Full wwPDB X-ray Structure Validation Report ⓘ

May 16, 2020 – 03:14 pm BST

PDB ID	:	3CF2
Title	:	Structure of P97/vcp in complex with ADP/AMP-PNP
Authors	:	Davies, J.M.; Delabarre, B.; Brunger, A.T.; Weis, W.I.
Deposited on	:	2008-03-01
Resolution	:	3.50 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

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

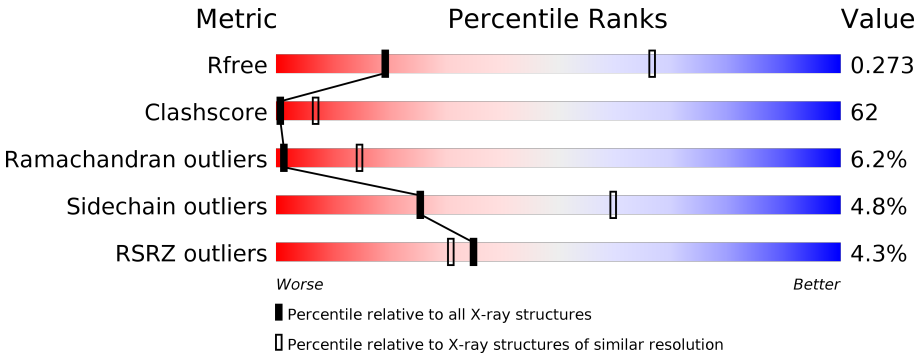
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.11
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.11

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.50 Å.

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)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1659 (3.60-3.40)
Clashscore	141614	1036 (3.58-3.42)
Ramachandran outliers	138981	1005 (3.58-3.42)
Sidechain outliers	138945	1006 (3.58-3.42)
RSRZ outliers	127900	1559 (3.60-3.40)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. 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 <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	806	3% 26% 49% 7% 18%
1	B	806	3% 27% 48% 7% 18%
1	C	806	3% 26% 49% 7% 18%
1	D	806	4% 26% 49% 7% 18%

2 Entry composition

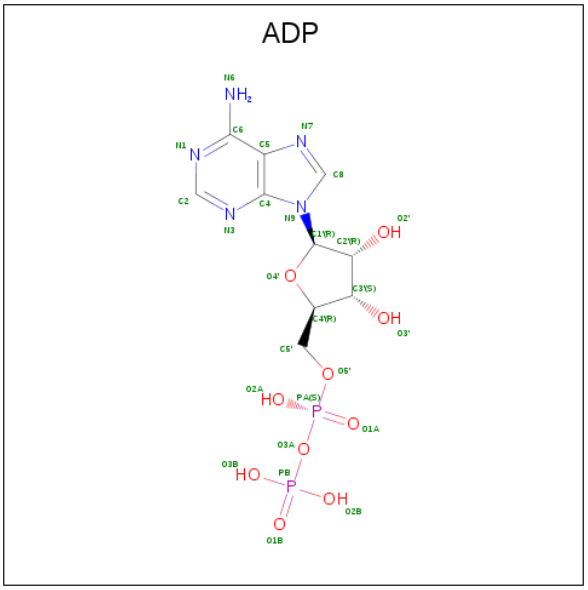
There are 3 unique types of molecules in this entry. The entry contains 20917 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Transitional endoplasmic reticulum ATPase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	659	Total	C	N	O	S	0	0	0
			5172	3263	903	977	29			
1	B	659	Total	C	N	O	S	0	0	0
			5172	3263	903	977	29			
1	C	659	Total	C	N	O	S	0	0	0
			5172	3263	903	977	29			
1	D	659	Total	C	N	O	S	0	0	0
			5169	3260	903	977	29			

- Molecule 2 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula: $C_{10}H_{15}N_5O_{10}P_2$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	B	1	Total	C	N	O	P	0	0
			27	10	5	10	2		

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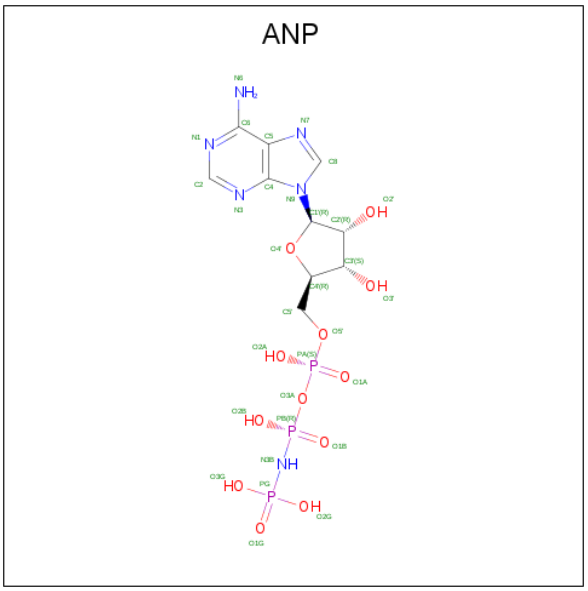
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	C	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	D	1	Total	C	N	O	P	0	0
			27	10	5	10	2		

- Molecule 3 is PHOSPHOAMINOPHOSPHONIC ACID-ADENYLATE ESTER (three-letter code: ANP) (formula: $C_{10}H_{17}N_6O_{12}P_3$).



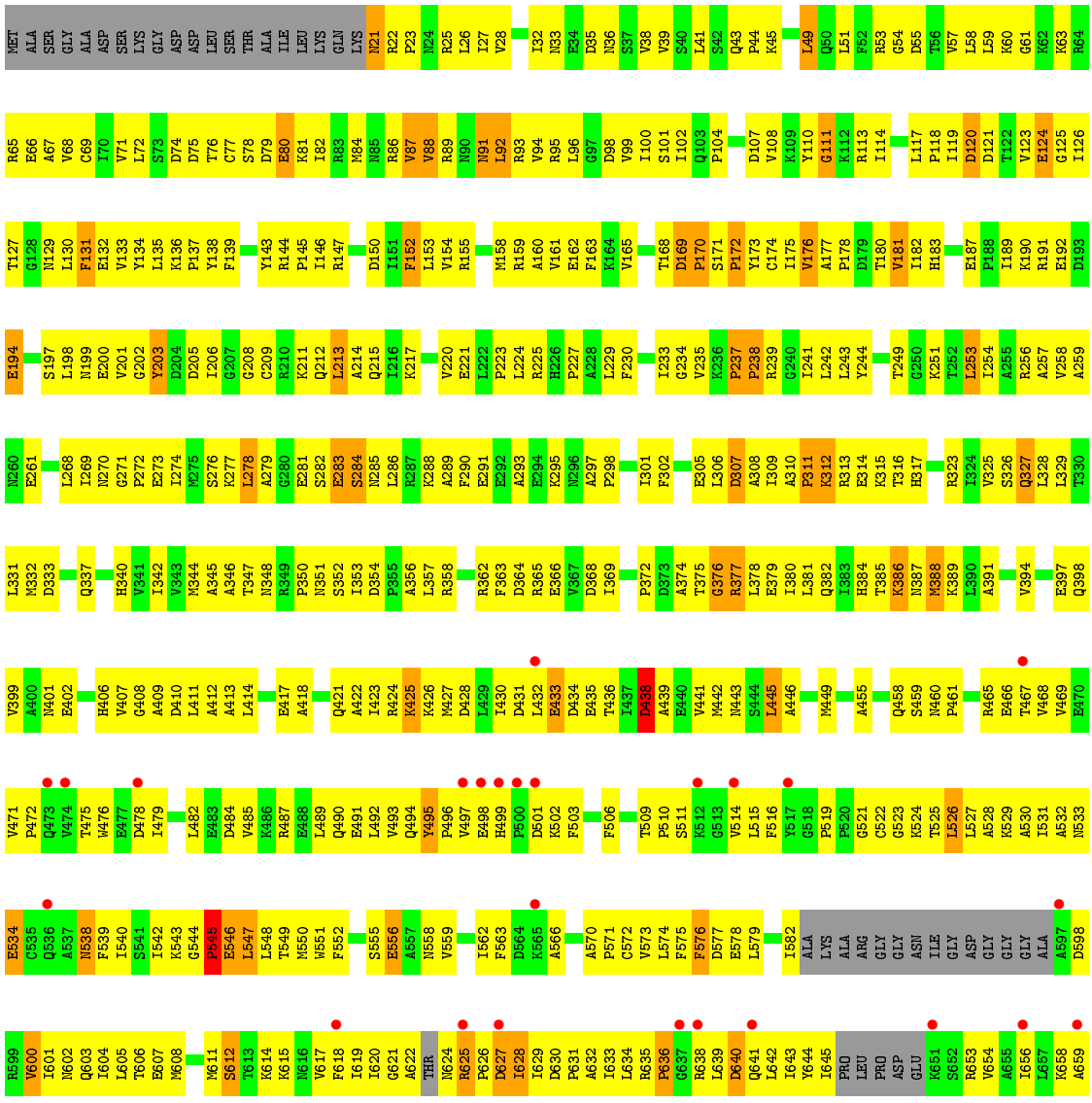
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	N	O	P	0	0
			31	10	6	12	3		
3	B	1	Total	C	N	O	P	0	0
			31	10	6	12	3		
3	C	1	Total	C	N	O	P	0	0
			31	10	6	12	3		
3	D	1	Total	C	N	O	P	0	0
			31	10	6	12	3		

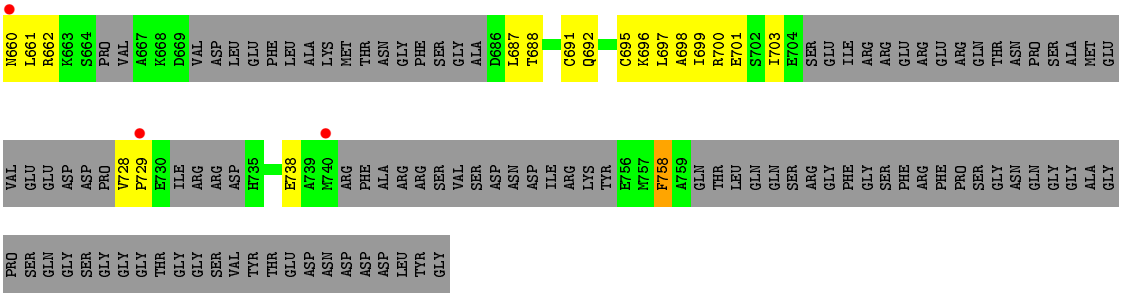
3 Residue-property plots (i)

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-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. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Transitional endoplasmic reticulum ATPase

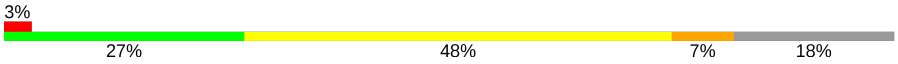
Chain A:

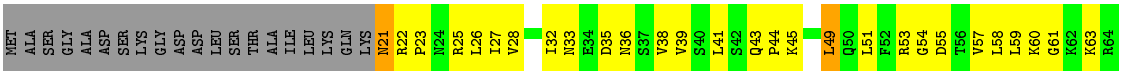


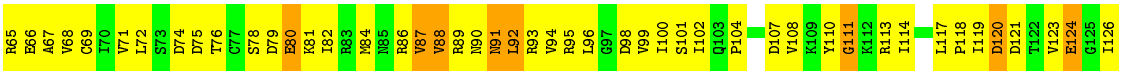


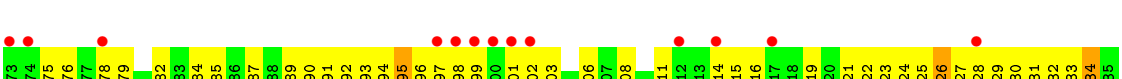
• Molecule 1: Transitional endoplasmic reticulum ATPase

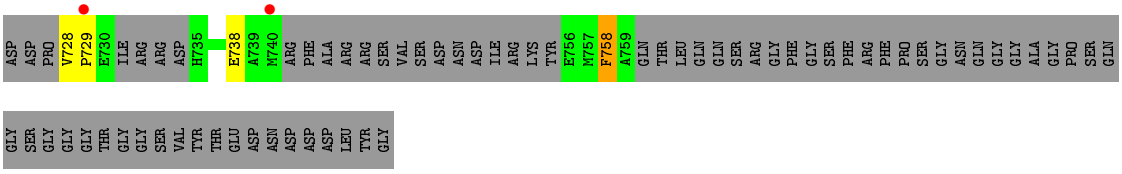
Chain B:





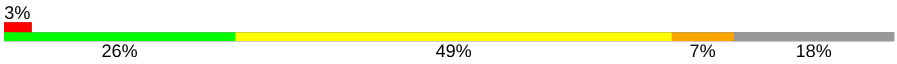


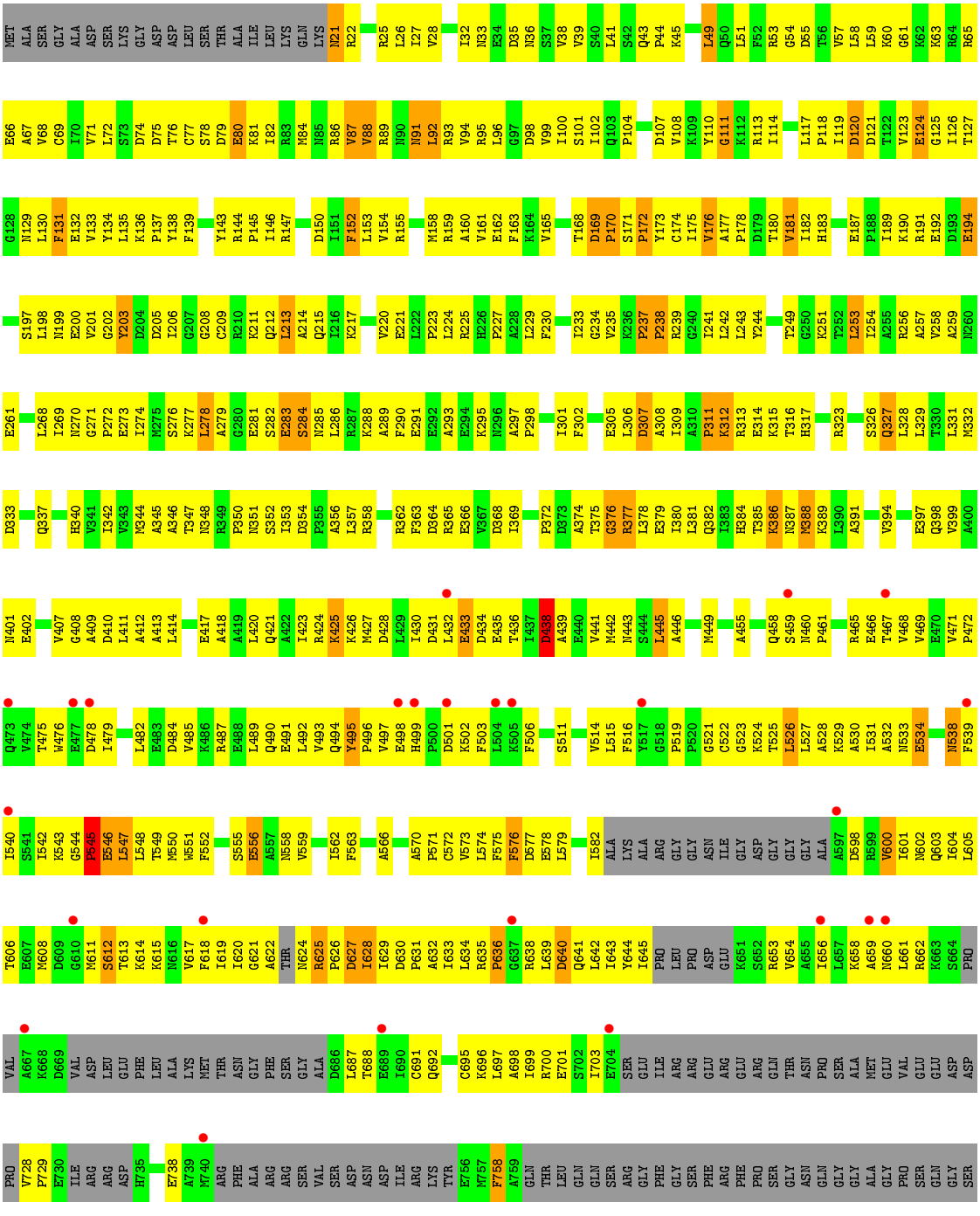




• Molecule 1: Transitional endoplasmic reticulum ATPase

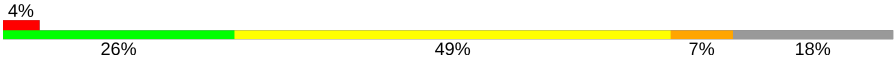
Chain C:

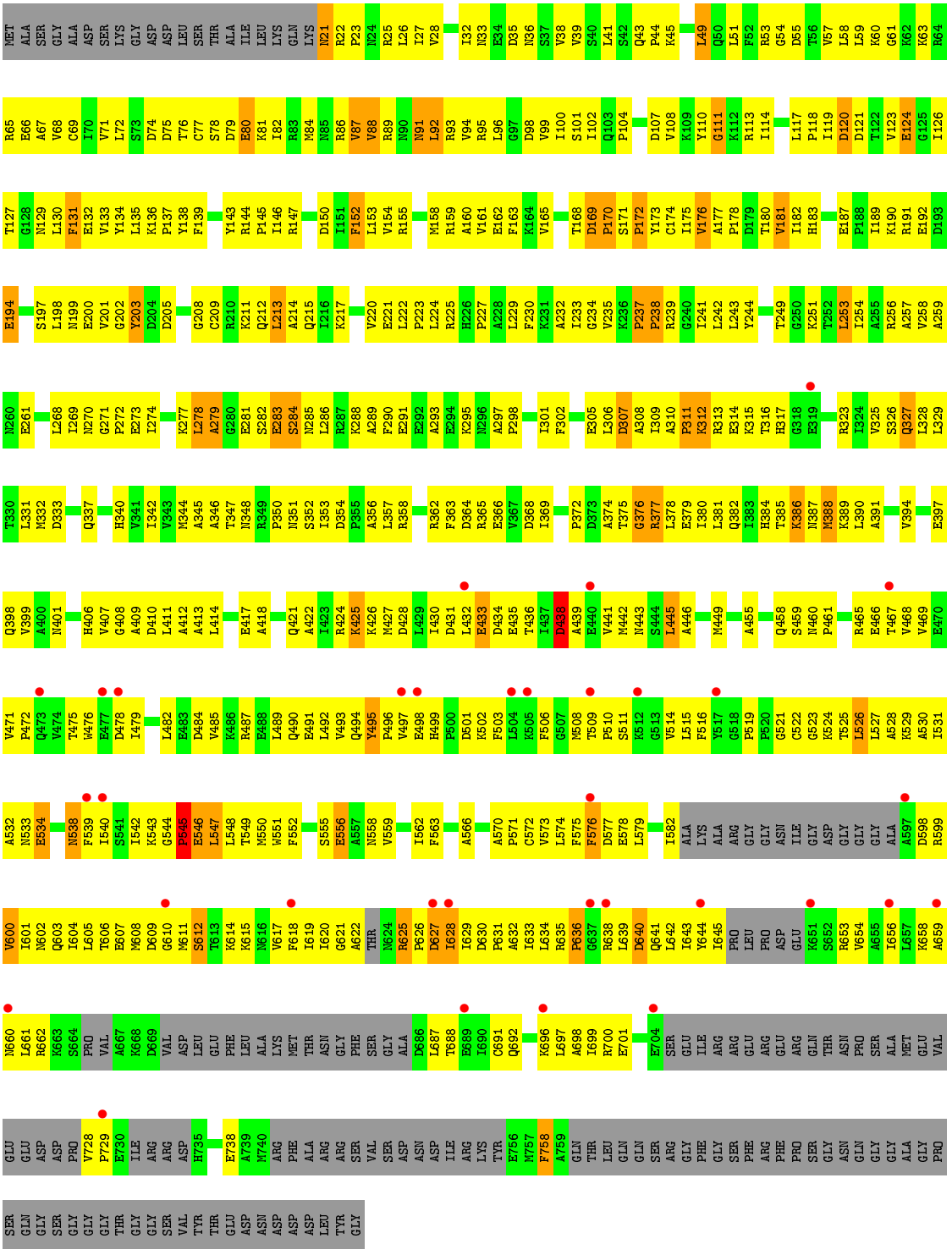




- Molecule 1: Transitional endoplasmic reticulum ATPase

Chain D:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 3	Depositor
Cell constants a, b, c, α, β, γ	144.90Å 144.90Å 164.40Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	23.00 – 3.50 22.79 – 3.20	Depositor EDS
% Data completeness (in resolution range)	99.6 (23.00-3.50) 90.8 (22.79-3.20)	Depositor EDS
R_{merge}	0.12	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.22 (at 3.23Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.271 , 0.285 0.259 , 0.273	Depositor DCC
R_{free} test set	6358 reflections (5.03%)	wwPDB-VP
Wilson B-factor (Å^2)	75.9	Xtriage
Anisotropy	0.841	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.28 , 72.8	EDS
L-test for twinning[2]	$< \|L\| > = 0.44$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	0.369 for -h,-k,l 0.377 for h,-h-k,-l 0.369 for -k,-h,-l	Xtriage
F_o,F_c correlation	0.89	EDS
Total number of atoms	20917	wwPDB-VP
Average B, all atoms (Å^2)	148.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.63% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ANP, ADP

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	A	0.48	2/5250 (0.0%)	0.67	1/7082 (0.0%)
1	B	0.48	2/5250 (0.0%)	0.67	1/7082 (0.0%)
1	C	0.48	2/5250 (0.0%)	0.67	1/7082 (0.0%)
1	D	0.48	2/5247 (0.0%)	0.67	1/7078 (0.0%)
All	All	0.48	8/20997 (0.0%)	0.67	4/28324 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	2
1	B	0	2
1	C	0	2
1	D	0	2
All	All	0	8

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	425	LYS	C-N	-12.18	1.06	1.34
1	C	425	LYS	C-N	-12.14	1.06	1.34
1	D	425	LYS	C-N	-12.14	1.06	1.34
1	A	425	LYS	C-N	-12.14	1.06	1.34
1	B	438	ASP	C-N	-7.39	1.17	1.34
1	A	438	ASP	C-N	-7.38	1.17	1.34
1	C	438	ASP	C-N	-7.38	1.17	1.34
1	D	438	ASP	C-N	-7.35	1.17	1.34

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	D	538	ASN	O-C-N	5.67	131.78	122.70
1	B	538	ASN	O-C-N	5.66	131.75	122.70
1	C	538	ASN	O-C-N	5.65	131.74	122.70
1	A	538	ASN	O-C-N	5.64	131.72	122.70

There are no chirality outliers.

All (8) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	433	GLU	Peptide
1	A	545	PRO	Peptide
1	B	433	GLU	Peptide
1	B	545	PRO	Peptide
1	C	433	GLU	Peptide
1	C	545	PRO	Peptide
1	D	433	GLU	Peptide
1	D	545	PRO	Peptide

5.2 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 the 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 within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	5172	0	5238	723	39
1	B	5172	0	5236	728	39
1	C	5172	0	5238	730	38
1	D	5169	0	5226	719	38
2	A	27	0	12	3	0
2	B	27	0	12	3	0
2	C	27	0	12	3	0
2	D	27	0	12	3	0
3	A	31	0	13	1	0
3	B	31	0	13	1	0
3	C	31	0	13	1	0
3	D	31	0	13	1	0
All	All	20917	0	21038	2616	77

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 62.

