



Full wwPDB X-ray Structure Validation Report ⓘ

May 15, 2020 – 02:25 pm BST

PDB ID : 3HOU
Title : Complete RNA polymerase II elongation complex I with a T-U mismatch
Authors : Sydow, J.F.; Brueckner, F.; Cheung, A.C.M.; Damsma, G.E.; Dengl, S.;
Lehmann, E.; Vassylyev, D.; Cramer, P.
Deposited on : 2009-06-03
Resolution : 3.20 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

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

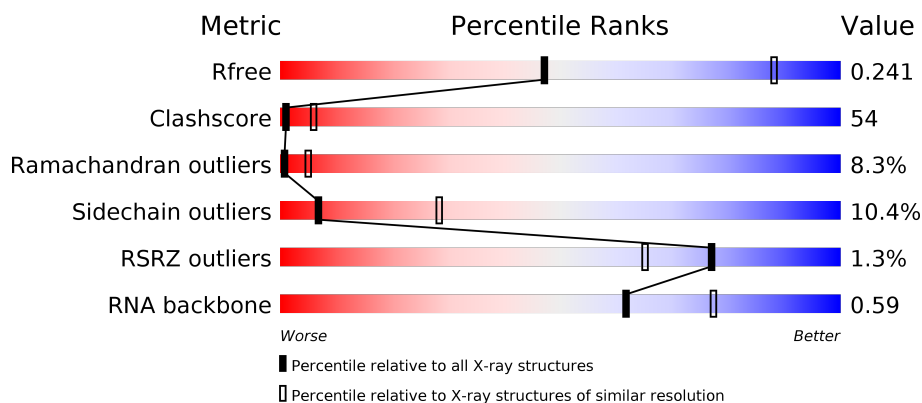
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 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	1133 (3.20-3.20)
Clashscore	141614	1253 (3.20-3.20)
Ramachandran outliers	138981	1234 (3.20-3.20)
Sidechain outliers	138945	1233 (3.20-3.20)
RSRZ outliers	127900	1095 (3.20-3.20)
RNA backbone	3102	1010 (3.50-2.90)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	1733	<div> <div>31%</div> <div>41%</div> <div>9%</div> <div>18%</div> </div>
1	M	1733	<div> <div>31%</div> <div>40%</div> <div>9%</div> <div>18%</div> </div>
2	B	1224	<div> <div>27%</div> <div>51%</div> <div>12%</div> <div>10%</div> </div>
2	N	1224	<div> <div>26%</div> <div>53%</div> <div>11%</div> <div>10%</div> </div>

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Mol	Chain	Length	Quality of chain
3	C	318	
3	O	318	
4	D	221	
4	P	221	
5	E	215	
5	Q	215	
6	F	155	
6	R	155	
7	G	171	
7	S	171	
8	H	146	
8	T	146	
9	I	122	
9	U	122	
10	J	70	
10	V	70	
11	K	120	
11	W	120	
12	L	70	
12	X	70	
13	1	26	
13	4	26	
14	2	13	
14	5	13	
15	3	17	

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Mol	Chain	Length	Quality of chain
15	6	17	<div> <div>6%</div> <div>29%</div> <div>35%</div> <div>35%</div> </div>

2 Entry composition

There are 16 unique types of molecules in this entry. The entry contains 63664 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DNA-directed RNA polymerase II subunit RPB1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1416	Total	C	N	O	S	0	0	0
			11143	7021	1949	2111	62			
1	M	1416	Total	C	N	O	S	0	0	0
			11143	7021	1949	2111	62			

- Molecule 2 is a protein called DNA-directed RNA polymerase II subunit RPB2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	1104	Total	C	N	O	S	0	0	0
			8779	5560	1537	1627	55			
2	N	1104	Total	C	N	O	S	0	0	0
			8779	5560	1537	1627	55			

- Molecule 3 is a protein called DNA-directed RNA polymerase II subunit RPB3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	266	Total	C	N	O	S	0	0	0
			2095	1317	348	417	13			
3	O	266	Total	C	N	O	S	0	0	0
			2095	1317	348	417	13			

- Molecule 4 is a protein called DNA-directed RNA polymerase II subunit RPB4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	178	Total	C	N	O	S	0	0	0
			1434	887	257	288	2			
4	P	178	Total	C	N	O	S	0	0	0
			1434	887	257	288	2			

- Molecule 5 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC1.

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

- Molecule 6 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC2.

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

- Molecule 7 is a protein called DNA-directed RNA polymerase II subunit RPB7.

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

- Molecule 8 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	134	Total	C	N	O	S	0	0	0
			1076	677	182	213	4			
8	T	134	Total	C	N	O	S	0	0	0
			1076	677	182	213	4			

- Molecule 9 is a protein called DNA-directed RNA polymerase II subunit RPB9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	119	Total	C	N	O	S	0	0	0
			971	596	179	186	10			
9	U	119	Total	C	N	O	S	0	0	0
			971	596	179	186	10			

- Molecule 10 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC5.

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

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

- Molecule 11 is a protein called DNA-directed RNA polymerase II subunit RPB11.

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

- Molecule 12 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	46	Total	C	N	O	S	0	0	0
			363	224	72	63	4			
12	X	46	Total	C	N	O	S	0	0	0
			363	224	72	63	4			

- Molecule 13 is a DNA chain called 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP*TP*AP*TP*GP*CP*CP*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
13	1	18	Total	Br	C	N	O	P	0	0	0
			368	1	176	66	108	17			
13	4	18	Total	Br	C	N	O	P	0	0	0
			368	1	176	66	108	17			

- Molecule 14 is a DNA chain called 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP*T)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	2	6	Total	C	N	O	P	0	0	0
			117	58	20	34	5			
14	5	6	Total	C	N	O	P	0	0	0
			117	58	20	34	5			

- Molecule 15 is a RNA chain called 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP*AP*GP*GP*CP*U)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	3	11	Total	C	N	O	P	0	0	0
			230	104	41	75	10			
15	6	11	Total	C	N	O	P	0	0	0
			230	104	41	75	10			

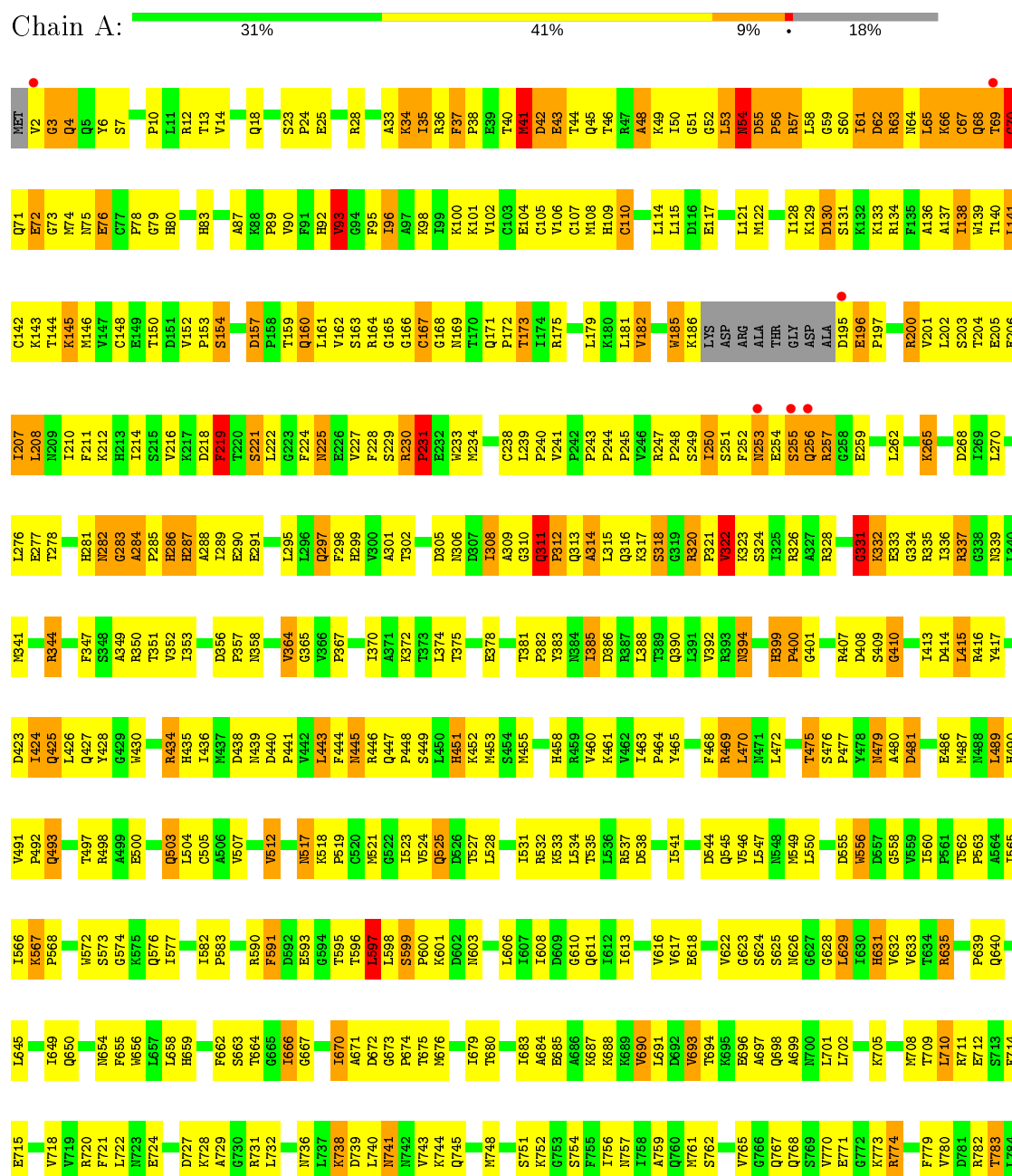
- Molecule 16 is ZINC ION (three-letter code: ZN) (formula: Zn).

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

3 Residue-property plots

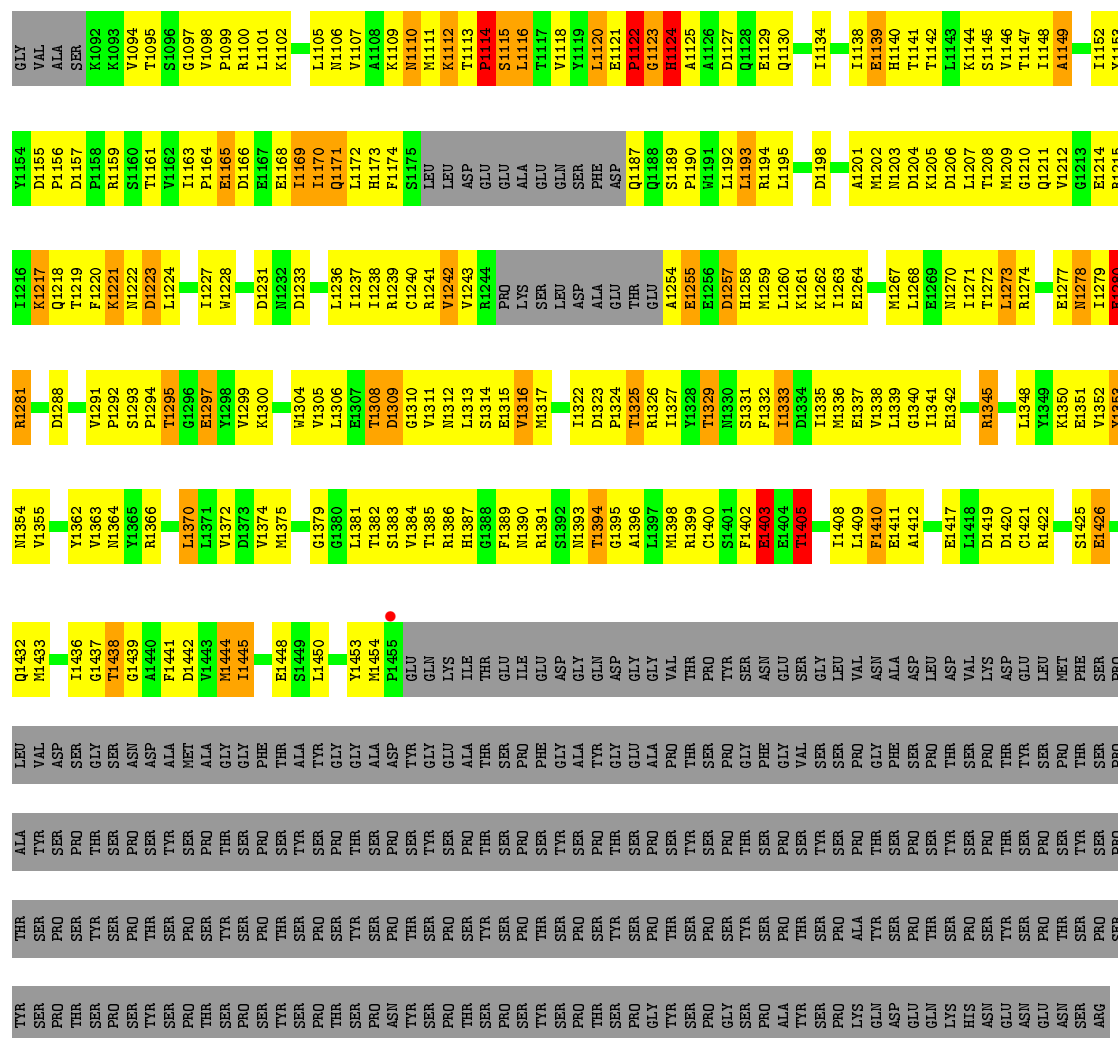
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: DNA-directed RNA polymerase II subunit RPB1



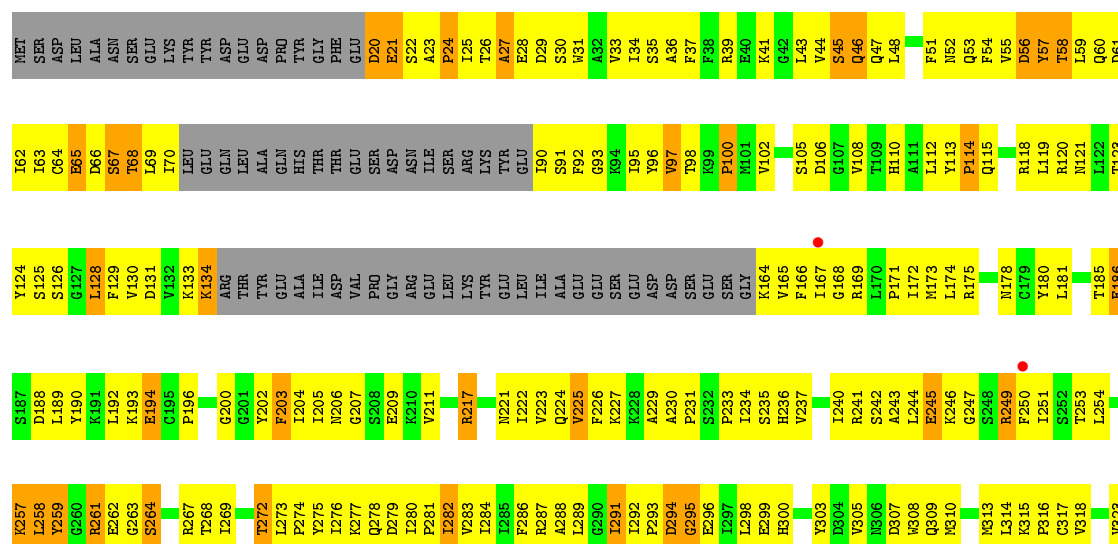






- Molecule 2: DNA-directed RNA polymerase II subunit RPB2

Chain B: 27% 51% 12% 10%



- Molecule 2: DNA-directed RNA polymerase II subunit RPB2



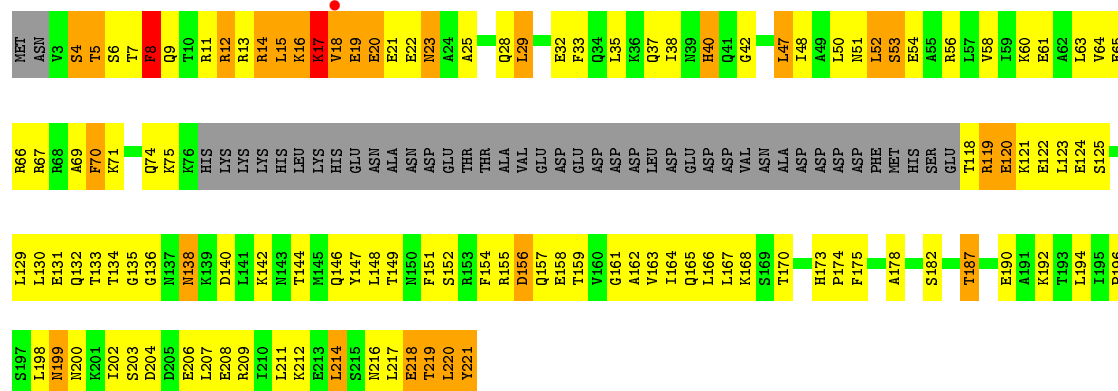
WORLDWIDE
PDB
PROTEIN DATA BANK



GLY ASP ASN ASN THR SER MET MET GLY SER ASP VAL MET MET THR GLY ALA GLU GLN MET GLY THR ASP ASN ALA TRP

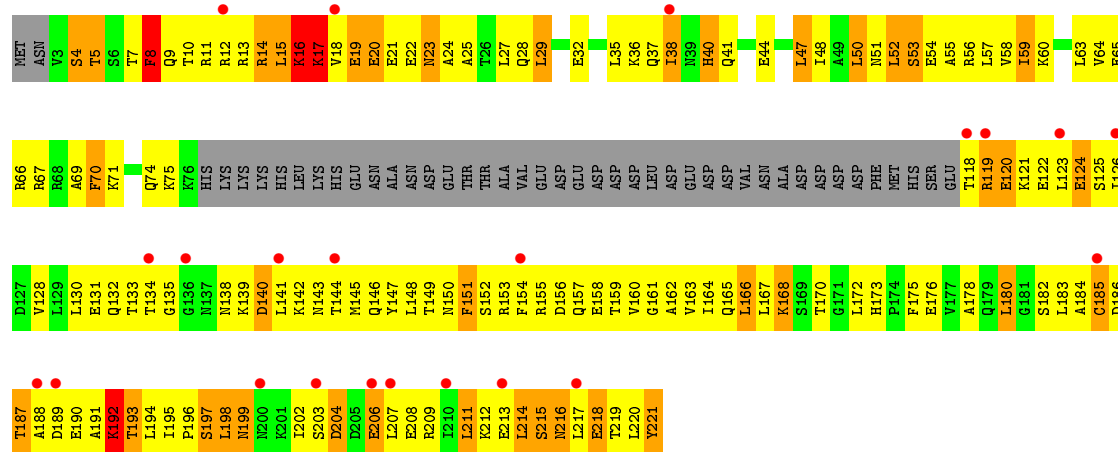
• Molecule 4: DNA-directed RNA polymerase II subunit RPB4

Chain D: 26% 41% 12% 19%



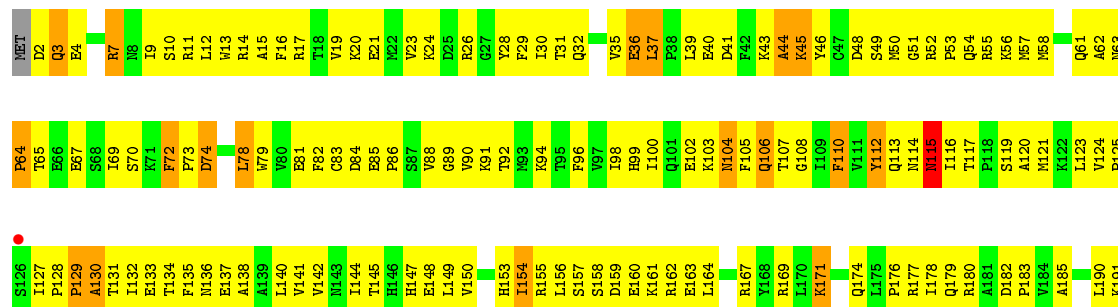
• Molecule 4: DNA-directed RNA polymerase II subunit RPB4

Chain P: 10% 15% 47% 17% 19%



• Molecule 5: DNA-directed RNA polymerases I, II, and III subunit RPABC1

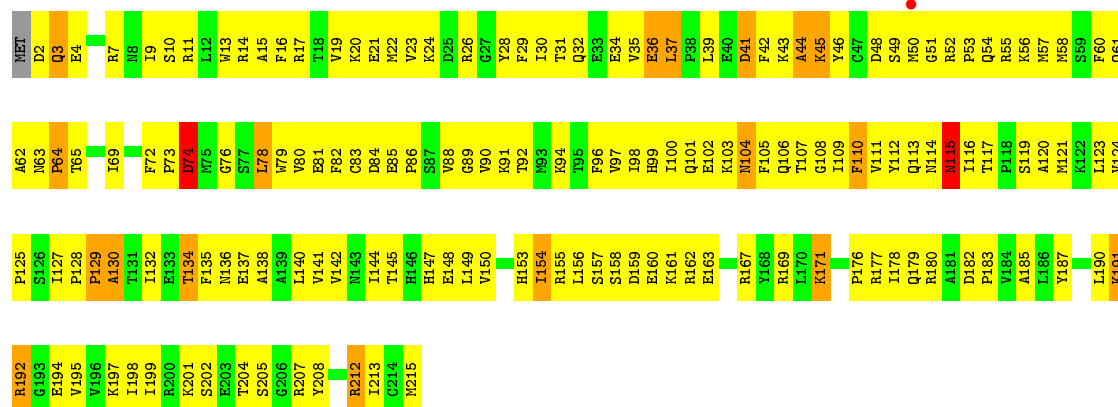
Chain E: 26% 64% 9%





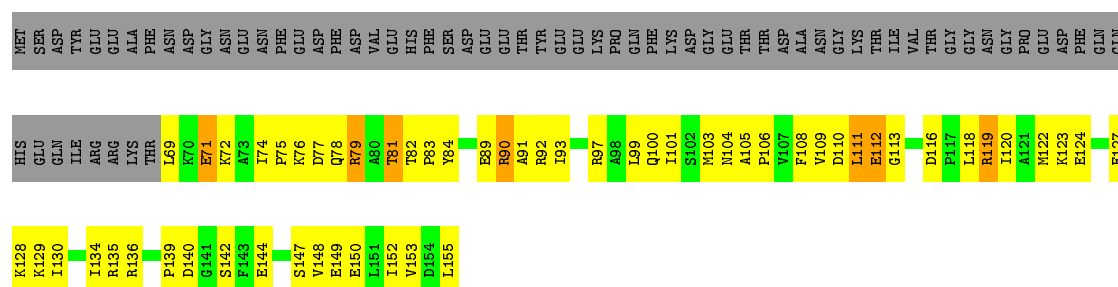
- Molecule 5: DNA-directed RNA polymerases I, II, and III subunit RPABC1

Chain Q: 26% 65% 8%



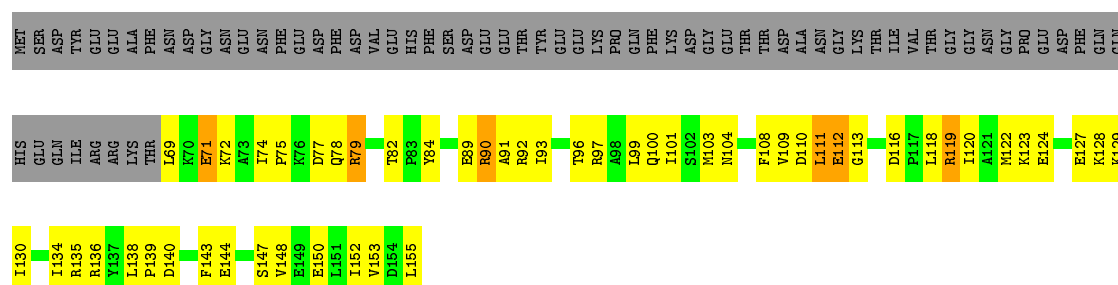
- Molecule 6: DNA-directed RNA polymerases I, II, and III subunit RPABC2

Chain F: 19% 32% 5% 44%



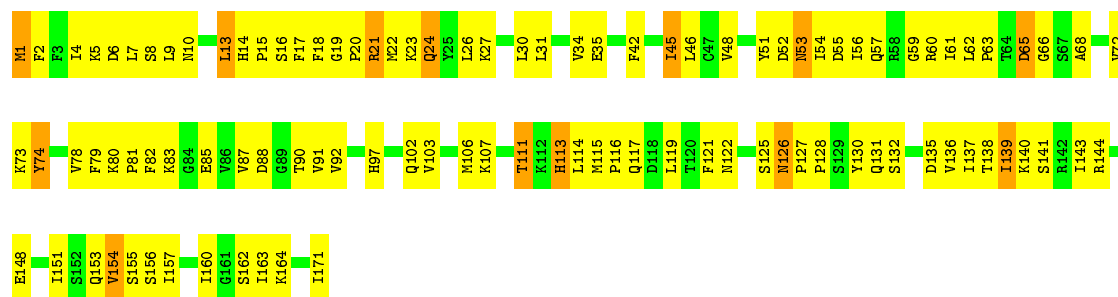
- Molecule 6: DNA-directed RNA polymerases I, II, and III subunit RPABC2

Chain R: 22% 30% 44%

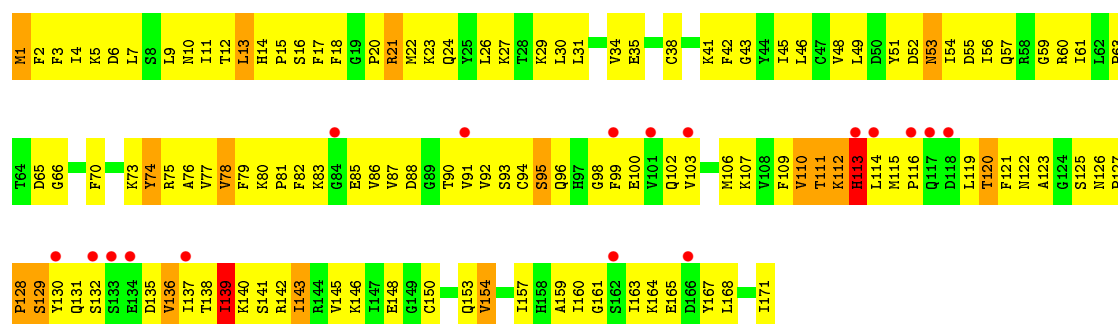


- Molecule 7: DNA-directed RNA polymerase II subunit RPB7

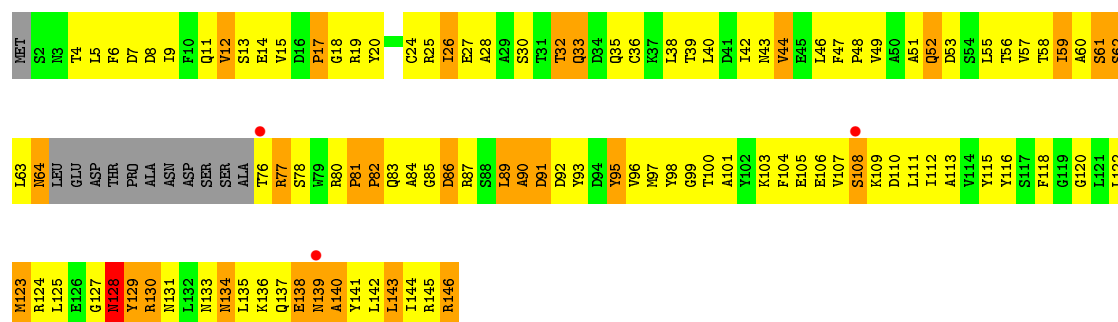
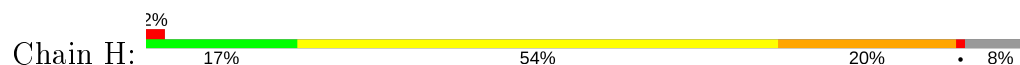
Chain G: 40% 53% 8%



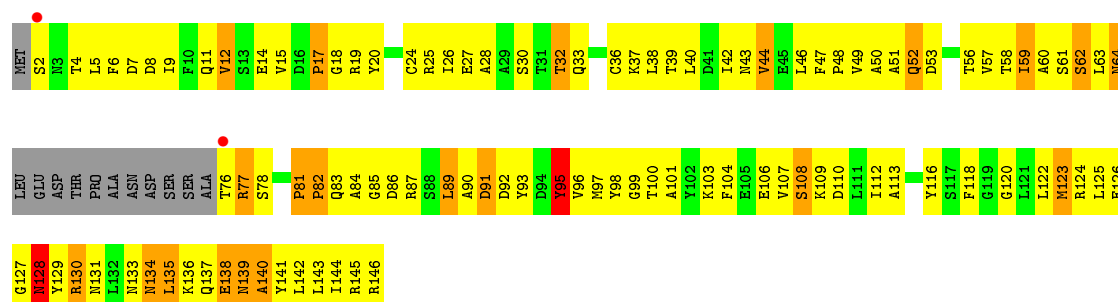
• Molecule 7: DNA-directed RNA polymerase II subunit RPB7



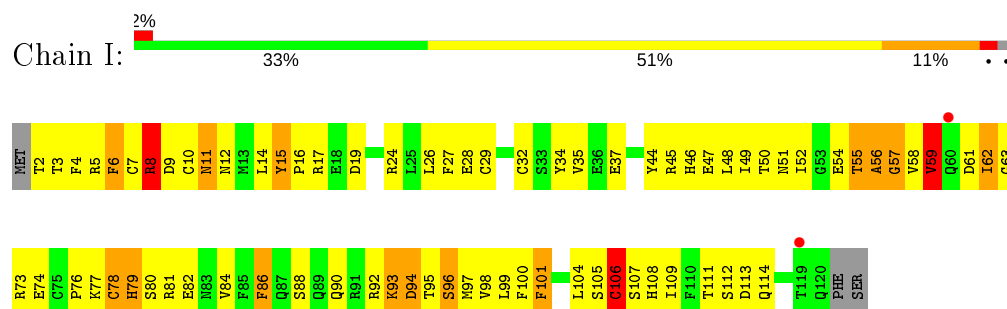
• Molecule 8: DNA-directed RNA polymerases I, II, and III subunit RPABC3



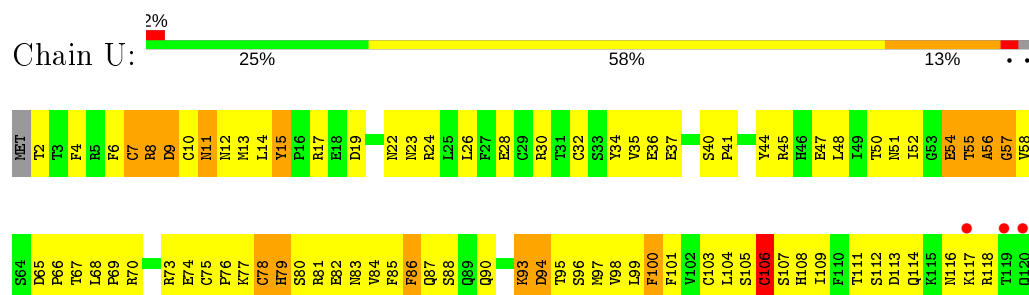
• Molecule 8: DNA-directed RNA polymerases I, II, and III subunit RPABC3



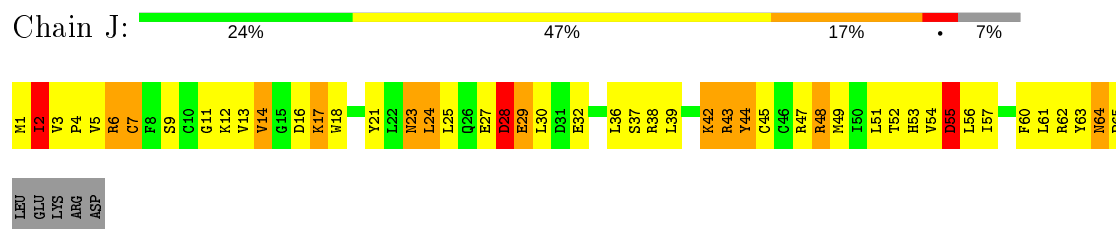
- Molecule 9: DNA-directed RNA polymerase II subunit RPB9



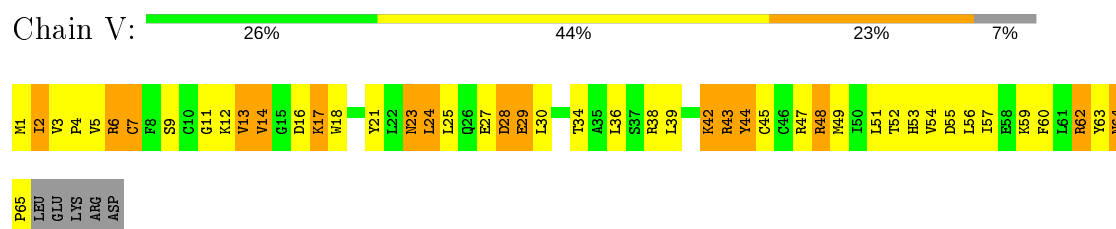
- Molecule 9: DNA-directed RNA polymerase II subunit RPB9



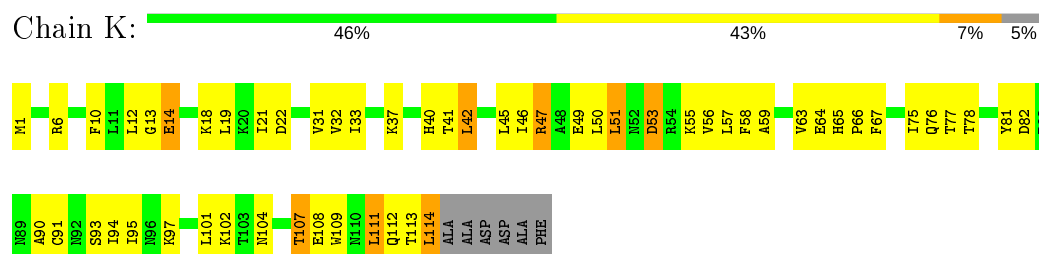
- Molecule 10: DNA-directed RNA polymerases I, II, and III subunit RPABC5



- Molecule 10: DNA-directed RNA polymerases I, II, and III subunit RPABC5

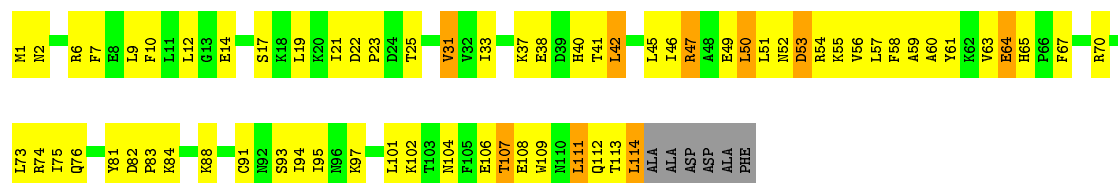


- Molecule 11: DNA-directed RNA polymerase II subunit RPB11



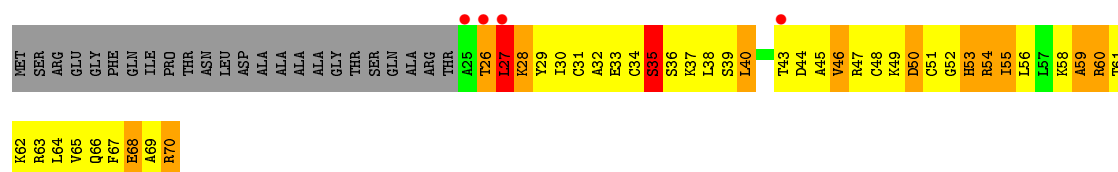
- Molecule 11: DNA-directed RNA polymerase II subunit RPB11

Chain W: 39% 48% 8% 5%



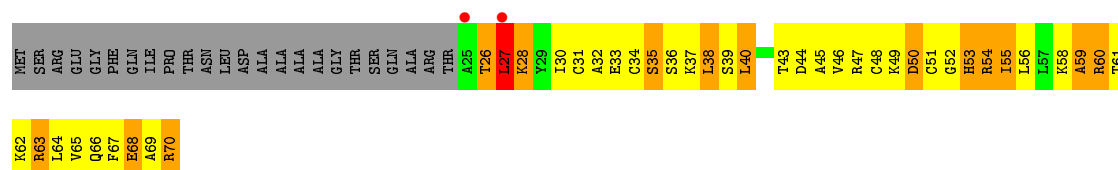
- Molecule 12: DNA-directed RNA polymerases I, II, and III subunit RPABC4

Chain L: 



- Molecule 12: DNA-directed RNA polymerases I, II, and III subunit RPABC4

Chain X: 



- Molecule 13: 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP*TP*AP*TP*GP*CP*CP*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'

Chain 1:



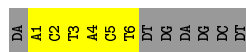
- Molecule 13: 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP*TP*AP*TP*GP*CP*CP*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'

Chain 4:  54% 12% 31%

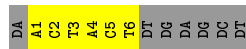
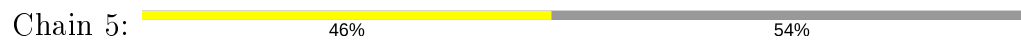


- Molecule 14: 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP*T)-3'

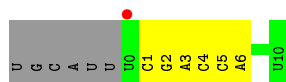
Chain 2:  46% 54%



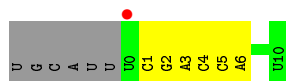
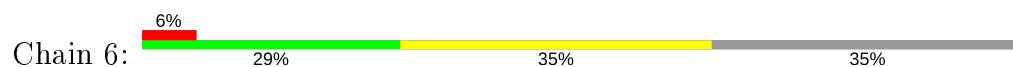
- Molecule 14: 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP*T)-3'



- Molecule 15: 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP*AP*GP*GP*CP*U)-3'



- Molecule 15: 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP*AP*GP*GP*CP*U)-3'



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	394.26Å 221.61Å 283.45Å 90.00° 90.90° 90.00°	Depositor
Resolution (Å)	40.00 – 3.20 38.25 – 3.02	Depositor EDS
% Data completeness (in resolution range)	95.6 (40.00-3.20) 85.7 (38.25-3.02)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.07	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.97 (at 3.01Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.233 , 0.252 0.235 , 0.241	Depositor DCC
R_{free} test set	20910 reflections (4.95%)	wwPDB-VP
Wilson B-factor (Å ²)	62.6	Xtriage
Anisotropy	0.223	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 40.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.29$	Xtriage
Estimated twinning fraction	0.017 for -1/2*h-3/2*k,-1/2*h+1/2*k,-l 0.018 for -1/2*h+3/2*k,1/2*h+1/2*k,-l 0.017 for 1/2*h-3/2*k,-1/2*h-1/2*k,-l 0.017 for 1/2*h+3/2*k,1/2*h-1/2*k,-l 0.257 for -h,-k,l	Xtriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	63664	wwPDB-VP
Average B, all atoms (Å ²)	62.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.35% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	A	0.50	0/11342	0.77	8/15337 (0.1%)
1	M	0.50	0/11342	0.78	8/15337 (0.1%)
2	B	0.48	0/8948	0.74	1/12062 (0.0%)
2	N	0.48	1/8948 (0.0%)	0.74	1/12062 (0.0%)
3	C	0.49	0/2133	0.73	1/2891 (0.0%)
3	O	0.48	0/2133	0.74	1/2891 (0.0%)
4	D	0.44	0/1444	0.72	1/1935 (0.1%)
4	P	0.53	0/1444	0.85	5/1935 (0.3%)
5	E	0.46	0/1788	0.69	1/2406 (0.0%)
5	Q	0.46	0/1788	0.70	1/2406 (0.0%)
6	F	0.57	0/717	0.82	1/967 (0.1%)
6	R	0.56	0/717	0.82	1/967 (0.1%)
7	G	0.46	0/1368	0.75	1/1844 (0.1%)
7	S	0.57	0/1368	0.86	1/1844 (0.1%)
8	H	0.43	0/1094	0.71	0/1481
8	T	0.42	0/1094	0.72	0/1481
9	I	0.42	0/989	0.71	0/1331
9	U	0.45	0/989	0.71	0/1331
10	J	0.51	0/541	0.83	0/727
10	V	0.48	0/541	0.80	0/727
11	K	0.46	0/937	0.67	0/1265
11	W	0.48	0/937	0.68	0/1265
12	L	0.58	0/365	0.84	0/485
12	X	0.57	0/365	0.84	0/485
13	1	0.60	0/389	0.96	0/597
13	4	0.60	0/389	0.94	0/597
14	2	0.61	0/130	0.78	0/198
14	5	0.60	0/130	0.78	0/198
15	3	0.56	0/256	0.74	0/397
15	6	0.54	0/256	0.74	0/397
All	All	0.49	1/64882 (0.0%)	0.76	32/87846 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	B	0	1
2	N	0	2
13	1	0	4
13	4	0	4
All	All	0	11

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	N	1137	CYS	CB-SG	-5.78	1.72	1.81

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	P	180	LEU	CA-CB-CG	-7.93	97.05	115.30
4	P	166	LEU	CA-CB-CG	6.53	130.32	115.30
1	A	56	PRO	N-CA-C	-6.37	95.55	112.10
1	M	56	PRO	N-CA-C	-6.35	95.59	112.10
3	C	39	ALA	N-CA-C	5.97	127.11	111.00
4	P	50	LEU	CA-CB-CG	5.89	128.85	115.30
4	P	172	LEU	CA-CB-CG	5.86	128.77	115.30
7	S	65	ASP	N-CA-C	-5.75	95.48	111.00
7	G	65	ASP	N-CA-C	-5.69	95.64	111.00
1	A	3	GLY	N-CA-C	-5.68	98.89	113.10
1	M	3	GLY	N-CA-C	-5.67	98.93	113.10
3	O	39	ALA	N-CA-C	5.66	126.27	111.00
1	M	311	GLN	N-CA-C	5.65	126.25	111.00
6	F	71	GLU	N-CA-C	-5.59	95.91	111.00
1	A	311	GLN	N-CA-C	5.58	126.07	111.00
5	Q	171	LYS	N-CA-C	-5.54	96.05	111.00
6	R	71	GLU	N-CA-C	-5.52	96.10	111.00
5	E	171	LYS	N-CA-C	-5.52	96.11	111.00
1	M	4	GLN	N-CA-C	5.51	125.89	111.00
4	P	8	PHE	N-CA-C	5.39	125.55	111.00
1	A	4	GLN	N-CA-C	5.27	125.22	111.00
4	D	8	PHE	N-CA-C	5.26	125.20	111.00
2	N	1130	PHE	N-CA-C	-5.22	96.91	111.00
1	A	331	GLY	N-CA-C	5.21	126.13	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	1130	PHE	N-CA-C	-5.19	96.98	111.00
1	A	54	ASN	C-N-CA	5.19	134.67	121.70
1	M	54	ASN	C-N-CA	5.10	134.44	121.70
1	M	629	LEU	CA-CB-CG	5.09	127.02	115.30
1	A	1403	GLU	N-CA-C	5.08	124.71	111.00
1	M	1403	GLU	N-CA-C	5.07	124.69	111.00
1	A	55	ASP	N-CA-CB	5.07	119.72	110.60
1	M	331	GLY	N-CA-C	5.02	125.65	113.10

There are no chirality outliers.

All (11) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
13	1	18	DA	Sidechain
13	1	19	DT	Sidechain
13	1	20	DG	Sidechain
13	1	21	DC	Sidechain
13	4	18	DA	Sidechain
13	4	19	DT	Sidechain
13	4	20	DG	Sidechain
13	4	21	DC	Sidechain
2	B	833	TYR	Sidechain
2	N	431	TYR	Sidechain
2	N	797	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	A	11143	0	11217	1159	0
1	M	11143	0	11217	1163	0
2	B	8779	0	8808	1066	0
2	N	8779	0	8808	1078	0
3	C	2095	0	2051	226	0
3	O	2095	0	2051	227	0
4	D	1434	0	1460	152	0
4	P	1434	0	1460	273	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	E	1752	0	1776	187	0
5	Q	1752	0	1776	202	0
6	F	705	0	731	85	0
6	R	705	0	731	75	0
7	G	1340	0	1357	145	0
7	S	1340	0	1357	205	0
8	H	1076	0	1046	171	0
8	T	1076	0	1046	154	0
9	I	971	0	929	117	0
9	U	971	0	929	126	0
10	J	532	0	542	97	0
10	V	532	0	542	95	0
11	K	919	0	929	81	0
11	W	919	0	929	84	0
12	L	363	0	387	87	0
12	X	363	0	387	84	0
13	1	368	0	203	27	0
13	4	368	0	203	27	0
14	2	117	0	70	13	0
14	5	117	0	70	11	0
15	3	230	0	121	8	0
15	6	230	0	121	8	0
16	A	2	0	0	0	0
16	B	1	0	0	0	0
16	C	1	0	0	0	0
16	I	2	0	0	0	0
16	J	1	0	0	0	0
16	L	1	0	0	0	0
16	M	2	0	0	0	0
16	N	1	0	0	0	0
16	O	1	0	0	0	0
16	U	2	0	0	0	0
16	V	1	0	0	0	0
16	X	1	0	0	0	0
All	All	63664	0	63254	6846	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 54.

