 0.52          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 20       | 0.52          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 20       | 0.52          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 20       | 0.52          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 20       | 0.52          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 20       | 0.52          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 20       | 0.52          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 20       | 0.52          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 20       | 0.52          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 7        | 0.52          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 7        | 0.52          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB2  | 3        | 0.52          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB3  | 3        | 0.52          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB2  | 3        | 0.52          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB3  | 3        | 0.52          |
| (1,3845) | 1:481:A:GLN:HG2  | 1:487:A:ASP:H    | 8        | 0.52          |
| (1,3845) | 1:481:A:GLN:HG3  | 1:487:A:ASP:H    | 8        | 0.52          |
| (1,3294) | 1:433:A:ILE:HB   | 1:441:A:ALA:HA   | 11       | 0.52          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD21 | 1        | 0.52          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD22 | 1        | 0.52          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD23 | 1        | 0.52          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB2  | 1        | 0.52          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB3  | 1        | 0.52          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB2  | 1        | 0.52          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB3  | 1        | 0.52          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD11 | 14       | 0.52          |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD12 | 14       | 0.52          |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD13 | 14       | 0.52          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD11 | 14       | 0.52          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD12 | 14       | 0.52          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD13 | 14       | 0.52          |
| (1,3081) | 1:423:A:MET:HE1  | 1:427:A:GLN:HB2  | 5        | 0.52          |
| (1,3081) | 1:423:A:MET:HE1  | 1:427:A:GLN:HB3  | 5        | 0.52          |
| (1,3081) | 1:423:A:MET:HE2  | 1:427:A:GLN:HB2  | 5        | 0.52          |
| (1,3081) | 1:423:A:MET:HE2  | 1:427:A:GLN:HB3  | 5        | 0.52          |
| (1,3081) | 1:423:A:MET:HE3  | 1:427:A:GLN:HB2  | 5        | 0.52          |
| (1,3081) | 1:423:A:MET:HE3  | 1:427:A:GLN:HB3  | 5        | 0.52          |
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 19       | 0.52          |
| (1,2875) | 1:406:A:HIS:HB2  | 1:414:A:VAL:HB   | 4        | 0.52          |
| (1,2875) | 1:406:A:HIS:HB3  | 1:414:A:VAL:HB   | 4        | 0.52          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 3        | 0.52          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 3        | 0.52          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 3        | 0.52          |
| (1,2694) | 1:398:A:LYS:HA   | 1:475:A:PHE:HZ   | 7        | 0.52          |
| (1,2632) | 1:393:A:GLN:HA   | 1:396:A:ILE:HB   | 18       | 0.52          |
| (1,2619) | 1:393:A:GLN:HE21 | 1:474:A:GLU:H    | 7        | 0.52          |
| (1,2619) | 1:393:A:GLN:HE22 | 1:474:A:GLU:H    | 7        | 0.52          |
| (1,2619) | 1:393:A:GLN:HE21 | 1:474:A:GLU:H    | 8        | 0.52          |
| (1,2619) | 1:393:A:GLN:HE22 | 1:474:A:GLU:H    | 8        | 0.52          |
| (1,2575) | 1:388:A:GLU:HA   | 1:390:A:PHE:H    | 8        | 0.52          |
| (1,2563) | 1:387:A:ALA:HA   | 1:471:A:TYR:HE1  | 14       | 0.52          |
| (1,2563) | 1:387:A:ALA:HA   | 1:471:A:TYR:HE2  | 14       | 0.52          |
| (1,2426) | 1:380:A:LEU:HD22 | 1:464:A:ILE:H    | 8        | 0.52          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE21 | 4        | 0.52          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE22 | 4        | 0.52          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE21 | 4        | 0.52          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE22 | 4        | 0.52          |
| (1,2077) | 1:359:A:MET:HG2  | 1:363:A:LEU:H    | 19       | 0.52          |
| (1,2077) | 1:359:A:MET:HG3  | 1:363:A:LEU:H    | 19       | 0.52          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB2  | 5        | 0.52          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB3  | 5        | 0.52          |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB2  | 5        | 0.52          |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB3  | 5        | 0.52          |
| (1,1727) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HD11 | 19       | 0.52          |
| (1,1727) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HD12 | 19       | 0.52          |
| (1,1727) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HD13 | 19       | 0.52          |
| (1,1727) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HD11 | 19       | 0.52          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1727) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HD12 | 19       | 0.52          |
| (1,1727) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HD13 | 19       | 0.52          |
| (1,1570) | 1:317:A:TYR:HA   | 1:320:A:PHE:HE1  | 13       | 0.52          |
| (1,1570) | 1:317:A:TYR:HA   | 1:320:A:PHE:HE2  | 13       | 0.52          |
| (1,1543) | 1:317:A:TYR:HD1  | 1:389:A:ASP:HB2  | 1        | 0.52          |
| (1,1543) | 1:317:A:TYR:HD1  | 1:389:A:ASP:HB3  | 1        | 0.52          |
| (1,1543) | 1:317:A:TYR:HD2  | 1:389:A:ASP:HB2  | 1        | 0.52          |
| (1,1543) | 1:317:A:TYR:HD2  | 1:389:A:ASP:HB3  | 1        | 0.52          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD11 | 13       | 0.52          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD12 | 13       | 0.52          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD13 | 13       | 0.52          |
| (1,1081) | 1:296:A:GLY:H    | 1:319:A:ARG:HA   | 13       | 0.52          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 5        | 0.52          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 5        | 0.52          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 16       | 0.52          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 16       | 0.52          |
| (1,703)  | 1:273:A:GLU:H    | 1:328:A:SER:H    | 3        | 0.52          |
| (1,684)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:H    | 1        | 0.52          |
| (1,684)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:H    | 1        | 0.52          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 4        | 0.52          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 4        | 0.52          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 4        | 0.52          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD21 | 5        | 0.52          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD22 | 5        | 0.52          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG21 | 12       | 0.52          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG22 | 12       | 0.52          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG23 | 12       | 0.52          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG21 | 12       | 0.52          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG22 | 12       | 0.52          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG23 | 12       | 0.52          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 9        | 0.51          |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 20       | 0.51          |
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 20       | 0.51          |
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 20       | 0.51          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD1  | 8        | 0.51          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD2  | 8        | 0.51          |
| (1,3657) | 1:460:A:LEU:HA   | 1:465:A:ASP:HB2  | 18       | 0.51          |
| (1,3657) | 1:460:A:LEU:HA   | 1:465:A:ASP:HB3  | 18       | 0.51          |
| (1,3601) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HD21 | 4        | 0.51          |
| (1,3601) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HD22 | 4        | 0.51          |
| (1,3601) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HD23 | 4        | 0.51          |
| (1,3601) | 1:453:A:LYS:HG3  | 1:493:A:LEU:HD21 | 4        | 0.51          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3601) | 1:453:A:LYS:HG3  | 1:493:A:LEU:HD22 | 4        | 0.51          |
| (1,3601) | 1:453:A:LYS:HG3  | 1:493:A:LEU:HD23 | 4        | 0.51          |
| (1,3530) | 1:449:A:LEU:HD11 | 1:494:A:ALA:HA   | 16       | 0.51          |
| (1,3530) | 1:449:A:LEU:HD12 | 1:494:A:ALA:HA   | 16       | 0.51          |
| (1,3530) | 1:449:A:LEU:HD13 | 1:494:A:ALA:HA   | 16       | 0.51          |
| (1,3530) | 1:449:A:LEU:HD21 | 1:494:A:ALA:HA   | 16       | 0.51          |
| (1,3530) | 1:449:A:LEU:HD22 | 1:494:A:ALA:HA   | 16       | 0.51          |
| (1,3530) | 1:449:A:LEU:HD23 | 1:494:A:ALA:HA   | 16       | 0.51          |
| (1,3480) | 1:446:A:HIS:HE1  | 1:484:A:SER:HA   | 3        | 0.51          |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD2  | 6        | 0.51          |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD3  | 6        | 0.51          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD21 | 6        | 0.51          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD22 | 6        | 0.51          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD23 | 6        | 0.51          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB2  | 17       | 0.51          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB3  | 17       | 0.51          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB2  | 17       | 0.51          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB3  | 17       | 0.51          |
| (1,3170) | 1:430:A:ILE:H    | 1:481:A:GLN:H    | 7        | 0.51          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 2        | 0.51          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 2        | 0.51          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 2        | 0.51          |
| (1,3154) | 1:429:A:LYS:HA   | 1:480:A:PHE:HA   | 7        | 0.51          |
| (1,3143) | 1:429:A:LYS:HD2  | 1:489:A:SER:H    | 4        | 0.51          |
| (1,3143) | 1:429:A:LYS:HD3  | 1:489:A:SER:H    | 4        | 0.51          |
| (1,3143) | 1:429:A:LYS:HD2  | 1:489:A:SER:H    | 18       | 0.51          |
| (1,3143) | 1:429:A:LYS:HD3  | 1:489:A:SER:H    | 18       | 0.51          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD11 | 10       | 0.51          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD12 | 10       | 0.51          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD13 | 10       | 0.51          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD11 | 10       | 0.51          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD12 | 10       | 0.51          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD13 | 10       | 0.51          |
| (1,3028) | 1:419:A:TYR:HA   | 1:422:A:ARG:HD2  | 5        | 0.51          |
| (1,3028) | 1:419:A:TYR:HA   | 1:422:A:ARG:HD3  | 5        | 0.51          |
| (1,2875) | 1:406:A:HIS:HB2  | 1:414:A:VAL:HB   | 3        | 0.51          |
| (1,2875) | 1:406:A:HIS:HB3  | 1:414:A:VAL:HB   | 3        | 0.51          |
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD11 | 10       | 0.51          |
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD12 | 10       | 0.51          |
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD13 | 10       | 0.51          |
| (1,2487) | 1:383:A:LYS:HE2  | 1:402:A:PHE:HA   | 7        | 0.51          |
| (1,2487) | 1:383:A:LYS:HE3  | 1:402:A:PHE:HA   | 7        | 0.51          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2344) | 1:375:A:TRP:HZ2  | 1:402:A:PHE:HA   | 1        | 0.51          |
| (1,2288) | 1:372:A:GLN:HE21 | 1:376:A:GLN:H    | 19       | 0.51          |
| (1,2288) | 1:372:A:GLN:HE22 | 1:376:A:GLN:H    | 19       | 0.51          |
| (1,2236) | 1:369:A:GLU:HG2  | 1:373:A:THR:H    | 20       | 0.51          |
| (1,2236) | 1:369:A:GLU:HG3  | 1:373:A:THR:H    | 20       | 0.51          |
| (1,2166) | 1:363:A:LEU:HA   | 1:367:A:ASP:HB2  | 10       | 0.51          |
| (1,2166) | 1:363:A:LEU:HA   | 1:367:A:ASP:HB3  | 10       | 0.51          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG2  | 19       | 0.51          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG3  | 19       | 0.51          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG2  | 19       | 0.51          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG3  | 19       | 0.51          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 11       | 0.51          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 11       | 0.51          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 11       | 0.51          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 11       | 0.51          |
| (1,1959) | 1:352:A:LEU:HD21 | 1:356:A:VAL:H    | 6        | 0.51          |
| (1,1959) | 1:352:A:LEU:HD22 | 1:356:A:VAL:H    | 6        | 0.51          |
| (1,1959) | 1:352:A:LEU:HD23 | 1:356:A:VAL:H    | 6        | 0.51          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD21 | 15       | 0.51          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD22 | 15       | 0.51          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD21 | 15       | 0.51          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD22 | 15       | 0.51          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 16       | 0.51          |
| (1,1762) | 1:335:A:SER:H    | 1:339:A:LEU:H    | 14       | 0.51          |
| (1,1658) | 1:322:A:ARG:HD2  | 1:323:A:GLY:H    | 4        | 0.51          |
| (1,1658) | 1:322:A:ARG:HD3  | 1:323:A:GLY:H    | 4        | 0.51          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE1  | 11       | 0.51          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE2  | 11       | 0.51          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE3  | 11       | 0.51          |
| (1,1374) | 1:307:A:MET:HE1  | 1:335:A:SER:HA   | 7        | 0.51          |
| (1,1374) | 1:307:A:MET:HE2  | 1:335:A:SER:HA   | 7        | 0.51          |
| (1,1374) | 1:307:A:MET:HE3  | 1:335:A:SER:HA   | 7        | 0.51          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD11 | 6        | 0.51          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD12 | 6        | 0.51          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD13 | 6        | 0.51          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD11 | 9        | 0.51          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD12 | 9        | 0.51          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD13 | 9        | 0.51          |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 5        | 0.51          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB2  | 14       | 0.51          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB3  | 14       | 0.51          |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB2  | 14       | 0.51          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB3  | 14       | 0.51          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB2  | 20       | 0.51          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB3  | 20       | 0.51          |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB2  | 20       | 0.51          |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB3  | 20       | 0.51          |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 1        | 0.51          |
| (1,784)  | 1:277:A:LEU:H    | 1:324:A:LEU:HD21 | 2        | 0.51          |
| (1,784)  | 1:277:A:LEU:H    | 1:324:A:LEU:HD22 | 2        | 0.51          |
| (1,784)  | 1:277:A:LEU:H    | 1:324:A:LEU:HD23 | 2        | 0.51          |
| (1,565)  | 1:263:A:TRP:HD1  | 1:265:A:HIS:HA   | 2        | 0.51          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 2        | 0.51          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 9        | 0.51          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 17       | 0.51          |
| (1,189)  | 1:242:A:THR:H    | 1:246:A:TYR:H    | 2        | 0.51          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG21 | 18       | 0.51          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG22 | 18       | 0.51          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG23 | 18       | 0.51          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG21 | 18       | 0.51          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG22 | 18       | 0.51          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG23 | 18       | 0.51          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG21 | 12       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG22 | 12       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG23 | 12       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG21 | 12       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG22 | 12       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG23 | 12       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG21 | 12       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG22 | 12       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG23 | 12       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG21 | 17       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG22 | 17       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG23 | 17       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG21 | 17       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG22 | 17       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG23 | 17       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG21 | 17       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG22 | 17       | 0.5           |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG23 | 17       | 0.5           |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 19       | 0.5           |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 19       | 0.5           |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 19       | 0.5           |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 19       | 0.5           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 19       | 0.5           |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 19       | 0.5           |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 19       | 0.5           |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 19       | 0.5           |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 19       | 0.5           |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 13       | 0.5           |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 13       | 0.5           |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 13       | 0.5           |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 13       | 0.5           |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 13       | 0.5           |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 13       | 0.5           |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 13       | 0.5           |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 13       | 0.5           |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 13       | 0.5           |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 16       | 0.5           |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 12       | 0.5           |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 4        | 0.5           |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 4        | 0.5           |
| (1,3840) | 1:481:A:GLN:HG2  | 1:489:A:SER:H    | 3        | 0.5           |
| (1,3840) | 1:481:A:GLN:HG3  | 1:489:A:SER:H    | 3        | 0.5           |
| (1,3740) | 1:469:A:MET:HE1  | 1:473:A:THR:H    | 17       | 0.5           |
| (1,3740) | 1:469:A:MET:HE2  | 1:473:A:THR:H    | 17       | 0.5           |
| (1,3740) | 1:469:A:MET:HE3  | 1:473:A:THR:H    | 17       | 0.5           |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB2  | 16       | 0.5           |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB3  | 16       | 0.5           |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB2  | 16       | 0.5           |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB3  | 16       | 0.5           |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 13       | 0.5           |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 13       | 0.5           |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 13       | 0.5           |
| (1,3477) | 1:446:A:HIS:HD2  | 1:490:A:LEU:HD11 | 14       | 0.5           |
| (1,3477) | 1:446:A:HIS:HD2  | 1:490:A:LEU:HD12 | 14       | 0.5           |
| (1,3477) | 1:446:A:HIS:HD2  | 1:490:A:LEU:HD13 | 14       | 0.5           |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD2  | 1        | 0.5           |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD3  | 1        | 0.5           |
| (1,3199) | 1:431:A:TYR:HE1  | 1:489:A:SER:HA   | 1        | 0.5           |
| (1,3199) | 1:431:A:TYR:HE2  | 1:489:A:SER:HA   | 1        | 0.5           |
| (1,3187) | 1:430:A:ILE:HD11 | 1:474:A:GLU:HA   | 12       | 0.5           |
| (1,3187) | 1:430:A:ILE:HD12 | 1:474:A:GLU:HA   | 12       | 0.5           |
| (1,3187) | 1:430:A:ILE:HD13 | 1:474:A:GLU:HA   | 12       | 0.5           |
| (1,3090) | 1:424:A:LYS:HE2  | 1:455:A:ILE:HA   | 20       | 0.5           |
| (1,3090) | 1:424:A:LYS:HE3  | 1:455:A:ILE:HA   | 20       | 0.5           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3063) | 1:422:A:ARG:HB2  | 1:427:A:GLN:HE21 | 20       | 0.5           |
| (1,3063) | 1:422:A:ARG:HB2  | 1:427:A:GLN:HE22 | 20       | 0.5           |
| (1,3063) | 1:422:A:ARG:HB3  | 1:427:A:GLN:HE21 | 20       | 0.5           |
| (1,3063) | 1:422:A:ARG:HB3  | 1:427:A:GLN:HE22 | 20       | 0.5           |
| (1,3027) | 1:419:A:TYR:HA   | 1:422:A:ARG:HB2  | 7        | 0.5           |
| (1,3027) | 1:419:A:TYR:HA   | 1:422:A:ARG:HB3  | 7        | 0.5           |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 3        | 0.5           |
| (1,2887) | 1:407:A:THR:HG21 | 1:408:A:ASP:H    | 6        | 0.5           |
| (1,2887) | 1:407:A:THR:HG22 | 1:408:A:ASP:H    | 6        | 0.5           |
| (1,2887) | 1:407:A:THR:HG23 | 1:408:A:ASP:H    | 6        | 0.5           |
| (1,2790) | 1:403:A:ALA:HA   | 1:414:A:VAL:HB   | 15       | 0.5           |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG2  | 17       | 0.5           |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG3  | 17       | 0.5           |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG2  | 17       | 0.5           |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG3  | 17       | 0.5           |
| (1,2461) | 1:382:A:LEU:HD11 | 1:399:A:LEU:H    | 19       | 0.5           |
| (1,2461) | 1:382:A:LEU:HD12 | 1:399:A:LEU:H    | 19       | 0.5           |
| (1,2461) | 1:382:A:LEU:HD13 | 1:399:A:LEU:H    | 19       | 0.5           |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE2  | 14       | 0.5           |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE3  | 14       | 0.5           |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE2  | 14       | 0.5           |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE3  | 14       | 0.5           |
| (1,2135) | 1:361:A:GLU:HG2  | 1:365:A:LYS:HG2  | 7        | 0.5           |
| (1,2135) | 1:361:A:GLU:HG2  | 1:365:A:LYS:HG3  | 7        | 0.5           |
| (1,2135) | 1:361:A:GLU:HG3  | 1:365:A:LYS:HG2  | 7        | 0.5           |
| (1,2135) | 1:361:A:GLU:HG3  | 1:365:A:LYS:HG3  | 7        | 0.5           |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB1  | 7        | 0.5           |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB2  | 7        | 0.5           |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB3  | 7        | 0.5           |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB1  | 7        | 0.5           |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB2  | 7        | 0.5           |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB3  | 7        | 0.5           |
| (1,1674) | 1:325:A:ILE:HD11 | 1:327:A:SER:H    | 13       | 0.5           |
| (1,1674) | 1:325:A:ILE:HD12 | 1:327:A:SER:H    | 13       | 0.5           |
| (1,1674) | 1:325:A:ILE:HD13 | 1:327:A:SER:H    | 13       | 0.5           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 2        | 0.5           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 2        | 0.5           |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 2        | 0.5           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 2        | 0.5           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 2        | 0.5           |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 2        | 0.5           |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 2        | 0.5           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 2        | 0.5           |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 2        | 0.5           |
| (1,1490) | 1:314:A:MET:HB2  | 1:318:A:LEU:H    | 10       | 0.5           |
| (1,1490) | 1:314:A:MET:HB3  | 1:318:A:LEU:H    | 10       | 0.5           |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD21 | 2        | 0.5           |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD22 | 2        | 0.5           |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD23 | 2        | 0.5           |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD21 | 2        | 0.5           |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD22 | 2        | 0.5           |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD23 | 2        | 0.5           |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 6        | 0.5           |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 6        | 0.5           |
| (1,1223) | 1:299:A:LEU:H    | 1:305:A:PHE:HA   | 18       | 0.5           |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 2        | 0.5           |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 2        | 0.5           |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB2  | 9        | 0.5           |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB3  | 9        | 0.5           |
| (1,1020) | 1:289:A:TRP:HH2  | 1:384:A:GLU:HG2  | 4        | 0.5           |
| (1,1020) | 1:289:A:TRP:HH2  | 1:384:A:GLU:HG3  | 4        | 0.5           |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 4        | 0.5           |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 4        | 0.5           |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 11       | 0.5           |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 11       | 0.5           |
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB2  | 7        | 0.5           |
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB3  | 7        | 0.5           |
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB2  | 7        | 0.5           |
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB3  | 7        | 0.5           |
| (1,570)  | 1:264:A:SER:HB2  | 1:359:A:MET:HA   | 13       | 0.5           |
| (1,570)  | 1:264:A:SER:HB3  | 1:359:A:MET:HA   | 13       | 0.5           |
| (1,549)  | 1:263:A:TRP:H    | 1:359:A:MET:HG2  | 14       | 0.5           |
| (1,549)  | 1:263:A:TRP:H    | 1:359:A:MET:HG3  | 14       | 0.5           |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD2  | 3        | 0.5           |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD3  | 3        | 0.5           |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB2  | 4        | 0.5           |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB3  | 4        | 0.5           |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB2  | 4        | 0.5           |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB3  | 4        | 0.5           |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB2  | 4        | 0.5           |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB3  | 4        | 0.5           |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 11       | 0.5           |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 2        | 0.5           |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 4        | 0.5           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,153)  | 1:238:A:LYS:HE2  | 1:264:A:SER:HA   | 6        | 0.5           |
| (1,153)  | 1:238:A:LYS:HE3  | 1:264:A:SER:HA   | 6        | 0.5           |
| (1,102)  | 1:234:A:TRP:HE1  | 1:235:A:THR:HB   | 20       | 0.5           |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 19       | 0.5           |
| (1,70)   | 1:234:A:TRP:HE1  | 1:303:A:ARG:HD2  | 10       | 0.5           |
| (1,70)   | 1:234:A:TRP:HE1  | 1:303:A:ARG:HD3  | 10       | 0.5           |
| (2,9)    | 1:338:A:ILE:HD11 | 1:342:A:SER:H    | 4        | 0.49          |
| (2,9)    | 1:338:A:ILE:HD12 | 1:342:A:SER:H    | 4        | 0.49          |
| (2,9)    | 1:338:A:ILE:HD13 | 1:342:A:SER:H    | 4        | 0.49          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD11 | 1        | 0.49          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD12 | 1        | 0.49          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD13 | 1        | 0.49          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD11 | 1        | 0.49          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD12 | 1        | 0.49          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD13 | 1        | 0.49          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD11 | 1        | 0.49          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD12 | 1        | 0.49          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD13 | 1        | 0.49          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 11       | 0.49          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 13       | 0.49          |
| (1,3882) | 1:485:A:LYS:HB2  | 1:487:A:ASP:HB3  | 17       | 0.49          |
| (1,3846) | 1:481:A:GLN:HE21 | 1:486:A:VAL:H    | 8        | 0.49          |
| (1,3846) | 1:481:A:GLN:HE22 | 1:486:A:VAL:H    | 8        | 0.49          |
| (1,3655) | 1:460:A:LEU:HD21 | 1:466:A:GLU:H    | 18       | 0.49          |
| (1,3655) | 1:460:A:LEU:HD22 | 1:466:A:GLU:H    | 18       | 0.49          |
| (1,3655) | 1:460:A:LEU:HD23 | 1:466:A:GLU:H    | 18       | 0.49          |
| (1,3634) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE1  | 4        | 0.49          |
| (1,3634) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE2  | 4        | 0.49          |
| (1,3634) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE1  | 4        | 0.49          |
| (1,3634) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE2  | 4        | 0.49          |
| (1,3634) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE1  | 4        | 0.49          |
| (1,3634) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE2  | 4        | 0.49          |
| (1,3567) | 1:450:A:LEU:HA   | 1:454:A:GLY:H    | 13       | 0.49          |
| (1,3529) | 1:449:A:LEU:HD21 | 1:494:A:ALA:H    | 11       | 0.49          |
| (1,3529) | 1:449:A:LEU:HD22 | 1:494:A:ALA:H    | 11       | 0.49          |
| (1,3529) | 1:449:A:LEU:HD23 | 1:494:A:ALA:H    | 11       | 0.49          |
| (1,3422) | 1:441:A:ALA:H    | 1:461:A:SER:HB2  | 8        | 0.49          |
| (1,3422) | 1:441:A:ALA:H    | 1:461:A:SER:HB3  | 8        | 0.49          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB2  | 14       | 0.49          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB3  | 14       | 0.49          |
| (1,3362) | 1:437:A:SER:HA   | 1:461:A:SER:HA   | 11       | 0.49          |
| (1,3333) | 1:435:A:ALA:HB1  | 1:460:A:LEU:H    | 20       | 0.49          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,3333) | 1:435:A:ALA:HB2 | 1:460:A:LEU:H    | 20       | 0.49          |
| (1,3333) | 1:435:A:ALA:HB3 | 1:460:A:LEU:H    | 20       | 0.49          |
| (1,3170) | 1:430:A:ILE:H   | 1:481:A:GLN:H    | 2        | 0.49          |
| (1,3154) | 1:429:A:LYS:HA  | 1:480:A:PHE:HA   | 8        | 0.49          |
| (1,3137) | 1:428:A:GLU:HA  | 1:478:A:LYS:HG2  | 2        | 0.49          |
| (1,3137) | 1:428:A:GLU:HA  | 1:478:A:LYS:HG3  | 2        | 0.49          |
| (1,3137) | 1:428:A:GLU:HA  | 1:478:A:LYS:HG2  | 15       | 0.49          |
| (1,3137) | 1:428:A:GLU:HA  | 1:478:A:LYS:HG3  | 15       | 0.49          |
| (1,3083) | 1:423:A:MET:HB2 | 1:427:A:GLN:HE21 | 2        | 0.49          |
| (1,3083) | 1:423:A:MET:HB2 | 1:427:A:GLN:HE22 | 2        | 0.49          |
| (1,3083) | 1:423:A:MET:HB3 | 1:427:A:GLN:HE21 | 2        | 0.49          |
| (1,3083) | 1:423:A:MET:HB3 | 1:427:A:GLN:HE22 | 2        | 0.49          |
| (1,3081) | 1:423:A:MET:HE1 | 1:427:A:GLN:HB2  | 9        | 0.49          |
| (1,3081) | 1:423:A:MET:HE1 | 1:427:A:GLN:HB3  | 9        | 0.49          |
| (1,3081) | 1:423:A:MET:HE2 | 1:427:A:GLN:HB2  | 9        | 0.49          |
| (1,3081) | 1:423:A:MET:HE2 | 1:427:A:GLN:HB3  | 9        | 0.49          |
| (1,3081) | 1:423:A:MET:HE3 | 1:427:A:GLN:HB2  | 9        | 0.49          |
| (1,3081) | 1:423:A:MET:HE3 | 1:427:A:GLN:HB3  | 9        | 0.49          |
| (1,2608) | 1:392:A:ASN:HB2 | 1:396:A:ILE:H    | 1        | 0.49          |
| (1,2608) | 1:392:A:ASN:HB3 | 1:396:A:ILE:H    | 1        | 0.49          |
| (1,2563) | 1:387:A:ALA:HA  | 1:471:A:TYR:HE1  | 17       | 0.49          |
| (1,2563) | 1:387:A:ALA:HA  | 1:471:A:TYR:HE2  | 17       | 0.49          |
| (1,2445) | 1:381:A:VAL:HA  | 1:385:A:GLY:H    | 9        | 0.49          |
| (1,2381) | 1:376:A:GLN:HA  | 1:412:A:GLN:HE21 | 3        | 0.49          |
| (1,2381) | 1:376:A:GLN:HA  | 1:412:A:GLN:HE22 | 3        | 0.49          |
| (1,2197) | 1:365:A:LYS:HE2 | 1:398:A:LYS:HG2  | 9        | 0.49          |
| (1,2197) | 1:365:A:LYS:HE2 | 1:398:A:LYS:HG3  | 9        | 0.49          |
| (1,2197) | 1:365:A:LYS:HE3 | 1:398:A:LYS:HG2  | 9        | 0.49          |
| (1,2197) | 1:365:A:LYS:HE3 | 1:398:A:LYS:HG3  | 9        | 0.49          |
| (1,2196) | 1:365:A:LYS:HE2 | 1:398:A:LYS:HE2  | 18       | 0.49          |
| (1,2196) | 1:365:A:LYS:HE2 | 1:398:A:LYS:HE3  | 18       | 0.49          |
| (1,2196) | 1:365:A:LYS:HE3 | 1:398:A:LYS:HE2  | 18       | 0.49          |
| (1,2196) | 1:365:A:LYS:HE3 | 1:398:A:LYS:HE3  | 18       | 0.49          |
| (1,2133) | 1:361:A:GLU:HA  | 1:365:A:LYS:H    | 14       | 0.49          |
| (1,1993) | 1:354:A:LYS:HE2 | 1:391:A:ALA:HB1  | 1        | 0.49          |
| (1,1993) | 1:354:A:LYS:HE2 | 1:391:A:ALA:HB2  | 1        | 0.49          |
| (1,1993) | 1:354:A:LYS:HE2 | 1:391:A:ALA:HB3  | 1        | 0.49          |
| (1,1993) | 1:354:A:LYS:HE3 | 1:391:A:ALA:HB1  | 1        | 0.49          |
| (1,1993) | 1:354:A:LYS:HE3 | 1:391:A:ALA:HB2  | 1        | 0.49          |
| (1,1993) | 1:354:A:LYS:HE3 | 1:391:A:ALA:HB3  | 1        | 0.49          |
| (1,1991) | 1:354:A:LYS:HE2 | 1:392:A:ASN:HD21 | 13       | 0.49          |
| (1,1991) | 1:354:A:LYS:HE2 | 1:392:A:ASN:HD22 | 13       | 0.49          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 13       | 0.49          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 13       | 0.49          |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG2  | 20       | 0.49          |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG3  | 20       | 0.49          |
| (1,1933) | 1:350:A:ASN:HA   | 1:354:A:LYS:H    | 3        | 0.49          |
| (1,1776) | 1:336:A:ARG:HA   | 1:340:A:GLN:H    | 14       | 0.49          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD11 | 16       | 0.49          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD12 | 16       | 0.49          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD13 | 16       | 0.49          |
| (1,1674) | 1:325:A:ILE:HD11 | 1:327:A:SER:H    | 1        | 0.49          |
| (1,1674) | 1:325:A:ILE:HD12 | 1:327:A:SER:H    | 1        | 0.49          |
| (1,1674) | 1:325:A:ILE:HD13 | 1:327:A:SER:H    | 1        | 0.49          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 9        | 0.49          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 9        | 0.49          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 9        | 0.49          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 9        | 0.49          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 9        | 0.49          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 9        | 0.49          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 9        | 0.49          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 9        | 0.49          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 9        | 0.49          |
| (1,1487) | 1:314:A:MET:HB2  | 1:319:A:ARG:HA   | 8        | 0.49          |
| (1,1487) | 1:314:A:MET:HB3  | 1:319:A:ARG:HA   | 8        | 0.49          |
| (1,1422) | 1:312:A:GLN:HE21 | 1:340:A:GLN:HA   | 2        | 0.49          |
| (1,1422) | 1:312:A:GLN:HE22 | 1:340:A:GLN:HA   | 2        | 0.49          |
| (1,1422) | 1:312:A:GLN:HE21 | 1:340:A:GLN:HA   | 18       | 0.49          |
| (1,1422) | 1:312:A:GLN:HE22 | 1:340:A:GLN:HA   | 18       | 0.49          |
| (1,1219) | 1:299:A:LEU:H    | 1:306:A:ILE:H    | 18       | 0.49          |
| (1,1118) | 1:297:A:LEU:HA   | 1:322:A:ARG:HD2  | 4        | 0.49          |
| (1,1118) | 1:297:A:LEU:HA   | 1:322:A:ARG:HD3  | 4        | 0.49          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 16       | 0.49          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 16       | 0.49          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 3        | 0.49          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 3        | 0.49          |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB2  | 4        | 0.49          |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB3  | 4        | 0.49          |
| (1,1020) | 1:289:A:TRP:HH2  | 1:384:A:GLU:HG2  | 7        | 0.49          |
| (1,1020) | 1:289:A:TRP:HH2  | 1:384:A:GLU:HG3  | 7        | 0.49          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE1  | 12       | 0.49          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE2  | 12       | 0.49          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE3  | 12       | 0.49          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE1  | 12       | 0.49          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE2  | 12       | 0.49          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE3  | 12       | 0.49          |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 20       | 0.49          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 20       | 0.49          |
| (1,719)  | 1:274:A:TYR:HD2  | 1:348:A:LEU:HD22 | 19       | 0.49          |
| (1,705)  | 1:273:A:GLU:HG2  | 1:328:A:SER:H    | 19       | 0.49          |
| (1,705)  | 1:273:A:GLU:HG3  | 1:328:A:SER:H    | 19       | 0.49          |
| (1,703)  | 1:273:A:GLU:H    | 1:328:A:SER:H    | 8        | 0.49          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 16       | 0.49          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 16       | 0.49          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 16       | 0.49          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD2  | 5        | 0.49          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD3  | 5        | 0.49          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD2  | 5        | 0.49          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD3  | 5        | 0.49          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD2  | 5        | 0.49          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD3  | 5        | 0.49          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 18       | 0.49          |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 20       | 0.49          |
| (1,123)  | 1:236:A:ARG:HB2  | 1:240:A:GLU:H    | 7        | 0.49          |
| (1,123)  | 1:236:A:ARG:HB3  | 1:240:A:GLU:H    | 7        | 0.49          |
| (1,85)   | 1:234:A:TRP:HE1  | 1:275:A:THR:HB   | 5        | 0.49          |
| (1,3890) | 1:486:A:VAL:HA   | 1:490:A:LEU:H    | 14       | 0.48          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE2  | 12       | 0.48          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE3  | 12       | 0.48          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE2  | 12       | 0.48          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE3  | 12       | 0.48          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE2  | 13       | 0.48          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE3  | 13       | 0.48          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE2  | 13       | 0.48          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE3  | 13       | 0.48          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 20       | 0.48          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 20       | 0.48          |
| (1,3784) | 1:474:A:GLU:H    | 1:480:A:PHE:H    | 13       | 0.48          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB2  | 14       | 0.48          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB3  | 14       | 0.48          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB2  | 14       | 0.48          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB3  | 14       | 0.48          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB2  | 14       | 0.48          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB3  | 14       | 0.48          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD1  | 12       | 0.48          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD2  | 12       | 0.48          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3674) | 1:462:A:ASP:HB2  | 1:464:A:ILE:H    | 7        | 0.48          |
| (1,3674) | 1:462:A:ASP:HB3  | 1:464:A:ILE:H    | 7        | 0.48          |
| (1,3635) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE1  | 17       | 0.48          |
| (1,3567) | 1:450:A:LEU:HA   | 1:454:A:GLY:H    | 8        | 0.48          |
| (1,3567) | 1:450:A:LEU:HA   | 1:454:A:GLY:H    | 15       | 0.48          |
| (1,3245) | 1:432:A:TYR:HB2  | 1:458:A:LEU:H    | 16       | 0.48          |
| (1,3245) | 1:432:A:TYR:HB3  | 1:458:A:LEU:H    | 16       | 0.48          |
| (1,3235) | 1:432:A:TYR:H    | 1:482:A:SER:HA   | 18       | 0.48          |
| (1,3208) | 1:431:A:TYR:HB2  | 1:482:A:SER:HA   | 18       | 0.48          |
| (1,3208) | 1:431:A:TYR:HB3  | 1:482:A:SER:HA   | 18       | 0.48          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 2        | 0.48          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 2        | 0.48          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 2        | 0.48          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 2        | 0.48          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 15       | 0.48          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 15       | 0.48          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 15       | 0.48          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 15       | 0.48          |
| (1,3128) | 1:427:A:GLN:HG2  | 1:429:A:LYS:H    | 11       | 0.48          |
| (1,3128) | 1:427:A:GLN:HG3  | 1:429:A:LYS:H    | 11       | 0.48          |
| (1,3121) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HA   | 11       | 0.48          |
| (1,3121) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HA   | 11       | 0.48          |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG2  | 3        | 0.48          |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG3  | 3        | 0.48          |
| (1,2737) | 1:401:A:ARG:HD2  | 1:414:A:VAL:HA   | 15       | 0.48          |
| (1,2737) | 1:401:A:ARG:HD3  | 1:414:A:VAL:HA   | 15       | 0.48          |
| (1,2430) | 1:380:A:LEU:HD21 | 1:462:A:ASP:HB2  | 4        | 0.48          |
| (1,2430) | 1:380:A:LEU:HD21 | 1:462:A:ASP:HB3  | 4        | 0.48          |
| (1,2430) | 1:380:A:LEU:HD22 | 1:462:A:ASP:HB2  | 4        | 0.48          |
| (1,2430) | 1:380:A:LEU:HD22 | 1:462:A:ASP:HB3  | 4        | 0.48          |
| (1,2430) | 1:380:A:LEU:HD23 | 1:462:A:ASP:HB2  | 4        | 0.48          |
| (1,2430) | 1:380:A:LEU:HD23 | 1:462:A:ASP:HB3  | 4        | 0.48          |
| (1,2425) | 1:380:A:LEU:HB2  | 1:464:A:ILE:H    | 16       | 0.48          |
| (1,2425) | 1:380:A:LEU:HB3  | 1:464:A:ILE:H    | 16       | 0.48          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA2  | 9        | 0.48          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA3  | 9        | 0.48          |
| (1,2123) | 1:361:A:GLU:HA   | 1:399:A:LEU:HA   | 10       | 0.48          |
| (1,1997) | 1:354:A:LYS:HB2  | 1:358:A:GLN:HE21 | 4        | 0.48          |
| (1,1997) | 1:354:A:LYS:HB2  | 1:358:A:GLN:HE22 | 4        | 0.48          |
| (1,1997) | 1:354:A:LYS:HB3  | 1:358:A:GLN:HE21 | 4        | 0.48          |
| (1,1997) | 1:354:A:LYS:HB3  | 1:358:A:GLN:HE22 | 4        | 0.48          |
| (1,1933) | 1:350:A:ASN:HA   | 1:354:A:LYS:H    | 7        | 0.48          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD21 | 12       | 0.48          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD22 | 12       | 0.48          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD21 | 12       | 0.48          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD22 | 12       | 0.48          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD11 | 1        | 0.48          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD12 | 1        | 0.48          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD13 | 1        | 0.48          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD11 | 3        | 0.48          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD12 | 3        | 0.48          |
| (1,1745) | 1:333:A:ASN:HD21 | 1:338:A:ILE:HD13 | 3        | 0.48          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD11 | 3        | 0.48          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD12 | 3        | 0.48          |
| (1,1745) | 1:333:A:ASN:HD22 | 1:338:A:ILE:HD13 | 3        | 0.48          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE1  | 13       | 0.48          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE2  | 13       | 0.48          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE3  | 13       | 0.48          |
| (1,1511) | 1:315:A:PRO:HG2  | 1:319:A:ARG:H    | 18       | 0.48          |
| (1,1511) | 1:315:A:PRO:HG3  | 1:319:A:ARG:H    | 18       | 0.48          |
| (1,1490) | 1:314:A:MET:HB2  | 1:318:A:LEU:H    | 8        | 0.48          |
| (1,1490) | 1:314:A:MET:HB3  | 1:318:A:LEU:H    | 8        | 0.48          |
| (1,1374) | 1:307:A:MET:HE1  | 1:335:A:SER:HA   | 19       | 0.48          |
| (1,1374) | 1:307:A:MET:HE2  | 1:335:A:SER:HA   | 19       | 0.48          |
| (1,1374) | 1:307:A:MET:HE3  | 1:335:A:SER:HA   | 19       | 0.48          |
| (1,1321) | 1:302:A:GLN:HA   | 1:328:A:SER:HA   | 18       | 0.48          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 6        | 0.48          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 6        | 0.48          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB2  | 5        | 0.48          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB3  | 5        | 0.48          |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB2  | 5        | 0.48          |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB3  | 5        | 0.48          |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 14       | 0.48          |
| (1,980)  | 1:286:A:TRP:HZ3  | 1:289:A:TRP:H    | 8        | 0.48          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE1  | 6        | 0.48          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE2  | 6        | 0.48          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE3  | 6        | 0.48          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE1  | 6        | 0.48          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE2  | 6        | 0.48          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE3  | 6        | 0.48          |
| (1,927)  | 1:283:A:GLN:HA   | 1:377:A:GLN:HA   | 2        | 0.48          |
| (1,673)  | 1:270:A:GLY:H    | 1:273:A:GLU:HA   | 1        | 0.48          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD21 | 14       | 0.48          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD22 | 14       | 0.48          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2  | 14       | 0.48          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3  | 14       | 0.48          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2  | 14       | 0.48          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3  | 14       | 0.48          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 4        | 0.48          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 1        | 0.48          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG21 | 14       | 0.48          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG22 | 14       | 0.48          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG23 | 14       | 0.48          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 11       | 0.47          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 15       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 16       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 16       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 16       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 16       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 16       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 16       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 16       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 16       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 16       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 19       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 19       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 19       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 19       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 19       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 19       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 19       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 19       | 0.47          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 19       | 0.47          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 5        | 0.47          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 14       | 0.47          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 4        | 0.47          |
| (1,3846) | 1:481:A:GLN:HE21 | 1:486:A:VAL:H    | 18       | 0.47          |
| (1,3846) | 1:481:A:GLN:HE22 | 1:486:A:VAL:H    | 18       | 0.47          |
| (1,3845) | 1:481:A:GLN:HG2  | 1:487:A:ASP:H    | 10       | 0.47          |
| (1,3845) | 1:481:A:GLN:HG3  | 1:487:A:ASP:H    | 10       | 0.47          |
| (1,3634) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE1  | 3        | 0.47          |
| (1,3634) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE2  | 3        | 0.47          |
| (1,3634) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE1  | 3        | 0.47          |
| (1,3634) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE2  | 3        | 0.47          |
| (1,3634) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE1  | 3        | 0.47          |
| (1,3634) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE2  | 3        | 0.47          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3548) | 1:450:A:LEU:HD21 | 1:493:A:LEU:HB2  | 14       | 0.47          |
| (1,3548) | 1:450:A:LEU:HD21 | 1:493:A:LEU:HB3  | 14       | 0.47          |
| (1,3548) | 1:450:A:LEU:HD22 | 1:493:A:LEU:HB2  | 14       | 0.47          |
| (1,3548) | 1:450:A:LEU:HD22 | 1:493:A:LEU:HB3  | 14       | 0.47          |
| (1,3548) | 1:450:A:LEU:HD23 | 1:493:A:LEU:HB2  | 14       | 0.47          |
| (1,3548) | 1:450:A:LEU:HD23 | 1:493:A:LEU:HB3  | 14       | 0.47          |
| (1,3329) | 1:435:A:ALA:H    | 1:461:A:SER:HA   | 13       | 0.47          |
| (1,3309) | 1:434:A:THR:HB   | 1:466:A:GLU:H    | 7        | 0.47          |
| (1,3245) | 1:432:A:TYR:HB2  | 1:458:A:LEU:H    | 18       | 0.47          |
| (1,3245) | 1:432:A:TYR:HB3  | 1:458:A:LEU:H    | 18       | 0.47          |
| (1,3187) | 1:430:A:ILE:HD11 | 1:474:A:GLU:HA   | 19       | 0.47          |
| (1,3187) | 1:430:A:ILE:HD12 | 1:474:A:GLU:HA   | 19       | 0.47          |
| (1,3187) | 1:430:A:ILE:HD13 | 1:474:A:GLU:HA   | 19       | 0.47          |
| (1,3178) | 1:430:A:ILE:HD11 | 1:479:A:PRO:HA   | 7        | 0.47          |
| (1,3178) | 1:430:A:ILE:HD12 | 1:479:A:PRO:HA   | 7        | 0.47          |
| (1,3178) | 1:430:A:ILE:HD13 | 1:479:A:PRO:HA   | 7        | 0.47          |
| (1,3178) | 1:430:A:ILE:HD11 | 1:479:A:PRO:HA   | 16       | 0.47          |
| (1,3178) | 1:430:A:ILE:HD12 | 1:479:A:PRO:HA   | 16       | 0.47          |
| (1,3178) | 1:430:A:ILE:HD13 | 1:479:A:PRO:HA   | 16       | 0.47          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 11       | 0.47          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 11       | 0.47          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 11       | 0.47          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB2  | 20       | 0.47          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB3  | 20       | 0.47          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB2  | 20       | 0.47          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB3  | 20       | 0.47          |
| (1,3128) | 1:427:A:GLN:HG2  | 1:429:A:LYS:H    | 10       | 0.47          |
| (1,3128) | 1:427:A:GLN:HG3  | 1:429:A:LYS:H    | 10       | 0.47          |
| (1,3110) | 1:426:A:GLY:HA2  | 1:492:A:LYS:HD3  | 7        | 0.47          |
| (1,3110) | 1:426:A:GLY:HA3  | 1:492:A:LYS:HD3  | 7        | 0.47          |
| (1,3079) | 1:423:A:MET:HE1  | 1:428:A:GLU:HA   | 6        | 0.47          |
| (1,3079) | 1:423:A:MET:HE2  | 1:428:A:GLU:HA   | 6        | 0.47          |
| (1,3079) | 1:423:A:MET:HE3  | 1:428:A:GLU:HA   | 6        | 0.47          |
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 17       | 0.47          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB2  | 13       | 0.47          |
| (1,2787) | 1:403:A:ALA:H    | 1:458:A:LEU:HB3  | 13       | 0.47          |
| (1,2777) | 1:403:A:ALA:H    | 1:461:A:SER:H    | 5        | 0.47          |
| (1,2755) | 1:402:A:PHE:HD1  | 1:460:A:LEU:HD13 | 10       | 0.47          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 6        | 0.47          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 6        | 0.47          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 6        | 0.47          |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG2  | 9        | 0.47          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG3  | 9        | 0.47          |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG2  | 9        | 0.47          |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG3  | 9        | 0.47          |
| (1,2696) | 1:398:A:LYS:HA   | 1:475:A:PHE:HE1  | 7        | 0.47          |
| (1,2696) | 1:398:A:LYS:HA   | 1:475:A:PHE:HE2  | 7        | 0.47          |
| (1,2621) | 1:393:A:GLN:HE21 | 1:473:A:THR:H    | 8        | 0.47          |
| (1,2621) | 1:393:A:GLN:HE22 | 1:473:A:THR:H    | 8        | 0.47          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB2  | 6        | 0.47          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB3  | 6        | 0.47          |
| (1,2337) | 1:375:A:TRP:HD1  | 1:413:A:THR:HA   | 10       | 0.47          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE1  | 12       | 0.47          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE2  | 12       | 0.47          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE3  | 12       | 0.47          |
| (1,2123) | 1:361:A:GLU:HA   | 1:399:A:LEU:HA   | 9        | 0.47          |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 15       | 0.47          |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 15       | 0.47          |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 15       | 0.47          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD21 | 6        | 0.47          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD22 | 6        | 0.47          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD21 | 6        | 0.47          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD22 | 6        | 0.47          |
| (1,1884) | 1:346:A:ARG:HA   | 1:350:A:ASN:H    | 8        | 0.47          |
| (1,1776) | 1:336:A:ARG:HA   | 1:340:A:GLN:H    | 18       | 0.47          |
| (1,1776) | 1:336:A:ARG:HA   | 1:340:A:GLN:H    | 19       | 0.47          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD11 | 19       | 0.47          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD12 | 19       | 0.47          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD13 | 19       | 0.47          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD11 | 20       | 0.47          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD12 | 20       | 0.47          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD13 | 20       | 0.47          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE1  | 18       | 0.47          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE2  | 18       | 0.47          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE3  | 18       | 0.47          |
| (1,1519) | 1:315:A:PRO:HG2  | 1:317:A:TYR:HE1  | 15       | 0.47          |
| (1,1519) | 1:315:A:PRO:HG2  | 1:317:A:TYR:HE2  | 15       | 0.47          |
| (1,1519) | 1:315:A:PRO:HG3  | 1:317:A:TYR:HE1  | 15       | 0.47          |
| (1,1519) | 1:315:A:PRO:HG3  | 1:317:A:TYR:HE2  | 15       | 0.47          |
| (1,1422) | 1:312:A:GLN:HE21 | 1:340:A:GLN:HA   | 19       | 0.47          |
| (1,1422) | 1:312:A:GLN:HE22 | 1:340:A:GLN:HA   | 19       | 0.47          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG21 | 19       | 0.47          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG22 | 19       | 0.47          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG23 | 19       | 0.47          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1374) | 1:307:A:MET:HE1  | 1:335:A:SER:HA   | 2        | 0.47          |
| (1,1374) | 1:307:A:MET:HE2  | 1:335:A:SER:HA   | 2        | 0.47          |
| (1,1374) | 1:307:A:MET:HE3  | 1:335:A:SER:HA   | 2        | 0.47          |
| (1,1318) | 1:302:A:GLN:H    | 1:329:A:ASP:H    | 18       | 0.47          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD11 | 19       | 0.47          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD12 | 19       | 0.47          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD13 | 19       | 0.47          |
| (1,1166) | 1:298:A:LYS:HG2  | 1:309:A:ASP:H    | 5        | 0.47          |
| (1,1166) | 1:298:A:LYS:HG3  | 1:309:A:ASP:H    | 5        | 0.47          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 2        | 0.47          |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 13       | 0.47          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 13       | 0.47          |
| (1,869)  | 1:280:A:ILE:HD11 | 1:360:A:LEU:HA   | 18       | 0.47          |
| (1,869)  | 1:280:A:ILE:HD12 | 1:360:A:LEU:HA   | 18       | 0.47          |
| (1,869)  | 1:280:A:ILE:HD13 | 1:360:A:LEU:HA   | 18       | 0.47          |
| (1,608)  | 1:266:A:ASN:HB2  | 1:355:A:ARG:HG2  | 7        | 0.47          |
| (1,608)  | 1:266:A:ASN:HB2  | 1:355:A:ARG:HG3  | 7        | 0.47          |
| (1,608)  | 1:266:A:ASN:HB3  | 1:355:A:ARG:HG2  | 7        | 0.47          |
| (1,608)  | 1:266:A:ASN:HB3  | 1:355:A:ARG:HG3  | 7        | 0.47          |
| (1,470)  | 1:260:A:PRO:HA   | 1:283:A:GLN:H    | 12       | 0.47          |
| (1,451)  | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 9        | 0.47          |
| (1,222)  | 1:244:A:GLU:H    | 1:247:A:LYS:H    | 12       | 0.47          |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 10       | 0.47          |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 10       | 0.47          |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 11       | 0.47          |
| (1,153)  | 1:238:A:LYS:HE2  | 1:264:A:SER:HA   | 16       | 0.47          |
| (1,153)  | 1:238:A:LYS:HE3  | 1:264:A:SER:HA   | 16       | 0.47          |
| (1,139)  | 1:237:A:ASN:HD21 | 1:239:A:SER:H    | 6        | 0.47          |
| (1,139)  | 1:237:A:ASN:HD22 | 1:239:A:SER:H    | 6        | 0.47          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD2  | 3        | 0.47          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD3  | 3        | 0.47          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 13       | 0.47          |
| (1,70)   | 1:234:A:TRP:HE1  | 1:303:A:ARG:HD2  | 18       | 0.47          |
| (1,70)   | 1:234:A:TRP:HE1  | 1:303:A:ARG:HD3  | 18       | 0.47          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG21 | 14       | 0.47          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG22 | 14       | 0.47          |
| (1,53)   | 1:233:A:LEU:H    | 1:235:A:THR:HG23 | 14       | 0.47          |
| (1,21)   | 1:232:A:ALA:H    | 1:235:A:THR:H    | 15       | 0.47          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG21 | 2        | 0.46          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG22 | 2        | 0.46          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG23 | 2        | 0.46          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG21 | 2        | 0.46          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG22 | 2        | 0.46          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG23 | 2        | 0.46          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG21 | 2        | 0.46          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG22 | 2        | 0.46          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG23 | 2        | 0.46          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 13       | 0.46          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 13       | 0.46          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 13       | 0.46          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 13       | 0.46          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 13       | 0.46          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 13       | 0.46          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 13       | 0.46          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 13       | 0.46          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 13       | 0.46          |
| (1,3942) | 1:490:A:LEU:H    | 1:492:A:LYS:H    | 8        | 0.46          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 11       | 0.46          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 11       | 0.46          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 3        | 0.46          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 16       | 0.46          |
| (1,3882) | 1:485:A:LYS:HB2  | 1:487:A:ASP:HB3  | 9        | 0.46          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 17       | 0.46          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 17       | 0.46          |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 18       | 0.46          |
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 18       | 0.46          |
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 18       | 0.46          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB2  | 8        | 0.46          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB3  | 8        | 0.46          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB2  | 8        | 0.46          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB3  | 8        | 0.46          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 5        | 0.46          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 5        | 0.46          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 5        | 0.46          |
| (1,3635) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE1  | 10       | 0.46          |
| (1,3561) | 1:450:A:LEU:HD11 | 1:456:A:GLU:H    | 4        | 0.46          |
| (1,3561) | 1:450:A:LEU:HD12 | 1:456:A:GLU:H    | 4        | 0.46          |
| (1,3561) | 1:450:A:LEU:HD13 | 1:456:A:GLU:H    | 4        | 0.46          |
