



Full wwPDB EM Validation Report ⓘ

Nov 20, 2022 – 04:34 pm GMT

PDB ID : 4A0V
EMDB ID : EMD-1961
Title : model refined against the Symmetry-free cryo-EM map of TRiC-AMP-PNP
Authors : Cong, Y.; Schroder, G.F.; Meyer, A.S.; Jakana, J.; Ma, B.; Dougherty, M.T.; Schmid, M.F.; Reissmann, S.; Levitt, M.; Ludtke, S.L.; Frydman, J.; Chiu, W.
Deposited on : 2011-09-13
Resolution : 10.70 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.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

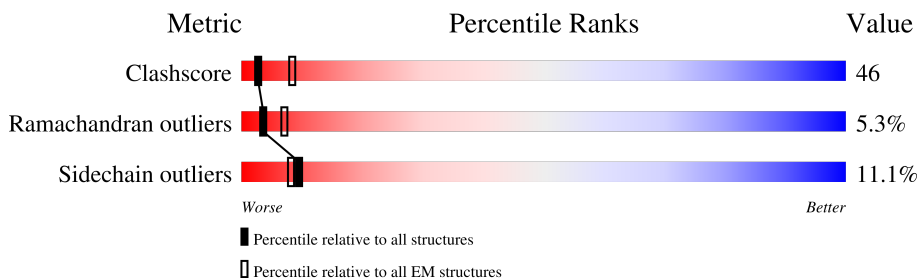
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 10.70 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)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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	A	513	
1	B	513	
1	C	513	
1	D	513	
1	E	513	
1	F	513	
1	G	513	
1	H	513	

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Mol	Chain	Length	Quality of chain
1	I	513	
1	J	513	
1	K	513	
1	L	513	
1	M	513	
1	N	513	
1	O	513	
1	P	513	

2 Entry composition [i](#)

There is only 1 type of molecule in this entry. The entry contains 59707 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.

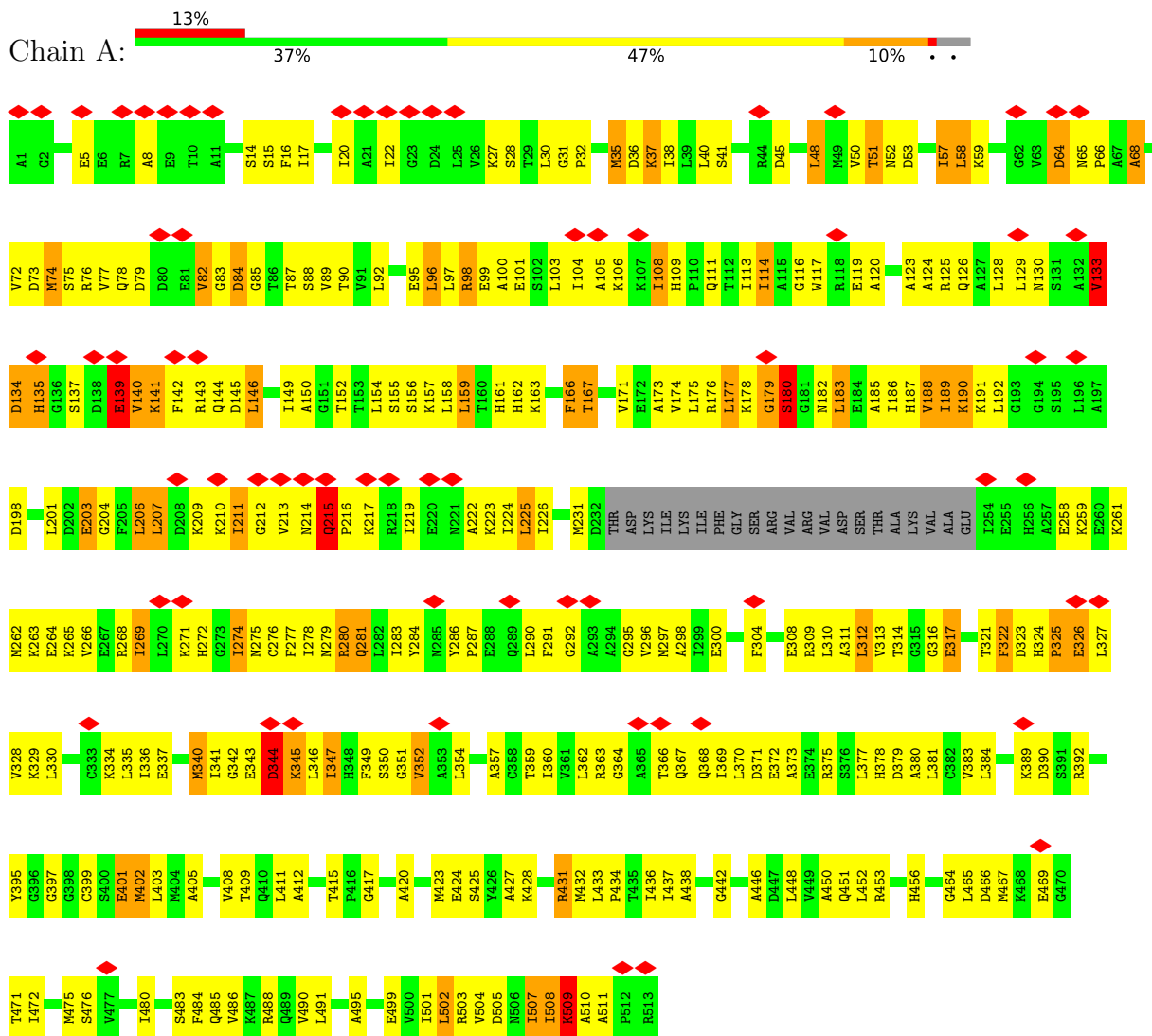
- Molecule 1 is a protein called T-COMPLEX PROTEIN 1 SUBUNIT BETA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	492	3693	2308	649	717	19	0	0
1	B	484	3626	2268	638	701	19	0	0
1	C	513	3855	2409	679	748	19	0	0
1	D	513	3855	2409	679	748	19	0	0
1	E	513	3855	2409	679	748	19	0	0
1	F	489	3666	2291	644	712	19	0	0
1	G	513	3855	2409	679	748	19	0	0
1	H	485	3634	2272	639	704	19	0	0
1	I	476	3555	2224	624	689	18	0	0
1	J	513	3855	2409	679	748	19	0	0
1	K	513	3855	2409	679	748	19	0	0
1	L	484	3626	2268	638	701	19	0	0
1	M	486	3641	2276	640	706	19	0	0
1	N	490	3673	2295	645	714	19	0	0
1	O	482	3608	2255	634	701	18	0	0
1	P	513	3855	2409	679	748	19	0	0

3 Residue-property plots

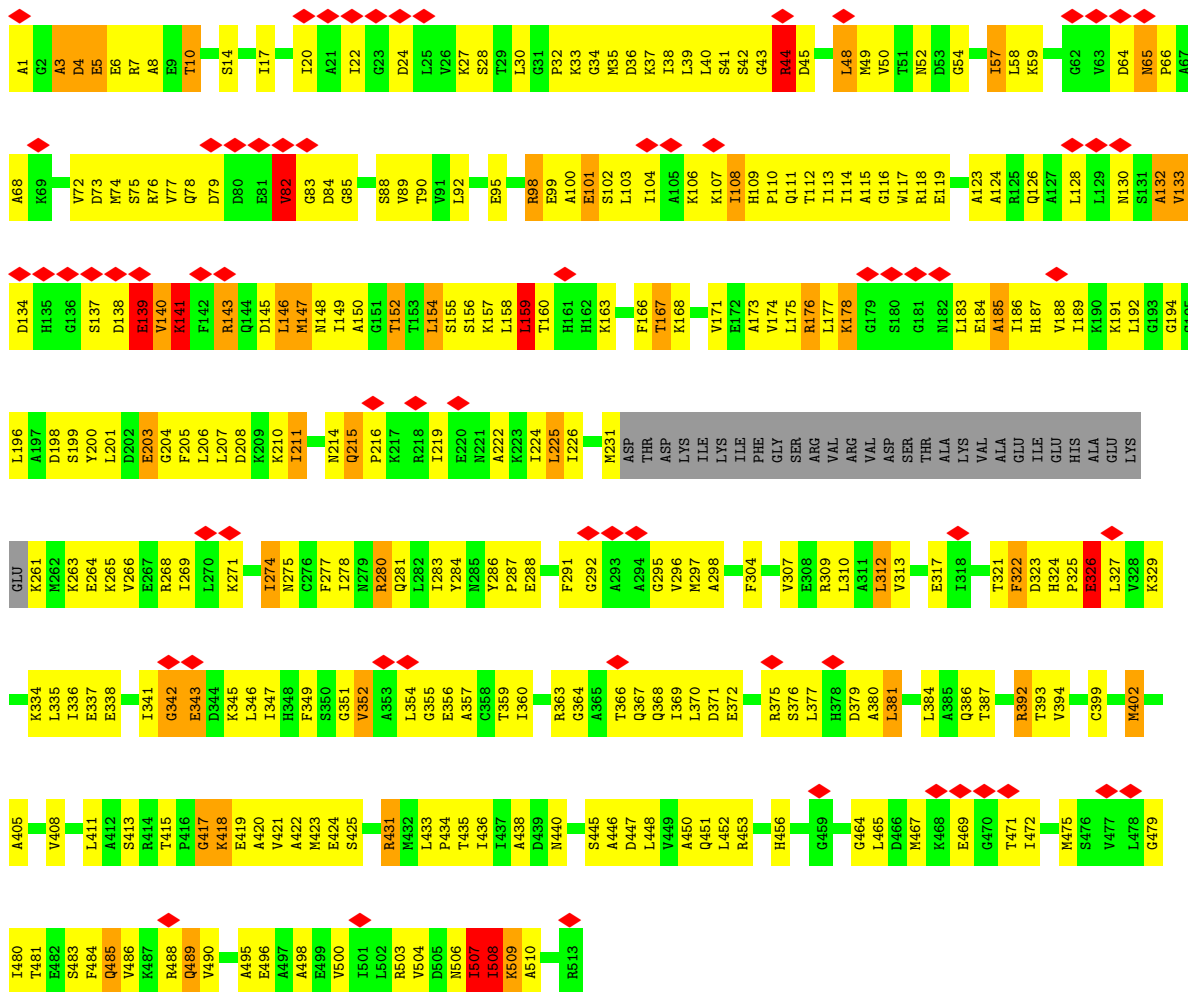
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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 BETA

