



Full wwPDB EM Validation Report ⓘ

Mar 25, 2026 – 11:27 PM UTC

PDB ID : 7LUP / pdb_00007lup
EMDB ID : EMD-23526
Title : Human TRiC/CCT complex with reovirus outer capsid protein sigma-3
Authors : Knowlton, J.J.; Gestaut, D.; Ma, B.; Taylor, G.; Seven, A.B.; Leitner, A.;
Wilson, G.J.; Shanker, S.; Yates, N.A.; Prasad, B.V.V.; Aebersold, R.; Chiu,
W.; Frydman, J.; Dermody, T.S.
Deposited on : 2021-02-22
Resolution : 6.20 Å(reported)

This is a Full wwPDB EM 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/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

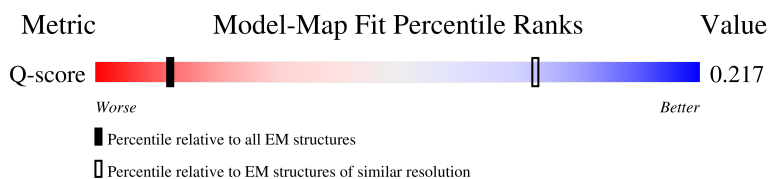
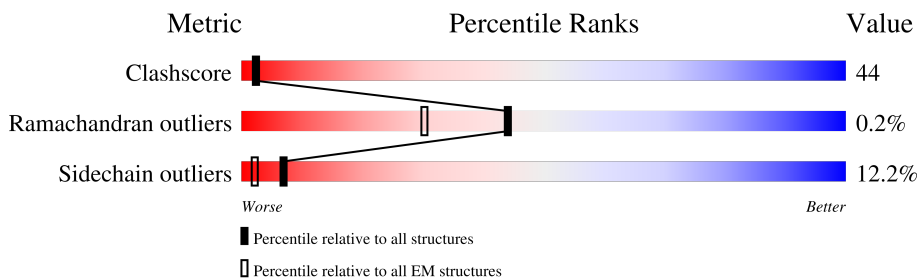
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 6.20 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)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	537 (5.70 - 6.70)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the 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 EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	D	541	
1	L	541	
2	E	535	
2	M	535	

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Mol	Chain	Length	Quality of chain
3	F	539	
3	N	539	
4	H	545	
4	P	545	
5	C	543	
5	K	543	
6	B	548	
6	J	548	
7	A	531	
7	I	531	
8	G	556	
8	O	556	
9	Q	365	

2 Entry composition

There are 11 unique types of molecules in this entry. The entry contains 67281 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 T-complex protein 1 subunit epsilon.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	L	527	Total	C	N	O	S	0	0
			4063	2544	710	779	30		
1	D	527	Total	C	N	O	S	0	0
			4063	2544	710	779	30		

- Molecule 2 is a protein called T-complex protein 1 subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	M	518	Total	C	N	O	S	0	0
			3898	2438	687	754	19		
2	E	518	Total	C	N	O	S	0	0
			3898	2438	687	754	19		

- Molecule 3 is a protein called T-complex protein 1 subunit delta.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	N	518	Total	C	N	O	S	0	0
			3911	2445	680	763	23		
3	F	518	Total	C	N	O	S	0	0
			3911	2445	680	763	23		

- Molecule 4 is a protein called T-complex protein 1 subunit gamma.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	H	521	Total	C	N	O	S	0	0
			4050	2524	716	780	30		
4	P	521	Total	C	N	O	S	0	0
			4050	2524	716	780	30		

- Molecule 5 is a protein called T-complex protein 1 subunit eta.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	K	522	Total	C	N	O	S	0	0
			4007	2534	690	759	24		
5	C	522	Total	C	N	O	S	0	0
			4007	2534	690	759	24		

- Molecule 6 is a protein called T-complex protein 1 subunit theta.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	J	524	Total	C	N	O	S	0	0
			3994	2520	678	769	27		
6	B	524	Total	C	N	O	S	0	0
			3994	2520	678	769	27		

- Molecule 7 is a protein called T-complex protein 1 subunit zeta.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	I	525	Total	C	N	O	S	0	0
			4023	2528	704	770	21		
7	A	525	Total	C	N	O	S	0	0
			4023	2528	704	770	21		

- Molecule 8 is a protein called T-complex protein 1 subunit alpha.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	O	532	Total	C	N	O	S	0	0
			4043	2533	707	780	23		
8	G	532	Total	C	N	O	S	0	0
			4043	2533	707	780	23		

- Molecule 9 is a protein called Outer capsid protein sigma-3.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	Q	365	Total	C	N	O	S	0	0
			2882	1821	507	527	27		

- Molecule 10 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
10	Q	1	Total	Zn	0
			1	1	

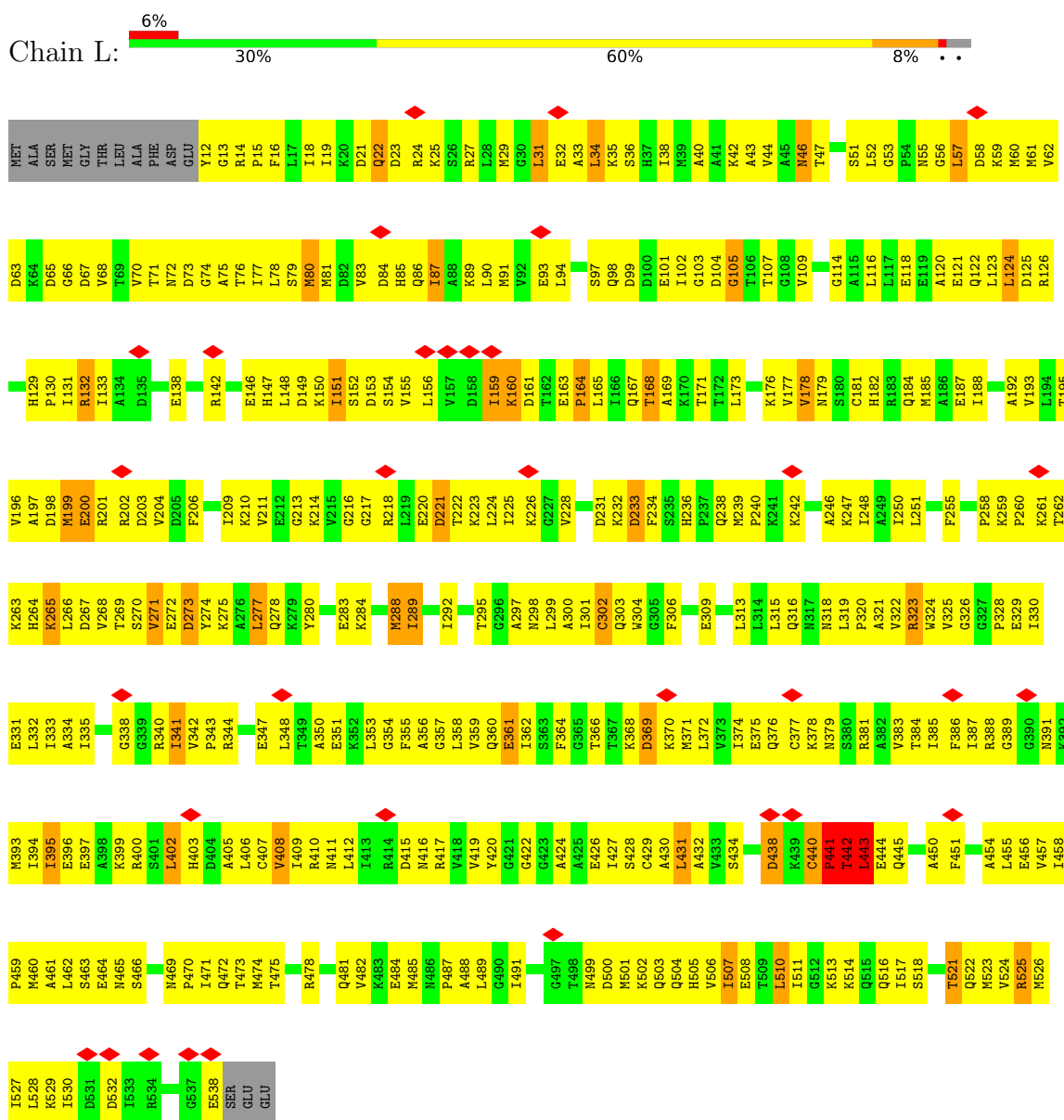
- Molecule 11 is water.

Mol	Chain	Residues	Atoms		AltConf
11	D	1	Total 1	O 1	0
11	H	1	Total 1	O 1	0
11	C	4	Total 4	O 4	0
11	A	3	Total 3	O 3	0
11	G	10	Total 10	O 10	0
11	Q	401	Total 401	O 401	0

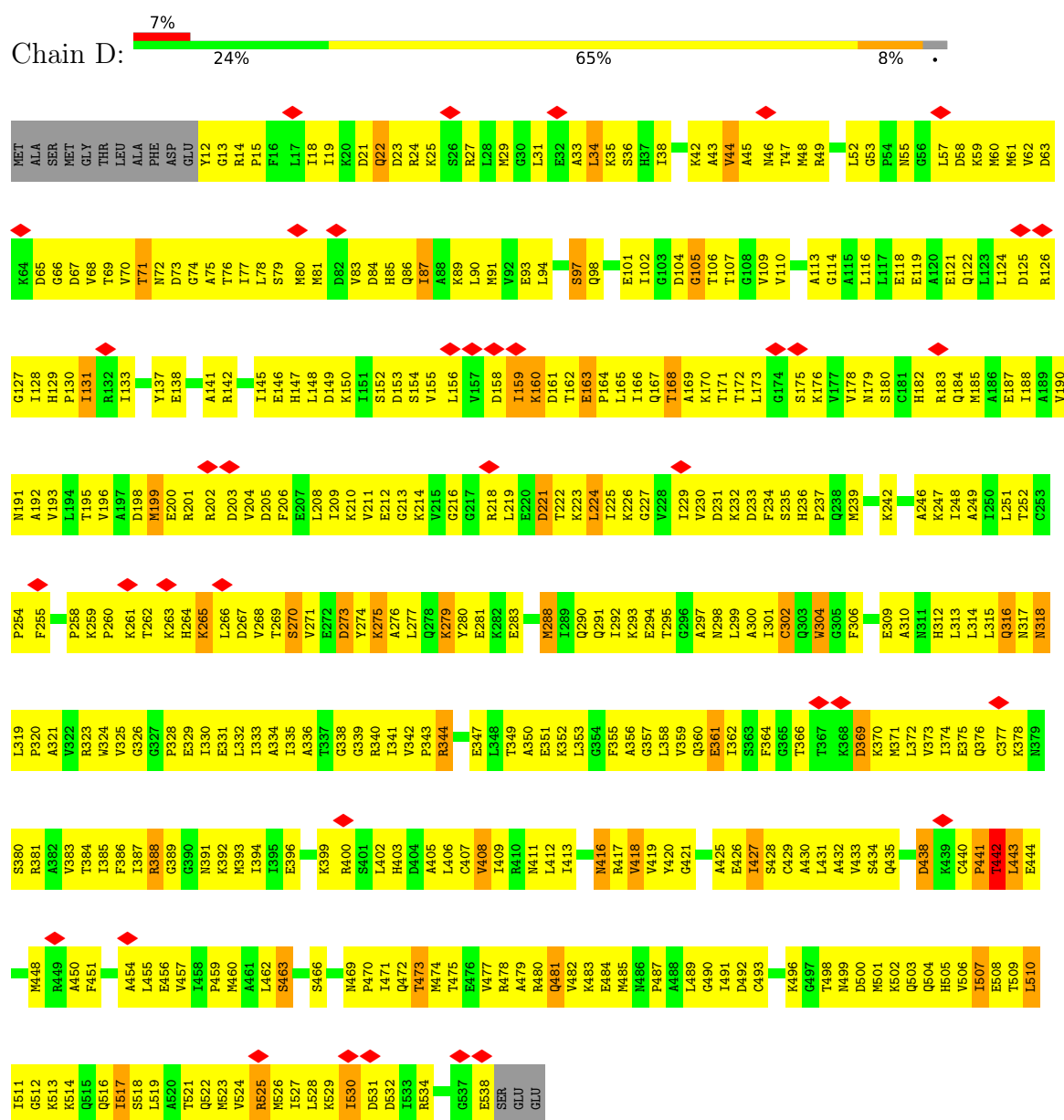
3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

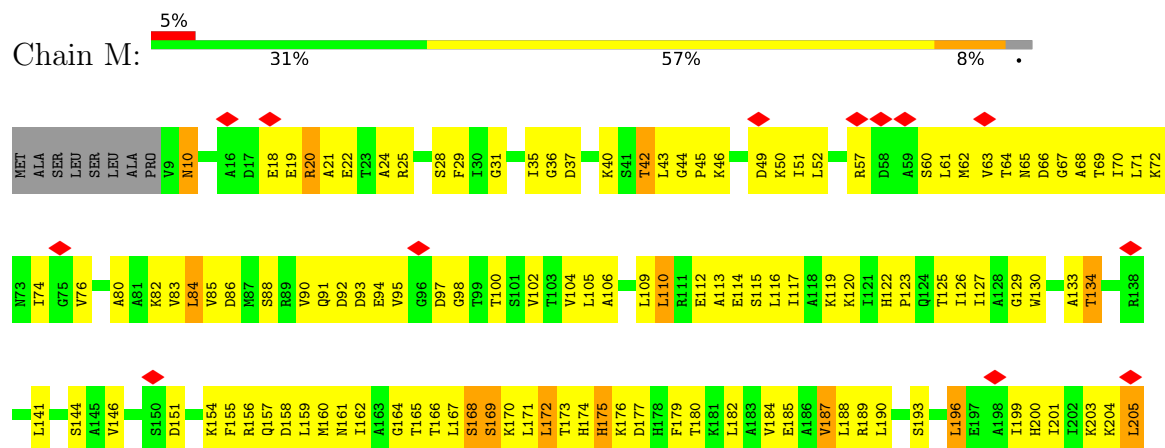
- Molecule 1: T-complex protein 1 subunit epsilon

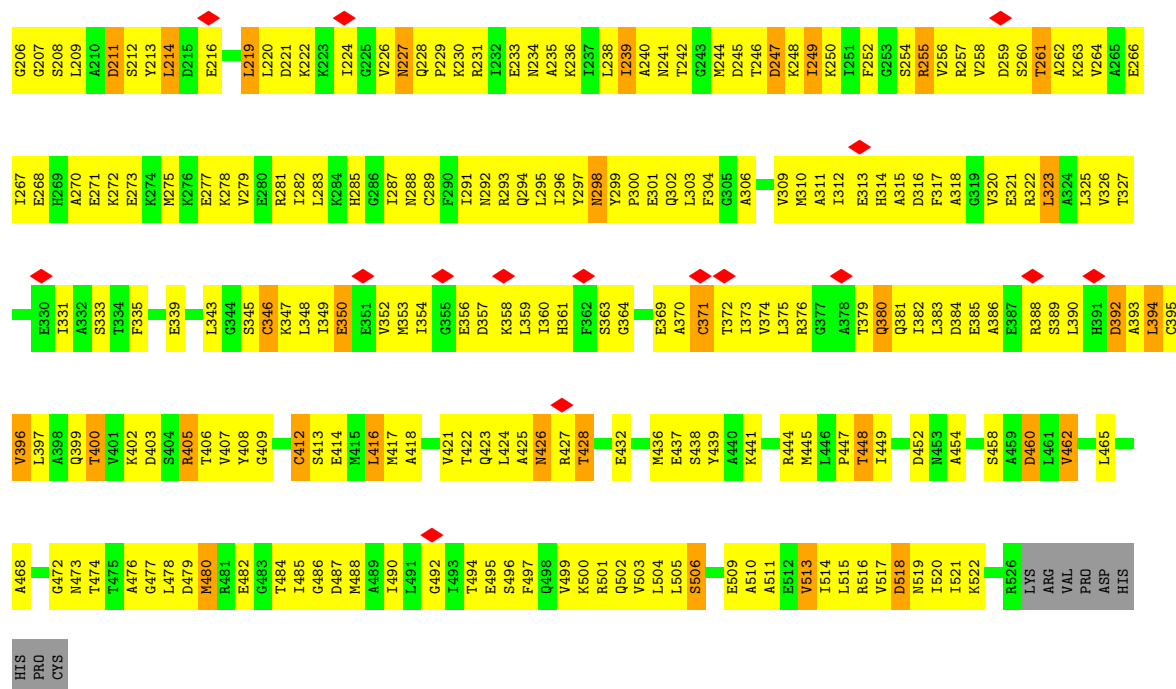


- Molecule 1: T-complex protein 1 subunit epsilon

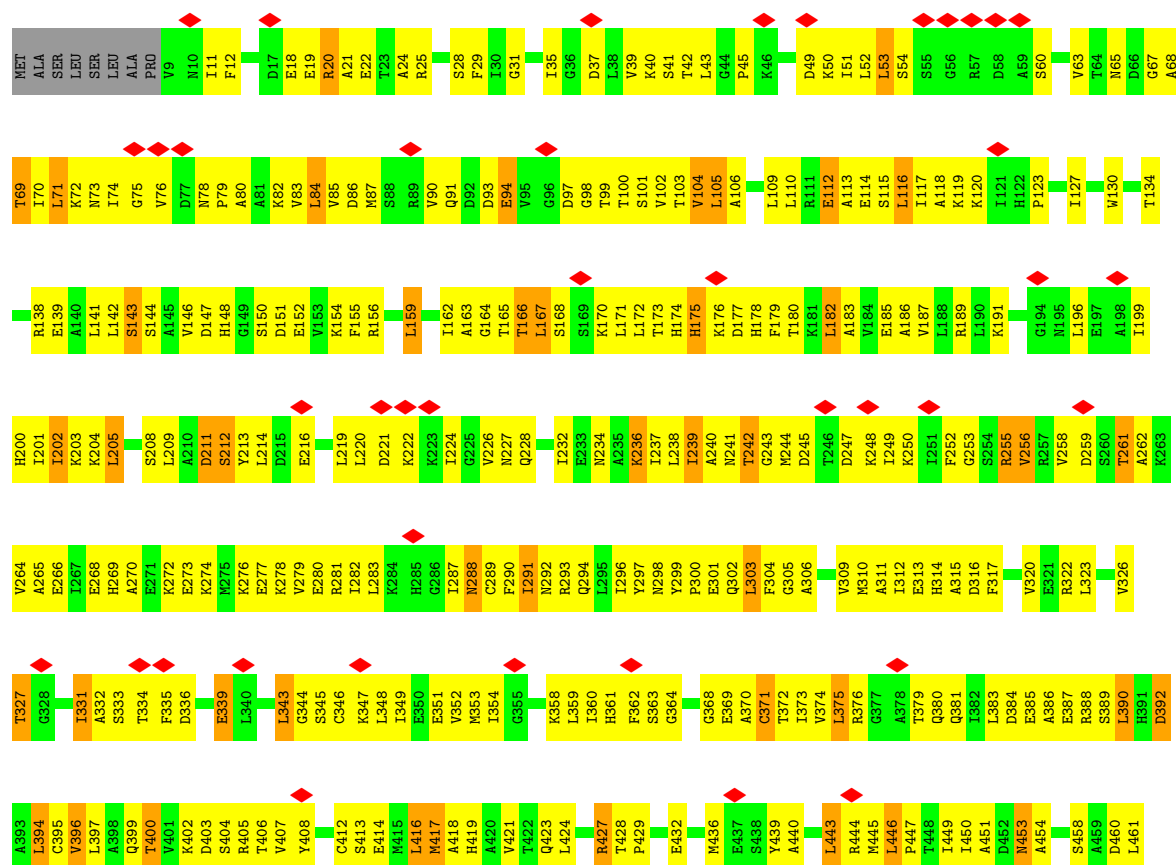


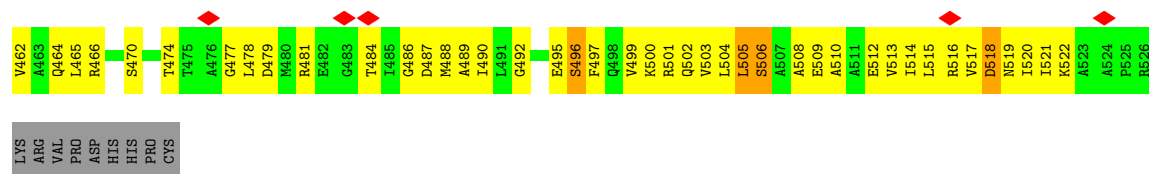
• Molecule 2: T-complex protein 1 subunit beta



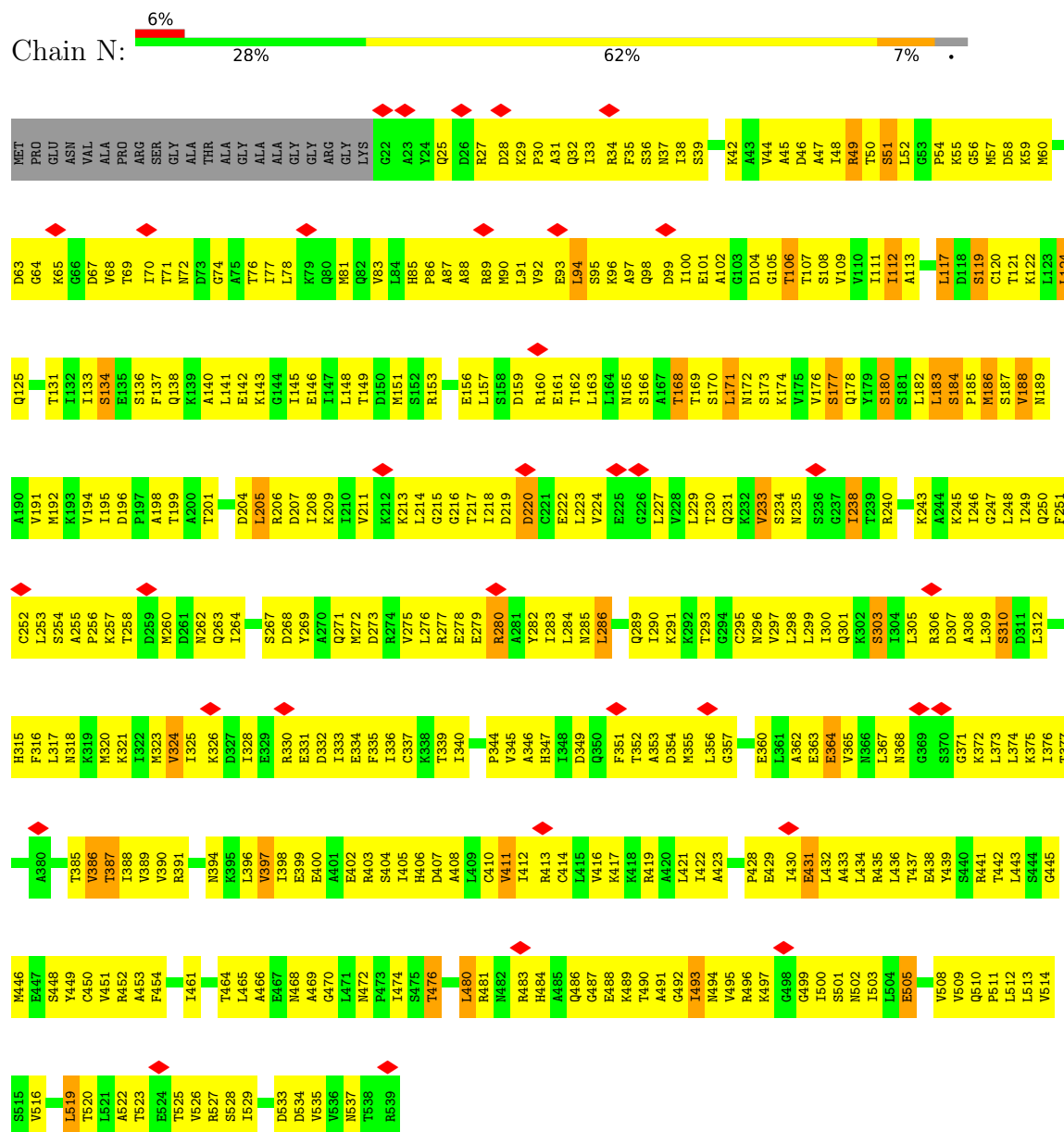


• Molecule 2: T-complex protein 1 subunit beta

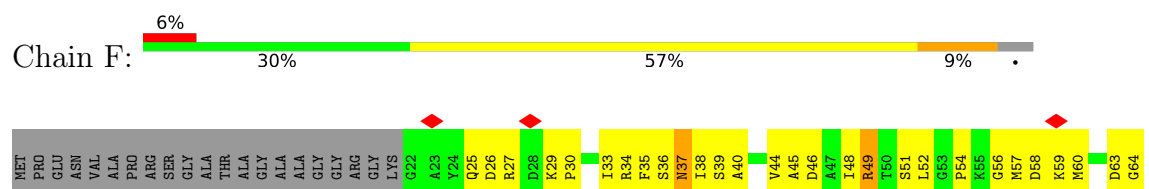


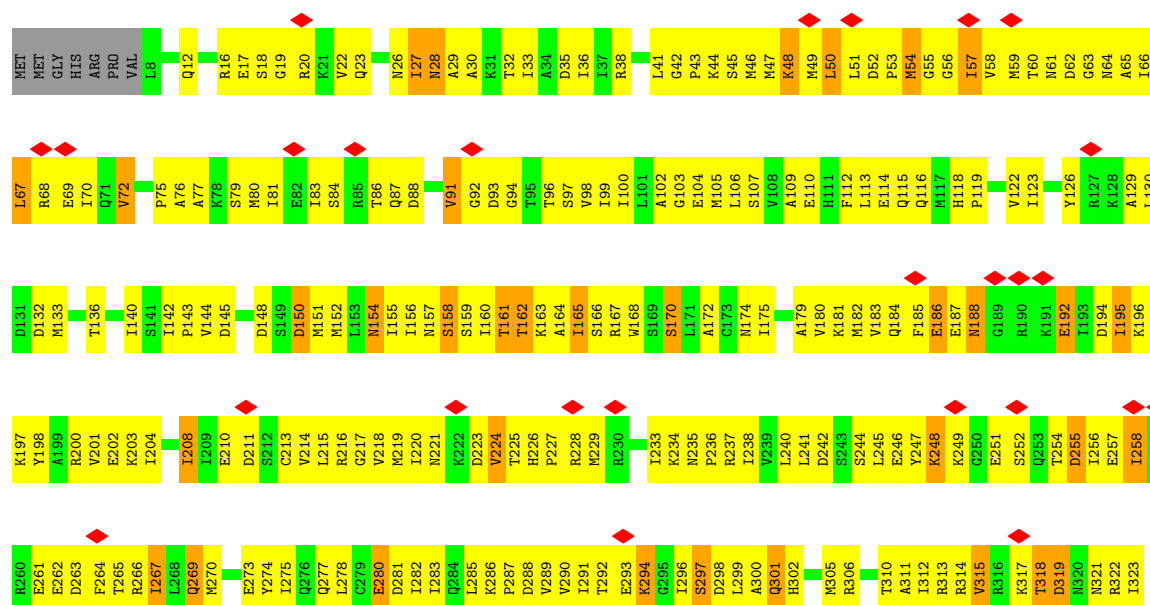


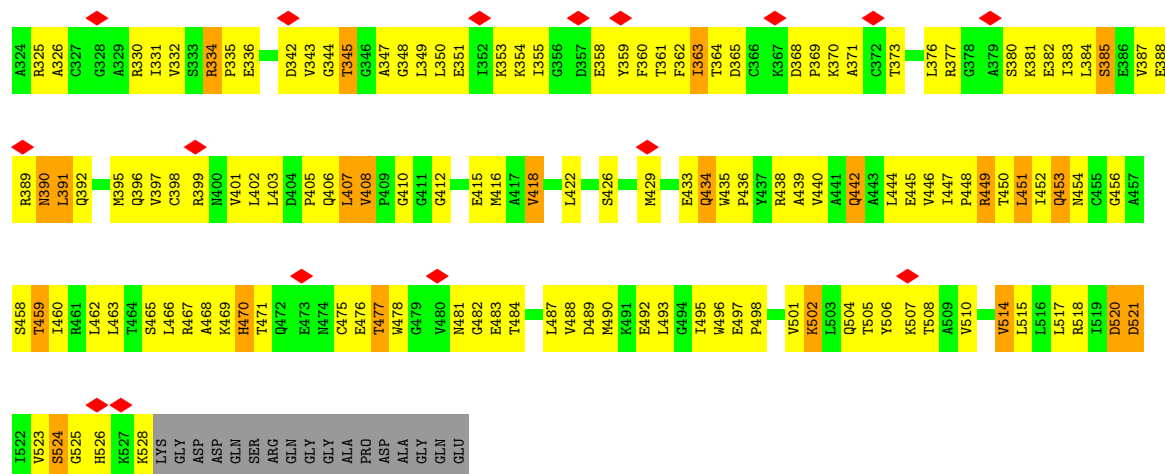
• Molecule 3: T-complex protein 1 subunit delta



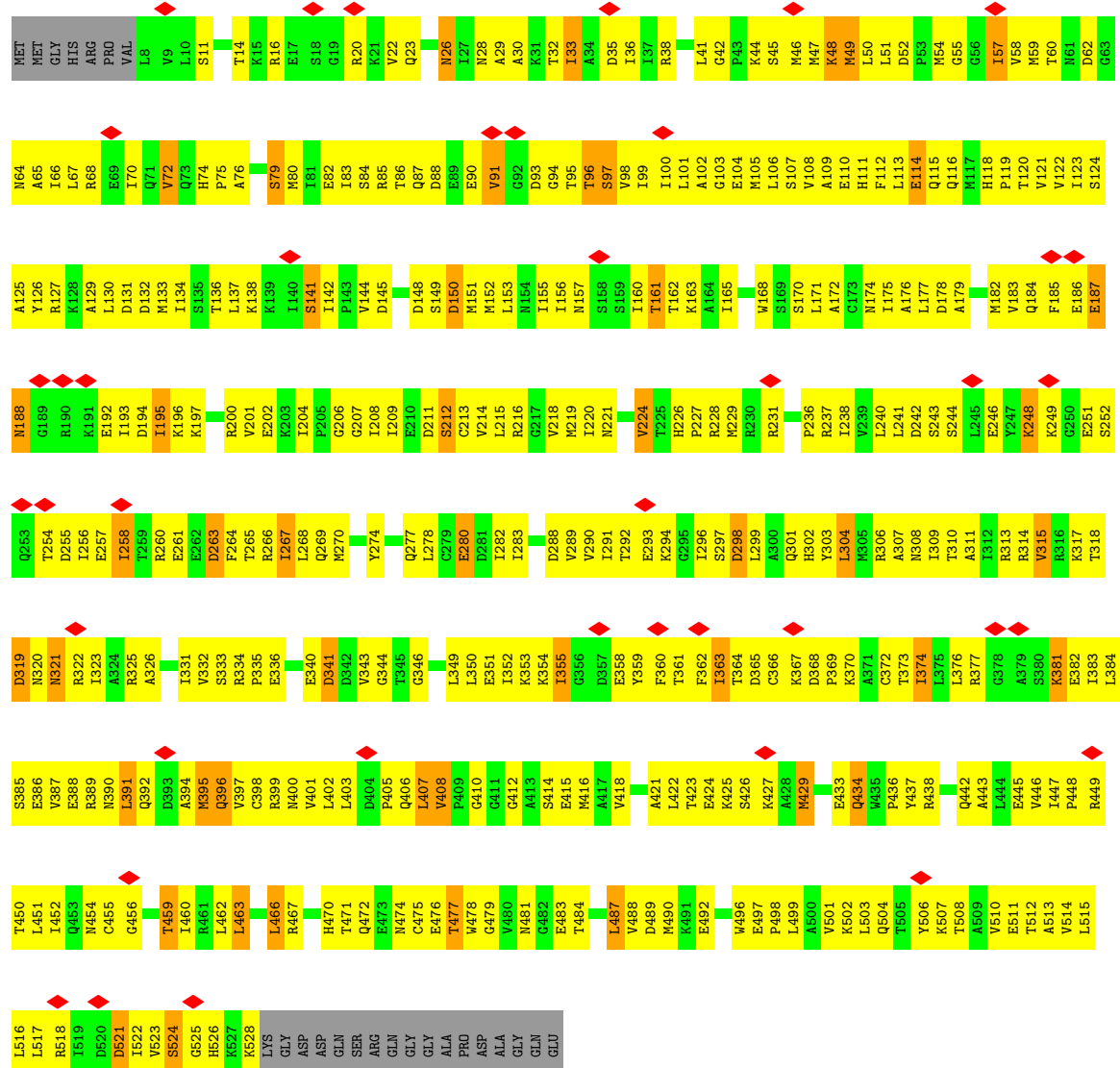
• Molecule 3: T-complex protein 1 subunit delta



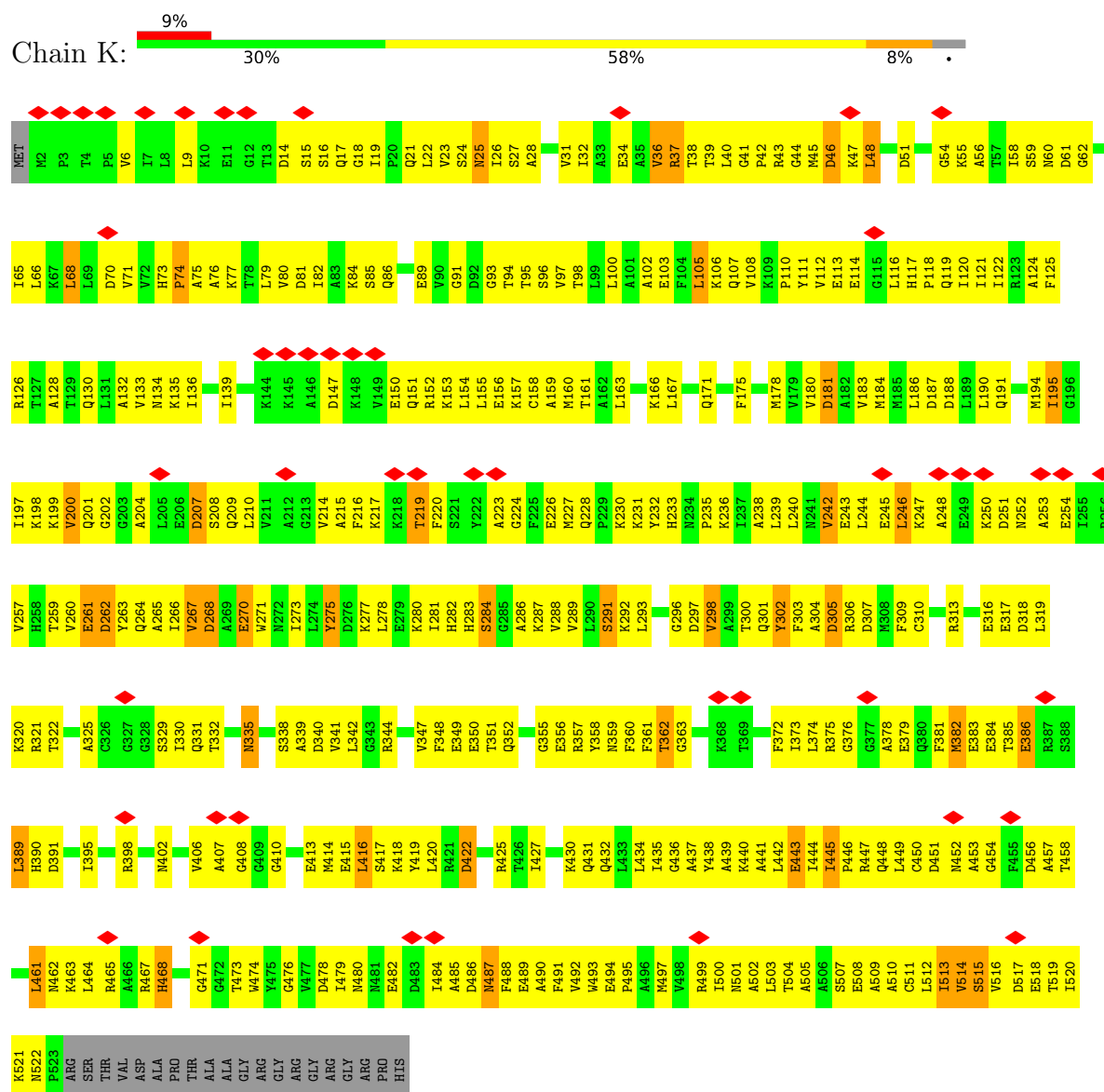




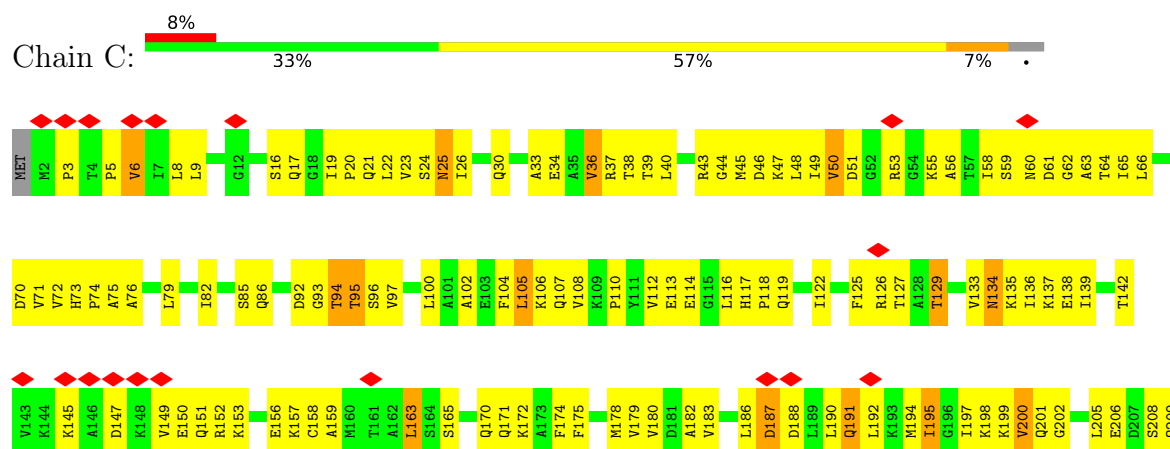
• Molecule 4: T-complex protein 1 subunit gamma

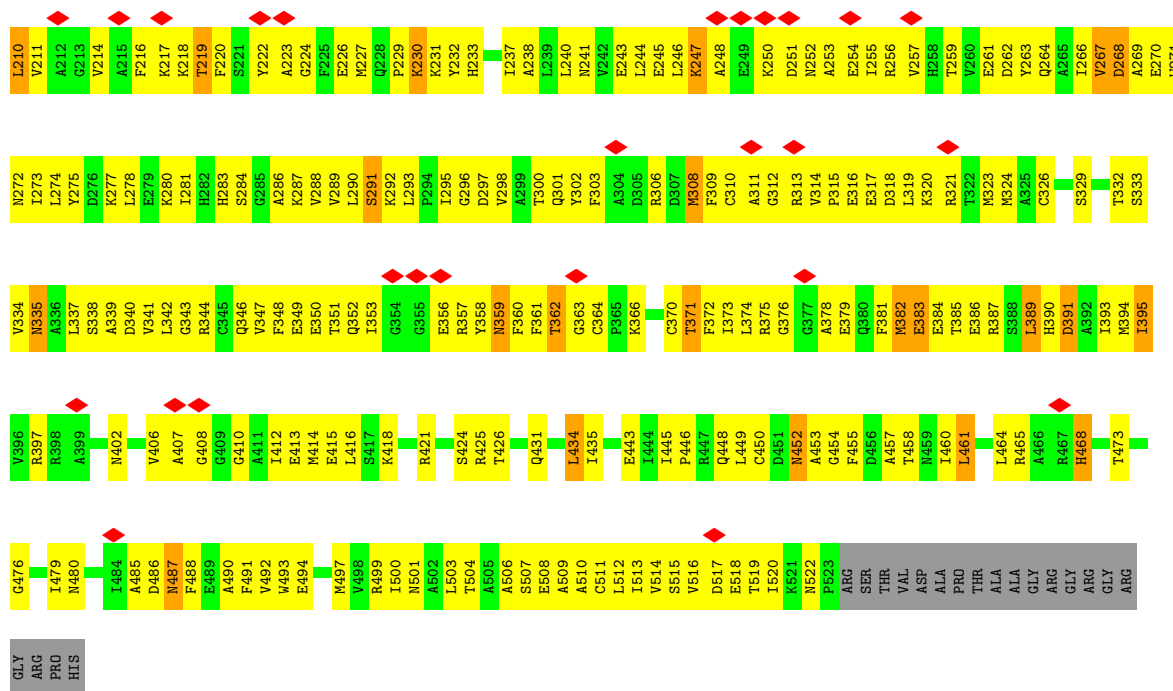


• Molecule 5: T-complex protein 1 subunit eta

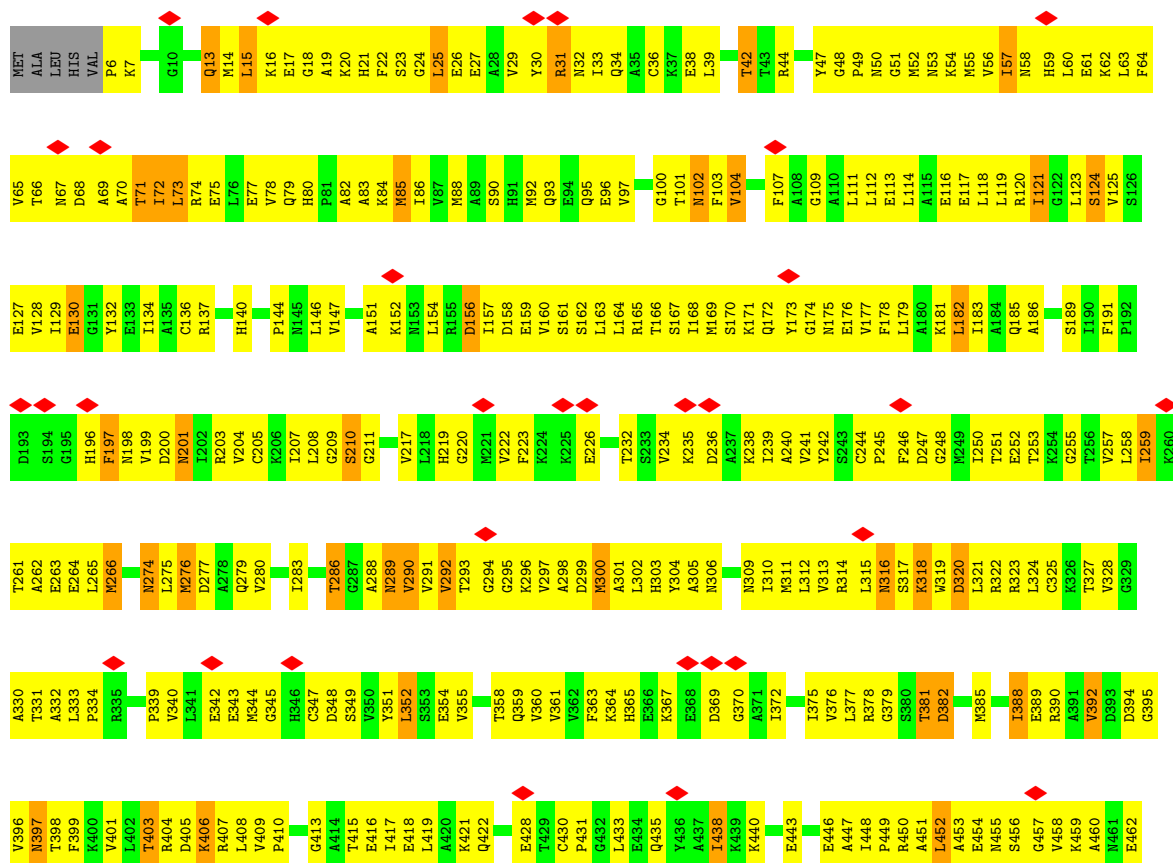


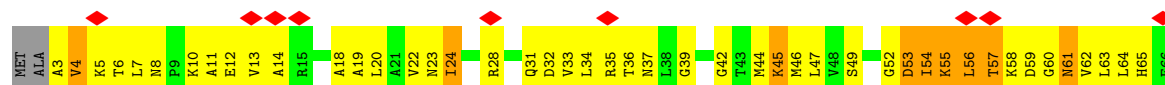
• Molecule 5: T-complex protein 1 subunit eta

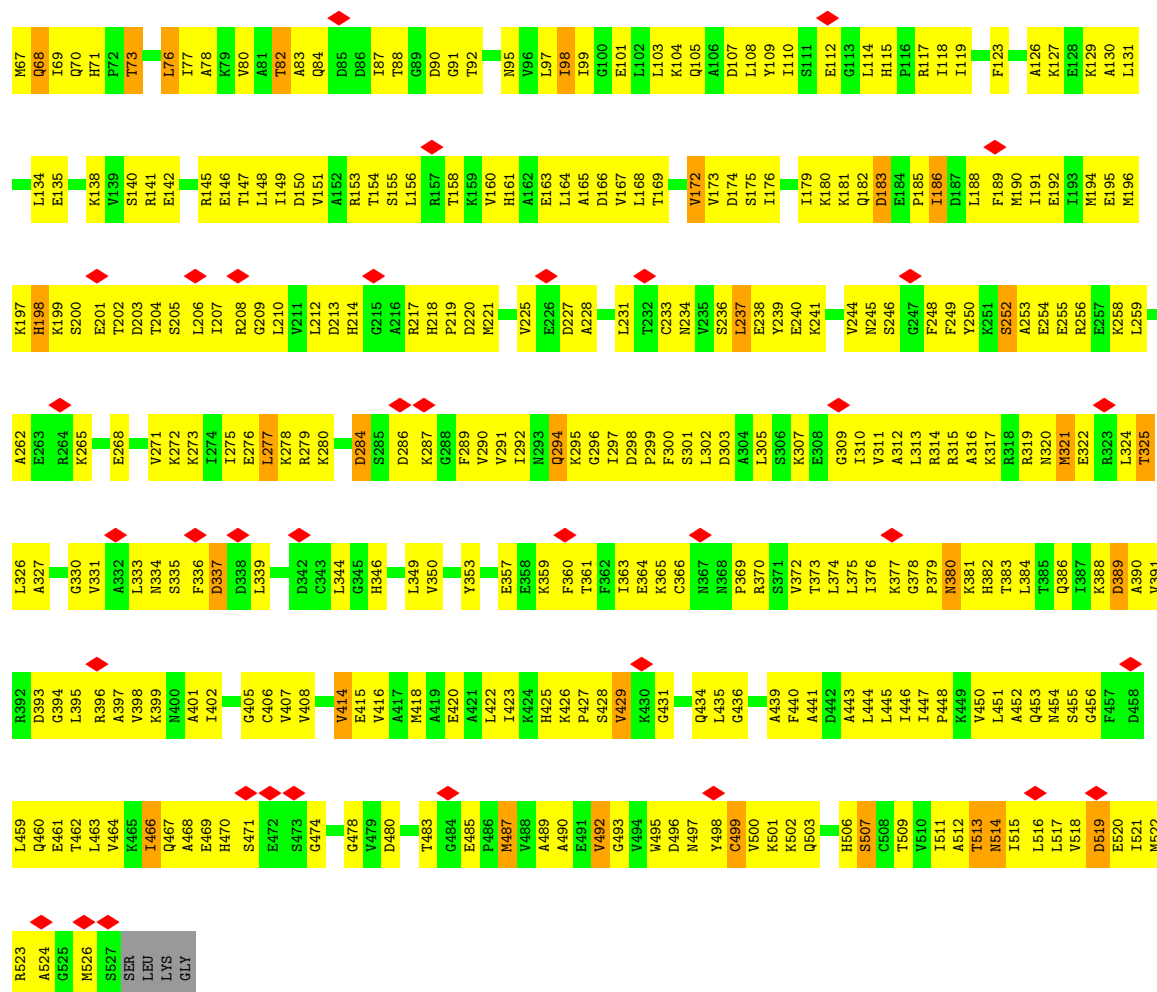




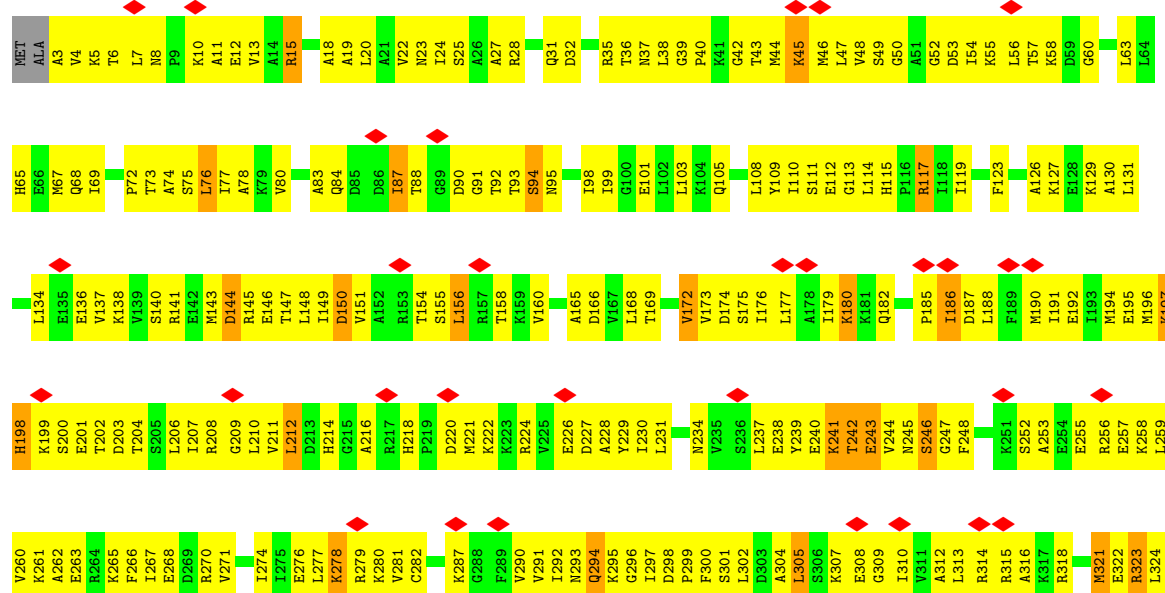
• Molecule 6: T-complex protein 1 subunit theta

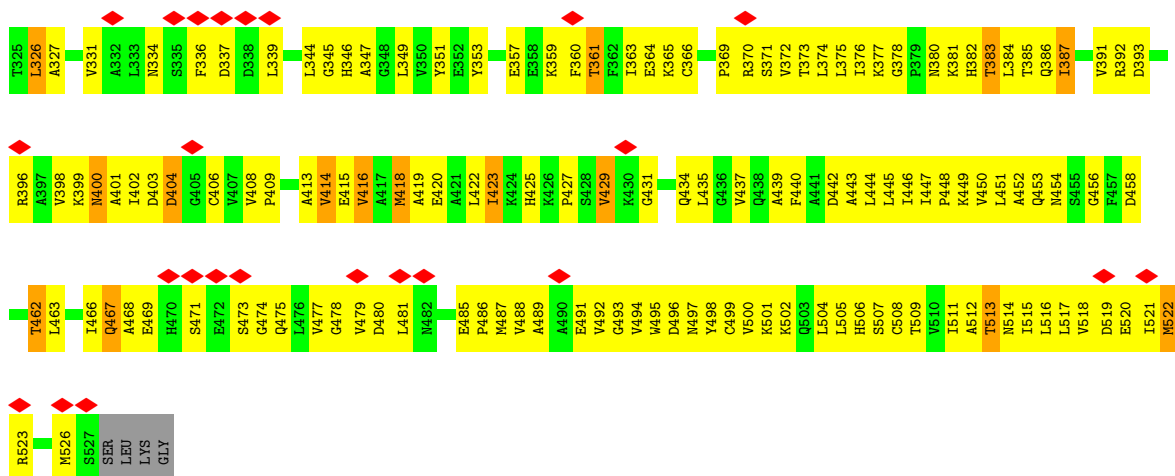




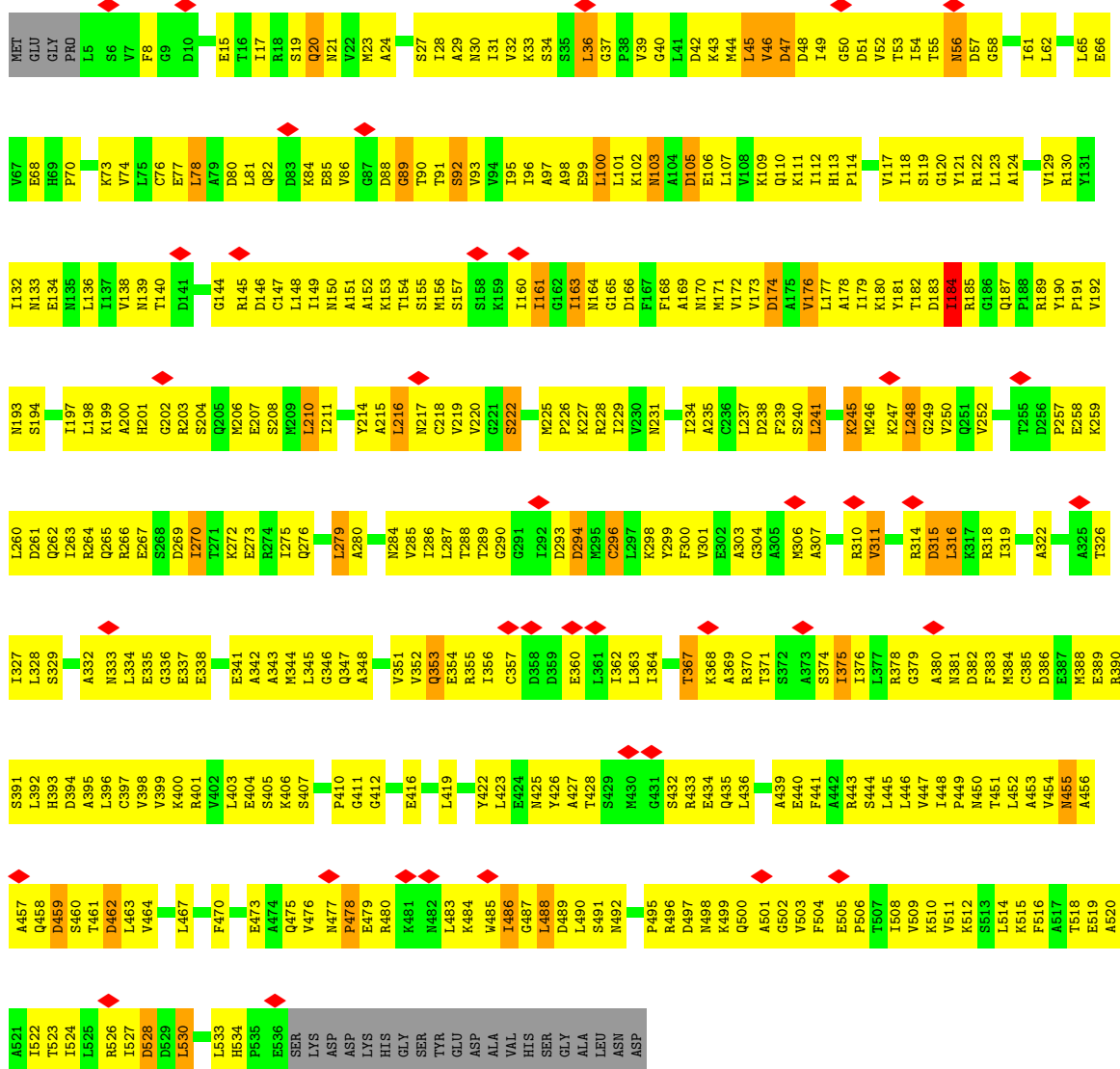


• Molecule 7: T-complex protein 1 subunit zeta

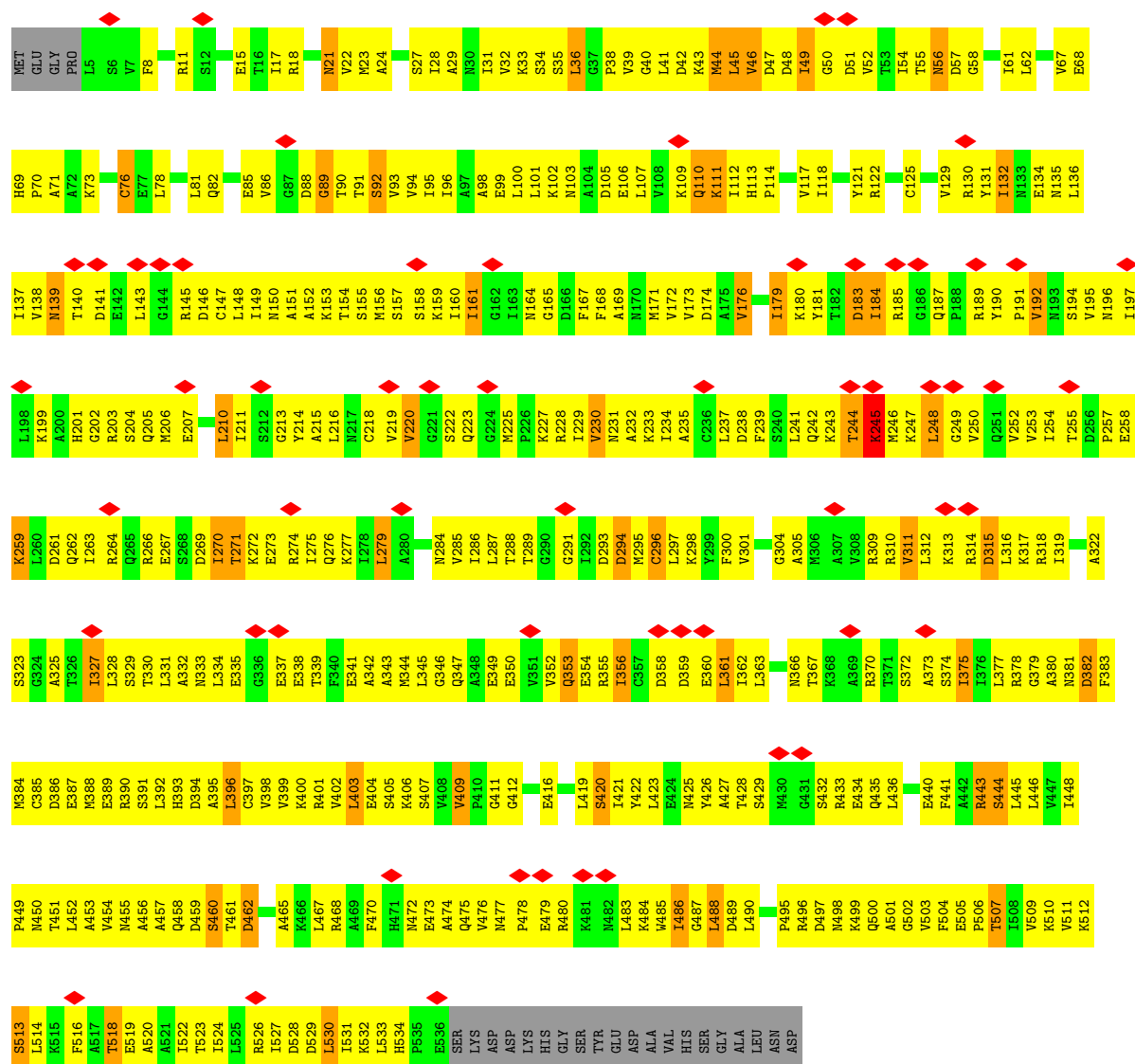




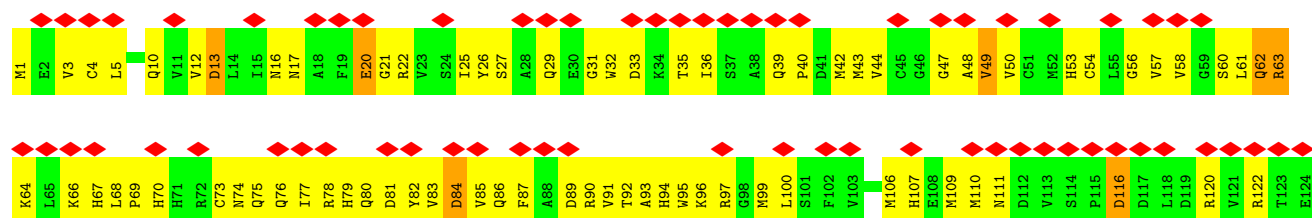
• Molecule 8: T-complex protein 1 subunit alpha

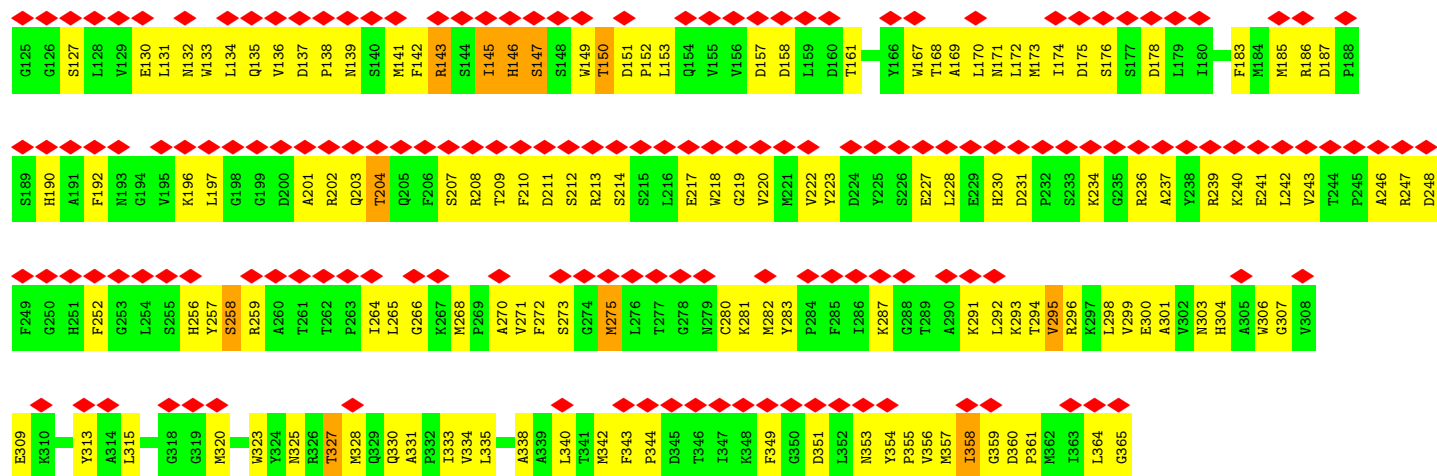


Chain G: 11% 24% 62% 10%



Chain Q:





4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	26000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TALOS ARCTICA	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	36	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.110	Depositor
Minimum map value	-0.048	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.006	Depositor
Recommended contour level	0.03	Depositor
Map size ($\text{\AA}$)	364.0, 364.0, 364.0	wwPDB
Map dimensions	280, 280, 280	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.3, 1.3, 1.3	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

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	D	0.35	0/4112	0.53	2/5539 (0.0%)
1	L	0.34	0/4112	0.53	1/5539 (0.0%)
2	E	0.34	0/3940	0.52	0/5311
2	M	0.33	0/3940	0.51	0/5311
3	F	0.33	0/3943	0.51	0/5322
3	N	0.32	0/3943	0.49	0/5322
4	H	0.35	0/4095	0.54	0/5523
4	P	0.34	0/4095	0.51	0/5523
5	C	0.34	0/4064	0.52	0/5487
5	K	0.33	0/4064	0.50	0/5487
6	B	0.37	0/4051	0.57	0/5474
6	J	0.33	0/4051	0.52	0/5474
7	A	0.35	0/4070	0.56	2/5487 (0.0%)
7	I	0.33	0/4070	0.52	2/5487 (0.0%)
8	G	0.32	0/4082	0.55	2/5511 (0.0%)
8	O	0.32	0/4082	0.52	0/5511
9	Q	0.46	2/2955 (0.1%)	0.60	1/4003 (0.0%)
All	All	0.34	2/67669 (0.0%)	0.53	10/91311 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	D	0	5
1	L	0	4
2	E	0	2
2	M	0	2
6	B	0	1
6	J	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
7	A	0	1
7	I	0	1
8	G	0	1
8	O	0	1
All	All	0	19

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	Q	145	ILE	CG1-CD1	-6.43	1.26	1.51
9	Q	146	HIS	CD2-NE2	5.24	1.43	1.37

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	G	89	GLY	N-CA-C	-7.63	105.72	115.42
7	A	87	ILE	CA-C-N	-5.67	110.71	121.54
7	A	87	ILE	C-N-CA	-5.67	110.71	121.54
8	G	245	LYS	CD-CE-NZ	-5.48	94.36	111.90
1	D	298	ASN	N-CA-C	-5.27	107.50	114.04
9	Q	146	HIS	N-CA-CB	5.22	117.89	110.16
7	I	183	ASP	CA-C-N	-5.18	116.56	122.26
7	I	183	ASP	C-N-CA	-5.18	116.56	122.26
1	L	105	GLY	N-CA-C	-5.10	101.08	113.18
1	D	105	GLY	N-CA-C	-5.01	101.31	113.18

There are no chirality outliers.

All (19) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
7	A	198	HIS	Peptide
6	B	430	CYS	Peptide
1	D	160	LYS	Peptide
1	D	163	GLU	Peptide
1	D	440	CYS	Peptide
1	D	441	PRO	Peptide
1	D	442	THR	Peptide
2	E	20	ARG	Peptide
2	E	428	THR	Peptide
8	G	111	LYS	Peptide
7	I	198	HIS	Peptide

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Mol	Chain	Res	Type	Group
6	J	430	CYS	Peptide
1	L	160	LYS	Peptide
1	L	440	CYS	Peptide
1	L	441	PRO	Peptide
1	L	442	THR	Peptide
2	M	20	ARG	Peptide
2	M	428	THR	Peptide
8	O	89	GLY	Peptide

5.2 Too-close contacts

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	D	4063	0	4183	434	0
1	L	4063	0	4183	380	0
2	E	3898	0	4008	357	0
2	M	3898	0	4008	349	0
3	F	3911	0	4115	356	0
3	N	3911	0	4115	378	0
4	H	4050	0	4185	422	0
4	P	4050	0	4185	422	0
5	C	4007	0	4110	369	0
5	K	4007	0	4110	359	0
6	B	3994	0	4063	407	0
6	J	3994	0	4063	396	0
7	A	4023	0	4161	374	0
7	I	4023	0	4161	381	0
8	G	4043	0	4203	422	0
8	O	4043	0	4203	390	0
9	Q	2882	0	2819	232	0
10	Q	1	0	0	0	0
11	A	3	0	0	0	0
11	C	4	0	0	0	0
11	D	1	0	0	1	0
11	G	10	0	0	1	0
11	H	1	0	0	0	0
11	Q	401	0	0	66	0
All	All	67281	0	68875	5992	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 44.