| (1,3301) | 1:434:A:THR:H    | 1:484:A:SER:H    | 14       | 0.46          |
| (1,3222) | 1:431:A:TYR:HD1  | 1:456:A:GLU:H    | 7        | 0.46          |
| (1,3222) | 1:431:A:TYR:HD2  | 1:456:A:GLU:H    | 7        | 0.46          |
| (1,3170) | 1:430:A:ILE:H    | 1:481:A:GLN:H    | 13       | 0.46          |
| (1,3155) | 1:429:A:LYS:HB2  | 1:480:A:PHE:HA   | 8        | 0.46          |
| (1,3155) | 1:429:A:LYS:HB3  | 1:480:A:PHE:HA   | 8        | 0.46          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3121) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HA   | 16       | 0.46          |
| (1,3121) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HA   | 16       | 0.46          |
| (1,2937) | 1:414:A:VAL:HG21 | 1:419:A:TYR:HA   | 13       | 0.46          |
| (1,2937) | 1:414:A:VAL:HG22 | 1:419:A:TYR:HA   | 13       | 0.46          |
| (1,2937) | 1:414:A:VAL:HG23 | 1:419:A:TYR:HA   | 13       | 0.46          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG11 | 1        | 0.46          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG12 | 1        | 0.46          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG13 | 1        | 0.46          |
| (1,2632) | 1:393:A:GLN:HA   | 1:396:A:ILE:HB   | 20       | 0.46          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 14       | 0.46          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 14       | 0.46          |
| (1,2525) | 1:385:A:GLY:HA2  | 1:389:A:ASP:HB2  | 1        | 0.46          |
| (1,2525) | 1:385:A:GLY:HA2  | 1:389:A:ASP:HB3  | 1        | 0.46          |
| (1,2525) | 1:385:A:GLY:HA3  | 1:389:A:ASP:HB2  | 1        | 0.46          |
| (1,2525) | 1:385:A:GLY:HA3  | 1:389:A:ASP:HB3  | 1        | 0.46          |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG2  | 8        | 0.46          |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG3  | 8        | 0.46          |
| (1,2135) | 1:361:A:GLU:HG2  | 1:365:A:LYS:HG2  | 16       | 0.46          |
| (1,2135) | 1:361:A:GLU:HG2  | 1:365:A:LYS:HG3  | 16       | 0.46          |
| (1,2135) | 1:361:A:GLU:HG3  | 1:365:A:LYS:HG2  | 16       | 0.46          |
| (1,2135) | 1:361:A:GLU:HG3  | 1:365:A:LYS:HG3  | 16       | 0.46          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG2  | 1        | 0.46          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG3  | 1        | 0.46          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG2  | 1        | 0.46          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG3  | 1        | 0.46          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 15       | 0.46          |
| (1,1814) | 1:339:A:LEU:HD21 | 1:344:A:VAL:HG21 | 14       | 0.46          |
| (1,1814) | 1:339:A:LEU:HD21 | 1:344:A:VAL:HG22 | 14       | 0.46          |
| (1,1814) | 1:339:A:LEU:HD21 | 1:344:A:VAL:HG23 | 14       | 0.46          |
| (1,1814) | 1:339:A:LEU:HD22 | 1:344:A:VAL:HG21 | 14       | 0.46          |
| (1,1814) | 1:339:A:LEU:HD22 | 1:344:A:VAL:HG22 | 14       | 0.46          |
| (1,1814) | 1:339:A:LEU:HD22 | 1:344:A:VAL:HG23 | 14       | 0.46          |
| (1,1814) | 1:339:A:LEU:HD23 | 1:344:A:VAL:HG21 | 14       | 0.46          |
| (1,1814) | 1:339:A:LEU:HD23 | 1:344:A:VAL:HG22 | 14       | 0.46          |
| (1,1814) | 1:339:A:LEU:HD23 | 1:344:A:VAL:HG23 | 14       | 0.46          |
| (1,1570) | 1:317:A:TYR:HA   | 1:320:A:PHE:HE1  | 8        | 0.46          |
| (1,1570) | 1:317:A:TYR:HA   | 1:320:A:PHE:HE2  | 8        | 0.46          |
| (1,1430) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HA   | 9        | 0.46          |
| (1,1430) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HA   | 9        | 0.46          |
| (1,1321) | 1:302:A:GLN:HA   | 1:328:A:SER:HA   | 4        | 0.46          |
| (1,1298) | 1:301:A:VAL:H    | 1:306:A:ILE:HB   | 19       | 0.46          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD11 | 13       | 0.46          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD12 | 13       | 0.46          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD13 | 13       | 0.46          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD11 | 13       | 0.46          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD12 | 13       | 0.46          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD13 | 13       | 0.46          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD11 | 13       | 0.46          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD12 | 13       | 0.46          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD13 | 13       | 0.46          |
| (1,1166) | 1:298:A:LYS:HG2  | 1:309:A:ASP:H    | 15       | 0.46          |
| (1,1166) | 1:298:A:LYS:HG3  | 1:309:A:ASP:H    | 15       | 0.46          |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB2  | 7        | 0.46          |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB3  | 7        | 0.46          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE1  | 11       | 0.46          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE2  | 11       | 0.46          |
| (1,967)  | 1:285:A:PRO:HG2  | 1:288:A:MET:HE3  | 11       | 0.46          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE1  | 11       | 0.46          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE2  | 11       | 0.46          |
| (1,967)  | 1:285:A:PRO:HG3  | 1:288:A:MET:HE3  | 11       | 0.46          |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 5        | 0.46          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 5        | 0.46          |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 14       | 0.46          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 14       | 0.46          |
| (1,703)  | 1:273:A:GLU:H    | 1:328:A:SER:H    | 19       | 0.46          |
| (1,454)  | 1:257:A:PHE:H    | 1:258:A:ASN:HD21 | 16       | 0.46          |
| (1,454)  | 1:257:A:PHE:H    | 1:258:A:ASN:HD22 | 16       | 0.46          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2  | 15       | 0.46          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3  | 15       | 0.46          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2  | 15       | 0.46          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3  | 15       | 0.46          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 6        | 0.46          |
| (1,291)  | 1:248:A:GLU:HA   | 1:252:A:HIS:H    | 5        | 0.46          |
| (1,219)  | 1:244:A:GLU:HA   | 1:248:A:GLU:H    | 12       | 0.46          |
| (1,189)  | 1:242:A:THR:H    | 1:246:A:TYR:H    | 9        | 0.46          |
| (1,189)  | 1:242:A:THR:H    | 1:246:A:TYR:H    | 11       | 0.46          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG21 | 20       | 0.46          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG22 | 20       | 0.46          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG23 | 20       | 0.46          |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 1        | 0.45          |
| (1,3882) | 1:485:A:LYS:HB2  | 1:487:A:ASP:HB3  | 10       | 0.45          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB2  | 16       | 0.45          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB3  | 16       | 0.45          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB2  | 16       | 0.45          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB3  | 16       | 0.45          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB2  | 16       | 0.45          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB3  | 16       | 0.45          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB2  | 17       | 0.45          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB3  | 17       | 0.45          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB2  | 17       | 0.45          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB3  | 17       | 0.45          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB2  | 20       | 0.45          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB3  | 20       | 0.45          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB2  | 20       | 0.45          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB3  | 20       | 0.45          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 20       | 0.45          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 20       | 0.45          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 20       | 0.45          |
| (1,3674) | 1:462:A:ASP:HB2  | 1:464:A:ILE:H    | 2        | 0.45          |
| (1,3674) | 1:462:A:ASP:HB3  | 1:464:A:ILE:H    | 2        | 0.45          |
| (1,3674) | 1:462:A:ASP:HB2  | 1:464:A:ILE:H    | 6        | 0.45          |
| (1,3674) | 1:462:A:ASP:HB3  | 1:464:A:ILE:H    | 6        | 0.45          |
| (1,3422) | 1:441:A:ALA:H    | 1:461:A:SER:HB2  | 3        | 0.45          |
| (1,3422) | 1:441:A:ALA:H    | 1:461:A:SER:HB3  | 3        | 0.45          |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD2  | 19       | 0.45          |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD3  | 19       | 0.45          |
| (1,3361) | 1:437:A:SER:H    | 1:461:A:SER:HA   | 20       | 0.45          |
| (1,3311) | 1:434:A:THR:HB   | 1:466:A:GLU:HA   | 20       | 0.45          |
| (1,3245) | 1:432:A:TYR:HB2  | 1:458:A:LEU:H    | 10       | 0.45          |
| (1,3245) | 1:432:A:TYR:HB3  | 1:458:A:LEU:H    | 10       | 0.45          |
| (1,3245) | 1:432:A:TYR:HB2  | 1:458:A:LEU:H    | 13       | 0.45          |
| (1,3245) | 1:432:A:TYR:HB3  | 1:458:A:LEU:H    | 13       | 0.45          |
| (1,3245) | 1:432:A:TYR:HB2  | 1:458:A:LEU:H    | 14       | 0.45          |
| (1,3245) | 1:432:A:TYR:HB3  | 1:458:A:LEU:H    | 14       | 0.45          |
| (1,3245) | 1:432:A:TYR:HB2  | 1:458:A:LEU:H    | 19       | 0.45          |
| (1,3245) | 1:432:A:TYR:HB3  | 1:458:A:LEU:H    | 19       | 0.45          |
| (1,3170) | 1:430:A:ILE:H    | 1:481:A:GLN:H    | 9        | 0.45          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 16       | 0.45          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 16       | 0.45          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 16       | 0.45          |
| (1,3154) | 1:429:A:LYS:HA   | 1:480:A:PHE:HA   | 17       | 0.45          |
| (1,3154) | 1:429:A:LYS:HA   | 1:480:A:PHE:HA   | 20       | 0.45          |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG2  | 5        | 0.45          |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG3  | 5        | 0.45          |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG2  | 5        | 0.45          |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG3  | 5        | 0.45          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3144) | 1:429:A:LYS:HD2  | 1:489:A:SER:HA   | 4        | 0.45          |
| (1,3144) | 1:429:A:LYS:HD3  | 1:489:A:SER:HA   | 4        | 0.45          |
| (1,3112) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HA   | 18       | 0.45          |
| (1,3112) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HA   | 18       | 0.45          |
| (1,3096) | 1:424:A:LYS:H    | 1:427:A:GLN:HB2  | 6        | 0.45          |
| (1,3096) | 1:424:A:LYS:H    | 1:427:A:GLN:HB3  | 6        | 0.45          |
| (1,3071) | 1:423:A:MET:HE1  | 1:431:A:TYR:H    | 18       | 0.45          |
| (1,3071) | 1:423:A:MET:HE2  | 1:431:A:TYR:H    | 18       | 0.45          |
| (1,3071) | 1:423:A:MET:HE3  | 1:431:A:TYR:H    | 18       | 0.45          |
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 15       | 0.45          |
| (1,2982) | 1:417:A:GLU:HG2  | 1:475:A:PHE:HZ   | 14       | 0.45          |
| (1,2982) | 1:417:A:GLU:HG3  | 1:475:A:PHE:HZ   | 14       | 0.45          |
| (1,2937) | 1:414:A:VAL:HG21 | 1:419:A:TYR:HA   | 9        | 0.45          |
| (1,2937) | 1:414:A:VAL:HG22 | 1:419:A:TYR:HA   | 9        | 0.45          |
| (1,2937) | 1:414:A:VAL:HG23 | 1:419:A:TYR:HA   | 9        | 0.45          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD1  | 14       | 0.45          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD2  | 14       | 0.45          |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD1  | 14       | 0.45          |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD2  | 14       | 0.45          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD1  | 14       | 0.45          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD2  | 14       | 0.45          |
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD2  | 19       | 0.45          |
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD3  | 19       | 0.45          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 3        | 0.45          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 3        | 0.45          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 3        | 0.45          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 3        | 0.45          |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 10       | 0.45          |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 10       | 0.45          |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 10       | 0.45          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE21 | 15       | 0.45          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE22 | 15       | 0.45          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 4        | 0.45          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 4        | 0.45          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 4        | 0.45          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 4        | 0.45          |
| (1,1951) | 1:351:A:ALA:HA   | 1:354:A:LYS:HD2  | 17       | 0.45          |
| (1,1951) | 1:351:A:ALA:HA   | 1:354:A:LYS:HD3  | 17       | 0.45          |
| (1,1793) | 1:337:A:GLU:HA   | 1:340:A:GLN:HB2  | 15       | 0.45          |
| (1,1793) | 1:337:A:GLU:HA   | 1:340:A:GLN:HB3  | 15       | 0.45          |
| (1,1506) | 1:315:A:PRO:HA   | 1:349:A:ARG:HD2  | 15       | 0.45          |
| (1,1506) | 1:315:A:PRO:HA   | 1:349:A:ARG:HD3  | 15       | 0.45          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1420) | 1:312:A:GLN:HE21 | 1:340:A:GLN:H    | 11       | 0.45          |
| (1,1420) | 1:312:A:GLN:HE22 | 1:340:A:GLN:H    | 11       | 0.45          |
| (1,1390) | 1:309:A:ASP:HA   | 1:311:A:GLU:HB2  | 18       | 0.45          |
| (1,1390) | 1:309:A:ASP:HA   | 1:311:A:GLU:HB3  | 18       | 0.45          |
| (1,1321) | 1:302:A:GLN:HA   | 1:328:A:SER:HA   | 11       | 0.45          |
| (1,1318) | 1:302:A:GLN:H    | 1:329:A:ASP:H    | 15       | 0.45          |
| (1,1172) | 1:298:A:LYS:HA   | 1:307:A:MET:H    | 18       | 0.45          |
| (1,1140) | 1:297:A:LEU:HA   | 1:309:A:ASP:HA   | 7        | 0.45          |
| (1,1140) | 1:297:A:LEU:HA   | 1:309:A:ASP:HA   | 11       | 0.45          |
| (1,1023) | 1:289:A:TRP:HZ2  | 1:381:A:VAL:H    | 9        | 0.45          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 15       | 0.45          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 19       | 0.45          |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 19       | 0.45          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 19       | 0.45          |
| (1,915)  | 1:282:A:SER:HA   | 1:378:A:PHE:HZ   | 7        | 0.45          |
| (1,705)  | 1:273:A:GLU:HG2  | 1:328:A:SER:H    | 18       | 0.45          |
| (1,705)  | 1:273:A:GLU:HG3  | 1:328:A:SER:H    | 18       | 0.45          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB2  | 5        | 0.45          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB3  | 5        | 0.45          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 9        | 0.45          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 9        | 0.45          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 9        | 0.45          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD21 | 16       | 0.45          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD22 | 16       | 0.45          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2  | 12       | 0.45          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3  | 12       | 0.45          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2  | 12       | 0.45          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3  | 12       | 0.45          |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 12       | 0.45          |
| (1,189)  | 1:242:A:THR:H    | 1:246:A:TYR:H    | 7        | 0.45          |
| (1,189)  | 1:242:A:THR:H    | 1:246:A:TYR:H    | 10       | 0.45          |
| (1,153)  | 1:238:A:LYS:HE2  | 1:264:A:SER:HA   | 11       | 0.45          |
| (1,153)  | 1:238:A:LYS:HE3  | 1:264:A:SER:HA   | 11       | 0.45          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 20       | 0.44          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 20       | 0.44          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 20       | 0.44          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 20       | 0.44          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 20       | 0.44          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 20       | 0.44          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 20       | 0.44          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 20       | 0.44          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 20       | 0.44          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 18       | 0.44          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 18       | 0.44          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 18       | 0.44          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 18       | 0.44          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 18       | 0.44          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 18       | 0.44          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 18       | 0.44          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 18       | 0.44          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 18       | 0.44          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 2        | 0.44          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 2        | 0.44          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 2        | 0.44          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 2        | 0.44          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 2        | 0.44          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 2        | 0.44          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 2        | 0.44          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 2        | 0.44          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 2        | 0.44          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 16       | 0.44          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 16       | 0.44          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 16       | 0.44          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 16       | 0.44          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 16       | 0.44          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 16       | 0.44          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 16       | 0.44          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 16       | 0.44          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 16       | 0.44          |
| (1,3943) | 1:490:A:LEU:HA   | 1:492:A:LYS:H    | 13       | 0.44          |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 17       | 0.44          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 2        | 0.44          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 2        | 0.44          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 5        | 0.44          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 5        | 0.44          |
| (1,3926) | 1:489:A:SER:HA   | 1:493:A:LEU:HD11 | 3        | 0.44          |
| (1,3926) | 1:489:A:SER:HA   | 1:493:A:LEU:HD12 | 3        | 0.44          |
| (1,3926) | 1:489:A:SER:HA   | 1:493:A:LEU:HD13 | 3        | 0.44          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 1        | 0.44          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 3        | 0.44          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 15       | 0.44          |
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB2  | 11       | 0.44          |
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB3  | 11       | 0.44          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 12       | 0.44          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 12       | 0.44          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 12       | 0.44          |
| (1,3872) | 1:483:A:VAL:HA   | 1:486:A:VAL:HG21 | 11       | 0.44          |
| (1,3872) | 1:483:A:VAL:HA   | 1:486:A:VAL:HG22 | 11       | 0.44          |
| (1,3872) | 1:483:A:VAL:HA   | 1:486:A:VAL:HG23 | 11       | 0.44          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 10       | 0.44          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 10       | 0.44          |
| (1,3674) | 1:462:A:ASP:HB2  | 1:464:A:ILE:H    | 14       | 0.44          |
| (1,3674) | 1:462:A:ASP:HB3  | 1:464:A:ILE:H    | 14       | 0.44          |
| (1,3674) | 1:462:A:ASP:HB2  | 1:464:A:ILE:H    | 17       | 0.44          |
| (1,3674) | 1:462:A:ASP:HB3  | 1:464:A:ILE:H    | 17       | 0.44          |
| (1,3536) | 1:449:A:LEU:HA   | 1:453:A:LYS:H    | 13       | 0.44          |
| (1,3329) | 1:435:A:ALA:H    | 1:461:A:SER:HA   | 19       | 0.44          |
| (1,3311) | 1:434:A:THR:HB   | 1:466:A:GLU:HA   | 3        | 0.44          |
| (1,3170) | 1:430:A:ILE:H    | 1:481:A:GLN:H    | 1        | 0.44          |
| (1,3079) | 1:423:A:MET:HE1  | 1:428:A:GLU:HA   | 14       | 0.44          |
| (1,3079) | 1:423:A:MET:HE2  | 1:428:A:GLU:HA   | 14       | 0.44          |
| (1,3079) | 1:423:A:MET:HE3  | 1:428:A:GLU:HA   | 14       | 0.44          |
| (1,2910) | 1:410:A:SER:HA   | 1:459:A:LEU:HD11 | 16       | 0.44          |
| (1,2910) | 1:410:A:SER:HA   | 1:459:A:LEU:HD12 | 16       | 0.44          |
| (1,2910) | 1:410:A:SER:HA   | 1:459:A:LEU:HD13 | 16       | 0.44          |
| (1,2887) | 1:407:A:THR:HG21 | 1:408:A:ASP:H    | 16       | 0.44          |
| (1,2887) | 1:407:A:THR:HG22 | 1:408:A:ASP:H    | 16       | 0.44          |
| (1,2887) | 1:407:A:THR:HG23 | 1:408:A:ASP:H    | 16       | 0.44          |
| (1,2855) | 1:405:A:THR:HB   | 1:451:A:ARG:HA   | 17       | 0.44          |
| (1,2849) | 1:405:A:THR:HG21 | 1:457:A:VAL:HB   | 9        | 0.44          |
| (1,2849) | 1:405:A:THR:HG22 | 1:457:A:VAL:HB   | 9        | 0.44          |
| (1,2849) | 1:405:A:THR:HG23 | 1:457:A:VAL:HB   | 9        | 0.44          |
| (1,2763) | 1:402:A:PHE:H    | 1:414:A:VAL:H    | 14       | 0.44          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 5        | 0.44          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 5        | 0.44          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 5        | 0.44          |
| (1,2582) | 1:389:A:ASP:HA   | 1:392:A:ASN:H    | 10       | 0.44          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD1  | 10       | 0.44          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD2  | 10       | 0.44          |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD1  | 10       | 0.44          |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD2  | 10       | 0.44          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD1  | 10       | 0.44          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD2  | 10       | 0.44          |
| (1,2288) | 1:372:A:GLN:HE21 | 1:376:A:GLN:H    | 2        | 0.44          |
| (1,2288) | 1:372:A:GLN:HE22 | 1:376:A:GLN:H    | 2        | 0.44          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG2  | 4        | 0.44          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2129) | 1:361:A:GLU:HG2 | 1:398:A:LYS:HG3  | 4        | 0.44          |
| (1,2129) | 1:361:A:GLU:HG3 | 1:398:A:LYS:HG2  | 4        | 0.44          |
| (1,2129) | 1:361:A:GLU:HG3 | 1:398:A:LYS:HG3  | 4        | 0.44          |
| (1,2129) | 1:361:A:GLU:HG2 | 1:398:A:LYS:HG2  | 15       | 0.44          |
| (1,2129) | 1:361:A:GLU:HG2 | 1:398:A:LYS:HG3  | 15       | 0.44          |
| (1,2129) | 1:361:A:GLU:HG3 | 1:398:A:LYS:HG2  | 15       | 0.44          |
| (1,2129) | 1:361:A:GLU:HG3 | 1:398:A:LYS:HG3  | 15       | 0.44          |
| (1,1992) | 1:354:A:LYS:HG2 | 1:392:A:ASN:HD21 | 2        | 0.44          |
| (1,1992) | 1:354:A:LYS:HG2 | 1:392:A:ASN:HD22 | 2        | 0.44          |
| (1,1992) | 1:354:A:LYS:HG3 | 1:392:A:ASN:HD21 | 2        | 0.44          |
| (1,1992) | 1:354:A:LYS:HG3 | 1:392:A:ASN:HD22 | 2        | 0.44          |
| (1,1992) | 1:354:A:LYS:HG2 | 1:392:A:ASN:HD21 | 18       | 0.44          |
| (1,1992) | 1:354:A:LYS:HG2 | 1:392:A:ASN:HD22 | 18       | 0.44          |
| (1,1992) | 1:354:A:LYS:HG3 | 1:392:A:ASN:HD21 | 18       | 0.44          |
| (1,1992) | 1:354:A:LYS:HG3 | 1:392:A:ASN:HD22 | 18       | 0.44          |
| (1,1991) | 1:354:A:LYS:HE2 | 1:392:A:ASN:HD21 | 7        | 0.44          |
| (1,1991) | 1:354:A:LYS:HE2 | 1:392:A:ASN:HD22 | 7        | 0.44          |
| (1,1991) | 1:354:A:LYS:HE3 | 1:392:A:ASN:HD21 | 7        | 0.44          |
| (1,1991) | 1:354:A:LYS:HE3 | 1:392:A:ASN:HD22 | 7        | 0.44          |
| (1,1989) | 1:354:A:LYS:HA  | 1:392:A:ASN:HD21 | 18       | 0.44          |
| (1,1989) | 1:354:A:LYS:HA  | 1:392:A:ASN:HD22 | 18       | 0.44          |
| (1,1933) | 1:350:A:ASN:HA  | 1:354:A:LYS:H    | 12       | 0.44          |
| (1,1768) | 1:335:A:SER:H   | 1:338:A:ILE:HD11 | 20       | 0.44          |
| (1,1768) | 1:335:A:SER:H   | 1:338:A:ILE:HD12 | 20       | 0.44          |
| (1,1768) | 1:335:A:SER:H   | 1:338:A:ILE:HD13 | 20       | 0.44          |
| (1,1726) | 1:331:A:PRO:HB2 | 1:338:A:ILE:HB   | 7        | 0.44          |
| (1,1726) | 1:331:A:PRO:HB3 | 1:338:A:ILE:HB   | 7        | 0.44          |
| (1,1726) | 1:331:A:PRO:HB2 | 1:338:A:ILE:HB   | 20       | 0.44          |
| (1,1726) | 1:331:A:PRO:HB3 | 1:338:A:ILE:HB   | 20       | 0.44          |
| (1,1490) | 1:314:A:MET:HB2 | 1:318:A:LEU:H    | 11       | 0.44          |
| (1,1490) | 1:314:A:MET:HB3 | 1:318:A:LEU:H    | 11       | 0.44          |
| (1,1354) | 1:305:A:PHE:HE2 | 1:307:A:MET:HA   | 20       | 0.44          |
| (1,1352) | 1:305:A:PHE:HZ  | 1:307:A:MET:HA   | 20       | 0.44          |
| (1,1249) | 1:300:A:TYR:H   | 1:313:A:PHE:HE1  | 1        | 0.44          |
| (1,1249) | 1:300:A:TYR:H   | 1:313:A:PHE:HE2  | 1        | 0.44          |
| (1,1069) | 1:295:A:HIS:HE1 | 1:316:A:ASN:HA   | 2        | 0.44          |
| (1,1053) | 1:293:A:HIS:HB2 | 1:295:A:HIS:H    | 15       | 0.44          |
| (1,1053) | 1:293:A:HIS:HB3 | 1:295:A:HIS:H    | 15       | 0.44          |
| (1,1022) | 1:289:A:TRP:HH2 | 1:381:A:VAL:H    | 5        | 0.44          |
| (1,979)  | 1:286:A:TRP:HE3 | 1:289:A:TRP:H    | 6        | 0.44          |
| (1,979)  | 1:286:A:TRP:HE3 | 1:289:A:TRP:H    | 20       | 0.44          |
| (1,963)  | 1:285:A:PRO:HG2 | 1:288:A:MET:H    | 14       | 0.44          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,963)  | 1:285:A:PRO:HG3  | 1:288:A:MET:H    | 14       | 0.44          |
| (1,960)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HB2  | 9        | 0.44          |
| (1,960)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HB3  | 9        | 0.44          |
| (1,960)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HB2  | 9        | 0.44          |
| (1,960)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HB3  | 9        | 0.44          |
| (1,869)  | 1:280:A:ILE:HD11 | 1:360:A:LEU:HA   | 11       | 0.44          |
| (1,869)  | 1:280:A:ILE:HD12 | 1:360:A:LEU:HA   | 11       | 0.44          |
| (1,869)  | 1:280:A:ILE:HD13 | 1:360:A:LEU:HA   | 11       | 0.44          |
| (1,864)  | 1:280:A:ILE:HD11 | 1:371:A:TYR:HE1  | 5        | 0.44          |
| (1,864)  | 1:280:A:ILE:HD11 | 1:371:A:TYR:HE2  | 5        | 0.44          |
| (1,864)  | 1:280:A:ILE:HD12 | 1:371:A:TYR:HE1  | 5        | 0.44          |
| (1,864)  | 1:280:A:ILE:HD12 | 1:371:A:TYR:HE2  | 5        | 0.44          |
| (1,864)  | 1:280:A:ILE:HD13 | 1:371:A:TYR:HE1  | 5        | 0.44          |
| (1,864)  | 1:280:A:ILE:HD13 | 1:371:A:TYR:HE2  | 5        | 0.44          |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 16       | 0.44          |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 16       | 0.44          |
| (1,473)  | 1:260:A:PRO:HA   | 1:281:A:PRO:HA   | 15       | 0.44          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD21 | 20       | 0.44          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD22 | 20       | 0.44          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD2  | 10       | 0.44          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD3  | 10       | 0.44          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2  | 10       | 0.44          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3  | 10       | 0.44          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2  | 10       | 0.44          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3  | 10       | 0.44          |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 18       | 0.44          |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 4        | 0.44          |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 9        | 0.44          |
| (1,145)  | 1:238:A:LYS:HD2  | 1:267:A:ARG:H    | 16       | 0.44          |
| (1,145)  | 1:238:A:LYS:HD3  | 1:267:A:ARG:H    | 16       | 0.44          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 6        | 0.44          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG21 | 5        | 0.44          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG22 | 5        | 0.44          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG23 | 5        | 0.44          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG21 | 5        | 0.44          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG22 | 5        | 0.44          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG23 | 5        | 0.44          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG21 | 5        | 0.44          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG22 | 5        | 0.44          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG23 | 5        | 0.44          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 9        | 0.43          |
| (1,3940) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HB2  | 19       | 0.43          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,3940) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HB3 | 19       | 0.43          |
| (1,3940) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HB2 | 19       | 0.43          |
| (1,3940) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HB3 | 19       | 0.43          |
| (1,3940) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HB2 | 19       | 0.43          |
| (1,3940) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HB3 | 19       | 0.43          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H   | 1        | 0.43          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H   | 1        | 0.43          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H   | 17       | 0.43          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H   | 17       | 0.43          |
| (1,3918) | 1:488:A:GLU:HA   | 1:491:A:GLU:HA  | 19       | 0.43          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H   | 12       | 0.43          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H   | 17       | 0.43          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H   | 11       | 0.43          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H   | 11       | 0.43          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H   | 11       | 0.43          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE2 | 15       | 0.43          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE3 | 15       | 0.43          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE2 | 15       | 0.43          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE3 | 15       | 0.43          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB2 | 15       | 0.43          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB3 | 15       | 0.43          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB2 | 15       | 0.43          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB3 | 15       | 0.43          |
| (1,3845) | 1:481:A:GLN:HG2  | 1:487:A:ASP:H   | 3        | 0.43          |
| (1,3845) | 1:481:A:GLN:HG3  | 1:487:A:ASP:H   | 3        | 0.43          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB2 | 5        | 0.43          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB3 | 5        | 0.43          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB2 | 5        | 0.43          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB3 | 5        | 0.43          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB2 | 5        | 0.43          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB3 | 5        | 0.43          |
| (1,3725) | 1:468:A:MET:HA   | 1:472:A:LEU:H   | 2        | 0.43          |
| (1,3329) | 1:435:A:ALA:H    | 1:461:A:SER:HA  | 9        | 0.43          |
| (1,3311) | 1:434:A:THR:HB   | 1:466:A:GLU:HA  | 14       | 0.43          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB2 | 10       | 0.43          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB3 | 10       | 0.43          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB2 | 10       | 0.43          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB3 | 10       | 0.43          |
| (1,3170) | 1:430:A:ILE:H    | 1:481:A:GLN:H   | 12       | 0.43          |
| (1,3170) | 1:430:A:ILE:H    | 1:481:A:GLN:H   | 15       | 0.43          |
| (1,3113) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HB2 | 18       | 0.43          |
| (1,3113) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HB3 | 18       | 0.43          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3113) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HB2  | 18       | 0.43          |
| (1,3113) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HB3  | 18       | 0.43          |
| (1,3071) | 1:423:A:MET:HE1  | 1:431:A:TYR:H    | 2        | 0.43          |
| (1,3071) | 1:423:A:MET:HE2  | 1:431:A:TYR:H    | 2        | 0.43          |
| (1,3071) | 1:423:A:MET:HE3  | 1:431:A:TYR:H    | 2        | 0.43          |
| (1,2915) | 1:410:A:SER:HB3  | 1:438:A:TYR:HD2  | 15       | 0.43          |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 19       | 0.43          |
| (1,2882) | 1:407:A:THR:HG21 | 1:409:A:SER:H    | 6        | 0.43          |
| (1,2882) | 1:407:A:THR:HG22 | 1:409:A:SER:H    | 6        | 0.43          |
| (1,2882) | 1:407:A:THR:HG23 | 1:409:A:SER:H    | 6        | 0.43          |
| (1,2790) | 1:403:A:ALA:HA   | 1:414:A:VAL:HB   | 11       | 0.43          |
| (1,2621) | 1:393:A:GLN:HE21 | 1:473:A:THR:H    | 19       | 0.43          |
| (1,2621) | 1:393:A:GLN:HE22 | 1:473:A:THR:H    | 19       | 0.43          |
| (1,2597) | 1:390:A:PHE:HA   | 1:392:A:ASN:H    | 5        | 0.43          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD1  | 18       | 0.43          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD2  | 18       | 0.43          |
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD2  | 5        | 0.43          |
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD3  | 5        | 0.43          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG21 | 3        | 0.43          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG22 | 3        | 0.43          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG23 | 3        | 0.43          |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG21 | 3        | 0.43          |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG22 | 3        | 0.43          |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG23 | 3        | 0.43          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE1  | 13       | 0.43          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE2  | 13       | 0.43          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE3  | 13       | 0.43          |
| (1,2169) | 1:363:A:LEU:HA   | 1:366:A:ASP:H    | 3        | 0.43          |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 17       | 0.43          |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 17       | 0.43          |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 17       | 0.43          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE21 | 10       | 0.43          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE22 | 10       | 0.43          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD11 | 4        | 0.43          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD12 | 4        | 0.43          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD13 | 4        | 0.43          |
| (1,1871) | 1:345:A:THR:HA   | 1:349:A:ARG:H    | 19       | 0.43          |
| (1,1762) | 1:335:A:SER:H    | 1:339:A:LEU:H    | 19       | 0.43          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE1  | 12       | 0.43          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE2  | 12       | 0.43          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE3  | 12       | 0.43          |
| (1,1487) | 1:314:A:MET:HB2  | 1:319:A:ARG:HA   | 3        | 0.43          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1487) | 1:314:A:MET:HB3 | 1:319:A:ARG:HA   | 3        | 0.43          |
| (1,1373) | 1:307:A:MET:HE1 | 1:335:A:SER:H    | 12       | 0.43          |
| (1,1373) | 1:307:A:MET:HE2 | 1:335:A:SER:H    | 12       | 0.43          |
| (1,1373) | 1:307:A:MET:HE3 | 1:335:A:SER:H    | 12       | 0.43          |
| (1,1199) | 1:299:A:LEU:HA  | 1:325:A:ILE:HD11 | 13       | 0.43          |
| (1,1199) | 1:299:A:LEU:HA  | 1:325:A:ILE:HD12 | 13       | 0.43          |
| (1,1199) | 1:299:A:LEU:HA  | 1:325:A:ILE:HD13 | 13       | 0.43          |
| (1,1024) | 1:289:A:TRP:HH2 | 1:381:A:VAL:HA   | 4        | 0.43          |
| (1,1023) | 1:289:A:TRP:HZ2 | 1:381:A:VAL:H    | 10       | 0.43          |
| (1,979)  | 1:286:A:TRP:HE3 | 1:289:A:TRP:H    | 13       | 0.43          |
| (1,976)  | 1:286:A:TRP:HE3 | 1:290:A:ASN:HD21 | 17       | 0.43          |
| (1,976)  | 1:286:A:TRP:HE3 | 1:290:A:ASN:HD22 | 17       | 0.43          |
| (1,769)  | 1:276:A:SER:HB2 | 1:325:A:ILE:HB   | 5        | 0.43          |
| (1,769)  | 1:276:A:SER:HB3 | 1:325:A:ILE:HB   | 5        | 0.43          |
| (1,706)  | 1:273:A:GLU:HB2 | 1:328:A:SER:HB2  | 8        | 0.43          |
| (1,706)  | 1:273:A:GLU:HB2 | 1:328:A:SER:HB3  | 8        | 0.43          |
| (1,706)  | 1:273:A:GLU:HB3 | 1:328:A:SER:HB2  | 8        | 0.43          |
| (1,706)  | 1:273:A:GLU:HB3 | 1:328:A:SER:HB3  | 8        | 0.43          |
| (1,406)  | 1:253:A:ILE:HB  | 1:322:A:ARG:HD2  | 15       | 0.43          |
| (1,406)  | 1:253:A:ILE:HB  | 1:322:A:ARG:HD3  | 15       | 0.43          |
| (1,377)  | 1:251:A:LYS:HG2 | 1:257:A:PHE:HB2  | 9        | 0.43          |
| (1,377)  | 1:251:A:LYS:HG2 | 1:257:A:PHE:HB3  | 9        | 0.43          |
| (1,377)  | 1:251:A:LYS:HG3 | 1:257:A:PHE:HB2  | 9        | 0.43          |
| (1,377)  | 1:251:A:LYS:HG3 | 1:257:A:PHE:HB3  | 9        | 0.43          |
| (1,377)  | 1:251:A:LYS:HG2 | 1:257:A:PHE:HB2  | 11       | 0.43          |
| (1,377)  | 1:251:A:LYS:HG2 | 1:257:A:PHE:HB3  | 11       | 0.43          |
| (1,377)  | 1:251:A:LYS:HG3 | 1:257:A:PHE:HB2  | 11       | 0.43          |
| (1,377)  | 1:251:A:LYS:HG3 | 1:257:A:PHE:HB3  | 11       | 0.43          |
| (1,310)  | 1:249:A:PHE:HZ  | 1:298:A:LYS:HD3  | 10       | 0.43          |
| (1,291)  | 1:248:A:GLU:HA  | 1:252:A:HIS:H    | 1        | 0.43          |
| (1,290)  | 1:248:A:GLU:HA  | 1:260:A:PRO:HD2  | 20       | 0.43          |
| (1,290)  | 1:248:A:GLU:HA  | 1:260:A:PRO:HD3  | 20       | 0.43          |
| (1,223)  | 1:244:A:GLU:HA  | 1:247:A:LYS:H    | 12       | 0.43          |
| (1,190)  | 1:242:A:THR:HA  | 1:246:A:TYR:H    | 19       | 0.43          |
| (1,189)  | 1:242:A:THR:H   | 1:246:A:TYR:H    | 4        | 0.43          |
| (1,189)  | 1:242:A:THR:H   | 1:246:A:TYR:H    | 17       | 0.43          |
| (1,189)  | 1:242:A:THR:H   | 1:246:A:TYR:H    | 19       | 0.43          |
| (1,153)  | 1:238:A:LYS:HE2 | 1:264:A:SER:HA   | 7        | 0.43          |
| (1,153)  | 1:238:A:LYS:HE3 | 1:264:A:SER:HA   | 7        | 0.43          |
| (1,123)  | 1:236:A:ARG:HB2 | 1:240:A:GLU:H    | 12       | 0.43          |
| (1,123)  | 1:236:A:ARG:HB3 | 1:240:A:GLU:H    | 12       | 0.43          |
| (1,104)  | 1:235:A:THR:HB  | 1:303:A:ARG:HD2  | 10       | 0.43          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD3  | 10       | 0.43          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 16       | 0.43          |
| (1,85)   | 1:234:A:TRP:HE1  | 1:275:A:THR:HB   | 17       | 0.43          |
| (1,70)   | 1:234:A:TRP:HE1  | 1:303:A:ARG:HD2  | 12       | 0.43          |
| (1,70)   | 1:234:A:TRP:HE1  | 1:303:A:ARG:HD3  | 12       | 0.43          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG21 | 20       | 0.43          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG22 | 20       | 0.43          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG23 | 20       | 0.43          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG21 | 20       | 0.43          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG22 | 20       | 0.43          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG23 | 20       | 0.43          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 5        | 0.42          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 4        | 0.42          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 4        | 0.42          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 4        | 0.42          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 4        | 0.42          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 4        | 0.42          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 4        | 0.42          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 4        | 0.42          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 4        | 0.42          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 4        | 0.42          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB1  | 18       | 0.42          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB2  | 18       | 0.42          |
| (1,3973) | 1:464:A:ILE:HD11 | 2:625:B:ALA:HB3  | 18       | 0.42          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB1  | 18       | 0.42          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB2  | 18       | 0.42          |
| (1,3973) | 1:464:A:ILE:HD12 | 2:625:B:ALA:HB3  | 18       | 0.42          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB1  | 18       | 0.42          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB2  | 18       | 0.42          |
| (1,3973) | 1:464:A:ILE:HD13 | 2:625:B:ALA:HB3  | 18       | 0.42          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD11 | 19       | 0.42          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD12 | 19       | 0.42          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD13 | 19       | 0.42          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD11 | 19       | 0.42          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD12 | 19       | 0.42          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD13 | 19       | 0.42          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD11 | 19       | 0.42          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD12 | 19       | 0.42          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD13 | 19       | 0.42          |
| (1,3917) | 1:488:A:GLU:HA   | 1:491:A:GLU:H    | 19       | 0.42          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 4        | 0.42          |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 2        | 0.42          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 2        | 0.42          |
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 2        | 0.42          |
| (1,3767) | 1:472:A:LEU:HD21 | 1:480:A:PHE:HE1  | 2        | 0.42          |
| (1,3767) | 1:472:A:LEU:HD23 | 1:480:A:PHE:HE2  | 20       | 0.42          |
| (1,3749) | 1:469:A:MET:HA   | 1:471:A:TYR:H    | 4        | 0.42          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 6        | 0.42          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 6        | 0.42          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 6        | 0.42          |
| (1,3522) | 1:448:A:GLU:HA   | 1:451:A:ARG:H    | 14       | 0.42          |
| (1,3492) | 1:447:A:LEU:HA   | 1:483:A:VAL:HB   | 17       | 0.42          |
| (1,3309) | 1:434:A:THR:HB   | 1:466:A:GLU:H    | 12       | 0.42          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB2  | 18       | 0.42          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB3  | 18       | 0.42          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB2  | 18       | 0.42          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB3  | 18       | 0.42          |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE1  | 16       | 0.42          |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE2  | 16       | 0.42          |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE3  | 16       | 0.42          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 5        | 0.42          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 5        | 0.42          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 5        | 0.42          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 5        | 0.42          |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG2  | 17       | 0.42          |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG3  | 17       | 0.42          |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG2  | 17       | 0.42          |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG3  | 17       | 0.42          |
| (1,3074) | 1:423:A:MET:HE1  | 1:430:A:ILE:HA   | 18       | 0.42          |
| (1,3074) | 1:423:A:MET:HE2  | 1:430:A:ILE:HA   | 18       | 0.42          |
| (1,3074) | 1:423:A:MET:HE3  | 1:430:A:ILE:HA   | 18       | 0.42          |
| (1,3070) | 1:423:A:MET:HA   | 1:456:A:GLU:H    | 1        | 0.42          |
| (1,2982) | 1:417:A:GLU:HG2  | 1:475:A:PHE:HZ   | 9        | 0.42          |
| (1,2982) | 1:417:A:GLU:HG3  | 1:475:A:PHE:HZ   | 9        | 0.42          |
| (1,2980) | 1:417:A:GLU:H    | 1:475:A:PHE:HZ   | 1        | 0.42          |
| (1,2828) | 1:404:A:SER:H    | 1:412:A:GLN:HA   | 11       | 0.42          |
| (1,2827) | 1:404:A:SER:H    | 1:413:A:THR:H    | 14       | 0.42          |
| (1,2824) | 1:404:A:SER:H    | 1:414:A:VAL:HB   | 18       | 0.42          |
| (1,2823) | 1:404:A:SER:H    | 1:414:A:VAL:H    | 18       | 0.42          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG11 | 5        | 0.42          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG12 | 5        | 0.42          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG13 | 5        | 0.42          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 3        | 0.42          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 3        | 0.42          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 3        | 0.42          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 7        | 0.42          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 7        | 0.42          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 7        | 0.42          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 19       | 0.42          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 19       | 0.42          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 19       | 0.42          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD1  | 4        | 0.42          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD2  | 4        | 0.42          |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD1  | 4        | 0.42          |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD2  | 4        | 0.42          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD1  | 4        | 0.42          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD2  | 4        | 0.42          |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG2  | 19       | 0.42          |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG3  | 19       | 0.42          |
| (1,2133) | 1:361:A:GLU:HA   | 1:365:A:LYS:H    | 19       | 0.42          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE21 | 13       | 0.42          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE22 | 13       | 0.42          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD11 | 7        | 0.42          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD12 | 7        | 0.42          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD13 | 7        | 0.42          |
| (1,1937) | 1:350:A:ASN:HA   | 1:353:A:THR:H    | 14       | 0.42          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD21 | 2        | 0.42          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD22 | 2        | 0.42          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD21 | 2        | 0.42          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD22 | 2        | 0.42          |
| (1,1816) | 1:339:A:LEU:HA   | 1:342:A:SER:H    | 13       | 0.42          |
| (1,1726) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HB   | 14       | 0.42          |
| (1,1726) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HB   | 14       | 0.42          |
| (1,1674) | 1:325:A:ILE:HD11 | 1:327:A:SER:H    | 12       | 0.42          |
| (1,1674) | 1:325:A:ILE:HD12 | 1:327:A:SER:H    | 12       | 0.42          |
| (1,1674) | 1:325:A:ILE:HD13 | 1:327:A:SER:H    | 12       | 0.42          |
| (1,1578) | 1:318:A:LEU:HA   | 1:382:A:LEU:HA   | 20       | 0.42          |
| (1,1353) | 1:305:A:PHE:HE1  | 1:307:A:MET:HA   | 20       | 0.42          |
| (1,1353) | 1:305:A:PHE:HE2  | 1:307:A:MET:HA   | 20       | 0.42          |
| (1,1324) | 1:302:A:GLN:H    | 1:327:A:SER:H    | 9        | 0.42          |
| (1,1321) | 1:302:A:GLN:HA   | 1:328:A:SER:HA   | 14       | 0.42          |
| (1,1314) | 1:302:A:GLN:HB2  | 1:332:A:LEU:HD11 | 4        | 0.42          |
| (1,1314) | 1:302:A:GLN:HB2  | 1:332:A:LEU:HD12 | 4        | 0.42          |
| (1,1314) | 1:302:A:GLN:HB2  | 1:332:A:LEU:HD13 | 4        | 0.42          |
| (1,1314) | 1:302:A:GLN:HB3  | 1:332:A:LEU:HD11 | 4        | 0.42          |
| (1,1314) | 1:302:A:GLN:HB3  | 1:332:A:LEU:HD12 | 4        | 0.42          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1314) | 1:302:A:GLN:HB3  | 1:332:A:LEU:HD13 | 4        | 0.42          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD11 | 3        | 0.42          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD12 | 3        | 0.42          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD13 | 3        | 0.42          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD11 | 15       | 0.42          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD12 | 15       | 0.42          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD13 | 15       | 0.42          |
| (1,1077) | 1:295:A:HIS:HB2  | 1:296:A:GLY:H    | 9        | 0.42          |
| (1,1077) | 1:295:A:HIS:HB3  | 1:296:A:GLY:H    | 9        | 0.42          |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 11       | 0.42          |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB2  | 12       | 0.42          |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB3  | 12       | 0.42          |
| (1,1024) | 1:289:A:TRP:HH2  | 1:381:A:VAL:HA   | 9        | 0.42          |
| (1,1022) | 1:289:A:TRP:HH2  | 1:381:A:VAL:H    | 19       | 0.42          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 1        | 0.42          |
| (1,976)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:HD21 | 8        | 0.42          |
| (1,976)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:HD22 | 8        | 0.42          |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 8        | 0.42          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 8        | 0.42          |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 12       | 0.42          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 12       | 0.42          |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 2        | 0.42          |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 2        | 0.42          |
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 2        | 0.42          |
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 2        | 0.42          |
| (1,684)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:H    | 2        | 0.42          |
| (1,684)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:H    | 2        | 0.42          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 14       | 0.42          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 14       | 0.42          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 14       | 0.42          |
| (1,642)  | 1:268:A:VAL:HG11 | 1:276:A:SER:H    | 18       | 0.42          |
| (1,642)  | 1:268:A:VAL:HG12 | 1:276:A:SER:H    | 18       | 0.42          |
| (1,642)  | 1:268:A:VAL:HG13 | 1:276:A:SER:H    | 18       | 0.42          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 14       | 0.42          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 15       | 0.42          |
| (1,454)  | 1:257:A:PHE:H    | 1:258:A:ASN:HD21 | 20       | 0.42          |
| (1,454)  | 1:257:A:PHE:H    | 1:258:A:ASN:HD22 | 20       | 0.42          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD2  | 1        | 0.42          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD3  | 1        | 0.42          |
| (1,219)  | 1:244:A:GLU:HA   | 1:248:A:GLU:H    | 4        | 0.42          |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 13       | 0.42          |
| (1,139)  | 1:237:A:ASN:HD21 | 1:239:A:SER:H    | 18       | 0.42          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,139)  | 1:237:A:ASN:HD22 | 1:239:A:SER:H    | 18       | 0.42          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 20       | 0.42          |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 8        | 0.41          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 3        | 0.41          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 3        | 0.41          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 13       | 0.41          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 13       | 0.41          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB2  | 20       | 0.41          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB3  | 20       | 0.41          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB2  | 20       | 0.41          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB3  | 20       | 0.41          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB2  | 20       | 0.41          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB3  | 20       | 0.41          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB2  | 18       | 0.41          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB3  | 18       | 0.41          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB2  | 18       | 0.41          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB3  | 18       | 0.41          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 8        | 0.41          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 8        | 0.41          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 8        | 0.41          |
| (1,3633) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HD1  | 18       | 0.41          |
| (1,3633) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HD2  | 18       | 0.41          |
| (1,3633) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HD1  | 18       | 0.41          |
| (1,3633) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HD2  | 18       | 0.41          |
| (1,3633) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HD1  | 18       | 0.41          |
| (1,3633) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HD2  | 18       | 0.41          |
| (1,3567) | 1:450:A:LEU:HA   | 1:454:A:GLY:H    | 4        | 0.41          |
| (1,3476) | 1:445:A:PRO:HG2  | 1:446:A:HIS:H    | 5        | 0.41          |
| (1,3476) | 1:445:A:PRO:HG3  | 1:446:A:HIS:H    | 5        | 0.41          |
| (1,3476) | 1:445:A:PRO:HG2  | 1:446:A:HIS:H    | 9        | 0.41          |
| (1,3476) | 1:445:A:PRO:HG3  | 1:446:A:HIS:H    | 9        | 0.41          |
| (1,3476) | 1:445:A:PRO:HG2  | 1:446:A:HIS:H    | 10       | 0.41          |
| (1,3476) | 1:445:A:PRO:HG3  | 1:446:A:HIS:H    | 10       | 0.41          |
| (1,3447) | 1:442:A:LYS:HA   | 1:447:A:LEU:HD11 | 19       | 0.41          |
| (1,3447) | 1:442:A:LYS:HA   | 1:447:A:LEU:HD12 | 19       | 0.41          |
| (1,3447) | 1:442:A:LYS:HA   | 1:447:A:LEU:HD13 | 19       | 0.41          |
| (1,3329) | 1:435:A:ALA:H    | 1:461:A:SER:HA   | 12       | 0.41          |
| (1,3222) | 1:431:A:TYR:HD1  | 1:456:A:GLU:H    | 18       | 0.41          |
| (1,3222) | 1:431:A:TYR:HD2  | 1:456:A:GLU:H    | 18       | 0.41          |
| (1,3214) | 1:431:A:TYR:H    | 1:458:A:LEU:H    | 11       | 0.41          |
| (1,3170) | 1:430:A:ILE:H    | 1:481:A:GLN:H    | 8        | 0.41          |
| (1,3150) | 1:429:A:LYS:HD2  | 1:481:A:GLN:HB2  | 11       | 0.41          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3150) | 1:429:A:LYS:HD2  | 1:481:A:GLN:HB3  | 11       | 0.41          |
| (1,3150) | 1:429:A:LYS:HD3  | 1:481:A:GLN:HB2  | 11       | 0.41          |
| (1,3150) | 1:429:A:LYS:HD3  | 1:481:A:GLN:HB3  | 11       | 0.41          |
| (1,3135) | 1:428:A:GLU:HA   | 1:478:A:LYS:HA   | 9        | 0.41          |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD11 | 5        | 0.41          |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD12 | 5        | 0.41          |
| (1,3122) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HD13 | 5        | 0.41          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD11 | 5        | 0.41          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD12 | 5        | 0.41          |
| (1,3122) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HD13 | 5        | 0.41          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD11 | 7        | 0.41          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD12 | 7        | 0.41          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD13 | 7        | 0.41          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD11 | 7        | 0.41          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD12 | 7        | 0.41          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD13 | 7        | 0.41          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD11 | 17       | 0.41          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD12 | 17       | 0.41          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD13 | 17       | 0.41          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD11 | 17       | 0.41          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD12 | 17       | 0.41          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD13 | 17       | 0.41          |
| (1,3082) | 1:423:A:MET:HA   | 1:427:A:GLN:HE21 | 18       | 0.41          |
| (1,3082) | 1:423:A:MET:HA   | 1:427:A:GLN:HE22 | 18       | 0.41          |
| (1,3039) | 1:420:A:VAL:HB   | 1:475:A:PHE:HZ   | 4        | 0.41          |
| (1,2982) | 1:417:A:GLU:HG2  | 1:475:A:PHE:HZ   | 2        | 0.41          |
| (1,2982) | 1:417:A:GLU:HG3  | 1:475:A:PHE:HZ   | 2        | 0.41          |
| (1,2889) | 1:408:A:ASP:HB3  | 1:451:A:ARG:HH22 | 9        | 0.41          |
| (1,2861) | 1:405:A:THR:HA   | 1:408:A:ASP:HA   | 9        | 0.41          |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG11 | 1        | 0.41          |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG12 | 1        | 0.41          |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG13 | 1        | 0.41          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG11 | 1        | 0.41          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG12 | 1        | 0.41          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG13 | 1        | 0.41          |
| (1,2563) | 1:387:A:ALA:HA   | 1:471:A:TYR:HE1  | 10       | 0.41          |
| (1,2563) | 1:387:A:ALA:HA   | 1:471:A:TYR:HE2  | 10       | 0.41          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB2  | 3        | 0.41          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB3  | 3        | 0.41          |
| (1,2506) | 1:384:A:GLU:HA   | 1:468:A:MET:HB2  | 13       | 0.41          |
| (1,2506) | 1:384:A:GLU:HA   | 1:468:A:MET:HB3  | 13       | 0.41          |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG2  | 14       | 0.41          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG3  | 14       | 0.41          |
| (1,2348) | 1:375:A:TRP:HZ3  | 1:401:A:ARG:H    | 9        | 0.41          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA2  | 8        | 0.41          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA3  | 8        | 0.41          |
| (1,2314) | 1:374:A:PHE:HZ   | 1:399:A:LEU:HD11 | 17       | 0.41          |
| (1,2314) | 1:374:A:PHE:HZ   | 1:399:A:LEU:HD12 | 17       | 0.41          |
| (1,2314) | 1:374:A:PHE:HZ   | 1:399:A:LEU:HD13 | 17       | 0.41          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE21 | 1        | 0.41          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE22 | 1        | 0.41          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE21 | 1        | 0.41          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE22 | 1        | 0.41          |
| (1,2288) | 1:372:A:GLN:HE21 | 1:376:A:GLN:H    | 17       | 0.41          |
| (1,2288) | 1:372:A:GLN:HE22 | 1:376:A:GLN:H    | 17       | 0.41          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD11 | 13       | 0.41          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD12 | 13       | 0.41          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD13 | 13       | 0.41          |
| (1,1994) | 1:354:A:LYS:HA   | 1:358:A:GLN:H    | 20       | 0.41          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 8        | 0.41          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 8        | 0.41          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 8        | 0.41          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 8        | 0.41          |
| (1,1951) | 1:351:A:ALA:HA   | 1:354:A:LYS:HD2  | 14       | 0.41          |
| (1,1951) | 1:351:A:ALA:HA   | 1:354:A:LYS:HD3  | 14       | 0.41          |
| (1,1858) | 1:344:A:VAL:HA   | 1:348:A:LEU:H    | 13       | 0.41          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 10       | 0.41          |
| (1,1726) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HB   | 12       | 0.41          |
| (1,1726) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HB   | 12       | 0.41          |
| (1,1511) | 1:315:A:PRO:HG2  | 1:319:A:ARG:H    | 1        | 0.41          |
| (1,1511) | 1:315:A:PRO:HG3  | 1:319:A:ARG:H    | 1        | 0.41          |
| (1,1416) | 1:312:A:GLN:HB2  | 1:349:A:ARG:HD2  | 20       | 0.41          |
| (1,1416) | 1:312:A:GLN:HB2  | 1:349:A:ARG:HD3  | 20       | 0.41          |
| (1,1416) | 1:312:A:GLN:HB3  | 1:349:A:ARG:HD2  | 20       | 0.41          |
| (1,1416) | 1:312:A:GLN:HB3  | 1:349:A:ARG:HD3  | 20       | 0.41          |
| (1,1374) | 1:307:A:MET:HE1  | 1:335:A:SER:HA   | 12       | 0.41          |
| (1,1374) | 1:307:A:MET:HE2  | 1:335:A:SER:HA   | 12       | 0.41          |
| (1,1374) | 1:307:A:MET:HE3  | 1:335:A:SER:HA   | 12       | 0.41          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 4        | 0.41          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 4        | 0.41          |
| (1,1140) | 1:297:A:LEU:HA   | 1:309:A:ASP:HA   | 15       | 0.41          |
| (1,960)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HB2  | 3        | 0.41          |
| (1,960)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HB3  | 3        | 0.41          |
| (1,960)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HB2  | 3        | 0.41          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,960)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HB3  | 3        | 0.41          |
| (1,821)  | 1:278:A:LEU:HA   | 1:322:A:ARG:H    | 16       | 0.41          |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 10       | 0.41          |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 10       | 0.41          |
| (1,764)  | 1:276:A:SER:HB2  | 1:326:A:ASP:H    | 2        | 0.41          |