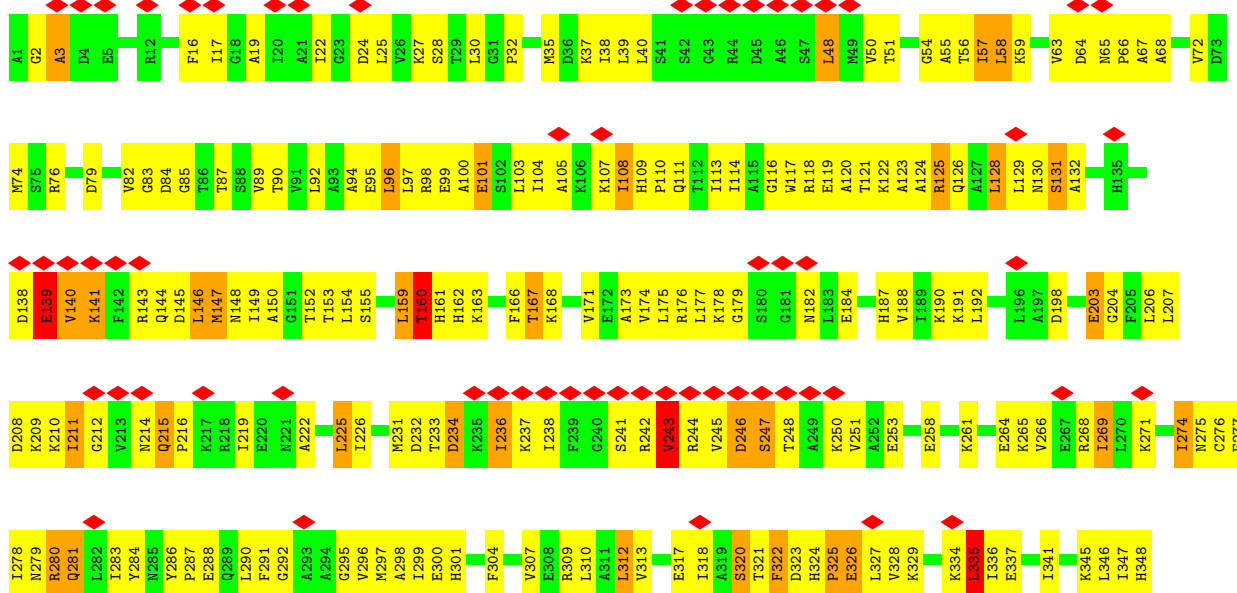


- Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA



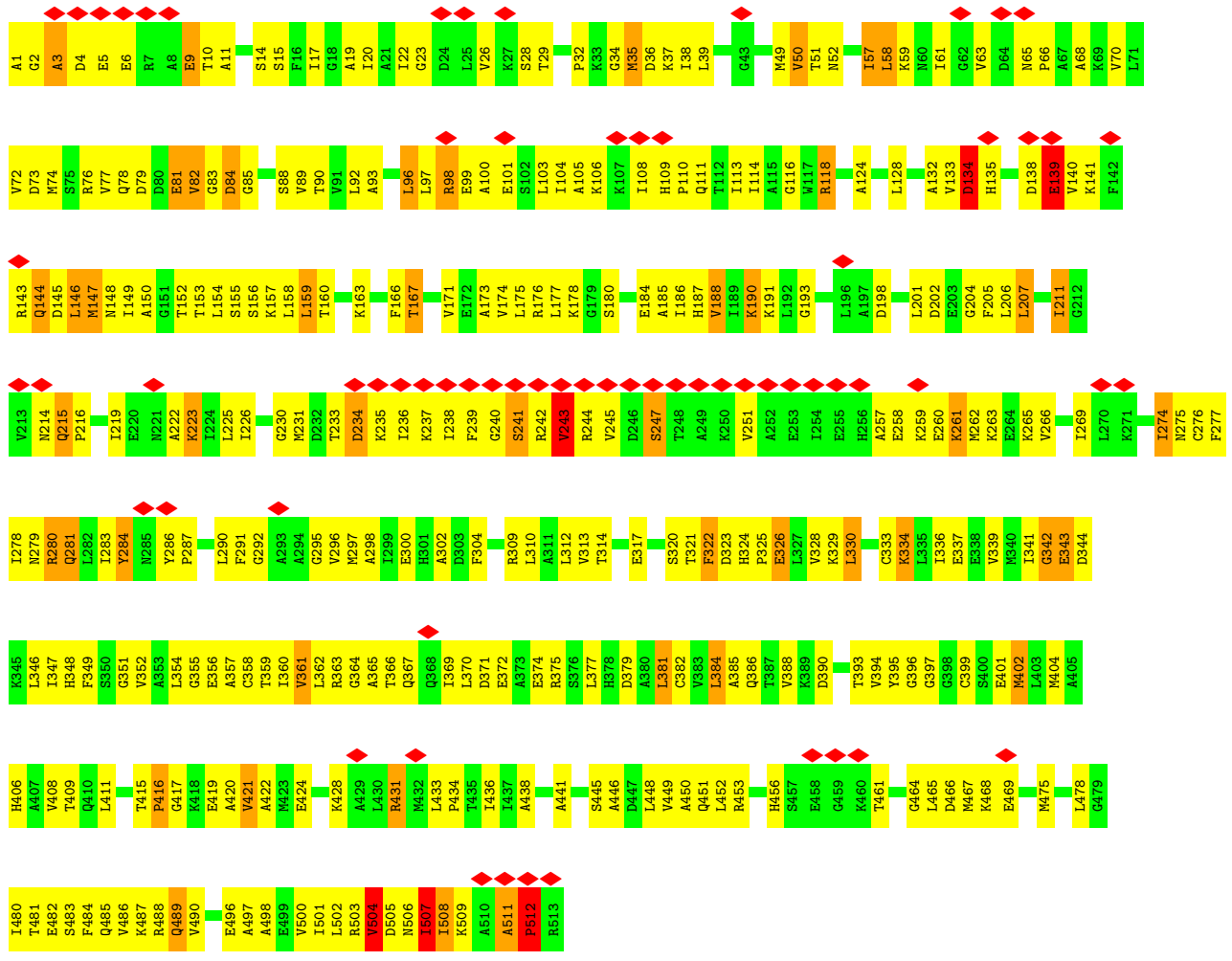


● Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

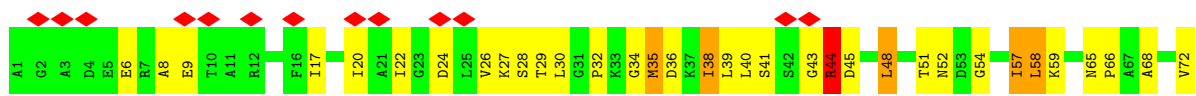


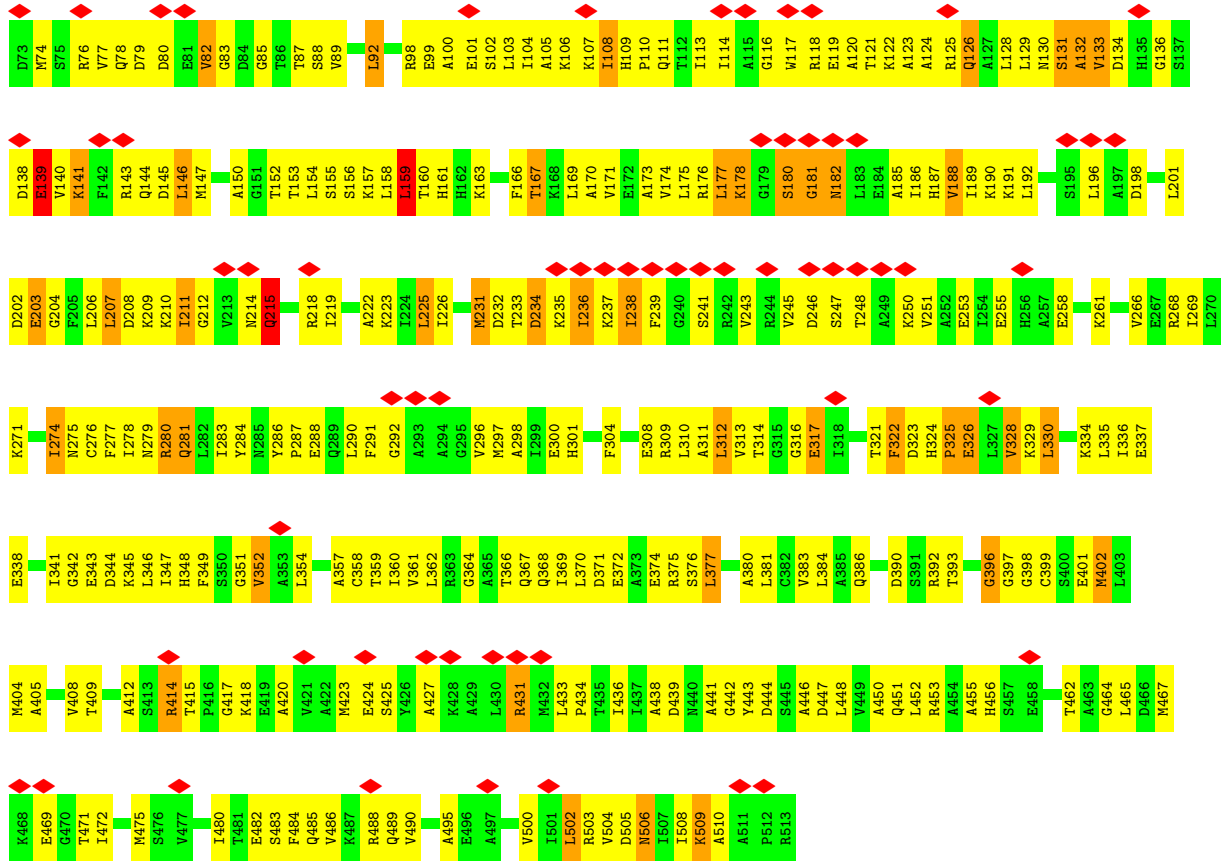


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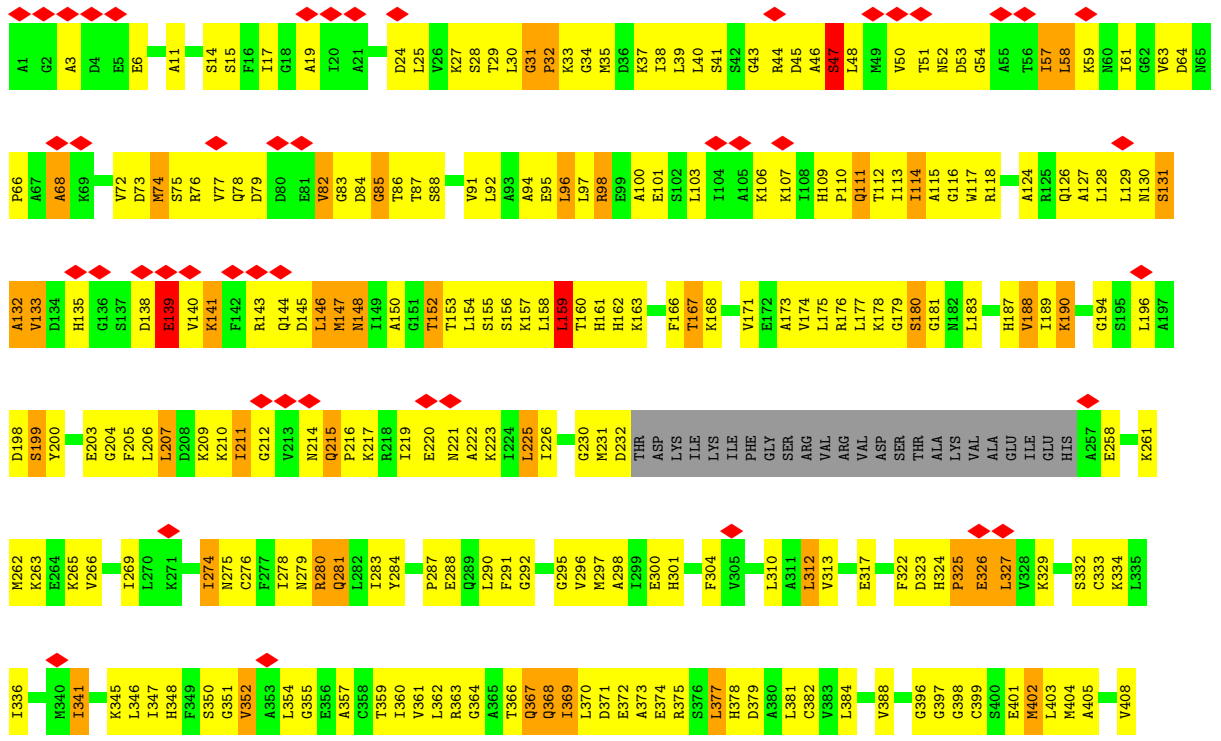