All (5992) 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)
4:H:251:GLU:O	9:Q:203:GLN:NE2	1.93	1.01
9:Q:143:ARG:HH22	9:Q:219:GLY:HA2	1.22	1.00
7:A:257:GLU:OE1	7:A:261:LYS:NZ	1.96	0.98
8:G:99:GLU:OE2	8:G:103:ASN:ND2	1.98	0.96
8:O:238:ASP:HB3	8:O:329:SER:HA	1.49	0.95
1:D:236:HIS:H	1:D:239:MET:HE2	1.32	0.94
4:H:449:ARG:O	4:H:453:GLN:NE2	2.01	0.93
6:B:478:VAL:HA	6:B:491:ASP:HA	1.51	0.92
6:J:54:LYS:NZ	6:J:55:MET:O	2.01	0.92
4:P:165:ILE:HG12	4:P:390:ASN:HD22	1.33	0.92
4:H:157:ASN:HA	4:H:160:ILE:HG12	1.51	0.91
2:E:440:ALA:HA	2:E:443:LEU:HD22	1.51	0.91
2:M:19:GLU:OE2	2:M:522:LYS:NZ	2.03	0.91
4:H:256:ILE:HG13	8:G:254:ILE:HB	1.52	0.91
3:F:284:LEU:O	3:F:288:LYS:N	2.04	0.90
6:B:47:TYR:O	6:B:455:ASN:ND2	2.03	0.90
9:Q:122:ARG:HA	9:Q:236:ARG:HH21	1.36	0.90
7:I:12:GLU:HB3	7:I:523:ARG:HB3	1.51	0.89
6:B:82:ALA:HA	6:B:85:MET:HG3	1.54	0.89
1:D:98:GLN:HG2	1:D:109:VAL:HG21	1.54	0.88
2:M:347:LYS:HB3	2:M:364:GLY:HA3	1.54	0.88
4:P:45:SER:O	7:I:117:ARG:NH2	2.06	0.88
1:L:93:GLU:OE2	5:K:201:GLN:NE2	2.07	0.87
7:A:195:GLU:HB2	7:A:384:LEU:HD22	1.57	0.87
1:D:154:SER:HA	1:D:417:ARG:HA	1.55	0.87
6:B:295:GLY:O	6:B:314:ARG:NH2	2.06	0.87
8:O:322:ALA:HA	8:O:370:ARG:HB3	1.55	0.86
7:A:19:ALA:O	7:A:23:ASN:ND2	2.09	0.86
2:E:141:LEU:HD13	2:E:417:MET:HE2	1.56	0.85
4:P:229:MET:HG2	4:P:310:THR:HA	1.58	0.85
6:B:263:GLU:HA	6:B:266:MET:HE2	1.57	0.85
2:M:43:LEU:HB2	2:M:100:THR:HB	1.56	0.85
7:I:357:GLU:O	7:I:359:LYS:NZ	2.09	0.85
7:A:28:ARG:O	7:A:31:GLN:NE2	2.09	0.85
8:O:89:GLY:O	8:O:93:VAL:N	2.09	0.85
4:P:226:HIS:HB2	4:P:301:GLN:HE21	1.41	0.85
8:O:440:GLU:HA	8:O:443:ARG:HB3	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:B:239:ILE:HB	6:B:345:GLY:HA3	1.57	0.84
6:B:109:GLY:O	6:B:113:GLU:N	2.11	0.84
2:E:69:THR:O	2:E:73:ASN:ND2	2.10	0.84
8:O:480:ARG:O	8:O:484:LYS:N	2.10	0.84
8:G:462:ASP:OD1	8:G:462:ASP:N	2.10	0.84
1:L:154:SER:HA	1:L:417:ARG:HA	1.58	0.84
8:G:89:GLY:O	8:G:93:VAL:N	2.09	0.84
1:L:268:VAL:HB	2:M:256:VAL:HG22	1.60	0.83
8:G:238:ASP:HB3	8:G:329:SER:HA	1.61	0.83
4:H:164:ALA:O	4:H:167:ARG:NH1	2.09	0.83
5:C:79:LEU:HA	5:C:82:ILE:HD12	1.61	0.83
6:J:478:VAL:HA	6:J:491:ASP:HA	1.58	0.83
1:D:429:CYS:O	1:D:433:VAL:N	2.11	0.83
4:H:48:LYS:NZ	7:A:520:GLU:O	2.10	0.83
2:M:67:GLY:O	2:M:71:LEU:N	2.10	0.83
8:G:480:ARG:HA	8:G:483:LEU:HB2	1.60	0.83
1:L:258:PRO:O	5:K:263:TYR:OH	1.95	0.83
4:H:45:SER:O	7:A:117:ARG:NH2	2.11	0.83
4:H:46:MET:O	4:H:61:ASN:ND2	2.11	0.83
6:B:211:GLY:HA2	6:B:379:GLY:HA2	1.60	0.83
7:A:425:HIS:O	7:A:434:GLN:NE2	2.09	0.83
8:O:183:ASP:HB3	8:O:187:GLN:HB2	1.59	0.83
2:M:171:LEU:O	3:N:527:ARG:NH1	2.12	0.83
4:P:172:ALA:HA	4:P:175:ILE:HB	1.60	0.83
2:M:123:PRO:HA	2:M:126:ILE:HG12	1.61	0.83
2:E:347:LYS:HB3	2:E:364:GLY:HA3	1.61	0.83
6:J:47:TYR:O	6:J:455:ASN:ND2	2.12	0.83
6:J:295:GLY:O	6:J:314:ARG:NH2	2.11	0.83
8:O:389:GLU:O	8:O:393:HIS:N	2.09	0.83
8:G:199:LYS:HA	8:G:377:LEU:HB2	1.61	0.83
1:L:277:LEU:HD11	2:M:250:LYS:HG2	1.61	0.82
5:K:437:ALA:HA	5:K:440:LYS:HB2	1.60	0.82
2:E:301:GLU:HA	2:E:304:PHE:HB2	1.62	0.82
3:N:253:LEU:O	3:N:310:SER:N	2.13	0.82
5:C:159:ALA:O	5:C:163:LEU:N	2.12	0.82
7:A:228:ALA:HB3	7:A:347:ALA:HB3	1.60	0.82
1:L:199:MET:N	1:L:199:MET:SD	2.53	0.82
2:E:67:GLY:O	2:E:71:LEU:N	2.12	0.82
4:H:236:PRO:HG3	4:H:350:LEU:HB2	1.61	0.82
2:M:160:MET:SD	2:M:161:ASN:ND2	2.52	0.82
6:J:522:ASP:OD1	7:I:45:LYS:NZ	2.10	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:202:GLY:N	8:G:379:GLY:O	2.13	0.82
6:B:401:VAL:HA	6:B:404:ARG:HG3	1.61	0.82
8:G:143:LEU:HB3	8:G:146:ASP:HB3	1.61	0.82
1:L:306:PHE:HB2	1:L:323:ARG:HH11	1.45	0.82
1:D:14:ARG:NH2	1:D:15:PRO:O	2.13	0.82
6:B:54:LYS:NZ	6:B:55:MET:O	2.12	0.82
7:I:19:ALA:O	7:I:23:ASN:ND2	2.13	0.82
7:I:212:LEU:HB2	7:I:361:THR:HB	1.62	0.82
1:L:90:LEU:HB2	1:L:91:MET:HE2	1.60	0.82
1:L:475:THR:HA	1:L:478:ARG:HD3	1.61	0.82
6:B:151:ALA:O	6:B:406:LYS:NZ	2.12	0.82
1:L:62:VAL:HB	2:M:522:LYS:HA	1.62	0.81
7:A:499:CYS:HA	7:A:502:LYS:HB3	1.61	0.81
4:H:119:PRO:HB3	4:H:517:LEU:HD12	1.61	0.81
8:O:432:SER:O	8:O:435:GLN:NE2	2.12	0.81
4:P:186:GLU:HA	4:P:192:GLU:HB3	1.61	0.81
5:K:518:GLU:HG2	6:J:54:LYS:HE2	1.62	0.81
2:E:255:ARG:NH1	5:C:255:ILE:O	2.14	0.81
4:P:48:LYS:HE2	7:I:520:GLU:H	1.45	0.81
7:A:429:VAL:HG23	7:A:431:GLY:H	1.46	0.81
8:O:160:ILE:HG23	8:O:161:ILE:HG23	1.63	0.81
6:B:280:VAL:HG21	6:B:304:TYR:HB3	1.62	0.81
4:H:98:VAL:HG22	4:H:505:THR:HG23	1.63	0.80
8:G:82:GLN:O	8:G:86:VAL:N	2.14	0.80
8:G:245:LYS:HE2	9:Q:203:GLN:HG2	1.62	0.80
1:L:262:THR:O	1:L:264:HIS:ND1	2.14	0.80
8:G:498:ASN:HB3	8:G:503:VAL:HB	1.63	0.80
9:Q:271:VAL:N	9:Q:283:TYR:O	2.14	0.80
1:L:391:ASN:HD21	1:L:393:MET:HB2	1.46	0.80
1:D:264:HIS:HA	5:C:255:ILE:HG12	1.63	0.80
1:D:358:LEU:HB3	1:D:375:GLU:HB2	1.63	0.80
8:G:480:ARG:O	8:G:484:LYS:N	2.12	0.80
7:I:429:VAL:HG23	7:I:431:GLY:H	1.46	0.80
1:L:364:PHE:HB2	1:L:388:ARG:HH21	1.45	0.80
4:H:416:MET:HE1	4:H:445:GLU:HA	1.62	0.80
5:K:510:ALA:HA	5:K:513:ILE:HB	1.62	0.80
1:L:361:GLU:HA	1:L:372:LEU:HA	1.63	0.80
1:L:391:ASN:HD22	1:L:394:ILE:HG13	1.47	0.80
3:F:38:ILE:HG23	3:F:117:LEU:HB3	1.63	0.80
4:H:348:GLY:HA3	4:H:365:ASP:HB2	1.63	0.80
4:P:152:MET:O	4:P:156:ILE:N	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:282:ILE:HD11	4:P:335:PRO:HB3	1.63	0.80
8:G:152:ALA:O	8:G:156:MET:N	2.13	0.80
3:N:105:GLY:O	3:N:109:VAL:N	2.11	0.80
8:O:73:LYS:O	8:O:77:GLU:N	2.12	0.80
8:G:211:ILE:N	8:G:374:SER:O	2.10	0.80
7:I:151:VAL:HG22	7:I:495:TRP:HB2	1.63	0.80
7:A:218:HIS:HB3	7:A:221:MET:HG2	1.63	0.80
3:N:472:ASN:O	3:N:476:THR:OG1	1.99	0.80
4:H:238:ILE:H	4:H:344:GLY:HA3	1.45	0.80
4:H:481:ASN:OD1	4:H:484:THR:N	2.14	0.80
6:B:20:LYS:HB2	6:B:526:MET:HB3	1.63	0.80
8:O:129:VAL:O	8:O:133:ASN:ND2	2.15	0.80
9:Q:234:LYS:O	9:Q:239:ARG:NE	2.15	0.79
6:B:223:PHE:O	6:B:361:VAL:N	2.13	0.79
2:M:296:ILE:N	2:M:313:GLU:OE1	2.12	0.79
1:D:199:MET:N	1:D:199:MET:SD	2.55	0.79
5:C:191:GLN:NE2	5:C:194:MET:SD	2.56	0.79
1:D:231:ASP:O	1:D:232:LYS:NZ	2.13	0.79
4:H:143:PRO:HA	4:H:406:GLN:HA	1.65	0.79
6:J:17:GLU:OE1	7:I:70:GLN:NE2	2.15	0.79
9:Q:106:MET:HA	9:Q:109:MET:HE2	1.63	0.79
2:E:213:TYR:O	2:E:374:VAL:N	2.15	0.79
6:J:302:LEU:O	6:J:306:ASN:ND2	2.16	0.79
6:B:241:VAL:HA	6:B:292:VAL:HG22	1.64	0.79
6:B:246:PHE:O	6:B:298:ALA:N	2.12	0.79
9:Q:80:GLN:O	11:Q:1101:HOH:O	1.99	0.79
4:H:504:GLN:HA	4:H:507:LYS:HB2	1.64	0.79
5:C:402:ASN:ND2	5:C:497:MET:SD	2.56	0.79
6:J:211:GLY:HA2	6:J:379:GLY:HA2	1.64	0.79
9:Q:26:TYR:HB3	9:Q:42:MET:HB2	1.65	0.79
3:N:151:MET:HB2	3:N:489:LYS:HD2	1.65	0.79
5:C:16:SER:O	5:C:21:GLN:NE2	2.16	0.79
6:J:151:ALA:O	6:J:406:LYS:NZ	2.14	0.79
8:G:220:VAL:HG22	8:G:225:MET:HE3	1.65	0.79
2:M:244:MET:HE1	2:M:248:LYS:HZ3	1.47	0.78
4:P:170:SER:O	4:P:174:ASN:ND2	2.15	0.78
4:P:381:LYS:O	4:P:385:SER:N	2.15	0.78
5:C:76:ALA:HA	5:C:79:LEU:HD13	1.65	0.78
5:C:247:LYS:HA	5:C:250:LYS:HG3	1.64	0.78
1:D:469:ASN:O	1:D:473:THR:OG1	1.99	0.78
6:B:239:ILE:HA	6:B:290:VAL:HG13	1.62	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:480:ASP:HB3	7:I:485:GLU:H	1.48	0.78
1:D:349:THR:H	1:D:352:LYS:HE2	1.48	0.78
2:E:171:LEU:O	3:F:527:ARG:NH1	2.15	0.78
3:N:248:LEU:HA	3:N:299:LEU:HB2	1.66	0.78
5:K:34:GLU:OE1	5:K:37:ARG:NH2	2.15	0.78
7:I:299:PRO:HA	7:I:302:LEU:HD12	1.66	0.78
1:D:420:TYR:HA	1:D:507:ILE:HA	1.65	0.78
7:I:291:VAL:N	7:I:311:VAL:O	2.17	0.78
8:G:147:CYS:HA	8:G:150:ASN:HD22	1.48	0.78
7:A:49:SER:HG	7:A:53:ASP:H	1.31	0.78
8:O:353:GLN:HA	8:O:362:ILE:HA	1.65	0.78
3:N:258:THR:OG1	3:N:260:MET:O	2.01	0.78
3:F:248:LEU:HB3	3:F:344:PRO:HA	1.66	0.78
8:G:24:ALA:O	8:G:27:SER:OG	2.00	0.78
9:Q:227:GLU:HB3	9:Q:354:TYR:HE2	1.47	0.78
8:O:446:LEU:O	8:O:450:ASN:ND2	2.17	0.78
9:Q:143:ARG:NH1	9:Q:218:TRP:O	2.16	0.78
1:D:426:GLU:OE1	1:D:426:GLU:N	2.17	0.78
4:H:319:ASP:N	4:H:319:ASP:OD1	2.12	0.78
6:J:239:ILE:HB	6:J:345:GLY:HA3	1.65	0.78
7:A:190:MET:N	7:A:190:MET:SD	2.57	0.78
4:H:314:ARG:NH2	9:Q:130:GLU:OE2	2.16	0.77
5:K:487:ASN:HA	5:K:490:ALA:HB3	1.63	0.77
6:B:219:HIS:CE1	6:B:367:LYS:H	2.02	0.77
5:C:288:VAL:HG22	5:C:309:PHE:HB3	1.66	0.77
6:J:406:LYS:HB3	6:J:407:ARG:HG3	1.65	0.77
6:B:30:TYR:HD2	6:B:31:ARG:HE	1.32	0.77
1:D:357:GLY:H	1:D:376:GLN:HA	1.50	0.77
6:J:219:HIS:CE1	6:J:367:LYS:H	2.02	0.77
6:B:68:ASP:OD2	6:B:71:THR:N	2.12	0.77
7:I:364:GLU:HG3	7:I:365:LYS:HG3	1.65	0.77
9:Q:201:ALA:HB2	9:Q:357:MET:HA	1.64	0.77
1:L:265:LYS:HZ3	2:M:255:ARG:HE	1.33	0.77
4:H:523:VAL:HB	8:G:45:LEU:HB3	1.65	0.77
4:P:246:GLU:O	4:P:248:LYS:NZ	2.16	0.77
5:K:247:LYS:HD3	5:K:250:LYS:HB2	1.65	0.77
8:G:34:SER:O	8:G:41:LEU:N	2.15	0.77
2:M:213:TYR:O	2:M:374:VAL:N	2.18	0.77
4:H:218:VAL:HG21	4:H:323:ILE:HG12	1.64	0.77
5:K:247:LYS:NZ	5:K:251:ASP:O	2.17	0.77
7:I:44:MET:SD	7:I:44:MET:N	2.57	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:364:GLU:HG3	7:A:365:LYS:HG3	1.67	0.77
8:O:400:LYS:O	8:O:404:GLU:N	2.18	0.77
8:G:176:VAL:HA	8:G:179:ILE:HG22	1.65	0.77
2:M:326:VAL:HB	2:M:370:ALA:HB3	1.67	0.77
4:P:101:LEU:HG	4:P:447:ILE:HD11	1.65	0.77
6:B:100:GLY:HA2	6:B:103:PHE:CD1	2.19	0.77
7:A:278:LYS:O	7:A:282:CYS:N	2.16	0.77
8:O:508:ILE:HA	8:O:511:VAL:HB	1.67	0.77
2:M:488:MET:O	2:M:492:GLY:N	2.18	0.77
2:E:232:ILE:HB	2:E:349:ILE:HB	1.67	0.77
4:H:55:GLY:HA2	6:J:6:PRO:HD3	1.66	0.77
6:J:58:ASN:OD1	6:J:62:LYS:N	2.15	0.77
7:I:297:ILE:HG12	7:I:314:ARG:HB3	1.66	0.77
7:A:234:ASN:OD1	7:A:334:ASN:ND2	2.18	0.77
3:F:416:VAL:O	3:F:419:ARG:NH2	2.16	0.77
4:P:48:LYS:NZ	7:I:520:GLU:O	2.11	0.77
8:O:459:ASP:N	8:O:459:ASP:OD1	2.16	0.77
2:E:220:LEU:HB2	2:E:360:ILE:HB	1.67	0.76
2:E:296:ILE:N	2:E:313:GLU:OE1	2.14	0.76
4:H:228:ARG:HH12	7:A:331:VAL:HA	1.50	0.76
8:O:514:LEU:O	8:O:518:THR:OG1	2.02	0.76
4:H:114:GLU:OE1	4:H:114:GLU:N	2.16	0.76
6:J:29:VAL:HG22	6:J:120:ARG:HH11	1.49	0.76
9:Q:271:VAL:HB	9:Q:283:TYR:HB2	1.67	0.76
4:P:119:PRO:HB3	4:P:517:LEU:HD12	1.65	0.76
5:K:410:GLY:HA3	5:K:446:PRO:HG3	1.68	0.76
5:C:247:LYS:NZ	5:C:251:ASP:O	2.19	0.76
9:Q:97:ARG:O	11:Q:1102:HOH:O	2.02	0.76
5:K:45:MET:O	5:K:60:ASN:ND2	2.17	0.76
5:K:316:GLU:O	5:K:320:LYS:N	2.16	0.76
6:B:166:THR:O	6:B:170:SER:N	2.16	0.76
5:C:223:ALA:HB3	5:C:301:GLN:HE22	1.51	0.76
6:J:201:ASN:HB3	6:J:372:ILE:HG22	1.66	0.76
8:O:464:VAL:HA	8:O:467:LEU:HD12	1.67	0.76
8:G:446:LEU:O	8:G:450:ASN:ND2	2.19	0.76
1:L:168:THR:HG23	1:L:507:ILE:HG13	1.67	0.76
1:D:276:ALA:O	1:D:280:TYR:N	2.17	0.76
4:H:220:ILE:HB	4:H:361:THR:HB	1.68	0.76
6:J:100:GLY:HA2	6:J:103:PHE:CD1	2.20	0.76
6:B:156:ASP:OD2	6:B:159:GLU:N	2.17	0.76
7:A:156:LEU:HB3	7:A:165:ALA:HB1	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:353:MET:HA	2:M:358:LYS:HA	1.68	0.76
5:K:244:LEU:O	5:K:296:GLY:N	2.18	0.76
8:O:55:THR:OG1	8:O:390:ARG:NH1	2.19	0.76
2:M:479:ASP:N	2:M:484:THR:O	2.19	0.76
3:F:168:THR:O	3:F:172:ASN:N	2.16	0.76
4:H:450:THR:O	4:H:454:ASN:ND2	2.18	0.76
4:H:465:SER:O	4:H:469:LYS:N	2.15	0.76
7:I:296:GLY:HA2	7:I:314:ARG:HB2	1.65	0.76
8:O:202:GLY:N	8:O:379:GLY:O	2.16	0.76
9:Q:134:LEU:O	11:Q:1103:HOH:O	2.04	0.76
1:D:198:ASP:OD1	1:D:381:ARG:NH1	2.14	0.75
6:B:471:HIS:HE1	6:B:476:LYS:HA	1.49	0.75
3:N:290:ILE:O	3:N:293:THR:OG1	2.04	0.75
3:F:185:PRO:O	3:F:189:ASN:ND2	2.19	0.75
1:L:85:HIS:HE1	1:L:87:ILE:HB	1.51	0.75
5:C:510:ALA:O	5:C:514:VAL:N	2.19	0.75
6:B:47:TYR:HB2	6:B:102:ASN:HB2	1.68	0.75
6:B:354:GLU:OE2	6:B:358:THR:N	2.20	0.75
7:A:439:ALA:HA	7:A:442:ASP:HB3	1.68	0.75
9:Q:143:ARG:NH2	9:Q:219:GLY:HA2	2.00	0.75
3:N:213:LYS:O	3:N:391:ARG:NH1	2.19	0.75
3:F:494:ASN:OD1	3:F:497:LYS:N	2.19	0.75
4:H:526:HIS:NE2	4:H:528:LYS:O	2.18	0.75
5:C:232:TYR:HB2	5:C:348:PHE:HB3	1.69	0.75
6:J:208:LEU:HD23	6:J:208:LEU:H	1.52	0.75
8:G:389:GLU:O	8:G:393:HIS:N	2.16	0.75
4:H:422:LEU:O	4:H:426:SER:N	2.20	0.75
5:C:45:MET:HE3	5:C:46:ASP:H	1.50	0.75
6:J:90:SER:HA	6:J:93:GLN:HB3	1.67	0.75
8:G:8:PHE:O	8:G:534:HIS:N	2.17	0.75
1:D:61:MET:HE1	2:E:521:ILE:HD12	1.68	0.75
3:N:117:LEU:HA	3:N:120:CYS:HB2	1.68	0.75
4:H:186:GLU:HA	4:H:192:GLU:HB3	1.67	0.75
4:H:452:ILE:O	4:H:456:GLY:N	2.16	0.75
2:M:112:GLU:O	2:M:115:SER:OG	2.04	0.75
3:F:309:LEU:HD23	3:F:326:LYS:HE2	1.67	0.75
4:H:224:VAL:HG12	4:H:229:MET:HE2	1.68	0.75
4:P:415:GLU:N	4:P:415:GLU:OE2	2.18	0.75
6:B:382:ASP:HA	6:B:385:MET:HG2	1.69	0.75
7:A:49:SER:OG	7:A:53:ASP:N	2.20	0.75
7:A:305:LEU:HB3	7:A:310:ILE:HB	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:460:ILE:O	5:C:464:LEU:N	2.20	0.74
6:B:399:PHE:O	6:B:403:THR:N	2.19	0.74
8:G:100:LEU:HD22	8:G:444:SER:HB2	1.68	0.74
8:G:416:GLU:OE1	8:G:416:GLU:N	2.19	0.74
4:H:52:ASP:OD1	4:H:56:GLY:N	2.19	0.74
5:C:150:GLU:HB2	5:C:153:LYS:HG3	1.67	0.74
3:F:472:ASN:O	3:F:476:THR:OG1	2.03	0.74
7:I:14:ALA:HB3	7:I:521:ILE:H	1.50	0.74
1:D:364:PHE:HB2	1:D:388:ARG:HH21	1.51	0.74
3:N:494:ASN:N	3:N:499:GLY:O	2.18	0.74
3:F:316:PHE:O	3:F:320:MET:N	2.21	0.74
7:I:12:GLU:O	7:I:523:ARG:N	2.17	0.74
7:I:478:GLY:N	7:I:487:MET:O	2.21	0.74
7:A:172:VAL:O	7:A:175:SER:OG	2.04	0.74
8:G:148:LEU:HD22	8:G:399:VAL:HG13	1.69	0.74
1:D:478:ARG:O	1:D:482:VAL:N	2.21	0.74
5:C:34:GLU:OE1	5:C:37:ARG:NH2	2.20	0.74
6:B:16:LYS:HE2	6:B:21:HIS:HB2	1.69	0.74
6:B:52:MET:N	6:B:52:MET:SD	2.60	0.74
7:A:281:VAL:HG21	7:A:344:LEU:HD11	1.69	0.74
1:D:329:GLU:HA	1:D:332:LEU:HD12	1.70	0.74
3:F:445:GLY:O	3:F:448:SER:OG	2.06	0.74
4:P:110:GLU:HA	4:P:113:LEU:HD23	1.69	0.74
1:D:55:ASN:HD22	1:D:466:SER:HA	1.51	0.74
4:H:194:ASP:O	4:H:399:ARG:NH1	2.21	0.74
6:J:266:MET:SD	6:J:266:MET:N	2.56	0.74
3:N:38:ILE:HG23	3:N:117:LEU:HB3	1.70	0.74
4:P:165:ILE:HA	4:P:168:TRP:HD1	1.51	0.74
5:C:280:LYS:O	5:C:284:SER:OG	2.05	0.74
8:G:353:GLN:HA	8:G:362:ILE:HA	1.68	0.74
1:D:277:LEU:HD11	2:E:250:LYS:HG2	1.70	0.74
5:K:152:ARG:NH1	5:K:181:ASP:OD1	2.20	0.74
7:I:195:GLU:HB2	7:I:384:LEU:HD22	1.70	0.74
1:L:85:HIS:CE1	1:L:87:ILE:HB	2.23	0.74
3:N:345:VAL:HG11	3:N:351:PHE:HB2	1.69	0.74
3:F:136:SER:HB3	3:F:447:GLU:HB3	1.69	0.74
8:G:315:ASP:OD1	8:G:315:ASP:N	2.19	0.74
3:F:246:ILE:HD11	3:F:299:LEU:HG	1.69	0.73
3:F:290:ILE:O	3:F:293:THR:OG1	2.06	0.73
6:J:200:ASP:O	6:J:323:ARG:NH2	2.20	0.73
7:I:218:HIS:NE2	7:I:220:ASP:OD2	2.19	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:432:SER:O	8:G:435:GLN:NE2	2.19	0.73
4:P:196:LYS:HD3	4:P:399:ARG:HD2	1.69	0.73
4:P:447:ILE:O	4:P:450:THR:OG1	2.06	0.73
5:K:48:LEU:HB2	5:K:58:ILE:HG22	1.70	0.73
7:I:425:HIS:O	7:I:434:GLN:NE2	2.20	0.73
7:A:294:GLN:HE22	7:A:295:LYS:HE3	1.53	0.73
8:G:269:ASP:HA	8:G:272:LYS:HB3	1.71	0.73
2:M:477:GLY:N	2:M:486:GLY:O	2.21	0.73
2:E:403:ASP:OD2	2:E:405:ARG:NE	2.21	0.73
9:Q:360:ASP:O	11:Q:1104:HOH:O	2.06	0.73
3:F:461:ILE:O	3:F:464:THR:OG1	2.05	0.73
5:C:209:GLN:HB3	5:C:373:ILE:HB	1.70	0.73
6:J:47:TYR:HE1	6:J:170:SER:HB2	1.52	0.73
1:L:426:GLU:HB2	1:L:455:LEU:HD21	1.70	0.73
4:P:165:ILE:HA	4:P:168:TRP:CD1	2.23	0.73
6:B:410:PRO:O	6:B:415:THR:OG1	2.07	0.73
7:A:255:GLU:O	7:A:259:LEU:N	2.19	0.73
8:G:427:ALA:HB1	8:G:435:GLN:HB2	1.70	0.73
9:Q:84:ASP:O	11:Q:1105:HOH:O	2.06	0.73
1:L:500:ASP:OD1	1:L:503:GLN:N	2.18	0.73
1:D:438:ASP:OD1	1:D:438:ASP:N	2.21	0.73
2:M:479:ASP:OD1	2:M:482:GLU:N	2.22	0.73
6:B:292:VAL:HA	6:B:313:VAL:HB	1.69	0.73
1:L:168:THR:O	1:L:171:THR:OG1	2.06	0.73
1:L:188:ILE:HG12	1:L:224:LEU:HD23	1.69	0.73
1:L:426:GLU:OE1	1:L:426:GLU:N	2.22	0.73
1:D:391:ASN:HD21	1:D:393:MET:HB2	1.53	0.73
2:E:281:ARG:NH2	2:E:336:ASP:OD1	2.22	0.73
3:N:300:ILE:HB	3:N:326:LYS:HA	1.69	0.73
8:O:82:GLN:O	8:O:86:VAL:N	2.19	0.73
1:L:508:GLU:HG2	1:L:513:LYS:HE2	1.71	0.73
1:D:361:GLU:HA	1:D:372:LEU:HA	1.71	0.73
5:C:497:MET:HA	5:C:500:ILE:HB	1.70	0.73
8:O:480:ARG:HA	8:O:483:LEU:HB2	1.69	0.73
4:P:127:ARG:NH2	8:O:164:ASN:HB2	2.03	0.73
8:O:528:ASP:OD1	8:O:528:ASP:N	2.20	0.73
1:L:179:ASN:HA	1:L:182:HIS:HB3	1.70	0.73
3:N:71:THR:HG21	3:N:76:THR:HB	1.71	0.73
4:P:114:GLU:OE1	4:P:114:GLU:N	2.21	0.73
5:C:289:VAL:O	5:C:311:ALA:N	2.22	0.73
1:L:188:ILE:HG23	1:L:224:LEU:HB3	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:28:ASN:OD1	6:B:30:TYR:OH	2.07	0.72
6:B:17:GLU:H	6:B:17:GLU:CD	1.96	0.72
8:O:427:ALA:HB1	8:O:435:GLN:HB2	1.71	0.72
8:O:462:ASP:OD1	8:O:462:ASP:N	2.22	0.72
9:Q:247:ARG:NH1	11:Q:1132:HOH:O	2.20	0.72
1:D:31:LEU:HB3	1:D:35:LYS:NZ	2.04	0.72
3:N:347:HIS:ND1	3:N:349:ASP:OD1	2.23	0.72
4:H:195:ILE:HG22	4:H:198:TYR:H	1.54	0.72
6:J:104:VAL:HG23	6:J:511:ALA:HB2	1.71	0.72
9:Q:109:MET:HE1	9:Q:131:LEU:HB2	1.71	0.72
4:P:224:VAL:HG12	4:P:229:MET:HE2	1.69	0.72
8:O:201:HIS:O	8:O:378:ARG:NH1	2.22	0.72
9:Q:86:GLN:O	11:Q:1106:HOH:O	2.06	0.72
9:Q:107:HIS:O	9:Q:111:ASN:ND2	2.20	0.72
1:L:153:ASP:OD1	1:L:154:SER:N	2.21	0.72
1:L:236:HIS:H	1:L:239:MET:HE2	1.54	0.72
2:E:416:LEU:HD21	2:E:474:THR:HB	1.72	0.72
4:P:238:ILE:HA	4:P:289:VAL:HB	1.72	0.72
6:J:152:LYS:HD3	6:J:406:LYS:HE3	1.72	0.72
1:L:84:ASP:O	1:L:89:LYS:NZ	2.22	0.72
4:H:51:LEU:HD12	7:A:523:ARG:HB2	1.70	0.72
4:H:248:LYS:NZ	4:H:274:TYR:OH	2.15	0.72
4:H:376:LEU:HB3	4:H:384:LEU:HD12	1.69	0.72
4:P:149:SER:HB3	4:P:177:LEU:HD21	1.72	0.72
5:C:332:THR:H	6:B:303:HIS:CE1	2.07	0.72
5:C:504:THR:O	5:C:507:SER:OG	2.07	0.72
6:B:252:GLU:OE2	6:B:253:THR:HG23	1.89	0.72
2:M:21:ALA:O	2:M:25:ARG:NE	2.23	0.72
2:M:51:ILE:HB	3:N:535:VAL:HG22	1.71	0.72
2:M:226:VAL:N	2:M:301:GLU:OE2	2.23	0.72
2:M:258:VAL:HG23	3:N:264:ILE:HD13	1.71	0.72
2:E:115:SER:O	2:E:119:LYS:N	2.18	0.72
3:N:160:ARG:NH1	3:N:189:ASN:OD1	2.22	0.72
3:N:494:ASN:OD1	3:N:497:LYS:N	2.21	0.72
7:I:78:ALA:O	7:I:82:THR:OG1	2.07	0.72
9:Q:80:GLN:O	11:Q:1108:HOH:O	2.07	0.72
9:Q:207:SER:O	11:Q:1107:HOH:O	2.06	0.72
1:L:210:LYS:NZ	1:L:211:VAL:O	2.23	0.72
2:M:234:ASN:N	2:M:347:LYS:O	2.18	0.72
2:E:112:GLU:O	2:E:115:SER:OG	2.08	0.72
4:P:319:ASP:OD1	4:P:319:ASP:N	2.18	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:183:ASP:O	8:G:185:ARG:N	2.19	0.72
8:G:183:ASP:HB3	8:G:187:GLN:HB2	1.72	0.72
2:E:19:GLU:HB2	2:E:520:ILE:HG12	1.72	0.72
2:E:204:LYS:O	2:E:376:ARG:NH1	2.23	0.72
5:K:297:ASP:O	5:K:301:GLN:NE2	2.22	0.72
6:J:240:ALA:HB1	6:J:242:TYR:HE2	1.53	0.72
6:J:320:ASP:N	6:J:320:ASP:OD1	2.20	0.72
7:A:45:LYS:N	7:A:57:THR:O	2.17	0.72
3:F:168:THR:HA	3:F:171:LEU:HB2	1.71	0.72
4:P:263:ASP:OD1	4:P:263:ASP:N	2.20	0.72
1:L:165:LEU:HD21	1:L:412:LEU:HD22	1.70	0.71
1:D:306:PHE:HB2	1:D:323:ARG:HH11	1.54	0.71
2:M:399:GLN:HA	2:M:402:LYS:HB2	1.72	0.71
2:E:176:LYS:O	2:E:180:THR:OG1	2.07	0.71
6:J:20:LYS:HB2	6:J:526:MET:HB3	1.72	0.71
6:B:249:MET:HE3	6:B:336:LEU:H	1.54	0.71
7:I:238:GLU:HA	7:I:298:ASP:HB2	1.72	0.71
1:L:461:ALA:O	1:L:465:ASN:N	2.19	0.71
2:M:226:VAL:O	2:M:228:GLN:N	2.20	0.71
2:E:116:LEU:O	2:E:120:LYS:N	2.22	0.71
3:N:34:ARG:HH21	3:N:124:LEU:HD11	1.53	0.71
3:N:298:LEU:HB3	3:N:324:VAL:HA	1.72	0.71
3:N:399:GLU:OE1	3:N:403:ARG:NH1	2.22	0.71
4:H:200:ARG:NE	4:H:202:GLU:OE1	2.22	0.71
5:K:329:SER:HB2	5:K:341:VAL:HB	1.71	0.71
6:J:209:GLY:N	6:J:379:GLY:O	2.22	0.71
7:A:211:VAL:HG21	7:A:375:LEU:HD12	1.72	0.71
4:H:157:ASN:O	4:H:161:THR:OG1	2.07	0.71
4:H:228:ARG:NH1	7:A:331:VAL:HA	2.04	0.71
5:K:407:ALA:HB2	5:K:488:PHE:HB2	1.72	0.71
5:C:518:GLU:HG2	6:B:54:LYS:HE2	1.73	0.71
8:O:416:GLU:HA	8:O:419:LEU:HB2	1.70	0.71
1:D:396:GLU:HA	1:D:399:LYS:HD3	1.73	0.71
2:M:245:ASP:HA	2:M:297:TYR:HB2	1.72	0.71
5:C:383:GLU:H	5:C:383:GLU:CD	1.96	0.71
6:B:240:ALA:HB3	6:B:291:VAL:HA	1.70	0.71
6:B:350:VAL:HG22	6:B:363:PHE:HA	1.70	0.71
8:O:315:ASP:OD1	8:O:315:ASP:N	2.22	0.71
9:Q:168:THR:OG1	9:Q:280:CYS:SG	2.46	0.71
1:L:456:GLU:OE1	1:L:478:ARG:NH2	2.23	0.71
2:E:172:LEU:HB3	2:E:179:PHE:CE1	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:33:ILE:O	3:N:36:SER:OG	2.08	0.71
3:F:347:HIS:ND1	3:F:349:ASP:OD1	2.23	0.71
4:P:75:PRO:HB3	8:O:52:VAL:HG11	1.72	0.71
4:P:132:ASP:O	4:P:136:THR:OG1	2.07	0.71
6:B:80:HIS:HE1	6:B:82:ALA:HB3	1.56	0.71
7:I:451:LEU:O	7:I:455:SER:N	2.22	0.71
8:O:211:ILE:HB	8:O:374:SER:HB2	1.71	0.71
8:G:130:ARG:NH1	8:G:422:TYR:OH	2.21	0.71
9:Q:39:GLN:O	11:Q:1109:HOH:O	2.08	0.71
3:N:360:GLU:N	3:N:360:GLU:OE2	2.23	0.71
3:F:298:LEU:N	3:F:323:MET:O	2.24	0.71
4:H:50:LEU:HD13	7:A:522:MET:HG2	1.72	0.71
4:P:388:GLU:O	4:P:392:GLN:N	2.23	0.71
5:K:39:THR:O	5:K:45:MET:N	2.17	0.71
7:A:8:ASN:OD1	7:A:11:ALA:N	2.22	0.71
9:Q:81:ASP:OD1	11:Q:1110:HOH:O	2.09	0.71
3:N:72:ASN:HB3	3:N:174:LYS:HG3	1.71	0.71
6:J:241:VAL:HA	6:J:292:VAL:HG22	1.73	0.71
6:J:481:ASP:OD1	6:J:482:ILE:N	2.22	0.71
6:B:340:VAL:HG12	6:B:343:GLU:H	1.55	0.71
6:B:405:ASP:OD1	6:B:405:ASP:N	2.22	0.71
9:Q:61:LEU:O	11:Q:1111:HOH:O	2.09	0.71
9:Q:79:HIS:NE2	9:Q:86:GLN:OE1	2.23	0.71
1:D:479:ALA:HA	1:D:482:VAL:HB	1.73	0.71
1:D:501:MET:HA	1:D:504:GLN:HB3	1.72	0.71
2:M:220:LEU:HB2	2:M:360:ILE:HB	1.72	0.71
4:P:188:ASN:N	4:P:188:ASN:OD1	2.24	0.71
5:K:291:SER:OG	5:K:293:LEU:O	2.08	0.71
1:L:338:GLY:O	1:L:340:ARG:NH2	2.24	0.71
1:D:18:ILE:N	1:D:22:GLN:OE1	2.24	0.71
4:H:520:ASP:OD1	4:H:520:ASP:N	2.24	0.71
4:P:513:ALA:O	4:P:517:LEU:N	2.22	0.71
5:C:199:LYS:HB3	5:C:382:MET:HB3	1.72	0.71
5:C:317:GLU:HB3	5:C:321:ARG:HH12	1.56	0.71
6:J:283:ILE:O	6:J:286:THR:OG1	2.09	0.71
1:D:171:THR:HG21	1:D:507:ILE:H	1.55	0.71
1:D:358:LEU:O	1:D:375:GLU:N	2.23	0.71
5:K:159:ALA:O	5:K:163:LEU:N	2.13	0.71
6:J:82:ALA:HA	6:J:85:MET:HG3	1.72	0.71
7:I:49:SER:OG	7:I:53:ASP:N	2.20	0.71
8:O:227:LYS:HG3	8:O:353:GLN:HG3	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:165:LEU:HD22	1:L:409:ILE:HG23	1.73	0.70
6:J:20:LYS:O	6:J:526:MET:N	2.23	0.70
1:D:224:LEU:HA	1:D:385:ILE:HA	1.73	0.70
2:M:68:ALA:O	2:M:72:LYS:N	2.24	0.70
3:N:72:ASN:HD22	3:N:174:LYS:HE3	1.56	0.70
4:P:51:LEU:HD12	7:I:523:ARG:HB2	1.72	0.70
4:P:296:ILE:HG13	4:P:313:ARG:HB3	1.72	0.70
7:I:107:ASP:HA	7:I:110:ILE:HG12	1.73	0.70
3:N:365:VAL:N	3:N:373:LEU:O	2.22	0.70
7:I:203:ASP:O	7:I:205:SER:OG	2.09	0.70
8:G:382:ASP:OD1	8:G:382:ASP:N	2.21	0.70
3:N:461:ILE:O	3:N:464:THR:OG1	2.08	0.70
3:F:429:GLU:N	3:F:429:GLU:OE2	2.24	0.70
4:P:421:ALA:HA	4:P:424:GLU:OE1	1.92	0.70
5:K:476:GLY:O	5:K:485:ALA:N	2.25	0.70
2:E:50:LYS:HE3	3:F:534:ASP:HB3	1.73	0.70
4:P:481:ASN:OD1	4:P:484:THR:N	2.20	0.70
7:I:227:ASP:OD1	7:I:346:HIS:NE2	2.24	0.70
7:A:32:ASP:HA	7:A:35:ARG:HD2	1.74	0.70
9:Q:1:MET:N	11:Q:1137:HOH:O	2.23	0.70
9:Q:17:ASN:ND2	11:Q:1141:HOH:O	2.24	0.70
1:L:420:TYR:HA	1:L:507:ILE:HA	1.72	0.70
5:K:386:GLU:O	5:K:390:HIS:N	2.23	0.70
6:J:116:GLU:HA	6:J:119:LEU:HB3	1.74	0.70
6:B:384:LEU:HD23	6:B:385:MET:HE1	1.71	0.70
7:I:8:ASN:OD1	7:I:11:ALA:N	2.25	0.70
7:I:389:ASP:O	7:I:393:ASP:N	2.22	0.70
8:O:203:ARG:HD2	8:O:378:ARG:HE	1.57	0.70
2:E:42:THR:OG1	2:E:65:ASN:OD1	2.08	0.70
4:P:258:ILE:HG12	7:I:248:PHE:HB3	1.73	0.70
5:K:321:ARG:O	5:K:325:ALA:N	2.23	0.70
7:A:130:ALA:HB2	7:A:422:LEU:HD11	1.72	0.70
1:L:98:GLN:HG2	1:L:109:VAL:HG21	1.74	0.70
4:H:54:MET:N	4:H:54:MET:SD	2.62	0.70
4:H:116:GLN:HE21	6:J:459:LYS:HA	1.54	0.70
4:P:33:ILE:HG21	4:P:80:MET:HG2	1.73	0.70
8:G:453:ALA:O	8:G:457:ALA:N	2.24	0.70
9:Q:29:GLN:O	11:Q:1112:HOH:O	2.09	0.70
2:M:285:HIS:CE1	2:M:335:PHE:HB3	2.27	0.70
3:N:104:ASP:OD1	3:N:105:GLY:N	2.25	0.70
3:F:423:ALA:HA	3:F:509:VAL:HA	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:150:ASP:OD1	4:P:150:ASP:N	2.18	0.70
5:C:378:ALA:HB3	5:C:381:PHE:CG	2.26	0.70
8:O:423:LEU:O	8:O:427:ALA:N	2.23	0.70
5:C:329:SER:HB2	5:C:341:VAL:HB	1.73	0.70
9:Q:167:TRP:HZ2	9:Q:259:ARG:HB2	1.57	0.70
1:L:173:LEU:HD21	1:L:405:ALA:HB2	1.73	0.69
2:E:163:ALA:O	2:E:167:LEU:N	2.21	0.69
2:E:326:VAL:HB	2:E:370:ALA:HB3	1.73	0.69
3:N:492:GLY:O	3:N:501:SER:N	2.23	0.69
4:P:298:ASP:HA	4:P:301:GLN:HB3	1.72	0.69
5:C:421:ARG:O	5:C:424:SER:OG	2.08	0.69
1:D:463:SER:HA	1:D:466:SER:HB3	1.73	0.69
3:N:33:ILE:O	3:N:37:ASN:ND2	2.24	0.69
5:K:21:GLN:O	5:K:25:ASN:ND2	2.25	0.69
5:K:464:LEU:O	5:K:468:HIS:N	2.22	0.69
6:B:13:GLN:HB2	6:B:15:LEU:HG	1.74	0.69
6:B:58:ASN:OD1	6:B:62:LYS:N	2.25	0.69
9:Q:228:LEU:O	9:Q:239:ARG:NH2	2.25	0.69
1:D:258:PRO:O	5:C:263:TYR:OH	2.10	0.69
8:G:488:LEU:HA	8:G:495:PRO:HA	1.74	0.69
1:L:420:TYR:HD1	1:L:507:ILE:HG22	1.55	0.69
1:L:517:ILE:O	1:L:521:THR:OG1	2.10	0.69
2:M:502:GLN:O	2:M:506:SER:OG	2.10	0.69
2:E:339:GLU:H	2:E:339:GLU:CD	1.99	0.69
5:K:288:VAL:HG13	5:K:309:PHE:HD2	1.57	0.69
7:I:252:SER:OG	7:I:255:GLU:N	2.20	0.69
8:O:55:THR:HG1	8:O:390:ARG:HH11	1.37	0.69
1:D:329:GLU:OE1	1:D:329:GLU:N	2.15	0.69
2:E:221:ASP:OD1	2:E:222:LYS:NZ	2.21	0.69
6:B:244:CYS:SG	6:B:336:LEU:HD13	2.32	0.69
6:B:481:ASP:OD1	6:B:482:ILE:N	2.24	0.69
8:O:380:ALA:H	8:O:384:MET:HE2	1.55	0.69
8:O:434:GLU:OE1	8:O:434:GLU:N	2.26	0.69
8:G:323:SER:HA	8:G:367:THR:HB	1.74	0.69
9:Q:334:VAL:HG23	9:Q:335:LEU:HG	1.74	0.69
3:N:268:ASP:N	3:N:271:GLN:OE1	2.20	0.69
4:P:526:HIS:N	8:O:47:ASP:O	2.19	0.69
5:K:375:ARG:HA	5:K:375:ARG:HH21	1.57	0.69
5:C:247:LYS:HD3	5:C:250:LYS:HB2	1.74	0.69
8:O:46:VAL:HA	8:O:52:VAL:HG12	1.75	0.69
8:O:381:ASN:OD1	8:O:384:MET:N	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:O:489:ASP:OD1	8:O:491:SER:N	2.24	0.69
1:D:63:ASP:N	1:D:67:ASP:O	2.21	0.69
3:N:354:ASP:OD1	3:N:355:MET:N	2.26	0.69
4:P:478:TRP:HA	4:P:489:ASP:HA	1.73	0.69
7:I:305:LEU:O	7:I:309:GLY:N	2.26	0.69
8:O:453:ALA:O	8:O:457:ALA:N	2.25	0.69
8:G:201:HIS:O	8:G:378:ARG:NH1	2.25	0.69
8:G:246:MET:N	8:G:246:MET:SD	2.66	0.69
1:D:254:PRO:HB3	1:D:304:TRP:HB3	1.74	0.69
1:D:275:LYS:O	1:D:279:LYS:N	2.21	0.69
1:D:313:LEU:HA	1:D:316:GLN:HB2	1.73	0.69
3:N:240:ARG:HD2	8:O:184:ILE:HD11	1.74	0.69
3:F:474:ILE:O	3:F:478:THR:OG1	2.09	0.69
4:H:203:LYS:HD3	4:H:388:GLU:HG2	1.73	0.69
4:P:195:ILE:HG22	4:P:197:LYS:H	1.56	0.69
5:C:413:GLU:OE1	5:C:413:GLU:N	2.18	0.69
5:C:415:GLU:OE1	5:C:468:HIS:NE2	2.25	0.69
8:O:99:GLU:OE2	8:O:103:ASN:ND2	2.26	0.69
9:Q:264:ILE:HG22	9:Q:265:LEU:HG	1.74	0.69
1:L:196:VAL:HG21	1:L:209:ILE:HD11	1.75	0.69
1:L:265:LYS:O	2:M:255:ARG:NH2	2.25	0.69
2:M:424:LEU:HD12	2:M:427:ARG:HD2	1.74	0.69
3:N:146:GLU:O	3:N:149:THR:OG1	2.10	0.69
3:N:520:THR:O	3:N:523:THR:OG1	2.10	0.69
5:C:244:LEU:O	5:C:296:GLY:N	2.23	0.69
6:J:33:ILE:HG21	6:J:116:GLU:HG2	1.75	0.69
6:B:201:ASN:HB3	6:B:372:ILE:HG22	1.75	0.69
6:B:209:GLY:O	6:B:379:GLY:N	2.25	0.69
7:I:91:GLY:O	7:I:95:ASN:ND2	2.26	0.69
5:C:268:ASP:OD1	5:C:268:ASP:N	2.26	0.69
5:C:332:THR:OG1	6:B:303:HIS:ND1	2.24	0.69
2:E:242:THR:HG21	2:E:248:LYS:HZ3	1.58	0.68
2:E:245:ASP:HA	2:E:297:TYR:HB2	1.76	0.68
5:K:119:GLN:NE2	6:J:49:PRO:O	2.25	0.68
5:K:150:GLU:H	5:K:153:LYS:HD3	1.58	0.68
5:K:207:ASP:N	5:K:207:ASP:OD1	2.24	0.68
6:B:209:GLY:N	6:B:379:GLY:O	2.25	0.68
6:B:261:THR:OG1	6:B:263:GLU:OE1	2.12	0.68
7:A:174:ASP:HA	7:A:177:LEU:HD12	1.74	0.68
8:O:24:ALA:O	8:O:27:SER:OG	2.11	0.68
8:O:410:PRO:HA	8:O:504:PHE:HD1	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:248:LEU:HG	8:G:249:GLY:H	1.56	0.68
8:G:263:ILE:HA	8:G:266:ARG:HH11	1.56	0.68
9:Q:32:TRP:O	11:Q:1113:HOH:O	2.10	0.68
9:Q:323:TRP:O	9:Q:327:THR:OG1	2.10	0.68
1:L:358:LEU:O	1:L:375:GLU:N	2.24	0.68
1:D:444:GLU:HG2	1:D:448:MET:HE3	1.75	0.68
2:E:353:MET:HA	2:E:358:LYS:HA	1.76	0.68
3:N:185:PRO:O	3:N:189:ASN:ND2	2.25	0.68
5:K:301:GLN:O	5:K:305:ASP:N	2.24	0.68
7:A:151:VAL:HG22	7:A:495:TRP:HB2	1.75	0.68
1:L:272:GLU:HA	1:L:275:LYS:HB2	1.75	0.68
1:D:66:GLY:O	2:E:82:LYS:NZ	2.26	0.68
2:E:288:ASN:HA	2:E:309:VAL:HG22	1.75	0.68
2:E:466:ARG:O	2:E:470:SER:OG	2.11	0.68
3:F:240:ARG:HD2	8:G:184:ILE:HD11	1.73	0.68
3:F:525:THR:O	3:F:529:ILE:N	2.27	0.68
4:H:93:ASP:OD2	4:H:163:LYS:NZ	2.25	0.68
5:K:239:LEU:HD22	5:K:319:LEU:HD11	1.75	0.68
5:K:240:LEU:O	5:K:291:SER:HA	1.94	0.68
1:L:200:GLU:CD	1:L:200:GLU:H	1.99	0.68
1:D:334:ALA:O	1:D:339:GLY:N	2.25	0.68
1:D:420:TYR:HD1	1:D:507:ILE:HG22	1.57	0.68
4:H:76:ALA:HA	4:H:79:SER:HB3	1.75	0.68
2:E:277:GLU:O	2:E:281:ARG:N	2.26	0.68
3:F:63:ASP:N	3:F:67:ASP:O	2.16	0.68
4:P:41:LEU:HD13	4:P:96:THR:HB	1.75	0.68
4:P:186:GLU:H	4:P:370:LYS:HZ3	1.40	0.68
5:K:202:GLY:O	5:K:375:ARG:NH2	2.27	0.68
6:J:378:ARG:HA	6:J:378:ARG:HH11	1.58	0.68
8:G:246:MET:HB3	8:G:250:VAL:HB	1.73	0.68
1:D:479:ALA:O	1:D:483:LYS:N	2.16	0.68
2:M:175:HIS:HB2	2:M:179:PHE:HE1	1.59	0.68
3:F:227:LEU:HD13	3:F:340:ILE:HG23	1.75	0.68
3:F:258:THR:OG1	3:F:260:MET:O	2.10	0.68
4:H:332:VAL:HG12	4:H:334:ARG:H	1.58	0.68
5:C:33:ALA:O	5:C:37:ARG:N	2.27	0.68
5:C:352:GLN:OE1	5:C:357:ARG:HA	1.93	0.68
1:D:247:LYS:HB3	1:D:297:ALA:HA	1.76	0.68
4:H:242:ASP:N	4:H:332:VAL:O	2.27	0.68
4:H:256:ILE:HB	7:A:246:SER:HA	1.73	0.68
5:C:48:LEU:HD11	5:C:56:ALA:HB1	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:240:ALA:HB3	6:J:291:VAL:HA	1.76	0.68
6:B:462:GLU:CD	6:B:462:GLU:H	2.02	0.68
8:O:499:LYS:HA	8:O:504:PHE:CE1	2.28	0.68
8:G:291:GLY:HA2	8:G:310:ARG:HH21	1.59	0.68
2:E:174:HIS:HE1	3:F:134:SER:HB2	1.58	0.68
3:N:491:ALA:HA	3:N:502:ASN:HA	1.74	0.68
5:C:287:LYS:O	5:C:309:PHE:N	2.25	0.68
6:B:29:VAL:HG22	6:B:120:ARG:HH11	1.58	0.68
7:A:276:GLU:O	7:A:280:LYS:N	2.23	0.68
8:G:46:VAL:HA	8:G:52:VAL:HG12	1.75	0.68
9:Q:175:ASP:OD2	9:Q:252:PHE:N	2.27	0.68
1:L:469:ASN:OD1	1:L:472:GLN:N	2.20	0.68
4:H:29:ALA:O	4:H:32:THR:OG1	2.12	0.68
4:H:388:GLU:HA	4:H:391:LEU:HB2	1.76	0.68
5:C:237:ILE:HD13	5:C:344:ARG:HA	1.76	0.68
1:L:43:ALA:O	1:L:47:THR:OG1	2.10	0.68
2:M:112:GLU:OE1	2:M:438:SER:HB2	1.93	0.68
2:E:221:ASP:HA	2:E:359:LEU:HD22	1.74	0.68
3:N:416:VAL:O	3:N:419:ARG:NH2	2.27	0.68
3:F:402:GLU:O	3:F:406:HIS:N	2.21	0.68
4:H:110:GLU:HA	4:H:113:LEU:HD23	1.76	0.68
4:H:290:VAL:N	4:H:310:THR:O	2.27	0.68
4:P:188:ASN:HD21	4:P:193:ILE:HG22	1.59	0.68
5:C:226:GLU:OE1	5:C:226:GLU:N	2.20	0.68
6:J:314:ARG:HE	6:J:315:LEU:HG	1.57	0.68
7:I:107:ASP:OD2	7:A:28:ARG:NH1	2.27	0.68
7:I:499:CYS:HA	7:I:502:LYS:HB3	1.76	0.68
8:G:180:LYS:HA	8:G:190:TYR:CD1	2.29	0.68
1:D:185:MET:HE3	1:D:219:LEU:HD11	1.75	0.67
1:D:260:PRO:O	1:D:264:HIS:ND1	2.27	0.67
4:H:226:HIS:CD2	4:H:228:ARG:H	2.12	0.67
4:H:233:ILE:HB	4:H:350:LEU:HB3	1.75	0.67
4:P:507:LYS:NZ	8:O:207:GLU:HB2	2.07	0.67
7:A:42:GLY:HA2	7:A:454:ASN:HD21	1.57	0.67
7:A:198:HIS:NE2	7:A:353:TYR:OH	2.23	0.67
8:O:105:ASP:O	8:O:109:LYS:N	2.25	0.67
8:G:346:GLY:O	8:G:347:GLN:NE2	2.27	0.67
9:Q:241:GLU:OE1	11:Q:1114:HOH:O	2.11	0.67
2:E:189:ARG:HH11	2:E:371:CYS:HB3	1.59	0.67
3:F:362:ALA:HB2	3:F:376:ILE:HG23	1.76	0.67
4:H:116:GLN:HE22	6:J:460:ALA:H	1.41	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:240:LEU:O	5:C:291:SER:HA	1.94	0.67
5:C:375:ARG:HA	5:C:375:ARG:HH21	1.59	0.67
5:C:385:THR:O	5:C:389:LEU:N	2.19	0.67
6:B:494:GLU:OE1	6:B:494:GLU:N	2.20	0.67
2:M:385:GLU:OE1	2:M:388:ARG:NH1	2.27	0.67
2:E:237:ILE:N	2:E:344:GLY:O	2.26	0.67
4:H:53:PRO:HG3	7:A:526:MET:HE3	1.76	0.67
5:K:86:GLN:HB3	5:K:94:THR:HG22	1.75	0.67
5:C:510:ALA:HA	5:C:513:ILE:HB	1.77	0.67
6:B:283:ILE:O	6:B:286:THR:OG1	2.13	0.67
7:I:194:MET:O	7:I:376:ILE:N	2.26	0.67
8:G:311:VAL:HG22	8:G:316:LEU:HD23	1.76	0.67
4:P:451:LEU:O	4:P:455:CYS:N	2.24	0.67
6:J:200:ASP:OD1	6:J:323:ARG:NH1	2.26	0.67
8:O:488:LEU:HA	8:O:495:PRO:HA	1.76	0.67
8:G:416:GLU:HA	8:G:419:LEU:HB2	1.76	0.67
1:L:396:GLU:HA	1:L:399:LYS:HD3	1.77	0.67
1:D:210:LYS:NZ	1:D:211:VAL:O	2.23	0.67
1:D:249:ALA:HB3	1:D:300:ALA:HA	1.74	0.67
1:D:300:ALA:O	1:D:321:ALA:HA	1.94	0.67
3:F:78:LEU:HA	3:F:81:MET:HB2	1.76	0.67
4:H:382:GLU:OE1	4:H:382:GLU:N	2.27	0.67
5:K:280:LYS:HD2	5:K:335:ASN:HA	1.76	0.67
5:C:450:CYS:HB3	5:C:455:PHE:HB2	1.76	0.67
6:J:68:ASP:OD2	6:J:71:THR:OG1	2.10	0.67
6:B:271:GLY:HA2	6:B:274:ASN:HB2	1.74	0.67
8:O:246:MET:HB3	8:O:250:VAL:HB	1.77	0.67
8:O:299:TYR:O	8:O:303:ALA:N	2.25	0.67
2:E:239:ILE:HG23	2:E:291:ILE:HG13	1.77	0.67
3:N:47:ALA:O	3:N:59:LYS:NZ	2.27	0.67
3:N:246:ILE:HD11	3:N:299:LEU:HG	1.75	0.67
3:F:33:ILE:O	3:F:36:SER:OG	2.12	0.67
3:F:33:ILE:O	3:F:37:ASN:ND2	2.27	0.67
4:P:226:HIS:CD2	4:P:228:ARG:H	2.13	0.67
4:P:317:LYS:O	4:P:321:ASN:ND2	2.28	0.67
5:K:402:ASN:ND2	5:K:497:MET:SD	2.67	0.67
6:J:340:VAL:HG12	6:J:343:GLU:H	1.58	0.67
7:I:390:ALA:HA	7:I:393:ASP:HB3	1.76	0.67
8:G:143:LEU:HD22	8:G:146:ASP:H	1.60	0.67
8:G:440:GLU:O	8:G:444:SER:OG	2.12	0.67
9:Q:175:ASP:OD1	11:Q:1115:HOH:O	2.13	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:338:GLY:O	1:D:340:ARG:NH2	2.28	0.67
2:M:69:THR:HG21	2:M:388:ARG:NH2	2.10	0.67
2:M:172:LEU:H	2:M:172:LEU:HD12	1.59	0.67
2:M:285:HIS:NE2	2:M:335:PHE:HB3	2.08	0.67
2:M:479:ASP:HB3	2:M:484:THR:H	1.60	0.67
3:F:333:ILE:HD11	3:F:344:PRO:HG3	1.77	0.67
3:F:451:VAL:HA	3:F:454:PHE:HB3	1.74	0.67
1:D:312:HIS:O	1:D:316:GLN:N	2.27	0.67
2:E:316:ASP:OD1	2:E:317:PHE:N	2.28	0.67
3:N:273:ASP:HA	3:N:276:LEU:HB2	1.77	0.67
3:F:492:GLY:O	3:F:501:SER:N	2.26	0.67
5:C:70:ASP:OD1	5:C:70:ASP:N	2.24	0.67
6:J:54:LYS:O	6:J:66:THR:N	2.26	0.67
7:I:176:ILE:HA	7:I:179:ILE:HD12	1.77	0.67
7:I:289:PHE:HB3	7:I:310:ILE:HD12	1.75	0.67
9:Q:228:LEU:HD11	9:Q:239:ARG:HG2	1.77	0.67
1:D:85:HIS:CE1	1:D:87:ILE:HB	2.29	0.67
1:D:511:ILE:HA	1:D:514:LYS:HB3	1.76	0.67
3:F:160:ARG:NH1	3:F:189:ASN:OD1	2.27	0.67
4:P:415:GLU:OE1	4:P:502:LYS:NZ	2.27	0.67
7:I:452:ALA:O	7:I:456:GLY:N	2.28	0.67
9:Q:90:ARG:NH2	11:Q:1159:HOH:O	2.28	0.67
2:E:52:LEU:HD21	2:E:70:ILE:HG23	1.77	0.67
3:F:505:GLU:OE1	3:F:505:GLU:N	2.28	0.67
4:H:483:GLU:N	4:H:483:GLU:OE2	2.28	0.67
4:P:412:GLY:HA3	4:P:448:PRO:HG3	1.76	0.67
5:C:40:LEU:HB2	5:C:95:THR:HB	1.77	0.67
6:J:168:ILE:O	6:J:172:GLN:N	2.28	0.67
7:I:150:ASP:O	7:I:154:THR:N	2.27	0.67
8:G:528:ASP:OD1	8:G:528:ASP:N	2.23	0.67
2:M:189:ARG:NH2	2:M:216:GLU:O	2.28	0.66
2:E:460:ASP:O	2:E:464:GLN:N	2.18	0.66
2:E:501:ARG:HG3	2:E:505:LEU:HD23	1.77	0.66
3:N:450:CYS:O	3:N:454:PHE:N	2.28	0.66
4:P:244:SER:HB3	4:P:294:LYS:HZ3	1.59	0.66
6:J:27:GLU:HA	6:J:31:ARG:HB2	1.77	0.66
6:J:514:ALA:O	6:J:517:THR:OG1	2.13	0.66
7:A:353:TYR:N	7:A:360:PHE:O	2.25	0.66
8:O:498:ASN:HB3	8:O:503:VAL:HB	1.76	0.66
9:Q:110:MET:HE2	9:Q:173:MET:HB3	1.77	0.66
2:M:162:ILE:O	2:M:165:THR:OG1	2.14	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:422:ILE:O	3:N:510:GLN:N	2.24	0.66
4:H:237:ARG:O	4:H:289:VAL:N	2.28	0.66
6:B:47:TYR:CD1	6:B:103:PHE:HE2	2.12	0.66
1:L:407:CYS:HB3	1:L:410:ARG:HH11	1.60	0.66
2:E:487:ASP:OD1	2:E:490:ILE:N	2.24	0.66
3:N:309:LEU:HD23	3:N:326:LYS:HE2	1.77	0.66
3:N:433:ALA:O	3:N:437:THR:OG1	2.13	0.66
4:H:219:MET:SD	4:H:360:PHE:HB3	2.36	0.66
4:P:104:GLU:HG2	4:P:446:VAL:HG11	1.77	0.66
5:K:86:GLN:OE1	5:K:501:ASN:ND2	2.27	0.66
5:K:230:LYS:HD3	5:K:350:GLU:HG3	1.76	0.66
6:J:251:THR:HG21	7:I:248:PHE:HZ	1.59	0.66
8:G:216:LEU:HB2	8:G:362:ILE:HB	1.76	0.66
9:Q:299:VAL:HG22	9:Q:320:MET:HE2	1.77	0.66
3:N:222:GLU:HB3	3:N:389:VAL:HB	1.77	0.66
3:F:422:ILE:O	3:F:510:GLN:N	2.22	0.66
4:P:49:MET:HG2	7:I:521:ILE:HD12	1.78	0.66
7:A:144:ASP:OD2	7:A:147:THR:N	2.26	0.66
4:H:165:ILE:HA	4:H:168:TRP:HD1	1.60	0.66
4:H:226:HIS:HD2	4:H:228:ARG:H	1.42	0.66
5:K:82:ILE:O	5:K:85:SER:OG	2.09	0.66
5:K:476:GLY:N	5:K:485:ALA:O	2.26	0.66
6:J:47:TYR:CE1	6:J:170:SER:HB2	2.30	0.66
6:J:507:ALA:O	6:J:511:ALA:N	2.22	0.66
7:I:145:ARG:NH1	7:I:174:ASP:OD1	2.27	0.66
9:Q:47:GLY:O	9:Q:61:LEU:N	2.22	0.66
9:Q:246:ALA:O	11:Q:1117:HOH:O	2.13	0.66
9:Q:300:GLU:OE1	11:Q:1116:HOH:O	2.13	0.66
1:L:501:MET:HB3	1:L:506:VAL:HB	1.76	0.66
2:M:176:LYS:O	2:M:180:THR:OG1	2.12	0.66
2:E:419:HIS:CE1	2:E:470:SER:HA	2.30	0.66
3:F:301:GLN:HA	3:F:328:ILE:H	1.61	0.66
4:P:80:MET:HA	4:P:83:ILE:HD12	1.78	0.66
5:K:79:LEU:HA	5:K:82:ILE:HD12	1.77	0.66
8:O:136:LEU:HD11	8:O:407:SER:HB2	1.76	0.66
9:Q:17:ASN:OD1	11:Q:1118:HOH:O	2.14	0.66
9:Q:287:LYS:NZ	11:Q:1146:HOH:O	2.26	0.66
1:L:442:THR:O	1:L:444:GLU:N	2.29	0.66
2:M:67:GLY:HA2	2:M:70:ILE:HB	1.77	0.66
2:M:211:ASP:N	2:M:211:ASP:OD1	2.28	0.66
2:M:416:LEU:HD11	2:M:474:THR:HA	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:276:LEU:O	3:F:280:ARG:HG3	1.95	0.66
4:H:477:THR:O	4:H:490:MET:N	2.29	0.66
4:P:396:GLN:HE22	4:P:399:ARG:HD3	1.61	0.66
6:J:30:TYR:HD2	6:J:31:ARG:NE	1.94	0.66
7:A:194:MET:O	7:A:376:ILE:N	2.26	0.66
7:A:204:THR:OG1	7:A:377:LYS:N	2.29	0.66
1:D:407:CYS:O	1:D:411:ASN:N	2.25	0.66
2:M:293:ARG:NH1	2:M:294:GLN:OE1	2.29	0.66
2:E:293:ARG:HA	2:E:315:ALA:H	1.60	0.66
3:N:413:ARG:HH11	3:N:417:LYS:HZ3	1.44	0.66
4:P:86:THR:HG22	8:O:201:HIS:HD2	1.61	0.66
6:J:328:VAL:HG23	6:J:330:ALA:H	1.60	0.66
6:B:147:VAL:HG22	6:B:409:VAL:HG12	1.78	0.66
8:O:216:LEU:N	8:O:362:ILE:O	2.26	0.66
8:G:293:ASP:OD1	8:G:294:ASP:N	2.29	0.66
2:E:414:GLU:OE1	2:E:414:GLU:N	2.15	0.66
3:N:402:GLU:HA	3:N:405:ILE:HD12	1.78	0.66
3:F:217:THR:HG22	3:F:219:ASP:H	1.59	0.66
4:H:245:LEU:HD23	4:H:296:ILE:HG23	1.78	0.66
4:H:475:CYS:HB2	4:H:478:TRP:HD1	1.60	0.66
7:I:265:LYS:HA	7:I:268:GLU:HB2	1.78	0.66
1:L:514:LYS:O	1:L:518:SER:OG	2.13	0.66
2:M:390:LEU:O	2:M:394:LEU:HG	1.96	0.66
3:N:63:ASP:OD1	3:N:64:GLY:N	2.29	0.66
3:N:421:LEU:HD11	3:N:509:VAL:HB	1.77	0.66
6:B:453:ALA:O	6:B:457:GLY:N	2.28	0.66
8:O:176:VAL:HG11	8:O:399:VAL:HG11	1.76	0.66
9:Q:357:MET:HE3	9:Q:359:GLY:HA3	1.77	0.66
1:D:430:ALA:O	1:D:434:SER:N	2.26	0.65
2:E:276:LYS:O	2:E:280:GLU:N	2.23	0.65
3:F:317:LEU:O	3:F:321:LYS:N	2.29	0.65
4:P:288:ASP:HA	4:P:309:ILE:HD12	1.78	0.65
5:K:21:GLN:HG2	5:K:518:GLU:HA	1.78	0.65
5:K:331:GLN:OE1	6:J:303:HIS:NE2	2.28	0.65
5:C:297:ASP:O	5:C:301:GLN:NE2	2.29	0.65
7:I:131:LEU:O	7:I:135:GLU:N	2.26	0.65
7:A:357:GLU:O	7:A:359:LYS:NZ	2.28	0.65
7:A:480:ASP:HB3	7:A:485:GLU:H	1.60	0.65
1:L:114:GLY:O	1:L:118:GLU:N	2.20	0.65
1:L:343:PRO:HB2	5:K:271:TRP:CZ3	2.31	0.65
2:E:51:ILE:HG12	2:E:63:VAL:HG22	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:316:PHE:O	3:N:320:MET:N	2.27	0.65
4:P:511:GLU:HB3	8:O:384:MET:HE1	1.78	0.65
5:K:59:SER:HB3	5:K:65:ILE:HG12	1.78	0.65
5:K:209:GLN:HB3	5:K:373:ILE:HB	1.77	0.65
6:J:416:GLU:OE1	6:J:504:LYS:NZ	2.22	0.65
6:J:453:ALA:O	6:J:457:GLY:N	2.28	0.65
7:I:53:ASP:N	7:I:53:ASP:OD1	2.29	0.65
8:G:145:ARG:NH2	8:G:174:ASP:OD1	2.28	0.65
8:G:432:SER:OG	8:G:434:GLU:OE1	2.08	0.65
9:Q:333:ILE:O	11:Q:1120:HOH:O	2.14	0.65
2:M:339:GLU:CD	2:M:339:GLU:H	2.04	0.65
4:H:257:GLU:N	8:G:254:ILE:O	2.25	0.65
4:P:153:LEU:HD21	4:P:177:LEU:HD22	1.78	0.65
5:C:17:GLN:HG2	5:C:518:GLU:HB3	1.78	0.65
7:I:277:LEU:HD13	7:I:339:LEU:HG	1.78	0.65
7:A:84:GLN:O	7:A:88:THR:N	2.24	0.65
8:O:240:SER:HB2	8:O:290:GLY:HA3	1.78	0.65
9:Q:33:ASP:OD1	11:Q:1122:HOH:O	2.15	0.65
1:L:198:ASP:O	1:L:202:ARG:N	2.29	0.65
1:L:472:GLN:NE2	3:F:446:MET:SD	2.70	0.65
2:M:239:ILE:HB	2:M:331:ILE:HG22	1.79	0.65
2:E:79:PRO:O	2:E:83:VAL:N	2.29	0.65
2:E:142:LEU:HA	2:E:497:PHE:HE1	1.61	0.65
3:N:67:ASP:OD1	3:N:68:VAL:N	2.29	0.65
3:F:394:ASN:HD21	3:F:396:LEU:HB2	1.62	0.65
4:P:29:ALA:O	4:P:32:THR:OG1	2.13	0.65
6:J:449:PRO:HA	6:J:452:LEU:HB2	1.78	0.65
2:M:69:THR:HG21	2:M:388:ARG:HH21	1.61	0.65
3:F:254:SER:OG	3:F:308:ALA:O	2.14	0.65
7:A:210:LEU:H	7:A:363:ILE:HB	1.61	0.65
8:O:452:LEU:HB3	8:O:490:LEU:HD11	1.79	0.65
9:Q:127:SER:O	11:Q:1123:HOH:O	2.15	0.65
1:L:51:SER:OG	1:L:72:ASN:OD1	2.12	0.65
1:L:419:VAL:O	1:L:508:GLU:N	2.30	0.65
2:M:25:ARG:NH2	3:F:26:ASP:O	2.28	0.65
2:M:50:LYS:O	2:M:64:THR:N	2.18	0.65
3:N:364:GLU:HA	3:N:374:LEU:HA	1.78	0.65
4:H:66:ILE:O	4:H:70:ILE:HG12	1.96	0.65
4:H:262:GLU:OE1	4:H:262:GLU:N	2.27	0.65
5:K:219:THR:OG1	5:K:220:PHE:N	2.27	0.65
6:B:72:ILE:O	6:B:76:LEU:HG	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:O:120:GLY:O	8:O:124:ALA:N	2.28	0.65
9:Q:257:TYR:O	11:Q:1119:HOH:O	2.14	0.65
1:L:451:PHE:O	1:L:455:LEU:N	2.28	0.65
2:M:229:PRO:HG2	2:M:310:MET:HB2	1.79	0.65
2:M:316:ASP:OD1	2:M:317:PHE:N	2.28	0.65
2:M:321:GLU:O	2:M:325:LEU:HG	1.97	0.65
2:M:518:ASP:OD1	2:M:518:ASP:N	2.29	0.65
2:E:488:MET:O	2:E:492:GLY:N	2.27	0.65
3:F:227:LEU:O	3:F:376:ILE:N	2.28	0.65
4:P:507:LYS:NZ	8:O:207:GLU:OE1	2.24	0.65
6:J:209:GLY:O	6:J:379:GLY:N	2.30	0.65
7:I:155:SER:O	7:I:158:THR:OG1	2.15	0.65
7:A:231:LEU:HB3	7:A:291:VAL:HA	1.78	0.65
8:O:228:ARG:HB2	8:O:352:VAL:HG13	1.77	0.65
8:O:228:ARG:HG3	8:O:352:VAL:HG22	1.79	0.65
1:L:19:ILE:N	1:L:22:GLN:OE1	2.28	0.65
1:D:273:ASP:OD1	1:D:273:ASP:N	2.29	0.65
3:F:520:THR:O	3:F:523:THR:OG1	2.13	0.65
1:D:306:PHE:CE2	1:D:323:ARG:HB2	2.31	0.65
2:M:204:LYS:NZ	2:M:354:ILE:O	2.19	0.65
2:M:236:LYS:NZ	2:M:345:SER:OG	2.30	0.65
6:J:136:CYS:SG	6:J:140:HIS:NE2	2.70	0.65
6:B:25:LEU:O	6:B:29:VAL:N	2.17	0.65
7:A:109:TYR:HB3	7:A:114:LEU:HD12	1.78	0.65
8:O:449:PRO:HA	8:O:452:LEU:HD12	1.78	0.65
8:G:196:ASN:ND2	8:G:215:ALA:O	2.30	0.65
1:L:171:THR:HG21	1:L:507:ILE:HG12	1.77	0.65
1:L:328:PRO:HA	1:L:331:GLU:OE1	1.97	0.65
2:E:174:HIS:CE1	3:F:134:SER:HB2	2.32	0.65
3:N:231:GLN:OE1	3:N:231:GLN:N	2.21	0.65
3:N:254:SER:OG	3:N:308:ALA:O	2.11	0.65
3:N:263:GLN:OE1	3:N:264:ILE:N	2.29	0.65
3:N:483:ARG:HG3	3:N:487:GLY:HA3	1.79	0.65
3:F:251:PHE:HE2	3:F:345:VAL:HG12	1.62	0.65
4:H:164:ALA:C	4:H:167:ARG:HH11	2.05	0.65
4:H:181:LYS:O	4:H:184:GLN:NE2	2.29	0.65
4:H:353:LYS:HB2	4:H:362:PHE:CE1	2.32	0.65
6:J:301:ALA:O	6:J:305:ALA:N	2.29	0.65
7:A:408:VAL:O	7:A:496:ASP:N	2.30	0.65
9:Q:60:SER:O	11:Q:1125:HOH:O	2.15	0.65
9:Q:358:ILE:O	11:Q:1124:HOH:O	2.15	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:37:ASP:HA	2:E:40:LYS:HG3	1.78	0.64
2:E:424:LEU:HA	2:E:427:ARG:NE	2.11	0.64
5:K:102:ALA:O	5:K:106:LYS:N	2.28	0.64
2:E:266:GLU:O	2:E:270:ALA:N	2.30	0.64
2:E:408:TYR:HE2	2:E:489:ALA:HA	1.61	0.64
3:F:301:GLN:HA	3:F:328:ILE:HB	1.77	0.64
4:P:41:LEU:C	4:P:45:SER:HB3	2.22	0.64
5:K:362:THR:OG1	5:K:363:GLY:N	2.30	0.64
6:B:367:LYS:HD2	6:B:369:ASP:HB2	1.79	0.64
7:I:381:LYS:HA	7:I:384:LEU:HD12	1.79	0.64
7:A:294:GLN:HA	7:A:316:ALA:H	1.62	0.64
9:Q:185:MET:HG2	9:Q:223:TYR:HE1	1.61	0.64
2:E:87:MET:HE3	2:E:510:ALA:HB2	1.79	0.64
3:N:63:ASP:N	3:N:67:ASP:O	2.24	0.64
4:H:41:LEU:HD13	4:H:96:THR:HB	1.77	0.64
4:H:318:THR:HA	4:H:321:ASN:HD22	1.62	0.64
4:P:11:SER:OG	8:O:66:GLU:O	2.14	0.64
4:P:38:ARG:HA	4:P:100:ILE:HD13	1.78	0.64
6:B:159:GLU:O	6:B:162:SER:OG	2.16	0.64
7:A:204:THR:HG23	7:A:376:ILE:HA	1.78	0.64
8:O:147:CYS:HA	8:O:150:ASN:HD22	1.61	0.64
8:O:227:LYS:NZ	8:O:353:GLN:O	2.25	0.64
9:Q:48:ALA:HA	9:Q:60:SER:HA	1.79	0.64
1:D:153:ASP:OD1	1:D:154:SER:N	2.31	0.64
2:M:203:LYS:HA	2:M:375:LEU:HB2	1.78	0.64
3:N:159:ASP:O	3:N:163:LEU:HG	1.97	0.64
3:N:240:ARG:HG3	3:N:363:GLU:HG2	1.78	0.64
3:F:161:GLU:O	3:F:165:ASN:ND2	2.30	0.64
3:F:245:LYS:HA	3:F:358:SER:HA	1.79	0.64
3:F:333:ILE:HA	3:F:336:ILE:HB	1.80	0.64
4:P:318:THR:OG1	4:P:319:ASP:OD1	2.14	0.64
5:K:436:GLY:O	5:K:440:LYS:N	2.28	0.64
5:K:448:GLN:NE2	5:K:451:ASP:OD2	2.29	0.64
5:C:291:SER:OG	5:C:293:LEU:O	2.15	0.64
7:I:160:VAL:HB	7:I:164:LEU:HD23	1.78	0.64
7:A:180:LYS:HG3	7:A:182:GLN:H	1.62	0.64
8:G:520:ALA:O	8:G:523:THR:OG1	2.16	0.64
1:L:402:LEU:O	1:L:406:LEU:HG	1.98	0.64
2:E:162:ILE:O	2:E:165:THR:OG1	2.16	0.64
3:F:365:VAL:N	3:F:373:LEU:O	2.30	0.64
4:P:524:SER:OG	4:P:525:GLY:N	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:118:PRO:HB3	5:K:514:VAL:HG12	1.78	0.64
5:C:450:CYS:O	5:C:454:GLY:N	2.31	0.64
6:J:460:ALA:O	6:J:464:ILE:HG13	1.98	0.64
6:B:378:ARG:HA	6:B:378:ARG:HH11	1.63	0.64
7:I:350:VAL:HG22	7:I:363:ILE:HA	1.80	0.64
7:I:470:HIS:H	7:I:474:GLY:HA2	1.63	0.64
7:A:446:ILE:HD13	7:A:449:LYS:HD2	1.79	0.64
8:G:153:LYS:HA	8:G:156:MET:HB2	1.80	0.64
1:L:218:ARG:N	1:L:221:ASP:OD2	2.31	0.64
2:E:51:ILE:HB	3:F:535:VAL:HG22	1.80	0.64
2:E:68:ALA:O	2:E:72:LYS:N	2.27	0.64
4:H:208:ILE:N	4:H:211:ASP:OD2	2.29	0.64
4:H:504:GLN:O	4:H:508:THR:OG1	2.16	0.64
5:C:317:GLU:HB3	5:C:321:ARG:NH1	2.12	0.64
7:I:380:ASN:O	7:I:383:THR:OG1	2.15	0.64
7:A:131:LEU:HA	7:A:134:LEU:HB3	1.79	0.64
8:G:341:GLU:HB3	8:G:344:MET:HE3	1.80	0.64
8:G:497:ASP:OD2	8:G:500:GLN:N	2.31	0.64
1:D:442:THR:OG1	1:D:443:LEU:N	2.28	0.64
5:K:45:MET:HE3	5:K:46:ASP:H	1.63	0.64
5:K:260:VAL:O	5:K:264:GLN:N	2.22	0.64
5:C:59:SER:HB3	5:C:65:ILE:HG12	1.79	0.64
6:J:246:PHE:O	6:J:298:ALA:N	2.27	0.64
7:I:276:GLU:O	7:I:280:LYS:N	2.26	0.64
8:G:191:PRO:O	8:G:194:SER:OG	2.15	0.64
2:M:98:GLY:O	2:M:102:VAL:N	2.23	0.64
2:E:204:LYS:NZ	2:E:354:ILE:O	2.20	0.64
2:E:244:MET:HE1	2:E:248:LYS:HE2	1.78	0.64
6:J:494:GLU:OE1	6:J:494:GLU:N	2.21	0.64
7:A:308:GLU:HB2	7:A:310:ILE:HG12	1.79	0.64
8:O:467:LEU:HD21	8:O:488:LEU:HD13	1.78	0.64
8:G:165:GLY:O	8:G:169:ALA:N	2.20	0.64
8:G:397:CYS:O	8:G:401:ARG:HG2	1.98	0.64
8:G:456:ALA:HB1	8:G:458:GLN:HE22	1.62	0.64
1:L:408:VAL:O	1:L:412:LEU:N	2.30	0.64
1:D:179:ASN:HA	1:D:182:HIS:HB3	1.80	0.64
2:E:147:ASP:OD1	2:E:405:ARG:HB3	1.98	0.64
5:C:134:ASN:O	5:C:138:GLU:N	2.30	0.64
6:B:468:TYR:O	6:B:472:GLN:NE2	2.20	0.64
3:F:224:VAL:HB	3:F:387:THR:HG23	1.80	0.63
5:C:487:ASN:HA	5:C:490:ALA:HB3	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:47:TYR:CG	6:J:103:PHE:HE2	2.16	0.63
6:J:80:HIS:CE1	6:J:82:ALA:HB3	2.32	0.63
6:J:263:GLU:HA	6:J:266:MET:SD	2.38	0.63
6:B:116:GLU:O	6:B:120:ARG:N	2.19	0.63
7:I:272:LYS:HA	7:I:275:ILE:HB	1.80	0.63
7:I:513:THR:HG23	7:I:514:ASN:OD1	1.97	0.63
8:O:300:PHE:O	8:O:304:GLY:N	2.31	0.63
8:G:300:PHE:HB3	8:G:305:ALA:HB3	1.80	0.63
1:D:224:LEU:HB2	1:D:385:ILE:HG22	1.79	0.63
2:E:293:ARG:NH1	2:E:294:GLN:OE1	2.31	0.63
2:E:477:GLY:N	2:E:486:GLY:O	2.20	0.63
3:N:513:LEU:HA	3:N:516:VAL:HB	1.78	0.63
4:H:49:MET:HE2	7:A:521:ILE:HD12	1.80	0.63
4:P:382:GLU:OE1	4:P:382:GLU:N	2.22	0.63
6:J:159:GLU:O	6:J:162:SER:OG	2.13	0.63
6:J:275:LEU:O	6:J:279:GLN:HG2	1.97	0.63
6:B:234:VAL:HG12	6:B:236:ASP:H	1.63	0.63
8:O:411:GLY:N	8:O:503:VAL:O	2.25	0.63
9:Q:325:ASN:OD1	11:Q:1121:HOH:O	2.15	0.63
3:F:63:ASP:OD1	3:F:64:GLY:N	2.31	0.63
4:P:293:GLU:HA	4:P:315:VAL:H	1.63	0.63
6:B:190:ILE:HG23	6:B:197:PHE:HD2	1.63	0.63
7:A:293:ASN:N	7:A:313:LEU:O	2.31	0.63
8:O:477:ASN:HB2	8:O:483:LEU:HD13	1.79	0.63
1:L:362:ILE:N	1:L:371:MET:O	2.23	0.63
1:D:246:ALA:O	1:D:355:PHE:HA	1.97	0.63
1:D:391:ASN:HD22	1:D:394:ILE:HG13	1.62	0.63
2:M:196:LEU:HD12	2:M:196:LEU:H	1.63	0.63
3:F:252:CYS:SG	3:F:306:ARG:NH2	2.71	0.63
3:F:269:TYR:HE2	8:G:262:GLN:HB3	1.63	0.63
4:H:412:GLY:HA3	4:H:448:PRO:HG3	1.81	0.63
4:P:157:ASN:O	4:P:161:THR:OG1	2.17	0.63
4:P:254:THR:HA	8:O:252:VAL:HB	1.81	0.63
6:J:88:MET:HE1	7:I:381:LYS:H	1.63	0.63
6:J:186:ALA:O	6:J:189:SER:OG	2.16	0.63
7:A:111:SER:OG	7:A:112:GLU:OE2	2.17	0.63
7:A:392:ARG:HG2	7:A:396:ARG:HH22	1.62	0.63
8:O:423:LEU:HA	8:O:426:TYR:HB3	1.80	0.63
1:D:68:VAL:HG21	2:E:79:PRO:HB2	1.81	0.63
3:N:184:SER:O	3:N:187:SER:OG	2.15	0.63
3:N:429:GLU:N	3:N:429:GLU:OE2	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:76:ALA:O	4:H:80:MET:N	2.27	0.63
4:P:280:GLU:HA	4:P:283:ILE:HG12	1.80	0.63
5:C:82:ILE:O	5:C:85:SER:OG	2.15	0.63
5:C:157:LYS:HD2	5:C:491:PHE:HB3	1.80	0.63
6:J:465:SER:O	6:J:469:ALA:N	2.27	0.63
6:B:6:PRO:HD2	6:B:7:LYS:HE3	1.80	0.63
8:O:229:ILE:HG22	8:O:231:ASN:H	1.62	0.63
8:O:497:ASP:OD2	8:O:500:GLN:N	2.32	0.63
8:G:111:LYS:HG2	8:G:112:ILE:HD13	1.79	0.63
8:G:228:ARG:HG3	8:G:352:VAL:HG22	1.80	0.63
8:G:233:LYS:HB2	8:G:284:ASN:HB2	1.81	0.63
8:G:477:ASN:HB2	8:G:483:LEU:HD13	1.81	0.63
2:M:314:HIS:ND1	2:M:314:HIS:O	2.32	0.63
2:E:301:GLU:O	2:E:305:GLY:N	2.21	0.63
3:F:52:LEU:H	3:F:56:GLY:HA2	1.64	0.63
3:F:298:LEU:HB3	3:F:324:VAL:HA	1.78	0.63
4:H:493:LEU:HG	4:H:495:ILE:HG13	1.79	0.63
6:B:178:PHE:HA	6:B:181:LYS:HZ3	1.63	0.63
6:B:297:VAL:HG23	6:B:314:ARG:NH2	2.14	0.63
7:A:20:LEU:HD21	7:A:110:ILE:HD12	1.79	0.63
8:O:58:GLY:O	8:O:62:LEU:N	2.22	0.63
8:G:160:ILE:HG23	8:G:161:ILE:HG23	1.80	0.63
9:Q:25:ILE:HG12	9:Q:43:MET:HG2	1.79	0.63
1:L:109:VAL:HG22	1:L:516:GLN:HG3	1.81	0.63
1:L:369:ASP:N	1:L:369:ASP:OD1	2.32	0.63
2:E:432:GLU:CD	2:E:432:GLU:H	2.06	0.63
3:N:437:THR:HG22	3:N:441:ARG:HH11	1.64	0.63
3:F:102:ALA:HB1	3:F:514:VAL:HG13	1.79	0.63
5:K:200:VAL:HG22	5:K:375:ARG:NH2	2.14	0.63
5:K:208:SER:HA	5:K:375:ARG:HG2	1.80	0.63
5:C:522:ASN:HD22	6:B:58:ASN:HA	1.63	0.63
6:J:210:SER:OG	6:J:378:ARG:NH2	2.31	0.63
6:B:297:VAL:HG23	6:B:314:ARG:HH21	1.61	0.63
1:D:67:ASP:OD1	1:D:68:VAL:N	2.32	0.63
1:D:329:GLU:O	1:D:333:ILE:HG12	1.98	0.63
3:N:88:ALA:HA	3:N:91:LEU:HD23	1.80	0.63
3:N:178:GLN:O	8:O:122:ARG:NH1	2.32	0.63
4:P:226:HIS:HB3	4:P:229:MET:SD	2.39	0.63
4:P:385:SER:O	4:P:389:ARG:HG3	1.99	0.63
4:P:477:THR:O	4:P:490:MET:N	2.30	0.63
4:P:526:HIS:CD2	4:P:528:LYS:HB3	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:378:ALA:HB3	5:K:381:PHE:CG	2.33	0.63
8:O:98:ALA:O	8:O:102:LYS:N	2.32	0.63
8:O:266:ARG:O	8:O:270:ILE:HG22	1.99	0.63
8:O:284:ASN:O	8:O:306:MET:N	2.32	0.63
9:Q:174:ILE:O	9:Q:178:ASP:N	2.32	0.63
1:D:86:GLN:HA	1:D:89:LYS:HD2	1.81	0.63
1:D:490:GLY:H	1:D:501:MET:HG2	1.64	0.63
3:N:161:GLU:O	3:N:165:ASN:N	2.25	0.63
3:N:413:ARG:HH11	3:N:417:LYS:NZ	1.97	0.63
3:F:51:SER:HA	3:F:57:MET:H	1.64	0.63
3:F:178:GLN:O	8:G:122:ARG:NH1	2.32	0.63
4:H:49:MET:HA	4:H:59:MET:HA	1.80	0.63
4:P:104:GLU:HA	4:P:107:SER:HB3	1.80	0.63
8:O:353:GLN:HB3	8:O:362:ILE:HG12	1.80	0.63
8:G:355:ARG:HB3	8:G:360:GLU:HG3	1.81	0.63
1:L:304:TRP:O	1:L:324:TRP:N	2.28	0.62
2:E:71:LEU:HB3	2:E:85:VAL:HG13	1.81	0.62
6:B:240:ALA:O	6:B:292:VAL:N	2.31	0.62
7:A:207:ILE:HG13	7:A:209:GLY:H	1.63	0.62
1:D:163:GLU:OE1	1:D:163:GLU:N	2.32	0.62
3:F:246:ILE:N	3:F:357:GLY:O	2.32	0.62
4:P:200:ARG:HD2	4:P:201:VAL:H	1.63	0.62
6:J:410:PRO:HA	6:J:498:LEU:HD13	1.80	0.62
6:B:340:VAL:HG11	6:B:343:GLU:HG2	1.81	0.62
6:B:418:GLU:OE1	6:B:471:HIS:NE2	2.32	0.62
9:Q:139:ASN:O	9:Q:147:SER:OG	2.13	0.62
1:D:267:ASP:HB3	2:E:255:ARG:HH21	1.63	0.62
1:D:356:ALA:HA	1:D:376:GLN:HG2	1.81	0.62
1:D:408:VAL:HA	1:D:411:ASN:HB2	1.80	0.62
2:M:25:ARG:O	2:M:28:SER:OG	2.16	0.62
2:E:51:ILE:HG13	3:F:532:ILE:HG21	1.82	0.62
3:F:34:ARG:O	3:F:38:ILE:HG12	1.99	0.62
6:J:30:TYR:HD2	6:J:31:ARG:HE	1.45	0.62
6:J:395:GLY:O	6:J:399:PHE:N	2.28	0.62
6:B:9:PRO:HG3	7:I:12:GLU:HG3	1.81	0.62
6:B:92:MET:O	6:B:96:GLU:N	2.32	0.62
8:O:269:ASP:HA	8:O:272:LYS:HB3	1.81	0.62
8:G:232:ALA:HB1	8:G:347:GLN:HB3	1.81	0.62
8:G:235:ALA:N	8:G:285:VAL:O	2.26	0.62
8:G:239:PHE:HB2	8:G:330:THR:HA	1.81	0.62
2:M:250:LYS:HB3	2:M:252:PHE:CE1	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:25:GLN:OE1	3:N:27:ARG:N	2.32	0.62
3:N:486:GLN:OE1	3:N:486:GLN:N	2.32	0.62
3:F:208:ILE:HD12	3:F:386:VAL:HG12	1.81	0.62
5:K:450:CYS:HB2	5:K:457:ALA:HB2	1.82	0.62
8:G:277:LYS:NZ	8:G:337:GLU:OE2	2.32	0.62
8:G:333:ASN:ND2	8:G:335:GLU:HB3	2.14	0.62
1:D:114:GLY:O	1:D:118:GLU:N	2.29	0.62
3:F:295:CYS:SG	3:F:296:ASN:N	2.73	0.62
4:H:298:ASP:HA	4:H:301:GLN:HB3	1.81	0.62
7:A:496:ASP:OD1	7:A:497:ASN:N	2.32	0.62
2:M:214:LEU:HB2	2:M:373:ILE:HG22	1.81	0.62
2:E:28:SER:HA	2:E:78:ASN:HD21	1.63	0.62
3:F:240:ARG:HG3	3:F:363:GLU:HG2	1.80	0.62
4:P:82:GLU:CD	4:P:85:ARG:HE	2.07	0.62
5:K:71:VAL:O	5:K:77:LYS:NZ	2.25	0.62
5:K:103:GLU:HG3	5:K:444:ILE:HG21	1.82	0.62
5:C:390:HIS:CE1	5:C:394:MET:HG2	2.35	0.62
5:C:468:HIS:NE2	5:C:473:THR:O	2.30	0.62
6:J:17:GLU:H	6:J:17:GLU:CD	2.07	0.62
1:L:301:ILE:HG23	1:L:325:VAL:HG21	1.81	0.62
2:E:220:LEU:HD21	2:E:323:LEU:HD21	1.82	0.62
3:F:360:GLU:N	3:F:360:GLU:OE2	2.33	0.62
4:H:257:GLU:HA	7:A:247:GLY:O	2.00	0.62
5:C:202:GLY:O	5:C:376:GLY:N	2.27	0.62
3:N:186:MET:SD	3:N:223:LEU:HB2	2.39	0.62
3:F:231:GLN:OE1	3:F:231:GLN:N	2.30	0.62
4:P:95:THR:HA	4:P:98:VAL:HB	1.82	0.62
5:K:298:VAL:HA	5:K:301:GLN:HG2	1.82	0.62
7:I:294:GLN:HA	7:I:316:ALA:H	1.63	0.62
7:I:382:HIS:CE1	7:I:383:THR:HG23	2.35	0.62
7:I:496:ASP:OD1	7:I:497:ASN:N	2.32	0.62
8:G:411:GLY:O	8:G:498:ASN:ND2	2.30	0.62
9:Q:227:GLU:O	9:Q:231:ASP:HB2	1.99	0.62
1:L:33:ALA:O	1:L:36:SER:OG	2.14	0.62
1:D:21:ASP:OD2	1:D:24:ARG:HB2	2.00	0.62
1:D:351:GLU:OE1	1:D:351:GLU:N	2.26	0.62
2:E:258:VAL:O	3:F:264:ILE:HA	1.99	0.62
3:N:423:ALA:HA	3:N:509:VAL:HA	1.82	0.62
4:H:408:VAL:HG13	4:H:497:GLU:HB2	1.81	0.62
4:H:468:ALA:O	4:H:471:THR:OG1	2.18	0.62
4:P:64:ASN:O	4:P:68:ARG:N	2.28	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:259:THR:HG22	5:K:262:ASP:H	1.65	0.62
6:J:22:PHE:HB2	6:J:524:ILE:HB	1.82	0.62
6:B:254:LYS:HB2	9:Q:146:HIS:O	1.99	0.62
8:O:88:ASP:OD2	8:O:91:THR:OG1	2.15	0.62
8:G:168:PHE:HZ	8:G:205:GLN:HB2	1.63	0.62
8:G:238:ASP:HB2	8:G:327:ILE:HD11	1.80	0.62
9:Q:90:ARG:NH2	9:Q:151:ASP:O	2.32	0.62
1:L:185:MET:SD	1:L:185:MET:N	2.73	0.62
1:L:224:LEU:HA	1:L:385:ILE:HA	1.80	0.62
1:D:442:THR:O	1:D:444:GLU:N	2.33	0.62
2:M:279:VAL:O	2:M:283:LEU:HG	1.99	0.62
2:E:302:GLN:O	2:E:306:ALA:N	2.29	0.62
3:N:134:SER:O	3:N:138:GLN:N	2.29	0.62
3:N:280:ARG:O	3:N:284:LEU:N	2.29	0.62
3:F:300:ILE:N	3:F:325:ILE:O	2.33	0.62
3:F:484:HIS:ND1	3:F:484:HIS:O	2.33	0.62
5:K:414:MET:HG2	5:K:464:LEU:HG	1.81	0.62
6:J:27:GLU:H	6:J:27:GLU:CD	2.06	0.62
6:B:57:ILE:HA	6:B:62:LYS:O	2.00	0.62
7:A:203:ASP:HB2	7:A:377:LYS:HD2	1.82	0.62
8:G:400:LYS:O	8:G:404:GLU:N	2.30	0.62
1:L:266:LEU:O	2:M:255:ARG:N	2.33	0.61
2:M:97:ASP:OD1	2:M:98:GLY:N	2.32	0.61
2:M:266:GLU:O	2:M:270:ALA:N	2.32	0.61
2:E:479:ASP:OD1	2:E:481:ARG:N	2.28	0.61
3:F:104:ASP:OD1	3:F:105:GLY:N	2.29	0.61
3:F:227:LEU:HB3	3:F:376:ILE:HD12	1.82	0.61
3:F:256:PRO:HG3	3:F:282:TYR:CZ	2.35	0.61
4:P:298:ASP:OD1	4:P:298:ASP:N	2.32	0.61
5:K:226:GLU:OE1	5:K:226:GLU:N	2.23	0.61
5:K:504:THR:O	5:K:507:SER:OG	2.09	0.61
5:C:362:THR:OG1	5:C:363:GLY:N	2.32	0.61
7:I:448:PRO:HA	7:I:451:LEU:HD12	1.81	0.61
3:F:513:LEU:HA	3:F:516:VAL:HB	1.82	0.61
5:C:21:GLN:HG2	5:C:518:GLU:HA	1.81	0.61
6:B:209:GLY:O	6:B:378:ARG:NH1	2.33	0.61
6:B:385:MET:HA	6:B:388:ILE:HG22	1.82	0.61
7:A:298:ASP:OD1	7:A:300:PHE:N	2.30	0.61
1:D:109:VAL:HG22	1:D:516:GLN:HG3	1.82	0.61
4:P:114:GLU:H	4:P:114:GLU:CD	2.09	0.61
4:P:483:GLU:N	4:P:483:GLU:OE2	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:458:THR:O	5:K:462:ASN:ND2	2.33	0.61
6:B:422:GLN:O	6:B:425:SER:OG	2.13	0.61
7:I:129:LYS:HD3	7:I:425:HIS:CD2	2.35	0.61
7:A:222:LYS:NZ	7:A:309:GLY:O	2.29	0.61
7:A:301:SER:O	7:A:305:LEU:HG	2.01	0.61
1:L:328:PRO:O	1:L:332:LEU:HG	2.00	0.61
1:L:351:GLU:OE1	1:L:351:GLU:N	2.26	0.61
1:D:359:VAL:HG22	1:D:374:ILE:HG23	1.81	0.61
4:P:121:VAL:O	4:P:124:SER:OG	2.12	0.61
5:K:133:VAL:HA	5:K:136:ILE:HD12	1.81	0.61
5:K:510:ALA:O	5:K:514:VAL:HG23	2.01	0.61
6:B:409:VAL:O	6:B:499:ASP:N	2.31	0.61
7:I:204:THR:HA	7:I:377:LYS:HG3	1.83	0.61
9:Q:186:ARG:H	9:Q:351:ASP:CG	2.08	0.61
1:L:408:VAL:HA	1:L:411:ASN:HB2	1.81	0.61
1:L:420:TYR:CD1	1:L:507:ILE:HG22	2.35	0.61
1:D:24:ARG:NH1	1:D:538:GLU:O	2.33	0.61
1:D:196:VAL:HG21	1:D:209:ILE:HD11	1.82	0.61
1:D:474:MET:HA	1:D:477:VAL:HB	1.83	0.61
2:E:501:ARG:NH1	2:E:502:GLN:OE1	2.34	0.61
3:F:71:THR:HG21	3:F:76:THR:HB	1.83	0.61
3:F:257:LYS:HB2	3:F:306:ARG:HH11	1.64	0.61
3:F:465:LEU:O	3:F:469:ALA:N	2.32	0.61
3:F:503:ILE:HG22	3:F:508:VAL:HB	1.83	0.61
5:C:450:CYS:HB2	5:C:457:ALA:HB2	1.82	0.61
6:B:54:LYS:O	6:B:66:THR:N	2.29	0.61
6:B:93:GLN:HE22	6:B:100:GLY:HA3	1.66	0.61
6:B:233:SER:HB2	6:B:351:TYR:HB3	1.81	0.61
7:A:165:ALA:O	7:A:169:THR:N	2.33	0.61
8:O:314:ARG:O	8:O:318:ARG:HG3	2.01	0.61
1:L:105:GLY:H	1:L:107:THR:HG22	1.65	0.61
1:D:12:TYR:HB3	8:O:30:ASN:HD22	1.64	0.61
2:E:502:GLN:O	2:E:506:SER:OG	2.10	0.61
3:N:233:VAL:HB	3:N:323:MET:HE1	1.83	0.61
6:J:248:GLY:C	7:I:256:ARG:HH22	2.09	0.61
7:A:176:ILE:HG13	7:A:398:VAL:HG11	1.82	0.61
8:G:130:ARG:HH12	8:G:422:TYR:HH	1.48	0.61
1:D:168:THR:O	1:D:171:THR:OG1	2.17	0.61
1:D:408:VAL:O	1:D:412:LEU:N	2.27	0.61
1:D:534:ARG:HB2	5:C:49:ILE:HD12	1.82	0.61
3:N:151:MET:O	3:N:489:LYS:NZ	2.20	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:242:GLU:HG2	3:F:243:LYS:HG2	1.83	0.61
3:F:269:TYR:O	8:G:266:ARG:NH2	2.30	0.61
3:F:412:ILE:O	3:F:416:VAL:HG23	2.00	0.61
4:H:41:LEU:HD22	4:H:97:SER:HB3	1.83	0.61
5:C:488:PHE:O	5:C:493:TRP:NE1	2.33	0.61
8:O:510:LYS:O	8:O:514:LEU:HG	2.01	0.61
8:O:519:GLU:O	8:O:523:THR:HG23	2.01	0.61
8:G:480:ARG:C	8:G:483:LEU:H	2.09	0.61
2:M:293:ARG:O	2:M:314:HIS:HA	2.00	0.61
3:N:297:VAL:HG13	3:N:323:MET:HG3	1.82	0.61
4:H:399:ARG:O	4:H:403:LEU:N	2.34	0.61
5:K:21:GLN:NE2	5:K:519:THR:OG1	2.34	0.61
6:J:68:ASP:O	6:J:72:ILE:HG22	2.01	0.61
6:J:80:HIS:HE1	6:J:82:ALA:HB3	1.66	0.61
6:B:347:CYS:SG	6:B:348:ASP:N	2.74	0.61
7:I:192:GLU:HG3	7:I:194:MET:HG3	1.81	0.61
7:I:204:THR:HG23	7:I:376:ILE:HA	1.81	0.61
9:Q:231:ASP:HB3	9:Q:234:LYS:HB2	1.83	0.61
4:H:75:PRO:HB3	8:G:52:VAL:HG11	1.82	0.61
4:H:170:SER:O	4:H:174:ASN:ND2	2.33	0.61
5:K:280:LYS:O	5:K:284:SER:OG	2.19	0.61
5:K:297:ASP:N	5:K:297:ASP:OD1	2.32	0.61
8:G:449:PRO:HA	8:G:452:LEU:HD12	1.81	0.61
1:L:57:LEU:HD21	2:M:122:HIS:HE1	1.65	0.61
1:L:407:CYS:O	1:L:411:ASN:N	2.24	0.61
1:D:122:GLN:O	1:D:126:ARG:HG3	2.00	0.61
1:D:419:VAL:O	1:D:508:GLU:N	2.33	0.61
2:M:205:LEU:C	2:M:376:ARG:HH12	2.08	0.61
3:N:466:ALA:HA	3:N:469:ALA:HB3	1.83	0.61
3:F:401:ALA:O	3:F:404:SER:OG	2.13	0.61
4:H:145:ASP:OD2	4:H:148:ASP:N	2.18	0.61
4:P:352:ILE:HA	4:P:360:PHE:O	2.01	0.61
5:K:18:GLY:N	5:K:517:ASP:O	2.22	0.61
5:K:80:VAL:HG12	5:K:84:LYS:HZ3	1.66	0.61
5:K:319:LEU:HD21	5:K:330:ILE:HD13	1.83	0.61
5:C:45:MET:HE3	5:C:46:ASP:N	2.16	0.61
5:C:86:GLN:OE1	5:C:501:ASN:ND2	2.34	0.61
6:J:7:LYS:HA	7:A:523:ARG:CZ	2.31	0.61
6:J:116:GLU:O	6:J:120:ARG:N	2.18	0.61
6:B:15:LEU:HB3	7:A:69:ILE:HD12	1.83	0.61
7:A:383:THR:HA	7:A:386:GLN:HB3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:O:385:CYS:SG	8:O:386:ASP:N	2.74	0.61
1:L:350:ALA:HA	1:L:353:LEU:HG	1.83	0.60
1:D:90:LEU:HB2	1:D:91:MET:HE2	1.81	0.60
2:E:142:LEU:HA	2:E:497:PHE:CE1	2.36	0.60
3:N:476:THR:HG22	3:N:500:ILE:HD11	1.81	0.60
3:N:493:ILE:HA	3:N:500:ILE:HA	1.81	0.60
4:H:50:LEU:HA	7:A:522:MET:HG3	1.83	0.60
5:K:497:MET:HA	5:K:500:ILE:HB	1.83	0.60
5:C:92:ASP:OD1	5:C:95:THR:OG1	2.16	0.60
6:J:235:LYS:HA	6:J:348:ASP:O	2.01	0.60
6:B:300:MET:HA	6:B:303:HIS:HB3	1.83	0.60
7:I:103:LEU:HD22	7:I:516:LEU:HD21	1.83	0.60
8:O:203:ARG:NH2	8:O:207:GLU:OE2	2.32	0.60
8:O:355:ARG:HA	8:O:360:GLU:HA	1.82	0.60
8:G:275:ILE:HG23	8:G:300:PHE:HE2	1.64	0.60
8:G:333:ASN:OD1	8:G:334:LEU:N	2.34	0.60
8:G:432:SER:OG	8:G:433:ARG:N	2.34	0.60
1:L:358:LEU:HB3	1:L:375:GLU:HB2	1.83	0.60
2:M:97:ASP:OD1	2:M:100:THR:OG1	2.11	0.60
3:N:32:GLN:HA	3:N:35:PHE:CD2	2.36	0.60
4:H:185:PHE:HA	4:H:370:LYS:NZ	2.17	0.60
4:P:218:VAL:HA	4:P:373:THR:HG22	1.83	0.60
5:K:24:SER:O	5:K:27:SER:OG	2.14	0.60
5:C:261:GLU:HA	5:C:264:GLN:HB2	1.83	0.60
6:J:54:LYS:N	6:J:66:THR:O	2.34	0.60
6:B:86:ILE:HG12	6:B:87:VAL:N	2.16	0.60
7:I:447:ILE:O	7:I:451:LEU:HG	2.01	0.60
7:A:156:LEU:HG	7:A:168:LEU:HD22	1.84	0.60
8:O:498:ASN:HA	8:O:501:ALA:HB3	1.83	0.60
1:L:246:ALA:O	1:L:355:PHE:HA	2.02	0.60
1:L:247:LYS:HB2	1:L:298:ASN:HB2	1.83	0.60
1:L:329:GLU:O	1:L:333:ILE:HG12	2.01	0.60
1:D:125:ASP:OD2	3:N:42:LYS:NZ	2.30	0.60
3:N:305:LEU:HD23	3:N:306:ARG:HB3	1.83	0.60
3:F:87:ALA:HA	3:F:90:MET:HE3	1.83	0.60
4:H:116:GLN:HE21	6:J:459:LYS:HD3	1.67	0.60
6:B:88:MET:HE1	7:A:381:LYS:H	1.65	0.60
7:A:336:PHE:O	7:A:339:LEU:HB2	2.01	0.60
7:A:404:ASP:OD1	7:A:404:ASP:N	2.33	0.60
9:Q:116:ASP:O	9:Q:120:ARG:N	2.27	0.60
1:L:163:GLU:OE1	1:L:163:GLU:N	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:179:PHE:HA	2:E:182:LEU:HB2	1.83	0.60
3:N:156:GLU:N	3:N:156:GLU:OE1	2.33	0.60
3:F:152:SER:HA	3:F:422:ILE:HG12	1.82	0.60
5:C:499:ARG:O	5:C:503:LEU:HG	2.01	0.60
6:B:416:GLU:OE1	6:B:504:LYS:NZ	2.25	0.60
6:B:514:ALA:O	6:B:517:THR:OG1	2.18	0.60
7:A:227:ASP:OD1	7:A:346:HIS:NE2	2.31	0.60
1:L:27:ARG:NH1	1:L:29:MET:SD	2.67	0.60
2:M:50:LYS:N	2:M:64:THR:O	2.31	0.60
3:N:267:SER:O	8:O:259:LYS:NZ	2.21	0.60
5:K:408:GLY:N	5:K:492:VAL:O	2.32	0.60
7:I:463:LEU:O	7:I:467:GLN:N	2.32	0.60
1:D:344:ARG:NH2	1:D:347:GLU:OE2	2.33	0.60
3:N:394:ASN:HB3	3:N:397:VAL:HB	1.83	0.60
3:F:63:ASP:HB3	3:F:67:ASP:N	2.16	0.60
3:F:248:LEU:O	3:F:345:VAL:N	2.34	0.60
4:P:187:GLU:N	4:P:187:GLU:OE1	2.35	0.60
4:P:238:ILE:HB	4:P:344:GLY:HA3	1.84	0.60
4:P:261:GLU:OE1	4:P:261:GLU:N	2.26	0.60
5:C:217:LYS:HA	5:C:358:TYR:CE1	2.37	0.60
6:J:13:GLN:HB2	6:J:15:LEU:HG	1.83	0.60
6:J:500:THR:OG1	6:J:503:GLY:N	2.22	0.60
6:B:192:PRO:HB3	6:B:196:HIS:H	1.67	0.60
8:G:510:LYS:O	8:G:514:LEU:HG	2.01	0.60
1:L:438:ASP:OD1	1:L:438:ASP:N	2.34	0.60
2:E:175:HIS:HB2	2:E:179:PHE:CE1	2.37	0.60
3:F:97:ALA:O	3:F:100:ILE:HG22	2.02	0.60
4:P:332:VAL:HG12	4:P:334:ARG:H	1.66	0.60
4:P:416:MET:HG3	4:P:466:LEU:HD11	1.83	0.60
7:A:91:GLY:C	7:A:95:ASN:HD22	2.09	0.60
8:G:435:GLN:OE1	8:G:435:GLN:N	2.29	0.60
1:D:501:MET:O	1:D:505:HIS:N	2.35	0.60
2:M:51:ILE:HA	2:M:63:VAL:HA	1.82	0.60
2:E:172:LEU:H	2:E:172:LEU:HD12	1.66	0.60
3:N:94:LEU:HD12	3:N:525:THR:HG21	1.84	0.60
5:C:338:SER:O	5:C:341:VAL:HG22	2.01	0.60
6:J:204:VAL:HG22	6:J:375:ILE:HD11	1.83	0.60
6:J:238:LYS:HD2	6:J:344:MET:HE1	1.83	0.60
7:I:179:ILE:O	7:I:370:ARG:NH1	2.34	0.60
7:A:88:THR:HG21	7:A:500:VAL:HG22	1.83	0.60
1:L:31:LEU:HB3	1:L:35:LYS:NZ	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:443:LEU:H	1:L:443:LEU:HD12	1.65	0.60
1:D:84:ASP:N	2:E:11:ILE:O	2.29	0.60
1:D:234:PHE:HD1	1:D:239:MET:HE3	1.66	0.60
3:F:290:ILE:HD12	3:F:351:PHE:CD2	2.37	0.60
3:F:360:GLU:HB2	3:F:378:GLY:HA3	1.84	0.60
4:P:185:PHE:HE1	4:P:325:ARG:HE	1.49	0.60
4:P:219:MET:HE1	4:P:362:PHE:CE1	2.37	0.60
5:C:135:LYS:O	5:C:139:ILE:HG12	2.02	0.60
5:C:277:LYS:O	5:C:281:ILE:HG12	2.02	0.60
6:J:289:ASN:HA	6:J:310:ILE:HD12	1.84	0.60
6:J:462:GLU:N	6:J:462:GLU:OE1	2.34	0.60
6:B:462:GLU:OE1	6:B:462:GLU:N	2.30	0.60
7:I:321:MET:HA	7:I:324:LEU:HD12	1.84	0.60
7:I:337:ASP:OD1	7:I:337:ASP:N	2.35	0.60
7:A:72:PRO:O	7:A:75:SER:OG	2.15	0.60
7:A:277:LEU:O	7:A:281:VAL:N	2.32	0.60
8:G:235:ALA:O	8:G:286:ILE:HA	2.01	0.60
3:N:68:VAL:HG11	8:O:70:PRO:HB3	1.83	0.60
3:N:87:ALA:HA	3:N:90:MET:HE3	1.84	0.60
4:H:322:ARG:O	4:H:326:ALA:N	2.35	0.60
6:J:399:PHE:O	6:J:403:THR:OG1	2.19	0.60
7:I:108:LEU:O	7:I:112:GLU:HG2	2.02	0.60
7:A:229:TYR:OH	7:A:287:LYS:NZ	2.35	0.60
1:L:13:GLY:HA2	8:G:23:MET:HE3	1.84	0.59
1:L:262:THR:OG1	5:K:270:GLU:OE2	2.15	0.59
1:D:236:HIS:HB3	1:D:239:MET:HG3	1.83	0.59
2:M:97:ASP:OD2	2:M:170:LYS:NZ	2.35	0.59
3:N:492:GLY:N	3:N:501:SER:O	2.26	0.59
3:F:233:VAL:HB	3:F:323:MET:HE1	1.84	0.59
4:P:267:ILE:HG22	8:O:257:PRO:HB3	1.84	0.59
5:K:71:VAL:HG11	5:K:76:ALA:HB3	1.84	0.59
6:B:154:LEU:H	6:B:154:LEU:HD12	1.67	0.59
9:Q:79:HIS:CD2	9:Q:83:VAL:HB	2.37	0.59
1:L:236:HIS:HB3	1:L:239:MET:HG3	1.84	0.59
1:D:359:VAL:HG13	1:D:374:ILE:HG12	1.84	0.59
1:D:489:LEU:HA	1:D:499:ASN:O	2.02	0.59
3:F:277:ARG:HA	3:F:280:ARG:CZ	2.33	0.59
4:H:226:HIS:HB2	4:H:301:GLN:HE21	1.67	0.59
4:H:298:ASP:O	4:H:302:HIS:N	2.32	0.59
4:P:130:LEU:HD22	4:P:510:VAL:HG21	1.85	0.59
5:K:478:ASP:OD1	5:K:480:ASN:N	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:B:334:PRO:HB2	7:A:300:PHE:CE2	2.37	0.59
7:I:140:SER:HA	7:I:406:CYS:HA	1.83	0.59
8:G:434:GLU:OE1	8:G:434:GLU:N	2.34	0.59
3:F:30:PRO:HB3	3:F:533:ASP:HB2	1.83	0.59
4:P:252:SER:HB2	8:O:246:MET:HG2	1.84	0.59
4:P:452:ILE:O	4:P:456:GLY:N	2.18	0.59
6:B:314:ARG:HE	6:B:315:LEU:HG	1.67	0.59
7:I:165:ALA:O	7:I:169:THR:OG1	2.19	0.59
8:O:180:LYS:HA	8:O:190:TYR:CD1	2.36	0.59
8:G:138:VAL:HG12	8:G:140:THR:H	1.67	0.59
9:Q:67:HIS:CD2	9:Q:69:PRO:HA	2.38	0.59
9:Q:300:GLU:HA	9:Q:303:ASN:OD1	2.03	0.59
1:D:72:ASN:HB3	1:D:176:LYS:HE3	1.84	0.59
1:D:335:ILE:HD11	1:D:381:ARG:HB2	1.83	0.59
2:E:49:ASP:O	3:F:532:ILE:HA	2.03	0.59
3:N:353:ALA:HA	3:N:356:LEU:HB2	1.84	0.59
4:H:172:ALA:HA	4:H:175:ILE:HB	1.84	0.59
5:C:295:ILE:HG12	5:C:312:GLY:HA3	1.84	0.59
5:C:333:SER:H	6:B:303:HIS:CE1	2.21	0.59
6:J:223:PHE:HZ	6:J:324:LEU:HD13	1.68	0.59
6:B:48:GLY:C	6:B:51:GLY:H	2.11	0.59
6:B:224:LYS:HA	6:B:360:VAL:HA	1.84	0.59
7:I:511:ILE:O	7:I:515:ILE:HG12	2.02	0.59
8:O:183:ASP:O	8:O:185:ARG:N	2.28	0.59
1:L:442:THR:OG1	1:L:443:LEU:N	2.34	0.59
1:D:391:ASN:HB3	1:D:394:ILE:HD12	1.84	0.59
2:E:298:ASN:OD1	2:E:299:TYR:N	2.36	0.59
3:N:208:ILE:HD12	3:N:386:VAL:HG12	1.84	0.59
4:H:114:GLU:H	4:H:114:GLU:CD	2.09	0.59
4:H:470:HIS:HE2	4:H:476:GLU:HA	1.67	0.59
5:K:349:GLU:N	5:K:360:PHE:O	2.18	0.59
5:C:114:GLU:OE1	8:O:460:SER:OG	2.12	0.59
6:J:401:VAL:HA	6:J:404:ARG:HG3	1.83	0.59
7:I:60:GLY:O	7:I:64:LEU:N	2.27	0.59
7:A:99:ILE:O	7:A:103:LEU:HG	2.02	0.59
9:Q:78:ARG:NH2	11:Q:1110:HOH:O	2.34	0.59
1:D:265:LYS:HG3	2:E:255:ARG:HH11	1.68	0.59
1:D:362:ILE:N	1:D:371:MET:O	2.26	0.59
2:M:352:VAL:O	2:M:359:LEU:N	2.24	0.59
2:E:155:PHE:O	2:E:159:LEU:N	2.34	0.59
3:N:55:LYS:HD2	8:O:113:HIS:NE2	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:58:ASP:HB3	3:F:72:ASN:HB2	1.84	0.59
3:F:492:GLY:N	3:F:501:SER:O	2.29	0.59
4:H:452:ILE:HG21	4:H:459:THR:HA	1.83	0.59
4:P:294:LYS:O	4:P:314:ARG:N	2.35	0.59
5:K:385:THR:O	5:K:389:LEU:N	2.25	0.59
5:K:476:GLY:C	5:K:487:ASN:HD21	2.11	0.59
5:C:33:ALA:HA	5:C:36:VAL:HG23	1.83	0.59
5:C:200:VAL:HG22	5:C:375:ARG:NH2	2.18	0.59
5:C:217:LYS:HA	5:C:358:TYR:CD1	2.38	0.59
5:C:292:LYS:HA	5:C:314:VAL:O	2.01	0.59
5:C:348:PHE:HD1	5:C:361:PHE:HB3	1.67	0.59
6:B:83:ALA:HA	6:B:86:ILE:HD13	1.85	0.59
7:I:231:LEU:HB3	7:I:291:VAL:HA	1.84	0.59
7:A:214:HIS:O	7:A:361:THR:OG1	2.20	0.59
1:D:19:ILE:HD13	5:C:71:VAL:HA	1.84	0.59
1:D:185:MET:HA	1:D:188:ILE:HB	1.84	0.59
1:D:525:ARG:NH1	5:C:170:GLN:OE1	2.36	0.59
2:M:292:ASN:O	2:M:314:HIS:N	2.35	0.59
3:N:51:SER:HA	3:N:57:MET:H	1.67	0.59
3:F:72:ASN:HD22	3:F:174:LYS:HE3	1.68	0.59
4:H:49:MET:HB2	4:H:57:ILE:HD11	1.84	0.59
4:H:298:ASP:OD1	4:H:298:ASP:N	2.36	0.59
4:P:256:ILE:HB	7:I:246:SER:HA	1.83	0.59
5:K:17:GLN:HG2	5:K:518:GLU:HB3	1.84	0.59
5:C:476:GLY:N	5:C:485:ALA:O	2.33	0.59
6:J:34:GLN:O	6:J:38:GLU:HG2	2.03	0.59
6:J:479:GLY:N	6:J:490:LYS:O	2.30	0.59
6:B:102:ASN:N	6:B:102:ASN:OD1	2.35	0.59
6:B:246:PHE:CZ	6:B:301:ALA:HB1	2.37	0.59
6:B:420:ALA:O	6:B:424:THR:OG1	2.18	0.59
7:A:49:SER:OG	7:A:52:GLY:N	2.36	0.59
7:A:230:ILE:N	7:A:345:GLY:O	2.29	0.59
8:O:182:THR:O	8:O:185:ARG:NH1	2.35	0.59
1:L:231:ASP:HA	1:L:371:MET:SD	2.43	0.59
2:M:71:LEU:HB3	2:M:85:VAL:HG13	1.85	0.59
2:E:187:VAL:HG21	2:E:397:LEU:HD23	1.84	0.59
3:F:67:ASP:OD1	3:F:68:VAL:N	2.35	0.59
3:F:486:GLN:OE1	3:F:486:GLN:N	2.35	0.59
4:H:41:LEU:HB2	4:H:96:THR:O	2.03	0.59
4:H:48:LYS:HE2	7:A:520:GLU:CD	2.27	0.59
4:H:233:ILE:HD12	4:H:350:LEU:HD23	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:20:ARG:HH12	4:P:114:GLU:HA	1.68	0.59
5:K:130:GLN:O	5:K:134:ASN:ND2	2.36	0.59
5:K:201:GLN:C	5:K:375:ARG:HH22	2.11	0.59
5:K:422:ASP:OD1	5:K:422:ASP:N	2.36	0.59
5:K:448:GLN:HA	5:K:451:ASP:HB3	1.85	0.59
5:C:424:SER:OG	5:C:425:ARG:NH2	2.36	0.59
6:J:290:VAL:HB	6:J:311:MET:HB3	1.84	0.59
7:A:44:MET:C	7:A:45:LYS:HD2	2.28	0.59
7:A:380:ASN:O	7:A:383:THR:OG1	2.19	0.59
8:O:183:ASP:HB2	8:O:189:ARG:H	1.68	0.59
8:O:489:ASP:OD1	8:O:490:LEU:N	2.36	0.59
8:G:38:PRO:HG2	8:G:490:LEU:HD12	1.84	0.59
8:G:459:ASP:N	8:G:459:ASP:OD1	2.31	0.59
9:Q:271:VAL:HG21	9:Q:340:LEU:HG	1.83	0.59
1:D:222:THR:HG23	1:D:387:ILE:HA	1.85	0.59
2:M:106:ALA:O	2:M:109:LEU:HB2	2.03	0.59
2:E:298:ASN:O	2:E:301:GLU:HG2	2.02	0.59
3:N:240:ARG:HA	3:N:363:GLU:HB3	1.83	0.59
3:F:209:LYS:HB2	3:F:335:PHE:CZ	2.38	0.59
4:H:185:PHE:HA	4:H:370:LYS:HZ3	1.68	0.59
6:J:239:ILE:HA	6:J:290:VAL:HG13	1.84	0.59
6:J:245:PRO:HB3	6:J:296:LYS:N	2.18	0.59
6:J:258:LEU:N	7:I:250:TYR:O	2.22	0.59
7:A:326:LEU:HB3	7:A:371:SER:HB3	1.85	0.59
8:O:178:ALA:O	8:O:371:THR:OG1	2.14	0.59
1:D:426:GLU:HB2	1:D:455:LEU:HD21	1.84	0.59
1:D:508:GLU:OE1	1:D:509:THR:N	2.35	0.59
3:F:122:LYS:O	3:F:125:GLN:HG2	2.03	0.59
3:F:311:ASP:HA	3:F:314:LEU:HB3	1.85	0.59
5:C:209:GLN:N	5:C:373:ILE:O	2.35	0.59
6:J:102:ASN:N	6:J:102:ASN:OD1	2.35	0.59
6:J:283:ILE:HD13	6:J:339:PRO:HG3	1.85	0.59
7:A:47:LEU:H	7:A:55:LYS:HB2	1.68	0.59
8:O:225:MET:HG3	8:O:226:PRO:HD2	1.85	0.59
8:G:248:LEU:O	11:G:601:HOH:O	2.17	0.59
9:Q:133:TRP:HZ3	9:Q:143:ARG:NH2	2.01	0.59
1:L:201:ARG:HH12	5:K:231:LYS:HD2	1.67	0.58
2:E:518:ASP:N	2:E:518:ASP:OD1	2.35	0.58
4:H:349:LEU:HB3	4:H:364:THR:OG1	2.02	0.58
6:B:296:LYS:HA	6:B:314:ARG:HH12	1.68	0.58
6:B:381:THR:O	6:B:385:MET:HE2	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:126:ALA:HB2	7:A:437:VAL:HG22	1.85	0.58
8:G:183:ASP:C	8:G:185:ARG:H	2.08	0.58
1:L:129:HIS:HB3	1:L:132:ARG:HG3	1.85	0.58
2:M:156:ARG:NH2	2:M:185:GLU:OE2	2.35	0.58
2:M:238:LEU:O	2:M:291:ILE:N	2.35	0.58
2:E:214:LEU:HB2	2:E:373:ILE:HG22	1.86	0.58
2:E:451:ALA:HA	2:E:454:ALA:HB3	1.84	0.58
3:N:298:LEU:N	3:N:323:MET:O	2.36	0.58
4:H:229:MET:HG2	4:H:310:THR:HA	1.86	0.58
4:H:255:ASP:N	8:G:252:VAL:O	2.36	0.58
4:H:526:HIS:N	8:G:47:ASP:O	2.30	0.58
5:C:407:ALA:HB2	5:C:488:PHE:HB2	1.85	0.58
6:J:156:ASP:OD2	6:J:159:GLU:N	2.20	0.58
6:J:367:LYS:HD2	6:J:369:ASP:HB2	1.84	0.58
6:J:394:ASP:O	6:J:398:THR:OG1	2.06	0.58
6:B:159:GLU:O	6:B:163:LEU:HG	2.03	0.58
8:O:56:ASN:OD1	8:O:56:ASN:N	2.36	0.58
8:O:248:LEU:HG	8:O:249:GLY:H	1.66	0.58
8:G:18:ARG:NE	8:G:527:ILE:O	2.30	0.58
9:Q:22:ARG:HB3	11:Q:1239:HOH:O	2.03	0.58
9:Q:335:LEU:O	11:Q:1126:HOH:O	2.17	0.58
2:M:61:LEU:HD21	3:N:89:ARG:HE	1.68	0.58
3:F:25:GLN:OE1	3:F:27:ARG:N	2.36	0.58
3:F:83:VAL:HG11	3:F:88:ALA:HB3	1.84	0.58
3:F:144:GLY:HA2	3:F:147:ILE:HD12	1.85	0.58
4:H:447:ILE:O	4:H:450:THR:OG1	2.20	0.58
4:P:274:TYR:O	4:P:278:LEU:HG	2.03	0.58
4:P:504:GLN:O	4:P:508:THR:OG1	2.21	0.58
5:K:191:GLN:NE2	5:K:194:MET:SD	2.76	0.58
5:K:416:LEU:O	5:K:420:LEU:HG	2.01	0.58
6:J:297:VAL:HG23	6:J:314:ARG:HH21	1.68	0.58
6:B:254:LYS:HB2	9:Q:146:HIS:HA	1.84	0.58
7:I:294:GLN:O	7:I:315:ARG:HA	2.03	0.58
7:A:22:VAL:O	7:A:25:SER:OG	2.19	0.58
7:A:37:ASN:O	7:A:42:GLY:HA3	2.03	0.58
8:O:191:PRO:O	8:O:194:SER:OG	2.15	0.58
1:L:201:ARG:NH1	5:K:231:LYS:HD2	2.19	0.58
1:D:93:GLU:OE2	5:C:379:GLU:N	2.36	0.58
3:F:336:ILE:O	3:F:340:ILE:HG12	2.04	0.58
4:H:130:LEU:HD22	4:H:510:VAL:HG21	1.84	0.58
4:H:142:ILE:O	4:H:407:LEU:N	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:263:ASP:O	4:H:267:ILE:HG23	2.04	0.58
4:H:477:THR:HG22	4:H:490:MET:HB3	1.85	0.58
5:C:443:GLU:O	5:C:446:PRO:HD2	2.04	0.58
6:J:447:ALA:HA	6:J:450:ARG:HB3	1.86	0.58
7:I:182:GLN:NE2	7:I:183:ASP:OD2	2.36	0.58
7:I:186:ILE:HG23	7:I:190:MET:HE1	1.85	0.58
7:A:382:HIS:O	7:A:386:GLN:N	2.32	0.58
7:A:512:ALA:O	7:A:516:LEU:HG	2.04	0.58
8:G:237:LEU:HD23	8:G:241:LEU:HD21	1.85	0.58
2:M:301:GLU:HA	2:M:304:PHE:HD2	1.68	0.58
3:N:318:ASN:O	3:N:321:LYS:HD2	2.02	0.58
3:F:63:ASP:OD1	3:F:65:LYS:N	2.37	0.58
3:F:364:GLU:HA	3:F:374:LEU:HA	1.85	0.58
4:H:175:ILE:HG12	4:H:214:VAL:HG23	1.86	0.58
4:H:313:ARG:HH12	7:A:318:ARG:HH12	1.51	0.58
4:P:102:ALA:O	4:P:106:LEU:HG	2.03	0.58
5:K:318:ASP:OD1	5:K:321:ARG:NH1	2.36	0.58
5:C:93:GLY:O	5:C:97:VAL:N	2.30	0.58
5:C:386:GLU:HA	5:C:389:LEU:HB2	1.86	0.58
6:B:53:ASN:HA	6:B:67:ASN:HD22	1.69	0.58
7:I:98:ILE:HD11	7:I:447:ILE:HD11	1.86	0.58
7:I:198:HIS:N	7:I:378:GLY:O	2.37	0.58
8:O:119:SER:O	8:O:123:LEU:HG	2.04	0.58
8:O:411:GLY:HA3	8:O:503:VAL:HG12	1.85	0.58
8:G:196:ASN:HB2	8:G:214:TYR:CZ	2.38	0.58
9:Q:304:HIS:HB2	11:Q:1134:HOH:O	2.04	0.58
1:D:93:GLU:O	1:D:97:SER:OG	2.20	0.58
1:D:359:VAL:HG12	1:D:372:LEU:HD11	1.84	0.58
2:M:154:LYS:HA	2:M:157:GLN:HB3	1.85	0.58
2:E:171:LEU:H	2:E:171:LEU:HD12	1.68	0.58
3:N:58:ASP:HB3	3:N:72:ASN:HB2	1.86	0.58
3:N:138:GLN:O	3:N:142:GLU:HG2	2.03	0.58
3:N:163:LEU:O	3:N:166:SER:OG	2.15	0.58
3:N:439:TYR:O	3:N:442:THR:OG1	2.14	0.58
4:H:187:GLU:OE1	4:H:187:GLU:N	2.30	0.58
6:J:313:VAL:HG12	6:J:316:ASN:HD21	1.68	0.58
6:J:515:ALA:HA	6:J:518:VAL:HG22	1.86	0.58
7:A:400:ASN:N	7:A:400:ASN:OD1	2.34	0.58
8:O:73:LYS:HA	8:O:76:CYS:HB3	1.86	0.58
9:Q:172:LEU:O	9:Q:176:SER:OG	2.20	0.58
2:E:164:GLY:O	2:E:168:SER:N	2.31	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:408:ALA:O	3:N:412:ILE:HG12	2.03	0.58
4:H:325:ARG:HB3	4:H:371:ALA:HB2	1.85	0.58
4:P:47:MET:O	7:I:518:VAL:HA	2.03	0.58
4:P:290:VAL:N	4:P:310:THR:O	2.31	0.58
6:J:26:GLU:HA	6:J:29:VAL:HG12	1.84	0.58
6:J:467:LEU:HA	6:J:470:VAL:HG22	1.83	0.58
8:G:100:LEU:HD12	8:G:121:TYR:HE2	1.67	0.58
9:Q:296:ARG:NH1	11:Q:1195:HOH:O	2.37	0.58
2:E:399:GLN:HA	2:E:402:LYS:HG3	1.86	0.58
2:E:439:TYR:O	2:E:443:LEU:HD13	2.03	0.58
3:N:161:GLU:H	3:N:161:GLU:CD	2.10	0.58
4:H:104:GLU:HG2	4:H:446:VAL:HG11	1.84	0.58
4:H:237:ARG:H	4:H:288:ASP:HB2	1.68	0.58
4:P:171:LEU:O	4:P:175:ILE:N	2.28	0.58
4:P:196:LYS:HG2	4:P:399:ARG:HH21	1.69	0.58
4:P:251:GLU:O	8:O:245:LYS:NZ	2.37	0.58
4:P:388:GLU:HA	4:P:391:LEU:HB2	1.85	0.58
6:J:104:VAL:HA	6:J:107:PHE:HD1	1.69	0.58
6:J:367:LYS:HG3	6:J:370:GLY:H	1.69	0.58
7:I:73:THR:HA	7:I:76:LEU:HB3	1.86	0.58
7:A:295:LYS:O	7:A:315:ARG:N	2.35	0.58
8:O:499:LYS:HA	8:O:504:PHE:HE1	1.67	0.58
1:L:74:GLY:O	1:L:78:LEU:HG	2.04	0.58
1:L:489:LEU:HA	1:L:499:ASN:O	2.04	0.58
1:D:105:GLY:H	1:D:107:THR:HG22	1.67	0.58
2:E:323:LEU:O	2:E:327:THR:OG1	2.18	0.58
4:H:216:ARG:HH11	4:H:369:PRO:HD2	1.68	0.58
4:H:515:LEU:HD13	8:G:384:MET:HG3	1.85	0.58
6:J:159:GLU:O	6:J:163:LEU:HG	2.03	0.58
6:B:130:GLU:O	6:B:134:ILE:HG22	2.04	0.58
7:I:49:SER:HG	7:I:53:ASP:H	1.50	0.58
7:A:38:LEU:HB2	7:A:93:THR:HB	1.85	0.58
7:A:446:ILE:HA	7:A:449:LYS:HD2	1.84	0.58
7:A:489:ALA:HA	7:A:492:VAL:HG22	1.86	0.58
8:O:391:SER:O	8:O:395:ALA:N	2.34	0.58
8:O:448:ILE:O	8:O:451:THR:OG1	2.13	0.58
8:G:227:LYS:NZ	8:G:353:GLN:O	2.37	0.58
1:D:129:HIS:CE1	1:D:131:ILE:HG12	2.39	0.58
2:M:175:HIS:HB2	2:M:179:PHE:CE1	2.38	0.58
2:M:227:ASN:OD1	2:M:227:ASN:N	2.36	0.58
2:E:156:ARG:HA	2:E:159:LEU:HB2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:267:SER:N	3:N:271:GLN:OE1	2.37	0.58
4:H:196:LYS:HD3	4:H:399:ARG:HD2	1.86	0.58
4:H:518:ARG:HD3	8:G:160:ILE:HD12	1.85	0.58
5:K:509:ALA:O	5:K:513:ILE:N	2.33	0.58
6:J:410:PRO:O	6:J:415:THR:OG1	2.20	0.58
7:I:426:LYS:O	7:I:428:SER:N	2.34	0.58
7:I:470:HIS:N	7:I:474:GLY:HA2	2.19	0.58
7:A:237:LEU:HB2	7:A:297:ILE:HD12	1.85	0.58
7:A:292:ILE:HD13	7:A:313:LEU:HB2	1.84	0.58
7:A:448:PRO:HA	7:A:451:LEU:HB2	1.84	0.58
8:G:205:GLN:HG2	8:G:206:MET:HE2	1.85	0.58
9:Q:26:TYR:N	9:Q:42:MET:O	2.27	0.58
2:M:298:ASN:HD21	3:N:330:ARG:NH2	2.02	0.57
4:H:254:THR:HA	8:G:252:VAL:HB	1.85	0.57
4:P:446:VAL:O	4:P:450:THR:HG23	2.04	0.57
8:O:145:ARG:NH2	8:O:174:ASP:OD1	2.37	0.57
8:G:448:ILE:O	8:G:451:THR:OG1	2.19	0.57
1:L:93:GLU:OE2	5:K:379:GLU:N	2.37	0.57
1:D:167:GLN:O	1:D:171:THR:HG23	2.04	0.57
2:M:268:GLU:O	2:M:272:LYS:HG2	2.04	0.57
2:E:444:ARG:O	2:E:447:PRO:HD2	2.04	0.57
3:N:151:MET:HE1	3:N:428:PRO:HA	1.85	0.57
4:H:30:ALA:HA	4:H:33:ILE:HB	1.85	0.57
4:P:44:LYS:HD3	4:P:483:GLU:HG3	1.86	0.57
4:P:65:ALA:HA	4:P:68:ARG:HB3	1.85	0.57
5:C:406:VAL:HB	5:C:412:ILE:HD11	1.86	0.57
5:C:406:VAL:N	5:C:494:GLU:O	2.27	0.57
6:J:365:HIS:CD2	6:J:367:LYS:HB2	2.38	0.57
6:B:450:ARG:O	6:B:454:GLU:HG3	2.05	0.57
8:G:227:LYS:HZ2	8:G:353:GLN:HG3	1.69	0.57
8:G:476:VAL:O	8:G:480:ARG:NE	2.37	0.57
1:L:181:CYS:HB2	1:L:185:MET:HE1	1.87	0.57
2:M:460:ASP:N	2:M:460:ASP:OD1	2.37	0.57
2:M:500:LYS:HA	2:M:503:VAL:HB	1.87	0.57
3:N:63:ASP:HB3	3:N:67:ASP:H	1.69	0.57
3:N:217:THR:HG22	3:N:219:ASP:H	1.68	0.57
3:F:462:PRO:HB2	3:F:477:VAL:HG22	1.86	0.57
3:F:476:THR:HG22	3:F:500:ILE:HD11	1.86	0.57
4:P:201:VAL:HA	4:P:374:ILE:HG23	1.86	0.57
5:C:43:ARG:HH12	5:C:480:ASN:HA	1.69	0.57
5:C:86:GLN:HG2	5:C:97:VAL:HG21	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:O:15:GLU:O	8:O:19:SER:OG	2.18	0.57
8:O:311:VAL:HG22	8:O:316:LEU:HD23	1.85	0.57
8:O:316:LEU:HA	8:O:319:ILE:HB	1.85	0.57
8:G:139:ASN:OD1	8:G:407:SER:N	2.37	0.57
1:L:75:ALA:O	1:L:79:SER:N	2.33	0.57
3:N:78:LEU:HB3	3:N:92:VAL:HG22	1.86	0.57
4:H:33:ILE:HG21	4:H:80:MET:HG2	1.87	0.57
4:H:397:VAL:O	4:H:401:VAL:HG23	2.04	0.57
4:H:470:HIS:NE2	4:H:476:GLU:HA	2.18	0.57
4:P:452:ILE:HG21	4:P:459:THR:HA	1.85	0.57
5:K:457:ALA:O	5:K:461:LEU:N	2.28	0.57
6:J:172:GLN:OE1	6:J:175:ASN:N	2.30	0.57
6:B:210:SER:O	6:B:214:SER:OG	2.23	0.57
8:G:56:ASN:OD1	8:G:56:ASN:N	2.32	0.57
9:Q:211:ASP:OD1	9:Q:211:ASP:N	2.36	0.57
1:L:179:ASN:O	1:L:182:HIS:ND1	2.37	0.57
1:L:501:MET:O	1:L:505:HIS:N	2.38	0.57
1:D:73:ASP:OD2	1:D:76:THR:HG23	2.04	0.57
2:M:19:GLU:OE1	2:M:19:GLU:N	2.37	0.57
2:E:25:ARG:O	2:E:28:SER:OG	2.22	0.57
2:E:40:LYS:HD2	2:E:449:ILE:HD13	1.86	0.57
3:N:483:ARG:O	3:N:487:GLY:N	2.36	0.57
3:F:436:LEU:O	3:F:440:SER:N	2.28	0.57
4:H:388:GLU:O	4:H:392:GLN:N	2.28	0.57
4:H:478:TRP:HA	4:H:489:ASP:HA	1.87	0.57
4:P:132:ASP:OD2	4:P:437:TYR:OH	2.16	0.57
5:C:320:LYS:HA	5:C:323:MET:HG3	1.85	0.57
6:J:234:VAL:HG12	6:J:236:ASP:H	1.70	0.57
6:B:449:PRO:HA	6:B:452:LEU:HB2	1.86	0.57
8:G:270:ILE:HD11	8:G:274:ARG:CZ	2.34	0.57
8:G:470:PHE:O	8:G:474:ALA:N	2.36	0.57
1:L:60:MET:HB2	1:L:70:VAL:HG22	1.87	0.57
1:D:57:LEU:HB3	2:E:518:ASP:OD1	2.04	0.57
2:E:279:VAL:HG21	2:E:303:LEU:HD12	1.86	0.57
3:N:245:LYS:H	3:N:296:ASN:ND2	2.03	0.57
3:N:534:ASP:OD1	3:N:535:VAL:N	2.38	0.57
4:H:94:GLY:O	4:H:97:SER:N	2.29	0.57
4:P:163:LYS:HB3	4:P:390:ASN:ND2	2.20	0.57
5:K:332:THR:H	6:J:303:HIS:CD2	2.22	0.57
5:C:171:GLN:HG3	5:C:205:LEU:HD11	1.86	0.57
6:B:524:ILE:HG23	7:A:46:MET:HG3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:O:149:ILE:HG22	8:O:153:LYS:HZ3	1.70	0.57
9:Q:83:VAL:O	9:Q:87:PHE:N	2.36	0.57
9:Q:185:MET:HE3	9:Q:223:TYR:OH	2.05	0.57
1:L:225:ILE:N	1:L:384:THR:O	2.21	0.57
1:L:265:LYS:HG3	2:M:255:ARG:NH1	2.19	0.57
1:L:265:LYS:HZ2	2:M:255:ARG:HH11	1.53	0.57
2:M:348:LEU:HB3	2:M:363:SER:HB2	1.86	0.57
4:H:353:LYS:HB2	4:H:362:PHE:CZ	2.39	0.57
4:P:41:LEU:HB2	4:P:96:THR:O	2.04	0.57
5:K:48:LEU:HA	5:K:58:ILE:HA	1.85	0.57
5:K:228:GLN:OE1	5:K:228:GLN:N	2.37	0.57
5:C:39:THR:O	5:C:45:MET:N	2.28	0.57
5:C:219:THR:OG1	5:C:220:PHE:N	2.36	0.57
6:J:207:ILE:O	6:J:378:ARG:NH1	2.38	0.57
6:B:40:ALA:HB1	6:B:44:ARG:HH11	1.69	0.57
6:B:305:ALA:HB1	6:B:310:ILE:HB	1.85	0.57
8:G:58:GLY:O	8:G:62:LEU:N	2.25	0.57
8:G:367:THR:OG1	8:G:370:ARG:O	2.23	0.57
1:L:458:ILE:HG22	1:L:462:LEU:HD11	1.87	0.57
1:D:62:VAL:HB	2:E:522:LYS:HA	1.86	0.57
2:E:323:LEU:HA	2:E:326:VAL:HG12	1.85	0.57
4:H:317:LYS:O	4:H:321:ASN:ND2	2.38	0.57
4:P:113:LEU:N	4:P:114:GLU:OE1	2.38	0.57
5:C:17:GLN:HE21	5:C:517:ASP:HB3	1.70	0.57
5:C:48:LEU:HB2	5:C:58:ILE:HG22	1.85	0.57
6:J:471:HIS:CE1	6:J:476:LYS:HA	2.40	0.57
6:B:203:ARG:HB3	6:B:374:THR:HG23	1.85	0.57
7:A:141:ARG:HA	7:A:141:ARG:NH2	2.20	0.57
8:O:214:TYR:O	8:O:364:ILE:N	2.33	0.57
1:L:59:LYS:HZ3	2:M:518:ASP:C	2.12	0.57
1:L:272:GLU:OE2	1:L:275:LYS:HD2	2.03	0.57
1:D:196:VAL:O	1:D:381:ARG:NH1	2.31	0.57
1:D:216:GLY:O	1:D:389:GLY:N	2.38	0.57
2:M:113:ALA:HB2	2:M:130:TRP:HH2	1.69	0.57
2:E:458:SER:O	2:E:462:VAL:HG12	2.05	0.57
3:N:138:GLN:O	3:N:141:LEU:HG	2.05	0.57
3:N:269:TYR:O	8:O:266:ARG:NH2	2.32	0.57
4:H:144:VAL:N	4:H:405:PRO:O	2.37	0.57
5:C:224:GLY:O	5:C:227:MET:N	2.37	0.57
6:J:299:ASP:O	6:J:302:LEU:HG	2.04	0.57
6:B:27:GLU:H	6:B:27:GLU:CD	2.12	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:150:ASP:O	7:A:154:THR:OG1	2.20	0.57
8:G:15:GLU:HA	8:G:18:ARG:HB2	1.86	0.57
9:Q:50:VAL:HG22	9:Q:57:VAL:HA	1.87	0.57
9:Q:122:ARG:HA	9:Q:236:ARG:NH2	2.15	0.57
9:Q:185:MET:HG2	9:Q:223:TYR:CE1	2.40	0.57
1:L:246:ALA:O	1:L:248:ILE:HG12	2.05	0.57
3:F:108:SER:O	3:F:111:ILE:HG22	2.05	0.57
5:K:202:GLY:N	5:K:376:GLY:O	2.38	0.57
5:K:520:ILE:HB	6:J:56:VAL:HG13	1.86	0.57
6:J:223:PHE:CZ	6:J:324:LEU:HD13	2.39	0.57
6:B:348:ASP:HB3	6:B:365:HIS:HA	1.85	0.57
7:I:54:ILE:O	7:I:55:LYS:NZ	2.28	0.57
7:I:497:ASN:HB2	7:I:500:VAL:HG23	1.87	0.57
8:O:211:ILE:HD11	8:O:376:ILE:HG12	1.87	0.57
8:G:514:LEU:O	8:G:518:THR:OG1	2.19	0.57
2:E:25:ARG:HB3	2:E:29:PHE:CE2	2.40	0.56
3:N:55:LYS:HE2	3:N:495:VAL:HG13	1.85	0.56
4:P:293:GLU:HG3	4:P:320:ASN:HD22	1.70	0.56
5:C:187:ASP:OD1	5:C:187:ASP:N	2.38	0.56
6:B:367:LYS:HG3	6:B:370:GLY:H	1.70	0.56
7:I:5:LYS:NZ	7:I:12:GLU:HA	2.19	0.56
7:I:195:GLU:HA	7:I:376:ILE:HB	1.87	0.56
7:I:436:GLY:O	7:I:440:PHE:N	2.35	0.56
7:A:58:LYS:NZ	7:A:158:THR:O	2.32	0.56
7:A:296:GLY:HA2	7:A:314:ARG:HB2	1.87	0.56
8:O:416:GLU:OE1	8:O:416:GLU:N	2.27	0.56
8:O:440:GLU:O	8:O:444:SER:N	2.23	0.56
8:O:456:ALA:HB1	8:O:458:GLN:HE22	1.69	0.56
1:L:14:ARG:NH2	1:L:15:PRO:O	2.38	0.56
1:D:81:MET:HG2	1:D:83:VAL:HG13	1.87	0.56
2:E:91:GLN:HE21	2:E:503:VAL:HG22	1.70	0.56
3:F:363:GLU:O	3:F:375:LYS:N	2.25	0.56
4:H:136:THR:O	4:H:140:ILE:HG12	2.05	0.56
4:P:60:THR:HG22	4:P:62:ASP:H	1.69	0.56
5:K:352:GLN:NE2	5:K:355:GLY:O	2.38	0.56
5:C:71:VAL:HG11	5:C:76:ALA:HB3	1.87	0.56
6:B:400:LYS:O	6:B:404:ARG:N	2.38	0.56
6:B:406:LYS:HB3	6:B:407:ARG:HG3	1.86	0.56
6:B:494:GLU:H	6:B:494:GLU:CD	2.12	0.56
7:I:42:GLY:HA2	7:I:454:ASN:HD21	1.69	0.56
3:N:133:ILE:O	3:N:136:SER:OG	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:353:ALA:HA	3:F:356:LEU:HB2	1.86	0.56
3:F:450:CYS:O	3:F:454:PHE:N	2.28	0.56
4:H:44:LYS:HD3	4:H:483:GLU:HG3	1.86	0.56
4:H:93:ASP:OD1	4:H:94:GLY:N	2.39	0.56
4:H:290:VAL:HB	4:H:311:ALA:HA	1.88	0.56
5:K:73:HIS:HE1	5:K:75:ALA:HB3	1.69	0.56
5:K:398:ARG:O	5:K:402:ASN:N	2.37	0.56
5:K:413:GLU:OE1	5:K:413:GLU:N	2.26	0.56
5:C:202:GLY:N	5:C:376:GLY:O	2.38	0.56
6:J:27:GLU:O	6:J:32:ASN:N	2.25	0.56
6:J:208:LEU:C	6:J:378:ARG:HH12	2.13	0.56
6:B:297:VAL:HG12	6:B:302:LEU:HD23	1.87	0.56
7:I:37:ASN:O	7:I:58:LYS:HD3	2.05	0.56
8:O:114:PRO:O	8:O:118:ILE:HG12	2.05	0.56
8:O:261:ASP:O	8:O:265:GLN:N	2.36	0.56
8:G:17:ILE:O	8:G:21:ASN:ND2	2.38	0.56
1:L:138:GLU:O	1:L:142:ARG:HG3	2.05	0.56
1:L:161:ASP:O	1:L:164:PRO:HD2	2.05	0.56
1:L:169:ALA:O	1:L:173:LEU:HG	2.05	0.56
3:F:446:MET:HE3	3:F:446:MET:H	1.70	0.56
4:H:123:ILE:HD12	4:H:514:VAL:HA	1.87	0.56
4:P:187:GLU:CD	4:P:187:GLU:H	2.12	0.56
5:K:303:PHE:O	5:K:307:ASP:N	2.38	0.56
5:K:458:THR:H	8:G:111:LYS:NZ	2.04	0.56
6:J:23:SER:N	6:J:27:GLU:OE2	2.37	0.56
6:J:314:ARG:NE	6:J:315:LEU:HG	2.19	0.56
6:B:428:GLU:HA	6:B:435:GLN:OE1	2.05	0.56
7:A:304:ALA:O	7:A:308:GLU:HG2	2.05	0.56
7:A:408:VAL:HG11	7:A:501:LYS:HG3	1.87	0.56
8:O:144:GLY:O	8:O:148:LEU:HG	2.05	0.56
1:L:181:CYS:O	1:L:184:GLN:N	2.38	0.56
1:D:266:LEU:O	2:E:255:ARG:HG3	2.05	0.56
2:M:205:LEU:O	2:M:376:ARG:NH1	2.33	0.56
2:E:376:ARG:HH11	2:E:376:ARG:HA	1.71	0.56
4:H:50:LEU:HD21	4:H:66:ILE:HD12	1.85	0.56
4:H:151:MET:O	4:H:155:ILE:N	2.32	0.56
6:J:14:MET:SD	6:J:14:MET:N	2.78	0.56
6:J:23:SER:HA	6:J:523:GLN:HB2	1.88	0.56
6:J:259:ILE:HD13	6:J:265:LEU:HD21	1.88	0.56
6:B:204:VAL:HG22	6:B:375:ILE:HD11	1.86	0.56
6:B:365:HIS:HE2	6:B:367:LYS:HE2	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:210:LEU:HD12	8:G:374:SER:O	2.05	0.56
1:L:123:LEU:HD11	1:L:450:ALA:HB2	1.87	0.56
1:D:34:LEU:O	1:D:38:ILE:HG12	2.04	0.56
5:C:163:LEU:O	5:C:165:SER:N	2.38	0.56
5:C:197:ILE:C	5:C:198:LYS:HD2	2.31	0.56
5:C:353:ILE:HB	5:C:358:TYR:CE2	2.41	0.56
6:J:111:LEU:HG	6:J:132:TYR:HE1	1.70	0.56
6:J:466:LYS:O	6:J:470:VAL:N	2.26	0.56
7:I:509:THR:O	7:I:513:THR:HG22	2.06	0.56
8:G:62:LEU:HD12	8:G:76:CYS:HB2	1.85	0.56
1:L:56:GLY:HA2	1:L:465:ASN:HD22	1.70	0.56
1:L:263:LYS:HG2	5:K:254:GLU:HG2	1.87	0.56
1:D:84:ASP:O	1:D:89:LYS:NZ	2.27	0.56
2:M:418:ALA:O	2:M:422:THR:OG1	2.18	0.56
2:E:268:GLU:O	2:E:272:LYS:HG2	2.06	0.56
3:N:317:LEU:O	3:N:321:LYS:N	2.39	0.56
4:H:387:VAL:HG12	4:H:391:LEU:HD23	1.88	0.56
4:P:237:ARG:N	4:P:288:ASP:OD2	2.39	0.56
5:K:77:LYS:O	5:K:81:ASP:N	2.37	0.56
5:C:339:ALA:O	5:C:342:LEU:HB2	2.06	0.56
5:C:349:GLU:N	5:C:360:PHE:O	2.22	0.56
6:J:127:GLU:HA	6:J:130:GLU:CD	2.31	0.56
8:O:32:VAL:HG23	8:O:95:ILE:HD11	1.87	0.56
8:O:264:ARG:HA	8:O:267:GLU:CD	2.31	0.56
8:G:520:ALA:O	8:G:524:ILE:HG12	2.05	0.56
1:L:59:LYS:HB2	1:L:77:ILE:HD12	1.88	0.56
1:L:63:ASP:HB3	1:L:67:ASP:HB3	1.86	0.56
1:L:246:ALA:HB3	1:L:356:ALA:H	1.71	0.56
2:E:147:ASP:HA	2:E:405:ARG:HA	1.88	0.56
4:H:179:ALA:O	4:H:182:MET:HG3	2.05	0.56
4:P:206:GLY:C	4:P:377:ARG:HE	2.13	0.56
5:C:233:HIS:HA	5:C:347:VAL:HG23	1.88	0.56
5:C:431:GLN:O	5:C:435:ILE:HG12	2.06	0.56
6:J:389:GLU:HA	6:J:392:VAL:HB	1.87	0.56
7:I:49:SER:OG	7:I:52:GLY:N	2.39	0.56
7:I:142:GLU:OE1	7:I:142:GLU:N	2.39	0.56
7:I:146:GLU:HA	7:I:149:ILE:HD12	1.87	0.56
7:I:506:HIS:O	7:I:509:THR:OG1	2.22	0.56
7:A:216:ALA:HB1	7:A:221:MET:HG3	1.88	0.56
8:O:355:ARG:HB3	8:O:360:GLU:HG2	1.88	0.56
8:G:244:THR:HB	8:G:270:ILE:HG12	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:486:ILE:O	8:G:497:ASP:HA	2.06	0.56
1:L:250:ILE:HG22	1:L:341:ILE:HG23	1.88	0.56
1:D:288:MET:O	1:D:292:ILE:HG22	2.06	0.56
1:D:323:ARG:HG2	1:D:324:TRP:CD1	2.41	0.56
1:D:342:VAL:HG12	1:D:344:ARG:H	1.71	0.56
2:M:220:LEU:HD11	2:M:323:LEU:HD21	1.88	0.56
2:M:291:ILE:HG22	2:M:312:ILE:HB	1.88	0.56
2:E:397:LEU:HA	2:E:400:THR:OG1	2.05	0.56
3:N:207:ASP:HB3	3:N:385:THR:HG22	1.88	0.56
3:N:335:PHE:O	3:N:339:THR:N	2.37	0.56
4:H:240:LEU:HB2	4:H:331:ILE:HA	1.87	0.56
4:P:492:GLU:OE1	4:P:492:GLU:N	2.25	0.56
5:K:277:LYS:O	5:K:281:ILE:N	2.37	0.56
5:C:3:PRO:HG2	7:I:5:LYS:HG3	1.88	0.56
6:J:179:LEU:HD23	6:J:182:LEU:HD21	1.88	0.56
6:B:320:ASP:OD1	6:B:320:ASP:N	2.39	0.56
7:A:198:HIS:NE2	7:A:199:LYS:HD3	2.19	0.56
8:O:89:GLY:C	8:O:92:SER:H	2.13	0.56
8:O:235:ALA:O	8:O:286:ILE:HA	2.06	0.56
8:G:352:VAL:O	8:G:363:LEU:N	2.24	0.56
1:D:113:ALA:O	1:D:116:LEU:HB3	2.06	0.56
1:D:187:GLU:O	1:D:191:ASN:ND2	2.39	0.56
1:D:511:ILE:HD13	1:D:514:LYS:HD3	1.87	0.56
2:E:116:LEU:HA	2:E:119:LYS:HB2	1.86	0.56
2:E:212:SER:HB3	2:E:375:LEU:HA	1.87	0.56
2:E:278:LYS:NZ	2:E:281:ARG:HD2	2.21	0.56
3:F:333:ILE:HA	3:F:336:ILE:HD12	1.87	0.56
4:H:383:ILE:O	4:H:387:VAL:HG23	2.06	0.56
4:P:207:GLY:HA3	4:P:377:ARG:HG3	1.87	0.56
5:K:499:ARG:O	5:K:503:LEU:HG	2.06	0.56
5:C:297:ASP:N	5:C:297:ASP:OD1	2.36	0.56
5:C:408:GLY:N	5:C:492:VAL:O	2.38	0.56
6:B:6:PRO:HD2	6:B:7:LYS:CE	2.35	0.56
6:B:47:TYR:CG	6:B:103:PHE:HE2	2.23	0.56
6:B:246:PHE:HB3	6:B:297:VAL:HA	1.87	0.56
7:A:145:ARG:NH1	7:A:174:ASP:OD1	2.38	0.56
7:A:294:GLN:O	7:A:315:ARG:HA	2.05	0.56
7:A:297:ILE:HG12	7:A:314:ARG:HB3	1.88	0.56
8:O:346:GLY:O	8:O:347:GLN:NE2	2.38	0.56
8:G:388:MET:O	8:G:391:SER:OG	2.21	0.56
1:L:19:ILE:HD13	5:K:71:VAL:HA	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:239:MET:SD	1:L:320:PRO:HA	2.46	0.55
1:L:344:ARG:HH12	5:K:271:TRP:HB2	1.69	0.55
2:M:212:SER:OG	2:M:376:ARG:N	2.39	0.55
2:E:45:PRO:HA	2:E:168:SER:O	2.05	0.55
2:E:130:TRP:O	2:E:134:THR:OG1	2.21	0.55
3:F:534:ASP:OD1	3:F:535:VAL:N	2.39	0.55
4:H:217:GLY:HA3	4:H:363:ILE:O	2.06	0.55
5:K:204:ALA:HB3	5:K:207:ASP:OD1	2.05	0.55
5:K:223:ALA:HB3	5:K:301:GLN:NE2	2.20	0.55
5:C:25:ASN:ND2	5:C:25:ASN:H	2.04	0.55
6:B:81:PRO:HG3	7:A:48:VAL:HG21	1.88	0.55
6:B:438:ILE:HA	6:B:441:PHE:HB3	1.87	0.55
7:I:63:LEU:O	7:I:67:MET:N	2.38	0.55
7:A:211:VAL:HA	7:A:361:THR:O	2.06	0.55
7:A:427:PRO:HA	7:A:429:VAL:HG22	1.88	0.55
1:L:280:TYR:O	1:L:284:LYS:N	2.34	0.55
1:D:58:ASP:HB2	1:D:71:THR:O	2.05	0.55
2:E:379:THR:O	2:E:383:LEU:N	2.32	0.55
3:F:227:LEU:HD12	3:F:339:THR:HB	1.88	0.55
4:H:261:GLU:HB3	7:A:262:ALA:HB2	1.88	0.55
4:H:399:ARG:O	4:H:403:LEU:HG	2.05	0.55
4:P:94:GLY:O	4:P:98:VAL:N	2.39	0.55
4:P:162:THR:HB	4:P:163:LYS:HD2	1.87	0.55
6:J:223:PHE:HB2	6:J:361:VAL:HB	1.89	0.55
6:J:250:ILE:HG12	7:I:256:ARG:HH21	1.69	0.55
8:G:234:ILE:O	8:G:346:GLY:N	2.30	0.55
9:Q:133:TRP:HA	9:Q:136:VAL:HG23	1.87	0.55
2:M:179:PHE:HA	2:M:182:LEU:HD23	1.88	0.55
3:N:34:ARG:O	3:N:38:ILE:HG12	2.07	0.55
3:N:125:GLN:H	3:N:125:GLN:CD	2.14	0.55
3:N:280:ARG:NE	8:O:336:GLY:O	2.38	0.55
4:P:334:ARG:HG3	8:O:299:TYR:OH	2.05	0.55
6:B:246:PHE:CE1	6:B:301:ALA:HB1	2.41	0.55
9:Q:257:TYR:HB3	9:Q:344:PRO:HD3	1.87	0.55
1:L:524:VAL:HA	1:L:527:ILE:HB	1.86	0.55
1:D:249:ALA:N	1:D:299:LEU:O	2.37	0.55
2:E:453:ASN:N	2:E:453:ASN:OD1	2.38	0.55
3:F:522:ALA:O	3:F:526:VAL:HG22	2.07	0.55
4:H:65:ALA:HA	4:H:68:ARG:HB3	1.88	0.55
4:H:507:LYS:HZ2	8:G:204:SER:H	1.55	0.55
6:J:92:MET:HE2	7:I:379:PRO:HA	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:96:GLU:HG3	6:J:97:VAL:HG13	1.88	0.55
6:J:209:GLY:O	6:J:378:ARG:NH1	2.38	0.55
7:I:56:LEU:HB3	7:I:386:GLN:HG3	1.88	0.55