All (6846) 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)
2:N:510:LYS:HG3	2:N:511:PRO:HD3	1.21	1.17
1:A:855:THR:HG21	1:A:857:ARG:HE	1.08	1.16
9:U:111:THR:HG22	9:U:113:ASP:H	1.05	1.15
5:Q:124:VAL:HG13	5:Q:132:ILE:HB	1.28	1.15
8:H:4:THR:HA	8:H:60:ALA:HB2	1.26	1.14
1:M:855:THR:HG21	1:M:857:ARG:HE	1.03	1.14
9:I:111:THR:HG22	9:I:113:ASP:H	1.05	1.14
3:O:57:VAL:HG11	10:V:60:PHE:HB3	1.26	1.14
2:N:102:VAL:HG23	2:N:112:LEU:HB2	1.30	1.14
8:T:4:THR:HA	8:T:60:ALA:HB2	1.27	1.13
1:A:53:LEU:HD23	1:A:54:ASN:H	1.03	1.12
2:B:508:LEU:N	14:2:1:DA:HO5'	1.49	1.10
1:M:1420:ASP:HB3	1:M:1422:ARG:HG3	1.33	1.10
1:A:541:ILE:HD13	1:A:549:MET:HE1	1.33	1.10
2:N:710:LEU:HA	2:N:733:HIS:HB3	1.33	1.09
1:M:351:THR:HG22	2:N:1103:ILE:HA	1.35	1.09
3:C:177:GLU:HG3	3:C:231:ASN:HB3	1.33	1.09
1:A:567:LYS:HB3	8:H:96:VAL:H	1.12	1.08
2:B:559:SER:HA	2:B:563:MET:HB3	1.33	1.08
1:M:1161:THR:HG22	1:M:1163:ILE:H	1.12	1.08
2:B:521:LEU:HD22	2:B:633:VAL:HG12	1.35	1.07
1:M:41:MET:HB3	1:M:49:LYS:HA	1.33	1.07
2:B:622:LYS:HE2	9:I:59:VAL:HG22	1.31	1.07
2:N:559:SER:HA	2:N:563:MET:HB3	1.34	1.07
2:B:102:VAL:HG23	2:B:112:LEU:HB2	1.33	1.07
7:G:111:THR:HG23	7:G:114:LEU:HB2	1.35	1.07
3:C:57:VAL:HG11	10:J:60:PHE:HB3	1.33	1.07
1:M:53:LEU:HD23	1:M:54:ASN:N	1.69	1.06
2:N:622:LYS:HE2	9:U:59:VAL:HG22	1.34	1.06
1:A:1161:THR:HG22	1:A:1163:ILE:H	1.12	1.06
5:Q:197:LYS:HE2	5:Q:199:ILE:HD11	1.36	1.06
1:A:107:CYS:HA	1:A:171:GLN:HE22	1.18	1.06
1:A:41:MET:HB3	1:A:49:LYS:HA	1.33	1.06
1:M:53:LEU:CD2	1:M:54:ASN:H	1.68	1.05
1:M:108:MET:HA	1:M:210:ILE:HD13	1.37	1.05
2:N:521:LEU:HD22	2:N:633:VAL:HG12	1.35	1.05
1:M:567:LYS:HB3	8:T:96:VAL:H	1.18	1.05
2:B:710:LEU:HA	2:B:733:HIS:HB3	1.33	1.05
1:A:351:THR:HG22	2:B:1103:ILE:HA	1.36	1.05
5:E:124:VAL:HG13	5:E:132:ILE:HB	1.30	1.04
12:L:26:THR:HG22	12:L:27:LEU:H	1.21	1.04
5:E:197:LYS:HE2	5:E:199:ILE:HD11	1.37	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:353:ILE:HG21	1:A:487:MET:HG3	1.38	1.04
5:E:94:LYS:HE2	5:E:98:ILE:HD11	1.37	1.04
1:M:53:LEU:HD23	1:M:54:ASN:H	0.87	1.03
2:B:577:ALA:HB1	2:B:589:VAL:HG11	1.37	1.03
1:M:353:ILE:HG21	1:M:487:MET:HG3	1.41	1.03
5:E:117:THR:HG22	5:E:119:SER:H	1.23	1.02
2:N:516:ASN:H	2:N:516:ASN:HD22	1.04	1.02
2:N:516:ASN:N	2:N:516:ASN:HD22	1.57	1.02
2:N:114:PRO:HG3	2:N:181:LEU:HD11	1.36	1.02
2:N:583:ASN:HD21	2:N:628:THR:HG22	1.19	1.01
12:X:26:THR:HG22	12:X:27:LEU:H	1.21	1.01
7:S:1:MET:HE1	7:S:79:PHE:HA	1.36	1.01
2:B:583:ASN:HD21	2:B:628:THR:HG22	1.24	1.01
1:M:297:GLN:HE21	1:M:297:GLN:HA	1.23	1.01
2:N:577:ALA:HB1	2:N:589:VAL:HG11	1.39	1.01
3:O:177:GLU:HG3	3:O:231:ASN:HB3	1.43	1.01
2:B:510:LYS:CG	2:B:511:PRO:HD3	1.91	1.01
1:M:1385:THR:HG22	1:M:1387:HIS:H	1.24	1.00
1:A:53:LEU:CD2	1:A:54:ASN:H	1.73	1.00
2:B:579:ARG:HB2	2:B:586:TRP:HE1	1.24	1.00
1:A:297:GLN:HA	1:A:297:GLN:HE21	1.25	1.00
12:L:40:LEU:HD13	12:L:44:ASP:HB3	1.44	1.00
9:U:93:LYS:H	9:U:93:LYS:HD3	1.25	0.99
5:E:56:LYS:HE2	5:E:84:ASP:HB2	1.44	0.99
1:A:524:VAL:HG12	1:A:525:GLN:H	1.28	0.99
8:T:130:ARG:HH11	8:T:130:ARG:HB2	1.26	0.98
8:T:95:TYR:HE2	8:T:97:MET:HG3	1.26	0.98
8:H:59:ILE:HG22	8:H:60:ALA:H	1.28	0.98
1:A:344:ARG:HB3	1:A:344:ARG:HH11	1.25	0.98
1:M:1255:GLU:HG3	1:M:1258:HIS:HD2	1.28	0.98
2:B:516:ASN:H	2:B:516:ASN:HD22	1.12	0.98
2:B:510:LYS:HG3	2:B:511:PRO:CD	1.92	0.98
2:B:744:HIS:HD2	2:B:745:PRO:HD2	1.24	0.97
5:Q:56:LYS:HE2	5:Q:84:ASP:HB2	1.45	0.97
4:P:118:THR:HB	4:P:121:LYS:HB2	1.46	0.97
3:C:101:LEU:HD13	3:C:118:LEU:HD23	1.46	0.97
5:Q:14:ARG:HH21	5:Q:141:VAL:HG12	1.26	0.97
3:C:7:GLN:HE21	11:K:104:ASN:ND2	1.61	0.97
10:V:5:VAL:HG12	10:V:6:ARG:HG3	1.45	0.97
2:B:615:MET:HB3	2:B:626:ILE:HG12	1.45	0.97
8:T:84:ALA:HB2	8:T:87:ARG:HD2	1.45	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:957:ASN:HD21	2:B:961:LEU:HB2	1.26	0.97
9:I:6:PHE:HB3	9:I:12:ASN:O	1.64	0.97
1:M:903:ASN:HD22	1:M:904:THR:N	1.62	0.97
4:P:56:ARG:HA	4:P:148:LEU:HD13	1.46	0.97
4:P:159:THR:O	4:P:163:VAL:HG23	1.64	0.96
1:M:1006:ILE:HD11	5:Q:163:GLU:HG3	1.46	0.96
1:A:90:VAL:HB	1:A:297:GLN:NE2	1.81	0.96
1:M:779:PHE:CE1	1:M:785:PRO:HD3	2.01	0.96
8:T:59:ILE:HG22	8:T:60:ALA:H	1.31	0.96
1:A:53:LEU:HD23	1:A:54:ASN:N	1.79	0.96
1:A:1329:THR:HG22	1:A:1331:SER:H	1.28	0.96
5:E:153:HIS:O	5:E:154:ILE:HG13	1.64	0.95
7:G:7:LEU:HB2	7:G:74:TYR:CE2	2.01	0.95
1:A:34:LYS:HD2	4:P:187:THR:HG21	1.45	0.95
2:N:510:LYS:CG	2:N:511:PRO:HD3	1.96	0.95
5:Q:153:HIS:O	5:Q:154:ILE:HG13	1.67	0.95
1:A:1116:LEU:N	1:A:1308:THR:HG22	1.80	0.95
1:M:41:MET:CB	1:M:49:LYS:HA	1.96	0.95
2:N:880:THR:HB	2:N:934:LYS:HD2	1.49	0.95
10:J:3:VAL:HG21	10:J:18:TRP:HB2	1.45	0.95
2:B:516:ASN:N	2:B:516:ASN:HD22	1.64	0.95
3:C:238:ILE:HG22	3:C:243:VAL:HG23	1.49	0.95
9:U:26:LEU:HD23	9:U:37:GLU:HA	1.45	0.95
3:O:47:ASP:HA	12:X:69:ALA:HB3	1.47	0.95
9:U:6:PHE:HB3	9:U:12:ASN:O	1.67	0.95
1:A:285:PRO:HG2	1:A:288:ALA:HB3	1.45	0.95
1:M:855:THR:CG2	1:M:857:ARG:HE	1.80	0.95
2:B:114:PRO:HG3	2:B:181:LEU:HD11	1.45	0.94
2:B:510:LYS:HG3	2:B:511:PRO:HD3	0.97	0.94
1:A:472:LEU:O	1:A:475:THR:HB	1.68	0.94
10:J:64:ASN:HB3	10:J:65:PRO:CD	1.97	0.94
2:B:806:THR:HG22	2:B:808:ALA:H	1.31	0.94
10:V:64:ASN:HB3	10:V:65:PRO:CD	1.98	0.94
1:M:541:ILE:HD13	1:M:549:MET:HE1	1.48	0.94
2:N:289:LEU:HD13	2:N:375:ALA:HB2	1.49	0.94
2:N:542:MET:HG2	2:N:747:MET:HE3	1.49	0.94
4:P:14:ARG:HH22	4:P:16:LYS:HD2	1.29	0.94
1:A:308:ILE:HG22	1:A:309:ALA:H	1.33	0.94
1:A:770:VAL:HG12	1:A:771:GLU:HG3	1.49	0.94
2:N:1007:VAL:HG22	2:N:1008:PRO:HD2	1.50	0.94
2:N:508:LEU:N	14:5:1:DA:HO5'	1.65	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:108:MET:HA	1:A:210:ILE:HD13	1.47	0.93
7:S:91:VAL:HG23	7:S:143:ILE:HD11	1.46	0.93
2:B:1065:GLN:HE21	2:B:1067:ARG:H	1.03	0.93
2:N:806:THR:HG22	2:N:808:ALA:H	1.31	0.93
6:R:93:ILE:HD11	6:R:134:ILE:HD11	1.50	0.93
7:G:139:ILE:HG23	7:G:140:LYS:HG3	1.46	0.93
1:M:1364:ASN:OD1	1:M:1366:ARG:HG2	1.69	0.93
2:B:289:LEU:HD13	2:B:375:ALA:HB2	1.48	0.93
5:Q:114:ASN:O	5:Q:115:ASN:HB3	1.65	0.93
6:R:103:MET:CE	7:S:66:GLY:H	1.80	0.93
12:X:40:LEU:HD13	12:X:44:ASP:HB3	1.48	0.93
1:M:14:VAL:H	1:M:1432:GLN:HE22	1.07	0.93
12:X:55:ILE:HG12	12:X:56:LEU:H	1.34	0.93
1:A:903:ASN:ND2	1:A:905:ASP:H	1.66	0.93
3:C:123:ASN:ND2	3:C:125:MET:HG2	1.84	0.93
1:M:344:ARG:HB3	1:M:344:ARG:HH11	1.34	0.93
9:I:93:LYS:H	9:I:93:LYS:HD3	1.29	0.93
12:L:55:ILE:HD13	12:L:55:ILE:H	1.33	0.92
10:V:3:VAL:HG21	10:V:18:TRP:HB2	1.50	0.92
2:B:288:ALA:HB1	2:B:331:LEU:HD12	1.50	0.92
1:M:1036:ARG:HG2	1:M:1036:ARG:HH11	1.34	0.92
6:F:103:MET:CE	7:G:66:GLY:H	1.82	0.92
1:M:855:THR:HG21	1:M:857:ARG:NE	1.83	0.92
7:S:91:VAL:CG2	7:S:143:ILE:HD11	2.00	0.92
1:M:503:GLN:HE21	6:R:90:ARG:HH21	1.17	0.92
1:A:41:MET:CB	1:A:49:LYS:HA	2.00	0.92
1:M:90:VAL:HB	1:M:297:GLN:NE2	1.84	0.92
1:M:563:PRO:HG3	1:M:572:TRP:CZ2	2.04	0.92
2:B:1072:MET:CE	2:B:1085:ILE:HB	2.00	0.91
3:C:47:ASP:HA	12:L:69:ALA:HB3	1.50	0.91
1:A:7:SER:HB3	2:B:1193:GLN:HE22	1.32	0.91
1:A:503:GLN:HE21	6:F:90:ARG:HH21	1.04	0.91
1:M:1116:LEU:N	1:M:1308:THR:HG22	1.84	0.91
1:M:1444:MET:HG3	7:S:60:ARG:HA	1.50	0.91
5:E:9:ILE:HD11	5:E:53:PRO:HD3	1.52	0.91
9:I:26:LEU:HD23	9:I:37:GLU:HA	1.52	0.91
6:R:82:THR:HG22	6:R:84:TYR:H	1.35	0.91
10:J:5:VAL:HG12	10:J:6:ARG:HG3	1.52	0.91
10:J:63:TYR:O	10:J:64:ASN:HB2	1.71	0.91
1:M:961:ARG:HG2	1:M:965:GLN:HE21	1.35	0.91
1:A:567:LYS:HB3	8:H:96:VAL:N	1.86	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1007:VAL:HG22	2:B:1008:PRO:HD2	1.53	0.91
5:E:114:ASN:O	5:E:115:ASN:HB3	1.69	0.91
7:G:97:HIS:CD2	7:S:95:SER:HB3	2.05	0.91
2:N:217:ARG:HE	2:N:405:ARG:HB2	1.32	0.90
7:G:151:ILE:HG21	7:S:113:HIS:O	1.70	0.90
11:W:65:HIS:CD2	11:W:67:PHE:H	1.89	0.90
4:D:118:THR:HB	4:D:121:LYS:HB2	1.52	0.90
3:O:123:ASN:ND2	3:O:125:MET:HG2	1.84	0.90
2:B:737:THR:HG21	9:I:66:PRO:HA	1.53	0.90
4:P:154:PHE:CD1	4:P:163:VAL:HG21	2.06	0.90
2:B:792:MET:HE2	2:B:857:ARG:HH22	1.36	0.90
1:A:54:ASN:HB3	1:A:247:ARG:HH12	1.36	0.90
2:B:579:ARG:HB2	2:B:586:TRP:NE1	1.86	0.90
2:N:863:GLU:OE2	2:N:873:THR:HA	1.71	0.90
2:N:427:ASP:HA	2:N:430:ARG:HD2	1.54	0.89
10:V:48:ARG:HH11	10:V:48:ARG:HG2	1.36	0.89
13:1:22:DC:H2''	13:1:23:BRU:H5'	1.52	0.89
2:B:217:ARG:HE	2:B:405:ARG:HB2	1.35	0.89
1:M:1255:GLU:HG3	1:M:1258:HIS:CD2	2.06	0.89
1:M:316:GLN:HE21	1:M:317:LYS:HE3	1.36	0.89
1:A:14:VAL:H	1:A:1432:GLN:HE22	1.10	0.89
8:T:130:ARG:NH1	8:T:130:ARG:HB2	1.88	0.89
2:B:744:HIS:CD2	2:B:745:PRO:HD2	2.08	0.89
1:M:567:LYS:NZ	8:T:46:LEU:HB2	1.87	0.89
1:A:779:PHE:CE1	1:A:785:PRO:HD3	2.07	0.89
2:B:890:TYR:O	2:B:893:LEU:HB2	1.73	0.89
7:S:13:LEU:HD21	7:S:17:PHE:HB2	1.54	0.89
2:B:758:PHE:CE2	2:B:1044:ALA:HA	2.07	0.88
1:A:687:LYS:O	1:A:690:VAL:HG12	1.72	0.88
2:B:805:THR:HG22	2:B:806:THR:H	1.36	0.88
1:A:1444:MET:HG3	7:G:60:ARG:HA	1.53	0.88
13:4:22:DC:H2''	13:4:23:BRU:H5'	1.53	0.88
2:N:800:GLN:HB3	10:V:52:THR:CG2	2.02	0.88
6:F:93:ILE:HD11	6:F:134:ILE:HD11	1.52	0.88
9:I:111:THR:CG2	9:I:113:ASP:H	1.87	0.88
1:M:1224:LEU:HD11	1:M:1240:CYS:HB3	1.55	0.88
4:P:188:ALA:HB3	4:P:204:ASP:OD1	1.74	0.88
2:B:800:GLN:HB3	10:J:52:THR:CG2	2.02	0.88
2:B:1072:MET:HE2	2:B:1085:ILE:HB	1.52	0.88
13:1:13:DT:H2''	13:1:14:DA:OP2	1.72	0.88
1:M:308:ILE:HG22	1:M:309:ALA:H	1.39	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:156:ASP:HB3	4:P:158:GLU:OE1	1.73	0.88
1:A:629:LEU:O	1:A:633:VAL:HG23	1.74	0.88
1:A:913:LEU:HD12	1:A:914:GLU:H	1.36	0.88
1:A:1398:MET:HB2	1:A:1426:GLU:OE2	1.74	0.88
1:M:687:LYS:O	1:M:690:VAL:HG12	1.72	0.88
1:M:903:ASN:ND2	1:M:905:ASP:H	1.72	0.88
2:N:168:GLY:H	2:N:450:ALA:HB1	1.37	0.87
1:A:445:ASN:HB2	1:A:455:MET:HG2	1.56	0.87
1:A:567:LYS:HB2	1:A:568:PRO:HD2	1.53	0.87
12:L:55:ILE:HG12	12:L:56:LEU:H	1.39	0.87
2:N:273:LEU:HD12	2:N:280:ILE:HD12	1.55	0.87
1:M:902:LEU:HG	1:M:926:GLN:HG3	1.53	0.87
10:V:64:ASN:HD22	10:V:65:PRO:HD3	1.39	0.87
5:Q:117:THR:HG22	5:Q:119:SER:H	1.38	0.87
2:B:1095:LEU:HD12	2:B:1095:LEU:H	1.37	0.87
2:B:168:GLY:H	2:B:450:ALA:HB1	1.37	0.87
8:H:84:ALA:HB2	8:H:87:ARG:HD2	1.55	0.87
2:N:957:ASN:HD21	2:N:961:LEU:HB2	1.38	0.87
1:M:399:HIS:HB3	1:M:400:PRO:HD3	1.54	0.87
5:Q:94:LYS:HE2	5:Q:98:ILE:HD11	1.57	0.87
1:M:288:ALA:HA	1:M:291:GLU:CD	1.96	0.87
1:M:316:GLN:NE2	1:M:317:LYS:HE3	1.90	0.87
4:P:156:ASP:HB2	4:P:159:THR:HG23	1.55	0.87
10:V:63:TYR:O	10:V:64:ASN:HB2	1.75	0.87
1:A:1036:ARG:HH11	1:A:1036:ARG:HG2	1.40	0.86
1:A:399:HIS:HB3	1:A:400:PRO:HD3	1.54	0.86
8:H:100:THR:HG23	8:H:138:GLU:HA	1.56	0.86
2:N:226:PHE:HA	2:N:395:GLN:HG3	1.55	0.86
9:U:50:THR:HG22	9:U:51:ASN:H	1.39	0.86
1:M:768:GLN:HG2	1:M:816:HIS:HA	1.56	0.86
13:4:13:DT:H2"	13:4:14:DA:OP2	1.73	0.86
1:A:710:LEU:HD12	1:A:710:LEU:H	1.38	0.86
7:G:26:LEU:HD12	7:G:56:ILE:HD11	1.55	0.86
1:A:563:PRO:HG3	1:A:572:TRP:CZ2	2.11	0.86
3:O:66:ARG:NH1	10:V:2:ILE:HG21	1.91	0.86
2:B:880:THR:HB	2:B:934:LYS:HD2	1.58	0.86
2:N:1065:GLN:HE21	2:N:1067:ARG:H	1.17	0.86
2:N:805:THR:HG22	2:N:806:THR:H	1.39	0.86
11:W:65:HIS:HD2	11:W:67:PHE:H	1.21	0.86
1:A:1341:ILE:HD12	1:A:1379:GLY:O	1.75	0.86
1:A:902:LEU:HG	1:A:926:GLN:HG3	1.58	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:381:THR:HG22	1:M:383:TYR:H	1.41	0.86
1:M:853:ASP:OD1	1:M:855:THR:HB	1.76	0.86
1:A:768:GLN:HG2	1:A:816:HIS:HA	1.55	0.85
5:E:117:THR:HB	5:E:120:ALA:HB2	1.57	0.85
8:H:59:ILE:HG22	8:H:60:ALA:N	1.90	0.85
1:M:90:VAL:HB	1:M:297:GLN:HE22	1.41	0.85
1:M:961:ARG:HG2	1:M:965:GLN:NE2	1.90	0.85
2:N:241:ARG:HG2	2:N:253:THR:CG2	2.05	0.85
1:M:265:LYS:CA	1:M:265:LYS:HE3	2.05	0.85
1:M:672:ASP:HB3	1:M:736:ASN:HD21	1.41	0.85
12:X:32:ALA:CB	12:X:55:ILE:HG13	2.06	0.85
1:A:903:ASN:HD22	1:A:904:THR:N	1.71	0.85
1:M:249:SER:O	1:M:250:ILE:HG13	1.74	0.85
1:M:285:PRO:HG2	1:M:288:ALA:HB3	1.58	0.85
9:U:111:THR:HG22	9:U:113:ASP:N	1.90	0.85
1:M:629:LEU:O	1:M:633:VAL:HG23	1.76	0.85
4:P:71:LYS:HA	4:P:74:GLN:HG3	1.59	0.85
2:B:583:ASN:HD21	2:B:628:THR:CG2	1.88	0.85
1:M:54:ASN:HB3	1:M:247:ARG:HH12	1.41	0.85
2:N:510:LYS:HG3	2:N:511:PRO:CD	2.05	0.85
7:S:116:PRO:HD2	7:S:119:LEU:HD23	1.59	0.85
1:A:1364:ASN:OD1	1:A:1366:ARG:HG2	1.77	0.85
2:B:430:ARG:HB3	2:B:430:ARG:HH11	1.39	0.85
1:A:855:THR:HG21	1:A:857:ARG:NE	1.92	0.85
2:B:744:HIS:HD2	2:B:745:PRO:CD	1.89	0.85
9:I:111:THR:HG22	9:I:113:ASP:N	1.91	0.85
1:M:1341:ILE:HD12	1:M:1379:GLY:O	1.76	0.85
4:P:208:GLU:O	4:P:212:LYS:HG3	1.77	0.85
1:A:407:ARG:HD2	1:A:413:ILE:HD11	1.59	0.85
1:M:567:LYS:HB2	1:M:568:PRO:HD2	1.58	0.85
2:N:705:MET:H	2:N:710:LEU:HD12	1.42	0.85
2:N:758:PHE:CE2	2:N:1044:ALA:HA	2.11	0.85
6:R:103:MET:HE2	7:S:66:GLY:H	1.42	0.85
1:M:288:ALA:HA	1:M:291:GLU:OE1	1.77	0.85
8:T:59:ILE:HG22	8:T:60:ALA:N	1.90	0.85
1:M:567:LYS:HB3	8:T:96:VAL:N	1.92	0.85
2:B:824:ILE:HG12	10:J:48:ARG:HH12	1.42	0.84
3:C:50:GLU:OE1	12:L:64:LEU:HD22	1.77	0.84
2:N:241:ARG:HG2	2:N:253:THR:HG22	1.56	0.84
2:N:890:TYR:O	2:N:893:LEU:HB2	1.78	0.84
3:O:56:THR:HG21	3:O:145:CYS:SG	2.17	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:294:ASP:O	2:B:296:GLU:N	2.10	0.84
1:A:667:GLY:HA2	1:A:670:ILE:HD11	1.58	0.84
1:A:754:SER:H	1:A:757:ASN:HD22	1.22	0.84
2:B:65:GLU:OE1	2:B:418:LYS:HE3	1.77	0.84
7:S:115:MET:HB3	7:S:116:PRO:HD2	1.59	0.84
7:S:138:THR:HG22	7:S:139:ILE:HG22	1.57	0.84
6:F:79:ARG:HA	6:F:144:GLU:OE1	1.78	0.84
1:M:754:SER:H	1:M:757:ASN:HD22	1.23	0.84
2:N:261:ARG:HB3	2:N:261:ARG:HH11	1.43	0.84
5:Q:15:ALA:O	5:Q:19:VAL:HG23	1.76	0.84
2:B:295:GLY:H	2:B:298:LEU:HD23	1.42	0.84
1:M:858:ASN:ND2	1:M:860:LEU:H	1.76	0.84
2:N:244:LEU:HD11	2:N:366:GLN:HE22	1.43	0.84
7:S:122:ASN:ND2	7:S:125:SER:HB3	1.93	0.84
8:T:82:PRO:C	8:T:84:ALA:H	1.78	0.84
1:M:145:LYS:HA	1:M:145:LYS:HE3	1.60	0.83
3:O:73:GLN:HE21	3:O:75:MET:H	1.25	0.83
1:A:1385:THR:HG22	1:A:1387:HIS:H	1.42	0.83
2:B:834:ASN:HB3	2:B:840:ILE:HG13	1.60	0.83
6:F:82:THR:HG22	6:F:84:TYR:H	1.42	0.83
8:H:82:PRO:C	8:H:84:ALA:H	1.78	0.83
1:A:107:CYS:HA	1:A:171:GLN:NE2	1.93	0.83
2:B:878:GLN:HB2	2:B:879:ARG:HD2	1.61	0.83
11:K:65:HIS:CD2	11:K:67:PHE:H	1.95	0.83
12:L:30:ILE:O	12:L:56:LEU:HA	1.77	0.83
7:S:34:VAL:HG11	7:S:74:TYR:HE1	1.42	0.83
7:G:97:HIS:HD2	7:S:95:SER:HB3	1.44	0.83
1:M:567:LYS:HD2	1:M:568:PRO:HD2	1.58	0.83
11:W:58:PHE:HB3	11:W:76:GLN:HB3	1.59	0.83
1:A:451:HIS:CD2	1:A:1074:GLU:HG3	2.13	0.83
1:A:43:GLU:HG3	1:A:46:THR:HB	1.59	0.83
2:B:642:ASP:HA	2:B:649:LYS:HA	1.60	0.83
1:M:1110:ASN:N	1:M:1110:ASN:HD22	1.76	0.83
7:S:13:LEU:CD2	7:S:17:PHE:HB2	2.08	0.83
2:N:1072:MET:HE2	2:N:1085:ILE:HB	1.61	0.83
2:N:879:ARG:H	2:N:879:ARG:CZ	1.90	0.83
4:P:14:ARG:NH2	4:P:16:LYS:HD2	1.93	0.83
8:T:100:THR:HG23	8:T:138:GLU:HA	1.59	0.83
13:4:12:DG:H4'	13:4:13:DT:OP1	1.78	0.83
2:B:226:PHE:HA	2:B:395:GLN:HG3	1.61	0.83
1:M:43:GLU:HG3	1:M:46:THR:HB	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:567:LYS:CG	1:M:568:PRO:HD2	2.09	0.83
1:A:446:ARG:HB2	1:A:487:MET:SD	2.18	0.83
1:M:157:ASP:OD2	1:M:159:THR:HB	1.79	0.83
1:A:1420:ASP:HB3	1:A:1422:ARG:HG3	1.60	0.83
2:B:292:ILE:HD11	2:B:327:ARG:H	1.43	0.83
1:M:591:PHE:HA	1:M:595:THR:HG21	1.60	0.83
2:N:292:ILE:HD11	2:N:327:ARG:H	1.43	0.83
5:Q:117:THR:HB	5:Q:120:ALA:HB2	1.61	0.83
1:A:1445:ILE:HD12	1:A:1445:ILE:H	1.41	0.83
1:M:87:ALA:HB3	1:M:276:LEU:HD23	1.61	0.83
2:N:999:MET:HG3	2:N:1000:PRO:HD2	1.60	0.83
2:N:465:ASN:HD22	2:N:465:ASN:N	1.74	0.83
1:A:265:LYS:HE3	1:A:265:LYS:CA	2.09	0.82
2:B:705:MET:H	2:B:710:LEU:HD12	1.43	0.82
12:L:32:ALA:CB	12:L:55:ILE:HG13	2.09	0.82
2:N:862:GLN:HG2	2:N:963:PHE:HD1	1.42	0.82
6:R:111:LEU:HD12	6:R:111:LEU:H	1.43	0.82
1:A:1158:PRO:O	1:A:1159:ARG:HG3	1.79	0.82
2:N:763:GLN:HG2	2:N:765:PRO:HD2	1.61	0.82
7:S:7:LEU:HB2	7:S:74:TYR:CE2	2.15	0.82
10:V:64:ASN:HB3	10:V:65:PRO:HD3	1.62	0.82
1:A:33:ALA:HA	1:A:57:ARG:HH12	1.43	0.82
1:M:414:ASP:OD1	1:M:416:ARG:HG2	1.79	0.82
2:N:751:VAL:HG13	2:N:812:LEU:HD22	1.60	0.82
1:A:1161:THR:HG22	1:A:1163:ILE:N	1.94	0.82
1:M:710:LEU:H	1:M:710:LEU:HD12	1.45	0.82
5:Q:180:ARG:HH21	5:Q:192:ARG:HB2	1.44	0.82
2:B:745:PRO:O	2:B:748:ILE:HG12	1.79	0.82
1:M:66:LYS:HD3	1:M:67:CYS:N	1.95	0.82
2:N:642:ASP:HA	2:N:649:LYS:HA	1.61	0.82
8:T:109:LYS:HG2	8:T:110:ASP:OD1	1.80	0.82
2:B:515:HIS:H	2:B:518:HIS:HD2	1.27	0.82
2:N:1072:MET:CE	2:N:1085:ILE:HB	2.09	0.82
6:R:90:ARG:HD3	6:R:155:LEU:HD13	1.62	0.82
13:1:12:DG:H4'	13:1:13:DT:OP1	1.79	0.82
2:B:295:GLY:N	2:B:298:LEU:HD23	1.94	0.82
4:D:192:LYS:HD2	4:D:199:ASN:HA	1.59	0.82
2:N:1095:LEU:HD12	2:N:1095:LEU:H	1.45	0.82
2:N:1201:LYS:HE2	2:N:1205:GLN:OE1	1.79	0.82
1:A:93:VAL:HG13	1:A:301:ALA:HB1	1.60	0.82
1:M:265:LYS:HE3	1:M:265:LYS:HA	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:148:ARG:NH1	3:O:149:LYS:HE3	1.93	0.82
1:A:90:VAL:HB	1:A:297:GLN:HE22	1.41	0.82
2:B:469:GLN:O	2:B:472:ALA:HB3	1.80	0.82
2:N:393:LYS:HA	2:N:393:LYS:HE3	1.61	0.82
4:P:119:ARG:HB2	4:P:221:TYR:CE1	2.15	0.82
4:P:56:ARG:HH21	4:P:155:ARG:HG2	1.45	0.82
5:Q:19:VAL:O	5:Q:23:VAL:HG23	1.79	0.81
12:X:30:ILE:O	12:X:56:LEU:HA	1.79	0.81
1:A:157:ASP:OD2	1:A:159:THR:HB	1.81	0.81
2:B:390:LEU:O	2:B:392:ARG:HG3	1.80	0.81
1:M:244:PRO:HB2	1:M:245:PRO:HD3	1.62	0.81
3:O:244:VAL:O	3:O:248:ILE:HG13	1.79	0.81
4:P:146:GLN:O	4:P:149:THR:HG22	1.79	0.81
1:A:265:LYS:HE3	1:A:265:LYS:N	1.95	0.81
7:G:13:LEU:CD2	7:G:17:PHE:HB2	2.11	0.81
3:O:128:ASN:O	3:O:129:ILE:HG13	1.80	0.81
9:U:93:LYS:H	9:U:93:LYS:CD	1.93	0.81
1:A:858:ASN:ND2	1:A:860:LEU:H	1.78	0.81
2:B:1187:ASN:HD21	2:B:1190:ASP:HB3	1.46	0.81
2:B:879:ARG:CZ	2:B:879:ARG:H	1.93	0.81
11:K:57:LEU:HB2	11:K:76:GLN:HG2	1.60	0.81
8:T:40:LEU:HD23	8:T:42:ILE:HD11	1.61	0.81
1:A:1329:THR:HG22	1:A:1331:SER:N	1.94	0.81
1:A:470:LEU:HD23	1:A:470:LEU:H	1.45	0.81
2:B:622:LYS:HE2	9:I:59:VAL:CG2	2.10	0.81
2:B:996:ARG:HH12	3:C:174:ALA:HA	1.44	0.81
5:E:19:VAL:O	5:E:23:VAL:HG23	1.80	0.81
10:V:1:MET:N	10:V:57:ILE:H	1.78	0.81
1:A:392:VAL:HG13	1:A:415:LEU:HD11	1.61	0.81
11:K:58:PHE:HB3	11:K:76:GLN:HB3	1.61	0.81
2:N:65:GLU:OE1	2:N:418:LYS:HE3	1.80	0.81
3:O:238:ILE:HG22	3:O:243:VAL:HG23	1.61	0.81
1:A:683:ILE:HG21	1:A:801:GLU:HG3	1.63	0.81
13:1:23:BRU:H5"	13:1:23:BRU:H6	1.61	0.81
2:B:1100:ASP:OD2	11:K:1:MET:HB3	1.80	0.81
2:B:911:ILE:HD11	2:B:941:LEU:HD13	1.63	0.81
6:F:103:MET:HE2	7:G:66:GLY:H	1.45	0.81
9:I:50:THR:HG22	9:I:51:ASN:H	1.44	0.81
1:M:524:VAL:HG12	1:M:525:GLN:H	1.45	0.81
7:S:126:ASN:HD22	7:S:127:PRO:HA	1.46	0.81
8:T:84:ALA:CB	8:T:87:ARG:HD2	2.11	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:38:PRO:HA	1:A:270:LEU:HD23	1.63	0.80
3:O:252:GLN:HG3	11:W:95:ILE:HG23	1.63	0.80
2:B:1065:GLN:HE21	2:B:1067:ARG:N	1.79	0.80
7:G:122:ASN:ND2	7:G:125:SER:HB3	1.95	0.80
1:M:1161:THR:HG22	1:M:1163:ILE:N	1.94	0.80
1:M:1259:MET:HA	1:M:1262:LYS:HD2	1.63	0.80
1:M:567:LYS:HB2	1:M:568:PRO:CD	2.11	0.80
13:4:16:DT:H5'	13:4:16:DT:H6	1.46	0.80
9:U:76:PRO:HD2	9:U:108:HIS:HD2	1.46	0.80
2:B:370:PHE:HD2	2:B:373:ARG:HD3	1.46	0.80
5:E:15:ALA:O	5:E:19:VAL:HG23	1.82	0.80
7:G:138:THR:HG22	7:G:139:ILE:N	1.96	0.80
1:M:202:LEU:HB3	1:M:207:ILE:HD11	1.64	0.80
8:H:40:LEU:HD12	8:H:123:MET:HB2	1.63	0.80
1:M:1155:ASP:OD2	1:M:1161:THR:HG23	1.80	0.80
1:M:472:LEU:O	1:M:475:THR:HB	1.80	0.80
2:N:810:GLU:HB2	2:N:815:ARG:HH22	1.45	0.80
5:Q:48:ASP:HB3	5:Q:54:GLN:NE2	1.96	0.80
2:B:583:ASN:ND2	2:B:628:THR:HG22	1.97	0.80
2:N:583:ASN:ND2	2:N:628:THR:HG22	1.97	0.80
2:N:766:ARG:HH21	2:N:1020:ARG:CD	1.94	0.80
1:A:344:ARG:NH1	1:A:344:ARG:HB3	1.96	0.80
2:B:261:ARG:HH11	2:B:261:ARG:HB3	1.45	0.80
1:M:1170:ILE:H	1:M:1170:ILE:HD12	1.47	0.80
3:O:147:LEU:HB2	3:O:151:GLN:HB2	1.62	0.80
9:U:105:SER:O	9:U:106:CYS:HB3	1.80	0.80
2:N:800:GLN:HB3	10:V:52:THR:HG21	1.64	0.80
13:1:16:DT:H5'	13:1:16:DT:H6	1.46	0.80
1:A:855:THR:CG2	1:A:857:ARG:HE	1.93	0.80
1:A:981:LEU:HD21	1:A:1039:LYS:HA	1.63	0.80
3:C:73:GLN:HE21	3:C:75:MET:H	1.30	0.80
1:M:14:VAL:N	1:M:1432:GLN:HE22	1.81	0.80
2:B:955:THR:HG22	2:B:956:THR:O	1.81	0.79
3:C:73:GLN:NE2	3:C:75:MET:HB2	1.97	0.79
10:J:1:MET:N	10:J:57:ILE:H	1.80	0.79
4:P:176:GLU:OE2	4:P:197:SER:HB2	1.80	0.79
4:P:214:LEU:HD13	4:P:214:LEU:O	1.82	0.79
1:M:1387:HIS:O	1:M:1391:ARG:HG3	1.82	0.79
1:M:1214:GLU:O	1:M:1218:GLN:HG2	1.82	0.79
1:M:167:CYS:HB2	1:M:169:ASN:HD21	1.45	0.79
2:N:351:TYR:O	2:N:355:ILE:HG13	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:469:GLN:O	2:N:472:ALA:HB3	1.82	0.79
3:O:50:GLU:OE1	12:X:64:LEU:HD22	1.83	0.79
10:V:57:ILE:HA	10:V:60:PHE:HD2	1.46	0.79
10:J:57:ILE:HA	10:J:60:PHE:HD2	1.46	0.79
1:M:236:LEU:HD11	1:M:304:MET:HE1	1.62	0.79
1:M:534:LEU:O	1:M:574:GLY:HA3	1.82	0.79
9:U:50:THR:HG22	9:U:51:ASN:N	1.98	0.79
6:F:111:LEU:N	6:F:111:LEU:HD12	1.98	0.79
9:I:105:SER:O	9:I:106:CYS:HB3	1.79	0.79
9:I:65:ASP:HB3	9:I:68:LEU:HD12	1.62	0.79
1:M:93:VAL:HG13	1:M:301:ALA:HB1	1.63	0.79
9:U:93:LYS:N	9:U:93:LYS:HD3	1.97	0.79
2:N:583:ASN:HD21	2:N:628:THR:CG2	1.95	0.79
6:R:77:ASP:O	6:R:78:GLN:HB2	1.81	0.79
1:A:7:SER:HB3	2:B:1193:GLN:NE2	1.98	0.79
2:B:309:GLN:HG3	9:I:52:ILE:HD11	1.64	0.79
1:M:567:LYS:CB	1:M:568:PRO:HD2	2.12	0.79
1:M:535:THR:HG21	1:M:616:VAL:HA	1.63	0.79
2:N:778:MET:HE1	2:N:1094:ARG:HD3	1.63	0.79
8:T:89:LEU:C	8:T:91:ASP:H	1.84	0.79
2:B:1224:PHE:CE1	5:E:171:LYS:HG3	2.17	0.79
12:X:61:THR:CG2	12:X:63:ARG:HG3	2.13	0.79
1:A:567:LYS:HB2	1:A:568:PRO:CD	2.12	0.79
3:C:6:PRO:HB2	3:C:25:VAL:HG22	1.65	0.79
4:P:66:ARG:HD2	4:P:133:THR:HB	1.65	0.79
1:A:40:THR:HG22	1:A:41:MET:HG3	1.63	0.79
1:A:722:LEU:H	1:A:722:LEU:HD12	1.48	0.79
4:D:208:GLU:O	4:D:212:LYS:HG3	1.83	0.79
6:F:90:ARG:HD3	6:F:155:LEU:HD13	1.63	0.79
9:I:76:PRO:HD2	9:I:108:HIS:HD2	1.47	0.79
2:N:603:LEU:HD13	2:N:608:ASP:HB2	1.65	0.79
8:T:58:THR:HG22	8:T:59:ILE:H	1.48	0.79
1:A:503:GLN:NE2	6:F:90:ARG:HH21	1.80	0.78
9:I:93:LYS:H	9:I:93:LYS:CD	1.96	0.78
1:M:1308:THR:HG23	1:M:1309:ASP:N	1.97	0.78
7:S:95:SER:OG	7:S:96:GLN:N	2.15	0.78
13:4:23:BRU:H6	13:4:23:BRU:H5"	1.63	0.78
1:A:407:ARG:HG2	1:A:430:TRP:CZ2	2.16	0.78
1:A:697:ALA:HB2	1:A:702:LEU:HD11	1.65	0.78
7:G:34:VAL:HG11	7:G:74:TYR:HE1	1.48	0.78
1:M:1291:VAL:HG22	1:M:1292:PRO:HD2	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1323:ASP:OD1	1:M:1325:THR:HG22	1.84	0.78
1:A:1308:THR:HG23	1:A:1309:ASP:N	1.98	0.78
1:A:14:VAL:N	1:A:1432:GLN:HE22	1.81	0.78
1:M:225:ASN:ND2	1:M:228:PHE:H	1.81	0.78
1:A:390:GLN:HE21	1:A:394:ASN:HD22	1.31	0.78
2:B:846:ILE:HG23	2:B:974:PRO:HG2	1.65	0.78
5:E:48:ASP:HB3	5:E:54:GLN:NE2	1.99	0.78
8:H:58:THR:HG22	8:H:59:ILE:H	1.49	0.78
1:M:693:VAL:HG21	1:M:721:PHE:HE1	1.48	0.78
6:R:111:LEU:HD12	6:R:111:LEU:N	1.98	0.78
2:B:862:GLN:HG2	2:B:963:PHE:HD1	1.48	0.78
4:D:159:THR:O	4:D:163:VAL:HG23	1.84	0.78
1:M:1081:LEU:HD11	1:M:1097:GLY:HA3	1.66	0.78
4:P:194:LEU:HD13	7:S:86:VAL:HG11	1.65	0.78
9:U:111:THR:CG2	9:U:113:ASP:H	1.92	0.78
1:A:913:LEU:HD12	1:A:914:GLU:N	1.98	0.78
2:B:603:LEU:HD13	2:B:608:ASP:HB2	1.66	0.78
8:H:89:LEU:C	8:H:91:ASP:H	1.85	0.78
2:B:800:GLN:HB3	10:J:52:THR:HG21	1.65	0.78
11:K:47:ARG:HB3	11:K:47:ARG:HH11	1.46	0.78
2:N:737:THR:HG21	9:U:66:PRO:HA	1.64	0.78
4:P:158:GLU:CD	4:P:158:GLU:H	1.86	0.78
1:M:981:LEU:HD21	1:M:1039:LYS:HA	1.66	0.78
1:M:830:LYS:O	1:M:834:THR:HB	1.84	0.78
4:P:47:LEU:HD13	4:P:48:ILE:N	1.99	0.78
7:S:119:LEU:HD11	7:S:130:TYR:HB3	1.66	0.78
7:S:34:VAL:HG11	7:S:74:TYR:CE1	2.19	0.78
8:T:17:PRO:HB3	8:T:24:CYS:SG	2.23	0.78
1:A:225:ASN:ND2	1:A:228:PHE:H	1.80	0.78
1:A:591:PHE:HA	1:A:595:THR:HG21	1.66	0.78
7:G:15:PRO:HA	7:G:18:PHE:CD1	2.19	0.78
1:M:1094:VAL:HG13	1:M:1113:THR:CG2	2.14	0.78
2:N:516:ASN:ND2	2:N:516:ASN:H	1.81	0.78
2:N:745:PRO:O	2:N:748:ILE:HG12	1.84	0.78
3:O:148:ARG:HD3	3:O:149:LYS:HG3	1.66	0.78
2:N:824:ILE:HG12	10:V:48:ARG:HH12	1.49	0.78
1:A:934:LYS:O	1:A:937:VAL:HG12	1.83	0.78
2:B:751:VAL:HG13	2:B:812:LEU:HD22	1.63	0.78
2:N:865:LYS:HB2	2:N:961:LEU:HD11	1.64	0.78
7:S:129:SER:HB2	7:S:138:THR:OG1	1.84	0.78
2:B:857:ARG:HD2	2:B:945:GLU:OE1	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:792:MET:HE2	2:B:857:ARG:NH2	1.97	0.78
5:E:84:ASP:O	5:E:86:PRO:HD3	1.84	0.78
1:M:503:GLN:NE2	6:R:90:ARG:HH21	1.81	0.78
1:M:567:LYS:CD	1:M:568:PRO:HD2	2.12	0.78
7:S:115:MET:HB3	7:S:119:LEU:HD23	1.65	0.78
3:C:147:LEU:HB2	3:C:151:GLN:HB2	1.64	0.77
9:U:80:SER:OG	9:U:105:SER:HB2	1.83	0.77
1:M:741:ASN:HD22	1:M:742:ASN:N	1.83	0.77
1:A:458:HIS:CE1	1:A:507:VAL:HG21	2.20	0.77
1:A:565:ILE:HG23	1:A:567:LYS:HG2	1.64	0.77
1:A:567:LYS:NZ	8:H:46:LEU:HB2	2.00	0.77
1:A:567:LYS:CB	1:A:568:PRO:HD2	2.13	0.77
9:I:80:SER:OG	9:I:105:SER:HB2	1.84	0.77
9:U:74:GLU:HB3	9:U:81:ARG:HD2	1.65	0.77
10:V:3:VAL:HG21	10:V:18:TRP:CB	2.13	0.77
10:V:1:MET:H2	10:V:57:ILE:H	1.30	0.77
14:2:5:DC:C2'	14:2:6:DT:H72	2.15	0.77
1:M:855:THR:HG23	1:M:857:ARG:HG3	1.66	0.77
11:W:47:ARG:HB3	11:W:47:ARG:HH11	1.50	0.77
1:A:1323:ASP:OD1	1:A:1325:THR:HG22	1.85	0.77
4:D:146:GLN:O	4:D:149:THR:HG22	1.83	0.77
1:M:590:ARG:O	1:M:591:PHE:HB2	1.84	0.77
1:M:899:VAL:HB	1:M:929:LEU:HD12	1.65	0.77
1:M:93:VAL:HG22	1:M:301:ALA:HA	1.64	0.77
2:N:294:ASP:O	2:N:296:GLU:N	2.16	0.77
2:N:615:MET:HB3	2:N:626:ILE:HG12	1.65	0.77
7:S:53:ASN:N	7:S:53:ASN:HD22	1.81	0.77
7:S:85:GLU:HG2	7:S:87:VAL:HG12	1.66	0.77
1:A:287:HIS:HA	1:A:290:GLU:HG2	1.66	0.77
1:A:855:THR:HG23	1:A:857:ARG:HG3	1.65	0.77
2:B:351:TYR:CE1	2:B:355:ILE:HD11	2.20	0.77
2:B:953:LEU:HD21	2:B:965:LYS:HB2	1.66	0.77
1:M:407:ARG:HD2	1:M:413:ILE:HD11	1.65	0.77
1:M:565:ILE:HG23	1:M:567:LYS:HG2	1.66	0.77
1:M:596:THR:O	1:M:598:LEU:N	2.17	0.77
8:T:127:GLY:O	8:T:128:ASN:HB2	1.82	0.77
14:5:5:DC:C2'	14:5:6:DT:H72	2.15	0.77
1:M:537:ARG:HD2	8:T:20:TYR:CE1	2.20	0.77
6:F:111:LEU:H	6:F:111:LEU:HD12	1.50	0.77
1:M:1094:VAL:HG13	1:M:1113:THR:HG21	1.66	0.77
4:D:187:THR:HG21	1:M:34:LYS:NZ	2.00	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:821:ARG:HH11	1:M:821:ARG:HB2	1.48	0.77
2:B:100:PRO:HG3	2:B:172:ILE:HD12	1.67	0.77
1:M:1095:THR:HG21	1:M:1112:LYS:HB2	1.66	0.77
1:M:1293:SER:OG	1:M:1295:THR:HG23	1.84	0.77
2:N:579:ARG:HB2	2:N:586:TRP:HE1	1.48	0.77
2:N:766:ARG:HH21	2:N:1020:ARG:HD3	1.48	0.77
5:Q:176:PRO:O	5:Q:212:ARG:HA	1.85	0.77
12:X:47:ARG:HB2	12:X:47:ARG:HH11	1.50	0.77
12:X:32:ALA:HB2	12:X:55:ILE:HG13	1.64	0.77
2:B:273:LEU:HD21	2:B:360:PHE:HD1	1.49	0.76
8:H:40:LEU:HD23	8:H:42:ILE:HD11	1.66	0.76
1:M:172:PRO:HB3	1:M:185:TRP:CE2	2.20	0.76
1:A:1197:LEU:HD11	1:A:1238:ILE:HD11	1.67	0.76
10:J:3:VAL:HG21	10:J:18:TRP:CB	2.13	0.76
1:M:184:SER:HB3	1:M:199:LEU:HD23	1.65	0.76
7:S:106:MET:HG2	7:S:107:LYS:N	1.98	0.76
8:T:130:ARG:HH11	8:T:130:ARG:CB	1.99	0.76
8:T:15:VAL:HG22	8:T:26:ILE:HG12	1.67	0.76
1:A:1116:LEU:H	1:A:1308:THR:HG22	1.50	0.76
1:A:288:ALA:HA	1:A:291:GLU:CD	2.06	0.76
12:L:53:HIS:HB3	12:L:55:ILE:CD1	2.15	0.76
1:M:310:GLY:O	1:M:312:PRO:HD2	1.84	0.76
5:Q:84:ASP:O	5:Q:86:PRO:HD3	1.86	0.76
2:B:863:GLU:OE2	2:B:873:THR:HA	1.84	0.76
5:E:117:THR:HB	5:E:120:ALA:CB	2.15	0.76
1:M:913:LEU:HD12	1:M:914:GLU:H	1.48	0.76
3:O:69:LEU:H	3:O:69:LEU:HD12	1.50	0.76
1:A:889:SER:HB3	1:A:1297:GLU:HG3	1.68	0.76
1:A:1385:THR:CG2	1:A:1387:HIS:H	1.98	0.76
1:A:87:ALA:HB3	1:A:276:LEU:HD23	1.66	0.76
1:A:541:ILE:HD13	1:A:549:MET:CE	2.15	0.76
3:O:51:VAL:HG22	3:O:155:LEU:HD22	1.67	0.76
1:A:963:ILE:HD13	1:A:1049:ILE:HG13	1.65	0.76
2:B:1069:PHE:HD1	2:B:1069:PHE:H	1.30	0.76
2:B:542:MET:HE2	2:B:747:MET:HE2	1.67	0.76
1:M:541:ILE:HD13	1:M:549:MET:CE	2.15	0.76
1:M:770:VAL:HG12	1:M:771:GLU:HG3	1.68	0.76
1:M:822:GLU:HG3	2:N:513:GLN:NE2	2.00	0.76
3:O:11:ARG:HE	3:O:21:ILE:HD11	1.51	0.76
1:A:824:LEU:O	1:A:827:THR:HG22	1.85	0.76
2:B:579:ARG:HH11	2:B:579:ARG:HG2	1.48	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:770:GLN:OE1	2:B:983:ARG:HA	1.86	0.76
4:D:154:PHE:HE2	4:D:218:GLU:HA	1.51	0.76
2:N:172:ILE:HD13	2:N:178:ASN:HD22	1.50	0.76
2:N:617:ARG:HE	2:N:619:ILE:HG12	1.50	0.76
1:M:1006:ILE:HD11	5:Q:163:GLU:CG	2.16	0.76
1:M:89:PRO:O	1:M:204:THR:HG21	1.85	0.76
1:M:794:PRO:HG2	1:M:795:GLU:OE2	1.86	0.76
8:T:95:TYR:CE2	8:T:97:MET:HG3	2.16	0.76
1:A:353:ILE:HG21	1:A:487:MET:CG	2.14	0.76
2:B:778:MET:HE1	2:B:1094:ARG:HD3	1.68	0.76
1:M:164:ARG:HG3	1:M:165:GLY:H	1.51	0.76
1:M:535:THR:CG2	1:M:616:VAL:HA	2.14	0.76
11:W:65:HIS:HD2	11:W:67:PHE:N	1.84	0.76
1:A:1387:HIS:O	1:A:1391:ARG:HG3	1.85	0.76
1:A:534:LEU:O	1:A:574:GLY:HA3	1.85	0.76
3:C:93:ASP:OD1	3:C:122:SER:HB2	1.86	0.76
2:N:313:MET:HE2	2:N:390:LEU:HD11	1.68	0.76
1:A:93:VAL:HG22	1:A:301:ALA:HA	1.68	0.75
2:B:737:THR:CG2	9:I:66:PRO:HA	2.15	0.75
5:E:48:ASP:CG	5:E:49:SER:H	1.86	0.75
2:N:792:MET:HE2	2:N:857:ARG:HH22	1.51	0.75
5:Q:9:ILE:HD11	5:Q:53:PRO:HD3	1.66	0.75
1:A:1223:ASP:HA	1:A:1243:VAL:CG2	2.15	0.75
2:B:1201:LYS:HE2	2:B:1205:GLN:OE1	1.86	0.75
2:B:169:ARG:HB2	2:B:454:THR:HG23	1.66	0.75
1:A:858:ASN:C	1:A:858:ASN:HD22	1.88	0.75
1:A:869:GLY:O	5:E:204:THR:HG21	1.87	0.75
7:G:34:VAL:HG12	7:G:45:ILE:HG21	1.68	0.75
1:M:1433:MET:HE3	7:S:63:PRO:HB2	1.67	0.75
7:S:83:LYS:HG3	7:S:148:GLU:O	1.86	0.75
8:T:40:LEU:HD12	8:T:123:MET:HB2	1.67	0.75
1:A:567:LYS:HB2	8:H:95:TYR:HA	1.66	0.75
3:C:56:THR:HG22	3:C:57:VAL:H	1.51	0.75
6:F:109:VAL:HG12	6:F:110:ASP:N	2.02	0.75
1:M:108:MET:CA	1:M:210:ILE:HD13	2.15	0.75
2:N:60:GLN:O	2:N:63:ILE:HG22	1.86	0.75
3:O:56:THR:HG22	3:O:57:VAL:H	1.50	0.75
13:1:22:DC:H2''	13:1:23:BRU:C5'	2.14	0.75
6:F:130:ILE:HB	6:F:148:VAL:HG21	1.68	0.75
1:M:842:VAL:HG11	2:N:1136:ASP:OD2	1.87	0.75
2:N:25:ILE:CG2	2:N:658:ILE:HD12	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:744:HIS:CD2	2:N:745:PRO:HD2	2.22	0.75
5:Q:117:THR:HB	5:Q:120:ALA:CB	2.16	0.75
9:U:50:THR:CG2	9:U:52:ILE:HG12	2.17	0.75
9:U:65:ASP:HB3	9:U:68:LEU:HD12	1.68	0.75
1:A:172:PRO:HB3	1:A:185:TRP:CE2	2.22	0.75
2:B:36:ALA:HA	2:B:39:ARG:HD2	1.69	0.75
5:E:202:SER:OG	5:E:204:THR:HG22	1.87	0.75
6:F:119:ARG:HH11	6:F:119:ARG:HG3	1.51	0.75
1:M:1218:GLN:O	1:M:1221:LYS:HE3	1.86	0.75
4:P:14:ARG:HB3	4:P:14:ARG:HH11	1.50	0.75
2:N:35:SER:HA	2:N:811:TYR:HE2	1.51	0.75
3:O:183:TRP:O	3:O:185:LYS:N	2.19	0.75
7:S:115:MET:O	7:S:164:LYS:HD3	1.87	0.75
3:C:183:TRP:O	3:C:185:LYS:N	2.19	0.75
1:M:858:ASN:C	1:M:858:ASN:HD22	1.87	0.75
2:N:744:HIS:HD2	2:N:745:PRO:CD	2.00	0.75
1:A:34:LYS:CD	4:P:187:THR:HG21	2.17	0.75
1:A:107:CYS:CA	1:A:171:GLN:HE22	1.99	0.75
2:B:800:GLN:HB3	10:J:52:THR:HG22	1.69	0.75
4:D:66:ARG:HD2	4:D:133:THR:HB	1.68	0.75
1:A:1006:ILE:HD11	5:E:163:GLU:HG3	1.68	0.75
2:N:1187:ASN:HD21	2:N:1190:ASP:HB3	1.52	0.75
2:B:361:LEU:HD21	2:B:377:PHE:CD2	2.21	0.74
3:C:143:LEU:HD21	3:C:146:LYS:HE3	1.69	0.74
4:D:71:LYS:HA	4:D:74:GLN:HB2	1.68	0.74
1:M:973:ILE:HD13	1:M:1037:LEU:HA	1.68	0.74
2:N:129:PHE:HE2	2:N:166:PHE:HB2	1.52	0.74
2:N:917:PRO:O	2:N:918:ILE:HG13	1.86	0.74
3:C:238:ILE:CG2	3:C:243:VAL:HG23	2.16	0.74
1:M:1255:GLU:O	1:M:1255:GLU:HG2	1.87	0.74
1:M:167:CYS:HB2	1:M:169:ASN:ND2	2.01	0.74
2:N:955:THR:HG22	2:N:956:THR:O	1.87	0.74
1:M:869:GLY:O	5:Q:204:THR:HG21	1.87	0.74
8:T:130:ARG:HD3	8:T:130:ARG:N	2.01	0.74
9:U:55:THR:HG23	9:U:100:PHE:CD2	2.22	0.74
12:X:61:THR:HG22	12:X:63:ARG:HG3	1.69	0.74
3:C:244:VAL:O	3:C:248:ILE:HG13	1.87	0.74
11:K:45:LEU:HG	11:K:94:ILE:HD13	1.69	0.74
12:L:38:LEU:HD13	12:L:49:LYS:HE2	1.69	0.74
1:M:37:PHE:N	1:M:37:PHE:CD1	2.53	0.74
1:M:446:ARG:HB2	1:M:487:MET:SD	2.26	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:231:PRO:HA	1:M:234:MET:HE2	1.69	0.74
1:M:78:PRO:HA	2:N:1201:LYS:HZ2	1.52	0.74
2:N:345:LYS:O	2:N:347:LYS:HG2	1.87	0.74
2:N:1224:PHE:CZ	5:Q:171:LYS:HG3	2.22	0.74
8:T:8:ASP:OD2	8:T:9:ILE:N	2.19	0.74
13:4:22:DC:H2''	13:4:23:BRU:C5'	2.15	0.74
2:B:549:THR:HB	2:B:628:THR:OG1	1.87	0.74
12:L:26:THR:HG22	12:L:27:LEU:N	2.01	0.74
1:M:451:HIS:CD2	1:M:1074:GLU:HG3	2.23	0.74
2:N:261:ARG:NH1	2:N:261:ARG:HB3	2.02	0.74
3:O:147:LEU:HD23	3:O:147:LEU:N	2.03	0.74
4:P:12:ARG:HH11	4:P:12:ARG:HG2	1.52	0.74
12:X:55:ILE:H	12:X:55:ILE:HD13	1.53	0.74
3:C:7:GLN:HE21	11:K:104:ASN:HD21	1.34	0.74
1:A:537:ARG:HD2	8:H:20:TYR:CE1	2.22	0.74
1:M:1015:VAL:HG12	1:M:1019:CYS:SG	2.27	0.74
4:D:187:THR:HG21	1:M:34:LYS:HZ3	1.51	0.74
1:A:1293:SER:OG	1:A:1295:THR:HG23	1.88	0.74
1:A:470:LEU:HD23	1:A:470:LEU:N	2.02	0.74
2:B:345:LYS:O	2:B:347:LYS:HG2	1.87	0.74
6:F:90:ARG:HD3	6:F:155:LEU:CD1	2.18	0.74
9:I:111:THR:CG2	9:I:112:SER:N	2.50	0.74
1:M:1105:LEU:HD22	1:M:1384:VAL:HG21	1.68	0.74
2:N:309:GLN:HG3	9:U:52:ILE:HD11	1.70	0.74
1:A:69:THR:O	1:A:71:GLN:N	2.21	0.74
4:D:29:LEU:HD22	4:D:29:LEU:N	2.03	0.74
1:M:353:ILE:HG21	1:M:487:MET:CG	2.17	0.74
3:O:183:TRP:CZ2	3:O:207:CYS:HB3	2.23	0.74
4:P:190:GLU:HA	7:S:167:TYR:CD1	2.22	0.74
9:U:50:THR:HG22	9:U:52:ILE:H	1.52	0.74
12:X:49:LYS:O	12:X:50:ASP:HB2	1.86	0.74
1:A:596:THR:O	1:A:598:LEU:N	2.20	0.73
2:B:805:THR:HA	2:B:809:MET:HE1	1.68	0.73
6:F:147:SER:OG	6:F:150:GLU:HG3	1.88	0.73
7:G:34:VAL:CG1	7:G:45:ILE:HG21	2.18	0.73
7:G:26:LEU:HD12	7:G:56:ILE:CD1	2.17	0.73
1:A:567:LYS:HD2	1:A:568:PRO:HD2	1.68	0.73
1:A:590:ARG:O	1:A:591:PHE:HB2	1.88	0.73
2:B:798:TYR:CD1	10:J:4:PRO:HG3	2.23	0.73
2:B:865:LYS:HB2	2:B:961:LEU:HD11	1.69	0.73
1:M:287:HIS:HA	1:M:290:GLU:HG2	1.68	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1224:LEU:HD11	1:A:1240:CYS:HB3	1.69	0.73
1:A:853:ASP:OD1	1:A:855:THR:HB	1.87	0.73
1:A:901:LEU:H	1:A:926:GLN:NE2	1.85	0.73
2:B:241:ARG:HG2	2:B:253:THR:HG22	1.69	0.73
2:B:637:LEU:HD12	2:B:693:ILE:HD12	1.70	0.73
7:G:53:ASN:HD22	7:G:53:ASN:N	1.84	0.73
8:H:127:GLY:O	8:H:128:ASN:HB2	1.85	0.73
9:U:74:GLU:HB3	9:U:81:ARG:CD	2.18	0.73
11:W:45:LEU:HG	11:W:94:ILE:HD13	1.70	0.73
2:B:277:LYS:HG2	2:B:336:ARG:HB3	1.70	0.73
2:B:53:GLN:HG2	2:B:547:VAL:HG22	1.70	0.73
6:F:69:LEU:HB3	6:F:71:GLU:OE1	1.88	0.73
2:N:806:THR:HG22	2:N:808:ALA:N	2.04	0.73
12:X:26:THR:HG22	12:X:27:LEU:N	2.02	0.73
1:A:1107:VAL:HG12	1:A:1107:VAL:O	1.87	0.73
3:C:203:GLN:HG2	3:C:207:CYS:SG	2.29	0.73
12:L:60:ARG:HG2	12:L:61:THR:H	1.53	0.73
6:R:109:VAL:HG12	6:R:110:ASP:N	2.02	0.73
12:X:30:ILE:HD11	12:X:59:ALA:HB2	1.68	0.73
1:A:33:ALA:HA	1:A:57:ARG:NH1	2.03	0.73
1:M:590:ARG:HH11	1:M:590:ARG:HG2	1.52	0.73
1:M:896:ARG:HD3	1:M:897:TYR:CE1	2.23	0.73
2:N:364:ILE:HG13	2:N:585:VAL:HG13	1.70	0.73
2:N:613:VAL:HG13	2:N:627:PHE:O	1.89	0.73
7:S:51:TYR:O	7:S:54:ILE:HG13	1.88	0.73
2:N:800:GLN:HB3	10:V:52:THR:HG22	1.70	0.73
12:X:47:ARG:HG3	12:X:52:GLY:O	1.87	0.73
1:A:1015:VAL:HG12	1:A:1019:CYS:SG	2.27	0.73
1:A:372:LYS:HA	1:A:435:HIS:ND1	2.02	0.73
1:A:567:LYS:CB	8:H:95:TYR:HA	2.17	0.73
2:B:516:ASN:ND2	2:B:516:ASN:N	2.35	0.73
3:C:183:TRP:CZ2	3:C:207:CYS:HB3	2.24	0.73
8:H:84:ALA:CB	8:H:87:ARG:HD2	2.17	0.73
2:N:1065:GLN:HE21	2:N:1067:ARG:N	1.86	0.73
2:N:308:TRP:CH2	9:U:45:ARG:HG2	2.24	0.73
4:P:141:LEU:O	4:P:145:MET:HG2	1.89	0.73
2:B:294:ASP:C	2:B:296:GLU:H	1.91	0.73
1:M:66:LYS:NZ	1:M:68:GLN:H	1.87	0.73
2:N:333:PHE:O	2:N:334:ILE:HG13	1.89	0.73
7:S:129:SER:HB2	7:S:138:THR:HG1	1.54	0.73
1:M:567:LYS:HB2	8:T:95:TYR:HA	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:250:ILE:HG22	1:A:250:ILE:O	1.87	0.73
5:E:147:HIS:HB3	5:E:150:VAL:HG23	1.71	0.73
9:I:50:THR:HG22	9:I:51:ASN:N	2.04	0.73
1:M:107:CYS:HA	1:M:171:GLN:HE22	1.54	0.73
1:M:1223:ASP:HA	1:M:1243:VAL:HG22	1.70	0.73
1:M:321:PRO:O	1:M:322:VAL:HG12	1.89	0.73
1:M:69:THR:O	1:M:71:GLN:N	2.22	0.73
1:A:70:CYS:O	1:A:72:GLU:HG2	1.89	0.73
3:C:66:ARG:NH1	10:J:2:ILE:HG21	2.04	0.73
1:M:225:ASN:ND2	1:M:227:VAL:H	1.86	0.73
1:M:337:ARG:HD3	2:N:1132:GLU:OE1	1.89	0.73
2:N:579:ARG:HB2	2:N:586:TRP:NE1	2.03	0.73
2:N:589:VAL:HG12	2:N:590:HIS:H	1.52	0.73
2:N:879:ARG:H	2:N:879:ARG:NH1	1.86	0.73
4:P:189:ASP:O	4:P:193:THR:HB	1.89	0.73
4:P:207:LEU:O	4:P:211:LEU:HD12	1.89	0.73
1:A:535:THR:HG21	1:A:616:VAL:HA	1.71	0.72
1:A:62:ASP:O	1:A:63:ARG:C	2.28	0.72
1:A:62:ASP:O	1:A:64:ASN:HB2	1.89	0.72
1:A:901:LEU:HA	1:A:907:THR:OG1	1.88	0.72
2:B:313:MET:HE2	2:B:390:LEU:HD11	1.70	0.72
5:E:176:PRO:O	5:E:212:ARG:HA	1.89	0.72
6:F:109:VAL:HG12	6:F:110:ASP:H	1.54	0.72
1:M:11:LEU:O	1:M:11:LEU:HD23	1.89	0.72
2:N:644:GLU:HB3	2:N:648:HIS:O	1.89	0.72
1:A:829:VAL:HG21	2:B:508:LEU:HD13	1.69	0.72
1:A:896:ARG:HD3	1:A:897:TYR:CE1	2.24	0.72
4:D:154:PHE:CE2	4:D:218:GLU:HA	2.24	0.72
1:M:1394:THR:HG21	1:M:1398:MET:SD	2.28	0.72
2:N:911:ILE:HD11	2:N:941:LEU:HD13	1.71	0.72
3:O:263:THR:O	3:O:266:ASP:HB2	1.89	0.72
7:S:116:PRO:HG2	7:S:119:LEU:CB	2.19	0.72
1:A:40:THR:HG23	1:A:54:ASN:HD21	1.54	0.72
1:M:860:LEU:HD11	1:M:1393:ASN:HB2	1.71	0.72
1:M:62:ASP:O	1:M:63:ARG:C	2.28	0.72
1:M:667:GLY:HA2	1:M:670:ILE:HD11	1.70	0.72
1:M:66:LYS:HD3	1:M:67:CYS:H	1.52	0.72
2:N:542:MET:HG2	2:N:747:MET:CE	2.18	0.72
1:A:297:GLN:CA	1:A:297:GLN:HE21	2.02	0.72
2:N:1016:ALA:O	2:N:1020:ARG:HG3	1.89	0.72
2:N:549:THR:HG22	2:N:550:ASP:N	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:582:VAL:HG23	2:N:626:ILE:HB	1.70	0.72
7:S:1:MET:SD	7:S:2:PHE:N	2.63	0.72
9:U:111:THR:CG2	9:U:112:SER:N	2.52	0.72
1:A:567:LYS:CG	1:A:568:PRO:HD2	2.18	0.72
1:A:49:LYS:HE2	1:A:61:ILE:HD12	1.71	0.72
2:B:1095:LEU:HD12	2:B:1095:LEU:N	2.04	0.72
2:B:292:ILE:HD11	2:B:327:ARG:N	2.03	0.72
2:N:287:ARG:HG2	2:N:292:ILE:HA	1.72	0.72
1:A:693:VAL:HG21	1:A:721:PHE:HE1	1.55	0.72
2:B:589:VAL:HG12	2:B:590:HIS:H	1.53	0.72
2:B:600:LEU:O	2:B:609:ILE:HD11	1.90	0.72
1:M:445:ASN:HB2	1:M:455:MET:HG2	1.70	0.72
2:B:724:ASP:OD2	2:B:727:LYS:HG3	1.90	0.72
5:E:180:ARG:HH21	5:E:192:ARG:HB2	1.54	0.72
1:M:332:LYS:HG2	1:M:333:GLU:HG2	1.72	0.72
2:N:1183:LYS:HE3	2:N:1183:LYS:N	2.04	0.72
7:S:87:VAL:CG2	7:S:103:VAL:HG21	2.19	0.72
1:A:1118:VAL:CG2	1:A:1306:LEU:HB2	2.20	0.72
5:E:23:VAL:O	5:E:28:TYR:HB2	1.90	0.72
2:N:1096:ARG:O	2:N:1097:HIS:HB2	1.90	0.72
3:O:36:VAL:HG21	3:O:251:LEU:HD13	1.72	0.72
2:N:622:LYS:NZ	9:U:59:VAL:HG13	2.05	0.72
1:A:1242:VAL:HG12	1:A:1243:VAL:N	2.05	0.72
1:A:1348:LEU:O	1:A:1352:VAL:HG23	1.89	0.72
1:A:601:LYS:HB2	1:A:603:ASN:ND2	2.05	0.72
5:E:14:ARG:HH21	5:E:141:VAL:HG12	1.54	0.72
1:A:1094:VAL:HG13	1:A:1113:THR:CG2	2.19	0.72
1:A:310:GLY:O	1:A:312:PRO:HD2	1.89	0.72
2:B:278:GLN:HG2	2:B:279:ASP:H	1.54	0.72
2:B:549:THR:HG22	2:B:550:ASP:N	2.04	0.72
1:M:1385:THR:HG22	1:M:1387:HIS:N	2.04	0.72
1:M:517:ASN:HD22	1:M:1364:ASN:HD22	1.38	0.72
1:M:7:SER:OG	2:N:1161:HIS:HE1	1.72	0.72
2:N:1224:PHE:CE1	5:Q:171:LYS:HG3	2.25	0.72
2:N:294:ASP:C	2:N:296:GLU:H	1.93	0.72
2:N:56:ASP:HB3	2:N:57:TYR:CD1	2.25	0.72
3:O:8:VAL:O	3:O:9:LYS:HG3	1.90	0.72
1:M:889:SER:HB3	1:M:1297:GLU:HG3	1.72	0.71
2:N:766:ARG:HH22	2:N:1020:ARG:HH11	1.38	0.71
2:N:336:ARG:HH11	2:N:336:ARG:HG3	1.56	0.71
7:S:153:GLN:HG2	7:S:154:VAL:HG23	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:48:ARG:HH11	10:J:48:ARG:HG2	1.54	0.71
1:M:470:LEU:HD23	1:M:470:LEU:H	1.55	0.71
2:N:289:LEU:HD13	2:N:375:ALA:CB	2.20	0.71
2:N:56:ASP:HB3	2:N:57:TYR:HD1	1.55	0.71
8:T:24:CYS:HB2	8:T:44:VAL:HG21	1.72	0.71
3:O:166:GLU:HG3	11:W:10:PHE:HZ	1.55	0.71
1:A:1121:GLU:CG	1:A:1122:PRO:HD2	2.20	0.71
2:B:542:MET:HG2	2:B:747:MET:HE3	1.72	0.71
2:B:999:MET:HG3	2:B:1000:PRO:HD2	1.72	0.71
3:O:165:LYS:O	11:W:6:ARG:NH1	2.22	0.71
1:A:1223:ASP:HA	1:A:1243:VAL:HG22	1.72	0.71
1:A:37:PHE:N	1:A:37:PHE:CD1	2.56	0.71
1:A:517:ASN:HD22	1:A:1364:ASN:HD22	1.37	0.71
1:A:68:GLN:O	1:A:68:GLN:OE1	2.09	0.71
2:B:56:ASP:HB3	2:B:57:TYR:CD1	2.25	0.71
4:D:138:ASN:HD21	7:G:35:GLU:HB3	1.55	0.71
6:F:77:ASP:O	6:F:78:GLN:HB2	1.90	0.71
8:H:130:ARG:HD3	8:H:130:ARG:N	2.06	0.71
1:M:1116:LEU:H	1:M:1308:THR:HG22	1.55	0.71
1:M:239:LEU:HD12	1:M:240:PRO:HD2	1.71	0.71
1:M:905:ASP:C	1:M:906:HIS:HD1	1.94	0.71
2:N:953:LEU:HD21	2:N:965:LYS:HB2	1.71	0.71
5:Q:50:MET:HG2	5:Q:52:ARG:HH21	1.55	0.71
2:B:427:ASP:HA	2:B:430:ARG:HD2	1.73	0.71
2:N:515:HIS:HD2	2:N:517:THR:H	1.37	0.71
5:Q:23:VAL:O	5:Q:28:TYR:HB2	1.90	0.71
1:A:316:GLN:HG2	1:A:317:LYS:HG2	1.71	0.71
1:A:709:THR:HG22	1:A:710:LEU:N	2.04	0.71
4:D:8:PHE:CE1	4:D:37:GLN:HB2	2.26	0.71
12:L:32:ALA:HB2	12:L:55:ILE:HG13	1.72	0.71
1:M:115:LEU:HD12	1:M:142:CYS:HB3	1.71	0.71
1:M:709:THR:HG22	1:M:710:LEU:N	2.05	0.71
2:N:295:GLY:N	2:N:298:LEU:HD23	2.06	0.71
1:A:37:PHE:HD1	1:A:37:PHE:N	1.89	0.71
2:B:1016:ALA:O	2:B:1020:ARG:HG3	1.91	0.71
1:M:1189:SER:O	1:M:1241:ARG:HD3	1.91	0.71
2:N:705:MET:N	2:N:710:LEU:HD12	2.06	0.71
4:P:138:ASN:C	4:P:142:LYS:HE2	2.11	0.71
9:U:34:TYR:CD2	9:U:35:VAL:N	2.59	0.71
2:B:60:GLN:O	2:B:63:ILE:HG22	1.89	0.71
2:B:778:MET:CE	2:B:1094:ARG:HD3	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:13:LEU:HD22	7:G:17:PHE:HB2	1.70	0.71
12:L:47:ARG:HB2	12:L:47:ARG:HH11	1.56	0.71
12:L:47:ARG:HG3	12:L:52:GLY:O	1.91	0.71
1:M:390:GLN:HE21	1:M:394:ASN:HD22	1.39	0.71
1:M:722:LEU:H	1:M:722:LEU:HD12	1.55	0.71
1:M:767:GLN:NE2	1:M:774:ARG:HB3	2.05	0.71
2:N:467:GLY:N	2:N:475:SER:HB3	2.06	0.71
2:N:515:HIS:CD2	2:N:517:THR:HG23	2.26	0.71
1:A:1155:ASP:OD2	1:A:1161:THR:HG23	1.90	0.71
9:I:93:LYS:HD3	9:I:93:LYS:N	2.04	0.71
1:M:1011:GLN:HE22	1:M:1015:VAL:HG21	1.56	0.71
2:N:620:ARG:NH1	9:U:68:LEU:HD21	2.05	0.71
2:N:25:ILE:HG21	2:N:658:ILE:HD12	1.73	0.71
5:Q:16:PHE:CZ	5:Q:20:LYS:HE2	2.26	0.71
1:A:1207:LEU:HD13	1:A:1273:LEU:HD23	1.73	0.70
1:A:281:HIS:C	1:A:282:ASN:HD22	1.94	0.70
2:B:384:ARG:HH12	2:B:393:LYS:HD3	1.55	0.70
2:B:226:PHE:HA	2:B:395:GLN:CG	2.20	0.70
1:A:253:ASN:ND2	2:B:884:ARG:HD2	2.05	0.70
2:B:917:PRO:O	2:B:918:ILE:HG13	1.90	0.70
2:B:898:LEU:HD13	2:B:952:VAL:HG11	1.72	0.70
1:M:1121:GLU:CG	1:M:1122:PRO:HD2	2.20	0.70
1:M:157:ASP:OD2	1:M:160:GLN:HG3	1.91	0.70
2:N:217:ARG:NE	2:N:405:ARG:HB2	2.06	0.70
7:S:99:PHE:O	7:S:110:VAL:HG23	1.90	0.70
1:A:225:ASN:HD22	1:A:228:PHE:H	1.37	0.70
1:A:523:ILE:CG1	1:A:622:VAL:HG22	2.21	0.70
1:A:71:GLN:O	1:A:73:GLY:N	2.23	0.70
1:M:1118:VAL:HG23	1:M:1306:LEU:HB2	1.72	0.70
2:N:756:ILE:O	2:N:759:PRO:HD3	1.91	0.70
4:P:8:PHE:HE1	4:P:37:GLN:HB2	1.55	0.70
2:B:873:THR:O	2:B:914:LYS:HA	1.91	0.70
3:C:147:LEU:HD23	3:C:147:LEU:N	2.07	0.70
1:M:1293:SER:OG	1:M:1294:PRO:HD2	1.91	0.70
1:M:916:GLY:O	1:M:919:ILE:HG22	1.91	0.70
2:N:38:PHE:HD1	2:N:811:TYR:CD2	2.09	0.70
2:N:873:THR:O	2:N:914:LYS:HA	1.91	0.70
1:M:254:GLU:HB2	2:N:935:ARG:NH2	2.06	0.70
1:A:541:ILE:HG22	1:A:546:VAL:HG23	1.73	0.70
1:A:842:VAL:HG11	2:B:1136:ASP:OD2	1.91	0.70
2:B:1004:GLU:HG3	10:J:42:LYS:NZ	2.05	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:309:GLN:HG3	9:I:52:ILE:CD1	2.21	0.70
8:H:81:PRO:CB	8:H:82:PRO:HD2	2.21	0.70
1:M:216:VAL:O	1:M:219:PHE:HB2	1.91	0.70
2:N:604:ARG:HB2	2:N:609:ILE:HG13	1.73	0.70
4:P:29:LEU:HD12	7:S:82:PHE:CZ	2.26	0.70
10:V:44:TYR:HA	10:V:47:ARG:HB2	1.74	0.70
11:W:60:ALA:O	11:W:73:LEU:HD12	1.90	0.70
1:A:1121:GLU:HG2	1:A:1122:PRO:HD2	1.74	0.70
1:A:1127:ASP:HB3	1:A:1130:GLN:HB3	1.71	0.70
1:A:1353:TYR:HD2	1:A:1353:TYR:C	1.94	0.70
1:A:249:SER:O	1:A:250:ILE:HG13	1.90	0.70
1:A:626:ASN:O	1:A:631:HIS:HD2	1.74	0.70
2:B:168:GLY:HA2	2:B:454:THR:OG1	1.91	0.70
2:B:642:ASP:O	2:B:644:GLU:N	2.21	0.70
3:C:101:LEU:HD13	3:C:118:LEU:CD2	2.20	0.70
4:D:130:LEU:HD13	4:D:142:LYS:HG2	1.72	0.70
5:E:10:SER:O	5:E:13:TRP:HB3	1.92	0.70
7:G:126:ASN:HD22	7:G:127:PRO:CA	2.05	0.70
8:H:17:PRO:HB3	8:H:24:CYS:SG	2.31	0.70
1:M:541:ILE:HG22	1:M:546:VAL:HG23	1.73	0.70
2:N:240:ILE:CG2	2:N:254:LEU:HB3	2.22	0.70
2:N:288:ALA:HB1	2:N:331:LEU:HD12	1.71	0.70
2:N:778:MET:CE	2:N:1094:ARG:HD3	2.21	0.70
6:R:130:ILE:HB	6:R:148:VAL:HG21	1.72	0.70
10:V:53:HIS:CD2	10:V:54:VAL:N	2.59	0.70
1:A:388:LEU:O	1:A:392:VAL:HG23	1.92	0.70
1:A:908:LEU:HD11	1:A:983:ILE:HD11	1.74	0.70
1:M:567:LYS:CB	8:T:95:TYR:HA	2.20	0.70
4:P:151:PHE:CD1	4:P:151:PHE:N	2.58	0.70
4:P:70:PHE:O	4:P:74:GLN:HG3	1.91	0.70
5:Q:180:ARG:NH2	5:Q:192:ARG:HB2	2.05	0.70
1:A:868:TYR:HD2	1:A:1058:VAL:HG21	1.57	0.70
1:M:122:MET:HA	1:M:141:LEU:CD1	2.22	0.70
1:M:1409:LEU:HD13	2:N:1207:LEU:HD11	1.73	0.70
2:N:600:LEU:O	2:N:609:ILE:HD11	1.90	0.70
2:N:846:ILE:HG23	2:N:974:PRO:HG2	1.72	0.70
4:P:120:GLU:O	4:P:124:GLU:OE2	2.09	0.70
2:B:247:GLY:H	2:B:249:ARG:HH21	1.37	0.70
2:B:705:MET:H	2:B:710:LEU:CD1	2.04	0.70
8:H:8:ASP:OD2	8:H:9:ILE:N	2.24	0.70
10:J:53:HIS:CD2	10:J:54:VAL:N	2.60	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:40:THR:HG22	1:M:41:MET:HG3	1.72	0.70
2:N:129:PHE:CE2	2:N:166:PHE:HB2	2.27	0.70
2:N:642:ASP:CA	2:N:649:LYS:HG3	2.22	0.70
7:S:138:THR:HG22	7:S:139:ILE:N	2.06	0.70
1:A:1293:SER:OG	1:A:1294:PRO:HD2	1.90	0.70
1:A:595:THR:O	1:A:596:THR:HG23	1.92	0.70
1:M:768:GLN:CG	1:M:816:HIS:HA	2.22	0.70
4:P:134:THR:HG23	4:P:141:LEU:HD23	1.74	0.70
1:M:1006:ILE:CD1	5:Q:163:GLU:HG3	2.21	0.70
5:Q:202:SER:OG	5:Q:204:THR:HG22	1.92	0.70
2:B:245:GLU:O	2:B:246:LYS:HG3	1.91	0.70
5:E:147:HIS:HD2	5:E:149:LEU:H	1.39	0.70
11:K:65:HIS:HD2	11:K:67:PHE:H	1.38	0.70
1:M:372:LYS:HA	1:M:435:HIS:ND1	2.07	0.70
2:N:345:LYS:CG	2:N:346:GLU:H	2.05	0.70
2:N:705:MET:H	2:N:710:LEU:CD1	2.04	0.70
5:Q:48:ASP:CG	5:Q:49:SER:H	1.93	0.70
1:A:852:TYR:CE2	1:A:1060:PRO:HB2	2.27	0.69
1:A:1353:TYR:CD2	1:A:1353:TYR:C	2.65	0.69
1:A:14:VAL:H	1:A:1432:GLN:NE2	1.88	0.69
1:A:794:PRO:HG2	1:A:795:GLU:OE2	1.91	0.69
1:A:946:VAL:HG22	5:E:201:LYS:HD2	1.73	0.69
2:B:559:SER:CA	2:B:563:MET:HB3	2.19	0.69
4:D:35:LEU:H	4:D:35:LEU:HD12	1.56	0.69
7:G:139:ILE:HG23	7:G:140:LYS:N	2.07	0.69
10:J:64:ASN:HB3	10:J:65:PRO:HD2	1.74	0.69
1:M:672:ASP:HB3	1:M:736:ASN:ND2	2.07	0.69
1:M:722:LEU:HD21	1:M:794:PRO:HB3	1.72	0.69
1:A:1210:GLY:O	1:A:1214:GLU:HG2	1.92	0.69
1:A:225:ASN:ND2	1:A:227:VAL:H	1.90	0.69
1:A:903:ASN:HD22	1:A:903:ASN:C	1.91	0.69
1:M:351:THR:HG22	2:N:1103:ILE:CA	2.20	0.69
3:O:33:LEU:O	3:O:37:MET:HG3	1.92	0.69
9:U:4:PHE:HE1	9:U:13:MET:HG3	1.58	0.69
11:W:101:LEU:O	11:W:101:LEU:HD23	1.92	0.69
11:W:57:LEU:HB2	11:W:76:GLN:HG2	1.73	0.69
1:A:288:ALA:HA	1:A:291:GLU:OE1	1.91	0.69
1:A:535:THR:CG2	1:A:616:VAL:HA	2.23	0.69
2:B:114:PRO:HG2	2:B:115:GLN:H	1.57	0.69
1:M:399:HIS:O	1:M:401:GLY:N	2.25	0.69
5:Q:94:LYS:O	5:Q:98:ILE:HG13	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:94:CYS:SG	7:S:128:PRO:HB2	2.32	0.69
1:A:425:GLN:N	1:A:425:GLN:OE1	2.25	0.69
1:A:866:PHE:C	1:A:867:ILE:HD12	2.12	0.69
1:A:960:ILE:O	1:A:963:ILE:HG22	1.92	0.69
2:B:542:MET:HG2	2:B:747:MET:CE	2.22	0.69
2:B:957:ASN:ND2	2:B:961:LEU:HB2	2.03	0.69
3:O:39:ALA:HA	3:O:164:ALA:HB3	1.74	0.69
5:Q:124:VAL:CG1	5:Q:132:ILE:HB	2.16	0.69
8:T:84:ALA:HB1	8:T:87:ARG:HB2	1.74	0.69
2:B:217:ARG:NE	2:B:405:ARG:HB2	2.08	0.69
2:B:165:VAL:HG11	2:B:448:ILE:HD13	1.73	0.69
3:C:165:LYS:O	11:K:6:ARG:NH1	2.25	0.69
2:N:996:ARG:HH12	3:O:174:ALA:HA	1.58	0.69
3:O:66:ARG:NH2	10:V:3:VAL:O	2.25	0.69
11:W:46:ILE:O	11:W:50:LEU:HB2	1.92	0.69
2:B:96:TYR:HB2	2:B:129:PHE:HB2	1.73	0.69
3:C:66:ARG:NH2	10:J:3:VAL:O	2.26	0.69
1:M:1011:GLN:HE22	1:M:1015:VAL:CG2	2.06	0.69
1:M:115:LEU:CD1	1:M:142:CYS:HB3	2.22	0.69
1:M:42:ASP:O	1:M:44:THR:N	2.26	0.69
1:M:537:ARG:HD2	8:T:20:TYR:HE1	1.56	0.69
2:N:357:GLN:O	2:N:366:GLN:HA	1.91	0.69
4:P:160:VAL:O	4:P:164:ILE:HG13	1.92	0.69
6:R:89:GLU:O	6:R:93:ILE:HD12	1.92	0.69
2:N:737:THR:CG2	9:U:66:PRO:HA	2.22	0.69
2:B:1084:GLN:HG2	3:C:201:TRP:CZ2	2.27	0.69
7:G:14:HIS:CD2	7:G:16:SER:H	2.10	0.69
9:I:50:THR:HG22	9:I:52:ILE:H	1.58	0.69
10:J:1:MET:H1	10:J:57:ILE:H	1.41	0.69
1:M:822:GLU:HG3	2:N:513:GLN:HE21	1.57	0.69
7:S:121:PHE:CE2	7:S:123:ALA:HB2	2.28	0.69
7:S:90:THR:HG22	7:S:91:VAL:O	1.92	0.69
1:M:698:GLN:HA	9:U:97:MET:O	1.92	0.69
1:A:828:ALA:HB1	2:B:530:GLY:HA2	1.73	0.69
2:B:824:ILE:HG12	10:J:48:ARG:NH1	2.08	0.69
7:G:125:SER:OG	7:G:128:PRO:HA	1.93	0.69
9:I:111:THR:HG23	9:I:112:SER:H	1.57	0.69
1:M:122:MET:HA	1:M:141:LEU:HD11	1.74	0.69
1:M:1223:ASP:HA	1:M:1243:VAL:CG2	2.22	0.69
4:P:59:ILE:HG21	4:P:145:MET:SD	2.33	0.69
11:W:113:THR:O	11:W:114:LEU:HB2	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:241:ARG:HG2	2:B:253:THR:CG2	2.23	0.69
2:N:642:ASP:O	2:N:644:GLU:N	2.23	0.69
2:N:710:LEU:CA	2:N:733:HIS:HB3	2.17	0.69
8:T:81:PRO:CB	8:T:82:PRO:HD2	2.22	0.69
2:B:616:ILE:HD12	2:B:616:ILE:N	2.07	0.69
12:L:32:ALA:HB3	12:L:55:ILE:HG13	1.74	0.69
1:M:55:ASP:C	1:M:57:ARG:H	1.94	0.69
2:N:36:ALA:HA	2:N:39:ARG:HD2	1.74	0.69
2:N:834:ASN:HB3	2:N:840:ILE:HG13	1.73	0.69
7:S:95:SER:O	7:S:130:TYR:OH	2.07	0.69
1:A:1112:LYS:O	1:A:1114:PRO:HD3	1.92	0.69
2:B:582:VAL:HG23	2:B:626:ILE:HB	1.73	0.69
3:C:45:ALA:HA	3:C:72:LEU:HD12	1.74	0.69
1:M:381:THR:HG23	1:M:382:PRO:HD2	1.75	0.69
9:U:26:LEU:CD2	9:U:37:GLU:HA	2.19	0.69
1:A:1433:MET:HE3	7:G:63:PRO:HB2	1.74	0.68
2:B:1181:GLU:HA	2:B:1187:ASN:O	1.92	0.68
2:B:707:PRO:HG2	2:B:708:GLU:H	1.57	0.68
2:N:559:SER:CA	2:N:563:MET:HB3	2.20	0.68
9:U:55:THR:HG23	9:U:100:PHE:HD2	1.57	0.68
12:X:47:ARG:NH1	12:X:47:ARG:HB2	2.07	0.68
1:A:1148:ILE:HD11	1:A:1198:ASP:HA	1.75	0.68
1:A:1438:THR:HB	2:B:1144:ALA:HB3	1.75	0.68
1:A:709:THR:HG22	1:A:710:LEU:H	1.58	0.68
2:B:357:GLN:O	2:B:366:GLN:HA	1.92	0.68
2:B:168:GLY:N	2:B:450:ALA:HB1	2.08	0.68
2:B:653:VAL:HG23	2:B:689:LEU:HB3	1.76	0.68
2:B:705:MET:N	2:B:710:LEU:HD12	2.09	0.68
3:C:51:VAL:HG22	3:C:155:LEU:HD22	1.73	0.68
2:N:1113:VAL:CG2	15:6:1:C:H4'	2.23	0.68
7:S:112:LYS:HB3	7:S:113:HIS:CE1	2.28	0.68
11:W:108:GLU:O	11:W:112:GLN:HG2	1.93	0.68
1:A:1094:VAL:HG13	1:A:1113:THR:HG21	1.74	0.68
1:A:1207:LEU:CD1	1:A:1273:LEU:HD23	2.24	0.68
1:A:185:TRP:H	1:A:185:TRP:HE3	1.41	0.68
2:B:254:LEU:HD23	2:B:381:MET:HE1	1.75	0.68
2:B:291:ILE:HD13	2:B:300:HIS:CD2	2.29	0.68
2:B:378:LEU:O	2:B:382:ILE:HG13	1.93	0.68
8:H:130:ARG:NH1	8:H:130:ARG:HB2	2.08	0.68
11:K:63:VAL:O	11:K:63:VAL:HG23	1.94	0.68
12:L:26:THR:CG2	12:L:27:LEU:H	2.02	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:744:HIS:HD2	2:N:745:PRO:HD2	1.55	0.68
2:B:1183:LYS:HE3	2:B:1183:LYS:N	2.08	0.68
10:J:64:ASN:HB3	10:J:65:PRO:HD3	1.74	0.68
2:B:955:THR:OG1	12:L:55:ILE:HA	1.93	0.68
1:M:1036:ARG:HG2	1:M:1036:ARG:NH1	2.05	0.68
1:M:1195:LEU:HD11	1:M:1267:MET:CE	2.23	0.68
2:N:244:LEU:HD11	2:N:366:GLN:NE2	2.08	0.68
7:S:128:PRO:O	7:S:138:THR:HG23	1.94	0.68
8:T:12:VAL:HA	8:T:28:ALA:HB2	1.74	0.68
1:A:503:GLN:HE21	6:F:90:ARG:NH2	1.87	0.68
1:A:524:VAL:HG12	1:A:525:GLN:N	2.06	0.68
1:M:875:ALA:HB2	1:M:1366:ARG:HD2	1.76	0.68
1:A:350:ARG:HB2	2:B:1128:LEU:HD11	1.74	0.68
3:C:56:THR:HG21	3:C:145:CYS:SG	2.33	0.68
1:A:1325:THR:O	5:E:148:GLU:HB2	1.94	0.68
8:H:61:SER:HB3	8:H:139:ASN:HB3	1.74	0.68
1:M:150:THR:HG23	1:M:166:GLY:HA2	1.76	0.68
1:M:913:LEU:HD12	1:M:914:GLU:N	2.09	0.68
2:N:69:LEU:HB3	2:N:429:PHE:CE1	2.28	0.68
2:N:708:GLU:O	2:N:710:LEU:N	2.27	0.68
3:O:93:ASP:OD1	3:O:122:SER:HB2	1.92	0.68
3:O:3:GLU:HB3	11:W:104:ASN:OD1	1.93	0.68
1:A:830:LYS:O	1:A:834:THR:HB	1.94	0.68
3:C:69:LEU:HB3	10:J:6:ARG:HD3	1.76	0.68
10:J:64:ASN:HD22	10:J:65:PRO:HD3	1.58	0.68
1:M:1325:THR:O	5:Q:148:GLU:HB2	1.94	0.68
2:N:309:GLN:OE1	9:U:52:ILE:HD11	1.92	0.68
3:O:16:ASP:C	3:O:240:VAL:HG11	2.14	0.68
4:P:153:ARG:O	4:P:154:PHE:HD2	1.76	0.68
4:P:59:ILE:HG22	4:P:60:LYS:N	2.07	0.68
7:S:111:THR:HG22	7:S:114:LEU:HB2	1.75	0.68
1:A:337:ARG:HD3	2:B:1132:GLU:OE1	1.94	0.68
1:A:413:ILE:HG21	1:A:424:ILE:HD11	1.76	0.68
1:A:66:LYS:HD3	1:A:67:CYS:H	1.59	0.68
4:D:14:ARG:HB3	4:D:14:ARG:HH11	1.58	0.68
8:H:12:VAL:HA	8:H:28:ALA:HB2	1.75	0.68
9:I:8:ARG:HG3	9:I:34:TYR:CE1	2.28	0.68
1:M:1420:ASP:CB	1:M:1422:ARG:HG3	2.19	0.68
2:N:836:GLU:O	2:N:837:ASP:HB2	1.93	0.68
4:P:138:ASN:HB3	4:P:141:LEU:HB3	1.75	0.68
4:P:4:SER:O	4:P:5:THR:HB	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:147:HIS:HB3	5:Q:150:VAL:HG23	1.76	0.68
8:T:99:GLY:HA3	8:T:118:PHE:HD2	1.58	0.68
14:2:5:DC:H2"	14:2:6:DT:C7	2.24	0.68
1:A:49:LYS:NZ	1:A:60:SER:HA	2.09	0.68
1:A:55:ASP:C	1:A:57:ARG:H	1.95	0.68
3:C:39:ALA:HA	3:C:164:ALA:HB3	1.75	0.68
5:E:50:MET:HG2	5:E:52:ARG:HH21	1.59	0.68
6:F:116:ASP:HB3	6:F:119:ARG:HB2	1.76	0.68
10:J:16:ASP:OD1	10:J:17:LYS:HD2	1.93	0.68
2:N:226:PHE:HA	2:N:395:GLN:CG	2.24	0.68
2:N:597:MET:CE	2:N:597:MET:HA	2.24	0.68
4:P:35:LEU:N	4:P:35:LEU:HD12	2.09	0.68
9:U:76:PRO:HD2	9:U:108:HIS:CD2	2.28	0.68
4:D:18:VAL:O	4:D:19:GLU:HB2	1.94	0.68
7:G:1:MET:SD	7:G:79:PHE:CD1	2.87	0.68
1:A:567:LYS:CB	8:H:96:VAL:H	1.98	0.68
1:M:89:PRO:C	1:M:204:THR:HG21	2.13	0.68
2:N:100:PRO:HG3	2:N:172:ILE:HD12	1.75	0.68
2:N:857:ARG:HD2	2:N:945:GLU:OE1	1.92	0.68
2:B:1065:GLN:NE2	2:B:1067:ARG:H	1.86	0.67
2:B:345:LYS:HA	2:B:348:ARG:HE	1.59	0.67
4:D:29:LEU:H	4:D:29:LEU:HD22	1.57	0.67
5:E:144:ILE:HG13	5:E:145:THR:N	2.09	0.67
2:N:807:ARG:HG2	2:N:1045:SER:OG	1.94	0.67
2:N:897:GLY:O	2:N:898:LEU:HD23	1.93	0.67
4:P:71:LYS:HA	4:P:74:GLN:HB2	1.75	0.67
1:A:42:ASP:O	1:A:44:THR:N	2.27	0.67
4:D:71:LYS:HG2	4:D:74:GLN:HG3	1.75	0.67
1:M:382:PRO:CA	1:M:428:TYR:HE2	2.07	0.67
1:M:852:TYR:CD2	1:M:1060:PRO:HB2	2.29	0.67
2:N:579:ARG:HG2	2:N:579:ARG:HH11	1.59	0.67
2:B:243:ALA:HA	2:B:250:PHE:O	1.93	0.67
3:C:123:ASN:HD22	3:C:125:MET:HG2	1.56	0.67
3:C:186:LEU:HD21	3:C:225:ALA:HB2	1.76	0.67
4:D:146:GLN:HA	4:D:149:THR:HG22	1.76	0.67
1:M:433:GLU:OE1	2:N:1108:ARG:NH2	2.27	0.67
1:M:866:PHE:C	1:M:867:ILE:HD12	2.15	0.67
1:M:868:TYR:CD2	1:M:1058:VAL:HG21	2.30	0.67
2:N:20:ASP:O	2:N:22:SER:N	2.23	0.67
2:N:657:HIS:CE1	2:N:689:LEU:HD11	2.30	0.67
4:P:144:THR:O	4:P:148:LEU:HB2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:X:53:HIS:HB3	12:X:55:ILE:CD1	2.23	0.67
1:A:244:PRO:HB2	1:A:245:PRO:HD3	1.76	0.67
2:B:589:VAL:HG12	2:B:590:HIS:N	2.09	0.67
4:D:54:GLU:O	4:D:58:VAL:HG23	1.95	0.67
1:M:901:LEU:H	1:M:926:GLN:NE2	1.93	0.67
1:M:897:TYR:HB3	1:M:936:LEU:HD12	1.77	0.67
2:N:291:ILE:HD13	2:N:300:HIS:CD2	2.29	0.67
2:N:622:LYS:HE2	9:U:59:VAL:CG2	2.19	0.67
3:O:186:LEU:HD21	3:O:225:ALA:HB2	1.77	0.67
2:N:309:GLN:HG3	9:U:52:ILE:CD1	2.24	0.67
1:A:768:GLN:CG	1:A:816:HIS:HA	2.22	0.67
2:B:23:ALA:HB1	2:B:24:PRO:HD2	1.77	0.67
2:B:373:ARG:HA	2:B:566:LEU:HD23	1.76	0.67
2:B:868:MET:O	2:B:870:ILE:HG13	1.95	0.67
1:M:903:ASN:ND2	1:M:904:THR:N	2.39	0.67
2:N:254:LEU:HD12	2:N:272:THR:O	1.94	0.67
2:N:345:LYS:N	2:N:347:LYS:HE2	2.10	0.67
2:N:168:GLY:N	2:N:450:ALA:HB1	2.10	0.67
3:O:124:LEU:O	3:O:127:ARG:HG2	1.94	0.67
1:A:265:LYS:HE3	1:A:265:LYS:HA	1.74	0.67
1:A:767:GLN:NE2	1:A:774:ARG:HB3	2.10	0.67
2:B:363:HIS:O	2:B:364:ILE:HB	1.95	0.67
2:B:580:VAL:HG22	2:B:624:LEU:HB3	1.75	0.67
5:E:177:ARG:HD3	5:E:215:MET:SD	2.34	0.67
8:H:15:VAL:HG22	8:H:26:ILE:HD11	1.75	0.67
9:I:111:THR:HG21	9:I:113:ASP:HB2	1.75	0.67
1:M:1141:THR:CG2	1:M:1205:LYS:HD3	2.25	0.67
2:N:165:VAL:HG11	2:N:448:ILE:HD13	1.76	0.67
2:N:562:GLY:HA3	2:N:590:HIS:CE1	2.30	0.67
4:P:156:ASP:HB2	4:P:159:THR:CG2	2.24	0.67
4:P:18:VAL:O	4:P:19:GLU:HB2	1.95	0.67
5:Q:4:GLU:HB3	5:Q:7:ARG:HE	1.59	0.67
9:U:40:SER:OG	9:U:41:PRO:HD2	1.94	0.67
14:5:5:DC:H2"	14:5:6:DT:C7	2.25	0.67
1:A:512:VAL:HA	1:A:519:PRO:HA	1.75	0.67
5:E:98:ILE:HG22	5:E:102:GLU:HG3	1.76	0.67
1:M:852:TYR:CE2	1:M:1060:PRO:HB2	2.30	0.67
1:M:492:PRO:CB	1:M:497:THR:HG22	2.25	0.67
1:M:34:LYS:NZ	1:M:57:ARG:NH2	2.43	0.67
2:N:724:ASP:OD2	2:N:727:LYS:HG3	1.95	0.67
4:P:8:PHE:CE1	4:P:37:GLN:HB2	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:94:LYS:HE2	5:Q:98:ILE:CD1	2.25	0.67
7:S:116:PRO:HG2	7:S:119:LEU:HB2	1.77	0.67
2:N:1124:ARG:NH1	15:6:2:G:OP2	2.28	0.67
1:A:635:ARG:HH11	1:A:635:ARG:HA	1.60	0.67
2:B:1202:LEU:O	2:B:1206:GLU:HG3	1.95	0.67
2:B:1224:PHE:CZ	5:E:171:LYS:HG3	2.29	0.67
1:M:595:THR:O	1:M:596:THR:HG23	1.95	0.67
12:X:38:LEU:CD1	12:X:49:LYS:HE2	2.25	0.67
2:B:1017:ILE:HB	2:B:1018:PRO:HD3	1.75	0.67
2:B:240:ILE:CG2	2:B:254:LEU:HB3	2.25	0.67
2:B:899:ILE:HG21	2:B:949:VAL:HG21	1.77	0.67
4:D:4:SER:O	4:D:5:THR:HB	1.95	0.67
1:A:1004:ASN:ND2	5:E:167:ARG:HD2	2.10	0.67
6:F:89:GLU:HG2	6:F:134:ILE:HD13	1.77	0.67
8:H:58:THR:HB	8:H:143:LEU:HD13	1.76	0.67
10:J:1:MET:N	10:J:56:LEU:N	2.43	0.67
1:M:1144:LYS:HB2	1:M:1268:LEU:O	1.94	0.67
1:M:185:TRP:HE3	1:M:185:TRP:H	1.42	0.67
1:M:284:ALA:O	1:M:286:HIS:N	2.27	0.67
2:N:34:ILE:HG12	2:N:542:MET:HE1	1.76	0.67
2:N:589:VAL:HG12	2:N:590:HIS:N	2.10	0.67
2:N:593:PRO:HG2	2:N:617:ARG:NH1	2.10	0.67
4:P:48:ILE:HG22	4:P:48:ILE:O	1.94	0.67
5:Q:100:ILE:HG23	5:Q:105:PHE:HB2	1.77	0.67
5:Q:157:SER:OG	5:Q:160:GLU:HG3	1.95	0.67
7:S:34:VAL:HG12	7:S:45:ILE:HG21	1.76	0.67
7:S:45:ILE:HA	7:S:78:VAL:HG12	1.77	0.67
9:U:44:TYR:CD1	9:U:45:ARG:N	2.62	0.67
11:W:63:VAL:HG23	11:W:63:VAL:O	1.95	0.67
1:A:34:LYS:HZ2	1:A:57:ARG:NH2	1.93	0.67
2:B:261:ARG:NH1	2:B:261:ARG:HB3	2.09	0.67
2:B:806:THR:HG22	2:B:808:ALA:N	2.06	0.67
1:A:1147:THR:HB	9:I:48:LEU:HD12	1.77	0.67
10:J:16:ASP:OD1	10:J:17:LYS:N	2.28	0.67
1:M:164:ARG:HG3	1:M:165:GLY:N	2.09	0.67
1:M:407:ARG:HG2	1:M:430:TRP:CZ2	2.29	0.67
1:M:492:PRO:HB2	1:M:497:THR:HG22	1.76	0.67
1:M:688:LYS:HG3	1:M:691:LEU:HD23	1.76	0.67
12:X:47:ARG:HG2	12:X:48:CYS:H	1.59	0.67
1:A:675:THR:O	1:A:679:ILE:HG13	1.95	0.66
7:G:126:ASN:HD22	7:G:127:PRO:HA	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:66:LYS:HZ2	1:M:68:GLN:H	1.42	0.66
2:N:515:HIS:CD2	2:N:517:THR:H	2.12	0.66
1:A:1255:GLU:HG3	1:A:1258:HIS:CD2	2.30	0.66
1:A:567:LYS:CD	1:A:568:PRO:HD2	2.24	0.66
2:B:562:GLY:HA3	2:B:590:HIS:CE1	2.30	0.66
2:B:708:GLU:O	2:B:710:LEU:N	2.28	0.66
2:B:879:ARG:NE	2:B:879:ARG:H	1.93	0.66
2:N:868:MET:O	2:N:870:ILE:HG13	1.95	0.66
6:R:96:THR:O	6:R:100:GLN:HG3	1.95	0.66
1:A:122:MET:HA	1:A:141:LEU:CD1	2.25	0.66
1:A:977:LYS:HB3	1:A:978:PRO:HD2	1.77	0.66
2:B:805:THR:HG22	2:B:806:THR:N	2.10	0.66
2:B:955:THR:CG2	2:B:956:THR:N	2.57	0.66
7:G:1:MET:HE1	7:G:79:PHE:HA	1.76	0.66
1:A:698:GLN:HA	9:I:97:MET:O	1.95	0.66
12:L:40:LEU:HD13	12:L:44:ASP:CB	2.21	0.66
1:M:535:THR:HG21	1:M:617:VAL:H	1.60	0.66
2:N:806:THR:N	2:N:809:MET:HE3	2.10	0.66
1:M:870:GLU:HG2	5:Q:208:TYR:CG	2.30	0.66
1:A:1081:LEU:HD11	1:A:1098:VAL:H	1.60	0.66
1:A:1167:GLU:O	1:A:1170:ILE:HD12	1.95	0.66
2:B:1096:ARG:O	2:B:1097:HIS:HB2	1.96	0.66
2:B:604:ARG:HB2	2:B:609:ILE:HG13	1.77	0.66
7:G:115:MET:HB3	7:G:116:PRO:HD2	1.77	0.66
1:M:1353:TYR:CD2	1:M:1353:TYR:C	2.68	0.66
1:M:463:ILE:HB	1:M:464:PRO:HD2	1.78	0.66
1:M:55:ASP:N	1:M:56:PRO:HD3	2.09	0.66
1:M:828:ALA:HB1	2:N:530:GLY:HA2	1.76	0.66
2:N:1037:LEU:HD21	2:N:1064:TYR:HE1	1.61	0.66
7:S:111:THR:HG22	7:S:114:LEU:HD13	1.77	0.66
9:U:8:ARG:HG3	9:U:34:TYR:HE1	1.60	0.66
3:O:69:LEU:HB3	10:V:6:ARG:HD3	1.78	0.66
14:2:5:DC:H2"	14:2:6:DT:H72	1.78	0.66
1:A:1076:ALA:HA	1:A:1079:MET:HG3	1.77	0.66
1:A:1130:GLN:O	1:A:1134:ILE:HG13	1.96	0.66
1:A:1116:LEU:HB3	1:A:1308:THR:HG21	1.78	0.66
1:A:203:SER:O	1:A:207:ILE:HG12	1.96	0.66
1:A:414:ASP:OD1	1:A:416:ARG:HG2	1.96	0.66
2:B:345:LYS:HG2	2:B:346:GLU:H	1.61	0.66
2:B:553:PRO:O	2:B:557:PHE:HB2	1.95	0.66
2:B:847:ASP:C	2:B:849:GLY:H	1.98	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:111:LEU:O	6:F:113:GLY:N	2.23	0.66
7:G:7:LEU:HB2	7:G:74:TYR:HE2	1.60	0.66
9:I:50:THR:CG2	9:I:52:ILE:HG12	2.26	0.66
9:I:7:CYS:HB3	9:I:14:LEU:HD21	1.76	0.66
1:M:203:SER:O	1:M:207:ILE:HG12	1.96	0.66
2:N:562:GLY:HA3	2:N:590:HIS:ND1	2.11	0.66
2:N:911:ILE:HD11	2:N:941:LEU:CD1	2.24	0.66
8:T:95:TYR:HE2	8:T:97:MET:CG	2.05	0.66
9:U:19:ASP:HB3	9:U:24:ARG:HG2	1.77	0.66
1:A:1258:HIS:O	1:A:1262:LYS:HE3	1.96	0.66
1:A:710:LEU:CD1	1:A:710:LEU:H	2.08	0.66
1:A:828:ALA:CB	2:B:530:GLY:HA2	2.25	0.66
2:B:644:GLU:HB3	2:B:648:HIS:O	1.95	0.66
4:D:134:THR:HG22	4:D:135:GLY:N	2.10	0.66
12:L:38:LEU:CD1	12:L:49:LYS:HE2	2.25	0.66
1:M:66:LYS:O	1:M:67:CYS:HB2	1.93	0.66
5:Q:14:ARG:HH21	5:Q:141:VAL:CG1	2.02	0.66
7:S:111:THR:CG2	7:S:114:LEU:HD13	2.26	0.66
1:A:308:ILE:HG22	1:A:309:ALA:N	2.09	0.66
1:A:710:LEU:HD12	1:A:710:LEU:N	2.11	0.66
2:B:515:HIS:HD2	2:B:517:THR:OG1	1.78	0.66
8:H:14:GLU:HG2	8:H:15:VAL:N	2.11	0.66
11:K:113:THR:O	11:K:114:LEU:HB2	1.96	0.66
7:S:52:ASP:C	7:S:53:ASN:HD22	1.98	0.66
9:U:73:ARG:HH12	9:U:112:SER:HB3	1.59	0.66
2:B:64:CYS:HA	2:B:67:SER:OG	1.95	0.66
1:M:268:ASP:HB3	1:M:299:HIS:CE1	2.31	0.66
1:M:463:ILE:HD11	1:M:469:ARG:HG3	1.78	0.66
1:M:71:GLN:O	1:M:73:GLY:N	2.28	0.66
4:P:118:THR:HB	4:P:121:LYS:CB	2.23	0.66
4:P:124:GLU:O	4:P:128:VAL:HG23	1.96	0.66
4:P:71:LYS:HA	4:P:74:GLN:CG	2.24	0.66
1:M:1004:ASN:ND2	5:Q:167:ARG:HD2	2.10	0.66
1:A:1342:GLU:CG	5:E:198:ILE:HD13	2.25	0.66
1:A:321:PRO:O	1:A:322:VAL:HG12	1.96	0.66
1:A:626:ASN:O	1:A:631:HIS:CD2	2.49	0.66
1:A:897:TYR:HB3	1:A:936:LEU:HD12	1.78	0.66
2:B:819:ALA:O	2:B:1093:GLN:HG2	1.95	0.66
7:G:116:PRO:HG2	7:G:119:LEU:HB2	1.77	0.66
2:N:295:GLY:H	2:N:298:LEU:HD23	1.59	0.66
4:P:139:LYS:HA	4:P:142:LYS:HD2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:111:THR:CG2	9:U:112:SER:H	2.09	0.66
1:A:1036:ARG:HG2	1:A:1036:ARG:NH1	2.10	0.66
1:A:1259:MET:HE3	1:A:1263:ILE:HG13	1.77	0.66
1:A:973:ILE:HD13	1:A:1037:LEU:HA	1.77	0.66
2:B:384:ARG:NH1	2:B:393:LYS:HD3	2.11	0.66
2:B:955:THR:HG22	2:B:956:THR:N	2.11	0.66
4:D:119:ARG:HG3	4:D:221:TYR:CZ	2.30	0.66
1:M:982:THR:O	1:M:985:ASP:HB2	1.96	0.66
7:S:13:LEU:HD21	7:S:17:PHE:CB	2.24	0.66
9:U:7:CYS:SG	9:U:8:ARG:O	2.54	0.66
10:V:1:MET:N	10:V:56:LEU:N	2.44	0.66
12:X:32:ALA:HB3	12:X:55:ILE:HG13	1.77	0.66
1:A:1095:THR:HG21	1:A:1112:LYS:HD2	1.77	0.65
1:A:1259:MET:HA	1:A:1262:LYS:HD2	1.78	0.65
2:B:287:ARG:NH1	2:B:324:ILE:O	2.28	0.65
2:B:418:LYS:HE2	2:B:422:LYS:NZ	2.10	0.65
5:E:2:ASP:O	5:E:3:GLN:HG2	1.96	0.65
10:J:64:ASN:CB	10:J:65:PRO:CD	2.74	0.65
12:L:61:THR:CG2	12:L:63:ARG:HG3	2.26	0.65
5:Q:197:LYS:HE2	5:Q:199:ILE:CD1	2.21	0.65
2:B:560:GLU:O	2:B:561:TRP:CD1	2.50	0.65
2:B:953:LEU:CD2	2:B:965:LYS:HB2	2.26	0.65
1:M:1241:ARG:O	1:M:1242:VAL:HB	1.95	0.65
1:M:341:MET:HE3	2:N:1135:ARG:NH1	2.12	0.65
1:M:37:PHE:HD1	1:M:37:PHE:N	1.93	0.65
1:M:512:VAL:HA	1:M:519:PRO:HA	1.76	0.65
2:N:1073:TYR:CE2	2:N:1080:LYS:HG2	2.31	0.65
4:P:50:LEU:HD13	4:P:55:ALA:HA	1.77	0.65
1:A:1170:ILE:HG22	1:A:1174:PHE:CE1	2.32	0.65
1:A:399:HIS:O	1:A:401:GLY:N	2.28	0.65
2:B:831:SER:HB2	2:B:833:TYR:HD1	1.61	0.65
3:C:16:ASP:C	3:C:240:VAL:HG11	2.16	0.65
3:C:69:LEU:HD12	3:C:69:LEU:N	2.11	0.65
1:M:1242:VAL:CG1	1:M:1243:VAL:N	2.59	0.65
1:M:37:PHE:H	1:M:37:PHE:HD1	1.44	0.65
1:M:567:LYS:HZ2	8:T:46:LEU:HB2	1.60	0.65
2:N:167:ILE:HA	2:N:450:ALA:CB	2.26	0.65
2:N:243:ALA:HA	2:N:250:PHE:O	1.95	0.65
2:N:361:LEU:HD21	2:N:377:PHE:CD2	2.31	0.65
2:N:649:LYS:HD3	2:N:736:THR:O	1.96	0.65
3:O:238:ILE:HD11	3:O:246:ARG:NH1	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:44:ALA:O	5:Q:45:LYS:HB2	1.95	0.65
7:S:139:ILE:HG12	7:S:140:LYS:HG3	1.77	0.65
1:A:1118:VAL:HG23	1:A:1306:LEU:HB2	1.79	0.65
1:A:1120:LEU:HD22	1:A:1125:ALA:HA	1.78	0.65
2:B:842:ASN:HD22	2:B:845:SER:H	1.42	0.65
8:H:84:ALA:HA	8:H:87:ARG:HB2	1.78	0.65
1:M:14:VAL:H	1:M:1432:GLN:NE2	1.89	0.65
2:N:789:MET:CE	2:N:953:LEU:HD22	2.26	0.65
7:S:15:PRO:HA	7:S:18:PHE:CD1	2.31	0.65
14:5:5:DC:H2"	14:5:6:DT:H72	1.79	0.65
8:H:139:ASN:O	8:H:140:ALA:HB2	1.96	0.65
2:N:364:ILE:O	2:N:365:THR:HB	1.96	0.65
2:N:425:THR:HA	2:N:428:ILE:HD12	1.78	0.65
2:N:465:ASN:ND2	2:N:465:ASN:N	2.44	0.65
2:N:69:LEU:HB3	2:N:429:PHE:HE1	1.61	0.65
8:T:139:ASN:O	8:T:140:ALA:HB2	1.96	0.65
10:V:24:LEU:O	10:V:30:LEU:HB2	1.95	0.65
4:D:8:PHE:HE1	4:D:37:GLN:HB2	1.61	0.65
10:J:14:VAL:HG12	10:J:14:VAL:O	1.97	0.65
1:M:265:LYS:N	1:M:265:LYS:HE3	2.12	0.65
2:N:244:LEU:HD21	2:N:366:GLN:NE2	2.11	0.65
2:N:805:THR:HG22	2:N:806:THR:N	2.12	0.65
3:O:58:LEU:HD23	3:O:58:LEU:N	2.11	0.65
2:N:969:ARG:NH1	3:O:61:GLU:OE1	2.30	0.65
7:S:34:VAL:CG1	7:S:45:ILE:HG21	2.26	0.65
9:U:50:THR:CG2	9:U:51:ASN:H	2.10	0.65
10:V:21:TYR:HB2	10:V:39:LEU:HD11	1.77	0.65
2:B:168:GLY:HA2	2:B:454:THR:HG1	1.60	0.65
2:B:613:VAL:HG13	2:B:627:PHE:O	1.97	0.65
2:B:780:VAL:HG21	10:J:56:LEU:HD11	1.78	0.65
2:N:292:ILE:HD11	2:N:327:ARG:N	2.12	0.65
4:P:12:ARG:HG2	4:P:12:ARG:NH1	2.12	0.65
5:E:9:ILE:CD1	5:E:53:PRO:HD3	2.25	0.65
5:E:56:LYS:CE	5:E:84:ASP:HB2	2.22	0.65
12:L:34:CYS:HB3	12:L:51:CYS:SG	2.37	0.65
1:M:129:LYS:O	1:M:130:ASP:HB2	1.95	0.65
2:N:431:TYR:CD1	2:N:447:ALA:HB2	2.32	0.65
2:N:707:PRO:HG2	2:N:708:GLU:H	1.62	0.65
2:N:792:MET:HE2	2:N:857:ARG:NH2	2.11	0.65
4:P:119:ARG:HG3	4:P:221:TYR:CZ	2.32	0.65
4:P:155:ARG:NH1	4:P:155:ARG:HB2	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:111:LEU:H	6:R:111:LEU:CD1	2.10	0.65
2:B:20:ASP:O	2:B:22:SER:N	2.25	0.65
2:B:289:LEU:HD13	2:B:375:ALA:CB	2.23	0.65
9:I:73:ARG:HD2	9:I:101:PHE:CE2	2.32	0.65
10:J:44:TYR:HD2	10:J:44:TYR:H	1.43	0.65
1:M:1116:LEU:HB3	1:M:1308:THR:HG21	1.79	0.65
1:M:1121:GLU:HG2	1:M:1122:PRO:HD2	1.79	0.65
1:M:1236:LEU:C	1:M:1237:ILE:HD12	2.15	0.65
1:M:134:ARG:HD2	1:M:221:SER:O	1.97	0.65
1:M:250:ILE:HG22	1:M:250:ILE:O	1.96	0.65
1:M:335:ARG:HA	1:M:339:ASN:HD22	1.62	0.65
1:M:34:LYS:HZ1	1:M:57:ARG:NH2	1.94	0.65
2:N:770:GLN:HG2	2:N:983:ARG:O	1.96	0.65
1:A:231:PRO:HA	1:A:234:MET:HE2	1.78	0.65
1:A:284:ALA:O	1:A:286:HIS:N	2.28	0.65
2:B:1174:LYS:O	2:B:1176:ASN:N	2.30	0.65
2:B:483:LEU:HD11	2:B:491:THR:HG22	1.78	0.65
2:B:497:ARG:NH2	2:B:775:LYS:NZ	2.45	0.65
8:H:15:VAL:HG22	8:H:26:ILE:CD1	2.26	0.65
1:M:1242:VAL:HG12	1:M:1243:VAL:N	2.11	0.65
1:M:626:ASN:O	1:M:631:HIS:HD2	1.80	0.65
2:N:123:THR:HG21	2:N:458:LYS:HE2	1.78	0.65
4:P:12:ARG:NH1	4:P:14:ARG:HA	2.11	0.65
5:Q:78:LEU:HD12	5:Q:107:THR:HG21	1.78	0.65
2:B:167:ILE:HA	2:B:450:ALA:CB	2.27	0.64
2:N:515:HIS:H	2:N:518:HIS:HD2	1.45	0.64
2:N:521:LEU:CD2	2:N:633:VAL:HG12	2.19	0.64
5:Q:9:ILE:CD1	5:Q:53:PRO:HD3	2.27	0.64
7:S:1:MET:HE1	7:S:79:PHE:CA	2.23	0.64
8:T:139:ASN:O	8:T:140:ALA:CB	2.45	0.64
3:C:73:GLN:NE2	3:C:75:MET:H	1.94	0.64
4:D:7:THR:O	4:D:9:GLN:N	2.29	0.64
5:E:117:THR:HG22	5:E:119:SER:N	2.04	0.64
2:B:309:GLN:CG	9:I:52:ILE:HD11	2.27	0.64
9:I:52:ILE:HG13	9:I:52:ILE:O	1.98	0.64
1:M:106:VAL:HG12	1:M:107:CYS:N	2.12	0.64
2:N:205:ILE:N	2:N:205:ILE:HD12	2.12	0.64
5:Q:98:ILE:O	5:Q:102:GLU:HG3	1.97	0.64
6:R:147:SER:OG	6:R:150:GLU:HG3	1.96	0.64
8:T:123:MET:HE3	8:T:142:LEU:HD22	1.78	0.64
9:U:50:THR:HG21	9:U:52:ILE:HG12	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:107:CYS:SG	1:A:148:CYS:HB2	2.36	0.64
2:B:1072:MET:HE3	2:B:1085:ILE:HB	1.80	0.64
2:B:273:LEU:CB	2:B:276:ILE:HD12	2.27	0.64
2:B:549:THR:HG22	2:B:550:ASP:H	1.60	0.64
8:H:32:THR:HG22	8:H:33:GLN:OE1	1.96	0.64
8:H:84:ALA:CA	8:H:87:ARG:HB2	2.26	0.64
1:M:833:GLU:OE2	1:M:1102:LYS:HE3	1.97	0.64
2:N:309:GLN:CG	9:U:52:ILE:HD11	2.28	0.64
2:N:770:GLN:CD	2:N:983:ARG:HA	2.18	0.64
2:N:957:ASN:ND2	2:N:961:LEU:HB2	2.11	0.64
4:P:56:ARG:CA	4:P:148:LEU:HD13	2.24	0.64
4:P:156:ASP:O	4:P:160:VAL:HG23	1.96	0.64
1:A:868:TYR:CD2	1:A:1058:VAL:HG21	2.33	0.64
1:A:741:ASN:ND2	1:A:744:LYS:H	1.95	0.64
2:B:465:ASN:N	2:B:465:ASN:ND2	2.43	0.64
2:B:56:ASP:HB3	2:B:57:TYR:HD1	1.62	0.64
3:C:69:LEU:H	3:C:69:LEU:HD12	1.62	0.64
1:M:1258:HIS:O	1:M:1262:LYS:HE3	1.97	0.64
1:M:425:GLN:OE1	1:M:425:GLN:N	2.30	0.64
1:M:385:ILE:HD11	1:M:426:LEU:HB2	1.80	0.64
1:A:1208:THR:HG22	1:A:1210:GLY:H	1.61	0.64
1:A:1333:ILE:O	1:A:1337:GLU:HG3	1.97	0.64
2:B:622:LYS:NZ	9:I:59:VAL:HG13	2.12	0.64
5:E:124:VAL:HB	5:E:125:PRO:HD3	1.79	0.64
1:M:1041:ALA:O	1:M:1045:VAL:HG23	1.97	0.64
1:M:1112:LYS:O	1:M:1114:PRO:HD3	1.97	0.64
1:M:1345:ARG:HG2	1:M:1372:VAL:HG12	1.79	0.64
1:M:172:PRO:HB3	1:M:185:TRP:CD2	2.32	0.64
1:M:332:LYS:C	1:M:334:GLY:H	2.01	0.64
1:M:741:ASN:C	1:M:741:ASN:HD22	1.99	0.64
2:N:515:HIS:H	2:N:518:HIS:CD2	2.16	0.64
2:N:916:THR:O	2:N:935:ARG:HG2	1.97	0.64
3:O:11:ARG:HH12	3:O:205:LYS:NZ	1.95	0.64
5:Q:112:TYR:O	5:Q:137:GLU:HG3	1.97	0.64
10:V:48:ARG:NH1	10:V:48:ARG:HG2	2.09	0.64
11:W:49:GLU:HG3	11:W:94:ILE:HG13	1.80	0.64
2:B:272:THR:HG23	2:B:279:ASP:OD1	1.97	0.64
2:B:364:ILE:O	2:B:365:THR:HB	1.95	0.64
4:D:52:LEU:O	4:D:54:GLU:N	2.31	0.64
7:G:137:ILE:HG23	7:G:143:ILE:HD11	1.79	0.64
1:M:577:ILE:O	1:M:580:VAL:HG23	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:934:LYS:O	1:M:937:VAL:HG12	1.97	0.64
2:N:611:PRO:HB3	2:N:685:LEU:HD11	1.80	0.64
3:O:181:ASP:CG	3:O:186:LEU:HD13	2.18	0.64
4:P:163:VAL:O	4:P:167:LEU:HG	1.97	0.64
4:P:162:ALA:HB1	4:P:217:LEU:HD13	1.78	0.64
9:U:61:ASP:C	9:U:63:GLY:H	2.00	0.64
13:4:25:DG:H2"	13:4:26:DT:C7	2.27	0.64
1:A:1144:LYS:HB2	1:A:1268:LEU:O	1.97	0.64
1:A:523:ILE:HG12	1:A:622:VAL:HG22	1.79	0.64
1:A:916:GLY:O	1:A:919:ILE:HG22	1.97	0.64
2:B:225:VAL:HG11	2:B:385:LEU:HA	1.80	0.64
2:B:515:HIS:H	2:B:518:HIS:CD2	2.12	0.64
3:C:238:ILE:HD11	3:C:246:ARG:CZ	2.28	0.64
12:L:53:HIS:HB3	12:L:55:ILE:HD11	1.78	0.64
1:M:1353:TYR:HD2	1:M:1353:TYR:C	2.01	0.64
2:N:115:GLN:HG2	2:N:193:LYS:HB2	1.80	0.64
2:N:582:VAL:CG2	2:N:626:ILE:HB	2.28	0.64
4:P:154:PHE:HD1	4:P:163:VAL:HG21	1.63	0.64
5:Q:144:ILE:HG13	5:Q:145:THR:H	1.62	0.64
5:Q:69:ILE:N	5:Q:69:ILE:HD12	2.12	0.64
9:U:17:ARG:HH21	9:U:30:ARG:NE	1.96	0.64
1:A:1011:GLN:HE22	1:A:1015:VAL:CG2	2.11	0.64
1:A:351:THR:CG2	2:B:1103:ILE:HA	2.22	0.64
2:B:345:LYS:CG	2:B:346:GLU:H	2.11	0.64
3:C:43:THR:CG2	3:C:44:LEU:N	2.60	0.64
4:D:14:ARG:HB3	4:D:14:ARG:NH1	2.12	0.64
10:J:44:TYR:HA	10:J:47:ARG:HB2	1.80	0.64
2:N:23:ALA:HB1	2:N:24:PRO:HD2	1.80	0.64
3:O:73:GLN:NE2	3:O:75:MET:HB2	2.13	0.64
4:P:158:GLU:N	4:P:158:GLU:CD	2.51	0.64
7:S:87:VAL:HG21	7:S:103:VAL:HG11	1.79	0.64
11:W:45:LEU:HG	11:W:94:ILE:CD1	2.27	0.64
1:A:1139:GLU:O	1:A:1139:GLU:HG2	1.96	0.64
2:B:57:TYR:N	2:B:57:TYR:HD1	1.96	0.64
2:B:597:MET:HA	2:B:597:MET:CE	2.27	0.64
2:B:701:ILE:HD11	2:B:703:ILE:HD11	1.80	0.64
2:B:797:TYR:C	2:B:798:TYR:HD2	2.01	0.64
3:C:11:ARG:HH12	3:C:205:LYS:NZ	1.95	0.64
7:G:1:MET:SD	7:G:2:PHE:N	2.70	0.64
8:H:139:ASN:O	8:H:140:ALA:CB	2.46	0.64
11:K:90:ALA:O	11:K:94:ILE:HG13	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:47:ARG:NH1	12:L:47:ARG:HB2	2.12	0.64
1:M:518:LYS:HE2	1:M:624:SER:O	1.98	0.64
1:M:903:ASN:C	1:M:903:ASN:HD22	2.00	0.64
1:M:22:PHE:HB2	2:N:1211:ASN:ND2	2.13	0.64
2:N:780:VAL:HG21	10:V:56:LEU:HD11	1.80	0.64
4:P:163:VAL:O	4:P:166:LEU:HB3	1.98	0.64
5:Q:56:LYS:CE	5:Q:84:ASP:HB2	2.24	0.64
7:S:81:PRO:HG3	7:S:106:MET:SD	2.38	0.64
1:M:567:LYS:CB	8:T:96:VAL:H	2.02	0.64
9:U:78:CYS:SG	9:U:106:CYS:HB3	2.38	0.64
1:A:1029:ARG:HG3	1:A:1029:ARG:HH11	1.63	0.64
1:A:741:ASN:HD22	1:A:744:LYS:H	1.44	0.64
2:B:1037:LEU:HD21	2:B:1064:TYR:HE1	1.63	0.64
2:B:1115:THR:O	2:B:1116:ARG:HB2	1.98	0.64
2:B:123:THR:HG21	2:B:458:LYS:HE2	1.79	0.64
8:H:82:PRO:C	8:H:84:ALA:N	2.52	0.64
11:K:21:ILE:CG2	11:K:31:VAL:HG11	2.28	0.64
1:M:1385:THR:CG2	1:M:1387:HIS:H	2.05	0.64
1:M:331:GLY:O	1:M:332:LYS:O	2.15	0.64
1:M:567:LYS:CB	1:M:568:PRO:CD	2.72	0.64
1:M:79:GLY:HA3	1:M:243:PRO:HG3	1.78	0.64
2:N:1100:ASP:OD2	11:W:1:MET:HB3	1.98	0.64
2:N:120:ARG:NH1	12:X:54:ARG:HH11	1.96	0.64
2:N:549:THR:HB	2:N:628:THR:OG1	1.97	0.64
3:O:148:ARG:N	3:O:151:GLN:HG3	2.12	0.64
5:Q:144:ILE:HG13	5:Q:145:THR:N	2.13	0.64
6:R:69:LEU:HB3	6:R:71:GLU:OE1	1.98	0.64
1:A:773:LYS:H	1:A:773:LYS:HD2	1.63	0.63
2:B:577:ALA:CB	2:B:589:VAL:HG11	2.21	0.63
5:E:16:PHE:CZ	5:E:20:LYS:HE2	2.33	0.63
8:H:130:ARG:HH11	8:H:130:ARG:HB2	1.62	0.63
9:I:58:VAL:HG13	9:I:62:ILE:HD13	1.80	0.63
2:N:31:TRP:CZ3	2:N:34:ILE:HD12	2.33	0.63
2:N:553:PRO:O	2:N:557:PHE:HB2	1.97	0.63
2:N:955:THR:HG22	2:N:956:THR:N	2.11	0.63
2:N:186:GLU:HG2	10:V:62:ARG:HH22	1.63	0.63
10:V:64:ASN:ND2	10:V:65:PRO:HD3	2.12	0.63
12:X:34:CYS:HB3	12:X:51:CYS:SG	2.38	0.63
13:1:22:DC:C2'	13:1:23:BRU:H5'	2.25	0.63
1:A:670:ILE:HG23	1:A:805:LEU:HD21	1.78	0.63
2:B:562:GLY:HA3	2:B:590:HIS:ND1	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:554:ILE:HD11	2:B:609:ILE:HG22	1.79	0.63
5:E:100:ILE:HG23	5:E:105:PHE:HB2	1.80	0.63
1:M:883:LEU:HD23	1:M:1021:LEU:HD13	1.80	0.63
1:M:596:THR:C	1:M:598:LEU:H	2.01	0.63
2:N:126:SER:OG	2:N:172:ILE:HD11	1.98	0.63
8:T:14:GLU:HG2	8:T:15:VAL:N	2.13	0.63
8:T:82:PRO:C	8:T:84:ALA:N	2.52	0.63
11:W:21:ILE:HG23	11:W:33:ILE:HG12	1.80	0.63
1:A:252:PHE:HB2	1:A:256:GLN:NE2	2.14	0.63
2:B:102:VAL:HG21	2:B:112:LEU:HD13	1.80	0.63
2:B:484:ASN:O	2:B:491:THR:HG23	1.99	0.63
3:C:124:LEU:O	3:C:127:ARG:HG2	1.99	0.63
8:H:44:VAL:HG13	8:H:48:PRO:HA	1.81	0.63
12:L:38:LEU:HG	12:L:39:SER:H	1.64	0.63
1:M:107:CYS:HA	1:M:171:GLN:NE2	2.13	0.63
4:P:14:ARG:O	4:P:16:LYS:N	2.25	0.63
5:Q:56:LYS:HZ3	5:Q:84:ASP:N	1.97	0.63
7:S:111:THR:O	7:S:114:LEU:HB2	1.98	0.63
1:A:216:VAL:O	1:A:219:PHE:HB2	1.99	0.63
1:A:489:LEU:HD12	1:A:490:HIS:N	2.13	0.63
1:A:961:ARG:HB2	1:A:961:ARG:HH11	1.63	0.63
2:B:282:ILE:O	2:B:286:PHE:HD1	1.81	0.63
2:B:798:TYR:HD1	10:J:4:PRO:HG3	1.64	0.63
2:B:886:LYS:HE2	2:B:940:PRO:HD3	1.80	0.63
6:F:119:ARG:HH11	6:F:119:ARG:CG	2.11	0.63
6:F:75:PRO:O	6:F:77:ASP:O	2.16	0.63
8:H:100:THR:OG1	8:H:138:GLU:HG2	1.99	0.63
9:I:61:ASP:C	9:I:63:GLY:H	2.00	0.63
11:K:31:VAL:HG12	11:K:32:VAL:N	2.12	0.63
1:M:626:ASN:O	1:M:631:HIS:CD2	2.52	0.63
2:N:370:PHE:HD2	2:N:373:ARG:CD	2.11	0.63
2:N:955:THR:OG1	12:X:55:ILE:HA	1.97	0.63
4:P:219:THR:HG22	4:P:220:LEU:O	1.98	0.63
5:Q:180:ARG:HB2	5:Q:215:MET:OXT	1.97	0.63
5:Q:178:ILE:HG22	5:Q:213:ILE:O	1.98	0.63
5:Q:39:LEU:HG	5:Q:43:LYS:HE3	1.79	0.63
2:B:1113:VAL:HG23	15:3:1:C:H4'	1.80	0.63
1:A:1410:PHE:HA	2:B:1212:ILE:HD11	1.80	0.63
2:B:284:ILE:HD13	2:B:333:PHE:HD2	1.64	0.63
2:B:465:ASN:N	2:B:465:ASN:HD22	1.94	0.63
5:E:157:SER:OG	5:E:160:GLU:HG3	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:60:ARG:HG2	12:L:61:THR:N	2.13	0.63
1:M:252:PHE:O	1:M:256:GLN:NE2	2.30	0.63
1:M:87:ALA:CB	1:M:276:LEU:HD23	2.28	0.63
2:N:1065:GLN:NE2	2:N:1067:ARG:H	1.94	0.63
2:N:575:PRO:HG2	2:N:576:ASP:H	1.62	0.63
4:P:155:ARG:HH21	4:P:221:TYR:HD1	1.43	0.63
2:N:193:LYS:NZ	12:X:32:ALA:HB1	2.13	0.63
1:A:1006:ILE:CD1	5:E:163:GLU:HG3	2.29	0.63
1:A:1338:VAL:HG12	1:A:1339:LEU:HD23	1.81	0.63
3:C:261:ALA:HA	3:C:264:GLN:OE1	1.99	0.63
4:D:14:ARG:NH2	4:D:16:LYS:HD2	2.14	0.63
1:M:567:LYS:NZ	8:T:43:ASN:HB3	2.14	0.63
1:M:949:ASP:OD1	1:M:951:GLU:HB2	1.99	0.63
2:N:1001:PHE:CE1	2:N:1073:TYR:HB2	2.33	0.63
2:N:422:LYS:O	2:N:426:LYS:HG2	1.97	0.63
5:Q:46:TYR:CD2	5:Q:58:MET:HG2	2.34	0.63
8:T:38:LEU:HD12	8:T:39:THR:H	1.64	0.63
13:1:25:DG:H2''	13:1:26:DT:C7	2.28	0.63
15:6:2:G:O2'	15:6:3:A:H5'	1.99	0.63
1:A:1102:LYS:O	1:A:1106:ASN:ND2	2.32	0.63
1:A:1170:ILE:HD12	1:A:1170:ILE:H	1.62	0.63
1:A:332:LYS:C	1:A:334:GLY:H	2.02	0.63
1:A:666:ILE:HD12	1:A:667:GLY:H	1.62	0.63
2:B:293:PRO:HD2	2:B:296:GLU:OE1	1.99	0.63
2:B:370:PHE:HD2	2:B:373:ARG:CD	2.12	0.63
5:E:153:HIS:O	5:E:154:ILE:CG1	2.45	0.63
9:I:76:PRO:HD2	9:I:108:HIS:CD2	2.32	0.63
12:L:28:LYS:HE3	12:L:39:SER:OG	1.97	0.63
1:M:993:LEU:HD22	1:M:1046:LEU:HD22	1.81	0.63
1:M:297:GLN:HE21	1:M:297:GLN:CA	2.02	0.63
1:M:903:ASN:HD22	1:M:904:THR:H	1.45	0.63
2:N:284:ILE:HD13	2:N:333:PHE:HD2	1.63	0.63
3:O:148:ARG:H	3:O:151:GLN:HG3	1.63	0.63
4:P:14:ARG:HB3	4:P:14:ARG:NH1	2.13	0.63
4:P:35:LEU:HD11	4:P:173:HIS:CD2	2.34	0.63
4:P:71:LYS:HG2	4:P:74:GLN:NE2	2.14	0.63
15:3:2:G:O2'	15:3:3:A:H5'	1.99	0.63
1:A:427:GLN:HG3	1:A:430:TRP:CZ2	2.33	0.63
1:A:596:THR:C	1:A:598:LEU:H	2.02	0.63
2:B:1096:ARG:HH11	2:B:1096:ARG:HB2	1.64	0.63
2:B:751:VAL:HG13	2:B:812:LEU:CD2	2.27	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:34:TYR:CD2	9:I:35:VAL:N	2.67	0.63
1:M:666:ILE:HD12	1:M:667:GLY:H	1.63	0.63
1:M:697:ALA:HB2	1:M:702:LEU:HD11	1.81	0.63
1:M:977:LYS:HB3	1:M:978:PRO:HD2	1.80	0.63
2:N:1113:VAL:HG23	15:6:1:C:H4'	1.80	0.63
5:Q:56:LYS:HZ3	5:Q:84:ASP:H	1.47	0.63
7:S:106:MET:HG2	7:S:107:LYS:H	1.64	0.63
8:T:99:GLY:HA3	8:T:118:PHE:CD2	2.33	0.63
1:A:44:THR:O	1:A:45:GLN:HB2	1.98	0.63
1:A:961:ARG:HG2	1:A:965:GLN:HE21	1.63	0.63
3:C:36:VAL:HG21	3:C:251:LEU:HB2	1.81	0.63
8:H:127:GLY:O	8:H:128:ASN:CB	2.47	0.63
12:L:61:THR:HG22	12:L:63:ARG:HG3	1.80	0.63
1:M:1076:ALA:HA	1:M:1079:MET:HG3	1.80	0.63
2:N:1017:ILE:HB	2:N:1018:PRO:HD3	1.81	0.63
8:T:89:LEU:C	8:T:91:ASP:N	2.52	0.63
9:U:111:THR:HG22	9:U:112:SER:N	2.13	0.63
2:B:649:LYS:HD3	2:B:736:THR:O	1.99	0.62
7:G:51:TYR:O	7:G:54:ILE:HG13	1.99	0.62
1:M:50:ILE:C	1:M:52:GLY:H	2.02	0.62
2:N:1095:LEU:HD12	2:N:1095:LEU:N	2.14	0.62
2:N:464:GLY:O	2:N:477:ALA:HA	1.99	0.62
2:N:654:ARG:HH11	2:N:654:ARG:HG3	1.64	0.62
7:S:21:ARG:HD2	7:S:24:GLN:CB	2.29	0.62
10:V:64:ASN:CB	10:V:65:PRO:CD	2.75	0.62
12:X:58:LYS:O	12:X:59:ALA:O	2.17	0.62