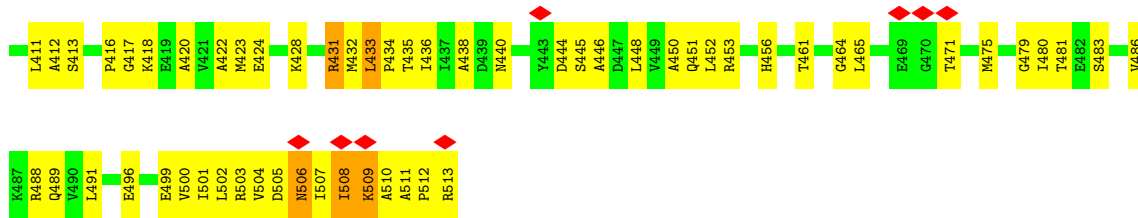
● Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA



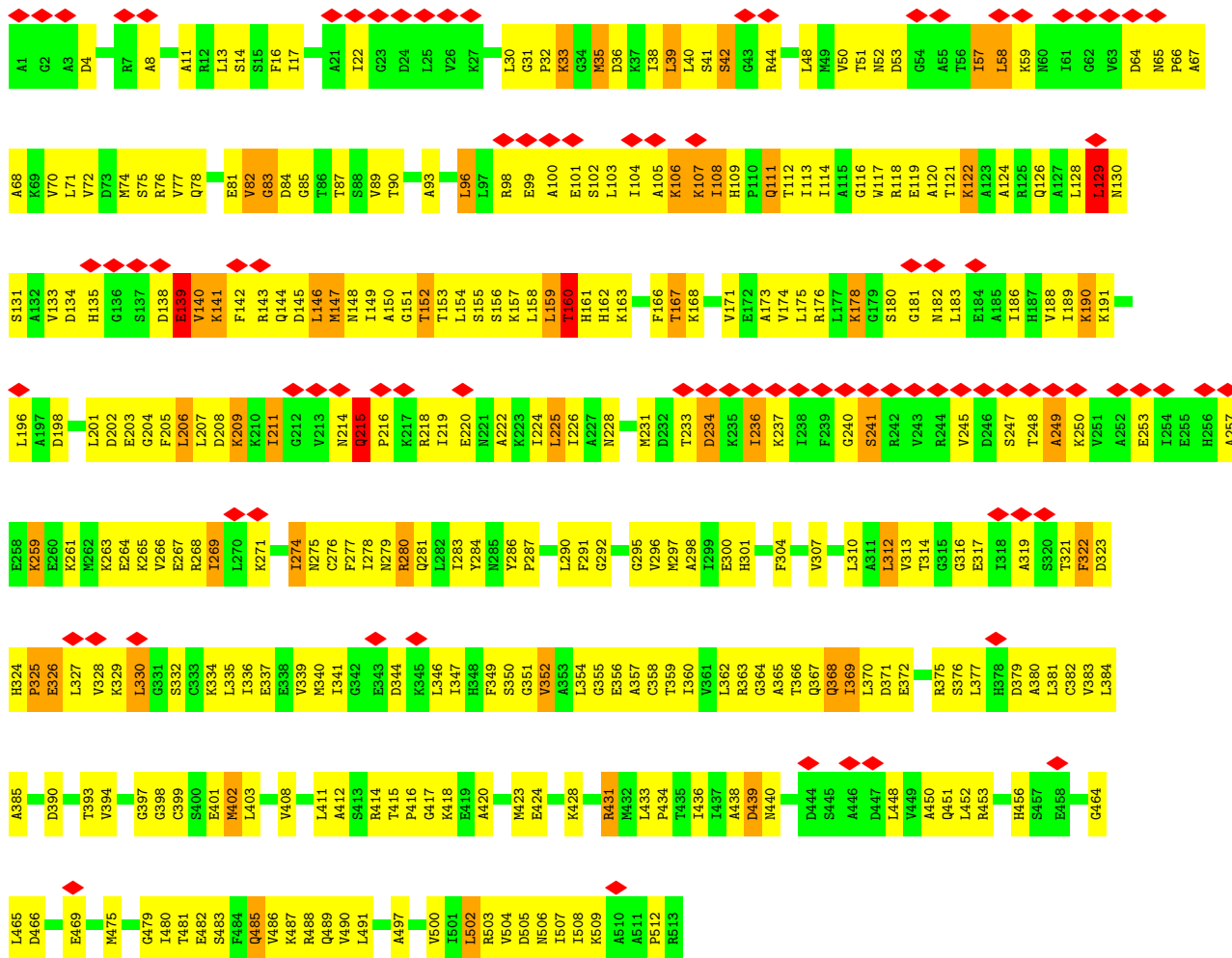


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

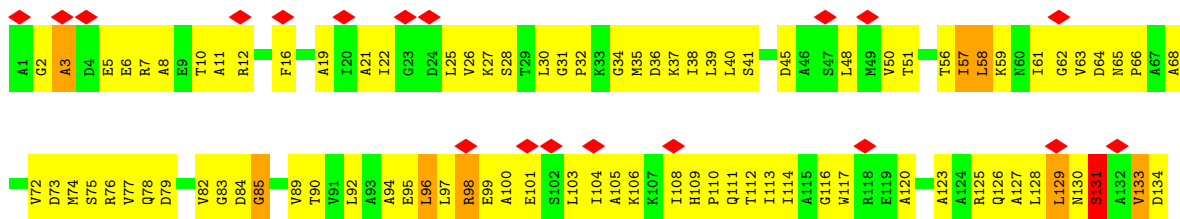


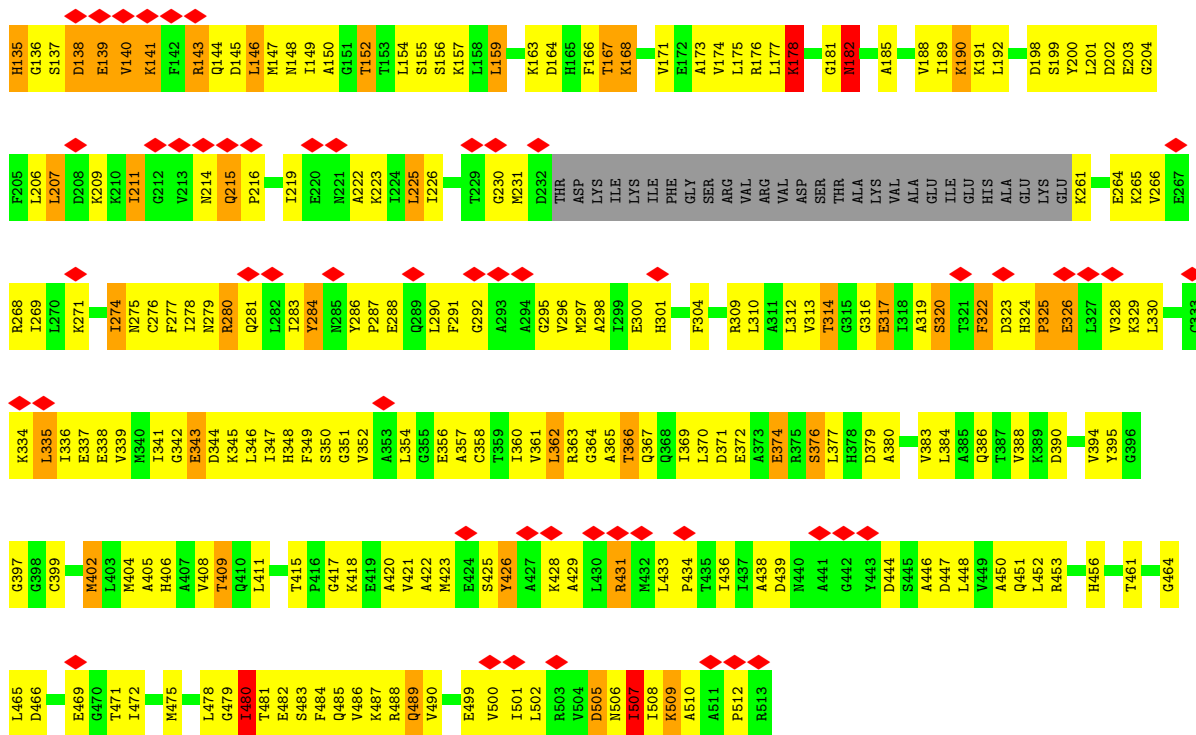


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

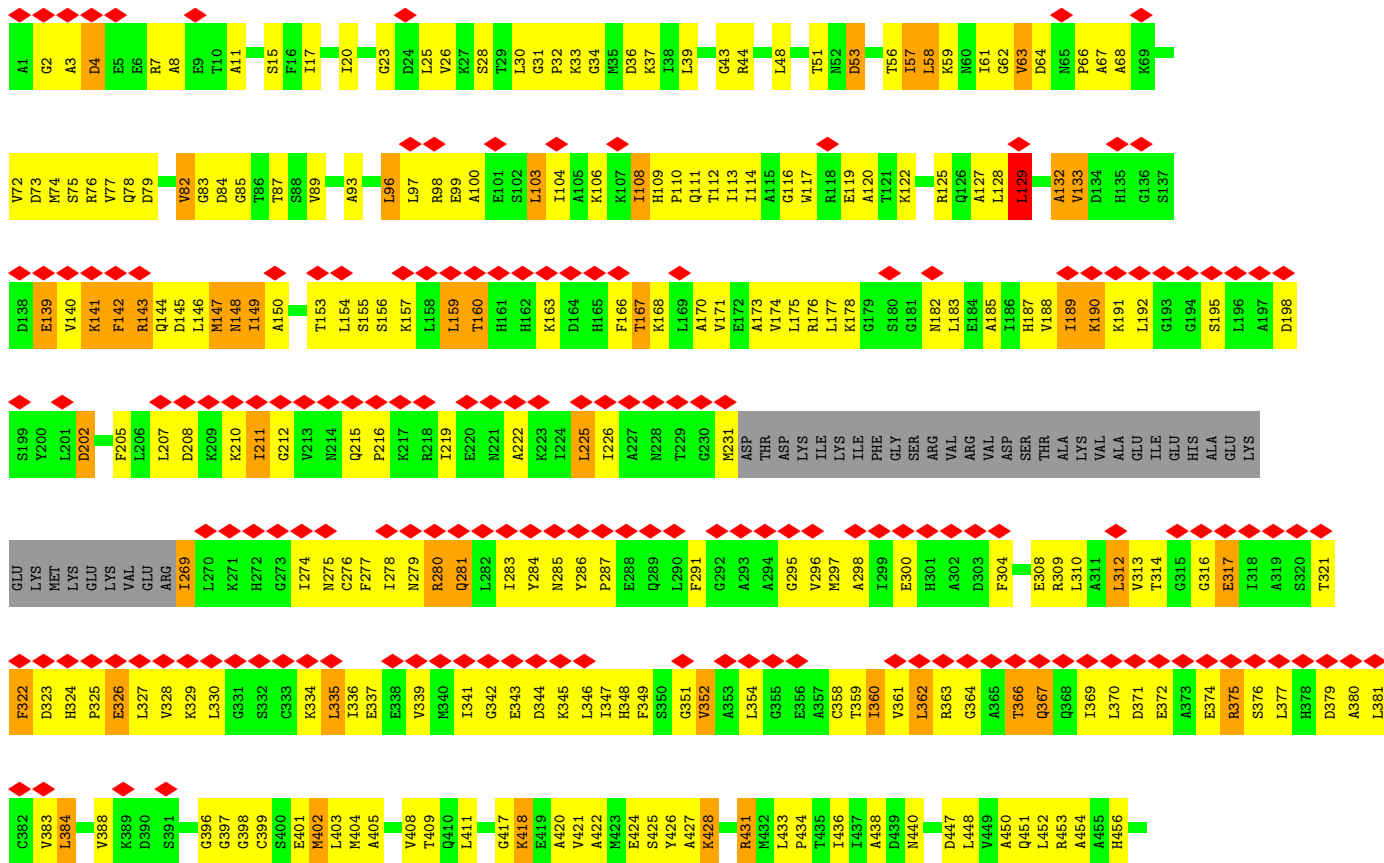


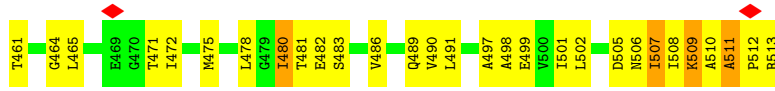
• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA



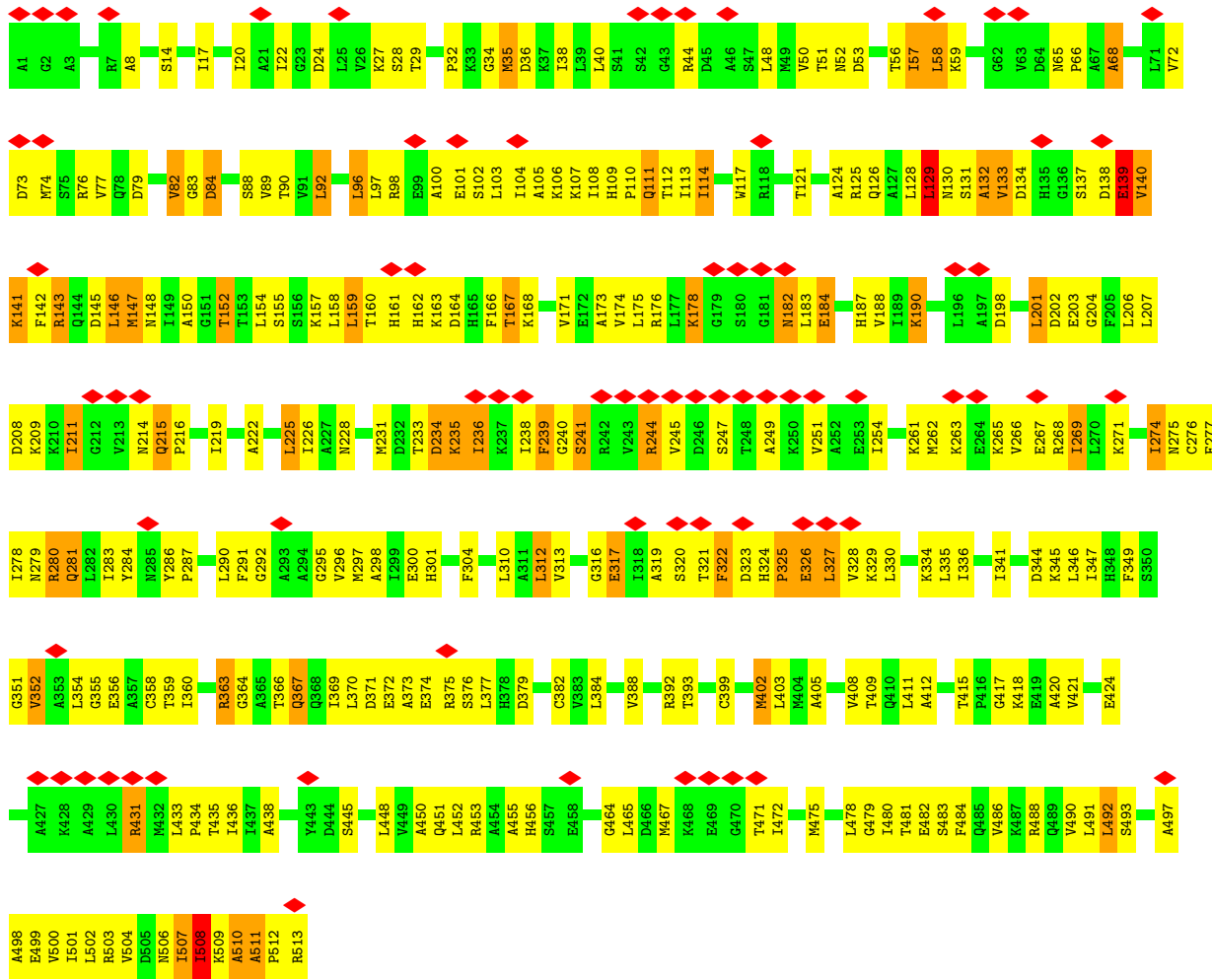
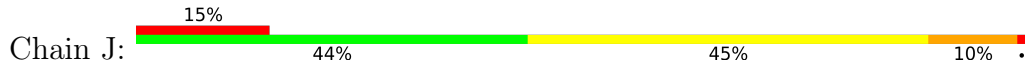