All (2616) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:699:ILE:HG12	1:B:506:PHE:CG	1.22	1.67
1:C:699:ILE:HG12	1:D:506:PHE:CG	1.29	1.66
1:A:549:THR:CB	1:B:602:ASN:HD22	1.13	1.57
1:C:549:THR:CB	1:D:602:ASN:HD22	1.14	1.57
1:A:550:MET:HG3	1:B:606:THR:CB	1.41	1.50
1:C:550:MET:HG3	1:D:606:THR:CB	1.42	1.47
1:A:699:ILE:CG1	1:B:506:PHE:CG	1.97	1.44
1:C:461:PRO:HB2	1:D:615:LYS:NZ	1.31	1.42
1:C:699:ILE:CG1	1:D:506:PHE:CG	2.03	1.42
1:A:699:ILE:HG12	1:B:506:PHE:CD1	1.53	1.41
1:A:461:PRO:HB2	1:B:615:LYS:NZ	1.36	1.38
1:C:699:ILE:HG12	1:D:506:PHE:CD1	1.57	1.36
1:C:700:ARG:CD	1:D:491:GLU:CD	1.94	1.34
1:C:550:MET:HG3	1:D:606:THR:OG1	1.26	1.30
1:A:549:THR:HB	1:B:602:ASN:ND2	0.98	1.29
1:C:700:ARG:HD2	1:D:491:GLU:CD	1.50	1.29
1:C:549:THR:HB	1:D:602:ASN:ND2	0.97	1.28
1:A:699:ILE:CD1	1:B:506:PHE:CB	2.12	1.28
1:A:699:ILE:HD11	1:B:506:PHE:CB	1.63	1.26
1:A:550:MET:HG3	1:B:606:THR:OG1	1.25	1.25
1:C:699:ILE:HD11	1:D:506:PHE:CB	1.67	1.23
1:C:699:ILE:CD1	1:D:506:PHE:CB	2.17	1.22
1:C:550:MET:CG	1:D:606:THR:OG1	1.89	1.20
1:C:699:ILE:CG1	1:D:506:PHE:CD2	2.13	1.20
1:A:550:MET:CG	1:B:606:THR:OG1	1.89	1.20
1:C:700:ARG:NH2	1:D:487:ARG:HG2	1.57	1.20
1:A:699:ILE:CD1	1:B:506:PHE:CG	2.27	1.18
1:A:699:ILE:CG1	1:B:506:PHE:CD2	2.09	1.17
1:C:699:ILE:HG12	1:D:506:PHE:CD2	1.68	1.16
1:A:699:ILE:HG12	1:B:506:PHE:CD2	1.65	1.16
1:A:703:ILE:HG12	1:B:502:LYS:HG2	1.24	1.16
1:A:278:LEU:HA	1:B:323:ARG:NH1	1.61	1.16
1:C:479:ILE:HD13	1:C:527:LEU:HD23	1.19	1.15
1:C:699:ILE:HA	1:D:506:PHE:CZ	1.81	1.15
1:C:699:ILE:CD1	1:D:506:PHE:CG	2.29	1.15
1:C:550:MET:SD	1:D:603:GLN:HA	1.86	1.15
1:C:278:LEU:HA	1:D:323:ARG:NH1	1.62	1.12
1:A:700:ARG:NH2	1:B:487:ARG:HG2	1.64	1.12
1:C:699:ILE:HD11	1:D:506:PHE:HB3	1.20	1.12
1:A:699:ILE:HD11	1:B:506:PHE:HB3	1.15	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:699:ILE:HA	1:B:506:PHE:CZ	1.75	1.12
1:A:700:ARG:HH22	1:B:487:ARG:HG2	1.05	1.11
1:A:550:MET:SD	1:B:603:GLN:HA	1.89	1.11
1:C:461:PRO:CB	1:D:615:LYS:HZ1	1.62	1.11
1:C:549:THR:CG2	1:D:602:ASN:HB3	1.80	1.11
1:B:428:ASP:O	1:B:431:ASP:HB2	1.51	1.11
1:A:479:ILE:HD13	1:A:527:LEU:HD23	1.19	1.11
1:D:428:ASP:O	1:D:431:ASP:HB2	1.51	1.10
1:A:59:LEU:HD21	1:A:102:ILE:HG22	1.34	1.10
1:A:428:ASP:O	1:A:431:ASP:HB2	1.51	1.10
1:C:700:ARG:HD3	1:D:491:GLU:OE1	1.33	1.10
1:C:700:ARG:NE	1:D:491:GLU:OE1	1.60	1.10
1:C:315:LYS:NZ	1:D:316:THR:HG23	1.64	1.10
1:D:59:LEU:HD21	1:D:102:ILE:HG22	1.34	1.10
1:D:479:ILE:HD13	1:D:527:LEU:HD23	1.19	1.10
1:C:59:LEU:HD21	1:C:102:ILE:HG22	1.34	1.10
1:C:703:ILE:HG12	1:D:502:LYS:HG2	1.27	1.09
1:A:549:THR:CG2	1:B:602:ASN:HB3	1.83	1.09
1:B:479:ILE:HD13	1:B:527:LEU:HD23	1.19	1.09
1:C:461:PRO:CB	1:D:615:LYS:NZ	2.14	1.09
1:C:428:ASP:O	1:C:431:ASP:HB2	1.51	1.09
1:A:315:LYS:NZ	1:B:316:THR:HG23	1.65	1.09
1:A:550:MET:HG3	1:B:606:THR:HB	1.24	1.09
1:C:700:ARG:CD	1:D:491:GLU:OE1	0.78	1.08
1:C:550:MET:HG3	1:D:606:THR:HB	1.24	1.08
1:A:26:LEU:HD22	1:A:80:GLU:HA	1.36	1.08
1:D:26:LEU:HD22	1:D:80:GLU:HA	1.36	1.08
1:C:26:LEU:HD22	1:C:80:GLU:HA	1.36	1.07
1:B:59:LEU:HD21	1:B:102:ILE:HG22	1.34	1.07
1:C:700:ARG:HH22	1:D:487:ARG:HG2	0.99	1.07
1:C:549:THR:CB	1:D:602:ASN:ND2	1.87	1.07
1:C:549:THR:HG21	1:D:602:ASN:HB3	1.10	1.07
1:B:329:LEU:HD22	1:B:362:ARG:HH11	1.21	1.06
1:C:329:LEU:HD22	1:C:362:ARG:HH11	1.21	1.06
1:A:432:LEU:CD2	1:B:25:ARG:NH1	2.19	1.06
1:B:26:LEU:HD22	1:B:80:GLU:HA	1.36	1.05
1:C:41:LEU:HD21	1:C:82:ILE:HG12	1.37	1.05
1:A:549:THR:HG21	1:B:602:ASN:HB3	1.11	1.05
1:A:315:LYS:HZ1	1:B:316:THR:HG23	1.07	1.05
1:A:549:THR:CB	1:B:602:ASN:ND2	1.87	1.04
1:A:461:PRO:CB	1:B:615:LYS:NZ	2.18	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:432:LEU:CD2	1:B:25:ARG:HH12	1.69	1.04
1:C:545:PRO:CB	1:D:602:ASN:OD1	2.06	1.04
1:B:543:LYS:HE3	1:B:546:GLU:OE2	1.57	1.04
1:A:545:PRO:CB	1:B:602:ASN:OD1	2.06	1.04
1:C:543:LYS:HE3	1:C:546:GLU:OE2	1.57	1.03
1:A:461:PRO:CB	1:B:615:LYS:HZ1	1.71	1.03
1:C:432:LEU:CD2	1:D:25:ARG:NH1	2.21	1.03
1:C:432:LEU:CD2	1:D:25:ARG:HH12	1.71	1.02
1:C:550:MET:CG	1:D:606:THR:CB	2.38	1.02
1:D:329:LEU:HD22	1:D:362:ARG:HH11	1.21	1.01
1:C:467:THR:HG23	1:C:551:TRP:CH2	1.95	1.01
1:A:329:LEU:HD22	1:A:362:ARG:HH11	1.21	1.01
1:A:699:ILE:CD1	1:B:506:PHE:HB2	1.90	1.01
1:B:467:THR:HG23	1:B:551:TRP:CH2	1.95	1.01
1:C:114:ILE:HD13	1:C:176:VAL:HG22	1.42	1.01
1:C:206:ILE:HD11	1:C:213:LEU:CD1	1.91	1.01
1:C:545:PRO:O	1:D:602:ASN:ND2	1.94	1.01
1:D:41:LEU:HD21	1:D:82:ILE:HG12	1.37	1.01
1:D:467:THR:HG23	1:D:551:TRP:CH2	1.95	1.00
1:D:543:LYS:HE3	1:D:546:GLU:OE2	1.57	1.00
1:A:467:THR:HG23	1:A:551:TRP:CH2	1.95	1.00
1:A:543:LYS:HE3	1:A:546:GLU:OE2	1.57	1.00
1:B:41:LEU:HD21	1:B:82:ILE:HG12	1.37	1.00
1:A:41:LEU:HD21	1:A:82:ILE:HG12	1.37	1.00
1:B:169:ASP:HB3	1:B:170:PRO:HD3	1.44	1.00
1:A:550:MET:CG	1:B:606:THR:CB	2.38	1.00
1:A:206:ILE:HD11	1:A:213:LEU:HD11	1.44	1.00
1:A:206:ILE:HD11	1:A:213:LEU:CD1	1.91	0.99
1:A:545:PRO:O	1:B:602:ASN:ND2	1.95	0.99
1:B:206:ILE:HD11	1:B:213:LEU:CD1	1.91	0.99
1:A:114:ILE:HD13	1:A:176:VAL:HG22	1.42	0.99
1:B:206:ILE:HD11	1:B:213:LEU:HD11	1.44	0.99
1:D:169:ASP:HB3	1:D:170:PRO:HD3	1.44	0.99
1:A:169:ASP:HB3	1:A:170:PRO:HD3	1.44	0.99
1:C:278:LEU:HA	1:D:323:ARG:CZ	1.89	0.99
1:B:114:ILE:HD13	1:B:176:VAL:HG22	1.42	0.99
1:C:206:ILE:HD11	1:C:213:LEU:HD11	1.44	0.99
1:C:542:ILE:HG21	1:C:547:LEU:HD21	1.45	0.99
1:D:114:ILE:HD13	1:D:176:VAL:HG22	1.42	0.99
1:D:491:GLU:HA	1:D:495:TYR:HD2	1.29	0.98
1:A:491:GLU:HA	1:A:495:TYR:HD2	1.28	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:278:LEU:HA	1:B:323:ARG:CZ	1.90	0.98
1:C:169:ASP:HB3	1:C:170:PRO:HD3	1.44	0.98
1:B:438:ASP:OD1	1:B:441:VAL:HG23	1.64	0.97
1:C:549:THR:HG21	1:D:602:ASN:CB	1.94	0.97
1:C:438:ASP:OD1	1:C:441:VAL:HG23	1.64	0.97
1:D:626:PRO:HA	1:D:629:ILE:HD12	1.45	0.97
1:A:626:PRO:HA	1:A:629:ILE:HD12	1.45	0.97
1:C:626:PRO:HA	1:C:629:ILE:HD12	1.45	0.97
1:A:549:THR:HG21	1:B:602:ASN:CB	1.95	0.97
1:A:542:ILE:HG21	1:A:547:LEU:HD21	1.45	0.97
1:D:542:ILE:HG21	1:D:547:LEU:HD21	1.45	0.97
1:C:491:GLU:HA	1:C:495:TYR:HD2	1.28	0.96
1:B:491:GLU:HA	1:B:495:TYR:HD2	1.28	0.96
1:A:438:ASP:OD1	1:A:441:VAL:HG23	1.64	0.96
1:B:542:ILE:HG21	1:B:547:LEU:HD21	1.45	0.96
1:C:315:LYS:HZ1	1:D:316:THR:HG23	1.24	0.95
1:D:438:ASP:OD1	1:D:441:VAL:HG23	1.64	0.95
1:A:703:ILE:HG12	1:B:502:LYS:CG	1.96	0.95
1:B:491:GLU:HA	1:B:495:TYR:CD2	2.02	0.95
1:B:626:PRO:HA	1:B:629:ILE:HD12	1.45	0.95
1:A:491:GLU:HA	1:A:495:TYR:CD2	2.02	0.94
1:C:699:ILE:CD1	1:D:506:PHE:HB2	1.97	0.94
1:D:491:GLU:HA	1:D:495:TYR:CD2	2.02	0.94
1:D:65:ARG:HH11	1:D:93:ARG:HH12	1.15	0.93
1:A:699:ILE:CD1	1:B:506:PHE:CD2	2.48	0.93
1:A:65:ARG:HH11	1:A:93:ARG:HH12	1.15	0.93
1:B:65:ARG:HH11	1:B:93:ARG:HH12	1.15	0.93
1:B:482:LEU:HD13	1:B:645:ILE:HG23	1.51	0.93
1:C:491:GLU:HA	1:C:495:TYR:CD2	2.02	0.92
1:A:432:LEU:HD23	1:B:25:ARG:HH12	1.33	0.92
1:C:549:THR:HG23	1:D:599:ARG:HA	1.49	0.92
1:D:482:LEU:HD13	1:D:645:ILE:HG23	1.52	0.92
1:A:482:LEU:HD13	1:A:645:ILE:HG23	1.52	0.91
1:A:699:ILE:HD13	1:B:506:PHE:HB2	1.50	0.91
1:C:432:LEU:HD23	1:D:25:ARG:HH12	1.33	0.91
1:C:699:ILE:CD1	1:D:506:PHE:CD2	2.48	0.91
1:B:467:THR:CG2	1:B:551:TRP:CH2	2.54	0.91
1:C:699:ILE:HD13	1:D:506:PHE:CD2	2.06	0.91
1:A:545:PRO:HB3	1:B:602:ASN:OD1	1.69	0.90
1:A:461:PRO:HB2	1:B:615:LYS:HZ1	0.80	0.90
1:C:703:ILE:HG12	1:D:502:LYS:CG	2.01	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:65:ARG:HH11	1:C:93:ARG:HH12	1.15	0.90
1:C:482:LEU:HD13	1:C:645:ILE:HG23	1.52	0.90
1:C:329:LEU:HD22	1:C:362:ARG:NH1	1.86	0.90
1:C:700:ARG:CG	1:D:491:GLU:OE1	2.18	0.90
1:C:521:GLY:HA2	3:C:901:ANP:H5'1	1.54	0.90
1:D:467:THR:CG2	1:D:551:TRP:CH2	2.54	0.90
1:B:329:LEU:HD22	1:B:362:ARG:NH1	1.87	0.90
1:A:467:THR:CG2	1:A:551:TRP:CH2	2.54	0.89
1:C:467:THR:CG2	1:C:551:TRP:CH2	2.54	0.89
1:A:699:ILE:HD13	1:B:506:PHE:CD2	2.08	0.89
1:A:521:GLY:HA2	3:A:901:ANP:H5'1	1.54	0.89
1:B:521:GLY:HA2	3:B:901:ANP:H5'1	1.54	0.89
1:D:521:GLY:HA2	3:D:901:ANP:H5'1	1.54	0.89
1:A:549:THR:HG23	1:B:599:ARG:HA	1.52	0.89
1:B:235:VAL:O	1:B:237:PRO:HD3	1.73	0.89
1:C:467:THR:CG2	1:C:551:TRP:CZ2	2.56	0.89
1:C:26:LEU:C	1:C:99:VAL:HG23	1.93	0.88
1:C:71:VAL:O	1:C:72:LEU:HD23	1.74	0.88
1:C:271:GLY:HA2	1:C:309:ILE:HD11	1.56	0.88
1:B:467:THR:CG2	1:B:551:TRP:CZ2	2.56	0.88
1:B:26:LEU:C	1:B:99:VAL:HG23	1.93	0.88
1:D:71:VAL:O	1:D:72:LEU:HD23	1.74	0.88
1:A:467:THR:CG2	1:A:551:TRP:CZ2	2.56	0.88
1:A:71:VAL:O	1:A:72:LEU:HD23	1.74	0.88
1:C:545:PRO:HB3	1:D:602:ASN:OD1	1.71	0.88
1:D:26:LEU:C	1:D:99:VAL:HG23	1.93	0.88
1:A:329:LEU:HD22	1:A:362:ARG:NH1	1.87	0.87
1:C:235:VAL:O	1:C:237:PRO:HD3	1.73	0.87
1:D:467:THR:CG2	1:D:551:TRP:CZ2	2.56	0.87
1:A:26:LEU:C	1:A:99:VAL:HG23	1.93	0.87
1:D:329:LEU:HD22	1:D:362:ARG:NH1	1.87	0.87
1:C:276:SER:HB3	1:D:326:SER:CB	2.05	0.87
1:A:467:THR:HG23	1:A:551:TRP:CZ2	2.10	0.87
1:D:235:VAL:O	1:D:237:PRO:HD3	1.73	0.87
1:D:271:GLY:HA2	1:D:309:ILE:HD11	1.56	0.87
1:D:467:THR:HG23	1:D:551:TRP:CZ2	2.10	0.87
1:B:271:GLY:HA2	1:B:309:ILE:HD11	1.56	0.87
1:A:476:TRP:CH2	1:A:531:ILE:HD13	2.10	0.86
1:B:92:LEU:HD13	1:B:100:ILE:HD13	1.57	0.86
1:A:235:VAL:O	1:A:237:PRO:HD3	1.73	0.86
1:D:92:LEU:HD13	1:D:100:ILE:HD13	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:92:LEU:HD13	1:A:100:ILE:HD13	1.57	0.86
1:A:271:GLY:HA2	1:A:309:ILE:HD11	1.56	0.86
1:C:92:LEU:HD13	1:C:100:ILE:HD13	1.57	0.86
1:D:476:TRP:CH2	1:D:531:ILE:HD13	2.10	0.86
1:B:467:THR:HG23	1:B:551:TRP:CZ2	2.10	0.86
1:C:276:SER:HB3	1:D:326:SER:HB3	1.56	0.86
1:B:71:VAL:O	1:B:72:LEU:HD23	1.74	0.86
1:B:476:TRP:CH2	1:B:531:ILE:HD13	2.10	0.86
1:C:699:ILE:HD13	1:D:506:PHE:HB2	1.56	0.86
1:A:276:SER:HB3	1:B:326:SER:CB	2.06	0.86
1:C:467:THR:HG23	1:C:551:TRP:CZ2	2.10	0.86
1:C:476:TRP:CH2	1:C:531:ILE:HD13	2.10	0.85
1:A:276:SER:HB3	1:B:326:SER:HB3	1.58	0.85
1:C:475:THR:HG22	1:C:533:ASN:HD21	1.41	0.85
1:C:550:MET:CG	1:D:603:GLN:HA	2.06	0.85
1:A:546:GLU:O	1:A:551:TRP:HD1	1.60	0.85
1:D:546:GLU:O	1:D:551:TRP:HD1	1.60	0.85
1:A:699:ILE:CA	1:B:506:PHE:CZ	2.57	0.85
1:B:546:GLU:O	1:B:551:TRP:HD1	1.60	0.85
1:D:475:THR:HG22	1:D:533:ASN:HD21	1.41	0.84
1:A:549:THR:CG2	1:B:602:ASN:HD22	1.88	0.84
1:C:65:ARG:HH11	1:C:93:ARG:NH1	1.76	0.84
1:A:65:ARG:HH11	1:A:93:ARG:NH1	1.76	0.84
1:D:65:ARG:HH11	1:D:93:ARG:NH1	1.76	0.84
1:A:576:PHE:HB2	1:A:579:LEU:HD21	1.60	0.84
1:B:576:PHE:HB2	1:B:579:LEU:HD21	1.60	0.84
1:D:576:PHE:HB2	1:D:579:LEU:HD21	1.60	0.84
1:A:475:THR:HG22	1:A:533:ASN:HD21	1.41	0.84
1:B:59:LEU:CD2	1:B:102:ILE:HG22	2.08	0.84
1:C:546:GLU:O	1:C:551:TRP:HD1	1.60	0.84
1:C:432:LEU:HD23	1:D:25:ARG:NH1	1.90	0.84
1:B:65:ARG:HH11	1:B:93:ARG:NH1	1.76	0.83
1:A:699:ILE:HG12	1:B:506:PHE:CE1	2.14	0.83
1:C:576:PHE:HB2	1:C:579:LEU:HD21	1.60	0.83
1:C:315:LYS:NZ	1:D:316:THR:CG2	2.41	0.83
1:C:699:ILE:HG12	1:D:506:PHE:CE1	2.13	0.83
1:A:461:PRO:HB2	1:B:615:LYS:HZ3	1.43	0.83
1:A:703:ILE:HD11	1:B:502:LYS:HB3	1.58	0.83
1:A:59:LEU:CD2	1:A:102:ILE:HG22	2.08	0.83
1:B:555:SER:HB2	1:B:558:ASN:HB2	1.60	0.83
1:A:257:ALA:O	1:A:261:GLU:HB2	1.79	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:59:LEU:CD2	1:D:102:ILE:HG22	2.08	0.83
1:A:159:ARG:NH2	1:B:232:ALA:HA	1.94	0.83
1:C:257:ALA:O	1:C:261:GLU:HB2	1.79	0.83
1:A:432:LEU:HD22	1:B:25:ARG:NH1	1.93	0.83
1:D:257:ALA:O	1:D:261:GLU:HB2	1.79	0.83
1:A:699:ILE:HD13	1:B:506:PHE:CB	2.05	0.82
1:B:475:THR:HG22	1:B:533:ASN:HD21	1.41	0.82
1:C:159:ARG:NH2	1:D:232:ALA:HA	1.95	0.82
1:C:540:ILE:HB	1:C:574:LEU:HD12	1.61	0.82
1:C:555:SER:HB2	1:C:558:ASN:HB2	1.60	0.82
1:B:539:PHE:HD1	1:B:573:VAL:HG23	1.45	0.82
1:C:461:PRO:HB2	1:D:615:LYS:HZ3	1.44	0.82
1:C:549:THR:CG2	1:D:602:ASN:HD22	1.91	0.82
1:A:315:LYS:NZ	1:B:316:THR:CG2	2.42	0.82
1:A:550:MET:CG	1:B:603:GLN:HA	2.10	0.81
1:B:257:ALA:O	1:B:261:GLU:HB2	1.79	0.81
1:D:555:SER:HB2	1:D:558:ASN:HB2	1.60	0.81
1:A:555:SER:HB2	1:A:558:ASN:HB2	1.60	0.81
1:C:460:ASN:N	1:C:461:PRO:HD2	1.95	0.81
1:C:177:ALA:HB1	1:C:178:PRO:HD2	1.62	0.81
1:B:114:ILE:CD1	1:B:176:VAL:HG22	2.09	0.81
1:B:540:ILE:HB	1:B:574:LEU:HD12	1.60	0.81
1:C:59:LEU:CD2	1:C:102:ILE:HG22	2.08	0.81
1:D:353:ILE:HG23	1:D:357:LEU:HD12	1.61	0.81
1:C:699:ILE:CA	1:D:506:PHE:CZ	2.62	0.81
1:C:114:ILE:CD1	1:C:176:VAL:HG22	2.09	0.81
1:A:353:ILE:HG23	1:A:357:LEU:HD12	1.61	0.81
1:A:550:MET:SD	1:B:603:GLN:CA	2.69	0.81
1:B:460:ASN:N	1:B:461:PRO:HD2	1.95	0.81
1:D:177:ALA:HB1	1:D:178:PRO:HD2	1.62	0.81
1:C:545:PRO:O	1:D:602:ASN:CG	2.18	0.81
1:D:26:LEU:HD22	1:D:80:GLU:CA	2.11	0.81
1:A:114:ILE:CD1	1:A:176:VAL:HG22	2.09	0.81
1:A:460:ASN:N	1:A:461:PRO:HD2	1.95	0.81
1:A:540:ILE:HB	1:A:574:LEU:HD12	1.61	0.81
1:A:26:LEU:HD22	1:A:80:GLU:CA	2.11	0.81
1:A:177:ALA:HB1	1:A:178:PRO:HD2	1.62	0.81
1:C:550:MET:CG	1:D:606:THR:HB	2.06	0.80
1:D:114:ILE:CD1	1:D:176:VAL:HG22	2.09	0.80
1:D:460:ASN:N	1:D:461:PRO:HD2	1.95	0.80
1:D:540:ILE:HB	1:D:574:LEU:HD12	1.60	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:353:ILE:HG23	1:C:357:LEU:HD12	1.61	0.80
1:C:539:PHE:HD1	1:C:573:VAL:HG23	1.44	0.80
1:B:26:LEU:HD22	1:B:80:GLU:CA	2.11	0.80
1:C:461:PRO:HB2	1:D:615:LYS:HZ1	0.71	0.80
1:A:329:LEU:HD13	1:A:362:ARG:HH12	1.47	0.80
1:B:523:GLY:O	1:B:527:LEU:HG	1.82	0.80
1:B:548:LEU:HD11	1:B:582:ILE:HG12	1.63	0.80
1:C:329:LEU:HD13	1:C:362:ARG:HH12	1.47	0.80
1:C:548:LEU:HD11	1:C:582:ILE:HG12	1.63	0.80
1:A:432:LEU:HD23	1:B:25:ARG:NH1	1.90	0.80
1:C:432:LEU:HD22	1:D:25:ARG:NH1	1.96	0.80
1:D:329:LEU:HD13	1:D:362:ARG:HH12	1.47	0.80
1:A:432:LEU:CB	1:B:25:ARG:NH1	2.29	0.80
1:B:329:LEU:HD13	1:B:362:ARG:HH12	1.47	0.80
1:C:169:ASP:O	1:C:171:SER:N	2.15	0.80
1:B:353:ILE:HG23	1:B:357:LEU:HD12	1.61	0.80
1:B:435:GLU:HG3	1:B:435:GLU:O	1.82	0.80
1:C:26:LEU:HD22	1:C:80:GLU:CA	2.11	0.80
1:D:539:PHE:HD1	1:D:573:VAL:HG23	1.44	0.80
1:A:169:ASP:O	1:A:171:SER:N	2.15	0.79
1:A:539:PHE:HD1	1:A:573:VAL:HG23	1.44	0.79
1:D:169:ASP:O	1:D:171:SER:N	2.15	0.79
1:C:703:ILE:HD11	1:D:502:LYS:HB3	1.63	0.79
1:A:523:GLY:O	1:A:527:LEU:HG	1.82	0.79
1:B:169:ASP:O	1:B:171:SER:N	2.15	0.79
1:A:461:PRO:CG	1:B:615:LYS:HZ3	1.95	0.79
1:D:523:GLY:O	1:D:527:LEU:HG	1.82	0.79
1:B:177:ALA:HB1	1:B:178:PRO:HD2	1.62	0.79
1:C:550:MET:SD	1:D:603:GLN:CA	2.65	0.79
1:C:402:GLU:HB2	1:D:614:LYS:HD3	1.63	0.79
1:D:548:LEU:HD11	1:D:582:ILE:HG12	1.62	0.79
1:A:548:LEU:HD11	1:A:582:ILE:HG12	1.62	0.79
1:C:143:TYR:O	1:C:175:ILE:HG23	1.83	0.79
1:C:229:LEU:HG	1:C:233:ILE:HD12	1.66	0.78
1:C:545:PRO:HD3	1:C:578:GLU:OE1	1.84	0.78
1:A:545:PRO:O	1:B:602:ASN:CG	2.22	0.78
1:B:229:LEU:HG	1:B:233:ILE:HD12	1.66	0.78
1:B:479:ILE:CD1	1:B:527:LEU:HD23	2.09	0.78
1:D:229:LEU:HG	1:D:233:ILE:HD12	1.66	0.78
1:B:143:TYR:O	1:B:175:ILE:HG23	1.83	0.78
1:B:21:ASN:HD22	1:B:21:ASN:N	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:435:GLU:O	1:D:435:GLU:HG3	1.82	0.78
1:A:143:TYR:O	1:A:175:ILE:HG23	1.83	0.78
1:A:229:LEU:HG	1:A:233:ILE:HD12	1.66	0.78
1:A:305:GLU:OE2	1:B:362:ARG:NH2	2.17	0.78
1:C:695:CYS:HB3	1:D:508:MET:SD	2.24	0.78
1:D:143:TYR:O	1:D:175:ILE:HG23	1.83	0.78
1:A:435:GLU:HG3	1:A:435:GLU:O	1.82	0.78
1:C:315:LYS:HZ3	1:D:316:THR:CG2	1.95	0.78
1:C:476:TRP:HH2	1:C:531:ILE:CD1	1.97	0.78
1:D:545:PRO:HD3	1:D:578:GLU:OE1	1.84	0.78
1:A:428:ASP:O	1:A:431:ASP:CB	2.32	0.77
1:A:460:ASN:H	1:A:461:PRO:HD2	1.48	0.77
1:A:545:PRO:HD3	1:A:578:GLU:OE1	1.84	0.77
1:B:545:PRO:HD3	1:B:578:GLU:OE1	1.84	0.77
1:D:428:ASP:O	1:D:431:ASP:CB	2.32	0.77
1:B:543:LYS:HE3	1:B:546:GLU:CD	2.04	0.77
1:C:435:GLU:HG3	1:C:435:GLU:O	1.82	0.77
1:C:460:ASN:H	1:C:461:PRO:HD2	1.48	0.77
1:D:460:ASN:H	1:D:461:PRO:HD2	1.48	0.77
1:B:428:ASP:O	1:B:431:ASP:CB	2.32	0.77
1:C:543:LYS:HE3	1:C:546:GLU:CD	2.04	0.77
1:D:21:ASN:HD22	1:D:21:ASN:N	1.82	0.77
1:A:461:PRO:CB	1:B:615:LYS:HZ3	1.95	0.77
1:D:548:LEU:CD2	1:D:600:VAL:HG21	2.15	0.77
1:A:21:ASN:HD22	1:A:21:ASN:N	1.82	0.77
1:A:548:LEU:CD2	1:A:600:VAL:HG21	2.15	0.77
1:C:700:ARG:NH2	1:D:487:ARG:O	2.18	0.77
1:C:548:LEU:CD2	1:C:600:VAL:HG21	2.15	0.77
1:B:460:ASN:H	1:B:461:PRO:HD2	1.48	0.77
1:D:476:TRP:HH2	1:D:531:ILE:CD1	1.97	0.77
1:A:476:TRP:HH2	1:A:531:ILE:CD1	1.97	0.77
1:B:476:TRP:HH2	1:B:531:ILE:CD1	1.97	0.77
1:C:523:GLY:O	1:C:527:LEU:HG	1.82	0.77
1:C:550:MET:CB	1:D:606:THR:OG1	2.33	0.77
1:A:696:LYS:HG2	1:B:508:MET:HE1	1.66	0.77
1:D:212:GLN:NE2	1:D:368:ASP:O	2.18	0.77
1:A:212:GLN:NE2	1:A:368:ASP:O	2.18	0.76
1:C:428:ASP:O	1:C:431:ASP:CB	2.32	0.76
1:C:305:GLU:OE2	1:D:362:ARG:NH2	2.18	0.76
1:B:489:LEU:HD12	1:B:531:ILE:HD11	1.68	0.76
1:C:242:LEU:HD12	1:C:345:ALA:HB3	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:461:PRO:CG	1:D:615:LYS:HZ3	1.98	0.76
1:A:201:VAL:HG12	1:A:257:ALA:HB2	1.68	0.76
1:B:548:LEU:CD2	1:B:600:VAL:HG21	2.15	0.76
1:C:479:ILE:CD1	1:C:527:LEU:HD23	2.09	0.76
1:D:201:VAL:HG12	1:D:257:ALA:HB2	1.68	0.76
1:D:489:LEU:HD12	1:D:531:ILE:HD11	1.67	0.76
1:D:543:LYS:HE3	1:D:546:GLU:CD	2.04	0.76
1:B:242:LEU:HD12	1:B:345:ALA:HB3	1.67	0.76
1:A:242:LEU:HD12	1:A:345:ALA:HB3	1.67	0.76
1:A:695:CYS:HB3	1:B:508:MET:SD	2.25	0.76
1:D:242:LEU:HD12	1:D:345:ALA:HB3	1.67	0.76
1:A:489:LEU:HD12	1:A:531:ILE:HD11	1.68	0.76
1:A:543:LYS:HE3	1:A:546:GLU:CD	2.04	0.76
1:C:212:GLN:NE2	1:C:368:ASP:O	2.18	0.76
1:C:21:ASN:N	1:C:21:ASN:HD22	1.82	0.76
1:B:212:GLN:NE2	1:B:368:ASP:O	2.18	0.76
1:A:550:MET:CG	1:B:606:THR:HB	2.07	0.76
1:C:489:LEU:HD12	1:C:531:ILE:HD11	1.68	0.76
1:C:550:MET:HE2	1:D:606:THR:HB	1.68	0.76
1:A:700:ARG:NH2	1:B:487:ARG:O	2.20	0.75
1:C:354:ASP:OD2	1:C:356:ALA:HB3	1.85	0.75
1:C:700:ARG:NH2	1:D:487:ARG:CG	2.45	0.75
1:C:699:ILE:CG1	1:D:506:PHE:CD1	2.50	0.75
1:C:100:ILE:HG22	1:C:101:SER:N	2.01	0.75
1:C:549:THR:CB	1:D:602:ASN:HB3	2.16	0.75
1:A:169:ASP:HB3	1:A:170:PRO:CD	2.17	0.75
1:B:354:ASP:OD2	1:B:356:ALA:HB3	1.85	0.75
1:D:169:ASP:HB3	1:D:170:PRO:CD	2.17	0.75
1:D:354:ASP:OD2	1:D:356:ALA:HB3	1.85	0.75
1:A:354:ASP:OD2	1:A:356:ALA:HB3	1.85	0.75
1:C:201:VAL:HG12	1:C:257:ALA:HB2	1.68	0.75
1:D:100:ILE:HG22	1:D:101:SER:N	2.01	0.74
1:C:699:ILE:HD13	1:D:506:PHE:CB	2.09	0.74
1:A:100:ILE:HG22	1:A:101:SER:N	2.01	0.74
1:C:696:LYS:HG2	1:D:508:MET:HE1	1.69	0.74
1:A:143:TYR:HE1	1:A:178:PRO:HD3	1.53	0.74
1:D:143:TYR:HE1	1:D:178:PRO:HD3	1.53	0.74
1:A:475:THR:HG22	1:A:533:ASN:ND2	2.02	0.74
1:B:206:ILE:CD1	1:B:213:LEU:CD1	2.66	0.74
1:D:475:THR:HG22	1:D:533:ASN:ND2	2.02	0.74
1:A:550:MET:CB	1:B:606:THR:OG1	2.35	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:206:ILE:CD1	1:A:213:LEU:CD1	2.66	0.74
1:A:286:LEU:O	1:A:289:ALA:HB3	1.88	0.74
1:D:286:LEU:O	1:D:289:ALA:HB3	1.88	0.74
1:B:169:ASP:HB3	1:B:170:PRO:CD	2.17	0.74
1:B:201:VAL:HG12	1:B:257:ALA:HB2	1.67	0.74
1:B:155:ARG:HD3	1:B:386:LYS:O	1.88	0.74
1:A:467:THR:CG2	1:A:551:TRP:HH2	1.99	0.73
1:B:25:ARG:O	1:B:26:LEU:HD23	1.88	0.73
1:B:475:THR:HG22	1:B:533:ASN:ND2	2.02	0.73
1:B:577:ASP:HA	1:B:622:ALA:CB	2.19	0.73
1:B:100:ILE:HG22	1:B:101:SER:N	2.02	0.73
1:D:467:THR:CG2	1:D:551:TRP:HH2	1.99	0.73
1:A:699:ILE:CG1	1:B:506:PHE:CD1	2.46	0.73
1:C:169:ASP:HB3	1:C:170:PRO:CD	2.17	0.73
1:A:25:ARG:O	1:A:26:LEU:HD23	1.88	0.73
1:A:402:GLU:HB2	1:B:614:LYS:HD3	1.68	0.73
1:C:155:ARG:HD3	1:C:386:LYS:O	1.88	0.73
1:C:25:ARG:O	1:C:26:LEU:HD23	1.88	0.73
1:C:467:THR:CG2	1:C:551:TRP:HH2	1.99	0.73
1:D:25:ARG:O	1:D:26:LEU:HD23	1.88	0.73
1:B:286:LEU:O	1:B:289:ALA:HB3	1.88	0.73
1:B:143:TYR:HE1	1:B:178:PRO:HD3	1.53	0.73
1:D:479:ILE:CD1	1:D:527:LEU:HD23	2.09	0.73
1:B:212:GLN:HE22	1:B:369:ILE:HA	1.54	0.73
1:B:467:THR:CG2	1:B:551:TRP:HH2	1.99	0.73
1:C:577:ASP:HA	1:C:622:ALA:CB	2.19	0.73
1:C:286:LEU:O	1:C:289:ALA:HB3	1.88	0.73
1:A:577:ASP:HA	1:A:622:ALA:CB	2.19	0.72
1:B:543:LYS:HB2	1:B:546:GLU:OE1	1.89	0.72
1:C:543:LYS:HB2	1:C:546:GLU:CD	2.10	0.72
1:D:155:ARG:HD3	1:D:386:LYS:O	1.88	0.72
1:D:577:ASP:HA	1:D:622:ALA:CB	2.19	0.72
1:A:479:ILE:CD1	1:A:527:LEU:HD23	2.09	0.72
1:C:143:TYR:HE1	1:C:178:PRO:HD3	1.53	0.72
1:A:278:LEU:CA	1:B:323:ARG:CZ	2.67	0.72
1:C:475:THR:HG22	1:C:533:ASN:ND2	2.02	0.72
1:A:155:ARG:HD3	1:A:386:LYS:O	1.88	0.72
1:B:203:TYR:O	1:B:206:ILE:HG12	1.90	0.72
1:A:58:LEU:HA	1:A:68:VAL:HG22	1.71	0.72
1:B:270:ASN:OD1	1:B:272:PRO:HD2	1.90	0.72
1:C:203:TYR:O	1:C:206:ILE:HG12	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:58:LEU:HA	1:D:68:VAL:HG22	1.71	0.72
1:A:203:TYR:O	1:A:206:ILE:HG12	1.90	0.72
1:C:432:LEU:CB	1:D:25:ARG:NH1	2.32	0.72
1:C:546:GLU:O	1:C:551:TRP:CD1	2.43	0.72
1:A:703:ILE:CD1	1:B:502:LYS:HB3	2.18	0.72
1:C:461:PRO:CB	1:D:615:LYS:HZ3	1.97	0.72
1:A:270:ASN:OD1	1:A:272:PRO:HD2	1.90	0.71
1:A:467:THR:HG23	1:A:551:TRP:HH2	1.55	0.71
1:B:543:LYS:HB2	1:B:546:GLU:CD	2.10	0.71
1:C:206:ILE:CD1	1:C:213:LEU:CD1	2.66	0.71
1:D:270:ASN:O	1:D:273:GLU:HB3	1.90	0.71
1:A:270:ASN:O	1:A:273:GLU:HB3	1.91	0.71
1:A:543:LYS:HB2	1:A:546:GLU:OE1	1.89	0.71
1:D:270:ASN:OD1	1:D:272:PRO:HD2	1.90	0.71
1:D:467:THR:HG23	1:D:551:TRP:HH2	1.55	0.71
1:A:201:VAL:HG21	1:A:256:ARG:HD2	1.73	0.71
1:A:212:GLN:HE22	1:A:369:ILE:HA	1.54	0.71
1:B:58:LEU:HA	1:B:68:VAL:HG22	1.71	0.71
1:C:212:GLN:HE22	1:C:369:ILE:HA	1.54	0.71
1:D:201:VAL:HG21	1:D:256:ARG:HD2	1.73	0.71
1:D:543:LYS:HB2	1:D:546:GLU:OE1	1.89	0.71
1:D:543:LYS:HB2	1:D:546:GLU:CD	2.10	0.71
1:A:476:TRP:HH2	1:A:531:ILE:HD13	1.55	0.71
1:A:543:LYS:HB2	1:A:546:GLU:CD	2.10	0.71
1:D:476:TRP:HH2	1:D:531:ILE:HD13	1.55	0.71
1:B:201:VAL:HG21	1:B:256:ARG:HD2	1.73	0.71
1:C:364:ASP:OD1	1:C:365:ARG:HG2	1.91	0.71
1:D:364:ASP:OD1	1:D:365:ARG:HG2	1.91	0.71
1:D:212:GLN:HE22	1:D:369:ILE:HA	1.54	0.71
1:A:364:ASP:OD1	1:A:365:ARG:HG2	1.91	0.71
1:A:532:ALA:HB2	1:A:573:VAL:HG21	1.73	0.71
1:C:51:LEU:HD21	1:C:104:PRO:HD3	1.73	0.71
1:C:482:LEU:CD1	1:C:645:ILE:HG23	2.21	0.71
1:D:51:LEU:HD21	1:D:104:PRO:HD3	1.73	0.71
1:A:51:LEU:HD21	1:A:104:PRO:HD3	1.73	0.71
1:C:201:VAL:HG21	1:C:256:ARG:HD2	1.73	0.71
1:A:479:ILE:HD11	1:A:526:LEU:O	1.90	0.71
1:B:51:LEU:HD21	1:B:104:PRO:HD3	1.73	0.71
1:B:254:ILE:HD12	1:B:369:ILE:HD13	1.73	0.71
1:B:479:ILE:HD11	1:B:526:LEU:O	1.90	0.71
1:C:58:LEU:HA	1:C:68:VAL:HG22	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:546:GLU:O	1:D:551:TRP:CD1	2.43	0.71
1:D:532:ALA:HB2	1:D:573:VAL:HG21	1.73	0.71
1:A:220:VAL:HG12	1:A:342:ILE:HD13	1.73	0.71
1:B:532:ALA:HB2	1:B:573:VAL:HG21	1.73	0.71
1:C:270:ASN:OD1	1:C:272:PRO:HD2	1.90	0.71
1:C:479:ILE:HD11	1:C:526:LEU:O	1.90	0.71
1:C:543:LYS:HB2	1:C:546:GLU:OE1	1.89	0.71
1:A:432:LEU:CB	1:B:25:ARG:HH12	1.82	0.70
1:D:220:VAL:HG12	1:D:342:ILE:HD13	1.73	0.70
1:C:532:ALA:HB2	1:C:573:VAL:HG21	1.73	0.70
1:B:220:VAL:HG12	1:B:342:ILE:HD13	1.73	0.70
1:B:430:ILE:HG22	1:B:430:ILE:O	1.91	0.70
1:C:278:LEU:CA	1:D:323:ARG:CZ	2.67	0.70
1:D:479:ILE:HD11	1:D:526:LEU:O	1.90	0.70
1:C:550:MET:HG2	1:D:603:GLN:HA	1.72	0.70
1:A:546:GLU:O	1:A:551:TRP:CD1	2.43	0.70
1:B:546:GLU:O	1:B:551:TRP:CD1	2.43	0.70
1:C:467:THR:HG23	1:C:551:TRP:HH2	1.55	0.70
1:C:270:ASN:O	1:C:273:GLU:HB3	1.91	0.70
1:D:313:ARG:HG3	1:D:351:ASN:O	1.92	0.70
1:A:313:ARG:HG3	1:A:351:ASN:O	1.92	0.70
1:A:549:THR:CB	1:B:602:ASN:HB3	2.20	0.70
1:B:129:ASN:HB3	1:B:132:GLU:OE2	1.91	0.70
1:B:313:ARG:HG3	1:B:351:ASN:O	1.92	0.70
1:B:364:ASP:OD1	1:B:365:ARG:HG2	1.91	0.70
1:B:466:GLU:HG2	1:B:467:THR:H	1.56	0.70
1:B:482:LEU:CD1	1:B:645:ILE:HG23	2.21	0.70
1:C:129:ASN:HB3	1:C:132:GLU:OE2	1.91	0.70
1:A:430:ILE:HG22	1:A:430:ILE:O	1.91	0.70
1:A:514:VAL:O	1:A:639:LEU:HD22	1.92	0.70
1:D:129:ASN:HB3	1:D:132:GLU:OE2	1.91	0.70
1:D:514:VAL:O	1:D:639:LEU:HD22	1.92	0.70
1:A:482:LEU:CD1	1:A:645:ILE:HG23	2.21	0.70
1:A:41:LEU:CD2	1:A:82:ILE:HG12	2.19	0.70
1:B:476:TRP:HH2	1:B:531:ILE:HD13	1.55	0.70
1:C:442:MET:HE1	1:D:233:ILE:HD13	1.74	0.70
1:D:430:ILE:O	1:D:430:ILE:HG22	1.91	0.70
1:C:604:ILE:HG22	1:C:608:MET:HE1	1.74	0.70
1:D:482:LEU:CD1	1:D:645:ILE:HG23	2.21	0.70
1:A:129:ASN:HB3	1:A:132:GLU:OE2	1.91	0.70
1:A:695:CYS:CB	1:B:508:MET:SD	2.79	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:270:ASN:O	1:B:273:GLU:HB3	1.90	0.70
1:B:426:LYS:O	1:B:430:ILE:HG12	1.92	0.70
1:C:313:ARG:HG3	1:C:351:ASN:O	1.92	0.70
1:D:41:LEU:CD2	1:D:82:ILE:HG12	2.19	0.70
1:C:695:CYS:CB	1:D:508:MET:SD	2.80	0.69
1:A:442:MET:HE1	1:B:233:ILE:HD13	1.74	0.69
1:A:159:ARG:HH21	1:B:232:ALA:HA	1.55	0.69
1:B:92:LEU:HB2	1:B:94:VAL:HG22	1.73	0.69
1:A:426:LYS:O	1:A:430:ILE:HG12	1.92	0.69
1:A:550:MET:HE2	1:B:606:THR:HB	1.75	0.69
1:C:254:ILE:HD12	1:C:369:ILE:HD13	1.73	0.69
1:C:293:ALA:HB3	1:C:301:ILE:HD11	1.75	0.69
1:D:466:GLU:HG2	1:D:467:THR:H	1.57	0.69
1:A:65:ARG:NH1	1:A:93:ARG:HH12	1.89	0.69
1:A:432:LEU:CG	1:B:25:ARG:HH12	2.05	0.69
1:B:514:VAL:O	1:B:639:LEU:HD22	1.92	0.69
1:D:426:LYS:O	1:D:430:ILE:HG12	1.92	0.69
1:D:65:ARG:NH1	1:D:93:ARG:HH12	1.89	0.69
1:D:92:LEU:HB2	1:D:94:VAL:HG22	1.73	0.69
1:A:700:ARG:NH2	1:B:487:ARG:CG	2.52	0.69
1:C:430:ILE:O	1:C:430:ILE:HG22	1.91	0.69
1:A:466:GLU:HG2	1:A:467:THR:H	1.57	0.69
1:A:92:LEU:HB2	1:A:94:VAL:HG22	1.73	0.69
1:B:65:ARG:NH1	1:B:93:ARG:HH12	1.89	0.69
1:C:220:VAL:HG12	1:C:342:ILE:HD13	1.73	0.69
1:C:350:PRO:HA	1:C:358:ARG:NH2	2.07	0.69
1:C:41:LEU:CD2	1:C:82:ILE:HG12	2.19	0.69
1:D:350:PRO:HA	1:D:358:ARG:NH2	2.07	0.69
1:C:545:PRO:HB2	1:D:602:ASN:OD1	1.89	0.69
1:B:350:PRO:HA	1:B:358:ARG:NH2	2.07	0.69
1:C:65:ARG:NH1	1:C:93:ARG:HH12	1.89	0.69
1:D:131:PHE:HA	1:D:135:LEU:HB2	1.74	0.69
1:D:254:ILE:HD12	1:D:369:ILE:HD13	1.73	0.69
1:A:131:PHE:HA	1:A:135:LEU:HB2	1.74	0.69
1:C:514:VAL:O	1:C:639:LEU:HD22	1.92	0.69
1:A:293:ALA:HB3	1:A:301:ILE:HD11	1.75	0.69
1:A:350:PRO:HA	1:A:358:ARG:NH2	2.07	0.69
1:C:82:ILE:HD13	1:C:102:ILE:CG2	2.23	0.69
1:D:293:ALA:HB3	1:D:301:ILE:HD11	1.75	0.69
1:A:254:ILE:HD12	1:A:369:ILE:HD13	1.73	0.68
1:B:82:ILE:HD13	1:B:102:ILE:CG2	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:118:PRO:HB3	1:C:163:PHE:CE1	2.28	0.68
1:B:118:PRO:HB3	1:B:163:PHE:CE1	2.28	0.68
1:B:41:LEU:CD2	1:B:82:ILE:HG12	2.20	0.68
1:C:467:THR:CG2	1:C:551:TRP:HZ2	2.06	0.68
1:D:118:PRO:HB3	1:D:163:PHE:CE1	2.28	0.68
1:A:82:ILE:HD13	1:A:102:ILE:CG2	2.23	0.68
1:A:114:ILE:HG12	1:A:168:THR:HG22	1.76	0.68
1:D:114:ILE:HG12	1:D:168:THR:HG22	1.76	0.68
1:D:604:ILE:HG22	1:D:608:MET:HE1	1.75	0.68
1:D:82:ILE:HD13	1:D:102:ILE:CG2	2.23	0.68
1:A:118:PRO:HB3	1:A:163:PHE:CE1	2.28	0.68
1:B:139:PHE:HE1	1:B:146:ILE:HD11	1.59	0.68
1:C:92:LEU:HB2	1:C:94:VAL:HG22	1.73	0.68
1:B:131:PHE:HA	1:B:135:LEU:HB2	1.74	0.68
1:B:293:ALA:HB3	1:B:301:ILE:HD11	1.75	0.68
1:B:476:TRP:CH2	1:B:531:ILE:CD1	2.75	0.68
1:C:32:ILE:HD13	1:C:74:ASP:OD2	1.94	0.68
1:C:466:GLU:HG2	1:C:467:THR:H	1.57	0.68
1:C:426:LYS:O	1:C:430:ILE:HG12	1.92	0.68
1:A:139:PHE:HE1	1:A:146:ILE:HD11	1.59	0.68
1:D:139:PHE:HE1	1:D:146:ILE:HD11	1.59	0.68
1:C:131:PHE:HA	1:C:135:LEU:HB2	1.74	0.68
1:A:550:MET:HG2	1:B:603:GLN:HA	1.75	0.67
1:C:297:ALA:HA	1:C:298:PRO:C	2.15	0.67
1:D:32:ILE:HD13	1:D:74:ASP:OD2	1.94	0.67
1:A:604:ILE:HG22	1:A:608:MET:HE1	1.76	0.67
1:B:329:LEU:HD13	1:B:362:ARG:NH1	2.09	0.67
1:C:114:ILE:HG12	1:C:168:THR:HG22	1.75	0.67
1:D:329:LEU:HD21	1:D:357:LEU:HD23	1.77	0.67
1:A:32:ILE:HD13	1:A:74:ASP:OD2	1.94	0.67
1:A:329:LEU:HD21	1:A:357:LEU:HD23	1.77	0.67
1:A:555:SER:HB2	1:A:558:ASN:CB	2.25	0.67
1:B:114:ILE:HG12	1:B:168:THR:HG22	1.75	0.67
1:A:696:LYS:HG2	1:B:508:MET:CE	2.24	0.67
1:B:555:SER:HB2	1:B:558:ASN:CB	2.25	0.67
1:A:297:ALA:HA	1:A:298:PRO:C	2.15	0.67
1:A:329:LEU:HD13	1:A:362:ARG:NH1	2.10	0.67
1:B:118:PRO:HB3	1:B:163:PHE:HE1	1.59	0.67
1:B:329:LEU:HD21	1:B:357:LEU:HD23	1.77	0.67
1:D:297:ALA:HA	1:D:298:PRO:C	2.14	0.67
1:D:555:SER:HB2	1:D:558:ASN:CB	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:467:THR:CG2	1:A:551:TRP:HZ2	2.06	0.67
1:B:297:ALA:HA	1:B:298:PRO:C	2.14	0.67
1:C:559:VAL:CG1	1:C:604:ILE:HG12	2.25	0.67
1:C:630:ASP:OD2	1:C:632:ALA:HB3	1.95	0.67
1:D:329:LEU:HD13	1:D:362:ARG:NH1	2.10	0.67
1:A:118:PRO:HB3	1:A:163:PHE:HE1	1.59	0.67
1:C:353:ILE:CG2	1:C:357:LEU:HD12	2.25	0.67
1:C:442:MET:HE1	1:D:233:ILE:CD1	2.25	0.67
1:A:559:VAL:CG1	1:A:604:ILE:HG12	2.25	0.67
1:C:139:PHE:HE1	1:C:146:ILE:HD11	1.59	0.67
1:A:353:ILE:CG2	1:A:357:LEU:HD12	2.25	0.67
1:B:242:LEU:HD21	1:B:353:ILE:HD12	1.77	0.67
1:B:559:VAL:CG1	1:B:604:ILE:HG12	2.25	0.67
1:A:545:PRO:HB2	1:B:602:ASN:OD1	1.91	0.67
1:C:92:LEU:HD13	1:C:100:ILE:CD1	2.25	0.67
1:D:92:LEU:HD13	1:D:100:ILE:CD1	2.25	0.67
1:A:92:LEU:HD13	1:A:100:ILE:CD1	2.25	0.66
1:D:118:PRO:HB3	1:D:163:PHE:HE1	1.59	0.66
1:D:559:VAL:CG1	1:D:604:ILE:HG12	2.25	0.66
1:A:630:ASP:OD2	1:A:632:ALA:HB3	1.95	0.66
1:D:69:CYS:HA	1:D:145:PRO:HG2	1.77	0.66
1:D:353:ILE:CG2	1:D:357:LEU:HD12	2.25	0.66
1:D:467:THR:CG2	1:D:551:TRP:HZ2	2.07	0.66
1:D:630:ASP:OD2	1:D:632:ALA:HB3	1.95	0.66
1:B:559:VAL:HG11	1:B:604:ILE:HG12	1.77	0.66
1:C:159:ARG:HH21	1:D:232:ALA:HA	1.58	0.66
1:A:69:CYS:HA	1:A:145:PRO:HG2	1.77	0.66
1:C:329:LEU:HD21	1:C:357:LEU:HD23	1.77	0.66
1:A:578:GLU:OE2	1:B:635:ARG:NH1	2.29	0.66
1:B:467:THR:CG2	1:B:551:TRP:HZ2	2.06	0.66