1:A:205:GLU:CD	1:A:205:GLU:H	2.01	0.62
2:B:1084:GLN:N	2:B:1084:GLN:NE2	2.47	0.62
2:B:370:PHE:CD2	2:B:373:ARG:HD3	2.33	0.62
2:B:361:LEU:HD21	2:B:377:PHE:HD2	1.62	0.62
1:M:270:LEU:O	1:M:274:ILE:HG13	1.98	0.62
1:M:789:LYS:HE3	9:U:67:THR:OG1	1.97	0.62
2:N:233:PRO:HG2	2:N:234:ILE:HD13	1.80	0.62
2:N:644:GLU:OE2	2:N:646:LEU:HB3	1.98	0.62
2:N:941:LEU:HD21	2:N:946:ASN:HA	1.80	0.62
3:O:66:ARG:HA	3:O:69:LEU:HD13	1.80	0.62
4:P:153:ARG:C	4:P:154:PHE:CD2	2.73	0.62
9:U:111:THR:HG23	9:U:112:SER:H	1.63	0.62
1:A:635:ARG:NH1	1:A:635:ARG:HA	2.14	0.62
1:A:63:ARG:HA	1:A:74:MET:CE	2.29	0.62
2:B:579:ARG:HD2	2:B:586:TRP:CZ2	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:911:ILE:CG2	2:B:966:VAL:HG11	2.28	0.62
2:B:822:ASN:ND2	10:J:52:THR:HG21	2.14	0.62
12:L:58:LYS:O	12:L:59:ALA:O	2.17	0.62
1:M:335:ARG:O	1:M:339:ASN:HB2	1.98	0.62
1:M:33:ALA:HA	1:M:57:ARG:NH1	2.14	0.62
1:M:709:THR:HB	1:M:712:GLU:HG3	1.81	0.62
2:N:102:VAL:HG21	2:N:112:LEU:HD13	1.81	0.62
1:M:782:ARG:NH2	2:N:699:GLU:O	2.32	0.62
2:N:815:ARG:HB2	2:N:815:ARG:HH11	1.65	0.62
3:O:241:ASP:O	3:O:245:VAL:HG23	1.98	0.62
6:R:69:LEU:O	6:R:71:GLU:HG3	1.98	0.62
13:4:22:DC:C2'	13:4:23:BRU:H5'	2.26	0.62
1:A:252:PHE:O	1:A:256:GLN:NE2	2.32	0.62
2:B:766:ARG:HH21	2:B:1020:ARG:HD3	1.63	0.62
2:B:126:SER:OG	2:B:172:ILE:HD11	1.99	0.62
2:B:365:THR:HG21	2:B:370:PHE:CG	2.34	0.62
2:B:398:ARG:CB	2:B:398:ARG:HH11	2.12	0.62
2:B:57:TYR:CD1	2:B:57:TYR:N	2.67	0.62
3:C:73:GLN:HE21	3:C:75:MET:HB2	1.63	0.62
6:F:111:LEU:H	6:F:111:LEU:CD1	2.11	0.62
7:G:126:ASN:HD22	7:G:127:PRO:N	1.97	0.62
9:I:78:CYS:SG	9:I:106:CYS:HB3	2.40	0.62
11:K:49:GLU:HG3	11:K:94:ILE:HG12	1.81	0.62
2:N:516:ASN:N	2:N:516:ASN:ND2	2.30	0.62
2:N:618:ASP:CG	2:N:621:GLU:HB3	2.20	0.62
2:N:64:CYS:HA	2:N:67:SER:OG	1.99	0.62
1:A:705:LYS:HB2	1:A:708:MET:HE3	1.81	0.62
2:B:43:LEU:HD11	2:B:811:TYR:O	1.99	0.62
1:M:1127:ASP:HB3	1:M:1130:GLN:HB3	1.79	0.62
1:M:93:VAL:CG2	1:M:301:ALA:HA	2.28	0.62
7:S:150:CYS:SG	7:S:159:ALA:HB2	2.39	0.62
2:N:309:GLN:CD	9:U:52:ILE:HD11	2.19	0.62
1:A:351:THR:HG21	2:B:1103:ILE:HG13	1.80	0.62
2:B:408:LEU:HD11	2:B:545:ILE:HD13	1.82	0.62
2:B:916:THR:O	2:B:935:ARG:HG2	1.99	0.62
5:E:135:PHE:HD2	5:E:140:LEU:HD21	1.64	0.62
2:N:427:ASP:HA	2:N:430:ARG:CD	2.29	0.62
2:N:168:GLY:HA2	2:N:454:THR:OG1	1.99	0.62
3:O:251:LEU:O	3:O:255:VAL:HG23	1.99	0.62
4:P:134:THR:HG22	4:P:135:GLY:N	2.15	0.62
12:X:64:LEU:H	12:X:64:LEU:HD12	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:217:ARG:C	2:B:217:ARG:HD2	2.20	0.62
2:B:345:LYS:CE	2:B:349:ILE:HD11	2.29	0.62
2:B:557:PHE:CE1	2:B:603:LEU:HD11	2.35	0.62
7:G:13:LEU:HD21	7:G:17:PHE:HB2	1.81	0.62
1:M:1254:ALA:O	1:M:1255:GLU:HB3	2.00	0.62
1:M:1394:THR:CG2	1:M:1398:MET:SD	2.87	0.62
1:M:98:LYS:O	1:M:102:VAL:HG23	2.00	0.62
2:N:39:ARG:HH11	2:N:39:ARG:HG2	1.63	0.62
5:Q:98:ILE:HG22	5:Q:102:GLU:HG3	1.82	0.62
7:S:142:ARG:C	7:S:143:ILE:HG12	2.19	0.62
7:S:35:GLU:HG2	7:S:48:VAL:HG23	1.82	0.62
8:T:127:GLY:O	8:T:128:ASN:CB	2.48	0.62
1:A:1141:THR:CG2	1:A:1205:LYS:HD3	2.30	0.62
1:A:55:ASP:N	1:A:56:PRO:HD3	2.13	0.62
2:B:1115:THR:CG2	2:B:1117:GLN:HB2	2.29	0.62
2:B:287:ARG:HG2	2:B:292:ILE:HA	1.81	0.62
3:C:8:VAL:O	3:C:9:LYS:HG3	2.00	0.62
4:D:155:ARG:NH2	4:D:221:TYR:HD1	1.98	0.62
10:J:7:CYS:HB2	10:J:49:MET:HE3	1.82	0.62
1:M:888:GLY:O	1:M:940:ARG:NH2	2.33	0.62
2:N:1174:LYS:O	2:N:1176:ASN:N	2.32	0.62
10:V:16:ASP:OD1	10:V:17:LYS:HD2	1.98	0.62
14:5:3:DT:H2"	14:5:4:DA:OP2	2.00	0.62
1:A:1193:LEU:HD12	1:A:1194:ARG:N	2.15	0.62
1:A:1385:THR:HG22	1:A:1387:HIS:N	2.12	0.62
1:A:49:LYS:CD	1:A:55:ASP:HB3	2.30	0.62
1:A:535:THR:HG21	1:A:617:VAL:H	1.65	0.62
1:A:675:THR:HG21	1:A:736:ASN:CB	2.30	0.62
1:A:690:VAL:CG2	1:A:718:VAL:HG13	2.30	0.62
1:A:901:LEU:HB2	1:A:926:GLN:HG2	1.82	0.62
2:B:227:LYS:H	2:B:395:GLN:CD	2.03	0.62
2:B:39:ARG:NH2	2:B:665:GLU:HG2	2.15	0.62
2:B:810:GLU:HB2	2:B:815:ARG:HH22	1.63	0.62
2:B:941:LEU:HD21	2:B:946:ASN:HA	1.82	0.62
3:C:184:ASN:ND2	3:C:189:THR:HB	2.14	0.62
5:E:44:ALA:O	5:E:45:LYS:HB2	2.00	0.62
9:I:111:THR:CG2	9:I:112:SER:H	2.11	0.62
12:L:34:CYS:SG	12:L:34:CYS:O	2.57	0.62
1:M:38:PRO:HA	1:M:270:LEU:HD23	1.81	0.62
1:M:399:HIS:HB3	1:M:400:PRO:CD	2.29	0.62
1:M:497:THR:HG23	2:N:1146:PHE:HD1	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:811:TYR:N	2:N:811:TYR:CD1	2.68	0.62
4:P:32:GLU:O	7:S:5:LYS:NZ	2.30	0.62
1:A:1445:ILE:HD12	1:A:1445:ILE:N	2.14	0.62
1:A:49:LYS:HD2	1:A:55:ASP:HB3	1.80	0.62
1:A:857:ARG:HD3	1:A:861:GLY:O	2.00	0.62
2:B:284:ILE:HD13	2:B:333:PHE:CD2	2.34	0.62
2:B:333:PHE:O	2:B:334:ILE:HG13	2.00	0.62
2:B:642:ASP:HB3	2:B:649:LYS:HD2	1.80	0.62
2:B:839:MET:CE	2:B:980:PHE:HB2	2.29	0.62
7:G:115:MET:O	7:G:164:LYS:HD3	2.00	0.62
1:M:1118:VAL:CG2	1:M:1306:LEU:HB2	2.30	0.62
1:M:219:PHE:CE2	1:M:231:PRO:HD2	2.33	0.62
1:M:49:LYS:HZ3	1:M:61:ILE:HG13	1.64	0.62
1:M:960:ILE:O	1:M:963:ILE:HG22	2.00	0.62
2:N:288:ALA:CB	2:N:331:LEU:HD12	2.30	0.62
2:N:53:GLN:HG2	2:N:547:VAL:CG2	2.30	0.62
2:N:652:LYS:HD2	2:N:688:GLY:O	2.00	0.62
4:P:185:CYS:SG	4:P:190:GLU:HG2	2.40	0.62
7:S:87:VAL:CG2	7:S:103:VAL:HG11	2.30	0.62
10:V:1:MET:H1	10:V:56:LEU:N	1.98	0.62
1:A:268:ASP:HB3	1:A:299:HIS:ND1	2.15	0.61
1:A:399:HIS:HB3	1:A:400:PRO:CD	2.29	0.61
2:B:1220:ARG:NH1	2:B:1220:ARG:HB3	2.15	0.61
2:B:345:LYS:HE3	2:B:349:ILE:HD11	1.81	0.61
6:F:97:ARG:NH2	6:F:108:PHE:HE1	1.98	0.61
11:K:65:HIS:HD2	11:K:67:PHE:N	1.97	0.61
1:M:99:ILE:HG23	1:M:211:PHE:HE2	1.64	0.61
1:M:427:GLN:HG3	1:M:430:TRP:CZ2	2.35	0.61
1:M:675:THR:O	1:M:679:ILE:HG13	2.00	0.61
1:M:803:SER:OG	1:M:806:ARG:HG3	1.99	0.61
2:N:847:ASP:C	2:N:849:GLY:H	2.02	0.61
2:N:886:LYS:HE2	2:N:940:PRO:HD3	1.82	0.61
2:N:953:LEU:CD2	2:N:965:LYS:HB2	2.30	0.61
3:O:69:LEU:N	3:O:69:LEU:HD12	2.14	0.61
8:T:130:ARG:HB3	8:T:134:ASN:H	1.66	0.61
1:A:1200:ALA:HA	1:A:1203:ASN:HD22	1.65	0.61
1:A:856:THR:HB	1:A:865:GLN:HB2	1.81	0.61
2:B:758:PHE:HE1	2:B:1027:ILE:HG22	1.63	0.61
2:B:326:ASP:OD2	2:B:328:GLU:HB3	2.01	0.61
2:B:334:ILE:HG22	2:B:334:ILE:O	1.98	0.61
2:B:521:LEU:HB3	2:B:633:VAL:HG11	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:189:THR:HG22	3:C:190:ASP:N	2.15	0.61
4:D:71:LYS:HA	4:D:74:GLN:CB	2.29	0.61
4:D:175:PHE:HZ	7:G:85:GLU:HG3	1.66	0.61
1:M:1029:ARG:HG3	1:M:1029:ARG:HH11	1.65	0.61
1:M:364:VAL:HG13	1:M:364:VAL:O	1.99	0.61
1:M:56:PRO:O	1:M:57:ARG:HG3	2.00	0.61
1:M:78:PRO:HA	2:N:1201:LYS:NZ	2.15	0.61
2:N:129:PHE:HD2	2:N:166:PHE:HA	1.66	0.61
2:N:235:SER:OG	2:N:236:HIS:CD2	2.54	0.61
2:N:241:ARG:HG2	2:N:253:THR:HG21	1.82	0.61
2:N:287:ARG:NH1	2:N:324:ILE:O	2.32	0.61
2:N:549:THR:CG2	2:N:550:ASP:N	2.62	0.61
2:N:862:GLN:HG2	2:N:963:PHE:CD1	2.32	0.61
2:N:953:LEU:HD23	2:N:953:LEU:O	2.00	0.61
4:P:29:LEU:HD22	4:P:29:LEU:N	2.15	0.61
7:S:53:ASN:N	7:S:53:ASN:ND2	2.47	0.61
1:A:852:TYR:CD2	1:A:1060:PRO:HB2	2.35	0.61
1:A:982:THR:O	1:A:985:ASP:HB2	2.00	0.61
2:B:35:SER:HA	2:B:811:TYR:HE2	1.65	0.61
3:C:143:LEU:HD21	3:C:146:LYS:CE	2.29	0.61
6:F:69:LEU:O	6:F:71:GLU:HG3	1.99	0.61
8:H:89:LEU:C	8:H:91:ASP:N	2.54	0.61
10:J:64:ASN:ND2	10:J:65:PRO:HD3	2.14	0.61
1:M:70:CYS:O	1:M:72:GLU:HG2	2.00	0.61
1:M:7:SER:OG	2:N:1161:HIS:CE1	2.52	0.61
1:M:960:ILE:HA	1:M:963:ILE:HG22	1.82	0.61
2:N:336:ARG:NH1	2:N:336:ARG:HG3	2.15	0.61
2:N:57:TYR:N	2:N:57:TYR:HD1	1.98	0.61
2:N:29:ASP:HB3	2:N:658:ILE:HD13	1.82	0.61
4:P:29:LEU:HD12	7:S:82:PHE:CE2	2.35	0.61
1:A:1011:GLN:HE22	1:A:1015:VAL:HG21	1.64	0.61
1:A:351:THR:CG2	2:B:1103:ILE:HG13	2.30	0.61
1:A:341:MET:HE2	2:B:1135:ARG:NH1	2.15	0.61
1:A:500:GLU:OE2	2:B:1145:SER:HB2	1.99	0.61
2:B:68:THR:HA	2:B:90:ILE:O	2.00	0.61
6:F:103:MET:HE1	7:G:66:GLY:H	1.64	0.61
2:N:192:LEU:O	2:N:193:LYS:HB2	2.00	0.61
2:N:418:LYS:HE2	2:N:422:LYS:NZ	2.15	0.61
2:N:577:ALA:CB	2:N:589:VAL:HG11	2.22	0.61
6:R:111:LEU:O	6:R:113:GLY:N	2.28	0.61
12:X:55:ILE:HG12	12:X:56:LEU:N	2.08	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2:3:DT:H2"	14:2:4:DA:OP2	2.00	0.61
1:A:1241:ARG:O	1:A:1242:VAL:HG23	2.01	0.61
2:B:277:LYS:HE2	2:B:336:ARG:C	2.20	0.61
2:B:637:LEU:HD21	2:B:742:GLU:OE2	2.01	0.61
1:A:782:ARG:NH2	2:B:699:GLU:O	2.33	0.61
4:D:14:ARG:O	4:D:16:LYS:N	2.27	0.61
7:G:55:ASP:OD1	7:G:57:GLN:HG3	2.00	0.61
2:N:766:ARG:NH2	2:N:1020:ARG:CD	2.62	0.61
2:N:911:ILE:CG2	2:N:966:VAL:HG11	2.30	0.61
5:Q:22:MET:HE1	5:Q:26:ARG:NH2	2.14	0.61
12:X:38:LEU:HD13	12:X:49:LYS:HE2	1.82	0.61
1:A:172:PRO:HB3	1:A:185:TRP:CD2	2.34	0.61
1:A:317:LYS:O	1:A:318:SER:CB	2.49	0.61
1:A:50:ILE:C	1:A:52:GLY:H	2.03	0.61
1:A:684:ALA:O	1:A:687:LYS:HB2	2.01	0.61
2:B:100:PRO:HB2	2:B:180:TYR:HE1	1.65	0.61
2:B:464:GLY:O	2:B:477:ALA:HA	2.00	0.61
2:B:652:LYS:HB3	2:B:689:LEU:HD23	1.81	0.61
8:H:130:ARG:HH11	8:H:130:ARG:H	1.47	0.61
1:A:710:LEU:HD22	9:I:96:SER:HA	1.82	0.61
12:L:49:LYS:O	12:L:50:ASP:HB2	2.00	0.61
1:M:1120:LEU:O	1:M:1323:ASP:HB2	2.01	0.61
1:M:444:PHE:CE2	1:M:487:MET:HE2	2.35	0.61
4:P:52:LEU:O	4:P:54:GLU:N	2.34	0.61
8:T:11:GLN:HA	8:T:53:ASP:O	2.01	0.61
8:T:51:ALA:O	8:T:52:GLN:HB2	2.01	0.61
1:A:38:PRO:CA	1:A:270:LEU:HD23	2.30	0.61
2:B:1096:ARG:NH1	2:B:1096:ARG:HB2	2.15	0.61
2:B:516:ASN:ND2	2:B:516:ASN:H	1.90	0.61
2:B:787:VAL:HG12	2:B:787:VAL:O	1.98	0.61
2:B:815:ARG:HD3	2:B:1041:GLU:OE2	2.00	0.61
2:B:864:LYS:HG3	2:B:872:GLU:OE1	1.99	0.61
3:C:6:PRO:CB	3:C:25:VAL:HG22	2.30	0.61
5:E:198:ILE:HD11	5:E:212:ARG:HG3	1.82	0.61
5:E:29:PHE:O	5:E:30:ILE:HG13	2.00	0.61
7:G:21:ARG:HD2	7:G:24:GLN:CB	2.31	0.61
10:J:23:ASN:C	10:J:25:LEU:H	2.04	0.61
11:K:46:ILE:O	11:K:50:LEU:HB2	2.00	0.61
1:M:40:THR:HG23	1:M:54:ASN:HD21	1.66	0.61
1:M:598:LEU:HD23	1:M:598:LEU:O	2.01	0.61
2:N:345:LYS:HE3	2:N:349:ILE:HD11	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:68:THR:HA	2:N:90:ILE:O	2.00	0.61
4:P:71:LYS:HA	4:P:74:GLN:CB	2.30	0.61
8:T:44:VAL:HG13	8:T:48:PRO:HA	1.82	0.61
1:A:1255:GLU:HG3	1:A:1258:HIS:HD2	1.62	0.61
2:B:425:THR:HA	2:B:428:ILE:HD12	1.82	0.61
2:B:53:GLN:HG2	2:B:547:VAL:CG2	2.31	0.61
3:C:101:LEU:C	3:C:102:GLN:HG2	2.21	0.61
8:H:128:ASN:ND2	8:H:131:ASN:OD1	2.33	0.61
8:H:24:CYS:HB2	8:H:44:VAL:HG21	1.81	0.61
2:N:1220:ARG:NH1	2:N:1220:ARG:HB3	2.16	0.61
2:N:167:ILE:HG22	2:N:453:ILE:HD12	1.82	0.61
2:N:221:ASN:OD1	2:N:242:SER:HA	2.01	0.61
2:N:857:ARG:HH21	2:N:942:ARG:CZ	2.13	0.61
2:N:918:ILE:HD12	2:N:935:ARG:NH1	2.16	0.61
4:P:7:THR:O	4:P:9:GLN:N	2.33	0.61
2:B:983:ARG:HD2	2:B:1091:TYR:HB3	1.83	0.61
2:B:398:ARG:HB2	2:B:398:ARG:NH1	2.15	0.61
4:D:148:LEU:O	4:D:152:SER:OG	2.16	0.61
4:D:25:ALA:HB1	4:D:196:PRO:HG2	1.83	0.61
5:E:198:ILE:CD1	5:E:212:ARG:HG3	2.31	0.61
8:H:104:PHE:CZ	8:H:136:LYS:HA	2.36	0.61
10:J:24:LEU:N	10:J:24:LEU:HD23	2.15	0.61
2:N:1181:GLU:HA	2:N:1187:ASN:O	2.00	0.61
9:U:111:THR:HG21	9:U:113:ASP:HB2	1.82	0.61
1:A:1116:LEU:HB2	1:A:1329:THR:OG1	2.00	0.61
2:B:192:LEU:O	2:B:193:LYS:HB2	2.01	0.61
2:B:806:THR:CG2	2:B:808:ALA:HB3	2.31	0.61
3:C:148:ARG:NH1	3:C:149:LYS:HE3	2.16	0.61
5:E:65:THR:O	5:E:69:ILE:HD12	2.01	0.61
2:B:309:GLN:OE1	9:I:52:ILE:HD11	2.01	0.61
2:N:955:THR:CG2	2:N:956:THR:N	2.63	0.61
3:O:8:VAL:HG12	3:O:9:LYS:N	2.16	0.61
2:N:902:GLY:O	12:X:65:VAL:HG11	2.00	0.61
2:B:575:PRO:HG2	2:B:576:ASP:H	1.64	0.60
2:B:770:GLN:CD	2:B:983:ARG:HA	2.21	0.60
7:G:34:VAL:HG11	7:G:74:TYR:CE1	2.32	0.60
1:M:1291:VAL:HG22	1:M:1292:PRO:CD	2.31	0.60
1:M:821:ARG:NH1	1:M:821:ARG:HB2	2.15	0.60
1:M:866:PHE:O	1:M:867:ILE:HD12	2.00	0.60
2:N:240:ILE:HG23	2:N:254:LEU:HB3	1.83	0.60
2:N:549:THR:CG2	2:N:550:ASP:H	2.14	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:261:ALA:HA	3:O:264:GLN:OE1	2.00	0.60
5:Q:78:LEU:HB2	5:Q:107:THR:HB	1.83	0.60
3:O:248:ILE:HD13	11:W:101:LEU:HD22	1.83	0.60
1:A:150:THR:HG23	1:A:166:GLY:HA2	1.83	0.60
1:A:939:ASP:OD2	1:A:1023:ARG:NH1	2.34	0.60
2:B:1147:LEU:HD22	2:B:1151:LEU:HD22	1.82	0.60
2:B:172:ILE:HD13	2:B:178:ASN:HD22	1.66	0.60
7:G:138:THR:HG22	7:G:139:ILE:H	1.63	0.60
1:A:598:LEU:CD1	8:H:124:ARG:HB2	2.31	0.60
10:J:1:MET:H1	10:J:56:LEU:N	1.99	0.60
1:M:332:LYS:O	1:M:333:GLU:HB2	2.00	0.60
1:M:705:LYS:HB2	1:M:708:MET:HE3	1.82	0.60
1:M:828:ALA:CB	2:N:530:GLY:HA2	2.31	0.60
2:N:123:THR:O	2:N:125:SER:N	2.34	0.60
2:N:291:ILE:HD13	2:N:300:HIS:NE2	2.16	0.60
2:N:57:TYR:N	2:N:57:TYR:CD1	2.69	0.60
2:N:39:ARG:NH2	2:N:665:GLU:HG2	2.16	0.60
1:M:857:ARG:CZ	6:R:139:PRO:HG3	2.31	0.60
7:S:115:MET:HB3	7:S:116:PRO:CD	2.30	0.60
12:X:34:CYS:HB3	12:X:51:CYS:HG	1.66	0.60
2:B:797:TYR:HE1	2:B:854:LEU:CD2	2.15	0.60
4:D:12:ARG:NH1	4:D:14:ARG:HA	2.17	0.60
9:I:101:PHE:N	9:I:101:PHE:CD1	2.69	0.60
1:M:1206:ASP:O	1:M:1274:ARG:CZ	2.49	0.60
1:M:573:SER:O	1:M:576:GLN:HB2	2.01	0.60
2:N:359:GLU:O	2:N:362:PRO:HD3	2.02	0.60
2:N:653:VAL:CG2	2:N:689:LEU:HB3	2.31	0.60
2:N:865:LYS:HG2	2:N:961:LEU:HD21	1.82	0.60
2:N:983:ARG:NH1	2:N:1028:GLU:OE1	2.35	0.60
10:V:23:ASN:C	10:V:25:LEU:H	2.05	0.60
1:A:79:GLY:HA3	1:A:243:PRO:CG	2.31	0.60
1:A:920:LEU:HD23	1:A:921:GLY:N	2.16	0.60
6:F:89:GLU:O	6:F:93:ILE:HD12	2.02	0.60
1:M:1420:ASP:O	1:M:1421:CYS:HB2	2.00	0.60
2:N:189:LEU:O	2:N:192:LEU:N	2.32	0.60
2:N:334:ILE:HG22	2:N:334:ILE:O	2.02	0.60
2:N:39:ARG:NH1	2:N:39:ARG:HG2	2.17	0.60
2:N:662:MET:HA	2:N:665:GLU:HG3	1.83	0.60
3:O:189:THR:HG22	3:O:190:ASP:N	2.16	0.60
3:O:172:PRO:O	3:O:235:VAL:HG23	2.02	0.60
1:A:1215:ARG:NH1	1:A:1272:THR:O	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:71:LYS:HA	4:D:74:GLN:CG	2.31	0.60
8:H:123:MET:HE3	8:H:142:LEU:HD22	1.82	0.60
1:M:1208:THR:HG22	1:M:1210:GLY:H	1.66	0.60
1:M:44:THR:O	1:M:45:GLN:HB2	2.01	0.60
1:M:590:ARG:NH1	1:M:590:ARG:HG2	2.16	0.60
1:M:709:THR:HG22	1:M:710:LEU:H	1.66	0.60
1:M:870:GLU:HG2	5:Q:208:TYR:CD2	2.36	0.60
2:N:102:VAL:HG22	2:N:112:LEU:HD22	1.83	0.60
4:P:151:PHE:HD1	4:P:151:PHE:H	1.48	0.60
4:P:193:THR:HG22	4:P:194:LEU:N	2.16	0.60
1:A:129:LYS:O	1:A:130:ASP:CB	2.49	0.60
1:A:1441:PHE:CZ	6:F:89:GLU:HA	2.36	0.60
2:B:120:ARG:NH1	12:L:54:ARG:NH1	2.50	0.60
2:B:171:PRO:HD2	2:B:457:LEU:HD12	1.82	0.60
2:B:547:VAL:HG12	2:B:612:GLU:OE2	2.02	0.60
10:J:24:LEU:O	10:J:30:LEU:HB2	2.01	0.60
12:L:47:ARG:HG2	12:L:48:CYS:H	1.65	0.60
1:M:705:LYS:HB2	1:M:708:MET:CE	2.31	0.60
2:N:25:ILE:HG22	2:N:658:ILE:HD12	1.83	0.60
1:A:145:LYS:HE3	1:A:145:LYS:HA	1.82	0.60
1:A:335:ARG:HH12	2:B:1206:GLU:CD	2.04	0.60
1:A:567:LYS:CB	1:A:568:PRO:CD	2.74	0.60
1:A:671:ALA:HB3	1:A:676:MET:CE	2.32	0.60
2:B:1116:ARG:HG3	2:B:1198:TYR:CG	2.37	0.60
2:B:364:ILE:HG12	2:B:585:VAL:HG13	1.84	0.60
1:A:1438:THR:HG22	6:F:92:ARG:HD2	1.84	0.60
1:M:1110:ASN:N	1:M:1110:ASN:ND2	2.49	0.60
1:M:709:THR:HG22	1:M:711:ARG:H	1.66	0.60
1:M:675:THR:HG21	1:M:736:ASN:CB	2.32	0.60
4:P:162:ALA:CB	4:P:217:LEU:HD13	2.32	0.60
4:P:154:PHE:CE1	4:P:163:VAL:HG21	2.35	0.60
4:P:209:ARG:HG2	4:P:209:ARG:NH1	2.17	0.60
4:P:63:LEU:HD22	4:P:133:THR:OG1	2.01	0.60
6:R:116:ASP:HB3	6:R:119:ARG:HB2	1.84	0.60
8:T:123:MET:HE3	8:T:142:LEU:CD2	2.31	0.60
8:T:56:THR:HB	8:T:145:ARG:HG2	1.82	0.60
1:A:690:VAL:HG21	1:A:718:VAL:HG13	1.82	0.60
2:B:123:THR:HG23	2:B:205:ILE:HA	1.82	0.60
2:B:29:ASP:HB3	2:B:658:ILE:CD1	2.32	0.60
1:M:225:ASN:HD22	1:M:228:PHE:H	1.46	0.60
1:M:79:GLY:HA3	1:M:243:PRO:CG	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:831:THR:O	1:M:834:THR:HG22	2.02	0.60
7:S:116:PRO:HG2	7:S:119:LEU:HB3	1.84	0.60
8:T:100:THR:OG1	8:T:138:GLU:HG2	2.00	0.60
2:N:797:TYR:O	10:V:1:MET:HG2	2.02	0.60
1:A:399:HIS:CB	1:A:400:PRO:HD3	2.28	0.60
2:B:307:ASP:OD2	2:B:310:MET:HB2	2.01	0.60
2:B:34:ILE:HG23	2:B:542:MET:HE1	1.84	0.60
2:B:579:ARG:HG2	2:B:579:ARG:NH1	2.17	0.60
5:E:185:ALA:O	5:E:190:LEU:HG	2.02	0.60
2:B:308:TRP:CH2	9:I:45:ARG:HG2	2.36	0.60
9:I:82:GLU:HB3	9:I:104:LEU:HD12	1.83	0.60
11:K:51:LEU:CD1	11:K:59:ALA:HB3	2.31	0.60
1:M:1149:ALA:HB2	9:U:47:GLU:HA	1.83	0.60
3:O:203:GLN:HG2	3:O:207:CYS:SG	2.42	0.60
2:N:798:TYR:HE2	3:O:62:PHE:CZ	2.19	0.60
12:X:61:THR:HG21	12:X:63:ARG:HG3	1.84	0.60
1:A:1308:THR:HG23	1:A:1310:GLY:H	1.67	0.60
1:A:172:PRO:HD3	1:A:185:TRP:NE1	2.17	0.60
2:B:120:ARG:NH1	12:L:54:ARG:HH11	2.00	0.60
3:C:101:LEU:CD1	3:C:118:LEU:HD23	2.27	0.60
1:A:1324:PRO:HB2	5:E:142:VAL:HG11	1.84	0.60
9:I:111:THR:HG22	9:I:112:SER:N	2.17	0.60
1:M:33:ALA:HA	1:M:57:ARG:HH12	1.66	0.60
1:M:35:ILE:HG22	1:M:35:ILE:O	2.00	0.60
1:M:7:SER:HB3	2:N:1193:GLN:HE22	1.67	0.60
2:N:1096:ARG:O	2:N:1097:HIS:CB	2.49	0.60
2:N:102:VAL:CG2	2:N:112:LEU:HB2	2.18	0.60
2:N:1202:LEU:O	2:N:1206:GLU:HG3	2.01	0.60
4:P:188:ALA:O	4:P:192:LYS:HG2	2.02	0.60
4:P:194:LEU:HB3	7:S:86:VAL:HG21	1.83	0.60
1:A:1294:PRO:HG2	1:A:1295:THR:HG22	1.83	0.59
1:A:7:SER:OG	2:B:1161:HIS:HE1	1.85	0.59
2:B:278:GLN:CG	2:B:279:ASP:H	2.15	0.59
3:C:124:LEU:HD21	3:C:129:ILE:O	2.01	0.59
3:C:184:ASN:OD1	3:C:187:LYS:HA	2.01	0.59
7:G:138:THR:CG2	7:G:139:ILE:N	2.63	0.59
8:H:11:GLN:HA	8:H:53:ASP:O	2.02	0.59
12:L:40:LEU:HD22	12:L:44:ASP:CG	2.22	0.59
2:N:96:TYR:N	2:N:129:PHE:O	2.30	0.59
2:N:217:ARG:HD2	2:N:217:ARG:C	2.22	0.59
2:N:236:HIS:CE1	2:N:389:ALA:HA	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:863:GLU:O	2:N:961:LEU:HD13	2.02	0.59
4:P:118:THR:HG21	4:P:121:LYS:HE3	1.83	0.59
4:P:51:ASN:OD1	4:P:52:LEU:O	2.20	0.59
5:Q:32:GLN:HG3	5:Q:36:GLU:OE2	2.02	0.59
1:A:1130:GLN:HA	1:A:1133:LEU:HD12	1.84	0.59
1:A:253:ASN:HD22	2:B:884:ARG:HD2	1.66	0.59
1:A:628:GLY:O	1:A:632:VAL:HG23	2.02	0.59
2:B:863:GLU:O	2:B:961:LEU:HD13	2.02	0.59
6:F:111:LEU:C	6:F:113:GLY:H	2.05	0.59
8:H:82:PRO:O	8:H:84:ALA:N	2.34	0.59
2:B:902:GLY:O	12:L:65:VAL:HG11	2.01	0.59
1:M:1114:PRO:O	1:M:1311:VAL:HG23	2.02	0.59
2:N:29:ASP:HB3	2:N:658:ILE:CD1	2.32	0.59
2:N:34:ILE:HG12	2:N:542:MET:CE	2.33	0.59
4:P:173:HIS:CE1	4:P:175:PHE:H	2.21	0.59
6:R:109:VAL:CG1	6:R:110:ASP:N	2.64	0.59
7:S:142:ARG:HB3	7:S:171:ILE:HD11	1.84	0.59
4:P:144:THR:HG21	7:S:46:LEU:HD13	1.83	0.59
8:T:32:THR:HG22	8:T:33:GLN:OE1	2.01	0.59
1:A:239:LEU:HD12	1:A:240:PRO:HD2	1.84	0.59
1:A:285:PRO:CG	1:A:288:ALA:HB3	2.27	0.59
1:A:332:LYS:O	1:A:333:GLU:HB2	2.02	0.59
1:A:56:PRO:O	1:A:57:ARG:HG3	2.02	0.59
2:B:189:LEU:O	2:B:192:LEU:N	2.33	0.59
2:B:211:VAL:O	2:B:480:SER:HA	2.02	0.59
2:B:830:TYR:CE2	2:B:1000:PRO:HD3	2.36	0.59
2:B:936:ASP:OD1	2:B:937:ALA:N	2.36	0.59
4:D:5:THR:O	4:D:5:THR:HG23	2.02	0.59
7:G:117:GLN:NE2	7:S:154:VAL:HG22	2.18	0.59
7:G:26:LEU:CD1	7:G:56:ILE:HD11	2.30	0.59
1:M:1210:GLY:O	1:M:1214:GLU:HG2	2.02	0.59
1:M:1259:MET:CE	1:M:1263:ILE:HG13	2.31	0.59
1:M:597:LEU:HD23	8:T:103:LYS:HD2	1.83	0.59
2:N:1181:GLU:HB2	2:N:1188:LYS:HG3	1.84	0.59
4:P:130:LEU:HD13	4:P:142:LYS:HG2	1.84	0.59
4:P:188:ALA:O	4:P:192:LYS:CG	2.51	0.59
7:S:126:ASN:HD22	7:S:127:PRO:CA	2.15	0.59
12:X:49:LYS:O	12:X:50:ASP:CB	2.50	0.59
1:A:1171:GLN:OE1	1:A:1172:LEU:N	2.36	0.59
1:A:283:GLY:O	1:A:285:PRO:HD3	2.02	0.59
1:A:297:GLN:HA	1:A:297:GLN:NE2	2.08	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:568:PRO:HB2	3:C:221:TYR:CZ	2.37	0.59
1:A:715:GLU:OE1	1:A:774:ARG:HD3	2.03	0.59
2:B:123:THR:O	2:B:125:SER:N	2.36	0.59
2:B:273:LEU:HD12	2:B:280:ILE:HD12	1.83	0.59
2:B:298:LEU:N	2:B:298:LEU:HD22	2.17	0.59
2:B:766:ARG:NH2	2:B:1020:ARG:CD	2.65	0.59
2:B:770:GLN:HG2	2:B:983:ARG:O	2.02	0.59
4:D:202:ILE:HG23	4:D:207:LEU:HB2	1.84	0.59
5:E:131:THR:HG21	5:E:191:LYS:NZ	2.18	0.59
8:H:130:ARG:HB3	8:H:134:ASN:H	1.68	0.59
1:M:105:CYS:SG	1:M:139:TRP:HA	2.42	0.59
2:N:1187:ASN:OD1	2:N:1188:LYS:N	2.35	0.59
2:N:345:LYS:CG	2:N:346:GLU:N	2.65	0.59
6:R:99:LEU:O	6:R:103:MET:HG2	2.02	0.59
7:S:109:PHE:O	7:S:160:ILE:HG23	2.01	0.59
7:S:111:THR:HG22	7:S:114:LEU:HD22	1.84	0.59
8:T:42:ILE:HG23	8:T:95:TYR:CE1	2.37	0.59
3:O:66:ARG:NH1	10:V:2:ILE:CG2	2.64	0.59
1:A:331:GLY:O	1:A:332:LYS:O	2.20	0.59
2:B:549:THR:CG2	2:B:550:ASP:H	2.15	0.59
2:B:848:ARG:HH22	2:B:996:ARG:HD3	1.66	0.59
2:B:887:HIS:N	2:B:887:HIS:CD2	2.69	0.59
3:C:184:ASN:HD21	3:C:189:THR:HB	1.67	0.59
4:D:13:ARG:O	4:D:15:LEU:N	2.29	0.59
1:M:1241:ARG:O	1:M:1242:VAL:CB	2.50	0.59
1:M:116:ASP:OD2	1:M:164:ARG:HD2	2.02	0.59
1:M:297:GLN:NE2	1:M:297:GLN:HA	2.06	0.59
1:M:528:LEU:HD23	1:M:751:SER:HA	1.84	0.59
2:N:766:ARG:NH2	2:N:1020:ARG:HD2	2.18	0.59
2:N:1115:THR:O	2:N:1116:ARG:HB2	2.02	0.59
2:N:384:ARG:HH12	2:N:393:LYS:HD3	1.68	0.59
2:N:941:LEU:CD1	2:N:968:VAL:HG21	2.33	0.59
3:O:254:LYS:HE2	11:W:42:LEU:HD13	1.85	0.59
5:Q:198:ILE:HD11	5:Q:212:ARG:HG3	1.83	0.59
8:T:84:ALA:CB	8:T:87:ARG:HB2	2.31	0.59
9:U:84:VAL:O	9:U:84:VAL:HG13	2.02	0.59
2:B:244:LEU:HD21	2:B:366:GLN:NE2	2.17	0.59
2:B:615:MET:CB	2:B:626:ILE:HG12	2.26	0.59
2:B:642:ASP:HB3	2:B:649:LYS:CD	2.32	0.59
2:B:999:MET:HE2	2:B:1000:PRO:HD2	1.83	0.59
3:C:114:TYR:CD2	3:C:140:ASN:HB3	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:84:ALA:HB1	8:H:87:ARG:HB2	1.84	0.59
1:M:675:THR:OG1	1:M:736:ASN:ND2	2.34	0.59
2:N:639:ILE:HD11	2:N:691:GLU:HB2	1.84	0.59
2:N:899:ILE:HD11	2:N:911:ILE:HA	1.84	0.59
2:N:96:TYR:HB2	2:N:129:PHE:HB2	1.82	0.59
3:O:39:ALA:O	3:O:164:ALA:HB3	2.02	0.59
9:U:52:ILE:O	9:U:52:ILE:HG13	2.02	0.59
11:W:82:ASP:OD1	11:W:84:LYS:N	2.35	0.59
1:A:110:CYS:HB3	1:A:167:CYS:SG	2.42	0.59
1:A:1208:THR:HG22	1:A:1210:GLY:N	2.18	0.59
1:A:671:ALA:HB3	1:A:676:MET:HE2	1.85	0.59
1:A:63:ARG:HA	1:A:74:MET:HE2	1.85	0.59
2:B:224:GLN:HA	2:B:396:ASP:OD2	2.03	0.59
2:B:637:LEU:HD12	2:B:693:ILE:CD1	2.33	0.59
5:E:4:GLU:HB3	5:E:7:ARG:HE	1.68	0.59
11:K:49:GLU:HG3	11:K:94:ILE:CG1	2.32	0.59
1:M:323:LYS:H	1:M:323:LYS:HD2	1.66	0.59
1:M:62:ASP:O	1:M:64:ASN:HB2	2.03	0.59
1:M:68:GLN:O	1:M:68:GLN:OE1	2.20	0.59
1:M:908:LEU:HD11	1:M:983:ILE:HD11	1.84	0.59
2:N:810:GLU:CB	2:N:815:ARG:HH22	2.14	0.59
9:U:73:ARG:HD2	9:U:101:PHE:CE2	2.37	0.59
1:A:79:GLY:HA3	1:A:243:PRO:HG3	1.84	0.59
1:A:350:ARG:HB2	2:B:1128:LEU:CD1	2.32	0.59
1:A:754:SER:N	1:A:757:ASN:HD22	1.96	0.59
1:A:858:ASN:C	1:A:858:ASN:ND2	2.55	0.59
3:C:43:THR:HG22	3:C:44:LEU:N	2.17	0.59
3:C:8:VAL:CG1	3:C:9:LYS:N	2.66	0.59
1:M:399:HIS:CB	1:M:400:PRO:HD3	2.30	0.59
1:M:718:VAL:O	1:M:722:LEU:HD12	2.03	0.59
1:M:804:TYR:OH	2:N:763:GLN:HA	2.03	0.59
2:N:806:THR:CG2	2:N:808:ALA:HB3	2.33	0.59
1:M:253:ASN:ND2	2:N:884:ARG:HD2	2.18	0.59
3:O:243:VAL:O	3:O:243:VAL:HG12	2.01	0.59
1:M:1340:GLY:HA2	5:Q:183:PRO:HD2	1.84	0.59
5:Q:177:ARG:HD3	5:Q:215:MET:SD	2.42	0.59
8:T:89:LEU:HB2	8:T:91:ASP:OD1	2.02	0.59
12:X:38:LEU:HG	12:X:39:SER:H	1.67	0.59
1:A:1214:GLU:O	1:A:1218:GLN:HG2	2.02	0.59
1:A:1152:ILE:HD12	1:A:1261:LYS:HE3	1.84	0.59
1:A:24:PRO:HG2	1:A:25:GLU:OE2	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:66:LYS:O	1:A:67:CYS:HB2	2.00	0.59
2:B:327:ARG:NH2	2:B:371:GLU:HG2	2.17	0.59
2:B:418:LYS:HE2	2:B:422:LYS:HZ2	1.67	0.59
2:B:597:MET:SD	2:B:624:LEU:HD11	2.43	0.59
2:B:638:PHE:HD2	2:B:690:VAL:HG12	1.68	0.59
7:G:21:ARG:HD2	7:G:24:GLN:HB2	1.85	0.59
8:H:27:GLU:HG2	8:H:39:THR:HA	1.85	0.59
1:M:1308:THR:HG23	1:M:1310:GLY:H	1.67	0.59
1:M:335:ARG:HH12	2:N:1206:GLU:CD	2.06	0.59
3:O:89:GLU:O	3:O:90:ASP:HB3	2.01	0.59
1:M:1441:PHE:CZ	6:R:89:GLU:HA	2.37	0.59
7:S:88:ASP:OD2	7:S:88:ASP:O	2.21	0.59
11:W:50:LEU:HD11	11:W:75:ILE:CD1	2.33	0.59
2:B:879:ARG:N	2:B:879:ARG:CD	2.65	0.59
5:E:64:PRO:O	5:E:69:ILE:HD11	2.02	0.59
8:H:95:TYR:CE2	8:H:97:MET:HG3	2.38	0.59
9:I:44:TYR:CD1	9:I:45:ARG:N	2.71	0.59
12:L:30:ILE:HG22	12:L:31:CYS:N	2.18	0.59
1:M:1141:THR:HG23	1:M:1205:LYS:HD3	1.84	0.59
1:M:1450:LEU:HD11	6:R:108:PHE:CZ	2.38	0.59
1:M:427:GLN:HG3	1:M:430:TRP:CE2	2.38	0.59
1:M:903:ASN:C	1:M:903:ASN:ND2	2.56	0.59
2:N:766:ARG:HH21	2:N:1020:ARG:HD2	1.67	0.59
7:S:87:VAL:HG21	7:S:103:VAL:HG21	1.83	0.59
10:V:30:LEU:HD11	10:V:38:ARG:NH1	2.18	0.59
12:X:34:CYS:SG	12:X:51:CYS:SG	3.01	0.59
1:A:1399:ARG:HB3	1:A:1408:ILE:HD13	1.84	0.58
1:A:66:LYS:HD3	1:A:67:CYS:N	2.18	0.58
1:A:718:VAL:O	1:A:722:LEU:HD12	2.03	0.58
1:A:907:THR:HG23	1:A:908:LEU:N	2.18	0.58
1:A:982:THR:HB	1:A:985:ASP:H	1.65	0.58
2:B:273:LEU:CD2	2:B:360:PHE:HD1	2.16	0.58
2:B:642:ASP:CA	2:B:649:LYS:HG3	2.32	0.58
2:B:710:LEU:CA	2:B:733:HIS:HB3	2.20	0.58
4:D:25:ALA:HB1	4:D:196:PRO:CG	2.33	0.58
5:E:164:LEU:HD11	5:E:211:TYR:CE1	2.38	0.58
1:A:1149:ALA:HB2	9:I:47:GLU:HA	1.84	0.58
4:P:164:ILE:O	4:P:168:LYS:HG2	2.03	0.58
9:U:62:ILE:HG12	9:U:62:ILE:O	2.03	0.58
3:O:69:LEU:O	10:V:6:ARG:HD2	2.03	0.58
1:A:67:CYS:C	1:A:68:GLN:HG3	2.22	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:766:ARG:NH2	2:B:1020:ARG:HD2	2.18	0.58
2:B:262:GLU:HA	2:B:267:ARG:NH2	2.18	0.58
2:B:273:LEU:HD21	2:B:360:PHE:CD1	2.35	0.58
2:B:638:PHE:HB3	2:B:651:LEU:CD2	2.33	0.58
2:B:807:ARG:HG2	2:B:1045:SER:OG	2.02	0.58
2:B:842:ASN:ND2	2:B:845:SER:H	2.00	0.58
2:B:620:ARG:NH1	9:I:68:LEU:HD21	2.17	0.58
1:M:317:LYS:O	1:M:318:SER:CB	2.51	0.58
1:M:444:PHE:CE2	1:M:487:MET:CE	2.86	0.58
2:N:433:GLN:O	2:N:434:ARG:HG3	2.03	0.58
2:N:842:ASN:ND2	2:N:845:SER:OG	2.29	0.58
4:P:13:ARG:O	4:P:15:LEU:N	2.29	0.58
5:Q:29:PHE:O	5:Q:30:ILE:HG13	2.02	0.58
10:V:3:VAL:HG21	10:V:18:TRP:CG	2.38	0.58
1:A:1313:LEU:O	1:A:1315:GLU:N	2.36	0.58
2:B:816:GLU:O	2:B:817:LEU:HD23	2.02	0.58
2:B:999:MET:HA	2:B:999:MET:CE	2.33	0.58
1:M:420:ARG:O	1:M:424:ILE:HG13	2.04	0.58
1:M:684:ALA:O	1:M:687:LYS:HB2	2.04	0.58
2:N:815:ARG:HD3	2:N:1041:GLU:OE2	2.03	0.58
2:N:637:LEU:HD22	2:N:741:CYS:O	2.02	0.58
2:N:847:ASP:OD2	11:W:6:ARG:NH2	2.34	0.58
4:P:153:ARG:O	4:P:154:PHE:CD2	2.56	0.58
5:Q:212:ARG:HH11	5:Q:212:ARG:HG3	1.68	0.58
7:S:1:MET:HG3	7:S:85:GLU:OE2	2.03	0.58
10:V:21:TYR:HB2	10:V:39:LEU:CD1	2.33	0.58
1:A:845:LEU:HD12	1:A:1069:ALA:HB2	1.85	0.58
2:B:96:TYR:N	2:B:129:PHE:O	2.31	0.58
2:B:69:LEU:HB3	2:B:429:PHE:CE1	2.38	0.58
2:B:839:MET:HE2	2:B:980:PHE:CD1	2.37	0.58
3:C:75:MET:HB3	3:C:128:ASN:HB3	1.85	0.58
8:H:84:ALA:CB	8:H:87:ARG:HB2	2.33	0.58
9:I:74:GLU:HB3	9:I:81:ARG:CD	2.33	0.58
11:K:82:ASP:OD1	11:K:84:LYS:N	2.36	0.58
1:M:1171:GLN:OE1	1:M:1172:LEU:HG	2.03	0.58
1:M:1171:GLN:OE1	1:M:1172:LEU:N	2.37	0.58
1:M:382:PRO:HA	1:M:428:TYR:HE2	1.68	0.58
1:M:693:VAL:HG21	1:M:721:PHE:CE1	2.35	0.58
1:M:774:ARG:NH2	1:M:797:LYS:HB2	2.19	0.58
1:M:873:MET:C	1:M:1058:VAL:HG23	2.24	0.58
2:N:277:LYS:HG2	2:N:336:ARG:HB3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:579:ARG:HA	2:N:589:VAL:HG13	1.85	0.58
3:O:32:SER:O	3:O:36:VAL:HG23	2.04	0.58
5:Q:10:SER:O	5:Q:13:TRP:HB3	2.03	0.58
5:Q:97:VAL:HG13	5:Q:127:ILE:HD13	1.84	0.58
7:S:116:PRO:HD2	7:S:119:LEU:CD2	2.31	0.58
7:S:15:PRO:HA	7:S:18:PHE:CE1	2.38	0.58
8:T:128:ASN:ND2	8:T:131:ASN:OD1	2.37	0.58
1:A:1225:PHE:CE2	1:A:1227:ILE:HD11	2.39	0.58
1:A:157:ASP:OD2	1:A:160:GLN:HG3	2.03	0.58
1:A:219:PHE:CE2	1:A:231:PRO:HD2	2.39	0.58
2:B:527:THR:OG1	2:B:528:PRO:HD2	2.03	0.58
2:B:756:ILE:O	2:B:759:PRO:HD3	2.04	0.58
4:D:161:GLY:O	4:D:165:GLN:HG3	2.03	0.58
1:M:1118:VAL:O	1:M:1305:VAL:HG13	2.04	0.58
1:M:89:PRO:HB2	1:M:204:THR:CG2	2.33	0.58
1:M:308:ILE:HG22	1:M:309:ALA:N	2.16	0.58
1:M:886:ILE:HG23	1:M:887:GLY:N	2.19	0.58
1:M:351:THR:CG2	2:N:1103:ILE:HG13	2.33	0.58
2:N:664:THR:HG23	2:N:678:GLU:N	2.19	0.58
1:M:472:LEU:HD11	2:N:835:GLN:NE2	2.18	0.58
2:N:957:ASN:O	2:N:959:ASP:N	2.36	0.58
2:N:975:GLN:HG2	2:N:976:ILE:H	1.68	0.58
3:O:238:ILE:HG23	3:O:242:GLN:HB2	1.85	0.58
8:T:143:LEU:HD12	8:T:143:LEU:N	2.19	0.58
2:N:824:ILE:HG12	10:V:48:ARG:NH1	2.17	0.58
1:A:886:ILE:HG23	1:A:887:GLY:N	2.19	0.58
2:B:205:ILE:N	2:B:205:ILE:HD12	2.18	0.58
2:B:313:MET:O	2:B:316:PRO:HD2	2.03	0.58
2:B:70:ILE:H	2:B:429:PHE:HE1	1.51	0.58
2:B:865:LYS:HG2	2:B:961:LEU:HD21	1.85	0.58
9:I:92:ARG:HG2	9:I:93:LYS:HE2	1.84	0.58
1:M:1166:ASP:HA	1:M:1169:ILE:HD12	1.85	0.58
1:M:344:ARG:HB3	1:M:344:ARG:NH1	2.14	0.58
10:V:14:VAL:HG12	10:V:14:VAL:O	2.01	0.58
1:A:883:LEU:HD23	1:A:1021:LEU:HD13	1.86	0.58
2:B:110:HIS:HB3	12:L:54:ARG:HH22	1.69	0.58
2:B:102:VAL:HG22	2:B:112:LEU:HD22	1.86	0.58
1:A:78:PRO:HA	2:B:1201:LYS:HZ2	1.68	0.58
2:B:251:ILE:HG22	2:B:251:ILE:O	2.04	0.58
2:B:846:ILE:CG2	2:B:974:PRO:HG2	2.32	0.58
1:A:567:LYS:NZ	8:H:43:ASN:HB3	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:95:TYR:HE2	8:H:97:MET:HG3	1.68	0.58
9:I:55:THR:HG23	9:I:100:PHE:CD2	2.38	0.58
1:M:500:GLU:OE2	2:N:1145:SER:HB2	2.03	0.58
2:N:120:ARG:NH1	12:X:54:ARG:NH1	2.52	0.58
2:N:361:LEU:HD21	2:N:377:PHE:HD2	1.69	0.58
2:N:244:LEU:HD21	2:N:366:GLN:HE21	1.68	0.58
2:N:46:GLN:HG3	2:N:47:GLN:H	1.68	0.58
1:A:1259:MET:CE	1:A:1263:ILE:HG13	2.34	0.58
2:B:1161:HIS:NE2	2:B:1175:LEU:HD21	2.19	0.58
2:B:613:VAL:HG13	2:B:628:THR:HA	1.85	0.58
2:B:763:GLN:HG2	2:B:765:PRO:HD2	1.84	0.58
2:B:916:THR:HB	2:B:935:ARG:HD2	1.86	0.58
5:E:128:PRO:HA	5:E:129:PRO:C	2.23	0.58
7:G:15:PRO:HA	7:G:18:PHE:CE1	2.39	0.58
8:H:15:VAL:HG22	8:H:26:ILE:HG13	1.86	0.58
1:M:1342:GLU:CG	5:Q:198:ILE:HD13	2.33	0.58
1:M:689:LYS:HE2	1:M:721:PHE:CE2	2.39	0.58
4:P:25:ALA:HB1	4:P:196:PRO:HG2	1.86	0.58
4:P:216:ASN:C	4:P:218:GLU:N	2.54	0.58
4:P:52:LEU:HD21	4:P:147:TYR:CE2	2.38	0.58
7:S:138:THR:HG22	7:S:139:ILE:H	1.69	0.58
7:S:94:CYS:O	7:S:94:CYS:SG	2.59	0.58
8:T:82:PRO:O	8:T:84:ALA:N	2.35	0.58
10:V:16:ASP:OD1	10:V:17:LYS:N	2.36	0.58
1:A:71:GLN:C	1:A:73:GLY:H	2.06	0.58
2:B:1096:ARG:O	2:B:1097:HIS:CB	2.51	0.58
2:B:185:THR:H	2:B:188:ASP:HB2	1.69	0.58
5:E:204:THR:HG23	5:E:205:SER:N	2.19	0.58
5:E:212:ARG:HH11	5:E:212:ARG:HG3	1.69	0.58
5:E:69:ILE:HD12	5:E:69:ILE:H	1.69	0.58
10:J:23:ASN:O	10:J:25:LEU:N	2.37	0.58
12:L:27:LEU:HD13	12:L:37:LYS:HD2	1.86	0.58
1:M:1227:ILE:HG22	1:M:1228:TRP:H	1.69	0.58
1:M:67:CYS:C	1:M:68:GLN:HG3	2.24	0.58
2:N:273:LEU:HB2	2:N:276:ILE:HD12	1.86	0.58
6:R:75:PRO:O	6:R:77:ASP:O	2.22	0.58
1:A:492:PRO:HB2	1:A:497:THR:HG22	1.84	0.58
2:B:359:GLU:O	2:B:362:PRO:HD3	2.04	0.58
3:C:241:ASP:O	3:C:245:VAL:HG23	2.04	0.58
5:E:207:ARG:HH11	5:E:207:ARG:HB3	1.69	0.58
2:N:1084:GLN:NE2	2:N:1084:GLN:N	2.52	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1183:LYS:CE	2:N:1183:LYS:N	2.67	0.58
2:N:284:ILE:HD13	2:N:333:PHE:CD2	2.39	0.58
2:N:293:PRO:HD2	2:N:296:GLU:OE1	2.03	0.58
2:N:98:THR:O	2:N:126:SER:HB2	2.03	0.58
3:O:43:THR:CG2	3:O:44:LEU:N	2.67	0.58
5:Q:50:MET:HG2	5:Q:52:ARG:NH2	2.19	0.58
12:X:34:CYS:CB	12:X:51:CYS:HG	2.17	0.58
1:A:1095:THR:HG21	1:A:1112:LYS:HB2	1.86	0.57
1:A:1173:HIS:ND1	1:A:1173:HIS:O	2.37	0.57
1:A:1437:GLY:O	1:A:1439:GLY:N	2.37	0.57
1:A:278:THR:O	1:A:278:THR:HG22	2.04	0.57
2:B:1056:SER:HB3	2:B:1066:SER:OG	2.02	0.57
2:B:638:PHE:HB3	2:B:651:LEU:HD22	1.86	0.57
7:G:52:ASP:C	7:G:53:ASN:HD22	2.07	0.57
8:H:40:LEU:HD23	8:H:42:ILE:CD1	2.34	0.57
1:M:34:LYS:HB2	1:M:36:ARG:CZ	2.34	0.57
1:M:493:GLN:HE21	1:M:493:GLN:CA	2.16	0.57
2:N:235:SER:O	2:N:236:HIS:HD2	1.87	0.57
3:O:73:GLN:HE21	3:O:75:MET:N	1.99	0.57
12:X:47:ARG:HD3	12:X:52:GLY:HA2	1.86	0.57
1:A:311:GLN:O	1:A:313:GLN:N	2.36	0.57
1:A:470:LEU:CD2	1:A:470:LEU:N	2.67	0.57
1:A:720:ARG:O	1:A:724:GLU:HB3	2.03	0.57
2:B:129:PHE:HA	2:B:165:VAL:O	2.05	0.57
2:B:508:LEU:N	14:2:1:DA:O5'	2.28	0.57
2:B:604:ARG:NH2	2:B:614:SER:HA	2.19	0.57
2:B:654:ARG:HG3	2:B:654:ARG:HH11	1.67	0.57
3:C:243:VAL:HG12	3:C:243:VAL:O	2.03	0.57
3:C:39:ALA:O	3:C:164:ALA:HB3	2.04	0.57
4:D:202:ILE:CG2	4:D:207:LEU:HB2	2.34	0.57
4:D:209:ARG:HA	4:D:212:LYS:CE	2.34	0.57
4:D:50:LEU:HD11	7:G:4:ILE:HD11	1.85	0.57
5:E:78:LEU:HB2	5:E:107:THR:HB	1.86	0.57
7:G:137:ILE:CG2	7:G:143:ILE:HD11	2.34	0.57
9:I:84:VAL:HG13	9:I:84:VAL:O	2.04	0.57
2:N:1172:ILE:O	2:N:1172:ILE:HG22	2.02	0.57
2:N:880:THR:HG21	2:N:934:LYS:HE3	1.86	0.57
3:O:37:MET:HE1	3:O:232:VAL:HG22	1.86	0.57
4:P:130:LEU:HD11	4:P:142:LYS:HA	1.86	0.57
8:T:44:VAL:HG12	8:T:44:VAL:O	2.03	0.57
12:X:60:ARG:HG2	12:X:61:THR:H	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1242:VAL:CG1	1:A:1243:VAL:N	2.67	0.57
1:A:523:ILE:HG13	1:A:622:VAL:HG22	1.86	0.57
2:B:1115:THR:HG22	2:B:1117:GLN:HB2	1.85	0.57
2:B:911:ILE:HD11	2:B:941:LEU:CD1	2.33	0.57
5:E:62:ALA:HB3	5:E:78:LEU:HD22	1.86	0.57
8:H:143:LEU:N	8:H:143:LEU:HD12	2.20	0.57
1:M:440:ASP:O	1:M:460:VAL:HG23	2.04	0.57
1:M:549:MET:HE1	1:M:656:TRP:HD1	1.70	0.57
2:N:1008:PRO:HB3	2:N:1087:PHE:HE2	1.69	0.57
2:N:390:LEU:HD13	2:N:392:ARG:NH2	2.19	0.57
2:N:398:ARG:HB3	2:N:398:ARG:HH11	1.70	0.57
2:N:638:PHE:HD2	2:N:690:VAL:HG12	1.69	0.57
2:N:824:ILE:CG1	10:V:48:ARG:HH12	2.15	0.57
3:O:44:LEU:HD21	3:O:159:ALA:HB1	1.86	0.57
3:O:11:ARG:HH12	3:O:205:LYS:HZ3	1.51	0.57
5:Q:153:HIS:O	5:Q:154:ILE:CG1	2.48	0.57
8:T:106:GLU:HA	8:T:112:ILE:HD12	1.84	0.57
1:A:1438:THR:HG23	6:F:92:ARG:HB2	1.86	0.57
1:A:202:LEU:HB3	1:A:207:ILE:HD11	1.85	0.57
1:A:335:ARG:O	1:A:339:ASN:HB2	2.03	0.57
1:A:378:GLU:OE1	1:A:434:ARG:HD3	2.05	0.57
2:B:758:PHE:CE1	2:B:1027:ILE:HG22	2.39	0.57
2:B:470:LYS:C	2:B:472:ALA:N	2.57	0.57
3:C:11:ARG:HH12	3:C:205:LYS:HZ3	1.52	0.57
1:A:1340:GLY:HA2	5:E:183:PRO:HD2	1.85	0.57
9:I:58:VAL:HG12	9:I:58:VAL:O	2.05	0.57
1:M:107:CYS:CA	1:M:171:GLN:HE22	2.17	0.57
2:N:276:ILE:O	2:N:276:ILE:HG22	2.02	0.57
2:N:282:ILE:O	2:N:286:PHE:HD1	1.88	0.57
2:N:773:MET:CE	2:N:985:GLY:HA2	2.35	0.57
1:M:369:SER:HB3	11:W:2:ASN:OD1	2.04	0.57
2:B:31:TRP:CE3	2:B:34:ILE:HD12	2.39	0.57
2:B:58:THR:O	2:B:62:ILE:HG13	2.04	0.57
2:B:998:ASP:OD1	3:C:35:ARG:NH2	2.37	0.57
3:C:32:SER:O	3:C:36:VAL:HG23	2.05	0.57
5:E:158:SER:O	5:E:162:ARG:HD3	2.04	0.57
1:M:993:LEU:HD22	1:M:1046:LEU:CD2	2.34	0.57
1:M:1100:ARG:HH21	1:M:1351:GLU:CG	2.18	0.57
2:N:189:LEU:HA	2:N:192:LEU:HD12	1.87	0.57
2:N:526:GLU:HG3	2:N:771:SER:HB3	1.85	0.57
2:N:806:THR:H	2:N:809:MET:HE3	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:797:TYR:HE1	2:N:854:LEU:HD23	1.69	0.57
3:O:36:VAL:CG2	3:O:251:LEU:HD13	2.35	0.57
4:P:154:PHE:HZ	4:P:214:LEU:HD11	1.69	0.57
5:Q:99:HIS:CE1	5:Q:103:LYS:HG3	2.39	0.57
6:R:111:LEU:C	6:R:113:GLY:H	2.07	0.57
7:S:136:VAL:HG12	7:S:136:VAL:O	2.04	0.57
10:V:23:ASN:O	10:V:25:LEU:N	2.37	0.57
2:B:552:MET:CE	2:B:552:MET:HA	2.34	0.57
2:B:862:GLN:HG2	2:B:963:PHE:CD1	2.36	0.57
4:D:13:ARG:C	4:D:15:LEU:H	2.06	0.57
6:F:119:ARG:CG	6:F:119:ARG:NH1	2.68	0.57
8:H:15:VAL:HG22	8:H:26:ILE:CG1	2.34	0.57
1:M:61:ILE:HG22	1:M:62:ASP:H	1.69	0.57
1:M:973:ILE:CD1	1:M:1037:LEU:HA	2.34	0.57
2:N:313:MET:SD	2:N:390:LEU:HD21	2.45	0.57
2:N:470:LYS:C	2:N:472:ALA:N	2.57	0.57
2:N:211:VAL:O	2:N:480:SER:HA	2.03	0.57
2:N:120:ARG:HH11	12:X:54:ARG:HH11	1.53	0.57
1:A:1118:VAL:O	1:A:1305:VAL:HG13	2.05	0.57
1:A:41:MET:HB2	1:A:48:ALA:O	2.05	0.57
2:B:29:ASP:HB3	2:B:658:ILE:HD13	1.87	0.57
2:B:315:LYS:N	2:B:316:PRO:HD2	2.19	0.57
2:B:570:VAL:HG21	2:B:573:GLN:CD	2.25	0.57
1:M:1121:GLU:HB3	1:M:1124:HIS:NE2	2.20	0.57
1:M:129:LYS:O	1:M:130:ASP:CB	2.52	0.57
1:M:567:LYS:HZ1	8:T:46:LEU:HB2	1.68	0.57
1:M:979:SER:OG	1:M:980:ASP:N	2.37	0.57
2:N:100:PRO:HB2	2:N:180:TYR:HE1	1.69	0.57
2:N:1177:HIS:HB3	2:N:1179:GLN:NE2	2.19	0.57
2:N:408:LEU:N	2:N:408:LEU:HD12	2.20	0.57
7:S:125:SER:OG	7:S:128:PRO:HA	2.05	0.57
1:A:427:GLN:HG3	1:A:430:TRP:CE2	2.39	0.57
2:B:980:PHE:CE2	2:B:1094:ARG:HG3	2.39	0.57
4:D:204:ASP:O	4:D:208:GLU:HB2	2.04	0.57
1:M:523:ILE:CG1	1:M:622:VAL:HG22	2.35	0.57
2:N:857:ARG:HH21	2:N:942:ARG:NH2	2.03	0.57
4:P:195:ILE:O	4:P:198:LEU:HG	2.03	0.57
1:A:1268:LEU:O	1:A:1269:GLU:HG3	2.05	0.57
1:A:401:GLY:C	1:A:435:HIS:HD2	2.07	0.57
1:A:34:LYS:NZ	1:A:57:ARG:NH2	2.53	0.57
1:A:709:THR:HB	1:A:712:GLU:HG3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:888:GLY:O	1:A:940:ARG:NH2	2.38	0.57
2:B:653:VAL:CG2	2:B:689:LEU:HB3	2.34	0.57
2:B:402:GLY:HA2	2:B:695:ALA:HB3	1.86	0.57
3:C:238:ILE:HD11	3:C:246:ARG:NH1	2.19	0.57
4:D:144:THR:O	4:D:148:LEU:HB2	2.05	0.57
8:H:7:ASP:O	8:H:8:ASP:HB2	2.05	0.57
9:I:111:THR:CG2	9:I:113:ASP:HB2	2.34	0.57
1:M:1294:PRO:HG2	1:M:1295:THR:HG22	1.86	0.57
1:M:49:LYS:HE2	1:M:61:ILE:HD12	1.86	0.57
2:N:39:ARG:NH2	2:N:665:GLU:CG	2.68	0.57
2:N:580:VAL:HG22	2:N:624:LEU:HB3	1.87	0.57
2:N:642:ASP:HA	2:N:649:LYS:HG3	1.86	0.57
2:N:794:ASN:C	2:N:795:ILE:HD12	2.25	0.57
7:S:106:MET:CG	7:S:107:LYS:N	2.67	0.57
1:A:556:TRP:CZ2	1:A:558:GLY:HA2	2.40	0.57
2:B:639:ILE:HD11	2:B:691:GLU:HB2	1.87	0.57
4:D:130:LEU:C	4:D:132:GLN:H	2.08	0.57
6:F:111:LEU:N	6:F:111:LEU:CD1	2.67	0.57
6:F:79:ARG:HG3	6:F:144:GLU:OE1	2.04	0.57
8:H:81:PRO:HB2	8:H:82:PRO:HD2	1.84	0.57
12:L:52:GLY:O	12:L:53:HIS:C	2.43	0.57
1:M:152:VAL:HG13	1:M:153:PRO:HD2	1.87	0.57
1:M:93:VAL:CG1	1:M:301:ALA:HB1	2.35	0.57
3:O:184:ASN:HD21	3:O:189:THR:HB	1.70	0.57
4:P:209:ARG:HG2	4:P:209:ARG:HH11	1.69	0.57
8:T:4:THR:HG22	8:T:5:LEU:N	2.20	0.57
1:A:42:ASP:HA	1:A:46:THR:O	2.05	0.56
2:B:167:ILE:HA	2:B:450:ALA:HB2	1.87	0.56
2:B:618:ASP:CG	2:B:621:GLU:HB3	2.25	0.56
5:E:100:ILE:CG2	5:E:105:PHE:HB2	2.35	0.56
5:E:55:ARG:HG3	5:E:55:ARG:HH11	1.70	0.56
10:J:36:LEU:HB2	10:J:47:ARG:HH12	1.70	0.56
1:M:699:ALA:HB3	1:M:701:LEU:HG	1.87	0.56
2:N:254:LEU:HD23	2:N:381:MET:HE1	1.86	0.56
2:N:313:MET:CE	2:N:386:LEU:HD22	2.35	0.56
1:A:1237:ILE:HG22	1:A:1238:ILE:N	2.20	0.56
1:A:492:PRO:CB	1:A:497:THR:HG22	2.34	0.56
1:A:898:ARG:HD2	1:A:899:VAL:H	1.70	0.56
2:B:508:LEU:O	2:B:509:ALA:HB3	2.05	0.56
3:C:70:ILE:HG12	3:C:142:VAL:HG11	1.86	0.56
12:L:55:ILE:HG12	12:L:56:LEU:N	2.13	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:810:GLU:HB2	2:N:815:ARG:NH2	2.19	0.56
2:N:1084:GLN:HG2	3:O:201:TRP:CZ2	2.40	0.56
4:P:155:ARG:CB	4:P:155:ARG:NH1	2.68	0.56
7:G:151:ILE:HG12	7:S:114:LEU:HD12	1.86	0.56
7:S:14:HIS:CD2	7:S:16:SER:H	2.23	0.56
8:T:104:PHE:CE2	8:T:136:LYS:HG3	2.40	0.56
1:A:475:THR:CG2	1:A:476:SER:N	2.67	0.56
2:B:336:ARG:HG3	2:B:336:ARG:HH11	1.70	0.56
3:C:148:ARG:N	3:C:151:GLN:HG3	2.19	0.56
4:D:14:ARG:HH12	4:D:16:LYS:NZ	2.04	0.56
1:M:1259:MET:HE3	1:M:1263:ILE:HG13	1.86	0.56
1:M:311:GLN:O	1:M:313:GLN:N	2.38	0.56
4:P:155:ARG:NE	4:P:221:TYR:HE1	2.04	0.56
4:P:13:ARG:C	4:P:15:LEU:H	2.07	0.56
5:Q:145:THR:HG21	5:Q:187:TYR:CD2	2.40	0.56
5:Q:19:VAL:HG22	5:Q:140:LEU:HD12	1.87	0.56
9:U:50:THR:HG22	9:U:52:ILE:N	2.19	0.56
1:A:256:GLN:O	1:A:257:ARG:HB2	2.04	0.56
1:A:382:PRO:HA	1:A:428:TYR:HE2	1.69	0.56
1:A:441:PRO:HG3	1:A:498:ARG:HB2	1.88	0.56
1:A:541:ILE:CD1	1:A:549:MET:HE1	2.22	0.56
1:A:666:ILE:HD12	1:A:666:ILE:N	2.20	0.56
2:B:957:ASN:O	2:B:959:ASP:N	2.38	0.56
3:C:177:GLU:CG	3:C:231:ASN:HB3	2.21	0.56
7:G:128:PRO:O	7:G:138:THR:HG23	2.04	0.56
8:H:104:PHE:CE2	8:H:136:LYS:HG3	2.40	0.56
1:M:1436:ILE:O	1:M:1437:GLY:C	2.43	0.56
1:M:500:GLU:OE2	1:M:1438:THR:HG21	2.05	0.56
1:M:786:HIS:N	1:M:786:HIS:CD2	2.73	0.56
2:N:345:LYS:CE	2:N:349:ILE:HD11	2.35	0.56
5:Q:22:MET:HE3	5:Q:26:ARG:NE	2.19	0.56
5:Q:79:TRP:HE1	5:Q:81:GLU:HB2	1.71	0.56
6:R:69:LEU:HD13	6:R:71:GLU:OE1	2.04	0.56
3:O:259:LEU:HD21	11:W:91:CYS:HB3	1.87	0.56
1:A:830:LYS:HE3	1:A:1081:LEU:HD12	1.86	0.56
1:A:1316:VAL:HG12	1:A:1316:VAL:O	2.05	0.56
2:B:1007:VAL:CG2	2:B:1008:PRO:HD2	2.33	0.56
2:B:497:ARG:NH2	2:B:775:LYS:HZ3	2.04	0.56
2:B:731:VAL:HG12	2:B:732:SER:N	2.20	0.56
3:C:148:ARG:H	3:C:151:GLN:HG3	1.70	0.56
4:D:56:ARG:HA	4:D:148:LEU:HD13	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:216:ASN:C	4:D:218:GLU:N	2.57	0.56
5:E:112:TYR:CE1	5:E:136:ASN:HA	2.40	0.56
1:M:853:ASP:OD1	1:M:855:THR:CB	2.52	0.56
1:M:99:ILE:HG23	1:M:211:PHE:CE2	2.41	0.56
2:N:434:ARG:O	2:N:436:VAL:HG23	2.05	0.56
2:N:898:LEU:HD13	2:N:952:VAL:HG11	1.87	0.56
3:O:213:PRO:O	3:O:214:ASN:HB3	2.06	0.56
1:A:1142:THR:O	1:A:1145:SER:OG	2.19	0.56
1:A:268:ASP:HB3	1:A:299:HIS:CE1	2.41	0.56
1:A:43:GLU:CG	1:A:46:THR:HB	2.31	0.56
1:A:744:LYS:HG2	1:A:748:MET:CE	2.36	0.56
2:B:288:ALA:HB1	2:B:331:LEU:CD1	2.32	0.56
2:B:842:ASN:ND2	2:B:845:SER:OG	2.37	0.56
3:C:215:GLU:O	3:C:216:GLY:C	2.44	0.56
4:D:12:ARG:HH11	4:D:12:ARG:HG2	1.71	0.56
1:M:1130:GLN:O	1:M:1134:ILE:HG13	2.05	0.56
1:M:710:LEU:HD22	9:U:96:SER:HA	1.88	0.56
1:M:962:ARG:O	1:M:964:ILE:N	2.39	0.56
2:N:313:MET:HE3	2:N:386:LEU:HD22	1.88	0.56
2:N:430:ARG:HB3	2:N:434:ARG:NH2	2.21	0.56
2:N:167:ILE:HA	2:N:450:ALA:HB2	1.87	0.56
2:N:614:SER:HB2	2:N:697:GLU:OE1	2.05	0.56
3:O:174:ALA:O	3:O:175:ALA:HB3	2.06	0.56
4:P:154:PHE:CE2	4:P:218:GLU:HA	2.40	0.56
1:M:852:TYR:CD1	6:R:136:ARG:HB3	2.40	0.56
2:N:848:ARG:HD3	10:V:11:GLY:HA2	1.86	0.56
1:A:1255:GLU:HG2	1:A:1258:HIS:HB2	1.86	0.56
1:A:195:ASP:O	1:A:196:GLU:HB3	2.05	0.56
2:B:240:ILE:HG21	2:B:381:MET:HE1	1.88	0.56
2:B:594:ALA:HB2	2:B:617:ARG:HH12	1.71	0.56
2:B:805:THR:HG23	2:B:809:MET:SD	2.45	0.56
3:C:181:ASP:CG	3:C:186:LEU:HD13	2.25	0.56
4:D:155:ARG:NE	4:D:221:TYR:CE1	2.74	0.56
1:M:1195:LEU:HD11	1:M:1267:MET:HE3	1.87	0.56
1:M:283:GLY:O	1:M:285:PRO:CD	2.53	0.56
1:M:401:GLY:CA	1:M:435:HIS:HD2	2.19	0.56
1:M:883:LEU:HD11	1:M:1017:LEU:HD11	1.86	0.56
2:N:115:GLN:HG2	2:N:193:LYS:CB	2.36	0.56
2:N:247:GLY:C	2:N:249:ARG:H	2.08	0.56
2:N:361:LEU:O	2:N:363:HIS:O	2.24	0.56
2:N:486:TYR:N	2:N:486:TYR:CD2	2.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:613:VAL:HG13	2:N:628:THR:HA	1.86	0.56
3:O:44:LEU:HD21	3:O:159:ALA:CB	2.36	0.56
5:Q:124:VAL:HB	5:Q:125:PRO:HD3	1.87	0.56
5:Q:28:TYR:CE1	5:Q:78:LEU:HD13	2.41	0.56
5:Q:28:TYR:HE1	5:Q:78:LEU:HD13	1.71	0.56
8:T:59:ILE:CG2	8:T:60:ALA:N	2.64	0.56
11:W:55:LYS:HB2	11:W:81:TYR:CE1	2.41	0.56
2:B:1180:PHE:HB3	2:B:1191:ILE:HD13	1.87	0.56
1:A:10:PRO:HG2	2:B:1192:TYR:HD2	1.71	0.56
2:B:434:ARG:O	2:B:436:VAL:HG23	2.05	0.56
2:B:640:VAL:HG12	2:B:640:VAL:O	2.04	0.56
7:G:45:ILE:HA	7:G:78:VAL:HG12	1.87	0.56
11:K:50:LEU:HD11	11:K:75:ILE:CD1	2.35	0.56
1:M:598:LEU:HD23	8:T:25:ARG:NH1	2.20	0.56
1:M:929:LEU:HD21	1:M:983:ILE:HG21	1.87	0.56
2:N:560:GLU:O	2:N:561:TRP:CD1	2.59	0.56
2:N:638:PHE:HB3	2:N:651:LEU:HD22	1.88	0.56
6:R:69:LEU:HB3	6:R:71:GLU:CD	2.26	0.56
2:B:361:LEU:O	2:B:363:HIS:O	2.24	0.56
2:B:801:LYS:O	10:J:52:THR:HG23	2.05	0.56
2:B:842:ASN:HD22	2:B:845:SER:N	2.03	0.56
2:B:865:LYS:NZ	2:B:869:SER:HA	2.21	0.56
5:E:46:TYR:CD2	5:E:58:MET:HG2	2.41	0.56
8:H:80:ARG:HD2	8:H:87:ARG:HH22	1.71	0.56
1:M:1173:HIS:O	1:M:1173:HIS:ND1	2.39	0.56
1:M:367:PRO:HG2	1:M:370:ILE:HD12	1.88	0.56
1:M:593:GLU:C	1:M:595:THR:H	2.09	0.56
1:M:666:ILE:O	1:M:670:ILE:HD13	2.06	0.56
1:M:993:LEU:HD23	1:M:1022:LEU:HD21	1.88	0.56
2:N:424:LEU:O	2:N:428:ILE:HG13	2.05	0.56
2:N:508:LEU:O	2:N:509:ALA:HB3	2.06	0.56
3:O:179:GLU:HG2	3:O:180:TYR:N	2.21	0.56
1:A:1241:ARG:O	1:A:1242:VAL:CB	2.53	0.56
1:A:401:GLY:CA	1:A:435:HIS:HD2	2.18	0.56
1:A:608:ILE:HG13	1:A:613:ILE:HD12	1.88	0.56
2:B:247:GLY:C	2:B:249:ARG:H	2.09	0.56
2:B:679:TYR:CE1	2:B:683:SER:HB2	2.41	0.56
3:C:99:LEU:CD2	3:C:99:LEU:N	2.68	0.56
5:E:136:ASN:OD1	5:E:138:ALA:N	2.39	0.56
1:M:981:LEU:CD2	1:M:1039:LYS:HA	2.35	0.56
1:M:1207:LEU:HD13	1:M:1273:LEU:HD23	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:360:GLU:HB2	1:M:363:GLN:HG3	1.88	0.56
1:M:535:THR:HG21	1:M:617:VAL:N	2.21	0.56
1:M:672:ASP:CB	1:M:736:ASN:HD21	2.14	0.56
2:N:365:THR:HG21	2:N:370:PHE:CG	2.41	0.56
2:N:796:LEU:HD21	2:N:821:GLN:HE21	1.70	0.56
7:G:117:GLN:HE21	7:S:153:GLN:HG3	1.71	0.56
7:S:55:ASP:OD1	7:S:57:GLN:HG3	2.06	0.56
8:T:101:ALA:HB2	8:T:116:TYR:CE2	2.41	0.56
8:T:7:ASP:O	8:T:8:ASP:HB2	2.06	0.56
1:A:427:GLN:O	1:A:428:TYR:C	2.43	0.56
1:A:547:LEU:HD21	1:A:560:ILE:HD13	1.89	0.56
1:A:738:LYS:H	1:A:738:LYS:HD3	1.71	0.56
1:A:834:THR:HG22	1:A:835:GLY:N	2.21	0.56
2:B:1167:GLY:HA3	2:B:1216:LEU:H	1.70	0.56
3:C:166:GLU:CG	11:K:10:PHE:HZ	2.19	0.56
6:F:97:ARG:NH2	6:F:108:PHE:CE1	2.73	0.56
7:G:114:LEU:HG	7:G:162:SER:HB3	1.88	0.56
9:I:74:GLU:HB3	9:I:81:ARG:NE	2.21	0.56
11:K:93:SER:O	11:K:97:LYS:HG3	2.05	0.56
12:L:68:GLU:CD	12:L:68:GLU:H	2.10	0.56
1:M:1277:GLU:C	1:M:1279:ILE:H	2.09	0.56
1:M:836:TYR:CE2	1:M:840:ARG:HD2	2.40	0.56
2:N:1180:PHE:HB3	2:N:1191:ILE:HD13	1.88	0.56
2:N:227:LYS:H	2:N:395:GLN:CD	2.08	0.56
2:N:278:GLN:HG2	2:N:279:ASP:H	1.70	0.56
3:O:215:GLU:O	3:O:216:GLY:C	2.45	0.56
4:P:202:ILE:HD13	4:P:207:LEU:HB2	1.87	0.56
4:P:56:ARG:HH11	4:P:56:ARG:HG2	1.71	0.56
5:Q:79:TRP:HB2	5:Q:105:PHE:CE1	2.41	0.56
1:A:993:LEU:HD21	1:A:1049:ILE:HG21	1.87	0.55
2:B:126:SER:CB	2:B:172:ILE:HD11	2.36	0.55
2:B:240:ILE:HG23	2:B:254:LEU:HB3	1.88	0.55
2:B:300:HIS:O	2:B:303:TYR:HE2	1.88	0.55
2:B:430:ARG:CB	2:B:430:ARG:HH11	2.15	0.55
2:B:899:ILE:CG2	2:B:949:VAL:HG21	2.36	0.55
4:D:12:ARG:NH1	4:D:12:ARG:HG2	2.19	0.55
8:H:40:LEU:HD12	8:H:123:MET:CB	2.35	0.55
8:H:51:ALA:O	8:H:52:GLN:HB2	2.05	0.55
3:C:248:ILE:CD1	11:K:101:LEU:HD22	2.36	0.55
1:M:852:TYR:CD2	1:M:1060:PRO:CB	2.89	0.55
1:M:1220:PHE:O	1:M:1221:LYS:HB2	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:23:SER:HB3	1:M:233:TRP:CZ2	2.42	0.55
1:M:547:LEU:HD22	11:W:58:PHE:CE1	2.42	0.55
1:M:65:LEU:O	1:M:66:LYS:C	2.43	0.55
2:N:766:ARG:NH2	2:N:1020:ARG:HD3	2.20	0.55
2:N:398:ARG:CB	2:N:398:ARG:HH11	2.18	0.55
4:P:154:PHE:HE1	4:P:163:VAL:HG11	1.71	0.55
4:P:71:LYS:CG	4:P:74:GLN:HE21	2.19	0.55
7:S:21:ARG:HD2	7:S:24:GLN:HB2	1.89	0.55
8:T:81:PRO:HB3	8:T:82:PRO:HD2	1.86	0.55
12:X:52:GLY:O	12:X:53:HIS:C	2.44	0.55
15:6:5:C:H2'	15:6:6:A:C8	2.40	0.55
1:A:148:CYS:HB3	1:A:167:CYS:O	2.05	0.55
1:A:65:LEU:O	1:A:66:LYS:C	2.44	0.55
1:A:855:THR:CG2	1:A:857:ARG:HG3	2.36	0.55
2:B:102:VAL:HG13	2:B:958:GLN:HE21	1.71	0.55
2:B:549:THR:CG2	2:B:550:ASP:N	2.68	0.55
2:B:911:ILE:HG21	2:B:966:VAL:HG11	1.88	0.55
2:B:950:ASP:HB3	2:B:967:ARG:O	2.07	0.55
8:H:123:MET:HG2	8:H:124:ARG:N	2.20	0.55
10:J:36:LEU:HD12	10:J:47:ARG:NH1	2.20	0.55
1:M:427:GLN:O	1:M:428:TYR:C	2.44	0.55
1:M:42:ASP:HB3	1:M:45:GLN:HA	1.87	0.55
1:M:768:GLN:HG2	1:M:816:HIS:CA	2.34	0.55
2:N:118:ARG:HH11	2:N:204:ILE:HD11	1.70	0.55
2:N:48:LEU:HD23	2:N:173:MET:SD	2.47	0.55
2:N:235:SER:C	2:N:236:HIS:HD2	2.09	0.55
2:N:39:ARG:HH21	2:N:665:GLU:CG	2.19	0.55
4:P:130:LEU:C	4:P:132:GLN:H	2.10	0.55
4:P:155:ARG:CB	4:P:155:ARG:HH11	2.19	0.55
4:P:15:LEU:O	4:P:17:LYS:HG3	2.06	0.55
5:Q:204:THR:HG23	5:Q:205:SER:N	2.22	0.55
5:Q:16:PHE:CE2	5:Q:20:LYS:HE2	2.41	0.55
7:S:9:LEU:HD12	7:S:10:ASN:H	1.71	0.55
11:W:47:ARG:HD3	11:W:59:ALA:O	2.06	0.55
12:X:30:ILE:HG22	12:X:31:CYS:N	2.21	0.55
1:A:1291:VAL:HG22	1:A:1292:PRO:HD2	1.88	0.55
1:A:666:ILE:O	1:A:670:ILE:HD13	2.06	0.55
1:A:528:LEU:HD23	1:A:751:SER:HA	1.89	0.55
2:B:235:SER:C	2:B:236:HIS:HD2	2.10	0.55
2:B:327:ARG:HH22	2:B:371:GLU:HG2	1.71	0.55
2:B:789:MET:CE	2:B:953:LEU:HD22	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:22:LEU:HD22	3:C:230:MET:HE1	1.87	0.55
12:L:26:THR:HG23	12:L:62:LYS:NZ	2.20	0.55
1:M:42:ASP:HA	1:M:46:THR:O	2.07	0.55
1:M:61:ILE:HG22	1:M:62:ASP:N	2.21	0.55
2:N:347:LYS:HG3	2:N:348:ARG:H	1.72	0.55
2:N:637:LEU:CD2	2:N:742:GLU:HA	2.36	0.55
3:O:116:LYS:HD3	3:O:140:ASN:HA	1.89	0.55
5:Q:128:PRO:HA	5:Q:129:PRO:C	2.26	0.55
5:Q:207:ARG:HB3	5:Q:207:ARG:HH11	1.71	0.55
5:Q:56:LYS:NZ	5:Q:84:ASP:H	2.04	0.55
1:M:567:LYS:HZ3	8:T:43:ASN:HB3	1.69	0.55
9:U:59:VAL:C	9:U:61:ASP:H	2.10	0.55
10:V:27:GLU:C	10:V:29:GLU:H	2.10	0.55
13:4:15:DG:C2'	13:4:16:DT:H71	2.37	0.55
1:A:115:LEU:HG	1:A:142:CYS:HB3	1.89	0.55
1:A:1239:ARG:HH12	1:A:1241:ARG:HH12	1.54	0.55
1:A:1420:ASP:O	1:A:1421:CYS:HB2	2.06	0.55
1:A:154:SER:HB3	1:A:162:VAL:HG21	1.88	0.55
1:A:89:PRO:O	1:A:204:THR:HG21	2.07	0.55
2:B:1124:ARG:NH1	15:3:2:G:OP2	2.37	0.55
2:B:258:LEU:HG	2:B:258:LEU:O	2.05	0.55
2:B:531:GLN:HG2	2:B:532:ALA:H	1.69	0.55
3:C:174:ALA:O	3:C:175:ALA:HB3	2.07	0.55
4:D:220:LEU:HG	4:D:221:TYR:H	1.71	0.55
8:H:11:GLN:C	8:H:28:ALA:HB1	2.26	0.55
9:I:86:PHE:CE1	9:I:100:PHE:HB2	2.41	0.55
1:M:351:THR:HG21	2:N:1103:ILE:HG13	1.89	0.55
1:M:824:LEU:O	1:M:827:THR:HG22	2.06	0.55
2:N:300:HIS:O	2:N:303:TYR:HE2	1.89	0.55
2:N:378:LEU:O	2:N:382:ILE:HG13	2.06	0.55
3:O:36:VAL:HG21	3:O:251:LEU:HB2	1.89	0.55
3:O:51:VAL:HG22	3:O:155:LEU:CD2	2.35	0.55
4:P:4:SER:O	4:P:5:THR:CB	2.53	0.55
12:X:27:LEU:O	12:X:28:LYS:HB2	2.05	0.55
1:A:1171:GLN:OE1	1:A:1172:LEU:HG	2.06	0.55
1:A:1191:TRP:CD1	1:A:1256:GLU:HB2	2.42	0.55
1:A:903:ASN:HD22	1:A:905:ASP:H	1.48	0.55
2:B:1001:PHE:CE1	2:B:1073:TYR:HB2	2.40	0.55
2:B:244:LEU:HD11	2:B:366:GLN:HE22	1.70	0.55
2:B:345:LYS:HG2	2:B:346:GLU:N	2.21	0.55
2:B:657:HIS:CE1	2:B:689:LEU:HD11	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:918:ILE:HG21	2:B:935:ARG:NH2	2.21	0.55
1:M:1095:THR:CG2	1:M:1112:LYS:HB2	2.33	0.55
1:M:1111:MET:HE2	1:M:1114:PRO:HA	1.87	0.55
1:M:1454:MET:O	1:M:1454:MET:HG3	2.07	0.55
1:M:41:MET:HB2	1:M:49:LYS:HA	1.86	0.55
1:M:711:ARG:NH1	9:U:95:THR:HB	2.21	0.55
1:M:858:ASN:ND2	1:M:858:ASN:C	2.54	0.55
2:N:174:LEU:HD22	2:N:202:TYR:CE1	2.41	0.55
2:N:422:LYS:HA	2:N:425:THR:HB	1.87	0.55
2:N:461:LEU:N	2:N:461:LEU:HD12	2.21	0.55
3:O:148:ARG:NH1	10:V:64:ASN:HA	2.22	0.55
3:O:75:MET:HB3	3:O:128:ASN:HB3	1.88	0.55
4:P:155:ARG:NE	4:P:221:TYR:CE1	2.73	0.55
2:N:308:TRP:HB2	9:U:2:THR:HG22	1.89	0.55
1:A:28:ARG:HH21	1:A:238:CYS:HB2	1.71	0.55
1:A:699:ALA:HB3	1:A:701:LEU:HG	1.89	0.55
2:B:115:GLN:HG2	2:B:193:LYS:HB2	1.89	0.55
2:B:836:GLU:O	2:B:837:ASP:HB2	2.05	0.55
11:K:12:LEU:HD12	11:K:37:LYS:CG	2.37	0.55
1:M:2:VAL:CG1	2:N:1157:ALA:O	2.54	0.55
1:M:347:PHE:HE2	1:M:375:THR:CG2	2.19	0.55
1:M:512:VAL:HG12	1:M:512:VAL:O	2.07	0.55
1:M:535:THR:O	1:M:575:LYS:HE3	2.05	0.55
1:M:598:LEU:O	1:M:599:SER:C	2.44	0.55
2:N:731:VAL:HG12	2:N:732:SER:N	2.20	0.55
5:Q:192:ARG:NH1	5:Q:192:ARG:HG3	2.22	0.55
9:U:8:ARG:HG3	9:U:34:TYR:CE1	2.42	0.55
11:W:23:PRO:HA	11:W:31:VAL:HG13	1.89	0.55
1:A:1329:THR:CG2	1:A:1331:SER:H	2.13	0.55
1:A:207:ILE:HG22	1:A:211:PHE:CE2	2.42	0.55
1:A:382:PRO:CA	1:A:428:TYR:HE2	2.20	0.55
1:A:60:SER:OG	1:A:61:ILE:N	2.39	0.55
1:A:639:PRO:HG2	1:A:640:GLN:NE2	2.22	0.55
2:B:165:VAL:HG11	2:B:448:ILE:CD1	2.37	0.55
2:B:860:MET:HG2	2:B:861:ASP:H	1.71	0.55
3:C:73:GLN:HE21	3:C:75:MET:CB	2.19	0.55
1:A:1444:MET:CG	7:G:60:ARG:HA	2.34	0.55
8:H:18:GLY:O	8:H:19:ARG:HB2	2.07	0.55
8:H:12:VAL:HG13	8:H:26:ILE:HG12	1.87	0.55
8:H:89:LEU:HB2	8:H:91:ASP:CG	2.26	0.55
8:H:47:PHE:HB3	8:H:95:TYR:HD1	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:38:LEU:O	12:L:39:SER:HB3	2.06	0.55
1:M:1308:THR:HG21	1:M:1310:GLY:O	2.07	0.55
2:N:364:ILE:CG1	2:N:585:VAL:HG13	2.36	0.55
3:O:22:LEU:HD11	11:W:101:LEU:HD11	1.87	0.55
4:P:56:ARG:HD3	4:P:149:THR:HA	1.89	0.55
13:1:15:DG:C2'	13:1:16:DT:H71	2.37	0.55
1:A:1308:THR:HG21	1:A:1310:GLY:O	2.07	0.55
1:A:323:LYS:H	1:A:323:LYS:HD2	1.72	0.55
1:A:779:PHE:HE1	1:A:785:PRO:HD3	1.65	0.55
1:A:960:ILE:HA	1:A:963:ILE:HG22	1.88	0.55
1:A:337:ARG:HD3	2:B:1132:GLU:CD	2.26	0.55
2:B:579:ARG:HA	2:B:589:VAL:HG13	1.89	0.55
2:B:66:ASP:OD2	2:B:422:LYS:HG2	2.07	0.55
2:B:611:PRO:HB3	2:B:685:LEU:HD11	1.88	0.55
2:B:969:ARG:NH1	3:C:61:GLU:OE1	2.39	0.55
7:G:139:ILE:CG2	7:G:140:LYS:HG3	2.31	0.55
12:L:49:LYS:O	12:L:50:ASP:CB	2.54	0.55
1:M:1155:ASP:OD2	1:M:1161:THR:HA	2.07	0.55
1:M:1348:LEU:O	1:M:1352:VAL:HG23	2.07	0.55
1:M:145:LYS:HA	1:M:145:LYS:CE	2.35	0.55
1:M:836:TYR:CZ	1:M:840:ARG:HD2	2.42	0.55
2:N:770:GLN:OE1	2:N:983:ARG:HA	2.06	0.55
4:P:8:PHE:HD2	7:S:6:ASP:O	1.90	0.55
8:T:11:GLN:C	8:T:28:ALA:HB1	2.26	0.55
1:A:106:VAL:HG12	1:A:107:CYS:N	2.22	0.55
1:A:1313:LEU:HD23	1:A:1338:VAL:HG21	1.88	0.55
2:B:1063:GLY:O	3:C:202:PRO:HG2	2.06	0.55
2:B:637:LEU:HD11	2:B:703:ILE:HD13	1.89	0.55
3:C:114:TYR:CG	3:C:140:ASN:HB3	2.41	0.55
5:E:99:HIS:CE1	5:E:103:LYS:HG3	2.42	0.55
6:F:69:LEU:HB3	6:F:71:GLU:CD	2.27	0.55
7:G:138:THR:CG2	7:G:139:ILE:H	2.19	0.55
9:I:19:ASP:HB3	9:I:24:ARG:HG2	1.88	0.55
9:I:50:THR:HG21	9:I:52:ILE:HG12	1.87	0.55
1:M:1329:THR:HG22	1:M:1335:ILE:HG13	1.88	0.55
1:M:1403:GLU:O	13:4:16:DT:OP1	2.24	0.55
1:M:1438:THR:HB	2:N:1144:ALA:HB3	1.87	0.55
1:M:7:SER:HB3	2:N:1193:GLN:NE2	2.22	0.55
2:N:1197:PRO:O	2:N:1200:ALA:N	2.37	0.55
2:N:38:PHE:CD1	2:N:811:TYR:CD2	2.93	0.55
2:N:637:LEU:HD12	2:N:693:ILE:HD12	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:652:LYS:HB3	2:N:689:LEU:HD23	1.89	0.55
3:O:114:TYR:CG	3:O:140:ASN:HB3	2.42	0.55
7:S:34:VAL:HG13	7:S:45:ILE:HD13	1.89	0.55
1:A:555:ASP:O	1:A:556:TRP:C	2.46	0.55
2:B:1162:ILE:HD13	2:B:1194:ILE:HD13	1.88	0.55
2:B:526:GLU:OE1	2:B:752:ALA:HB3	2.07	0.55
4:D:146:GLN:CA	4:D:149:THR:HG22	2.37	0.55
5:E:155:ARG:HG2	5:E:155:ARG:HH11	1.71	0.55
5:E:156:LEU:HA	5:E:160:GLU:OE1	2.07	0.55
7:G:30:LEU:HD22	7:G:72:VAL:HG11	1.89	0.55
10:J:52:THR:HG22	10:J:52:THR:O	2.07	0.55
1:M:1263:ILE:O	1:M:1267:MET:HG3	2.07	0.55
1:M:850:VAL:HG21	1:M:1058:VAL:HG11	1.88	0.55
1:M:973:ILE:HG22	1:M:973:ILE:O	2.05	0.55
2:N:402:GLY:HA2	2:N:695:ALA:HB3	1.88	0.55
3:O:35:ARG:HH12	11:W:41:THR:H	1.55	0.55
5:Q:111:VAL:HG12	5:Q:137:GLU:HG2	1.87	0.55
5:Q:55:ARG:HA	5:Q:58:MET:HG3	1.88	0.55
5:Q:64:PRO:HB2	5:Q:69:ILE:HD11	1.89	0.55
11:W:93:SER:O	11:W:97:LYS:HG3	2.06	0.55
1:A:1436:ILE:O	1:A:1437:GLY:C	2.45	0.54
1:A:549:MET:CE	1:A:656:TRP:HD1	2.20	0.54
1:A:556:TRP:CH2	1:A:558:GLY:HA2	2.42	0.54
2:B:664:THR:HG1	2:B:678:GLU:N	2.04	0.54
5:E:179:GLN:HB2	5:E:182:ASP:HB2	1.89	0.54
8:H:59:ILE:CG2	8:H:60:ALA:N	2.63	0.54
1:M:1120:LEU:HD22	1:M:1125:ALA:HA	1.89	0.54
1:M:1152:ILE:HD12	1:M:1261:LYS:HE3	1.89	0.54
1:M:1450:LEU:HD11	6:R:108:PHE:HZ	1.71	0.54
1:M:265:LYS:HE2	1:M:268:ASP:OD2	2.07	0.54
1:M:470:LEU:HD23	1:M:470:LEU:N	2.21	0.54
1:M:475:THR:CG2	1:M:476:SER:N	2.69	0.54
1:M:492:PRO:C	1:M:493:GLN:HE21	2.11	0.54
1:M:503:GLN:HE21	6:R:90:ARG:NH2	1.98	0.54
2:N:185:THR:H	2:N:188:ASP:HB2	1.71	0.54
2:N:273:LEU:CB	2:N:276:ILE:HD12	2.37	0.54
2:N:351:TYR:CE1	2:N:355:ILE:HD11	2.42	0.54
2:N:90:ILE:HD12	2:N:432:MET:HE1	1.89	0.54
2:N:613:VAL:HG22	2:N:628:THR:HA	1.89	0.54
2:N:640:VAL:O	2:N:640:VAL:HG12	2.05	0.54
2:N:789:MET:HE2	2:N:953:LEU:HD22	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:207:LEU:O	4:P:207:LEU:HD12	2.06	0.54
7:G:117:GLN:HE22	7:S:154:VAL:HG22	1.69	0.54
9:U:10:CYS:SG	9:U:32:CYS:HB3	2.47	0.54
10:V:52:THR:HG22	10:V:52:THR:O	2.07	0.54
1:A:1116:LEU:HG	1:A:1308:THR:HB	1.89	0.54
1:A:1362:TYR:CD1	1:A:1363:VAL:N	2.75	0.54
1:A:289:ILE:HG22	1:A:290:GLU:N	2.23	0.54
1:A:353:ILE:HD13	1:A:487:MET:HG3	1.89	0.54
2:B:398:ARG:NH1	2:B:398:ARG:CB	2.70	0.54
2:B:848:ARG:HA	3:C:69:LEU:HD21	1.87	0.54
4:D:134:THR:CG2	4:D:135:GLY:N	2.69	0.54
7:G:111:THR:HG22	7:G:114:LEU:HD22	1.88	0.54
12:L:61:THR:HG22	12:L:63:ARG:H	1.72	0.54
1:M:1205:LYS:O	1:M:1207:LEU:HG	2.07	0.54
1:M:441:PRO:HG3	1:M:498:ARG:HB2	1.89	0.54
1:M:475:THR:HG23	1:M:476:SER:N	2.22	0.54
2:N:1147:LEU:HD22	2:N:1151:LEU:HD22	1.88	0.54
2:N:1167:GLY:HA3	2:N:1216:LEU:H	1.70	0.54
2:N:604:ARG:NH1	2:N:691:GLU:OE2	2.38	0.54
2:N:936:ASP:OD1	2:N:937:ALA:N	2.40	0.54
3:O:114:TYR:CD2	3:O:140:ASN:HB3	2.43	0.54
4:P:126:ILE:HD13	4:P:145:MET:HE3	1.89	0.54
5:Q:192:ARG:HG3	5:Q:192:ARG:HH11	1.71	0.54
8:T:15:VAL:HG22	8:T:26:ILE:CG1	2.36	0.54
12:X:26:THR:CG2	12:X:27:LEU:H	2.03	0.54
1:A:385:ILE:HG22	1:A:386:ASP:N	2.21	0.54
11:K:47:ARG:O	11:K:47:ARG:HD2	2.08	0.54
12:L:53:HIS:O	12:L:55:ILE:HD13	2.08	0.54
1:M:1015:VAL:HG12	1:M:1015:VAL:O	2.07	0.54
1:M:41:MET:HB2	1:M:48:ALA:O	2.08	0.54
4:P:193:THR:HG23	4:P:194:LEU:HD23	1.88	0.54
7:S:51:TYR:C	7:S:51:TYR:CD2	2.81	0.54
8:T:58:THR:HG22	8:T:59:ILE:N	2.20	0.54
10:V:9:SER:HB2	10:V:45:CYS:HB2	1.90	0.54
1:A:351:THR:HG22	2:B:1103:ILE:CA	2.23	0.54
1:A:534:LEU:HG	1:A:534:LEU:O	2.07	0.54
1:A:593:GLU:C	1:A:595:THR:H	2.11	0.54
1:A:518:LYS:HE2	1:A:624:SER:O	2.08	0.54
1:A:69:THR:O	1:A:70:CYS:C	2.45	0.54
2:B:34:ILE:HG12	2:B:542:MET:CE	2.37	0.54
4:D:209:ARG:HA	4:D:212:LYS:HE3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:59:VAL:C	9:I:61:ASP:H	2.11	0.54
12:L:66:GLN:HG2	12:L:67:PHE:N	2.22	0.54
1:M:1072:ILE:O	1:M:1075:PRO:HG2	2.07	0.54
1:M:1142:THR:O	1:M:1145:SER:OG	2.21	0.54
1:M:153:PRO:HB3	1:M:161:LEU:HD22	1.89	0.54
1:M:289:ILE:HG22	1:M:290:GLU:N	2.23	0.54
1:M:489:LEU:HD12	1:M:490:HIS:N	2.22	0.54
1:M:541:ILE:HG22	1:M:546:VAL:CG2	2.37	0.54
1:M:71:GLN:C	1:M:73:GLY:H	2.10	0.54
1:M:868:TYR:HD2	1:M:1058:VAL:HG21	1.72	0.54
2:N:766:ARG:NH2	2:N:1020:ARG:HH11	2.03	0.54
2:N:114:PRO:HG2	2:N:115:GLN:H	1.73	0.54
2:N:123:THR:HG23	2:N:205:ILE:HA	1.89	0.54
2:N:467:GLY:CA	2:N:475:SER:HB3	2.38	0.54
2:N:789:MET:HE1	2:N:953:LEU:HD22	1.90	0.54
2:N:950:ASP:HB3	2:N:967:ARG:O	2.08	0.54
7:S:55:ASP:HB3	7:S:73:LYS:HB2	1.89	0.54
12:X:47:ARG:CG	12:X:48:CYS:H	2.20	0.54
1:A:883:LEU:HD11	1:A:1017:LEU:HD11	1.88	0.54
1:A:438:ASP:O	1:A:439:ASN:HB2	2.05	0.54
5:E:79:TRP:HB2	5:E:105:PHE:CE1	2.43	0.54
6:F:110:ASP:O	6:F:123:LYS:HE3	2.07	0.54
7:G:115:MET:HG2	7:G:163:ILE:HD11	1.89	0.54
8:H:130:ARG:H	8:H:130:ARG:HD3	1.70	0.54
8:H:76:THR:O	8:H:77:ARG:HB2	2.07	0.54
2:B:797:TYR:O	10:J:1:MET:HG2	2.07	0.54
10:J:25:LEU:O	10:J:29:GLU:HA	2.08	0.54
12:L:31:CYS:HB2	12:L:48:CYS:SG	2.47	0.54
1:M:1206:ASP:O	1:M:1274:ARG:NH2	2.40	0.54
1:M:1317:MET:O	1:M:1322:ILE:HD11	2.08	0.54
1:M:549:MET:CE	1:M:656:TRP:HD1	2.21	0.54
2:N:129:PHE:HA	2:N:165:VAL:O	2.08	0.54
2:N:315:LYS:N	2:N:316:PRO:HD2	2.23	0.54
2:N:859:TYR:CZ	2:N:941:LEU:HD12	2.43	0.54
4:P:220:LEU:HG	4:P:221:TYR:H	1.73	0.54
5:Q:64:PRO:O	5:Q:69:ILE:HD11	2.07	0.54
5:Q:98:ILE:HG22	5:Q:102:GLU:CG	2.37	0.54
7:S:112:LYS:HB3	7:S:113:HIS:ND1	2.22	0.54
9:U:17:ARG:HH21	9:U:30:ARG:CZ	2.20	0.54
12:X:26:THR:C	12:X:27:LEU:HD23	2.27	0.54
1:A:1120:LEU:O	1:A:1323:ASP:HB2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:962:ARG:O	1:A:964:ILE:N	2.41	0.54
2:B:1160:VAL:HG12	2:B:1161:HIS:N	2.23	0.54
2:B:211:VAL:HG23	2:B:483:LEU:HB2	1.89	0.54
2:B:866:TYR:CG	2:B:870:ILE:HB	2.42	0.54
3:C:104:PHE:HE2	3:C:150:GLY:HA2	1.73	0.54
3:C:25:VAL:HG12	3:C:26:ASP:N	2.23	0.54
4:D:7:THR:HG23	4:D:7:THR:O	2.08	0.54
6:F:99:LEU:O	6:F:103:MET:HG2	2.08	0.54
11:K:55:LYS:HB2	11:K:81:TYR:CE1	2.43	0.54
1:M:1121:GLU:HG3	1:M:1122:PRO:HD2	1.90	0.54
1:M:283:GLY:O	1:M:285:PRO:HD3	2.06	0.54
1:M:35:ILE:CD1	1:M:241:VAL:HG11	2.37	0.54
2:N:185:THR:O	2:N:188:ASP:HB2	2.07	0.54
2:N:276:ILE:HA	2:N:336:ARG:O	2.07	0.54
2:N:597:MET:HA	2:N:597:MET:HE3	1.88	0.54
5:Q:198:ILE:CD1	5:Q:212:ARG:HG3	2.38	0.54
7:S:129:SER:OG	7:S:130:TYR:N	2.36	0.54
12:X:58:LYS:O	12:X:58:LYS:HG2	2.07	0.54
1:A:105:CYS:SG	1:A:139:TRP:HA	2.48	0.54
1:A:332:LYS:HG2	1:A:333:GLU:HG2	1.90	0.54
1:A:34:LYS:HG3	1:A:36:ARG:NH2	2.22	0.54
5:E:177:ARG:HB3	5:E:215:MET:HG2	1.90	0.54
5:E:17:ARG:O	5:E:21:GLU:HG3	2.08	0.54
8:H:40:LEU:HD11	8:H:142:LEU:CD2	2.38	0.54
8:H:89:LEU:HB2	8:H:91:ASP:OD1	2.08	0.54
11:K:21:ILE:HG23	11:K:31:VAL:HG11	1.89	0.54
1:M:130:ASP:OD2	1:M:133:LYS:HG3	2.08	0.54
1:M:468:PHE:CE2	1:M:489:LEU:HD23	2.43	0.54
1:M:779:PHE:HE1	1:M:785:PRO:HD3	1.69	0.54
1:M:770:VAL:HA	1:M:822:GLU:OE1	2.08	0.54
2:N:616:ILE:HD12	2:N:616:ILE:N	2.21	0.54
2:N:650:GLU:HG3	2:N:654:ARG:HH21	1.73	0.54
2:N:684:LEU:O	2:N:689:LEU:HB2	2.08	0.54
3:O:88:CYS:SG	3:O:91:HIS:HA	2.48	0.54
4:P:50:LEU:HD22	4:P:54:GLU:HG2	1.89	0.54
5:Q:69:ILE:H	5:Q:69:ILE:HD12	1.70	0.54
12:X:38:LEU:O	12:X:39:SER:HB3	2.08	0.54
1:A:1155:ASP:OD2	1:A:1161:THR:HA	2.07	0.54
1:A:115:LEU:CD1	1:A:142:CYS:HB3	2.37	0.54
1:A:535:THR:HG21	1:A:617:VAL:N	2.23	0.54
1:A:598:LEU:O	1:A:599:SER:C	2.46	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:973:ILE:HD11	1:A:1041:ALA:CB	2.38	0.54
1:A:979:SER:OG	1:A:980:ASP:N	2.39	0.54
1:A:981:LEU:CD2	1:A:1039:LYS:HA	2.33	0.54
2:B:47:GLN:O	2:B:173:MET:HE1	2.07	0.54
3:C:148:ARG:NH1	10:J:64:ASN:HA	2.22	0.54
5:E:124:VAL:CG1	5:E:132:ILE:HB	2.21	0.54
9:I:55:THR:HG23	9:I:100:PHE:HD2	1.72	0.54
10:J:9:SER:HB2	10:J:45:CYS:HB2	1.90	0.54
10:J:1:MET:H1	10:J:57:ILE:N	2.05	0.54
1:M:1445:ILE:H	1:M:1445:ILE:HD12	1.73	0.54
1:M:555:ASP:O	1:M:556:TRP:C	2.46	0.54
1:M:556:TRP:CH2	1:M:558:GLY:HA2	2.43	0.54
1:M:565:ILE:HG23	1:M:567:LYS:CG	2.38	0.54
1:M:710:LEU:H	1:M:710:LEU:CD1	2.18	0.54
1:M:95:PHE:O	1:M:96:ILE:C	2.45	0.54
1:M:335:ARG:NH1	2:N:1206:GLU:CD	2.61	0.54
2:N:114:PRO:CG	2:N:181:LEU:HD11	2.25	0.54
2:N:205:ILE:CD1	2:N:205:ILE:N	2.71	0.54
2:N:526:GLU:OE1	2:N:752:ALA:HB3	2.08	0.54
3:O:67:LEU:HD11	3:O:155:LEU:HD13	1.89	0.54
4:P:220:LEU:HD23	4:P:221:TYR:C	2.28	0.54
1:A:1421:CYS:HA	1:A:1426:GLU:HG3	1.89	0.54
1:A:381:THR:HG22	1:A:383:TYR:H	1.73	0.54
1:A:512:VAL:O	1:A:512:VAL:HG12	2.07	0.54
2:B:33:VAL:HG21	2:B:638:PHE:HZ	1.71	0.54
2:B:955:THR:HG1	12:L:55:ILE:HA	1.72	0.54
3:C:44:LEU:HD21	3:C:159:ALA:CB	2.38	0.54
9:I:73:ARG:HH12	9:I:112:SER:HB3	1.72	0.54
9:I:8:ARG:HG3	9:I:34:TYR:HE1	1.71	0.54
1:M:1011:GLN:NE2	1:M:1015:VAL:CG2	2.71	0.54
1:M:385:ILE:CD1	1:M:426:LEU:HB2	2.37	0.54
1:M:610:GLY:O	1:M:611:GLN:NE2	2.41	0.54
2:N:531:GLN:CG	2:N:532:ALA:H	2.20	0.54
2:N:995:ARG:HB3	2:N:997:GLU:OE2	2.07	0.54
3:O:56:THR:HG22	3:O:57:VAL:N	2.21	0.54
6:R:119:ARG:HH11	6:R:119:ARG:HG3	1.73	0.54
12:X:43:THR:O	12:X:43:THR:HG22	2.08	0.54
2:B:642:ASP:HA	2:B:649:LYS:HG3	1.90	0.54
2:B:898:LEU:HD13	2:B:952:VAL:CG1	2.38	0.54
3:C:148:ARG:HD3	3:C:149:LYS:HG3	1.89	0.54
5:E:144:ILE:HG13	5:E:145:THR:H	1.70	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:23:ASN:C	10:J:25:LEU:N	2.60	0.54
12:L:55:ILE:HD13	12:L:55:ILE:N	2.15	0.54
1:M:963:ILE:HD11	1:M:1048:ASN:HB2	1.89	0.54
1:M:438:ASP:O	1:M:439:ASN:HB2	2.07	0.54
1:M:565:ILE:HG21	1:M:567:LYS:HE2	1.90	0.54
1:M:697:ALA:HA	1:M:702:LEU:HG	1.90	0.54
2:N:167:ILE:HG21	2:N:424:LEU:CD2	2.38	0.54
2:N:805:THR:HG23	2:N:809:MET:SD	2.48	0.54
2:N:999:MET:CE	2:N:999:MET:HA	2.38	0.54
3:O:35:ARG:NH1	11:W:41:THR:H	2.06	0.54
4:P:56:ARG:NH2	4:P:155:ARG:HG2	2.21	0.54
3:O:66:ARG:NH2	10:V:5:VAL:HG23	2.23	0.54
11:W:51:LEU:HD13	11:W:59:ALA:HB3	1.90	0.54
1:A:129:LYS:O	1:A:130:ASP:HB2	2.08	0.53
1:A:838:GLN:O	1:A:842:VAL:HG23	2.08	0.53
2:B:859:TYR:CZ	2:B:941:LEU:HD12	2.43	0.53
8:H:15:VAL:HG21	8:H:49:VAL:O	2.07	0.53
8:H:4:THR:HG22	8:H:5:LEU:N	2.23	0.53
12:L:29:TYR:O	12:L:30:ILE:HG13	2.08	0.53
1:M:1141:THR:OG1	1:M:1205:LYS:HD3	2.08	0.53
1:M:1313:LEU:O	1:M:1315:GLU:N	2.41	0.53
1:M:281:HIS:C	1:M:282:ASN:HD22	2.11	0.53
1:M:537:ARG:NH1	8:T:120:GLY:O	2.41	0.53
1:M:920:LEU:HD23	1:M:921:GLY:N	2.23	0.53
2:N:1115:THR:HG22	2:N:1117:GLN:HG3	1.90	0.53
2:N:398:ARG:NH1	2:N:398:ARG:CB	2.71	0.53
2:N:642:ASP:HB3	2:N:649:LYS:CD	2.38	0.53
2:N:661:LEU:HD11	2:N:684:LEU:HD11	1.90	0.53
4:P:35:LEU:N	4:P:35:LEU:CD1	2.70	0.53
1:A:597:LEU:HD12	1:A:597:LEU:N	2.23	0.53
1:A:714:PHE:O	1:A:718:VAL:HG23	2.08	0.53
2:B:308:TRP:HB2	9:I:2:THR:HG22	1.89	0.53
3:C:97:VAL:HG21	3:C:129:ILE:HG23	1.91	0.53
4:D:29:LEU:H	4:D:29:LEU:CD2	2.22	0.53
6:F:103:MET:HE2	7:G:66:GLY:N	2.21	0.53
7:G:106:MET:HG2	7:G:107:LYS:N	2.23	0.53
7:G:1:MET:HE2	7:G:1:MET:C	2.29	0.53
1:A:567:LYS:HZ1	8:H:46:LEU:HB2	1.73	0.53
2:B:1004:GLU:OE1	10:J:42:LYS:HE2	2.08	0.53
1:M:1215:ARG:NH1	1:M:1272:THR:O	2.40	0.53
1:M:1450:LEU:HG	1:M:1450:LEU:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:381:THR:CG2	1:M:382:PRO:HD2	2.38	0.53
2:N:1177:HIS:HB3	2:N:1179:GLN:HE21	1.73	0.53
2:N:273:LEU:O	2:N:276:ILE:HB	2.08	0.53
2:N:473:MET:CE	2:N:474:SER:HA	2.38	0.53
2:N:809:MET:O	2:N:812:LEU:N	2.40	0.53
3:O:184:ASN:ND2	3:O:189:THR:HB	2.22	0.53
6:R:103:MET:HE1	7:S:66:GLY:H	1.71	0.53
1:M:598:LEU:HA	8:T:122:LEU:HD13	1.90	0.53
8:T:76:THR:O	8:T:77:ARG:HB2	2.07	0.53
13:4:25:DG:C2'	13:4:26:DT:H72	2.38	0.53
13:4:25:DG:H2''	13:4:26:DT:H73	1.90	0.53
1:A:573:SER:O	1:A:576:GLN:HB2	2.07	0.53
1:A:687:LYS:HE2	1:A:795:GLU:OE2	2.09	0.53
1:A:907:THR:CG2	1:A:908:LEU:N	2.71	0.53
2:B:705:MET:HA	2:B:705:MET:CE	2.38	0.53
2:B:809:MET:O	2:B:812:LEU:N	2.40	0.53
2:B:885:MET:HA	2:B:936:ASP:HB2	1.91	0.53
4:D:4:SER:O	4:D:5:THR:CB	2.55	0.53
5:E:180:ARG:HB2	5:E:215:MET:OXT	2.07	0.53
5:E:79:TRP:HE1	5:E:81:GLU:HB2	1.73	0.53
7:G:102:GLN:HG3	7:G:106:MET:O	2.09	0.53
9:I:74:GLU:HB3	9:I:81:ARG:HD2	1.89	0.53
2:B:1004:GLU:HG3	10:J:42:LYS:HZ3	1.71	0.53
10:J:48:ARG:NH1	10:J:48:ARG:HG2	2.23	0.53
11:K:107:THR:O	11:K:111:LEU:HG	2.09	0.53
1:M:1412:ALA:HA	1:M:1417:GLU:OE2	2.09	0.53
1:M:41:MET:O	1:M:42:ASP:C	2.46	0.53
1:M:337:ARG:CD	2:N:1132:GLU:OE1	2.56	0.53
2:N:66:ASP:OD2	2:N:422:LYS:HG2	2.08	0.53
2:N:640:VAL:O	2:N:641:GLU:C	2.46	0.53
4:P:146:GLN:O	4:P:147:TYR:C	2.46	0.53
8:T:38:LEU:HD12	8:T:39:THR:N	2.24	0.53
12:X:66:GLN:HG2	12:X:67:PHE:N	2.23	0.53
1:A:353:ILE:HD13	1:A:487:MET:CG	2.39	0.53
1:A:370:ILE:CG2	1:A:374:LEU:HD12	2.38	0.53
1:A:493:GLN:HE21	1:A:493:GLN:N	2.06	0.53
1:A:567:LYS:HZ1	8:H:43:ASN:HB3	1.73	0.53
8:H:58:THR:HG22	8:H:59:ILE:N	2.21	0.53
1:M:756:ILE:O	1:M:759:ALA:HB3	2.08	0.53
1:M:853:ASP:O	1:M:854:ASN:HB2	2.07	0.53
2:N:1001:PHE:CZ	2:N:1073:TYR:HB2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:190:TYR:CZ	2:N:196:PRO:HG3	2.44	0.53
2:N:277:LYS:HG3	2:N:336:ARG:HG2	1.90	0.53
2:N:313:MET:CE	2:N:390:LEU:HD11	2.38	0.53
2:N:393:LYS:HA	2:N:393:LYS:CE	2.35	0.53
6:R:101:ILE:HD13	6:R:120:ILE:CG2	2.39	0.53
8:T:130:ARG:HD3	8:T:130:ARG:H	1.72	0.53
9:U:106:CYS:O	9:U:107:SER:HB2	2.09	0.53
10:V:14:VAL:CG1	10:V:14:VAL:O	2.56	0.53
10:V:53:HIS:HD2	10:V:54:VAL:H	1.55	0.53
1:A:1141:THR:HA	1:A:1205:LYS:NZ	2.24	0.53
1:A:697:ALA:CB	1:A:702:LEU:HD11	2.36	0.53
2:B:39:ARG:HG2	2:B:39:ARG:HH11	1.73	0.53
3:C:104:PHE:HD2	3:C:105:GLY:N	2.06	0.53
7:G:53:ASN:ND2	7:G:53:ASN:N	2.55	0.53
9:I:50:THR:CG2	9:I:51:ASN:H	2.16	0.53
10:J:27:GLU:C	10:J:29:GLU:H	2.12	0.53
1:M:108:MET:CE	1:M:210:ILE:HD12	2.38	0.53
1:M:720:ARG:O	1:M:720:ARG:HG2	2.08	0.53
2:N:398:ARG:NH1	2:N:398:ARG:HB2	2.24	0.53
8:T:15:VAL:HG21	8:T:49:VAL:O	2.08	0.53
1:A:1025:ARG:HG3	1:A:1025:ARG:HH11	1.72	0.53
1:A:1277:GLU:C	1:A:1279:ILE:H	2.12	0.53
1:A:347:PHE:HE2	1:A:375:THR:HG22	1.73	0.53
1:A:597:LEU:HD23	8:H:103:LYS:HD2	1.89	0.53
1:A:679:ILE:HG23	1:A:729:ALA:HB1	1.90	0.53
1:A:868:TYR:CE1	1:A:1064:VAL:CG1	2.92	0.53
1:A:961:ARG:HG2	1:A:965:GLN:NE2	2.24	0.53
2:B:766:ARG:HH21	2:B:1020:ARG:CD	2.19	0.53
3:C:22:LEU:HD22	3:C:230:MET:CE	2.37	0.53
7:G:139:ILE:HG23	7:G:140:LYS:H	1.72	0.53
10:J:30:LEU:HD21	10:J:38:ARG:HH12	1.74	0.53
1:M:1148:ILE:HD11	1:M:1198:ASP:HA	1.89	0.53
1:M:198:GLU:O	1:M:198:GLU:HG2	2.07	0.53
1:M:35:ILE:HD13	1:M:241:VAL:HG11	1.89	0.53
1:M:399:HIS:O	1:M:400:PRO:C	2.41	0.53
1:M:913:LEU:HD13	1:M:981:LEU:O	2.09	0.53
2:N:1065:GLN:NE2	2:N:1066:SER:N	2.56	0.53
2:N:1161:HIS:NE2	2:N:1175:LEU:HD21	2.23	0.53
2:N:53:GLN:HG2	2:N:547:VAL:HG22	1.90	0.53
2:N:696:GLU:O	2:N:699:GLU:HB2	2.09	0.53
2:N:90:ILE:CD1	2:N:432:MET:SD	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:252:PHE:HB2	1:A:256:GLN:CD	2.28	0.53
1:A:901:LEU:H	1:A:926:GLN:CD	2.12	0.53
2:B:427:ASP:HA	2:B:430:ARG:HG3	1.90	0.53
3:C:172:PRO:O	3:C:235:VAL:HG23	2.09	0.53
3:C:193:TYR:C	3:C:193:TYR:CD1	2.81	0.53
3:C:221:TYR:CD2	8:H:46:LEU:HD22	2.44	0.53
6:F:108:PHE:O	6:F:129:LYS:HD3	2.07	0.53
1:M:1107:VAL:O	1:M:1107:VAL:HG12	2.08	0.53
1:M:186:LYS:NZ	1:M:197:PRO:HD3	2.23	0.53
1:M:323:LYS:HD2	1:M:323:LYS:N	2.23	0.53
1:M:518:LYS:HB2	1:M:519:PRO:HD2	1.91	0.53
1:M:541:ILE:CD1	1:M:549:MET:HE1	2.30	0.53
1:M:69:THR:O	1:M:70:CYS:C	2.47	0.53
2:N:1110:PRO:HB2	2:N:1119:VAL:HG11	1.91	0.53
3:O:44:LEU:CD2	3:O:159:ALA:HB1	2.39	0.53
2:N:798:TYR:HE2	3:O:62:PHE:CE2	2.27	0.53
4:P:190:GLU:O	4:P:193:THR:HG22	2.09	0.53
10:V:23:ASN:C	10:V:25:LEU:N	2.61	0.53
10:V:51:LEU:O	10:V:51:LEU:HD12	2.09	0.53
3:O:252:GLN:HE21	11:W:95:ILE:HG22	1.74	0.53
3:O:252:GLN:CG	11:W:95:ILE:HG23	2.35	0.53
1:A:675:THR:HG21	1:A:736:ASN:HB2	1.90	0.53
2:B:171:PRO:HD2	2:B:457:LEU:CD1	2.39	0.53
2:B:100:PRO:HD2	2:B:180:TYR:CE1	2.43	0.53
3:C:181:ASP:OD1	3:C:186:LEU:HD13	2.09	0.53
3:C:251:LEU:O	3:C:255:VAL:HG23	2.08	0.53
7:G:126:ASN:C	7:G:126:ASN:HD22	2.12	0.53
7:G:35:GLU:CG	7:G:48:VAL:HG23	2.38	0.53
1:M:310:GLY:O	1:M:312:PRO:CD	2.56	0.53
1:M:493:GLN:HE21	1:M:493:GLN:N	2.06	0.53
1:M:967:ALA:HA	1:M:1044:TRP:CZ3	2.43	0.53
2:N:1004:GLU:HG3	10:V:42:LYS:NZ	2.24	0.53
2:N:807:ARG:HD3	2:N:1043:ASP:OD1	2.09	0.53
2:N:878:GLN:HB2	2:N:879:ARG:NH1	2.24	0.53
2:N:887:HIS:CD2	2:N:887:HIS:N	2.75	0.53
4:P:12:ARG:HD3	4:P:14:ARG:HG2	1.90	0.53
9:U:34:TYR:HD2	9:U:35:VAL:N	2.05	0.53
2:N:801:LYS:O	10:V:52:THR:HG23	2.09	0.53
15:3:5:C:H2'	15:3:6:A:C8	2.42	0.53
1:A:1394:THR:HG21	1:A:1398:MET:SD	2.49	0.53
1:A:186:LYS:NZ	1:A:197:PRO:HD3	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:326:ARG:HG3	1:A:1406:VAL:HG21	1.91	0.53
2:B:288:ALA:CB	2:B:331:LEU:HD12	2.32	0.53
2:B:37:PHE:HE2	2:B:542:MET:HA	1.74	0.53
2:B:552:MET:HE2	2:B:552:MET:HA	1.91	0.53
2:B:640:VAL:O	2:B:641:GLU:C	2.46	0.53
2:B:806:THR:HG21	2:B:808:ALA:HB3	1.91	0.53
2:B:860:MET:HG2	2:B:861:ASP:N	2.24	0.53
3:C:133:ILE:HD12	3:C:237:SER:N	2.24	0.53
3:C:245:VAL:HG13	11:K:102:LYS:HG3	1.91	0.53
3:C:67:LEU:HA	3:C:70:ILE:HD12	1.91	0.53
9:I:16:PRO:HB3	9:I:27:PHE:CE2	2.44	0.53
10:J:3:VAL:HG21	10:J:18:TRP:CG	2.44	0.53
1:M:524:VAL:HG12	1:M:525:GLN:N	2.22	0.53
1:M:62:ASP:O	1:M:64:ASN:N	2.41	0.53
2:N:225:VAL:HA	2:N:237:VAL:O	2.08	0.53
2:N:878:GLN:O	2:N:879:ARG:C	2.47	0.53
3:O:45:ALA:HA	3:O:72:LEU:HD12	1.89	0.53
4:P:150:ASN:HB2	4:P:151:PHE:CD1	2.44	0.53
1:A:1403:GLU:O	13:1:16:DT:OP1	2.27	0.53
2:B:291:ILE:HD13	2:B:300:HIS:NE2	2.24	0.53
2:B:269:ILE:HD11	2:B:386:LEU:HD21	1.90	0.53
3:C:166:GLU:HG3	11:K:10:PHE:HZ	1.74	0.53
4:D:155:ARG:HH21	4:D:221:TYR:HD1	1.56	0.53
1:M:1018:PHE:O	1:M:1021:LEU:HB3	2.08	0.53
1:M:1139:GLU:HG2	1:M:1139:GLU:O	2.07	0.53
1:M:313:GLN:O	1:M:314:ALA:C	2.47	0.53
1:M:598:LEU:CD1	8:T:124:ARG:HB2	2.40	0.53
1:M:608:ILE:HG13	1:M:613:ILE:HD12	1.91	0.53
1:M:709:THR:CG2	1:M:710:LEU:N	2.72	0.53
2:N:763:GLN:HG2	2:N:765:PRO:CD	2.34	0.53
3:O:10:ILE:HG22	3:O:11:ARG:O	2.09	0.53
5:Q:112:TYR:OH	5:Q:136:ASN:HB2	2.09	0.53
1:A:1254:ALA:O	1:A:1255:GLU:CB	2.57	0.52
1:A:1345:ARG:HG2	1:A:1372:VAL:HG12	1.91	0.52
1:A:1349:TYR:CD2	1:A:1349:TYR:C	2.82	0.52
2:B:1190:ASP:C	2:B:1191:ILE:HG13	2.30	0.52
2:B:309:GLN:CD	9:I:52:ILE:HD11	2.30	0.52
2:B:90:ILE:CD1	2:B:432:MET:SD	2.97	0.52
2:B:594:ALA:HA	2:B:617:ARG:NH1	2.24	0.52
3:C:51:VAL:HG22	3:C:155:LEU:CD2	2.37	0.52
7:G:7:LEU:HD13	7:G:45:ILE:HD11	1.89	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1259:MET:O	1:M:1259:MET:HE3	2.10	0.52
1:M:253:ASN:ND2	2:N:935:ARG:HB2	2.24	0.52
1:M:316:GLN:HE21	1:M:317:LYS:CE	2.17	0.52
1:M:982:THR:HB	1:M:985:ASP:H	1.72	0.52
2:N:620:ARG:HH12	9:U:68:LEU:HD21	1.73	0.52
2:N:680:THR:OG1	2:N:681:TRP:N	2.40	0.52
2:N:803:LEU:HD13	2:N:1032:SER:O	2.09	0.52
2:N:811:TYR:HD1	2:N:811:TYR:H	1.57	0.52
6:R:100:GLN:NE2	7:S:61:ILE:HD13	2.24	0.52
8:T:84:ALA:C	8:T:86:ASP:N	2.61	0.52
9:U:69:PRO:HB2	9:U:85:PHE:CZ	2.44	0.52
1:A:1114:PRO:O	1:A:1311:VAL:HG23	2.09	0.52
1:A:1433:MET:CE	7:G:63:PRO:HB2	2.40	0.52
1:A:62:ASP:O	1:A:64:ASN:N	2.42	0.52
1:A:7:SER:OG	2:B:1161:HIS:CE1	2.62	0.52
1:A:946:VAL:HG12	1:A:947:PHE:CD2	2.44	0.52
2:B:427:ASP:HA	2:B:430:ARG:CD	2.39	0.52
3:C:67:LEU:HD11	3:C:155:LEU:HD13	1.91	0.52
1:A:537:ARG:NH1	8:H:120:GLY:O	2.42	0.52
8:H:135:LEU:HB2	8:H:137:GLN:HE21	1.75	0.52
8:H:40:LEU:HD12	8:H:123:MET:HG3	1.91	0.52
2:B:193:LYS:NZ	12:L:32:ALA:HB1	2.24	0.52
1:M:556:TRP:CZ2	1:M:558:GLY:HA2	2.44	0.52
1:M:523:ILE:HG12	1:M:622:VAL:HG22	1.90	0.52
1:M:670:ILE:HG23	1:M:805:LEU:HD21	1.91	0.52
2:N:216:GLU:HA	2:N:406:LEU:HD23	1.92	0.52
2:N:546:SER:OG	2:N:631:GLY:N	2.43	0.52
2:N:733:HIS:O	2:N:735:ALA:N	2.41	0.52
3:O:179:GLU:HG2	3:O:180:TYR:H	1.74	0.52
3:O:242:GLN:OE1	3:O:242:GLN:HA	2.08	0.52
4:P:146:GLN:HA	4:P:149:THR:HG22	1.91	0.52
5:Q:156:LEU:HA	5:Q:160:GLU:OE1	2.09	0.52
1:A:1015:VAL:CG1	1:A:1019:CYS:SG	2.97	0.52
2:B:1073:TYR:CE2	2:B:1080:LYS:HG2	2.44	0.52
2:B:235:SER:OG	2:B:236:HIS:CD2	2.63	0.52
2:B:225:VAL:HA	2:B:237:VAL:O	2.09	0.52
2:B:498:THR:HG22	2:B:537:LYS:H	1.75	0.52
2:B:618:ASP:O	2:B:622:LYS:N	2.42	0.52
5:E:178:ILE:HG22	5:E:213:ILE:O	2.09	0.52
6:F:74:ILE:HD12	6:F:144:GLU:HG2	1.90	0.52
8:H:95:TYR:HE2	8:H:97:MET:CG	2.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1209:MET:CE	1:M:1236:LEU:HB3	2.38	0.52
1:M:929:LEU:HD21	1:M:983:ILE:CG2	2.40	0.52
2:N:1056:SER:HB3	2:N:1066:SER:OG	2.09	0.52
2:N:479:VAL:O	2:N:480:SER:HB3	2.08	0.52
2:N:954:VAL:O	12:X:55:ILE:O	2.26	0.52
7:S:21:ARG:HD2	7:S:24:GLN:HB3	1.89	0.52
7:S:45:ILE:O	7:S:45:ILE:HG22	2.10	0.52
11:W:21:ILE:HG22	11:W:31:VAL:HG11	1.92	0.52
1:A:993:LEU:HD22	1:A:1046:LEU:HD22	1.91	0.52
1:A:1148:ILE:HG12	1:A:1198:ASP:HB2	1.90	0.52
2:B:1079:LYS:HA	3:C:27:LEU:HD21	1.90	0.52
2:B:1187:ASN:OD1	2:B:1188:LYS:N	2.42	0.52
2:B:278:GLN:HG2	2:B:279:ASP:N	2.22	0.52
2:B:875:GLU:O	2:B:877:PRO:HD3	2.09	0.52
7:G:13:LEU:HD21	7:G:17:PHE:CB	2.39	0.52
7:G:88:ASP:HB3	7:G:144:ARG:HA	1.91	0.52
7:G:1:MET:CE	7:G:80:LYS:H	2.22	0.52
1:M:347:PHE:HE2	1:M:375:THR:HG23	1.74	0.52
1:M:794:PRO:C	1:M:796:SER:H	2.12	0.52
2:N:167:ILE:HD12	2:N:167:ILE:N	2.24	0.52
2:N:95:ILE:HG13	2:N:130:VAL:HG22	1.91	0.52
4:P:27:LEU:HG	4:P:197:SER:HB3	1.90	0.52
5:Q:114:ASN:O	5:Q:115:ASN:CB	2.47	0.52
5:Q:30:ILE:HG23	5:Q:34:GLU:HG2	1.91	0.52
7:S:27:LYS:O	7:S:31:LEU:HG	2.09	0.52
1:A:208:LEU:HD21	1:A:212:LYS:HE3	1.90	0.52
1:A:335:ARG:NH1	2:B:1202:LEU:HD13	2.24	0.52
1:A:497:THR:HG23	2:B:1146:PHE:HD1	1.75	0.52
1:A:549:MET:SD	1:A:577:ILE:HD12	2.49	0.52
2:B:733:HIS:O	2:B:735:ALA:N	2.42	0.52
1:A:852:TYR:CE1	6:F:136:ARG:HG2	2.45	0.52
11:K:51:LEU:HD13	11:K:59:ALA:HB3	1.92	0.52
12:L:58:LYS:HG2	12:L:58:LYS:O	2.10	0.52
1:M:470:LEU:CD2	1:M:470:LEU:N	2.73	0.52
2:N:418:LYS:HE2	2:N:422:LYS:HZ1	1.74	0.52
2:N:521:LEU:HB3	2:N:633:VAL:HG11	1.91	0.52
3:O:18:VAL:HG23	3:O:240:VAL:HB	1.90	0.52
3:O:193:TYR:CD1	3:O:193:TYR:C	2.82	0.52
2:N:801:LYS:O	10:V:52:THR:CG2	2.58	0.52
1:A:1141:THR:OG1	1:A:1205:LYS:HD3	2.10	0.52
1:A:964:ILE:O	1:A:967:ALA:HB3	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:203:PHE:N	2:B:203:PHE:CD1	2.78	0.52
2:B:519:TRP:C	2:B:519:TRP:CD1	2.83	0.52
2:B:616:ILE:HD12	2:B:625:LYS:O	2.10	0.52
2:B:684:LEU:O	2:B:689:LEU:HB2	2.10	0.52
2:B:916:THR:HB	2:B:935:ARG:CG	2.38	0.52
2:B:95:ILE:HG13	2:B:130:VAL:CG2	2.39	0.52
8:H:106:GLU:HA	8:H:112:ILE:HD12	1.92	0.52
1:M:1081:LEU:CD1	1:M:1097:GLY:HA3	2.36	0.52
1:M:458:HIS:NE2	1:M:478:TYR:OH	2.33	0.52
2:N:473:MET:HE1	2:N:474:SER:HA	1.92	0.52
2:N:527:THR:OG1	2:N:528:PRO:HD2	2.10	0.52
2:N:63:ILE:HD12	2:N:421:PHE:CE2	2.45	0.52
2:N:911:ILE:HG22	2:N:966:VAL:HG21	1.92	0.52
4:P:14:ARG:CB	4:P:14:ARG:NH1	2.72	0.52
5:Q:121:MET:C	5:Q:123:LEU:H	2.12	0.52
11:W:55:LYS:HB2	11:W:81:TYR:CD1	2.45	0.52
13:4:16:DT:H5'	13:4:16:DT:C6	2.37	0.52
15:6:5:C:H2'	15:6:6:A:H8	1.75	0.52
1:A:317:LYS:O	1:A:318:SER:HB3	2.10	0.52
1:A:567:LYS:HB3	8:H:95:TYR:HA	1.90	0.52
2:B:837:ASP:OD2	2:B:1020:ARG:NH2	2.43	0.52
2:B:758:PHE:CE1	2:B:1027:ILE:CG2	2.93	0.52
2:B:1084:GLN:NE2	2:B:1084:GLN:H	2.07	0.52
2:B:398:ARG:HB3	2:B:398:ARG:HH11	1.74	0.52
2:B:486:TYR:N	2:B:486:TYR:CD2	2.76	0.52
9:I:50:THR:HG22	9:I:52:ILE:N	2.24	0.52
1:M:503:GLN:NE2	6:R:90:ARG:NH2	2.53	0.52
1:M:57:ARG:O	1:M:68:GLN:HG2	2.09	0.52
1:M:710:LEU:N	1:M:710:LEU:HD12	2.21	0.52
1:M:72:GLU:HB3	1:M:76:GLU:HG2	1.91	0.52
1:M:820:GLY:O	1:M:822:GLU:N	2.43	0.52
2:N:102:VAL:CG2	2:N:112:LEU:HD13	2.39	0.52
2:N:1177:HIS:CB	2:N:1179:GLN:NE2	2.73	0.52
2:N:273:LEU:CD2	2:N:360:PHE:HD1	2.22	0.52
2:N:579:ARG:HG2	2:N:579:ARG:NH1	2.23	0.52
2:N:686:ASN:C	2:N:688:GLY:H	2.13	0.52
5:Q:190:LEU:C	5:Q:191:LYS:HG2	2.30	0.52
6:R:82:THR:HG22	6:R:84:TYR:N	2.15	0.52
7:S:49:LEU:HD11	7:S:77:VAL:HG23	1.91	0.52
9:U:19:ASP:CB	9:U:24:ARG:HG2	2.38	0.52
13:1:23:BRU:C5'	13:1:23:BRU:H6	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1:25:DG:C2'	13:1:26:DT:H72	2.39	0.52
1:A:1120:LEU:CD2	1:A:1125:ALA:HA	2.40	0.52
1:A:1225:PHE:HE2	1:A:1227:ILE:HD11	1.73	0.52
1:A:265:LYS:HA	1:A:265:LYS:CE	2.39	0.52
1:A:399:HIS:CB	1:A:400:PRO:CD	2.87	0.52
1:A:41:MET:O	1:A:50:ILE:HG13	2.10	0.52
1:A:34:LYS:HZ2	1:A:57:ARG:HH22	1.58	0.52
1:A:870:GLU:HB2	5:E:204:THR:HG21	1.91	0.52
2:B:39:ARG:HG2	2:B:39:ARG:NH1	2.25	0.52
2:B:526:GLU:HG3	2:B:771:SER:HB3	1.90	0.52
2:B:601:ARG:HD3	2:B:605:ARG:CZ	2.40	0.52
2:B:801:LYS:O	10:J:52:THR:CG2	2.58	0.52
4:D:120:GLU:OE1	4:D:120:GLU:O	2.27	0.52
6:F:97:ARG:HD3	6:F:130:ILE:HG23	1.92	0.52
1:M:107:CYS:HB2	1:M:114:LEU:HD21	1.92	0.52
1:M:1149:ALA:CB	9:U:47:GLU:HA	2.40	0.52
1:M:1237:ILE:HG22	1:M:1238:ILE:N	2.23	0.52
1:M:117:GLU:HA	1:M:123:ARG:HG3	1.90	0.52