7:A:172:VAL:O	7:A:176:ILE:HG12	2.06	0.55
7:A:198:HIS:N	7:A:378:GLY:O	2.39	0.55
1:L:58:ASP:HB2	1:L:71:THR:O	2.05	0.55
1:L:376:GLN:HE22	1:L:378:LYS:HB2	1.70	0.55
1:D:188:ILE:HG23	1:D:224:LEU:HB3	1.89	0.55
2:M:302:GLN:O	2:M:306:ALA:N	2.33	0.55
2:E:279:VAL:O	2:E:283:LEU:HG	2.06	0.55
3:N:63:ASP:HB3	3:N:67:ASP:N	2.20	0.55
3:N:449:TYR:HA	3:N:452:ARG:HB3	1.88	0.55
4:H:278:LEU:O	4:H:282:ILE:HG12	2.06	0.55
5:C:45:MET:O	5:C:60:ASN:ND2	2.40	0.55
5:C:133:VAL:O	5:C:137:LYS:N	2.33	0.55
5:C:202:GLY:O	5:C:375:ARG:NH2	2.39	0.55
5:C:208:SER:HA	5:C:375:ARG:HG2	1.89	0.55
5:C:262:ASP:O	5:C:266:ILE:HG12	2.05	0.55
6:J:130:GLU:O	6:J:134:ILE:HG22	2.07	0.55
8:O:120:GLY:HA2	8:O:123:LEU:HD12	1.87	0.55
8:O:152:ALA:O	8:O:156:MET:N	2.39	0.55
8:G:130:ARG:HB3	8:G:130:ARG:HH21	1.71	0.55
8:G:196:ASN:HB2	8:G:214:TYR:CE1	2.42	0.55
8:G:342:ALA:HA	8:G:345:LEU:HD23	1.89	0.55
1:L:61:MET:HE1	2:M:521:ILE:HD12	1.88	0.55
1:L:269:THR:OG1	1:L:273:ASP:OD2	2.18	0.55
1:L:461:ALA:HA	1:L:464:GLU:HB3	1.89	0.55
1:D:129:HIS:HE1	1:D:131:ILE:HG12	1.71	0.55
2:E:52:LEU:HD12	3:F:538:THR:HG22	1.89	0.55
2:E:417:MET:O	2:E:421:VAL:N	2.37	0.55
4:H:132:ASP:O	4:H:136:THR:OG1	2.13	0.55
4:H:238:ILE:HA	4:H:289:VAL:HB	1.88	0.55
4:P:213:CYS:SG	4:P:214:VAL:N	2.79	0.55
5:K:443:GLU:O	5:K:446:PRO:HD2	2.06	0.55
5:C:125:PHE:O	5:C:129:THR:OG1	2.17	0.55
6:J:468:TYR:O	6:J:472:GLN:NE2	2.25	0.55
6:B:399:PHE:O	6:B:403:THR:OG1	2.12	0.55
7:I:252:SER:HG	7:I:255:GLU:H	1.51	0.55
7:A:115:HIS:CE1	7:A:117:ARG:HB2	2.41	0.55
8:O:261:ASP:OD1	8:O:261:ASP:N	2.39	0.55
8:G:192:VAL:C	8:G:194:SER:H	2.15	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:401:ARG:O	8:G:405:SER:N	2.30	0.55
9:Q:171:ASN:O	9:Q:175:ASP:N	2.28	0.55
1:L:67:ASP:OD1	1:L:68:VAL:N	2.40	0.55
1:L:309:GLU:O	1:L:313:LEU:HG	2.07	0.55
1:L:513:LYS:O	1:L:517:ILE:HG22	2.06	0.55
1:D:58:ASP:OD1	2:E:516:ARG:HB3	2.06	0.55
4:H:158:SER:OG	4:H:496:TRP:N	2.39	0.55
4:H:240:LEU:HB3	4:H:331:ILE:HG23	1.88	0.55
5:K:102:ALA:HA	5:K:105:LEU:HB2	1.89	0.55
6:B:492:MET:O	6:B:496:GLY:N	2.40	0.55
7:I:284:ASP:N	7:I:284:ASP:OD1	2.40	0.55
8:G:171:MET:SD	8:G:210:LEU:HB2	2.47	0.55
9:Q:120:ARG:NH1	11:Q:1178:HOH:O	2.33	0.55
3:F:311:ASP:O	3:F:315:HIS:N	2.34	0.55
4:P:498:PRO:HB2	4:P:501:VAL:HG23	1.89	0.55
5:K:261:GLU:HA	5:K:264:GLN:HB2	1.89	0.55
5:C:232:TYR:CE1	5:C:309:PHE:HB2	2.42	0.55
5:C:252:ASN:O	6:B:256:THR:OG1	2.25	0.55
6:B:218:LEU:O	6:B:373:SER:HB2	2.06	0.55
6:B:433:LEU:H	6:B:433:LEU:HD12	1.71	0.55
7:I:12:GLU:N	7:I:523:ARG:O	2.35	0.55
7:I:461:GLU:OE2	7:I:462:THR:HG23	2.06	0.55
7:A:266:PHE:O	7:A:270:ARG:HG3	2.06	0.55
7:A:480:ASP:N	7:A:485:GLU:O	2.36	0.55
1:D:161:ASP:O	1:D:164:PRO:HD2	2.07	0.55
2:E:152:GLU:HA	2:E:155:PHE:HB3	1.88	0.55
2:E:200:HIS:HB3	2:E:372:THR:HG23	1.89	0.55
2:E:226:VAL:O	2:E:228:GLN:N	2.37	0.55
2:E:250:LYS:O	2:E:253:GLY:N	2.34	0.55
2:E:261:THR:O	2:E:264:VAL:HG12	2.07	0.55
3:F:105:GLY:O	3:F:109:VAL:N	2.33	0.55
4:H:433:GLU:C	4:H:436:PRO:HD2	2.31	0.55
5:K:217:LYS:HA	5:K:358:TYR:CE1	2.42	0.55
5:K:300:THR:O	5:K:304:ALA:N	2.29	0.55
6:J:416:GLU:OE2	6:J:416:GLU:N	2.35	0.55
7:I:443:ALA:O	7:I:446:ILE:HG12	2.07	0.55
8:O:389:GLU:HA	8:O:392:LEU:HB2	1.89	0.55
8:G:514:LEU:O	8:G:518:THR:N	2.32	0.55
9:Q:211:ASP:OD1	9:Q:214:SER:OG	2.22	0.55
2:M:21:ALA:H	2:M:24:ALA:HB3	1.71	0.55
2:M:258:VAL:HB	2:M:263:LYS:HD2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:279:VAL:HG21	2:M:303:LEU:HD12	1.89	0.55
3:N:108:SER:O	3:N:111:ILE:HG22	2.07	0.55
3:N:451:VAL:HA	3:N:454:PHE:HB3	1.89	0.55
5:C:107:GLN:O	5:C:110:PRO:HD2	2.07	0.55
6:J:240:ALA:HB1	6:J:242:TYR:CE2	2.40	0.55
6:J:257:VAL:HB	7:I:250:TYR:CZ	2.42	0.55
7:I:469:GLU:HB2	7:I:474:GLY:HA3	1.88	0.55
7:A:138:LYS:HD3	7:A:498:TYR:CD1	2.41	0.55
8:G:39:VAL:HG23	8:G:455:ASN:HB3	1.88	0.55
1:L:148:LEU:O	1:L:151:ILE:HG12	2.08	0.54
1:L:167:GLN:O	1:L:171:THR:HG23	2.07	0.54
2:M:45:PRO:HG2	2:M:480:MET:SD	2.47	0.54
2:M:444:ARG:O	2:M:448:THR:OG1	2.25	0.54
4:H:162:THR:HB	4:H:163:LYS:HD2	1.88	0.54
4:H:223:ASP:OD1	4:H:224:VAL:N	2.39	0.54
4:P:93:ASP:OD2	4:P:163:LYS:NZ	2.41	0.54
7:A:415:GLU:HG3	7:A:447:ILE:HD13	1.88	0.54
8:O:24:ALA:O	8:O:28:ILE:HG12	2.07	0.54
8:O:489:ASP:HB2	8:O:496:ARG:HE	1.72	0.54
8:G:216:LEU:O	8:G:361:LEU:HB2	2.06	0.54
8:G:232:ALA:O	8:G:347:GLN:HA	2.07	0.54
8:G:419:LEU:O	8:G:423:LEU:HG	2.07	0.54
8:G:440:GLU:HA	8:G:443:ARG:HB3	1.88	0.54
2:M:297:TYR:CD1	2:M:299:TYR:HB3	2.43	0.54
3:N:173:SER:C	3:N:174:LYS:HD2	2.32	0.54
3:N:215:GLY:O	3:N:391:ARG:NH1	2.40	0.54
3:N:245:LYS:H	3:N:296:ASN:CG	2.16	0.54
3:N:286:LEU:O	3:N:290:ILE:HG12	2.06	0.54
3:F:58:ASP:OD1	8:G:526:ARG:NE	2.38	0.54
4:P:318:THR:O	4:P:322:ARG:HG3	2.06	0.54
4:P:353:LYS:HB2	4:P:362:PHE:CE1	2.42	0.54
6:J:220:GLY:HA3	6:J:363:PHE:O	2.07	0.54
7:A:101:GLU:O	7:A:105:GLN:HG2	2.07	0.54
7:A:173:VAL:O	7:A:177:LEU:HG	2.06	0.54
8:O:269:ASP:O	8:O:273:GLU:HG3	2.07	0.54
8:G:168:PHE:CZ	8:G:205:GLN:HB2	2.42	0.54
1:L:61:MET:SD	2:M:521:ILE:HB	2.47	0.54
2:M:379:THR:HB	2:M:382:ILE:HB	1.89	0.54
2:E:202:ILE:O	2:E:375:LEU:HB2	2.07	0.54
3:N:97:ALA:O	3:N:100:ILE:HG22	2.08	0.54
4:P:261:GLU:HB3	7:I:262:ALA:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:322:ARG:O	4:P:326:ALA:N	2.39	0.54
7:I:415:GLU:HG3	7:I:447:ILE:HD13	1.88	0.54
7:A:399:LYS:O	7:A:403:ASP:HB2	2.07	0.54
7:A:463:LEU:O	7:A:467:GLN:HB2	2.08	0.54
8:O:174:ASP:HA	8:O:177:LEU:HG	1.89	0.54
8:O:352:VAL:O	8:O:363:LEU:N	2.24	0.54
8:O:483:LEU:HA	8:O:485:TRP:CH2	2.43	0.54
8:G:42:ASP:HB3	8:G:56:ASN:HB3	1.89	0.54
8:G:499:LYS:HA	8:G:504:PHE:CZ	2.42	0.54
9:Q:36:ILE:HD13	9:Q:152:PRO:HB3	1.90	0.54
1:L:529:LYS:HZ1	5:K:45:MET:HA	1.72	0.54
1:D:101:GLU:OE1	5:C:375:ARG:NH1	2.40	0.54
1:D:246:ALA:HB3	1:D:356:ALA:H	1.71	0.54
2:M:129:GLY:O	2:M:133:ALA:N	2.31	0.54
2:E:43:LEU:HD22	2:E:100:THR:HB	1.88	0.54
2:E:127:ILE:HD11	2:E:515:LEU:HB2	1.89	0.54
2:E:292:ASN:OD1	2:E:293:ARG:N	2.41	0.54
4:H:106:LEU:HA	4:H:109:ALA:HB3	1.88	0.54
4:P:212:SER:OG	4:P:377:ARG:O	2.24	0.54
4:P:246:GLU:HB3	4:P:297:SER:HB2	1.89	0.54
5:K:487:ASN:O	5:K:492:VAL:N	2.37	0.54
5:C:6:VAL:HG21	6:B:80:HIS:HD2	1.70	0.54
5:C:62:GLY:O	5:C:66:LEU:HG	2.07	0.54
5:C:247:LYS:CD	5:C:250:LYS:HB2	2.37	0.54
7:I:8:ASN:HB3	7:I:11:ALA:HB2	1.89	0.54
7:I:31:GLN:HB2	7:I:97:LEU:HD23	1.87	0.54
7:I:190:MET:HG2	7:I:191:ILE:HG12	1.89	0.54
7:I:234:ASN:OD1	7:I:334:ASN:ND2	2.37	0.54
7:A:420:GLU:HA	7:A:423:ILE:HG22	1.90	0.54
8:O:88:ASP:C	8:O:90:THR:H	2.15	0.54
8:G:312:LEU:HB2	8:G:315:ASP:OD2	2.07	0.54
9:Q:47:GLY:HA2	9:Q:61:LEU:HD12	1.88	0.54
1:L:152:SER:HA	1:L:419:VAL:HG22	1.89	0.54
1:L:247:LYS:HB3	1:L:297:ALA:HA	1.90	0.54
2:M:414:GLU:OE1	2:M:414:GLU:N	2.18	0.54
3:N:437:THR:HG22	3:N:441:ARG:NH1	2.22	0.54
3:F:367:LEU:O	3:F:371:GLY:N	2.39	0.54
4:H:150:ASP:OD1	4:H:150:ASP:N	2.34	0.54
4:H:240:LEU:HD13	4:H:291:ILE:HB	1.89	0.54
4:P:325:ARG:HA	4:P:325:ARG:NH2	2.22	0.54
5:C:510:ALA:O	5:C:514:VAL:HG23	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:223:PHE:O	6:J:361:VAL:N	2.22	0.54
6:B:177:VAL:O	6:B:181:LYS:NZ	2.39	0.54
6:B:230:ASP:OD1	6:B:230:ASP:N	2.37	0.54
6:B:294:GLY:HA2	6:B:315:LEU:N	2.23	0.54
8:O:480:ARG:C	8:O:483:LEU:H	2.16	0.54
8:G:17:ILE:HG21	8:G:529:ASP:HA	1.90	0.54
8:G:180:LYS:HA	8:G:190:TYR:HD1	1.70	0.54
9:Q:167:TRP:CZ2	9:Q:259:ARG:HB2	2.41	0.54
9:Q:236:ARG:HG3	9:Q:240:LYS:HE3	1.90	0.54
1:D:137:TYR:CD2	1:D:451:PHE:HB2	2.43	0.54
3:N:72:ASN:ND2	3:N:173:SER:O	2.39	0.54
3:N:224:VAL:HB	3:N:387:THR:HG23	1.89	0.54
3:F:63:ASP:HB3	3:F:67:ASP:H	1.73	0.54
4:H:524:SER:OG	4:H:525:GLY:N	2.39	0.54
4:P:304:LEU:HD12	4:P:309:ILE:HB	1.90	0.54
5:C:8:LEU:HG	5:C:9:LEU:HG	1.89	0.54
5:C:479:ILE:HG13	5:C:480:ASN:N	2.23	0.54
6:J:137:ARG:HA	6:J:140:HIS:HD2	1.72	0.54
6:J:176:GLU:OE1	6:J:176:GLU:N	2.40	0.54
6:B:521:VAL:HG11	7:A:46:MET:HG2	1.88	0.54
7:A:409:PRO:HA	7:A:495:TRP:HA	1.89	0.54
8:G:211:ILE:HB	8:G:374:SER:HB2	1.88	0.54
8:G:234:ILE:HA	8:G:285:VAL:HB	1.90	0.54
8:G:436:LEU:O	8:G:440:GLU:HG2	2.07	0.54
2:E:414:GLU:H	2:E:414:GLU:CD	2.07	0.54
2:E:418:ALA:HA	2:E:421:VAL:HB	1.89	0.54
3:F:30:PRO:O	3:F:34:ARG:N	2.32	0.54
3:F:251:PHE:H	3:F:251:PHE:HD2	1.56	0.54
4:H:180:VAL:HG11	4:H:398:CYS:SG	2.48	0.54
4:H:469:LYS:HD2	4:H:478:TRP:CD1	2.42	0.54
4:P:119:PRO:O	4:P:123:ILE:N	2.39	0.54
5:K:151:GLN:H	5:K:151:GLN:CD	2.15	0.54
5:K:511:CYS:O	5:K:515:SER:OG	2.19	0.54
5:C:332:THR:HG1	6:B:303:HIS:CG	2.24	0.54
7:A:192:GLU:O	7:A:374:LEU:N	2.36	0.54
7:A:323:ARG:O	7:A:327:ALA:N	2.40	0.54
8:O:487:GLY:HA3	8:O:498:ASN:H	1.73	0.54
8:G:461:THR:O	8:G:465:ALA:N	2.32	0.54
1:L:193:VAL:HG21	1:L:409:ILE:HG21	1.89	0.54
1:L:488:ALA:O	1:L:500:ASP:HA	2.07	0.54
1:D:57:LEU:HD12	2:E:516:ARG:HA	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:214:LYS:HB2	1:D:386:PHE:CZ	2.42	0.54
2:E:205:LEU:C	2:E:376:ARG:HH12	2.16	0.54
3:N:525:THR:O	3:N:528:SER:OG	2.13	0.54
3:F:60:MET:HG2	3:F:70:ILE:HA	1.89	0.54
3:F:297:VAL:HA	3:F:323:MET:HB3	1.90	0.54
4:H:35:ASP:HA	4:H:38:ARG:HG3	1.90	0.54
4:H:266:ARG:HH21	8:G:257:PRO:HB2	1.72	0.54
5:K:339:ALA:HA	5:K:342:LEU:HB2	1.90	0.54
5:C:51:ASP:OD1	5:C:55:LYS:N	2.41	0.54
5:C:323:MET:SD	5:C:324:MET:N	2.81	0.54
6:J:522:ASP:OD1	6:J:522:ASP:N	2.41	0.54
6:B:266:MET:SD	6:B:266:MET:N	2.81	0.54
7:A:429:VAL:HG23	7:A:431:GLY:N	2.21	0.54
7:A:478:GLY:N	7:A:487:MET:O	2.22	0.54
8:G:483:LEU:HA	8:G:485:TRP:CH2	2.43	0.54
9:Q:272:PHE:CE2	9:Q:282:MET:HB2	2.43	0.54
1:L:216:GLY:N	1:L:389:GLY:O	2.38	0.54
2:M:174:HIS:H	3:N:527:ARG:NH1	2.05	0.54
4:H:466:LEU:HD13	4:H:487:LEU:HD11	1.89	0.54
6:J:114:LEU:HD23	6:J:440:LYS:HD2	1.90	0.54
6:B:175:ASN:O	6:B:179:LEU:HG	2.07	0.54
7:I:109:TYR:HB3	7:I:114:LEU:HD12	1.90	0.54
7:A:445:LEU:HB2	7:A:449:LYS:NZ	2.22	0.54
8:O:103:ASN:HD22	8:O:103:ASN:N	2.05	0.54
8:O:455:ASN:OD1	8:O:455:ASN:N	2.40	0.54
8:G:269:ASP:O	8:G:273:GLU:HG3	2.08	0.54
1:D:421:GLY:N	1:D:506:VAL:O	2.40	0.54
2:E:201:ILE:HG21	2:E:387:GLU:HG2	1.90	0.54
3:F:151:MET:HB2	3:F:489:LYS:HD2	1.89	0.54
4:H:269:GLN:O	4:H:273:GLU:N	2.35	0.54
4:P:93:ASP:OD1	4:P:96:THR:OG1	2.13	0.54
5:K:352:GLN:OE1	5:K:357:ARG:HA	2.08	0.54
5:K:522:ASN:HB2	6:J:59:HIS:HA	1.89	0.54
5:C:40:LEU:HB2	5:C:95:THR:CB	2.38	0.54
6:B:26:GLU:HA	6:B:29:VAL:HG12	1.90	0.54
6:B:416:GLU:OE2	6:B:416:GLU:N	2.38	0.54
7:A:507:SER:O	7:A:511:ILE:HG12	2.07	0.54
8:O:68:GLU:N	8:O:68:GLU:OE1	2.40	0.54
8:G:11:ARG:HB3	8:G:531:ILE:HG23	1.90	0.54
8:G:58:GLY:HA2	8:G:61:ILE:HB	1.89	0.54
8:G:416:GLU:O	8:G:420:SER:OG	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Q:83:VAL:HA	9:Q:86:GLN:HB3	1.90	0.54
1:L:86:GLN:HA	1:L:89:LYS:HD2	1.89	0.53
1:L:223:LYS:HG3	1:L:224:LEU:O	2.07	0.53
1:D:420:TYR:CE2	1:D:502:LYS:HB2	2.42	0.53
2:M:170:LYS:HD2	2:M:170:LYS:N	2.23	0.53
3:N:122:LYS:HA	3:N:125:GLN:HE22	1.72	0.53
4:P:142:ILE:O	4:P:407:LEU:N	2.35	0.53
4:P:298:ASP:O	4:P:302:HIS:N	2.41	0.53
5:K:450:CYS:O	5:K:454:GLY:N	2.42	0.53
6:J:219:HIS:O	6:J:365:HIS:HB3	2.08	0.53
6:B:80:HIS:CE1	6:B:82:ALA:H	2.26	0.53
7:I:130:ALA:O	7:I:134:LEU:N	2.29	0.53
7:A:5:LYS:NZ	7:A:12:GLU:HA	2.23	0.53
8:O:300:PHE:HD1	8:O:307:ALA:HB2	1.74	0.53
8:O:440:GLU:O	8:O:444:SER:OG	2.25	0.53
8:O:511:VAL:O	8:O:515:LYS:HG3	2.08	0.53
1:L:24:ARG:NH1	1:L:538:GLU:O	2.22	0.53
1:L:226:LYS:HA	1:L:383:VAL:HG23	1.90	0.53
1:L:329:GLU:HA	1:L:332:LEU:HD12	1.89	0.53
1:L:364:PHE:CE1	1:L:371:MET:HG2	2.43	0.53
1:D:18:ILE:H	1:D:22:GLN:CD	2.16	0.53
1:D:84:ASP:C	1:D:89:LYS:HZ1	2.12	0.53
1:D:369:ASP:HA	1:D:370:LYS:HE3	1.91	0.53
2:M:380:GLN:N	3:N:93:GLU:OE1	2.40	0.53
2:E:90:VAL:O	2:E:94:GLU:HG2	2.08	0.53
2:E:148:HIS:O	2:E:404:SER:HB3	2.08	0.53
2:E:293:ARG:HG3	2:E:294:GLN:OE1	2.08	0.53
3:F:135:GLU:HA	3:F:138:GLN:HG2	1.89	0.53
3:F:353:ALA:HA	3:F:356:LEU:HD13	1.90	0.53
4:H:302:HIS:O	4:H:305:MET:HE2	2.09	0.53
4:P:219:MET:SD	4:P:360:PHE:HB3	2.48	0.53
4:P:288:ASP:C	4:P:309:ILE:HG23	2.34	0.53
4:P:325:ARG:HA	4:P:325:ARG:HH21	1.73	0.53
4:P:414:SER:O	4:P:418:VAL:HG23	2.08	0.53
4:P:445:GLU:O	4:P:448:PRO:HD2	2.08	0.53
5:K:236:LYS:HB2	5:K:286:ALA:HA	1.90	0.53
5:C:108:VAL:HG12	5:C:112:VAL:HG23	1.90	0.53
5:C:391:ASP:O	5:C:395:ILE:HG22	2.08	0.53
6:J:460:ALA:O	6:J:463:VAL:HB	2.08	0.53
6:J:520:ARG:HG3	7:I:44:MET:SD	2.48	0.53
6:B:23:SER:N	6:B:27:GLU:OE2	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:B:353:SER:N	6:B:360:VAL:O	2.32	0.53
7:I:420:GLU:OE1	7:I:469:GLU:HB3	2.09	0.53
7:A:20:LEU:O	7:A:24:ILE:HG22	2.08	0.53
7:A:160:VAL:HG12	7:A:386:GLN:HE22	1.73	0.53
7:A:206:LEU:HD11	7:A:372:VAL:HB	1.90	0.53
7:A:267:ILE:HD13	7:A:270:ARG:HD2	1.90	0.53
7:A:398:VAL:O	7:A:402:ILE:HG22	2.08	0.53
1:L:57:LEU:HB3	2:M:518:ASP:OD1	2.08	0.53
1:D:83:VAL:HA	2:E:12:PHE:HA	1.90	0.53
1:D:229:ILE:HG22	1:D:384:THR:HG21	1.90	0.53
2:M:458:SER:O	2:M:462:VAL:HG12	2.08	0.53
2:M:487:ASP:OD1	2:M:490:ILE:N	2.28	0.53
3:N:394:ASN:CG	3:N:397:VAL:H	2.16	0.53
3:F:48:ILE:HA	3:F:59:LYS:NZ	2.23	0.53
4:P:125:ALA:O	4:P:129:ALA:N	2.34	0.53
6:J:418:GLU:OE2	6:J:422:GLN:NE2	2.41	0.53
6:B:410:PRO:HA	6:B:498:LEU:HD13	1.91	0.53
7:I:271:VAL:O	7:I:275:ILE:N	2.32	0.53
8:G:36:LEU:HB3	8:G:91:THR:O	2.09	0.53
8:G:68:GLU:N	8:G:68:GLU:OE1	2.41	0.53
9:Q:4:CYS:O	9:Q:57:VAL:N	2.26	0.53
1:D:252:THR:O	1:D:304:TRP:HE3	1.91	0.53
1:D:364:PHE:CE1	1:D:371:MET:HG2	2.44	0.53
2:M:42:THR:OG1	2:M:65:ASN:OD1	2.17	0.53
3:N:245:LYS:H	3:N:296:ASN:HD21	1.56	0.53
3:N:412:ILE:O	3:N:416:VAL:HG23	2.09	0.53
3:F:33:ILE:HD13	3:F:534:ASP:HA	1.89	0.53
4:H:62:ASP:O	4:H:66:ILE:HG12	2.09	0.53
4:H:187:GLU:H	4:H:187:GLU:CD	2.12	0.53
4:H:475:CYS:HB2	4:H:478:TRP:CD1	2.42	0.53
4:P:157:ASN:HA	4:P:160:ILE:HG12	1.89	0.53
5:C:259:THR:HB	5:C:262:ASP:CG	2.33	0.53
6:J:109:GLY:O	6:J:113:GLU:N	2.38	0.53
6:B:56:VAL:O	6:B:64:PHE:N	2.42	0.53
6:B:269:SER:HA	6:B:272:GLU:HB3	1.90	0.53
7:I:445:LEU:O	7:I:448:PRO:HD2	2.09	0.53
8:O:439:ALA:O	8:O:443:ARG:N	2.37	0.53
8:G:146:ASP:O	8:G:150:ASN:ND2	2.41	0.53
8:G:259:LYS:O	8:G:263:ILE:HG13	2.08	0.53
1:L:462:LEU:O	1:L:466:SER:N	2.40	0.53
2:M:190:LEU:HB3	2:M:193:SER:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:240:ALA:HB2	2:M:335:PHE:HZ	1.72	0.53
2:M:421:VAL:HG13	2:M:436:MET:HE3	1.90	0.53
2:E:19:GLU:O	2:E:24:ALA:HB2	2.08	0.53
2:E:156:ARG:NH2	2:E:185:GLU:OE2	2.42	0.53
2:E:228:GLN:CD	2:E:310:MET:HA	2.33	0.53
2:E:479:ASP:N	2:E:484:THR:O	2.27	0.53
3:N:104:ASP:CG	3:N:105:GLY:H	2.16	0.53
4:P:303:TYR:HA	4:P:306:ARG:HB3	1.90	0.53
6:J:292:VAL:HB	6:J:313:VAL:HB	1.90	0.53
6:B:176:GLU:OE1	6:B:176:GLU:N	2.37	0.53
6:B:208:LEU:C	6:B:378:ARG:HH12	2.16	0.53
6:B:300:MET:O	6:B:304:TYR:N	2.38	0.53
7:I:5:LYS:HZ3	7:I:12:GLU:HA	1.72	0.53
7:I:153:ARG:HB2	7:I:169:THR:HG21	1.91	0.53
7:A:229:TYR:CE2	7:A:287:LYS:HD3	2.43	0.53
7:A:255:GLU:HA	7:A:258:LYS:HB2	1.90	0.53
8:G:264:ARG:HA	8:G:267:GLU:CD	2.33	0.53
9:Q:328:MET:O	11:Q:1129:HOH:O	2.19	0.53
1:L:459:PRO:HA	1:L:462:LEU:HD12	1.91	0.53
1:D:292:ILE:HD11	1:D:297:ALA:HB3	1.91	0.53
2:M:333:SER:C	2:M:335:PHE:H	2.16	0.53
3:F:488:GLU:O	3:F:490:THR:N	2.42	0.53
4:H:152:MET:HA	4:H:155:ILE:HD12	1.91	0.53
4:H:165:ILE:HA	4:H:168:TRP:CD1	2.41	0.53
4:H:237:ARG:N	4:H:288:ASP:OD2	2.42	0.53
4:P:264:PHE:O	4:P:267:ILE:HG12	2.09	0.53
4:P:293:GLU:O	4:P:314:ARG:HA	2.09	0.53
5:K:209:GLN:OE1	5:K:210:LEU:N	2.40	0.53
5:K:356:GLU:HB3	5:K:358:TYR:CE1	2.44	0.53
5:C:210:LEU:HD13	5:C:372:PHE:HE1	1.74	0.53
5:C:504:THR:O	5:C:508:GLU:HG2	2.09	0.53
6:B:45:THR:HB	6:B:52:MET:SD	2.49	0.53
6:B:291:VAL:N	6:B:311:MET:O	2.27	0.53
7:I:200:SER:OG	7:I:202:THR:N	2.42	0.53
8:O:164:ASN:ND2	8:O:206:MET:SD	2.81	0.53
8:G:88:ASP:OD2	8:G:91:THR:OG1	2.16	0.53
8:G:423:LEU:HA	8:G:426:TYR:HB3	1.91	0.53
8:G:446:LEU:O	8:G:449:PRO:HD2	2.07	0.53
1:L:87:ILE:HG23	1:L:91:MET:HE3	1.89	0.53
1:L:463:SER:HA	1:L:466:SER:HB3	1.91	0.53
1:D:130:PRO:HB3	1:D:528:LEU:HD12	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:122:VAL:HG12	4:H:126:TYR:CZ	2.44	0.53
4:P:228:ARG:NH1	7:I:331:VAL:HA	2.24	0.53
5:K:93:GLY:O	5:K:97:VAL:N	2.39	0.53
5:K:119:GLN:HA	5:K:122:ILE:HG12	1.91	0.53
5:K:152:ARG:HB3	5:K:180:VAL:HG11	1.91	0.53
5:C:414:MET:HG2	5:C:464:LEU:HG	1.91	0.53
6:J:264:GLU:N	6:J:264:GLU:OE1	2.40	0.53
6:B:27:GLU:O	6:B:31:ARG:N	2.42	0.53
6:B:279:GLN:O	6:B:283:ILE:HG12	2.09	0.53
7:I:8:ASN:OD1	7:I:10:LYS:N	2.41	0.53
7:I:253:ALA:HA	7:I:256:ARG:HB3	1.91	0.53
7:A:127:LYS:HE3	7:A:506:HIS:CD2	2.43	0.53
8:O:8:PHE:O	8:O:534:HIS:N	2.29	0.53
8:O:37:GLY:O	8:O:39:VAL:N	2.42	0.53
1:D:529:LYS:NZ	5:C:45:MET:HA	2.24	0.53
2:E:80:ALA:O	2:E:83:VAL:HB	2.09	0.53
3:N:297:VAL:HA	3:N:323:MET:HB3	1.90	0.53
3:F:251:PHE:HD2	3:F:346:ALA:HA	1.72	0.53
4:H:156:ILE:O	4:H:160:ILE:N	2.42	0.53
4:P:196:LYS:C	4:P:197:LYS:HZ2	2.16	0.53
5:K:486:ASP:OD1	5:K:488:PHE:HB3	2.08	0.53
5:C:48:LEU:HA	5:C:58:ILE:HA	1.90	0.53
5:C:110:PRO:O	5:C:113:GLU:HB2	2.09	0.53
5:C:238:ALA:HB3	5:C:289:VAL:HA	1.90	0.53
6:J:245:PRO:HB3	6:J:296:LYS:H	1.74	0.53
6:J:443:GLU:OE2	6:J:446:GLU:HG2	2.08	0.53
6:J:450:ARG:O	6:J:454:GLU:HG3	2.09	0.53
6:B:55:MET:HA	6:B:64:PHE:O	2.09	0.53
6:B:246:PHE:N	6:B:296:LYS:O	2.42	0.53
6:B:437:ALA:O	6:B:441:PHE:N	2.37	0.53
7:I:84:GLN:O	7:I:88:THR:N	2.28	0.53
7:I:480:ASP:HA	7:I:487:MET:SD	2.49	0.53
7:A:63:LEU:O	7:A:67:MET:N	2.37	0.53
7:A:90:ASP:CG	7:A:91:GLY:H	2.15	0.53
7:A:108:LEU:O	7:A:111:SER:OG	2.24	0.53
7:A:387:ILE:HG12	7:A:391:VAL:HG23	1.91	0.53
8:O:55:THR:HG22	8:O:57:ASP:H	1.73	0.53
8:O:238:ASP:N	8:O:328:LEU:O	2.40	0.53
8:O:260:LEU:HA	8:O:263:ILE:HD12	1.91	0.53
8:G:453:ALA:HB3	8:G:460:SER:HB3	1.90	0.53
1:D:38:ILE:O	1:D:42:LYS:HG3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:196:VAL:C	1:D:381:ARG:HH11	2.17	0.53
1:D:205:ASP:HB3	1:D:208:LEU:HD23	1.90	0.53
1:D:310:ALA:O	1:D:314:LEU:N	2.33	0.53
1:D:459:PRO:HB3	1:D:491:ILE:HD11	1.90	0.53
2:E:250:LYS:HB3	2:E:252:PHE:CZ	2.44	0.53
3:N:168:THR:HA	3:N:171:LEU:HB2	1.91	0.53
3:N:368:ASN:HB3	3:N:371:GLY:HA3	1.91	0.53
3:F:178:GLN:HA	8:G:122:ARG:CZ	2.39	0.53
3:F:213:LYS:O	3:F:391:ARG:NH1	2.42	0.53
4:P:93:ASP:CG	4:P:163:LYS:HZ1	2.17	0.53
4:P:112:PHE:HA	4:P:115:GLN:HG3	1.91	0.53
4:P:242:ASP:HB3	4:P:333:SER:HB3	1.91	0.53
4:P:410:GLY:H	4:P:497:GLU:CD	2.17	0.53
5:K:126:ARG:HH22	6:J:174:GLY:HA3	1.73	0.53
5:K:159:ALA:HB1	5:K:163:LEU:HD23	1.90	0.53
6:J:125:VAL:O	6:J:129:ILE:HG12	2.09	0.53
6:J:302:LEU:HA	6:J:305:ALA:HB3	1.91	0.53
8:G:271:THR:O	8:G:275:ILE:HG12	2.08	0.53
1:L:177:VAL:N	2:M:516:ARG:HH12	2.06	0.53
1:D:366:THR:HB	2:E:93:ASP:O	2.09	0.53
2:M:90:VAL:O	2:M:94:GLU:HG2	2.09	0.53
3:N:174:LYS:O	3:N:177:SER:OG	2.17	0.53
3:F:347:HIS:HB3	3:F:350:GLN:OE1	2.08	0.53
4:P:196:LYS:NZ	4:P:396:GLN:HA	2.23	0.53
5:K:199:LYS:HB3	5:K:382:MET:HB3	1.91	0.53
5:C:288:VAL:HG13	5:C:309:PHE:HD2	1.74	0.53
5:C:318:ASP:OD1	5:C:321:ARG:NH1	2.42	0.53
6:B:259:ILE:HD13	6:B:265:LEU:HD21	1.90	0.53
6:B:461:ASN:HA	6:B:464:ILE:HD12	1.91	0.53
7:I:109:TYR:CE1	7:I:439:ALA:HB2	2.44	0.53
7:A:239:TYR:OH	7:A:241:LYS:HB3	2.09	0.53
1:L:261:LYS:NZ	5:K:246:LEU:HB2	2.23	0.52
1:L:280:TYR:CG	5:K:260:VAL:HG11	2.44	0.52
1:D:402:LEU:O	1:D:406:LEU:HG	2.09	0.52
2:E:212:SER:OG	2:E:376:ARG:O	2.27	0.52
3:N:345:VAL:HG21	3:N:351:PHE:HD1	1.73	0.52
4:H:302:HIS:O	4:H:306:ARG:N	2.38	0.52
5:K:413:GLU:H	5:K:413:GLU:CD	2.16	0.52
5:C:150:GLU:H	5:C:153:LYS:HD3	1.75	0.52
7:I:180:LYS:C	7:I:370:ARG:HH12	2.17	0.52
7:I:196:MET:O	7:I:378:GLY:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:98:ILE:HD11	7:A:447:ILE:HD11	1.91	0.52
7:A:304:ALA:HA	7:A:307:LYS:NZ	2.24	0.52
8:O:58:GLY:HA2	8:O:61:ILE:HB	1.91	0.52
8:O:130:ARG:NH1	8:O:422:TYR:OH	2.42	0.52
1:L:59:LYS:HD2	2:M:519:ASN:HB3	1.91	0.52
1:L:270:SER:H	1:L:273:ASP:CG	2.17	0.52
1:D:73:ASP:O	1:D:76:THR:OG1	2.20	0.52
1:D:230:VAL:N	1:D:372:LEU:O	2.25	0.52
1:D:357:GLY:HA3	1:D:377:CYS:SG	2.50	0.52
2:M:18:GLU:OE2	2:M:20:ARG:NH2	2.42	0.52
2:M:165:THR:HG21	2:M:494:THR:H	1.74	0.52
2:M:356:GLU:OE1	2:M:357:ASP:HB2	2.09	0.52
2:E:138:ARG:HA	2:E:141:LEU:HB3	1.92	0.52
3:N:90:MET:O	3:N:94:LEU:N	2.38	0.52
3:N:251:PHE:HE2	3:N:345:VAL:HG12	1.75	0.52
3:F:45:ALA:HB1	3:F:111:ILE:HD12	1.91	0.52
3:F:186:MET:SD	3:F:223:LEU:HB2	2.49	0.52
3:F:253:LEU:O	3:F:310:SER:N	2.32	0.52
4:H:88:ASP:O	4:H:92:GLY:N	2.38	0.52
4:H:294:LYS:C	4:H:314:ARG:HG2	2.34	0.52
4:H:453:GLN:NE2	4:H:453:GLN:H	2.08	0.52
6:J:494:GLU:H	6:J:494:GLU:CD	2.14	0.52
6:B:55:MET:HB3	6:B:65:VAL:HG22	1.90	0.52
6:B:85:MET:O	6:B:88:MET:HG3	2.09	0.52
7:A:45:LYS:O	7:A:57:THR:N	2.42	0.52
7:A:99:ILE:HD11	7:A:508:CYS:HA	1.90	0.52
7:A:194:MET:O	7:A:376:ILE:HG12	2.09	0.52
7:A:212:LEU:HB2	7:A:361:THR:HB	1.92	0.52
8:O:322:ALA:O	8:O:370:ARG:N	2.43	0.52
8:O:454:VAL:HG13	8:O:455:ASN:OD1	2.09	0.52
1:L:73:ASP:O	1:L:77:ILE:HG12	2.10	0.52
1:D:481:GLN:CD	1:D:487:PRO:HA	2.34	0.52
3:N:45:ALA:HB1	3:N:111:ILE:HD12	1.91	0.52
3:N:217:THR:HB	3:N:220:ASP:OD1	2.10	0.52
6:J:104:VAL:HA	6:J:107:PHE:CD1	2.44	0.52
6:J:316:ASN:HB3	6:J:320:ASP:HB2	1.91	0.52
6:B:55:MET:HA	6:B:65:VAL:HA	1.90	0.52
8:G:199:LYS:HB2	8:G:385:CYS:HB2	1.92	0.52
8:G:205:GLN:H	8:G:205:GLN:CD	2.16	0.52
8:G:245:LYS:HZ2	8:G:246:MET:HG2	1.75	0.52
9:Q:271:VAL:O	9:Q:283:TYR:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:155:VAL:N	1:L:416:ASN:O	2.39	0.52
1:D:60:MET:HA	1:D:70:VAL:HA	1.90	0.52
1:D:246:ALA:O	1:D:248:ILE:HG12	2.10	0.52
1:D:306:PHE:CD2	1:D:323:ARG:HB2	2.44	0.52
1:D:331:GLU:HG2	5:C:223:ALA:O	2.09	0.52
1:D:470:PRO:O	1:D:474:MET:HG3	2.09	0.52
2:M:88:SER:O	2:M:92:ASP:N	2.32	0.52
2:M:141:LEU:HD11	2:M:407:VAL:HG21	1.91	0.52
3:N:58:ASP:OD1	8:O:526:ARG:NE	2.39	0.52
3:N:113:ALA:O	3:N:117:LEU:HD22	2.09	0.52
3:N:216:GLY:HA3	3:N:391:ARG:HB3	1.91	0.52
3:F:122:LYS:HA	3:F:125:GLN:CD	2.35	0.52
4:H:93:ASP:CG	4:H:94:GLY:H	2.18	0.52
4:H:523:VAL:O	8:G:46:VAL:N	2.42	0.52
4:P:184:GLN:O	4:P:186:GLU:HG3	2.10	0.52
5:K:448:GLN:O	5:K:452:ASN:N	2.25	0.52
6:J:354:GLU:OE2	6:J:355:VAL:N	2.42	0.52
6:B:71:THR:O	6:B:75:GLU:HG2	2.10	0.52
6:B:522:ASP:OD1	7:A:45:LYS:NZ	2.27	0.52
7:I:463:LEU:O	7:I:466:ILE:HG13	2.10	0.52
7:A:83:ALA:O	7:A:87:ILE:N	2.43	0.52
7:A:196:MET:O	7:A:378:GLY:N	2.43	0.52
8:O:354:GLU:OE1	8:O:356:ILE:HG12	2.10	0.52
8:O:357:CYS:HB2	8:O:378:ARG:HH12	1.73	0.52
8:G:512:LYS:HD2	8:G:516:PHE:CZ	2.44	0.52
1:L:16:PHE:HD1	1:L:18:ILE:HD11	1.74	0.52
1:L:250:ILE:HB	1:L:340:ARG:O	2.08	0.52
1:L:344:ARG:HD2	1:L:347:GLU:OE2	2.10	0.52
1:L:379:ASN:N	1:L:379:ASN:OD1	2.39	0.52
1:L:529:LYS:NZ	5:K:44:GLY:O	2.43	0.52
1:D:270:SER:H	1:D:273:ASP:CG	2.17	0.52
2:M:273:GLU:O	2:M:277:GLU:HG3	2.08	0.52
2:M:413:SER:O	2:M:417:MET:HG3	2.09	0.52
3:N:72:ASN:HD22	3:N:174:LYS:HG3	1.74	0.52
3:F:279:GLU:O	3:F:282:TYR:HB3	2.08	0.52
3:F:285:ASN:HA	3:F:288:LYS:HB3	1.92	0.52
4:P:116:GLN:HE21	6:B:459:LYS:HA	1.73	0.52
6:J:47:TYR:CD1	6:J:103:PHE:HE2	2.27	0.52
7:A:146:GLU:HA	7:A:149:ILE:HB	1.90	0.52
8:G:341:GLU:HG3	8:G:343:ALA:H	1.74	0.52
9:Q:142:PHE:HB3	9:Q:266:GLY:H	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:66:GLY:O	2:M:82:LYS:NZ	2.42	0.52
1:L:130:PRO:HB3	1:L:528:LEU:HD12	1.90	0.52
1:D:500:ASP:OD1	1:D:503:GLN:N	2.24	0.52
2:E:170:LYS:O	2:E:173:THR:OG1	2.24	0.52
2:E:203:LYS:HA	2:E:375:LEU:HB2	1.92	0.52
2:E:226:VAL:HG22	2:E:227:ASN:H	1.75	0.52
2:E:293:ARG:O	2:E:314:HIS:HA	2.08	0.52
3:N:162:THR:HA	3:N:165:ASN:HD22	1.75	0.52
4:H:65:ALA:O	4:H:69:GLU:N	2.41	0.52
4:P:41:LEU:HD22	4:P:97:SER:HB3	1.90	0.52
4:P:269:GLN:HB2	4:P:270:MET:HE2	1.91	0.52
4:P:416:MET:HE1	4:P:445:GLU:HA	1.92	0.52
5:K:510:ALA:O	5:K:514:VAL:N	2.34	0.52
5:K:518:GLU:N	5:K:518:GLU:OE2	2.42	0.52
5:C:22:LEU:O	5:C:25:ASN:ND2	2.34	0.52
6:B:25:LEU:HG	6:B:29:VAL:HB	1.92	0.52
6:B:92:MET:HA	6:B:95:GLN:HB3	1.91	0.52
7:I:196:MET:N	7:I:376:ILE:O	2.30	0.52
7:I:286:ASP:OD1	7:I:287:LYS:N	2.42	0.52
7:A:224:ARG:HG3	7:A:351:TYR:HB3	1.91	0.52
7:A:413:ALA:O	7:A:416:VAL:HG13	2.09	0.52
8:O:401:ARG:O	8:O:405:SER:N	2.35	0.52
8:O:506:PRO:HB2	8:O:509:VAL:HG23	1.92	0.52
8:G:55:THR:OG1	8:G:390:ARG:NH1	2.31	0.52
9:Q:54:CYS:HA	9:Q:74:ASN:OD1	2.10	0.52
1:D:146:GLU:O	1:D:150:LYS:NZ	2.39	0.52
1:D:223:LYS:N	1:D:386:PHE:O	2.30	0.52
2:E:205:LEU:HD21	2:E:380:GLN:HG2	1.90	0.52
2:E:228:GLN:NE2	2:E:309:VAL:O	2.42	0.52
3:N:63:ASP:OD2	3:N:65:LYS:HB3	2.10	0.52
3:N:209:LYS:NZ	3:N:332:ASP:OD1	2.41	0.52
3:F:229:LEU:HD13	3:F:231:GLN:CD	2.34	0.52
3:F:267:SER:N	3:F:271:GLN:OE1	2.40	0.52
3:F:521:LEU:O	3:F:525:THR:HG23	2.10	0.52
4:P:54:MET:N	4:P:54:MET:SD	2.83	0.52
4:P:208:ILE:HD13	7:I:506:HIS:HB3	1.90	0.52
5:K:124:ALA:O	5:K:128:ALA:N	2.30	0.52
5:K:202:GLY:O	5:K:376:GLY:N	2.42	0.52
5:K:516:VAL:HG11	6:J:55:MET:HG3	1.91	0.52
5:C:410:GLY:HA3	5:C:446:PRO:HG3	1.91	0.52
6:J:163:LEU:O	6:J:166:THR:HG22	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:514:ASN:OD1	7:I:514:ASN:N	2.39	0.52
7:A:241:LYS:HG3	7:A:241:LYS:O	2.09	0.52
7:A:489:ALA:O	7:A:493:GLY:N	2.43	0.52
1:D:33:ALA:O	1:D:36:SER:OG	2.16	0.52
2:M:130:TRP:CD1	2:M:439:TYR:HB2	2.45	0.52
2:M:160:MET:HE2	2:M:180:THR:HG21	1.91	0.52
2:M:310:MET:SD	2:M:311:ALA:N	2.82	0.52
2:M:424:LEU:HD23	2:M:436:MET:HE1	1.91	0.52
2:E:189:ARG:NH1	2:E:371:CYS:HB3	2.24	0.52
3:N:438:GLU:O	3:N:442:THR:HG23	2.09	0.52
3:N:466:ALA:O	3:N:470:GLY:N	2.43	0.52
3:F:279:GLU:HG2	3:F:280:ARG:N	2.25	0.52
4:H:22:VAL:HG12	4:H:26:ASN:HD21	1.75	0.52
4:H:446:VAL:HG12	4:H:449:ARG:CZ	2.39	0.52
4:P:354:LYS:HZ3	7:I:188:LEU:HD11	1.75	0.52
5:K:62:GLY:O	5:K:66:LEU:N	2.29	0.52
5:C:232:TYR:CZ	5:C:309:PHE:HB2	2.44	0.52
5:C:292:LYS:HG3	5:C:319:LEU:HD22	1.92	0.52
6:J:160:VAL:HB	6:J:164:LEU:HD23	1.91	0.52
6:J:182:LEU:HB2	6:J:217:VAL:HG21	1.91	0.52
6:B:207:ILE:O	6:B:378:ARG:NH1	2.43	0.52
8:O:164:ASN:HB3	8:O:168:PHE:CE1	2.45	0.52
8:O:248:LEU:HG	8:O:250:VAL:HG23	1.90	0.52
8:O:435:GLN:H	8:O:435:GLN:CD	2.18	0.52
9:Q:236:ARG:NH1	9:Q:365:GLY:OXT	2.42	0.52
9:Q:306:TRP:O	11:Q:1130:HOH:O	2.19	0.52
1:L:91:MET:O	1:L:94:LEU:HB3	2.09	0.52
1:L:105:GLY:C	1:L:109:VAL:HG23	2.35	0.52
1:D:301:ILE:HG23	1:D:325:VAL:HG21	1.92	0.52
3:F:182:LEU:C	3:F:185:PRO:HD2	2.35	0.52
3:F:438:GLU:O	3:F:442:THR:HG23	2.10	0.52
4:H:103:GLY:HA2	4:H:106:LEU:HD12	1.90	0.52
5:K:266:ILE:HD13	6:J:262:ALA:HA	1.92	0.52
5:K:278:LEU:HA	5:K:281:ILE:HB	1.91	0.52
5:C:102:ALA:O	5:C:106:LYS:N	2.41	0.52
5:C:375:ARG:HA	5:C:375:ARG:NH2	2.25	0.52
6:J:6:PRO:HD2	6:J:7:LYS:HZ2	1.75	0.52
6:J:15:LEU:HB3	7:I:69:ILE:HD12	1.91	0.52
6:B:249:MET:HE1	6:B:335:ARG:HA	1.92	0.52
7:I:32:ASP:HA	7:I:35:ARG:HD2	1.91	0.52
7:I:198:HIS:H	7:I:378:GLY:H	1.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:210:LEU:HD12	7:I:373:THR:OG1	2.10	0.52
7:I:422:LEU:HA	7:I:425:HIS:ND1	2.25	0.52
7:A:252:SER:OG	7:A:255:GLU:HG2	2.10	0.52
8:O:81:LEU:O	8:O:85:GLU:N	2.43	0.52
8:G:34:SER:H	8:G:43:LYS:HZ1	1.58	0.52
8:G:355:ARG:HA	8:G:360:GLU:HA	1.91	0.52
1:D:200:GLU:CD	1:D:200:GLU:H	2.18	0.52
1:D:218:ARG:N	1:D:221:ASP:OD2	2.36	0.52
3:N:257:LYS:H	3:N:306:ARG:NH1	2.08	0.52
3:F:151:MET:O	3:F:489:LYS:NZ	2.26	0.52
4:H:116:GLN:NE2	6:J:459:LYS:HA	2.22	0.52
4:H:234:LYS:O	4:H:349:LEU:HA	2.10	0.52
4:P:83:ILE:O	4:P:86:THR:OG1	2.28	0.52
4:P:208:ILE:HG22	4:P:211:ASP:CG	2.34	0.52
4:P:266:ARG:O	4:P:270:MET:HG2	2.09	0.52
4:P:353:LYS:O	4:P:359:TYR:HA	2.10	0.52
5:K:152:ARG:HA	5:K:155:LEU:HD12	1.91	0.52
5:K:210:LEU:HB2	5:K:372:PHE:CE1	2.45	0.52
8:O:47:ASP:CG	8:O:48:ASP:H	2.18	0.52
8:O:385:CYS:O	8:O:388:MET:HG2	2.10	0.52
8:O:436:LEU:O	8:O:440:GLU:HG2	2.10	0.52
8:G:135:ASN:OD1	8:G:484:LYS:NZ	2.20	0.52
9:Q:13:ASP:O	9:Q:17:ASN:N	2.27	0.52
1:L:52:LEU:HB2	1:L:107:THR:O	2.10	0.51
1:L:288:MET:O	1:L:292:ILE:HG22	2.10	0.51
1:L:430:ALA:O	1:L:434:SER:N	2.37	0.51
1:D:61:MET:N	1:D:69:THR:O	2.30	0.51
1:D:239:MET:SD	1:D:320:PRO:HA	2.50	0.51
2:E:102:VAL:HG22	2:E:503:VAL:HG13	1.92	0.51
3:F:161:GLU:OE2	3:F:161:GLU:N	2.24	0.51
4:H:41:LEU:HD12	4:H:42:GLY:H	1.75	0.51
4:H:46:MET:HG2	7:A:519:ASP:OD2	2.09	0.51
4:H:118:HIS:CE1	8:G:41:LEU:HD21	2.45	0.51
4:H:504:GLN:HE22	8:G:203:ARG:HG3	1.74	0.51
4:P:218:VAL:HG21	4:P:323:ILE:HG12	1.92	0.51
4:P:354:LYS:NZ	7:I:188:LEU:HD11	2.25	0.51
5:K:406:VAL:O	5:K:494:GLU:N	2.31	0.51
5:C:179:VAL:HA	5:C:182:ALA:HB3	1.91	0.51
6:J:251:THR:HG22	6:J:253:THR:H	1.75	0.51
6:B:146:LEU:HD12	6:B:476:LYS:HD3	1.92	0.51
6:B:248:GLY:C	7:A:256:ARG:HH12	2.17	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:O:446:LEU:O	8:O:449:PRO:HD2	2.09	0.51
8:G:141:ASP:N	8:G:141:ASP:OD1	2.43	0.51
9:Q:309:GLU:O	9:Q:313:TYR:HB2	2.10	0.51
1:L:459:PRO:HB3	1:L:491:ILE:HD11	1.92	0.51
1:D:221:ASP:HB2	1:D:388:ARG:HB2	1.92	0.51
1:D:225:ILE:HB	1:D:384:THR:HG23	1.90	0.51
2:E:177:ASP:OD1	2:E:178:HIS:N	2.43	0.51
3:N:54:PRO:HB2	3:N:495:VAL:HG21	1.92	0.51
3:N:268:ASP:HA	8:O:259:LYS:NZ	2.24	0.51
3:N:362:ALA:HB2	3:N:376:ILE:HG23	1.91	0.51
4:H:103:GLY:O	4:H:107:SER:N	2.41	0.51
4:H:244:SER:HA	4:H:294:LYS:HB2	1.92	0.51
4:P:59:MET:HE1	7:I:514:ASN:HB3	1.91	0.51
4:P:299:LEU:O	4:P:302:HIS:HB3	2.10	0.51
4:P:423:THR:O	4:P:427:LYS:HG2	2.11	0.51
5:K:18:GLY:O	5:K:22:LEU:N	2.36	0.51
5:K:318:ASP:O	5:K:322:THR:OG1	2.18	0.51
5:C:297:ASP:C	5:C:301:GLN:HE21	2.18	0.51
5:C:450:CYS:O	5:C:455:PHE:N	2.35	0.51
6:J:59:HIS:CE1	6:J:60:LEU:HG	2.45	0.51
6:J:154:LEU:H	6:J:154:LEU:HD12	1.76	0.51
6:B:88:MET:HE1	7:A:197:LYS:HZ1	1.75	0.51
6:B:499:ASP:N	6:B:499:ASP:OD1	2.41	0.51
7:A:261:LYS:N	7:A:261:LYS:HD2	2.24	0.51
7:A:304:ALA:HA	7:A:307:LYS:HZ3	1.75	0.51
9:Q:136:VAL:HB	9:Q:220:VAL:HG21	1.93	0.51
9:Q:186:ARG:N	9:Q:351:ASP:OD2	2.43	0.51
1:L:420:TYR:CZ	1:L:502:LYS:HB2	2.45	0.51
1:D:213:GLY:HA2	1:D:387:ILE:HB	1.92	0.51
1:D:268:VAL:HB	2:E:256:VAL:HG22	1.93	0.51
2:E:186:ALA:O	2:E:189:ARG:HB2	2.10	0.51
2:E:258:VAL:HG23	3:F:264:ILE:HD13	1.91	0.51
3:N:194:VAL:HG11	3:N:208:ILE:HD11	1.91	0.51
4:H:200:ARG:HD2	4:H:201:VAL:H	1.74	0.51
4:H:290:VAL:O	4:H:312:ILE:N	2.42	0.51
4:H:446:VAL:O	4:H:450:THR:HG23	2.10	0.51
5:K:43:ARG:HH12	5:K:480:ASN:HA	1.76	0.51
6:J:47:TYR:HB2	6:J:102:ASN:HB2	1.92	0.51
6:B:111:LEU:HG	6:B:132:TYR:HE1	1.76	0.51
6:B:152:LYS:NZ	6:B:406:LYS:HE3	2.26	0.51
6:B:477:ASN:O	6:B:492:MET:N	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:147:THR:O	7:I:151:VAL:HG23	2.11	0.51
7:A:3:ALA:O	7:A:6:THR:OG1	2.20	0.51
7:A:383:THR:O	7:A:387:ILE:HG22	2.10	0.51
7:A:458:ASP:O	7:A:462:THR:OG1	2.28	0.51
8:O:80:ASP:O	8:O:84:LYS:N	2.34	0.51
8:O:140:THR:HG22	8:O:406:LYS:HZ3	1.75	0.51
8:O:183:ASP:C	8:O:185:ARG:H	2.16	0.51
8:O:200:ALA:O	8:O:378:ARG:HD2	2.10	0.51
8:G:86:VAL:HG21	8:G:509:VAL:HA	1.93	0.51
8:G:88:ASP:C	8:G:90:THR:H	2.18	0.51
1:L:35:LYS:HA	1:L:38:ILE:HG12	1.90	0.51
2:M:10:ASN:OD1	2:M:10:ASN:N	2.41	0.51
3:N:273:ASP:O	3:N:277:ARG:N	2.25	0.51
3:F:91:LEU:HD12	3:F:94:LEU:HD22	1.91	0.51
3:F:524:GLU:O	3:F:528:SER:N	2.39	0.51
4:H:19:GLY:O	4:H:23:GLN:HG3	2.10	0.51
4:H:410:GLY:N	4:H:497:GLU:OE2	2.42	0.51
4:H:526:HIS:HB3	8:G:47:ASP:HA	1.92	0.51
4:P:226:HIS:HB2	4:P:301:GLN:NE2	2.20	0.51
4:P:502:LYS:HG3	4:P:506:TYR:CE2	2.46	0.51
5:C:326:CYS:HA	5:C:364:CYS:SG	2.50	0.51
6:B:297:VAL:CG1	6:B:302:LEU:HD23	2.41	0.51
6:B:319:TRP:O	6:B:323:ARG:HG2	2.09	0.51
7:I:42:GLY:HA2	7:I:454:ASN:ND2	2.24	0.51
7:I:218:HIS:CD2	7:I:220:ASP:H	2.28	0.51
1:L:58:ASP:O	2:M:517:VAL:HA	2.10	0.51
1:D:58:ASP:O	2:E:517:VAL:HA	2.10	0.51
1:D:430:ALA:HA	1:D:433:VAL:HB	1.91	0.51
1:D:519:LEU:HG	1:D:523:MET:HE3	1.91	0.51
2:M:242:THR:HG22	2:M:248:LYS:HD3	1.93	0.51
2:E:226:VAL:HG22	2:E:227:ASN:OD1	2.11	0.51
3:N:52:LEU:H	3:N:56:GLY:HA2	1.75	0.51
3:N:58:ASP:OD1	8:O:526:ARG:HB3	2.10	0.51
4:H:266:ARG:HA	4:H:269:GLN:CD	2.36	0.51
5:K:415:GLU:OE2	5:K:418:LYS:NZ	2.29	0.51
5:C:62:GLY:O	5:C:66:LEU:N	2.30	0.51
5:C:446:PRO:HA	5:C:449:LEU:HD12	1.92	0.51
6:J:178:PHE:HA	6:J:181:LYS:NZ	2.26	0.51
6:J:508:ILE:O	6:J:512:THR:OG1	2.19	0.51
6:B:276:MET:HE2	6:B:276:MET:HA	1.93	0.51
7:A:5:LYS:HE2	7:A:13:VAL:HG22	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:477:VAL:HG11	7:A:486:PRO:HB3	1.93	0.51
8:G:246:MET:O	8:G:247:LYS:HG3	2.10	0.51
9:Q:197:LEU:HD23	9:Q:356:VAL:HB	1.92	0.51
1:D:179:ASN:O	1:D:182:HIS:ND1	2.44	0.51
1:D:385:ILE:HD12	1:D:387:ILE:HD11	1.92	0.51
1:D:474:MET:HE2	1:D:478:ARG:HD2	1.92	0.51
2:M:130:TRP:O	2:M:134:THR:N	2.29	0.51
2:M:325:LEU:HB2	2:M:370:ALA:HB2	1.92	0.51
2:M:417:MET:SD	2:M:504:LEU:HD11	2.51	0.51
2:E:236:LYS:NZ	2:E:345:SER:OG	2.43	0.51
4:H:46:MET:HE3	7:A:517:LEU:C	2.35	0.51
4:H:87:GLN:O	4:H:91:VAL:N	2.36	0.51
4:H:264:PHE:O	4:H:267:ILE:HG12	2.10	0.51
4:P:94:GLY:O	4:P:97:SER:N	2.33	0.51
4:P:103:GLY:O	4:P:107:SER:N	2.43	0.51
4:P:290:VAL:HG23	4:P:309:ILE:HG22	1.93	0.51
5:K:70:ASP:OD1	5:K:70:ASP:N	2.40	0.51
5:C:142:THR:HG21	5:C:145:LYS:HE3	1.91	0.51
5:C:348:PHE:CD1	5:C:361:PHE:HB3	2.46	0.51
5:C:384:GLU:OE1	5:C:387:ARG:NH2	2.40	0.51
5:C:476:GLY:C	5:C:487:ASN:HD21	2.19	0.51
6:B:59:HIS:CE1	6:B:60:LEU:HG	2.46	0.51
6:B:100:GLY:O	6:B:104:VAL:HG12	2.10	0.51
8:G:149:ILE:HG22	8:G:153:LYS:HZ3	1.76	0.51
1:L:32:GLU:OE2	8:G:11:ARG:NH1	2.44	0.51
1:L:129:HIS:CE1	1:L:131:ILE:HG12	2.46	0.51
1:L:266:LEU:HD22	5:K:257:VAL:O	2.10	0.51
1:D:269:THR:OG1	1:D:273:ASP:OD2	2.27	0.51
1:D:469:ASN:OD1	1:D:472:GLN:N	2.28	0.51
2:M:212:SER:OG	2:M:376:ARG:O	2.29	0.51
2:M:252:PHE:HE2	2:M:254:SER:HB2	1.75	0.51
4:H:261:GLU:H	4:H:261:GLU:CD	2.19	0.51
4:P:160:ILE:C	4:P:162:THR:H	2.19	0.51
5:K:338:SER:O	5:K:342:LEU:HD23	2.11	0.51
5:K:510:ALA:O	5:K:513:ILE:N	2.43	0.51
5:C:333:SER:H	6:B:303:HIS:HE1	1.56	0.51
5:C:350:GLU:HA	5:C:359:ASN:HA	1.91	0.51
6:B:240:ALA:O	6:B:292:VAL:HG13	2.11	0.51
6:B:254:LYS:CB	9:Q:146:HIS:HA	2.41	0.51
7:A:42:GLY:HA2	7:A:454:ASN:ND2	2.24	0.51
8:O:17:ILE:HA	8:O:20:GLN:HB3	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:O:258:GLU:OE1	8:O:258:GLU:N	2.39	0.51
8:G:98:ALA:O	8:G:102:LYS:N	2.43	0.51
1:L:99:ASP:O	1:L:103:GLY:N	2.44	0.51
1:L:299:LEU:HD12	1:L:320:PRO:HB2	1.93	0.51
2:M:424:LEU:HA	2:M:427:ARG:HG3	1.93	0.51
2:M:445:MET:O	2:M:449:ILE:HG13	2.11	0.51
3:F:132:ILE:O	3:F:136:SER:OG	2.25	0.51
3:F:174:LYS:O	3:F:177:SER:OG	2.13	0.51
4:H:481:ASN:OD1	4:H:483:GLU:N	2.44	0.51
4:H:489:ASP:HB3	4:H:492:GLU:OE2	2.10	0.51
4:P:123:ILE:HD11	4:P:517:LEU:HB3	1.93	0.51
5:K:59:SER:HA	5:K:384:GLU:OE1	2.11	0.51
5:C:512:LEU:O	5:C:515:SER:OG	2.27	0.51
6:J:100:GLY:O	6:J:104:VAL:HG12	2.10	0.51
6:B:104:VAL:HA	6:B:107:PHE:CD1	2.46	0.51
7:A:67:MET:HG3	7:A:69:ILE:HD11	1.93	0.51
8:O:42:ASP:HA	8:O:56:ASN:HB3	1.92	0.51
8:O:225:MET:SD	8:O:306:MET:HA	2.51	0.51
1:D:85:HIS:HE1	1:D:87:ILE:HD13	1.76	0.51
3:N:277:ARG:O	3:N:280:ARG:HG3	2.10	0.51
3:F:362:ALA:HB1	3:F:376:ILE:HG12	1.93	0.51
4:H:130:LEU:HA	4:H:133:MET:HE2	1.93	0.51
5:K:215:ALA:HA	5:K:359:ASN:O	2.11	0.51
6:J:247:ASP:OD1	6:J:248:GLY:N	2.42	0.51
6:J:324:LEU:O	6:J:327:THR:OG1	2.22	0.51
7:A:179:ILE:HD11	7:A:191:ILE:HD11	1.92	0.51
8:O:106:GLU:HA	8:O:109:LYS:HB2	1.93	0.51
1:D:24:ARG:HH12	1:D:538:GLU:C	2.19	0.51
1:D:59:LYS:HB2	1:D:77:ILE:HD12	1.93	0.51
1:D:86:GLN:HA	1:D:89:LYS:HZ2	1.76	0.51
1:D:230:VAL:HB	1:D:372:LEU:HB3	1.92	0.51
2:M:171:LEU:H	2:M:171:LEU:HD12	1.75	0.51
2:E:278:LYS:HZ1	2:E:281:ARG:NH2	2.10	0.51
2:E:278:LYS:HZ3	2:E:281:ARG:HD2	1.75	0.51
3:N:184:SER:O	3:N:188:VAL:HG12	2.11	0.51
3:N:349:ASP:OD1	3:N:349:ASP:N	2.42	0.51
3:F:138:GLN:O	3:F:141:LEU:HG	2.11	0.51
3:F:287:VAL:HG11	3:F:316:PHE:HB3	1.92	0.51
4:P:186:GLU:H	4:P:370:LYS:NZ	2.09	0.51
5:K:60:ASN:HB3	5:K:166:LYS:HG3	1.94	0.51
5:K:73:HIS:CE1	5:K:75:ALA:HB3	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:331:THR:HB	6:J:343:GLU:HB3	1.92	0.51
6:B:27:GLU:HA	6:B:31:ARG:HB2	1.93	0.51
6:B:117:GLU:O	6:B:121:ILE:N	2.43	0.51
6:B:340:VAL:O	6:B:344:MET:HB2	2.11	0.51
7:I:115:HIS:HB3	7:I:118:ILE:HG12	1.93	0.51
7:I:186:ILE:HG12	7:I:190:MET:SD	2.50	0.51
8:O:88:ASP:C	8:O:90:THR:N	2.69	0.51
8:O:130:ARG:NH2	8:O:130:ARG:HB3	2.26	0.51
9:Q:44:VAL:HG11	9:Q:61:LEU:HD21	1.92	0.51
9:Q:208:ARG:NE	11:Q:1216:HOH:O	2.44	0.51
1:L:129:HIS:O	1:L:133:ILE:HG13	2.10	0.50
1:L:359:VAL:CG1	1:L:372:LEU:HD11	2.41	0.50
1:L:457:VAL:HA	1:L:460:MET:SD	2.51	0.50
1:D:264:HIS:C	1:D:265:LYS:HG2	2.35	0.50
2:M:37:ASP:HA	2:M:40:LYS:HG3	1.92	0.50
2:M:116:LEU:HD13	2:M:119:LYS:HG3	1.92	0.50
2:M:386:ALA:O	2:M:389:SER:OG	2.26	0.50
4:H:198:TYR:OH	8:G:223:GLN:HB3	2.11	0.50
4:H:418:VAL:O	4:H:422:LEU:HG	2.11	0.50
4:P:450:THR:C	4:P:454:ASN:HD22	2.18	0.50
5:C:271:TRP:O	5:C:275:TYR:HD1	1.94	0.50
6:B:238:LYS:HD2	6:B:344:MET:HE1	1.92	0.50
6:B:479:GLY:N	6:B:490:LYS:O	2.28	0.50
7:I:60:GLY:HA2	7:I:63:LEU:HB2	1.92	0.50
7:A:200:SER:OG	7:A:201:GLU:N	2.44	0.50
8:O:502:GLY:HA2	8:O:504:PHE:CE2	2.46	0.50
8:G:24:ALA:O	8:G:28:ILE:HG12	2.11	0.50
8:G:179:ILE:O	8:G:191:PRO:HD2	2.11	0.50
8:G:203:ARG:HD3	8:G:207:GLU:CD	2.35	0.50
8:G:203:ARG:NH2	8:G:207:GLU:OE2	2.44	0.50
1:D:27:ARG:NH1	1:D:532:ASP:OD2	2.42	0.50
1:D:175:SER:C	1:D:176:LYS:HD2	2.37	0.50
1:D:201:ARG:HG2	5:C:230:LYS:NZ	2.26	0.50
1:D:212:GLU:O	1:D:386:PHE:HA	2.11	0.50
1:D:480:ARG:O	1:D:484:GLU:N	2.32	0.50
2:M:279:VAL:HA	2:M:282:ILE:HD12	1.92	0.50
2:E:278:LYS:O	2:E:282:ILE:HG13	2.11	0.50
2:E:288:ASN:C	2:E:309:VAL:HG13	2.36	0.50
3:F:91:LEU:HA	3:F:94:LEU:HB3	1.93	0.50
4:P:303:TYR:O	4:P:307:ALA:N	2.44	0.50
5:K:201:GLN:O	5:K:375:ARG:NH2	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:243:GLU:HB3	5:K:293:LEU:HB3	1.92	0.50
5:K:261:GLU:O	5:K:265:ALA:N	2.33	0.50
6:J:181:LYS:O	6:J:185:GLN:N	2.31	0.50
6:J:340:VAL:O	6:J:344:MET:HB2	2.11	0.50
6:J:433:LEU:H	6:J:433:LEU:HD12	1.76	0.50
6:J:447:ALA:O	6:J:451:ALA:N	2.28	0.50
6:B:418:GLU:CD	6:B:476:LYS:HE2	2.36	0.50
7:I:20:LEU:O	7:I:24:ILE:HG22	2.11	0.50
7:I:54:ILE:HG13	7:I:382:HIS:HB3	1.93	0.50
7:A:83:ALA:O	7:A:87:ILE:HG12	2.11	0.50
8:O:168:PHE:O	8:O:172:VAL:HG23	2.12	0.50
8:O:326:THR:HB	8:O:344:MET:HB3	1.92	0.50
8:G:35:SER:HA	8:G:41:LEU:N	2.26	0.50
1:L:504:GLN:HB3	1:L:506:VAL:HG23	1.92	0.50
1:D:199:MET:H	1:D:199:MET:CE	2.25	0.50
1:D:331:GLU:O	1:D:335:ILE:HG22	2.12	0.50
1:D:459:PRO:HA	1:D:462:LEU:HG	1.93	0.50
2:M:510:ALA:O	2:M:514:ILE:HG12	2.12	0.50
3:N:251:PHE:HD2	3:N:346:ALA:HA	1.76	0.50
3:F:412:ILE:O	3:F:416:VAL:N	2.37	0.50
3:F:422:ILE:HG23	3:F:489:LYS:HZ2	1.75	0.50
4:H:355:ILE:HG22	4:H:358:GLU:HB3	1.93	0.50
4:P:351:GLU:HB3	4:P:362:PHE:HB2	1.94	0.50
4:P:518:ARG:NH2	8:O:40:GLY:O	2.44	0.50
5:K:107:GLN:O	5:K:110:PRO:HD2	2.11	0.50
5:K:188:ASP:C	5:K:190:LEU:HG	2.35	0.50
6:B:30:TYR:HD2	6:B:31:ARG:NE	2.05	0.50
6:B:505:TYR:HD2	6:B:506:TRP:CD1	2.30	0.50
7:I:194:MET:O	7:I:376:ILE:HG12	2.11	0.50
8:O:489:ASP:HB2	8:O:496:ARG:NE	2.26	0.50
8:O:492:ASN:OD1	8:O:496:ARG:NH1	2.44	0.50
8:G:89:GLY:C	8:G:92:SER:H	2.19	0.50
8:G:391:SER:O	8:G:395:ALA:N	2.41	0.50
9:Q:35:THR:HA	9:Q:153:LEU:HB2	1.93	0.50
1:L:59:LYS:CD	2:M:519:ASN:HB3	2.41	0.50
1:L:300:ALA:O	1:L:301:ILE:HG13	2.11	0.50
1:D:43:ALA:O	1:D:47:THR:OG1	2.19	0.50
1:D:524:VAL:HA	1:D:527:ILE:HB	1.93	0.50
2:M:259:ASP:HB2	2:M:263:LYS:NZ	2.27	0.50
2:M:448:THR:HG22	2:M:458:SER:HB2	1.94	0.50
2:E:390:LEU:O	2:E:394:LEU:HG	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:336:ILE:O	3:N:340:ILE:HG12	2.11	0.50
3:F:160:ARG:HA	3:F:163:LEU:HD12	1.93	0.50
6:B:386:ASP:O	6:B:389:GLU:HG3	2.11	0.50
7:I:489:ALA:HA	7:I:492:VAL:HG22	1.94	0.50
8:O:300:PHE:CD1	8:O:307:ALA:HB2	2.47	0.50
8:O:347:GLN:HB2	8:O:368:LYS:HG2	1.94	0.50
8:G:114:PRO:O	8:G:118:ILE:HG12	2.11	0.50
1:D:193:VAL:HG21	1:D:409:ILE:HG21	1.93	0.50
1:D:350:ALA:HA	1:D:353:LEU:HG	1.93	0.50
2:M:396:VAL:O	2:M:400:THR:OG1	2.29	0.50
2:E:141:LEU:HD22	2:E:504:LEU:HD12	1.92	0.50
2:E:183:ALA:HA	2:E:186:ALA:HB3	1.93	0.50
2:E:280:GLU:HA	2:E:283:LEU:HD12	1.94	0.50
3:N:60:MET:HG2	3:N:70:ILE:HA	1.93	0.50
3:N:153:ARG:O	3:N:421:LEU:N	2.43	0.50
3:N:303:SER:O	3:N:303:SER:OG	2.27	0.50
3:F:318:ASN:O	3:F:321:LYS:HD2	2.11	0.50
4:H:167:ARG:HE	4:H:167:ARG:H	1.60	0.50
4:H:299:LEU:O	4:H:302:HIS:HB3	2.10	0.50
4:P:308:ASN:O	4:P:309:ILE:HD13	2.12	0.50
5:C:488:PHE:C	5:C:493:TRP:HE1	2.18	0.50
7:I:138:LYS:HD3	7:I:498:TYR:CD1	2.46	0.50
7:I:138:LYS:HD3	7:I:498:TYR:CE1	2.47	0.50
8:G:194:SER:HA	8:G:318:ARG:NH1	2.27	0.50
9:Q:237:ALA:HA	9:Q:240:LYS:HD2	1.93	0.50
1:L:81:MET:HG2	1:L:83:VAL:HG13	1.94	0.50
1:D:306:PHE:HB2	1:D:323:ARG:NH1	2.26	0.50
2:M:170:LYS:O	2:M:173:THR:OG1	2.16	0.50
2:M:408:TYR:HA	2:M:494:THR:HG22	1.92	0.50
2:E:384:ASP:OD2	2:E:388:ARG:NH1	2.37	0.50
3:N:50:THR:O	3:N:468:ASN:ND2	2.18	0.50
4:H:292:THR:O	4:H:315:VAL:HG23	2.12	0.50
4:H:504:GLN:OE1	8:G:203:ARG:HA	2.11	0.50
4:P:50:LEU:HD11	4:P:66:ILE:HG23	1.93	0.50
4:P:292:THR:O	4:P:315:VAL:HG23	2.11	0.50
4:P:383:ILE:O	4:P:387:VAL:HG23	2.12	0.50
5:K:330:ILE:O	5:K:331:GLN:NE2	2.45	0.50
5:C:340:ASP:OD1	5:C:341:VAL:N	2.44	0.50
6:J:210:SER:HB2	6:J:378:ARG:HB3	1.92	0.50
6:J:226:GLU:OE2	6:J:359:GLN:HG3	2.11	0.50
7:I:238:GLU:CD	7:I:298:ASP:HA	2.37	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:317:LYS:HB2	7:I:320:ASN:ND2	2.27	0.50
7:I:325:THR:HG23	7:I:330:GLY:O	2.12	0.50
7:A:253:ALA:O	7:A:256:ARG:HB3	2.11	0.50
7:A:443:ALA:O	7:A:446:ILE:HG12	2.12	0.50
8:O:34:SER:H	8:O:43:LYS:HZ1	1.60	0.50
8:O:202:GLY:HA3	8:O:378:ARG:NH2	2.27	0.50
8:O:342:ALA:HA	8:O:345:LEU:HD23	1.94	0.50
8:G:386:ASP:O	8:G:390:ARG:NH2	2.45	0.50
9:Q:50:VAL:HG22	9:Q:57:VAL:HG22	1.93	0.50
9:Q:201:ALA:HA	9:Q:358:ILE:HG13	1.93	0.50
1:D:160:LYS:HZ2	1:D:162:THR:HG1	1.55	0.50
1:D:356:ALA:HB1	1:D:376:GLN:HA	1.93	0.50
1:D:391:ASN:ND2	1:D:394:ILE:H	2.10	0.50
3:N:134:SER:O	3:N:138:GLN:HG2	2.11	0.50
4:H:449:ARG:HA	4:H:452:ILE:HG12	1.94	0.50
4:P:255:ASP:HA	7:I:245:ASN:HB2	1.94	0.50
5:K:292:LYS:HE3	5:K:316:GLU:HB2	1.94	0.50
5:C:512:LEU:HD11	6:B:65:VAL:HG11	1.94	0.50
6:J:77:GLU:O	6:J:79:GLN:NE2	2.43	0.50
6:B:78:VAL:O	6:B:84:LYS:HE3	2.12	0.50
6:B:221:MET:O	6:B:363:PHE:HB2	2.12	0.50
6:B:385:MET:N	6:B:385:MET:SD	2.84	0.50
7:I:294:GLN:HB2	7:I:321:MET:HE1	1.93	0.50
7:I:441:ALA:HA	7:I:444:LEU:HG	1.93	0.50
7:A:195:GLU:OE1	7:A:195:GLU:N	2.45	0.50
8:G:168:PHE:O	8:G:172:VAL:HG23	2.12	0.50
8:G:297:LEU:O	8:G:301:VAL:HG23	2.11	0.50
8:G:398:VAL:O	8:G:402:VAL:HG23	2.11	0.50
1:L:300:ALA:O	1:L:321:ALA:HA	2.11	0.50
1:D:474:MET:SD	1:D:475:THR:N	2.85	0.50
2:M:43:LEU:HG	2:M:44:GLY:N	2.27	0.50
2:M:49:ASP:OD1	2:M:49:ASP:N	2.45	0.50
2:M:52:LEU:O	2:M:62:MET:N	2.34	0.50
2:E:179:PHE:HA	2:E:182:LEU:HD23	1.94	0.50
3:N:187:SER:O	3:N:191:VAL:HG23	2.12	0.50
3:N:394:ASN:OD1	3:N:396:LEU:N	2.44	0.50
3:F:296:ASN:O	3:F:323:MET:N	2.45	0.50
3:F:493:ILE:HD12	3:F:499:GLY:O	2.12	0.50
4:H:265:THR:HG21	7:A:265:LYS:HE3	1.92	0.50
4:P:93:ASP:CG	4:P:94:GLY:H	2.20	0.50
5:K:431:GLN:O	5:K:435:ILE:HG12	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:485:ALA:O	5:C:487:ASN:ND2	2.44	0.50
6:J:58:ASN:OD1	6:J:61:GLU:N	2.45	0.50
6:J:118:LEU:O	6:J:121:ILE:HG22	2.11	0.50
6:B:160:VAL:HA	6:B:163:LEU:HD12	1.93	0.50
6:B:208:LEU:HD23	6:B:208:LEU:H	1.77	0.50
6:B:251:THR:HG23	7:A:260:VAL:HG22	1.94	0.50
6:B:443:GLU:OE2	6:B:446:GLU:HG2	2.11	0.50
7:I:59:ASP:OD2	7:I:61:ASN:HB3	2.12	0.50
7:I:165:ALA:O	7:I:169:THR:N	2.39	0.50
8:G:300:PHE:O	8:G:304:GLY:N	2.45	0.50
8:G:355:ARG:HH11	8:G:358:ASP:HB2	1.76	0.50
9:Q:168:THR:HA	9:Q:252:PHE:CZ	2.47	0.50
1:L:188:ILE:HD13	1:L:224:LEU:H	1.77	0.50
1:D:304:TRP:NE1	9:Q:78:ARG:HD3	2.26	0.50
2:M:71:LEU:HD13	2:M:85:VAL:HG22	1.94	0.50
2:M:226:VAL:HG22	2:M:227:ASN:H	1.77	0.50
2:M:421:VAL:O	2:M:425:ALA:N	2.42	0.50
2:E:54:SER:OG	2:E:60:SER:N	2.44	0.50
2:E:101:SER:O	2:E:105:LEU:HB2	2.12	0.50
2:E:211:ASP:N	2:E:211:ASP:OD1	2.44	0.50
2:E:465:LEU:HD22	2:E:478:LEU:HD21	1.93	0.50
3:N:88:ALA:O	3:N:92:VAL:N	2.29	0.50
3:N:141:LEU:O	3:N:145:ILE:HG22	2.12	0.50
4:H:123:ILE:HD11	4:H:517:LEU:CB	2.42	0.50
4:H:204:ILE:HG13	4:H:377:ARG:HD3	1.94	0.50
4:P:292:THR:HG23	4:P:313:ARG:HA	1.93	0.50
4:P:421:ALA:HA	4:P:424:GLU:CD	2.37	0.50
4:P:477:THR:HG22	4:P:490:MET:HB3	1.94	0.50
4:P:504:GLN:HE22	8:O:203:ARG:HG3	1.77	0.50
5:K:419:TYR:HD2	5:K:420:LEU:HD23	1.77	0.50
5:C:510:ALA:O	5:C:513:ILE:N	2.45	0.50
6:B:54:LYS:HZ1	6:B:56:VAL:HG22	1.77	0.50
6:B:504:LYS:O	6:B:508:ILE:HG12	2.11	0.50
7:A:129:LYS:HD3	7:A:425:HIS:CD2	2.47	0.50
8:G:355:ARG:HA	8:G:359:ASP:C	2.37	0.50
9:Q:96:LYS:O	9:Q:100:LEU:N	2.43	0.50
9:Q:293:LYS:HB3	9:Q:296:ARG:NH2	2.27	0.50
1:D:52:LEU:HA	1:D:107:THR:OG1	2.12	0.49
1:D:91:MET:O	1:D:94:LEU:HB3	2.12	0.49
1:D:169:ALA:O	1:D:173:LEU:HG	2.12	0.49
1:D:326:GLY:O	1:D:330:ILE:HG13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:314:HIS:ND1	2:E:314:HIS:O	2.45	0.49
3:N:60:MET:HG2	3:N:70:ILE:HG23	1.94	0.49
3:F:60:MET:HE3	3:F:70:ILE:HG12	1.94	0.49
3:F:269:TYR:CZ	8:G:266:ARG:HD3	2.47	0.49
3:F:457:ALA:HB3	3:F:458:MET:HE2	1.93	0.49
4:H:227:PRO:HB3	7:A:322:GLU:OE1	2.13	0.49
4:H:481:ASN:HB2	4:H:488:VAL:HG21	1.94	0.49
4:P:386:GLU:OE2	4:P:390:ASN:ND2	2.42	0.49
4:P:448:PRO:O	4:P:451:LEU:HB2	2.12	0.49
4:P:512:THR:O	4:P:516:LEU:HG	2.12	0.49
5:C:389:LEU:O	5:C:393:ILE:HG12	2.12	0.49
6:J:317:SER:N	6:J:320:ASP:OD2	2.41	0.49
6:B:66:THR:HG23	6:B:390:ARG:HH11	1.77	0.49
6:B:69:ALA:O	6:B:72:ILE:HG23	2.12	0.49
6:B:247:ASP:OD1	6:B:248:GLY:N	2.44	0.49
7:I:407:VAL:HG22	7:I:495:TRP:HB3	1.93	0.49
7:A:44:MET:SD	7:A:44:MET:N	2.78	0.49
8:O:326:THR:O	8:O:328:LEU:HG	2.11	0.49
9:Q:78:ARG:NH2	9:Q:80:GLN:OE1	2.45	0.49
1:L:225:ILE:HB	1:L:384:THR:HG23	1.94	0.49
1:L:266:LEU:HB2	2:M:254:SER:HB2	1.93	0.49
1:D:222:THR:HG23	1:D:387:ILE:HG13	1.93	0.49
2:M:184:VAL:O	2:M:188:LEU:HG	2.12	0.49
3:N:178:GLN:HA	8:O:122:ARG:CZ	2.42	0.49
3:N:209:LYS:HB3	3:N:387:THR:HB	1.94	0.49
4:P:237:ARG:O	4:P:289:VAL:N	2.45	0.49
5:K:132:ALA:O	5:K:136:ILE:HG13	2.12	0.49
5:C:151:GLN:H	5:C:151:GLN:CD	2.20	0.49
5:C:335:ASN:C	5:C:337:LEU:H	2.17	0.49
5:C:431:GLN:HA	5:C:434:LEU:CD1	2.42	0.49
6:J:242:TYR:O	6:J:293:THR:OG1	2.29	0.49
6:J:506:TRP:O	6:J:510:LEU:N	2.33	0.49
6:B:101:THR:OG1	6:B:102:ASN:N	2.45	0.49
7:A:248:PHE:CD2	9:Q:146:HIS:HE1	2.30	0.49
1:D:162:THR:O	1:D:166:ILE:HG13	2.12	0.49
1:D:312:HIS:CE1	1:D:316:GLN:HG2	2.47	0.49
2:M:158:ASP:HA	2:M:161:ASN:OD1	2.12	0.49
3:F:81:MET:HB3	3:F:83:VAL:HG23	1.93	0.49
3:F:329:GLU:N	3:F:329:GLU:OE2	2.45	0.49
3:F:345:VAL:HG11	3:F:351:PHE:HB2	1.93	0.49
4:H:183:VAL:O	4:H:184:GLN:HG3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:213:CYS:SG	4:H:214:VAL:N	2.85	0.49
6:J:421:LYS:NZ	6:J:472:GLN:HA	2.26	0.49
6:J:516:VAL:O	6:J:520:ARG:HB2	2.12	0.49
7:I:196:MET:HE2	7:I:375:LEU:HD21	1.92	0.49
7:I:452:ALA:HA	7:I:455:SER:HB3	1.95	0.49
8:O:397:CYS:O	8:O:401:ARG:HG2	2.12	0.49
8:G:261:ASP:OD1	8:G:261:ASP:N	2.44	0.49
1:D:116:LEU:HA	1:D:454:ALA:HB1	1.94	0.49
2:E:91:GLN:HG3	2:E:102:VAL:HG21	1.94	0.49
3:N:122:LYS:HA	3:N:125:GLN:NE2	2.28	0.49
3:N:301:GLN:HA	3:N:328:ILE:H	1.77	0.49
3:N:430:ILE:HD13	3:N:480:LEU:HD22	1.93	0.49
3:N:448:SER:O	3:N:452:ARG:N	2.27	0.49
3:F:266:VAL:O	8:G:253:VAL:N	2.33	0.49
4:H:208:ILE:HG23	4:H:210:GLU:H	1.76	0.49
4:H:331:ILE:HB	8:G:298:LYS:NZ	2.27	0.49
4:P:172:ALA:O	4:P:176:ALA:N	2.25	0.49
5:C:214:VAL:HA	5:C:371:THR:OG1	2.12	0.49
5:C:362:THR:HG1	5:C:363:GLY:H	1.60	0.49
6:J:242:TYR:CZ	6:J:333:LEU:HD12	2.47	0.49
6:J:499:ASP:OD1	6:J:499:ASP:N	2.44	0.49
6:B:223:PHE:HB3	6:B:225:LYS:HE2	1.95	0.49
7:I:298:ASP:OD1	7:I:300:PHE:N	2.42	0.49
7:A:91:GLY:O	7:A:95:ASN:N	2.37	0.49
7:A:127:LYS:HZ2	7:A:506:HIS:HA	1.77	0.49
7:A:293:ASN:OD1	7:A:294:GLN:N	2.46	0.49
1:L:105:GLY:N	1:L:107:THR:HG22	2.27	0.49
1:D:318:ASN:OD1	1:D:318:ASN:N	2.42	0.49
2:M:157:GLN:O	2:M:160:MET:HG3	2.13	0.49
2:M:278:LYS:O	2:M:282:ILE:HG13	2.11	0.49
2:M:444:ARG:O	2:M:447:PRO:HD2	2.12	0.49
4:P:127:ARG:HH21	8:O:164:ASN:HB2	1.77	0.49
4:P:302:HIS:NE2	7:I:335:SER:HB3	2.28	0.49
4:P:331:ILE:HB	8:O:298:LYS:NZ	2.28	0.49
5:K:217:LYS:HA	5:K:358:TYR:CD1	2.47	0.49
5:K:317:GLU:O	5:K:321:ARG:HG3	2.12	0.49
5:C:315:PRO:HG2	5:C:318:ASP:HB2	1.94	0.49
6:J:263:GLU:OE2	6:J:263:GLU:N	2.40	0.49
7:I:447:ILE:H	7:I:447:ILE:HD12	1.78	0.49
7:A:168:LEU:HD11	7:A:391:VAL:HG22	1.95	0.49
7:A:224:ARG:HA	7:A:351:TYR:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:488:VAL:HB	7:A:491:GLU:HB3	1.95	0.49
8:G:506:PRO:HB2	8:G:509:VAL:HG23	1.94	0.49
9:Q:63:ARG:HA	9:Q:63:ARG:HH11	1.77	0.49
1:D:104:ASP:HA	1:D:106:THR:OG1	2.13	0.49
1:D:263:LYS:HE2	1:D:265:LYS:CE	2.42	0.49
2:M:51:ILE:HG12	2:M:63:VAL:HG13	1.93	0.49
2:M:219:LEU:HD12	2:M:361:HIS:HA	1.94	0.49
2:M:432:GLU:H	2:M:432:GLU:CD	2.21	0.49
2:E:297:TYR:O	2:E:300:PRO:HD2	2.13	0.49
3:N:48:ILE:HA	3:N:59:LYS:NZ	2.28	0.49
3:N:277:ARG:HA	3:N:280:ARG:CZ	2.43	0.49
4:H:155:ILE:O	4:H:159:SER:N	2.42	0.49
4:H:256:ILE:HB	7:A:246:SER:CA	2.43	0.49
5:K:517:ASP:N	5:K:517:ASP:OD1	2.44	0.49
5:C:261:GLU:O	5:C:264:GLN:HB2	2.12	0.49
6:B:254:LYS:HB2	9:Q:146:HIS:CA	2.43	0.49
7:I:19:ALA:HB1	7:I:521:ILE:HG12	1.94	0.49
7:I:522:MET:HE1	7:I:524:ALA:HB3	1.93	0.49
7:A:15:ARG:H	7:A:18:ALA:HB3	1.77	0.49
7:A:291:VAL:O	7:A:313:LEU:N	2.45	0.49
7:A:471:SER:O	7:A:474:GLY:N	2.46	0.49
8:O:333:ASN:OD1	8:O:334:LEU:N	2.46	0.49
8:G:164:ASN:OD1	8:G:167:PHE:HB3	2.13	0.49
9:Q:236:ARG:N	11:Q:1222:HOH:O	2.46	0.49
9:Q:298:LEU:HD12	9:Q:301:ALA:HB3	1.95	0.49
1:D:235:SER:O	1:D:323:ARG:NH2	2.45	0.49
2:M:141:LEU:O	2:M:144:SER:OG	2.28	0.49
2:M:239:ILE:HG23	2:M:291:ILE:HG13	1.94	0.49
3:N:74:GLY:O	3:N:78:LEU:HG	2.13	0.49
4:P:113:LEU:HD11	4:P:119:PRO:HG3	1.94	0.49
4:P:155:ILE:HG12	4:P:407:LEU:HD21	1.94	0.49
4:P:433:GLU:C	4:P:436:PRO:HD2	2.37	0.49
6:J:319:TRP:O	6:J:323:ARG:HG2	2.13	0.49
6:J:347:CYS:SG	6:J:348:ASP:N	2.86	0.49
6:J:435:GLN:O	6:J:438:ILE:HG23	2.13	0.49
6:B:182:LEU:O	6:B:186:ALA:N	2.42	0.49
7:I:28:ARG:O	7:I:31:GLN:HG3	2.13	0.49
7:A:185:PRO:O	7:A:399:LYS:NZ	2.40	0.49
9:Q:136:VAL:O	9:Q:143:ARG:HD3	2.13	0.49
1:D:271:VAL:O	1:D:275:LYS:HG3	2.12	0.49
1:D:309:GLU:HA	2:E:333:SER:CB	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:328:PRO:HA	1:D:331:GLU:OE1	2.12	0.49
2:M:19:GLU:HB2	2:M:520:ILE:HG12	1.93	0.49
2:M:392:ASP:HA	2:M:395:CYS:HB3	1.93	0.49
2:E:239:ILE:HB	2:E:331:ILE:HG22	1.95	0.49
2:E:270:ALA:HA	2:E:273:GLU:OE1	2.12	0.49
3:N:488:GLU:O	3:N:490:THR:N	2.46	0.49
3:F:431:GLU:O	3:F:435:ARG:HG2	2.13	0.49
3:F:480:LEU:HD21	3:F:492:GLY:HA2	1.95	0.49
4:H:196:LYS:HG3	4:H:396:GLN:NE2	2.27	0.49
4:H:251:GLU:OE1	8:G:245:LYS:HD3	2.13	0.49
4:P:130:LEU:HA	4:P:133:MET:HE2	1.94	0.49
4:P:475:CYS:HB2	4:P:478:TRP:HD1	1.77	0.49
5:K:73:HIS:CE1	5:K:75:ALA:H	2.31	0.49
6:J:83:ALA:O	6:J:86:ILE:HG12	2.13	0.49
6:J:305:ALA:O	6:J:309:ASN:N	2.46	0.49
6:J:342:GLU:OE1	6:J:342:GLU:N	2.42	0.49
6:B:289:ASN:OD1	6:B:290:VAL:HG12	2.13	0.49
7:I:192:GLU:O	7:I:374:LEU:N	2.42	0.49
7:A:5:LYS:HZ3	7:A:12:GLU:HA	1.78	0.49
8:O:74:VAL:O	8:O:78:LEU:N	2.38	0.49
8:O:147:CYS:HA	8:O:150:ASN:HB2	1.93	0.49
8:G:85:GLU:O	8:G:401:ARG:NH1	2.46	0.49
8:G:293:ASP:CG	8:G:295:MET:HG2	2.37	0.49
8:G:380:ALA:H	8:G:384:MET:HE2	1.77	0.49
9:Q:158:ASP:HB3	9:Q:161:THR:HB	1.94	0.49
1:L:201:ARG:HH11	5:K:231:LYS:HB2	1.77	0.49
1:L:277:LEU:HD21	2:M:250:LYS:HE3	1.94	0.49
1:L:385:ILE:HD12	1:L:387:ILE:HD11	1.93	0.49
2:M:84:LEU:HD13	2:M:84:LEU:HA	1.59	0.49
2:M:291:ILE:HA	2:M:312:ILE:O	2.13	0.49
2:E:213:TYR:CZ	2:E:374:VAL:HG21	2.48	0.49
2:E:287:ILE:HD11	2:E:343:LEU:HD22	1.95	0.49
3:N:48:ILE:HA	3:N:59:LYS:HZ2	1.77	0.49
4:H:63:GLY:O	4:H:67:LEU:HD22	2.12	0.49
4:H:188:ASN:ND2	4:H:192:GLU:HA	2.28	0.49
4:H:293:GLU:HA	4:H:315:VAL:H	1.78	0.49
5:K:278:LEU:HD13	5:K:302:TYR:HD2	1.78	0.49
5:C:268:ASP:O	5:C:272:ASN:N	2.38	0.49
8:O:47:ASP:OD1	8:O:47:ASP:N	2.45	0.49
8:O:477:ASN:O	8:O:479:GLU:N	2.45	0.49
8:G:47:ASP:CG	8:G:48:ASP:H	2.20	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Q:42:MET:SD	9:Q:69:PRO:HD3	2.52	0.49
9:Q:201:ALA:O	9:Q:204:THR:OG1	2.30	0.49
1:D:501:MET:HA	1:D:504:GLN:CB	2.43	0.49
2:M:167:LEU:C	2:M:169:SER:H	2.21	0.49
2:E:202:ILE:HG22	2:E:372:THR:HG22	1.94	0.49
2:E:414:GLU:HA	2:E:417:MET:HE3	1.95	0.49
3:N:214:LEU:C	3:N:391:ARG:HH12	2.20	0.49
3:F:68:VAL:HG11	8:G:70:PRO:HB3	1.95	0.49
3:F:106:THR:HA	3:F:109:VAL:HG12	1.94	0.49
3:F:146:GLU:O	3:F:149:THR:OG1	2.29	0.49
3:F:366:ASN:HB2	3:F:372:LYS:HG2	1.95	0.49
3:F:431:GLU:HB2	3:F:484:HIS:NE2	2.28	0.49
3:F:482:ASN:OD1	3:F:482:ASN:N	2.45	0.49
4:H:238:ILE:HG13	4:H:289:VAL:HB	1.95	0.49
4:P:66:ILE:O	4:P:70:ILE:HG12	2.13	0.49
4:P:355:ILE:HG22	4:P:358:GLU:HB3	1.95	0.49
5:K:386:GLU:HA	5:K:389:LEU:HB2	1.95	0.49
6:J:26:GLU:O	6:J:30:TYR:N	2.41	0.49
6:J:55:MET:HA	6:J:64:PHE:O	2.13	0.49
6:B:283:ILE:HA	6:B:339:PRO:HG3	1.94	0.49
7:I:186:ILE:CG1	7:I:188:LEU:H	2.25	0.49
7:A:267:ILE:HA	7:A:270:ARG:HD2	1.95	0.49
8:O:100:LEU:HD12	8:O:121:TYR:CE2	2.47	0.49
8:G:353:GLN:NE2	8:G:360:GLU:OE1	2.44	0.49
1:D:121:GLU:HA	1:D:124:LEU:HB2	1.95	0.48
2:M:130:TRP:HA	2:M:133:ALA:HB3	1.94	0.48
2:M:292:ASN:OD1	2:M:293:ARG:N	2.46	0.48
2:M:379:THR:O	2:M:383:LEU:N	2.26	0.48
2:E:84:LEU:O	2:E:87:MET:HB3	2.13	0.48
2:E:162:ILE:O	2:E:166:THR:OG1	2.30	0.48
2:E:174:HIS:CG	3:F:527:ARG:CZ	2.96	0.48
2:E:212:SER:CB	2:E:376:ARG:H	2.26	0.48
3:F:169:THR:HG23	3:F:508:VAL:HG13	1.95	0.48
3:F:273:ASP:O	3:F:277:ARG:HG3	2.12	0.48
3:F:335:PHE:O	3:F:339:THR:OG1	2.30	0.48
4:P:76:ALA:HA	4:P:79:SER:HB3	1.94	0.48
4:P:122:VAL:HG12	4:P:126:TYR:CZ	2.47	0.48
4:P:489:ASP:HB3	4:P:492:GLU:OE2	2.13	0.48
5:K:232:TYR:HB3	5:K:235:PRO:HB3	1.94	0.48
5:K:383:GLU:H	5:K:383:GLU:CD	2.21	0.48
5:C:383:GLU:O	5:C:387:ARG:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:6:PRO:O	6:J:7:LYS:HG2	2.13	0.48
6:J:151:ALA:HB3	6:J:408:LEU:HD23	1.94	0.48
6:J:250:ILE:CG1	7:I:256:ARG:HH21	2.26	0.48
6:J:261:THR:OG1	6:J:264:GLU:OE1	2.29	0.48
7:I:198:HIS:CE1	7:I:199:LYS:HD3	2.48	0.48
7:I:336:PHE:O	7:I:339:LEU:HB2	2.12	0.48
8:G:146:ASP:OD1	8:G:150:ASN:ND2	2.39	0.48
8:G:325:ALA:HB2	8:G:346:GLY:HA3	1.95	0.48
8:G:441:PHE:O	8:G:445:LEU:HB2	2.12	0.48
9:Q:296:ARG:HB3	11:Q:1355:HOH:O	2.13	0.48
1:D:119:GLU:O	1:D:122:GLN:HB3	2.13	0.48
1:D:138:GLU:O	1:D:142:ARG:HG3	2.13	0.48
3:N:445:GLY:O	3:N:448:SER:OG	2.29	0.48
3:F:228:VAL:HG22	3:F:375:LYS:HA	1.94	0.48
4:H:390:ASN:OD1	4:H:390:ASN:N	2.46	0.48
4:H:467:ARG:O	4:H:471:THR:HG23	2.13	0.48
4:P:102:ALA:O	4:P:105:MET:HB3	2.14	0.48
4:P:256:ILE:HD12	7:I:245:ASN:O	2.13	0.48
4:P:446:VAL:O	4:P:449:ARG:HB3	2.13	0.48
4:P:479:GLY:N	4:P:488:VAL:O	2.35	0.48
5:K:282:HIS:ND1	5:K:306:ARG:HD3	2.28	0.48
5:C:519:THR:HA	6:B:54:LYS:HZ3	1.78	0.48
6:J:354:GLU:OE2	6:J:358:THR:N	2.39	0.48
6:B:247:ASP:HA	6:B:298:ALA:HB2	1.94	0.48
6:B:314:ARG:NE	6:B:315:LEU:HG	2.28	0.48
6:B:490:LYS:O	6:B:492:MET:HE3	2.14	0.48
7:I:265:LYS:HE3	7:I:265:LYS:HB3	1.56	0.48
7:A:130:ALA:O	7:A:134:LEU:N	2.34	0.48
8:O:450:ASN:O	8:O:454:VAL:HG12	2.13	0.48
8:G:131:TYR:HA	8:G:134:GLU:HB2	1.94	0.48
9:Q:168:THR:HG23	9:Q:252:PHE:HE2	1.79	0.48
1:L:19:ILE:H	1:L:22:GLN:CD	2.16	0.48
1:L:222:THR:HG23	1:L:387:ILE:HA	1.93	0.48
1:D:218:ARG:CD	2:E:502:GLN:HE22	2.26	0.48
2:M:262:ALA:HB2	3:N:278:GLU:OE2	2.13	0.48
2:E:396:VAL:O	2:E:400:THR:OG1	2.30	0.48
2:E:510:ALA:O	2:E:514:ILE:HG12	2.13	0.48
3:N:488:GLU:H	3:N:488:GLU:CD	2.20	0.48
3:F:64:GLY:HA2	8:G:533:LEU:O	2.13	0.48
4:H:129:ALA:O	4:H:133:MET:HG3	2.13	0.48
4:P:87:GLN:HG3	4:P:91:VAL:HG23	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:144:VAL:N	4:P:405:PRO:O	2.46	0.48
4:P:265:THR:HG21	7:I:265:LYS:HE3	1.95	0.48
4:P:470:HIS:NE2	4:P:476:GLU:HA	2.28	0.48
5:K:42:PRO:HB2	5:K:479:ILE:HG21	1.94	0.48
5:C:241:ASN:O	5:C:293:LEU:HD23	2.13	0.48
5:C:289:VAL:H	5:C:310:CYS:HA	1.78	0.48
5:C:418:LYS:HE3	5:C:418:LYS:HB3	1.60	0.48
6:J:279:GLN:O	6:J:283:ILE:HG12	2.14	0.48
6:B:153:ASN:OD1	6:B:156:ASP:N	2.45	0.48
6:B:421:LYS:NZ	6:B:472:GLN:HA	2.28	0.48
8:O:28:ILE:O	8:O:31:ILE:HB	2.13	0.48
8:G:50:GLY:O	8:G:52:VAL:HG13	2.14	0.48
8:G:67:VAL:HB	8:G:73:LYS:HG2	1.94	0.48
8:G:181:TYR:HB3	8:G:191:PRO:HD3	1.94	0.48
8:G:333:ASN:HB2	8:G:339:THR:OG1	2.13	0.48
9:Q:132:ASN:HA	9:Q:360:ASP:CG	2.38	0.48
9:Q:292:LEU:O	9:Q:295:VAL:HG22	2.13	0.48
1:L:40:ALA:O	1:L:44:VAL:HG23	2.13	0.48
1:L:192:ALA:O	1:L:195:THR:OG1	2.26	0.48
1:D:325:VAL:O	1:D:330:ILE:HD11	2.14	0.48
1:D:329:GLU:H	1:D:329:GLU:CD	2.09	0.48
2:M:297:TYR:HD1	2:M:299:TYR:HB3	1.79	0.48
2:M:465:LEU:HD22	2:M:478:LEU:HD21	1.94	0.48
2:M:477:GLY:O	2:M:485:ILE:HA	2.14	0.48
2:E:352:VAL:O	2:E:359:LEU:N	2.33	0.48
3:F:286:LEU:O	3:F:290:ILE:HG12	2.13	0.48
3:F:414:CYS:O	3:F:417:LYS:HB2	2.12	0.48
4:H:59:MET:HE1	7:A:514:ASN:HB3	1.95	0.48
4:H:67:LEU:HA	4:H:70:ILE:HG12	1.95	0.48
4:H:399:ARG:HA	4:H:402:LEU:HB2	1.95	0.48
4:P:52:ASP:OD2	4:P:54:MET:HG2	2.12	0.48
5:K:271:TRP:HB3	5:K:275:TYR:CE1	2.48	0.48
5:C:150:GLU:O	5:C:153:LYS:N	2.47	0.48
5:C:389:LEU:HA	5:C:389:LEU:HD13	1.63	0.48
6:J:300:MET:HA	6:J:303:HIS:HB3	1.94	0.48
6:B:14:MET:SD	6:B:14:MET:N	2.87	0.48
6:B:240:ALA:N	6:B:290:VAL:O	2.41	0.48
7:A:35:ARG:HH22	7:A:453:GLN:CD	2.21	0.48
8:O:86:VAL:HG12	8:O:88:ASP:H	1.78	0.48
8:O:139:ASN:HD21	8:O:406:LYS:HE2	1.78	0.48
8:G:229:ILE:HG22	8:G:231:ASN:H	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:197:ALA:O	1:L:381:ARG:NH1	2.46	0.48
1:L:334:ALA:O	1:L:338:GLY:N	2.46	0.48
1:D:336:ALA:O	1:D:380:SER:OG	2.27	0.48
2:M:74:ILE:HG13	2:M:76:VAL:HG13	1.96	0.48
2:E:396:VAL:O	2:E:400:THR:N	2.39	0.48
3:N:220:ASP:OD1	3:N:220:ASP:N	2.44	0.48
3:F:35:PHE:HE1	3:F:124:LEU:HD12	1.78	0.48
3:F:269:TYR:CE2	8:G:262:GLN:HB3	2.47	0.48
4:H:86:THR:HG22	8:G:201:HIS:CD2	2.48	0.48
4:H:195:ILE:CG2	4:H:197:LYS:H	2.26	0.48
4:H:266:ARG:NH2	8:G:257:PRO:HB2	2.29	0.48
4:H:325:ARG:HH21	4:H:325:ARG:HA	1.78	0.48
5:C:178:MET:O	5:C:182:ALA:N	2.42	0.48
6:J:58:ASN:HD21	6:J:60:LEU:HB2	1.78	0.48
6:J:85:MET:HE3	7:I:54:ILE:HD12	1.93	0.48
6:B:263:GLU:CD	6:B:263:GLU:H	2.22	0.48
7:I:54:ILE:C	7:I:55:LYS:HZ2	2.15	0.48
7:I:60:GLY:HA2	7:I:63:LEU:HD13	1.95	0.48
7:I:161:HIS:HB2	7:I:164:LEU:CB	2.43	0.48
8:O:367:THR:OG1	8:O:370:ARG:O	2.30	0.48
8:G:389:GLU:HA	8:G:392:LEU:HB2	1.96	0.48
1:L:233:ASP:N	1:L:233:ASP:OD1	2.45	0.48
1:D:185:MET:SD	1:D:185:MET:N	2.86	0.48
2:M:175:HIS:CD2	2:M:209:LEU:HD23	2.49	0.48
2:M:403:ASP:CG	2:M:405:ARG:HE	2.16	0.48
2:E:244:MET:HB2	2:E:296:ILE:HG23	1.94	0.48
3:N:119:SER:O	3:N:122:LYS:HB3	2.14	0.48
3:N:188:VAL:O	3:N:192:MET:HG2	2.12	0.48
3:F:95:SER:OG	3:F:106:THR:HB	2.12	0.48
4:H:94:GLY:O	4:H:98:VAL:HG23	2.13	0.48
5:C:86:GLN:HE22	5:C:501:ASN:HB3	1.79	0.48
5:C:210:LEU:HD13	5:C:372:PHE:CE1	2.48	0.48
5:C:245:GLU:HG3	5:C:248:ALA:HB2	1.96	0.48
6:J:49:PRO:HB3	6:J:173:TYR:HD1	1.79	0.48
6:J:205:CYS:SG	6:J:376:VAL:HA	2.54	0.48
6:J:416:GLU:HA	6:J:419:LEU:HB2	1.93	0.48
7:I:19:ALA:HB3	7:I:519:ASP:O	2.14	0.48
7:I:115:HIS:CE1	7:I:117:ARG:HB2	2.49	0.48
7:A:231:LEU:O	7:A:292:ILE:N	2.43	0.48
8:O:225:MET:SD	8:O:307:ALA:N	2.86	0.48
8:G:194:SER:HA	8:G:318:ARG:HH11	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:203:ARG:H	8:G:378:ARG:NH2	2.11	0.48
1:L:525:ARG:NH2	5:K:167:LEU:HD12	2.28	0.48
1:D:161:ASP:O	1:D:165:LEU:HG	2.13	0.48
1:D:532:ASP:HB3	5:C:47:LYS:HD2	1.94	0.48
2:M:174:HIS:CG	3:N:527:ARG:CZ	2.97	0.48
2:M:235:ALA:N	2:M:346:CYS:O	2.47	0.48
2:E:87:MET:SD	2:E:506:SER:HB3	2.53	0.48
2:E:416:LEU:HD11	2:E:474:THR:HA	1.94	0.48
3:F:193:LYS:NZ	3:F:225:GLU:HG2	2.29	0.48
3:F:303:SER:O	3:F:303:SER:OG	2.32	0.48
4:H:16:ARG:HD2	4:H:17:GLU:N	2.29	0.48
4:H:28:ASN:O	4:H:32:THR:HG23	2.14	0.48
4:H:288:ASP:O	4:H:310:THR:N	2.41	0.48
4:P:11:SER:HA	8:O:66:GLU:OE1	2.13	0.48
4:P:141:SER:OG	4:P:406:GLN:HB3	2.13	0.48
5:K:60:ASN:HB3	5:K:166:LYS:HE3	1.95	0.48
5:K:508:GLU:O	5:K:512:LEU:N	2.23	0.48
5:C:37:ARG:HG3	5:C:448:GLN:NE2	2.27	0.48
5:C:43:ARG:CZ	5:C:479:ILE:HB	2.43	0.48
5:C:61:ASP:O	5:C:65:ILE:HG13	2.13	0.48
5:C:209:GLN:O	5:C:373:ILE:N	2.46	0.48
5:C:256:ARG:HG3	6:B:258:LEU:HD11	1.96	0.48
6:J:50:ASN:HB3	6:J:455:ASN:O	2.13	0.48
6:J:198:ASN:HB2	6:J:201:ASN:OD1	2.14	0.48
6:J:294:GLY:HA2	6:J:315:LEU:N	2.28	0.48
6:J:367:LYS:HG3	6:J:370:GLY:N	2.29	0.48
6:B:471:HIS:CE1	6:B:476:LYS:HA	2.39	0.48
7:I:84:GLN:NE2	7:I:88:THR:HG22	2.29	0.48
7:I:295:LYS:O	7:I:315:ARG:N	2.42	0.48
8:O:180:LYS:HA	8:O:190:TYR:CE1	2.49	0.48
8:O:229:ILE:HG12	8:O:306:MET:HE2	1.94	0.48
8:O:486:ILE:O	8:O:497:ASP:HA	2.12	0.48
8:G:27:SER:O	8:G:31:ILE:HG12	2.13	0.48
8:G:477:ASN:O	8:G:479:GLU:N	2.46	0.48
9:Q:338:ALA:O	9:Q:342:MET:HG3	2.13	0.48
1:L:63:ASP:N	1:L:67:ASP:O	2.33	0.48
1:D:85:HIS:HE1	1:D:87:ILE:HB	1.75	0.48
1:D:242:LYS:HG2	1:D:360:GLN:HG3	1.95	0.48
2:M:25:ARG:HB3	2:M:29:PHE:CE2	2.48	0.48
2:M:86:ASP:O	2:M:90:VAL:HG23	2.14	0.48
3:N:227:LEU:HD11	3:N:336:ILE:HG12	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:253:LEU:HD22	3:N:286:LEU:HD12	1.95	0.48
3:N:413:ARG:O	3:N:417:LYS:HG3	2.14	0.48
4:H:280:GLU:HG2	4:H:281:ASP:N	2.28	0.48
4:H:434:GLN:CD	4:H:438:ARG:HH11	2.21	0.48
4:H:490:MET:SD	4:H:495:ILE:N	2.87	0.48
4:P:16:ARG:HA	4:P:522:ILE:O	2.14	0.48
4:P:94:GLY:C	4:P:98:VAL:HG23	2.39	0.48
5:K:93:GLY:O	5:K:97:VAL:HG23	2.14	0.48
5:K:224:GLY:H	5:K:301:GLN:HE22	1.61	0.48
5:C:230:LYS:HB2	5:C:350:GLU:CG	2.43	0.48
6:B:118:LEU:O	6:B:121:ILE:HG22	2.14	0.48
7:I:44:MET:HB2	7:I:57:THR:C	2.39	0.48
7:A:480:ASP:CB	7:A:485:GLU:H	2.24	0.48
8:O:37:GLY:O	8:O:40:GLY:N	2.41	0.48
8:O:113:HIS:O	8:O:117:VAL:HG23	2.13	0.48
8:G:47:ASP:OD2	8:G:51:ASP:HB3	2.14	0.48
8:G:213:GLY:HA2	8:G:372:SER:HB3	1.95	0.48
8:G:384:MET:HE3	8:G:388:MET:HE1	1.95	0.48
9:Q:167:TRP:CD1	9:Q:280:CYS:HB3	2.48	0.48
1:D:31:LEU:HB3	1:D:35:LYS:HZ3	1.78	0.48
1:D:75:ALA:O	1:D:79:SER:OG	2.27	0.48
1:D:266:LEU:O	2:E:255:ARG:N	2.47	0.48
1:D:300:ALA:HB3	1:D:321:ALA:HB2	1.95	0.48
1:D:444:GLU:O	1:D:448:MET:HG2	2.14	0.48
2:M:80:ALA:O	2:M:83:VAL:HB	2.13	0.48
2:E:361:HIS:HD2	2:E:362:PHE:N	2.11	0.48
3:N:59:LYS:N	3:N:71:THR:O	2.32	0.48
3:N:81:MET:HB3	3:N:83:VAL:HG23	1.96	0.48
3:F:44:VAL:HG21	3:F:88:ALA:HB2	1.94	0.48
3:F:90:MET:O	3:F:94:LEU:N	2.44	0.48
3:F:151:MET:HE1	3:F:428:PRO:HA	1.96	0.48
4:H:19:GLY:C	4:H:23:GLN:HG3	2.39	0.48
4:H:132:ASP:O	4:H:136:THR:N	2.40	0.48
4:H:415:GLU:OE1	4:H:506:TYR:OH	2.32	0.48
4:H:452:ILE:HB	4:H:453:GLN:NE2	2.29	0.48
4:P:60:THR:OG1	4:P:389:ARG:NE	2.46	0.48
4:P:183:VAL:O	4:P:184:GLN:HG3	2.13	0.48
4:P:226:HIS:ND1	4:P:227:PRO:HD2	2.28	0.48
5:K:216:PHE:HB2	5:K:359:ASN:OD1	2.14	0.48
5:K:233:HIS:HA	5:K:347:VAL:HG23	1.95	0.48
5:K:494:GLU:HG2	5:K:495:PRO:O	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:237:ILE:O	5:C:342:LEU:HD13	2.13	0.48
6:J:312:LEU:HA	6:J:312:LEU:HD23	1.63	0.48
6:J:323:ARG:O	6:J:327:THR:HG23	2.14	0.48
6:J:413:GLY:O	6:J:417:ILE:HG12	2.13	0.48
6:B:300:MET:H	6:B:300:MET:HG3	1.44	0.48
6:B:393:ASP:O	6:B:396:VAL:HB	2.13	0.48
7:I:480:ASP:OD2	7:I:483:THR:OG1	2.22	0.48
7:A:115:HIS:ND1	7:A:117:ARG:HB2	2.29	0.48
7:A:180:LYS:O	7:A:370:ARG:NH1	2.46	0.48
7:A:210:LEU:O	7:A:363:ILE:N	2.42	0.48
8:O:17:ILE:O	8:O:21:ASN:ND2	2.46	0.48
8:O:176:VAL:HA	8:O:179:ILE:HG22	1.96	0.48
8:O:197:ILE:HG23	8:O:375:ILE:HG23	1.95	0.48
8:G:316:LEU:HA	8:G:319:ILE:HG12	1.94	0.48
8:G:467:LEU:HD11	8:G:488:LEU:HD13	1.96	0.48
8:G:489:ASP:OD1	8:G:490:LEU:N	2.46	0.48
9:Q:35:THR:O	9:Q:152:PRO:HA	2.14	0.48
1:L:501:MET:HA	1:L:504:GLN:HB3	1.96	0.48
1:D:45:ALA:O	1:D:49:ARG:HG3	2.14	0.48
1:D:526:MET:SD	1:D:527:ILE:HD13	2.54	0.48
1:D:530:ILE:HG12	1:D:531:ASP:N	2.28	0.48
2:M:189:ARG:HH22	2:M:216:GLU:C	2.20	0.48
2:M:323:LEU:HA	2:M:326:VAL:HG12	1.96	0.48
2:E:18:GLU:OE2	2:E:20:ARG:NH2	2.47	0.48
2:E:227:ASN:OD1	2:E:227:ASN:N	2.41	0.48
2:E:242:THR:O	2:E:292:ASN:ND2	2.47	0.48
3:N:74:GLY:O	3:N:77:ILE:HB	2.14	0.48
3:N:290:ILE:HA	3:N:351:PHE:HE2	1.79	0.48
3:N:307:ASP:N	3:N:307:ASP:OD1	2.46	0.48
3:N:465:LEU:O	3:N:469:ALA:N	2.41	0.48
3:F:126:LYS:O	3:F:128:ILE:HG12	2.14	0.48
3:F:141:LEU:O	3:F:145:ILE:HG22	2.14	0.48
3:F:299:LEU:HB3	3:F:328:ILE:CD1	2.44	0.48
5:K:214:VAL:HB	5:K:361:PHE:CE1	2.49	0.48
6:J:38:GLU:O	6:J:42:THR:OG1	2.27	0.48
7:I:123:PHE:HA	7:I:126:ALA:HB3	1.95	0.48
7:I:126:ALA:HB1	7:I:440:PHE:CD1	2.49	0.48
7:A:76:LEU:HD23	7:A:77:ILE:HG13	1.96	0.48
8:G:237:LEU:HD12	8:G:328:LEU:O	2.14	0.48
1:L:126:ARG:HB3	3:F:474:ILE:HD11	1.96	0.47
1:L:250:ILE:C	1:L:251:LEU:HD12	2.38	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:366:THR:HB	2:M:93:ASP:O	2.14	0.47
1:D:169:ALA:HA	1:D:172:THR:HG22	1.95	0.47
2:M:57:ARG:HD2	2:M:60:SER:HB2	1.95	0.47
2:M:174:HIS:CE1	3:N:527:ARG:HD2	2.49	0.47
2:M:187:VAL:HG21	2:M:397:LEU:HB3	1.95	0.47
2:M:242:THR:CG2	2:M:248:LYS:HD3	2.44	0.47
2:E:100:THR:O	2:E:103:THR:OG1	2.32	0.47
2:E:243:GLY:O	2:E:244:MET:HE2	2.14	0.47
3:N:399:GLU:HB3	3:N:403:ARG:HH22	1.79	0.47
3:N:502:ASN:HB3	3:N:505:GLU:HB2	1.96	0.47
3:F:307:ASP:N	3:F:307:ASP:OD1	2.44	0.47
4:H:119:PRO:O	4:H:123:ILE:HG12	2.14	0.47
4:H:215:LEU:HA	4:H:215:LEU:HD13	1.67	0.47
4:H:220:ILE:HB	4:H:361:THR:CB	2.41	0.47
4:H:266:ARG:O	4:H:270:MET:HG2	2.13	0.47
4:P:153:LEU:O	4:P:157:ASN:N	2.25	0.47
4:P:168:TRP:CG	4:P:209:ILE:HG21	2.49	0.47
5:K:187:ASP:OD1	5:K:187:ASP:N	2.46	0.47
5:K:253:ALA:HB2	6:J:257:VAL:HG13	1.95	0.47
5:C:73:HIS:CE1	5:C:75:ALA:HB3	2.47	0.47
5:C:134:ASN:HA	5:C:137:LYS:HB2	1.95	0.47
6:J:313:VAL:CG1	6:J:316:ASN:HD21	2.26	0.47
6:J:477:ASN:O	6:J:492:MET:N	2.45	0.47
6:J:490:LYS:O	6:J:492:MET:HE3	2.14	0.47
6:J:512:THR:O	6:J:516:VAL:HG12	2.14	0.47
6:B:381:THR:O	6:B:384:LEU:N	2.46	0.47
7:I:5:LYS:HE2	7:I:13:VAL:HG22	1.96	0.47
7:I:218:HIS:ND1	7:I:219:PRO:HD2	2.29	0.47
7:I:239:TYR:OH	7:I:241:LYS:HB3	2.14	0.47
7:I:303:ASP:CG	7:I:307:LYS:HZ3	2.21	0.47
7:A:45:LYS:HA	7:A:45:LYS:HZ2	1.79	0.47
8:O:216:LEU:HA	8:O:216:LEU:HD13	1.64	0.47
8:O:411:GLY:HA2	8:O:505:GLU:OE2	2.13	0.47
8:G:121:TYR:CE2	8:G:441:PHE:HD2	2.32	0.47
1:D:124:LEU:O	1:D:127:GLY:N	2.44	0.47
1:D:152:SER:HA	1:D:419:VAL:HG22	1.96	0.47
2:M:224:ILE:HD12	2:M:230:LYS:HD2	1.96	0.47
2:E:139:GLU:O	2:E:143:SER:OG	2.28	0.47
3:N:60:MET:HB2	8:O:530:LEU:HD22	1.97	0.47
3:F:296:ASN:OD1	3:F:297:VAL:HG23	2.14	0.47
4:P:114:GLU:HG2	6:B:450:ARG:HH21	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:168:TRP:CD2	4:P:209:ILE:HG21	2.50	0.47
4:P:220:ILE:HD11	4:P:323:ILE:HD11	1.96	0.47
5:K:180:VAL:O	5:K:183:VAL:HG12	2.14	0.47
5:K:268:ASP:OD1	5:K:268:ASP:N	2.45	0.47
5:C:59:SER:HA	5:C:384:GLU:OE1	2.15	0.47
6:J:179:LEU:O	6:J:183:ILE:HG22	2.14	0.47
6:J:191:PHE:HA	6:J:197:PHE:HE2	1.78	0.47
6:J:255:GLY:HA2	7:I:248:PHE:O	2.13	0.47
6:B:58:ASN:OD1	6:B:61:GLU:N	2.47	0.47
7:I:141:ARG:N	7:I:405:GLY:O	2.46	0.47
7:A:140:SER:HA	7:A:406:CYS:HA	1.95	0.47
7:A:366:CYS:HB2	7:A:369:PRO:HB3	1.96	0.47
8:O:208:SER:OG	8:O:378:ARG:N	2.35	0.47
8:O:381:ASN:ND2	8:O:383:PHE:HB2	2.29	0.47
8:G:151:ALA:O	8:G:155:SER:N	2.33	0.47
1:L:21:ASP:O	1:L:25:LYS:HG2	2.15	0.47
1:L:361:GLU:HG2	1:L:371:MET:O	2.13	0.47
2:M:380:GLN:O	2:M:384:ASP:N	2.32	0.47
3:N:227:LEU:HD22	3:N:376:ILE:HD12	1.96	0.47
3:N:394:ASN:O	3:N:397:VAL:HG12	2.15	0.47
3:F:186:MET:HE1	3:F:223:LEU:N	2.30	0.47
3:F:501:SER:OG	3:F:502:ASN:N	2.46	0.47
4:H:136:THR:HG21	4:H:418:VAL:HG13	1.96	0.47
4:H:196:LYS:HG3	4:H:396:GLN:HE22	1.80	0.47
4:H:264:PHE:CD2	7:A:263:GLU:HA	2.50	0.47
6:J:246:PHE:N	6:J:296:LYS:O	2.47	0.47
6:J:300:MET:O	6:J:303:HIS:HB3	2.14	0.47
7:I:95:ASN:O	7:I:99:ILE:HG12	2.15	0.47
7:A:8:ASN:OD1	7:A:10:LYS:N	2.47	0.47
7:A:150:ASP:O	7:A:154:THR:N	2.40	0.47
7:A:448:PRO:HA	7:A:451:LEU:HD12	1.96	0.47
8:O:246:MET:O	8:O:247:LYS:HG3	2.14	0.47
8:O:288:THR:O	8:O:310:ARG:N	2.47	0.47
8:O:293:ASP:OD1	8:O:294:ASP:N	2.47	0.47
8:O:447:VAL:O	8:O:451:THR:HG23	2.14	0.47
8:G:57:ASP:O	8:G:61:ILE:HG13	2.14	0.47
9:Q:21:GLY:HA2	9:Q:89:ASP:CG	2.40	0.47
9:Q:243:VAL:HG13	9:Q:349:PHE:CZ	2.49	0.47
9:Q:270:ALA:HB1	9:Q:282:MET:HG3	1.95	0.47
1:L:176:LYS:HB3	1:L:178:VAL:HG23	1.95	0.47
1:L:376:GLN:OE1	1:L:378:LYS:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:420:TYR:CE2	1:L:502:LYS:HB2	2.49	0.47
1:D:105:GLY:N	1:D:107:THR:HG22	2.30	0.47
2:M:51:ILE:HG12	2:M:63:VAL:HG22	1.95	0.47
2:M:258:VAL:O	3:N:264:ILE:HA	2.14	0.47
2:E:86:ASP:O	2:E:90:VAL:HG23	2.15	0.47
2:E:445:MET:O	2:E:449:ILE:HG13	2.15	0.47
3:N:88:ALA:HA	3:N:91:LEU:HB2	1.95	0.47
3:N:245:LYS:N	3:N:296:ASN:OD1	2.47	0.47
3:N:430:ILE:HG21	3:N:480:LEU:HD22	1.96	0.47
3:N:501:SER:OG	3:N:502:ASN:N	2.47	0.47
3:F:430:ILE:HD11	3:F:481:ARG:HB2	1.97	0.47
4:H:330:ARG:NE	4:H:342:ASP:OD1	2.34	0.47
4:P:42:GLY:O	4:P:45:SER:OG	2.25	0.47
5:K:292:LYS:O	5:K:313:ARG:HA	2.14	0.47
5:C:114:GLU:O	5:C:116:LEU:N	2.46	0.47
5:C:461:LEU:O	5:C:465:ARG:HG3	2.15	0.47
6:J:21:HIS:HD2	6:J:22:PHE:N	2.12	0.47
8:O:17:ILE:HD13	8:O:530:LEU:HB2	1.96	0.47
8:O:225:MET:HE1	8:O:307:ALA:HB3	1.95	0.47
1:L:422:GLY:O	1:L:491:ILE:HD12	2.15	0.47
1:D:105:GLY:O	1:D:109:VAL:HG23	2.14	0.47
2:E:74:ILE:HG13	2:E:76:VAL:HG13	1.95	0.47
2:E:167:LEU:HD13	2:E:167:LEU:HA	1.67	0.47
3:N:60:MET:HE2	3:N:60:MET:HB3	1.62	0.47
3:N:431:GLU:HB2	3:N:484:HIS:NE2	2.30	0.47
3:F:74:GLY:HA2	3:F:77:ILE:HB	1.97	0.47
3:F:137:PHE:HA	3:F:140:ALA:HB3	1.97	0.47
3:F:401:ALA:O	3:F:405:ILE:HG13	2.15	0.47
4:P:60:THR:O	4:P:66:ILE:HD11	2.15	0.47
4:P:231:ARG:O	4:P:351:GLU:HA	2.14	0.47
4:P:362:PHE:C	4:P:363:ILE:HG13	2.40	0.47
5:C:187:ASP:HA	5:C:188:ASP:HA	1.63	0.47
5:C:457:ALA:O	5:C:461:LEU:N	2.29	0.47
6:J:22:PHE:HB3	6:J:27:GLU:CD	2.39	0.47
6:J:152:LYS:HA	6:J:406:LYS:NZ	2.30	0.47
6:J:471:HIS:HE1	6:J:476:LYS:HA	1.78	0.47
7:I:3:ALA:O	7:I:6:THR:OG1	2.20	0.47
7:I:4:VAL:HG22	7:I:7:LEU:HB3	1.97	0.47
7:I:44:MET:C	7:I:45:LYS:HD2	2.39	0.47
7:I:237:LEU:HD13	7:I:237:LEU:HA	1.66	0.47
7:I:366:CYS:O	7:I:369:PRO:HD3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:460:GLN:O	7:I:464:VAL:HG23	2.15	0.47
7:A:129:LYS:HD3	7:A:425:HIS:NE2	2.29	0.47
7:A:466:ILE:HG21	7:A:479:VAL:HG22	1.97	0.47
8:O:153:LYS:HA	8:O:156:MET:HB2	1.95	0.47
8:O:169:ALA:HA	8:O:172:VAL:HB	1.96	0.47
8:O:279:LEU:HA	8:O:279:LEU:HD13	1.72	0.47
8:G:219:VAL:HG12	8:G:360:GLU:O	2.14	0.47
8:G:473:GLU:O	8:G:476:VAL:HG12	2.15	0.47
1:L:116:LEU:HA	1:L:454:ALA:HB1	1.96	0.47
1:L:232:LYS:HD3	1:L:232:LYS:HA	1.71	0.47
1:L:532:ASP:HB2	5:K:47:LYS:HD2	1.97	0.47
1:D:48:MET:HG3	1:D:110:VAL:HG21	1.95	0.47
1:D:121:GLU:O	1:D:125:ASP:N	2.34	0.47
1:D:313:LEU:HD21	2:E:334:THR:OG1	2.14	0.47
2:M:479:ASP:HB3	2:M:484:THR:N	2.28	0.47
2:E:152:GLU:O	2:E:156:ARG:N	2.38	0.47
2:E:189:ARG:HA	2:E:191:LYS:NZ	2.30	0.47
2:E:500:LYS:O	2:E:503:VAL:HB	2.15	0.47
3:N:301:GLN:HE22	3:N:330:ARG:HH21	1.62	0.47
3:F:431:GLU:HB2	3:F:484:HIS:CE1	2.50	0.47
4:H:48:LYS:O	4:H:60:THR:N	2.42	0.47
4:H:226:HIS:CG	4:H:227:PRO:HD2	2.49	0.47
4:H:376:LEU:HD23	4:H:376:LEU:HA	1.67	0.47
4:P:91:VAL:HG11	4:P:501:VAL:HA	1.96	0.47
4:P:216:ARG:HB2	4:P:365:ASP:H	1.79	0.47
4:P:263:ASP:O	4:P:267:ILE:HG23	2.15	0.47
5:K:406:VAL:N	5:K:494:GLU:O	2.43	0.47
5:C:278:LEU:HD13	5:C:302:TYR:HD2	1.79	0.47
5:C:397:ARG:HE	5:C:397:ARG:HB3	1.42	0.47
6:J:182:LEU:HD12	6:J:183:ILE:N	2.30	0.47
6:J:205:CYS:O	6:J:377:LEU:HB2	2.15	0.47
6:J:208:LEU:H	6:J:208:LEU:CD2	2.26	0.47
6:B:221:MET:HA	6:B:374:THR:OG1	2.15	0.47
7:I:180:LYS:O	7:I:370:ARG:NH1	2.46	0.47
7:A:155:SER:O	7:A:158:THR:OG1	2.28	0.47
8:O:237:LEU:HD12	8:O:328:LEU:O	2.15	0.47
8:O:322:ALA:O	8:O:369:ALA:HB3	2.14	0.47
8:G:107:LEU:O	8:G:112:ILE:HG12	2.15	0.47
8:G:237:LEU:HD21	8:G:239:PHE:HD2	1.79	0.47
8:G:426:TYR:O	8:G:429:SER:OG	2.17	0.47
8:G:477:ASN:C	8:G:480:ARG:HE	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Q:169:ALA:O	11:Q:1131:HOH:O	2.20	0.47
1:L:38:ILE:O	1:L:42:LYS:HG3	2.14	0.47
1:L:236:HIS:CE1	1:L:238:GLN:HB2	2.50	0.47
1:D:105:GLY:C	1:D:109:VAL:HG23	2.40	0.47
1:D:268:VAL:HG13	1:D:273:ASP:HB2	1.96	0.47
1:D:344:ARG:HD2	1:D:347:GLU:HG3	1.95	0.47
1:D:425:ALA:O	1:D:428:SER:OG	2.30	0.47
1:D:505:HIS:O	1:D:507:ILE:HG23	2.14	0.47
2:M:239:ILE:HG21	2:M:320:VAL:HG13	1.96	0.47
2:M:297:TYR:O	2:M:300:PRO:HD2	2.15	0.47
2:E:21:ALA:H	2:E:24:ALA:HB3	1.79	0.47
2:E:277:GLU:HA	2:E:280:GLU:HB3	1.97	0.47
2:E:432:GLU:O	2:E:436:MET:N	2.43	0.47
3:N:182:LEU:O	3:N:185:PRO:HD2	2.14	0.47
3:F:228:VAL:HG22	3:F:375:LYS:HG2	1.96	0.47
3:F:266:VAL:HB	8:G:252:VAL:HA	1.96	0.47
3:F:309:LEU:HD11	3:F:313:ALA:HB3	1.97	0.47
3:F:443:LEU:O	3:F:448:SER:HB3	2.14	0.47
4:H:77:ALA:O	4:H:81:ILE:N	2.44	0.47
4:H:94:GLY:O	4:H:98:VAL:N	2.42	0.47
4:H:293:GLU:O	4:H:314:ARG:HA	2.15	0.47
4:P:321:ASN:HA	4:P:331:ILE:HD11	1.96	0.47
4:P:349:LEU:O	4:P:363:ILE:HA	2.14	0.47
4:P:429:MET:HB3	4:P:429:MET:HE3	1.57	0.47
4:P:446:VAL:HG23	4:P:447:ILE:HD12	1.97	0.47
4:P:472:GLN:OE1	4:P:474:ASN:N	2.35	0.47
5:K:447:ARG:NH1	8:G:110:GLN:OE1	2.48	0.47
5:K:516:VAL:HG13	6:J:54:LYS:HA	1.97	0.47
5:C:36:VAL:HG12	5:C:39:THR:HG21	1.97	0.47
5:C:38:THR:O	5:C:45:MET:HB2	2.15	0.47
5:C:201:GLN:C	5:C:375:ARG:HH22	2.22	0.47
5:C:280:LYS:HG3	5:C:334:VAL:HG23	1.95	0.47
6:J:73:LEU:HA	6:J:73:LEU:HD13	1.64	0.47
6:J:85:MET:O	6:J:88:MET:HG3	2.15	0.47
6:J:158:ASP:O	6:J:161:SER:OG	2.25	0.47
6:J:240:ALA:N	6:J:290:VAL:O	2.45	0.47
6:J:349:SER:O	6:J:364:LYS:N	2.47	0.47
6:J:473:GLU:HB2	6:J:475:ASN:OD1	2.15	0.47
6:B:68:ASP:O	6:B:72:ILE:HG22	2.14	0.47
6:B:140:HIS:HE1	6:B:505:TYR:O	1.96	0.47
6:B:149:CYS:O	6:B:408:LEU:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:B:190:ILE:O	6:B:197:PHE:HE2	1.97	0.47
6:B:212:ILE:HA	6:B:378:ARG:O	2.14	0.47
6:B:290:VAL:HB	6:B:311:MET:HB3	1.97	0.47
6:B:318:LYS:HG3	6:B:322:ARG:HH11	1.80	0.47
6:B:323:ARG:O	6:B:327:THR:HG23	2.15	0.47
7:I:127:LYS:HE3	7:I:506:HIS:CD2	2.50	0.47
7:I:161:HIS:HB2	7:I:164:LEU:HB2	1.97	0.47
7:I:204:THR:OG1	7:I:377:LYS:N	2.48	0.47
7:I:447:ILE:O	7:I:450:VAL:HG22	2.14	0.47
7:A:44:MET:O	7:A:45:LYS:HD2	2.15	0.47
7:A:109:TYR:CE1	7:A:435:LEU:HB3	2.50	0.47
7:A:366:CYS:O	7:A:369:PRO:HD3	2.15	0.47
8:O:412:GLY:HA3	8:O:498:ASN:ND2	2.30	0.47
8:G:190:TYR:CD2	8:G:403:LEU:HB3	2.50	0.47
8:G:388:MET:O	8:G:392:LEU:HG	2.14	0.47
9:Q:26:TYR:HB2	9:Q:32:TRP:CE2	2.50	0.47
9:Q:95:TRP:NE1	9:Q:265:LEU:O	2.47	0.47
9:Q:167:TRP:NE1	11:Q:1227:HOH:O	2.47	0.47
9:Q:187:ASP:HB2	11:Q:1232:HOH:O	2.14	0.47
9:Q:291:LYS:NZ	9:Q:335:LEU:O	2.42	0.47
1:L:518:SER:O	1:L:522:GLN:HG3	2.15	0.47
1:D:169:ALA:O	1:D:172:THR:HG22	2.15	0.47
1:D:184:GLN:HA	1:D:187:GLU:OE1	2.15	0.47
1:D:226:LYS:HA	1:D:383:VAL:HG23	1.97	0.47
2:M:244:MET:HB2	2:M:296:ILE:HG23	1.97	0.47
2:M:302:GLN:OE1	3:N:346:ALA:N	2.48	0.47
2:E:290:PHE:HD2	2:E:311:ALA:HB1	1.80	0.47
3:N:44:VAL:O	3:N:48:ILE:HG13	2.15	0.47
3:N:289:GLN:O	3:N:293:THR:HG23	2.14	0.47
3:N:402:GLU:O	3:N:406:HIS:N	2.30	0.47
3:N:407:ASP:O	3:N:411:VAL:HG12	2.15	0.47
3:F:60:MET:HG2	3:F:70:ILE:HG23	1.96	0.47
3:F:186:MET:HE2	3:F:186:MET:HB2	1.69	0.47
4:P:200:ARG:HB3	4:P:373:THR:HB	1.96	0.47
4:P:212:SER:HB3	4:P:377:ARG:H	1.79	0.47
4:P:240:LEU:HB3	4:P:331:ILE:HG23	1.97	0.47
4:P:252:SER:HA	8:O:245:LYS:NZ	2.30	0.47
5:K:38:THR:O	5:K:452:ASN:ND2	2.48	0.47
6:J:25:LEU:O	6:J:29:VAL:N	2.27	0.47
6:J:44:ARG:HD3	6:J:454:GLU:OE1	2.14	0.47
6:B:15:LEU:CB	7:A:69:ILE:HD12	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:B:209:GLY:H	6:B:380:SER:HA	1.80	0.47
7:A:154:THR:HG21	7:A:495:TRP:H	1.80	0.47
7:A:156:LEU:HB3	7:A:165:ALA:CB	2.40	0.47
9:Q:135:GLN:O	9:Q:138:PRO:HD3	2.15	0.47
1:D:44:VAL:O	1:D:48:MET:HG2	2.14	0.47
2:M:37:ASP:HA	2:M:40:LYS:HE2	1.95	0.47
2:M:221:ASP:O	2:M:222:LYS:HD3	2.15	0.47
2:E:109:LEU:HD11	2:E:439:TYR:CD1	2.50	0.47
2:E:292:ASN:O	2:E:314:HIS:N	2.48	0.47
3:N:98:GLN:O	3:N:102:ALA:N	2.25	0.47
3:N:112:ILE:HG12	3:N:461:ILE:HD11	1.96	0.47
3:F:173:SER:C	3:F:174:LYS:HD2	2.40	0.47
3:F:268:ASP:OD1	8:G:259:LYS:NZ	2.42	0.47
4:H:221:ASN:HA	4:H:360:PHE:CD1	2.49	0.47
4:H:226:HIS:HB3	4:H:229:MET:SD	2.55	0.47
4:H:241:LEU:HA	4:H:332:VAL:O	2.15	0.47
4:P:183:VAL:HG12	4:P:194:ASP:HB2	1.97	0.47
5:K:19:ILE:O	5:K:23:VAL:HG12	2.15	0.47
5:K:186:LEU:HD21	5:K:195:ILE:HG12	1.96	0.47
5:C:47:LYS:O	5:C:59:SER:N	2.39	0.47
5:C:209:GLN:OE1	5:C:210:LEU:N	2.47	0.47
5:C:243:GLU:OE1	5:C:245:GLU:N	2.48	0.47
5:C:273:ILE:HG22	5:C:277:LYS:HE3	1.96	0.47
6:J:92:MET:HA	6:J:95:GLN:HB3	1.97	0.47
6:B:280:VAL:HG21	6:B:304:TYR:CB	2.38	0.47
7:I:214:HIS:O	7:I:361:THR:OG1	2.23	0.47
8:O:107:LEU:O	8:O:112:ILE:HG12	2.15	0.47
8:O:172:VAL:O	8:O:176:VAL:HG12	2.15	0.47
8:O:332:ALA:CA	8:O:338:GLU:HA	2.45	0.47
8:O:333:ASN:ND2	8:O:335:GLU:HB3	2.29	0.47
8:G:245:LYS:HD2	8:G:246:MET:H	1.80	0.47
9:Q:242:LEU:HG	9:Q:349:PHE:HD1	1.80	0.47
1:L:343:PRO:HB2	5:K:271:TRP:HZ3	1.76	0.47
1:L:387:ILE:HG22	1:L:395:ILE:HD13	1.97	0.47
1:L:456:GLU:O	1:L:459:PRO:HD2	2.15	0.47
2:M:219:LEU:HA	2:M:360:ILE:O	2.14	0.47
2:E:52:LEU:HD13	3:F:536:VAL:HB	1.97	0.47
2:E:234:ASN:O	2:E:236:LYS:HE2	2.15	0.47
2:E:293:ARG:HA	2:E:315:ALA:N	2.29	0.47
2:E:374:VAL:HG12	2:E:376:ARG:HD3	1.97	0.47
3:N:72:ASN:ND2	3:N:174:LYS:HE3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:430:ILE:HD11	3:N:481:ARG:N	2.30	0.47
3:N:522:ALA:O	3:N:526:VAL:HG22	2.15	0.47
4:H:43:PRO:HG2	4:H:482:GLY:HA3	1.96	0.47
4:H:245:LEU:HB3	4:H:296:ILE:HA	1.96	0.47
4:H:355:ILE:CG2	4:H:358:GLU:HB3	2.45	0.47
4:H:501:VAL:O	4:H:505:THR:OG1	2.25	0.47
4:P:88:ASP:HB2	4:P:95:THR:HG21	1.97	0.47
4:P:507:LYS:HZ3	8:O:204:SER:H	1.63	0.47
5:K:126:ARG:NH2	6:J:174:GLY:HA3	2.29	0.47
5:C:58:ILE:O	5:C:387:ARG:NH2	2.48	0.47
5:C:300:THR:HA	5:C:303:PHE:HD2	1.80	0.47
6:J:191:PHE:HA	6:J:197:PHE:CE2	2.50	0.47
6:B:318:LYS:HE3	6:B:322:ARG:NH1	2.30	0.47
7:I:37:ASN:HD21	7:I:63:LEU:HD22	1.80	0.47
7:I:388:LYS:O	7:I:391:VAL:HB	2.14	0.47
7:A:200:SER:OG	7:A:202:THR:N	2.46	0.47
8:O:176:VAL:O	8:O:179:ILE:HG22	2.15	0.47
8:G:17:ILE:HD13	8:G:530:LEU:HB2	1.96	0.47
8:G:467:LEU:HD21	8:G:488:LEU:HB2	1.96	0.47
9:Q:74:ASN:HB2	9:Q:76:GLN:HG3	1.96	0.47
1:L:274:TYR:O	1:L:278:GLN:N	2.30	0.46
1:L:481:GLN:CD	1:L:487:PRO:HA	2.40	0.46
1:D:18:ILE:HG12	1:D:22:GLN:HE22	1.80	0.46
1:D:277:LEU:O	1:D:281:GLU:N	2.41	0.46
1:D:331:GLU:H	1:D:331:GLU:CD	2.23	0.46
1:D:362:ILE:HG23	1:D:371:MET:HB2	1.97	0.46
1:D:462:LEU:O	1:D:466:SER:N	2.46	0.46
2:M:164:GLY:O	2:M:168:SER:N	2.43	0.46
2:M:261:THR:HA	2:M:264:VAL:HG12	1.96	0.46
2:E:116:LEU:HA	2:E:116:LEU:HD13	1.76	0.46
2:E:189:ARG:HB3	2:E:368:GLY:O	2.15	0.46
3:N:209:LYS:O	3:N:388:ILE:N	2.48	0.46
3:N:227:LEU:HD12	3:N:339:THR:HB	1.96	0.46
3:N:230:THR:HA	3:N:373:LEU:CD1	2.45	0.46
3:N:273:ASP:N	3:N:273:ASP:OD1	2.45	0.46
3:F:137:PHE:CZ	3:F:454:PHE:HD2	2.33	0.46
3:F:161:GLU:H	3:F:161:GLU:CD	2.11	0.46
3:F:240:ARG:HA	3:F:363:GLU:HB3	1.96	0.46
3:F:422:ILE:HG23	3:F:489:LYS:NZ	2.31	0.46
4:P:114:GLU:C	4:P:116:GLN:H	2.22	0.46
4:P:153:LEU:HA	4:P:156:ILE:HB	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:219:MET:HA	4:P:361:THR:O	2.15	0.46
4:P:391:LEU:O	4:P:394:ALA:N	2.48	0.46
4:P:487:LEU:HD13	4:P:487:LEU:HA	1.73	0.46
5:C:211:VAL:O	5:C:370:CYS:HB2	2.15	0.46
5:C:274:LEU:HA	5:C:277:LYS:HD2	1.96	0.46
5:C:292:LYS:O	5:C:313:ARG:HA	2.15	0.46
5:C:313:ARG:HH22	9:Q:68:LEU:HD23	1.80	0.46
6:J:18:GLY:HA3	6:J:528:LYS:NZ	2.29	0.46
6:J:241:VAL:HB	6:J:332:ALA:HA	1.97	0.46
6:J:251:THR:HG21	7:I:248:PHE:CZ	2.45	0.46
6:B:45:THR:HA	6:B:455:ASN:OD1	2.15	0.46
6:B:418:GLU:HB2	6:B:471:HIS:NE2	2.29	0.46
7:I:190:MET:SD	7:I:190:MET:N	2.88	0.46
7:I:198:HIS:NE2	7:I:199:LYS:HD3	2.30	0.46
8:O:211:ILE:N	8:O:374:SER:O	2.23	0.46
8:O:333:ASN:HB3	8:O:335:GLU:O	2.15	0.46
8:O:463:LEU:O	8:O:467:LEU:HG	2.14	0.46
1:D:31:LEU:HA	1:D:34:LEU:HB2	1.97	0.46
1:D:474:MET:SD	1:D:475:THR:HG23	2.55	0.46
2:M:168:SER:HB3	2:M:176:LYS:HD3	1.97	0.46
2:E:53:LEU:O	3:F:538:THR:OG1	2.23	0.46
2:E:100:THR:O	2:E:104:VAL:HG12	2.15	0.46
2:E:290:PHE:CZ	2:E:292:ASN:HB2	2.50	0.46
4:H:252:SER:HA	8:G:245:LYS:NZ	2.30	0.46
4:H:254:THR:O	7:A:245:ASN:HB2	2.15	0.46
5:C:267:VAL:O	5:C:270:GLU:HB2	2.16	0.46
6:J:251:THR:HG22	6:J:253:THR:N	2.30	0.46
6:B:208:LEU:O	6:B:378:ARG:NH1	2.48	0.46
6:B:246:PHE:HB3	6:B:297:VAL:HG13	1.97	0.46
6:B:264:GLU:OE1	6:B:264:GLU:N	2.35	0.46
6:B:290:VAL:CB	6:B:311:MET:HB3	2.45	0.46
7:I:213:ASP:HA	7:I:360:PHE:CD1	2.50	0.46
7:I:426:LYS:C	7:I:428:SER:H	2.22	0.46
7:A:38:LEU:HG	7:A:39:GLY:N	2.31	0.46
7:A:65:HIS:ND1	7:A:65:HIS:O	2.48	0.46
7:A:187:ASP:O	7:A:191:ILE:HB	2.15	0.46
7:A:509:THR:O	7:A:513:THR:HG22	2.15	0.46
8:O:17:ILE:HG13	8:O:21:ASN:HD21	1.78	0.46
8:O:219:VAL:C	8:O:362:ILE:HD11	2.40	0.46
8:O:222:SER:H	8:O:225:MET:HE2	1.80	0.46
9:Q:142:PHE:HA	9:Q:217:GLU:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Q:258:SER:HB2	9:Q:343:PHE:CE2	2.51	0.46
9:Q:349:PHE:O	9:Q:353:ASN:ND2	2.48	0.46
1:L:12:TYR:OH	1:L:14:ARG:HD2	2.16	0.46
1:L:52:LEU:HD12	1:L:53:GLY:N	2.31	0.46
1:L:146:GLU:OE1	1:L:150:LYS:NZ	2.48	0.46
1:L:440:CYS:SG	1:L:445:GLN:HA	2.55	0.46
1:D:185:MET:HA	1:D:188:ILE:HD12	1.98	0.46
1:D:409:ILE:O	1:D:413:ILE:HG12	2.16	0.46
2:M:114:GLU:O	2:M:117:ILE:HB	2.16	0.46
2:M:249:ILE:HA	2:M:250:LYS:NZ	2.29	0.46
2:M:437:GLU:OE2	2:M:441:LYS:HE2	2.14	0.46
2:E:141:LEU:O	2:E:144:SER:OG	2.26	0.46
3:F:117:LEU:HA	3:F:120:CYS:HB2	1.97	0.46
3:F:119:SER:O	3:F:123:LEU:HG	2.15	0.46
3:F:155:VAL:N	3:F:419:ARG:O	2.29	0.46
4:H:160:ILE:C	4:H:162:THR:H	2.23	0.46
4:H:435:TRP:CD1	4:H:435:TRP:H	2.31	0.46
4:P:115:GLN:CD	6:B:450:ARG:HH22	2.23	0.46
5:K:17:GLN:HE21	5:K:517:ASP:HB3	1.79	0.46
5:K:26:ILE:HD12	5:K:105:LEU:HD12	1.98	0.46
5:K:210:LEU:HD13	5:K:372:PHE:CE1	2.50	0.46
5:K:245:GLU:CD	5:K:246:LEU:H	2.23	0.46
5:K:463:LYS:HB3	5:K:484:ILE:HD11	1.96	0.46
5:K:479:ILE:HG13	5:K:480:ASN:N	2.30	0.46
5:C:174:PHE:HE2	5:C:206:GLU:O	1.98	0.46
5:C:476:GLY:HA3	5:C:487:ASN:OD1	2.15	0.46
6:J:160:VAL:HA	6:J:163:LEU:HB2	1.96	0.46
6:J:172:GLN:NE2	6:J:175:ASN:OD1	2.48	0.46
6:J:377:LEU:HA	6:J:377:LEU:HD13	1.72	0.46
6:J:466:LYS:HA	6:J:469:ALA:HB3	1.96	0.46
6:B:58:ASN:HD21	6:B:60:LEU:HB2	1.80	0.46
6:B:427:GLY:O	6:B:435:GLN:HG3	2.16	0.46
6:B:440:LYS:HD3	6:B:440:LYS:HA	1.48	0.46
7:A:293:ASN:HB3	7:A:314:ARG:HA	1.97	0.46
8:G:279:LEU:HA	8:G:279:LEU:HD13	1.73	0.46
9:Q:273:SER:N	9:Q:281:LYS:O	2.46	0.46
1:L:304:TRP:O	1:L:323:ARG:HG3	2.15	0.46
1:D:328:PRO:O	1:D:332:LEU:HG	2.14	0.46
1:D:501:MET:N	1:D:501:MET:SD	2.89	0.46
2:M:318:ALA:O	2:M:322:ARG:HG3	2.15	0.46
2:M:323:LEU:HA	2:M:323:LEU:HD13	1.75	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:130:TRP:O	2:E:134:THR:N	2.38	0.46
2:E:238:LEU:N	2:E:289:CYS:O	2.48	0.46
3:N:143:LYS:HG3	3:N:439:TYR:CE2	2.50	0.46
3:N:364:GLU:OE2	3:N:372:LYS:HB3	2.16	0.46
4:H:380:SER:O	4:H:383:ILE:HB	2.15	0.46
5:K:283:HIS:ND1	5:K:283:HIS:O	2.47	0.46
5:C:488:PHE:HA	5:C:493:TRP:HE1	1.81	0.46
6:J:238:LYS:CB	6:J:288:ALA:HA	2.44	0.46
6:J:242:TYR:CD1	6:J:333:LEU:HB2	2.50	0.46
6:B:47:TYR:CG	6:B:48:GLY:N	2.83	0.46
6:B:275:LEU:O	6:B:279:GLN:HG2	2.15	0.46
7:I:205:SER:O	7:I:375:LEU:HB3	2.15	0.46
7:I:239:TYR:CG	7:I:240:GLU:N	2.83	0.46
7:A:207:ILE:CG2	7:A:373:THR:HB	2.45	0.46
7:A:209:GLY:HA3	7:A:363:ILE:O	2.15	0.46
7:A:497:ASN:O	7:A:500:VAL:HB	2.14	0.46
8:O:215:ALA:HA	8:O:363:LEU:HA	1.96	0.46
8:O:351:VAL:HG22	8:O:364:ILE:HA	1.98	0.46
8:G:216:LEU:N	8:G:362:ILE:O	2.38	0.46
9:Q:152:PRO:O	11:Q:1133:HOH:O	2.21	0.46
1:L:16:PHE:CD1	1:L:18:ILE:HD11	2.50	0.46
1:L:105:GLY:O	1:L:109:VAL:HG23	2.16	0.46
1:L:298:ASN:HA	1:L:319:LEU:HD22	1.98	0.46
1:L:302:CYS:O	1:L:325:VAL:HG23	2.16	0.46
1:D:137:TYR:CE2	1:D:451:PHE:HB2	2.51	0.46
1:D:369:ASP:N	1:D:369:ASP:OD1	2.46	0.46
1:D:407:CYS:C	1:D:411:ASN:HD22	2.20	0.46
1:D:513:LYS:O	1:D:517:ILE:HG22	2.14	0.46
2:M:174:HIS:H	3:N:527:ARG:HH12	1.64	0.46
2:E:123:PRO:O	2:E:127:ILE:HG12	2.16	0.46
3:F:63:ASP:OD2	3:F:65:LYS:HB3	2.15	0.46
4:H:185:PHE:HE1	4:H:325:ARG:HE	1.64	0.46
4:H:286:LYS:N	4:H:287:PRO:HD3	2.30	0.46
4:P:237:ARG:H	4:P:288:ASP:CG	2.23	0.46
4:P:308:ASN:C	4:P:309:ILE:HD13	2.40	0.46
4:P:321:ASN:O	4:P:325:ARG:N	2.34	0.46
4:P:383:ILE:HG22	4:P:384:LEU:HD22	1.96	0.46
4:P:396:GLN:O	4:P:399:ARG:HG2	2.15	0.46
4:P:429:MET:HE1	4:P:434:GLN:HA	1.98	0.46
4:P:463:LEU:HD21	4:P:467:ARG:HH12	1.79	0.46
5:K:16:SER:HB2	5:K:21:GLN:NE2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:25:ASN:ND2	5:K:25:ASN:H	2.12	0.46
5:K:197:ILE:C	5:K:198:LYS:HD2	2.40	0.46
5:K:223:ALA:HB3	5:K:301:GLN:HE22	1.80	0.46
5:C:133:VAL:O	5:C:137:LYS:HG3	2.16	0.46
5:C:457:ALA:HA	5:C:460:ILE:HD12	1.97	0.46
6:J:238:LYS:HB2	6:J:288:ALA:HA	1.98	0.46
6:J:240:ALA:O	6:J:292:VAL:N	2.46	0.46
6:J:244:CYS:HB2	6:J:334:PRO:O	2.15	0.46
6:J:296:LYS:HA	6:J:314:ARG:HH22	1.81	0.46
7:I:39:GLY:O	7:I:58:LYS:NZ	2.45	0.46
7:A:177:LEU:O	7:A:180:LYS:NZ	2.49	0.46
8:O:476:VAL:O	8:O:480:ARG:NE	2.49	0.46
9:Q:292:LEU:HD23	9:Q:328:MET:SD	2.55	0.46
1:L:431:LEU:HD13	1:L:431:LEU:HA	1.75	0.46
1:D:27:ARG:NH1	1:D:29:MET:HB2	2.30	0.46
1:D:129:HIS:O	1:D:133:ILE:HG13	2.15	0.46
1:D:187:GLU:HA	1:D:190:VAL:HG12	1.97	0.46
1:D:199:MET:O	1:D:202:ARG:NH1	2.49	0.46
2:E:220:LEU:HD23	2:E:220:LEU:HA	1.73	0.46
2:E:289:CYS:HA	2:E:310:MET:O	2.16	0.46
2:E:347:LYS:N	2:E:364:GLY:O	2.24	0.46
2:E:351:GLU:OE2	2:E:360:ILE:HG23	2.16	0.46
3:N:362:ALA:HB1	3:N:376:ILE:HG12	1.96	0.46
3:F:284:LEU:HD21	3:F:288:LYS:HD2	1.96	0.46
3:F:303:SER:OG	3:F:307:ASP:O	2.29	0.46
3:F:494:ASN:N	3:F:499:GLY:O	2.33	0.46
5:K:287:LYS:O	5:K:309:PHE:N	2.48	0.46
5:C:406:VAL:O	5:C:494:GLU:N	2.26	0.46
5:C:449:LEU:O	5:C:453:ALA:N	2.45	0.46
5:C:476:GLY:O	5:C:485:ALA:N	2.46	0.46
5:C:518:GLU:OE2	6:B:54:LYS:HD3	2.16	0.46
6:J:440:LYS:HA	6:J:440:LYS:HD3	1.66	0.46
6:B:83:ALA:O	6:B:87:VAL:HG23	2.15	0.46
6:B:205:CYS:O	6:B:377:LEU:HB2	2.16	0.46
7:I:179:ILE:C	7:I:370:ARG:HH11	2.23	0.46
7:I:298:ASP:HB3	7:I:301:SER:OG	2.16	0.46
7:A:522:MET:HE2	7:A:522:MET:HB2	1.73	0.46
8:O:50:GLY:O	8:O:52:VAL:HG13	2.16	0.46
9:Q:109:MET:CE	9:Q:131:LEU:HB2	2.44	0.46
9:Q:275:MET:HB3	9:Q:275:MET:HE2	1.54	0.46
1:L:116:LEU:O	1:L:120:ALA:N	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:218:ARG:HB2	1:L:221:ASP:OD1	2.16	0.46
1:D:221:ASP:N	1:D:221:ASP:OD1	2.47	0.46
1:D:262:THR:HG23	5:C:247:LYS:HD2	1.97	0.46
1:D:302:CYS:SG	1:D:323:ARG:HA	2.55	0.46
1:D:469:ASN:HB3	1:D:472:GLN:HB2	1.98	0.46
2:E:477:GLY:O	2:E:486:GLY:N	2.38	0.46
3:N:64:GLY:HA2	8:O:533:LEU:O	2.16	0.46
3:N:95:SER:O	3:N:99:ASP:N	2.36	0.46
3:N:137:PHE:HA	3:N:140:ALA:HB3	1.98	0.46
3:F:183:LEU:O	3:F:186:MET:HB3	2.15	0.46
3:F:209:LYS:HB3	3:F:387:THR:HB	1.98	0.46
3:F:366:ASN:HA	3:F:372:LYS:HA	1.96	0.46
4:H:502:LYS:HG3	4:H:506:TYR:CE2	2.50	0.46
4:P:151:MET:HG3	4:P:155:ILE:HD11	1.98	0.46
4:P:237:ARG:NE	4:P:343:VAL:HG11	2.31	0.46
5:C:191:GLN:O	5:C:194:MET:HG2	2.16	0.46
5:C:214:VAL:HB	5:C:361:PHE:CE1	2.50	0.46
6:B:22:PHE:O	6:B:523:GLN:HB2	2.15	0.46
6:B:124:SER:O	6:B:128:VAL:HG23	2.16	0.46
6:B:239:ILE:HD13	6:B:346:HIS:N	2.31	0.46
7:I:196:MET:HE2	7:I:377:LYS:HG2	1.98	0.46
7:A:141:ARG:HA	7:A:141:ARG:HH21	1.80	0.46
8:O:453:ALA:HB3	8:O:460:SER:HB3	1.97	0.46
9:Q:213:ARG:N	11:Q:1198:HOH:O	2.40	0.46
1:L:359:VAL:HG22	1:L:374:ILE:HA	1.97	0.46
1:D:344:ARG:HH12	5:C:271:TRP:HB2	1.80	0.46
2:E:69:THR:HG22	2:E:73:ASN:HD21	1.81	0.46
2:E:164:GLY:HA2	2:E:167:LEU:HB2	1.98	0.46
3:N:28:ASP:OD1	3:N:31:ALA:HB3	2.15	0.46
3:F:58:ASP:OD1	8:G:526:ARG:HB3	2.16	0.46
3:F:104:ASP:C	3:F:106:THR:H	2.24	0.46
3:F:147:ILE:O	3:F:151:MET:HG2	2.15	0.46
4:H:72:VAL:HG12	7:A:7:LEU:HD21	1.98	0.46
4:P:108:VAL:O	4:P:111:HIS:HB3	2.16	0.46
5:K:239:LEU:O	5:K:330:ILE:HD12	2.16	0.46
5:C:308:MET:HB2	5:C:308:MET:HE2	1.66	0.46
6:J:208:LEU:O	6:J:378:ARG:NH1	2.47	0.46
6:J:274:ASN:N	6:J:274:ASN:OD1	2.48	0.46
6:B:18:GLY:HA3	6:B:528:LYS:NZ	2.31	0.46
6:B:352:LEU:HD12	6:B:360:VAL:O	2.15	0.46
7:I:195:GLU:OE1	7:I:195:GLU:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:320:ASN:O	7:I:324:LEU:HG	2.15	0.46