1:C:329:LEU:CD2	1:C:357:LEU:HD23	2.25	0.66
1:C:432:LEU:CB	1:D:25:ARG:HH12	1.86	0.66
1:B:136:LYS:HB3	1:B:137:PRO:HD3	1.77	0.66
1:B:249:THR:OG1	1:B:369:ILE:HG22	1.96	0.66
1:B:92:LEU:HD13	1:B:100:ILE:CD1	2.25	0.66
1:B:490:GLN:O	1:B:494:GLN:HB2	1.96	0.66
1:C:524:LYS:HA	1:C:527:LEU:HD12	1.78	0.66
1:D:242:LEU:HD21	1:D:353:ILE:HD12	1.77	0.66
1:D:495:TYR:H	1:D:496:PRO:HD2	1.61	0.66
1:C:703:ILE:CD1	1:D:502:LYS:HB3	2.24	0.66
1:D:476:TRP:CH2	1:D:531:ILE:CD1	2.75	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:612:SER:HB3	1:D:615:LYS:HD2	1.78	0.66
1:A:242:LEU:HD21	1:A:353:ILE:HD12	1.77	0.66
1:A:442:MET:HE1	1:B:233:ILE:CD1	2.25	0.66
1:A:612:SER:HB3	1:A:615:LYS:HD2	1.78	0.66
1:B:353:ILE:CG2	1:B:357:LEU:HD12	2.25	0.66
1:B:495:TYR:H	1:B:496:PRO:HD2	1.61	0.66
1:A:490:GLN:O	1:A:494:GLN:HB2	1.96	0.66
1:C:249:THR:OG1	1:C:369:ILE:HG22	1.96	0.66
1:D:136:LYS:HB3	1:D:137:PRO:HD3	1.77	0.66
1:D:490:GLN:O	1:D:494:GLN:HB2	1.96	0.66
1:A:329:LEU:CD2	1:A:357:LEU:HD23	2.25	0.65
1:A:495:TYR:H	1:A:496:PRO:HD2	1.61	0.65
1:A:136:LYS:HB3	1:A:137:PRO:HD3	1.77	0.65
1:A:476:TRP:CH2	1:A:531:ILE:CD1	2.75	0.65
1:D:329:LEU:CD2	1:D:357:LEU:HD23	2.25	0.65
1:D:559:VAL:HG11	1:D:604:ILE:HG12	1.77	0.65
1:C:550:MET:CE	1:D:606:THR:HB	2.26	0.65
1:A:249:THR:OG1	1:A:369:ILE:HG22	1.96	0.65
1:A:524:LYS:HA	1:A:527:LEU:HD12	1.78	0.65
1:C:69:CYS:HA	1:C:145:PRO:HG2	1.77	0.65
1:C:329:LEU:HD13	1:C:362:ARG:NH1	2.10	0.65
1:C:555:SER:HB2	1:C:558:ASN:CB	2.25	0.65
1:C:559:VAL:HG11	1:C:604:ILE:HG12	1.77	0.65
1:D:249:THR:OG1	1:D:369:ILE:HG22	1.96	0.65
1:A:559:VAL:HG11	1:A:604:ILE:HG12	1.77	0.65
1:B:524:LYS:HA	1:B:527:LEU:HD12	1.78	0.65
1:B:69:CYS:HA	1:B:145:PRO:HG2	1.77	0.65
1:B:32:ILE:HD13	1:B:74:ASP:OD2	1.94	0.65
1:C:118:PRO:HB3	1:C:163:PHE:HE1	1.59	0.65
1:C:490:GLN:O	1:C:494:GLN:HB2	1.96	0.65
1:C:628:ILE:O	1:C:628:ILE:HG22	1.97	0.65
1:D:493:VAL:C	1:D:496:PRO:HD2	2.17	0.65
1:A:493:VAL:C	1:A:496:PRO:HD2	2.17	0.65
1:B:493:VAL:C	1:B:496:PRO:HD2	2.17	0.65
1:B:630:ASP:OD2	1:B:632:ALA:HB3	1.95	0.65
1:C:125:GLY:O	1:D:232:ALA:HB2	1.96	0.65
1:D:524:LYS:HA	1:D:527:LEU:HD12	1.78	0.65
1:A:118:PRO:HB2	1:A:123:VAL:HG11	1.79	0.65
1:A:542:ILE:CD1	1:A:562:ILE:HG21	2.27	0.65
1:C:118:PRO:HB2	1:C:123:VAL:HG11	1.79	0.65
1:C:136:LYS:HB3	1:C:137:PRO:HD3	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:542:ILE:CD1	1:C:562:ILE:HG21	2.27	0.65
1:D:118:PRO:HB2	1:D:123:VAL:HG11	1.79	0.65
1:D:542:ILE:CD1	1:D:562:ILE:HG21	2.27	0.65
1:B:542:ILE:CD1	1:B:562:ILE:HG21	2.27	0.65
1:C:350:PRO:HB3	1:C:358:ARG:HH22	1.62	0.65
1:C:493:VAL:C	1:C:496:PRO:HD2	2.17	0.65
1:C:100:ILE:CG2	1:C:101:SER:N	2.60	0.65
1:C:329:LEU:CD2	1:C:362:ARG:HH11	2.04	0.65
1:C:432:LEU:CG	1:D:25:ARG:HH12	2.09	0.65
1:B:329:LEU:CD2	1:B:357:LEU:HD23	2.25	0.65
1:C:495:TYR:H	1:C:496:PRO:HD2	1.61	0.65
1:C:80:GLU:OE1	1:C:80:GLU:N	2.31	0.65
1:A:100:ILE:CG2	1:A:101:SER:N	2.60	0.64
1:A:442:MET:HE2	1:B:233:ILE:HG12	1.77	0.64
1:C:242:LEU:HD21	1:C:353:ILE:HD12	1.77	0.64
1:D:100:ILE:CG2	1:D:101:SER:N	2.60	0.64
1:A:423:ILE:HG21	1:B:229:LEU:HD21	1.79	0.64
1:A:442:MET:CE	1:B:233:ILE:CD1	2.75	0.64
1:A:699:ILE:HA	1:B:506:PHE:CE1	2.32	0.64
1:B:118:PRO:HB2	1:B:123:VAL:HG11	1.79	0.64
1:C:350:PRO:HA	1:C:358:ARG:HH21	1.63	0.64
1:D:656:ILE:HG21	1:D:687:LEU:HD13	1.80	0.64
1:A:350:PRO:HB3	1:A:358:ARG:HH22	1.62	0.64
1:A:80:GLU:N	1:A:80:GLU:OE1	2.31	0.64
1:C:612:SER:HB3	1:C:615:LYS:HD2	1.78	0.64
1:D:628:ILE:HG22	1:D:628:ILE:O	1.96	0.64
1:A:458:GLN:HG3	1:A:459:SER:H	1.63	0.64
1:A:628:ILE:HG22	1:A:628:ILE:O	1.97	0.64
1:A:656:ILE:HG21	1:A:687:LEU:HD13	1.80	0.64
1:B:604:ILE:HG22	1:B:608:MET:HE1	1.78	0.64
1:B:612:SER:HB3	1:B:615:LYS:HD2	1.78	0.64
1:D:172:PRO:HG2	1:D:173:TYR:H	1.62	0.64
1:D:80:GLU:OE1	1:D:80:GLU:N	2.31	0.64
1:A:378:LEU:HD23	1:A:397:GLU:HA	1.80	0.64
1:B:350:PRO:HB3	1:B:358:ARG:HH22	1.62	0.64
1:B:80:GLU:N	1:B:80:GLU:OE1	2.31	0.64
1:C:542:ILE:CG2	1:C:547:LEU:HD21	2.24	0.64
1:D:458:GLN:HG3	1:D:459:SER:H	1.63	0.64
1:D:467:THR:HG21	1:D:551:TRP:CH2	2.33	0.64
1:D:329:LEU:CD2	1:D:362:ARG:HH11	2.04	0.64
1:A:467:THR:HG21	1:A:551:TRP:CH2	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:628:ILE:HG22	1:B:628:ILE:O	1.97	0.64
1:C:378:LEU:HD23	1:C:397:GLU:HA	1.80	0.64
1:D:378:LEU:HD23	1:D:397:GLU:HA	1.80	0.64
1:C:578:GLU:OE2	1:D:635:ARG:NH1	2.30	0.64
1:A:172:PRO:HG2	1:A:173:TYR:H	1.62	0.64
1:B:32:ILE:HG13	1:B:33:ASN:N	2.13	0.64
1:B:329:LEU:CD2	1:B:362:ARG:HH11	2.04	0.64
1:D:350:PRO:HB3	1:D:358:ARG:HH22	1.62	0.64
1:B:656:ILE:HG21	1:B:687:LEU:HD13	1.80	0.63
1:C:476:TRP:CH2	1:C:531:ILE:CD1	2.75	0.63
1:D:576:PHE:CB	1:D:579:LEU:HD21	2.28	0.63
1:A:100:ILE:CG2	1:A:101:SER:H	2.11	0.63
1:A:350:PRO:HA	1:A:358:ARG:HH21	1.63	0.63
1:A:329:LEU:CD2	1:A:362:ARG:HH11	2.04	0.63
1:B:172:PRO:HG2	1:B:173:TYR:H	1.63	0.63
1:C:39:VAL:O	1:C:71:VAL:HA	1.99	0.63
1:C:460:ASN:N	1:C:461:PRO:CD	2.61	0.63
1:A:576:PHE:CB	1:A:579:LEU:HD21	2.28	0.63
1:B:313:ARG:O	1:B:316:THR:HG22	1.99	0.63
1:C:100:ILE:CG2	1:C:101:SER:H	2.11	0.63
1:C:203:TYR:HE1	1:C:258:VAL:HG22	1.63	0.63
1:C:656:ILE:HG21	1:C:687:LEU:HD13	1.80	0.63
1:B:100:ILE:CG2	1:B:101:SER:N	2.60	0.63
1:B:425:LYS:O	1:B:426:LYS:C	2.36	0.63
1:C:312:LYS:HE2	1:C:354:ASP:OD1	1.99	0.63
1:C:313:ARG:O	1:C:316:THR:HG22	1.99	0.63
1:D:100:ILE:CG2	1:D:101:SER:H	2.11	0.63
1:D:350:PRO:HA	1:D:358:ARG:HH21	1.63	0.63
1:D:660:ASN:HD21	1:D:688:THR:HG23	1.64	0.63
1:A:660:ASN:HD21	1:A:688:THR:HG23	1.64	0.63
1:B:378:LEU:HD23	1:B:397:GLU:HA	1.80	0.63
1:B:515:LEU:HD23	1:B:516:PHE:N	2.14	0.63
1:A:550:MET:CE	1:B:606:THR:HB	2.27	0.63
1:C:458:GLN:HG3	1:C:459:SER:H	1.63	0.63
1:C:548:LEU:HD21	1:C:600:VAL:HG21	1.80	0.63
1:A:220:VAL:O	1:A:223:PRO:HD2	1.98	0.63
1:A:39:VAL:O	1:A:71:VAL:HA	1.99	0.63
1:B:100:ILE:CG2	1:B:101:SER:H	2.11	0.63
1:C:220:VAL:O	1:C:223:PRO:HD2	1.98	0.63
1:D:120:ASP:OD1	1:D:190:LYS:HA	1.99	0.63
1:A:460:ASN:N	1:A:461:PRO:CD	2.61	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:32:ILE:HG13	1:D:33:ASN:N	2.13	0.63
1:D:39:VAL:O	1:D:71:VAL:HA	1.99	0.63
1:A:32:ILE:HG13	1:A:33:ASN:N	2.13	0.63
1:C:312:LYS:HA	1:C:316:THR:HB	1.81	0.63
1:D:312:LYS:HE2	1:D:354:ASP:OD1	1.99	0.63
1:A:120:ASP:OD1	1:A:190:LYS:HA	1.99	0.62
1:A:203:TYR:HE1	1:A:258:VAL:HG22	1.63	0.62
1:D:220:VAL:O	1:D:223:PRO:HD2	1.98	0.62
1:D:460:ASN:N	1:D:461:PRO:CD	2.61	0.62
1:A:312:LYS:HE2	1:A:354:ASP:OD1	1.99	0.62
1:B:220:VAL:O	1:B:223:PRO:HD2	1.98	0.62
1:B:312:LYS:HE2	1:B:354:ASP:OD1	1.99	0.62
1:B:458:GLN:HG3	1:B:459:SER:H	1.63	0.62
1:C:32:ILE:HG13	1:C:33:ASN:N	2.13	0.62
1:C:467:THR:HG21	1:C:551:TRP:CH2	2.33	0.62
1:D:203:TYR:HE1	1:D:258:VAL:HG22	1.63	0.62
1:D:548:LEU:HD21	1:D:600:VAL:HG21	1.80	0.62
1:A:197:SER:HB3	1:A:200:GLU:HG2	1.82	0.62
1:B:197:SER:HB3	1:B:200:GLU:HG2	1.82	0.62
1:B:203:TYR:HE1	1:B:258:VAL:HG22	1.63	0.62
1:B:350:PRO:HA	1:B:358:ARG:HH21	1.63	0.62
1:C:197:SER:HB3	1:C:200:GLU:HG2	1.82	0.62
1:D:197:SER:HB3	1:D:200:GLU:HG2	1.82	0.62
1:A:515:LEU:HD23	1:A:516:PHE:N	2.14	0.62
1:B:120:ASP:OD1	1:B:190:LYS:HA	1.99	0.62
1:B:460:ASN:N	1:B:461:PRO:CD	2.61	0.62
1:B:39:VAL:O	1:B:71:VAL:HA	1.99	0.62
1:C:120:ASP:OD1	1:C:190:LYS:HA	1.98	0.62
1:A:548:LEU:HD21	1:A:600:VAL:HG21	1.80	0.62
1:B:86:ARG:HG2	1:B:89:ARG:NH1	2.14	0.62
1:C:111:GLY:HA2	1:C:170:PRO:HD2	1.82	0.62
1:D:515:LEU:HD23	1:D:516:PHE:N	2.14	0.62
1:D:542:ILE:HD11	1:D:562:ILE:HG21	1.82	0.62
1:A:313:ARG:O	1:A:316:THR:HG22	1.99	0.62
1:A:527:LEU:O	1:A:531:ILE:HG12	1.99	0.62
1:A:542:ILE:HD11	1:A:562:ILE:HG21	1.82	0.62
1:C:527:LEU:O	1:C:531:ILE:HG12	1.99	0.62
1:C:86:ARG:HG2	1:C:89:ARG:NH1	2.14	0.62
1:D:527:LEU:O	1:D:531:ILE:HG12	1.99	0.62
1:D:542:ILE:CG2	1:D:547:LEU:HD21	2.24	0.62
1:A:86:ARG:HG2	1:A:89:ARG:NH1	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:170:PRO:HB2	1:B:174:CYS:HB3	1.81	0.62
1:B:467:THR:HG21	1:B:551:TRP:CH2	2.33	0.62
1:D:86:ARG:HG2	1:D:89:ARG:NH1	2.14	0.62
1:A:268:LEU:HD12	1:A:269:ILE:H	1.65	0.62
1:B:548:LEU:HD21	1:B:600:VAL:HG21	1.80	0.62
1:C:460:ASN:H	1:C:461:PRO:CD	2.12	0.62
1:D:268:LEU:HD12	1:D:269:ILE:H	1.65	0.62
1:A:312:LYS:HA	1:A:316:THR:HB	1.81	0.62
1:B:212:GLN:NE2	1:B:369:ILE:HA	2.15	0.62
1:C:549:THR:CB	1:D:602:ASN:CB	2.78	0.62
1:B:460:ASN:H	1:B:461:PRO:CD	2.12	0.62
1:C:100:ILE:HG22	1:C:101:SER:H	1.65	0.62
1:C:172:PRO:HG2	1:C:173:TYR:H	1.63	0.62
1:C:170:PRO:HB2	1:C:174:CYS:HB3	1.81	0.62
1:C:659:ALA:HA	1:C:662:ARG:HD2	1.82	0.62
1:D:170:PRO:HB2	1:D:174:CYS:HB3	1.81	0.62
1:D:313:ARG:O	1:D:316:THR:HG22	1.99	0.62
1:A:170:PRO:HB2	1:A:174:CYS:HB3	1.81	0.61
1:A:542:ILE:CG2	1:A:547:LEU:HD21	2.24	0.61
1:B:542:ILE:HD11	1:B:562:ILE:HG21	1.82	0.61
1:C:660:ASN:HD21	1:C:688:THR:HG23	1.64	0.61
1:D:312:LYS:HA	1:D:316:THR:HB	1.81	0.61
1:A:111:GLY:HA2	1:A:170:PRO:HD2	1.82	0.61
1:B:660:ASN:HD21	1:B:688:THR:HG23	1.64	0.61
1:A:125:GLY:O	1:B:232:ALA:HB2	2.00	0.61
1:C:545:PRO:CD	1:C:578:GLU:OE1	2.49	0.61
1:C:539:PHE:CD1	1:C:573:VAL:HG23	2.32	0.61
1:A:159:ARG:HH21	1:B:232:ALA:CA	2.14	0.61
1:B:312:LYS:HA	1:B:316:THR:HB	1.81	0.61
1:B:89:ARG:NH1	1:B:96:LEU:HD21	2.15	0.61
1:D:111:GLY:HA2	1:D:170:PRO:HD2	1.82	0.61
1:C:89:ARG:NH1	1:C:96:LEU:HD21	2.15	0.61
1:A:100:ILE:HG22	1:A:101:SER:H	1.65	0.61
1:A:254:ILE:O	1:A:258:VAL:HG23	2.01	0.61
1:A:460:ASN:H	1:A:461:PRO:CD	2.12	0.61
1:A:545:PRO:CD	1:A:578:GLU:OE1	2.49	0.61
1:A:659:ALA:HA	1:A:662:ARG:HD2	1.82	0.61
1:A:432:LEU:HB3	1:B:25:ARG:NH1	2.12	0.61
1:C:212:GLN:NE2	1:C:369:ILE:HA	2.15	0.61
1:C:605:LEU:HD22	1:C:638:ARG:HD3	1.83	0.61
1:D:460:ASN:H	1:D:461:PRO:CD	2.12	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:89:ARG:NH1	1:D:96:LEU:HD21	2.15	0.61
1:B:288:LYS:HA	1:B:291:GLU:HB3	1.82	0.61
1:B:374:ALA:HA	1:B:377:ARG:NH2	2.16	0.61
1:B:527:LEU:O	1:B:531:ILE:HG12	1.99	0.61
1:B:605:LEU:HD22	1:B:638:ARG:HD3	1.83	0.61
1:B:632:ALA:HB1	1:B:638:ARG:HH12	1.66	0.61
1:C:268:LEU:HD12	1:C:269:ILE:H	1.65	0.61
1:D:212:GLN:NE2	1:D:369:ILE:HA	2.15	0.61
1:A:89:ARG:NH1	1:A:96:LEU:HD21	2.15	0.61
1:B:155:ARG:HE	1:B:386:LYS:HD2	1.65	0.61
1:C:542:ILE:HD11	1:C:562:ILE:HG21	1.82	0.61
1:D:254:ILE:O	1:D:258:VAL:HG23	2.01	0.61
1:D:545:PRO:CD	1:D:578:GLU:OE1	2.49	0.61
1:C:288:LYS:HA	1:C:291:GLU:HB3	1.82	0.61
1:C:515:LEU:HD23	1:C:516:PHE:N	2.14	0.61
1:A:191:ARG:HG3	1:A:191:ARG:HH11	1.65	0.60
1:A:212:GLN:NE2	1:A:369:ILE:HA	2.15	0.60
1:B:239:ARG:NH2	1:B:337:GLN:HE22	1.99	0.60
1:B:576:PHE:CB	1:B:579:LEU:HD21	2.28	0.60
1:C:549:THR:CB	1:D:602:ASN:CG	2.66	0.60
1:D:191:ARG:HG3	1:D:191:ARG:HH11	1.65	0.60
1:D:659:ALA:HA	1:D:662:ARG:HD2	1.82	0.60
1:A:605:LEU:HD22	1:A:638:ARG:HD3	1.83	0.60
1:C:632:ALA:HB1	1:C:638:ARG:HH12	1.66	0.60
1:B:111:GLY:HA2	1:B:170:PRO:HD2	1.82	0.60
1:B:242:LEU:HD21	1:B:353:ILE:CD1	2.31	0.60
1:C:155:ARG:HE	1:C:386:LYS:HD2	1.65	0.60
1:D:632:ALA:HB1	1:D:638:ARG:HH12	1.66	0.60
1:A:194:GLU:H	1:A:194:GLU:CD	2.05	0.60
1:A:242:LEU:HD21	1:A:353:ILE:CD1	2.31	0.60
1:A:374:ALA:HA	1:A:377:ARG:NH2	2.16	0.60
1:A:632:ALA:HB1	1:A:638:ARG:HH12	1.66	0.60
1:B:191:ARG:HG3	1:B:191:ARG:HH11	1.66	0.60
1:C:21:ASN:N	1:C:21:ASN:ND2	2.49	0.60
1:C:242:LEU:HD21	1:C:353:ILE:CD1	2.31	0.60
1:C:465:ARG:HH22	1:D:606:THR:HG23	1.67	0.60
1:C:576:PHE:CB	1:C:579:LEU:HD21	2.28	0.60
1:D:374:ALA:HA	1:D:377:ARG:NH2	2.16	0.60
1:C:254:ILE:O	1:C:258:VAL:HG23	2.01	0.60
1:C:159:ARG:HH21	1:D:232:ALA:CA	2.15	0.60
1:D:242:LEU:HD21	1:D:353:ILE:CD1	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:251:LYS:HD2	1:D:346:ALA:HB1	1.83	0.60
1:D:605:LEU:HD22	1:D:638:ARG:HD3	1.83	0.60
1:B:254:ILE:O	1:B:258:VAL:HG23	2.01	0.60
1:B:268:LEU:HD12	1:B:269:ILE:H	1.65	0.60
1:B:545:PRO:CD	1:B:578:GLU:OE1	2.49	0.60
1:B:659:ALA:HA	1:B:662:ARG:HD2	1.82	0.60
1:D:155:ARG:HE	1:D:386:LYS:HD2	1.65	0.60
1:D:194:GLU:CD	1:D:194:GLU:H	2.05	0.60
1:A:251:LYS:HD2	1:A:346:ALA:HB1	1.83	0.60
1:A:425:LYS:O	1:A:426:LYS:C	2.36	0.60
1:A:436:THR:O	1:A:441:VAL:HG21	2.02	0.60
1:A:549:THR:CB	1:B:602:ASN:CG	2.67	0.60
1:C:194:GLU:H	1:C:194:GLU:CD	2.05	0.60
1:C:251:LYS:HD2	1:C:346:ALA:HB1	1.83	0.60
1:C:26:LEU:HD21	1:C:45:LYS:HE2	1.84	0.60
1:D:26:LEU:HD21	1:D:45:LYS:HE2	1.84	0.60
1:A:155:ARG:HE	1:A:386:LYS:HD2	1.65	0.60
1:A:315:LYS:HZ3	1:B:316:THR:CG2	2.14	0.60
1:A:26:LEU:HD21	1:A:45:LYS:HE2	1.84	0.60
1:A:539:PHE:CD1	1:A:573:VAL:HG23	2.32	0.60
1:C:442:MET:CE	1:D:233:ILE:CD1	2.79	0.60
1:C:51:LEU:CD2	1:C:104:PRO:HB3	2.32	0.60
1:D:239:ARG:NH2	1:D:337:GLN:HE22	1.99	0.60
1:D:436:THR:O	1:D:441:VAL:HG21	2.02	0.60
1:D:539:PHE:CD1	1:D:573:VAL:HG23	2.32	0.60
1:B:21:ASN:N	1:B:21:ASN:ND2	2.49	0.60
1:B:251:LYS:HD2	1:B:346:ALA:HB1	1.83	0.60
1:C:489:LEU:HD12	1:C:531:ILE:CD1	2.32	0.60
1:D:288:LYS:HA	1:D:291:GLU:HB3	1.82	0.60
1:A:288:LYS:HA	1:A:291:GLU:HB3	1.82	0.60
1:C:191:ARG:HG3	1:C:191:ARG:HH11	1.66	0.60
1:C:425:LYS:O	1:C:426:LYS:C	2.36	0.60
1:D:51:LEU:CD2	1:D:104:PRO:HB3	2.32	0.60
1:A:239:ARG:NH2	1:A:337:GLN:HE22	1.99	0.59
1:B:26:LEU:HD21	1:B:45:LYS:HE2	1.84	0.59
1:D:181:VAL:HG12	1:D:183:HIS:CD2	2.37	0.59
1:D:425:LYS:O	1:D:426:LYS:C	2.36	0.59
1:A:51:LEU:CD2	1:A:104:PRO:HB3	2.32	0.59
1:A:26:LEU:HB2	1:A:82:ILE:HG13	1.84	0.59
1:B:26:LEU:HB2	1:B:82:ILE:HG13	1.84	0.59
1:C:374:ALA:HA	1:C:377:ARG:NH2	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:522:CYS:SG	1:C:645:ILE:HG22	2.43	0.59
1:D:26:LEU:HB2	1:D:82:ILE:HG13	1.84	0.59
1:B:181:VAL:HG12	1:B:183:HIS:CD2	2.37	0.59
1:C:237:PRO:O	1:C:237:PRO:HG2	2.03	0.59
1:A:181:VAL:HG12	1:A:183:HIS:CD2	2.37	0.59
1:B:237:PRO:O	1:B:237:PRO:HG2	2.03	0.59
1:B:51:LEU:CD2	1:B:104:PRO:HB3	2.32	0.59
1:B:82:ILE:HD13	1:B:102:ILE:HG21	1.84	0.59
1:C:26:LEU:HB2	1:C:82:ILE:HG13	1.84	0.59
1:C:578:GLU:OE2	1:D:635:ARG:CZ	2.50	0.59
1:C:26:LEU:CD2	1:C:80:GLU:HA	2.24	0.59
1:C:696:LYS:HG2	1:D:508:MET:CE	2.31	0.59
1:B:489:LEU:HD12	1:B:531:ILE:CD1	2.31	0.59
1:A:577:ASP:HA	1:A:622:ALA:HB3	1.84	0.59
1:C:239:ARG:NH2	1:C:337:GLN:HE22	1.99	0.59
1:D:82:ILE:HD13	1:D:102:ILE:HG21	1.84	0.59
1:D:577:ASP:HA	1:D:622:ALA:HB3	1.84	0.59
1:A:82:ILE:HD13	1:A:102:ILE:HG21	1.84	0.59
1:B:194:GLU:H	1:B:194:GLU:CD	2.05	0.59
1:B:436:THR:O	1:B:441:VAL:HG21	2.02	0.59
1:B:697:LEU:HD13	1:B:738:GLU:HB3	1.85	0.59
1:C:94:VAL:HG11	1:C:100:ILE:HD11	1.85	0.59
1:C:181:VAL:HG12	1:C:183:HIS:CD2	2.37	0.59
1:C:436:THR:O	1:C:441:VAL:HG21	2.02	0.59
1:A:465:ARG:HH22	1:B:606:THR:HG23	1.68	0.59
1:A:206:ILE:HD11	1:A:213:LEU:HD12	1.84	0.59
1:C:423:ILE:HG21	1:D:229:LEU:HD21	1.83	0.59
1:C:601:ILE:O	1:C:605:LEU:HG	2.03	0.59
1:A:601:ILE:O	1:A:605:LEU:HG	2.03	0.58
1:B:601:ILE:O	1:B:605:LEU:HG	2.03	0.58
1:B:577:ASP:HA	1:B:622:ALA:HB3	1.84	0.58
1:C:577:ASP:HA	1:C:622:ALA:HB3	1.84	0.58
1:A:514:VAL:HA	1:A:641:GLN:HB2	1.86	0.58
1:B:329:LEU:HD22	1:B:362:ARG:HD3	1.85	0.58
1:B:539:PHE:CD1	1:B:573:VAL:HG23	2.32	0.58
1:B:522:CYS:SG	1:B:645:ILE:HG22	2.43	0.58
1:C:643:ILE:HG22	1:C:644:TYR:N	2.18	0.58
1:D:514:VAL:HA	1:D:641:GLN:HB2	1.86	0.58
1:D:522:CYS:SG	1:D:645:ILE:HG22	2.43	0.58
1:A:643:ILE:HG22	1:A:644:TYR:N	2.18	0.58
1:A:522:CYS:SG	1:A:645:ILE:HG22	2.43	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:268:LEU:HD12	1:B:302:PHE:O	2.04	0.58
1:D:601:ILE:O	1:D:605:LEU:HG	2.03	0.58
1:A:489:LEU:O	1:A:493:VAL:HG22	2.04	0.58
1:A:697:LEU:HD13	1:A:738:GLU:HB3	1.85	0.58
1:B:94:VAL:HG11	1:B:100:ILE:HD11	1.85	0.58
1:C:225:ARG:HG2	1:C:225:ARG:HH11	1.69	0.58
1:C:270:ASN:HB3	1:C:273:GLU:HB3	1.86	0.58
1:C:268:LEU:HD12	1:C:302:PHE:O	2.04	0.58
1:D:697:LEU:HD13	1:D:738:GLU:HB3	1.85	0.58
1:A:237:PRO:O	1:A:237:PRO:HG2	2.03	0.58
1:B:542:ILE:CG2	1:B:547:LEU:HD21	2.25	0.58
1:C:548:LEU:HD23	1:C:600:VAL:HG21	1.86	0.58
1:D:237:PRO:HG2	1:D:237:PRO:O	2.03	0.58
1:D:329:LEU:HD22	1:D:362:ARG:HD3	1.85	0.58
1:D:643:ILE:HG22	1:D:644:TYR:N	2.18	0.58
1:A:549:THR:CB	1:B:602:ASN:CB	2.82	0.58
1:B:544:GLY:C	1:B:546:GLU:H	2.07	0.58
1:C:82:ILE:HD13	1:C:102:ILE:HG21	1.84	0.58
1:D:489:LEU:O	1:D:493:VAL:HG22	2.04	0.58
1:D:548:LEU:HD23	1:D:600:VAL:HG21	1.86	0.58
1:A:548:LEU:HD23	1:A:600:VAL:HG21	1.86	0.58
1:D:94:VAL:HG11	1:D:100:ILE:HD11	1.85	0.58
1:D:117:LEU:HD13	1:D:189:ILE:HG13	1.86	0.58
1:D:489:LEU:HD12	1:D:531:ILE:CD1	2.31	0.58
1:A:94:VAL:HG11	1:A:100:ILE:HD11	1.85	0.58
1:A:117:LEU:HD13	1:A:189:ILE:HG13	1.86	0.58
1:A:329:LEU:HD22	1:A:362:ARG:HD3	1.85	0.58
1:A:381:LEU:HD21	1:A:411:LEU:HD22	1.86	0.58
1:B:213:LEU:HD22	1:B:217:LYS:CE	2.34	0.58
1:B:87:VAL:O	1:B:89:ARG:N	2.37	0.58
1:C:461:PRO:CG	1:D:615:LYS:NZ	2.61	0.58
1:C:624:ASN:ND2	1:D:635:ARG:NH2	2.51	0.58
1:A:489:LEU:HD12	1:A:531:ILE:CD1	2.32	0.58
1:A:624:ASN:ND2	1:B:635:ARG:NH2	2.52	0.58
1:B:489:LEU:O	1:B:493:VAL:HG22	2.03	0.58
1:B:643:ILE:HG22	1:B:644:TYR:N	2.18	0.58
1:B:89:ARG:HG2	1:B:94:VAL:HG23	1.86	0.58
1:C:631:PRO:HA	1:C:634:LEU:HG	1.86	0.58
1:C:697:LEU:HD13	1:C:738:GLU:HB3	1.85	0.58
1:D:152:PHE:CD2	1:D:152:PHE:C	2.78	0.58
1:D:381:LEU:HD21	1:D:411:LEU:HD22	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:578:GLU:HG2	1:D:635:ARG:HH12	1.68	0.58
1:A:152:PHE:CD2	1:A:152:PHE:C	2.78	0.57
1:A:578:GLU:OE2	1:B:635:ARG:CZ	2.52	0.57
1:D:213:LEU:HD22	1:D:217:LYS:CE	2.34	0.57
1:A:213:LEU:HD22	1:A:217:LYS:CE	2.34	0.57
1:B:152:PHE:CD2	1:B:152:PHE:C	2.78	0.57
1:A:158:MET:HE1	1:B:235:VAL:HG21	1.86	0.57
1:B:283:GLU:HG3	1:B:327:GLN:HG2	1.86	0.57
1:C:213:LEU:HD22	1:C:217:LYS:CE	2.34	0.57
1:B:514:VAL:HA	1:B:641:GLN:HB2	1.86	0.57
1:B:548:LEU:HD23	1:B:600:VAL:HG21	1.86	0.57
1:D:225:ARG:HH11	1:D:225:ARG:HG2	1.69	0.57
1:A:225:ARG:HG2	1:A:225:ARG:HH11	1.69	0.57
1:A:432:LEU:CD2	1:B:99:VAL:HG21	2.35	0.57
1:B:381:LEU:HD21	1:B:411:LEU:HD22	1.86	0.57
1:C:152:PHE:CD2	1:C:152:PHE:C	2.78	0.57
1:C:117:LEU:HD13	1:C:189:ILE:HG13	1.86	0.57
1:C:206:ILE:HD11	1:C:213:LEU:HD12	1.84	0.57
1:D:119:ILE:HD12	1:D:162:GLU:HB3	1.86	0.57
1:B:119:ILE:HD12	1:B:162:GLU:HB3	1.86	0.57
1:C:329:LEU:HD22	1:C:362:ARG:HD3	1.85	0.57
1:C:87:VAL:O	1:C:89:ARG:N	2.37	0.57
1:D:270:ASN:HB3	1:D:273:GLU:HB3	1.86	0.57
1:D:408:GLY:HA3	2:D:807:ADP:C8	2.40	0.57
1:A:119:ILE:HD12	1:A:162:GLU:HB3	1.86	0.57
1:A:268:LEU:HD12	1:A:302:PHE:O	2.04	0.57
1:A:270:ASN:HB3	1:A:273:GLU:HB3	1.86	0.57
1:A:372:PRO:O	1:A:377:ARG:NH1	2.38	0.57
1:B:225:ARG:HG2	1:B:225:ARG:HH11	1.69	0.57
1:B:59:LEU:HB2	1:B:67:ALA:O	2.05	0.57
1:D:372:PRO:O	1:D:377:ARG:NH1	2.38	0.57
1:D:89:ARG:HG2	1:D:94:VAL:HG23	1.86	0.57
1:A:283:GLU:HG3	1:A:327:GLN:HG2	1.87	0.57
1:A:408:GLY:HA3	2:A:807:ADP:C8	2.39	0.57
1:A:87:VAL:O	1:A:89:ARG:N	2.37	0.57
1:A:89:ARG:HG2	1:A:94:VAL:HG23	1.86	0.57
1:B:203:TYR:CE2	1:B:261:GLU:HG2	2.40	0.57
1:B:270:ASN:HB3	1:B:273:GLU:HB3	1.86	0.57
1:B:408:GLY:HA3	2:B:807:ADP:C8	2.40	0.57
1:D:87:VAL:O	1:D:89:ARG:N	2.37	0.57
1:A:544:GLY:C	1:A:546:GLU:H	2.07	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:59:LEU:O	1:B:66:GLU:HA	2.05	0.57
1:C:408:GLY:HA3	2:C:807:ADP:C8	2.39	0.57
1:C:489:LEU:O	1:C:493:VAL:HG22	2.04	0.57
1:C:549:THR:CG2	1:D:602:ASN:CB	2.68	0.57
1:D:268:LEU:HD12	1:D:302:PHE:O	2.04	0.57
1:D:283:GLU:HG3	1:D:327:GLN:HG2	1.87	0.57
1:B:489:LEU:CD1	1:B:531:ILE:CD1	2.83	0.57
1:B:653:ARG:HG2	1:B:687:LEU:HD21	1.87	0.57
1:D:21:ASN:O	1:D:22:ARG:HB2	2.05	0.57
1:C:442:MET:HE2	1:D:233:ILE:HG12	1.85	0.57
1:A:203:TYR:CE2	1:A:261:GLU:HG2	2.40	0.57
1:A:631:PRO:HA	1:A:634:LEU:HG	1.86	0.57
1:B:524:LYS:HG2	1:B:645:ILE:HD12	1.87	0.57
1:D:544:GLY:C	1:D:546:GLU:H	2.07	0.57
1:A:21:ASN:O	1:A:22:ARG:HB2	2.05	0.56
1:A:489:LEU:CD1	1:A:531:ILE:CD1	2.83	0.56
1:B:631:PRO:HA	1:B:634:LEU:HG	1.86	0.56
1:C:514:VAL:HA	1:C:641:GLN:HB2	1.86	0.56
1:D:203:TYR:CE2	1:D:261:GLU:HG2	2.40	0.56
1:D:631:PRO:HA	1:D:634:LEU:HG	1.86	0.56
1:A:241:ILE:HB	1:A:344:MET:HG2	1.88	0.56
1:A:514:VAL:HG12	1:A:515:LEU:N	2.20	0.56
1:B:514:VAL:HG12	1:B:515:LEU:N	2.20	0.56
1:D:241:ILE:HB	1:D:344:MET:HG2	1.88	0.56
1:D:489:LEU:CD1	1:D:531:ILE:CD1	2.83	0.56
1:B:372:PRO:O	1:B:377:ARG:NH1	2.38	0.56
1:C:203:TYR:CE2	1:C:261:GLU:HG2	2.40	0.56
1:C:514:VAL:HG12	1:C:515:LEU:N	2.20	0.56
1:C:544:GLY:C	1:C:546:GLU:H	2.07	0.56
1:C:699:ILE:HD13	1:D:506:PHE:CG	2.22	0.56
1:D:514:VAL:HG12	1:D:515:LEU:N	2.20	0.56
1:B:100:ILE:HG22	1:B:101:SER:H	1.65	0.56
1:B:117:LEU:HD13	1:B:189:ILE:HG13	1.86	0.56
1:A:703:ILE:CG1	1:B:502:LYS:HG2	2.16	0.56
1:C:372:PRO:O	1:C:377:ARG:NH1	2.38	0.56
1:C:59:LEU:HB2	1:C:67:ALA:O	2.05	0.56
1:C:524:LYS:HG2	1:C:645:ILE:HD12	1.87	0.56
1:A:467:THR:HG21	1:A:551:TRP:CZ2	2.39	0.56
1:B:213:LEU:HD22	1:B:217:LYS:HE3	1.88	0.56
1:B:21:ASN:O	1:B:22:ARG:HB2	2.05	0.56
1:C:114:ILE:CD1	1:C:180:THR:HG21	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:241:ILE:HB	1:C:344:MET:HG2	1.88	0.56
1:C:602:ASN:HA	1:C:605:LEU:HD12	1.88	0.56
1:C:653:ARG:HG2	1:C:687:LEU:HD21	1.87	0.56
1:D:100:ILE:HG22	1:D:101:SER:H	1.65	0.56
1:C:276:SER:CB	1:D:326:SER:HB3	2.32	0.56
1:D:59:LEU:O	1:D:66:GLU:HA	2.05	0.56
1:A:59:LEU:O	1:A:66:GLU:HA	2.05	0.56
1:B:241:ILE:HB	1:B:344:MET:HG2	1.88	0.56
1:B:384:HIS:HE1	2:B:807:ADP:N3	2.04	0.56
1:A:59:LEU:HB2	1:A:67:ALA:O	2.05	0.56
1:A:384:HIS:HE1	2:A:807:ADP:N3	2.04	0.56
1:C:119:ILE:HD12	1:C:162:GLU:HB3	1.86	0.56
1:C:381:LEU:HD21	1:C:411:LEU:HD22	1.86	0.56
1:C:489:LEU:CD1	1:C:531:ILE:CD1	2.83	0.56
1:B:213:LEU:O	1:B:215:GLN:N	2.39	0.56
1:B:555:SER:HB2	1:B:558:ASN:CG	2.26	0.56
1:C:384:HIS:HE1	2:C:807:ADP:N3	2.04	0.56
1:C:89:ARG:HG2	1:C:94:VAL:HG23	1.86	0.56
1:D:384:HIS:HE1	2:D:807:ADP:N3	2.04	0.56
1:B:528:ALA:CB	1:B:620:ILE:HD13	2.36	0.56
1:C:699:ILE:HA	1:D:506:PHE:CE1	2.38	0.56
1:D:467:THR:HG21	1:D:551:TRP:CZ2	2.39	0.56
1:D:59:LEU:HB2	1:D:67:ALA:O	2.05	0.56
1:C:159:ARG:HH21	1:D:232:ALA:C	2.09	0.56
1:D:524:LYS:HG2	1:D:645:ILE:HD12	1.87	0.56
1:B:114:ILE:CD1	1:B:180:THR:HG21	2.36	0.56
1:B:465:ARG:HG2	1:B:466:GLU:N	2.22	0.56
1:A:578:GLU:HG2	1:B:635:ARG:HH12	1.69	0.56
1:C:153:LEU:HD12	1:C:161:VAL:O	2.05	0.56
1:C:213:LEU:O	1:C:215:GLN:N	2.39	0.56
1:D:21:ASN:ND2	1:D:21:ASN:N	2.49	0.56
1:A:602:ASN:HA	1:A:605:LEU:HD12	1.88	0.55
1:C:21:ASN:O	1:C:22:ARG:HB2	2.05	0.55
1:A:114:ILE:CD1	1:A:180:THR:HG21	2.35	0.55
1:A:524:LYS:HG2	1:A:645:ILE:HD12	1.87	0.55
1:B:153:LEU:HD12	1:B:161:VAL:O	2.06	0.55
1:B:424:ARG:HG3	1:B:424:ARG:HH11	1.71	0.55
1:B:467:THR:HG21	1:B:551:TRP:CZ2	2.39	0.55
1:C:424:ARG:HH11	1:C:424:ARG:HG3	1.71	0.55
1:A:138:TYR:CE2	1:A:144:ARG:HD2	2.42	0.55
1:A:424:ARG:HG3	1:A:424:ARG:HH11	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:138:TYR:CE2	1:B:144:ARG:HD2	2.42	0.55
1:B:35:ASP:O	1:B:38:VAL:HG12	2.07	0.55
1:C:283:GLU:HG3	1:C:327:GLN:HG2	1.87	0.55
1:C:465:ARG:HG2	1:C:466:GLU:N	2.22	0.55
1:C:467:THR:HG21	1:C:551:TRP:CZ2	2.39	0.55
1:C:528:ALA:CB	1:C:620:ILE:HD13	2.36	0.55
1:C:555:SER:HB2	1:C:558:ASN:CG	2.26	0.55
1:C:59:LEU:O	1:C:66:GLU:HA	2.05	0.55
1:D:424:ARG:HG3	1:D:424:ARG:HH11	1.71	0.55
1:D:602:ASN:HA	1:D:605:LEU:HD12	1.88	0.55
1:A:213:LEU:O	1:A:215:GLN:N	2.39	0.55
1:A:21:ASN:N	1:A:21:ASN:ND2	2.49	0.55
1:A:465:ARG:HG2	1:A:466:GLU:N	2.22	0.55
1:A:653:ARG:HG2	1:A:687:LEU:HD21	1.87	0.55
1:B:213:LEU:HD22	1:B:217:LYS:CG	2.37	0.55
1:C:206:ILE:CG2	1:C:253:LEU:HD22	2.37	0.55
1:D:114:ILE:CD1	1:D:180:THR:HG21	2.35	0.55
1:D:138:TYR:CE2	1:D:144:ARG:HD2	2.42	0.55
1:D:143:TYR:CE1	1:D:178:PRO:HD3	2.39	0.55
1:D:555:SER:HB2	1:D:558:ASN:CG	2.26	0.55
1:D:627:ASP:C	1:D:629:ILE:H	2.10	0.55
1:C:432:LEU:CD2	1:D:99:VAL:HG21	2.37	0.55
1:A:143:TYR:CE1	1:A:178:PRO:HD3	2.39	0.55
1:A:528:ALA:CB	1:A:620:ILE:HD13	2.36	0.55
1:D:153:LEU:HD12	1:D:161:VAL:O	2.06	0.55
1:D:213:LEU:O	1:D:215:GLN:N	2.39	0.55
1:D:465:ARG:HG2	1:D:466:GLU:N	2.22	0.55
1:D:528:ALA:CB	1:D:620:ILE:HD13	2.36	0.55
1:D:620:ILE:HG22	1:D:621:GLY:N	2.22	0.55
1:A:555:SER:HB2	1:A:558:ASN:CG	2.26	0.55
1:A:620:ILE:HG22	1:A:621:GLY:N	2.22	0.55
1:A:627:ASP:C	1:A:629:ILE:H	2.10	0.55
1:B:604:ILE:HG22	1:B:608:MET:CE	2.36	0.55
1:C:201:VAL:CG2	1:C:256:ARG:HD2	2.36	0.55
1:C:542:ILE:HD11	1:C:562:ILE:CG2	2.37	0.55
1:D:475:THR:HA	1:D:533:ASN:ND2	2.22	0.55
1:D:653:ARG:HG2	1:D:687:LEU:HD21	1.87	0.55
1:A:153:LEU:HD12	1:A:161:VAL:O	2.05	0.55
1:A:206:ILE:CG2	1:A:253:LEU:HD22	2.37	0.55
1:A:35:ASP:O	1:A:38:VAL:HG12	2.07	0.55
1:A:475:THR:HA	1:A:533:ASN:ND2	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:627:ASP:C	1:C:629:ILE:H	2.10	0.55
1:D:35:ASP:O	1:D:38:VAL:HG12	2.07	0.55
1:B:620:ILE:HG22	1:B:621:GLY:N	2.22	0.55
1:C:138:TYR:CE2	1:C:144:ARG:HD2	2.42	0.55
1:C:213:LEU:HD22	1:C:217:LYS:HE3	1.88	0.55
1:C:475:THR:HA	1:C:533:ASN:ND2	2.22	0.55
1:C:559:VAL:HG11	1:C:604:ILE:CG1	2.37	0.55
1:D:427:MET:O	1:D:430:ILE:HB	2.07	0.55
1:A:213:LEU:HD22	1:A:217:LYS:HE3	1.88	0.55
1:A:237:PRO:HD2	1:A:337:GLN:OE1	2.07	0.55
1:B:542:ILE:HD11	1:B:562:ILE:CG2	2.37	0.55
1:A:117:LEU:HD23	1:A:118:PRO:HD2	1.89	0.55
1:B:353:ILE:HG23	1:B:357:LEU:CD1	2.37	0.55
1:B:475:THR:HA	1:B:533:ASN:ND2	2.22	0.55
1:B:602:ASN:HA	1:B:605:LEU:HD12	1.88	0.55
1:D:117:LEU:HD23	1:D:118:PRO:HD2	1.89	0.55
1:D:213:LEU:HD22	1:D:217:LYS:HE3	1.88	0.55
1:D:478:ASP:O	1:D:479:ILE:HG13	2.07	0.55
1:A:427:MET:O	1:A:430:ILE:HB	2.07	0.54
1:A:478:ASP:O	1:A:479:ILE:HG13	2.07	0.54
1:B:152:PHE:HE2	1:B:163:PHE:HD2	1.55	0.54
1:B:78:SER:HB3	1:B:80:GLU:OE1	2.07	0.54
1:C:604:ILE:HG22	1:C:608:MET:CE	2.36	0.54
1:C:91:ASN:HD22	1:C:91:ASN:N	2.05	0.54
1:D:237:PRO:HD2	1:D:337:GLN:OE1	2.07	0.54
1:D:542:ILE:HD11	1:D:562:ILE:CG2	2.37	0.54
1:A:542:ILE:HD11	1:A:562:ILE:CG2	2.37	0.54
1:B:478:ASP:O	1:B:479:ILE:HG13	2.07	0.54
1:C:144:ARG:HH11	1:C:144:ARG:HG2	1.72	0.54
1:C:213:LEU:HD22	1:C:217:LYS:HG3	1.90	0.54
1:C:620:ILE:HG22	1:C:621:GLY:N	2.22	0.54
1:B:213:LEU:HD22	1:B:217:LYS:HG3	1.90	0.54
1:B:237:PRO:HD2	1:B:337:GLN:OE1	2.07	0.54
1:A:696:LYS:CG	1:B:508:MET:CE	2.86	0.54
1:C:237:PRO:HD2	1:C:337:GLN:OE1	2.07	0.54
1:A:201:VAL:CG2	1:A:256:ARG:HD2	2.36	0.54
1:A:559:VAL:HG11	1:A:604:ILE:CG1	2.37	0.54
1:A:91:ASN:HD22	1:A:91:ASN:N	2.05	0.54
1:B:28:VAL:HG12	1:B:84:MET:CE	2.37	0.54
1:C:213:LEU:HD22	1:C:217:LYS:CG	2.37	0.54
1:C:478:ASP:O	1:C:479:ILE:HG13	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:213:LEU:HD22	1:D:217:LYS:HG3	1.90	0.54
1:A:213:LEU:HD22	1:A:217:LYS:CG	2.37	0.54
1:C:353:ILE:HG23	1:C:357:LEU:CD1	2.36	0.54
1:C:427:MET:O	1:C:430:ILE:HB	2.07	0.54
1:A:213:LEU:HD22	1:A:217:LYS:HG3	1.90	0.54
1:A:276:SER:CB	1:B:326:SER:HB3	2.35	0.54
1:C:78:SER:HB3	1:C:80:GLU:OE1	2.07	0.54
1:D:201:VAL:CG2	1:D:256:ARG:HD2	2.37	0.54
1:C:276:SER:HB3	1:D:327:GLN:N	2.22	0.54
1:D:559:VAL:HG11	1:D:604:ILE:CG1	2.37	0.54
1:D:78:SER:HB3	1:D:80:GLU:OE1	2.07	0.54
1:D:91:ASN:HD22	1:D:91:ASN:N	2.05	0.54
1:A:353:ILE:HG22	1:A:354:ASP:N	2.23	0.54
1:A:78:SER:HB3	1:A:80:GLU:OE1	2.07	0.54
1:B:117:LEU:HD23	1:B:118:PRO:HD2	1.89	0.54
1:B:472:PRO:HG2	1:B:532:ALA:HB3	1.89	0.54
1:D:213:LEU:HD22	1:D:217:LYS:CG	2.37	0.54
1:A:152:PHE:HE2	1:A:163:PHE:HD2	1.55	0.54
1:A:543:LYS:O	1:A:546:GLU:HB2	2.08	0.54
1:A:604:ILE:HG22	1:A:608:MET:CE	2.36	0.54
1:B:239:ARG:HH22	1:B:337:GLN:HE22	1.56	0.54
1:D:152:PHE:HE2	1:D:163:PHE:HD2	1.55	0.54
1:D:353:ILE:HG22	1:D:354:ASP:N	2.23	0.54
1:D:543:LYS:O	1:D:546:GLU:HB2	2.08	0.54
1:D:604:ILE:HG22	1:D:608:MET:CE	2.36	0.54
1:A:27:ILE:HA	1:A:99:VAL:HA	1.90	0.54
1:A:28:VAL:HG12	1:A:84:MET:CE	2.37	0.54
1:A:227:PRO:HB3	1:A:340:HIS:CD2	2.43	0.54
1:B:227:PRO:HB3	1:B:340:HIS:CD2	2.43	0.54
1:C:117:LEU:HD23	1:C:118:PRO:HD2	1.89	0.54
1:C:28:VAL:HG12	1:C:84:MET:CE	2.37	0.54
1:D:27:ILE:HA	1:D:99:VAL:HA	1.90	0.54
1:A:224:LEU:HD12	1:A:298:PRO:HB3	1.90	0.54
1:A:544:GLY:O	1:A:546:GLU:N	2.41	0.54
1:C:543:LYS:O	1:C:546:GLU:HB2	2.08	0.54
1:D:227:PRO:HB3	1:D:340:HIS:CD2	2.43	0.54
1:D:544:GLY:O	1:D:546:GLU:N	2.41	0.54
1:A:144:ARG:HG2	1:A:144:ARG:HH11	1.73	0.53
1:B:427:MET:O	1:B:430:ILE:HB	2.07	0.53
1:B:543:LYS:HE3	1:B:546:GLU:OE1	2.08	0.53
1:C:224:LEU:HD12	1:C:298:PRO:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:35:ASP:O	1:C:38:VAL:HG12	2.07	0.53
1:C:544:GLY:O	1:C:546:GLU:N	2.41	0.53
1:C:605:LEU:HD13	1:C:638:ARG:NH1	2.23	0.53
1:D:138:TYR:CD1	1:D:154:VAL:HG22	2.43	0.53
1:D:144:ARG:HG2	1:D:144:ARG:HH11	1.73	0.53
1:D:224:LEU:HD12	1:D:298:PRO:HB3	1.91	0.53
1:D:472:PRO:HG2	1:D:532:ALA:HB3	1.89	0.53
1:A:82:ILE:HD13	1:A:102:ILE:HG23	1.90	0.53
1:A:138:TYR:CD1	1:A:154:VAL:HG22	2.43	0.53
1:A:472:PRO:HG2	1:A:532:ALA:HB3	1.89	0.53
1:B:143:TYR:CE1	1:B:178:PRO:HD3	2.39	0.53
1:B:206:ILE:CG2	1:B:253:LEU:HD22	2.37	0.53
1:B:353:ILE:HG22	1:B:354:ASP:N	2.23	0.53
1:C:82:ILE:HD13	1:C:102:ILE:HG23	1.91	0.53
1:C:27:ILE:HA	1:C:99:VAL:HA	1.90	0.53
1:D:28:VAL:HG12	1:D:84:MET:CE	2.37	0.53
1:A:495:TYR:O	1:A:499:HIS:HB2	2.09	0.53
1:B:201:VAL:CG2	1:B:256:ARG:HD2	2.36	0.53
1:B:495:TYR:O	1:B:499:HIS:HB2	2.08	0.53
1:B:544:GLY:O	1:B:546:GLU:N	2.41	0.53
1:B:556:GLU:O	1:B:603:GLN:HG2	2.09	0.53
1:C:348:ASN:HD22	1:C:348:ASN:N	2.06	0.53
1:C:59:LEU:HD21	1:C:102:ILE:CG2	2.23	0.53
1:D:495:TYR:O	1:D:499:HIS:HB2	2.09	0.53