| (1,764)  | 1:276:A:SER:HB3  | 1:326:A:ASP:H    | 2        | 0.41          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD21 | 18       | 0.41          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD22 | 18       | 0.41          |
| (1,403)  | 1:253:A:ILE:HB   | 1:323:A:GLY:HA2  | 3        | 0.41          |
| (1,403)  | 1:253:A:ILE:HB   | 1:323:A:GLY:HA3  | 3        | 0.41          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2  | 4        | 0.41          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3  | 4        | 0.41          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2  | 4        | 0.41          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3  | 4        | 0.41          |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 5        | 0.41          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 11       | 0.41          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 20       | 0.4           |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 20       | 0.4           |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 20       | 0.4           |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 20       | 0.4           |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 20       | 0.4           |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 20       | 0.4           |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 20       | 0.4           |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 20       | 0.4           |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 20       | 0.4           |
| (1,3840) | 1:481:A:GLN:HG2  | 1:489:A:SER:H    | 1        | 0.4           |
| (1,3840) | 1:481:A:GLN:HG3  | 1:489:A:SER:H    | 1        | 0.4           |
| (1,3816) | 1:475:A:PHE:HE1  | 1:476:A:ASP:HB2  | 16       | 0.4           |
| (1,3816) | 1:475:A:PHE:HE1  | 1:476:A:ASP:HB3  | 16       | 0.4           |
| (1,3816) | 1:475:A:PHE:HE2  | 1:476:A:ASP:HB2  | 16       | 0.4           |
| (1,3816) | 1:475:A:PHE:HE2  | 1:476:A:ASP:HB3  | 16       | 0.4           |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 9        | 0.4           |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 9        | 0.4           |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 9        | 0.4           |
| (1,3633) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HD1  | 4        | 0.4           |
| (1,3633) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HD2  | 4        | 0.4           |
| (1,3633) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HD1  | 4        | 0.4           |
| (1,3633) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HD2  | 4        | 0.4           |
| (1,3633) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HD1  | 4        | 0.4           |
| (1,3633) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HD2  | 4        | 0.4           |
| (1,3567) | 1:450:A:LEU:HA   | 1:454:A:GLY:H    | 3        | 0.4           |
| (1,3368) | 1:437:A:SER:H    | 1:440:A:ALA:H    | 8        | 0.4           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3248) | 1:432:A:TYR:HA   | 1:457:A:VAL:HA   | 17       | 0.4           |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 17       | 0.4           |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE1  | 14       | 0.4           |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE2  | 14       | 0.4           |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE3  | 14       | 0.4           |
| (1,3152) | 1:429:A:LYS:HD2  | 1:481:A:GLN:HG2  | 11       | 0.4           |
| (1,3152) | 1:429:A:LYS:HD2  | 1:481:A:GLN:HG3  | 11       | 0.4           |
| (1,3152) | 1:429:A:LYS:HD3  | 1:481:A:GLN:HG2  | 11       | 0.4           |
| (1,3152) | 1:429:A:LYS:HD3  | 1:481:A:GLN:HG3  | 11       | 0.4           |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD11 | 20       | 0.4           |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD12 | 20       | 0.4           |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD13 | 20       | 0.4           |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD11 | 20       | 0.4           |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD12 | 20       | 0.4           |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD13 | 20       | 0.4           |
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 14       | 0.4           |
| (1,2839) | 1:405:A:THR:HA   | 1:459:A:LEU:HD11 | 8        | 0.4           |
| (1,2839) | 1:405:A:THR:HA   | 1:459:A:LEU:HD12 | 8        | 0.4           |
| (1,2839) | 1:405:A:THR:HA   | 1:459:A:LEU:HD13 | 8        | 0.4           |
| (1,2813) | 1:404:A:SER:HB2  | 1:458:A:LEU:HA   | 3        | 0.4           |
| (1,2813) | 1:404:A:SER:HB3  | 1:458:A:LEU:HA   | 3        | 0.4           |
| (1,2794) | 1:403:A:ALA:HA   | 1:413:A:THR:H    | 14       | 0.4           |
| (1,2762) | 1:402:A:PHE:HB2  | 1:415:A:SER:HA   | 18       | 0.4           |
| (1,2762) | 1:402:A:PHE:HB3  | 1:415:A:SER:HA   | 18       | 0.4           |
| (1,2642) | 1:394:A:GLU:HA   | 1:398:A:LYS:H    | 5        | 0.4           |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 19       | 0.4           |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 19       | 0.4           |
| (1,2429) | 1:380:A:LEU:HA   | 1:462:A:ASP:HB2  | 2        | 0.4           |
| (1,2429) | 1:380:A:LEU:HA   | 1:462:A:ASP:HB3  | 2        | 0.4           |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG2  | 7        | 0.4           |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG3  | 7        | 0.4           |
| (1,2077) | 1:359:A:MET:HG2  | 1:363:A:LEU:H    | 6        | 0.4           |
| (1,2077) | 1:359:A:MET:HG3  | 1:363:A:LEU:H    | 6        | 0.4           |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 2        | 0.4           |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 2        | 0.4           |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 2        | 0.4           |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 8        | 0.4           |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 8        | 0.4           |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 8        | 0.4           |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE21 | 6        | 0.4           |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE22 | 6        | 0.4           |
| (1,1958) | 1:352:A:LEU:HA   | 1:356:A:VAL:H    | 12       | 0.4           |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1946) | 1:351:A:ALA:HA  | 1:355:A:ARG:HD2  | 7        | 0.4           |
| (1,1946) | 1:351:A:ALA:HA  | 1:355:A:ARG:HD3  | 7        | 0.4           |
| (1,1909) | 1:348:A:LEU:HA  | 1:352:A:LEU:H    | 5        | 0.4           |
| (1,1754) | 1:334:A:VAL:HA  | 1:338:A:ILE:HD11 | 8        | 0.4           |
| (1,1754) | 1:334:A:VAL:HA  | 1:338:A:ILE:HD12 | 8        | 0.4           |
| (1,1754) | 1:334:A:VAL:HA  | 1:338:A:ILE:HD13 | 8        | 0.4           |
| (1,1726) | 1:331:A:PRO:HB2 | 1:338:A:ILE:HB   | 5        | 0.4           |
| (1,1726) | 1:331:A:PRO:HB3 | 1:338:A:ILE:HB   | 5        | 0.4           |
| (1,1194) | 1:299:A:LEU:HA  | 1:326:A:ASP:HA   | 11       | 0.4           |
| (1,1140) | 1:297:A:LEU:HA  | 1:309:A:ASP:HA   | 14       | 0.4           |
| (1,1051) | 1:293:A:HIS:HE1 | 1:309:A:ASP:HB2  | 3        | 0.4           |
| (1,1051) | 1:293:A:HIS:HE1 | 1:309:A:ASP:HB3  | 3        | 0.4           |
| (1,1023) | 1:289:A:TRP:HZ2 | 1:381:A:VAL:H    | 12       | 0.4           |
| (1,1003) | 1:288:A:MET:HG2 | 1:381:A:VAL:HG21 | 4        | 0.4           |
| (1,1003) | 1:288:A:MET:HG2 | 1:381:A:VAL:HG22 | 4        | 0.4           |
| (1,1003) | 1:288:A:MET:HG2 | 1:381:A:VAL:HG23 | 4        | 0.4           |
| (1,1003) | 1:288:A:MET:HG3 | 1:381:A:VAL:HG21 | 4        | 0.4           |
| (1,1003) | 1:288:A:MET:HG3 | 1:381:A:VAL:HG22 | 4        | 0.4           |
| (1,1003) | 1:288:A:MET:HG3 | 1:381:A:VAL:HG23 | 4        | 0.4           |
| (1,980)  | 1:286:A:TRP:HZ3 | 1:289:A:TRP:H    | 17       | 0.4           |
| (1,976)  | 1:286:A:TRP:HE3 | 1:290:A:ASN:HD21 | 1        | 0.4           |
| (1,976)  | 1:286:A:TRP:HE3 | 1:290:A:ASN:HD22 | 1        | 0.4           |
| (1,976)  | 1:286:A:TRP:HE3 | 1:290:A:ASN:HD21 | 3        | 0.4           |
| (1,976)  | 1:286:A:TRP:HE3 | 1:290:A:ASN:HD22 | 3        | 0.4           |
| (1,975)  | 1:286:A:TRP:HZ3 | 1:290:A:ASN:HA   | 9        | 0.4           |
| (1,757)  | 1:276:A:SER:HB2 | 1:355:A:ARG:HG2  | 19       | 0.4           |
| (1,757)  | 1:276:A:SER:HB3 | 1:355:A:ARG:HG2  | 19       | 0.4           |
| (1,635)  | 1:267:A:ARG:HA  | 1:274:A:TYR:HD1  | 18       | 0.4           |
| (1,635)  | 1:267:A:ARG:HA  | 1:274:A:TYR:HD2  | 18       | 0.4           |
| (1,631)  | 1:267:A:ARG:HG2 | 1:275:A:THR:HA   | 14       | 0.4           |
| (1,631)  | 1:267:A:ARG:HG3 | 1:275:A:THR:HA   | 14       | 0.4           |
| (1,550)  | 1:263:A:TRP:HA  | 1:359:A:MET:HG2  | 5        | 0.4           |
| (1,550)  | 1:263:A:TRP:HA  | 1:359:A:MET:HG3  | 5        | 0.4           |
| (1,550)  | 1:263:A:TRP:HA  | 1:359:A:MET:HG2  | 14       | 0.4           |
| (1,550)  | 1:263:A:TRP:HA  | 1:359:A:MET:HG3  | 14       | 0.4           |
| (1,471)  | 1:260:A:PRO:HA  | 1:282:A:SER:H    | 20       | 0.4           |
| (1,382)  | 1:251:A:LYS:HA  | 1:255:A:HIS:HA   | 2        | 0.4           |
| (1,377)  | 1:251:A:LYS:HG2 | 1:257:A:PHE:HB2  | 8        | 0.4           |
| (1,377)  | 1:251:A:LYS:HG2 | 1:257:A:PHE:HB3  | 8        | 0.4           |
| (1,377)  | 1:251:A:LYS:HG3 | 1:257:A:PHE:HB2  | 8        | 0.4           |
| (1,377)  | 1:251:A:LYS:HG3 | 1:257:A:PHE:HB3  | 8        | 0.4           |
| (1,347)  | 1:250:A:TYR:HE1 | 1:260:A:PRO:HA   | 4        | 0.4           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,347)  | 1:250:A:TYR:HE2  | 1:260:A:PRO:HA   | 4        | 0.4           |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 4        | 0.4           |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 7        | 0.4           |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 12       | 0.4           |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 9        | 0.4           |
| (1,95)   | 1:234:A:TRP:HA   | 1:246:A:TYR:HE2  | 11       | 0.4           |
| (2,9)    | 1:338:A:ILE:HD11 | 1:342:A:SER:H    | 6        | 0.39          |
| (2,9)    | 1:338:A:ILE:HD12 | 1:342:A:SER:H    | 6        | 0.39          |
| (2,9)    | 1:338:A:ILE:HD13 | 1:342:A:SER:H    | 6        | 0.39          |
| (2,5)    | 1:290:A:ASN:HB2  | 1:293:A:HIS:HA   | 3        | 0.39          |
| (2,5)    | 1:290:A:ASN:HB3  | 1:293:A:HIS:HA   | 3        | 0.39          |
| (1,3959) | 1:492:A:LYS:HA   | 1:494:A:ALA:H    | 9        | 0.39          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD11 | 15       | 0.39          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD12 | 15       | 0.39          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD13 | 15       | 0.39          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD11 | 15       | 0.39          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD12 | 15       | 0.39          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD13 | 15       | 0.39          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD11 | 15       | 0.39          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD12 | 15       | 0.39          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD13 | 15       | 0.39          |
| (1,3940) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HB2  | 1        | 0.39          |
| (1,3940) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HB3  | 1        | 0.39          |
| (1,3940) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HB2  | 1        | 0.39          |
| (1,3940) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HB3  | 1        | 0.39          |
| (1,3940) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HB2  | 1        | 0.39          |
| (1,3940) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HB3  | 1        | 0.39          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 16       | 0.39          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 16       | 0.39          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 17       | 0.39          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 12       | 0.39          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 12       | 0.39          |
| (1,3845) | 1:481:A:GLN:HG2  | 1:487:A:ASP:H    | 18       | 0.39          |
| (1,3845) | 1:481:A:GLN:HG3  | 1:487:A:ASP:H    | 18       | 0.39          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 10       | 0.39          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 10       | 0.39          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 10       | 0.39          |
| (1,3254) | 1:433:A:ILE:HA   | 1:484:A:SER:H    | 11       | 0.39          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB2  | 7        | 0.39          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB3  | 7        | 0.39          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB2  | 7        | 0.39          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB3  | 7        | 0.39          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3144) | 1:429:A:LYS:HD2  | 1:489:A:SER:HA   | 2        | 0.39          |
| (1,3144) | 1:429:A:LYS:HD3  | 1:489:A:SER:HA   | 2        | 0.39          |
| (1,3143) | 1:429:A:LYS:HD2  | 1:489:A:SER:H    | 12       | 0.39          |
| (1,3143) | 1:429:A:LYS:HD3  | 1:489:A:SER:H    | 12       | 0.39          |
| (1,3135) | 1:428:A:GLU:HA   | 1:478:A:LYS:HA   | 7        | 0.39          |
| (1,3121) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HA   | 9        | 0.39          |
| (1,3121) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HA   | 9        | 0.39          |
| (1,3095) | 1:424:A:LYS:H    | 1:427:A:GLN:H    | 11       | 0.39          |
| (1,3091) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HA   | 17       | 0.39          |
| (1,3091) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HA   | 17       | 0.39          |
| (1,2989) | 1:417:A:GLU:HA   | 1:420:A:VAL:HB   | 14       | 0.39          |
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 8        | 0.39          |
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 11       | 0.39          |
| (1,2982) | 1:417:A:GLU:HG2  | 1:475:A:PHE:HZ   | 5        | 0.39          |
| (1,2982) | 1:417:A:GLU:HG3  | 1:475:A:PHE:HZ   | 5        | 0.39          |
| (1,2915) | 1:410:A:SER:HB3  | 1:438:A:TYR:HD2  | 17       | 0.39          |
| (1,2887) | 1:407:A:THR:HG21 | 1:408:A:ASP:H    | 13       | 0.39          |
| (1,2887) | 1:407:A:THR:HG22 | 1:408:A:ASP:H    | 13       | 0.39          |
| (1,2887) | 1:407:A:THR:HG23 | 1:408:A:ASP:H    | 13       | 0.39          |
| (1,2861) | 1:405:A:THR:HA   | 1:408:A:ASP:HA   | 7        | 0.39          |
| (1,2859) | 1:405:A:THR:HG21 | 1:442:A:LYS:HA   | 12       | 0.39          |
| (1,2859) | 1:405:A:THR:HG22 | 1:442:A:LYS:HA   | 12       | 0.39          |
| (1,2859) | 1:405:A:THR:HG23 | 1:442:A:LYS:HA   | 12       | 0.39          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 8        | 0.39          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 8        | 0.39          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 8        | 0.39          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD1  | 4        | 0.39          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD2  | 4        | 0.39          |
| (1,2488) | 1:383:A:LYS:HE2  | 1:402:A:PHE:HZ   | 6        | 0.39          |
| (1,2488) | 1:383:A:LYS:HE3  | 1:402:A:PHE:HZ   | 6        | 0.39          |
| (1,2360) | 1:375:A:TRP:HZ2  | 1:383:A:LYS:HG2  | 9        | 0.39          |
| (1,2360) | 1:375:A:TRP:HZ2  | 1:383:A:LYS:HG3  | 9        | 0.39          |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG2  | 9        | 0.39          |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG3  | 9        | 0.39          |
| (1,2353) | 1:375:A:TRP:HZ3  | 1:400:A:LEU:HA   | 8        | 0.39          |
| (1,2317) | 1:374:A:PHE:HZ   | 1:382:A:LEU:H    | 1        | 0.39          |
| (1,2048) | 1:357:A:LEU:HD11 | 1:392:A:ASN:H    | 12       | 0.39          |
| (1,2048) | 1:357:A:LEU:HD12 | 1:392:A:ASN:H    | 12       | 0.39          |
| (1,2048) | 1:357:A:LEU:HD13 | 1:392:A:ASN:H    | 12       | 0.39          |
| (1,1973) | 1:353:A:THR:HG21 | 1:392:A:ASN:HB2  | 10       | 0.39          |
| (1,1973) | 1:353:A:THR:HG21 | 1:392:A:ASN:HB3  | 10       | 0.39          |
| (1,1973) | 1:353:A:THR:HG22 | 1:392:A:ASN:HB2  | 10       | 0.39          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1973) | 1:353:A:THR:HG22 | 1:392:A:ASN:HB3  | 10       | 0.39          |
| (1,1973) | 1:353:A:THR:HG23 | 1:392:A:ASN:HB2  | 10       | 0.39          |
| (1,1973) | 1:353:A:THR:HG23 | 1:392:A:ASN:HB3  | 10       | 0.39          |
| (1,1889) | 1:346:A:ARG:HA   | 1:349:A:ARG:HG2  | 16       | 0.39          |
| (1,1859) | 1:344:A:VAL:HB   | 1:348:A:LEU:H    | 13       | 0.39          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 20       | 0.39          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD11 | 3        | 0.39          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD12 | 3        | 0.39          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD13 | 3        | 0.39          |
| (1,1710) | 1:330:A:LEU:HD11 | 1:344:A:VAL:HB   | 7        | 0.39          |
| (1,1710) | 1:330:A:LEU:HD12 | 1:344:A:VAL:HB   | 7        | 0.39          |
| (1,1710) | 1:330:A:LEU:HD13 | 1:344:A:VAL:HB   | 7        | 0.39          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD21 | 7        | 0.39          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD22 | 7        | 0.39          |
| (1,1647) | 1:321:A:VAL:HG21 | 1:352:A:LEU:HD23 | 7        | 0.39          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD21 | 7        | 0.39          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD22 | 7        | 0.39          |
| (1,1647) | 1:321:A:VAL:HG22 | 1:352:A:LEU:HD23 | 7        | 0.39          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD21 | 7        | 0.39          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD22 | 7        | 0.39          |
| (1,1647) | 1:321:A:VAL:HG23 | 1:352:A:LEU:HD23 | 7        | 0.39          |
| (1,1486) | 1:314:A:MET:HB2  | 1:319:A:ARG:H    | 10       | 0.39          |
| (1,1486) | 1:314:A:MET:HB3  | 1:319:A:ARG:H    | 10       | 0.39          |
| (1,1422) | 1:312:A:GLN:HE21 | 1:340:A:GLN:HA   | 11       | 0.39          |
| (1,1422) | 1:312:A:GLN:HE22 | 1:340:A:GLN:HA   | 11       | 0.39          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD2  | 1        | 0.39          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD3  | 1        | 0.39          |
| (1,1097) | 1:296:A:GLY:H    | 1:309:A:ASP:HA   | 11       | 0.39          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 5        | 0.39          |
| (1,975)  | 1:286:A:TRP:HZ3  | 1:290:A:ASN:HA   | 14       | 0.39          |
| (1,974)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:H    | 9        | 0.39          |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 17       | 0.39          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 17       | 0.39          |
| (1,915)  | 1:282:A:SER:HA   | 1:378:A:PHE:HZ   | 2        | 0.39          |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 14       | 0.39          |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 14       | 0.39          |
| (1,757)  | 1:276:A:SER:HB2  | 1:355:A:ARG:HG2  | 8        | 0.39          |
| (1,757)  | 1:276:A:SER:HB3  | 1:355:A:ARG:HG2  | 8        | 0.39          |
| (1,690)  | 1:272:A:GLN:HG2  | 1:344:A:VAL:HG11 | 19       | 0.39          |
| (1,690)  | 1:272:A:GLN:HG2  | 1:344:A:VAL:HG12 | 19       | 0.39          |
| (1,690)  | 1:272:A:GLN:HG2  | 1:344:A:VAL:HG13 | 19       | 0.39          |
| (1,690)  | 1:272:A:GLN:HG3  | 1:344:A:VAL:HG11 | 19       | 0.39          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,690)  | 1:272:A:GLN:HG3  | 1:344:A:VAL:HG12 | 19       | 0.39          |
| (1,690)  | 1:272:A:GLN:HG3  | 1:344:A:VAL:HG13 | 19       | 0.39          |
| (1,685)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:HB1  | 4        | 0.39          |
| (1,685)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:HB2  | 4        | 0.39          |
| (1,685)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:HB3  | 4        | 0.39          |
| (1,685)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:HB1  | 4        | 0.39          |
| (1,685)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:HB2  | 4        | 0.39          |
| (1,685)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:HB3  | 4        | 0.39          |
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB2  | 11       | 0.39          |
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB3  | 11       | 0.39          |
| (1,219)  | 1:244:A:GLU:HA   | 1:248:A:GLU:H    | 10       | 0.39          |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 2        | 0.39          |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 17       | 0.39          |
| (1,139)  | 1:237:A:ASN:HD21 | 1:239:A:SER:H    | 7        | 0.39          |
| (1,139)  | 1:237:A:ASN:HD22 | 1:239:A:SER:H    | 7        | 0.39          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 1        | 0.39          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 2        | 0.39          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 5        | 0.39          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 10       | 0.39          |
| (1,36)   | 1:233:A:LEU:HD21 | 1:265:A:HIS:HB2  | 5        | 0.39          |
| (1,36)   | 1:233:A:LEU:HD21 | 1:265:A:HIS:HB3  | 5        | 0.39          |
| (1,36)   | 1:233:A:LEU:HD22 | 1:265:A:HIS:HB2  | 5        | 0.39          |
| (1,36)   | 1:233:A:LEU:HD22 | 1:265:A:HIS:HB3  | 5        | 0.39          |
| (1,36)   | 1:233:A:LEU:HD23 | 1:265:A:HIS:HB2  | 5        | 0.39          |
| (1,36)   | 1:233:A:LEU:HD23 | 1:265:A:HIS:HB3  | 5        | 0.39          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG21 | 11       | 0.39          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG22 | 11       | 0.39          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG23 | 11       | 0.39          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG21 | 11       | 0.39          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG22 | 11       | 0.39          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG23 | 11       | 0.39          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG21 | 15       | 0.39          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG22 | 15       | 0.39          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG23 | 15       | 0.39          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG21 | 15       | 0.39          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG22 | 15       | 0.39          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG23 | 15       | 0.39          |
| (1,2)    | 1:230:A:ALA:H    | 1:231:A:GLN:H    | 18       | 0.39          |
| (1,2)    | 1:230:A:ALA:H    | 1:231:A:GLN:H    | 19       | 0.39          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 4        | 0.38          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 4        | 0.38          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 4        | 0.38          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB2  | 2        | 0.38          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB3  | 2        | 0.38          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB2  | 2        | 0.38          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB3  | 2        | 0.38          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 13       | 0.38          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 13       | 0.38          |
| (1,3740) | 1:469:A:MET:HE1  | 1:473:A:THR:H    | 15       | 0.38          |
| (1,3740) | 1:469:A:MET:HE2  | 1:473:A:THR:H    | 15       | 0.38          |
| (1,3740) | 1:469:A:MET:HE3  | 1:473:A:THR:H    | 15       | 0.38          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 12       | 0.38          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 12       | 0.38          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 12       | 0.38          |
| (1,3540) | 1:449:A:LEU:HA   | 1:452:A:LYS:H    | 12       | 0.38          |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD2  | 12       | 0.38          |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD3  | 12       | 0.38          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB2  | 19       | 0.38          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB3  | 19       | 0.38          |
| (1,3329) | 1:435:A:ALA:H    | 1:461:A:SER:HA   | 1        | 0.38          |
| (1,3245) | 1:432:A:TYR:HB2  | 1:458:A:LEU:H    | 12       | 0.38          |
| (1,3245) | 1:432:A:TYR:HB3  | 1:458:A:LEU:H    | 12       | 0.38          |
| (1,3235) | 1:432:A:TYR:H    | 1:482:A:SER:HA   | 11       | 0.38          |
| (1,3231) | 1:432:A:TYR:H    | 1:483:A:VAL:H    | 1        | 0.38          |
| (1,3187) | 1:430:A:ILE:HD11 | 1:474:A:GLU:HA   | 18       | 0.38          |
| (1,3187) | 1:430:A:ILE:HD12 | 1:474:A:GLU:HA   | 18       | 0.38          |
| (1,3187) | 1:430:A:ILE:HD13 | 1:474:A:GLU:HA   | 18       | 0.38          |
| (1,3082) | 1:423:A:MET:HA   | 1:427:A:GLN:HE21 | 2        | 0.38          |
| (1,3082) | 1:423:A:MET:HA   | 1:427:A:GLN:HE22 | 2        | 0.38          |
| (1,3082) | 1:423:A:MET:HA   | 1:427:A:GLN:HE21 | 20       | 0.38          |
| (1,3082) | 1:423:A:MET:HA   | 1:427:A:GLN:HE22 | 20       | 0.38          |
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 10       | 0.38          |
| (1,2915) | 1:410:A:SER:HB2  | 1:438:A:TYR:HD1  | 18       | 0.38          |
| (1,2912) | 1:410:A:SER:HB2  | 1:438:A:TYR:HD1  | 7        | 0.38          |
| (1,2912) | 1:410:A:SER:HB2  | 1:438:A:TYR:HD2  | 7        | 0.38          |
| (1,2912) | 1:410:A:SER:HB3  | 1:438:A:TYR:HD1  | 7        | 0.38          |
| (1,2912) | 1:410:A:SER:HB3  | 1:438:A:TYR:HD2  | 7        | 0.38          |
| (1,2892) | 1:408:A:ASP:HA   | 1:442:A:LYS:HE2  | 10       | 0.38          |
| (1,2892) | 1:408:A:ASP:HA   | 1:442:A:LYS:HE3  | 10       | 0.38          |
| (1,2839) | 1:405:A:THR:HA   | 1:459:A:LEU:HD11 | 6        | 0.38          |
| (1,2839) | 1:405:A:THR:HA   | 1:459:A:LEU:HD12 | 6        | 0.38          |
| (1,2839) | 1:405:A:THR:HA   | 1:459:A:LEU:HD13 | 6        | 0.38          |
| (1,2736) | 1:401:A:ARG:HD2  | 1:414:A:VAL:H    | 15       | 0.38          |
| (1,2736) | 1:401:A:ARG:HD3  | 1:414:A:VAL:H    | 15       | 0.38          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2607) | 1:392:A:ASN:HA   | 1:396:A:ILE:H    | 1        | 0.38          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD1  | 17       | 0.38          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD2  | 17       | 0.38          |
| (1,2380) | 1:376:A:GLN:HE21 | 1:412:A:GLN:H    | 7        | 0.38          |
| (1,2380) | 1:376:A:GLN:HE22 | 1:412:A:GLN:H    | 7        | 0.38          |
| (1,2317) | 1:374:A:PHE:HZ   | 1:382:A:LEU:H    | 18       | 0.38          |
| (1,2289) | 1:372:A:GLN:HE21 | 1:376:A:GLN:HE21 | 12       | 0.38          |
| (1,2289) | 1:372:A:GLN:HE21 | 1:376:A:GLN:HE22 | 12       | 0.38          |
| (1,2289) | 1:372:A:GLN:HE22 | 1:376:A:GLN:HE21 | 12       | 0.38          |
| (1,2289) | 1:372:A:GLN:HE22 | 1:376:A:GLN:HE22 | 12       | 0.38          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 8        | 0.38          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 8        | 0.38          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 8        | 0.38          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE21 | 7        | 0.38          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE22 | 7        | 0.38          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD11 | 1        | 0.38          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD12 | 1        | 0.38          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD13 | 1        | 0.38          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB1  | 3        | 0.38          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB2  | 3        | 0.38          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB3  | 3        | 0.38          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB1  | 3        | 0.38          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB2  | 3        | 0.38          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB3  | 3        | 0.38          |
| (1,1992) | 1:354:A:LYS:HG2  | 1:392:A:ASN:HD21 | 10       | 0.38          |
| (1,1992) | 1:354:A:LYS:HG2  | 1:392:A:ASN:HD22 | 10       | 0.38          |
| (1,1992) | 1:354:A:LYS:HG3  | 1:392:A:ASN:HD21 | 10       | 0.38          |
| (1,1992) | 1:354:A:LYS:HG3  | 1:392:A:ASN:HD22 | 10       | 0.38          |
| (1,1938) | 1:350:A:ASN:HA   | 1:353:A:THR:HB   | 5        | 0.38          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD11 | 12       | 0.38          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD12 | 12       | 0.38          |
| (1,1754) | 1:334:A:VAL:HA   | 1:338:A:ILE:HD13 | 12       | 0.38          |
| (1,1726) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HB   | 4        | 0.38          |
| (1,1726) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HB   | 4        | 0.38          |
| (1,1701) | 1:329:A:ASP:HB2  | 1:344:A:VAL:HG21 | 10       | 0.38          |
| (1,1701) | 1:329:A:ASP:HB2  | 1:344:A:VAL:HG22 | 10       | 0.38          |
| (1,1701) | 1:329:A:ASP:HB2  | 1:344:A:VAL:HG23 | 10       | 0.38          |
| (1,1701) | 1:329:A:ASP:HB3  | 1:344:A:VAL:HG21 | 10       | 0.38          |
| (1,1701) | 1:329:A:ASP:HB3  | 1:344:A:VAL:HG22 | 10       | 0.38          |
| (1,1701) | 1:329:A:ASP:HB3  | 1:344:A:VAL:HG23 | 10       | 0.38          |
| (1,1658) | 1:322:A:ARG:HD2  | 1:323:A:GLY:H    | 1        | 0.38          |
| (1,1658) | 1:322:A:ARG:HD3  | 1:323:A:GLY:H    | 1        | 0.38          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1658) | 1:322:A:ARG:HD2 | 1:323:A:GLY:H    | 18       | 0.38          |
| (1,1658) | 1:322:A:ARG:HD3 | 1:323:A:GLY:H    | 18       | 0.38          |
| (1,1505) | 1:315:A:PRO:HD2 | 1:350:A:ASN:HA   | 20       | 0.38          |
| (1,1505) | 1:315:A:PRO:HD3 | 1:350:A:ASN:HA   | 20       | 0.38          |
| (1,1471) | 1:314:A:MET:HA  | 1:353:A:THR:H    | 12       | 0.38          |
| (1,1419) | 1:312:A:GLN:HB2 | 1:345:A:THR:HG21 | 18       | 0.38          |
| (1,1419) | 1:312:A:GLN:HB2 | 1:345:A:THR:HG22 | 18       | 0.38          |
| (1,1419) | 1:312:A:GLN:HB2 | 1:345:A:THR:HG23 | 18       | 0.38          |
| (1,1419) | 1:312:A:GLN:HB3 | 1:345:A:THR:HG21 | 18       | 0.38          |
| (1,1419) | 1:312:A:GLN:HB3 | 1:345:A:THR:HG22 | 18       | 0.38          |
| (1,1419) | 1:312:A:GLN:HB3 | 1:345:A:THR:HG23 | 18       | 0.38          |
| (1,1416) | 1:312:A:GLN:HB2 | 1:349:A:ARG:HD2  | 14       | 0.38          |
| (1,1416) | 1:312:A:GLN:HB2 | 1:349:A:ARG:HD3  | 14       | 0.38          |
| (1,1416) | 1:312:A:GLN:HB3 | 1:349:A:ARG:HD2  | 14       | 0.38          |
| (1,1416) | 1:312:A:GLN:HB3 | 1:349:A:ARG:HD3  | 14       | 0.38          |
| (1,1321) | 1:302:A:GLN:HA  | 1:328:A:SER:HA   | 9        | 0.38          |
| (1,1077) | 1:295:A:HIS:HB2 | 1:296:A:GLY:H    | 8        | 0.38          |
| (1,1077) | 1:295:A:HIS:HB3 | 1:296:A:GLY:H    | 8        | 0.38          |
| (1,1044) | 1:291:A:ARG:HA  | 1:293:A:HIS:HA   | 13       | 0.38          |
| (1,1023) | 1:289:A:TRP:HZ2 | 1:381:A:VAL:H    | 2        | 0.38          |
| (1,1008) | 1:288:A:MET:HE1 | 1:320:A:PHE:HB2  | 17       | 0.38          |
| (1,1008) | 1:288:A:MET:HE1 | 1:320:A:PHE:HB3  | 17       | 0.38          |
| (1,1008) | 1:288:A:MET:HE2 | 1:320:A:PHE:HB2  | 17       | 0.38          |
| (1,1008) | 1:288:A:MET:HE2 | 1:320:A:PHE:HB3  | 17       | 0.38          |
| (1,1008) | 1:288:A:MET:HE3 | 1:320:A:PHE:HB2  | 17       | 0.38          |
| (1,1008) | 1:288:A:MET:HE3 | 1:320:A:PHE:HB3  | 17       | 0.38          |
| (1,966)  | 1:285:A:PRO:HD2 | 1:288:A:MET:HE1  | 1        | 0.38          |
| (1,966)  | 1:285:A:PRO:HD2 | 1:288:A:MET:HE2  | 1        | 0.38          |
| (1,966)  | 1:285:A:PRO:HD2 | 1:288:A:MET:HE3  | 1        | 0.38          |
| (1,966)  | 1:285:A:PRO:HD3 | 1:288:A:MET:HE1  | 1        | 0.38          |
| (1,966)  | 1:285:A:PRO:HD3 | 1:288:A:MET:HE2  | 1        | 0.38          |
| (1,966)  | 1:285:A:PRO:HD3 | 1:288:A:MET:HE3  | 1        | 0.38          |
| (1,945)  | 1:284:A:ALA:HA  | 1:320:A:PHE:HB2  | 2        | 0.38          |
| (1,945)  | 1:284:A:ALA:HA  | 1:320:A:PHE:HB3  | 2        | 0.38          |
| (1,934)  | 1:283:A:GLN:HG2 | 1:284:A:ALA:H    | 9        | 0.38          |
| (1,934)  | 1:283:A:GLN:HG3 | 1:284:A:ALA:H    | 9        | 0.38          |
| (1,767)  | 1:276:A:SER:HB2 | 1:325:A:ILE:HA   | 15       | 0.38          |
| (1,767)  | 1:276:A:SER:HB3 | 1:325:A:ILE:HA   | 15       | 0.38          |
| (1,703)  | 1:273:A:GLU:H   | 1:328:A:SER:H    | 17       | 0.38          |
| (1,470)  | 1:260:A:PRO:HA  | 1:283:A:GLN:H    | 17       | 0.38          |
| (1,454)  | 1:257:A:PHE:H   | 1:258:A:ASN:HD21 | 3        | 0.38          |
| (1,454)  | 1:257:A:PHE:H   | 1:258:A:ASN:HD22 | 3        | 0.38          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,440)  | 1:255:A:HIS:HB2  | 1:294:A:LYS:HE2  | 3        | 0.38          |
| (1,440)  | 1:255:A:HIS:HB2  | 1:294:A:LYS:HE3  | 3        | 0.38          |
| (1,440)  | 1:255:A:HIS:HB3  | 1:294:A:LYS:HE2  | 3        | 0.38          |
| (1,440)  | 1:255:A:HIS:HB3  | 1:294:A:LYS:HE3  | 3        | 0.38          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD2  | 18       | 0.38          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD3  | 18       | 0.38          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD2  | 18       | 0.38          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD3  | 18       | 0.38          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD2  | 18       | 0.38          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD3  | 18       | 0.38          |
| (1,252)  | 1:246:A:TYR:HE1  | 1:263:A:TRP:HE1  | 11       | 0.38          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 3        | 0.38          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 18       | 0.38          |
| (1,7)    | 1:231:A:GLN:HB2  | 1:236:A:ARG:HG2  | 12       | 0.38          |
| (1,7)    | 1:231:A:GLN:HB2  | 1:236:A:ARG:HG3  | 12       | 0.38          |
| (1,7)    | 1:231:A:GLN:HB3  | 1:236:A:ARG:HG2  | 12       | 0.38          |
| (1,7)    | 1:231:A:GLN:HB3  | 1:236:A:ARG:HG3  | 12       | 0.38          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG21 | 4        | 0.37          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG22 | 4        | 0.37          |
| (2,7)    | 1:338:A:ILE:HD11 | 1:345:A:THR:HG23 | 4        | 0.37          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG21 | 4        | 0.37          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG22 | 4        | 0.37          |
| (2,7)    | 1:338:A:ILE:HD12 | 1:345:A:THR:HG23 | 4        | 0.37          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG21 | 4        | 0.37          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG22 | 4        | 0.37          |
| (2,7)    | 1:338:A:ILE:HD13 | 1:345:A:THR:HG23 | 4        | 0.37          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 18       | 0.37          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 18       | 0.37          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 18       | 0.37          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 18       | 0.37          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 18       | 0.37          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 18       | 0.37          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 18       | 0.37          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 18       | 0.37          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 18       | 0.37          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB2  | 13       | 0.37          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB3  | 13       | 0.37          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB2  | 13       | 0.37          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB3  | 13       | 0.37          |
| (1,3700) | 1:465:A:ASP:HA   | 1:468:A:MET:H    | 1        | 0.37          |
| (1,3674) | 1:462:A:ASP:HB2  | 1:464:A:ILE:H    | 18       | 0.37          |
| (1,3674) | 1:462:A:ASP:HB3  | 1:464:A:ILE:H    | 18       | 0.37          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,3479) | 1:446:A:HIS:HD2 | 1:484:A:SER:H    | 20       | 0.37          |
| (1,3447) | 1:442:A:LYS:HA  | 1:447:A:LEU:HD11 | 8        | 0.37          |
| (1,3447) | 1:442:A:LYS:HA  | 1:447:A:LEU:HD12 | 8        | 0.37          |
| (1,3447) | 1:442:A:LYS:HA  | 1:447:A:LEU:HD13 | 8        | 0.37          |
| (1,3363) | 1:437:A:SER:H   | 1:461:A:SER:HB2  | 9        | 0.37          |
| (1,3363) | 1:437:A:SER:H   | 1:461:A:SER:HB3  | 9        | 0.37          |
| (1,3329) | 1:435:A:ALA:H   | 1:461:A:SER:HA   | 4        | 0.37          |
| (1,3247) | 1:432:A:TYR:HB2 | 1:458:A:LEU:HB2  | 3        | 0.37          |
| (1,3247) | 1:432:A:TYR:HB2 | 1:458:A:LEU:HB3  | 3        | 0.37          |
| (1,3247) | 1:432:A:TYR:HB3 | 1:458:A:LEU:HB2  | 3        | 0.37          |
| (1,3247) | 1:432:A:TYR:HB3 | 1:458:A:LEU:HB3  | 3        | 0.37          |
| (1,3235) | 1:432:A:TYR:H   | 1:482:A:SER:HA   | 1        | 0.37          |
| (1,3170) | 1:430:A:ILE:H   | 1:481:A:GLN:H    | 17       | 0.37          |
| (1,3169) | 1:429:A:LYS:HA  | 1:430:A:ILE:HD11 | 8        | 0.37          |
| (1,3169) | 1:429:A:LYS:HA  | 1:430:A:ILE:HD12 | 8        | 0.37          |
| (1,3169) | 1:429:A:LYS:HA  | 1:430:A:ILE:HD13 | 8        | 0.37          |
| (1,3159) | 1:429:A:LYS:HG2 | 1:479:A:PRO:HG2  | 7        | 0.37          |
| (1,3159) | 1:429:A:LYS:HG2 | 1:479:A:PRO:HG3  | 7        | 0.37          |
| (1,3159) | 1:429:A:LYS:HG3 | 1:479:A:PRO:HG2  | 7        | 0.37          |
| (1,3159) | 1:429:A:LYS:HG3 | 1:479:A:PRO:HG3  | 7        | 0.37          |
| (1,3144) | 1:429:A:LYS:HD2 | 1:489:A:SER:HA   | 5        | 0.37          |
| (1,3144) | 1:429:A:LYS:HD3 | 1:489:A:SER:HA   | 5        | 0.37          |
| (1,3136) | 1:428:A:GLU:HG2 | 1:478:A:LYS:HA   | 3        | 0.37          |
| (1,3136) | 1:428:A:GLU:HG3 | 1:478:A:LYS:HA   | 3        | 0.37          |
| (1,3126) | 1:427:A:GLN:HG2 | 1:430:A:ILE:HA   | 10       | 0.37          |
| (1,3126) | 1:427:A:GLN:HG3 | 1:430:A:ILE:HA   | 10       | 0.37          |
| (1,3097) | 1:424:A:LYS:H   | 1:427:A:GLN:HE21 | 2        | 0.37          |
| (1,3097) | 1:424:A:LYS:H   | 1:427:A:GLN:HE22 | 2        | 0.37          |
| (1,3097) | 1:424:A:LYS:H   | 1:427:A:GLN:HE21 | 5        | 0.37          |
| (1,3097) | 1:424:A:LYS:H   | 1:427:A:GLN:HE22 | 5        | 0.37          |
| (1,2989) | 1:417:A:GLU:HA  | 1:420:A:VAL:HB   | 8        | 0.37          |
| (1,2985) | 1:417:A:GLU:HB2 | 1:421:A:SER:H    | 5        | 0.37          |
| (1,2985) | 1:417:A:GLU:HB3 | 1:421:A:SER:H    | 5        | 0.37          |
| (1,2893) | 1:408:A:ASP:HB2 | 1:442:A:LYS:HE2  | 7        | 0.37          |
| (1,2893) | 1:408:A:ASP:HB2 | 1:442:A:LYS:HE3  | 7        | 0.37          |
| (1,2893) | 1:408:A:ASP:HB3 | 1:442:A:LYS:HE2  | 7        | 0.37          |
| (1,2893) | 1:408:A:ASP:HB3 | 1:442:A:LYS:HE3  | 7        | 0.37          |
| (1,2790) | 1:403:A:ALA:HA  | 1:414:A:VAL:HB   | 10       | 0.37          |
| (1,2631) | 1:393:A:GLN:HA  | 1:396:A:ILE:H    | 18       | 0.37          |
| (1,2484) | 1:383:A:LYS:HB2 | 1:464:A:ILE:HD11 | 17       | 0.37          |
| (1,2484) | 1:383:A:LYS:HB2 | 1:464:A:ILE:HD12 | 17       | 0.37          |
| (1,2484) | 1:383:A:LYS:HB2 | 1:464:A:ILE:HD13 | 17       | 0.37          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD11 | 17       | 0.37          |
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD12 | 17       | 0.37          |
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD13 | 17       | 0.37          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA2  | 5        | 0.37          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA3  | 5        | 0.37          |
| (1,2227) | 1:368:A:ALA:HA   | 1:371:A:TYR:H    | 12       | 0.37          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 10       | 0.37          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 10       | 0.37          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 10       | 0.37          |
| (1,2013) | 1:355:A:ARG:HA   | 1:358:A:GLN:H    | 12       | 0.37          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 5        | 0.37          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 5        | 0.37          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 5        | 0.37          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 5        | 0.37          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB2  | 4        | 0.37          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB3  | 4        | 0.37          |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB2  | 4        | 0.37          |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB3  | 4        | 0.37          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB2  | 15       | 0.37          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB3  | 15       | 0.37          |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB2  | 15       | 0.37          |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB3  | 15       | 0.37          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE1  | 8        | 0.37          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE2  | 8        | 0.37          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE3  | 8        | 0.37          |
| (1,1552) | 1:317:A:TYR:HB2  | 1:385:A:GLY:H    | 15       | 0.37          |
| (1,1552) | 1:317:A:TYR:HB3  | 1:385:A:GLY:H    | 15       | 0.37          |
| (1,1542) | 1:317:A:TYR:HE1  | 1:389:A:ASP:H    | 15       | 0.37          |
| (1,1542) | 1:317:A:TYR:HE2  | 1:389:A:ASP:H    | 15       | 0.37          |
| (1,1488) | 1:314:A:MET:HG2  | 1:319:A:ARG:HA   | 17       | 0.37          |
| (1,1488) | 1:314:A:MET:HG3  | 1:319:A:ARG:HA   | 17       | 0.37          |
| (1,1445) | 1:313:A:PHE:HA   | 1:349:A:ARG:H    | 18       | 0.37          |
| (1,1442) | 1:313:A:PHE:HA   | 1:352:A:LEU:HD11 | 6        | 0.37          |
| (1,1442) | 1:313:A:PHE:HA   | 1:352:A:LEU:HD12 | 6        | 0.37          |
| (1,1442) | 1:313:A:PHE:HA   | 1:352:A:LEU:HD13 | 6        | 0.37          |
| (1,1037) | 1:290:A:ASN:HB2  | 1:292:A:ASP:H    | 11       | 0.37          |
| (1,1037) | 1:290:A:ASN:HB3  | 1:292:A:ASP:H    | 11       | 0.37          |
| (1,1024) | 1:289:A:TRP:HH2  | 1:381:A:VAL:HA   | 11       | 0.37          |
| (1,1020) | 1:289:A:TRP:HH2  | 1:384:A:GLU:HG2  | 12       | 0.37          |
| (1,1020) | 1:289:A:TRP:HH2  | 1:384:A:GLU:HG3  | 12       | 0.37          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 3        | 0.37          |
| (1,974)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:H    | 2        | 0.37          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 1        | 0.37          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 1        | 0.37          |
| (1,821)  | 1:278:A:LEU:HA   | 1:322:A:ARG:H    | 2        | 0.37          |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 17       | 0.37          |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 17       | 0.37          |
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB2  | 11       | 0.37          |
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB3  | 11       | 0.37          |
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB2  | 11       | 0.37          |
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB3  | 11       | 0.37          |
| (1,451)  | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 15       | 0.37          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD2  | 18       | 0.37          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD3  | 18       | 0.37          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2  | 19       | 0.37          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3  | 19       | 0.37          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2  | 19       | 0.37          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3  | 19       | 0.37          |
| (1,371)  | 1:251:A:LYS:HE2  | 1:259:A:ASP:HA   | 20       | 0.37          |
| (1,371)  | 1:251:A:LYS:HE3  | 1:259:A:ASP:HA   | 20       | 0.37          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 8        | 0.37          |
| (1,309)  | 1:249:A:PHE:HE2  | 1:298:A:LYS:HD3  | 7        | 0.37          |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 7        | 0.37          |
| (1,180)  | 1:241:A:ILE:HB   | 1:246:A:TYR:HD1  | 2        | 0.37          |
| (1,180)  | 1:241:A:ILE:HB   | 1:246:A:TYR:HD2  | 2        | 0.37          |
| (1,139)  | 1:237:A:ASN:HD21 | 1:239:A:SER:H    | 14       | 0.37          |
| (1,139)  | 1:237:A:ASN:HD22 | 1:239:A:SER:H    | 14       | 0.37          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG21 | 14       | 0.37          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG22 | 14       | 0.37          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG23 | 14       | 0.37          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG21 | 14       | 0.37          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG22 | 14       | 0.37          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG23 | 14       | 0.37          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG21 | 11       | 0.37          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG22 | 11       | 0.37          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG23 | 11       | 0.37          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 5        | 0.36          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 5        | 0.36          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 5        | 0.36          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 5        | 0.36          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 5        | 0.36          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 5        | 0.36          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 5        | 0.36          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 5        | 0.36          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 5        | 0.36          |
| (1,3972) | 1:318:A:LEU:HD11 | 2:622:B:TYR:HE1  | 4        | 0.36          |
| (1,3972) | 1:318:A:LEU:HD12 | 2:622:B:TYR:HE1  | 4        | 0.36          |
| (1,3972) | 1:318:A:LEU:HD13 | 2:622:B:TYR:HE1  | 4        | 0.36          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 1        | 0.36          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 1        | 0.36          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 1        | 0.36          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 1        | 0.36          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 1        | 0.36          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 1        | 0.36          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 1        | 0.36          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 1        | 0.36          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 1        | 0.36          |
| (1,3918) | 1:488:A:GLU:HA   | 1:491:A:GLU:HA   | 14       | 0.36          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 2        | 0.36          |
| (1,3887) | 1:486:A:VAL:HG11 | 1:491:A:GLU:H    | 14       | 0.36          |
| (1,3887) | 1:486:A:VAL:HG12 | 1:491:A:GLU:H    | 14       | 0.36          |
| (1,3887) | 1:486:A:VAL:HG13 | 1:491:A:GLU:H    | 14       | 0.36          |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 16       | 0.36          |
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 16       | 0.36          |
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 16       | 0.36          |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 17       | 0.36          |
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 17       | 0.36          |
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 17       | 0.36          |
| (1,3674) | 1:462:A:ASP:HB2  | 1:464:A:ILE:H    | 16       | 0.36          |
| (1,3674) | 1:462:A:ASP:HB3  | 1:464:A:ILE:H    | 16       | 0.36          |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD11 | 6        | 0.36          |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD12 | 6        | 0.36          |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD13 | 6        | 0.36          |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD11 | 6        | 0.36          |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD12 | 6        | 0.36          |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD13 | 6        | 0.36          |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD11 | 6        | 0.36          |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD12 | 6        | 0.36          |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD13 | 6        | 0.36          |
| (1,3605) | 1:453:A:LYS:HG2  | 1:455:A:ILE:HD11 | 8        | 0.36          |
| (1,3605) | 1:453:A:LYS:HG2  | 1:455:A:ILE:HD12 | 8        | 0.36          |
| (1,3605) | 1:453:A:LYS:HG2  | 1:455:A:ILE:HD13 | 8        | 0.36          |
| (1,3605) | 1:453:A:LYS:HG3  | 1:455:A:ILE:HD11 | 8        | 0.36          |
| (1,3605) | 1:453:A:LYS:HG3  | 1:455:A:ILE:HD12 | 8        | 0.36          |
| (1,3605) | 1:453:A:LYS:HG3  | 1:455:A:ILE:HD13 | 8        | 0.36          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD11 | 8        | 0.36          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD12 | 8        | 0.36          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD13 | 8        | 0.36          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD11 | 8        | 0.36          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD12 | 8        | 0.36          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD13 | 8        | 0.36          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD11 | 8        | 0.36          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD12 | 8        | 0.36          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD13 | 8        | 0.36          |
| (1,3478) | 1:446:A:HIS:HD2  | 1:486:A:VAL:HG21 | 14       | 0.36          |
| (1,3478) | 1:446:A:HIS:HD2  | 1:486:A:VAL:HG22 | 14       | 0.36          |
| (1,3478) | 1:446:A:HIS:HD2  | 1:486:A:VAL:HG23 | 14       | 0.36          |
| (1,3301) | 1:434:A:THR:H    | 1:484:A:SER:H    | 11       | 0.36          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB2  | 4        | 0.36          |
| (1,3247) | 1:432:A:TYR:HB2  | 1:458:A:LEU:HB3  | 4        | 0.36          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB2  | 4        | 0.36          |
| (1,3247) | 1:432:A:TYR:HB3  | 1:458:A:LEU:HB3  | 4        | 0.36          |
| (1,3214) | 1:431:A:TYR:H    | 1:458:A:LEU:H    | 18       | 0.36          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB2  | 1        | 0.36          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB3  | 1        | 0.36          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB2  | 1        | 0.36          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB3  | 1        | 0.36          |
| (1,3099) | 1:424:A:LYS:HG2  | 1:427:A:GLN:HE21 | 8        | 0.36          |
| (1,3099) | 1:424:A:LYS:HG2  | 1:427:A:GLN:HE22 | 8        | 0.36          |
| (1,3099) | 1:424:A:LYS:HG3  | 1:427:A:GLN:HE21 | 8        | 0.36          |
| (1,3099) | 1:424:A:LYS:HG3  | 1:427:A:GLN:HE22 | 8        | 0.36          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE21 | 16       | 0.36          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE22 | 16       | 0.36          |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG2  | 5        | 0.36          |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG3  | 5        | 0.36          |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG2  | 5        | 0.36          |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG3  | 5        | 0.36          |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG2  | 5        | 0.36          |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG3  | 5        | 0.36          |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG2  | 1        | 0.36          |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG3  | 1        | 0.36          |
| (1,3000) | 1:418:A:ASP:HA   | 1:421:A:SER:HB2  | 20       | 0.36          |
| (1,3000) | 1:418:A:ASP:HA   | 1:421:A:SER:HB3  | 20       | 0.36          |
| (1,2882) | 1:407:A:THR:HG21 | 1:409:A:SER:H    | 16       | 0.36          |
| (1,2882) | 1:407:A:THR:HG22 | 1:409:A:SER:H    | 16       | 0.36          |
| (1,2882) | 1:407:A:THR:HG23 | 1:409:A:SER:H    | 16       | 0.36          |
| (1,2827) | 1:404:A:SER:H    | 1:413:A:THR:H    | 12       | 0.36          |
| (1,2825) | 1:404:A:SER:H    | 1:414:A:VAL:HG11 | 8        | 0.36          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2825) | 1:404:A:SER:H    | 1:414:A:VAL:HG12 | 8        | 0.36          |
| (1,2825) | 1:404:A:SER:H    | 1:414:A:VAL:HG13 | 8        | 0.36          |
| (1,2823) | 1:404:A:SER:H    | 1:414:A:VAL:H    | 6        | 0.36          |
| (1,2810) | 1:404:A:SER:HA   | 1:459:A:LEU:HD11 | 8        | 0.36          |
| (1,2810) | 1:404:A:SER:HA   | 1:459:A:LEU:HD12 | 8        | 0.36          |
| (1,2810) | 1:404:A:SER:HA   | 1:459:A:LEU:HD13 | 8        | 0.36          |
| (1,2694) | 1:398:A:LYS:HA   | 1:475:A:PHE:HZ   | 6        | 0.36          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 2        | 0.36          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 2        | 0.36          |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD11 | 16       | 0.36          |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD12 | 16       | 0.36          |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD13 | 16       | 0.36          |
| (1,2487) | 1:383:A:LYS:HE2  | 1:402:A:PHE:HA   | 10       | 0.36          |
| (1,2487) | 1:383:A:LYS:HE3  | 1:402:A:PHE:HA   | 10       | 0.36          |
| (1,2487) | 1:383:A:LYS:HE2  | 1:402:A:PHE:HA   | 19       | 0.36          |
| (1,2487) | 1:383:A:LYS:HE3  | 1:402:A:PHE:HA   | 19       | 0.36          |
| (1,2444) | 1:381:A:VAL:HA   | 1:464:A:ILE:HD11 | 13       | 0.36          |
| (1,2444) | 1:381:A:VAL:HA   | 1:464:A:ILE:HD12 | 13       | 0.36          |
| (1,2444) | 1:381:A:VAL:HA   | 1:464:A:ILE:HD13 | 13       | 0.36          |
| (1,2353) | 1:375:A:TRP:HZ3  | 1:400:A:LEU:HA   | 1        | 0.36          |
| (1,2336) | 1:375:A:TRP:HZ2  | 1:468:A:MET:HE1  | 13       | 0.36          |
| (1,2336) | 1:375:A:TRP:HZ2  | 1:468:A:MET:HE2  | 13       | 0.36          |
| (1,2336) | 1:375:A:TRP:HZ2  | 1:468:A:MET:HE3  | 13       | 0.36          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE21 | 2        | 0.36          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE22 | 2        | 0.36          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE21 | 2        | 0.36          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE22 | 2        | 0.36          |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD1  | 4        | 0.36          |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD2  | 4        | 0.36          |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 11       | 0.36          |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 11       | 0.36          |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 11       | 0.36          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 5        | 0.36          |
| (1,1493) | 1:314:A:MET:HB2  | 1:316:A:ASN:HA   | 10       | 0.36          |
| (1,1493) | 1:314:A:MET:HB3  | 1:316:A:ASN:HA   | 10       | 0.36          |
| (1,1316) | 1:302:A:GLN:HG2  | 1:332:A:LEU:HD11 | 4        | 0.36          |
| (1,1316) | 1:302:A:GLN:HG2  | 1:332:A:LEU:HD12 | 4        | 0.36          |
| (1,1316) | 1:302:A:GLN:HG2  | 1:332:A:LEU:HD13 | 4        | 0.36          |
| (1,1316) | 1:302:A:GLN:HG3  | 1:332:A:LEU:HD11 | 4        | 0.36          |
| (1,1316) | 1:302:A:GLN:HG3  | 1:332:A:LEU:HD12 | 4        | 0.36          |
| (1,1316) | 1:302:A:GLN:HG3  | 1:332:A:LEU:HD13 | 4        | 0.36          |
| (1,1215) | 1:299:A:LEU:H    | 1:307:A:MET:H    | 18       | 0.36          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1037) | 1:290:A:ASN:HB2  | 1:292:A:ASP:H    | 18       | 0.36          |
| (1,1037) | 1:290:A:ASN:HB3  | 1:292:A:ASP:H    | 18       | 0.36          |
| (1,1024) | 1:289:A:TRP:HH2  | 1:381:A:VAL:HA   | 12       | 0.36          |
| (1,974)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:H    | 4        | 0.36          |
| (1,934)  | 1:283:A:GLN:HG2  | 1:284:A:ALA:H    | 7        | 0.36          |
| (1,934)  | 1:283:A:GLN:HG3  | 1:284:A:ALA:H    | 7        | 0.36          |
| (1,915)  | 1:282:A:SER:HA   | 1:378:A:PHE:HZ   | 3        | 0.36          |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 19       | 0.36          |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 19       | 0.36          |
| (1,565)  | 1:263:A:TRP:HD1  | 1:265:A:HIS:HA   | 15       | 0.36          |
| (1,371)  | 1:251:A:LYS:HE2  | 1:259:A:ASP:HA   | 16       | 0.36          |
| (1,371)  | 1:251:A:LYS:HE3  | 1:259:A:ASP:HA   | 16       | 0.36          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 15       | 0.36          |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 18       | 0.36          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 4        | 0.36          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 7        | 0.36          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 8        | 0.36          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 12       | 0.36          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 17       | 0.36          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 19       | 0.36          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 14       | 0.36          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG21 | 4        | 0.36          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG22 | 4        | 0.36          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG23 | 4        | 0.36          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG21 | 4        | 0.36          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG22 | 4        | 0.36          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG23 | 4        | 0.36          |
| (1,8)    | 1:231:A:GLN:HG2  | 1:236:A:ARG:HG2  | 7        | 0.36          |
| (1,8)    | 1:231:A:GLN:HG2  | 1:236:A:ARG:HG3  | 7        | 0.36          |
| (1,8)    | 1:231:A:GLN:HG3  | 1:236:A:ARG:HG2  | 7        | 0.36          |
| (1,8)    | 1:231:A:GLN:HG3  | 1:236:A:ARG:HG3  | 7        | 0.36          |
| (1,2)    | 1:230:A:ALA:H    | 1:231:A:GLN:H    | 10       | 0.36          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE1  | 13       | 0.35          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE2  | 13       | 0.35          |
| (1,3975) | 1:400:A:LEU:HD11 | 2:629:B:MET:HE3  | 13       | 0.35          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE1  | 13       | 0.35          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE2  | 13       | 0.35          |
| (1,3975) | 1:400:A:LEU:HD12 | 2:629:B:MET:HE3  | 13       | 0.35          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE1  | 13       | 0.35          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE2  | 13       | 0.35          |
| (1,3975) | 1:400:A:LEU:HD13 | 2:629:B:MET:HE3  | 13       | 0.35          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 10       | 0.35          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB2  | 8        | 0.35          |
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB3  | 8        | 0.35          |
| (1,3871) | 1:483:A:VAL:HA   | 1:486:A:VAL:HA   | 11       | 0.35          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE2  | 2        | 0.35          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE3  | 2        | 0.35          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE2  | 2        | 0.35          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE3  | 2        | 0.35          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB2  | 8        | 0.35          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB3  | 8        | 0.35          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB2  | 8        | 0.35          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB3  | 8        | 0.35          |
| (1,3771) | 1:472:A:LEU:HD21 | 1:474:A:GLU:H    | 2        | 0.35          |
| (1,3771) | 1:472:A:LEU:HD22 | 1:474:A:GLU:H    | 2        | 0.35          |
| (1,3771) | 1:472:A:LEU:HD23 | 1:474:A:GLU:H    | 2        | 0.35          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB2  | 10       | 0.35          |
| (1,3738) | 1:469:A:MET:HE1  | 1:480:A:PHE:HB3  | 10       | 0.35          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB2  | 10       | 0.35          |
| (1,3738) | 1:469:A:MET:HE2  | 1:480:A:PHE:HB3  | 10       | 0.35          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB2  | 10       | 0.35          |
| (1,3738) | 1:469:A:MET:HE3  | 1:480:A:PHE:HB3  | 10       | 0.35          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD1  | 4        | 0.35          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD2  | 4        | 0.35          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 1        | 0.35          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 1        | 0.35          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 1        | 0.35          |
| (1,3561) | 1:450:A:LEU:HD11 | 1:456:A:GLU:H    | 17       | 0.35          |
| (1,3561) | 1:450:A:LEU:HD12 | 1:456:A:GLU:H    | 17       | 0.35          |
| (1,3561) | 1:450:A:LEU:HD13 | 1:456:A:GLU:H    | 17       | 0.35          |
| (1,3555) | 1:450:A:LEU:HD11 | 1:457:A:VAL:HA   | 14       | 0.35          |
| (1,3555) | 1:450:A:LEU:HD12 | 1:457:A:VAL:HA   | 14       | 0.35          |
| (1,3555) | 1:450:A:LEU:HD13 | 1:457:A:VAL:HA   | 14       | 0.35          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD11 | 10       | 0.35          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD12 | 10       | 0.35          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD13 | 10       | 0.35          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD11 | 10       | 0.35          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD12 | 10       | 0.35          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD13 | 10       | 0.35          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD11 | 10       | 0.35          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD12 | 10       | 0.35          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD13 | 10       | 0.35          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 6        | 0.35          |
| (1,3356) | 1:436:A:ASP:HB2  | 1:440:A:ALA:HB1  | 8        | 0.35          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3356) | 1:436:A:ASP:HB2  | 1:440:A:ALA:HB2  | 8        | 0.35          |
| (1,3356) | 1:436:A:ASP:HB2  | 1:440:A:ALA:HB3  | 8        | 0.35          |
| (1,3356) | 1:436:A:ASP:HB3  | 1:440:A:ALA:HB1  | 8        | 0.35          |
| (1,3356) | 1:436:A:ASP:HB3  | 1:440:A:ALA:HB2  | 8        | 0.35          |
| (1,3356) | 1:436:A:ASP:HB3  | 1:440:A:ALA:HB3  | 8        | 0.35          |
| (1,3235) | 1:432:A:TYR:H    | 1:482:A:SER:HA   | 20       | 0.35          |
| (1,3187) | 1:430:A:ILE:HD11 | 1:474:A:GLU:HA   | 17       | 0.35          |
| (1,3187) | 1:430:A:ILE:HD12 | 1:474:A:GLU:HA   | 17       | 0.35          |
| (1,3187) | 1:430:A:ILE:HD13 | 1:474:A:GLU:HA   | 17       | 0.35          |
| (1,3185) | 1:430:A:ILE:HD11 | 1:475:A:PHE:H    | 18       | 0.35          |
| (1,3185) | 1:430:A:ILE:HD12 | 1:475:A:PHE:H    | 18       | 0.35          |
| (1,3185) | 1:430:A:ILE:HD13 | 1:475:A:PHE:H    | 18       | 0.35          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB2  | 8        | 0.35          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB3  | 8        | 0.35          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB2  | 8        | 0.35          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB3  | 8        | 0.35          |
| (1,3144) | 1:429:A:LYS:HD2  | 1:489:A:SER:HA   | 10       | 0.35          |
| (1,3144) | 1:429:A:LYS:HD3  | 1:489:A:SER:HA   | 10       | 0.35          |
| (1,3128) | 1:427:A:GLN:HG2  | 1:429:A:LYS:H    | 16       | 0.35          |