8:G:269:ASP:HB3	8:G:272:LYS:NZ	2.31	0.46
8:G:412:GLY:O	8:G:488:LEU:HD23	2.16	0.46
9:Q:87:PHE:CE2	9:Q:91:VAL:HG21	2.51	0.46
9:Q:142:PHE:HB3	9:Q:266:GLY:N	2.30	0.46
1:L:71:THR:HG23	1:L:77:ILE:HD13	1.97	0.46
1:L:391:ASN:ND2	1:L:394:ILE:H	2.13	0.46
1:D:216:GLY:N	1:D:389:GLY:O	2.44	0.46
2:E:179:PHE:HZ	2:E:209:LEU:HG	1.80	0.46
3:N:330:ARG:O	3:N:333:ILE:HG22	2.14	0.46
3:N:433:ALA:O	3:N:437:THR:N	2.45	0.46
3:F:269:TYR:C	8:G:266:ARG:HH22	2.21	0.46
3:F:409:LEU:H	3:F:409:LEU:HG	1.43	0.46
4:H:293:GLU:C	4:H:314:ARG:HA	2.40	0.46
4:P:150:ASP:HA	4:P:153:LEU:HD12	1.97	0.46
5:K:38:THR:O	5:K:45:MET:HB2	2.16	0.46
5:K:187:ASP:HA	5:K:188:ASP:HA	1.49	0.46
6:J:385:MET:HA	6:J:388:ILE:HG22	1.97	0.46
6:B:365:HIS:CD2	6:B:367:LYS:HB2	2.51	0.46
8:O:47:ASP:OD1	8:O:51:ASP:N	2.49	0.46
8:G:181:TYR:HB3	8:G:189:ARG:O	2.16	0.46
8:G:183:ASP:O	8:G:185:ARG:NH1	2.49	0.46
8:G:234:ILE:HG23	8:G:285:VAL:HB	1.97	0.46
8:G:333:ASN:HB3	8:G:337:GLU:O	2.16	0.46
1:L:73:ASP:HB3	1:L:76:THR:OG1	2.16	0.46
1:D:484:GLU:C	1:D:485:MET:HE2	2.41	0.46
2:M:64:THR:HG21	2:M:69:THR:HB	1.98	0.46
2:M:130:TRP:O	2:M:134:THR:OG1	2.32	0.46
2:M:164:GLY:O	2:M:168:SER:OG	2.22	0.46
2:M:238:LEU:N	2:M:289:CYS:O	2.49	0.46
2:E:211:ASP:O	2:E:213:TYR:HD1	1.97	0.46
2:E:241:ASN:HA	2:E:292:ASN:OD1	2.15	0.46
2:E:385:GLU:HA	2:E:388:ARG:HB3	1.97	0.46
3:N:300:ILE:N	3:N:325:ILE:O	2.49	0.46
3:F:217:THR:O	3:F:220:ASP:N	2.44	0.46
3:F:476:THR:O	3:F:480:LEU:N	2.40	0.46
4:H:225:THR:HG23	4:H:311:ALA:O	2.15	0.46
4:H:297:SER:O	4:H:301:GLN:HB3	2.16	0.46
4:P:133:MET:O	4:P:137:LEU:HG	2.15	0.46
4:P:407:LEU:HD12	4:P:498:PRO:HA	1.96	0.46
5:K:188:ASP:O	5:K:190:LEU:HG	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:445:ILE:O	5:K:449:LEU:HG	2.16	0.46
5:C:175:PHE:HA	5:C:178:MET:HE2	1.97	0.46
5:C:222:TYR:HD1	5:C:222:TYR:HA	1.62	0.46
6:J:466:LYS:O	6:J:470:VAL:HG13	2.16	0.46
6:J:480:LEU:O	6:J:492:MET:HE1	2.16	0.46
6:J:510:LEU:HA	6:J:510:LEU:HD13	1.62	0.46
7:I:327:ALA:HB1	7:I:366:CYS:SG	2.56	0.46
7:I:459:LEU:HD12	7:A:112:GLU:O	2.16	0.46
7:A:186:ILE:O	7:A:188:LEU:HG	2.16	0.46
8:G:211:ILE:HG13	8:G:215:ALA:HB2	1.98	0.46
9:Q:73:CYS:SG	9:Q:75:GLN:HG2	2.56	0.46
1:L:217:GLY:HA2	2:M:502:GLN:HE22	1.80	0.45
1:L:234:PHE:CE1	1:L:320:PRO:HB3	2.51	0.45
1:L:248:ILE:O	1:L:354:GLY:N	2.41	0.45
1:L:368:LYS:HG2	1:L:369:ASP:N	2.31	0.45
1:D:60:MET:HB2	1:D:70:VAL:HG22	1.97	0.45
1:D:76:THR:HG21	1:D:400:ARG:HD2	1.98	0.45
1:D:93:GLU:CD	5:C:379:GLU:H	2.24	0.45
1:D:265:LYS:HB2	2:E:255:ARG:NE	2.31	0.45
1:D:288:MET:HE2	1:D:288:MET:HB2	1.68	0.45
1:D:432:ALA:HA	1:D:435:GLN:OE1	2.16	0.45
1:D:456:GLU:O	1:D:459:PRO:HD2	2.15	0.45
1:D:519:LEU:O	1:D:523:MET:HG2	2.16	0.45
2:M:69:THR:HA	2:M:72:LYS:HB3	1.98	0.45
2:M:267:ILE:HD13	2:M:267:ILE:HA	1.78	0.45
2:M:293:ARG:HG3	2:M:294:GLN:OE1	2.16	0.45
2:M:409:GLY:N	2:M:495:GLU:OE1	2.49	0.45
2:E:134:THR:O	2:E:138:ARG:HG2	2.16	0.45
2:E:172:LEU:HB3	2:E:179:PHE:CD1	2.51	0.45
2:E:175:HIS:HB2	2:E:179:PHE:HE1	1.81	0.45
3:N:162:THR:HA	3:N:165:ASN:HB2	1.96	0.45
3:N:180:SER:O	3:N:184:SER:OG	2.34	0.45
3:F:245:LYS:HG2	3:F:358:SER:HB2	1.98	0.45
4:H:142:ILE:HD12	4:H:496:TRP:CH2	2.51	0.45
4:H:381:LYS:O	4:H:385:SER:OG	2.32	0.45
4:H:502:LYS:O	4:H:505:THR:HB	2.16	0.45
4:H:523:VAL:HB	8:G:45:LEU:CB	2.41	0.45
4:P:30:ALA:HB1	4:P:106:LEU:HD12	1.97	0.45
4:P:118:HIS:NE2	8:O:455:ASN:O	2.45	0.45
4:P:127:ARG:CZ	8:O:163:ILE:HB	2.46	0.45
4:P:256:ILE:N	7:I:245:ASN:O	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:296:ILE:CG1	4:P:313:ARG:HB3	2.45	0.45
5:K:374:LEU:O	5:K:382:MET:HE1	2.16	0.45
5:C:278:LEU:HD11	5:C:302:TYR:HB2	1.99	0.45
5:C:452:ASN:N	5:C:452:ASN:OD1	2.47	0.45
6:J:52:MET:SD	6:J:52:MET:N	2.82	0.45
6:J:177:VAL:HG12	6:J:181:LYS:HZ2	1.80	0.45
6:B:237:ALA:O	6:B:346:HIS:HA	2.17	0.45
6:B:318:LYS:O	6:B:321:LEU:HG	2.16	0.45
6:B:417:ILE:HD11	6:B:449:PRO:HG3	1.97	0.45
7:I:391:VAL:O	7:I:395:LEU:HD23	2.15	0.45
8:O:335:GLU:CD	8:O:337:GLU:H	2.24	0.45
8:G:270:ILE:HD12	8:G:273:GLU:OE2	2.16	0.45
9:Q:134:LEU:HG	11:Q:1209:HOH:O	2.16	0.45
9:Q:178:ASP:HA	11:Q:1208:HOH:O	2.16	0.45
1:L:149:ASP:HB3	1:L:510:LEU:HD11	1.98	0.45
1:L:159:ILE:O	1:L:160:LYS:C	2.59	0.45
1:L:280:TYR:HA	1:L:283:GLU:HB3	1.98	0.45
1:L:335:ILE:HD11	1:L:381:ARG:HB2	1.99	0.45
1:L:474:MET:SD	1:L:475:THR:HG23	2.56	0.45
1:D:192:ALA:O	1:D:195:THR:OG1	2.32	0.45
2:M:22:GLU:HG2	3:F:27:ARG:HG2	1.98	0.45
2:M:397:LEU:HD12	2:M:397:LEU:HA	1.69	0.45
2:E:150:SER:O	2:E:152:GLU:N	2.49	0.45
2:E:419:HIS:O	2:E:423:GLN:HG3	2.16	0.45
2:E:447:PRO:HA	2:E:450:ILE:HG12	1.98	0.45
3:F:29:LYS:HB3	3:F:30:PRO:HD3	1.98	0.45
3:F:85:HIS:O	3:F:89:ARG:HG3	2.16	0.45
3:F:214:LEU:C	3:F:391:ARG:HH12	2.24	0.45
4:H:115:GLN:CD	6:J:450:ARG:HH22	2.23	0.45
4:H:220:ILE:HD11	4:H:323:ILE:HD11	1.98	0.45
4:P:244:SER:N	4:P:294:LYS:HG3	2.30	0.45
4:P:302:HIS:CE1	7:I:335:SER:HB3	2.51	0.45
4:P:434:GLN:OE1	4:P:438:ARG:NH1	2.48	0.45
4:P:507:LYS:HZ1	8:O:207:GLU:HB2	1.79	0.45
5:K:105:LEU:HD11	5:K:513:ILE:HG21	1.98	0.45
5:K:300:THR:HG23	5:K:310:CYS:SG	2.56	0.45
5:K:430:LYS:O	5:K:434:LEU:HG	2.16	0.45
5:C:186:LEU:HD21	5:C:195:ILE:HG23	1.98	0.45
6:B:90:SER:HA	6:B:93:GLN:HB3	1.98	0.45
6:B:423:ILE:HG22	6:B:442:ALA:HB2	1.98	0.45
7:I:198:HIS:CE1	7:I:353:TYR:HH	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:291:VAL:O	7:I:312:ALA:HA	2.16	0.45
7:A:392:ARG:NE	7:A:396:ARG:HH12	2.14	0.45
8:O:259:LYS:O	8:O:263:ILE:HG13	2.16	0.45
8:G:100:LEU:HD12	8:G:121:TYR:CE2	2.51	0.45
8:G:318:ARG:O	8:G:322:ALA:N	2.47	0.45
9:Q:27:SER:O	9:Q:31:GLY:N	2.45	0.45
1:D:60:MET:C	1:D:61:MET:HE2	2.42	0.45
1:D:302:CYS:O	1:D:325:VAL:HG23	2.16	0.45
1:D:309:GLU:O	1:D:313:LEU:HG	2.16	0.45
2:M:233:GLU:HG3	2:M:348:LEU:HG	1.99	0.45
2:M:236:LYS:HB3	2:M:287:ILE:HD12	1.98	0.45
3:F:119:SER:O	3:F:122:LYS:HB3	2.14	0.45
3:F:429:GLU:HG2	3:F:461:ILE:HD12	1.98	0.45
3:F:487:GLY:O	3:F:491:ALA:HB3	2.16	0.45
4:H:321:ASN:O	4:H:325:ARG:N	2.38	0.45
4:H:488:VAL:HG12	4:H:489:ASP:O	2.16	0.45
4:P:202:GLU:O	4:P:376:LEU:N	2.24	0.45
5:K:40:LEU:HD23	5:K:41:GLY:N	2.31	0.45
5:K:445:ILE:HD13	5:K:445:ILE:HA	1.79	0.45
6:J:147:VAL:HG22	6:J:409:VAL:HG12	1.99	0.45
6:J:388:ILE:HD12	6:J:388:ILE:HA	1.75	0.45
6:B:182:LEU:HD12	6:B:183:ILE:N	2.31	0.45
7:A:37:ASN:HB3	7:A:58:LYS:HG2	1.98	0.45
7:A:203:ASP:CB	7:A:377:LYS:HD2	2.46	0.45
7:A:248:PHE:CE2	9:Q:146:HIS:CE1	3.04	0.45
7:A:374:LEU:HA	7:A:374:LEU:HD23	1.46	0.45
8:O:100:LEU:HA	8:O:100:LEU:HD13	1.60	0.45
8:G:237:LEU:HG	8:G:239:PHE:HB3	1.97	0.45
8:G:411:GLY:N	8:G:504:PHE:HA	2.32	0.45
8:G:478:PRO:C	8:G:480:ARG:HG2	2.42	0.45
9:Q:97:ARG:CZ	9:Q:153:LEU:HD22	2.47	0.45
9:Q:187:ASP:HB3	9:Q:190:HIS:NE2	2.31	0.45
9:Q:331:ALA:HA	9:Q:334:VAL:HG22	1.99	0.45
1:L:200:GLU:OE1	1:L:200:GLU:N	2.45	0.45
1:L:474:MET:SD	1:L:475:THR:N	2.89	0.45
2:M:468:ALA:O	2:M:472:GLY:N	2.42	0.45
2:E:189:ARG:O	2:E:369:GLU:HA	2.16	0.45
2:E:214:LEU:HA	2:E:373:ILE:HA	1.99	0.45
2:E:290:PHE:O	2:E:311:ALA:HA	2.16	0.45
3:N:97:ALA:HA	3:N:100:ILE:HG22	1.99	0.45
3:F:204:ASP:OD1	3:F:205:LEU:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:55:GLY:HA2	6:J:6:PRO:CD	2.40	0.45
4:H:152:MET:O	4:H:156:ILE:HG12	2.16	0.45
4:H:255:ASP:C	4:H:256:ILE:HD12	2.41	0.45
4:H:385:SER:O	4:H:389:ARG:HG3	2.17	0.45
4:P:142:ILE:N	4:P:407:LEU:O	2.49	0.45
4:P:200:ARG:HD2	4:P:201:VAL:N	2.30	0.45
5:K:340:ASP:N	5:K:340:ASP:OD1	2.48	0.45
5:K:438:TYR:O	5:K:442:LEU:HB2	2.15	0.45
5:K:449:LEU:O	5:K:453:ALA:N	2.45	0.45
6:B:6:PRO:HG2	6:B:7:LYS:HD3	1.98	0.45
6:B:529:PRO:HA	7:A:50:GLY:CA	2.45	0.45
7:I:237:LEU:HB2	7:I:297:ILE:HD12	1.98	0.45
7:A:398:VAL:HA	7:A:401:ALA:HB3	1.98	0.45
7:A:414:VAL:O	7:A:418:MET:N	2.38	0.45
8:O:44:MET:HE2	8:O:44:MET:HB2	1.86	0.45
8:O:301:VAL:C	8:O:304:GLY:H	2.23	0.45
8:G:89:GLY:O	8:G:92:SER:N	2.41	0.45
9:Q:10:GLN:HG3	11:Q:1291:HOH:O	2.14	0.45
9:Q:95:TRP:O	9:Q:99:MET:HG2	2.16	0.45
1:L:357:GLY:H	1:L:376:GLN:HA	1.81	0.45
1:D:156:LEU:N	1:D:416:ASN:HB2	2.30	0.45
1:D:252:THR:OG1	1:D:343:PRO:HA	2.15	0.45
1:D:263:LYS:HE2	1:D:265:LYS:HE2	1.98	0.45
2:M:37:ASP:OD1	2:M:37:ASP:N	2.49	0.45
2:M:392:ASP:OD1	2:M:392:ASP:N	2.50	0.45
2:E:509:GLU:O	2:E:513:VAL:HG12	2.16	0.45
3:N:191:VAL:O	3:N:195:ILE:HG23	2.16	0.45
4:H:197:LYS:HA	4:H:197:LYS:HD3	1.82	0.45
4:H:225:THR:OG1	4:H:229:MET:HE1	2.17	0.45
4:P:319:ASP:HA	4:P:322:ARG:CZ	2.47	0.45
4:P:340:GLU:H	4:P:340:GLU:CD	2.21	0.45
5:K:116:LEU:HB2	5:K:121:ILE:HD11	1.98	0.45
5:K:505:ALA:O	5:K:508:GLU:HG3	2.17	0.45
5:K:508:GLU:HA	5:K:511:CYS:HB2	1.97	0.45
5:K:518:GLU:OE2	6:J:54:LYS:HD3	2.17	0.45
5:C:26:ILE:HG23	5:C:105:LEU:HB3	1.97	0.45
5:C:414:MET:HE3	5:C:464:LEU:HD23	1.99	0.45
5:C:479:ILE:HG13	5:C:480:ASN:H	1.79	0.45
6:J:27:GLU:O	6:J:31:ARG:N	2.49	0.45
6:B:242:TYR:HE1	6:B:335:ARG:O	2.00	0.45
6:B:382:ASP:N	6:B:382:ASP:OD1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:B:392:VAL:O	6:B:396:VAL:HG23	2.16	0.45
7:I:107:ASP:HA	7:I:110:ILE:CG1	2.44	0.45
7:I:259:LEU:HD13	7:I:259:LEU:HA	1.83	0.45
7:I:507:SER:O	7:I:511:ILE:HG12	2.17	0.45
7:A:204:THR:HA	7:A:377:LYS:HG3	1.98	0.45
8:O:154:THR:HG23	8:O:503:VAL:HG13	1.99	0.45
8:G:48:ASP:CG	8:G:49:ILE:HG23	2.41	0.45
8:G:218:CYS:O	8:G:361:LEU:HA	2.16	0.45
8:G:227:LYS:HG3	8:G:353:GLN:HE21	1.80	0.45
1:L:87:ILE:HA	1:L:90:LEU:HG	1.98	0.45
1:L:267:ASP:O	1:L:269:THR:HG23	2.17	0.45
1:D:68:VAL:HG22	1:D:69:THR:N	2.32	0.45
1:D:201:ARG:NH1	5:C:231:LYS:HD2	2.32	0.45
2:M:449:ILE:O	2:M:452:ASP:HB3	2.16	0.45
2:E:209:LEU:HA	2:E:376:ARG:O	2.17	0.45
2:E:407:VAL:N	2:E:495:GLU:O	2.42	0.45
3:N:335:PHE:O	3:N:339:THR:OG1	2.19	0.45
3:N:526:VAL:HA	3:N:529:ILE:HB	1.99	0.45
3:F:250:GLN:N	3:F:345:VAL:O	2.40	0.45
3:F:367:LEU:HD23	3:F:367:LEU:HA	1.76	0.45
4:H:77:ALA:O	4:H:81:ILE:HG12	2.16	0.45
4:H:188:ASN:HD22	4:H:192:GLU:HA	1.81	0.45
4:P:215:LEU:HD13	4:P:215:LEU:HA	1.77	0.45
5:K:288:VAL:HG13	5:K:309:PHE:CD2	2.45	0.45
5:K:494:GLU:HG3	5:K:495:PRO:HD2	1.98	0.45
5:C:231:LYS:HG3	5:C:349:GLU:OE2	2.17	0.45
6:B:242:TYR:CE1	6:B:333:LEU:HB2	2.51	0.45
7:I:67:MET:HG3	7:I:69:ILE:HD11	1.97	0.45
8:O:194:SER:HA	8:O:318:ARG:HH11	1.80	0.45
8:G:36:LEU:N	8:G:40:GLY:HA3	2.32	0.45
8:G:498:ASN:HA	8:G:501:ALA:HB3	1.97	0.45
9:Q:62:GLN:HE21	9:Q:62:GLN:HB2	1.67	0.45
1:L:407:CYS:CB	1:L:410:ARG:HH11	2.26	0.45
1:L:450:ALA:O	1:L:454:ALA:N	2.33	0.45
1:L:501:MET:O	1:L:506:VAL:N	2.49	0.45
1:D:18:ILE:O	5:C:72:VAL:N	2.21	0.45
1:D:218:ARG:N	1:D:218:ARG:HD3	2.31	0.45
2:M:151:ASP:HB3	2:M:154:LYS:HE3	1.98	0.45
2:M:246:THR:O	2:M:246:THR:OG1	2.29	0.45
2:M:267:ILE:O	2:M:271:GLU:HG2	2.16	0.45
2:E:196:LEU:HD12	2:E:196:LEU:H	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:88:ALA:O	3:F:92:VAL:HG23	2.17	0.45
3:F:194:VAL:HG11	3:F:208:ILE:HD11	1.99	0.45
3:F:226:GLY:HA3	3:F:376:ILE:O	2.17	0.45
3:F:347:HIS:O	3:F:350:GLN:HB2	2.16	0.45
3:F:447:GLU:HA	3:F:450:CYS:SG	2.56	0.45
4:H:102:ALA:O	4:H:106:LEU:HG	2.17	0.45
4:H:336:GLU:OE1	4:H:336:GLU:N	2.48	0.45
4:P:22:VAL:HG22	4:P:522:ILE:HG12	1.99	0.45
4:P:290:VAL:O	4:P:311:ALA:HA	2.16	0.45
5:K:271:TRP:HE3	5:K:275:TYR:OH	1.99	0.45
6:J:102:ASN:ND2	6:J:171:LYS:HZ1	2.15	0.45
6:B:296:LYS:HA	6:B:314:ARG:HH22	1.82	0.45
7:I:313:LEU:HA	7:I:313:LEU:HD23	1.72	0.45
7:I:317:LYS:HE3	7:I:320:ASN:HD21	1.82	0.45
7:A:74:ALA:O	7:A:78:ALA:N	2.41	0.45
7:A:256:ARG:O	7:A:260:VAL:HG23	2.17	0.45
7:A:291:VAL:HB	7:A:312:ALA:HA	1.99	0.45
7:A:387:ILE:O	7:A:391:VAL:HG23	2.16	0.45
8:O:433:ARG:O	8:O:436:LEU:HD13	2.16	0.45
8:O:445:LEU:C	8:O:447:VAL:H	2.24	0.45
8:O:448:ILE:HB	8:O:449:PRO:HD3	1.98	0.45
8:G:266:ARG:O	8:G:270:ILE:HG22	2.16	0.45
8:G:479:GLU:O	8:G:483:LEU:HD12	2.17	0.45
1:L:248:ILE:HA	1:L:299:LEU:O	2.17	0.45
1:L:267:ASP:OD2	1:L:267:ASP:N	2.49	0.45
1:D:58:ASP:HB2	1:D:71:THR:C	2.42	0.45
1:D:263:LYS:HB3	5:C:253:ALA:O	2.17	0.45
2:M:379:THR:HA	3:N:93:GLU:OE2	2.17	0.45
2:E:50:LYS:CE	3:F:534:ASP:HB3	2.44	0.45
2:E:238:LEU:HA	2:E:238:LEU:HD12	1.63	0.45
2:E:394:LEU:HG	2:E:394:LEU:H	1.55	0.45
3:N:161:GLU:OE2	3:N:161:GLU:N	2.28	0.45
3:F:44:VAL:HG21	3:F:88:ALA:CB	2.47	0.45
3:F:60:MET:CE	3:F:70:ILE:HG12	2.47	0.45
4:P:57:ILE:HD12	4:P:58:VAL:N	2.32	0.45
4:P:152:MET:HA	4:P:155:ILE:HD12	1.98	0.45
4:P:208:ILE:HG23	4:P:211:ASP:H	1.82	0.45
4:P:221:ASN:HA	4:P:360:PHE:CD1	2.52	0.45
4:P:400:ASN:HA	4:P:403:LEU:HG	1.98	0.45
4:P:521:ASP:OD1	8:O:43:LYS:HA	2.16	0.45
4:P:526:HIS:HB3	8:O:47:ASP:HA	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:97:VAL:O	5:K:100:LEU:HB2	2.16	0.45
5:K:117:HIS:HB2	5:K:120:ILE:HG13	1.99	0.45
5:K:316:GLU:HA	5:K:319:LEU:HB3	1.99	0.45
5:K:427:ILE:O	5:K:432:GLN:HB2	2.17	0.45
5:C:73:HIS:HE1	5:C:75:ALA:HB3	1.81	0.45
5:C:86:GLN:HB3	5:C:94:THR:HG22	1.97	0.45
5:C:387:ARG:O	5:C:391:ASP:HB2	2.16	0.45
6:J:259:ILE:HD12	6:J:261:THR:O	2.17	0.45
6:B:435:GLN:O	6:B:439:LYS:HB2	2.17	0.45
7:I:20:LEU:HD21	7:I:110:ILE:HD12	1.98	0.45
7:I:55:LYS:HD3	7:I:55:LYS:HA	1.73	0.45
7:I:83:ALA:O	7:I:87:ILE:HG12	2.17	0.45
7:I:228:ALA:O	7:I:346:HIS:HD2	1.99	0.45
7:A:203:ASP:OD1	7:A:203:ASP:N	2.49	0.45
7:A:248:PHE:CE2	9:Q:146:HIS:HE1	2.35	0.45
7:A:349:LEU:HD23	7:A:364:GLU:HG2	1.99	0.45
8:O:82:GLN:HA	8:O:85:GLU:HB2	1.99	0.45
8:O:132:ILE:HD11	8:O:419:LEU:HD21	1.99	0.45
8:O:200:ALA:O	8:O:378:ARG:HA	2.16	0.45
8:O:341:GLU:HG3	8:O:343:ALA:H	1.82	0.45
8:O:432:SER:OG	8:O:433:ARG:N	2.49	0.45
8:G:233:LYS:O	8:G:285:VAL:N	2.49	0.45
9:Q:49:VAL:O	9:Q:58:VAL:N	2.50	0.45
1:L:201:ARG:NH1	5:K:231:LYS:HB2	2.32	0.45
1:L:240:PRO:HD2	1:L:320:PRO:HG3	1.99	0.45
1:L:481:GLN:NE2	1:L:487:PRO:HA	2.32	0.45
1:D:336:ALA:HA	1:D:380:SER:HB3	1.99	0.45
2:M:423:GLN:HA	2:M:426:ASN:ND2	2.32	0.45
2:E:501:ARG:HG2	2:E:502:GLN:OE1	2.17	0.45
3:N:46:ASP:O	3:N:49:ARG:HB3	2.17	0.45
3:N:352:THR:HB	3:N:354:ASP:OD1	2.17	0.45
3:N:431:GLU:HA	3:N:484:HIS:CE1	2.51	0.45
3:F:74:GLY:O	3:F:78:LEU:HG	2.16	0.45
4:H:38:ARG:HA	4:H:100:ILE:HD13	1.99	0.45
4:H:157:ASN:O	4:H:161:THR:N	2.48	0.45
4:H:200:ARG:HB3	4:H:373:THR:HB	1.99	0.45
4:P:265:THR:O	4:P:268:LEU:HB3	2.17	0.45
5:K:122:ILE:HA	5:K:125:PHE:HB2	1.99	0.45
6:J:48:GLY:C	6:J:51:GLY:H	2.25	0.45
6:J:240:ALA:O	6:J:292:VAL:HG13	2.17	0.45
6:J:394:ASP:HA	6:J:397:ASN:ND2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:B:99:ASP:OD1	6:B:100:GLY:N	2.46	0.45
7:I:115:HIS:ND1	7:I:117:ARG:HB2	2.32	0.45
7:I:420:GLU:HA	7:I:423:ILE:HG22	1.98	0.45
7:I:466:ILE:O	7:I:468:ALA:N	2.47	0.45
8:G:31:ILE:O	8:G:43:LYS:HE2	2.17	0.45
8:G:44:MET:C	8:G:45:LEU:HD23	2.41	0.45
8:G:210:LEU:HA	8:G:375:ILE:HA	1.99	0.45
8:G:214:TYR:HA	8:G:374:SER:OG	2.16	0.45
8:G:332:ALA:HA	8:G:338:GLU:HA	1.99	0.45
1:L:340:ARG:HD2	5:K:227:MET:HE1	1.99	0.45
1:L:356:ALA:HA	1:L:376:GLN:HG2	1.99	0.45
1:L:529:LYS:HA	1:L:529:LYS:HD2	1.61	0.45
1:D:21:ASP:O	1:D:25:LYS:HG2	2.17	0.45
1:D:391:ASN:OD1	1:D:392:LYS:N	2.50	0.45
1:D:492:ASP:OD1	1:D:501:MET:HE1	2.17	0.45
2:E:205:LEU:HA	2:E:205:LEU:HD13	1.65	0.45
2:E:348:LEU:O	2:E:363:SER:N	2.49	0.45
3:F:407:ASP:O	3:F:411:VAL:HG12	2.17	0.45
4:H:151:MET:SD	4:H:154:ASN:ND2	2.89	0.45
4:H:294:LYS:O	4:H:314:ARG:N	2.49	0.45
4:H:452:ILE:HB	4:H:453:GLN:HE21	1.81	0.45
4:H:453:GLN:NE2	4:H:453:GLN:N	2.64	0.45
4:H:502:LYS:HD3	4:H:502:LYS:HA	1.55	0.45
4:P:20:ARG:HD3	6:B:41:GLN:NE2	2.32	0.45
4:P:48:LYS:HA	4:P:48:LYS:HD2	1.61	0.45
4:P:127:ARG:HD2	8:O:206:MET:CE	2.47	0.45
4:P:266:ARG:HH22	8:O:258:GLU:HA	1.82	0.45
4:P:445:GLU:CD	4:P:467:ARG:HH11	2.25	0.45
4:P:524:SER:HA	8:O:46:VAL:O	2.17	0.45
5:K:62:GLY:O	5:K:66:LEU:HG	2.17	0.45
5:C:48:LEU:O	5:C:49:ILE:HD13	2.17	0.45
6:J:117:GLU:HG2	6:J:118:LEU:HD23	1.98	0.45
6:J:280:VAL:HG21	6:J:304:TYR:HB3	1.98	0.45
6:J:340:VAL:HG11	6:J:343:GLU:HG2	1.99	0.45
6:B:73:LEU:HD13	6:B:73:LEU:HA	1.57	0.45
6:B:296:LYS:CA	6:B:314:ARG:HH22	2.30	0.45
6:B:312:LEU:HA	6:B:312:LEU:HD23	1.74	0.45
6:B:367:LYS:HG3	6:B:370:GLY:N	2.32	0.45
7:I:156:LEU:HA	7:I:156:LEU:HD13	1.68	0.45
7:A:131:LEU:HD22	7:A:506:HIS:NE2	2.32	0.45
7:A:500:VAL:HG12	7:A:501:LYS:HD3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:106:GLU:HA	8:G:109:LYS:HB2	1.99	0.45
8:G:202:GLY:HA3	8:G:378:ARG:NH2	2.32	0.45
9:Q:107:HIS:HA	9:Q:170:LEU:HD13	1.97	0.45
9:Q:196:LYS:HB2	9:Q:355:PRO:HB3	1.99	0.45
1:L:193:VAL:O	1:L:197:ALA:N	2.50	0.44
1:L:299:LEU:HG	1:L:320:PRO:O	2.17	0.44
2:M:424:LEU:O	2:M:428:THR:OG1	2.35	0.44
2:E:310:MET:HE3	2:E:310:MET:HB3	1.83	0.44
3:F:251:PHE:CE2	3:F:345:VAL:HG12	2.48	0.44
3:F:394:ASN:OD1	3:F:395:LYS:N	2.49	0.44
3:F:491:ALA:HA	3:F:502:ASN:HA	1.97	0.44
4:H:41:LEU:C	4:H:45:SER:HB3	2.41	0.44
4:H:156:ILE:O	4:H:160:ILE:HG23	2.17	0.44
4:H:233:ILE:HB	4:H:350:LEU:HD23	1.99	0.44
4:H:521:ASP:OD1	8:G:43:LYS:HA	2.17	0.44
4:P:221:ASN:CG	4:P:360:PHE:HE1	2.25	0.44
4:P:236:PRO:HG3	4:P:350:LEU:HB2	1.99	0.44
4:P:257:GLU:OE2	7:I:249:PHE:N	2.47	0.44
4:P:336:GLU:OE1	4:P:336:GLU:N	2.50	0.44
4:P:340:GLU:OE1	4:P:340:GLU:N	2.37	0.44
4:P:351:GLU:C	4:P:352:ILE:HD12	2.43	0.44
4:P:407:LEU:HD23	4:P:496:TRP:HB3	1.98	0.44
5:K:51:ASP:OD1	5:K:54:GLY:N	2.50	0.44
5:C:501:ASN:O	5:C:504:THR:OG1	2.31	0.44
6:J:507:ALA:HA	6:J:510:LEU:HB2	1.98	0.44
6:J:518:VAL:HG23	6:J:519:LEU:HD22	1.98	0.44
6:J:524:ILE:HG23	7:I:46:MET:HG3	1.99	0.44
6:B:367:LYS:HB3	6:B:371:ALA:HB2	1.98	0.44
7:I:163:GLU:O	7:I:167:VAL:HG23	2.18	0.44
7:I:407:VAL:HG13	7:I:495:TRP:CE3	2.52	0.44
7:I:503:GLN:O	7:I:507:SER:OG	2.35	0.44
9:Q:301:ALA:O	11:Q:1134:HOH:O	2.21	0.44
1:L:273:ASP:OD1	1:L:273:ASP:N	2.50	0.44
1:D:52:LEU:HD12	1:D:53:GLY:N	2.32	0.44
1:D:183:ARG:NE	1:D:187:GLU:OE2	2.50	0.44
1:D:456:GLU:HG3	1:D:460:MET:HE3	1.99	0.44
2:M:241:ASN:HB3	2:M:293:ARG:NH2	2.32	0.44
3:N:282:TYR:O	3:N:286:LEU:HD23	2.17	0.44
4:H:80:MET:HE2	4:H:80:MET:HB2	1.76	0.44
4:H:151:MET:O	4:H:155:ILE:HG13	2.17	0.44
4:H:157:ASN:HA	4:H:160:ILE:CG1	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:165:ILE:H	4:H:165:ILE:HG12	1.63	0.44
4:H:208:ILE:HG23	4:H:210:GLU:N	2.32	0.44
4:H:354:LYS:HD3	4:H:359:TYR:CE2	2.52	0.44
4:P:46:MET:HG3	4:P:47:MET:H	1.82	0.44
4:P:49:MET:HB3	7:I:518:VAL:HG21	2.00	0.44
4:P:108:VAL:HG11	4:P:443:ALA:HB2	2.00	0.44
4:P:320:ASN:O	4:P:323:ILE:HB	2.17	0.44
4:P:334:ARG:HA	4:P:334:ARG:HD3	1.73	0.44
4:P:346:GLY:HA2	4:P:367:LYS:HG2	1.99	0.44
4:P:463:LEU:HA	4:P:466:LEU:HB3	2.00	0.44
5:K:91:GLY:O	5:K:94:THR:HG23	2.17	0.44
5:K:349:GLU:O	5:K:360:PHE:N	2.33	0.44
5:K:512:LEU:HD11	6:J:65:VAL:HG11	1.98	0.44
5:C:237:ILE:HB	5:C:343:GLY:C	2.43	0.44
5:C:464:LEU:O	5:C:468:HIS:HB2	2.17	0.44
6:J:160:VAL:O	6:J:164:LEU:N	2.34	0.44
6:J:394:ASP:HA	6:J:397:ASN:HD22	1.83	0.44
7:I:90:ASP:C	7:I:92:THR:H	2.25	0.44
7:I:231:LEU:O	7:I:292:ILE:N	2.49	0.44
7:A:143:MET:SD	7:A:402:ILE:HA	2.57	0.44
7:A:496:ASP:OD2	7:A:501:LYS:NZ	2.48	0.44
8:O:181:TYR:HB3	8:O:189:ARG:O	2.18	0.44
8:G:44:MET:HB3	8:G:54:ILE:HG23	1.99	0.44
8:G:446:LEU:HD21	8:G:468:ARG:HD3	1.99	0.44
9:Q:97:ARG:NE	9:Q:153:LEU:HD22	2.31	0.44
1:D:61:MET:O	1:D:69:THR:N	2.48	0.44
1:D:218:ARG:HG3	2:E:505:LEU:HG	2.00	0.44
2:E:143:SER:H	2:E:143:SER:HG	1.49	0.44
2:E:199:ILE:C	2:E:322:ARG:HE	2.25	0.44
2:E:238:LEU:O	2:E:291:ILE:N	2.48	0.44
2:E:262:ALA:HB2	3:F:278:GLU:OE2	2.17	0.44
3:N:105:GLY:HA2	3:N:108:SER:H	1.83	0.44
3:F:30:PRO:O	3:F:34:ARG:HG3	2.18	0.44
3:F:46:ASP:O	3:F:49:ARG:HB3	2.17	0.44
3:F:70:ILE:O	3:F:71:THR:OG1	2.34	0.44
4:H:183:VAL:HG11	4:H:195:ILE:H	1.81	0.44
4:H:343:VAL:O	4:H:345:THR:N	2.46	0.44
4:P:412:GLY:O	4:P:416:MET:HG2	2.17	0.44
5:K:73:HIS:CG	5:K:74:PRO:HD2	2.53	0.44
5:K:108:VAL:O	5:K:112:VAL:N	2.46	0.44
5:K:239:LEU:HB2	5:K:330:ILE:HA	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:488:PHE:HA	5:K:493:TRP:HE1	1.82	0.44
6:B:73:LEU:HD13	6:B:76:LEU:HD12	2.00	0.44
6:B:270:LYS:O	6:B:274:ASN:N	2.48	0.44
6:B:348:ASP:HB2	6:B:366:GLU:H	1.82	0.44
6:B:459:LYS:HA	6:B:459:LYS:HD3	1.80	0.44
6:B:504:LYS:HD3	6:B:504:LYS:HA	1.73	0.44
7:I:69:ILE:HG22	7:I:71:HIS:H	1.83	0.44
7:A:489:ALA:O	7:A:494:VAL:N	2.39	0.44
8:O:173:VAL:HG13	8:O:174:ASP:OD1	2.18	0.44
8:O:222:SER:O	8:O:225:MET:HB3	2.17	0.44
9:Q:53:HIS:ND1	9:Q:53:HIS:N	2.65	0.44
9:Q:92:THR:O	9:Q:96:LYS:HG3	2.16	0.44
1:L:196:VAL:C	1:L:381:ARG:HH11	2.25	0.44
1:D:52:LEU:HD13	1:D:107:THR:HG23	1.99	0.44
1:D:376:GLN:NE2	1:D:378:LYS:HB2	2.32	0.44
2:M:259:ASP:HB2	2:M:263:LYS:HZ1	1.83	0.44
2:M:501:ARG:HG3	2:M:505:LEU:HD23	2.00	0.44
2:E:500:LYS:HA	2:E:503:VAL:HB	2.00	0.44
3:N:217:THR:O	3:N:220:ASP:N	2.50	0.44
3:N:296:ASN:OD1	3:N:297:VAL:HG23	2.17	0.44
3:F:167:ALA:O	3:F:171:LEU:N	2.47	0.44
3:F:182:LEU:O	3:F:185:PRO:HD2	2.16	0.44
4:H:48:LYS:HE2	7:A:520:GLU:HG2	1.98	0.44
4:P:33:ILE:HD13	4:P:33:ILE:HA	1.66	0.44
4:P:204:ILE:HG13	4:P:377:ARG:HD3	1.99	0.44
4:P:354:LYS:HA	4:P:354:LYS:HD2	1.80	0.44
5:K:517:ASP:OD1	6:J:52:MET:HG3	2.17	0.44
5:C:3:PRO:HD2	7:I:5:LYS:HE3	1.99	0.44
6:J:118:LEU:HD13	6:J:123:LEU:HD12	1.99	0.44
6:J:217:VAL:HG22	6:J:375:ILE:HG22	1.99	0.44
6:J:314:ARG:HG3	6:J:315:LEU:HG	1.99	0.44
7:I:105:GLN:HA	7:I:108:LEU:HG	1.99	0.44
7:I:149:ILE:HG12	7:I:173:VAL:HG21	2.00	0.44
7:I:490:ALA:HA	7:I:495:TRP:CZ2	2.53	0.44
7:A:230:ILE:HA	7:A:290:VAL:HG13	1.99	0.44
7:A:448:PRO:HB3	7:A:479:VAL:HG21	1.99	0.44
8:O:193:ASN:O	8:O:318:ARG:NH1	2.49	0.44
8:O:512:LYS:HB3	8:O:516:PHE:CE1	2.53	0.44
8:G:510:LYS:HA	8:G:513:SER:HB3	1.98	0.44
9:Q:186:ARG:NE	9:Q:248:ASP:OD2	2.47	0.44
1:L:55:ASN:HD22	1:L:466:SER:HA	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:147:HIS:CD2	1:L:429:CYS:HA	2.52	0.44
1:L:255:PHE:N	1:L:255:PHE:CD1	2.83	0.44
1:L:397:GLU:OE1	1:L:400:ARG:NH1	2.49	0.44
1:D:235:SER:OG	1:D:306:PHE:HE2	2.01	0.44
2:M:247:ASP:N	2:M:247:ASP:OD1	2.51	0.44
2:M:255:ARG:HD3	2:M:257:ARG:NH1	2.32	0.44
2:M:287:ILE:HD11	2:M:343:LEU:HD22	1.99	0.44
3:N:229:LEU:HA	3:N:229:LEU:HD23	1.71	0.44
3:F:46:ASP:OD1	3:F:49:ARG:NE	2.50	0.44
3:F:231:GLN:O	3:F:374:LEU:HD23	2.18	0.44
3:F:279:GLU:HG2	3:F:280:ARG:H	1.83	0.44
4:P:227:PRO:HB3	7:I:322:GLU:CD	2.43	0.44
4:P:228:ARG:HH12	7:I:331:VAL:HG22	1.82	0.44
4:P:237:ARG:H	4:P:288:ASP:HB2	1.81	0.44
4:P:366:CYS:HB3	4:P:369:PRO:HB3	2.00	0.44
4:P:466:LEU:HB2	4:P:487:LEU:HD11	2.00	0.44
5:C:53:ARG:HE	5:C:53:ARG:HB3	1.57	0.44
5:C:216:PHE:HB2	5:C:359:ASN:OD1	2.17	0.44
5:C:245:GLU:CD	5:C:246:LEU:H	2.25	0.44
5:C:292:LYS:HE3	5:C:316:GLU:HB2	2.00	0.44
6:J:53:ASN:ND2	6:J:67:ASN:HB2	2.32	0.44
6:J:140:HIS:O	6:J:144:PRO:HD3	2.18	0.44
6:J:452:LEU:O	6:J:456:SER:N	2.49	0.44
6:J:477:ASN:HB3	6:J:493:LEU:HB2	2.00	0.44
6:B:219:HIS:ND1	6:B:366:GLU:HA	2.33	0.44
6:B:246:PHE:CD2	6:B:297:VAL:HG13	2.52	0.44
6:B:401:VAL:O	6:B:404:ARG:HB2	2.18	0.44
6:B:512:THR:O	6:B:516:VAL:HG12	2.18	0.44
7:I:7:LEU:HD23	7:I:8:ASN:HB2	1.99	0.44
7:I:98:ILE:HD13	7:I:98:ILE:HA	1.79	0.44
7:I:397:ALA:O	7:I:401:ALA:N	2.44	0.44
7:I:408:VAL:O	7:I:496:ASP:N	2.50	0.44
7:A:276:GLU:OE1	7:A:279:ARG:NH1	2.45	0.44
8:O:194:SER:HA	8:O:318:ARG:NH1	2.33	0.44
8:G:230:VAL:HG12	8:G:350:GLU:OE2	2.16	0.44
8:G:293:ASP:HB3	8:G:296:CYS:SG	2.57	0.44
1:L:129:HIS:HE1	1:L:131:ILE:HG12	1.82	0.44
1:L:181:CYS:SG	1:L:220:GLU:HB3	2.58	0.44
1:L:269:THR:HG22	2:M:257:ARG:O	2.17	0.44
1:L:303:GLN:HA	1:L:330:ILE:HD11	1.99	0.44
1:L:424:ALA:O	1:L:427:ILE:HB	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:474:MET:HE2	1:L:478:ARG:HD2	2.00	0.44
1:D:170:LYS:HD3	1:D:182:HIS:CD2	2.53	0.44
1:D:263:LYS:O	5:C:255:ILE:HG23	2.17	0.44
1:D:310:ALA:HA	1:D:313:LEU:HG	1.99	0.44
2:E:19:GLU:OE1	2:E:19:GLU:N	2.50	0.44
2:E:317:PHE:H	2:E:317:PHE:HD2	1.62	0.44
3:N:60:MET:SD	3:N:70:ILE:HG12	2.58	0.44
3:N:143:LYS:HB3	3:N:143:LYS:HE3	1.76	0.44
3:N:390:VAL:HG11	3:N:398:ILE:HG23	1.99	0.44
3:F:40:ALA:O	3:F:44:VAL:HG23	2.17	0.44
3:F:74:GLY:O	3:F:78:LEU:N	2.37	0.44
3:F:153:ARG:O	3:F:421:LEU:N	2.48	0.44
4:P:55:GLY:HA2	6:B:6:PRO:HG3	1.99	0.44
4:P:433:GLU:H	4:P:433:GLU:CD	2.24	0.44
5:K:61:ASP:O	5:K:65:ILE:HG13	2.17	0.44
5:K:163:LEU:HA	5:K:163:LEU:HD13	1.63	0.44
5:K:236:LYS:NZ	5:K:344:ARG:HB3	2.32	0.44
5:K:245:GLU:HG3	5:K:248:ALA:HB2	1.98	0.44
6:J:111:LEU:HG	6:J:132:TYR:CE1	2.51	0.44
6:J:521:VAL:HG11	7:I:46:MET:HG2	1.99	0.44
6:B:24:GLY:C	6:B:26:GLU:H	2.26	0.44
6:B:190:ILE:HG23	6:B:197:PHE:CD2	2.50	0.44
7:I:47:LEU:H	7:I:55:LYS:HB2	1.82	0.44
7:A:242:THR:OG1	7:A:243:GLU:N	2.50	0.44
7:A:447:ILE:HB	7:A:448:PRO:HD3	1.99	0.44
8:G:29:ALA:O	8:G:33:LYS:HG3	2.18	0.44
8:G:154:THR:HG23	8:G:503:VAL:HG13	1.99	0.44
8:G:381:ASN:ND2	8:G:383:PHE:HB2	2.33	0.44
1:L:156:LEU:HB2	1:L:416:ASN:CG	2.43	0.44
1:L:221:ASP:OD1	1:L:221:ASP:N	2.51	0.44
1:L:313:LEU:O	1:L:316:GLN:HB2	2.17	0.44
1:L:460:MET:O	1:L:464:GLU:N	2.35	0.44
1:D:214:LYS:HD2	1:D:214:LYS:HA	1.69	0.44
1:D:344:ARG:NH2	5:C:271:TRP:HE3	2.16	0.44
1:D:399:LYS:O	1:D:403:HIS:N	2.32	0.44
2:M:203:LYS:HB3	2:M:375:LEU:HD12	2.00	0.44
2:M:261:THR:HG22	3:N:275:VAL:HA	2.00	0.44
2:M:348:LEU:O	2:M:363:SER:N	2.50	0.44
2:M:359:LEU:HD23	2:M:359:LEU:HA	1.79	0.44
2:M:379:THR:HG22	2:M:381:GLN:H	1.83	0.44
2:M:500:LYS:O	2:M:503:VAL:HB	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:113:ALA:HB2	2:E:130:TRP:CH2	2.53	0.44
2:E:496:SER:OG	2:E:499:VAL:HG23	2.18	0.44
3:N:96:LYS:O	3:N:100:ILE:N	2.39	0.44
3:N:290:ILE:HG23	3:N:351:PHE:CE2	2.53	0.44
3:N:295:CYS:SG	3:N:296:ASN:N	2.89	0.44
3:N:494:ASN:OD1	3:N:496:ARG:N	2.51	0.44
4:H:204:ILE:O	4:H:377:ARG:HA	2.18	0.44
4:H:395:MET:HE2	4:H:395:MET:HB3	1.83	0.44
4:P:35:ASP:HA	4:P:38:ARG:HG3	1.99	0.44
4:P:112:PHE:O	4:P:115:GLN:HB2	2.17	0.44
4:P:302:HIS:HD2	4:P:303:TYR:CD2	2.34	0.44
4:P:415:GLU:N	4:P:415:GLU:CD	2.76	0.44
5:K:135:LYS:O	5:K:139:ILE:HG12	2.17	0.44
6:J:38:GLU:O	6:J:42:THR:N	2.48	0.44
6:J:178:PHE:HA	6:J:181:LYS:HZ1	1.83	0.44
6:J:286:THR:HG21	6:J:339:PRO:HB2	2.00	0.44
6:J:330:ALA:HB2	6:J:345:GLY:HA2	1.99	0.44
6:J:382:ASP:OD1	6:J:382:ASP:N	2.49	0.44
6:B:20:LYS:HD3	6:B:20:LYS:HA	1.75	0.44
6:B:434:GLU:H	6:B:434:GLU:CD	2.20	0.44
7:I:101:GLU:O	7:I:105:GLN:HG2	2.18	0.44
7:I:186:ILE:HD11	7:I:189:PHE:H	1.83	0.44
7:A:419:ALA:HB2	7:A:445:LEU:HD21	1.99	0.44
8:O:140:THR:HG22	8:O:406:LYS:NZ	2.32	0.44
8:O:199:LYS:H	8:O:199:LYS:HG2	1.60	0.44
8:O:470:PHE:HD1	8:O:473:GLU:OE1	2.00	0.44
8:G:17:ILE:CD1	8:G:530:LEU:HB2	2.48	0.44
8:G:301:VAL:C	8:G:304:GLY:H	2.25	0.44
8:G:349:GLU:HG3	8:G:366:ASN:HB3	2.00	0.44
8:G:356:ILE:HD13	8:G:356:ILE:HA	1.76	0.44
9:Q:16:ASN:O	9:Q:20:GLU:HG3	2.18	0.44
9:Q:210:PHE:CZ	9:Q:268:MET:HG2	2.53	0.44
1:L:165:LEU:HD23	1:L:412:LEU:HD13	1.98	0.44
1:D:344:ARG:HH21	1:D:347:GLU:CD	2.25	0.44
1:D:471:ILE:HA	1:D:474:MET:SD	2.58	0.44
2:M:206:GLY:O	2:M:376:ARG:NH1	2.50	0.44
2:M:275:MET:HE3	2:M:300:PRO:HG2	1.99	0.44
2:M:293:ARG:C	2:M:314:HIS:HA	2.43	0.44
2:M:452:ASP:OD2	2:E:120:LYS:NZ	2.45	0.44
2:E:31:GLY:O	2:E:35:ILE:HG12	2.17	0.44
2:E:148:HIS:N	2:E:404:SER:O	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:392:ASP:N	2:E:392:ASP:OD1	2.47	0.44
3:N:30:PRO:O	3:N:34:ARG:HG3	2.16	0.44
3:N:58:ASP:HA	3:N:72:ASN:HA	2.00	0.44
3:N:71:THR:HA	3:N:400:GLU:CD	2.43	0.44
3:N:255:ALA:O	3:N:257:LYS:HG2	2.16	0.44
3:N:334:GLU:HA	3:N:337:CYS:SG	2.58	0.44
3:N:519:LEU:HD13	3:N:519:LEU:HA	1.69	0.44
3:F:205:LEU:H	3:F:205:LEU:HG	1.60	0.44
3:F:249:ILE:HG23	3:F:251:PHE:CE2	2.53	0.44
3:F:283:ILE:O	3:F:286:LEU:HB2	2.18	0.44
3:F:301:GLN:HA	3:F:328:ILE:N	2.31	0.44
4:H:368:ASP:OD1	4:H:368:ASP:N	2.50	0.44
4:P:120:THR:O	4:P:123:ILE:HB	2.16	0.44
4:P:353:LYS:HD2	4:P:362:PHE:CZ	2.53	0.44
5:K:382:MET:O	5:K:385:THR:OG1	2.36	0.44
5:C:76:ALA:O	5:C:79:LEU:HB2	2.18	0.44
5:C:104:PHE:O	5:C:108:VAL:HG23	2.18	0.44
5:C:163:LEU:HA	5:C:163:LEU:HD13	1.51	0.44
6:J:203:ARG:HA	6:J:203:ARG:HD3	1.77	0.44
6:B:203:ARG:HA	6:B:203:ARG:HD3	1.76	0.44
6:B:290:VAL:HA	6:B:311:MET:HB3	2.00	0.44
6:B:318:LYS:HA	6:B:321:LEU:HD21	1.99	0.44
6:B:388:ILE:HD12	6:B:388:ILE:HA	1.68	0.44
7:A:60:GLY:HA2	7:A:63:LEU:HD13	2.00	0.44
7:A:380:ASN:HB2	7:A:383:THR:OG1	2.18	0.44
8:O:488:LEU:H	8:O:498:ASN:CG	2.22	0.44
8:G:92:SER:O	8:G:96:ILE:HG12	2.18	0.44
8:G:253:VAL:O	8:G:254:ILE:HD13	2.18	0.44
9:Q:247:ARG:HA	9:Q:247:ARG:HD3	1.86	0.44
1:L:71:THR:OG1	1:L:72:ASN:N	2.51	0.44
1:L:99:ASP:O	1:L:102:ILE:N	2.51	0.44
1:L:171:THR:HG21	1:L:507:ILE:H	1.83	0.44
1:L:359:VAL:HG22	1:L:374:ILE:HG23	1.98	0.44
1:D:124:LEU:HD13	1:D:128:ILE:O	2.17	0.44
1:D:161:ASP:C	1:D:164:PRO:HD2	2.43	0.44
1:D:523:MET:O	1:D:527:ILE:HG12	2.18	0.44
2:M:403:ASP:OD2	2:M:405:ARG:NE	2.28	0.44
2:E:113:ALA:HB2	2:E:130:TRP:HH2	1.82	0.44
2:E:282:ILE:HG12	2:E:335:PHE:CE2	2.53	0.44
3:N:336:ILE:O	3:N:340:ILE:N	2.31	0.44
3:N:345:VAL:HG21	3:N:351:PHE:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:412:ILE:O	3:N:416:VAL:N	2.48	0.44
3:F:77:ILE:HG22	3:F:78:LEU:HD23	2.00	0.44
3:F:180:SER:O	3:F:183:LEU:N	2.51	0.44
4:H:59:MET:HB2	4:H:59:MET:HE3	1.82	0.44
4:H:448:PRO:O	4:H:451:LEU:HB2	2.18	0.44
4:P:266:ARG:HH21	8:O:257:PRO:HB2	1.83	0.44
5:C:394:MET:HE2	5:C:394:MET:HB2	1.92	0.44
6:J:31:ARG:HD3	6:J:31:ARG:HA	1.87	0.44
6:J:58:ASN:ND2	6:J:60:LEU:HB2	2.33	0.44
6:J:71:THR:OG1	6:J:390:ARG:HD3	2.18	0.44
6:J:146:LEU:HD11	6:J:418:GLU:HG2	2.00	0.44
6:J:520:ARG:HA	6:J:520:ARG:HD3	1.87	0.44
7:I:181:LYS:C	7:I:183:ASP:H	2.26	0.44
7:I:186:ILE:HG13	7:I:188:LEU:H	1.82	0.44
7:I:463:LEU:O	7:I:467:GLN:HB2	2.17	0.44
7:A:131:LEU:HD22	7:A:506:HIS:HE2	1.83	0.44
7:A:299:PRO:HA	7:A:302:LEU:HD12	1.99	0.44
8:O:239:PHE:HB2	8:O:329:SER:O	2.18	0.44
8:O:479:GLU:O	8:O:483:LEU:HD12	2.18	0.44
9:Q:217:GLU:HB3	11:Q:1358:HOH:O	2.18	0.44
9:Q:296:ARG:N	11:Q:1156:HOH:O	2.51	0.44
1:L:84:ASP:C	1:L:89:LYS:HZ2	2.22	0.43
1:L:214:LYS:HB2	1:L:386:PHE:CZ	2.53	0.43
1:D:59:LYS:HD2	2:E:519:ASN:HB3	2.00	0.43
1:D:156:LEU:HB2	1:D:416:ASN:CG	2.43	0.43
1:D:267:ASP:OD2	1:D:267:ASP:N	2.50	0.43
2:M:423:GLN:HA	2:M:426:ASN:HD21	1.82	0.43
2:E:84:LEU:HA	2:E:84:LEU:HD13	1.71	0.43
3:N:119:SER:HB3	3:N:453:ALA:HB1	2.00	0.43
3:N:218:ILE:HA	3:N:391:ARG:O	2.18	0.43
3:N:243:LYS:HA	3:N:243:LYS:HD3	1.68	0.43
3:N:262:ASN:OD1	3:N:262:ASN:N	2.51	0.43
3:F:405:ILE:O	3:F:409:LEU:HG	2.18	0.43
3:F:423:ALA:HA	3:F:509:VAL:HG12	1.99	0.43
3:F:522:ALA:O	3:F:525:THR:N	2.51	0.43
4:H:46:MET:HE2	7:A:519:ASP:OD1	2.18	0.43
4:P:261:GLU:H	4:P:261:GLU:CD	2.22	0.43
5:K:150:GLU:HB2	5:K:153:LYS:HG3	2.00	0.43
5:K:389:LEU:HA	5:K:389:LEU:HD13	1.59	0.43
5:C:5:PRO:HB3	6:B:31:ARG:HH21	1.82	0.43
5:C:82:ILE:HA	6:B:380:SER:OG	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:230:LYS:HB2	5:C:350:GLU:HG3	2.00	0.43
5:C:340:ASP:OD1	5:C:341:VAL:HG13	2.18	0.43
5:C:383:GLU:OE2	5:C:383:GLU:N	2.46	0.43
5:C:416:LEU:HA	5:C:416:LEU:HD13	1.88	0.43
5:C:522:ASN:HB2	6:B:59:HIS:N	2.33	0.43
6:J:70:ALA:O	6:J:74:ARG:N	2.41	0.43
6:J:101:THR:OG1	6:J:102:ASN:N	2.47	0.43
6:J:129:ILE:HG23	6:J:516:VAL:HG23	2.00	0.43
6:J:428:GLU:HA	6:J:435:GLN:OE1	2.18	0.43
6:J:484:ALA:O	6:J:487:PRO:HD3	2.18	0.43
6:B:219:HIS:HB3	6:B:365:HIS:O	2.18	0.43
7:I:135:GLU:O	7:I:138:LYS:HG2	2.17	0.43
7:I:225:VAL:O	7:I:349:LEU:HD12	2.18	0.43
7:I:394:GLY:O	7:I:398:VAL:HG23	2.18	0.43
7:A:305:LEU:HG	7:A:305:LEU:H	1.58	0.43
7:A:478:GLY:O	7:A:486:PRO:HA	2.18	0.43
7:A:504:LEU:HD12	7:A:505:LEU:N	2.33	0.43
8:O:165:GLY:HA2	8:O:168:PHE:HB2	2.00	0.43
8:G:32:VAL:HG23	8:G:95:ILE:HD11	1.99	0.43
8:G:47:ASP:N	8:G:47:ASP:OD1	2.50	0.43
8:G:199:LYS:HD2	8:G:385:CYS:SG	2.58	0.43
8:G:288:THR:O	8:G:309:ARG:HA	2.17	0.43
8:G:411:GLY:H	8:G:504:PHE:HA	1.82	0.43
8:G:487:GLY:HA2	8:G:498:ASN:CG	2.43	0.43
1:L:343:PRO:HB3	5:K:298:VAL:HG11	2.00	0.43
1:L:359:VAL:HG12	1:L:372:LEU:HD11	1.99	0.43
1:D:236:HIS:CG	1:D:237:PRO:HD2	2.53	0.43
1:D:331:GLU:HG3	1:D:341:ILE:HD11	2.00	0.43
2:E:386:ALA:O	2:E:389:SER:OG	2.24	0.43
3:N:235:ASN:ND2	3:N:238:ILE:HB	2.34	0.43
3:N:476:THR:O	3:N:480:LEU:N	2.41	0.43
3:F:171:LEU:HA	3:F:171:LEU:HD13	1.62	0.43
4:H:185:PHE:HE1	4:H:325:ARG:NE	2.17	0.43
4:H:450:THR:HA	4:H:453:GLN:OE1	2.18	0.43
4:H:526:HIS:CG	8:G:47:ASP:HB2	2.53	0.43
5:K:14:ASP:HB3	5:K:521:LYS:HG3	1.99	0.43
5:K:51:ASP:OD1	5:K:55:LYS:N	2.51	0.43
5:K:186:LEU:HD23	5:K:186:LEU:HA	1.87	0.43
5:K:197:ILE:O	5:K:198:LYS:HD2	2.18	0.43
5:K:239:LEU:C	5:K:330:ILE:HD12	2.43	0.43
5:K:242:VAL:HG22	5:K:243:GLU:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:17:GLN:NE2	5:C:517:ASP:HB3	2.33	0.43
5:C:34:GLU:OE1	5:C:37:ARG:HD2	2.18	0.43
5:C:50:VAL:HA	5:C:56:ALA:HA	1.99	0.43
5:C:201:GLN:O	5:C:375:ARG:NH2	2.42	0.43
5:C:458:THR:HG23	8:O:111:LYS:HE3	2.00	0.43
5:C:508:GLU:HA	5:C:511:CYS:HB2	2.00	0.43
6:J:13:GLN:HB2	6:J:15:LEU:CG	2.48	0.43
6:J:47:TYR:CG	6:J:48:GLY:N	2.85	0.43
6:J:164:LEU:O	6:J:168:ILE:HG12	2.17	0.43
6:B:460:ALA:O	6:B:464:ILE:HG13	2.18	0.43
7:I:145:ARG:O	7:I:149:ILE:HG13	2.18	0.43
7:I:512:ALA:O	7:I:516:LEU:HG	2.18	0.43
7:A:218:HIS:NE2	7:A:220:ASP:HB2	2.33	0.43
7:A:238:GLU:HG2	7:A:297:ILE:N	2.33	0.43
7:A:429:VAL:C	7:A:431:GLY:H	2.26	0.43
8:O:130:ARG:HB3	8:O:130:ARG:CZ	2.48	0.43
8:O:210:LEU:HD12	8:O:374:SER:O	2.18	0.43
8:G:18:ARG:O	8:G:22:VAL:HG23	2.18	0.43
8:G:40:GLY:HA2	8:G:455:ASN:ND2	2.33	0.43
1:D:392:LYS:O	1:D:396:GLU:HG3	2.19	0.43
2:M:123:PRO:O	2:M:127:ILE:HG12	2.17	0.43
2:M:222:LYS:O	2:M:360:ILE:HD11	2.19	0.43
2:E:219:LEU:HA	2:E:360:ILE:O	2.17	0.43
2:E:241:ASN:OD1	2:E:293:ARG:HG2	2.19	0.43
3:N:86:PRO:O	3:N:89:ARG:HB2	2.18	0.43
3:N:367:LEU:HD23	3:N:367:LEU:HA	1.80	0.43
4:H:118:HIS:HE1	8:G:41:LEU:HD21	1.84	0.43
4:P:179:ALA:O	4:P:182:MET:HG3	2.19	0.43
4:P:277:GLN:HA	4:P:280:GLU:OE2	2.17	0.43
4:P:318:THR:HG1	4:P:319:ASP:H	1.65	0.43
5:K:350:GLU:OE1	5:K:357:ARG:NE	2.52	0.43
5:K:446:PRO:HA	5:K:449:LEU:HD12	1.99	0.43
5:C:156:GLU:HA	5:C:180:VAL:HG21	2.00	0.43
5:C:488:PHE:CA	5:C:493:TRP:HE1	2.31	0.43
6:J:452:LEU:HB3	6:J:480:LEU:HD23	2.00	0.43
6:J:458:VAL:HG11	6:J:487:PRO:HB3	2.00	0.43
6:J:506:TRP:HZ3	7:I:199:LYS:O	2.01	0.43
6:B:409:VAL:HG23	6:B:499:ASP:OD1	2.18	0.43
6:B:430:CYS:SG	6:B:438:ILE:HD13	2.58	0.43
7:I:115:HIS:O	7:I:119:ILE:HD12	2.18	0.43
7:I:278:LYS:CE	7:I:310:ILE:HD11	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:471:SER:O	7:I:474:GLY:N	2.51	0.43
7:A:129:LYS:HD3	7:A:425:HIS:CE1	2.54	0.43
7:A:218:HIS:CD2	7:A:220:ASP:HB2	2.52	0.43
7:A:382:HIS:CG	7:A:383:THR:N	2.86	0.43
8:O:198:LEU:HD21	8:O:217:ASN:HB2	2.00	0.43
8:G:125:CYS:O	8:G:129:VAL:HG22	2.18	0.43
8:G:130:ARG:HB3	8:G:130:ARG:NH2	2.34	0.43
8:G:222:SER:HB3	8:G:225:MET:HB2	2.01	0.43
8:G:222:SER:O	8:G:225:MET:HB3	2.19	0.43
8:G:403:LEU:HD13	8:G:403:LEU:HA	1.79	0.43
1:L:124:LEU:HD13	1:L:124:LEU:HA	1.85	0.43
1:D:176:LYS:HD2	1:D:176:LYS:N	2.32	0.43
2:M:31:GLY:O	2:M:35:ILE:HG12	2.19	0.43
2:M:50:LYS:NZ	3:N:534:ASP:HB3	2.33	0.43
2:M:95:VAL:HG11	2:M:499:VAL:HG22	2.00	0.43
2:M:228:GLN:HB3	2:M:310:MET:HA	2.00	0.43
2:M:437:GLU:CD	2:M:437:GLU:C	2.86	0.43
2:E:97:ASP:OD1	2:E:98:GLY:N	2.49	0.43
3:N:171:LEU:C	3:N:173:SER:H	2.26	0.43
3:N:248:LEU:HB2	3:N:299:LEU:HD12	2.00	0.43
3:N:321:LYS:HE3	3:N:321:LYS:HB3	1.64	0.43
3:N:414:CYS:HA	3:N:417:LYS:HD2	2.00	0.43
3:N:429:GLU:N	3:N:429:GLU:CD	2.75	0.43
3:F:104:ASP:CG	3:F:105:GLY:H	2.22	0.43
4:H:67:LEU:HB3	4:H:81:ILE:CD1	2.49	0.43
4:H:266:ARG:HA	4:H:269:GLN:NE2	2.34	0.43
4:H:355:ILE:HD11	4:H:377:ARG:NH1	2.34	0.43
4:H:391:LEU:HA	4:H:391:LEU:HD13	1.73	0.43
4:H:433:GLU:H	4:H:433:GLU:CD	2.23	0.43
4:P:119:PRO:O	4:P:123:ILE:HG12	2.19	0.43
4:P:266:ARG:HA	4:P:269:GLN:OE1	2.18	0.43
4:P:397:VAL:O	4:P:401:VAL:HG23	2.18	0.43
4:P:408:VAL:N	4:P:497:GLU:O	2.39	0.43
5:K:108:VAL:O	5:K:111:TYR:N	2.52	0.43
6:J:24:GLY:C	6:J:26:GLU:H	2.26	0.43
6:J:352:LEU:HD12	6:J:360:VAL:O	2.19	0.43
6:B:168:ILE:HD13	6:B:168:ILE:HA	1.86	0.43
6:B:254:LYS:HE3	6:B:256:THR:CG2	2.49	0.43
6:B:322:ARG:HA	6:B:322:ARG:HD3	1.86	0.43
6:B:381:THR:O	6:B:384:LEU:HB3	2.19	0.43
7:I:414:VAL:HG11	7:I:501:LYS:HE3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:238:GLU:HG2	7:A:296:GLY:C	2.43	0.43
8:O:89:GLY:O	8:O:92:SER:N	2.45	0.43
8:O:97:ALA:O	8:O:101:LEU:N	2.42	0.43
8:O:138:VAL:HG13	8:O:406:LYS:O	2.17	0.43
8:O:262:GLN:HA	8:O:265:GLN:HB3	1.99	0.43
8:O:403:LEU:HA	8:O:403:LEU:HD13	1.76	0.43
8:O:441:PHE:O	8:O:445:LEU:HB2	2.19	0.43
8:O:475:GLN:HA	8:O:480:ARG:NH2	2.33	0.43
8:G:385:CYS:HA	8:G:388:MET:HG2	2.00	0.43
8:G:487:GLY:HA3	8:G:498:ASN:H	1.83	0.43
1:L:259:LYS:HB3	1:L:259:LYS:HE2	1.77	0.43
1:L:403:HIS:HA	1:L:406:LEU:HD12	2.00	0.43
1:L:428:SER:O	1:L:432:ALA:N	2.31	0.43
1:D:105:GLY:CA	1:D:107:THR:HG22	2.49	0.43
1:D:159:ILE:O	1:D:160:LYS:C	2.61	0.43
1:D:259:LYS:HE2	2:E:252:PHE:HB3	2.00	0.43
1:D:290:GLN:HB3	1:D:294:GLU:OE2	2.18	0.43
2:M:278:LYS:O	2:M:281:ARG:HB2	2.19	0.43
2:M:285:HIS:HE2	2:M:335:PHE:HB3	1.79	0.43
2:M:288:ASN:HA	2:M:309:VAL:HG22	1.99	0.43
2:M:441:LYS:HA	2:M:444:ARG:CZ	2.49	0.43
2:E:79:PRO:HA	2:E:82:LYS:HB3	1.99	0.43
2:E:424:LEU:HD23	2:E:436:MET:HE1	2.00	0.43
3:N:204:ASP:OD1	3:N:205:LEU:N	2.51	0.43
3:N:256:PRO:HG3	3:N:282:TYR:CZ	2.54	0.43
3:N:364:GLU:HB2	3:N:374:LEU:HD13	2.00	0.43
3:F:251:PHE:CD2	3:F:251:PHE:N	2.82	0.43
3:F:461:ILE:O	3:F:465:LEU:HG	2.18	0.43
4:H:94:GLY:C	4:H:98:VAL:HG23	2.44	0.43
4:H:433:GLU:O	4:H:436:PRO:HD2	2.18	0.43
4:H:490:MET:HE1	4:H:495:ILE:HB	2.00	0.43
4:H:524:SER:HA	8:G:46:VAL:O	2.19	0.43
4:P:41:LEU:HD12	4:P:42:GLY:H	1.84	0.43
4:P:526:HIS:ND1	8:O:47:ASP:HB2	2.33	0.43
5:K:114:GLU:O	5:K:116:LEU:N	2.49	0.43
5:K:175:PHE:HA	5:K:178:MET:SD	2.58	0.43
6:B:203:ARG:O	6:B:375:ILE:HG12	2.17	0.43
6:B:291:VAL:O	6:B:312:LEU:HA	2.19	0.43
6:B:421:LYS:HZ3	6:B:472:GLN:HA	1.84	0.43
7:I:57:THR:OG1	7:I:58:LYS:N	2.51	0.43
7:I:109:TYR:HE1	7:I:435:LEU:O	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:181:LYS:O	7:I:182:GLN:HG3	2.18	0.43
7:A:98:ILE:HD13	7:A:98:ILE:HA	1.80	0.43
7:A:147:THR:O	7:A:151:VAL:HG23	2.18	0.43
7:A:208:ARG:HD3	7:A:208:ARG:HA	1.83	0.43
7:A:466:ILE:O	7:A:468:ALA:N	2.47	0.43
8:G:203:ARG:HH21	8:G:207:GLU:CD	2.26	0.43
8:G:237:LEU:HD11	8:G:239:PHE:HB3	2.01	0.43
8:G:258:GLU:OE1	8:G:258:GLU:N	2.51	0.43
8:G:345:LEU:HB3	8:G:347:GLN:NE2	2.34	0.43
9:Q:12:VAL:HG12	9:Q:16:ASN:ND2	2.33	0.43
9:Q:209:THR:HG21	11:Q:1449:HOH:O	2.18	0.43
9:Q:287:LYS:O	9:Q:291:LYS:HG3	2.17	0.43
1:L:101:GLU:OE1	5:K:375:ARG:NH1	2.51	0.43
1:L:213:GLY:CA	1:L:387:ILE:HB	2.49	0.43
1:L:415:ASP:OD2	1:L:417:ARG:HG2	2.18	0.43
1:L:451:PHE:HA	1:L:454:ALA:HB3	1.99	0.43
1:D:206:PHE:HE1	1:D:407:CYS:SG	2.42	0.43
2:M:146:VAL:HB	2:M:406:THR:HG23	2.00	0.43
2:M:174:HIS:HE1	3:N:134:SER:HB2	1.83	0.43
2:M:200:HIS:O	2:M:372:THR:HA	2.19	0.43
2:M:244:MET:HE1	2:M:248:LYS:NZ	2.27	0.43
2:M:390:LEU:O	2:M:393:ALA:N	2.52	0.43
2:E:214:LEU:HD12	2:E:372:THR:O	2.19	0.43
3:N:169:THR:HG23	3:N:508:VAL:HG13	2.01	0.43
3:N:183:LEU:HD13	3:N:183:LEU:HA	1.74	0.43
3:N:246:ILE:HD12	3:N:247:GLY:H	1.84	0.43
3:N:267:SER:H	3:N:271:GLN:CD	2.26	0.43
3:N:297:VAL:HG13	3:N:323:MET:CG	2.48	0.43
3:N:323:MET:HE3	3:N:325:ILE:HG13	2.01	0.43
4:H:136:THR:HG21	4:H:418:VAL:HA	2.01	0.43
4:H:264:PHE:CE2	7:A:263:GLU:HA	2.53	0.43
4:H:381:LYS:O	4:H:385:SER:N	2.31	0.43
5:K:9:LEU:HD23	6:J:78:VAL:HG13	1.99	0.43
5:K:86:GLN:HA	5:K:89:GLU:HB2	2.01	0.43
5:C:133:VAL:O	5:C:136:ILE:HB	2.18	0.43
5:C:163:LEU:C	5:C:165:SER:H	2.26	0.43
5:C:172:LYS:H	5:C:172:LYS:HG2	1.65	0.43
5:C:335:ASN:ND2	5:C:335:ASN:H	2.15	0.43
6:B:21:HIS:C	6:B:21:HIS:CD2	2.97	0.43
6:B:27:GLU:O	6:B:32:ASN:N	2.41	0.43
6:B:218:LEU:HD23	6:B:218:LEU:HA	1.78	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:206:LEU:HD13	7:I:374:LEU:HD23	2.00	0.43
8:O:150:ASN:O	8:O:153:LYS:HG2	2.17	0.43
8:O:497:ASP:OD1	8:O:499:LYS:HB3	2.18	0.43
8:G:103:ASN:ND2	8:G:444:SER:HB3	2.32	0.43
8:G:176:VAL:CA	8:G:179:ILE:HG22	2.44	0.43
8:G:333:ASN:CG	8:G:335:GLU:H	2.27	0.43
8:G:387:GLU:HA	8:G:390:ARG:CZ	2.49	0.43
9:Q:22:ARG:NH1	11:Q:1239:HOH:O	2.51	0.43
9:Q:64:LYS:HA	11:Q:1366:HOH:O	2.19	0.43
9:Q:94:HIS:HB3	11:Q:1307:HOH:O	2.18	0.43
1:L:105:GLY:CA	1:L:107:THR:HG22	2.49	0.43
1:L:326:GLY:HA3	1:L:329:GLU:OE2	2.18	0.43
1:D:13:GLY:HA2	8:O:23:MET:SD	2.58	0.43
1:D:155:VAL:N	1:D:416:ASN:O	2.51	0.43
2:M:110:LEU:HA	2:M:110:LEU:HD13	1.63	0.43
2:M:495:GLU:OE1	2:M:495:GLU:N	2.51	0.43
2:E:110:LEU:HD13	2:E:110:LEU:HA	1.78	0.43
2:E:113:ALA:O	2:E:117:ILE:HG12	2.18	0.43
3:N:432:LEU:O	3:N:436:LEU:HG	2.18	0.43
3:F:54:PRO:HA	3:F:172:ASN:O	2.18	0.43
3:F:59:LYS:N	3:F:71:THR:O	2.36	0.43
3:F:91:LEU:HA	3:F:91:LEU:HD13	1.79	0.43
4:H:387:VAL:HA	4:H:390:ASN:ND2	2.33	0.43
4:H:434:GLN:HG2	4:H:435:TRP:N	2.34	0.43
4:P:62:ASP:O	4:P:66:ILE:HG12	2.19	0.43
5:K:16:SER:O	5:K:21:GLN:NE2	2.32	0.43
5:K:161:THR:HG23	5:K:492:VAL:HG13	2.01	0.43
5:K:467:ARG:HA	5:K:467:ARG:HD2	1.67	0.43
5:K:488:PHE:O	5:K:493:TRP:NE1	2.52	0.43
5:C:19:ILE:HB	5:C:20:PRO:HD3	2.00	0.43
5:C:188:ASP:O	5:C:190:LEU:HG	2.19	0.43
6:J:324:LEU:O	6:J:328:VAL:HG22	2.19	0.43
6:B:169:MET:CE	6:B:497:ILE:HD12	2.48	0.43
7:A:44:MET:HA	7:A:58:LYS:HG3	2.01	0.43
7:A:67:MET:O	7:A:69:ILE:HG12	2.19	0.43
8:O:219:VAL:HG12	8:O:360:GLU:O	2.17	0.43
8:G:150:ASN:HB3	8:G:502:GLY:O	2.18	0.43
8:G:385:CYS:O	8:G:388:MET:HG2	2.18	0.43
8:G:411:GLY:N	8:G:503:VAL:O	2.42	0.43
9:Q:183:PHE:HB3	9:Q:222:VAL:HG12	2.00	0.43
1:D:148:LEU:HD13	1:D:429:CYS:SG	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:444:GLU:CG	1:D:448:MET:HE3	2.45	0.43
2:M:376:ARG:HH11	2:M:376:ARG:HA	1.84	0.43
2:M:505:LEU:O	2:M:509:GLU:HG2	2.19	0.43
2:E:183:ALA:O	2:E:187:VAL:N	2.35	0.43
2:E:290:PHE:CG	2:E:291:ILE:N	2.87	0.43
2:E:508:ALA:O	2:E:512:GLU:HG3	2.18	0.43
3:N:85:HIS:CG	3:N:86:PRO:HD2	2.54	0.43
3:N:104:ASP:C	3:N:106:THR:H	2.27	0.43
3:N:148:LEU:HD13	3:N:151:MET:SD	2.58	0.43
3:N:246:ILE:N	3:N:357:GLY:O	2.49	0.43
3:N:312:LEU:O	3:N:315:HIS:HB3	2.19	0.43
3:F:171:LEU:C	3:F:173:SER:H	2.26	0.43
3:F:421:LEU:HD12	3:F:510:GLN:C	2.43	0.43
4:H:487:LEU:HD13	4:H:487:LEU:HA	1.72	0.43
4:P:116:GLN:HE22	6:B:460:ALA:H	1.65	0.43
5:C:30:GLN:HE22	5:C:106:LYS:NZ	2.17	0.43
5:C:183:VAL:HG23	5:C:186:LEU:HD12	2.00	0.43
6:J:502:LEU:HD11	6:J:506:TRP:HE1	1.83	0.43
6:B:300:MET:O	6:B:303:HIS:HB3	2.18	0.43
7:I:4:VAL:O	7:I:7:LEU:HB3	2.19	0.43
7:I:141:ARG:HA	7:I:141:ARG:HH21	1.84	0.43
7:I:181:LYS:HE3	7:I:181:LYS:HB2	1.62	0.43
7:A:108:LEU:O	7:A:112:GLU:HG2	2.18	0.43
7:A:110:ILE:O	7:A:113:GLY:N	2.48	0.43
7:A:382:HIS:CE1	7:A:383:THR:HG23	2.53	0.43
7:A:466:ILE:C	7:A:468:ALA:H	2.25	0.43
7:A:492:VAL:HG23	7:A:494:VAL:HG23	2.01	0.43
8:O:332:ALA:HA	8:O:338:GLU:HA	2.00	0.43
8:G:69:HIS:CE1	8:G:71:ALA:H	2.36	0.43
8:G:113:HIS:O	8:G:117:VAL:HG23	2.18	0.43
8:G:380:ALA:H	8:G:384:MET:CE	2.31	0.43
9:Q:301:ALA:HB2	11:Q:1202:HOH:O	2.18	0.43
1:L:71:THR:HA	1:L:397:GLU:OE2	2.18	0.43
1:L:273:ASP:O	1:L:277:LEU:HB3	2.19	0.43
2:M:288:ASN:C	2:M:309:VAL:HG13	2.44	0.43
2:E:224:ILE:HA	2:E:312:ILE:CD1	2.49	0.43
2:E:291:ILE:HG22	2:E:312:ILE:HB	2.01	0.43
2:E:397:LEU:HA	2:E:397:LEU:HD12	1.62	0.43
3:N:54:PRO:HA	3:N:172:ASN:O	2.19	0.43
3:N:91:LEU:HA	3:N:94:LEU:HB3	2.01	0.43
3:N:186:MET:HB2	3:N:186:MET:HE2	1.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:193:LYS:HZ2	3:F:225:GLU:HG2	1.82	0.43
4:H:18:SER:HA	4:H:520:ASP:O	2.19	0.43
4:H:112:PHE:HA	4:H:115:GLN:CG	2.49	0.43
4:H:233:ILE:HG21	4:H:236:PRO:HB3	2.00	0.43
4:H:264:PHE:HA	4:H:267:ILE:HD13	2.00	0.43
4:H:275:ILE:CG2	4:H:300:ALA:HB2	2.49	0.43
4:H:330:ARG:HB2	4:H:342:ASP:OD2	2.18	0.43
5:K:117:HIS:NE2	6:J:457:GLY:HA3	2.33	0.43
5:C:150:GLU:C	5:C:152:ARG:N	2.76	0.43
6:J:276:MET:O	6:J:280:VAL:HG13	2.18	0.43
6:J:474:GLY:O	6:J:476:LYS:HG3	2.19	0.43
6:B:253:THR:HB	9:Q:146:HIS:CE1	2.54	0.43
6:B:416:GLU:N	6:B:416:GLU:CD	2.76	0.43
7:I:83:ALA:O	7:I:87:ILE:N	2.52	0.43
7:A:143:MET:SD	7:A:148:LEU:HD21	2.59	0.43
8:O:99:GLU:OE1	8:O:102:LYS:HD3	2.18	0.43
8:O:218:CYS:O	8:O:362:ILE:HG13	2.18	0.43
8:O:237:LEU:HD21	8:O:239:PHE:HB3	1.99	0.43
8:G:197:ILE:HG23	8:G:375:ILE:HG23	2.01	0.43
8:G:409:VAL:O	8:G:505:GLU:N	2.29	0.43
8:G:489:ASP:HB2	8:G:496:ARG:NE	2.34	0.43
8:G:498:ASN:O	8:G:502:GLY:N	2.51	0.43
9:Q:99:MET:HE1	9:Q:264:ILE:HB	2.01	0.43
1:L:93:GLU:OE1	5:K:378:ALA:HA	2.18	0.43
1:L:248:ILE:N	1:L:354:GLY:O	2.36	0.43
1:L:443:LEU:C	1:L:445:GLN:N	2.76	0.43
1:D:104:ASP:OD1	1:D:107:THR:HB	2.19	0.43
2:M:46:LYS:HD2	2:M:454:ALA:HA	2.01	0.43
2:M:231:ARG:HH11	2:M:233:GLU:CD	2.27	0.43
2:E:75:GLY:HA2	3:F:539:ARG:NH1	2.34	0.43
2:E:424:LEU:HA	2:E:427:ARG:HG3	2.01	0.43
3:N:29:LYS:HB3	3:N:30:PRO:HD3	2.01	0.43
3:N:533:ASP:OD1	3:N:533:ASP:N	2.52	0.43
3:F:71:THR:HA	3:F:400:GLU:CD	2.44	0.43
3:F:302:LYS:HB3	3:F:304:ILE:HG13	2.01	0.43
4:H:64:ASN:O	4:H:68:ARG:N	2.26	0.43
4:P:354:LYS:HD3	4:P:359:TYR:CD2	2.54	0.43
4:P:523:VAL:HB	8:O:45:LEU:HD22	2.01	0.43
5:C:33:ALA:O	5:C:36:VAL:N	2.51	0.43
5:C:133:VAL:HA	5:C:136:ILE:HD12	2.00	0.43
5:C:208:SER:HB3	5:C:374:LEU:HD12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:286:ALA:HB2	5:C:342:LEU:HD11	2.00	0.43
6:B:387:ASP:O	6:B:390:ARG:N	2.52	0.43
6:B:413:GLY:O	6:B:417:ILE:HG12	2.19	0.43
7:I:32:ASP:O	7:I:35:ARG:HG2	2.19	0.43
7:I:198:HIS:O	7:I:377:LYS:HB3	2.19	0.43
7:A:206:LEU:HG	7:A:207:ILE:N	2.33	0.43
7:A:420:GLU:O	7:A:423:ILE:HG22	2.18	0.43
7:A:440:PHE:O	7:A:444:LEU:HG	2.19	0.43
8:O:29:ALA:HB1	8:O:33:LYS:HE3	2.00	0.43
8:G:57:ASP:OD1	8:G:90:THR:OG1	2.31	0.43
8:G:98:ALA:O	8:G:101:LEU:HB3	2.19	0.43
8:G:341:GLU:OE2	8:G:342:ALA:N	2.52	0.43
1:L:34:LEU:O	1:L:38:ILE:HG12	2.18	0.42
1:L:52:LEU:HD13	1:L:107:THR:HG23	2.01	0.42
1:L:192:ALA:O	1:L:196:VAL:HG22	2.19	0.42
1:L:357:GLY:HA3	1:L:377:CYS:SG	2.59	0.42
1:D:251:LEU:HD22	1:D:255:PHE:HE1	1.84	0.42
1:D:259:LYS:HA	5:C:263:TYR:OH	2.19	0.42
1:D:261:LYS:NZ	5:C:246:LEU:HD12	2.33	0.42
1:D:293:LYS:NZ	1:D:317:ASN:HB3	2.34	0.42
1:D:313:LEU:CA	1:D:316:GLN:HB2	2.45	0.42
1:D:405:ALA:O	1:D:409:ILE:HG12	2.19	0.42
2:M:36:GLY:O	2:M:40:LYS:HG3	2.19	0.42
2:M:261:THR:CG2	3:N:275:VAL:HA	2.49	0.42
2:M:325:LEU:HB3	2:M:369:GLU:HG3	2.00	0.42
2:E:146:VAL:O	2:E:406:THR:N	2.41	0.42
2:E:320:VAL:HG13	2:E:331:ILE:HG21	2.00	0.42
3:N:97:ALA:O	3:N:101:GLU:N	2.52	0.42
3:N:217:THR:HB	3:N:220:ASP:CG	2.44	0.42
3:N:363:GLU:O	3:N:375:LYS:N	2.29	0.42
3:F:91:LEU:CD1	3:F:94:LEU:HD22	2.49	0.42
3:F:218:ILE:HG13	8:G:519:GLU:OE2	2.19	0.42
4:H:80:MET:HA	4:H:83:ILE:HD12	2.00	0.42
4:H:102:ALA:O	4:H:105:MET:HB3	2.18	0.42
4:H:237:ARG:H	4:H:288:ASP:CB	2.32	0.42
4:H:292:THR:O	4:H:314:ARG:N	2.51	0.42
4:H:343:VAL:HG12	4:H:345:THR:HG23	2.01	0.42
4:P:241:LEU:HD12	4:P:290:VAL:HG13	2.01	0.42
4:P:244:SER:HA	4:P:294:LYS:HB2	2.01	0.42
4:P:395:MET:HE2	4:P:395:MET:HB3	1.65	0.42
4:P:399:ARG:O	4:P:403:LEU:HG	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:245:GLU:CG	5:K:248:ALA:HB2	2.49	0.42
5:K:416:LEU:HD13	5:K:416:LEU:HA	1.82	0.42
5:K:444:ILE:HD12	5:K:447:ARG:HB3	2.01	0.42
6:J:296:LYS:CA	6:J:314:ARG:HH22	2.32	0.42
6:B:33:ILE:HG21	6:B:116:GLU:HG2	2.00	0.42
7:I:309:GLY:O	7:I:310:ILE:HD13	2.19	0.42
7:I:396:ARG:CZ	7:I:396:ARG:HB2	2.48	0.42
7:A:68:GLN:O	7:A:69:ILE:HD13	2.19	0.42
7:A:204:THR:CG2	7:A:376:ILE:HA	2.48	0.42
8:O:396:LEU:HA	8:O:396:LEU:HD13	1.81	0.42
8:O:398:VAL:HB	8:O:506:PRO:HG2	2.01	0.42
8:O:478:PRO:C	8:O:480:ARG:HG2	2.44	0.42
8:G:117:VAL:O	8:G:121:TYR:HD1	2.01	0.42
9:Q:3:VAL:HB	9:Q:56:GLY:HA3	2.00	0.42
9:Q:315:LEU:HD13	9:Q:315:LEU:HA	1.90	0.42
1:D:46:ASN:HA	1:D:49:ARG:HD2	2.00	0.42
1:D:164:PRO:O	1:D:168:THR:OG1	2.32	0.42
1:D:180:SER:HB3	1:D:219:LEU:HD23	2.00	0.42
1:D:233:ASP:N	1:D:233:ASP:OD1	2.50	0.42
1:D:360:GLN:HG2	1:D:361:GLU:O	2.19	0.42
2:M:64:THR:HA	2:M:385:GLU:CD	2.43	0.42
3:N:291:LYS:HG3	3:N:320:MET:SD	2.59	0.42
3:F:135:GLU:OE2	3:F:139:LYS:NZ	2.52	0.42
3:F:245:LYS:N	3:F:296:ASN:OD1	2.52	0.42
3:F:430:ILE:HD13	3:F:480:LEU:HB3	2.02	0.42
4:H:359:TYR:OH	7:A:186:ILE:HD12	2.19	0.42
4:P:145:ASP:OD2	4:P:148:ASP:N	2.38	0.42
5:K:230:LYS:NZ	5:K:350:GLU:O	2.44	0.42
5:K:468:HIS:NE2	5:K:473:THR:O	2.51	0.42
5:C:289:VAL:O	5:C:290:LEU:HD23	2.19	0.42
6:J:289:ASN:C	6:J:310:ILE:HG23	2.44	0.42
6:B:384:LEU:HD23	6:B:385:MET:CE	2.47	0.42
6:B:473:GLU:OE1	6:B:473:GLU:N	2.53	0.42
7:I:35:ARG:HH22	7:I:453:GLN:CD	2.27	0.42
7:A:230:ILE:HB	7:A:345:GLY:C	2.44	0.42
7:A:296:GLY:HA2	7:A:314:ARG:HD2	2.01	0.42
7:A:418:MET:N	7:A:418:MET:SD	2.92	0.42
8:G:86:VAL:HG11	8:G:509:VAL:HG13	2.00	0.42
8:G:88:ASP:C	8:G:90:THR:N	2.76	0.42
8:G:243:LYS:H	8:G:243:LYS:HG3	1.52	0.42
9:Q:149:TRP:CE2	9:Q:150:THR:HG23	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:523:MET:O	1:L:526:MET:HE3	2.19	0.42
1:D:71:THR:HG23	1:D:77:ILE:HD13	2.00	0.42
1:D:97:SER:O	1:D:101:GLU:HB2	2.19	0.42
2:M:19:GLU:O	2:M:519:ASN:HA	2.19	0.42
2:M:205:LEU:HD13	2:M:205:LEU:HA	1.76	0.42
2:M:260:SER:OG	2:M:263:LYS:HG3	2.19	0.42
2:E:176:LYS:HE2	2:E:176:LYS:HB3	1.87	0.42
2:E:221:ASP:O	2:E:222:LYS:HD3	2.18	0.42
2:E:297:TYR:C	2:E:300:PRO:HD2	2.44	0.42
2:E:465:LEU:HD12	2:E:465:LEU:HA	1.86	0.42
3:N:106:THR:OG1	3:N:107:THR:N	2.51	0.42
3:F:191:VAL:O	3:F:195:ILE:HG23	2.20	0.42
4:H:27:ILE:HD13	4:H:27:ILE:HA	1.87	0.42
4:H:318:THR:O	4:H:322:ARG:HG3	2.19	0.42
4:H:498:PRO:O	4:H:501:VAL:HB	2.19	0.42
4:P:114:GLU:HG2	6:B:450:ARG:NH2	2.33	0.42
4:P:229:MET:HB3	4:P:310:THR:HG23	2.02	0.42
4:P:398:CYS:O	4:P:402:LEU:HG	2.18	0.42
5:K:181:ASP:O	5:K:184:MET:HB3	2.19	0.42
5:C:319:LEU:HD12	5:C:319:LEU:HA	1.78	0.42
5:C:445:ILE:O	5:C:449:LEU:HG	2.18	0.42
6:J:72:ILE:HA	6:J:75:GLU:HG2	2.01	0.42
6:J:463:VAL:HG22	6:J:487:PRO:O	2.19	0.42
6:B:473:GLU:HB2	6:B:475:ASN:OD1	2.20	0.42
7:I:49:SER:OG	7:I:53:ASP:OD1	2.34	0.42
7:I:207:ILE:HG23	7:I:209:GLY:O	2.19	0.42
7:A:105:GLN:HA	7:A:108:LEU:HG	2.00	0.42
7:A:265:LYS:O	7:A:268:GLU:HB2	2.19	0.42
8:O:27:SER:O	8:O:31:ILE:HG12	2.19	0.42
8:O:176:VAL:HB	8:O:396:LEU:HD12	2.01	0.42
8:G:451:THR:HA	8:G:454:VAL:HG12	2.00	0.42
8:G:474:ALA:O	8:G:480:ARG:NH2	2.52	0.42
8:G:532:LYS:HD2	8:G:532:LYS:HA	1.83	0.42
9:Q:39:GLN:HA	9:Q:40:PRO:HD3	1.94	0.42
9:Q:256:HIS:N	11:Q:1231:HOH:O	2.48	0.42
1:L:121:GLU:O	1:L:125:ASP:N	2.45	0.42
1:D:218:ARG:CG	2:E:505:LEU:HG	2.50	0.42
1:D:317:ASN:O	1:D:319:LEU:HG	2.19	0.42
2:M:91:GLN:HG3	2:M:102:VAL:HG21	2.02	0.42
2:E:379:THR:HA	3:F:93:GLU:CD	2.44	0.42
3:N:55:LYS:HD2	8:O:113:HIS:CE1	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:293:THR:HG21	3:N:351:PHE:CD2	2.53	0.42
3:N:410:CYS:HB3	3:N:413:ARG:HH21	1.84	0.42
3:F:410:CYS:HB3	3:F:413:ARG:HH21	1.84	0.42
3:F:415:LEU:HD13	3:F:511:PRO:HB3	2.01	0.42
4:H:47:MET:SD	4:H:61:ASN:N	2.93	0.42
4:H:188:ASN:O	8:G:228:ARG:NH2	2.52	0.42
4:P:70:ILE:HG22	4:P:72:VAL:HG12	2.00	0.42
4:P:196:LYS:HD3	4:P:399:ARG:HH21	1.85	0.42
4:P:470:HIS:HE2	4:P:476:GLU:HA	1.84	0.42
4:P:526:HIS:NE2	4:P:528:LYS:O	2.51	0.42
5:K:210:LEU:HB2	5:K:372:PHE:HE1	1.84	0.42
5:K:236:LYS:HD3	5:K:236:LYS:HA	1.81	0.42
5:K:348:PHE:HD1	5:K:361:PHE:HB3	1.83	0.42
5:C:106:LYS:HE3	8:O:106:GLU:OE2	2.19	0.42
5:C:286:ALA:HB2	5:C:342:LEU:CD1	2.49	0.42
5:C:298:VAL:HA	5:C:301:GLN:HG2	2.02	0.42
6:J:289:ASN:OD1	6:J:289:ASN:N	2.52	0.42
6:J:378:ARG:HA	6:J:378:ARG:NH1	2.30	0.42
6:B:40:ALA:O	6:B:44:ARG:N	2.52	0.42
6:B:481:ASP:HB2	6:B:489:VAL:C	2.44	0.42
6:B:515:ALA:HB1	6:B:519:LEU:HD23	2.01	0.42
7:I:68:GLN:O	7:I:69:ILE:HD13	2.19	0.42
7:I:73:THR:O	7:I:77:ILE:HG13	2.19	0.42
7:I:109:TYR:CE1	7:I:435:LEU:HB3	2.54	0.42
7:I:189:PHE:HE1	7:I:319:ARG:CZ	2.32	0.42
7:I:204:THR:HG23	7:I:375:LEU:O	2.19	0.42
7:I:480:ASP:N	7:I:485:GLU:O	2.31	0.42
7:A:56:LEU:HB2	7:A:382:HIS:HD2	1.85	0.42
7:A:90:ASP:HB2	7:A:393:ASP:OD1	2.20	0.42
7:A:237:LEU:HB2	7:A:297:ILE:CD1	2.48	0.42
8:O:169:ALA:O	8:O:173:VAL:N	2.39	0.42
8:O:345:LEU:HB3	8:O:347:GLN:NE2	2.34	0.42
8:O:399:VAL:HG12	8:O:403:LEU:HD23	2.00	0.42
8:G:22:VAL:HG21	8:G:105:ASP:CG	2.43	0.42
9:Q:192:PHE:CD1	9:Q:208:ARG:HG2	2.54	0.42
1:D:227:GLY:O	1:D:384:THR:HG22	2.19	0.42
1:D:344:ARG:NH2	5:C:275:TYR:OH	2.53	0.42
2:M:155:PHE:O	2:M:159:LEU:HD23	2.20	0.42
2:M:167:LEU:HD13	2:M:167:LEU:HA	1.80	0.42
2:E:106:ALA:O	2:E:109:LEU:HB2	2.19	0.42
2:E:203:LYS:HE3	2:E:383:LEU:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:361:HIS:CD2	2:E:362:PHE:N	2.88	0.42
2:E:458:SER:O	2:E:461:LEU:N	2.53	0.42
3:N:112:ILE:HD13	3:N:112:ILE:HA	1.79	0.42
3:N:310:SER:OG	3:N:312:LEU:N	2.52	0.42
3:N:489:LYS:HB2	3:N:489:LYS:HE3	1.76	0.42
3:F:26:ASP:OD1	3:F:27:ARG:N	2.52	0.42
3:F:301:GLN:HB2	3:F:328:ILE:O	2.20	0.42
3:F:438:GLU:H	3:F:438:GLU:HG2	1.64	0.42
3:F:484:HIS:CE1	3:F:488:GLU:HA	2.54	0.42
4:H:104:GLU:HA	4:H:107:SER:HB3	2.00	0.42
4:H:208:ILE:HG22	4:H:211:ASP:CG	2.44	0.42
4:H:229:MET:HE3	4:H:311:ALA:H	1.84	0.42
4:H:280:GLU:HA	4:H:283:ILE:HG12	2.02	0.42
4:P:422:LEU:O	4:P:426:SER:N	2.41	0.42
5:C:199:LYS:HZ2	5:C:383:GLU:HG3	1.83	0.42
6:B:180:ALA:O	6:B:183:ILE:HG22	2.19	0.42
6:B:205:CYS:SG	6:B:376:VAL:HA	2.60	0.42
6:B:331:THR:HG22	6:B:332:ALA:O	2.20	0.42
7:I:185:PRO:O	7:I:399:LYS:NZ	2.45	0.42
7:I:200:SER:OG	7:I:201:GLU:N	2.52	0.42
7:I:330:GLY:HA2	7:I:344:LEU:O	2.18	0.42
7:A:119:ILE:H	7:A:119:ILE:HD12	1.84	0.42
7:A:228:ALA:O	7:A:346:HIS:HD2	2.02	0.42
8:O:29:ALA:O	8:O:33:LYS:HG3	2.20	0.42
8:O:139:ASN:HD21	8:O:406:LYS:CE	2.33	0.42
8:O:171:MET:HE3	8:O:171:MET:HB3	1.87	0.42
8:O:448:ILE:O	8:O:452:LEU:HG	2.19	0.42
8:G:237:LEU:CG	8:G:239:PHE:HB3	2.50	0.42
8:G:239:PHE:HB2	8:G:329:SER:O	2.19	0.42
9:Q:90:ARG:HD3	9:Q:149:TRP:CE3	2.54	0.42
9:Q:272:PHE:HA	9:Q:281:LYS:O	2.20	0.42
1:L:34:LEU:HD13	1:L:34:LEU:HA	1.60	0.42
1:L:223:LYS:N	1:L:386:PHE:O	2.41	0.42
1:D:34:LEU:HA	1:D:34:LEU:HD13	1.73	0.42
1:D:213:GLY:CA	1:D:387:ILE:HB	2.49	0.42
1:D:260:PRO:HG2	1:D:264:HIS:CG	2.53	0.42
1:D:306:PHE:HB2	1:D:323:ARG:HD3	2.01	0.42
2:M:50:LYS:HE3	3:N:534:ASP:HB3	2.00	0.42
2:M:407:VAL:HG23	2:M:497:PHE:HB2	2.01	0.42
2:E:239:ILE:O	2:E:331:ILE:HA	2.20	0.42
2:E:268:GLU:HG3	3:F:256:PRO:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:122:LYS:HA	3:F:125:GLN:NE2	2.35	0.42
4:H:158:SER:OG	4:H:496:TRP:O	2.33	0.42
4:H:233:ILE:O	4:H:350:LEU:N	2.30	0.42
4:H:247:TYR:HB2	7:A:243:GLU:OE2	2.19	0.42
4:H:257:GLU:O	8:G:255:THR:HG22	2.20	0.42
4:P:376:LEU:HD23	4:P:376:LEU:HA	1.69	0.42
5:K:42:PRO:HB2	5:K:479:ILE:HD13	2.01	0.42
5:K:461:LEU:O	5:K:465:ARG:HG3	2.19	0.42
5:K:479:ILE:O	5:K:482:GLU:HG2	2.19	0.42
5:C:117:HIS:NE2	6:B:457:GLY:HA3	2.35	0.42
5:C:229:PRO:HG2	5:C:232:TYR:OH	2.19	0.42
5:C:445:ILE:HB	5:C:446:PRO:HD3	2.01	0.42
6:J:124:SER:O	6:J:128:VAL:N	2.34	0.42
6:J:199:VAL:HG22	6:J:396:VAL:HG12	2.01	0.42
6:J:519:LEU:HA	6:J:519:LEU:HD13	1.79	0.42
6:B:294:GLY:O	6:B:315:LEU:HA	2.19	0.42
7:I:37:ASN:O	7:I:42:GLY:HA3	2.20	0.42
7:I:104:LYS:HB3	7:I:105:GLN:OE1	2.20	0.42
7:I:213:ASP:OD1	7:I:213:ASP:N	2.41	0.42
7:I:217:ARG:HG3	7:I:314:ARG:NH2	2.34	0.42
7:A:207:ILE:HG13	7:A:209:GLY:N	2.31	0.42
7:A:252:SER:OG	7:A:255:GLU:N	2.29	0.42
7:A:271:VAL:HA	7:A:274:ILE:HD12	2.01	0.42
8:O:388:MET:O	8:O:391:SER:OG	2.37	0.42
8:G:92:SER:O	8:G:95:ILE:HB	2.19	0.42
8:G:118:ILE:HG23	8:G:522:ILE:HG12	2.01	0.42
8:G:136:LEU:HD12	8:G:137:ILE:H	1.85	0.42
8:G:158:SER:C	8:G:159:LYS:HD2	2.44	0.42
1:L:149:ASP:OD1	1:L:149:ASP:N	2.52	0.42
1:L:199:MET:HB3	1:L:202:ARG:NH1	2.34	0.42
1:L:214:LYS:HD2	1:L:214:LYS:HA	1.81	0.42
1:L:303:GLN:HG2	1:L:304:TRP:CD1	2.55	0.42
1:L:513:LYS:HA	1:L:516:GLN:HE21	1.85	0.42
1:D:270:SER:OG	1:D:271:VAL:N	2.52	0.42
1:D:490:GLY:C	1:D:491:ILE:HD12	2.45	0.42
2:E:272:LYS:HG3	3:F:347:HIS:CD2	2.54	0.42
2:E:446:LEU:O	2:E:450:ILE:HG12	2.20	0.42
3:N:246:ILE:HD12	3:N:297:VAL:O	2.19	0.42
3:N:368:ASN:HB3	3:N:371:GLY:CA	2.49	0.42
3:F:297:VAL:HG13	3:F:323:MET:HG3	2.00	0.42
4:H:195:ILE:HG21	4:H:198:TYR:CD2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:228:ARG:NH2	7:A:331:VAL:HG13	2.34	0.42
4:H:290:VAL:O	4:H:291:ILE:HD13	2.19	0.42
4:H:466:LEU:HB2	4:H:487:LEU:HD11	2.01	0.42
4:P:197:LYS:HD3	4:P:197:LYS:HA	1.72	0.42
5:K:175:PHE:N	5:K:175:PHE:CD1	2.88	0.42
5:C:520:ILE:O	6:B:56:VAL:HG13	2.19	0.42
6:J:22:PHE:HB3	6:J:27:GLU:HG2	2.02	0.42
6:J:502:LEU:HD12	6:J:502:LEU:HA	1.79	0.42
6:B:48:GLY:O	6:B:51:GLY:N	2.53	0.42
6:B:420:ALA:C	6:B:424:THR:HG1	2.22	0.42
6:B:516:VAL:O	6:B:520:ARG:N	2.53	0.42
7:I:398:VAL:O	7:I:402:ILE:HG22	2.19	0.42
7:I:415:GLU:HA	7:I:418:MET:HG2	2.02	0.42
7:A:35:ARG:NH1	7:A:450:VAL:HG12	2.35	0.42
7:A:40:PRO:HG3	7:A:481:LEU:HD13	2.00	0.42
7:A:187:ASP:OD1	7:A:191:ILE:HG13	2.19	0.42
8:G:165:GLY:HA2	8:G:168:PHE:HB2	2.02	0.42
8:G:269:ASP:O	8:G:272:LYS:HE2	2.19	0.42
8:G:269:ASP:N	8:G:269:ASP:OD1	2.49	0.42
9:Q:136:VAL:O	9:Q:137:ASP:C	2.63	0.42
1:L:344:ARG:NH1	5:K:268:ASP:HA	2.35	0.42
1:L:523:MET:O	1:L:527:ILE:HG12	2.19	0.42
1:D:74:GLY:O	1:D:78:LEU:HG	2.20	0.42
1:D:147:HIS:HA	1:D:150:LYS:NZ	2.34	0.42
2:M:423:GLN:O	2:M:426:ASN:ND2	2.53	0.42
2:E:91:GLN:OE1	2:E:99:THR:HG23	2.20	0.42
2:E:237:ILE:HB	2:E:344:GLY:C	2.45	0.42
3:N:301:GLN:HA	3:N:328:ILE:HB	2.01	0.42
3:N:431:GLU:O	3:N:435:ARG:HG2	2.19	0.42
3:F:137:PHE:CE1	3:F:454:PHE:HD2	2.38	0.42
4:H:436:PRO:O	4:H:440:VAL:HG23	2.20	0.42
4:P:381:LYS:O	4:P:385:SER:OG	2.29	0.42
5:K:107:GLN:HG3	5:K:441:ALA:HB2	2.02	0.42
5:C:40:LEU:HD12	5:C:95:THR:OG1	2.20	0.42
5:C:118:PRO:CB	5:C:514:VAL:HG12	2.50	0.42
5:C:186:LEU:HD23	5:C:186:LEU:HA	1.71	0.42
5:C:192:LEU:HD21	5:C:394:MET:HB3	2.01	0.42
6:B:72:ILE:O	6:B:75:GLU:N	2.52	0.42
6:B:168:ILE:HG22	6:B:176:GLU:HG3	2.01	0.42
6:B:328:VAL:HB	6:B:346:HIS:H	1.84	0.42
7:I:199:LYS:HB3	7:I:199:LYS:HE2	1.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:200:SER:O	7:I:379:PRO:HD3	2.20	0.42
7:I:478:GLY:O	7:I:487:MET:N	2.45	0.42
7:A:90:ASP:CG	7:A:91:GLY:N	2.78	0.42
7:A:123:PHE:CD2	7:A:440:PHE:HB2	2.55	0.42
8:O:173:VAL:HG22	8:O:177:LEU:HD23	2.02	0.42
8:O:234:ILE:HA	8:O:285:VAL:HB	2.00	0.42
8:G:272:LYS:O	8:G:276:GLN:HG3	2.20	0.42
8:G:355:ARG:HA	8:G:359:ASP:O	2.20	0.42
8:G:378:ARG:HA	8:G:378:ARG:HD2	1.70	0.42
8:G:489:ASP:HB2	8:G:496:ARG:HE	1.84	0.42
9:Q:5:LEU:HD11	9:Q:306:TRP:CG	2.55	0.42
9:Q:40:PRO:HD3	9:Q:86:GLN:NE2	2.35	0.42
1:L:265:LYS:NZ	2:M:255:ARG:HE	2.10	0.42
1:L:270:SER:OG	1:L:271:VAL:N	2.52	0.42
1:L:391:ASN:HB3	1:L:394:ILE:HD12	2.01	0.42
1:D:142:ARG:O	1:D:146:GLU:HG3	2.20	0.42
1:D:162:THR:HB	1:D:163:GLU:OE1	2.20	0.42
1:D:251:LEU:HD22	1:D:255:PHE:CE1	2.55	0.42
1:D:280:TYR:HA	1:D:283:GLU:OE1	2.20	0.42
1:D:358:LEU:N	1:D:375:GLU:O	2.53	0.42
1:D:406:LEU:HG	1:D:406:LEU:H	1.71	0.42
2:M:279:VAL:O	2:M:282:ILE:N	2.53	0.42
2:E:287:ILE:HG22	2:E:289:CYS:H	1.83	0.42
3:N:331:GLU:H	3:N:331:GLU:HG3	1.69	0.42
3:N:474:ILE:HD13	3:N:474:ILE:HA	1.94	0.42
3:F:60:MET:SD	3:F:70:ILE:HG12	2.60	0.42
4:H:33:ILE:HD13	4:H:33:ILE:HA	1.89	0.42
4:H:47:MET:O	7:A:518:VAL:HA	2.20	0.42
4:H:113:LEU:HD13	4:H:113:LEU:HA	1.83	0.42
4:H:248:LYS:HE2	4:H:248:LYS:HB2	1.74	0.42
4:H:258:ILE:HG12	7:A:248:PHE:CB	2.50	0.42
4:H:261:GLU:OE1	4:H:261:GLU:N	2.38	0.42
4:H:285:LEU:HD13	4:H:285:LEU:HA	1.79	0.42
4:P:467:ARG:O	4:P:471:THR:HG23	2.20	0.42
5:K:391:ASP:O	5:K:395:ILE:HG22	2.20	0.42
5:C:269:ALA:O	5:C:273:ILE:HG12	2.20	0.42
6:J:262:ALA:O	6:J:264:GLU:N	2.52	0.42
6:B:29:VAL:HG22	6:B:120:ARG:NH1	2.30	0.42
6:B:156:ASP:CG	6:B:158:ASP:H	2.27	0.42
6:B:315:LEU:HA	6:B:315:LEU:HD23	1.85	0.42
6:B:447:ALA:HA	6:B:450:ARG:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:447:ILE:HB	7:I:448:PRO:HD3	2.01	0.42
7:A:103:LEU:HG	7:A:103:LEU:H	1.68	0.42
8:G:33:LYS:HA	8:G:36:LEU:HD21	2.02	0.42
1:L:58:ASP:O	1:L:59:LYS:HE2	2.20	0.42
1:D:417:ARG:HE	1:D:510:LEU:HD13	1.84	0.42
2:M:509:GLU:O	2:M:513:VAL:HG12	2.20	0.42
3:N:157:LEU:O	3:N:163:LEU:HD11	2.20	0.42
3:N:171:LEU:HD12	3:N:176:VAL:HG11	2.02	0.42
3:N:248:LEU:C	3:N:249:ILE:HD12	2.45	0.42
3:N:484:HIS:ND1	3:N:484:HIS:O	2.53	0.42
3:F:35:PHE:CE1	3:F:124:LEU:HD12	2.54	0.42
3:F:180:SER:HA	3:F:183:LEU:HB2	2.00	0.42
3:F:291:LYS:HG3	3:F:320:MET:SD	2.60	0.42
4:H:334:ARG:HD3	4:H:334:ARG:HA	1.34	0.42
5:K:156:GLU:O	5:K:160:MET:HG2	2.20	0.42
5:K:157:LYS:HD3	5:K:157:LYS:HA	1.82	0.42
5:K:378:ALA:HB3	5:K:381:PHE:CD1	2.55	0.42
5:K:487:ASN:O	5:K:491:PHE:N	2.53	0.42
5:C:197:ILE:O	5:C:198:LYS:HD2	2.20	0.42
5:C:199:LYS:NZ	5:C:383:GLU:HG3	2.34	0.42
5:C:295:ILE:HG12	5:C:312:GLY:CA	2.49	0.42
5:C:346:GLN:HB3	5:C:363:GLY:HA3	2.01	0.42
6:B:172:GLN:CD	6:B:174:GLY:H	2.28	0.42
7:I:131:LEU:HA	7:I:134:LEU:HB3	2.01	0.42
7:I:303:ASP:CG	7:I:307:LYS:NZ	2.78	0.42
7:I:378:GLY:HA3	7:I:384:LEU:HD21	2.01	0.42
7:I:522:MET:HE2	7:I:522:MET:HB2	1.78	0.42
7:I:526:MET:HE2	7:I:526:MET:HB3	1.99	0.42
7:A:226:GLU:O	7:A:349:LEU:HA	2.20	0.42
7:A:452:ALA:O	7:A:456:GLY:N	2.53	0.42
8:O:386:ASP:O	8:O:389:GLU:HG3	2.20	0.42
8:G:192:VAL:HB	8:G:400:LYS:HD2	2.01	0.42
9:Q:20:GLU:HG2	11:Q:1294:HOH:O	2.19	0.42
1:L:73:ASP:OD2	1:L:76:THR:HG23	2.20	0.41
1:L:177:VAL:HA	2:M:516:ARG:HH22	1.85	0.41
2:M:201:ILE:HG12	2:M:373:ILE:HD11	2.02	0.41
2:E:114:GLU:O	2:E:118:ALA:N	2.43	0.41
2:E:151:ASP:HB3	2:E:154:LYS:HG3	2.02	0.41
2:E:317:PHE:HA	2:E:320:VAL:HB	2.01	0.41
2:E:331:ILE:O	2:E:331:ILE:HG12	2.20	0.41
3:F:260:MET:HE2	3:F:260:MET:HB2	1.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:274:TYR:O	4:H:277:GLN:HB2	2.20	0.41
4:H:351:GLU:HB3	4:H:362:PHE:HB2	2.01	0.41
5:K:417:SER:OG	5:K:439:ALA:HB1	2.20	0.41
5:K:425:ARG:HD3	5:K:425:ARG:HA	1.90	0.41
5:K:487:ASN:ND2	5:K:487:ASN:N	2.68	0.41
5:C:274:LEU:HD13	5:C:277:LYS:HD2	2.02	0.41
6:J:351:TYR:HE2	6:J:364:LYS:HE2	1.85	0.41
6:B:419:LEU:O	6:B:423:ILE:HG13	2.20	0.41
7:I:254:GLU:O	7:I:258:LYS:HG3	2.20	0.41
7:I:296:GLY:CA	7:I:315:ARG:HE	2.33	0.41
8:O:44:MET:C	8:O:45:LEU:HD23	2.45	0.41
8:O:146:ASP:O	8:O:149:ILE:HB	2.20	0.41
8:O:192:VAL:C	8:O:194:SER:H	2.27	0.41
8:O:275:ILE:HG23	8:O:300:PHE:HE2	1.84	0.41
8:G:145:ARG:O	8:G:149:ILE:HG12	2.19	0.41
1:L:52:LEU:HA	1:L:107:THR:OG1	2.20	0.41
1:L:61:MET:HG3	1:L:80:MET:HB2	2.02	0.41
1:L:167:GLN:H	1:L:167:GLN:HG3	1.66	0.41
1:L:426:GLU:HA	1:L:429:CYS:HB2	2.03	0.41
3:N:196:ASP:OD2	3:N:199:THR:HG23	2.20	0.41
3:N:211:VAL:HB	3:N:389:VAL:HA	2.02	0.41
3:N:222:GLU:HB3	3:N:389:VAL:CB	2.49	0.41
3:F:71:THR:HA	3:F:400:GLU:OE1	2.20	0.41
3:F:526:VAL:HA	3:F:529:ILE:HG12	2.01	0.41
4:H:182:MET:O	4:H:370:LYS:HA	2.20	0.41
4:H:416:MET:H	4:H:416:MET:HG2	1.70	0.41
4:P:504:GLN:HA	4:P:507:LYS:HB2	2.03	0.41
5:C:210:LEU:HB2	5:C:372:PHE:CE1	2.55	0.41
5:C:245:GLU:CG	5:C:248:ALA:HB2	2.51	0.41
6:J:406:LYS:HD3	6:J:407:ARG:H	1.84	0.41
6:B:80:HIS:CE1	6:B:82:ALA:HB3	2.45	0.41
6:B:86:ILE:O	6:B:90:SER:OG	2.38	0.41
6:B:322:ARG:O	6:B:326:LYS:HG3	2.20	0.41
6:B:409:VAL:HG22	6:B:499:ASP:O	2.20	0.41
6:B:452:LEU:HB3	6:B:480:LEU:HD23	2.02	0.41
6:B:474:GLY:O	6:B:476:LYS:N	2.53	0.41
6:B:515:ALA:O	6:B:516:VAL:C	2.62	0.41
7:I:237:LEU:HB2	7:I:297:ILE:CD1	2.51	0.41
7:I:276:GLU:O	7:I:279:ARG:NH1	2.54	0.41
7:I:493:GLY:HA2	7:I:495:TRP:HE1	1.83	0.41
7:I:499:CYS:O	7:I:503:GLN:N	2.37	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:46:MET:HE3	7:A:46:MET:HB2	1.76	0.41
7:A:475:GLN:O	7:A:477:VAL:HG23	2.20	0.41
8:O:36:LEU:HB3	8:O:91:THR:O	2.21	0.41
8:O:86:VAL:HG11	8:O:509:VAL:HG13	2.01	0.41
8:O:298:LYS:HA	8:O:298:LYS:HD3	1.69	0.41
8:G:161:ILE:H	8:G:161:ILE:HG12	1.62	0.41
8:G:203:ARG:HD2	8:G:378:ARG:HE	1.84	0.41
9:Q:53:HIS:O	9:Q:77:ILE:HG12	2.20	0.41
1:L:21:ASP:C	1:L:25:LYS:HG2	2.45	0.41
1:L:104:ASP:CG	1:L:105:GLY:H	2.28	0.41
1:L:484:GLU:C	1:L:485:MET:HE2	2.45	0.41
1:D:293:LYS:HA	1:D:293:LYS:HD3	1.91	0.41
1:D:309:GLU:OE1	2:E:333:SER:HB3	2.21	0.41
2:M:102:VAL:HG22	2:M:503:VAL:HA	2.01	0.41
2:M:177:ASP:OD1	2:M:177:ASP:N	2.51	0.41
3:N:160:ARG:HA	3:N:163:LEU:HD12	2.02	0.41
3:N:263:GLN:OE1	8:O:250:VAL:HA	2.19	0.41
3:N:493:ILE:HD12	3:N:499:GLY:O	2.20	0.41
4:P:318:THR:HG1	4:P:319:ASP:N	2.18	0.41
5:K:68:LEU:HD13	5:K:68:LEU:HA	1.86	0.41
5:C:9:LEU:HA	6:B:79:GLN:HE22	1.86	0.41
5:C:302:TYR:O	5:C:306:ARG:N	2.47	0.41
5:C:349:GLU:O	5:C:360:PHE:N	2.37	0.41
5:C:394:MET:H	5:C:394:MET:HG3	1.54	0.41
5:C:519:THR:CA	6:B:54:LYS:HZ3	2.32	0.41
6:J:78:VAL:O	6:J:84:LYS:HE3	2.20	0.41
6:J:297:VAL:HG23	6:J:314:ARG:NH2	2.33	0.41
6:B:93:GLN:O	6:B:97:VAL:HG22	2.20	0.41
6:B:467:LEU:HA	6:B:470:VAL:HG22	2.02	0.41
7:I:33:VAL:HB	7:I:34:LEU:HD22	2.03	0.41
7:A:265:LYS:HA	7:A:268:GLU:HB2	2.01	0.41
7:A:267:ILE:H	7:A:267:ILE:HG12	1.65	0.41
8:O:164:ASN:HB3	8:O:168:PHE:CD1	2.55	0.41
8:O:190:TYR:CD2	8:O:403:LEU:HB3	2.55	0.41
8:O:288:THR:HG22	8:O:290:GLY:N	2.35	0.41
8:O:519:GLU:O	8:O:522:ILE:HB	2.19	0.41
8:G:139:ASN:HD21	8:G:406:LYS:HA	1.85	0.41
8:G:146:ASP:O	8:G:149:ILE:HB	2.20	0.41
8:G:354:GLU:OE1	8:G:356:ILE:HG12	2.20	0.41
8:G:384:MET:O	8:G:387:GLU:HG3	2.21	0.41
9:Q:222:VAL:HG11	9:Q:361:PRO:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Q:325:ASN:ND2	11:Q:1155:HOH:O	2.27	0.41
1:L:289:ILE:HD13	1:L:289:ILE:HA	1.77	0.41
1:L:376:GLN:NE2	1:L:378:LYS:HB2	2.35	0.41
1:D:376:GLN:HE22	1:D:378:LYS:HB2	1.86	0.41
1:D:528:LEU:HD13	1:D:528:LEU:HA	1.85	0.41
2:M:40:LYS:HG2	2:M:104:VAL:CG2	2.51	0.41
2:E:97:ASP:CG	2:E:98:GLY:H	2.28	0.41
3:N:153:ARG:N	3:N:421:LEU:O	2.49	0.41
3:N:204:ASP:CG	3:N:206:ARG:H	2.29	0.41
3:N:432:LEU:O	3:N:436:LEU:N	2.34	0.41
3:N:492:GLY:C	3:N:503:ILE:HD11	2.45	0.41
3:F:143:LYS:HG3	3:F:439:TYR:CE2	2.56	0.41
3:F:354:ASP:OD1	3:F:355:MET:N	2.54	0.41
4:H:490:MET:HG3	4:H:496:TRP:NE1	2.36	0.41
4:P:157:ASN:O	4:P:161:THR:N	2.53	0.41
4:P:274:TYR:O	4:P:277:GLN:HB2	2.20	0.41
5:K:36:VAL:HG12	5:K:39:THR:HG21	2.02	0.41
5:K:209:GLN:O	5:K:373:ILE:N	2.53	0.41
5:K:232:TYR:O	5:K:235:PRO:HG3	2.20	0.41
5:K:270:GLU:O	5:K:273:ILE:HB	2.21	0.41
5:C:19:ILE:H	5:C:19:ILE:HG13	1.66	0.41
6:J:405:ASP:CG	6:J:406:LYS:N	2.78	0.41
6:J:416:GLU:H	6:J:416:GLU:CD	2.26	0.41
6:B:104:VAL:HG23	6:B:511:ALA:HB2	2.02	0.41
6:B:204:VAL:HG11	6:B:389:GLU:HB2	2.02	0.41
7:I:164:LEU:HD13	7:I:201:GLU:HG3	2.01	0.41
7:I:426:LYS:HD3	7:I:427:PRO:HD2	2.01	0.41
7:A:48:VAL:HA	7:A:53:ASP:O	2.20	0.41
7:A:469:GLU:OE1	7:A:469:GLU:N	2.50	0.41
8:O:44:MET:HA	8:O:53:THR:O	2.20	0.41
8:O:179:ILE:HD12	8:O:179:ILE:HA	1.83	0.41
8:O:216:LEU:HB3	8:O:218:CYS:SG	2.60	0.41
8:G:211:ILE:O	8:G:373:ALA:HA	2.20	0.41
8:G:518:THR:H	8:G:518:THR:HG1	1.59	0.41
9:Q:85:VAL:HG22	9:Q:294:THR:HB	2.02	0.41
1:L:210:LYS:HA	1:L:210:LYS:HD2	1.66	0.41
1:L:261:LYS:HZ3	5:K:246:LEU:HB2	1.85	0.41
1:L:368:LYS:HG2	1:L:369:ASP:H	1.85	0.41
1:L:440:CYS:O	1:L:441:PRO:O	2.39	0.41
1:D:19:ILE:HG23	5:C:70:ASP:O	2.20	0.41
2:M:228:GLN:HB3	2:M:229:PRO:HD2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:445:MET:HE3	2:M:449:ILE:HG12	2.01	0.41
2:E:226:VAL:HB	2:E:301:GLU:CD	2.45	0.41
3:N:34:ARG:HA	3:N:37:ASN:HD22	1.85	0.41
3:N:526:VAL:O	3:N:529:ILE:HB	2.21	0.41
3:F:26:ASP:CG	3:F:27:ARG:HG3	2.45	0.41
3:F:105:GLY:O	3:F:108:SER:N	2.53	0.41
3:F:122:LYS:O	3:F:126:LYS:N	2.49	0.41
3:F:230:THR:HA	3:F:373:LEU:CD1	2.50	0.41
4:H:434:GLN:HG3	4:H:438:ARG:HH11	1.84	0.41
4:H:434:GLN:OE1	4:H:438:ARG:NH1	2.47	0.41
4:P:70:ILE:HD13	4:P:70:ILE:HA	1.71	0.41
4:P:80:MET:HE2	4:P:80:MET:HB2	1.91	0.41
4:P:134:ILE:O	4:P:138:LYS:HG3	2.20	0.41
4:P:515:LEU:HD22	8:O:384:MET:HB2	2.03	0.41
5:K:240:LEU:HA	5:K:240:LEU:HD23	1.77	0.41
6:J:22:PHE:O	6:J:524:ILE:N	2.49	0.41
6:J:103:PHE:N	6:J:103:PHE:CD2	2.84	0.41
6:J:199:VAL:HG11	6:J:397:ASN:OD1	2.21	0.41
6:J:318:LYS:O	6:J:322:ARG:HB2	2.21	0.41
6:J:381:THR:O	6:J:385:MET:HE2	2.20	0.41
6:J:405:ASP:O	6:J:406:LYS:HE2	2.21	0.41
7:I:146:GLU:HA	7:I:149:ILE:HB	2.03	0.41
8:G:330:THR:OG1	8:G:331:LEU:N	2.53	0.41
9:Q:357:MET:HE1	11:Q:1479:HOH:O	2.20	0.41
1:L:12:TYR:CZ	1:L:14:ARG:HD2	2.55	0.41
1:L:362:ILE:HG23	1:L:371:MET:HB2	2.01	0.41
1:D:218:ARG:HD3	2:E:502:GLN:HE22	1.84	0.41
1:D:254:PRO:HB3	1:D:304:TRP:CB	2.46	0.41
1:D:288:MET:HA	1:D:291:GLN:HB3	2.01	0.41
1:D:312:HIS:CD2	2:E:332:ALA:HA	2.55	0.41
1:D:529:LYS:HD2	1:D:529:LYS:HA	1.75	0.41
2:M:66:ASP:OD2	2:M:68:ALA:HB3	2.21	0.41
2:M:272:LYS:HD3	2:M:272:LYS:HA	1.84	0.41
2:E:379:THR:HG22	2:E:381:GLN:H	1.83	0.41
3:N:55:LYS:HD2	8:O:113:HIS:HE2	1.84	0.41
3:N:365:VAL:HG11	3:N:375:LYS:HE3	2.02	0.41
4:H:381:LYS:HA	4:H:384:LEU:HB2	2.03	0.41
4:H:523:VAL:CB	8:G:45:LEU:HB3	2.45	0.41
4:P:152:MET:O	4:P:156:ILE:HG12	2.20	0.41
4:P:220:ILE:HB	4:P:361:THR:HB	2.01	0.41
4:P:392:GLN:O	4:P:395:MET:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:425:LYS:O	4:P:429:MET:HB2	2.21	0.41
4:P:499:LEU:O	4:P:503:LEU:HG	2.20	0.41
5:K:238:ALA:O	5:K:239:LEU:HD23	2.20	0.41
5:K:521:LYS:HA	6:J:57:ILE:HD11	2.03	0.41
5:C:122:ILE:O	5:C:126:ARG:HG2	2.19	0.41
5:C:359:ASN:OD1	5:C:359:ASN:N	2.53	0.41
5:C:372:PHE:HD1	5:C:372:PHE:HA	1.73	0.41
5:C:374:LEU:HD12	5:C:374:LEU:HA	1.77	0.41
6:J:160:VAL:HA	6:J:163:LEU:HD12	2.02	0.41
6:B:96:GLU:HG3	6:B:97:VAL:HG13	2.02	0.41
6:B:169:MET:HE1	6:B:497:ILE:HG23	2.01	0.41
7:I:44:MET:H	7:I:44:MET:CE	2.34	0.41
7:I:317:LYS:HB2	7:I:320:ASN:HD21	1.86	0.41
7:A:261:LYS:HD2	7:A:261:LYS:H	1.85	0.41
8:O:54:ILE:C	8:O:55:THR:HG1	2.27	0.41
8:G:173:VAL:O	8:G:176:VAL:HG13	2.21	0.41
8:G:423:LEU:O	8:G:427:ALA:N	2.48	0.41
9:Q:212:SER:N	11:Q:1215:HOH:O	2.43	0.41
1:L:27:ARG:NH1	1:L:29:MET:HB2	2.36	0.41
1:L:206:PHE:HE1	1:L:407:CYS:HG	1.64	0.41
1:L:234:PHE:HB3	1:L:239:MET:HE3	2.03	0.41
1:D:137:TYR:O	1:D:141:ALA:N	2.52	0.41
1:D:148:LEU:HD12	1:D:148:LEU:HA	1.88	0.41
1:D:190:VAL:HA	1:D:193:VAL:HG22	2.03	0.41
1:D:206:PHE:N	1:D:206:PHE:CD2	2.88	0.41
1:D:313:LEU:O	1:D:316:GLN:HB2	2.20	0.41
1:D:427:ILE:O	1:D:431:LEU:HD23	2.21	0.41
1:D:496:LYS:C	1:D:498:THR:H	2.29	0.41
1:D:518:SER:O	1:D:522:GLN:HG3	2.21	0.41
2:M:412:CYS:SG	2:M:413:SER:N	2.94	0.41
3:N:31:ALA:HA	3:N:34:ARG:CZ	2.50	0.41
3:N:32:GLN:HA	3:N:35:PHE:HD2	1.84	0.41
3:F:72:ASN:HB3	3:F:174:LYS:HG3	2.03	0.41
3:F:75:ALA:O	3:F:79:LYS:N	2.39	0.41
4:H:20:ARG:HA	4:H:23:GLN:HG3	2.01	0.41
4:P:132:ASP:OD1	4:P:132:ASP:N	2.52	0.41
4:P:196:LYS:HG2	4:P:399:ARG:NH2	2.36	0.41
5:K:27:SER:O	5:K:31:VAL:HG23	2.21	0.41
5:K:28:ALA:O	5:K:32:ILE:HG12	2.21	0.41
5:K:36:VAL:O	5:K:39:THR:OG1	2.24	0.41
5:K:209:GLN:N	5:K:373:ILE:O	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:224:GLY:O	5:K:227:MET:N	2.45	0.41
5:K:503:LEU:HG	5:K:503:LEU:H	1.71	0.41
6:J:36:CYS:SG	6:J:109:GLY:HA2	2.60	0.41
6:J:277:ASP:HB2	6:J:304:TYR:CE1	2.55	0.41
6:B:338:PRO:O	6:B:340:VAL:N	2.53	0.41
6:B:467:LEU:O	6:B:471:HIS:HB2	2.20	0.41
6:B:522:ASP:OD1	6:B:522:ASP:N	2.34	0.41
7:I:18:ALA:O	7:I:22:VAL:HG23	2.20	0.41
7:I:218:HIS:HE2	7:I:220:ASP:CG	2.22	0.41
7:I:414:VAL:O	7:I:418:MET:HG2	2.21	0.41
7:A:4:VAL:HG22	7:A:7:LEU:HB3	2.02	0.41
7:A:321:MET:HA	7:A:324:LEU:HB2	2.03	0.41
8:O:37:GLY:C	8:O:39:VAL:N	2.79	0.41
8:O:150:ASN:O	8:O:154:THR:N	2.41	0.41
8:O:166:ASP:O	8:O:170:ASN:HB3	2.21	0.41
8:G:109:LYS:HD3	8:G:109:LYS:HA	1.85	0.41
8:G:129:VAL:O	8:G:132:ILE:HB	2.21	0.41
8:G:272:LYS:O	8:G:275:ILE:HB	2.21	0.41
9:Q:330:GLN:O	9:Q:334:VAL:HG22	2.20	0.41
1:L:46:ASN:OD1	1:L:46:ASN:N	2.53	0.41
1:L:86:GLN:OE1	5:K:56:ALA:HB2	2.21	0.41
1:L:198:ASP:HB2	1:L:203:ASP:OD1	2.20	0.41
1:D:73:ASP:O	1:D:77:ILE:HG12	2.20	0.41
2:M:207:GLY:HA3	2:M:376:ARG:HB3	2.03	0.41
2:M:268:GLU:HG3	3:N:256:PRO:HB3	2.03	0.41
2:M:511:ALA:O	2:M:515:LEU:HG	2.21	0.41
2:E:299:TYR:CE1	2:E:303:LEU:HD21	2.56	0.41
2:E:375:LEU:HA	2:E:375:LEU:HD23	1.70	0.41
3:N:59:LYS:O	3:N:71:THR:N	2.41	0.41
3:N:171:LEU:HA	3:N:171:LEU:HD13	1.67	0.41
3:F:229:LEU:HD23	3:F:229:LEU:HA	1.67	0.41
4:P:162:THR:C	4:P:163:LYS:HD2	2.46	0.41
4:P:391:LEU:HA	4:P:394:ALA:HB3	2.01	0.41
4:P:521:ASP:CG	8:O:43:LYS:HG3	2.46	0.41
5:K:110:PRO:O	5:K:113:GLU:HB2	2.20	0.41
5:K:204:ALA:HB3	5:K:207:ASP:CG	2.46	0.41
5:K:238:ALA:O	5:K:289:VAL:HA	2.21	0.41
5:K:298:VAL:H	5:K:298:VAL:HG22	1.60	0.41
5:C:36:VAL:O	5:C:39:THR:OG1	2.17	0.41
5:C:351:THR:O	5:C:358:TYR:HB2	2.21	0.41
5:C:486:ASP:OD1	5:C:488:PHE:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:19:ALA:HB1	6:J:526:MET:O	2.20	0.41
6:J:92:MET:HE3	6:J:92:MET:HB3	1.95	0.41
6:B:132:TYR:CD1	6:B:441:PHE:HD2	2.39	0.41
7:I:37:ASN:C	7:I:58:LYS:HD3	2.45	0.41
7:I:118:ILE:HG12	7:I:118:ILE:H	1.61	0.41
7:I:290:VAL:HA	7:I:311:VAL:HB	2.03	0.41
7:A:92:THR:HA	7:A:95:ASN:HB2	2.03	0.41
7:A:93:THR:OG1	7:A:94:SER:N	2.53	0.41
8:O:150:ASN:HB3	8:O:502:GLY:O	2.20	0.41
8:G:55:THR:HG22	8:G:57:ASP:H	1.86	0.41
8:G:421:ILE:HD12	8:G:475:GLN:HG2	2.03	0.41
1:L:74:GLY:O	1:L:77:ILE:HB	2.20	0.41
1:L:184:GLN:HA	1:L:187:GLU:OE1	2.21	0.41
1:D:145:ILE:H	1:D:145:ILE:HG12	1.75	0.41
1:D:149:ASP:OD1	1:D:150:LYS:N	2.53	0.41
1:D:206:PHE:HZ	1:D:407:CYS:HA	1.86	0.41
1:D:229:ILE:HA	1:D:373:VAL:HA	2.03	0.41
1:D:473:THR:O	1:D:477:VAL:HG23	2.21	0.41
1:D:526:MET:HE3	1:D:526:MET:HB3	1.90	0.41
1:D:529:LYS:NZ	5:C:44:GLY:O	2.54	0.41
2:M:156:ARG:HA	2:M:159:LEU:HB2	2.03	0.41
2:M:204:LYS:O	2:M:376:ARG:NH1	2.54	0.41
2:M:293:ARG:HA	2:M:315:ALA:H	1.86	0.41
2:M:354:ILE:O	2:M:356:GLU:N	2.54	0.41
2:E:19:GLU:O	2:E:519:ASN:HA	2.20	0.41
2:E:115:SER:HA	2:E:118:ALA:HB3	2.02	0.41
2:E:236:LYS:O	2:E:289:CYS:HB3	2.20	0.41
2:E:262:ALA:O	2:E:266:GLU:HG3	2.21	0.41
2:E:265:ALA:O	2:E:269:HIS:HB2	2.21	0.41
2:E:273:GLU:O	2:E:277:GLU:HG3	2.21	0.41
3:N:60:MET:HG3	8:O:527:ILE:HG23	2.02	0.41
3:N:196:ASP:C	3:N:198:ALA:H	2.29	0.41
3:N:248:LEU:HG	3:N:344:PRO:HB3	2.01	0.41
3:N:250:GLN:OE1	3:N:346:ALA:HB2	2.21	0.41
3:N:419:ARG:N	3:N:419:ARG:NE	2.69	0.41
3:F:187:SER:O	3:F:191:VAL:HG23	2.20	0.41
3:F:496:ARG:NH1	3:F:497:LYS:HB2	2.35	0.41
4:H:48:LYS:HE2	7:A:520:GLU:CG	2.51	0.41
4:H:57:ILE:HD12	4:H:58:VAL:N	2.36	0.41
4:H:99:ILE:O	4:H:102:ALA:N	2.54	0.41
4:H:165:ILE:HG22	4:H:168:TRP:HB2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:282:ILE:HD11	4:H:335:PRO:HB3	2.03	0.41
4:H:439:ALA:O	4:H:442:GLN:HB2	2.21	0.41
4:H:446:VAL:O	4:H:450:THR:N	2.35	0.41
4:P:14:THR:HB	4:P:524:SER:O	2.21	0.41
4:P:14:THR:HG22	4:P:525:GLY:HA3	2.03	0.41
4:P:90:GLU:HG2	4:P:504:GLN:HE21	1.86	0.41
4:P:123:ILE:HD11	4:P:517:LEU:CB	2.51	0.41
4:P:127:ARG:NH2	8:O:163:ILE:HB	2.36	0.41
4:P:194:ASP:C	4:P:195:ILE:HD12	2.46	0.41
4:P:221:ASN:HA	4:P:360:PHE:HD1	1.85	0.41
4:P:359:TYR:OH	7:I:186:ILE:HD12	2.21	0.41
4:P:502:LYS:HA	4:P:502:LYS:HD3	1.87	0.41
4:P:507:LYS:O	4:P:511:GLU:HG2	2.21	0.41
5:K:275:TYR:CD1	5:K:275:TYR:N	2.89	0.41
5:K:456:ASP:HA	8:G:111:LYS:HZ2	1.86	0.41
5:C:20:PRO:HA	5:C:23:VAL:HG12	2.03	0.41
5:C:119:GLN:CD	6:B:50:ASN:HA	2.46	0.41
6:J:63:LEU:HD13	6:J:63:LEU:HA	1.93	0.41
6:J:71:THR:O	6:J:75:GLU:HG2	2.21	0.41
6:J:226:GLU:CD	6:J:359:GLN:HG3	2.46	0.41
6:J:247:ASP:HA	6:J:298:ALA:HB2	2.02	0.41
6:J:385:MET:O	6:J:388:ILE:HG22	2.20	0.41
6:B:35:ALA:O	6:B:39:LEU:HD22	2.20	0.41
6:B:93:GLN:O	6:B:97:VAL:N	2.48	0.41
6:B:377:LEU:HA	6:B:377:LEU:HD13	1.78	0.41
6:B:383:ASN:HA	6:B:386:ASP:OD2	2.21	0.41
6:B:481:ASP:HB2	6:B:489:VAL:O	2.21	0.41
7:I:253:ALA:O	7:I:256:ARG:HB3	2.20	0.41
7:A:91:GLY:HA2	7:A:94:SER:OG	2.21	0.41
7:A:136:GLU:OE2	7:A:137:VAL:HB	2.21	0.41
7:A:218:HIS:O	7:A:221:MET:HB2	2.20	0.41
7:A:239:TYR:CG	7:A:240:GLU:N	2.89	0.41
7:A:277:LEU:HD21	7:A:344:LEU:HD21	2.03	0.41
7:A:297:ILE:HG12	7:A:314:ARG:CB	2.51	0.41
7:A:419:ALA:CB	7:A:445:LEU:HD21	2.50	0.41
7:A:473:SER:O	7:A:473:SER:OG	2.38	0.41
8:O:92:SER:O	8:O:96:ILE:HG12	2.21	0.41
8:O:96:ILE:HG22	8:O:100:LEU:HD23	2.02	0.41
8:O:151:ALA:O	8:O:155:SER:N	2.40	0.41
8:O:174:ASP:OD1	8:O:174:ASP:N	2.52	0.41
8:O:225:MET:HG3	8:O:226:PRO:CD	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:O:276:GLN:O	8:O:280:ALA:N	2.48	0.41
8:O:520:ALA:O	8:O:524:ILE:HG12	2.20	0.41
8:G:100:LEU:HD13	8:G:444:SER:OG	2.21	0.41
8:G:313:LYS:O	8:G:316:LEU:HG	2.21	0.41
8:G:354:GLU:C	8:G:360:GLU:HA	2.46	0.41
8:G:396:LEU:HD13	8:G:396:LEU:HA	1.91	0.41
8:G:398:VAL:HG23	8:G:399:VAL:N	2.35	0.41
9:Q:79:HIS:HA	9:Q:82:TYR:CZ	2.56	0.41
1:L:214:LYS:HB2	1:L:386:PHE:CE1	2.56	0.41
1:L:255:PHE:N	1:L:255:PHE:HD1	2.19	0.41
1:L:266:LEU:O	2:M:255:ARG:HG3	2.21	0.41
1:L:358:LEU:HD23	1:L:375:GLU:CD	2.46	0.41
1:L:362:ILE:O	1:L:370:LYS:HB3	2.21	0.41
1:L:364:PHE:HZ	1:L:368:LYS:NZ	2.19	0.41
1:L:525:ARG:NH1	5:K:167:LEU:O	2.53	0.41
1:D:93:GLU:OE2	5:C:201:GLN:OE1	2.39	0.41
1:D:138:GLU:HA	1:D:521:THR:HG21	2.03	0.41
1:D:323:ARG:HE	1:D:323:ARG:HB3	1.73	0.41
2:M:160:MET:HE2	2:M:160:MET:HB2	1.83	0.41
2:E:98:GLY:O	2:E:102:VAL:HG23	2.20	0.41
3:N:205:LEU:H	3:N:205:LEU:HG	1.41	0.41
3:F:163:LEU:O	3:F:166:SER:OG	2.26	0.41
3:F:213:LYS:HD2	3:F:213:LYS:HA	1.68	0.41
4:H:194:ASP:C	4:H:195:ILE:HD12	2.47	0.41
4:H:415:GLU:HB3	4:H:444:LEU:HG	2.03	0.41
4:P:106:LEU:HA	4:P:109:ALA:HB3	2.02	0.41
5:K:251:ASP:OD1	5:K:252:ASN:N	2.54	0.41
5:K:350:GLU:HB2	5:K:358:TYR:O	2.20	0.41
5:K:474:TRP:HB2	5:K:486:ASP:OD1	2.21	0.41
5:C:366:LYS:HE3	5:C:366:LYS:HB3	1.78	0.41
6:B:208:LEU:HA	6:B:379:GLY:O	2.21	0.41
6:B:406:LYS:HA	6:B:406:LYS:HD3	1.62	0.41
7:I:46:MET:HA	7:I:55:LYS:O	2.21	0.41
7:I:129:LYS:HD3	7:I:425:HIS:NE2	2.35	0.41
7:I:175:SER:HB3	7:I:206:LEU:HD22	2.03	0.41
7:I:435:LEU:HD13	7:I:435:LEU:HA	1.84	0.41
7:A:74:ALA:HA	7:A:77:ILE:HD12	2.02	0.41
8:O:348:ALA:HA	8:O:367:THR:HA	2.03	0.41
8:G:81:LEU:O	8:G:85:GLU:N	2.54	0.41
8:G:533:LEU:HD23	8:G:533:LEU:HA	1.91	0.41
9:Q:48:ALA:HB1	9:Q:57:VAL:HG13	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Q:300:GLU:O	9:Q:303:ASN:HB2	2.21	0.41
1:L:23:ASP:OD1	1:L:23:ASP:N	2.53	0.40
1:L:93:GLU:CD	5:K:379:GLU:H	2.29	0.40
1:D:23:ASP:N	1:D:23:ASP:OD1	2.54	0.40
1:D:119:GLU:OE1	1:D:450:ALA:HB1	2.22	0.40
1:D:182:HIS:ND1	1:D:182:HIS:N	2.68	0.40
1:D:262:THR:CG2	5:C:247:LYS:HD2	2.50	0.40
2:M:31:GLY:O	2:M:35:ILE:N	2.46	0.40
2:M:295:LEU:HG	2:M:314:HIS:CD2	2.56	0.40
2:E:41:SER:HA	2:E:453:ASN:ND2	2.36	0.40
2:E:266:GLU:HG3	2:E:266:GLU:H	1.76	0.40
3:N:490:THR:O	3:N:503:ILE:N	2.53	0.40
3:F:394:ASN:ND2	3:F:397:VAL:H	2.19	0.40
4:P:47:MET:HB3	7:I:517:LEU:O	2.21	0.40
4:P:251:GLU:OE1	8:O:245:LYS:HD2	2.21	0.40
5:K:372:PHE:HD1	5:K:372:PHE:HA	1.72	0.40
5:K:418:LYS:HE3	5:K:418:LYS:HB3	1.55	0.40
5:K:499:ARG:HA	5:K:502:ALA:HB3	2.03	0.40
5:C:46:ASP:O	5:C:47:LYS:HD3	2.21	0.40
5:C:122:ILE:HA	5:C:125:PHE:HB2	2.03	0.40
5:C:134:ASN:OD1	5:C:134:ASN:N	2.53	0.40
5:C:254:GLU:O	6:B:258:LEU:HA	2.22	0.40
5:C:356:GLU:HB2	5:C:358:TYR:CZ	2.56	0.40
6:J:50:ASN:ND2	6:J:456:SER:HA	2.36	0.40
6:B:156:ASP:CG	6:B:157:ILE:N	2.80	0.40
6:B:164:LEU:HD13	6:B:164:LEU:HA	1.76	0.40
7:I:65:HIS:O	7:I:65:HIS:ND1	2.54	0.40
7:I:208:ARG:O	7:I:372:VAL:HG12	2.20	0.40
7:I:310:ILE:HD13	7:I:310:ILE:HA	1.72	0.40
7:I:317:LYS:N	7:I:320:ASN:OD1	2.54	0.40
7:A:299:PRO:O	7:A:302:LEU:HB2	2.21	0.40
7:A:313:LEU:HD23	7:A:313:LEU:HA	1.70	0.40
7:A:497:ASN:HB2	7:A:500:VAL:CG2	2.51	0.40
8:O:37:GLY:C	8:O:39:VAL:H	2.28	0.40
8:O:109:LYS:HD3	8:O:109:LYS:HA	1.61	0.40
8:O:241:LEU:HB3	8:O:296:CYS:SG	2.61	0.40
8:G:179:ILE:HD12	8:G:179:ILE:HA	1.82	0.40
9:Q:22:ARG:NH1	11:Q:1220:HOH:O	2.45	0.40
1:L:60:MET:O	1:L:61:MET:HE2	2.21	0.40
1:L:222:THR:HG23	1:L:387:ILE:HG13	2.02	0.40
1:L:260:PRO:HD3	5:K:267:VAL:HB	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:470:PRO:HG2	1:L:471:ILE:HD13	2.03	0.40
1:D:102:ILE:HG21	1:D:512:GLY:HA2	2.01	0.40
1:D:155:VAL:HA	1:D:158:ASP:OD1	2.20	0.40
1:D:309:GLU:HA	2:E:333:SER:HB3	2.03	0.40
1:D:342:VAL:HA	1:D:343:PRO:HD3	1.93	0.40
1:D:418:VAL:HB	1:D:508:GLU:O	2.22	0.40
1:D:522:GLN:NE2	5:C:205:LEU:HG	2.37	0.40
11:D:601:HOH:O	9:Q:307:GLY:HA3	2.21	0.40
2:M:199:ILE:HG12	2:M:371:CYS:SG	2.60	0.40
2:M:316:ASP:O	2:M:320:VAL:HG23	2.21	0.40
2:M:473:ASN:OD1	2:M:476:ALA:N	2.48	0.40
2:E:224:ILE:HA	2:E:312:ILE:HD12	2.04	0.40
3:F:78:LEU:HB3	3:F:92:VAL:HG22	2.04	0.40
4:H:458:SER:O	4:H:462:LEU:HD23	2.22	0.40
4:P:26:ASN:OD1	4:P:26:ASN:N	2.54	0.40
4:P:74:HIS:CE1	4:P:76:ALA:HB3	2.57	0.40
4:P:204:ILE:CD1	4:P:377:ARG:HD3	2.51	0.40
5:K:15:SER:HA	5:K:519:THR:O	2.21	0.40
5:K:62:GLY:O	5:K:65:ILE:N	2.54	0.40
5:K:150:GLU:HB2	5:K:153:LYS:CD	2.51	0.40
5:K:358:TYR:HB2	5:K:360:PHE:HE1	1.86	0.40
5:C:150:GLU:HB2	5:C:153:LYS:CG	2.44	0.40
6:J:23:SER:OG	6:J:24:GLY:N	2.55	0.40
6:J:53:ASN:CG	6:J:67:ASN:HB2	2.46	0.40
6:J:69:ALA:HB3	6:J:101:THR:OG1	2.21	0.40
6:J:179:LEU:H	6:J:179:LEU:HG	1.70	0.40
6:B:47:TYR:CG	6:B:103:PHE:CE2	3.08	0.40
6:B:77:GLU:H	6:B:77:GLU:HG2	1.55	0.40
7:I:168:LEU:HD11	7:I:391:VAL:HG22	2.02	0.40
7:I:172:VAL:O	7:I:176:ILE:N	2.41	0.40
7:I:273:LYS:NZ	7:I:337:ASP:HA	2.35	0.40
7:I:380:ASN:HB2	7:I:382:HIS:CE1	2.56	0.40
7:A:266:PHE:HE2	7:A:270:ARG:NE	2.19	0.40
7:A:298:ASP:O	7:A:302:LEU:HG	2.21	0.40
7:A:429:VAL:HG21	7:A:434:GLN:N	2.37	0.40
8:O:237:LEU:HB3	8:O:286:ILE:HD11	2.03	0.40
8:G:101:LEU:HD11	8:G:524:ILE:HG21	2.04	0.40
8:G:199:LYS:HB2	8:G:385:CYS:SG	2.61	0.40
8:G:510:LYS:HA	8:G:510:LYS:HD3	1.84	0.40
8:G:530:LEU:HD13	8:G:530:LEU:HA	1.83	0.40
9:Q:133:TRP:HB3	9:Q:360:ASP:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:122:GLN:O	1:L:126:ARG:HG3	2.21	0.40
1:L:138:GLU:OE1	1:L:142:ARG:HD2	2.22	0.40
1:L:242:LYS:HE2	1:L:360:GLN:CD	2.46	0.40
1:L:248:ILE:HD12	1:L:299:LEU:HD22	2.03	0.40
1:D:211:VAL:HG13	1:D:385:ILE:HD11	2.02	0.40
1:D:231:ASP:HA	1:D:371:MET:SD	2.61	0.40
1:D:491:ILE:O	1:D:493:CYS:N	2.54	0.40
1:D:496:LYS:O	1:D:498:THR:N	2.54	0.40
2:M:168:SER:HA	2:M:173:THR:HG23	2.03	0.40
2:M:179:PHE:HA	2:M:182:LEU:HB2	2.03	0.40
2:M:300:PRO:HA	2:M:303:LEU:CD1	2.52	0.40
2:M:422:THR:H	2:M:422:THR:HG1	1.55	0.40
2:E:240:ALA:O	2:E:292:ASN:HA	2.20	0.40
2:E:249:ILE:HA	2:E:250:LYS:NZ	2.36	0.40
2:E:479:ASP:OD1	2:E:481:ARG:HG2	2.22	0.40
3:N:106:THR:HA	3:N:109:VAL:HG12	2.03	0.40
3:N:238:ILE:HD13	3:N:238:ILE:HA	1.70	0.40
3:N:299:LEU:HB3	3:N:328:ILE:CD1	2.52	0.40
3:F:434:LEU:O	3:F:438:GLU:HG2	2.21	0.40
4:H:116:GLN:NE2	6:J:460:ALA:H	2.12	0.40
4:H:391:LEU:O	4:H:395:MET:HE3	2.20	0.40
4:P:112:PHE:HE1	4:P:436:PRO:N	2.19	0.40
4:P:240:LEU:HD13	4:P:291:ILE:HB	2.03	0.40
4:P:433:GLU:CD	4:P:433:GLU:N	2.79	0.40
5:K:117:HIS:O	5:K:121:ILE:HD12	2.21	0.40
5:K:335:ASN:H	5:K:335:ASN:ND2	2.19	0.40
5:K:521:LYS:C	5:K:522:ASN:HD22	2.29	0.40
5:C:37:ARG:CZ	5:C:37:ARG:HB2	2.51	0.40
5:C:293:LEU:HD13	5:C:293:LEU:HA	1.94	0.40
6:J:296:LYS:HE2	6:J:296:LYS:HB2	1.76	0.40
6:J:300:MET:HE2	6:J:300:MET:HB2	1.60	0.40
6:B:316:ASN:HB3	6:B:320:ASP:HB2	2.02	0.40
6:B:516:VAL:O	6:B:520:ARG:HB2	2.21	0.40
6:B:518:VAL:HG23	6:B:519:LEU:HD22	2.03	0.40
6:B:519:LEU:HD13	6:B:519:LEU:HA	1.65	0.40
7:I:130:ALA:HB2	7:I:422:LEU:HD11	2.02	0.40
7:I:180:LYS:HE3	7:I:180:LYS:HB3	1.97	0.40
7:I:429:VAL:HG23	7:I:431:GLY:N	2.26	0.40
7:A:134:LEU:HD22	7:A:505:LEU:HD12	2.03	0.40
7:A:462:THR:O	7:A:466:ILE:HG12	2.22	0.40
8:O:28:ILE:HA	8:O:31:ILE:HG12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:184:ILE:HD12	8:G:184:ILE:HA	1.91	0.40
9:Q:70:HIS:CE1	11:Q:1137:HOH:O	2.73	0.40
9:Q:94:HIS:CE1	9:Q:153:LEU:HD23	2.57	0.40
9:Q:94:HIS:ND1	11:Q:1189:HOH:O	2.36	0.40
9:Q:242:LEU:HG	9:Q:349:PHE:CD1	2.56	0.40
1:L:511:ILE:HD13	1:L:511:ILE:HA	1.99	0.40
1:L:529:LYS:O	5:K:45:MET:HE1	2.21	0.40
1:D:420:TYR:CD2	1:D:502:LYS:HB2	2.56	0.40
2:M:300:PRO:HA	2:M:303:LEU:HD12	2.03	0.40
2:M:348:LEU:HD23	2:M:349:ILE:N	2.36	0.40
2:E:460:ASP:N	2:E:460:ASP:OD1	2.52	0.40
3:F:69:THR:HG21	3:F:80:GLN:HG3	2.02	0.40
3:F:138:GLN:HA	3:F:141:LEU:HD21	2.04	0.40
3:F:284:LEU:HG	3:F:288:LYS:HB2	2.03	0.40
4:H:224:VAL:CG1	4:H:229:MET:HE2	2.43	0.40
4:H:235:ASN:HA	4:H:347:ALA:O	2.20	0.40
4:P:50:LEU:HD13	7:I:522:MET:CG	2.52	0.40
4:P:66:ILE:HG12	4:P:66:ILE:H	1.61	0.40
4:P:216:ARG:O	4:P:364:THR:HA	2.21	0.40
4:P:219:MET:HE2	4:P:219:MET:HB2	1.86	0.40
4:P:368:ASP:N	4:P:368:ASP:OD1	2.53	0.40
4:P:447:ILE:HD12	4:P:447:ILE:N	2.37	0.40
4:P:462:LEU:HD13	4:P:462:LEU:HA	1.92	0.40
5:K:45:MET:HE3	5:K:46:ASP:N	2.32	0.40
5:K:486:ASP:CG	5:K:489:GLU:H	2.30	0.40
5:K:509:ALA:O	5:K:513:ILE:HG12	2.22	0.40
5:C:61:ASP:OD1	5:C:63:ALA:HB3	2.22	0.40
5:C:217:LYS:HG3	5:C:218:LYS:HG3	2.02	0.40
5:C:457:ALA:N	8:O:111:LYS:HE2	2.36	0.40
6:J:157:ILE:HG13	6:J:158:ASP:OD1	2.21	0.40
6:J:201:ASN:OD1	6:J:201:ASN:N	2.54	0.40
6:J:252:GLU:OE2	6:J:253:THR:OG1	2.25	0.40
6:J:431:PRO:HA	6:J:435:GLN:NE2	2.37	0.40
6:B:324:LEU:HD12	6:B:324:LEU:HA	1.93	0.40
6:B:435:GLN:O	6:B:438:ILE:HG23	2.22	0.40
7:I:82:THR:H	7:I:82:THR:HG1	1.57	0.40
7:I:131:LEU:HD22	7:I:506:HIS:NE2	2.37	0.40
7:I:231:LEU:HB2	7:I:289:PHE:CE2	2.55	0.40
7:A:381:LYS:O	7:A:385:THR:HG23	2.21	0.40
8:O:98:ALA:O	8:O:101:LEU:HB3	2.22	0.40
8:O:378:ARG:HD2	8:O:378:ARG:HA	1.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:190:TYR:HD2	8:G:403:LEU:HB3	1.85	0.40
8:G:314:ARG:O	8:G:317:LYS:HB2	2.22	0.40
8:G:507:THR:O	8:G:511:VAL:HG23	2.22	0.40
1:L:402:LEU:HD13	1:L:402:LEU:HA	1.64	0.40
1:D:274:TYR:OH	2:E:274:LYS:HG3	2.21	0.40
1:D:295:THR:HG22	1:D:353:LEU:HD11	2.03	0.40
2:M:116:LEU:O	2:M:120:LYS:N	2.53	0.40
2:M:158:ASP:O	2:M:162:ILE:HG12	2.22	0.40
2:M:167:LEU:HD21	2:M:393:ALA:HB1	2.04	0.40
2:M:231:ARG:O	2:M:231:ARG:HG3	2.21	0.40
2:M:348:LEU:HD21	2:M:350:GLU:OE1	2.22	0.40
2:M:390:LEU:HD13	2:M:390:LEU:HA	1.80	0.40
2:E:35:ILE:O	2:E:39:VAL:HG13	2.22	0.40
3:N:72:ASN:ND2	3:N:174:LYS:HG3	2.36	0.40
3:N:272:MET:O	3:N:276:LEU:HD23	2.22	0.40
3:N:283:ILE:O	3:N:286:LEU:HB2	2.21	0.40
3:N:511:PRO:HD2	3:N:514:VAL:HG21	2.02	0.40
3:F:129:HIS:CG	3:F:130:PRO:HD2	2.55	0.40
3:F:214:LEU:O	3:F:391:ARG:NH1	2.43	0.40
3:F:298:LEU:O	3:F:325:ILE:N	2.55	0.40
4:H:112:PHE:HE1	4:H:436:PRO:HD3	1.86	0.40
4:H:249:LYS:HA	4:H:249:LYS:HD3	1.92	0.40
4:H:526:HIS:ND1	8:G:47:ASP:HB2	2.36	0.40
4:P:23:GLN:H	4:P:23:GLN:HG3	1.75	0.40
4:P:226:HIS:CG	4:P:227:PRO:HD2	2.56	0.40
4:P:243:SER:C	4:P:294:LYS:HG3	2.46	0.40
4:P:341:ASP:OD1	4:P:341:ASP:N	2.54	0.40
5:K:111:TYR:HD2	5:K:111:TYR:HA	1.73	0.40
5:K:467:ARG:NH2	5:K:471:GLY:HA3	2.36	0.40
5:C:73:HIS:CG	5:C:74:PRO:HD2	2.57	0.40
5:C:114:GLU:OE1	8:O:461:THR:OG1	2.27	0.40
5:C:353:ILE:HB	5:C:358:TYR:CD2	2.57	0.40
5:C:506:ALA:O	5:C:509:ALA:HB3	2.21	0.40
6:J:322:ARG:HD2	7:I:219:PRO:HG3	2.03	0.40
6:B:20:LYS:O	6:B:526:MET:N	2.53	0.40
6:B:82:ALA:O	6:B:86:ILE:HG23	2.21	0.40
6:B:269:SER:O	6:B:272:GLU:HB3	2.22	0.40
6:B:289:ASN:O	6:B:311:MET:N	2.50	0.40
7:I:185:PRO:HG2	7:I:399:LYS:NZ	2.36	0.40
7:I:207:ILE:HD12	7:I:207:ILE:HA	1.91	0.40
7:I:231:LEU:HB3	7:I:291:VAL:HG22	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:27:ALA:O	7:A:31:GLN:HG3	2.21	0.40
7:A:180:LYS:H	7:A:180:LYS:HZ2	1.68	0.40
7:A:234:ASN:HA	7:A:294:GLN:H	1.85	0.40
8:O:130:ARG:O	8:O:134:GLU:HG3	2.21	0.40
8:O:446:LEU:HD12	8:O:446:LEU:HA	1.96	0.40
8:G:319:ILE:O	8:G:323:SER:N	2.39	0.40
9:Q:79:HIS:CD2	9:Q:79:HIS:O	2.75	0.40
9:Q:93:ALA:O	9:Q:97:ARG:NH1	2.53	0.40
9:Q:295:VAL:HG23	9:Q:299:VAL:HG23	2.02	0.40
9:Q:296:ARG:O	11:Q:1135:HOH:O	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	D	525/541 (97%)	481 (92%)	41 (8%)	3 (1%)	21	59
1	L	525/541 (97%)	481 (92%)	40 (8%)	4 (1%)	16	54
2	E	516/535 (96%)	477 (92%)	38 (7%)	1 (0%)	43	78
2	M	516/535 (96%)	477 (92%)	38 (7%)	1 (0%)	43	78
3	F	516/539 (96%)	480 (93%)	36 (7%)	0	100	100
3	N	516/539 (96%)	478 (93%)	38 (7%)	0	100	100
4	H	519/545 (95%)	484 (93%)	35 (7%)	0	100	100
4	P	519/545 (95%)	486 (94%)	33 (6%)	0	100	100
5	C	520/543 (96%)	477 (92%)	43 (8%)	0	100	100
5	K	520/543 (96%)	484 (93%)	35 (7%)	1 (0%)	43	78
6	B	522/548 (95%)	476 (91%)	46 (9%)	0	100	100
6	J	522/548 (95%)	474 (91%)	48 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	A	523/531 (98%)	485 (93%)	38 (7%)	0	100	100
7	I	523/531 (98%)	477 (91%)	46 (9%)	0	100	100
8	G	530/556 (95%)	481 (91%)	48 (9%)	1 (0%)	43	78
8	O	530/556 (95%)	475 (90%)	52 (10%)	3 (1%)	21	59
9	Q	363/365 (100%)	354 (98%)	9 (2%)	0	100	100
All	All	8705/9041 (96%)	8027 (92%)	664 (8%)	14 (0%)	44	78