1:A:605:LEU:HD13	1:A:638:ARG:NH1	2.23	0.53
1:B:224:LEU:HD12	1:B:298:PRO:HB3	1.91	0.53
1:A:276:SER:HB3	1:B:327:GLN:N	2.23	0.53
1:B:559:VAL:HG11	1:B:604:ILE:CG1	2.37	0.53
1:B:627:ASP:C	1:B:629:ILE:H	2.10	0.53
1:B:27:ILE:HA	1:B:99:VAL:HA	1.90	0.53
1:D:348:ASN:N	1:D:348:ASN:HD22	2.06	0.53
1:A:159:ARG:HH21	1:B:232:ALA:C	2.12	0.53
1:B:493:VAL:O	1:B:497:VAL:HG12	2.09	0.53
1:B:89:ARG:O	1:B:94:VAL:HG23	2.09	0.53
1:C:556:GLU:CD	1:C:556:GLU:H	2.12	0.53
1:D:532:ALA:HB2	1:D:573:VAL:CG2	2.38	0.53
1:D:605:LEU:HD13	1:D:638:ARG:NH1	2.23	0.53
1:D:82:ILE:HD13	1:D:102:ILE:HG23	1.91	0.53
1:A:556:GLU:CD	1:A:556:GLU:H	2.12	0.53
1:A:532:ALA:HB2	1:A:573:VAL:CG2	2.38	0.53
1:A:699:ILE:HD13	1:B:506:PHE:HD2	1.70	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:129:ASN:O	1:B:133:VAL:HG23	2.09	0.53
1:C:353:ILE:HG22	1:C:354:ASP:N	2.23	0.53
1:C:532:ALA:HB2	1:C:573:VAL:CG2	2.38	0.53
1:A:348:ASN:HD22	1:A:348:ASN:N	2.06	0.53
1:B:173:TYR:HD1	1:B:173:TYR:O	1.91	0.53
1:B:213:LEU:HD13	1:B:217:LYS:HE3	1.90	0.53
1:B:532:ALA:HB2	1:B:573:VAL:CG2	2.38	0.53
1:B:59:LEU:HD21	1:B:102:ILE:CG2	2.23	0.53
1:C:143:TYR:CE1	1:C:178:PRO:HD3	2.39	0.53
1:C:206:ILE:CD1	1:C:213:LEU:HD12	2.39	0.53
1:C:475:THR:HA	1:C:533:ASN:HD22	1.74	0.53
1:C:91:ASN:O	1:C:92:LEU:HG	2.09	0.53
1:A:418:ALA:O	1:A:421:GLN:HB3	2.08	0.53
1:A:89:ARG:O	1:A:94:VAL:HG23	2.09	0.53
1:B:144:ARG:HH11	1:B:144:ARG:HG2	1.73	0.53
1:B:89:ARG:O	1:B:94:VAL:CG2	2.57	0.53
1:C:152:PHE:HE2	1:C:163:PHE:HD2	1.55	0.53
1:C:472:PRO:HG2	1:C:532:ALA:HB3	1.89	0.53
1:C:543:LYS:HE3	1:C:546:GLU:OE1	2.08	0.53
1:D:556:GLU:O	1:D:603:GLN:HG2	2.09	0.53
1:D:89:ARG:O	1:D:94:VAL:HG23	2.09	0.53
1:A:556:GLU:O	1:A:603:GLN:HG2	2.09	0.53
1:B:475:THR:HA	1:B:533:ASN:HD22	1.74	0.53
1:B:605:LEU:HD13	1:B:638:ARG:NH1	2.23	0.53
1:C:139:PHE:CE1	1:C:146:ILE:HD11	2.43	0.53
1:C:493:VAL:O	1:C:497:VAL:HG12	2.09	0.53
1:C:89:ARG:O	1:C:94:VAL:HG23	2.09	0.53
1:D:53:ARG:C	1:D:55:ASP:H	2.12	0.53
1:A:206:ILE:CD1	1:A:213:LEU:HD12	2.39	0.53
1:A:53:ARG:C	1:A:55:ASP:H	2.12	0.53
1:B:138:TYR:CD1	1:B:154:VAL:HG22	2.43	0.53
1:B:209:CYS:O	1:B:213:LEU:HB2	2.09	0.53
1:B:543:LYS:O	1:B:546:GLU:HB2	2.08	0.53
1:C:173:TYR:HD1	1:C:173:TYR:O	1.91	0.53
1:C:53:ARG:C	1:C:55:ASP:H	2.12	0.53
1:D:239:ARG:HH22	1:D:337:GLN:HE22	1.56	0.53
1:D:418:ALA:O	1:D:421:GLN:HB3	2.08	0.53
1:A:575:PHE:CE2	1:A:577:ASP:HB2	2.44	0.52
1:B:152:PHE:CE2	1:B:163:PHE:HB2	2.45	0.52
1:B:206:ILE:HD11	1:B:213:LEU:HD12	1.84	0.52
1:B:237:PRO:O	1:B:238:PRO:C	2.47	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:556:GLU:CD	1:B:556:GLU:H	2.12	0.52
1:C:158:MET:HE1	1:D:235:VAL:HG21	1.91	0.52
1:D:556:GLU:H	1:D:556:GLU:CD	2.12	0.52
1:D:575:PHE:CE2	1:D:577:ASP:HB2	2.44	0.52
1:B:575:PHE:CE2	1:B:577:ASP:HB2	2.44	0.52
1:C:227:PRO:HB3	1:C:340:HIS:CD2	2.43	0.52
1:C:578:GLU:CG	1:D:635:ARG:NH1	2.73	0.52
1:A:129:ASN:O	1:A:133:VAL:HG23	2.09	0.52
1:A:461:PRO:HG2	1:B:615:LYS:HZ3	1.72	0.52
1:C:418:ALA:O	1:C:421:GLN:HB3	2.08	0.52
1:D:173:TYR:HD1	1:D:173:TYR:O	1.91	0.52
1:D:493:VAL:O	1:D:497:VAL:HG12	2.09	0.52
1:D:89:ARG:O	1:D:94:VAL:CG2	2.57	0.52
1:A:239:ARG:HH22	1:A:337:GLN:HE22	1.56	0.52
1:A:461:PRO:CG	1:B:615:LYS:NZ	2.63	0.52
1:A:89:ARG:O	1:A:94:VAL:CG2	2.57	0.52
1:B:135:LEU:HD22	1:B:135:LEU:N	2.24	0.52
1:B:418:ALA:O	1:B:421:GLN:HB3	2.09	0.52
1:C:126:ILE:O	1:C:126:ILE:HG13	2.09	0.52
1:C:135:LEU:N	1:C:135:LEU:HD22	2.24	0.52
1:C:138:TYR:CD1	1:C:154:VAL:HG22	2.43	0.52
1:C:389:LYS:HD2	1:C:443:ASN:O	2.10	0.52
1:C:556:GLU:O	1:C:603:GLN:HG2	2.09	0.52
1:C:89:ARG:O	1:C:94:VAL:CG2	2.57	0.52
1:D:152:PHE:CE2	1:D:163:PHE:HB2	2.44	0.52
1:D:389:LYS:HD2	1:D:443:ASN:O	2.10	0.52
1:A:135:LEU:N	1:A:135:LEU:HD22	2.24	0.52
1:A:152:PHE:CE2	1:A:163:PHE:HB2	2.45	0.52
1:A:173:TYR:HD1	1:A:173:TYR:O	1.91	0.52
1:A:389:LYS:HD2	1:A:443:ASN:O	2.10	0.52
1:A:493:VAL:O	1:A:497:VAL:HG12	2.09	0.52
1:B:389:LYS:HD2	1:B:443:ASN:O	2.10	0.52
1:D:129:ASN:O	1:D:133:VAL:HG23	2.09	0.52
1:A:696:LYS:HG3	1:B:508:MET:HE3	1.91	0.52
1:B:522:CYS:SG	1:B:645:ILE:O	2.67	0.52
1:B:82:ILE:HD13	1:B:102:ILE:HG23	1.91	0.52
1:C:110:TYR:HD2	1:C:177:ALA:HB2	1.74	0.52
1:D:126:ILE:HG13	1:D:126:ILE:O	2.09	0.52
1:D:135:LEU:HD22	1:D:135:LEU:N	2.24	0.52
1:D:543:LYS:HE3	1:D:546:GLU:OE1	2.08	0.52
1:D:91:ASN:O	1:D:92:LEU:HG	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:126:ILE:O	1:A:126:ILE:HG13	2.09	0.52
1:A:91:ASN:O	1:A:92:LEU:HG	2.09	0.52
1:B:348:ASN:HD22	1:B:348:ASN:N	2.06	0.52
1:B:53:ARG:C	1:B:55:ASP:H	2.12	0.52
1:C:129:ASN:O	1:C:133:VAL:HG23	2.09	0.52
1:C:575:PHE:CE2	1:C:577:ASP:HB2	2.44	0.52
1:B:110:TYR:H	1:B:110:TYR:HD1	1.57	0.52
1:B:272:PRO:HD3	1:B:305:GLU:HB2	1.92	0.52
1:B:311:PRO:O	1:B:313:ARG:N	2.43	0.52
1:B:472:PRO:HB3	1:B:529:LYS:O	2.10	0.52
1:C:239:ARG:HH22	1:C:337:GLN:HE22	1.56	0.52
1:C:472:PRO:HB3	1:C:529:LYS:O	2.10	0.52
1:C:495:TYR:O	1:C:499:HIS:HB2	2.09	0.52
1:C:479:ILE:HG21	1:C:527:LEU:CD2	2.40	0.52
1:A:543:LYS:HE3	1:A:546:GLU:OE1	2.08	0.52
1:B:91:ASN:HD22	1:B:91:ASN:N	2.05	0.52
1:B:91:ASN:O	1:B:92:LEU:HG	2.09	0.52
1:C:111:GLY:HA2	1:C:170:PRO:CD	2.40	0.52
1:C:114:ILE:HD12	1:C:180:THR:HG21	1.92	0.52
1:D:209:CYS:O	1:D:213:LEU:HB2	2.09	0.52
1:D:522:CYS:SG	1:D:645:ILE:O	2.67	0.52
1:A:209:CYS:O	1:A:213:LEU:HB2	2.09	0.52
1:A:311:PRO:O	1:A:313:ARG:N	2.43	0.52
1:A:660:ASN:ND2	1:A:691:CYS:CB	2.73	0.52
1:B:126:ILE:HG13	1:B:126:ILE:O	2.09	0.52
1:C:60:LYS:HG2	1:C:66:GLU:HG2	1.92	0.52
1:D:311:PRO:O	1:D:313:ARG:N	2.43	0.52
1:D:660:ASN:ND2	1:D:691:CYS:CB	2.73	0.52
1:A:110:TYR:HD2	1:A:177:ALA:HB2	1.74	0.51
1:A:522:CYS:SG	1:A:645:ILE:O	2.67	0.51
1:B:479:ILE:HG21	1:B:527:LEU:CD2	2.40	0.51
1:B:660:ASN:ND2	1:B:691:CYS:CB	2.73	0.51
1:C:209:CYS:O	1:C:213:LEU:HB2	2.09	0.51
1:C:578:GLU:CG	1:D:635:ARG:HH12	2.23	0.51
1:D:177:ALA:HB1	1:D:178:PRO:CD	2.38	0.51
1:D:475:THR:HA	1:D:533:ASN:HD22	1.74	0.51
1:A:213:LEU:HD13	1:A:217:LYS:HE3	1.90	0.51
1:B:119:ILE:O	1:B:121:ASP:N	2.44	0.51
1:B:293:ALA:CB	1:B:301:ILE:HD11	2.40	0.51
1:A:696:LYS:CG	1:B:508:MET:HE3	2.40	0.51
1:B:60:LYS:HG2	1:B:66:GLU:HG2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:213:LEU:HD13	1:C:217:LYS:HE3	1.90	0.51
1:C:461:PRO:HG2	1:D:615:LYS:HZ3	1.73	0.51
1:C:522:CYS:SG	1:C:645:ILE:O	2.67	0.51
1:C:92:LEU:CB	1:C:94:VAL:HG22	2.40	0.51
1:D:110:TYR:HD2	1:D:177:ALA:HB2	1.74	0.51
1:A:177:ALA:HB1	1:A:178:PRO:CD	2.38	0.51
1:B:26:LEU:CD2	1:B:80:GLU:HA	2.24	0.51
1:C:152:PHE:CE2	1:C:163:PHE:HB2	2.44	0.51
1:A:111:GLY:HA2	1:A:170:PRO:CD	2.40	0.51
1:B:110:TYR:HD2	1:B:177:ALA:HB2	1.74	0.51
1:C:237:PRO:O	1:C:238:PRO:C	2.48	0.51
1:C:272:PRO:HD3	1:C:305:GLU:HB2	1.92	0.51
1:C:660:ASN:ND2	1:C:691:CYS:CB	2.73	0.51
1:D:139:PHE:CE1	1:D:146:ILE:HD11	2.43	0.51
1:D:213:LEU:HD13	1:D:217:LYS:HE3	1.90	0.51
1:A:119:ILE:O	1:A:121:ASP:N	2.43	0.51
1:A:475:THR:HA	1:A:533:ASN:HD22	1.74	0.51
1:B:82:ILE:CD1	1:B:102:ILE:HG23	2.41	0.51
1:B:114:ILE:HD12	1:B:180:THR:HG21	1.92	0.51
1:B:206:ILE:HG22	1:B:253:LEU:HD13	1.93	0.51
1:C:177:ALA:HB1	1:C:178:PRO:CD	2.38	0.51
1:C:311:PRO:O	1:C:313:ARG:N	2.43	0.51
1:D:119:ILE:O	1:D:121:ASP:N	2.43	0.51
1:A:331:LEU:C	1:A:333:ASP:H	2.14	0.51
1:A:472:PRO:HB3	1:A:529:LYS:O	2.10	0.51
1:B:376:GLY:O	1:B:378:LEU:N	2.44	0.51
1:C:75:ASP:OD1	1:C:75:ASP:N	2.43	0.51
1:D:111:GLY:HA2	1:D:170:PRO:CD	2.40	0.51
1:D:293:ALA:CB	1:D:301:ILE:HD11	2.40	0.51
1:D:479:ILE:HG21	1:D:527:LEU:CD2	2.40	0.51
1:D:472:PRO:HB3	1:D:529:LYS:O	2.10	0.51
1:D:60:LYS:HG2	1:D:66:GLU:HG2	1.92	0.51
1:A:206:ILE:HG22	1:A:253:LEU:HD13	1.93	0.51
1:A:376:GLY:O	1:A:378:LEU:N	2.44	0.51
1:A:479:ILE:HG21	1:A:527:LEU:CD2	2.40	0.51
1:A:699:ILE:HD13	1:B:506:PHE:CG	2.21	0.51
1:A:87:VAL:HG12	1:A:88:VAL:N	2.26	0.51
1:B:490:GLN:O	1:B:495:TYR:CD2	2.64	0.51
1:C:206:ILE:HG22	1:C:253:LEU:HD13	1.93	0.51
1:C:632:ALA:HB1	1:C:638:ARG:NH1	2.26	0.51
1:D:331:LEU:C	1:D:333:ASP:H	2.14	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:376:GLY:O	1:D:378:LEU:N	2.44	0.51
1:D:87:VAL:HG12	1:D:88:VAL:N	2.26	0.51
1:A:139:PHE:CE1	1:A:146:ILE:HD11	2.43	0.51
1:A:293:ALA:CB	1:A:301:ILE:HD11	2.40	0.51
1:A:60:LYS:HG2	1:A:66:GLU:HG2	1.92	0.51
1:A:695:CYS:HB2	1:B:508:MET:SD	2.50	0.51
1:A:92:LEU:CB	1:A:94:VAL:HG22	2.40	0.51
1:B:381:LEU:HD11	1:B:399:VAL:HG12	1.93	0.51
1:B:75:ASP:N	1:B:75:ASP:OD1	2.43	0.51
1:C:191:ARG:NH1	1:C:191:ARG:HG3	2.26	0.51
1:C:331:LEU:C	1:C:333:ASP:H	2.14	0.51
1:C:376:GLY:O	1:C:378:LEU:N	2.44	0.51
1:C:39:VAL:HG13	1:C:69:CYS:SG	2.51	0.51
1:C:549:THR:HG23	1:D:599:ARG:CA	2.32	0.51
1:D:110:TYR:H	1:D:110:TYR:HD1	1.57	0.51
1:D:237:PRO:O	1:D:238:PRO:C	2.48	0.51
1:D:540:ILE:HB	1:D:574:LEU:CD1	2.35	0.51
1:B:540:ILE:HB	1:B:574:LEU:CD1	2.35	0.51
1:C:131:PHE:HA	1:C:135:LEU:HD23	1.92	0.51
1:C:28:VAL:HG22	1:C:98:ASP:O	2.11	0.51
1:C:490:GLN:O	1:C:495:TYR:CD2	2.64	0.51
1:C:28:VAL:HG21	1:C:95:ARG:O	2.11	0.51
1:D:181:VAL:HG12	1:D:183:HIS:HD2	1.76	0.51
1:D:92:LEU:CB	1:D:94:VAL:HG22	2.40	0.51
1:A:181:VAL:HG12	1:A:183:HIS:HD2	1.76	0.51
1:A:28:VAL:HG22	1:A:98:ASP:O	2.11	0.51
1:A:272:PRO:HD3	1:A:305:GLU:HB2	1.92	0.51
1:A:490:GLN:O	1:A:495:TYR:CD2	2.64	0.51
1:A:540:ILE:HB	1:A:574:LEU:CD1	2.35	0.51
1:D:519:PRO:O	1:D:522:CYS:HB2	2.12	0.51
1:C:549:THR:OG1	1:D:602:ASN:CB	2.59	0.51
1:A:114:ILE:HD12	1:A:180:THR:HG21	1.92	0.50
1:A:191:ARG:HG3	1:A:191:ARG:NH1	2.26	0.50
1:A:237:PRO:O	1:A:238:PRO:C	2.48	0.50
1:A:28:VAL:HG21	1:A:95:ARG:O	2.11	0.50
1:A:519:PRO:O	1:A:522:CYS:HB2	2.12	0.50
1:A:632:ALA:HB1	1:A:638:ARG:NH1	2.26	0.50
1:B:28:VAL:HG21	1:B:95:ARG:O	2.11	0.50
1:B:92:LEU:CB	1:B:94:VAL:HG22	2.40	0.50
1:C:181:VAL:HG12	1:C:183:HIS:HD2	1.76	0.50
1:C:381:LEU:HD11	1:C:399:VAL:HG12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:114:ILE:HD12	1:D:180:THR:HG21	1.92	0.50
1:D:191:ARG:HG3	1:D:191:ARG:NH1	2.26	0.50
1:D:28:VAL:HG21	1:D:95:ARG:O	2.12	0.50
1:D:28:VAL:HG22	1:D:98:ASP:O	2.11	0.50
1:D:632:ALA:HB1	1:D:638:ARG:NH1	2.26	0.50
1:B:131:PHE:HA	1:B:135:LEU:HD23	1.93	0.50
1:B:642:LEU:N	1:B:642:LEU:HD22	2.25	0.50
1:C:276:SER:HB3	1:D:326:SER:HB2	1.90	0.50
1:C:78:SER:HB2	1:C:81:LYS:HB2	1.94	0.50
1:D:131:PHE:HA	1:D:135:LEU:HD23	1.92	0.50
1:D:272:PRO:HD3	1:D:305:GLU:HB2	1.92	0.50
1:D:490:GLN:O	1:D:495:TYR:CD2	2.64	0.50
1:D:758:PHE:N	1:D:758:PHE:CD1	2.80	0.50
1:A:110:TYR:HD1	1:A:110:TYR:H	1.57	0.50
1:A:117:LEU:CD2	1:A:118:PRO:HD2	2.42	0.50
1:A:131:PHE:HA	1:A:135:LEU:HD23	1.92	0.50
1:A:758:PHE:CD1	1:A:758:PHE:N	2.80	0.50
1:B:78:SER:HB2	1:B:81:LYS:HB2	1.94	0.50
1:C:117:LEU:CD2	1:C:118:PRO:HD2	2.42	0.50
1:C:306:LEU:C	1:C:308:ALA:H	2.15	0.50
1:A:525:THR:C	1:A:527:LEU:H	2.15	0.50
1:A:78:SER:HB2	1:A:81:LYS:HB2	1.94	0.50
1:A:82:ILE:CD1	1:A:102:ILE:HG23	2.41	0.50
1:B:117:LEU:CD2	1:B:118:PRO:HD2	2.42	0.50
1:B:206:ILE:CD1	1:B:213:LEU:HD12	2.39	0.50
1:B:28:VAL:HG22	1:B:98:ASP:O	2.11	0.50
1:B:430:ILE:CG2	1:B:430:ILE:O	2.58	0.50
1:C:119:ILE:O	1:C:121:ASP:N	2.43	0.50
1:C:642:LEU:HD22	1:C:642:LEU:N	2.25	0.50
1:D:117:LEU:CD2	1:D:118:PRO:HD2	2.42	0.50
1:D:39:VAL:HG13	1:D:69:CYS:SG	2.51	0.50
1:D:78:SER:HB2	1:D:81:LYS:HB2	1.94	0.50
1:A:39:VAL:HG13	1:A:69:CYS:SG	2.51	0.50
1:B:111:GLY:HA2	1:B:170:PRO:CD	2.40	0.50
1:B:28:VAL:HG23	1:B:96:LEU:HA	1.93	0.50
1:C:28:VAL:HG23	1:C:96:LEU:HA	1.93	0.50
1:C:476:TRP:HH2	1:C:531:ILE:HD11	1.76	0.50
1:D:642:LEU:HD22	1:D:642:LEU:N	2.25	0.50
1:A:642:LEU:HD22	1:A:642:LEU:N	2.25	0.50
1:B:632:ALA:HB1	1:B:638:ARG:NH1	2.26	0.50
1:C:152:PHE:HD2	1:C:152:PHE:C	2.14	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:540:ILE:HB	1:C:574:LEU:CD1	2.35	0.50
1:C:402:GLU:CB	1:D:614:LYS:HD3	2.38	0.50
1:A:381:LEU:HD11	1:A:399:VAL:HG12	1.92	0.50
1:B:525:THR:C	1:B:527:LEU:H	2.15	0.50
1:B:525:THR:O	1:B:527:LEU:N	2.45	0.50
1:C:329:LEU:CD2	1:C:362:ARG:NH1	2.68	0.50
1:D:158:MET:SD	1:D:442:MET:HE3	2.52	0.50
1:D:283:GLU:O	1:D:284:SER:C	2.50	0.50
1:D:381:LEU:HD11	1:D:399:VAL:HG12	1.92	0.50
1:D:61:GLY:HA3	1:D:92:LEU:HD22	1.94	0.50
1:D:82:ILE:CD1	1:D:102:ILE:HG23	2.41	0.50
1:A:283:GLU:O	1:A:284:SER:C	2.50	0.50
1:A:61:GLY:HA3	1:A:92:LEU:HD22	1.94	0.50
1:B:191:ARG:HG3	1:B:191:ARG:NH1	2.26	0.50
1:C:519:PRO:O	1:C:522:CYS:HB2	2.12	0.50
1:C:525:THR:C	1:C:527:LEU:H	2.15	0.50
1:C:55:ASP:O	1:C:71:VAL:HG12	2.12	0.50
1:C:82:ILE:CD1	1:C:102:ILE:HG23	2.41	0.50
1:D:306:LEU:C	1:D:308:ALA:H	2.15	0.50
1:D:525:THR:O	1:D:527:LEU:N	2.45	0.50
1:A:152:PHE:HD2	1:A:152:PHE:C	2.14	0.50
1:A:525:THR:O	1:A:527:LEU:N	2.45	0.50
1:B:39:VAL:HG13	1:B:69:CYS:SG	2.51	0.50
1:B:55:ASP:O	1:B:71:VAL:HG12	2.12	0.50
1:C:312:LYS:HB3	1:C:354:ASP:OD1	2.12	0.50
1:C:695:CYS:HB2	1:D:508:MET:SD	2.52	0.50
1:D:201:VAL:CG1	1:D:253:LEU:HD23	2.42	0.50
1:B:181:VAL:HG12	1:B:183:HIS:HD2	1.76	0.49
1:B:331:LEU:C	1:B:333:ASP:H	2.14	0.49
1:A:578:GLU:CG	1:B:635:ARG:HH12	2.26	0.49
1:C:659:ALA:HA	1:C:662:ARG:CD	2.42	0.49
1:C:61:GLY:HA3	1:C:92:LEU:HD22	1.94	0.49
1:D:152:PHE:C	1:D:152:PHE:HD2	2.14	0.49
1:D:525:THR:C	1:D:527:LEU:H	2.15	0.49
1:D:26:LEU:CD2	1:D:80:GLU:HA	2.24	0.49
1:A:201:VAL:CG1	1:A:253:LEU:HD23	2.42	0.49
1:B:111:GLY:HA2	1:B:170:PRO:HG2	1.94	0.49
1:B:519:PRO:O	1:B:522:CYS:HB2	2.12	0.49
1:C:201:VAL:CG1	1:C:253:LEU:HD23	2.42	0.49
1:C:269:ILE:HG23	1:C:274:ILE:HG13	1.95	0.49
1:C:293:ALA:CB	1:C:301:ILE:HD11	2.40	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:407:VAL:HG22	1:C:410:ASP:OD2	2.12	0.49
1:C:133:VAL:HG21	1:C:439:ALA:CB	2.42	0.49
1:C:632:ALA:HA	1:C:635:ARG:HG3	1.94	0.49
1:C:545:PRO:C	1:D:602:ASN:OD1	2.50	0.49
1:A:306:LEU:C	1:A:308:ALA:H	2.15	0.49
1:A:407:VAL:HG22	1:A:410:ASP:OD2	2.13	0.49
1:A:632:ALA:HA	1:A:635:ARG:HG3	1.94	0.49
1:A:28:VAL:HG23	1:A:96:LEU:HA	1.93	0.49
1:B:69:CYS:HA	1:B:145:PRO:CG	2.41	0.49
1:B:758:PHE:CD1	1:B:758:PHE:N	2.80	0.49
1:B:87:VAL:HG12	1:B:88:VAL:N	2.26	0.49
1:D:111:GLY:HA2	1:D:170:PRO:HG2	1.94	0.49
1:D:143:TYR:HA	1:D:176:VAL:O	2.12	0.49
1:C:578:GLU:HG2	1:D:635:ARG:NH1	2.28	0.49
1:D:28:VAL:HG23	1:D:96:LEU:HA	1.93	0.49
1:A:143:TYR:HA	1:A:176:VAL:O	2.12	0.49
1:A:26:LEU:CD2	1:A:80:GLU:HA	2.24	0.49
1:B:220:VAL:O	1:B:221:GLU:C	2.51	0.49
1:B:407:VAL:HG22	1:B:410:ASP:OD2	2.13	0.49
1:C:110:TYR:HD1	1:C:110:TYR:H	1.57	0.49
1:C:283:GLU:O	1:C:284:SER:C	2.50	0.49
1:C:696:LYS:C	1:C:698:ALA:H	2.16	0.49
1:C:87:VAL:HG12	1:C:88:VAL:N	2.26	0.49
1:D:407:VAL:HG22	1:D:410:ASP:OD2	2.13	0.49
1:A:653:ARG:HH11	1:A:653:ARG:HG3	1.78	0.49
1:B:152:PHE:HD2	1:B:152:PHE:C	2.14	0.49
1:B:489:LEU:HD13	1:B:531:ILE:HG13	1.95	0.49
1:C:143:TYR:HA	1:C:176:VAL:O	2.12	0.49
1:C:489:LEU:HD13	1:C:531:ILE:HG13	1.95	0.49
1:C:432:LEU:HB3	1:D:25:ARG:NH1	2.16	0.49
1:A:111:GLY:HA2	1:A:170:PRO:HG2	1.94	0.49
1:A:269:ILE:HG23	1:A:274:ILE:HG13	1.95	0.49
1:A:466:GLU:HG2	1:A:467:THR:N	2.27	0.49
1:B:283:GLU:O	1:B:284:SER:C	2.50	0.49
1:B:468:VAL:HG12	1:B:469:VAL:N	2.28	0.49
1:C:353:ILE:CG2	1:C:354:ASP:N	2.76	0.49
1:C:525:THR:O	1:C:527:LEU:N	2.45	0.49
1:D:269:ILE:HG23	1:D:274:ILE:HG13	1.95	0.49
1:D:329:LEU:CD2	1:D:362:ARG:NH1	2.68	0.49
1:D:632:ALA:HA	1:D:635:ARG:HG3	1.94	0.49
1:D:653:ARG:HH11	1:D:653:ARG:HG3	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:696:LYS:C	1:A:698:ALA:H	2.16	0.49
1:A:442:MET:CE	1:B:233:ILE:HD11	2.42	0.49
1:B:158:MET:SD	1:B:442:MET:HE3	2.52	0.49
1:B:466:GLU:HG2	1:B:467:THR:N	2.27	0.49
1:B:542:ILE:HG21	1:B:547:LEU:CD2	2.31	0.49
1:D:570:ALA:HA	1:D:571:PRO:C	2.33	0.49
1:A:570:ALA:HA	1:A:571:PRO:C	2.33	0.49
1:B:113:ARG:HH11	1:B:113:ARG:HG2	1.77	0.49
1:B:489:LEU:CD1	1:B:531:ILE:HD11	2.41	0.49
1:B:570:ALA:HA	1:B:571:PRO:C	2.33	0.49
1:C:113:ARG:HH11	1:C:113:ARG:HG2	1.77	0.49
1:C:111:GLY:HA2	1:C:170:PRO:HG2	1.94	0.49
1:D:306:LEU:HD21	1:D:357:LEU:HD13	1.94	0.49
1:D:468:VAL:HG12	1:D:469:VAL:N	2.28	0.49
1:D:696:LYS:C	1:D:698:ALA:H	2.15	0.49
1:A:306:LEU:HD21	1:A:357:LEU:HD13	1.94	0.49
1:A:353:ILE:CG2	1:A:354:ASP:N	2.76	0.49
1:A:468:VAL:HG12	1:A:469:VAL:N	2.28	0.49
1:B:632:ALA:HA	1:B:635:ARG:HG3	1.94	0.49
1:B:643:ILE:CG2	1:B:644:TYR:N	2.76	0.49
1:C:468:VAL:HG12	1:C:469:VAL:N	2.28	0.49
1:C:758:PHE:CD1	1:C:758:PHE:N	2.80	0.49
1:D:113:ARG:HG2	1:D:113:ARG:HH11	1.77	0.49
1:D:466:GLU:HG2	1:D:467:THR:N	2.27	0.49
1:D:69:CYS:HA	1:D:145:PRO:CG	2.41	0.49
1:A:312:LYS:HB3	1:A:354:ASP:OD1	2.12	0.49
1:A:329:LEU:CD2	1:A:362:ARG:NH1	2.68	0.49
1:A:55:ASP:O	1:A:71:VAL:HG12	2.12	0.49
1:A:86:ARG:HG2	1:A:89:ARG:HH12	1.78	0.49
1:B:201:VAL:CG1	1:B:253:LEU:HD23	2.42	0.49
1:B:86:ARG:HG2	1:B:89:ARG:HH12	1.78	0.49
1:C:306:LEU:HD21	1:C:357:LEU:HD13	1.94	0.49
1:C:524:LYS:O	1:C:527:LEU:HB2	2.13	0.49
1:C:570:ALA:HA	1:C:571:PRO:C	2.33	0.49
1:D:353:ILE:CG2	1:D:354:ASP:N	2.76	0.49
1:D:312:LYS:HB3	1:D:354:ASP:OD1	2.12	0.49
1:D:430:ILE:O	1:D:430:ILE:CG2	2.58	0.49
1:D:55:ASP:O	1:D:71:VAL:HG12	2.12	0.49
1:A:659:ALA:HA	1:A:662:ARG:CD	2.42	0.48
1:B:306:LEU:C	1:B:308:ALA:H	2.15	0.48
1:B:61:GLY:HA3	1:B:92:LEU:HD22	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:398:GLN:HA	1:C:401:ASN:HD22	1.78	0.48
1:D:604:ILE:O	1:D:608:MET:HB2	2.13	0.48
1:D:643:ILE:CG2	1:D:644:TYR:N	2.76	0.48
1:D:659:ALA:HA	1:D:662:ARG:CD	2.42	0.48
1:A:113:ARG:HH11	1:A:113:ARG:HG2	1.77	0.48
1:A:476:TRP:HH2	1:A:531:ILE:HD11	1.76	0.48
1:A:604:ILE:O	1:A:608:MET:HB2	2.13	0.48
1:A:69:CYS:HA	1:A:145:PRO:CG	2.41	0.48
1:B:143:TYR:HA	1:B:176:VAL:O	2.12	0.48
1:B:312:LYS:HB3	1:B:354:ASP:OD1	2.12	0.48
1:B:398:GLN:HA	1:B:401:ASN:HD22	1.78	0.48
1:A:549:THR:OG1	1:B:602:ASN:CB	2.61	0.48
1:C:147:ARG:HB2	1:C:173:TYR:HB3	1.94	0.48
1:C:220:VAL:O	1:C:221:GLU:C	2.51	0.48
1:C:604:ILE:O	1:C:608:MET:HB2	2.13	0.48
1:C:653:ARG:HG3	1:C:653:ARG:HH11	1.78	0.48
1:D:86:ARG:HG2	1:D:89:ARG:HH12	1.78	0.48
1:A:220:VAL:O	1:A:221:GLU:C	2.51	0.48
1:A:643:ILE:CG2	1:A:644:TYR:N	2.76	0.48
1:B:347:THR:HB	1:B:353:ILE:HD11	1.96	0.48
1:B:476:TRP:HH2	1:B:531:ILE:HD11	1.76	0.48
1:C:699:ILE:HD13	1:D:506:PHE:HD2	1.69	0.48
1:A:347:THR:HB	1:A:353:ILE:HD11	1.96	0.48
1:A:430:ILE:CG2	1:A:430:ILE:O	2.58	0.48
1:A:524:LYS:O	1:A:527:LEU:HB2	2.13	0.48
1:B:147:ARG:HB2	1:B:173:TYR:HB3	1.94	0.48
1:B:350:PRO:CA	1:B:358:ARG:NH2	2.77	0.48
1:B:306:LEU:HD21	1:B:357:LEU:HD13	1.95	0.48
1:D:126:ILE:HG23	1:D:159:ARG:CZ	2.44	0.48
1:D:220:VAL:O	1:D:221:GLU:C	2.51	0.48
1:A:126:ILE:HG23	1:A:159:ARG:CZ	2.44	0.48
1:B:604:ILE:O	1:B:608:MET:HB2	2.13	0.48
1:A:578:GLU:CG	1:B:635:ARG:NH1	2.76	0.48
1:C:69:CYS:HA	1:C:145:PRO:CG	2.41	0.48
1:C:582:ILE:HG22	1:C:598:ASP:OD2	2.14	0.48
1:D:147:ARG:HB2	1:D:173:TYR:HB3	1.94	0.48
1:D:347:THR:HB	1:D:353:ILE:HD11	1.96	0.48
1:D:524:LYS:O	1:D:527:LEU:HB2	2.13	0.48
1:C:545:PRO:CA	1:D:602:ASN:OD1	2.61	0.48
1:A:147:ARG:HB2	1:A:173:TYR:HB3	1.94	0.48
1:B:139:PHE:CE1	1:B:146:ILE:HD11	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:269:ILE:HG23	1:B:274:ILE:HG13	1.95	0.48
1:B:133:VAL:HG21	1:B:439:ALA:CB	2.42	0.48
1:B:653:ARG:HG3	1:B:653:ARG:HH11	1.78	0.48
1:C:110:TYR:CD2	1:C:177:ALA:HB2	2.49	0.48
1:C:347:THR:HB	1:C:353:ILE:HD11	1.96	0.48
1:D:201:VAL:HG13	1:D:253:LEU:HD23	1.95	0.48
1:D:476:TRP:HH2	1:D:531:ILE:HD11	1.76	0.48
1:A:201:VAL:HG13	1:A:253:LEU:HD23	1.95	0.48
1:B:126:ILE:HG23	1:B:159:ARG:CZ	2.44	0.48
1:B:353:ILE:CG2	1:B:354:ASP:N	2.76	0.48
1:B:329:LEU:CD2	1:B:362:ARG:NH1	2.68	0.48
1:B:659:ALA:HA	1:B:662:ARG:CD	2.42	0.48
1:C:430:ILE:O	1:C:430:ILE:CG2	2.58	0.48
1:C:466:GLU:HG2	1:C:467:THR:N	2.27	0.48
1:C:545:PRO:O	1:D:602:ASN:OD1	2.30	0.48
1:A:135:LEU:O	1:A:138:TYR:HB3	2.14	0.48
1:A:442:MET:HE2	1:B:233:ILE:CD1	2.42	0.48
1:A:45:LYS:HG3	1:A:49:LEU:HD22	1.96	0.48
1:A:489:LEU:CD1	1:A:531:ILE:HD11	2.41	0.48
1:B:220:VAL:HG23	1:B:221:GLU:N	2.28	0.48
1:B:332:MET:HG3	1:B:363:PHE:CE2	2.49	0.48
1:B:544:GLY:C	1:B:546:GLU:N	2.67	0.48
1:C:150:ASP:O	1:C:165:VAL:HG23	2.13	0.48
1:C:86:ARG:HG2	1:C:89:ARG:HH12	1.78	0.48
1:D:135:LEU:O	1:D:138:TYR:HB3	2.14	0.48
1:A:133:VAL:HG21	1:A:439:ALA:CB	2.42	0.48
1:A:150:ASP:O	1:A:165:VAL:HG23	2.13	0.48
1:A:332:MET:HG3	1:A:363:PHE:CE2	2.49	0.48
1:B:467:THR:HG23	1:B:551:TRP:HH2	1.55	0.48
1:B:696:LYS:C	1:B:698:ALA:H	2.16	0.48
1:C:135:LEU:O	1:C:138:TYR:HB3	2.14	0.48
1:C:332:MET:HG3	1:C:363:PHE:CE2	2.49	0.48
1:C:544:GLY:N	1:C:577:ASP:O	2.47	0.48
1:C:643:ILE:CG2	1:C:644:TYR:N	2.76	0.48
1:C:658:LYS:O	1:C:662:ARG:HG3	2.14	0.48
1:D:489:LEU:CD1	1:D:531:ILE:HD11	2.41	0.48
1:B:135:LEU:O	1:B:138:TYR:HB3	2.14	0.48
1:B:150:ASP:O	1:B:165:VAL:HG23	2.13	0.48
1:B:201:VAL:HG13	1:B:253:LEU:HD23	1.95	0.48
1:B:582:ILE:HG22	1:B:598:ASP:OD2	2.14	0.48
1:D:133:VAL:HG21	1:D:439:ALA:CB	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:150:ASP:O	1:D:165:VAL:HG23	2.13	0.48
1:D:353:ILE:HG23	1:D:357:LEU:CD1	2.37	0.48
1:D:332:MET:HG3	1:D:363:PHE:CE2	2.49	0.48
1:D:45:LYS:HG3	1:D:49:LEU:HD22	1.96	0.48
1:D:497:VAL:HG13	1:D:498:GLU:HG3	1.95	0.48
1:A:353:ILE:HG23	1:A:357:LEU:CD1	2.36	0.47
1:A:385:THR:C	1:A:387:ASN:H	2.18	0.47
1:B:544:GLY:N	1:B:577:ASP:O	2.47	0.47
1:A:497:VAL:HG13	1:A:498:GLU:HG3	1.95	0.47
1:A:489:LEU:HD13	1:A:531:ILE:HG13	1.95	0.47
1:A:78:SER:C	1:A:80:GLU:H	2.18	0.47
1:C:126:ILE:HG23	1:C:159:ARG:CZ	2.44	0.47
1:C:201:VAL:HG21	1:C:256:ARG:CD	2.42	0.47
1:C:497:VAL:HG13	1:C:498:GLU:HG3	1.95	0.47
1:C:660:ASN:ND2	1:C:691:CYS:HB2	2.29	0.47
1:C:696:LYS:CG	1:D:508:MET:CE	2.92	0.47
1:C:78:SER:C	1:C:80:GLU:H	2.18	0.47
1:D:118:PRO:HB2	1:D:123:VAL:CG1	2.44	0.47
1:D:385:THR:C	1:D:387:ASN:H	2.18	0.47
1:D:489:LEU:HD13	1:D:531:ILE:HG13	1.95	0.47
1:A:432:LEU:HD22	1:B:25:ARG:HH11	1.78	0.47
1:B:385:THR:C	1:B:387:ASN:H	2.18	0.47
1:B:78:SER:C	1:B:80:GLU:H	2.18	0.47
1:C:385:THR:C	1:C:387:ASN:H	2.18	0.47
1:C:402:GLU:HB3	1:D:614:LYS:HE2	1.96	0.47
1:D:78:SER:C	1:D:80:GLU:H	2.18	0.47
1:A:118:PRO:HB2	1:A:123:VAL:CG1	2.44	0.47
1:A:242:LEU:C	1:A:243:LEU:HD12	2.35	0.47
1:A:658:LYS:O	1:A:662:ARG:HG3	2.14	0.47
1:B:143:TYR:HB3	1:B:175:ILE:CG2	2.45	0.47
1:C:242:LEU:C	1:C:243:LEU:HD12	2.35	0.47
1:D:120:ASP:O	1:D:124:GLU:HG2	2.14	0.47
1:D:428:ASP:O	1:D:431:ASP:N	2.42	0.47
1:D:544:GLY:C	1:D:546:GLU:N	2.67	0.47
1:D:75:ASP:OD1	1:D:75:ASP:N	2.43	0.47
1:A:120:ASP:O	1:A:124:GLU:HG2	2.14	0.47
1:A:220:VAL:HG23	1:A:221:GLU:N	2.28	0.47
1:B:524:LYS:O	1:B:527:LEU:HB2	2.13	0.47
1:C:433:GLU:O	1:C:434:ASP:OD2	2.32	0.47
1:D:242:LEU:C	1:D:243:LEU:HD12	2.35	0.47
1:D:398:GLN:HA	1:D:401:ASN:HD22	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:479:ILE:HG21	1:D:527:LEU:HD21	1.96	0.47
1:D:618:PHE:C	1:D:619:ILE:HG13	2.35	0.47
1:D:658:LYS:O	1:D:662:ARG:HG3	2.14	0.47
1:A:479:ILE:HG21	1:A:527:LEU:HD21	1.96	0.47
1:A:544:GLY:C	1:A:546:GLU:N	2.67	0.47
1:B:378:LEU:O	1:B:379:GLU:C	2.53	0.47
1:B:479:ILE:HG21	1:B:527:LEU:HD21	1.96	0.47
1:B:660:ASN:ND2	1:B:691:CYS:HB2	2.29	0.47
1:C:201:VAL:HG13	1:C:253:LEU:HD23	1.96	0.47
1:C:311:PRO:C	1:C:313:ARG:H	2.18	0.47
1:C:350:PRO:CA	1:C:358:ARG:NH2	2.76	0.47
1:D:220:VAL:HG23	1:D:221:GLU:N	2.28	0.47
1:D:458:GLN:HB3	1:D:460:ASN:OD1	2.14	0.47
1:A:398:GLN:HA	1:A:401:ASN:HD22	1.78	0.47
1:A:428:ASP:O	1:A:431:ASP:N	2.42	0.47
1:A:458:GLN:HB3	1:A:460:ASN:OD1	2.14	0.47
1:A:478:ASP:C	1:A:479:ILE:HG13	2.34	0.47
1:A:618:PHE:C	1:A:619:ILE:HG13	2.35	0.47
1:A:158:MET:CE	1:B:235:VAL:HG21	2.44	0.47
1:B:242:LEU:C	1:B:243:LEU:HD12	2.35	0.47
1:B:433:GLU:O	1:B:434:ASP:OD2	2.32	0.47
1:B:458:GLN:HB3	1:B:460:ASN:OD1	2.14	0.47
1:C:306:LEU:C	1:C:308:ALA:N	2.68	0.47
1:C:458:GLN:HB3	1:C:460:ASN:OD1	2.14	0.47
1:D:544:GLY:N	1:D:577:ASP:O	2.47	0.47
1:D:582:ILE:HG22	1:D:598:ASP:OD2	2.14	0.47
1:A:582:ILE:HG22	1:A:598:ASP:OD2	2.14	0.47
1:B:120:ASP:O	1:B:124:GLU:HG2	2.15	0.47
1:B:177:ALA:HB1	1:B:178:PRO:CD	2.38	0.47
1:B:96:LEU:N	1:B:96:LEU:HD22	2.30	0.47
1:C:27:ILE:HB	1:C:81:LYS:HG2	1.96	0.47
1:C:544:GLY:C	1:C:546:GLU:N	2.67	0.47
1:C:700:ARG:HD2	1:D:491:GLU:CG	2.36	0.47
1:D:478:ASP:C	1:D:479:ILE:HG13	2.34	0.47
1:D:96:LEU:N	1:D:96:LEU:HD22	2.30	0.47
1:A:433:GLU:O	1:A:434:ASP:OD2	2.32	0.47
1:A:426:LYS:HD2	1:A:445:LEU:CD2	2.45	0.47
1:A:549:THR:HG23	1:B:599:ARG:CA	2.35	0.47
1:A:544:GLY:N	1:A:577:ASP:O	2.47	0.47
1:A:660:ASN:ND2	1:A:691:CYS:HB2	2.29	0.47
1:A:96:LEU:N	1:A:96:LEU:HD22	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:110:TYR:CD2	1:B:177:ALA:HB2	2.49	0.47
1:B:26:LEU:HD11	1:B:45:LYS:HG2	1.97	0.47
1:B:658:LYS:O	1:B:662:ARG:HG3	2.14	0.47
1:C:28:VAL:HG12	1:C:84:MET:HE3	1.97	0.47
1:D:230:PHE:CE1	1:D:237:PRO:HB3	2.50	0.47
1:C:549:THR:OG1	1:D:602:ASN:HB3	2.14	0.47
1:A:230:PHE:CE1	1:A:237:PRO:HB3	2.50	0.47
1:A:484:ASP:OD2	1:A:485:VAL:HG13	2.15	0.47
1:A:514:VAL:HG22	1:A:641:GLN:HG3	1.97	0.47
1:A:75:ASP:OD1	1:A:75:ASP:N	2.43	0.47
1:B:201:VAL:HG21	1:B:256:ARG:CD	2.42	0.47
1:C:120:ASP:O	1:C:124:GLU:HG2	2.14	0.47
1:C:206:ILE:CD1	1:C:213:LEU:HG	2.45	0.47
1:C:484:ASP:OD2	1:C:485:VAL:HG13	2.15	0.47
1:C:45:LYS:HG3	1:C:49:LEU:HD22	1.96	0.47
1:C:563:PHE:HA	1:C:566:ALA:HB3	1.97	0.47
1:D:143:TYR:HB3	1:D:175:ILE:CG2	2.45	0.47
1:D:426:LYS:HD2	1:D:445:LEU:CD2	2.45	0.47
1:D:484:ASP:OD2	1:D:485:VAL:HG13	2.15	0.47
1:A:143:TYR:HB3	1:A:175:ILE:CG2	2.45	0.47
1:A:552:PHE:HB2	1:A:558:ASN:HD21	1.80	0.47
1:B:206:ILE:CD1	1:B:213:LEU:HG	2.45	0.47
1:B:497:VAL:HG13	1:B:498:GLU:HG3	1.95	0.47
1:B:514:VAL:HG22	1:B:641:GLN:HG3	1.97	0.47
1:C:143:TYR:HB3	1:C:175:ILE:CG2	2.45	0.47
1:C:220:VAL:HG23	1:C:221:GLU:N	2.28	0.47
1:C:618:PHE:C	1:C:619:ILE:HG13	2.35	0.47
1:D:110:TYR:CD2	1:D:177:ALA:HB2	2.49	0.47
1:D:433:GLU:O	1:D:434:ASP:OD2	2.32	0.47
1:D:514:VAL:HG22	1:D:641:GLN:HG3	1.97	0.47
1:A:110:TYR:CD2	1:A:177:ALA:HB2	2.49	0.46
1:A:380:ILE:HG12	2:A:807:ADP:N1	2.31	0.46
1:B:426:LYS:HD2	1:B:445:LEU:CD2	2.45	0.46
1:B:478:ASP:C	1:B:479:ILE:HG13	2.34	0.46
1:B:495:TYR:H	1:B:496:PRO:CD	2.27	0.46
1:B:45:LYS:HG3	1:B:49:LEU:HD22	1.96	0.46
1:C:306:LEU:O	1:C:309:ILE:N	2.45	0.46
1:C:478:ASP:C	1:C:479:ILE:HG13	2.34	0.46
1:D:26:LEU:HD11	1:D:45:LYS:HG2	1.97	0.46
1:D:660:ASN:ND2	1:D:691:CYS:HB2	2.29	0.46
1:A:306:LEU:C	1:A:308:ALA:N	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:563:PHE:HA	1:A:566:ALA:HB3	1.97	0.46
1:B:152:PHE:O	1:B:152:PHE:CD2	2.68	0.46
1:B:271:GLY:HA2	1:B:309:ILE:CD1	2.35	0.46
1:B:380:ILE:HG12	2:B:807:ADP:N1	2.31	0.46
1:A:545:PRO:CA	1:B:602:ASN:OD1	2.63	0.46
1:C:514:VAL:HG22	1:C:641:GLN:HG3	1.97	0.46
1:D:82:ILE:CD1	1:D:102:ILE:CG2	2.93	0.46
1:D:311:PRO:C	1:D:313:ARG:H	2.18	0.46
1:D:380:ILE:HG12	2:D:807:ADP:N1	2.31	0.46
1:A:276:SER:HB3	1:B:326:SER:HB2	1.90	0.46
1:A:26:LEU:HD11	1:A:45:LYS:HG2	1.97	0.46
1:A:545:PRO:C	1:B:602:ASN:OD1	2.54	0.46
1:B:528:ALA:HB1	1:B:620:ILE:CD1	2.45	0.46
1:B:618:PHE:C	1:B:619:ILE:HG13	2.35	0.46
1:C:82:ILE:CD1	1:C:102:ILE:CG2	2.93	0.46
1:C:380:ILE:HG12	2:C:807:ADP:N1	2.31	0.46
1:C:426:LYS:HD2	1:C:445:LEU:CD2	2.45	0.46
1:D:152:PHE:O	1:D:152:PHE:CD2	2.68	0.46
1:D:306:LEU:C	1:D:308:ALA:N	2.68	0.46
1:D:552:PHE:HB2	1:D:558:ASN:HD21	1.80	0.46
1:D:563:PHE:HA	1:D:566:ALA:HB3	1.97	0.46
1:A:82:ILE:CD1	1:A:102:ILE:CG2	2.93	0.46
1:A:152:PHE:CD2	1:A:152:PHE:O	2.68	0.46
1:A:206:ILE:CD1	1:A:213:LEU:HG	2.45	0.46
1:A:311:PRO:C	1:A:313:ARG:H	2.18	0.46
1:B:484:ASP:OD2	1:B:485:VAL:HG13	2.15	0.46
1:C:230:PHE:CE1	1:C:237:PRO:HB3	2.50	0.46
1:C:291:GLU:O	1:C:295:LYS:HE3	2.16	0.46
1:C:552:PHE:HB2	1:C:558:ASN:HD21	1.80	0.46
1:C:656:ILE:O	1:C:656:ILE:HG22	2.16	0.46
1:C:96:LEU:HD22	1:C:96:LEU:N	2.30	0.46
1:A:578:GLU:HG2	1:B:635:ARG:NH1	2.30	0.46
1:A:27:ILE:HB	1:A:81:LYS:HG2	1.96	0.46
1:B:254:ILE:HD12	1:B:369:ILE:CD1	2.45	0.46
1:B:306:LEU:O	1:B:308:ALA:N	2.49	0.46
1:B:306:LEU:C	1:B:308:ALA:N	2.68	0.46
1:C:173:TYR:O	1:C:173:TYR:CD1	2.69	0.46
1:D:605:LEU:HD21	1:D:633:ILE:HG12	1.97	0.46
1:A:465:ARG:CG	1:A:466:GLU:N	2.79	0.46
1:A:605:LEU:HD21	1:A:633:ILE:HG12	1.97	0.46
1:A:442:MET:CE	1:B:233:ILE:HD13	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:27:ILE:HB	1:B:81:LYS:HG2	1.96	0.46
1:C:271:GLY:HA2	1:C:309:ILE:CD1	2.35	0.46
1:C:552:PHE:O	1:C:555:SER:HB3	2.16	0.46
1:D:465:ARG:CG	1:D:466:GLU:N	2.79	0.46
1:A:306:LEU:O	1:A:308:ALA:N	2.49	0.46
1:A:528:ALA:HB1	1:A:620:ILE:CD1	2.45	0.46
1:B:230:PHE:CE1	1:B:237:PRO:HB3	2.50	0.46
1:B:552:PHE:O	1:B:555:SER:HB3	2.16	0.46
1:B:573:VAL:HG23	1:B:573:VAL:O	2.16	0.46
1:B:606:THR:C	1:B:608:MET:H	2.19	0.46
1:C:428:ASP:O	1:C:431:ASP:N	2.42	0.46
1:C:495:TYR:H	1:C:496:PRO:CD	2.27	0.46
1:D:350:PRO:CA	1:D:358:ARG:NH2	2.76	0.46
1:D:528:ALA:HB1	1:D:620:ILE:CD1	2.45	0.46
1:A:155:ARG:NE	1:A:386:LYS:HD2	2.31	0.46
1:A:573:VAL:HG23	1:A:573:VAL:O	2.16	0.46
1:B:306:LEU:O	1:B:309:ILE:N	2.45	0.46
1:B:552:PHE:HB2	1:B:558:ASN:HD21	1.80	0.46
1:B:605:LEU:HD21	1:B:633:ILE:HG12	1.97	0.46
1:C:528:ALA:HB1	1:C:620:ILE:CD1	2.45	0.46
1:D:233:ILE:HG22	1:D:234:GLY:N	2.30	0.46
1:D:155:ARG:NE	1:D:386:LYS:HD2	2.31	0.46
1:A:201:VAL:HG21	1:A:256:ARG:CD	2.42	0.46
1:B:312:LYS:H	1:B:354:ASP:HB2	1.80	0.46
1:B:311:PRO:C	1:B:313:ARG:H	2.18	0.46
1:B:563:PHE:HA	1:B:566:ALA:HB3	1.97	0.46
1:C:312:LYS:H	1:C:354:ASP:HB2	1.80	0.46