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

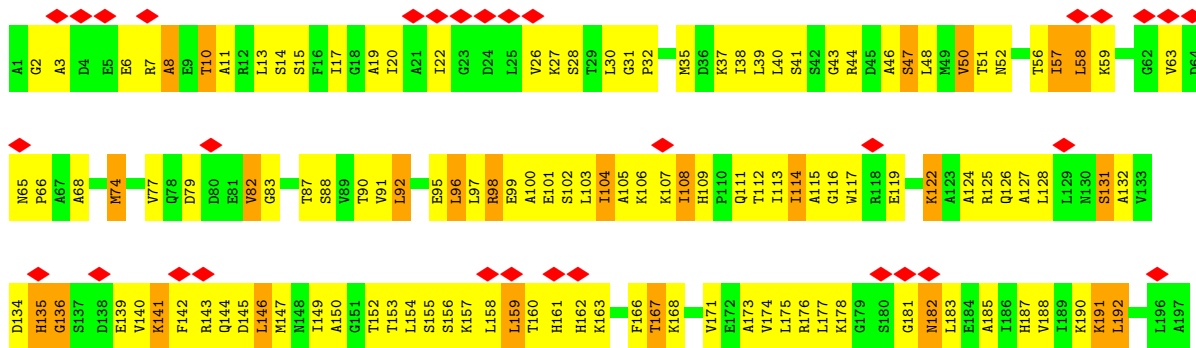


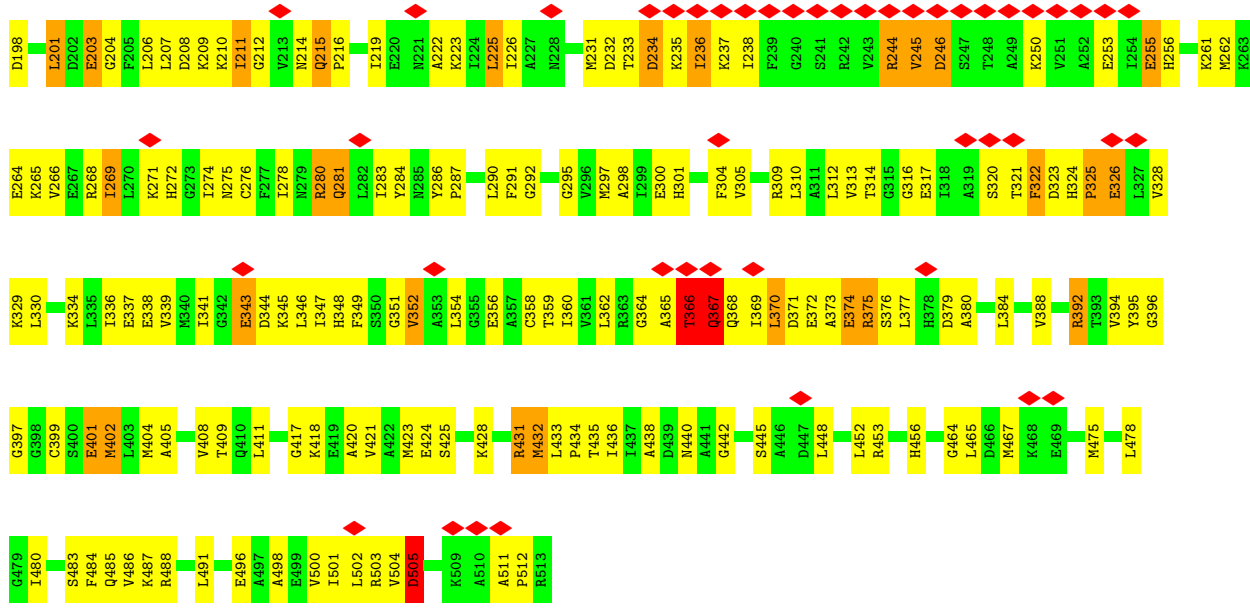


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

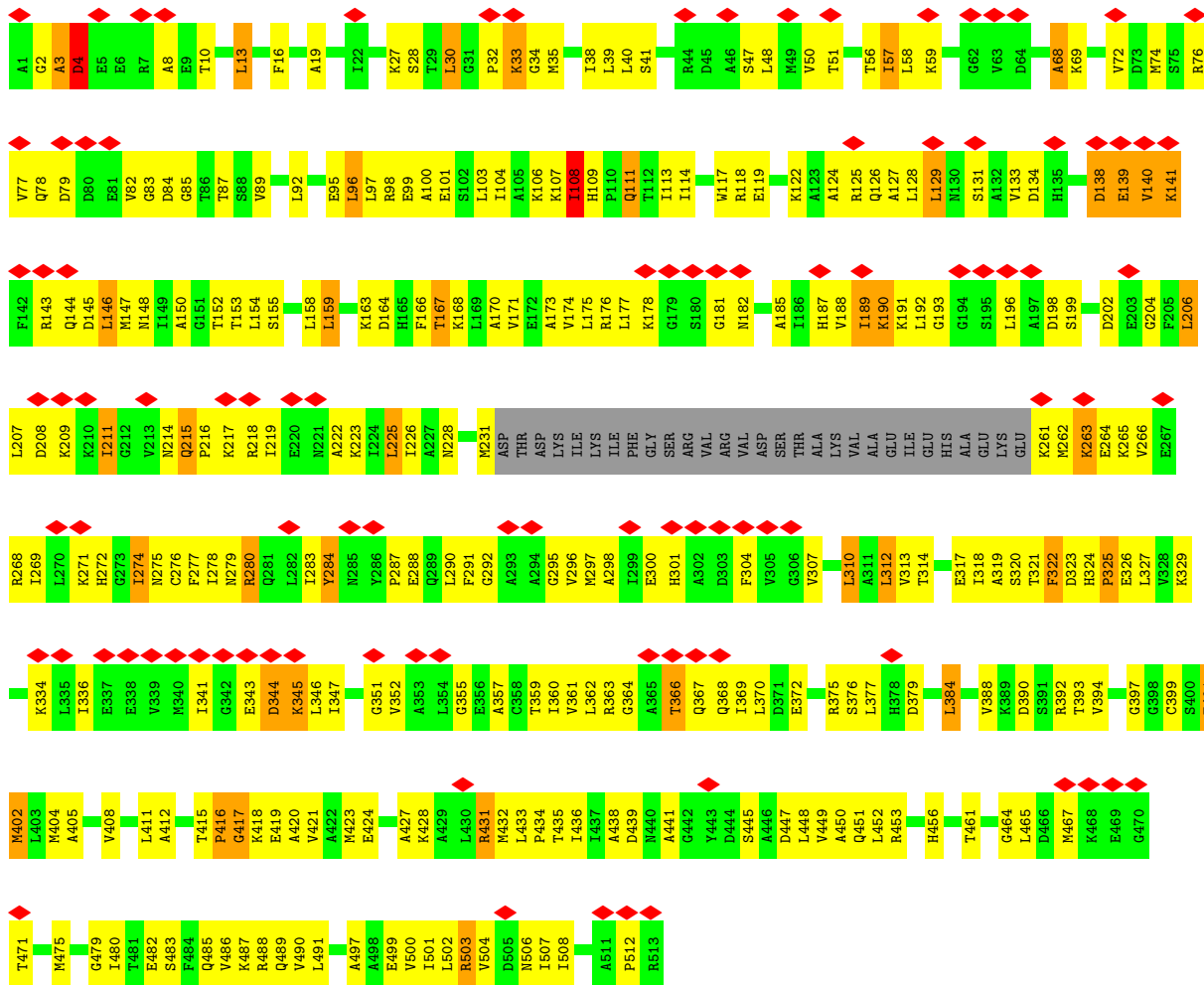


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

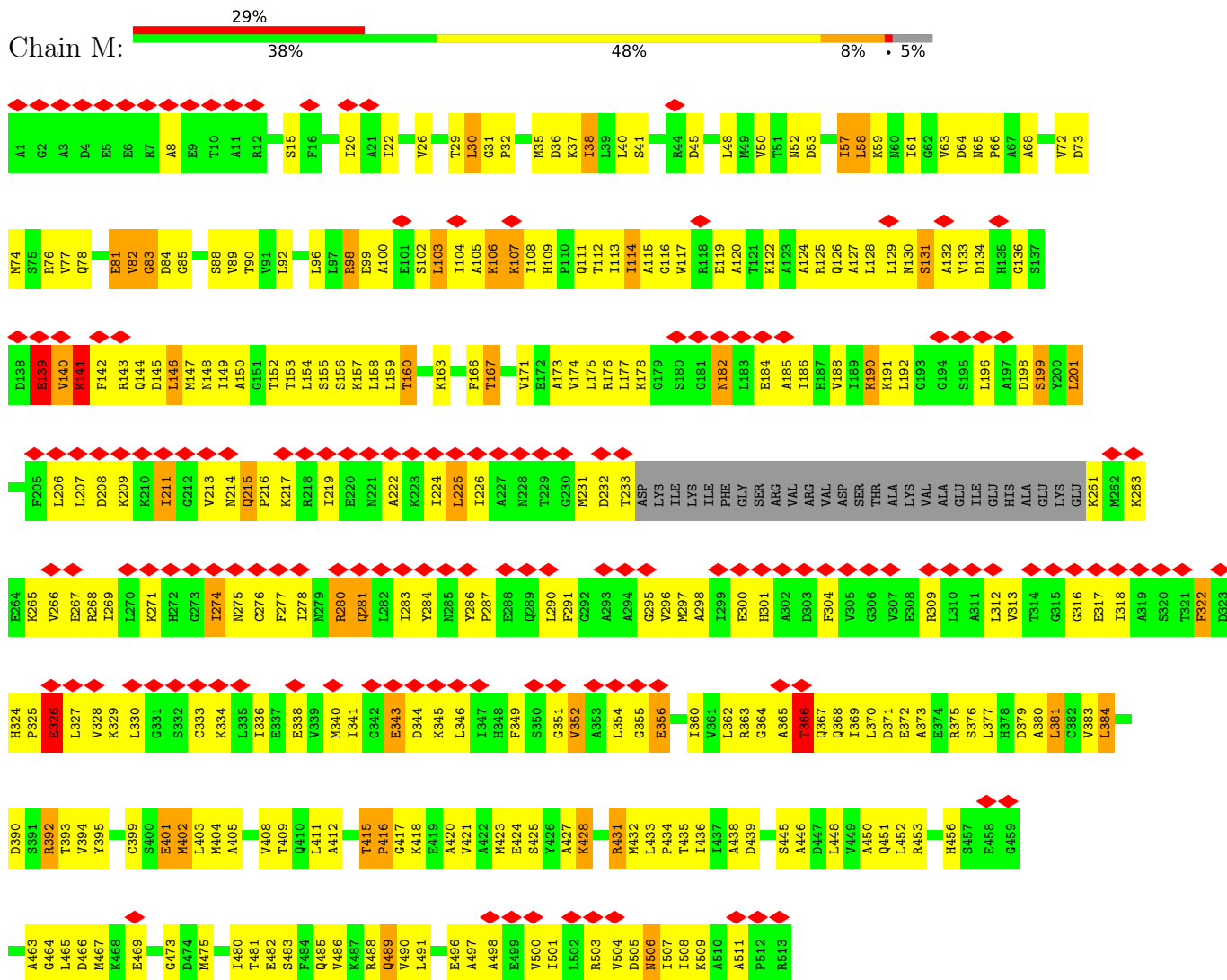




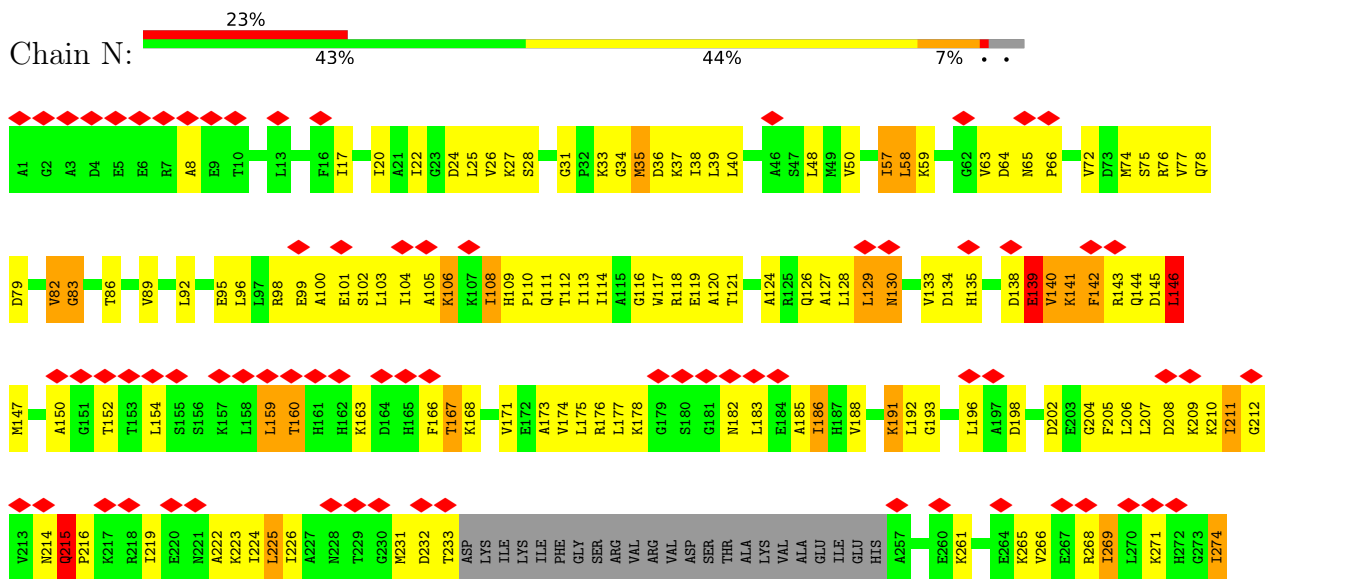
● Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