| (1,3128) | 1:427:A:GLN:HG3  | 1:429:A:LYS:H    | 16       | 0.35          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE21 | 8        | 0.35          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE22 | 8        | 0.35          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE21 | 15       | 0.35          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE22 | 15       | 0.35          |
| (1,3078) | 1:423:A:MET:HE1  | 1:428:A:GLU:H    | 14       | 0.35          |
| (1,3078) | 1:423:A:MET:HE2  | 1:428:A:GLU:H    | 14       | 0.35          |
| (1,3078) | 1:423:A:MET:HE3  | 1:428:A:GLU:H    | 14       | 0.35          |
| (1,3072) | 1:423:A:MET:HE1  | 1:431:A:TYR:HD1  | 2        | 0.35          |
| (1,3072) | 1:423:A:MET:HE1  | 1:431:A:TYR:HD2  | 2        | 0.35          |
| (1,3072) | 1:423:A:MET:HE2  | 1:431:A:TYR:HD1  | 2        | 0.35          |
| (1,3072) | 1:423:A:MET:HE2  | 1:431:A:TYR:HD2  | 2        | 0.35          |
| (1,3072) | 1:423:A:MET:HE3  | 1:431:A:TYR:HD1  | 2        | 0.35          |
| (1,3072) | 1:423:A:MET:HE3  | 1:431:A:TYR:HD2  | 2        | 0.35          |
| (1,2988) | 1:417:A:GLU:HA   | 1:420:A:VAL:H    | 8        | 0.35          |
| (1,2914) | 1:410:A:SER:HA   | 1:438:A:TYR:HD1  | 14       | 0.35          |
| (1,2824) | 1:404:A:SER:H    | 1:414:A:VAL:HB   | 8        | 0.35          |
| (1,2811) | 1:404:A:SER:HB2  | 1:458:A:LEU:H    | 3        | 0.35          |
| (1,2811) | 1:404:A:SER:HB3  | 1:458:A:LEU:H    | 3        | 0.35          |
| (1,2621) | 1:393:A:GLN:HE21 | 1:473:A:THR:H    | 1        | 0.35          |
| (1,2621) | 1:393:A:GLN:HE22 | 1:473:A:THR:H    | 1        | 0.35          |
| (1,2620) | 1:393:A:GLN:HE21 | 1:474:A:GLU:HB2  | 7        | 0.35          |
| (1,2620) | 1:393:A:GLN:HE21 | 1:474:A:GLU:HB3  | 7        | 0.35          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2620) | 1:393:A:GLN:HE22 | 1:474:A:GLU:HB2  | 7        | 0.35          |
| (1,2620) | 1:393:A:GLN:HE22 | 1:474:A:GLU:HB3  | 7        | 0.35          |
| (1,2591) | 1:390:A:PHE:HD1  | 1:471:A:TYR:HD1  | 5        | 0.35          |
| (1,2591) | 1:390:A:PHE:HD1  | 1:471:A:TYR:HD2  | 5        | 0.35          |
| (1,2591) | 1:390:A:PHE:HD2  | 1:471:A:TYR:HD1  | 5        | 0.35          |
| (1,2591) | 1:390:A:PHE:HD2  | 1:471:A:TYR:HD2  | 5        | 0.35          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 13       | 0.35          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 13       | 0.35          |
| (1,2432) | 1:380:A:LEU:HA   | 1:384:A:GLU:H    | 6        | 0.35          |
| (1,2429) | 1:380:A:LEU:HA   | 1:462:A:ASP:HB2  | 7        | 0.35          |
| (1,2429) | 1:380:A:LEU:HA   | 1:462:A:ASP:HB3  | 7        | 0.35          |
| (1,2425) | 1:380:A:LEU:HB2  | 1:464:A:ILE:H    | 20       | 0.35          |
| (1,2425) | 1:380:A:LEU:HB3  | 1:464:A:ILE:H    | 20       | 0.35          |
| (1,2344) | 1:375:A:TRP:HZ2  | 1:402:A:PHE:HA   | 11       | 0.35          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA2  | 12       | 0.35          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA3  | 12       | 0.35          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA2  | 18       | 0.35          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA3  | 18       | 0.35          |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB2  | 8        | 0.35          |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB3  | 8        | 0.35          |
| (1,2200) | 1:365:A:LYS:HA   | 1:368:A:ALA:HA   | 20       | 0.35          |
| (1,2107) | 1:360:A:LEU:HA   | 1:364:A:ALA:H    | 4        | 0.35          |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB2  | 5        | 0.35          |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB3  | 5        | 0.35          |
| (1,2002) | 1:354:A:LYS:HG2  | 1:357:A:LEU:HD11 | 14       | 0.35          |
| (1,2002) | 1:354:A:LYS:HG2  | 1:357:A:LEU:HD12 | 14       | 0.35          |
| (1,2002) | 1:354:A:LYS:HG2  | 1:357:A:LEU:HD13 | 14       | 0.35          |
| (1,2002) | 1:354:A:LYS:HG3  | 1:357:A:LEU:HD11 | 14       | 0.35          |
| (1,2002) | 1:354:A:LYS:HG3  | 1:357:A:LEU:HD12 | 14       | 0.35          |
| (1,2002) | 1:354:A:LYS:HG3  | 1:357:A:LEU:HD13 | 14       | 0.35          |
| (1,1997) | 1:354:A:LYS:HB2  | 1:358:A:GLN:HE21 | 14       | 0.35          |
| (1,1997) | 1:354:A:LYS:HB2  | 1:358:A:GLN:HE22 | 14       | 0.35          |
| (1,1997) | 1:354:A:LYS:HB3  | 1:358:A:GLN:HE21 | 14       | 0.35          |
| (1,1997) | 1:354:A:LYS:HB3  | 1:358:A:GLN:HE22 | 14       | 0.35          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 16       | 0.35          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 16       | 0.35          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 16       | 0.35          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 16       | 0.35          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD21 | 7        | 0.35          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD22 | 7        | 0.35          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB2  | 17       | 0.35          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB3  | 17       | 0.35          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB2  | 17       | 0.35          |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB3  | 17       | 0.35          |
| (1,1762) | 1:335:A:SER:H    | 1:339:A:LEU:H    | 1        | 0.35          |
| (1,1658) | 1:322:A:ARG:HD2  | 1:323:A:GLY:H    | 20       | 0.35          |
| (1,1658) | 1:322:A:ARG:HD3  | 1:323:A:GLY:H    | 20       | 0.35          |
| (1,1621) | 1:320:A:PHE:HE1  | 1:378:A:PHE:HB2  | 7        | 0.35          |
| (1,1621) | 1:320:A:PHE:HE1  | 1:378:A:PHE:HB3  | 7        | 0.35          |
| (1,1621) | 1:320:A:PHE:HE2  | 1:378:A:PHE:HB2  | 7        | 0.35          |
| (1,1621) | 1:320:A:PHE:HE2  | 1:378:A:PHE:HB3  | 7        | 0.35          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG21 | 16       | 0.35          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG22 | 16       | 0.35          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG23 | 16       | 0.35          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD2  | 4        | 0.35          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD3  | 4        | 0.35          |
| (1,1149) | 1:298:A:LYS:HB2  | 1:325:A:ILE:H    | 5        | 0.35          |
| (1,1149) | 1:298:A:LYS:HB3  | 1:325:A:ILE:H    | 5        | 0.35          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 18       | 0.35          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 18       | 0.35          |
| (1,1037) | 1:290:A:ASN:HB2  | 1:292:A:ASP:H    | 10       | 0.35          |
| (1,1037) | 1:290:A:ASN:HB3  | 1:292:A:ASP:H    | 10       | 0.35          |
| (1,1037) | 1:290:A:ASN:HB2  | 1:292:A:ASP:H    | 17       | 0.35          |
| (1,1037) | 1:290:A:ASN:HB3  | 1:292:A:ASP:H    | 17       | 0.35          |
| (1,1037) | 1:290:A:ASN:HB2  | 1:292:A:ASP:H    | 19       | 0.35          |
| (1,1037) | 1:290:A:ASN:HB3  | 1:292:A:ASP:H    | 19       | 0.35          |
| (1,974)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:H    | 19       | 0.35          |
| (1,848)  | 1:279:A:TYR:H    | 1:322:A:ARG:H    | 1        | 0.35          |
| (1,848)  | 1:279:A:TYR:H    | 1:322:A:ARG:H    | 2        | 0.35          |
| (1,848)  | 1:279:A:TYR:H    | 1:322:A:ARG:H    | 16       | 0.35          |
| (1,620)  | 1:266:A:ASN:HB2  | 1:274:A:TYR:HE1  | 12       | 0.35          |
| (1,620)  | 1:266:A:ASN:HB2  | 1:274:A:TYR:HE2  | 12       | 0.35          |
| (1,620)  | 1:266:A:ASN:HB3  | 1:274:A:TYR:HE1  | 12       | 0.35          |
| (1,620)  | 1:266:A:ASN:HB3  | 1:274:A:TYR:HE2  | 12       | 0.35          |
| (1,549)  | 1:263:A:TRP:H    | 1:359:A:MET:HG2  | 5        | 0.35          |
| (1,549)  | 1:263:A:TRP:H    | 1:359:A:MET:HG3  | 5        | 0.35          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 10       | 0.35          |
| (1,471)  | 1:260:A:PRO:HA   | 1:282:A:SER:H    | 12       | 0.35          |
| (1,471)  | 1:260:A:PRO:HA   | 1:282:A:SER:H    | 15       | 0.35          |
| (1,470)  | 1:260:A:PRO:HA   | 1:283:A:GLN:H    | 15       | 0.35          |
| (1,458)  | 1:258:A:ASN:HD21 | 1:283:A:GLN:HE21 | 9        | 0.35          |
| (1,458)  | 1:258:A:ASN:HD21 | 1:283:A:GLN:HE22 | 9        | 0.35          |
| (1,458)  | 1:258:A:ASN:HD22 | 1:283:A:GLN:HE21 | 9        | 0.35          |
| (1,458)  | 1:258:A:ASN:HD22 | 1:283:A:GLN:HE22 | 9        | 0.35          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,458)  | 1:258:A:ASN:HD21 | 1:283:A:GLN:HE21 | 11       | 0.35          |
| (1,458)  | 1:258:A:ASN:HD21 | 1:283:A:GLN:HE22 | 11       | 0.35          |
| (1,458)  | 1:258:A:ASN:HD22 | 1:283:A:GLN:HE21 | 11       | 0.35          |
| (1,458)  | 1:258:A:ASN:HD22 | 1:283:A:GLN:HE22 | 11       | 0.35          |
| (1,352)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:H    | 16       | 0.35          |
| (1,352)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:H    | 16       | 0.35          |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 14       | 0.35          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 15       | 0.35          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 5        | 0.35          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 17       | 0.35          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG21 | 17       | 0.35          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG22 | 17       | 0.35          |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG23 | 17       | 0.35          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG21 | 17       | 0.35          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG22 | 17       | 0.35          |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG23 | 17       | 0.35          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 7        | 0.35          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG11 | 8        | 0.34          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG12 | 8        | 0.34          |
| (2,16)   | 1:467:A:TRP:NE1  | 2:630:B:VAL:HG13 | 8        | 0.34          |
| (1,3943) | 1:490:A:LEU:HA   | 1:492:A:LYS:H    | 8        | 0.34          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD11 | 4        | 0.34          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD12 | 4        | 0.34          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD13 | 4        | 0.34          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD11 | 4        | 0.34          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD12 | 4        | 0.34          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD13 | 4        | 0.34          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD11 | 4        | 0.34          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD12 | 4        | 0.34          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD13 | 4        | 0.34          |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 10       | 0.34          |
| (1,3785) | 1:474:A:GLU:HA   | 1:480:A:PHE:H    | 13       | 0.34          |
| (1,3767) | 1:472:A:LEU:HD23 | 1:480:A:PHE:HE2  | 9        | 0.34          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD1  | 17       | 0.34          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD2  | 17       | 0.34          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD11 | 1        | 0.34          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD12 | 1        | 0.34          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD13 | 1        | 0.34          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD11 | 1        | 0.34          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD12 | 1        | 0.34          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD13 | 1        | 0.34          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD11 | 1        | 0.34          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD12 | 1        | 0.34          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD13 | 1        | 0.34          |
| (1,3245) | 1:432:A:TYR:HB2  | 1:458:A:LEU:H    | 3        | 0.34          |
| (1,3245) | 1:432:A:TYR:HB3  | 1:458:A:LEU:H    | 3        | 0.34          |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 1        | 0.34          |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 20       | 0.34          |
| (1,3185) | 1:430:A:ILE:HD11 | 1:475:A:PHE:H    | 19       | 0.34          |
| (1,3185) | 1:430:A:ILE:HD12 | 1:475:A:PHE:H    | 19       | 0.34          |
| (1,3185) | 1:430:A:ILE:HD13 | 1:475:A:PHE:H    | 19       | 0.34          |
| (1,3135) | 1:428:A:GLU:HA   | 1:478:A:LYS:HA   | 2        | 0.34          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE21 | 18       | 0.34          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE22 | 18       | 0.34          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD11 | 5        | 0.34          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD12 | 5        | 0.34          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD13 | 5        | 0.34          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD11 | 5        | 0.34          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD12 | 5        | 0.34          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD13 | 5        | 0.34          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD11 | 16       | 0.34          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD12 | 16       | 0.34          |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD13 | 16       | 0.34          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD11 | 16       | 0.34          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD12 | 16       | 0.34          |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD13 | 16       | 0.34          |
| (1,2982) | 1:417:A:GLU:HG2  | 1:475:A:PHE:HZ   | 12       | 0.34          |
| (1,2982) | 1:417:A:GLU:HG3  | 1:475:A:PHE:HZ   | 12       | 0.34          |
| (1,2862) | 1:405:A:THR:HG21 | 1:408:A:ASP:HA   | 7        | 0.34          |
| (1,2862) | 1:405:A:THR:HG22 | 1:408:A:ASP:HA   | 7        | 0.34          |
| (1,2862) | 1:405:A:THR:HG23 | 1:408:A:ASP:HA   | 7        | 0.34          |
| (1,2861) | 1:405:A:THR:HA   | 1:408:A:ASP:HA   | 8        | 0.34          |
| (1,2848) | 1:405:A:THR:H    | 1:457:A:VAL:HB   | 9        | 0.34          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 18       | 0.34          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 18       | 0.34          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 18       | 0.34          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 14       | 0.34          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 14       | 0.34          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 14       | 0.34          |
| (1,2695) | 1:398:A:LYS:HD2  | 1:475:A:PHE:HZ   | 11       | 0.34          |
| (1,2695) | 1:398:A:LYS:HD3  | 1:475:A:PHE:HZ   | 11       | 0.34          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 3        | 0.34          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 3        | 0.34          |
| (1,2536) | 1:386:A:PRO:HB2  | 1:472:A:LEU:HB2  | 1        | 0.34          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2536) | 1:386:A:PRO:HB2  | 1:472:A:LEU:HB3  | 1        | 0.34          |
| (1,2536) | 1:386:A:PRO:HB3  | 1:472:A:LEU:HB2  | 1        | 0.34          |
| (1,2536) | 1:386:A:PRO:HB3  | 1:472:A:LEU:HB3  | 1        | 0.34          |
| (1,2348) | 1:375:A:TRP:HZ3  | 1:401:A:ARG:H    | 8        | 0.34          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 5        | 0.34          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 5        | 0.34          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 5        | 0.34          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 15       | 0.34          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 15       | 0.34          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 15       | 0.34          |
| (1,1959) | 1:352:A:LEU:HD21 | 1:356:A:VAL:H    | 12       | 0.34          |
| (1,1959) | 1:352:A:LEU:HD22 | 1:356:A:VAL:H    | 12       | 0.34          |
| (1,1959) | 1:352:A:LEU:HD23 | 1:356:A:VAL:H    | 12       | 0.34          |
| (1,1937) | 1:350:A:ASN:HA   | 1:353:A:THR:H    | 10       | 0.34          |
| (1,1726) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HB   | 17       | 0.34          |
| (1,1726) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HB   | 17       | 0.34          |
| (1,1415) | 1:312:A:GLN:HA   | 1:349:A:ARG:HD2  | 20       | 0.34          |
| (1,1415) | 1:312:A:GLN:HA   | 1:349:A:ARG:HD3  | 20       | 0.34          |
| (1,1367) | 1:307:A:MET:HE1  | 1:339:A:LEU:H    | 17       | 0.34          |
| (1,1367) | 1:307:A:MET:HE2  | 1:339:A:LEU:H    | 17       | 0.34          |
| (1,1367) | 1:307:A:MET:HE3  | 1:339:A:LEU:H    | 17       | 0.34          |
| (1,1321) | 1:302:A:GLN:HA   | 1:328:A:SER:HA   | 19       | 0.34          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD11 | 15       | 0.34          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD12 | 15       | 0.34          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD13 | 15       | 0.34          |
| (1,1069) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HA   | 20       | 0.34          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 18       | 0.34          |
| (1,883)  | 1:280:A:ILE:HD11 | 1:318:A:LEU:HD21 | 14       | 0.34          |
| (1,883)  | 1:280:A:ILE:HD11 | 1:318:A:LEU:HD22 | 14       | 0.34          |
| (1,883)  | 1:280:A:ILE:HD11 | 1:318:A:LEU:HD23 | 14       | 0.34          |
| (1,883)  | 1:280:A:ILE:HD12 | 1:318:A:LEU:HD21 | 14       | 0.34          |
| (1,883)  | 1:280:A:ILE:HD12 | 1:318:A:LEU:HD22 | 14       | 0.34          |
| (1,883)  | 1:280:A:ILE:HD12 | 1:318:A:LEU:HD23 | 14       | 0.34          |
| (1,883)  | 1:280:A:ILE:HD13 | 1:318:A:LEU:HD21 | 14       | 0.34          |
| (1,883)  | 1:280:A:ILE:HD13 | 1:318:A:LEU:HD22 | 14       | 0.34          |
| (1,883)  | 1:280:A:ILE:HD13 | 1:318:A:LEU:HD23 | 14       | 0.34          |
| (1,879)  | 1:280:A:ILE:HA   | 1:321:A:VAL:HA   | 2        | 0.34          |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 8        | 0.34          |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 8        | 0.34          |
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 16       | 0.34          |
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 16       | 0.34          |
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB2  | 18       | 0.34          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB3  | 18       | 0.34          |
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB2  | 18       | 0.34          |
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB3  | 18       | 0.34          |
| (1,565)  | 1:263:A:TRP:HD1  | 1:265:A:HIS:HA   | 16       | 0.34          |
| (1,564)  | 1:263:A:TRP:HE1  | 1:265:A:HIS:H    | 3        | 0.34          |
| (1,439)  | 1:255:A:HIS:HE1  | 1:308:A:ASP:HB2  | 6        | 0.34          |
| (1,439)  | 1:255:A:HIS:HE1  | 1:308:A:ASP:HB3  | 6        | 0.34          |
| (1,408)  | 1:253:A:ILE:HB   | 1:298:A:LYS:H    | 3        | 0.34          |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 15       | 0.34          |
| (1,112)  | 1:235:A:THR:HA   | 1:265:A:HIS:HE1  | 16       | 0.34          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD2  | 6        | 0.34          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD3  | 6        | 0.34          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD2  | 18       | 0.34          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD3  | 18       | 0.34          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 12       | 0.34          |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 13       | 0.33          |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 16       | 0.33          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 7        | 0.33          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 10       | 0.33          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB2  | 19       | 0.33          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB3  | 19       | 0.33          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB2  | 19       | 0.33          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB3  | 19       | 0.33          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 16       | 0.33          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 16       | 0.33          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 15       | 0.33          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 15       | 0.33          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 15       | 0.33          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD11 | 11       | 0.33          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD12 | 11       | 0.33          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD13 | 11       | 0.33          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD11 | 11       | 0.33          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD12 | 11       | 0.33          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD13 | 11       | 0.33          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD11 | 11       | 0.33          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD12 | 11       | 0.33          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD13 | 11       | 0.33          |
| (1,3463) | 1:444:A:SER:H    | 1:447:A:LEU:HD11 | 5        | 0.33          |
| (1,3463) | 1:444:A:SER:H    | 1:447:A:LEU:HD12 | 5        | 0.33          |
| (1,3463) | 1:444:A:SER:H    | 1:447:A:LEU:HD13 | 5        | 0.33          |
| (1,3389) | 1:438:A:TYR:HE1  | 1:442:A:LYS:HD2  | 7        | 0.33          |
| (1,3389) | 1:438:A:TYR:HE1  | 1:442:A:LYS:HD3  | 7        | 0.33          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3389) | 1:438:A:TYR:HE2  | 1:442:A:LYS:HD2  | 7        | 0.33          |
| (1,3389) | 1:438:A:TYR:HE2  | 1:442:A:LYS:HD3  | 7        | 0.33          |
| (1,3329) | 1:435:A:ALA:H    | 1:461:A:SER:HA   | 7        | 0.33          |
| (1,3315) | 1:434:A:THR:HA   | 1:461:A:SER:HA   | 4        | 0.33          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD21 | 10       | 0.33          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD22 | 10       | 0.33          |
| (1,3282) | 1:433:A:ILE:HB   | 1:447:A:LEU:HD23 | 10       | 0.33          |
| (1,3235) | 1:432:A:TYR:H    | 1:482:A:SER:HA   | 3        | 0.33          |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE1  | 10       | 0.33          |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE2  | 10       | 0.33          |
| (1,3188) | 1:430:A:ILE:HB   | 1:469:A:MET:HE3  | 10       | 0.33          |
| (1,3170) | 1:430:A:ILE:H    | 1:481:A:GLN:H    | 4        | 0.33          |
| (1,3144) | 1:429:A:LYS:HD2  | 1:489:A:SER:HA   | 12       | 0.33          |
| (1,3144) | 1:429:A:LYS:HD3  | 1:489:A:SER:HA   | 12       | 0.33          |
| (1,3136) | 1:428:A:GLU:HG2  | 1:478:A:LYS:HA   | 13       | 0.33          |
| (1,3136) | 1:428:A:GLU:HG3  | 1:478:A:LYS:HA   | 13       | 0.33          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG2  | 13       | 0.33          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG3  | 13       | 0.33          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG2  | 13       | 0.33          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG3  | 13       | 0.33          |
| (1,3070) | 1:423:A:MET:HA   | 1:456:A:GLU:H    | 2        | 0.33          |
| (1,2982) | 1:417:A:GLU:HG2  | 1:475:A:PHE:HZ   | 3        | 0.33          |
| (1,2982) | 1:417:A:GLU:HG3  | 1:475:A:PHE:HZ   | 3        | 0.33          |
| (1,2937) | 1:414:A:VAL:HG21 | 1:419:A:TYR:HA   | 18       | 0.33          |
| (1,2937) | 1:414:A:VAL:HG22 | 1:419:A:TYR:HA   | 18       | 0.33          |
| (1,2937) | 1:414:A:VAL:HG23 | 1:419:A:TYR:HA   | 18       | 0.33          |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD11 | 6        | 0.33          |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD12 | 6        | 0.33          |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD13 | 6        | 0.33          |
| (1,2887) | 1:407:A:THR:HG21 | 1:408:A:ASP:H    | 19       | 0.33          |
| (1,2887) | 1:407:A:THR:HG22 | 1:408:A:ASP:H    | 19       | 0.33          |
| (1,2887) | 1:407:A:THR:HG23 | 1:408:A:ASP:H    | 19       | 0.33          |
| (1,2880) | 1:407:A:THR:H    | 1:409:A:SER:H    | 7        | 0.33          |
| (1,2755) | 1:402:A:PHE:HD2  | 1:460:A:LEU:HD12 | 19       | 0.33          |
| (1,2745) | 1:402:A:PHE:HE1  | 1:480:A:PHE:HE1  | 16       | 0.33          |
| (1,2745) | 1:402:A:PHE:HE1  | 1:480:A:PHE:HE2  | 16       | 0.33          |
| (1,2745) | 1:402:A:PHE:HE2  | 1:480:A:PHE:HE1  | 16       | 0.33          |
| (1,2745) | 1:402:A:PHE:HE2  | 1:480:A:PHE:HE2  | 16       | 0.33          |
| (1,2694) | 1:398:A:LYS:HA   | 1:475:A:PHE:HZ   | 13       | 0.33          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD1  | 12       | 0.33          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD2  | 12       | 0.33          |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD1  | 12       | 0.33          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD2  | 12       | 0.33          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD1  | 12       | 0.33          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD2  | 12       | 0.33          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 12       | 0.33          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 12       | 0.33          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE21 | 9        | 0.33          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE22 | 9        | 0.33          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE21 | 9        | 0.33          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE22 | 9        | 0.33          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 6        | 0.33          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 6        | 0.33          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 6        | 0.33          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 6        | 0.33          |
| (1,2185) | 1:364:A:ALA:HA   | 1:368:A:ALA:HA   | 6        | 0.33          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 20       | 0.33          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 20       | 0.33          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 20       | 0.33          |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 19       | 0.33          |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 19       | 0.33          |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 19       | 0.33          |
| (1,1933) | 1:350:A:ASN:HA   | 1:354:A:LYS:H    | 10       | 0.33          |
| (1,1676) | 1:325:A:ILE:HD11 | 1:327:A:SER:HB2  | 1        | 0.33          |
| (1,1676) | 1:325:A:ILE:HD11 | 1:327:A:SER:HB3  | 1        | 0.33          |
| (1,1676) | 1:325:A:ILE:HD12 | 1:327:A:SER:HB2  | 1        | 0.33          |
| (1,1676) | 1:325:A:ILE:HD12 | 1:327:A:SER:HB3  | 1        | 0.33          |
| (1,1676) | 1:325:A:ILE:HD13 | 1:327:A:SER:HB2  | 1        | 0.33          |
| (1,1676) | 1:325:A:ILE:HD13 | 1:327:A:SER:HB3  | 1        | 0.33          |
| (1,1674) | 1:325:A:ILE:HD11 | 1:327:A:SER:H    | 6        | 0.33          |
| (1,1674) | 1:325:A:ILE:HD12 | 1:327:A:SER:H    | 6        | 0.33          |
| (1,1674) | 1:325:A:ILE:HD13 | 1:327:A:SER:H    | 6        | 0.33          |
| (1,1671) | 1:325:A:ILE:HB   | 1:348:A:LEU:HD11 | 19       | 0.33          |
| (1,1671) | 1:325:A:ILE:HB   | 1:348:A:LEU:HD12 | 19       | 0.33          |
| (1,1671) | 1:325:A:ILE:HB   | 1:348:A:LEU:HD13 | 19       | 0.33          |
| (1,1626) | 1:320:A:PHE:HZ   | 1:374:A:PHE:HZ   | 7        | 0.33          |
| (1,1391) | 1:309:A:ASP:HB2  | 1:311:A:GLU:HB2  | 3        | 0.33          |
| (1,1391) | 1:309:A:ASP:HB2  | 1:311:A:GLU:HB3  | 3        | 0.33          |
| (1,1391) | 1:309:A:ASP:HB3  | 1:311:A:GLU:HB2  | 3        | 0.33          |
| (1,1391) | 1:309:A:ASP:HB3  | 1:311:A:GLU:HB3  | 3        | 0.33          |
| (1,1140) | 1:297:A:LEU:HA   | 1:309:A:ASP:HA   | 13       | 0.33          |
| (1,1140) | 1:297:A:LEU:HA   | 1:309:A:ASP:HA   | 16       | 0.33          |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 9        | 0.33          |
| (1,970)  | 1:285:A:PRO:HG2  | 1:287:A:ASP:H    | 14       | 0.33          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,970)  | 1:285:A:PRO:HG3  | 1:287:A:ASP:H    | 14       | 0.33          |
| (1,707)  | 1:273:A:GLU:H    | 1:327:A:SER:HA   | 1        | 0.33          |
| (1,454)  | 1:257:A:PHE:H    | 1:258:A:ASN:HD21 | 1        | 0.33          |
| (1,454)  | 1:257:A:PHE:H    | 1:258:A:ASN:HD22 | 1        | 0.33          |
| (1,451)  | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 18       | 0.33          |
| (1,145)  | 1:238:A:LYS:HD2  | 1:267:A:ARG:H    | 15       | 0.33          |
| (1,145)  | 1:238:A:LYS:HD3  | 1:267:A:ARG:H    | 15       | 0.33          |
| (1,103)  | 1:235:A:THR:H    | 1:303:A:ARG:HD2  | 6        | 0.33          |
| (1,103)  | 1:235:A:THR:H    | 1:303:A:ARG:HD3  | 6        | 0.33          |
| (1,92)   | 1:234:A:TRP:HZ3  | 1:249:A:PHE:HZ   | 20       | 0.33          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 4        | 0.32          |
| (1,3972) | 1:318:A:LEU:HD11 | 2:622:B:TYR:HE1  | 5        | 0.32          |
| (1,3972) | 1:318:A:LEU:HD12 | 2:622:B:TYR:HE1  | 5        | 0.32          |
| (1,3972) | 1:318:A:LEU:HD13 | 2:622:B:TYR:HE1  | 5        | 0.32          |
| (1,3943) | 1:490:A:LEU:HA   | 1:492:A:LYS:H    | 17       | 0.32          |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 4        | 0.32          |
| (1,3935) | 1:490:A:LEU:HA   | 1:494:A:ALA:H    | 13       | 0.32          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 9        | 0.32          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 9        | 0.32          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 9        | 0.32          |
| (1,3817) | 1:475:A:PHE:HE2  | 1:476:A:ASP:HB2  | 8        | 0.32          |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 12       | 0.32          |
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 12       | 0.32          |
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 12       | 0.32          |
| (1,3567) | 1:450:A:LEU:HA   | 1:454:A:GLY:H    | 1        | 0.32          |
| (1,3560) | 1:450:A:LEU:HB2  | 1:456:A:GLU:H    | 18       | 0.32          |
| (1,3560) | 1:450:A:LEU:HB3  | 1:456:A:GLU:H    | 18       | 0.32          |
| (1,3536) | 1:449:A:LEU:HA   | 1:453:A:LYS:H    | 9        | 0.32          |
| (1,3535) | 1:449:A:LEU:HD21 | 1:483:A:VAL:HB   | 16       | 0.32          |
| (1,3535) | 1:449:A:LEU:HD22 | 1:483:A:VAL:HB   | 16       | 0.32          |
| (1,3535) | 1:449:A:LEU:HD23 | 1:483:A:VAL:HB   | 16       | 0.32          |
| (1,3523) | 1:448:A:GLU:HA   | 1:451:A:ARG:HB2  | 14       | 0.32          |
| (1,3523) | 1:448:A:GLU:HA   | 1:451:A:ARG:HB3  | 14       | 0.32          |
| (1,3476) | 1:445:A:PRO:HG2  | 1:446:A:HIS:H    | 6        | 0.32          |
| (1,3476) | 1:445:A:PRO:HG3  | 1:446:A:HIS:H    | 6        | 0.32          |
| (1,3389) | 1:438:A:TYR:HE1  | 1:442:A:LYS:HD2  | 2        | 0.32          |
| (1,3389) | 1:438:A:TYR:HE1  | 1:442:A:LYS:HD3  | 2        | 0.32          |
| (1,3389) | 1:438:A:TYR:HE2  | 1:442:A:LYS:HD2  | 2        | 0.32          |
| (1,3389) | 1:438:A:TYR:HE2  | 1:442:A:LYS:HD3  | 2        | 0.32          |
| (1,3311) | 1:434:A:THR:HB   | 1:466:A:GLU:HA   | 16       | 0.32          |
| (1,3062) | 1:422:A:ARG:HD2  | 1:456:A:GLU:HG2  | 5        | 0.32          |
| (1,3062) | 1:422:A:ARG:HD2  | 1:456:A:GLU:HG3  | 5        | 0.32          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3062) | 1:422:A:ARG:HD3  | 1:456:A:GLU:HG2  | 5        | 0.32          |
| (1,3062) | 1:422:A:ARG:HD3  | 1:456:A:GLU:HG3  | 5        | 0.32          |
| (1,3039) | 1:420:A:VAL:HB   | 1:475:A:PHE:HZ   | 17       | 0.32          |
| (1,2982) | 1:417:A:GLU:HG2  | 1:475:A:PHE:HZ   | 17       | 0.32          |
| (1,2982) | 1:417:A:GLU:HG3  | 1:475:A:PHE:HZ   | 17       | 0.32          |
| (1,2941) | 1:414:A:VAL:HG11 | 1:416:A:LEU:H    | 11       | 0.32          |
| (1,2941) | 1:414:A:VAL:HG12 | 1:416:A:LEU:H    | 11       | 0.32          |
| (1,2941) | 1:414:A:VAL:HG13 | 1:416:A:LEU:H    | 11       | 0.32          |
| (1,2855) | 1:405:A:THR:HB   | 1:451:A:ARG:HA   | 4        | 0.32          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 12       | 0.32          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 12       | 0.32          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 12       | 0.32          |
| (1,2565) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD1  | 1        | 0.32          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 18       | 0.32          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 18       | 0.32          |
| (1,2545) | 1:386:A:PRO:HG2  | 1:397:A:ALA:HA   | 20       | 0.32          |
| (1,2545) | 1:386:A:PRO:HG3  | 1:397:A:ALA:HA   | 20       | 0.32          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD11 | 19       | 0.32          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD12 | 19       | 0.32          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD13 | 19       | 0.32          |
| (1,2483) | 1:383:A:LYS:HD2  | 1:465:A:ASP:HA   | 10       | 0.32          |
| (1,2483) | 1:383:A:LYS:HD3  | 1:465:A:ASP:HA   | 10       | 0.32          |
| (1,2344) | 1:375:A:TRP:HZ2  | 1:402:A:PHE:HA   | 8        | 0.32          |
| (1,2200) | 1:365:A:LYS:HA   | 1:368:A:ALA:HA   | 10       | 0.32          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 1        | 0.32          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 1        | 0.32          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 1        | 0.32          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 1        | 0.32          |
| (1,2166) | 1:363:A:LEU:HA   | 1:367:A:ASP:HB2  | 4        | 0.32          |
| (1,2166) | 1:363:A:LEU:HA   | 1:367:A:ASP:HB3  | 4        | 0.32          |
| (1,2132) | 1:361:A:GLU:HA   | 1:371:A:TYR:HE1  | 7        | 0.32          |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 16       | 0.32          |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 16       | 0.32          |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 16       | 0.32          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE21 | 14       | 0.32          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE22 | 14       | 0.32          |
| (1,1992) | 1:354:A:LYS:HG2  | 1:392:A:ASN:HD21 | 9        | 0.32          |
| (1,1992) | 1:354:A:LYS:HG2  | 1:392:A:ASN:HD22 | 9        | 0.32          |
| (1,1992) | 1:354:A:LYS:HG3  | 1:392:A:ASN:HD21 | 9        | 0.32          |
| (1,1992) | 1:354:A:LYS:HG3  | 1:392:A:ASN:HD22 | 9        | 0.32          |
| (1,1990) | 1:354:A:LYS:HD2  | 1:392:A:ASN:HD21 | 18       | 0.32          |
| (1,1990) | 1:354:A:LYS:HD2  | 1:392:A:ASN:HD22 | 18       | 0.32          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1990) | 1:354:A:LYS:HD3 | 1:392:A:ASN:HD21 | 18       | 0.32          |
| (1,1990) | 1:354:A:LYS:HD3 | 1:392:A:ASN:HD22 | 18       | 0.32          |
| (1,1989) | 1:354:A:LYS:HA  | 1:392:A:ASN:HD21 | 6        | 0.32          |
| (1,1989) | 1:354:A:LYS:HA  | 1:392:A:ASN:HD22 | 6        | 0.32          |
| (1,1909) | 1:348:A:LEU:HA  | 1:352:A:LEU:H    | 12       | 0.32          |
| (1,1889) | 1:346:A:ARG:HA  | 1:349:A:ARG:HG2  | 8        | 0.32          |
| (1,1529) | 1:316:A:ASN:HA  | 1:319:A:ARG:HA   | 2        | 0.32          |
| (1,1471) | 1:314:A:MET:HA  | 1:353:A:THR:H    | 1        | 0.32          |
| (1,1318) | 1:302:A:GLN:H   | 1:329:A:ASP:H    | 11       | 0.32          |
| (1,1249) | 1:300:A:TYR:H   | 1:313:A:PHE:HE1  | 18       | 0.32          |
| (1,1249) | 1:300:A:TYR:H   | 1:313:A:PHE:HE2  | 18       | 0.32          |
| (1,1037) | 1:290:A:ASN:HB2 | 1:292:A:ASP:H    | 8        | 0.32          |
| (1,1037) | 1:290:A:ASN:HB3 | 1:292:A:ASP:H    | 8        | 0.32          |
| (1,1024) | 1:289:A:TRP:HH2 | 1:381:A:VAL:HA   | 2        | 0.32          |
| (1,1023) | 1:289:A:TRP:HZ2 | 1:381:A:VAL:H    | 4        | 0.32          |
| (1,979)  | 1:286:A:TRP:HE3 | 1:289:A:TRP:H    | 10       | 0.32          |
| (1,974)  | 1:286:A:TRP:HE3 | 1:290:A:ASN:H    | 15       | 0.32          |
| (1,967)  | 1:285:A:PRO:HG2 | 1:288:A:MET:HE1  | 13       | 0.32          |
| (1,967)  | 1:285:A:PRO:HG2 | 1:288:A:MET:HE2  | 13       | 0.32          |
| (1,967)  | 1:285:A:PRO:HG2 | 1:288:A:MET:HE3  | 13       | 0.32          |
| (1,967)  | 1:285:A:PRO:HG3 | 1:288:A:MET:HE1  | 13       | 0.32          |
| (1,967)  | 1:285:A:PRO:HG3 | 1:288:A:MET:HE2  | 13       | 0.32          |
| (1,967)  | 1:285:A:PRO:HG3 | 1:288:A:MET:HE3  | 13       | 0.32          |
| (1,799)  | 1:278:A:LEU:H   | 1:359:A:MET:HE1  | 18       | 0.32          |
| (1,799)  | 1:278:A:LEU:H   | 1:359:A:MET:HE2  | 18       | 0.32          |
| (1,799)  | 1:278:A:LEU:H   | 1:359:A:MET:HE3  | 18       | 0.32          |
| (1,769)  | 1:276:A:SER:HB2 | 1:325:A:ILE:HB   | 11       | 0.32          |
| (1,769)  | 1:276:A:SER:HB3 | 1:325:A:ILE:HB   | 11       | 0.32          |
| (1,769)  | 1:276:A:SER:HB2 | 1:325:A:ILE:HB   | 20       | 0.32          |
| (1,769)  | 1:276:A:SER:HB3 | 1:325:A:ILE:HB   | 20       | 0.32          |
| (1,693)  | 1:272:A:GLN:HB2 | 1:274:A:TYR:H    | 5        | 0.32          |
| (1,693)  | 1:272:A:GLN:HB3 | 1:274:A:TYR:H    | 5        | 0.32          |
| (1,693)  | 1:272:A:GLN:HB2 | 1:274:A:TYR:H    | 13       | 0.32          |
| (1,693)  | 1:272:A:GLN:HB3 | 1:274:A:TYR:H    | 13       | 0.32          |
| (1,588)  | 1:264:A:SER:HA  | 1:266:A:ASN:HD21 | 8        | 0.32          |
| (1,588)  | 1:264:A:SER:HA  | 1:266:A:ASN:HD22 | 8        | 0.32          |
| (1,588)  | 1:264:A:SER:HA  | 1:266:A:ASN:HD21 | 12       | 0.32          |
| (1,588)  | 1:264:A:SER:HA  | 1:266:A:ASN:HD22 | 12       | 0.32          |
| (1,574)  | 1:264:A:SER:HB2 | 1:358:A:GLN:HB2  | 8        | 0.32          |
| (1,574)  | 1:264:A:SER:HB2 | 1:358:A:GLN:HB3  | 8        | 0.32          |
| (1,574)  | 1:264:A:SER:HB3 | 1:358:A:GLN:HB2  | 8        | 0.32          |
| (1,574)  | 1:264:A:SER:HB3 | 1:358:A:GLN:HB3  | 8        | 0.32          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD1  | 18       | 0.32          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD2  | 18       | 0.32          |
| (1,471)  | 1:260:A:PRO:HA   | 1:282:A:SER:H    | 17       | 0.32          |
| (1,426)  | 1:254:A:ALA:HA   | 1:322:A:ARG:HD2  | 1        | 0.32          |
| (1,426)  | 1:254:A:ALA:HA   | 1:322:A:ARG:HD3  | 1        | 0.32          |
| (1,382)  | 1:251:A:LYS:HA   | 1:255:A:HIS:HA   | 16       | 0.32          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2  | 18       | 0.32          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3  | 18       | 0.32          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2  | 18       | 0.32          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3  | 18       | 0.32          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 20       | 0.32          |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 12       | 0.32          |
| (1,252)  | 1:246:A:TYR:HD1  | 1:263:A:TRP:HE1  | 12       | 0.32          |
| (1,189)  | 1:242:A:THR:H    | 1:246:A:TYR:H    | 12       | 0.32          |
| (1,37)   | 1:233:A:LEU:HD11 | 1:249:A:PHE:H    | 2        | 0.32          |
| (1,37)   | 1:233:A:LEU:HD12 | 1:249:A:PHE:H    | 2        | 0.32          |
| (1,37)   | 1:233:A:LEU:HD13 | 1:249:A:PHE:H    | 2        | 0.32          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 11       | 0.32          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 16       | 0.32          |
| (1,1)    | 1:230:A:ALA:H    | 1:236:A:ARG:HH11 | 17       | 0.32          |
| (2,9)    | 1:338:A:ILE:HD11 | 1:342:A:SER:H    | 2        | 0.31          |
| (2,9)    | 1:338:A:ILE:HD12 | 1:342:A:SER:H    | 2        | 0.31          |
| (2,9)    | 1:338:A:ILE:HD13 | 1:342:A:SER:H    | 2        | 0.31          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD11 | 8        | 0.31          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD12 | 8        | 0.31          |
| (1,3941) | 1:490:A:LEU:HD21 | 1:493:A:LEU:HD13 | 8        | 0.31          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD11 | 8        | 0.31          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD12 | 8        | 0.31          |
| (1,3941) | 1:490:A:LEU:HD22 | 1:493:A:LEU:HD13 | 8        | 0.31          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD11 | 8        | 0.31          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD12 | 8        | 0.31          |
| (1,3941) | 1:490:A:LEU:HD23 | 1:493:A:LEU:HD13 | 8        | 0.31          |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 15       | 0.31          |
| (1,3919) | 1:488:A:GLU:HA   | 1:491:A:GLU:HB2  | 14       | 0.31          |
| (1,3919) | 1:488:A:GLU:HA   | 1:491:A:GLU:HB3  | 14       | 0.31          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 18       | 0.31          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 20       | 0.31          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 20       | 0.31          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 20       | 0.31          |
| (1,3841) | 1:481:A:GLN:HG2  | 1:489:A:SER:HA   | 12       | 0.31          |
| (1,3841) | 1:481:A:GLN:HG3  | 1:489:A:SER:HA   | 12       | 0.31          |
| (1,3821) | 1:476:A:ASP:HB2  | 1:478:A:LYS:HD2  | 15       | 0.31          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,3821) | 1:476:A:ASP:HB2 | 1:478:A:LYS:HD3  | 15       | 0.31          |
| (1,3821) | 1:476:A:ASP:HB3 | 1:478:A:LYS:HD2  | 15       | 0.31          |
| (1,3821) | 1:476:A:ASP:HB3 | 1:478:A:LYS:HD3  | 15       | 0.31          |
| (1,3788) | 1:474:A:GLU:HA  | 1:479:A:PRO:HA   | 13       | 0.31          |
| (1,3674) | 1:462:A:ASP:HB2 | 1:464:A:ILE:H    | 10       | 0.31          |
| (1,3674) | 1:462:A:ASP:HB3 | 1:464:A:ILE:H    | 10       | 0.31          |
| (1,3492) | 1:447:A:LEU:HA  | 1:483:A:VAL:HB   | 12       | 0.31          |
| (1,3476) | 1:445:A:PRO:HG2 | 1:446:A:HIS:H    | 16       | 0.31          |
| (1,3476) | 1:445:A:PRO:HG3 | 1:446:A:HIS:H    | 16       | 0.31          |
| (1,3461) | 1:444:A:SER:HA  | 1:447:A:LEU:H    | 5        | 0.31          |
| (1,3447) | 1:442:A:LYS:HA  | 1:447:A:LEU:HD11 | 3        | 0.31          |
| (1,3447) | 1:442:A:LYS:HA  | 1:447:A:LEU:HD12 | 3        | 0.31          |
| (1,3447) | 1:442:A:LYS:HA  | 1:447:A:LEU:HD13 | 3        | 0.31          |
| (1,3447) | 1:442:A:LYS:HA  | 1:447:A:LEU:HD11 | 6        | 0.31          |
| (1,3447) | 1:442:A:LYS:HA  | 1:447:A:LEU:HD12 | 6        | 0.31          |
| (1,3447) | 1:442:A:LYS:HA  | 1:447:A:LEU:HD13 | 6        | 0.31          |
| (1,3351) | 1:436:A:ASP:HA  | 1:463:A:ARG:HA   | 5        | 0.31          |
| (1,3235) | 1:432:A:TYR:H   | 1:482:A:SER:HA   | 15       | 0.31          |
| (1,3235) | 1:432:A:TYR:H   | 1:482:A:SER:HA   | 17       | 0.31          |
| (1,3169) | 1:429:A:LYS:HA  | 1:430:A:ILE:HD11 | 1        | 0.31          |
| (1,3169) | 1:429:A:LYS:HA  | 1:430:A:ILE:HD12 | 1        | 0.31          |
| (1,3169) | 1:429:A:LYS:HA  | 1:430:A:ILE:HD13 | 1        | 0.31          |
| (1,3137) | 1:428:A:GLU:HA  | 1:478:A:LYS:HG2  | 8        | 0.31          |
| (1,3137) | 1:428:A:GLU:HA  | 1:478:A:LYS:HG3  | 8        | 0.31          |
| (1,3117) | 1:427:A:GLN:HA  | 1:493:A:LEU:HD11 | 3        | 0.31          |
| (1,3117) | 1:427:A:GLN:HA  | 1:493:A:LEU:HD12 | 3        | 0.31          |
| (1,3117) | 1:427:A:GLN:HA  | 1:493:A:LEU:HD13 | 3        | 0.31          |
| (1,3063) | 1:422:A:ARG:HB2 | 1:427:A:GLN:HE21 | 7        | 0.31          |
| (1,3063) | 1:422:A:ARG:HB2 | 1:427:A:GLN:HE22 | 7        | 0.31          |
| (1,3063) | 1:422:A:ARG:HB3 | 1:427:A:GLN:HE21 | 7        | 0.31          |
| (1,3063) | 1:422:A:ARG:HB3 | 1:427:A:GLN:HE22 | 7        | 0.31          |
| (1,3000) | 1:418:A:ASP:HA  | 1:421:A:SER:HB2  | 11       | 0.31          |
| (1,3000) | 1:418:A:ASP:HA  | 1:421:A:SER:HB3  | 11       | 0.31          |
| (1,2985) | 1:417:A:GLU:HB2 | 1:421:A:SER:H    | 19       | 0.31          |
| (1,2985) | 1:417:A:GLU:HB3 | 1:421:A:SER:H    | 19       | 0.31          |
| (1,2915) | 1:410:A:SER:HB3 | 1:438:A:TYR:HD2  | 6        | 0.31          |
| (1,2828) | 1:404:A:SER:H   | 1:412:A:GLN:HA   | 14       | 0.31          |
| (1,2827) | 1:404:A:SER:H   | 1:413:A:THR:H    | 18       | 0.31          |
| (1,2797) | 1:403:A:ALA:HA  | 1:412:A:GLN:HA   | 11       | 0.31          |
| (1,2792) | 1:403:A:ALA:HA  | 1:414:A:VAL:HG11 | 7        | 0.31          |
| (1,2792) | 1:403:A:ALA:HA  | 1:414:A:VAL:HG12 | 7        | 0.31          |
| (1,2792) | 1:403:A:ALA:HA  | 1:414:A:VAL:HG13 | 7        | 0.31          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG11 | 3        | 0.31          |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG12 | 3        | 0.31          |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG13 | 3        | 0.31          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG11 | 3        | 0.31          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG12 | 3        | 0.31          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG13 | 3        | 0.31          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG11 | 2        | 0.31          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG12 | 2        | 0.31          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG13 | 2        | 0.31          |
| (1,2593) | 1:390:A:PHE:HA   | 1:393:A:GLN:H    | 12       | 0.31          |
| (1,2575) | 1:388:A:GLU:HA   | 1:390:A:PHE:H    | 5        | 0.31          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB2  | 17       | 0.31          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB3  | 17       | 0.31          |
| (1,2365) | 1:375:A:TRP:HA   | 1:379:A:GLY:H    | 18       | 0.31          |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG2  | 13       | 0.31          |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG3  | 13       | 0.31          |
| (1,2358) | 1:375:A:TRP:HZ2  | 1:383:A:LYS:HE2  | 10       | 0.31          |
| (1,2358) | 1:375:A:TRP:HZ2  | 1:383:A:LYS:HE3  | 10       | 0.31          |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB2  | 7        | 0.31          |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB3  | 7        | 0.31          |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 10       | 0.31          |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 10       | 0.31          |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 10       | 0.31          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 14       | 0.31          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 14       | 0.31          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 14       | 0.31          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 18       | 0.31          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 18       | 0.31          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 18       | 0.31          |
| (1,1996) | 1:354:A:LYS:HA   | 1:358:A:GLN:HE21 | 15       | 0.31          |
| (1,1996) | 1:354:A:LYS:HA   | 1:358:A:GLN:HE22 | 15       | 0.31          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 12       | 0.31          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 12       | 0.31          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 12       | 0.31          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 12       | 0.31          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD11 | 1        | 0.31          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD12 | 1        | 0.31          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD13 | 1        | 0.31          |
| (1,1964) | 1:352:A:LEU:HA   | 1:355:A:ARG:HD2  | 9        | 0.31          |
| (1,1964) | 1:352:A:LEU:HA   | 1:355:A:ARG:HD3  | 9        | 0.31          |
| (1,1937) | 1:350:A:ASN:HA   | 1:353:A:THR:H    | 19       | 0.31          |
| (1,1472) | 1:314:A:MET:HA   | 1:353:A:THR:HA   | 12       | 0.31          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1324) | 1:302:A:GLN:H    | 1:327:A:SER:H    | 19       | 0.31          |
| (1,1321) | 1:302:A:GLN:HA   | 1:328:A:SER:HA   | 20       | 0.31          |
| (1,1318) | 1:302:A:GLN:H    | 1:329:A:ASP:H    | 19       | 0.31          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 5        | 0.31          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 5        | 0.31          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 19       | 0.31          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 19       | 0.31          |
| (1,1219) | 1:299:A:LEU:H    | 1:306:A:ILE:H    | 3        | 0.31          |
| (1,1219) | 1:299:A:LEU:H    | 1:306:A:ILE:H    | 11       | 0.31          |
| (1,1132) | 1:297:A:LEU:H    | 1:310:A:ALA:H    | 15       | 0.31          |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 7        | 0.31          |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB2  | 13       | 0.31          |
| (1,1029) | 1:289:A:TRP:HZ2  | 1:380:A:LEU:HB3  | 13       | 0.31          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 16       | 0.31          |
| (1,976)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:HD21 | 9        | 0.31          |
| (1,976)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:HD22 | 9        | 0.31          |
| (1,821)  | 1:278:A:LEU:HA   | 1:322:A:ARG:H    | 1        | 0.31          |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 3        | 0.31          |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 3        | 0.31          |
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 14       | 0.31          |
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 14       | 0.31          |
| (1,764)  | 1:276:A:SER:HB2  | 1:326:A:ASP:H    | 20       | 0.31          |
| (1,764)  | 1:276:A:SER:HB3  | 1:326:A:ASP:H    | 20       | 0.31          |
| (1,719)  | 1:274:A:TYR:HD2  | 1:348:A:LEU:HD23 | 13       | 0.31          |
| (1,703)  | 1:273:A:GLU:H    | 1:328:A:SER:H    | 10       | 0.31          |
| (1,702)  | 1:273:A:GLU:H    | 1:329:A:ASP:HB2  | 1        | 0.31          |
| (1,702)  | 1:273:A:GLU:H    | 1:329:A:ASP:HB3  | 1        | 0.31          |
| (1,648)  | 1:268:A:VAL:HB   | 1:274:A:TYR:H    | 20       | 0.31          |
| (1,550)  | 1:263:A:TRP:HA   | 1:359:A:MET:HG2  | 13       | 0.31          |
| (1,550)  | 1:263:A:TRP:HA   | 1:359:A:MET:HG3  | 13       | 0.31          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD2  | 3        | 0.31          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD3  | 3        | 0.31          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD2  | 3        | 0.31          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD3  | 3        | 0.31          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD2  | 3        | 0.31          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD3  | 3        | 0.31          |
| (1,353)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:HB2  | 3        | 0.31          |
| (1,353)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:HB3  | 3        | 0.31          |
| (1,353)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:HB2  | 3        | 0.31          |
| (1,353)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:HB3  | 3        | 0.31          |
| (1,293)  | 1:248:A:GLU:HA   | 1:251:A:LYS:H    | 17       | 0.31          |
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB2  | 9        | 0.31          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB3  | 9        | 0.31          |
| (1,123)  | 1:236:A:ARG:HB2  | 1:240:A:GLU:H    | 13       | 0.31          |
| (1,123)  | 1:236:A:ARG:HB3  | 1:240:A:GLU:H    | 13       | 0.31          |
| (1,23)   | 1:232:A:ALA:HB1  | 1:235:A:THR:HB   | 15       | 0.31          |
| (1,23)   | 1:232:A:ALA:HB2  | 1:235:A:THR:HB   | 15       | 0.31          |
| (1,23)   | 1:232:A:ALA:HB3  | 1:235:A:THR:HB   | 15       | 0.31          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 14       | 0.3           |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 14       | 0.3           |
| (1,3915) | 1:488:A:GLU:HA   | 1:492:A:LYS:H    | 14       | 0.3           |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 7        | 0.3           |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 18       | 0.3           |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE2  | 19       | 0.3           |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE3  | 19       | 0.3           |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE2  | 19       | 0.3           |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE3  | 19       | 0.3           |
| (1,3846) | 1:481:A:GLN:HE21 | 1:486:A:VAL:H    | 17       | 0.3           |
| (1,3846) | 1:481:A:GLN:HE22 | 1:486:A:VAL:H    | 17       | 0.3           |
| (1,3492) | 1:447:A:LEU:HA   | 1:483:A:VAL:HB   | 20       | 0.3           |
| (1,3365) | 1:437:A:SER:H    | 1:441:A:ALA:H    | 8        | 0.3           |
| (1,3360) | 1:437:A:SER:HA   | 1:462:A:ASP:HA   | 6        | 0.3           |
| (1,3329) | 1:435:A:ALA:H    | 1:461:A:SER:HA   | 17       | 0.3           |
| (1,3254) | 1:433:A:ILE:HA   | 1:484:A:SER:H    | 14       | 0.3           |
| (1,3214) | 1:431:A:TYR:H    | 1:458:A:LEU:H    | 7        | 0.3           |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 10       | 0.3           |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 9        | 0.3           |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 9        | 0.3           |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 9        | 0.3           |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 13       | 0.3           |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 13       | 0.3           |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 13       | 0.3           |
| (1,3155) | 1:429:A:LYS:HB2  | 1:480:A:PHE:HA   | 17       | 0.3           |
| (1,3155) | 1:429:A:LYS:HB3  | 1:480:A:PHE:HA   | 17       | 0.3           |
| (1,3144) | 1:429:A:LYS:HD2  | 1:489:A:SER:HA   | 20       | 0.3           |
| (1,3144) | 1:429:A:LYS:HD3  | 1:489:A:SER:HA   | 20       | 0.3           |
| (1,3136) | 1:428:A:GLU:HG2  | 1:478:A:LYS:HA   | 8        | 0.3           |
| (1,3136) | 1:428:A:GLU:HG3  | 1:478:A:LYS:HA   | 8        | 0.3           |
| (1,3133) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HD2  | 13       | 0.3           |
| (1,3133) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HD3  | 13       | 0.3           |
| (1,3133) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HD2  | 13       | 0.3           |
| (1,3133) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HD3  | 13       | 0.3           |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD11 | 6        | 0.3           |
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD12 | 6        | 0.3           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3092) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HD13 | 6        | 0.3           |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD11 | 6        | 0.3           |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD12 | 6        | 0.3           |
| (1,3092) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HD13 | 6        | 0.3           |
| (1,3091) | 1:424:A:LYS:HG2  | 1:455:A:ILE:HA   | 1        | 0.3           |
| (1,3091) | 1:424:A:LYS:HG3  | 1:455:A:ILE:HA   | 1        | 0.3           |
| (1,2982) | 1:417:A:GLU:HG2  | 1:475:A:PHE:HZ   | 16       | 0.3           |
| (1,2982) | 1:417:A:GLU:HG3  | 1:475:A:PHE:HZ   | 16       | 0.3           |
| (1,2945) | 1:415:A:SER:H    | 1:419:A:TYR:H    | 18       | 0.3           |
| (1,2859) | 1:405:A:THR:HG21 | 1:442:A:LYS:HA   | 5        | 0.3           |
| (1,2859) | 1:405:A:THR:HG22 | 1:442:A:LYS:HA   | 5        | 0.3           |
| (1,2859) | 1:405:A:THR:HG23 | 1:442:A:LYS:HA   | 5        | 0.3           |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG11 | 7        | 0.3           |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG12 | 7        | 0.3           |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG13 | 7        | 0.3           |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 16       | 0.3           |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 16       | 0.3           |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 16       | 0.3           |
| (1,2575) | 1:388:A:GLU:HA   | 1:390:A:PHE:H    | 3        | 0.3           |
| (1,2575) | 1:388:A:GLU:HA   | 1:390:A:PHE:H    | 7        | 0.3           |
| (1,2353) | 1:375:A:TRP:HZ3  | 1:400:A:LEU:HA   | 9        | 0.3           |
| (1,2351) | 1:375:A:TRP:HE3  | 1:400:A:LEU:HA   | 1        | 0.3           |
| (1,2336) | 1:375:A:TRP:HZ2  | 1:468:A:MET:HE1  | 17       | 0.3           |
| (1,2336) | 1:375:A:TRP:HZ2  | 1:468:A:MET:HE2  | 17       | 0.3           |
| (1,2336) | 1:375:A:TRP:HZ2  | 1:468:A:MET:HE3  | 17       | 0.3           |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB2  | 17       | 0.3           |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB3  | 17       | 0.3           |
| (1,2245) | 1:369:A:GLU:HG2  | 1:370:A:LYS:H    | 20       | 0.3           |
| (1,2245) | 1:369:A:GLU:HG3  | 1:370:A:LYS:H    | 20       | 0.3           |
| (1,2216) | 1:367:A:ASP:HB2  | 1:370:A:LYS:HD2  | 12       | 0.3           |
| (1,2216) | 1:367:A:ASP:HB2  | 1:370:A:LYS:HD3  | 12       | 0.3           |
| (1,2216) | 1:367:A:ASP:HB3  | 1:370:A:LYS:HD2  | 12       | 0.3           |
| (1,2216) | 1:367:A:ASP:HB3  | 1:370:A:LYS:HD3  | 12       | 0.3           |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD1  | 7        | 0.3           |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD2  | 7        | 0.3           |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG2  | 17       | 0.3           |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG3  | 17       | 0.3           |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG2  | 17       | 0.3           |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG3  | 17       | 0.3           |
| (1,2108) | 1:360:A:LEU:HD21 | 1:364:A:ALA:H    | 4        | 0.3           |
| (1,2108) | 1:360:A:LEU:HD22 | 1:364:A:ALA:H    | 4        | 0.3           |
| (1,2108) | 1:360:A:LEU:HD23 | 1:364:A:ALA:H    | 4        | 0.3           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 3        | 0.3           |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 3        | 0.3           |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 3        | 0.3           |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 2        | 0.3           |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 2        | 0.3           |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 2        | 0.3           |
| (1,1973) | 1:353:A:THR:HG21 | 1:392:A:ASN:HB2  | 2        | 0.3           |
| (1,1973) | 1:353:A:THR:HG21 | 1:392:A:ASN:HB3  | 2        | 0.3           |
| (1,1973) | 1:353:A:THR:HG22 | 1:392:A:ASN:HB2  | 2        | 0.3           |
| (1,1973) | 1:353:A:THR:HG22 | 1:392:A:ASN:HB3  | 2        | 0.3           |
| (1,1973) | 1:353:A:THR:HG23 | 1:392:A:ASN:HB2  | 2        | 0.3           |
| (1,1973) | 1:353:A:THR:HG23 | 1:392:A:ASN:HB3  | 2        | 0.3           |
| (1,1938) | 1:350:A:ASN:HA   | 1:353:A:THR:HB   | 10       | 0.3           |
| (1,1909) | 1:348:A:LEU:HA   | 1:352:A:LEU:H    | 8        | 0.3           |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 11       | 0.3           |
| (1,1626) | 1:320:A:PHE:HZ   | 1:374:A:PHE:HZ   | 13       | 0.3           |
| (1,1478) | 1:314:A:MET:HE1  | 1:349:A:ARG:HA   | 2        | 0.3           |
| (1,1478) | 1:314:A:MET:HE2  | 1:349:A:ARG:HA   | 2        | 0.3           |
| (1,1478) | 1:314:A:MET:HE3  | 1:349:A:ARG:HA   | 2        | 0.3           |
| (1,1416) | 1:312:A:GLN:HB2  | 1:349:A:ARG:HD2  | 12       | 0.3           |
| (1,1416) | 1:312:A:GLN:HB2  | 1:349:A:ARG:HD3  | 12       | 0.3           |
| (1,1416) | 1:312:A:GLN:HB3  | 1:349:A:ARG:HD2  | 12       | 0.3           |
| (1,1416) | 1:312:A:GLN:HB3  | 1:349:A:ARG:HD3  | 12       | 0.3           |
| (1,1354) | 1:305:A:PHE:HE2  | 1:307:A:MET:HA   | 9        | 0.3           |
| (1,1324) | 1:302:A:GLN:H    | 1:327:A:SER:H    | 3        | 0.3           |
| (1,1322) | 1:302:A:GLN:HG2  | 1:328:A:SER:HA   | 16       | 0.3           |
| (1,1322) | 1:302:A:GLN:HG3  | 1:328:A:SER:HA   | 16       | 0.3           |
| (1,1321) | 1:302:A:GLN:HA   | 1:328:A:SER:HA   | 15       | 0.3           |
| (1,1139) | 1:297:A:LEU:H    | 1:309:A:ASP:HA   | 16       | 0.3           |
| (1,1130) | 1:297:A:LEU:H    | 1:311:A:GLU:HA   | 7        | 0.3           |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 10       | 0.3           |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 3        | 0.3           |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 3        | 0.3           |
| (1,1066) | 1:295:A:HIS:HB2  | 1:320:A:PHE:HA   | 8        | 0.3           |
| (1,1066) | 1:295:A:HIS:HB3  | 1:320:A:PHE:HA   | 8        | 0.3           |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 11       | 0.3           |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 11       | 0.3           |
| (1,1024) | 1:289:A:TRP:HH2  | 1:381:A:VAL:HA   | 10       | 0.3           |
| (1,1013) | 1:288:A:MET:HA   | 1:294:A:LYS:H    | 2        | 0.3           |
| (1,949)  | 1:284:A:ALA:HA   | 1:288:A:MET:HE1  | 9        | 0.3           |
| (1,949)  | 1:284:A:ALA:HA   | 1:288:A:MET:HE2  | 9        | 0.3           |
| (1,949)  | 1:284:A:ALA:HA   | 1:288:A:MET:HE3  | 9        | 0.3           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,821)  | 1:278:A:LEU:HA   | 1:322:A:ARG:H    | 6        | 0.3           |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 6        | 0.3           |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 6        | 0.3           |
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 10       | 0.3           |
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 10       | 0.3           |
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 19       | 0.3           |
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 19       | 0.3           |
| (1,723)  | 1:274:A:TYR:H    | 1:328:A:SER:H    | 8        | 0.3           |
| (1,675)  | 1:270:A:GLY:H    | 1:272:A:GLN:H    | 16       | 0.3           |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD1  | 20       | 0.3           |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD2  | 20       | 0.3           |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB2  | 6        | 0.3           |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB3  | 6        | 0.3           |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB2  | 6        | 0.3           |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB3  | 6        | 0.3           |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB2  | 6        | 0.3           |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB3  | 6        | 0.3           |
| (1,376)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HA   | 14       | 0.3           |
| (1,376)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HA   | 14       | 0.3           |
| (1,374)  | 1:251:A:LYS:HA   | 1:257:A:PHE:HA   | 15       | 0.3           |
| (1,293)  | 1:248:A:GLU:HA   | 1:251:A:LYS:H    | 2        | 0.3           |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 1        | 0.3           |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 13       | 0.3           |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 18       | 0.3           |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 15       | 0.3           |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 15       | 0.3           |
| (1,144)  | 1:237:A:ASN:HD21 | 1:238:A:LYS:H    | 14       | 0.3           |
| (1,144)  | 1:237:A:ASN:HD22 | 1:238:A:LYS:H    | 14       | 0.3           |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG21 | 2        | 0.3           |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG22 | 2        | 0.3           |
| (1,11)   | 1:231:A:GLN:HG2  | 1:235:A:THR:HG23 | 2        | 0.3           |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG21 | 2        | 0.3           |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG22 | 2        | 0.3           |
| (1,11)   | 1:231:A:GLN:HG3  | 1:235:A:THR:HG23 | 2        | 0.3           |
| (1,2)    | 1:230:A:ALA:H    | 1:231:A:GLN:H    | 4        | 0.3           |
| (2,14)   | 1:442:A:LYS:H    | 1:461:A:SER:HB2  | 3        | 0.29          |
| (2,14)   | 1:442:A:LYS:H    | 1:461:A:SER:HB3  | 3        | 0.29          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 1        | 0.29          |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 14       | 0.29          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 10       | 0.29          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 10       | 0.29          |