All (14) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	L	441	PRO
1	L	442	THR
1	L	443	LEU
1	D	441	PRO
1	D	442	THR
1	D	443	LEU
8	O	184	ILE
8	G	184	ILE
2	M	227	ASN
8	O	47	ASP
5	K	74	PRO
2	E	429	PRO
1	L	164	PRO
8	O	478	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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	D	445/456 (98%)	399 (90%)	46 (10%)	7	23
1	L	445/456 (98%)	394 (88%)	51 (12%)	5	18
2	E	412/427 (96%)	354 (86%)	58 (14%)	3	13
2	M	412/427 (96%)	365 (89%)	47 (11%)	5	18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	F	441/452 (98%)	379 (86%)	62 (14%)	3	13
3	N	441/452 (98%)	387 (88%)	54 (12%)	5	17
4	H	452/469 (96%)	388 (86%)	64 (14%)	3	13
4	P	452/469 (96%)	392 (87%)	60 (13%)	4	14
5	C	429/443 (97%)	381 (89%)	48 (11%)	6	19
5	K	429/443 (97%)	380 (89%)	49 (11%)	5	18
6	B	433/452 (96%)	373 (86%)	60 (14%)	3	14
6	J	433/452 (96%)	369 (85%)	64 (15%)	3	13
7	A	438/442 (99%)	392 (90%)	46 (10%)	6	21
7	I	438/442 (99%)	389 (89%)	49 (11%)	6	19
8	G	444/463 (96%)	382 (86%)	62 (14%)	3	13
8	O	444/463 (96%)	394 (89%)	50 (11%)	5	19
9	Q	315/315 (100%)	292 (93%)	23 (7%)	13	34
All	All	7303/7523 (97%)	6410 (88%)	893 (12%)	7	17