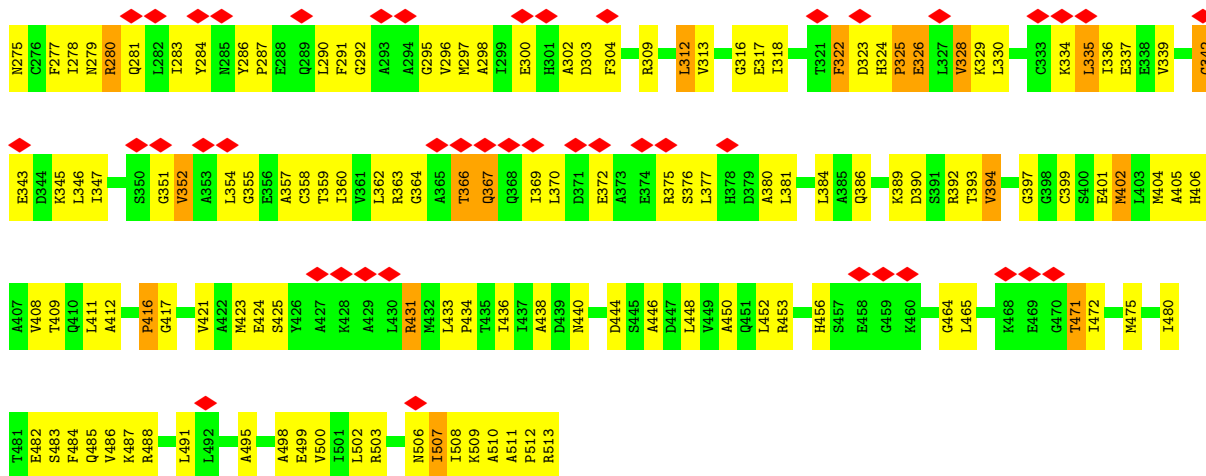


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

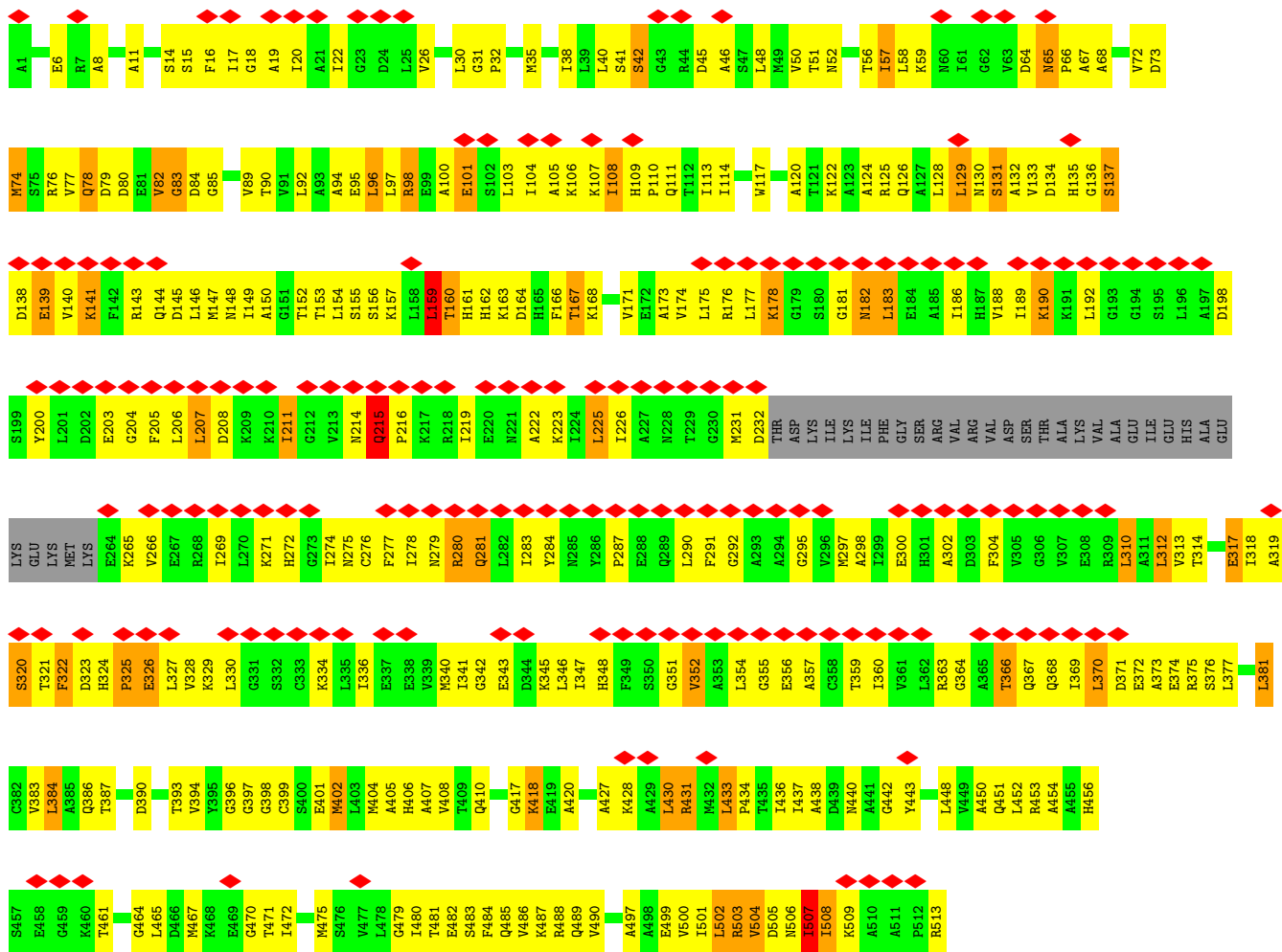


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA



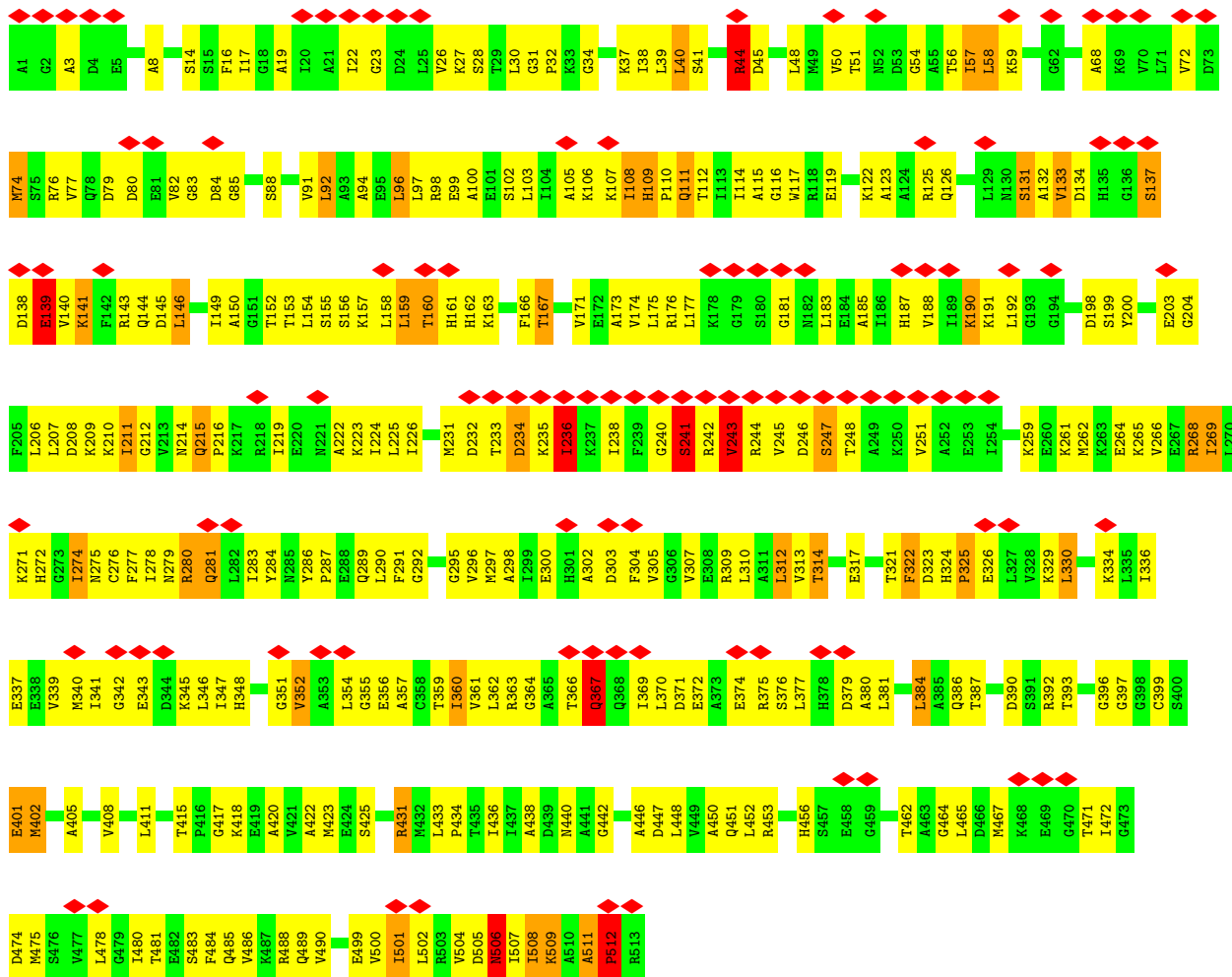


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA



• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA





4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	29374	Depositor
Resolution determination method	Not provided	
CTF correction method	EACH MICROGRAPH	Depositor
Microscope	JEOL 3200FSC	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	18	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	3000	Depositor
Magnification	50000	Depositor
Image detector	KODAK SO-163 FILM	Depositor
Maximum map value	2.164	Depositor
Minimum map value	-0.373	Depositor
Average map value	0.069	Depositor
Map value standard deviation	0.265	Depositor
Recommended contour level	1.13	Depositor
Map size (\AA)	345.6, 345.6, 345.6	wwPDB
Map dimensions	144, 144, 144	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	2.4, 2.4, 2.4	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.45	0/3732	0.80	2/5028 (0.0%)
1	B	0.46	0/3664	0.75	1/4937 (0.0%)
1	C	0.45	0/3896	0.76	0/5249
1	D	0.46	0/3896	0.78	1/5249 (0.0%)
1	E	0.45	0/3896	0.78	1/5249 (0.0%)
1	F	0.46	0/3704	0.76	1/4990 (0.0%)
1	G	0.47	0/3896	0.78	1/5249 (0.0%)
1	H	0.45	0/3672	0.77	0/4948
1	I	0.46	0/3593	0.77	1/4846 (0.0%)
1	J	0.44	0/3896	0.78	0/5249
1	K	0.46	0/3896	0.77	1/5249 (0.0%)
1	L	0.45	0/3664	0.74	0/4937
1	M	0.44	0/3679	0.75	1/4958 (0.0%)
1	N	0.44	0/3711	0.73	0/5000
1	O	0.46	0/3646	0.78	1/4916 (0.0%)
1	P	0.45	0/3896	0.81	3/5249 (0.1%)
All	All	0.45	0/60337	0.77	14/81303 (0.0%)

There are no bond length outliers.

All (14) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	44	ARG	NE-CZ-NH1	6.31	123.46	120.30
1	P	44	ARG	NE-CZ-NH1	6.26	123.43	120.30
1	P	268	ARG	NE-CZ-NH1	6.21	123.41	120.30
1	M	392	ARG	NE-CZ-NH1	6.16	123.38	120.30
1	I	63	VAL	CB-CA-C	-5.92	100.16	111.40
1	A	179	GLY	N-CA-C	-5.88	98.41	113.10
1	G	33	LYS	N-CA-CB	-5.81	100.14	110.60
1	O	503	ARG	N-CA-CB	-5.70	100.35	110.60
1	K	136	GLY	N-CA-C	5.69	127.33	113.10
1	B	326	GLU	N-CA-CB	5.46	120.43	110.60
1	D	5	GLU	N-CA-CB	-5.23	101.18	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	509	LYS	N-CA-CB	-5.22	101.19	110.60
1	P	109	HIS	N-CA-CB	-5.04	101.52	110.60
1	F	85	GLY	N-CA-C	-5.02	100.55	113.10

There are no chirality outliers.

There are no planarity outliers.

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	A	3693	0	3795	393	0
1	B	3626	0	3737	373	0
1	C	3855	0	3970	369	0
1	D	3855	0	3970	358	0
1	E	3855	0	3970	373	0
1	F	3666	0	3771	378	0
1	G	3855	0	3970	396	0
1	H	3634	0	3741	375	0
1	I	3555	0	3655	334	0
1	J	3855	0	3970	337	0
1	K	3855	0	3970	380	0
1	L	3626	0	3737	337	0
1	M	3641	0	3748	339	0
1	N	3673	0	3778	301	0
1	O	3608	0	3706	379	0
1	P	3855	0	3970	382	0
All	All	59707	0	61458	5516	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 46.

