Full wwPDB X-ray Structure Validation Report (i)

Dec 10, 2023 – 07:04 am GMT

PDB ID	:	2JA7
Title	:	CPD lesion containing RNA Polymerase II elongation complex C
Authors	:	Brueckner, F.; Hennecke, U.; Carell, T.; Cramer, P.
Deposited on	:	2006-11-23
Resolution	:	3.80 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 (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references (1)) were used in the production of this report:

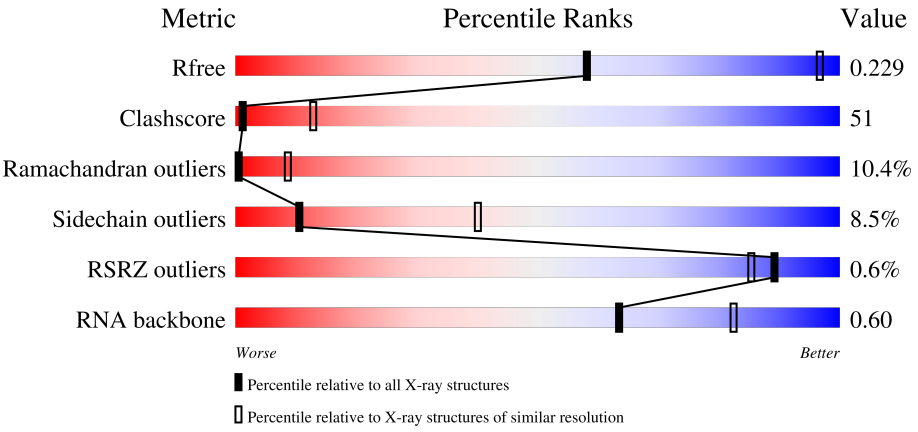
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

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 3.80 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	1212 (4.00-3.60)
Clashscore	141614	1288 (4.00-3.60)
Ramachandran outliers	138981	1243 (4.00-3.60)
Sidechain outliers	138945	1237 (4.00-3.60)
RSRZ outliers	127900	1121 (4.00-3.60)
RNA backbone	3102	1036 (4.60-3.00)

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 of 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	1	14	29% 21% 50%
1	4	14	29% 21% 50%
2	2	25	. 44% 24% 28%
2	5	25	8% 40% 24% 28%

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Mol	Chain	Length	Quality of chain
3	3	11	64% 18% 9% 9%
3	6	11	9% 55% 18% 9% 9%
4	A	1733	26% 45% 10% 18%
4	M	1733	26% 45% 10% 18%
5	B	1224	29% 51% 10% 9%
5	N	1224	28% 51% 11% 9%
6	C	318	26% 48% 9% 16%
6	O	318	28% 47% 8% 16%
7	D	221	25% 42% 12% 20%
7	P	221	30% 38% 10% 20%
8	E	215	40% 54% 5%
8	Q	215	42% 53% 5%
9	F	155	17% 33% 6% 44%
9	R	155	18% 32% 6% 44%
10	G	171	39% 55% 5%
10	S	171	40% 51% 8%
11	H	146	32% 49% 12% 8%
11	T	146	30% 51% 11% 8%
12	I	122	34% 44% 14% 5%
12	U	122	31% 48% 13% 5%
13	J	70	21% 47% 23% 7%
13	V	70	17% 53% 21% 7%
14	K	120	32% 48% 12% 5%
14	W	120	38% 42% 12% 5%
15	L	70	17% 40% 7% 34%

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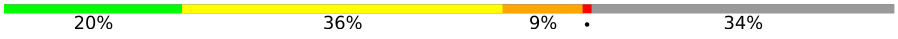
Mol	Chain	Length	Quality of chain
15	X	70	

2 Entry composition (i)

There are 17 unique types of molecules in this entry. The entry contains 63924 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 DNA chain called 5'-D(*TP*AP*AP*GP*TP*AP*CP*TP*TP*GP *AP*GP*CP*T)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1	7	Total	C	N	O	P	0	0	0
			141	69	27	39	6			
1	4	7	Total	C	N	O	P	0	0	0
			141	69	27	39	6			

- Molecule 2 is a DNA chain called 5'-D(*AP*GP*CP*TP*CP*AP*AP*GP*TP*AP *CP*TP*TP*TP*TTP*CP*CP*BRUP*GP*GP*TP*CP*AP*TP*T)-3'.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
2	2	18	Total	Br	C	N	O	P	0	0	0
			380	1	186	60	116	17			
2	5	18	Total	Br	C	N	O	P	0	0	0
			380	1	186	60	116	17			

- Molecule 3 is a RNA chain called 5'-R(*UP*UP*CP*GP*AP*CP*CP*AP*GP*GP*AP)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	3	10	Total	C	N	O	P	0	0	0
			212	96	41	66	9			
3	6	10	Total	C	N	O	P	0	0	0
			212	96	41	66	9			

- Molecule 4 is a protein called DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	A	1421	Total	C	N	O	S	0	0	0
			11186	7048	1958	2118	62			
4	M	1421	Total	C	N	O	S	0	0	0
			11186	7048	1958	2118	62			

- Molecule 5 is a protein called DNA-DIRECTED RNA POLYMERASE II 140 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	B	1115	Total	C	N	O	S	0	0	0
			8866	5614	1553	1644	55			
5	N	1115	Total	C	N	O	S	0	0	0
			8866	5614	1553	1644	55			

- Molecule 6 is a protein called DNA-DIRECTED RNA POLYMERASE II 45KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	C	267	Total	C	N	O	S	0	0	0
			2101	1320	349	419	13			
6	O	267	Total	C	N	O	S	0	0	0
			2101	1320	349	419	13			

- Molecule 7 is a protein called DNA-DIRECTED RNA POLYMERASE II 32KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	D	177	Total	C	N	O	S	0	0	0
			1427	882	256	287	2			
7	P	177	Total	C	N	O	S	0	0	0
			1427	882	256	287	2			

- Molecule 8 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 27 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	E	214	Total	C	N	O	S	0	0	0
			1752	1111	309	321	11			
8	Q	214	Total	C	N	O	S	0	0	0
			1752	1111	309	321	11			

- Molecule 9 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 23 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	F	87	Total	C	N	O	S	0	0	0
			705	451	119	132	3			
9	R	87	Total	C	N	O	S	0	0	0
			705	451	119	132	3			

- Molecule 10 is a protein called DNA-DIRECTED RNA POLYMERASE II 19KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	G	171	Total	C	N	O	S	0	0	0
			1340	861	222	249	8			
10	S	171	Total	C	N	O	S	0	0	0
			1340	861	222	249	8			

- Molecule 11 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 14.5 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	H	135	Total	C	N	O	S	0	0	0
			1084	683	183	214	4			
11	T	135	Total	C	N	O	S	0	0	0
			1084	683	183	214	4			

- Molecule 12 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT 9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	I	116	Total	C	N	O	S	0	0	0
			944	581	172	181	10			
12	U	116	Total	C	N	O	S	0	0	0
			944	581	172	181	10			

- Molecule 13 is a protein called DNA-DIRECTED RNA POLYMERASES I/II/III SUBUNIT 10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	J	65	Total	C	N	O	S	0	0	0
			532	339	93	94	6			
13	V	65	Total	C	N	O	S	0	0	0
			532	339	93	94	6			

- Molecule 14 is a protein called DNA-DIRECTED RNA POLYMERASE II 13.6 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	K	114	Total	C	N	O	S	0	0	0
			919	590	156	171	2			
14	W	114	Total	C	N	O	S	0	0	0
			919	590	156	171	2			

- Molecule 15 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 7.7

KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	L	46	Total 364	C 224	N 72	O 64	S 4	0	0	0
15	X	46	Total 364	C 224	N 72	O 64	S 4	0	0	0

- Molecule 16 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
16	A	1	Total 1	Mg 1	0	0
16	M	1	Total 1	Mg 1	0	0

- Molecule 17 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
17	A	2	Total 2	Zn 2	0	0
17	B	1	Total 1	Zn 1	0	0
17	C	1	Total 1	Zn 1	0	0
17	I	2	Total 2	Zn 2	0	0
17	J	1	Total 1	Zn 1	0	0
17	L	1	Total 1	Zn 1	0	0
17	M	2	Total 2	Zn 2	0	0
17	N	1	Total 1	Zn 1	0	0
17	O	1	Total 1	Zn 1	0	0
17	U	2	Total 2	Zn 2	0	0
17	V	1	Total 1	Zn 1	0	0
17	X	1	Total 1	Zn 1	0	0

3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide 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: 5'-D(*TP*AP*AP*GP*TP*AP*CP*TP*TP*GP *AP*GP*CP*T)-3'

Chain 1:

• Molecule 1: 5'-D(*TP*AP*AP*GP*TP*AP*CP*TP*TP*GP *AP*GP*CP*T)-3'

Chain 4:

• Molecule 2: 5'-D(*AP*GP*CP*TP*CP*AP*AP*GP*TP*AP *CP*TP*TP*TP*TTP*CP*CP* BRUP*GP*GP*TP*CP*AP*TP*T)-3'

Chain 2:

• Molecule 2: 5'-D(*AP*GP*CP*TP*CP*AP*AP*GP*TP*AP *CP*TP*TP*TP*TTP*CP*CP* BRUP*GP*GP*TP*CP*AP*TP*T)-3'

Chain 5:

• Molecule 3: 5'-R(*UP*UP*CP*GP*AP*CP*CP*AP*GP*GP*AP)-3'

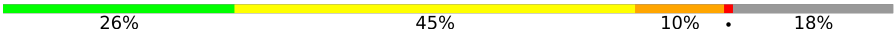
Chain 3:

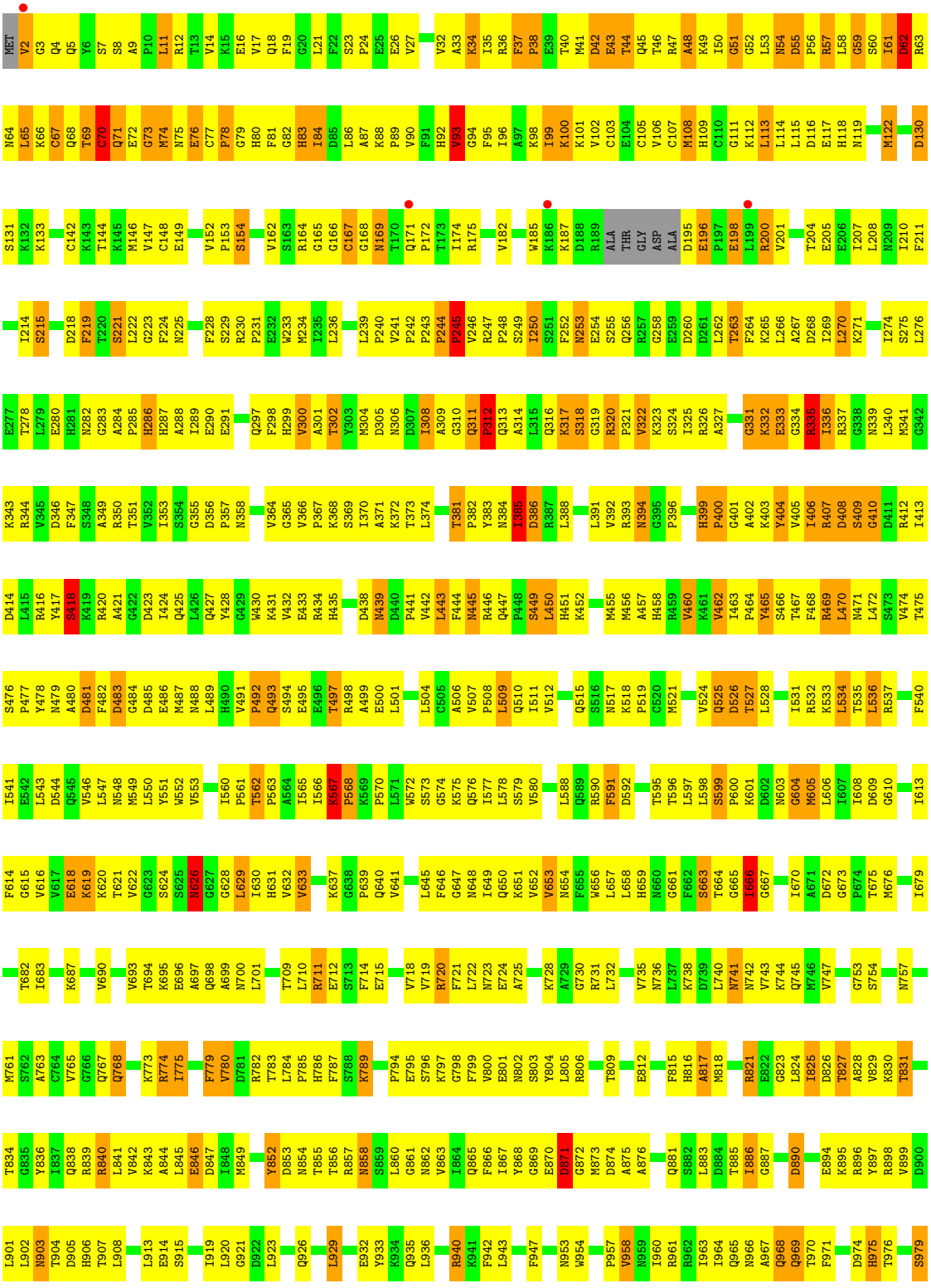
• Molecule 3: 5'-R(*UP*UP*CP*GP*AP*CP*CP*AP*GP*GP*AP)-3'

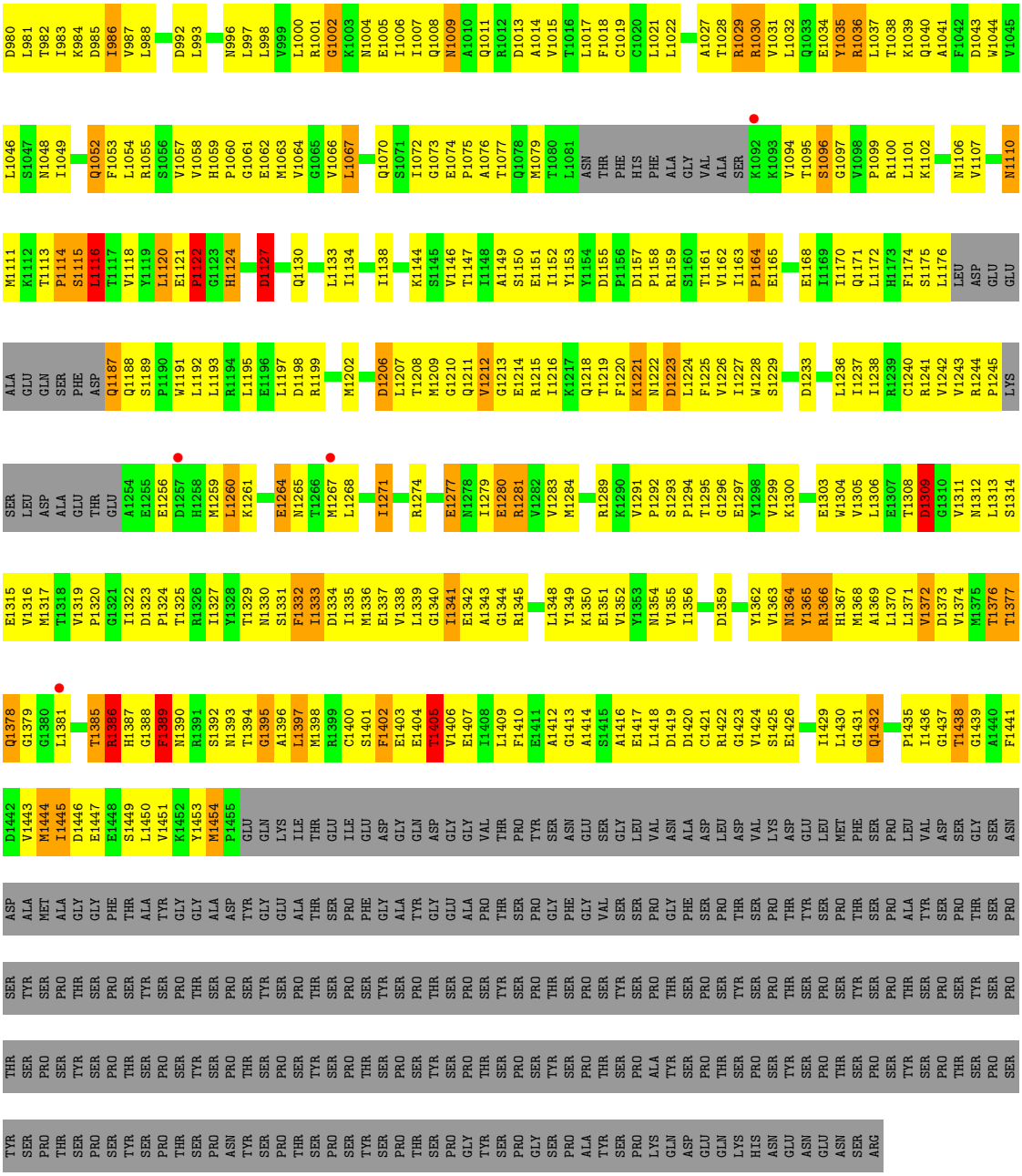
Chain 6:

• Molecule 4: DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT

Chain A:

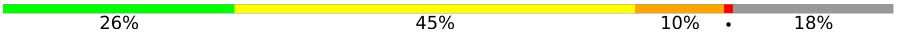


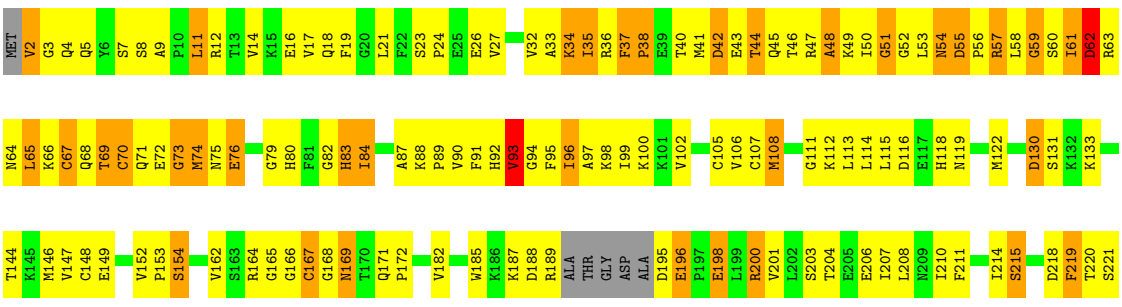


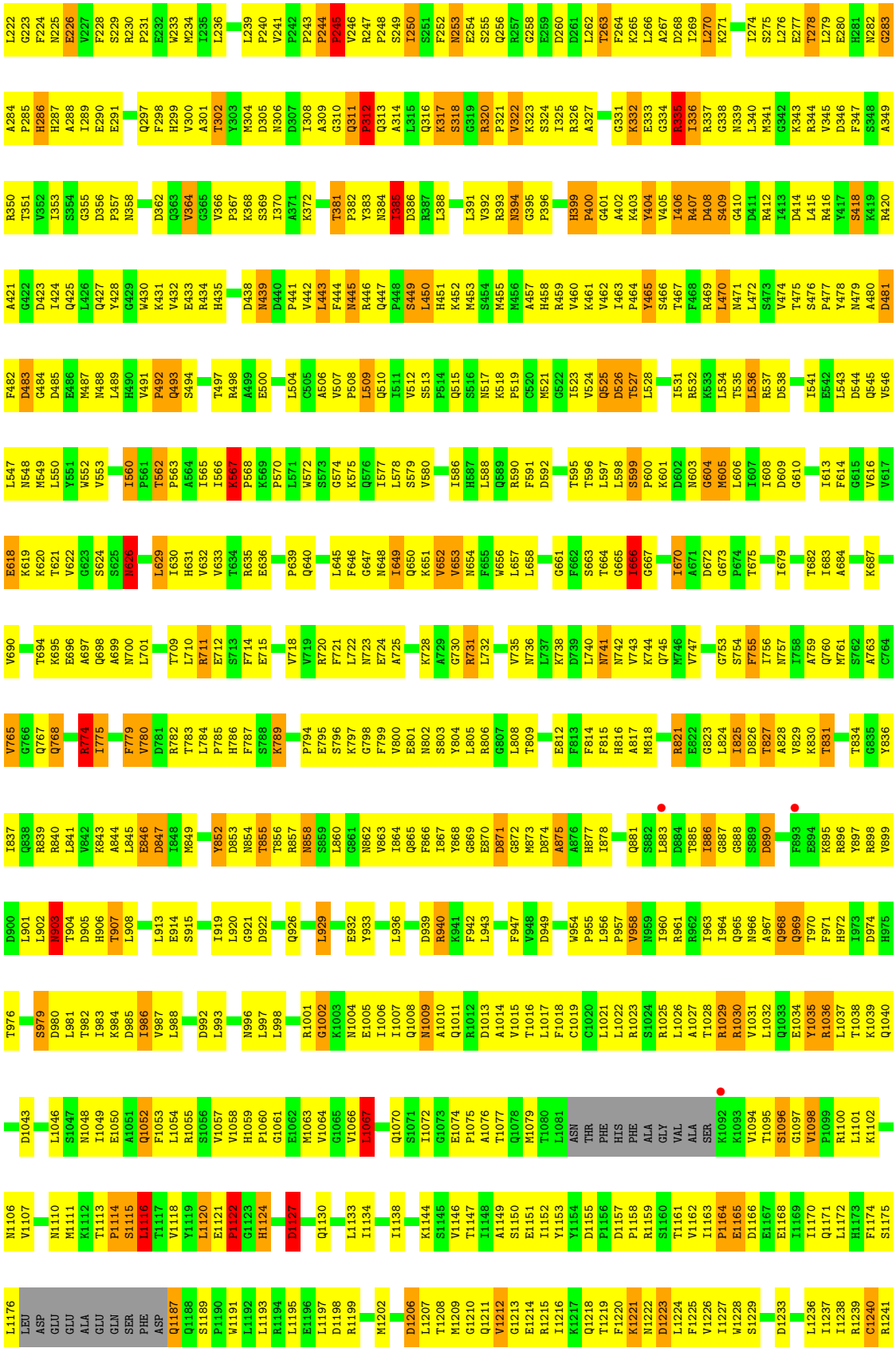


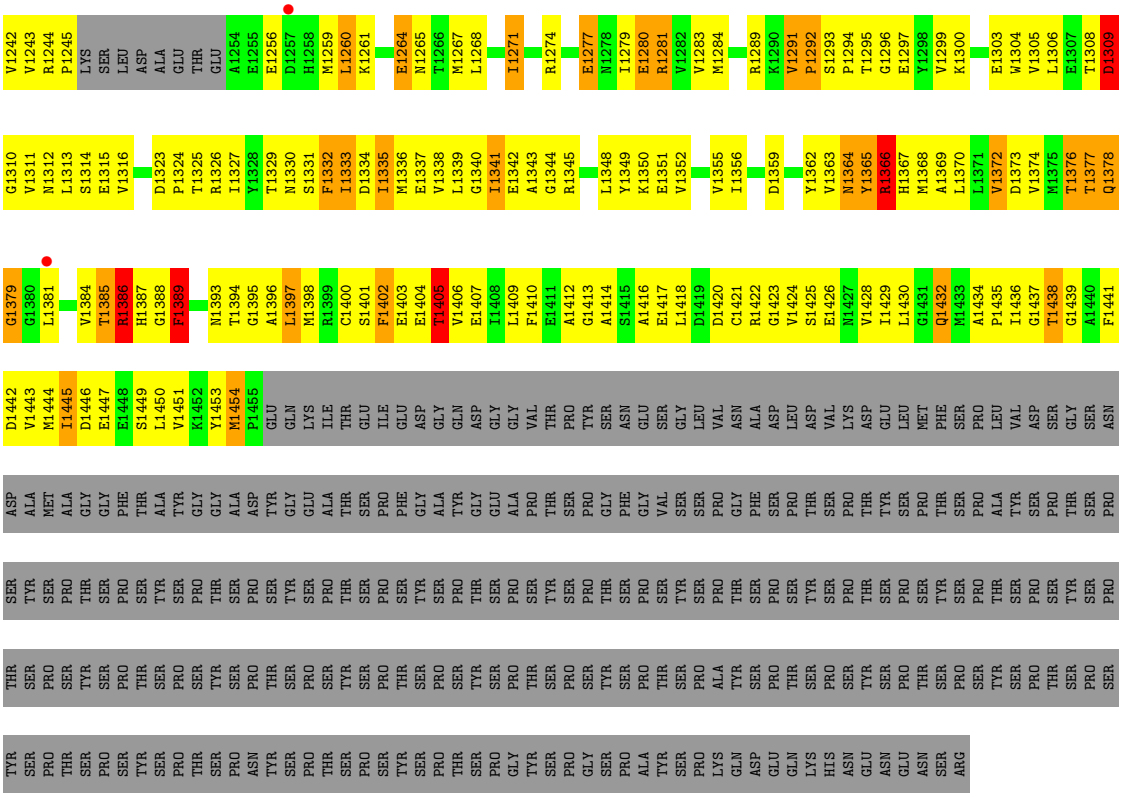
• Molecule 4: DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT

Chain M:



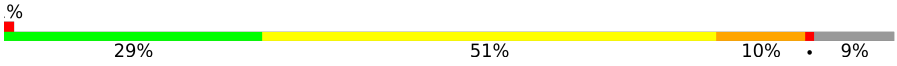


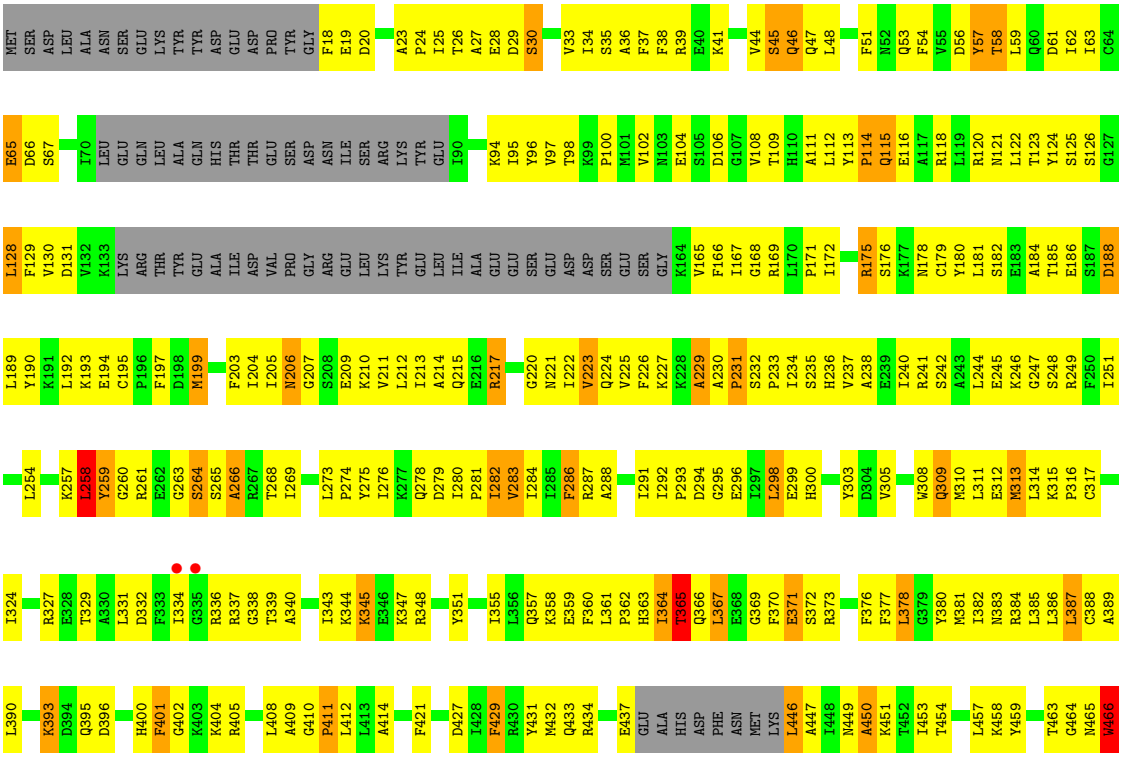


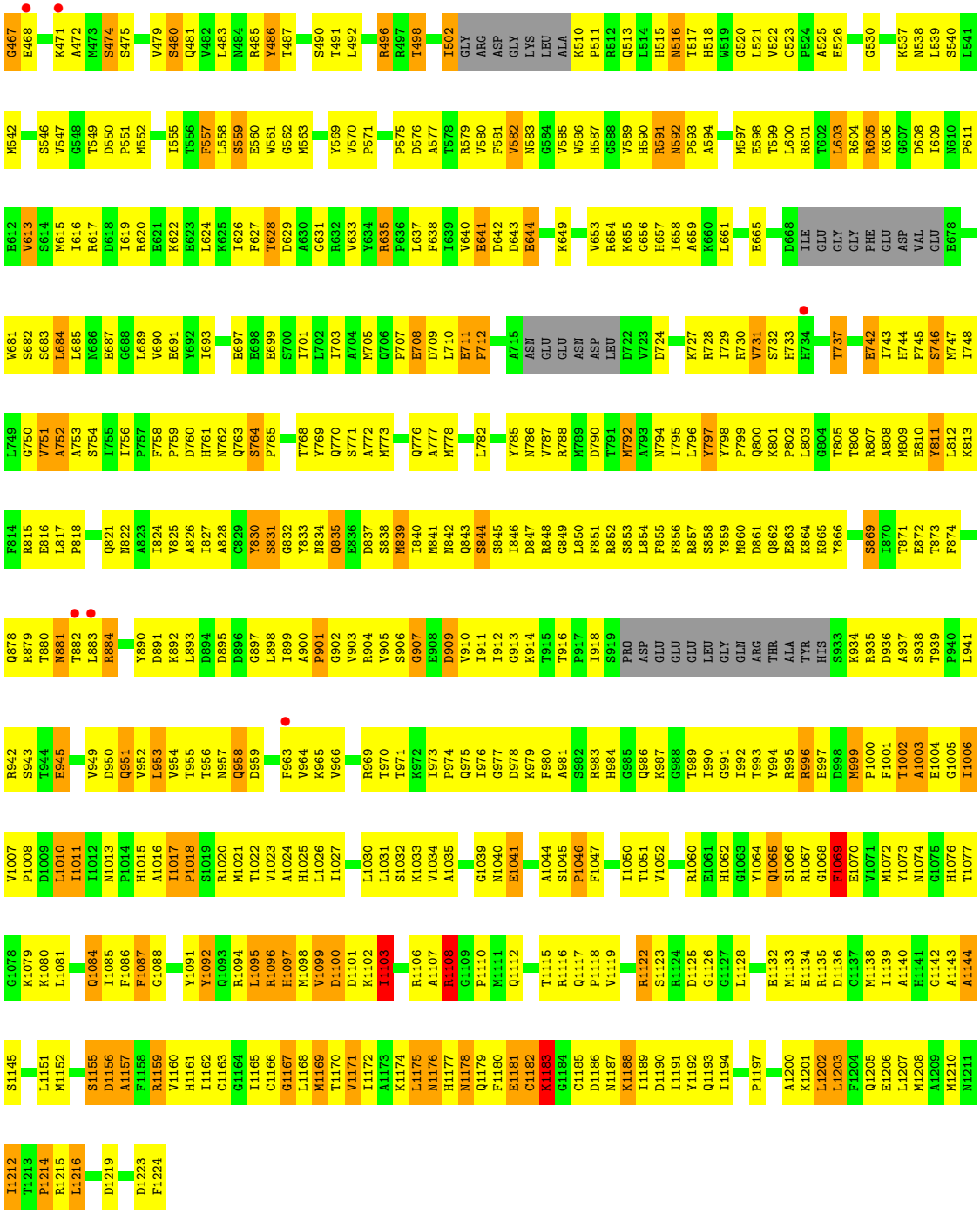


• Molecule 5: DNA-DIRECTED RNA POLYMERASE II 140 KDA POLYPEPTIDE

Chain B:

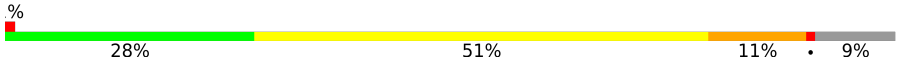


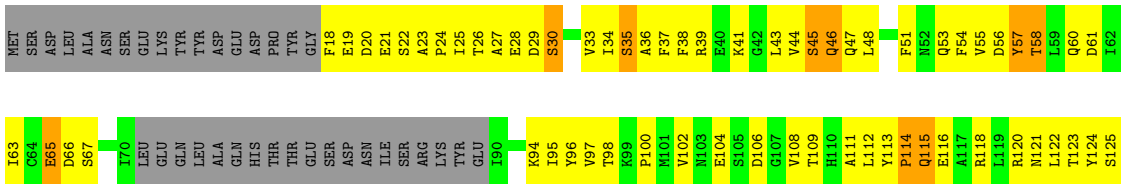


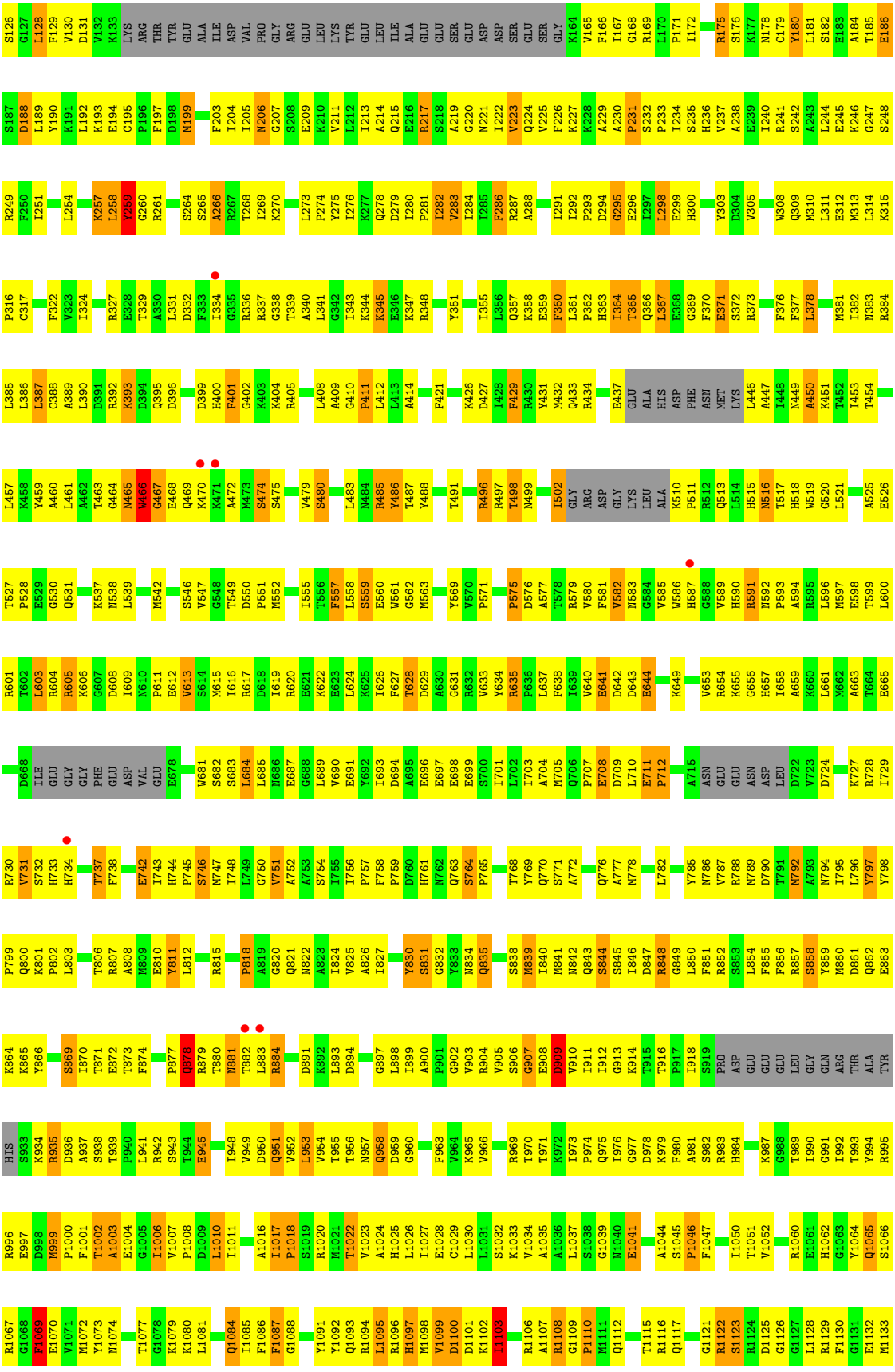


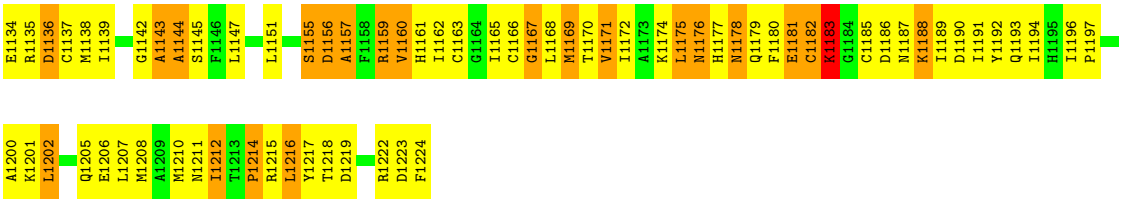
• Molecule 5: DNA-DIRECTED RNA POLYMERASE II 140 KDA POLYPEPTIDE

Chain N:



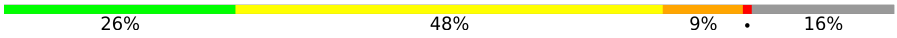


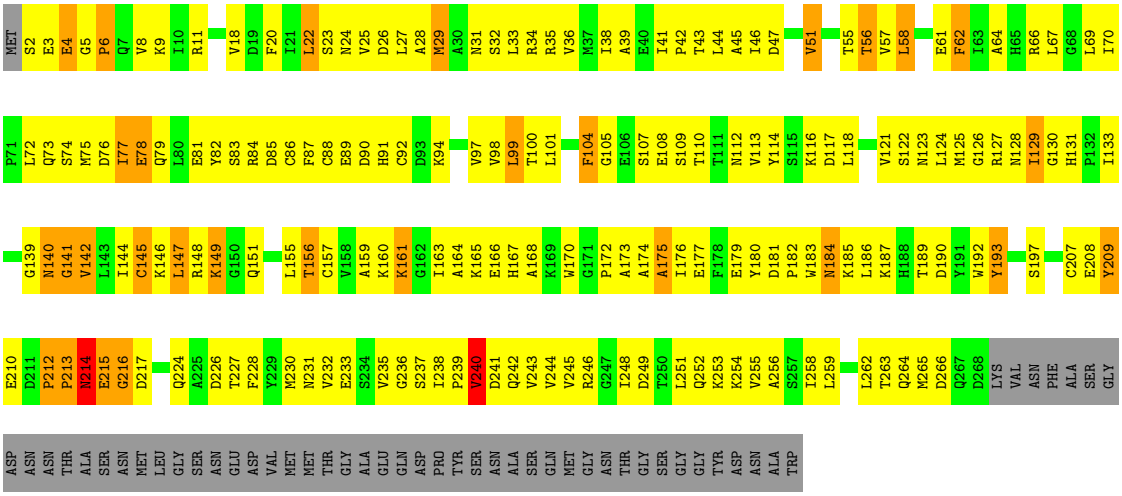




• Molecule 6: DNA-DIRECTED RNA POLYMERASE II 45KDA POLYPEPTIDE

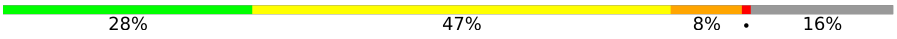
Chain C:

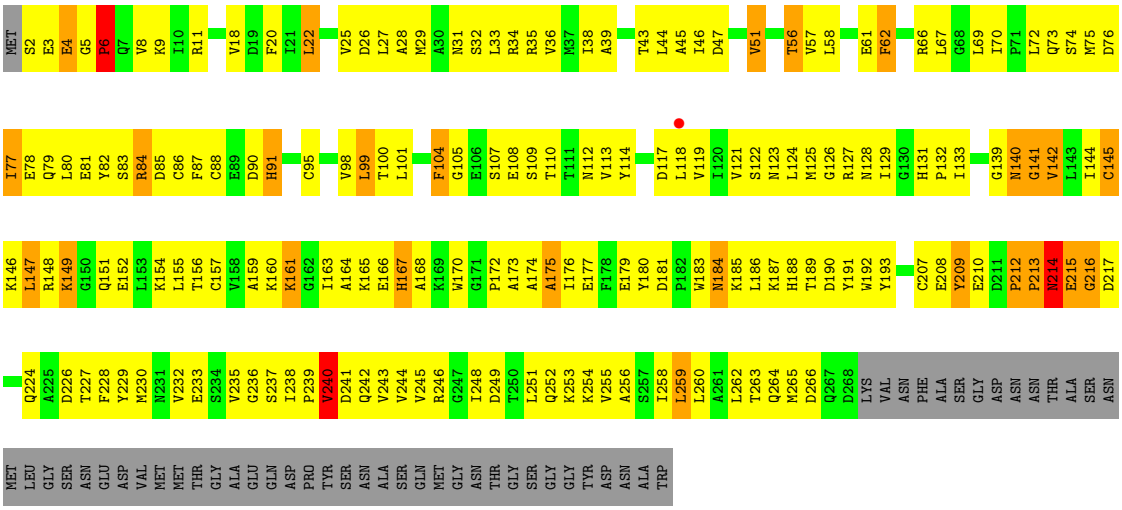




• Molecule 6: DNA-DIRECTED RNA POLYMERASE II 45KDA POLYPEPTIDE

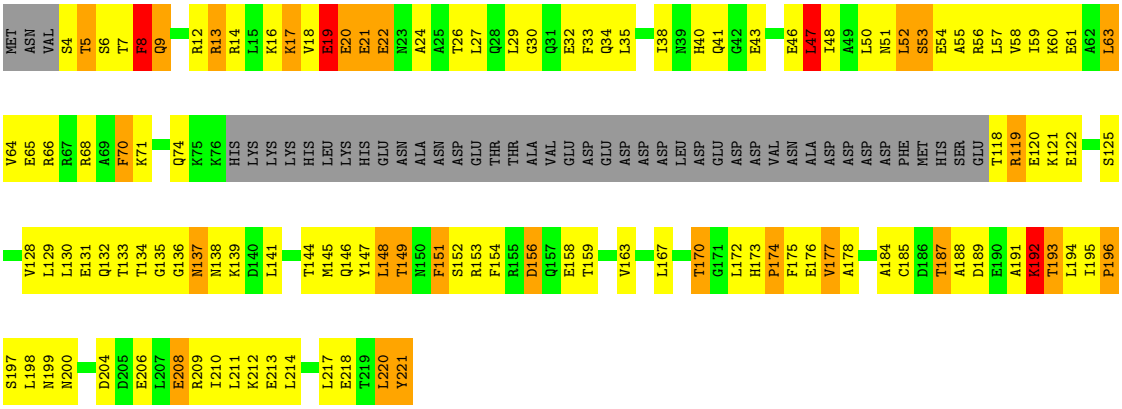
Chain O:





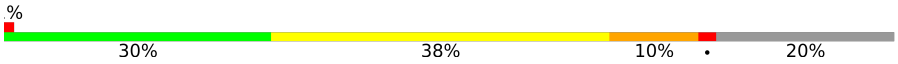
• Molecule 7: DNA-DIRECTED RNA POLYMERASE II 32KDA POLYPEPTIDE

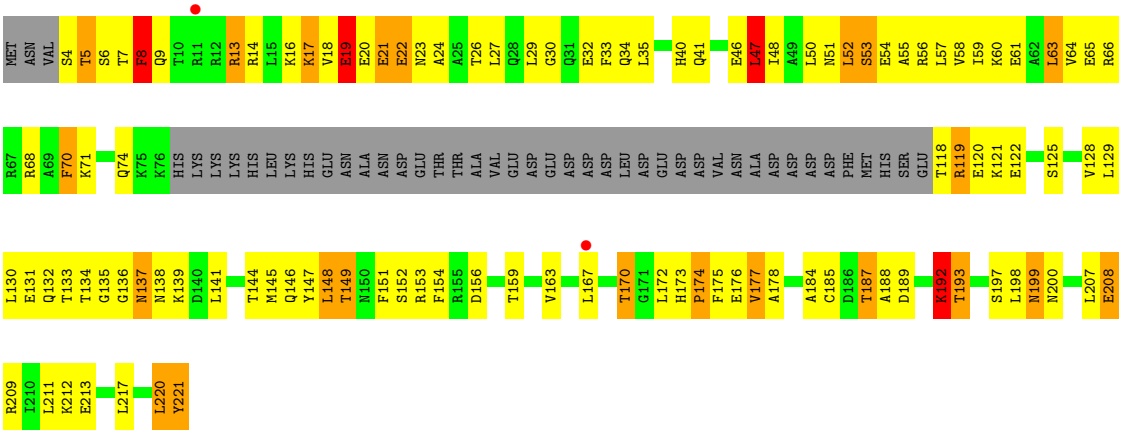
Chain D:



• Molecule 7: DNA-DIRECTED RNA POLYMERASE II 32KDA POLYPEPTIDE

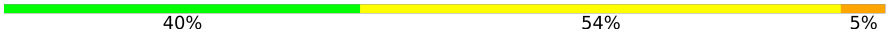
Chain P:

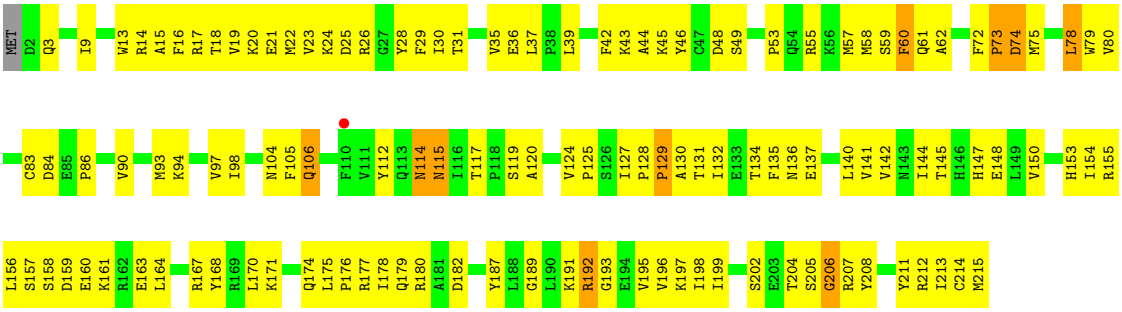




• Molecule 8: DNA-DIRECTED RNA POLYMERASES I, II, AND III 27 KDA POLYPEPTIDE

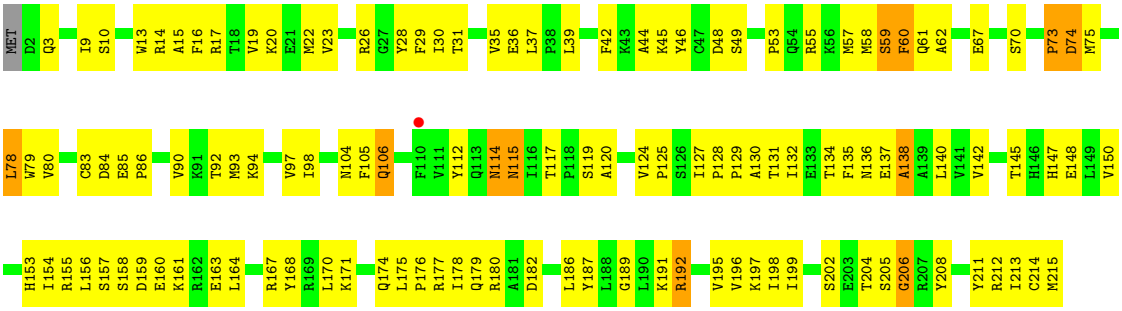
Chain E:





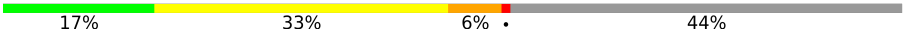
• Molecule 8: DNA-DIRECTED RNA POLYMERASES I, II, AND III 27 KDA POLYPEPTIDE

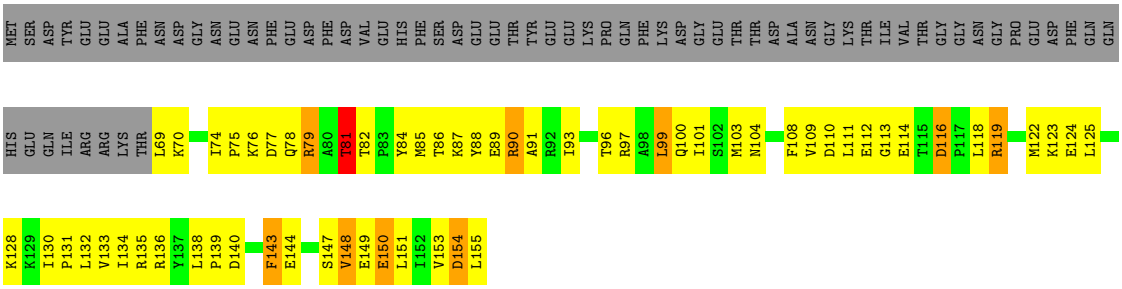
Chain Q:



• Molecule 9: DNA-DIRECTED RNA POLYMERASES I, II, AND III 23 KDA POLYPEPTIDE

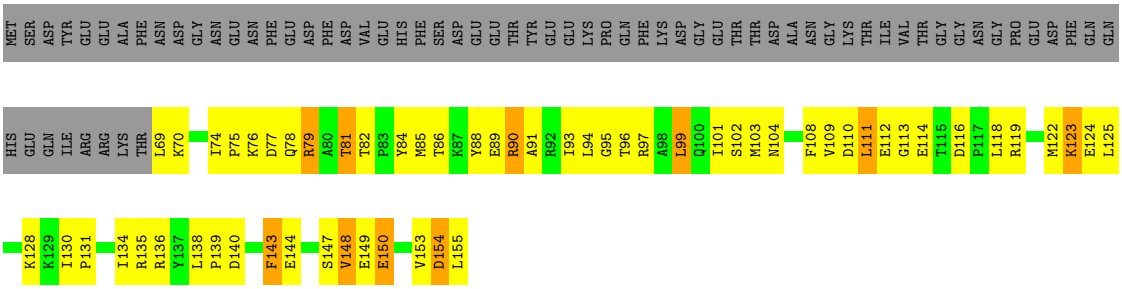
Chain F:





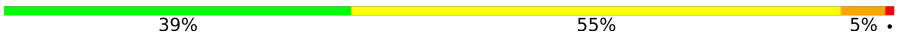
• Molecule 9: DNA-DIRECTED RNA POLYMERASES I, II, AND III 23 KDA POLYPEPTIDE

Chain R:



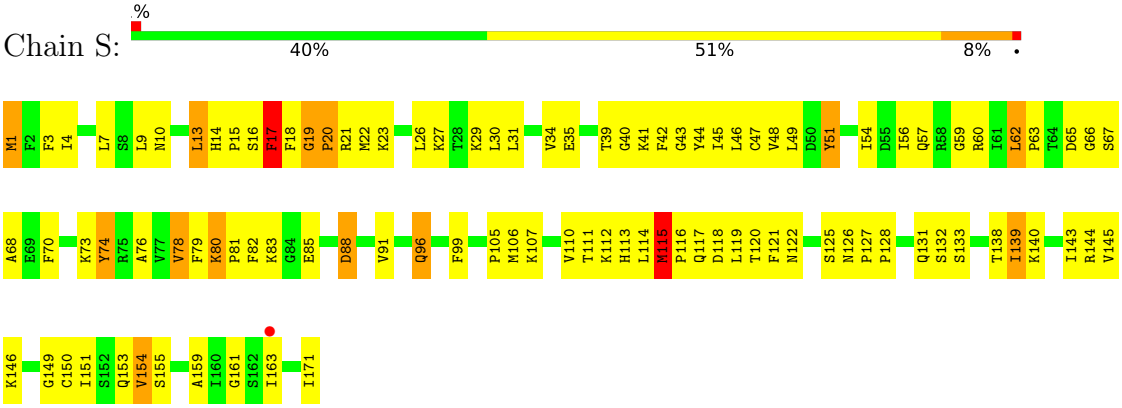
• Molecule 10: DNA-DIRECTED RNA POLYMERASE II 19KDA POLYPEPTIDE

Chain G:



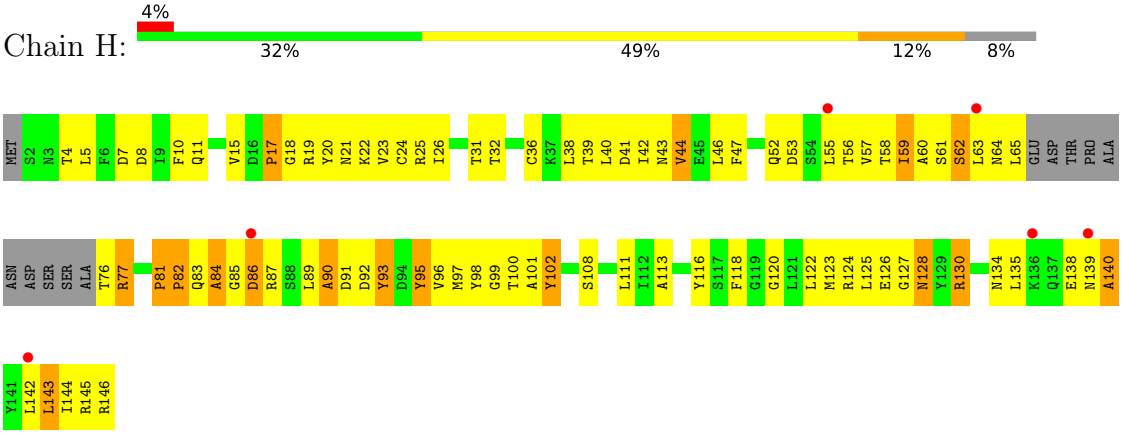
• Molecule 10: DNA-DIRECTED RNA POLYMERASE II 19KDA POLYPEPTIDE

Chain S:



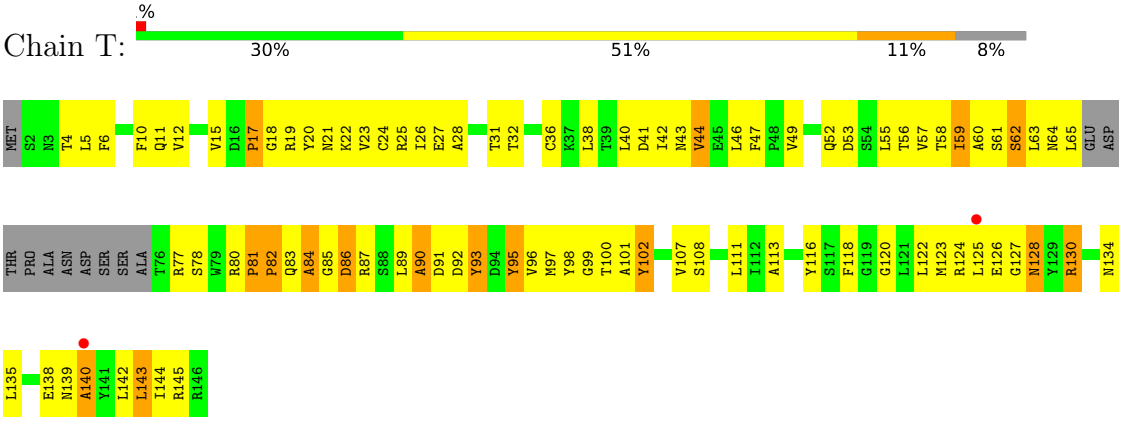
• Molecule 11: DNA-DIRECTED RNA POLYMERASES I, II, AND III 14.5 KDA POLYPEPTIDE

Chain H:



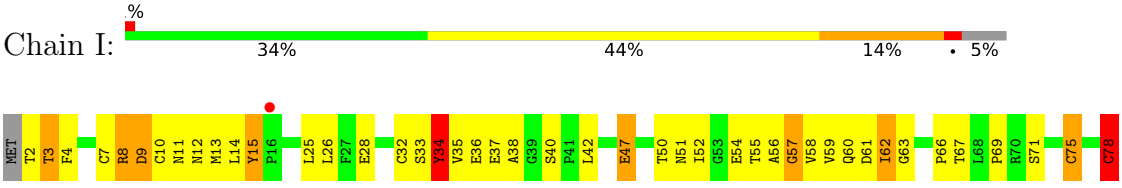
• Molecule 11: DNA-DIRECTED RNA POLYMERASES I, II, AND III 14.5 KDA POLYPEPTIDE

Chain T:

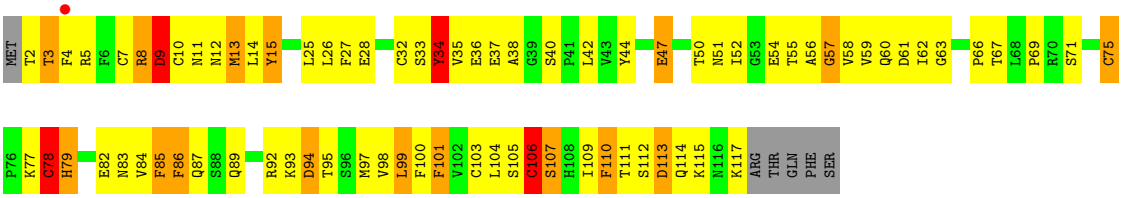


• Molecule 12: DNA-DIRECTED RNA POLYMERASE II SUBUNIT 9

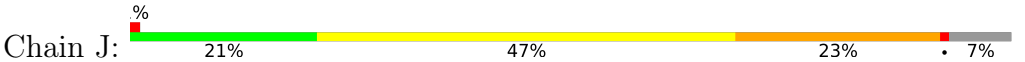
Chain I:



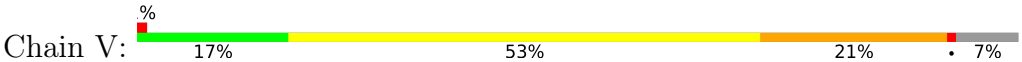
• Molecule 12: DNA-DIRECTED RNA POLYMERASE II SUBUNIT 9

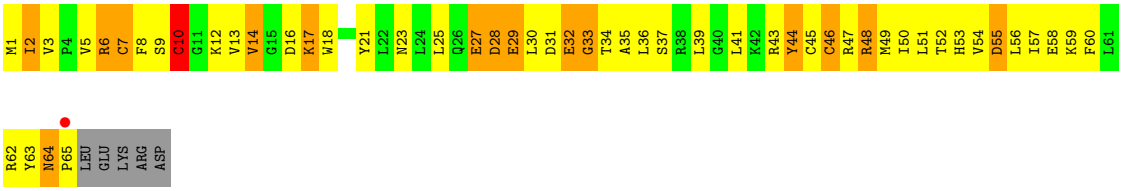


• Molecule 13: DNA-DIRECTED RNA POLYMERASES I/II/III SUBUNIT 10

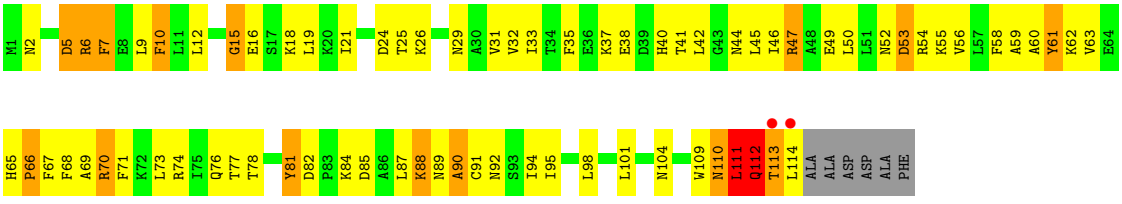


• Molecule 13: DNA-DIRECTED RNA POLYMERASES I/II/III SUBUNIT 10

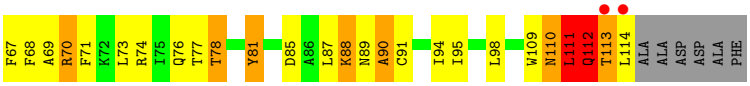




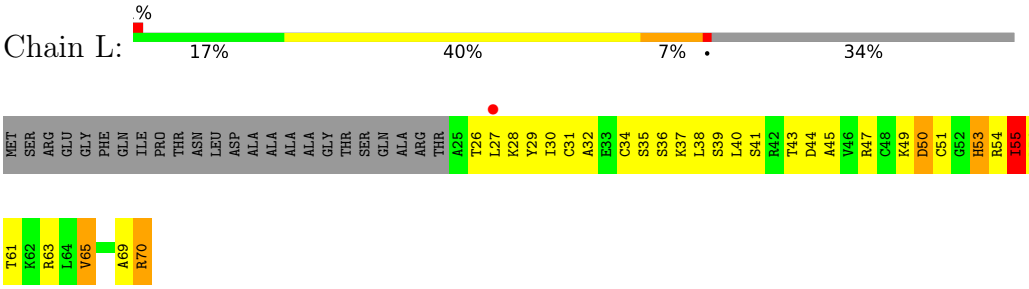
• Molecule 14: DNA-DIRECTED RNA POLYMERASE II 13.6 KDA POLYPEPTIDE



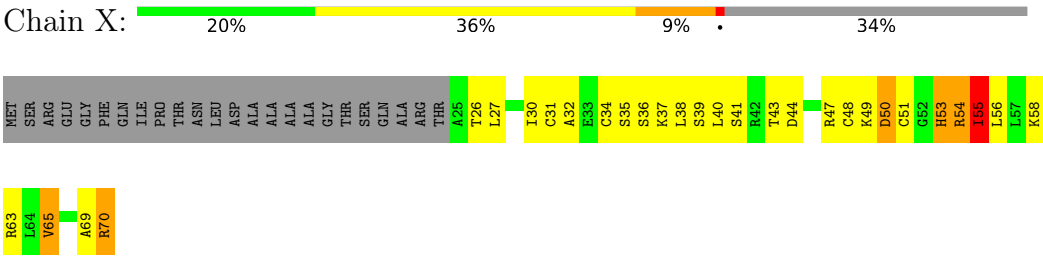
• Molecule 14: DNA-DIRECTED RNA POLYMERASE II 13.6 KDA POLYPEPTIDE



• Molecule 15: DNA-DIRECTED RNA POLYMERASES I, II, AND III 7.7 KDA POLYPEPTIDE



• Molecule 15: DNA-DIRECTED RNA POLYMERASES I, II, AND III 7.7 KDA POLYPEPTIDE



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	394.36Å 221.86Å 283.11Å 90.00° 90.56° 90.00°	Depositor
Resolution (Å)	50.00 – 3.80 48.96 – 3.80	Depositor EDS
% Data completeness (in resolution range)	98.1 (50.00-3.80) 96.7 (48.96-3.80)	Depositor EDS
R_{merge}	0.10	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.76 (at 3.77Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.257 , 0.275 0.216 , 0.229	Depositor DCC
R_{free} test set	9042 reflections (1.95%)	wwPDB-VP
Wilson B-factor (Å^2)	116.2	Xtriage
Anisotropy	0.457	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 51.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.28$	Xtriage
Estimated twinning fraction	0.024 for -1/2*h-3/2*k,-1/2*h+1/2*k,-l 0.024 for -1/2*h+3/2*k,1/2*h+1/2*k,-l 0.024 for 1/2*h-3/2*k,-1/2*h-1/2*k,-l 0.020 for 1/2*h+3/2*k,1/2*h-1/2*k,-l 0.308 for -h,-k,l	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	63924	wwPDB-VP
Average B, all atoms (Å^2)	104.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.93% 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 (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: BRU, TT, ZN, MG

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	1	1.37	0/158	1.57	3/242 (1.2%)
1	4	1.35	0/158	1.58	3/242 (1.2%)
2	2	1.47	1/357 (0.3%)	1.42	3/544 (0.6%)
2	5	1.46	1/357 (0.3%)	1.40	4/544 (0.7%)
3	3	1.55	4/237 (1.7%)	2.20	8/368 (2.2%)
3	6	1.59	4/237 (1.7%)	2.10	8/368 (2.2%)
4	A	0.48	0/11385	0.73	2/15393 (0.0%)
4	M	0.48	0/11385	0.73	2/15393 (0.0%)
5	B	0.47	0/9037	0.70	3/12181 (0.0%)
5	N	0.46	0/9037	0.70	2/12181 (0.0%)
6	C	0.48	0/2138	0.71	0/2896
6	O	0.50	0/2138	0.71	0/2896
7	D	0.44	0/1437	0.67	0/1925
7	P	0.46	0/1437	0.68	0/1925
8	E	0.43	0/1788	0.63	0/2406
8	Q	0.43	0/1788	0.63	0/2406
9	F	0.55	0/716	0.77	0/964
9	R	0.55	0/716	0.75	0/964
10	G	0.52	0/1368	0.74	0/1844
10	S	0.52	0/1368	0.74	0/1844
11	H	0.40	0/1102	0.65	0/1492
11	T	0.40	0/1102	0.65	0/1492
12	I	0.39	0/962	0.69	0/1295
12	U	0.41	0/962	0.69	0/1295
13	J	0.49	0/541	0.77	0/727
13	V	0.52	0/541	0.79	1/727 (0.1%)
14	K	0.92	6/937 (0.6%)	1.00	11/1265 (0.9%)
14	W	0.93	6/937 (0.6%)	0.99	11/1265 (0.9%)
15	L	0.43	0/366	0.71	0/485
15	X	0.45	0/366	0.72	0/485
All	All	0.53	22/65058 (0.0%)	0.76	61/88054 (0.1%)

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
2	2	0	2
2	5	0	1
5	B	0	1
5	N	0	1
All	All	0	5

All (22) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	W	112	GLN	CA-C	10.22	1.79	1.52
14	K	112	GLN	CA-C	10.06	1.79	1.52
14	W	113	THR	N-CA	9.11	1.64	1.46
14	K	113	THR	N-CA	9.06	1.64	1.46
14	W	112	GLN	N-CA	8.71	1.63	1.46
14	W	112	GLN	CB-CG	8.69	1.76	1.52
14	K	112	GLN	N-CA	8.63	1.63	1.46
14	K	112	GLN	CB-CG	8.46	1.75	1.52
3	6	2	C	C5-C6	7.77	1.40	1.34
3	3	2	C	C5-C6	7.32	1.40	1.34
14	W	112	GLN	CG-CD	7.19	1.67	1.51
14	K	112	GLN	CG-CD	6.89	1.67	1.51
14	W	113	THR	CA-C	6.55	1.70	1.52
14	K	113	THR	CA-C	6.54	1.70	1.52
3	3	3	G	P-OP2	6.00	1.59	1.49
3	6	3	G	P-OP2	5.76	1.58	1.49
3	3	2	C	C4'-C3'	5.54	1.59	1.53
2	2	27	DA	C3'-O3'	-5.50	1.36	1.44
2	5	27	DA	C3'-O3'	-5.47	1.36	1.44
3	3	2	C	C3'-O3'	5.25	1.49	1.42
3	6	10	A	N9-C4	-5.18	1.34	1.37
3	6	2	C	C4'-C3'	5.09	1.58	1.53

All (61) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	3	2	C	OP2-P-O3'	-22.50	55.69	105.20
3	3	3	G	O5'-P-OP2	22.31	137.47	110.70
3	6	3	G	O5'-P-OP2	21.67	136.70	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	6	2	C	OP2-P-O3'	-20.00	61.20	105.20
14	W	113	THR	N-CA-C	9.88	137.68	111.00
14	K	113	THR	N-CA-C	9.81	137.48	111.00
1	4	6	DC	OP2-P-O3'	9.72	126.59	105.20
1	1	6	DC	OP2-P-O3'	9.71	126.57	105.20
1	4	1	DA	OP2-P-O3'	8.87	124.72	105.20
14	W	112	GLN	N-CA-C	8.82	134.81	111.00
1	1	1	DA	OP2-P-O3'	8.77	124.49	105.20
14	K	112	GLN	N-CA-C	8.55	134.08	111.00
3	3	2	C	OP1-P-O3'	8.53	123.96	105.20
3	6	2	C	OP1-P-O3'	8.00	122.80	105.20
3	3	10	A	N9-C1'-C2'	-7.90	103.31	112.00
3	6	2	C	C4'-C3'-O3'	7.78	128.56	113.00
3	3	2	C	O3'-P-O5'	-7.69	89.38	104.00
2	2	15	DT	O4'-C4'-C3'	-7.59	101.45	106.00
2	5	15	DT	O4'-C4'-C3'	-7.52	101.48	106.00
3	3	2	C	C4'-C3'-O3'	7.52	128.04	113.00
14	K	114	LEU	N-CA-C	7.49	131.21	111.00
14	K	114	LEU	CB-CG-CD1	7.32	123.44	111.00
3	6	10	A	N9-C1'-C2'	-7.30	103.97	112.00
14	W	114	LEU	CB-CG-CD1	7.21	123.25	111.00
14	W	114	LEU	N-CA-C	7.15	130.30	111.00
3	6	2	C	O3'-P-O5'	-6.96	90.77	104.00
14	K	114	LEU	CA-C-O	-6.74	105.95	120.10
14	W	114	LEU	CA-C-O	-6.45	106.55	120.10
14	K	111	LEU	N-CA-C	6.01	127.22	111.00
14	W	111	LEU	N-CA-C	6.01	127.22	111.00
4	M	509	LEU	CA-CB-CG	-5.91	101.72	115.30
5	N	1185	CYS	N-CA-C	-5.89	95.09	111.00
2	5	27	DA	O3'-P-O5'	-5.85	92.89	104.00
14	K	112	GLN	CA-C-N	5.77	129.89	117.20
4	A	567	LYS	C-N-CD	5.72	140.41	128.40
2	2	27	DA	O3'-P-O5'	-5.71	93.14	104.00
14	W	112	GLN	CA-C-N	5.63	129.59	117.20
4	A	509	LEU	CA-CB-CG	-5.61	102.39	115.30
5	B	1185	CYS	N-CA-C	-5.50	96.15	111.00
4	M	567	LYS	C-N-CD	5.49	139.92	128.40
1	4	3	DG	C5'-C4'-C3'	-5.46	104.28	114.10
3	3	1	U	C4'-C3'-O3'	-5.42	98.02	109.40
1	1	3	DG	C5'-C4'-C3'	-5.42	104.34	114.10
3	3	1	U	N1-C1'-C2'	5.42	121.04	114.00
14	K	111	LEU	CA-C-N	5.39	129.05	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	W	111	LEU	CA-C-N	5.37	129.00	117.20
14	K	112	GLN	N-CA-CB	-5.35	100.97	110.60
3	6	1	U	C4'-C3'-O3'	-5.35	98.17	109.40
14	W	112	GLN	N-CA-CB	-5.28	101.09	110.60
2	2	15	DT	C5'-C4'-C3'	5.26	123.56	114.10
13	V	10	CYS	CA-CB-SG	5.25	123.44	114.00
5	B	111	ALA	N-CA-C	-5.19	96.98	111.00
14	W	113	THR	CB-CA-C	-5.18	97.61	111.60
3	6	1	U	N1-C1'-C2'	5.18	120.73	114.00
14	K	113	THR	CB-CA-C	-5.13	97.75	111.60
2	5	15	DT	C5'-C4'-C3'	5.11	123.30	114.10
14	W	114	LEU	CA-CB-CG	5.09	127.01	115.30
2	5	25	DT	N1-C1'-C2'	5.08	122.26	112.60
5	N	111	ALA	N-CA-C	-5.03	97.42	111.00
5	B	1203	LEU	CA-CB-CG	-5.01	103.77	115.30
14	K	114	LEU	CA-CB-CG	5.00	126.81	115.30

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	2	20	DC	Sidechain
2	2	26	DC	Sidechain
2	5	20	DC	Sidechain
5	B	486	TYR	Sidechain
5	N	486	TYR	Sidechain

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	1	141	0	81	11	0
1	4	141	0	81	12	0
2	2	380	0	218	36	0
2	5	380	0	218	33	0
3	3	212	0	110	14	0
3	6	212	0	110	10	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	A	11186	0	11266	1277	0
4	M	11186	0	11266	1263	0
5	B	8866	0	8898	968	0
5	N	8866	0	8898	1006	0
6	C	2101	0	2055	256	0
6	O	2101	0	2055	237	0
7	D	1427	0	1451	142	0
7	P	1427	0	1451	144	0
8	E	1752	0	1776	131	0
8	Q	1752	0	1776	124	0
9	F	705	0	730	82	0
9	R	705	0	730	80	0
10	G	1340	0	1357	154	0
10	S	1340	0	1357	164	0
11	H	1084	0	1057	122	0
11	T	1084	0	1057	122	0
12	I	944	0	899	112	0
12	U	944	0	899	113	0
13	J	532	0	542	98	0
13	V	532	0	542	110	0
14	K	919	0	929	113	0
14	W	919	0	929	99	0
15	L	364	0	386	41	0
15	X	364	0	386	41	0
16	A	1	0	0	0	0
16	M	1	0	0	0	0
17	A	2	0	0	0	0
17	B	1	0	0	0	0
17	C	1	0	0	0	0
17	I	2	0	0	0	0
17	J	1	0	0	0	0
17	L	1	0	0	0	0
17	M	2	0	0	0	0
17	N	1	0	0	0	0
17	O	1	0	0	0	0
17	U	2	0	0	0	0
17	V	1	0	0	0	0
17	X	1	0	0	0	0
All	All	63924	0	63510	6519	0

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 51.