1:C:375:THR:O	1:C:378:LEU:HB3	2.16	0.46
1:D:306:LEU:O	1:D:308:ALA:N	2.49	0.46
1:D:573:VAL:HG23	1:D:573:VAL:O	2.16	0.46
1:D:27:ILE:HB	1:D:81:LYS:HG2	1.96	0.46
1:A:378:LEU:O	1:A:379:GLU:C	2.53	0.46
1:B:82:ILE:CD1	1:B:102:ILE:CG2	2.93	0.46
1:B:173:TYR:CD1	1:B:173:TYR:O	2.69	0.46
1:C:152:PHE:CD2	1:C:152:PHE:O	2.68	0.46
1:C:26:LEU:HD11	1:C:45:LYS:HG2	1.97	0.46
1:C:492:LEU:HD13	1:C:511:SER:OG	2.16	0.46
1:D:113:ARG:HG2	1:D:113:ARG:NH1	2.31	0.46
1:C:442:MET:CE	1:D:233:ILE:HD11	2.46	0.46
1:D:552:PHE:O	1:D:555:SER:HB3	2.16	0.46
1:A:113:ARG:HG2	1:A:113:ARG:NH1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:108:VAL:CG1	1:A:175:ILE:HG13	2.47	0.45
1:A:233:ILE:HG22	1:A:234:GLY:N	2.30	0.45
1:A:28:VAL:HG12	1:A:84:MET:HE3	1.99	0.45
1:B:118:PRO:HB2	1:B:123:VAL:CG1	2.44	0.45
1:B:147:ARG:HD2	1:B:173:TYR:HD2	1.81	0.45
1:B:233:ILE:HG22	1:B:234:GLY:N	2.30	0.45
1:B:348:ASN:ND2	1:B:348:ASN:N	2.65	0.45
1:D:108:VAL:CG1	1:D:175:ILE:HG13	2.47	0.45
1:C:317:HIS:CE1	1:D:317:HIS:NE2	2.84	0.45
1:D:312:LYS:H	1:D:354:ASP:HB2	1.80	0.45
1:D:378:LEU:O	1:D:379:GLU:C	2.53	0.45
1:A:173:TYR:CD1	1:A:173:TYR:O	2.69	0.45
1:A:350:PRO:CA	1:A:358:ARG:NH2	2.76	0.45
1:A:552:PHE:O	1:A:555:SER:HB3	2.16	0.45
1:B:108:VAL:CG1	1:B:175:ILE:HG13	2.47	0.45
1:C:479:ILE:HG21	1:C:527:LEU:HD21	1.96	0.45
1:C:728:VAL:O	1:C:728:VAL:HG12	2.16	0.45
1:A:306:LEU:O	1:A:309:ILE:N	2.45	0.45
1:A:312:LYS:H	1:A:354:ASP:HB2	1.80	0.45
1:A:495:TYR:H	1:A:496:PRO:CD	2.27	0.45
1:A:641:GLN:O	1:A:642:LEU:HD13	2.17	0.45
1:B:350:PRO:CB	1:B:358:ARG:HH22	2.27	0.45
1:B:641:GLN:O	1:B:642:LEU:HD13	2.17	0.45
1:C:146:ILE:HD12	1:C:176:VAL:CG2	2.46	0.45
1:C:43:GLN:N	1:C:44:PRO:HD2	2.32	0.45
1:C:641:GLN:O	1:C:642:LEU:HD13	2.17	0.45
1:D:173:TYR:CD1	1:D:173:TYR:O	2.69	0.45
1:D:146:ILE:HD12	1:D:176:VAL:CG2	2.46	0.45
1:D:201:VAL:HG21	1:D:256:ARG:CD	2.42	0.45
1:C:158:MET:CE	1:D:235:VAL:HG21	2.45	0.45
1:D:291:GLU:O	1:D:295:LYS:HE3	2.16	0.45
1:D:495:TYR:H	1:D:496:PRO:CD	2.27	0.45
1:D:641:GLN:O	1:D:642:LEU:HD13	2.17	0.45
1:A:146:ILE:HD12	1:A:176:VAL:CG2	2.46	0.45
1:A:291:GLU:O	1:A:295:LYS:HE3	2.16	0.45
1:A:348:ASN:ND2	1:A:348:ASN:N	2.64	0.45
1:A:471:VAL:O	1:A:472:PRO:C	2.55	0.45
1:B:36:ASN:ND2	1:B:87:VAL:HG21	2.31	0.45
1:A:549:THR:OG1	1:B:602:ASN:HB3	2.16	0.45
1:C:108:VAL:CG1	1:C:175:ILE:HG13	2.47	0.45
1:C:233:ILE:HG22	1:C:234:GLY:N	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:133:VAL:HG21	1:C:439:ALA:HB3	1.99	0.45
1:C:529:LYS:HG2	1:C:539:PHE:CE2	2.51	0.45
1:C:605:LEU:HD21	1:C:633:ILE:HG12	1.97	0.45
1:D:348:ASN:N	1:D:348:ASN:ND2	2.64	0.45
1:D:471:VAL:O	1:D:472:PRO:C	2.55	0.45
1:B:471:VAL:O	1:B:472:PRO:C	2.55	0.45
1:B:492:LEU:HD13	1:B:511:SER:OG	2.16	0.45
1:C:113:ARG:NH1	1:C:113:ARG:HG2	2.31	0.45
1:C:306:LEU:O	1:C:308:ALA:N	2.49	0.45
1:C:348:ASN:ND2	1:C:348:ASN:N	2.64	0.45
1:C:489:LEU:CD1	1:C:531:ILE:HD11	2.40	0.45
1:D:306:LEU:O	1:D:309:ILE:N	2.45	0.45
1:D:529:LYS:HG2	1:D:539:PHE:CE2	2.51	0.45
1:A:385:THR:HG22	1:A:388:MET:CE	2.47	0.45
1:A:529:LYS:HG2	1:A:539:PHE:CE2	2.51	0.45
1:B:385:THR:HG22	1:B:388:MET:CE	2.47	0.45
1:A:624:ASN:ND2	1:B:635:ARG:HH22	2.14	0.45
1:B:656:ILE:HG22	1:B:656:ILE:O	2.16	0.45
1:C:636:PRO:C	1:C:638:ARG:H	2.20	0.45
1:D:60:LYS:O	1:D:100:ILE:HG23	2.17	0.45
1:A:492:LEU:HD13	1:A:511:SER:OG	2.16	0.45
1:B:60:LYS:O	1:B:100:ILE:HG23	2.17	0.45
1:B:113:ARG:NH1	1:B:113:ARG:HG2	2.31	0.45
1:A:317:HIS:CE1	1:B:317:HIS:NE2	2.85	0.45
1:B:43:GLN:N	1:B:44:PRO:HD2	2.32	0.45
1:B:636:PRO:C	1:B:638:ARG:H	2.20	0.45
1:C:254:ILE:HD12	1:C:369:ILE:CD1	2.45	0.45
1:C:408:GLY:O	1:C:409:ALA:C	2.55	0.45
1:D:385:THR:HG22	1:D:388:MET:CE	2.47	0.45
1:D:492:LEU:HD13	1:D:511:SER:OG	2.16	0.45
1:C:703:ILE:CG1	1:D:502:LYS:HG2	2.20	0.45
1:A:60:LYS:O	1:A:100:ILE:HG23	2.17	0.45
1:A:176:VAL:CG1	1:A:182:ILE:HD11	2.47	0.45
1:A:656:ILE:HG22	1:A:656:ILE:O	2.15	0.45
1:B:146:ILE:HD12	1:B:176:VAL:CG2	2.46	0.45
1:B:291:GLU:O	1:B:295:LYS:HE3	2.16	0.45
1:C:378:LEU:O	1:C:379:GLU:C	2.53	0.45
1:C:391:ALA:HB3	1:C:394:VAL:HG23	1.99	0.45
1:A:432:LEU:HD22	1:B:99:VAL:HG21	1.98	0.45
1:A:545:PRO:O	1:B:602:ASN:OD1	2.34	0.45
1:A:636:PRO:C	1:A:638:ARG:H	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:378:LEU:HD13	1:B:382:GLN:HG3	1.99	0.45
1:B:465:ARG:CG	1:B:466:GLU:N	2.79	0.45
1:B:525:THR:C	1:B:527:LEU:N	2.70	0.45
1:B:697:LEU:O	1:B:701:GLU:HB2	2.17	0.45
1:C:158:MET:SD	1:C:442:MET:HE3	2.56	0.45
1:C:606:THR:C	1:C:608:MET:H	2.19	0.45
1:D:147:ARG:HD2	1:D:173:TYR:HD2	1.81	0.45
1:D:176:VAL:CG1	1:D:182:ILE:HD11	2.47	0.45
1:D:375:THR:O	1:D:378:LEU:HB3	2.16	0.45
1:D:133:VAL:HG21	1:D:439:ALA:HB3	1.99	0.45
1:A:133:VAL:HG21	1:A:439:ALA:HB3	1.99	0.45
1:A:199:ASN:CG	1:A:199:ASN:O	2.56	0.45
1:A:36:ASN:ND2	1:A:87:VAL:HG21	2.31	0.45
1:A:375:THR:O	1:A:378:LEU:HB3	2.16	0.45
1:A:59:LEU:HD21	1:A:102:ILE:CG2	2.23	0.45
1:A:606:THR:C	1:A:608:MET:H	2.19	0.45
1:A:611:MET:SD	1:A:617:VAL:HB	2.57	0.45
1:B:579:LEU:CD1	1:B:622:ALA:H	2.30	0.45
1:C:176:VAL:CG1	1:C:182:ILE:HD11	2.47	0.45
1:C:259:ALA:C	1:C:261:GLU:N	2.70	0.45
1:C:259:ALA:C	1:C:261:GLU:H	2.21	0.45
1:C:465:ARG:CG	1:C:466:GLU:N	2.79	0.45
1:C:573:VAL:HG23	1:C:573:VAL:O	2.16	0.45
1:C:579:LEU:CD1	1:C:622:ALA:H	2.30	0.45
1:C:36:ASN:ND2	1:C:87:VAL:HG21	2.31	0.45
1:D:611:MET:SD	1:D:617:VAL:HB	2.57	0.45
1:D:579:LEU:CD1	1:D:622:ALA:H	2.30	0.45
1:D:636:PRO:C	1:D:638:ARG:H	2.20	0.45
1:D:728:VAL:HG12	1:D:728:VAL:O	2.16	0.45
1:A:162:GLU:CD	1:A:191:ARG:HH22	2.20	0.44
1:A:147:ARG:HD2	1:A:173:TYR:HD2	1.81	0.44
1:A:542:ILE:HG21	1:A:547:LEU:CD2	2.31	0.44
1:A:728:VAL:HG12	1:A:728:VAL:O	2.16	0.44
1:B:199:ASN:O	1:B:199:ASN:CG	2.56	0.44
1:B:493:VAL:HG23	1:B:494:GLN:N	2.32	0.44
1:C:199:ASN:O	1:C:199:ASN:CG	2.56	0.44
1:C:261:GLU:O	1:C:261:GLU:HG3	2.17	0.44
1:D:199:ASN:CG	1:D:199:ASN:O	2.56	0.44
1:D:656:ILE:HG22	1:D:656:ILE:O	2.16	0.44
1:A:43:GLN:N	1:A:44:PRO:HD2	2.32	0.44
1:A:414:LEU:HD12	1:A:455:ALA:HB1	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:697:LEU:O	1:A:701:GLU:HB2	2.17	0.44
1:B:414:LEU:HD12	1:B:455:ALA:HB1	1.98	0.44
1:B:58:LEU:HD11	1:B:66:GLU:OE1	2.18	0.44
1:B:728:VAL:HG12	1:B:728:VAL:O	2.16	0.44
1:C:155:ARG:NE	1:C:386:LYS:HD2	2.31	0.44
1:C:239:ARG:NH2	1:C:337:GLN:NE2	2.65	0.44
1:C:493:VAL:HG23	1:C:494:GLN:N	2.32	0.44
1:D:36:ASN:ND2	1:D:87:VAL:HG21	2.31	0.44
1:A:316:THR:HG23	1:A:316:THR:O	2.18	0.44
1:B:176:VAL:CG1	1:B:182:ILE:HD11	2.47	0.44
1:B:391:ALA:HB3	1:B:394:VAL:HG23	1.99	0.44
1:B:408:GLY:O	1:B:409:ALA:C	2.55	0.44
1:B:529:LYS:HG2	1:B:539:PHE:CE2	2.51	0.44
1:B:576:PHE:CD1	1:B:576:PHE:N	2.86	0.44
1:C:118:PRO:HB2	1:C:123:VAL:CG1	2.44	0.44
1:C:414:LEU:HD12	1:C:455:ALA:HB1	1.98	0.44
1:D:316:THR:HG23	1:D:316:THR:O	2.18	0.44
1:D:43:GLN:N	1:D:44:PRO:HD2	2.32	0.44
1:D:697:LEU:O	1:D:701:GLU:HB2	2.17	0.44
1:A:202:GLY:N	1:A:205:ASP:OD2	2.45	0.44
1:A:442:MET:HE2	1:B:233:ILE:CG1	2.44	0.44
1:A:482:LEU:C	1:A:484:ASP:H	2.21	0.44
1:A:525:THR:C	1:A:527:LEU:N	2.70	0.44
1:A:579:LEU:CD1	1:A:622:ALA:H	2.30	0.44
1:B:375:THR:O	1:B:378:LEU:HB3	2.16	0.44
1:C:378:LEU:HD13	1:C:382:GLN:HG3	1.99	0.44
1:C:385:THR:HG22	1:C:388:MET:CE	2.47	0.44
1:D:229:LEU:O	1:D:233:ILE:HB	2.17	0.44
1:D:414:LEU:HD12	1:D:455:ALA:HB1	1.98	0.44
1:D:606:THR:C	1:D:608:MET:H	2.19	0.44
1:A:229:LEU:O	1:A:233:ILE:HB	2.17	0.44
1:A:277:LYS:HD2	1:A:281:GLU:OE2	2.17	0.44
1:A:620:ILE:CG2	1:A:621:GLY:N	2.81	0.44
1:B:259:ALA:C	1:B:261:GLU:H	2.20	0.44
1:B:277:LYS:HD2	1:B:281:GLU:OE2	2.17	0.44
1:B:329:LEU:HD23	1:B:357:LEU:HD23	1.98	0.44
1:B:611:MET:SD	1:B:617:VAL:HB	2.57	0.44
1:C:133:VAL:O	1:C:137:PRO:HG2	2.18	0.44
1:C:162:GLU:CD	1:C:191:ARG:HH22	2.20	0.44
1:C:482:LEU:C	1:C:484:ASP:H	2.21	0.44
1:C:45:LYS:HE3	1:C:49:LEU:HD21	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:60:LYS:O	1:C:100:ILE:HG23	2.17	0.44
1:C:697:LEU:O	1:C:701:GLU:HB2	2.17	0.44
1:D:277:LYS:HD2	1:D:281:GLU:OE2	2.17	0.44
1:D:239:ARG:NH2	1:D:337:GLN:NE2	2.65	0.44
1:D:408:GLY:O	1:D:409:ALA:C	2.55	0.44
1:D:525:THR:C	1:D:527:LEU:N	2.70	0.44
1:D:59:LEU:HD21	1:D:102:ILE:CG2	2.23	0.44
1:D:620:ILE:CG2	1:D:621:GLY:N	2.81	0.44
1:A:261:GLU:HG3	1:A:261:GLU:O	2.17	0.44
1:A:239:ARG:NH2	1:A:337:GLN:NE2	2.65	0.44
1:A:408:GLY:O	1:A:409:ALA:C	2.55	0.44
1:B:144:ARG:O	1:B:146:ILE:HG13	2.18	0.44
1:B:229:LEU:O	1:B:233:ILE:HB	2.17	0.44
1:B:259:ALA:C	1:B:261:GLU:N	2.70	0.44
1:C:350:PRO:CB	1:C:358:ARG:HH22	2.27	0.44
1:C:611:MET:SD	1:C:617:VAL:HB	2.57	0.44
1:C:74:ASP:OD1	1:C:76:THR:N	2.51	0.44
1:D:162:GLU:CD	1:D:191:ARG:HH22	2.20	0.44
1:B:162:GLU:CD	1:B:191:ARG:HH22	2.20	0.44
1:B:45:LYS:HE3	1:B:49:LEU:HD21	1.99	0.44
1:C:144:ARG:O	1:C:146:ILE:HG13	2.18	0.44
1:D:271:GLY:HA2	1:D:309:ILE:CD1	2.35	0.44
1:D:482:LEU:C	1:D:484:ASP:H	2.21	0.44
1:A:271:GLY:HA2	1:A:309:ILE:CD1	2.35	0.44
1:A:307:ASP:O	1:A:311:PRO:HB3	2.18	0.44
1:A:378:LEU:HD13	1:A:382:GLN:HG3	1.99	0.44
1:A:493:VAL:HG23	1:A:494:GLN:N	2.32	0.44
1:A:575:PHE:HD1	1:A:620:ILE:HG22	1.83	0.44
1:B:28:VAL:HG12	1:B:84:MET:HE3	2.00	0.44
1:B:620:ILE:CG2	1:B:621:GLY:N	2.81	0.44
1:B:58:LEU:HD12	1:B:68:VAL:HG23	2.00	0.44
1:B:696:LYS:C	1:B:698:ALA:N	2.71	0.44
1:C:203:TYR:CD2	1:C:261:GLU:HG2	2.53	0.44
1:D:259:ALA:C	1:D:261:GLU:N	2.70	0.44
1:D:307:ASP:O	1:D:311:PRO:HB3	2.18	0.44
1:D:378:LEU:HD13	1:D:382:GLN:HG3	1.99	0.44
1:D:493:VAL:HG23	1:D:494:GLN:N	2.32	0.44
1:A:259:ALA:C	1:A:261:GLU:N	2.70	0.44
1:C:277:LYS:HD2	1:C:281:GLU:OE2	2.18	0.44
1:D:144:ARG:O	1:D:146:ILE:HG13	2.18	0.44
1:D:261:GLU:O	1:D:261:GLU:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:542:ILE:HG21	1:D:547:LEU:CD2	2.31	0.44
1:D:58:LEU:HD11	1:D:66:GLU:OE1	2.18	0.44
1:A:144:ARG:O	1:A:146:ILE:HG13	2.18	0.43
1:B:316:THR:HG23	1:B:316:THR:O	2.18	0.43
1:B:155:ARG:NE	1:B:386:LYS:HD2	2.31	0.43
1:C:147:ARG:HD2	1:C:173:TYR:HD2	1.81	0.43
1:C:176:VAL:HG13	1:C:182:ILE:HD11	2.00	0.43
1:C:202:GLY:N	1:C:205:ASP:OD2	2.45	0.43
1:C:539:PHE:HD1	1:C:573:VAL:CG2	2.24	0.43
1:D:576:PHE:CD1	1:D:576:PHE:N	2.86	0.43
1:D:575:PHE:HD1	1:D:620:ILE:HG22	1.83	0.43
1:D:692:GLN:HG2	1:D:696:LYS:HE3	2.00	0.43
1:A:576:PHE:N	1:A:576:PHE:CD1	2.86	0.43
1:A:58:LEU:HD11	1:A:66:GLU:OE1	2.18	0.43
1:A:692:GLN:HG2	1:A:696:LYS:HE3	2.00	0.43
1:B:133:VAL:HG21	1:B:439:ALA:HB3	1.99	0.43
1:C:542:ILE:HD13	1:C:562:ILE:HG21	2.00	0.43
1:D:133:VAL:O	1:D:137:PRO:HG2	2.18	0.43
1:D:87:VAL:HG22	1:D:198:LEU:HD13	1.99	0.43
1:D:391:ALA:HB3	1:D:394:VAL:HG23	1.99	0.43
1:D:636:PRO:HA	1:D:640:ASP:HB3	2.01	0.43
1:A:203:TYR:CD2	1:A:261:GLU:HG2	2.53	0.43
1:A:391:ALA:HB3	1:A:394:VAL:HG23	1.99	0.43
1:A:542:ILE:HD13	1:A:562:ILE:HG21	2.00	0.43
1:A:636:PRO:HA	1:A:640:ASP:HB3	2.01	0.43
1:B:87:VAL:HG22	1:B:198:LEU:HD13	1.99	0.43
1:B:575:PHE:HD1	1:B:620:ILE:HG22	1.83	0.43
1:B:692:GLN:HG2	1:B:696:LYS:HE3	2.00	0.43
1:C:229:LEU:O	1:C:233:ILE:HB	2.17	0.43
1:C:525:THR:C	1:C:527:LEU:N	2.70	0.43
1:C:620:ILE:CG2	1:C:621:GLY:N	2.81	0.43
1:C:696:LYS:C	1:C:698:ALA:N	2.71	0.43
1:C:89:ARG:CZ	1:C:96:LEU:HD11	2.49	0.43
1:D:542:ILE:HD13	1:D:562:ILE:HG21	2.00	0.43
1:A:158:MET:SD	1:A:442:MET:HE3	2.59	0.43
1:B:133:VAL:O	1:B:137:PRO:HG2	2.18	0.43
1:B:176:VAL:HG13	1:B:182:ILE:HD11	2.00	0.43
1:B:388:MET:HG2	1:B:388:MET:H	1.54	0.43
1:C:307:ASP:O	1:C:311:PRO:HB3	2.17	0.43
1:C:576:PHE:N	1:C:576:PHE:CD1	2.86	0.43
1:C:58:LEU:HD11	1:C:66:GLU:OE1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:259:ALA:C	1:D:261:GLU:H	2.21	0.43
1:A:133:VAL:O	1:A:137:PRO:HG2	2.18	0.43
1:A:87:VAL:HG22	1:A:198:LEU:HD13	1.99	0.43
1:A:274:ILE:HG22	1:A:274:ILE:O	2.19	0.43
1:B:412:ALA:O	1:B:413:ALA:C	2.57	0.43
1:B:636:PRO:HA	1:B:640:ASP:HB3	2.01	0.43
1:B:74:ASP:OD1	1:B:76:THR:N	2.51	0.43
1:B:89:ARG:CZ	1:B:96:LEU:HD11	2.48	0.43
1:C:244:TYR:HE2	1:C:366:GLU:HB3	1.84	0.43
1:C:282:SER:O	1:C:285:ASN:HB2	2.19	0.43
1:C:316:THR:O	1:C:316:THR:HG23	2.18	0.43
1:C:495:TYR:N	1:C:496:PRO:HD2	2.30	0.43
1:D:328:LEU:C	1:D:328:LEU:HD23	2.39	0.43
1:D:696:LYS:C	1:D:698:ALA:N	2.71	0.43
1:A:259:ALA:C	1:A:261:GLU:H	2.21	0.43
1:A:350:PRO:CB	1:A:358:ARG:HH22	2.27	0.43
1:A:58:LEU:HD12	1:A:68:VAL:HG23	2.00	0.43
1:B:203:TYR:CD2	1:B:261:GLU:HG2	2.53	0.43
1:B:307:ASP:CB	1:B:352:SER:HB3	2.49	0.43
1:C:152:PHE:CE2	1:C:163:PHE:HD2	2.35	0.43
1:C:87:VAL:HG22	1:C:198:LEU:HD13	1.99	0.43
1:C:659:ALA:HA	1:C:662:ARG:CG	2.49	0.43
1:D:203:TYR:CD2	1:D:261:GLU:HG2	2.53	0.43
1:D:274:ILE:HG22	1:D:274:ILE:O	2.19	0.43
1:D:307:ASP:CB	1:D:352:SER:HB3	2.49	0.43
1:C:700:ARG:CZ	1:D:487:ARG:O	2.66	0.43
1:D:45:LYS:HE3	1:D:49:LEU:HD21	1.99	0.43
1:A:307:ASP:CB	1:A:352:SER:HB3	2.49	0.43
1:A:329:LEU:HD23	1:A:357:LEU:HD23	1.98	0.43
1:A:74:ASP:OD1	1:A:76:THR:N	2.51	0.43
1:B:274:ILE:O	1:B:274:ILE:HG22	2.19	0.43
1:B:328:LEU:HD23	1:B:328:LEU:C	2.39	0.43
1:B:495:TYR:N	1:B:496:PRO:HD2	2.30	0.43
1:D:58:LEU:HD12	1:D:68:VAL:HG23	2.00	0.43
1:C:543:LYS:NZ	1:D:609:ASP:OD2	2.51	0.43
1:D:74:ASP:OD1	1:D:76:THR:N	2.51	0.43
1:D:89:ARG:CZ	1:D:96:LEU:HD11	2.48	0.43
1:A:176:VAL:HG13	1:A:182:ILE:HD11	2.00	0.43
1:A:290:PHE:CD1	1:A:301:ILE:HD12	2.54	0.43
1:A:696:LYS:C	1:A:698:ALA:N	2.71	0.43
1:A:89:ARG:CZ	1:A:96:LEU:HD11	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:206:ILE:HG23	1:B:253:LEU:HD22	2.01	0.43
1:B:290:PHE:CD1	1:B:301:ILE:HD12	2.54	0.43
1:B:428:ASP:O	1:B:431:ASP:N	2.42	0.43
1:B:445:LEU:HD22	1:B:446:ALA:N	2.34	0.43
1:C:290:PHE:CD1	1:C:301:ILE:HD12	2.54	0.43
1:D:126:ILE:HG23	1:D:159:ARG:NH2	2.34	0.43
1:D:176:VAL:HG13	1:D:182:ILE:HD11	2.00	0.43
1:D:290:PHE:CD1	1:D:301:ILE:HD12	2.54	0.43
1:C:550:MET:HB2	1:D:606:THR:OG1	2.17	0.43
1:A:126:ILE:HG23	1:A:159:ARG:NH2	2.34	0.43
1:A:328:LEU:HD23	1:A:328:LEU:C	2.39	0.43
1:A:45:LYS:HE3	1:A:49:LEU:HD21	1.99	0.43
1:B:261:GLU:HG3	1:B:261:GLU:O	2.17	0.43
1:B:307:ASP:O	1:B:311:PRO:HB3	2.17	0.43
1:D:350:PRO:CB	1:D:358:ARG:HH22	2.27	0.43
1:B:482:LEU:C	1:B:484:ASP:H	2.21	0.43
1:B:659:ALA:HA	1:B:662:ARG:CG	2.49	0.43
1:C:274:ILE:O	1:C:274:ILE:HG22	2.19	0.43
1:C:476:TRP:CD1	1:C:534:GLU:OE2	2.72	0.43
1:C:636:PRO:HA	1:C:640:ASP:HB3	2.01	0.43
1:D:329:LEU:HD23	1:D:357:LEU:HD23	1.98	0.43
1:D:476:TRP:CD1	1:D:534:GLU:OE2	2.72	0.43
1:A:152:PHE:CE2	1:A:163:PHE:HD2	2.35	0.42
1:A:476:TRP:CD1	1:A:534:GLU:OE2	2.72	0.42
1:A:659:ALA:HA	1:A:662:ARG:CG	2.49	0.42
1:A:728:VAL:N	1:A:729:PRO:CD	2.82	0.42
1:B:239:ARG:NH2	1:B:337:GLN:NE2	2.65	0.42
1:B:26:LEU:CA	1:B:99:VAL:HG23	2.49	0.42
1:C:326:SER:O	1:C:329:LEU:N	2.52	0.42
1:C:471:VAL:O	1:C:472:PRO:C	2.55	0.42
1:C:58:LEU:HD12	1:C:68:VAL:HG23	2.00	0.42
1:C:728:VAL:N	1:C:729:PRO:CD	2.82	0.42
1:D:152:PHE:CE2	1:D:163:PHE:HD2	2.35	0.42
1:C:432:LEU:HD22	1:D:99:VAL:HG21	2.00	0.42
1:B:282:SER:O	1:B:285:ASN:HB2	2.19	0.42
1:B:32:ILE:HG13	1:B:33:ASN:H	1.85	0.42
1:A:402:GLU:CB	1:B:614:LYS:HD3	2.43	0.42
1:B:728:VAL:N	1:B:729:PRO:CD	2.82	0.42
1:B:758:PHE:H	1:B:758:PHE:HD1	1.67	0.42
1:C:126:ILE:HG23	1:C:159:ARG:NH2	2.34	0.42
1:C:575:PHE:HD1	1:C:620:ILE:HG22	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:659:ALA:HA	1:D:662:ARG:CG	2.49	0.42
1:D:728:VAL:N	1:D:729:PRO:CD	2.82	0.42
1:A:244:TYR:HE2	1:A:366:GLU:HB3	1.84	0.42
1:A:572:CYS:SG	1:A:573:VAL:N	2.93	0.42
1:B:126:ILE:HG23	1:B:159:ARG:NH2	2.34	0.42
1:C:353:ILE:HG22	1:C:354:ASP:O	2.19	0.42
1:C:412:ALA:O	1:C:413:ALA:C	2.57	0.42
1:D:572:CYS:SG	1:D:573:VAL:N	2.93	0.42
1:A:146:ILE:HD12	1:A:176:VAL:HG21	2.02	0.42
1:A:26:LEU:CA	1:A:99:VAL:HG23	2.49	0.42
1:B:269:ILE:CG2	1:B:274:ILE:HG13	2.50	0.42
1:B:326:SER:O	1:B:329:LEU:N	2.52	0.42
1:B:26:LEU:O	1:B:99:VAL:HG23	2.19	0.42
1:C:269:ILE:CG2	1:C:274:ILE:HG13	2.50	0.42
1:C:315:LYS:CE	1:D:316:THR:HG23	2.46	0.42
1:C:624:ASN:ND2	1:D:635:ARG:HH22	2.15	0.42
1:A:111:GLY:HA2	1:A:170:PRO:CG	2.50	0.42
1:B:146:ILE:HD12	1:B:176:VAL:HG21	2.02	0.42
1:C:328:LEU:HD23	1:C:328:LEU:C	2.39	0.42
1:C:501:ASP:OD1	1:C:502:LYS:N	2.53	0.42
1:C:692:GLN:HG2	1:C:696:LYS:HE3	2.00	0.42
1:D:146:ILE:HD12	1:D:176:VAL:HG21	2.02	0.42
1:D:326:SER:O	1:D:329:LEU:N	2.52	0.42
1:D:377:ARG:CB	1:D:411:LEU:HD11	2.50	0.42
1:A:129:ASN:OD1	1:A:132:GLU:HG2	2.20	0.42
1:A:377:ARG:CB	1:A:411:LEU:HD11	2.50	0.42
1:A:445:LEU:HD22	1:A:446:ALA:N	2.34	0.42
1:B:129:ASN:OD1	1:B:132:GLU:HG2	2.20	0.42
1:B:144:ARG:HG2	1:B:144:ARG:NH1	2.35	0.42
1:B:283:GLU:HG3	1:B:327:GLN:CG	2.49	0.42
1:B:377:ARG:HB3	1:B:411:LEU:HD11	2.02	0.42
1:A:402:GLU:HB3	1:B:614:LYS:HE2	2.00	0.42
1:C:146:ILE:HD12	1:C:176:VAL:HG21	2.02	0.42
1:D:111:GLY:HA2	1:D:170:PRO:CG	2.50	0.42
1:D:244:TYR:HE2	1:D:366:GLU:HB3	1.84	0.42
1:D:26:LEU:CA	1:D:99:VAL:HG23	2.49	0.42
1:A:326:SER:O	1:A:329:LEU:N	2.52	0.42
1:B:542:ILE:HD13	1:B:562:ILE:HG21	2.00	0.42
1:C:572:CYS:SG	1:C:573:VAL:N	2.93	0.42
1:C:614:LYS:O	1:C:615:LYS:HG3	2.20	0.42
1:D:129:ASN:OD1	1:D:132:GLU:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:233:ILE:CG2	1:A:234:GLY:N	2.83	0.42
1:A:32:ILE:HG13	1:A:33:ASN:H	1.85	0.42
1:A:377:ARG:HB3	1:A:411:LEU:HD11	2.02	0.42
1:A:614:LYS:O	1:A:615:LYS:HG3	2.20	0.42
1:B:449:MET:O	1:B:449:MET:HG3	2.20	0.42
1:B:476:TRP:CD1	1:B:534:GLU:OE2	2.72	0.42
1:C:130:LEU:O	1:C:131:PHE:C	2.58	0.42
1:C:307:ASP:CB	1:C:352:SER:HB3	2.49	0.42
1:C:449:MET:HG3	1:C:449:MET:O	2.20	0.42
1:C:555:SER:O	1:C:559:VAL:HG23	2.20	0.42
1:C:26:LEU:O	1:C:99:VAL:HG23	2.19	0.42
1:D:233:ILE:CG2	1:D:234:GLY:N	2.83	0.42
1:D:242:LEU:HD23	1:D:244:TYR:CZ	2.55	0.42
1:D:32:ILE:HG13	1:D:33:ASN:H	1.85	0.42
1:D:445:LEU:HD22	1:D:446:ALA:N	2.34	0.42
1:D:487:ARG:O	1:D:487:ARG:HG2	2.20	0.42
1:A:353:ILE:HG22	1:A:354:ASP:O	2.19	0.42
1:B:211:LYS:O	1:B:215:GLN:HG3	2.20	0.42
1:B:233:ILE:CG2	1:B:234:GLY:N	2.83	0.42
1:B:242:LEU:HD23	1:B:244:TYR:CZ	2.55	0.42
1:B:277:LYS:O	1:B:278:LEU:C	2.58	0.42
1:B:491:GLU:HA	1:B:495:TYR:CE2	2.53	0.42
1:B:53:ARG:C	1:B:55:ASP:N	2.73	0.42
1:B:555:SER:O	1:B:559:VAL:HG23	2.20	0.42
1:B:572:CYS:SG	1:B:573:VAL:N	2.93	0.42
1:C:153:LEU:HD12	1:C:161:VAL:C	2.40	0.42
1:C:542:ILE:HG21	1:C:547:LEU:CD2	2.31	0.42
1:C:758:PHE:HD1	1:C:758:PHE:H	1.67	0.42
1:D:353:ILE:HG22	1:D:354:ASP:O	2.19	0.42
1:D:377:ARG:HB3	1:D:411:LEU:HD11	2.02	0.42
1:D:449:MET:HG3	1:D:449:MET:O	2.20	0.42
1:D:555:SER:O	1:D:559:VAL:HG23	2.20	0.42
1:D:614:LYS:O	1:D:615:LYS:HG3	2.20	0.42
1:D:26:LEU:O	1:D:99:VAL:HG23	2.19	0.42
1:A:206:ILE:O	1:A:206:ILE:HG13	2.20	0.42
1:A:211:LYS:O	1:A:215:GLN:HG3	2.20	0.42
1:A:242:LEU:HD23	1:A:244:TYR:CZ	2.55	0.42
1:A:449:MET:HG3	1:A:449:MET:O	2.20	0.42
1:A:487:ARG:O	1:A:487:ARG:HG2	2.20	0.42
1:A:555:SER:O	1:A:559:VAL:HG23	2.20	0.42
1:A:89:ARG:NH1	1:A:96:LEU:CD2	2.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:26:LEU:O	1:A:99:VAL:HG23	2.19	0.42
1:B:111:GLY:HA2	1:B:170:PRO:CG	2.50	0.42
1:B:32:ILE:CD1	1:B:74:ASP:OD2	2.66	0.42
1:C:129:ASN:OD1	1:C:132:GLU:HG2	2.20	0.42
1:C:206:ILE:O	1:C:206:ILE:HG13	2.20	0.42
1:D:282:SER:O	1:D:285:ASN:HB2	2.19	0.42
1:D:32:ILE:CD1	1:D:74:ASP:OD2	2.66	0.42
1:D:89:ARG:NH1	1:D:96:LEU:CD2	2.83	0.42
1:A:277:LYS:O	1:A:278:LEU:C	2.58	0.41
1:A:282:SER:O	1:A:285:ASN:HB2	2.19	0.41
1:A:377:ARG:O	1:A:381:LEU:HG	2.20	0.41
1:B:421:GLN:O	1:B:422:ALA:C	2.59	0.41
1:C:138:TYR:CE2	1:C:144:ARG:CD	3.03	0.41
1:D:211:LYS:O	1:D:215:GLN:HG3	2.20	0.41
1:D:277:LYS:O	1:D:278:LEU:C	2.58	0.41
1:D:421:GLN:O	1:D:422:ALA:C	2.59	0.41
1:A:153:LEU:HD12	1:A:161:VAL:C	2.40	0.41
1:A:206:ILE:HG23	1:A:253:LEU:HD22	2.01	0.41
1:A:269:ILE:CG2	1:A:274:ILE:HG13	2.50	0.41
1:A:421:GLN:O	1:A:422:ALA:C	2.59	0.41
1:A:501:ASP:OD1	1:A:502:LYS:N	2.53	0.41
1:A:53:ARG:C	1:A:55:ASP:N	2.73	0.41
1:B:614:LYS:O	1:B:615:LYS:HG3	2.20	0.41
1:B:688:THR:HG22	1:B:688:THR:O	2.20	0.41
1:C:277:LYS:O	1:C:278:LEU:C	2.58	0.41
1:C:329:LEU:HD23	1:C:357:LEU:HD23	1.98	0.41
1:C:445:LEU:HD22	1:C:446:ALA:N	2.34	0.41
1:D:377:ARG:O	1:D:381:LEU:HG	2.20	0.41
1:D:412:ALA:O	1:D:413:ALA:C	2.57	0.41
1:D:530:ALA:O	1:D:533:ASN:N	2.54	0.41
1:A:144:ARG:HG2	1:A:144:ARG:NH1	2.35	0.41
1:A:530:ALA:O	1:A:533:ASN:N	2.54	0.41
1:A:582:ILE:HB	1:A:601:ILE:HD11	2.02	0.41
1:B:135:LEU:CD2	1:B:135:LEU:N	2.84	0.41
1:B:26:LEU:HB2	1:B:82:ILE:CD1	2.51	0.41
1:B:26:LEU:HD21	1:B:45:LYS:CE	2.49	0.41
1:B:379:GLU:O	1:B:380:ILE:C	2.59	0.41
1:B:390:LEU:HD13	1:B:394:VAL:HG11	2.02	0.41
1:B:489:LEU:C	1:B:491:GLU:H	2.24	0.41
1:B:501:ASP:OD1	1:B:502:LYS:N	2.53	0.41
1:C:302:PHE:HD1	1:C:344:MET:O	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:377:ARG:HB3	1:C:411:LEU:HD11	2.02	0.41
1:C:377:ARG:O	1:C:381:LEU:HG	2.20	0.41
1:C:528:ALA:HB1	1:C:620:ILE:HD13	2.02	0.41
1:D:269:ILE:CG2	1:D:274:ILE:HG13	2.50	0.41
1:D:489:LEU:C	1:D:491:GLU:H	2.24	0.41
1:D:501:ASP:OD1	1:D:502:LYS:N	2.53	0.41
1:D:509:THR:HA	1:D:510:PRO:HD3	1.91	0.41
1:D:582:ILE:HB	1:D:601:ILE:HD11	2.02	0.41
1:D:758:PHE:H	1:D:758:PHE:HD1	1.66	0.41
1:A:138:TYR:CE2	1:A:144:ARG:CD	3.03	0.41
1:A:23:PRO:O	1:A:45:LYS:NZ	2.42	0.41
1:A:489:LEU:C	1:A:491:GLU:H	2.24	0.41
1:B:152:PHE:CE2	1:B:163:PHE:HD2	2.35	0.41
1:B:244:TYR:HE2	1:B:366:GLU:HB3	1.84	0.41
1:B:89:ARG:NH1	1:B:96:LEU:CD2	2.83	0.41
1:C:134:TYR:CE1	1:C:161:VAL:HG21	2.55	0.41
1:C:138:TYR:CE1	1:C:154:VAL:HG22	2.56	0.41
1:C:445:LEU:C	1:C:445:LEU:HD22	2.41	0.41
1:C:514:VAL:CG1	1:C:515:LEU:N	2.84	0.41
1:C:688:THR:HG22	1:C:688:THR:O	2.20	0.41
1:C:89:ARG:NH1	1:C:96:LEU:CD2	2.83	0.41
1:D:138:TYR:CE2	1:D:144:ARG:CD	3.03	0.41
1:D:495:TYR:N	1:D:496:PRO:CD	2.84	0.41
1:A:310:ALA:HA	1:A:325:VAL:HG22	2.02	0.41
1:A:412:ALA:O	1:A:413:ALA:C	2.57	0.41
1:A:495:TYR:N	1:A:496:PRO:CD	2.84	0.41
1:A:688:THR:O	1:A:688:THR:HG22	2.20	0.41
1:B:134:TYR:CE1	1:B:161:VAL:HG21	2.55	0.41
1:C:111:GLY:HA2	1:C:170:PRO:CG	2.50	0.41
1:C:211:LYS:O	1:C:215:GLN:HG3	2.20	0.41
1:C:237:PRO:CG	1:C:237:PRO:O	2.68	0.41
1:C:487:ARG:HG2	1:C:487:ARG:O	2.20	0.41
1:C:489:LEU:C	1:C:491:GLU:H	2.24	0.41
1:D:144:ARG:HG2	1:D:144:ARG:NH1	2.35	0.41
1:D:153:LEU:HD12	1:D:161:VAL:C	2.40	0.41
1:C:420:LEU:HD22	1:D:222:LEU:HD12	2.03	0.41
1:D:254:ILE:HD12	1:D:369:ILE:CD1	2.45	0.41
1:D:283:GLU:HG3	1:D:327:GLN:CG	2.49	0.41
1:D:310:ALA:HA	1:D:325:VAL:HG22	2.02	0.41
1:D:53:ARG:C	1:D:55:ASP:N	2.73	0.41
1:A:283:GLU:HG3	1:A:327:GLN:CG	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:302:PHE:HD1	1:A:344:MET:O	2.02	0.41
1:A:542:ILE:CG2	1:A:547:LEU:CD2	2.97	0.41
1:A:625:ARG:C	1:A:627:ASP:H	2.24	0.41
1:A:758:PHE:H	1:A:758:PHE:HD1	1.67	0.41
1:B:237:PRO:CG	1:B:237:PRO:O	2.68	0.41
1:B:530:ALA:O	1:B:533:ASN:N	2.53	0.41
1:B:625:ARG:C	1:B:627:ASP:H	2.24	0.41
1:C:242:LEU:HD23	1:C:244:TYR:CZ	2.55	0.41
1:C:26:LEU:HD21	1:C:45:LYS:CE	2.49	0.41
1:C:32:ILE:HG13	1:C:33:ASN:H	1.84	0.41
1:C:465:ARG:HE	1:D:610:GLY:HA3	1.85	0.41
1:C:696:LYS:HG3	1:D:508:MET:HE3	2.02	0.41
1:C:26:LEU:HB2	1:C:82:ILE:CD1	2.51	0.41
1:D:23:PRO:O	1:D:45:LYS:NZ	2.42	0.41
1:D:302:PHE:HD1	1:D:344:MET:O	2.02	0.41
1:D:688:THR:HG22	1:D:688:THR:O	2.20	0.41
1:A:138:TYR:CE1	1:A:154:VAL:HG22	2.56	0.41
1:A:134:TYR:CE1	1:A:161:VAL:HG21	2.55	0.41
1:B:49:LEU:CD2	1:B:102:ILE:HD11	2.51	0.41
1:B:153:LEU:HD12	1:B:161:VAL:C	2.40	0.41
1:B:377:ARG:CB	1:B:411:LEU:HD11	2.50	0.41
1:B:53:ARG:O	1:B:55:ASP:N	2.54	0.41
1:C:206:ILE:HG23	1:C:253:LEU:HD22	2.01	0.41
1:C:377:ARG:CB	1:C:411:LEU:HD11	2.50	0.41
1:C:77:CYS:SG	1:C:81:LYS:O	2.79	0.41
1:D:135:LEU:CD2	1:D:135:LEU:N	2.83	0.41
1:A:514:VAL:CG1	1:A:515:LEU:N	2.84	0.41
1:B:353:ILE:HG22	1:B:354:ASP:O	2.19	0.41
1:C:233:ILE:CG2	1:C:234:GLY:N	2.83	0.41
1:C:530:ALA:O	1:C:533:ASN:N	2.54	0.41
1:C:625:ARG:C	1:C:627:ASP:H	2.24	0.41
1:C:26:LEU:CA	1:C:99:VAL:HG23	2.49	0.41
1:D:379:GLU:O	1:D:380:ILE:C	2.59	0.41
1:D:390:LEU:HD23	1:D:390:LEU:HA	1.85	0.41
1:D:542:ILE:CG2	1:D:547:LEU:CD2	2.97	0.41
1:D:625:ARG:C	1:D:627:ASP:H	2.24	0.41
1:A:135:LEU:CD2	1:A:135:LEU:N	2.83	0.41
1:A:254:ILE:HD12	1:A:369:ILE:CD1	2.45	0.41
1:A:26:LEU:HD12	1:A:82:ILE:CG1	2.51	0.41
1:A:379:GLU:O	1:A:380:ILE:C	2.59	0.41
1:A:406:HIS:CD2	1:A:410:ASP:HB3	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:495:TYR:N	1:A:496:PRO:HD2	2.30	0.41
1:A:509:THR:HA	1:A:510:PRO:HD3	1.91	0.41
1:A:618:PHE:O	1:A:619:ILE:HG13	2.21	0.41
1:B:130:LEU:O	1:B:131:PHE:C	2.58	0.41
1:B:155:ARG:HG3	1:B:155:ARG:HH11	1.86	0.41
1:B:313:ARG:O	1:B:315:LYS:N	2.53	0.41
1:B:487:ARG:O	1:B:487:ARG:HG2	2.20	0.41
1:B:577:ASP:O	1:B:578:GLU:HB2	2.21	0.41
1:B:26:LEU:HD12	1:B:82:ILE:CG1	2.51	0.41
1:C:379:GLU:O	1:C:380:ILE:C	2.59	0.41
1:C:53:ARG:O	1:C:55:ASP:N	2.54	0.41
1:C:27:ILE:O	1:C:81:LYS:HA	2.21	0.41
1:D:26:LEU:HD12	1:D:82:ILE:CG1	2.51	0.41
1:D:514:VAL:CG1	1:D:515:LEU:N	2.84	0.41
1:A:26:LEU:HB2	1:A:82:ILE:CD1	2.51	0.41
1:A:660:ASN:O	1:A:661:LEU:HD23	2.21	0.41
1:B:206:ILE:HG13	1:B:206:ILE:O	2.20	0.41
1:B:23:PRO:O	1:B:45:LYS:NZ	2.42	0.41
1:B:302:PHE:HD1	1:B:344:MET:O	2.02	0.41
1:B:539:PHE:HD1	1:B:573:VAL:CG2	2.24	0.41
1:B:90:ASN:C	1:B:92:LEU:H	2.24	0.41
1:C:489:LEU:HD13	1:C:531:ILE:CD1	2.51	0.41
1:C:611:MET:O	1:C:613:THR:N	2.54	0.41
1:D:138:TYR:CE1	1:D:154:VAL:HG22	2.56	0.41
1:D:134:TYR:CE1	1:D:161:VAL:HG21	2.55	0.41
1:D:202:GLY:N	1:D:205:ASP:OD2	2.45	0.41
1:D:313:ARG:O	1:D:315:LYS:N	2.53	0.41
1:D:495:TYR:N	1:D:496:PRO:HD2	2.30	0.41
1:D:618:PHE:O	1:D:619:ILE:HG13	2.21	0.41
1:D:660:ASN:O	1:D:661:LEU:HD23	2.21	0.41
1:A:110:TYR:HD2	1:A:177:ALA:CB	2.34	0.41
1:A:313:ARG:O	1:A:315:LYS:N	2.53	0.41
1:A:315:LYS:HG3	1:A:315:LYS:O	2.21	0.41
1:A:27:ILE:O	1:A:81:LYS:HA	2.21	0.41
1:B:138:TYR:CE1	1:B:154:VAL:HG22	2.56	0.41
1:B:268:LEU:HD12	1:B:269:ILE:N	2.35	0.41
1:B:377:ARG:O	1:B:381:LEU:HG	2.20	0.41
1:B:563:PHE:CD2	1:B:607:GLU:HB3	2.56	0.41
1:B:618:PHE:O	1:B:619:ILE:HG13	2.21	0.41
1:D:388:MET:H	1:D:388:MET:HG2	1.54	0.41
1:D:406:HIS:CD2	1:D:410:ASP:HB3	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:27:ILE:O	1:D:81:LYS:HA	2.21	0.41
1:A:213:LEU:HD13	1:A:217:LYS:CE	2.52	0.40
1:A:307:ASP:HB3	1:A:352:SER:HB3	2.04	0.40
1:A:376:GLY:O	1:A:377:ARG:C	2.60	0.40
1:A:563:PHE:CD2	1:A:607:GLU:HB3	2.56	0.40
1:A:77:CYS:SG	1:A:81:LYS:O	2.79	0.40
1:B:27:ILE:O	1:B:81:LYS:HA	2.21	0.40
1:B:310:ALA:HA	1:B:325:VAL:HG22	2.02	0.40
1:B:489:LEU:HD13	1:B:531:ILE:CD1	2.51	0.40
1:B:552:PHE:HB2	1:B:558:ASN:ND2	2.37	0.40
1:B:92:LEU:HB2	1:B:94:VAL:CG2	2.46	0.40
1:C:49:LEU:CD2	1:C:102:ILE:HD11	2.51	0.40
1:C:53:ARG:C	1:C:55:ASP:N	2.73	0.40
1:C:38:VAL:HG23	1:C:72:LEU:HG	2.03	0.40
1:C:26:LEU:HD12	1:C:82:ILE:CG1	2.51	0.40
1:D:110:TYR:HD2	1:D:177:ALA:CB	2.34	0.40
1:D:26:LEU:HB2	1:D:82:ILE:CD1	2.51	0.40
1:D:307:ASP:HB3	1:D:352:SER:HB3	2.04	0.40
1:D:315:LYS:HG3	1:D:315:LYS:O	2.21	0.40
1:D:489:LEU:C	1:D:491:GLU:N	2.74	0.40
1:D:577:ASP:O	1:D:578:GLU:HB2	2.21	0.40
1:A:130:LEU:O	1:A:131:PHE:C	2.58	0.40
1:A:159:ARG:HG3	1:A:160:ALA:N	2.37	0.40
1:A:577:ASP:O	1:A:578:GLU:HB2	2.21	0.40
1:B:110:TYR:HD2	1:B:177:ALA:CB	2.34	0.40
1:B:206:ILE:CD1	1:B:213:LEU:CG	3.00	0.40
1:B:307:ASP:HB3	1:B:352:SER:HB3	2.04	0.40
1:B:582:ILE:HB	1:B:601:ILE:HD11	2.02	0.40
1:B:660:ASN:O	1:B:661:LEU:HD23	2.21	0.40
1:B:38:VAL:HG23	1:B:72:LEU:HG	2.03	0.40
1:C:135:LEU:N	1:C:135:LEU:CD2	2.83	0.40
1:C:159:ARG:HG3	1:C:160:ALA:N	2.37	0.40
1:C:313:ARG:O	1:C:315:LYS:N	2.53	0.40
1:C:495:TYR:N	1:C:496:PRO:CD	2.84	0.40
1:D:130:LEU:O	1:D:131:PHE:C	2.58	0.40
1:D:159:ARG:HG3	1:D:160:ALA:N	2.37	0.40
1:D:213:LEU:HD13	1:D:217:LYS:CE	2.52	0.40
1:D:376:GLY:O	1:D:377:ARG:C	2.60	0.40
1:D:77:CYS:SG	1:D:81:LYS:O	2.79	0.40
1:A:268:LEU:HD12	1:A:269:ILE:N	2.35	0.40
1:A:445:LEU:HD22	1:A:445:LEU:C	2.41	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:489:LEU:C	1:A:491:GLU:N	2.74	0.40
1:A:53:ARG:O	1:A:55:ASP:N	2.54	0.40
1:B:495:TYR:N	1:B:496:PRO:CD	2.84	0.40
1:C:110:TYR:HD2	1:C:177:ALA:CB	2.34	0.40
1:C:155:ARG:HH11	1:C:155:ARG:HG3	1.86	0.40
1:C:213:LEU:HD13	1:C:217:LYS:CE	2.52	0.40
1:C:315:LYS:O	1:C:315:LYS:HG3	2.22	0.40
1:C:487:ARG:HB2	1:C:487:ARG:HH11	1.86	0.40
1:C:549:THR:HG21	1:D:603:GLN:N	2.36	0.40
1:C:660:ASN:O	1:C:661:LEU:HD23	2.21	0.40
1:D:563:PHE:CD2	1:D:607:GLU:HB3	2.56	0.40
1:A:49:LEU:CD2	1:A:102:ILE:HD11	2.51	0.40
1:A:543:LYS:NZ	1:B:609:ASP:OD2	2.55	0.40
1:B:315:LYS:O	1:B:315:LYS:HG3	2.21	0.40
1:B:376:GLY:O	1:B:377:ARG:C	2.60	0.40
1:B:406:HIS:CD2	1:B:410:ASP:HB3	2.56	0.40
1:B:445:LEU:C	1:B:445:LEU:HD22	2.41	0.40
1:C:111:GLY:O	1:C:180:THR:OG1	2.39	0.40
1:C:489:LEU:C	1:C:491:GLU:N	2.74	0.40
1:C:548:LEU:HD11	1:C:582:ILE:CG1	2.43	0.40
1:D:155:ARG:HH11	1:D:155:ARG:HG3	1.86	0.40
1:A:155:ARG:HG3	1:A:155:ARG:HH11	1.86	0.40
1:A:283:GLU:O	1:A:285:ASN:N	2.54	0.40
1:A:552:PHE:HB2	1:A:558:ASN:ND2	2.36	0.40
1:B:225:ARG:NH1	1:B:225:ARG:HG2	2.35	0.40
1:B:283:GLU:O	1:B:285:ASN:N	2.54	0.40
1:B:579:LEU:HD12	1:B:622:ALA:H	1.86	0.40
1:C:283:GLU:O	1:C:285:ASN:N	2.54	0.40
1:C:290:PHE:CD1	1:C:301:ILE:CD1	3.05	0.40
1:C:307:ASP:HB3	1:C:352:SER:HB3	2.04	0.40
1:C:493:VAL:CA	1:C:496:PRO:HD2	2.52	0.40
1:C:92:LEU:HB2	1:C:94:VAL:CG2	2.46	0.40
1:D:268:LEU:HD12	1:D:269:ILE:N	2.35	0.40
1:C:696:LYS:CG	1:D:508:MET:HE3	2.52	0.40