All (5516) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:450:ALA:HB2	1:L:418:LYS:HG2	1.30	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:146:LEU:HD12	1:B:171:VAL:HG13	1.31	1.12
1:K:146:LEU:HD12	1:K:171:VAL:HG13	1.30	1.11
1:M:82:VAL:HG21	1:M:486:VAL:HG12	1.29	1.10
1:A:159:LEU:HD12	1:A:369:ILE:HG23	1.33	1.09
1:A:509:LYS:HB3	1:F:61:ILE:HG21	1.32	1.09
1:E:266:VAL:HB	1:E:290:LEU:HD21	1.35	1.08
1:E:146:LEU:HD12	1:E:171:VAL:HG13	1.22	1.07
1:C:266:VAL:HB	1:C:290:LEU:HD21	1.36	1.07
1:I:146:LEU:HD12	1:I:171:VAL:HG13	1.38	1.05
1:M:124:ALA:HA	1:M:491:LEU:HD13	1.39	1.04
1:N:146:LEU:HB2	1:N:171:VAL:HG21	1.34	1.04
1:N:146:LEU:HD21	1:N:150:ALA:HB3	1.36	1.03
1:C:146:LEU:HD12	1:C:171:VAL:HG13	1.36	1.02
1:K:266:VAL:HB	1:K:290:LEU:HD21	1.41	1.02
1:O:14:SER:HB3	1:O:508:ILE:HD13	1.40	1.01
1:P:206:LEU:HD12	1:P:361:VAL:HG21	1.42	1.01
1:I:15:SER:HB3	1:I:501:ILE:HG23	1.43	1.01
1:I:188:VAL:HG13	1:I:377:LEU:HD21	1.40	1.01
1:L:321:THR:HG23	1:P:259:LYS:HE2	1.43	1.01
1:D:146:LEU:HD21	1:D:150:ALA:HB3	1.42	1.00
1:F:364:GLY:HA3	1:F:370:LEU:HD13	1.43	1.00
1:J:146:LEU:HD21	1:J:150:ALA:HB3	1.39	0.99
1:B:325:PRO:O	1:B:326:GLU:HG3	1.60	0.99
1:I:146:LEU:HD23	1:I:147:MET:H	1.28	0.99
1:A:159:LEU:HD13	1:A:159:LEU:H	1.28	0.98
1:D:174:VAL:HG11	1:D:384:LEU:HB3	1.44	0.98
1:N:188:VAL:HG21	1:N:377:LEU:HD21	1.46	0.98
1:L:38:ILE:HG22	1:L:50:VAL:HB	1.44	0.97
1:O:159:LEU:HD13	1:O:159:LEU:H	1.28	0.97
1:H:146:LEU:HD12	1:H:171:VAL:HG13	1.47	0.97
1:G:89:VAL:HG12	1:G:490:VAL:HG23	1.45	0.96
1:M:146:LEU:HD12	1:M:171:VAL:HG13	1.44	0.96
1:M:211:ILE:H	1:M:211:ILE:HD12	1.30	0.96
1:D:32:PRO:HA	1:D:155:SER:HB3	1.47	0.96
1:M:146:LEU:HD21	1:M:150:ALA:HB3	1.45	0.96
1:A:124:ALA:HA	1:A:491:LEU:HD13	1.46	0.96
1:O:146:LEU:HB2	1:O:171:VAL:HG11	1.44	0.96
1:G:266:VAL:HB	1:G:290:LEU:HD21	1.47	0.95
1:O:132:ALA:HB3	1:O:461:THR:HG21	1.49	0.95
1:N:133:VAL:HG12	1:N:394:VAL:HG13	1.48	0.95
1:B:176:ARG:HH22	1:B:201:LEU:HD21	1.31	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:38:ILE:HD12	1:G:504:VAL:HG13	1.49	0.94
1:N:211:ILE:HD11	1:N:297:MET:HG3	1.48	0.94
1:N:364:GLY:HA3	1:N:370:LEU:HD13	1.50	0.94
1:J:233:THR:HG21	1:J:261:LYS:HE2	1.46	0.94
1:D:146:LEU:HD12	1:D:171:VAL:HG13	1.49	0.93
1:C:188:VAL:HG11	1:C:377:LEU:HD22	1.51	0.93
1:D:211:ILE:HD11	1:D:297:MET:HG3	1.49	0.93
1:G:50:VAL:HG22	1:G:375:ARG:HH12	1.33	0.93
1:A:188:VAL:HB	1:A:360:ILE:O	1.68	0.93
1:C:126:GLN:HE21	1:C:408:VAL:HG12	1.30	0.93
1:A:82:VAL:HG21	1:A:486:VAL:HG12	1.50	0.92
1:P:508:ILE:HG23	1:P:509:LYS:HG2	1.50	0.92
1:B:150:ALA:HB2	1:B:384:LEU:HD21	1.51	0.92
1:G:186:ILE:HG21	1:G:381:LEU:HG	1.51	0.92
1:J:38:ILE:HG22	1:J:50:VAL:HB	1.47	0.92
1:M:84:ASP:OD2	1:M:379:ASP:HA	1.70	0.92
1:G:31:GLY:HA3	1:G:440:ASN:ND2	1.84	0.92
1:I:188:VAL:HG11	1:I:377:LEU:HD11	1.51	0.91
1:C:146:LEU:HD23	1:C:147:MET:H	1.32	0.91
1:G:211:ILE:HD11	1:G:297:MET:HG3	1.52	0.91
1:O:177:LEU:HD11	1:O:186:ILE:HD11	1.52	0.91
1:J:266:VAL:HB	1:J:290:LEU:HD21	1.49	0.90
1:A:213:VAL:HG12	1:C:318:ILE:HG23	1.54	0.90
1:M:103:LEU:HG	1:M:113:ILE:HD13	1.50	0.90
1:I:189:ILE:HG22	1:I:190:LYS:H	1.36	0.90
1:K:171:VAL:HG12	1:K:384:LEU:HG	1.50	0.90
1:C:110:PRO:HA	1:C:113:ILE:HD12	1.51	0.90
1:F:146:LEU:HD12	1:F:171:VAL:HG13	1.51	0.90
1:E:206:LEU:HD21	1:E:346:LEU:HD11	1.54	0.89
1:B:128:LEU:HD22	1:B:488:ARG:HG2	1.54	0.89
1:P:269:ILE:HG23	1:P:274:ILE:HG21	1.54	0.89
1:I:146:LEU:HD23	1:I:147:MET:N	1.88	0.89
1:D:96:LEU:HD11	1:D:498:ALA:HB1	1.55	0.89
1:G:236:ILE:HG22	1:G:237:LYS:H	1.37	0.89
1:H:211:ILE:HD11	1:H:297:MET:HG3	1.55	0.89
1:K:325:PRO:O	1:K:326:GLU:HG3	1.74	0.88
1:F:146:LEU:HD21	1:F:167:THR:HG23	1.56	0.88
1:K:32:PRO:HA	1:K:155:SER:O	1.71	0.88
1:C:446:ALA:HB3	1:L:108:ILE:HG12	1.56	0.88
1:D:39:LEU:HD22	1:E:508:ILE:HG12	1.54	0.88
1:J:146:LEU:HD12	1:J:171:VAL:HG13	1.56	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:146:LEU:HD21	1:E:150:ALA:HB3	1.54	0.88
1:F:362:LEU:HD12	1:F:377:LEU:HD23	1.55	0.87
1:P:38:ILE:HG22	1:P:50:VAL:HB	1.55	0.87
1:E:51:THR:HG21	1:E:57:ILE:HB	1.56	0.87
1:G:146:LEU:HD12	1:G:171:VAL:HG13	1.54	0.87
1:B:191:LYS:HE3	1:B:346:LEU:HD11	1.54	0.87
1:G:208:ASP:O	1:G:209:LYS:HG3	1.74	0.87
1:H:114:ILE:HD11	1:H:502:LEU:HD22	1.57	0.87
1:I:211:ILE:HD11	1:I:297:MET:HG3	1.55	0.87
1:J:188:VAL:HG11	1:J:377:LEU:HD22	1.57	0.87
1:A:32:PRO:HD3	1:A:467:MET:SD	2.15	0.86
1:O:269:ILE:HG23	1:O:274:ILE:HG22	1.56	0.86
1:H:448:LEU:HD21	1:H:465:LEU:HD12	1.56	0.86
1:I:448:LEU:HD21	1:I:465:LEU:HD12	1.57	0.86
1:L:133:VAL:HB	1:L:393:THR:O	1.75	0.86
1:P:401:GLU:HG2	1:P:433:LEU:HD22	1.56	0.86
1:G:133:VAL:HB	1:G:393:THR:O	1.75	0.86
1:H:147:MET:O	1:H:479:GLY:HA2	1.75	0.86
1:O:146:LEU:HD21	1:O:150:ALA:HB3	1.57	0.86
1:D:82:VAL:HG22	1:D:386:GLN:HG3	1.58	0.86
1:F:475:MET:SD	1:F:480:ILE:HB	2.16	0.86
1:L:146:LEU:CD2	1:L:167:THR:HG23	2.05	0.86
1:A:163:LYS:HA	1:A:166:PHE:CE1	2.11	0.86
1:N:266:VAL:HB	1:N:290:LEU:HD21	1.57	0.86
1:E:32:PRO:HA	1:E:155:SER:HB3	1.58	0.85
1:F:163:LYS:HA	1:F:166:PHE:CD1	2.11	0.85
1:M:269:ILE:HG23	1:M:274:ILE:CG2	2.06	0.85
1:O:211:ILE:HD11	1:O:297:MET:HG3	1.56	0.85
1:B:191:LYS:O	1:B:370:LEU:HD21	1.75	0.85
1:J:219:ILE:HD11	1:J:336:ILE:HB	1.57	0.85
1:F:341:ILE:HG13	1:F:346:LEU:HD13	1.57	0.85
1:C:265:LYS:O	1:C:269:ILE:HB	1.77	0.85
1:B:39:LEU:O	1:B:48:LEU:HA	1.75	0.85
1:J:138:ASP:O	1:J:139:GLU:HB3	1.74	0.85
1:M:35:MET:HE1	1:O:503:ARG:NE	1.92	0.85
1:F:211:ILE:HD11	1:F:297:MET:HG3	1.57	0.85
1:G:146:LEU:HD22	1:G:168:LYS:HA	1.56	0.85
1:B:500:VAL:HG13	1:G:367:GLN:HG2	1.58	0.85
1:M:15:SER:HB3	1:M:501:ILE:HG21	1.59	0.85
1:O:157:LYS:HB3	1:O:159:LEU:HD11	1.59	0.85
1:P:159:LEU:HD13	1:P:159:LEU:H	1.42	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:211:ILE:HD11	1:P:297:MET:HG3	1.59	0.84
1:H:269:ILE:HG23	1:H:274:ILE:HG21	1.56	0.84
1:P:266:VAL:HB	1:P:290:LEU:HD21	1.57	0.84
1:C:417:GLY:N	1:L:450:ALA:HA	1.93	0.84
1:F:146:LEU:HD21	1:F:150:ALA:HB3	1.60	0.84
1:O:318:ILE:HB	1:O:328:VAL:HG23	1.59	0.84
1:F:79:ASP:HA	1:F:83:GLY:CA	2.08	0.84
1:G:269:ILE:HG23	1:G:274:ILE:HG21	1.59	0.84
1:C:280:ARG:HG3	1:C:280:ARG:O	1.77	0.84
1:F:269:ILE:HG23	1:F:274:ILE:CG2	2.06	0.84
1:H:109:HIS:CE1	1:H:111:GLN:HB2	2.13	0.84
1:H:417:GLY:HA2	1:P:447:ASP:O	1.77	0.84
1:J:506:ASN:HD21	1:J:508:ILE:HD11	1.43	0.84
1:B:211:ILE:CD1	1:B:211:ILE:H	1.90	0.84
1:D:269:ILE:HG23	1:D:274:ILE:CG2	2.06	0.84
1:I:89:VAL:HG12	1:I:490:VAL:HG23	1.60	0.83
1:B:154:LEU:HD22	1:B:167:THR:HB	1.60	0.83
1:L:126:GLN:HE22	1:L:411:LEU:HD21	1.42	0.83
1:N:108:ILE:HG22	1:N:109:HIS:H	1.41	0.83
1:J:399:CYS:SG	1:J:464:GLY:HA3	2.19	0.83
1:D:450:ALA:HB3	1:K:417:GLY:CA	2.09	0.83
1:I:67:ALA:HB2	1:I:507:ILE:HG21	1.57	0.83
1:D:446:ALA:HB2	1:K:108:ILE:HG21	1.57	0.83
1:J:448:LEU:HD21	1:J:465:LEU:HD12	1.60	0.83
1:J:124:ALA:HB1	1:J:491:LEU:HD13	1.61	0.83
1:J:188:VAL:HG21	1:J:377:LEU:HD13	1.61	0.83
1:D:362:LEU:HD11	1:D:377:LEU:HD13	1.60	0.83
1:H:369:ILE:O	1:H:372:GLU:HB3	1.79	0.83
1:F:112:THR:HG21	1:F:418:LYS:HE2	1.58	0.83
1:H:32:PRO:HA	1:H:155:SER:O	1.79	0.83