All (6519) 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)
14:W:112:GLN:CB	14:W:112:GLN:CG	1.76	1.59
14:K:112:GLN:CB	14:K:112:GLN:CG	1.75	1.56
14:K:112:GLN:C	14:K:112:GLN:CA	1.79	1.49
14:W:112:GLN:CA	14:W:112:GLN:C	1.79	1.47
4:A:855:THR:HG21	4:A:857:ARG:HE	1.09	1.18
5:B:336:ARG:HG2	5:B:348:ARG:HD3	1.27	1.16
5:B:343:ILE:HG23	5:B:347:LYS:HB2	1.15	1.15
5:B:273:LEU:HB2	5:B:276:ILE:HD12	1.29	1.14
5:N:336:ARG:HG2	5:N:348:ARG:HD3	1.28	1.13
8:Q:22:MET:HE3	8:Q:26:ARG:HH21	1.11	1.13
5:N:343:ILE:HG23	5:N:347:LYS:HB2	1.17	1.12
4:A:53:LEU:HD23	4:A:54:ASN:N	1.67	1.09
4:A:34:LYS:HE2	7:P:187:THR:HG21	1.35	1.09
4:A:34:LYS:HD3	4:A:57:ARG:HH22	1.03	1.09
4:M:53:LEU:HD23	4:M:54:ASN:N	1.67	1.09
13:V:3:VAL:HG21	13:V:18:TRP:HB2	1.35	1.08
13:J:5:VAL:HG12	13:J:6:ARG:HG3	1.36	1.06
4:M:53:LEU:HD23	4:M:54:ASN:H	0.92	1.06
4:M:855:THR:HG21	4:M:857:ARG:HE	1.05	1.06
10:G:138:THR:HG22	10:G:139:ILE:H	1.20	1.06
5:N:273:LEU:HB2	5:N:276:ILE:HD12	1.30	1.06
5:N:806:THR:HG22	5:N:808:ALA:H	1.17	1.06
13:V:5:VAL:HG12	13:V:6:ARG:HG3	1.26	1.06
4:A:53:LEU:HD23	4:A:54:ASN:H	0.92	1.06
4:A:1445:ILE:H	4:A:1445:ILE:HD12	1.20	1.05
4:M:34:LYS:HD3	4:M:57:ARG:NH2	1.71	1.05
5:B:589:VAL:HG12	5:B:590:HIS:H	1.22	1.04
5:B:214:ALA:HB3	5:B:498:THR:HA	1.38	1.04
4:M:40:THR:HG22	4:M:41:MET:HG3	1.40	1.04
4:M:1017:LEU:HB2	8:Q:206:GLY:H	1.23	1.04
5:B:336:ARG:HH22	5:B:345:LYS:HE2	1.23	1.03
8:E:22:MET:HE3	8:E:26:ARG:HH21	1.22	1.03
2:2:26:DC:H2"	2:2:27:DA:O5'	1.54	1.03
5:B:232:SER:HB3	5:B:261:ARG:HH21	1.15	1.03
6:O:66:ARG:NH1	13:V:2:ILE:HG21	1.73	1.03
9:R:93:ILE:HD11	9:R:134:ILE:HD11	1.40	1.03
5:N:589:VAL:HG12	5:N:590:HIS:H	1.24	1.03
4:A:1017:LEU:HB2	8:E:206:GLY:H	1.25	1.02
5:B:806:THR:HG22	5:B:808:ALA:H	1.20	1.02
4:A:40:THR:HG22	4:A:41:MET:HG3	1.41	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S:14:HIS:CD2	10:S:16:SER:HB2	1.95	1.01
4:A:567:LYS:HB3	11:H:96:VAL:H	1.24	1.01
5:B:1201:LYS:HE2	5:B:1205:GLN:OE1	1.61	1.01
4:M:754:SER:H	4:M:757:ASN:HD22	1.09	1.01
5:N:502:ILE:H	5:N:502:ILE:HD12	1.21	1.01
4:M:901:LEU:H	4:M:926:GLN:NE2	1.59	1.01
7:P:40:HIS:HB3	10:S:73:LYS:NZ	1.75	1.01
14:K:111:LEU:C	14:K:112:GLN:HG2	1.81	1.00
10:S:138:THR:HG22	10:S:139:ILE:H	1.25	1.00
7:D:187:THR:HG21	4:M:34:LYS:CE	1.91	1.00
4:M:567:LYS:HB3	11:T:96:VAL:H	1.27	1.00
5:N:232:SER:HB3	5:N:261:ARG:HH21	1.25	1.00
14:K:65:HIS:HD2	14:K:67:PHE:H	1.07	1.00
5:N:1201:LYS:HE2	5:N:1205:GLN:OE1	1.61	0.99
5:N:486:TYR:OH	5:N:1096:ARG:HB3	1.63	0.99
1:1:1:DA:H1'	1:1:2:DA:H5'	1.39	0.99
5:B:65:GLU:HG3	5:B:66:ASP:H	1.26	0.99
5:N:824:ILE:HG22	5:N:1087:PHE:HE2	1.23	0.99
5:B:824:ILE:HG22	5:B:1087:PHE:HE2	1.27	0.98
5:N:882:THR:HG22	5:N:884:ARG:H	1.28	0.98
4:M:34:LYS:HD3	4:M:57:ARG:HH22	0.86	0.98
4:M:254:GLU:HB2	5:N:935:ARG:HH12	1.28	0.98
4:A:1420:ASP:HB3	4:A:1422:ARG:HG3	1.43	0.98
6:C:66:ARG:NH1	13:J:2:ILE:HG21	1.79	0.98
4:M:1402:PHE:CE1	4:M:1403:GLU:HG3	1.98	0.98
4:A:58:LEU:HD21	4:A:243:PRO:HA	1.45	0.97
7:D:187:THR:HG21	4:M:34:LYS:HE2	1.00	0.97
9:F:93:ILE:HD11	9:F:134:ILE:HD11	1.45	0.97
4:A:1161:THR:HG22	4:A:1163:ILE:H	1.27	0.97
12:I:34:TYR:HD2	12:I:35:VAL:N	1.62	0.97
5:N:214:ALA:HB3	5:N:498:THR:HA	1.45	0.97
4:M:34:LYS:CD	4:M:57:ARG:HH22	1.77	0.97
5:B:521:LEU:HD22	5:B:633:VAL:HG12	1.43	0.97
4:M:1445:ILE:H	4:M:1445:ILE:HD12	1.29	0.97
14:W:47:ARG:HB3	14:W:47:ARG:HH11	1.27	0.97
6:C:57:VAL:HG11	13:J:60:PHE:HB3	1.43	0.97
4:M:58:LEU:HD12	4:M:59:GLY:H	1.30	0.96
6:O:43:THR:HG22	6:O:44:LEU:H	1.27	0.96
5:B:882:THR:HG22	5:B:884:ARG:H	1.28	0.96
4:A:21:LEU:HD11	4:A:1414:ALA:HA	1.47	0.96
6:O:166:GLU:HG3	14:W:10:PHE:HZ	1.27	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:W:65:HIS:HD2	14:W:67:PHE:H	1.13	0.96
5:B:486:TYR:OH	5:B:1096:ARG:HB3	1.65	0.96
5:B:502:ILE:H	5:B:502:ILE:HD12	1.30	0.96
5:B:821:GLN:HE22	5:B:851:PHE:HA	1.31	0.96
4:M:913:LEU:HD12	4:M:914:GLU:H	1.31	0.96
5:N:65:GLU:HG3	5:N:66:ASP:H	1.30	0.96
10:S:13:LEU:HD21	10:S:17:PHE:HB2	1.48	0.96
4:A:399:HIS:HB3	4:A:400:PRO:HD3	1.45	0.95
4:M:1424:VAL:HG13	4:M:1436:ILE:HD11	1.47	0.95
10:S:81:PRO:HG3	10:S:106:MET:SD	2.04	0.95
2:5:26:DC:H2"	2:5:27:DA:O5'	1.65	0.95
6:C:43:THR:HG22	6:C:44:LEU:H	1.29	0.95
2:5:26:DC:H2"	2:5:27:DA:C5'	1.96	0.95
4:A:53:LEU:CD2	4:A:54:ASN:H	1.79	0.95
10:G:14:HIS:CD2	10:G:16:SER:HB2	2.02	0.95
5:N:521:LEU:HD22	5:N:633:VAL:HG12	1.47	0.95
4:A:1402:PHE:CE1	4:A:1403:GLU:HG3	2.01	0.95
9:F:82:THR:HG22	9:F:84:TYR:H	1.25	0.95
5:B:847:ASP:HB3	6:C:167:HIS:HE2	1.32	0.95
4:A:567:LYS:CG	4:A:568:PRO:HD2	1.97	0.95
4:M:901:LEU:HG	4:M:926:GLN:HE21	1.31	0.94
5:B:800:GLN:HB3	13:J:52:THR:HG21	1.46	0.94
4:M:58:LEU:HD21	4:M:243:PRO:HA	1.49	0.94
4:A:963:ILE:HD11	4:A:1048:ASN:HB3	1.46	0.94
4:A:1424:VAL:HG13	4:A:1436:ILE:HD11	1.48	0.94
4:M:225:ASN:HD22	4:M:228:PHE:H	1.15	0.94
5:B:549:THR:HG22	5:B:550:ASP:H	1.31	0.94
4:M:567:LYS:CG	4:M:568:PRO:HD2	1.97	0.94
13:V:1:MET:H1	13:V:57:ILE:H	1.12	0.94
5:N:336:ARG:HH22	5:N:345:LYS:HE2	1.31	0.94
4:M:53:LEU:CD2	4:M:54:ASN:H	1.81	0.93
6:O:57:VAL:HG11	13:V:60:PHE:HB3	1.47	0.93
4:A:709:THR:HG23	12:I:94:ASP:HA	1.51	0.93
6:C:6:PRO:HB3	6:C:25:VAL:CG1	1.98	0.93
14:W:111:LEU:C	14:W:112:GLN:HG2	1.88	0.93
4:M:21:LEU:HD11	4:M:1414:ALA:HA	1.50	0.93
4:A:779:PHE:HE1	4:A:785:PRO:HD3	1.33	0.93
7:D:40:HIS:HB3	10:G:73:LYS:HZ3	1.34	0.93
10:G:13:LEU:HD21	10:G:17:PHE:HB2	1.51	0.93
5:N:1187:ASN:O	5:N:1188:LYS:HB2	1.69	0.93
4:A:225:ASN:HD22	4:A:228:PHE:H	1.06	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:901:LEU:H	4:A:926:GLN:NE2	1.67	0.93
6:C:101:LEU:HD13	6:C:118:LEU:HD23	1.51	0.93
2:2:25:DT:H2"	2:2:26:DC:O5'	1.66	0.92
4:M:563:PRO:HG3	4:M:572:TRP:CZ2	2.04	0.92
5:N:172:ILE:HD13	5:N:178:ASN:HB3	1.50	0.92
6:O:142:VAL:H	13:V:16:ASP:HB3	1.34	0.92
11:T:4:THR:HA	11:T:60:ALA:HB2	1.48	0.92
7:D:144:THR:O	7:D:148:LEU:HB2	1.69	0.92
5:N:510:LYS:HG2	5:N:511:PRO:HD3	1.49	0.92
5:N:800:GLN:HB3	13:V:52:THR:CG2	1.99	0.92
6:C:166:GLU:HG3	14:K:10:PHE:HZ	1.29	0.92
1:4:1:DA:H1'	1:4:2:DA:H5'	1.48	0.92
4:A:254:GLU:HB2	5:B:935:ARG:HH12	1.34	0.92
4:M:524:VAL:HG12	4:M:525:GLN:H	1.33	0.92
4:M:1420:ASP:HB3	4:M:1422:ARG:HG3	1.51	0.92
8:E:94:LYS:HE2	8:E:98:ILE:HD11	1.53	0.92
5:B:847:ASP:HB3	6:C:167:HIS:NE2	1.85	0.91
6:O:6:PRO:HB3	6:O:25:VAL:CG1	2.00	0.91
2:5:25:DT:H2"	2:5:26:DC:O5'	1.67	0.91
4:A:34:LYS:CE	7:P:187:THR:HG21	2.00	0.91
7:D:47:LEU:HD13	7:D:48:ILE:H	1.36	0.91
12:I:34:TYR:CD2	12:I:35:VAL:N	2.38	0.91
4:A:567:LYS:CD	4:A:568:PRO:HD2	2.00	0.91
12:I:85:PHE:H	12:I:85:PHE:HD2	1.09	0.91
4:M:399:HIS:HB3	4:M:400:PRO:HD3	1.48	0.91
4:M:1094:VAL:HG12	4:M:1095:THR:H	1.31	0.91
4:M:1161:THR:HG22	4:M:1163:ILE:H	1.34	0.91
5:N:800:GLN:HB3	13:V:52:THR:HG21	1.51	0.91
13:J:1:MET:H2	13:J:57:ILE:H	1.16	0.91
7:P:40:HIS:HB3	10:S:73:LYS:HZ3	1.27	0.91
14:K:47:ARG:HB3	14:K:47:ARG:HH11	1.35	0.91
5:B:217:ARG:HE	5:B:405:ARG:HB2	1.35	0.91
12:I:8:ARG:HG3	12:I:34:TYR:HE1	1.35	0.91
6:O:47:ASP:HA	15:X:69:ALA:HB3	1.53	0.91
4:A:1094:VAL:HG12	4:A:1095:THR:H	1.33	0.91
13:J:3:VAL:HG21	13:J:18:TRP:HB2	1.52	0.91
4:M:285:PRO:HG2	4:M:288:ALA:HB3	1.53	0.91
5:N:510:LYS:CG	5:N:511:PRO:HD3	2.01	0.91
9:R:82:THR:HG22	9:R:84:TYR:H	1.33	0.91
4:A:855:THR:HG21	4:A:857:ARG:NE	1.86	0.90
4:M:93:VAL:HG13	4:M:301:ALA:HB1	1.51	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:46:GLN:HG3	5:N:47:GLN:H	1.34	0.90
4:M:709:THR:HG23	12:U:94:ASP:HA	1.54	0.90
6:C:6:PRO:HB3	6:C:25:VAL:HG12	1.52	0.90
8:Q:19:VAL:O	8:Q:23:VAL:HG23	1.72	0.90
7:P:47:LEU:HD13	7:P:48:ILE:H	1.36	0.90
4:M:567:LYS:CD	4:M:568:PRO:HD2	2.00	0.90
4:M:1329:THR:HG22	4:M:1331:SER:H	1.34	0.90
4:M:535:THR:HG21	4:M:616:VAL:HA	1.53	0.90
10:S:15:PRO:HA	10:S:18:PHE:CD1	2.07	0.90
4:A:58:LEU:CD1	4:A:59:GLY:H	1.83	0.89
5:B:483:LEU:HD11	5:B:491:THR:HG23	1.52	0.89
5:N:577:ALA:HB1	5:N:589:VAL:HG11	1.53	0.89
5:B:467:GLY:H	5:B:475:SER:HB3	1.36	0.89
4:A:1329:THR:HG22	4:A:1331:SER:H	1.37	0.89
5:B:1072:MET:CE	5:B:1085:ILE:HB	2.03	0.89
13:V:16:ASP:OD1	13:V:17:LYS:HD2	1.72	0.89
4:M:836:TYR:CD2	4:M:840:ARG:HD2	2.07	0.89
5:N:515:HIS:H	5:N:518:HIS:HD2	1.19	0.89
12:U:85:PHE:H	12:U:85:PHE:HD2	1.14	0.89
4:A:84:ILE:HD11	4:A:270:LEU:HD13	1.52	0.89
10:S:7:LEU:HB2	10:S:74:TYR:CE2	2.08	0.89
4:M:58:LEU:CD1	4:M:59:GLY:H	1.84	0.89
5:B:510:LYS:CG	5:B:511:PRO:HD3	2.02	0.89
11:H:4:THR:HA	11:H:60:ALA:HB2	1.53	0.89
5:N:999:MET:HG3	5:N:1000:PRO:HD2	1.55	0.89
5:N:1072:MET:CE	5:N:1085:ILE:HB	2.03	0.89
4:A:563:PRO:HG3	4:A:572:TRP:CZ2	2.08	0.88
14:K:21:ILE:HG12	14:K:33:ILE:HG12	1.55	0.88
4:M:646:PHE:O	4:M:650:GLN:HG3	1.72	0.88
13:V:1:MET:N	13:V:57:ILE:H	1.71	0.88
4:A:67:CYS:O	4:A:70:CYS:HB3	1.72	0.88
5:B:800:GLN:HB3	13:J:52:THR:CG2	2.03	0.88
11:H:84:ALA:HA	11:H:87:ARG:HB2	1.54	0.88
4:A:58:LEU:HD12	4:A:59:GLY:H	1.36	0.88
5:B:999:MET:HG3	5:B:1000:PRO:HD2	1.56	0.88
7:D:40:HIS:HB3	10:G:73:LYS:NZ	1.87	0.88
4:M:855:THR:HG21	4:M:857:ARG:NE	1.87	0.88
5:B:336:ARG:HD3	5:B:348:ARG:HH11	1.37	0.88
4:M:779:PHE:HE1	4:M:785:PRO:HD3	1.37	0.88
7:P:144:THR:O	7:P:148:LEU:HB2	1.74	0.88
4:A:34:LYS:HD3	4:A:57:ARG:NH2	1.89	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:855:THR:CG2	4:M:857:ARG:HE	1.87	0.88
6:O:66:ARG:NH2	13:V:5:VAL:HG23	1.88	0.88
4:A:646:PHE:O	4:A:650:GLN:HG3	1.73	0.87
5:N:899:ILE:HD11	5:N:911:ILE:HA	1.53	0.87
6:O:43:THR:HG22	6:O:44:LEU:N	1.89	0.87
8:Q:22:MET:HE3	8:Q:26:ARG:NH2	1.88	0.87
4:A:524:VAL:HG12	4:A:525:GLN:H	1.40	0.87
14:W:21:ILE:HG12	14:W:33:ILE:HG12	1.57	0.87
5:B:98:THR:O	5:B:126:SER:HB2	1.73	0.87
4:A:93:VAL:HG13	4:A:301:ALA:HB1	1.55	0.87
4:A:1094:VAL:HG12	4:A:1095:THR:N	1.89	0.87
5:N:343:ILE:CG2	5:N:348:ARG:HG3	2.04	0.87
5:N:549:THR:HG22	5:N:550:ASP:H	1.40	0.87
12:U:26:LEU:HD23	12:U:37:GLU:HA	1.56	0.87
4:M:567:LYS:HD2	4:M:568:PRO:HD2	1.57	0.87
4:A:285:PRO:HG2	4:A:288:ALA:HB3	1.57	0.87
4:A:541:ILE:HD13	4:A:549:MET:HE1	1.55	0.87
12:I:115:LYS:HD3	12:I:117:LYS:HE3	1.54	0.87
4:A:567:LYS:HD2	4:A:568:PRO:HD2	1.54	0.87
11:H:36:CYS:HA	11:H:126:GLU:O	1.75	0.87
5:N:516:ASN:N	5:N:516:ASN:HD22	1.70	0.86
12:U:34:TYR:CD2	12:U:35:VAL:N	2.42	0.86
5:N:1072:MET:HE3	5:N:1085:ILE:HB	1.57	0.86
4:M:1094:VAL:HG12	4:M:1095:THR:N	1.90	0.86
5:N:847:ASP:HB3	6:O:167:HIS:NE2	1.89	0.86
5:B:172:ILE:HD13	5:B:178:ASN:HB3	1.58	0.86
5:B:232:SER:HB3	5:B:261:ARG:NH2	1.89	0.86
10:G:7:LEU:HB2	10:G:74:TYR:CE2	2.10	0.86
10:G:15:PRO:HA	10:G:18:PHE:CD1	2.11	0.86
4:M:828:ALA:CB	5:N:530:GLY:HA2	2.05	0.86
5:B:46:GLN:HG3	5:B:47:GLN:H	1.39	0.86
8:E:19:VAL:O	8:E:23:VAL:HG23	1.75	0.86
5:N:1224:PHE:HE2	8:Q:171:LYS:HG3	1.41	0.86
12:U:34:TYR:HD2	12:U:35:VAL:N	1.74	0.86
5:B:343:ILE:CG2	5:B:348:ARG:HG3	2.04	0.86
5:B:516:ASN:HD22	5:B:516:ASN:N	1.70	0.86
8:E:198:ILE:HD11	8:E:212:ARG:HG3	1.58	0.86
5:N:343:ILE:HG21	5:N:348:ARG:HG3	1.58	0.86
12:U:115:LYS:HD3	12:U:117:LYS:HE3	1.55	0.86
4:A:34:LYS:CD	4:A:57:ARG:HH22	1.88	0.85
5:B:343:ILE:HG21	5:B:348:ARG:HG3	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:853:ASP:OD1	4:M:855:THR:HB	1.76	0.85
4:A:855:THR:CG2	4:A:857:ARG:HE	1.88	0.85
4:A:868:TYR:CE1	4:A:1064:VAL:HG11	2.11	0.85
5:B:899:ILE:HD11	5:B:911:ILE:HA	1.57	0.85
4:M:34:LYS:HE3	4:M:57:ARG:HH12	1.41	0.85
5:N:168:GLY:H	5:N:450:ALA:HB1	1.42	0.85
6:O:6:PRO:HB3	6:O:25:VAL:HG12	1.57	0.85
7:D:153:ARG:NH2	7:D:184:ALA:HA	1.90	0.85
1:1:6:DC:H1'	1:1:7:DT:H5'	1.58	0.85
2:2:20:DC:H4'	4:A:447:GLN:NE2	1.92	0.85
4:A:356:ASP:HB2	4:A:469:ARG:NH1	1.90	0.85
4:A:590:ARG:HH21	4:A:620:LYS:HB3	1.41	0.85
5:B:778:MET:CE	5:B:1094:ARG:HD3	2.07	0.85
4:M:466:SER:O	5:N:1103:ILE:HD11	1.77	0.85
4:M:351:THR:HB	5:N:1103:ILE:HD12	1.58	0.85
5:B:770:GLN:OE1	5:B:983:ARG:HA	1.76	0.85
5:B:1187:ASN:O	5:B:1188:LYS:HB2	1.76	0.85
8:Q:94:LYS:HE2	8:Q:98:ILE:HD11	1.59	0.85
4:A:34:LYS:HE2	7:P:187:THR:CG2	2.07	0.85
4:A:351:THR:HB	5:B:1103:ILE:HD12	1.59	0.85
4:A:754:SER:H	4:A:757:ASN:HD22	1.23	0.85
5:B:510:LYS:HG2	5:B:511:PRO:HD3	1.55	0.85
11:T:84:ALA:HA	11:T:87:ARG:HB2	1.57	0.85
5:B:1224:PHE:HE2	8:E:171:LYS:HG3	1.39	0.84
5:N:613:VAL:HG13	5:N:627:PHE:O	1.77	0.84
4:A:836:TYR:CE2	4:A:840:ARG:HD2	2.12	0.84
5:N:217:ARG:HE	5:N:405:ARG:HB2	1.41	0.84
5:B:363:HIS:O	5:B:364:ILE:HB	1.78	0.84
4:M:1325:THR:O	8:Q:148:GLU:HB2	1.77	0.84
11:T:100:THR:HG23	11:T:138:GLU:HA	1.59	0.84
5:N:363:HIS:O	5:N:364:ILE:HB	1.78	0.84
12:U:8:ARG:HG3	12:U:34:TYR:HE1	1.40	0.84
4:A:828:ALA:CB	5:B:530:GLY:HA2	2.07	0.84
9:R:86:THR:OG1	9:R:89:GLU:HG3	1.78	0.84
6:C:47:ASP:HA	15:L:69:ALA:HB3	1.60	0.84
5:N:701:ILE:HD11	5:N:703:ILE:HD11	1.59	0.84
7:P:47:LEU:HD11	10:S:3:PHE:CD2	2.11	0.84
4:M:351:THR:HG22	5:N:1103:ILE:HA	1.60	0.84
4:M:590:ARG:NH2	4:M:620:LYS:HB3	1.92	0.84
4:M:783:THR:HG21	4:M:815:PHE:CZ	2.13	0.84
9:F:111:LEU:HD12	9:F:111:LEU:H	1.42	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:901:LEU:HG	4:A:926:GLN:HE21	1.41	0.84
4:A:903:ASN:HD22	4:A:904:THR:N	1.75	0.84
4:A:779:PHE:CE1	4:A:785:PRO:HD3	2.13	0.83
4:A:321:PRO:O	4:A:322:VAL:HB	1.76	0.83
5:B:654:ARG:H	5:B:657:HIS:HD2	1.26	0.83
4:M:1171:GLN:HA	4:M:1174:PHE:CE1	2.13	0.83
5:B:336:ARG:NH2	5:B:345:LYS:HG2	1.93	0.83
5:B:340:ALA:HB2	5:B:343:ILE:HD12	1.59	0.83
13:J:1:MET:N	13:J:57:ILE:H	1.75	0.83
4:M:709:THR:HG22	4:M:711:ARG:H	1.42	0.83
5:N:847:ASP:HB3	6:O:167:HIS:HE2	1.42	0.83
4:A:885:THR:O	4:A:940:ARG:HD2	1.77	0.83
5:B:515:HIS:H	5:B:518:HIS:HD2	1.25	0.83
4:M:868:TYR:CE1	4:M:1064:VAL:HG11	2.14	0.83
5:N:343:ILE:HG21	5:N:348:ARG:N	1.92	0.83
5:N:467:GLY:N	5:N:475:SER:HB3	1.93	0.83
5:N:654:ARG:H	5:N:657:HIS:HD2	1.25	0.83
2:5:20:DC:H4'	4:M:447:GLN:NE2	1.93	0.83
5:B:1065:GLN:HE21	5:B:1067:ARG:H	1.25	0.83
4:M:239:LEU:HD12	4:M:240:PRO:HD2	1.59	0.83
5:N:483:LEU:HD11	5:N:491:THR:HG23	1.60	0.83
4:A:567:LYS:HB3	11:H:96:VAL:N	1.93	0.83
5:B:1072:MET:HE3	5:B:1085:ILE:HB	1.58	0.83
4:M:567:LYS:HB3	11:T:96:VAL:N	1.93	0.83
5:B:1002:THR:HG21	5:B:1006:ILE:HD12	1.61	0.83
4:M:768:GLN:HG2	4:M:816:HIS:HA	1.61	0.83
4:A:535:THR:HG21	4:A:616:VAL:HA	1.58	0.83
5:N:467:GLY:H	5:N:475:SER:HB3	1.43	0.83
15:X:32:ALA:HB3	15:X:55:ILE:HD12	1.61	0.83
4:A:70:CYS:O	4:A:72:GLU:HG2	1.78	0.82
5:B:467:GLY:N	5:B:475:SER:HB3	1.92	0.82
4:M:356:ASP:HB2	4:M:469:ARG:NH1	1.94	0.82
5:N:806:THR:HG22	5:N:808:ALA:N	1.94	0.82
4:A:382:PRO:HB3	4:A:428:TYR:HE2	1.43	0.82
6:C:32:SER:O	6:C:36:VAL:HG23	1.78	0.82
10:G:34:VAL:HG12	10:G:45:ILE:HG21	1.59	0.82
5:B:365:THR:HG23	5:B:367:LEU:H	1.42	0.82
5:N:98:THR:O	5:N:126:SER:HB2	1.79	0.82
4:M:590:ARG:HH21	4:M:620:LYS:HB3	1.42	0.82
5:N:770:GLN:OE1	5:N:983:ARG:HA	1.78	0.82
10:S:14:HIS:ND1	10:S:15:PRO:HD2	1.94	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:187:THR:CG2	4:M:34:LYS:HE2	1.97	0.82
4:M:1394:THR:HG21	4:M:1398:MET:SD	2.20	0.82
13:V:64:ASN:HB3	13:V:65:PRO:CD	2.09	0.82
4:M:779:PHE:CE1	4:M:785:PRO:HD3	2.14	0.82
4:A:1100:ARG:HH21	4:A:1351:GLU:HG2	1.45	0.82
5:N:364:ILE:HG12	5:N:585:VAL:HG13	1.61	0.82
2:2:26:DC:H2"	2:2:27:DA:C5'	2.10	0.81
4:A:709:THR:HG22	4:A:711:ARG:H	1.43	0.81
4:M:913:LEU:HD12	4:M:914:GLU:N	1.95	0.81
10:S:80:LYS:HD3	10:S:80:LYS:N	1.95	0.81
5:B:701:ILE:HD11	5:B:703:ILE:HD11	1.62	0.81
8:Q:16:PHE:CZ	8:Q:20:LYS:HE2	2.15	0.81
11:T:36:CYS:HA	11:T:126:GLU:O	1.79	0.81
5:B:336:ARG:CG	5:B:348:ARG:HD3	2.08	0.81
5:B:1096:ARG:O	5:B:1097:HIS:HB2	1.79	0.81
10:G:81:PRO:HG3	10:G:106:MET:SD	2.19	0.81
12:I:26:LEU:HD23	12:I:37:GLU:HA	1.61	0.81
13:J:64:ASN:HB3	13:J:65:PRO:CD	2.10	0.81
4:M:541:ILE:HD13	4:M:549:MET:HE1	1.61	0.81
4:M:885:THR:O	4:M:940:ARG:HD2	1.80	0.81
4:M:1189:SER:O	4:M:1241:ARG:HD3	1.80	0.81
5:N:879:ARG:HH11	5:N:883:LEU:HD22	1.44	0.81
11:T:56:THR:HB	11:T:145:ARG:HG2	1.63	0.81
4:A:1004:ASN:ND2	8:E:167:ARG:HD2	1.95	0.81
9:R:111:LEU:H	9:R:111:LEU:HD12	1.44	0.81
4:A:337:ARG:HD3	5:B:1132:GLU:OE1	1.81	0.81
6:C:43:THR:HG22	6:C:44:LEU:N	1.96	0.81
5:N:332:ASP:O	5:N:336:ARG:HG3	1.81	0.81
13:V:64:ASN:HB3	13:V:65:PRO:HD3	1.61	0.81
4:M:335:ARG:NH1	5:N:1202:LEU:HD13	1.95	0.81
5:N:1002:THR:HG21	5:N:1006:ILE:HD12	1.61	0.81
5:N:1180:PHE:HB3	5:N:1191:ILE:CD1	2.10	0.81
4:A:913:LEU:HD12	4:A:914:GLU:H	1.46	0.81
5:B:53:GLN:HG2	5:B:547:VAL:HG22	1.63	0.81
6:C:39:ALA:HA	6:C:164:ALA:HB3	1.63	0.81
4:M:963:ILE:HD11	4:M:1048:ASN:HB3	1.63	0.81
14:W:45:LEU:HG	14:W:94:ILE:HD13	1.63	0.81
4:M:107:CYS:SG	4:M:171:GLN:HG2	2.21	0.81
4:A:534:LEU:O	4:A:574:GLY:HA3	1.80	0.80
5:B:661:LEU:HD11	5:B:684:LEU:HD11	1.61	0.80
4:M:438:ASP:O	4:M:439:ASN:HB2	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:824:ILE:HG22	5:B:1087:PHE:CE2	2.16	0.80
5:B:1180:PHE:HB3	5:B:1191:ILE:HD12	1.63	0.80
11:H:56:THR:HB	11:H:145:ARG:HG2	1.63	0.80
4:M:384:ASN:OD1	4:M:388:LEU:HD12	1.80	0.80
6:O:101:LEU:HD13	6:O:118:LEU:HD23	1.61	0.80
2:5:26:DC:H2"	2:5:27:DA:H5'	1.61	0.80
4:A:590:ARG:NH2	4:A:620:LYS:HB3	1.96	0.80
4:A:1189:SER:O	4:A:1241:ARG:HD3	1.80	0.80
5:B:1159:ARG:HD3	5:B:1193:GLN:HG3	1.63	0.80
4:M:534:LEU:O	4:M:574:GLY:HA3	1.81	0.80
4:M:1121:GLU:HG2	4:M:1122:PRO:HD2	1.63	0.80
5:N:1096:ARG:O	5:N:1097:HIS:HB2	1.79	0.80
11:T:81:PRO:HB2	11:T:82:PRO:HD2	1.63	0.80
4:A:836:TYR:CD2	4:A:840:ARG:HD2	2.17	0.80
5:B:393:LYS:HA	5:B:393:LYS:HE3	1.64	0.80
5:N:1084:GLN:NE2	5:N:1084:GLN:H	1.79	0.80
1:4:6:DC:H1'	1:4:7:DT:H5'	1.63	0.80
4:A:225:ASN:ND2	4:A:228:PHE:H	1.80	0.80
14:K:65:HIS:CD2	14:K:67:PHE:H	1.97	0.80
5:N:1138:MET:HA	5:N:1138:MET:HE3	1.62	0.80
4:A:858:ASN:C	4:A:858:ASN:HD22	1.85	0.80
4:M:84:ILE:HD11	4:M:270:LEU:HD13	1.62	0.80
8:Q:198:ILE:HD11	8:Q:212:ARG:HG3	1.64	0.80
4:A:269:ILE:HD13	4:A:300:VAL:HG22	1.63	0.80
4:A:438:ASP:O	4:A:439:ASN:HB2	1.82	0.80
5:B:232:SER:CB	5:B:261:ARG:HH21	1.94	0.80
11:H:81:PRO:HB2	11:H:82:PRO:HD2	1.64	0.80
5:N:171:PRO:HD2	5:N:457:LEU:HD13	1.64	0.80
5:N:189:LEU:HA	5:N:192:LEU:HD12	1.62	0.80
5:N:365:THR:HG23	5:N:367:LEU:H	1.44	0.80
4:A:541:ILE:HD13	4:A:549:MET:CE	2.11	0.80
13:J:43:ARG:HG3	13:J:45:CYS:SG	2.21	0.80
4:A:35:ILE:HG22	4:A:35:ILE:O	1.81	0.79
4:A:768:GLN:CG	4:A:816:HIS:HA	2.12	0.79
5:B:642:ASP:HA	5:B:649:LYS:HA	1.61	0.79
6:O:32:SER:O	6:O:36:VAL:HG23	1.82	0.79
5:N:824:ILE:HG22	5:N:1087:PHE:CE2	2.15	0.79
10:S:59:GLY:HA3	10:S:70:PHE:CD2	2.18	0.79
4:A:1100:ARG:HH21	4:A:1351:GLU:CG	1.95	0.79
5:B:577:ALA:HB1	5:B:589:VAL:HG11	1.62	0.79
13:J:64:ASN:HB3	13:J:65:PRO:HD3	1.62	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:855:THR:HG23	4:M:857:ARG:HG3	1.64	0.79
5:B:244:LEU:HD21	5:B:366:GLN:NE2	1.96	0.79
11:H:100:THR:HG23	11:H:138:GLU:HA	1.64	0.79
5:N:340:ALA:HB2	5:N:343:ILE:HD12	1.63	0.79
5:N:1065:GLN:HE21	5:N:1067:ARG:N	1.81	0.79
4:M:321:PRO:O	4:M:322:VAL:HB	1.82	0.79
4:A:549:MET:SD	4:A:577:ILE:HD11	2.23	0.79
6:C:239:PRO:HB2	6:C:241:ASP:OD1	1.83	0.79
4:M:215:SER:HB3	4:M:218:ASP:OD2	1.82	0.79
5:N:112:LEU:HD12	5:N:113:TYR:H	1.46	0.79
7:P:153:ARG:NH2	7:P:184:ALA:HA	1.96	0.79
4:A:58:LEU:HD21	4:A:243:PRO:CA	2.13	0.79
4:M:70:CYS:O	4:M:72:GLU:HG2	1.82	0.79
5:N:434:ARG:O	5:N:437:GLU:HB2	1.82	0.79
4:M:567:LYS:HB3	11:T:95:TYR:HA	1.64	0.79
10:S:34:VAL:HG12	10:S:45:ILE:HG21	1.63	0.79
4:A:1171:GLN:HA	4:A:1174:PHE:CE1	2.17	0.79
5:B:911:ILE:HD11	5:B:941:LEU:HD13	1.62	0.79
4:A:858:ASN:ND2	4:A:860:LEU:H	1.80	0.78
4:A:886:ILE:HG22	4:A:887:GLY:N	1.97	0.78
5:B:806:THR:HG22	5:B:808:ALA:N	1.98	0.78
4:M:337:ARG:HD3	5:N:1132:GLU:OE1	1.83	0.78
5:N:778:MET:CE	5:N:1094:ARG:HD3	2.12	0.78
10:S:14:HIS:HD2	10:S:16:SER:HB2	1.48	0.78
12:U:8:ARG:HG3	12:U:34:TYR:CE1	2.18	0.78
4:M:763:ALA:O	4:M:803:SER:HB3	1.81	0.78
5:N:708:GLU:O	5:N:710:LEU:N	2.16	0.78
4:A:58:LEU:HD11	4:A:243:PRO:HB3	1.65	0.78
7:D:47:LEU:HD11	10:G:3:PHE:CD2	2.17	0.78
5:N:35:SER:HA	5:N:811:TYR:HE2	1.48	0.78
5:N:273:LEU:CB	5:N:276:ILE:HD12	2.13	0.78
14:W:12:LEU:H	14:W:12:LEU:HD12	1.47	0.78
4:A:427:GLN:HG3	4:A:430:TRP:CZ2	2.19	0.78
4:A:866:PHE:C	4:A:867:ILE:HD12	2.04	0.78
4:A:996:ASN:O	4:A:998:LEU:HD12	1.84	0.78
4:A:1312:ASN:O	4:A:1316:VAL:HG23	1.84	0.78
5:N:393:LYS:HE3	5:N:393:LYS:HA	1.65	0.78
5:N:842:ASN:ND2	5:N:845:SER:OG	2.17	0.78
5:N:911:ILE:HD11	5:N:941:LEU:HD13	1.64	0.78
6:O:47:ASP:HA	15:X:69:ALA:CB	2.13	0.78
12:I:8:ARG:HG3	12:I:34:TYR:CE1	2.19	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:840:ILE:HB	5:N:1011:ILE:HB	1.65	0.78
6:C:232:VAL:HG21	6:C:244:VAL:HG22	1.65	0.78
5:B:168:GLY:H	5:B:450:ALA:HB1	1.49	0.78
5:B:169:ARG:HB2	5:B:454:THR:HG23	1.62	0.78
5:B:1065:GLN:HE21	5:B:1067:ARG:N	1.82	0.78
5:N:361:LEU:HD21	5:N:377:PHE:CD2	2.18	0.78
5:N:515:HIS:H	5:N:518:HIS:CD2	2.02	0.78
5:N:1065:GLN:HE21	5:N:1067:ARG:H	1.31	0.78
5:B:955:THR:HG22	5:B:956:THR:H	1.50	0.78
5:B:1095:LEU:H	5:B:1095:LEU:HD12	1.49	0.78
7:P:134:THR:HG22	7:P:136:GLY:H	1.49	0.78
4:A:1348:LEU:HG	4:A:1372:VAL:HG23	1.65	0.77
5:B:35:SER:HA	5:B:811:TYR:HE2	1.48	0.77
5:N:232:SER:CB	5:N:261:ARG:HH21	1.97	0.77
5:N:1085:ILE:HD12	5:N:1085:ILE:N	1.99	0.77
5:N:1001:PHE:CE1	5:N:1073:TYR:HB2	2.19	0.77
4:A:107:CYS:SG	4:A:171:GLN:HG2	2.24	0.77
5:B:65:GLU:HG3	5:B:66:ASP:N	1.98	0.77
4:M:903:ASN:HD22	4:M:904:THR:N	1.80	0.77
4:M:1424:VAL:HG11	5:N:1139:ILE:HD13	1.65	0.77
5:N:53:GLN:HG2	5:N:547:VAL:HG22	1.66	0.77
5:B:336:ARG:HG2	5:B:348:ARG:CD	2.13	0.77
9:F:86:THR:OG1	9:F:89:GLU:HG3	1.85	0.77
10:G:14:HIS:ND1	10:G:15:PRO:HD2	1.99	0.77
10:G:128:PRO:O	10:G:138:THR:HG23	1.84	0.77
10:S:1:MET:SD	10:S:79:PHE:CD1	2.77	0.77
9:F:79:ARG:HG3	9:F:144:GLU:OE1	1.84	0.77
4:M:767:GLN:NE2	4:M:774:ARG:HB3	2.00	0.77
4:A:1345:ARG:HG3	4:A:1376:THR:HG21	1.66	0.77
5:B:830:TYR:O	5:B:832:GLY:N	2.16	0.77
5:B:879:ARG:HH11	5:B:883:LEU:HD22	1.48	0.77
5:N:336:ARG:HD3	5:N:348:ARG:HH11	1.48	0.77
6:O:39:ALA:HA	6:O:164:ALA:HB3	1.64	0.77
6:O:98:VAL:C	6:O:99:LEU:HD23	2.05	0.77
5:B:189:LEU:HA	5:B:192:LEU:HD12	1.66	0.77
6:C:47:ASP:HA	15:L:69:ALA:CB	2.13	0.77
4:M:58:LEU:HD11	4:M:243:PRO:HB3	1.67	0.77
6:C:142:VAL:H	13:J:16:ASP:HB3	1.49	0.77
15:L:38:LEU:O	15:L:39:SER:HB3	1.85	0.77
4:M:1444:MET:HG2	10:S:60:ARG:HA	1.64	0.77
5:N:336:ARG:CG	5:N:348:ARG:HD3	2.12	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:567:LYS:HB3	11:H:95:TYR:HA	1.67	0.77
5:B:824:ILE:CG2	5:B:1087:PHE:HE2	1.98	0.77
11:H:59:ILE:HG22	11:H:60:ALA:N	2.00	0.77
11:H:61:SER:O	11:H:62:SER:HB3	1.85	0.77
4:M:886:ILE:HG22	4:M:887:GLY:N	1.98	0.77
5:N:65:GLU:HG3	5:N:66:ASP:N	2.00	0.77
11:T:40:LEU:HD13	11:T:123:MET:HB2	1.67	0.77
5:B:332:ASP:O	5:B:336:ARG:HG3	1.85	0.77
5:B:637:LEU:HD12	5:B:693:ILE:HD12	1.67	0.77
8:E:16:PHE:CZ	8:E:20:LYS:HE2	2.20	0.77
4:M:868:TYR:HD2	4:M:1058:VAL:HG21	1.48	0.77
4:M:1445:ILE:HG12	10:S:18:PHE:CE2	2.20	0.77
5:N:244:LEU:HD21	5:N:366:GLN:NE2	1.99	0.77
5:N:745:PRO:O	5:N:748:ILE:HG12	1.84	0.77
5:N:1180:PHE:HB3	5:N:1191:ILE:HD12	1.67	0.77
4:A:1121:GLU:HG2	4:A:1122:PRO:HD2	1.67	0.76
4:A:1325:THR:O	8:E:148:GLU:HB2	1.84	0.76
4:A:1329:THR:HG22	4:A:1331:SER:N	1.99	0.76
4:M:340:LEU:HD13	4:M:1429:ILE:HG23	1.66	0.76
4:M:844:ALA:O	4:M:845:LEU:HD23	1.84	0.76
5:N:18:PHE:N	5:N:19:GLU:N	2.33	0.76
5:N:642:ASP:HA	5:N:649:LYS:HA	1.64	0.76
9:R:69:LEU:HA	9:R:70:LYS:N	1.99	0.76
14:W:110:ASN:O	14:W:111:LEU:HD23	1.85	0.76
5:B:336:ARG:HH22	5:B:345:LYS:CE	1.98	0.76
4:M:382:PRO:HB3	4:M:428:TYR:HE2	1.49	0.76
2:2:20:DC:H4'	4:A:447:GLN:HE22	1.48	0.76
4:A:1063:MET:CG	4:A:1436:ILE:HG23	2.15	0.76
5:B:1162:ILE:HD11	5:B:1194:ILE:HD13	1.66	0.76
12:U:111:THR:HG22	12:U:112:SER:H	1.51	0.76
3:6:5:C:H2'	3:6:6:C:H6	1.49	0.76
4:A:1323:ASP:OD1	4:A:1325:THR:HB	1.85	0.76
7:D:47:LEU:HD11	10:G:3:PHE:HD2	1.51	0.76
4:A:768:GLN:HG2	4:A:816:HIS:HA	1.67	0.76
4:M:836:TYR:CE2	4:M:840:ARG:HD2	2.20	0.76
5:N:661:LEU:HD11	5:N:684:LEU:HD11	1.66	0.76
6:O:186:LEU:HD21	6:O:224:GLN:O	1.86	0.76
4:A:1094:VAL:CG1	4:A:1095:THR:H	1.98	0.76
4:M:1329:THR:HG22	4:M:1331:SER:N	1.99	0.76
1:1:1:DA:H1'	1:1:2:DA:C5'	2.13	0.76
4:A:1341:ILE:HD12	4:A:1379:GLY:O	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:541:ILE:HD13	4:M:549:MET:CE	2.14	0.76
4:A:855:THR:HG23	4:A:857:ARG:HG3	1.67	0.76
5:B:336:ARG:CD	5:B:348:ARG:HH11	1.98	0.76
4:M:1372:VAL:O	4:M:1376:THR:HG22	1.86	0.76
5:B:364:ILE:HG12	5:B:585:VAL:HG13	1.68	0.76
5:B:975:GLN:HG2	5:B:976:ILE:H	1.51	0.76
12:I:55:THR:HG21	12:I:109:ILE:HD13	1.66	0.76
5:N:1007:VAL:HG22	5:N:1008:PRO:HD2	1.67	0.76
5:B:1159:ARG:HB3	5:B:1159:ARG:NH1	2.00	0.76
4:M:106:VAL:HG13	4:M:112:LYS:O	1.85	0.76
4:M:1312:ASN:O	4:M:1316:VAL:HG23	1.86	0.76
5:N:189:LEU:O	5:N:192:LEU:N	2.17	0.76
11:T:4:THR:HA	11:T:60:ALA:CB	2.15	0.76
13:V:3:VAL:HG21	13:V:18:TRP:CB	2.14	0.76
4:A:115:LEU:O	4:A:122:MET:HE2	1.87	0.75
5:N:336:ARG:NH2	5:N:345:LYS:HG2	2.01	0.75
5:B:336:ARG:HH21	5:B:345:LYS:HG2	1.51	0.75
5:B:613:VAL:HG13	5:B:627:PHE:O	1.86	0.75
8:E:22:MET:HE3	8:E:26:ARG:NH2	1.97	0.75
10:G:80:LYS:HD3	10:G:80:LYS:N	2.02	0.75
12:U:105:SER:O	12:U:106:CYS:HB3	1.85	0.75
2:5:20:DC:H4'	4:M:447:GLN:HE22	1.49	0.75
4:A:385:ILE:HG22	4:A:386:ASP:N	2.00	0.75
4:A:567:LYS:HE3	11:H:46:LEU:HB2	1.67	0.75
5:B:955:THR:HG22	5:B:956:THR:N	1.99	0.75
4:M:450:LEU:H	4:M:450:LEU:HD12	1.51	0.75
4:M:858:ASN:HD22	4:M:858:ASN:C	1.90	0.75
12:U:7:CYS:HB3	12:U:14:LEU:HD21	1.67	0.75
13:V:1:MET:H1	13:V:57:ILE:N	1.82	0.75
4:A:58:LEU:CG	4:A:59:GLY:H	1.98	0.75
8:E:153:HIS:HB3	8:E:196:VAL:HG11	1.68	0.75
10:G:138:THR:HG22	10:G:139:ILE:N	2.00	0.75
11:H:102:TYR:OH	11:H:122:LEU:HD22	1.87	0.75
11:T:59:ILE:HG22	11:T:60:ALA:N	2.02	0.75
5:B:1197:PRO:HG2	5:B:1200:ALA:HB2	1.67	0.75
5:N:737:THR:HG21	12:U:66:PRO:HA	1.67	0.75
7:P:185:CYS:HB2	7:P:211:LEU:HD22	1.68	0.75
4:A:1244:ARG:HB3	4:A:1245:PRO:HD2	1.69	0.75
6:C:147:LEU:HB2	6:C:151:GLN:HB2	1.69	0.75
4:M:308:ILE:HG22	4:M:309:ALA:H	1.52	0.75
4:M:1424:VAL:HG13	4:M:1436:ILE:CD1	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:975:GLN:O	5:N:990:ILE:HD12	1.86	0.75
6:O:164:ALA:HA	6:O:167:HIS:O	1.86	0.75
6:O:166:GLU:HG3	14:W:10:PHE:CZ	2.18	0.75
4:A:821:ARG:HB2	4:A:821:ARG:HH11	1.51	0.75
5:B:217:ARG:NE	5:B:405:ARG:HB2	2.01	0.75
4:M:512:VAL:HA	4:M:519:PRO:HA	1.67	0.75
4:A:34:LYS:HE3	4:A:57:ARG:HH12	1.52	0.75
13:J:16:ASP:OD1	13:J:17:LYS:HD2	1.86	0.75
4:M:58:LEU:HD21	4:M:243:PRO:CA	2.16	0.75
4:M:67:CYS:O	4:M:70:CYS:HB3	1.85	0.75
4:M:768:GLN:CG	4:M:816:HIS:HA	2.16	0.75
6:O:44:LEU:HB2	6:O:77:ILE:HD11	1.67	0.75
4:A:384:ASN:OD1	4:A:388:LEU:HD12	1.86	0.75
13:J:36:LEU:HD12	13:J:47:ARG:NH1	2.02	0.75
10:S:119:LEU:HD12	10:S:131:GLN:O	1.87	0.75
2:2:15:DT:H2"	2:2:16:DT:H71	1.69	0.74
4:A:1035:TYR:O	4:A:1037:LEU:N	2.20	0.74
5:B:1177:HIS:HB2	5:B:1179:GLN:HE21	1.52	0.74
6:C:35:ARG:NH1	14:K:41:THR:H	1.84	0.74
4:M:58:LEU:HD13	4:M:80:HIS:O	1.87	0.74
5:N:232:SER:HB3	5:N:261:ARG:NH2	1.99	0.74
5:N:579:ARG:HB2	5:N:586:TRP:NE1	2.02	0.74
8:Q:157:SER:C	8:Q:159:ASP:H	1.91	0.74
3:6:5:C:H2'	3:6:6:C:C6	2.21	0.74
4:A:547:LEU:HD22	14:K:58:PHE:CD1	2.22	0.74
4:A:897:TYR:HD2	4:A:936:LEU:HD13	1.52	0.74
6:O:133:ILE:HD11	6:O:237:SER:HA	1.67	0.74
5:B:434:ARG:O	5:B:437:GLU:HB2	1.87	0.74
5:B:515:HIS:HD2	5:B:517:THR:H	1.35	0.74
5:B:1007:VAL:HG22	5:B:1008:PRO:HD2	1.68	0.74
4:M:427:GLN:HG3	4:M:430:TRP:CZ2	2.22	0.74
6:O:67:LEU:HD11	6:O:155:LEU:CD1	2.17	0.74
10:S:111:THR:HG22	10:S:113:HIS:H	1.52	0.74
6:C:44:LEU:HB2	6:C:77:ILE:HD11	1.68	0.74
5:N:114:PRO:HG2	5:N:115:GLN:H	1.53	0.74
10:S:1:MET:SD	10:S:79:PHE:HD1	2.11	0.74
4:A:844:ALA:O	4:A:845:LEU:HD23	1.86	0.74
4:M:858:ASN:ND2	4:M:860:LEU:H	1.85	0.74
5:N:280:ILE:HD13	5:N:334:ILE:HG12	1.69	0.74
7:P:48:ILE:HG21	10:S:4:ILE:HB	1.69	0.74
14:W:65:HIS:CD2	14:W:67:PHE:H	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:463:ILE:HB	4:A:464:PRO:HD2	1.68	0.74
4:A:1424:VAL:HG13	4:A:1436:ILE:CD1	2.18	0.74
8:E:198:ILE:CD1	8:E:212:ARG:HG3	2.17	0.74
4:M:385:ILE:HG22	4:M:386:ASP:N	2.02	0.74
4:M:1094:VAL:CG1	4:M:1095:THR:H	1.99	0.74
4:M:1100:ARG:HH21	4:M:1351:GLU:HG2	1.52	0.74
14:W:112:GLN:C	14:W:112:GLN:HA	2.02	0.74
4:A:61:ILE:HG22	4:A:62:ASP:H	1.51	0.74
4:A:249:SER:O	4:A:250:ILE:HG13	1.86	0.74
4:A:265:LYS:HZ3	4:A:322:VAL:HG13	1.49	0.74
5:B:1159:ARG:HB3	5:B:1159:ARG:HH11	1.51	0.74
4:M:1116:LEU:N	4:M:1308:THR:HG22	2.02	0.74
5:N:579:ARG:HB2	5:N:586:TRP:HE1	1.53	0.74
5:N:821:GLN:HE22	5:N:851:PHE:HA	1.52	0.74
4:M:18:GLN:HB2	5:N:1215:ARG:HB2	1.68	0.74
5:B:343:ILE:HG21	5:B:348:ARG:N	2.01	0.74
12:I:111:THR:HG22	12:I:112:SER:H	1.53	0.74
5:B:579:ARG:HB2	5:B:586:TRP:NE1	2.02	0.74
5:B:1085:ILE:N	5:B:1085:ILE:HD12	2.02	0.74
11:H:130:ARG:H	11:H:130:ARG:HD2	1.51	0.74
5:N:569:TYR:CE1	5:N:589:VAL:HG21	2.22	0.74
5:N:834:ASN:HB3	5:N:840:ILE:HG13	1.69	0.74
5:N:1197:PRO:HG2	5:N:1200:ALA:HB2	1.68	0.74
11:T:61:SER:O	11:T:62:SER:HB3	1.88	0.74
4:A:53:LEU:HD22	4:A:54:ASN:HD22	1.53	0.73
5:B:351:TYR:O	5:B:355:ILE:HG13	1.87	0.73
5:B:589:VAL:HG12	5:B:590:HIS:N	2.02	0.73
5:B:902:GLY:O	15:L:65:VAL:HG11	1.88	0.73
4:M:63:ARG:HA	4:M:74:MET:SD	2.28	0.73
4:M:463:ILE:HB	4:M:464:PRO:HD2	1.69	0.73
4:M:567:LYS:CB	11:T:95:TYR:HA	2.17	0.73
4:M:567:LYS:HD3	11:T:95:TYR:CD2	2.23	0.73
5:N:515:HIS:HD2	5:N:517:THR:H	1.33	0.73
5:N:842:ASN:ND2	5:N:845:SER:H	1.86	0.73
1:4:5:DA:H1'	1:4:6:DC:O5'	1.87	0.73
4:A:308:ILE:HG22	4:A:309:ALA:H	1.50	0.73
4:A:512:VAL:HA	4:A:519:PRO:HA	1.68	0.73
5:B:280:ILE:HD13	5:B:334:ILE:HG12	1.70	0.73
5:B:1172:ILE:HG22	5:B:1172:ILE:O	1.87	0.73
10:G:79:PHE:CZ	10:G:106:MET:HE2	2.24	0.73
10:G:23:LYS:HG3	10:G:56:ILE:HD11	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1341:ILE:HD12	4:M:1379:GLY:O	1.88	0.73
5:N:847:ASP:HB3	6:O:167:HIS:CD2	2.23	0.73
5:N:953:LEU:HD21	5:N:965:LYS:HB2	1.70	0.73
4:A:868:TYR:HD2	4:A:1058:VAL:HG21	1.52	0.73
15:L:32:ALA:HB3	15:L:55:ILE:HD12	1.68	0.73
4:M:269:ILE:HD13	4:M:300:VAL:HG22	1.69	0.73
4:M:412:ARG:NH2	5:N:1108:ARG:NH1	2.36	0.73
5:N:995:ARG:HH12	6:O:165:LYS:HG2	1.54	0.73
6:O:253:LYS:O	6:O:256:ALA:HB3	1.87	0.73
5:B:1197:PRO:HG2	5:B:1200:ALA:CB	2.19	0.73
6:C:253:LYS:O	6:C:256:ALA:HB3	1.88	0.73
4:M:164:ARG:HG3	4:M:165:GLY:N	2.02	0.73
4:M:1171:GLN:HA	4:M:1174:PHE:CD1	2.22	0.73
5:N:1202:LEU:O	5:N:1206:GLU:HG3	1.88	0.73
7:P:7:THR:HG21	7:P:32:GLU:CD	2.08	0.73
12:U:111:THR:HG22	12:U:112:SER:N	2.03	0.73
1:1:5:DA:H1'	1:1:6:DC:O5'	1.88	0.73
4:A:239:LEU:HD12	4:A:240:PRO:HD2	1.71	0.73
5:B:778:MET:HE1	5:B:853:SER:HB3	1.69	0.73
10:G:14:HIS:HD2	10:G:16:SER:HB2	1.53	0.73
5:B:44:VAL:HG11	5:B:199:MET:HG2	1.69	0.73
14:K:112:GLN:C	14:K:112:GLN:HA	2.02	0.73
5:N:857:ARG:HD2	5:N:945:GLU:OE1	1.89	0.73
5:N:955:THR:HG22	5:N:956:THR:N	2.02	0.73
4:A:1343:ALA:HB2	8:E:150:VAL:HG22	1.71	0.73
5:B:343:ILE:CG2	5:B:347:LYS:HB2	2.09	0.73
5:B:708:GLU:O	5:B:710:LEU:N	2.21	0.73
8:E:157:SER:C	8:E:159:ASP:H	1.90	0.73
5:N:39:ARG:NH2	5:N:665:GLU:HG2	2.02	0.73
10:S:23:LYS:HG3	10:S:56:ILE:CD1	2.19	0.73
4:M:254:GLU:HB2	5:N:935:ARG:NH1	2.03	0.73
4:M:1015:VAL:HG12	4:M:1019:CYS:SG	2.29	0.73
7:P:40:HIS:CB	10:S:73:LYS:NZ	2.51	0.73
10:S:128:PRO:O	10:S:138:THR:HG23	1.89	0.73
15:X:30:ILE:O	15:X:56:LEU:HA	1.89	0.73
4:A:58:LEU:HD13	4:A:80:HIS:O	1.89	0.73
4:A:897:TYR:CD2	4:A:936:LEU:HD13	2.24	0.73
10:G:153:GLN:HG2	10:G:154:VAL:HG23	1.71	0.73
4:A:340:LEU:HD13	4:A:1429:ILE:HG23	1.70	0.72
4:A:567:LYS:CB	11:H:95:TYR:HA	2.19	0.72
5:B:343:ILE:HG23	5:B:347:LYS:CB	2.09	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1084:GLN:NE2	5:B:1084:GLN:H	1.85	0.72
7:D:66:ARG:HD2	7:D:133:THR:HB	1.71	0.72
9:F:69:LEU:HA	9:F:70:LYS:N	2.03	0.72
13:J:48:ARG:HE	13:J:49:MET:HE2	1.54	0.72
15:L:30:ILE:O	15:L:56:LEU:HA	1.88	0.72
4:M:472:LEU:O	4:M:475:THR:HB	1.88	0.72
9:R:82:THR:HG22	9:R:84:TYR:N	2.04	0.72
4:A:55:ASP:N	4:A:56:PRO:HD3	2.04	0.72
4:A:68:GLN:C	4:A:70:CYS:H	1.92	0.72
4:A:783:THR:HG21	4:A:815:PHE:CZ	2.24	0.72
4:A:1036:ARG:HG2	4:A:1036:ARG:HH11	1.53	0.72
5:B:171:PRO:HD2	5:B:457:LEU:HD13	1.71	0.72
5:B:309:GLN:OE1	12:I:52:ILE:HD11	1.89	0.72
5:B:850:LEU:HD12	5:B:851:PHE:N	2.04	0.72
6:C:186:LEU:HD21	6:C:224:GLN:O	1.89	0.72
4:M:1341:ILE:HG23	4:M:1342:GLU:N	2.04	0.72
5:N:879:ARG:NH1	5:N:883:LEU:HD22	2.03	0.72
9:R:103:MET:O	9:R:104:ASN:HB2	1.89	0.72
3:3:5:C:H2'	3:3:6:C:C6	2.24	0.72
4:A:1394:THR:HG21	4:A:1398:MET:SD	2.29	0.72
6:C:66:ARG:NH2	13:J:5:VAL:HG23	2.02	0.72
14:K:49:GLU:HG3	14:K:94:ILE:HG12	1.70	0.72
4:M:265:LYS:H	4:M:265:LYS:HD2	1.53	0.72
5:N:882:THR:HG22	5:N:884:ARG:N	2.01	0.72
5:N:1084:GLN:H	5:N:1084:GLN:HE21	1.37	0.72
4:A:326:ARG:HH22	4:A:1407:GLU:HG3	1.54	0.72
4:A:798:GLY:HA2	4:A:815:PHE:CD1	2.24	0.72
4:A:913:LEU:HD12	4:A:914:GLU:N	2.04	0.72
13:J:14:VAL:O	13:J:14:VAL:HG12	1.89	0.72
7:P:47:LEU:HD13	7:P:48:ILE:N	2.04	0.72
3:3:3:G:H2'	3:3:4:A:C8	2.24	0.72
4:A:49:LYS:NZ	4:A:61:ILE:HG13	2.04	0.72
4:A:537:ARG:HD2	11:H:20:TYR:HE1	1.52	0.72
4:A:567:LYS:HD3	11:H:95:TYR:CD2	2.25	0.72
4:A:1372:VAL:O	4:A:1376:THR:HG22	1.89	0.72
7:D:22:GLU:H	7:D:22:GLU:CD	1.91	0.72
4:M:144:THR:O	4:M:146:MET:HG3	1.89	0.72
4:M:528:LEU:O	4:M:531:ILE:HG22	1.88	0.72
4:M:1100:ARG:HH21	4:M:1351:GLU:CG	2.03	0.72
5:N:710:LEU:HA	5:N:733:HIS:HB3	1.72	0.72
8:Q:117:THR:HG22	8:Q:119:SER:H	1.52	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:466:SER:O	5:B:1103:ILE:HD11	1.89	0.72
4:A:591:PHE:HA	4:A:595:THR:HG21	1.72	0.72
4:A:1341:ILE:HG23	4:A:1342:GLU:N	2.05	0.72
5:B:821:GLN:NE2	5:B:851:PHE:HA	2.03	0.72
6:C:67:LEU:HD11	6:C:155:LEU:CD1	2.20	0.72
9:F:103:MET:O	9:F:104:ASN:HB2	1.89	0.72
4:M:1028:THR:O	4:M:1032:LEU:HD12	1.89	0.72
4:M:1437:GLY:O	4:M:1439:GLY:N	2.23	0.72
5:N:1023:VAL:O	5:N:1026:LEU:HB2	1.89	0.72
10:S:23:LYS:HG3	10:S:56:ILE:HD11	1.70	0.72
11:T:42:ILE:HG23	11:T:95:TYR:HE1	1.54	0.72
4:A:93:VAL:HG22	4:A:301:ALA:HA	1.72	0.72
4:A:1332:PHE:H	4:A:1332:PHE:HD2	1.36	0.72
4:M:58:LEU:CD1	4:M:80:HIS:H	2.02	0.72
4:M:326:ARG:HH22	4:M:1407:GLU:HG3	1.54	0.72
4:M:549:MET:SD	4:M:577:ILE:HD11	2.30	0.72
5:N:37:PHE:CE1	5:N:41:LYS:HG3	2.25	0.72
5:N:378:LEU:O	5:N:382:ILE:HG13	1.89	0.72
4:A:215:SER:HB3	4:A:218:ASP:OD2	1.90	0.72
5:B:336:ARG:HD3	5:B:348:ARG:NH1	2.04	0.72
5:B:847:ASP:HB3	6:C:167:HIS:CD2	2.25	0.72
6:C:35:ARG:NH1	14:K:41:THR:N	2.38	0.72
8:E:153:HIS:HB3	8:E:196:VAL:CG1	2.18	0.72
14:K:45:LEU:HG	14:K:94:ILE:HD13	1.72	0.72
5:N:850:LEU:HD12	5:N:851:PHE:N	2.03	0.72
6:O:232:VAL:HG21	6:O:244:VAL:HG22	1.70	0.72
9:R:79:ARG:HG3	9:R:144:GLU:OE1	1.89	0.72
5:B:359:GLU:O	5:B:362:PRO:HD3	1.90	0.72
4:M:93:VAL:HG22	4:M:301:ALA:HA	1.72	0.72
5:N:615:MET:C	5:N:616:ILE:HD12	2.10	0.72
5:N:1069:PHE:HA	5:N:1085:ILE:O	1.90	0.72
7:P:130:LEU:O	7:P:132:GLN:N	2.20	0.72
7:P:159:THR:O	7:P:163:VAL:HG23	1.89	0.72
8:Q:153:HIS:HB3	8:Q:196:VAL:HG11	1.72	0.72
8:Q:177:ARG:HD3	8:Q:215:MET:HG3	1.72	0.72
9:R:111:LEU:C	9:R:113:GLY:H	1.93	0.72
4:A:1206:ASP:HB3	4:A:1274:ARG:HH12	1.53	0.72
4:M:856:THR:HB	4:M:865:GLN:HB2	1.70	0.72
6:O:213:PRO:O	6:O:214:ASN:HB2	1.88	0.72
3:3:5:C:H2'	3:3:6:C:H6	1.53	0.71
4:A:106:VAL:HG13	4:A:112:LYS:O	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:115:LEU:O	4:M:122:MET:HE2	1.90	0.71
4:M:164:ARG:HG3	4:M:165:GLY:H	1.55	0.71
4:M:701:LEU:HA	12:U:115:LYS:HE3	1.72	0.71
5:N:278:GLN:HG2	5:N:279:ASP:H	1.55	0.71
5:N:343:ILE:CG2	5:N:347:LYS:HB2	2.10	0.71
15:X:38:LEU:O	15:X:39:SER:HB3	1.90	0.71
4:A:34:LYS:H	4:A:57:ARG:NH2	1.88	0.71
4:A:472:LEU:O	4:A:475:THR:HB	1.89	0.71
4:A:1015:VAL:HG12	4:A:1019:CYS:SG	2.30	0.71
5:B:515:HIS:H	5:B:518:HIS:CD2	2.08	0.71
4:M:901:LEU:HB2	4:M:926:GLN:HG2	1.72	0.71
5:N:589:VAL:HG12	5:N:590:HIS:N	2.04	0.71
5:N:902:GLY:O	15:X:65:VAL:HG11	1.91	0.71
5:B:1180:PHE:HB3	5:B:1191:ILE:CD1	2.20	0.71
7:D:176:GLU:C	7:D:178:ALA:H	1.94	0.71
11:T:130:ARG:H	11:T:130:ARG:HD2	1.54	0.71
4:A:58:LEU:HD12	4:A:59:GLY:N	2.06	0.71
7:D:130:LEU:C	7:D:132:GLN:H	1.93	0.71
4:M:567:LYS:NZ	11:T:46:LEU:HB2	2.06	0.71
4:M:1332:PHE:H	4:M:1332:PHE:HD2	1.38	0.71
5:N:549:THR:H	5:N:628:THR:HG23	1.54	0.71
6:O:90:ASP:O	6:O:91:HIS:HB3	1.89	0.71
7:D:7:THR:HG21	7:D:32:GLU:CD	2.10	0.71
7:D:47:LEU:HD13	7:D:48:ILE:N	2.05	0.71
4:M:49:LYS:NZ	4:M:61:ILE:HG13	2.06	0.71
5:N:25:ILE:HD11	5:N:653:VAL:O	1.90	0.71
5:N:121:ASN:HA	5:N:207:GLY:HA2	1.71	0.71
4:A:89:PRO:HB2	4:A:204:THR:HG22	1.72	0.71
4:A:1161:THR:HG22	4:A:1163:ILE:N	2.05	0.71
4:A:1348:LEU:HG	4:A:1372:VAL:CG2	2.20	0.71
5:B:120:ARG:HG2	5:B:955:THR:HG21	1.71	0.71
5:B:1099:VAL:CG1	5:B:1100:ASP:N	2.53	0.71
6:C:212:PRO:HB3	6:C:213:PRO:HD2	1.72	0.71
5:N:1087:PHE:HD2	5:N:1088:GLY:N	1.88	0.71
12:I:25:LEU:HB3	12:I:38:ALA:HB2	1.71	0.71
4:M:1436:ILE:O	4:M:1437:GLY:C	2.28	0.71
4:A:340:LEU:HD21	5:B:1200:ALA:N	2.06	0.71
5:B:953:LEU:HD23	5:B:953:LEU:O	1.90	0.71
6:C:133:ILE:CD1	6:C:237:SER:HA	2.21	0.71
10:G:9:LEU:HD12	10:G:10:ASN:H	1.53	0.71
10:G:23:LYS:HG3	10:G:56:ILE:CD1	2.20	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:42:ILE:HG23	11:H:95:TYR:HE1	1.55	0.71
4:M:886:ILE:HD11	4:M:943:LEU:HB3	1.73	0.71
4:M:1206:ASP:HB3	4:M:1274:ARG:HH12	1.55	0.71
5:N:622:LYS:HE2	12:U:59:VAL:HG22	1.72	0.71
4:A:1171:GLN:HA	4:A:1174:PHE:CD1	2.25	0.71
4:M:414:ASP:OD1	4:M:416:ARG:HG2	1.89	0.71
5:N:824:ILE:CG2	5:N:1087:PHE:HE2	1.99	0.71
4:A:528:LEU:O	4:A:531:ILE:HG22	1.90	0.71
4:A:1436:ILE:O	4:A:1437:GLY:C	2.29	0.71
9:F:111:LEU:C	9:F:113:GLY:H	1.94	0.71
14:K:6:ARG:O	14:K:9:LEU:HG	1.89	0.71
4:M:567:LYS:HD3	11:T:95:TYR:CG	2.26	0.71
5:N:35:SER:O	5:N:39:ARG:HG3	1.90	0.71
5:N:37:PHE:CD1	5:N:41:LYS:HG3	2.26	0.71
5:N:1172:ILE:O	5:N:1172:ILE:HG22	1.91	0.71
6:O:46:ILE:HG13	6:O:72:LEU:HD11	1.73	0.71
5:B:882:THR:HG22	5:B:884:ARG:N	2.04	0.70
4:A:254:GLU:HB2	5:B:935:ARG:NH1	2.04	0.70
4:A:1370:LEU:O	4:A:1374:VAL:HG23	1.91	0.70
5:N:247:GLY:C	5:N:249:ARG:H	1.93	0.70
7:P:40:HIS:CB	10:S:73:LYS:HZ3	2.03	0.70
4:A:567:LYS:CE	11:H:46:LEU:HB2	2.21	0.70
5:B:807:ARG:HG2	5:B:1045:SER:OG	1.91	0.70
10:G:1:MET:SD	10:G:79:PHE:CD1	2.84	0.70
11:H:4:THR:HA	11:H:60:ALA:CB	2.20	0.70
4:M:35:ILE:O	4:M:35:ILE:HG22	1.91	0.70
5:N:798:TYR:HE2	6:O:62:PHE:CZ	2.10	0.70
5:N:1161:HIS:NE2	5:N:1175:LEU:HD21	2.06	0.70
4:A:567:LYS:NZ	11:H:46:LEU:HB2	2.06	0.70
11:H:84:ALA:CA	11:H:87:ARG:HB2	2.20	0.70
4:M:1006:ILE:HD12	8:Q:163:GLU:HG3	1.72	0.70
4:M:1244:ARG:HB3	4:M:1245:PRO:HD2	1.74	0.70
10:S:138:THR:HG22	10:S:139:ILE:N	2.05	0.70
12:U:34:TYR:HE2	12:U:36:GLU:HB3	1.56	0.70
4:A:881:GLN:NE2	4:A:958:VAL:O	2.23	0.70
4:A:1155:ASP:OD2	4:A:1161:THR:HG23	1.91	0.70
4:M:897:TYR:HD2	4:M:936:LEU:HD13	1.55	0.70
10:S:153:GLN:HG2	10:S:154:VAL:HG23	1.74	0.70
13:V:36:LEU:HD12	13:V:47:ARG:NH1	2.07	0.70
4:A:92:HIS:O	4:A:94:GLY:N	2.25	0.70
6:C:98:VAL:C	6:C:99:LEU:HD23	2.11	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:164:ALA:HA	6:C:167:HIS:O	1.91	0.70
7:D:53:SER:HB3	7:D:152:SER:CB	2.22	0.70
12:I:111:THR:HG22	12:I:112:SER:N	2.06	0.70
4:M:899:VAL:HB	4:M:929:LEU:CD1	2.21	0.70
5:N:36:ALA:HA	5:N:39:ARG:HD2	1.73	0.70
8:Q:124:VAL:HG13	8:Q:132:ILE:HB	1.74	0.70
4:A:14:VAL:HG21	5:B:1216:LEU:HD13	1.72	0.70
4:A:1063:MET:HG3	4:A:1436:ILE:HG23	1.73	0.70
5:B:863:GLU:OE2	5:B:873:THR:HA	1.92	0.70
8:E:117:THR:HG22	8:E:119:SER:H	1.55	0.70
4:M:852:TYR:CD2	4:M:1060:PRO:HB2	2.26	0.70
4:M:866:PHE:C	4:M:867:ILE:HD12	2.12	0.70
5:N:955:THR:HG22	5:N:956:THR:H	1.57	0.70
5:N:1065:GLN:HG3	5:N:1067:ARG:H	1.56	0.70
4:A:537:ARG:HD2	11:H:20:TYR:CE1	2.27	0.70
5:B:18:PHE:N	5:B:19:GLU:N	2.40	0.70
5:B:879:ARG:NH1	5:B:883:LEU:HD22	2.06	0.70
5:B:906:SER:O	5:B:941:LEU:HD23	1.92	0.70
5:B:1223:ASP:O	5:B:1224:PHE:HB2	1.90	0.70
5:N:1099:VAL:CG1	5:N:1100:ASP:N	2.54	0.70
11:T:84:ALA:CA	11:T:87:ARG:HB2	2.20	0.70
4:A:335:ARG:HA	4:A:339:ASN:HB2	1.74	0.70
5:B:361:LEU:HD21	5:B:377:PHE:CD2	2.26	0.70
5:B:842:ASN:HD22	5:B:845:SER:CB	2.04	0.70
4:M:34:LYS:H	4:M:57:ARG:NH2	1.89	0.70
4:M:902:LEU:HG	4:M:926:GLN:HG3	1.74	0.70
4:M:1004:ASN:ND2	8:Q:167:ARG:HD2	2.06	0.70
5:N:336:ARG:HH22	5:N:345:LYS:CE	2.03	0.70
7:P:130:LEU:C	7:P:132:GLN:H	1.94	0.70
14:W:42:LEU:O	14:W:46:ILE:HG13	1.91	0.70
4:A:902:LEU:HG	4:A:926:GLN:HG3	1.72	0.70
4:A:1342:GLU:OE2	8:E:212:ARG:NH1	2.25	0.70
5:B:39:ARG:NH2	5:B:665:GLU:HG2	2.06	0.70
5:B:273:LEU:CB	5:B:276:ILE:HD12	2.16	0.70
6:C:133:ILE:HD11	6:C:237:SER:HA	1.74	0.70
4:M:58:LEU:HD12	4:M:59:GLY:N	2.04	0.70
5:N:465:ASN:HD22	5:N:465:ASN:N	1.88	0.70
5:N:971:THR:OG1	6:O:61:GLU:HG3	1.92	0.70
6:O:212:PRO:HB3	6:O:213:PRO:HD2	1.72	0.70
4:A:23:SER:HA	4:A:233:TRP:CD1	2.27	0.69
4:A:853:ASP:OD1	4:A:855:THR:HB	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:710:LEU:HA	5:B:733:HIS:HB3	1.74	0.69
5:B:737:THR:HG21	12:I:66:PRO:HA	1.73	0.69
5:B:918:ILE:HB	5:B:935:ARG:HD2	1.74	0.69
4:M:1155:ASP:OD2	4:M:1161:THR:HG23	1.92	0.69
5:N:1017:ILE:HB	5:N:1018:PRO:HD3	1.74	0.69
4:A:49:LYS:HE2	4:A:61:ILE:HD12	1.74	0.69
4:A:590:ARG:HG3	4:A:590:ARG:NH1	2.07	0.69
4:A:1116:LEU:N	4:A:1308:THR:HG22	2.06	0.69
5:B:112:LEU:HD12	5:B:113:TYR:H	1.56	0.69
6:C:35:ARG:HH12	14:K:41:THR:H	1.40	0.69
9:F:82:THR:HG22	9:F:84:TYR:N	2.04	0.69
4:M:53:LEU:HD22	4:M:54:ASN:HD22	1.57	0.69
4:M:249:SER:O	4:M:250:ILE:HG13	1.91	0.69
4:A:414:ASP:OD1	4:A:416:ARG:HG2	1.91	0.69
4:A:630:ILE:HD13	4:A:646:PHE:CZ	2.27	0.69
5:B:247:GLY:C	5:B:249:ARG:H	1.94	0.69
5:B:278:GLN:HG2	5:B:279:ASP:H	1.57	0.69
5:B:336:ARG:NH2	5:B:345:LYS:HE2	2.05	0.69
9:F:138:LEU:HB3	9:F:139:PRO:HD2	1.74	0.69
10:G:59:GLY:HA3	10:G:70:PHE:CD2	2.28	0.69
4:M:901:LEU:N	4:M:926:GLN:NE2	2.37	0.69
4:A:58:LEU:HD21	4:A:244:PRO:HD2	1.74	0.69
4:A:164:ARG:HG3	4:A:165:GLY:N	2.06	0.69
5:N:1084:GLN:NE2	5:N:1084:GLN:N	2.39	0.69
13:V:8:PHE:H	13:V:49:MET:HE1	1.58	0.69
4:A:58:LEU:CG	4:A:59:GLY:N	2.56	0.69
4:A:58:LEU:HG	4:A:59:GLY:N	2.07	0.69
4:A:525:GLN:HG3	5:B:835:GLN:HG2	1.73	0.69
11:H:40:LEU:HD13	11:H:123:MET:HB2	1.75	0.69
7:P:29:LEU:HD22	10:S:82:PHE:CE2	2.28	0.69
14:W:47:ARG:HB3	14:W:47:ARG:NH1	2.06	0.69
1:4:1:DA:H1'	1:4:2:DA:C5'	2.20	0.69
4:A:1409:LEU:HD13	5:B:1207:LEU:HD11	1.72	0.69
5:B:37:PHE:CE1	5:B:41:LYS:HG3	2.28	0.69
5:B:745:PRO:O	5:B:748:ILE:HG12	1.93	0.69
7:D:134:THR:HG22	7:D:135:GLY:N	2.07	0.69
4:M:699:ALA:CB	4:M:701:LEU:HG	2.22	0.69
4:M:741:ASN:HD22	4:M:744:LYS:H	1.41	0.69
5:N:496:ARG:HB3	5:N:496:ARG:HH11	1.58	0.69
6:O:226:ASP:O	6:O:227:THR:HB	1.92	0.69
4:A:265:LYS:NZ	4:A:322:VAL:HG22	2.08	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:325:ILE:HG21	5:B:1210:MET:HG3	1.74	0.69
4:A:1424:VAL:HG11	5:B:1139:ILE:HD13	1.73	0.69
5:B:516:ASN:N	5:B:516:ASN:ND2	2.40	0.69
6:C:39:ALA:CA	6:C:164:ALA:HB3	2.22	0.69
7:D:130:LEU:O	7:D:132:GLN:N	2.23	0.69
14:K:60:ALA:O	14:K:73:LEU:HD12	1.93	0.69
4:M:340:LEU:HD21	5:N:1200:ALA:N	2.07	0.69
5:N:859:TYR:OH	5:N:941:LEU:HD12	1.92	0.69
8:Q:192:ARG:HH11	8:Q:192:ARG:HG3	1.57	0.69
2:2:27:DA:H2"	2:2:28:DT:OP2	1.90	0.69
5:B:622:LYS:HE2	12:I:59:VAL:HG22	1.73	0.69
4:M:325:ILE:HG21	5:N:1210:MET:HG3	1.75	0.69
4:M:588:LEU:O	4:M:606:LEU:HA	1.92	0.69
5:N:120:ARG:HG2	5:N:955:THR:HG21	1.73	0.69
5:N:815:ARG:HD3	5:N:1041:GLU:OE2	1.93	0.69
4:A:399:HIS:O	4:A:401:GLY:N	2.25	0.69
5:B:189:LEU:O	5:B:192:LEU:N	2.19	0.69
5:B:953:LEU:HD21	5:B:965:LYS:HB2	1.75	0.69
11:H:41:ASP:O	11:H:42:ILE:HG13	1.93	0.69
7:P:22:GLU:CD	7:P:22:GLU:H	1.95	0.69
7:P:134:THR:HG22	7:P:135:GLY:N	2.08	0.69
7:P:176:GLU:C	7:P:178:ALA:H	1.95	0.69
13:V:44:TYR:HA	13:V:47:ARG:CB	2.23	0.69
6:C:244:VAL:O	6:C:248:ILE:HG13	1.93	0.69
7:D:7:THR:HB	10:G:42:PHE:CE2	2.28	0.69
6:O:36:VAL:HG21	6:O:251:LEU:HB2	1.75	0.69
12:U:103:CYS:HB3	12:U:106:CYS:SG	2.33	0.69
4:A:253:ASN:HB3	5:B:935:ARG:CZ	2.23	0.68
4:A:1187:GLN:O	4:A:1243:VAL:HG13	1.93	0.68
4:A:1329:THR:CG2	4:A:1331:SER:H	2.05	0.68
5:B:38:PHE:HD1	5:B:811:TYR:CD2	2.11	0.68
5:B:467:GLY:H	5:B:475:SER:CB	2.05	0.68
10:G:79:PHE:HZ	10:G:106:MET:HE2	1.57	0.68
4:M:55:ASP:N	4:M:56:PRO:HD3	2.08	0.68
5:N:516:ASN:N	5:N:516:ASN:ND2	2.40	0.68
4:A:87:ALA:CB	4:A:276:LEU:HD23	2.23	0.68
4:A:405:VAL:HG22	4:A:432:VAL:HG13	1.76	0.68
4:A:567:LYS:HD3	11:H:95:TYR:CG	2.28	0.68
4:A:741:ASN:HD22	4:A:744:LYS:H	1.41	0.68
5:B:35:SER:O	5:B:39:ARG:HG3	1.93	0.68
15:L:58:LYS:O	15:L:58:LYS:HG2	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:254:GLU:CB	5:N:935:ARG:HH12	2.04	0.68
4:M:896:ARG:HD3	4:M:897:TYR:CE1	2.28	0.68
4:A:254:GLU:O	4:A:256:GLN:N	2.27	0.68
5:B:37:PHE:CD1	5:B:41:LYS:HG3	2.29	0.68
5:B:569:TYR:CE1	5:B:589:VAL:HG21	2.28	0.68
6:C:66:ARG:NH2	13:J:3:VAL:O	2.26	0.68
8:E:124:VAL:HG13	8:E:132:ILE:HB	1.76	0.68
8:E:157:SER:OG	8:E:160:GLU:HG3	1.94	0.68
4:M:69:THR:O	4:M:71:GLN:N	2.26	0.68
4:M:743:VAL:O	4:M:747:VAL:HG23	1.92	0.68
4:M:960:ILE:O	4:M:963:ILE:HG22	1.93	0.68
8:Q:9:ILE:HD11	8:Q:53:PRO:HD3	1.74	0.68
12:U:55:THR:HG21	12:U:109:ILE:HD13	1.75	0.68
15:X:53:HIS:HB3	15:X:55:ILE:CD1	2.22	0.68
4:A:58:LEU:CD1	4:A:80:HIS:H	2.05	0.68
4:A:63:ARG:HA	4:A:74:MET:CE	2.23	0.68
5:B:378:LEU:O	5:B:382:ILE:HG13	1.93	0.68
4:M:567:LYS:HG3	4:M:568:PRO:HD2	1.76	0.68
4:M:897:TYR:CD2	4:M:936:LEU:HD13	2.29	0.68
5:N:899:ILE:CD1	5:N:911:ILE:HA	2.23	0.68
6:O:133:ILE:CD1	6:O:237:SER:HA	2.23	0.68
14:W:31:VAL:HG12	14:W:32:VAL:N	2.08	0.68
4:A:144:THR:O	4:A:146:MET:HG3	1.93	0.68
4:A:450:LEU:H	4:A:450:LEU:HD12	1.59	0.68
4:A:1116:LEU:HB2	4:A:1329:THR:OG1	1.94	0.68
5:B:860:MET:HG2	5:B:861:ASP:N	2.08	0.68
6:C:238:ILE:CG2	6:C:242:GLN:HB2	2.24	0.68
12:I:103:CYS:HB3	12:I:106:CYS:SG	2.32	0.68
14:K:31:VAL:HG12	14:K:32:VAL:N	2.08	0.68
4:M:14:VAL:HG21	5:N:1216:LEU:HD13	1.76	0.68
4:M:346:ASP:HB3	5:N:1108:ARG:H	1.58	0.68
5:N:310:MET:HE1	5:N:387:LEU:HD12	1.76	0.68
4:M:504:LEU:HD11	9:R:91:ALA:HB1	1.74	0.68
4:M:728:LYS:O	4:M:732:LEU:HG	1.93	0.68
4:M:1329:THR:CG2	4:M:1331:SER:H	2.06	0.68
5:N:100:PRO:HD2	5:N:180:TYR:HE1	1.59	0.68
5:N:637:LEU:HD12	5:N:693:ILE:HD12	1.74	0.68
6:O:77:ILE:HG23	6:O:161:LYS:HE3	1.75	0.68
8:Q:198:ILE:CD1	8:Q:212:ARG:HG3	2.24	0.68
11:T:102:TYR:OH	11:T:122:LEU:HD22	1.93	0.68
2:5:15:DT:H2"	2:5:16:DT:H71	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:310:MET:HE1	5:B:387:LEU:HD12	1.76	0.68
11:H:143:LEU:HD12	11:H:143:LEU:N	2.09	0.68
6:O:43:THR:CG2	6:O:44:LEU:H	2.03	0.68
4:A:50:ILE:C	4:A:52:GLY:H	1.96	0.68
4:A:351:THR:HB	5:B:1103:ILE:CD1	2.24	0.68
5:B:635:ARG:NH2	5:B:742:GLU:OE2	2.26	0.68
7:D:52:LEU:HD21	7:D:147:TYR:HE2	1.59	0.68
7:D:153:ARG:HB3	7:D:154:PHE:CE1	2.29	0.68
4:M:458:HIS:CE1	4:M:507:VAL:HG21	2.29	0.68
4:M:1036:ARG:HG2	4:M:1036:ARG:HH11	1.58	0.68
5:N:1197:PRO:HG2	5:N:1200:ALA:CB	2.24	0.68
5:B:23:ALA:HB1	5:B:24:PRO:HD2	1.74	0.68
5:B:815:ARG:HD3	5:B:1041:GLU:OE2	1.94	0.68
5:B:953:LEU:CD2	5:B:965:LYS:HB2	2.23	0.68
6:C:90:ASP:O	6:C:91:HIS:HB3	1.94	0.68
4:M:1161:THR:HG22	4:M:1163:ILE:N	2.08	0.68
5:N:830:TYR:O	5:N:832:GLY:N	2.27	0.68
5:B:357:GLN:O	5:B:366:GLN:HA	1.94	0.67
6:C:77:ILE:HG23	6:C:161:LYS:HE3	1.76	0.67
6:C:123:ASN:HD22	6:C:125:MET:HG2	1.60	0.67
10:G:111:THR:HG22	10:G:113:HIS:H	1.58	0.67
4:M:596:THR:O	4:M:598:LEU:N	2.27	0.67
4:M:849:MET:CE	4:M:1061:GLY:HA2	2.23	0.67
5:N:217:ARG:NE	5:N:405:ARG:HB2	2.09	0.67
10:G:1:MET:SD	10:G:79:PHE:HD1	2.17	0.67
10:G:119:LEU:HD12	10:G:131:GLN:O	1.94	0.67
13:J:7:CYS:CB	13:J:46:CYS:HB3	2.25	0.67
4:M:49:LYS:HE2	4:M:61:ILE:HD12	1.76	0.67
5:N:344:LYS:O	5:N:345:LYS:HG3	1.94	0.67
5:N:357:GLN:O	5:N:366:GLN:HA	1.94	0.67
5:N:635:ARG:NH2	5:N:742:GLU:OE2	2.27	0.67
5:B:799:PRO:HB3	5:B:818:PRO:HG2	1.76	0.67
5:B:1202:LEU:O	5:B:1206:GLU:HG3	1.94	0.67
6:C:213:PRO:O	6:C:214:ASN:HB2	1.93	0.67
4:M:1323:ASP:OD1	4:M:1325:THR:HB	1.94	0.67
4:M:1345:ARG:HG3	4:M:1376:THR:HG21	1.76	0.67
5:N:336:ARG:HH21	5:N:345:LYS:HG2	1.57	0.67
5:N:616:ILE:HD12	5:N:616:ILE:N	2.09	0.67
6:O:238:ILE:CG2	6:O:242:GLN:HB2	2.25	0.67
4:A:701:LEU:HA	12:I:115:LYS:HE3	1.76	0.67
4:A:1100:ARG:NH2	4:A:1351:GLU:HG2	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:46:TYR:CD2	8:E:58:MET:HG2	2.30	0.67
4:M:809:THR:OG1	4:M:812:GLU:HG3	1.94	0.67
7:P:175:PHE:HZ	10:S:85:GLU:HG3	1.58	0.67
4:A:899:VAL:HB	4:A:929:LEU:CD1	2.24	0.67
4:A:993:LEU:HD23	4:A:1022:LEU:HD21	1.75	0.67
5:B:121:ASN:HA	5:B:207:GLY:HA2	1.76	0.67
5:B:1069:PHE:H	5:B:1069:PHE:HD1	1.43	0.67
9:F:125:LEU:HG	9:F:125:LEU:O	1.93	0.67
13:J:64:ASN:HD22	13:J:65:PRO:HD3	1.60	0.67
4:A:346:ASP:HB3	5:B:1108:ARG:H	1.60	0.67
4:A:666:ILE:HD12	4:A:667:GLY:H	1.58	0.67
4:A:898:ARG:HB2	4:A:933:TYR:CE1	2.30	0.67
5:B:594:ALA:HA	5:B:617:ARG:NH1	2.10	0.67
4:M:699:ALA:HB1	4:M:701:LEU:HG	1.76	0.67
5:N:642:ASP:O	5:N:644:GLU:N	2.27	0.67
6:O:244:VAL:O	6:O:248:ILE:HG13	1.94	0.67
4:A:58:LEU:HD11	4:A:243:PRO:CB	2.23	0.67
4:A:69:THR:O	4:A:71:GLN:N	2.28	0.67
12:I:34:TYR:HE2	12:I:36:GLU:HB3	1.59	0.67
4:M:567:LYS:HE3	11:T:46:LEU:HB2	1.75	0.67
4:M:903:ASN:ND2	4:M:905:ASP:H	1.93	0.67
4:M:1035:TYR:O	4:M:1037:LEU:N	2.28	0.67
5:N:860:MET:HG2	5:N:861:ASP:N	2.10	0.67
6:O:239:PRO:HB2	6:O:241:ASP:OD1	1.95	0.67
4:A:741:ASN:HD21	4:A:743:VAL:HB	1.60	0.67
5:B:859:TYR:OH	5:B:941:LEU:HD12	1.94	0.67
6:C:2:SER:N	6:C:3:GLU:N	2.43	0.67
10:G:80:LYS:HD3	10:G:80:LYS:H	1.60	0.67
4:M:518:LYS:HE2	4:M:624:SER:O	1.94	0.67
4:M:794:PRO:HG2	4:M:795:GLU:OE2	1.95	0.67
5:N:1162:ILE:HD11	5:N:1194:ILE:HD13	1.75	0.67
7:P:47:LEU:HD11	10:S:3:PHE:HD2	1.54	0.67
14:W:47:ARG:HD2	14:W:47:ARG:O	1.95	0.67
2:5:21:DC:H2"	2:5:22:BRU:H5"	1.77	0.67
4:A:663:SER:OG	4:A:664:THR:N	2.26	0.67
6:C:226:ASP:O	6:C:227:THR:HB	1.94	0.67
7:D:159:THR:O	7:D:163:VAL:HG23	1.95	0.67
12:I:75:CYS:SG	12:I:79:HIS:N	2.68	0.67
4:M:254:GLU:O	4:M:256:GLN:N	2.28	0.67
4:M:265:LYS:HD2	4:M:265:LYS:N	2.07	0.67
4:M:384:ASN:O	4:M:385:ILE:C	2.34	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:590:ARG:HG3	4:M:590:ARG:NH1	2.10	0.67
4:M:1289:ARG:HD2	4:M:1303:GLU:OE2	1.95	0.67
7:P:7:THR:HB	10:S:42:PHE:CE2	2.30	0.67
11:T:81:PRO:CB	11:T:82:PRO:CD	2.73	0.67
1:1:1:DA:C1'	1:1:2:DA:H5'	2.19	0.67
4:A:265:LYS:HD2	4:A:265:LYS:H	1.60	0.67
4:A:547:LEU:HD22	14:K:58:PHE:HD1	1.60	0.67
5:B:601:ARG:O	5:B:605:ARG:HG3	1.95	0.67
5:B:1087:PHE:HD2	5:B:1088:GLY:N	1.92	0.67
4:M:58:LEU:HD11	4:M:243:PRO:CB	2.24	0.67
4:M:58:LEU:CG	4:M:59:GLY:H	2.07	0.67
4:M:901:LEU:HG	4:M:926:GLN:NE2	2.09	0.67
6:O:67:LEU:HA	6:O:70:ILE:HD12	1.74	0.67
6:O:69:LEU:HB3	13:V:6:ARG:HD3	1.76	0.67
14:W:47:ARG:HH11	14:W:47:ARG:CB	2.06	0.67
4:A:63:ARG:HA	4:A:74:MET:SD	2.35	0.66
4:A:254:GLU:CB	5:B:935:ARG:HH12	2.05	0.66
5:B:616:ILE:HD12	5:B:616:ILE:N	2.10	0.66
5:B:1073:TYR:CE2	5:B:1080:LYS:HG2	2.31	0.66
8:E:78:LEU:HD21	8:E:80:VAL:HG23	1.76	0.66
4:M:225:ASN:ND2	4:M:228:PHE:H	1.90	0.66
4:M:591:PHE:HA	4:M:595:THR:HG21	1.76	0.66
4:M:984:LYS:O	4:M:988:LEU:HB2	1.96	0.66
5:N:339:THR:HG22	5:N:339:THR:O	1.95	0.66
5:N:953:LEU:CD2	5:N:965:LYS:HB2	2.24	0.66
5:N:1002:THR:HG23	5:N:1006:ILE:HG13	1.75	0.66
6:O:73:GLN:HE21	6:O:75:MET:N	1.93	0.66
11:T:81:PRO:CB	11:T:82:PRO:HD2	2.24	0.66
2:2:24:DG:OP2	5:B:942:ARG:NH2	2.23	0.66
4:A:399:HIS:HB3	4:A:400:PRO:CD	2.23	0.66
4:A:856:THR:HB	4:A:865:GLN:HB2	1.77	0.66
4:A:982:THR:HB	4:A:985:ASP:H	1.60	0.66
4:A:986:ILE:HG22	4:A:987:VAL:N	2.09	0.66
4:A:1332:PHE:HD2	4:A:1332:PHE:N	1.93	0.66
5:B:229:ALA:HB1	5:B:231:PRO:HD2	1.76	0.66
5:B:995:ARG:HH12	6:C:165:LYS:HG2	1.61	0.66
4:M:525:GLN:HG3	5:N:835:GLN:HG2	1.76	0.66
4:M:901:LEU:H	4:M:926:GLN:HE21	1.41	0.66
4:M:1332:PHE:CD2	4:M:1332:PHE:N	2.63	0.66
5:N:863:GLU:OE2	5:N:873:THR:HA	1.96	0.66
8:Q:15:ALA:O	8:Q:19:VAL:HG23	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:265:LYS:HD2	4:A:265:LYS:N	2.09	0.66
11:H:81:PRO:CB	11:H:82:PRO:CD	2.73	0.66
4:M:108:MET:N	4:M:108:MET:SD	2.67	0.66
4:M:382:PRO:HD3	4:M:428:TYR:CD2	2.31	0.66
4:M:798:GLY:HA2	4:M:815:PHE:CD1	2.30	0.66
6:O:2:SER:N	6:O:3:GLU:N	2.44	0.66
10:S:111:THR:HB	10:S:114:LEU:HB2	1.77	0.66
11:T:143:LEU:N	11:T:143:LEU:HD12	2.10	0.66
4:A:351:THR:HG22	5:B:1103:ILE:HA	1.76	0.66
4:A:382:PRO:HD3	4:A:428:TYR:CD2	2.30	0.66
4:A:1444:MET:CG	10:G:60:ARG:HA	2.26	0.66
6:C:46:ILE:HG23	6:C:157:CYS:HB3	1.77	0.66
8:E:213:ILE:HG12	8:E:214:CYS:H	1.59	0.66
4:M:714:PHE:O	4:M:718:VAL:HG23	1.96	0.66
5:N:1223:ASP:O	5:N:1224:PHE:HB2	1.94	0.66
10:S:15:PRO:HA	10:S:18:PHE:CE1	2.30	0.66
10:S:49:LEU:HG	10:S:76:ALA:HA	1.76	0.66
4:A:152:VAL:CG1	4:A:153:PRO:HD2	2.26	0.66
4:A:699:ALA:CB	4:A:701:LEU:HG	2.25	0.66
11:H:59:ILE:HG22	11:H:60:ALA:H	1.60	0.66
4:M:61:ILE:HG22	4:M:62:ASP:H	1.60	0.66
4:M:253:ASN:HB3	5:N:935:ARG:CZ	2.26	0.66
4:M:567:LYS:HB2	4:M:568:PRO:CD	2.25	0.66
5:N:169:ARG:HB2	5:N:454:THR:HG23	1.75	0.66
5:N:834:ASN:HA	5:N:838:SER:O	1.95	0.66
5:N:975:GLN:HG2	5:N:976:ILE:H	1.61	0.66
4:A:1332:PHE:N	4:A:1332:PHE:CD2	2.63	0.66
5:B:825:VAL:CG1	5:B:826:ALA:N	2.59	0.66
5:B:1106:ARG:NH1	5:B:1110:PRO:HG2	2.11	0.66
15:L:32:ALA:HB3	15:L:55:ILE:CD1	2.25	0.66
4:M:1063:MET:CG	4:M:1436:ILE:HG23	2.25	0.66
4:M:1171:GLN:HA	4:M:1174:PHE:HE1	1.61	0.66
5:N:860:MET:HG2	5:N:861:ASP:H	1.61	0.66
7:P:153:ARG:HB3	7:P:154:PHE:CE1	2.31	0.66
15:X:32:ALA:HB3	15:X:55:ILE:CD1	2.25	0.66
15:X:53:HIS:HB3	15:X:55:ILE:HD11	1.78	0.66
4:A:89:PRO:HB2	4:A:204:THR:CG2	2.24	0.66
8:E:192:ARG:HH11	8:E:192:ARG:HG3	1.60	0.66
11:H:44:VAL:O	11:H:44:VAL:HG12	1.96	0.66
4:M:33:ALA:HA	4:M:57:ARG:NH2	2.10	0.66
4:M:1127:ASP:HB3	4:M:1130:GLN:CB	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:336:ARG:CD	5:N:348:ARG:HH11	2.08	0.66
5:N:616:ILE:HG13	5:N:697:GLU:HA	1.78	0.66
5:N:1159:ARG:HH11	5:N:1159:ARG:HB3	1.61	0.66
6:O:66:ARG:NH2	13:V:3:VAL:O	2.29	0.66
7:P:53:SER:HB3	7:P:153:ARG:H	1.59	0.66
8:Q:153:HIS:HB3	8:Q:196:VAL:CG1	2.25	0.66
11:T:84:ALA:CB	11:T:87:ARG:HB2	2.26	0.66
4:A:979:SER:OG	4:A:980:ASP:N	2.29	0.66
13:J:8:PHE:H	13:J:49:MET:HE1	1.61	0.66
13:J:57:ILE:HA	13:J:60:PHE:HD2	1.60	0.66
14:K:110:ASN:O	14:K:111:LEU:HD23	1.96	0.66
4:M:34:LYS:HE3	4:M:57:ARG:NH1	2.09	0.66
4:M:68:GLN:C	4:M:70:CYS:H	1.98	0.66
4:M:152:VAL:CG1	4:M:153:PRO:HD2	2.26	0.66
4:M:524:VAL:HG12	4:M:525:GLN:N	2.09	0.66
4:M:863:VAL:HG11	4:M:866:PHE:CD2	2.31	0.66
4:M:1450:LEU:HG	4:M:1450:LEU:O	1.95	0.66
5:N:1006:ILE:HD13	13:V:44:TYR:CE2	2.31	0.66
12:U:75:CYS:SG	12:U:79:HIS:N	2.69	0.66
14:W:61:TYR:C	14:W:61:TYR:CD2	2.68	0.66
2:2:16:DT:H4'	4:A:1403:GLU:OE2	1.96	0.66
4:A:19:PHE:O	4:A:1416:ALA:HA	1.94	0.66
5:B:496:ARG:NH1	5:B:539:LEU:HB2	2.11	0.66
5:B:579:ARG:HB2	5:B:586:TRP:HE1	1.59	0.66
4:M:35:ILE:HA	4:M:52:GLY:O	1.96	0.66
4:M:244:PRO:O	4:M:247:ARG:N	2.29	0.66
4:M:981:LEU:CD2	4:M:1039:LYS:HA	2.26	0.66
5:N:807:ARG:HG2	5:N:1045:SER:OG	1.96	0.66
13:V:44:TYR:HA	13:V:47:ARG:HB3	1.78	0.66
5:B:114:PRO:HG2	5:B:115:GLN:H	1.61	0.66
4:M:903:ASN:HD22	4:M:903:ASN:C	1.97	0.66
5:N:336:ARG:HG2	5:N:348:ARG:CD	2.17	0.66
5:N:918:ILE:HB	5:N:935:ARG:HD2	1.78	0.66
3:6:3:G:H2'	3:6:4:A:C8	2.32	0.65
4:A:794:PRO:HG2	4:A:795:GLU:OE2	1.97	0.65
5:B:770:GLN:CD	5:B:983:ARG:HA	2.16	0.65
10:G:143:ILE:HG22	10:G:144:ARG:N	2.11	0.65
4:M:901:LEU:CG	4:M:926:GLN:HE21	2.08	0.65
8:Q:157:SER:OG	8:Q:160:GLU:HG3	1.96	0.65
13:V:1:MET:N	13:V:56:LEU:N	2.44	0.65
14:W:10:PHE:CD2	14:W:10:PHE:N	2.63	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:13:MET:HG3	12:I:14:LEU:N	2.11	0.65
4:M:69:THR:C	4:M:71:GLN:H	1.98	0.65
4:M:590:ARG:HB3	4:M:605:MET:N	2.11	0.65
4:M:663:SER:OG	4:M:664:THR:N	2.28	0.65
4:M:1444:MET:CG	10:S:60:ARG:HA	2.26	0.65
5:N:180:TYR:H	5:N:180:TYR:HD1	1.45	0.65
6:O:179:GLU:HG2	6:O:180:TYR:N	2.10	0.65
8:Q:135:PHE:HD2	8:Q:140:LEU:HD21	1.59	0.65
9:R:114:GLU:OE2	9:R:119:ARG:HG2	1.94	0.65
2:2:20:DC:H2"	2:2:21:DC:H5'	1.76	0.65
4:A:42:ASP:HB3	4:A:45:GLN:H	1.61	0.65
4:A:53:LEU:CD2	4:A:54:ASN:HD22	2.09	0.65
4:A:567:LYS:HB2	4:A:568:PRO:CD	2.26	0.65
5:B:180:TYR:HD1	5:B:180:TYR:H	1.45	0.65
5:B:339:THR:O	5:B:339:THR:HG22	1.96	0.65
11:H:81:PRO:CB	11:H:82:PRO:HD2	2.25	0.65
4:M:630:ILE:HD13	4:M:646:PHE:CZ	2.30	0.65
5:N:63:ILE:O	5:N:67:SER:HB3	1.96	0.65
5:N:782:LEU:HD12	5:N:788:ARG:HH11	1.61	0.65
5:N:1115:THR:HG22	5:N:1117:GLN:HG3	1.77	0.65
5:B:860:MET:HG2	5:B:861:ASP:H	1.62	0.65
6:C:46:ILE:HG13	6:C:72:LEU:HD11	1.79	0.65
7:D:53:SER:HB3	7:D:152:SER:HB2	1.78	0.65
7:D:170:THR:CG2	7:D:172:LEU:HG	2.26	0.65
4:M:230:ARG:H	4:M:233:TRP:HE3	1.38	0.65
5:N:225:VAL:HA	5:N:237:VAL:O	1.96	0.65
11:T:59:ILE:HG22	11:T:60:ALA:H	1.61	0.65
5:B:975:GLN:O	5:B:990:ILE:HD12	1.97	0.65
6:C:263:THR:C	6:C:265:MET:H	1.99	0.65
4:M:63:ARG:HA	4:M:74:MET:CE	2.27	0.65
4:M:979:SER:OG	4:M:980:ASP:N	2.28	0.65
5:N:1095:LEU:H	5:N:1095:LEU:HD12	1.62	0.65
6:O:66:ARG:HH21	13:V:5:VAL:HG23	1.60	0.65
6:O:147:LEU:HB2	6:O:151:GLN:HB2	1.78	0.65
7:P:51:ASN:O	7:P:52:LEU:O	2.14	0.65
8:Q:213:ILE:HG12	8:Q:214:CYS:H	1.60	0.65
10:S:80:LYS:HD3	10:S:80:LYS:H	1.62	0.65
13:V:48:ARG:HE	13:V:49:MET:HE2	1.61	0.65
4:A:1299:VAL:HG12	4:A:1300:LYS:N	2.12	0.65
4:M:87:ALA:HB3	4:M:276:LEU:HD23	1.77	0.65
4:M:754:SER:H	4:M:757:ASN:ND2	1.87	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1002:GLY:HA3	4:M:1007:ILE:HG21	1.79	0.65
4:M:1332:PHE:HD2	4:M:1332:PHE:N	1.95	0.65
4:M:1445:ILE:HG12	10:S:18:PHE:HE2	1.60	0.65
2:2:27:DA:H2	3:3:2:C:H42	1.45	0.65
2:5:24:DG:H2"	2:5:25:DT:H5'	1.77	0.65
4:A:567:LYS:HG3	4:A:568:PRO:HD2	1.77	0.65
5:B:549:THR:H	5:B:628:THR:HG23	1.61	0.65
6:C:45:ALA:HA	6:C:72:LEU:HD12	1.78	0.65
14:K:111:LEU:O	14:K:112:GLN:HG2	1.94	0.65
4:M:264:PHE:O	4:M:267:ALA:HB3	1.97	0.65
4:M:567:LYS:CE	11:T:46:LEU:HB2	2.27	0.65
4:M:881:GLN:NE2	4:M:958:VAL:O	2.29	0.65
5:N:801:LYS:O	13:V:52:THR:HG23	1.97	0.65
7:P:173:HIS:ND1	7:P:174:PRO:HD2	2.12	0.65
13:V:14:VAL:O	13:V:14:VAL:HG12	1.95	0.65
5:N:810:GLU:HB2	5:N:815:ARG:HH22	1.61	0.65
5:N:1169:MET:HE1	5:N:1201:LYS:HA	1.77	0.65
9:R:138:LEU:HB3	9:R:139:PRO:HD2	1.79	0.65
4:A:458:HIS:CE1	4:A:507:VAL:HG21	2.32	0.65
4:A:598:LEU:HA	11:H:122:LEU:HD13	1.79	0.65
4:A:1120:LEU:HD12	4:A:1120:LEU:N	2.11	0.65
4:A:1127:ASP:HB3	4:A:1130:GLN:CB	2.27	0.65
5:B:378:LEU:O	5:B:378:LEU:HD12	1.96	0.65
5:B:1001:PHE:CE1	5:B:1073:TYR:HB2	2.32	0.65
6:C:166:GLU:HG3	14:K:10:PHE:CZ	2.21	0.65
4:M:537:ARG:HD2	11:T:20:TYR:HE1	1.60	0.65
5:N:467:GLY:H	5:N:475:SER:CB	2.09	0.65
10:S:39:THR:HG22	10:S:41:LYS:H	1.62	0.65
4:A:504:LEU:HD11	9:F:91:ALA:HB1	1.79	0.65
4:A:1356:ILE:HD12	4:A:1368:MET:SD	2.37	0.65
6:C:73:GLN:HB3	6:C:131:HIS:H	1.62	0.65
13:J:16:ASP:O	13:J:18:TRP:N	2.29	0.65
4:M:306:ASN:HB2	4:M:324:SER:HB3	1.79	0.65
4:M:1428:VAL:HG13	5:N:1151:LEU:HD21	1.77	0.65
6:O:167:HIS:HD2	6:O:168:ALA:H	1.45	0.65
13:V:43:ARG:HG3	13:V:45:CYS:SG	2.37	0.65
5:B:411:PRO:O	5:B:414:ALA:HB3	1.96	0.64
4:M:982:THR:HB	4:M:985:ASP:H	1.60	0.64
4:M:1120:LEU:HD12	4:M:1120:LEU:N	2.11	0.64
6:O:43:THR:CG2	6:O:44:LEU:N	2.60	0.64
6:O:56:THR:HG22	6:O:57:VAL:H	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:353:ILE:HG21	4:A:487:MET:HG3	1.78	0.64
5:B:429:PHE:HA	5:B:432:MET:HE3	1.79	0.64
7:D:13:ARG:HB2	7:D:17:LYS:HZ2	1.61	0.64
7:D:66:ARG:O	7:D:70:PHE:HB2	1.98	0.64
4:M:87:ALA:CB	4:M:276:LEU:HD23	2.27	0.64
4:M:92:HIS:O	4:M:94:GLY:N	2.31	0.64
4:M:870:GLU:HG2	8:Q:208:TYR:CG	2.31	0.64
6:O:3:GLU:O	6:O:4:GLU:HG3	1.97	0.64
9:R:103:MET:HE2	10:S:66:GLY:H	1.63	0.64
11:T:123:MET:HG2	11:T:124:ARG:N	2.12	0.64
4:A:675:THR:O	4:A:679:ILE:HG13	1.97	0.64
4:A:767:GLN:NE2	4:A:774:ARG:HB3	2.12	0.64
5:B:344:LYS:O	5:B:345:LYS:HG3	1.97	0.64
5:B:839:MET:HE3	5:B:1010:LEU:HD21	1.80	0.64
6:C:43:THR:CG2	6:C:44:LEU:H	2.07	0.64
8:E:114:ASN:O	8:E:115:ASN:HB3	1.98	0.64
9:F:111:LEU:HD12	9:F:111:LEU:N	2.11	0.64
13:J:1:MET:N	13:J:56:LEU:N	2.45	0.64
4:A:34:LYS:NZ	7:P:187:THR:HG21	2.12	0.64
4:A:57:ARG:O	4:A:68:GLN:HG3	1.97	0.64
4:A:58:LEU:CD1	4:A:243:PRO:HB3	2.27	0.64
5:B:340:ALA:CB	5:B:343:ILE:HD12	2.27	0.64
5:B:642:ASP:HB3	5:B:649:LYS:CD	2.28	0.64
5:B:882:THR:CG2	5:B:884:ARG:HB2	2.28	0.64
4:M:108:MET:SD	4:M:210:ILE:HD13	2.37	0.64
5:N:822:ASN:O	13:V:48:ARG:NH1	2.30	0.64
5:N:1096:ARG:O	5:N:1097:HIS:CB	2.45	0.64
4:A:699:ALA:HB1	4:A:701:LEU:HG	1.80	0.64
4:A:903:ASN:HD22	4:A:903:ASN:C	2.00	0.64
10:G:1:MET:SD	10:G:1:MET:O	2.55	0.64
11:H:89:LEU:HB3	11:H:91:ASP:OD1	1.96	0.64
12:I:55:THR:HG22	12:I:58:VAL:HG21	1.79	0.64
4:M:57:ARG:O	4:M:68:GLN:HG3	1.98	0.64
4:M:230:ARG:N	4:M:233:TRP:CE3	2.60	0.64
4:M:356:ASP:HB2	4:M:469:ARG:HH11	1.63	0.64
4:M:666:ILE:HD12	4:M:667:GLY:H	1.62	0.64
4:M:896:ARG:HD3	4:M:897:TYR:HE1	1.61	0.64
5:N:778:MET:HE2	5:N:1094:ARG:HG2	1.80	0.64
5:N:1138:MET:HA	5:N:1138:MET:CE	2.27	0.64
12:U:99:LEU:O	12:U:111:THR:HG23	1.97	0.64
6:C:241:ASP:O	6:C:245:VAL:HG23	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:J:44:TYR:H	13:J:44:TYR:HD2	1.45	0.64
4:M:55:ASP:C	4:M:57:ARG:H	1.99	0.64
4:M:58:LEU:CG	4:M:59:GLY:N	2.61	0.64
4:M:1227:ILE:HG22	4:M:1228:TRP:N	2.13	0.64
5:N:44:VAL:HG11	5:N:199:MET:HG2	1.80	0.64
7:P:71:LYS:HA	7:P:74:GLN:HB2	1.78	0.64
10:S:9:LEU:HD12	10:S:10:ASN:H	1.61	0.64
11:T:89:LEU:HB3	11:T:91:ASP:OD1	1.97	0.64
2:2:21:DC:H2"	2:2:22:BRU:H5"	1.80	0.64
5:B:25:ILE:HD11	5:B:653:VAL:O	1.97	0.64
5:B:637:LEU:O	5:B:690:VAL:HG13	1.98	0.64
5:B:821:GLN:HE22	5:B:851:PHE:CA	2.08	0.64
6:C:179:GLU:HG2	6:C:180:TYR:N	2.13	0.64
7:D:138:ASN:OD1	7:D:141:LEU:HB2	1.98	0.64
4:M:58:LEU:HD21	4:M:244:PRO:HD2	1.79	0.64
4:M:407:ARG:HB3	4:M:430:TRP:CE2	2.32	0.64
4:M:547:LEU:HD22	14:W:58:PHE:CD1	2.33	0.64
4:M:996:ASN:O	4:M:998:LEU:HD12	1.98	0.64
4:M:1127:ASP:HB3	4:M:1130:GLN:HB3	1.78	0.64
5:N:882:THR:CG2	5:N:884:ARG:HB2	2.28	0.64
7:P:8:PHE:CZ	7:P:40:HIS:HA	2.33	0.64
4:A:366:VAL:HG21	4:A:460:VAL:HG22	1.80	0.64
5:B:287:ARG:HG2	5:B:292:ILE:HA	1.78	0.64
5:B:615:MET:C	5:B:616:ILE:HD12	2.18	0.64
5:B:842:ASN:HB3	5:B:845:SER:OG	1.98	0.64
6:C:161:LYS:O	6:C:170:TRP:NE1	2.30	0.64
7:D:176:GLU:O	7:D:178:ALA:N	2.30	0.64
8:E:9:ILE:HD11	8:E:53:PRO:HD3	1.79	0.64
14:K:12:LEU:H	14:K:12:LEU:HD12	1.63	0.64
14:K:46:ILE:O	14:K:46:ILE:HG22	1.97	0.64
4:M:670:ILE:HG23	4:M:805:LEU:HD21	1.80	0.64
5:N:906:SER:O	5:N:941:LEU:HD23	1.97	0.64
4:A:33:ALA:O	4:A:83:HIS:HD2	1.81	0.64
4:A:321:PRO:O	4:A:322:VAL:CB	2.46	0.64
4:A:870:GLU:HG2	8:E:208:TYR:CG	2.33	0.64
4:A:1028:THR:O	4:A:1032:LEU:HD12	1.98	0.64
5:B:642:ASP:O	5:B:644:GLU:N	2.31	0.64
5:B:1006:ILE:HD13	13:J:44:TYR:CE2	2.33	0.64
5:B:1115:THR:O	5:B:1116:ARG:HB2	1.97	0.64
13:J:44:TYR:HA	13:J:47:ARG:HB3	1.80	0.64
4:M:1348:LEU:HG	4:M:1372:VAL:HG23	1.77	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:502:ILE:H	5:N:502:ILE:CD1	1.97	0.64
6:O:208:GLU:O	6:O:210:GLU:N	2.31	0.64
7:P:53:SER:CB	7:P:153:ARG:H	2.10	0.64
8:Q:177:ARG:HD3	8:Q:215:MET:CG	2.28	0.64
9:R:97:ARG:O	9:R:101:ILE:HG13	1.98	0.64
4:A:1124:HIS:HB3	4:A:1130:GLN:HG2	1.79	0.64
5:B:542:MET:HG2	5:B:747:MET:HB3	1.80	0.64
5:B:758:PHE:CE2	5:B:1044:ALA:HA	2.32	0.64
4:M:347:PHE:H	5:N:1107:ALA:HA	1.63	0.64
4:M:351:THR:HB	5:N:1103:ILE:CD1	2.27	0.64
5:N:758:PHE:CE2	5:N:1044:ALA:HA	2.33	0.64
5:N:847:ASP:C	5:N:849:GLY:H	2.00	0.64
5:N:953:LEU:O	5:N:953:LEU:HD23	1.98	0.64
8:Q:114:ASN:O	8:Q:115:ASN:HB3	1.98	0.64
1:1:3:DG:H2"	1:1:4:DT:OP2	1.96	0.63
4:A:869:GLY:O	8:E:204:THR:HG21	1.98	0.63
5:B:314:LEU:O	5:B:317:CYS:HB3	1.99	0.63
5:B:557:PHE:C	5:B:557:PHE:CD2	2.70	0.63
8:E:135:PHE:HD2	8:E:140:LEU:HD21	1.61	0.63
4:M:500:GLU:OE1	5:N:1143:ALA:C	2.36	0.63
4:M:1364:ASN:HD22	4:M:1365:TYR:N	1.96	0.63
12:U:34:TYR:CE2	12:U:36:GLU:HB3	2.33	0.63
2:5:18:TT:H2'1	2:5:18:TT:O5R	1.97	0.63
4:A:49:LYS:HZ1	4:A:61:ILE:N	1.97	0.63
4:A:69:THR:C	4:A:71:GLN:H	2.01	0.63
4:A:164:ARG:HG3	4:A:165:GLY:H	1.63	0.63
4:A:720:ARG:O	4:A:724:GLU:HB2	1.98	0.63
4:A:901:LEU:H	4:A:926:GLN:HE21	1.47	0.63
4:A:1006:ILE:HD12	8:E:163:GLU:HG3	1.79	0.63
5:B:1017:ILE:HB	5:B:1018:PRO:HD3	1.80	0.63
8:E:39:LEU:O	8:E:42:PHE:HB3	1.98	0.63
11:H:111:LEU:HD23	11:H:127:GLY:O	1.98	0.63
12:I:112:SER:O	12:I:114:GLN:N	2.31	0.63
4:M:34:LYS:CE	4:M:57:ARG:HH12	2.10	0.63
4:M:405:VAL:HG22	4:M:432:VAL:HG13	1.81	0.63
4:M:1370:LEU:O	4:M:1374:VAL:HG23	1.99	0.63
5:N:979:LYS:HG2	5:N:1095:LEU:HD13	1.79	0.63
14:W:49:GLU:HG3	14:W:94:ILE:HG12	1.79	0.63
4:A:714:PHE:O	4:A:718:VAL:HG23	1.97	0.63
4:A:1127:ASP:HB3	4:A:1130:GLN:HB3	1.79	0.63
5:B:1165:ILE:HG22	5:B:1166:CYS:N	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:189:ASP:O	7:D:193:THR:HB	1.98	0.63
13:J:3:VAL:HG21	13:J:18:TRP:CB	2.26	0.63
4:M:69:THR:C	4:M:71:GLN:N	2.51	0.63
4:M:869:GLY:O	8:Q:204:THR:HG21	1.98	0.63
7:P:8:PHE:CE2	7:P:40:HIS:HA	2.33	0.63
8:Q:46:TYR:CD2	8:Q:58:MET:HG2	2.33	0.63
4:A:384:ASN:O	4:A:385:ILE:C	2.37	0.63
4:A:853:ASP:OD1	4:A:855:THR:N	2.31	0.63
4:A:1227:ILE:HG22	4:A:1228:TRP:N	2.13	0.63
5:B:100:PRO:HD2	5:B:180:TYR:HE1	1.64	0.63
5:B:446:LEU:O	5:B:447:ALA:HB3	1.99	0.63
6:C:174:ALA:HB2	6:C:235:VAL:HG22	1.81	0.63
4:M:54:ASN:HB3	4:M:247:ARG:HH12	1.64	0.63
4:M:1342:GLU:OE2	8:Q:212:ARG:NH1	2.32	0.63
5:N:121:ASN:HA	5:N:207:GLY:CA	2.27	0.63
5:N:654:ARG:H	5:N:657:HIS:CD2	2.14	0.63
10:S:88:ASP:OD2	10:S:88:ASP:N	2.31	0.63
2:5:24:DG:OP2	5:N:942:ARG:NH2	2.26	0.63
4:A:23:SER:HA	4:A:233:TRP:NE1	2.14	0.63
4:A:590:ARG:O	4:A:591:PHE:HB2	1.98	0.63
4:A:596:THR:O	4:A:598:LEU:N	2.31	0.63
5:B:465:ASN:HD22	5:B:465:ASN:N	1.95	0.63
5:B:526:GLU:HG2	5:B:538:ASN:HD22	1.63	0.63
6:C:167:HIS:HD2	6:C:168:ALA:H	1.47	0.63
7:D:71:LYS:HA	7:D:74:GLN:HB2	1.79	0.63
4:M:828:ALA:HB2	5:N:530:GLY:HA2	1.79	0.63
4:M:1063:MET:SD	4:M:1436:ILE:HG12	2.39	0.63
4:M:1438:THR:HB	5:N:1144:ALA:HB3	1.79	0.63
5:N:38:PHE:HD1	5:N:811:TYR:CD2	2.17	0.63
5:N:39:ARG:HH21	5:N:665:GLU:CD	2.02	0.63
5:N:642:ASP:HB3	5:N:649:LYS:CD	2.29	0.63
12:U:13:MET:HG3	12:U:14:LEU:N	2.14	0.63
4:A:18:GLN:HB2	5:B:1215:ARG:HB2	1.81	0.63
4:A:34:LYS:HZ3	7:P:187:THR:HG21	1.63	0.63
4:A:782:ARG:NH2	5:B:699:GLU:O	2.30	0.63
5:B:53:GLN:HG2	5:B:547:VAL:CG2	2.27	0.63
5:B:579:ARG:HG2	5:B:579:ARG:HH11	1.62	0.63
5:B:582:VAL:HG23	5:B:626:ILE:HB	1.81	0.63
5:B:842:ASN:ND2	5:B:845:SER:OG	2.30	0.63
5:B:1169:MET:HE1	5:B:1201:LYS:HA	1.79	0.63
6:C:3:GLU:O	6:C:4:GLU:HG3	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:105:SER:O	12:I:106:CYS:HB3	1.96	0.63
4:M:49:LYS:HZ1	4:M:61:ILE:HG13	1.63	0.63
5:N:880:THR:O	5:N:881:ASN:HB2	1.99	0.63
5:N:1034:VAL:HG12	5:N:1035:ALA:N	2.12	0.63
7:P:52:LEU:HD21	7:P:147:TYR:HE2	1.63	0.63
11:T:17:PRO:HB3	11:T:24:CYS:SG	2.38	0.63
4:A:58:LEU:HG	4:A:59:GLY:H	1.62	0.63
4:A:356:ASP:HB2	4:A:469:ARG:HH12	1.63	0.63
4:A:903:ASN:ND2	4:A:905:ASP:H	1.96	0.63
4:A:1002:GLY:HA3	4:A:1007:ILE:HG21	1.79	0.63
4:A:1289:ARG:HD2	4:A:1303:GLU:OE2	1.99	0.63
5:B:223:VAL:CG1	5:B:381:MET:HG2	2.28	0.63
5:B:880:THR:O	5:B:881:ASN:HB2	1.99	0.63
5:B:1161:HIS:NE2	5:B:1175:LEU:HD21	2.13	0.63
4:M:90:VAL:CG1	4:M:297:GLN:HA	2.28	0.63
5:N:1069:PHE:HD1	5:N:1069:PHE:H	1.43	0.63
2:2:24:DG:H2"	2:2:25:DT:H5'	1.79	0.63
2:2:27:DA:H2	3:3:2:C:N4	1.97	0.63
5:B:936:ASP:OD1	5:B:938:SER:N	2.30	0.63
7:D:185:CYS:HB2	7:D:211:LEU:HD22	1.79	0.63
8:E:202:SER:OG	8:E:204:THR:HG22	1.99	0.63
4:M:252:PHE:O	4:M:253:ASN:HB2	1.98	0.63
5:N:446:LEU:O	5:N:447:ALA:HB3	1.99	0.63
6:O:263:THR:C	6:O:265:MET:H	2.01	0.63
5:B:1065:GLN:HG3	5:B:1067:ARG:H	1.64	0.63
6:C:73:GLN:HE21	6:C:75:MET:N	1.97	0.63
11:H:17:PRO:HB3	11:H:24:CYS:SG	2.39	0.63
4:M:89:PRO:HB2	4:M:204:THR:HG22	1.81	0.63
4:M:335:ARG:HH11	5:N:1202:LEU:HD13	1.61	0.63
4:M:666:ILE:HD12	4:M:666:ILE:N	2.13	0.63
4:M:821:ARG:HH11	4:M:821:ARG:HB2	1.64	0.63
5:N:589:VAL:CG1	5:N:590:HIS:H	2.06	0.63
5:N:1159:ARG:HD3	5:N:1193:GLN:HG3	1.81	0.63
7:P:52:LEU:O	7:P:54:GLU:N	2.30	0.63
4:A:21:LEU:HD12	4:A:229:SER:HB2	1.81	0.62
7:D:52:LEU:O	7:D:54:GLU:N	2.30	0.62
10:G:35:GLU:OE2	10:G:48:VAL:HG23	1.99	0.62
4:M:41:MET:HB3	4:M:48:ALA:O	1.98	0.62
4:M:852:TYR:CE2	4:M:1060:PRO:HB2	2.33	0.62
5:N:226:PHE:HA	5:N:395:GLN:HG3	1.81	0.62
5:N:1001:PHE:CE2	6:O:34:ARG:CZ	2.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:P:47:LEU:HD11	10:S:3:PHE:CE2	2.33	0.62
4:A:728:LYS:O	4:A:732:LEU:HG	1.98	0.62
5:B:871:THR:HG22	5:B:872:GLU:O	1.98	0.62
5:B:899:ILE:CD1	5:B:911:ILE:HA	2.29	0.62
5:B:1034:VAL:HG12	5:B:1035:ALA:N	2.13	0.62
6:C:56:THR:HG22	6:C:57:VAL:H	1.63	0.62
10:G:91:VAL:HB	10:G:139:ILE:O	1.99	0.62
4:M:492:PRO:O	4:M:493:GLN:NE2	2.32	0.62
4:M:1124:HIS:HB3	4:M:1130:GLN:HG2	1.80	0.62
5:N:582:VAL:HG23	5:N:626:ILE:HB	1.81	0.62
8:Q:48:ASP:CG	8:Q:49:SER:H	2.02	0.62
4:A:68:GLN:O	4:A:70:CYS:N	2.33	0.62
4:A:868:TYR:CE1	4:A:1064:VAL:CG1	2.81	0.62
4:A:1214:GLU:O	4:A:1218:GLN:HG2	2.00	0.62
5:B:580:VAL:HG22	5:B:624:LEU:HB3	1.81	0.62
6:C:36:VAL:HG21	6:C:251:LEU:HB2	1.80	0.62
8:E:177:ARG:HD3	8:E:215:MET:HG3	1.82	0.62
4:M:321:PRO:O	4:M:322:VAL:CB	2.47	0.62
4:M:537:ARG:HD2	11:T:20:TYR:CE1	2.34	0.62
5:N:336:ARG:HD3	5:N:348:ARG:NH1	2.14	0.62
5:N:593:PRO:HG2	5:N:617:ARG:NH2	2.14	0.62
5:N:1079:LYS:HA	6:O:27:LEU:HD21	1.80	0.62
4:A:577:ILE:O	4:A:580:VAL:HG23	2.00	0.62
4:A:588:LEU:O	4:A:606:LEU:HA	1.98	0.62
4:A:1313:LEU:HD23	4:A:1338:VAL:HG21	1.80	0.62
4:A:1438:THR:HB	5:B:1144:ALA:HB3	1.80	0.62
5:B:1065:GLN:NE2	5:B:1066:SER:N	2.47	0.62
14:K:61:TYR:C	14:K:61:TYR:CD2	2.70	0.62
4:M:335:ARG:HA	4:M:339:ASN:HB2	1.82	0.62
4:M:598:LEU:HD22	11:T:25:ARG:NH1	2.14	0.62
4:M:986:ILE:HG22	4:M:987:VAL:N	2.12	0.62
5:N:287:ARG:HG2	5:N:292:ILE:HA	1.80	0.62
5:N:794:ASN:O	5:N:795:ILE:HD12	1.99	0.62
6:O:35:ARG:NH1	14:W:41:THR:N	2.48	0.62
12:U:55:THR:HG22	12:U:58:VAL:HG21	1.80	0.62
2:5:16:DT:H4'	4:M:1403:GLU:OE2	1.98	0.62
2:5:27:DA:H2"	2:5:28:DT:OP2	1.99	0.62
4:A:69:THR:C	4:A:71:GLN:N	2.52	0.62
4:A:306:ASN:HB2	4:A:324:SER:HB3	1.81	0.62
4:A:743:VAL:O	4:A:747:VAL:HG23	1.99	0.62
12:I:71:SER:OG	12:I:83:ASN:HB2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:694:THR:O	4:M:698:GLN:HG3	1.98	0.62
4:M:963:ILE:HD11	4:M:1048:ASN:CB	2.29	0.62
5:N:496:ARG:HH12	5:N:539:LEU:HB2	1.64	0.62
7:P:52:LEU:C	7:P:54:GLU:H	2.02	0.62
10:S:1:MET:SD	10:S:1:MET:O	2.56	0.62
12:U:50:THR:HG22	12:U:52:ILE:H	1.65	0.62
4:A:399:HIS:CB	4:A:400:PRO:HD3	2.24	0.62
4:A:567:LYS:CB	4:A:568:PRO:HD2	2.29	0.62
7:D:4:SER:O	7:D:5:THR:HB	2.00	0.62
8:E:168:TYR:HB2	8:E:170:LEU:HG	1.81	0.62
11:H:84:ALA:CB	11:H:87:ARG:HB2	2.30	0.62
4:M:1100:ARG:NH2	4:M:1351:GLU:HG2	2.14	0.62
5:N:899:ILE:O	5:N:952:VAL:HG21	1.99	0.62
6:O:29:MET:HE1	14:W:98:LEU:HG	1.81	0.62
4:A:49:LYS:HZ1	4:A:61:ILE:HG13	1.63	0.62
5:B:36:ALA:HA	5:B:39:ARG:HD2	1.82	0.62
5:B:229:ALA:CB	5:B:231:PRO:HD2	2.30	0.62
7:D:56:ARG:HB2	7:D:148:LEU:HD22	1.82	0.62
4:M:1348:LEU:HG	4:M:1372:VAL:CG2	2.28	0.62
5:N:309:GLN:OE1	12:U:52:ILE:HD11	2.00	0.62
5:N:496:ARG:NH1	5:N:539:LEU:HB2	2.14	0.62
6:O:189:THR:HG22	6:O:190:ASP:N	2.13	0.62
8:Q:78:LEU:HD21	8:Q:80:VAL:HG23	1.80	0.62
10:S:79:PHE:CZ	10:S:106:MET:HE1	2.35	0.62
4:A:590:ARG:HB2	4:A:605:MET:HB3	1.82	0.62
7:D:63:LEU:HD13	7:D:133:THR:OG1	1.99	0.62
4:M:590:ARG:HB2	4:M:605:MET:HB3	1.82	0.62
4:M:1030:ARG:HG3	4:M:1034:GLU:OE2	1.98	0.62
7:P:60:LYS:O	7:P:64:VAL:HG23	1.99	0.62
4:A:982:THR:O	4:A:985:ASP:HB2	2.00	0.62
5:B:770:GLN:HG2	5:B:983:ARG:O	2.00	0.62
5:B:1001:PHE:CD2	6:C:34:ARG:NH2	2.67	0.62
5:B:1182:CYS:O	5:B:1182:CYS:SG	2.58	0.62
4:M:1214:GLU:O	4:M:1218:GLN:HG2	2.00	0.62
5:N:800:GLN:HB3	13:V:52:THR:HG22	1.79	0.62
5:N:1165:ILE:HG22	5:N:1166:CYS:N	2.13	0.62
5:N:1177:HIS:HB2	5:N:1179:GLN:HE21	1.65	0.62
15:X:47:ARG:HH21	15:X:54:ARG:HH21	1.47	0.62
1:1:6:DC:C1'	1:1:7:DT:H5'	2.28	0.62
4:A:427:GLN:HG3	4:A:430:TRP:CE2	2.34	0.62
4:A:481:ASP:OD1	4:A:483:ASP:OD2	2.17	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:852:TYR:CD2	4:A:1060:PRO:HB2	2.34	0.62
4:A:901:LEU:HB2	4:A:926:GLN:HG2	1.81	0.62
5:B:95:ILE:HG13	5:B:130:VAL:HG22	1.81	0.62
5:N:223:VAL:CG1	5:N:381:MET:HG2	2.30	0.62
7:P:187:THR:HG22	7:P:188:ALA:H	1.65	0.62
9:R:93:ILE:HD11	9:R:134:ILE:CD1	2.24	0.62
10:S:17:PHE:CD2	10:S:17:PHE:N	2.67	0.62
4:A:37:PHE:N	4:A:37:PHE:CD1	2.67	0.61
4:A:269:ILE:HD11	4:A:300:VAL:HA	1.82	0.61
4:A:347:PHE:H	5:B:1107:ALA:HA	1.65	0.61
4:A:863:VAL:HG11	4:A:866:PHE:CD2	2.35	0.61
4:A:960:ILE:O	4:A:963:ILE:HG22	1.99	0.61
5:B:857:ARG:HD2	5:B:945:GLU:OE1	2.00	0.61
7:D:40:HIS:CE1	7:D:41:GLN:HG3	2.35	0.61
7:D:144:THR:HG21	10:G:46:LEU:HD13	1.82	0.61