All (893) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	L	22	GLN
1	L	31	LEU
1	L	34	LEU
1	L	46	ASN
1	L	57	LEU
1	L	65	ASP
1	L	80	MET
1	L	87	ILE
1	L	97	SER
1	L	124	LEU
1	L	132	ARG
1	L	151	ILE
1	L	159	ILE
1	L	168	THR
1	L	178	VAL
1	L	199	MET
1	L	200	GLU
1	L	204	VAL
1	L	221	ASP

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Mol	Chain	Res	Type
1	L	228	VAL
1	L	233	ASP
1	L	265	LYS
1	L	271	VAL
1	L	273	ASP
1	L	277	LEU
1	L	288	MET
1	L	289	ILE
1	L	295	THR
1	L	302	CYS
1	L	315	LEU
1	L	318	ASN
1	L	322	VAL
1	L	323	ARG
1	L	341	ILE
1	L	342	VAL
1	L	348	LEU
1	L	361	GLU
1	L	369	ASP
1	L	395	ILE
1	L	402	LEU
1	L	408	VAL
1	L	431	LEU
1	L	438	ASP
1	L	443	LEU
1	L	473	THR
1	L	482	VAL
1	L	507	ILE
1	L	510	LEU
1	L	521	THR
1	L	525	ARG
1	L	530	ILE
1	D	22	GLN
1	D	34	LEU
1	D	44	VAL
1	D	65	ASP
1	D	71	THR
1	D	80	MET
1	D	87	ILE
1	D	97	SER
1	D	131	ILE
1	D	159	ILE