1:M:1437:GLY:O	1:M:1439:GLY:N	2.43	0.52
1:M:682:THR:HG23	1:M:728:LYS:HE3	1.90	0.52
2:N:357:GLN:CD	2:N:368:GLU:HA	2.30	0.52
2:N:466:TRP:HA	2:N:466:TRP:CE3	2.44	0.52
2:N:552:MET:HA	2:N:552:MET:HE3	1.91	0.52
4:P:193:THR:CG2	4:P:194:LEU:N	2.72	0.52
4:P:5:THR:O	4:P:5:THR:HG23	2.09	0.52
5:Q:112:TYR:CE1	5:Q:136:ASN:HA	2.45	0.52
5:Q:195:VAL:HG22	5:Q:213:ILE:HG13	1.91	0.52
7:S:139:ILE:HG12	7:S:140:LYS:CG	2.40	0.52
8:T:4:THR:HG22	8:T:6:PHE:H	1.74	0.52
3:O:35:ARG:NH1	11:W:41:THR:OG1	2.43	0.52
13:1:23:BRU:H2''	13:1:24:DG:O5'	2.09	0.52
1:A:873:MET:C	1:A:1058:VAL:HG23	2.30	0.52
2:B:98:THR:O	2:B:126:SER:HB2	2.09	0.52
2:B:126:SER:HB3	2:B:172:ILE:HD11	1.92	0.52
2:B:638:PHE:CD2	2:B:690:VAL:HG12	2.44	0.52
2:B:707:PRO:HG2	2:B:708:GLU:N	2.23	0.52
2:B:807:ARG:NH1	2:B:807:ARG:HB3	2.24	0.52
2:B:911:ILE:HG22	2:B:966:VAL:HG21	1.90	0.52
3:C:70:ILE:HD11	3:C:144:ILE:HG12	1.92	0.52
6:F:101:ILE:HD13	6:F:120:ILE:HG22	1.90	0.52
7:G:153:GLN:HG2	7:G:154:VAL:HG23	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:11:GLN:O	8:H:28:ALA:HB1	2.10	0.52
8:H:44:VAL:CG1	8:H:48:PRO:HA	2.40	0.52
8:H:59:ILE:O	8:H:60:ALA:HB3	2.10	0.52
3:C:66:ARG:CZ	10:J:2:ILE:HG21	2.40	0.52
1:M:1202:MET:CE	1:M:1212:VAL:HG21	2.40	0.52
1:M:1299:VAL:HG12	1:M:1300:LYS:N	2.25	0.52
1:M:1315:GLU:C	1:M:1317:MET:H	2.13	0.52
1:M:148:CYS:HB3	1:M:167:CYS:O	2.09	0.52
2:N:707:PRO:O	2:N:708:GLU:O	2.27	0.52
3:O:112:ASN:HB3	3:O:114:TYR:CE1	2.45	0.52
4:P:185:CYS:SG	4:P:191:ALA:HA	2.50	0.52
8:T:11:GLN:O	8:T:28:ALA:HB1	2.09	0.52
8:T:26:ILE:HD12	8:T:42:ILE:HD13	1.92	0.52
9:U:111:THR:CG2	9:U:113:ASP:HB2	2.39	0.52
9:U:17:ARG:HG2	9:U:28:GLU:HG2	1.92	0.52
10:V:30:LEU:HD22	10:V:34:THR:HB	1.92	0.52
13:1:16:DT:H5'	13:1:16:DT:C6	2.37	0.52
13:4:25:DG:H2''	13:4:26:DT:H72	1.92	0.52
1:A:1149:ALA:CB	9:I:47:GLU:HA	2.40	0.52
1:A:390:GLN:O	1:A:394:ASN:HB2	2.10	0.52
1:A:41:MET:O	1:A:42:ASP:C	2.48	0.52
1:A:826:ASP:O	1:A:830:LYS:HB2	2.09	0.52
1:A:898:ARG:HD2	1:A:899:VAL:N	2.24	0.52
2:B:1098:MET:HE3	2:B:1101:ASP:OD2	2.10	0.52
2:B:1115:THR:HG22	2:B:1117:GLN:CB	2.40	0.52
2:B:345:LYS:CG	2:B:346:GLU:N	2.72	0.52
2:B:31:TRP:CZ3	2:B:34:ILE:HD12	2.44	0.52
2:B:43:LEU:HD23	2:B:43:LEU:N	2.25	0.52
3:C:220:ASP:OD2	3:C:223:ALA:HB2	2.10	0.52
5:E:48:ASP:CG	5:E:49:SER:N	2.59	0.52
9:I:15:TYR:CD1	9:I:15:TYR:N	2.76	0.52
1:M:222:LEU:O	1:M:224:PHE:HD1	1.92	0.52
1:M:754:SER:N	1:M:757:ASN:HD22	1.98	0.52
2:N:653:VAL:HG23	2:N:689:LEU:HB3	1.92	0.52
1:A:108:MET:CA	1:A:210:ILE:HD13	2.28	0.51
1:A:55:ASP:CG	1:A:55:ASP:O	2.46	0.51
1:A:709:THR:CG2	1:A:710:LEU:N	2.73	0.51
1:A:903:ASN:ND2	1:A:903:ASN:C	2.62	0.51
2:B:102:VAL:CG2	2:B:112:LEU:HD13	2.40	0.51
2:B:604:ARG:HH21	2:B:614:SER:HA	1.75	0.51
2:B:642:ASP:CA	2:B:649:LYS:HA	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:73:GLN:HE21	3:C:75:MET:N	2.03	0.51
4:D:29:LEU:N	4:D:29:LEU:CD2	2.73	0.51
4:D:33:PHE:CE1	7:G:80:LYS:HD3	2.46	0.51
8:H:4:THR:HG22	8:H:6:PHE:H	1.73	0.51
2:B:954:VAL:O	12:L:55:ILE:O	2.27	0.51
2:N:837:ASP:OD2	2:N:1020:ARG:NH2	2.44	0.51
2:N:120:ARG:NH1	12:X:54:ARG:HD2	2.24	0.51
2:N:390:LEU:O	2:N:392:ARG:HG3	2.10	0.51
2:N:557:PHE:CZ	2:N:603:LEU:HD11	2.45	0.51
2:N:601:ARG:O	2:N:605:ARG:HG3	2.11	0.51
2:N:1063:GLY:O	3:O:202:PRO:HG2	2.09	0.51
4:P:118:THR:HG21	4:P:121:LYS:CD	2.40	0.51
4:P:216:ASN:C	4:P:218:GLU:H	2.13	0.51
4:P:29:LEU:N	4:P:29:LEU:CD2	2.73	0.51
8:T:84:ALA:O	8:T:85:GLY:C	2.49	0.51
8:T:84:ALA:CA	8:T:87:ARG:HB2	2.39	0.51
8:T:99:GLY:CA	8:T:118:PHE:HD2	2.23	0.51
10:V:2:ILE:HG12	10:V:57:ILE:HD13	1.91	0.51
13:4:23:BRU:H6	13:4:23:BRU:C5'	2.35	0.51
1:A:313:GLN:O	1:A:315:LEU:HD23	2.09	0.51
1:A:756:ILE:O	1:A:759:ALA:HB3	2.10	0.51
1:A:899:VAL:CG2	1:A:908:LEU:HD21	2.40	0.51
2:B:546:SER:OG	2:B:631:GLY:N	2.43	0.51
2:B:299:GLU:OE2	2:B:571:PRO:HG2	2.10	0.51
2:B:69:LEU:HB3	2:B:429:PHE:HE1	1.73	0.51
2:B:906:SER:O	2:B:907:GLY:C	2.48	0.51
3:C:116:LYS:HD3	3:C:140:ASN:HA	1.92	0.51
3:C:184:ASN:OD1	3:C:187:LYS:CA	2.58	0.51
3:C:91:HIS:C	3:C:91:HIS:CD2	2.82	0.51
5:E:124:VAL:HB	5:E:125:PRO:CD	2.40	0.51
6:F:109:VAL:HG13	6:F:127:GLU:OE1	2.09	0.51
9:I:82:GLU:OE2	9:I:104:LEU:HB2	2.10	0.51
2:B:824:ILE:CG1	10:J:48:ARG:HH12	2.15	0.51
1:M:1120:LEU:CD2	1:M:1125:ALA:HA	2.40	0.51
1:M:38:PRO:CA	1:M:270:LEU:HD23	2.41	0.51
1:M:596:THR:C	1:M:598:LEU:N	2.62	0.51
1:M:761:MET:HA	1:M:804:TYR:HB2	1.93	0.51
2:N:916:THR:HB	2:N:935:ARG:HG3	1.92	0.51
3:O:212:PRO:HB3	3:O:213:PRO:HD2	1.92	0.51
4:P:202:ILE:HG23	4:P:202:ILE:O	2.09	0.51
4:P:214:LEU:O	4:P:218:GLU:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:61:GLN:HG2	5:Q:62:ALA:N	2.24	0.51
5:Q:74:ASP:N	5:Q:74:ASP:OD1	2.43	0.51
7:S:91:VAL:CG1	7:S:92:VAL:N	2.72	0.51
8:T:89:LEU:HB2	8:T:91:ASP:CG	2.30	0.51
14:5:5:DC:H2'	14:5:6:DT:H72	1.91	0.51
1:A:1241:ARG:O	1:A:1242:VAL:HB	2.09	0.51
1:A:1317:MET:O	1:A:1322:ILE:HD11	2.10	0.51
2:B:370:PHE:CD2	2:B:373:ARG:CD	2.93	0.51
2:B:90:ILE:HD12	2:B:432:MET:HE1	1.91	0.51
2:B:878:GLN:CB	2:B:879:ARG:HH11	2.23	0.51
4:D:20:GLU:HG2	4:D:20:GLU:O	2.11	0.51
6:F:103:MET:O	6:F:104:ASN:HB2	2.10	0.51
6:F:97:ARG:HH21	6:F:108:PHE:HE1	1.54	0.51
7:G:106:MET:CG	7:G:107:LYS:N	2.72	0.51
8:H:130:ARG:HA	8:H:133:ASN:HB2	1.93	0.51
8:H:30:SER:CB	8:H:36:CYS:HB3	2.41	0.51
1:M:1325:THR:HG22	1:M:1326:ARG:HG3	1.91	0.51
1:M:313:GLN:O	1:M:315:LEU:HD23	2.11	0.51
1:M:463:ILE:HD12	1:M:469:ARG:HD2	1.91	0.51
1:M:720:ARG:O	1:M:724:GLU:HB3	2.11	0.51
2:N:345:LYS:HG3	2:N:346:GLU:H	1.75	0.51
2:N:806:THR:HG21	2:N:808:ALA:HB3	1.92	0.51
3:O:186:LEU:CD2	3:O:225:ALA:HB2	2.41	0.51
5:Q:56:LYS:NZ	5:Q:84:ASP:N	2.58	0.51
6:R:75:PRO:HG3	6:R:78:GLN:OE1	2.10	0.51
8:T:59:ILE:O	8:T:60:ALA:HB3	2.10	0.51
8:T:89:LEU:O	8:T:91:ASP:N	2.43	0.51
12:X:47:ARG:CD	12:X:52:GLY:HA2	2.40	0.51
1:A:833:GLU:OE2	1:A:1102:LYS:HE3	2.10	0.51
1:A:1170:ILE:HG22	1:A:1174:PHE:HE1	1.75	0.51
1:A:153:PRO:HB3	1:A:161:LEU:HD22	1.91	0.51
1:A:347:PHE:HE2	1:A:375:THR:CG2	2.23	0.51
1:A:89:PRO:C	1:A:204:THR:HG21	2.30	0.51
2:B:273:LEU:O	2:B:276:ILE:HB	2.10	0.51
2:B:515:HIS:CD2	2:B:517:THR:HG23	2.46	0.51
2:B:603:LEU:HB3	2:B:609:ILE:HD11	1.92	0.51
2:B:63:ILE:HD12	2:B:421:PHE:CE2	2.46	0.51
2:B:984:HIS:NE2	2:B:1025:HIS:HA	2.25	0.51
3:C:10:ILE:HG22	3:C:11:ARG:O	2.10	0.51
3:C:252:GLN:HG3	11:K:95:ILE:HG23	1.93	0.51
1:M:1035:TYR:O	1:M:1036:ARG:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:106:VAL:HG21	1:M:214:ILE:CD1	2.40	0.51
1:M:567:LYS:CG	1:M:568:PRO:CD	2.85	0.51
1:M:740:LEU:HD12	1:M:741:ASN:N	2.25	0.51
1:M:963:ILE:HD11	1:M:1048:ASN:CB	2.40	0.51
2:N:1167:GLY:HA3	2:N:1216:LEU:N	2.25	0.51
2:N:258:LEU:O	2:N:258:LEU:HG	2.09	0.51
2:N:273:LEU:HD22	2:N:360:PHE:HD1	1.76	0.51
2:N:549:THR:HG22	2:N:550:ASP:H	1.71	0.51
2:N:906:SER:O	2:N:907:GLY:C	2.48	0.51
5:Q:161:LYS:HD2	5:Q:195:VAL:HG23	1.92	0.51
9:U:34:TYR:HE2	9:U:36:GLU:HB3	1.75	0.51
9:U:58:VAL:HG13	9:U:62:ILE:HD13	1.91	0.51
9:U:84:VAL:HG12	9:U:104:LEU:HD21	1.93	0.51
10:V:54:VAL:O	10:V:56:LEU:N	2.42	0.51
11:W:49:GLU:HG3	11:W:94:ILE:CG1	2.40	0.51
12:X:28:LYS:HE3	12:X:39:SER:OG	2.10	0.51
1:A:381:THR:HG23	1:A:382:PRO:HD2	1.93	0.51
1:A:399:HIS:O	1:A:400:PRO:C	2.49	0.51
2:B:37:PHE:HE1	2:B:41:LYS:HD3	1.75	0.51
2:B:558:LEU:O	2:B:561:TRP:N	2.44	0.51
2:B:879:ARG:N	2:B:879:ARG:NE	2.56	0.51
3:C:263:THR:O	3:C:266:ASP:HB2	2.10	0.51
7:G:27:LYS:HE2	7:G:54:ILE:HB	1.93	0.51
11:K:47:ARG:HD3	11:K:59:ALA:O	2.11	0.51
1:M:1148:ILE:O	1:M:1149:ALA:HB2	2.10	0.51
1:M:1193:LEU:HD12	1:M:1194:ARG:N	2.26	0.51
1:M:857:ARG:HD3	1:M:861:GLY:O	2.11	0.51
1:M:901:LEU:HB2	1:M:926:GLN:HG2	1.91	0.51
2:N:345:LYS:HG2	2:N:346:GLU:H	1.73	0.51
2:N:594:ALA:N	2:N:617:ARG:HH12	2.08	0.51
2:N:39:ARG:HH21	2:N:665:GLU:CD	2.13	0.51
5:Q:83:CYS:SG	5:Q:85:GLU:HB2	2.51	0.51
8:T:18:GLY:O	8:T:19:ARG:HB2	2.11	0.51
10:V:25:LEU:O	10:V:29:GLU:HA	2.11	0.51
13:4:23:BRU:H2"	13:4:24:DG:O5'	2.10	0.51
1:A:1141:THR:HG23	1:A:1205:LYS:HD3	1.92	0.51
1:A:1267:MET:HA	1:A:1271:ILE:HD12	1.91	0.51
2:B:37:PHE:HE1	2:B:41:LYS:CD	2.24	0.51
2:B:999:MET:HB3	2:B:1007:VAL:HG21	1.92	0.51
5:E:94:LYS:O	5:E:98:ILE:HG13	2.10	0.51
5:E:169:ARG:HD3	6:F:140:ASP:CG	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:26:ILE:CD1	8:H:49:VAL:HG11	2.41	0.51
8:H:89:LEU:O	8:H:91:ASP:N	2.43	0.51
10:J:54:VAL:O	10:J:56:LEU:N	2.42	0.51
1:M:298:PHE:CZ	1:M:314:ALA:HB2	2.46	0.51
1:M:597:LEU:N	1:M:597:LEU:HD12	2.25	0.51
1:M:744:LYS:HD3	1:M:748:MET:HE1	1.93	0.51
2:N:1037:LEU:HD21	2:N:1064:TYR:CE1	2.43	0.51
2:N:121:ASN:HD22	2:N:207:GLY:HA3	1.75	0.51
2:N:124:TYR:OH	2:N:179:CYS:SG	2.68	0.51
3:O:248:ILE:CD1	11:W:101:LEU:HD22	2.39	0.51
3:O:91:HIS:C	3:O:91:HIS:CD2	2.83	0.51
7:G:97:HIS:HE1	7:S:93:SER:HB2	1.75	0.51
10:V:30:LEU:HD11	10:V:38:ARG:HH11	1.76	0.51
11:W:107:THR:O	11:W:111:LEU:HG	2.11	0.51
1:A:1148:ILE:O	1:A:1149:ALA:HB2	2.10	0.51
1:A:1227:ILE:HG22	1:A:1228:TRP:H	1.76	0.51
1:A:860:LEU:HD11	1:A:1393:ASN:HB2	1.92	0.51
1:A:224:PHE:HD2	1:A:229:SER:O	1.93	0.51
1:A:49:LYS:HE2	1:A:61:ILE:CD1	2.38	0.51
2:B:259:TYR:HD1	2:B:259:TYR:H	1.59	0.51
2:B:276:ILE:HA	2:B:336:ARG:O	2.10	0.51
2:B:792:MET:HG2	2:B:855:PHE:HE1	1.76	0.51
2:B:878:GLN:O	2:B:879:ARG:C	2.49	0.51
4:D:130:LEU:O	4:D:132:GLN:N	2.41	0.51
5:E:32:GLN:HG3	5:E:36:GLU:OE2	2.11	0.51
1:A:537:ARG:HD2	8:H:20:TYR:HE1	1.72	0.51
1:M:154:SER:HB3	1:M:162:VAL:HG21	1.91	0.51
1:M:224:PHE:HD2	1:M:229:SER:O	1.94	0.51
1:M:67:CYS:O	1:M:70:CYS:HB3	2.11	0.51
1:M:915:SER:O	1:M:919:ILE:HB	2.11	0.51
2:N:204:ILE:O	2:N:204:ILE:HG22	2.11	0.51
2:N:211:VAL:HG13	2:N:495:LEU:HD23	1.92	0.51
1:M:253:ASN:HB2	2:N:884:ARG:NH1	2.26	0.51
2:N:906:SER:N	2:N:909:ASP:OD2	2.43	0.51
3:O:39:ALA:HA	3:O:164:ALA:CB	2.39	0.51
1:A:277:GLU:HG2	4:P:209:ARG:HH21	1.75	0.51
7:S:109:PHE:O	7:S:160:ILE:HA	2.11	0.51
7:S:91:VAL:HG12	7:S:92:VAL:N	2.24	0.51
9:U:101:PHE:CD1	9:U:101:PHE:N	2.78	0.51
9:U:15:TYR:CD1	9:U:15:TYR:N	2.79	0.51
12:X:26:THR:HG23	12:X:62:LYS:NZ	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1:25:DG:H2"	13:1:26:DT:H72	1.92	0.51
1:A:117:GLU:H	1:A:117:GLU:CD	2.14	0.51
1:A:222:LEU:O	1:A:224:PHE:HD1	1.94	0.51
1:A:600:PRO:HA	8:H:25:ARG:NH1	2.25	0.51
1:A:871:ASP:OD1	1:A:1366:ARG:NH2	2.43	0.51
2:B:422:LYS:HA	2:B:425:THR:HB	1.91	0.51
2:B:686:ASN:C	2:B:688:GLY:H	2.14	0.51
2:B:955:THR:CG2	2:B:956:THR:H	2.22	0.51
3:C:252:GLN:HE21	11:K:95:ILE:HG23	1.75	0.51
5:E:112:TYR:CD1	5:E:112:TYR:C	2.84	0.51
9:I:78:CYS:SG	9:I:105:SER:O	2.69	0.51
10:J:42:LYS:HD3	10:J:43:ARG:HD3	1.92	0.51
1:M:132:LYS:HE3	1:M:1411:GLU:HG3	1.93	0.51
1:M:399:HIS:CB	1:M:400:PRO:CD	2.88	0.51
1:M:50:ILE:O	1:M:52:GLY:N	2.43	0.51
1:M:856:THR:HB	1:M:865:GLN:HB2	1.92	0.51
1:M:886:ILE:CG2	1:M:887:GLY:N	2.74	0.51
2:N:1115:THR:HG22	2:N:1117:GLN:CG	2.40	0.51
2:N:918:ILE:HG21	2:N:935:ARG:NH2	2.25	0.51
4:P:118:THR:HG21	4:P:121:LYS:CE	2.40	0.51
6:R:138:LEU:HB3	6:R:139:PRO:HD2	1.91	0.51
7:S:138:THR:CG2	7:S:139:ILE:N	2.73	0.51
8:T:62:SER:OG	8:T:63:LEU:N	2.44	0.51
10:V:64:ASN:CB	10:V:65:PRO:HD3	2.36	0.51
11:W:50:LEU:HD11	11:W:75:ILE:HD13	1.93	0.51
13:1:25:DG:H2"	13:1:26:DT:H73	1.93	0.51
1:A:1402:PHE:CE2	1:A:1403:GLU:HG3	2.46	0.51
1:A:549:MET:SD	1:A:577:ILE:CD1	2.99	0.51
1:A:598:LEU:HD23	8:H:25:ARG:NH2	2.26	0.51
1:A:67:CYS:O	1:A:68:GLN:C	2.49	0.51
2:B:273:LEU:HB3	2:B:276:ILE:HD12	1.91	0.51
2:B:616:ILE:H	2:B:616:ILE:HD12	1.74	0.51
2:B:781:PHE:HE2	2:B:795:ILE:HD11	1.76	0.51
2:B:839:MET:HE1	2:B:980:PHE:HB2	1.93	0.51
2:B:847:ASP:C	2:B:849:GLY:N	2.64	0.51
4:D:51:ASN:O	4:D:52:LEU:O	2.29	0.51
5:E:98:ILE:O	5:E:102:GLU:HG3	2.11	0.51
7:G:18:PHE:HA	7:G:22:MET:CE	2.41	0.51
1:A:1445:ILE:HD11	7:G:68:ALA:HB1	1.92	0.51
9:I:109:ILE:HG22	9:I:109:ILE:O	2.09	0.51
11:K:108:GLU:O	11:K:112:GLN:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:47:ARG:HD2	11:K:47:ARG:C	2.32	0.51
1:M:1255:GLU:CG	1:M:1255:GLU:O	2.58	0.51
1:M:335:ARG:NH1	2:N:1206:GLU:OE1	2.44	0.51
2:N:185:THR:O	2:N:186:GLU:C	2.49	0.51
2:N:579:ARG:NH1	2:N:622:LYS:O	2.44	0.51
2:N:599:THR:HG22	2:N:600:LEU:N	2.25	0.51
11:W:53:ASP:HB3	11:W:56:VAL:HG23	1.92	0.51
1:A:13:THR:HB	1:A:1432:GLN:NE2	2.26	0.51
1:A:493:GLN:HE21	1:A:493:GLN:CA	2.23	0.51
1:A:56:PRO:O	1:A:57:ARG:CG	2.59	0.51
1:A:598:LEU:HD11	8:H:124:ARG:HB2	1.93	0.51
1:A:866:PHE:O	1:A:867:ILE:HD12	2.10	0.51
2:B:637:LEU:CD2	2:B:742:GLU:HA	2.41	0.51
3:C:11:ARG:NH2	3:C:206:ASN:OD1	2.44	0.51
7:G:111:THR:CG2	7:G:114:LEU:HD22	2.40	0.51
8:H:95:TYR:HE2	8:H:97:MET:SD	2.34	0.51
1:M:868:TYR:OH	1:M:1366:ARG:HD3	2.11	0.51
1:M:114:LEU:HD21	1:M:171:GLN:HE21	1.75	0.51
1:M:200:ARG:HG2	1:M:200:ARG:HH11	1.75	0.51
1:M:443:LEU:HD12	2:N:1146:PHE:CE2	2.46	0.51
1:M:960:ILE:HA	1:M:963:ILE:CG2	2.41	0.51
1:M:967:ALA:O	1:M:971:PHE:HD1	1.92	0.51
2:N:96:TYR:HE1	2:N:131:ASP:OD1	1.94	0.51
2:N:165:VAL:HG11	2:N:448:ILE:CD1	2.41	0.51
2:N:237:VAL:HG22	2:N:257:LYS:HA	1.93	0.51
2:N:807:ARG:NH1	2:N:807:ARG:HB3	2.26	0.51
2:N:840:ILE:CG2	2:N:994:TYR:HD1	2.24	0.51
3:O:229:TYR:N	3:O:229:TYR:CD1	2.78	0.51
3:O:238:ILE:CG2	3:O:243:VAL:HG23	2.37	0.51
3:O:252:GLN:HE21	11:W:95:ILE:CG2	2.23	0.51
6:R:127:GLU:O	6:R:129:LYS:HG3	2.11	0.51
8:T:63:LEU:HD11	8:T:141:TYR:CD2	2.46	0.51
8:T:42:ILE:HG23	8:T:95:TYR:HE1	1.76	0.51
10:V:36:LEU:HD12	10:V:47:ARG:NH1	2.26	0.51
12:X:65:VAL:HG23	12:X:67:PHE:HE1	1.76	0.51
1:A:288:ALA:CA	1:A:291:GLU:HG3	2.40	0.50
1:A:50:ILE:O	1:A:52:GLY:N	2.43	0.50
1:A:694:THR:O	1:A:698:GLN:HG3	2.11	0.50
2:B:282:ILE:HD12	2:B:382:ILE:HD13	1.92	0.50
2:B:483:LEU:HD11	2:B:491:THR:CG2	2.40	0.50
3:C:177:GLU:HG3	3:C:231:ASN:CB	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:35:LEU:HA	4:D:47:LEU:HB2	1.93	0.50
8:H:84:ALA:C	8:H:86:ASP:N	2.63	0.50
1:A:562:THR:HB	8:H:98:TYR:CD2	2.46	0.50
11:K:22:ASP:O	11:K:31:VAL:HG13	2.10	0.50
1:M:898:ARG:O	1:M:1029:ARG:NH1	2.44	0.50
1:M:1138:ILE:HG21	1:M:1316:VAL:HG13	1.92	0.50
2:N:1037:LEU:CD2	2:N:1064:TYR:HE1	2.23	0.50
2:N:1183:LYS:HE3	2:N:1183:LYS:O	2.12	0.50
2:N:33:VAL:HG21	2:N:638:PHE:HZ	1.76	0.50
2:N:654:ARG:O	2:N:657:HIS:N	2.44	0.50
2:N:638:PHE:CD2	2:N:690:VAL:HG12	2.46	0.50
2:N:791:THR:O	2:N:792:MET:HB2	2.10	0.50
2:N:847:ASP:HB3	3:O:167:HIS:CD2	2.45	0.50
4:P:20:GLU:HG2	4:P:20:GLU:O	2.11	0.50
4:P:155:ARG:NH2	4:P:221:TYR:CD1	2.76	0.50
7:S:139:ILE:HD11	7:S:140:LYS:HE3	1.94	0.50
10:V:44:TYR:HD2	10:V:44:TYR:H	1.54	0.50
1:M:560:ILE:HD11	11:W:58:PHE:HD1	1.75	0.50
12:X:59:ALA:O	12:X:60:ARG:O	2.30	0.50
14:2:5:DC:H2'	14:2:6:DT:H72	1.92	0.50
1:A:1168:GLU:O	1:A:1171:GLN:OE1	2.28	0.50
1:A:283:GLY:O	1:A:285:PRO:CD	2.59	0.50
1:A:313:GLN:O	1:A:314:ALA:C	2.49	0.50
1:A:503:GLN:NE2	6:F:90:ARG:NH2	2.53	0.50
1:A:729:ALA:O	1:A:732:LEU:HB2	2.11	0.50
2:B:34:ILE:HG23	2:B:542:MET:CE	2.41	0.50
2:B:707:PRO:O	2:B:708:GLU:O	2.29	0.50
2:B:794:ASN:C	2:B:795:ILE:HD12	2.32	0.50
7:G:83:LYS:HG3	7:G:148:GLU:O	2.12	0.50
7:G:74:TYR:H	7:G:74:TYR:HD2	1.59	0.50
1:M:1339:LEU:HD13	5:Q:147:HIS:CD2	2.47	0.50
1:M:162:VAL:HG12	1:M:163:SER:N	2.26	0.50
1:M:195:ASP:O	1:M:196:GLU:HB3	2.11	0.50
1:M:207:ILE:HG22	1:M:211:PHE:CE2	2.46	0.50
1:M:322:VAL:O	1:M:322:VAL:CG1	2.59	0.50
1:M:826:ASP:O	1:M:830:LYS:HB2	2.11	0.50
1:M:909:ASP:OD1	1:M:911:SER:N	2.36	0.50
1:M:964:ILE:O	1:M:967:ALA:HB3	2.11	0.50
2:N:758:PHE:HE1	2:N:1027:ILE:HG22	1.76	0.50
2:N:305:VAL:HG12	2:N:305:VAL:O	2.11	0.50
2:N:345:LYS:HG2	2:N:346:GLU:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:90:ILE:HD12	2:N:432:MET:SD	2.51	0.50
2:N:37:PHE:HE2	2:N:542:MET:HA	1.75	0.50
2:N:31:TRP:CD1	2:N:807:ARG:NH2	2.79	0.50
3:O:123:ASN:HD22	3:O:125:MET:HG2	1.72	0.50
4:P:217:LEU:O	4:P:219:THR:N	2.43	0.50
5:Q:2:ASP:O	5:Q:3:GLN:HG2	2.10	0.50
5:Q:96:PHE:CE1	5:Q:100:ILE:HD11	2.46	0.50
8:T:84:ALA:HA	8:T:87:ARG:CG	2.41	0.50
9:U:78:CYS:SG	9:U:105:SER:O	2.69	0.50
3:O:235:VAL:HG11	10:V:6:ARG:NH2	2.26	0.50
1:A:101:LYS:HE2	1:A:139:TRP:CZ2	2.46	0.50
1:A:162:VAL:HG12	1:A:163:SER:H	1.76	0.50
1:A:595:THR:O	1:A:596:THR:CG2	2.59	0.50
1:A:596:THR:C	1:A:598:LEU:N	2.63	0.50
1:A:701:LEU:HD21	9:I:114:GLN:HB2	1.94	0.50
1:A:786:HIS:N	1:A:786:HIS:CD2	2.79	0.50
1:A:875:ALA:HB2	1:A:1366:ARG:HD2	1.94	0.50
2:B:368:GLU:O	2:B:370:PHE:N	2.43	0.50
2:B:696:GLU:O	2:B:699:GLU:HB2	2.11	0.50
3:C:243:VAL:O	3:C:243:VAL:CG1	2.59	0.50
4:D:203:SER:OG	4:D:206:GLU:HB2	2.11	0.50
1:M:1148:ILE:CG1	1:M:1198:ASP:HB2	2.42	0.50
1:M:49:LYS:HD2	1:M:55:ASP:HB3	1.91	0.50
2:N:298:LEU:N	2:N:298:LEU:HD22	2.27	0.50
3:O:22:LEU:HD22	3:O:230:MET:CE	2.41	0.50
5:Q:135:PHE:HD2	5:Q:140:LEU:HD21	1.76	0.50
5:Q:182:ASP:HB3	5:Q:185:ALA:HB2	1.93	0.50
7:S:1:MET:CE	7:S:2:PHE:HA	2.41	0.50
9:U:61:ASP:O	9:U:63:GLY:N	2.45	0.50
11:W:64:GLU:HA	11:W:64:GLU:OE2	2.11	0.50
1:A:1206:ASP:O	1:A:1274:ARG:NH2	2.44	0.50
1:A:427:GLN:HB2	1:A:430:TRP:CG	2.47	0.50
1:A:64:ASN:O	1:A:66:LYS:N	2.44	0.50
2:B:190:TYR:CZ	2:B:196:PRO:HG3	2.47	0.50
2:B:431:TYR:CD1	2:B:447:ALA:HB2	2.47	0.50
2:B:39:ARG:HH21	2:B:665:GLU:CG	2.24	0.50
3:C:118:LEU:HB2	3:C:132:PRO:HG2	1.94	0.50
4:D:56:ARG:NH2	4:D:155:ARG:HA	2.26	0.50
4:D:162:ALA:HA	4:D:165:GLN:NE2	2.27	0.50
1:M:1036:ARG:NH1	1:M:1036:ARG:CG	2.69	0.50
1:M:1410:PHE:HD2	2:N:1212:ILE:CD1	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:252:PHE:HB2	1:M:256:GLN:CD	2.31	0.50
2:N:118:ARG:HH22	2:N:194:GLU:CD	2.14	0.50
2:N:259:TYR:H	2:N:259:TYR:HD1	1.60	0.50
2:N:272:THR:HG23	2:N:279:ASP:OD1	2.12	0.50
2:N:797:TYR:HE1	2:N:854:LEU:CD2	2.25	0.50
2:N:863:GLU:OE1	2:N:962:LYS:HB2	2.11	0.50
4:P:167:LEU:O	4:P:170:THR:HG23	2.12	0.50
7:S:92:VAL:HG21	7:S:102:GLN:HB2	1.93	0.50
1:A:1124:HIS:HB2	1:A:1130:GLN:HG2	1.94	0.50
1:A:493:GLN:NE2	1:A:493:GLN:CA	2.73	0.50
1:A:693:VAL:HG21	1:A:721:PHE:CE1	2.42	0.50
2:B:185:THR:O	2:B:188:ASP:HB2	2.11	0.50
2:B:798:TYR:CE2	3:C:62:PHE:CZ	3.00	0.50
5:E:13:TRP:O	5:E:16:PHE:HB3	2.11	0.50
5:E:171:LYS:HG2	5:E:174:GLN:OE1	2.10	0.50
7:G:81:PRO:HD2	7:G:157:ILE:HD12	1.93	0.50
2:B:622:LYS:CE	9:I:59:VAL:HG13	2.41	0.50
9:I:61:ASP:O	9:I:63:GLY:N	2.45	0.50
1:M:1237:ILE:CG2	1:M:1238:ILE:N	2.74	0.50
1:M:200:ARG:HG2	1:M:200:ARG:NH1	2.26	0.50
1:M:285:PRO:O	1:M:287:HIS:N	2.44	0.50
1:M:535:THR:HG21	1:M:616:VAL:CA	2.38	0.50
2:N:984:HIS:CD2	2:N:1025:HIS:HA	2.47	0.50
2:N:209:GLU:OE2	2:N:485:ARG:NE	2.36	0.50
2:N:63:ILE:HD12	2:N:421:PHE:CZ	2.47	0.50
1:M:789:LYS:HD2	2:N:620:ARG:HH12	1.75	0.50
3:O:101:LEU:O	3:O:102:GLN:HG2	2.12	0.50
3:O:70:ILE:HG12	3:O:142:VAL:HG11	1.93	0.50
3:O:177:GLU:HG3	3:O:231:ASN:CB	2.30	0.50
3:O:209:TYR:HD1	3:O:209:TYR:H	1.58	0.50
5:Q:180:ARG:NH2	5:Q:192:ARG:HD2	2.27	0.50
5:Q:169:ARG:HD3	6:R:140:ASP:CG	2.31	0.50
1:A:1015:VAL:HG12	1:A:1015:VAL:O	2.11	0.50
1:A:722:LEU:HD21	1:A:794:PRO:HB3	1.94	0.50
1:A:72:GLU:HB3	1:A:76:GLU:HG2	1.92	0.50
1:A:794:PRO:C	1:A:796:SER:H	2.14	0.50
2:B:185:THR:O	2:B:186:GLU:C	2.50	0.50
2:B:611:PRO:O	2:B:692:TYR:HB2	2.12	0.50
3:C:147:LEU:HD12	3:C:151:GLN:O	2.11	0.50
2:B:847:ASP:HB3	3:C:167:HIS:CD2	2.46	0.50
3:C:186:LEU:CD2	3:C:225:ALA:HB2	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:23:ASN:HA	4:D:28:GLN:O	2.12	0.50
4:D:51:ASN:HB3	4:D:178:ALA:O	2.11	0.50
5:E:121:MET:C	5:E:123:LEU:H	2.14	0.50
12:L:47:ARG:HD3	12:L:52:GLY:HA2	1.92	0.50
1:M:1021:LEU:O	1:M:1024:SER:HB3	2.12	0.50
1:M:1362:TYR:CD1	1:M:1363:VAL:N	2.79	0.50
1:M:196:GLU:HG3	1:M:197:PRO:HD2	1.94	0.50
2:N:1117:GLN:HE21	2:N:1199:ALA:HB2	1.77	0.50
2:N:95:ILE:CG1	2:N:130:VAL:HG22	2.41	0.50
3:O:133:ILE:HD12	3:O:237:SER:N	2.26	0.50
4:P:120:GLU:OE1	4:P:120:GLU:O	2.30	0.50
4:P:36:LYS:HG2	4:P:44:GLU:OE1	2.12	0.50
9:U:6:PHE:CB	9:U:12:ASN:O	2.52	0.50
12:X:28:LYS:HB3	12:X:39:SER:HB2	1.93	0.50
14:5:2:DC:C5	14:5:3:DT:H73	2.46	0.50
1:A:973:ILE:HD11	1:A:1041:ALA:HB2	1.94	0.50
2:B:1001:PHE:CZ	2:B:1073:TYR:HB2	2.47	0.50
2:B:1116:ARG:HG3	2:B:1198:TYR:CD2	2.47	0.50
4:D:8:PHE:HD2	7:G:6:ASP:O	1.94	0.50
7:G:14:HIS:CE1	7:G:15:PRO:HD2	2.46	0.50
8:H:106:GLU:O	8:H:108:SER:N	2.34	0.50
11:K:31:VAL:CG1	11:K:32:VAL:N	2.74	0.50
1:M:1095:THR:HG21	1:M:1112:LYS:HD2	1.94	0.50
1:M:1444:MET:HG3	7:S:60:ARG:CA	2.33	0.50
1:M:171:GLN:HA	1:M:171:GLN:OE1	2.12	0.50
1:M:225:ASN:ND2	1:M:227:VAL:N	2.59	0.50
1:M:337:ARG:HD3	2:N:1132:GLU:CD	2.32	0.50
2:N:599:THR:O	2:N:603:LEU:HB2	2.11	0.50
2:N:642:ASP:CA	2:N:649:LYS:HA	2.39	0.50
2:N:611:PRO:O	2:N:692:TYR:HB2	2.12	0.50
4:P:71:LYS:HG2	4:P:74:GLN:HE21	1.74	0.50
7:S:138:THR:O	7:S:140:LYS:N	2.45	0.50
10:V:1:MET:H1	10:V:56:LEU:HB2	1.77	0.50
13:4:16:DT:N3	13:4:17:DT:C4	2.80	0.50
1:A:1255:GLU:HG2	1:A:1255:GLU:O	2.12	0.50
1:A:306:ASN:ND2	1:A:322:VAL:HG12	2.26	0.50
1:A:645:LEU:HG	1:A:649:ILE:HD12	1.94	0.50
1:A:852:TYR:CD2	1:A:1060:PRO:CB	2.95	0.50
2:B:424:LEU:O	2:B:428:ILE:HG13	2.11	0.50
2:B:766:ARG:NH2	2:B:1020:ARG:HD3	2.26	0.50
1:M:722:LEU:HB3	1:M:799:PHE:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:803:LEU:HD12	2:N:1032:SER:HB3	1.94	0.50
2:N:62:ILE:HG23	2:N:418:LYS:HG3	1.93	0.50
2:N:821:GLN:OE1	2:N:850:LEU:HD12	2.12	0.50
2:N:850:LEU:HD12	2:N:851:PHE:N	2.26	0.50
2:N:859:TYR:OH	2:N:941:LEU:HD12	2.12	0.50
3:O:147:LEU:CD2	3:O:147:LEU:N	2.74	0.50
4:P:130:LEU:O	4:P:132:GLN:N	2.41	0.50
1:M:567:LYS:CE	8:T:46:LEU:HB2	2.42	0.50
10:V:64:ASN:HB3	10:V:65:PRO:HD2	1.89	0.50
1:A:1241:ARG:O	1:A:1242:VAL:CG2	2.60	0.50
2:B:1001:PHE:CE2	3:C:34:ARG:CZ	2.95	0.50
2:B:893:LEU:HD22	2:B:897:GLY:HA2	1.94	0.50
4:D:118:THR:HG22	4:D:118:THR:O	2.11	0.50
5:E:127:ILE:O	5:E:127:ILE:HG13	2.12	0.50
6:F:81:THR:HB	6:F:136:ARG:HH11	1.75	0.50
8:H:113:ALA:HA	8:H:125:LEU:O	2.11	0.50
1:M:1324:PRO:HB2	5:Q:142:VAL:HG11	1.93	0.50
1:M:1336:MET:HE2	1:M:1381:LEU:HG	1.94	0.50
1:M:133:LYS:O	1:M:136:ALA:HB3	2.12	0.50
1:M:1399:ARG:HB3	1:M:1408:ILE:HD13	1.93	0.50
1:M:1421:CYS:HA	1:M:1426:GLU:HG3	1.93	0.50
1:M:567:LYS:HB3	8:T:95:TYR:HA	1.92	0.50
2:N:429:PHE:CD1	2:N:432:MET:HE3	2.46	0.50
2:N:618:ASP:O	2:N:622:LYS:N	2.45	0.50
2:N:751:VAL:HG13	2:N:812:LEU:CD2	2.37	0.50
7:S:106:MET:CG	7:S:107:LYS:H	2.25	0.50
7:S:113:HIS:N	7:S:113:HIS:ND1	2.56	0.50
1:A:1187:GLN:HG3	1:A:1188:GLN:H	1.76	0.49
1:A:1237:ILE:CG2	1:A:1238:ILE:N	2.75	0.49
1:A:1280:GLU:O	1:A:1281:ARG:O	2.30	0.49
1:A:1315:GLU:C	1:A:1317:MET:H	2.15	0.49
1:A:349:ALA:HB2	1:A:374:LEU:HD11	1.94	0.49
1:A:807:GLY:HA2	2:B:760:ASP:O	2.11	0.49
2:B:1103:ILE:O	2:B:1103:ILE:HG23	2.11	0.49
2:B:758:PHE:CE2	2:B:1044:ALA:CA	2.90	0.49
2:B:956:THR:HA	2:B:961:LEU:O	2.11	0.49
3:C:25:VAL:HG12	3:C:26:ASP:H	1.76	0.49
4:D:144:THR:HG21	7:G:46:LEU:HD13	1.92	0.49
4:D:47:LEU:HD13	4:D:48:ILE:N	2.27	0.49
1:A:1342:GLU:HG3	5:E:198:ILE:HD13	1.93	0.49
7:G:116:PRO:HG2	7:G:119:LEU:CB	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:138:THR:O	7:G:140:LYS:N	2.45	0.49
1:A:562:THR:HB	8:H:98:TYR:HD2	1.75	0.49
11:K:55:LYS:HD3	11:K:81:TYR:CE1	2.47	0.49
12:L:27:LEU:O	12:L:28:LYS:HB2	2.12	0.49
1:M:1277:GLU:O	1:M:1279:ILE:N	2.44	0.49
1:M:41:MET:O	1:M:42:ASP:O	2.29	0.49
1:M:874:ASP:OD1	1:M:874:ASP:C	2.49	0.49
1:M:351:THR:CG2	2:N:1103:ILE:HA	2.22	0.49
2:N:1147:LEU:CD2	2:N:1151:LEU:HD22	2.42	0.49
2:N:203:PHE:HB3	2:N:205:ILE:CD1	2.42	0.49
2:N:327:ARG:O	2:N:331:LEU:HD13	2.12	0.49
2:N:916:THR:CG2	2:N:935:ARG:HD2	2.42	0.49
2:N:991:GLY:O	2:N:992:ILE:HB	2.12	0.49
4:P:57:LEU:HD13	4:P:157:GLN:OE1	2.12	0.49
7:S:11:ILE:HD13	7:S:29:LYS:HB3	1.93	0.49
7:S:31:LEU:HD23	7:S:48:VAL:HG21	1.93	0.49
9:U:13:MET:HG2	9:U:14:LEU:N	2.27	0.49
9:U:73:ARG:HH12	9:U:112:SER:CB	2.25	0.49
1:A:963:ILE:HD11	1:A:1048:ASN:CB	2.42	0.49
1:A:1100:ARG:O	1:A:1104:ILE:HG13	2.11	0.49
1:A:1242:VAL:CG1	1:A:1243:VAL:H	2.25	0.49
1:A:401:GLY:C	1:A:435:HIS:CD2	2.85	0.49
1:A:445:ASN:CB	1:A:455:MET:HG2	2.35	0.49
1:A:820:GLY:O	1:A:822:GLU:N	2.45	0.49
2:B:1099:VAL:HG13	2:B:1100:ASP:N	2.27	0.49
2:B:1167:GLY:HA3	2:B:1216:LEU:N	2.27	0.49
2:B:167:ILE:HG21	2:B:424:LEU:CD2	2.42	0.49
2:B:282:ILE:HG21	2:B:382:ILE:CD1	2.42	0.49
3:C:22:LEU:HD13	3:C:230:MET:HE1	1.93	0.49
4:D:146:GLN:O	4:D:147:TYR:C	2.50	0.49
1:A:598:LEU:HD23	8:H:25:ARG:CZ	2.42	0.49
8:H:58:THR:O	8:H:59:ILE:HG13	2.12	0.49
8:H:81:PRO:CB	8:H:82:PRO:CD	2.88	0.49
8:H:42:ILE:HG23	8:H:95:TYR:CE1	2.47	0.49
1:M:1254:ALA:O	1:M:1255:GLU:CB	2.60	0.49
1:M:1433:MET:HE3	7:S:63:PRO:CB	2.41	0.49
1:M:370:ILE:CG2	1:M:374:LEU:HD12	2.42	0.49
2:N:168:GLY:HA2	2:N:450:ALA:O	2.12	0.49
2:N:431:TYR:CG	2:N:447:ALA:HB2	2.47	0.49
2:N:653:VAL:HA	2:N:689:LEU:HD22	1.94	0.49
2:N:885:MET:HA	2:N:936:ASP:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:65:HIS:O	3:O:69:LEU:HD12	2.11	0.49
4:P:175:PHE:O	4:P:178:ALA:HB3	2.11	0.49
3:O:258:ILE:HG23	11:W:19:LEU:HD11	1.94	0.49
12:X:48:CYS:HB3	12:X:51:CYS:O	2.12	0.49
13:4:25:DG:N9	13:4:26:DT:H72	2.28	0.49
1:A:122:MET:HA	1:A:141:LEU:HD11	1.94	0.49
1:A:1450:LEU:HD21	7:G:19:GLY:O	2.13	0.49
1:A:152:VAL:HG13	1:A:153:PRO:HD2	1.94	0.49
1:A:202:LEU:HA	1:A:206:GLU:OE1	2.13	0.49
1:A:399:HIS:CG	1:A:400:PRO:N	2.79	0.49
1:A:773:LYS:CD	1:A:773:LYS:H	2.23	0.49
1:A:80:HIS:H	1:A:243:PRO:HB3	1.77	0.49
2:B:728:ARG:HH12	2:B:1047:PHE:HB3	1.78	0.49
2:B:953:LEU:O	2:B:953:LEU:HD23	2.12	0.49
3:C:189:THR:CG2	3:C:190:ASP:N	2.74	0.49
3:C:212:PRO:HB3	3:C:213:PRO:HD2	1.95	0.49
5:E:129:PRO:O	5:E:130:ALA:C	2.51	0.49
7:G:121:PHE:HB2	7:G:130:TYR:CE2	2.48	0.49
8:H:123:MET:HE3	8:H:142:LEU:CD2	2.43	0.49
12:L:38:LEU:HG	12:L:39:SER:N	2.28	0.49
2:N:1072:MET:HE3	2:N:1085:ILE:HB	1.88	0.49
2:N:108:VAL:HG23	2:N:109:THR:N	2.27	0.49
2:N:31:TRP:CE3	2:N:34:ILE:HD12	2.46	0.49
2:N:429:PHE:HA	2:N:432:MET:CE	2.43	0.49
2:N:635:ARG:NH1	2:N:742:GLU:OE2	2.43	0.49
4:P:24:ALA:HA	7:S:83:LYS:O	2.12	0.49
7:S:77:VAL:O	7:S:77:VAL:HG12	2.11	0.49
1:A:164:ARG:HG3	1:A:165:GLY:N	2.26	0.49
1:A:489:LEU:HD12	1:A:489:LEU:C	2.32	0.49
1:A:967:ALA:HA	1:A:1044:TRP:CZ3	2.47	0.49
2:B:235:SER:O	2:B:236:HIS:HD2	1.95	0.49
2:B:244:LEU:HD12	2:B:250:PHE:HD1	1.77	0.49
2:B:205:ILE:HD11	2:B:461:LEU:HD23	1.94	0.49
5:E:114:ASN:O	5:E:115:ASN:CB	2.48	0.49
5:E:180:ARG:NH2	5:E:192:ARG:HB2	2.25	0.49
5:E:61:GLN:HG2	5:E:62:ALA:N	2.27	0.49
11:K:64:GLU:OE2	11:K:64:GLU:HA	2.12	0.49
1:M:1163:ILE:HG22	1:M:1165:GLU:HG3	1.94	0.49
1:M:1100:ARG:NH2	1:M:1351:GLU:HG2	2.27	0.49
1:M:285:PRO:CG	1:M:288:ALA:HB3	2.38	0.49
2:N:449:ASN:C	2:N:451:LYS:H	2.16	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:95:ILE:CB	2:N:130:VAL:HG22	2.43	0.49
2:N:956:THR:HA	2:N:961:LEU:O	2.12	0.49
2:N:848:ARG:HH22	2:N:996:ARG:HD3	1.77	0.49
3:O:118:LEU:HB2	3:O:132:PRO:HG2	1.94	0.49
2:N:110:HIS:HB3	12:X:54:ARG:HH22	1.78	0.49
13:1:16:DT:N3	13:1:17:DT:C4	2.81	0.49
1:A:385:ILE:CD1	1:A:426:LEU:HB2	2.42	0.49
1:A:961:ARG:HH11	1:A:961:ARG:CB	2.26	0.49
2:B:466:TRP:HA	2:B:466:TRP:CE3	2.46	0.49
2:B:789:MET:HE2	2:B:953:LEU:HD22	1.94	0.49
2:B:95:ILE:HG13	2:B:130:VAL:HG22	1.93	0.49
5:E:207:ARG:CB	5:E:207:ARG:NH1	2.75	0.49
9:I:7:CYS:HB2	9:I:34:TYR:CG	2.47	0.49
11:K:55:LYS:HB2	11:K:81:TYR:CD1	2.48	0.49
1:M:401:GLY:C	1:M:435:HIS:HD2	2.15	0.49
1:M:493:GLN:NE2	1:M:493:GLN:CA	2.75	0.49
1:M:714:PHE:O	1:M:718:VAL:HG23	2.12	0.49
2:N:221:ASN:N	2:N:241:ARG:O	2.40	0.49
2:N:307:ASP:OD2	2:N:310:MET:HB2	2.12	0.49
2:N:244:LEU:CD1	2:N:366:GLN:HE22	2.18	0.49
2:N:368:GLU:O	2:N:370:PHE:N	2.44	0.49
2:N:370:PHE:HD2	2:N:373:ARG:HD3	1.78	0.49
2:N:570:VAL:HG21	2:N:573:GLN:CD	2.33	0.49
2:N:658:ILE:HG22	2:N:662:MET:HE2	1.94	0.49
2:N:975:GLN:HG2	2:N:976:ILE:N	2.27	0.49
3:O:147:LEU:HD12	3:O:151:GLN:O	2.12	0.49
7:S:121:PHE:CZ	7:S:123:ALA:HA	2.48	0.49
9:U:44:TYR:HD1	9:U:45:ARG:H	1.61	0.49
1:A:963:ILE:HD11	1:A:1048:ASN:HB2	1.93	0.49
1:A:1242:VAL:HG12	1:A:1243:VAL:H	1.76	0.49
1:A:134:ARG:HD2	1:A:221:SER:O	2.12	0.49
1:A:663:SER:OG	1:A:664:THR:N	2.45	0.49
2:B:282:ILE:HD11	2:B:317:CYS:SG	2.53	0.49
2:B:497:ARG:HH21	2:B:775:LYS:NZ	2.10	0.49
2:B:839:MET:HE2	2:B:980:PHE:HB2	1.93	0.49
3:C:248:ILE:HD13	11:K:101:LEU:HD22	1.94	0.49
7:G:160:ILE:HD11	7:S:111:THR:HG21	1.95	0.49
8:H:106:GLU:C	8:H:108:SER:H	2.15	0.49
1:M:106:VAL:CG1	1:M:107:CYS:N	2.74	0.49
1:M:1444:MET:HE2	1:M:1444:MET:N	2.27	0.49
1:M:452:LYS:HB3	2:N:1141:HIS:CE1	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:679:ILE:HG23	1:M:729:ALA:HB1	1.95	0.49
2:N:190:TYR:CE1	2:N:196:PRO:HG3	2.48	0.49
2:N:558:LEU:O	2:N:561:TRP:N	2.45	0.49
2:N:955:THR:CG2	2:N:956:THR:H	2.25	0.49
4:P:155:ARG:NH2	4:P:221:TYR:HD1	2.08	0.49
4:P:220:LEU:HD23	4:P:221:TYR:N	2.28	0.49
9:U:98:VAL:CG1	9:U:111:THR:HG23	2.43	0.49
12:X:34:CYS:O	12:X:34:CYS:SG	2.71	0.49
14:2:2:DC:C5	14:2:3:DT:H73	2.47	0.49
1:A:335:ARG:NH1	2:B:1206:GLU:CD	2.66	0.49
1:A:440:ASP:O	1:A:460:VAL:HG23	2.13	0.49
1:A:2:VAL:CG1	2:B:1157:ALA:O	2.60	0.49
2:B:351:TYR:O	2:B:355:ILE:HG13	2.11	0.49
3:C:39:ALA:HA	3:C:164:ALA:CB	2.42	0.49
4:D:119:ARG:O	4:D:123:LEU:HD23	2.13	0.49
4:D:155:ARG:NE	4:D:221:TYR:HE1	2.10	0.49
6:F:100:GLN:NE2	7:G:61:ILE:HD13	2.28	0.49
8:H:47:PHE:CB	8:H:95:TYR:HD1	2.26	0.49
9:I:92:ARG:HD2	9:I:94:ASP:OD2	2.12	0.49
1:M:1152:ILE:HD11	1:M:1261:LYS:HG3	1.93	0.49
1:M:145:LYS:CA	1:M:145:LYS:HE3	2.40	0.49
1:M:196:GLU:CG	1:M:197:PRO:HD2	2.43	0.49
1:M:563:PRO:HG3	1:M:572:TRP:CE2	2.44	0.49
1:M:597:LEU:HD23	8:T:103:LYS:CD	2.43	0.49
1:M:945:GLU:OE1	5:Q:201:LYS:NZ	2.45	0.49
2:N:294:ASP:C	2:N:296:GLU:N	2.61	0.49
2:N:313:MET:O	2:N:316:PRO:HD2	2.13	0.49
8:T:104:PHE:CZ	8:T:136:LYS:HA	2.47	0.49
1:A:288:ALA:HA	1:A:291:GLU:CG	2.42	0.49
1:A:67:CYS:O	1:A:70:CYS:HB3	2.12	0.49
2:B:294:ASP:C	2:B:296:GLU:N	2.60	0.49
2:B:351:TYR:CZ	2:B:355:ILE:HD11	2.47	0.49
2:B:492:LEU:HB2	2:B:751:VAL:HG11	1.95	0.49
4:D:167:LEU:O	4:D:170:THR:HG23	2.13	0.49
5:E:112:TYR:O	5:E:137:GLU:HG3	2.13	0.49
5:E:88:VAL:HB	5:E:116:ILE:HG12	1.94	0.49
8:H:13:SER:HB3	8:H:27:GLU:O	2.13	0.49
9:I:58:VAL:HG13	9:I:62:ILE:HG21	1.93	0.49
1:M:547:LEU:HD22	11:W:58:PHE:CD1	2.47	0.49
1:M:64:ASN:O	1:M:66:LYS:N	2.46	0.49
1:M:663:SER:OG	1:M:664:THR:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1410:PHE:HD2	2:N:1212:ILE:HD11	1.78	0.49
2:N:373:ARG:HA	2:N:566:LEU:CD2	2.42	0.49
2:N:373:ARG:HA	2:N:566:LEU:HD23	1.94	0.49
2:N:866:TYR:CG	2:N:870:ILE:HB	2.48	0.49
4:P:139:LYS:HG3	4:P:140:ASP:OD1	2.13	0.49
7:S:110:VAL:CG1	7:S:161:GLY:O	2.61	0.49
8:T:106:GLU:C	8:T:108:SER:H	2.15	0.49
1:A:106:VAL:HG12	1:A:107:CYS:H	1.76	0.49
1:A:265:LYS:CA	1:A:265:LYS:CE	2.89	0.49
1:A:316:GLN:HG2	1:A:317:LYS:N	2.28	0.49
1:A:40:THR:HG23	1:A:54:ASN:ND2	2.27	0.49
1:A:460:VAL:HG12	1:A:461:LYS:N	2.27	0.49
1:A:886:ILE:CG2	1:A:887:GLY:N	2.76	0.49
2:B:118:ARG:NH2	2:B:194:GLU:OE1	2.42	0.49
2:B:371:GLU:OE1	2:B:371:GLU:N	2.45	0.49
2:B:303:TYR:HH	2:B:586:TRP:HH2	1.59	0.49
2:B:629:ASP:HB3	2:B:632:ARG:HD3	1.94	0.49
2:B:805:THR:CG2	2:B:806:THR:H	2.16	0.49
5:E:88:VAL:HG21	5:E:110:PHE:CE1	2.47	0.49
6:F:111:LEU:C	6:F:113:GLY:N	2.64	0.49
8:H:130:ARG:HH11	8:H:130:ARG:CB	2.25	0.49
8:H:44:VAL:HG12	8:H:44:VAL:O	2.13	0.49
8:H:84:ALA:O	8:H:85:GLY:C	2.52	0.49
1:M:1170:ILE:HG22	1:M:1174:PHE:CE1	2.48	0.49
1:M:35:ILE:HA	1:M:52:GLY:O	2.13	0.49
1:M:42:ASP:HB3	1:M:45:GLN:CA	2.43	0.49
1:M:447:GLN:HA	1:M:448:PRO:C	2.33	0.49
1:M:65:LEU:O	1:M:66:LYS:O	2.30	0.49
1:M:75:ASN:O	1:M:76:GLU:HB2	2.13	0.49
2:N:1084:GLN:NE2	2:N:1084:GLN:H	2.09	0.49
2:N:429:PHE:HD1	2:N:432:MET:HE3	1.77	0.49
2:N:597:MET:HE2	2:N:597:MET:HA	1.95	0.49
2:N:862:GLN:CG	2:N:963:PHE:HD1	2.19	0.49
3:O:44:LEU:HD13	3:O:129:ILE:HG23	1.94	0.49
2:N:1165:ILE:HG21	4:P:17:LYS:CG	2.43	0.49
5:Q:177:ARG:C	5:Q:212:ARG:HD3	2.33	0.49
8:T:26:ILE:HD13	8:T:49:VAL:HG11	1.94	0.49
10:V:30:LEU:CD1	10:V:38:ARG:HH11	2.26	0.49
1:A:1453:TYR:O	1:A:1454:MET:HB3	2.13	0.49
1:A:23:SER:HB3	1:A:233:TRP:CZ2	2.48	0.49
1:A:37:PHE:H	1:A:37:PHE:HD1	1.58	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:407:ARG:HG2	1:A:430:TRP:CE2	2.48	0.49
1:A:57:ARG:O	1:A:68:GLN:HG2	2.12	0.49
1:A:831:THR:HG23	1:A:832:ALA:N	2.27	0.49
2:B:334:ILE:CG2	2:B:334:ILE:O	2.60	0.49
2:B:679:TYR:HE1	2:B:687:GLU:OE2	1.96	0.49
4:D:14:ARG:HH12	4:D:16:LYS:HZ2	1.60	0.49
5:E:98:ILE:HG22	5:E:102:GLU:CG	2.42	0.49
8:H:40:LEU:HD23	8:H:42:ILE:CG1	2.43	0.49
8:H:4:THR:HA	8:H:60:ALA:CB	2.19	0.49
1:M:1195:LEU:HD11	1:M:1267:MET:HE1	1.95	0.49
1:M:1280:GLU:O	1:M:1281:ARG:O	2.31	0.49
1:M:1118:VAL:HG12	1:M:1327:ILE:HG13	1.95	0.49
1:M:1409:LEU:CD1	2:N:1207:LEU:HD11	2.42	0.49
1:M:265:LYS:CE	1:M:265:LYS:HA	2.38	0.49
1:M:30:ILE:HD11	2:N:1168:LEU:CD1	2.43	0.49
1:M:901:LEU:H	1:M:926:GLN:CD	2.16	0.49
2:N:131:ASP:HA	2:N:164:LYS:HB3	1.95	0.49
4:P:66:ARG:O	4:P:70:PHE:HB2	2.13	0.49
4:P:69:ALA:C	4:P:71:LYS:H	2.15	0.49
5:Q:37:LEU:CD1	5:Q:41:ASP:HB2	2.43	0.49
8:T:30:SER:CB	8:T:36:CYS:HB3	2.43	0.49
8:T:91:ASP:C	8:T:93:TYR:H	2.16	0.49
1:M:1147:THR:HB	9:U:48:LEU:HD12	1.94	0.49
14:2:4:DA:H2"	14:2:5:DC:H6	1.78	0.48
14:5:4:DA:H2"	14:5:5:DC:H6	1.78	0.48
1:A:1018:PHE:O	1:A:1021:LEU:HB3	2.12	0.48
1:A:820:GLY:O	1:A:823:GLY:N	2.46	0.48
2:B:274:PRO:O	2:B:275:TYR:HB2	2.13	0.48
2:B:27:ALA:O	2:B:29:ASP:N	2.46	0.48
2:B:453:ILE:O	2:B:457:LEU:HG	2.12	0.48
2:B:211:VAL:HG13	2:B:495:LEU:HD23	1.94	0.48
2:B:531:GLN:CG	2:B:532:ALA:H	2.23	0.48
2:B:56:ASP:C	2:B:57:TYR:HD1	2.16	0.48
2:B:916:THR:CG2	2:B:935:ARG:HD2	2.43	0.48
3:C:219:PHE:CE2	3:C:221:TYR:HB3	2.48	0.48
3:C:242:GLN:OE1	3:C:242:GLN:HA	2.13	0.48
3:C:8:VAL:HG12	3:C:9:LYS:N	2.28	0.48
6:F:101:ILE:HD13	6:F:120:ILE:CG2	2.43	0.48
7:G:117:GLN:NE2	7:S:154:VAL:CG2	2.76	0.48
7:G:1:MET:O	7:G:2:PHE:C	2.51	0.48
3:C:35:ARG:NH1	11:K:41:THR:OG1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:590:ARG:HH12	1:M:592:ASP:CG	2.16	0.48
2:N:331:LEU:O	2:N:334:ILE:HB	2.13	0.48
2:N:387:LEU:HD12	2:N:387:LEU:N	2.28	0.48
2:N:120:ARG:HG2	2:N:955:THR:HG21	1.95	0.48
2:N:846:ILE:CG2	2:N:974:PRO:HG2	2.42	0.48
3:O:116:LYS:HG3	3:O:117:ASP:OD1	2.13	0.48
3:O:182:PRO:HD2	3:O:210:GLU:OE1	2.13	0.48
4:P:134:THR:CG2	4:P:141:LEU:HD23	2.42	0.48
4:P:32:GLU:HG3	7:S:5:LYS:HE2	1.94	0.48
8:T:106:GLU:O	8:T:108:SER:N	2.35	0.48
8:T:130:ARG:HA	8:T:133:ASN:HB2	1.95	0.48
1:A:107:CYS:HB2	1:A:114:LEU:HD21	1.94	0.48
1:A:1402:PHE:CE2	1:A:1403:GLU:CG	2.95	0.48
1:A:196:GLU:HG2	1:A:197:PRO:HD2	1.94	0.48
1:A:87:ALA:CB	1:A:276:LEU:HD23	2.38	0.48
1:A:93:VAL:CG1	1:A:301:ALA:HB1	2.38	0.48
2:B:244:LEU:HD11	2:B:366:GLN:NE2	2.28	0.48
2:B:487:THR:HG22	2:B:488:TYR:N	2.28	0.48
2:B:557:PHE:CZ	2:B:603:LEU:HD11	2.48	0.48
2:B:785:TYR:CD1	2:B:786:ASN:N	2.81	0.48
2:B:792:MET:HA	2:B:856:PHE:O	2.13	0.48
2:B:878:GLN:HB2	2:B:879:ARG:HH11	1.76	0.48
3:C:99:LEU:HD12	3:C:118:LEU:HB3	1.95	0.48
1:A:857:ARG:CZ	6:F:139:PRO:HG3	2.43	0.48
8:H:62:SER:OG	8:H:64:ASN:ND2	2.47	0.48
8:H:91:ASP:C	8:H:93:TYR:H	2.17	0.48
1:M:168:GLY:O	1:M:169:ASN:C	2.50	0.48
1:M:534:LEU:HG	1:M:534:LEU:O	2.12	0.48
1:M:595:THR:O	1:M:596:THR:CG2	2.61	0.48
2:N:1033:LYS:NZ	2:N:1070:GLU:OE1	2.36	0.48
2:N:436:VAL:O	2:N:436:VAL:HG12	2.13	0.48
2:N:594:ALA:N	2:N:617:ARG:NH1	2.61	0.48
2:N:659:ALA:HA	2:N:662:MET:HE2	1.95	0.48
2:N:798:TYR:CD1	10:V:4:PRO:HG3	2.48	0.48
2:N:847:ASP:C	2:N:849:GLY:N	2.66	0.48
2:N:68:THR:HG22	2:N:91:SER:HA	1.94	0.48
3:O:35:ARG:NH1	11:W:41:THR:N	2.60	0.48
1:M:1450:LEU:CD1	6:R:108:PHE:CZ	2.96	0.48
9:U:88:SER:HB3	9:U:95:THR:HG21	1.95	0.48
11:W:113:THR:O	11:W:114:LEU:CB	2.61	0.48
11:W:88:LYS:O	11:W:91:CYS:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1123:GLY:O	1:A:1125:ALA:N	2.46	0.48
1:A:186:LYS:HZ1	1:A:197:PRO:HD3	1.78	0.48
1:A:53:LEU:CD2	1:A:54:ASN:N	2.55	0.48
2:B:336:ARG:HG3	2:B:336:ARG:NH1	2.28	0.48
2:B:39:ARG:NH2	2:B:665:GLU:CG	2.75	0.48
2:B:479:VAL:O	2:B:480:SER:HB3	2.12	0.48
2:B:806:THR:HG22	2:B:808:ALA:HB3	1.95	0.48
3:C:33:LEU:O	3:C:37:MET:HG3	2.12	0.48
4:D:12:ARG:HH12	4:D:14:ARG:HA	1.78	0.48
4:D:56:ARG:HD3	4:D:149:THR:HA	1.96	0.48
7:G:126:ASN:C	7:G:126:ASN:ND2	2.67	0.48
7:G:139:ILE:CG2	7:G:140:LYS:N	2.76	0.48
8:H:109:LYS:HG2	8:H:110:ASP:OD1	2.13	0.48
1:A:567:LYS:CE	8:H:46:LEU:HB2	2.43	0.48
1:M:162:VAL:HG12	1:M:163:SER:H	1.78	0.48
1:M:390:GLN:O	1:M:394:ASN:HB2	2.12	0.48
1:M:946:VAL:HG22	5:Q:201:LYS:HD2	1.94	0.48
1:M:996:ASN:HA	1:M:998:LEU:CD1	2.44	0.48
2:N:97:VAL:HG12	2:N:97:VAL:O	2.13	0.48
3:O:114:TYR:HB2	3:O:116:LYS:HG2	1.94	0.48
3:O:213:PRO:HG2	3:O:214:ASN:H	1.78	0.48
4:P:185:CYS:SG	4:P:191:ALA:N	2.86	0.48
8:T:4:THR:HA	8:T:60:ALA:CB	2.20	0.48
9:U:61:ASP:C	9:U:63:GLY:N	2.66	0.48
1:A:1011:GLN:NE2	1:A:1015:VAL:CG2	2.76	0.48
1:A:1148:ILE:CG1	1:A:1198:ASP:HB2	2.43	0.48
1:A:1313:LEU:HD23	1:A:1338:VAL:CG2	2.43	0.48
1:A:463:ILE:HD11	1:A:469:ARG:HG3	1.96	0.48
1:A:476:SER:HB2	1:A:477:PRO:HD3	1.95	0.48
1:A:69:THR:C	1:A:71:GLN:N	2.65	0.48
2:B:594:ALA:CA	2:B:617:ARG:NH1	2.76	0.48
2:B:889:THR:O	2:B:889:THR:HG22	2.13	0.48
2:B:918:ILE:HD12	2:B:935:ARG:NH1	2.28	0.48
3:C:133:ILE:CD1	3:C:236:GLY:C	2.82	0.48
5:E:96:PHE:CZ	5:E:100:ILE:HD11	2.49	0.48
9:I:7:CYS:SG	9:I:8:ARG:O	2.72	0.48
11:K:47:ARG:CB	11:K:47:ARG:HH11	2.21	0.48
12:L:47:ARG:CG	12:L:48:CYS:H	2.26	0.48
12:L:59:ALA:O	12:L:60:ARG:O	2.32	0.48
1:M:1124:HIS:HB2	1:M:1130:GLN:HG2	1.93	0.48
1:M:370:ILE:HG22	1:M:374:LEU:HD12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:738:LYS:HD3	1:M:738:LYS:H	1.78	0.48
2:N:1116:ARG:HG3	2:N:1198:TYR:CG	2.48	0.48
2:N:212:LEU:HD23	2:N:480:SER:HB2	1.95	0.48
1:M:829:VAL:HG21	2:N:508:LEU:HD13	1.95	0.48
2:N:642:ASP:HB3	2:N:649:LYS:HG3	1.95	0.48
3:O:177:GLU:CG	3:O:231:ASN:HB3	2.27	0.48
4:P:154:PHE:CE1	4:P:163:VAL:CG2	2.96	0.48
8:T:81:PRO:CB	8:T:82:PRO:CD	2.88	0.48
1:A:332:LYS:O	1:A:333:GLU:CB	2.61	0.48
1:A:967:ALA:O	1:A:971:PHE:HD1	1.97	0.48
2:B:522:VAL:HG11	2:B:537:LYS:HB3	1.95	0.48
2:B:557:PHE:HD2	2:B:557:PHE:O	1.96	0.48
2:B:878:GLN:HA	2:B:885:MET:SD	2.53	0.48
3:C:260:LEU:O	3:C:263:THR:HB	2.13	0.48
3:C:63:ILE:HA	3:C:66:ARG:HG3	1.95	0.48
4:D:156:ASP:CB	4:D:159:THR:HG23	2.44	0.48
4:D:71:LYS:CA	4:D:74:GLN:HB2	2.39	0.48
12:L:26:THR:C	12:L:27:LEU:HD23	2.34	0.48
12:L:30:ILE:CG2	12:L:31:CYS:N	2.76	0.48
1:M:1259:MET:HA	1:M:1262:LYS:CD	2.37	0.48
1:M:392:VAL:HG13	1:M:415:LEU:HD11	1.95	0.48
2:N:1096:ARG:NH1	2:N:1096:ARG:HB2	2.28	0.48
2:N:1099:VAL:HG13	2:N:1100:ASP:N	2.29	0.48
4:P:139:LYS:O	4:P:143:ASN:ND2	2.46	0.48
4:P:189:ASP:OD2	7:S:167:TYR:HE1	1.96	0.48
5:Q:129:PRO:O	5:Q:130:ALA:C	2.52	0.48
7:S:116:PRO:CG	7:S:119:LEU:HB2	2.43	0.48
8:T:61:SER:HB3	8:T:139:ASN:HB3	1.96	0.48
11:W:53:ASP:OD2	11:W:81:TYR:OH	2.28	0.48
12:X:38:LEU:HD11	12:X:49:LYS:HE2	1.96	0.48
14:2:4:DA:H2"	14:2:5:DC:C6	2.48	0.48
1:A:1410:PHE:HD2	2:B:1212:ILE:HD11	1.79	0.48
1:A:321:PRO:O	1:A:322:VAL:CB	2.61	0.48
1:A:332:LYS:C	1:A:334:GLY:N	2.66	0.48
1:A:344:ARG:CB	1:A:344:ARG:HH11	2.12	0.48
1:A:523:ILE:HG13	1:A:622:VAL:CG2	2.43	0.48
1:A:65:LEU:O	1:A:66:LYS:O	2.31	0.48
1:A:95:PHE:O	1:A:96:ILE:C	2.51	0.48
2:B:446:LEU:HG	2:B:446:LEU:O	2.13	0.48
2:B:552:MET:C	2:B:554:ILE:H	2.17	0.48
3:C:236:GLY:O	3:C:238:ILE:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:44:LEU:HD21	3:C:159:ALA:HB1	1.95	0.48
4:D:56:ARG:CA	4:D:148:LEU:HD13	2.43	0.48
1:A:870:GLU:HG2	5:E:208:TYR:CG	2.47	0.48
6:F:69:LEU:HB3	6:F:71:GLU:CG	2.44	0.48
7:G:1:MET:HE1	7:G:80:LYS:H	1.78	0.48
8:H:61:SER:O	8:H:62:SER:HB2	2.13	0.48
1:M:1109:LYS:HG3	1:M:1110:ASN:ND2	2.28	0.48
1:M:1121:GLU:HB3	1:M:1124:HIS:CD2	2.48	0.48
1:M:1202:MET:HE1	1:M:1212:VAL:CG2	2.44	0.48
1:M:316:GLN:HG2	1:M:317:LYS:N	2.28	0.48
1:M:821:ARG:O	1:M:825:ILE:HG13	2.13	0.48
2:N:1020:ARG:HB2	2:N:1022:THR:HG22	1.96	0.48
2:N:552:MET:C	2:N:554:ILE:H	2.17	0.48
2:N:604:ARG:C	2:N:606:LYS:H	2.16	0.48
2:N:780:VAL:HG11	10:V:56:LEU:HD13	1.96	0.48
3:O:242:GLN:C	3:O:244:VAL:H	2.16	0.48
4:P:209:ARG:HA	4:P:212:LYS:CD	2.43	0.48
7:S:43:GLY:HA2	7:S:157:ILE:HD11	1.95	0.48
8:T:24:CYS:HB2	8:T:44:VAL:CG2	2.42	0.48
9:U:77:LYS:O	9:U:79:HIS:N	2.46	0.48
11:W:53:ASP:HB3	11:W:56:VAL:CG2	2.44	0.48
1:A:1315:GLU:O	1:A:1317:MET:N	2.46	0.48
1:A:41:MET:O	1:A:42:ASP:O	2.30	0.48
1:A:933:TYR:O	1:A:933:TYR:CD2	2.67	0.48
1:A:963:ILE:HD11	1:A:1049:ILE:N	2.29	0.48
2:B:110:HIS:CB	12:L:54:ARG:HH22	2.25	0.48
2:B:221:ASN:OD1	2:B:242:SER:HA	2.14	0.48
2:B:659:ALA:HA	2:B:662:MET:HE2	1.96	0.48
2:B:798:TYR:CD2	2:B:798:TYR:N	2.81	0.48
2:B:872:GLU:CD	2:B:914:LYS:HE2	2.34	0.48
4:D:29:LEU:HD12	7:G:82:PHE:CZ	2.49	0.48
5:E:55:ARG:CD	5:E:113:GLN:HE21	2.27	0.48
5:E:69:ILE:HD12	5:E:69:ILE:N	2.29	0.48
9:I:19:ASP:CB	9:I:24:ARG:HG2	2.42	0.48
1:A:1268:LEU:CD1	9:I:48:LEU:HD11	2.44	0.48
10:J:44:TYR:N	10:J:44:TYR:CD2	2.74	0.48
11:K:57:LEU:HD11	11:K:78:THR:HA	1.96	0.48
1:M:1332:PHE:CE1	1:M:1381:LEU:HD13	2.49	0.48
1:M:565:ILE:CG2	1:M:567:LYS:HE2	2.43	0.48
1:M:902:LEU:CG	1:M:926:GLN:HG3	2.34	0.48
2:N:216:GLU:HB2	2:N:406:LEU:CD2	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:558:LEU:O	2:N:560:GLU:N	2.47	0.48
2:N:629:ASP:HB3	2:N:632:ARG:HD3	1.96	0.48
2:N:944:THR:HG21	2:N:1122:ARG:NH2	2.28	0.48
3:O:98:VAL:HG13	3:O:157:CYS:O	2.14	0.48
3:O:226:ASP:O	3:O:227:THR:HB	2.14	0.48
3:O:97:VAL:HG21	3:O:129:ILE:CG2	2.44	0.48
4:P:209:ARG:HA	4:P:212:LYS:HE3	1.96	0.48
5:Q:94:LYS:HE2	5:Q:98:ILE:CG1	2.43	0.48
6:R:90:ARG:HG3	6:R:91:ALA:N	2.27	0.48
7:S:12:THR:O	7:S:12:THR:HG22	2.13	0.48
12:X:38:LEU:HG	12:X:39:SER:N	2.29	0.48
2:N:110:HIS:CB	12:X:54:ARG:HH22	2.27	0.48
1:A:1025:ARG:HG3	1:A:1025:ARG:NH1	2.28	0.48
1:A:1150:SER:O	1:A:1151:GLU:HG3	2.14	0.48
1:A:1193:LEU:HD12	1:A:1193:LEU:C	2.35	0.48
1:A:1254:ALA:O	1:A:1255:GLU:HB3	2.13	0.48
1:A:709:THR:CG2	1:A:710:LEU:H	2.25	0.48
1:A:728:LYS:HA	1:A:731:ARG:CZ	2.43	0.48
1:A:929:LEU:HD21	1:A:983:ILE:CG2	2.43	0.48
2:B:579:ARG:CB	2:B:586:TRP:HE1	2.10	0.48
4:D:216:ASN:C	4:D:218:GLU:H	2.16	0.48
5:E:29:PHE:HA	5:E:65:THR:HG22	1.95	0.48
12:L:40:LEU:HD22	12:L:44:ASP:OD2	2.13	0.48
1:M:164:ARG:CG	1:M:165:GLY:N	2.75	0.48
1:M:899:VAL:CG2	1:M:908:LEU:HD21	2.43	0.48
2:N:1110:PRO:C	2:N:1119:VAL:HG13	2.34	0.48
2:N:128:LEU:HB2	2:N:168:GLY:O	2.13	0.48
2:N:448:ILE:O	2:N:450:ALA:N	2.46	0.48
2:N:582:VAL:O	2:N:582:VAL:HG12	2.13	0.48
2:N:822:ASN:ND2	10:V:52:THR:HG21	2.29	0.48
2:N:996:ARG:NH1	3:O:174:ALA:HA	2.27	0.48
4:P:119:ARG:HB2	4:P:221:TYR:CZ	2.48	0.48
7:S:132:SER:HB3	7:S:135:ASP:H	1.79	0.48
7:S:9:LEU:HD12	7:S:10:ASN:N	2.28	0.48
8:T:135:LEU:HD13	8:T:137:GLN:NE2	2.29	0.48
1:A:250:ILE:CG2	1:A:250:ILE:O	2.59	0.48
1:A:598:LEU:O	1:A:598:LEU:HD23	2.13	0.48
2:B:273:LEU:HB2	2:B:276:ILE:HD12	1.95	0.48
2:B:654:ARG:O	2:B:657:HIS:N	2.47	0.48
3:C:253:LYS:O	3:C:256:ALA:HB3	2.14	0.48
3:C:3:GLU:CD	3:C:4:GLU:HG3	2.35	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:89:GLU:HG2	3:C:89:GLU:O	2.14	0.48
7:G:7:LEU:CB	7:G:74:TYR:HE2	2.26	0.48
2:B:848:ARG:HD3	10:J:11:GLY:HA2	1.96	0.48
1:M:1315:GLU:O	1:M:1317:MET:N	2.47	0.48
1:M:1333:ILE:O	1:M:1337:GLU:HG3	2.14	0.48
1:M:1313:LEU:HD23	1:M:1338:VAL:HG21	1.95	0.48
1:M:399:HIS:CG	1:M:400:PRO:N	2.81	0.48
1:M:477:PRO:CG	1:M:521:MET:HG2	2.43	0.48
2:N:853:SER:OG	2:N:1094:ARG:NH1	2.47	0.48
2:N:875:GLU:O	2:N:877:PRO:HD3	2.14	0.48
5:Q:116:ILE:HG22	5:Q:120:ALA:HB3	1.96	0.48
5:Q:207:ARG:CB	5:Q:207:ARG:NH1	2.77	0.48
5:Q:177:ARG:HD3	5:Q:215:MET:CG	2.43	0.48
7:S:7:LEU:HB2	7:S:74:TYR:HE2	1.74	0.48
10:V:6:ARG:HA	10:V:12:LYS:O	2.14	0.48
1:A:175:ARG:HG2	1:A:182:VAL:HG12	1.96	0.48
1:A:42:ASP:HB3	1:A:45:GLN:HA	1.95	0.48
1:A:504:LEU:CD1	6:F:91:ALA:HB2	2.44	0.48
2:B:1182:CYS:SG	2:B:1182:CYS:O	2.72	0.48
2:B:240:ILE:HG23	2:B:240:ILE:O	2.14	0.48
2:B:221:ASN:N	2:B:241:ARG:O	2.40	0.48
2:B:237:VAL:HG22	2:B:257:LYS:HA	1.96	0.48
2:B:429:PHE:CD1	2:B:432:MET:HE3	2.49	0.48
2:B:999:MET:HE2	2:B:1000:PRO:CD	2.43	0.48
5:E:128:PRO:HA	5:E:129:PRO:O	2.14	0.48
6:F:69:LEU:HD22	6:F:71:GLU:OE1	2.14	0.48
10:J:42:LYS:HG2	10:J:43:ARG:N	2.28	0.48
10:J:64:ASN:CB	10:J:65:PRO:HD3	2.42	0.48
11:K:109:TRP:O	11:K:112:GLN:HB2	2.13	0.48
11:K:21:ILE:HG12	11:K:33:ILE:HG12	1.94	0.48
1:M:1116:LEU:HD12	1:M:1116:LEU:C	2.35	0.48
1:M:846:GLU:OE1	1:M:1425:SER:OG	2.32	0.48
1:M:102:VAL:CG1	1:M:211:PHE:HE1	2.27	0.48
1:M:385:ILE:HG22	1:M:386:ASP:N	2.29	0.48
1:M:43:GLU:OE2	1:M:48:ALA:CB	2.62	0.48
1:M:845:LEU:O	1:M:846:GLU:C	2.52	0.48
2:N:27:ALA:O	2:N:29:ASP:N	2.47	0.48
2:N:806:THR:HG22	2:N:808:ALA:HB3	1.96	0.48
3:O:99:LEU:CD2	3:O:99:LEU:N	2.76	0.48
4:P:209:ARG:HA	4:P:212:LYS:CE	2.44	0.48
5:Q:48:ASP:CG	5:Q:49:SER:N	2.64	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:13:LEU:HD22	7:S:17:PHE:HB2	1.90	0.48
7:S:1:MET:O	7:S:3:PHE:CE2	2.67	0.48
7:S:26:LEU:HD12	7:S:56:ILE:CD1	2.43	0.48
1:A:1203:ASN:O	1:A:1204:ASP:C	2.52	0.47
1:A:1313:LEU:C	1:A:1315:GLU:N	2.67	0.47
1:A:1341:ILE:HG23	1:A:1342:GLU:N	2.28	0.47
1:A:1350:LYS:O	1:A:1354:ASN:ND2	2.46	0.47
1:A:544:ASP:CG	1:A:545:GLN:N	2.67	0.47
2:B:1156:ASP:HB3	2:B:1197:PRO:HA	1.96	0.47
2:B:433:GLN:O	2:B:434:ARG:HG3	2.14	0.47
1:A:822:GLU:HG3	2:B:513:GLN:HE21	1.79	0.47
2:B:886:LYS:HE2	2:B:940:PRO:CD	2.43	0.47
4:D:217:LEU:O	4:D:219:THR:N	2.47	0.47
5:E:182:ASP:HB3	5:E:185:ALA:HB2	1.96	0.47
5:E:2:ASP:C	5:E:3:GLN:HG2	2.35	0.47
6:F:81:THR:HB	6:F:136:ARG:NH1	2.29	0.47
10:J:36:LEU:HD11	10:J:51:LEU:HB2	1.96	0.47
1:M:1166:ASP:OD1	1:M:1194:ARG:NH2	2.45	0.47
1:M:332:LYS:O	1:M:333:GLU:CB	2.59	0.47
2:N:244:LEU:CD1	2:N:250:PHE:HD1	2.27	0.47
2:N:519:TRP:CD1	2:N:519:TRP:C	2.87	0.47
2:N:642:ASP:HB3	2:N:649:LYS:HD2	1.96	0.47
2:N:889:THR:O	2:N:889:THR:HG22	2.13	0.47
4:P:122:GLU:HA	4:P:125:SER:OG	2.14	0.47
8:T:87:ARG:O	8:T:89:LEU:HD23	2.14	0.47
15:3:5:C:H2'	15:3:6:A:H8	1.80	0.47
14:5:4:DA:H2''	14:5:5:DC:C6	2.48	0.47
1:A:1135:ARG:HG2	1:A:1136:SER:N	2.27	0.47
1:A:1217:LYS:O	1:A:1221:LYS:HA	2.13	0.47
1:A:565:ILE:HG23	1:A:567:LYS:CG	2.38	0.47
1:A:688:LYS:HG3	1:A:691:LEU:HD23	1.96	0.47
1:A:845:LEU:O	1:A:846:GLU:C	2.52	0.47
1:A:961:ARG:CG	1:A:961:ARG:HH11	2.27	0.47
2:B:278:GLN:CG	2:B:279:ASP:N	2.78	0.47
2:B:449:ASN:C	2:B:451:LYS:H	2.17	0.47
2:B:658:ILE:HG22	2:B:659:ALA:N	2.28	0.47
2:B:798:TYR:HE2	3:C:62:PHE:CZ	2.32	0.47
7:G:91:VAL:HG12	7:G:92:VAL:N	2.29	0.47
1:M:107:CYS:CB	1:M:171:GLN:HE22	2.27	0.47
1:M:690:VAL:CG2	1:M:718:VAL:HG13	2.44	0.47
1:M:902:LEU:CD2	1:M:923:LEU:HD23	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:946:VAL:HG22	5:Q:201:LYS:HB3	1.96	0.47
4:P:126:ILE:HD13	4:P:145:MET:CE	2.44	0.47
4:P:173:HIS:ND1	4:P:175:PHE:N	2.46	0.47
4:P:56:ARG:HH21	4:P:155:ARG:CG	2.21	0.47
9:U:7:CYS:HB2	9:U:34:TYR:CG	2.49	0.47
14:2:3:DT:C2	14:2:4:DA:N7	2.82	0.47
1:A:1006:ILE:HD11	5:E:163:GLU:CG	2.41	0.47
1:A:1397:LEU:HB2	1:A:1426:GLU:OE1	2.14	0.47
1:A:168:GLY:O	1:A:169:ASN:C	2.51	0.47
1:A:93:VAL:CG2	1:A:301:ALA:HA	2.42	0.47
1:A:463:ILE:HB	1:A:464:PRO:HD2	1.96	0.47
2:B:1006:ILE:HG13	2:B:1006:ILE:H	1.41	0.47
2:B:131:ASP:HA	2:B:164:LYS:HB3	1.96	0.47
3:C:226:ASP:O	3:C:227:THR:HB	2.14	0.47
3:C:241:ASP:HB3	11:K:109:TRP:CE2	2.49	0.47
5:E:108:GLY:O	5:E:132:ILE:HG23	2.15	0.47
10:J:7:CYS:CB	10:J:49:MET:HE3	2.43	0.47
12:L:33:GLU:OE1	12:L:55:ILE:HD11	2.15	0.47
1:M:1048:ASN:N	1:M:1048:ASN:HD22	2.10	0.47
1:M:1127:ASP:CG	1:M:1130:GLN:HB2	2.34	0.47
1:M:407:ARG:HG2	1:M:430:TRP:CH2	2.48	0.47
2:N:378:LEU:HD12	2:N:378:LEU:O	2.13	0.47
2:N:515:HIS:HD2	2:N:517:THR:HG23	1.76	0.47
2:N:95:ILE:HG13	2:N:130:VAL:CG2	2.43	0.47
3:O:184:ASN:OD1	3:O:187:LYS:HA	2.15	0.47
4:P:190:GLU:HA	7:S:167:TYR:CE1	2.48	0.47
5:Q:162:ARG:HH11	5:Q:162:ARG:HG2	1.78	0.47
7:S:74:TYR:H	7:S:74:TYR:HD2	1.62	0.47
13:1:25:DG:N9	13:1:26:DT:H72	2.30	0.47
1:A:568:PRO:CB	3:C:221:TYR:OH	2.62	0.47
1:A:761:MET:HA	1:A:804:TYR:HB2	1.96	0.47
1:A:789:LYS:HD2	2:B:620:ARG:HH12	1.79	0.47
2:B:1050:ILE:HG22	2:B:1051:THR:N	2.28	0.47
2:B:1197:PRO:O	2:B:1200:ALA:N	2.44	0.47
2:B:244:LEU:CD1	2:B:250:PHE:HD1	2.27	0.47
2:B:33:VAL:O	2:B:36:ALA:HB3	2.14	0.47
2:B:408:LEU:N	2:B:408:LEU:HD12	2.29	0.47
4:D:209:ARG:HA	4:D:212:LYS:CD	2.43	0.47
5:E:94:LYS:HE2	5:E:98:ILE:CD1	2.27	0.47
7:G:88:ASP:OD2	7:G:88:ASP:N	2.46	0.47
9:I:77:LYS:O	9:I:79:HIS:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:38:LEU:CG	12:L:39:SER:N	2.77	0.47
1:M:1332:PHE:HE1	1:M:1381:LEU:HD13	1.79	0.47
1:M:13:THR:HB	1:M:1432:GLN:NE2	2.29	0.47
1:M:353:ILE:HG22	1:M:468:PHE:HB2	1.96	0.47
1:M:472:LEU:O	1:M:475:THR:CB	2.58	0.47
2:N:1079:LYS:HA	3:O:27:LEU:HD21	1.96	0.47
2:N:1110:PRO:O	2:N:1119:VAL:HG13	2.14	0.47
2:N:1201:LYS:CE	2:N:1205:GLN:OE1	2.59	0.47
2:N:124:TYR:HH	2:N:179:CYS:HG	1.56	0.47
2:N:244:LEU:HD12	2:N:250:PHE:HD1	1.79	0.47
2:N:251:ILE:HG22	2:N:251:ILE:O	2.15	0.47
2:N:35:SER:O	2:N:39:ARG:HG3	2.13	0.47
2:N:604:ARG:CB	2:N:609:ILE:HG13	2.44	0.47
5:Q:145:THR:HG21	5:Q:187:TYR:CE2	2.49	0.47
5:Q:153:HIS:C	5:Q:154:ILE:HG13	2.32	0.47
7:S:146:LYS:HD2	7:S:165:GLU:HG3	1.95	0.47
4:P:58:VAL:HG11	7:S:4:ILE:HD11	1.95	0.47
12:X:38:LEU:CG	12:X:39:SER:N	2.77	0.47
1:A:1313:LEU:C	1:A:1315:GLU:H	2.17	0.47
1:A:285:PRO:O	1:A:287:HIS:N	2.47	0.47
1:A:381:THR:CG2	1:A:382:PRO:HD2	2.44	0.47
1:A:61:ILE:HG22	1:A:62:ASP:H	1.79	0.47
2:B:227:LYS:HE2	2:B:236:HIS:CE1	2.49	0.47
2:B:335:GLY:O	2:B:336:ARG:HG3	2.13	0.47
4:D:122:GLU:HA	4:D:125:SER:OG	2.15	0.47
1:A:946:VAL:CG2	5:E:201:LYS:HD2	2.42	0.47
1:A:709:THR:HG23	9:I:94:ASP:HA	1.97	0.47
10:J:30:LEU:HD21	10:J:38:ARG:NH1	2.29	0.47
1:M:335:ARG:NH1	2:N:1202:LEU:HD13	2.29	0.47
1:M:354:SER:HA	1:M:482:PHE:CD2	2.49	0.47
1:M:820:GLY:O	1:M:823:GLY:N	2.48	0.47
2:N:43:LEU:HD11	2:N:811:TYR:O	2.14	0.47
2:N:642:ASP:CB	2:N:649:LYS:HG3	2.44	0.47
2:N:805:THR:CG2	2:N:806:THR:H	2.18	0.47
2:N:831:SER:HB2	2:N:833:TYR:HD1	1.79	0.47
2:N:835:GLN:HE21	2:N:835:GLN:HB2	1.48	0.47
2:N:878:GLN:HA	2:N:885:MET:SD	2.55	0.47
3:O:99:LEU:N	3:O:99:LEU:HD22	2.30	0.47
4:P:12:ARG:HD3	4:P:14:ARG:CG	2.43	0.47
4:P:216:ASN:O	4:P:218:GLU:N	2.48	0.47
4:P:7:THR:HG23	4:P:7:THR:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:120:THR:HG23	7:S:131:GLN:O	2.14	0.47
1:A:1041:ALA:O	1:A:1045:VAL:HG23	2.15	0.47
1:A:1100:ARG:NH2	1:A:1351:GLU:HG2	2.30	0.47
2:B:617:ARG:HH22	9:I:61:ASP:CG	2.18	0.47
3:C:196:ASP:OD1	3:C:198:ALA:HB3	2.15	0.47
3:C:196:ASP:CG	3:C:199:LYS:HD3	2.35	0.47
4:D:69:ALA:C	4:D:71:LYS:H	2.17	0.47
6:F:152:ILE:HG22	6:F:153:VAL:N	2.29	0.47
7:G:87:VAL:HG23	7:G:103:VAL:HG21	1.97	0.47
8:H:81:PRO:HB3	8:H:82:PRO:HD2	1.96	0.47
10:J:53:HIS:CD2	10:J:54:VAL:H	2.31	0.47
1:M:12:ARG:HD2	2:N:1218:THR:HB	1.96	0.47
1:M:1389:PHE:C	1:M:1391:ARG:H	2.18	0.47
1:M:255:SER:OG	2:N:918:ILE:HD13	2.14	0.47
1:M:56:PRO:O	1:M:57:ARG:CG	2.61	0.47
1:M:60:SER:OG	1:M:61:ILE:N	2.48	0.47
2:N:121:ASN:ND2	2:N:207:GLY:HA3	2.28	0.47
2:N:211:VAL:HG23	2:N:483:LEU:HB2	1.97	0.47
2:N:247:GLY:H	2:N:249:ARG:HH21	1.63	0.47
2:N:277:LYS:HE2	2:N:336:ARG:C	2.35	0.47
2:N:785:TYR:CD1	2:N:786:ASN:N	2.82	0.47
3:O:254:LYS:O	3:O:258:ILE:HD13	2.15	0.47
4:P:67:ARG:HG2	4:P:67:ARG:O	2.15	0.47
5:Q:60:PHE:CD1	5:Q:60:PHE:C	2.87	0.47
12:X:33:GLU:OE1	12:X:55:ILE:HD11	2.15	0.47
1:A:1193:LEU:HB2	1:A:1260:LEU:HD11	1.96	0.47
1:A:1450:LEU:HG	1:A:1450:LEU:O	2.15	0.47
1:A:305:ASP:OD1	1:A:306:ASN:N	2.47	0.47
1:A:310:GLY:O	1:A:312:PRO:CD	2.60	0.47
1:A:407:ARG:HG2	1:A:430:TRP:CH2	2.49	0.47
1:A:75:ASN:O	1:A:76:GLU:HB2	2.15	0.47
1:A:899:VAL:HG22	1:A:908:LEU:HD21	1.95	0.47
1:A:949:ASP:OD1	1:A:951:GLU:HB2	2.14	0.47
2:B:189:LEU:HA	2:B:192:LEU:HD12	1.96	0.47
2:B:115:GLN:HG2	2:B:193:LYS:CB	2.44	0.47
2:B:597:MET:SD	2:B:617:ARG:HB2	2.55	0.47
2:B:807:ARG:HD3	2:B:1043:ASP:OD1	2.15	0.47
2:B:953:LEU:O	2:B:964:VAL:HG23	2.14	0.47
3:C:73:GLN:NE2	3:C:75:MET:N	2.62	0.47
10:J:9:SER:CB	10:J:45:CYS:HB2	2.45	0.47
1:M:1257:ASP:HA	1:M:1260:LEU:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1342:GLU:OE2	5:Q:212:ARG:NH1	2.46	0.47
1:M:378:GLU:OE1	1:M:434:ARG:HD3	2.14	0.47
1:M:401:GLY:N	1:M:435:HIS:HD2	2.13	0.47
1:M:69:THR:C	1:M:71:GLN:N	2.67	0.47
1:M:675:THR:HG21	1:M:736:ASN:HB2	1.96	0.47
1:M:963:ILE:HD13	1:M:1049:ILE:HG13	1.96	0.47
2:N:417:PHE:HE1	2:N:453:ILE:HG21	1.80	0.47
2:N:661:LEU:HD23	2:N:679:TYR:O	2.14	0.47
1:A:1050:GLU:O	1:A:1054:LEU:HD12	2.14	0.47
1:A:1280:GLU:HB3	1:A:1281:ARG:H	1.59	0.47
1:A:765:VAL:HB	1:A:800:VAL:CG1	2.45	0.47
2:B:102:VAL:CG2	2:B:112:LEU:HD22	2.44	0.47
2:B:118:ARG:HH22	2:B:194:GLU:CD	2.18	0.47
2:B:487:THR:CG2	2:B:488:TYR:N	2.78	0.47
2:B:558:LEU:O	2:B:560:GLU:N	2.48	0.47
2:B:594:ALA:HA	2:B:617:ARG:HH11	1.80	0.47
2:B:996:ARG:NH1	3:C:174:ALA:HA	2.20	0.47
3:C:213:PRO:HG2	3:C:214:ASN:H	1.80	0.47
3:C:89:GLU:O	3:C:90:ASP:HB3	2.14	0.47
4:D:12:ARG:NH1	4:D:14:ARG:CA	2.78	0.47
5:E:191:LYS:O	5:E:192:ARG:C	2.52	0.47
5:E:204:THR:CG2	5:E:205:SER:N	2.77	0.47
7:G:111:THR:CG2	7:G:114:LEU:HB2	2.25	0.47
9:I:10:CYS:SG	9:I:32:CYS:HB3	2.54	0.47
1:M:1148:ILE:O	1:M:1148:ILE:HG22	2.15	0.47
1:M:1345:ARG:HG2	1:M:1372:VAL:CG1	2.45	0.47
1:M:460:VAL:HG12	1:M:461:LYS:N	2.30	0.47
1:M:689:LYS:O	1:M:693:VAL:HG23	2.14	0.47
2:N:483:LEU:HD11	2:N:491:THR:CG2	2.45	0.47
2:N:641:GLU:OE1	2:N:641:GLU:HA	2.15	0.47
2:N:889:THR:HG23	2:N:891:ASP:HB2	1.97	0.47
4:P:161:GLY:O	4:P:165:GLN:HG3	2.14	0.47
4:P:187:THR:C	4:P:189:ASP:N	2.66	0.47
4:P:191:ALA:C	4:P:193:THR:H	2.18	0.47
6:R:119:ARG:HH11	6:R:119:ARG:CG	2.28	0.47
8:T:113:ALA:HA	8:T:125:LEU:O	2.14	0.47
1:A:134:ARG:HG2	1:A:138:ILE:HD11	1.97	0.47
1:A:144:THR:O	1:A:146:MET:HG3	2.14	0.47
1:A:321:PRO:O	1:A:322:VAL:CG1	2.63	0.47
1:A:364:VAL:O	1:A:364:VAL:HG13	2.15	0.47
1:A:71:GLN:C	1:A:73:GLY:N	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:909:ASP:OD1	1:A:911:SER:N	2.41	0.47
2:B:863:GLU:OE1	2:B:962:LYS:HB2	2.15	0.47
3:C:238:ILE:HG23	3:C:242:GLN:HB2	1.96	0.47
3:C:242:GLN:C	3:C:244:VAL:H	2.17	0.47
8:H:99:GLY:HA3	8:H:118:PHE:CD2	2.49	0.47
1:M:305:ASP:OD1	1:M:306:ASN:N	2.48	0.47
1:M:416:ARG:HG3	1:M:416:ARG:HH11	1.79	0.47
1:M:523:ILE:HG13	1:M:622:VAL:HG22	1.97	0.47
1:M:962:ARG:C	1:M:964:ILE:N	2.68	0.47
2:N:1039:GLY:HA2	10:V:51:LEU:HD22	1.97	0.47
2:N:20:ASP:C	2:N:22:SER:H	2.12	0.47
2:N:273:LEU:CD1	2:N:280:ILE:HD12	2.37	0.47
2:N:428:ILE:HG22	2:N:432:MET:HE2	1.97	0.47
2:N:90:ILE:HD11	2:N:432:MET:SD	2.55	0.47
3:O:3:GLU:OE1	3:O:4:GLU:N	2.47	0.47
4:P:194:LEU:C	4:P:195:ILE:HG13	2.34	0.47
6:R:103:MET:O	6:R:104:ASN:HB2	2.13	0.47
6:R:111:LEU:C	6:R:113:GLY:N	2.66	0.47
11:W:12:LEU:HD12	11:W:37:LYS:CG	2.45	0.47
1:A:100:LYS:HE2	1:A:104:GLU:OE2	2.14	0.47
1:A:477:PRO:CG	1:A:521:MET:HG2	2.45	0.47
1:A:675:THR:OG1	1:A:736:ASN:ND2	2.47	0.47
2:B:604:ARG:C	2:B:606:LYS:H	2.18	0.47
5:E:147:HIS:CD2	5:E:148:GLU:N	2.83	0.47
5:E:144:ILE:HD13	5:E:183:PRO:HB3	1.97	0.47
9:I:74:GLU:HA	9:I:80:SER:O	2.15	0.47
1:M:845:LEU:HD12	1:M:1069:ALA:HB2	1.96	0.47
1:M:1259:MET:HE1	1:M:1262:LYS:HB2	1.97	0.47
1:M:175:ARG:HG2	1:M:182:VAL:HG12	1.97	0.47
1:M:322:VAL:O	1:M:322:VAL:HG13	2.15	0.47
1:M:645:LEU:HD11	1:M:649:ILE:HD11	1.97	0.47
2:N:167:ILE:HA	2:N:450:ALA:HB1	1.94	0.47
2:N:224:GLN:HA	2:N:396:ASP:OD2	2.15	0.47
2:N:235:SER:C	2:N:236:HIS:CD2	2.88	0.47
2:N:371:GLU:N	2:N:371:GLU:OE1	2.47	0.47
2:N:58:THR:O	2:N:62:ILE:HG13	2.15	0.47
3:O:186:LEU:N	3:O:186:LEU:HD12	2.29	0.47
3:O:259:LEU:CD2	11:W:91:CYS:HB3	2.45	0.47
4:P:154:PHE:HE1	4:P:163:VAL:CG1	2.26	0.47
5:Q:177:ARG:HB3	5:Q:215:MET:HG2	1.96	0.47
1:A:868:TYR:CE1	1:A:1064:VAL:HG11	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1189:SER:O	1:A:1241:ARG:HD3	2.15	0.47
1:A:1277:GLU:O	1:A:1279:ILE:N	2.47	0.47
1:A:53:LEU:O	1:A:54:ASN:C	2.52	0.47
1:A:67:CYS:O	1:A:68:GLN:HG3	2.15	0.47
1:A:75:ASN:HD22	2:B:1116:ARG:HH12	1.62	0.47
2:B:172:ILE:HD13	2:B:178:ASN:ND2	2.30	0.47
2:B:222:ILE:N	2:B:240:ILE:HD12	2.30	0.47
1:A:472:LEU:HD13	2:B:835:GLN:OE1	2.15	0.47
2:B:886:LYS:HB2	2:B:890:TYR:OH	2.15	0.47
2:B:906:SER:O	2:B:941:LEU:HD23	2.15	0.47
3:C:147:LEU:CD2	3:C:147:LEU:N	2.75	0.47
6:F:77:ASP:OD1	6:F:78:GLN:N	2.48	0.47
1:A:1438:THR:CG2	6:F:92:ARG:HD2	2.43	0.47
9:I:106:CYS:O	9:I:107:SER:HB2	2.14	0.47
1:M:1207:LEU:CD1	1:M:1273:LEU:HD23	2.45	0.47
1:M:444:PHE:HE2	1:M:470:LEU:HD13	1.80	0.47
1:M:879:GLU:O	1:M:955:PRO:HA	2.15	0.47
2:N:258:LEU:O	2:N:258:LEU:CG	2.63	0.47
2:N:525:ALA:O	2:N:768:THR:HG23	2.15	0.47
2:N:792:MET:HA	2:N:856:PHE:O	2.15	0.47
4:P:60:LYS:O	4:P:64:VAL:HG23	2.15	0.47
7:S:26:LEU:HD12	7:S:56:ILE:HD11	1.97	0.47
8:T:84:ALA:HA	8:T:87:ARG:HB2	1.97	0.47
2:N:186:GLU:CG	10:V:62:ARG:HH22	2.28	0.47
1:A:35:ILE:HG22	1:A:35:ILE:O	2.16	0.46
1:A:984:LYS:HG2	1:A:988:LEU:HD12	1.97	0.46
2:B:223:VAL:HG21	2:B:380:TYR:HE2	1.80	0.46
2:B:361:LEU:HD11	2:B:381:MET:HE1	1.96	0.46
2:B:376:PHE:CZ	2:B:569:TYR:HD2	2.33	0.46
2:B:542:MET:HG2	2:B:747:MET:HE2	1.97	0.46
1:A:1378:GLN:HG2	5:E:177:ARG:HH12	1.80	0.46
11:K:65:HIS:CD2	11:K:67:PHE:HB2	2.50	0.46
12:L:55:ILE:O	12:L:56:LEU:HB2	2.15	0.46
2:N:1156:ASP:HB3	2:N:1197:PRO:HA	1.96	0.46
2:N:371:GLU:H	2:N:371:GLU:CD	2.18	0.46
2:N:171:PRO:HD2	2:N:457:LEU:CD1	2.46	0.46
4:P:139:LYS:N	4:P:142:LYS:HE2	2.29	0.46
4:P:187:THR:HB	4:P:189:ASP:HB3	1.96	0.46
6:R:101:ILE:HD13	6:R:120:ILE:HG22	1.97	0.46
1:M:1433:MET:CE	7:S:63:PRO:HB2	2.41	0.46
1:A:1029:ARG:CG	1:A:1029:ARG:HH11	2.25	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:741:ASN:ND2	1:A:743:VAL:N	2.63	0.46
2:B:470:LYS:O	2:B:472:ALA:N	2.48	0.46
2:B:707:PRO:CG	2:B:708:GLU:H	2.24	0.46
2:B:980:PHE:CA	2:B:1095:LEU:HD11	2.45	0.46
2:B:773:MET:HE2	2:B:985:GLY:HA2	1.97	0.46
2:B:996:ARG:NH2	3:C:175:ALA:H	2.12	0.46
4:D:60:LYS:O	4:D:64:VAL:HG23	2.15	0.46
5:E:116:ILE:HG22	5:E:120:ALA:HB3	1.97	0.46
5:E:62:ALA:HB3	5:E:78:LEU:CD2	2.44	0.46
3:C:7:GLN:NE2	11:K:104:ASN:HD21	2.09	0.46
1:M:1203:ASN:O	1:M:1204:ASP:C	2.53	0.46
1:M:1293:SER:HB3	1:M:1297:GLU:OE1	2.16	0.46
1:M:1375:MET:HG2	1:M:1382:THR:O	2.15	0.46
1:M:320:ARG:NE	1:M:323:LYS:NZ	2.64	0.46
1:M:413:ILE:HG21	1:M:424:ILE:HD11	1.98	0.46
1:M:977:LYS:HB3	1:M:978:PRO:CD	2.45	0.46
2:N:274:PRO:CG	2:N:359:GLU:HB3	2.45	0.46
2:N:637:LEU:HD22	2:N:742:GLU:HA	1.98	0.46
3:O:18:VAL:O	3:O:20:PHE:HD2	1.98	0.46
3:O:236:GLY:O	3:O:238:ILE:N	2.48	0.46
3:O:37:MET:HE3	3:O:176:ILE:HD13	1.98	0.46
5:Q:112:TYR:CD1	5:Q:112:TYR:C	2.89	0.46
5:Q:117:THR:HG22	5:Q:119:SER:N	2.19	0.46
7:S:137:ILE:O	7:S:138:THR:OG1	2.32	0.46
8:T:38:LEU:HD12	8:T:124:ARG:O	2.16	0.46
1:A:157:ASP:C	1:A:159:THR:H	2.18	0.46
1:A:444:PHE:CB	1:A:458:HIS:HD2	2.28	0.46
1:A:61:ILE:HG22	1:A:62:ASP:N	2.31	0.46
1:A:78:PRO:HA	2:B:1201:LYS:NZ	2.30	0.46
2:B:1116:ARG:HG3	2:B:1198:TYR:CD1	2.50	0.46
2:B:96:TYR:HE1	2:B:131:ASP:OD1	1.97	0.46
2:B:617:ARG:HA	2:B:624:LEU:HD12	1.96	0.46
3:C:18:VAL:O	3:C:20:PHE:HD2	1.98	0.46
4:D:219:THR:HG22	4:D:220:LEU:O	2.15	0.46
5:E:192:ARG:NH1	5:E:215:MET:O	2.49	0.46
1:M:34:LYS:HG3	1:M:36:ARG:NH2	2.29	0.46
1:M:33:ALA:HB1	1:M:56:PRO:HB2	1.97	0.46
1:M:570:PRO:O	1:M:571:LEU:HD12	2.16	0.46
2:N:1068:GLY:O	2:N:1069:PHE:O	2.34	0.46
2:N:193:LYS:HD3	2:N:787:VAL:HG11	1.96	0.46
2:N:231:PRO:O	2:N:231:PRO:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:253:ASN:ND2	2:N:884:ARG:CD	2.78	0.46
3:O:167:HIS:CE1	12:X:70:ARG:HA	2.50	0.46
3:O:133:ILE:CD1	3:O:237:SER:HA	2.45	0.46
3:O:258:ILE:HD12	3:O:258:ILE:N	2.30	0.46
5:Q:207:ARG:HB3	5:Q:207:ARG:NH1	2.30	0.46
8:T:123:MET:HG2	8:T:124:ARG:N	2.30	0.46
11:W:55:LYS:CB	11:W:81:TYR:CD1	2.98	0.46
1:A:1121:GLU:HB3	1:A:1124:HIS:CD2	2.51	0.46
1:A:1277:GLU:O	1:A:1279:ILE:HG12	2.15	0.46
1:A:1284:MET:HA	1:A:1306:LEU:HD23	1.98	0.46
1:A:382:PRO:CA	1:A:428:TYR:CE2	2.99	0.46
1:A:518:LYS:HB2	1:A:519:PRO:HD2	1.97	0.46
1:A:591:PHE:CD2	1:A:595:THR:HB	2.50	0.46
2:B:105:SER:O	2:B:106:ASP:HB2	2.15	0.46
2:B:1156:ASP:O	2:B:1157:ALA:HB3	2.15	0.46
2:B:1183:LYS:HE3	2:B:1183:LYS:O	2.15	0.46
2:B:168:GLY:HA2	2:B:450:ALA:O	2.15	0.46
2:B:205:ILE:N	2:B:205:ILE:CD1	2.78	0.46
2:B:258:LEU:O	2:B:258:LEU:CG	2.62	0.46
2:B:282:ILE:HG21	2:B:382:ILE:HD13	1.97	0.46
2:B:305:VAL:HG12	2:B:305:VAL:O	2.15	0.46
2:B:429:PHE:HA	2:B:432:MET:HE2	1.98	0.46
2:B:90:ILE:HD12	2:B:432:MET:SD	2.56	0.46
2:B:431:TYR:CG	2:B:447:ALA:HB2	2.50	0.46
2:B:621:GLU:HG3	2:B:621:GLU:O	2.14	0.46
2:B:91:SER:OG	2:B:133:LYS:HB2	2.15	0.46
2:B:859:TYR:OH	2:B:941:LEU:HD12	2.15	0.46
3:C:252:GLN:HE21	11:K:95:ILE:CG2	2.28	0.46
5:E:50:MET:CG	5:E:52:ARG:HH21	2.26	0.46
4:D:40:HIS:NE2	7:G:73:LYS:HG2	2.30	0.46
10:J:21:TYR:HB2	10:J:39:LEU:CD1	2.45	0.46
1:M:1123:GLY:O	1:M:1125:ALA:N	2.49	0.46
1:M:1255:GLU:HG2	1:M:1258:HIS:HB2	1.98	0.46
1:M:1336:MET:CE	1:M:1381:LEU:HG	2.45	0.46
1:M:254:GLU:HB2	2:N:935:ARG:HH21	1.77	0.46
1:M:427:GLN:HB2	1:M:430:TRP:CD1	2.50	0.46
1:M:427:GLN:HB2	1:M:430:TRP:CG	2.51	0.46
1:M:67:CYS:O	1:M:68:GLN:C	2.51	0.46
1:M:722:LEU:HD23	1:M:799:PHE:CG	2.51	0.46
2:N:245:GLU:O	2:N:246:LYS:HG3	2.16	0.46
3:O:22:LEU:HG	3:O:25:VAL:HG21	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:12:ARG:NH1	4:P:14:ARG:CA	2.79	0.46
9:U:86:PHE:CE1	9:U:100:PHE:HB2	2.51	0.46
9:U:54:GLU:OE1	9:U:118:ARG:NH2	2.49	0.46
9:U:82:GLU:OE2	9:U:104:LEU:HB2	2.16	0.46
1:A:806:ARG:HH12	2:B:729:ILE:HD11	1.80	0.46
2:B:35:SER:HA	2:B:811:TYR:CE2	2.49	0.46
2:B:599:THR:O	2:B:603:LEU:HB2	2.15	0.46
2:B:773:MET:C	2:B:775:LYS:N	2.69	0.46
2:B:871:THR:HG22	2:B:872:GLU:N	2.30	0.46
4:D:15:LEU:O	4:D:15:LEU:HD12	2.16	0.46
8:H:47:PHE:HB3	8:H:95:TYR:CD1	2.49	0.46
1:M:1316:VAL:O	1:M:1316:VAL:HG12	2.14	0.46
1:M:49:LYS:CD	1:M:55:ASP:HB3	2.46	0.46
1:M:504:LEU:CD1	6:R:91:ALA:HB2	2.45	0.46
2:N:25:ILE:HD11	2:N:653:VAL:O	2.16	0.46
2:N:26:THR:O	2:N:29:ASP:HB2	2.16	0.46
2:N:35:SER:HA	2:N:811:TYR:CE2	2.42	0.46
2:N:390:LEU:O	2:N:391:ASP:C	2.54	0.46
2:N:758:PHE:CE1	2:N:1027:ILE:HG22	2.50	0.46
2:N:871:THR:O	2:N:917:PRO:HG3	2.15	0.46
3:O:104:PHE:HD2	3:O:105:GLY:N	2.14	0.46
4:P:154:PHE:HZ	4:P:214:LEU:CD1	2.27	0.46
9:U:75:CYS:SG	9:U:78:CYS:SG	3.13	0.46
1:A:868:TYR:CZ	1:A:1366:ARG:HD3	2.50	0.46
2:B:1095:LEU:CD1	2:B:1095:LEU:H	2.05	0.46
2:B:129:PHE:HD2	2:B:166:PHE:HA	1.79	0.46
2:B:390:LEU:O	2:B:391:ASP:C	2.54	0.46
2:B:750:GLY:O	2:B:751:VAL:C	2.54	0.46
4:D:208:GLU:HA	4:D:211:LEU:HD12	1.97	0.46
5:E:164:LEU:HD21	5:E:211:TYR:CD1	2.51	0.46
7:G:35:GLU:HG3	7:G:48:VAL:HG23	1.96	0.46
10:J:2:ILE:HG12	10:J:57:ILE:HD13	1.98	0.46
11:K:113:THR:O	11:K:114:LEU:CB	2.64	0.46
12:L:65:VAL:HG23	12:L:67:PHE:HE1	1.80	0.46
1:M:43:GLU:CG	1:M:46:THR:HB	2.39	0.46
1:M:694:THR:O	1:M:698:GLN:HG3	2.15	0.46
2:N:189:LEU:O	2:N:192:LEU:HB2	2.16	0.46
2:N:222:ILE:N	2:N:240:ILE:HD12	2.31	0.46
2:N:616:ILE:HD12	2:N:625:LYS:O	2.16	0.46
2:N:622:LYS:CE	9:U:59:VAL:HG13	2.45	0.46
2:N:642:ASP:HB3	2:N:649:LYS:CG	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:664:THR:CG2	2:N:678:GLU:N	2.78	0.46
2:N:744:HIS:CD2	2:N:745:PRO:CD	2.86	0.46
2:N:773:MET:C	2:N:775:LYS:N	2.69	0.46
2:N:497:ARG:NH2	2:N:775:LYS:NZ	2.64	0.46
2:N:850:LEU:HD12	2:N:851:PHE:H	1.80	0.46
2:N:861:ASP:OD1	2:N:862:GLN:N	2.49	0.46
2:N:871:THR:HG22	2:N:872:GLU:N	2.30	0.46
3:O:238:ILE:HD11	3:O:246:ARG:CZ	2.45	0.46
3:O:65:HIS:O	3:O:69:LEU:CD1	2.63	0.46
5:Q:100:ILE:CG2	5:Q:105:PHE:HB2	2.44	0.46
5:Q:65:THR:O	5:Q:69:ILE:CD1	2.63	0.46
7:S:1:MET:SD	7:S:79:PHE:CD1	3.09	0.46
9:U:116:ASN:C	9:U:117:LYS:HD2	2.36	0.46
13:4:15:DG:H2"	13:4:16:DT:H71	1.97	0.46
1:A:1100:ARG:HH21	1:A:1351:GLU:CG	2.29	0.46
1:A:1395:GLY:HA3	1:A:1419:ASP:OD2	2.16	0.46
1:A:2:VAL:HG22	1:A:3:GLY:H	1.81	0.46
1:A:322:VAL:O	1:A:322:VAL:CG1	2.63	0.46
2:B:1208:MET:O	2:B:1211:ASN:N	2.43	0.46
2:B:303:TYR:CD2	2:B:303:TYR:N	2.83	0.46
2:B:39:ARG:CZ	2:B:665:GLU:HG2	2.45	0.46
3:C:46:ILE:HG13	3:C:72:LEU:HD11	1.98	0.46
3:C:88:CYS:SG	3:C:91:HIS:HA	2.55	0.46
6:F:116:ASP:C	6:F:116:ASP:OD1	2.54	0.46
7:G:7:LEU:CD1	7:G:45:ILE:HD11	2.45	0.46
11:K:22:ASP:C	11:K:31:VAL:HG13	2.36	0.46
1:M:157:ASP:C	1:M:159:THR:H	2.19	0.46
1:M:338:GLY:HA2	2:N:1129:ARG:HH22	1.81	0.46
2:N:1068:GLY:O	2:N:1069:PHE:C	2.54	0.46
2:N:679:TYR:CE1	2:N:683:SER:HB2	2.51	0.46
2:N:732:SER:HB2	2:N:734:HIS:CE1	2.51	0.46
2:N:865:LYS:NZ	2:N:869:SER:HA	2.31	0.46
5:Q:158:SER:O	5:Q:162:ARG:HD3	2.16	0.46
5:Q:29:PHE:HA	5:Q:65:THR:HG22	1.98	0.46
6:R:90:ARG:HD3	6:R:155:LEU:CD1	2.40	0.46
4:P:7:THR:HB	7:S:42:PHE:HE2	1.79	0.46
7:S:96:GLN:H	7:S:96:GLN:HG2	1.51	0.46
8:T:47:PHE:HB3	8:T:95:TYR:HD1	1.80	0.46
10:V:7:CYS:CB	10:V:49:MET:HE3	2.45	0.46
1:A:245:PRO:O	1:A:248:PRO:HD3	2.16	0.46
1:A:427:GLN:HB2	1:A:430:TRP:CD2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:63:ARG:HA	1:A:74:MET:HE1	1.96	0.46
1:A:915:SER:O	1:A:919:ILE:HB	2.16	0.46
1:A:962:ARG:C	1:A:964:ILE:N	2.69	0.46
2:B:497:ARG:HH21	2:B:775:LYS:HZ1	1.64	0.46
2:B:637:LEU:HD22	2:B:742:GLU:HA	1.96	0.46
7:G:21:ARG:HD2	7:G:24:GLN:HB3	1.96	0.46
1:M:134:ARG:CD	1:M:221:SER:O	2.62	0.46
1:M:670:ILE:N	1:M:670:ILE:HD13	2.31	0.46
1:M:690:VAL:HG21	1:M:718:VAL:HG13	1.97	0.46
2:N:1183:LYS:H	2:N:1183:LYS:CE	2.28	0.46
2:N:240:ILE:O	2:N:240:ILE:HG23	2.16	0.46
2:N:619:ILE:HD12	9:U:65:ASP:HB2	1.98	0.46
2:N:758:PHE:CE2	2:N:1044:ALA:CA	2.93	0.46
4:P:16:LYS:O	4:P:18:VAL:N	2.41	0.46
4:P:191:ALA:O	4:P:193:THR:N	2.49	0.46
4:P:195:ILE:HB	4:P:198:LEU:HD11	1.97	0.46
1:M:1444:MET:HE1	6:R:135:ARG:HB2	1.98	0.46
1:M:600:PRO:HA	8:T:25:ARG:NH1	2.31	0.46
10:V:36:LEU:HD11	10:V:51:LEU:HB2	1.98	0.46
1:A:1236:LEU:C	1:A:1237:ILE:HD12	2.36	0.46
1:A:1394:THR:CG2	1:A:1398:MET:SD	3.04	0.46
1:A:230:ARG:HG3	1:A:233:TRP:CE3	2.51	0.46
1:A:365:GLY:HA3	1:A:463:ILE:HD13	1.97	0.46
1:A:447:GLN:HA	1:A:448:PRO:C	2.36	0.46
2:B:246:LYS:HA	2:B:249:ARG:CZ	2.46	0.46
2:B:90:ILE:HD11	2:B:432:MET:SD	2.55	0.46
3:C:239:PRO:O	3:C:242:GLN:N	2.45	0.46
5:E:100:ILE:HG23	5:E:105:PHE:CD1	2.51	0.46
5:E:147:HIS:CD2	5:E:149:LEU:H	2.27	0.46
6:F:93:ILE:CD1	6:F:134:ILE:HD11	2.37	0.46
9:I:15:TYR:HD1	9:I:15:TYR:N	2.13	0.46
11:K:50:LEU:HD11	11:K:75:ILE:HD11	1.97	0.46
1:M:401:GLY:C	1:M:435:HIS:CD2	2.89	0.46
1:M:697:ALA:CB	1:M:702:LEU:HD11	2.45	0.46
1:M:807:GLY:HA2	2:N:760:ASP:O	2.15	0.46
1:M:825:ILE:O	1:M:829:VAL:HG23	2.16	0.46
1:M:946:VAL:CG2	5:Q:201:LYS:HD2	2.45	0.46
2:N:521:LEU:HD22	2:N:633:VAL:CG1	2.26	0.46
3:O:16:ASP:OD1	3:O:16:ASP:N	2.49	0.46
3:O:3:GLU:OE1	3:O:4:GLU:HB2	2.16	0.46
3:O:73:GLN:HE21	3:O:75:MET:HB2	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:156:ASP:CB	4:P:159:THR:HG23	2.36	0.46
4:P:185:CYS:SG	4:P:191:ALA:CA	3.04	0.46
4:P:189:ASP:OD2	7:S:167:TYR:CE1	2.69	0.46
6:R:100:GLN:HE22	7:S:61:ILE:HD13	1.81	0.46
8:T:40:LEU:HD13	8:T:123:MET:CE	2.46	0.46
12:X:60:ARG:HG2	12:X:61:THR:N	2.31	0.46
1:A:1098:VAL:N	1:A:1099:PRO:HD2	2.30	0.46
1:A:1345:ARG:HG2	1:A:1372:VAL:CG1	2.46	0.46
1:A:181:LEU:HA	1:A:181:LEU:HD23	1.80	0.46
1:A:255:SER:OG	2:B:918:ILE:HD13	2.15	0.46
1:A:35:ILE:HA	1:A:52:GLY:O	2.16	0.46
1:A:929:LEU:HD21	1:A:983:ILE:HG21	1.98	0.46
1:A:878:ILE:HG21	1:A:955:PRO:HB2	1.98	0.46
2:B:1115:THR:HG21	2:B:1117:GLN:HB2	1.98	0.46
2:B:20:ASP:C	2:B:22:SER:H	2.14	0.46
2:B:331:LEU:HD21	2:B:353:LYS:HG2	1.97	0.46
2:B:331:LEU:O	2:B:334:ILE:HB	2.16	0.46
2:B:558:LEU:CD2	2:B:596:LEU:HD11	2.46	0.46
2:B:857:ARG:HH21	2:B:942:ARG:NH2	2.14	0.46
3:C:44:LEU:CD2	3:C:159:ALA:HB1	2.46	0.46
4:D:35:LEU:N	4:D:35:LEU:HD12	2.28	0.46
4:D:51:ASN:C	4:D:52:LEU:O	2.51	0.46
5:E:164:LEU:HD21	5:E:211:TYR:CG	2.50	0.46
8:H:77:ARG:HG2	8:H:78:SER:H	1.81	0.46
2:B:620:ARG:CZ	9:I:68:LEU:HD21	2.45	0.46
1:M:208:LEU:HA	1:M:235:ILE:HD12	1.97	0.46
1:M:367:PRO:HB3	1:M:465:TYR:O	2.16	0.46
1:M:549:MET:HE1	1:M:656:TRP:CD1	2.51	0.46
1:M:53:LEU:O	1:M:54:ASN:C	2.53	0.46
1:M:75:ASN:O	1:M:76:GLU:CB	2.62	0.46
1:M:834:THR:CG2	1:M:835:GLY:N	2.79	0.46
2:N:1169:MET:CE	2:N:1204:PHE:HB2	2.46	0.46
2:N:298:LEU:N	2:N:298:LEU:CD2	2.79	0.46
2:N:277:LYS:HG2	2:N:336:ARG:CB	2.46	0.46
2:N:51:PHE:O	2:N:54:PHE:HB3	2.16	0.46
3:O:177:GLU:HG3	3:O:231:ASN:HD22	1.81	0.46
4:P:134:THR:CG2	4:P:135:GLY:N	2.79	0.46
4:P:35:LEU:H	4:P:35:LEU:CD1	2.28	0.46
4:P:67:ARG:HB2	4:P:133:THR:CG2	2.45	0.46
4:P:194:LEU:CB	7:S:86:VAL:HG21	2.46	0.46
1:A:1036:ARG:NH1	1:A:1036:ARG:CG	2.74	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:960:ILE:HA	1:A:963:ILE:CG2	2.46	0.45
2:B:1008:PRO:HB3	2:B:1087:PHE:HE2	1.82	0.45
2:B:121:ASN:HA	2:B:207:GLY:CA	2.46	0.45
2:B:233:PRO:HG2	2:B:234:ILE:HD13	1.97	0.45
1:A:829:VAL:HG11	2:B:508:LEU:HD22	1.98	0.45
2:B:613:VAL:HG22	2:B:628:THR:HA	1.98	0.45
2:B:860:MET:HB2	2:B:965:LYS:HG2	1.98	0.45
4:D:220:LEU:CG	4:D:221:TYR:H	2.29	0.45
5:E:157:SER:C	5:E:159:ASP:N	2.70	0.45
4:D:6:SER:HB3	7:G:8:SER:OG	2.16	0.45
8:H:40:LEU:HD12	8:H:123:MET:CG	2.46	0.45
8:H:56:THR:HB	8:H:145:ARG:HG2	1.97	0.45
12:L:43:THR:O	12:L:43:THR:HG22	2.16	0.45
1:M:53:LEU:CD2	1:M:54:ASN:N	2.51	0.45
1:M:61:ILE:O	1:M:63:ARG:N	2.49	0.45
1:M:795:GLU:H	1:M:795:GLU:CD	2.19	0.45
2:N:427:ASP:HA	2:N:430:ARG:HG3	1.97	0.45
3:O:166:GLU:HG3	11:W:10:PHE:CZ	2.43	0.45
3:O:80:LEU:HD11	3:O:95:CYS:CA	2.46	0.45
4:P:153:ARG:HB3	4:P:154:PHE:CE2	2.51	0.45
4:P:212:LYS:O	4:P:215:SER:OG	2.33	0.45
11:W:47:ARG:O	11:W:47:ARG:HD2	2.16	0.45
12:X:36:SER:O	12:X:37:LYS:C	2.54	0.45
1:A:1048:ASN:HD22	1:A:1048:ASN:N	2.14	0.45
1:A:185:TRP:CH2	1:A:200:ARG:HG2	2.51	0.45
1:A:596:THR:C	1:A:597:LEU:HD12	2.36	0.45
2:B:619:ILE:HG22	2:B:620:ARG:N	2.30	0.45
2:B:806:THR:HG22	2:B:808:ALA:CB	2.46	0.45
4:D:162:ALA:HA	4:D:165:GLN:HE21	1.80	0.45
11:K:12:LEU:HD12	11:K:37:LYS:HG3	1.98	0.45
1:M:1148:ILE:HG12	1:M:1198:ASP:HB2	1.98	0.45
1:M:1280:GLU:O	1:M:1281:ARG:C	2.54	0.45
1:M:1445:ILE:HD12	1:M:1445:ILE:N	2.30	0.45
1:M:218:ASP:O	1:M:219:PHE:C	2.55	0.45
1:M:315:LEU:N	1:M:315:LEU:HD23	2.31	0.45
1:M:321:PRO:O	1:M:322:VAL:CG1	2.60	0.45
1:M:899:VAL:CB	1:M:929:LEU:HD12	2.43	0.45
2:N:167:ILE:HG21	2:N:424:LEU:HD21	1.99	0.45
3:O:43:THR:HG22	3:O:44:LEU:N	2.31	0.45
5:Q:134:THR:O	5:Q:135:PHE:CD1	2.69	0.45
13:1:15:DG:H2"	13:1:16:DT:H71	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6:5:C:O2'	15:6:6:A:H5'	2.16	0.45
1:A:133:LYS:O	1:A:136:ALA:HB3	2.16	0.45
1:A:167:CYS:HB2	1:A:169:ASN:ND2	2.32	0.45
2:B:167:ILE:HA	2:B:450:ALA:HB1	1.95	0.45
2:B:387:LEU:HD12	2:B:387:LEU:N	2.31	0.45
2:B:448:ILE:O	2:B:450:ALA:N	2.49	0.45
2:B:582:VAL:CG2	2:B:626:ILE:HB	2.43	0.45
3:C:183:TRP:O	3:C:185:LYS:HG3	2.16	0.45
5:E:161:LYS:HD2	5:E:195:VAL:HG23	1.98	0.45
6:F:109:VAL:CG1	6:F:110:ASP:N	2.73	0.45
8:H:27:GLU:HA	8:H:38:LEU:O	2.17	0.45
8:H:87:ARG:O	8:H:89:LEU:HD23	2.16	0.45
8:H:95:TYR:CE2	8:H:97:MET:CG	2.99	0.45
1:M:1400:CYS:O	1:M:1405:THR:HG23	2.16	0.45
1:M:409:SER:O	1:M:410:GLY:C	2.55	0.45
2:N:470:LYS:O	2:N:472:ALA:N	2.49	0.45
2:N:69:LEU:HD13	2:N:429:PHE:HD1	1.82	0.45
3:O:67:LEU:HD11	3:O:155:LEU:CD1	2.46	0.45
4:P:193:THR:CG2	4:P:194:LEU:HD23	2.46	0.45
9:U:73:ARG:NH1	9:U:112:SER:HB3	2.29	0.45
1:A:1029:ARG:CG	1:A:1029:ARG:NH1	2.79	0.45
1:A:1280:GLU:O	1:A:1281:ARG:C	2.54	0.45
1:A:335:ARG:HA	1:A:339:ASN:HD22	1.82	0.45
1:A:566:ILE:O	1:A:567:LYS:O	2.34	0.45
1:A:809:THR:OG1	1:A:812:GLU:HG3	2.17	0.45
1:A:898:ARG:HD3	1:A:933:TYR:CD1	2.51	0.45
2:B:803:LEU:HD13	2:B:1032:SER:HB3	1.97	0.45
2:B:1204:PHE:O	2:B:1208:MET:HG3	2.15	0.45
2:B:1220:ARG:HH11	2:B:1220:ARG:HB3	1.82	0.45
2:B:100:PRO:HA	2:B:125:SER:O	2.16	0.45
2:B:222:ILE:N	2:B:240:ILE:CD1	2.79	0.45
2:B:347:LYS:HG3	2:B:348:ARG:H	1.80	0.45
2:B:227:LYS:HG3	2:B:395:GLN:OE1	2.17	0.45
2:B:95:ILE:CB	2:B:130:VAL:HG22	2.47	0.45
2:B:990:ILE:HG22	2:B:991:GLY:N	2.30	0.45
2:B:831:SER:HG	2:B:994:TYR:HE1	1.62	0.45
2:B:995:ARG:HB3	2:B:997:GLU:OE2	2.16	0.45
3:C:186:LEU:O	3:C:187:LYS:HB2	2.17	0.45
3:C:258:ILE:HG23	11:K:19:LEU:HD11	1.99	0.45
4:D:134:THR:CG2	4:D:135:GLY:H	2.28	0.45
4:D:216:ASN:O	4:D:218:GLU:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:106:GLN:HE22	5:E:129:PRO:HB2	1.82	0.45
8:H:133:ASN:O	8:H:135:LEU:N	2.48	0.45
12:L:36:SER:O	12:L:37:LYS:C	2.54	0.45
1:M:1095:THR:CG2	1:M:1112:LYS:HD2	2.46	0.45
1:M:1198:ASP:O	1:M:1202:MET:HG2	2.16	0.45
1:M:1227:ILE:HG22	1:M:1228:TRP:N	2.30	0.45
1:M:1313:LEU:HD23	1:M:1338:VAL:CG2	2.47	0.45
1:M:1396:ALA:HA	1:M:1399:ARG:NH2	2.31	0.45
1:M:251:SER:HA	1:M:257:ARG:O	2.17	0.45
1:M:381:THR:HG21	1:M:383:TYR:CD1	2.52	0.45
1:M:50:ILE:C	1:M:52:GLY:N	2.68	0.45
1:M:590:ARG:O	1:M:591:PHE:CB	2.59	0.45
1:M:1410:PHE:HA	2:N:1212:ILE:HD11	1.97	0.45
2:N:557:PHE:CE1	2:N:603:LEU:HD11	2.51	0.45
2:N:376:PHE:CZ	2:N:569:TYR:HB3	2.52	0.45
2:N:970:THR:HG22	2:N:971:THR:N	2.31	0.45
3:O:144:ILE:HG22	3:O:145:CYS:HB3	1.98	0.45
3:O:239:PRO:O	3:O:242:GLN:N	2.47	0.45
3:O:243:VAL:O	3:O:243:VAL:CG1	2.64	0.45
4:P:138:ASN:C	4:P:140:ASP:N	2.69	0.45
5:Q:128:PRO:HA	5:Q:129:PRO:O	2.17	0.45
1:M:857:ARG:NH2	6:R:139:PRO:HG3	2.30	0.45
7:S:142:ARG:CB	7:S:171:ILE:HD11	2.47	0.45
9:U:100:PHE:CD1	9:U:100:PHE:N	2.84	0.45
15:6:3:A:H2'	15:6:4:C:C6	2.51	0.45
1:A:1291:VAL:CG2	1:A:1292:PRO:HD2	2.47	0.45
1:A:262:LEU:HD12	1:A:328:ARG:NH2	2.31	0.45
2:B:1084:GLN:HE21	2:B:1084:GLN:H	1.64	0.45
2:B:1106:ARG:HH12	2:B:1110:PRO:HG2	1.81	0.45
2:B:185:THR:O	2:B:188:ASP:N	2.50	0.45
2:B:230:ALA:HB3	2:B:231:PRO:HD3	1.97	0.45
2:B:245:GLU:C	2:B:246:LYS:HG3	2.37	0.45
2:B:401:PHE:HD2	2:B:521:LEU:HD12	1.82	0.45
2:B:637:LEU:HD22	2:B:741:CYS:O	2.17	0.45
2:B:766:ARG:HD3	2:B:766:ARG:HA	1.58	0.45
2:B:871:THR:O	2:B:917:PRO:HG3	2.15	0.45
3:C:208:GLU:O	3:C:210:GLU:N	2.49	0.45
4:D:190:GLU:O	4:D:194:LEU:HG	2.16	0.45
7:G:55:ASP:HB3	7:G:73:LYS:HB2	1.98	0.45
1:M:1217:LYS:O	1:M:1221:LYS:HA	2.15	0.45
1:M:61:ILE:CG2	1:M:62:ASP:H	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:962:ARG:C	1:M:964:ILE:H	2.20	0.45
2:N:1006:ILE:H	2:N:1006:ILE:HG13	1.33	0.45
2:N:1096:ARG:HH11	2:N:1096:ARG:HB2	1.81	0.45
4:P:195:ILE:N	4:P:196:PRO:CD	2.79	0.45
4:P:202:ILE:HD11	4:P:207:LEU:HA	1.98	0.45
4:P:23:ASN:HA	4:P:28:GLN:O	2.15	0.45
5:Q:179:GLN:HB2	5:Q:182:ASP:HB2	1.99	0.45
6:R:103:MET:HE2	7:S:66:GLY:N	2.21	0.45
9:U:74:GLU:HA	9:U:80:SER:O	2.17	0.45
12:X:40:LEU:HD13	12:X:44:ASP:CB	2.32	0.45
1:A:1116:LEU:HB3	1:A:1308:THR:CG2	2.46	0.45
1:A:1152:ILE:HG23	1:A:1260:LEU:HD23	1.98	0.45
1:A:150:THR:O	1:A:150:THR:HG22	2.16	0.45
1:A:44:THR:O	1:A:45:GLN:CB	2.64	0.45
1:A:56:PRO:O	1:A:57:ARG:CZ	2.65	0.45
1:A:66:LYS:O	1:A:67:CYS:CB	2.64	0.45
1:A:697:ALA:HA	1:A:702:LEU:HG	1.97	0.45
1:A:977:LYS:HB3	1:A:978:PRO:CD	2.44	0.45
2:B:95:ILE:CG1	2:B:130:VAL:HG22	2.47	0.45
2:B:641:GLU:C	2:B:643:ASP:H	2.19	0.45
2:B:807:ARG:HH11	2:B:807:ARG:HB3	1.82	0.45
5:E:177:ARG:C	5:E:212:ARG:HD3	2.37	0.45
6:F:69:LEU:C	6:F:71:GLU:HG3	2.37	0.45
8:H:57:VAL:HG12	8:H:58:THR:N	2.32	0.45
10:J:14:VAL:CG1	10:J:14:VAL:O	2.63	0.45
12:L:34:CYS:O	12:L:35:SER:C	2.55	0.45
1:M:107:CYS:SG	1:M:108:MET:O	2.75	0.45
1:M:1313:LEU:HB3	1:M:1338:VAL:HG21	1.98	0.45
1:M:64:ASN:O	1:M:65:LEU:C	2.55	0.45
1:M:683:ILE:HD13	1:M:801:GLU:HG3	1.99	0.45
1:M:878:ILE:HG21	1:M:955:PRO:HB2	1.98	0.45
2:N:1031:LEU:O	2:N:1031:LEU:HD12	2.16	0.45
2:N:112:LEU:HD12	2:N:113:TYR:H	1.81	0.45
2:N:223:VAL:HG21	2:N:380:TYR:HE2	1.82	0.45
2:N:744:HIS:HD2	2:N:745:PRO:CG	2.30	0.45
4:P:134:THR:HG22	4:P:135:GLY:H	1.79	0.45
4:P:35:LEU:HD11	4:P:173:HIS:NE2	2.32	0.45
6:R:119:ARG:NH1	6:R:119:ARG:CG	2.80	0.45
1:M:1438:THR:CG2	6:R:92:ARG:HD2	2.47	0.45
10:V:42:LYS:HG2	10:V:43:ARG:N	2.32	0.45
10:V:7:CYS:HB2	10:V:49:MET:HE3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1447:GLU:OE2	7:G:23:LYS:HB2	2.17	0.45
1:A:196:GLU:CG	1:A:197:PRO:HD2	2.46	0.45
1:A:66:LYS:NZ	1:A:68:GLN:H	2.14	0.45
1:A:72:GLU:HB3	1:A:76:GLU:CG	2.47	0.45
1:A:837:ILE:HG12	1:A:840:ARG:NH1	2.31	0.45
1:A:855:THR:HG23	1:A:857:ARG:CG	2.39	0.45
1:A:879:GLU:O	1:A:955:PRO:HA	2.17	0.45
2:B:1060:ARG:HA	2:B:1060:ARG:HD2	1.53	0.45
2:B:174:LEU:HD22	2:B:202:TYR:CE1	2.52	0.45
1:A:472:LEU:HD11	2:B:835:GLN:NE2	2.32	0.45
2:B:975:GLN:HG2	2:B:976:ILE:H	1.82	0.45
3:C:114:TYR:CD2	3:C:140:ASN:CB	2.99	0.45
3:C:114:TYR:HB2	3:C:116:LYS:HG2	1.99	0.45
5:E:21:GLU:O	5:E:24:LYS:HG2	2.17	0.45
5:E:78:LEU:HD23	5:E:78:LEU:C	2.37	0.45
5:E:89:GLY:C	5:E:91:LYS:H	2.20	0.45
6:F:101:ILE:HD11	6:F:124:GLU:OE1	2.17	0.45
7:G:139:ILE:HD13	7:G:140:LYS:HE3	1.98	0.45
7:G:1:MET:O	7:G:1:MET:HE2	2.17	0.45
8:H:30:SER:HB3	8:H:36:CYS:HB3	1.99	0.45
1:M:106:VAL:CG1	1:M:111:GLY:HA2	2.47	0.45
1:M:256:GLN:O	1:M:257:ARG:HB2	2.16	0.45
2:N:555:ILE:HG22	2:N:556:THR:N	2.32	0.45