8:E:15:ALA:O	8:E:19:VAL:HG23	1.99	0.61
4:M:23:SER:HA	4:M:233:TRP:CD1	2.35	0.61
5:N:770:GLN:CD	5:N:983:ARG:HA	2.20	0.61
5:N:850:LEU:HD12	5:N:851:PHE:H	1.65	0.61
6:O:66:ARG:CZ	13:V:2:ILE:HG21	2.29	0.61
14:W:42:LEU:HD21	14:W:46:ILE:HD11	1.81	0.61
1:4:3:DG:H2"	1:4:4:DT:OP2	1.98	0.61
4:A:647:GLY:O	4:A:651:LYS:HG3	1.99	0.61
5:B:705:MET:H	5:B:710:LEU:HD12	1.63	0.61
5:B:798:TYR:HE2	6:C:62:PHE:CZ	2.18	0.61
13:J:44:TYR:HA	13:J:47:ARG:CB	2.30	0.61
4:M:49:LYS:HZ1	4:M:61:ILE:N	1.98	0.61
4:M:58:LEU:HD11	4:M:80:HIS:H	1.65	0.61
4:M:302:THR:HA	4:M:305:ASP:O	2.00	0.61
4:M:546:VAL:O	4:M:550:LEU:HG	2.00	0.61
5:N:1106:ARG:NH1	5:N:1110:PRO:HG2	2.15	0.61
6:O:123:ASN:HD22	6:O:125:MET:HG2	1.64	0.61
7:P:176:GLU:O	7:P:178:ALA:N	2.32	0.61
4:A:33:ALA:HA	4:A:57:ARG:NH2	2.15	0.61
4:A:108:MET:N	4:A:108:MET:SD	2.73	0.61
4:A:475:THR:HG23	4:A:476:SER:N	2.13	0.61
4:A:590:ARG:HG3	4:A:590:ARG:HH11	1.65	0.61
4:A:666:ILE:HD11	5:B:1067:ARG:O	2.00	0.61
4:A:809:THR:OG1	4:A:812:GLU:HG3	2.00	0.61
4:A:963:ILE:HD11	4:A:1048:ASN:CB	2.26	0.61
4:A:981:LEU:CD2	4:A:1039:LYS:HA	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:33:PHE:CE1	10:G:80:LYS:HE3	2.36	0.61
4:M:51:GLY:HA2	4:M:56:PRO:HA	1.82	0.61
4:M:782:ARG:NH2	5:N:699:GLU:O	2.33	0.61
5:N:351:TYR:O	5:N:355:ILE:HG13	2.00	0.61
5:N:557:PHE:C	5:N:557:PHE:CD2	2.72	0.61
5:N:579:ARG:HG2	5:N:579:ARG:HH11	1.64	0.61
5:N:825:VAL:CG1	5:N:826:ALA:N	2.63	0.61
5:N:995:ARG:NH1	6:O:165:LYS:HG2	2.16	0.61
7:P:34:GLN:O	7:P:47:LEU:HD23	2.00	0.61
8:Q:94:LYS:CE	8:Q:98:ILE:HD11	2.31	0.61
10:S:1:MET:SD	10:S:1:MET:C	2.78	0.61
12:U:26:LEU:CD2	12:U:37:GLU:HA	2.28	0.61
4:A:54:ASN:HB3	4:A:247:ARG:HH12	1.65	0.61
4:A:1171:GLN:HA	4:A:1174:PHE:HE1	1.66	0.61
5:B:1162:ILE:HG22	5:B:1163:CYS:H	1.65	0.61
4:M:853:ASP:OD1	4:M:855:THR:CB	2.47	0.61
4:M:1279:ILE:HD11	4:M:1316:VAL:HG21	1.80	0.61
4:M:1313:LEU:O	4:M:1315:GLU:N	2.34	0.61
5:N:601:ARG:O	5:N:605:ARG:HG3	2.00	0.61
7:P:66:ARG:HD2	7:P:133:THR:HB	1.83	0.61
13:V:57:ILE:HA	13:V:60:PHE:HD2	1.66	0.61
4:A:268:ASP:HB3	4:A:299:HIS:CE1	2.35	0.61
4:A:741:ASN:ND2	4:A:744:LYS:H	1.97	0.61
5:B:37:PHE:HE2	5:B:542:MET:HA	1.65	0.61
5:B:496:ARG:HH12	5:B:539:LEU:HB2	1.65	0.61
5:B:957:ASN:O	5:B:959:ASP:N	2.34	0.61
8:E:94:LYS:CE	8:E:98:ILE:HD11	2.26	0.61
9:F:130:ILE:O	9:F:148:VAL:HG21	1.99	0.61
4:M:23:SER:HA	4:M:233:TRP:NE1	2.15	0.61
4:M:577:ILE:O	4:M:580:VAL:HG23	2.00	0.61
5:N:594:ALA:HA	5:N:617:ARG:NH1	2.16	0.61
5:N:798:TYR:HE2	6:O:62:PHE:CE2	2.18	0.61
6:O:174:ALA:HB2	6:O:235:VAL:HG22	1.83	0.61
4:A:16:GLU:HB3	4:A:1418:LEU:HD11	1.83	0.61
4:A:37:PHE:HD1	4:A:37:PHE:H	1.48	0.61
4:A:1030:ARG:HG3	4:A:1034:GLU:OE2	2.00	0.61
4:A:1120:LEU:HD13	4:A:1304:TRP:O	2.00	0.61
4:M:42:ASP:HB3	4:M:45:GLN:H	1.65	0.61
4:M:50:ILE:C	4:M:52:GLY:H	2.04	0.61
4:M:58:LEU:HG	4:M:59:GLY:N	2.15	0.61
4:M:450:LEU:HD12	4:M:450:LEU:N	2.14	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:336:ARG:NH2	5:N:345:LYS:HE2	2.10	0.61
5:N:483:LEU:HD11	5:N:491:THR:CG2	2.30	0.61
5:N:705:MET:H	5:N:710:LEU:HD12	1.64	0.61
6:O:183:TRP:CZ2	6:O:207:CYS:HB3	2.36	0.61
2:2:18:TT:H2'1	2:2:18:TT:O5R	2.01	0.61
4:A:639:PRO:HG2	4:A:640:GLN:H	1.64	0.61
5:B:433:GLN:O	5:B:437:GLU:HG3	2.00	0.61
5:B:620:ARG:NH2	12:I:89:GLN:NE2	2.48	0.61
4:M:14:VAL:H	4:M:1432:GLN:HE22	1.48	0.61
9:R:111:LEU:HD12	9:R:111:LEU:N	2.14	0.61
15:X:58:LYS:HG2	15:X:58:LYS:O	2.00	0.61
4:A:828:ALA:HB2	5:B:530:GLY:HA2	1.82	0.61
6:C:177:GLU:HB2	6:C:231:ASN:HB3	1.83	0.61
13:J:7:CYS:HB2	13:J:46:CYS:HB3	1.83	0.61
13:J:44:TYR:HD2	13:J:44:TYR:N	1.98	0.61
4:M:399:HIS:O	4:M:401:GLY:N	2.34	0.61
5:N:622:LYS:CE	12:U:59:VAL:HG22	2.31	0.61
6:O:100:THR:HG22	6:O:101:LEU:N	2.15	0.61
6:O:161:LYS:O	6:O:170:TRP:NE1	2.33	0.61
7:P:35:LEU:HD13	7:P:173:HIS:ND1	2.16	0.61
10:S:1:MET:O	10:S:3:PHE:CD1	2.53	0.61
11:T:38:LEU:HD12	11:T:124:ARG:O	2.01	0.61
2:5:27:DA:H2	3:6:2:C:H42	1.48	0.61
4:A:857:ARG:NH1	9:F:139:PRO:HB2	2.15	0.61
4:A:1107:VAL:HG12	4:A:1107:VAL:O	2.01	0.61
5:B:1070:GLU:OE1	13:J:44:TYR:OH	2.19	0.61
6:C:174:ALA:O	6:C:175:ALA:HB2	2.01	0.61
12:I:78:CYS:HB2	12:I:106:CYS:HB3	1.82	0.61
4:M:21:LEU:HG	4:M:1413:GLY:O	2.01	0.61
4:M:58:LEU:CD1	4:M:243:PRO:HB3	2.31	0.61
12:U:8:ARG:CG	12:U:34:TYR:HE1	2.12	0.61
13:V:44:TYR:H	13:V:44:TYR:HD2	1.47	0.61
4:A:244:PRO:O	4:A:247:ARG:N	2.34	0.61
4:A:252:PHE:O	4:A:253:ASN:HB2	2.01	0.61
4:A:382:PRO:HD3	4:A:428:TYR:HD2	1.66	0.61
4:A:1066:VAL:O	4:A:1070:GLN:HG3	2.01	0.61
5:B:978:ASP:OD2	5:B:1098:MET:HG2	2.01	0.61
6:C:18:VAL:HG12	6:C:18:VAL:O	1.99	0.61
6:C:214:ASN:HB3	6:C:217:ASP:OD2	2.00	0.61
8:E:48:ASP:CG	8:E:49:SER:H	2.04	0.61
10:G:15:PRO:HA	10:G:18:PHE:CE1	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:91:ASP:C	11:H:93:TYR:H	2.03	0.61
4:M:55:ASP:CG	4:M:55:ASP:O	2.36	0.61
4:M:785:PRO:HG2	4:M:786:HIS:HD2	1.65	0.61
5:N:1174:LYS:O	5:N:1176:ASN:N	2.33	0.61
4:A:1198:ASP:O	4:A:1202:MET:HG2	2.01	0.60
4:A:1291:VAL:HG13	4:A:1292:PRO:HD2	1.81	0.60
5:B:27:ALA:O	5:B:29:ASP:N	2.34	0.60
5:B:777:ALA:HA	5:B:1095:LEU:HA	1.83	0.60
5:B:1001:PHE:CE2	6:C:34:ARG:CZ	2.83	0.60
4:M:21:LEU:HD12	4:M:229:SER:HB2	1.83	0.60
4:M:399:HIS:CB	4:M:400:PRO:HD3	2.27	0.60
7:P:7:THR:O	7:P:9:GLN:N	2.34	0.60
9:R:69:LEU:CA	9:R:70:LYS:N	2.63	0.60
4:A:35:ILE:HD12	4:A:241:VAL:HG21	1.82	0.60
4:A:1437:GLY:O	4:A:1439:GLY:N	2.34	0.60
5:B:190:TYR:CE2	13:J:62:ARG:HB3	2.35	0.60
5:B:224:GLN:O	5:B:238:ALA:HA	2.01	0.60
5:B:782:LEU:HD12	5:B:788:ARG:HH11	1.66	0.60
8:E:90:VAL:HA	8:E:120:ALA:HB2	1.83	0.60
15:L:53:HIS:HB3	15:L:55:ILE:CD1	2.30	0.60
5:N:1001:PHE:CD2	6:O:34:ARG:NH2	2.69	0.60
5:N:1072:MET:HE1	5:N:1085:ILE:HB	1.81	0.60
6:O:238:ILE:HG23	6:O:242:GLN:HB2	1.83	0.60
10:S:34:VAL:CG1	10:S:45:ILE:HG21	2.30	0.60
10:S:51:TYR:C	10:S:51:TYR:CD2	2.74	0.60
4:A:763:ALA:O	4:A:803:SER:HB3	2.02	0.60
5:B:811:TYR:N	5:B:811:TYR:CD1	2.69	0.60
5:B:843:GLN:O	5:B:846:ILE:HB	2.01	0.60
12:I:106:CYS:O	12:I:107:SER:HB2	2.00	0.60
4:M:244:PRO:HB2	4:M:245:PRO:HD3	1.81	0.60
4:M:475:THR:HG23	4:M:476:SER:N	2.15	0.60
4:M:1118:VAL:CG2	4:M:1306:LEU:HB2	2.31	0.60
4:M:1187:GLN:O	4:M:1243:VAL:HG13	2.02	0.60
6:O:165:LYS:O	14:W:6:ARG:NH1	2.34	0.60
5:B:57:TYR:CD1	5:B:57:TYR:N	2.69	0.60
9:F:90:ARG:HG3	9:F:91:ALA:N	2.15	0.60
9:F:109:VAL:HG11	9:F:123:LYS:HD3	1.82	0.60
13:J:44:TYR:N	13:J:44:TYR:CD2	2.70	0.60
4:M:19:PHE:O	4:M:1416:ALA:HA	1.99	0.60
4:M:477:PRO:CG	4:M:521:MET:HG2	2.32	0.60
4:M:552:TRP:HE3	4:M:651:LYS:HB3	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:907:THR:CG2	4:M:908:LEU:N	2.64	0.60
4:M:1209:MET:SD	4:M:1236:LEU:HD22	2.42	0.60
5:N:100:PRO:HD2	5:N:180:TYR:CE1	2.37	0.60
5:N:842:ASN:HD22	5:N:845:SER:CB	2.13	0.60
5:N:1099:VAL:HG12	5:N:1100:ASP:N	2.15	0.60
8:Q:29:PHE:O	8:Q:30:ILE:HG13	2.02	0.60
8:Q:39:LEU:O	8:Q:42:PHE:HB3	2.02	0.60
8:Q:157:SER:C	8:Q:159:ASP:N	2.54	0.60
4:A:289:ILE:C	4:A:291:GLU:H	2.05	0.60
4:A:518:LYS:HE2	4:A:624:SER:O	2.01	0.60
4:A:1101:LEU:HB2	4:A:1355:VAL:HG11	1.83	0.60
4:A:1385:THR:O	4:A:1387:HIS:N	2.35	0.60
7:D:173:HIS:ND1	7:D:174:PRO:HD2	2.17	0.60
4:M:1107:VAL:O	4:M:1107:VAL:HG12	2.02	0.60
5:N:224:GLN:O	5:N:238:ALA:HA	2.01	0.60
9:R:111:LEU:O	9:R:113:GLY:N	2.34	0.60
10:S:143:ILE:HG22	10:S:144:ARG:N	2.16	0.60
11:T:127:GLY:O	11:T:128:ASN:HB2	2.01	0.60
14:W:6:ARG:O	14:W:9:LEU:HG	2.01	0.60
4:A:87:ALA:HB3	4:A:276:LEU:HD23	1.83	0.60
4:A:230:ARG:H	4:A:233:TRP:HE3	1.42	0.60
4:A:244:PRO:HB2	4:A:245:PRO:HD3	1.81	0.60
4:A:694:THR:O	4:A:698:GLN:HG3	2.00	0.60
5:B:57:TYR:N	5:B:57:TYR:HD1	2.00	0.60
5:B:225:VAL:HA	5:B:237:VAL:O	2.01	0.60
5:B:233:PRO:HG2	5:B:234:ILE:HD12	1.82	0.60
6:C:29:MET:HE1	14:K:98:LEU:HG	1.83	0.60
8:E:29:PHE:O	8:E:30:ILE:HG13	2.02	0.60
8:E:157:SER:C	8:E:159:ASP:N	2.55	0.60
8:E:175:LEU:HD23	8:E:176:PRO:HD2	1.84	0.60
12:I:7:CYS:HB3	12:I:14:LEU:HD21	1.83	0.60
12:I:103:CYS:CB	12:I:106:CYS:SG	2.89	0.60
4:M:89:PRO:HB2	4:M:204:THR:CG2	2.31	0.60
4:M:534:LEU:O	4:M:534:LEU:HG	2.01	0.60
4:M:1027:ALA:O	4:M:1031:VAL:HG23	2.02	0.60
5:N:999:MET:HA	5:N:999:MET:HE3	1.83	0.60
5:N:1115:THR:O	5:N:1116:ARG:HB2	2.00	0.60
7:P:167:LEU:O	7:P:170:THR:OG1	2.18	0.60
4:A:567:LYS:CB	4:A:568:PRO:CD	2.79	0.60
5:B:549:THR:HG22	5:B:550:ASP:N	2.10	0.60
6:C:76:ASP:O	6:C:79:GLN:HG2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:399:HIS:HB3	4:M:400:PRO:CD	2.27	0.60
5:N:53:GLN:HG2	5:N:547:VAL:CG2	2.30	0.60
5:N:294:ASP:O	5:N:296:GLU:N	2.34	0.60
4:A:224:PHE:HD2	4:A:229:SER:O	1.85	0.60
4:A:475:THR:CG2	4:A:476:SER:N	2.64	0.60
5:B:843:GLN:O	5:B:846:ILE:N	2.35	0.60
5:B:1174:LYS:O	5:B:1176:ASN:N	2.33	0.60
11:H:56:THR:HG21	11:H:145:ARG:HE	1.67	0.60
14:K:42:LEU:HD21	14:K:46:ILE:HD11	1.84	0.60
4:M:738:LYS:HB2	4:M:740:LEU:HG	1.83	0.60
4:M:868:TYR:CD2	4:M:1058:VAL:HG21	2.34	0.60
4:M:1116:LEU:HB3	4:M:1308:THR:HG21	1.83	0.60
8:Q:179:GLN:HB2	8:Q:182:ASP:HB2	1.84	0.60
11:T:41:ASP:O	11:T:42:ILE:HG13	2.00	0.60
14:W:7:PHE:HA	14:W:10:PHE:CE2	2.37	0.60
4:A:492:PRO:O	4:A:493:GLN:NE2	2.34	0.60
4:A:1011:GLN:NE2	4:A:1015:VAL:HG21	2.17	0.60
4:A:1279:ILE:HD11	4:A:1316:VAL:HG21	1.83	0.60
5:B:745:PRO:O	5:B:747:MET:N	2.35	0.60
9:F:111:LEU:O	9:F:113:GLY:N	2.34	0.60
10:G:1:MET:SD	10:G:1:MET:C	2.80	0.60
10:G:138:THR:CG2	10:G:139:ILE:H	2.01	0.60
4:M:244:PRO:O	4:M:246:VAL:N	2.35	0.60
4:M:741:ASN:HD21	4:M:743:VAL:HB	1.67	0.60
5:N:343:ILE:CB	5:N:348:ARG:HG3	2.31	0.60
7:P:56:ARG:HB2	7:P:148:LEU:HD22	1.83	0.60
10:S:39:THR:HG22	10:S:40:GLY:N	2.17	0.60
4:A:55:ASP:C	4:A:57:ARG:H	2.03	0.60
4:A:738:LYS:HB2	4:A:740:LEU:HG	1.83	0.60
4:A:896:ARG:HD3	4:A:897:TYR:HE1	1.67	0.60
5:B:211:VAL:O	5:B:480:SER:HA	2.02	0.60
8:E:180:ARG:HH21	8:E:192:ARG:HB2	1.67	0.60
10:G:17:PHE:N	10:G:17:PHE:CD2	2.69	0.60
4:M:548:ASN:HA	14:W:60:ALA:HB1	1.84	0.60
4:M:1293:SER:OG	4:M:1294:PRO:HD2	2.02	0.60
4:M:1385:THR:O	4:M:1387:HIS:N	2.35	0.60
5:N:315:LYS:N	5:N:316:PRO:HD2	2.17	0.60
5:N:498:THR:HB	5:N:537:LYS:O	2.02	0.60
5:N:616:ILE:CG1	5:N:697:GLU:HA	2.31	0.60
5:N:1162:ILE:HG22	5:N:1163:CYS:H	1.67	0.60
6:O:100:THR:OG1	6:O:121:VAL:HG21	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:4:THR:CA	11:T:60:ALA:HB2	2.26	0.60
11:T:58:THR:HG22	11:T:59:ILE:H	1.66	0.60
2:5:27:DA:H2	3:6:2:C:N4	2.00	0.59
4:A:58:LEU:HD11	4:A:80:HIS:H	1.67	0.59
4:A:326:ARG:NH2	4:A:1407:GLU:HG3	2.16	0.59
4:A:450:LEU:HD12	4:A:450:LEU:N	2.16	0.59
4:A:1121:GLU:CG	4:A:1122:PRO:HD2	2.32	0.59
5:B:226:PHE:HA	5:B:395:GLN:HG3	1.84	0.59
5:B:521:LEU:HB3	5:B:633:VAL:HG11	1.83	0.59
5:B:842:ASN:O	5:B:846:ILE:HG13	2.02	0.59
7:D:52:LEU:C	7:D:54:GLU:H	2.05	0.59
9:F:89:GLU:OE2	9:F:134:ILE:HG21	2.02	0.59
4:M:783:THR:HG21	4:M:815:PHE:CE2	2.36	0.59
6:O:56:THR:HG21	6:O:145:CYS:SG	2.42	0.59
8:Q:197:LYS:HE2	8:Q:199:ILE:HD11	1.83	0.59
5:B:971:THR:OG1	6:C:61:GLU:HG3	2.02	0.59
6:C:100:THR:HG22	6:C:101:LEU:N	2.17	0.59
7:D:8:PHE:CZ	7:D:40:HIS:HA	2.38	0.59
7:D:134:THR:HG22	7:D:136:GLY:H	1.66	0.59
4:M:35:ILE:HD12	4:M:241:VAL:HG21	1.83	0.59
4:M:187:LYS:HE3	4:M:198:GLU:OE2	2.02	0.59
4:M:541:ILE:HG22	4:M:546:VAL:HG23	1.84	0.59
4:M:567:LYS:CB	4:M:568:PRO:HD2	2.32	0.59
5:N:23:ALA:HB1	5:N:24:PRO:HD2	1.83	0.59
5:N:542:MET:HG2	5:N:747:MET:HB3	1.84	0.59
8:Q:180:ARG:HH21	8:Q:192:ARG:HB2	1.66	0.59
9:R:118:LEU:O	9:R:122:MET:HG3	2.02	0.59
12:U:106:CYS:O	12:U:107:SER:HB2	2.02	0.59
4:A:860:LEU:HD11	4:A:1393:ASN:HB2	1.84	0.59
4:A:1063:MET:SD	4:A:1436:ILE:HG12	2.42	0.59
10:G:139:ILE:HG22	10:G:140:LYS:N	2.16	0.59
11:H:127:GLY:O	11:H:128:ASN:HB2	2.02	0.59
13:J:23:ASN:C	13:J:25:LEU:H	2.05	0.59
4:M:567:LYS:HB3	11:T:95:TYR:CA	2.32	0.59
4:M:596:THR:C	4:M:598:LEU:H	2.03	0.59
5:N:175:ARG:HG2	5:N:175:ARG:HH11	1.67	0.59
5:N:802:PRO:HB3	5:N:1091:TYR:CD2	2.37	0.59
5:N:831:SER:HB3	5:N:994:TYR:OH	2.02	0.59
5:N:999:MET:HA	5:N:999:MET:CE	2.32	0.59
5:N:1159:ARG:HB3	5:N:1159:ARG:NH1	2.16	0.59
11:T:63:LEU:HD22	11:T:90:ALA:HB3	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:111:LEU:HD23	11:T:127:GLY:O	2.02	0.59
13:V:12:LYS:O	13:V:14:VAL:HG23	2.02	0.59
4:A:58:LEU:CD2	4:A:244:PRO:HD2	2.32	0.59
4:A:598:LEU:HD22	11:H:25:ARG:NH1	2.18	0.59
4:A:666:ILE:HD12	4:A:666:ILE:N	2.17	0.59
5:B:515:HIS:CD2	5:B:517:THR:H	2.19	0.59
6:C:262:LEU:HD11	14:K:87:LEU:HD23	1.84	0.59
7:D:60:LYS:O	7:D:64:VAL:HG23	2.01	0.59
8:E:168:TYR:CB	8:E:170:LEU:HG	2.32	0.59
4:M:445:ASN:HB2	4:M:455:MET:HG2	1.84	0.59
4:M:482:PHE:C	4:M:484:GLY:H	2.04	0.59
4:M:868:TYR:CE1	4:M:1064:VAL:CG1	2.84	0.59
5:N:433:GLN:O	5:N:437:GLU:HG3	2.01	0.59
10:S:79:PHE:HZ	10:S:106:MET:HE1	1.68	0.59
5:B:546:SER:OG	5:B:631:GLY:N	2.33	0.59
5:B:756:ILE:O	5:B:759:PRO:HD3	2.02	0.59
5:B:834:ASN:HA	5:B:838:SER:O	2.02	0.59
5:B:1103:ILE:O	5:B:1122:ARG:NH1	2.35	0.59
9:F:97:ARG:O	9:F:101:ILE:HG13	2.02	0.59
10:G:1:MET:O	10:G:3:PHE:CD1	2.56	0.59
12:I:34:TYR:CE2	12:I:36:GLU:HB3	2.37	0.59
4:M:90:VAL:HG13	4:M:297:GLN:HA	1.83	0.59
4:M:471:ASN:OD1	4:M:472:LEU:N	2.35	0.59
4:M:532:ARG:O	4:M:535:THR:HB	2.03	0.59
4:M:849:MET:HE1	4:M:1061:GLY:HA2	1.83	0.59
4:M:1120:LEU:HD13	4:M:1304:TRP:O	2.02	0.59
4:M:1409:LEU:HD13	5:N:1207:LEU:HD11	1.83	0.59
5:N:190:TYR:CE2	13:V:62:ARG:HB3	2.37	0.59
5:N:269:ILE:HD11	5:N:386:LEU:HD21	1.85	0.59
5:N:1007:VAL:CG2	5:N:1008:PRO:HD2	2.32	0.59
13:V:27:GLU:O	13:V:29:GLU:N	2.36	0.59
4:A:2:VAL:HG21	5:B:1157:ALA:C	2.23	0.59
4:A:1001:ARG:O	4:A:1002:GLY:O	2.21	0.59
4:A:1445:ILE:HD12	4:A:1445:ILE:N	2.03	0.59
4:A:1445:ILE:HG12	10:G:18:PHE:CE2	2.38	0.59
5:B:63:ILE:O	5:B:67:SER:HB3	2.02	0.59
5:B:217:ARG:HD2	5:B:217:ARG:C	2.22	0.59
5:B:431:TYR:CZ	5:B:447:ALA:HB2	2.37	0.59
5:B:1084:GLN:NE2	5:B:1084:GLN:N	2.50	0.59
11:H:113:ALA:HB2	11:H:126:GLU:HG3	1.85	0.59
12:I:50:THR:HG22	12:I:52:ILE:H	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:78:CYS:HB3	12:I:106:CYS:SG	2.42	0.59
13:J:1:MET:H1	13:J:56:LEU:HB2	1.67	0.59
4:M:567:LYS:CB	4:M:568:PRO:CD	2.79	0.59
4:M:971:PHE:CE2	4:M:1040:GLN:HG2	2.37	0.59
5:N:27:ALA:O	5:N:29:ASP:N	2.36	0.59
5:N:378:LEU:O	5:N:378:LEU:HD12	2.03	0.59
5:N:515:HIS:CD2	5:N:517:THR:H	2.18	0.59
5:N:611:PRO:HB3	5:N:685:LEU:HD11	1.82	0.59
5:N:990:ILE:HG22	5:N:991:GLY:N	2.17	0.59
5:N:1180:PHE:O	5:N:1181:GLU:O	2.20	0.59
6:O:44:LEU:HD21	6:O:159:ALA:HB1	1.84	0.59
7:P:13:ARG:HB2	7:P:17:LYS:HZ2	1.66	0.59
14:W:47:ARG:HD2	14:W:47:ARG:C	2.22	0.59
5:B:847:ASP:C	5:B:849:GLY:H	2.05	0.59
10:G:1:MET:O	10:G:3:PHE:CE1	2.56	0.59
5:N:46:GLN:HG3	5:N:47:GLN:N	2.11	0.59
9:R:90:ARG:HG3	9:R:91:ALA:N	2.16	0.59
11:T:58:THR:HB	11:T:143:LEU:HD13	1.85	0.59
11:T:128:ASN:CG	11:T:128:ASN:O	2.40	0.59
4:A:886:ILE:HD11	4:A:943:LEU:HB3	1.83	0.59
4:A:899:VAL:HB	4:A:929:LEU:HD11	1.83	0.59
5:B:291:ILE:HD13	5:B:300:HIS:NE2	2.18	0.59
5:B:603:LEU:HD13	5:B:608:ASP:HB2	1.83	0.59
5:B:731:VAL:HG12	5:B:732:SER:H	1.67	0.59
5:B:1002:THR:HG23	5:B:1006:ILE:HG13	1.83	0.59
6:C:22:LEU:HD13	6:C:230:MET:CE	2.33	0.59
6:C:189:THR:HG22	6:C:190:ASP:N	2.17	0.59
7:D:8:PHE:CE2	7:D:40:HIS:HA	2.37	0.59
4:M:372:LYS:HA	4:M:435:HIS:ND1	2.18	0.59
5:N:516:ASN:HD22	5:N:516:ASN:H	1.48	0.59
9:R:85:MET:CE	9:R:93:ILE:HD12	2.32	0.59
11:T:102:TYR:CD2	11:T:102:TYR:N	2.71	0.59
4:A:407:ARG:HG2	4:A:430:TRP:CH2	2.38	0.59
5:B:287:ARG:NH1	5:B:324:ILE:O	2.36	0.59
5:B:401:PHE:HD2	5:B:521:LEU:HD12	1.67	0.59
5:B:622:LYS:CE	12:I:59:VAL:HG22	2.33	0.59
5:B:969:ARG:HD2	6:C:61:GLU:OE2	2.02	0.59
8:E:179:GLN:HB2	8:E:182:ASP:HB2	1.85	0.59
9:F:119:ARG:HH11	9:F:119:ARG:HG3	1.68	0.59
10:G:48:VAL:HG13	10:G:74:TYR:HD1	1.68	0.59
12:I:14:LEU:HD22	12:I:28:GLU:O	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:O:39:ALA:CA	6:O:164:ALA:HB3	2.32	0.59
10:S:7:LEU:HB2	10:S:74:TYR:HE2	1.63	0.59
4:A:546:VAL:O	4:A:550:LEU:HG	2.03	0.59
4:A:547:LEU:HB3	14:K:58:PHE:CE1	2.37	0.59
4:A:942:PHE:HD2	4:A:943:LEU:HD23	1.67	0.59
8:E:156:LEU:HD12	8:E:195:VAL:HB	1.85	0.59
4:M:265:LYS:HE2	4:M:322:VAL:CG1	2.33	0.59
4:M:1333:ILE:O	4:M:1337:GLU:HG3	2.03	0.59
5:N:527:THR:OG1	5:N:528:PRO:HD2	2.02	0.59
5:N:977:GLY:HA3	5:N:1099:VAL:CG2	2.32	0.59
7:P:213:GLU:O	7:P:217:LEU:HG	2.02	0.59
9:R:81:THR:HB	9:R:136:ARG:HH11	1.67	0.59
13:V:8:PHE:H	13:V:49:MET:CE	2.16	0.59
5:B:121:ASN:HA	5:B:207:GLY:CA	2.33	0.58
11:H:63:LEU:HD22	11:H:90:ALA:HB3	1.84	0.58
4:M:224:PHE:HD2	4:M:229:SER:O	1.85	0.58
4:M:289:ILE:C	4:M:291:GLU:H	2.06	0.58
4:M:482:PHE:O	4:M:484:GLY:N	2.35	0.58
4:M:1039:LYS:HE3	4:M:1043:ASP:OD2	2.02	0.58
5:N:211:VAL:O	5:N:480:SER:HA	2.03	0.58
5:N:758:PHE:HB3	5:N:761:HIS:CD2	2.38	0.58
5:N:1182:CYS:O	5:N:1182:CYS:SG	2.61	0.58
6:O:11:ARG:HD3	6:O:209:TYR:CE2	2.37	0.58
11:T:56:THR:HG21	11:T:145:ARG:HE	1.68	0.58
4:A:500:GLU:OE1	5:B:1143:ALA:C	2.42	0.58
4:A:665:GLY:O	4:A:667:GLY:N	2.36	0.58
4:A:844:ALA:C	4:A:845:LEU:HD23	2.23	0.58
6:C:112:ASN:HB2	6:C:114:TYR:CE1	2.38	0.58
7:D:7:THR:O	7:D:9:GLN:N	2.36	0.58
15:L:47:ARG:HH21	15:L:54:ARG:HH21	1.50	0.58
5:N:603:LEU:HD13	5:N:608:ASP:HB2	1.84	0.58
11:T:93:TYR:HB3	11:T:144:ILE:O	2.02	0.58
12:U:112:SER:O	12:U:114:GLN:N	2.36	0.58
4:A:107:CYS:N	4:A:114:LEU:HD21	2.18	0.58
4:A:979:SER:OG	4:A:981:LEU:HG	2.04	0.58
5:B:175:ARG:HG2	5:B:175:ARG:HH11	1.67	0.58
5:B:981:ALA:HB2	5:B:987:LYS:HA	1.85	0.58
4:M:901:LEU:O	4:M:921:GLY:N	2.31	0.58
5:N:978:ASP:OD2	5:N:1098:MET:HG2	2.04	0.58
7:P:170:THR:CG2	7:P:172:LEU:HG	2.32	0.58
11:T:11:GLN:HA	11:T:53:ASP:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:U:101:PHE:N	12:U:101:PHE:CD1	2.70	0.58
4:A:406:ILE:HG13	4:A:431:LYS:HB2	1.85	0.58
4:A:547:LEU:HB3	14:K:58:PHE:HE1	1.68	0.58
5:B:510:LYS:HG3	5:B:511:PRO:HD3	1.83	0.58
9:F:101:ILE:HD11	9:F:124:GLU:OE1	2.03	0.58
10:G:34:VAL:CG1	10:G:45:ILE:HG21	2.31	0.58
4:M:863:VAL:HG11	4:M:866:PHE:CE2	2.39	0.58
6:O:73:GLN:HB3	6:O:131:HIS:H	1.68	0.58
6:O:112:ASN:HB2	6:O:114:TYR:CE1	2.38	0.58
14:W:109:TRP:O	14:W:111:LEU:N	2.34	0.58
4:A:84:ILE:O	4:A:84:ILE:HG23	2.03	0.58
4:A:471:ASN:OD1	4:A:472:LEU:N	2.36	0.58
4:A:858:ASN:C	4:A:858:ASN:ND2	2.56	0.58
4:A:886:ILE:CG2	4:A:887:GLY:N	2.66	0.58
4:A:1118:VAL:HG12	4:A:1327:ILE:HG13	1.84	0.58
5:B:125:SER:HA	5:B:171:PRO:HA	1.85	0.58
5:B:831:SER:OG	5:B:840:ILE:HD11	2.03	0.58
5:B:955:THR:CG2	5:B:956:THR:H	2.16	0.58
5:B:1159:ARG:HD3	5:B:1193:GLN:CG	2.32	0.58
6:C:252:GLN:HG3	14:K:95:ILE:HG23	1.85	0.58
7:D:18:VAL:HG13	7:D:18:VAL:O	2.02	0.58
11:H:11:GLN:HA	11:H:53:ASP:O	2.03	0.58
12:I:101:PHE:N	12:I:101:PHE:CD1	2.70	0.58
13:J:64:ASN:CB	13:J:65:PRO:CD	2.81	0.58
14:K:10:PHE:N	14:K:10:PHE:CD2	2.70	0.58
4:M:2:VAL:HG21	5:N:1157:ALA:C	2.24	0.58
4:M:7:SER:C	4:M:9:ALA:H	2.06	0.58
4:M:47:ARG:HH12	4:M:254:GLU:HG2	1.66	0.58
4:M:269:ILE:HD11	4:M:300:VAL:HA	1.85	0.58
4:M:899:VAL:HB	4:M:929:LEU:HD11	1.85	0.58
4:M:1279:ILE:O	4:M:1279:ILE:HG22	2.03	0.58
5:N:859:TYR:CZ	5:N:941:LEU:HD12	2.38	0.58
6:O:147:LEU:HD23	6:O:147:LEU:N	2.18	0.58
6:O:238:ILE:HD11	6:O:246:ARG:NH1	2.17	0.58
7:P:4:SER:O	7:P:5:THR:HB	2.04	0.58
10:S:117:GLN:C	10:S:119:LEU:H	2.07	0.58
4:A:93:VAL:CG2	4:A:301:ALA:HA	2.32	0.58
4:A:444:PHE:CB	4:A:458:HIS:HD2	2.16	0.58
4:A:482:PHE:O	4:A:484:GLY:N	2.36	0.58
5:B:822:ASN:O	13:J:48:ARG:NH1	2.36	0.58
4:M:33:ALA:O	4:M:83:HIS:HD2	1.87	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:899:VAL:HB	4:M:929:LEU:HD12	1.85	0.58
5:N:51:PHE:O	5:N:54:PHE:HB3	2.03	0.58
5:N:97:VAL:HG12	5:N:178:ASN:HD21	1.69	0.58
5:N:957:ASN:O	5:N:959:ASP:N	2.36	0.58
5:N:1065:GLN:NE2	5:N:1066:SER:N	2.52	0.58
4:A:224:PHE:CE2	4:A:231:PRO:HG3	2.39	0.58
4:A:264:PHE:O	4:A:267:ALA:HB3	2.04	0.58
4:A:265:LYS:HE2	4:A:322:VAL:CG1	2.34	0.58
4:A:590:ARG:HB3	4:A:605:MET:N	2.19	0.58
4:A:761:MET:HA	4:A:804:TYR:HB2	1.85	0.58
5:B:288:ALA:HA	5:B:331:LEU:HD12	1.86	0.58
5:B:604:ARG:NH1	5:B:691:GLU:OE2	2.37	0.58
5:B:983:ARG:HD2	5:B:1091:TYR:HD2	1.67	0.58
5:B:1050:ILE:HG22	5:B:1051:THR:N	2.19	0.58
6:C:31:ASN:O	6:C:34:ARG:HB3	2.04	0.58
9:F:147:SER:OG	9:F:150:GLU:HG3	2.03	0.58
10:G:73:LYS:HE2	10:G:74:TYR:O	2.03	0.58
4:M:32:VAL:O	4:M:32:VAL:HG23	2.03	0.58
4:M:1291:VAL:HG13	4:M:1292:PRO:HD2	1.84	0.58
5:N:806:THR:CG2	5:N:808:ALA:HB3	2.34	0.58
5:N:811:TYR:N	5:N:811:TYR:CD1	2.72	0.58
5:N:1070:GLU:OE1	13:V:44:TYR:OH	2.21	0.58
6:O:22:LEU:HD23	6:O:25:VAL:HG21	1.85	0.58
6:O:45:ALA:HA	6:O:72:LEU:HD12	1.85	0.58
6:O:46:ILE:HG23	6:O:157:CYS:HB3	1.85	0.58
7:P:198:LEU:O	7:P:200:ASN:N	2.37	0.58
8:Q:177:ARG:C	8:Q:212:ARG:HD3	2.24	0.58
13:V:64:ASN:HD22	13:V:65:PRO:HD3	1.69	0.58
4:A:84:ILE:HG22	4:A:239:LEU:HB3	1.86	0.58
4:A:477:PRO:CG	4:A:521:MET:HG2	2.34	0.58
4:A:805:LEU:HD11	5:B:1052:VAL:HG21	1.84	0.58
5:B:95:ILE:CG1	5:B:130:VAL:HG22	2.34	0.58
6:C:73:GLN:HE21	6:C:75:MET:H	1.50	0.58
6:C:123:ASN:ND2	6:C:125:MET:HG2	2.18	0.58
8:E:78:LEU:HD23	8:E:78:LEU:C	2.24	0.58
8:E:195:VAL:HG22	8:E:213:ILE:HG13	1.86	0.58
13:J:27:GLU:O	13:J:29:GLU:N	2.37	0.58
4:M:34:LYS:CE	4:M:57:ARG:NH1	2.67	0.58
4:M:463:ILE:HD12	4:M:469:ARG:HD2	1.85	0.58
4:M:675:THR:O	4:M:679:ILE:HG13	2.04	0.58
4:M:809:THR:H	4:M:812:GLU:HB2	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:844:ALA:C	4:M:845:LEU:HD23	2.23	0.58
4:M:1341:ILE:CG2	4:M:1342:GLU:N	2.66	0.58
5:N:1002:THR:HG21	5:N:1006:ILE:CD1	2.32	0.58
8:Q:78:LEU:C	8:Q:78:LEU:HD23	2.24	0.58
11:T:44:VAL:O	11:T:44:VAL:HG12	2.03	0.58
11:T:56:THR:HB	11:T:145:ARG:CG	2.33	0.58
12:U:69:PRO:HG2	12:U:85:PHE:CD2	2.38	0.58
1:4:5:DA:C2	2:5:13:DA:C2	2.92	0.58
4:A:548:ASN:HA	14:K:60:ALA:HB1	1.86	0.58
4:A:821:ARG:HD2	4:A:825:ILE:HD11	1.84	0.58
4:A:1444:MET:HG3	10:G:60:ARG:HA	1.84	0.58
5:B:831:SER:HB3	5:B:994:TYR:OH	2.02	0.58
12:I:86:PHE:CE1	12:I:100:PHE:HB2	2.38	0.58
4:M:11:LEU:HB2	5:N:1193:GLN:OE1	2.04	0.58
4:M:107:CYS:N	4:M:114:LEU:HD21	2.19	0.58
4:M:412:ARG:NH2	5:N:1108:ARG:HH12	2.01	0.58
4:M:466:SER:HB2	5:N:1099:VAL:HG11	1.86	0.58
5:N:240:ILE:CG2	5:N:254:LEU:HB3	2.33	0.58
5:N:1107:ALA:O	5:N:1108:ARG:HG2	2.04	0.58
6:O:174:ALA:O	6:O:175:ALA:HB2	2.03	0.58
2:2:14:DC:H2"	2:2:15:DT:H71	1.86	0.58
1:4:1:DA:C1'	1:4:2:DA:H5'	2.28	0.58
4:A:34:LYS:HB2	4:A:36:ARG:HH21	1.68	0.58
4:A:51:GLY:HA2	4:A:56:PRO:HA	1.84	0.58
4:A:871:ASP:OD2	4:A:873:MET:HB2	2.04	0.58
4:A:984:LYS:O	4:A:988:LEU:HB2	2.03	0.58
5:B:516:ASN:HD22	5:B:516:ASN:H	1.51	0.58
6:C:66:ARG:NH1	6:C:144:ILE:O	2.36	0.58
7:D:57:LEU:O	7:D:61:GLU:HB2	2.04	0.58
11:H:81:PRO:HB2	11:H:82:PRO:CD	2.33	0.58
11:H:123:MET:HG2	11:H:124:ARG:N	2.19	0.58
13:J:28:ASP:O	13:J:30:LEU:HG	2.04	0.58
4:M:1299:VAL:HG12	4:M:1300:LYS:N	2.19	0.58
5:N:546:SER:OG	5:N:631:GLY:N	2.34	0.58
5:N:882:THR:HG21	5:N:935:ARG:HA	1.86	0.58
10:S:13:LEU:CD2	10:S:17:PHE:HB2	2.30	0.58
4:A:71:GLN:C	4:A:73:GLY:H	2.08	0.57
4:A:372:LYS:HA	4:A:435:HIS:ND1	2.19	0.57
4:A:381:THR:HG23	4:A:383:TYR:H	1.68	0.57
5:B:1065:GLN:NE2	5:B:1066:SER:H	2.02	0.57
5:B:1110:PRO:HB2	5:B:1119:VAL:HG21	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:L:53:HIS:HB3	15:L:55:ILE:HD11	1.86	0.57
5:N:401:PHE:HD2	5:N:521:LEU:HD12	1.68	0.57
5:N:604:ARG:NH1	5:N:691:GLU:OE2	2.37	0.57
4:A:450:LEU:HB3	4:A:838:GLN:NE2	2.19	0.57
4:A:742:ASN:O	4:A:745:GLN:HB2	2.03	0.57
5:B:865:LYS:HE2	5:B:871:THR:OG1	2.05	0.57
5:B:1099:VAL:O	5:B:1101:ASP:N	2.36	0.57
5:N:329:THR:O	5:N:332:ASP:HB3	2.04	0.57
5:N:521:LEU:HD13	5:N:633:VAL:HB	1.87	0.57
5:N:874:PHE:HA	5:N:913:GLY:O	2.03	0.57
7:P:66:ARG:O	7:P:70:PHE:HB2	2.05	0.57
14:W:69:ALA:O	14:W:70:ARG:HB3	2.04	0.57
4:A:1362:TYR:CD1	4:A:1363:VAL:N	2.72	0.57
4:A:1397:LEU:O	4:A:1400:CYS:HB3	2.04	0.57
5:B:778:MET:CE	5:B:1094:ARG:CD	2.80	0.57
5:B:1110:PRO:HG3	5:B:1125:ASP:HB3	1.86	0.57
6:C:66:ARG:CZ	13:J:2:ILE:HG21	2.34	0.57
12:I:85:PHE:CD2	12:I:85:PHE:N	2.62	0.57
4:M:154:SER:HB3	4:M:162:VAL:HG21	1.86	0.57
4:M:332:LYS:HG3	4:M:333:GLU:HG2	1.86	0.57
4:M:381:THR:HG23	4:M:383:TYR:H	1.70	0.57
5:N:57:TYR:N	5:N:57:TYR:CD1	2.72	0.57
5:N:466:TRP:O	5:N:468:GLU:N	2.36	0.57
5:N:580:VAL:HG22	5:N:624:LEU:HB3	1.86	0.57
5:N:693:ILE:HD13	5:N:701:ILE:HD13	1.86	0.57
5:N:731:VAL:HG12	5:N:732:SER:H	1.69	0.57
7:P:134:THR:CG2	7:P:135:GLY:N	2.67	0.57
4:A:90:VAL:CG1	4:A:297:GLN:HA	2.34	0.57
4:A:722:LEU:HD22	4:A:799:PHE:CD1	2.39	0.57
4:A:809:THR:H	4:A:812:GLU:HB2	1.69	0.57
4:A:849:MET:CE	4:A:1061:GLY:HA2	2.34	0.57
5:B:51:PHE:O	5:B:54:PHE:HB3	2.04	0.57
5:B:794:ASN:O	5:B:795:ILE:HD12	2.03	0.57
5:B:842:ASN:ND2	5:B:845:SER:H	2.03	0.57
5:B:882:THR:HB	5:B:934:LYS:O	2.04	0.57
6:C:83:SER:OG	6:C:160:LYS:HD3	2.04	0.57
9:F:128:LYS:HD3	9:F:149:GLU:O	2.03	0.57
12:I:112:SER:O	12:I:114:GLN:HG3	2.04	0.57
4:M:16:GLU:HB3	4:M:1418:LEU:HD11	1.86	0.57
4:M:84:ILE:HG23	4:M:84:ILE:O	2.03	0.57
4:M:1224:LEU:HD12	4:M:1241:ARG:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:102:VAL:O	5:N:109:THR:HA	2.04	0.57
6:O:249:ASP:O	6:O:252:GLN:HB3	2.05	0.57
9:R:90:ARG:HD3	9:R:155:LEU:HD11	1.86	0.57
11:T:81:PRO:HB2	11:T:82:PRO:CD	2.33	0.57
4:A:356:ASP:HB2	4:A:469:ARG:HH11	1.66	0.57
4:A:534:LEU:O	4:A:534:LEU:HG	2.03	0.57
4:A:886:ILE:HG13	4:A:943:LEU:HD12	1.86	0.57
4:A:1030:ARG:NH1	4:A:1035:TYR:OH	2.38	0.57
4:A:1341:ILE:CG2	4:A:1342:GLU:N	2.67	0.57
13:J:64:ASN:CB	13:J:65:PRO:HD3	2.32	0.57
4:M:224:PHE:CE2	4:M:231:PRO:HG3	2.40	0.57
4:M:527:THR:HG23	4:M:650:GLN:HA	1.87	0.57
4:M:1428:VAL:HG13	5:N:1151:LEU:CD2	2.33	0.57
5:N:737:THR:CG2	12:U:66:PRO:HA	2.34	0.57
5:N:1045:SER:O	5:N:1046:PRO:O	2.21	0.57
8:Q:23:VAL:O	8:Q:28:TYR:HB2	2.04	0.57
9:R:99:LEU:HD12	9:R:99:LEU:O	2.04	0.57
1:4:6:DC:C1'	1:4:7:DT:H5'	2.33	0.57
4:A:563:PRO:HG3	4:A:572:TRP:CE2	2.40	0.57
5:B:603:LEU:HD12	5:B:609:ILE:HG13	1.86	0.57
5:B:693:ILE:HD13	5:B:701:ILE:HD13	1.87	0.57
5:B:745:PRO:C	5:B:747:MET:H	2.07	0.57
5:B:843:GLN:O	5:B:844:SER:C	2.43	0.57
5:B:1095:LEU:HD12	5:B:1095:LEU:N	2.19	0.57
9:F:69:LEU:CA	9:F:70:LYS:N	2.67	0.57
11:H:102:TYR:N	11:H:102:TYR:CD2	2.73	0.57
4:M:50:ILE:O	4:M:52:GLY:N	2.34	0.57
4:M:93:VAL:CG2	4:M:301:ALA:HA	2.34	0.57
5:N:95:ILE:HG13	5:N:129:PHE:O	2.04	0.57
5:N:1106:ARG:HD3	5:N:1126:GLY:C	2.24	0.57
6:O:152:GLU:OE2	6:O:154:LYS:HE3	2.04	0.57
7:P:48:ILE:CG2	10:S:4:ILE:HB	2.33	0.57
9:R:69:LEU:N	9:R:70:LYS:N	2.53	0.57
12:U:2:THR:O	12:U:3:THR:C	2.42	0.57
12:U:52:ILE:O	12:U:52:ILE:HG13	2.04	0.57
4:A:311:GLN:O	4:A:312:PRO:C	2.42	0.57
4:A:508:PRO:O	4:A:511:ILE:HG13	2.05	0.57
4:A:843:LYS:HD3	4:A:846:GLU:OE2	2.04	0.57
5:B:205:ILE:N	5:B:205:ILE:HD12	2.20	0.57
5:B:240:ILE:CG2	5:B:254:LEU:HB3	2.34	0.57
5:B:265:SER:O	5:B:266:ALA:HB3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:810:GLU:HB2	5:B:815:ARG:HH22	1.68	0.57
5:B:1079:LYS:HA	6:C:27:LEU:HD21	1.87	0.57
4:M:598:LEU:HA	11:T:122:LEU:HD13	1.86	0.57
4:M:683:ILE:HG21	4:M:801:GLU:HG3	1.86	0.57
4:M:730:GLY:O	4:M:732:LEU:N	2.38	0.57
5:N:359:GLU:O	5:N:362:PRO:HD3	2.03	0.57
7:P:128:VAL:O	7:P:132:GLN:HG3	2.04	0.57
10:S:145:VAL:HG12	10:S:146:LYS:N	2.18	0.57
13:V:64:ASN:CB	13:V:65:PRO:CD	2.82	0.57
4:A:1329:THR:H	4:A:1335:ILE:HD11	1.69	0.57
4:A:1450:LEU:O	4:A:1450:LEU:HG	2.04	0.57
6:C:252:GLN:CG	14:K:95:ILE:HG23	2.34	0.57
7:D:56:ARG:HA	7:D:148:LEU:HD13	1.86	0.57
10:G:39:THR:HG22	10:G:40:GLY:H	1.68	0.57
10:G:51:TYR:C	10:G:51:TYR:CD2	2.78	0.57
13:J:8:PHE:H	13:J:49:MET:CE	2.17	0.57
14:K:7:PHE:HA	14:K:10:PHE:CE2	2.40	0.57
4:M:852:TYR:HA	4:M:1060:PRO:HB3	1.87	0.57
4:M:1116:LEU:HB2	4:M:1329:THR:OG1	2.04	0.57
4:M:1121:GLU:CG	4:M:1122:PRO:HD2	2.31	0.57
4:M:1313:LEU:HD23	4:M:1338:VAL:HG21	1.85	0.57
5:N:337:ARG:C	5:N:338:GLY:N	2.58	0.57
5:N:343:ILE:CG2	5:N:348:ARG:N	2.68	0.57
5:N:1077:THR:HG22	14:W:44:ASN:ND2	2.20	0.57
6:O:35:ARG:NH1	14:W:41:THR:H	2.01	0.57
6:O:69:LEU:HD12	6:O:69:LEU:N	2.20	0.57
7:P:40:HIS:CE1	7:P:41:GLN:HG3	2.40	0.57
7:P:53:SER:HB3	7:P:152:SER:CA	2.34	0.57
10:S:80:LYS:HG2	10:S:80:LYS:O	2.04	0.57
12:U:86:PHE:CE1	12:U:100:PHE:HB2	2.40	0.57
4:A:482:PHE:C	4:A:484:GLY:H	2.06	0.57
5:B:315:LYS:N	5:B:316:PRO:HD2	2.20	0.57
5:B:562:GLY:HA3	5:B:590:HIS:CE1	2.39	0.57
5:B:916:THR:O	5:B:935:ARG:HG3	2.05	0.57
6:C:179:GLU:HG2	6:C:180:TYR:H	1.70	0.57
13:J:64:ASN:ND2	13:J:65:PRO:HD3	2.18	0.57
4:M:37:PHE:CD1	4:M:37:PHE:N	2.72	0.57
4:M:341:MET:CE	4:M:843:LYS:HZ3	2.18	0.57
4:M:942:PHE:HD2	4:M:943:LEU:HD23	1.70	0.57
4:M:1410:PHE:HA	5:N:1212:ILE:CD1	2.35	0.57
5:N:787:VAL:O	5:N:787:VAL:HG12	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:1077:THR:HG22	14:W:44:ASN:HD21	1.68	0.57
8:Q:192:ARG:HG3	8:Q:192:ARG:NH1	2.20	0.57
2:5:20:DC:H2"	2:5:21:DC:H5'	1.85	0.57
5:B:130:VAL:HB	5:B:167:ILE:CD1	2.35	0.57
5:B:1007:VAL:CG2	5:B:1008:PRO:HD2	2.35	0.57
6:C:238:ILE:HG23	6:C:242:GLN:HB2	1.87	0.57
7:D:191:ALA:O	7:D:193:THR:N	2.38	0.57
4:M:979:SER:OG	4:M:981:LEU:HG	2.05	0.57
4:M:1362:TYR:CD1	4:M:1363:VAL:N	2.72	0.57
5:N:973:ILE:HG23	5:N:974:PRO:HD2	1.87	0.57
13:V:23:ASN:C	13:V:25:LEU:H	2.07	0.57
4:A:50:ILE:O	4:A:52:GLY:N	2.38	0.56
4:A:335:ARG:HD2	5:B:1206:GLU:OE1	2.05	0.56
4:A:343:LYS:NZ	5:B:1151:LEU:O	2.35	0.56
4:A:821:ARG:HB2	4:A:821:ARG:NH1	2.19	0.56
5:B:731:VAL:HG12	5:B:732:SER:N	2.20	0.56
5:B:797:TYR:O	13:J:1:MET:HG2	2.05	0.56
7:D:7:THR:HB	10:G:42:PHE:CZ	2.40	0.56
7:D:51:ASN:O	7:D:52:LEU:O	2.23	0.56
7:D:134:THR:CG2	7:D:135:GLY:N	2.68	0.56
8:E:23:VAL:O	8:E:28:TYR:HB2	2.04	0.56
11:H:89:LEU:C	11:H:91:ASP:H	2.09	0.56
4:M:364:VAL:HG13	4:M:364:VAL:O	2.03	0.56
4:M:590:ARG:HG3	4:M:590:ARG:HH11	1.70	0.56
4:M:741:ASN:ND2	4:M:744:LYS:H	2.02	0.56
4:M:843:LYS:HD3	4:M:846:GLU:OE2	2.05	0.56
5:N:288:ALA:HA	5:N:331:LEU:HD12	1.87	0.56
5:N:583:ASN:HD21	5:N:628:THR:HB	1.68	0.56
5:N:821:GLN:NE2	5:N:851:PHE:HA	2.17	0.56
5:N:864:LYS:N	5:N:872:GLU:OE1	2.38	0.56
5:N:999:MET:HE2	5:N:1000:PRO:HD2	1.87	0.56
5:N:1163:CYS:SG	5:N:1165:ILE:HB	2.44	0.56
13:V:43:ARG:O	13:V:47:ARG:HB2	2.05	0.56
1:1:5:DA:C2	2:2:13:DA:C2	2.93	0.56
4:A:816:HIS:CD2	5:B:764:SER:HB2	2.41	0.56
4:A:1423:GLY:HA3	4:A:1426:GLU:HG2	1.87	0.56
5:B:1166:CYS:SG	5:B:1166:CYS:O	2.63	0.56
4:M:475:THR:CG2	4:M:476:SER:N	2.68	0.56
4:M:565:ILE:O	4:M:570:PRO:HA	2.05	0.56
5:N:803:LEU:CD1	5:N:1032:SER:HB3	2.35	0.56
5:N:827:ILE:O	5:N:827:ILE:HG22	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:O:18:VAL:O	6:O:18:VAL:HG12	2.03	0.56
4:A:14:VAL:H	4:A:1432:GLN:HE22	1.53	0.56
4:A:527:THR:HG23	4:A:650:GLN:HA	1.88	0.56
4:A:785:PRO:HG2	4:A:786:HIS:HD2	1.70	0.56
4:A:896:ARG:HD3	4:A:897:TYR:CE1	2.40	0.56
4:A:1341:ILE:HG23	4:A:1342:GLU:H	1.69	0.56
5:B:39:ARG:HH21	5:B:665:GLU:CD	2.09	0.56
5:B:269:ILE:HD11	5:B:386:LEU:HD21	1.88	0.56
5:B:1163:CYS:SG	5:B:1165:ILE:HB	2.45	0.56
7:D:53:SER:HB3	7:D:152:SER:CA	2.35	0.56
10:G:13:LEU:CD2	10:G:17:PHE:HB2	2.31	0.56
11:H:38:LEU:HD12	11:H:124:ARG:O	2.06	0.56
11:H:128:ASN:CG	11:H:128:ASN:O	2.43	0.56
12:I:52:ILE:HG13	12:I:52:ILE:O	2.05	0.56
4:M:35:ILE:CD1	4:M:241:VAL:HG11	2.36	0.56
4:M:56:PRO:O	4:M:57:ARG:HG3	2.05	0.56
4:M:93:VAL:CG1	4:M:301:ALA:HB1	2.31	0.56
4:M:547:LEU:HD22	14:W:58:PHE:HD1	1.69	0.56
5:N:308:TRP:HA	5:N:311:LEU:HD12	1.87	0.56
5:N:376:PHE:CE2	5:N:569:TYR:HD2	2.22	0.56
5:N:376:PHE:HE2	5:N:569:TYR:HD2	1.53	0.56
5:N:745:PRO:O	5:N:747:MET:N	2.38	0.56
5:N:756:ILE:O	5:N:759:PRO:HD3	2.05	0.56
5:N:899:ILE:HD12	5:N:911:ILE:HG23	1.86	0.56
7:P:53:SER:HB3	7:P:152:SER:CB	2.34	0.56
8:Q:9:ILE:CD1	8:Q:53:PRO:HD3	2.35	0.56
8:Q:124:VAL:HB	8:Q:125:PRO:HD3	1.88	0.56
8:Q:195:VAL:HG22	8:Q:213:ILE:HG13	1.88	0.56
4:A:34:LYS:NZ	4:A:57:ARG:CZ	2.69	0.56
4:A:265:LYS:NZ	4:A:322:VAL:HG13	2.20	0.56
7:D:63:LEU:O	7:D:129:LEU:HD11	2.05	0.56
12:I:2:THR:O	12:I:3:THR:C	2.42	0.56
4:M:23:SER:HB3	4:M:233:TRP:CZ2	2.40	0.56
4:M:351:THR:CB	5:N:1103:ILE:HD12	2.32	0.56
4:M:382:PRO:HB3	4:M:428:TYR:CE2	2.37	0.56
4:M:608:ILE:HB	4:M:613:ILE:HD11	1.88	0.56
4:M:767:GLN:HE21	4:M:774:ARG:HB3	1.71	0.56
5:N:431:TYR:CZ	5:N:447:ALA:HB2	2.40	0.56
5:N:871:THR:HG22	5:N:872:GLU:O	2.05	0.56
6:O:34:ARG:O	6:O:38:ILE:HG13	2.06	0.56
7:P:24:ALA:C	7:P:26:THR:H	2.08	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:61:SER:HB2	11:T:139:ASN:HB3	1.88	0.56
4:A:34:LYS:CE	4:A:57:ARG:HH12	2.18	0.56
4:A:1279:ILE:HG22	4:A:1279:ILE:O	2.05	0.56
5:B:100:PRO:HD2	5:B:180:TYR:CE1	2.41	0.56
5:B:291:ILE:HD13	5:B:300:HIS:CD2	2.40	0.56
5:B:329:THR:O	5:B:332:ASP:HB3	2.06	0.56
5:B:899:ILE:O	5:B:952:VAL:HG21	2.05	0.56
5:B:1023:VAL:O	5:B:1026:LEU:HB2	2.05	0.56
8:E:202:SER:HB3	8:E:205:SER:O	2.06	0.56
4:M:17:VAL:HA	5:N:1215:ARG:O	2.06	0.56
4:M:244:PRO:CB	4:M:245:PRO:HD3	2.36	0.56
4:M:311:GLN:O	4:M:312:PRO:C	2.43	0.56
4:M:1029:ARG:HG3	4:M:1029:ARG:HH11	1.71	0.56
4:M:1441:PHE:CZ	9:R:89:GLU:HA	2.41	0.56
5:N:57:TYR:N	5:N:57:TYR:HD1	2.04	0.56
5:N:865:LYS:HE2	5:N:871:THR:OG1	2.06	0.56
6:O:67:LEU:HD11	6:O:155:LEU:HD13	1.87	0.56
8:Q:202:SER:OG	8:Q:204:THR:HG22	2.05	0.56
13:V:64:ASN:CB	13:V:65:PRO:HD3	2.33	0.56
4:A:657:LEU:O	4:A:657:LEU:HD12	2.05	0.56
4:A:1279:ILE:CD1	4:A:1316:VAL:HG21	2.36	0.56
5:B:654:ARG:H	5:B:657:HIS:CD2	2.16	0.56
6:C:35:ARG:HH11	14:K:41:THR:CA	2.18	0.56
10:G:165:GLU:HB2	10:G:168:LEU:HD12	1.88	0.56
12:I:62:ILE:O	12:I:62:ILE:HG12	2.06	0.56
4:M:98:LYS:O	4:M:99:ILE:C	2.44	0.56
4:M:596:THR:C	4:M:598:LEU:N	2.58	0.56
4:M:768:GLN:HG2	4:M:816:HIS:CA	2.35	0.56
4:M:852:TYR:CD2	4:M:1060:PRO:CB	2.89	0.56
4:M:858:ASN:C	4:M:858:ASN:ND2	2.59	0.56
4:M:883:LEU:HD11	4:M:1017:LEU:HD11	1.87	0.56
4:M:947:PHE:CD2	4:M:954:TRP:CE2	2.94	0.56
4:M:1356:ILE:HD12	4:M:1368:MET:SD	2.46	0.56
5:N:281:PRO:O	5:N:283:VAL:N	2.39	0.56
5:N:1065:GLN:NE2	5:N:1067:ARG:H	2.03	0.56
6:O:140:ASN:O	6:O:141:GLY:O	2.23	0.56
9:R:109:VAL:HG11	9:R:123:LYS:HD3	1.88	0.56
15:X:31:CYS:SG	15:X:34:CYS:N	2.76	0.56
4:A:402:ALA:CB	4:A:434:ARG:HA	2.36	0.56
4:A:596:THR:C	4:A:598:LEU:H	2.06	0.56
4:A:667:GLY:HA3	6:C:192:TRP:CH2	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1095:THR:O	4:A:1096:SER:HB2	2.06	0.56
8:E:13:TRP:O	8:E:16:PHE:HB3	2.06	0.56
11:H:93:TYR:HB3	11:H:144:ILE:O	2.05	0.56
5:N:770:GLN:HG2	5:N:983:ARG:O	2.06	0.56
5:N:843:GLN:O	5:N:846:ILE:N	2.39	0.56
6:O:44:LEU:HD21	6:O:159:ALA:CB	2.36	0.56
7:P:17:LYS:CA	7:P:17:LYS:HE3	2.34	0.56
4:A:356:ASP:O	4:A:358:ASN:N	2.38	0.56
4:A:1120:LEU:N	4:A:1120:LEU:CD1	2.69	0.56
5:B:746:SER:HB2	5:B:1046:PRO:HG2	1.87	0.56
5:B:792:MET:HG3	5:B:855:PHE:HE1	1.70	0.56
7:D:29:LEU:HD22	10:G:82:PHE:CE2	2.40	0.56
13:J:14:VAL:HG12	13:J:50:ILE:HD11	1.87	0.56
4:M:353:ILE:HD12	4:M:470:LEU:HD21	1.88	0.56
5:N:185:THR:H	5:N:188:ASP:HB2	1.71	0.56
5:N:882:THR:HB	5:N:934:LYS:O	2.06	0.56
10:S:127:PRO:HG2	10:S:138:THR:HG21	1.88	0.56
4:A:21:LEU:HG	4:A:1413:GLY:O	2.06	0.56
4:A:88:LYS:HE3	4:A:280:GLU:OE2	2.05	0.56
4:A:438:ASP:OD1	4:A:462:VAL:HG23	2.05	0.56
5:B:192:LEU:O	5:B:193:LYS:HB2	2.05	0.56
5:B:840:ILE:HB	5:B:1011:ILE:HB	1.87	0.56
5:B:1096:ARG:O	5:B:1097:HIS:CB	2.48	0.56
6:C:70:ILE:HD11	6:C:144:ILE:HG12	1.88	0.56
6:C:104:PHE:HD2	6:C:105:GLY:N	2.04	0.56
6:C:147:LEU:N	6:C:147:LEU:HD23	2.21	0.56
9:F:69:LEU:N	9:F:70:LYS:N	2.54	0.56
9:F:74:ILE:HG23	9:F:75:PRO:HD2	1.87	0.56
10:G:115:MET:HB3	10:G:116:PRO:HD2	1.87	0.56
4:M:1261:LYS:O	4:M:1264:GLU:HB3	2.06	0.56
5:N:797:TYR:O	13:V:1:MET:HG2	2.05	0.56
5:N:1085:ILE:HG22	5:N:1086:PHE:N	2.21	0.56
11:T:25:ARG:HA	11:T:41:ASP:HA	1.88	0.56
4:A:47:ARG:HH12	4:A:254:GLU:HG2	1.70	0.56
4:A:601:LYS:HB2	4:A:603:ASN:ND2	2.21	0.56
5:B:185:THR:H	5:B:188:ASP:HB2	1.71	0.56
5:B:606:LYS:HD2	5:B:608:ASP:OD2	2.06	0.56
5:B:787:VAL:O	5:B:787:VAL:HG12	2.06	0.56
5:B:1072:MET:HE1	5:B:1085:ILE:HB	1.87	0.56
9:F:93:ILE:HD11	9:F:134:ILE:CD1	2.27	0.56
4:M:268:ASP:HB3	4:M:299:HIS:CE1	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:356:ASP:O	4:M:358:ASN:N	2.39	0.56
4:M:446:ARG:HD2	4:M:480:ALA:HB2	1.87	0.56
4:M:720:ARG:O	4:M:724:GLU:HB2	2.06	0.56
4:M:1329:THR:H	4:M:1335:ILE:HD11	1.71	0.56
5:N:310:MET:HE1	5:N:387:LEU:CD1	2.36	0.56
5:N:365:THR:HG23	5:N:367:LEU:HG	1.87	0.56
5:N:486:TYR:CZ	5:N:1096:ARG:HB3	2.41	0.56
9:R:143:PHE:CD1	9:R:143:PHE:C	2.79	0.56
14:W:85:ASP:O	14:W:88:LYS:HB2	2.05	0.56
3:3:3:G:H2'	3:3:4:A:H8	1.69	0.55
5:B:95:ILE:HG13	5:B:129:PHE:O	2.05	0.55
5:B:516:ASN:ND2	5:B:516:ASN:H	2.03	0.55
5:B:1180:PHE:O	5:B:1181:GLU:O	2.23	0.55
6:C:254:LYS:O	6:C:256:ALA:N	2.38	0.55
11:H:25:ARG:HA	11:H:41:ASP:HA	1.88	0.55
4:M:1423:GLY:HA3	4:M:1426:GLU:HG2	1.87	0.55
4:M:1444:MET:HG2	10:S:60:ARG:CA	2.35	0.55
5:N:745:PRO:C	5:N:747:MET:H	2.09	0.55
5:N:1099:VAL:HG12	5:N:1100:ASP:H	1.69	0.55
8:Q:202:SER:HB3	8:Q:205:SER:O	2.07	0.55
9:R:125:LEU:O	9:R:125:LEU:HG	2.05	0.55
4:A:1291:VAL:HG13	4:A:1292:PRO:CD	2.36	0.55
4:A:1305:VAL:HG12	4:A:1306:LEU:N	2.21	0.55
4:A:1441:PHE:CZ	9:F:89:GLU:HA	2.41	0.55
5:B:281:PRO:O	5:B:283:VAL:N	2.39	0.55
5:B:310:MET:HE1	5:B:387:LEU:CD1	2.36	0.55
5:B:521:LEU:HD13	5:B:633:VAL:HB	1.88	0.55
5:B:1099:VAL:HG13	5:B:1100:ASP:N	2.20	0.55
7:D:4:SER:OG	7:D:5:THR:N	2.35	0.55
10:G:106:MET:HG2	10:G:107:LYS:N	2.20	0.55
11:H:56:THR:HB	11:H:145:ARG:CG	2.35	0.55
12:I:26:LEU:CD2	12:I:37:GLU:HA	2.33	0.55
12:I:55:THR:CG2	12:I:58:VAL:HG21	2.36	0.55
4:M:224:PHE:CD2	4:M:231:PRO:HG3	2.40	0.55
4:M:341:MET:HE1	4:M:843:LYS:HZ3	1.70	0.55
4:M:730:GLY:C	4:M:732:LEU:H	2.09	0.55
5:N:273:LEU:HD12	5:N:280:ILE:HD12	1.88	0.55
6:O:112:ASN:HD22	6:O:112:ASN:N	2.04	0.55
6:O:142:VAL:N	13:V:16:ASP:HB3	2.14	0.55
7:P:138:ASN:OD1	7:P:141:LEU:HB2	2.05	0.55
10:S:39:THR:HG22	10:S:40:GLY:H	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:W:46:ILE:O	14:W:50:LEU:HB2	2.06	0.55
4:A:75:ASN:O	4:A:76:GLU:CB	2.54	0.55
5:B:980:PHE:HD2	5:B:1094:ARG:HA	1.71	0.55
6:C:73:GLN:NE2	6:C:74:SER:H	2.05	0.55
6:C:100:THR:OG1	6:C:121:VAL:HG21	2.06	0.55
7:D:40:HIS:CB	10:G:73:LYS:NZ	2.65	0.55
8:E:207:ARG:CB	8:E:207:ARG:HH11	2.20	0.55
9:F:77:ASP:C	9:F:79:ARG:H	2.08	0.55
13:J:1:MET:H1	13:J:56:LEU:N	2.05	0.55
14:K:49:GLU:HG3	14:K:94:ILE:CG1	2.36	0.55
4:M:402:ALA:CB	4:M:434:ARG:HA	2.36	0.55
4:M:805:LEU:HD11	5:N:1052:VAL:HG21	1.88	0.55
4:M:982:THR:O	4:M:985:ASP:HB2	2.07	0.55
6:O:66:ARG:HH12	13:V:2:ILE:HG21	1.67	0.55
14:W:35:PHE:CD1	14:W:71:PHE:CE1	2.95	0.55
2:2:23:DG:H2'	2:2:24:DG:C8	2.41	0.55
4:A:401:GLY:C	4:A:435:HIS:HD2	2.08	0.55
4:A:534:LEU:HD13	4:A:656:TRP:CG	2.41	0.55
10:G:110:VAL:HG22	10:G:161:GLY:O	2.06	0.55
12:I:34:TYR:CD2	12:I:34:TYR:C	2.79	0.55
13:J:48:ARG:HD2	13:J:49:MET:N	2.21	0.55
4:M:401:GLY:C	4:M:435:HIS:CD2	2.80	0.55
4:M:464:PRO:HG2	4:M:465:TYR:HD1	1.72	0.55
4:M:1001:ARG:O	4:M:1002:GLY:O	2.24	0.55
5:N:172:ILE:HD13	5:N:178:ASN:CB	2.30	0.55
5:N:265:SER:O	5:N:266:ALA:HB3	2.06	0.55
5:N:516:ASN:ND2	5:N:516:ASN:H	2.02	0.55
5:N:852:ARG:NH2	15:X:70:ARG:OXT	2.34	0.55
5:N:1166:CYS:O	5:N:1166:CYS:SG	2.64	0.55
7:P:7:THR:HB	10:S:42:PHE:HE2	1.71	0.55
9:R:130:ILE:O	9:R:148:VAL:HG21	2.05	0.55
12:U:62:ILE:O	12:U:62:ILE:HG12	2.07	0.55
4:A:105:CYS:O	4:A:114:LEU:HG	2.07	0.55
4:A:596:THR:C	4:A:598:LEU:N	2.59	0.55
4:A:768:GLN:HG2	4:A:816:HIS:CA	2.35	0.55
4:A:852:TYR:CE2	4:A:1060:PRO:HB2	2.41	0.55
4:A:1420:ASP:O	4:A:1421:CYS:HB2	2.04	0.55
4:A:1444:MET:HG2	10:G:60:ARG:HA	1.89	0.55
5:B:118:ARG:HH11	5:B:204:ILE:HD11	1.71	0.55
5:B:611:PRO:HB3	5:B:685:LEU:HD11	1.87	0.55
5:B:801:LYS:O	13:J:52:THR:HG23	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:980:PHE:HE1	5:B:990:ILE:HD11	1.72	0.55
10:G:7:LEU:CD1	10:G:45:ILE:HD11	2.37	0.55
11:H:4:THR:CA	11:H:60:ALA:HB2	2.31	0.55
4:M:79:GLY:HA3	4:M:243:PRO:CG	2.36	0.55
4:M:407:ARG:HG2	4:M:430:TRP:CH2	2.41	0.55
4:M:902:LEU:O	4:M:903:ASN:HB2	2.06	0.55
4:M:1369:ALA:O	4:M:1370:LEU:C	2.43	0.55
5:N:192:LEU:O	5:N:193:LYS:HB2	2.05	0.55
5:N:465:ASN:N	5:N:465:ASN:ND2	2.55	0.55
6:O:69:LEU:HD12	6:O:69:LEU:H	1.72	0.55
4:A:567:LYS:CG	4:A:568:PRO:CD	2.80	0.55
4:A:868:TYR:CD2	4:A:1058:VAL:HG21	2.38	0.55
4:A:1283:VAL:HG12	4:A:1284:MET:N	2.22	0.55
4:A:1336:MET:CE	4:A:1381:LEU:HG	2.36	0.55
4:A:1410:PHE:HA	5:B:1212:ILE:CD1	2.37	0.55
5:B:344:LYS:O	5:B:345:LYS:CB	2.55	0.55
5:B:778:MET:HE1	5:B:853:SER:CB	2.35	0.55
9:F:96:THR:O	9:F:100:GLN:HG3	2.07	0.55
4:M:114:LEU:HD13	4:M:171:GLN:HE22	1.70	0.55
4:M:203:SER:OG	4:M:206:GLU:HB2	2.07	0.55
4:M:1134:ILE:O	4:M:1138:ILE:HG13	2.06	0.55
5:N:114:PRO:O	5:N:116:GLU:N	2.40	0.55
5:N:223:VAL:HG11	5:N:381:MET:HG2	1.87	0.55
5:N:340:ALA:CB	5:N:343:ILE:HD12	2.33	0.55
5:N:843:GLN:N	5:N:994:TYR:O	2.29	0.55
5:N:980:PHE:HD2	5:N:1094:ARG:HA	1.71	0.55
7:P:51:ASN:O	7:P:54:GLU:HB3	2.07	0.55
13:V:13:VAL:O	13:V:14:VAL:CG2	2.55	0.55
4:A:477:PRO:HG2	4:A:521:MET:HG2	1.89	0.55
4:A:730:GLY:O	4:A:732:LEU:N	2.40	0.55
5:B:258:LEU:HB2	5:B:385:LEU:HD21	1.89	0.55
6:C:114:TYR:HB3	6:C:140:ASN:O	2.07	0.55
4:M:388:LEU:O	4:M:392:VAL:HG23	2.06	0.55
4:M:1305:VAL:HG12	4:M:1306:LEU:N	2.21	0.55
10:S:48:VAL:HG13	10:S:74:TYR:HD1	1.72	0.55
13:V:44:TYR:HA	13:V:47:ARG:HB2	1.89	0.55
4:A:42:ASP:C	4:A:44:THR:H	2.08	0.55
4:A:666:ILE:CD1	4:A:667:GLY:H	2.19	0.55
4:A:901:LEU:O	4:A:921:GLY:N	2.37	0.55
5:B:1045:SER:O	5:B:1046:PRO:O	2.25	0.55
7:D:48:ILE:HG21	10:G:4:ILE:HB	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:157:SER:HG	8:E:160:GLU:HG3	1.72	0.55
8:E:177:ARG:C	8:E:212:ARG:HD3	2.27	0.55
11:H:82:PRO:C	11:H:84:ALA:H	2.10	0.55
12:I:34:TYR:HD2	12:I:34:TYR:C	2.10	0.55
14:K:47:ARG:HH11	14:K:47:ARG:CB	2.15	0.55
4:M:683:ILE:HD13	4:M:801:GLU:HG3	1.88	0.55
4:M:929:LEU:HD23	4:M:983:ILE:HG21	1.89	0.55
5:N:778:MET:CE	5:N:1094:ARG:CD	2.85	0.55
5:N:1142:GLY:HA3	9:R:88:TYR:HE2	1.72	0.55
6:O:73:GLN:HE21	6:O:75:MET:H	1.53	0.55
15:X:39:SER:O	15:X:40:LEU:HG	2.06	0.55
4:A:236:LEU:HD11	4:A:304:MET:HE1	1.88	0.55
4:A:444:PHE:HB2	4:A:458:HIS:HD2	1.72	0.55
4:A:699:ALA:O	4:A:700:ASN:HB3	2.07	0.55
4:A:1341:ILE:CG2	4:A:1342:GLU:H	2.20	0.55
4:A:1402:PHE:CD1	4:A:1403:GLU:HG3	2.40	0.55
5:B:220:GLY:O	5:B:222:ILE:HG13	2.07	0.55
5:B:563:MET:HE3	5:B:580:VAL:HB	1.89	0.55
5:B:859:TYR:CZ	5:B:941:LEU:HD12	2.41	0.55
10:G:39:THR:HG22	10:G:40:GLY:N	2.22	0.55
14:K:47:ARG:HB3	14:K:47:ARG:NH1	2.15	0.55
14:K:69:ALA:O	14:K:70:ARG:HB3	2.05	0.55
15:L:31:CYS:SG	15:L:34:CYS:N	2.77	0.55
4:M:75:ASN:O	4:M:76:GLU:CB	2.54	0.55
4:M:535:THR:HG23	4:M:575:LYS:HE2	1.88	0.55
4:M:786:HIS:CD2	4:M:786:HIS:N	2.75	0.55
4:M:947:PHE:CD2	4:M:954:TRP:CZ2	2.95	0.55
5:N:291:ILE:HD13	5:N:300:HIS:NE2	2.22	0.55
5:N:293:PRO:HG2	5:N:296:GLU:CB	2.36	0.55
5:N:841:MET:SD	5:N:846:ILE:HD11	2.47	0.55
5:N:1115:THR:CG2	5:N:1117:GLN:HG3	2.36	0.55
5:N:1208:MET:O	5:N:1211:ASN:N	2.40	0.55
6:O:184:ASN:ND2	6:O:187:LYS:HA	2.21	0.55
9:R:89:GLU:OE2	9:R:134:ILE:HG21	2.07	0.55
10:S:18:PHE:HA	10:S:22:MET:HE3	1.89	0.55
12:U:85:PHE:CD2	12:U:85:PHE:N	2.66	0.55
1:1:1:DA:H2"	1:1:2:DA:O5'	2.06	0.55
4:A:401:GLY:C	4:A:435:HIS:CD2	2.81	0.55
4:A:524:VAL:HG12	4:A:525:GLN:N	2.17	0.55
4:A:698:GLN:HA	12:I:97:MET:O	2.07	0.55
4:A:901:LEU:HD22	4:A:919:ILE:CG2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1336:MET:HE2	4:A:1381:LEU:HG	1.88	0.55
4:A:1364:ASN:HD22	4:A:1365:TYR:N	2.05	0.55
5:B:1115:THR:HG22	5:B:1117:GLN:HG3	1.87	0.55
9:F:130:ILE:O	9:F:148:VAL:CG2	2.55	0.55
4:M:95:PHE:O	4:M:96:ILE:C	2.46	0.55
4:M:115:LEU:HB2	4:M:122:MET:HE2	1.89	0.55
4:M:442:VAL:O	4:M:457:ALA:HA	2.07	0.55
4:M:453:MET:HE3	4:M:513:SER:HB2	1.89	0.55
4:M:528:LEU:HD12	4:M:528:LEU:C	2.27	0.55
4:M:622:VAL:O	4:M:622:VAL:HG22	2.06	0.55
5:N:332:ASP:OD1	5:N:336:ARG:NE	2.40	0.55
5:N:620:ARG:NH2	12:U:89:GLN:NE2	2.54	0.55
4:A:840:ARG:O	4:A:841:LEU:C	2.45	0.54
4:A:853:ASP:O	4:A:854:ASN:HB2	2.07	0.54
6:C:113:VAL:CG2	6:C:147:LEU:HD21	2.37	0.54
4:M:58:LEU:CD2	4:M:244:PRO:HD2	2.37	0.54
4:M:524:VAL:HG12	4:M:525:GLN:HE21	1.72	0.54
4:M:898:ARG:HB2	4:M:933:TYR:CE1	2.42	0.54
4:M:1191:TRP:CD1	4:M:1256:GLU:HB2	2.41	0.54
4:M:1208:THR:HG22	4:M:1210:GLY:H	1.72	0.54
5:N:229:ALA:HB1	5:N:231:PRO:HD2	1.88	0.54
5:N:411:PRO:O	5:N:414:ALA:HB3	2.07	0.54
5:N:654:ARG:C	5:N:656:GLY:H	2.10	0.54
5:N:731:VAL:HG12	5:N:732:SER:N	2.21	0.54
5:N:843:GLN:O	5:N:846:ILE:HB	2.07	0.54
5:N:1006:ILE:HG22	13:V:45:CYS:HB3	1.87	0.54
6:O:145:CYS:HA	13:V:2:ILE:HD11	1.89	0.54
8:Q:175:LEU:HD23	8:Q:176:PRO:HD2	1.90	0.54
13:V:44:TYR:N	13:V:44:TYR:CD2	2.76	0.54
2:2:27:DA:C2	3:3:2:C:N4	2.74	0.54
2:5:24:DG:H2"	2:5:25:DT:C5'	2.36	0.54
4:A:34:LYS:HE3	4:A:57:ARG:NH1	2.21	0.54
4:A:90:VAL:HG13	4:A:297:GLN:HA	1.88	0.54
4:A:332:LYS:HG3	4:A:333:GLU:HG2	1.89	0.54
4:A:442:VAL:O	4:A:457:ALA:HA	2.07	0.54
4:A:535:THR:CG2	4:A:616:VAL:HA	2.34	0.54
4:A:828:ALA:HB1	5:B:530:GLY:HA2	1.86	0.54
5:B:309:GLN:HG3	12:I:52:ILE:HD11	1.89	0.54
5:B:593:PRO:HG2	5:B:617:ARG:NH2	2.22	0.54
12:I:99:LEU:O	12:I:111:THR:HG23	2.07	0.54
4:M:1120:LEU:O	4:M:1323:ASP:HB2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1402:PHE:CD1	4:M:1403:GLU:HG3	2.41	0.54
5:N:29:ASP:HB3	5:N:658:ILE:CD1	2.37	0.54
5:N:185:THR:H	5:N:188:ASP:CB	2.21	0.54
6:O:76:ASP:O	6:O:79:GLN:HG2	2.08	0.54
7:P:56:ARG:HD3	7:P:149:THR:HA	1.90	0.54
15:X:32:ALA:CB	15:X:55:ILE:HD12	2.35	0.54
4:A:896:ARG:NH2	4:A:1030:ARG:HH21	2.05	0.54
4:A:1144:LYS:HB2	4:A:1268:LEU:O	2.07	0.54
4:A:1175:SER:O	4:A:1176:LEU:HB2	2.06	0.54
4:A:1332:PHE:CE1	4:A:1348:LEU:HD13	2.42	0.54
4:A:1437:GLY:HA3	9:F:88:TYR:CD2	2.43	0.54
5:B:429:PHE:HA	5:B:432:MET:CE	2.38	0.54
5:B:466:TRP:O	5:B:468:GLU:N	2.40	0.54
10:G:106:MET:CG	10:G:107:LYS:N	2.70	0.54
14:K:111:LEU:C	14:K:112:GLN:CG	2.64	0.54
4:M:401:GLY:C	4:M:435:HIS:HD2	2.10	0.54
4:M:427:GLN:O	4:M:428:TYR:C	2.45	0.54
4:M:1120:LEU:N	4:M:1120:LEU:CD1	2.71	0.54
4:M:1348:LEU:O	4:M:1352:VAL:HG23	2.07	0.54
5:N:785:TYR:CD1	5:N:786:ASN:N	2.75	0.54
5:N:948:ILE:HG22	5:N:949:VAL:O	2.07	0.54
7:P:50:LEU:HD13	7:P:55:ALA:HA	1.89	0.54
8:Q:90:VAL:HA	8:Q:120:ALA:HB2	1.89	0.54
10:S:1:MET:O	10:S:3:PHE:CE1	2.60	0.54
12:U:25:LEU:HB3	12:U:38:ALA:HB2	1.88	0.54
4:A:42:ASP:HB3	4:A:45:GLN:N	2.22	0.54
4:A:58:LEU:HD21	4:A:243:PRO:CB	2.36	0.54
4:A:244:PRO:O	4:A:246:VAL:N	2.41	0.54
4:A:464:PRO:HG2	4:A:465:TYR:HD1	1.72	0.54
4:A:532:ARG:O	4:A:535:THR:HB	2.06	0.54
4:A:682:THR:HG23	4:A:728:LYS:HE3	1.89	0.54
4:A:853:ASP:OD1	4:A:855:THR:CB	2.54	0.54
4:A:1115:SER:O	4:A:1116:LEU:HB3	2.07	0.54
4:A:1420:ASP:CB	4:A:1422:ARG:HG3	2.29	0.54
5:B:1068:GLY:O	5:B:1069:PHE:O	2.25	0.54
8:E:124:VAL:HA	8:E:132:ILE:HD12	1.88	0.54
14:K:101:LEU:O	14:K:101:LEU:HD23	2.08	0.54
4:M:353:ILE:HB	4:M:470:LEU:CD2	2.37	0.54
4:M:828:ALA:HB1	5:N:530:GLY:HA2	1.86	0.54
4:M:855:THR:HG23	4:M:857:ARG:CG	2.35	0.54
4:M:1424:VAL:CG1	4:M:1436:ILE:HD11	2.28	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:217:ARG:HD2	5:N:217:ARG:C	2.27	0.54
5:N:247:GLY:C	5:N:249:ARG:N	2.61	0.54
5:N:408:LEU:HG	5:N:409:ALA:H	1.72	0.54
5:N:980:PHE:HE2	5:N:1094:ARG:CG	2.20	0.54
5:N:1099:VAL:O	5:N:1101:ASP:N	2.40	0.54
7:P:68:ARG:C	7:P:70:PHE:H	2.11	0.54
10:S:132:SER:OG	10:S:133:SER:N	2.39	0.54
14:W:21:ILE:HG23	14:W:31:VAL:HG11	1.90	0.54
4:A:32:VAL:HG23	4:A:32:VAL:O	2.06	0.54
4:A:42:ASP:HB3	4:A:45:GLN:HA	1.90	0.54
4:A:590:ARG:HH11	4:A:590:ARG:CG	2.20	0.54
4:A:783:THR:HG22	4:A:784:LEU:HG	1.90	0.54
4:A:857:ARG:HG2	4:A:863:VAL:HA	1.89	0.54
5:B:221:ASN:N	5:B:241:ARG:O	2.30	0.54
5:B:657:HIS:CE1	5:B:689:LEU:HD11	2.42	0.54
5:B:1099:VAL:HG12	5:B:1100:ASP:H	1.72	0.54
5:B:1106:ARG:HG3	5:B:1107:ALA:N	2.22	0.54
6:C:18:VAL:O	6:C:20:PHE:HD2	1.90	0.54
7:D:7:THR:HB	10:G:42:PHE:HE2	1.71	0.54
9:F:111:LEU:C	9:F:113:GLY:N	2.60	0.54
10:G:3:PHE:CE1	10:G:80:LYS:HE2	2.42	0.54
10:G:143:ILE:CG2	10:G:144:ARG:N	2.71	0.54
4:M:1063:MET:HG3	4:M:1436:ILE:HG23	1.87	0.54
4:M:1095:THR:O	4:M:1096:SER:CB	2.56	0.54
4:M:1115:SER:HB3	4:M:1330:ASN:HD21	1.73	0.54
5:N:792:MET:HG3	5:N:855:PHE:HE1	1.72	0.54
5:N:801:LYS:O	13:V:52:THR:CG2	2.55	0.54
7:P:63:LEU:HD13	7:P:133:THR:OG1	2.06	0.54
11:T:91:ASP:C	11:T:93:TYR:H	2.11	0.54
14:W:31:VAL:CG1	14:W:32:VAL:N	2.70	0.54
14:W:55:LYS:HB3	14:W:81:TYR:CD1	2.42	0.54
2:2:26:DC:H2"	2:2:27:DA:H5'	1.87	0.54
4:A:82:GLY:O	4:A:241:VAL:N	2.34	0.54
4:A:115:LEU:HB2	4:A:122:MET:HE2	1.90	0.54
4:A:510:GLN:OE1	4:A:510:GLN:HA	2.07	0.54
4:A:683:ILE:HG21	4:A:801:GLU:HG3	1.90	0.54
5:B:122:LEU:O	5:B:206:ASN:HA	2.08	0.54
5:B:1183:LYS:N	5:B:1183:LYS:CE	2.71	0.54
8:E:55:ARG:C	8:E:57:MET:H	2.10	0.54
4:M:444:PHE:CB	4:M:458:HIS:HD2	2.20	0.54
4:M:567:LYS:CB	11:T:96:VAL:H	2.12	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:778:MET:HE3	5:N:1094:ARG:HD3	1.89	0.54
5:N:882:THR:O	5:N:883:LEU:HB2	2.08	0.54
6:O:256:ALA:O	6:O:259:LEU:N	2.41	0.54
7:P:192:LYS:HB3	7:P:192:LYS:HZ3	1.73	0.54
8:Q:105:PHE:O	8:Q:106:GLN:HB2	2.07	0.54
9:R:76:LYS:O	9:R:79:ARG:HD3	2.08	0.54
9:R:99:LEU:O	9:R:103:MET:HG2	2.07	0.54
9:R:111:LEU:C	9:R:113:GLY:N	2.60	0.54
4:A:353:ILE:HD13	4:A:487:MET:HE2	1.90	0.54
4:A:412:ARG:NH2	5:B:1108:ARG:NH1	2.55	0.54
4:A:463:ILE:HD12	4:A:469:ARG:HD2	1.89	0.54
4:A:552:TRP:HE3	4:A:651:LYS:HB3	1.72	0.54
4:A:883:LEU:CD2	4:A:1021:LEU:HB2	2.38	0.54
4:A:1076:ALA:HA	4:A:1079:MET:CE	2.38	0.54
4:A:1341:ILE:O	4:A:1344:GLY:N	2.41	0.54
4:A:1369:ALA:O	4:A:1372:VAL:HG12	2.08	0.54
5:B:376:PHE:CE2	5:B:569:TYR:HD2	2.26	0.54
5:B:552:MET:HA	5:B:555:ILE:HB	1.90	0.54
5:B:705:MET:H	5:B:710:LEU:CD1	2.21	0.54
8:E:177:ARG:HD3	8:E:215:MET:CG	2.38	0.54
4:M:547:LEU:HB3	14:W:58:PHE:CE1	2.42	0.54
4:M:816:HIS:CD2	5:N:764:SER:HB2	2.43	0.54
4:M:1369:ALA:O	4:M:1372:VAL:HG12	2.08	0.54
5:N:798:TYR:CE2	6:O:62:PHE:CE2	2.95	0.54
6:O:209:TYR:HD1	6:O:209:TYR:H	1.54	0.54
9:R:77:ASP:C	9:R:79:ARG:H	2.10	0.54
9:R:103:MET:CE	10:S:66:GLY:H	2.20	0.54
13:V:44:TYR:HD2	13:V:44:TYR:N	2.06	0.54
14:W:111:LEU:O	14:W:112:GLN:HG2	2.07	0.54
4:A:350:ARG:HB2	4:A:488:ASN:OD1	2.07	0.54
4:A:527:THR:CG2	4:A:650:GLN:HA	2.37	0.54
5:B:525:ALA:O	5:B:768:THR:HG23	2.08	0.54
5:B:616:ILE:HG13	5:B:697:GLU:HA	1.90	0.54
5:B:990:ILE:HG22	5:B:991:GLY:N	2.23	0.54
6:C:27:LEU:HD13	6:C:228:PHE:HE2	1.73	0.54
11:H:23:VAL:HG22	11:H:43:ASN:HA	1.90	0.54
14:K:31:VAL:CG1	14:K:32:VAL:N	2.70	0.54
4:M:265:LYS:NZ	4:M:322:VAL:HG22	2.22	0.54
4:M:353:ILE:HG13	4:M:482:PHE:HD2	1.72	0.54
4:M:1095:THR:O	4:M:1096:SER:HB2	2.07	0.54
4:M:1118:VAL:HG23	4:M:1306:LEU:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1283:VAL:HG12	4:M:1284:MET:N	2.23	0.54
5:N:309:GLN:HG3	12:U:52:ILE:HD11	1.88	0.54
5:N:777:ALA:HA	5:N:1095:LEU:HA	1.89	0.54
6:O:113:VAL:CG2	6:O:147:LEU:HD21	2.38	0.54
7:P:18:VAL:O	7:P:18:VAL:HG13	2.06	0.54
10:S:145:VAL:CG1	10:S:146:LYS:N	2.70	0.54
11:T:116:TYR:HE2	11:T:140:ALA:CB	2.21	0.54
14:W:55:LYS:HB2	14:W:81:TYR:HE1	1.72	0.54
4:A:300:VAL:O	4:A:300:VAL:HG12	2.08	0.54
4:A:947:PHE:CD2	4:A:954:TRP:CZ2	2.96	0.54
5:B:705:MET:N	5:B:710:LEU:HD12	2.23	0.54
5:B:979:LYS:HG2	5:B:1095:LEU:HD13	1.88	0.54
5:B:1017:ILE:HG22	5:B:1018:PRO:N	2.22	0.54
9:F:135:ARG:HD3	9:F:143:PHE:CD2	2.42	0.54
10:G:88:ASP:OD2	10:G:88:ASP:N	2.41	0.54
11:H:61:SER:HB2	11:H:139:ASN:HB3	1.90	0.54
4:M:715:GLU:OE2	4:M:774:ARG:NH1	2.41	0.54
4:M:1341:ILE:HG23	4:M:1342:GLU:H	1.71	0.54
4:M:1386:ARG:HB3	4:M:1403:GLU:OE1	2.08	0.54
5:N:176:SER:O	5:N:182:SER:HB3	2.08	0.54
5:N:1085:ILE:N	5:N:1085:ILE:CD1	2.69	0.54
10:S:47:CYS:O	10:S:76:ALA:HB1	2.07	0.54
12:U:50:THR:CG2	12:U:52:ILE:HG12	2.38	0.54
4:A:230:ARG:N	4:A:233:TRP:CE3	2.65	0.54
4:A:407:ARG:HB3	4:A:430:TRP:CE2	2.42	0.54
4:A:958:VAL:O	4:A:958:VAL:HG12	2.08	0.54
5:B:557:PHE:C	5:B:557:PHE:HD2	2.09	0.54
5:B:910:VAL:HG12	5:B:912:ILE:H	1.73	0.54
6:C:39:ALA:HA	6:C:164:ALA:CB	2.36	0.54
6:C:45:ALA:HA	6:C:72:LEU:CD1	2.38	0.54
6:C:177:GLU:HG3	6:C:231:ASN:HD22	1.72	0.54
6:C:212:PRO:CB	6:C:213:PRO:HD2	2.38	0.54
7:D:213:GLU:O	7:D:217:LEU:HG	2.07	0.54
9:F:75:PRO:HG2	9:F:78:GLN:HB2	1.90	0.54
4:M:282:ASN:O	4:M:284:ALA:N	2.41	0.54
4:M:481:ASP:OD1	4:M:483:ASP:OD2	2.25	0.54
4:M:504:LEU:HD11	9:R:91:ALA:CB	2.37	0.54
4:M:608:ILE:C	4:M:610:GLY:N	2.59	0.54
5:N:237:VAL:HG12	5:N:238:ALA:N	2.22	0.54
5:N:370:PHE:HD2	5:N:373:ARG:HD2	1.73	0.54
10:S:73:LYS:HE2	10:S:74:TYR:O	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S:74:TYR:H	10:S:74:TYR:HD2	1.56	0.54
13:V:27:GLU:C	13:V:29:GLU:H	2.10	0.54
13:V:36:LEU:O	13:V:39:LEU:N	2.41	0.54
4:A:55:ASP:CG	4:A:55:ASP:O	2.41	0.53
4:A:600:PRO:HG2	4:A:601:LYS:H	1.73	0.53
5:B:102:VAL:O	5:B:109:THR:HA	2.08	0.53
5:B:973:ILE:HG23	5:B:974:PRO:HD2	1.90	0.53
5:B:996:ARG:NH1	6:C:38:ILE:HG23	2.22	0.53
6:C:33:LEU:O	6:C:34:ARG:C	2.47	0.53
11:H:116:TYR:HB2	11:H:123:MET:HB3	1.90	0.53
4:M:877:HIS:O	4:M:878:ILE:HG12	2.08	0.53
5:N:284:ILE:HG12	5:N:324:ILE:HD12	1.89	0.53
5:N:343:ILE:HB	5:N:348:ARG:HG3	1.89	0.53
6:O:66:ARG:NH1	13:V:2:ILE:CG2	2.61	0.53
7:P:4:SER:OG	7:P:5:THR:N	2.31	0.53
8:Q:55:ARG:HD2	8:Q:83:CYS:O	2.09	0.53
9:R:85:MET:HE1	9:R:93:ILE:HD12	1.89	0.53
14:W:65:HIS:HD2	14:W:67:PHE:N	1.95	0.53
4:A:44:THR:O	4:A:45:GLN:HB2	2.09	0.53
4:A:90:VAL:HG13	4:A:297:GLN:OE1	2.08	0.53
4:A:154:SER:HB3	4:A:162:VAL:HG21	1.89	0.53
4:A:789:LYS:HE3	12:I:67:THR:OG1	2.09	0.53
4:A:929:LEU:HD21	4:A:983:ILE:HD13	1.89	0.53
4:A:1397:LEU:HB2	4:A:1426:GLU:OE1	2.08	0.53
5:B:642:ASP:HB3	5:B:649:LYS:HD2	1.89	0.53
5:B:654:ARG:C	5:B:656:GLY:H	2.10	0.53
5:B:852:ARG:NH2	15:L:70:ARG:OXT	2.29	0.53
5:B:882:THR:O	5:B:883:LEU:HB2	2.08	0.53
6:C:35:ARG:HH11	14:K:41:THR:N	2.06	0.53
7:D:173:HIS:O	7:D:177:VAL:HG23	2.08	0.53
9:F:118:LEU:O	9:F:122:MET:HG3	2.07	0.53
4:M:18:GLN:CB	5:N:1215:ARG:HB2	2.35	0.53
4:M:23:SER:HB3	4:M:233:TRP:CE2	2.43	0.53
4:M:326:ARG:NH2	4:M:1407:GLU:HG3	2.22	0.53
4:M:427:GLN:HG3	4:M:430:TRP:CE2	2.43	0.53
4:M:886:ILE:HG13	4:M:943:LEU:HD12	1.90	0.53
5:N:582:VAL:HA	5:N:626:ILE:O	2.08	0.53
6:O:254:LYS:O	6:O:258:ILE:HD13	2.09	0.53
8:Q:55:ARG:C	8:Q:57:MET:H	2.11	0.53
4:A:35:ILE:HA	4:A:52:GLY:O	2.09	0.53
4:A:182:VAL:HG22	4:A:201:VAL:HA	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:841:LEU:O	4:A:845:LEU:HG	2.08	0.53
4:A:915:SER:O	4:A:919:ILE:HG13	2.08	0.53
4:A:1064:VAL:O	4:A:1067:LEU:HB3	2.07	0.53
4:A:1120:LEU:O	4:A:1323:ASP:HB2	2.08	0.53
4:A:1313:LEU:HD23	4:A:1338:VAL:CG2	2.38	0.53
5:B:365:THR:HG23	5:B:367:LEU:N	2.19	0.53
5:B:882:THR:HG21	5:B:935:ARG:HA	1.90	0.53
5:B:1002:THR:HG21	5:B:1006:ILE:CD1	2.37	0.53
5:B:1106:ARG:HD3	5:B:1126:GLY:C	2.29	0.53
7:D:34:GLN:O	7:D:47:LEU:HD23	2.08	0.53
10:G:7:LEU:HB2	10:G:74:TYR:HE2	1.69	0.53
4:M:699:ALA:O	4:M:700:ASN:HB3	2.08	0.53
4:M:761:MET:HA	4:M:804:TYR:HB2	1.90	0.53
4:M:1341:ILE:CG2	4:M:1342:GLU:H	2.21	0.53
5:N:258:LEU:HG	5:N:258:LEU:O	2.08	0.53
5:N:344:LYS:O	5:N:345:LYS:CB	2.55	0.53
5:N:879:ARG:HH11	5:N:883:LEU:CD2	2.18	0.53
6:O:174:ALA:HB2	6:O:235:VAL:CG2	2.38	0.53
9:R:81:THR:HB	9:R:136:ARG:NH1	2.23	0.53
10:S:122:ASN:ND2	10:S:125:SER:HB3	2.23	0.53
11:T:89:LEU:C	11:T:91:ASP:H	2.12	0.53
4:A:541:ILE:HG22	4:A:546:VAL:HG23	1.89	0.53
4:A:695:LYS:C	4:A:697:ALA:H	2.12	0.53
4:A:947:PHE:CD2	4:A:954:TRP:CE2	2.97	0.53
5:B:65:GLU:CG	5:B:66:ASP:H	2.12	0.53
5:B:864:LYS:N	5:B:872:GLU:OE1	2.40	0.53
5:B:1065:GLN:NE2	5:B:1067:ARG:H	2.00	0.53
5:B:1084:GLN:H	5:B:1084:GLN:HE21	1.56	0.53
6:C:208:GLU:O	6:C:210:GLU:N	2.41	0.53
6:C:235:VAL:HG13	13:J:13:VAL:CG2	2.38	0.53
7:D:5:THR:O	7:D:5:THR:HG23	2.08	0.53
7:D:176:GLU:C	7:D:178:ALA:N	2.61	0.53
8:E:105:PHE:O	8:E:106:GLN:HB2	2.08	0.53
12:I:82:GLU:HB3	12:I:104:LEU:HD12	1.89	0.53
4:M:310:GLY:O	4:M:312:PRO:HD2	2.08	0.53
4:M:528:LEU:O	4:M:528:LEU:HD12	2.08	0.53
4:M:534:LEU:HD13	4:M:656:TRP:CG	2.43	0.53
4:M:695:LYS:C	4:M:697:ALA:H	2.12	0.53
5:N:199:MET:N	5:N:199:MET:SD	2.82	0.53
5:N:562:GLY:HA3	5:N:590:HIS:CE1	2.43	0.53
5:N:872:GLU:CD	5:N:914:LYS:HE2	2.28	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:1033:LYS:NZ	5:N:1070:GLU:OE1	2.42	0.53
6:O:124:LEU:O	6:O:127:ARG:HG2	2.09	0.53
6:O:212:PRO:CB	6:O:213:PRO:HD2	2.38	0.53
7:P:54:GLU:O	7:P:58:VAL:HG23	2.09	0.53
4:A:282:ASN:O	4:A:284:ALA:N	2.41	0.53
4:A:353:ILE:HG21	4:A:487:MET:HE3	1.90	0.53
4:A:608:ILE:HB	4:A:613:ILE:HD11	1.89	0.53
4:A:899:VAL:HB	4:A:929:LEU:HD12	1.89	0.53
4:A:1261:LYS:O	4:A:1264:GLU:HB3	2.08	0.53
6:C:124:LEU:O	6:C:127:ARG:HG2	2.08	0.53
13:J:27:GLU:C	13:J:29:GLU:H	2.11	0.53
4:M:1280:GLU:O	4:M:1281:ARG:O	2.26	0.53
5:N:122:LEU:O	5:N:206:ASN:HA	2.08	0.53
5:N:310:MET:O	5:N:313:MET:HB2	2.08	0.53
5:N:343:ILE:HG23	5:N:347:LYS:CB	2.11	0.53
5:N:843:GLN:O	5:N:844:SER:C	2.44	0.53
5:N:1039:GLY:HA2	13:V:51:LEU:CD2	2.39	0.53
10:S:7:LEU:HD11	10:S:45:ILE:HD11	1.91	0.53
11:T:61:SER:O	11:T:62:SER:CB	2.56	0.53
14:W:60:ALA:O	14:W:73:LEU:HD12	2.09	0.53
4:A:317:LYS:O	4:A:318:SER:CB	2.56	0.53
4:A:326:ARG:HG2	4:A:327:ALA:N	2.22	0.53
4:A:844:ALA:HB2	4:A:1389:PHE:CE2	2.44	0.53
4:A:1164:PRO:HG2	4:A:1165:GLU:H	1.74	0.53
5:B:247:GLY:C	5:B:249:ARG:N	2.62	0.53
5:B:1102:LYS:O	5:B:1103:ILE:C	2.46	0.53
8:E:94:LYS:HE2	8:E:98:ILE:CD1	2.33	0.53
11:H:58:THR:HG22	11:H:59:ILE:H	1.73	0.53
4:M:563:PRO:HG3	4:M:572:TRP:CE2	2.44	0.53
4:M:982:THR:H	4:M:985:ASP:HB2	1.73	0.53
4:M:1316:VAL:O	4:M:1316:VAL:HG12	2.09	0.53
5:N:37:PHE:HE2	5:N:542:MET:HA	1.74	0.53
5:N:287:ARG:NH1	5:N:324:ILE:O	2.41	0.53
5:N:696:GLU:O	5:N:699:GLU:HB2	2.08	0.53
7:P:220:LEU:O	7:P:221:TYR:HD1	1.91	0.53
8:Q:131:THR:HG21	8:Q:191:LYS:NZ	2.24	0.53
8:Q:157:SER:HG	8:Q:160:GLU:HG3	1.73	0.53
11:T:113:ALA:HB2	11:T:126:GLU:HG3	1.91	0.53
4:A:24:PRO:HD2	4:A:233:TRP:CD1	2.43	0.53
4:A:34:LYS:HB3	4:A:36:ARG:HE	1.73	0.53
4:A:50:ILE:C	4:A:52:GLY:N	2.62	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:498:ARG:O	4:A:501:LEU:N	2.38	0.53
4:A:590:ARG:HH21	4:A:620:LYS:CB	2.18	0.53
4:A:866:PHE:O	4:A:867:ILE:HD12	2.09	0.53
4:A:1350:LYS:O	4:A:1354:ASN:ND2	2.40	0.53
5:B:745:PRO:C	5:B:747:MET:N	2.62	0.53
5:B:806:THR:CG2	5:B:808:ALA:HB3	2.39	0.53
6:C:172:PRO:O	6:C:235:VAL:HG23	2.07	0.53
8:E:78:LEU:HD23	8:E:79:TRP:N	2.23	0.53
4:M:853:ASP:OD1	4:M:855:THR:N	2.41	0.53
4:M:1410:PHE:HA	5:N:1212:ILE:HD11	1.89	0.53
5:N:769:TYR:O	5:N:772:ALA:N	2.42	0.53
6:O:31:ASN:O	6:O:32:SER:C	2.47	0.53
9:R:99:LEU:HD12	9:R:99:LEU:C	2.29	0.53
12:U:61:ASP:C	12:U:63:GLY:H	2.11	0.53
12:U:71:SER:OG	12:U:83:ASN:HB2	2.07	0.53
4:A:11:LEU:HB2	5:B:1193:GLN:OE1	2.09	0.53
4:A:34:LYS:HZ2	4:A:57:ARG:NH2	2.06	0.53
4:A:119:ASN:O	4:A:122:MET:HB3	2.09	0.53
4:A:341:MET:CE	4:A:843:LYS:HZ3	2.22	0.53
4:A:622:VAL:O	4:A:622:VAL:HG22	2.09	0.53
4:A:1057:VAL:HG12	4:A:1058:VAL:N	2.24	0.53
4:A:1095:THR:O	4:A:1096:SER:CB	2.57	0.53
5:B:223:VAL:HG11	5:B:381:MET:HG2	1.91	0.53
5:B:653:VAL:CG2	5:B:689:LEU:HB3	2.39	0.53
6:C:69:LEU:HB3	13:J:6:ARG:HD3	1.91	0.53
7:D:118:THR:HB	7:D:121:LYS:HB2	1.91	0.53
7:D:198:LEU:O	7:D:200:ASN:N	2.42	0.53
11:H:83:GLN:C	11:H:85:GLY:H	2.11	0.53
4:M:265:LYS:HZ3	4:M:322:VAL:HG13	1.73	0.53
4:M:284:ALA:O	4:M:286:HIS:N	2.36	0.53
4:M:590:ARG:O	4:M:591:PHE:HB2	2.07	0.53
4:M:697:ALA:C	4:M:699:ALA:H	2.11	0.53
4:M:1227:ILE:HG22	4:M:1228:TRP:H	1.74	0.53
4:M:1376:THR:O	4:M:1377:THR:C	2.47	0.53
5:N:95:ILE:CG1	5:N:130:VAL:HG22	2.39	0.53
5:N:167:ILE:HG22	5:N:453:ILE:HD12	1.90	0.53
5:N:283:VAL:O	5:N:286:PHE:N	2.42	0.53
5:N:365:THR:HG23	5:N:367:LEU:N	2.20	0.53
5:N:687:GLU:O	5:N:689:LEU:HG	2.09	0.53
5:N:842:ASN:HB3	5:N:845:SER:OG	2.09	0.53
6:O:66:ARG:NH1	6:O:144:ILE:O	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:O:98:VAL:HG23	6:O:122:SER:HB3	1.91	0.53
6:O:183:TRP:O	6:O:185:LYS:N	2.41	0.53
7:P:173:HIS:O	7:P:177:VAL:HG23	2.09	0.53
10:S:7:LEU:CD1	10:S:45:ILE:HD11	2.39	0.53
12:U:15:TYR:N	12:U:15:TYR:CD1	2.77	0.53
14:W:68:PHE:CD2	14:W:68:PHE:N	2.76	0.53
4:A:7:SER:C	4:A:9:ALA:H	2.12	0.53
4:A:41:MET:HB3	4:A:48:ALA:O	2.07	0.53
5:B:769:TYR:O	5:B:772:ALA:N	2.42	0.53
5:B:797:TYR:HE1	5:B:854:LEU:CD2	2.22	0.53
5:B:1006:ILE:HG22	13:J:45:CYS:HB3	1.91	0.53
6:C:101:LEU:HD13	6:C:118:LEU:CD2	2.34	0.53
11:H:58:THR:HB	11:H:143:LEU:HD13	1.91	0.53
11:H:62:SER:C	11:H:64:ASN:H	2.12	0.53
11:H:116:TYR:HE2	11:H:140:ALA:CB	2.22	0.53
4:M:53:LEU:CD2	4:M:54:ASN:HD22	2.22	0.53
4:M:71:GLN:C	4:M:73:GLY:H	2.11	0.53
4:M:648:ASN:O	4:M:649:ILE:C	2.46	0.53
4:M:730:GLY:C	4:M:732:LEU:N	2.61	0.53
5:N:305:VAL:O	5:N:305:VAL:HG12	2.09	0.53
5:N:642:ASP:HB3	5:N:649:LYS:HD2	1.89	0.53
5:N:654:ARG:O	5:N:656:GLY:N	2.41	0.53
7:P:7:THR:HB	10:S:42:PHE:CZ	2.44	0.53
8:Q:35:VAL:C	8:Q:37:LEU:H	2.11	0.53
9:R:103:MET:HE1	10:S:65:ASP:HB2	1.91	0.53
10:S:143:ILE:CG2	10:S:144:ARG:N	2.72	0.53
4:A:98:LYS:O	4:A:99:ILE:C	2.48	0.53
4:A:244:PRO:CB	4:A:245:PRO:HD3	2.39	0.53
4:A:458:HIS:NE2	4:A:478:TYR:OH	2.34	0.53
4:A:466:SER:HB2	5:B:1099:VAL:HG11	1.91	0.53
4:A:718:VAL:O	4:A:721:PHE:HB2	2.09	0.53
4:A:816:HIS:CD2	5:B:764:SER:H	2.27	0.53
4:A:1118:VAL:CG2	4:A:1306:LEU:HB2	2.38	0.53
5:B:46:GLN:HG3	5:B:47:GLN:N	2.15	0.53
5:B:308:TRP:HA	5:B:311:LEU:HD12	1.90	0.53
5:B:1069:PHE:HA	5:B:1085:ILE:O	2.08	0.53
10:G:145:VAL:HG12	10:G:146:LYS:N	2.23	0.53
4:M:278:THR:HG22	4:M:278:THR:O	2.09	0.53
4:M:1259:MET:C	4:M:1261:LYS:H	2.12	0.53
5:N:343:ILE:HG22	5:N:345:LYS:H	1.74	0.53
7:P:5:THR:HG23	7:P:5:THR:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Q:168:TYR:CB	8:Q:170:LEU:HG	2.39	0.53
10:S:56:ILE:O	10:S:57:GLN:HB2	2.08	0.53
10:S:59:GLY:CA	10:S:70:PHE:CD2	2.92	0.53
11:T:82:PRO:C	11:T:84:ALA:H	2.12	0.53
11:T:139:ASN:O	11:T:140:ALA:HB2	2.09	0.53
4:A:302:THR:HA	4:A:305:ASP:O	2.09	0.52
4:A:566:ILE:O	4:A:567:LYS:O	2.27	0.52
4:A:845:LEU:O	4:A:846:GLU:C	2.47	0.52
4:A:849:MET:HE1	4:A:1061:GLY:HA2	1.90	0.52
4:A:1209:MET:SD	4:A:1236:LEU:HD22	2.49	0.52
4:A:1377:THR:O	4:A:1379:GLY:N	2.41	0.52
5:B:370:PHE:HE2	5:B:373:ARG:HH11	1.57	0.52
5:B:1106:ARG:HD3	5:B:1126:GLY:O	2.10	0.52
6:C:215:GLU:O	6:C:217:ASP:N	2.42	0.52
8:E:84:ASP:O	8:E:86:PRO:HD3	2.09	0.52
9:F:85:MET:CE	9:F:93:ILE:HD12	2.39	0.52
9:F:143:PHE:C	9:F:143:PHE:CD1	2.81	0.52
13:J:57:ILE:HA	13:J:60:PHE:CD2	2.43	0.52
14:K:19:LEU:HD22	14:K:33:ILE:CG2	2.39	0.52
4:M:105:CYS:O	4:M:114:LEU:HG	2.09	0.52
4:M:115:LEU:HB2	4:M:122:MET:CE	2.39	0.52
4:M:382:PRO:HD3	4:M:428:TYR:CE2	2.44	0.52
4:M:567:LYS:CG	4:M:568:PRO:CD	2.81	0.52
4:M:666:ILE:CD1	4:M:667:GLY:H	2.22	0.52
4:M:1025:ARG:O	4:M:1026:LEU:HD23	2.09	0.52
4:M:1164:PRO:HG2	4:M:1165:GLU:H	1.74	0.52
5:N:274:PRO:O	5:N:275:TYR:HB2	2.08	0.52
5:N:746:SER:HB2	5:N:1046:PRO:HG2	1.91	0.52
5:N:1183:LYS:N	5:N:1183:LYS:CE	2.72	0.52
6:O:22:LEU:HD13	6:O:230:MET:HE3	1.92	0.52
7:P:176:GLU:C	7:P:178:ALA:N	2.62	0.52
9:R:90:ARG:HD3	9:R:155:LEU:CD1	2.38	0.52
10:S:23:LYS:HG3	10:S:56:ILE:HD12	1.91	0.52
4:A:68:GLN:C	4:A:70:CYS:N	2.62	0.52
4:A:316:GLN:O	4:A:317:LYS:C	2.47	0.52
5:B:496:ARG:HB3	5:B:496:ARG:HH11	1.74	0.52
5:B:744:HIS:HD2	5:B:746:SER:OG	1.92	0.52
10:G:9:LEU:HD12	10:G:10:ASN:N	2.23	0.52
11:H:91:ASP:O	11:H:93:TYR:N	2.42	0.52
4:M:316:GLN:O	4:M:317:LYS:C	2.47	0.52
5:N:343:ILE:HB	5:N:348:ARG:HE	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:579:ARG:CB	5:N:586:TRP:HE1	2.22	0.52
5:N:970:THR:HG22	5:N:971:THR:N	2.24	0.52
5:N:1022:THR:HG23	5:N:1022:THR:O	2.09	0.52
6:O:123:ASN:ND2	6:O:125:MET:HG2	2.24	0.52
8:Q:168:TYR:HB2	8:Q:170:LEU:HG	1.92	0.52
13:V:13:VAL:O	13:V:14:VAL:HG23	2.09	0.52
14:W:19:LEU:HD22	14:W:33:ILE:CG2	2.39	0.52
4:A:115:LEU:HB2	4:A:122:MET:CE	2.39	0.52
4:A:335:ARG:NH1	5:B:1202:LEU:HD13	2.25	0.52
4:A:474:VAL:HG22	4:A:474:VAL:O	2.09	0.52
4:A:783:THR:HG21	4:A:815:PHE:CE2	2.43	0.52
4:A:1134:ILE:O	4:A:1138:ILE:HG13	2.08	0.52
5:B:434:ARG:HA	5:B:437:GLU:CD	2.30	0.52
5:B:589:VAL:CG1	5:B:590:HIS:H	2.04	0.52
5:B:778:MET:HE2	5:B:1094:ARG:CD	2.40	0.52
5:B:1183:LYS:N	5:B:1183:LYS:HE3	2.24	0.52
6:C:34:ARG:O	6:C:38:ILE:HG13	2.10	0.52
7:D:145:MET:O	7:D:149:THR:HB	2.09	0.52
9:F:103:MET:HE2	10:G:66:GLY:H	1.75	0.52
12:I:32:CYS:SG	12:I:33:SER:N	2.82	0.52
14:K:47:ARG:C	14:K:47:ARG:HD2	2.30	0.52
4:M:477:PRO:HG2	4:M:521:MET:HG2	1.92	0.52
4:M:1057:VAL:HG12	4:M:1058:VAL:N	2.24	0.52
4:M:1076:ALA:HA	4:M:1079:MET:CE	2.39	0.52
4:M:1343:ALA:HB2	8:Q:150:VAL:HG22	1.90	0.52
5:N:205:ILE:HD12	5:N:205:ILE:N	2.25	0.52
5:N:705:MET:H	5:N:710:LEU:CD1	2.23	0.52
5:N:936:ASP:OD1	5:N:938:SER:N	2.38	0.52
5:N:1039:GLY:HA2	13:V:51:LEU:HD22	1.91	0.52
5:N:1202:LEU:HD22	5:N:1206:GLU:CD	2.30	0.52
8:Q:55:ARG:C	8:Q:57:MET:N	2.63	0.52
11:T:64:ASN:O	11:T:65:LEU:HB2	2.08	0.52
12:U:55:THR:CG2	12:U:58:VAL:HG21	2.39	0.52
4:A:971:PHE:CE2	4:A:1040:GLN:HG2	2.43	0.52
5:B:29:ASP:HB3	5:B:658:ILE:CD1	2.39	0.52
5:B:293:PRO:HG2	5:B:296:GLU:CB	2.39	0.52
4:M:595:THR:O	4:M:596:THR:HG23	2.08	0.52
4:M:639:PRO:HG2	4:M:640:GLN:H	1.73	0.52
4:M:840:ARG:O	4:M:841:LEU:C	2.47	0.52
5:N:1183:LYS:N	5:N:1183:LYS:HE3	2.24	0.52
7:P:17:LYS:HE3	7:P:17:LYS:HA	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:W:12:LEU:HD12	14:W:12:LEU:N	2.20	0.52
4:A:152:VAL:HG13	4:A:153:PRO:HD2	1.91	0.52
4:A:382:PRO:CB	4:A:428:TYR:HE2	2.19	0.52
4:A:1114:PRO:O	4:A:1115:SER:O	2.27	0.52
4:A:1398:MET:HB2	4:A:1426:GLU:OE2	2.10	0.52
5:B:830:TYR:O	5:B:831:SER:C	2.47	0.52
5:B:1039:GLY:HA2	13:J:51:LEU:HD22	1.92	0.52
5:B:1155:SER:OG	5:B:1156:ASP:N	2.43	0.52
5:B:1162:ILE:HG22	5:B:1163:CYS:N	2.23	0.52
5:B:1166:CYS:O	5:B:1168:LEU:N	2.43	0.52
7:D:17:LYS:CA	7:D:17:LYS:HE3	2.39	0.52
10:G:114:LEU:HD13	10:S:151:ILE:HD13	1.90	0.52
12:I:15:TYR:N	12:I:15:TYR:CD1	2.78	0.52
12:I:86:PHE:HE1	12:I:100:PHE:HB2	1.74	0.52
4:M:12:ARG:O	5:N:1194:ILE:HG22	2.10	0.52
4:M:93:VAL:HG21	4:M:301:ALA:O	2.09	0.52
4:M:853:ASP:O	4:M:854:ASN:HB2	2.09	0.52
5:N:955:THR:CG2	5:N:956:THR:H	2.22	0.52
5:N:1065:GLN:NE2	5:N:1066:SER:H	2.07	0.52
10:S:18:PHE:HA	10:S:22:MET:CE	2.39	0.52
4:A:42:ASP:HB3	4:A:45:GLN:CA	2.40	0.52
4:A:77:CYS:C	4:A:78:PRO:O	2.47	0.52
4:A:1280:GLU:O	4:A:1281:ARG:O	2.28	0.52
4:A:1369:ALA:O	4:A:1370:LEU:C	2.46	0.52
5:B:459:TYR:C	5:B:459:TYR:CD2	2.83	0.52
6:C:22:LEU:HD13	6:C:230:MET:HE3	1.92	0.52
6:C:263:THR:C	6:C:265:MET:N	2.63	0.52
10:G:56:ILE:O	10:G:57:GLN:HB2	2.09	0.52
11:H:61:SER:O	11:H:62:SER:CB	2.58	0.52
13:J:53:HIS:CD2	13:J:54:VAL:N	2.78	0.52
4:M:600:PRO:HG2	4:M:601:LYS:H	1.74	0.52
4:M:1114:PRO:O	4:M:1115:SER:O	2.27	0.52
5:N:364:ILE:HG22	5:N:365:THR:N	2.23	0.52
5:N:510:LYS:HG3	5:N:511:PRO:HD3	1.88	0.52
5:N:1010:LEU:HD23	5:N:1092:TYR:CD1	2.45	0.52
6:O:36:VAL:HG11	6:O:251:LEU:HB2	1.91	0.52
6:O:214:ASN:HB3	6:O:217:ASP:OD2	2.09	0.52
6:O:241:ASP:O	6:O:245:VAL:HG23	2.07	0.52
13:V:7:CYS:SG	13:V:8:PHE:N	2.83	0.52
4:A:130:ASP:O	4:A:133:LYS:N	2.38	0.52
4:A:335:ARG:HA	4:A:339:ASN:HD22	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:382:PRO:HB3	4:A:428:TYR:CE2	2.34	0.52
4:A:639:PRO:HG2	4:A:640:GLN:N	2.25	0.52
4:A:798:GLY:HA2	4:A:815:PHE:HD1	1.74	0.52
4:A:1062:GLU:OE2	9:F:88:TYR:OH	2.28	0.52
4:A:1191:TRP:CD1	4:A:1256:GLU:HB2	2.44	0.52
5:B:365:THR:HG23	5:B:367:LEU:HG	1.91	0.52
5:B:466:TRP:HA	5:B:466:TRP:CE3	2.44	0.52
5:B:999:MET:HA	5:B:999:MET:CE	2.39	0.52
5:B:1022:THR:HG23	5:B:1022:THR:O	2.09	0.52
4:M:535:THR:CG2	4:M:616:VAL:HA	2.33	0.52
4:M:590:ARG:HH11	4:M:590:ARG:CG	2.22	0.52
4:M:964:ILE:O	4:M:967:ALA:N	2.42	0.52
4:M:996:ASN:HB3	4:M:1050:GLU:OE2	2.09	0.52
5:N:705:MET:N	5:N:710:LEU:HD12	2.25	0.52
5:N:1050:ILE:HG22	5:N:1051:THR:N	2.24	0.52
10:S:1:MET:SD	10:S:79:PHE:CE1	3.03	0.52
10:S:27:LYS:HE2	10:S:54:ILE:HB	1.90	0.52
14:W:21:ILE:HG23	14:W:31:VAL:CG1	2.40	0.52
4:A:965:GLN:O	4:A:968:GLN:HB2	2.10	0.52
4:A:997:LEU:HD13	4:A:1018:PHE:HE2	1.75	0.52
4:A:1333:ILE:O	4:A:1337:GLU:HG3	2.10	0.52
5:B:114:PRO:O	5:B:116:GLU:N	2.43	0.52
5:B:472:ALA:C	5:B:474:SER:H	2.10	0.52
5:B:872:GLU:CD	5:B:914:LYS:HE2	2.29	0.52
6:C:183:TRP:CZ2	6:C:207:CYS:HB3	2.45	0.52
7:D:51:ASN:O	7:D:54:GLU:HB3	2.10	0.52
9:F:100:GLN:O	9:F:103:MET:HB2	2.09	0.52
12:I:82:GLU:O	12:I:104:LEU:HG	2.09	0.52
4:M:317:LYS:O	4:M:318:SER:CB	2.57	0.52
4:M:547:LEU:HB3	14:W:58:PHE:HE1	1.74	0.52
4:M:586:ILE:CD1	4:M:633:VAL:HG22	2.39	0.52
4:M:666:ILE:HD11	5:N:1086:PHE:HE1	1.75	0.52
4:M:672:ASP:HB2	4:M:736:ASN:OD1	2.10	0.52
5:N:254:LEU:HD23	5:N:381:MET:HE3	1.91	0.52
5:N:291:ILE:HD13	5:N:300:HIS:CD2	2.45	0.52
5:N:429:PHE:HA	5:N:432:MET:HE3	1.92	0.52
5:N:521:LEU:HB3	5:N:633:VAL:HG11	1.91	0.52
5:N:847:ASP:C	5:N:849:GLY:N	2.63	0.52
6:O:235:VAL:HG13	13:V:13:VAL:CG2	2.39	0.52
7:P:56:ARG:NH2	7:P:57:LEU:HD21	2.24	0.52
10:S:44:TYR:O	10:S:78:VAL:HG12	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:U:82:GLU:O	12:U:104:LEU:HG	2.09	0.52
4:A:1418:LEU:HD12	4:A:1419:ASP:N	2.24	0.52
5:B:26:THR:O	5:B:29:ASP:HB2	2.10	0.52
5:B:305:VAL:O	5:B:305:VAL:HG12	2.10	0.52
5:B:952:VAL:HG22	5:B:966:VAL:HG13	1.92	0.52
6:C:129:ILE:HG23	6:C:130:GLY:N	2.25	0.52
9:F:69:LEU:N	9:F:70:LYS:CA	2.73	0.52
14:K:53:ASP:OD1	14:K:55:LYS:HB2	2.10	0.52
4:M:58:LEU:HD21	4:M:243:PRO:CB	2.38	0.52
4:M:152:VAL:HG12	4:M:153:PRO:HD2	1.92	0.52
4:M:219:PHE:O	4:M:222:LEU:O	2.28	0.52
5:N:118:ARG:HH11	5:N:204:ILE:HD11	1.75	0.52
5:N:979:LYS:HG2	5:N:1095:LEU:CD1	2.39	0.52
6:O:167:HIS:HD2	6:O:168:ALA:N	2.08	0.52
11:T:4:THR:O	11:T:5:LEU:HD23	2.09	0.52
11:T:95:TYR:CE2	11:T:97:MET:CG	2.92	0.52
13:V:28:ASP:O	13:V:30:LEU:HG	2.10	0.52
2:2:24:DG:H2"	2:2:25:DT:C5'	2.39	0.52
4:A:224:PHE:CD2	4:A:231:PRO:HG3	2.44	0.52
4:A:343:LYS:HZ3	5:B:1197:PRO:HB3	1.74	0.52
4:A:391:LEU:O	4:A:394:ASN:HB2	2.09	0.52
4:A:494:SER:O	4:A:497:THR:N	2.41	0.52
4:A:1389:PHE:CD1	4:A:1389:PHE:C	2.83	0.52
5:B:39:ARG:HH21	5:B:665:GLU:HG2	1.73	0.52
5:B:542:MET:SD	5:B:747:MET:HE2	2.50	0.52
5:B:911:ILE:HD11	5:B:941:LEU:CD1	2.38	0.52
6:C:46:ILE:HD12	6:C:67:LEU:O	2.10	0.52
8:E:124:VAL:HB	8:E:125:PRO:HD3	1.92	0.52
14:K:63:VAL:HG23	14:K:63:VAL:O	2.10	0.52
4:M:444:PHE:HB2	4:M:458:HIS:HD2	1.74	0.52
4:M:816:HIS:CD2	5:N:764:SER:H	2.28	0.52
4:M:1011:GLN:NE2	4:M:1015:VAL:HG21	2.25	0.52
5:N:125:SER:HA	5:N:171:PRO:HA	1.92	0.52
5:N:278:GLN:HE22	5:N:337:ARG:HH21	1.56	0.52
5:N:603:LEU:HB3	5:N:609:ILE:HG13	1.92	0.52
5:N:640:VAL:O	5:N:641:GLU:C	2.48	0.52
5:N:806:THR:HG22	5:N:808:ALA:CB	2.40	0.52
4:A:528:LEU:C	4:A:528:LEU:HD12	2.29	0.51
4:A:658:LEU:HD13	5:B:831:SER:N	2.25	0.51
4:A:683:ILE:HD13	4:A:801:GLU:HG3	1.91	0.51
4:A:1147:THR:HA	4:A:1197:LEU:HD23	1.90	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:212:LEU:HD23	5:B:480:SER:HB2	1.92	0.51
5:B:799:PRO:CB	5:B:818:PRO:HG2	2.39	0.51
6:C:56:THR:HG21	6:C:145:CYS:SG	2.49	0.51
7:D:68:ARG:C	7:D:70:PHE:H	2.14	0.51
7:D:122:GLU:HA	7:D:125:SER:OG	2.11	0.51
4:M:88:LYS:HE3	4:M:280:GLU:OE2	2.09	0.51
4:M:510:GLN:HA	4:M:510:GLN:OE1	2.09	0.51
5:N:129:PHE:HA	5:N:165:VAL:O	2.10	0.51
5:N:386:LEU:O	5:N:388:CYS:N	2.43	0.51
5:N:467:GLY:N	5:N:475:SER:CB	2.69	0.51
5:N:486:TYR:CE1	5:N:1096:ARG:HD3	2.44	0.51
5:N:496:ARG:HB3	5:N:496:ARG:NH1	2.25	0.51
5:N:758:PHE:HB3	5:N:761:HIS:HD2	1.74	0.51
5:N:1162:ILE:HG22	5:N:1163:CYS:N	2.24	0.51
6:O:58:LEU:HD21	13:V:57:ILE:HD12	1.91	0.51
12:U:86:PHE:HE1	12:U:100:PHE:HB2	1.75	0.51
4:A:765:VAL:HG23	4:A:802:ASN:O	2.11	0.51
4:A:1096:SER:O	4:A:1100:ARG:HB3	2.11	0.51
5:B:167:ILE:HG22	5:B:453:ILE:HD12	1.91	0.51
5:B:729:ILE:O	5:B:729:ILE:HG22	2.09	0.51
5:B:1224:PHE:CE2	8:E:171:LYS:HG3	2.31	0.51
6:C:183:TRP:O	6:C:185:LYS:N	2.43	0.51
7:D:35:LEU:HD13	7:D:173:HIS:ND1	2.25	0.51
7:D:47:LEU:CD1	7:D:48:ILE:N	2.71	0.51
8:E:112:TYR:CZ	8:E:136:ASN:HB2	2.45	0.51
13:J:14:VAL:CG1	13:J:50:ILE:HD11	2.41	0.51
4:M:152:VAL:HG13	4:M:153:PRO:HD2	1.92	0.51
4:M:339:ASN:O	4:M:343:LYS:HG2	2.10	0.51
4:M:356:ASP:HB2	4:M:469:ARG:HH12	1.75	0.51
4:M:446:ARG:HB2	4:M:487:MET:SD	2.50	0.51
4:M:947:PHE:HD2	4:M:954:TRP:CZ2	2.28	0.51
4:M:1198:ASP:O	4:M:1202:MET:HG2	2.10	0.51
6:O:98:VAL:O	6:O:99:LEU:HD23	2.10	0.51
6:O:147:LEU:HD12	6:O:151:GLN:O	2.10	0.51
9:R:109:VAL:HG12	9:R:110:ASP:N	2.25	0.51
10:S:51:TYR:CD2	10:S:51:TYR:O	2.63	0.51
12:U:111:THR:CG2	12:U:112:SER:H	2.21	0.51
4:A:325:ILE:HG21	5:B:1210:MET:CG	2.39	0.51
4:A:355:GLY:N	4:A:482:PHE:CZ	2.79	0.51
4:A:427:GLN:HB2	4:A:430:TRP:CD1	2.45	0.51
4:A:446:ARG:CD	4:A:480:ALA:HB2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:709:THR:HG22	4:A:710:LEU:N	2.26	0.51
4:A:1039:LYS:HE3	4:A:1043:ASP:OD2	2.10	0.51
4:A:1094:VAL:CG1	4:A:1095:THR:N	2.57	0.51
5:B:230:ALA:N	5:B:231:PRO:CD	2.73	0.51