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Mol	Chain	Res	Type
1	D	168	THR
1	D	178	VAL
1	D	199	MET
1	D	203	ASP
1	D	204	VAL
1	D	221	ASP
1	D	224	LEU
1	D	265	LYS
1	D	270	SER
1	D	273	ASP
1	D	275	LYS
1	D	279	LYS
1	D	288	MET
1	D	302	CYS
1	D	304	TRP
1	D	315	LEU
1	D	316	GLN
1	D	318	ASN
1	D	344	ARG
1	D	361	GLU
1	D	369	ASP
1	D	388	ARG
1	D	408	VAL
1	D	416	ASN
1	D	418	VAL
1	D	427	ILE
1	D	438	ASP
1	D	457	VAL
1	D	463	SER
1	D	473	THR
1	D	481	GLN
1	D	507	ILE
1	D	510	LEU
1	D	517	ILE
1	D	525	ARG
1	D	530	ILE
2	M	10	ASN
2	M	42	THR
2	M	84	LEU
2	M	105	LEU
2	M	110	LEU
2	M	125	THR

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Mol	Chain	Res	Type
2	M	134	THR
2	M	166	THR
2	M	168	SER
2	M	169	SER
2	M	172	LEU
2	M	175	HIS
2	M	187	VAL
2	M	196	LEU
2	M	205	LEU
2	M	208	SER
2	M	211	ASP
2	M	214	LEU
2	M	219	LEU
2	M	239	ILE
2	M	247	ASP
2	M	249	ILE
2	M	255	ARG
2	M	261	THR
2	M	298	ASN
2	M	323	LEU
2	M	327	THR
2	M	346	CYS
2	M	350	GLU
2	M	371	CYS
2	M	380	GLN
2	M	392	ASP
2	M	394	LEU
2	M	396	VAL
2	M	400	THR
2	M	405	ARG
2	M	412	CYS
2	M	416	LEU
2	M	426	ASN
2	M	448	THR
2	M	460	ASP
2	M	462	VAL
2	M	480	MET
2	M	496	SER
2	M	506	SER
2	M	513	VAL
2	M	518	ASP
2	E	22	GLU