2:N:777:ALA:HA	2:N:1095:LEU:HA	1.98	0.45
2:N:796:LEU:HD12	2:N:852:ARG:O	2.17	0.45
3:O:233:GLU:OE1	10:V:12:LYS:HE2	2.16	0.45
3:O:253:LYS:O	3:O:256:ALA:HB3	2.17	0.45
1:M:1438:THR:HG23	6:R:92:ARG:HD2	1.98	0.45
8:T:133:ASN:O	8:T:135:LEU:N	2.49	0.45
8:T:81:PRO:HB2	8:T:82:PRO:HD2	1.97	0.45
14:5:3:DT:C2	14:5:4:DA:N7	2.85	0.45
1:A:1222:ASN:O	1:A:1223:ASP:HB3	2.16	0.45
1:A:1268:LEU:HD13	9:I:48:LEU:HD11	1.98	0.45
1:A:1297:GLU:OE1	1:A:1297:GLU:N	2.50	0.45
1:A:182:VAL:HG23	1:A:201:VAL:HA	1.98	0.45
1:A:42:ASP:HB3	1:A:45:GLN:CA	2.47	0.45
1:A:524:VAL:CG1	1:A:525:GLN:H	2.11	0.45
2:B:48:LEU:HD23	2:B:173:MET:SD	2.57	0.45
2:B:189:LEU:O	2:B:192:LEU:HB2	2.17	0.45
2:B:44:VAL:O	2:B:45:SER:C	2.54	0.45
2:B:515:HIS:CD2	2:B:517:THR:OG1	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:778:MET:HE1	2:B:1094:ARG:CD	2.42	0.45
2:B:840:ILE:HB	2:B:1011:ILE:HB	1.98	0.45
2:B:842:ASN:HD21	2:B:844:SER:HB2	1.82	0.45
2:B:93:GLY:O	2:B:130:VAL:HG13	2.16	0.45
1:A:568:PRO:HB3	3:C:221:TYR:OH	2.17	0.45
4:D:146:GLN:HA	4:D:149:THR:CG2	2.44	0.45
5:E:96:PHE:O	5:E:99:HIS:HB3	2.16	0.45
8:H:63:LEU:HD23	8:H:90:ALA:HB3	1.99	0.45
10:J:53:HIS:HD2	10:J:54:VAL:H	1.63	0.45
1:M:1115:SER:OG	1:M:1116:LEU:N	2.50	0.45
1:M:1453:TYR:O	1:M:1454:MET:HB3	2.17	0.45
1:M:536:LEU:HG	1:M:536:LEU:H	1.54	0.45
1:M:670:ILE:H	1:M:670:ILE:HD13	1.80	0.45
1:M:84:ILE:HG22	1:M:86:LEU:HD23	1.99	0.45
1:M:878:ILE:CG2	1:M:955:PRO:HB2	2.47	0.45
2:N:169:ARG:HB2	2:N:454:THR:HG23	1.99	0.45
3:O:46:ILE:HG13	3:O:72:LEU:HD11	1.98	0.45
4:P:12:ARG:HH12	4:P:14:ARG:HA	1.82	0.45
6:R:69:LEU:HB3	6:R:71:GLU:CG	2.47	0.45
1:A:1107:VAL:CG1	1:A:1107:VAL:O	2.59	0.45
1:A:1111:MET:HG3	1:A:1114:PRO:HB3	1.97	0.45
1:A:164:ARG:HG3	1:A:165:GLY:H	1.82	0.45
1:A:225:ASN:ND2	1:A:227:VAL:N	2.63	0.45
1:A:259:GLU:OE1	1:A:259:GLU:HA	2.17	0.45
1:A:316:GLN:HG2	1:A:317:LYS:H	1.81	0.45
1:A:560:ILE:HD11	11:K:58:PHE:HD1	1.82	0.45
1:A:61:ILE:O	1:A:63:ARG:N	2.50	0.45
1:A:64:ASN:O	1:A:65:LEU:C	2.55	0.45
2:B:205:ILE:HG12	2:B:461:LEU:HB3	1.99	0.45
2:B:24:PRO:O	2:B:25:ILE:HG23	2.17	0.45
2:B:69:LEU:HD13	2:B:429:PHE:HD1	1.81	0.45
2:B:582:VAL:HG12	2:B:582:VAL:O	2.16	0.45
2:B:866:TYR:HB2	2:B:870:ILE:HB	1.99	0.45
2:B:899:ILE:HG22	2:B:900:ALA:O	2.16	0.45
9:I:100:PHE:CD1	9:I:100:PHE:N	2.85	0.45
9:I:98:VAL:CG1	9:I:111:THR:HG23	2.46	0.45
9:I:17:ARG:HG3	9:I:28:GLU:OE1	2.16	0.45
12:L:53:HIS:C	12:L:55:ILE:HD13	2.38	0.45
1:M:1081:LEU:HD11	1:M:1098:VAL:H	1.82	0.45
1:M:1169:ILE:H	1:M:1169:ILE:HG13	1.55	0.45
1:M:295:LEU:O	1:M:298:PHE:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:489:LEU:C	1:M:489:LEU:HD12	2.36	0.45
1:M:55:ASP:C	1:M:57:ARG:N	2.64	0.45
1:M:767:GLN:HA	1:M:799:PHE:HA	1.99	0.45
2:N:345:LYS:HA	2:N:348:ARG:HG2	1.99	0.45
2:N:651:LEU:HD21	2:N:741:CYS:HB3	1.98	0.45
2:N:770:GLN:HG2	2:N:983:ARG:C	2.37	0.45
4:P:215:SER:HA	4:P:218:GLU:OE2	2.16	0.45
4:P:40:HIS:CE1	7:S:74:TYR:O	2.70	0.45
6:R:69:LEU:HD22	6:R:71:GLU:OE1	2.16	0.45
1:A:1066:VAL:O	1:A:1070:GLN:HG3	2.16	0.45
1:A:153:PRO:HB3	1:A:161:LEU:CD2	2.46	0.45
1:A:173:THR:O	1:A:173:THR:CG2	2.65	0.45
1:A:688:LYS:HA	1:A:691:LEU:HB3	1.99	0.45
1:A:744:LYS:HG2	1:A:748:MET:HE1	1.97	0.45
1:A:868:TYR:CE1	1:A:1064:VAL:HG13	2.51	0.45
1:A:659:HIS:ND1	2:B:1074:ASN:ND2	2.65	0.45
2:B:203:PHE:HB3	2:B:205:ILE:CD1	2.47	0.45
2:B:281:PRO:HG2	2:B:284:ILE:HD12	1.99	0.45
2:B:26:THR:O	2:B:29:ASP:HB2	2.17	0.45
2:B:314:LEU:O	2:B:318:VAL:HG23	2.17	0.45
2:B:467:GLY:CA	2:B:475:SER:HB3	2.47	0.45
2:B:473:MET:CE	2:B:474:SER:HA	2.46	0.45
2:B:604:ARG:CB	2:B:609:ILE:HG13	2.46	0.45
2:B:789:MET:HE1	2:B:953:LEU:HD22	1.99	0.45
2:B:984:HIS:CD2	2:B:1025:HIS:HA	2.52	0.45
2:B:976:ILE:HD13	2:B:992:ILE:HA	1.99	0.45
4:D:67:ARG:HG2	4:D:67:ARG:O	2.17	0.45
5:E:61:GLN:HB2	5:E:79:TRP:HE3	1.82	0.45
9:I:82:GLU:CB	9:I:104:LEU:HD12	2.47	0.45
1:M:1011:GLN:NE2	1:M:1015:VAL:HG23	2.31	0.45
1:M:117:GLU:H	1:M:117:GLU:CD	2.19	0.45
1:M:1202:MET:HE1	1:M:1212:VAL:HG21	1.97	0.45
1:M:1329:THR:HG23	1:M:1331:SER:N	2.31	0.45
1:M:392:VAL:HG13	1:M:415:LEU:CD1	2.47	0.45
1:M:62:ASP:OD1	1:M:62:ASP:O	2.34	0.45
1:M:720:ARG:O	1:M:724:GLU:CB	2.65	0.45
2:N:497:ARG:NH2	2:N:775:LYS:HZ3	2.15	0.45
2:N:710:LEU:HA	2:N:733:HIS:CB	2.24	0.45
2:N:787:VAL:O	2:N:787:VAL:HG12	2.17	0.45
2:N:941:LEU:HD11	2:N:968:VAL:HG21	1.98	0.45
3:O:189:THR:CG2	3:O:190:ASP:N	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:56:THR:O	8:T:144:ILE:HA	2.17	0.45
1:A:1100:ARG:O	1:A:1103:GLU:HB3	2.18	0.44
1:A:1454:MET:HG3	1:A:1454:MET:O	2.17	0.44
1:A:162:VAL:HG12	1:A:163:SER:N	2.32	0.44
1:A:567:LYS:CG	1:A:568:PRO:CD	2.93	0.44
2:B:29:ASP:OD1	2:B:658:ILE:HG21	2.17	0.44
2:B:941:LEU:CD1	2:B:968:VAL:HG21	2.46	0.44
2:B:997:GLU:HG2	3:C:39:ALA:HB2	2.00	0.44
3:C:138:GLU:OE1	3:C:138:GLU:N	2.50	0.44
4:D:13:ARG:C	4:D:15:LEU:N	2.69	0.44
4:D:146:GLN:C	4:D:149:THR:HG22	2.38	0.44
6:F:140:ASP:CG	6:F:142:SER:HG	2.20	0.44
7:G:1:MET:SD	7:G:79:PHE:CE1	3.09	0.44
8:H:62:SER:OG	8:H:63:LEU:N	2.50	0.44
1:M:547:LEU:HD21	1:M:560:ILE:HD13	1.98	0.44
1:M:72:GLU:HB3	1:M:76:GLU:CG	2.47	0.44
2:N:361:LEU:HD11	2:N:381:MET:HE1	1.98	0.44
2:N:508:LEU:N	2:N:512:ARG:HE	2.15	0.44
2:N:552:MET:CE	2:N:552:MET:HA	2.45	0.44
2:N:983:ARG:HD2	2:N:1091:TYR:HD2	1.81	0.44
4:P:188:ALA:CB	4:P:204:ASP:OD1	2.57	0.44
5:Q:42:PHE:HE1	5:Q:58:MET:HE3	1.82	0.44
5:Q:4:GLU:HB3	5:Q:7:ARG:NE	2.31	0.44
7:S:98:GLY:HA3	7:S:110:VAL:O	2.16	0.44
8:T:37:LYS:HD2	8:T:126:GLU:OE2	2.17	0.44
8:T:27:GLU:HA	8:T:38:LEU:O	2.18	0.44
9:U:34:TYR:O	9:U:35:VAL:HG23	2.17	0.44
9:U:56:ALA:O	9:U:57:GLY:O	2.35	0.44
10:V:13:VAL:O	10:V:14:VAL:HG23	2.17	0.44
1:A:1255:GLU:CG	1:A:1258:HIS:CD2	3.00	0.44
1:A:50:ILE:C	1:A:52:GLY:N	2.69	0.44
1:A:853:ASP:O	1:A:854:ASN:HB2	2.17	0.44
2:B:432:MET:C	2:B:434:ARG:H	2.20	0.44
2:B:578:THR:C	2:B:589:VAL:HG13	2.38	0.44
2:B:916:THR:HB	2:B:935:ARG:CD	2.46	0.44
3:C:180:TYR:HB3	3:C:228:PHE:HD2	1.82	0.44
5:E:129:PRO:O	5:E:130:ALA:O	2.35	0.44
5:E:171:LYS:HG2	5:E:174:GLN:CD	2.38	0.44
10:J:1:MET:HG3	10:J:1:MET:O	2.17	0.44
12:L:61:THR:HG22	12:L:62:LYS:N	2.33	0.44
1:M:1030:ARG:HG2	1:M:1034:GLU:OE2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1325:THR:CG2	1:M:1326:ARG:HG3	2.47	0.44
1:M:1370:LEU:O	1:M:1374:VAL:HG23	2.17	0.44
1:M:153:PRO:HB3	1:M:161:LEU:CD2	2.47	0.44
1:M:635:ARG:HH11	1:M:635:ARG:HA	1.82	0.44
1:M:688:LYS:HA	1:M:691:LEU:HB3	1.99	0.44
1:M:902:LEU:HD21	1:M:923:LEU:HD23	1.99	0.44
1:M:904:THR:O	1:M:904:THR:CG2	2.66	0.44
2:N:1004:GLU:HG3	10:V:42:LYS:HZ1	1.79	0.44
2:N:299:GLU:OE2	2:N:571:PRO:HG2	2.17	0.44
2:N:399:ASP:OD2	2:N:510:LYS:HB2	2.16	0.44
3:O:109:SER:O	3:O:110:THR:C	2.55	0.44
4:P:123:LEU:CD1	4:P:149:THR:HG21	2.47	0.44
4:P:155:ARG:HE	4:P:221:TYR:HE1	1.55	0.44
4:P:220:LEU:CG	4:P:221:TYR:H	2.30	0.44
4:P:56:ARG:NH1	4:P:56:ARG:HG2	2.32	0.44
5:Q:157:SER:N	5:Q:160:GLU:OE1	2.47	0.44
8:T:91:ASP:O	8:T:93:TYR:N	2.46	0.44
10:V:48:ARG:NH1	10:V:48:ARG:CG	2.75	0.44
2:B:1113:VAL:CG2	15:3:1:C:H4'	2.48	0.44
15:3:3:A:H2'	15:3:4:C:C6	2.52	0.44
1:A:107:CYS:HB2	1:A:114:LEU:CD2	2.47	0.44
1:A:1095:THR:CG2	1:A:1112:LYS:HD2	2.44	0.44
1:A:115:LEU:HD12	1:A:142:CYS:HB3	1.98	0.44
1:A:1445:ILE:HD12	7:G:59:GLY:O	2.17	0.44
1:A:447:GLN:OE1	13:1:20:DG:H4'	2.17	0.44
2:B:128:LEU:HB2	2:B:168:GLY:O	2.17	0.44
2:B:263:GLY:O	2:B:264:SER:C	2.56	0.44
2:B:597:MET:HE3	2:B:597:MET:HA	1.98	0.44
3:C:214:ASN:O	3:C:217:ASP:OD2	2.36	0.44
4:D:15:LEU:O	4:D:17:LYS:HG3	2.18	0.44
5:E:48:ASP:HB3	5:E:54:GLN:CD	2.37	0.44
7:G:81:PRO:HG3	7:G:106:MET:SD	2.57	0.44
10:J:1:MET:H2	10:J:57:ILE:H	1.59	0.44
11:K:55:LYS:CB	11:K:81:TYR:CD1	3.00	0.44
11:K:88:LYS:O	11:K:91:CYS:HB2	2.18	0.44
1:M:963:ILE:HD13	1:M:1049:ILE:CG1	2.48	0.44
1:M:1102:LYS:O	1:M:1106:ASN:ND2	2.50	0.44
1:M:1277:GLU:O	1:M:1279:ILE:HG12	2.18	0.44
1:M:549:MET:SD	1:M:577:ILE:HD12	2.57	0.44
1:M:562:THR:HB	8:T:98:TYR:CD2	2.52	0.44
2:N:469:GLN:HB3	2:N:470:LYS:H	1.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:46:GLN:NE2	2:N:539:LEU:HD12	2.32	0.44
3:O:123:ASN:HD21	3:O:125:MET:HG2	1.74	0.44
5:Q:155:ARG:NH1	5:Q:194:GLU:OE2	2.47	0.44
5:Q:17:ARG:O	5:Q:21:GLU:HG3	2.17	0.44
5:Q:22:MET:CE	5:Q:26:ARG:NH2	2.81	0.44
7:S:1:MET:HE2	7:S:2:PHE:HA	1.99	0.44
10:V:9:SER:CB	10:V:45:CYS:HB2	2.47	0.44
12:X:30:ILE:CD1	12:X:59:ALA:HB2	2.44	0.44
1:A:1325:THR:HG22	1:A:1326:ARG:HG3	1.98	0.44
1:A:356:ASP:C	1:A:358:ASN:H	2.21	0.44
1:A:35:ILE:HD13	1:A:241:VAL:HG11	1.99	0.44
1:A:451:HIS:O	1:A:452:LYS:C	2.56	0.44
1:A:481:ASP:OD1	1:A:481:ASP:N	2.51	0.44
1:A:800:VAL:HG22	1:A:812:GLU:HB3	1.98	0.44
1:A:982:THR:N	1:A:985:ASP:HB2	2.32	0.44
2:B:51:PHE:O	2:B:54:PHE:HB3	2.17	0.44
3:C:258:ILE:N	3:C:258:ILE:HD12	2.31	0.44
6:F:110:ASP:O	6:F:123:LYS:CE	2.66	0.44
6:F:83:PRO:HD2	6:F:84:TYR:HD1	1.83	0.44
8:H:40:LEU:CD1	8:H:123:MET:HG3	2.47	0.44
11:K:18:LYS:NZ	11:K:37:LYS:O	2.50	0.44
12:L:47:ARG:CD	12:L:52:GLY:HA2	2.47	0.44
1:M:1267:MET:HA	1:M:1271:ILE:HD12	2.00	0.44
1:M:1313:LEU:C	1:M:1315:GLU:N	2.71	0.44
1:M:1445:ILE:H	1:M:1445:ILE:CD1	2.27	0.44
1:M:321:PRO:O	1:M:322:VAL:CB	2.65	0.44
1:M:458:HIS:CE1	1:M:507:VAL:HG21	2.52	0.44
1:M:461:LYS:O	1:M:463:ILE:HG23	2.18	0.44
2:N:1182:CYS:SG	2:N:1182:CYS:O	2.75	0.44
2:N:558:LEU:HD21	2:N:600:LEU:HD11	1.98	0.44
2:N:617:ARG:NE	2:N:619:ILE:HG12	2.26	0.44
2:N:707:PRO:HG2	2:N:708:GLU:N	2.31	0.44
2:N:806:THR:HG22	2:N:808:ALA:CB	2.47	0.44
3:O:44:LEU:C	3:O:44:LEU:HD23	2.38	0.44
4:P:51:ASN:C	4:P:52:LEU:O	2.53	0.44
6:R:74:ILE:HD12	6:R:144:GLU:HG2	1.99	0.44
2:N:1039:GLY:HA2	10:V:51:LEU:CD2	2.48	0.44
1:A:997:LEU:HD13	1:A:1018:PHE:CE2	2.52	0.44
1:A:1116:LEU:N	1:A:1308:THR:CG2	2.67	0.44
1:A:251:SER:HA	1:A:257:ARG:O	2.18	0.44
1:A:381:THR:HG21	1:A:383:TYR:CD1	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:69:THR:HG21	2:B:1174:LYS:NZ	2.32	0.44
1:A:962:ARG:C	1:A:964:ILE:H	2.21	0.44
1:A:993:LEU:HD23	1:A:1022:LEU:HD21	1.98	0.44
2:B:235:SER:C	2:B:236:HIS:CD2	2.90	0.44
2:B:244:LEU:O	2:B:246:LYS:N	2.51	0.44
2:B:955:THR:HG23	2:B:956:THR:H	1.83	0.44
3:C:23:SER:O	3:C:24:ASN:HB3	2.18	0.44
7:G:9:LEU:HD12	7:G:10:ASN:H	1.83	0.44
1:A:1148:ILE:HG12	9:I:49:ILE:HD12	1.98	0.44
1:M:1259:MET:CE	1:M:1262:LYS:HB2	2.48	0.44
1:M:316:GLN:HG2	1:M:317:LYS:CG	2.47	0.44
1:M:889:SER:OG	1:M:891:ALA:HB3	2.18	0.44
1:M:946:VAL:HG12	1:M:947:PHE:CD2	2.51	0.44
2:N:93:GLY:O	2:N:130:VAL:HG13	2.17	0.44
2:N:185:THR:O	2:N:188:ASP:N	2.51	0.44
2:N:203:PHE:N	2:N:203:PHE:CD1	2.86	0.44
2:N:347:LYS:HG3	2:N:348:ARG:N	2.33	0.44
2:N:458:LYS:O	2:N:459:TYR:C	2.56	0.44
2:N:461:LEU:CD1	2:N:461:LEU:H	2.31	0.44
4:P:60:LYS:HE2	4:P:126:ILE:HG12	1.99	0.44
5:Q:37:LEU:O	5:Q:37:LEU:HG	2.18	0.44
6:R:118:LEU:O	6:R:122:MET:HG3	2.16	0.44
7:S:41:LYS:HD3	7:S:42:PHE:CE1	2.52	0.44
10:V:5:VAL:C	10:V:6:ARG:HG3	2.37	0.44
14:5:4:DA:C4	14:5:5:DC:C5	3.06	0.44
1:A:1081:LEU:HD11	1:A:1097:GLY:HA3	1.99	0.44
1:A:1121:GLU:HG3	1:A:1122:PRO:HD2	1.95	0.44
1:A:1223:ASP:HA	1:A:1243:VAL:HG21	1.96	0.44
1:A:55:ASP:C	1:A:57:ARG:N	2.65	0.44
1:A:593:GLU:O	1:A:595:THR:N	2.45	0.44
1:A:768:GLN:HG2	1:A:816:HIS:CA	2.35	0.44
2:B:1004:GLU:HG3	10:J:42:LYS:HZ1	1.81	0.44
2:B:209:GLU:CD	2:B:485:ARG:HE	2.21	0.44
2:B:25:ILE:HD13	2:B:653:VAL:HG12	1.99	0.44
3:C:134:ILE:HG21	3:C:139:GLY:HA2	1.99	0.44
3:C:11:ARG:NH1	3:C:205:LYS:NZ	2.63	0.44
3:C:18:VAL:HG23	3:C:240:VAL:HB	1.99	0.44
7:G:90:THR:HG22	7:G:91:VAL:N	2.32	0.44
9:I:16:PRO:HB3	9:I:27:PHE:HE2	1.82	0.44
3:C:167:HIS:CE1	12:L:70:ARG:HA	2.52	0.44
1:M:282:ASN:O	1:M:284:ALA:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:69:THR:O	1:M:71:GLN:HG2	2.18	0.44
1:M:821:ARG:O	1:M:821:ARG:HG3	2.17	0.44
1:M:904:THR:HG22	1:M:904:THR:O	2.17	0.44
1:M:982:THR:N	1:M:985:ASP:HB2	2.33	0.44
2:N:431:TYR:CG	2:N:447:ALA:CB	3.01	0.44
3:O:80:LEU:HD12	3:O:81:GLU:H	1.82	0.44
4:P:153:ARG:NH2	4:P:184:ALA:HA	2.32	0.44
5:Q:127:ILE:HG13	5:Q:127:ILE:O	2.17	0.44
6:R:97:ARG:NH2	6:R:108:PHE:CE1	2.86	0.44
11:W:111:LEU:HD23	11:W:111:LEU:N	2.33	0.44
1:A:102:VAL:CG1	1:A:211:PHE:HE1	2.31	0.44
1:A:1257:ASP:HA	1:A:1260:LEU:HB3	2.00	0.44
1:A:270:LEU:HA	1:A:270:LEU:HD12	1.82	0.44
1:A:365:GLY:CA	1:A:463:ILE:HD13	2.48	0.44
1:A:444:PHE:CE2	1:A:487:MET:CE	3.01	0.44
1:A:659:HIS:O	2:B:1081:LEU:HD23	2.18	0.44
2:B:134:LYS:NZ	2:B:164:LYS:HE2	2.32	0.44
2:B:35:SER:O	2:B:39:ARG:HG3	2.17	0.44
2:B:552:MET:O	2:B:554:ILE:N	2.51	0.44
2:B:640:VAL:CG1	2:B:640:VAL:O	2.66	0.44
2:B:840:ILE:CG2	2:B:994:TYR:HD1	2.29	0.44
3:C:66:ARG:NH1	10:J:2:ILE:CG2	2.78	0.44
5:E:112:TYR:OH	5:E:136:ASN:HB2	2.18	0.44
5:E:167:ARG:HD3	5:E:167:ARG:HA	1.83	0.44
8:H:143:LEU:C	8:H:144:ILE:HG13	2.37	0.44
1:M:1101:LEU:HB2	1:M:1355:VAL:HG11	1.99	0.44
1:M:1152:ILE:HG23	1:M:1260:LEU:CD2	2.48	0.44
1:M:40:THR:HG22	1:M:41:MET:CG	2.46	0.44
1:M:716:ASP:C	1:M:716:ASP:OD1	2.56	0.44
1:M:855:THR:HG23	1:M:857:ARG:CG	2.43	0.44
1:M:92:HIS:HD2	1:M:236:LEU:HD21	1.82	0.44
2:N:1103:ILE:HG23	2:N:1103:ILE:O	2.17	0.44
1:M:343:LYS:HB2	2:N:1117:GLN:OE1	2.18	0.44
2:N:125:SER:O	2:N:126:SER:HB3	2.17	0.44
2:N:879:ARG:CZ	2:N:879:ARG:N	2.70	0.44
3:O:113:VAL:HG23	3:O:147:LEU:HD21	1.99	0.44
3:O:23:SER:O	3:O:24:ASN:HB3	2.18	0.44
4:P:208:GLU:HA	4:P:211:LEU:HD12	1.99	0.44
4:P:214:LEU:HD13	4:P:214:LEU:C	2.38	0.44
5:Q:43:LYS:O	5:Q:45:LYS:N	2.50	0.44
6:R:109:VAL:HG11	6:R:123:LYS:HG2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4:16:DT:H2''	13:4:17:DT:O5'	2.18	0.44
1:A:1376:THR:O	1:A:1377:THR:C	2.55	0.44
1:A:744:LYS:HG2	1:A:748:MET:HE2	2.00	0.44
1:A:841:LEU:HA	1:A:841:LEU:HD23	1.84	0.44
1:A:868:TYR:OH	1:A:1366:ARG:HD3	2.17	0.44
1:A:893:PHE:CE1	1:A:940:ARG:HD2	2.52	0.44
4:D:156:ASP:HB2	4:D:159:THR:HG23	1.99	0.44
5:E:147:HIS:HD2	5:E:149:LEU:N	2.11	0.44
5:E:197:LYS:HE2	5:E:199:ILE:CD1	2.27	0.44
5:E:164:LEU:HD11	5:E:211:TYR:CD1	2.53	0.44
5:E:35:VAL:C	5:E:37:LEU:H	2.20	0.44
5:E:55:ARG:C	5:E:57:MET:N	2.71	0.44
5:E:63:ASN:HB3	5:E:64:PRO:HD2	1.99	0.44
7:G:122:ASN:HB2	7:G:131:GLN:HG3	2.00	0.44
1:M:599:SER:HA	1:M:600:PRO:HD2	1.80	0.44
1:M:599:SER:HB2	1:M:603:ASN:H	1.82	0.44
1:M:709:THR:CG2	1:M:710:LEU:H	2.29	0.44
1:M:93:VAL:HG21	1:M:301:ALA:O	2.18	0.44
2:N:118:ARG:HH11	2:N:204:ILE:CD1	2.30	0.44
2:N:263:GLY:O	2:N:264:SER:C	2.56	0.44
2:N:816:GLU:O	2:N:817:LEU:HD23	2.18	0.44
2:N:916:THR:HB	2:N:935:ARG:HD2	2.00	0.44
3:O:132:PRO:O	3:O:134:ILE:HG13	2.17	0.44
3:O:147:LEU:HB2	3:O:151:GLN:CB	2.41	0.44
3:O:70:ILE:HD11	3:O:144:ILE:HG12	2.00	0.44
4:P:118:THR:HB	4:P:121:LYS:CG	2.48	0.44
4:P:13:ARG:C	4:P:15:LEU:N	2.70	0.44
5:Q:116:ILE:HG22	5:Q:117:THR:N	2.33	0.44
1:M:942:PHE:CZ	5:Q:207:ARG:HG3	2.53	0.44
5:Q:21:GLU:O	5:Q:24:LYS:HG2	2.18	0.44
7:S:22:MET:O	7:S:23:LYS:C	2.56	0.44
1:A:1120:LEU:H	1:A:1120:LEU:HG	1.57	0.44
1:A:1148:ILE:O	1:A:1148:ILE:HG22	2.18	0.44
1:A:1293:SER:HB3	1:A:1297:GLU:OE1	2.18	0.44
1:A:1389:PHE:C	1:A:1391:ARG:H	2.22	0.44
1:A:463:ILE:HD12	1:A:469:ARG:HD2	1.99	0.44
1:A:444:PHE:CE2	1:A:487:MET:HE2	2.53	0.44
1:A:568:PRO:HG3	8:H:46:LEU:O	2.17	0.44
1:A:601:LYS:HB2	1:A:603:ASN:HD21	1.79	0.44
1:A:610:GLY:O	1:A:611:GLN:NE2	2.51	0.44
1:A:774:ARG:H	1:A:774:ARG:HG2	1.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:114:PRO:CG	2:B:181:LEU:HD11	2.33	0.44
2:B:707:PRO:CG	2:B:708:GLU:N	2.81	0.44
2:B:773:MET:O	2:B:775:LYS:N	2.50	0.44
2:B:866:TYR:CD2	2:B:870:ILE:HB	2.52	0.44
2:B:942:ARG:HB2	2:B:945:GLU:HB2	1.99	0.44
2:B:970:THR:HG22	2:B:971:THR:N	2.33	0.44
3:C:240:VAL:HG23	3:C:241:ASP:N	2.33	0.44
4:D:123:LEU:CD1	4:D:149:THR:HG21	2.48	0.44
4:D:173:HIS:ND1	4:D:174:PRO:HD2	2.33	0.44
1:A:870:GLU:HG2	5:E:208:TYR:CD2	2.52	0.44
5:E:52:ARG:HA	5:E:53:PRO:HD2	1.85	0.44
11:K:40:HIS:O	11:K:41:THR:C	2.56	0.44
1:M:1313:LEU:C	1:M:1315:GLU:H	2.21	0.44
1:M:1315:GLU:C	1:M:1317:MET:N	2.72	0.44
1:M:219:PHE:HE1	1:M:230:ARG:HH21	1.64	0.44
1:M:316:GLN:O	1:M:317:LYS:C	2.56	0.44
1:M:893:PHE:CE1	1:M:940:ARG:HD2	2.52	0.44
2:N:281:PRO:HB3	2:N:320:ASP:OD2	2.18	0.44
3:O:13:ALA:O	11:W:114:LEU:HD13	2.18	0.44
3:O:235:VAL:HG21	10:V:6:ARG:NH2	2.33	0.44
3:O:133:ILE:HD11	3:O:237:SER:HA	2.00	0.44
3:O:242:GLN:C	3:O:244:VAL:N	2.71	0.44
3:O:47:ASP:CG	3:O:47:ASP:O	2.57	0.44
4:P:186:ASP:OD1	4:P:186:ASP:N	2.51	0.44
5:Q:157:SER:C	5:Q:159:ASP:N	2.71	0.44
5:Q:201:LYS:HD3	5:Q:201:LYS:HA	1.82	0.44
6:R:97:ARG:NH2	6:R:108:PHE:HE1	2.16	0.44
3:O:166:GLU:CG	11:W:10:PHE:HZ	2.26	0.44
12:X:47:ARG:CG	12:X:52:GLY:HA2	2.48	0.44
15:3:5:C:O2'	15:3:6:A:H5'	2.18	0.43
1:A:971:PHE:CE2	1:A:1040:GLN:HG2	2.52	0.43
1:A:1167:GLU:O	1:A:1170:ILE:CD1	2.66	0.43
1:A:1209:MET:CE	1:A:1236:LEU:HB3	2.48	0.43
1:A:1215:ARG:O	1:A:1219:THR:N	2.47	0.43
1:A:1259:MET:HA	1:A:1262:LYS:CD	2.47	0.43
1:A:1207:LEU:HD11	1:A:1273:LEU:HD23	1.99	0.43
1:A:528:LEU:O	1:A:531:ILE:HG22	2.18	0.43
2:B:280:ILE:CD1	2:B:334:ILE:HG12	2.47	0.43
2:B:399:ASP:OD2	2:B:510:LYS:HB2	2.18	0.43
2:B:777:ALA:HA	2:B:1095:LEU:HA	1.99	0.43
2:B:97:VAL:O	2:B:97:VAL:CG1	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:52:LEU:HD12	4:D:182:SER:HB2	2.00	0.43
8:H:76:THR:HG22	8:H:141:TYR:OH	2.18	0.43
10:J:36:LEU:HB2	10:J:47:ARG:NH1	2.33	0.43
3:C:248:ILE:HD11	11:K:101:LEU:HD22	2.00	0.43
12:L:27:LEU:HD13	12:L:37:LYS:CD	2.47	0.43
1:M:593:GLU:C	1:M:595:THR:N	2.71	0.43
1:M:929:LEU:HD21	1:M:983:ILE:HD13	1.99	0.43
2:N:1050:ILE:HG22	2:N:1051:THR:N	2.32	0.43
2:N:1214:PRO:O	2:N:1214:PRO:HG2	2.18	0.43
2:N:429:PHE:O	2:N:433:GLN:HG3	2.18	0.43
2:N:432:MET:C	2:N:434:ARG:H	2.21	0.43
2:N:594:ALA:CA	2:N:617:ARG:NH1	2.81	0.43
2:N:757:PRO:HG2	2:N:984:HIS:HE1	1.83	0.43
5:Q:55:ARG:C	5:Q:57:MET:N	2.71	0.43
5:Q:63:ASN:HB3	5:Q:64:PRO:HD2	1.99	0.43
7:S:138:THR:CG2	7:S:139:ILE:H	2.29	0.43
9:U:34:TYR:CE2	9:U:36:GLU:HB3	2.53	0.43
2:N:193:LYS:HZ2	12:X:32:ALA:HB1	1.82	0.43
1:A:140:THR:HA	1:A:143:LYS:HE2	2.00	0.43
1:A:185:TRP:CE3	1:A:185:TRP:N	2.83	0.43
1:A:590:ARG:HH11	1:A:590:ARG:HG2	1.83	0.43
1:A:718:VAL:O	1:A:721:PHE:HB2	2.18	0.43
2:B:999:MET:HB3	2:B:1007:VAL:CG2	2.47	0.43
2:B:129:PHE:CE2	2:B:166:PHE:HD1	2.36	0.43
2:B:797:TYR:HE1	2:B:854:LEU:HD23	1.82	0.43
2:B:847:ASP:O	2:B:849:GLY:N	2.51	0.43
3:C:69:LEU:O	10:J:6:ARG:HD2	2.17	0.43
4:D:138:ASN:C	4:D:140:ASP:N	2.71	0.43
5:E:135:PHE:HD2	5:E:140:LEU:CD2	2.30	0.43
8:H:145:ARG:O	8:H:146:ARG:CB	2.66	0.43
9:I:56:ALA:O	9:I:57:GLY:O	2.36	0.43
10:J:53:HIS:HE1	10:J:55:ASP:OD1	2.01	0.43
12:L:26:THR:HG23	12:L:62:LYS:HZ1	1.82	0.43
1:M:54:ASN:CB	1:M:247:ARG:HH12	2.22	0.43
1:M:54:ASN:HB3	1:M:247:ARG:NH1	2.20	0.43
2:N:1004:GLU:OE1	10:V:42:LYS:HE2	2.18	0.43
2:N:1116:ARG:HG3	2:N:1198:TYR:CD2	2.53	0.43
2:N:1197:PRO:HG2	2:N:1200:ALA:HB2	2.00	0.43
2:N:291:ILE:HG22	2:N:297:ILE:HG12	1.99	0.43
2:N:461:LEU:N	2:N:461:LEU:CD1	2.80	0.43
2:N:679:TYR:HE1	2:N:687:GLU:OE2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:73:GLN:NE2	3:O:75:MET:H	2.04	0.43
5:Q:98:ILE:HA	5:Q:101:GLN:HB3	2.00	0.43
11:W:102:LYS:O	11:W:106:GLU:HG3	2.17	0.43
3:O:241:ASP:HB3	11:W:109:TRP:CE2	2.52	0.43
1:A:1220:PHE:O	1:A:1221:LYS:HB2	2.17	0.43
1:A:856:THR:HG21	1:A:1370:LEU:HD21	2.00	0.43
2:B:629:ASP:HB3	2:B:632:ARG:CD	2.49	0.43
2:B:916:THR:HB	2:B:935:ARG:HG3	1.99	0.43
2:B:918:ILE:HD12	2:B:935:ARG:CZ	2.48	0.43
2:B:957:ASN:O	2:B:960:GLY:N	2.52	0.43
3:C:233:GLU:OE1	10:J:12:LYS:HE2	2.18	0.43
6:F:76:LYS:O	6:F:79:ARG:HD3	2.18	0.43
8:H:84:ALA:CA	8:H:87:ARG:HD2	2.47	0.43
10:J:37:SER:OG	10:J:47:ARG:NH2	2.51	0.43
3:C:166:GLU:C	11:K:6:ARG:NH1	2.72	0.43
12:L:47:ARG:CG	12:L:52:GLY:HA2	2.48	0.43
1:M:1218:GLN:O	1:M:1221:LYS:HG3	2.18	0.43
1:M:1278:ASN:O	1:M:1310:GLY:HA3	2.18	0.43
1:M:268:ASP:HB3	1:M:299:HIS:ND1	2.32	0.43
1:M:645:LEU:HG	1:M:649:ILE:HD12	1.99	0.43
1:M:718:VAL:O	1:M:721:PHE:HB2	2.17	0.43
1:M:80:HIS:H	1:M:243:PRO:HB3	1.83	0.43
2:N:114:PRO:O	2:N:115:GLN:C	2.55	0.43
2:N:100:PRO:HD2	2:N:180:TYR:CE1	2.53	0.43
2:N:229:ALA:HB1	2:N:231:PRO:HD2	2.00	0.43
2:N:387:LEU:H	2:N:387:LEU:HD12	1.84	0.43
2:N:51:PHE:HB2	2:N:173:MET:HE1	2.00	0.43
2:N:942:ARG:HB2	2:N:945:GLU:HB2	2.00	0.43
5:Q:55:ARG:HD2	5:Q:113:GLN:HE21	1.83	0.43
5:Q:78:LEU:HD21	5:Q:80:VAL:HG23	1.99	0.43
7:S:127:PRO:HA	7:S:128:PRO:HD3	1.94	0.43
10:V:27:GLU:O	10:V:29:GLU:N	2.51	0.43
1:A:832:ALA:O	13:1:18:DA:H5'	2.17	0.43
1:A:1021:LEU:O	1:A:1024:SER:HB3	2.19	0.43
1:A:1112:LYS:O	1:A:1114:PRO:CD	2.63	0.43
1:A:1323:ASP:C	1:A:1325:THR:H	2.21	0.43
1:A:492:PRO:C	1:A:493:GLN:HE21	2.22	0.43
1:A:75:ASN:O	1:A:76:GLU:CB	2.65	0.43
2:B:236:HIS:CE1	2:B:389:ALA:HA	2.53	0.43
3:C:109:SER:O	3:C:110:THR:C	2.56	0.43
3:C:31:ASN:O	3:C:35:ARG:HG3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:58:THR:O	8:H:142:LEU:HD12	2.18	0.43
11:K:18:LYS:HA	11:K:18:LYS:HD3	1.83	0.43
1:M:1164:PRO:HG2	1:M:1165:GLU:H	1.83	0.43
1:M:571:LEU:HD22	8:T:46:LEU:HD11	2.00	0.43
1:M:709:THR:HB	1:M:712:GLU:H	1.83	0.43
1:M:774:ARG:HG2	1:M:774:ARG:H	1.31	0.43
2:N:351:TYR:CD1	2:N:355:ILE:HD11	2.54	0.43
2:N:871:THR:HG22	2:N:872:GLU:O	2.18	0.43
4:P:40:HIS:HE1	7:S:74:TYR:O	2.00	0.43
5:Q:191:LYS:O	5:Q:192:ARG:C	2.56	0.43
5:Q:28:TYR:C	5:Q:65:THR:HG23	2.39	0.43
6:R:89:GLU:C	6:R:93:ILE:HD12	2.39	0.43
8:T:108:SER:O	8:T:109:LYS:HB3	2.18	0.43
8:T:77:ARG:HG2	8:T:78:SER:H	1.82	0.43
9:U:58:VAL:HG13	9:U:62:ILE:CD1	2.48	0.43
2:N:622:LYS:HZ1	9:U:59:VAL:HG13	1.79	0.43
12:X:34:CYS:O	12:X:35:SER:C	2.56	0.43
2:N:792:MET:HE1	13:4:24:DG:P	2.58	0.43
1:A:115:LEU:CG	1:A:142:CYS:HB3	2.47	0.43
1:A:1169:ILE:HG13	1:A:1169:ILE:H	1.49	0.43
1:A:1235:LYS:O	1:A:1237:ILE:HD12	2.18	0.43
1:A:839:ARG:NH1	1:A:1402:PHE:HD1	2.17	0.43
1:A:173:THR:O	1:A:173:THR:HG22	2.19	0.43
1:A:821:ARG:O	1:A:825:ILE:HG13	2.17	0.43
2:B:1095:LEU:C	2:B:1096:ARG:O	2.55	0.43
2:B:614:SER:C	2:B:615:MET:HG3	2.38	0.43
2:B:642:ASP:HB3	2:B:649:LYS:CG	2.48	0.43
2:B:708:GLU:O	2:B:709:ASP:C	2.57	0.43
2:B:798:TYR:HD2	2:B:798:TYR:N	2.16	0.43
2:B:67:SER:HB3	2:B:92:PHE:HD1	1.83	0.43
3:C:242:GLN:C	3:C:244:VAL:N	2.72	0.43
4:D:12:ARG:NH1	4:D:14:ARG:N	2.66	0.43
5:E:17:ARG:O	5:E:20:LYS:HB2	2.18	0.43
1:A:1444:MET:HE1	6:F:135:ARG:HB2	2.00	0.43
1:M:1242:VAL:CG1	1:M:1243:VAL:H	2.29	0.43
1:M:856:THR:HG21	1:M:1370:LEU:HD21	2.00	0.43
1:M:1402:PHE:CE1	1:M:1403:GLU:HG2	2.54	0.43
1:M:245:PRO:O	1:M:248:PRO:HD3	2.19	0.43
1:M:40:THR:CG2	1:M:41:MET:HG3	2.47	0.43
1:M:374:LEU:O	1:M:436:ILE:HG12	2.17	0.43
1:M:532:ARG:O	1:M:535:THR:HB	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:71:GLN:C	1:M:73:GLY:N	2.71	0.43
1:M:738:LYS:HG3	1:M:740:LEU:HG	1.99	0.43
2:N:662:MET:HA	2:N:665:GLU:CG	2.46	0.43
2:N:864:LYS:HG3	2:N:872:GLU:OE1	2.19	0.43
3:O:260:LEU:O	3:O:263:THR:HB	2.18	0.43
3:O:37:MET:CE	3:O:176:ILE:HD13	2.48	0.43
4:P:145:MET:O	4:P:149:THR:HB	2.19	0.43
4:P:191:ALA:C	4:P:193:THR:N	2.72	0.43
4:P:193:THR:HG22	4:P:194:LEU:HG	2.00	0.43
5:Q:108:GLY:O	5:Q:132:ILE:HG23	2.19	0.43
5:Q:48:ASP:HB3	5:Q:54:GLN:CD	2.38	0.43
7:S:1:MET:O	7:S:3:PHE:CZ	2.71	0.43
8:T:57:VAL:HG12	8:T:58:THR:N	2.33	0.43
13:4:12:DG:H1'	13:4:13:DT:O5'	2.19	0.43
1:A:1074:GLU:HB3	1:A:1075:PRO:CD	2.49	0.43
1:A:295:LEU:O	1:A:298:PHE:HB3	2.19	0.43
1:A:532:ARG:HH22	1:A:745:GLN:HG2	1.84	0.43
1:A:535:THR:HG21	1:A:616:VAL:CA	2.46	0.43
1:A:913:LEU:HD13	1:A:981:LEU:O	2.19	0.43
2:B:1115:THR:HG22	2:B:1117:GLN:CG	2.49	0.43
1:A:1409:LEU:CD1	2:B:1207:LEU:HD21	2.49	0.43
2:B:129:PHE:HE2	2:B:166:PHE:CD1	2.37	0.43
2:B:231:PRO:HG2	2:B:231:PRO:O	2.19	0.43
2:B:287:ARG:HG2	2:B:292:ILE:HG12	2.00	0.43
2:B:314:LEU:O	2:B:317:CYS:HB2	2.19	0.43
2:B:313:MET:HE1	2:B:390:LEU:HG	2.01	0.43
2:B:570:VAL:CG2	2:B:573:GLN:HB3	2.48	0.43
2:B:664:THR:CG2	2:B:678:GLU:N	2.81	0.43
2:B:821:GLN:OE1	2:B:850:LEU:HD12	2.18	0.43
1:A:253:ASN:ND2	2:B:935:ARG:HB2	2.34	0.43
3:C:123:ASN:HD21	3:C:125:MET:HA	1.82	0.43
3:C:65:HIS:CE1	3:C:69:LEU:HD11	2.54	0.43
5:E:90:VAL:HB	5:E:117:THR:HG21	2.00	0.43
7:G:151:ILE:HG12	7:S:114:LEU:CD1	2.48	0.43
8:H:91:ASP:O	8:H:93:TYR:N	2.47	0.43
9:I:4:PHE:CD1	9:I:4:PHE:C	2.92	0.43
11:K:12:LEU:HD12	11:K:12:LEU:HA	1.80	0.43
1:M:1299:VAL:HG12	1:M:1300:LYS:H	1.84	0.43
1:M:1308:THR:HG23	1:M:1309:ASP:H	1.82	0.43
1:M:451:HIS:O	1:M:452:LYS:C	2.56	0.43
1:M:826:ASP:OD1	1:M:826:ASP:C	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:750:GLY:O	2:N:751:VAL:C	2.56	0.43
2:N:830:TYR:CE2	2:N:1000:PRO:HD3	2.52	0.43
2:N:860:MET:SD	2:N:861:ASP:N	2.91	0.43
2:N:916:THR:HB	2:N:935:ARG:CG	2.47	0.43
3:O:186:LEU:O	3:O:187:LYS:HB2	2.19	0.43
2:N:1084:GLN:OE1	3:O:189:THR:CG2	2.67	0.43
3:O:258:ILE:O	3:O:262:LEU:HG	2.18	0.43
5:Q:79:TRP:NE1	5:Q:81:GLU:HB2	2.33	0.43
7:S:80:LYS:O	7:S:82:PHE:CE1	2.71	0.43
8:T:128:ASN:C	8:T:128:ASN:HD22	2.22	0.43
9:U:100:PHE:HD1	9:U:100:PHE:N	2.16	0.43
9:U:50:THR:CG2	9:U:51:ASN:N	2.67	0.43
12:X:44:ASP:O	12:X:45:ALA:HB3	2.18	0.43
2:N:110:HIS:HB2	12:X:54:ARG:NH2	2.34	0.43
1:A:1030:ARG:HG2	1:A:1034:GLU:OE2	2.19	0.43
1:A:1315:GLU:C	1:A:1317:MET:N	2.72	0.43
1:A:1418:LEU:HD23	2:B:1222:ARG:HD2	1.99	0.43
1:A:409:SER:O	1:A:410:GLY:C	2.57	0.43
1:A:549:MET:HE1	1:A:656:TRP:HD1	1.83	0.43
1:A:79:GLY:H	2:B:1205:GLN:HE22	1.65	0.43
2:B:112:LEU:HD12	2:B:113:TYR:H	1.82	0.43
2:B:254:LEU:HD12	2:B:272:THR:O	2.18	0.43
2:B:567:GLU:HA	2:B:567:GLU:OE1	2.19	0.43
2:B:589:VAL:CG1	2:B:590:HIS:N	2.79	0.43
3:C:56:THR:HG22	3:C:57:VAL:N	2.25	0.43
6:F:97:ARG:O	6:F:101:ILE:HG13	2.18	0.43
7:G:132:SER:HB3	7:G:135:ASP:H	1.83	0.43
10:J:32:GLU:OE2	10:J:32:GLU:N	2.32	0.43
1:M:1146:VAL:HG12	1:M:1201:ALA:HB1	2.00	0.43
1:M:351:THR:HG21	2:N:1103:ILE:CG1	2.49	0.43
1:M:593:GLU:O	1:M:595:THR:N	2.45	0.43
1:M:722:LEU:HB3	1:M:799:PHE:CD1	2.53	0.43
1:M:853:ASP:C	1:M:853:ASP:OD1	2.57	0.43
2:N:999:MET:HB3	2:N:1007:VAL:HG21	2.01	0.43
2:N:108:VAL:HG23	2:N:109:THR:H	1.82	0.43
2:N:102:VAL:CG2	2:N:112:LEU:HD22	2.49	0.43
2:N:291:ILE:CD1	2:N:300:HIS:NE2	2.82	0.43
2:N:311:LEU:O	2:N:314:LEU:N	2.51	0.43
2:N:363:HIS:O	2:N:364:ILE:CB	2.67	0.43
2:N:44:VAL:O	2:N:45:SER:C	2.56	0.43
2:N:657:HIS:O	2:N:660:LYS:HB3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:708:GLU:O	2:N:709:ASP:C	2.57	0.43
2:N:878:GLN:HB2	2:N:879:ARG:HH11	1.82	0.43
2:N:1001:PHE:CE2	3:O:34:ARG:CZ	3.01	0.43
4:P:207:LEU:HD11	4:P:211:LEU:HD11	2.00	0.43
4:P:219:THR:CG2	4:P:220:LEU:N	2.82	0.43
5:Q:154:ILE:HG22	5:Q:155:ARG:O	2.19	0.43
6:R:109:VAL:CG1	6:R:110:ASP:H	2.31	0.43
8:T:84:ALA:HA	8:T:87:ARG:HG3	2.00	0.43
10:V:17:LYS:HG2	10:V:39:LEU:HB3	2.01	0.43
1:A:1341:ILE:HD12	1:A:1379:GLY:C	2.36	0.43
1:A:353:ILE:HD11	1:A:480:ALA:HB1	2.00	0.43
1:A:504:LEU:HD11	6:F:91:ALA:HB2	2.01	0.43
1:A:524:VAL:O	1:A:525:GLN:C	2.57	0.43
1:A:49:LYS:HD3	1:A:55:ASP:HB3	1.99	0.43
1:A:67:CYS:O	1:A:67:CYS:SG	2.77	0.43
1:A:662:PHE:HD2	2:B:1014:PRO:HG3	1.84	0.43
2:B:1166:CYS:O	2:B:1168:LEU:N	2.47	0.43
5:E:12:LEU:HD22	5:E:55:ARG:CZ	2.49	0.43
7:G:92:VAL:HG21	7:G:102:GLN:HB2	2.01	0.43
9:I:86:PHE:HE1	9:I:100:PHE:HB2	1.83	0.43
10:J:36:LEU:HD12	10:J:47:ARG:HH11	1.80	0.43
10:J:53:HIS:NE2	10:J:55:ASP:HA	2.34	0.43
12:L:44:ASP:O	12:L:45:ALA:HB3	2.19	0.43
1:M:1116:LEU:HB3	1:M:1308:THR:CG2	2.47	0.43
1:M:185:TRP:CE3	1:M:185:TRP:N	2.84	0.43
1:M:22:PHE:HE2	1:M:26:GLU:HG2	1.83	0.43
1:M:825:ILE:HD12	2:N:513:GLN:HG2	2.00	0.43
2:N:121:ASN:HA	2:N:207:GLY:CA	2.48	0.43
2:N:230:ALA:HB3	2:N:231:PRO:HD3	1.99	0.43
2:N:281:PRO:O	2:N:283:VAL:N	2.52	0.43
2:N:522:VAL:HG12	2:N:523:CYS:N	2.34	0.43
3:O:209:TYR:N	3:O:209:TYR:CD1	2.86	0.43
3:O:67:LEU:HA	3:O:70:ILE:HD12	2.01	0.43
4:P:138:ASN:O	4:P:140:ASP:N	2.52	0.43
5:Q:129:PRO:O	5:Q:130:ALA:O	2.37	0.43
5:Q:35:VAL:C	5:Q:37:LEU:H	2.22	0.43
5:Q:96:PHE:CZ	5:Q:100:ILE:HD11	2.54	0.43
6:R:152:ILE:HG22	6:R:153:VAL:N	2.33	0.43
7:S:21:ARG:HD3	7:S:21:ARG:HA	1.78	0.43
9:U:55:THR:CG2	9:U:100:PHE:HD2	2.26	0.43
1:M:698:GLN:NE2	9:U:99:LEU:HD21	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:W:70:ARG:HG3	11:W:70:ARG:O	2.18	0.43
12:X:40:LEU:HD22	12:X:44:ASP:CG	2.38	0.43
1:A:993:LEU:CD2	1:A:1022:LEU:HD21	2.49	0.43
1:A:282:ASN:O	1:A:284:ALA:N	2.52	0.43
1:A:40:THR:CG2	1:A:41:MET:HG3	2.42	0.43
2:B:175:ARG:HA	2:B:175:ARG:HD2	1.87	0.43
2:B:363:HIS:O	2:B:364:ILE:CB	2.63	0.43
2:B:378:LEU:HD12	2:B:378:LEU:O	2.18	0.43
2:B:282:ILE:CD1	2:B:382:ILE:HD13	2.48	0.43
2:B:390:LEU:O	2:B:392:ARG:N	2.52	0.43
2:B:431:TYR:CG	2:B:447:ALA:CB	3.02	0.43
2:B:603:LEU:HD12	2:B:609:ILE:HG12	2.01	0.43
2:B:861:ASP:OD1	2:B:862:GLN:N	2.52	0.43
2:B:935:ARG:HG3	2:B:935:ARG:O	2.19	0.43
6:F:89:GLU:CG	6:F:134:ILE:HD13	2.46	0.43
7:G:127:PRO:HA	7:G:128:PRO:HD3	1.94	0.43
7:G:18:PHE:HA	7:G:22:MET:HE3	2.00	0.43
10:J:24:LEU:HA	10:J:28:ASP:HB2	2.01	0.43
1:M:1121:GLU:O	1:M:1122:PRO:C	2.57	0.43
1:M:1308:THR:CG2	1:M:1309:ASP:N	2.68	0.43
1:M:55:ASP:O	1:M:55:ASP:CG	2.54	0.43
1:M:826:ASP:HA	1:M:829:VAL:HG23	1.99	0.43
2:N:1009:ASP:C	2:N:1010:LEU:HD12	2.39	0.43
2:N:294:ASP:OD2	2:N:294:ASP:N	2.51	0.43
2:N:618:ASP:OD2	2:N:621:GLU:HB3	2.18	0.43
2:N:778:MET:HE1	2:N:1094:ARG:CD	2.40	0.43
2:N:866:TYR:HB2	2:N:870:ILE:HB	2.01	0.43
2:N:90:ILE:HD12	2:N:432:MET:CE	2.49	0.43
3:O:16:ASP:O	3:O:240:VAL:HG11	2.19	0.43
3:O:189:THR:HG22	3:O:190:ASP:H	1.79	0.43
4:P:123:LEU:HD13	4:P:149:THR:HG21	2.01	0.43
4:P:15:LEU:O	4:P:17:LYS:N	2.44	0.43
2:N:1165:ILE:HG21	4:P:17:LYS:HG3	2.00	0.43
4:P:57:LEU:HA	4:P:57:LEU:HD23	1.75	0.43
5:Q:103:LYS:HB3	5:Q:105:PHE:CE2	2.54	0.43
5:Q:90:VAL:HA	5:Q:120:ALA:HB2	1.99	0.43
6:R:97:ARG:HD2	6:R:97:ARG:HA	1.86	0.43
7:S:138:THR:CG2	7:S:139:ILE:HG22	2.39	0.43
8:T:50:ALA:O	8:T:53:ASP:OD2	2.37	0.43
1:A:1120:LEU:HD12	1:A:1120:LEU:C	2.39	0.43
1:A:1239:ARG:HH11	1:A:1239:ARG:HB3	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1293:SER:HB2	1:A:1299:VAL:CG2	2.49	0.43
1:A:374:LEU:O	1:A:436:ILE:HG12	2.18	0.43
1:A:593:GLU:C	1:A:595:THR:N	2.72	0.43
1:A:770:VAL:HA	1:A:822:GLU:OE1	2.19	0.43
1:A:350:ARG:CB	2:B:1128:LEU:HD11	2.46	0.43
2:B:246:LYS:HA	2:B:249:ARG:NH2	2.34	0.43
2:B:257:LYS:HB3	2:B:258:LEU:H	1.55	0.43
2:B:324:ILE:HG22	2:B:324:ILE:O	2.19	0.43
2:B:405:ARG:HA	2:B:631:GLY:O	2.19	0.43
2:B:616:ILE:CG2	2:B:700:SER:OG	2.67	0.43
3:C:147:LEU:HB2	3:C:151:GLN:CB	2.41	0.43
3:C:209:TYR:H	3:C:209:TYR:HD1	1.63	0.43
3:C:254:LYS:HB3	11:K:42:LEU:HD11	2.01	0.43
9:I:4:PHE:HD1	9:I:5:ARG:N	2.16	0.43
9:I:88:SER:C	9:I:90:GLN:H	2.22	0.43
1:M:1280:GLU:HB3	1:M:1281:ARG:H	1.60	0.43
1:M:1402:PHE:CZ	1:M:1403:GLU:HG2	2.54	0.43
1:M:330:LYS:O	1:M:334:GLY:HA3	2.19	0.43
2:N:1017:ILE:H	2:N:1018:PRO:HD2	1.84	0.43
2:N:727:LYS:HE2	2:N:1049:ASP:OD1	2.19	0.43
1:M:1410:PHE:HA	2:N:1212:ILE:CD1	2.49	0.43
2:N:363:HIS:O	2:N:364:ILE:HB	2.18	0.43
2:N:447:ALA:O	2:N:449:ASN:N	2.52	0.43
2:N:487:THR:CG2	2:N:488:TYR:N	2.82	0.43
2:N:594:ALA:HA	2:N:617:ARG:NH1	2.34	0.43
2:N:957:ASN:O	2:N:960:GLY:N	2.52	0.43
2:N:840:ILE:HG21	2:N:994:TYR:HD1	1.83	0.43
4:P:60:LYS:HE2	4:P:126:ILE:CG1	2.48	0.43
5:Q:104:ASN:HD22	5:Q:104:ASN:HA	1.52	0.43
5:Q:124:VAL:HB	5:Q:125:PRO:CD	2.49	0.43
5:Q:82:PHE:O	5:Q:83:CYS:HB2	2.18	0.43
7:S:110:VAL:HG12	7:S:161:GLY:O	2.18	0.43
4:P:8:PHE:CD2	7:S:6:ASP:O	2.71	0.43
1:M:1445:ILE:HD13	7:S:70:PHE:CE2	2.54	0.43
8:T:135:LEU:HB2	8:T:137:GLN:HE21	1.83	0.43
8:T:62:SER:OG	8:T:64:ASN:ND2	2.51	0.43
9:U:82:GLU:HB3	9:U:104:LEU:HD12	1.99	0.43
1:M:701:LEU:HD21	9:U:114:GLN:HB2	2.01	0.43
10:V:24:LEU:HA	10:V:28:ASP:HB2	1.99	0.43
11:W:101:LEU:C	11:W:101:LEU:HD23	2.39	0.43
1:A:1100:ARG:NH2	1:A:1351:GLU:CG	2.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1121:GLU:O	1:A:1122:PRO:C	2.57	0.42
1:A:1148:ILE:HD11	1:A:1198:ASP:CA	2.46	0.42
1:A:1208:THR:O	1:A:1209:MET:C	2.56	0.42
1:A:1173:HIS:CD2	1:A:1227:ILE:HG23	2.54	0.42
1:A:219:PHE:CE1	1:A:230:ARG:HB3	2.54	0.42
1:A:500:GLU:O	1:A:504:LEU:HB2	2.19	0.42
1:A:33:ALA:HB1	1:A:56:PRO:HB2	2.00	0.42
2:B:1017:ILE:H	2:B:1018:PRO:HD2	1.84	0.42
2:B:51:PHE:CD2	2:B:173:MET:HB3	2.54	0.42
2:B:203:PHE:N	2:B:203:PHE:HD1	2.16	0.42
2:B:521:LEU:HB3	2:B:633:VAL:CG1	2.47	0.42
2:B:557:PHE:HZ	2:B:603:LEU:HD21	1.83	0.42
2:B:654:ARG:NH1	2:B:654:ARG:HG3	2.33	0.42
2:B:910:VAL:HG13	2:B:938:SER:HB3	2.01	0.42
4:D:166:LEU:HD23	4:D:214:LEU:CD2	2.49	0.42
4:D:7:THR:HG21	4:D:32:GLU:CD	2.39	0.42
1:A:1444:MET:CG	7:G:59:GLY:O	2.67	0.42
8:H:26:ILE:O	8:H:27:GLU:HG3	2.19	0.42
8:H:51:ALA:O	8:H:52:GLN:CB	2.67	0.42
12:L:29:TYR:O	12:L:30:ILE:CG1	2.66	0.42
1:M:846:GLU:HB2	1:M:847:ASP:H	1.67	0.42
2:N:384:ARG:HH12	2:N:393:LYS:CD	2.31	0.42
2:N:483:LEU:HD11	2:N:491:THR:HG22	1.99	0.42
2:N:659:ALA:HA	2:N:662:MET:CE	2.49	0.42
2:N:731:VAL:HG12	2:N:734:HIS:NE2	2.34	0.42
3:O:104:PHE:HE2	3:O:150:GLY:HA2	1.84	0.42
3:O:101:LEU:CD1	3:O:118:LEU:HD23	2.49	0.42
4:P:185:CYS:O	4:P:211:LEU:HD22	2.19	0.42
4:P:209:ARG:HA	4:P:212:LYS:HD2	1.99	0.42
4:P:5:THR:HG23	7:S:42:PHE:CE1	2.53	0.42
8:T:128:ASN:C	8:T:128:ASN:ND2	2.72	0.42
8:T:58:THR:O	8:T:59:ILE:HG13	2.19	0.42
11:W:59:ALA:HA	11:W:74:ARG:O	2.19	0.42
11:W:21:ILE:HD13	11:W:84:LYS:HE3	2.00	0.42
1:A:98:LYS:O	1:A:102:VAL:HG23	2.19	0.42
1:A:1035:TYR:O	1:A:1036:ARG:HB2	2.19	0.42
1:A:1308:THR:CG2	1:A:1309:ASP:N	2.68	0.42
1:A:1311:VAL:HG21	1:A:1329:THR:CG2	2.49	0.42
1:A:523:ILE:CG2	1:A:527:THR:HG22	2.49	0.42
1:A:65:LEU:HD13	1:A:71:GLN:OE1	2.19	0.42
1:A:883:LEU:HD21	1:A:1021:LEU:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:92:HIS:O	1:A:93:VAL:C	2.57	0.42
2:B:125:SER:O	2:B:126:SER:HB3	2.19	0.42
4:D:138:ASN:O	4:D:140:ASP:N	2.52	0.42
5:E:43:LYS:O	5:E:45:LYS:N	2.52	0.42
7:G:51:TYR:C	7:G:51:TYR:CD2	2.93	0.42
8:H:128:ASN:ND2	8:H:128:ASN:C	2.71	0.42
8:H:56:THR:O	8:H:144:ILE:HA	2.19	0.42
12:L:70:ARG:HG2	12:L:70:ARG:HH11	1.84	0.42
1:M:1081:LEU:HD11	1:M:1097:GLY:CA	2.45	0.42
1:M:109:HIS:H	1:M:210:ILE:HD11	1.84	0.42
1:M:1156:PRO:HA	1:M:1190:PRO:CB	2.49	0.42
1:M:1215:ARG:O	1:M:1219:THR:N	2.48	0.42
2:N:1106:ARG:HG3	2:N:1107:ALA:N	2.34	0.42
1:M:69:THR:HB	2:N:1174:LYS:HE2	2.01	0.42
2:N:247:GLY:C	2:N:249:ARG:N	2.71	0.42
2:N:334:ILE:CG2	2:N:334:ILE:O	2.66	0.42
2:N:335:GLY:O	2:N:336:ARG:HB2	2.19	0.42
2:N:899:ILE:CD1	2:N:911:ILE:HA	2.47	0.42
1:M:469:ARG:NH2	2:N:991:GLY:O	2.52	0.42
3:O:179:GLU:O	3:O:180:TYR:HB3	2.20	0.42
4:P:183:LEU:HA	4:P:183:LEU:HD23	1.46	0.42
4:P:52:LEU:H	4:P:182:SER:HB3	1.84	0.42
5:Q:182:ASP:HB3	5:Q:185:ALA:CB	2.48	0.42
1:M:598:LEU:CD2	8:T:25:ARG:NH1	2.82	0.42
8:T:61:SER:O	8:T:62:SER:HB2	2.19	0.42
10:V:44:TYR:N	10:V:44:TYR:CD2	2.78	0.42
1:A:1150:SER:HB3	1:A:1195:LEU:CD2	2.48	0.42
1:A:1239:ARG:HH12	1:A:1241:ARG:NH1	2.18	0.42
1:A:443:LEU:HD23	1:A:443:LEU:HA	1.76	0.42
1:A:599:SER:HA	1:A:600:PRO:HD2	1.81	0.42
1:A:608:ILE:HD12	1:A:613:ILE:CD1	2.49	0.42
1:A:645:LEU:HD11	1:A:649:ILE:HD11	2.00	0.42
1:A:741:ASN:C	1:A:741:ASN:HD22	2.22	0.42
2:B:357:GLN:CD	2:B:368:GLU:HA	2.40	0.42
2:B:447:ALA:O	2:B:449:ASN:N	2.53	0.42
2:B:508:LEU:O	2:B:509:ALA:CB	2.66	0.42
2:B:364:ILE:HG13	2:B:585:VAL:HG22	2.00	0.42
2:B:604:ARG:CA	2:B:609:ILE:HG13	2.49	0.42
2:B:744:HIS:CD2	2:B:745:PRO:CD	2.80	0.42
2:B:769:TYR:C	2:B:771:SER:N	2.73	0.42
2:B:773:MET:SD	2:B:987:LYS:HD2	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:832:GLY:O	2:B:835:GLN:NE2	2.52	0.42
3:C:259:LEU:HD21	11:K:91:CYS:HB3	2.01	0.42
3:C:27:LEU:O	3:C:28:ALA:C	2.58	0.42
5:E:124:VAL:N	5:E:125:PRO:HD2	2.33	0.42
5:E:14:ARG:NH2	5:E:141:VAL:HG12	2.28	0.42
1:A:1378:GLN:HG2	5:E:177:ARG:NH1	2.35	0.42
7:G:91:VAL:HG23	7:G:141:SER:O	2.19	0.42
8:H:100:THR:HG22	8:H:101:ALA:N	2.34	0.42
8:H:113:ALA:HB1	8:H:124:ARG:HE	1.84	0.42
9:I:100:PHE:N	9:I:100:PHE:HD1	2.17	0.42
9:I:101:PHE:N	9:I:101:PHE:HD1	2.15	0.42
9:I:10:CYS:O	9:I:11:ASN:C	2.58	0.42
9:I:62:ILE:HG12	9:I:62:ILE:O	2.19	0.42
1:M:1206:ASP:O	1:M:1274:ARG:NH1	2.51	0.42
1:M:1312:ASN:O	1:M:1316:VAL:HG23	2.18	0.42
1:M:219:PHE:CZ	1:M:230:ARG:HB3	2.55	0.42
1:M:320:ARG:NE	1:M:323:LYS:HZ2	2.18	0.42
1:M:353:ILE:HD11	1:M:480:ALA:HB1	2.01	0.42
1:M:874:ASP:OD1	1:M:876:ALA:N	2.40	0.42
1:M:942:PHE:HZ	5:Q:207:ARG:HG3	1.83	0.42
1:M:908:LEU:CD1	1:M:983:ILE:HD11	2.49	0.42
1:M:666:ILE:HD11	2:N:1067:ARG:O	2.19	0.42
2:N:980:PHE:CE2	2:N:1094:ARG:HG3	2.54	0.42
2:N:1166:CYS:O	2:N:1168:LEU:N	2.48	0.42
2:N:274:PRO:O	2:N:275:TYR:HB2	2.19	0.42
2:N:821:GLN:HE22	2:N:851:PHE:HA	1.84	0.42
3:O:77:ILE:HG23	3:O:161:LYS:HE3	2.02	0.42
4:P:190:GLU:HA	7:S:167:TYR:HD1	1.77	0.42
4:P:203:SER:OG	4:P:206:GLU:HB2	2.20	0.42
5:Q:124:VAL:N	5:Q:125:PRO:HD2	2.34	0.42
5:Q:65:THR:O	5:Q:69:ILE:HD12	2.19	0.42
7:S:111:THR:O	7:S:114:LEU:N	2.47	0.42
13:1:16:DT:H2''	13:1:17:DT:O5'	2.19	0.42
13:1:19:DT:H2'	13:1:20:DG:H8	1.84	0.42
1:A:1444:MET:HE2	1:A:1444:MET:N	2.34	0.42
1:A:211:PHE:HA	1:A:214:ILE:HG13	2.01	0.42
1:A:41:MET:HB2	1:A:49:LYS:HA	1.94	0.42
1:A:532:ARG:O	1:A:535:THR:HB	2.19	0.42
2:B:427:ASP:HA	2:B:430:ARG:CG	2.49	0.42
2:B:468:GLU:OE1	2:B:470:LYS:HE3	2.19	0.42
2:B:796:LEU:HB3	2:B:799:PRO:HG3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:835:GLN:HE21	2:B:835:GLN:HB2	1.43	0.42
2:B:879:ARG:HB2	2:B:880:THR:H	1.41	0.42
4:D:53:SER:OG	4:D:54:GLU:N	2.52	0.42
6:F:100:GLN:HA	6:F:103:MET:HG3	2.00	0.42
6:F:76:LYS:HE3	6:F:150:GLU:OE2	2.18	0.42
1:A:567:LYS:HE3	8:H:46:LEU:HB2	2.01	0.42
8:H:26:ILE:CD1	8:H:49:VAL:CG1	2.98	0.42
3:C:166:GLU:HG2	11:K:10:PHE:HZ	1.84	0.42
12:L:46:VAL:O	12:L:46:VAL:HG12	2.20	0.42
1:M:1033:GLN:O	1:M:1036:ARG:NH1	2.51	0.42
1:M:225:ASN:ND2	1:M:225:ASN:C	2.73	0.42
1:M:276:LEU:HD21	1:M:293:GLU:HG3	2.01	0.42
1:M:655:PHE:O	1:M:658:LEU:HB3	2.19	0.42
1:M:711:ARG:NH2	9:U:87:GLN:OE1	2.52	0.42
1:M:722:LEU:HD23	1:M:799:PHE:CD1	2.55	0.42
1:M:897:TYR:CB	1:M:936:LEU:HD12	2.46	0.42
2:N:1132:GLU:O	2:N:1135:ARG:HB3	2.19	0.42
2:N:70:ILE:H	2:N:429:PHE:HE1	1.67	0.42
2:N:640:VAL:O	2:N:640:VAL:CG1	2.67	0.42
2:N:773:MET:O	2:N:775:LYS:N	2.51	0.42
3:O:249:ASP:O	3:O:252:GLN:HB3	2.19	0.42
5:Q:78:LEU:HD11	5:Q:109:ILE:HD12	2.00	0.42
7:S:146:LYS:HB2	7:S:168:LEU:HD11	2.00	0.42
7:S:4:ILE:HA	7:S:76:ALA:O	2.19	0.42
10:V:3:VAL:CG2	10:V:18:TRP:CG	3.02	0.42
11:W:31:VAL:HG23	11:W:83:PRO:HG3	2.02	0.42
1:A:1030:ARG:NH1	1:A:1035:TYR:OH	2.53	0.42
1:A:1147:THR:HB	9:I:48:LEU:CD1	2.45	0.42
1:A:1165:GLU:H	1:A:1165:GLU:HG2	1.61	0.42
1:A:137:ALA:O	1:A:138:ILE:C	2.57	0.42
1:A:139:TRP:O	1:A:140:THR:C	2.58	0.42
1:A:1418:LEU:HD23	2:B:1222:ARG:CD	2.49	0.42
1:A:203:SER:O	1:A:206:GLU:HB3	2.19	0.42
1:A:390:GLN:HE21	1:A:394:ASN:ND2	2.09	0.42
1:A:452:LYS:HB3	2:B:1141:HIS:CE1	2.55	0.42
1:A:672:ASP:OD2	1:A:674:PRO:HG2	2.18	0.42
1:A:836:TYR:O	1:A:840:ARG:HD3	2.19	0.42
2:B:435:THR:C	2:B:437:GLU:H	2.21	0.42
2:B:889:THR:HG23	2:B:891:ASP:H	1.84	0.42
4:D:156:ASP:HB2	4:D:159:THR:CG2	2.50	0.42
4:D:156:ASP:O	4:D:157:GLN:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:134:THR:O	5:E:135:PHE:CD1	2.73	0.42
5:E:81:GLU:HG2	5:E:82:PHE:O	2.19	0.42
6:F:105:ALA:HB1	6:F:106:PRO:CD	2.49	0.42
7:G:126:ASN:HA	7:G:127:PRO:C	2.36	0.42
7:G:62:LEU:HD13	7:G:62:LEU:HA	1.83	0.42
10:J:12:LYS:O	10:J:14:VAL:HG23	2.20	0.42
11:K:33:ILE:HD13	11:K:87:LEU:HD22	2.00	0.42
1:M:1152:ILE:HG12	1:M:1260:LEU:HD23	2.01	0.42
1:M:1166:ASP:OD2	1:M:1239:ARG:NE	2.52	0.42
1:M:353:ILE:HD13	1:M:487:MET:CG	2.50	0.42
2:N:100:PRO:HA	2:N:125:SER:O	2.19	0.42
2:N:1182:CYS:SG	2:N:1185:CYS:HB2	2.60	0.42
2:N:1208:MET:O	2:N:1211:ASN:N	2.47	0.42
2:N:257:LYS:HB3	2:N:258:LEU:H	1.57	0.42
2:N:331:LEU:HD21	2:N:353:LYS:HG2	2.01	0.42
2:N:390:LEU:O	2:N:392:ARG:N	2.52	0.42
2:N:428:ILE:HG22	2:N:432:MET:CE	2.49	0.42
2:N:571:PRO:O	2:N:574:SER:O	2.37	0.42
2:N:769:TYR:O	2:N:772:ALA:N	2.50	0.42
2:N:884:ARG:O	2:N:936:ASP:CB	2.67	0.42
2:N:891:ASP:C	2:N:893:LEU:N	2.72	0.42
3:O:27:LEU:O	3:O:28:ALA:C	2.58	0.42
3:O:77:ILE:HA	3:O:77:ILE:HD13	1.86	0.42
4:P:14:ARG:HH12	4:P:16:LYS:NZ	2.18	0.42
4:P:190:GLU:HG3	7:S:167:TYR:CD1	2.54	0.42
4:P:53:SER:C	4:P:55:ALA:N	2.70	0.42
5:Q:147:HIS:CD2	5:Q:149:LEU:H	2.37	0.42
5:Q:88:VAL:HG21	5:Q:110:PHE:CE1	2.55	0.42
5:Q:89:GLY:C	5:Q:91:LYS:H	2.23	0.42
7:S:115:MET:CB	7:S:116:PRO:HD2	2.41	0.42
7:S:139:ILE:CG1	7:S:140:LYS:HG3	2.46	0.42
7:S:139:ILE:HG23	7:S:140:LYS:H	1.83	0.42
7:S:1:MET:O	7:S:2:PHE:C	2.57	0.42
7:S:9:LEU:HD23	7:S:30:LEU:HD12	2.01	0.42
8:T:135:LEU:HB2	8:T:137:GLN:NE2	2.35	0.42
1:A:1072:ILE:O	1:A:1075:PRO:HG2	2.19	0.42
1:A:1205:LYS:O	1:A:1207:LEU:HG	2.20	0.42
1:A:34:LYS:HG3	1:A:36:ARG:HH22	1.83	0.42
1:A:973:ILE:HG22	1:A:973:ILE:O	2.19	0.42
2:B:1027:ILE:C	2:B:1029:CYS:N	2.73	0.42
2:B:1068:GLY:O	2:B:1069:PHE:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1181:GLU:HB2	2:B:1188:LYS:HG2	2.02	0.42
2:B:1221:SER:O	2:B:1223:ASP:N	2.53	0.42
2:B:229:ALA:HB1	2:B:231:PRO:HD2	2.02	0.42
2:B:399:ASP:O	2:B:515:HIS:CD2	2.73	0.42
2:B:603:LEU:HB3	2:B:609:ILE:CD1	2.50	0.42
2:B:999:MET:HA	2:B:999:MET:HE2	2.02	0.42
3:C:133:ILE:CD1	3:C:237:SER:HA	2.49	0.42
2:B:1084:GLN:OE1	3:C:189:THR:CG2	2.67	0.42
2:B:1079:LYS:CA	3:C:27:LEU:HD21	2.50	0.42
4:D:134:THR:HG22	4:D:136:GLY:H	1.84	0.42
4:D:7:THR:HG21	4:D:32:GLU:OE1	2.20	0.42
1:M:1161:THR:OG1	1:M:1239:ARG:NH2	2.53	0.42
1:M:1100:ARG:NH2	1:M:1351:GLU:CG	2.81	0.42
1:M:208:LEU:C	1:M:208:LEU:CD2	2.88	0.42
1:M:270:LEU:HD12	1:M:270:LEU:HA	1.71	0.42
1:M:356:ASP:C	1:M:358:ASN:H	2.23	0.42
1:M:545:GLN:O	1:M:546:VAL:C	2.56	0.42
1:M:582:ILE:HA	1:M:583:PRO:HD2	1.88	0.42
1:M:787:PHE:CE1	1:M:796:SER:HA	2.54	0.42
2:N:408:LEU:HD11	2:N:545:ILE:HD13	2.02	0.42
2:N:578:THR:C	2:N:589:VAL:HG13	2.40	0.42
2:N:769:TYR:C	2:N:771:SER:N	2.73	0.42
3:O:148:ARG:HB3	3:O:149:LYS:H	1.50	0.42
4:P:146:GLN:CA	4:P:149:THR:HG22	2.50	0.42
4:P:195:ILE:HB	4:P:198:LEU:CD1	2.49	0.42
4:P:209:ARG:HH11	4:P:209:ARG:CG	2.33	0.42
4:P:71:LYS:CA	4:P:74:GLN:HB2	2.45	0.42
5:Q:111:VAL:CG1	5:Q:137:GLU:HG2	2.50	0.42
6:R:110:ASP:O	6:R:123:LYS:HE3	2.19	0.42
7:S:34:VAL:HG13	7:S:45:ILE:CD1	2.49	0.42
7:S:48:VAL:HG13	7:S:74:TYR:HD1	1.84	0.42
9:U:109:ILE:HG22	9:U:109:ILE:O	2.19	0.42
14:2:4:DA:C4	14:2:5:DC:C5	3.08	0.42
1:A:1003:LYS:O	1:A:1004:ASN:HB3	2.20	0.42
1:A:298:PHE:CZ	1:A:314:ALA:HB2	2.55	0.42
1:A:415:LEU:HA	1:A:415:LEU:HD23	1.78	0.42
1:A:590:ARG:O	1:A:591:PHE:CB	2.63	0.42
1:A:598:LEU:HD12	8:H:115:TYR:CD2	2.54	0.42
1:A:608:ILE:HD12	1:A:613:ILE:HD11	2.02	0.42
1:A:767:GLN:HA	1:A:799:PHE:HA	2.02	0.42
1:A:874:ASP:C	1:A:874:ASP:OD1	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1106:ARG:HG3	2:B:1107:ALA:N	2.35	0.42
1:A:500:GLU:OE2	2:B:1145:SER:CB	2.66	0.42
2:B:189:LEU:CD1	2:B:196:PRO:HA	2.49	0.42
2:B:377:PHE:CE2	2:B:381:MET:HE2	2.54	0.42
2:B:488:TYR:CE2	2:B:813:LYS:HB2	2.54	0.42
3:C:116:LYS:HG3	3:C:117:ASP:OD1	2.19	0.42
4:D:61:GLU:O	4:D:64:VAL:HB	2.20	0.42
5:E:90:VAL:HA	5:E:120:ALA:HB2	2.01	0.42
7:G:14:HIS:HD2	7:G:16:SER:CB	2.32	0.42
4:D:32:GLU:HG3	7:G:5:LYS:HE2	2.01	0.42
1:M:1003:LYS:O	1:M:1004:ASN:HB3	2.19	0.42
1:M:1312:ASN:ND2	1:M:1315:GLU:HG3	2.35	0.42
1:M:1341:ILE:HD12	1:M:1379:GLY:C	2.37	0.42
1:M:49:LYS:HZ1	1:M:61:ILE:H	1.67	0.42
1:M:49:LYS:NZ	1:M:60:SER:HA	2.33	0.42
1:M:65:LEU:HD13	1:M:71:GLN:OE1	2.20	0.42
1:M:783:THR:HG21	1:M:815:PHE:CZ	2.55	0.42
2:N:434:ARG:O	2:N:436:VAL:N	2.52	0.42
2:N:47:GLN:O	2:N:173:MET:HE1	2.19	0.42
2:N:603:LEU:HD12	2:N:609:ILE:HG12	2.02	0.42
2:N:634:TYR:CE1	2:N:692:TYR:CD1	3.07	0.42
4:P:29:LEU:HD12	7:S:82:PHE:CE1	2.54	0.42
5:Q:191:LYS:HG3	5:Q:194:GLU:OE1	2.19	0.42
5:Q:52:ARG:HA	5:Q:53:PRO:HD2	1.86	0.42
7:S:129:SER:C	7:S:130:TYR:CD1	2.93	0.42
7:S:163:ILE:HG21	7:S:163:ILE:HD13	1.79	0.42
8:T:30:SER:HB3	8:T:36:CYS:HB3	2.01	0.42
11:W:52:ASN:O	11:W:54:ARG:N	2.53	0.42
12:X:68:GLU:CD	12:X:68:GLU:H	2.11	0.42
1:A:1100:ARG:HH21	1:A:1351:GLU:CD	2.23	0.42
1:A:1111:MET:HB2	1:A:1111:MET:HE2	1.80	0.42
1:A:1402:PHE:CE2	1:A:1403:GLU:HG2	2.55	0.42
1:A:93:VAL:HG21	1:A:301:ALA:O	2.19	0.42
1:A:351:THR:HG21	2:B:1103:ILE:CG1	2.47	0.42
1:A:460:VAL:CG1	1:A:461:LYS:N	2.83	0.42
1:A:468:PHE:CE2	1:A:489:LEU:HD23	2.55	0.42
1:A:563:PRO:HG3	1:A:572:TRP:CE2	2.52	0.42
1:A:722:LEU:HD23	1:A:799:PHE:CG	2.55	0.42
1:A:849:MET:HE1	1:A:1440:ALA:HB2	2.01	0.42
1:A:961:ARG:O	1:A:965:GLN:HG3	2.20	0.42
2:B:134:LYS:NZ	2:B:164:LYS:NZ	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:458:LYS:O	2:B:459:TYR:C	2.58	0.42
2:B:711:GLU:HB2	2:B:712:PRO:CD	2.50	0.42
2:B:745:PRO:O	2:B:747:MET:N	2.52	0.42
3:C:66:ARG:CZ	10:J:2:ILE:CG2	2.98	0.42
5:E:26:ARG:HH12	5:E:133:GLU:CD	2.23	0.42
1:M:1011:GLN:NE2	1:M:1015:VAL:HG21	2.29	0.42
1:M:1057:VAL:HG12	1:M:1058:VAL:N	2.34	0.42
1:M:108:MET:O	1:M:109:HIS:HB3	2.20	0.42
1:M:1207:LEU:HA	1:M:1211:GLN:OE1	2.20	0.42
1:M:1120:LEU:HD23	1:M:1304:TRP:O	2.19	0.42
1:M:310:GLY:C	1:M:312:PRO:HD2	2.39	0.42
1:M:316:GLN:HG2	1:M:317:LYS:HG2	2.01	0.42
1:M:415:LEU:HD23	1:M:415:LEU:HA	1.70	0.42
1:M:567:LYS:HE3	8:T:46:LEU:HD12	2.00	0.42
1:M:809:THR:H	1:M:812:GLU:HB2	1.85	0.42
1:M:69:THR:HG21	2:N:1174:LYS:HZ3	1.85	0.42
2:N:219:ALA:HB2	2:N:405:ARG:NH1	2.34	0.42
2:N:425:THR:HG22	2:N:426:LYS:N	2.35	0.42
2:N:486:TYR:HD2	2:N:486:TYR:N	2.16	0.42
2:N:552:MET:O	2:N:554:ILE:N	2.53	0.42
2:N:63:ILE:HD12	2:N:63:ILE:HA	1.79	0.42
2:N:640:VAL:HG12	2:N:649:LYS:HG2	2.01	0.42
2:N:698:GLU:O	2:N:701:ILE:HG12	2.20	0.42
2:N:976:ILE:O	2:N:990:ILE:HB	2.19	0.42
4:P:207:LEU:HG	4:P:211:LEU:HD12	2.02	0.42
5:Q:17:ARG:O	5:Q:20:LYS:HB2	2.20	0.42
9:U:88:SER:C	9:U:90:GLN:H	2.23	0.42
1:A:1011:GLN:HE22	1:A:1015:VAL:HG23	1.83	0.42
1:A:904:THR:HG22	1:A:904:THR:O	2.20	0.42
2:B:247:GLY:C	2:B:249:ARG:N	2.72	0.42
2:B:39:ARG:HH21	2:B:665:GLU:HG2	1.81	0.42
2:B:434:ARG:O	2:B:436:VAL:N	2.52	0.42
2:B:123:THR:CB	2:B:458:LYS:HE2	2.49	0.42
2:B:34:ILE:HG12	2:B:542:MET:HE1	2.00	0.42
2:B:610:ASN:HA	2:B:611:PRO:HD3	1.93	0.42
2:B:640:VAL:HG12	2:B:649:LYS:HG2	2.02	0.42
2:B:842:ASN:HD22	2:B:845:SER:CB	2.33	0.42
2:B:905:VAL:HG23	2:B:941:LEU:HD22	2.02	0.42
4:D:175:PHE:O	4:D:178:ALA:HB3	2.20	0.42
8:H:55:LEU:HD22	8:H:144:ILE:CG2	2.49	0.42
8:H:98:TYR:C	8:H:118:PHE:HD2	2.24	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:53:ASP:HB3	11:K:56:VAL:HG23	2.00	0.42
1:M:154:SER:HB3	1:M:162:VAL:CG2	2.50	0.42
1:M:172:PRO:HD3	1:M:185:TRP:NE1	2.34	0.42
1:M:108:MET:HE2	1:M:210:ILE:HD12	2.01	0.42
1:M:385:ILE:CG2	1:M:386:ASP:N	2.81	0.42
1:M:426:LEU:O	1:M:427:GLN:HG2	2.19	0.42
1:M:577:ILE:HA	1:M:580:VAL:HG23	2.01	0.42
1:M:672:ASP:OD2	1:M:674:PRO:HG2	2.20	0.42
1:M:777:PHE:CD1	1:M:781:ASP:HA	2.55	0.42
1:M:848:ILE:HA	1:M:857:ARG:O	2.19	0.42
2:N:1027:ILE:C	2:N:1029:CYS:N	2.73	0.42
2:N:1060:ARG:HD2	2:N:1060:ARG:HA	1.51	0.42
2:N:1094:ARG:HH21	2:N:1098:MET:HG2	1.85	0.42
2:N:278:GLN:CG	2:N:279:ASP:H	2.33	0.42
2:N:31:TRP:CE3	2:N:31:TRP:HA	2.54	0.42
2:N:225:VAL:HG11	2:N:385:LEU:HA	2.01	0.42
2:N:508:LEU:O	2:N:509:ALA:CB	2.66	0.42
2:N:702:LEU:HG	2:N:738:PHE:HD2	1.85	0.42
2:N:773:MET:HE2	2:N:985:GLY:HA2	2.01	0.42
2:N:838:SER:HA	2:N:989:THR:O	2.19	0.42
3:O:105:GLY:O	3:O:149:LYS:O	2.37	0.42
3:O:8:VAL:CG1	3:O:9:LYS:N	2.80	0.42
4:P:198:LEU:HB2	4:P:199:ASN:H	1.59	0.42
6:R:72:LYS:HG2	6:R:72:LYS:H	1.69	0.42
7:S:121:PHE:CD1	7:S:130:TYR:CE1	3.08	0.42
9:U:17:ARG:HG3	9:U:28:GLU:OE1	2.19	0.42
11:W:47:ARG:HD2	11:W:47:ARG:C	2.39	0.42
1:A:1264:GLU:OE2	9:I:46:HIS:CD2	2.72	0.42
1:A:1428:VAL:HG13	2:B:1151:LEU:CD2	2.49	0.42
1:A:370:ILE:HG23	1:A:374:LEU:HD12	2.02	0.42
1:A:622:VAL:HG22	1:A:622:VAL:O	2.20	0.42
1:A:996:ASN:C	1:A:998:LEU:HD12	2.40	0.42
2:B:695:ALA:O	2:B:698:GLU:HB3	2.19	0.42
4:D:123:LEU:HD13	4:D:149:THR:HG21	2.01	0.42
4:D:16:LYS:O	4:D:18:VAL:N	2.45	0.42
5:E:82:PHE:O	5:E:83:CYS:HB2	2.19	0.42
10:J:61:LEU:O	10:J:63:TYR:N	2.51	0.42
11:K:65:HIS:NE2	11:K:67:PHE:CG	2.85	0.42
1:M:1029:ARG:CG	1:M:1029:ARG:NH1	2.83	0.42
1:M:137:ALA:O	1:M:138:ILE:C	2.58	0.42
1:M:252:PHE:HB2	1:M:256:GLN:NE2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:583:PRO:O	1:M:610:GLY:HA3	2.20	0.42
1:M:973:ILE:HG12	1:M:1038:THR:HG23	2.02	0.42
2:N:840:ILE:HB	2:N:1011:ILE:HB	2.02	0.42
2:N:758:PHE:CE1	2:N:1027:ILE:CG2	3.02	0.42
2:N:778:MET:HE2	2:N:1094:ARG:O	2.20	0.42
2:N:1095:LEU:C	2:N:1096:ARG:O	2.57	0.42
2:N:1160:VAL:HG11	2:N:1169:MET:SD	2.60	0.42
2:N:1185:CYS:HA	4:P:17:LYS:HE3	2.02	0.42
2:N:1197:PRO:O	2:N:1198:TYR:C	2.57	0.42
2:N:274:PRO:HG2	2:N:359:GLU:HB3	2.02	0.42
2:N:423:LYS:HD2	2:N:470:LYS:HZ1	1.85	0.42
2:N:880:THR:CB	2:N:934:LYS:HD2	2.35	0.42
4:P:159:THR:HG21	4:P:219:THR:OG1	2.20	0.42
5:Q:61:GLN:HG2	5:Q:62:ALA:H	1.84	0.42
8:T:100:THR:HG22	8:T:101:ALA:N	2.35	0.42
1:M:709:THR:HG23	9:U:94:ASP:HA	2.01	0.42
10:V:1:MET:H1	10:V:56:LEU:CA	2.32	0.42
1:A:100:LYS:O	1:A:104:GLU:HG3	2.20	0.41
1:A:1129:GLU:HG2	1:A:1132:LYS:NZ	2.35	0.41
1:A:1161:THR:HG22	1:A:1163:ILE:HG13	2.02	0.41
1:A:1239:ARG:HB3	1:A:1239:ARG:NH1	2.35	0.41
1:A:254:GLU:HB3	1:A:255:SER:H	1.46	0.41
1:A:533:LYS:HE2	1:A:533:LYS:HB3	1.90	0.41
1:A:848:ILE:HA	1:A:857:ARG:O	2.20	0.41
1:A:900:ASP:HB3	1:A:906:HIS:HB2	2.02	0.41
1:A:929:LEU:HD22	1:A:929:LEU:N	2.35	0.41
2:B:1114:LEU:HG	2:B:1202:LEU:HD11	2.02	0.41
2:B:293:PRO:C	2:B:294:ASP:O	2.56	0.41
2:B:360:PHE:CD2	2:B:361:LEU:HB2	2.55	0.41
2:B:531:GLN:HG2	2:B:532:ALA:N	2.35	0.41
2:B:522:VAL:CG1	2:B:537:LYS:HB3	2.50	0.41
2:B:635:ARG:NH2	2:B:742:GLU:OE2	2.52	0.41
2:B:877:PRO:C	2:B:878:GLN:HG3	2.40	0.41
2:B:891:ASP:C	2:B:893:LEU:N	2.72	0.41
3:C:31:ASN:O	3:C:34:ARG:HB3	2.20	0.41
3:C:36:VAL:HG21	3:C:251:LEU:HD13	2.02	0.41
3:C:76:ASP:OD2	3:C:128:ASN:N	2.52	0.41
4:D:148:LEU:HA	4:D:148:LEU:HD23	1.92	0.41
4:D:63:LEU:O	4:D:133:THR:HG21	2.19	0.41
5:E:157:SER:O	5:E:159:ASP:N	2.53	0.41
10:J:1:MET:H1	10:J:56:LEU:CA	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1074:GLU:HB3	1:M:1075:PRO:CD	2.50	0.41
1:M:1098:VAL:N	1:M:1099:PRO:HD2	2.35	0.41
1:M:288:ALA:HA	1:M:291:GLU:CG	2.50	0.41
2:N:241:ARG:CG	2:N:253:THR:HG22	2.39	0.41
2:N:292:ILE:HD13	2:N:326:ASP:HA	2.01	0.41
2:N:768:THR:O	2:N:771:SER:HB2	2.20	0.41
2:N:877:PRO:C	2:N:878:GLN:HG3	2.40	0.41
3:O:101:LEU:HD13	3:O:118:LEU:CD2	2.49	0.41
4:P:180:LEU:HA	4:P:180:LEU:HD23	1.53	0.41
4:P:27:LEU:HA	4:P:27:LEU:HD23	1.69	0.41
5:Q:177:ARG:O	5:Q:212:ARG:HD3	2.20	0.41
5:Q:50:MET:HG2	5:Q:52:ARG:HE	1.85	0.41
5:Q:61:GLN:HB2	5:Q:79:TRP:HE3	1.85	0.41
6:R:120:ILE:O	6:R:124:GLU:HG3	2.20	0.41
7:S:26:LEU:CD1	7:S:56:ILE:HD11	2.50	0.41
12:X:38:LEU:O	12:X:39:SER:CB	2.68	0.41
1:A:1141:THR:HA	1:A:1205:LYS:HZ2	1.86	0.41
1:A:1313:LEU:HB3	1:A:1338:VAL:HG21	2.02	0.41
1:A:134:ARG:HG2	1:A:138:ILE:CD1	2.49	0.41
1:A:310:GLY:C	1:A:312:PRO:HD2	2.40	0.41
1:A:332:LYS:HB2	1:A:332:LYS:HE3	1.80	0.41
1:A:546:VAL:HG21	1:A:572:TRP:HB2	2.01	0.41
1:A:582:ILE:HA	1:A:583:PRO:HD2	1.91	0.41
1:A:722:LEU:CD1	1:A:722:LEU:H	2.26	0.41
1:A:901:LEU:HG	1:A:926:GLN:HE21	1.85	0.41
2:B:1069:PHE:CD1	2:B:1069:PHE:N	2.78	0.41
1:A:828:ALA:HB2	2:B:530:GLY:HA2	2.02	0.41
2:B:558:LEU:O	2:B:559:SER:C	2.58	0.41
2:B:56:ASP:HB3	2:B:57:TYR:CE1	2.54	0.41
2:B:879:ARG:CD	2:B:879:ARG:H	2.31	0.41
2:B:916:THR:CB	2:B:935:ARG:HD2	2.50	0.41
6:F:118:LEU:O	6:F:122:MET:HG3	2.19	0.41
7:G:31:LEU:CD2	7:G:48:VAL:HG21	2.50	0.41
1:M:34:LYS:CG	1:M:36:ARG:NH2	2.82	0.41
1:M:436:ILE:HD11	1:M:491:VAL:HG11	2.01	0.41
1:M:623:GLY:C	1:M:625:SER:H	2.24	0.41
1:M:66:LYS:HZ3	1:M:68:GLN:H	1.66	0.41
1:M:847:ASP:N	1:M:847:ASP:OD1	2.51	0.41
2:N:1107:ALA:O	2:N:1108:ARG:CB	2.67	0.41
2:N:33:VAL:O	2:N:36:ALA:HB3	2.20	0.41
2:N:371:GLU:CD	2:N:371:GLU:N	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:459:TYR:CZ	2:N:469:GLN:HG3	2.55	0.41
2:N:893:LEU:HD22	2:N:897:GLY:HA2	2.02	0.41
2:N:936:ASP:CG	2:N:937:ALA:N	2.74	0.41
3:O:208:GLU:O	3:O:210:GLU:N	2.53	0.41
3:O:69:LEU:H	3:O:69:LEU:CD1	2.28	0.41
8:T:93:TYR:CD1	8:T:93:TYR:N	2.88	0.41
11:W:22:ASP:O	11:W:31:VAL:HG12	2.19	0.41
11:W:65:HIS:CD2	11:W:65:HIS:C	2.92	0.41
13:4:18:DA:H3'	13:4:18:DA:OP1	2.20	0.41
1:A:1362:TYR:CD1	1:A:1362:TYR:C	2.92	0.41
1:A:230:ARG:HG3	1:A:233:TRP:CZ3	2.55	0.41
1:A:352:VAL:HG12	1:A:353:ILE:N	2.35	0.41
1:A:655:PHE:O	1:A:658:LEU:HB3	2.21	0.41
1:A:828:ALA:C	1:A:831:THR:HG22	2.41	0.41
2:B:853:SER:OG	2:B:1094:ARG:NH1	2.53	0.41
4:D:151:PHE:N	4:D:151:PHE:CD1	2.87	0.41
4:D:63:LEU:O	4:D:129:LEU:HD11	2.20	0.41
5:E:43:LYS:HG3	5:E:43:LYS:H	1.67	0.41
8:H:93:TYR:N	8:H:93:TYR:CD1	2.89	0.41
9:I:8:ARG:H	9:I:8:ARG:HG3	1.67	0.41
10:J:57:ILE:O	10:J:60:PHE:HB2	2.20	0.41
12:L:65:VAL:HG23	12:L:67:PHE:CE1	2.55	0.41
1:M:208:LEU:HD23	1:M:208:LEU:O	2.21	0.41
1:M:220:THR:O	1:M:221:SER:C	2.58	0.41
1:M:278:THR:O	1:M:278:THR:HG22	2.19	0.41
1:M:365:GLY:O	1:M:468:PHE:HA	2.20	0.41
1:M:675:THR:O	1:M:675:THR:HG22	2.20	0.41
1:M:715:GLU:OE1	1:M:774:ARG:HD3	2.19	0.41
2:N:323:VAL:O	2:N:323:VAL:HG12	2.20	0.41
2:N:39:ARG:HH21	2:N:665:GLU:HG2	1.82	0.41
2:N:405:ARG:HA	2:N:631:GLY:O	2.20	0.41
2:N:637:LEU:HD12	2:N:693:ILE:CD1	2.50	0.41
2:N:745:PRO:O	2:N:747:MET:N	2.53	0.41
3:O:162:GLY:HA3	3:O:170:TRP:CE2	2.56	0.41
3:O:217:ASP:HA	3:O:218:PRO:HD3	1.91	0.41
4:P:149:THR:HG23	4:P:150:ASN:N	2.35	0.41
8:T:77:ARG:CG	8:T:78:SER:H	2.33	0.41
9:U:70:ARG:HA	9:U:83:ASN:O	2.20	0.41
13:4:19:DT:H2'	13:4:20:DG:H8	1.86	0.41
13:4:27:DC:H2''	13:4:28:DA:C8	2.55	0.41
1:A:106:VAL:HG21	1:A:214:ILE:CD1	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:288:ALA:HA	1:A:291:GLU:HG3	2.00	0.41
1:A:623:GLY:C	1:A:625:SER:H	2.24	0.41
2:B:1183:LYS:CE	2:B:1183:LYS:N	2.80	0.41
2:B:175:ARG:HB2	2:B:200:GLY:HA3	2.02	0.41
2:B:641:GLU:OE1	2:B:641:GLU:HA	2.20	0.41
4:D:70:PHE:O	4:D:74:GLN:HG2	2.20	0.41
5:E:55:ARG:NH1	5:E:55:ARG:HG3	2.34	0.41
5:E:67:GLU:O	5:E:70:SER:HB3	2.20	0.41
7:G:155:SER:O	7:G:156:SER:HB3	2.20	0.41
1:M:1063:MET:SD	1:M:1436:ILE:HB	2.60	0.41
1:M:482:PHE:C	1:M:484:GLY:H	2.24	0.41
1:M:956:LEU:HD21	1:M:1017:LEU:HG	2.01	0.41
1:M:960:ILE:CA	1:M:963:ILE:HG22	2.50	0.41
1:M:344:ARG:NE	2:N:1120:GLU:HB2	2.35	0.41
1:M:5:GLN:O	2:N:1159:ARG:NH2	2.52	0.41
2:N:1207:LEU:HA	2:N:1207:LEU:HD23	1.81	0.41
2:N:129:PHE:CD2	2:N:166:PHE:HA	2.49	0.41
2:N:129:PHE:CE2	2:N:166:PHE:HD1	2.38	0.41
2:N:244:LEU:O	2:N:246:LYS:N	2.53	0.41
2:N:245:GLU:HG2	2:N:245:GLU:O	2.20	0.41
2:N:280:ILE:HG23	2:N:281:PRO:HD2	2.01	0.41
2:N:227:LYS:HG3	2:N:395:GLN:OE1	2.20	0.41
2:N:51:PHE:HB2	2:N:173:MET:CE	2.50	0.41
2:N:856:PHE:CD1	2:N:856:PHE:N	2.88	0.41
2:N:910:VAL:CG1	2:N:938:SER:HB3	2.50	0.41
2:N:945:GLU:O	2:N:946:ASN:HB3	2.20	0.41
2:N:757:PRO:HG2	2:N:984:HIS:CE1	2.55	0.41
3:O:174:ALA:O	3:O:175:ALA:CB	2.67	0.41
5:Q:102:GLU:C	5:Q:104:ASN:N	2.72	0.41
7:S:122:ASN:HB2	7:S:131:GLN:CG	2.51	0.41
7:S:88:ASP:OD2	7:S:88:ASP:C	2.59	0.41
13:4:15:DG:C8	13:4:16:DT:C7	3.04	0.41
1:A:12:ARG:O	2:B:1194:ILE:HG22	2.21	0.41
1:A:1365:TYR:C	1:A:1365:TYR:CD2	2.94	0.41
1:A:1438:THR:HB	2:B:1144:ALA:CB	2.49	0.41
1:A:218:ASP:O	1:A:219:PHE:C	2.59	0.41
1:A:224:PHE:HB3	1:A:225:ASN:H	1.78	0.41
1:A:316:GLN:O	1:A:317:LYS:C	2.59	0.41
1:A:705:LYS:HD2	1:A:708:MET:HE1	2.02	0.41
1:A:825:ILE:O	1:A:829:VAL:HG23	2.19	0.41
1:A:908:LEU:CD1	1:A:983:ILE:HD11	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1130:PHE:HZ	2:B:1138:MET:HG2	1.84	0.41
2:B:126:SER:O	2:B:169:ARG:HA	2.20	0.41
2:B:298:LEU:CD2	2:B:298:LEU:N	2.82	0.41
2:B:54:PHE:HE1	2:B:414:ALA:HA	1.85	0.41
2:B:52:ASN:O	2:B:56:ASP:HB2	2.20	0.41
2:B:64:CYS:HA	2:B:67:SER:HG	1.83	0.41
2:B:769:TYR:O	2:B:772:ALA:N	2.51	0.41
2:B:806:THR:N	2:B:809:MET:HE3	2.35	0.41
2:B:842:ASN:ND2	2:B:845:SER:N	2.66	0.41
2:B:911:ILE:O	2:B:911:ILE:HG22	2.21	0.41
4:D:50:LEU:HD21	7:G:4:ILE:HD12	2.02	0.41
5:E:83:CYS:SG	5:E:85:GLU:HB2	2.61	0.41
8:H:103:LYS:HG2	8:H:104:PHE:N	2.36	0.41
9:I:14:LEU:HD22	9:I:28:GLU:C	2.40	0.41
11:K:49:GLU:HG3	11:K:94:ILE:HG13	2.02	0.41
11:K:51:LEU:HD12	11:K:51:LEU:HA	1.86	0.41
1:M:1402:PHE:CZ	1:M:1403:GLU:CG	3.03	0.41
1:M:150:THR:HA	1:M:165:GLY:O	2.19	0.41
1:M:219:PHE:O	1:M:222:LEU:HB2	2.21	0.41
1:M:332:LYS:C	1:M:334:GLY:N	2.64	0.41
1:M:34:LYS:HZ2	1:M:57:ARG:NH2	2.18	0.41
1:M:844:ALA:O	1:M:845:LEU:HD23	2.21	0.41
2:N:113:TYR:CD2	2:N:192:LEU:HD22	2.55	0.41
2:N:308:TRP:HA	2:N:311:LEU:HD12	2.01	0.41
2:N:427:ASP:HA	2:N:430:ARG:CG	2.50	0.41
2:N:67:SER:HB3	2:N:92:PHE:HD1	1.86	0.41
6:R:79:ARG:HG3	6:R:144:GLU:HB3	2.02	0.41
7:S:93:SER:OG	7:S:100:GLU:HB3	2.21	0.41
7:S:99:PHE:CE1	7:S:143:ILE:HD12	2.55	0.41
10:V:57:ILE:HA	10:V:60:PHE:CD2	2.37	0.41
13:1:12:DG:H1'	13:1:13:DT:O5'	2.21	0.41
1:A:1115:SER:OG	1:A:1116:LEU:N	2.54	0.41
1:A:1206:ASP:O	1:A:1274:ARG:CZ	2.68	0.41
1:A:172:PRO:HD3	1:A:185:TRP:CD1	2.56	0.41
1:A:667:GLY:CA	1:A:670:ILE:HD11	2.40	0.41
1:A:6:TYR:CD1	1:A:7:SER:N	2.88	0.41
1:A:896:ARG:HB3	1:A:897:TYR:CD1	2.56	0.41
1:A:929:LEU:N	1:A:929:LEU:CD2	2.84	0.41
2:B:114:PRO:O	2:B:115:GLN:C	2.57	0.41
2:B:1169:MET:HE2	2:B:1204:PHE:HB2	2.02	0.41
2:B:436:VAL:HG12	2:B:436:VAL:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:552:MET:C	2:B:554:ILE:N	2.74	0.41
2:B:846:ILE:HG23	2:B:974:PRO:CG	2.42	0.41
3:C:209:TYR:N	3:C:209:TYR:CD1	2.88	0.41
3:C:254:LYS:HE2	11:K:42:LEU:HD13	2.02	0.41
4:D:156:ASP:O	4:D:158:GLU:N	2.53	0.41
4:D:52:LEU:CD1	4:D:182:SER:HB2	2.50	0.41
5:E:11:ARG:C	5:E:13:TRP:N	2.74	0.41
5:E:213:ILE:HG12	5:E:214:CYS:N	2.35	0.41
5:E:55:ARG:HD2	5:E:84:ASP:HA	2.03	0.41
5:E:55:ARG:NE	5:E:113:GLN:NE2	2.68	0.41
6:F:69:LEU:HB2	6:F:72:LYS:HD2	2.01	0.41
8:H:38:LEU:HD12	8:H:124:ARG:O	2.20	0.41
8:H:4:THR:HG22	8:H:5:LEU:H	1.86	0.41
10:J:57:ILE:HA	10:J:60:PHE:CD2	2.38	0.41
1:M:102:VAL:CG1	1:M:211:PHE:CE1	3.03	0.41
1:M:1155:ASP:O	1:M:1190:PRO:O	2.38	0.41
1:M:740:LEU:HD12	1:M:740:LEU:C	2.40	0.41
2:N:1096:ARG:CG	2:N:1097:HIS:N	2.84	0.41
2:N:186:GLU:CG	10:V:62:ARG:NH2	2.84	0.41
2:N:259:TYR:CD1	2:N:259:TYR:N	2.89	0.41
2:N:653:VAL:HG22	2:N:689:LEU:HB3	1.99	0.41
2:N:705:MET:HB3	2:N:706:GLN:H	1.68	0.41
2:N:797:TYR:CE1	2:N:854:LEU:CD2	3.04	0.41
2:N:886:LYS:HD2	2:N:887:HIS:NE2	2.36	0.41
2:N:898:LEU:HD13	2:N:952:VAL:CG1	2.50	0.41
3:O:183:TRP:O	3:O:185:LYS:HG3	2.20	0.41
4:P:173:HIS:CE1	4:P:175:PHE:HB2	2.55	0.41
6:R:136:ARG:O	6:R:143:PHE:HA	2.21	0.41
7:S:34:VAL:HG13	7:S:45:ILE:HG21	2.02	0.41
13:1:18:DA:OP1	13:1:18:DA:H3'	2.20	0.41
1:A:1081:LEU:HD11	1:A:1098:VAL:N	2.31	0.41
1:A:1311:VAL:HG11	1:A:1334:ASP:OD2	2.21	0.41
1:A:562:THR:HA	1:A:563:PRO:HD3	1.89	0.41
1:A:55:ASP:OD1	1:A:57:ARG:CA	2.69	0.41
1:A:738:LYS:HG3	1:A:740:LEU:HG	2.01	0.41
1:A:765:VAL:HB	1:A:800:VAL:HG12	2.02	0.41
1:A:867:ILE:HG12	1:A:1000:LEU:HD11	2.02	0.41
2:B:31:TRP:CZ2	2:B:807:ARG:HB2	2.55	0.41
2:B:791:THR:O	2:B:792:MET:HB2	2.20	0.41
2:B:884:ARG:O	2:B:936:ASP:CB	2.69	0.41
3:C:24:ASN:O	3:C:24:ASN:CG	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:12:ARG:HH11	4:D:12:ARG:CG	2.34	0.41
5:E:72:PHE:CD1	5:E:72:PHE:N	2.89	0.41
7:G:14:HIS:CD2	7:G:16:SER:HB3	2.56	0.41
4:D:7:THR:HB	7:G:42:PHE:CE2	2.55	0.41
9:I:73:ARG:NH1	9:I:112:SER:HB3	2.35	0.41
2:B:308:TRP:CZ3	9:I:45:ARG:HG2	2.54	0.41
2:B:120:ARG:HH11	12:L:54:ARG:HH11	1.64	0.41
1:M:1220:PHE:CD1	1:M:1224:LEU:HD23	2.55	0.41
1:M:244:PRO:HB2	1:M:245:PRO:CD	2.41	0.41
1:M:317:LYS:O	1:M:318:SER:HB3	2.18	0.41
1:M:401:GLY:H	1:M:435:HIS:HD2	1.68	0.41
1:M:432:VAL:O	1:M:432:VAL:HG12	2.21	0.41
1:M:780:VAL:O	1:M:782:ARG:HG2	2.20	0.41
2:N:999:MET:HE2	2:N:1000:PRO:HD2	2.02	0.41
2:N:203:PHE:HB3	2:N:205:ILE:HD11	2.03	0.41
2:N:238:ALA:HB3	2:N:256:VAL:HB	2.02	0.41
2:N:234:ILE:HG12	2:N:257:LYS:HG2	2.03	0.41
2:N:311:LEU:O	2:N:312:GLU:C	2.57	0.41
2:N:639:ILE:HG22	2:N:641:GLU:HG2	2.03	0.41
2:N:642:ASP:N	2:N:649:LYS:HG3	2.35	0.41
2:N:762:ASN:OD1	2:N:1022:THR:HA	2.20	0.41
3:O:186:LEU:N	3:O:186:LEU:CD1	2.83	0.41
3:O:215:GLU:O	3:O:217:ASP:N	2.53	0.41
1:A:108:MET:O	1:A:109:HIS:HB3	2.21	0.41
1:A:1155:ASP:O	1:A:1190:PRO:O	2.38	0.41
1:A:1198:ASP:O	1:A:1202:MET:HG2	2.20	0.41
1:A:130:ASP:O	1:A:131:SER:C	2.59	0.41
1:A:108:MET:HB3	1:A:210:ILE:CD1	2.51	0.41
1:A:416:ARG:NH1	1:A:417:TYR:CE1	2.89	0.41
1:A:709:THR:HG22	1:A:711:ARG:H	1.85	0.41
1:A:722:LEU:N	1:A:722:LEU:HD12	2.25	0.41
2:B:1170:THR:O	2:B:1171:VAL:C	2.59	0.41
2:B:188:ASP:O	2:B:192:LEU:HD12	2.21	0.41
2:B:280:ILE:HD11	2:B:334:ILE:HG12	2.03	0.41
2:B:281:PRO:O	2:B:283:VAL:N	2.54	0.41
2:B:508:LEU:HB3	14:2:1:DA:O3'	2.21	0.41
2:B:571:PRO:O	2:B:574:SER:O	2.38	0.41
2:B:770:GLN:HB2	2:B:985:GLY:H	1.85	0.41
2:B:859:TYR:CD1	2:B:859:TYR:N	2.89	0.41
2:B:887:HIS:H	2:B:887:HIS:CD2	2.37	0.41
3:C:196:ASP:OD1	3:C:198:ALA:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:847:ASP:O	3:C:65:HIS:HE1	2.03	0.41
4:D:32:GLU:O	4:D:33:PHE:CG	2.74	0.41
5:E:13:TRP:CE3	5:E:39:LEU:HD13	2.55	0.41
7:G:14:HIS:HD2	7:G:16:SER:HB3	1.85	0.41
8:H:116:TYR:HE2	8:H:140:ALA:CB	2.33	0.41
11:K:21:ILE:HG12	11:K:33:ILE:HG23	2.02	0.41
1:M:1208:THR:HG22	1:M:1210:GLY:N	2.34	0.41
1:M:591:PHE:HA	1:M:595:THR:CG2	2.39	0.41
1:M:741:ASN:ND2	1:M:741:ASN:C	2.71	0.41
2:N:460:ALA:HB1	2:N:466:TRP:CE3	2.56	0.41
2:N:552:MET:C	2:N:554:ILE:N	2.74	0.41
2:N:52:ASN:O	2:N:56:ASP:HB2	2.21	0.41
2:N:492:LEU:HB2	2:N:751:VAL:HG11	2.03	0.41
2:N:941:LEU:CD2	2:N:946:ASN:HA	2.50	0.41
5:Q:63:ASN:HB3	5:Q:64:PRO:CD	2.51	0.41
7:S:132:SER:HB3	7:S:135:ASP:HB2	2.03	0.41
7:S:59:GLY:HA3	7:S:70:PHE:CD2	2.56	0.41
8:T:95:TYR:CD2	8:T:95:TYR:C	2.94	0.41
11:W:65:HIS:NE2	11:W:67:PHE:CG	2.87	0.41
1:A:1094:VAL:HG13	1:A:1113:THR:CB	2.50	0.41
1:A:145:LYS:HE3	1:A:145:LYS:CA	2.51	0.41
1:A:696:GLU:O	1:A:696:GLU:HG2	2.21	0.41
1:A:705:LYS:HB2	1:A:708:MET:CE	2.50	0.41
2:B:1110:PRO:HB2	2:B:1119:VAL:HG11	2.03	0.41
2:B:128:LEU:HD12	2:B:128:LEU:HA	1.93	0.41
2:B:241:ARG:HG2	2:B:253:THR:HG21	2.01	0.41
2:B:360:PHE:HD2	2:B:374:LYS:HD3	1.85	0.41
2:B:579:ARG:CG	2:B:579:ARG:NH1	2.82	0.41
2:B:63:ILE:HA	2:B:63:ILE:HD12	1.76	0.41
4:D:52:LEU:H	4:D:182:SER:HB3	1.86	0.41
6:F:109:VAL:CG1	6:F:110:ASP:H	2.28	0.41
8:H:105:GLU:O	8:H:112:ILE:HD12	2.21	0.41
10:J:6:ARG:HA	10:J:12:LYS:O	2.21	0.41
11:K:56:VAL:HA	11:K:77:THR:HG22	2.02	0.41
1:M:1161:THR:HG22	1:M:1163:ILE:HG13	2.03	0.41
1:M:1395:GLY:HA3	1:M:1419:ASP:OD2	2.21	0.41
1:M:40:THR:HG21	1:M:259:GLU:OE2	2.21	0.41
1:M:446:ARG:HD2	1:M:480:ALA:HB2	2.03	0.41
1:M:492:PRO:HB3	1:M:497:THR:HG22	2.02	0.41
1:M:553:VAL:HA	1:M:554:PRO:HD2	1.87	0.41
2:N:101:MET:HB3	2:N:109:THR:HG22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1034:VAL:O	2:N:1037:LEU:N	2.53	0.41
2:N:1102:LYS:O	2:N:1103:ILE:C	2.58	0.41
2:N:1104:HIS:ND1	2:N:1105:ALA:N	2.68	0.41
2:N:228:LYS:HD3	2:N:228:LYS:HA	1.85	0.41
2:N:610:ASN:HA	2:N:611:PRO:HD3	1.97	0.41
2:N:654:ARG:NH1	2:N:654:ARG:HG3	2.31	0.41
2:N:637:LEU:HD21	2:N:742:GLU:HA	2.03	0.41
1:M:472:LEU:CD1	2:N:835:GLN:NE2	2.82	0.41
4:P:150:ASN:HB2	4:P:151:PHE:CE1	2.56	0.41
7:S:111:THR:HG22	7:S:114:LEU:CB	2.47	0.41
7:S:111:THR:O	7:S:112:LYS:C	2.59	0.41
7:G:117:GLN:NE2	7:S:153:GLN:HG3	2.34	0.41
7:S:7:LEU:HD13	7:S:45:ILE:HD11	2.03	0.41
9:U:10:CYS:O	9:U:11:ASN:C	2.59	0.41
9:U:6:PHE:CD2	9:U:12:ASN:O	2.73	0.41
9:U:22:ASN:O	9:U:23:ASN:HB2	2.21	0.41
11:W:40:HIS:O	11:W:41:THR:C	2.59	0.41
1:A:1094:VAL:HG13	1:A:1113:THR:HB	2.03	0.41
1:A:1158:PRO:C	1:A:1159:ARG:HG3	2.41	0.41
1:A:541:ILE:HG21	1:A:549:MET:HE3	2.03	0.41
2:B:1085:ILE:HD12	2:B:1085:ILE:N	2.36	0.41
2:B:1159:ARG:HD2	2:B:1159:ARG:O	2.21	0.41
2:B:222:ILE:O	2:B:240:ILE:HA	2.21	0.41
2:B:466:TRP:O	2:B:468:GLU:N	2.53	0.41
2:B:796:LEU:HA	2:B:796:LEU:HD12	1.88	0.41
3:C:34:ARG:O	3:C:38:ILE:HG13	2.21	0.41
4:D:166:LEU:HD23	4:D:214:LEU:HD22	2.03	0.41
5:E:65:THR:O	5:E:69:ILE:CD1	2.68	0.41
7:G:87:VAL:CG2	7:G:103:VAL:HG21	2.51	0.41
11:K:13:GLY:O	11:K:14:GLU:C	2.59	0.41
12:L:27:LEU:HD13	12:L:37:LYS:CG	2.51	0.41
12:L:48:CYS:HB3	12:L:51:CYS:O	2.20	0.41
1:M:1208:THR:O	1:M:1209:MET:C	2.58	0.41
1:M:1212:VAL:O	1:M:1215:ARG:HB2	2.21	0.41
1:M:355:GLY:N	1:M:482:PHE:CZ	2.89	0.41
1:M:445:ASN:HB3	1:M:455:MET:HE2	2.02	0.41
1:M:562:THR:HA	1:M:563:PRO:HD3	1.89	0.41
1:M:532:ARG:NH2	1:M:745:GLN:HG2	2.36	0.41
2:N:1106:ARG:HH12	2:N:1110:PRO:HG2	1.86	0.41
2:N:449:ASN:O	2:N:451:LYS:N	2.53	0.41
2:N:886:LYS:HB2	2:N:890:TYR:OH	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:990:ILE:HG22	2:N:991:GLY:N	2.35	0.41
3:O:75:MET:O	3:O:246:ARG:NH2	2.53	0.41
4:P:155:ARG:HB2	4:P:155:ARG:CZ	2.50	0.41
4:P:155:ARG:HH11	4:P:155:ARG:HB3	1.83	0.41
8:T:145:ARG:O	8:T:146:ARG:CB	2.69	0.41
12:X:37:LYS:HE3	12:X:37:LYS:HB2	1.81	0.41
13:1:27:DC:H2"	13:1:28:DA:C8	2.56	0.41
1:A:1195:LEU:HD11	1:A:1267:MET:CE	2.51	0.41
1:A:550:LEU:HD23	1:A:550:LEU:HA	1.95	0.41
1:A:606:LEU:HG	1:A:613:ILE:HD12	2.02	0.41
1:A:68:GLN:O	1:A:70:CYS:N	2.51	0.41
2:B:1109:GLY:O	2:B:1110:PRO:C	2.59	0.41
2:B:377:PHE:O	2:B:380:TYR:N	2.53	0.41
2:B:469:GLN:HB3	2:B:470:LYS:H	1.53	0.41
2:B:792:MET:CE	2:B:857:ARG:NH2	2.77	0.41
3:C:11:ARG:HE	3:C:21:ILE:HD11	1.86	0.41
3:C:217:ASP:HA	3:C:218:PRO:HD3	1.92	0.41
4:D:12:ARG:NH1	4:D:14:ARG:HG2	2.36	0.41
4:D:25:ALA:HB1	4:D:196:PRO:HG3	2.03	0.41
1:A:1017:LEU:HB2	5:E:206:GLY:N	2.36	0.41
5:E:90:VAL:HG23	5:E:120:ALA:HA	2.02	0.41
7:G:1:MET:SD	7:G:79:PHE:HD1	2.42	0.41
8:H:129:TYR:CD1	8:H:130:ARG:CD	3.03	0.41
8:H:83:GLN:C	8:H:85:GLY:H	2.23	0.41
9:I:55:THR:HG22	9:I:86:PHE:HZ	1.86	0.41
2:B:992:ILE:HD11	11:K:66:PRO:HB2	2.01	0.41
1:M:113:LEU:HD23	1:M:113:LEU:HA	1.95	0.41
1:M:84:ILE:CD1	1:M:270:LEU:HD13	2.51	0.41
1:M:34:LYS:HB2	1:M:36:ARG:NH2	2.36	0.41
1:M:826:ASP:OD1	1:M:827:THR:N	2.54	0.41
1:M:920:LEU:HD23	1:M:920:LEU:C	2.41	0.41
1:M:95:PHE:O	1:M:98:LYS:N	2.54	0.41
2:N:1169:MET:HE1	2:N:1204:PHE:HB2	2.03	0.41
2:N:276:ILE:HD11	2:N:334:ILE:HG23	2.03	0.41
2:N:558:LEU:O	2:N:559:SER:C	2.59	0.41
2:N:641:GLU:C	2:N:643:ASP:H	2.24	0.41
2:N:658:ILE:HG22	2:N:659:ALA:N	2.35	0.41
2:N:886:LYS:HB2	2:N:890:TYR:CE1	2.56	0.41
3:O:112:ASN:CB	3:O:114:TYR:CE1	3.03	0.41
4:P:118:THR:HG21	4:P:121:LYS:HD2	2.03	0.41
4:P:119:ARG:CG	4:P:221:TYR:CZ	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:90:VAL:HG23	5:Q:120:ALA:HA	2.02	0.41
5:Q:69:ILE:N	5:Q:69:ILE:CD1	2.82	0.41
6:R:79:ARG:NH2	6:R:150:GLU:OE1	2.47	0.41
7:S:14:HIS:CE1	7:S:15:PRO:HD2	2.55	0.41
8:T:26:ILE:O	8:T:27:GLU:HG3	2.21	0.41
8:T:51:ALA:O	8:T:52:GLN:CB	2.69	0.41
11:W:7:PHE:C	11:W:7:PHE:CD1	2.95	0.41
12:X:27:LEU:HD13	12:X:37:LYS:HG2	2.03	0.41
13:4:15:DG:C8	13:4:16:DT:H73	2.56	0.40
1:A:1279:ILE:HG23	1:A:1308:THR:OG1	2.21	0.40
1:A:1345:ARG:HD2	1:A:1373:ASP:OD1	2.21	0.40
1:A:179:LEU:HD23	1:A:179:LEU:N	2.36	0.40
1:A:55:ASP:OD1	1:A:57:ARG:HA	2.21	0.40
1:A:673:GLY:O	1:A:676:MET:HB2	2.21	0.40
1:A:878:ILE:CG2	1:A:955:PRO:HB2	2.51	0.40
2:B:1160:VAL:CG1	2:B:1161:HIS:N	2.84	0.40
1:A:335:ARG:NH1	2:B:1206:GLU:OE1	2.55	0.40
2:B:167:ILE:N	2:B:167:ILE:HD12	2.35	0.40
2:B:652:LYS:HD2	2:B:688:GLY:O	2.22	0.40
2:B:910:VAL:CG1	2:B:938:SER:HB3	2.51	0.40
3:C:73:GLN:HB3	3:C:131:HIS:H	1.85	0.40
5:E:190:LEU:C	5:E:191:LYS:HG2	2.42	0.40
5:E:3:GLN:NE2	5:E:52:ARG:HH22	2.18	0.40
5:E:89:GLY:C	5:E:91:LYS:N	2.74	0.40
7:G:132:SER:HB3	7:G:135:ASP:HB2	2.03	0.40
8:H:35:GLN:HB3	8:H:111:LEU:HD21	2.03	0.40
9:I:58:VAL:CG1	9:I:62:ILE:HG21	2.51	0.40
12:L:38:LEU:CG	12:L:39:SER:H	2.27	0.40
1:M:1112:LYS:O	1:M:1114:PRO:CD	2.66	0.40
1:M:1127:ASP:CG	1:M:1130:GLN:CB	2.89	0.40
1:M:130:ASP:O	1:M:131:SER:C	2.59	0.40
1:M:1383:SER:O	1:M:1385:THR:N	2.54	0.40
1:M:225:ASN:HD22	1:M:227:VAL:N	2.19	0.40
1:M:565:ILE:O	1:M:570:PRO:HA	2.21	0.40
1:M:535:THR:HG22	1:M:616:VAL:HA	2.00	0.40
1:M:828:ALA:C	1:M:831:THR:HG22	2.40	0.40
2:N:1064:TYR:O	2:N:1065:GLN:C	2.59	0.40
1:M:341:MET:CE	2:N:1135:ARG:NH1	2.84	0.40
2:N:460:ALA:HB1	2:N:466:TRP:CZ3	2.55	0.40
2:N:570:VAL:CG2	2:N:573:GLN:HB3	2.51	0.40
2:N:593:PRO:O	2:N:595:ARG:N	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:766:ARG:HD3	2:N:766:ARG:HA	1.80	0.40
3:O:31:ASN:O	3:O:34:ARG:HB3	2.22	0.40
4:P:14:ARG:NH1	4:P:16:LYS:HG2	2.35	0.40
4:P:8:PHE:CD1	4:P:38:ILE:O	2.74	0.40
4:P:41:GLN:N	4:P:41:GLN:NE2	2.69	0.40
5:Q:136:ASN:OD1	5:Q:138:ALA:N	2.54	0.40
5:Q:13:TRP:O	5:Q:16:PHE:HB3	2.21	0.40
9:U:80:SER:HB2	9:U:103:CYS:SG	2.61	0.40
9:U:77:LYS:C	9:U:79:HIS:H	2.24	0.40
11:W:6:ARG:O	11:W:9:LEU:HG	2.21	0.40
12:X:53:HIS:O	12:X:55:ILE:HD13	2.21	0.40
1:A:1081:LEU:CD1	1:A:1097:GLY:HA3	2.51	0.40
1:A:1264:GLU:OE2	9:I:46:HIS:HD2	2.05	0.40
1:A:320:ARG:HA	1:A:321:PRO:HD3	1.91	0.40
1:A:650:GLN:O	1:A:654:ASN:HB2	2.21	0.40
1:A:996:ASN:HA	1:A:998:LEU:HD12	2.03	0.40
2:B:102:VAL:HG23	2:B:112:LEU:CB	2.25	0.40
2:B:1064:TYR:O	2:B:1065:GLN:C	2.59	0.40
2:B:59:LEU:HG	2:B:95:ILE:HD13	2.03	0.40
3:C:215:GLU:O	3:C:217:ASP:N	2.54	0.40
4:D:40:HIS:C	4:D:42:GLY:H	2.24	0.40
5:E:207:ARG:HB3	5:E:207:ARG:NH1	2.31	0.40
1:A:598:LEU:HA	8:H:122:LEU:HD13	2.03	0.40
9:I:88:SER:HB3	9:I:95:THR:HG21	2.02	0.40
1:M:1005:GLU:O	1:M:1009:ASN:ND2	2.54	0.40
1:M:1157:ASP:O	1:M:1159:ARG:N	2.49	0.40
1:M:1279:ILE:HG23	1:M:1308:THR:OG1	2.20	0.40
1:M:1323:ASP:C	1:M:1325:THR:H	2.24	0.40
1:M:1402:PHE:CE2	1:M:1403:GLU:CG	3.04	0.40
1:M:320:ARG:HE	1:M:323:LYS:NZ	2.20	0.40
1:M:332:LYS:O	1:M:334:GLY:N	2.54	0.40
1:M:871:ASP:OD1	1:M:1366:ARG:NH2	2.54	0.40
1:M:963:ILE:HD11	1:M:1049:ILE:N	2.36	0.40
2:N:1200:ALA:O	2:N:1201:LYS:C	2.60	0.40
2:N:466:TRP:O	2:N:468:GLU:N	2.53	0.40
2:N:617:ARG:HA	2:N:624:LEU:HD12	2.03	0.40
2:N:782:LEU:HB3	2:N:784:ASN:OD1	2.21	0.40
3:O:239:PRO:O	3:O:242:GLN:HB2	2.21	0.40
4:P:121:LYS:HA	4:P:124:GLU:OE2	2.20	0.40
4:P:151:PHE:HD1	4:P:151:PHE:N	2.04	0.40
5:Q:11:ARG:C	5:Q:13:TRP:N	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:102:GLN:HG3	7:S:106:MET:O	2.21	0.40
9:U:73:ARG:NH1	9:U:101:PHE:CZ	2.89	0.40
9:U:58:VAL:O	9:U:58:VAL:HG12	2.21	0.40
1:M:369:SER:HB3	11:W:2:ASN:HD21	1.86	0.40
12:X:38:LEU:CG	12:X:39:SER:H	2.29	0.40
1:A:850:VAL:HG21	1:A:1058:VAL:HG11	2.04	0.40
1:A:1143:LEU:O	1:A:1146:VAL:HG22	2.21	0.40
1:A:196:GLU:HG2	1:A:197:PRO:CD	2.52	0.40
1:A:347:PHE:H	2:B:1107:ALA:HA	1.87	0.40
1:A:55:ASP:OD2	1:A:55:ASP:O	2.39	0.40
1:A:698:GLN:NE2	9:I:99:LEU:HD11	2.37	0.40
1:A:752:LYS:HD3	1:A:752:LYS:HA	1.93	0.40
2:B:1045:SER:O	2:B:1046:PRO:O	2.39	0.40
1:A:1410:PHE:HD2	2:B:1212:ILE:CD1	2.33	0.40
2:B:129:PHE:CE2	2:B:166:PHE:CD1	3.10	0.40
2:B:211:VAL:HG21	2:B:483:LEU:HD13	2.04	0.40
2:B:722:ASP:HB3	2:B:723:VAL:H	1.58	0.40
2:B:780:VAL:HG21	10:J:56:LEU:CD1	2.47	0.40
2:B:838:SER:HA	2:B:989:THR:O	2.21	0.40
2:B:847:ASP:HB3	3:C:167:HIS:NE2	2.37	0.40
2:B:945:GLU:O	2:B:946:ASN:HB3	2.21	0.40
2:B:996:ARG:HH12	3:C:174:ALA:CA	2.24	0.40
3:C:111:THR:O	3:C:147:LEU:HD23	2.20	0.40
3:C:128:ASN:O	3:C:129:ILE:HG13	2.21	0.40
1:M:967:ALA:HB2	1:M:1045:VAL:HG22	2.03	0.40
1:M:1350:LYS:O	1:M:1354:ASN:ND2	2.54	0.40
1:M:316:GLN:HG2	1:M:317:LYS:H	1.85	0.40
1:M:843:LYS:HD3	1:M:843:LYS:HA	1.76	0.40
2:N:222:ILE:N	2:N:240:ILE:CD1	2.85	0.40
2:N:624:LEU:HA	2:N:624:LEU:HD12	1.92	0.40
3:O:133:ILE:CD1	3:O:236:GLY:C	2.89	0.40
3:O:34:ARG:O	3:O:38:ILE:HG13	2.22	0.40
4:P:56:ARG:HB2	4:P:148:LEU:HD22	2.03	0.40
5:Q:90:VAL:HB	5:Q:117:THR:HG21	2.04	0.40
7:S:90:THR:CG2	7:S:91:VAL:N	2.84	0.40
1:A:1291:VAL:HG22	1:A:1292:PRO:CD	2.51	0.40
1:A:349:ALA:CB	1:A:374:LEU:HD11	2.52	0.40
1:A:436:ILE:HD11	1:A:491:VAL:HG11	2.03	0.40
1:A:444:PHE:HB2	1:A:458:HIS:HD2	1.86	0.40
1:A:675:THR:O	1:A:675:THR:HG22	2.22	0.40
1:A:996:ASN:HA	1:A:998:LEU:CD1	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1158:PHE:CE2	2:B:1160:VAL:HG22	2.56	0.40
2:B:189:LEU:HD13	2:B:196:PRO:HA	2.03	0.40
2:B:204:ILE:HG22	2:B:204:ILE:O	2.21	0.40
2:B:345:LYS:HE2	2:B:349:ILE:HD11	2.01	0.40
2:B:211:VAL:CG1	2:B:495:LEU:HD23	2.51	0.40
2:B:654:ARG:O	2:B:657:HIS:HB2	2.22	0.40
2:B:813:LYS:HD2	2:B:816:GLU:OE1	2.21	0.40
2:B:90:ILE:HD12	2:B:432:MET:CE	2.51	0.40
2:B:847:ASP:OD2	3:C:167:HIS:HD2	2.03	0.40
4:D:54:GLU:OE1	4:D:164:ILE:HD11	2.21	0.40
5:E:102:GLU:C	5:E:104:ASN:N	2.73	0.40
5:E:127:ILE:N	5:E:128:PRO:CD	2.84	0.40
6:F:69:LEU:HB3	6:F:71:GLU:HG3	2.03	0.40
8:H:26:ILE:HD11	8:H:49:VAL:CG1	2.51	0.40
10:J:56:LEU:O	10:J:57:ILE:C	2.60	0.40
1:M:1153:TYR:HB2	1:M:1192:LEU:HD23	2.03	0.40
1:M:1222:ASN:O	1:M:1223:ASP:HB3	2.21	0.40
1:M:1291:VAL:CG2	1:M:1292:PRO:CD	2.99	0.40
1:M:254:GLU:HB3	1:M:255:SER:H	1.49	0.40
1:M:347:PHE:H	2:N:1107:ALA:HA	1.86	0.40
1:M:500:GLU:O	1:M:504:LEU:HB2	2.21	0.40
1:M:566:ILE:O	1:M:567:LYS:O	2.40	0.40
2:N:984:HIS:NE2	2:N:1025:HIS:HA	2.37	0.40
2:N:269:ILE:CG2	2:N:282:ILE:HD13	2.52	0.40
2:N:323:VAL:O	2:N:324:ILE:HG13	2.21	0.40
2:N:364:ILE:HG22	2:N:365:THR:N	2.37	0.40
2:N:40:GLU:OE1	2:N:681:TRP:HB3	2.22	0.40
2:N:39:ARG:NH2	2:N:665:GLU:OE1	2.48	0.40
2:N:905:VAL:HG23	2:N:941:LEU:HD22	2.04	0.40
2:N:979:LYS:HG2	2:N:1095:LEU:CD1	2.51	0.40
1:M:870:GLU:HB2	5:Q:204:THR:HG21	2.03	0.40
6:R:109:VAL:HG12	6:R:110:ASP:H	1.83	0.40
8:T:27:GLU:CG	8:T:39:THR:HG23	2.51	0.40
8:T:83:GLN:C	8:T:85:GLY:H	2.24	0.40
3:O:245:VAL:HG13	11:W:102:LYS:HG3	2.04	0.40
12:X:55:ILE:O	12:X:56:LEU:HB2	2.21	0.40
13:1:15:DG:C8	13:1:16:DT:C7	3.05	0.40
1:A:1202:MET:CE	1:A:1212:VAL:HG21	2.52	0.40
1:A:1265:ASN:C	1:A:1267:MET:N	2.73	0.40
1:A:1339:LEU:HD13	5:E:147:HIS:CG	2.56	0.40
1:A:1349:TYR:HA	1:A:1372:VAL:HG21	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:367:PRO:HB3	1:A:465:TYR:O	2.22	0.40
1:A:33:ALA:CA	1:A:57:ARG:HH12	2.23	0.40
1:A:783:THR:HG21	1:A:796:SER:O	2.20	0.40
1:A:905:ASP:O	1:A:906:HIS:ND1	2.55	0.40
2:B:1110:PRO:C	2:B:1119:VAL:HG13	2.42	0.40
2:B:273:LEU:HA	2:B:274:PRO:HD2	1.93	0.40
2:B:277:LYS:HG2	2:B:336:ARG:CB	2.44	0.40
2:B:601:ARG:HD3	2:B:605:ARG:NH2	2.36	0.40
2:B:811:TYR:N	2:B:811:TYR:CD1	2.89	0.40
2:B:908:GLU:O	2:B:909:ASP:C	2.59	0.40
2:B:976:ILE:O	2:B:990:ILE:HB	2.21	0.40
3:C:46:ILE:HD12	3:C:67:LEU:O	2.22	0.40
4:D:156:ASP:C	4:D:158:GLU:N	2.74	0.40
5:E:63:ASN:HB3	5:E:64:PRO:CD	2.52	0.40
6:F:81:THR:HG23	6:F:144:GLU:OE2	2.22	0.40
6:F:148:VAL:O	6:F:149:GLU:C	2.60	0.40
8:H:93:TYR:HB3	8:H:144:ILE:O	2.20	0.40
3:C:252:GLN:CG	11:K:95:ILE:HG23	2.51	0.40
1:M:1048:ASN:N	1:M:1048:ASN:ND2	2.70	0.40
1:M:1241:ARG:O	1:M:1242:VAL:HG23	2.22	0.40
1:M:1436:ILE:HG21	1:M:1436:ILE:HD13	1.91	0.40
1:M:705:LYS:HB2	1:M:708:MET:HE2	2.03	0.40
1:M:752:LYS:HD3	1:M:752:LYS:HA	1.86	0.40
1:M:831:THR:HG23	1:M:832:ALA:N	2.37	0.40
1:M:896:ARG:HB3	1:M:897:TYR:CD1	2.57	0.40
2:N:1221:SER:O	2:N:1223:ASP:N	2.55	0.40
2:N:377:PHE:O	2:N:380:TYR:N	2.54	0.40
2:N:212:LEU:HD21	2:N:466:TRP:CH2	2.56	0.40
2:N:629:ASP:HB3	2:N:632:ARG:CD	2.51	0.40
2:N:654:ARG:O	2:N:656:GLY:N	2.55	0.40
2:N:810:GLU:CA	2:N:815:ARG:HH22	2.35	0.40
2:N:826:ALA:HB2	2:N:1087:PHE:CE2	2.57	0.40
2:N:911:ILE:HG21	2:N:966:VAL:HG11	2.01	0.40
2:N:98:THR:O	2:N:126:SER:CB	2.69	0.40
3:O:184:ASN:OD1	3:O:187:LYS:CA	2.69	0.40
5:Q:48:ASP:OD1	5:Q:52:ARG:HB2	2.22	0.40
8:T:36:CYS:HA	8:T:126:GLU:O	2.22	0.40
11:W:37:LYS:O	11:W:38:GLU:HG2	2.21	0.40
11:W:47:ARG:HB3	11:W:47:ARG:NH1	2.28	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1406/1733 (81%)	1075 (76%)	225 (16%)	106 (8%)	1	7
1	M	1406/1733 (81%)	1073 (76%)	228 (16%)	105 (8%)	1	7
2	B	1082/1224 (88%)	800 (74%)	186 (17%)	96 (9%)	1	4
2	N	1082/1224 (88%)	798 (74%)	186 (17%)	98 (9%)	1	3
3	C	264/318 (83%)	202 (76%)	41 (16%)	21 (8%)	1	6
3	O	264/318 (83%)	203 (77%)	42 (16%)	19 (7%)	1	7
4	D	174/221 (79%)	120 (69%)	37 (21%)	17 (10%)	0	3
4	P	174/221 (79%)	122 (70%)	34 (20%)	18 (10%)	0	3
5	E	212/215 (99%)	155 (73%)	41 (19%)	16 (8%)	1	7
5	Q	212/215 (99%)	159 (75%)	37 (18%)	16 (8%)	1	7
6	F	85/155 (55%)	72 (85%)	11 (13%)	2 (2%)	6	34
6	R	85/155 (55%)	72 (85%)	11 (13%)	2 (2%)	6	34
7	G	169/171 (99%)	141 (83%)	23 (14%)	5 (3%)	4	28
7	S	169/171 (99%)	139 (82%)	23 (14%)	7 (4%)	3	21
8	H	130/146 (89%)	85 (65%)	25 (19%)	20 (15%)	0	1
8	T	130/146 (89%)	85 (65%)	25 (19%)	20 (15%)	0	1
9	I	117/122 (96%)	77 (66%)	28 (24%)	12 (10%)	0	3
9	U	117/122 (96%)	78 (67%)	28 (24%)	11 (9%)	0	3
10	J	63/70 (90%)	43 (68%)	9 (14%)	11 (18%)	0	0
10	V	63/70 (90%)	42 (67%)	10 (16%)	11 (18%)	0	0
11	K	112/120 (93%)	89 (80%)	20 (18%)	3 (3%)	5	30
11	W	112/120 (93%)	89 (80%)	19 (17%)	4 (4%)	3	23
12	L	44/70 (63%)	19 (43%)	15 (34%)	10 (23%)	0	0
12	X	44/70 (63%)	19 (43%)	15 (34%)	10 (23%)	0	0
All	All	7716/9130 (84%)	5757 (75%)	1319 (17%)	640 (8%)	1	5