5:B:654:ARG:O	5:B:656:GLY:N	2.43	0.51
5:B:911:ILE:O	5:B:912:ILE:HG13	2.10	0.51
5:B:1219:ASP:OD1	5:B:1219:ASP:O	2.28	0.51
6:C:66:ARG:HH21	13:J:5:VAL:HG23	1.72	0.51
6:C:263:THR:O	6:C:265:MET:N	2.43	0.51
14:K:18:LYS:HZ3	14:K:38:GLU:HG2	1.75	0.51
4:M:130:ASP:O	4:M:133:LYS:N	2.38	0.51
4:M:353:ILE:HD13	4:M:487:MET:HE2	1.92	0.51
4:M:527:THR:CG2	4:M:650:GLN:HA	2.40	0.51
4:M:1291:VAL:HG13	4:M:1292:PRO:CD	2.39	0.51
5:N:112:LEU:HD12	5:N:113:TYR:N	2.19	0.51
5:N:916:THR:O	5:N:935:ARG:HG3	2.09	0.51
5:N:1102:LYS:O	5:N:1103:ILE:C	2.48	0.51
5:N:1189:ILE:HG22	5:N:1190:ASP:N	2.25	0.51
6:O:263:THR:C	6:O:265:MET:N	2.63	0.51
7:P:19:GLU:O	7:P:21:GLU:N	2.44	0.51
14:W:42:LEU:CD2	14:W:46:ILE:HD11	2.40	0.51
4:A:1323:ASP:C	4:A:1325:THR:H	2.12	0.51
4:A:1348:LEU:O	4:A:1352:VAL:HG23	2.11	0.51
4:A:1410:PHE:HA	5:B:1212:ILE:HD11	1.91	0.51
5:B:19:GLU:O	5:B:20:ASP:C	2.49	0.51
5:B:45:SER:O	5:B:46:GLN:C	2.48	0.51
5:B:995:ARG:NH1	6:C:165:LYS:HG2	2.25	0.51
6:C:112:ASN:HD22	6:C:112:ASN:N	2.08	0.51
7:D:54:GLU:O	7:D:58:VAL:HG23	2.11	0.51
8:E:145:THR:HG21	8:E:187:TYR:CE2	2.45	0.51
10:G:138:THR:HG22	10:G:139:ILE:HG13	1.91	0.51
11:H:55:LEU:HD22	11:H:144:ILE:CG2	2.41	0.51
13:J:16:ASP:OD1	13:J:17:LYS:CD	2.56	0.51
4:M:381:THR:HG21	4:M:383:TYR:CD1	2.46	0.51
4:M:1279:ILE:CD1	4:M:1316:VAL:HG21	2.40	0.51
5:N:310:MET:CE	5:N:387:LEU:HD12	2.41	0.51
5:N:810:GLU:CB	5:N:815:ARG:HH22	2.21	0.51
5:N:977:GLY:HA3	5:N:1099:VAL:HG21	1.92	0.51
7:P:118:THR:HB	7:P:121:LYS:HB2	1.93	0.51
10:S:149:GLY:O	10:S:159:ALA:HB1	2.11	0.51
11:T:83:GLN:C	11:T:85:GLY:H	2.13	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:549:MET:SD	4:A:577:ILE:CD1	2.98	0.51
4:A:567:LYS:HB3	11:H:95:TYR:CA	2.36	0.51
4:A:709:THR:HB	4:A:712:GLU:HG3	1.93	0.51
4:A:1149:ALA:HB2	12:I:47:GLU:HA	1.92	0.51
4:A:1313:LEU:O	4:A:1315:GLU:N	2.43	0.51
4:A:1333:ILE:HG22	4:A:1334:ASP:N	2.25	0.51
4:A:1430:LEU:HB2	4:A:1432:GLN:HG3	1.92	0.51
8:E:55:ARG:C	8:E:57:MET:N	2.64	0.51
4:M:767:GLN:HA	4:M:799:PHE:HA	1.92	0.51
4:M:774:ARG:O	4:M:775:ILE:C	2.48	0.51
4:M:1162:VAL:O	4:M:1162:VAL:HG12	2.10	0.51
4:M:1389:PHE:CD1	4:M:1389:PHE:C	2.84	0.51
5:N:63:ILE:HA	5:N:421:PHE:CE2	2.45	0.51
5:N:179:CYS:SG	5:N:181:LEU:HG	2.51	0.51
5:N:327:ARG:O	5:N:331:LEU:HD13	2.10	0.51
5:N:1162:ILE:O	5:N:1171:VAL:HG21	2.09	0.51
8:Q:84:ASP:O	8:Q:86:PRO:HD3	2.11	0.51
10:S:115:MET:HB3	10:S:116:PRO:HD2	1.92	0.51
4:A:12:ARG:NE	5:B:1192:TYR:HE2	2.08	0.51
4:A:90:VAL:HG13	4:A:297:GLN:CD	2.31	0.51
4:A:284:ALA:O	4:A:286:HIS:N	2.38	0.51
4:A:349:ALA:C	5:B:1128:LEU:HD11	2.30	0.51
4:A:903:ASN:C	4:A:903:ASN:ND2	2.63	0.51
4:A:1277:GLU:O	4:A:1279:ILE:N	2.39	0.51
5:B:343:ILE:CB	5:B:348:ARG:HG3	2.40	0.51
5:B:778:MET:HE3	5:B:1094:ARG:HD3	1.91	0.51
6:C:66:ARG:HH12	13:J:2:ILE:HG21	1.71	0.51
12:I:115:LYS:CD	12:I:117:LYS:HE3	2.35	0.51
14:K:42:LEU:O	14:K:46:ILE:HG13	2.11	0.51
4:M:42:ASP:HB3	4:M:45:GLN:N	2.26	0.51
4:M:61:ILE:O	4:M:63:ARG:N	2.43	0.51
4:M:91:PHE:HB2	4:M:297:GLN:HE22	1.74	0.51
4:M:107:CYS:H	4:M:114:LEU:HD21	1.76	0.51
4:M:341:MET:CE	4:M:843:LYS:NZ	2.74	0.51
4:M:682:THR:HG23	4:M:728:LYS:HE3	1.93	0.51
4:M:844:ALA:HB2	4:M:1389:PHE:CE2	2.45	0.51
5:N:583:ASN:OD1	5:N:628:THR:N	2.40	0.51
5:N:826:ALA:HB2	5:N:1008:PRO:HB3	1.93	0.51
6:O:35:ARG:HH12	14:W:41:THR:H	1.59	0.51
8:Q:13:TRP:O	8:Q:16:PHE:HB3	2.10	0.51
8:Q:78:LEU:HD23	8:Q:79:TRP:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:23:VAL:HG22	11:T:43:ASN:HA	1.93	0.51
12:U:112:SER:O	12:U:114:GLN:HG3	2.11	0.51
14:W:53:ASP:OD1	14:W:55:LYS:HB2	2.11	0.51
14:W:111:LEU:C	14:W:112:GLN:CG	2.69	0.51
15:X:30:ILE:HG22	15:X:31:CYS:N	2.26	0.51
4:A:341:MET:HE1	4:A:843:LYS:HZ3	1.74	0.51
4:A:344:ARG:HB3	5:B:1118:PRO:HB2	1.93	0.51
4:A:353:ILE:HG13	4:A:482:PHE:HD2	1.76	0.51
4:A:474:VAL:C	4:A:477:PRO:HD2	2.31	0.51
4:A:577:ILE:O	4:A:580:VAL:N	2.41	0.51
4:A:709:THR:HG21	12:I:93:LYS:O	2.11	0.51
4:A:997:LEU:HD13	4:A:1018:PHE:CE2	2.45	0.51
4:A:1120:LEU:CD1	4:A:1120:LEU:H	2.24	0.51
5:B:794:ASN:C	5:B:795:ILE:HD12	2.31	0.51
5:B:797:TYR:HE1	5:B:854:LEU:HD23	1.75	0.51
5:B:1095:LEU:H	5:B:1095:LEU:CD1	2.14	0.51
7:D:191:ALA:C	7:D:193:THR:H	2.12	0.51
9:F:111:LEU:H	9:F:111:LEU:CD1	2.19	0.51
12:I:101:PHE:HB2	12:I:110:PHE:CE2	2.46	0.51
4:M:403:LYS:O	4:M:404:TYR:CD2	2.64	0.51
4:M:871:ASP:OD2	4:M:873:MET:HB2	2.11	0.51
4:M:1005:GLU:O	4:M:1009:ASN:HB2	2.11	0.51
4:M:1017:LEU:HB3	8:Q:205:SER:HA	1.92	0.51
5:N:235:SER:HA	5:N:261:ARG:NH1	2.25	0.51
5:N:729:ILE:O	5:N:729:ILE:HG22	2.10	0.51
5:N:1219:ASP:OD1	5:N:1219:ASP:O	2.28	0.51
6:O:242:GLN:C	6:O:244:VAL:H	2.13	0.51
7:P:33:PHE:CE1	10:S:80:LYS:HE3	2.46	0.51
9:R:101:ILE:HD11	9:R:124:GLU:OE1	2.10	0.51
4:A:92:HIS:HD2	4:A:304:MET:CE	2.23	0.51
4:A:152:VAL:HG12	4:A:153:PRO:HD2	1.93	0.51
4:A:1211:GLN:O	4:A:1212:VAL:C	2.50	0.51
5:B:38:PHE:CD1	5:B:811:TYR:CD2	2.95	0.51
5:B:280:ILE:CD1	5:B:334:ILE:HG12	2.41	0.51
8:E:35:VAL:C	8:E:37:LEU:H	2.13	0.51
14:K:35:PHE:CD1	14:K:71:PHE:CE1	2.99	0.51
15:L:58:LYS:O	15:L:59:ALA:O	2.29	0.51
4:M:42:ASP:HB3	4:M:45:GLN:HA	1.93	0.51
4:M:366:VAL:HG21	4:M:460:VAL:HG22	1.92	0.51
4:M:841:LEU:O	4:M:845:LEU:HG	2.10	0.51
4:M:883:LEU:CD2	4:M:1021:LEU:HB2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:963:ILE:HD13	4:M:1049:ILE:HG13	1.92	0.51
4:M:993:LEU:HD22	4:M:1046:LEU:HD22	1.93	0.51
5:N:221:ASN:N	5:N:241:ARG:O	2.33	0.51
5:N:557:PHE:C	5:N:557:PHE:HD2	2.12	0.51
5:N:745:PRO:C	5:N:747:MET:N	2.64	0.51
11:T:116:TYR:HB2	11:T:123:MET:HB3	1.93	0.51
4:A:49:LYS:HZ3	4:A:61:ILE:HG13	1.76	0.51
4:A:829:VAL:C	4:A:831:THR:H	2.14	0.51
4:A:1029:ARG:HH11	4:A:1029:ARG:HG3	1.74	0.51
5:B:129:PHE:HE2	5:B:166:PHE:HD1	1.59	0.51
5:B:449:ASN:C	5:B:451:LYS:H	2.14	0.51
5:B:640:VAL:O	5:B:641:GLU:C	2.49	0.51
6:C:76:ASP:OD2	6:C:128:ASN:N	2.44	0.51
10:G:49:LEU:HG	10:G:76:ALA:HA	1.92	0.51
11:H:139:ASN:O	11:H:140:ALA:HB2	2.11	0.51
4:M:300:VAL:O	4:M:300:VAL:HG12	2.10	0.51
4:M:1102:LYS:O	4:M:1106:ASN:ND2	2.44	0.51
4:M:1115:SER:O	4:M:1116:LEU:HB3	2.11	0.51
5:N:38:PHE:CD1	5:N:811:TYR:CD2	2.99	0.51
5:N:758:PHE:CE1	5:N:1027:ILE:CG2	2.94	0.51
7:P:47:LEU:CD1	7:P:48:ILE:N	2.72	0.51
4:A:211:PHE:HA	4:A:214:ILE:HG13	1.93	0.51
4:A:446:ARG:HD2	4:A:480:ALA:HB2	1.93	0.51
4:A:787:PHE:CE1	4:A:796:SER:HA	2.46	0.51
5:B:227:LYS:HB2	5:B:395:GLN:OE1	2.11	0.51
5:B:737:THR:CG2	12:I:66:PRO:HA	2.40	0.51
5:B:879:ARG:HH11	5:B:883:LEU:CD2	2.21	0.51
6:C:232:VAL:HG21	6:C:244:VAL:CG2	2.38	0.51
10:G:51:TYR:CD2	10:G:51:TYR:O	2.64	0.51
4:M:1153:TYR:CE1	12:U:42:LEU:HD13	2.46	0.51
5:N:337:ARG:C	5:N:338:GLY:CA	2.80	0.51
7:P:173:HIS:CD2	7:P:175:PHE:H	2.29	0.51
8:Q:156:LEU:HD12	8:Q:195:VAL:HB	1.92	0.51
8:Q:212:ARG:HG3	8:Q:212:ARG:HH11	1.76	0.51
14:W:46:ILE:O	14:W:46:ILE:HG22	2.11	0.51
4:A:806:ARG:HH12	5:B:729:ILE:CD1	2.24	0.50
4:A:1226:VAL:HG22	4:A:1240:CYS:HB3	1.93	0.50
5:B:269:ILE:HG21	5:B:282:ILE:HD13	1.92	0.50
5:B:401:PHE:HA	5:B:404:LYS:HG3	1.93	0.50
5:B:465:ASN:N	5:B:465:ASN:ND2	2.59	0.50
5:B:825:VAL:HG12	5:B:826:ALA:N	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:841:MET:SD	5:B:846:ILE:HD11	2.51	0.50
5:B:1172:ILE:O	5:B:1172:ILE:CG2	2.59	0.50
6:C:107:SER:C	6:C:109:SER:H	2.14	0.50
8:E:192:ARG:HG3	8:E:192:ARG:NH1	2.23	0.50
10:G:3:PHE:CG	10:G:80:LYS:NZ	2.69	0.50
13:J:43:ARG:O	13:J:47:ARG:HB2	2.10	0.50
14:K:21:ILE:HG23	14:K:31:VAL:CG1	2.41	0.50
14:K:55:LYS:HB2	14:K:81:TYR:HE1	1.76	0.50
4:M:23:SER:O	4:M:24:PRO:C	2.48	0.50
4:M:82:GLY:O	4:M:241:VAL:N	2.37	0.50
4:M:172:PRO:HG3	4:M:185:TRP:CZ2	2.46	0.50
4:M:846:GLU:OE1	4:M:1425:SER:OG	2.29	0.50
5:N:126:SER:O	5:N:169:ARG:HA	2.11	0.50
5:N:1084:GLN:HE21	5:N:1084:GLN:N	2.05	0.50
5:N:1132:GLU:O	5:N:1135:ARG:HB3	2.11	0.50
6:O:114:TYR:HB3	6:O:140:ASN:O	2.11	0.50
9:R:130:ILE:O	9:R:148:VAL:CG2	2.59	0.50
4:A:567:LYS:HE3	11:H:46:LEU:HD12	1.92	0.50
5:B:254:LEU:HD23	5:B:381:MET:CE	2.41	0.50
5:B:283:VAL:O	5:B:286:PHE:N	2.45	0.50
5:B:343:ILE:CG2	5:B:348:ARG:N	2.73	0.50
5:B:386:LEU:O	5:B:388:CYS:N	2.44	0.50
5:B:579:ARG:HG2	5:B:579:ARG:NH1	2.25	0.50
5:B:911:ILE:O	5:B:911:ILE:HG22	2.11	0.50
7:D:128:VAL:O	7:D:132:GLN:HG3	2.11	0.50
13:J:23:ASN:C	13:J:25:LEU:N	2.64	0.50
14:K:55:LYS:HB3	14:K:81:TYR:CD1	2.46	0.50
4:M:64:ASN:O	4:M:65:LEU:C	2.49	0.50
4:M:236:LEU:HD11	4:M:304:MET:HE1	1.92	0.50
4:M:658:LEU:HD13	5:N:831:SER:N	2.25	0.50
4:M:860:LEU:HD11	4:M:1393:ASN:HB2	1.93	0.50
5:N:502:ILE:HD12	5:N:502:ILE:N	2.05	0.50
5:N:549:THR:HG22	5:N:550:ASP:N	2.18	0.50
5:N:603:LEU:HD12	5:N:609:ILE:HG13	1.91	0.50
7:P:51:ASN:C	7:P:52:LEU:O	2.50	0.50
11:T:47:PHE:CD2	11:T:95:TYR:HD1	2.29	0.50
12:U:14:LEU:HA	12:U:28:GLU:O	2.12	0.50
13:V:48:ARG:HD2	13:V:49:MET:N	2.26	0.50
4:A:38:PRO:HA	4:A:270:LEU:HD23	1.92	0.50
4:A:269:ILE:CD1	4:A:300:VAL:HA	2.41	0.50
4:A:369:SER:HB2	14:K:2:ASN:OD1	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:632:VAL:O	4:A:633:VAL:C	2.49	0.50
4:A:1072:ILE:O	4:A:1075:PRO:HD2	2.10	0.50
4:A:1097:GLY:O	4:A:1100:ARG:N	2.44	0.50
4:A:1401:SER:O	4:A:1402:PHE:HB2	2.11	0.50
5:B:199:MET:N	5:B:199:MET:SD	2.85	0.50
5:B:327:ARG:O	5:B:331:LEU:HD13	2.11	0.50
5:B:370:PHE:HD2	5:B:373:ARG:HD2	1.75	0.50
7:D:52:LEU:CD2	7:D:147:TYR:HE2	2.24	0.50
8:E:23:VAL:HG13	8:E:78:LEU:HD13	1.93	0.50
12:I:7:CYS:SG	12:I:8:ARG:O	2.69	0.50
14:K:61:TYR:CD2	14:K:61:TYR:O	2.64	0.50
4:M:262:LEU:O	4:M:264:PHE:N	2.44	0.50
4:M:464:PRO:O	4:M:465:TYR:O	2.30	0.50
4:M:567:LYS:HE3	11:T:46:LEU:HD12	1.92	0.50
4:M:1101:LEU:HB2	4:M:1355:VAL:HG11	1.94	0.50
5:N:130:VAL:HB	5:N:167:ILE:CD1	2.42	0.50
5:N:259:TYR:H	5:N:259:TYR:HD1	1.58	0.50
5:N:1001:PHE:CE2	6:O:34:ARG:NE	2.80	0.50
5:N:1002:THR:CG2	5:N:1006:ILE:HG13	2.41	0.50
4:A:34:LYS:CE	4:A:57:ARG:NH1	2.75	0.50
4:A:95:PHE:O	4:A:96:ILE:C	2.49	0.50
4:A:786:HIS:N	4:A:786:HIS:CD2	2.78	0.50
4:A:1066:VAL:CG1	5:B:1140:ALA:HB2	2.41	0.50
5:B:446:LEU:O	5:B:447:ALA:CB	2.58	0.50
5:B:467:GLY:N	5:B:475:SER:CB	2.69	0.50
5:B:1010:LEU:HD23	5:B:1092:TYR:CD1	2.47	0.50
6:C:242:GLN:C	6:C:244:VAL:N	2.65	0.50
10:G:29:LYS:O	10:G:30:LEU:C	2.50	0.50
14:K:19:LEU:HD21	14:K:35:PHE:CD2	2.46	0.50
4:M:19:PHE:HB3	4:M:1413:GLY:HA2	1.93	0.50
4:M:244:PRO:HG2	4:M:245:PRO:HD3	1.93	0.50
4:M:403:LYS:O	4:M:404:TYR:CG	2.64	0.50
4:M:535:THR:HG22	4:M:536:LEU:N	2.26	0.50
5:N:1224:PHE:CE2	8:Q:171:LYS:HG3	2.33	0.50
6:O:167:HIS:CD2	6:O:168:ALA:N	2.79	0.50
6:O:242:GLN:C	6:O:244:VAL:N	2.65	0.50
9:R:111:LEU:H	9:R:111:LEU:CD1	2.20	0.50
10:S:88:ASP:HB3	10:S:144:ARG:HA	1.94	0.50
12:U:115:LYS:CD	12:U:117:LYS:HE3	2.36	0.50
14:W:55:LYS:CB	14:W:81:TYR:CE1	2.95	0.50
4:A:637:LYS:HB3	4:A:641:VAL:HG11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:826:ASP:HB2	4:A:830:LYS:HD3	1.93	0.50
5:B:410:GLY:O	5:B:412:LEU:N	2.45	0.50
5:B:798:TYR:HE2	6:C:62:PHE:CE2	2.28	0.50
6:C:239:PRO:O	6:C:241:ASP:N	2.44	0.50
12:I:111:THR:CG2	12:I:112:SER:N	2.75	0.50
14:K:68:PHE:N	14:K:68:PHE:CD2	2.79	0.50
4:M:79:GLY:HA3	4:M:243:PRO:HG3	1.92	0.50
4:M:114:LEU:O	4:M:115:LEU:HG	2.12	0.50
4:M:598:LEU:O	4:M:599:SER:C	2.50	0.50
4:M:722:LEU:O	4:M:725:ALA:HB3	2.12	0.50
5:N:95:ILE:HG13	5:N:130:VAL:HG22	1.93	0.50
5:N:550:ASP:OD1	5:N:551:PRO:HD2	2.12	0.50
7:P:64:VAL:C	7:P:66:ARG:H	2.15	0.50
9:R:124:GLU:HB3	9:R:130:ILE:HG12	1.94	0.50
10:S:4:ILE:O	10:S:4:ILE:HG22	2.10	0.50
10:S:96:GLN:HB3	10:S:121:PHE:CE2	2.46	0.50
14:W:63:VAL:O	14:W:63:VAL:HG23	2.10	0.50
1:4:1:DA:H2"	1:4:2:DA:O5'	2.10	0.50
4:A:62:ASP:HB3	4:A:64:ASN:ND2	2.27	0.50
4:A:351:THR:CB	5:B:1103:ILE:HD12	2.39	0.50
4:A:730:GLY:C	4:A:732:LEU:N	2.64	0.50
4:A:1206:ASP:O	4:A:1274:ARG:NH1	2.45	0.50
4:A:1316:VAL:O	4:A:1316:VAL:HG12	2.12	0.50
5:B:310:MET:CE	5:B:387:LEU:HD12	2.41	0.50
5:B:1099:VAL:HG12	5:B:1100:ASP:N	2.27	0.50
10:G:91:VAL:HG12	10:G:92:VAL:N	2.26	0.50
14:K:109:TRP:O	14:K:111:LEU:N	2.40	0.50
4:M:263:THR:O	4:M:263:THR:HG22	2.11	0.50
4:M:1149:ALA:HB2	12:U:47:GLU:HA	1.94	0.50
4:M:1336:MET:CE	4:M:1381:LEU:HG	2.41	0.50
5:N:25:ILE:HD11	5:N:653:VAL:C	2.31	0.50
5:N:472:ALA:C	5:N:474:SER:H	2.12	0.50
5:N:563:MET:HE3	5:N:580:VAL:HB	1.94	0.50
5:N:1016:ALA:O	5:N:1020:ARG:HG3	2.11	0.50
6:O:33:LEU:O	6:O:34:ARG:C	2.50	0.50
6:O:179:GLU:HG2	6:O:180:TYR:H	1.73	0.50
8:Q:157:SER:O	8:Q:159:ASP:N	2.44	0.50
8:Q:178:ILE:HG22	8:Q:213:ILE:O	2.11	0.50
10:S:14:HIS:CE1	10:S:15:PRO:HD2	2.46	0.50
11:T:59:ILE:CG2	11:T:60:ALA:N	2.73	0.50
12:U:69:PRO:HB2	12:U:85:PHE:CE2	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:5:27:DA:C2	3:6:2:C:N4	2.79	0.50
4:A:56:PRO:O	4:A:57:ARG:HG3	2.11	0.50
4:A:84:ILE:O	4:A:84:ILE:CG2	2.59	0.50
4:A:130:ASP:HB3	4:A:133:LYS:HB2	1.94	0.50
4:A:598:LEU:O	4:A:599:SER:C	2.50	0.50
4:A:907:THR:CG2	4:A:908:LEU:N	2.75	0.50
5:B:343:ILE:HB	5:B:348:ARG:HE	1.77	0.50
5:B:591:ARG:O	5:B:592:ASN:C	2.50	0.50
6:C:242:GLN:C	6:C:244:VAL:H	2.13	0.50
4:M:42:ASP:C	4:M:44:THR:H	2.13	0.50
4:M:47:ARG:HH12	4:M:254:GLU:CG	2.25	0.50
4:M:188:ASP:OD1	4:M:189:ARG:N	2.45	0.50
4:M:601:LYS:HB2	4:M:603:ASN:ND2	2.27	0.50
4:M:903:ASN:ND2	4:M:903:ASN:C	2.64	0.50
4:M:997:LEU:HD13	4:M:1018:PHE:CE2	2.46	0.50
4:M:1097:GLY:O	4:M:1100:ARG:N	2.44	0.50
4:M:1239:ARG:HB3	4:M:1239:ARG:NH1	2.27	0.50
4:M:1364:ASN:O	4:M:1365:TYR:C	2.50	0.50
4:M:1438:THR:HB	5:N:1144:ALA:CB	2.41	0.50
5:N:118:ARG:HG2	5:N:204:ILE:HD13	1.93	0.50
5:N:311:LEU:O	5:N:312:GLU:C	2.48	0.50
5:N:412:LEU:HB3	5:N:466:TRP:CZ2	2.47	0.50
5:N:526:GLU:OE2	5:N:752:ALA:HB2	2.11	0.50
5:N:758:PHE:CE1	5:N:1027:ILE:HG22	2.47	0.50
9:R:143:PHE:C	9:R:143:PHE:HD1	2.15	0.50
10:S:154:VAL:HG12	10:S:155:SER:N	2.27	0.50
4:A:61:ILE:HG22	4:A:62:ASP:N	2.24	0.50
4:A:195:ASP:O	4:A:196:GLU:HB3	2.12	0.50
4:A:1386:ARG:HB3	4:A:1403:GLU:OE1	2.12	0.50
5:B:185:THR:H	5:B:188:ASP:CB	2.25	0.50
5:B:309:GLN:HG3	12:I:52:ILE:CD1	2.42	0.50
5:B:343:ILE:HG22	5:B:345:LYS:H	1.77	0.50
5:B:874:PHE:HA	5:B:913:GLY:O	2.10	0.50
6:C:43:THR:CG2	6:C:44:LEU:N	2.66	0.50
6:C:165:LYS:O	14:K:6:ARG:NH1	2.44	0.50
7:D:33:PHE:CE2	10:G:80:LYS:NZ	2.68	0.50
11:H:40:LEU:CD1	11:H:123:MET:HB2	2.42	0.50
14:K:47:ARG:HD3	14:K:59:ALA:O	2.11	0.50
4:M:35:ILE:CD1	4:M:241:VAL:HG21	2.41	0.50
4:M:441:PRO:HD2	4:M:498:ARG:NH2	2.26	0.50
4:M:446:ARG:CD	4:M:480:ALA:HB2	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:787:PHE:CE1	4:M:796:SER:HA	2.47	0.50
4:M:1017:LEU:HB2	8:Q:206:GLY:N	2.08	0.50
4:M:1225:PHE:CE2	4:M:1227:ILE:HD11	2.47	0.50
5:N:39:ARG:CZ	5:N:665:GLU:HG2	2.42	0.50
5:N:449:ASN:C	5:N:451:LYS:H	2.15	0.50
5:N:1106:ARG:HG3	5:N:1107:ALA:N	2.26	0.50
10:S:117:GLN:C	10:S:119:LEU:N	2.65	0.50
11:T:43:ASN:OD1	11:T:46:LEU:HG	2.11	0.50
4:A:388:LEU:HD22	4:A:432:VAL:HG21	1.92	0.50
4:A:528:LEU:O	4:A:528:LEU:HD12	2.11	0.50
4:A:567:LYS:HB2	4:A:568:PRO:HD2	1.91	0.50
4:A:774:ARG:O	4:A:775:ILE:C	2.48	0.50
4:A:1116:LEU:HB3	4:A:1308:THR:HG21	1.93	0.50
5:B:483:LEU:HD11	5:B:491:THR:CG2	2.34	0.50
5:B:1162:ILE:O	5:B:1171:VAL:HG21	2.11	0.50
6:C:70:ILE:HD11	6:C:144:ILE:CG1	2.42	0.50
7:D:134:THR:HG22	7:D:135:GLY:H	1.75	0.50
9:F:99:LEU:O	9:F:103:MET:HG2	2.12	0.50
10:G:101:VAL:HG12	10:G:102:GLN:N	2.25	0.50
11:H:64:ASN:O	11:H:65:LEU:HB2	2.11	0.50
4:M:167:CYS:O	4:M:167:CYS:SG	2.69	0.50
4:M:195:ASP:O	4:M:196:GLU:HB3	2.11	0.50
4:M:350:ARG:HB2	4:M:488:ASN:OD1	2.11	0.50
5:N:39:ARG:NH2	5:N:665:GLU:CG	2.72	0.50
5:N:65:GLU:CG	5:N:66:ASP:H	2.15	0.50
5:N:792:MET:HA	5:N:856:PHE:O	2.12	0.50
5:N:834:ASN:CA	5:N:838:SER:O	2.60	0.50
10:S:35:GLU:OE2	10:S:48:VAL:HG23	2.11	0.50
11:T:128:ASN:O	11:T:128:ASN:OD1	2.30	0.50
12:U:92:ARG:HB3	12:U:95:THR:OG1	2.12	0.50
14:W:112:GLN:CB	14:W:112:GLN:C	2.74	0.50
4:A:388:LEU:O	4:A:392:VAL:HG23	2.12	0.49
5:B:810:GLU:CB	5:B:815:ARG:HH22	2.24	0.49
5:B:842:ASN:HD22	5:B:845:SER:HB3	1.77	0.49
5:B:899:ILE:HD12	5:B:911:ILE:HG23	1.94	0.49
6:C:256:ALA:O	6:C:259:LEU:N	2.45	0.49
7:D:195:ILE:N	7:D:196:PRO:CD	2.76	0.49
8:E:55:ARG:HD2	8:E:83:CYS:O	2.12	0.49
10:G:27:LYS:O	10:G:30:LEU:HB3	2.12	0.49
10:G:80:LYS:O	10:G:80:LYS:HG2	2.11	0.49
4:M:353:ILE:HG21	4:M:487:MET:HE3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:626:ASN:O	4:M:631:HIS:CD2	2.64	0.49
4:M:871:ASP:OD1	4:M:1366:ARG:NH2	2.45	0.49
4:M:958:VAL:O	4:M:958:VAL:HG12	2.11	0.49
4:M:1211:GLN:O	4:M:1212:VAL:C	2.51	0.49
4:M:1265:ASN:O	4:M:1268:LEU:N	2.45	0.49
4:M:1308:THR:HG23	4:M:1309:ASP:N	2.26	0.49
4:M:1404:GLU:O	4:M:1407:GLU:HB2	2.12	0.49
5:N:37:PHE:HE1	5:N:41:LYS:CD	2.25	0.49
5:N:344:LYS:O	5:N:345:LYS:CG	2.60	0.49
5:N:806:THR:HG22	5:N:808:ALA:HB3	1.94	0.49
6:O:27:LEU:O	6:O:28:ALA:C	2.51	0.49
7:P:59:ILE:HG21	7:P:145:MET:SD	2.52	0.49
9:R:135:ARG:HD3	9:R:143:PHE:CD2	2.47	0.49
10:S:3:PHE:CG	10:S:80:LYS:NZ	2.67	0.49
4:A:17:VAL:HA	5:B:1215:ARG:O	2.12	0.49
4:A:347:PHE:CE2	4:A:493:GLN:OE1	2.65	0.49
4:A:353:ILE:HD12	4:A:470:LEU:HD21	1.94	0.49
4:A:730:GLY:C	4:A:732:LEU:H	2.15	0.49
5:B:33:VAL:HG21	5:B:638:PHE:HZ	1.77	0.49
5:B:412:LEU:HB3	5:B:466:TRP:CZ2	2.47	0.49
5:B:550:ASP:OD1	5:B:551:PRO:HD2	2.12	0.49
5:B:579:ARG:CB	5:B:586:TRP:HE1	2.24	0.49
11:H:116:TYR:HE2	11:H:140:ALA:HB1	1.78	0.49
14:K:21:ILE:HG23	14:K:31:VAL:HG11	1.93	0.49
4:M:72:GLU:OE2	5:N:1175:LEU:HB2	2.13	0.49
4:M:102:VAL:O	4:M:105:CYS:HB2	2.13	0.49
4:M:353:ILE:HG21	4:M:487:MET:HG3	1.94	0.49
4:M:845:LEU:O	4:M:846:GLU:C	2.51	0.49
4:M:997:LEU:HD13	4:M:1018:PHE:HE2	1.77	0.49
5:N:44:VAL:O	5:N:45:SER:C	2.50	0.49
6:O:70:ILE:HD11	6:O:144:ILE:HG12	1.94	0.49
6:O:174:ALA:O	13:V:10:CYS:O	2.30	0.49
8:Q:161:LYS:C	8:Q:163:GLU:N	2.66	0.49
11:T:95:TYR:HE2	11:T:97:MET:CG	2.24	0.49
4:A:34:LYS:NZ	4:A:57:ARG:NH2	2.60	0.49
4:A:445:ASN:ND2	4:A:446:ARG:N	2.61	0.49
4:A:947:PHE:HD2	4:A:954:TRP:CZ2	2.30	0.49
4:A:1072:ILE:HD11	4:A:1368:MET:HA	1.93	0.49
4:A:1115:SER:HB3	4:A:1330:ASN:HD21	1.77	0.49
4:A:1376:THR:O	4:A:1377:THR:C	2.51	0.49
5:B:176:SER:O	5:B:182:SER:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:847:ASP:C	5:B:849:GLY:N	2.66	0.49
6:C:104:PHE:HD2	6:C:105:GLY:H	1.59	0.49
7:D:17:LYS:HE3	7:D:17:LYS:HA	1.94	0.49
11:H:4:THR:O	11:H:5:LEU:HD23	2.11	0.49
4:M:14:VAL:CG2	5:N:1216:LEU:HD13	2.42	0.49
4:M:71:GLN:O	4:M:73:GLY:N	2.36	0.49
4:M:182:VAL:HG22	4:M:201:VAL:HA	1.94	0.49
4:M:343:LYS:HZ3	5:N:1197:PRO:HB3	1.76	0.49
4:M:442:VAL:HB	4:M:489:LEU:HD11	1.93	0.49
4:M:670:ILE:HG23	4:M:805:LEU:CD2	2.41	0.49
4:M:1226:VAL:HG22	4:M:1240:CYS:HB3	1.94	0.49
5:N:39:ARG:HH11	5:N:39:ARG:HG2	1.77	0.49
5:N:769:TYR:C	5:N:771:SER:N	2.64	0.49
5:N:797:TYR:HE1	5:N:854:LEU:CD2	2.25	0.49
5:N:1004:GLU:HG3	5:N:1064:TYR:HE2	1.77	0.49
5:N:1196:ILE:HB	5:N:1197:PRO:HD2	1.94	0.49
12:U:103:CYS:CB	12:U:106:CYS:SG	3.00	0.49
4:A:853:ASP:OD1	4:A:853:ASP:C	2.51	0.49
4:A:901:LEU:N	4:A:926:GLN:NE2	2.49	0.49
4:A:996:ASN:C	4:A:998:LEU:HD12	2.32	0.49
4:A:1227:ILE:HG22	4:A:1228:TRP:H	1.77	0.49
4:A:1259:MET:C	4:A:1261:LYS:H	2.16	0.49
4:A:1277:GLU:C	4:A:1279:ILE:H	2.15	0.49
4:A:1293:SER:OG	4:A:1294:PRO:HD2	2.12	0.49
5:B:210:LYS:HD3	5:B:481:GLN:O	2.12	0.49
5:B:582:VAL:HA	5:B:626:ILE:O	2.13	0.49
5:B:758:PHE:HB3	5:B:761:HIS:CD2	2.48	0.49
12:I:13:MET:HG3	12:I:14:LEU:H	1.76	0.49
12:I:50:THR:HG22	12:I:51:ASN:N	2.27	0.49
12:I:51:ASN:O	12:I:54:GLU:HG3	2.12	0.49
14:K:12:LEU:HD12	14:K:12:LEU:N	2.27	0.49
14:K:112:GLN:CB	14:K:112:GLN:C	2.75	0.49
4:M:53:LEU:CD2	4:M:54:ASN:N	2.55	0.49
4:M:250:ILE:O	4:M:258:GLY:HA3	2.12	0.49
4:M:722:LEU:HD22	4:M:799:PHE:CD1	2.47	0.49
4:M:829:VAL:C	4:M:831:THR:H	2.16	0.49
5:N:215:GLN:OE1	5:N:479:VAL:HG22	2.13	0.49
5:N:230:ALA:N	5:N:231:PRO:HD2	2.27	0.49
5:N:653:VAL:CG2	5:N:689:LEU:HB3	2.43	0.49
10:S:9:LEU:HD12	10:S:10:ASN:N	2.27	0.49
10:S:115:MET:CB	10:S:116:PRO:HD2	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:62:SER:C	11:T:64:ASN:H	2.15	0.49
14:W:52:ASN:O	14:W:54:ARG:N	2.46	0.49
2:5:21:DC:H2"	2:5:22:BRU:C5'	2.42	0.49
4:A:381:THR:CG2	4:A:383:TYR:H	2.25	0.49
4:A:722:LEU:O	4:A:725:ALA:HB3	2.12	0.49
4:A:1116:LEU:HD11	4:A:1118:VAL:HG13	1.95	0.49
5:B:850:LEU:HD12	5:B:851:PHE:H	1.74	0.49
6:C:147:LEU:HD12	6:C:151:GLN:O	2.12	0.49
6:C:167:HIS:HD2	6:C:168:ALA:N	2.10	0.49
7:D:151:PHE:CD1	7:D:151:PHE:N	2.80	0.49
10:G:26:LEU:O	10:G:27:LYS:C	2.51	0.49
10:G:34:VAL:HG12	10:G:45:ILE:CG2	2.37	0.49
10:G:74:TYR:H	10:G:74:TYR:HD2	1.59	0.49
10:G:111:THR:HB	10:G:114:LEU:HB2	1.94	0.49
11:H:100:THR:HG22	11:H:101:ALA:N	2.27	0.49
14:K:42:LEU:HD21	14:K:46:ILE:CD1	2.42	0.49
4:M:4:GLN:O	4:M:5:GLN:HB2	2.11	0.49
4:M:37:PHE:HB2	4:M:52:GLY:HA3	1.94	0.49
4:M:982:THR:N	4:M:985:ASP:HB2	2.27	0.49
5:N:446:LEU:O	5:N:447:ALA:CB	2.60	0.49
5:N:797:TYR:HE1	5:N:854:LEU:HD23	1.76	0.49
6:O:238:ILE:HG22	6:O:243:VAL:HG23	1.94	0.49
12:U:98:VAL:HG11	12:U:113:ASP:OD1	2.12	0.49
4:A:265:LYS:HZ1	4:A:322:VAL:HG22	1.76	0.49
4:A:299:HIS:O	4:A:301:ALA:N	2.46	0.49
4:A:873:MET:C	4:A:1058:VAL:HG23	2.32	0.49
4:A:1224:LEU:HD12	4:A:1241:ARG:O	2.13	0.49
4:A:1265:ASN:O	4:A:1268:LEU:N	2.41	0.49
7:D:20:GLU:HA	7:D:20:GLU:OE2	2.12	0.49
12:I:50:THR:CG2	12:I:52:ILE:HG12	2.42	0.49
12:I:69:PRO:HG2	12:I:85:PHE:CD2	2.47	0.49
4:M:34:LYS:NZ	4:M:57:ARG:CZ	2.76	0.49
4:M:42:ASP:HB3	4:M:45:GLN:CA	2.43	0.49
4:M:166:GLY:O	4:M:167:CYS:CB	2.61	0.49
4:M:1409:LEU:O	4:M:1412:ALA:HB3	2.12	0.49
5:N:247:GLY:O	5:N:249:ARG:N	2.46	0.49
5:N:300:HIS:CE1	5:N:376:PHE:CE1	3.01	0.49
5:N:796:LEU:HD12	5:N:852:ARG:O	2.12	0.49
5:N:1115:THR:HG22	5:N:1117:GLN:CG	2.43	0.49
6:O:86:CYS:O	6:O:88:CYS:N	2.46	0.49
10:S:34:VAL:HG12	10:S:45:ILE:CG2	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:W:55:LYS:CB	14:W:81:TYR:HE1	2.25	0.49
4:A:278:THR:O	4:A:278:THR:HG22	2.12	0.49
4:A:298:PHE:O	4:A:301:ALA:HB3	2.12	0.49
4:A:929:LEU:CD2	4:A:983:ILE:HG21	2.43	0.49
4:A:1242:VAL:HG12	4:A:1243:VAL:N	2.28	0.49
4:A:1420:ASP:HB3	4:A:1422:ARG:CG	2.30	0.49
4:A:1436:ILE:HD13	5:B:1139:ILE:HG23	1.95	0.49
5:B:129:PHE:HA	5:B:165:VAL:O	2.13	0.49
5:B:364:ILE:HG22	5:B:365:THR:N	2.27	0.49
5:B:1084:GLN:OE1	6:C:189:THR:CG2	2.61	0.49
5:B:1099:VAL:C	5:B:1101:ASP:H	2.16	0.49
5:B:1159:ARG:HE	5:B:1193:GLN:HE21	1.59	0.49
6:C:31:ASN:O	6:C:32:SER:C	2.48	0.49
9:F:90:ARG:HD3	9:F:155:LEU:HD11	1.94	0.49
10:G:27:LYS:HE2	10:G:54:ILE:HB	1.95	0.49
10:G:39:THR:HG22	10:G:41:LYS:H	1.78	0.49
12:I:92:ARG:HB3	12:I:95:THR:OG1	2.12	0.49
13:J:32:GLU:O	13:J:35:ALA:N	2.46	0.49
15:L:40:LEU:HD13	15:L:44:ASP:HB3	1.94	0.49
4:M:657:LEU:HD12	4:M:657:LEU:O	2.12	0.49
4:M:785:PRO:HG2	4:M:786:HIS:CD2	2.46	0.49
4:M:1243:VAL:HG12	4:M:1244:ARG:N	2.27	0.49
4:M:1342:GLU:CG	8:Q:198:ILE:HD13	2.42	0.49
5:N:298:LEU:CD2	5:N:298:LEU:N	2.76	0.49
5:N:803:LEU:HD13	5:N:1032:SER:HB3	1.94	0.49
5:N:1106:ARG:HD3	5:N:1126:GLY:O	2.12	0.49
7:P:57:LEU:O	7:P:61:GLU:HB2	2.13	0.49
14:W:67:PHE:C	14:W:68:PHE:HD2	2.16	0.49
3:3:3:G:H4'	4:A:323:LYS:NZ	2.28	0.49
4:A:37:PHE:HB2	4:A:52:GLY:HA3	1.93	0.49
4:A:224:PHE:HZ	4:A:234:MET:HE1	1.78	0.49
4:A:355:GLY:N	4:A:482:PHE:CE1	2.80	0.49
4:A:1151:GLU:HB3	4:A:1153:TYR:HE1	1.78	0.49
5:B:39:ARG:HH21	5:B:665:GLU:CG	2.26	0.49
5:B:244:LEU:HD11	5:B:366:GLN:HE22	1.78	0.49
5:B:758:PHE:N	5:B:759:PRO:CD	2.76	0.49
5:B:816:GLU:O	5:B:817:LEU:HD23	2.13	0.49
7:D:134:THR:CG2	7:D:135:GLY:H	2.25	0.49
8:E:153:HIS:O	8:E:154:ILE:HG13	2.13	0.49
9:F:85:MET:HE1	9:F:93:ILE:HD12	1.93	0.49
11:H:142:LEU:C	11:H:143:LEU:HD12	2.32	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:J:12:LYS:O	13:J:14:VAL:HG23	2.13	0.49
4:M:404:TYR:HB2	4:M:433:GLU:HB2	1.93	0.49
4:M:407:ARG:HG2	4:M:430:TRP:CZ2	2.48	0.49
4:M:701:LEU:HD23	12:U:115:LYS:CG	2.43	0.49
4:M:1397:LEU:O	4:M:1400:CYS:HB3	2.13	0.49
4:M:1434:ALA:O	4:M:1436:ILE:N	2.46	0.49
4:M:1445:ILE:HD12	4:M:1445:ILE:N	2.12	0.49
5:N:278:GLN:NE2	5:N:337:ARG:HH21	2.10	0.49
5:N:361:LEU:HD21	5:N:377:PHE:HD2	1.72	0.49
5:N:591:ARG:O	5:N:592:ASN:C	2.51	0.49
5:N:980:PHE:CD2	5:N:1094:ARG:HA	2.47	0.49
5:N:1087:PHE:HD2	5:N:1088:GLY:H	1.58	0.49
5:N:1159:ARG:HD3	5:N:1193:GLN:CG	2.41	0.49
6:O:104:PHE:HD2	6:O:105:GLY:N	2.10	0.49
9:R:75:PRO:HG2	9:R:78:GLN:HB2	1.94	0.49
11:T:11:GLN:O	11:T:28:ALA:HB1	2.13	0.49
11:T:26:ILE:CD1	11:T:49:VAL:HG11	2.43	0.49
3:3:6:C:H2'	3:3:7:A:H8	1.76	0.49
4:A:299:HIS:C	4:A:301:ALA:H	2.16	0.49
4:A:1213:GLY:O	4:A:1214:GLU:C	2.50	0.49
5:B:464:GLY:HA2	5:B:479:VAL:O	2.12	0.49
5:B:841:MET:O	5:B:993:THR:HA	2.13	0.49
6:C:113:VAL:HG23	6:C:147:LEU:HD21	1.94	0.49
7:D:19:GLU:O	7:D:21:GLU:N	2.46	0.49
8:E:157:SER:O	8:E:159:ASP:N	2.46	0.49
9:F:99:LEU:C	9:F:99:LEU:HD12	2.33	0.49
4:M:224:PHE:CZ	4:M:234:MET:HE2	2.47	0.49
4:M:269:ILE:CD1	4:M:300:VAL:HA	2.42	0.49
4:M:665:GLY:O	4:M:667:GLY:N	2.46	0.49
4:M:1120:LEU:CD1	4:M:1120:LEU:H	2.26	0.49
4:M:1222:ASN:O	4:M:1223:ASP:HB3	2.13	0.49
5:N:43:LEU:HD13	5:N:812:LEU:HD23	1.94	0.49
5:N:1001:PHE:HD2	6:O:34:ARG:NH2	2.09	0.49
5:N:1103:ILE:O	5:N:1122:ARG:NH1	2.46	0.49
9:R:74:ILE:HG23	9:R:75:PRO:HD2	1.95	0.49
10:S:91:VAL:HB	10:S:139:ILE:O	2.12	0.49
11:T:24:CYS:HB2	11:T:44:VAL:HG21	1.94	0.49
4:A:64:ASN:O	4:A:65:LEU:C	2.50	0.49
4:A:998:LEU:HD12	4:A:998:LEU:H	1.78	0.49
5:B:230:ALA:N	5:B:231:PRO:HD2	2.27	0.49
5:B:298:LEU:HD13	5:B:314:LEU:HD13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:311:LEU:O	5:B:312:GLU:C	2.50	0.49
5:B:597:MET:O	5:B:599:THR:N	2.46	0.49
5:B:769:TYR:C	5:B:771:SER:N	2.65	0.49
5:B:803:LEU:CD1	5:B:1032:SER:HB3	2.43	0.49
8:E:9:ILE:CD1	8:E:53:PRO:HD3	2.43	0.49
14:K:52:ASN:O	14:K:54:ARG:N	2.46	0.49
14:K:67:PHE:C	14:K:68:PHE:HD2	2.16	0.49
4:M:19:PHE:HE1	4:M:1396:ALA:HB3	1.78	0.49
4:M:50:ILE:C	4:M:52:GLY:N	2.67	0.49
4:M:222:LEU:O	4:M:224:PHE:N	2.46	0.49
4:M:1064:VAL:O	4:M:1067:LEU:HB3	2.13	0.49
5:N:526:GLU:HG2	5:N:538:ASN:HD22	1.77	0.49
5:N:778:MET:HE2	5:N:1094:ARG:CD	2.42	0.49
5:N:911:ILE:O	5:N:911:ILE:HG22	2.12	0.49
5:N:1065:GLN:NE2	5:N:1067:ARG:HG2	2.28	0.49
9:R:140:ASP:C	9:R:140:ASP:OD1	2.50	0.49
10:S:117:GLN:O	10:S:119:LEU:N	2.45	0.49
1:1:1:DA:C2'	1:1:2:DA:O5'	2.61	0.48
4:A:222:LEU:O	4:A:224:PHE:N	2.46	0.48
4:A:224:PHE:HZ	4:A:234:MET:CE	2.26	0.48
4:A:402:ALA:HB1	4:A:434:ARG:HA	1.95	0.48
5:B:240:ILE:HG23	5:B:240:ILE:O	2.13	0.48
5:B:344:LYS:O	5:B:345:LYS:HB2	2.13	0.48
5:B:1106:ARG:HH11	5:B:1110:PRO:HG2	1.78	0.48
9:F:81:THR:HB	9:F:136:ARG:HH11	1.78	0.48
9:F:119:ARG:HG3	9:F:119:ARG:NH1	2.28	0.48
12:I:61:ASP:C	12:I:63:GLY:H	2.16	0.48
14:K:47:ARG:HD2	14:K:47:ARG:O	2.13	0.48
4:M:84:ILE:HG22	4:M:239:LEU:HB3	1.95	0.48
4:M:566:ILE:O	4:M:567:LYS:O	2.30	0.48
4:M:590:ARG:HH21	4:M:620:LYS:CB	2.22	0.48
4:M:696:GLU:HG2	4:M:696:GLU:O	2.13	0.48
4:M:1032:LEU:O	4:M:1036:ARG:HD3	2.13	0.48
4:M:1166:ASP:OD2	4:M:1239:ARG:HD2	2.13	0.48
4:M:1175:SER:O	4:M:1176:LEU:HB2	2.12	0.48
5:N:378:LEU:CD1	5:N:382:ILE:HD11	2.43	0.48
5:N:862:GLN:HG2	5:N:963:PHE:HD1	1.77	0.48
10:S:26:LEU:O	10:S:27:LYS:C	2.52	0.48
15:X:70:ARG:HG2	15:X:70:ARG:HH11	1.78	0.48
4:A:79:GLY:HA3	4:A:243:PRO:CG	2.42	0.48
4:A:500:GLU:OE2	5:B:1145:SER:HB2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:551:TYR:CE2	14:K:62:LYS:HE2	2.48	0.48
4:A:846:GLU:OE1	4:A:1425:SER:OG	2.31	0.48
4:A:961:ARG:HG2	4:A:965:GLN:HE21	1.78	0.48
4:A:1291:VAL:HG13	4:A:1292:PRO:N	2.28	0.48
5:B:205:ILE:N	5:B:205:ILE:CD1	2.76	0.48
5:B:213:ILE:O	5:B:215:GLN:HG2	2.13	0.48
5:B:259:TYR:HD1	5:B:259:TYR:H	1.59	0.48
5:B:337:ARG:C	5:B:338:GLY:N	2.66	0.48
6:C:174:ALA:HB2	6:C:235:VAL:CG2	2.43	0.48
6:C:243:VAL:O	6:C:243:VAL:HG12	2.14	0.48
8:E:176:PRO:O	8:E:212:ARG:HA	2.13	0.48
9:F:140:ASP:C	9:F:140:ASP:OD1	2.51	0.48
13:J:36:LEU:HA	13:J:39:LEU:HD12	1.95	0.48
14:K:112:GLN:CG	14:K:112:GLN:N	2.76	0.48
4:M:92:HIS:O	4:M:95:PHE:N	2.39	0.48
4:M:577:ILE:HG13	4:M:578:LEU:N	2.28	0.48
4:M:1213:GLY:O	4:M:1214:GLU:C	2.50	0.48
4:M:1341:ILE:O	4:M:1344:GLY:N	2.46	0.48
4:M:1377:THR:O	4:M:1379:GLY:N	2.45	0.48
4:M:1444:MET:CE	9:R:135:ARG:HB2	2.44	0.48
5:N:96:TYR:HB2	5:N:129:PHE:HB2	1.95	0.48
5:N:464:GLY:HA2	5:N:479:VAL:O	2.12	0.48
5:N:785:TYR:CD1	5:N:785:TYR:C	2.86	0.48
5:N:911:ILE:CG2	5:N:966:VAL:HG11	2.43	0.48
10:S:1:MET:O	10:S:1:MET:CE	2.61	0.48
11:T:138:GLU:O	11:T:139:ASN:C	2.52	0.48
4:A:23:SER:HB3	4:A:233:TRP:CE2	2.47	0.48
4:A:23:SER:HB3	4:A:233:TRP:CZ2	2.48	0.48
4:A:107:CYS:H	4:A:114:LEU:HD21	1.78	0.48
4:A:172:PRO:HG3	4:A:185:TRP:CZ2	2.48	0.48
4:A:469:ARG:HH11	4:A:469:ARG:HB3	1.77	0.48
4:A:735:VAL:O	4:A:735:VAL:HG12	2.13	0.48
4:A:1225:PHE:CE2	4:A:1227:ILE:HD11	2.48	0.48
4:A:1308:THR:HG23	4:A:1309:ASP:N	2.27	0.48
5:B:128:LEU:HB2	5:B:168:GLY:O	2.14	0.48
5:B:204:ILE:C	5:B:205:ILE:HD12	2.33	0.48
5:B:1085:ILE:N	5:B:1085:ILE:CD1	2.71	0.48
6:C:36:VAL:HG11	6:C:251:LEU:HB2	1.95	0.48
8:E:17:ARG:O	8:E:20:LYS:HB2	2.13	0.48
8:E:213:ILE:HG12	8:E:214:CYS:N	2.27	0.48
9:F:77:ASP:O	9:F:78:GLN:HB2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:735:VAL:O	4:M:735:VAL:HG12	2.13	0.48
4:M:901:LEU:HD22	4:M:919:ILE:CG2	2.43	0.48
4:M:993:LEU:HD23	4:M:1022:LEU:HD21	1.95	0.48
4:M:1127:ASP:HB3	4:M:1130:GLN:HB2	1.95	0.48
4:M:1445:ILE:HD11	10:S:68:ALA:HB1	1.95	0.48
5:N:129:PHE:HE2	5:N:166:PHE:HD1	1.62	0.48
5:N:230:ALA:N	5:N:231:PRO:CD	2.77	0.48
5:N:459:TYR:C	5:N:459:TYR:CD2	2.87	0.48
7:P:134:THR:CG2	7:P:135:GLY:H	2.26	0.48
10:S:110:VAL:HG22	10:S:161:GLY:O	2.14	0.48
12:U:5:ARG:HD3	12:U:36:GLU:OE2	2.13	0.48
12:U:50:THR:HG22	12:U:51:ASN:N	2.28	0.48
4:A:87:ALA:HB1	4:A:276:LEU:HD23	1.93	0.48
4:A:166:GLY:O	4:A:167:CYS:CB	2.62	0.48
4:A:535:THR:HG23	4:A:575:LYS:HE2	1.95	0.48
4:A:968:GLN:O	4:A:970:THR:N	2.46	0.48
4:A:1017:LEU:HB2	8:E:206:GLY:N	2.09	0.48
4:A:1332:PHE:O	4:A:1333:ILE:C	2.51	0.48
5:B:44:VAL:O	5:B:45:SER:C	2.51	0.48
5:B:130:VAL:HB	5:B:167:ILE:HD12	1.96	0.48
5:B:298:LEU:N	5:B:298:LEU:CD2	2.76	0.48
5:B:563:MET:CE	5:B:580:VAL:HB	2.44	0.48
5:B:1001:PHE:CE2	6:C:34:ARG:NE	2.81	0.48
7:D:51:ASN:ND2	7:D:54:GLU:OE2	2.46	0.48
12:I:111:THR:CG2	12:I:112:SER:H	2.24	0.48
13:J:57:ILE:HG12	13:J:61:LEU:HD11	1.96	0.48
15:L:30:ILE:HG22	15:L:31:CYS:N	2.29	0.48
4:M:12:ARG:NE	5:N:1192:TYR:HE2	2.12	0.48
4:M:265:LYS:HE2	4:M:322:VAL:HG13	1.95	0.48
4:M:608:ILE:O	4:M:610:GLY:N	2.45	0.48
4:M:1412:ALA:HA	4:M:1417:GLU:OE2	2.14	0.48
5:N:313:MET:CE	5:N:386:LEU:HD22	2.42	0.48
5:N:401:PHE:HA	5:N:404:LYS:HG3	1.94	0.48
5:N:992:ILE:HD11	14:W:66:PRO:HB2	1.96	0.48
6:O:69:LEU:HB3	13:V:6:ARG:CD	2.41	0.48
8:Q:35:VAL:O	8:Q:37:LEU:N	2.47	0.48
9:R:147:SER:OG	9:R:150:GLU:HG3	2.14	0.48
10:S:44:TYR:CD2	10:S:105:PRO:HB2	2.48	0.48
11:T:15:VAL:HG22	11:T:26:ILE:HG12	1.95	0.48
13:V:2:ILE:HG22	13:V:3:VAL:O	2.13	0.48
4:A:35:ILE:HB	4:A:83:HIS:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:116:ASP:C	4:A:118:HIS:N	2.67	0.48
4:A:187:LYS:HE3	4:A:198:GLU:OE2	2.14	0.48
4:A:341:MET:CE	4:A:843:LYS:NZ	2.77	0.48
4:A:475:THR:CG2	4:A:476:SER:H	2.25	0.48
4:A:1059:HIS:ND1	9:F:86:THR:HA	2.27	0.48
5:B:400:HIS:O	5:B:402:GLY:N	2.46	0.48
5:B:798:TYR:CE2	6:C:62:PHE:CE2	3.01	0.48
5:B:838:SER:HA	5:B:989:THR:O	2.13	0.48
5:B:844:SER:O	5:B:847:ASP:N	2.45	0.48
5:B:999:MET:HE2	5:B:1000:PRO:HD2	1.95	0.48
5:B:1189:ILE:HG22	5:B:1190:ASP:N	2.29	0.48
6:C:99:LEU:HB2	6:C:157:CYS:HB2	1.96	0.48
7:D:64:VAL:C	7:D:66:ARG:H	2.15	0.48
11:H:93:TYR:N	11:H:93:TYR:CD1	2.81	0.48
4:M:44:THR:O	4:M:45:GLN:HB2	2.14	0.48
4:M:548:ASN:OD1	14:W:60:ALA:HB1	2.13	0.48
4:M:981:LEU:HD21	4:M:1039:LYS:HA	1.94	0.48
4:M:1006:ILE:CD1	8:Q:163:GLU:HG3	2.42	0.48
4:M:1144:LYS:HB2	4:M:1268:LEU:O	2.13	0.48
4:M:1450:LEU:O	4:M:1450:LEU:CG	2.62	0.48
8:Q:145:THR:HG21	8:Q:187:TYR:CD2	2.48	0.48
10:S:35:GLU:CG	10:S:48:VAL:HG23	2.44	0.48
10:S:51:TYR:O	10:S:54:ILE:HG13	2.12	0.48
2:2:21:DC:C6	2:2:22:BRU:BR	3.22	0.48
4:A:92:HIS:O	4:A:95:PHE:N	2.41	0.48
4:A:550:LEU:HD11	4:A:561:PRO:HD2	1.94	0.48
4:A:1076:ALA:HA	4:A:1079:MET:HE3	1.96	0.48
5:B:502:ILE:HD12	5:B:502:ILE:N	2.13	0.48
5:B:658:ILE:HG22	5:B:659:ALA:N	2.28	0.48
5:B:778:MET:HE2	5:B:1094:ARG:HD3	1.93	0.48
5:B:861:ASP:OD1	5:B:862:GLN:N	2.47	0.48
5:B:899:ILE:CG2	5:B:949:VAL:HG21	2.43	0.48
6:C:215:GLU:O	6:C:216:GLY:C	2.52	0.48
6:C:254:LYS:C	6:C:256:ALA:N	2.64	0.48
10:G:91:VAL:HA	10:G:101:VAL:HA	1.96	0.48
13:J:28:ASP:O	13:J:29:GLU:C	2.51	0.48
13:J:36:LEU:O	13:J:39:LEU:N	2.46	0.48
15:L:39:SER:O	15:L:40:LEU:HG	2.12	0.48
4:M:34:LYS:HB3	4:M:36:ARG:HE	1.79	0.48
5:N:102:VAL:HG12	5:N:104:GLU:HG2	1.95	0.48
5:N:846:ILE:HG23	5:N:974:PRO:HG2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:910:VAL:HG12	5:N:912:ILE:H	1.78	0.48
5:N:950:ASP:O	5:N:951:GLN:HB2	2.12	0.48
10:S:99:PHE:CD1	10:S:99:PHE:C	2.86	0.48
10:S:106:MET:HE2	10:S:106:MET:HB3	1.68	0.48
11:T:116:TYR:HE2	11:T:140:ALA:HB1	1.79	0.48
13:V:1:MET:H1	13:V:56:LEU:N	2.12	0.48
13:V:13:VAL:C	13:V:14:VAL:HG23	2.32	0.48
13:V:64:ASN:ND2	13:V:65:PRO:HD3	2.28	0.48
4:A:43:GLU:O	4:A:44:THR:CB	2.62	0.48
4:A:672:ASP:HB2	4:A:736:ASN:OD1	2.13	0.48
4:A:699:ALA:HB3	4:A:701:LEU:HG	1.96	0.48
5:B:412:LEU:HB3	5:B:466:TRP:HZ2	1.79	0.48
5:B:434:ARG:HA	5:B:437:GLU:OE2	2.14	0.48
5:B:792:MET:HA	5:B:856:PHE:O	2.14	0.48
6:C:254:LYS:C	6:C:256:ALA:H	2.16	0.48
7:D:194:LEU:C	7:D:195:ILE:HG13	2.33	0.48
10:G:34:VAL:HG11	10:G:74:TYR:HE1	1.77	0.48
4:M:43:GLU:O	4:M:44:THR:CB	2.61	0.48
4:M:463:ILE:HB	4:M:464:PRO:CD	2.43	0.48
4:M:567:LYS:HD2	4:M:568:PRO:CD	2.36	0.48
4:M:1095:THR:OG1	4:M:1113:THR:HB	2.14	0.48
5:N:711:GLU:H	5:N:712:PRO:HD2	1.78	0.48
5:N:750:GLY:O	5:N:751:VAL:C	2.51	0.48
5:N:757:PRO:HG3	5:N:1028:GLU:OE2	2.14	0.48
5:N:954:VAL:O	15:X:55:ILE:O	2.30	0.48
5:N:955:THR:CG2	5:N:956:THR:N	2.71	0.48
6:O:45:ALA:HA	6:O:72:LEU:CD1	2.43	0.48
6:O:145:CYS:HA	13:V:2:ILE:CD1	2.43	0.48
10:S:106:MET:CG	10:S:107:LYS:N	2.77	0.48
11:T:93:TYR:N	11:T:93:TYR:CD1	2.81	0.48
4:A:34:LYS:HZ1	4:A:57:ARG:CZ	2.26	0.48
4:A:862:ASN:HA	8:E:174:GLN:HB3	1.95	0.48
4:A:896:ARG:NH2	4:A:1030:ARG:NH2	2.61	0.48
4:A:1299:VAL:HG12	4:A:1300:LYS:H	1.75	0.48
4:A:1329:THR:CG2	4:A:1331:SER:HB3	2.44	0.48
5:B:254:LEU:HD23	5:B:381:MET:HE3	1.95	0.48
5:B:687:GLU:O	5:B:689:LEU:HG	2.12	0.48
5:B:980:PHE:CD2	5:B:1094:ARG:HA	2.49	0.48
7:D:24:ALA:C	7:D:26:THR:H	2.16	0.48
8:E:145:THR:HG21	8:E:187:TYR:CD2	2.48	0.48
11:H:95:TYR:CE2	11:H:97:MET:HG3	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:18:LYS:NZ	14:K:38:GLU:HG2	2.29	0.48
4:M:84:ILE:O	4:M:84:ILE:CG2	2.61	0.48
4:M:467:THR:O	4:M:469:ARG:HG3	2.14	0.48
4:M:606:LEU:HB3	4:M:614:PHE:CE2	2.48	0.48
4:M:709:THR:HB	4:M:712:GLU:HG3	1.96	0.48
4:M:1094:VAL:CG1	4:M:1095:THR:N	2.59	0.48
4:M:1453:TYR:O	4:M:1454:MET:HB3	2.13	0.48
5:N:26:THR:O	5:N:29:ASP:HB2	2.13	0.48
5:N:1095:LEU:HD12	5:N:1095:LEU:N	2.28	0.48
13:V:53:HIS:CD2	13:V:54:VAL:N	2.82	0.48
2:2:15:DT:C2'	2:2:16:DT:H71	2.41	0.48
2:5:21:DC:C6	2:5:22:BRU:BR	3.22	0.48
4:A:399:HIS:O	4:A:400:PRO:C	2.52	0.48
4:A:403:LYS:O	4:A:404:TYR:CD2	2.66	0.48
4:A:711:ARG:NH2	12:I:87:GLN:OE1	2.47	0.48
4:A:1265:ASN:C	4:A:1267:MET:N	2.65	0.48
5:B:274:PRO:O	5:B:275:TYR:HB2	2.13	0.48
5:B:344:LYS:O	5:B:345:LYS:CG	2.62	0.48
5:B:486:TYR:CE1	5:B:1096:ARG:HD3	2.49	0.48
5:B:616:ILE:CG1	5:B:697:GLU:HA	2.43	0.48
4:M:839:ARG:O	4:M:840:ARG:C	2.51	0.48
4:M:877:HIS:C	4:M:878:ILE:CG1	2.82	0.48
4:M:968:GLN:O	4:M:970:THR:N	2.47	0.48
4:M:1118:VAL:HG12	4:M:1327:ILE:HG13	1.94	0.48
4:M:1324:PRO:HB2	8:Q:142:VAL:HG11	1.94	0.48
5:N:360:PHE:C	5:N:360:PHE:CD2	2.86	0.48
5:N:466:TRP:CE3	5:N:466:TRP:HA	2.48	0.48
5:N:563:MET:CE	5:N:580:VAL:HB	2.44	0.48
5:N:606:LYS:HD2	5:N:608:ASP:OD2	2.13	0.48
5:N:865:LYS:NZ	5:N:869:SER:HA	2.29	0.48
8:Q:114:ASN:O	8:Q:115:ASN:CB	2.62	0.48
12:U:85:PHE:CD1	12:U:99:LEU:HD13	2.48	0.48
1:4:5:DA:H5'	4:M:1387:HIS:CE1	2.49	0.48
4:A:60:SER:C	4:A:61:ILE:HG13	2.34	0.48
4:A:168:GLY:O	4:A:169:ASN:C	2.51	0.48
4:A:353:ILE:CD1	4:A:487:MET:HE2	2.44	0.48
4:A:1208:THR:HG22	4:A:1210:GLY:H	1.78	0.48
4:A:1373:ASP:HA	4:A:1376:THR:CG2	2.43	0.48
5:B:179:CYS:SG	5:B:181:LEU:HG	2.54	0.48
5:B:581:PHE:HA	5:B:585:VAL:O	2.14	0.48
5:B:1177:HIS:CB	5:B:1179:GLN:HE21	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:22:LEU:HD23	6:C:25:VAL:HG21	1.96	0.48
6:C:70:ILE:HG12	6:C:142:VAL:HG11	1.95	0.48
6:C:140:ASN:O	6:C:141:GLY:O	2.31	0.48
7:D:7:THR:O	7:D:7:THR:HG23	2.14	0.48
10:G:127:PRO:HG2	10:G:138:THR:HG21	1.95	0.48
4:M:478:TYR:O	4:M:479:ASN:HB3	2.14	0.48
4:M:886:ILE:CG2	4:M:887:GLY:N	2.69	0.48
4:M:1430:LEU:HB2	4:M:1432:GLN:HG3	1.96	0.48
5:N:181:LEU:HD22	5:N:189:LEU:CD2	2.43	0.48
5:N:213:ILE:O	5:N:215:GLN:HG2	2.14	0.48
5:N:235:SER:OG	5:N:236:HIS:CD2	2.67	0.48
5:N:980:PHE:CE2	5:N:1094:ARG:HG3	2.48	0.48
8:Q:213:ILE:HG12	8:Q:214:CYS:N	2.28	0.48
12:U:84:VAL:O	12:U:84:VAL:HG13	2.13	0.48
13:V:23:ASN:C	13:V:25:LEU:N	2.67	0.48
2:2:21:DC:H2"	2:2:22:BRU:C5'	2.44	0.47
4:A:399:HIS:CB	4:A:400:PRO:CD	2.84	0.47
5:B:195:CYS:SG	5:B:197:PHE:HB2	2.54	0.47
5:B:558:LEU:O	5:B:560:GLU:N	2.47	0.47
5:B:711:GLU:H	5:B:712:PRO:HD2	1.79	0.47
5:B:764:SER:HB3	5:B:765:PRO:CD	2.44	0.47
5:B:950:ASP:O	5:B:951:GLN:HB2	2.13	0.47
5:B:997:GLU:CD	5:B:997:GLU:H	2.15	0.47
5:B:1142:GLY:HA3	9:F:88:TYR:HE2	1.79	0.47
6:C:22:LEU:HD13	6:C:230:MET:HE1	1.95	0.47
6:C:83:SER:O	6:C:85:ASP:N	2.47	0.47
11:H:113:ALA:HB1	11:H:125:LEU:O	2.14	0.47
14:K:18:LYS:NZ	14:K:37:LYS:O	2.47	0.47
4:M:285:PRO:O	4:M:287:HIS:N	2.46	0.47
4:M:709:THR:HG21	12:U:93:LYS:O	2.14	0.47
4:M:767:GLN:HB2	4:M:799:PHE:HD1	1.79	0.47
5:N:130:VAL:HB	5:N:167:ILE:HD12	1.96	0.47
5:N:575:PRO:HG2	5:N:576:ASP:H	1.79	0.47
5:N:830:TYR:O	5:N:831:SER:C	2.52	0.47
5:N:981:ALA:HB2	5:N:987:LYS:HA	1.96	0.47
2:2:25:DT:C2'	2:2:26:DC:O5'	2.53	0.47
3:3:6:C:O2'	3:3:7:A:H5'	2.14	0.47
4:A:863:VAL:HG11	4:A:866:PHE:CE2	2.49	0.47
4:A:871:ASP:OD1	4:A:1366:ARG:NH2	2.47	0.47
4:A:1197:LEU:HD12	4:A:1209:MET:HE1	1.97	0.47
5:B:336:ARG:NH2	5:B:345:LYS:CG	2.72	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1074:ASN:HB2	5:B:1081:LEU:HD21	1.96	0.47
6:C:27:LEU:HD13	6:C:228:PHE:CE2	2.49	0.47
6:C:146:LYS:C	6:C:147:LEU:HD23	2.34	0.47
7:D:156:ASP:C	7:D:158:GLU:H	2.17	0.47
7:D:210:ILE:O	7:D:214:LEU:HG	2.14	0.47
10:G:3:PHE:CD1	10:G:80:LYS:NZ	2.78	0.47
11:H:38:LEU:HD13	11:H:125:LEU:HD13	1.96	0.47
11:H:40:LEU:HD12	11:H:122:LEU:O	2.14	0.47
11:H:84:ALA:HA	11:H:87:ARG:CB	2.35	0.47
13:J:48:ARG:HE	13:J:49:MET:CE	2.22	0.47
4:M:18:GLN:HB3	5:N:1215:ARG:HG3	1.96	0.47
4:M:406:ILE:HG13	4:M:431:LYS:HB2	1.95	0.47
4:M:420:ARG:O	4:M:421:ALA:C	2.53	0.47
4:M:474:VAL:C	4:M:477:PRO:HD2	2.35	0.47
4:M:504:LEU:N	4:M:504:LEU:HD12	2.28	0.47
4:M:1102:LYS:HG2	4:M:1106:ASN:HD21	1.79	0.47
4:M:1410:PHE:HD2	5:N:1212:ILE:HD12	1.80	0.47
5:N:295:GLY:H	5:N:298:LEU:HD23	1.78	0.47
5:N:616:ILE:HG13	5:N:697:GLU:HG3	1.95	0.47
7:P:53:SER:HB3	7:P:153:ARG:N	2.26	0.47
10:S:99:PHE:HZ	10:S:163:ILE:HD13	1.79	0.47
12:U:34:TYR:CD2	12:U:34:TYR:C	2.87	0.47
4:A:35:ILE:CD1	4:A:241:VAL:HG11	2.44	0.47
4:A:43:GLU:O	4:A:44:THR:HB	2.15	0.47
4:A:67:CYS:O	4:A:68:GLN:HB2	2.13	0.47
4:A:367:PRO:HB3	4:A:465:TYR:O	2.14	0.47
4:A:506:ALA:O	4:A:509:LEU:HB2	2.14	0.47
4:A:874:ASP:O	4:A:876:ALA:N	2.47	0.47
4:A:883:LEU:HD11	4:A:1017:LEU:HD11	1.97	0.47
5:B:259:TYR:N	5:B:259:TYR:CD1	2.82	0.47
5:B:616:ILE:HG13	5:B:697:GLU:HG3	1.95	0.47
5:B:806:THR:HG22	5:B:808:ALA:CB	2.44	0.47
5:B:830:TYR:CE2	5:B:1000:PRO:HD3	2.49	0.47
5:B:999:MET:HA	5:B:999:MET:HE3	1.96	0.47
6:C:3:GLU:O	6:C:4:GLU:CG	2.62	0.47
6:C:226:ASP:O	6:C:227:THR:CB	2.62	0.47
11:H:98:TYR:C	11:H:118:PHE:HD2	2.18	0.47
4:M:68:GLN:O	4:M:70:CYS:N	2.42	0.47
4:M:130:ASP:O	4:M:131:SER:C	2.51	0.47
4:M:252:PHE:HB2	4:M:256:GLN:NE2	2.29	0.47
4:M:347:PHE:CE2	4:M:493:GLN:OE1	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:412:ARG:HH21	5:N:1108:ARG:NH1	2.11	0.47
4:M:821:ARG:HB2	4:M:821:ARG:NH1	2.27	0.47
4:M:1373:ASP:HA	4:M:1376:THR:CG2	2.44	0.47
5:N:552:MET:HA	5:N:555:ILE:HB	1.96	0.47
5:N:798:TYR:HE2	6:O:62:PHE:HZ	1.60	0.47
7:P:7:THR:O	7:P:7:THR:HG23	2.14	0.47
8:Q:176:PRO:HB2	8:Q:211:TYR:O	2.15	0.47
11:T:31:THR:HG22	11:T:31:THR:O	2.14	0.47
11:T:58:THR:HG22	11:T:59:ILE:N	2.27	0.47
15:X:40:LEU:HD13	15:X:44:ASP:HB3	1.96	0.47
4:A:61:ILE:O	4:A:63:ARG:N	2.47	0.47
4:A:218:ASP:O	4:A:219:PHE:O	2.31	0.47
4:A:243:PRO:O	4:A:244:PRO:C	2.52	0.47
4:A:964:ILE:O	4:A:967:ALA:N	2.46	0.47
5:B:118:ARG:HG2	5:B:204:ILE:HD13	1.96	0.47
5:B:126:SER:O	5:B:169:ARG:HA	2.14	0.47
5:B:361:LEU:HD21	5:B:377:PHE:HD2	1.74	0.47
5:B:1060:ARG:HA	5:B:1060:ARG:HD2	1.59	0.47
6:C:242:GLN:HA	6:C:245:VAL:HG23	1.95	0.47
14:K:65:HIS:CD2	14:K:67:PHE:HB2	2.50	0.47
4:M:43:GLU:O	4:M:44:THR:HB	2.14	0.47
4:M:774:ARG:NH2	4:M:797:LYS:HG3	2.30	0.47
4:M:915:SER:O	4:M:919:ILE:HG13	2.14	0.47
5:N:952:VAL:HG22	5:N:966:VAL:HG13	1.97	0.47
5:N:1115:THR:CG2	5:N:1117:GLN:CG	2.92	0.47
5:N:1172:ILE:O	5:N:1172:ILE:CG2	2.62	0.47
10:S:138:THR:HG22	10:S:139:ILE:HG13	1.95	0.47
11:T:100:THR:OG1	11:T:138:GLU:HG3	2.12	0.47
12:U:110:PHE:H	12:U:110:PHE:HD2	1.62	0.47
13:V:36:LEU:HA	13:V:39:LEU:HD12	1.95	0.47
4:A:469:ARG:NH2	5:B:991:GLY:O	2.47	0.47
5:B:96:TYR:HB2	5:B:129:PHE:HB2	1.97	0.47
5:B:247:GLY:O	5:B:249:ARG:N	2.48	0.47
5:B:802:PRO:HG2	5:B:805:THR:HG22	1.96	0.47
6:C:44:LEU:HD21	6:C:159:ALA:CB	2.45	0.47
7:D:50:LEU:HD13	7:D:55:ALA:HA	1.97	0.47
8:E:157:SER:OG	8:E:159:ASP:HB2	2.14	0.47
9:F:75:PRO:O	9:F:77:ASP:O	2.32	0.47
14:K:5:ASP:O	14:K:6:ARG:C	2.53	0.47
14:K:56:VAL:HG22	14:K:77:THR:HG22	1.97	0.47
15:L:32:ALA:CB	15:L:55:ILE:HD12	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:332:LYS:H	4:M:337:ARG:HB3	1.78	0.47
4:M:765:VAL:HG23	4:M:802:ASN:O	2.15	0.47
4:M:1242:VAL:HG12	4:M:1243:VAL:N	2.30	0.47
5:N:19:GLU:O	5:N:20:ASP:C	2.53	0.47
5:N:220:GLY:O	5:N:222:ILE:HG13	2.14	0.47
5:N:259:TYR:CD1	5:N:259:TYR:N	2.81	0.47
5:N:313:MET:HE2	5:N:386:LEU:HD22	1.96	0.47
5:N:434:ARG:HA	5:N:437:GLU:CD	2.35	0.47
7:P:146:GLN:O	7:P:149:THR:HG22	2.14	0.47
12:U:61:ASP:C	12:U:63:GLY:N	2.67	0.47
2:2:20:DC:H2"	2:2:21:DC:C5'	2.44	0.47
4:A:35:ILE:O	4:A:35:ILE:CG2	2.55	0.47
4:A:42:ASP:C	4:A:44:THR:N	2.67	0.47
4:A:108:MET:HB3	4:A:210:ILE:CD1	2.45	0.47
4:A:639:PRO:CG	4:A:640:GLN:H	2.27	0.47
4:A:687:LYS:O	4:A:690:VAL:HB	2.15	0.47
4:A:1153:TYR:CE1	12:I:42:LEU:HD13	2.50	0.47
5:B:25:ILE:HD11	5:B:653:VAL:C	2.34	0.47
5:B:63:ILE:HA	5:B:421:PHE:CE2	2.49	0.47
5:B:383:ASN:O	5:B:384:ARG:C	2.51	0.47
5:B:955:THR:CG2	5:B:956:THR:N	2.68	0.47
5:B:1177:HIS:O	5:B:1179:GLN:N	2.47	0.47
6:C:66:ARG:NH1	13:J:2:ILE:CG2	2.67	0.47
6:C:167:HIS:CD2	6:C:168:ALA:N	2.83	0.47
7:D:195:ILE:HG22	7:D:198:LEU:HG	1.95	0.47
11:H:18:GLY:O	11:H:19:ARG:HB2	2.15	0.47
4:M:382:PRO:CB	4:M:428:TYR:HE2	2.23	0.47
4:M:929:LEU:CD2	4:M:983:ILE:HG21	2.44	0.47
5:N:1060:ARG:HD2	5:N:1060:ARG:HA	1.63	0.47
5:N:1072:MET:HE3	5:N:1085:ILE:HD13	1.96	0.47
6:O:35:ARG:HH11	14:W:41:THR:N	2.12	0.47
6:O:243:VAL:O	6:O:243:VAL:HG12	2.14	0.47
6:O:252:GLN:HG3	14:W:95:ILE:HG23	1.97	0.47
7:P:130:LEU:C	7:P:132:GLN:N	2.62	0.47
8:Q:112:TYR:CZ	8:Q:136:ASN:HB2	2.49	0.47
8:Q:163:GLU:O	8:Q:164:LEU:C	2.53	0.47
4:A:34:LYS:CB	4:A:36:ARG:HE	2.28	0.47
4:A:102:VAL:O	4:A:105:CYS:HB2	2.14	0.47
4:A:432:VAL:O	4:A:433:GLU:C	2.51	0.47
4:A:467:THR:O	4:A:469:ARG:HG3	2.14	0.47
4:A:577:ILE:O	4:A:578:LEU:C	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:789:LYS:HE3	12:I:67:THR:CB	2.45	0.47
4:A:1127:ASP:HB3	4:A:1130:GLN:HB2	1.97	0.47
4:A:1226:VAL:HG13	4:A:1240:CYS:HB3	1.97	0.47
4:A:1389:PHE:CD1	4:A:1390:ASN:N	2.83	0.47
5:B:575:PRO:HG2	5:B:576:ASP:H	1.80	0.47
5:B:801:LYS:O	13:J:52:THR:CG2	2.63	0.47
7:D:27:LEU:HG	7:D:197:SER:HB2	1.96	0.47
7:D:56:ARG:HD3	7:D:149:THR:HA	1.97	0.47
8:E:14:ARG:O	8:E:17:ARG:HB3	2.14	0.47
8:E:134:THR:C	8:E:135:PHE:HD1	2.18	0.47
9:F:116:ASP:C	9:F:116:ASP:OD1	2.53	0.47
10:G:15:PRO:O	10:G:16:SER:C	2.53	0.47
10:G:145:VAL:CG1	10:G:146:LYS:N	2.77	0.47
12:I:84:VAL:HG13	12:I:84:VAL:O	2.13	0.47
12:I:110:PHE:H	12:I:110:PHE:HD2	1.63	0.47
4:M:68:GLN:C	4:M:70:CYS:N	2.67	0.47
4:M:356:ASP:OD2	4:M:469:ARG:NH1	2.48	0.47
4:M:391:LEU:O	4:M:394:ASN:HB2	2.14	0.47
4:M:608:ILE:C	4:M:610:GLY:H	2.17	0.47
4:M:805:LEU:CD1	5:N:1052:VAL:HG21	2.45	0.47
4:M:920:LEU:HD23	4:M:921:GLY:N	2.30	0.47
4:M:1168:GLU:O	4:M:1172:LEU:HG	2.14	0.47
4:M:1339:LEU:HD13	8:Q:147:HIS:CD2	2.49	0.47
4:M:1451:VAL:O	4:M:1454:MET:HG2	2.14	0.47
5:N:37:PHE:CE1	5:N:41:LYS:CG	2.97	0.47
5:N:240:ILE:HG23	5:N:240:ILE:O	2.14	0.47
5:N:244:LEU:O	5:N:246:LYS:N	2.48	0.47
5:N:658:ILE:HG22	5:N:659:ALA:N	2.30	0.47
5:N:758:PHE:HE1	5:N:1027:ILE:HG22	1.78	0.47
5:N:953:LEU:HD23	5:N:965:LYS:H	1.80	0.47
5:N:980:PHE:HE2	5:N:1094:ARG:HG3	1.78	0.47
5:N:999:MET:HG2	5:N:1007:VAL:HG22	1.97	0.47
6:O:82:TYR:O	6:O:83:SER:C	2.51	0.47
6:O:83:SER:O	6:O:85:ASP:N	2.47	0.47
7:P:63:LEU:O	7:P:129:LEU:HD11	2.14	0.47
8:Q:31:THR:O	8:Q:35:VAL:HG23	2.14	0.47
9:R:75:PRO:HG3	9:R:78:GLN:OE1	2.15	0.47
10:S:111:THR:HG22	10:S:113:HIS:N	2.25	0.47
13:V:56:LEU:O	13:V:57:ILE:C	2.53	0.47
14:W:29:ASN:O	14:W:76:GLN:HG3	2.14	0.47
4:A:577:ILE:HA	4:A:580:VAL:HG23	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1036:ARG:HG2	4:A:1036:ARG:NH1	2.26	0.47
4:A:1095:THR:OG1	4:A:1113:THR:HB	2.15	0.47
4:A:1120:LEU:CD1	4:A:1304:TRP:O	2.62	0.47
4:A:1299:VAL:CG1	4:A:1300:LYS:N	2.76	0.47
5:B:582:VAL:HG12	5:B:587:HIS:NE2	2.29	0.47
10:G:7:LEU:HD11	10:G:45:ILE:HD11	1.96	0.47
11:H:47:PHE:CD2	11:H:95:TYR:HD1	2.31	0.47
4:M:34:LYS:N	4:M:57:ARG:NH2	2.60	0.47
4:M:71:GLN:C	4:M:73:GLY:N	2.68	0.47
4:M:211:PHE:HA	4:M:214:ILE:HG13	1.97	0.47
4:M:224:PHE:HZ	4:M:234:MET:CE	2.26	0.47
4:M:805:LEU:O	5:N:761:HIS:CE1	2.68	0.47
4:M:974:ASP:C	4:M:976:THR:H	2.19	0.47
5:N:309:GLN:HG3	12:U:52:ILE:CD1	2.45	0.47
5:N:412:LEU:HB3	5:N:466:TRP:HZ2	1.80	0.47
5:N:579:ARG:HG2	5:N:579:ARG:NH1	2.28	0.47
5:N:839:MET:HE3	5:N:1010:LEU:HD21	1.96	0.47
6:O:175:ALA:HB3	13:V:43:ARG:HH22	1.80	0.47
8:Q:61:GLN:HG2	8:Q:62:ALA:N	2.29	0.47
8:Q:94:LYS:HE2	8:Q:98:ILE:CD1	2.39	0.47
11:T:18:GLY:O	11:T:19:ARG:HB2	2.15	0.47
14:W:10:PHE:N	14:W:10:PHE:HD2	2.11	0.47
15:X:49:LYS:O	15:X:50:ASP:CB	2.62	0.47
4:A:265:LYS:HE2	4:A:322:VAL:HG11	1.96	0.47
4:A:441:PRO:HD2	4:A:498:ARG:NH2	2.30	0.47
4:A:464:PRO:O	4:A:465:TYR:O	2.33	0.47
4:A:608:ILE:HD12	4:A:613:ILE:CD1	2.45	0.47
4:A:701:LEU:HD23	12:I:115:LYS:CG	2.45	0.47
4:A:779:PHE:O	4:A:780:VAL:C	2.54	0.47
4:A:920:LEU:HD23	4:A:921:GLY:N	2.30	0.47
5:B:258:LEU:HG	5:B:258:LEU:O	2.15	0.47
5:B:405:ARG:HA	5:B:631:GLY:O	2.15	0.47
5:B:906:SER:O	5:B:907:GLY:O	2.32	0.47
6:C:112:ASN:CB	6:C:114:TYR:CE1	2.98	0.47
7:D:71:LYS:HA	7:D:74:GLN:CB	2.45	0.47
8:E:163:GLU:O	8:E:164:LEU:C	2.53	0.47
10:G:87:VAL:HG23	10:G:103:VAL:HG21	1.96	0.47
14:K:85:ASP:O	14:K:88:LYS:HB2	2.15	0.47
4:M:477:PRO:HG3	4:M:521:MET:HG2	1.97	0.47
4:M:701:LEU:HA	12:U:115:LYS:CE	2.42	0.47
4:M:710:LEU:H	4:M:710:LEU:HD12	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:862:ASN:HA	8:Q:174:GLN:HB3	1.96	0.47
5:N:229:ALA:CB	5:N:231:PRO:HD2	2.45	0.47
5:N:244:LEU:C	5:N:246:LYS:N	2.68	0.47
5:N:298:LEU:CD2	5:N:298:LEU:H	2.28	0.47
5:N:343:ILE:HG21	5:N:348:ARG:H	1.75	0.47
5:N:1110:PRO:HG3	5:N:1125:ASP:HB3	1.97	0.47
5:N:1147:LEU:HD23	5:N:1147:LEU:O	2.15	0.47
6:O:189:THR:CG2	6:O:190:ASP:N	2.77	0.47
8:Q:93:MET:SD	8:Q:97:VAL:HG23	2.55	0.47
10:S:79:PHE:HZ	10:S:106:MET:CE	2.27	0.47
12:U:12:ASN:HB3	12:U:13:MET:H	1.51	0.47
4:A:241:VAL:HG13	4:A:266:LEU:HD13	1.97	0.47
4:A:481:ASP:OD1	4:A:483:ASP:CG	2.54	0.47
4:A:608:ILE:C	4:A:610:GLY:N	2.66	0.47
4:A:898:ARG:HB2	4:A:933:TYR:HE1	1.79	0.47
4:A:907:THR:HG22	4:A:908:LEU:O	2.15	0.47
4:A:1396:ALA:O	4:A:1398:MET:N	2.48	0.47
5:B:233:PRO:HG2	5:B:234:ILE:CD1	2.44	0.47
5:B:446:LEU:N	5:B:446:LEU:HD23	2.30	0.47
5:B:776:GLN:O	5:B:1095:LEU:HA	2.15	0.47
5:B:825:VAL:HG13	5:B:826:ALA:H	1.80	0.47
6:C:116:LYS:HD3	6:C:140:ASN:HB3	1.96	0.47
11:H:40:LEU:HD22	11:H:123:MET:CE	2.45	0.47
12:I:99:LEU:HB2	12:I:101:PHE:CE1	2.50	0.47
4:M:37:PHE:H	4:M:37:PHE:HD1	1.62	0.47
4:M:356:ASP:CB	4:M:469:ARG:NH1	2.74	0.47
4:M:524:VAL:CG1	4:M:525:GLN:H	2.14	0.47
4:M:913:LEU:HD23	4:M:919:ILE:HD12	1.97	0.47
4:M:1030:ARG:NH1	4:M:1035:TYR:OH	2.48	0.47
4:M:1096:SER:O	4:M:1100:ARG:HB3	2.15	0.47
4:M:1349:TYR:CA	4:M:1372:VAL:HG21	2.45	0.47
4:M:1450:LEU:HD11	9:R:108:PHE:CZ	2.50	0.47
5:N:233:PRO:HG2	5:N:234:ILE:HD12	1.95	0.47
5:N:1166:CYS:O	5:N:1168:LEU:N	2.48	0.47
8:Q:55:ARG:O	8:Q:57:MET:N	2.48	0.47
9:R:94:LEU:HD21	9:R:122:MET:HA	1.96	0.47
4:A:21:LEU:CD1	4:A:229:SER:HB2	2.45	0.46
4:A:252:PHE:HB2	4:A:256:GLN:NE2	2.30	0.46
4:A:364:VAL:O	4:A:364:VAL:HG13	2.13	0.46
4:A:1019:CYS:O	4:A:1022:LEU:N	2.48	0.46
5:B:172:ILE:HD13	5:B:178:ASN:CB	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:244:LEU:O	5:B:246:LYS:N	2.48	0.46
5:B:834:ASN:HB3	5:B:840:ILE:HG13	1.96	0.46
5:B:986:GLN:OE1	5:B:986:GLN:HA	2.15	0.46
6:C:31:ASN:O	6:C:34:ARG:N	2.47	0.46
6:C:58:LEU:HD22	6:C:58:LEU:N	2.30	0.46
6:C:69:LEU:N	6:C:69:LEU:HD12	2.29	0.46
7:D:14:ARG:N	7:D:17:LYS:HZ3	2.13	0.46
4:M:166:GLY:O	4:M:167:CYS:HB3	2.15	0.46
4:M:469:ARG:NH2	5:N:991:GLY:O	2.48	0.46
4:M:896:ARG:NH2	4:M:1030:ARG:HH21	2.13	0.46
5:N:293:PRO:HG2	5:N:296:GLU:HB3	1.97	0.46
5:N:918:ILE:HD12	5:N:935:ARG:HD3	1.97	0.46
6:O:51:VAL:HG22	6:O:155:LEU:HD22	1.97	0.46
6:O:107:SER:C	6:O:109:SER:H	2.18	0.46
7:P:52:LEU:CD2	7:P:147:TYR:HE2	2.26	0.46
8:Q:58:MET:O	8:Q:59:SER:O	2.33	0.46
9:R:69:LEU:N	9:R:70:LYS:CA	2.78	0.46
10:S:17:PHE:C	10:S:19:GLY:H	2.18	0.46
11:T:26:ILE:HD13	11:T:49:VAL:HG11	1.97	0.46
12:U:100:PHE:N	12:U:100:PHE:CD1	2.84	0.46
15:X:38:LEU:O	15:X:39:SER:CB	2.62	0.46
15:X:55:ILE:H	15:X:55:ILE:HG12	1.34	0.46
2:5:23:DG:H2'	2:5:24:DG:C8	2.49	0.46
4:A:443:LEU:O	4:A:489:LEU:HD12	2.14	0.46
4:A:474:VAL:HG22	4:A:478:TYR:CE1	2.51	0.46
4:A:1364:ASN:O	4:A:1365:TYR:C	2.54	0.46
5:B:102:VAL:HG12	5:B:104:GLU:HG2	1.96	0.46
5:B:237:VAL:HG12	5:B:238:ALA:N	2.28	0.46
5:B:278:GLN:HG2	5:B:279:ASP:N	2.28	0.46
5:B:1081:LEU:HD12	5:B:1085:ILE:HD11	1.96	0.46
10:G:1:MET:O	10:G:1:MET:CE	2.62	0.46
4:M:34:LYS:CB	4:M:36:ARG:HE	2.27	0.46
4:M:58:LEU:O	4:M:59:GLY:O	2.32	0.46
4:M:351:THR:HG21	5:N:1103:ILE:HG13	1.97	0.46
4:M:458:HIS:NE2	4:M:478:TYR:OH	2.35	0.46
5:N:806:THR:C	5:N:808:ALA:N	2.66	0.46
6:O:141:GLY:HA2	13:V:16:ASP:HB3	1.97	0.46
7:P:119:ARG:HG2	7:P:120:GLU:N	2.29	0.46
10:S:26:LEU:HD12	10:S:56:ILE:HD13	1.97	0.46
10:S:49:LEU:N	10:S:49:LEU:HD23	2.31	0.46
12:U:101:PHE:HB2	12:U:110:PHE:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:32:VAL:O	4:A:57:ARG:HB2	2.14	0.46
4:A:929:LEU:HD23	4:A:983:ILE:HG21	1.97	0.46
4:A:1017:LEU:HB3	8:E:205:SER:HA	1.96	0.46
4:A:1213:GLY:O	4:A:1216:ILE:N	2.48	0.46
5:B:293:PRO:HG2	5:B:296:GLU:HB3	1.98	0.46
5:B:800:GLN:HB3	13:J:52:THR:HG22	1.90	0.46
5:B:806:THR:HG22	5:B:808:ALA:HB3	1.97	0.46
5:B:1187:ASN:O	5:B:1188:LYS:CB	2.55	0.46
7:D:208:GLU:O	7:D:212:LYS:HG3	2.15	0.46
9:F:85:MET:HE1	9:F:148:VAL:HG12	1.97	0.46
10:G:88:ASP:HA	10:G:144:ARG:HA	1.96	0.46
4:M:774:ARG:H	4:M:774:ARG:HG2	1.44	0.46
4:M:1118:VAL:HG23	4:M:1118:VAL:O	2.16	0.46
4:M:1437:GLY:HA3	9:R:88:TYR:CD2	2.51	0.46
5:N:102:VAL:CG2	5:N:112:LEU:HD22	2.46	0.46
5:N:410:GLY:O	5:N:412:LEU:N	2.49	0.46
5:N:582:VAL:HG12	5:N:587:HIS:NE2	2.29	0.46
5:N:763:GLN:HG2	5:N:765:PRO:HD2	1.97	0.46
5:N:769:TYR:O	5:N:771:SER:N	2.48	0.46
5:N:1182:CYS:O	5:N:1183:LYS:C	2.53	0.46
6:O:6:PRO:HB3	6:O:25:VAL:HG13	1.93	0.46
6:O:112:ASN:CB	6:O:114:TYR:CE1	2.98	0.46
7:P:53:SER:HB3	7:P:152:SER:HA	1.97	0.46
8:Q:46:TYR:CE2	8:Q:58:MET:HA	2.50	0.46
8:Q:145:THR:HG21	8:Q:187:TYR:CE2	2.50	0.46
8:Q:161:LYS:C	8:Q:163:GLU:H	2.18	0.46
8:Q:176:PRO:O	8:Q:212:ARG:HA	2.16	0.46
14:W:49:GLU:HG3	14:W:94:ILE:CG1	2.45	0.46
4:A:23:SER:O	4:A:24:PRO:C	2.53	0.46
4:A:313:GLN:O	4:A:314:ALA:HB3	2.14	0.46
4:A:340:LEU:HD21	5:B:1200:ALA:CA	2.46	0.46
4:A:408:ASP:C	4:A:410:GLY:H	2.18	0.46
4:A:549:MET:HE1	4:A:656:TRP:HD1	1.80	0.46
4:A:565:ILE:O	4:A:570:PRO:HA	2.15	0.46
4:A:901:LEU:HD22	4:A:919:ILE:HG22	1.98	0.46
4:A:958:VAL:HG22	4:A:1052:GLN:HB3	1.96	0.46
4:A:1115:SER:OG	4:A:1116:LEU:N	2.48	0.46
5:B:167:ILE:HG22	5:B:453:ILE:CD1	2.46	0.46
5:B:1115:THR:CG2	5:B:1117:GLN:HG3	2.45	0.46
6:C:77:ILE:O	6:C:79:GLN:N	2.49	0.46
6:C:97:VAL:HG12	6:C:99:LEU:CD2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:53:SER:HB3	7:D:152:SER:HA	1.97	0.46
11:H:130:ARG:HD2	11:H:130:ARG:N	2.24	0.46
13:J:2:ILE:HG12	13:J:57:ILE:HD12	1.96	0.46
15:L:49:LYS:O	15:L:50:ASP:CB	2.63	0.46
4:M:266:LEU:O	4:M:267:ALA:C	2.53	0.46
4:M:632:VAL:O	4:M:633:VAL:C	2.53	0.46
4:M:921:GLY:O	4:M:922:ASP:C	2.54	0.46
4:M:1237:ILE:HG22	4:M:1238:ILE:N	2.29	0.46
4:M:1313:LEU:HD23	4:M:1338:VAL:CG2	2.45	0.46
4:M:1420:ASP:O	4:M:1421:CYS:HB2	2.15	0.46
4:M:1436:ILE:HD13	5:N:1139:ILE:HG23	1.98	0.46
5:N:205:ILE:N	5:N:205:ILE:CD1	2.78	0.46
5:N:472:ALA:HB1	5:N:474:SER:HB3	1.97	0.46
5:N:558:LEU:O	5:N:560:GLU:N	2.49	0.46
5:N:841:MET:O	5:N:993:THR:HA	2.15	0.46
5:N:1214:PRO:HG2	5:N:1214:PRO:O	2.14	0.46
6:O:176:ILE:HG22	6:O:177:GLU:O	2.15	0.46
7:P:209:ARG:O	7:P:212:LYS:HB2	2.16	0.46
13:V:48:ARG:HE	13:V:49:MET:CE	2.25	0.46
2:5:26:DC:C2'	2:5:27:DA:H5'	2.39	0.46
4:A:626:ASN:O	4:A:631:HIS:CD2	2.68	0.46
4:A:699:ALA:O	4:A:700:ASN:CB	2.63	0.46
4:A:805:LEU:O	5:B:761:HIS:CE1	2.68	0.46
4:A:901:LEU:CG	4:A:926:GLN:HE21	2.19	0.46
4:A:1444:MET:HE2	4:A:1444:MET:N	2.31	0.46
5:B:707:PRO:O	5:B:711:GLU:HG3	2.15	0.46
5:B:865:LYS:NZ	5:B:869:SER:HA	2.31	0.46
7:D:47:LEU:HD11	10:G:3:PHE:CE2	2.49	0.46
9:F:90:ARG:HD3	9:F:155:LEU:CD1	2.45	0.46
12:I:55:THR:HG22	12:I:58:VAL:CG2	2.45	0.46
13:J:1:MET:N	13:J:57:ILE:N	2.55	0.46
15:L:61:THR:HG22	15:L:63:ARG:HG2	1.96	0.46
4:M:472:LEU:O	4:M:475:THR:CB	2.62	0.46
4:M:523:ILE:HD12	4:M:622:VAL:CG2	2.46	0.46
4:M:560:ILE:HG13	11:T:78:SER:HB2	1.98	0.46
4:M:586:ILE:HD11	4:M:633:VAL:HG22	1.97	0.46
4:M:873:MET:HG2	4:M:957:PRO:HB3	1.97	0.46
4:M:899:VAL:CG2	4:M:1029:ARG:HG2	2.46	0.46
5:N:118:ARG:CG	5:N:204:ILE:HD13	2.46	0.46
5:N:171:PRO:HD2	5:N:457:LEU:CD1	2.40	0.46
5:N:195:CYS:SG	5:N:197:PHE:HB2	2.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:429:PHE:HA	5:N:432:MET:CE	2.46	0.46
5:N:469:GLN:HB2	5:N:470:LYS:H	1.49	0.46
5:N:983:ARG:HD2	5:N:1091:TYR:HD2	1.80	0.46
5:N:999:MET:HE2	5:N:1000:PRO:CD	2.45	0.46
5:N:1079:LYS:CA	6:O:27:LEU:HD21	2.45	0.46
6:O:36:VAL:HG21	6:O:251:LEU:HD22	1.96	0.46
6:O:213:PRO:O	6:O:214:ASN:CB	2.63	0.46
6:O:215:GLU:O	6:O:216:GLY:C	2.53	0.46
6:O:262:LEU:HD11	14:W:87:LEU:HD23	1.97	0.46
11:T:40:LEU:CD1	11:T:123:MET:HB2	2.40	0.46
4:A:55:ASP:N	4:A:56:PRO:CD	2.78	0.46
4:A:351:THR:O	4:A:486:GLU:HA	2.16	0.46
4:A:401:GLY:O	4:A:435:HIS:CD2	2.69	0.46
4:A:420:ARG:O	4:A:421:ALA:C	2.54	0.46
4:A:535:THR:HG22	4:A:536:LEU:N	2.30	0.46
4:A:894:GLU:O	4:A:896:ARG:N	2.48	0.46
4:A:1102:LYS:O	4:A:1106:ASN:ND2	2.48	0.46
4:A:1102:LYS:HG2	4:A:1106:ASN:HD21	1.80	0.46
4:A:1150:SER:HA	4:A:1195:LEU:HD23	1.97	0.46
5:B:999:MET:HB3	5:B:1007:VAL:HG21	1.98	0.46
5:B:1152:MET:CE	5:B:1157:ALA:HA	2.46	0.46
6:C:18:VAL:HG23	6:C:240:VAL:HB	1.97	0.46
7:D:130:LEU:C	7:D:132:GLN:N	2.62	0.46
8:E:124:VAL:HG13	8:E:132:ILE:HD12	1.98	0.46
12:I:14:LEU:CD2	12:I:28:GLU:O	2.63	0.46
12:I:115:LYS:HD3	12:I:117:LYS:CE	2.36	0.46
14:K:24:ASP:OD1	14:K:26:LYS:N	2.48	0.46
4:M:42:ASP:HA	4:M:46:THR:O	2.15	0.46
4:M:75:ASN:O	4:M:76:GLU:HB2	2.16	0.46
4:M:147:VAL:O	4:M:149:GLU:N	2.48	0.46
5:N:520:GLY:N	5:N:748:ILE:HG22	2.31	0.46
5:N:657:HIS:CE1	5:N:689:LEU:HD11	2.51	0.46
5:N:957:ASN:O	5:N:958:GLN:C	2.54	0.46
13:V:16:ASP:OD1	13:V:17:LYS:N	2.47	0.46
14:W:47:ARG:HD3	14:W:59:ALA:O	2.16	0.46
14:W:65:HIS:CD2	14:W:67:PHE:HB2	2.51	0.46
1:4:3:DG:H1'	1:4:4:DT:H5'	1.96	0.46
3:6:10:A:H4'	4:M:485:ASP:OD1	2.14	0.46
4:A:166:GLY:O	4:A:167:CYS:SG	2.74	0.46
4:A:218:ASP:O	4:A:219:PHE:C	2.54	0.46
4:A:269:ILE:HG12	4:A:299:HIS:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:463:ILE:HB	4:A:464:PRO:CD	2.42	0.46
4:A:857:ARG:NH1	9:F:139:PRO:CB	2.79	0.46
4:A:1404:GLU:O	4:A:1407:GLU:HB2	2.16	0.46
5:B:189:LEU:O	5:B:190:TYR:C	2.54	0.46
5:B:235:SER:OG	5:B:236:HIS:CD2	2.69	0.46
5:B:337:ARG:HA	5:B:337:ARG:HD2	1.77	0.46
5:B:862:GLN:HG2	5:B:963:PHE:HD1	1.80	0.46
5:B:918:ILE:HD12	5:B:935:ARG:HD3	1.98	0.46
6:C:238:ILE:HG22	6:C:243:VAL:HG23	1.98	0.46
8:E:73:PRO:O	8:E:75:MET:N	2.48	0.46
8:E:178:ILE:HG22	8:E:213:ILE:O	2.15	0.46
10:G:18:PHE:HA	10:G:22:MET:HE3	1.98	0.46
15:L:55:ILE:O	15:L:56:LEU:HB2	2.15	0.46
4:M:698:GLN:HA	12:U:97:MET:O	2.16	0.46
4:M:699:ALA:HB3	4:M:701:LEU:HG	1.94	0.46
4:M:806:ARG:HH12	5:N:729:ILE:CD1	2.28	0.46
4:M:886:ILE:HG13	4:M:943:LEU:CD1	2.46	0.46
4:M:1265:ASN:C	4:M:1267:MET:N	2.67	0.46
4:M:1279:ILE:HA	4:M:1310:GLY:HA3	1.98	0.46
5:N:23:ALA:H	5:N:654:ARG:HB3	1.81	0.46
5:N:39:ARG:HG2	5:N:39:ARG:NH1	2.31	0.46
5:N:227:LYS:HB2	5:N:395:GLN:OE1	2.16	0.46
5:N:233:PRO:HG2	5:N:234:ILE:CD1	2.46	0.46
5:N:388:CYS:C	5:N:390:LEU:H	2.19	0.46
5:N:744:HIS:HD2	5:N:746:SER:OG	1.99	0.46
5:N:1109:GLY:O	5:N:1110:PRO:C	2.54	0.46
9:R:75:PRO:O	9:R:77:ASP:O	2.33	0.46
11:T:101:ALA:HB2	11:T:116:TYR:CZ	2.51	0.46
14:W:112:GLN:HG2	14:W:112:GLN:N	2.30	0.46
4:A:18:GLN:O	5:B:1215:ARG:HG2	2.16	0.46
4:A:75:ASN:O	4:A:76:GLU:HB2	2.15	0.46
4:A:823:GLY:O	4:A:824:LEU:C	2.53	0.46
4:A:966:ASN:O	4:A:967:ALA:C	2.52	0.46
4:A:1219:THR:HG21	4:A:1271:ILE:HG13	1.97	0.46
4:A:1425:SER:O	4:A:1426:GLU:C	2.54	0.46
5:B:37:PHE:HE1	5:B:41:LYS:CD	2.28	0.46
5:B:39:ARG:NH2	5:B:665:GLU:CG	2.78	0.46
5:B:386:LEU:O	5:B:387:LEU:C	2.53	0.46
5:B:1159:ARG:HD2	5:B:1159:ARG:C	2.35	0.46
7:D:29:LEU:HD13	10:G:82:PHE:CZ	2.51	0.46
7:D:137:ASN:C	7:D:137:ASN:HD22	2.18	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:38:CYS:HB3	10:G:155:SER:HA	1.96	0.46
10:G:99:PHE:HZ	10:G:163:ILE:HD13	1.81	0.46
13:J:1:MET:H1	13:J:56:LEU:CB	2.28	0.46
14:K:111:LEU:O	14:K:112:GLN:CG	2.62	0.46
14:K:112:GLN:HG2	14:K:112:GLN:N	2.30	0.46
4:M:116:ASP:C	4:M:118:HIS:N	2.69	0.46
4:M:317:LYS:O	4:M:318:SER:HB3	2.15	0.46
4:M:320:ARG:HH21	4:M:323:LYS:NZ	2.14	0.46
4:M:364:VAL:O	4:M:364:VAL:CG1	2.64	0.46
4:M:509:LEU:HD23	4:M:509:LEU:HA	1.79	0.46
4:M:577:ILE:C	4:M:579:SER:N	2.67	0.46
4:M:1291:VAL:HG13	4:M:1292:PRO:N	2.30	0.46
4:M:1323:ASP:C	4:M:1325:THR:H	2.18	0.46
5:N:221:ASN:OD1	5:N:242:SER:HA	2.16	0.46
5:N:237:VAL:CG1	5:N:238:ALA:N	2.79	0.46
5:N:654:ARG:C	5:N:656:GLY:N	2.68	0.46
5:N:757:PRO:HD3	5:N:983:ARG:NH2	2.31	0.46
5:N:1147:LEU:HD23	5:N:1147:LEU:C	2.36	0.46
5:N:1159:ARG:HE	5:N:1193:GLN:HE21	1.62	0.46
6:O:76:ASP:OD2	6:O:128:ASN:N	2.49	0.46
6:O:99:LEU:HD23	6:O:99:LEU:N	2.30	0.46
7:P:71:LYS:HA	7:P:74:GLN:CB	2.46	0.46
10:S:138:THR:CG2	10:S:139:ILE:H	2.05	0.46
13:V:7:CYS:CB	13:V:46:CYS:HB3	2.46	0.46
13:V:34:THR:O	13:V:35:ALA:C	2.54	0.46
4:A:244:PRO:CB	4:A:245:PRO:CD	2.94	0.46
4:A:244:PRO:HG2	4:A:245:PRO:CD	2.46	0.46
4:A:266:LEU:O	4:A:267:ALA:C	2.54	0.46
4:A:356:ASP:C	4:A:358:ASN:H	2.18	0.46
4:A:446:ARG:HB2	4:A:487:MET:SD	2.56	0.46
4:A:1118:VAL:HG23	4:A:1118:VAL:O	2.16	0.46
4:A:1130:GLN:O	4:A:1134:ILE:HG13	2.16	0.46
5:B:181:LEU:HD22	5:B:189:LEU:CD2	2.46	0.46
5:B:498:THR:HB	5:B:537:LYS:O	2.16	0.46
5:B:996:ARG:NH2	6:C:175:ALA:HA	2.31	0.46
5:B:1197:PRO:HG2	5:B:1200:ALA:HB3	1.97	0.46
6:C:61:GLU:HA	6:C:64:ALA:HB3	1.98	0.46
6:C:175:ALA:HB3	13:J:43:ARG:HH22	1.81	0.46
9:F:109:VAL:HG12	9:F:110:ASP:N	2.31	0.46
12:I:8:ARG:O	12:I:10:CYS:N	2.49	0.46
4:M:67:CYS:O	4:M:68:GLN:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:252:PHE:HB2	4:M:256:GLN:CD	2.36	0.46
4:M:353:ILE:CD1	4:M:487:MET:HE2	2.46	0.46
4:M:798:GLY:HA2	4:M:815:PHE:HD1	1.80	0.46
4:M:1446:ASP:HB3	4:M:1449:SER:OG	2.16	0.46
5:N:604:ARG:O	5:N:606:LYS:N	2.49	0.46
5:N:1023:VAL:O	5:N:1026:LEU:N	2.49	0.46
6:O:18:VAL:O	6:O:20:PHE:HD2	1.98	0.46
6:O:35:ARG:HH11	14:W:41:THR:CA	2.28	0.46
7:P:7:THR:HG21	7:P:32:GLU:OE2	2.16	0.46
7:P:144:THR:HG21	10:S:46:LEU:HD13	1.96	0.46
14:W:15:GLY:O	14:W:16:GLU:HG3	2.15	0.46
14:W:55:LYS:HB3	14:W:81:TYR:CE1	2.51	0.46
14:W:59:ALA:HA	14:W:74:ARG:O	2.16	0.46
4:A:332:LYS:H	4:A:337:ARG:HB3	1.80	0.46
4:A:456:MET:HB2	4:A:478:TYR:OH	2.16	0.46
4:A:547:LEU:HD22	14:K:58:PHE:CE1	2.51	0.46
4:A:817:ALA:O	4:A:818:MET:C	2.53	0.46
4:A:1149:ALA:CB	12:I:47:GLU:HA	2.46	0.46
4:A:1161:THR:HG22	4:A:1163:ILE:HG13	1.97	0.46
6:C:8:VAL:HG12	6:C:9:LYS:H	1.81	0.46
6:C:44:LEU:HD21	6:C:159:ALA:HB1	1.97	0.46
9:F:69:LEU:N	9:F:70:LYS:HA	2.31	0.46
9:F:118:LEU:O	9:F:118:LEU:HG	2.15	0.46
10:G:10:ASN:OD1	10:G:71:ASN:HA	2.16	0.46
10:G:14:HIS:HD1	10:G:15:PRO:HD2	1.76	0.46
10:G:22:MET:O	10:G:25:TYR:N	2.49	0.46
4:M:56:PRO:O	4:M:57:ARG:CG	2.63	0.46
4:M:356:ASP:OD2	14:W:65:HIS:HE1	1.98	0.46
4:M:618:GLU:O	4:M:620:LYS:N	2.49	0.46
4:M:1332:PHE:CE1	4:M:1348:LEU:HD13	2.51	0.46
5:N:525:ALA:O	5:N:768:THR:HA	2.14	0.46
5:N:549:THR:N	5:N:628:THR:HG23	2.28	0.46
5:N:1099:VAL:C	5:N:1101:ASP:H	2.19	0.46
6:O:70:ILE:HG12	6:O:142:VAL:HG11	1.97	0.46
6:O:239:PRO:O	6:O:241:ASP:N	2.48	0.46
8:Q:14:ARG:O	8:Q:17:ARG:HB3	2.16	0.46
10:S:1:MET:HG2	10:S:85:GLU:CD	2.36	0.46
10:S:31:LEU:CD2	10:S:48:VAL:HG21	2.46	0.46
12:U:8:ARG:NE	12:U:9:ASP:OD1	2.42	0.46
3:6:5:C:O2'	3:6:6:C:H5'	2.16	0.45
4:A:433:GLU:OE1	5:B:1108:ARG:NH1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:577:ILE:HG13	4:A:578:LEU:N	2.31	0.45
4:A:676:MET:O	4:A:679:ILE:N	2.47	0.45
4:A:715:GLU:OE2	4:A:774:ARG:NH1	2.49	0.45
4:A:913:LEU:HD23	4:A:919:ILE:HD12	1.97	0.45
4:A:1162:VAL:O	4:A:1162:VAL:HG12	2.15	0.45
4:A:1168:GLU:O	4:A:1172:LEU:HG	2.16	0.45
4:A:1453:TYR:O	4:A:1454:MET:HB3	2.17	0.45
5:B:118:ARG:CG	5:B:204:ILE:HD13	2.47	0.45
5:B:284:ILE:HG12	5:B:324:ILE:HD12	1.97	0.45
5:B:360:PHE:C	5:B:360:PHE:CD2	2.88	0.45
6:C:249:ASP:O	6:C:252:GLN:HB3	2.17	0.45
7:D:33:PHE:CZ	10:G:80:LYS:HE3	2.51	0.45
11:H:91:ASP:C	11:H:93:TYR:N	2.69	0.45
11:H:123:MET:HE3	11:H:142:LEU:CD2	2.45	0.45
12:I:13:MET:O	12:I:14:LEU:HD23	2.16	0.45
15:L:40:LEU:HB3	15:L:41:SER:H	1.63	0.45
4:M:35:ILE:HB	4:M:83:HIS:O	2.16	0.45
4:M:62:ASP:HB3	4:M:64:ASN:ND2	2.31	0.45
4:M:718:VAL:O	4:M:721:PHE:HB2	2.16	0.45
4:M:1226:VAL:HG13	4:M:1240:CYS:HB3	1.98	0.45
5:N:280:ILE:CD1	5:N:334:ILE:HG12	2.41	0.45
5:N:820:GLY:C	5:N:1091:TYR:CE1	2.90	0.45
5:N:952:VAL:HG12	5:N:953:LEU:N	2.30	0.45
5:N:1159:ARG:HD2	5:N:1159:ARG:C	2.36	0.45
6:O:88:CYS:SG	6:O:91:HIS:HA	2.57	0.45
8:Q:124:VAL:HG13	8:Q:132:ILE:CB	2.45	0.45
8:Q:161:LYS:HD2	8:Q:195:VAL:HG23	1.99	0.45
4:A:577:ILE:C	4:A:579:SER:N	2.67	0.45
4:A:695:LYS:C	4:A:697:ALA:N	2.70	0.45
4:A:1011:GLN:O	4:A:1015:VAL:HG23	2.16	0.45
4:A:1222:ASN:O	4:A:1223:ASP:HB3	2.16	0.45
4:A:1260:LEU:O	4:A:1260:LEU:HG	2.16	0.45
4:A:1409:LEU:CD1	5:B:1207:LEU:HD11	2.43	0.45
5:B:295:GLY:O	5:B:299:GLU:HG3	2.17	0.45
5:B:309:GLN:CG	12:I:52:ILE:HD11	2.46	0.45
5:B:372:SER:O	5:B:376:PHE:HD1	1.98	0.45
5:B:897:GLY:O	5:B:898:LEU:HD23	2.16	0.45
6:C:176:ILE:HG22	6:C:177:GLU:O	2.16	0.45
6:C:256:ALA:C	6:C:258:ILE:N	2.69	0.45
7:D:170:THR:C	7:D:172:LEU:H	2.20	0.45
8:E:29:PHE:C	8:E:30:ILE:HG13	2.36	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:124:VAL:HG13	8:E:132:ILE:CB	2.45	0.45
8:E:161:LYS:C	8:E:163:GLU:N	2.70	0.45
11:H:58:THR:HG22	11:H:59:ILE:N	2.31	0.45
11:H:95:TYR:HB3	11:H:144:ILE:HB	1.97	0.45
14:K:19:LEU:HD21	14:K:35:PHE:CE2	2.51	0.45
4:M:49:LYS:HZ3	4:M:61:ILE:HG13	1.80	0.45
4:M:298:PHE:O	4:M:301:ALA:HB3	2.16	0.45
4:M:500:GLU:OE2	4:M:1438:THR:HG21	2.17	0.45
4:M:639:PRO:HG2	4:M:640:GLN:N	2.32	0.45
4:M:873:MET:C	4:M:1058:VAL:HG23	2.36	0.45
5:N:446:LEU:N	5:N:446:LEU:HD23	2.31	0.45
5:N:730:ARG:O	5:N:731:VAL:O	2.33	0.45
5:N:758:PHE:N	5:N:759:PRO:CD	2.79	0.45
5:N:899:ILE:CG2	5:N:949:VAL:HG21	2.46	0.45
6:O:232:VAL:HG21	6:O:244:VAL:CG2	2.42	0.45
7:P:145:MET:O	7:P:149:THR:HB	2.17	0.45
12:U:78:CYS:HB2	12:U:106:CYS:HB3	1.97	0.45
12:U:111:THR:CG2	12:U:112:SER:N	2.72	0.45
4:A:53:LEU:O	4:A:54:ASN:C	2.55	0.45
4:A:381:THR:HG21	4:A:383:TYR:CD1	2.52	0.45
4:A:676:MET:O	4:A:679:ILE:HB	2.17	0.45
4:A:785:PRO:HG2	4:A:786:HIS:CD2	2.51	0.45
4:A:829:VAL:C	4:A:831:THR:N	2.69	0.45
4:A:982:THR:N	4:A:985:ASP:HB2	2.31	0.45
4:A:1193:LEU:HD22	4:A:1260:LEU:HD11	1.97	0.45
4:A:1220:PHE:CD1	4:A:1224:LEU:HD23	2.52	0.45
4:A:1237:ILE:HG22	4:A:1238:ILE:N	2.30	0.45
5:B:115:GLN:HG2	5:B:193:LYS:HB2	1.97	0.45
5:B:525:ALA:O	5:B:768:THR:HA	2.15	0.45
5:B:658:ILE:O	5:B:661:LEU:HB2	2.15	0.45
5:B:833:TYR:CZ	14:K:66:PRO:HG3	2.51	0.45
5:B:954:VAL:O	15:L:55:ILE:O	2.33	0.45
5:B:1077:THR:HG22	14:K:44:ASN:ND2	2.31	0.45
6:C:58:LEU:N	6:C:58:LEU:CD2	2.80	0.45
6:C:82:TYR:O	6:C:83:SER:C	2.53	0.45
6:C:99:LEU:HD23	6:C:99:LEU:N	2.31	0.45
7:D:156:ASP:C	7:D:158:GLU:N	2.70	0.45
11:H:138:GLU:O	11:H:139:ASN:C	2.55	0.45
13:J:32:GLU:O	13:J:33:GLY:C	2.54	0.45
4:M:313:GLN:O	4:M:314:ALA:HB3	2.16	0.45
4:M:652:VAL:O	4:M:653:VAL:C	2.53	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:742:ASN:O	4:M:745:GLN:HB2	2.17	0.45
4:M:875:ALA:HB2	4:M:1366:ARG:HD2	1.97	0.45
4:M:1345:ARG:NH1	4:M:1373:ASP:OD1	2.43	0.45
4:M:1400:CYS:O	4:M:1405:THR:HG23	2.17	0.45
4:M:1402:PHE:O	4:M:1403:GLU:HB2	2.17	0.45
5:N:847:ASP:O	5:N:849:GLY:N	2.48	0.45
5:N:908:GLU:O	5:N:909:ASP:O	2.34	0.45
5:N:910:VAL:HG12	5:N:911:ILE:N	2.31	0.45
10:S:27:LYS:O	10:S:30:LEU:HB3	2.17	0.45
4:A:366:VAL:CG2	4:A:460:VAL:HG22	2.46	0.45
4:A:417:TYR:O	4:A:418:SER:C	2.55	0.45
4:A:526:ASP:O	4:A:527:THR:C	2.55	0.45
4:A:567:LYS:HE3	11:H:46:LEU:CB	2.41	0.45
4:A:608:ILE:O	4:A:610:GLY:N	2.49	0.45
5:B:37:PHE:CE2	5:B:542:MET:HA	2.50	0.45
5:B:336:ARG:CD	5:B:348:ARG:HD3	2.46	0.45
5:B:785:TYR:CD1	5:B:785:TYR:C	2.89	0.45
5:B:1006:ILE:CG2	13:J:45:CYS:HB3	2.46	0.45
10:G:154:VAL:HG12	10:G:155:SER:N	2.30	0.45
4:M:59:GLY:HA2	4:M:67:CYS:SG	2.55	0.45
4:M:231:PRO:HA	4:M:234:MET:HE2	1.99	0.45
4:M:270:LEU:O	4:M:271:LYS:C	2.55	0.45
4:M:388:LEU:CD2	4:M:432:VAL:HB	2.46	0.45
4:M:613:ILE:O	4:M:614:PHE:HB3	2.16	0.45
4:M:709:THR:HG22	4:M:710:LEU:N	2.32	0.45
4:M:823:GLY:O	4:M:824:LEU:C	2.54	0.45
4:M:1153:TYR:CD2	4:M:1163:ILE:HD11	2.52	0.45
4:M:1332:PHE:O	4:M:1333:ILE:C	2.55	0.45
5:N:33:VAL:HG21	5:N:638:PHE:HZ	1.82	0.45
5:N:360:PHE:O	5:N:361:LEU:C	2.53	0.45
5:N:821:GLN:HE22	5:N:851:PHE:CA	2.27	0.45
5:N:984:HIS:NE2	5:N:1025:HIS:HA	2.32	0.45
5:N:996:ARG:NH1	6:O:38:ILE:HG23	2.30	0.45
5:N:1033:LYS:CE	5:N:1070:GLU:OE1	2.65	0.45
6:O:208:GLU:C	6:O:210:GLU:H	2.20	0.45
11:T:95:TYR:HB3	11:T:144:ILE:HB	1.98	0.45
12:U:82:GLU:HB3	12:U:104:LEU:HD12	1.97	0.45
13:V:28:ASP:O	13:V:29:GLU:C	2.55	0.45
15:X:31:CYS:HB3	15:X:34:CYS:C	2.37	0.45
4:A:147:VAL:O	4:A:149:GLU:N	2.49	0.45
4:A:265:LYS:CE	4:A:322:VAL:HG13	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:982:THR:H	4:A:985:ASP:HB2	1.81	0.45
5:B:27:ALA:C	5:B:29:ASP:N	2.70	0.45
5:B:30:SER:HB3	5:B:743:ILE:O	2.17	0.45
5:B:193:LYS:HD3	5:B:787:VAL:HG11	1.97	0.45
5:B:431:TYR:CE2	5:B:447:ALA:HB2	2.52	0.45
5:B:753:ALA:O	5:B:756:ILE:HG13	2.16	0.45
5:B:839:MET:CE	5:B:1010:LEU:HD21	2.46	0.45
5:B:1005:GLY:HA2	6:C:176:ILE:O	2.16	0.45
5:B:1176:ASN:C	5:B:1178:ASN:H	2.19	0.45
6:C:69:LEU:HB3	13:J:6:ARG:CD	2.47	0.45
6:C:236:GLY:C	6:C:238:ILE:N	2.68	0.45
7:D:13:ARG:HB2	7:D:17:LYS:NZ	2.31	0.45
8:E:90:VAL:HG23	8:E:120:ALA:HA	1.97	0.45
10:G:25:TYR:HE2	10:G:29:LYS:HD2	1.82	0.45
12:I:59:VAL:C	12:I:61:ASP:H	2.19	0.45
13:J:34:THR:O	13:J:35:ALA:C	2.55	0.45
14:K:59:ALA:HA	14:K:74:ARG:O	2.17	0.45
4:M:382:PRO:HD3	4:M:428:TYR:HD2	1.77	0.45
4:M:723:ASN:C	4:M:725:ALA:N	2.70	0.45
4:M:1115:SER:OG	4:M:1116:LEU:N	2.49	0.45
4:M:1147:THR:HA	4:M:1197:LEU:HD23	1.97	0.45
5:N:383:ASN:O	5:N:384:ARG:C	2.54	0.45
5:N:764:SER:HB3	5:N:765:PRO:CD	2.46	0.45
5:N:906:SER:O	5:N:907:GLY:O	2.34	0.45
6:O:3:GLU:O	6:O:4:GLU:CG	2.65	0.45
6:O:112:ASN:HB2	6:O:114:TYR:HE1	1.81	0.45
6:O:263:THR:O	6:O:265:MET:N	2.50	0.45
7:P:188:ALA:N	7:P:208:GLU:OE2	2.50	0.45
8:Q:128:PRO:HA	8:Q:129:PRO:C	2.37	0.45
10:S:14:HIS:ND1	10:S:15:PRO:CD	2.71	0.45
12:U:54:GLU:HB3	12:U:100:PHE:CE2	2.52	0.45
4:A:4:GLN:O	4:A:5:GLN:HB2	2.16	0.45
4:A:47:ARG:HH12	4:A:254:GLU:CG	2.30	0.45
4:A:353:ILE:HD13	4:A:487:MET:CE	2.47	0.45
4:A:370:ILE:O	4:A:373:THR:N	2.42	0.45
4:A:567:LYS:HD2	4:A:568:PRO:CD	2.38	0.45
4:A:663:SER:HB2	5:B:827:ILE:O	2.16	0.45
4:A:932:GLU:OE1	4:A:987:VAL:HG22	2.17	0.45
4:A:1220:PHE:O	4:A:1221:LYS:HB2	2.17	0.45
4:A:1377:THR:O	4:A:1378:GLN:C	2.55	0.45
4:A:1446:ASP:HB3	4:A:1449:SER:OG	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:337:ARG:C	5:B:338:GLY:CA	2.85	0.45
5:B:806:THR:HB	5:B:809:MET:HG3	1.99	0.45
5:B:1214:PRO:O	5:B:1214:PRO:HG2	2.17	0.45
9:F:125:LEU:O	9:F:125:LEU:CG	2.64	0.45
10:G:13:LEU:O	10:G:67:SER:HA	2.16	0.45
12:I:85:PHE:CD1	12:I:99:LEU:HD13	2.51	0.45
12:I:98:VAL:HG11	12:I:113:ASP:OD1	2.16	0.45
13:J:13:VAL:O	13:J:14:VAL:CG2	2.65	0.45
13:J:31:ASP:O	13:J:32:GLU:C	2.55	0.45
4:M:146:MET:HA	4:M:171:GLN:HB2	1.97	0.45
4:M:369:SER:HB2	14:W:2:ASN:OD1	2.17	0.45
4:M:402:ALA:HB1	4:M:433:GLU:O	2.17	0.45
4:M:666:ILE:HD11	5:N:1067:ARG:O	2.17	0.45
4:M:667:GLY:HA3	6:O:192:TRP:CH2	2.51	0.45
4:M:684:ALA:O	4:M:687:LYS:HB2	2.17	0.45
5:N:27:ALA:C	5:N:29:ASP:N	2.70	0.45
5:N:337:ARG:HA	5:N:337:ARG:HD2	1.76	0.45
5:N:344:LYS:O	5:N:345:LYS:HB2	2.16	0.45
5:N:467:GLY:CA	5:N:475:SER:HB3	2.47	0.45
5:N:1006:ILE:HD13	13:V:44:TYR:HE2	1.78	0.45
5:N:1135:ARG:O	5:N:1138:MET:N	2.50	0.45
5:N:1147:LEU:HD23	5:N:1151:LEU:HD13	1.98	0.45
6:O:215:GLU:O	6:O:217:ASP:N	2.50	0.45
7:P:27:LEU:HG	7:P:197:SER:HB2	1.98	0.45
7:P:137:ASN:C	7:P:137:ASN:HD22	2.19	0.45
7:P:141:LEU:HD12	7:P:141:LEU:HA	1.83	0.45
8:Q:124:VAL:HB	8:Q:125:PRO:CD	2.46	0.45
9:R:118:LEU:O	9:R:118:LEU:HG	2.16	0.45
10:S:13:LEU:O	10:S:67:SER:HA	2.16	0.45
10:S:14:HIS:CD2	10:S:16:SER:CB	2.84	0.45
10:S:18:PHE:HZ	10:S:68:ALA:HB2	1.81	0.45
15:X:55:ILE:O	15:X:56:LEU:HB2	2.16	0.45
3:3:8:G:O2'	3:3:9:G:H5'	2.16	0.45
4:A:18:GLN:HB3	5:B:1215:ARG:HG3	1.99	0.45
4:A:49:LYS:NZ	4:A:61:ILE:CG1	2.78	0.45
4:A:289:ILE:C	4:A:291:GLU:N	2.70	0.45
4:A:478:TYR:O	4:A:479:ASN:HB3	2.16	0.45
4:A:574:GLY:O	4:A:575:LYS:C	2.54	0.45
4:A:666:ILE:HG12	5:B:1030:LEU:HD22	1.99	0.45
4:A:1118:VAL:HG23	4:A:1306:LEU:HB2	1.99	0.45
5:B:209:GLU:CD	5:B:788:ARG:HH22	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:980:PHE:HE2	5:B:1094:ARG:CG	2.29	0.45
6:C:123:ASN:ND2	6:C:125:MET:CG	2.78	0.45
6:C:174:ALA:O	6:C:175:ALA:CB	2.65	0.45
9:F:114:GLU:OE2	9:F:119:ARG:HG2	2.17	0.45
10:G:79:PHE:CE2	10:G:105:PRO:HG2	2.51	0.45
12:I:100:PHE:N	12:I:100:PHE:CD1	2.85	0.45
14:K:55:LYS:CB	14:K:81:TYR:CE1	3.00	0.45
15:L:43:THR:HG22	15:L:43:THR:O	2.17	0.45
4:M:399:HIS:CB	4:M:400:PRO:CD	2.88	0.45
4:M:621:THR:O	4:M:629:LEU:HB2	2.17	0.45
4:M:699:ALA:O	4:M:700:ASN:CB	2.64	0.45
4:M:817:ALA:O	4:M:818:MET:C	2.54	0.45
4:M:986:ILE:HD12	4:M:1032:LEU:HD11	1.98	0.45
5:N:33:VAL:O	5:N:36:ALA:HB3	2.17	0.45
5:N:603:LEU:HB3	5:N:609:ILE:CD1	2.46	0.45
5:N:830:TYR:CE2	5:N:1000:PRO:HD3	2.51	0.45
6:O:83:SER:OG	6:O:160:LYS:HD3	2.17	0.45
7:P:23:ASN:O	10:S:83:LYS:HB2	2.17	0.45
8:Q:48:ASP:CG	8:Q:49:SER:N	2.70	0.45
8:Q:205:SER:O	8:Q:206:GLY:C	2.54	0.45
2:2:12:DT:H2"	2:2:13:DA:OP2	2.16	0.45
4:A:130:ASP:O	4:A:131:SER:C	2.53	0.45
4:A:653:VAL:O	4:A:654:ASN:C	2.55	0.45
4:A:816:HIS:HE2	5:B:764:SER:H	1.63	0.45
4:A:960:ILE:O	4:A:961:ARG:C	2.54	0.45
4:A:1004:ASN:O	4:A:1008:GLN:HB2	2.17	0.45
4:A:1297:GLU:H	4:A:1297:GLU:HG3	1.47	0.45
5:B:1099:VAL:HG22	5:B:1103:ILE:HD13	1.98	0.45
7:D:64:VAL:O	7:D:66:ARG:N	2.50	0.45
10:G:88:ASP:HB3	10:G:144:ARG:HA	1.99	0.45
4:M:42:ASP:C	4:M:44:THR:N	2.69	0.45
4:M:55:ASP:C	4:M:57:ARG:N	2.67	0.45
4:M:343:LYS:NZ	5:N:1151:LEU:O	2.38	0.45
4:M:453:MET:C	4:M:455:MET:N	2.70	0.45
4:M:553:VAL:HG13	4:M:648:ASN:HB3	1.98	0.45
4:M:914:GLU:HB2	4:M:979:SER:O	2.17	0.45
4:M:1161:THR:HG22	4:M:1163:ILE:HG13	1.98	0.45
4:M:1206:ASP:O	4:M:1274:ARG:NH1	2.50	0.45
5:N:29:ASP:HB3	5:N:658:ILE:HD13	1.99	0.45
5:N:184:ALA:HB1	5:N:188:ASP:HB3	1.98	0.45