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Mol	Chain	Res	Type
2	E	53	LEU
2	E	69	THR
2	E	71	LEU
2	E	84	LEU
2	E	94	GLU
2	E	104	VAL
2	E	105	LEU
2	E	112	GLU
2	E	116	LEU
2	E	143	SER
2	E	159	LEU
2	E	166	THR
2	E	167	LEU
2	E	175	HIS
2	E	182	LEU
2	E	202	ILE
2	E	205	LEU
2	E	208	SER
2	E	211	ASP
2	E	212	SER
2	E	216	GLU
2	E	236	LYS
2	E	239	ILE
2	E	242	THR
2	E	247	ASP
2	E	255	ARG
2	E	256	VAL
2	E	259	ASP
2	E	261	THR
2	E	288	ASN
2	E	291	ILE
2	E	303	LEU
2	E	327	THR
2	E	331	ILE
2	E	339	GLU
2	E	343	LEU
2	E	346	CYS
2	E	371	CYS
2	E	375	LEU
2	E	390	LEU
2	E	392	ASP
2	E	394	LEU

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Mol	Chain	Res	Type
2	E	395	CYS
2	E	396	VAL
2	E	400	THR
2	E	412	CYS
2	E	413	SER
2	E	416	LEU
2	E	417	MET
2	E	427	ARG
2	E	443	LEU
2	E	446	LEU
2	E	453	ASN
2	E	496	SER
2	E	505	LEU
2	E	506	SER
2	E	518	ASP
3	N	39	SER
3	N	49	ARG
3	N	51	SER
3	N	69	THR
3	N	94	LEU
3	N	106	THR
3	N	112	ILE
3	N	117	LEU
3	N	119	SER
3	N	121	THR
3	N	124	LEU
3	N	131	THR
3	N	134	SER
3	N	168	THR
3	N	170	SER
3	N	171	LEU
3	N	177	SER
3	N	180	SER
3	N	183	LEU
3	N	184	SER
3	N	186	MET
3	N	188	VAL
3	N	201	THR
3	N	205	LEU
3	N	220	ASP
3	N	233	VAL
3	N	234	SER

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Mol	Chain	Res	Type
3	N	238	ILE
3	N	252	CYS
3	N	279	GLU
3	N	280	ARG
3	N	285	ASN
3	N	286	LEU
3	N	303	SER
3	N	310	SER
3	N	324	VAL
3	N	364	GLU
3	N	377	THR
3	N	386	VAL
3	N	387	THR
3	N	397	VAL
3	N	404	SER
3	N	411	VAL
3	N	431	GLU
3	N	434	LEU
3	N	443	LEU
3	N	446	MET
3	N	476	THR
3	N	480	LEU
3	N	493	ILE
3	N	505	GLU
3	N	512	LEU
3	N	519	LEU
3	N	537	ASN
3	F	37	ASN
3	F	39	SER
3	F	49	ARG
3	F	69	THR
3	F	70	ILE
3	F	94	LEU
3	F	100	ILE
3	F	112	ILE
3	F	117	LEU
3	F	118	ASP
3	F	121	THR
3	F	124	LEU
3	F	125	GLN
3	F	134	SER
3	F	136	SER

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Mol	Chain	Res	Type
3	F	150	ASP
3	F	168	THR
3	F	170	SER
3	F	171	LEU
3	F	177	SER
3	F	183	LEU
3	F	184	SER
3	F	186	MET
3	F	188	VAL
3	F	195	ILE
3	F	201	THR
3	F	205	LEU
3	F	225	GLU
3	F	229	LEU
3	F	233	VAL
3	F	234	SER
3	F	248	LEU
3	F	251	PHE
3	F	252	CYS
3	F	265	VAL
3	F	279	GLU
3	F	284	LEU
3	F	290	ILE
3	F	303	SER
3	F	324	VAL
3	F	333	ILE
3	F	350	GLN
3	F	360	GLU
3	F	364	GLU
3	F	377	THR
3	F	386	VAL
3	F	404	SER
3	F	409	LEU
3	F	411	VAL
3	F	431	GLU
3	F	446	MET
3	F	476	THR
3	F	478	THR
3	F	480	LEU
3	F	482	ASN
3	F	493	ILE
3	F	512	LEU

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Mol	Chain	Res	Type
3	F	515	SER
3	F	519	LEU
3	F	527	ARG
3	F	529	ILE
3	F	532	ILE
4	H	12	GLN
4	H	27	ILE
4	H	28	ASN
4	H	36	ILE
4	H	48	LYS
4	H	50	LEU
4	H	54	MET
4	H	57	ILE
4	H	67	LEU
4	H	72	VAL
4	H	84	SER
4	H	91	VAL
4	H	150	ASP
4	H	154	ASN
4	H	158	SER
4	H	161	THR
4	H	162	THR
4	H	165	ILE
4	H	166	SER
4	H	170	SER
4	H	186	GLU
4	H	188	ASN
4	H	192	GLU
4	H	195	ILE
4	H	208	ILE
4	H	224	VAL
4	H	246	GLU
4	H	248	LYS
4	H	255	ASP
4	H	258	ILE
4	H	267	ILE
4	H	269	GLN
4	H	280	GLU
4	H	294	LYS
4	H	297	SER
4	H	301	GLN
4	H	315	VAL

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Mol	Chain	Res	Type
4	H	318	THR
4	H	319	ASP
4	H	334	ARG
4	H	345	THR
4	H	363	ILE
4	H	385	SER
4	H	390	ASN
4	H	391	LEU
4	H	407	LEU
4	H	408	VAL
4	H	418	VAL
4	H	429	MET
4	H	434	GLN
4	H	442	GLN
4	H	449	ARG
4	H	451	LEU
4	H	453	GLN
4	H	459	THR
4	H	460	ILE
4	H	463	LEU
4	H	470	HIS
4	H	477	THR
4	H	502	LYS
4	H	514	VAL
4	H	520	ASP
4	H	521	ASP
4	H	524	SER
4	P	26	ASN
4	P	33	ILE
4	P	36	ILE
4	P	48	LYS
4	P	49	MET
4	P	57	ILE
4	P	67	LEU
4	P	72	VAL
4	P	79	SER
4	P	84	SER
4	P	91	VAL
4	P	96	THR
4	P	97	SER
4	P	99	ILE
4	P	114	GLU

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Mol	Chain	Res	Type
4	P	131	ASP
4	P	141	SER
4	P	150	ASP
4	P	161	THR
4	P	178	ASP
4	P	187	GLU
4	P	188	ASN
4	P	195	ILE
4	P	212	SER
4	P	224	VAL
4	P	248	LYS
4	P	249	LYS
4	P	258	ILE
4	P	260	ARG
4	P	263	ASP
4	P	267	ILE
4	P	280	GLU
4	P	298	ASP
4	P	304	LEU
4	P	315	VAL
4	P	319	ASP
4	P	321	ASN
4	P	341	ASP
4	P	355	ILE
4	P	363	ILE
4	P	372	CYS
4	P	374	ILE
4	P	381	LYS
4	P	391	LEU
4	P	395	MET
4	P	396	GLN
4	P	407	LEU
4	P	408	VAL
4	P	429	MET
4	P	434	GLN
4	P	442	GLN
4	P	459	THR
4	P	460	ILE
4	P	463	LEU
4	P	466	LEU
4	P	477	THR
4	P	487	LEU

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Mol	Chain	Res	Type
4	P	514	VAL
4	P	521	ASP
4	P	524	SER
5	K	6	VAL
5	K	25	ASN
5	K	36	VAL
5	K	37	ARG
5	K	46	ASP
5	K	48	LEU
5	K	68	LEU
5	K	95	THR
5	K	96	SER
5	K	98	THR
5	K	105	LEU
5	K	147	ASP
5	K	154	LEU
5	K	158	CYS
5	K	171	GLN
5	K	181	ASP
5	K	195	ILE
5	K	200	VAL
5	K	207	ASP
5	K	219	THR
5	K	242	VAL
5	K	246	LEU
5	K	261	GLU
5	K	262	ASP
5	K	267	VAL
5	K	268	ASP
5	K	270	GLU
5	K	275	TYR
5	K	284	SER
5	K	291	SER
5	K	298	VAL
5	K	302	TYR
5	K	305	ASP
5	K	335	ASN
5	K	351	THR
5	K	362	THR
5	K	382	MET
5	K	386	GLU
5	K	389	LEU

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Mol	Chain	Res	Type
5	K	416	LEU
5	K	422	ASP
5	K	443	GLU
5	K	445	ILE
5	K	461	LEU
5	K	468	HIS
5	K	487	ASN
5	K	513	ILE
5	K	514	VAL
5	K	515	SER
5	C	6	VAL
5	C	24	SER
5	C	25	ASN
5	C	36	VAL
5	C	50	VAL
5	C	64	THR
5	C	94	THR
5	C	95	THR
5	C	96	SER
5	C	100	LEU
5	C	105	LEU
5	C	127	THR
5	C	129	THR
5	C	134	ASN
5	C	147	ASP
5	C	149	VAL
5	C	158	CYS
5	C	163	LEU
5	C	187	ASP
5	C	191	GLN
5	C	195	ILE
5	C	200	VAL
5	C	210	LEU
5	C	219	THR
5	C	230	LYS
5	C	247	LYS
5	C	257	VAL
5	C	267	VAL
5	C	268	ASP
5	C	283	HIS
5	C	291	SER
5	C	308	MET

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Mol	Chain	Res	Type
5	C	335	ASN
5	C	359	ASN
5	C	362	THR
5	C	371	THR
5	C	382	MET
5	C	383	GLU
5	C	389	LEU
5	C	391	ASP
5	C	395	ILE
5	C	426	THR
5	C	434	LEU
5	C	452	ASN
5	C	461	LEU
5	C	468	HIS
5	C	487	ASN
5	C	516	VAL
6	J	13	GLN
6	J	15	LEU
6	J	16	LYS
6	J	25	LEU
6	J	31	ARG
6	J	39	LEU
6	J	42	THR
6	J	57	ILE
6	J	71	THR
6	J	72	ILE
6	J	73	LEU
6	J	85	MET
6	J	102	ASN
6	J	104	VAL
6	J	112	LEU
6	J	121	ILE
6	J	124	SER
6	J	130	GLU
6	J	156	ASP
6	J	165	ARG
6	J	167	SER
6	J	169	MET
6	J	182	LEU
6	J	196	HIS
6	J	197	PHE
6	J	201	ASN

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Mol	Chain	Res	Type
6	J	210	SER
6	J	222	VAL
6	J	232	THR
6	J	259	ILE
6	J	266	MET
6	J	274	ASN
6	J	276	MET
6	J	286	THR
6	J	289	ASN
6	J	290	VAL
6	J	292	VAL
6	J	300	MET
6	J	316	ASN
6	J	318	LYS
6	J	320	ASP
6	J	321	LEU
6	J	325	CYS
6	J	352	LEU
6	J	381	THR
6	J	382	ASP
6	J	388	ILE
6	J	392	VAL
6	J	397	ASN
6	J	403	THR
6	J	406	LYS
6	J	438	ILE
6	J	448	ILE
6	J	452	LEU
6	J	464	ILE
6	J	471	HIS
6	J	489	VAL
6	J	492	MET
6	J	500	THR
6	J	510	LEU
6	J	516	VAL
6	J	521	VAL
6	J	523	GLN
6	J	525	ILE
6	B	7	LYS
6	B	15	LEU
6	B	25	LEU
6	B	39	LEU

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Mol	Chain	Res	Type
6	B	57	ILE
6	B	63	LEU
6	B	72	ILE
6	B	73	LEU
6	B	77	GLU
6	B	78	VAL
6	B	85	MET
6	B	86	ILE
6	B	90	SER
6	B	102	ASN
6	B	121	ILE
6	B	134	ILE
6	B	154	LEU
6	B	156	ASP
6	B	164	LEU
6	B	166	THR
6	B	167	SER
6	B	169	MET
6	B	183	ILE
6	B	196	HIS
6	B	221	MET
6	B	225	LYS
6	B	251	THR
6	B	252	GLU
6	B	257	VAL
6	B	275	LEU
6	B	276	MET
6	B	290	VAL
6	B	292	VAL
6	B	300	MET
6	B	320	ASP
6	B	325	CYS
6	B	352	LEU
6	B	360	VAL
6	B	382	ASP
6	B	386	ASP
6	B	388	ILE
6	B	397	ASN
6	B	402	LEU
6	B	403	THR
6	B	405	ASP
6	B	406	LYS

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Mol	Chain	Res	Type
6	B	438	ILE
6	B	448	ILE
6	B	452	LEU
6	B	462	GLU
6	B	465	SER
6	B	489	VAL
6	B	492	MET
6	B	499	ASP
6	B	500	THR
6	B	508	ILE
6	B	516	VAL
6	B	519	LEU
6	B	524	ILE
6	B	525	ILE
7	I	4	VAL
7	I	24	ILE
7	I	36	THR
7	I	45	LYS
7	I	53	ASP
7	I	54	ILE
7	I	55	LYS
7	I	56	LEU
7	I	57	THR
7	I	61	ASN
7	I	62	VAL
7	I	68	GLN
7	I	73	THR
7	I	76	LEU
7	I	80	VAL
7	I	82	THR
7	I	98	ILE
7	I	148	LEU
7	I	166	ASP
7	I	172	VAL
7	I	186	ILE
7	I	197	LYS
7	I	221	MET
7	I	233	CYS
7	I	236	SER
7	I	237	LEU
7	I	244	VAL
7	I	252	SER

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Mol	Chain	Res	Type
7	I	277	LEU
7	I	284	ASP
7	I	294	GLN
7	I	321	MET
7	I	325	THR
7	I	326	LEU
7	I	333	LEU
7	I	337	ASP
7	I	380	ASN
7	I	389	ASP
7	I	414	VAL
7	I	416	VAL
7	I	429	VAL
7	I	466	ILE
7	I	487	MET
7	I	492	VAL
7	I	499	CYS
7	I	507	SER
7	I	513	THR
7	I	514	ASN
7	I	519	ASP
7	A	15	ARG
7	A	36	THR
7	A	43	THR
7	A	45	LYS
7	A	54	ILE
7	A	73	THR
7	A	76	LEU
7	A	80	VAL
7	A	94	SER
7	A	117	ARG
7	A	144	ASP
7	A	150	ASP
7	A	156	LEU
7	A	166	ASP
7	A	172	VAL
7	A	180	LYS
7	A	186	ILE
7	A	197	LYS
7	A	212	LEU
7	A	241	LYS
7	A	242	THR

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Mol	Chain	Res	Type
7	A	243	GLU
7	A	244	VAL
7	A	246	SER
7	A	278	LYS
7	A	294	GLN
7	A	305	LEU
7	A	321	MET
7	A	323	ARG
7	A	326	LEU
7	A	337	ASP
7	A	361	THR
7	A	383	THR
7	A	387	ILE
7	A	400	ASN
7	A	404	ASP
7	A	414	VAL
7	A	416	VAL
7	A	418	MET
7	A	423	ILE
7	A	429	VAL
7	A	462	THR
7	A	467	GLN
7	A	513	THR
7	A	515	ILE
7	A	522	MET
8	O	20	GLN
8	O	36	LEU
8	O	45	LEU
8	O	46	VAL
8	O	49	ILE
8	O	56	ASN
8	O	65	LEU
8	O	78	LEU
8	O	92	SER
8	O	100	LEU
8	O	103	ASN
8	O	105	ASP
8	O	110	GLN
8	O	157	SER
8	O	161	ILE
8	O	163	ILE
8	O	174	ASP

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Mol	Chain	Res	Type
8	O	176	VAL
8	O	184	ILE
8	O	210	LEU
8	O	216	LEU
8	O	220	VAL
8	O	222	SER
8	O	241	LEU
8	O	245	LYS
8	O	248	LEU
8	O	270	ILE
8	O	279	LEU
8	O	287	LEU
8	O	289	THR
8	O	294	ASP
8	O	296	CYS
8	O	311	VAL
8	O	315	ASP
8	O	316	LEU
8	O	327	ILE
8	O	353	GLN
8	O	367	THR
8	O	375	ILE
8	O	382	ASP
8	O	394	ASP
8	O	425	ASN
8	O	428	THR
8	O	455	ASN
8	O	459	ASP
8	O	462	ASP
8	O	486	ILE
8	O	488	LEU
8	O	528	ASP
8	O	530	LEU
8	G	21	ASN
8	G	36	LEU
8	G	44	MET
8	G	45	LEU
8	G	46	VAL
8	G	49	ILE
8	G	56	ASN
8	G	76	CYS
8	G	78	LEU

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Mol	Chain	Res	Type
8	G	92	SER
8	G	94	VAL
8	G	110	GLN
8	G	132	ILE
8	G	139	ASN
8	G	157	SER
8	G	161	ILE
8	G	176	VAL
8	G	179	ILE
8	G	183	ASP
8	G	192	VAL
8	G	195	VAL
8	G	210	LEU
8	G	220	VAL
8	G	230	VAL
8	G	242	GLN
8	G	244	THR
8	G	245	LYS
8	G	248	LEU
8	G	259	LYS
8	G	270	ILE
8	G	271	THR
8	G	279	LEU
8	G	287	LEU
8	G	289	THR
8	G	294	ASP
8	G	296	CYS
8	G	311	VAL
8	G	315	ASP
8	G	327	ILE
8	G	353	GLN
8	G	356	ILE
8	G	361	LEU
8	G	375	ILE
8	G	382	ASP
8	G	394	ASP
8	G	396	LEU
8	G	403	LEU
8	G	409	VAL
8	G	420	SER
8	G	425	ASN
8	G	428	THR

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Mol	Chain	Res	Type
8	G	443	ARG
8	G	444	SER
8	G	460	SER
8	G	462	ASP
8	G	472	ASN
8	G	486	ILE
8	G	488	LEU
8	G	507	THR
8	G	513	SER
8	G	518	THR
8	G	530	LEU
9	Q	13	ASP
9	Q	20	GLU
9	Q	49	VAL
9	Q	62	GLN
9	Q	63	ARG
9	Q	66	LYS
9	Q	84	ASP
9	Q	116	ASP
9	Q	141	MET
9	Q	143	ARG
9	Q	145	ILE
9	Q	147	SER
9	Q	150	THR
9	Q	157	ASP
9	Q	202	ARG
9	Q	204	THR
9	Q	230	HIS
9	Q	258	SER
9	Q	275	MET
9	Q	295	VAL
9	Q	327	THR
9	Q	358	ILE
9	Q	364	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (107) such sidechains are listed below:

Mol	Chain	Res	Type
1	L	55	ASN
1	L	122	GLN
1	L	147	HIS
1	L	391	ASN

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Mol	Chain	Res	Type
1	L	403	HIS
1	L	411	ASN
1	L	481	GLN
1	L	486	ASN
1	L	495	HIS
1	L	515	GLN
1	D	55	ASN
1	D	191	ASN
1	D	316	GLN
1	D	391	ASN
1	D	499	ASN
1	D	504	GLN
1	D	505	HIS
2	M	174	HIS
2	M	298	ASN
2	M	426	ASN
2	M	453	ASN
2	M	502	GLN
2	E	78	ASN
2	E	419	HIS
2	E	423	GLN
3	N	72	ASN
3	N	165	ASN
3	N	366	ASN
3	N	510	GLN
3	F	72	ASN
3	F	165	ASN
4	H	26	ASN
4	H	61	ASN
4	H	64	ASN
4	H	111	HIS
4	H	116	GLN
4	H	174	ASN
4	H	184	GLN
4	H	188	ASN
4	H	226	HIS
4	H	301	GLN
4	H	321	ASN
4	H	390	ASN
4	H	396	GLN
4	H	454	ASN
4	H	504	GLN

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Mol	Chain	Res	Type
4	P	12	GLN
4	P	71	GLN
4	P	116	GLN
4	P	174	ASN
4	P	226	HIS
4	P	301	GLN
4	P	302	HIS
4	P	321	ASN
4	P	390	ASN
5	K	21	GLN
5	K	25	ASN
5	K	191	GLN
5	K	470	GLN
5	K	501	ASN
5	K	522	ASN
5	C	241	ASN
5	C	282	HIS
5	C	301	GLN
5	C	402	ASN
5	C	481	ASN
5	C	487	ASN
5	C	501	ASN
5	C	522	ASN
6	J	21	HIS
6	J	67	ASN
6	J	219	HIS
6	J	306	ASN
6	J	383	ASN
6	J	422	GLN
6	J	435	GLN
6	B	13	GLN
6	B	41	GLN
6	B	59	HIS
6	B	67	ASN
6	B	79	GLN
6	B	91	HIS
6	B	279	GLN
6	B	309	ASN
7	I	23	ASN
7	I	71	HIS
7	I	84	GLN
7	I	497	ASN

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Mol	Chain	Res	Type
7	A	71	HIS
7	A	386	GLN
8	O	21	ASN
8	O	30	ASN
8	O	103	ASN
8	O	113	HIS
8	O	133	ASN
8	O	231	ASN
8	O	284	ASN
8	O	347	GLN
8	O	393	HIS
8	O	477	ASN
8	G	347	GLN
8	G	353	GLN
8	G	450	ASN
8	G	482	ASN
9	Q	17	ASN
9	Q	76	GLN
9	Q	203	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 1 ligands modelled in this entry, 1 is 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.

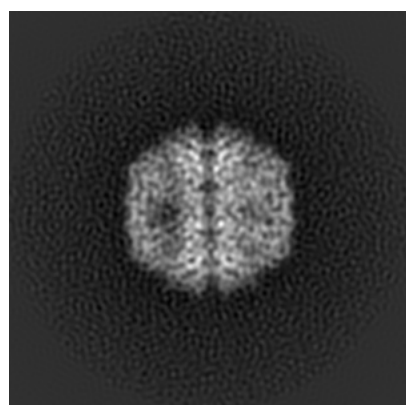
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-23526. These allow visual inspection of the internal detail of the map and identification of artifacts.

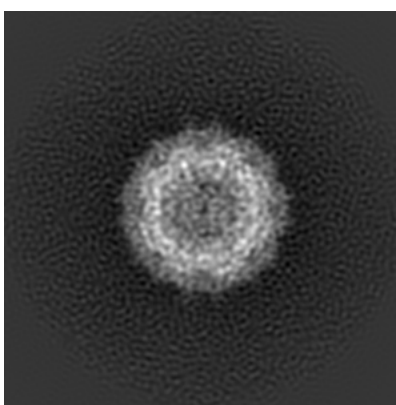
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

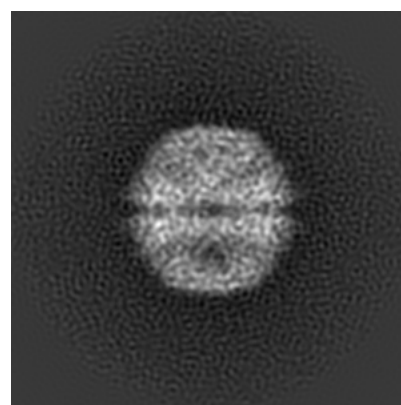
6.1.1 Primary map



X



Y

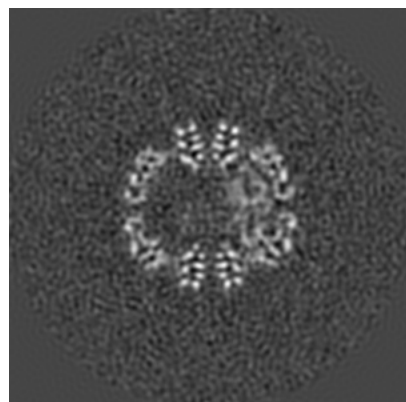


Z

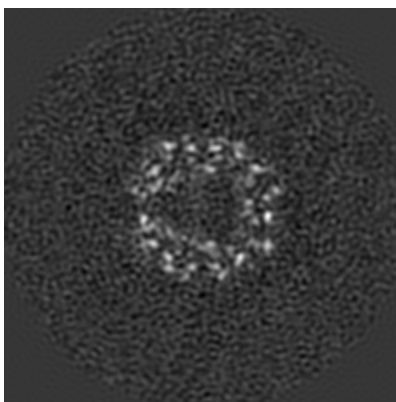
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

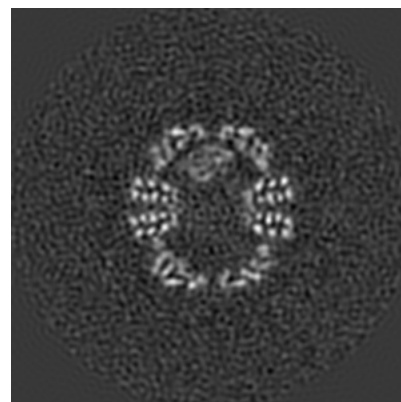
6.2.1 Primary map



X Index: 140



Y Index: 140

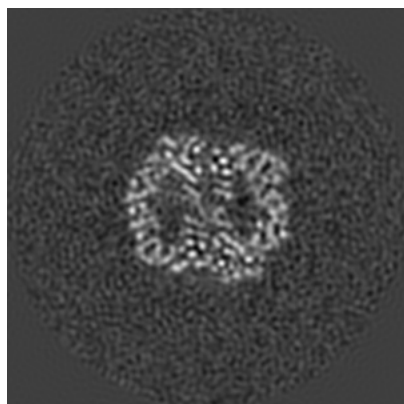


Z Index: 140

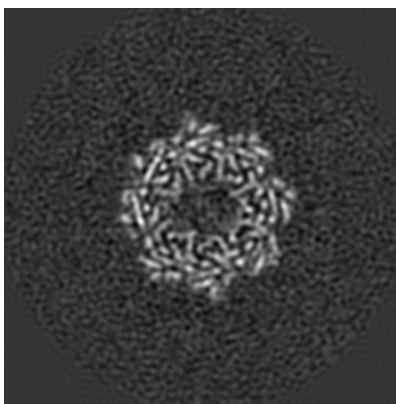
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

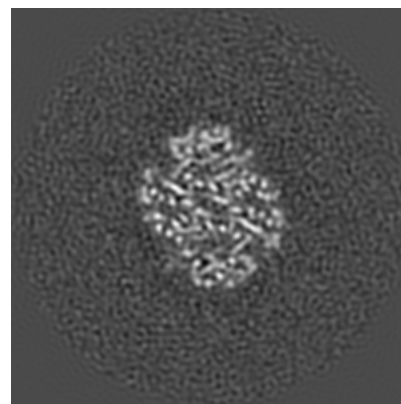
6.3.1 Primary map



X Index: 163



Y Index: 149

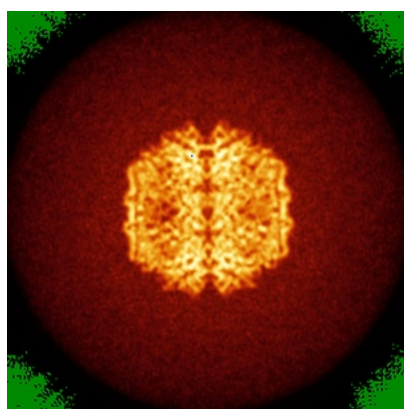


Z Index: 108

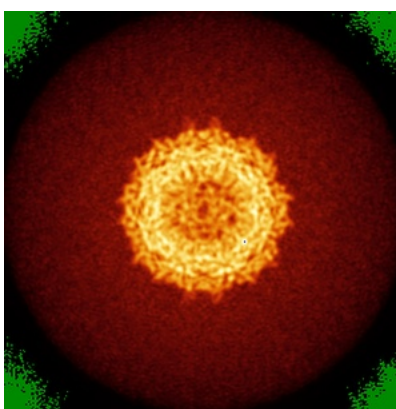
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

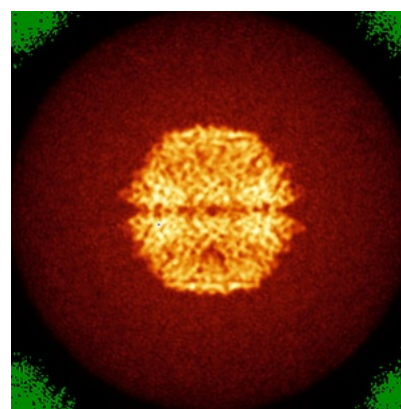
6.4.1 Primary map



X



Y

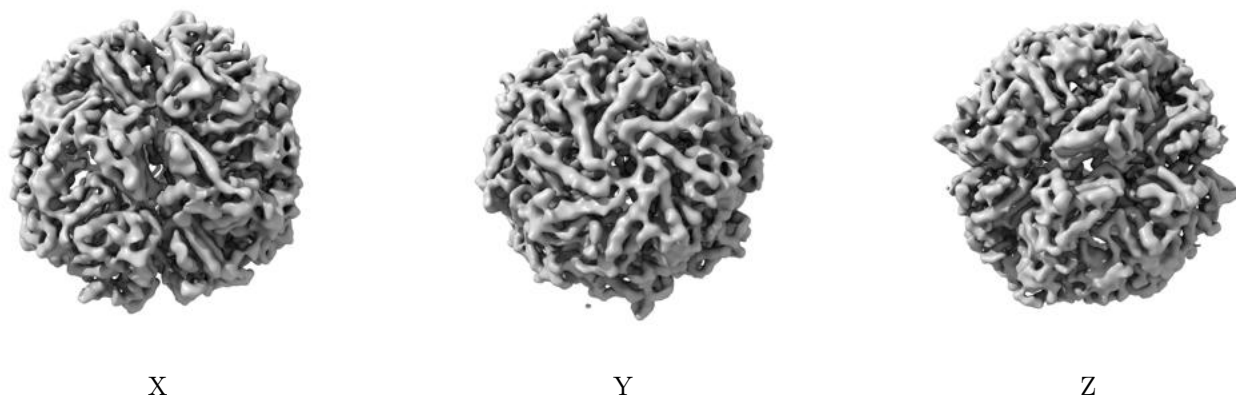


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.03. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

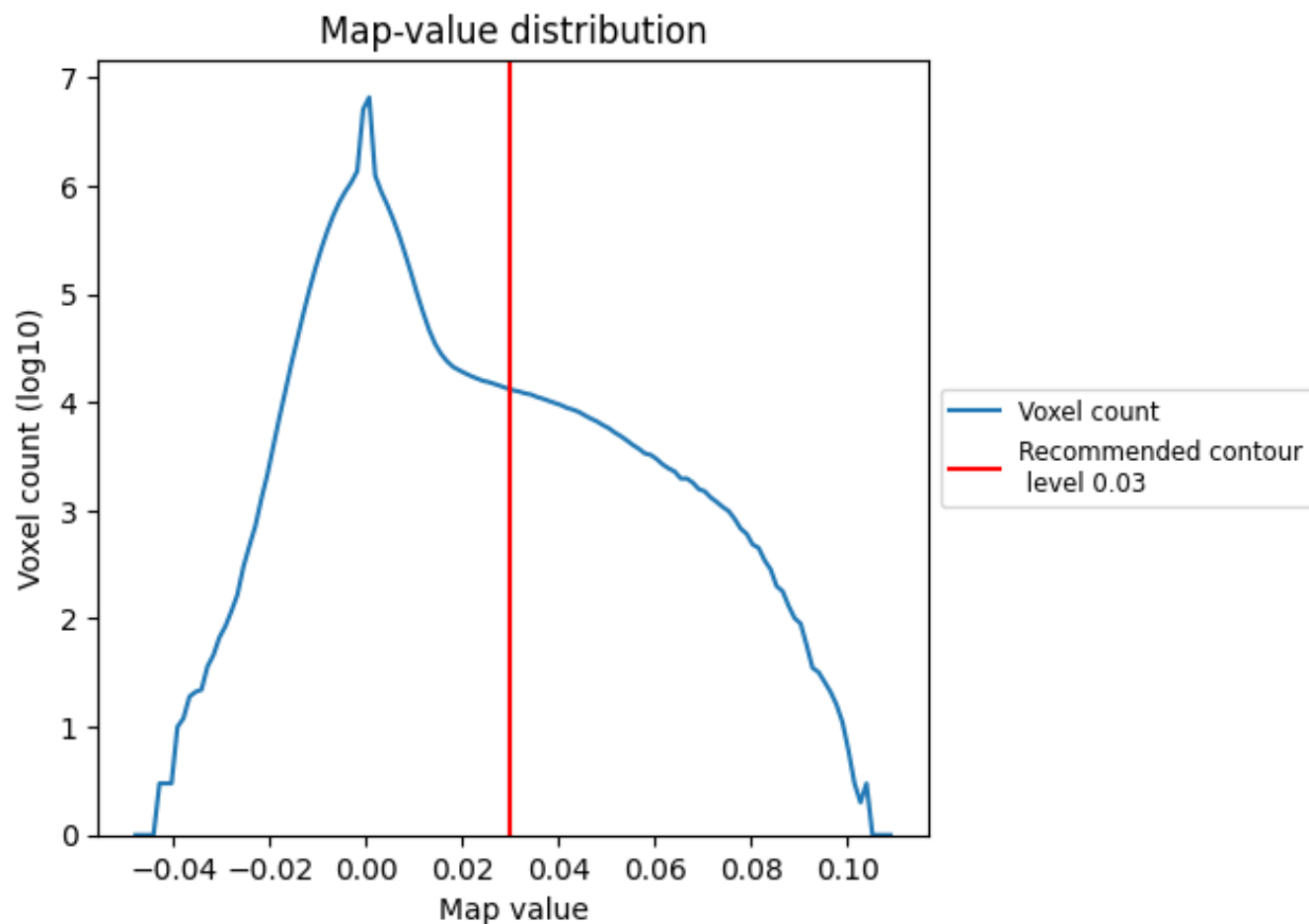
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

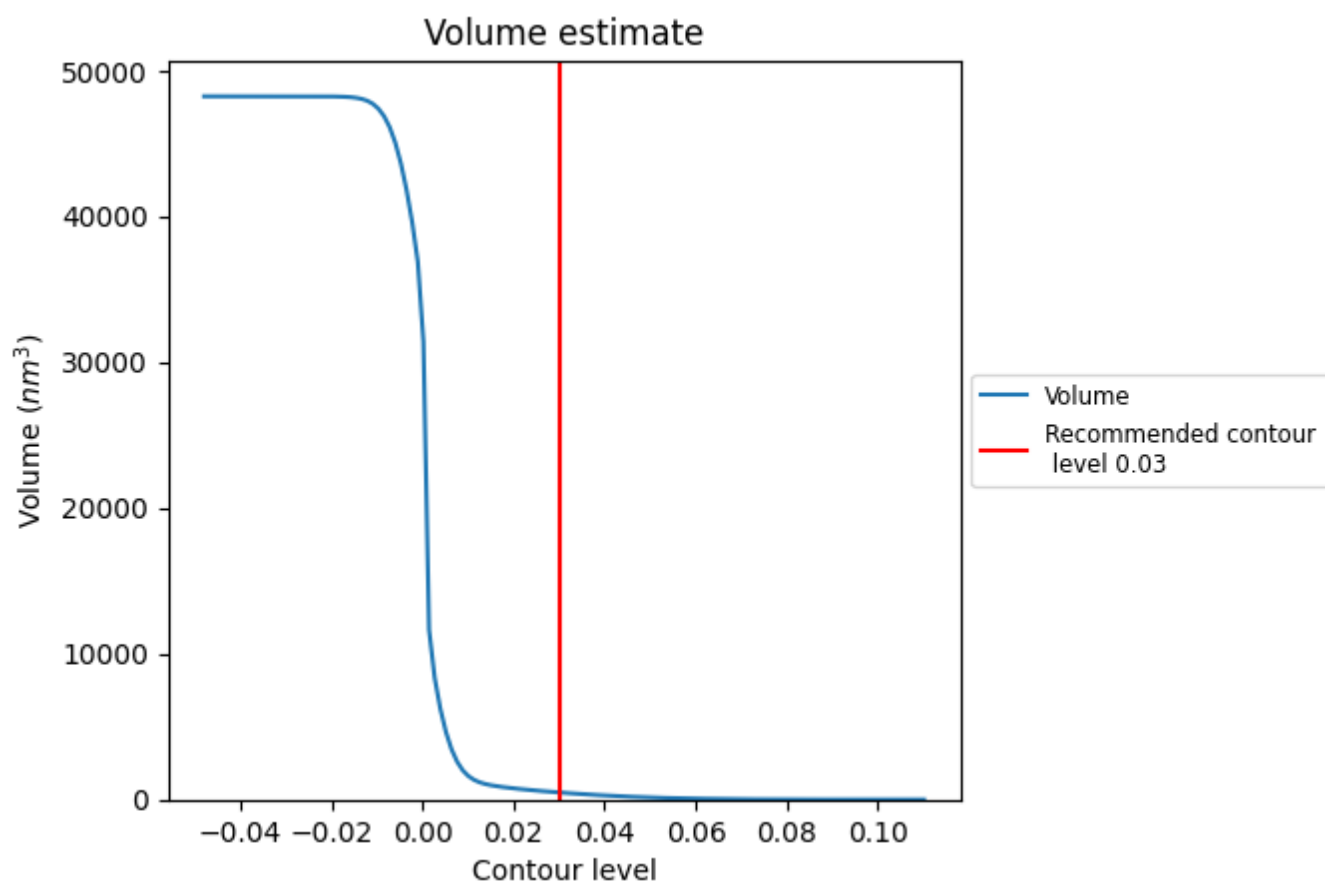
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

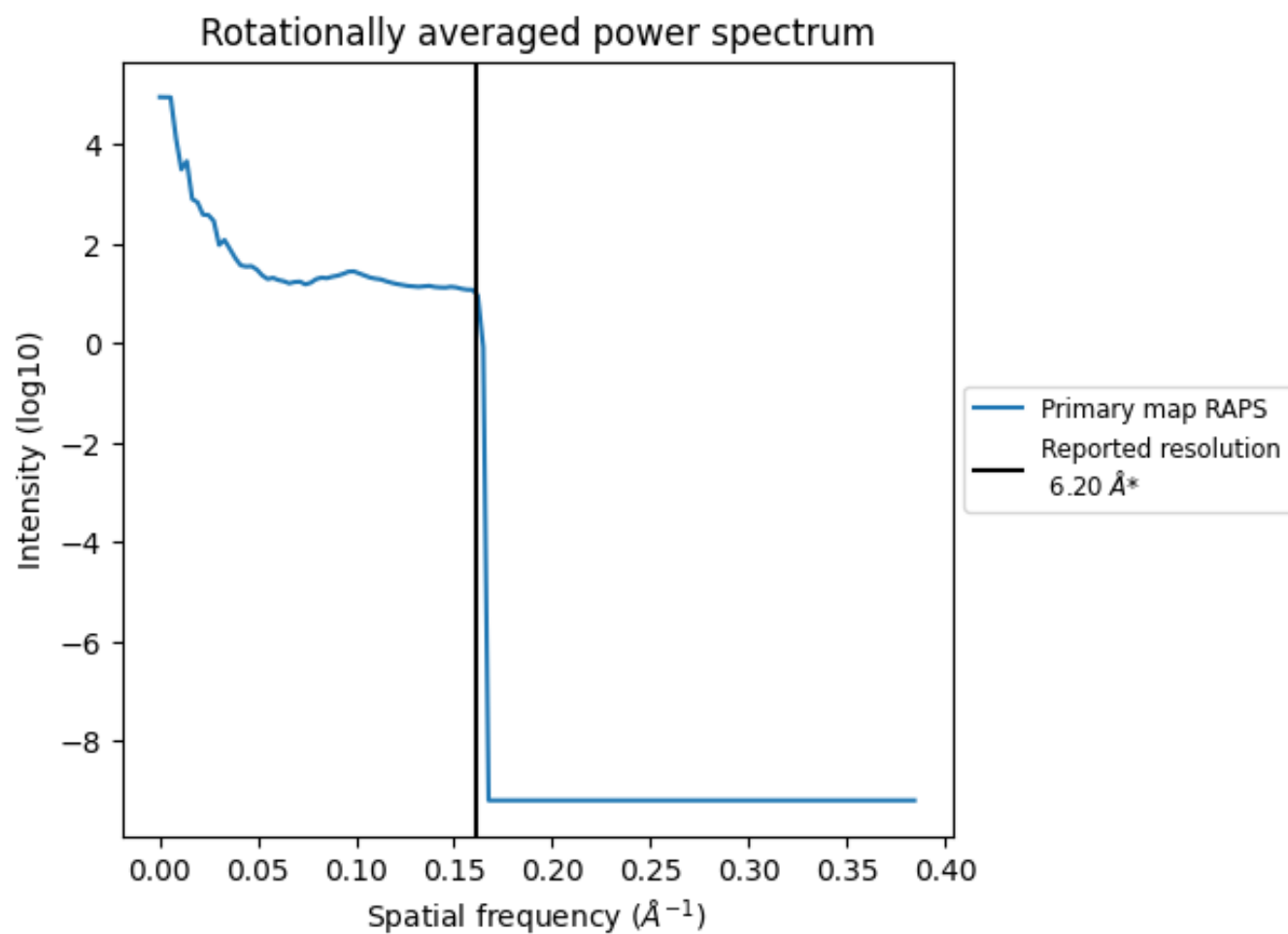
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 487 nm³; this corresponds to an approximate mass of 440 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.161 Å⁻¹

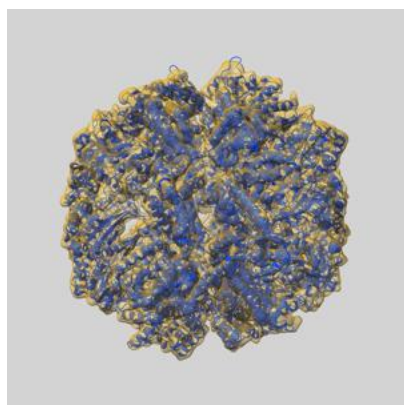
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

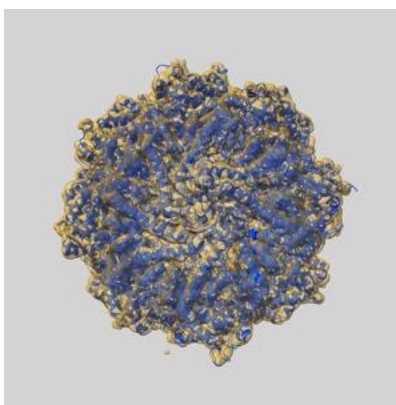
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-23526 and PDB model 7LUP. Per-residue inclusion information can be found in section [3](#) on page [7](#).

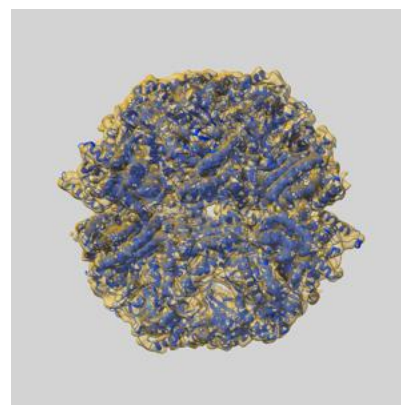
9.1 Map-model overlay [i](#)



X



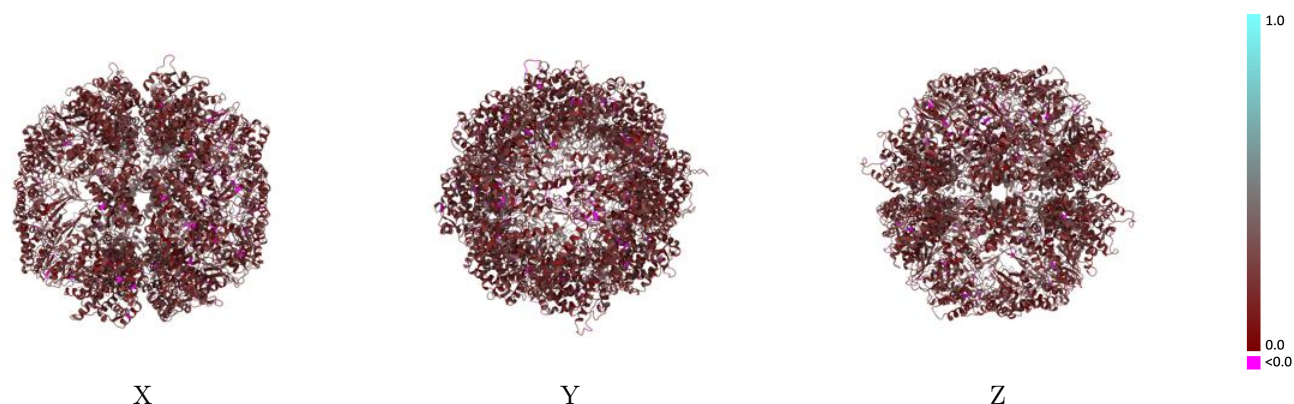
Y



Z

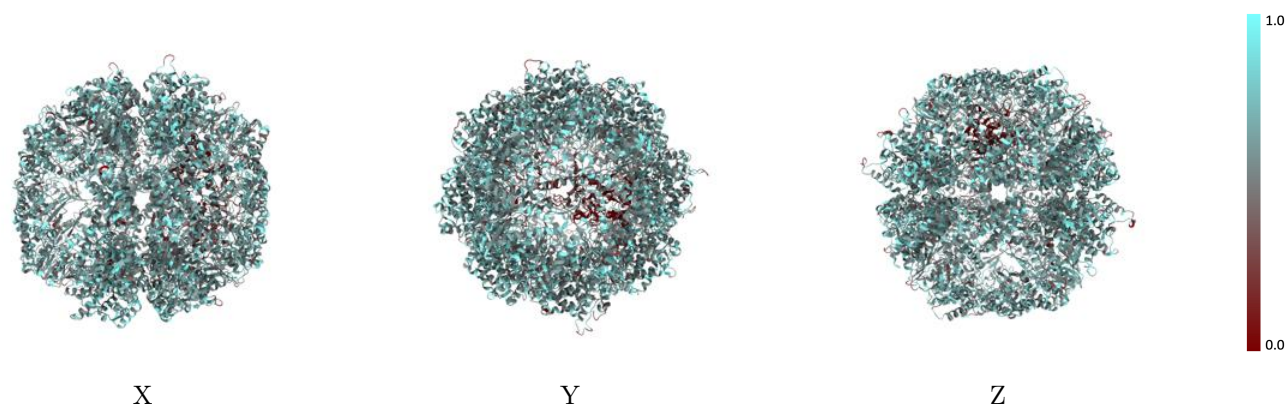
The images above show the 3D surface view of the map at the recommended contour level 0.03 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



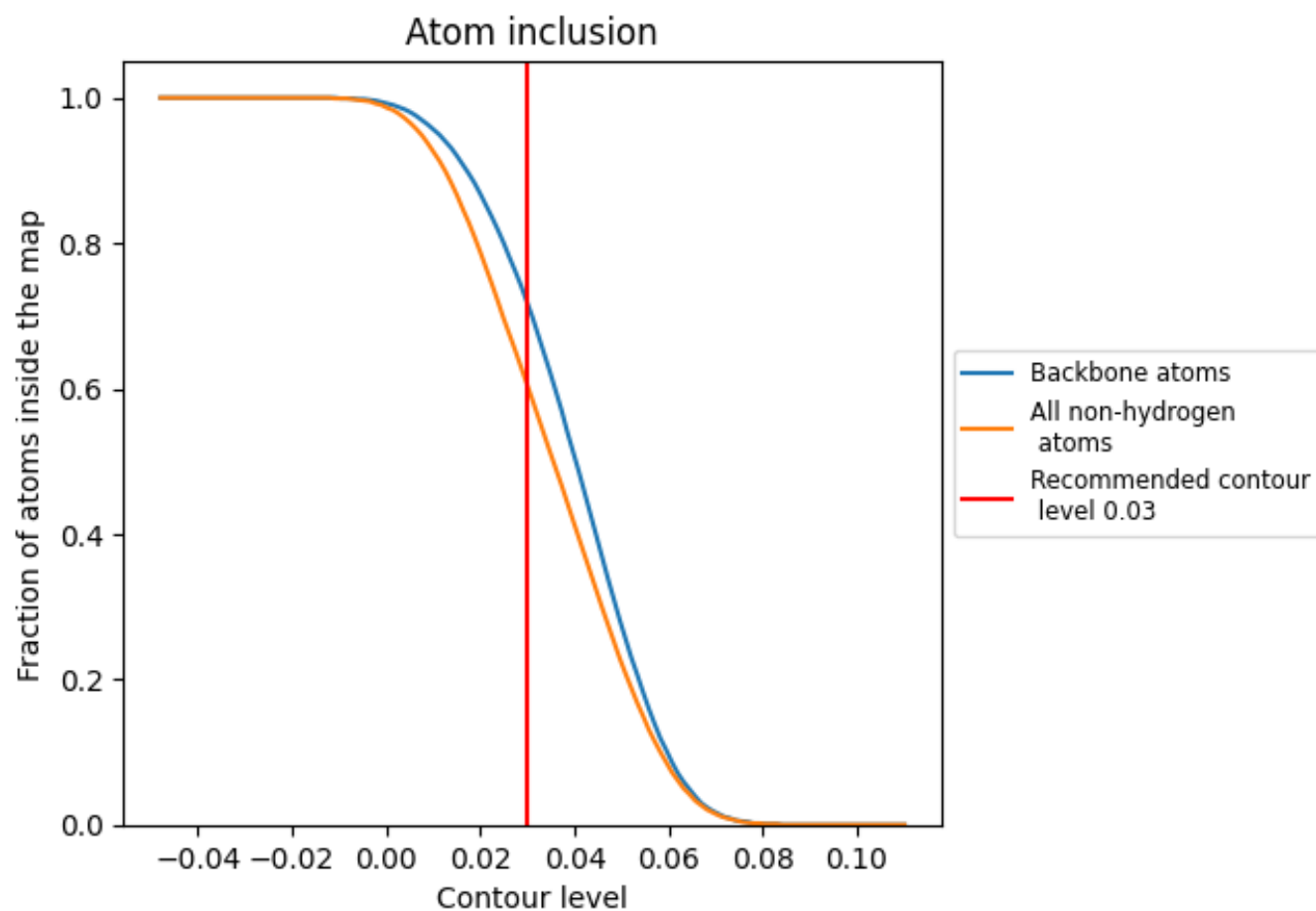
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.03).

9.4 Atom inclusion [i](#)



At the recommended contour level, 72% of all backbone atoms, 60% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.03) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6050	0.2170
A	0.6130	0.2170
B	0.6450	0.2240
C	0.6140	0.2130
D	0.6160	0.2170
E	0.6310	0.2270
F	0.6300	0.2250
G	0.6150	0.2150
H	0.6350	0.2190
I	0.6160	0.2170
J	0.6380	0.2260
K	0.6110	0.2140
L	0.6310	0.2210
M	0.6420	0.2250
N	0.6260	0.2250
O	0.6250	0.2210
P	0.6240	0.2180
Q	0.3150	0.1500