All (640) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	4	GLN
1	A	43	GLU
1	A	57	ARG
1	A	62	ASP
1	A	63	ARG
1	A	67	CYS
1	A	70	CYS
1	A	130	ASP
1	A	250	ILE
1	A	255	SER
1	A	257	ARG
1	A	286	HIS
1	A	311	GLN
1	A	318	SER
1	A	332	LYS
1	A	399	HIS
1	A	410	GLY
1	A	423	ASP
1	A	517	ASN
1	A	567	LYS
1	A	597	LEU
1	A	1112	LYS
1	A	1114	PRO
1	A	1120	LEU
1	A	1122	PRO
1	A	1124	HIS
1	A	1223	ASP
1	A	1233	ASP
1	A	1242	VAL
1	A	1255	GLU
1	A	1281	ARG
1	A	1403	GLU
1	A	1438	THR
2	B	21	GLU
2	B	67	SER
2	B	68	THR
2	B	108	VAL
2	B	124	TYR
2	B	186	GLU
2	B	291	ILE
2	B	295	GLY
2	B	334	ILE

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Mol	Chain	Res	Type
2	B	365	THR
2	B	367	LEU
2	B	391	ASP
2	B	435	THR
2	B	468	GLU
2	B	509	ALA
2	B	643	ASP
2	B	708	GLU
2	B	709	ASP
2	B	728	ARG
2	B	731	VAL
2	B	734	HIS
2	B	907	GLY
2	B	958	GLN
2	B	1046	PRO
2	B	1156	ASP
2	B	1175	LEU
3	C	110	THR
3	C	141	GLY
3	C	184	ASN
3	C	209	TYR
3	C	215	GLU
4	D	5	THR
4	D	8	PHE
4	D	17	LYS
4	D	19	GLU
4	D	52	LEU
4	D	218	GLU
5	E	45	LYS
5	E	115	ASN
5	E	129	PRO
5	E	130	ALA
7	G	139	ILE
8	H	77	ARG
8	H	82	PRO
8	H	128	ASN
8	H	140	ALA
9	I	11	ASN
9	I	78	CYS
10	J	2	ILE
10	J	55	ASP
10	J	64	ASN