5:N:258:LEU:O	5:N:258:LEU:CG	2.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:370:PHE:HE2	5:N:373:ARG:HH11	1.64	0.45
5:N:376:PHE:CE2	5:N:569:TYR:CD2	3.05	0.45
5:N:388:CYS:O	5:N:390:LEU:N	2.50	0.45
5:N:520:GLY:H	5:N:748:ILE:HG22	1.80	0.45
5:N:683:SER:O	5:N:687:GLU:HB2	2.17	0.45
6:O:183:TRP:CE2	6:O:207:CYS:HB3	2.52	0.45
6:O:260:LEU:O	6:O:263:THR:HB	2.16	0.45
8:Q:29:PHE:C	8:Q:30:ILE:HG13	2.36	0.45
10:S:15:PRO:O	10:S:16:SER:C	2.55	0.45
11:T:55:LEU:HD22	11:T:144:ILE:CG2	2.47	0.45
12:U:100:PHE:N	12:U:100:PHE:HD1	2.15	0.45
14:W:112:GLN:CG	14:W:112:GLN:N	2.79	0.45
4:A:427:GLN:O	4:A:428:TYR:C	2.54	0.45
4:A:547:LEU:HD13	14:K:58:PHE:CD1	2.52	0.45
4:A:606:LEU:HB3	4:A:614:PHE:CE2	2.52	0.45
4:A:1005:GLU:O	4:A:1006:ILE:C	2.55	0.45
4:A:1410:PHE:HD2	5:B:1212:ILE:HD12	1.82	0.45
5:B:37:PHE:CE1	5:B:41:LYS:CG	2.99	0.45
5:B:597:MET:O	5:B:600:LEU:N	2.46	0.45
5:B:710:LEU:O	5:B:711:GLU:OE2	2.35	0.45
5:B:1138:MET:HE2	5:B:1143:ALA:HB3	1.99	0.45
11:H:15:VAL:HG22	11:H:26:ILE:HG12	1.99	0.45
4:M:224:PHE:CE2	4:M:231:PRO:HA	2.52	0.45
4:M:262:LEU:C	4:M:264:PHE:N	2.70	0.45
4:M:388:LEU:HD22	4:M:432:VAL:HG21	1.98	0.45
4:M:603:ASN:O	4:M:604:GLY:C	2.54	0.45
4:M:763:ALA:C	4:M:803:SER:HB3	2.37	0.45
4:M:901:LEU:N	4:M:926:GLN:HE21	2.08	0.45
4:M:1239:ARG:CB	4:M:1239:ARG:HH11	2.30	0.45
5:N:37:PHE:HE1	5:N:41:LYS:HG3	1.78	0.45
5:N:343:ILE:CG2	5:N:348:ARG:H	2.29	0.45
5:N:825:VAL:HG12	5:N:826:ALA:N	2.32	0.45
5:N:1001:PHE:CZ	5:N:1073:TYR:HB2	2.50	0.45
5:N:1085:ILE:CG2	5:N:1086:PHE:N	2.80	0.45
5:N:1156:ASP:O	5:N:1157:ALA:O	2.34	0.45
6:O:22:LEU:HD13	6:O:230:MET:CE	2.47	0.45
6:O:74:SER:HB2	6:O:77:ILE:HG12	1.99	0.45
8:Q:124:VAL:HA	8:Q:132:ILE:HD12	1.99	0.45
10:S:66:GLY:O	10:S:67:SER:C	2.55	0.45
11:T:127:GLY:O	11:T:128:ASN:CB	2.65	0.45
11:T:142:LEU:C	11:T:143:LEU:HD12	2.36	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:V:21:TYR:HB2	13:V:39:LEU:HD13	1.99	0.45
14:W:24:ASP:OD1	14:W:26:LYS:N	2.50	0.45
15:X:36:SER:O	15:X:37:LYS:C	2.55	0.45
3:3:9:G:H4'	5:B:1097:HIS:NE2	2.32	0.45
2:5:10:DA:H2"	2:5:11:DG:OP2	2.17	0.45
3:6:3:G:H2'	3:6:4:A:H8	1.82	0.45
4:A:334:GLY:O	4:A:335:ARG:C	2.55	0.45
4:A:524:VAL:CG1	4:A:525:GLN:H	2.20	0.45
4:A:696:GLU:O	4:A:696:GLU:HG2	2.17	0.45
4:A:1339:LEU:HD13	8:E:147:HIS:CD2	2.52	0.45
4:A:1423:GLY:O	4:A:1424:VAL:C	2.55	0.45
5:B:244:LEU:C	5:B:246:LYS:N	2.70	0.45
5:B:638:PHE:HD2	5:B:690:VAL:HG22	1.82	0.45
5:B:653:VAL:HG22	5:B:689:LEU:HB3	1.99	0.45
5:B:683:SER:O	5:B:687:GLU:HB2	2.16	0.45
5:B:1039:GLY:HA2	13:J:51:LEU:CD2	2.47	0.45
5:B:1076:HIS:CD2	14:K:40:HIS:CE1	3.05	0.45
6:C:256:ALA:C	6:C:258:ILE:H	2.19	0.45
7:D:220:LEU:O	7:D:221:TYR:HD1	2.00	0.45
10:G:4:ILE:O	10:G:4:ILE:HG22	2.16	0.45
10:G:22:MET:O	10:G:23:LYS:C	2.55	0.45
10:G:115:MET:CB	10:G:116:PRO:HD2	2.46	0.45
15:L:31:CYS:HB3	15:L:34:CYS:C	2.37	0.45
4:M:92:HIS:HD2	4:M:304:MET:CE	2.29	0.45
4:M:168:GLY:O	4:M:169:ASN:C	2.55	0.45
4:M:274:ILE:O	4:M:275:SER:C	2.55	0.45
4:M:335:ARG:O	4:M:336:ILE:C	2.54	0.45
4:M:355:GLY:N	4:M:482:PHE:CE1	2.86	0.45
4:M:1151:GLU:HB3	4:M:1153:TYR:HE1	1.82	0.45
5:N:123:THR:O	5:N:125:SER:N	2.49	0.45
5:N:515:HIS:O	5:N:518:HIS:HB2	2.17	0.45
5:N:806:THR:HG21	5:N:808:ALA:HB3	1.98	0.45
5:N:1034:VAL:O	5:N:1037:LEU:N	2.42	0.45
5:N:1135:ARG:O	5:N:1136:ASP:C	2.56	0.45
6:O:100:THR:HG22	6:O:101:LEU:H	1.82	0.45
11:T:123:MET:HE1	11:T:142:LEU:HD11	1.99	0.45
13:V:14:VAL:HG12	13:V:50:ILE:HD11	1.98	0.45
13:V:32:GLU:H	13:V:32:GLU:CD	2.20	0.45
4:A:224:PHE:CZ	4:A:231:PRO:HG3	2.53	0.44
4:A:253:ASN:HB3	5:B:935:ARG:NH1	2.31	0.44
4:A:506:ALA:HB1	4:A:508:PRO:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:701:LEU:HD23	12:I:115:LYS:HE3	1.99	0.44
4:A:723:ASN:C	4:A:725:ALA:N	2.71	0.44
4:A:890:ASP:H	4:A:1296:GLY:HA3	1.82	0.44
4:A:1243:VAL:HG12	4:A:1244:ARG:N	2.31	0.44
5:B:39:ARG:HG2	5:B:39:ARG:HH11	1.81	0.44
5:B:112:LEU:HD12	5:B:113:TYR:N	2.26	0.44
5:B:221:ASN:OD1	5:B:242:SER:HA	2.18	0.44
5:B:235:SER:HA	5:B:261:ARG:NH1	2.31	0.44
5:B:642:ASP:CA	5:B:649:LYS:HA	2.40	0.44
5:B:750:GLY:O	5:B:751:VAL:C	2.55	0.44
5:B:899:ILE:HD13	5:B:905:VAL:HG11	1.98	0.44
5:B:910:VAL:HG12	5:B:911:ILE:N	2.32	0.44
6:C:27:LEU:O	6:C:28:ALA:C	2.55	0.44
7:D:135:GLY:C	7:D:137:ASN:H	2.20	0.44
13:J:52:THR:O	13:J:53:HIS:C	2.55	0.44
15:L:27:LEU:HD23	15:L:27:LEU:N	2.32	0.44
4:M:108:MET:HB3	4:M:210:ILE:CD1	2.46	0.44
4:M:412:ARG:HH22	5:N:1108:ARG:HH12	1.64	0.44
4:M:474:VAL:HG22	4:M:478:TYR:CE1	2.53	0.44
4:M:475:THR:CG2	4:M:476:SER:H	2.29	0.44
4:M:500:GLU:OE2	5:N:1145:SER:N	2.49	0.44
4:M:800:VAL:HG11	4:M:808:LEU:HG	1.99	0.44
4:M:853:ASP:OD1	4:M:853:ASP:C	2.55	0.44
4:M:958:VAL:HG22	4:M:1052:GLN:HB3	1.99	0.44
4:M:1146:VAL:HG11	4:M:1207:LEU:HD12	1.99	0.44
4:M:1151:GLU:HA	12:U:44:TYR:O	2.16	0.44
5:N:579:ARG:N	5:N:589:VAL:HG13	2.31	0.44
5:N:997:GLU:H	5:N:997:GLU:CD	2.19	0.44
6:O:44:LEU:CD2	6:O:159:ALA:HB1	2.46	0.44
6:O:241:ASP:OD1	6:O:242:GLN:N	2.44	0.44
6:O:258:ILE:HD12	6:O:258:ILE:N	2.32	0.44
7:P:24:ALA:C	7:P:26:THR:N	2.70	0.44
7:P:134:THR:HG22	7:P:135:GLY:H	1.81	0.44
9:R:123:LYS:O	9:R:124:GLU:C	2.55	0.44
13:V:43:ARG:H	13:V:43:ARG:HG2	1.62	0.44
15:X:43:THR:O	15:X:43:THR:HG22	2.17	0.44
2:5:18:TT:H5R1	2:5:18:TT:H1'	1.99	0.44
4:A:248:PRO:O	4:A:260:ASP:HB2	2.17	0.44
4:A:645:LEU:O	4:A:646:PHE:C	2.55	0.44
4:A:666:ILE:HD12	4:A:667:GLY:N	2.31	0.44
4:A:1114:PRO:HB2	4:A:1311:VAL:HG23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:235:SER:O	5:B:236:HIS:HD2	2.00	0.44
5:B:579:ARG:N	5:B:589:VAL:HG13	2.30	0.44
5:B:730:ARG:O	5:B:731:VAL:O	2.34	0.44
5:B:825:VAL:HG13	5:B:826:ALA:N	2.32	0.44
5:B:1001:PHE:HD2	6:C:34:ARG:NH2	2.14	0.44
6:C:105:GLY:HA3	6:C:149:LYS:O	2.16	0.44
10:G:34:VAL:HG11	10:G:74:TYR:CE1	2.52	0.44
10:G:44:TYR:CD2	10:G:105:PRO:HB2	2.52	0.44
10:G:59:GLY:CA	10:G:70:PHE:CD2	3.00	0.44
11:H:41:ASP:OD2	11:H:122:LEU:N	2.47	0.44
15:L:40:LEU:HD22	15:L:44:ASP:CG	2.38	0.44
4:M:7:SER:CB	5:N:1175:LEU:HD22	2.47	0.44
4:M:24:PRO:HD2	4:M:233:TRP:CD1	2.52	0.44
4:M:356:ASP:C	4:M:358:ASN:H	2.20	0.44
4:M:506:ALA:O	4:M:509:LEU:HB2	2.17	0.44
4:M:1356:ILE:O	4:M:1356:ILE:HG22	2.18	0.44
4:M:1398:MET:HB2	4:M:1426:GLU:OE2	2.17	0.44
5:N:1135:ARG:O	5:N:1137:CYS:N	2.50	0.44
9:R:89:GLU:HB3	9:R:134:ILE:HD13	1.99	0.44
11:T:84:ALA:HA	11:T:87:ARG:CB	2.37	0.44
12:U:77:LYS:O	12:U:79:HIS:N	2.50	0.44
14:W:61:TYR:CD2	14:W:61:TYR:O	2.70	0.44
1:4:1:DA:C2'	1:4:2:DA:O5'	2.66	0.44
4:A:93:VAL:HG21	4:A:301:ALA:O	2.16	0.44
4:A:974:ASP:C	4:A:976:THR:H	2.21	0.44
4:A:1265:ASN:O	4:A:1267:MET:N	2.50	0.44
4:A:1349:TYR:CA	4:A:1372:VAL:HG21	2.47	0.44
5:B:332:ASP:OD1	5:B:336:ARG:NE	2.51	0.44
5:B:370:PHE:HE2	5:B:373:ARG:NH1	2.16	0.44
5:B:376:PHE:HE2	5:B:569:TYR:HD2	1.64	0.44
5:B:616:ILE:N	5:B:616:ILE:CD1	2.78	0.44
5:B:762:ASN:OD1	5:B:1024:ALA:HB3	2.17	0.44
5:B:807:ARG:O	5:B:811:TYR:HE1	1.99	0.44
5:B:955:THR:HG23	15:L:54:ARG:O	2.17	0.44
5:B:1182:CYS:O	5:B:1183:LYS:C	2.55	0.44
7:D:53:SER:CB	7:D:153:ARG:H	2.31	0.44
10:G:18:PHE:HA	10:G:22:MET:CE	2.47	0.44
10:G:96:GLN:HB3	10:G:121:PHE:CE2	2.53	0.44
4:M:12:ARG:HD2	5:N:1218:THR:HB	1.98	0.44
4:M:90:VAL:HG11	4:M:297:GLN:HA	1.97	0.44
4:M:172:PRO:HB3	4:M:185:TRP:CD2	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:577:ILE:O	4:M:578:LEU:C	2.55	0.44
4:M:711:ARG:NH2	12:U:87:GLN:OE1	2.50	0.44
4:M:971:PHE:HE2	4:M:1040:GLN:HG2	1.78	0.44
4:M:1325:THR:O	4:M:1325:THR:CG2	2.65	0.44
5:N:128:LEU:HB2	5:N:168:GLY:O	2.18	0.44
5:N:388:CYS:C	5:N:390:LEU:N	2.71	0.44
5:N:778:MET:HE2	5:N:1094:ARG:CG	2.45	0.44
5:N:1084:GLN:OE1	6:O:189:THR:CG2	2.65	0.44
6:O:47:ASP:CA	15:X:69:ALA:CB	2.92	0.44
6:O:73:GLN:NE2	6:O:74:SER:H	2.15	0.44
7:P:64:VAL:O	7:P:66:ARG:N	2.51	0.44
8:Q:73:PRO:O	8:Q:75:MET:N	2.47	0.44
8:Q:136:ASN:OD1	8:Q:137:GLU:N	2.51	0.44
10:S:3:PHE:CE1	10:S:80:LYS:HE2	2.53	0.44
11:T:84:ALA:C	11:T:86:ASP:N	2.70	0.44
2:5:24:DG:OP1	5:N:857:ARG:NH2	2.50	0.44
4:A:35:ILE:CD1	4:A:241:VAL:HG21	2.46	0.44
4:A:285:PRO:O	4:A:287:HIS:N	2.50	0.44
4:A:562:THR:HB	11:H:98:TYR:CD2	2.53	0.44
4:A:914:GLU:HB2	4:A:979:SER:O	2.17	0.44
4:A:1437:GLY:CA	9:F:88:TYR:CD2	3.01	0.44
5:B:953:LEU:HD23	5:B:965:LYS:H	1.82	0.44
5:B:979:LYS:HG2	5:B:1095:LEU:CD1	2.47	0.44
5:B:1084:GLN:C	5:B:1085:ILE:HD12	2.38	0.44
6:C:55:THR:O	6:C:55:THR:HG22	2.16	0.44
6:C:89:GLU:O	6:C:90:ASP:HB3	2.18	0.44
8:E:30:ILE:HG22	8:E:31:THR:N	2.31	0.44
8:E:205:SER:O	8:E:206:GLY:C	2.56	0.44
10:G:23:LYS:HG3	10:G:56:ILE:HD12	1.95	0.44
10:G:114:LEU:HG	10:G:162:SER:HB3	1.99	0.44
11:H:40:LEU:HD22	11:H:123:MET:HE2	1.99	0.44
4:M:34:LYS:H	4:M:57:ARG:HH21	1.62	0.44
4:M:172:PRO:HD3	4:M:185:TRP:NE1	2.32	0.44
4:M:241:VAL:O	4:M:241:VAL:HG12	2.16	0.44
4:M:549:MET:SD	4:M:577:ILE:CD1	3.04	0.44
4:M:647:GLY:O	4:M:651:LYS:HG3	2.16	0.44
4:M:695:LYS:C	4:M:697:ALA:N	2.71	0.44
4:M:738:LYS:C	4:M:740:LEU:H	2.21	0.44
4:M:981:LEU:HD21	4:M:1038:THR:C	2.37	0.44
4:M:1013:ASP:O	4:M:1015:VAL:N	2.50	0.44
4:M:1336:MET:HE2	4:M:1381:LEU:HG	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:189:LEU:O	5:N:190:TYR:C	2.56	0.44
5:N:189:LEU:O	5:N:192:LEU:HB2	2.17	0.44
5:N:251:ILE:HG22	5:N:251:ILE:O	2.17	0.44
5:N:298:LEU:HD23	5:N:298:LEU:H	1.82	0.44
5:N:314:LEU:O	5:N:317:CYS:HB3	2.17	0.44
5:N:400:HIS:O	5:N:402:GLY:N	2.51	0.44
5:N:777:ALA:HB1	5:N:1093:GLN:HB3	2.00	0.44
5:N:1084:GLN:C	5:N:1085:ILE:HD12	2.36	0.44
6:O:209:TYR:CD1	6:O:209:TYR:N	2.85	0.44
10:S:31:LEU:HD22	10:S:48:VAL:HG21	1.99	0.44
12:U:56:ALA:O	12:U:57:GLY:O	2.36	0.44
14:W:58:PHE:HB3	14:W:76:GLN:HB3	1.99	0.44
4:A:19:PHE:HB3	4:A:1413:GLY:HA2	1.99	0.44
4:A:252:PHE:HB2	4:A:256:GLN:CD	2.37	0.44
4:A:404:TYR:HB2	4:A:433:GLU:HB2	1.98	0.44
4:A:839:ARG:O	4:A:840:ARG:C	2.55	0.44
4:A:901:LEU:HG	4:A:926:GLN:NE2	2.22	0.44
4:A:1396:ALA:O	4:A:1397:LEU:C	2.56	0.44
5:B:361:LEU:N	5:B:362:PRO:CD	2.81	0.44
5:B:378:LEU:CD1	5:B:382:ILE:HD11	2.48	0.44
5:B:1110:PRO:HB2	5:B:1119:VAL:CG2	2.48	0.44
6:C:11:ARG:HD3	6:C:209:TYR:CE2	2.51	0.44
6:C:246:ARG:HA	6:C:249:ASP:HB3	1.99	0.44
8:E:35:VAL:O	8:E:37:LEU:N	2.51	0.44
9:F:77:ASP:C	9:F:79:ARG:N	2.70	0.44
4:M:653:VAL:O	4:M:654:ASN:C	2.55	0.44
4:M:779:PHE:O	4:M:780:VAL:C	2.56	0.44
4:M:888:GLY:O	4:M:940:ARG:NH2	2.50	0.44
5:N:39:ARG:HH21	5:N:665:GLU:CG	2.30	0.44
5:N:654:ARG:N	5:N:657:HIS:HD2	2.04	0.44
8:Q:134:THR:C	8:Q:135:PHE:HD1	2.21	0.44
9:R:89:GLU:HB3	9:R:134:ILE:CD1	2.46	0.44
13:V:1:MET:H3	13:V:56:LEU:N	2.16	0.44
13:V:56:LEU:O	13:V:59:LYS:N	2.46	0.44
2:2:10:DA:H2"	2:2:11:DG:OP2	2.17	0.44
4:A:299:HIS:C	4:A:301:ALA:N	2.70	0.44
4:A:575:LYS:NZ	4:A:615:GLY:H	2.16	0.44
4:A:1053:PHE:O	4:A:1055:ARG:N	2.49	0.44
4:A:1409:LEU:O	4:A:1412:ALA:HB3	2.17	0.44
5:B:113:TYR:CD2	5:B:192:LEU:HD22	2.53	0.44
5:B:123:THR:O	5:B:125:SER:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:180:TYR:CD1	5:B:180:TYR:N	2.81	0.44
5:B:263:GLY:O	5:B:264:SER:C	2.56	0.44
5:B:486:TYR:CZ	5:B:1096:ARG:HB3	2.49	0.44
5:B:654:ARG:C	5:B:656:GLY:N	2.70	0.44
5:B:654:ARG:N	5:B:657:HIS:HD2	2.05	0.44
5:B:763:GLN:HG2	5:B:765:PRO:HD2	1.99	0.44
5:B:842:ASN:ND2	5:B:845:SER:CB	2.78	0.44
5:B:983:ARG:HD2	5:B:1091:TYR:CD2	2.48	0.44
5:B:1033:LYS:NZ	5:B:1068:GLY:O	2.50	0.44
7:D:18:VAL:O	7:D:19:GLU:HB3	2.18	0.44
9:F:86:THR:HG23	9:F:89:GLU:OE1	2.17	0.44
12:I:8:ARG:CG	12:I:34:TYR:HE1	2.18	0.44
12:I:12:ASN:HB3	12:I:13:MET:H	1.56	0.44
4:M:220:THR:O	4:M:221:SER:C	2.54	0.44
4:M:341:MET:HE2	4:M:843:LYS:NZ	2.33	0.44
4:M:443:LEU:O	4:M:489:LEU:HD12	2.17	0.44
4:M:472:LEU:CD1	5:N:835:GLN:CD	2.85	0.44
4:M:784:LEU:HB3	4:M:785:PRO:HD2	2.00	0.44
4:M:845:LEU:HD22	4:M:1374:VAL:HG21	2.00	0.44
4:M:1120:LEU:CD1	4:M:1304:TRP:O	2.65	0.44
5:N:54:PHE:O	5:N:58:THR:HB	2.17	0.44
5:N:168:GLY:HA2	5:N:454:THR:OG1	2.18	0.44
5:N:219:ALA:HB2	5:N:405:ARG:NH1	2.33	0.44
5:N:744:HIS:HD2	5:N:746:SER:CB	2.30	0.44
5:N:859:TYR:CD1	5:N:859:TYR:N	2.86	0.44
5:N:899:ILE:HD13	5:N:905:VAL:HG11	1.99	0.44
5:N:1187:ASN:O	5:N:1188:LYS:CB	2.52	0.44
4:A:34:LYS:N	4:A:57:ARG:NH2	2.62	0.44
4:A:399:HIS:CG	4:A:400:PRO:N	2.82	0.44
4:A:767:GLN:HE21	4:A:774:ARG:HB3	1.83	0.44
4:A:1260:LEU:O	4:A:1260:LEU:CG	2.65	0.44
5:B:309:GLN:CD	12:I:52:ILE:HD11	2.36	0.44
5:B:559:SER:HA	5:B:563:MET:HB3	1.99	0.44
5:B:603:LEU:HB3	5:B:609:ILE:HG13	1.99	0.44
7:D:187:THR:HG22	7:D:188:ALA:H	1.82	0.44
7:D:192:LYS:HE3	7:D:204:ASP:OD1	2.17	0.44
11:H:84:ALA:C	11:H:86:ASP:N	2.71	0.44
11:H:127:GLY:O	11:H:128:ASN:CB	2.66	0.44
4:M:207:ILE:O	4:M:208:LEU:C	2.56	0.44
4:M:349:ALA:HB1	4:M:370:ILE:HD13	2.00	0.44
4:M:353:ILE:HD13	4:M:487:MET:CE	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:826:ASP:HB2	4:M:830:LYS:HD3	2.00	0.44
4:M:939:ASP:OD1	4:M:1023:ARG:NH1	2.51	0.44
4:M:1074:GLU:N	4:M:1075:PRO:HD2	2.32	0.44
4:M:1118:VAL:O	4:M:1305:VAL:HG13	2.18	0.44
5:N:27:ALA:C	5:N:29:ASP:H	2.21	0.44
5:N:254:LEU:HD23	5:N:381:MET:CE	2.47	0.44
5:N:597:MET:O	5:N:600:LEU:N	2.47	0.44
5:N:789:MET:HE2	5:N:953:LEU:HD22	1.98	0.44
5:N:990:ILE:CG2	5:N:991:GLY:N	2.81	0.44
6:O:105:GLY:HA3	6:O:149:LYS:O	2.17	0.44
10:S:39:THR:O	10:S:43:GLY:HA2	2.17	0.44
10:S:83:LYS:HE2	10:S:150:CYS:H	1.83	0.44
11:T:12:VAL:HA	11:T:28:ALA:HB2	1.99	0.44
13:V:57:ILE:HA	13:V:60:PHE:CD2	2.48	0.44
4:A:250:ILE:O	4:A:258:GLY:HA3	2.18	0.44
4:A:567:LYS:HG3	4:A:568:PRO:CD	2.45	0.44
4:A:981:LEU:HD21	4:A:1038:THR:C	2.37	0.44
5:B:34:ILE:O	5:B:37:PHE:N	2.51	0.44
5:B:802:PRO:HB3	5:B:1091:TYR:CD2	2.53	0.44
5:B:936:ASP:OD1	5:B:937:ALA:N	2.50	0.44
4:M:244:PRO:CB	4:M:245:PRO:CD	2.95	0.44
4:M:1116:LEU:CB	4:M:1308:THR:HG21	2.46	0.44
5:N:798:TYR:CE2	6:O:62:PHE:HE2	2.36	0.44
5:N:860:MET:CG	5:N:861:ASP:N	2.80	0.44
5:N:1064:TYR:O	5:N:1065:GLN:C	2.56	0.44
5:N:1130:PHE:HZ	5:N:1138:MET:HG2	1.83	0.44
7:P:52:LEU:C	7:P:54:GLU:N	2.68	0.44
10:S:112:LYS:NZ	10:S:120:THR:HA	2.33	0.44
10:S:115:MET:CB	10:S:116:PRO:CD	2.96	0.44
13:V:53:HIS:NE2	13:V:55:ASP:HA	2.33	0.44
13:V:57:ILE:HG23	13:V:58:GLU:N	2.32	0.44
14:W:78:THR:O	14:W:81:TYR:HB3	2.18	0.44
15:X:27:LEU:N	15:X:27:LEU:HD23	2.33	0.44
2:2:21:DC:H2'	2:2:22:BRU:BR	2.73	0.44
4:A:98:LYS:O	4:A:100:LYS:N	2.50	0.44
4:A:1199:ARG:O	4:A:1202:MET:HB2	2.18	0.44
4:A:1431:GLY:HA3	5:B:1152:MET:SD	2.58	0.44
5:B:273:LEU:HD12	5:B:280:ILE:HD12	2.00	0.44
5:B:310:MET:O	5:B:313:MET:HB2	2.18	0.44
5:B:360:PHE:O	5:B:361:LEU:C	2.55	0.44
10:G:49:LEU:HD21	10:G:77:VAL:HG23	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:123:MET:HE3	11:H:142:LEU:HD22	2.00	0.44
12:I:61:ASP:C	12:I:63:GLY:N	2.71	0.44
13:J:41:LEU:N	13:J:41:LEU:HD23	2.32	0.44
4:M:91:PHE:HB2	4:M:297:GLN:NE2	2.33	0.44
4:M:289:ILE:C	4:M:291:GLU:N	2.71	0.44
4:M:535:THR:CG2	4:M:575:LYS:HE2	2.47	0.44
4:M:1227:ILE:CG2	4:M:1228:TRP:N	2.80	0.44
5:N:242:SER:HB2	5:N:362:PRO:HG2	1.99	0.44
5:N:259:TYR:HD1	5:N:259:TYR:N	2.15	0.44
5:N:616:ILE:N	5:N:616:ILE:CD1	2.77	0.44
5:N:877:PRO:C	5:N:878:GLN:HG3	2.38	0.44
6:O:104:PHE:HD2	6:O:105:GLY:H	1.64	0.44
7:P:153:ARG:C	7:P:154:PHE:CD1	2.91	0.44
4:A:7:SER:CB	5:B:1175:LEU:HD22	2.48	0.43
4:A:63:ARG:HA	4:A:74:MET:HE2	1.99	0.43
4:A:374:LEU:HD13	4:A:491:VAL:CG2	2.48	0.43
4:A:452:LYS:HE2	4:A:452:LYS:HB3	1.79	0.43
4:A:472:LEU:O	4:A:475:THR:CB	2.63	0.43
4:A:527:THR:O	4:A:653:VAL:HG11	2.18	0.43
4:A:845:LEU:O	4:A:846:GLU:O	2.35	0.43
4:A:886:ILE:HG13	4:A:943:LEU:CD1	2.47	0.43
5:B:458:LYS:O	5:B:459:TYR:C	2.55	0.43
5:B:899:ILE:HG21	5:B:949:VAL:HG21	1.99	0.43
6:C:86:CYS:O	6:C:88:CYS:N	2.51	0.43
6:C:100:THR:HG22	6:C:101:LEU:H	1.82	0.43
7:D:51:ASN:C	7:D:52:LEU:O	2.53	0.43
8:E:48:ASP:CG	8:E:49:SER:N	2.71	0.43
9:F:143:PHE:C	9:F:143:PHE:HD1	2.20	0.43
11:H:31:THR:O	11:H:31:THR:HG22	2.17	0.43
12:I:69:PRO:HB2	12:I:85:PHE:CE2	2.53	0.43
14:K:78:THR:O	14:K:81:TYR:HB3	2.18	0.43
4:M:344:ARG:C	4:M:345:VAL:CG1	2.84	0.43
4:M:452:LYS:HE2	4:M:452:LYS:HB3	1.84	0.43
4:M:907:THR:HG22	4:M:908:LEU:N	2.31	0.43
4:M:1036:ARG:HH11	4:M:1036:ARG:CG	2.28	0.43
4:M:1215:ARG:HD2	4:M:1215:ARG:HA	1.75	0.43
4:M:1277:GLU:C	4:M:1279:ILE:H	2.21	0.43
4:M:1327:ILE:HG22	8:Q:147:HIS:HE1	1.82	0.43
4:M:1385:THR:O	4:M:1388:GLY:N	2.49	0.43
5:N:294:ASP:C	5:N:296:GLU:H	2.20	0.43
5:N:309:GLN:CG	12:U:52:ILE:HD11	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:449:ASN:O	5:N:451:LYS:N	2.51	0.43
5:N:800:GLN:CB	13:V:52:THR:HG22	2.47	0.43
5:N:1081:LEU:HD12	5:N:1085:ILE:HD11	2.00	0.43
7:P:18:VAL:O	7:P:19:GLU:HB3	2.18	0.43
8:Q:60:PHE:CE2	8:Q:80:VAL:HB	2.52	0.43
9:R:77:ASP:C	9:R:79:ARG:N	2.71	0.43
12:U:51:ASN:O	12:U:54:GLU:HG3	2.17	0.43
13:V:3:VAL:HG21	13:V:18:TRP:CG	2.53	0.43
15:X:58:LYS:O	15:X:59:ALA:O	2.35	0.43
4:A:23:SER:CB	4:A:233:TRP:NE1	2.80	0.43
4:A:93:VAL:CG1	4:A:301:ALA:HB1	2.36	0.43
4:A:114:LEU:O	4:A:115:LEU:HG	2.18	0.43
4:A:341:MET:CE	5:B:1135:ARG:NH1	2.80	0.43
4:A:873:MET:HG2	4:A:957:PRO:HB3	2.00	0.43
4:A:1059:HIS:CE1	9:F:87:LYS:H	2.36	0.43
5:B:222:ILE:O	5:B:240:ILE:HA	2.18	0.43
5:B:336:ARG:NH2	5:B:345:LYS:CE	2.75	0.43
5:B:900:ALA:HB3	15:L:61:THR:OG1	2.18	0.43
5:B:1060:ARG:C	5:B:1062:HIS:H	2.21	0.43
6:C:8:VAL:HG12	6:C:9:LYS:N	2.33	0.43
6:C:62:PHE:O	6:C:66:ARG:HG3	2.17	0.43
7:D:119:ARG:HG2	7:D:120:GLU:N	2.32	0.43
7:D:153:ARG:C	7:D:154:PHE:CD1	2.92	0.43
7:D:177:VAL:O	7:D:177:VAL:HG12	2.17	0.43
9:F:99:LEU:O	9:F:99:LEU:HD12	2.18	0.43
11:H:24:CYS:HB2	11:H:44:VAL:HG21	1.99	0.43
4:M:334:GLY:O	4:M:335:ARG:C	2.56	0.43
4:M:449:SER:O	5:N:1133:MET:HB3	2.19	0.43
4:M:546:VAL:HG21	4:M:572:TRP:HB2	2.00	0.43
4:M:562:THR:HB	11:T:98:TYR:CD2	2.52	0.43
4:M:701:LEU:HD23	12:U:115:LYS:HE3	1.99	0.43
4:M:728:LYS:HA	4:M:731:ARG:HB2	2.00	0.43
4:M:1397:LEU:HB2	4:M:1426:GLU:OE1	2.18	0.43
5:N:96:TYR:HE1	5:N:131:ASP:OD2	2.00	0.43
5:N:235:SER:C	5:N:236:HIS:HD2	2.22	0.43
5:N:293:PRO:HG2	5:N:296:GLU:HB2	2.00	0.43
5:N:597:MET:O	5:N:599:THR:N	2.51	0.43
5:N:707:PRO:O	5:N:711:GLU:HG3	2.18	0.43
5:N:957:ASN:O	5:N:960:GLY:N	2.50	0.43
5:N:1060:ARG:C	5:N:1062:HIS:H	2.22	0.43
6:O:31:ASN:O	6:O:34:ARG:HB3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:O:74:SER:HB2	6:O:77:ILE:CG1	2.47	0.43
6:O:146:LYS:C	6:O:147:LEU:HD23	2.39	0.43
6:O:254:LYS:C	6:O:256:ALA:N	2.71	0.43
7:P:40:HIS:CB	10:S:73:LYS:HZ2	2.31	0.43
8:Q:92:THR:O	8:Q:92:THR:HG22	2.18	0.43
8:Q:177:ARG:HG2	8:Q:213:ILE:HG22	1.99	0.43
10:S:22:MET:O	10:S:23:LYS:C	2.56	0.43
10:S:80:LYS:O	10:S:82:PHE:CE1	2.70	0.43
2:2:12:DT:H1'	2:2:13:DA:H5'	1.99	0.43
2:5:15:DT:C2'	2:5:16:DT:H71	2.45	0.43
4:A:263:THR:HG22	4:A:263:THR:O	2.17	0.43
4:A:335:ARG:O	4:A:336:ILE:C	2.54	0.43
4:A:626:ASN:C	4:A:628:GLY:H	2.21	0.43
4:A:1118:VAL:O	4:A:1305:VAL:HG13	2.17	0.43
5:B:34:ILE:O	5:B:35:SER:C	2.57	0.43
5:B:802:PRO:HA	5:B:822:ASN:HD21	1.83	0.43
5:B:834:ASN:CA	5:B:838:SER:O	2.66	0.43
5:B:978:ASP:O	5:B:989:THR:HB	2.18	0.43
6:C:70:ILE:O	6:C:70:ILE:HG22	2.17	0.43
6:C:77:ILE:C	6:C:79:GLN:H	2.21	0.43
8:E:42:PHE:HZ	8:E:58:MET:HE1	1.83	0.43
8:E:90:VAL:O	8:E:90:VAL:HG22	2.18	0.43
8:E:114:ASN:O	8:E:115:ASN:CB	2.63	0.43
8:E:131:THR:HG21	8:E:191:LYS:NZ	2.34	0.43
11:H:43:ASN:OD1	11:H:46:LEU:HG	2.18	0.43
14:K:55:LYS:CB	14:K:81:TYR:HE1	2.31	0.43
14:K:82:ASP:OD1	14:K:84:LYS:N	2.47	0.43
15:L:30:ILE:HD11	15:L:59:ALA:HB2	2.00	0.43
15:L:40:LEU:HD22	15:L:44:ASP:CB	2.47	0.43
4:M:299:HIS:C	4:M:301:ALA:H	2.21	0.43
4:M:701:LEU:HD23	12:U:115:LYS:HG3	1.99	0.43
4:M:817:ALA:HA	5:N:764:SER:OG	2.18	0.43
4:M:890:ASP:H	4:M:1296:GLY:HA3	1.83	0.43
5:N:205:ILE:O	5:N:206:ASN:C	2.57	0.43
5:N:372:SER:O	5:N:376:PHE:HD1	2.01	0.43
5:N:387:LEU:O	5:N:392:ARG:HB2	2.18	0.43
5:N:900:ALA:HB3	15:X:61:THR:OG1	2.18	0.43
6:O:22:LEU:CD2	6:O:25:VAL:HG21	2.48	0.43
7:P:29:LEU:HD22	10:S:82:PHE:CD2	2.53	0.43
7:P:192:LYS:NZ	7:P:192:LYS:CB	2.81	0.43
10:S:20:PRO:CD	10:S:21:ARG:H	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:113:ALA:HB1	11:T:125:LEU:O	2.18	0.43
13:V:53:HIS:CD2	13:V:53:HIS:C	2.90	0.43
4:A:47:ARG:O	4:A:48:ALA:HB2	2.18	0.43
4:A:49:LYS:HZ1	4:A:61:ILE:CG1	2.29	0.43
4:A:53:LEU:CD2	4:A:54:ASN:N	2.55	0.43
4:A:77:CYS:O	4:A:78:PRO:O	2.37	0.43
4:A:78:PRO:HA	5:B:1201:LYS:NZ	2.33	0.43
4:A:89:PRO:HB3	4:A:208:LEU:HD12	2.00	0.43
4:A:365:GLY:O	4:A:468:PHE:HA	2.19	0.43
4:A:601:LYS:HB2	4:A:603:ASN:HD21	1.83	0.43
4:A:767:GLN:HA	4:A:799:PHE:HA	1.99	0.43
4:A:857:ARG:HD3	4:A:861:GLY:O	2.18	0.43
4:A:867:ILE:CG2	4:A:872:GLY:N	2.81	0.43
4:A:1157:ASP:C	4:A:1159:ARG:H	2.21	0.43
4:A:1365:TYR:O	4:A:1367:HIS:N	2.50	0.43
4:A:1401:SER:O	4:A:1402:PHE:CB	2.67	0.43
5:B:603:LEU:HB3	5:B:609:ILE:CD1	2.48	0.43
5:B:1013:ASN:OD1	5:B:1015:HIS:N	2.39	0.43
6:C:193:TYR:HD2	6:C:197:SER:HB3	1.83	0.43
7:D:59:ILE:O	7:D:60:LYS:C	2.57	0.43
7:D:167:LEU:HB3	7:D:177:VAL:HG13	2.00	0.43
8:E:197:LYS:HE2	8:E:199:ILE:HD11	2.00	0.43
8:E:198:ILE:HD11	8:E:212:ARG:CG	2.40	0.43
11:H:10:PHE:CE1	11:H:57:VAL:HB	2.53	0.43
13:J:43:ARG:H	13:J:43:ARG:HG2	1.65	0.43
4:M:679:ILE:O	4:M:682:THR:N	2.51	0.43
4:M:821:ARG:HD2	4:M:825:ILE:HD11	2.01	0.43
4:M:862:ASN:O	4:M:864:ILE:HG13	2.18	0.43
4:M:1066:VAL:O	4:M:1070:GLN:HG3	2.18	0.43
4:M:1076:ALA:HA	4:M:1079:MET:HE3	2.00	0.43
4:M:1150:SER:HA	4:M:1195:LEU:HD23	1.99	0.43
4:M:1377:THR:O	4:M:1378:GLN:C	2.56	0.43
4:M:1409:LEU:HD23	4:M:1409:LEU:HA	1.83	0.43
5:N:295:GLY:O	5:N:299:GLU:HG3	2.18	0.43
5:N:936:ASP:OD1	5:N:937:ALA:N	2.52	0.43
7:P:170:THR:HG21	7:P:172:LEU:CD1	2.48	0.43
10:S:1:MET:O	10:S:3:PHE:HD1	1.99	0.43
10:S:1:MET:HE1	10:S:80:LYS:H	1.82	0.43
10:S:139:ILE:HG22	10:S:140:LYS:N	2.34	0.43
11:T:80:ARG:HA	11:T:81:PRO:HD3	1.72	0.43
11:T:98:TYR:C	11:T:118:PHE:HD2	2.21	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:U:59:VAL:C	12:U:61:ASP:H	2.21	0.43
14:W:90:ALA:O	14:W:94:ILE:HG13	2.19	0.43
4:A:113:LEU:HG	4:A:218:ASP:OD1	2.18	0.43
4:A:244:PRO:O	4:A:245:PRO:C	2.56	0.43
4:A:262:LEU:C	4:A:264:PHE:N	2.72	0.43
4:A:274:ILE:O	4:A:275:SER:C	2.57	0.43
4:A:573:SER:O	4:A:576:GLN:HB2	2.18	0.43
4:A:852:TYR:HA	4:A:1060:PRO:HB3	2.00	0.43
4:A:868:TYR:HE1	4:A:1064:VAL:HG11	1.75	0.43
4:A:1215:ARG:HA	4:A:1218:GLN:HG2	1.99	0.43
4:A:1305:VAL:CG1	4:A:1306:LEU:N	2.81	0.43
4:A:1412:ALA:HA	4:A:1417:GLU:OE2	2.19	0.43
4:A:1450:LEU:HD11	9:F:108:PHE:CZ	2.53	0.43
5:B:583:ASN:HD21	5:B:628:THR:HB	1.83	0.43
5:B:1040:ASN:O	5:B:1041:GLU:C	2.56	0.43
5:B:1065:GLN:HE21	5:B:1066:SER:N	2.15	0.43
5:B:1167:GLY:O	5:B:1215:ARG:HA	2.19	0.43
6:C:184:ASN:ND2	6:C:187:LYS:HA	2.34	0.43
8:E:46:TYR:CE2	8:E:58:MET:HA	2.53	0.43
10:G:109:PHE:O	10:G:160:ILE:HA	2.18	0.43
11:H:95:TYR:HE2	11:H:97:MET:CG	2.32	0.43
11:H:128:ASN:O	11:H:128:ASN:OD1	2.36	0.43
4:M:49:LYS:NZ	4:M:60:SER:HA	2.34	0.43
4:M:58:LEU:HD11	4:M:243:PRO:HB2	2.01	0.43
4:M:384:ASN:CG	4:M:388:LEU:HD12	2.39	0.43
4:M:783:THR:CG2	4:M:815:PHE:CE2	3.02	0.43
4:M:907:THR:HG22	4:M:908:LEU:O	2.18	0.43
4:M:1053:PHE:O	4:M:1055:ARG:N	2.51	0.43
4:M:1171:GLN:HA	4:M:1174:PHE:HD1	1.81	0.43
4:M:1199:ARG:O	4:M:1202:MET:HB2	2.18	0.43
4:M:1220:PHE:O	4:M:1221:LYS:HB2	2.18	0.43
5:N:386:LEU:O	5:N:387:LEU:C	2.56	0.43
5:N:824:ILE:CG2	5:N:1087:PHE:CE2	2.90	0.43
5:N:1155:SER:OG	5:N:1156:ASP:N	2.51	0.43
13:V:2:ILE:CG2	13:V:3:VAL:N	2.80	0.43
4:A:71:GLN:C	4:A:73:GLY:N	2.70	0.43
4:A:339:ASN:O	4:A:343:LYS:HG2	2.18	0.43
4:A:384:ASN:CG	4:A:388:LEU:HD12	2.39	0.43
4:A:466:SER:HB3	5:B:1103:ILE:HG12	2.00	0.43
4:A:603:ASN:O	4:A:604:GLY:C	2.56	0.43
4:A:639:PRO:CG	4:A:640:GLN:N	2.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:652:VAL:O	4:A:653:VAL:C	2.56	0.43
4:A:1027:ALA:O	4:A:1031:VAL:HG23	2.19	0.43
4:A:1227:ILE:CG2	4:A:1228:TRP:N	2.81	0.43
4:A:1343:ALA:HB2	8:E:150:VAL:CG2	2.45	0.43
4:A:1444:MET:O	9:F:133:VAL:N	2.49	0.43
5:B:39:ARG:HG2	5:B:39:ARG:NH1	2.33	0.43
5:B:95:ILE:HG13	5:B:130:VAL:CG2	2.49	0.43
5:B:122:LEU:C	5:B:123:THR:HG1	2.22	0.43
5:B:193:LYS:NZ	15:L:32:ALA:HB1	2.33	0.43
5:B:276:ILE:HD13	5:B:334:ILE:HG23	2.01	0.43
5:B:483:LEU:CD1	5:B:491:THR:HG23	2.37	0.43
5:B:558:LEU:O	5:B:561:TRP:N	2.50	0.43
5:B:903:VAL:HG12	5:B:904:ARG:N	2.34	0.43
6:C:239:PRO:O	6:C:240:VAL:C	2.56	0.43
7:D:7:THR:HG21	7:D:32:GLU:OE2	2.19	0.43
9:F:88:TYR:CD1	9:F:88:TYR:N	2.85	0.43
11:H:83:GLN:O	11:H:85:GLY:N	2.52	0.43
11:H:95:TYR:CE2	11:H:97:MET:CG	3.02	0.43
12:I:55:THR:HG22	12:I:55:THR:O	2.18	0.43
13:J:53:HIS:NE2	13:J:55:ASP:HA	2.34	0.43
14:K:52:ASN:O	14:K:53:ASP:C	2.57	0.43
15:L:29:TYR:CD2	15:L:29:TYR:N	2.85	0.43
4:M:61:ILE:HG22	4:M:62:ASP:N	2.28	0.43
4:M:218:ASP:O	4:M:219:PHE:C	2.57	0.43
4:M:351:THR:CG2	5:N:1103:ILE:HD12	2.48	0.43
4:M:547:LEU:HD13	14:W:58:PHE:CD1	2.53	0.43
4:M:687:LYS:O	4:M:690:VAL:HB	2.19	0.43
4:M:699:ALA:HB2	12:U:114:GLN:CD	2.39	0.43
4:M:738:LYS:H	4:M:738:LYS:HG3	1.56	0.43
4:M:1010:ALA:O	4:M:1011:GLN:C	2.56	0.43
4:M:1219:THR:HG21	4:M:1271:ILE:HG13	1.99	0.43
4:M:1342:GLU:HG3	8:Q:198:ILE:HD13	2.00	0.43
5:N:339:THR:O	5:N:339:THR:CG2	2.66	0.43
5:N:1017:ILE:HG22	5:N:1018:PRO:N	2.33	0.43
6:O:123:ASN:ND2	6:O:125:MET:SD	2.92	0.43
6:O:246:ARG:HA	6:O:249:ASP:HB3	1.99	0.43
8:Q:191:LYS:O	8:Q:192:ARG:C	2.56	0.43
12:U:8:ARG:O	12:U:10:CYS:N	2.52	0.43
12:U:69:PRO:HG2	12:U:85:PHE:CE2	2.53	0.43
2:2:26:DC:H1'	2:2:27:DA:H5'	2.01	0.43
4:A:26:GLU:O	4:A:27:VAL:C	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:224:PHE:CE2	4:A:231:PRO:HA	2.54	0.43
4:A:666:ILE:CD1	4:A:667:GLY:N	2.82	0.43
4:A:845:LEU:HD22	4:A:1374:VAL:HG21	2.00	0.43
5:B:205:ILE:O	5:B:206:ASN:C	2.57	0.43
5:B:294:ASP:O	5:B:296:GLU:N	2.48	0.43
5:B:358:LYS:HA	5:B:366:GLN:HB3	2.01	0.43
5:B:591:ARG:O	5:B:593:PRO:HD3	2.19	0.43
5:B:604:ARG:O	5:B:606:LYS:N	2.52	0.43
5:B:1216:LEU:N	5:B:1216:LEU:HD23	2.34	0.43
6:C:213:PRO:O	6:C:214:ASN:CB	2.65	0.43
7:D:176:GLU:HG2	7:D:197:SER:OG	2.19	0.43
8:E:136:ASN:OD1	8:E:137:GLU:N	2.52	0.43
8:E:153:HIS:O	8:E:154:ILE:CG1	2.66	0.43
10:G:87:VAL:CG2	10:G:103:VAL:HG21	2.48	0.43
4:M:34:LYS:HD3	4:M:34:LYS:N	2.34	0.43
4:M:244:PRO:HG2	4:M:245:PRO:CD	2.47	0.43
4:M:940:ARG:HG2	4:M:940:ARG:HH11	1.84	0.43
4:M:1116:LEU:HB3	4:M:1308:THR:CG2	2.49	0.43
4:M:1157:ASP:C	4:M:1159:ARG:H	2.22	0.43
5:N:30:SER:HB3	5:N:743:ILE:O	2.19	0.43
5:N:45:SER:O	5:N:46:GLN:C	2.56	0.43
5:N:258:LEU:HB2	5:N:385:LEU:HD21	2.01	0.43
5:N:1010:LEU:HD12	5:N:1010:LEU:HA	1.78	0.43
5:N:1029:CYS:SG	5:N:1086:PHE:CE2	3.11	0.43
5:N:1074:ASN:HB2	5:N:1081:LEU:HD21	1.99	0.43
5:N:1095:LEU:H	5:N:1095:LEU:CD1	2.23	0.43
6:O:8:VAL:HG12	6:O:9:LYS:N	2.34	0.43
6:O:27:LEU:HD13	6:O:228:PHE:HE2	1.83	0.43
6:O:226:ASP:O	6:O:227:THR:CB	2.60	0.43
7:P:151:PHE:N	7:P:151:PHE:CD1	2.86	0.43
7:P:153:ARG:HH22	7:P:184:ALA:HA	1.82	0.43
11:T:82:PRO:O	11:T:83:GLN:HB2	2.19	0.43
1:1:1:DA:C1'	1:1:2:DA:C5'	2.90	0.43
4:A:89:PRO:C	4:A:204:THR:HG21	2.39	0.43
4:A:244:PRO:HG2	4:A:245:PRO:HD3	2.00	0.43
4:A:464:PRO:HG2	4:A:465:TYR:CD1	2.54	0.43
4:A:618:GLU:O	4:A:619:LYS:C	2.57	0.43
4:A:650:GLN:HB3	4:A:654:ASN:HD21	1.84	0.43
4:A:679:ILE:O	4:A:682:THR:N	2.50	0.43
4:A:767:GLN:HB2	4:A:799:PHE:HD1	1.82	0.43
4:A:855:THR:HG23	4:A:857:ARG:CG	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:343:ILE:HB	5:B:348:ARG:HG3	1.98	0.43
5:B:862:GLN:CG	5:B:963:PHE:HD1	2.32	0.43
5:B:1065:GLN:NE2	5:B:1067:ARG:HG2	2.34	0.43
5:B:1156:ASP:HB3	5:B:1197:PRO:HA	2.01	0.43
5:B:1165:ILE:CG2	5:B:1166:CYS:N	2.82	0.43
7:D:195:ILE:O	7:D:197:SER:N	2.51	0.43
8:E:61:GLN:HG2	8:E:62:ALA:N	2.33	0.43
4:M:264:PHE:O	4:M:267:ALA:N	2.52	0.43
4:M:269:ILE:HG12	4:M:299:HIS:HB3	2.00	0.43
4:M:470:LEU:HD21	4:M:482:PHE:HE2	1.83	0.43
4:M:1237:ILE:CG2	4:M:1238:ILE:N	2.81	0.43
4:M:1364:ASN:HD22	4:M:1364:ASN:C	2.18	0.43
5:N:18:PHE:N	5:N:18:PHE:CD1	2.86	0.43
5:N:193:LYS:NZ	15:X:32:ALA:HB1	2.33	0.43
5:N:743:ILE:H	5:N:743:ILE:HG12	1.60	0.43
5:N:758:PHE:HB2	5:N:1024:ALA:HB1	2.01	0.43
5:N:955:THR:HG23	15:X:54:ARG:O	2.19	0.43
7:P:64:VAL:C	7:P:66:ARG:N	2.72	0.43
7:P:68:ARG:C	7:P:70:PHE:N	2.71	0.43
11:T:40:LEU:HD22	11:T:123:MET:CE	2.49	0.43
12:U:27:PHE:O	12:U:28:GLU:HB3	2.17	0.43
4:A:33:ALA:O	4:A:83:HIS:CD2	2.68	0.43
4:A:34:LYS:H	4:A:57:ARG:HH21	1.65	0.43
4:A:172:PRO:HB3	4:A:185:TRP:CD2	2.53	0.43
4:A:218:ASP:HA	4:A:221:SER:OG	2.19	0.43
4:A:262:LEU:O	4:A:264:PHE:N	2.52	0.43
4:A:531:ILE:O	4:A:531:ILE:HG12	2.19	0.43
4:A:577:ILE:O	4:A:579:SER:N	2.52	0.43
4:A:834:THR:HG21	4:A:1077:THR:HA	2.00	0.43
4:A:1013:ASP:C	4:A:1015:VAL:H	2.22	0.43
4:A:1164:PRO:HG2	4:A:1165:GLU:HG3	2.01	0.43
5:B:27:ALA:C	5:B:29:ASP:H	2.22	0.43
5:B:45:SER:OG	5:B:46:GLN:N	2.50	0.43
5:B:96:TYR:HE1	5:B:131:ASP:OD2	2.01	0.43
5:B:641:GLU:HA	5:B:641:GLU:OE1	2.19	0.43
5:B:1016:ALA:O	5:B:1020:ARG:HG3	2.19	0.43
7:D:175:PHE:HZ	10:G:85:GLU:HG3	1.83	0.43
9:F:124:GLU:HB3	9:F:130:ILE:HG12	1.99	0.43
15:L:36:SER:O	15:L:37:LYS:C	2.57	0.43
4:M:306:ASN:ND2	4:M:322:VAL:HB	2.33	0.43
4:M:491:VAL:HG12	4:M:492:PRO:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:861:ASP:OD1	5:N:862:GLN:N	2.52	0.43
5:N:866:TYR:HD1	5:N:870:ILE:O	2.01	0.43
5:N:893:LEU:HD22	5:N:897:GLY:C	2.39	0.43
5:N:1017:ILE:CB	5:N:1018:PRO:HD3	2.45	0.43
2:2:18:TT:H2'2	2:2:18:TT:H6	1.80	0.43
2:5:12:DT:H1'	2:5:13:DA:H5'	2.00	0.43
4:A:219:PHE:O	4:A:222:LEU:O	2.37	0.43
4:A:392:VAL:O	4:A:393:ARG:C	2.56	0.43
4:A:409:SER:O	4:A:410:GLY:C	2.57	0.43
4:A:553:VAL:HG13	4:A:648:ASN:HB3	2.01	0.43
4:A:588:LEU:O	4:A:606:LEU:HD12	2.19	0.43
4:A:693:VAL:O	4:A:693:VAL:HG12	2.19	0.43
4:A:852:TYR:CD2	4:A:1060:PRO:CB	3.00	0.43
4:A:1397:LEU:C	4:A:1400:CYS:HB3	2.39	0.43
5:B:102:VAL:CG2	5:B:112:LEU:HD22	2.49	0.43
5:B:597:MET:C	5:B:599:THR:N	2.72	0.43
5:B:597:MET:C	5:B:599:THR:H	2.22	0.43
5:B:744:HIS:HD2	5:B:746:SER:CB	2.32	0.43
5:B:999:MET:HG2	5:B:1007:VAL:HG22	2.00	0.43
6:C:242:GLN:O	6:C:244:VAL:N	2.52	0.43
6:C:259:LEU:HD13	14:K:91:CYS:HB2	2.01	0.43
8:E:93:MET:SD	8:E:97:VAL:HG23	2.59	0.43
13:J:1:MET:HG3	13:J:1:MET:O	2.19	0.43
4:M:47:ARG:O	4:M:48:ALA:HB2	2.19	0.43
4:M:53:LEU:O	4:M:54:ASN:C	2.57	0.43
4:M:90:VAL:HG13	4:M:297:GLN:CD	2.39	0.43
4:M:164:ARG:CG	4:M:165:GLY:H	2.22	0.43
4:M:406:ILE:HG13	4:M:431:LYS:CB	2.49	0.43
4:M:800:VAL:CG1	4:M:808:LEU:HG	2.49	0.43
4:M:1004:ASN:O	4:M:1008:GLN:HB2	2.19	0.43
5:N:97:VAL:HG12	5:N:178:ASN:ND2	2.32	0.43
5:N:487:THR:CG2	5:N:488:TYR:N	2.81	0.43
5:N:634:TYR:HA	5:N:694:ASP:HA	2.01	0.43
5:N:827:ILE:HD12	5:N:1086:PHE:CD2	2.54	0.43
5:N:838:SER:HA	5:N:989:THR:O	2.18	0.43
5:N:844:SER:O	5:N:847:ASP:N	2.50	0.43
5:N:983:ARG:HD2	5:N:1091:TYR:CD2	2.54	0.43
5:N:1134:GLU:CD	5:N:1134:GLU:H	2.22	0.43
5:N:1160:VAL:HG11	5:N:1169:MET:SD	2.58	0.43
10:S:1:MET:HG3	10:S:85:GLU:OE2	2.18	0.43
4:A:98:LYS:O	4:A:101:LYS:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:598:LEU:O	4:A:598:LEU:CD2	2.67	0.42
4:A:621:THR:O	4:A:629:LEU:HB2	2.20	0.42
4:A:1097:GLY:C	4:A:1099:PRO:HD2	2.40	0.42
5:B:235:SER:C	5:B:236:HIS:HD2	2.22	0.42
5:B:408:LEU:HG	5:B:409:ALA:H	1.84	0.42
5:B:640:VAL:O	5:B:640:VAL:HG12	2.19	0.42
5:B:681:TRP:O	5:B:684:LEU:N	2.51	0.42
5:B:996:ARG:HH21	6:C:175:ALA:HA	1.84	0.42
5:B:1020:ARG:HB2	5:B:1022:THR:HG22	2.01	0.42
6:C:175:ALA:HB3	13:J:43:ARG:NH2	2.33	0.42
6:C:213:PRO:HG2	6:C:214:ASN:H	1.84	0.42
7:D:64:VAL:C	7:D:66:ARG:N	2.72	0.42
10:G:6:ASP:HB3	10:G:73:LYS:HZ1	1.83	0.42
14:K:67:PHE:C	14:K:68:PHE:CD2	2.92	0.42
4:M:18:GLN:O	5:N:1215:ARG:HG2	2.19	0.42
4:M:244:PRO:CG	4:M:245:PRO:HD3	2.49	0.42
4:M:432:VAL:O	4:M:433:GLU:C	2.57	0.42
4:M:453:MET:C	4:M:455:MET:H	2.22	0.42
4:M:774:ARG:HB2	4:M:797:LYS:HB3	2.01	0.42
4:M:1243:VAL:CG1	4:M:1244:ARG:N	2.82	0.42
5:N:43:LEU:HD11	5:N:811:TYR:O	2.19	0.42
5:N:825:VAL:HG13	5:N:826:ALA:N	2.34	0.42
5:N:1223:ASP:HB3	5:N:1224:PHE:H	1.59	0.42
7:P:51:ASN:O	7:P:52:LEU:C	2.56	0.42
7:P:55:ALA:O	7:P:56:ARG:C	2.58	0.42
9:R:77:ASP:O	9:R:78:GLN:HB2	2.19	0.42
9:R:128:LYS:HD3	9:R:149:GLU:O	2.19	0.42
11:T:100:THR:HG22	11:T:101:ALA:N	2.34	0.42
11:T:130:ARG:HD2	11:T:130:ARG:N	2.28	0.42
12:U:4:PHE:CD1	12:U:4:PHE:C	2.93	0.42
13:V:14:VAL:CG1	13:V:50:ILE:HD11	2.48	0.42
3:3:10:A:H4'	4:A:485:ASP:OD1	2.19	0.42
4:A:270:LEU:O	4:A:271:LYS:C	2.58	0.42
4:A:675:THR:OG1	4:A:736:ASN:ND2	2.52	0.42
4:A:809:THR:HG23	4:A:812:GLU:OE1	2.18	0.42
4:A:897:TYR:HD2	4:A:936:LEU:CD1	2.28	0.42
4:A:932:GLU:O	4:A:935:GLN:HB3	2.18	0.42
4:A:981:LEU:CD2	4:A:1039:LYS:CA	2.97	0.42
4:A:1280:GLU:O	4:A:1281:ARG:C	2.57	0.42
5:B:339:THR:O	5:B:339:THR:CG2	2.67	0.42
5:B:847:ASP:O	5:B:849:GLY:N	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:48:ILE:CG2	10:G:4:ILE:HB	2.48	0.42
4:M:3:GLY:O	4:M:4:GLN:HB2	2.19	0.42
4:M:34:LYS:HG2	4:M:36:ARG:NH2	2.34	0.42
4:M:172:PRO:HB3	4:M:185:TRP:CE2	2.54	0.42
4:M:265:LYS:CE	4:M:322:VAL:HG13	2.48	0.42
4:M:920:LEU:HD23	4:M:920:LEU:C	2.39	0.42
4:M:1425:SER:O	4:M:1426:GLU:C	2.55	0.42
5:N:234:ILE:O	5:N:261:ARG:NH2	2.51	0.42
5:N:303:TYR:N	5:N:303:TYR:CD2	2.86	0.42
5:N:405:ARG:HA	5:N:631:GLY:O	2.19	0.42
5:N:519:TRP:CD1	5:N:519:TRP:C	2.91	0.42
5:N:803:LEU:HD12	5:N:1032:SER:HB3	2.00	0.42
5:N:862:GLN:O	5:N:914:LYS:HE3	2.19	0.42
5:N:897:GLY:O	5:N:898:LEU:HD23	2.19	0.42
5:N:977:GLY:HA3	5:N:1099:VAL:HB	2.01	0.42
5:N:1087:PHE:CD2	5:N:1088:GLY:N	2.78	0.42
11:T:38:LEU:HD13	11:T:125:LEU:HD13	2.01	0.42
4:A:3:GLY:O	4:A:4:GLN:HB2	2.19	0.42
4:A:34:LYS:HD3	4:A:34:LYS:N	2.34	0.42
4:A:59:GLY:HA2	4:A:67:CYS:SG	2.58	0.42
4:A:474:VAL:HG22	4:A:478:TYR:HE1	1.83	0.42
4:A:794:PRO:C	4:A:796:SER:H	2.21	0.42
4:A:1032:LEU:O	4:A:1036:ARG:HD3	2.19	0.42
4:A:1161:THR:CG2	4:A:1163:ILE:HG13	2.49	0.42
4:A:1444:MET:O	9:F:132:LEU:HA	2.19	0.42
5:B:184:ALA:HB1	5:B:188:ASP:HB3	2.00	0.42
5:B:234:ILE:O	5:B:261:ARG:NH2	2.51	0.42
5:B:549:THR:CG2	5:B:550:ASP:H	2.13	0.42
5:B:957:ASN:O	5:B:958:GLN:C	2.57	0.42
6:C:20:PHE:HE1	6:C:22:LEU:HD12	1.83	0.42
6:C:69:LEU:O	13:J:6:ARG:HD2	2.19	0.42
6:C:248:ILE:HG13	6:C:248:ILE:H	1.66	0.42
7:D:55:ALA:O	7:D:56:ARG:C	2.58	0.42
7:D:191:ALA:C	7:D:193:THR:N	2.73	0.42
8:E:55:ARG:O	8:E:57:MET:N	2.52	0.42
11:H:82:PRO:C	11:H:84:ALA:N	2.73	0.42
4:M:90:VAL:HG13	4:M:297:GLN:OE1	2.19	0.42
4:M:164:ARG:CG	4:M:165:GLY:N	2.70	0.42
4:M:392:VAL:O	4:M:393:ARG:C	2.57	0.42
4:M:960:ILE:O	4:M:961:ARG:C	2.57	0.42
4:M:1149:ALA:CB	12:U:47:GLU:HA	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1213:GLY:O	4:M:1216:ILE:N	2.51	0.42
4:M:1297:GLU:H	4:M:1297:GLU:HG3	1.47	0.42
4:M:1385:THR:C	4:M:1387:HIS:N	2.72	0.42
5:N:180:TYR:CD1	5:N:180:TYR:N	2.82	0.42
5:N:234:ILE:HD12	5:N:234:ILE:N	2.33	0.42
5:N:681:TRP:O	5:N:684:LEU:N	2.51	0.42
5:N:800:GLN:CA	13:V:52:THR:HG22	2.49	0.42
5:N:1167:GLY:H	5:N:1217:TYR:HE1	1.68	0.42
6:O:166:GLU:O	6:O:167:HIS:HB2	2.17	0.42
11:T:26:ILE:CG2	11:T:27:GLU:N	2.82	0.42
12:U:60:GLN:NE2	12:U:107:SER:OG	2.50	0.42
12:U:109:ILE:O	12:U:109:ILE:HG22	2.18	0.42
14:W:56:VAL:HG22	14:W:77:THR:HG22	2.01	0.42
2:5:20:DC:H4'	4:M:447:GLN:CD	2.39	0.42
4:A:42:ASP:HA	4:A:46:THR:O	2.19	0.42
4:A:899:VAL:CG2	4:A:1029:ARG:HG2	2.50	0.42
4:A:1110:ASN:OD1	4:A:1110:ASN:N	2.52	0.42
5:B:97:VAL:HG12	5:B:178:ASN:HD21	1.83	0.42
5:B:303:TYR:N	5:B:303:TYR:CD2	2.86	0.42
5:B:386:LEU:C	5:B:388:CYS:N	2.72	0.42
5:B:683:SER:C	5:B:685:LEU:N	2.73	0.42
10:G:14:HIS:CE1	10:G:15:PRO:HD2	2.52	0.42
10:G:151:ILE:HD13	10:S:114:LEU:HD13	2.01	0.42
12:I:7:CYS:HB2	12:I:34:TYR:CD1	2.55	0.42
13:J:2:ILE:CG2	13:J:3:VAL:N	2.82	0.42
13:J:13:VAL:C	13:J:14:VAL:HG23	2.39	0.42
14:K:58:PHE:HB3	14:K:76:GLN:HB3	2.01	0.42
15:L:55:ILE:H	15:L:55:ILE:HG12	1.39	0.42
4:M:73:GLY:O	4:M:75:ASN:N	2.52	0.42
4:M:362:ASP:OD2	4:M:459:ARG:HD3	2.20	0.42
4:M:396:PRO:HB3	4:M:403:LYS:HB3	2.01	0.42
4:M:507:VAL:N	4:M:508:PRO:CD	2.82	0.42
4:M:829:VAL:C	4:M:831:THR:N	2.72	0.42
4:M:1344:GLY:O	4:M:1345:ARG:C	2.56	0.42
5:N:309:GLN:CD	12:U:52:ILE:HD11	2.39	0.42
5:N:604:ARG:C	5:N:606:LYS:H	2.23	0.42
5:N:996:ARG:HG2	5:N:1007:VAL:HG11	2.00	0.42
5:N:1080:LYS:HD2	6:O:188:HIS:HB2	2.02	0.42
5:N:1222:ARG:HG2	5:N:1222:ARG:O	2.19	0.42
6:O:26:ASP:O	6:O:27:LEU:C	2.54	0.42
2:2:23:DG:H2'	2:2:24:DG:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:58:LEU:HD11	4:A:243:PRO:HB2	2.01	0.42
4:A:172:PRO:HB3	4:A:185:TRP:CE2	2.55	0.42
4:A:185:TRP:CZ3	4:A:200:ARG:HG2	2.55	0.42
4:A:219:PHE:CE2	4:A:231:PRO:HD2	2.54	0.42
4:A:537:ARG:NH1	11:H:120:GLY:O	2.51	0.42
4:A:546:VAL:HG21	4:A:572:TRP:CE3	2.54	0.42
4:A:963:ILE:HD13	4:A:1049:ILE:HG13	2.00	0.42
4:A:1451:VAL:O	4:A:1454:MET:HG2	2.20	0.42
5:B:278:GLN:HE22	5:B:337:ARG:HH21	1.66	0.42
5:B:487:THR:O	5:B:490:SER:HB3	2.19	0.42
5:B:810:GLU:HB3	5:B:811:TYR:CE1	2.55	0.42
5:B:996:ARG:HG2	5:B:1007:VAL:HG11	2.01	0.42
6:C:241:ASP:OD1	6:C:242:GLN:N	2.46	0.42
13:J:53:HIS:CD2	13:J:53:HIS:C	2.91	0.42
14:K:65:HIS:CG	14:K:66:PRO:HD2	2.55	0.42
4:M:55:ASP:N	4:M:56:PRO:CD	2.81	0.42
4:M:262:LEU:C	4:M:264:PHE:H	2.22	0.42
4:M:367:PRO:HB3	4:M:465:TYR:O	2.18	0.42
4:M:402:ALA:HB1	4:M:434:ARG:HA	2.01	0.42
4:M:666:ILE:HG12	5:N:1030:LEU:HD22	2.02	0.42
4:M:814:PHE:O	4:M:818:MET:HG3	2.19	0.42
4:M:825:ILE:O	4:M:826:ASP:C	2.56	0.42
4:M:857:ARG:NH1	9:R:139:PRO:HB2	2.34	0.42
4:M:901:LEU:HD22	4:M:919:ILE:HG22	2.01	0.42
4:M:1401:SER:O	4:M:1402:PHE:HB2	2.19	0.42
4:M:1445:ILE:HD12	10:S:59:GLY:O	2.20	0.42
5:N:300:HIS:HE1	5:N:376:PHE:CE1	2.38	0.42
5:N:842:ASN:O	5:N:846:ILE:HG13	2.20	0.42
5:N:999:MET:HB3	5:N:1007:VAL:HG21	2.01	0.42
5:N:1065:GLN:HE21	5:N:1066:SER:N	2.16	0.42
5:N:1187:ASN:OD1	5:N:1190:ASP:N	2.53	0.42
6:O:38:ILE:HA	6:O:173:ALA:HB2	2.01	0.42
6:O:83:SER:C	6:O:85:ASP:H	2.22	0.42
7:P:46:GLU:C	7:P:47:LEU:O	2.57	0.42
7:P:122:GLU:HA	7:P:125:SER:OG	2.19	0.42
10:S:34:VAL:HG11	10:S:74:TYR:HE1	1.82	0.42
14:W:18:LYS:NZ	14:W:37:LYS:O	2.53	0.42
15:X:40:LEU:HD22	15:X:44:ASP:CG	2.40	0.42
15:X:40:LEU:HB3	15:X:41:SER:H	1.64	0.42
4:A:172:PRO:HD3	4:A:185:TRP:NE1	2.34	0.42
4:A:393:ARG:O	4:A:394:ASN:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:492:PRO:CB	4:A:497:THR:HG22	2.50	0.42
5:B:758:PHE:CE1	5:B:1027:ILE:HG22	2.55	0.42
6:C:29:MET:HE2	14:K:98:LEU:HD21	2.01	0.42
6:C:47:ASP:CA	15:L:69:ALA:CB	2.93	0.42
6:C:99:LEU:O	6:C:156:THR:HA	2.19	0.42
6:C:123:ASN:ND2	6:C:125:MET:SD	2.93	0.42
7:D:38:ILE:HG23	7:D:43:GLU:O	2.19	0.42
7:D:53:SER:H	7:D:148:LEU:CD2	2.32	0.42
10:G:13:LEU:HD22	10:G:14:HIS:O	2.19	0.42
10:G:111:THR:O	10:G:115:MET:HG3	2.20	0.42
13:J:32:GLU:CD	13:J:32:GLU:H	2.23	0.42
4:M:26:GLU:O	4:M:27:VAL:C	2.57	0.42
4:M:218:ASP:O	4:M:219:PHE:O	2.37	0.42
4:M:326:ARG:HG2	4:M:327:ALA:N	2.34	0.42
4:M:418:SER:C	4:M:420:ARG:H	2.22	0.42
4:M:650:GLN:HB3	4:M:654:ASN:HD21	1.84	0.42
4:M:837:ILE:HA	4:M:840:ARG:HD3	2.02	0.42
4:M:1019:CYS:O	4:M:1022:LEU:N	2.53	0.42
4:M:1365:TYR:O	4:M:1366:ARG:C	2.57	0.42
5:N:278:GLN:HG2	5:N:279:ASP:N	2.29	0.42
5:N:1027:ILE:O	5:N:1028:GLU:C	2.57	0.42
11:T:40:LEU:HD12	11:T:122:LEU:O	2.20	0.42
11:T:99:GLY:HA3	11:T:118:PHE:HA	2.02	0.42
4:A:70:CYS:O	4:A:70:CYS:SG	2.76	0.42
4:A:370:ILE:O	4:A:371:ALA:C	2.58	0.42
4:A:645:LEU:HD11	4:A:649:ILE:HD11	2.01	0.42
4:A:768:GLN:HG3	4:A:816:HIS:HA	1.99	0.42
4:A:843:LYS:HD3	4:A:843:LYS:HA	1.87	0.42
4:A:1215:ARG:HA	4:A:1215:ARG:HD2	1.73	0.42
4:A:1385:THR:C	4:A:1387:HIS:N	2.71	0.42
4:A:1406:VAL:O	4:A:1407:GLU:C	2.57	0.42
4:A:1444:MET:HG2	10:G:59:GLY:O	2.19	0.42
4:A:1445:ILE:H	4:A:1445:ILE:CD1	2.01	0.42
4:A:1454:MET:O	4:A:1454:MET:HG3	2.19	0.42
5:B:890:TYR:O	5:B:892:LYS:N	2.53	0.42
6:C:77:ILE:HG22	6:C:78:GLU:N	2.34	0.42
6:C:168:ALA:C	6:C:170:TRP:N	2.71	0.42
8:E:42:PHE:O	8:E:43:LYS:C	2.57	0.42
8:E:60:PHE:CE2	8:E:80:VAL:HB	2.54	0.42
8:E:72:PHE:CE2	8:E:155:ARG:NH2	2.88	0.42
11:H:99:GLY:N	11:H:118:PHE:CD2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:J:1:MET:H1	13:J:56:LEU:CA	2.32	0.42
14:K:90:ALA:O	14:K:94:ILE:HG13	2.20	0.42
4:M:119:ASN:O	4:M:122:MET:HB3	2.20	0.42
4:M:243:PRO:O	4:M:244:PRO:C	2.57	0.42
4:M:472:LEU:HD11	5:N:835:GLN:CD	2.39	0.42
4:M:567:LYS:HG3	4:M:568:PRO:CD	2.48	0.42
4:M:858:ASN:ND2	4:M:860:LEU:N	2.61	0.42
5:N:213:ILE:HD12	5:N:497:ARG:HB3	2.01	0.42
5:N:343:ILE:HG21	5:N:348:ARG:CA	2.49	0.42
5:N:807:ARG:H	5:N:1045:SER:HG	1.64	0.42
5:N:843:GLN:HB2	5:N:993:THR:HB	2.00	0.42
5:N:882:THR:O	5:N:883:LEU:CB	2.68	0.42
7:P:14:ARG:N	7:P:17:LYS:HZ3	2.17	0.42
7:P:135:GLY:C	7:P:137:ASN:H	2.22	0.42
8:Q:154:ILE:HG22	8:Q:155:ARG:O	2.20	0.42
11:T:123:MET:HE1	11:T:142:LEU:CD1	2.50	0.42
15:X:70:ARG:HG2	15:X:70:ARG:NH1	2.34	0.42
2:2:18:TT:H5M1	2:2:20:DC:C5	2.55	0.42
4:A:146:MET:HA	4:A:171:GLN:HB2	2.01	0.42
4:A:167:CYS:SG	4:A:167:CYS:O	2.78	0.42
4:A:320:ARG:HA	4:A:321:PRO:HD3	1.93	0.42
4:A:595:THR:O	4:A:596:THR:HG23	2.19	0.42
4:A:599:SER:HA	4:A:600:PRO:HD2	1.92	0.42
4:A:697:ALA:C	4:A:699:ALA:H	2.21	0.42
4:A:774:ARG:HB2	4:A:797:LYS:HB3	2.02	0.42
4:A:826:ASP:O	4:A:827:THR:C	2.57	0.42
4:A:1066:VAL:HG12	5:B:1140:ALA:HB2	2.02	0.42
4:A:1324:PRO:HB2	8:E:142:VAL:HG11	2.02	0.42
5:B:240:ILE:HG22	5:B:254:LEU:HB3	2.02	0.42
5:B:382:ILE:O	5:B:386:LEU:HG	2.19	0.42
5:B:765:PRO:O	5:B:768:THR:N	2.53	0.42
5:B:785:TYR:CD1	5:B:786:ASN:N	2.88	0.42
5:B:862:GLN:O	5:B:914:LYS:HE3	2.20	0.42
5:B:1115:THR:CG2	5:B:1117:GLN:CG	2.97	0.42
6:C:98:VAL:C	6:C:99:LEU:CD2	2.85	0.42
6:C:98:VAL:HG23	6:C:122:SER:HB3	2.01	0.42
6:C:116:LYS:HD3	6:C:140:ASN:HA	2.02	0.42
7:D:56:ARG:NH2	7:D:57:LEU:HD21	2.35	0.42
7:D:209:ARG:O	7:D:212:LYS:HB2	2.20	0.42
8:E:31:THR:O	8:E:35:VAL:HG23	2.18	0.42
10:G:66:GLY:O	10:G:67:SER:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:99:PHE:CD1	10:G:99:PHE:C	2.93	0.42
10:G:117:GLN:C	10:G:119:LEU:H	2.23	0.42
11:H:20:TYR:O	11:H:22:LYS:N	2.52	0.42
11:H:100:THR:OG1	11:H:138:GLU:HG3	2.18	0.42
12:I:82:GLU:HB3	12:I:104:LEU:CD1	2.50	0.42
4:M:23:SER:CB	4:M:233:TRP:NE1	2.83	0.42
4:M:353:ILE:HG13	4:M:482:PHE:CD2	2.53	0.42
4:M:369:SER:CB	14:W:2:ASN:OD1	2.68	0.42
4:M:538:ASP:OD2	11:T:22:LYS:HB2	2.19	0.42
4:M:549:MET:HE1	4:M:656:TRP:HD1	1.84	0.42
4:M:666:ILE:CD1	4:M:667:GLY:N	2.83	0.42
4:M:896:ARG:NH2	4:M:1030:ARG:NH2	2.68	0.42
4:M:901:LEU:HA	4:M:907:THR:OG1	2.20	0.42
4:M:1447:GLU:OE2	10:S:23:LYS:HB2	2.19	0.42
5:N:240:ILE:HG22	5:N:254:LEU:HB3	2.02	0.42
5:N:751:VAL:HG13	5:N:812:LEU:HD22	2.02	0.42
6:O:80:LEU:HD11	6:O:95:CYS:CA	2.50	0.42
6:O:133:ILE:CD1	6:O:237:SER:CA	2.96	0.42
6:O:239:PRO:O	6:O:240:VAL:C	2.58	0.42
13:V:31:ASP:O	13:V:32:GLU:C	2.58	0.42
14:W:31:VAL:O	14:W:74:ARG:HA	2.20	0.42
4:A:482:PHE:C	4:A:484:GLY:N	2.71	0.42
4:A:773:LYS:H	4:A:773:LYS:HG3	1.58	0.42
4:A:854:ASN:HB3	4:A:1000:LEU:HD21	2.01	0.42
4:A:1319:VAL:HG13	4:A:1320:PRO:HD2	2.01	0.42
4:A:1344:GLY:O	4:A:1345:ARG:C	2.57	0.42
5:B:234:ILE:O	5:B:261:ARG:CZ	2.68	0.42
5:B:251:ILE:O	5:B:251:ILE:HG22	2.20	0.42
5:B:283:VAL:O	5:B:284:ILE:C	2.57	0.42
5:B:449:ASN:O	5:B:451:LYS:N	2.53	0.42
5:B:839:MET:HE3	5:B:1010:LEU:CD2	2.48	0.42
5:B:882:THR:O	5:B:883:LEU:CB	2.68	0.42
5:B:893:LEU:HD22	5:B:897:GLY:C	2.41	0.42
5:B:1187:ASN:OD1	5:B:1190:ASP:N	2.53	0.42
6:C:38:ILE:HA	6:C:173:ALA:HB2	2.02	0.42
6:C:69:LEU:HD12	6:C:69:LEU:H	1.85	0.42
6:C:83:SER:C	6:C:85:ASP:H	2.23	0.42
6:C:189:THR:CG2	6:C:190:ASP:N	2.82	0.42
7:D:170:THR:HG22	7:D:172:LEU:HG	1.98	0.42
11:H:7:ASP:O	11:H:8:ASP:HB2	2.20	0.42
14:K:69:ALA:O	14:K:70:ARG:CB	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:230:ARG:N	4:M:233:TRP:HE3	2.09	0.42
4:M:1072:ILE:O	4:M:1075:PRO:HD2	2.19	0.42
4:M:1164:PRO:HG2	4:M:1165:GLU:HG3	2.02	0.42
4:M:1280:GLU:O	4:M:1281:ARG:C	2.58	0.42
4:M:1384:VAL:O	4:M:1384:VAL:HG12	2.19	0.42
5:N:37:PHE:HE1	5:N:41:LYS:CG	2.32	0.42
5:N:283:VAL:O	5:N:286:PHE:HB2	2.19	0.42
5:N:899:ILE:HG21	5:N:949:VAL:HG21	2.02	0.42
5:N:956:THR:HG22	5:N:957:ASN:N	2.35	0.42
5:N:1176:ASN:C	5:N:1178:ASN:H	2.22	0.42
6:O:18:VAL:HG23	6:O:240:VAL:HB	2.00	0.42
6:O:74:SER:CB	6:O:77:ILE:HG12	2.50	0.42
7:P:63:LEU:HD22	7:P:63:LEU:HA	1.80	0.42
10:S:88:ASP:HA	10:S:144:ARG:HA	2.01	0.42
11:T:6:PHE:O	11:T:58:THR:HA	2.20	0.42
12:U:33:SER:O	12:U:35:VAL:HG23	2.19	0.42
14:W:31:VAL:CG1	14:W:32:VAL:H	2.32	0.42
15:X:34:CYS:O	15:X:36:SER:N	2.53	0.42
4:A:525:GLN:HB2	5:B:835:GLN:OE1	2.19	0.42
4:A:540:PHE:CE2	4:A:565:ILE:HD12	2.54	0.42
4:A:993:LEU:HD22	4:A:1046:LEU:HD22	2.01	0.42
4:A:1005:GLU:O	4:A:1009:ASN:HB2	2.20	0.42
4:A:1013:ASP:O	4:A:1015:VAL:N	2.53	0.42
4:A:1237:ILE:CG2	4:A:1238:ILE:N	2.82	0.42
4:A:1322:ILE:O	4:A:1324:PRO:HD3	2.20	0.42
4:A:1342:GLU:CG	8:E:198:ILE:HD13	2.50	0.42
5:B:773:MET:SD	5:B:987:LYS:HB3	2.60	0.42
5:B:980:PHE:CA	5:B:1095:LEU:HD11	2.50	0.42
5:B:1002:THR:O	5:B:1003:ALA:C	2.59	0.42
10:G:122:ASN:ND2	10:G:125:SER:HB3	2.35	0.42
10:G:145:VAL:CG1	10:G:161:GLY:HA3	2.50	0.42
14:K:40:HIS:O	14:K:41:THR:C	2.58	0.42
4:M:308:ILE:HG22	4:M:309:ALA:N	2.27	0.42
4:M:349:ALA:C	5:N:1128:LEU:HD11	2.40	0.42
4:M:408:ASP:C	4:M:410:GLY:H	2.22	0.42
4:M:867:ILE:CG2	4:M:872:GLY:N	2.83	0.42
4:M:920:LEU:C	4:M:920:LEU:CD2	2.89	0.42
4:M:1076:ALA:HA	4:M:1079:MET:HE2	2.02	0.42
4:M:1299:VAL:CG1	4:M:1300:LYS:N	2.82	0.42
4:M:1305:VAL:CG1	4:M:1306:LEU:N	2.83	0.42
4:M:1444:MET:HE1	9:R:135:ARG:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:281:PRO:O	5:N:282:ILE:C	2.57	0.42
5:N:386:LEU:C	5:N:388:CYS:N	2.73	0.42
5:N:581:PHE:HA	5:N:585:VAL:O	2.20	0.42
5:N:637:LEU:O	5:N:690:VAL:HG13	2.20	0.42
5:N:855:PHE:HZ	5:N:857:ARG:NH1	2.18	0.42
5:N:1196:ILE:O	5:N:1196:ILE:HG13	2.19	0.42
6:O:31:ASN:O	6:O:34:ARG:N	2.52	0.42
6:O:181:ASP:CG	6:O:186:LEU:HD13	2.39	0.42
9:R:95:GLY:O	9:R:96:THR:C	2.57	0.42
10:S:106:MET:HG2	10:S:107:LYS:N	2.34	0.42
12:U:8:ARG:HG3	12:U:8:ARG:H	1.65	0.42
4:A:55:ASP:C	4:A:57:ARG:N	2.71	0.41
4:A:174:ILE:HG22	4:A:175:ARG:N	2.35	0.41
4:A:319:GLY:HA3	5:B:471:LYS:HA	2.02	0.41
4:A:344:ARG:HD2	5:B:1118:PRO:O	2.19	0.41
4:A:370:ILE:O	4:A:372:LYS:N	2.53	0.41
4:A:1385:THR:O	4:A:1388:GLY:N	2.51	0.41
4:A:1394:THR:O	4:A:1395:GLY:O	2.38	0.41
4:A:1409:LEU:HD13	5:B:1207:LEU:CD1	2.45	0.41
4:A:1435:PRO:HA	4:A:1439:GLY:O	2.20	0.41
5:B:37:PHE:HE1	5:B:41:LYS:HG3	1.82	0.41
5:B:237:VAL:CG1	5:B:238:ALA:N	2.83	0.41
5:B:371:GLU:CD	5:B:371:GLU:N	2.73	0.41
5:B:526:GLU:OE2	5:B:752:ALA:HB2	2.20	0.41
5:B:642:ASP:HB3	5:B:649:LYS:CG	2.50	0.41
5:B:796:LEU:HD12	5:B:852:ARG:O	2.19	0.41
5:B:798:TYR:CE2	6:C:62:PHE:CZ	3.04	0.41
5:B:969:ARG:HG2	5:B:970:THR:N	2.34	0.41
5:B:1017:ILE:CB	5:B:1018:PRO:HD3	2.47	0.41
5:B:1181:GLU:O	5:B:1182:CYS:HB2	2.20	0.41
5:B:1200:ALA:O	5:B:1203:LEU:HB3	2.20	0.41
6:C:41:ILE:HA	6:C:42:PRO:HD3	1.75	0.41
7:D:187:THR:HG22	7:D:188:ALA:N	2.35	0.41
10:G:1:MET:HG3	10:G:85:GLU:OE2	2.19	0.41
11:H:99:GLY:HA3	11:H:118:PHE:HA	2.02	0.41
12:I:15:TYR:HD1	12:I:15:TYR:H	1.68	0.41
12:I:54:GLU:HB3	12:I:100:PHE:CE2	2.54	0.41
12:I:78:CYS:CB	12:I:106:CYS:SG	3.07	0.41
14:K:89:ASN:O	14:K:91:CYS:N	2.53	0.41
4:M:35:ILE:HD13	4:M:241:VAL:HG11	2.01	0.41
4:M:409:SER:O	4:M:410:GLY:C	2.57	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:666:ILE:HD12	4:M:667:GLY:N	2.34	0.41
4:M:698:GLN:NE2	12:U:99:LEU:HD21	2.35	0.41
4:M:874:ASP:CA	4:M:1058:VAL:HG22	2.50	0.41
4:M:874:ASP:HA	4:M:1058:VAL:HG22	2.00	0.41
4:M:961:ARG:HG2	4:M:965:GLN:HE21	1.85	0.41
4:M:1396:ALA:O	4:M:1398:MET:N	2.53	0.41
4:M:1445:ILE:HD11	10:S:68:ALA:CB	2.50	0.41
5:N:298:LEU:HD13	5:N:314:LEU:HD13	2.01	0.41
5:N:615:MET:HG2	5:N:626:ILE:HG23	2.00	0.41
5:N:638:PHE:HD2	5:N:690:VAL:HG22	1.85	0.41
6:O:123:ASN:ND2	6:O:125:MET:CG	2.82	0.41
6:O:174:ALA:O	6:O:175:ALA:CB	2.67	0.41
8:Q:136:ASN:OD1	8:Q:138:ALA:N	2.53	0.41
10:S:114:LEU:HD12	10:S:114:LEU:HA	1.92	0.41
14:W:57:LEU:N	14:W:76:GLN:O	2.53	0.41
2:5:12:DT:H2"	2:5:13:DA:OP2	2.19	0.41
4:A:56:PRO:O	4:A:57:ARG:CG	2.68	0.41
4:A:368:LYS:O	4:A:369:SER:C	2.58	0.41
4:A:470:LEU:HD21	4:A:482:PHE:HE2	1.84	0.41
4:A:509:LEU:HD23	4:A:509:LEU:HA	1.77	0.41
4:A:738:LYS:C	4:A:740:LEU:H	2.24	0.41
5:B:203:PHE:CD1	5:B:203:PHE:N	2.88	0.41
5:B:522:VAL:HG12	5:B:523:CYS:N	2.34	0.41
5:B:984:HIS:NE2	5:B:1025:HIS:HA	2.35	0.41
5:B:1004:GLU:HG3	5:B:1064:TYR:HE2	1.85	0.41
6:C:18:VAL:O	6:C:20:PHE:CD2	2.71	0.41
6:C:208:GLU:C	6:C:210:GLU:H	2.23	0.41
8:E:20:LYS:O	8:E:21:GLU:C	2.58	0.41
8:E:144:ILE:HG13	8:E:145:THR:N	2.34	0.41
10:G:1:MET:SD	10:G:79:PHE:CE1	3.13	0.41
15:L:28:LYS:HB2	15:L:39:SER:HA	2.02	0.41
4:M:338:GLY:HA2	5:N:1129:ARG:HH22	1.84	0.41
4:M:574:GLY:O	4:M:575:LYS:C	2.57	0.41
4:M:710:LEU:HD12	4:M:710:LEU:N	2.35	0.41
4:M:783:THR:HG22	4:M:784:LEU:HG	2.02	0.41
4:M:971:PHE:O	4:M:972:HIS:C	2.58	0.41
4:M:1130:GLN:O	4:M:1134:ILE:HG13	2.19	0.41
5:N:203:PHE:CD1	5:N:203:PHE:N	2.87	0.41
5:N:431:TYR:CE2	5:N:447:ALA:HB2	2.55	0.41
6:O:124:LEU:HD22	6:O:129:ILE:HG22	2.02	0.41
6:O:190:ASP:O	6:O:191:TYR:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:P:46:GLU:O	7:P:47:LEU:O	2.38	0.41
8:Q:127:ILE:HG13	8:Q:127:ILE:O	2.20	0.41
11:T:95:TYR:CE2	11:T:97:MET:HG3	2.55	0.41
12:U:106:CYS:O	12:U:107:SER:CB	2.67	0.41
12:U:115:LYS:HD3	12:U:117:LYS:CE	2.38	0.41
14:W:69:ALA:O	14:W:70:ARG:CB	2.68	0.41
4:A:12:ARG:O	5:B:1194:ILE:HG22	2.19	0.41
4:A:14:VAL:CG2	5:B:1216:LEU:HD13	2.45	0.41
4:A:42:ASP:OD1	4:A:45:GLN:O	2.38	0.41
4:A:114:LEU:HD13	4:A:171:GLN:HE22	1.84	0.41
4:A:117:GLU:H	4:A:117:GLU:CD	2.24	0.41
4:A:207:ILE:O	4:A:208:LEU:C	2.58	0.41
4:A:975:HIS:HA	4:A:1036:ARG:HG3	2.02	0.41
4:A:1036:ARG:NH1	4:A:1036:ARG:CG	2.82	0.41
4:A:1063:MET:SD	4:A:1436:ILE:HG23	2.60	0.41
4:A:1299:VAL:CG1	4:A:1300:LYS:H	2.32	0.41
4:A:1365:TYR:O	4:A:1366:ARG:C	2.58	0.41
5:B:29:ASP:HB3	5:B:658:ILE:HD13	2.02	0.41
5:B:54:PHE:CZ	5:B:59:LEU:HD13	2.56	0.41
5:B:502:ILE:H	5:B:502:ILE:CD1	2.04	0.41
5:B:604:ARG:C	5:B:606:LYS:H	2.24	0.41
5:B:792:MET:HG3	5:B:855:PHE:CE1	2.53	0.41
5:B:1064:TYR:O	5:B:1065:GLN:C	2.58	0.41
5:B:1138:MET:CE	5:B:1138:MET:HA	2.49	0.41
7:D:52:LEU:C	7:D:54:GLU:N	2.70	0.41
8:E:14:ARG:HH21	8:E:141:VAL:CG1	2.32	0.41
8:E:18:THR:O	8:E:19:VAL:C	2.58	0.41
8:E:191:LYS:O	8:E:193:GLY:N	2.52	0.41
8:E:207:ARG:NH1	8:E:207:ARG:HB2	2.35	0.41
8:E:212:ARG:HG3	8:E:212:ARG:HH11	1.85	0.41
9:F:97:ARG:HA	9:F:97:ARG:HD2	1.80	0.41
10:G:14:HIS:ND1	10:G:15:PRO:CD	2.76	0.41
11:H:38:LEU:HD13	11:H:125:LEU:CD1	2.50	0.41
11:H:62:SER:C	11:H:64:ASN:N	2.73	0.41
12:I:60:GLN:NE2	12:I:107:SER:OG	2.53	0.41
12:I:100:PHE:N	12:I:100:PHE:HD1	2.18	0.41
13:J:51:LEU:O	13:J:51:LEU:HD12	2.20	0.41
14:K:15:GLY:O	14:K:16:GLU:HG3	2.20	0.41
15:L:34:CYS:O	15:L:36:SER:N	2.52	0.41
4:M:305:ASP:CG	4:M:326:ARG:HD2	2.40	0.41
4:M:630:ILE:HD13	4:M:646:PHE:HZ	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:650:GLN:O	4:M:654:ASN:ND2	2.53	0.41
4:M:853:ASP:O	4:M:854:ASN:CB	2.69	0.41
4:M:1029:ARG:HG3	4:M:1029:ARG:NH1	2.35	0.41
4:M:1409:LEU:O	4:M:1410:PHE:C	2.59	0.41
5:N:426:LYS:HG3	5:N:426:LYS:O	2.20	0.41
5:N:969:ARG:HD2	6:O:61:GLU:OE2	2.20	0.41
6:O:258:ILE:N	6:O:258:ILE:CD1	2.82	0.41
8:Q:30:ILE:HG22	8:Q:31:THR:N	2.35	0.41
9:R:93:ILE:HD13	9:R:148:VAL:CG1	2.50	0.41
13:V:41:LEU:N	13:V:41:LEU:HD23	2.34	0.41
4:A:407:ARG:HG2	4:A:430:TRP:CZ2	2.56	0.41
4:A:551:TYR:CZ	14:K:62:LYS:HE2	2.56	0.41
4:A:648:ASN:O	4:A:649:ILE:C	2.57	0.41
4:A:855:THR:HA	4:A:866:PHE:O	2.20	0.41
5:B:558:LEU:C	5:B:560:GLU:N	2.74	0.41
5:B:744:HIS:CG	5:B:745:PRO:HD2	2.55	0.41
5:B:828:ALA:HB2	5:B:1085:ILE:HG23	2.01	0.41
5:B:1013:ASN:OD1	5:B:1015:HIS:HB2	2.20	0.41
5:B:1085:ILE:HG22	5:B:1086:PHE:N	2.36	0.41
6:C:167:HIS:CD2	6:C:168:ALA:H	2.32	0.41
6:C:181:ASP:CG	6:C:186:LEU:HD13	2.40	0.41
10:G:101:VAL:CG1	10:G:102:GLN:N	2.84	0.41
11:H:145:ARG:O	11:H:146:ARG:HB2	2.21	0.41
4:M:224:PHE:CZ	4:M:234:MET:CE	3.03	0.41
4:M:224:PHE:HZ	4:M:234:MET:HE1	1.85	0.41
4:M:701:LEU:HD23	12:U:115:LYS:CE	2.50	0.41
4:M:755:PHE:O	4:M:756:ILE:C	2.59	0.41
4:M:939:ASP:O	4:M:940:ARG:C	2.58	0.41
4:M:1097:GLY:O	4:M:1098:VAL:C	2.59	0.41
5:N:209:GLU:CD	5:N:788:ARG:HH22	2.23	0.41
5:N:382:ILE:O	5:N:386:LEU:HG	2.21	0.41
5:N:776:GLN:O	5:N:1095:LEU:HA	2.21	0.41
5:N:1182:CYS:O	5:N:1183:LYS:O	2.38	0.41
6:O:27:LEU:HD13	6:O:228:PHE:CE2	2.56	0.41
7:P:176:GLU:HB3	7:P:198:LEU:HD21	2.01	0.41
7:P:177:VAL:O	7:P:177:VAL:HG12	2.20	0.41
11:T:95:TYR:HE2	11:T:97:MET:HG2	1.86	0.41
12:U:61:ASP:O	12:U:63:GLY:N	2.53	0.41
13:V:1:MET:HG3	13:V:1:MET:O	2.21	0.41
15:X:53:HIS:CB	15:X:55:ILE:HD11	2.48	0.41
4:A:78:PRO:HA	5:B:1201:LYS:HZ2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:331:GLY:O	4:A:332:LYS:O	2.38	0.41
4:A:408:ASP:O	4:A:410:GLY:N	2.45	0.41
4:A:701:LEU:HD23	12:I:115:LYS:CE	2.50	0.41
4:A:857:ARG:NH2	9:F:139:PRO:HG3	2.35	0.41
4:A:1146:VAL:HG11	4:A:1207:LEU:HD12	2.02	0.41
5:B:168:GLY:HA2	5:B:454:THR:OG1	2.21	0.41
5:B:388:CYS:C	5:B:390:LEU:H	2.23	0.41
6:C:77:ILE:HD13	6:C:77:ILE:HA	1.95	0.41
10:G:138:THR:O	10:G:141:SER:OG	2.39	0.41
11:H:40:LEU:HG	11:H:41:ASP:O	2.21	0.41
4:M:494:SER:O	4:M:497:THR:N	2.46	0.41
4:M:847:ASP:O	4:M:858:ASN:HA	2.20	0.41
4:M:1340:GLY:O	4:M:1342:GLU:N	2.53	0.41
5:N:257:LYS:N	5:N:270:LYS:O	2.51	0.41
5:N:546:SER:HA	5:N:612:GLU:OE2	2.20	0.41
5:N:1029:CYS:O	5:N:1030:LEU:C	2.59	0.41
6:O:113:VAL:HG23	6:O:147:LEU:HD21	2.01	0.41
6:O:239:PRO:O	6:O:241:ASP:OD1	2.38	0.41
6:O:255:VAL:HG12	14:W:91:CYS:HB3	2.03	0.41
7:P:53:SER:HB3	7:P:152:SER:HB2	2.01	0.41
7:P:192:LYS:HZ3	7:P:199:ASN:HA	1.85	0.41
12:U:50:THR:HG22	12:U:52:ILE:N	2.34	0.41
14:W:12:LEU:H	14:W:12:LEU:CD1	2.25	0.41
14:W:111:LEU:O	14:W:112:GLN:CG	2.68	0.41
15:X:48:CYS:SG	15:X:49:LYS:N	2.93	0.41
4:A:32:VAL:HG21	4:A:68:GLN:NE2	2.34	0.41
4:A:41:MET:O	4:A:42:ASP:C	2.59	0.41
4:A:103:CYS:O	4:A:106:VAL:O	2.38	0.41
4:A:407:ARG:HD2	4:A:413:ILE:HD11	2.03	0.41
4:A:449:SER:O	5:B:1133:MET:HB3	2.20	0.41
4:A:867:ILE:HG22	4:A:871:ASP:H	1.86	0.41
5:B:231:PRO:O	5:B:232:SER:HB2	2.20	0.41
5:B:258:LEU:O	5:B:258:LEU:CG	2.67	0.41
5:B:265:SER:O	5:B:266:ALA:CB	2.67	0.41
5:B:758:PHE:O	5:B:760:ASP:N	2.54	0.41
5:B:770:GLN:OE1	5:B:983:ARG:CA	2.60	0.41
5:B:812:LEU:O	5:B:813:LYS:C	2.58	0.41
5:B:859:TYR:CD1	5:B:859:TYR:N	2.88	0.41
5:B:879:ARG:O	5:B:880:THR:HB	2.20	0.41
5:B:992:ILE:HD11	14:K:66:PRO:HB2	2.02	0.41
5:B:1132:GLU:O	5:B:1135:ARG:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:92:CYS:C	6:C:94:LYS:N	2.73	0.41
6:C:186:LEU:HD12	6:C:186:LEU:N	2.36	0.41
4:M:353:ILE:CG2	4:M:487:MET:HB2	2.51	0.41
4:M:537:ARG:NH1	11:T:120:GLY:O	2.52	0.41
4:M:805:LEU:O	5:N:761:HIS:HE1	2.03	0.41
4:M:1017:LEU:O	4:M:1018:PHE:C	2.58	0.41
4:M:1152:ILE:HG13	12:U:44:TYR:HD2	1.84	0.41
4:M:1208:THR:O	4:M:1209:MET:C	2.59	0.41
4:M:1406:VAL:O	4:M:1407:GLU:C	2.57	0.41
5:N:559:SER:HA	5:N:563:MET:HB3	2.03	0.41
5:N:810:GLU:HB2	5:N:815:ARG:NH2	2.33	0.41
5:N:858:SER:HA	5:N:966:VAL:O	2.20	0.41
5:N:982:SER:HB3	5:N:1092:TYR:CE2	2.55	0.41
5:N:1002:THR:O	5:N:1003:ALA:C	2.59	0.41
6:O:66:ARG:CZ	13:V:2:ILE:CG2	2.99	0.41
6:O:229:TYR:CD1	6:O:229:TYR:N	2.87	0.41
9:R:130:ILE:HB	9:R:148:VAL:HG21	2.02	0.41
3:3:5:C:O2'	3:3:6:C:H5'	2.21	0.41
4:A:388:LEU:CD2	4:A:432:VAL:HB	2.50	0.41
4:A:455:MET:HE3	5:B:1134:GLU:HG3	2.03	0.41
4:A:498:ARG:O	4:A:499:ALA:C	2.59	0.41
4:A:857:ARG:CZ	9:F:139:PRO:HG3	2.50	0.41
4:A:858:ASN:ND2	4:A:860:LEU:N	2.59	0.41
6:C:26:ASP:O	6:C:27:LEU:C	2.59	0.41
6:C:35:ARG:HH11	14:K:41:THR:HA	1.84	0.41
8:E:29:PHE:O	8:E:30:ILE:CG1	2.67	0.41
8:E:176:PRO:HB2	8:E:211:TYR:O	2.21	0.41
9:F:76:LYS:O	9:F:79:ARG:HD3	2.21	0.41
10:G:45:ILE:HD13	10:G:45:ILE:HA	1.95	0.41
15:L:28:LYS:HB2	15:L:39:SER:HB2	2.02	0.41
4:M:427:GLN:HB2	4:M:430:TRP:CD1	2.55	0.41
4:M:457:ALA:HB3	4:M:506:ALA:HA	2.02	0.41
4:M:577:ILE:HA	4:M:580:VAL:HG23	2.02	0.41
4:M:867:ILE:HG22	4:M:872:GLY:N	2.34	0.41
5:N:37:PHE:CE2	5:N:542:MET:HA	2.53	0.41
5:N:635:ARG:HG3	5:N:635:ARG:NH1	2.36	0.41
5:N:799:PRO:HB3	5:N:818:PRO:HG2	2.03	0.41
7:P:13:ARG:HB2	7:P:17:LYS:NZ	2.34	0.41
7:P:170:THR:HG22	7:P:172:LEU:HG	2.03	0.41
8:Q:10:SER:O	8:Q:14:ARG:HG3	2.21	0.41
10:S:3:PHE:CD1	10:S:80:LYS:NZ	2.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S:26:LEU:O	10:S:29:LYS:N	2.53	0.41
11:T:42:ILE:O	11:T:44:VAL:HG23	2.21	0.41
11:T:99:GLY:N	11:T:118:PHE:HD2	2.18	0.41
4:A:310:GLY:O	4:A:312:PRO:HD2	2.21	0.41
4:A:341:MET:HE1	4:A:843:LYS:NZ	2.36	0.41
4:A:805:LEU:CD1	5:B:1052:VAL:HG21	2.48	0.41
4:A:1226:VAL:HG22	4:A:1240:CYS:CB	2.51	0.41
4:A:1327:ILE:HG22	8:E:147:HIS:HE1	1.86	0.41
5:B:895:ASP:C	5:B:897:GLY:H	2.24	0.41
5:B:977:GLY:HA3	5:B:1099:VAL:HB	2.03	0.41
6:C:238:ILE:HD11	6:C:246:ARG:NH1	2.36	0.41
6:C:256:ALA:O	6:C:258:ILE:N	2.53	0.41
7:D:4:SER:O	7:D:5:THR:CB	2.67	0.41
7:D:46:GLU:C	7:D:47:LEU:O	2.55	0.41
7:D:146:GLN:O	7:D:147:TYR:C	2.59	0.41
9:F:154:ASP:HB3	9:F:155:LEU:H	1.64	0.41
12:I:69:PRO:HG2	12:I:85:PHE:CE2	2.56	0.41
12:I:75:CYS:SG	12:I:78:CYS:C	2.99	0.41
14:K:89:ASN:O	14:K:92:ASN:N	2.54	0.41
4:M:7:SER:OG	5:N:1193:GLN:NE2	2.54	0.41
4:M:34:LYS:HB2	4:M:36:ARG:HH21	1.84	0.41
4:M:95:PHE:O	4:M:98:LYS:N	2.54	0.41
4:M:130:ASP:HB3	4:M:133:LYS:HB2	2.03	0.41
4:M:277:GLU:C	4:M:279:LEU:H	2.24	0.41
4:M:531:ILE:O	4:M:531:ILE:HG12	2.19	0.41
4:M:966:ASN:O	4:M:967:ALA:C	2.57	0.41
4:M:1115:SER:O	4:M:1311:VAL:HG22	2.21	0.41
4:M:1193:LEU:HB2	4:M:1260:LEU:HD11	2.03	0.41
4:M:1215:ARG:HA	4:M:1218:GLN:HG2	2.02	0.41
4:M:1279:ILE:HG23	4:M:1308:THR:OG1	2.21	0.41
5:N:222:ILE:O	5:N:240:ILE:HA	2.21	0.41
5:N:364:ILE:CG1	5:N:585:VAL:HG13	2.41	0.41
5:N:591:ARG:O	5:N:593:PRO:HD3	2.21	0.41
5:N:593:PRO:O	5:N:596:LEU:N	2.53	0.41
5:N:732:SER:HB2	5:N:734:HIS:CD2	2.56	0.41
5:N:911:ILE:HD11	5:N:941:LEU:CD1	2.41	0.41
6:O:51:VAL:HG22	6:O:155:LEU:CD2	2.50	0.41
9:R:119:ARG:HH11	9:R:119:ARG:HG3	1.85	0.41
13:V:7:CYS:HB2	13:V:46:CYS:HB3	2.00	0.41
13:V:32:GLU:O	13:V:35:ALA:N	2.54	0.41
14:W:55:LYS:HB3	14:W:81:TYR:HD1	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:5:18:TT:H5M1	2:5:20:DC:N4	2.35	0.41
2:5:20:DC:H2"	2:5:21:DC:C5'	2.50	0.41
4:A:108:MET:O	4:A:109:HIS:HB2	2.21	0.41
4:A:205:GLU:H	4:A:205:GLU:HG3	1.76	0.41
4:A:224:PHE:CZ	4:A:234:MET:HE2	2.56	0.41
4:A:353:ILE:HG21	4:A:487:MET:CG	2.48	0.41
4:A:367:PRO:O	4:A:368:LYS:C	2.58	0.41
4:A:396:PRO:HG3	4:A:416:ARG:HB3	2.02	0.41
4:A:472:LEU:CD1	5:B:835:GLN:CD	2.89	0.41
4:A:533:LYS:O	4:A:535:THR:N	2.54	0.41
4:A:613:ILE:O	4:A:614:PHE:HB3	2.20	0.41
4:A:842:VAL:HG11	5:B:1136:ASP:OD2	2.21	0.41
4:A:1027:ALA:O	4:A:1028:THR:C	2.59	0.41
4:A:1073:GLY:O	4:A:1076:ALA:HB3	2.21	0.41
4:A:1171:GLN:HA	4:A:1174:PHE:HD1	1.82	0.41
4:A:1208:THR:O	4:A:1209:MET:C	2.59	0.41
4:A:1265:ASN:C	4:A:1267:MET:H	2.24	0.41
4:A:1394:THR:CG2	4:A:1398:MET:SD	3.05	0.41
5:B:259:TYR:HD1	5:B:259:TYR:N	2.17	0.41
5:B:865:LYS:C	5:B:866:TYR:CD1	2.94	0.41
5:B:1001:PHE:CD1	5:B:1001:PHE:C	2.93	0.41
5:B:1001:PHE:CZ	5:B:1073:TYR:HB2	2.55	0.41
5:B:1002:THR:O	5:B:1004:GLU:N	2.54	0.41
5:B:1152:MET:HE1	5:B:1157:ALA:HA	2.03	0.41
6:C:5:GLY:HA3	6:C:6:PRO:HD2	1.79	0.41
6:C:22:LEU:CD2	6:C:25:VAL:HG21	2.50	0.41
6:C:114:TYR:CD2	6:C:140:ASN:HB2	2.56	0.41
6:C:167:HIS:HA	14:K:6:ARG:HH12	1.86	0.41
8:E:207:ARG:CB	8:E:207:ARG:NH1	2.84	0.41
10:G:20:PRO:HG2	10:G:21:ARG:H	1.86	0.41
10:G:49:LEU:N	10:G:49:LEU:HD23	2.36	0.41
11:H:59:ILE:CG2	11:H:60:ALA:N	2.71	0.41
11:H:82:PRO:O	11:H:84:ALA:N	2.42	0.41
12:I:4:PHE:CD1	12:I:4:PHE:C	2.94	0.41
14:K:112:GLN:CG	14:K:112:GLN:CA	2.86	0.41
14:K:112:GLN:CA	14:K:112:GLN:O	2.55	0.41
4:M:38:PRO:HA	4:M:270:LEU:HD23	2.02	0.41
4:M:67:CYS:HB3	4:M:70:CYS:HB3	2.02	0.41
4:M:96:ILE:O	4:M:97:ALA:C	2.59	0.41
4:M:185:TRP:CZ3	4:M:200:ARG:HG2	2.56	0.41
4:M:226:GLU:O	4:M:226:GLU:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:248:PRO:O	4:M:260:ASP:HB2	2.21	0.41
4:M:368:LYS:O	4:M:369:SER:C	2.59	0.41
4:M:415:LEU:HD23	4:M:415:LEU:HA	1.71	0.41
4:M:418:SER:O	4:M:420:ARG:N	2.54	0.41
4:M:444:PHE:CB	4:M:458:HIS:CD2	3.03	0.41
4:M:474:VAL:HG22	4:M:478:TYR:HE1	1.85	0.41
4:M:481:ASP:OD1	4:M:483:ASP:CG	2.60	0.41
4:M:545:GLN:C	4:M:547:LEU:N	2.73	0.41
4:M:738:LYS:HD2	4:M:740:LEU:HD21	2.03	0.41
4:M:826:ASP:O	4:M:827:THR:C	2.59	0.41
4:M:1005:GLU:O	4:M:1006:ILE:C	2.60	0.41
4:M:1333:ILE:HG22	4:M:1334:ASP:N	2.35	0.41
5:N:21:GLU:O	5:N:22:SER:OG	2.34	0.41
5:N:34:ILE:O	5:N:37:PHE:N	2.54	0.41
5:N:45:SER:OG	5:N:46:GLN:N	2.52	0.41
5:N:60:GLN:O	5:N:63:ILE:HG22	2.21	0.41
5:N:95:ILE:CB	5:N:130:VAL:HG22	2.51	0.41
5:N:234:ILE:O	5:N:261:ARG:CZ	2.69	0.41
5:N:235:SER:O	5:N:236:HIS:HD2	2.04	0.41
5:N:358:LYS:HA	5:N:366:GLN:HB3	2.03	0.41
5:N:361:LEU:N	5:N:362:PRO:CD	2.84	0.41
5:N:498:THR:HG23	5:N:499:ASN:N	2.36	0.41
5:N:515:HIS:CD2	5:N:517:THR:HG23	2.56	0.41
5:N:593:PRO:HG2	5:N:617:ARG:CZ	2.50	0.41
5:N:628:THR:O	5:N:628:THR:CG2	2.68	0.41
5:N:642:ASP:CA	5:N:649:LYS:HA	2.44	0.41
5:N:694:ASP:O	5:N:698:GLU:HB2	2.20	0.41
5:N:733:HIS:ND1	5:N:733:HIS:N	2.69	0.41
5:N:1001:PHE:CD1	5:N:1001:PHE:C	2.94	0.41
5:N:1121:GLY:C	5:N:1123:SER:N	2.73	0.41
5:N:1162:ILE:C	5:N:1171:VAL:HG21	2.40	0.41
6:O:8:VAL:HG12	6:O:9:LYS:H	1.86	0.41
6:O:22:LEU:O	6:O:227:THR:HA	2.21	0.41
6:O:99:LEU:HA	6:O:119:VAL:O	2.21	0.41
6:O:100:THR:CG2	6:O:101:LEU:N	2.81	0.41
6:O:242:GLN:O	6:O:244:VAL:N	2.54	0.41
7:P:208:GLU:O	7:P:212:LYS:HG3	2.20	0.41
8:Q:90:VAL:HG22	8:Q:90:VAL:O	2.21	0.41
9:R:96:THR:O	9:R:99:LEU:HB3	2.21	0.41
10:S:127:PRO:HA	10:S:128:PRO:HD3	1.92	0.41
13:V:14:VAL:O	13:V:14:VAL:CG1	2.66	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:V:32:GLU:O	13:V:33:GLY:C	2.59	0.41
13:V:36:LEU:O	13:V:37:SER:C	2.58	0.41
15:X:61:THR:HG22	15:X:63:ARG:HG2	2.03	0.41
2:2:18:TT:H5R1	2:2:18:TT:H1'	2.03	0.41
4:A:89:PRO:HB2	4:A:204:THR:HG21	2.02	0.41
4:A:442:VAL:HB	4:A:489:LEU:HD11	2.02	0.41
4:A:444:PHE:CB	4:A:458:HIS:CD2	3.01	0.41
4:A:800:VAL:HG22	4:A:812:GLU:HB3	2.03	0.41
4:A:839:ARG:O	4:A:842:VAL:HB	2.19	0.41
4:A:1111:MET:H	4:A:1111:MET:HG2	1.61	0.41
4:A:1445:ILE:HD12	10:G:59:GLY:O	2.21	0.41
5:B:129:PHE:CE2	5:B:166:PHE:HD1	2.39	0.41
5:B:197:PHE:CZ	5:B:816:GLU:HG2	2.56	0.41
5:B:797:TYR:HB2	5:B:852:ARG:O	2.21	0.41
5:B:1202:LEU:O	5:B:1203:LEU:C	2.58	0.41
6:C:51:VAL:HG22	6:C:155:LEU:HD22	2.03	0.41
6:C:94:LYS:HE3	6:C:94:LYS:HB2	1.94	0.41
7:D:146:GLN:O	7:D:149:THR:HG22	2.20	0.41
8:E:128:PRO:HA	8:E:129:PRO:C	2.42	0.41
9:F:81:THR:HB	9:F:136:ARG:NH1	2.35	0.41
10:G:30:LEU:HD13	10:G:72:VAL:HG11	2.02	0.41
10:G:111:THR:HG22	10:G:113:HIS:N	2.33	0.41
10:G:115:MET:CB	10:G:116:PRO:CD	2.99	0.41
4:M:299:HIS:O	4:M:301:ALA:N	2.54	0.41
4:M:418:SER:C	4:M:420:ARG:N	2.74	0.41
4:M:438:ASP:OD1	4:M:461:LYS:HA	2.20	0.41
4:M:645:LEU:CD1	4:M:649:ILE:HG13	2.51	0.41
4:M:965:GLN:O	4:M:968:GLN:HB2	2.21	0.41
4:M:1349:TYR:O	4:M:1350:LYS:C	2.59	0.41
4:M:1365:TYR:O	4:M:1367:HIS:N	2.53	0.41
5:N:378:LEU:HD11	5:N:382:ILE:HD11	2.03	0.41
5:N:642:ASP:CA	5:N:649:LYS:HG3	2.51	0.41
5:N:798:TYR:CE2	6:O:62:PHE:CZ	3.00	0.41
5:N:848:ARG:NH1	13:V:8:PHE:O	2.54	0.41
6:O:105:GLY:O	6:O:149:LYS:O	2.39	0.41
7:P:59:ILE:O	7:P:60:LYS:C	2.60	0.41
8:Q:186:LEU:O	8:Q:189:GLY:N	2.54	0.41
9:R:99:LEU:O	9:R:102:SER:OG	2.31	0.41
9:R:154:ASP:HB3	9:R:155:LEU:H	1.65	0.41
10:S:154:VAL:HG12	10:S:155:SER:H	1.86	0.41
12:U:50:THR:HG23	12:U:52:ILE:HG12	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:53:HIS:O	15:X:55:ILE:HG12	2.21	0.41
3:6:7:A:H2'	3:6:8:G:O4'	2.21	0.40
4:A:35:ILE:HD13	4:A:241:VAL:HG11	2.03	0.40
4:A:79:GLY:HA3	4:A:243:PRO:HG3	2.03	0.40
4:A:265:LYS:HE2	4:A:322:VAL:HG13	2.04	0.40
4:A:604:GLY:O	4:A:605:MET:HB2	2.21	0.40
4:A:757:ASN:HA	5:B:1021:MET:SD	2.61	0.40
4:A:1041:ALA:O	4:A:1044:TRP:HB3	2.21	0.40
4:A:1447:GLU:OE2	10:G:23:LYS:HB2	2.21	0.40
5:B:58:THR:O	5:B:62:ILE:HG13	2.22	0.40
5:B:549:THR:CG2	5:B:550:ASP:N	2.80	0.40
5:B:954:VAL:HA	5:B:964:VAL:HG22	2.03	0.40
6:C:176:ILE:HG22	6:C:177:GLU:N	2.35	0.40
7:D:68:ARG:C	7:D:70:PHE:N	2.73	0.40
8:E:24:LYS:CG	8:E:25:ASP:N	2.84	0.40
11:H:39:THR:O	11:H:123:MET:HA	2.21	0.40
14:K:7:PHE:CD1	14:K:7:PHE:C	2.95	0.40
14:K:42:LEU:CD2	14:K:46:ILE:CD1	3.00	0.40
4:M:34:LYS:HZ1	4:M:57:ARG:CZ	2.33	0.40
4:M:114:LEU:HD13	4:M:171:GLN:NE2	2.36	0.40
4:M:265:LYS:HE2	4:M:322:VAL:HG11	2.03	0.40
4:M:299:HIS:C	4:M:301:ALA:N	2.74	0.40
4:M:391:LEU:O	4:M:392:VAL:C	2.60	0.40
4:M:474:VAL:O	4:M:478:TYR:HD1	2.02	0.40
4:M:789:LYS:HE3	12:U:67:THR:OG1	2.22	0.40
4:M:932:GLU:OE1	4:M:987:VAL:HG22	2.20	0.40
5:N:371:GLU:CD	5:N:371:GLU:N	2.74	0.40
5:N:510:LYS:CG	5:N:511:PRO:CD	2.87	0.40
5:N:597:MET:C	5:N:599:THR:H	2.24	0.40
5:N:855:PHE:HZ	5:N:857:ARG:HH12	1.69	0.40
5:N:1106:ARG:HH12	5:N:1110:PRO:HG2	1.86	0.40
5:N:1181:GLU:O	5:N:1182:CYS:HB2	2.21	0.40
8:Q:35:VAL:C	8:Q:37:LEU:N	2.75	0.40
9:R:116:ASP:HB3	9:R:119:ARG:HB2	2.03	0.40
10:S:15:PRO:CG	10:S:66:GLY:HA3	2.51	0.40
10:S:62:LEU:HD23	10:S:62:LEU:HA	1.80	0.40
2:2:24:DG:OP1	5:B:857:ARG:NH2	2.54	0.40
4:A:103:CYS:SG	4:A:207:ILE:HD12	2.62	0.40
4:A:341:MET:HE2	4:A:843:LYS:NZ	2.36	0.40
4:A:457:ALA:HB3	4:A:506:ALA:HA	2.02	0.40
4:A:701:LEU:HA	12:I:115:LYS:CE	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:843:LYS:CD	4:A:846:GLU:OE2	2.69	0.40
4:A:870:GLU:HG2	8:E:208:TYR:CD1	2.55	0.40
4:A:1400:CYS:O	4:A:1405:THR:HG23	2.22	0.40
4:A:1405:THR:HB	4:A:1406:VAL:H	1.52	0.40
5:B:223:VAL:HG21	5:B:380:TYR:CE2	2.57	0.40
5:B:309:GLN:O	5:B:312:GLU:HB3	2.21	0.40
5:B:911:ILE:CG2	5:B:966:VAL:HG11	2.51	0.40
5:B:990:ILE:CG2	5:B:991:GLY:N	2.84	0.40
10:G:65:ASP:OD2	10:G:67:SER:HB2	2.21	0.40
13:J:23:ASN:O	13:J:25:LEU:N	2.54	0.40
15:L:43:THR:C	15:L:45:ALA:H	2.23	0.40
4:M:106:VAL:HG13	4:M:112:LYS:C	2.41	0.40
4:M:388:LEU:HD22	4:M:432:VAL:HB	2.03	0.40
4:M:393:ARG:O	4:M:395:GLY:N	2.54	0.40
4:M:868:TYR:HE1	4:M:1064:VAL:HG11	1.74	0.40
4:M:871:ASP:HB3	8:Q:204:THR:HG23	2.03	0.40
4:M:873:MET:C	4:M:1058:VAL:CG2	2.90	0.40
4:M:913:LEU:CD1	4:M:914:GLU:N	2.75	0.40
4:M:1161:THR:HG22	4:M:1162:VAL:N	2.35	0.40
5:N:485:ARG:NH2	5:N:782:LEU:HD11	2.36	0.40
5:N:486:TYR:OH	5:N:1096:ARG:CB	2.52	0.40
5:N:560:GLU:O	5:N:561:TRP:CD1	2.75	0.40
6:O:131:HIS:O	6:O:132:PRO:C	2.59	0.40
8:Q:85:GLU:OE2	8:Q:92:THR:HG21	2.21	0.40
11:T:83:GLN:O	11:T:85:GLY:N	2.55	0.40
11:T:99:GLY:N	11:T:118:PHE:CD2	2.89	0.40
12:U:13:MET:HG3	12:U:14:LEU:H	1.84	0.40
15:X:40:LEU:HD22	15:X:44:ASP:CB	2.50	0.40
4:A:306:ASN:ND2	4:A:322:VAL:HB	2.36	0.40
4:A:356:ASP:OD2	14:K:65:HIS:HE1	2.05	0.40
4:A:719:VAL:C	4:A:721:PHE:N	2.75	0.40
4:A:923:LEU:HA	4:A:923:LEU:HD23	1.89	0.40
5:B:236:HIS:CE1	5:B:389:ALA:HA	2.57	0.40
5:B:472:ALA:HB1	5:B:474:SER:HB3	2.04	0.40
5:B:520:GLY:H	5:B:748:ILE:HG22	1.86	0.40
5:B:579:ARG:HA	5:B:589:VAL:HG13	2.04	0.40
5:B:743:ILE:H	5:B:743:ILE:HG12	1.65	0.40
5:B:806:THR:C	5:B:808:ALA:N	2.73	0.40
5:B:903:VAL:CG1	5:B:904:ARG:N	2.84	0.40
5:B:1013:ASN:OD1	5:B:1015:HIS:CD2	2.75	0.40
5:B:1156:ASP:O	5:B:1157:ALA:O	2.38	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:23:SER:O	6:C:24:ASN:HB3	2.20	0.40
6:C:31:ASN:O	6:C:35:ARG:HG3	2.21	0.40
6:C:105:GLY:O	6:C:149:LYS:O	2.40	0.40
6:C:112:ASN:HB2	6:C:114:TYR:HE1	1.81	0.40
6:C:181:ASP:N	6:C:182:PRO:CD	2.84	0.40
11:H:76:THR:O	11:H:77:ARG:O	2.39	0.40
12:I:56:ALA:O	12:I:57:GLY:C	2.60	0.40
13:J:48:ARG:HD2	13:J:48:ARG:C	2.41	0.40
4:M:23:SER:O	4:M:26:GLU:N	2.54	0.40
4:M:70:CYS:O	4:M:70:CYS:SG	2.79	0.40
4:M:230:ARG:HB2	4:M:233:TRP:CE3	2.57	0.40
4:M:268:ASP:HB3	4:M:299:HIS:ND1	2.36	0.40
4:M:283:GLY:O	4:M:285:PRO:CD	2.69	0.40
4:M:341:MET:HE1	4:M:843:LYS:NZ	2.34	0.40
4:M:399:HIS:CG	4:M:400:PRO:N	2.85	0.40
4:M:525:GLN:HB2	5:N:835:GLN:OE1	2.21	0.40
4:M:526:ASP:O	4:M:527:THR:C	2.59	0.40
4:M:650:GLN:HB3	4:M:654:ASN:ND2	2.35	0.40
4:M:663:SER:HB2	5:N:827:ILE:O	2.21	0.40
4:M:794:PRO:C	4:M:796:SER:H	2.24	0.40
4:M:824:LEU:HD23	4:M:824:LEU:HA	1.93	0.40
4:M:857:ARG:CZ	9:R:139:PRO:HG3	2.51	0.40
4:M:1036:ARG:HG2	4:M:1036:ARG:NH1	2.31	0.40
4:M:1074:GLU:HB3	4:M:1075:PRO:CD	2.51	0.40
4:M:1434:ALA:HA	4:M:1435:PRO:HD3	1.96	0.40
5:N:34:ILE:O	5:N:35:SER:C	2.60	0.40
5:N:186:GLU:HG2	13:V:62:ARG:HH12	1.86	0.40
5:N:360:PHE:CD2	5:N:361:LEU:HB2	2.57	0.40
5:N:370:PHE:HE2	5:N:373:ARG:NH1	2.20	0.40
5:N:498:THR:CG2	5:N:499:ASN:N	2.83	0.40
5:N:641:GLU:HA	5:N:641:GLU:OE1	2.21	0.40
5:N:865:LYS:C	5:N:866:TYR:CD1	2.95	0.40
5:N:903:VAL:HG12	5:N:904:ARG:N	2.36	0.40
5:N:1174:LYS:O	5:N:1176:ASN:HB2	2.21	0.40
6:O:236:GLY:C	6:O:238:ILE:N	2.72	0.40
8:Q:157:SER:OG	8:Q:159:ASP:HB2	2.20	0.40
9:R:116:ASP:O	9:R:119:ARG:HB3	2.21	0.40
12:U:33:SER:O	12:U:34:TYR:O	2.38	0.40
12:U:99:LEU:HB2	12:U:101:PHE:CE1	2.56	0.40
4:A:71:GLN:HG3	4:A:72:GLU:N	2.36	0.40
4:A:81:PHE:CZ	5:B:1208:MET:HB2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:242:PRO:HA	4:A:243:PRO:HD2	1.62	0.40
4:A:428:TYR:HD1	4:A:428:TYR:H	1.70	0.40
4:A:659:HIS:O	5:B:1081:LEU:HD22	2.22	0.40
4:A:867:ILE:HG22	4:A:872:GLY:N	2.36	0.40
4:A:881:GLN:O	4:A:953:ASN:HA	2.21	0.40
4:A:1074:GLU:N	4:A:1075:PRO:HD2	2.36	0.40
4:A:1187:GLN:HG3	4:A:1188:GLN:H	1.87	0.40
4:A:1192:LEU:HG	4:A:1193:LEU:N	2.37	0.40
4:A:1206:ASP:CB	4:A:1274:ARG:HH12	2.28	0.40
4:A:1340:GLY:O	4:A:1342:GLU:N	2.54	0.40
5:B:100:PRO:HD3	5:B:172:ILE:HD12	2.04	0.40
5:B:591:ARG:O	5:B:593:PRO:N	2.55	0.40
5:B:642:ASP:CA	5:B:649:LYS:HG3	2.51	0.40
5:B:861:ASP:OD1	5:B:862:GLN:O	2.40	0.40
5:B:970:THR:HG22	5:B:971:THR:N	2.37	0.40
5:B:1002:THR:CG2	5:B:1006:ILE:HG13	2.50	0.40
5:B:1031:LEU:O	5:B:1034:VAL:HB	2.21	0.40
5:B:1151:LEU:N	5:B:1151:LEU:HD12	2.35	0.40
6:C:92:CYS:SG	6:C:94:LYS:HB3	2.61	0.40
8:E:207:ARG:HH11	8:E:207:ARG:HB3	1.86	0.40
11:H:89:LEU:C	11:H:91:ASP:N	2.74	0.40
12:I:56:ALA:O	12:I:57:GLY:O	2.39	0.40
14:K:18:LYS:O	14:K:35:PHE:HA	2.21	0.40
4:M:60:SER:C	4:M:61:ILE:HG13	2.42	0.40
4:M:335:ARG:HH12	5:N:1202:LEU:HD13	1.81	0.40
4:M:675:THR:OG1	4:M:736:ASN:ND2	2.54	0.40
4:M:760:GLN:HG2	4:M:765:VAL:O	2.21	0.40
4:M:841:LEU:HD23	4:M:841:LEU:HA	1.95	0.40
4:M:858:ASN:HD21	4:M:860:LEU:HB2	1.87	0.40
4:M:955:PRO:O	4:M:956:LEU:HG	2.22	0.40
4:M:1116:LEU:HD11	4:M:1118:VAL:HG13	2.04	0.40
4:M:1260:LEU:O	4:M:1260:LEU:HG	2.22	0.40
4:M:1289:ARG:NH1	4:M:1326:ARG:NH1	2.70	0.40
4:M:1437:GLY:O	4:M:1438:THR:C	2.59	0.40
5:N:185:THR:O	5:N:188:ASP:HB2	2.22	0.40
5:N:244:LEU:HD11	5:N:366:GLN:HE22	1.87	0.40
5:N:661:LEU:C	5:N:663:ALA:N	2.73	0.40
5:N:704:ALA:HB2	5:N:738:PHE:CD2	2.56	0.40
5:N:970:THR:HG22	5:N:971:THR:H	1.85	0.40
5:N:980:PHE:HE1	5:N:990:ILE:HD11	1.87	0.40
7:P:189:ASP:O	7:P:193:THR:HB	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:P:192:LYS:HG2	7:P:207:LEU:CD2	2.52	0.40
8:Q:23:VAL:HG13	8:Q:78:LEU:HD13	2.03	0.40
8:Q:67:GLU:O	8:Q:70:SER:HB3	2.22	0.40
12:U:32:CYS:SG	12:U:33:SER:N	2.95	0.40
12:U:106:CYS:SG	12:U:107:SER:N	2.94	0.40
2:5:18:TT:H2'2	2:5:18:TT:H6	1.79	0.40
4:A:34:LYS:HZ3	7:P:187:THR:CG2	2.32	0.40
4:A:34:LYS:HZ1	4:A:57:ARG:NH1	2.18	0.40
4:A:71:GLN:O	4:A:73:GLY:N	2.48	0.40
4:A:164:ARG:CG	4:A:165:GLY:N	2.73	0.40
4:A:414:ASP:OD1	4:A:414:ASP:C	2.59	0.40
4:A:494:SER:O	4:A:495:GLU:C	2.60	0.40
4:A:699:ALA:HB2	12:I:114:GLN:NE2	2.36	0.40
4:A:805:LEU:O	5:B:761:HIS:HE1	2.05	0.40
4:A:823:GLY:O	4:A:825:ILE:N	2.55	0.40
4:A:1315:GLU:C	4:A:1317:MET:H	2.25	0.40
4:A:1381:LEU:HD23	4:A:1381:LEU:HA	1.80	0.40
4:A:1450:LEU:O	4:A:1450:LEU:CG	2.69	0.40
5:B:181:LEU:HD22	5:B:189:LEU:HD22	2.03	0.40
5:B:1077:THR:HG22	14:K:44:ASN:HD21	1.87	0.40
6:C:189:THR:HG22	6:C:190:ASP:H	1.86	0.40
8:E:127:ILE:HG13	8:E:127:ILE:O	2.21	0.40
8:E:161:LYS:C	8:E:163:GLU:H	2.25	0.40
8:E:161:LYS:HD2	8:E:195:VAL:HG23	2.04	0.40
9:F:118:LEU:O	9:F:118:LEU:CG	2.69	0.40
10:G:20:PRO:CD	10:G:21:ARG:H	2.34	0.40
12:I:101:PHE:CE1	12:I:112:SER:HB2	2.57	0.40
12:I:101:PHE:H	12:I:101:PHE:HD1	1.69	0.40
15:L:38:LEU:O	15:L:39:SER:CB	2.60	0.40
4:M:834:THR:HG21	4:M:1077:THR:HA	2.03	0.40
4:M:867:ILE:HD12	4:M:867:ILE:N	2.37	0.40
4:M:1059:HIS:O	4:M:1060:PRO:C	2.56	0.40
5:N:37:PHE:CD2	5:N:542:MET:HE3	2.56	0.40
5:N:597:MET:C	5:N:599:THR:N	2.74	0.40
7:P:29:LEU:HD13	10:S:82:PHE:CZ	2.57	0.40
7:P:35:LEU:CD1	7:P:174:PRO:HD2	2.52	0.40
10:S:9:LEU:HD23	10:S:30:LEU:HD12	2.04	0.40
10:S:20:PRO:HG2	10:S:21:ARG:H	1.87	0.40
11:T:10:PHE:CE1	11:T:57:VAL:HB	2.56	0.40
11:T:82:PRO:C	11:T:84:ALA:N	2.75	0.40
13:V:7:CYS:CB	13:V:49:MET:HE3	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:W:89:ASN:O	14:W:91:CYS:N	2.54	0.40