| (1,3935) | 1:490:A:LEU:HA   | 1:494:A:ALA:H    | 10       | 0.29          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3886) | 1:486:A:VAL:HG11 | 1:494:A:ALA:HB1  | 14       | 0.29          |
| (1,3886) | 1:486:A:VAL:HG11 | 1:494:A:ALA:HB2  | 14       | 0.29          |
| (1,3886) | 1:486:A:VAL:HG11 | 1:494:A:ALA:HB3  | 14       | 0.29          |
| (1,3886) | 1:486:A:VAL:HG12 | 1:494:A:ALA:HB1  | 14       | 0.29          |
| (1,3886) | 1:486:A:VAL:HG12 | 1:494:A:ALA:HB2  | 14       | 0.29          |
| (1,3886) | 1:486:A:VAL:HG12 | 1:494:A:ALA:HB3  | 14       | 0.29          |
| (1,3886) | 1:486:A:VAL:HG13 | 1:494:A:ALA:HB1  | 14       | 0.29          |
| (1,3886) | 1:486:A:VAL:HG13 | 1:494:A:ALA:HB2  | 14       | 0.29          |
| (1,3886) | 1:486:A:VAL:HG13 | 1:494:A:ALA:HB3  | 14       | 0.29          |
| (1,3740) | 1:469:A:MET:HE1  | 1:473:A:THR:H    | 3        | 0.29          |
| (1,3740) | 1:469:A:MET:HE2  | 1:473:A:THR:H    | 3        | 0.29          |
| (1,3740) | 1:469:A:MET:HE3  | 1:473:A:THR:H    | 3        | 0.29          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 4        | 0.29          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 4        | 0.29          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 4        | 0.29          |
| (1,3523) | 1:448:A:GLU:HA   | 1:451:A:ARG:HB2  | 16       | 0.29          |
| (1,3523) | 1:448:A:GLU:HA   | 1:451:A:ARG:HB3  | 16       | 0.29          |
| (1,3522) | 1:448:A:GLU:HA   | 1:451:A:ARG:H    | 16       | 0.29          |
| (1,3476) | 1:445:A:PRO:HG2  | 1:446:A:HIS:H    | 14       | 0.29          |
| (1,3476) | 1:445:A:PRO:HG3  | 1:446:A:HIS:H    | 14       | 0.29          |
| (1,3447) | 1:442:A:LYS:HA   | 1:447:A:LEU:HD11 | 1        | 0.29          |
| (1,3447) | 1:442:A:LYS:HA   | 1:447:A:LEU:HD12 | 1        | 0.29          |
| (1,3447) | 1:442:A:LYS:HA   | 1:447:A:LEU:HD13 | 1        | 0.29          |
| (1,3235) | 1:432:A:TYR:H    | 1:482:A:SER:HA   | 2        | 0.29          |
| (1,3226) | 1:431:A:TYR:HD1  | 1:450:A:LEU:HD12 | 17       | 0.29          |
| (1,3222) | 1:431:A:TYR:HD1  | 1:456:A:GLU:H    | 6        | 0.29          |
| (1,3222) | 1:431:A:TYR:HD2  | 1:456:A:GLU:H    | 6        | 0.29          |
| (1,3165) | 1:429:A:LYS:HB2  | 1:431:A:TYR:HE1  | 14       | 0.29          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 12       | 0.29          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 12       | 0.29          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 12       | 0.29          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 12       | 0.29          |
| (1,3144) | 1:429:A:LYS:HD2  | 1:489:A:SER:HA   | 11       | 0.29          |
| (1,3144) | 1:429:A:LYS:HD3  | 1:489:A:SER:HA   | 11       | 0.29          |
| (1,3090) | 1:424:A:LYS:HE2  | 1:455:A:ILE:HA   | 1        | 0.29          |
| (1,3090) | 1:424:A:LYS:HE3  | 1:455:A:ILE:HA   | 1        | 0.29          |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB2  | 4        | 0.29          |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB3  | 4        | 0.29          |
| (1,2968) | 1:416:A:LEU:HA   | 1:420:A:VAL:H    | 10       | 0.29          |
| (1,2838) | 1:405:A:THR:H    | 1:459:A:LEU:H    | 2        | 0.29          |
| (1,2828) | 1:404:A:SER:H    | 1:412:A:GLN:HA   | 1        | 0.29          |
| (1,2818) | 1:404:A:SER:HA   | 1:456:A:GLU:HG2  | 16       | 0.29          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2818) | 1:404:A:SER:HA   | 1:456:A:GLU:HG3  | 16       | 0.29          |
| (1,2767) | 1:402:A:PHE:H    | 1:413:A:THR:H    | 14       | 0.29          |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG11 | 8        | 0.29          |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG12 | 8        | 0.29          |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG13 | 8        | 0.29          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG11 | 8        | 0.29          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG12 | 8        | 0.29          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG13 | 8        | 0.29          |
| (1,2620) | 1:393:A:GLN:HE21 | 1:474:A:GLU:HB2  | 5        | 0.29          |
| (1,2620) | 1:393:A:GLN:HE21 | 1:474:A:GLU:HB3  | 5        | 0.29          |
| (1,2620) | 1:393:A:GLN:HE22 | 1:474:A:GLU:HB2  | 5        | 0.29          |
| (1,2620) | 1:393:A:GLN:HE22 | 1:474:A:GLU:HB3  | 5        | 0.29          |
| (1,2575) | 1:388:A:GLU:HA   | 1:390:A:PHE:H    | 6        | 0.29          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD1  | 17       | 0.29          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD2  | 17       | 0.29          |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD1  | 17       | 0.29          |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD2  | 17       | 0.29          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD1  | 17       | 0.29          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD2  | 17       | 0.29          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 17       | 0.29          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 17       | 0.29          |
| (1,2432) | 1:380:A:LEU:HA   | 1:384:A:GLU:H    | 3        | 0.29          |
| (1,2398) | 1:378:A:PHE:HA   | 1:382:A:LEU:H    | 6        | 0.29          |
| (1,2398) | 1:378:A:PHE:HA   | 1:382:A:LEU:H    | 13       | 0.29          |
| (1,2398) | 1:378:A:PHE:HA   | 1:382:A:LEU:H    | 17       | 0.29          |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG2  | 5        | 0.29          |
| (1,2359) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HG3  | 5        | 0.29          |
| (1,2317) | 1:374:A:PHE:HZ   | 1:382:A:LEU:H    | 4        | 0.29          |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 6        | 0.29          |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 6        | 0.29          |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 6        | 0.29          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 13       | 0.29          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 13       | 0.29          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 13       | 0.29          |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 2        | 0.29          |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 2        | 0.29          |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 2        | 0.29          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD11 | 1        | 0.29          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD12 | 1        | 0.29          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD13 | 1        | 0.29          |
| (1,1897) | 1:347:A:ASN:HA   | 1:351:A:ALA:H    | 3        | 0.29          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 12       | 0.29          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1754) | 1:334:A:VAL:HA  | 1:338:A:ILE:HD11 | 13       | 0.29          |
| (1,1754) | 1:334:A:VAL:HA  | 1:338:A:ILE:HD12 | 13       | 0.29          |
| (1,1754) | 1:334:A:VAL:HA  | 1:338:A:ILE:HD13 | 13       | 0.29          |
| (1,1508) | 1:315:A:PRO:HA  | 1:349:A:ARG:HG2  | 15       | 0.29          |
| (1,1508) | 1:315:A:PRO:HA  | 1:349:A:ARG:HG3  | 15       | 0.29          |
| (1,1493) | 1:314:A:MET:HB2 | 1:316:A:ASN:HA   | 8        | 0.29          |
| (1,1493) | 1:314:A:MET:HB3 | 1:316:A:ASN:HA   | 8        | 0.29          |
| (1,1446) | 1:313:A:PHE:HA  | 1:349:A:ARG:HA   | 18       | 0.29          |
| (1,1415) | 1:312:A:GLN:HA  | 1:349:A:ARG:HD2  | 12       | 0.29          |
| (1,1415) | 1:312:A:GLN:HA  | 1:349:A:ARG:HD3  | 12       | 0.29          |
| (1,1367) | 1:307:A:MET:HE1 | 1:339:A:LEU:H    | 11       | 0.29          |
| (1,1367) | 1:307:A:MET:HE2 | 1:339:A:LEU:H    | 11       | 0.29          |
| (1,1367) | 1:307:A:MET:HE3 | 1:339:A:LEU:H    | 11       | 0.29          |
| (1,1367) | 1:307:A:MET:HE1 | 1:339:A:LEU:H    | 12       | 0.29          |
| (1,1367) | 1:307:A:MET:HE2 | 1:339:A:LEU:H    | 12       | 0.29          |
| (1,1367) | 1:307:A:MET:HE3 | 1:339:A:LEU:H    | 12       | 0.29          |
| (1,1298) | 1:301:A:VAL:H   | 1:306:A:ILE:HB   | 13       | 0.29          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD11 | 7        | 0.29          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD12 | 7        | 0.29          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD13 | 7        | 0.29          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD11 | 14       | 0.29          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD12 | 14       | 0.29          |
| (1,1244) | 1:300:A:TYR:H   | 1:325:A:ILE:HD13 | 14       | 0.29          |
| (1,1069) | 1:295:A:HIS:HE1 | 1:316:A:ASN:HA   | 6        | 0.29          |
| (1,1069) | 1:295:A:HIS:HE1 | 1:316:A:ASN:HA   | 16       | 0.29          |
| (1,1008) | 1:288:A:MET:HE1 | 1:320:A:PHE:HB2  | 9        | 0.29          |
| (1,1008) | 1:288:A:MET:HE1 | 1:320:A:PHE:HB3  | 9        | 0.29          |
| (1,1008) | 1:288:A:MET:HE2 | 1:320:A:PHE:HB2  | 9        | 0.29          |
| (1,1008) | 1:288:A:MET:HE2 | 1:320:A:PHE:HB3  | 9        | 0.29          |
| (1,1008) | 1:288:A:MET:HE3 | 1:320:A:PHE:HB2  | 9        | 0.29          |
| (1,1008) | 1:288:A:MET:HE3 | 1:320:A:PHE:HB3  | 9        | 0.29          |
| (1,936)  | 1:284:A:ALA:HA  | 1:378:A:PHE:HZ   | 16       | 0.29          |
| (1,767)  | 1:276:A:SER:HB2 | 1:325:A:ILE:HA   | 5        | 0.29          |
| (1,767)  | 1:276:A:SER:HB3 | 1:325:A:ILE:HA   | 5        | 0.29          |
| (1,720)  | 1:274:A:TYR:HB2 | 1:330:A:LEU:HD11 | 5        | 0.29          |
| (1,720)  | 1:274:A:TYR:HB2 | 1:330:A:LEU:HD12 | 5        | 0.29          |
| (1,720)  | 1:274:A:TYR:HB2 | 1:330:A:LEU:HD13 | 5        | 0.29          |
| (1,720)  | 1:274:A:TYR:HB3 | 1:330:A:LEU:HD11 | 5        | 0.29          |
| (1,720)  | 1:274:A:TYR:HB3 | 1:330:A:LEU:HD12 | 5        | 0.29          |
| (1,720)  | 1:274:A:TYR:HB3 | 1:330:A:LEU:HD13 | 5        | 0.29          |
| (1,635)  | 1:267:A:ARG:HA  | 1:274:A:TYR:HD1  | 13       | 0.29          |
| (1,635)  | 1:267:A:ARG:HA  | 1:274:A:TYR:HD2  | 13       | 0.29          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,614)  | 1:266:A:ASN:H    | 1:276:A:SER:H    | 11       | 0.29          |
| (1,565)  | 1:263:A:TRP:HD1  | 1:265:A:HIS:HA   | 3        | 0.29          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD1  | 6        | 0.29          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD2  | 6        | 0.29          |
| (1,520)  | 1:261:A:LEU:H    | 1:279:A:TYR:HD1  | 7        | 0.29          |
| (1,520)  | 1:261:A:LEU:H    | 1:279:A:TYR:HD2  | 7        | 0.29          |
| (1,471)  | 1:260:A:PRO:HA   | 1:282:A:SER:H    | 5        | 0.29          |
| (1,470)  | 1:260:A:PRO:HA   | 1:283:A:GLN:H    | 5        | 0.29          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD2  | 20       | 0.29          |
| (1,406)  | 1:253:A:ILE:HB   | 1:322:A:ARG:HD3  | 20       | 0.29          |
| (1,293)  | 1:248:A:GLU:HA   | 1:251:A:LYS:H    | 5        | 0.29          |
| (1,219)  | 1:244:A:GLU:HA   | 1:248:A:GLU:H    | 9        | 0.29          |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 12       | 0.29          |
| (1,158)  | 1:238:A:LYS:HA   | 1:241:A:ILE:HB   | 12       | 0.29          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD2  | 7        | 0.29          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD3  | 7        | 0.29          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 9        | 0.29          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 20       | 0.28          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 20       | 0.28          |
| (1,3927) | 1:489:A:SER:HB2  | 1:493:A:LEU:HD11 | 15       | 0.28          |
| (1,3927) | 1:489:A:SER:HB2  | 1:493:A:LEU:HD12 | 15       | 0.28          |
| (1,3927) | 1:489:A:SER:HB2  | 1:493:A:LEU:HD13 | 15       | 0.28          |
| (1,3927) | 1:489:A:SER:HB3  | 1:493:A:LEU:HD11 | 15       | 0.28          |
| (1,3927) | 1:489:A:SER:HB3  | 1:493:A:LEU:HD12 | 15       | 0.28          |
| (1,3927) | 1:489:A:SER:HB3  | 1:493:A:LEU:HD13 | 15       | 0.28          |
| (1,3857) | 1:481:A:GLN:HE21 | 1:482:A:SER:H    | 2        | 0.28          |
| (1,3857) | 1:481:A:GLN:HE22 | 1:482:A:SER:H    | 2        | 0.28          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 15       | 0.28          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 15       | 0.28          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 17       | 0.28          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 17       | 0.28          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 17       | 0.28          |
| (1,3674) | 1:462:A:ASP:HB2  | 1:464:A:ILE:H    | 11       | 0.28          |
| (1,3674) | 1:462:A:ASP:HB3  | 1:464:A:ILE:H    | 11       | 0.28          |
| (1,3567) | 1:450:A:LEU:HA   | 1:454:A:GLY:H    | 20       | 0.28          |
| (1,3360) | 1:437:A:SER:HA   | 1:462:A:ASP:HA   | 1        | 0.28          |
| (1,3353) | 1:436:A:ASP:HA   | 1:461:A:SER:HA   | 4        | 0.28          |
| (1,3235) | 1:432:A:TYR:H    | 1:482:A:SER:HA   | 14       | 0.28          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 10       | 0.28          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 10       | 0.28          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 10       | 0.28          |
| (1,3165) | 1:429:A:LYS:HB2  | 1:431:A:TYR:HE2  | 10       | 0.28          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3144) | 1:429:A:LYS:HD2  | 1:489:A:SER:HA   | 15       | 0.28          |
| (1,3144) | 1:429:A:LYS:HD3  | 1:489:A:SER:HA   | 15       | 0.28          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG2  | 17       | 0.28          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG3  | 17       | 0.28          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG2  | 17       | 0.28          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG3  | 17       | 0.28          |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD11 | 10       | 0.28          |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD12 | 10       | 0.28          |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD13 | 10       | 0.28          |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD11 | 18       | 0.28          |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD12 | 18       | 0.28          |
| (1,3117) | 1:427:A:GLN:HA   | 1:493:A:LEU:HD13 | 18       | 0.28          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE21 | 14       | 0.28          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE22 | 14       | 0.28          |
| (1,3081) | 1:423:A:MET:HE1  | 1:427:A:GLN:HB2  | 15       | 0.28          |
| (1,3081) | 1:423:A:MET:HE1  | 1:427:A:GLN:HB3  | 15       | 0.28          |
| (1,3081) | 1:423:A:MET:HE2  | 1:427:A:GLN:HB2  | 15       | 0.28          |
| (1,3081) | 1:423:A:MET:HE2  | 1:427:A:GLN:HB3  | 15       | 0.28          |
| (1,3081) | 1:423:A:MET:HE3  | 1:427:A:GLN:HB2  | 15       | 0.28          |
| (1,3081) | 1:423:A:MET:HE3  | 1:427:A:GLN:HB3  | 15       | 0.28          |
| (1,2989) | 1:417:A:GLU:HA   | 1:420:A:VAL:HB   | 5        | 0.28          |
| (1,2989) | 1:417:A:GLU:HA   | 1:420:A:VAL:HB   | 11       | 0.28          |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB2  | 17       | 0.28          |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB3  | 17       | 0.28          |
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 2        | 0.28          |
| (1,2982) | 1:417:A:GLU:HG2  | 1:475:A:PHE:HZ   | 11       | 0.28          |
| (1,2982) | 1:417:A:GLU:HG3  | 1:475:A:PHE:HZ   | 11       | 0.28          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB2  | 8        | 0.28          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB3  | 8        | 0.28          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB2  | 8        | 0.28          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB3  | 8        | 0.28          |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB2  | 8        | 0.28          |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB3  | 8        | 0.28          |
| (1,2937) | 1:414:A:VAL:HG21 | 1:419:A:TYR:HA   | 6        | 0.28          |
| (1,2937) | 1:414:A:VAL:HG22 | 1:419:A:TYR:HA   | 6        | 0.28          |
| (1,2937) | 1:414:A:VAL:HG23 | 1:419:A:TYR:HA   | 6        | 0.28          |
| (1,2848) | 1:405:A:THR:H    | 1:457:A:VAL:HB   | 5        | 0.28          |
| (1,2838) | 1:405:A:THR:H    | 1:459:A:LEU:H    | 15       | 0.28          |
| (1,2814) | 1:404:A:SER:HA   | 1:457:A:VAL:H    | 13       | 0.28          |
| (1,2793) | 1:403:A:ALA:H    | 1:413:A:THR:H    | 14       | 0.28          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG11 | 4        | 0.28          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG12 | 4        | 0.28          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG13 | 4        | 0.28          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 17       | 0.28          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 17       | 0.28          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 17       | 0.28          |
| (1,2764) | 1:402:A:PHE:H    | 1:414:A:VAL:HB   | 20       | 0.28          |
| (1,2755) | 1:402:A:PHE:HD2  | 1:460:A:LEU:HD13 | 4        | 0.28          |
| (1,2755) | 1:402:A:PHE:HD1  | 1:460:A:LEU:HD13 | 16       | 0.28          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 7        | 0.28          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 7        | 0.28          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 7        | 0.28          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 20       | 0.28          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 20       | 0.28          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 20       | 0.28          |
| (1,2736) | 1:401:A:ARG:HD2  | 1:414:A:VAL:H    | 9        | 0.28          |
| (1,2736) | 1:401:A:ARG:HD3  | 1:414:A:VAL:H    | 9        | 0.28          |
| (1,2640) | 1:394:A:GLU:HA   | 1:475:A:PHE:HA   | 6        | 0.28          |
| (1,2575) | 1:388:A:GLU:HA   | 1:390:A:PHE:H    | 19       | 0.28          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 9        | 0.28          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 9        | 0.28          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 15       | 0.28          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 15       | 0.28          |
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD2  | 2        | 0.28          |
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD3  | 2        | 0.28          |
| (1,2425) | 1:380:A:LEU:HB2  | 1:464:A:ILE:H    | 3        | 0.28          |
| (1,2425) | 1:380:A:LEU:HB3  | 1:464:A:ILE:H    | 3        | 0.28          |
| (1,2368) | 1:375:A:TRP:HZ2  | 1:379:A:GLY:HA2  | 2        | 0.28          |
| (1,2368) | 1:375:A:TRP:HZ2  | 1:379:A:GLY:HA3  | 2        | 0.28          |
| (1,2337) | 1:375:A:TRP:HD1  | 1:413:A:THR:HA   | 7        | 0.28          |
| (1,2323) | 1:374:A:PHE:HZ   | 1:378:A:PHE:HB2  | 14       | 0.28          |
| (1,2323) | 1:374:A:PHE:HZ   | 1:378:A:PHE:HB3  | 14       | 0.28          |
| (1,2231) | 1:368:A:ALA:HA   | 1:370:A:LYS:H    | 12       | 0.28          |
| (1,2123) | 1:361:A:GLU:HA   | 1:399:A:LEU:HA   | 16       | 0.28          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 17       | 0.28          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 17       | 0.28          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 17       | 0.28          |
| (1,1992) | 1:354:A:LYS:HG2  | 1:392:A:ASN:HD21 | 1        | 0.28          |
| (1,1992) | 1:354:A:LYS:HG2  | 1:392:A:ASN:HD22 | 1        | 0.28          |
| (1,1992) | 1:354:A:LYS:HG3  | 1:392:A:ASN:HD21 | 1        | 0.28          |
| (1,1992) | 1:354:A:LYS:HG3  | 1:392:A:ASN:HD22 | 1        | 0.28          |
| (1,1938) | 1:350:A:ASN:HA   | 1:353:A:THR:HB   | 12       | 0.28          |
| (1,1937) | 1:350:A:ASN:HA   | 1:353:A:THR:H    | 15       | 0.28          |
| (1,1767) | 1:335:A:SER:H    | 1:338:A:ILE:HB   | 14       | 0.28          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1726) | 1:331:A:PRO:HB2  | 1:338:A:ILE:HB   | 18       | 0.28          |
| (1,1726) | 1:331:A:PRO:HB3  | 1:338:A:ILE:HB   | 18       | 0.28          |
| (1,1487) | 1:314:A:MET:HB2  | 1:319:A:ARG:HA   | 14       | 0.28          |
| (1,1487) | 1:314:A:MET:HB3  | 1:319:A:ARG:HA   | 14       | 0.28          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG21 | 8        | 0.28          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG22 | 8        | 0.28          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG23 | 8        | 0.28          |
| (1,1349) | 1:305:A:PHE:HZ   | 1:308:A:ASP:HA   | 1        | 0.28          |
| (1,1255) | 1:300:A:TYR:HA   | 1:306:A:ILE:HB   | 6        | 0.28          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD11 | 1        | 0.28          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD12 | 1        | 0.28          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD13 | 1        | 0.28          |
| (1,1154) | 1:298:A:LYS:HB2  | 1:324:A:LEU:HB2  | 5        | 0.28          |
| (1,1154) | 1:298:A:LYS:HB2  | 1:324:A:LEU:HB3  | 5        | 0.28          |
| (1,1154) | 1:298:A:LYS:HB3  | 1:324:A:LEU:HB2  | 5        | 0.28          |
| (1,1154) | 1:298:A:LYS:HB3  | 1:324:A:LEU:HB3  | 5        | 0.28          |
| (1,1069) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HA   | 1        | 0.28          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD2  | 5        | 0.28          |
| (1,1058) | 1:294:A:LYS:H    | 1:319:A:ARG:HD3  | 5        | 0.28          |
| (1,1053) | 1:293:A:HIS:HB2  | 1:295:A:HIS:H    | 11       | 0.28          |
| (1,1053) | 1:293:A:HIS:HB3  | 1:295:A:HIS:H    | 11       | 0.28          |
| (1,1003) | 1:288:A:MET:HG2  | 1:381:A:VAL:HG21 | 1        | 0.28          |
| (1,1003) | 1:288:A:MET:HG2  | 1:381:A:VAL:HG22 | 1        | 0.28          |
| (1,1003) | 1:288:A:MET:HG2  | 1:381:A:VAL:HG23 | 1        | 0.28          |
| (1,1003) | 1:288:A:MET:HG3  | 1:381:A:VAL:HG21 | 1        | 0.28          |
| (1,1003) | 1:288:A:MET:HG3  | 1:381:A:VAL:HG22 | 1        | 0.28          |
| (1,1003) | 1:288:A:MET:HG3  | 1:381:A:VAL:HG23 | 1        | 0.28          |
| (1,958)  | 1:285:A:PRO:HG2  | 1:320:A:PHE:HA   | 17       | 0.28          |
| (1,958)  | 1:285:A:PRO:HG3  | 1:320:A:PHE:HA   | 17       | 0.28          |
| (1,915)  | 1:282:A:SER:HA   | 1:378:A:PHE:HZ   | 14       | 0.28          |
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 20       | 0.28          |
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 20       | 0.28          |
| (1,719)  | 1:274:A:TYR:HD2  | 1:348:A:LEU:HD22 | 15       | 0.28          |
| (1,684)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:H    | 19       | 0.28          |
| (1,684)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:H    | 19       | 0.28          |
| (1,653)  | 1:268:A:VAL:HB   | 1:273:A:GLU:HA   | 6        | 0.28          |
| (1,635)  | 1:267:A:ARG:HA   | 1:274:A:TYR:HD1  | 4        | 0.28          |
| (1,635)  | 1:267:A:ARG:HA   | 1:274:A:TYR:HD2  | 4        | 0.28          |
| (1,600)  | 1:265:A:HIS:HA   | 1:276:A:SER:H    | 1        | 0.28          |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD21 | 2        | 0.28          |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD22 | 2        | 0.28          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD1  | 4        | 0.28          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD2  | 4        | 0.28          |
| (1,451)  | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 14       | 0.28          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD21 | 14       | 0.28          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD22 | 14       | 0.28          |
| (1,376)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HA   | 10       | 0.28          |
| (1,376)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HA   | 10       | 0.28          |
| (1,376)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HA   | 12       | 0.28          |
| (1,376)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HA   | 12       | 0.28          |
| (1,353)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:HB2  | 18       | 0.28          |
| (1,353)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:HB3  | 18       | 0.28          |
| (1,353)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:HB2  | 18       | 0.28          |
| (1,353)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:HB3  | 18       | 0.28          |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 10       | 0.28          |
| (1,109)  | 1:235:A:THR:HA   | 1:267:A:ARG:HD2  | 8        | 0.28          |
| (1,109)  | 1:235:A:THR:HA   | 1:267:A:ARG:HD3  | 8        | 0.28          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 14       | 0.27          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 18       | 0.27          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 2        | 0.27          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE2  | 10       | 0.27          |
| (1,3851) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HE3  | 10       | 0.27          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE2  | 10       | 0.27          |
| (1,3851) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HE3  | 10       | 0.27          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 11       | 0.27          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 11       | 0.27          |
| (1,3846) | 1:481:A:GLN:HE21 | 1:486:A:VAL:H    | 3        | 0.27          |
| (1,3846) | 1:481:A:GLN:HE22 | 1:486:A:VAL:H    | 3        | 0.27          |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 1        | 0.27          |
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 1        | 0.27          |
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 1        | 0.27          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB2  | 13       | 0.27          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB3  | 13       | 0.27          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB2  | 13       | 0.27          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB3  | 13       | 0.27          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB2  | 4        | 0.27          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB3  | 4        | 0.27          |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB2  | 4        | 0.27          |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB3  | 4        | 0.27          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB2  | 4        | 0.27          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB3  | 4        | 0.27          |
| (1,3483) | 1:446:A:HIS:HB2  | 1:483:A:VAL:HB   | 13       | 0.27          |
| (1,3483) | 1:446:A:HIS:HB3  | 1:483:A:VAL:HB   | 13       | 0.27          |
| (1,3354) | 1:436:A:ASP:H    | 1:441:A:ALA:H    | 8        | 0.27          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3208) | 1:431:A:TYR:HB2  | 1:482:A:SER:HA   | 20       | 0.27          |
| (1,3208) | 1:431:A:TYR:HB3  | 1:482:A:SER:HA   | 20       | 0.27          |
| (1,3162) | 1:429:A:LYS:HA   | 1:478:A:LYS:HG2  | 19       | 0.27          |
| (1,3162) | 1:429:A:LYS:HA   | 1:478:A:LYS:HG3  | 19       | 0.27          |
| (1,3076) | 1:423:A:MET:HE1  | 1:429:A:LYS:H    | 19       | 0.27          |
| (1,3076) | 1:423:A:MET:HE2  | 1:429:A:LYS:H    | 19       | 0.27          |
| (1,3076) | 1:423:A:MET:HE3  | 1:429:A:LYS:H    | 19       | 0.27          |
| (1,2984) | 1:417:A:GLU:HA   | 1:421:A:SER:H    | 16       | 0.27          |
| (1,2824) | 1:404:A:SER:H    | 1:414:A:VAL:HB   | 1        | 0.27          |
| (1,2797) | 1:403:A:ALA:HA   | 1:412:A:GLN:HA   | 14       | 0.27          |
| (1,2764) | 1:402:A:PHE:H    | 1:414:A:VAL:HB   | 15       | 0.27          |
| (1,2719) | 1:400:A:LEU:H    | 1:416:A:LEU:H    | 18       | 0.27          |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG2  | 18       | 0.27          |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG3  | 18       | 0.27          |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG2  | 18       | 0.27          |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG3  | 18       | 0.27          |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD11 | 11       | 0.27          |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD12 | 11       | 0.27          |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD13 | 11       | 0.27          |
| (1,2341) | 1:375:A:TRP:HE1  | 1:412:A:GLN:HE21 | 5        | 0.27          |
| (1,2341) | 1:375:A:TRP:HE1  | 1:412:A:GLN:HE22 | 5        | 0.27          |
| (1,2337) | 1:375:A:TRP:HD1  | 1:413:A:THR:HA   | 1        | 0.27          |
| (1,2288) | 1:372:A:GLN:HE21 | 1:376:A:GLN:H    | 10       | 0.27          |
| (1,2288) | 1:372:A:GLN:HE22 | 1:376:A:GLN:H    | 10       | 0.27          |
| (1,2227) | 1:368:A:ALA:HA   | 1:371:A:TYR:H    | 4        | 0.27          |
| (1,2203) | 1:365:A:LYS:HA   | 1:367:A:ASP:H    | 7        | 0.27          |
| (1,2166) | 1:363:A:LEU:HA   | 1:367:A:ASP:HB2  | 9        | 0.27          |
| (1,2166) | 1:363:A:LEU:HA   | 1:367:A:ASP:HB3  | 9        | 0.27          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG2  | 3        | 0.27          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG3  | 3        | 0.27          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG2  | 3        | 0.27          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG3  | 3        | 0.27          |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 18       | 0.27          |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 18       | 0.27          |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 18       | 0.27          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE21 | 1        | 0.27          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE22 | 1        | 0.27          |
| (1,1994) | 1:354:A:LYS:HA   | 1:358:A:GLN:H    | 2        | 0.27          |
| (1,1989) | 1:354:A:LYS:HA   | 1:392:A:ASN:HD21 | 15       | 0.27          |
| (1,1989) | 1:354:A:LYS:HA   | 1:392:A:ASN:HD22 | 15       | 0.27          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE1  | 5        | 0.27          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE2  | 5        | 0.27          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE3  | 5        | 0.27          |
| (1,1490) | 1:314:A:MET:HB2  | 1:318:A:LEU:H    | 3        | 0.27          |
| (1,1490) | 1:314:A:MET:HB3  | 1:318:A:LEU:H    | 3        | 0.27          |
| (1,1471) | 1:314:A:MET:HA   | 1:353:A:THR:H    | 6        | 0.27          |
| (1,1318) | 1:302:A:GLN:H    | 1:329:A:ASP:H    | 20       | 0.27          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 2        | 0.27          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 2        | 0.27          |
| (1,1139) | 1:297:A:LEU:H    | 1:309:A:ASP:HA   | 11       | 0.27          |
| (1,1037) | 1:290:A:ASN:HB2  | 1:292:A:ASP:H    | 16       | 0.27          |
| (1,1037) | 1:290:A:ASN:HB3  | 1:292:A:ASP:H    | 16       | 0.27          |
| (1,1022) | 1:289:A:TRP:HH2  | 1:381:A:VAL:H    | 14       | 0.27          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 8        | 0.27          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 11       | 0.27          |
| (1,976)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:HD21 | 15       | 0.27          |
| (1,976)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:HD22 | 15       | 0.27          |
| (1,974)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:H    | 5        | 0.27          |
| (1,970)  | 1:285:A:PRO:HG2  | 1:287:A:ASP:H    | 7        | 0.27          |
| (1,970)  | 1:285:A:PRO:HG3  | 1:287:A:ASP:H    | 7        | 0.27          |
| (1,764)  | 1:276:A:SER:HB2  | 1:326:A:ASP:H    | 17       | 0.27          |
| (1,764)  | 1:276:A:SER:HB3  | 1:326:A:ASP:H    | 17       | 0.27          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB2  | 6        | 0.27          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB3  | 6        | 0.27          |
| (1,565)  | 1:263:A:TRP:HD1  | 1:265:A:HIS:HA   | 7        | 0.27          |
| (1,520)  | 1:261:A:LEU:H    | 1:279:A:TYR:HD1  | 8        | 0.27          |
| (1,520)  | 1:261:A:LEU:H    | 1:279:A:TYR:HD2  | 8        | 0.27          |
| (1,470)  | 1:260:A:PRO:HA   | 1:283:A:GLN:H    | 9        | 0.27          |
| (1,457)  | 1:258:A:ASN:HD21 | 1:283:A:GLN:HB2  | 19       | 0.27          |
| (1,457)  | 1:258:A:ASN:HD21 | 1:283:A:GLN:HB3  | 19       | 0.27          |
| (1,457)  | 1:258:A:ASN:HD22 | 1:283:A:GLN:HB2  | 19       | 0.27          |
| (1,457)  | 1:258:A:ASN:HD22 | 1:283:A:GLN:HB3  | 19       | 0.27          |
| (1,423)  | 1:254:A:ALA:HA   | 1:323:A:GLY:H    | 3        | 0.27          |
| (1,376)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HA   | 8        | 0.27          |
| (1,376)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HA   | 8        | 0.27          |
| (1,371)  | 1:251:A:LYS:HE2  | 1:259:A:ASP:HA   | 1        | 0.27          |
| (1,371)  | 1:251:A:LYS:HE3  | 1:259:A:ASP:HA   | 1        | 0.27          |
| (1,296)  | 1:248:A:GLU:HA   | 1:251:A:LYS:HE2  | 13       | 0.27          |
| (1,296)  | 1:248:A:GLU:HA   | 1:251:A:LYS:HE3  | 13       | 0.27          |
| (1,293)  | 1:248:A:GLU:HA   | 1:251:A:LYS:H    | 1        | 0.27          |
| (1,293)  | 1:248:A:GLU:HA   | 1:251:A:LYS:H    | 13       | 0.27          |
| (1,208)  | 1:243:A:ASP:HB2  | 1:247:A:LYS:HD2  | 4        | 0.27          |
| (1,208)  | 1:243:A:ASP:HB2  | 1:247:A:LYS:HD3  | 4        | 0.27          |
| (1,208)  | 1:243:A:ASP:HB3  | 1:247:A:LYS:HD2  | 4        | 0.27          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,208)  | 1:243:A:ASP:HB3  | 1:247:A:LYS:HD3  | 4        | 0.27          |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 3        | 0.27          |
| (1,174)  | 1:240:A:GLU:HA   | 1:242:A:THR:H    | 11       | 0.27          |
| (1,85)   | 1:234:A:TRP:HE1  | 1:275:A:THR:HB   | 3        | 0.27          |
| (1,61)   | 1:234:A:TRP:HH2  | 1:324:A:LEU:HD11 | 7        | 0.27          |
| (1,61)   | 1:234:A:TRP:HH2  | 1:324:A:LEU:HD12 | 7        | 0.27          |
| (1,61)   | 1:234:A:TRP:HH2  | 1:324:A:LEU:HD13 | 7        | 0.27          |
| (1,8)    | 1:231:A:GLN:HG2  | 1:236:A:ARG:HG2  | 20       | 0.27          |
| (1,8)    | 1:231:A:GLN:HG2  | 1:236:A:ARG:HG3  | 20       | 0.27          |
| (1,8)    | 1:231:A:GLN:HG3  | 1:236:A:ARG:HG2  | 20       | 0.27          |
| (1,8)    | 1:231:A:GLN:HG3  | 1:236:A:ARG:HG3  | 20       | 0.27          |
| (1,5)    | 1:231:A:GLN:HG2  | 1:236:A:ARG:H    | 11       | 0.27          |
| (1,5)    | 1:231:A:GLN:HG3  | 1:236:A:ARG:H    | 11       | 0.27          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB1  | 9        | 0.26          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB2  | 9        | 0.26          |
| (1,3982) | 1:450:A:LEU:HD21 | 2:640:B:ALA:HB3  | 9        | 0.26          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB1  | 9        | 0.26          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB2  | 9        | 0.26          |
| (1,3982) | 1:450:A:LEU:HD22 | 2:640:B:ALA:HB3  | 9        | 0.26          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB1  | 9        | 0.26          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB2  | 9        | 0.26          |
| (1,3982) | 1:450:A:LEU:HD23 | 2:640:B:ALA:HB3  | 9        | 0.26          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 15       | 0.26          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 15       | 0.26          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 8        | 0.26          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 8        | 0.26          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 8        | 0.26          |
| (1,3882) | 1:485:A:LYS:HB2  | 1:487:A:ASP:HB3  | 18       | 0.26          |
| (1,3857) | 1:481:A:GLN:HE21 | 1:482:A:SER:H    | 15       | 0.26          |
| (1,3857) | 1:481:A:GLN:HE22 | 1:482:A:SER:H    | 15       | 0.26          |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 11       | 0.26          |
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 11       | 0.26          |
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 11       | 0.26          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 14       | 0.26          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 14       | 0.26          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 14       | 0.26          |
| (1,3674) | 1:462:A:ASP:HB2  | 1:464:A:ILE:H    | 20       | 0.26          |
| (1,3674) | 1:462:A:ASP:HB3  | 1:464:A:ILE:H    | 20       | 0.26          |
| (1,3617) | 1:456:A:GLU:HG2  | 1:458:A:LEU:H    | 14       | 0.26          |
| (1,3617) | 1:456:A:GLU:HG3  | 1:458:A:LEU:H    | 14       | 0.26          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB2  | 1        | 0.26          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB3  | 1        | 0.26          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB2  | 1        | 0.26          |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB3  | 1        | 0.26          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB2  | 1        | 0.26          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB3  | 1        | 0.26          |
| (1,3534) | 1:449:A:LEU:HD21 | 1:490:A:LEU:HD11 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD21 | 1:490:A:LEU:HD12 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD21 | 1:490:A:LEU:HD13 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD22 | 1:490:A:LEU:HD11 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD22 | 1:490:A:LEU:HD12 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD22 | 1:490:A:LEU:HD13 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD23 | 1:490:A:LEU:HD11 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD23 | 1:490:A:LEU:HD12 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD23 | 1:490:A:LEU:HD13 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD21 | 1:490:A:LEU:HD21 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD21 | 1:490:A:LEU:HD22 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD21 | 1:490:A:LEU:HD23 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD22 | 1:490:A:LEU:HD21 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD22 | 1:490:A:LEU:HD22 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD22 | 1:490:A:LEU:HD23 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD23 | 1:490:A:LEU:HD21 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD23 | 1:490:A:LEU:HD22 | 10       | 0.26          |
| (1,3534) | 1:449:A:LEU:HD23 | 1:490:A:LEU:HD23 | 10       | 0.26          |
| (1,3488) | 1:446:A:HIS:HA   | 1:448:A:GLU:H    | 12       | 0.26          |
| (1,3471) | 1:445:A:PRO:HA   | 1:448:A:GLU:HG2  | 8        | 0.26          |
| (1,3471) | 1:445:A:PRO:HA   | 1:448:A:GLU:HG3  | 8        | 0.26          |
| (1,3311) | 1:434:A:THR:HB   | 1:466:A:GLU:HA   | 7        | 0.26          |
| (1,3225) | 1:431:A:TYR:HB2  | 1:450:A:LEU:HD11 | 14       | 0.26          |
| (1,3225) | 1:431:A:TYR:HB2  | 1:450:A:LEU:HD12 | 14       | 0.26          |
| (1,3225) | 1:431:A:TYR:HB2  | 1:450:A:LEU:HD13 | 14       | 0.26          |
| (1,3225) | 1:431:A:TYR:HB3  | 1:450:A:LEU:HD11 | 14       | 0.26          |
| (1,3225) | 1:431:A:TYR:HB3  | 1:450:A:LEU:HD12 | 14       | 0.26          |
| (1,3225) | 1:431:A:TYR:HB3  | 1:450:A:LEU:HD13 | 14       | 0.26          |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 3        | 0.26          |
| (1,3206) | 1:431:A:TYR:HA   | 1:482:A:SER:H    | 18       | 0.26          |
| (1,3199) | 1:431:A:TYR:HE1  | 1:489:A:SER:HA   | 3        | 0.26          |
| (1,3199) | 1:431:A:TYR:HE2  | 1:489:A:SER:HA   | 3        | 0.26          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB2  | 9        | 0.26          |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB3  | 9        | 0.26          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB2  | 9        | 0.26          |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB3  | 9        | 0.26          |
| (1,3133) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HD2  | 3        | 0.26          |
| (1,3133) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HD3  | 3        | 0.26          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3133) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HD2  | 3        | 0.26          |
| (1,3133) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HD3  | 3        | 0.26          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG2  | 5        | 0.26          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG3  | 5        | 0.26          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG2  | 5        | 0.26          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG3  | 5        | 0.26          |
| (1,3083) | 1:423:A:MET:HB2  | 1:427:A:GLN:HE21 | 18       | 0.26          |
| (1,3083) | 1:423:A:MET:HB2  | 1:427:A:GLN:HE22 | 18       | 0.26          |
| (1,3083) | 1:423:A:MET:HB3  | 1:427:A:GLN:HE21 | 18       | 0.26          |
| (1,3083) | 1:423:A:MET:HB3  | 1:427:A:GLN:HE22 | 18       | 0.26          |
| (1,2989) | 1:417:A:GLU:HA   | 1:420:A:VAL:HB   | 6        | 0.26          |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB2  | 14       | 0.26          |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB3  | 14       | 0.26          |
| (1,2883) | 1:407:A:THR:HG21 | 1:409:A:SER:HB2  | 6        | 0.26          |
| (1,2883) | 1:407:A:THR:HG21 | 1:409:A:SER:HB3  | 6        | 0.26          |
| (1,2883) | 1:407:A:THR:HG22 | 1:409:A:SER:HB2  | 6        | 0.26          |
| (1,2883) | 1:407:A:THR:HG22 | 1:409:A:SER:HB3  | 6        | 0.26          |
| (1,2883) | 1:407:A:THR:HG23 | 1:409:A:SER:HB2  | 6        | 0.26          |
| (1,2883) | 1:407:A:THR:HG23 | 1:409:A:SER:HB3  | 6        | 0.26          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG11 | 4        | 0.26          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG12 | 4        | 0.26          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG13 | 4        | 0.26          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 17       | 0.26          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 17       | 0.26          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 17       | 0.26          |
| (1,2736) | 1:401:A:ARG:HD2  | 1:414:A:VAL:H    | 8        | 0.26          |
| (1,2736) | 1:401:A:ARG:HD3  | 1:414:A:VAL:H    | 8        | 0.26          |
| (1,2711) | 1:399:A:LEU:H    | 1:416:A:LEU:HD11 | 7        | 0.26          |
| (1,2711) | 1:399:A:LEU:H    | 1:416:A:LEU:HD12 | 7        | 0.26          |
| (1,2711) | 1:399:A:LEU:H    | 1:416:A:LEU:HD13 | 7        | 0.26          |
| (1,2632) | 1:393:A:GLN:HA   | 1:396:A:ILE:HB   | 6        | 0.26          |
| (1,2632) | 1:393:A:GLN:HA   | 1:396:A:ILE:HB   | 12       | 0.26          |
| (1,2575) | 1:388:A:GLU:HA   | 1:390:A:PHE:H    | 18       | 0.26          |
| (1,2524) | 1:385:A:GLY:HA2  | 1:389:A:ASP:H    | 19       | 0.26          |
| (1,2524) | 1:385:A:GLY:HA3  | 1:389:A:ASP:H    | 19       | 0.26          |
| (1,2491) | 1:383:A:LYS:HE2  | 1:401:A:ARG:H    | 10       | 0.26          |
| (1,2491) | 1:383:A:LYS:HE3  | 1:401:A:ARG:H    | 10       | 0.26          |
| (1,2380) | 1:376:A:GLN:HE21 | 1:412:A:GLN:H    | 12       | 0.26          |
| (1,2380) | 1:376:A:GLN:HE22 | 1:412:A:GLN:H    | 12       | 0.26          |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB2  | 13       | 0.26          |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB3  | 13       | 0.26          |
| (1,1964) | 1:352:A:LEU:HA   | 1:355:A:ARG:HD2  | 17       | 0.26          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1964) | 1:352:A:LEU:HA   | 1:355:A:ARG:HD3  | 17       | 0.26          |
| (1,1937) | 1:350:A:ASN:HA   | 1:353:A:THR:H    | 8        | 0.26          |
| (1,1910) | 1:348:A:LEU:HD11 | 1:352:A:LEU:H    | 9        | 0.26          |
| (1,1910) | 1:348:A:LEU:HD12 | 1:352:A:LEU:H    | 9        | 0.26          |
| (1,1910) | 1:348:A:LEU:HD13 | 1:352:A:LEU:H    | 9        | 0.26          |
| (1,1764) | 1:335:A:SER:H    | 1:339:A:LEU:HD21 | 14       | 0.26          |
| (1,1764) | 1:335:A:SER:H    | 1:339:A:LEU:HD22 | 14       | 0.26          |
| (1,1764) | 1:335:A:SER:H    | 1:339:A:LEU:HD23 | 14       | 0.26          |
| (1,1540) | 1:317:A:TYR:HE1  | 1:392:A:ASN:HB2  | 10       | 0.26          |
| (1,1540) | 1:317:A:TYR:HE1  | 1:392:A:ASN:HB3  | 10       | 0.26          |
| (1,1540) | 1:317:A:TYR:HE2  | 1:392:A:ASN:HB2  | 10       | 0.26          |
| (1,1540) | 1:317:A:TYR:HE2  | 1:392:A:ASN:HB3  | 10       | 0.26          |
| (1,1511) | 1:315:A:PRO:HG2  | 1:319:A:ARG:H    | 17       | 0.26          |
| (1,1511) | 1:315:A:PRO:HG3  | 1:319:A:ARG:H    | 17       | 0.26          |
| (1,1505) | 1:315:A:PRO:HD2  | 1:350:A:ASN:HA   | 8        | 0.26          |
| (1,1505) | 1:315:A:PRO:HD3  | 1:350:A:ASN:HA   | 8        | 0.26          |
| (1,1487) | 1:314:A:MET:HB2  | 1:319:A:ARG:HA   | 17       | 0.26          |
| (1,1487) | 1:314:A:MET:HB3  | 1:319:A:ARG:HA   | 17       | 0.26          |
| (1,1415) | 1:312:A:GLN:HA   | 1:349:A:ARG:HD2  | 14       | 0.26          |
| (1,1415) | 1:312:A:GLN:HA   | 1:349:A:ARG:HD3  | 14       | 0.26          |
| (1,1367) | 1:307:A:MET:HE1  | 1:339:A:LEU:H    | 13       | 0.26          |
| (1,1367) | 1:307:A:MET:HE2  | 1:339:A:LEU:H    | 13       | 0.26          |
| (1,1367) | 1:307:A:MET:HE3  | 1:339:A:LEU:H    | 13       | 0.26          |
| (1,1334) | 1:303:A:ARG:H    | 1:327:A:SER:H    | 20       | 0.26          |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD21 | 14       | 0.26          |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD22 | 14       | 0.26          |
| (1,1317) | 1:302:A:GLN:HE21 | 1:332:A:LEU:HD23 | 14       | 0.26          |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD21 | 14       | 0.26          |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD22 | 14       | 0.26          |
| (1,1317) | 1:302:A:GLN:HE22 | 1:332:A:LEU:HD23 | 14       | 0.26          |
| (1,1152) | 1:298:A:LYS:HB2  | 1:324:A:LEU:HA   | 5        | 0.26          |
| (1,1152) | 1:298:A:LYS:HB3  | 1:324:A:LEU:HA   | 5        | 0.26          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD21 | 7        | 0.26          |
| (1,1070) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HD22 | 7        | 0.26          |
| (1,1069) | 1:295:A:HIS:HE1  | 1:316:A:ASN:HA   | 5        | 0.26          |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 8        | 0.26          |
| (1,1010) | 1:288:A:MET:HA   | 1:319:A:ARG:HD2  | 7        | 0.26          |
| (1,1010) | 1:288:A:MET:HA   | 1:319:A:ARG:HD3  | 7        | 0.26          |
| (1,879)  | 1:280:A:ILE:HA   | 1:321:A:VAL:HA   | 9        | 0.26          |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 12       | 0.26          |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 12       | 0.26          |
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 17       | 0.26          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 17       | 0.26          |
| (1,701)  | 1:273:A:GLU:H    | 1:329:A:ASP:HA   | 1        | 0.26          |
| (1,680)  | 1:271:A:LYS:HA   | 1:273:A:GLU:H    | 6        | 0.26          |
| (1,423)  | 1:254:A:ALA:HA   | 1:323:A:GLY:H    | 18       | 0.26          |
| (1,382)  | 1:251:A:LYS:HA   | 1:255:A:HIS:HA   | 3        | 0.26          |
| (1,218)  | 1:243:A:ASP:HB2  | 1:244:A:GLU:H    | 4        | 0.26          |
| (1,218)  | 1:243:A:ASP:HB3  | 1:244:A:GLU:H    | 4        | 0.26          |
| (1,130)  | 1:237:A:ASN:HA   | 1:265:A:HIS:HE1  | 7        | 0.26          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD2  | 12       | 0.26          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD3  | 12       | 0.26          |
| (1,85)   | 1:234:A:TRP:HE1  | 1:275:A:THR:HB   | 20       | 0.26          |
| (1,65)   | 1:234:A:TRP:HH2  | 1:305:A:PHE:HB2  | 15       | 0.26          |
| (1,65)   | 1:234:A:TRP:HH2  | 1:305:A:PHE:HB3  | 15       | 0.26          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG21 | 14       | 0.25          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG22 | 14       | 0.25          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG23 | 14       | 0.25          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG21 | 14       | 0.25          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG22 | 14       | 0.25          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG23 | 14       | 0.25          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG21 | 14       | 0.25          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG22 | 14       | 0.25          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG23 | 14       | 0.25          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 7        | 0.25          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 7        | 0.25          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 7        | 0.25          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 7        | 0.25          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 7        | 0.25          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 7        | 0.25          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 7        | 0.25          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 7        | 0.25          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 7        | 0.25          |
| (1,3922) | 1:488:A:GLU:HA   | 1:490:A:LEU:H    | 19       | 0.25          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 5        | 0.25          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 5        | 0.25          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 5        | 0.25          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 13       | 0.25          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 13       | 0.25          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 13       | 0.25          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 2        | 0.25          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 2        | 0.25          |
| (1,3807) | 1:475:A:PHE:H    | 1:479:A:PRO:HA   | 7        | 0.25          |
| (1,3788) | 1:474:A:GLU:HA   | 1:479:A:PRO:HA   | 2        | 0.25          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3777) | 1:473:A:THR:HB   | 1:480:A:PHE:H    | 10       | 0.25          |
| (1,3601) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HD21 | 14       | 0.25          |
| (1,3601) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HD22 | 14       | 0.25          |
| (1,3601) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HD23 | 14       | 0.25          |
| (1,3601) | 1:453:A:LYS:HG3  | 1:493:A:LEU:HD21 | 14       | 0.25          |
| (1,3601) | 1:453:A:LYS:HG3  | 1:493:A:LEU:HD22 | 14       | 0.25          |
| (1,3601) | 1:453:A:LYS:HG3  | 1:493:A:LEU:HD23 | 14       | 0.25          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB2  | 13       | 0.25          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB3  | 13       | 0.25          |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB2  | 13       | 0.25          |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB3  | 13       | 0.25          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB2  | 13       | 0.25          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB3  | 13       | 0.25          |
| (1,3476) | 1:445:A:PRO:HG2  | 1:446:A:HIS:H    | 2        | 0.25          |
| (1,3476) | 1:445:A:PRO:HG3  | 1:446:A:HIS:H    | 2        | 0.25          |
| (1,3353) | 1:436:A:ASP:HA   | 1:461:A:SER:HA   | 3        | 0.25          |
| (1,3248) | 1:432:A:TYR:HA   | 1:457:A:VAL:HA   | 10       | 0.25          |
| (1,3248) | 1:432:A:TYR:HA   | 1:457:A:VAL:HA   | 12       | 0.25          |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 14       | 0.25          |
| (1,3174) | 1:430:A:ILE:H    | 1:480:A:PHE:HA   | 14       | 0.25          |
| (1,3174) | 1:430:A:ILE:H    | 1:480:A:PHE:HA   | 20       | 0.25          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 20       | 0.25          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 20       | 0.25          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 20       | 0.25          |
| (1,3153) | 1:429:A:LYS:HA   | 1:480:A:PHE:H    | 8        | 0.25          |
| (1,3150) | 1:429:A:LYS:HD2  | 1:481:A:GLN:HB2  | 12       | 0.25          |
| (1,3150) | 1:429:A:LYS:HD2  | 1:481:A:GLN:HB3  | 12       | 0.25          |
| (1,3150) | 1:429:A:LYS:HD3  | 1:481:A:GLN:HB2  | 12       | 0.25          |
| (1,3150) | 1:429:A:LYS:HD3  | 1:481:A:GLN:HB3  | 12       | 0.25          |
| (1,3128) | 1:427:A:GLN:HG2  | 1:429:A:LYS:H    | 6        | 0.25          |
| (1,3128) | 1:427:A:GLN:HG3  | 1:429:A:LYS:H    | 6        | 0.25          |
| (1,3121) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HA   | 14       | 0.25          |
| (1,3121) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HA   | 14       | 0.25          |
| (1,3096) | 1:424:A:LYS:H    | 1:427:A:GLN:HB2  | 11       | 0.25          |
| (1,3096) | 1:424:A:LYS:H    | 1:427:A:GLN:HB3  | 11       | 0.25          |
| (1,3076) | 1:423:A:MET:HE1  | 1:429:A:LYS:H    | 18       | 0.25          |
| (1,3076) | 1:423:A:MET:HE2  | 1:429:A:LYS:H    | 18       | 0.25          |
| (1,3076) | 1:423:A:MET:HE3  | 1:429:A:LYS:H    | 18       | 0.25          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB2  | 3        | 0.25          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB3  | 3        | 0.25          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB2  | 3        | 0.25          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB3  | 3        | 0.25          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB2  | 3        | 0.25          |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB3  | 3        | 0.25          |
| (1,2927) | 1:412:A:GLN:HA   | 1:414:A:VAL:HB   | 20       | 0.25          |
| (1,2914) | 1:410:A:SER:HA   | 1:438:A:TYR:HD1  | 16       | 0.25          |
| (1,2912) | 1:410:A:SER:HB2  | 1:438:A:TYR:HD1  | 17       | 0.25          |
| (1,2912) | 1:410:A:SER:HB2  | 1:438:A:TYR:HD2  | 17       | 0.25          |
| (1,2912) | 1:410:A:SER:HB3  | 1:438:A:TYR:HD1  | 17       | 0.25          |
| (1,2912) | 1:410:A:SER:HB3  | 1:438:A:TYR:HD2  | 17       | 0.25          |
| (1,2898) | 1:409:A:SER:H    | 1:442:A:LYS:HE2  | 16       | 0.25          |
| (1,2898) | 1:409:A:SER:H    | 1:442:A:LYS:HE3  | 16       | 0.25          |
| (1,2873) | 1:406:A:HIS:HA   | 1:422:A:ARG:HD2  | 9        | 0.25          |
| (1,2873) | 1:406:A:HIS:HA   | 1:422:A:ARG:HD3  | 9        | 0.25          |
| (1,2824) | 1:404:A:SER:H    | 1:414:A:VAL:HB   | 6        | 0.25          |
| (1,2808) | 1:404:A:SER:HB2  | 1:459:A:LEU:H    | 2        | 0.25          |
| (1,2808) | 1:404:A:SER:HB3  | 1:459:A:LEU:H    | 2        | 0.25          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 4        | 0.25          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 4        | 0.25          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 4        | 0.25          |
| (1,2631) | 1:393:A:GLN:HA   | 1:396:A:ILE:H    | 20       | 0.25          |
| (1,2574) | 1:388:A:GLU:H    | 1:390:A:PHE:H    | 15       | 0.25          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD1  | 12       | 0.25          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD2  | 12       | 0.25          |
| (1,2535) | 1:386:A:PRO:HB2  | 1:472:A:LEU:HA   | 17       | 0.25          |
| (1,2535) | 1:386:A:PRO:HB3  | 1:472:A:LEU:HA   | 17       | 0.25          |
| (1,2381) | 1:376:A:GLN:HA   | 1:412:A:GLN:HE21 | 19       | 0.25          |
| (1,2381) | 1:376:A:GLN:HA   | 1:412:A:GLN:HE22 | 19       | 0.25          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA2  | 17       | 0.25          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA3  | 17       | 0.25          |
| (1,2317) | 1:374:A:PHE:HZ   | 1:382:A:LEU:H    | 17       | 0.25          |
| (1,2203) | 1:365:A:LYS:HA   | 1:367:A:ASP:H    | 13       | 0.25          |
| (1,2108) | 1:360:A:LEU:HD21 | 1:364:A:ALA:H    | 5        | 0.25          |
| (1,2108) | 1:360:A:LEU:HD22 | 1:364:A:ALA:H    | 5        | 0.25          |
| (1,2108) | 1:360:A:LEU:HD23 | 1:364:A:ALA:H    | 5        | 0.25          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 4        | 0.25          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 4        | 0.25          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 4        | 0.25          |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB2  | 12       | 0.25          |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB3  | 12       | 0.25          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD11 | 4        | 0.25          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD12 | 4        | 0.25          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD13 | 4        | 0.25          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB1  | 18       | 0.25          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB2  | 18       | 0.25          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB3  | 18       | 0.25          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB1  | 18       | 0.25          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB2  | 18       | 0.25          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB3  | 18       | 0.25          |
| (1,1937) | 1:350:A:ASN:HA   | 1:353:A:THR:H    | 5        | 0.25          |
| (1,1937) | 1:350:A:ASN:HA   | 1:353:A:THR:H    | 7        | 0.25          |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG2  | 17       | 0.25          |
| (1,1935) | 1:350:A:ASN:HA   | 1:354:A:LYS:HG3  | 17       | 0.25          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD21 | 5        | 0.25          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD22 | 5        | 0.25          |
| (1,1716) | 1:330:A:LEU:HB2  | 1:334:A:VAL:HB   | 5        | 0.25          |
| (1,1716) | 1:330:A:LEU:HB3  | 1:334:A:VAL:HB   | 5        | 0.25          |
| (1,1452) | 1:313:A:PHE:HZ   | 1:345:A:THR:HA   | 11       | 0.25          |
| (1,1416) | 1:312:A:GLN:HB2  | 1:349:A:ARG:HD2  | 3        | 0.25          |
| (1,1416) | 1:312:A:GLN:HB2  | 1:349:A:ARG:HD3  | 3        | 0.25          |
| (1,1416) | 1:312:A:GLN:HB3  | 1:349:A:ARG:HD2  | 3        | 0.25          |
| (1,1416) | 1:312:A:GLN:HB3  | 1:349:A:ARG:HD3  | 3        | 0.25          |
| (1,1349) | 1:305:A:PHE:HZ   | 1:308:A:ASP:HA   | 16       | 0.25          |
| (1,1318) | 1:302:A:GLN:H    | 1:329:A:ASP:H    | 9        | 0.25          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 15       | 0.25          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 15       | 0.25          |
| (1,1218) | 1:299:A:LEU:HD21 | 1:307:A:MET:HE1  | 18       | 0.25          |
| (1,1218) | 1:299:A:LEU:HD21 | 1:307:A:MET:HE2  | 18       | 0.25          |
| (1,1218) | 1:299:A:LEU:HD21 | 1:307:A:MET:HE3  | 18       | 0.25          |
| (1,1218) | 1:299:A:LEU:HD22 | 1:307:A:MET:HE1  | 18       | 0.25          |
| (1,1218) | 1:299:A:LEU:HD22 | 1:307:A:MET:HE2  | 18       | 0.25          |
| (1,1218) | 1:299:A:LEU:HD22 | 1:307:A:MET:HE3  | 18       | 0.25          |
| (1,1218) | 1:299:A:LEU:HD23 | 1:307:A:MET:HE1  | 18       | 0.25          |
| (1,1218) | 1:299:A:LEU:HD23 | 1:307:A:MET:HE2  | 18       | 0.25          |
| (1,1218) | 1:299:A:LEU:HD23 | 1:307:A:MET:HE3  | 18       | 0.25          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD11 | 11       | 0.25          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD12 | 11       | 0.25          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD13 | 11       | 0.25          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD11 | 11       | 0.25          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD12 | 11       | 0.25          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD13 | 11       | 0.25          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD11 | 11       | 0.25          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD12 | 11       | 0.25          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD13 | 11       | 0.25          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD2  | 10       | 0.25          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD3  | 10       | 0.25          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1118) | 1:297:A:LEU:HA   | 1:322:A:ARG:HD2  | 19       | 0.25          |
| (1,1118) | 1:297:A:LEU:HA   | 1:322:A:ARG:HD3  | 19       | 0.25          |
| (1,1090) | 1:296:A:GLY:H    | 1:311:A:GLU:HA   | 20       | 0.25          |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 19       | 0.25          |
| (1,1067) | 1:295:A:HIS:HB2  | 1:319:A:ARG:HA   | 6        | 0.25          |
| (1,1067) | 1:295:A:HIS:HB3  | 1:319:A:ARG:HA   | 6        | 0.25          |
| (1,974)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:H    | 20       | 0.25          |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD21 | 5        | 0.25          |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD22 | 5        | 0.25          |
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB2  | 4        | 0.25          |
| (1,574)  | 1:264:A:SER:HB2  | 1:358:A:GLN:HB3  | 4        | 0.25          |
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB2  | 4        | 0.25          |
| (1,574)  | 1:264:A:SER:HB3  | 1:358:A:GLN:HB3  | 4        | 0.25          |
| (1,570)  | 1:264:A:SER:HB2  | 1:359:A:MET:HA   | 4        | 0.25          |
| (1,570)  | 1:264:A:SER:HB3  | 1:359:A:MET:HA   | 4        | 0.25          |
| (1,564)  | 1:263:A:TRP:HE1  | 1:265:A:HIS:H    | 16       | 0.25          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 1        | 0.25          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 13       | 0.25          |
| (1,547)  | 1:263:A:TRP:HZ3  | 1:370:A:LYS:HZ3  | 17       | 0.25          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD1  | 8        | 0.25          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD2  | 8        | 0.25          |
| (1,513)  | 1:261:A:LEU:H    | 1:281:A:PRO:HA   | 8        | 0.25          |
| (1,410)  | 1:253:A:ILE:HB   | 1:298:A:LYS:HD2  | 10       | 0.25          |
| (1,410)  | 1:253:A:ILE:HB   | 1:298:A:LYS:HD3  | 10       | 0.25          |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB2  | 13       | 0.25          |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB3  | 13       | 0.25          |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB2  | 13       | 0.25          |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB3  | 13       | 0.25          |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB2  | 13       | 0.25          |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB3  | 13       | 0.25          |
| (1,346)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HE3  | 19       | 0.25          |
| (1,345)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HB2  | 2        | 0.25          |
| (1,85)   | 1:234:A:TRP:HE1  | 1:275:A:THR:HB   | 15       | 0.25          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG21 | 15       | 0.25          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG22 | 15       | 0.25          |
| (1,9)    | 1:231:A:GLN:HA   | 1:235:A:THR:HG23 | 15       | 0.25          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD11 | 7        | 0.24          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD12 | 7        | 0.24          |
| (1,3981) | 1:455:A:ILE:HD11 | 2:639:B:LEU:HD13 | 7        | 0.24          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD11 | 7        | 0.24          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD12 | 7        | 0.24          |
| (1,3981) | 1:455:A:ILE:HD12 | 2:639:B:LEU:HD13 | 7        | 0.24          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD11 | 7        | 0.24          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD12 | 7        | 0.24          |
| (1,3981) | 1:455:A:ILE:HD13 | 2:639:B:LEU:HD13 | 7        | 0.24          |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 3        | 0.24          |
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 19       | 0.24          |
| (1,3908) | 1:487:A:ASP:H    | 1:489:A:SER:H    | 8        | 0.24          |
| (1,3894) | 1:486:A:VAL:HA   | 1:489:A:SER:H    | 8        | 0.24          |
| (1,3807) | 1:475:A:PHE:H    | 1:479:A:PRO:HA   | 2        | 0.24          |
| (1,3634) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE1  | 19       | 0.24          |
| (1,3634) | 1:458:A:LEU:HD11 | 1:480:A:PHE:HE2  | 19       | 0.24          |
| (1,3634) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE1  | 19       | 0.24          |
| (1,3634) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE2  | 19       | 0.24          |
| (1,3634) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE1  | 19       | 0.24          |
| (1,3634) | 1:458:A:LEU:HD13 | 1:480:A:PHE:HE2  | 19       | 0.24          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB2  | 9        | 0.24          |