All (77) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:491:GLU:OE1	1:D:700:ARG:CD[2_765]	0.38	1.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:491:GLU:OE2	1:B:700:ARG:NH1[3_765]	0.38	1.82
1:C:491:GLU:OE2	1:D:700:ARG:NH1[2_765]	0.40	1.80
1:A:491:GLU:OE1	1:B:700:ARG:CD[3_765]	0.41	1.79
1:C:25:ARG:NH2	1:D:432:LEU:C[2_765]	0.80	1.40
1:A:25:ARG:NH2	1:B:432:LEU:C[3_765]	0.83	1.37
1:C:491:GLU:OE2	1:D:700:ARG:CZ[2_765]	1.19	1.01
1:A:491:GLU:OE2	1:B:700:ARG:CZ[3_765]	1.24	0.96
1:C:25:ARG:NH2	1:D:432:LEU:O[2_765]	1.25	0.95
1:A:25:ARG:NH2	1:B:432:LEU:O[3_765]	1.30	0.90
1:C:491:GLU:CD	1:D:700:ARG:NE[2_765]	1.45	0.75
1:A:491:GLU:CD	1:B:700:ARG:NE[3_765]	1.48	0.72
1:C:491:GLU:OE1	1:D:700:ARG:NE[2_765]	1.48	0.72
1:A:603:GLN:NE2	1:B:550:MET:CE[3_765]	1.52	0.68
1:A:25:ARG:NH2	1:B:432:LEU:CA[3_765]	1.52	0.68
1:C:25:ARG:NH2	1:D:432:LEU:CA[2_765]	1.53	0.67
1:A:491:GLU:OE1	1:B:700:ARG:NE[3_765]	1.53	0.67
1:A:491:GLU:CD	1:B:700:ARG:CD[3_765]	1.54	0.66
1:C:603:GLN:NE2	1:D:550:MET:CE[2_765]	1.54	0.66
1:C:491:GLU:CD	1:D:700:ARG:CD[2_765]	1.55	0.65
1:C:491:GLU:CD	1:D:700:ARG:CZ[2_765]	1.56	0.64
1:A:491:GLU:CD	1:B:700:ARG:CZ[3_765]	1.59	0.61
1:C:25:ARG:CZ	1:D:432:LEU:O[2_765]	1.61	0.59
1:A:491:GLU:CD	1:B:700:ARG:NH1[3_765]	1.62	0.58
1:A:25:ARG:CZ	1:B:432:LEU:O[3_765]	1.64	0.56
1:C:491:GLU:CD	1:D:700:ARG:NH1[2_765]	1.65	0.55
1:A:603:GLN:CD	1:B:550:MET:SD[3_765]	1.71	0.49
1:C:487:ARG:O	1:D:700:ARG:NH2[2_765]	1.73	0.47
1:C:603:GLN:CD	1:D:550:MET:SD[2_765]	1.74	0.46
1:A:487:ARG:O	1:B:700:ARG:NH2[3_765]	1.74	0.46
1:A:602:ASN:OD1	1:B:545:PRO:CB[3_765]	1.76	0.44
1:C:602:ASN:OD1	1:D:545:PRO:CB[2_765]	1.79	0.41
1:A:602:ASN:ND2	1:B:545:PRO:O[3_765]	1.84	0.36
1:A:603:GLN:NE2	1:B:550:MET:SD[3_765]	1.84	0.36
1:A:603:GLN:OE1	1:B:550:MET:SD[3_765]	1.84	0.36
1:C:603:GLN:OE1	1:D:550:MET:SD[2_765]	1.85	0.35
1:C:491:GLU:OE1	1:D:700:ARG:CG[2_765]	1.86	0.34
1:C:603:GLN:NE2	1:D:550:MET:SD[2_765]	1.87	0.33
1:C:602:ASN:ND2	1:D:545:PRO:O[2_765]	1.87	0.33
1:A:491:GLU:OE1	1:B:700:ARG:CG[3_765]	1.89	0.31
1:C:25:ARG:NH2	1:D:433:GLU:N[2_765]	1.90	0.30
1:A:25:ARG:NH2	1:B:433:GLU:N[3_765]	1.91	0.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:25:ARG:NE	1:D:432:LEU:O[2_765]	1.93	0.27
1:C:25:ARG:CZ	1:D:432:LEU:C[2_765]	1.93	0.27
1:A:25:ARG:CZ	1:B:432:LEU:C[3_765]	1.93	0.27
1:A:25:ARG:NE	1:B:432:LEU:O[3_765]	1.93	0.27
1:C:506:PHE:CE2	1:D:699:ILE:CG2[2_765]	1.97	0.23
1:A:506:PHE:CE2	1:B:699:ILE:CG2[3_765]	1.98	0.22
1:A:25:ARG:CZ	1:B:432:LEU:CA[3_765]	1.99	0.21
1:C:25:ARG:CZ	1:D:432:LEU:CA[2_765]	2.00	0.20
1:A:25:ARG:NH1	1:B:432:LEU:CA[3_765]	2.01	0.19
1:C:25:ARG:NH1	1:D:432:LEU:CA[2_765]	2.01	0.19
1:C:491:GLU:OE2	1:D:700:ARG:NE[2_765]	2.01	0.19
1:C:323:ARG:NH2	1:D:279:ALA:N[2_765]	2.03	0.17
1:A:323:ARG:NH2	1:B:279:ALA:N[3_765]	2.04	0.16
1:A:25:ARG:NH2	1:B:432:LEU:CB[3_765]	2.04	0.16
1:B:192:GLU:OE1	1:D:194:GLU:OE1[2_754]	2.05	0.15
1:B:194:GLU:OE1	1:D:192:GLU:OE1[2_754]	2.05	0.15
1:A:491:GLU:OE2	1:B:700:ARG:NE[3_765]	2.05	0.15
1:C:25:ARG:NH2	1:D:432:LEU:CB[2_765]	2.08	0.12
1:A:25:ARG:NH1	1:B:432:LEU:CD2[3_765]	2.09	0.11
1:C:506:PHE:CD2	1:D:699:ILE:CG2[2_765]	2.10	0.10
1:C:25:ARG:NH1	1:D:432:LEU:CD2[2_765]	2.13	0.07
1:A:506:PHE:CD2	1:B:699:ILE:CG2[3_765]	2.14	0.06
1:A:506:PHE:CD2	1:B:699:ILE:CG1[3_765]	2.14	0.06
1:A:602:ASN:ND2	1:B:549:THR:CB[3_765]	2.17	0.03
1:C:602:ASN:ND2	1:D:549:THR:CB[2_765]	2.17	0.03
1:A:25:ARG:NH1	1:B:432:LEU:CB[3_765]	2.18	0.02
1:A:506:PHE:CG	1:B:699:ILE:CG1[3_765]	2.18	0.02
1:C:506:PHE:CG	1:D:699:ILE:CG1[2_765]	2.18	0.02
1:A:192:GLU:OE1	1:C:194:GLU:OE1[1_544]	2.18	0.02
1:A:194:GLU:OE1	1:C:192:GLU:OE1[1_544]	2.18	0.02
1:C:506:PHE:CD2	1:D:699:ILE:CG1[2_765]	2.18	0.02
1:C:606:THR:OG1	1:D:550:MET:CG[2_765]	2.19	0.01
1:A:362:ARG:NH2	1:B:305:GLU:OE2[3_765]	2.19	0.01
1:C:362:ARG:NH2	1:D:305:GLU:OE2[2_765]	2.19	0.01
1:A:606:THR:OG1	1:B:550:MET:CG[3_765]	2.19	0.01