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Mol	Chain	Res	Type
12	L	27	LEU
12	L	50	ASP
12	L	53	HIS
12	L	59	ALA
12	L	60	ARG
1	M	4	GLN
1	M	43	GLU
1	M	57	ARG
1	M	62	ASP
1	M	63	ARG
1	M	67	CYS
1	M	70	CYS
1	M	130	ASP
1	M	250	ILE
1	M	255	SER
1	M	257	ARG
1	M	286	HIS
1	M	311	GLN
1	M	318	SER
1	M	332	LYS
1	M	399	HIS
1	M	410	GLY
1	M	423	ASP
1	M	453	MET
1	M	517	ASN
1	M	567	LYS
1	M	597	LEU
1	M	1112	LYS
1	M	1114	PRO
1	M	1120	LEU
1	M	1122	PRO
1	M	1124	HIS
1	M	1223	ASP
1	M	1233	ASP
1	M	1242	VAL
1	M	1255	GLU
1	M	1281	ARG
1	M	1403	GLU
1	M	1438	THR
2	N	21	GLU
2	N	67	SER
2	N	68	THR

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Mol	Chain	Res	Type
2	N	108	VAL
2	N	124	TYR
2	N	186	GLU
2	N	258	LEU
2	N	334	ILE
2	N	365	THR
2	N	367	LEU
2	N	391	ASP
2	N	435	THR
2	N	468	GLU
2	N	509	ALA
2	N	643	ASP
2	N	708	GLU
2	N	709	ASP
2	N	728	ARG
2	N	731	VAL
2	N	734	HIS
2	N	907	GLY
2	N	958	GLN
2	N	1046	PRO
2	N	1069	PHE
2	N	1097	HIS
2	N	1156	ASP
2	N	1175	LEU
3	O	110	THR
3	O	141	GLY
3	O	184	ASN
3	O	215	GLU
3	O	216	GLY
4	P	5	THR
4	P	8	PHE
4	P	17	LYS
4	P	19	GLU
4	P	218	GLU
5	Q	45	LYS
5	Q	115	ASN
5	Q	129	PRO
5	Q	130	ALA
7	S	139	ILE
8	T	77	ARG
8	T	82	PRO
8	T	107	VAL