| (1,3538) | 1:449:A:LEU:HD11 | 1:453:A:LYS:HB3  | 9        | 0.24          |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB2  | 9        | 0.24          |
| (1,3538) | 1:449:A:LEU:HD12 | 1:453:A:LYS:HB3  | 9        | 0.24          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB2  | 9        | 0.24          |
| (1,3538) | 1:449:A:LEU:HD13 | 1:453:A:LYS:HB3  | 9        | 0.24          |
| (1,3479) | 1:446:A:HIS:HD2  | 1:484:A:SER:H    | 9        | 0.24          |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD2  | 2        | 0.24          |
| (1,3406) | 1:439:A:ALA:HA   | 1:442:A:LYS:HD3  | 2        | 0.24          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB2  | 16       | 0.24          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB3  | 16       | 0.24          |
| (1,3301) | 1:434:A:THR:H    | 1:484:A:SER:H    | 10       | 0.24          |
| (1,3235) | 1:432:A:TYR:H    | 1:482:A:SER:HA   | 10       | 0.24          |
| (1,3231) | 1:432:A:TYR:H    | 1:483:A:VAL:H    | 18       | 0.24          |
| (1,3222) | 1:431:A:TYR:HD1  | 1:456:A:GLU:H    | 20       | 0.24          |
| (1,3222) | 1:431:A:TYR:HD2  | 1:456:A:GLU:H    | 20       | 0.24          |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 2        | 0.24          |
| (1,3178) | 1:430:A:ILE:HD11 | 1:479:A:PRO:HA   | 13       | 0.24          |
| (1,3178) | 1:430:A:ILE:HD12 | 1:479:A:PRO:HA   | 13       | 0.24          |
| (1,3178) | 1:430:A:ILE:HD13 | 1:479:A:PRO:HA   | 13       | 0.24          |
| (1,3170) | 1:430:A:ILE:H    | 1:481:A:GLN:H    | 20       | 0.24          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 7        | 0.24          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 7        | 0.24          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 7        | 0.24          |
| (1,3165) | 1:429:A:LYS:HB2  | 1:431:A:TYR:HE1  | 16       | 0.24          |
| (1,3153) | 1:429:A:LYS:HA   | 1:480:A:PHE:H    | 14       | 0.24          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG2  | 19       | 0.24          |
| (1,3148) | 1:429:A:LYS:HE2  | 1:488:A:GLU:HG3  | 19       | 0.24          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG2  | 19       | 0.24          |
| (1,3148) | 1:429:A:LYS:HE3  | 1:488:A:GLU:HG3  | 19       | 0.24          |
| (1,3135) | 1:428:A:GLU:HA   | 1:478:A:LYS:HA   | 19       | 0.24          |
| (1,3133) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HD2  | 16       | 0.24          |
| (1,3133) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HD3  | 16       | 0.24          |
| (1,3133) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HD2  | 16       | 0.24          |
| (1,3133) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HD3  | 16       | 0.24          |
| (1,3121) | 1:427:A:GLN:HE21 | 1:455:A:ILE:HA   | 7        | 0.24          |
| (1,3121) | 1:427:A:GLN:HE22 | 1:455:A:ILE:HA   | 7        | 0.24          |
| (1,3112) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HA   | 15       | 0.24          |
| (1,3112) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HA   | 15       | 0.24          |
| (1,3095) | 1:424:A:LYS:H    | 1:427:A:GLN:H    | 6        | 0.24          |
| (1,3076) | 1:423:A:MET:HE1  | 1:429:A:LYS:H    | 14       | 0.24          |
| (1,3076) | 1:423:A:MET:HE2  | 1:429:A:LYS:H    | 14       | 0.24          |
| (1,3076) | 1:423:A:MET:HE3  | 1:429:A:LYS:H    | 14       | 0.24          |
| (1,2873) | 1:406:A:HIS:HA   | 1:422:A:ARG:HD2  | 20       | 0.24          |
| (1,2873) | 1:406:A:HIS:HA   | 1:422:A:ARG:HD3  | 20       | 0.24          |
| (1,2871) | 1:406:A:HIS:HA   | 1:456:A:GLU:HG2  | 4        | 0.24          |
| (1,2871) | 1:406:A:HIS:HA   | 1:456:A:GLU:HG3  | 4        | 0.24          |
| (1,2813) | 1:404:A:SER:HB2  | 1:458:A:LEU:HA   | 2        | 0.24          |
| (1,2813) | 1:404:A:SER:HB3  | 1:458:A:LEU:HA   | 2        | 0.24          |
| (1,2781) | 1:403:A:ALA:H    | 1:459:A:LEU:H    | 13       | 0.24          |
| (1,2575) | 1:388:A:GLU:HA   | 1:390:A:PHE:H    | 9        | 0.24          |
| (1,2566) | 1:387:A:ALA:H    | 1:468:A:MET:HA   | 17       | 0.24          |
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD2  | 14       | 0.24          |
| (1,2436) | 1:380:A:LEU:HA   | 1:383:A:LYS:HD3  | 14       | 0.24          |
| (1,2260) | 1:371:A:TYR:HE1  | 1:399:A:LEU:HA   | 12       | 0.24          |
| (1,2260) | 1:371:A:TYR:HE2  | 1:399:A:LEU:HA   | 12       | 0.24          |
| (1,2203) | 1:365:A:LYS:HA   | 1:367:A:ASP:H    | 20       | 0.24          |
| (1,2133) | 1:361:A:GLU:HA   | 1:365:A:LYS:H    | 11       | 0.24          |
| (1,2133) | 1:361:A:GLU:HA   | 1:365:A:LYS:H    | 17       | 0.24          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 3        | 0.24          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 3        | 0.24          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 3        | 0.24          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 15       | 0.24          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 15       | 0.24          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 15       | 0.24          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 15       | 0.24          |
| (1,1951) | 1:351:A:ALA:HA   | 1:354:A:LYS:HD2  | 9        | 0.24          |
| (1,1951) | 1:351:A:ALA:HA   | 1:354:A:LYS:HD3  | 9        | 0.24          |
| (1,1776) | 1:336:A:ARG:HA   | 1:340:A:GLN:H    | 1        | 0.24          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE1  | 3        | 0.24          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE2  | 3        | 0.24          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE3  | 3        | 0.24          |
| (1,1479) | 1:314:A:MET:H    | 1:349:A:ARG:HD2  | 6        | 0.24          |
| (1,1479) | 1:314:A:MET:H    | 1:349:A:ARG:HD3  | 6        | 0.24          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD2  | 19       | 0.24          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD3  | 19       | 0.24          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD2  | 20       | 0.24          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD3  | 20       | 0.24          |
| (1,1154) | 1:298:A:LYS:HB2  | 1:324:A:LEU:HB2  | 15       | 0.24          |
| (1,1154) | 1:298:A:LYS:HB2  | 1:324:A:LEU:HB3  | 15       | 0.24          |
| (1,1154) | 1:298:A:LYS:HB3  | 1:324:A:LEU:HB2  | 15       | 0.24          |
| (1,1154) | 1:298:A:LYS:HB3  | 1:324:A:LEU:HB3  | 15       | 0.24          |
| (1,1035) | 1:290:A:ASN:H    | 1:292:A:ASP:H    | 2        | 0.24          |
| (1,1023) | 1:289:A:TRP:HZ2  | 1:381:A:VAL:H    | 7        | 0.24          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 9        | 0.24          |
| (1,974)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:H    | 1        | 0.24          |
| (1,914)  | 1:282:A:SER:H    | 1:378:A:PHE:HZ   | 6        | 0.24          |
| (1,752)  | 1:275:A:THR:HG21 | 1:324:A:LEU:HD21 | 12       | 0.24          |
| (1,752)  | 1:275:A:THR:HG21 | 1:324:A:LEU:HD22 | 12       | 0.24          |
| (1,752)  | 1:275:A:THR:HG21 | 1:324:A:LEU:HD23 | 12       | 0.24          |
| (1,752)  | 1:275:A:THR:HG22 | 1:324:A:LEU:HD21 | 12       | 0.24          |
| (1,752)  | 1:275:A:THR:HG22 | 1:324:A:LEU:HD22 | 12       | 0.24          |
| (1,752)  | 1:275:A:THR:HG22 | 1:324:A:LEU:HD23 | 12       | 0.24          |
| (1,752)  | 1:275:A:THR:HG23 | 1:324:A:LEU:HD21 | 12       | 0.24          |
| (1,752)  | 1:275:A:THR:HG23 | 1:324:A:LEU:HD22 | 12       | 0.24          |
| (1,752)  | 1:275:A:THR:HG23 | 1:324:A:LEU:HD23 | 12       | 0.24          |
| (1,715)  | 1:274:A:TYR:HE1  | 1:348:A:LEU:HA   | 18       | 0.24          |
| (1,715)  | 1:274:A:TYR:HE2  | 1:348:A:LEU:HA   | 18       | 0.24          |
| (1,703)  | 1:273:A:GLU:H    | 1:328:A:SER:H    | 5        | 0.24          |
| (1,648)  | 1:268:A:VAL:HB   | 1:274:A:TYR:H    | 6        | 0.24          |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD21 | 10       | 0.24          |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD22 | 10       | 0.24          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD1  | 5        | 0.24          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD2  | 5        | 0.24          |
| (1,539)  | 1:262:A:THR:HG21 | 1:280:A:ILE:HB   | 14       | 0.24          |
| (1,539)  | 1:262:A:THR:HG22 | 1:280:A:ILE:HB   | 14       | 0.24          |
| (1,539)  | 1:262:A:THR:HG23 | 1:280:A:ILE:HB   | 14       | 0.24          |
| (1,382)  | 1:251:A:LYS:HA   | 1:255:A:HIS:HA   | 10       | 0.24          |
| (1,382)  | 1:251:A:LYS:HA   | 1:255:A:HIS:HA   | 18       | 0.24          |
| (1,376)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HA   | 18       | 0.24          |
| (1,376)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HA   | 18       | 0.24          |
| (1,370)  | 1:251:A:LYS:HE2  | 1:259:A:ASP:H    | 16       | 0.24          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,370)  | 1:251:A:LYS:HE3  | 1:259:A:ASP:H    | 16       | 0.24          |
| (1,310)  | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 5        | 0.24          |
| (1,252)  | 1:246:A:TYR:HD1  | 1:263:A:TRP:HE1  | 15       | 0.24          |
| (1,130)  | 1:237:A:ASN:HA   | 1:265:A:HIS:HE1  | 14       | 0.24          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD2  | 15       | 0.24          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD3  | 15       | 0.24          |
| (1,95)   | 1:234:A:TRP:HA   | 1:246:A:TYR:HE2  | 16       | 0.24          |
| (1,89)   | 1:234:A:TRP:HA   | 1:265:A:HIS:HE1  | 13       | 0.24          |
| (1,84)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HB   | 5        | 0.24          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 12       | 0.24          |
| (1,61)   | 1:234:A:TRP:HH2  | 1:324:A:LEU:HD11 | 17       | 0.24          |
| (1,61)   | 1:234:A:TRP:HH2  | 1:324:A:LEU:HD12 | 17       | 0.24          |
| (1,61)   | 1:234:A:TRP:HH2  | 1:324:A:LEU:HD13 | 17       | 0.24          |
| (2,14)   | 1:442:A:LYS:H    | 1:461:A:SER:HB2  | 10       | 0.23          |
| (2,14)   | 1:442:A:LYS:H    | 1:461:A:SER:HB3  | 10       | 0.23          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 1        | 0.23          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 1        | 0.23          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 1        | 0.23          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 18       | 0.23          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 18       | 0.23          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 18       | 0.23          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB2  | 5        | 0.23          |
| (1,3850) | 1:481:A:GLN:HE21 | 1:485:A:LYS:HB3  | 5        | 0.23          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB2  | 5        | 0.23          |
| (1,3850) | 1:481:A:GLN:HE22 | 1:485:A:LYS:HB3  | 5        | 0.23          |
| (1,3817) | 1:475:A:PHE:HD2  | 1:476:A:ASP:HB3  | 18       | 0.23          |
| (1,3807) | 1:475:A:PHE:H    | 1:479:A:PRO:HA   | 13       | 0.23          |
| (1,3776) | 1:473:A:THR:HA   | 1:480:A:PHE:H    | 13       | 0.23          |
| (1,3688) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HE3  | 4        | 0.23          |
| (1,3688) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HE3  | 4        | 0.23          |
| (1,3688) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HE3  | 4        | 0.23          |
| (1,3537) | 1:449:A:LEU:HD11 | 1:453:A:LYS:H    | 13       | 0.23          |
| (1,3537) | 1:449:A:LEU:HD12 | 1:453:A:LYS:H    | 13       | 0.23          |
| (1,3537) | 1:449:A:LEU:HD13 | 1:453:A:LYS:H    | 13       | 0.23          |
| (1,3533) | 1:449:A:LEU:HD21 | 1:490:A:LEU:HB2  | 10       | 0.23          |
| (1,3533) | 1:449:A:LEU:HD21 | 1:490:A:LEU:HB3  | 10       | 0.23          |
| (1,3533) | 1:449:A:LEU:HD22 | 1:490:A:LEU:HB2  | 10       | 0.23          |
| (1,3533) | 1:449:A:LEU:HD22 | 1:490:A:LEU:HB3  | 10       | 0.23          |
| (1,3533) | 1:449:A:LEU:HD23 | 1:490:A:LEU:HB2  | 10       | 0.23          |
| (1,3533) | 1:449:A:LEU:HD23 | 1:490:A:LEU:HB3  | 10       | 0.23          |
| (1,3482) | 1:446:A:HIS:HA   | 1:483:A:VAL:HB   | 17       | 0.23          |
| (1,3364) | 1:437:A:SER:HA   | 1:461:A:SER:HB2  | 11       | 0.23          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3364) | 1:437:A:SER:HA   | 1:461:A:SER:HB3  | 11       | 0.23          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB2  | 7        | 0.23          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB3  | 7        | 0.23          |
| (1,3317) | 1:434:A:THR:HA   | 1:460:A:LEU:H    | 1        | 0.23          |
| (1,3272) | 1:433:A:ILE:HB   | 1:459:A:LEU:HD21 | 16       | 0.23          |
| (1,3272) | 1:433:A:ILE:HB   | 1:459:A:LEU:HD22 | 16       | 0.23          |
| (1,3272) | 1:433:A:ILE:HB   | 1:459:A:LEU:HD23 | 16       | 0.23          |
| (1,3238) | 1:432:A:TYR:HB2  | 1:460:A:LEU:H    | 12       | 0.23          |
| (1,3238) | 1:432:A:TYR:HB3  | 1:460:A:LEU:H    | 12       | 0.23          |
| (1,3174) | 1:430:A:ILE:H    | 1:480:A:PHE:HA   | 8        | 0.23          |
| (1,3155) | 1:429:A:LYS:HB2  | 1:480:A:PHE:HA   | 1        | 0.23          |
| (1,3155) | 1:429:A:LYS:HB3  | 1:480:A:PHE:HA   | 1        | 0.23          |
| (1,3150) | 1:429:A:LYS:HD2  | 1:481:A:GLN:HB2  | 7        | 0.23          |
| (1,3150) | 1:429:A:LYS:HD2  | 1:481:A:GLN:HB3  | 7        | 0.23          |
| (1,3150) | 1:429:A:LYS:HD3  | 1:481:A:GLN:HB2  | 7        | 0.23          |
| (1,3150) | 1:429:A:LYS:HD3  | 1:481:A:GLN:HB3  | 7        | 0.23          |
| (1,3137) | 1:428:A:GLU:HA   | 1:478:A:LYS:HG2  | 19       | 0.23          |
| (1,3137) | 1:428:A:GLU:HA   | 1:478:A:LYS:HG3  | 19       | 0.23          |
| (1,3061) | 1:422:A:ARG:HD2  | 1:456:A:GLU:HB2  | 5        | 0.23          |
| (1,3061) | 1:422:A:ARG:HD2  | 1:456:A:GLU:HB3  | 5        | 0.23          |
| (1,3061) | 1:422:A:ARG:HD3  | 1:456:A:GLU:HB2  | 5        | 0.23          |
| (1,3061) | 1:422:A:ARG:HD3  | 1:456:A:GLU:HB3  | 5        | 0.23          |
| (1,2980) | 1:417:A:GLU:H    | 1:475:A:PHE:HZ   | 9        | 0.23          |
| (1,2980) | 1:417:A:GLU:H    | 1:475:A:PHE:HZ   | 13       | 0.23          |
| (1,2913) | 1:410:A:SER:HA   | 1:438:A:TYR:HE1  | 14       | 0.23          |
| (1,2913) | 1:410:A:SER:HA   | 1:438:A:TYR:HE2  | 14       | 0.23          |
| (1,2887) | 1:407:A:THR:HG21 | 1:408:A:ASP:H    | 8        | 0.23          |
| (1,2887) | 1:407:A:THR:HG22 | 1:408:A:ASP:H    | 8        | 0.23          |
| (1,2887) | 1:407:A:THR:HG23 | 1:408:A:ASP:H    | 8        | 0.23          |
| (1,2848) | 1:405:A:THR:H    | 1:457:A:VAL:HB   | 14       | 0.23          |
| (1,2807) | 1:404:A:SER:HA   | 1:459:A:LEU:H    | 2        | 0.23          |
| (1,2794) | 1:403:A:ALA:HA   | 1:413:A:THR:H    | 12       | 0.23          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG11 | 1        | 0.23          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG12 | 1        | 0.23          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG13 | 1        | 0.23          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG11 | 13       | 0.23          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG12 | 13       | 0.23          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG13 | 13       | 0.23          |
| (1,2642) | 1:394:A:GLU:HA   | 1:398:A:LYS:H    | 7        | 0.23          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 16       | 0.23          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 16       | 0.23          |
| (1,2524) | 1:385:A:GLY:HA2  | 1:389:A:ASP:H    | 7        | 0.23          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2524) | 1:385:A:GLY:HA3  | 1:389:A:ASP:H    | 7        | 0.23          |
| (1,2524) | 1:385:A:GLY:HA2  | 1:389:A:ASP:H    | 20       | 0.23          |
| (1,2524) | 1:385:A:GLY:HA3  | 1:389:A:ASP:H    | 20       | 0.23          |
| (1,2448) | 1:381:A:VAL:HA   | 1:384:A:GLU:H    | 9        | 0.23          |
| (1,2357) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HE2  | 15       | 0.23          |
| (1,2357) | 1:375:A:TRP:HH2  | 1:383:A:LYS:HE3  | 15       | 0.23          |
| (1,2170) | 1:363:A:LEU:HA   | 1:366:A:ASP:HB2  | 3        | 0.23          |
| (1,2170) | 1:363:A:LEU:HA   | 1:366:A:ASP:HB3  | 3        | 0.23          |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB2  | 3        | 0.23          |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB3  | 3        | 0.23          |
| (1,1996) | 1:354:A:LYS:HA   | 1:358:A:GLN:HE21 | 7        | 0.23          |
| (1,1996) | 1:354:A:LYS:HA   | 1:358:A:GLN:HE22 | 7        | 0.23          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 14       | 0.23          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 14       | 0.23          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 14       | 0.23          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 14       | 0.23          |
| (1,1945) | 1:351:A:ALA:HA   | 1:355:A:ARG:H    | 1        | 0.23          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD21 | 19       | 0.23          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD22 | 19       | 0.23          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD21 | 19       | 0.23          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD22 | 19       | 0.23          |
| (1,1884) | 1:346:A:ARG:HA   | 1:350:A:ASN:H    | 16       | 0.23          |
| (1,1810) | 1:339:A:LEU:HA   | 1:345:A:THR:H    | 8        | 0.23          |
| (1,1768) | 1:335:A:SER:H    | 1:338:A:ILE:HD11 | 12       | 0.23          |
| (1,1768) | 1:335:A:SER:H    | 1:338:A:ILE:HD12 | 12       | 0.23          |
| (1,1768) | 1:335:A:SER:H    | 1:338:A:ILE:HD13 | 12       | 0.23          |
| (1,1701) | 1:329:A:ASP:HB2  | 1:344:A:VAL:HG21 | 5        | 0.23          |
| (1,1701) | 1:329:A:ASP:HB2  | 1:344:A:VAL:HG22 | 5        | 0.23          |
| (1,1701) | 1:329:A:ASP:HB2  | 1:344:A:VAL:HG23 | 5        | 0.23          |
| (1,1701) | 1:329:A:ASP:HB3  | 1:344:A:VAL:HG21 | 5        | 0.23          |
| (1,1701) | 1:329:A:ASP:HB3  | 1:344:A:VAL:HG22 | 5        | 0.23          |
| (1,1701) | 1:329:A:ASP:HB3  | 1:344:A:VAL:HG23 | 5        | 0.23          |
| (1,1658) | 1:322:A:ARG:HD2  | 1:323:A:GLY:H    | 10       | 0.23          |
| (1,1658) | 1:322:A:ARG:HD3  | 1:323:A:GLY:H    | 10       | 0.23          |
| (1,1621) | 1:320:A:PHE:HE1  | 1:378:A:PHE:HB2  | 13       | 0.23          |
| (1,1621) | 1:320:A:PHE:HE1  | 1:378:A:PHE:HB3  | 13       | 0.23          |
| (1,1621) | 1:320:A:PHE:HE2  | 1:378:A:PHE:HB2  | 13       | 0.23          |
| (1,1621) | 1:320:A:PHE:HE2  | 1:378:A:PHE:HB3  | 13       | 0.23          |
| (1,1445) | 1:313:A:PHE:HA   | 1:349:A:ARG:H    | 4        | 0.23          |
| (1,1432) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HG2  | 3        | 0.23          |
| (1,1432) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HG3  | 3        | 0.23          |
| (1,1432) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HG2  | 3        | 0.23          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1432) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HG3  | 3        | 0.23          |
| (1,1334) | 1:303:A:ARG:H    | 1:327:A:SER:H    | 7        | 0.23          |
| (1,1139) | 1:297:A:LEU:H    | 1:309:A:ASP:HA   | 15       | 0.23          |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 12       | 0.23          |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 6        | 0.23          |
| (1,1035) | 1:290:A:ASN:H    | 1:292:A:ASP:H    | 3        | 0.23          |
| (1,1024) | 1:289:A:TRP:HH2  | 1:381:A:VAL:HA   | 3        | 0.23          |
| (1,1022) | 1:289:A:TRP:HH2  | 1:381:A:VAL:H    | 11       | 0.23          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 7        | 0.23          |
| (1,974)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:H    | 13       | 0.23          |
| (1,962)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HG2  | 15       | 0.23          |
| (1,962)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HG3  | 15       | 0.23          |
| (1,962)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HG2  | 15       | 0.23          |
| (1,962)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HG3  | 15       | 0.23          |
| (1,957)  | 1:285:A:PRO:HD2  | 1:320:A:PHE:HA   | 2        | 0.23          |
| (1,957)  | 1:285:A:PRO:HD3  | 1:320:A:PHE:HA   | 2        | 0.23          |
| (1,915)  | 1:282:A:SER:HA   | 1:378:A:PHE:HZ   | 17       | 0.23          |
| (1,914)  | 1:282:A:SER:H    | 1:378:A:PHE:HZ   | 4        | 0.23          |
| (1,821)  | 1:278:A:LEU:HA   | 1:322:A:ARG:H    | 20       | 0.23          |
| (1,703)  | 1:273:A:GLU:H    | 1:328:A:SER:H    | 1        | 0.23          |
| (1,680)  | 1:271:A:LYS:HA   | 1:273:A:GLU:H    | 18       | 0.23          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB2  | 12       | 0.23          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB3  | 12       | 0.23          |
| (1,470)  | 1:260:A:PRO:HA   | 1:283:A:GLN:H    | 3        | 0.23          |
| (1,458)  | 1:258:A:ASN:HD21 | 1:283:A:GLN:HE21 | 13       | 0.23          |
| (1,458)  | 1:258:A:ASN:HD21 | 1:283:A:GLN:HE22 | 13       | 0.23          |
| (1,458)  | 1:258:A:ASN:HD22 | 1:283:A:GLN:HE21 | 13       | 0.23          |
| (1,458)  | 1:258:A:ASN:HD22 | 1:283:A:GLN:HE22 | 13       | 0.23          |
| (1,408)  | 1:253:A:ILE:HB   | 1:298:A:LYS:H    | 18       | 0.23          |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB2  | 2        | 0.23          |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB3  | 2        | 0.23          |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB2  | 2        | 0.23          |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB3  | 2        | 0.23          |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB2  | 2        | 0.23          |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB3  | 2        | 0.23          |
| (1,346)  | 1:250:A:TYR:HB2  | 1:263:A:TRP:HE3  | 6        | 0.23          |
| (1,309)  | 1:249:A:PHE:HE2  | 1:298:A:LYS:HD3  | 3        | 0.23          |
| (1,293)  | 1:248:A:GLU:HA   | 1:251:A:LYS:H    | 14       | 0.23          |
| (1,282)  | 1:247:A:LYS:HA   | 1:250:A:TYR:H    | 4        | 0.23          |
| (1,220)  | 1:244:A:GLU:HB2  | 1:248:A:GLU:H    | 12       | 0.23          |
| (1,220)  | 1:244:A:GLU:HB3  | 1:248:A:GLU:H    | 12       | 0.23          |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 19       | 0.23          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD21 | 12       | 0.22          |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD22 | 12       | 0.22          |
| (1,3970) | 1:357:A:LEU:HD11 | 2:620:B:LEU:HD23 | 12       | 0.22          |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD21 | 12       | 0.22          |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD22 | 12       | 0.22          |
| (1,3970) | 1:357:A:LEU:HD12 | 2:620:B:LEU:HD23 | 12       | 0.22          |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD21 | 12       | 0.22          |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD22 | 12       | 0.22          |
| (1,3970) | 1:357:A:LEU:HD13 | 2:620:B:LEU:HD23 | 12       | 0.22          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB2  | 2        | 0.22          |
| (1,3726) | 1:468:A:MET:HG2  | 1:472:A:LEU:HB3  | 2        | 0.22          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB2  | 2        | 0.22          |
| (1,3726) | 1:468:A:MET:HG3  | 1:472:A:LEU:HB3  | 2        | 0.22          |
| (1,3709) | 1:466:A:GLU:HA   | 1:470:A:ASN:H    | 4        | 0.22          |
| (1,3605) | 1:453:A:LYS:HG2  | 1:455:A:ILE:HD11 | 1        | 0.22          |
| (1,3605) | 1:453:A:LYS:HG2  | 1:455:A:ILE:HD12 | 1        | 0.22          |
| (1,3605) | 1:453:A:LYS:HG2  | 1:455:A:ILE:HD13 | 1        | 0.22          |
| (1,3605) | 1:453:A:LYS:HG3  | 1:455:A:ILE:HD11 | 1        | 0.22          |
| (1,3605) | 1:453:A:LYS:HG3  | 1:455:A:ILE:HD12 | 1        | 0.22          |
| (1,3605) | 1:453:A:LYS:HG3  | 1:455:A:ILE:HD13 | 1        | 0.22          |
| (1,3570) | 1:450:A:LEU:HA   | 1:453:A:LYS:H    | 17       | 0.22          |
| (1,3536) | 1:449:A:LEU:HA   | 1:453:A:LYS:H    | 4        | 0.22          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB2  | 17       | 0.22          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB3  | 17       | 0.22          |
| (1,3351) | 1:436:A:ASP:HA   | 1:463:A:ARG:HA   | 15       | 0.22          |
| (1,3329) | 1:435:A:ALA:H    | 1:461:A:SER:HA   | 16       | 0.22          |
| (1,3259) | 1:433:A:ILE:HB   | 1:483:A:VAL:H    | 7        | 0.22          |
| (1,3255) | 1:433:A:ILE:HB   | 1:484:A:SER:H    | 11       | 0.22          |
| (1,3235) | 1:432:A:TYR:H    | 1:482:A:SER:HA   | 7        | 0.22          |
| (1,3214) | 1:431:A:TYR:H    | 1:458:A:LEU:H    | 6        | 0.22          |
| (1,3214) | 1:431:A:TYR:H    | 1:458:A:LEU:H    | 16       | 0.22          |
| (1,3143) | 1:429:A:LYS:HD2  | 1:489:A:SER:H    | 20       | 0.22          |
| (1,3143) | 1:429:A:LYS:HD3  | 1:489:A:SER:H    | 20       | 0.22          |
| (1,3135) | 1:428:A:GLU:HA   | 1:478:A:LYS:HA   | 14       | 0.22          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG2  | 20       | 0.22          |
| (1,3119) | 1:427:A:GLN:HG2  | 1:478:A:LYS:HG3  | 20       | 0.22          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG2  | 20       | 0.22          |
| (1,3119) | 1:427:A:GLN:HG3  | 1:478:A:LYS:HG3  | 20       | 0.22          |
| (1,3013) | 1:419:A:TYR:HA   | 1:456:A:GLU:HB2  | 2        | 0.22          |
| (1,3013) | 1:419:A:TYR:HA   | 1:456:A:GLU:HB3  | 2        | 0.22          |
| (1,2982) | 1:417:A:GLU:HG2  | 1:475:A:PHE:HZ   | 1        | 0.22          |
| (1,2982) | 1:417:A:GLU:HG3  | 1:475:A:PHE:HZ   | 1        | 0.22          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2937) | 1:414:A:VAL:HG21 | 1:419:A:TYR:HA   | 14       | 0.22          |
| (1,2937) | 1:414:A:VAL:HG22 | 1:419:A:TYR:HA   | 14       | 0.22          |
| (1,2937) | 1:414:A:VAL:HG23 | 1:419:A:TYR:HA   | 14       | 0.22          |
| (1,2913) | 1:410:A:SER:HA   | 1:438:A:TYR:HE1  | 12       | 0.22          |
| (1,2913) | 1:410:A:SER:HA   | 1:438:A:TYR:HE2  | 12       | 0.22          |
| (1,2911) | 1:410:A:SER:HA   | 1:438:A:TYR:HD1  | 5        | 0.22          |
| (1,2911) | 1:410:A:SER:HA   | 1:438:A:TYR:HD2  | 5        | 0.22          |
| (1,2875) | 1:406:A:HIS:HB2  | 1:414:A:VAL:HB   | 9        | 0.22          |
| (1,2875) | 1:406:A:HIS:HB3  | 1:414:A:VAL:HB   | 9        | 0.22          |
| (1,2861) | 1:405:A:THR:HA   | 1:408:A:ASP:HA   | 3        | 0.22          |
| (1,2861) | 1:405:A:THR:HA   | 1:408:A:ASP:HA   | 11       | 0.22          |
| (1,2794) | 1:403:A:ALA:HA   | 1:413:A:THR:H    | 18       | 0.22          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 9        | 0.22          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 9        | 0.22          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 9        | 0.22          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD11 | 1        | 0.22          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD12 | 1        | 0.22          |
| (1,2746) | 1:402:A:PHE:HZ   | 1:472:A:LEU:HD13 | 1        | 0.22          |
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD11 | 15       | 0.22          |
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD12 | 15       | 0.22          |
| (1,2704) | 1:398:A:LYS:HA   | 1:416:A:LEU:HD13 | 15       | 0.22          |
| (1,2574) | 1:388:A:GLU:H    | 1:390:A:PHE:H    | 18       | 0.22          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD1  | 14       | 0.22          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD2  | 14       | 0.22          |
| (1,2488) | 1:383:A:LYS:HE2  | 1:402:A:PHE:HZ   | 3        | 0.22          |
| (1,2488) | 1:383:A:LYS:HE3  | 1:402:A:PHE:HZ   | 3        | 0.22          |
| (1,2427) | 1:380:A:LEU:HD11 | 1:463:A:ARG:H    | 20       | 0.22          |
| (1,2427) | 1:380:A:LEU:HD12 | 1:463:A:ARG:H    | 20       | 0.22          |
| (1,2427) | 1:380:A:LEU:HD13 | 1:463:A:ARG:H    | 20       | 0.22          |
| (1,2351) | 1:375:A:TRP:HE3  | 1:400:A:LEU:HA   | 8        | 0.22          |
| (1,2250) | 1:370:A:LYS:HA   | 1:373:A:THR:HB   | 2        | 0.22          |
| (1,2250) | 1:370:A:LYS:HA   | 1:373:A:THR:HB   | 4        | 0.22          |
| (1,2199) | 1:365:A:LYS:HA   | 1:368:A:ALA:H    | 12       | 0.22          |
| (1,2083) | 1:359:A:MET:HA   | 1:362:A:LYS:HD2  | 2        | 0.22          |
| (1,2083) | 1:359:A:MET:HA   | 1:362:A:LYS:HD3  | 2        | 0.22          |
| (1,2077) | 1:359:A:MET:HG2  | 1:363:A:LEU:H    | 5        | 0.22          |
| (1,2077) | 1:359:A:MET:HG3  | 1:363:A:LEU:H    | 5        | 0.22          |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 16       | 0.22          |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 16       | 0.22          |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 16       | 0.22          |
| (1,1945) | 1:351:A:ALA:HA   | 1:355:A:ARG:H    | 19       | 0.22          |
| (1,1938) | 1:350:A:ASN:HA   | 1:353:A:THR:HB   | 19       | 0.22          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1937) | 1:350:A:ASN:HA   | 1:353:A:THR:H    | 3        | 0.22          |
| (1,1843) | 1:342:A:SER:HB2  | 1:343:A:THR:H    | 7        | 0.22          |
| (1,1843) | 1:342:A:SER:HB3  | 1:343:A:THR:H    | 7        | 0.22          |
| (1,1543) | 1:317:A:TYR:HD1  | 1:389:A:ASP:HB2  | 9        | 0.22          |
| (1,1543) | 1:317:A:TYR:HD1  | 1:389:A:ASP:HB3  | 9        | 0.22          |
| (1,1543) | 1:317:A:TYR:HD2  | 1:389:A:ASP:HB2  | 9        | 0.22          |
| (1,1543) | 1:317:A:TYR:HD2  | 1:389:A:ASP:HB3  | 9        | 0.22          |
| (1,1497) | 1:315:A:PRO:HG2  | 1:389:A:ASP:HB2  | 10       | 0.22          |
| (1,1497) | 1:315:A:PRO:HG2  | 1:389:A:ASP:HB3  | 10       | 0.22          |
| (1,1497) | 1:315:A:PRO:HG3  | 1:389:A:ASP:HB2  | 10       | 0.22          |
| (1,1497) | 1:315:A:PRO:HG3  | 1:389:A:ASP:HB3  | 10       | 0.22          |
| (1,1452) | 1:313:A:PHE:HZ   | 1:345:A:THR:HA   | 17       | 0.22          |
| (1,1443) | 1:313:A:PHE:HB2  | 1:352:A:LEU:HD11 | 6        | 0.22          |
| (1,1443) | 1:313:A:PHE:HB2  | 1:352:A:LEU:HD12 | 6        | 0.22          |
| (1,1443) | 1:313:A:PHE:HB2  | 1:352:A:LEU:HD13 | 6        | 0.22          |
| (1,1443) | 1:313:A:PHE:HB3  | 1:352:A:LEU:HD11 | 6        | 0.22          |
| (1,1443) | 1:313:A:PHE:HB3  | 1:352:A:LEU:HD12 | 6        | 0.22          |
| (1,1443) | 1:313:A:PHE:HB3  | 1:352:A:LEU:HD13 | 6        | 0.22          |
| (1,1420) | 1:312:A:GLN:HE21 | 1:340:A:GLN:H    | 10       | 0.22          |
| (1,1420) | 1:312:A:GLN:HE22 | 1:340:A:GLN:H    | 10       | 0.22          |
| (1,1324) | 1:302:A:GLN:H    | 1:327:A:SER:H    | 14       | 0.22          |
| (1,1318) | 1:302:A:GLN:H    | 1:329:A:ASP:H    | 4        | 0.22          |
| (1,1237) | 1:300:A:TYR:H    | 1:326:A:ASP:HA   | 11       | 0.22          |
| (1,1219) | 1:299:A:LEU:H    | 1:306:A:ILE:H    | 4        | 0.22          |
| (1,1140) | 1:297:A:LEU:HA   | 1:309:A:ASP:HA   | 9        | 0.22          |
| (1,1072) | 1:295:A:HIS:HE1  | 1:311:A:GLU:HA   | 1        | 0.22          |
| (1,1037) | 1:290:A:ASN:HB2  | 1:292:A:ASP:H    | 3        | 0.22          |
| (1,1037) | 1:290:A:ASN:HB3  | 1:292:A:ASP:H    | 3        | 0.22          |
| (1,974)  | 1:286:A:TRP:HE3  | 1:290:A:ASN:H    | 18       | 0.22          |
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 4        | 0.22          |
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 4        | 0.22          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB2  | 2        | 0.22          |
| (1,656)  | 1:268:A:VAL:HB   | 1:272:A:GLN:HB3  | 2        | 0.22          |
| (1,620)  | 1:266:A:ASN:HB2  | 1:274:A:TYR:HE1  | 7        | 0.22          |
| (1,620)  | 1:266:A:ASN:HB2  | 1:274:A:TYR:HE2  | 7        | 0.22          |
| (1,620)  | 1:266:A:ASN:HB3  | 1:274:A:TYR:HE1  | 7        | 0.22          |
| (1,620)  | 1:266:A:ASN:HB3  | 1:274:A:TYR:HE2  | 7        | 0.22          |
| (1,542)  | 1:262:A:THR:H    | 1:279:A:TYR:HB2  | 4        | 0.22          |
| (1,542)  | 1:262:A:THR:H    | 1:279:A:TYR:HB3  | 4        | 0.22          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD21 | 16       | 0.22          |
| (1,447)  | 1:256:A:ASP:HA   | 1:258:A:ASN:HD22 | 16       | 0.22          |
| (1,376)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HA   | 11       | 0.22          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,376)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HA   | 11       | 0.22          |
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB2  | 19       | 0.22          |
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB3  | 19       | 0.22          |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 18       | 0.22          |
| (1,189)  | 1:242:A:THR:H    | 1:246:A:TYR:H    | 15       | 0.22          |
| (1,189)  | 1:242:A:THR:H    | 1:246:A:TYR:H    | 18       | 0.22          |
| (1,127)  | 1:236:A:ARG:HB2  | 1:237:A:ASN:H    | 13       | 0.22          |
| (1,127)  | 1:236:A:ARG:HB3  | 1:237:A:ASN:H    | 13       | 0.22          |
| (1,95)   | 1:234:A:TRP:HA   | 1:246:A:TYR:HE2  | 15       | 0.22          |
| (1,85)   | 1:234:A:TRP:HE1  | 1:275:A:THR:HB   | 7        | 0.22          |
| (1,49)   | 1:233:A:LEU:HA   | 1:236:A:ARG:H    | 6        | 0.22          |
| (1,2)    | 1:230:A:ALA:H    | 1:231:A:GLN:H    | 2        | 0.22          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG11 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG12 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG13 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG11 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG12 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG13 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG11 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG12 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG13 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG21 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG22 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD11 | 2:642:B:VAL:HG23 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG21 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG22 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD12 | 2:642:B:VAL:HG23 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG21 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG22 | 8        | 0.21          |
| (1,3983) | 1:455:A:ILE:HD13 | 2:642:B:VAL:HG23 | 8        | 0.21          |
| (1,3936) | 1:490:A:LEU:HB2  | 1:494:A:ALA:H    | 4        | 0.21          |
| (1,3936) | 1:490:A:LEU:HB3  | 1:494:A:ALA:H    | 4        | 0.21          |
| (1,3935) | 1:490:A:LEU:HA   | 1:494:A:ALA:H    | 3        | 0.21          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 6        | 0.21          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 6        | 0.21          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 6        | 0.21          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 15       | 0.21          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 15       | 0.21          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 15       | 0.21          |
| (1,3858) | 1:482:A:SER:H    | 1:485:A:LYS:H    | 17       | 0.21          |
| (1,3857) | 1:481:A:GLN:HE21 | 1:482:A:SER:H    | 19       | 0.21          |
| (1,3857) | 1:481:A:GLN:HE22 | 1:482:A:SER:H    | 19       | 0.21          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 19       | 0.21          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 19       | 0.21          |
| (1,3847) | 1:481:A:GLN:HE21 | 1:486:A:VAL:HA   | 6        | 0.21          |
| (1,3847) | 1:481:A:GLN:HE22 | 1:486:A:VAL:HA   | 6        | 0.21          |
| (1,3817) | 1:475:A:PHE:HD2  | 1:476:A:ASP:HB2  | 16       | 0.21          |
| (1,3708) | 1:465:A:ASP:HB2  | 1:466:A:GLU:H    | 4        | 0.21          |
| (1,3708) | 1:465:A:ASP:HB3  | 1:466:A:GLU:H    | 4        | 0.21          |
| (1,3598) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HB2  | 6        | 0.21          |
| (1,3598) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HB3  | 6        | 0.21          |
| (1,3567) | 1:450:A:LEU:HA   | 1:454:A:GLY:H    | 6        | 0.21          |
| (1,3562) | 1:450:A:LEU:HB2  | 1:456:A:GLU:HA   | 8        | 0.21          |
| (1,3562) | 1:450:A:LEU:HB3  | 1:456:A:GLU:HA   | 8        | 0.21          |
| (1,3476) | 1:445:A:PRO:HG2  | 1:446:A:HIS:H    | 7        | 0.21          |
| (1,3476) | 1:445:A:PRO:HG3  | 1:446:A:HIS:H    | 7        | 0.21          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB2  | 3        | 0.21          |
| (1,3363) | 1:437:A:SER:H    | 1:461:A:SER:HB3  | 3        | 0.21          |
| (1,3332) | 1:435:A:ALA:H    | 1:460:A:LEU:H    | 11       | 0.21          |
| (1,3255) | 1:433:A:ILE:HB   | 1:484:A:SER:H    | 20       | 0.21          |
| (1,3248) | 1:432:A:TYR:HA   | 1:457:A:VAL:HA   | 4        | 0.21          |
| (1,3231) | 1:432:A:TYR:H    | 1:483:A:VAL:H    | 20       | 0.21          |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG2  | 9        | 0.21          |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG3  | 9        | 0.21          |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG2  | 9        | 0.21          |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG3  | 9        | 0.21          |
| (1,3099) | 1:424:A:LYS:HG2  | 1:427:A:GLN:HE21 | 14       | 0.21          |
| (1,3099) | 1:424:A:LYS:HG2  | 1:427:A:GLN:HE22 | 14       | 0.21          |
| (1,3099) | 1:424:A:LYS:HG3  | 1:427:A:GLN:HE21 | 14       | 0.21          |
| (1,3099) | 1:424:A:LYS:HG3  | 1:427:A:GLN:HE22 | 14       | 0.21          |
| (1,3094) | 1:424:A:LYS:HG2  | 1:454:A:GLY:HA2  | 4        | 0.21          |
| (1,3094) | 1:424:A:LYS:HG2  | 1:454:A:GLY:HA3  | 4        | 0.21          |
| (1,3094) | 1:424:A:LYS:HG3  | 1:454:A:GLY:HA2  | 4        | 0.21          |
| (1,3094) | 1:424:A:LYS:HG3  | 1:454:A:GLY:HA3  | 4        | 0.21          |
| (1,3028) | 1:419:A:TYR:HA   | 1:422:A:ARG:HD2  | 6        | 0.21          |
| (1,3028) | 1:419:A:TYR:HA   | 1:422:A:ARG:HD3  | 6        | 0.21          |
| (1,2892) | 1:408:A:ASP:HA   | 1:442:A:LYS:HE2  | 2        | 0.21          |
| (1,2892) | 1:408:A:ASP:HA   | 1:442:A:LYS:HE3  | 2        | 0.21          |
| (1,2880) | 1:407:A:THR:H    | 1:409:A:SER:H    | 9        | 0.21          |
| (1,2880) | 1:407:A:THR:H    | 1:409:A:SER:H    | 10       | 0.21          |
| (1,2871) | 1:406:A:HIS:HA   | 1:456:A:GLU:HG2  | 12       | 0.21          |
| (1,2871) | 1:406:A:HIS:HA   | 1:456:A:GLU:HG3  | 12       | 0.21          |
| (1,2824) | 1:404:A:SER:H    | 1:414:A:VAL:HB   | 20       | 0.21          |
| (1,2810) | 1:404:A:SER:HA   | 1:459:A:LEU:HD11 | 6        | 0.21          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2810) | 1:404:A:SER:HA   | 1:459:A:LEU:HD12 | 6        | 0.21          |
| (1,2810) | 1:404:A:SER:HA   | 1:459:A:LEU:HD13 | 6        | 0.21          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG11 | 6        | 0.21          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG12 | 6        | 0.21          |
| (1,2791) | 1:403:A:ALA:H    | 1:414:A:VAL:HG13 | 6        | 0.21          |
| (1,2781) | 1:403:A:ALA:H    | 1:459:A:LEU:H    | 5        | 0.21          |
| (1,2755) | 1:402:A:PHE:HD2  | 1:460:A:LEU:HD13 | 12       | 0.21          |
| (1,2631) | 1:393:A:GLN:HA   | 1:396:A:ILE:H    | 17       | 0.21          |
| (1,2619) | 1:393:A:GLN:HE21 | 1:474:A:GLU:H    | 14       | 0.21          |
| (1,2619) | 1:393:A:GLN:HE22 | 1:474:A:GLU:H    | 14       | 0.21          |
| (1,2613) | 1:392:A:ASN:HD21 | 1:395:A:ALA:HB1  | 15       | 0.21          |
| (1,2613) | 1:392:A:ASN:HD21 | 1:395:A:ALA:HB2  | 15       | 0.21          |
| (1,2613) | 1:392:A:ASN:HD21 | 1:395:A:ALA:HB3  | 15       | 0.21          |
| (1,2613) | 1:392:A:ASN:HD22 | 1:395:A:ALA:HB1  | 15       | 0.21          |
| (1,2613) | 1:392:A:ASN:HD22 | 1:395:A:ALA:HB2  | 15       | 0.21          |
| (1,2613) | 1:392:A:ASN:HD22 | 1:395:A:ALA:HB3  | 15       | 0.21          |
| (1,2594) | 1:390:A:PHE:HA   | 1:393:A:GLN:HA   | 12       | 0.21          |
| (1,2433) | 1:380:A:LEU:H    | 1:383:A:LYS:H    | 6        | 0.21          |
| (1,2382) | 1:376:A:GLN:HG2  | 1:412:A:GLN:HE21 | 7        | 0.21          |
| (1,2382) | 1:376:A:GLN:HG2  | 1:412:A:GLN:HE22 | 7        | 0.21          |
| (1,2382) | 1:376:A:GLN:HG3  | 1:412:A:GLN:HE21 | 7        | 0.21          |
| (1,2382) | 1:376:A:GLN:HG3  | 1:412:A:GLN:HE22 | 7        | 0.21          |
| (1,2351) | 1:375:A:TRP:HE3  | 1:400:A:LEU:HA   | 12       | 0.21          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE21 | 18       | 0.21          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE22 | 18       | 0.21          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE21 | 18       | 0.21          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE22 | 18       | 0.21          |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE2  | 20       | 0.21          |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE3  | 20       | 0.21          |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE2  | 20       | 0.21          |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE3  | 20       | 0.21          |
| (1,2132) | 1:361:A:GLU:HA   | 1:371:A:TYR:HE1  | 17       | 0.21          |
| (1,2123) | 1:361:A:GLU:HA   | 1:399:A:LEU:HA   | 17       | 0.21          |
| (1,2108) | 1:360:A:LEU:HD21 | 1:364:A:ALA:H    | 15       | 0.21          |
| (1,2108) | 1:360:A:LEU:HD22 | 1:364:A:ALA:H    | 15       | 0.21          |
| (1,2108) | 1:360:A:LEU:HD23 | 1:364:A:ALA:H    | 15       | 0.21          |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 11       | 0.21          |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 11       | 0.21          |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 11       | 0.21          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD2  | 17       | 0.21          |
| (1,1946) | 1:351:A:ALA:HA   | 1:355:A:ARG:HD3  | 17       | 0.21          |
| (1,1910) | 1:348:A:LEU:HD11 | 1:352:A:LEU:H    | 17       | 0.21          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1910) | 1:348:A:LEU:HD12 | 1:352:A:LEU:H    | 17       | 0.21          |
| (1,1910) | 1:348:A:LEU:HD13 | 1:352:A:LEU:H    | 17       | 0.21          |
| (1,1897) | 1:347:A:ASN:HA   | 1:351:A:ALA:H    | 8        | 0.21          |
| (1,1889) | 1:346:A:ARG:HA   | 1:349:A:ARG:HG2  | 1        | 0.21          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD21 | 10       | 0.21          |
| (1,1886) | 1:346:A:ARG:HG2  | 1:350:A:ASN:HD22 | 10       | 0.21          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD21 | 10       | 0.21          |
| (1,1886) | 1:346:A:ARG:HG3  | 1:350:A:ASN:HD22 | 10       | 0.21          |
| (1,1882) | 1:345:A:THR:HB   | 1:346:A:ARG:H    | 11       | 0.21          |
| (1,1791) | 1:337:A:GLU:H    | 1:340:A:GLN:H    | 18       | 0.21          |
| (1,1762) | 1:335:A:SER:H    | 1:339:A:LEU:H    | 16       | 0.21          |
| (1,1676) | 1:325:A:ILE:HD11 | 1:327:A:SER:HB2  | 18       | 0.21          |
| (1,1676) | 1:325:A:ILE:HD11 | 1:327:A:SER:HB3  | 18       | 0.21          |
| (1,1676) | 1:325:A:ILE:HD12 | 1:327:A:SER:HB2  | 18       | 0.21          |
| (1,1676) | 1:325:A:ILE:HD12 | 1:327:A:SER:HB3  | 18       | 0.21          |
| (1,1676) | 1:325:A:ILE:HD13 | 1:327:A:SER:HB2  | 18       | 0.21          |
| (1,1676) | 1:325:A:ILE:HD13 | 1:327:A:SER:HB3  | 18       | 0.21          |
| (1,1626) | 1:320:A:PHE:HZ   | 1:374:A:PHE:HZ   | 17       | 0.21          |
| (1,1578) | 1:318:A:LEU:HA   | 1:382:A:LEU:HA   | 19       | 0.21          |
| (1,1527) | 1:316:A:ASN:H    | 1:349:A:ARG:HD2  | 10       | 0.21          |
| (1,1527) | 1:316:A:ASN:H    | 1:349:A:ARG:HD3  | 10       | 0.21          |
| (1,1486) | 1:314:A:MET:HB2  | 1:319:A:ARG:H    | 11       | 0.21          |
| (1,1486) | 1:314:A:MET:HB3  | 1:319:A:ARG:H    | 11       | 0.21          |
| (1,1378) | 1:307:A:MET:HE1  | 1:310:A:ALA:HB1  | 18       | 0.21          |
| (1,1378) | 1:307:A:MET:HE1  | 1:310:A:ALA:HB2  | 18       | 0.21          |
| (1,1378) | 1:307:A:MET:HE1  | 1:310:A:ALA:HB3  | 18       | 0.21          |
| (1,1378) | 1:307:A:MET:HE2  | 1:310:A:ALA:HB1  | 18       | 0.21          |
| (1,1378) | 1:307:A:MET:HE2  | 1:310:A:ALA:HB2  | 18       | 0.21          |
| (1,1378) | 1:307:A:MET:HE2  | 1:310:A:ALA:HB3  | 18       | 0.21          |
| (1,1378) | 1:307:A:MET:HE3  | 1:310:A:ALA:HB1  | 18       | 0.21          |
| (1,1378) | 1:307:A:MET:HE3  | 1:310:A:ALA:HB2  | 18       | 0.21          |
| (1,1378) | 1:307:A:MET:HE3  | 1:310:A:ALA:HB3  | 18       | 0.21          |
| (1,1320) | 1:302:A:GLN:H    | 1:328:A:SER:HA   | 11       | 0.21          |
| (1,1223) | 1:299:A:LEU:H    | 1:305:A:PHE:HA   | 17       | 0.21          |
| (1,1139) | 1:297:A:LEU:H    | 1:309:A:ASP:HA   | 7        | 0.21          |
| (1,1090) | 1:296:A:GLY:H    | 1:311:A:GLU:HA   | 2        | 0.21          |
| (1,1053) | 1:293:A:HIS:HB2  | 1:295:A:HIS:H    | 19       | 0.21          |
| (1,1053) | 1:293:A:HIS:HB3  | 1:295:A:HIS:H    | 19       | 0.21          |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 2        | 0.21          |
| (1,877)  | 1:280:A:ILE:HA   | 1:322:A:ARG:H    | 1        | 0.21          |
| (1,781)  | 1:277:A:LEU:H    | 1:324:A:LEU:H    | 6        | 0.21          |
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 12       | 0.21          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 12       | 0.21          |
| (1,704)  | 1:273:A:GLU:HB2  | 1:328:A:SER:H    | 8        | 0.21          |
| (1,704)  | 1:273:A:GLU:HB3  | 1:328:A:SER:H    | 8        | 0.21          |
| (1,684)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:H    | 8        | 0.21          |
| (1,684)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:H    | 8        | 0.21          |
| (1,648)  | 1:268:A:VAL:HB   | 1:274:A:TYR:H    | 17       | 0.21          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD21 | 2        | 0.21          |
| (1,606)  | 1:265:A:HIS:H    | 1:266:A:ASN:HD22 | 2        | 0.21          |
| (1,513)  | 1:261:A:LEU:H    | 1:281:A:PRO:HA   | 9        | 0.21          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2  | 2        | 0.21          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3  | 2        | 0.21          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2  | 2        | 0.21          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3  | 2        | 0.21          |
| (1,376)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HA   | 9        | 0.21          |
| (1,376)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HA   | 9        | 0.21          |
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB2  | 3        | 0.21          |
| (1,221)  | 1:244:A:GLU:HA   | 1:248:A:GLU:HB3  | 3        | 0.21          |
| (1,174)  | 1:240:A:GLU:HA   | 1:242:A:THR:H    | 15       | 0.21          |
| (1,158)  | 1:238:A:LYS:HA   | 1:241:A:ILE:HB   | 1        | 0.21          |
| (1,148)  | 1:238:A:LYS:HE2  | 1:266:A:ASN:HD21 | 15       | 0.21          |
| (1,148)  | 1:238:A:LYS:HE2  | 1:266:A:ASN:HD22 | 15       | 0.21          |
| (1,148)  | 1:238:A:LYS:HE3  | 1:266:A:ASN:HD21 | 15       | 0.21          |
| (1,148)  | 1:238:A:LYS:HE3  | 1:266:A:ASN:HD22 | 15       | 0.21          |
| (1,110)  | 1:235:A:THR:HG1  | 1:267:A:ARG:HD2  | 17       | 0.21          |
| (1,110)  | 1:235:A:THR:HG1  | 1:267:A:ARG:HD3  | 17       | 0.21          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD2  | 13       | 0.21          |
| (1,104)  | 1:235:A:THR:HB   | 1:303:A:ARG:HD3  | 13       | 0.21          |
| (1,44)   | 1:233:A:LEU:HD11 | 1:242:A:THR:H    | 17       | 0.21          |
| (1,44)   | 1:233:A:LEU:HD12 | 1:242:A:THR:H    | 17       | 0.21          |
| (1,44)   | 1:233:A:LEU:HD13 | 1:242:A:THR:H    | 17       | 0.21          |
| (1,3943) | 1:490:A:LEU:HA   | 1:492:A:LYS:H    | 19       | 0.2           |
| (1,3935) | 1:490:A:LEU:HA   | 1:494:A:ALA:H    | 8        | 0.2           |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 10       | 0.2           |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 10       | 0.2           |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 10       | 0.2           |
| (1,3845) | 1:481:A:GLN:HG2  | 1:487:A:ASP:H    | 12       | 0.2           |
| (1,3845) | 1:481:A:GLN:HG3  | 1:487:A:ASP:H    | 12       | 0.2           |
| (1,3802) | 1:475:A:PHE:H    | 1:480:A:PHE:H    | 13       | 0.2           |
| (1,3700) | 1:465:A:ASP:HA   | 1:468:A:MET:H    | 12       | 0.2           |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 18       | 0.2           |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 18       | 0.2           |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 18       | 0.2           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3635) | 1:458:A:LEU:HD12 | 1:480:A:PHE:HE1  | 12       | 0.2           |
| (1,3570) | 1:450:A:LEU:HA   | 1:453:A:LYS:H    | 4        | 0.2           |
| (1,3492) | 1:447:A:LEU:HA   | 1:483:A:VAL:HB   | 19       | 0.2           |
| (1,3231) | 1:432:A:TYR:H    | 1:483:A:VAL:H    | 17       | 0.2           |
| (1,3222) | 1:431:A:TYR:HD1  | 1:456:A:GLU:H    | 19       | 0.2           |
| (1,3222) | 1:431:A:TYR:HD2  | 1:456:A:GLU:H    | 19       | 0.2           |
| (1,3218) | 1:431:A:TYR:H    | 1:457:A:VAL:HA   | 11       | 0.2           |
| (1,3214) | 1:431:A:TYR:H    | 1:458:A:LEU:H    | 1        | 0.2           |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 15       | 0.2           |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 3        | 0.2           |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 3        | 0.2           |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 3        | 0.2           |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB2  | 13       | 0.2           |
| (1,3149) | 1:429:A:LYS:HB2  | 1:481:A:GLN:HB3  | 13       | 0.2           |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB2  | 13       | 0.2           |
| (1,3149) | 1:429:A:LYS:HB3  | 1:481:A:GLN:HB3  | 13       | 0.2           |
| (1,3143) | 1:429:A:LYS:HD2  | 1:489:A:SER:H    | 1        | 0.2           |
| (1,3143) | 1:429:A:LYS:HD3  | 1:489:A:SER:H    | 1        | 0.2           |
| (1,3136) | 1:428:A:GLU:HG2  | 1:478:A:LYS:HA   | 11       | 0.2           |
| (1,3136) | 1:428:A:GLU:HG3  | 1:478:A:LYS:HA   | 11       | 0.2           |
| (1,3113) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HB2  | 11       | 0.2           |
| (1,3113) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HB3  | 11       | 0.2           |
| (1,3113) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HB2  | 11       | 0.2           |
| (1,3113) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HB3  | 11       | 0.2           |
| (1,2989) | 1:417:A:GLU:HA   | 1:420:A:VAL:HB   | 7        | 0.2           |
| (1,2914) | 1:410:A:SER:HA   | 1:438:A:TYR:HD2  | 17       | 0.2           |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD11 | 16       | 0.2           |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD12 | 16       | 0.2           |
| (1,2888) | 1:408:A:ASP:HA   | 1:459:A:LEU:HD13 | 16       | 0.2           |
| (1,2874) | 1:406:A:HIS:HB2  | 1:422:A:ARG:HD2  | 5        | 0.2           |
| (1,2874) | 1:406:A:HIS:HB2  | 1:422:A:ARG:HD3  | 5        | 0.2           |
| (1,2874) | 1:406:A:HIS:HB3  | 1:422:A:ARG:HD2  | 5        | 0.2           |
| (1,2874) | 1:406:A:HIS:HB3  | 1:422:A:ARG:HD3  | 5        | 0.2           |
| (1,2871) | 1:406:A:HIS:HA   | 1:456:A:GLU:HG2  | 6        | 0.2           |
| (1,2871) | 1:406:A:HIS:HA   | 1:456:A:GLU:HG3  | 6        | 0.2           |
| (1,2831) | 1:404:A:SER:H    | 1:406:A:HIS:H    | 6        | 0.2           |
| (1,2789) | 1:403:A:ALA:HA   | 1:414:A:VAL:H    | 18       | 0.2           |
| (1,2734) | 1:401:A:ARG:HA   | 1:415:A:SER:HB2  | 18       | 0.2           |
| (1,2734) | 1:401:A:ARG:HA   | 1:415:A:SER:HB3  | 18       | 0.2           |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG2  | 4        | 0.2           |
| (1,2699) | 1:398:A:LYS:HE2  | 1:417:A:GLU:HG3  | 4        | 0.2           |
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG2  | 4        | 0.2           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2699) | 1:398:A:LYS:HE3  | 1:417:A:GLU:HG3  | 4        | 0.2           |
| (1,2574) | 1:388:A:GLU:H    | 1:390:A:PHE:H    | 7        | 0.2           |
| (1,2445) | 1:381:A:VAL:HA   | 1:385:A:GLY:H    | 11       | 0.2           |
| (1,2425) | 1:380:A:LEU:HB2  | 1:464:A:ILE:H    | 13       | 0.2           |
| (1,2425) | 1:380:A:LEU:HB3  | 1:464:A:ILE:H    | 13       | 0.2           |
| (1,2348) | 1:375:A:TRP:HZ3  | 1:401:A:ARG:H    | 1        | 0.2           |
| (1,2323) | 1:374:A:PHE:HZ   | 1:378:A:PHE:HB2  | 18       | 0.2           |
| (1,2323) | 1:374:A:PHE:HZ   | 1:378:A:PHE:HB3  | 18       | 0.2           |
| (1,2203) | 1:365:A:LYS:HA   | 1:367:A:ASP:H    | 15       | 0.2           |
| (1,2108) | 1:360:A:LEU:HD21 | 1:364:A:ALA:H    | 2        | 0.2           |
| (1,2108) | 1:360:A:LEU:HD22 | 1:364:A:ALA:H    | 2        | 0.2           |
| (1,2108) | 1:360:A:LEU:HD23 | 1:364:A:ALA:H    | 2        | 0.2           |
| (1,2107) | 1:360:A:LEU:HA   | 1:364:A:ALA:H    | 5        | 0.2           |
| (1,2046) | 1:357:A:LEU:HB2  | 1:395:A:ALA:HB1  | 13       | 0.2           |
| (1,2046) | 1:357:A:LEU:HB2  | 1:395:A:ALA:HB2  | 13       | 0.2           |
| (1,2046) | 1:357:A:LEU:HB2  | 1:395:A:ALA:HB3  | 13       | 0.2           |
| (1,2046) | 1:357:A:LEU:HB3  | 1:395:A:ALA:HB1  | 13       | 0.2           |
| (1,2046) | 1:357:A:LEU:HB3  | 1:395:A:ALA:HB2  | 13       | 0.2           |
| (1,2046) | 1:357:A:LEU:HB3  | 1:395:A:ALA:HB3  | 13       | 0.2           |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 17       | 0.2           |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 17       | 0.2           |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 17       | 0.2           |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD11 | 7        | 0.2           |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD12 | 7        | 0.2           |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD13 | 7        | 0.2           |
| (1,1994) | 1:354:A:LYS:HA   | 1:358:A:GLN:H    | 14       | 0.2           |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD11 | 7        | 0.2           |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD12 | 7        | 0.2           |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD13 | 7        | 0.2           |
| (1,1933) | 1:350:A:ASN:HA   | 1:354:A:LYS:H    | 17       | 0.2           |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD21 | 10       | 0.2           |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD22 | 10       | 0.2           |
| (1,1883) | 1:345:A:THR:HB   | 1:346:A:ARG:HB2  | 12       | 0.2           |
| (1,1883) | 1:345:A:THR:HB   | 1:346:A:ARG:HB3  | 12       | 0.2           |
| (1,1882) | 1:345:A:THR:HB   | 1:346:A:ARG:H    | 10       | 0.2           |
| (1,1871) | 1:345:A:THR:HA   | 1:349:A:ARG:H    | 8        | 0.2           |
| (1,1827) | 1:340:A:GLN:HA   | 1:342:A:SER:H    | 5        | 0.2           |
| (1,1776) | 1:336:A:ARG:HA   | 1:340:A:GLN:H    | 2        | 0.2           |
| (1,1457) | 1:313:A:PHE:HE1  | 1:339:A:LEU:HD11 | 14       | 0.2           |
| (1,1457) | 1:313:A:PHE:HE1  | 1:339:A:LEU:HD12 | 14       | 0.2           |
| (1,1457) | 1:313:A:PHE:HE1  | 1:339:A:LEU:HD13 | 14       | 0.2           |
| (1,1457) | 1:313:A:PHE:HE2  | 1:339:A:LEU:HD11 | 14       | 0.2           |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1457) | 1:313:A:PHE:HE2 | 1:339:A:LEU:HD12 | 14       | 0.2           |
| (1,1457) | 1:313:A:PHE:HE2 | 1:339:A:LEU:HD13 | 14       | 0.2           |
| (1,1424) | 1:312:A:GLN:HG2 | 1:340:A:GLN:HB2  | 20       | 0.2           |
| (1,1424) | 1:312:A:GLN:HG2 | 1:340:A:GLN:HB3  | 20       | 0.2           |
| (1,1424) | 1:312:A:GLN:HG3 | 1:340:A:GLN:HB2  | 20       | 0.2           |
| (1,1424) | 1:312:A:GLN:HG3 | 1:340:A:GLN:HB3  | 20       | 0.2           |
| (1,1334) | 1:303:A:ARG:H   | 1:327:A:SER:H    | 9        | 0.2           |
| (1,1321) | 1:302:A:GLN:HA  | 1:328:A:SER:HA   | 3        | 0.2           |
| (1,1318) | 1:302:A:GLN:H   | 1:329:A:ASP:H    | 3        | 0.2           |
| (1,1290) | 1:301:A:VAL:HA  | 1:327:A:SER:H    | 14       | 0.2           |
| (1,1284) | 1:301:A:VAL:HA  | 1:329:A:ASP:H    | 15       | 0.2           |
| (1,1223) | 1:299:A:LEU:H   | 1:305:A:PHE:HA   | 4        | 0.2           |
| (1,1199) | 1:299:A:LEU:HA  | 1:325:A:ILE:HD11 | 17       | 0.2           |
| (1,1199) | 1:299:A:LEU:HA  | 1:325:A:ILE:HD12 | 17       | 0.2           |
| (1,1199) | 1:299:A:LEU:HA  | 1:325:A:ILE:HD13 | 17       | 0.2           |
| (1,1161) | 1:298:A:LYS:H   | 1:310:A:ALA:H    | 9        | 0.2           |
| (1,1090) | 1:296:A:GLY:H   | 1:311:A:GLU:HA   | 14       | 0.2           |
| (1,1070) | 1:295:A:HIS:HE1 | 1:316:A:ASN:HD21 | 19       | 0.2           |
| (1,1070) | 1:295:A:HIS:HE1 | 1:316:A:ASN:HD22 | 19       | 0.2           |
| (1,1024) | 1:289:A:TRP:HH2 | 1:381:A:VAL:HA   | 7        | 0.2           |
| (1,1022) | 1:289:A:TRP:HH2 | 1:381:A:VAL:H    | 16       | 0.2           |
| (1,958)  | 1:285:A:PRO:HG2 | 1:320:A:PHE:HA   | 9        | 0.2           |
| (1,958)  | 1:285:A:PRO:HG3 | 1:320:A:PHE:HA   | 9        | 0.2           |
| (1,821)  | 1:278:A:LEU:HA  | 1:322:A:ARG:H    | 17       | 0.2           |
| (1,769)  | 1:276:A:SER:HB2 | 1:325:A:ILE:HB   | 4        | 0.2           |
| (1,769)  | 1:276:A:SER:HB3 | 1:325:A:ILE:HB   | 4        | 0.2           |
| (1,767)  | 1:276:A:SER:HB2 | 1:325:A:ILE:HA   | 8        | 0.2           |
| (1,767)  | 1:276:A:SER:HB3 | 1:325:A:ILE:HA   | 8        | 0.2           |
| (1,763)  | 1:276:A:SER:HA  | 1:326:A:ASP:H    | 7        | 0.2           |
| (1,656)  | 1:268:A:VAL:HB  | 1:272:A:GLN:HB2  | 14       | 0.2           |
| (1,656)  | 1:268:A:VAL:HB  | 1:272:A:GLN:HB3  | 14       | 0.2           |
| (1,543)  | 1:262:A:THR:HA  | 1:279:A:TYR:HD1  | 7        | 0.2           |
| (1,543)  | 1:262:A:THR:HA  | 1:279:A:TYR:HD2  | 7        | 0.2           |
| (1,542)  | 1:262:A:THR:H   | 1:279:A:TYR:HB2  | 20       | 0.2           |
| (1,542)  | 1:262:A:THR:H   | 1:279:A:TYR:HB3  | 20       | 0.2           |
| (1,471)  | 1:260:A:PRO:HA  | 1:282:A:SER:H    | 9        | 0.2           |
| (1,219)  | 1:244:A:GLU:HA  | 1:248:A:GLU:H    | 5        | 0.2           |
| (1,218)  | 1:243:A:ASP:HB2 | 1:244:A:GLU:H    | 11       | 0.2           |
| (1,218)  | 1:243:A:ASP:HB3 | 1:244:A:GLU:H    | 11       | 0.2           |
| (1,174)  | 1:240:A:GLU:HA  | 1:242:A:THR:H    | 6        | 0.2           |
| (1,61)   | 1:234:A:TRP:HH2 | 1:324:A:LEU:HD11 | 20       | 0.2           |
| (1,61)   | 1:234:A:TRP:HH2 | 1:324:A:LEU:HD12 | 20       | 0.2           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,61)   | 1:234:A:TRP:HH2  | 1:324:A:LEU:HD13 | 20       | 0.2           |
| (1,3935) | 1:490:A:LEU:HA   | 1:494:A:ALA:H    | 7        | 0.19          |
| (1,3915) | 1:488:A:GLU:HA   | 1:492:A:LYS:H    | 13       | 0.19          |
| (1,3857) | 1:481:A:GLN:HE21 | 1:482:A:SER:H    | 8        | 0.19          |
| (1,3857) | 1:481:A:GLN:HE22 | 1:482:A:SER:H    | 8        | 0.19          |
| (1,3807) | 1:475:A:PHE:H    | 1:479:A:PRO:HA   | 19       | 0.19          |
| (1,3476) | 1:445:A:PRO:HG2  | 1:446:A:HIS:H    | 4        | 0.19          |
| (1,3476) | 1:445:A:PRO:HG3  | 1:446:A:HIS:H    | 4        | 0.19          |
| (1,3208) | 1:431:A:TYR:HB2  | 1:482:A:SER:HA   | 11       | 0.19          |
| (1,3208) | 1:431:A:TYR:HB3  | 1:482:A:SER:HA   | 11       | 0.19          |
| (1,3153) | 1:429:A:LYS:HA   | 1:480:A:PHE:H    | 7        | 0.19          |
| (1,3151) | 1:429:A:LYS:HG2  | 1:481:A:GLN:HB2  | 14       | 0.19          |
| (1,3151) | 1:429:A:LYS:HG2  | 1:481:A:GLN:HB3  | 14       | 0.19          |
| (1,3151) | 1:429:A:LYS:HG3  | 1:481:A:GLN:HB2  | 14       | 0.19          |
| (1,3151) | 1:429:A:LYS:HG3  | 1:481:A:GLN:HB3  | 14       | 0.19          |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG2  | 19       | 0.19          |
| (1,3147) | 1:429:A:LYS:HD2  | 1:488:A:GLU:HG3  | 19       | 0.19          |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG2  | 19       | 0.19          |
| (1,3147) | 1:429:A:LYS:HD3  | 1:488:A:GLU:HG3  | 19       | 0.19          |
| (1,3135) | 1:428:A:GLU:HA   | 1:478:A:LYS:HA   | 4        | 0.19          |
| (1,3135) | 1:428:A:GLU:HA   | 1:478:A:LYS:HA   | 20       | 0.19          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG2  | 7        | 0.19          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG3  | 7        | 0.19          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG2  | 7        | 0.19          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG3  | 7        | 0.19          |
| (1,3113) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HB2  | 16       | 0.19          |
| (1,3113) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HB3  | 16       | 0.19          |
| (1,3113) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HB2  | 16       | 0.19          |
| (1,3113) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HB3  | 16       | 0.19          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE21 | 9        | 0.19          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE22 | 9        | 0.19          |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG2  | 9        | 0.19          |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG3  | 9        | 0.19          |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG2  | 9        | 0.19          |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG3  | 9        | 0.19          |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG2  | 9        | 0.19          |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG3  | 9        | 0.19          |
| (1,2989) | 1:417:A:GLU:HA   | 1:420:A:VAL:HB   | 2        | 0.19          |
| (1,2989) | 1:417:A:GLU:HA   | 1:420:A:VAL:HB   | 15       | 0.19          |
| (1,2980) | 1:417:A:GLU:H    | 1:475:A:PHE:HZ   | 11       | 0.19          |
| (1,2968) | 1:416:A:LEU:HA   | 1:420:A:VAL:H    | 4        | 0.19          |
| (1,2892) | 1:408:A:ASP:HA   | 1:442:A:LYS:HE2  | 4        | 0.19          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2892) | 1:408:A:ASP:HA   | 1:442:A:LYS:HE3  | 4        | 0.19          |
| (1,2862) | 1:405:A:THR:HG21 | 1:408:A:ASP:HA   | 8        | 0.19          |
| (1,2862) | 1:405:A:THR:HG22 | 1:408:A:ASP:HA   | 8        | 0.19          |
| (1,2862) | 1:405:A:THR:HG23 | 1:408:A:ASP:HA   | 8        | 0.19          |
| (1,2855) | 1:405:A:THR:HB   | 1:451:A:ARG:HA   | 18       | 0.19          |
| (1,2825) | 1:404:A:SER:H    | 1:414:A:VAL:HG11 | 1        | 0.19          |
| (1,2825) | 1:404:A:SER:H    | 1:414:A:VAL:HG12 | 1        | 0.19          |
| (1,2825) | 1:404:A:SER:H    | 1:414:A:VAL:HG13 | 1        | 0.19          |
| (1,2737) | 1:401:A:ARG:HD2  | 1:414:A:VAL:HA   | 14       | 0.19          |
| (1,2737) | 1:401:A:ARG:HD3  | 1:414:A:VAL:HA   | 14       | 0.19          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB2  | 1        | 0.19          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB3  | 1        | 0.19          |
| (1,2426) | 1:380:A:LEU:HD22 | 1:464:A:ILE:H    | 2        | 0.19          |
| (1,2380) | 1:376:A:GLN:HE21 | 1:412:A:GLN:H    | 15       | 0.19          |
| (1,2380) | 1:376:A:GLN:HE22 | 1:412:A:GLN:H    | 15       | 0.19          |
| (1,2365) | 1:375:A:TRP:HA   | 1:379:A:GLY:H    | 9        | 0.19          |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB2  | 6        | 0.19          |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB3  | 6        | 0.19          |
| (1,2250) | 1:370:A:LYS:HA   | 1:373:A:THR:HB   | 19       | 0.19          |
| (1,2210) | 1:367:A:ASP:H    | 1:371:A:TYR:H    | 3        | 0.19          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 14       | 0.19          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 14       | 0.19          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 14       | 0.19          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 14       | 0.19          |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD1  | 9        | 0.19          |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD2  | 9        | 0.19          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG2  | 18       | 0.19          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG3  | 18       | 0.19          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG2  | 18       | 0.19          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG3  | 18       | 0.19          |
| (1,2042) | 1:357:A:LEU:HD21 | 1:396:A:ILE:HA   | 6        | 0.19          |
| (1,2042) | 1:357:A:LEU:HD22 | 1:396:A:ILE:HA   | 6        | 0.19          |
| (1,2042) | 1:357:A:LEU:HD23 | 1:396:A:ILE:HA   | 6        | 0.19          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD11 | 2        | 0.19          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD12 | 2        | 0.19          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD13 | 2        | 0.19          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD21 | 1        | 0.19          |