5.3 Torsion angles (i)

5.3.1 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 X-ray entries followed by that with respect to entries of similar resolution.

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	641/806 (80%)	471 (74%)	130 (20%)	40 (6%)	1 15
1	B	641/806 (80%)	470 (73%)	131 (20%)	40 (6%)	1 15
1	C	641/806 (80%)	471 (74%)	130 (20%)	40 (6%)	1 15
1	D	641/806 (80%)	470 (73%)	131 (20%)	40 (6%)	1 15
All	All	2564/3224 (80%)	1882 (73%)	522 (20%)	160 (6%)	1 15

All (160) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	87	VAL
1	A	312	LYS
1	B	87	VAL
1	B	312	LYS
1	C	87	VAL
1	C	312	LYS
1	D	87	VAL
1	D	312	LYS
1	A	88	VAL
1	A	120	ASP
1	A	176	VAL
1	A	214	ALA
1	A	278	LEU
1	A	307	ASP
1	A	311	PRO
1	A	314	GLU
1	A	377	ARG
1	A	538	ASN
1	A	612	SER
1	A	628	ILE
1	B	88	VAL
1	B	120	ASP

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Mol	Chain	Res	Type
1	B	176	VAL
1	B	214	ALA
1	B	278	LEU
1	B	307	ASP
1	B	311	PRO
1	B	314	GLU
1	B	377	ARG
1	B	538	ASN
1	B	612	SER
1	B	628	ILE
1	C	88	VAL
1	C	120	ASP
1	C	176	VAL
1	C	214	ALA
1	C	278	LEU
1	C	307	ASP
1	C	311	PRO
1	C	314	GLU
1	C	377	ARG
1	C	538	ASN
1	C	612	SER
1	C	628	ILE
1	D	88	VAL
1	D	120	ASP
1	D	176	VAL
1	D	214	ALA
1	D	278	LEU
1	D	307	ASP
1	D	311	PRO
1	D	314	GLU
1	D	377	ARG
1	D	538	ASN
1	D	612	SER
1	D	628	ILE
1	A	63	LYS
1	A	79	ASP
1	A	124	GLU
1	A	526	LEU
1	B	63	LYS
1	B	79	ASP
1	B	124	GLU
1	B	526	LEU

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Mol	Chain	Res	Type
1	C	63	LYS
1	C	79	ASP
1	C	124	GLU
1	C	526	LEU
1	D	63	LYS
1	D	79	ASP
1	D	124	GLU
1	D	526	LEU
1	A	131	PHE
1	A	279	ALA
1	A	417	GLU
1	B	131	PHE
1	B	279	ALA
1	B	417	GLU
1	C	131	PHE
1	C	279	ALA
1	C	417	GLU
1	D	131	PHE
1	D	279	ALA
1	D	417	GLU
1	A	80	GLU
1	A	172	PRO
1	A	284	SER
1	A	386	LYS
1	A	636	PRO
1	B	80	GLU
1	B	172	PRO
1	B	284	SER
1	B	386	LYS
1	B	636	PRO
1	C	80	GLU
1	C	172	PRO
1	C	284	SER
1	C	386	LYS
1	C	636	PRO
1	D	80	GLU
1	D	172	PRO
1	D	284	SER
1	D	386	LYS
1	D	636	PRO
1	A	92	LEU
1	A	238	PRO

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Mol	Chain	Res	Type
1	A	327	GLN
1	A	376	GLY
1	A	545	PRO
1	A	654	VAL
1	B	92	LEU
1	B	238	PRO
1	B	327	GLN
1	B	376	GLY
1	B	545	PRO
1	B	654	VAL
1	C	92	LEU
1	C	238	PRO
1	C	327	GLN
1	C	376	GLY
1	C	545	PRO
1	C	654	VAL
1	D	92	LEU
1	D	238	PRO
1	D	327	GLN
1	D	376	GLY
1	D	545	PRO
1	D	654	VAL
1	A	54	GLY
1	A	169	ASP
1	B	54	GLY
1	B	169	ASP
1	C	54	GLY
1	C	169	ASP
1	D	54	GLY
1	D	169	ASP
1	A	208	GLY
1	B	208	GLY
1	C	208	GLY
1	D	208	GLY
1	A	111	GLY
1	A	170	PRO
1	A	181	VAL
1	B	111	GLY
1	B	170	PRO
1	B	181	VAL
1	C	111	GLY
1	C	181	VAL

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Mol	Chain	Res	Type
1	D	181	VAL
1	A	495	TYR
1	A	600	VAL
1	B	495	TYR
1	B	600	VAL
1	C	170	PRO
1	C	495	TYR
1	C	600	VAL
1	D	111	GLY
1	D	170	PRO
1	D	495	TYR
1	D	600	VAL

5.3.2 Protein sidechains

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	565/678 (83%)	538 (95%)	27 (5%)	25	60
1	B	565/678 (83%)	538 (95%)	27 (5%)	25	60
1	C	565/678 (83%)	538 (95%)	27 (5%)	25	60
1	D	564/678 (83%)	537 (95%)	27 (5%)	25	60
All	All	2259/2712 (83%)	2151 (95%)	108 (5%)	25	60

All (108) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	21	ASN
1	A	49	LEU
1	A	57	VAL
1	A	91	ASN
1	A	107	ASP
1	A	127	THR
1	A	152	PHE
1	A	187	GLU
1	A	194	GLU

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Mol	Chain	Res	Type
1	A	203	TYR
1	A	213	LEU
1	A	237	PRO
1	A	253	LEU
1	A	283	GLU
1	A	388	MET
1	A	438	ASP
1	A	445	LEU
1	A	503	PHE
1	A	534	GLU
1	A	546	GLU
1	A	547	LEU
1	A	556	GLU
1	A	576	PHE
1	A	625	ARG
1	A	627	ASP
1	A	640	ASP
1	A	758	PHE
1	B	21	ASN
1	B	49	LEU
1	B	57	VAL
1	B	91	ASN
1	B	107	ASP
1	B	127	THR
1	B	152	PHE
1	B	187	GLU
1	B	194	GLU
1	B	203	TYR
1	B	213	LEU
1	B	237	PRO
1	B	253	LEU
1	B	283	GLU
1	B	388	MET
1	B	438	ASP
1	B	445	LEU
1	B	503	PHE
1	B	534	GLU
1	B	546	GLU
1	B	547	LEU
1	B	556	GLU
1	B	576	PHE
1	B	625	ARG

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Mol	Chain	Res	Type
1	B	627	ASP
1	B	640	ASP
1	B	758	PHE
1	C	21	ASN
1	C	49	LEU
1	C	57	VAL
1	C	91	ASN
1	C	107	ASP
1	C	127	THR
1	C	152	PHE
1	C	187	GLU
1	C	194	GLU
1	C	203	TYR
1	C	213	LEU
1	C	237	PRO
1	C	253	LEU
1	C	283	GLU
1	C	388	MET
1	C	438	ASP
1	C	445	LEU
1	C	503	PHE
1	C	534	GLU
1	C	546	GLU
1	C	547	LEU
1	C	556	GLU
1	C	576	PHE
1	C	625	ARG
1	C	627	ASP
1	C	640	ASP
1	C	758	PHE
1	D	21	ASN
1	D	49	LEU
1	D	57	VAL
1	D	91	ASN
1	D	107	ASP
1	D	127	THR
1	D	152	PHE
1	D	187	GLU
1	D	194	GLU
1	D	203	TYR
1	D	213	LEU
1	D	237	PRO

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Mol	Chain	Res	Type
1	D	253	LEU
1	D	283	GLU
1	D	388	MET
1	D	438	ASP
1	D	445	LEU
1	D	503	PHE
1	D	534	GLU
1	D	546	GLU
1	D	547	LEU
1	D	556	GLU
1	D	576	PHE
1	D	625	ARG
1	D	627	ASP
1	D	640	ASP
1	D	758	PHE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (62) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	91	ASN
1	A	103	GLN
1	A	183	HIS
1	A	212	GLN
1	A	215	GLN
1	A	285	ASN
1	A	317	HIS
1	A	327	GLN
1	A	348	ASN
1	A	384	HIS
1	A	401	ASN
1	A	406	HIS
1	A	490	GLN
1	A	533	ASN
1	A	624	ASN
1	A	660	ASN
1	B	91	ASN
1	B	103	GLN
1	B	183	HIS
1	B	212	GLN
1	B	215	GLN
1	B	285	ASN
1	B	327	GLN

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Mol	Chain	Res	Type
1	B	348	ASN
1	B	384	HIS
1	B	401	ASN
1	B	406	HIS
1	B	490	GLN
1	B	533	ASN
1	B	641	GLN
1	B	660	ASN
1	C	91	ASN
1	C	103	GLN
1	C	183	HIS
1	C	212	GLN
1	C	215	GLN
1	C	285	ASN
1	C	317	HIS
1	C	327	GLN
1	C	348	ASN
1	C	384	HIS
1	C	401	ASN
1	C	406	HIS
1	C	490	GLN
1	C	533	ASN
1	C	624	ASN
1	C	660	ASN
1	D	91	ASN
1	D	103	GLN
1	D	183	HIS
1	D	212	GLN
1	D	215	GLN
1	D	285	ASN
1	D	327	GLN
1	D	348	ASN
1	D	384	HIS
1	D	401	ASN
1	D	406	HIS
1	D	490	GLN
1	D	533	ASN
1	D	641	GLN
1	D	660	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

8 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
2	ADP	A	807	-	24,29,29	1.46	4 (16%)	29,45,45	1.66	3 (10%)
2	ADP	C	807	-	24,29,29	1.46	4 (16%)	29,45,45	1.66	3 (10%)
2	ADP	B	807	-	24,29,29	1.46	5 (20%)	29,45,45	1.65	3 (10%)
3	ANP	A	901	-	29,33,33	2.07	11 (37%)	31,52,52	1.71	5 (16%)
3	ANP	C	901	-	29,33,33	2.08	11 (37%)	31,52,52	1.71	5 (16%)
3	ANP	D	901	-	29,33,33	2.08	11 (37%)	31,52,52	1.71	5 (16%)
3	ANP	B	901	-	29,33,33	2.07	11 (37%)	31,52,52	1.71	5 (16%)
2	ADP	D	807	-	24,29,29	1.47	5 (20%)	29,45,45	1.66	3 (10%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	ADP	A	807	-	-	6/12/32/32	0/3/3/3
2	ADP	C	807	-	-	6/12/32/32	0/3/3/3
2	ADP	B	807	-	-	6/12/32/32	0/3/3/3
3	ANP	A	901	-	-	6/14/38/38	0/3/3/3
3	ANP	C	901	-	-	6/14/38/38	0/3/3/3
3	ANP	D	901	-	-	6/14/38/38	0/3/3/3
3	ANP	B	901	-	-	6/14/38/38	0/3/3/3
2	ADP	D	807	-	-	6/12/32/32	0/3/3/3

All (62) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	901	ANP	PB-N3B	-4.48	1.51	1.63
3	C	901	ANP	PB-N3B	-4.47	1.51	1.63
3	A	901	ANP	PB-N3B	-4.46	1.51	1.63
3	D	901	ANP	PB-N3B	-4.45	1.51	1.63
3	B	901	ANP	PG-N3B	-4.28	1.52	1.63
3	C	901	ANP	PG-N3B	-4.28	1.52	1.63
3	A	901	ANP	PG-N3B	-4.27	1.52	1.63
3	D	901	ANP	PG-N3B	-4.26	1.52	1.63
3	C	901	ANP	O4'-C1'	4.07	1.46	1.41
3	D	901	ANP	O4'-C1'	4.05	1.46	1.41
3	A	901	ANP	O4'-C1'	4.05	1.46	1.41
3	B	901	ANP	O4'-C1'	3.99	1.46	1.41
3	A	901	ANP	C2-N3	3.12	1.37	1.32
3	B	901	ANP	C2-N3	3.11	1.37	1.32
3	C	901	ANP	C2-N3	3.10	1.37	1.32
3	D	901	ANP	C2-N3	3.09	1.37	1.32
2	B	807	ADP	C2-N3	2.78	1.36	1.32
2	A	807	ADP	C2-N3	2.78	1.36	1.32
2	C	807	ADP	C2-N3	2.77	1.36	1.32
2	D	807	ADP	C2-N3	2.77	1.36	1.32
2	B	807	ADP	C5-N7	-2.76	1.29	1.39
2	A	807	ADP	C5-N7	-2.76	1.29	1.39
2	D	807	ADP	C5-N7	-2.76	1.29	1.39
2	C	807	ADP	C5-N7	-2.75	1.29	1.39
3	D	901	ANP	C4-N3	2.68	1.39	1.35
2	D	807	ADP	O4'-C1'	2.67	1.44	1.41
2	C	807	ADP	O4'-C1'	2.65	1.44	1.41
3	D	901	ANP	PG-O1G	2.63	1.50	1.46
3	C	901	ANP	C4-N3	2.62	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	901	ANP	C4-N3	2.60	1.39	1.35
3	B	901	ANP	PG-O1G	2.60	1.50	1.46
3	A	901	ANP	C4-N3	2.60	1.39	1.35
2	A	807	ADP	O4'-C1'	2.60	1.44	1.41
2	B	807	ADP	O4'-C1'	2.60	1.44	1.41
3	A	901	ANP	PG-O1G	2.59	1.50	1.46
3	C	901	ANP	PG-O1G	2.58	1.50	1.46
3	D	901	ANP	C5'-C4'	2.40	1.59	1.51
3	A	901	ANP	C5'-C4'	2.39	1.59	1.51
3	B	901	ANP	C5'-C4'	2.39	1.59	1.51
3	D	901	ANP	PG-O3G	-2.39	1.50	1.56
3	C	901	ANP	C5'-C4'	2.39	1.59	1.51
3	A	901	ANP	PG-O3G	-2.37	1.50	1.56
3	C	901	ANP	PG-O3G	-2.36	1.50	1.56
3	B	901	ANP	PG-O3G	-2.36	1.50	1.56
3	C	901	ANP	PB-O1B	2.29	1.49	1.46
3	D	901	ANP	PB-O1B	2.26	1.49	1.46
3	A	901	ANP	PB-O1B	2.26	1.49	1.46
3	B	901	ANP	PB-O1B	2.25	1.49	1.46
3	B	901	ANP	C5-N7	-2.23	1.31	1.39
3	A	901	ANP	C5-N7	-2.23	1.31	1.39
3	D	901	ANP	C5-N7	-2.22	1.31	1.39
3	C	901	ANP	C5-N7	-2.22	1.31	1.39
3	B	901	ANP	PG-O2G	2.05	1.62	1.56
3	C	901	ANP	PG-O2G	2.04	1.62	1.56
2	A	807	ADP	PA-O2A	-2.04	1.45	1.55
2	C	807	ADP	PA-O2A	-2.04	1.45	1.55
3	A	901	ANP	PG-O2G	2.04	1.62	1.56
2	B	807	ADP	PA-O2A	-2.04	1.45	1.55
2	D	807	ADP	PA-O2A	-2.04	1.45	1.55
3	D	901	ANP	PG-O2G	2.02	1.62	1.56
2	D	807	ADP	C8-N7	-2.02	1.31	1.34
2	B	807	ADP	C8-N7	-2.01	1.31	1.34

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	807	ADP	N3-C2-N1	-6.79	118.06	128.68
2	A	807	ADP	N3-C2-N1	-6.79	118.07	128.68
2	D	807	ADP	N3-C2-N1	-6.78	118.08	128.68
2	B	807	ADP	N3-C2-N1	-6.76	118.11	128.68
3	B	901	ANP	N3-C2-N1	-6.74	118.14	128.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A	901	ANP	N3-C2-N1	-6.73	118.16	128.68
3	D	901	ANP	N3-C2-N1	-6.73	118.17	128.68
3	C	901	ANP	N3-C2-N1	-6.72	118.18	128.68
2	B	807	ADP	C2'-C3'-C4'	2.58	107.66	102.64
2	D	807	ADP	C2'-C3'-C4'	2.57	107.63	102.64
2	C	807	ADP	C2'-C3'-C4'	2.56	107.62	102.64
2	A	807	ADP	C2'-C3'-C4'	2.56	107.62	102.64
3	D	901	ANP	C2'-C3'-C4'	2.47	107.43	102.64
3	A	901	ANP	C2'-C3'-C4'	2.46	107.42	102.64
3	B	901	ANP	C2'-C3'-C4'	2.45	107.41	102.64
3	C	901	ANP	C2'-C3'-C4'	2.45	107.41	102.64
3	A	901	ANP	C3'-C2'-C1'	2.43	104.63	100.98
3	B	901	ANP	C3'-C2'-C1'	2.43	104.63	100.98
3	C	901	ANP	C3'-C2'-C1'	2.42	104.63	100.98
3	D	901	ANP	C3'-C2'-C1'	2.42	104.62	100.98
2	D	807	ADP	C3'-C2'-C1'	2.18	104.26	100.98
2	C	807	ADP	C3'-C2'-C1'	2.17	104.25	100.98
2	A	807	ADP	C3'-C2'-C1'	2.16	104.23	100.98
2	B	807	ADP	C3'-C2'-C1'	2.13	104.19	100.98
3	D	901	ANP	O1G-PG-N3B	-2.11	108.66	111.77
3	B	901	ANP	C2-N1-C6	2.09	122.34	118.75
3	D	901	ANP	C2-N1-C6	2.09	122.33	118.75
3	A	901	ANP	O1G-PG-N3B	-2.09	108.69	111.77
3	C	901	ANP	C2-N1-C6	2.08	122.31	118.75
3	A	901	ANP	C2-N1-C6	2.08	122.31	118.75
3	C	901	ANP	O1G-PG-N3B	-2.07	108.72	111.77
3	B	901	ANP	O1G-PG-N3B	-2.05	108.75	111.77

There are no chirality outliers.

All (48) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	807	ADP	C5'-O5'-PA-O1A
2	A	807	ADP	C5'-O5'-PA-O2A
2	A	807	ADP	C5'-O5'-PA-O3A
2	A	807	ADP	O4'-C4'-C5'-O5'
2	C	807	ADP	C5'-O5'-PA-O1A
2	C	807	ADP	C5'-O5'-PA-O2A
2	C	807	ADP	C5'-O5'-PA-O3A
2	C	807	ADP	O4'-C4'-C5'-O5'
2	B	807	ADP	C5'-O5'-PA-O1A
2	B	807	ADP	C5'-O5'-PA-O2A

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Mol	Chain	Res	Type	Atoms
2	B	807	ADP	C5'-O5'-PA-O3A
2	B	807	ADP	O4'-C4'-C5'-O5'
3	A	901	ANP	PG-N3B-PB-O1B
3	A	901	ANP	PG-N3B-PB-O3A
3	A	901	ANP	C5'-O5'-PA-O1A
3	A	901	ANP	C5'-O5'-PA-O2A
3	A	901	ANP	C5'-O5'-PA-O3A
3	C	901	ANP	PG-N3B-PB-O1B
3	C	901	ANP	PG-N3B-PB-O3A
3	C	901	ANP	C5'-O5'-PA-O1A
3	C	901	ANP	C5'-O5'-PA-O2A
3	C	901	ANP	C5'-O5'-PA-O3A
3	D	901	ANP	PG-N3B-PB-O1B
3	D	901	ANP	PG-N3B-PB-O3A
3	D	901	ANP	C5'-O5'-PA-O1A
3	D	901	ANP	C5'-O5'-PA-O2A
3	D	901	ANP	C5'-O5'-PA-O3A
3	B	901	ANP	PG-N3B-PB-O1B
3	B	901	ANP	PG-N3B-PB-O3A
3	B	901	ANP	C5'-O5'-PA-O1A
3	B	901	ANP	C5'-O5'-PA-O2A
3	B	901	ANP	C5'-O5'-PA-O3A
2	D	807	ADP	C5'-O5'-PA-O1A
2	D	807	ADP	C5'-O5'-PA-O2A
2	D	807	ADP	C5'-O5'-PA-O3A
2	D	807	ADP	O4'-C4'-C5'-O5'
2	A	807	ADP	C3'-C4'-C5'-O5'
2	C	807	ADP	C3'-C4'-C5'-O5'
2	B	807	ADP	C3'-C4'-C5'-O5'
2	D	807	ADP	C3'-C4'-C5'-O5'
3	A	901	ANP	PB-O3A-PA-O1A
3	C	901	ANP	PB-O3A-PA-O1A
3	D	901	ANP	PB-O3A-PA-O1A
3	B	901	ANP	PB-O3A-PA-O1A
2	A	807	ADP	PA-O3A-PB-O3B
2	C	807	ADP	PA-O3A-PB-O3B
2	B	807	ADP	PA-O3A-PB-O3B
2	D	807	ADP	PA-O3A-PB-O3B

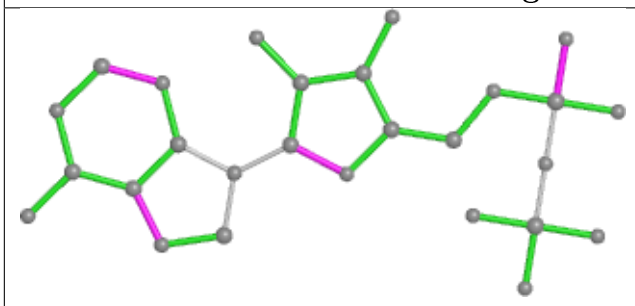
There are no ring outliers.

8 monomers are involved in 16 short contacts:

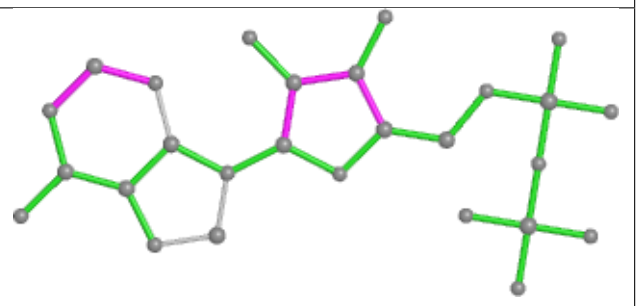
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	807	ADP	3	0
2	C	807	ADP	3	0
2	B	807	ADP	3	0
3	A	901	ANP	1	0
3	C	901	ANP	1	0
3	D	901	ANP	1	0
3	B	901	ANP	1	0
2	D	807	ADP	3	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

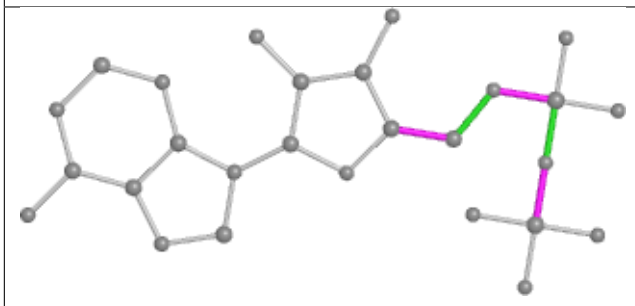
Ligand ADP A 807



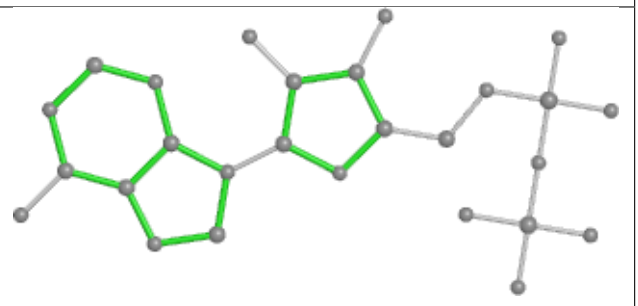
Bond lengths



Bond angles

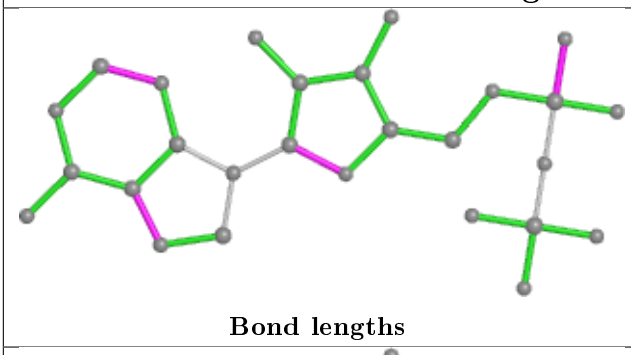


Torsions

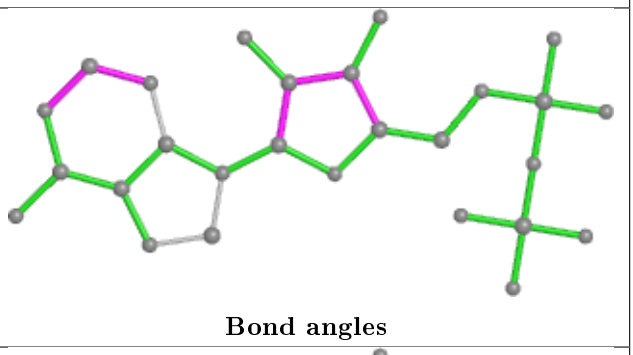


Rings

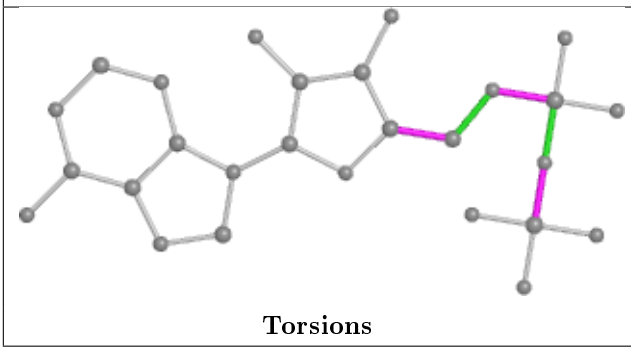
Ligand ADP C 807



Bond lengths



Bond angles



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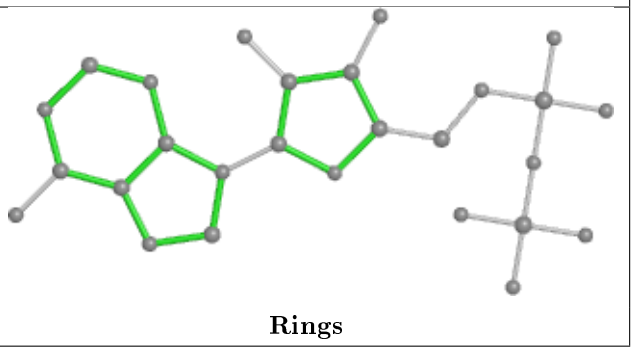
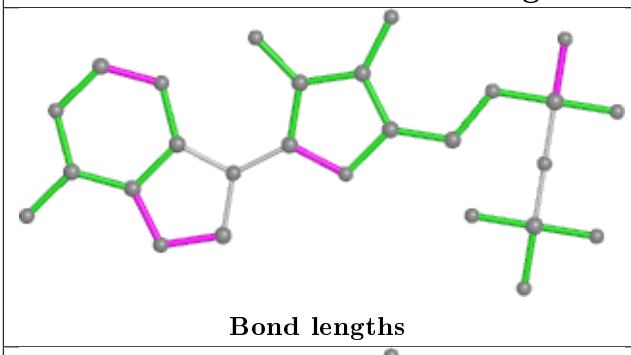
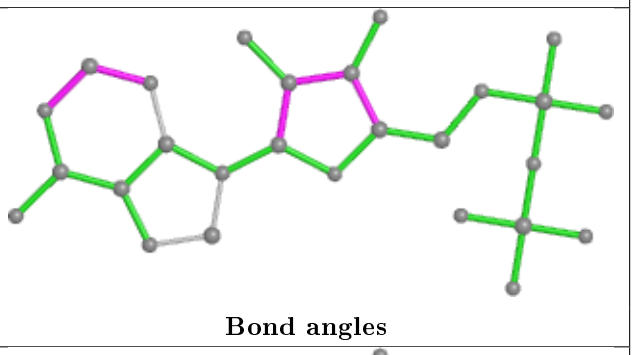