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Mol	Chain	Res	Type
8	T	128	ASN
8	T	140	ALA
9	U	11	ASN
9	U	78	CYS
9	U	106	CYS
10	V	2	ILE
10	V	55	ASP
10	V	64	ASN
12	X	27	LEU
12	X	50	ASP
12	X	59	ALA
12	X	60	ARG
1	A	41	MET
1	A	42	ASP
1	A	54	ASN
1	A	59	GLY
1	A	61	ILE
1	A	66	LYS
1	A	76	GLU
1	A	154	SER
1	A	167	CYS
1	A	253	ASN
1	A	314	ALA
1	A	322	VAL
1	A	331	GLY
1	A	424	ILE
1	A	453	MET
1	A	525	GLN
1	A	821	ARG
1	A	958	VAL
1	A	1002	GLY
1	A	1123	GLY
1	A	1139	GLU
1	A	1221	LYS
1	A	1308	THR
1	A	1314	SER
2	B	28	GLU
2	B	65	GLU
2	B	206	ASN
2	B	257	LYS
2	B	258	LEU
2	B	264	SER

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Mol	Chain	Res	Type
2	B	294	ASP
2	B	369	GLY
2	B	448	ILE
2	B	450	ALA
2	B	466	TRP
2	B	467	GLY
2	B	531	GLN
2	B	591	ARG
2	B	619	ILE
2	B	641	GLU
2	B	642	ASP
2	B	751	VAL
2	B	777	ALA
2	B	848	ARG
2	B	869	SER
2	B	879	ARG
2	B	943	SER
2	B	992	ILE
2	B	1069	PHE
2	B	1097	HIS
2	B	1155	SER
2	B	1176	ASN
3	C	126	GLY
3	C	149	LYS
3	C	216	GLY
3	C	237	SER
4	D	14	ARG
4	D	119	ARG
4	D	131	GLU
4	D	198	LEU
4	D	199	ASN
5	E	36	GLU
5	E	74	ASP
5	E	106	GLN
6	F	112	GLU
7	G	154	VAL
8	H	12	VAL
8	H	17	PRO
8	H	32	THR
8	H	59	ILE
8	H	62	SER
8	H	92	ASP

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Mol	Chain	Res	Type
8	H	107	VAL
8	H	108	SER
8	H	134	ASN
9	I	54	GLU
9	I	57	GLY
9	I	59	VAL
9	I	62	ILE
9	I	79	HIS
9	I	106	CYS
10	J	6	ARG
10	J	24	LEU
10	J	28	ASP
10	J	42	LYS
10	J	62	ARG
12	L	28	LYS
12	L	35	SER
1	M	41	MET
1	M	42	ASP
1	M	54	ASN
1	M	61	ILE
1	M	66	LYS
1	M	76	GLU
1	M	167	CYS
1	M	219	PHE
1	M	253	ASN
1	M	314	ALA
1	M	322	VAL
1	M	331	GLY
1	M	424	ILE
1	M	525	GLN
1	M	789	LYS
1	M	821	ARG
1	M	1002	GLY
1	M	1123	GLY
1	M	1169	ILE
1	M	1221	LYS
1	M	1308	THR
1	M	1314	SER
2	N	28	GLU
2	N	46	GLN
2	N	65	GLU
2	N	206	ASN

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Mol	Chain	Res	Type
2	N	257	LYS
2	N	259	TYR
2	N	264	SER
2	N	291	ILE
2	N	294	ASP
2	N	295	GLY
2	N	369	GLY
2	N	448	ILE
2	N	449	ASN
2	N	450	ALA
2	N	466	TRP
2	N	467	GLY
2	N	531	GLN
2	N	591	ARG
2	N	619	ILE
2	N	641	GLU
2	N	642	ASP
2	N	655	LYS
2	N	751	VAL
2	N	777	ALA
2	N	869	SER
2	N	879	ARG
2	N	943	SER
2	N	992	ILE
2	N	1155	SER
2	N	1176	ASN
3	O	126	GLY
3	O	149	LYS
3	O	209	TYR
3	O	237	SER
4	P	14	ARG
4	P	16	LYS
4	P	52	LEU
4	P	119	ARG
4	P	131	GLU
4	P	198	LEU
5	Q	36	GLU
5	Q	74	ASP
5	Q	106	GLN
7	S	154	VAL
8	T	17	PRO
8	T	32	THR

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Mol	Chain	Res	Type
8	T	59	ILE
8	T	62	SER
8	T	92	ASP
8	T	108	SER
8	T	134	ASN
9	U	8	ARG
9	U	54	GLU
9	U	57	GLY
9	U	59	VAL
9	U	62	ILE
9	U	79	HIS
10	V	6	ARG
10	V	24	LEU
10	V	28	ASP
10	V	62	ARG
11	W	53	ASP
12	X	28	LYS
12	X	35	SER
12	X	53	HIS
1	A	48	ALA
1	A	65	LEU
1	A	69	THR
1	A	93	VAL
1	A	128	ILE
1	A	138	ILE
1	A	219	PHE
1	A	400	PRO
1	A	789	LYS
1	A	795	GLU
1	A	846	GLU
1	A	986	ILE
1	A	1140	HIS
1	A	1231	ASP
1	A	1309	ASP
1	A	1405	THR
1	A	1448	GLU
2	B	24	PRO
2	B	27	ALA
2	B	46	GLN
2	B	58	THR
2	B	245	GLU
2	B	259	TYR

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Mol	Chain	Res	Type
2	B	433	GLN
2	B	449	ASN
2	B	559	SER
2	B	711	GLU
2	B	738	PHE
2	B	746	SER
2	B	906	SER
2	B	938	SER
2	B	1103	ILE
2	B	1222	ARG
3	C	90	ASP
3	C	132	PRO
3	C	148	ARG
3	C	213	PRO
4	D	15	LEU
4	D	16	LYS
4	D	21	GLU
4	D	168	LYS
5	E	44	ALA
5	E	92	THR
8	H	139	ASN
9	I	8	ARG
10	J	14	VAL
10	J	29	GLU
11	K	14	GLU
11	K	53	ASP
12	L	26	THR
1	M	48	ALA
1	M	58	LEU
1	M	59	GLY
1	M	65	LEU
1	M	93	VAL
1	M	154	SER
1	M	400	PRO
1	M	415	LEU
1	M	479	ASN
1	M	795	GLU
1	M	846	GLU
1	M	958	VAL
1	M	963	ILE
1	M	986	ILE
1	M	1115	SER

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Mol	Chain	Res	Type
1	M	1139	GLU
1	M	1140	HIS
1	M	1231	ASP
1	M	1309	ASP
1	M	1405	THR
1	M	1448	GLU
2	N	24	PRO
2	N	27	ALA
2	N	58	THR
2	N	245	GLU
2	N	282	ILE
2	N	433	GLN
2	N	559	SER
2	N	711	GLU
2	N	738	PHE
2	N	746	SER
2	N	810	GLU
2	N	848	ARG
2	N	906	SER
2	N	938	SER
2	N	1103	ILE
2	N	1222	ARG
3	O	90	ASP
3	O	132	PRO
3	O	148	ARG
3	O	213	PRO
4	P	15	LEU
4	P	53	SER
4	P	168	LYS
4	P	199	ASN
5	Q	44	ALA
6	R	112	GLU
7	S	136	VAL
8	T	139	ASN
10	V	42	LYS
11	W	14	GLU
12	X	26	THR
1	A	256	GLN
1	A	312	PRO
1	A	415	LEU
1	A	479	ASN
1	A	591	PHE

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Mol	Chain	Res	Type
1	A	1168	GLU
1	A	1169	ILE
1	A	1280	GLU
1	A	1316	VAL
2	B	45	SER
2	B	114	PRO
2	B	282	ILE
2	B	323	VAL
2	B	575	PRO
2	B	636	PRO
2	B	655	LYS
2	B	792	MET
2	B	810	GLU
2	B	818	PRO
2	B	1017	ILE
2	B	1108	ARG
2	B	1171	VAL
2	B	1181	GLU
3	C	12	GLU
3	C	142	VAL
5	E	192	ARG
6	F	128	LYS
8	H	52	GLN
8	H	81	PRO
8	H	90	ALA
8	H	91	ASP
9	I	9	ASP
12	L	40	LEU
1	M	69	THR
1	M	96	ILE
1	M	138	ILE
1	M	256	GLN
1	M	312	PRO
1	M	591	PHE
1	M	1168	GLU
1	M	1280	GLU
1	M	1316	VAL
2	N	114	PRO
2	N	323	VAL
2	N	575	PRO
2	N	636	PRO
2	N	705	MET

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Mol	Chain	Res	Type
2	N	792	MET
2	N	946	ASN
2	N	1017	ILE
2	N	1181	GLU
3	O	142	VAL
4	P	21	GLU
4	P	192	LYS
5	Q	3	GLN
5	Q	92	THR
5	Q	192	ARG
8	T	12	VAL
8	T	52	GLN
8	T	81	PRO
8	T	90	ALA
8	T	91	ASP
8	T	95	TYR
9	U	9	ASP
9	U	56	ALA
10	V	14	VAL
10	V	17	LYS
10	V	29	GLU
12	X	40	LEU
1	A	58	LEU
1	A	72	GLU
1	A	96	ILE
1	A	556	TRP
1	A	780	VAL
1	A	884	ASP
1	A	963	ILE
1	A	1390	ASN
2	B	680	THR
2	B	1157	ALA
3	C	11	ARG
3	C	48	SER
3	C	172	PRO
3	C	214	ASN
4	D	53	SER
4	D	75	LYS
5	E	3	GLN
5	E	73	PRO
7	G	20	PRO
7	G	113	HIS

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Mol	Chain	Res	Type
7	G	136	VAL
8	H	95	TYR
9	I	56	ALA
10	J	17	LYS
11	K	107	THR
1	M	128	ILE
1	M	145	LYS
1	M	556	TRP
1	M	1149	ALA
1	M	1390	ASN
2	N	45	SER
2	N	55	VAL
2	N	56	ASP
2	N	461	LEU
2	N	561	TRP
2	N	1157	ALA
2	N	1171	VAL
3	O	11	ARG
3	O	240	VAL
4	P	75	LYS
5	Q	154	ILE
6	R	128	LYS
7	S	112	LYS
7	S	113	HIS
11	W	64	GLU
11	W	107	THR
1	A	35	ILE
1	A	51	GLY
1	A	357	PRO
1	A	599	SER
1	A	972	HIS
1	A	1174	PHE
2	B	55	VAL
2	B	56	ASP
2	B	461	LEU
2	B	946	ASN
2	B	1214	PRO
5	E	40	GLU
5	E	154	ILE
9	I	3	THR
1	M	35	ILE
1	M	51	GLY

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Mol	Chain	Res	Type
1	M	284	ALA
1	M	599	SER
1	M	972	HIS
1	M	1278	ASN
2	N	249	ARG
2	N	594	ALA
2	N	680	THR
2	N	1214	PRO
3	O	175	ALA
3	O	214	ASN
5	Q	73	PRO
7	S	20	PRO
7	S	128	PRO
2	B	1110	PRO
3	C	240	VAL
5	E	51	GLY
5	E	64	PRO
8	H	44	VAL
1	M	283	GLY
1	M	780	VAL
1	M	948	VAL
3	O	172	PRO
5	Q	51	GLY
8	T	44	VAL
1	A	283	GLY
1	A	284	ALA
1	A	308	ILE
1	A	948	VAL
2	B	1018	PRO
12	L	46	VAL
1	M	308	ILE
1	M	357	PRO
2	N	100	PRO
2	N	818	PRO
5	Q	64	PRO
12	X	46	VAL
1	A	231	PRO
2	B	613	VAL
3	C	176	ILE
1	M	364	VAL
2	N	1018	PRO
2	N	1110	PRO

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Mol	Chain	Res	Type
5	Q	76	GLY
1	A	196	GLU
1	A	336	ILE
1	A	364	VAL
2	B	553	PRO
1	M	196	GLU
2	N	260	GLY
1	A	693	VAL
2	B	100	PRO
1	M	231	PRO

5.3.2 Protein sidechains ⓘ

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

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	1239/1520 (82%)	1116 (90%)	123 (10%)	8	30
1	M	1239/1520 (82%)	1107 (89%)	132 (11%)	6	27
2	B	958/1061 (90%)	860 (90%)	98 (10%)	7	29
2	N	958/1061 (90%)	853 (89%)	105 (11%)	6	26
3	C	234/274 (85%)	212 (91%)	22 (9%)	8	33
3	O	234/274 (85%)	207 (88%)	27 (12%)	5	24
4	D	160/200 (80%)	136 (85%)	24 (15%)	3	14
4	P	160/200 (80%)	127 (79%)	33 (21%)	1	6
5	E	196/197 (100%)	183 (93%)	13 (7%)	16	51
5	Q	196/197 (100%)	184 (94%)	12 (6%)	18	54
6	F	77/137 (56%)	71 (92%)	6 (8%)	12	43
6	R	77/137 (56%)	72 (94%)	5 (6%)	17	51
7	G	152/152 (100%)	140 (92%)	12 (8%)	12	43
7	S	152/152 (100%)	134 (88%)	18 (12%)	5	23
8	H	118/128 (92%)	105 (89%)	13 (11%)	6	26
8	T	118/128 (92%)	108 (92%)	10 (8%)	10	38

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	I	113/116 (97%)	101 (89%)	12 (11%)	6	27
9	U	113/116 (97%)	103 (91%)	10 (9%)	10	36
10	J	60/65 (92%)	51 (85%)	9 (15%)	3	14
10	V	60/65 (92%)	53 (88%)	7 (12%)	5	23
11	K	99/102 (97%)	94 (95%)	5 (5%)	24	60
11	W	99/102 (97%)	90 (91%)	9 (9%)	9	34
12	L	40/57 (70%)	34 (85%)	6 (15%)	3	14
12	X	40/57 (70%)	33 (82%)	7 (18%)	2	9
All	All	6892/8018 (86%)	6174 (90%)	718 (10%)	7	28

All (718) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	18	GLN
1	A	34	LYS
1	A	37	PHE
1	A	41	MET
1	A	53	LEU
1	A	68	GLN
1	A	70	CYS
1	A	83	HIS
1	A	93	VAL
1	A	110	CYS
1	A	121	LEU
1	A	141	LEU
1	A	145	LYS
1	A	157	ASP
1	A	160	GLN
1	A	173	THR
1	A	182	VAL
1	A	185	TRP
1	A	200	ARG
1	A	207	ILE
1	A	208	LEU
1	A	219	PHE
1	A	221	SER
1	A	225	ASN
1	A	230	ARG
1	A	231	PRO

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Mol	Chain	Res	Type
1	A	265	LYS
1	A	282	ASN
1	A	287	HIS
1	A	297	GLN
1	A	302	THR
1	A	320	ARG
1	A	322	VAL
1	A	324	SER
1	A	337	ARG
1	A	344	ARG
1	A	385	ILE
1	A	394	ASN
1	A	408	ASP
1	A	425	GLN
1	A	434	ARG
1	A	443	LEU
1	A	445	ASN
1	A	449	SER
1	A	451	HIS
1	A	469	ARG
1	A	470	LEU
1	A	475	THR
1	A	479	ASN
1	A	481	ASP
1	A	486	GLU
1	A	489	LEU
1	A	493	GLN
1	A	503	GLN
1	A	505	CYS
1	A	512	VAL
1	A	538	ASP
1	A	597	LEU
1	A	618	GLU
1	A	629	LEU
1	A	631	HIS
1	A	635	ARG
1	A	666	ILE
1	A	670	ILE
1	A	680	THR
1	A	685	GLU
1	A	690	VAL
1	A	710	LEU

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Mol	Chain	Res	Type
1	A	727	ASP
1	A	738	LYS
1	A	739	ASP
1	A	741	ASN
1	A	762	SER
1	A	774	ARG
1	A	783	THR
1	A	805	LEU
1	A	821	ARG
1	A	827	THR
1	A	834	THR
1	A	838	GLN
1	A	855	THR
1	A	858	ASN
1	A	903	ASN
1	A	906	HIS
1	A	907	THR
1	A	937	VAL
1	A	961	ARG
1	A	976	THR
1	A	978	PRO
1	A	983	ILE
1	A	1005	GLU
1	A	1029	ARG
1	A	1033	GLN
1	A	1036	ARG
1	A	1047	SER
1	A	1095	THR
1	A	1114	PRO
1	A	1116	LEU
1	A	1122	PRO
1	A	1124	HIS
1	A	1129	GLU
1	A	1170	ILE
1	A	1171	GLN
1	A	1193	LEU
1	A	1217	LYS
1	A	1257	ASP
1	A	1264	GLU
1	A	1270	ASN
1	A	1280	GLU
1	A	1288	ASP

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Mol	Chain	Res	Type
1	A	1295	THR
1	A	1297	GLU
1	A	1299	VAL
1	A	1325	THR
1	A	1333	ILE
1	A	1353	TYR
1	A	1370	LEU
1	A	1377	THR
1	A	1385	THR
1	A	1386	ARG
1	A	1394	THR
1	A	1444	MET
1	A	1445	ILE
2	B	20	ASP
2	B	21	GLU
2	B	30	SER
2	B	46	GLN
2	B	57	TYR
2	B	61	ASP
2	B	97	VAL
2	B	119	LEU
2	B	128	LEU
2	B	134	LYS
2	B	194	GLU
2	B	203	PHE
2	B	217	ARG
2	B	225	VAL
2	B	249	ARG
2	B	261	ARG
2	B	268	THR
2	B	272	THR
2	B	371	GLU
2	B	376	PHE
2	B	384	ARG
2	B	393	LYS
2	B	401	PHE
2	B	416	LEU
2	B	425	THR
2	B	427	ASP
2	B	429	PHE
2	B	430	ARG
2	B	452	THR

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Mol	Chain	Res	Type
2	B	465	ASN
2	B	466	TRP
2	B	473	MET
2	B	474	SER
2	B	479	VAL
2	B	485	ARG
2	B	491	THR
2	B	498	THR
2	B	516	ASN
2	B	552	MET
2	B	557	PHE
2	B	563	MET
2	B	582	VAL
2	B	597	MET
2	B	615	MET
2	B	616	ILE
2	B	636	PRO
2	B	694	ASP
2	B	705	MET
2	B	714	GLU
2	B	722	ASP
2	B	730	ARG
2	B	732	SER
2	B	737	THR
2	B	748	ILE
2	B	786	ASN
2	B	790	ASP
2	B	797	TYR
2	B	805	THR
2	B	816	GLU
2	B	831	SER
2	B	835	GLN
2	B	839	MET
2	B	868	MET
2	B	878	GLN
2	B	879	ARG
2	B	887	HIS
2	B	889	THR
2	B	894	ASP
2	B	895	ASP
2	B	901	PRO
2	B	904	ARG

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Mol	Chain	Res	Type
2	B	915	THR
2	B	939	THR
2	B	944	THR
2	B	953	LEU
2	B	956	THR
2	B	959	ASP
2	B	987	LYS
2	B	997	GLU
2	B	999	MET
2	B	1006	ILE
2	B	1007	VAL
2	B	1047	PHE
2	B	1049	ASP
2	B	1069	PHE
2	B	1084	GLN
2	B	1087	PHE
2	B	1095	LEU
2	B	1098	MET
2	B	1147	LEU
2	B	1151	LEU
2	B	1159	ARG
2	B	1175	LEU
2	B	1178	ASN
2	B	1183	LYS
2	B	1185	CYS
2	B	1202	LEU
2	B	1220	ARG
3	C	11	ARG
3	C	22	LEU
3	C	23	SER
3	C	26	ASP
3	C	57	VAL
3	C	62	PHE
3	C	77	ILE
3	C	78	GLU
3	C	89	GLU
3	C	91	HIS
3	C	99	LEU
3	C	102	GLN
3	C	104	PHE
3	C	124	LEU
3	C	129	ILE

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Mol	Chain	Res	Type
3	C	138	GLU
3	C	145	CYS
3	C	147	LEU
3	C	166	GLU
3	C	177	GLU
3	C	194	GLU
3	C	238	ILE
4	D	4	SER
4	D	11	ARG
4	D	12	ARG
4	D	17	LYS
4	D	18	VAL
4	D	20	GLU
4	D	22	GLU
4	D	23	ASN
4	D	29	LEU
4	D	38	ILE
4	D	40	HIS
4	D	47	LEU
4	D	65	GLU
4	D	70	PHE
4	D	120	GLU
4	D	124	GLU
4	D	138	ASN
4	D	156	ASP
4	D	187	THR
4	D	200	ASN
4	D	214	LEU
4	D	219	THR
4	D	220	LEU
4	D	221	TYR
5	E	7	ARG
5	E	31	THR
5	E	37	LEU
5	E	41	ASP
5	E	72	PHE
5	E	74	ASP
5	E	78	LEU
5	E	104	ASN
5	E	110	PHE
5	E	112	TYR
5	E	115	ASN

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Mol	Chain	Res	Type
5	E	192	ARG
5	E	212	ARG
6	F	79	ARG
6	F	81	THR
6	F	90	ARG
6	F	111	LEU
6	F	112	GLU
6	F	119	ARG
7	G	1	MET
7	G	13	LEU
7	G	21	ARG
7	G	24	GLN
7	G	45	ILE
7	G	53	ASN
7	G	65	ASP
7	G	74	TYR
7	G	111	THR
7	G	113	HIS
7	G	126	ASN
7	G	171	ILE
8	H	26	ILE
8	H	33	GLN
8	H	61	SER
8	H	64	ASN
8	H	86	ASP
8	H	89	LEU
8	H	123	MET
8	H	128	ASN
8	H	129	TYR
8	H	130	ARG
8	H	138	GLU
8	H	143	LEU
8	H	146	ARG
9	I	6	PHE
9	I	8	ARG
9	I	15	TYR
9	I	29	CYS
9	I	55	THR
9	I	59	VAL
9	I	86	PHE
9	I	93	LYS
9	I	94	ASP

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Mol	Chain	Res	Type
9	I	96	SER
9	I	101	PHE
9	I	106	CYS
10	J	2	ILE
10	J	7	CYS
10	J	13	VAL
10	J	23	ASN
10	J	28	ASP
10	J	43	ARG
10	J	44	TYR
10	J	48	ARG
10	J	55	ASP
11	K	42	LEU
11	K	47	ARG
11	K	51	LEU
11	K	111	LEU
11	K	114	LEU
12	L	27	LEU
12	L	35	SER
12	L	54	ARG
12	L	55	ILE
12	L	68	GLU
12	L	70	ARG
1	M	11	LEU
1	M	18	GLN
1	M	34	LYS
1	M	37	PHE
1	M	41	MET
1	M	54	ASN
1	M	68	GLN
1	M	70	CYS
1	M	83	HIS
1	M	93	VAL
1	M	110	CYS
1	M	121	LEU
1	M	145	LYS
1	M	160	GLN
1	M	173	THR
1	M	182	VAL
1	M	185	TRP
1	M	200	ARG
1	M	203	SER

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Mol	Chain	Res	Type
1	M	208	LEU
1	M	219	PHE
1	M	221	SER
1	M	225	ASN
1	M	230	ARG
1	M	244	PRO
1	M	265	LYS
1	M	275	SER
1	M	297	GLN
1	M	302	THR
1	M	315	LEU
1	M	320	ARG
1	M	322	VAL
1	M	337	ARG
1	M	344	ARG
1	M	369	SER
1	M	385	ILE
1	M	394	ASN
1	M	408	ASP
1	M	425	GLN
1	M	443	LEU
1	M	445	ASN
1	M	451	HIS
1	M	454	SER
1	M	469	ARG
1	M	470	LEU
1	M	476	SER
1	M	481	ASP
1	M	489	LEU
1	M	493	GLN
1	M	504	LEU
1	M	505	CYS
1	M	512	VAL
1	M	516	SER
1	M	524	VAL
1	M	538	ASP
1	M	597	LEU
1	M	618	GLU
1	M	626	ASN
1	M	631	HIS
1	M	635	ARG
1	M	666	ILE

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Mol	Chain	Res	Type
1	M	670	ILE
1	M	680	THR
1	M	685	GLU
1	M	690	VAL
1	M	710	LEU
1	M	738	LYS
1	M	740	LEU
1	M	741	ASN
1	M	762	SER
1	M	769	SER
1	M	774	ARG
1	M	783	THR
1	M	805	LEU
1	M	816	HIS
1	M	821	ARG
1	M	827	THR
1	M	834	THR
1	M	838	GLN
1	M	852	TYR
1	M	855	THR
1	M	858	ASN
1	M	871	ASP
1	M	873	MET
1	M	874	ASP
1	M	903	ASN
1	M	906	HIS
1	M	907	THR
1	M	909	ASP
1	M	937	VAL
1	M	961	ARG
1	M	976	THR
1	M	978	PRO
1	M	983	ILE
1	M	1005	GLU
1	M	1029	ARG
1	M	1033	GLN
1	M	1036	ARG
1	M	1110	ASN
1	M	1114	PRO
1	M	1116	LEU
1	M	1122	PRO
1	M	1124	HIS

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Mol	Chain	Res	Type
1	M	1129	GLU
1	M	1165	GLU
1	M	1170	ILE
1	M	1171	GLN
1	M	1187	GLN
1	M	1193	LEU
1	M	1217	LYS
1	M	1257	ASP
1	M	1264	GLU
1	M	1270	ASN
1	M	1273	LEU
1	M	1280	GLU
1	M	1288	ASP
1	M	1295	THR
1	M	1297	GLU
1	M	1325	THR
1	M	1329	THR
1	M	1333	ILE
1	M	1345	ARG
1	M	1353	TYR
1	M	1370	LEU
1	M	1386	ARG
1	M	1394	THR
1	M	1405	THR
1	M	1410	PHE
1	M	1426	GLU
1	M	1442	ASP
1	M	1444	MET
1	M	1445	ILE
2	N	20	ASP
2	N	22	SER
2	N	25	ILE
2	N	30	SER
2	N	57	TYR
2	N	61	ASP
2	N	128	LEU
2	N	134	LYS
2	N	175	ARG
2	N	194	GLU
2	N	217	ARG
2	N	218	SER
2	N	235	SER

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Mol	Chain	Res	Type
2	N	249	ARG
2	N	261	ARG
2	N	272	THR
2	N	294	ASP
2	N	298	LEU
2	N	299	GLU
2	N	319	GLU
2	N	364	ILE
2	N	371	GLU
2	N	376	PHE
2	N	393	LYS
2	N	401	PHE
2	N	416	LEU
2	N	419	THR
2	N	425	THR
2	N	427	ASP
2	N	429	PHE
2	N	465	ASN
2	N	466	TRP
2	N	473	MET
2	N	475	SER
2	N	479	VAL
2	N	485	ARG
2	N	490	SER
2	N	498	THR
2	N	502	ILE
2	N	516	ASN
2	N	552	MET
2	N	555	ILE
2	N	557	PHE
2	N	563	MET
2	N	582	VAL
2	N	597	MET
2	N	615	MET
2	N	616	ILE
2	N	636	PRO
2	N	643	ASP
2	N	645	SER
2	N	648	HIS
2	N	680	THR
2	N	694	ASP
2	N	705	MET

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Mol	Chain	Res	Type
2	N	714	GLU
2	N	722	ASP
2	N	732	SER
2	N	737	THR
2	N	748	ILE
2	N	786	ASN
2	N	790	ASP
2	N	797	TYR
2	N	805	THR
2	N	811	TYR
2	N	815	ARG
2	N	831	SER
2	N	835	GLN
2	N	837	ASP
2	N	839	MET
2	N	844	SER
2	N	868	MET
2	N	878	GLN
2	N	879	ARG
2	N	887	HIS
2	N	889	THR
2	N	895	ASP
2	N	901	PRO
2	N	915	THR
2	N	939	THR
2	N	944	THR
2	N	953	LEU
2	N	956	THR
2	N	959	ASP
2	N	987	LYS
2	N	999	MET
2	N	1006	ILE
2	N	1007	VAL
2	N	1022	THR
2	N	1047	PHE
2	N	1049	ASP
2	N	1060	ARG
2	N	1084	GLN
2	N	1087	PHE
2	N	1095	LEU
2	N	1147	LEU
2	N	1150	ARG

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Mol	Chain	Res	Type
2	N	1159	ARG
2	N	1175	LEU
2	N	1178	ASN
2	N	1183	LYS
2	N	1185	CYS
2	N	1202	LEU
2	N	1214	PRO
2	N	1220	ARG
3	O	3	GLU
3	O	11	ARG
3	O	16	ASP
3	O	26	ASP
3	O	52	GLU
3	O	54	ASN
3	O	57	VAL
3	O	62	PHE
3	O	69	LEU
3	O	77	ILE
3	O	78	GLU
3	O	89	GLU
3	O	91	HIS
3	O	99	LEU
3	O	104	PHE
3	O	115	SER
3	O	124	LEU
3	O	138	GLU
3	O	145	CYS
3	O	147	LEU
3	O	151	GLN
3	O	166	GLU
3	O	177	GLU
3	O	197	SER
3	O	202	PRO
3	O	238	ILE
3	O	259	LEU
4	P	4	SER
4	P	10	THR
4	P	11	ARG
4	P	16	LYS
4	P	17	LYS
4	P	20	GLU
4	P	22	GLU

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Mol	Chain	Res	Type
4	P	23	ASN
4	P	29	LEU
4	P	38	ILE
4	P	40	HIS
4	P	47	LEU
4	P	59	ILE
4	P	65	GLU
4	P	70	PHE
4	P	120	GLU
4	P	124	GLU
4	P	140	ASP
4	P	151	PHE
4	P	152	SER
4	P	185	CYS
4	P	187	THR
4	P	192	LYS
4	P	193	THR
4	P	197	SER
4	P	204	ASP
4	P	206	GLU
4	P	211	LEU
4	P	213	GLU
4	P	214	LEU
4	P	215	SER
4	P	216	ASN
4	P	221	TYR
5	Q	31	THR
5	Q	37	LEU
5	Q	41	ASP
5	Q	72	PHE
5	Q	74	ASP
5	Q	78	LEU
5	Q	104	ASN
5	Q	110	PHE
5	Q	115	ASN
5	Q	134	THR
5	Q	191	LYS
5	Q	212	ARG
6	R	79	ARG
6	R	90	ARG
6	R	111	LEU
6	R	112	GLU

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Mol	Chain	Res	Type
6	R	119	ARG
7	S	1	MET
7	S	13	LEU
7	S	21	ARG
7	S	38	CYS
7	S	53	ASN
7	S	74	TYR
7	S	75	ARG
7	S	78	VAL
7	S	95	SER
7	S	110	VAL
7	S	111	THR
7	S	113	HIS
7	S	120	THR
7	S	129	SER
7	S	139	ILE
7	S	141	SER
7	S	143	ILE
7	S	145	VAL
8	T	2	SER
8	T	64	ASN
8	T	89	LEU
8	T	95	TYR
8	T	123	MET
8	T	128	ASN
8	T	129	TYR
8	T	130	ARG
8	T	135	LEU
8	T	138	GLU
9	U	7	CYS
9	U	9	ASP
9	U	15	TYR
9	U	55	THR
9	U	59	VAL
9	U	86	PHE
9	U	93	LYS
9	U	94	ASP
9	U	100	PHE
9	U	106	CYS
10	V	7	CYS
10	V	13	VAL
10	V	23	ASN

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Mol	Chain	Res	Type
10	V	43	ARG
10	V	44	TYR
10	V	48	ARG
10	V	59	LYS
11	W	17	SER
11	W	25	THR
11	W	31	VAL
11	W	42	LEU
11	W	47	ARG
11	W	50	LEU
11	W	61	TYR
11	W	111	LEU
11	W	114	LEU
12	X	27	LEU
12	X	38	LEU
12	X	54	ARG
12	X	55	ILE
12	X	63	ARG
12	X	68	GLU
12	X	70	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (226) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	54	ASN
1	A	68	GLN
1	A	75	ASN
1	A	169	ASN
1	A	171	GLN
1	A	225	ASN
1	A	253	ASN
1	A	256	GLN
1	A	282	ASN
1	A	297	GLN
1	A	316	GLN
1	A	339	ASN
1	A	394	ASN
1	A	435	HIS
1	A	451	HIS
1	A	479	ASN
1	A	493	GLN
1	A	503	GLN

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Mol	Chain	Res	Type
1	A	517	ASN
1	A	603	ASN
1	A	611	GLN
1	A	631	HIS
1	A	640	GLN
1	A	723	ASN
1	A	741	ASN
1	A	745	GLN
1	A	757	ASN
1	A	786	HIS
1	A	858	ASN
1	A	903	ASN
1	A	926	GLN
1	A	965	GLN
1	A	969	GLN
1	A	1011	GLN
1	A	1048	ASN
1	A	1078	GLN
1	A	1106	ASN
1	A	1203	ASN
1	A	1218	GLN
1	A	1258	HIS
1	A	1354	ASN
1	A	1387	HIS
1	A	1432	GLN
2	B	46	GLN
2	B	115	GLN
2	B	178	ASN
2	B	224	GLN
2	B	236	HIS
2	B	366	GLN
2	B	465	ASN
2	B	484	ASN
2	B	499	ASN
2	B	513	GLN
2	B	515	HIS
2	B	516	ASN
2	B	518	HIS
2	B	538	ASN
2	B	686	ASN
2	B	744	HIS
2	B	835	GLN

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Mol	Chain	Res	Type
2	B	842	ASN
2	B	862	GLN
2	B	887	HIS
2	B	946	ASN
2	B	957	ASN
2	B	958	GLN
2	B	975	GLN
2	B	986	GLN
2	B	1025	HIS
2	B	1065	GLN
2	B	1074	ASN
2	B	1161	HIS
2	B	1179	GLN
2	B	1193	GLN
3	C	17	ASN
3	C	24	ASN
3	C	65	HIS
3	C	73	GLN
3	C	79	GLN
3	C	91	HIS
3	C	112	ASN
3	C	123	ASN
3	C	167	HIS
3	C	252	GLN
4	D	39	ASN
4	D	40	HIS
4	D	41	GLN
4	D	138	ASN
4	D	165	GLN
5	E	3	GLN
5	E	101	GLN
5	E	104	ASN
5	E	106	GLN
5	E	113	GLN
5	E	147	HIS
6	F	100	GLN
7	G	14	HIS
7	G	53	ASN
7	G	57	GLN
7	G	71	ASN
7	G	97	HIS
7	G	117	GLN

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Mol	Chain	Res	Type
7	G	122	ASN
7	G	126	ASN
7	G	158	HIS
8	H	64	ASN
8	H	128	ASN
8	H	131	ASN
8	H	137	GLN
9	I	12	ASN
9	I	46	HIS
9	I	60	GLN
9	I	83	ASN
9	I	108	HIS
10	J	53	HIS
11	K	65	HIS
11	K	89	ASN
11	K	104	ASN
1	M	75	ASN
1	M	169	ASN
1	M	171	GLN
1	M	225	ASN
1	M	253	ASN
1	M	256	GLN
1	M	282	ASN
1	M	297	GLN
1	M	316	GLN
1	M	339	ASN
1	M	390	GLN
1	M	435	HIS
1	M	451	HIS
1	M	479	ASN
1	M	493	GLN
1	M	503	GLN
1	M	517	ASN
1	M	611	GLN
1	M	631	HIS
1	M	698	GLN
1	M	736	ASN
1	M	741	ASN
1	M	745	GLN
1	M	757	ASN
1	M	786	HIS
1	M	858	ASN

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Mol	Chain	Res	Type
1	M	903	ASN
1	M	926	GLN
1	M	965	GLN
1	M	969	GLN
1	M	1011	GLN
1	M	1048	ASN
1	M	1110	ASN
1	M	1203	ASN
1	M	1218	GLN
1	M	1258	HIS
1	M	1354	ASN
1	M	1432	GLN
2	N	46	GLN
2	N	115	GLN
2	N	121	ASN
2	N	178	ASN
2	N	224	GLN
2	N	236	HIS
2	N	363	HIS
2	N	366	GLN
2	N	465	ASN
2	N	484	ASN
2	N	499	ASN
2	N	513	GLN
2	N	515	HIS
2	N	516	ASN
2	N	518	HIS
2	N	573	GLN
2	N	744	HIS
2	N	842	ASN
2	N	862	GLN
2	N	957	ASN
2	N	975	GLN
2	N	1015	HIS
2	N	1025	HIS
2	N	1040	ASN
2	N	1062	HIS
2	N	1065	GLN
2	N	1076	HIS
2	N	1117	GLN
2	N	1161	HIS
2	N	1179	GLN

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Mol	Chain	Res	Type
2	N	1193	GLN
2	N	1211	ASN
3	O	17	ASN
3	O	65	HIS
3	O	73	GLN
3	O	79	GLN
3	O	91	HIS
3	O	112	ASN
3	O	123	ASN
3	O	167	HIS
3	O	252	GLN
4	P	9	GLN
4	P	40	HIS
4	P	51	ASN
4	P	74	GLN
5	Q	3	GLN
5	Q	99	HIS
5	Q	101	GLN
5	Q	104	ASN
5	Q	106	GLN
5	Q	113	GLN
5	Q	147	HIS
6	R	100	GLN
7	S	14	HIS
7	S	53	ASN
7	S	97	HIS
7	S	122	ASN
7	S	126	ASN
8	T	64	ASN
8	T	128	ASN
8	T	131	ASN
8	T	137	GLN
9	U	46	HIS
9	U	83	ASN
9	U	89	GLN
9	U	108	HIS
10	V	53	HIS
10	V	64	ASN
11	W	65	HIS
11	W	89	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
15	3	10/17 (58%)	0	0
15	6	10/17 (58%)	0	0
All	All	20/34 (58%)	0	0

There are no RNA backbone outliers to report.

There are no RNA pucker outliers to report.

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

2 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
13	BRU	1	23	13,15	15,21,22	4.06	4 (26%)	17,30,33	3.97	4 (23%)
13	BRU	4	23	13,15	15,21,22	4.07	4 (26%)	17,30,33	3.99	4 (23%)

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
13	BRU	1	23	13,15	-	1/4/21/22	0/2/2/2
13	BRU	4	23	13,15	-	1/4/21/22	0/2/2/2

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	4	23	BRU	BR-C5	-14.01	1.50	1.90
13	1	23	BRU	BR-C5	-13.93	1.50	1.90
13	1	23	BRU	C4-C5	5.62	1.45	1.38
13	4	23	BRU	C4-C5	5.61	1.45	1.38
13	1	23	BRU	C4-N3	3.80	1.39	1.33
13	4	23	BRU	C4-N3	3.69	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	4	23	BRU	C6-C5	-2.28	1.34	1.39
13	1	23	BRU	C6-C5	-2.20	1.34	1.39

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	4	23	BRU	C4-N3-C2	14.09	127.04	115.14
13	1	23	BRU	C4-N3-C2	14.00	126.96	115.14
13	4	23	BRU	C5-C4-N3	-6.96	115.30	123.64
13	1	23	BRU	C5-C4-N3	-6.91	115.36	123.64
13	1	23	BRU	C5-C6-N1	3.06	123.93	119.97
13	4	23	BRU	C5-C6-N1	3.03	123.89	119.97
13	1	23	BRU	BR-C5-C6	2.47	122.94	117.31
13	4	23	BRU	BR-C5-C6	2.46	122.92	117.31

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
13	1	23	BRU	O4'-C4'-C5'-O5'
13	4	23	BRU	O4'-C4'-C5'-O5'

There are no ring outliers.

2 monomers are involved in 12 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
13	1	23	BRU	6	0
13	4	23	BRU	6	0

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 16 ligands modelled in this entry, 16 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

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	1416/1733 (81%)	-0.10	8 (0%) 89 83	12, 52, 93, 119	0
1	M	1416/1733 (81%)	-0.08	12 (0%) 86 78	10, 53, 94, 123	0
2	B	1104/1224 (90%)	-0.04	6 (0%) 91 86	12, 62, 103, 120	0
2	N	1104/1224 (90%)	0.02	13 (1%) 79 67	16, 65, 104, 121	0
3	C	266/318 (83%)	-0.13	0 100 100	24, 52, 83, 100	0
3	O	266/318 (83%)	-0.14	0 100 100	25, 54, 85, 106	0
4	D	178/221 (80%)	-0.07	1 (0%) 89 83	36, 68, 100, 108	0
4	P	178/221 (80%)	0.76	22 (12%) 4 2	55, 85, 105, 113	0
5	E	214/215 (99%)	-0.03	1 (0%) 91 86	35, 80, 106, 114	0
5	Q	214/215 (99%)	0.08	1 (0%) 91 86	35, 82, 107, 119	0
6	F	87/155 (56%)	-0.30	0 100 100	13, 34, 62, 78	0
6	R	87/155 (56%)	-0.23	0 100 100	15, 34, 63, 76	0
7	G	171/171 (100%)	-0.10	0 100 100	37, 55, 85, 99	0
7	S	171/171 (100%)	0.71	17 (9%) 7 4	37, 69, 110, 116	0
8	H	134/146 (91%)	0.18	3 (2%) 62 48	60, 88, 105, 114	0
8	T	134/146 (91%)	0.16	2 (1%) 73 61	66, 89, 104, 116	0
9	I	119/122 (97%)	0.08	2 (1%) 70 57	47, 81, 102, 117	0
9	U	119/122 (97%)	0.08	3 (2%) 57 43	45, 84, 102, 119	0
10	J	65/70 (92%)	-0.18	0 100 100	23, 52, 74, 91	0
10	V	65/70 (92%)	-0.17	0 100 100	28, 53, 78, 91	0
11	K	114/120 (95%)	-0.28	0 100 100	23, 54, 72, 83	0
11	W	114/120 (95%)	-0.22	0 100 100	21, 54, 74, 84	0
12	L	46/70 (65%)	0.25	4 (8%) 10 5	37, 89, 107, 107	0
12	X	46/70 (65%)	0.26	2 (4%) 35 22	42, 93, 107, 108	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1	17/26 (65%)	0.16	1 (5%) 22 13	47, 101, 140, 144	0
13	4	17/26 (65%)	0.21	0 100 100	50, 102, 139, 142	0
14	2	6/13 (46%)	0.27	0 100 100	114, 121, 127, 133	0
14	5	6/13 (46%)	0.30	0 100 100	114, 121, 129, 136	0
15	3	11/17 (64%)	0.14	1 (9%) 9 5	88, 93, 131, 133	0
15	6	11/17 (64%)	0.08	1 (9%) 9 5	88, 96, 130, 133	0
All	All	7896/9242 (85%)	-0.02	100 (1%) 77 65	10, 61, 102, 144	0

All (100) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	734	HIS	5.0
4	P	188	ALA	4.9
7	S	137	ILE	4.8
4	P	185	CYS	4.5
7	S	116	PRO	4.3
9	U	119	THR	4.3
7	S	133	SER	4.0
12	L	26	THR	3.7
9	I	119	THR	3.7
2	B	167	ILE	3.6
1	M	1455	PRO	3.5
1	M	158	PRO	3.5
2	N	867	GLY	3.5
7	S	114	LEU	3.4
4	P	210	ILE	3.3
4	P	123	LEU	3.2
1	M	69	THR	3.2
4	P	134	THR	3.2
1	A	69	THR	3.2
2	N	734	HIS	3.2
1	A	255	SER	3.1
2	N	918	ILE	3.1
2	N	715	ALA	3.1
7	S	130	TYR	3.1
7	S	117	GLN	3.1
1	M	2	VAL	3.0
1	A	2	VAL	3.0
4	P	126	ILE	3.0
2	N	733	HIS	3.0

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Mol	Chain	Res	Type	RSRZ
12	L	25	ALA	3.0
9	U	120	GLN	3.0
4	P	203	SER	2.9
7	S	103	VAL	2.8
2	N	709	ASP	2.8
1	M	155	GLU	2.8
7	S	134	GLU	2.7
2	N	246	LYS	2.7
2	N	250	PHE	2.7
1	M	255	SER	2.7
4	P	144	THR	2.7
2	N	167	ILE	2.7
12	X	27	LEU	2.6
7	S	132	SER	2.6
7	S	84	GLY	2.6
4	P	38	ILE	2.6
2	N	713	ALA	2.6
4	P	136	GLY	2.6
1	A	1455	PRO	2.6
12	X	25	ALA	2.5
1	M	195	ASP	2.5
12	L	43	THR	2.5
4	P	207	LEU	2.5
8	T	76	THR	2.5
2	N	868	MET	2.5
4	P	119	ARG	2.5
7	S	162	SER	2.5
12	L	27	LEU	2.4
2	B	715	ALA	2.4
7	S	101	VAL	2.4
2	N	869	SER	2.4
9	U	117	LYS	2.4
2	N	247	GLY	2.4
8	H	76	THR	2.3
9	I	60	GLN	2.3
8	H	108	SER	2.3
15	3	0	U	2.3
7	S	118	ASP	2.3
5	E	126	SER	2.3
4	P	217	LEU	2.3
8	H	139	ASN	2.3
4	P	200	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
4	P	141	LEU	2.3
7	S	91	VAL	2.3
4	P	213	GLU	2.3
1	M	257	ARG	2.2
7	S	166	ASP	2.2
15	6	0	U	2.2
4	P	12	ARG	2.2
4	P	118	THR	2.2
8	T	2	SER	2.2
4	P	189	ASP	2.2
1	M	44	THR	2.2
1	M	173	THR	2.2
2	B	918	ILE	2.2
7	S	99	PHE	2.1
4	D	18	VAL	2.1
4	P	18	VAL	2.1
1	A	1092	LYS	2.1
2	B	470	LYS	2.1
7	S	113	HIS	2.1
1	A	256	GLN	2.1
4	P	154	PHE	2.1
1	A	253	ASN	2.1
5	Q	50	MET	2.1
1	M	161	LEU	2.1
4	P	206	GLU	2.1
13	1	12	DG	2.1
1	M	71	GLN	2.0
2	B	250	PHE	2.0
1	A	195	ASP	2.0

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

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, 95th 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
13	BRU	1	23	20/21	0.70	0.21	85,89,94,97	0
13	BRU	4	23	20/21	0.75	0.19	83,89,95,98	0

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th 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(\AA^2)	Q<0.9
16	ZN	I	9989	1/1	0.90	0.17	117,117,117,117	0
16	ZN	M	9992	1/1	0.95	0.22	74,74,74,74	0
16	ZN	A	9984	1/1	0.96	0.19	70,70,70,70	0
16	ZN	J	9990	1/1	0.97	0.23	52,52,52,52	0
16	ZN	X	9999	1/1	0.97	0.17	103,103,103,103	0
16	ZN	U	9997	1/1	0.97	0.18	119,119,119,119	0
16	ZN	A	9985	1/1	0.98	0.22	40,40,40,40	0
16	ZN	N	9994	1/1	0.98	0.22	38,38,38,38	0
16	ZN	I	9988	1/1	0.98	0.23	65,65,65,65	0
16	ZN	O	9995	1/1	0.98	0.23	43,43,43,43	0
16	ZN	B	9986	1/1	0.99	0.24	33,33,33,33	0
16	ZN	L	9991	1/1	0.99	0.15	90,90,90,90	0
16	ZN	C	9987	1/1	0.99	0.22	28,28,28,28	0
16	ZN	U	9996	1/1	0.99	0.22	71,71,71,71	0
16	ZN	V	9998	1/1	0.99	0.25	52,52,52,52	0
16	ZN	M	9993	1/1	0.99	0.23	37,37,37,37	0

6.5 Other polymers [i](#)

There are no such residues in this entry.