| (1,1991) | 1:354:A:LYS:HE2  | 1:392:A:ASN:HD22 | 1        | 0.19          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD21 | 1        | 0.19          |
| (1,1991) | 1:354:A:LYS:HE3  | 1:392:A:ASN:HD22 | 1        | 0.19          |
| (1,1933) | 1:350:A:ASN:HA   | 1:354:A:LYS:H    | 13       | 0.19          |
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD21 | 1        | 0.19          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1885) | 1:346:A:ARG:HA   | 1:350:A:ASN:HD22 | 1        | 0.19          |
| (1,1883) | 1:345:A:THR:HB   | 1:346:A:ARG:HB2  | 19       | 0.19          |
| (1,1883) | 1:345:A:THR:HB   | 1:346:A:ARG:HB3  | 19       | 0.19          |
| (1,1882) | 1:345:A:THR:HB   | 1:346:A:ARG:H    | 2        | 0.19          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 9        | 0.19          |
| (1,1779) | 1:336:A:ARG:HG2  | 1:340:A:GLN:HB2  | 18       | 0.19          |
| (1,1779) | 1:336:A:ARG:HG2  | 1:340:A:GLN:HB3  | 18       | 0.19          |
| (1,1779) | 1:336:A:ARG:HG3  | 1:340:A:GLN:HB2  | 18       | 0.19          |
| (1,1779) | 1:336:A:ARG:HG3  | 1:340:A:GLN:HB3  | 18       | 0.19          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE1  | 20       | 0.19          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE2  | 20       | 0.19          |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE3  | 20       | 0.19          |
| (1,1610) | 1:319:A:ARG:HA   | 1:321:A:VAL:HB   | 17       | 0.19          |
| (1,1373) | 1:307:A:MET:HE1  | 1:335:A:SER:H    | 2        | 0.19          |
| (1,1373) | 1:307:A:MET:HE2  | 1:335:A:SER:H    | 2        | 0.19          |
| (1,1373) | 1:307:A:MET:HE3  | 1:335:A:SER:H    | 2        | 0.19          |
| (1,1354) | 1:305:A:PHE:HE2  | 1:307:A:MET:HA   | 11       | 0.19          |
| (1,1278) | 1:301:A:VAL:HG11 | 1:332:A:LEU:HD11 | 4        | 0.19          |
| (1,1278) | 1:301:A:VAL:HG11 | 1:332:A:LEU:HD12 | 4        | 0.19          |
| (1,1278) | 1:301:A:VAL:HG11 | 1:332:A:LEU:HD13 | 4        | 0.19          |
| (1,1278) | 1:301:A:VAL:HG12 | 1:332:A:LEU:HD11 | 4        | 0.19          |
| (1,1278) | 1:301:A:VAL:HG12 | 1:332:A:LEU:HD12 | 4        | 0.19          |
| (1,1278) | 1:301:A:VAL:HG12 | 1:332:A:LEU:HD13 | 4        | 0.19          |
| (1,1278) | 1:301:A:VAL:HG13 | 1:332:A:LEU:HD11 | 4        | 0.19          |
| (1,1278) | 1:301:A:VAL:HG13 | 1:332:A:LEU:HD12 | 4        | 0.19          |
| (1,1278) | 1:301:A:VAL:HG13 | 1:332:A:LEU:HD13 | 4        | 0.19          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 17       | 0.19          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 17       | 0.19          |
| (1,1197) | 1:299:A:LEU:HA   | 1:325:A:ILE:H    | 11       | 0.19          |
| (1,1074) | 1:295:A:HIS:HA   | 1:309:A:ASP:HA   | 11       | 0.19          |
| (1,966)  | 1:285:A:PRO:HD2  | 1:288:A:MET:HE1  | 10       | 0.19          |
| (1,966)  | 1:285:A:PRO:HD2  | 1:288:A:MET:HE2  | 10       | 0.19          |
| (1,966)  | 1:285:A:PRO:HD2  | 1:288:A:MET:HE3  | 10       | 0.19          |
| (1,966)  | 1:285:A:PRO:HD3  | 1:288:A:MET:HE1  | 10       | 0.19          |
| (1,966)  | 1:285:A:PRO:HD3  | 1:288:A:MET:HE2  | 10       | 0.19          |
| (1,966)  | 1:285:A:PRO:HD3  | 1:288:A:MET:HE3  | 10       | 0.19          |
| (1,963)  | 1:285:A:PRO:HG2  | 1:288:A:MET:H    | 6        | 0.19          |
| (1,963)  | 1:285:A:PRO:HG3  | 1:288:A:MET:H    | 6        | 0.19          |
| (1,960)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HB2  | 17       | 0.19          |
| (1,960)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HB3  | 17       | 0.19          |
| (1,960)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HB2  | 17       | 0.19          |
| (1,960)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HB3  | 17       | 0.19          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,876)  | 1:280:A:ILE:H   | 1:322:A:ARG:H    | 1        | 0.19          |
| (1,821)  | 1:278:A:LEU:HA  | 1:322:A:ARG:H    | 8        | 0.19          |
| (1,740)  | 1:275:A:THR:H   | 1:328:A:SER:H    | 15       | 0.19          |
| (1,673)  | 1:270:A:GLY:H   | 1:273:A:GLU:HA   | 9        | 0.19          |
| (1,543)  | 1:262:A:THR:HA  | 1:279:A:TYR:HD1  | 17       | 0.19          |
| (1,543)  | 1:262:A:THR:HA  | 1:279:A:TYR:HD2  | 17       | 0.19          |
| (1,520)  | 1:261:A:LEU:H   | 1:279:A:TYR:HD1  | 4        | 0.19          |
| (1,520)  | 1:261:A:LEU:H   | 1:279:A:TYR:HD2  | 4        | 0.19          |
| (1,473)  | 1:260:A:PRO:HA  | 1:281:A:PRO:HA   | 8        | 0.19          |
| (1,471)  | 1:260:A:PRO:HA  | 1:282:A:SER:H    | 3        | 0.19          |
| (1,335)  | 1:250:A:TYR:HE1 | 1:281:A:PRO:HA   | 13       | 0.19          |
| (1,335)  | 1:250:A:TYR:HE2 | 1:281:A:PRO:HA   | 13       | 0.19          |
| (1,310)  | 1:249:A:PHE:HZ  | 1:298:A:LYS:HD3  | 8        | 0.19          |
| (1,294)  | 1:248:A:GLU:HA  | 1:251:A:LYS:HB2  | 5        | 0.19          |
| (1,294)  | 1:248:A:GLU:HA  | 1:251:A:LYS:HB3  | 5        | 0.19          |
| (1,269)  | 1:247:A:LYS:HG2 | 1:263:A:TRP:HZ3  | 20       | 0.19          |
| (1,269)  | 1:247:A:LYS:HG3 | 1:263:A:TRP:HZ3  | 20       | 0.19          |
| (1,251)  | 1:246:A:TYR:HE1 | 1:263:A:TRP:HE1  | 12       | 0.19          |
| (1,251)  | 1:246:A:TYR:HE2 | 1:263:A:TRP:HE1  | 12       | 0.19          |
| (1,180)  | 1:241:A:ILE:HB  | 1:246:A:TYR:HD1  | 16       | 0.19          |
| (1,180)  | 1:241:A:ILE:HB  | 1:246:A:TYR:HD2  | 16       | 0.19          |
| (1,158)  | 1:238:A:LYS:HA  | 1:241:A:ILE:HB   | 18       | 0.19          |
| (1,89)   | 1:234:A:TRP:HA  | 1:265:A:HIS:HE1  | 14       | 0.19          |
| (1,52)   | 1:233:A:LEU:HA  | 1:235:A:THR:H    | 15       | 0.19          |
| (1,3980) | 1:423:A:MET:HE1 | 2:639:B:LEU:HD11 | 15       | 0.18          |
| (1,3980) | 1:423:A:MET:HE1 | 2:639:B:LEU:HD12 | 15       | 0.18          |
| (1,3980) | 1:423:A:MET:HE1 | 2:639:B:LEU:HD13 | 15       | 0.18          |
| (1,3980) | 1:423:A:MET:HE2 | 2:639:B:LEU:HD11 | 15       | 0.18          |
| (1,3980) | 1:423:A:MET:HE2 | 2:639:B:LEU:HD12 | 15       | 0.18          |
| (1,3980) | 1:423:A:MET:HE2 | 2:639:B:LEU:HD13 | 15       | 0.18          |
| (1,3980) | 1:423:A:MET:HE3 | 2:639:B:LEU:HD11 | 15       | 0.18          |
| (1,3980) | 1:423:A:MET:HE3 | 2:639:B:LEU:HD12 | 15       | 0.18          |
| (1,3980) | 1:423:A:MET:HE3 | 2:639:B:LEU:HD13 | 15       | 0.18          |
| (1,3980) | 1:423:A:MET:HE1 | 2:639:B:LEU:HD11 | 18       | 0.18          |
| (1,3980) | 1:423:A:MET:HE1 | 2:639:B:LEU:HD12 | 18       | 0.18          |
| (1,3980) | 1:423:A:MET:HE1 | 2:639:B:LEU:HD13 | 18       | 0.18          |
| (1,3980) | 1:423:A:MET:HE2 | 2:639:B:LEU:HD11 | 18       | 0.18          |
| (1,3980) | 1:423:A:MET:HE2 | 2:639:B:LEU:HD12 | 18       | 0.18          |
| (1,3980) | 1:423:A:MET:HE2 | 2:639:B:LEU:HD13 | 18       | 0.18          |
| (1,3980) | 1:423:A:MET:HE3 | 2:639:B:LEU:HD11 | 18       | 0.18          |
| (1,3980) | 1:423:A:MET:HE3 | 2:639:B:LEU:HD12 | 18       | 0.18          |
| (1,3980) | 1:423:A:MET:HE3 | 2:639:B:LEU:HD13 | 18       | 0.18          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3938) | 1:490:A:LEU:HA   | 1:493:A:LEU:H    | 5        | 0.18          |
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB2  | 4        | 0.18          |
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB3  | 4        | 0.18          |
| (1,3749) | 1:469:A:MET:HA   | 1:471:A:TYR:H    | 2        | 0.18          |
| (1,3519) | 1:448:A:GLU:HB2  | 1:452:A:LYS:H    | 14       | 0.18          |
| (1,3519) | 1:448:A:GLU:HB3  | 1:452:A:LYS:H    | 14       | 0.18          |
| (1,3499) | 1:447:A:LEU:HD21 | 1:457:A:VAL:HB   | 5        | 0.18          |
| (1,3499) | 1:447:A:LEU:HD22 | 1:457:A:VAL:HB   | 5        | 0.18          |
| (1,3499) | 1:447:A:LEU:HD23 | 1:457:A:VAL:HB   | 5        | 0.18          |
| (1,3353) | 1:436:A:ASP:HA   | 1:461:A:SER:HA   | 19       | 0.18          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG2  | 9        | 0.18          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG3  | 9        | 0.18          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG2  | 9        | 0.18          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG3  | 9        | 0.18          |
| (1,3098) | 1:424:A:LYS:HB2  | 1:427:A:GLN:HE21 | 5        | 0.18          |
| (1,3098) | 1:424:A:LYS:HB2  | 1:427:A:GLN:HE22 | 5        | 0.18          |
| (1,3098) | 1:424:A:LYS:HB3  | 1:427:A:GLN:HE21 | 5        | 0.18          |
| (1,3098) | 1:424:A:LYS:HB3  | 1:427:A:GLN:HE22 | 5        | 0.18          |
| (1,2989) | 1:417:A:GLU:HA   | 1:420:A:VAL:HB   | 1        | 0.18          |
| (1,2985) | 1:417:A:GLU:HB2  | 1:421:A:SER:H    | 4        | 0.18          |
| (1,2985) | 1:417:A:GLU:HB3  | 1:421:A:SER:H    | 4        | 0.18          |
| (1,2824) | 1:404:A:SER:H    | 1:414:A:VAL:HB   | 15       | 0.18          |
| (1,2793) | 1:403:A:ALA:H    | 1:413:A:THR:H    | 12       | 0.18          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG11 | 19       | 0.18          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG12 | 19       | 0.18          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG13 | 19       | 0.18          |
| (1,2736) | 1:401:A:ARG:HD2  | 1:414:A:VAL:H    | 14       | 0.18          |
| (1,2736) | 1:401:A:ARG:HD3  | 1:414:A:VAL:H    | 14       | 0.18          |
| (1,2566) | 1:387:A:ALA:H    | 1:468:A:MET:HA   | 13       | 0.18          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD1  | 15       | 0.18          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD2  | 15       | 0.18          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB2  | 4        | 0.18          |
| (1,2538) | 1:386:A:PRO:HA   | 1:471:A:TYR:HB3  | 4        | 0.18          |
| (1,2380) | 1:376:A:GLN:HE21 | 1:412:A:GLN:H    | 11       | 0.18          |
| (1,2380) | 1:376:A:GLN:HE22 | 1:412:A:GLN:H    | 11       | 0.18          |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE2  | 8        | 0.18          |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE3  | 8        | 0.18          |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE2  | 8        | 0.18          |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE3  | 8        | 0.18          |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD1  | 5        | 0.18          |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD2  | 5        | 0.18          |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD1  | 13       | 0.18          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD2  | 13       | 0.18          |
| (1,2123) | 1:361:A:GLU:HA   | 1:399:A:LEU:HA   | 7        | 0.18          |
| (1,2108) | 1:360:A:LEU:HD21 | 1:364:A:ALA:H    | 9        | 0.18          |
| (1,2108) | 1:360:A:LEU:HD22 | 1:364:A:ALA:H    | 9        | 0.18          |
| (1,2108) | 1:360:A:LEU:HD23 | 1:364:A:ALA:H    | 9        | 0.18          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD11 | 4        | 0.18          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD12 | 4        | 0.18          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD13 | 4        | 0.18          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB1  | 10       | 0.18          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB2  | 10       | 0.18          |
| (1,1993) | 1:354:A:LYS:HE2  | 1:391:A:ALA:HB3  | 10       | 0.18          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB1  | 10       | 0.18          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB2  | 10       | 0.18          |
| (1,1993) | 1:354:A:LYS:HE3  | 1:391:A:ALA:HB3  | 10       | 0.18          |
| (1,1859) | 1:344:A:VAL:HB   | 1:348:A:LEU:H    | 9        | 0.18          |
| (1,1847) | 1:343:A:THR:HG21 | 1:347:A:ASN:HD21 | 6        | 0.18          |
| (1,1847) | 1:343:A:THR:HG21 | 1:347:A:ASN:HD22 | 6        | 0.18          |
| (1,1847) | 1:343:A:THR:HG22 | 1:347:A:ASN:HD21 | 6        | 0.18          |
| (1,1847) | 1:343:A:THR:HG22 | 1:347:A:ASN:HD22 | 6        | 0.18          |
| (1,1847) | 1:343:A:THR:HG23 | 1:347:A:ASN:HD21 | 6        | 0.18          |
| (1,1847) | 1:343:A:THR:HG23 | 1:347:A:ASN:HD22 | 6        | 0.18          |
| (1,1843) | 1:342:A:SER:HB2  | 1:343:A:THR:H    | 15       | 0.18          |
| (1,1843) | 1:342:A:SER:HB3  | 1:343:A:THR:H    | 15       | 0.18          |
| (1,1528) | 1:316:A:ASN:HA   | 1:319:A:ARG:H    | 12       | 0.18          |
| (1,1375) | 1:307:A:MET:HE1  | 1:335:A:SER:HB2  | 7        | 0.18          |
| (1,1375) | 1:307:A:MET:HE1  | 1:335:A:SER:HB3  | 7        | 0.18          |
| (1,1375) | 1:307:A:MET:HE2  | 1:335:A:SER:HB2  | 7        | 0.18          |
| (1,1375) | 1:307:A:MET:HE2  | 1:335:A:SER:HB3  | 7        | 0.18          |
| (1,1375) | 1:307:A:MET:HE3  | 1:335:A:SER:HB2  | 7        | 0.18          |
| (1,1375) | 1:307:A:MET:HE3  | 1:335:A:SER:HB3  | 7        | 0.18          |
| (1,1334) | 1:303:A:ARG:H    | 1:327:A:SER:H    | 3        | 0.18          |
| (1,1334) | 1:303:A:ARG:H    | 1:327:A:SER:H    | 18       | 0.18          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD11 | 19       | 0.18          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD12 | 19       | 0.18          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD13 | 19       | 0.18          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD11 | 19       | 0.18          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD12 | 19       | 0.18          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD13 | 19       | 0.18          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD11 | 19       | 0.18          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD12 | 19       | 0.18          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD13 | 19       | 0.18          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD11 | 4        | 0.18          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1199) | 1:299:A:LEU:HA  | 1:325:A:ILE:HD12 | 4        | 0.18          |
| (1,1199) | 1:299:A:LEU:HA  | 1:325:A:ILE:HD13 | 4        | 0.18          |
| (1,1167) | 1:298:A:LYS:HA  | 1:309:A:ASP:HA   | 2        | 0.18          |
| (1,1060) | 1:294:A:LYS:HD2 | 1:309:A:ASP:HB2  | 19       | 0.18          |
| (1,1060) | 1:294:A:LYS:HD2 | 1:309:A:ASP:HB3  | 19       | 0.18          |
| (1,1060) | 1:294:A:LYS:HD3 | 1:309:A:ASP:HB2  | 19       | 0.18          |
| (1,1060) | 1:294:A:LYS:HD3 | 1:309:A:ASP:HB3  | 19       | 0.18          |
| (1,1053) | 1:293:A:HIS:HB2 | 1:295:A:HIS:H    | 3        | 0.18          |
| (1,1053) | 1:293:A:HIS:HB3 | 1:295:A:HIS:H    | 3        | 0.18          |
| (1,1023) | 1:289:A:TRP:HZ2 | 1:381:A:VAL:H    | 3        | 0.18          |
| (1,877)  | 1:280:A:ILE:HA  | 1:322:A:ARG:H    | 9        | 0.18          |
| (1,700)  | 1:273:A:GLU:HB2 | 1:329:A:ASP:H    | 15       | 0.18          |
| (1,700)  | 1:273:A:GLU:HB3 | 1:329:A:ASP:H    | 15       | 0.18          |
| (1,565)  | 1:263:A:TRP:HD1 | 1:265:A:HIS:HA   | 10       | 0.18          |
| (1,543)  | 1:262:A:THR:HA  | 1:279:A:TYR:HD1  | 14       | 0.18          |
| (1,543)  | 1:262:A:THR:HA  | 1:279:A:TYR:HD2  | 14       | 0.18          |
| (1,543)  | 1:262:A:THR:HA  | 1:279:A:TYR:HD1  | 15       | 0.18          |
| (1,543)  | 1:262:A:THR:HA  | 1:279:A:TYR:HD2  | 15       | 0.18          |
| (1,520)  | 1:261:A:LEU:H   | 1:279:A:TYR:HD1  | 1        | 0.18          |
| (1,520)  | 1:261:A:LEU:H   | 1:279:A:TYR:HD2  | 1        | 0.18          |
| (1,509)  | 1:261:A:LEU:H   | 1:282:A:SER:H    | 15       | 0.18          |
| (1,471)  | 1:260:A:PRO:HA  | 1:282:A:SER:H    | 2        | 0.18          |
| (1,470)  | 1:260:A:PRO:HA  | 1:283:A:GLN:H    | 4        | 0.18          |
| (1,470)  | 1:260:A:PRO:HA  | 1:283:A:GLN:H    | 11       | 0.18          |
| (1,406)  | 1:253:A:ILE:HB  | 1:322:A:ARG:HD2  | 4        | 0.18          |
| (1,406)  | 1:253:A:ILE:HB  | 1:322:A:ARG:HD3  | 4        | 0.18          |
| (1,382)  | 1:251:A:LYS:HA  | 1:255:A:HIS:HA   | 17       | 0.18          |
| (1,368)  | 1:251:A:LYS:HE2 | 1:260:A:PRO:HD2  | 1        | 0.18          |
| (1,368)  | 1:251:A:LYS:HE2 | 1:260:A:PRO:HD3  | 1        | 0.18          |
| (1,368)  | 1:251:A:LYS:HE3 | 1:260:A:PRO:HD2  | 1        | 0.18          |
| (1,368)  | 1:251:A:LYS:HE3 | 1:260:A:PRO:HD3  | 1        | 0.18          |
| (1,320)  | 1:249:A:PHE:H   | 1:252:A:HIS:H    | 5        | 0.18          |
| (1,306)  | 1:249:A:PHE:HD1 | 1:323:A:GLY:HA2  | 2        | 0.18          |
| (1,306)  | 1:249:A:PHE:HD1 | 1:323:A:GLY:HA3  | 2        | 0.18          |
| (1,306)  | 1:249:A:PHE:HD2 | 1:323:A:GLY:HA2  | 2        | 0.18          |
| (1,306)  | 1:249:A:PHE:HD2 | 1:323:A:GLY:HA3  | 2        | 0.18          |
| (1,153)  | 1:238:A:LYS:HE2 | 1:264:A:SER:HA   | 9        | 0.18          |
| (1,153)  | 1:238:A:LYS:HE3 | 1:264:A:SER:HA   | 9        | 0.18          |
| (1,120)  | 1:236:A:ARG:HB2 | 1:241:A:ILE:H    | 13       | 0.18          |
| (1,120)  | 1:236:A:ARG:HB3 | 1:241:A:ILE:H    | 13       | 0.18          |
| (1,111)  | 1:235:A:THR:H   | 1:265:A:HIS:HE1  | 4        | 0.18          |
| (1,104)  | 1:235:A:THR:HB  | 1:303:A:ARG:HD2  | 14       | 0.18          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,104)  | 1:235:A:THR:HB  | 1:303:A:ARG:HD3  | 14       | 0.18          |
| (1,84)   | 1:234:A:TRP:HD1 | 1:275:A:THR:HB   | 12       | 0.18          |
| (1,75)   | 1:234:A:TRP:HZ2 | 1:300:A:TYR:HE1  | 18       | 0.18          |
| (1,75)   | 1:234:A:TRP:HZ2 | 1:300:A:TYR:HE2  | 18       | 0.18          |
| (1,2)    | 1:230:A:ALA:H   | 1:231:A:GLN:H    | 20       | 0.18          |
| (2,14)   | 1:442:A:LYS:H   | 1:461:A:SER:HB2  | 17       | 0.17          |
| (2,14)   | 1:442:A:LYS:H   | 1:461:A:SER:HB3  | 17       | 0.17          |
| (1,3749) | 1:469:A:MET:HA  | 1:471:A:TYR:H    | 7        | 0.17          |
| (1,3749) | 1:469:A:MET:HA  | 1:471:A:TYR:H    | 10       | 0.17          |
| (1,3536) | 1:449:A:LEU:HA  | 1:453:A:LYS:H    | 12       | 0.17          |
| (1,3519) | 1:448:A:GLU:HB2 | 1:452:A:LYS:H    | 7        | 0.17          |
| (1,3519) | 1:448:A:GLU:HB3 | 1:452:A:LYS:H    | 7        | 0.17          |
| (1,3363) | 1:437:A:SER:H   | 1:461:A:SER:HB2  | 13       | 0.17          |
| (1,3363) | 1:437:A:SER:H   | 1:461:A:SER:HB3  | 13       | 0.17          |
| (1,3309) | 1:434:A:THR:HB  | 1:466:A:GLU:H    | 16       | 0.17          |
| (1,3248) | 1:432:A:TYR:HA  | 1:457:A:VAL:HA   | 3        | 0.17          |
| (1,3248) | 1:432:A:TYR:HA  | 1:457:A:VAL:HA   | 14       | 0.17          |
| (1,3207) | 1:431:A:TYR:HA  | 1:482:A:SER:HA   | 11       | 0.17          |
| (1,3135) | 1:428:A:GLU:HA  | 1:478:A:LYS:HA   | 5        | 0.17          |
| (1,3117) | 1:427:A:GLN:HA  | 1:493:A:LEU:HD11 | 15       | 0.17          |
| (1,3117) | 1:427:A:GLN:HA  | 1:493:A:LEU:HD12 | 15       | 0.17          |
| (1,3117) | 1:427:A:GLN:HA  | 1:493:A:LEU:HD13 | 15       | 0.17          |
| (1,3007) | 1:419:A:TYR:HE2 | 1:478:A:LYS:HG2  | 15       | 0.17          |
| (1,3007) | 1:419:A:TYR:HE2 | 1:478:A:LYS:HG3  | 15       | 0.17          |
| (1,2989) | 1:417:A:GLU:HA  | 1:420:A:VAL:HB   | 4        | 0.17          |
| (1,2988) | 1:417:A:GLU:HA  | 1:420:A:VAL:H    | 14       | 0.17          |
| (1,2911) | 1:410:A:SER:HA  | 1:438:A:TYR:HD1  | 1        | 0.17          |
| (1,2911) | 1:410:A:SER:HA  | 1:438:A:TYR:HD2  | 1        | 0.17          |
| (1,2876) | 1:406:A:HIS:HB2 | 1:414:A:VAL:HG21 | 15       | 0.17          |
| (1,2876) | 1:406:A:HIS:HB2 | 1:414:A:VAL:HG22 | 15       | 0.17          |
| (1,2876) | 1:406:A:HIS:HB2 | 1:414:A:VAL:HG23 | 15       | 0.17          |
| (1,2876) | 1:406:A:HIS:HB3 | 1:414:A:VAL:HG21 | 15       | 0.17          |
| (1,2876) | 1:406:A:HIS:HB3 | 1:414:A:VAL:HG22 | 15       | 0.17          |
| (1,2876) | 1:406:A:HIS:HB3 | 1:414:A:VAL:HG23 | 15       | 0.17          |
| (1,2831) | 1:404:A:SER:H   | 1:406:A:HIS:H    | 8        | 0.17          |
| (1,2830) | 1:404:A:SER:H   | 1:407:A:THR:HB   | 19       | 0.17          |
| (1,2828) | 1:404:A:SER:H   | 1:412:A:GLN:HA   | 20       | 0.17          |
| (1,2813) | 1:404:A:SER:HB2 | 1:458:A:LEU:HA   | 17       | 0.17          |
| (1,2813) | 1:404:A:SER:HB3 | 1:458:A:LEU:HA   | 17       | 0.17          |
| (1,2796) | 1:403:A:ALA:H   | 1:412:A:GLN:HA   | 14       | 0.17          |
| (1,2765) | 1:402:A:PHE:H   | 1:414:A:VAL:HG11 | 9        | 0.17          |
| (1,2765) | 1:402:A:PHE:H   | 1:414:A:VAL:HG12 | 9        | 0.17          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG13 | 9        | 0.17          |
| (1,2739) | 1:401:A:ARG:HD2  | 1:413:A:THR:HA   | 10       | 0.17          |
| (1,2739) | 1:401:A:ARG:HD3  | 1:413:A:THR:HA   | 10       | 0.17          |
| (1,2701) | 1:398:A:LYS:HA   | 1:416:A:LEU:H    | 10       | 0.17          |
| (1,2590) | 1:390:A:PHE:HD1  | 1:471:A:TYR:HB2  | 8        | 0.17          |
| (1,2590) | 1:390:A:PHE:HD1  | 1:471:A:TYR:HB3  | 8        | 0.17          |
| (1,2590) | 1:390:A:PHE:HD2  | 1:471:A:TYR:HB2  | 8        | 0.17          |
| (1,2590) | 1:390:A:PHE:HD2  | 1:471:A:TYR:HB3  | 8        | 0.17          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD1  | 10       | 0.17          |
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD2  | 10       | 0.17          |
| (1,2398) | 1:378:A:PHE:HA   | 1:382:A:LEU:H    | 10       | 0.17          |
| (1,2337) | 1:375:A:TRP:HD1  | 1:413:A:THR:HA   | 20       | 0.17          |
| (1,2317) | 1:374:A:PHE:HZ   | 1:382:A:LEU:H    | 11       | 0.17          |
| (1,2199) | 1:365:A:LYS:HA   | 1:368:A:ALA:H    | 16       | 0.17          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG2  | 15       | 0.17          |
| (1,2197) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HG3  | 15       | 0.17          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG2  | 15       | 0.17          |
| (1,2197) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HG3  | 15       | 0.17          |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE2  | 19       | 0.17          |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE3  | 19       | 0.17          |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE2  | 19       | 0.17          |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE3  | 19       | 0.17          |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD1  | 15       | 0.17          |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD2  | 15       | 0.17          |
| (1,2122) | 1:361:A:GLU:HG3  | 1:401:A:ARG:HH22 | 14       | 0.17          |
| (1,2122) | 1:361:A:GLU:HG3  | 1:401:A:ARG:HH22 | 15       | 0.17          |
| (1,2107) | 1:360:A:LEU:HA   | 1:364:A:ALA:H    | 2        | 0.17          |
| (1,2107) | 1:360:A:LEU:HA   | 1:364:A:ALA:H    | 9        | 0.17          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD11 | 9        | 0.17          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD12 | 9        | 0.17          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD13 | 9        | 0.17          |
| (1,1945) | 1:351:A:ALA:HA   | 1:355:A:ARG:H    | 3        | 0.17          |
| (1,1938) | 1:350:A:ASN:HA   | 1:353:A:THR:HB   | 15       | 0.17          |
| (1,1858) | 1:344:A:VAL:HA   | 1:348:A:LEU:H    | 9        | 0.17          |
| (1,1816) | 1:339:A:LEU:HA   | 1:342:A:SER:H    | 10       | 0.17          |
| (1,1349) | 1:305:A:PHE:HZ   | 1:308:A:ASP:HA   | 4        | 0.17          |
| (1,1278) | 1:301:A:VAL:HG11 | 1:332:A:LEU:HD11 | 10       | 0.17          |
| (1,1278) | 1:301:A:VAL:HG11 | 1:332:A:LEU:HD12 | 10       | 0.17          |
| (1,1278) | 1:301:A:VAL:HG11 | 1:332:A:LEU:HD13 | 10       | 0.17          |
| (1,1278) | 1:301:A:VAL:HG12 | 1:332:A:LEU:HD11 | 10       | 0.17          |
| (1,1278) | 1:301:A:VAL:HG12 | 1:332:A:LEU:HD12 | 10       | 0.17          |
| (1,1278) | 1:301:A:VAL:HG12 | 1:332:A:LEU:HD13 | 10       | 0.17          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1278) | 1:301:A:VAL:HG13 | 1:332:A:LEU:HD11 | 10       | 0.17          |
| (1,1278) | 1:301:A:VAL:HG13 | 1:332:A:LEU:HD12 | 10       | 0.17          |
| (1,1278) | 1:301:A:VAL:HG13 | 1:332:A:LEU:HD13 | 10       | 0.17          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD11 | 18       | 0.17          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD12 | 18       | 0.17          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD13 | 18       | 0.17          |
| (1,1197) | 1:299:A:LEU:HA   | 1:325:A:ILE:H    | 16       | 0.17          |
| (1,1167) | 1:298:A:LYS:HA   | 1:309:A:ASP:HA   | 7        | 0.17          |
| (1,1162) | 1:298:A:LYS:HA   | 1:310:A:ALA:H    | 9        | 0.17          |
| (1,1132) | 1:297:A:LEU:H    | 1:310:A:ALA:H    | 16       | 0.17          |
| (1,1074) | 1:295:A:HIS:HA   | 1:309:A:ASP:HA   | 8        | 0.17          |
| (1,1037) | 1:290:A:ASN:HB2  | 1:292:A:ASP:H    | 4        | 0.17          |
| (1,1037) | 1:290:A:ASN:HB3  | 1:292:A:ASP:H    | 4        | 0.17          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 12       | 0.17          |
| (1,941)  | 1:284:A:ALA:H    | 1:377:A:GLN:HA   | 8        | 0.17          |
| (1,876)  | 1:280:A:ILE:H    | 1:322:A:ARG:H    | 2        | 0.17          |
| (1,821)  | 1:278:A:LEU:HA   | 1:322:A:ARG:H    | 10       | 0.17          |
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 3        | 0.17          |
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 3        | 0.17          |
| (1,763)  | 1:276:A:SER:HA   | 1:326:A:ASP:H    | 19       | 0.17          |
| (1,673)  | 1:270:A:GLY:H    | 1:273:A:GLU:HA   | 8        | 0.17          |
| (1,635)  | 1:267:A:ARG:HA   | 1:274:A:TYR:HD1  | 17       | 0.17          |
| (1,635)  | 1:267:A:ARG:HA   | 1:274:A:TYR:HD2  | 17       | 0.17          |
| (1,635)  | 1:267:A:ARG:HA   | 1:274:A:TYR:HD1  | 19       | 0.17          |
| (1,635)  | 1:267:A:ARG:HA   | 1:274:A:TYR:HD2  | 19       | 0.17          |
| (1,614)  | 1:266:A:ASN:H    | 1:276:A:SER:H    | 7        | 0.17          |
| (1,614)  | 1:266:A:ASN:H    | 1:276:A:SER:H    | 10       | 0.17          |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD21 | 14       | 0.17          |
| (1,588)  | 1:264:A:SER:HA   | 1:266:A:ASN:HD22 | 14       | 0.17          |
| (1,542)  | 1:262:A:THR:H    | 1:279:A:TYR:HB2  | 10       | 0.17          |
| (1,542)  | 1:262:A:THR:H    | 1:279:A:TYR:HB3  | 10       | 0.17          |
| (1,542)  | 1:262:A:THR:H    | 1:279:A:TYR:HB2  | 19       | 0.17          |
| (1,542)  | 1:262:A:THR:H    | 1:279:A:TYR:HB3  | 19       | 0.17          |
| (1,513)  | 1:261:A:LEU:H    | 1:281:A:PRO:HA   | 4        | 0.17          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD2  | 4        | 0.17          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD3  | 4        | 0.17          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD2  | 4        | 0.17          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD3  | 4        | 0.17          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD2  | 4        | 0.17          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD3  | 4        | 0.17          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2  | 7        | 0.17          |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3  | 7        | 0.17          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2  | 7        | 0.17          |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3  | 7        | 0.17          |
| (1,372)  | 1:251:A:LYS:HG2  | 1:259:A:ASP:HA   | 13       | 0.17          |
| (1,372)  | 1:251:A:LYS:HG3  | 1:259:A:ASP:HA   | 13       | 0.17          |
| (1,353)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:HB2  | 16       | 0.17          |
| (1,353)  | 1:250:A:TYR:HE1  | 1:256:A:ASP:HB3  | 16       | 0.17          |
| (1,353)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:HB2  | 16       | 0.17          |
| (1,353)  | 1:250:A:TYR:HE2  | 1:256:A:ASP:HB3  | 16       | 0.17          |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 13       | 0.17          |
| (1,127)  | 1:236:A:ARG:HB2  | 1:237:A:ASN:H    | 15       | 0.17          |
| (1,127)  | 1:236:A:ARG:HB3  | 1:237:A:ASN:H    | 15       | 0.17          |
| (1,95)   | 1:234:A:TRP:HA   | 1:246:A:TYR:HE2  | 13       | 0.17          |
| (1,21)   | 1:232:A:ALA:H    | 1:235:A:THR:H    | 13       | 0.17          |
| (1,19)   | 1:232:A:ALA:HA   | 1:249:A:PHE:HE1  | 5        | 0.17          |
| (1,19)   | 1:232:A:ALA:HA   | 1:249:A:PHE:HE2  | 5        | 0.17          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG21 | 16       | 0.16          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG22 | 16       | 0.16          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG23 | 16       | 0.16          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG21 | 16       | 0.16          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG22 | 16       | 0.16          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG23 | 16       | 0.16          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG21 | 16       | 0.16          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG22 | 16       | 0.16          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG23 | 16       | 0.16          |
| (1,3891) | 1:486:A:VAL:HG11 | 1:490:A:LEU:H    | 3        | 0.16          |
| (1,3891) | 1:486:A:VAL:HG12 | 1:490:A:LEU:H    | 3        | 0.16          |
| (1,3891) | 1:486:A:VAL:HG13 | 1:490:A:LEU:H    | 3        | 0.16          |
| (1,3869) | 1:483:A:VAL:HB   | 1:490:A:LEU:HD11 | 14       | 0.16          |
| (1,3869) | 1:483:A:VAL:HB   | 1:490:A:LEU:HD12 | 14       | 0.16          |
| (1,3869) | 1:483:A:VAL:HB   | 1:490:A:LEU:HD13 | 14       | 0.16          |
| (1,3848) | 1:481:A:GLN:HG2  | 1:486:A:VAL:HA   | 9        | 0.16          |
| (1,3848) | 1:481:A:GLN:HG3  | 1:486:A:VAL:HA   | 9        | 0.16          |
| (1,3841) | 1:481:A:GLN:HG2  | 1:489:A:SER:HA   | 3        | 0.16          |
| (1,3841) | 1:481:A:GLN:HG3  | 1:489:A:SER:HA   | 3        | 0.16          |
| (1,3772) | 1:472:A:LEU:HD21 | 1:474:A:GLU:HA   | 4        | 0.16          |
| (1,3772) | 1:472:A:LEU:HD22 | 1:474:A:GLU:HA   | 4        | 0.16          |
| (1,3772) | 1:472:A:LEU:HD23 | 1:474:A:GLU:HA   | 4        | 0.16          |
| (1,3744) | 1:469:A:MET:HA   | 1:472:A:LEU:H    | 4        | 0.16          |
| (1,3567) | 1:450:A:LEU:HA   | 1:454:A:GLY:H    | 14       | 0.16          |
| (1,3540) | 1:449:A:LEU:HA   | 1:452:A:LYS:H    | 13       | 0.16          |
| (1,3492) | 1:447:A:LEU:HA   | 1:483:A:VAL:HB   | 4        | 0.16          |
| (1,3478) | 1:446:A:HIS:HD2  | 1:486:A:VAL:HG21 | 11       | 0.16          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,3478) | 1:446:A:HIS:HD2 | 1:486:A:VAL:HG22 | 11       | 0.16          |
| (1,3478) | 1:446:A:HIS:HD2 | 1:486:A:VAL:HG23 | 11       | 0.16          |
| (1,3477) | 1:446:A:HIS:HD2 | 1:490:A:LEU:HD11 | 11       | 0.16          |
| (1,3477) | 1:446:A:HIS:HD2 | 1:490:A:LEU:HD12 | 11       | 0.16          |
| (1,3477) | 1:446:A:HIS:HD2 | 1:490:A:LEU:HD13 | 11       | 0.16          |
| (1,3372) | 1:437:A:SER:H   | 1:439:A:ALA:H    | 11       | 0.16          |
| (1,3365) | 1:437:A:SER:H   | 1:441:A:ALA:H    | 4        | 0.16          |
| (1,3262) | 1:433:A:ILE:H   | 1:482:A:SER:HA   | 3        | 0.16          |
| (1,3242) | 1:432:A:TYR:HA  | 1:459:A:LEU:HA   | 18       | 0.16          |
| (1,3222) | 1:431:A:TYR:HD1 | 1:456:A:GLU:H    | 4        | 0.16          |
| (1,3222) | 1:431:A:TYR:HD2 | 1:456:A:GLU:H    | 4        | 0.16          |
| (1,3218) | 1:431:A:TYR:H   | 1:457:A:VAL:HA   | 13       | 0.16          |
| (1,3208) | 1:431:A:TYR:HB2 | 1:482:A:SER:HA   | 15       | 0.16          |
| (1,3208) | 1:431:A:TYR:HB3 | 1:482:A:SER:HA   | 15       | 0.16          |
| (1,3176) | 1:430:A:ILE:HB  | 1:480:A:PHE:HD2  | 10       | 0.16          |
| (1,3170) | 1:430:A:ILE:H   | 1:481:A:GLN:H    | 14       | 0.16          |
| (1,3164) | 1:429:A:LYS:HB2 | 1:431:A:TYR:HE1  | 16       | 0.16          |
| (1,3164) | 1:429:A:LYS:HB2 | 1:431:A:TYR:HE2  | 16       | 0.16          |
| (1,3164) | 1:429:A:LYS:HB3 | 1:431:A:TYR:HE1  | 16       | 0.16          |
| (1,3164) | 1:429:A:LYS:HB3 | 1:431:A:TYR:HE2  | 16       | 0.16          |
| (1,3163) | 1:429:A:LYS:H   | 1:431:A:TYR:HE1  | 6        | 0.16          |
| (1,3163) | 1:429:A:LYS:H   | 1:431:A:TYR:HE2  | 6        | 0.16          |
| (1,3154) | 1:429:A:LYS:HA  | 1:480:A:PHE:HA   | 2        | 0.16          |
| (1,3154) | 1:429:A:LYS:HA  | 1:480:A:PHE:HA   | 9        | 0.16          |
| (1,3147) | 1:429:A:LYS:HD2 | 1:488:A:GLU:HG2  | 13       | 0.16          |
| (1,3147) | 1:429:A:LYS:HD2 | 1:488:A:GLU:HG3  | 13       | 0.16          |
| (1,3147) | 1:429:A:LYS:HD3 | 1:488:A:GLU:HG2  | 13       | 0.16          |
| (1,3147) | 1:429:A:LYS:HD3 | 1:488:A:GLU:HG3  | 13       | 0.16          |
| (1,3143) | 1:429:A:LYS:HD2 | 1:489:A:SER:H    | 7        | 0.16          |
| (1,3143) | 1:429:A:LYS:HD3 | 1:489:A:SER:H    | 7        | 0.16          |
| (1,2984) | 1:417:A:GLU:HA  | 1:421:A:SER:H    | 1        | 0.16          |
| (1,2913) | 1:410:A:SER:HA  | 1:438:A:TYR:HE1  | 17       | 0.16          |
| (1,2913) | 1:410:A:SER:HA  | 1:438:A:TYR:HE2  | 17       | 0.16          |
| (1,2912) | 1:410:A:SER:HB2 | 1:438:A:TYR:HD1  | 15       | 0.16          |
| (1,2912) | 1:410:A:SER:HB2 | 1:438:A:TYR:HD2  | 15       | 0.16          |
| (1,2912) | 1:410:A:SER:HB3 | 1:438:A:TYR:HD1  | 15       | 0.16          |
| (1,2912) | 1:410:A:SER:HB3 | 1:438:A:TYR:HD2  | 15       | 0.16          |
| (1,2816) | 1:404:A:SER:HA  | 1:457:A:VAL:HB   | 5        | 0.16          |
| (1,2792) | 1:403:A:ALA:HA  | 1:414:A:VAL:HG11 | 18       | 0.16          |
| (1,2792) | 1:403:A:ALA:HA  | 1:414:A:VAL:HG12 | 18       | 0.16          |
| (1,2792) | 1:403:A:ALA:HA  | 1:414:A:VAL:HG13 | 18       | 0.16          |
| (1,2696) | 1:398:A:LYS:HA  | 1:475:A:PHE:HE1  | 6        | 0.16          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2696) | 1:398:A:LYS:HA   | 1:475:A:PHE:HE2  | 6        | 0.16          |
| (1,2658) | 1:395:A:ALA:HA   | 1:398:A:LYS:HB2  | 6        | 0.16          |
| (1,2658) | 1:395:A:ALA:HA   | 1:398:A:LYS:HB3  | 6        | 0.16          |
| (1,2640) | 1:394:A:GLU:HA   | 1:475:A:PHE:HA   | 9        | 0.16          |
| (1,2632) | 1:393:A:GLN:HA   | 1:396:A:ILE:HB   | 1        | 0.16          |
| (1,2574) | 1:388:A:GLU:H    | 1:390:A:PHE:H    | 5        | 0.16          |
| (1,2574) | 1:388:A:GLU:H    | 1:390:A:PHE:H    | 19       | 0.16          |
| (1,2544) | 1:386:A:PRO:HG2  | 1:397:A:ALA:H    | 13       | 0.16          |
| (1,2544) | 1:386:A:PRO:HG3  | 1:397:A:ALA:H    | 13       | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD11 | 7        | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD12 | 7        | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD13 | 7        | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD11 | 14       | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD12 | 14       | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD13 | 14       | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD11 | 16       | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD12 | 16       | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD13 | 16       | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD11 | 17       | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD12 | 17       | 0.16          |
| (1,2507) | 1:384:A:GLU:H    | 1:464:A:ILE:HD13 | 17       | 0.16          |
| (1,2445) | 1:381:A:VAL:HA   | 1:385:A:GLY:H    | 14       | 0.16          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE1  | 9        | 0.16          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE2  | 9        | 0.16          |
| (1,2335) | 1:375:A:TRP:HH2  | 1:468:A:MET:HE3  | 9        | 0.16          |
| (1,2317) | 1:374:A:PHE:HZ   | 1:382:A:LEU:H    | 5        | 0.16          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE21 | 3        | 0.16          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE22 | 3        | 0.16          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE21 | 3        | 0.16          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE22 | 3        | 0.16          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE21 | 17       | 0.16          |
| (1,2290) | 1:372:A:GLN:HG2  | 1:376:A:GLN:HE22 | 17       | 0.16          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE21 | 17       | 0.16          |
| (1,2290) | 1:372:A:GLN:HG3  | 1:376:A:GLN:HE22 | 17       | 0.16          |
| (1,2053) | 1:357:A:LEU:HA   | 1:361:A:GLU:H    | 13       | 0.16          |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 6        | 0.16          |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 6        | 0.16          |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 6        | 0.16          |
| (1,1954) | 1:351:A:ALA:HA   | 1:353:A:THR:HB   | 19       | 0.16          |
| (1,1938) | 1:350:A:ASN:HA   | 1:353:A:THR:HB   | 3        | 0.16          |
| (1,1933) | 1:350:A:ASN:HA   | 1:354:A:LYS:H    | 15       | 0.16          |
| (1,1882) | 1:345:A:THR:HB   | 1:346:A:ARG:H    | 4        | 0.16          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1843) | 1:342:A:SER:HB2  | 1:343:A:THR:H    | 8        | 0.16          |
| (1,1843) | 1:342:A:SER:HB3  | 1:343:A:THR:H    | 8        | 0.16          |
| (1,1810) | 1:339:A:LEU:HA   | 1:345:A:THR:H    | 16       | 0.16          |
| (1,1768) | 1:335:A:SER:H    | 1:338:A:ILE:HD11 | 8        | 0.16          |
| (1,1768) | 1:335:A:SER:H    | 1:338:A:ILE:HD12 | 8        | 0.16          |
| (1,1768) | 1:335:A:SER:H    | 1:338:A:ILE:HD13 | 8        | 0.16          |
| (1,1578) | 1:318:A:LEU:HA   | 1:382:A:LEU:HA   | 17       | 0.16          |
| (1,1420) | 1:312:A:GLN:HE21 | 1:340:A:GLN:H    | 5        | 0.16          |
| (1,1420) | 1:312:A:GLN:HE22 | 1:340:A:GLN:H    | 5        | 0.16          |
| (1,1419) | 1:312:A:GLN:HB2  | 1:345:A:THR:HG21 | 16       | 0.16          |
| (1,1419) | 1:312:A:GLN:HB2  | 1:345:A:THR:HG22 | 16       | 0.16          |
| (1,1419) | 1:312:A:GLN:HB2  | 1:345:A:THR:HG23 | 16       | 0.16          |
| (1,1419) | 1:312:A:GLN:HB3  | 1:345:A:THR:HG21 | 16       | 0.16          |
| (1,1419) | 1:312:A:GLN:HB3  | 1:345:A:THR:HG22 | 16       | 0.16          |
| (1,1419) | 1:312:A:GLN:HB3  | 1:345:A:THR:HG23 | 16       | 0.16          |
| (1,1374) | 1:307:A:MET:HE1  | 1:335:A:SER:HA   | 6        | 0.16          |
| (1,1374) | 1:307:A:MET:HE2  | 1:335:A:SER:HA   | 6        | 0.16          |
| (1,1374) | 1:307:A:MET:HE3  | 1:335:A:SER:HA   | 6        | 0.16          |
| (1,1354) | 1:305:A:PHE:HE2  | 1:307:A:MET:HA   | 4        | 0.16          |
| (1,1353) | 1:305:A:PHE:HE1  | 1:307:A:MET:HA   | 4        | 0.16          |
| (1,1353) | 1:305:A:PHE:HE2  | 1:307:A:MET:HA   | 4        | 0.16          |
| (1,1320) | 1:302:A:GLN:H    | 1:328:A:SER:HA   | 20       | 0.16          |
| (1,1223) | 1:299:A:LEU:H    | 1:305:A:PHE:HA   | 1        | 0.16          |
| (1,1223) | 1:299:A:LEU:H    | 1:305:A:PHE:HA   | 3        | 0.16          |
| (1,1219) | 1:299:A:LEU:H    | 1:306:A:ILE:H    | 20       | 0.16          |
| (1,1139) | 1:297:A:LEU:H    | 1:309:A:ASP:HA   | 3        | 0.16          |
| (1,1044) | 1:291:A:ARG:HA   | 1:293:A:HIS:HA   | 20       | 0.16          |
| (1,997)  | 1:287:A:ASP:HA   | 1:289:A:TRP:H    | 8        | 0.16          |
| (1,821)  | 1:278:A:LEU:HA   | 1:322:A:ARG:H    | 5        | 0.16          |
| (1,821)  | 1:278:A:LEU:HA   | 1:322:A:ARG:H    | 9        | 0.16          |
| (1,707)  | 1:273:A:GLU:H    | 1:327:A:SER:HA   | 19       | 0.16          |
| (1,701)  | 1:273:A:GLU:H    | 1:329:A:ASP:HA   | 15       | 0.16          |
| (1,665)  | 1:269:A:GLU:HA   | 1:274:A:TYR:H    | 1        | 0.16          |
| (1,570)  | 1:264:A:SER:HB2  | 1:359:A:MET:HA   | 2        | 0.16          |
| (1,570)  | 1:264:A:SER:HB3  | 1:359:A:MET:HA   | 2        | 0.16          |
| (1,565)  | 1:263:A:TRP:HD1  | 1:265:A:HIS:HA   | 17       | 0.16          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD1  | 19       | 0.16          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD2  | 19       | 0.16          |
| (1,509)  | 1:261:A:LEU:H    | 1:282:A:SER:H    | 12       | 0.16          |
| (1,471)  | 1:260:A:PRO:HA   | 1:282:A:SER:H    | 11       | 0.16          |
| (1,470)  | 1:260:A:PRO:HA   | 1:283:A:GLN:H    | 2        | 0.16          |
| (1,470)  | 1:260:A:PRO:HA   | 1:283:A:GLN:H    | 19       | 0.16          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,439)  | 1:255:A:HIS:HE1  | 1:308:A:ASP:HB2  | 16       | 0.16          |
| (1,439)  | 1:255:A:HIS:HE1  | 1:308:A:ASP:HB3  | 16       | 0.16          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD2  | 9        | 0.16          |
| (1,407)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD3  | 9        | 0.16          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD2  | 9        | 0.16          |
| (1,407)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD3  | 9        | 0.16          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD2  | 9        | 0.16          |
| (1,407)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD3  | 9        | 0.16          |
| (1,376)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HA   | 2        | 0.16          |
| (1,376)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HA   | 2        | 0.16          |
| (1,376)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HA   | 15       | 0.16          |
| (1,376)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HA   | 15       | 0.16          |
| (1,347)  | 1:250:A:TYR:HE1  | 1:260:A:PRO:HA   | 7        | 0.16          |
| (1,347)  | 1:250:A:TYR:HE2  | 1:260:A:PRO:HA   | 7        | 0.16          |
| (1,319)  | 1:249:A:PHE:HE1  | 1:253:A:ILE:HD11 | 7        | 0.16          |
| (1,319)  | 1:249:A:PHE:HE1  | 1:253:A:ILE:HD12 | 7        | 0.16          |
| (1,319)  | 1:249:A:PHE:HE1  | 1:253:A:ILE:HD13 | 7        | 0.16          |
| (1,319)  | 1:249:A:PHE:HE2  | 1:253:A:ILE:HD11 | 7        | 0.16          |
| (1,319)  | 1:249:A:PHE:HE2  | 1:253:A:ILE:HD12 | 7        | 0.16          |
| (1,319)  | 1:249:A:PHE:HE2  | 1:253:A:ILE:HD13 | 7        | 0.16          |
| (1,307)  | 1:249:A:PHE:HE1  | 1:323:A:GLY:HA2  | 2        | 0.16          |
| (1,307)  | 1:249:A:PHE:HE1  | 1:323:A:GLY:HA3  | 2        | 0.16          |
| (1,307)  | 1:249:A:PHE:HE2  | 1:323:A:GLY:HA2  | 2        | 0.16          |
| (1,307)  | 1:249:A:PHE:HE2  | 1:323:A:GLY:HA3  | 2        | 0.16          |
| (1,251)  | 1:246:A:TYR:HE1  | 1:263:A:TRP:HE1  | 4        | 0.16          |
| (1,251)  | 1:246:A:TYR:HE2  | 1:263:A:TRP:HE1  | 4        | 0.16          |
| (1,218)  | 1:243:A:ASP:HB2  | 1:244:A:GLU:H    | 7        | 0.16          |
| (1,218)  | 1:243:A:ASP:HB3  | 1:244:A:GLU:H    | 7        | 0.16          |
| (1,189)  | 1:242:A:THR:H    | 1:246:A:TYR:H    | 6        | 0.16          |
| (1,161)  | 1:238:A:LYS:H    | 1:240:A:GLU:H    | 19       | 0.16          |
| (2,3)    | 1:257:A:PHE:HA   | 1:259:A:ASP:HA   | 3        | 0.15          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD11 | 1        | 0.15          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD12 | 1        | 0.15          |
| (1,3980) | 1:423:A:MET:HE1  | 2:639:B:LEU:HD13 | 1        | 0.15          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD11 | 1        | 0.15          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD12 | 1        | 0.15          |
| (1,3980) | 1:423:A:MET:HE2  | 2:639:B:LEU:HD13 | 1        | 0.15          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD11 | 1        | 0.15          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD12 | 1        | 0.15          |
| (1,3980) | 1:423:A:MET:HE3  | 2:639:B:LEU:HD13 | 1        | 0.15          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG11 | 17       | 0.15          |
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG12 | 17       | 0.15          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3979) | 1:483:A:VAL:HG11 | 2:635:B:VAL:HG13 | 17       | 0.15          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG11 | 17       | 0.15          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG12 | 17       | 0.15          |
| (1,3979) | 1:483:A:VAL:HG12 | 2:635:B:VAL:HG13 | 17       | 0.15          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG11 | 17       | 0.15          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG12 | 17       | 0.15          |
| (1,3979) | 1:483:A:VAL:HG13 | 2:635:B:VAL:HG13 | 17       | 0.15          |
| (1,3972) | 1:318:A:LEU:HD11 | 2:622:B:TYR:HE1  | 7        | 0.15          |
| (1,3972) | 1:318:A:LEU:HD12 | 2:622:B:TYR:HE1  | 7        | 0.15          |
| (1,3972) | 1:318:A:LEU:HD13 | 2:622:B:TYR:HE1  | 7        | 0.15          |
| (1,3935) | 1:490:A:LEU:HA   | 1:494:A:ALA:H    | 16       | 0.15          |
| (1,3911) | 1:487:A:ASP:H    | 1:489:A:SER:HB2  | 2        | 0.15          |
| (1,3911) | 1:487:A:ASP:H    | 1:489:A:SER:HB3  | 2        | 0.15          |
| (1,3749) | 1:469:A:MET:HA   | 1:471:A:TYR:H    | 13       | 0.15          |
| (1,3744) | 1:469:A:MET:HA   | 1:472:A:LEU:H    | 19       | 0.15          |
| (1,3742) | 1:469:A:MET:HE1  | 1:473:A:THR:HA   | 3        | 0.15          |
| (1,3742) | 1:469:A:MET:HE2  | 1:473:A:THR:HA   | 3        | 0.15          |
| (1,3742) | 1:469:A:MET:HE3  | 1:473:A:THR:HA   | 3        | 0.15          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD1  | 14       | 0.15          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD2  | 14       | 0.15          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 16       | 0.15          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 16       | 0.15          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 16       | 0.15          |
| (1,3561) | 1:450:A:LEU:HD11 | 1:456:A:GLU:H    | 15       | 0.15          |
| (1,3561) | 1:450:A:LEU:HD12 | 1:456:A:GLU:H    | 15       | 0.15          |
| (1,3561) | 1:450:A:LEU:HD13 | 1:456:A:GLU:H    | 15       | 0.15          |
| (1,3541) | 1:449:A:LEU:HA   | 1:452:A:LYS:HB2  | 12       | 0.15          |
| (1,3541) | 1:449:A:LEU:HA   | 1:452:A:LYS:HB3  | 12       | 0.15          |
| (1,3540) | 1:449:A:LEU:HA   | 1:452:A:LYS:H    | 1        | 0.15          |
| (1,3530) | 1:449:A:LEU:HD11 | 1:494:A:ALA:HA   | 14       | 0.15          |
| (1,3530) | 1:449:A:LEU:HD12 | 1:494:A:ALA:HA   | 14       | 0.15          |
| (1,3530) | 1:449:A:LEU:HD13 | 1:494:A:ALA:HA   | 14       | 0.15          |
| (1,3530) | 1:449:A:LEU:HD21 | 1:494:A:ALA:HA   | 14       | 0.15          |
| (1,3530) | 1:449:A:LEU:HD22 | 1:494:A:ALA:HA   | 14       | 0.15          |
| (1,3530) | 1:449:A:LEU:HD23 | 1:494:A:ALA:HA   | 14       | 0.15          |
| (1,3364) | 1:437:A:SER:HA   | 1:461:A:SER:HB2  | 20       | 0.15          |
| (1,3364) | 1:437:A:SER:HA   | 1:461:A:SER:HB3  | 20       | 0.15          |
| (1,3341) | 1:435:A:ALA:HB1  | 1:440:A:ALA:HA   | 18       | 0.15          |
| (1,3341) | 1:435:A:ALA:HB2  | 1:440:A:ALA:HA   | 18       | 0.15          |
| (1,3341) | 1:435:A:ALA:HB3  | 1:440:A:ALA:HA   | 18       | 0.15          |
| (1,3294) | 1:433:A:ILE:HB   | 1:441:A:ALA:HA   | 18       | 0.15          |
| (1,3218) | 1:431:A:TYR:H    | 1:457:A:VAL:HA   | 18       | 0.15          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3218) | 1:431:A:TYR:H    | 1:457:A:VAL:HA   | 19       | 0.15          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD11 | 14       | 0.15          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD12 | 14       | 0.15          |
| (1,3169) | 1:429:A:LYS:HA   | 1:430:A:ILE:HD13 | 14       | 0.15          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG2  | 16       | 0.15          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG3  | 16       | 0.15          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG2  | 16       | 0.15          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG3  | 16       | 0.15          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE21 | 10       | 0.15          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE22 | 10       | 0.15          |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG2  | 4        | 0.15          |
| (1,3084) | 1:423:A:MET:HE1  | 1:427:A:GLN:HG3  | 4        | 0.15          |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG2  | 4        | 0.15          |
| (1,3084) | 1:423:A:MET:HE2  | 1:427:A:GLN:HG3  | 4        | 0.15          |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG2  | 4        | 0.15          |
| (1,3084) | 1:423:A:MET:HE3  | 1:427:A:GLN:HG3  | 4        | 0.15          |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG2  | 12       | 0.15          |
| (1,3007) | 1:419:A:TYR:HE2  | 1:478:A:LYS:HG3  | 12       | 0.15          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG2  | 19       | 0.15          |
| (1,2997) | 1:418:A:ASP:HA   | 1:422:A:ARG:HG3  | 19       | 0.15          |
| (1,2988) | 1:417:A:GLU:HA   | 1:420:A:VAL:H    | 1        | 0.15          |
| (1,2985) | 1:417:A:GLU:HB2  | 1:421:A:SER:H    | 2        | 0.15          |
| (1,2985) | 1:417:A:GLU:HB3  | 1:421:A:SER:H    | 2        | 0.15          |
| (1,2961) | 1:416:A:LEU:HB2  | 1:475:A:PHE:HZ   | 3        | 0.15          |
| (1,2961) | 1:416:A:LEU:HB3  | 1:475:A:PHE:HZ   | 3        | 0.15          |
| (1,2845) | 1:405:A:THR:H    | 1:457:A:VAL:H    | 13       | 0.15          |
| (1,2827) | 1:404:A:SER:H    | 1:413:A:THR:H    | 11       | 0.15          |
| (1,2808) | 1:404:A:SER:HB2  | 1:459:A:LEU:H    | 3        | 0.15          |
| (1,2808) | 1:404:A:SER:HB3  | 1:459:A:LEU:H    | 3        | 0.15          |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG11 | 2        | 0.15          |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG12 | 2        | 0.15          |
| (1,2766) | 1:402:A:PHE:HB2  | 1:414:A:VAL:HG13 | 2        | 0.15          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG11 | 2        | 0.15          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG12 | 2        | 0.15          |
| (1,2766) | 1:402:A:PHE:HB3  | 1:414:A:VAL:HG13 | 2        | 0.15          |
| (1,2621) | 1:393:A:GLN:HE21 | 1:473:A:THR:H    | 12       | 0.15          |
| (1,2621) | 1:393:A:GLN:HE22 | 1:473:A:THR:H    | 12       | 0.15          |
| (1,2565) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD1  | 7        | 0.15          |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD11 | 7        | 0.15          |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD12 | 7        | 0.15          |
| (1,2508) | 1:384:A:GLU:HA   | 1:464:A:ILE:HD13 | 7        | 0.15          |
| (1,2484) | 1:383:A:LYS:HB2  | 1:464:A:ILE:HD11 | 15       | 0.15          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2484) | 1:383:A:LYS:HB2  | 1:464:A:ILE:HD12 | 15       | 0.15          |
| (1,2484) | 1:383:A:LYS:HB2  | 1:464:A:ILE:HD13 | 15       | 0.15          |
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD11 | 15       | 0.15          |
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD12 | 15       | 0.15          |
| (1,2484) | 1:383:A:LYS:HB3  | 1:464:A:ILE:HD13 | 15       | 0.15          |
| (1,2448) | 1:381:A:VAL:HA   | 1:384:A:GLU:H    | 17       | 0.15          |
| (1,2437) | 1:380:A:LEU:H    | 1:382:A:LEU:H    | 7        | 0.15          |
| (1,2346) | 1:375:A:TRP:HH2  | 1:401:A:ARG:H    | 9        | 0.15          |
| (1,2340) | 1:375:A:TRP:HD1  | 1:412:A:GLN:HE21 | 9        | 0.15          |
| (1,2340) | 1:375:A:TRP:HD1  | 1:412:A:GLN:HE22 | 9        | 0.15          |
| (1,2340) | 1:375:A:TRP:HD1  | 1:412:A:GLN:HE21 | 19       | 0.15          |
| (1,2340) | 1:375:A:TRP:HD1  | 1:412:A:GLN:HE22 | 19       | 0.15          |
| (1,2337) | 1:375:A:TRP:HD1  | 1:413:A:THR:HA   | 12       | 0.15          |
| (1,2314) | 1:374:A:PHE:HZ   | 1:399:A:LEU:HD11 | 19       | 0.15          |
| (1,2314) | 1:374:A:PHE:HZ   | 1:399:A:LEU:HD12 | 19       | 0.15          |
| (1,2314) | 1:374:A:PHE:HZ   | 1:399:A:LEU:HD13 | 19       | 0.15          |
| (1,2250) | 1:370:A:LYS:HA   | 1:373:A:THR:HB   | 7        | 0.15          |
| (1,2250) | 1:370:A:LYS:HA   | 1:373:A:THR:HB   | 13       | 0.15          |
| (1,2203) | 1:365:A:LYS:HA   | 1:367:A:ASP:H    | 14       | 0.15          |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE2  | 6        | 0.15          |
| (1,2196) | 1:365:A:LYS:HE2  | 1:398:A:LYS:HE3  | 6        | 0.15          |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE2  | 6        | 0.15          |
| (1,2196) | 1:365:A:LYS:HE3  | 1:398:A:LYS:HE3  | 6        | 0.15          |
| (1,2045) | 1:357:A:LEU:HD21 | 1:395:A:ALA:H    | 5        | 0.15          |
| (1,2045) | 1:357:A:LEU:HD22 | 1:395:A:ALA:H    | 5        | 0.15          |
| (1,2045) | 1:357:A:LEU:HD23 | 1:395:A:ALA:H    | 5        | 0.15          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE21 | 12       | 0.15          |
| (1,2015) | 1:355:A:ARG:HA   | 1:358:A:GLN:HE22 | 12       | 0.15          |
| (1,2013) | 1:355:A:ARG:HA   | 1:358:A:GLN:H    | 13       | 0.15          |
| (1,1994) | 1:354:A:LYS:HA   | 1:358:A:GLN:H    | 10       | 0.15          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD11 | 2        | 0.15          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD12 | 2        | 0.15          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD13 | 2        | 0.15          |
| (1,1958) | 1:352:A:LEU:HA   | 1:356:A:VAL:H    | 3        | 0.15          |
| (1,1910) | 1:348:A:LEU:HD11 | 1:352:A:LEU:H    | 13       | 0.15          |
| (1,1910) | 1:348:A:LEU:HD12 | 1:352:A:LEU:H    | 13       | 0.15          |
| (1,1910) | 1:348:A:LEU:HD13 | 1:352:A:LEU:H    | 13       | 0.15          |
| (1,1858) | 1:344:A:VAL:HA   | 1:348:A:LEU:H    | 10       | 0.15          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB2  | 12       | 0.15          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB3  | 12       | 0.15          |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB2  | 12       | 0.15          |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB3  | 12       | 0.15          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1621) | 1:320:A:PHE:HE1  | 1:378:A:PHE:HB2  | 17       | 0.15          |
| (1,1621) | 1:320:A:PHE:HE1  | 1:378:A:PHE:HB3  | 17       | 0.15          |
| (1,1621) | 1:320:A:PHE:HE2  | 1:378:A:PHE:HB2  | 17       | 0.15          |
| (1,1621) | 1:320:A:PHE:HE2  | 1:378:A:PHE:HB3  | 17       | 0.15          |
| (1,1505) | 1:315:A:PRO:HD2  | 1:350:A:ASN:HA   | 18       | 0.15          |
| (1,1505) | 1:315:A:PRO:HD3  | 1:350:A:ASN:HA   | 18       | 0.15          |
| (1,1353) | 1:305:A:PHE:HE1  | 1:307:A:MET:HA   | 9        | 0.15          |
| (1,1353) | 1:305:A:PHE:HE2  | 1:307:A:MET:HA   | 9        | 0.15          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD11 | 16       | 0.15          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD12 | 16       | 0.15          |
| (1,1244) | 1:300:A:TYR:H    | 1:325:A:ILE:HD13 | 16       | 0.15          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD11 | 16       | 0.15          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD12 | 16       | 0.15          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD13 | 16       | 0.15          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD11 | 16       | 0.15          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD12 | 16       | 0.15          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD13 | 16       | 0.15          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD11 | 16       | 0.15          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD12 | 16       | 0.15          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD13 | 16       | 0.15          |
| (1,1140) | 1:297:A:LEU:HA   | 1:309:A:ASP:HA   | 20       | 0.15          |
| (1,1053) | 1:293:A:HIS:HB2  | 1:295:A:HIS:H    | 2        | 0.15          |
| (1,1053) | 1:293:A:HIS:HB3  | 1:295:A:HIS:H    | 2        | 0.15          |
| (1,1053) | 1:293:A:HIS:HB2  | 1:295:A:HIS:H    | 16       | 0.15          |
| (1,1053) | 1:293:A:HIS:HB3  | 1:295:A:HIS:H    | 16       | 0.15          |
| (1,988)  | 1:287:A:ASP:HB2  | 1:293:A:HIS:HA   | 12       | 0.15          |
| (1,988)  | 1:287:A:ASP:HB3  | 1:293:A:HIS:HA   | 12       | 0.15          |
| (1,821)  | 1:278:A:LEU:HA   | 1:322:A:ARG:H    | 3        | 0.15          |
| (1,764)  | 1:276:A:SER:HB2  | 1:326:A:ASP:H    | 15       | 0.15          |
| (1,764)  | 1:276:A:SER:HB3  | 1:326:A:ASP:H    | 15       | 0.15          |
| (1,763)  | 1:276:A:SER:HA   | 1:326:A:ASP:H    | 11       | 0.15          |
| (1,675)  | 1:270:A:GLY:H    | 1:272:A:GLN:H    | 13       | 0.15          |
| (1,671)  | 1:269:A:GLU:HB2  | 1:270:A:GLY:H    | 15       | 0.15          |
| (1,671)  | 1:269:A:GLU:HB3  | 1:270:A:GLY:H    | 15       | 0.15          |
| (1,614)  | 1:266:A:ASN:H    | 1:276:A:SER:H    | 1        | 0.15          |
| (1,614)  | 1:266:A:ASN:H    | 1:276:A:SER:H    | 9        | 0.15          |
| (1,550)  | 1:263:A:TRP:HA   | 1:359:A:MET:HG2  | 7        | 0.15          |
| (1,550)  | 1:263:A:TRP:HA   | 1:359:A:MET:HG3  | 7        | 0.15          |
| (1,549)  | 1:263:A:TRP:H    | 1:359:A:MET:HG2  | 13       | 0.15          |
| (1,549)  | 1:263:A:TRP:H    | 1:359:A:MET:HG3  | 13       | 0.15          |
| (1,542)  | 1:262:A:THR:H    | 1:279:A:TYR:HB2  | 6        | 0.15          |
| (1,542)  | 1:262:A:THR:H    | 1:279:A:TYR:HB3  | 6        | 0.15          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,525)  | 1:262:A:THR:HB   | 1:370:A:LYS:HD2  | 12       | 0.15          |
| (1,525)  | 1:262:A:THR:HB   | 1:370:A:LYS:HD3  | 12       | 0.15          |
| (1,520)  | 1:261:A:LEU:H    | 1:279:A:TYR:HD1  | 15       | 0.15          |
| (1,520)  | 1:261:A:LEU:H    | 1:279:A:TYR:HD2  | 15       | 0.15          |
| (1,471)  | 1:260:A:PRO:HA   | 1:282:A:SER:H    | 7        | 0.15          |
| (1,376)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HA   | 4        | 0.15          |
| (1,376)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HA   | 4        | 0.15          |
| (1,291)  | 1:248:A:GLU:HA   | 1:252:A:HIS:H    | 13       | 0.15          |
| (1,251)  | 1:246:A:TYR:HE1  | 1:263:A:TRP:HE1  | 15       | 0.15          |
| (1,251)  | 1:246:A:TYR:HE2  | 1:263:A:TRP:HE1  | 15       | 0.15          |
| (1,207)  | 1:243:A:ASP:HA   | 1:247:A:LYS:H    | 17       | 0.15          |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 6        | 0.15          |
| (1,174)  | 1:240:A:GLU:HA   | 1:242:A:THR:H    | 4        | 0.15          |
| (1,123)  | 1:236:A:ARG:HB2  | 1:240:A:GLU:H    | 15       | 0.15          |
| (1,123)  | 1:236:A:ARG:HB3  | 1:240:A:GLU:H    | 15       | 0.15          |
| (1,23)   | 1:232:A:ALA:HB1  | 1:235:A:THR:HB   | 13       | 0.15          |
| (1,23)   | 1:232:A:ALA:HB2  | 1:235:A:THR:HB   | 13       | 0.15          |
| (1,23)   | 1:232:A:ALA:HB3  | 1:235:A:THR:HB   | 13       | 0.15          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD11 | 10       | 0.14          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD12 | 10       | 0.14          |
| (1,3978) | 1:460:A:LEU:HD21 | 2:634:B:LEU:HD13 | 10       | 0.14          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD11 | 10       | 0.14          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD12 | 10       | 0.14          |
| (1,3978) | 1:460:A:LEU:HD22 | 2:634:B:LEU:HD13 | 10       | 0.14          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD11 | 10       | 0.14          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD12 | 10       | 0.14          |
| (1,3978) | 1:460:A:LEU:HD23 | 2:634:B:LEU:HD13 | 10       | 0.14          |
| (1,3807) | 1:475:A:PHE:H    | 1:479:A:PRO:HA   | 3        | 0.14          |
| (1,3785) | 1:474:A:GLU:HA   | 1:480:A:PHE:H    | 5        | 0.14          |
| (1,3740) | 1:469:A:MET:HE1  | 1:473:A:THR:H    | 4        | 0.14          |
| (1,3740) | 1:469:A:MET:HE2  | 1:473:A:THR:H    | 4        | 0.14          |
| (1,3740) | 1:469:A:MET:HE3  | 1:473:A:THR:H    | 4        | 0.14          |
| (1,3637) | 1:458:A:LEU:HB2  | 1:460:A:LEU:H    | 12       | 0.14          |
| (1,3637) | 1:458:A:LEU:HB3  | 1:460:A:LEU:H    | 12       | 0.14          |
| (1,3567) | 1:450:A:LEU:HA   | 1:454:A:GLY:H    | 12       | 0.14          |
| (1,3563) | 1:450:A:LEU:HA   | 1:455:A:ILE:H    | 20       | 0.14          |
| (1,3531) | 1:449:A:LEU:HD11 | 1:493:A:LEU:HB2  | 1        | 0.14          |
| (1,3531) | 1:449:A:LEU:HD11 | 1:493:A:LEU:HB3  | 1        | 0.14          |
| (1,3531) | 1:449:A:LEU:HD12 | 1:493:A:LEU:HB2  | 1        | 0.14          |
| (1,3531) | 1:449:A:LEU:HD12 | 1:493:A:LEU:HB3  | 1        | 0.14          |
| (1,3531) | 1:449:A:LEU:HD13 | 1:493:A:LEU:HB2  | 1        | 0.14          |
| (1,3531) | 1:449:A:LEU:HD13 | 1:493:A:LEU:HB3  | 1        | 0.14          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3531) | 1:449:A:LEU:HD21 | 1:493:A:LEU:HB2  | 1        | 0.14          |
| (1,3531) | 1:449:A:LEU:HD21 | 1:493:A:LEU:HB3  | 1        | 0.14          |
| (1,3531) | 1:449:A:LEU:HD22 | 1:493:A:LEU:HB2  | 1        | 0.14          |
| (1,3531) | 1:449:A:LEU:HD22 | 1:493:A:LEU:HB3  | 1        | 0.14          |
| (1,3531) | 1:449:A:LEU:HD23 | 1:493:A:LEU:HB2  | 1        | 0.14          |
| (1,3531) | 1:449:A:LEU:HD23 | 1:493:A:LEU:HB3  | 1        | 0.14          |
| (1,3522) | 1:448:A:GLU:HA   | 1:451:A:ARG:H    | 15       | 0.14          |
| (1,3517) | 1:447:A:LEU:HB2  | 1:448:A:GLU:H    | 16       | 0.14          |
| (1,3517) | 1:447:A:LEU:HB3  | 1:448:A:GLU:H    | 16       | 0.14          |
| (1,3501) | 1:447:A:LEU:HD21 | 1:457:A:VAL:HG11 | 1        | 0.14          |
| (1,3501) | 1:447:A:LEU:HD21 | 1:457:A:VAL:HG12 | 1        | 0.14          |
| (1,3501) | 1:447:A:LEU:HD21 | 1:457:A:VAL:HG13 | 1        | 0.14          |
| (1,3501) | 1:447:A:LEU:HD22 | 1:457:A:VAL:HG11 | 1        | 0.14          |
| (1,3501) | 1:447:A:LEU:HD22 | 1:457:A:VAL:HG12 | 1        | 0.14          |
| (1,3501) | 1:447:A:LEU:HD22 | 1:457:A:VAL:HG13 | 1        | 0.14          |
| (1,3501) | 1:447:A:LEU:HD23 | 1:457:A:VAL:HG11 | 1        | 0.14          |
| (1,3501) | 1:447:A:LEU:HD23 | 1:457:A:VAL:HG12 | 1        | 0.14          |
| (1,3501) | 1:447:A:LEU:HD23 | 1:457:A:VAL:HG13 | 1        | 0.14          |
| (1,3231) | 1:432:A:TYR:H    | 1:483:A:VAL:H    | 13       | 0.14          |
| (1,3195) | 1:431:A:TYR:HE2  | 1:493:A:LEU:HD12 | 15       | 0.14          |
| (1,3171) | 1:430:A:ILE:HA   | 1:481:A:GLN:H    | 4        | 0.14          |
| (1,3164) | 1:429:A:LYS:HB2  | 1:431:A:TYR:HE1  | 14       | 0.14          |
| (1,3164) | 1:429:A:LYS:HB2  | 1:431:A:TYR:HE2  | 14       | 0.14          |
| (1,3164) | 1:429:A:LYS:HB3  | 1:431:A:TYR:HE1  | 14       | 0.14          |
| (1,3164) | 1:429:A:LYS:HB3  | 1:431:A:TYR:HE2  | 14       | 0.14          |
| (1,3153) | 1:429:A:LYS:HA   | 1:480:A:PHE:H    | 17       | 0.14          |
| (1,3076) | 1:423:A:MET:HE1  | 1:429:A:LYS:H    | 5        | 0.14          |
| (1,3076) | 1:423:A:MET:HE2  | 1:429:A:LYS:H    | 5        | 0.14          |
| (1,3076) | 1:423:A:MET:HE3  | 1:429:A:LYS:H    | 5        | 0.14          |
| (1,3028) | 1:419:A:TYR:HA   | 1:422:A:ARG:HD2  | 4        | 0.14          |
| (1,3028) | 1:419:A:TYR:HA   | 1:422:A:ARG:HD3  | 4        | 0.14          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB2  | 16       | 0.14          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB3  | 16       | 0.14          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB2  | 16       | 0.14          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB3  | 16       | 0.14          |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB2  | 16       | 0.14          |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB3  | 16       | 0.14          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB2  | 18       | 0.14          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB3  | 18       | 0.14          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB2  | 18       | 0.14          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB3  | 18       | 0.14          |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB2  | 18       | 0.14          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB3  | 18       | 0.14          |
| (1,2914) | 1:410:A:SER:HA   | 1:438:A:TYR:HE2  | 7        | 0.14          |
| (1,2910) | 1:410:A:SER:HA   | 1:459:A:LEU:HD11 | 6        | 0.14          |
| (1,2910) | 1:410:A:SER:HA   | 1:459:A:LEU:HD12 | 6        | 0.14          |
| (1,2910) | 1:410:A:SER:HA   | 1:459:A:LEU:HD13 | 6        | 0.14          |
| (1,2855) | 1:405:A:THR:HB   | 1:451:A:ARG:HA   | 9        | 0.14          |
| (1,2824) | 1:404:A:SER:H    | 1:414:A:VAL:HB   | 17       | 0.14          |
| (1,2790) | 1:403:A:ALA:HA   | 1:414:A:VAL:HB   | 20       | 0.14          |
| (1,2755) | 1:402:A:PHE:HD1  | 1:460:A:LEU:HD12 | 13       | 0.14          |
| (1,2593) | 1:390:A:PHE:HA   | 1:393:A:GLN:H    | 5        | 0.14          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD1  | 18       | 0.14          |
| (1,2562) | 1:387:A:ALA:HB1  | 1:471:A:TYR:HD2  | 18       | 0.14          |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD1  | 18       | 0.14          |
| (1,2562) | 1:387:A:ALA:HB2  | 1:471:A:TYR:HD2  | 18       | 0.14          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD1  | 18       | 0.14          |
| (1,2562) | 1:387:A:ALA:HB3  | 1:471:A:TYR:HD2  | 18       | 0.14          |
| (1,2488) | 1:383:A:LYS:HE2  | 1:402:A:PHE:HZ   | 2        | 0.14          |
| (1,2488) | 1:383:A:LYS:HE3  | 1:402:A:PHE:HZ   | 2        | 0.14          |
| (1,2433) | 1:380:A:LEU:H    | 1:383:A:LYS:H    | 3        | 0.14          |
| (1,2405) | 1:378:A:PHE:H    | 1:380:A:LEU:H    | 17       | 0.14          |