Rings

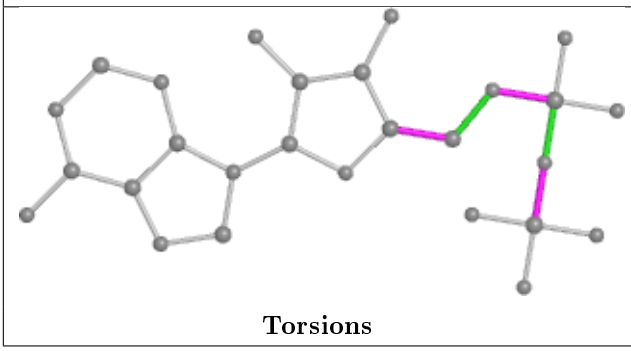
Ligand ADP B 807



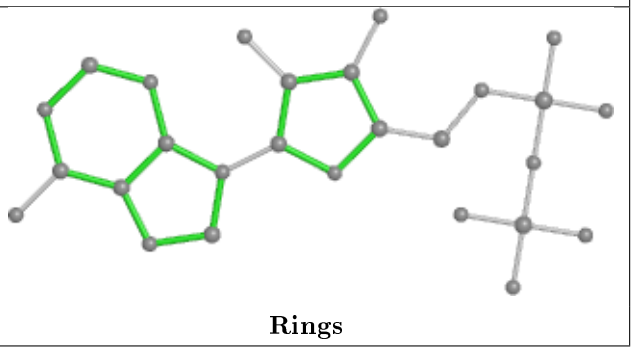
Bond lengths



Bond angles

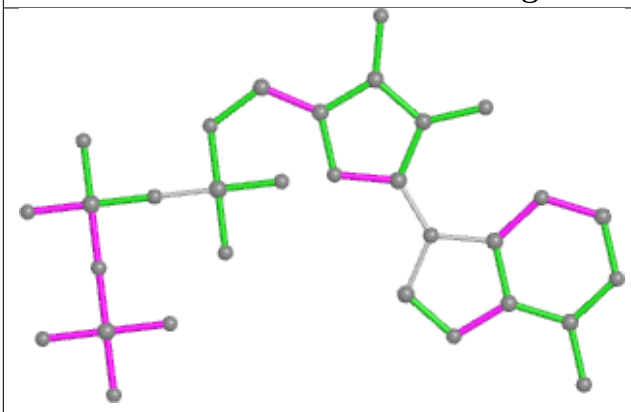


Torsions

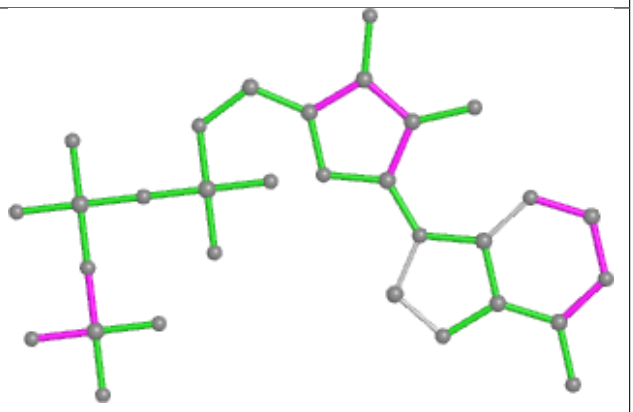


Rings

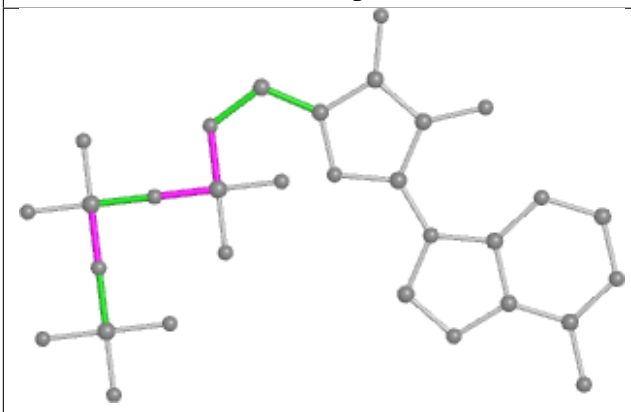
Ligand ANP A 901



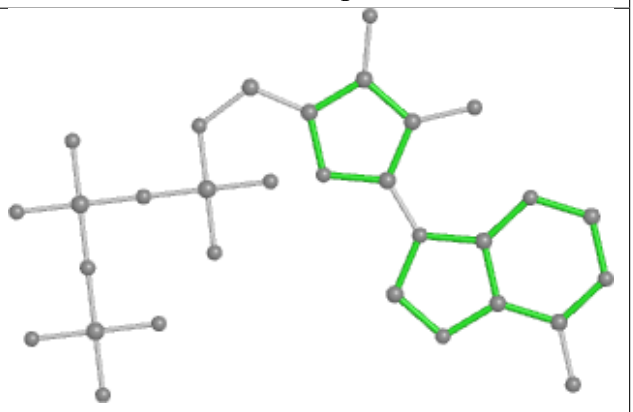
Bond lengths



Bond angles

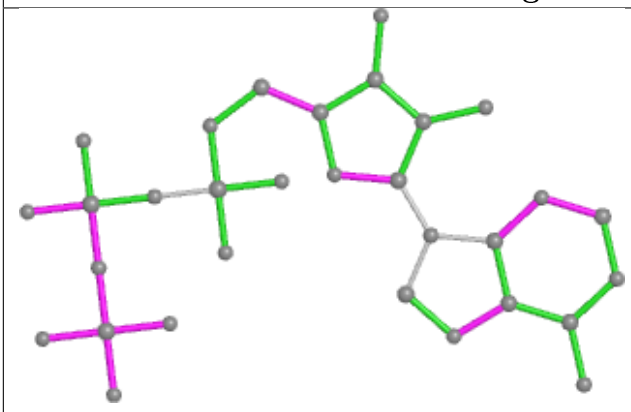


Torsions

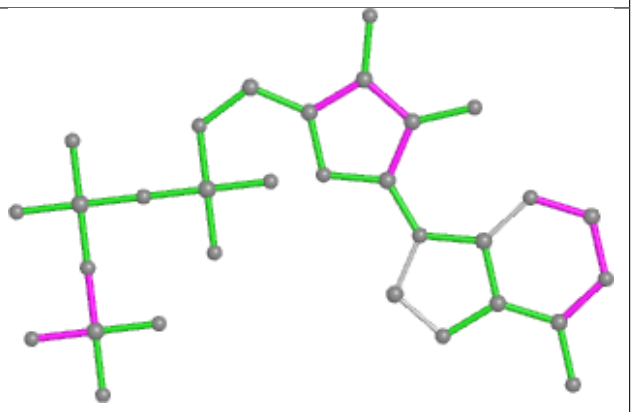


Rings

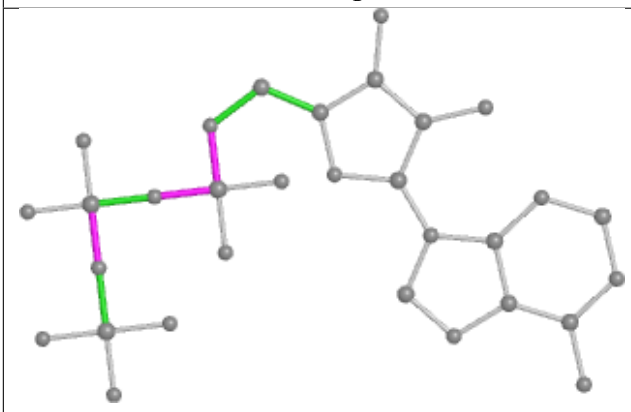
Ligand ANP C 901



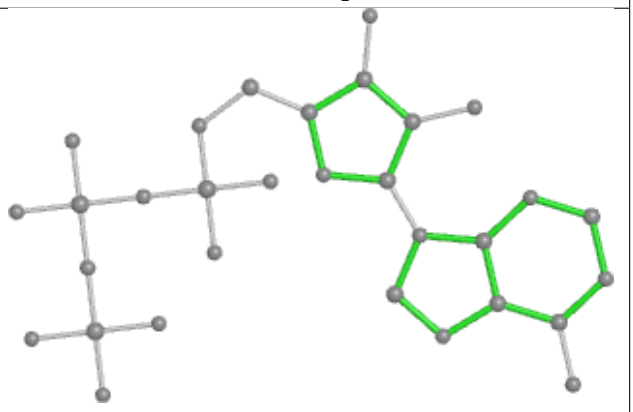
Bond lengths



Bond angles

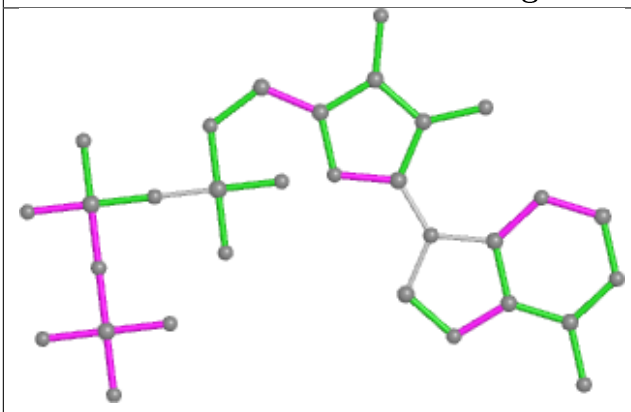


Torsions

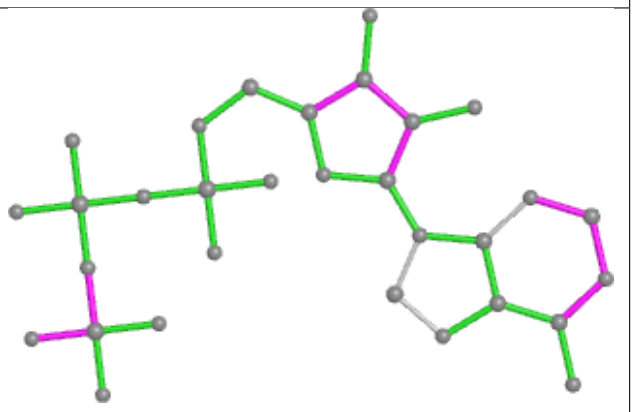


Rings

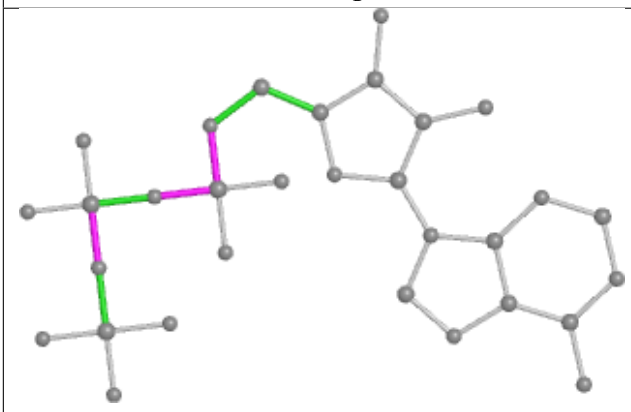
Ligand ANP D 901



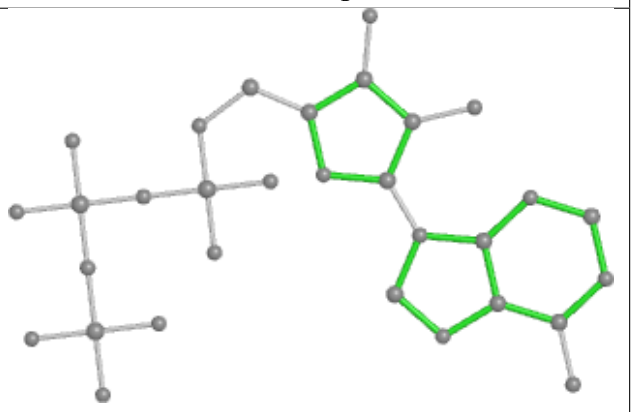
Bond lengths



Bond angles

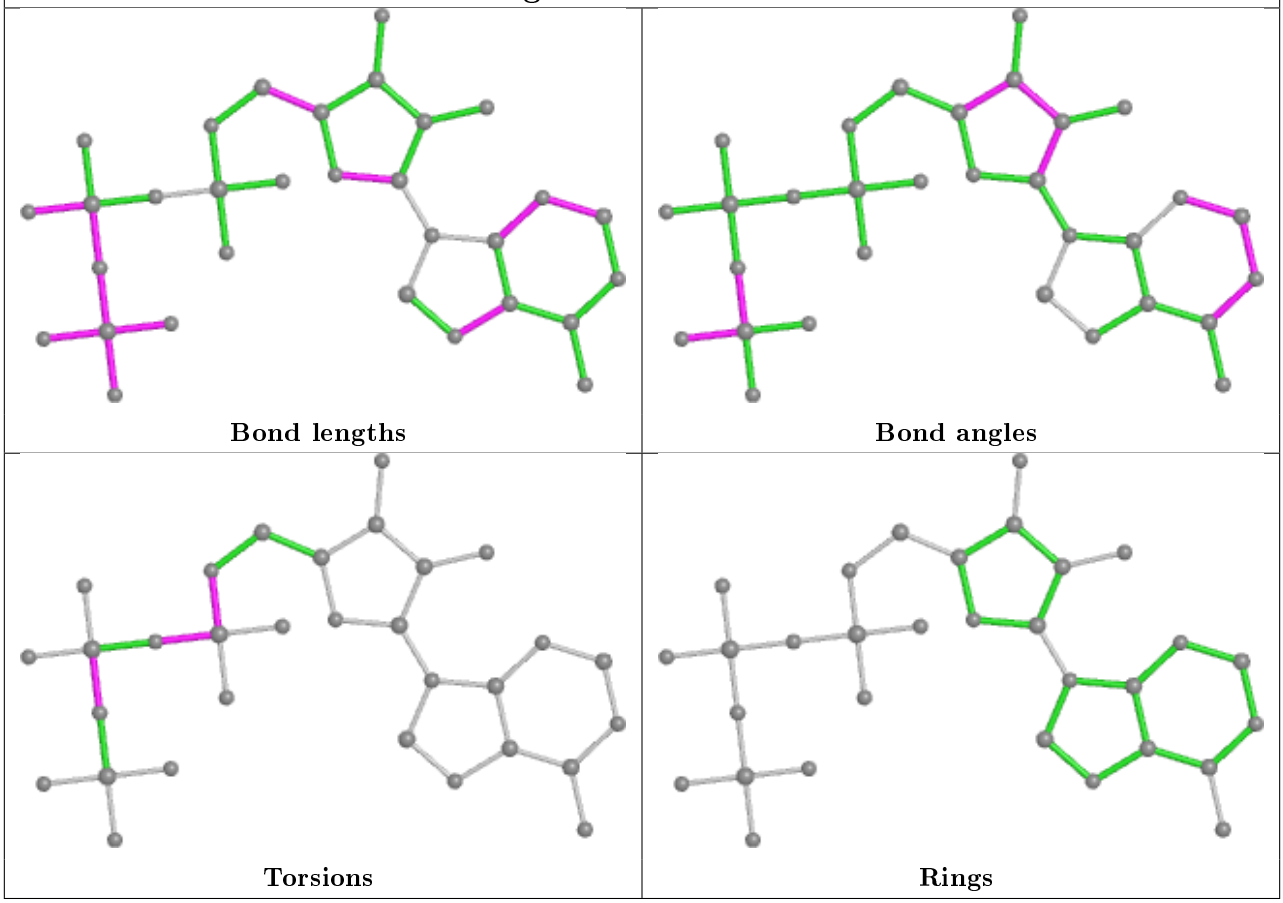


Torsions

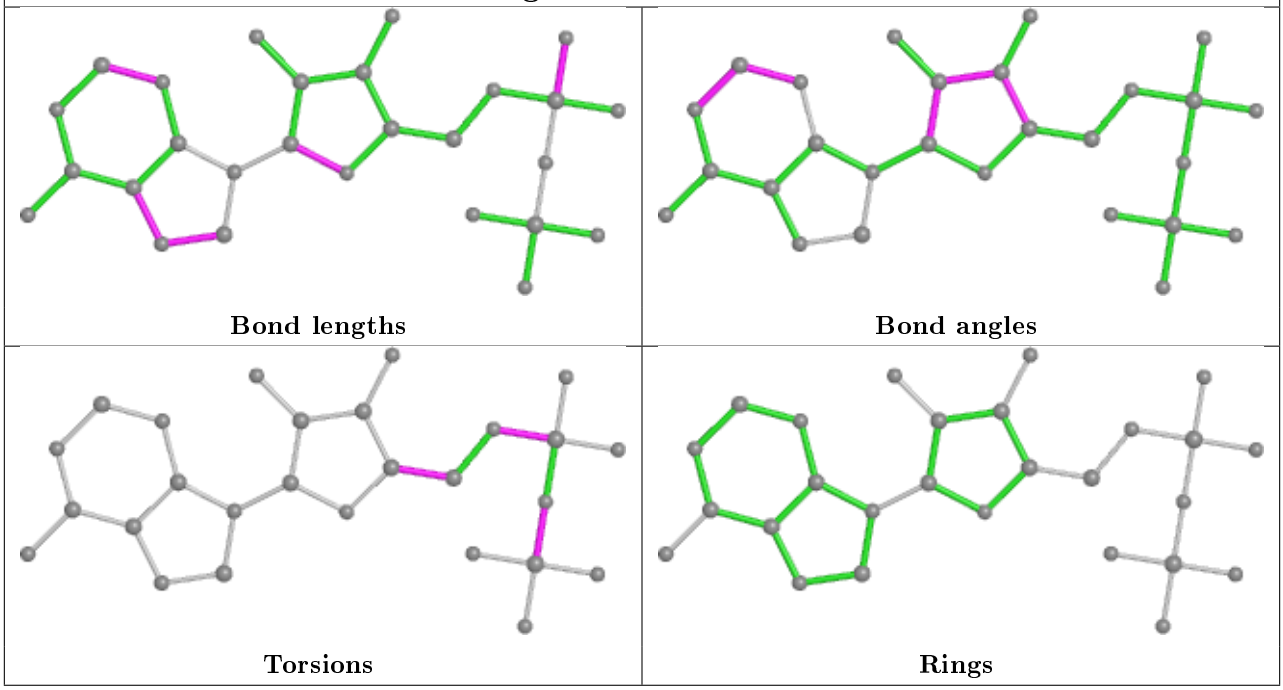


Rings

Ligand ANP B 901



Ligand ADP D 807



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	B	2
1	A	2
1	D	2
1	C	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	438:ASP	C	439:ALA	N	1.17
1	B	438:ASP	C	439:ALA	N	1.17
1	C	438:ASP	C	439:ALA	N	1.17
1	D	438:ASP	C	439:ALA	N	1.17
1	A	425:LYS	C	426:LYS	N	1.06
1	B	425:LYS	C	426:LYS	N	1.06
1	C	425:LYS	C	426:LYS	N	1.06
1	D	425:LYS	C	426:LYS	N	1.06

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	A	659/806 (81%)	0.06	28 (4%)	36	32	17, 128, 281, 412	0
1	B	659/806 (81%)	0.10	27 (4%)	37	33	17, 128, 281, 412	0
1	C	659/806 (81%)	0.04	25 (3%)	40	36	17, 128, 281, 412	0
1	D	659/806 (81%)	0.06	33 (5%)	28	25	17, 128, 281, 412	0
All	All	2636/3224 (81%)	0.06	113 (4%)	35	31	17, 128, 281, 412	0

All (113) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	660	ASN	7.8
1	B	498	GLU	6.2
1	A	498	GLU	6.0
1	D	618	PHE	5.8
1	B	478	ASP	5.6
1	D	478	ASP	5.2
1	B	659	ALA	5.2
1	C	610	GLY	5.1
1	A	478	ASP	5.1
1	C	478	ASP	5.0
1	B	497	VAL	5.0
1	D	610	GLY	4.8
1	B	729	PRO	4.7
1	A	497	VAL	4.6
1	D	659	ALA	4.5
1	D	473	GLN	4.5
1	C	501	ASP	4.4
1	B	467	THR	4.2
1	A	659	ALA	4.2
1	A	729	PRO	4.2
1	D	505	LYS	4.1

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Mol	Chain	Res	Type	RSRZ
1	D	660	ASN	4.1
1	B	517	TYR	3.9
1	B	618	PHE	3.8
1	D	467	THR	3.8
1	B	501	ASP	3.7
1	C	660	ASN	3.7
1	D	656	ILE	3.6
1	A	618	PHE	3.6
1	B	499	HIS	3.5
1	D	637	GLY	3.4
1	C	499	HIS	3.4
1	C	505	LYS	3.4
1	C	467	THR	3.4
1	A	499	HIS	3.4
1	C	659	ALA	3.3
1	C	540	ILE	3.3
1	A	432	LEU	3.2
1	C	498	GLU	3.2
1	A	660	ASN	3.2
1	C	618	PHE	3.2
1	A	514	VAL	3.2
1	C	517	TYR	3.0
1	B	597	ALA	3.0
1	A	517	TYR	3.0
1	B	500	PRO	2.9
1	C	473	GLN	2.9
1	B	514	VAL	2.9
1	C	689	GLU	2.9
1	A	740	MET	2.9
1	B	536	GLN	2.9
1	A	597	ALA	2.8
1	B	512	LYS	2.8
1	A	473	GLN	2.7
1	C	667	ALA	2.7
1	D	477	GLU	2.7
1	D	729	PRO	2.7
1	D	517	TYR	2.7
1	B	625	ARG	2.7
1	D	597	ALA	2.7
1	A	467	THR	2.7
1	A	637	GLY	2.7
1	D	540	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
1	D	689	GLU	2.7
1	D	628	ILE	2.6
1	A	536	GLN	2.6
1	B	664	SER	2.6
1	B	704	GLU	2.6
1	C	477	GLU	2.6
1	C	740	MET	2.6
1	C	704	GLU	2.6
1	C	459	SER	2.5
1	B	279	ALA	2.5
1	A	627	ASP	2.5
1	C	656	ILE	2.5
1	B	740	MET	2.5
1	B	502	LYS	2.5
1	D	497	VAL	2.5
1	A	512	LYS	2.5
1	D	504	LEU	2.4
1	D	704	GLU	2.4
1	C	504	LEU	2.4
1	C	597	ALA	2.4
1	A	651	LYS	2.4
1	A	565	LYS	2.4
1	B	432	LEU	2.4
1	A	638	ARG	2.4
1	B	474	VAL	2.4
1	C	539	PHE	2.4
1	A	501	ASP	2.3
1	B	473	GLN	2.3
1	D	509	THR	2.3
1	A	625	ARG	2.3
1	A	656	ILE	2.3
1	C	432	LEU	2.3
1	D	576	PHE	2.3
1	D	432	LEU	2.3
1	B	565	LYS	2.3
1	D	539	PHE	2.3
1	A	474	VAL	2.2
1	A	500	PRO	2.2
1	A	641	GLN	2.2
1	D	512	LYS	2.2
1	D	696	LYS	2.1
1	C	637	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
1	D	638	ARG	2.1
1	D	319	GLU	2.1
1	D	440	GLU	2.1
1	D	627	ASP	2.1
1	B	528	ALA	2.1
1	D	644	TYR	2.1
1	D	498	GLU	2.0
1	D	651	LYS	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (i)

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

6.3 Carbohydrates (i)

There are no carbohydrates in this entry.

6.4 Ligands (i)

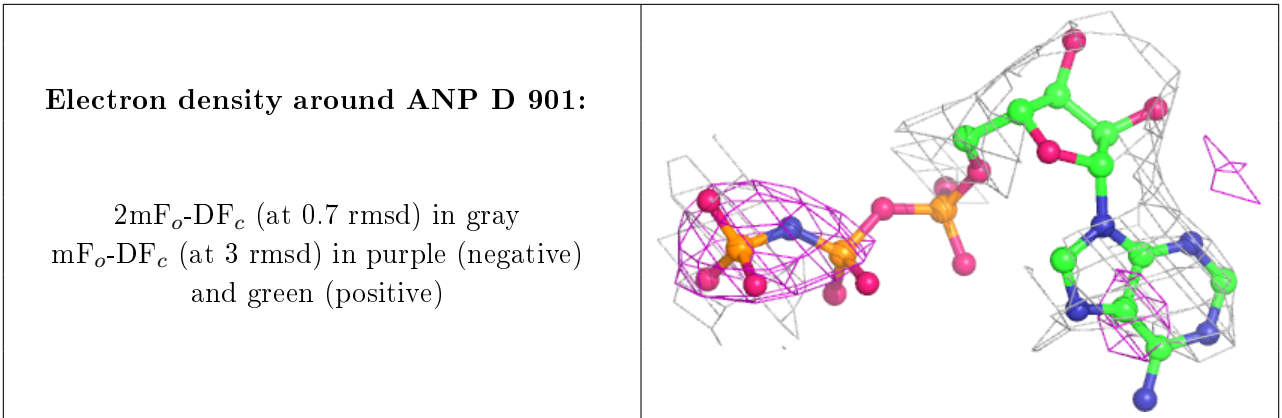
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

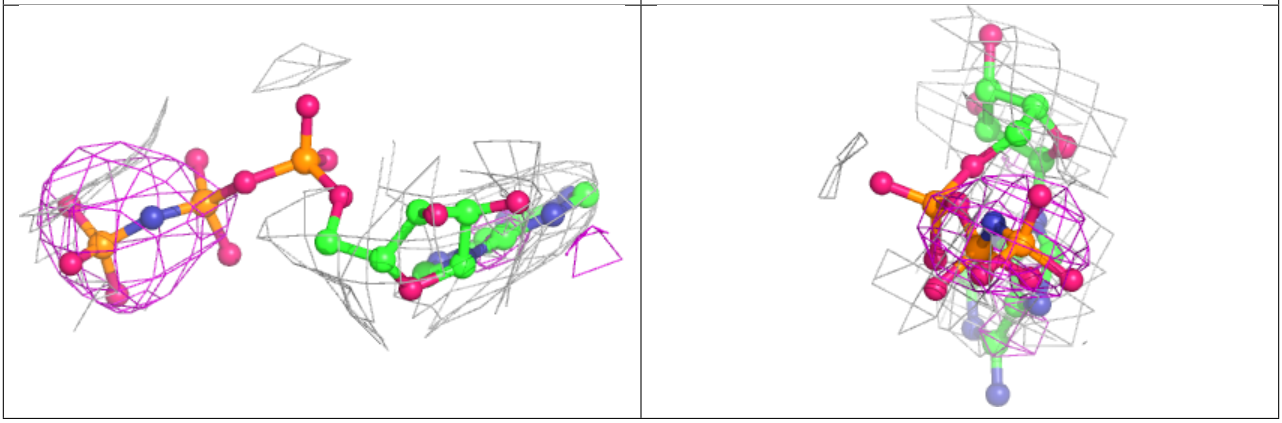
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	ANP	D	901	31/31	0.80	0.20	150,150,150,150	0
3	ANP	C	901	31/31	0.84	0.20	150,150,150,150	0
3	ANP	B	901	31/31	0.86	0.19	150,150,150,150	0
3	ANP	A	901	31/31	0.89	0.22	150,150,150,150	0
2	ADP	D	807	27/27	0.90	0.31	163,163,163,163	0
2	ADP	B	807	27/27	0.91	0.33	163,163,163,163	0
2	ADP	A	807	27/27	0.91	0.34	163,163,163,163	0
2	ADP	C	807	27/27	0.91	0.32	163,163,163,163	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around ANP D 901:

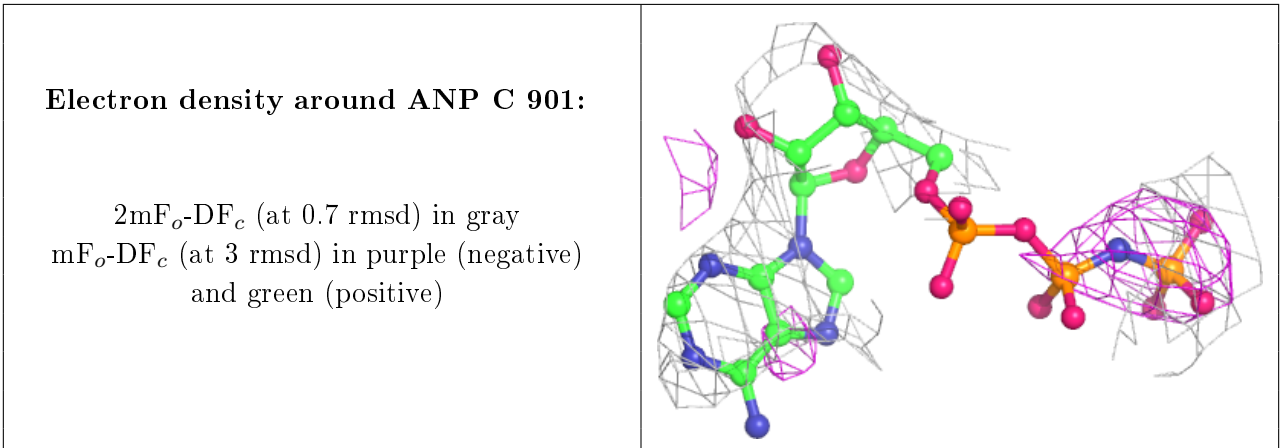
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

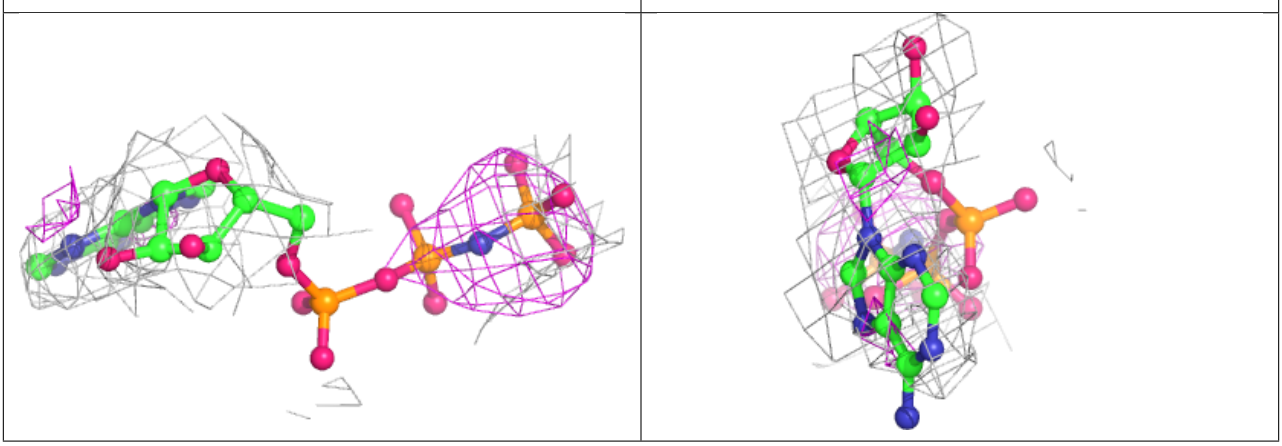




Electron density around ANP C 901:

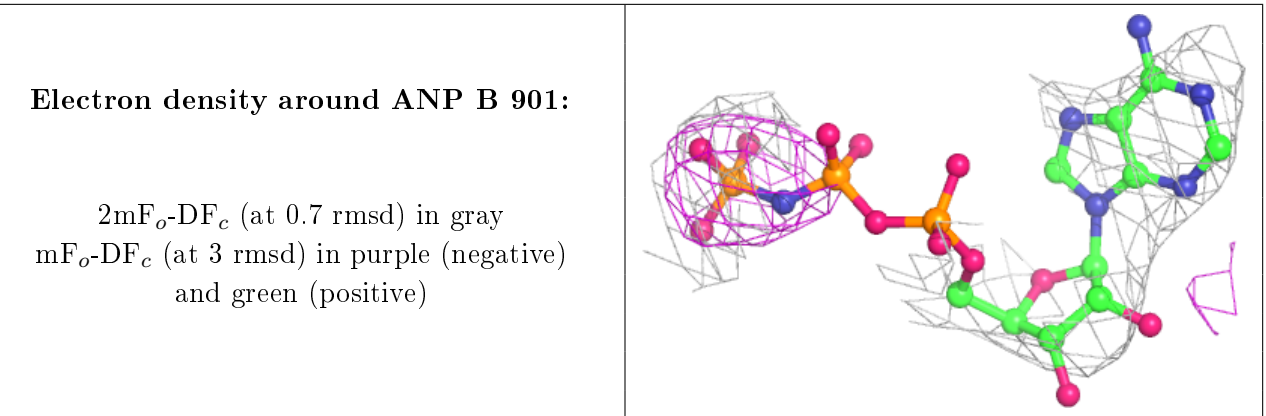
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

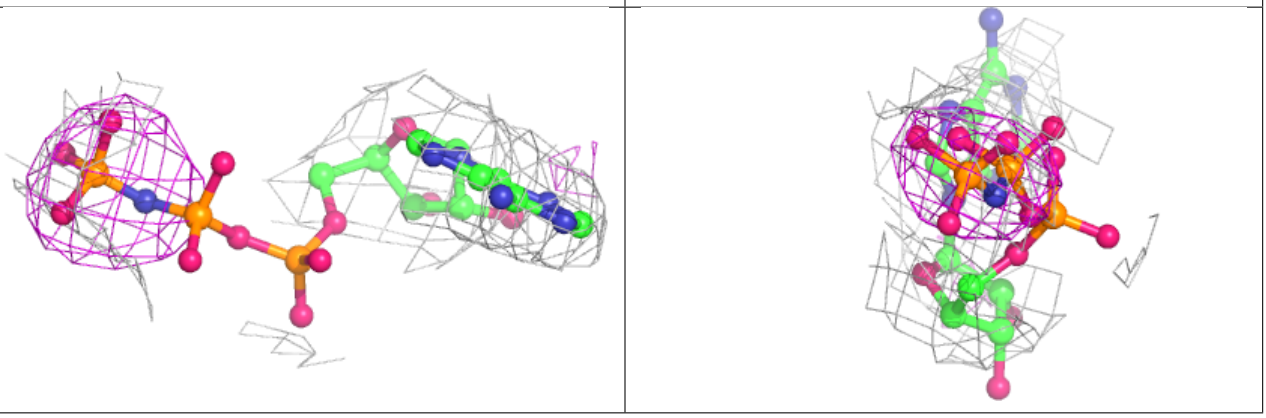




Electron density around ANP B 901:

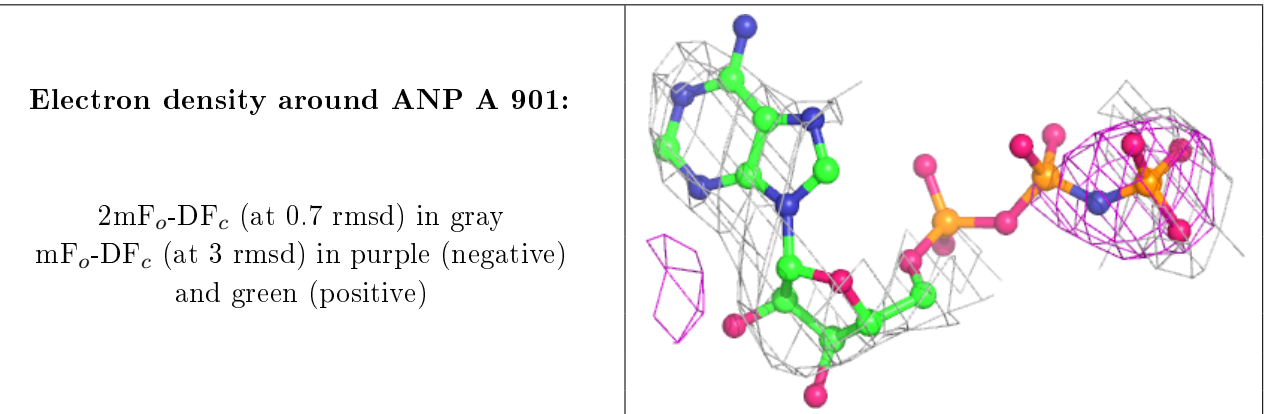
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

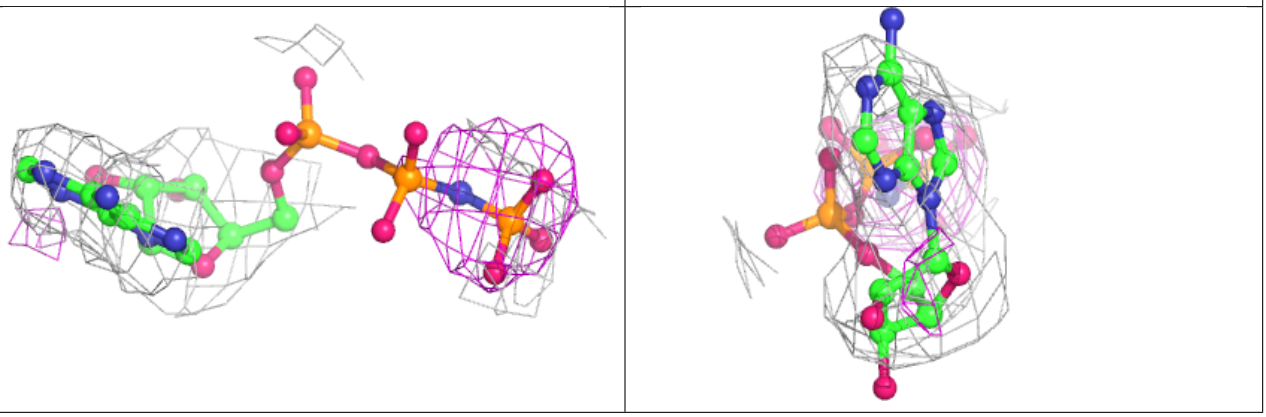




Electron density around ANP A 901:

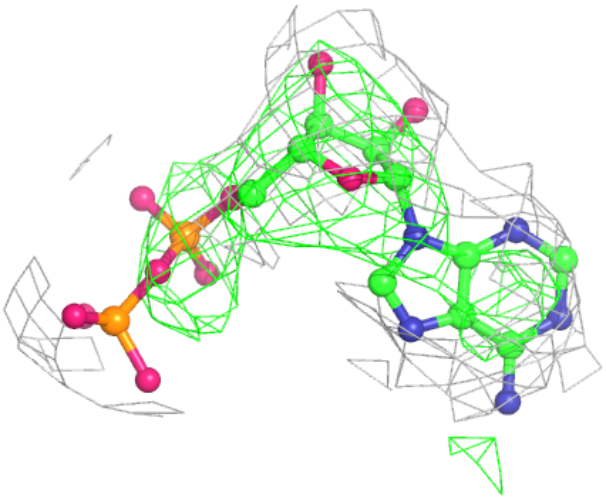
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

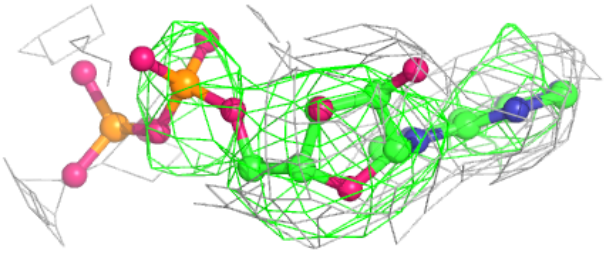


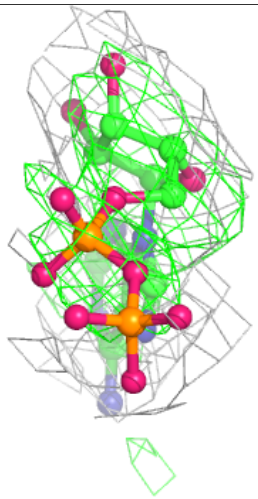


Electron density around ADP D 807:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

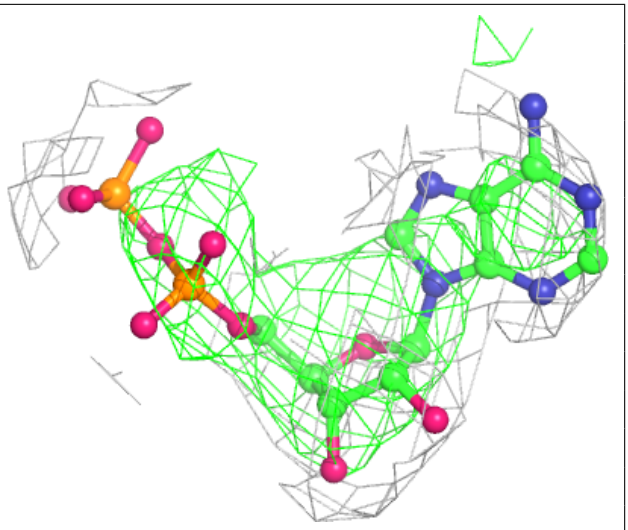


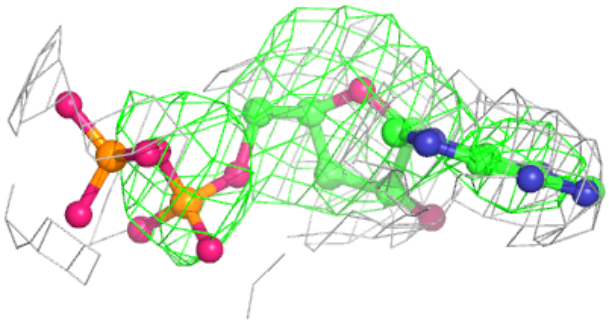


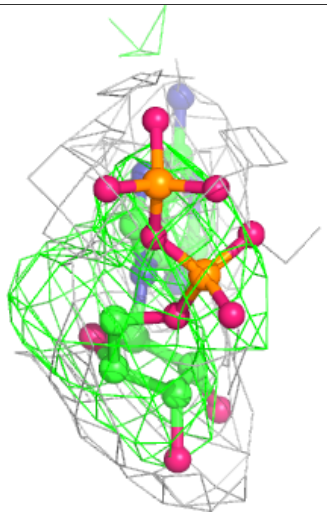


Electron density around ADP B 807:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

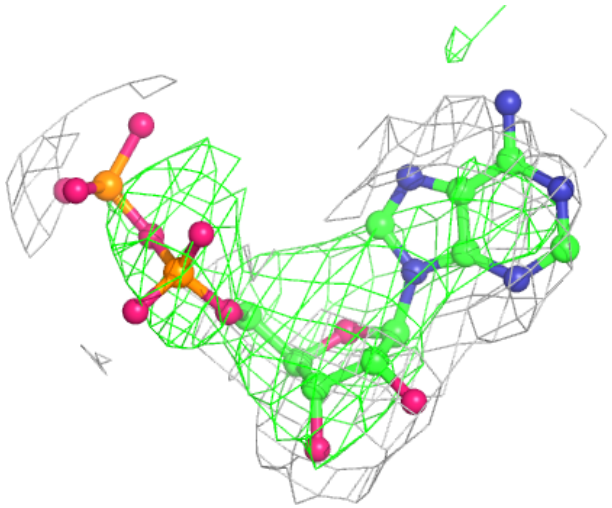


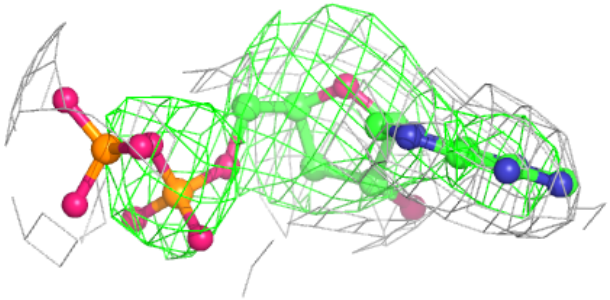


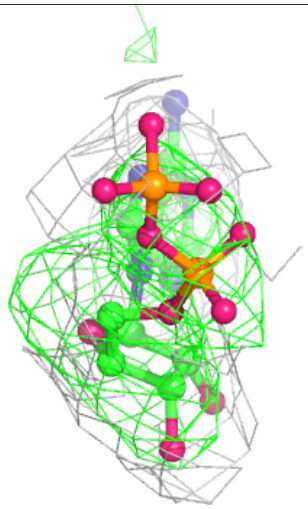


Electron density around ADP A 807:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

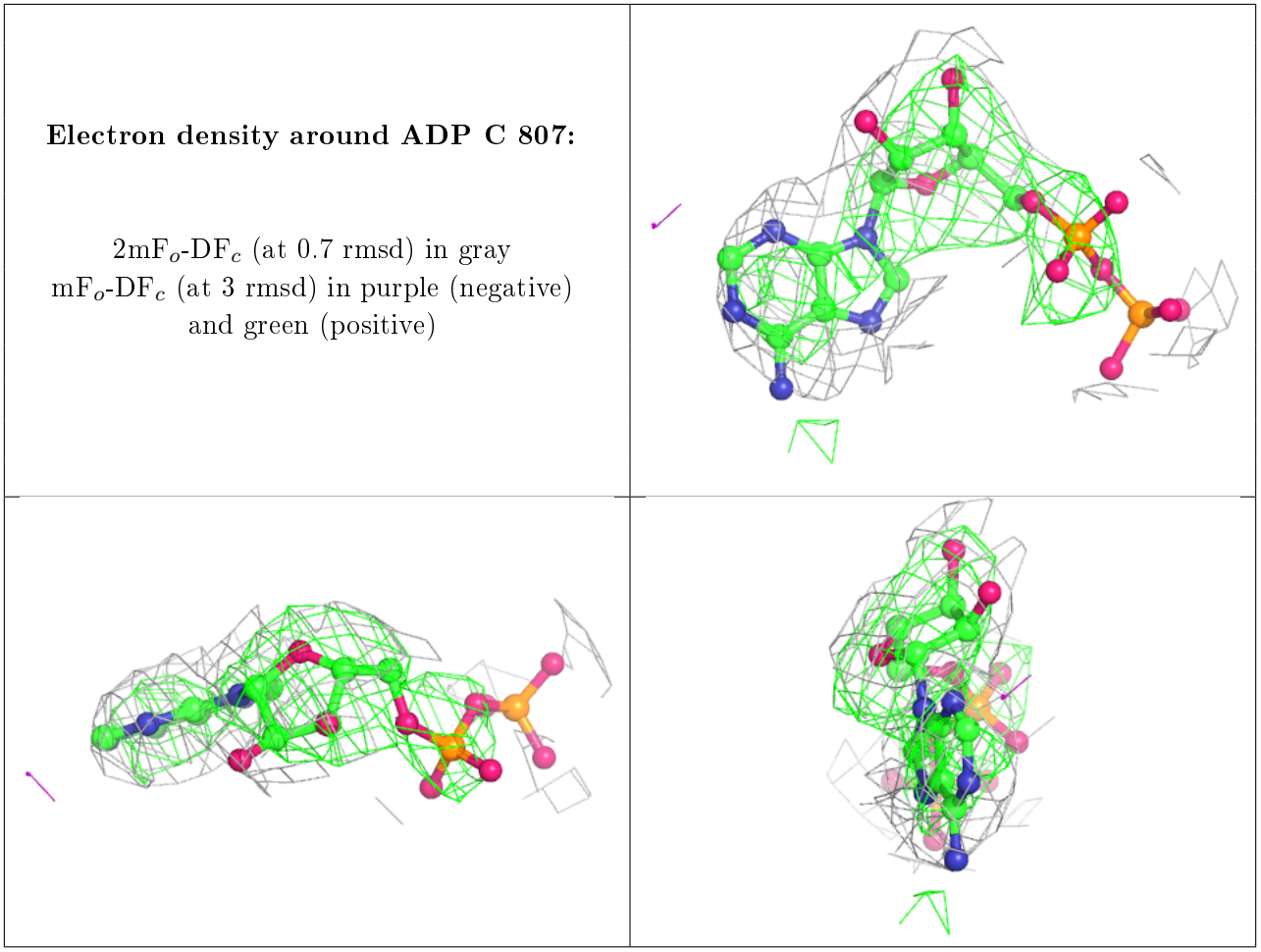






Electron density around ADP C 807:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



6.5 Other polymers (i)

There are no such residues in this entry.