There are no symmetry-related clashes.

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
4	A	1410/1733 (81%)	968 (69%)	288 (20%)	154 (11%)	0 8
4	M	1410/1733 (81%)	964 (68%)	291 (21%)	155 (11%)	0 8
5	B	1096/1224 (90%)	762 (70%)	222 (20%)	112 (10%)	0 9
5	N	1096/1224 (90%)	765 (70%)	217 (20%)	114 (10%)	0 9
6	C	264/318 (83%)	172 (65%)	64 (24%)	28 (11%)	0 8
6	O	264/318 (83%)	171 (65%)	63 (24%)	30 (11%)	0 7
7	D	173/221 (78%)	125 (72%)	27 (16%)	21 (12%)	0 6
7	P	173/221 (78%)	124 (72%)	32 (18%)	17 (10%)	0 10
8	E	212/215 (99%)	155 (73%)	42 (20%)	15 (7%)	1 17
8	Q	212/215 (99%)	156 (74%)	42 (20%)	14 (7%)	1 19
9	F	84/155 (54%)	67 (80%)	11 (13%)	6 (7%)	1 17
9	R	84/155 (54%)	67 (80%)	12 (14%)	5 (6%)	1 20
10	G	169/171 (99%)	125 (74%)	37 (22%)	7 (4%)	3 27
10	S	169/171 (99%)	132 (78%)	28 (17%)	9 (5%)	2 23
11	H	131/146 (90%)	87 (66%)	27 (21%)	17 (13%)	0 5
11	T	131/146 (90%)	83 (63%)	30 (23%)	18 (14%)	0 4
12	I	114/122 (93%)	83 (73%)	19 (17%)	12 (10%)	0 8
12	U	114/122 (93%)	81 (71%)	22 (19%)	11 (10%)	0 10
13	J	63/70 (90%)	35 (56%)	14 (22%)	14 (22%)	0 1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
13	V	63/70 (90%)	36 (57%)	15 (24%)	12 (19%)	0 2
14	K	112/120 (93%)	86 (77%)	14 (12%)	12 (11%)	0 8
14	W	112/120 (93%)	86 (77%)	17 (15%)	9 (8%)	1 14
15	L	44/70 (63%)	16 (36%)	21 (48%)	7 (16%)	0 3
15	X	44/70 (63%)	17 (39%)	19 (43%)	8 (18%)	0 2
All	All	7744/9130 (85%)	5363 (69%)	1574 (20%)	807 (10%)	0 9