| (1,2353) | 1:375:A:TRP:HZ3  | 1:400:A:LEU:HA   | 12       | 0.14          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA2  | 15       | 0.14          |
| (1,2321) | 1:374:A:PHE:HZ   | 1:379:A:GLY:HA3  | 15       | 0.14          |
| (1,2319) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HD11 | 9        | 0.14          |
| (1,2319) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HD12 | 9        | 0.14          |
| (1,2319) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HD13 | 9        | 0.14          |
| (1,2227) | 1:368:A:ALA:HA   | 1:371:A:TYR:H    | 6        | 0.14          |
| (1,2166) | 1:363:A:LEU:HA   | 1:367:A:ASP:HB2  | 2        | 0.14          |
| (1,2166) | 1:363:A:LEU:HA   | 1:367:A:ASP:HB3  | 2        | 0.14          |
| (1,2146) | 1:362:A:LYS:HG2  | 1:366:A:ASP:H    | 14       | 0.14          |
| (1,2146) | 1:362:A:LYS:HG3  | 1:366:A:ASP:H    | 14       | 0.14          |
| (1,2134) | 1:361:A:GLU:HG2  | 1:365:A:LYS:HE2  | 6        | 0.14          |
| (1,2134) | 1:361:A:GLU:HG2  | 1:365:A:LYS:HE3  | 6        | 0.14          |
| (1,2134) | 1:361:A:GLU:HG3  | 1:365:A:LYS:HE2  | 6        | 0.14          |
| (1,2134) | 1:361:A:GLU:HG3  | 1:365:A:LYS:HE3  | 6        | 0.14          |
| (1,2052) | 1:357:A:LEU:HD21 | 1:382:A:LEU:HD11 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD21 | 1:382:A:LEU:HD12 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD21 | 1:382:A:LEU:HD13 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD22 | 1:382:A:LEU:HD11 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD22 | 1:382:A:LEU:HD12 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD22 | 1:382:A:LEU:HD13 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD23 | 1:382:A:LEU:HD11 | 20       | 0.14          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2052) | 1:357:A:LEU:HD23 | 1:382:A:LEU:HD12 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD23 | 1:382:A:LEU:HD13 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD21 | 1:382:A:LEU:HD21 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD21 | 1:382:A:LEU:HD22 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD21 | 1:382:A:LEU:HD23 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD22 | 1:382:A:LEU:HD21 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD22 | 1:382:A:LEU:HD22 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD22 | 1:382:A:LEU:HD23 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD23 | 1:382:A:LEU:HD21 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD23 | 1:382:A:LEU:HD22 | 20       | 0.14          |
| (1,2052) | 1:357:A:LEU:HD23 | 1:382:A:LEU:HD23 | 20       | 0.14          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD11 | 3        | 0.14          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD12 | 3        | 0.14          |
| (1,2001) | 1:354:A:LYS:HA   | 1:357:A:LEU:HD13 | 3        | 0.14          |
| (1,1954) | 1:351:A:ALA:HA   | 1:353:A:THR:HB   | 14       | 0.14          |
| (1,1882) | 1:345:A:THR:HB   | 1:346:A:ARG:H    | 9        | 0.14          |
| (1,1882) | 1:345:A:THR:HB   | 1:346:A:ARG:H    | 15       | 0.14          |
| (1,1882) | 1:345:A:THR:HB   | 1:346:A:ARG:H    | 17       | 0.14          |
| (1,1843) | 1:342:A:SER:HB2  | 1:343:A:THR:H    | 13       | 0.14          |
| (1,1843) | 1:342:A:SER:HB3  | 1:343:A:THR:H    | 13       | 0.14          |
| (1,1843) | 1:342:A:SER:HB2  | 1:343:A:THR:H    | 18       | 0.14          |
| (1,1843) | 1:342:A:SER:HB3  | 1:343:A:THR:H    | 18       | 0.14          |
| (1,1791) | 1:337:A:GLU:H    | 1:340:A:GLN:H    | 14       | 0.14          |
| (1,1762) | 1:335:A:SER:H    | 1:339:A:LEU:H    | 11       | 0.14          |
| (1,1674) | 1:325:A:ILE:HD11 | 1:327:A:SER:H    | 18       | 0.14          |
| (1,1674) | 1:325:A:ILE:HD12 | 1:327:A:SER:H    | 18       | 0.14          |
| (1,1674) | 1:325:A:ILE:HD13 | 1:327:A:SER:H    | 18       | 0.14          |
| (1,1674) | 1:325:A:ILE:HD11 | 1:327:A:SER:H    | 19       | 0.14          |
| (1,1674) | 1:325:A:ILE:HD12 | 1:327:A:SER:H    | 19       | 0.14          |
| (1,1674) | 1:325:A:ILE:HD13 | 1:327:A:SER:H    | 19       | 0.14          |
| (1,1506) | 1:315:A:PRO:HA   | 1:349:A:ARG:HD2  | 10       | 0.14          |
| (1,1506) | 1:315:A:PRO:HA   | 1:349:A:ARG:HD3  | 10       | 0.14          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG21 | 15       | 0.14          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG22 | 15       | 0.14          |
| (1,1418) | 1:312:A:GLN:HA   | 1:345:A:THR:HG23 | 15       | 0.14          |
| (1,1382) | 1:307:A:MET:HB2  | 1:308:A:ASP:H    | 4        | 0.14          |
| (1,1382) | 1:307:A:MET:HB3  | 1:308:A:ASP:H    | 4        | 0.14          |
| (1,1382) | 1:307:A:MET:HB2  | 1:308:A:ASP:H    | 9        | 0.14          |
| (1,1382) | 1:307:A:MET:HB3  | 1:308:A:ASP:H    | 9        | 0.14          |
| (1,1219) | 1:299:A:LEU:H    | 1:306:A:ILE:H    | 1        | 0.14          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD11 | 1        | 0.14          |
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD12 | 1        | 0.14          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1200) | 1:299:A:LEU:HD11 | 1:325:A:ILE:HD13 | 1        | 0.14          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD11 | 1        | 0.14          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD12 | 1        | 0.14          |
| (1,1200) | 1:299:A:LEU:HD12 | 1:325:A:ILE:HD13 | 1        | 0.14          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD11 | 1        | 0.14          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD12 | 1        | 0.14          |
| (1,1200) | 1:299:A:LEU:HD13 | 1:325:A:ILE:HD13 | 1        | 0.14          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD11 | 6        | 0.14          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD12 | 6        | 0.14          |
| (1,1199) | 1:299:A:LEU:HA   | 1:325:A:ILE:HD13 | 6        | 0.14          |
| (1,1167) | 1:298:A:LYS:HA   | 1:309:A:ASP:HA   | 13       | 0.14          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD2  | 18       | 0.14          |
| (1,1159) | 1:298:A:LYS:H    | 1:322:A:ARG:HD3  | 18       | 0.14          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB2  | 16       | 0.14          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB3  | 16       | 0.14          |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB2  | 16       | 0.14          |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB3  | 16       | 0.14          |
| (1,879)  | 1:280:A:ILE:HA   | 1:321:A:VAL:HA   | 16       | 0.14          |
| (1,763)  | 1:276:A:SER:HA   | 1:326:A:ASP:H    | 15       | 0.14          |
| (1,763)  | 1:276:A:SER:HA   | 1:326:A:ASP:H    | 18       | 0.14          |
| (1,723)  | 1:274:A:TYR:H    | 1:328:A:SER:H    | 12       | 0.14          |
| (1,685)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:HB1  | 7        | 0.14          |
| (1,685)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:HB2  | 7        | 0.14          |
| (1,685)  | 1:272:A:GLN:HE21 | 1:351:A:ALA:HB3  | 7        | 0.14          |
| (1,685)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:HB1  | 7        | 0.14          |
| (1,685)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:HB2  | 7        | 0.14          |
| (1,685)  | 1:272:A:GLN:HE22 | 1:351:A:ALA:HB3  | 7        | 0.14          |
| (1,634)  | 1:267:A:ARG:HG2  | 1:274:A:TYR:H    | 14       | 0.14          |
| (1,634)  | 1:267:A:ARG:HG3  | 1:274:A:TYR:H    | 14       | 0.14          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD1  | 3        | 0.14          |
| (1,543)  | 1:262:A:THR:HA   | 1:279:A:TYR:HD2  | 3        | 0.14          |
| (1,456)  | 1:258:A:ASN:HB2  | 1:283:A:GLN:HB2  | 3        | 0.14          |
| (1,456)  | 1:258:A:ASN:HB2  | 1:283:A:GLN:HB3  | 3        | 0.14          |
| (1,456)  | 1:258:A:ASN:HB3  | 1:283:A:GLN:HB2  | 3        | 0.14          |
| (1,456)  | 1:258:A:ASN:HB3  | 1:283:A:GLN:HB3  | 3        | 0.14          |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB2  | 5        | 0.14          |
| (1,405)  | 1:253:A:ILE:HD11 | 1:322:A:ARG:HB3  | 5        | 0.14          |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB2  | 5        | 0.14          |
| (1,405)  | 1:253:A:ILE:HD12 | 1:322:A:ARG:HB3  | 5        | 0.14          |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB2  | 5        | 0.14          |
| (1,405)  | 1:253:A:ILE:HD13 | 1:322:A:ARG:HB3  | 5        | 0.14          |
| (1,339)  | 1:250:A:TYR:HE1  | 1:280:A:ILE:HA   | 6        | 0.14          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,339)  | 1:250:A:TYR:HE2  | 1:280:A:ILE:HA   | 6        | 0.14          |
| (1,210)  | 1:243:A:ASP:H    | 1:246:A:TYR:H    | 12       | 0.14          |
| (1,180)  | 1:241:A:ILE:HB   | 1:246:A:TYR:HD1  | 13       | 0.14          |
| (1,180)  | 1:241:A:ILE:HB   | 1:246:A:TYR:HD2  | 13       | 0.14          |
| (1,149)  | 1:238:A:LYS:HA   | 1:265:A:HIS:HE1  | 7        | 0.14          |
| (1,82)   | 1:234:A:TRP:HD1  | 1:276:A:SER:HA   | 6        | 0.14          |
| (1,24)   | 1:232:A:ALA:H    | 1:235:A:THR:HG21 | 20       | 0.14          |
| (1,24)   | 1:232:A:ALA:H    | 1:235:A:THR:HG22 | 20       | 0.14          |
| (1,24)   | 1:232:A:ALA:H    | 1:235:A:THR:HG23 | 20       | 0.14          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD11 | 10       | 0.13          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD12 | 10       | 0.13          |
| (1,3968) | 1:396:A:ILE:HD11 | 2:620:B:LEU:HD13 | 10       | 0.13          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD11 | 10       | 0.13          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD12 | 10       | 0.13          |
| (1,3968) | 1:396:A:ILE:HD12 | 2:620:B:LEU:HD13 | 10       | 0.13          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD11 | 10       | 0.13          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD12 | 10       | 0.13          |
| (1,3968) | 1:396:A:ILE:HD13 | 2:620:B:LEU:HD13 | 10       | 0.13          |
| (1,3935) | 1:490:A:LEU:HA   | 1:494:A:ALA:H    | 14       | 0.13          |
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB2  | 18       | 0.13          |
| (1,3896) | 1:486:A:VAL:HA   | 1:489:A:SER:HB3  | 18       | 0.13          |
| (1,3858) | 1:482:A:SER:H    | 1:485:A:LYS:H    | 8        | 0.13          |
| (1,3857) | 1:481:A:GLN:HE21 | 1:482:A:SER:H    | 7        | 0.13          |
| (1,3857) | 1:481:A:GLN:HE22 | 1:482:A:SER:H    | 7        | 0.13          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD1  | 18       | 0.13          |
| (1,3730) | 1:468:A:MET:HA   | 1:471:A:TYR:HD2  | 18       | 0.13          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 11       | 0.13          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 11       | 0.13          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 11       | 0.13          |
| (1,3689) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HZ3  | 19       | 0.13          |
| (1,3689) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HZ3  | 19       | 0.13          |
| (1,3689) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HZ3  | 19       | 0.13          |
| (1,3679) | 1:463:A:ARG:HA   | 1:466:A:GLU:H    | 5        | 0.13          |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD11 | 3        | 0.13          |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD12 | 3        | 0.13          |
| (1,3649) | 1:460:A:LEU:HD21 | 1:472:A:LEU:HD13 | 3        | 0.13          |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD11 | 3        | 0.13          |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD12 | 3        | 0.13          |
| (1,3649) | 1:460:A:LEU:HD22 | 1:472:A:LEU:HD13 | 3        | 0.13          |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD11 | 3        | 0.13          |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD12 | 3        | 0.13          |
| (1,3649) | 1:460:A:LEU:HD23 | 1:472:A:LEU:HD13 | 3        | 0.13          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3622) | 1:456:A:GLU:HG2  | 1:457:A:VAL:H    | 8        | 0.13          |
| (1,3622) | 1:456:A:GLU:HG3  | 1:457:A:VAL:H    | 8        | 0.13          |
| (1,3598) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HB2  | 15       | 0.13          |
| (1,3598) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HB3  | 15       | 0.13          |
| (1,3536) | 1:449:A:LEU:HA   | 1:453:A:LYS:H    | 6        | 0.13          |
| (1,3519) | 1:448:A:GLU:HB2  | 1:452:A:LYS:H    | 11       | 0.13          |
| (1,3519) | 1:448:A:GLU:HB3  | 1:452:A:LYS:H    | 11       | 0.13          |
| (1,3505) | 1:447:A:LEU:HB2  | 1:451:A:ARG:H    | 18       | 0.13          |
| (1,3505) | 1:447:A:LEU:HB3  | 1:451:A:ARG:H    | 18       | 0.13          |
| (1,3405) | 1:439:A:ALA:HA   | 1:442:A:LYS:HB2  | 1        | 0.13          |
| (1,3405) | 1:439:A:ALA:HA   | 1:442:A:LYS:HB3  | 1        | 0.13          |
| (1,3390) | 1:438:A:TYR:HE1  | 1:442:A:LYS:HD2  | 7        | 0.13          |
| (1,3362) | 1:437:A:SER:HA   | 1:461:A:SER:HA   | 5        | 0.13          |
| (1,3353) | 1:436:A:ASP:HA   | 1:461:A:SER:HA   | 10       | 0.13          |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 9        | 0.13          |
| (1,3185) | 1:430:A:ILE:HD11 | 1:475:A:PHE:H    | 12       | 0.13          |
| (1,3185) | 1:430:A:ILE:HD12 | 1:475:A:PHE:H    | 12       | 0.13          |
| (1,3185) | 1:430:A:ILE:HD13 | 1:475:A:PHE:H    | 12       | 0.13          |
| (1,3153) | 1:429:A:LYS:HA   | 1:480:A:PHE:H    | 20       | 0.13          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG2  | 20       | 0.13          |
| (1,3134) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HG3  | 20       | 0.13          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG2  | 20       | 0.13          |
| (1,3134) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HG3  | 20       | 0.13          |
| (1,3133) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HD2  | 18       | 0.13          |
| (1,3133) | 1:428:A:GLU:HG2  | 1:479:A:PRO:HD3  | 18       | 0.13          |
| (1,3133) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HD2  | 18       | 0.13          |
| (1,3133) | 1:428:A:GLU:HG3  | 1:479:A:PRO:HD3  | 18       | 0.13          |
| (1,3112) | 1:426:A:GLY:HA2  | 1:428:A:GLU:HA   | 16       | 0.13          |
| (1,3112) | 1:426:A:GLY:HA3  | 1:428:A:GLU:HA   | 16       | 0.13          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE21 | 20       | 0.13          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE22 | 20       | 0.13          |
| (1,3078) | 1:423:A:MET:HE1  | 1:428:A:GLU:H    | 6        | 0.13          |
| (1,3078) | 1:423:A:MET:HE2  | 1:428:A:GLU:H    | 6        | 0.13          |
| (1,3078) | 1:423:A:MET:HE3  | 1:428:A:GLU:H    | 6        | 0.13          |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB2  | 2        | 0.13          |
| (1,2986) | 1:417:A:GLU:HA   | 1:421:A:SER:HB3  | 2        | 0.13          |
| (1,2985) | 1:417:A:GLU:HB2  | 1:421:A:SER:H    | 17       | 0.13          |
| (1,2985) | 1:417:A:GLU:HB3  | 1:421:A:SER:H    | 17       | 0.13          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB2  | 12       | 0.13          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB3  | 12       | 0.13          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB2  | 12       | 0.13          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB3  | 12       | 0.13          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB2  | 12       | 0.13          |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB3  | 12       | 0.13          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB2  | 19       | 0.13          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB3  | 19       | 0.13          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB2  | 19       | 0.13          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB3  | 19       | 0.13          |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB2  | 19       | 0.13          |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB3  | 19       | 0.13          |
| (1,2927) | 1:412:A:GLN:HA   | 1:414:A:VAL:HB   | 1        | 0.13          |
| (1,2912) | 1:410:A:SER:HB2  | 1:438:A:TYR:HD1  | 18       | 0.13          |
| (1,2912) | 1:410:A:SER:HB2  | 1:438:A:TYR:HD2  | 18       | 0.13          |
| (1,2912) | 1:410:A:SER:HB3  | 1:438:A:TYR:HD1  | 18       | 0.13          |
| (1,2912) | 1:410:A:SER:HB3  | 1:438:A:TYR:HD2  | 18       | 0.13          |
| (1,2848) | 1:405:A:THR:H    | 1:457:A:VAL:HB   | 13       | 0.13          |
| (1,2824) | 1:404:A:SER:H    | 1:414:A:VAL:HB   | 5        | 0.13          |
| (1,2811) | 1:404:A:SER:HB2  | 1:458:A:LEU:H    | 8        | 0.13          |
| (1,2811) | 1:404:A:SER:HB3  | 1:458:A:LEU:H    | 8        | 0.13          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG11 | 3        | 0.13          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG12 | 3        | 0.13          |
| (1,2792) | 1:403:A:ALA:HA   | 1:414:A:VAL:HG13 | 3        | 0.13          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG11 | 5        | 0.13          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG12 | 5        | 0.13          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG13 | 5        | 0.13          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG11 | 19       | 0.13          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG12 | 19       | 0.13          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG13 | 19       | 0.13          |
| (1,2761) | 1:402:A:PHE:H    | 1:415:A:SER:HA   | 18       | 0.13          |
| (1,2697) | 1:398:A:LYS:HA   | 1:475:A:PHE:HE1  | 6        | 0.13          |
| (1,2574) | 1:388:A:GLU:H    | 1:390:A:PHE:H    | 6        | 0.13          |
| (1,2574) | 1:388:A:GLU:H    | 1:390:A:PHE:H    | 8        | 0.13          |
| (1,2574) | 1:388:A:GLU:H    | 1:390:A:PHE:H    | 12       | 0.13          |
| (1,2566) | 1:387:A:ALA:H    | 1:468:A:MET:HA   | 6        | 0.13          |
| (1,2564) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD1  | 18       | 0.13          |
| (1,2547) | 1:386:A:PRO:HA   | 1:396:A:ILE:HB   | 5        | 0.13          |
| (1,2524) | 1:385:A:GLY:HA2  | 1:389:A:ASP:H    | 1        | 0.13          |
| (1,2524) | 1:385:A:GLY:HA3  | 1:389:A:ASP:H    | 1        | 0.13          |
| (1,2434) | 1:380:A:LEU:HA   | 1:383:A:LYS:H    | 11       | 0.13          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG21 | 20       | 0.13          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG22 | 20       | 0.13          |
| (1,2379) | 1:376:A:GLN:HE21 | 1:413:A:THR:HG23 | 20       | 0.13          |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG21 | 20       | 0.13          |
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG22 | 20       | 0.13          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2379) | 1:376:A:GLN:HE22 | 1:413:A:THR:HG23 | 20       | 0.13          |
| (1,2344) | 1:375:A:TRP:HZ2  | 1:402:A:PHE:HA   | 10       | 0.13          |
| (1,2012) | 1:355:A:ARG:H    | 1:358:A:GLN:H    | 12       | 0.13          |
| (1,1938) | 1:350:A:ASN:HA   | 1:353:A:THR:HB   | 7        | 0.13          |
| (1,1937) | 1:350:A:ASN:HA   | 1:353:A:THR:H    | 11       | 0.13          |
| (1,1889) | 1:346:A:ARG:HA   | 1:349:A:ARG:HG2  | 12       | 0.13          |
| (1,1843) | 1:342:A:SER:HB2  | 1:343:A:THR:H    | 2        | 0.13          |
| (1,1843) | 1:342:A:SER:HB3  | 1:343:A:THR:H    | 2        | 0.13          |
| (1,1810) | 1:339:A:LEU:HA   | 1:345:A:THR:H    | 18       | 0.13          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB2  | 10       | 0.13          |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB3  | 10       | 0.13          |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB2  | 10       | 0.13          |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB3  | 10       | 0.13          |
| (1,1788) | 1:337:A:GLU:HA   | 1:341:A:ASP:H    | 5        | 0.13          |
| (1,1762) | 1:335:A:SER:H    | 1:339:A:LEU:H    | 18       | 0.13          |
| (1,1451) | 1:313:A:PHE:HB2  | 1:348:A:LEU:HD11 | 19       | 0.13          |
| (1,1451) | 1:313:A:PHE:HB2  | 1:348:A:LEU:HD12 | 19       | 0.13          |
| (1,1451) | 1:313:A:PHE:HB2  | 1:348:A:LEU:HD13 | 19       | 0.13          |
| (1,1451) | 1:313:A:PHE:HB3  | 1:348:A:LEU:HD11 | 19       | 0.13          |
| (1,1451) | 1:313:A:PHE:HB3  | 1:348:A:LEU:HD12 | 19       | 0.13          |
| (1,1451) | 1:313:A:PHE:HB3  | 1:348:A:LEU:HD13 | 19       | 0.13          |
| (1,1432) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HG2  | 12       | 0.13          |
| (1,1432) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HG3  | 12       | 0.13          |
| (1,1432) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HG2  | 12       | 0.13          |
| (1,1432) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HG3  | 12       | 0.13          |
| (1,1431) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HD2  | 9        | 0.13          |
| (1,1431) | 1:312:A:GLN:HE21 | 1:336:A:ARG:HD3  | 9        | 0.13          |
| (1,1431) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HD2  | 9        | 0.13          |
| (1,1431) | 1:312:A:GLN:HE22 | 1:336:A:ARG:HD3  | 9        | 0.13          |
| (1,1367) | 1:307:A:MET:HE1  | 1:339:A:LEU:H    | 1        | 0.13          |
| (1,1367) | 1:307:A:MET:HE2  | 1:339:A:LEU:H    | 1        | 0.13          |
| (1,1367) | 1:307:A:MET:HE3  | 1:339:A:LEU:H    | 1        | 0.13          |
| (1,1325) | 1:302:A:GLN:H    | 1:327:A:SER:HA   | 16       | 0.13          |
| (1,1277) | 1:301:A:VAL:HB   | 1:332:A:LEU:HD11 | 16       | 0.13          |
| (1,1277) | 1:301:A:VAL:HB   | 1:332:A:LEU:HD12 | 16       | 0.13          |
| (1,1277) | 1:301:A:VAL:HB   | 1:332:A:LEU:HD13 | 16       | 0.13          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE1  | 3        | 0.13          |
| (1,1249) | 1:300:A:TYR:H    | 1:313:A:PHE:HE2  | 3        | 0.13          |
| (1,1223) | 1:299:A:LEU:H    | 1:305:A:PHE:HA   | 15       | 0.13          |
| (1,1215) | 1:299:A:LEU:H    | 1:307:A:MET:H    | 3        | 0.13          |
| (1,1096) | 1:296:A:GLY:HA2  | 1:309:A:ASP:H    | 11       | 0.13          |
| (1,1096) | 1:296:A:GLY:HA3  | 1:309:A:ASP:H    | 11       | 0.13          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1053) | 1:293:A:HIS:HB2 | 1:295:A:HIS:H    | 18       | 0.13          |
| (1,1053) | 1:293:A:HIS:HB3 | 1:295:A:HIS:H    | 18       | 0.13          |
| (1,1051) | 1:293:A:HIS:HE1 | 1:309:A:ASP:HB2  | 19       | 0.13          |
| (1,1051) | 1:293:A:HIS:HE1 | 1:309:A:ASP:HB3  | 19       | 0.13          |
| (1,1035) | 1:290:A:ASN:H   | 1:292:A:ASP:H    | 15       | 0.13          |
| (1,1007) | 1:288:A:MET:HE1 | 1:320:A:PHE:HA   | 2        | 0.13          |
| (1,1007) | 1:288:A:MET:HE2 | 1:320:A:PHE:HA   | 2        | 0.13          |
| (1,1007) | 1:288:A:MET:HE3 | 1:320:A:PHE:HA   | 2        | 0.13          |
| (1,978)  | 1:286:A:TRP:HA  | 1:289:A:TRP:H    | 14       | 0.13          |
| (1,966)  | 1:285:A:PRO:HD2 | 1:288:A:MET:HE1  | 2        | 0.13          |
| (1,966)  | 1:285:A:PRO:HD2 | 1:288:A:MET:HE2  | 2        | 0.13          |
| (1,966)  | 1:285:A:PRO:HD2 | 1:288:A:MET:HE3  | 2        | 0.13          |
| (1,966)  | 1:285:A:PRO:HD3 | 1:288:A:MET:HE1  | 2        | 0.13          |
| (1,966)  | 1:285:A:PRO:HD3 | 1:288:A:MET:HE2  | 2        | 0.13          |
| (1,966)  | 1:285:A:PRO:HD3 | 1:288:A:MET:HE3  | 2        | 0.13          |
| (1,961)  | 1:285:A:PRO:HG2 | 1:294:A:LYS:HB2  | 3        | 0.13          |
| (1,961)  | 1:285:A:PRO:HG2 | 1:294:A:LYS:HB3  | 3        | 0.13          |
| (1,961)  | 1:285:A:PRO:HG3 | 1:294:A:LYS:HB2  | 3        | 0.13          |
| (1,961)  | 1:285:A:PRO:HG3 | 1:294:A:LYS:HB3  | 3        | 0.13          |
| (1,915)  | 1:282:A:SER:HA  | 1:378:A:PHE:HZ   | 10       | 0.13          |
| (1,803)  | 1:278:A:LEU:HB2 | 1:356:A:VAL:HA   | 20       | 0.13          |
| (1,803)  | 1:278:A:LEU:HB3 | 1:356:A:VAL:HA   | 20       | 0.13          |
| (1,764)  | 1:276:A:SER:HB2 | 1:326:A:ASP:H    | 12       | 0.13          |
| (1,764)  | 1:276:A:SER:HB3 | 1:326:A:ASP:H    | 12       | 0.13          |
| (1,763)  | 1:276:A:SER:HA  | 1:326:A:ASP:H    | 14       | 0.13          |
| (1,690)  | 1:272:A:GLN:HG2 | 1:344:A:VAL:HG11 | 10       | 0.13          |
| (1,690)  | 1:272:A:GLN:HG2 | 1:344:A:VAL:HG12 | 10       | 0.13          |
| (1,690)  | 1:272:A:GLN:HG2 | 1:344:A:VAL:HG13 | 10       | 0.13          |
| (1,690)  | 1:272:A:GLN:HG3 | 1:344:A:VAL:HG11 | 10       | 0.13          |
| (1,690)  | 1:272:A:GLN:HG3 | 1:344:A:VAL:HG12 | 10       | 0.13          |
| (1,690)  | 1:272:A:GLN:HG3 | 1:344:A:VAL:HG13 | 10       | 0.13          |
| (1,680)  | 1:271:A:LYS:HA  | 1:273:A:GLU:H    | 8        | 0.13          |
| (1,635)  | 1:267:A:ARG:HA  | 1:274:A:TYR:HD1  | 2        | 0.13          |
| (1,635)  | 1:267:A:ARG:HA  | 1:274:A:TYR:HD2  | 2        | 0.13          |
| (1,635)  | 1:267:A:ARG:HA  | 1:274:A:TYR:HD1  | 5        | 0.13          |
| (1,635)  | 1:267:A:ARG:HA  | 1:274:A:TYR:HD2  | 5        | 0.13          |
| (1,620)  | 1:266:A:ASN:HB2 | 1:274:A:TYR:HE1  | 8        | 0.13          |
| (1,620)  | 1:266:A:ASN:HB2 | 1:274:A:TYR:HE2  | 8        | 0.13          |
| (1,620)  | 1:266:A:ASN:HB3 | 1:274:A:TYR:HE1  | 8        | 0.13          |
| (1,620)  | 1:266:A:ASN:HB3 | 1:274:A:TYR:HE2  | 8        | 0.13          |
| (1,565)  | 1:263:A:TRP:HD1 | 1:265:A:HIS:HA   | 5        | 0.13          |
| (1,542)  | 1:262:A:THR:H   | 1:279:A:TYR:HB2  | 7        | 0.13          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,542)  | 1:262:A:THR:H    | 1:279:A:TYR:HB3  | 7        | 0.13          |
| (1,471)  | 1:260:A:PRO:HA   | 1:282:A:SER:H    | 16       | 0.13          |
| (1,455)  | 1:258:A:ASN:HB2  | 1:283:A:GLN:H    | 3        | 0.13          |
| (1,455)  | 1:258:A:ASN:HB3  | 1:283:A:GLN:H    | 3        | 0.13          |
| (1,382)  | 1:251:A:LYS:HA   | 1:255:A:HIS:HA   | 11       | 0.13          |
| (1,293)  | 1:248:A:GLU:HA   | 1:251:A:LYS:H    | 12       | 0.13          |
| (1,210)  | 1:243:A:ASP:H    | 1:246:A:TYR:H    | 4        | 0.13          |
| (1,210)  | 1:243:A:ASP:H    | 1:246:A:TYR:H    | 10       | 0.13          |
| (1,204)  | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 9        | 0.13          |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 5        | 0.13          |
| (1,190)  | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 14       | 0.13          |
| (1,153)  | 1:238:A:LYS:HE2  | 1:264:A:SER:HA   | 15       | 0.13          |
| (1,153)  | 1:238:A:LYS:HE3  | 1:264:A:SER:HA   | 15       | 0.13          |
| (1,137)  | 1:237:A:ASN:H    | 1:239:A:SER:H    | 12       | 0.13          |
| (1,135)  | 1:237:A:ASN:HD21 | 1:240:A:GLU:H    | 6        | 0.13          |
| (1,135)  | 1:237:A:ASN:HD22 | 1:240:A:GLU:H    | 6        | 0.13          |
| (1,95)   | 1:234:A:TRP:HA   | 1:246:A:TYR:HE2  | 7        | 0.13          |
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG21 | 5        | 0.13          |
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG22 | 5        | 0.13          |
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG23 | 5        | 0.13          |
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG21 | 12       | 0.13          |
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG22 | 12       | 0.13          |
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG23 | 12       | 0.13          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG21 | 6        | 0.12          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG22 | 6        | 0.12          |
| (2,8)    | 1:338:A:ILE:HD11 | 1:344:A:VAL:HG23 | 6        | 0.12          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG21 | 6        | 0.12          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG22 | 6        | 0.12          |
| (2,8)    | 1:338:A:ILE:HD12 | 1:344:A:VAL:HG23 | 6        | 0.12          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG21 | 6        | 0.12          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG22 | 6        | 0.12          |
| (2,8)    | 1:338:A:ILE:HD13 | 1:344:A:VAL:HG23 | 6        | 0.12          |
| (1,3943) | 1:490:A:LEU:HA   | 1:492:A:LYS:H    | 4        | 0.12          |
| (1,3903) | 1:487:A:ASP:H    | 1:491:A:GLU:H    | 14       | 0.12          |
| (1,3767) | 1:472:A:LEU:HD22 | 1:480:A:PHE:HE2  | 17       | 0.12          |
| (1,3636) | 1:458:A:LEU:HD11 | 1:469:A:MET:HE1  | 1        | 0.12          |
| (1,3636) | 1:458:A:LEU:HD11 | 1:469:A:MET:HE2  | 1        | 0.12          |
| (1,3636) | 1:458:A:LEU:HD11 | 1:469:A:MET:HE3  | 1        | 0.12          |
| (1,3636) | 1:458:A:LEU:HD12 | 1:469:A:MET:HE1  | 1        | 0.12          |
| (1,3636) | 1:458:A:LEU:HD12 | 1:469:A:MET:HE2  | 1        | 0.12          |
| (1,3636) | 1:458:A:LEU:HD12 | 1:469:A:MET:HE3  | 1        | 0.12          |
| (1,3636) | 1:458:A:LEU:HD13 | 1:469:A:MET:HE1  | 1        | 0.12          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3636) | 1:458:A:LEU:HD13 | 1:469:A:MET:HE2  | 1        | 0.12          |
| (1,3636) | 1:458:A:LEU:HD13 | 1:469:A:MET:HE3  | 1        | 0.12          |
| (1,3622) | 1:456:A:GLU:HG2  | 1:457:A:VAL:H    | 6        | 0.12          |
| (1,3622) | 1:456:A:GLU:HG3  | 1:457:A:VAL:H    | 6        | 0.12          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD11 | 6        | 0.12          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD12 | 6        | 0.12          |
| (1,3509) | 1:447:A:LEU:HD21 | 1:450:A:LEU:HD13 | 6        | 0.12          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD11 | 6        | 0.12          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD12 | 6        | 0.12          |
| (1,3509) | 1:447:A:LEU:HD22 | 1:450:A:LEU:HD13 | 6        | 0.12          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD11 | 6        | 0.12          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD12 | 6        | 0.12          |
| (1,3509) | 1:447:A:LEU:HD23 | 1:450:A:LEU:HD13 | 6        | 0.12          |
| (1,3492) | 1:447:A:LEU:HA   | 1:483:A:VAL:HB   | 18       | 0.12          |
| (1,3248) | 1:432:A:TYR:HA   | 1:457:A:VAL:HA   | 16       | 0.12          |
| (1,3232) | 1:432:A:TYR:HA   | 1:483:A:VAL:H    | 14       | 0.12          |
| (1,3214) | 1:431:A:TYR:H    | 1:458:A:LEU:H    | 8        | 0.12          |
| (1,3214) | 1:431:A:TYR:H    | 1:458:A:LEU:H    | 13       | 0.12          |
| (1,3208) | 1:431:A:TYR:HB2  | 1:482:A:SER:HA   | 2        | 0.12          |
| (1,3208) | 1:431:A:TYR:HB3  | 1:482:A:SER:HA   | 2        | 0.12          |
| (1,3207) | 1:431:A:TYR:HA   | 1:482:A:SER:HA   | 7        | 0.12          |
| (1,3171) | 1:430:A:ILE:HA   | 1:481:A:GLN:H    | 17       | 0.12          |
| (1,3160) | 1:429:A:LYS:HA   | 1:478:A:LYS:HA   | 19       | 0.12          |
| (1,3155) | 1:429:A:LYS:HB2  | 1:480:A:PHE:HA   | 4        | 0.12          |
| (1,3155) | 1:429:A:LYS:HB3  | 1:480:A:PHE:HA   | 4        | 0.12          |
| (1,3155) | 1:429:A:LYS:HB2  | 1:480:A:PHE:HA   | 18       | 0.12          |
| (1,3155) | 1:429:A:LYS:HB3  | 1:480:A:PHE:HA   | 18       | 0.12          |
| (1,3143) | 1:429:A:LYS:HD2  | 1:489:A:SER:H    | 9        | 0.12          |
| (1,3143) | 1:429:A:LYS:HD3  | 1:489:A:SER:H    | 9        | 0.12          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE21 | 4        | 0.12          |
| (1,3097) | 1:424:A:LYS:H    | 1:427:A:GLN:HE22 | 4        | 0.12          |
| (1,3082) | 1:423:A:MET:HA   | 1:427:A:GLN:HE21 | 8        | 0.12          |
| (1,3082) | 1:423:A:MET:HA   | 1:427:A:GLN:HE22 | 8        | 0.12          |
| (1,3073) | 1:423:A:MET:HE1  | 1:430:A:ILE:H    | 18       | 0.12          |
| (1,3073) | 1:423:A:MET:HE2  | 1:430:A:ILE:H    | 18       | 0.12          |
| (1,3073) | 1:423:A:MET:HE3  | 1:430:A:ILE:H    | 18       | 0.12          |
| (1,3017) | 1:419:A:TYR:HE1  | 1:431:A:TYR:H    | 3        | 0.12          |
| (1,3017) | 1:419:A:TYR:HE2  | 1:431:A:TYR:H    | 3        | 0.12          |
| (1,2968) | 1:416:A:LEU:HA   | 1:420:A:VAL:H    | 17       | 0.12          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB2  | 17       | 0.12          |
| (1,2940) | 1:414:A:VAL:HG21 | 1:418:A:ASP:HB3  | 17       | 0.12          |
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB2  | 17       | 0.12          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2940) | 1:414:A:VAL:HG22 | 1:418:A:ASP:HB3  | 17       | 0.12          |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB2  | 17       | 0.12          |
| (1,2940) | 1:414:A:VAL:HG23 | 1:418:A:ASP:HB3  | 17       | 0.12          |
| (1,2926) | 1:412:A:GLN:HA   | 1:414:A:VAL:H    | 8        | 0.12          |
| (1,2911) | 1:410:A:SER:HA   | 1:438:A:TYR:HD1  | 12       | 0.12          |
| (1,2911) | 1:410:A:SER:HA   | 1:438:A:TYR:HD2  | 12       | 0.12          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG11 | 3        | 0.12          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG12 | 3        | 0.12          |
| (1,2765) | 1:402:A:PHE:H    | 1:414:A:VAL:HG13 | 3        | 0.12          |
| (1,2544) | 1:386:A:PRO:HG2  | 1:397:A:ALA:H    | 18       | 0.12          |
| (1,2544) | 1:386:A:PRO:HG3  | 1:397:A:ALA:H    | 18       | 0.12          |
| (1,2487) | 1:383:A:LYS:HE2  | 1:402:A:PHE:HA   | 3        | 0.12          |
| (1,2487) | 1:383:A:LYS:HE3  | 1:402:A:PHE:HA   | 3        | 0.12          |
| (1,2427) | 1:380:A:LEU:HD11 | 1:463:A:ARG:H    | 7        | 0.12          |
| (1,2427) | 1:380:A:LEU:HD12 | 1:463:A:ARG:H    | 7        | 0.12          |
| (1,2427) | 1:380:A:LEU:HD13 | 1:463:A:ARG:H    | 7        | 0.12          |
| (1,2427) | 1:380:A:LEU:HD11 | 1:463:A:ARG:H    | 14       | 0.12          |
| (1,2427) | 1:380:A:LEU:HD12 | 1:463:A:ARG:H    | 14       | 0.12          |
| (1,2427) | 1:380:A:LEU:HD13 | 1:463:A:ARG:H    | 14       | 0.12          |
| (1,2353) | 1:375:A:TRP:HZ3  | 1:400:A:LEU:HA   | 10       | 0.12          |
| (1,2344) | 1:375:A:TRP:HZ2  | 1:402:A:PHE:HA   | 3        | 0.12          |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB2  | 20       | 0.12          |
| (1,2318) | 1:374:A:PHE:HZ   | 1:382:A:LEU:HB3  | 20       | 0.12          |
| (1,2300) | 1:373:A:THR:HG21 | 1:378:A:PHE:HE1  | 6        | 0.12          |
| (1,2300) | 1:373:A:THR:HG21 | 1:378:A:PHE:HE2  | 6        | 0.12          |
| (1,2300) | 1:373:A:THR:HG22 | 1:378:A:PHE:HE1  | 6        | 0.12          |
| (1,2300) | 1:373:A:THR:HG22 | 1:378:A:PHE:HE2  | 6        | 0.12          |
| (1,2300) | 1:373:A:THR:HG23 | 1:378:A:PHE:HE1  | 6        | 0.12          |
| (1,2300) | 1:373:A:THR:HG23 | 1:378:A:PHE:HE2  | 6        | 0.12          |
| (1,2200) | 1:365:A:LYS:HA   | 1:368:A:ALA:HA   | 13       | 0.12          |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD1  | 19       | 0.12          |
| (1,2181) | 1:364:A:ALA:HA   | 1:371:A:TYR:HD2  | 19       | 0.12          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG2  | 5        | 0.12          |
| (1,2129) | 1:361:A:GLU:HG2  | 1:398:A:LYS:HG3  | 5        | 0.12          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG2  | 5        | 0.12          |
| (1,2129) | 1:361:A:GLU:HG3  | 1:398:A:LYS:HG3  | 5        | 0.12          |
| (1,2107) | 1:360:A:LEU:HA   | 1:364:A:ALA:H    | 15       | 0.12          |
| (1,2049) | 1:357:A:LEU:HD11 | 1:392:A:ASN:HB2  | 1        | 0.12          |
| (1,2049) | 1:357:A:LEU:HD11 | 1:392:A:ASN:HB3  | 1        | 0.12          |
| (1,2049) | 1:357:A:LEU:HD12 | 1:392:A:ASN:HB2  | 1        | 0.12          |
| (1,2049) | 1:357:A:LEU:HD12 | 1:392:A:ASN:HB3  | 1        | 0.12          |
| (1,2049) | 1:357:A:LEU:HD13 | 1:392:A:ASN:HB2  | 1        | 0.12          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2049) | 1:357:A:LEU:HD13 | 1:392:A:ASN:HB3  | 1        | 0.12          |
| (1,2049) | 1:357:A:LEU:HD21 | 1:392:A:ASN:HB2  | 1        | 0.12          |
| (1,2049) | 1:357:A:LEU:HD21 | 1:392:A:ASN:HB3  | 1        | 0.12          |
| (1,2049) | 1:357:A:LEU:HD22 | 1:392:A:ASN:HB2  | 1        | 0.12          |
| (1,2049) | 1:357:A:LEU:HD22 | 1:392:A:ASN:HB3  | 1        | 0.12          |
| (1,2049) | 1:357:A:LEU:HD23 | 1:392:A:ASN:HB2  | 1        | 0.12          |
| (1,2049) | 1:357:A:LEU:HD23 | 1:392:A:ASN:HB3  | 1        | 0.12          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD11 | 9        | 0.12          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD12 | 9        | 0.12          |
| (1,2038) | 1:357:A:LEU:HA   | 1:399:A:LEU:HD13 | 9        | 0.12          |
| (1,2013) | 1:355:A:ARG:HA   | 1:358:A:GLN:H    | 3        | 0.12          |
| (1,1954) | 1:351:A:ALA:HA   | 1:353:A:THR:HB   | 20       | 0.12          |
| (1,1933) | 1:350:A:ASN:HA   | 1:354:A:LYS:H    | 19       | 0.12          |
| (1,1854) | 1:343:A:THR:HA   | 1:345:A:THR:HB   | 7        | 0.12          |
| (1,1843) | 1:342:A:SER:HB2  | 1:343:A:THR:H    | 6        | 0.12          |
| (1,1843) | 1:342:A:SER:HB3  | 1:343:A:THR:H    | 6        | 0.12          |
| (1,1843) | 1:342:A:SER:HB2  | 1:343:A:THR:H    | 12       | 0.12          |
| (1,1843) | 1:342:A:SER:HB3  | 1:343:A:THR:H    | 12       | 0.12          |
| (1,1843) | 1:342:A:SER:HB2  | 1:343:A:THR:H    | 17       | 0.12          |
| (1,1843) | 1:342:A:SER:HB3  | 1:343:A:THR:H    | 17       | 0.12          |
| (1,1827) | 1:340:A:GLN:HA   | 1:342:A:SER:H    | 10       | 0.12          |
| (1,1810) | 1:339:A:LEU:HA   | 1:345:A:THR:H    | 4        | 0.12          |
| (1,1765) | 1:335:A:SER:H    | 1:338:A:ILE:H    | 14       | 0.12          |
| (1,1762) | 1:335:A:SER:H    | 1:339:A:LEU:H    | 6        | 0.12          |
| (1,1717) | 1:330:A:LEU:HD21 | 1:334:A:VAL:HB   | 2        | 0.12          |
| (1,1717) | 1:330:A:LEU:HD22 | 1:334:A:VAL:HB   | 2        | 0.12          |
| (1,1717) | 1:330:A:LEU:HD23 | 1:334:A:VAL:HB   | 2        | 0.12          |
| (1,1382) | 1:307:A:MET:HB2  | 1:308:A:ASP:H    | 8        | 0.12          |
| (1,1382) | 1:307:A:MET:HB3  | 1:308:A:ASP:H    | 8        | 0.12          |
| (1,1349) | 1:305:A:PHE:HZ   | 1:308:A:ASP:HA   | 3        | 0.12          |
| (1,1130) | 1:297:A:LEU:H    | 1:311:A:GLU:HA   | 10       | 0.12          |
| (1,1090) | 1:296:A:GLY:H    | 1:311:A:GLU:HA   | 5        | 0.12          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB2  | 8        | 0.12          |
| (1,1060) | 1:294:A:LYS:HD2  | 1:309:A:ASP:HB3  | 8        | 0.12          |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB2  | 8        | 0.12          |
| (1,1060) | 1:294:A:LYS:HD3  | 1:309:A:ASP:HB3  | 8        | 0.12          |
| (1,1037) | 1:290:A:ASN:HB2  | 1:292:A:ASP:H    | 14       | 0.12          |
| (1,1037) | 1:290:A:ASN:HB3  | 1:292:A:ASP:H    | 14       | 0.12          |
| (1,1036) | 1:290:A:ASN:HA   | 1:292:A:ASP:H    | 12       | 0.12          |
| (1,1024) | 1:289:A:TRP:HH2  | 1:381:A:VAL:HA   | 13       | 0.12          |
| (1,1023) | 1:289:A:TRP:HZ2  | 1:381:A:VAL:H    | 6        | 0.12          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 4        | 0.12          |

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| Key     | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (1,976) | 1:286:A:TRP:HE3  | 1:290:A:ASN:HD21 | 10       | 0.12          |
| (1,976) | 1:286:A:TRP:HE3  | 1:290:A:ASN:HD22 | 10       | 0.12          |
| (1,917) | 1:282:A:SER:HA   | 1:374:A:PHE:HA   | 14       | 0.12          |
| (1,916) | 1:282:A:SER:HA   | 1:377:A:GLN:HB2  | 14       | 0.12          |
| (1,916) | 1:282:A:SER:HA   | 1:377:A:GLN:HB3  | 14       | 0.12          |
| (1,915) | 1:282:A:SER:HA   | 1:378:A:PHE:HZ   | 18       | 0.12          |
| (1,848) | 1:279:A:TYR:H    | 1:322:A:ARG:H    | 9        | 0.12          |
| (1,764) | 1:276:A:SER:HB2  | 1:326:A:ASP:H    | 3        | 0.12          |
| (1,764) | 1:276:A:SER:HB3  | 1:326:A:ASP:H    | 3        | 0.12          |
| (1,708) | 1:273:A:GLU:HB2  | 1:327:A:SER:HA   | 8        | 0.12          |
| (1,708) | 1:273:A:GLU:HB3  | 1:327:A:SER:HA   | 8        | 0.12          |
| (1,700) | 1:273:A:GLU:HB2  | 1:329:A:ASP:H    | 1        | 0.12          |
| (1,700) | 1:273:A:GLU:HB3  | 1:329:A:ASP:H    | 1        | 0.12          |
| (1,680) | 1:271:A:LYS:HA   | 1:273:A:GLU:H    | 2        | 0.12          |
| (1,635) | 1:267:A:ARG:HA   | 1:274:A:TYR:HD1  | 9        | 0.12          |
| (1,635) | 1:267:A:ARG:HA   | 1:274:A:TYR:HD2  | 9        | 0.12          |
| (1,614) | 1:266:A:ASN:H    | 1:276:A:SER:H    | 8        | 0.12          |
| (1,525) | 1:262:A:THR:HB   | 1:370:A:LYS:HD2  | 2        | 0.12          |
| (1,525) | 1:262:A:THR:HB   | 1:370:A:LYS:HD3  | 2        | 0.12          |
| (1,513) | 1:261:A:LEU:H    | 1:281:A:PRO:HA   | 15       | 0.12          |
| (1,513) | 1:261:A:LEU:H    | 1:281:A:PRO:HA   | 17       | 0.12          |
| (1,509) | 1:261:A:LEU:H    | 1:282:A:SER:H    | 17       | 0.12          |
| (1,470) | 1:260:A:PRO:HA   | 1:283:A:GLN:H    | 7        | 0.12          |
| (1,452) | 1:257:A:PHE:H    | 1:258:A:ASN:H    | 17       | 0.12          |
| (1,451) | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 17       | 0.12          |
| (1,409) | 1:253:A:ILE:HA   | 1:298:A:LYS:HD2  | 6        | 0.12          |
| (1,409) | 1:253:A:ILE:HA   | 1:298:A:LYS:HD3  | 6        | 0.12          |
| (1,407) | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD2  | 13       | 0.12          |
| (1,407) | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD3  | 13       | 0.12          |
| (1,407) | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD2  | 13       | 0.12          |
| (1,407) | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD3  | 13       | 0.12          |
| (1,407) | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD2  | 13       | 0.12          |
| (1,407) | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD3  | 13       | 0.12          |
| (1,316) | 1:249:A:PHE:HA   | 1:253:A:ILE:H    | 1        | 0.12          |
| (1,310) | 1:249:A:PHE:HZ   | 1:298:A:LYS:HD3  | 16       | 0.12          |
| (1,295) | 1:248:A:GLU:HA   | 1:251:A:LYS:HD2  | 13       | 0.12          |
| (1,295) | 1:248:A:GLU:HA   | 1:251:A:LYS:HD3  | 13       | 0.12          |
| (1,234) | 1:245:A:GLU:HA   | 1:248:A:GLU:H    | 16       | 0.12          |
| (1,210) | 1:243:A:ASP:H    | 1:246:A:TYR:H    | 9        | 0.12          |
| (1,204) | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 17       | 0.12          |
| (1,189) | 1:242:A:THR:H    | 1:246:A:TYR:H    | 20       | 0.12          |
| (1,112) | 1:235:A:THR:HA   | 1:265:A:HIS:HE1  | 15       | 0.12          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,111)  | 1:235:A:THR:H    | 1:265:A:HIS:HE1  | 10       | 0.12          |
| (1,111)  | 1:235:A:THR:H    | 1:265:A:HIS:HE1  | 15       | 0.12          |
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG21 | 13       | 0.12          |
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG22 | 13       | 0.12          |
| (1,86)   | 1:234:A:TRP:HD1  | 1:275:A:THR:HG23 | 13       | 0.12          |
| (1,61)   | 1:234:A:TRP:HH2  | 1:324:A:LEU:HD11 | 3        | 0.12          |
| (1,61)   | 1:234:A:TRP:HH2  | 1:324:A:LEU:HD12 | 3        | 0.12          |
| (1,61)   | 1:234:A:TRP:HH2  | 1:324:A:LEU:HD13 | 3        | 0.12          |
| (1,8)    | 1:231:A:GLN:HG2  | 1:236:A:ARG:HG2  | 6        | 0.12          |
| (1,8)    | 1:231:A:GLN:HG2  | 1:236:A:ARG:HG3  | 6        | 0.12          |
| (1,8)    | 1:231:A:GLN:HG3  | 1:236:A:ARG:HG2  | 6        | 0.12          |
| (1,8)    | 1:231:A:GLN:HG3  | 1:236:A:ARG:HG3  | 6        | 0.12          |
| (1,3942) | 1:490:A:LEU:H    | 1:492:A:LYS:H    | 13       | 0.11          |
| (1,3918) | 1:488:A:GLU:HA   | 1:491:A:GLU:HA   | 2        | 0.11          |
| (1,3917) | 1:488:A:GLU:HA   | 1:491:A:GLU:H    | 14       | 0.11          |
| (1,3785) | 1:474:A:GLU:HA   | 1:480:A:PHE:H    | 20       | 0.11          |
| (1,3744) | 1:469:A:MET:HA   | 1:472:A:LEU:H    | 14       | 0.11          |
| (1,3742) | 1:469:A:MET:HE1  | 1:473:A:THR:HA   | 7        | 0.11          |
| (1,3742) | 1:469:A:MET:HE2  | 1:473:A:THR:HA   | 7        | 0.11          |
| (1,3742) | 1:469:A:MET:HE3  | 1:473:A:THR:HA   | 7        | 0.11          |
| (1,3703) | 1:465:A:ASP:H    | 1:467:A:TRP:H    | 5        | 0.11          |
| (1,3688) | 1:464:A:ILE:HD11 | 1:467:A:TRP:HE3  | 8        | 0.11          |
| (1,3688) | 1:464:A:ILE:HD12 | 1:467:A:TRP:HE3  | 8        | 0.11          |
| (1,3688) | 1:464:A:ILE:HD13 | 1:467:A:TRP:HE3  | 8        | 0.11          |
| (1,3674) | 1:462:A:ASP:HB2  | 1:464:A:ILE:H    | 5        | 0.11          |
| (1,3674) | 1:462:A:ASP:HB3  | 1:464:A:ILE:H    | 5        | 0.11          |
| (1,3624) | 1:457:A:VAL:HA   | 1:483:A:VAL:HG11 | 18       | 0.11          |
| (1,3624) | 1:457:A:VAL:HA   | 1:483:A:VAL:HG12 | 18       | 0.11          |
| (1,3624) | 1:457:A:VAL:HA   | 1:483:A:VAL:HG13 | 18       | 0.11          |
| (1,3616) | 1:455:A:ILE:HB   | 1:456:A:GLU:H    | 5        | 0.11          |
| (1,3598) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HB2  | 5        | 0.11          |
| (1,3598) | 1:453:A:LYS:HG2  | 1:493:A:LEU:HB3  | 5        | 0.11          |
| (1,3563) | 1:450:A:LEU:HA   | 1:455:A:ILE:H    | 8        | 0.11          |
| (1,3553) | 1:450:A:LEU:HD11 | 1:483:A:VAL:HB   | 14       | 0.11          |
| (1,3553) | 1:450:A:LEU:HD12 | 1:483:A:VAL:HB   | 14       | 0.11          |
| (1,3553) | 1:450:A:LEU:HD13 | 1:483:A:VAL:HB   | 14       | 0.11          |
| (1,3405) | 1:439:A:ALA:HA   | 1:442:A:LYS:HB2  | 19       | 0.11          |
| (1,3405) | 1:439:A:ALA:HA   | 1:442:A:LYS:HB3  | 19       | 0.11          |
| (1,3265) | 1:433:A:ILE:H    | 1:460:A:LEU:H    | 18       | 0.11          |
| (1,3248) | 1:432:A:TYR:HA   | 1:457:A:VAL:HA   | 13       | 0.11          |
| (1,3238) | 1:432:A:TYR:HB2  | 1:460:A:LEU:H    | 14       | 0.11          |
| (1,3238) | 1:432:A:TYR:HB3  | 1:460:A:LEU:H    | 14       | 0.11          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,3164) | 1:429:A:LYS:HB2 | 1:431:A:TYR:HE1  | 10       | 0.11          |
| (1,3164) | 1:429:A:LYS:HB2 | 1:431:A:TYR:HE2  | 10       | 0.11          |
| (1,3164) | 1:429:A:LYS:HB3 | 1:431:A:TYR:HE1  | 10       | 0.11          |
| (1,3164) | 1:429:A:LYS:HB3 | 1:431:A:TYR:HE2  | 10       | 0.11          |
| (1,3155) | 1:429:A:LYS:HB2 | 1:480:A:PHE:HA   | 2        | 0.11          |
| (1,3155) | 1:429:A:LYS:HB3 | 1:480:A:PHE:HA   | 2        | 0.11          |
| (1,3148) | 1:429:A:LYS:HE2 | 1:488:A:GLU:HG2  | 3        | 0.11          |
| (1,3148) | 1:429:A:LYS:HE2 | 1:488:A:GLU:HG3  | 3        | 0.11          |
| (1,3148) | 1:429:A:LYS:HE3 | 1:488:A:GLU:HG2  | 3        | 0.11          |
| (1,3148) | 1:429:A:LYS:HE3 | 1:488:A:GLU:HG3  | 3        | 0.11          |
| (1,3143) | 1:429:A:LYS:HD2 | 1:489:A:SER:H    | 13       | 0.11          |
| (1,3143) | 1:429:A:LYS:HD3 | 1:489:A:SER:H    | 13       | 0.11          |
| (1,3093) | 1:424:A:LYS:HE2 | 1:454:A:GLY:HA2  | 20       | 0.11          |
| (1,3093) | 1:424:A:LYS:HE2 | 1:454:A:GLY:HA3  | 20       | 0.11          |
| (1,3093) | 1:424:A:LYS:HE3 | 1:454:A:GLY:HA2  | 20       | 0.11          |
| (1,3093) | 1:424:A:LYS:HE3 | 1:454:A:GLY:HA3  | 20       | 0.11          |
| (1,2968) | 1:416:A:LEU:HA  | 1:420:A:VAL:H    | 18       | 0.11          |
| (1,2968) | 1:416:A:LEU:HA  | 1:420:A:VAL:H    | 19       | 0.11          |
| (1,2961) | 1:416:A:LEU:HB2 | 1:475:A:PHE:HZ   | 16       | 0.11          |
| (1,2961) | 1:416:A:LEU:HB3 | 1:475:A:PHE:HZ   | 16       | 0.11          |
| (1,2914) | 1:410:A:SER:HA  | 1:438:A:TYR:HE1  | 3        | 0.11          |
| (1,2855) | 1:405:A:THR:HB  | 1:451:A:ARG:HA   | 20       | 0.11          |
| (1,2816) | 1:404:A:SER:HA  | 1:457:A:VAL:HB   | 14       | 0.11          |
| (1,2807) | 1:404:A:SER:HA  | 1:459:A:LEU:H    | 15       | 0.11          |
| (1,2791) | 1:403:A:ALA:H   | 1:414:A:VAL:HG11 | 19       | 0.11          |
| (1,2791) | 1:403:A:ALA:H   | 1:414:A:VAL:HG12 | 19       | 0.11          |
| (1,2791) | 1:403:A:ALA:H   | 1:414:A:VAL:HG13 | 19       | 0.11          |
| (1,2786) | 1:403:A:ALA:H   | 1:458:A:LEU:HA   | 13       | 0.11          |
| (1,2766) | 1:402:A:PHE:HB2 | 1:414:A:VAL:HG11 | 4        | 0.11          |
| (1,2766) | 1:402:A:PHE:HB2 | 1:414:A:VAL:HG12 | 4        | 0.11          |
| (1,2766) | 1:402:A:PHE:HB2 | 1:414:A:VAL:HG13 | 4        | 0.11          |
| (1,2766) | 1:402:A:PHE:HB3 | 1:414:A:VAL:HG11 | 4        | 0.11          |
| (1,2766) | 1:402:A:PHE:HB3 | 1:414:A:VAL:HG12 | 4        | 0.11          |
| (1,2766) | 1:402:A:PHE:HB3 | 1:414:A:VAL:HG13 | 4        | 0.11          |
| (1,2746) | 1:402:A:PHE:HZ  | 1:472:A:LEU:HD11 | 4        | 0.11          |
| (1,2746) | 1:402:A:PHE:HZ  | 1:472:A:LEU:HD12 | 4        | 0.11          |
| (1,2746) | 1:402:A:PHE:HZ  | 1:472:A:LEU:HD13 | 4        | 0.11          |
| (1,2739) | 1:401:A:ARG:HD2 | 1:413:A:THR:HA   | 14       | 0.11          |
| (1,2739) | 1:401:A:ARG:HD3 | 1:413:A:THR:HA   | 14       | 0.11          |
| (1,2632) | 1:393:A:GLN:HA  | 1:396:A:ILE:HB   | 2        | 0.11          |
| (1,2585) | 1:389:A:ASP:HA  | 1:391:A:ALA:H    | 18       | 0.11          |
| (1,2561) | 1:387:A:ALA:HA  | 1:471:A:TYR:HD1  | 8        | 0.11          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2561) | 1:387:A:ALA:HA   | 1:471:A:TYR:HD2  | 8        | 0.11          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB2  | 20       | 0.11          |
| (1,2560) | 1:387:A:ALA:HA   | 1:471:A:TYR:HB3  | 20       | 0.11          |
| (1,2534) | 1:386:A:PRO:HB2  | 1:472:A:LEU:H    | 10       | 0.11          |
| (1,2534) | 1:386:A:PRO:HB3  | 1:472:A:LEU:H    | 10       | 0.11          |
| (1,2445) | 1:381:A:VAL:HA   | 1:385:A:GLY:H    | 2        | 0.11          |
| (1,2260) | 1:371:A:TYR:HE1  | 1:399:A:LEU:HA   | 14       | 0.11          |
| (1,2260) | 1:371:A:TYR:HE2  | 1:399:A:LEU:HA   | 14       | 0.11          |
| (1,2200) | 1:365:A:LYS:HA   | 1:368:A:ALA:HA   | 12       | 0.11          |
| (1,2137) | 1:361:A:GLU:HA   | 1:364:A:ALA:H    | 19       | 0.11          |
| (1,2133) | 1:361:A:GLU:HA   | 1:365:A:LYS:H    | 2        | 0.11          |
| (1,1997) | 1:354:A:LYS:HB2  | 1:358:A:GLN:HE21 | 15       | 0.11          |
| (1,1997) | 1:354:A:LYS:HB2  | 1:358:A:GLN:HE22 | 15       | 0.11          |
| (1,1997) | 1:354:A:LYS:HB3  | 1:358:A:GLN:HE21 | 15       | 0.11          |
| (1,1997) | 1:354:A:LYS:HB3  | 1:358:A:GLN:HE22 | 15       | 0.11          |
| (1,1988) | 1:353:A:THR:HB   | 1:354:A:LYS:H    | 3        | 0.11          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD11 | 13       | 0.11          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD12 | 13       | 0.11          |
| (1,1978) | 1:353:A:THR:HB   | 1:357:A:LEU:HD13 | 13       | 0.11          |
| (1,1937) | 1:350:A:ASN:HA   | 1:353:A:THR:H    | 20       | 0.11          |
| (1,1788) | 1:337:A:GLU:HA   | 1:341:A:ASP:H    | 2        | 0.11          |
| (1,1768) | 1:335:A:SER:H    | 1:338:A:ILE:HD11 | 13       | 0.11          |
| (1,1768) | 1:335:A:SER:H    | 1:338:A:ILE:HD12 | 13       | 0.11          |
| (1,1768) | 1:335:A:SER:H    | 1:338:A:ILE:HD13 | 13       | 0.11          |
| (1,1676) | 1:325:A:ILE:HD11 | 1:327:A:SER:HB2  | 16       | 0.11          |
| (1,1676) | 1:325:A:ILE:HD11 | 1:327:A:SER:HB3  | 16       | 0.11          |
| (1,1676) | 1:325:A:ILE:HD12 | 1:327:A:SER:HB2  | 16       | 0.11          |
| (1,1676) | 1:325:A:ILE:HD12 | 1:327:A:SER:HB3  | 16       | 0.11          |
| (1,1676) | 1:325:A:ILE:HD13 | 1:327:A:SER:HB2  | 16       | 0.11          |
| (1,1676) | 1:325:A:ILE:HD13 | 1:327:A:SER:HB3  | 16       | 0.11          |
| (1,1452) | 1:313:A:PHE:HZ   | 1:345:A:THR:HA   | 12       | 0.11          |
| (1,1452) | 1:313:A:PHE:HZ   | 1:345:A:THR:HA   | 19       | 0.11          |
| (1,1382) | 1:307:A:MET:HB2  | 1:308:A:ASP:H    | 3        | 0.11          |
| (1,1382) | 1:307:A:MET:HB3  | 1:308:A:ASP:H    | 3        | 0.11          |
| (1,1382) | 1:307:A:MET:HB2  | 1:308:A:ASP:H    | 7        | 0.11          |
| (1,1382) | 1:307:A:MET:HB3  | 1:308:A:ASP:H    | 7        | 0.11          |
| (1,1382) | 1:307:A:MET:HB2  | 1:308:A:ASP:H    | 16       | 0.11          |
| (1,1382) | 1:307:A:MET:HB3  | 1:308:A:ASP:H    | 16       | 0.11          |
| (1,1324) | 1:302:A:GLN:H    | 1:327:A:SER:H    | 17       | 0.11          |
| (1,1320) | 1:302:A:GLN:H    | 1:328:A:SER:HA   | 18       | 0.11          |
| (1,1277) | 1:301:A:VAL:HB   | 1:332:A:LEU:HD11 | 10       | 0.11          |
| (1,1277) | 1:301:A:VAL:HB   | 1:332:A:LEU:HD12 | 10       | 0.11          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1277) | 1:301:A:VAL:HB   | 1:332:A:LEU:HD13 | 10       | 0.11          |
| (1,1219) | 1:299:A:LEU:H    | 1:306:A:ILE:H    | 17       | 0.11          |
| (1,1167) | 1:298:A:LYS:HA   | 1:309:A:ASP:HA   | 14       | 0.11          |
| (1,1167) | 1:298:A:LYS:HA   | 1:309:A:ASP:HA   | 16       | 0.11          |
| (1,1124) | 1:297:A:LEU:H    | 1:313:A:PHE:H    | 6        | 0.11          |
| (1,1038) | 1:290:A:ASN:HB2  | 1:292:A:ASP:HB2  | 3        | 0.11          |
| (1,1038) | 1:290:A:ASN:HB2  | 1:292:A:ASP:HB3  | 3        | 0.11          |
| (1,1038) | 1:290:A:ASN:HB3  | 1:292:A:ASP:HB2  | 3        | 0.11          |
| (1,1038) | 1:290:A:ASN:HB3  | 1:292:A:ASP:HB3  | 3        | 0.11          |
| (1,1023) | 1:289:A:TRP:HZ2  | 1:381:A:VAL:H    | 11       | 0.11          |
| (1,979)  | 1:286:A:TRP:HE3  | 1:289:A:TRP:H    | 17       | 0.11          |
| (1,848)  | 1:279:A:TYR:H    | 1:322:A:ARG:H    | 6        | 0.11          |
| (1,848)  | 1:279:A:TYR:H    | 1:322:A:ARG:H    | 8        | 0.11          |
| (1,821)  | 1:278:A:LEU:HA   | 1:322:A:ARG:H    | 7        | 0.11          |
| (1,800)  | 1:278:A:LEU:HB2  | 1:359:A:MET:HE1  | 18       | 0.11          |
| (1,800)  | 1:278:A:LEU:HB2  | 1:359:A:MET:HE2  | 18       | 0.11          |
| (1,800)  | 1:278:A:LEU:HB2  | 1:359:A:MET:HE3  | 18       | 0.11          |
| (1,800)  | 1:278:A:LEU:HB3  | 1:359:A:MET:HE1  | 18       | 0.11          |
| (1,800)  | 1:278:A:LEU:HB3  | 1:359:A:MET:HE2  | 18       | 0.11          |
| (1,800)  | 1:278:A:LEU:HB3  | 1:359:A:MET:HE3  | 18       | 0.11          |
| (1,769)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HB   | 15       | 0.11          |
| (1,769)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HB   | 15       | 0.11          |
| (1,767)  | 1:276:A:SER:HB2  | 1:325:A:ILE:HA   | 11       | 0.11          |
| (1,767)  | 1:276:A:SER:HB3  | 1:325:A:ILE:HA   | 11       | 0.11          |
| (1,764)  | 1:276:A:SER:HB2  | 1:326:A:ASP:H    | 10       | 0.11          |
| (1,764)  | 1:276:A:SER:HB3  | 1:326:A:ASP:H    | 10       | 0.11          |
| (1,764)  | 1:276:A:SER:HB2  | 1:326:A:ASP:H    | 19       | 0.11          |
| (1,764)  | 1:276:A:SER:HB3  | 1:326:A:ASP:H    | 19       | 0.11          |
| (1,763)  | 1:276:A:SER:HA   | 1:326:A:ASP:H    | 10       | 0.11          |
| (1,752)  | 1:275:A:THR:HG21 | 1:324:A:LEU:HD21 | 2        | 0.11          |
| (1,752)  | 1:275:A:THR:HG21 | 1:324:A:LEU:HD22 | 2        | 0.11          |
| (1,752)  | 1:275:A:THR:HG21 | 1:324:A:LEU:HD23 | 2        | 0.11          |
| (1,752)  | 1:275:A:THR:HG22 | 1:324:A:LEU:HD21 | 2        | 0.11          |
| (1,752)  | 1:275:A:THR:HG22 | 1:324:A:LEU:HD22 | 2        | 0.11          |
| (1,752)  | 1:275:A:THR:HG22 | 1:324:A:LEU:HD23 | 2        | 0.11          |
| (1,752)  | 1:275:A:THR:HG23 | 1:324:A:LEU:HD21 | 2        | 0.11          |
| (1,752)  | 1:275:A:THR:HG23 | 1:324:A:LEU:HD22 | 2        | 0.11          |
| (1,752)  | 1:275:A:THR:HG23 | 1:324:A:LEU:HD23 | 2        | 0.11          |
| (1,740)  | 1:275:A:THR:H    | 1:328:A:SER:H    | 18       | 0.11          |
| (1,724)  | 1:274:A:TYR:HA   | 1:328:A:SER:H    | 15       | 0.11          |
| (1,700)  | 1:273:A:GLU:HB2  | 1:329:A:ASP:H    | 6        | 0.11          |
| (1,700)  | 1:273:A:GLU:HB3  | 1:329:A:ASP:H    | 6        | 0.11          |

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| Key     | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (1,699) | 1:273:A:GLU:H    | 1:329:A:ASP:H    | 6        | 0.11          |
| (1,653) | 1:268:A:VAL:HB   | 1:273:A:GLU:HA   | 17       | 0.11          |
| (1,588) | 1:264:A:SER:HA   | 1:266:A:ASN:HD21 | 16       | 0.11          |
| (1,588) | 1:264:A:SER:HA   | 1:266:A:ASN:HD22 | 16       | 0.11          |
| (1,564) | 1:263:A:TRP:HE1  | 1:265:A:HIS:H    | 7        | 0.11          |
| (1,452) | 1:257:A:PHE:H    | 1:258:A:ASN:H    | 3        | 0.11          |
| (1,451) | 1:257:A:PHE:HA   | 1:259:A:ASP:H    | 2        | 0.11          |
| (1,407) | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD2  | 8        | 0.11          |
| (1,407) | 1:253:A:ILE:HD11 | 1:322:A:ARG:HD3  | 8        | 0.11          |
| (1,407) | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD2  | 8        | 0.11          |
| (1,407) | 1:253:A:ILE:HD12 | 1:322:A:ARG:HD3  | 8        | 0.11          |
| (1,407) | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD2  | 8        | 0.11          |
| (1,407) | 1:253:A:ILE:HD13 | 1:322:A:ARG:HD3  | 8        | 0.11          |
| (1,379) | 1:251:A:LYS:HG2  | 1:256:A:ASP:H    | 16       | 0.11          |
| (1,379) | 1:251:A:LYS:HG3  | 1:256:A:ASP:H    | 16       | 0.11          |
| (1,377) | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2  | 20       | 0.11          |
| (1,377) | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3  | 20       | 0.11          |
| (1,377) | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2  | 20       | 0.11          |
| (1,377) | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3  | 20       | 0.11          |
| (1,347) | 1:250:A:TYR:HE1  | 1:260:A:PRO:HA   | 13       | 0.11          |
| (1,347) | 1:250:A:TYR:HE2  | 1:260:A:PRO:HA   | 13       | 0.11          |
| (1,309) | 1:249:A:PHE:HE2  | 1:298:A:LYS:HD3  | 12       | 0.11          |
| (1,282) | 1:247:A:LYS:HA   | 1:250:A:TYR:H    | 10       | 0.11          |
| (1,251) | 1:246:A:TYR:HE1  | 1:263:A:TRP:HE1  | 10       | 0.11          |
| (1,251) | 1:246:A:TYR:HE2  | 1:263:A:TRP:HE1  | 10       | 0.11          |
| (1,250) | 1:246:A:TYR:HD1  | 1:263:A:TRP:HE1  | 11       | 0.11          |
| (1,250) | 1:246:A:TYR:HD2  | 1:263:A:TRP:HE1  | 11       | 0.11          |
| (1,221) | 1:244:A:GLU:HA   | 1:248:A:GLU:HB2  | 4        | 0.11          |
| (1,221) | 1:244:A:GLU:HA   | 1:248:A:GLU:HB3  | 4        | 0.11          |
| (1,218) | 1:243:A:ASP:HB2  | 1:244:A:GLU:H    | 19       | 0.11          |
| (1,218) | 1:243:A:ASP:HB3  | 1:244:A:GLU:H    | 19       | 0.11          |
| (1,204) | 1:243:A:ASP:HA   | 1:263:A:TRP:HH2  | 20       | 0.11          |
| (1,190) | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 8        | 0.11          |
| (1,190) | 1:242:A:THR:HA   | 1:246:A:TYR:H    | 20       | 0.11          |
| (1,189) | 1:242:A:THR:H    | 1:246:A:TYR:H    | 5        | 0.11          |
| (1,189) | 1:242:A:THR:H    | 1:246:A:TYR:H    | 16       | 0.11          |
| (1,127) | 1:236:A:ARG:HB2  | 1:237:A:ASN:H    | 2        | 0.11          |
| (1,127) | 1:236:A:ARG:HB3  | 1:237:A:ASN:H    | 2        | 0.11          |
| (1,111) | 1:235:A:THR:H    | 1:265:A:HIS:HE1  | 16       | 0.11          |
| (1,52)  | 1:233:A:LEU:HA   | 1:235:A:THR:H    | 13       | 0.11          |
| (1,24)  | 1:232:A:ALA:H    | 1:235:A:THR:HG21 | 4        | 0.11          |
| (1,24)  | 1:232:A:ALA:H    | 1:235:A:THR:HG22 | 4        | 0.11          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,24)   | 1:232:A:ALA:H    | 1:235:A:THR:HG23 | 4        | 0.11          |
| (1,3807) | 1:475:A:PHE:H    | 1:479:A:PRO:HA   | 20       | 0.1           |
| (1,3777) | 1:473:A:THR:HB   | 1:480:A:PHE:H    | 13       | 0.1           |
| (1,3439) | 1:442:A:LYS:H    | 1:459:A:LEU:HD11 | 16       | 0.1           |
| (1,3439) | 1:442:A:LYS:H    | 1:459:A:LEU:HD12 | 16       | 0.1           |
| (1,3439) | 1:442:A:LYS:H    | 1:459:A:LEU:HD13 | 16       | 0.1           |
| (1,3353) | 1:436:A:ASP:HA   | 1:461:A:SER:HA   | 14       | 0.1           |
| (1,3309) | 1:434:A:THR:HB   | 1:466:A:GLU:H    | 19       | 0.1           |
| (1,3174) | 1:430:A:ILE:H    | 1:480:A:PHE:HA   | 10       | 0.1           |
| (1,2945) | 1:415:A:SER:H    | 1:419:A:TYR:H    | 19       | 0.1           |
| (1,2893) | 1:408:A:ASP:HB2  | 1:442:A:LYS:HE2  | 16       | 0.1           |
| (1,2893) | 1:408:A:ASP:HB2  | 1:442:A:LYS:HE3  | 16       | 0.1           |
| (1,2893) | 1:408:A:ASP:HB3  | 1:442:A:LYS:HE2  | 16       | 0.1           |
| (1,2893) | 1:408:A:ASP:HB3  | 1:442:A:LYS:HE3  | 16       | 0.1           |
| (1,2827) | 1:404:A:SER:H    | 1:413:A:THR:H    | 6        | 0.1           |
| (1,2824) | 1:404:A:SER:H    | 1:414:A:VAL:HB   | 3        | 0.1           |
| (1,2566) | 1:387:A:ALA:H    | 1:468:A:MET:HA   | 4        | 0.1           |
| (1,2548) | 1:386:A:PRO:HG2  | 1:396:A:ILE:HB   | 18       | 0.1           |
| (1,2548) | 1:386:A:PRO:HG3  | 1:396:A:ILE:HB   | 18       | 0.1           |
| (1,2540) | 1:386:A:PRO:HB2  | 1:468:A:MET:HA   | 10       | 0.1           |
| (1,2540) | 1:386:A:PRO:HB3  | 1:468:A:MET:HA   | 10       | 0.1           |
| (1,2416) | 1:379:A:GLY:H    | 1:382:A:LEU:H    | 12       | 0.1           |
| (1,2398) | 1:378:A:PHE:HA   | 1:382:A:LEU:H    | 7        | 0.1           |
| (1,2360) | 1:375:A:TRP:HZ2  | 1:383:A:LYS:HG2  | 7        | 0.1           |
| (1,2360) | 1:375:A:TRP:HZ2  | 1:383:A:LYS:HG3  | 7        | 0.1           |
| (1,2358) | 1:375:A:TRP:HZ2  | 1:383:A:LYS:HE2  | 15       | 0.1           |
| (1,2358) | 1:375:A:TRP:HZ2  | 1:383:A:LYS:HE3  | 15       | 0.1           |
| (1,2305) | 1:373:A:THR:HA   | 1:376:A:GLN:H    | 11       | 0.1           |
| (1,2267) | 1:371:A:TYR:HE1  | 1:375:A:TRP:HE3  | 9        | 0.1           |
| (1,2267) | 1:371:A:TYR:HE2  | 1:375:A:TRP:HE3  | 9        | 0.1           |
| (1,2203) | 1:365:A:LYS:HA   | 1:367:A:ASP:H    | 10       | 0.1           |
| (1,2133) | 1:361:A:GLU:HA   | 1:365:A:LYS:H    | 4        | 0.1           |
| (1,2041) | 1:357:A:LEU:HD21 | 1:396:A:ILE:H    | 3        | 0.1           |
| (1,2041) | 1:357:A:LEU:HD22 | 1:396:A:ILE:H    | 3        | 0.1           |
| (1,2041) | 1:357:A:LEU:HD23 | 1:396:A:ILE:H    | 3        | 0.1           |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB2  | 9        | 0.1           |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB3  | 9        | 0.1           |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB2  | 18       | 0.1           |
| (1,2014) | 1:355:A:ARG:HA   | 1:358:A:GLN:HB3  | 18       | 0.1           |
| (1,2013) | 1:355:A:ARG:HA   | 1:358:A:GLN:H    | 5        | 0.1           |
| (1,1897) | 1:347:A:ASN:HA   | 1:351:A:ALA:H    | 18       | 0.1           |
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB2  | 14       | 0.1           |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,1790) | 1:337:A:GLU:HG2  | 1:341:A:ASP:HB3 | 14       | 0.1           |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB2 | 14       | 0.1           |
| (1,1790) | 1:337:A:GLU:HG3  | 1:341:A:ASP:HB3 | 14       | 0.1           |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE1 | 7        | 0.1           |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE2 | 7        | 0.1           |
| (1,1654) | 1:322:A:ARG:H    | 1:359:A:MET:HE3 | 7        | 0.1           |
| (1,1626) | 1:320:A:PHE:HZ   | 1:374:A:PHE:HZ  | 8        | 0.1           |
| (1,1626) | 1:320:A:PHE:HZ   | 1:374:A:PHE:HZ  | 20       | 0.1           |
| (1,1610) | 1:319:A:ARG:HA   | 1:321:A:VAL:HB  | 8        | 0.1           |
| (1,1570) | 1:317:A:TYR:HA   | 1:320:A:PHE:HE1 | 6        | 0.1           |
| (1,1570) | 1:317:A:TYR:HA   | 1:320:A:PHE:HE2 | 6        | 0.1           |
| (1,1479) | 1:314:A:MET:H    | 1:349:A:ARG:HD2 | 17       | 0.1           |
| (1,1479) | 1:314:A:MET:H    | 1:349:A:ARG:HD3 | 17       | 0.1           |
| (1,1219) | 1:299:A:LEU:H    | 1:306:A:ILE:H   | 8        | 0.1           |
| (1,1051) | 1:293:A:HIS:HE1  | 1:309:A:ASP:HB2 | 17       | 0.1           |
| (1,1051) | 1:293:A:HIS:HE1  | 1:309:A:ASP:HB3 | 17       | 0.1           |
| (1,960)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HB2 | 15       | 0.1           |
| (1,960)  | 1:285:A:PRO:HB2  | 1:294:A:LYS:HB3 | 15       | 0.1           |
| (1,960)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HB2 | 15       | 0.1           |
| (1,960)  | 1:285:A:PRO:HB3  | 1:294:A:LYS:HB3 | 15       | 0.1           |
| (1,879)  | 1:280:A:ILE:HA   | 1:321:A:VAL:HA  | 17       | 0.1           |
| (1,770)  | 1:276:A:SER:HA   | 1:324:A:LEU:H   | 6        | 0.1           |
| (1,763)  | 1:276:A:SER:HA   | 1:326:A:ASP:H   | 16       | 0.1           |
| (1,676)  | 1:270:A:GLY:HA2  | 1:272:A:GLN:H   | 17       | 0.1           |
| (1,676)  | 1:270:A:GLY:HA3  | 1:272:A:GLN:H   | 17       | 0.1           |
| (1,520)  | 1:261:A:LEU:H    | 1:279:A:TYR:HD1 | 18       | 0.1           |
| (1,520)  | 1:261:A:LEU:H    | 1:279:A:TYR:HD2 | 18       | 0.1           |
| (1,513)  | 1:261:A:LEU:H    | 1:281:A:PRO:HA  | 18       | 0.1           |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB2 | 17       | 0.1           |
| (1,377)  | 1:251:A:LYS:HG2  | 1:257:A:PHE:HB3 | 17       | 0.1           |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB2 | 17       | 0.1           |
| (1,377)  | 1:251:A:LYS:HG3  | 1:257:A:PHE:HB3 | 17       | 0.1           |
| (1,222)  | 1:244:A:GLU:H    | 1:247:A:LYS:H   | 9        | 0.1           |
| (1,211)  | 1:243:A:ASP:HA   | 1:246:A:TYR:H   | 12       | 0.1           |
| (1,144)  | 1:237:A:ASN:HD21 | 1:238:A:LYS:H   | 16       | 0.1           |
| (1,144)  | 1:237:A:ASN:HD22 | 1:238:A:LYS:H   | 16       | 0.1           |
| (1,111)  | 1:235:A:THR:H    | 1:265:A:HIS:HE1 | 18       | 0.1           |
| (1,48)   | 1:233:A:LEU:H    | 1:236:A:ARG:H   | 6        | 0.1           |

## 10 Dihedral-angle violation analysis

No dihedral-angle restraints found