All (807) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	A	44	THR
4	A	48	ALA
4	A	57	ARG
4	A	62	ASP
4	A	65	LEU
4	A	74	MET
4	A	93	VAL
4	A	167	CYS
4	A	223	GLY
4	A	250	ILE
4	A	255	SER
4	A	286	HIS
4	A	311	GLN
4	A	318	SER
4	A	322	VAL
4	A	385	ILE
4	A	399	HIS
4	A	423	ASP
4	A	483	ASP
4	A	517	ASN
4	A	536	LEU
4	A	543	LEU
4	A	567	LYS
4	A	597	LEU
4	A	666	ILE
4	A	780	VAL
4	A	847	ASP
4	A	968	GLN
4	A	969	GLN
4	A	986	ILE

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Mol	Chain	Res	Type
4	A	1002	GLY
4	A	1036	ARG
4	A	1096	SER
4	A	1115	SER
4	A	1122	PRO
4	A	1212	VAL
4	A	1223	ASP
4	A	1233	ASP
4	A	1281	ARG
4	A	1314	SER
4	A	1341	ILE
4	A	1365	TYR
4	A	1378	GLN
4	A	1438	THR
5	B	28	GLU
5	B	45	SER
5	B	46	GLN
5	B	108	VAL
5	B	258	LEU
5	B	282	ILE
5	B	367	LEU
5	B	401	PHE
5	B	467	GLY
5	B	474	SER
5	B	613	VAL
5	B	643	ASP
5	B	709	ASP
5	B	727	LYS
5	B	731	VAL
5	B	751	VAL
5	B	764	SER
5	B	831	SER
5	B	907	GLY
5	B	943	SER
5	B	945	GLU
5	B	958	GLN
5	B	1046	PRO
5	B	1069	PHE
5	B	1100	ASP
5	B	1156	ASP
5	B	1157	ALA
5	B	1167	GLY

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Mol	Chain	Res	Type
5	B	1175	LEU
5	B	1178	ASN
5	B	1181	GLU
5	B	1182	CYS
5	B	1186	ASP
5	B	1188	LYS
6	C	6	PRO
6	C	78	GLU
6	C	87	PHE
6	C	141	GLY
6	C	149	LYS
6	C	156	THR
6	C	161	LYS
6	C	184	ASN
6	C	214	ASN
6	C	215	GLU
7	D	5	THR
7	D	8	PHE
7	D	19	GLU
7	D	20	GLU
7	D	52	LEU
7	D	131	GLU
7	D	177	VAL
7	D	199	ASN
8	E	73	PRO
8	E	74	ASP
8	E	106	GLN
8	E	130	ALA
8	E	206	GLY
10	G	63	PRO
10	G	139	ILE
11	H	17	PRO
11	H	62	SER
11	H	77	ARG
11	H	81	PRO
11	H	82	PRO
11	H	128	ASN
11	H	140	ALA
12	I	9	ASP
12	I	11	ASN
12	I	79	HIS
12	I	106	CYS

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Mol	Chain	Res	Type
13	J	2	ILE
13	J	6	ARG
13	J	17	LYS
13	J	29	GLU
13	J	32	GLU
13	J	64	ASN
14	K	7	PHE
14	K	110	ASN
15	L	35	SER
15	L	50	ASP
15	L	59	ALA
15	L	60	ARG
4	M	44	THR
4	M	48	ALA
4	M	54	ASN
4	M	57	ARG
4	M	62	ASP
4	M	65	LEU
4	M	66	LYS
4	M	74	MET
4	M	93	VAL
4	M	154	SER
4	M	167	CYS
4	M	223	GLY
4	M	255	SER
4	M	286	HIS
4	M	311	GLN
4	M	318	SER
4	M	322	VAL
4	M	385	ILE
4	M	423	ASP
4	M	465	TYR
4	M	517	ASN
4	M	536	LEU
4	M	567	LYS
4	M	597	LEU
4	M	619	LYS
4	M	626	ASN
4	M	666	ILE
4	M	780	VAL
4	M	847	ASP
4	M	968	GLN

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Mol	Chain	Res	Type
4	M	969	GLN
4	M	986	ILE
4	M	1002	GLY
4	M	1036	ARG
4	M	1096	SER
4	M	1115	SER
4	M	1122	PRO
4	M	1212	VAL
4	M	1223	ASP
4	M	1233	ASP
4	M	1281	ARG
4	M	1314	SER
4	M	1341	ILE
4	M	1365	TYR
4	M	1378	GLN
4	M	1405	THR
4	M	1438	THR
5	N	45	SER
5	N	46	GLN
5	N	108	VAL
5	N	115	GLN
5	N	258	LEU
5	N	367	LEU
5	N	467	GLY
5	N	474	SER
5	N	613	VAL
5	N	643	ASP
5	N	709	ASP
5	N	731	VAL
5	N	751	VAL
5	N	831	SER
5	N	907	GLY
5	N	909	ASP
5	N	943	SER
5	N	958	GLN
5	N	1046	PRO
5	N	1097	HIS
5	N	1100	ASP
5	N	1156	ASP
5	N	1157	ALA
5	N	1167	GLY
5	N	1175	LEU

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Mol	Chain	Res	Type
5	N	1181	GLU
5	N	1182	CYS
5	N	1188	LYS
6	O	6	PRO
6	O	87	PHE
6	O	141	GLY
6	O	149	LYS
6	O	156	THR
6	O	161	LYS
6	O	184	ASN
6	O	209	TYR
6	O	214	ASN
6	O	215	GLU
7	P	5	THR
7	P	8	PHE
7	P	19	GLU
7	P	20	GLU
7	P	52	LEU
7	P	131	GLU
7	P	177	VAL
7	P	199	ASN
8	Q	3	GLN
8	Q	36	GLU
8	Q	59	SER
8	Q	73	PRO
8	Q	74	ASP
8	Q	106	GLN
8	Q	130	ALA
8	Q	206	GLY
9	R	81	THR
10	S	63	PRO
10	S	139	ILE
11	T	17	PRO
11	T	62	SER
11	T	77	ARG
11	T	81	PRO
11	T	82	PRO
11	T	128	ASN
11	T	140	ALA
12	U	3	THR
12	U	9	ASP
12	U	11	ASN

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Mol	Chain	Res	Type
12	U	57	GLY
12	U	79	HIS
12	U	106	CYS
13	V	2	ILE
13	V	14	VAL
13	V	28	ASP
13	V	29	GLU
13	V	32	GLU
13	V	64	ASN
14	W	110	ASN
15	X	35	SER
15	X	50	ASP
15	X	59	ALA
15	X	60	ARG
4	A	42	ASP
4	A	54	ASN
4	A	59	GLY
4	A	61	ILE
4	A	66	LYS
4	A	70	CYS
4	A	73	GLY
4	A	76	GLU
4	A	148	CYS
4	A	154	SER
4	A	219	PHE
4	A	244	PRO
4	A	253	ASN
4	A	283	GLY
4	A	312	PRO
4	A	331	GLY
4	A	335	ARG
4	A	336	ILE
4	A	409	SER
4	A	418	SER
4	A	439	ASN
4	A	465	TYR
4	A	544	ASP
4	A	626	ASN
4	A	753	GLY
4	A	789	LYS
4	A	825	ILE
4	A	846	GLU

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Mol	Chain	Res	Type
4	A	871	ASP
4	A	875	ALA
4	A	1014	ALA
4	A	1054	LEU
4	A	1114	PRO
4	A	1116	LEU
4	A	1124	HIS
4	A	1277	GLU
4	A	1366	ARG
4	A	1377	THR
4	A	1386	ARG
4	A	1389	PHE
4	A	1392	SER
4	A	1395	GLY
4	A	1402	PHE
4	A	1405	THR
5	B	65	GLU
5	B	115	GLN
5	B	186	GLU
5	B	206	ASN
5	B	260	GLY
5	B	266	ALA
5	B	345	LYS
5	B	369	GLY
5	B	450	ALA
5	B	466	TRP
5	B	559	SER
5	B	605	ARG
5	B	619	ILE
5	B	641	GLU
5	B	655	LYS
5	B	708	GLU
5	B	746	SER
5	B	792	MET
5	B	881	ASN
5	B	891	ASP
5	B	1041	GLU
5	B	1097	HIS
5	B	1103	ILE
5	B	1108	ARG
5	B	1155	SER
5	B	1171	VAL

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Mol	Chain	Res	Type
5	B	1183	LYS
6	C	4	GLU
6	C	51	VAL
6	C	110	THR
6	C	175	ALA
6	C	209	TYR
6	C	213	PRO
6	C	216	GLY
6	C	240	VAL
6	C	264	GLN
7	D	6	SER
7	D	21	GLU
7	D	53	SER
7	D	192	LYS
8	E	3	GLN
8	E	36	GLU
8	E	45	LYS
8	E	59	SER
8	E	192	ARG
11	H	21	ASN
11	H	59	ILE
11	H	84	ALA
11	H	92	ASP
11	H	108	SER
12	I	3	THR
12	I	57	GLY
12	I	78	CYS
12	I	113	ASP
13	J	14	VAL
13	J	28	ASP
13	J	33	GLY
14	K	53	ASP
15	L	53	HIS
4	M	42	ASP
4	M	59	GLY
4	M	61	ILE
4	M	70	CYS
4	M	76	GLU
4	M	148	CYS
4	M	219	PHE
4	M	250	ILE
4	M	253	ASN

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Mol	Chain	Res	Type
4	M	283	GLY
4	M	312	PRO
4	M	332	LYS
4	M	335	ARG
4	M	336	ILE
4	M	394	ASN
4	M	418	SER
4	M	439	ASN
4	M	483	ASP
4	M	543	LEU
4	M	652	VAL
4	M	753	GLY
4	M	789	LYS
4	M	825	ILE
4	M	871	ASP
4	M	1014	ALA
4	M	1054	LEU
4	M	1114	PRO
4	M	1116	LEU
4	M	1124	HIS
4	M	1366	ARG
4	M	1377	THR
4	M	1386	ARG
4	M	1395	GLY
4	M	1397	LEU
4	M	1402	PHE
5	N	28	GLU
5	N	186	GLU
5	N	206	ASN
5	N	259	TYR
5	N	260	GLY
5	N	266	ALA
5	N	282	ILE
5	N	283	VAL
5	N	322	PHE
5	N	345	LYS
5	N	401	PHE
5	N	450	ALA
5	N	466	TRP
5	N	605	ARG
5	N	619	ILE
5	N	641	GLU

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Mol	Chain	Res	Type
5	N	655	LYS
5	N	708	GLU
5	N	727	LYS
5	N	764	SER
5	N	792	MET
5	N	881	ASN
5	N	891	ASP
5	N	945	GLU
5	N	1041	GLU
5	N	1065	GLN
5	N	1069	PHE
5	N	1103	ILE
5	N	1144	ALA
5	N	1155	SER
5	N	1171	VAL
5	N	1178	ASN
5	N	1183	LYS
5	N	1186	ASP
6	O	4	GLU
6	O	51	VAL
6	O	78	GLU
6	O	110	THR
6	O	175	ALA
6	O	213	PRO
6	O	216	GLY
6	O	240	VAL
7	P	21	GLU
7	P	30	GLY
7	P	53	SER
7	P	192	LYS
8	Q	45	LYS
8	Q	115	ASN
11	T	21	ASN
11	T	32	THR
11	T	59	ILE
11	T	84	ALA
11	T	108	SER
12	U	34	TYR
12	U	47	GLU
12	U	78	CYS
13	V	6	ARG
13	V	17	LYS

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Mol	Chain	Res	Type
13	V	27	GLU
13	V	33	GLY
14	W	7	PHE
14	W	53	ASP
14	W	112	GLN
15	X	53	HIS
4	A	69	THR
4	A	71	GLN
4	A	86	LEU
4	A	317	LYS
4	A	332	LYS
4	A	386	ASP
4	A	394	ASN
4	A	400	PRO
4	A	605	MET
4	A	619	LYS
4	A	731	ARG
4	A	852	TYR
4	A	895	LYS
4	A	979	SER
4	A	1120	LEU
4	A	1133	LEU
4	A	1221	LYS
4	A	1229	SER
4	A	1280	GLU
4	A	1309	ASP
4	A	1397	LEU
5	B	114	PRO
5	B	229	ALA
5	B	257	LYS
5	B	259	TYR
5	B	264	SER
5	B	513	GLN
5	B	629	ASP
5	B	711	GLU
5	B	848	ARG
5	B	869	SER
5	B	951	GLN
5	B	996	ARG
5	B	1003	ALA
5	B	1065	GLN
5	B	1112	GLN

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Mol	Chain	Res	Type
6	C	84	ARG
6	C	126	GLY
6	C	148	ARG
7	D	65	GLU
7	D	196	PRO
8	E	115	ASN
9	F	81	THR
9	F	112	GLU
9	F	150	GLU
9	F	154	ASP
10	G	17	PHE
10	G	20	PRO
11	H	32	THR
11	H	135	LEU
12	I	34	TYR
12	I	47	GLU
13	J	27	GLU
14	K	15	GLY
14	K	29	ASN
14	K	70	ARG
14	K	90	ALA
14	K	112	GLN
15	L	26	THR
4	M	8	SER
4	M	84	ILE
4	M	244	PRO
4	M	263	THR
4	M	317	LYS
4	M	399	HIS
4	M	409	SER
4	M	424	ILE
4	M	544	ASP
4	M	592	ASP
4	M	605	MET
4	M	609	ASP
4	M	731	ARG
4	M	875	ALA
4	M	903	ASN
4	M	979	SER
4	M	1016	THR
4	M	1127	ASP
4	M	1165	GLU

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Mol	Chain	Res	Type
4	M	1221	LYS
4	M	1229	SER
4	M	1277	GLU
4	M	1280	GLU
4	M	1389	PHE
5	N	48	LEU
5	N	58	THR
5	N	65	GLU
5	N	114	PRO
5	N	257	LYS
5	N	369	GLY
5	N	387	LEU
5	N	559	SER
5	N	591	ARG
5	N	629	ASP
5	N	711	GLU
5	N	746	SER
5	N	754	SER
5	N	818	PRO
5	N	848	ARG
5	N	869	SER
5	N	878	GLN
5	N	1003	ALA
5	N	1108	ARG
5	N	1136	ASP
6	O	84	ARG
6	O	117	ASP
6	O	148	ARG
6	O	264	GLN
7	P	6	SER
7	P	47	LEU
7	P	65	GLU
7	P	220	LEU
8	Q	192	ARG
9	R	112	GLU
9	R	150	GLU
10	S	20	PRO
10	S	118	ASP
12	U	107	SER
12	U	113	ASP
13	V	55	ASP
14	W	29	ASN

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Mol	Chain	Res	Type
14	W	88	LYS
14	W	90	ALA
15	X	55	ILE
4	A	8	SER
4	A	55	ASP
4	A	113	LEU
4	A	169	ASN
4	A	263	THR
4	A	290	GLU
4	A	424	ILE
4	A	525	GLN
4	A	592	ASP
4	A	609	ASP
4	A	661	GLY
4	A	958	VAL
5	B	48	LEU
5	B	56	ASP
5	B	58	THR
5	B	94	LYS
5	B	245	GLU
5	B	283	VAL
5	B	313	MET
5	B	387	LEU
5	B	540	SER
5	B	591	ARG
5	B	598	GLU
5	B	752	ALA
5	B	754	SER
5	B	884	ARG
5	B	909	ASP
5	B	1017	ILE
5	B	1096	ARG
5	B	1144	ALA
7	D	9	GLN
7	D	12	ARG
7	D	218	GLU
10	G	62	LEU
10	G	154	VAL
11	H	44	VAL
11	H	52	GLN
11	H	90	ALA
12	I	107	SER

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Mol	Chain	Res	Type
13	J	55	ASP
14	K	6	ARG
14	K	88	LYS
14	K	104	ASN
15	L	55	ILE
4	M	55	ASP
4	M	69	THR
4	M	113	LEU
4	M	169	ASN
4	M	278	THR
4	M	290	GLU
4	M	357	PRO
4	M	400	PRO
4	M	525	GLN
4	M	526	ASP
4	M	661	GLY
4	M	774	ARG
4	M	846	GLU
4	M	895	LYS
4	M	958	VAL
4	M	1067	LEU
4	M	1120	LEU
5	N	56	ASP
5	N	245	GLU
5	N	264	SER
5	N	728	ARG
5	N	884	ARG
5	N	951	GLN
5	N	1017	ILE
5	N	1112	GLN
6	O	81	GLU
6	O	142	VAL
7	P	119	ARG
9	R	154	ASP
10	S	62	LEU
10	S	115	MET
10	S	154	VAL
11	T	92	ASP
11	T	135	LEU
13	V	63	TYR
15	X	26	THR
15	X	54	ARG

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Mol	Chain	Res	Type
4	A	43	GLU
4	A	245	PRO
4	A	333	GLU
4	A	357	PRO
4	A	526	ASP
4	A	534	LEU
4	A	591	PHE
4	A	720	ARG
4	A	817	ALA
4	A	840	ARG
4	A	1127	ASP
4	A	1260	LEU
5	B	248	SER
5	B	309	GLN
5	B	365	THR
5	B	571	PRO
5	B	728	ARG
5	B	844	SER
5	B	1018	PRO
5	B	1214	PRO
6	C	81	GLU
6	C	117	ASP
6	C	142	VAL
7	D	47	LEU
7	D	119	ARG
7	D	220	LEU
8	E	158	SER
13	J	51	LEU
13	J	63	TYR
4	M	226	GLU
4	M	245	PRO
4	M	331	GLY
4	M	636	GLU
4	M	649	ILE
4	M	759	ALA
4	M	1133	LEU
4	M	1260	LEU
4	M	1309	ASP
4	M	1454	MET
5	N	248	SER
5	N	389	ALA
5	N	460	ALA

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Mol	Chain	Res	Type
5	N	461	LEU
5	N	513	GLN
5	N	531	GLN
5	N	571	PRO
5	N	598	GLU
5	N	1214	PRO
6	O	167	HIS
8	Q	138	ALA
8	Q	158	SER
11	T	44	VAL
11	T	52	GLN
14	W	15	GLY
4	A	99	ILE
4	A	111	GLY
4	A	300	VAL
4	A	410	GLY
4	A	599	SER
4	A	653	VAL
4	A	673	GLY
4	A	975	HIS
4	A	1158	PRO
5	B	124	TYR
5	B	411	PRO
5	B	480	SER
5	B	492	LEU
5	B	712	PRO
6	C	212	PRO
6	C	255	VAL
8	E	44	ALA
9	F	151	LEU
10	G	115	MET
13	J	8	PHE
4	M	96	ILE
4	M	653	VAL
4	M	755	PHE
4	M	852	TYR
5	N	94	LYS
5	N	124	TYR
5	N	341	LEU
5	N	480	SER
5	N	712	PRO
5	N	894	ASP

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Mol	Chain	Res	Type
5	N	1143	ALA
6	O	91	HIS
6	O	126	GLY
8	Q	44	ALA
10	S	17	PHE
10	S	19	GLY
11	T	90	ALA
14	W	70	ARG
4	A	492	PRO
4	A	775	ILE
4	A	1164	PRO
4	M	492	PRO
4	M	604	GLY
4	M	1164	PRO
5	N	1018	PRO
6	O	139	GLY
11	T	107	VAL
4	A	84	ILE
4	A	568	PRO
4	A	604	GLY
5	B	901	PRO
6	C	139	GLY
4	M	673	GLY
4	M	775	ILE
4	M	1098	VAL
4	M	1158	PRO
5	N	55	VAL
5	N	411	PRO
4	A	78	PRO
4	A	633	VAL
4	A	1454	MET
5	B	231	PRO
5	B	1011	ILE
9	F	131	PRO
14	K	66	PRO
4	M	51	GLY
4	M	73	GLY
4	M	196	GLU
4	M	1292	PRO
4	M	1335	ILE
5	N	295	GLY
5	N	364	ILE

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Mol	Chain	Res	Type
5	N	575	PRO
6	O	212	PRO
4	A	196	GLU
5	B	364	ILE
7	D	30	GLY
8	E	189	GLY
4	M	35	ILE
4	M	364	VAL
4	M	599	SER
4	M	765	VAL
4	M	1379	GLY
6	O	5	GLY
4	A	51	GLY
4	A	308	ILE
5	B	592	ASN
12	I	62	ILE
4	M	111	GLY
5	N	231	PRO
5	N	1110	PRO
9	R	131	PRO
8	E	129	PRO

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	
4	A	1244/1520 (82%)	1138 (92%)	106 (8%)	10	40
4	M	1244/1520 (82%)	1142 (92%)	102 (8%)	11	40
5	B	967/1061 (91%)	888 (92%)	79 (8%)	11	40
5	N	967/1061 (91%)	886 (92%)	81 (8%)	11	40
6	C	235/274 (86%)	216 (92%)	19 (8%)	11	41
6	O	235/274 (86%)	215 (92%)	20 (8%)	10	40
7	D	159/200 (80%)	136 (86%)	23 (14%)	3	19
7	P	159/200 (80%)	138 (87%)	21 (13%)	4	22

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
8	E	196/197 (100%)	191 (97%)	5 (3%)	46 69
8	Q	196/197 (100%)	191 (97%)	5 (3%)	46 69
9	F	77/137 (56%)	68 (88%)	9 (12%)	5 27
9	R	77/137 (56%)	69 (90%)	8 (10%)	7 30
10	G	152/152 (100%)	141 (93%)	11 (7%)	14 45
10	S	152/152 (100%)	140 (92%)	12 (8%)	12 42
11	H	119/128 (93%)	112 (94%)	7 (6%)	19 51
11	T	119/128 (93%)	112 (94%)	7 (6%)	19 51
12	I	110/116 (95%)	96 (87%)	14 (13%)	4 23
12	U	110/116 (95%)	95 (86%)	15 (14%)	3 22
13	J	60/65 (92%)	53 (88%)	7 (12%)	5 27
13	V	60/65 (92%)	54 (90%)	6 (10%)	7 32
14	K	99/102 (97%)	89 (90%)	10 (10%)	7 32
14	W	99/102 (97%)	88 (89%)	11 (11%)	6 29
15	L	40/57 (70%)	36 (90%)	4 (10%)	7 32
15	X	40/57 (70%)	36 (90%)	4 (10%)	7 32
All	All	6916/8018 (86%)	6330 (92%)	586 (8%)	10 40

All (586) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	A	2	VAL
4	A	11	LEU
4	A	34	LYS
4	A	37	PHE
4	A	38	PRO
4	A	62	ASP
4	A	67	CYS
4	A	70	CYS
4	A	83	HIS
4	A	93	VAL
4	A	100	LYS
4	A	108	MET
4	A	122	MET
4	A	130	ASP
4	A	142	CYS

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Mol	Chain	Res	Type
4	A	198	GLU
4	A	200	ARG
4	A	215	SER
4	A	221	SER
4	A	245	PRO
4	A	270	LEU
4	A	302	THR
4	A	312	PRO
4	A	320	ARG
4	A	335	ARG
4	A	381	THR
4	A	385	ILE
4	A	404	TYR
4	A	406	ILE
4	A	407	ARG
4	A	408	ASP
4	A	418	SER
4	A	425	GLN
4	A	443	LEU
4	A	445	ASN
4	A	449	SER
4	A	450	LEU
4	A	451	HIS
4	A	460	VAL
4	A	462	VAL
4	A	469	ARG
4	A	470	LEU
4	A	481	ASP
4	A	493	GLN
4	A	497	THR
4	A	515	GLN
4	A	527	THR
4	A	560	ILE
4	A	562	THR
4	A	618	GLU
4	A	626	ASN
4	A	629	LEU
4	A	663	SER
4	A	666	ILE
4	A	670	ILE
4	A	711	ARG
4	A	741	ASN

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Mol	Chain	Res	Type
4	A	768	GLN
4	A	774	ARG
4	A	779	PHE
4	A	821	ARG
4	A	827	THR
4	A	831	THR
4	A	858	ASN
4	A	871	ASP
4	A	886	ILE
4	A	890	ASP
4	A	903	ASN
4	A	906	HIS
4	A	929	LEU
4	A	940	ARG
4	A	969	GLN
4	A	992	ASP
4	A	1009	ASN
4	A	1029	ARG
4	A	1030	ARG
4	A	1035	TYR
4	A	1052	GLN
4	A	1067	LEU
4	A	1110	ASN
4	A	1116	LEU
4	A	1122	PRO
4	A	1127	ASP
4	A	1152	ILE
4	A	1170	ILE
4	A	1187	GLN
4	A	1206	ASP
4	A	1264	GLU
4	A	1271	ILE
4	A	1295	THR
4	A	1309	ASP
4	A	1332	PHE
4	A	1333	ILE
4	A	1359	ASP
4	A	1364	ASN
4	A	1371	LEU
4	A	1372	VAL
4	A	1376	THR
4	A	1385	THR

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Mol	Chain	Res	Type
4	A	1386	ARG
4	A	1389	PHE
4	A	1405	THR
4	A	1432	GLN
4	A	1443	VAL
4	A	1444	MET
4	A	1445	ILE
5	B	30	SER
5	B	57	TYR
5	B	61	ASP
5	B	106	ASP
5	B	128	LEU
5	B	175	ARG
5	B	188	ASP
5	B	194	GLU
5	B	199	MET
5	B	217	ARG
5	B	223	VAL
5	B	258	LEU
5	B	268	THR
5	B	286	PHE
5	B	298	LEU
5	B	365	THR
5	B	371	GLU
5	B	378	LEU
5	B	393	LYS
5	B	396	ASP
5	B	427	ASP
5	B	429	PHE
5	B	446	LEU
5	B	463	THR
5	B	466	TRP
5	B	485	ARG
5	B	496	ARG
5	B	498	THR
5	B	502	ILE
5	B	516	ASN
5	B	557	PHE
5	B	570	VAL
5	B	582	VAL
5	B	603	LEU
5	B	628	THR

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Mol	Chain	Res	Type
5	B	635	ARG
5	B	644	GLU
5	B	682	SER
5	B	684	LEU
5	B	724	ASP
5	B	737	THR
5	B	742	GLU
5	B	790	ASP
5	B	797	TYR
5	B	811	TYR
5	B	830	TYR
5	B	835	GLN
5	B	837	ASP
5	B	839	MET
5	B	858	SER
5	B	878	GLN
5	B	901	PRO
5	B	909	ASP
5	B	939	THR
5	B	953	LEU
5	B	999	MET
5	B	1002	THR
5	B	1006	ILE
5	B	1010	LEU
5	B	1047	PHE
5	B	1069	PHE
5	B	1084	GLN
5	B	1087	PHE
5	B	1092	TYR
5	B	1095	LEU
5	B	1099	VAL
5	B	1103	ILE
5	B	1108	ARG
5	B	1122	ARG
5	B	1123	SER
5	B	1159	ARG
5	B	1160	VAL
5	B	1169	MET
5	B	1170	THR
5	B	1176	ASN
5	B	1183	LYS
5	B	1202	LEU

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Mol	Chain	Res	Type
5	B	1212	ILE
5	B	1216	LEU
6	C	22	LEU
6	C	29	MET
6	C	56	THR
6	C	58	LEU
6	C	62	PHE
6	C	77	ILE
6	C	99	LEU
6	C	104	PHE
6	C	108	GLU
6	C	129	ILE
6	C	140	ASN
6	C	145	CYS
6	C	147	LEU
6	C	163	ILE
6	C	193	TYR
6	C	214	ASN
6	C	233	GLU
6	C	240	VAL
6	C	266	ASP
7	D	8	PHE
7	D	13	ARG
7	D	16	LYS
7	D	17	LYS
7	D	19	GLU
7	D	22	GLU
7	D	47	LEU
7	D	63	LEU
7	D	70	PHE
7	D	137	ASN
7	D	139	LYS
7	D	148	LEU
7	D	149	THR
7	D	151	PHE
7	D	156	ASP
7	D	170	THR
7	D	174	PRO
7	D	187	THR
7	D	192	LYS
7	D	193	THR
7	D	206	GLU

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Mol	Chain	Res	Type
7	D	208	GLU
7	D	221	TYR
8	E	60	PHE
8	E	74	ASP
8	E	78	LEU
8	E	104	ASN
8	E	114	ASN
9	F	79	ARG
9	F	81	THR
9	F	90	ARG
9	F	99	LEU
9	F	116	ASP
9	F	119	ARG
9	F	143	PHE
9	F	148	VAL
9	F	153	VAL
10	G	1	MET
10	G	13	LEU
10	G	17	PHE
10	G	74	TYR
10	G	78	VAL
10	G	80	LYS
10	G	88	ASP
10	G	96	GLN
10	G	115	MET
10	G	126	ASN
10	G	171	ILE
11	H	86	ASP
11	H	93	TYR
11	H	95	TYR
11	H	102	TYR
11	H	130	ARG
11	H	134	ASN
11	H	143	LEU
12	I	8	ARG
12	I	9	ASP
12	I	15	TYR
12	I	34	TYR
12	I	40	SER
12	I	75	CYS
12	I	78	CYS
12	I	85	PHE

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Mol	Chain	Res	Type
12	I	86	PHE
12	I	94	ASP
12	I	99	LEU
12	I	101	PHE
12	I	106	CYS
12	I	110	PHE
13	J	7	CYS
13	J	9	SER
13	J	10	CYS
13	J	28	ASP
13	J	44	TYR
13	J	46	CYS
13	J	48	ARG
14	K	5	ASP
14	K	10	PHE
14	K	25	THR
14	K	47	ARG
14	K	50	LEU
14	K	61	TYR
14	K	81	TYR
14	K	111	LEU
14	K	112	GLN
14	K	113	THR
15	L	51	CYS
15	L	55	ILE
15	L	65	VAL
15	L	70	ARG
4	M	2	VAL
4	M	11	LEU
4	M	34	LYS
4	M	37	PHE
4	M	38	PRO
4	M	62	ASP
4	M	67	CYS
4	M	83	HIS
4	M	93	VAL
4	M	100	LYS
4	M	108	MET
4	M	130	ASP
4	M	198	GLU
4	M	200	ARG
4	M	215	SER

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Mol	Chain	Res	Type
4	M	245	PRO
4	M	270	LEU
4	M	302	THR
4	M	312	PRO
4	M	320	ARG
4	M	335	ARG
4	M	381	THR
4	M	385	ILE
4	M	404	TYR
4	M	406	ILE
4	M	407	ARG
4	M	408	ASP
4	M	425	GLN
4	M	443	LEU
4	M	445	ASN
4	M	449	SER
4	M	450	LEU
4	M	451	HIS
4	M	462	VAL
4	M	470	LEU
4	M	481	ASP
4	M	493	GLN
4	M	515	GLN
4	M	527	THR
4	M	560	ILE
4	M	562	THR
4	M	618	GLU
4	M	626	ASN
4	M	629	LEU
4	M	635	ARG
4	M	666	ILE
4	M	670	ILE
4	M	711	ARG
4	M	741	ASN
4	M	768	GLN
4	M	774	ARG
4	M	779	PHE
4	M	821	ARG
4	M	827	THR
4	M	831	THR
4	M	855	THR
4	M	858	ASN

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Mol	Chain	Res	Type
4	M	886	ILE
4	M	890	ASP
4	M	903	ASN
4	M	906	HIS
4	M	907	THR
4	M	929	LEU
4	M	940	ARG
4	M	949	ASP
4	M	969	GLN
4	M	992	ASP
4	M	1009	ASN
4	M	1029	ARG
4	M	1030	ARG
4	M	1035	TYR
4	M	1052	GLN
4	M	1067	LEU
4	M	1110	ASN
4	M	1111	MET
4	M	1116	LEU
4	M	1122	PRO
4	M	1127	ASP
4	M	1170	ILE
4	M	1187	GLN
4	M	1206	ASP
4	M	1240	CYS
4	M	1264	GLU
4	M	1271	ILE
4	M	1291	VAL
4	M	1295	THR
4	M	1309	ASP
4	M	1332	PHE
4	M	1333	ILE
4	M	1359	ASP
4	M	1364	ASN
4	M	1366	ARG
4	M	1372	VAL
4	M	1376	THR
4	M	1385	THR
4	M	1386	ARG
4	M	1389	PHE
4	M	1405	THR
4	M	1432	GLN

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Mol	Chain	Res	Type
4	M	1442	ASP
4	M	1443	VAL
4	M	1445	ILE
5	N	30	SER
5	N	35	SER
5	N	57	TYR
5	N	61	ASP
5	N	106	ASP
5	N	128	LEU
5	N	175	ARG
5	N	180	TYR
5	N	188	ASP
5	N	194	GLU
5	N	199	MET
5	N	217	ARG
5	N	223	VAL
5	N	259	TYR
5	N	268	THR
5	N	286	PHE
5	N	298	LEU
5	N	360	PHE
5	N	365	THR
5	N	371	GLU
5	N	378	LEU
5	N	393	LYS
5	N	396	ASP
5	N	399	ASP
5	N	427	ASP
5	N	429	PHE
5	N	463	THR
5	N	465	ASN
5	N	466	TRP
5	N	485	ARG
5	N	496	ARG
5	N	498	THR
5	N	502	ILE
5	N	516	ASN
5	N	557	PHE
5	N	582	VAL
5	N	603	LEU
5	N	628	THR
5	N	635	ARG

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Mol	Chain	Res	Type
5	N	644	GLU
5	N	682	SER
5	N	684	LEU
5	N	724	ASP
5	N	737	THR
5	N	742	GLU
5	N	790	ASP
5	N	797	TYR
5	N	811	TYR
5	N	830	TYR
5	N	835	GLN
5	N	839	MET
5	N	844	SER
5	N	858	SER
5	N	878	GLN
5	N	909	ASP
5	N	935	ARG
5	N	939	THR
5	N	953	LEU
5	N	999	MET
5	N	1002	THR
5	N	1006	ILE
5	N	1010	LEU
5	N	1022	THR
5	N	1047	PHE
5	N	1069	PHE
5	N	1084	GLN
5	N	1087	PHE
5	N	1095	LEU
5	N	1099	VAL
5	N	1103	ILE
5	N	1122	ARG
5	N	1123	SER
5	N	1159	ARG
5	N	1160	VAL
5	N	1169	MET
5	N	1170	THR
5	N	1176	ASN
5	N	1183	LYS
5	N	1202	LEU
5	N	1212	ILE
5	N	1216	LEU

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Mol	Chain	Res	Type
6	O	6	PRO
6	O	22	LEU
6	O	56	THR
6	O	62	PHE
6	O	77	ILE
6	O	84	ARG
6	O	99	LEU
6	O	104	PHE
6	O	108	GLU
6	O	140	ASN
6	O	145	CYS
6	O	147	LEU
6	O	163	ILE
6	O	172	PRO
6	O	193	TYR
6	O	214	ASN
6	O	233	GLU
6	O	240	VAL
6	O	259	LEU
6	O	266	ASP
7	P	8	PHE
7	P	13	ARG
7	P	16	LYS
7	P	17	LYS
7	P	19	GLU
7	P	22	GLU
7	P	47	LEU
7	P	63	LEU
7	P	70	PHE
7	P	137	ASN
7	P	139	LYS
7	P	148	LEU
7	P	149	THR
7	P	156	ASP
7	P	170	THR
7	P	174	PRO
7	P	187	THR
7	P	192	LYS
7	P	193	THR
7	P	208	GLU
7	P	221	TYR
8	Q	60	PHE

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Mol	Chain	Res	Type
8	Q	74	ASP
8	Q	78	LEU
8	Q	104	ASN
8	Q	114	ASN
9	R	79	ARG
9	R	90	ARG
9	R	99	LEU
9	R	111	LEU
9	R	123	LYS
9	R	143	PHE
9	R	148	VAL
9	R	153	VAL
10	S	1	MET
10	S	13	LEU
10	S	17	PHE
10	S	51	TYR
10	S	74	TYR
10	S	78	VAL
10	S	80	LYS
10	S	88	ASP
10	S	96	GLN
10	S	115	MET
10	S	126	ASN
10	S	171	ILE
11	T	86	ASP
11	T	93	TYR
11	T	95	TYR
11	T	102	TYR
11	T	130	ARG
11	T	134	ASN
11	T	143	LEU
12	U	8	ARG
12	U	9	ASP
12	U	13	MET
12	U	15	TYR
12	U	34	TYR
12	U	40	SER
12	U	75	CYS
12	U	78	CYS
12	U	85	PHE
12	U	86	PHE
12	U	94	ASP

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Mol	Chain	Res	Type
12	U	99	LEU
12	U	101	PHE
12	U	106	CYS
12	U	110	PHE
13	V	7	CYS
13	V	9	SER
13	V	10	CYS
13	V	44	TYR
13	V	46	CYS
13	V	48	ARG
14	W	5	ASP
14	W	10	PHE
14	W	25	THR
14	W	47	ARG
14	W	50	LEU
14	W	61	TYR
14	W	78	THR
14	W	81	TYR
14	W	111	LEU
14	W	112	GLN
14	W	113	THR
15	X	51	CYS
15	X	55	ILE
15	X	65	VAL
15	X	70	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (149) such sidechains are listed below:

Mol	Chain	Res	Type
4	A	54	ASN
4	A	64	ASN
4	A	83	HIS
4	A	225	ASN
4	A	306	ASN
4	A	339	ASN
4	A	358	ASN
4	A	435	HIS
4	A	447	GLN
4	A	479	ASN
4	A	493	GLN
4	A	631	HIS
4	A	654	ASN

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Mol	Chain	Res	Type
4	A	741	ASN
4	A	757	ASN
4	A	768	GLN
4	A	786	HIS
4	A	858	ASN
4	A	903	ASN
4	A	926	GLN
4	A	1140	HIS
4	A	1265	ASN
4	A	1364	ASN
4	A	1432	GLN
5	B	178	ASN
5	B	215	GLN
5	B	236	HIS
5	B	363	HIS
5	B	366	GLN
5	B	465	ASN
5	B	513	GLN
5	B	515	HIS
5	B	516	ASN
5	B	518	HIS
5	B	538	ASN
5	B	734	HIS
5	B	744	HIS
5	B	794	ASN
5	B	821	GLN
5	B	842	ASN
5	B	975	GLN
5	B	984	HIS
5	B	1015	HIS
5	B	1025	HIS
5	B	1065	GLN
5	B	1076	HIS
5	B	1084	GLN
5	B	1117	GLN
5	B	1179	GLN
6	C	73	GLN
6	C	112	ASN
6	C	123	ASN
6	C	167	HIS
6	C	231	ASN
6	C	252	GLN

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Mol	Chain	Res	Type
7	D	40	HIS
7	D	137	ASN
8	E	8	ASN
8	E	101	GLN
8	E	104	ASN
8	E	114	ASN
8	E	147	HIS
10	G	53	ASN
10	G	122	ASN
10	G	126	ASN
10	G	158	HIS
12	I	12	ASN
12	I	60	GLN
13	J	53	HIS
13	J	64	ASN
14	K	44	ASN
14	K	65	HIS
14	K	76	GLN
4	M	54	ASN
4	M	64	ASN
4	M	68	GLN
4	M	83	HIS
4	M	225	ASN
4	M	306	ASN
4	M	339	ASN
4	M	435	HIS
4	M	479	ASN
4	M	493	GLN
4	M	631	HIS
4	M	654	ASN
4	M	698	GLN
4	M	741	ASN
4	M	757	ASN
4	M	767	GLN
4	M	768	GLN
4	M	786	HIS
4	M	858	ASN
4	M	903	ASN
4	M	926	GLN
4	M	1140	HIS
4	M	1364	ASN
4	M	1432	GLN

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Mol	Chain	Res	Type
5	N	178	ASN
5	N	236	HIS
5	N	300	HIS
5	N	363	HIS
5	N	366	GLN
5	N	465	ASN
5	N	513	GLN
5	N	515	HIS
5	N	516	ASN
5	N	518	HIS
5	N	538	ASN
5	N	734	HIS
5	N	744	HIS
5	N	776	GLN
5	N	794	ASN
5	N	821	GLN
5	N	842	ASN
5	N	975	GLN
5	N	984	HIS
5	N	1015	HIS
5	N	1025	HIS
5	N	1065	GLN
5	N	1076	HIS
5	N	1084	GLN
5	N	1117	GLN
5	N	1179	GLN
5	N	1193	GLN
6	O	73	GLN
6	O	112	ASN
6	O	123	ASN
6	O	167	HIS
6	O	231	ASN
7	P	39	ASN
7	P	40	HIS
7	P	137	ASN
7	P	179	GLN
8	Q	8	ASN
8	Q	101	GLN
8	Q	104	ASN
8	Q	114	ASN
8	Q	147	HIS
10	S	53	ASN

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Mol	Chain	Res	Type
10	S	122	ASN
10	S	126	ASN
10	S	153	GLN
12	U	12	ASN
12	U	89	GLN
13	V	53	HIS
13	V	64	ASN
14	W	44	ASN
14	W	65	HIS
14	W	76	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
3	3	9/11 (81%)	1 (11%)	0
3	6	9/11 (81%)	1 (11%)	0
All	All	18/22 (81%)	2 (11%)	0

All (2) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
3	3	3	G
3	6	3	G

There are no RNA pucker outliers to report.

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

4 non-standard protein/DNA/RNA residues 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	BRU	5	22	3,2	18,21,22	0.39	0	26,30,33	1.21	3 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
2	TT	5	18	2	40,43,44	4.60	7 (17%)	59,69,72	2.09	13 (22%)
2	TT	2	18	2	40,43,44	4.61	8 (20%)	59,69,72	2.09	12 (20%)
2	BRU	2	22	3,2	18,21,22	0.39	0	26,30,33	1.13	2 (7%)

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	BRU	5	22	3,2	-	2/7/21/22	0/2/2/2
2	TT	5	18	2	-	10/18/105/106	0/5/6/6
2	TT	2	18	2	-	10/18/105/106	0/5/6/6
2	BRU	2	22	3,2	-	2/7/21/22	0/2/2/2

All (15) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	5	18	TT	C5-C6	-20.59	1.31	1.55
2	2	18	TT	C5-C6	-20.44	1.31	1.55
2	2	18	TT	C5T-C6T	-19.00	1.33	1.55
2	5	18	TT	C5T-C6T	-18.67	1.33	1.55
2	2	18	TT	C6-N1	-4.25	1.39	1.46
2	5	18	TT	C6-N1	-4.02	1.40	1.46
2	5	18	TT	C6T-N1T	-3.99	1.40	1.46
2	2	18	TT	C6T-N1T	-3.84	1.40	1.46
2	2	18	TT	C6T-C6	3.10	1.65	1.56
2	5	18	TT	C6T-C6	3.07	1.65	1.56
2	5	18	TT	C5T-C4T	-2.95	1.46	1.51
2	2	18	TT	C5T-C4T	-2.77	1.46	1.51
2	5	18	TT	C1R-N1T	2.77	1.49	1.45
2	2	18	TT	C1'-N1	2.39	1.48	1.45
2	2	18	TT	C1R-N1T	2.29	1.48	1.45

All (30) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	5	18	TT	C5T-C5-C6	7.53	97.75	88.38
2	2	18	TT	C5T-C5-C6	7.05	97.15	88.38
2	2	18	TT	C5-C6-N1	6.27	124.39	115.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	5	18	TT	C5-C6-C6T	-6.13	79.23	89.28
2	5	18	TT	C5-C6-N1	5.95	123.95	115.61
2	2	18	TT	C5-C6-C6T	-5.94	79.54	89.28
2	5	18	TT	C5-C5T-C6T	-5.37	81.69	88.38
2	2	18	TT	C5-C5T-C6T	-5.24	81.86	88.38
2	2	18	TT	C5T-C6T-N1T	4.97	122.58	115.61
2	5	18	TT	C5T-C6T-N1T	4.96	122.56	115.61
2	2	18	TT	O4-C4-C5	3.27	125.49	122.88
2	5	22	BRU	C6-C5-C4	-3.14	117.49	120.67
2	5	22	BRU	BR-C5-C6	3.08	124.95	120.64
2	2	22	BRU	C6-C5-C4	-3.06	117.56	120.67
2	2	22	BRU	O3'-C3'-C2'	-2.90	100.52	110.90
2	5	18	TT	O4-C4-C5	2.86	125.16	122.88
2	5	18	TT	O4T-C4T-C5T	2.82	125.13	122.88
2	5	22	BRU	O3'-C3'-C2'	-2.77	101.00	110.90
2	2	18	TT	C6-C6T-N1T	2.67	128.89	118.20
2	2	18	TT	O4T-C4T-C5T	2.65	124.99	122.88
2	5	18	TT	C6-C6T-N1T	2.46	128.03	118.20
2	5	18	TT	N3-C2-N1	-2.44	114.16	116.69
2	2	18	TT	N3T-C2T-N1T	-2.40	114.20	116.69
2	2	18	TT	C5A-C5-C4	-2.40	104.08	108.22
2	2	18	TT	C5T-C6T-C6	2.32	93.09	89.28
2	5	18	TT	C5T-C6T-C6	2.31	93.07	89.28
2	5	18	TT	N3T-C2T-N1T	-2.28	114.33	116.69
2	2	18	TT	N3-C2-N1	-2.24	114.37	116.69
2	5	18	TT	C5A-C5-C4	-2.07	104.65	108.22
2	5	18	TT	C5A-C5-C6	-2.01	108.00	114.16

There are no chirality outliers.

All (24) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	2	18	TT	O4R-C4R-C5R-O5R
2	2	18	TT	C3R-C4R-C5R-O5R
2	5	18	TT	C3R-C4R-C5R-O5R
2	5	18	TT	O4R-C4R-C5R-O5R
2	2	18	TT	O4'-C4'-C5'-O5'
2	5	18	TT	O4'-C4'-C5'-O5'
2	2	18	TT	C2'-C1'-N1-C6
2	5	18	TT	C2'-C1'-N1-C6
2	2	18	TT	C2'-C1'-N1-C2
2	5	18	TT	C2'-C1'-N1-C2

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Mol	Chain	Res	Type	Atoms
2	2	18	TT	O4'-C1'-N1-C2
2	5	18	TT	O4'-C1'-N1-C2
2	5	22	BRU	O4'-C4'-C5'-O5'
2	2	18	TT	O4'-C1'-N1-C6
2	5	18	TT	O4'-C1'-N1-C6
2	2	22	BRU	O4'-C4'-C5'-O5'
2	5	18	TT	C2R-C1R-N1T-C6T
2	5	22	BRU	C3'-C4'-C5'-O5'
2	2	22	BRU	C3'-C4'-C5'-O5'
2	5	18	TT	O4R-C1R-N1T-C6T
2	2	18	TT	C2R-C1R-N1T-C6T
2	2	18	TT	O4R-C1R-N1T-C6T
2	2	18	TT	C3'-C4'-C5'-O5'
2	5	18	TT	C3'-C4'-C5'-O5'

There are no ring outliers.

4 monomers are involved in 15 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	5	22	BRU	3	0
2	5	18	TT	4	0
2	2	18	TT	4	0
2	2	22	BRU	4	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 18 ligands modelled in this entry, 18 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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
5	B	2
5	N	2
6	O	1
6	C	1
9	F	1
9	R	1
4	M	1
4	A	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	O	2:SER	C	3:GLU	N	4.13
1	C	2:SER	C	3:GLU	N	4.09
1	B	18:PHE	C	19:GLU	N	3.79
1	N	18:PHE	C	19:GLU	N	3.71
1	F	69:LEU	C	70:LYS	N	3.56
1	R	69:LEU	C	70:LYS	N	3.53
1	M	1175:SER	C	1176:LEU	N	3.43
1	A	1175:SER	C	1176:LEU	N	3.38
1	B	337:ARG	C	338:GLY	N	2.66
1	N	337:ARG	C	338:GLY	N	2.58

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	1	7/14 (50%)	-0.74	0	100	100	123, 130, 149, 149	0
1	4	7/14 (50%)	-0.68	0	100	100	120, 128, 147, 148	0
2	2	16/25 (64%)	-0.67	0	100	100	84, 130, 151, 155	0
2	5	16/25 (64%)	-0.57	0	100	100	87, 132, 150, 153	0
3	3	10/11 (90%)	-0.48	0	100	100	95, 100, 152, 155	0
3	6	10/11 (90%)	-0.44	0	100	100	95, 102, 153, 156	0
4	A	1421/1733 (81%)	-0.09	8 (0%)	89	85	22, 88, 163, 200	0
4	M	1421/1733 (81%)	-0.07	5 (0%)	92	89	20, 88, 163, 200	0
5	B	1115/1224 (91%)	-0.04	8 (0%)	87	83	24, 101, 175, 200	0
5	N	1115/1224 (91%)	-0.03	7 (0%)	89	85	23, 101, 174, 200	0
6	C	267/318 (83%)	-0.14	0	100	100	49, 88, 147, 173	0
6	O	267/318 (83%)	-0.07	1 (0%)	92	89	52, 87, 148, 170	0
7	D	177/221 (80%)	-0.06	0	100	100	72, 121, 166, 183	0
7	P	177/221 (80%)	-0.06	2 (1%)	80	74	71, 124, 166, 182	0
8	E	214/215 (99%)	-0.15	1 (0%)	91	87	60, 145, 193, 197	0
8	Q	214/215 (99%)	-0.14	1 (0%)	91	87	58, 145, 194, 197	0
9	F	87/155 (56%)	-0.07	0	100	100	31, 62, 108, 140	0
9	R	87/155 (56%)	-0.05	0	100	100	31, 63, 109, 138	0
10	G	171/171 (100%)	-0.10	0	100	100	64, 91, 136, 146	0
10	S	171/171 (100%)	-0.07	1 (0%)	89	85	65, 92, 136, 143	0
11	H	135/146 (92%)	-0.03	6 (4%)	34	29	101, 145, 182, 192	0
11	T	135/146 (92%)	0.00	2 (1%)	73	66	99, 146, 181, 191	0
12	I	116/122 (95%)	-0.10	1 (0%)	84	79	82, 139, 170, 195	0
12	U	116/122 (95%)	-0.14	1 (0%)	84	79	81, 138, 170, 194	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
13	J	65/70 (92%)	-0.14	1 (1%)	73	66	52, 83, 128, 133	0
13	V	65/70 (92%)	-0.10	1 (1%)	73	66	46, 81, 130, 136	0
14	K	114/120 (95%)	-0.00	2 (1%)	68	61	48, 92, 120, 170	0
14	W	114/120 (95%)	-0.05	2 (1%)	68	61	47, 92, 118, 167	0
15	L	46/70 (65%)	0.06	1 (2%)	62	54	86, 155, 179, 186	0
15	X	46/70 (65%)	0.06	0	100	100	84, 156, 179, 185	0
All	All	7922/9230 (85%)	-0.07	51 (0%)	89	85	20, 99, 173, 200	0

All (51) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
14	K	114	LEU	8.6
14	K	113	THR	8.0
14	W	114	LEU	6.6
14	W	113	THR	6.2
4	M	1092	LYS	5.7
5	N	471	LYS	5.7
5	B	471	LYS	5.4
5	B	883	LEU	4.5
4	M	1257	ASP	3.4
5	B	334	ILE	3.4
4	A	1092	LYS	3.2
5	N	882	THR	3.1
13	V	65	PRO	3.0
5	B	963	PHE	3.0
11	H	86	ASP	3.0
5	N	334	ILE	3.0
5	N	734	HIS	2.8
7	P	11	ARG	2.8
5	B	734	HIS	2.7
5	B	882	THR	2.7
15	L	27	LEU	2.7
8	Q	110	PHE	2.6
4	A	1257	ASP	2.5
5	B	335	GLY	2.5
4	A	2	VAL	2.4
11	T	125	LEU	2.4
4	M	1381	LEU	2.4
5	N	587	HIS	2.3
11	H	136	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
5	N	883	LEU	2.3
12	I	16	PRO	2.3
8	E	110	PHE	2.3
4	A	1381	LEU	2.2
4	A	186	LYS	2.2
11	H	63	LEU	2.2
11	T	140	ALA	2.2
10	S	163	ILE	2.2
6	O	118	LEU	2.1
11	H	142	LEU	2.1
4	A	199	LEU	2.1
11	H	55	LEU	2.1
11	H	139	ASN	2.1
5	B	468	GLU	2.1
13	J	65	PRO	2.1
4	M	893	PHE	2.0
7	P	167	LEU	2.0
4	A	1267	MET	2.0
4	A	171	GLN	2.0
4	M	883	LEU	2.0
5	N	470	LYS	2.0
12	U	4	PHE	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (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
2	BRU	2	22	20/21	0.90	0.17	69,76,80,84	0
2	BRU	5	22	20/21	0.92	0.14	77,84,87,89	0
2	TT	2	18	38/39	0.94	0.21	93,106,123,125	0
2	TT	5	18	38/39	0.94	0.16	95,108,126,127	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands

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
17	ZN	B	2457	1/1	0.97	0.28	53,53,53,53	0
17	ZN	I	2457	1/1	0.97	0.24	199,199,199,199	0
17	ZN	L	2457	1/1	0.98	0.24	116,116,116,116	0
17	ZN	M	2457	1/1	0.98	0.27	87,87,87,87	0
17	ZN	U	2458	1/1	0.98	0.19	178,178,178,178	0
17	ZN	X	2457	1/1	0.98	0.25	120,120,120,120	0
17	ZN	I	2458	1/1	0.99	0.29	94,94,94,94	0
17	ZN	J	2457	1/1	0.99	0.25	70,70,70,70	0
17	ZN	A	2471	1/1	0.99	0.24	90,90,90,90	0
16	MG	A	2457	1/1	0.99	0.19	50,50,50,50	0
17	ZN	M	2458	1/1	0.99	0.24	51,51,51,51	0
17	ZN	O	2457	1/1	0.99	0.30	39,39,39,39	0
17	ZN	U	2457	1/1	0.99	0.30	91,91,91,91	0
17	ZN	C	2457	1/1	0.99	0.30	48,48,48,48	0
17	ZN	V	2457	1/1	0.99	0.24	67,67,67,67	0
16	MG	M	2459	1/1	0.99	0.24	34,34,34,34	0
17	ZN	N	2457	1/1	1.00	0.28	54,54,54,54	0
17	ZN	A	2472	1/1	1.00	0.22	52,52,52,52	0

6.5 Other polymers

There are no such residues in this entry.