1:J:211:ILE:HD11	1:J:297:MET:HG3	1.60	0.83
1:C:453:ARG:HH22	1:L:421:VAL:HG13	1.44	0.82
1:F:159:LEU:H	1:F:159:LEU:HD13	1.44	0.82
1:B:183:LEU:HD21	1:B:381:LEU:HD13	1.61	0.82
1:J:111:GLN:HG3	1:N:35:MET:SD	2.18	0.82
1:A:174:VAL:HA	1:A:177:LEU:HD23	1.60	0.82
1:H:79:ASP:HA	1:H:83:GLY:CA	2.09	0.82
1:I:313:VAL:HG13	1:I:352:VAL:HG21	1.60	0.82
1:L:146:LEU:HD21	1:L:150:ALA:HB3	1.61	0.82
1:G:149:ILE:HD12	1:G:482:GLU:HA	1.61	0.82
1:O:108:ILE:HG22	1:O:109:HIS:H	1.43	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:31:GLY:HA3	1:I:440:ASN:ND2	1.95	0.82
1:E:154:LEU:HD23	1:E:163:LYS:HG3	1.61	0.82
1:N:138:ASP:O	1:N:139:GLU:HB3	1.80	0.82
1:P:265:LYS:O	1:P:269:ILE:HB	1.79	0.82
1:B:313:VAL:HG13	1:B:352:VAL:HB	1.61	0.82
1:H:126:GLN:O	1:H:130:ASN:HB2	1.80	0.81
1:M:153:THR:HG21	1:M:379:ASP:HB3	1.60	0.81
1:E:79:ASP:HA	1:E:83:GLY:CA	2.10	0.81
1:F:159:LEU:HB3	1:F:369:ILE:CG2	2.09	0.81
1:H:79:ASP:HA	1:H:83:GLY:HA2	1.61	0.81
1:C:206:LEU:HD11	1:C:346:LEU:HD23	1.62	0.81
1:A:399:CYS:SG	1:A:464:GLY:HA3	2.20	0.81
1:D:446:ALA:HB1	1:K:418:LYS:HD3	1.61	0.81
1:L:188:VAL:HG11	1:L:377:LEU:HD23	1.63	0.81
1:O:38:ILE:HG22	1:O:50:VAL:HB	1.62	0.81
1:B:269:ILE:HG23	1:B:274:ILE:HG21	1.61	0.81
1:E:269:ILE:HG23	1:E:274:ILE:HG21	1.60	0.81
1:F:512:PRO:O	1:F:513:ARG:HG2	1.80	0.81
1:I:33:LYS:HD3	1:I:440:ASN:O	1.80	0.81
1:J:415:THR:HG23	1:J:420:ALA:HB2	1.62	0.81
1:L:114:ILE:HD11	1:L:502:LEU:HD22	1.62	0.81
1:G:109:HIS:CE1	1:G:111:GLN:HG2	2.16	0.81
1:F:450:ALA:HA	1:O:417:GLY:N	1.96	0.80
1:G:163:LYS:HA	1:G:166:PHE:CD1	2.16	0.80
1:K:132:ALA:HB3	1:K:394:VAL:HA	1.63	0.80
1:G:225:LEU:HD13	1:G:329:LYS:HE2	1.61	0.80
1:B:146:LEU:HD23	1:B:147:MET:H	1.47	0.80
1:D:399:CYS:SG	1:D:464:GLY:HA3	2.21	0.80
1:H:269:ILE:HG23	1:H:274:ILE:CG2	2.10	0.80
1:O:313:VAL:HG22	1:O:357:ALA:HB3	1.62	0.80
1:G:265:LYS:O	1:G:269:ILE:HB	1.81	0.80
1:M:82:VAL:HG13	1:M:83:GLY:H	1.43	0.80
1:F:92:LEU:HD11	1:F:433:LEU:HD21	1.62	0.80
1:H:438:ALA:HB2	1:H:448:LEU:HG	1.61	0.80
1:J:372:GLU:HG3	1:J:375:ARG:NH2	1.96	0.80
1:D:501:ILE:O	1:D:504:VAL:HB	1.82	0.80
1:G:324:HIS:O	1:G:329:LYS:HG2	1.81	0.80
1:K:146:LEU:HD12	1:K:171:VAL:CG1	2.11	0.80
1:L:38:ILE:HG12	1:M:504:VAL:HG11	1.61	0.80
1:O:51:THR:HG21	1:O:56:THR:HB	1.64	0.80
1:O:475:MET:SD	1:O:480:ILE:HB	2.21	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:79:ASP:HA	1:A:83:GLY:CA	2.12	0.80
1:G:283:ILE:HG22	1:G:300:GLU:HG3	1.63	0.80
1:L:226:ILE:HG12	1:L:278:ILE:HG23	1.63	0.80
1:A:448:LEU:HD21	1:A:465:LEU:HD12	1.63	0.80
1:A:507:ILE:HA	1:F:38:ILE:O	1.82	0.80
1:G:206:LEU:HD21	1:G:346:LEU:HD13	1.63	0.80
1:K:372:GLU:HG3	1:K:375:ARG:CZ	2.12	0.80
1:K:411:LEU:HB3	1:K:423:MET:SD	2.21	0.80
1:F:190:LYS:HD3	1:F:190:LYS:C	2.01	0.79
1:J:32:PRO:HA	1:J:155:SER:HB2	1.62	0.79
1:O:133:VAL:HG12	1:O:394:VAL:HG12	1.64	0.79
1:P:505:ASP:O	1:P:506:ASN:HB2	1.81	0.79
1:A:402:MET:SD	1:A:456:HIS:HB2	2.22	0.79
1:L:369:ILE:O	1:L:372:GLU:HB3	1.83	0.79
1:M:269:ILE:HG23	1:M:274:ILE:HG21	1.63	0.79
1:O:206:LEU:HD21	1:O:346:LEU:HD13	1.65	0.79
1:I:146:LEU:CD2	1:I:167:THR:HG23	2.12	0.79
1:L:111:GLN:HE21	1:L:111:GLN:H	1.30	0.79
1:N:394:VAL:HG23	1:N:482:GLU:HB2	1.64	0.79
1:O:168:LYS:O	1:O:171:VAL:HG22	1.82	0.79
1:B:269:ILE:HG23	1:B:274:ILE:CG2	2.11	0.79
1:B:402:MET:SD	1:B:456:HIS:HB2	2.23	0.79
1:A:211:ILE:HD11	1:A:297:MET:HG3	1.65	0.79
1:C:211:ILE:HD11	1:C:297:MET:HG3	1.65	0.79
1:D:138:ASP:O	1:D:139:GLU:HB2	1.81	0.79
1:K:401:GLU:HG2	1:K:433:LEU:HD22	1.65	0.79
1:A:266:VAL:HB	1:A:290:LEU:HD21	1.64	0.79
1:L:79:ASP:HA	1:L:83:GLY:CA	2.13	0.79
1:M:211:ILE:H	1:M:211:ILE:CD1	1.95	0.79
1:O:15:SER:HB2	1:O:501:ILE:HG23	1.64	0.79
1:O:163:LYS:HA	1:O:166:PHE:CD1	2.18	0.79
1:A:5:GLU:HG3	1:A:508:ILE:HG22	1.66	0.78
1:F:166:PHE:CZ	1:F:198:ASP:HB3	2.18	0.78
1:I:112:THR:HG21	1:O:442:GLY:CA	2.12	0.78
1:L:159:LEU:HD13	1:L:159:LEU:H	1.48	0.78
1:P:163:LYS:HA	1:P:166:PHE:CD1	2.19	0.78
1:C:163:LYS:HA	1:C:166:PHE:CD1	2.18	0.78
1:F:116:GLY:CA	1:F:422:ALA:HB1	2.14	0.78
1:O:89:VAL:HG12	1:O:490:VAL:HG23	1.65	0.78
1:O:269:ILE:HG23	1:O:274:ILE:CG2	2.13	0.78
1:B:399:CYS:SG	1:B:464:GLY:HA3	2.24	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:369:ILE:O	1:M:372:GLU:HB3	1.83	0.78
1:F:146:LEU:CD2	1:F:167:THR:HG23	2.12	0.78
1:K:283:ILE:HG22	1:K:300:GLU:HG3	1.66	0.78
1:M:15:SER:CB	1:M:501:ILE:HG21	2.14	0.78
1:A:450:ALA:HB2	1:M:420:ALA:HB3	1.66	0.78
1:C:114:ILE:HG23	1:C:499:GLU:HG3	1.65	0.78
1:I:97:LEU:HD21	1:I:501:ILE:HD13	1.64	0.78
1:J:114:ILE:HA	1:J:117:TRP:CE3	2.19	0.78
1:J:325:PRO:O	1:J:326:GLU:HG3	1.84	0.78
1:K:163:LYS:HA	1:K:166:PHE:CD1	2.18	0.78
1:L:324:HIS:HB2	1:L:329:LYS:NZ	1.99	0.78
1:P:214:ASN:O	1:P:215:GLN:HB2	1.83	0.77
1:A:185:ALA:HB3	1:A:357:ALA:HB1	1.67	0.77
1:H:475:MET:SD	1:H:480:ILE:HB	2.24	0.77
1:K:27:LYS:HA	1:K:436:ILE:HD11	1.66	0.77
1:N:133:VAL:HB	1:N:393:THR:O	1.84	0.77
1:C:418:LYS:H	1:L:450:ALA:HB2	1.50	0.77
1:D:190:LYS:O	1:D:190:LYS:HD3	1.85	0.77
1:F:174:VAL:HG11	1:F:384:LEU:HB2	1.65	0.77
1:J:269:ILE:HG23	1:J:274:ILE:HG21	1.66	0.77
1:I:15:SER:CB	1:I:501:ILE:HG23	2.13	0.77
1:O:133:VAL:HG23	1:O:134:ASP:H	1.47	0.77
1:B:146:LEU:HD21	1:B:150:ALA:HB3	1.65	0.77
1:O:140:VAL:HA	1:O:175:LEU:HD22	1.65	0.77
1:B:204:GLY:O	1:B:359:THR:HB	1.84	0.77
1:C:25:LEU:HG	1:H:508:ILE:HD13	1.65	0.77
1:F:416:PRO:HA	1:O:454:ALA:HB2	1.64	0.77
1:G:438:ALA:HB2	1:G:448:LEU:HG	1.66	0.77
1:A:483:SER:HB2	1:A:486:VAL:HG13	1.65	0.77
1:B:152:THR:OG1	1:B:480:ILE:HG23	1.85	0.77
1:E:283:ILE:HG22	1:E:300:GLU:HG3	1.67	0.77
1:H:31:GLY:O	1:H:156:SER:HA	1.84	0.77
1:I:112:THR:HG21	1:O:442:GLY:HA2	1.67	0.77
1:F:317:GLU:HB2	1:F:329:LYS:HG2	1.67	0.77
1:K:276:CYS:HA	1:K:297:MET:O	1.84	0.77
1:N:146:LEU:HD13	1:N:171:VAL:HG22	1.65	0.77
1:H:211:ILE:HD13	1:H:211:ILE:H	1.49	0.76
1:O:31:GLY:HA3	1:O:440:ASN:ND2	2.00	0.76
1:A:15:SER:OG	1:A:501:ILE:HG21	1.85	0.76
1:G:313:VAL:HG22	1:G:357:ALA:HB3	1.66	0.76
1:H:446:ALA:HB2	1:P:106:LYS:HE2	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:508:ILE:HG21	1:N:63:VAL:HG11	1.66	0.76
1:C:500:VAL:O	1:C:501:ILE:HG12	1.86	0.76
1:F:401:GLU:HG2	1:F:433:LEU:HD22	1.68	0.76
1:J:38:ILE:HD11	1:K:504:VAL:HG13	1.67	0.76
1:O:448:LEU:HD21	1:O:465:LEU:HD12	1.67	0.76
1:C:496:GLU:HG3	1:C:497:ALA:N	2.01	0.76
1:G:146:LEU:HD21	1:G:167:THR:HG23	1.67	0.76
1:B:177:LEU:HD12	1:B:186:ILE:HD11	1.66	0.76
1:D:32:PRO:HA	1:D:155:SER:CB	2.14	0.76
1:E:210:LYS:HE2	1:E:212:GLY:O	1.85	0.76
1:I:31:GLY:C	1:I:156:SER:HA	2.06	0.76
1:I:146:LEU:HD21	1:I:150:ALA:HB3	1.65	0.76
1:C:146:LEU:HD12	1:C:171:VAL:CG1	2.13	0.76
1:K:402:MET:SD	1:K:456:HIS:HB2	2.25	0.76
1:N:58:LEU:HB3	1:N:72:VAL:HG13	1.66	0.76
1:I:325:PRO:O	1:I:326:GLU:HG2	1.86	0.76
1:K:442:GLY:HA3	1:P:109:HIS:CD2	2.20	0.76
1:I:324:HIS:HB2	1:I:329:LYS:NZ	2.01	0.76
1:O:200:TYR:CD1	1:O:363:ARG:HD2	2.20	0.76
1:C:154:LEU:HD23	1:C:163:LYS:HG3	1.66	0.76
1:F:448:LEU:HD21	1:F:465:LEU:HD12	1.66	0.76
1:K:448:LEU:HD21	1:K:465:LEU:HD12	1.67	0.76
1:P:38:ILE:HD12	1:P:48:LEU:HD22	1.68	0.76
1:A:57:ILE:HG23	1:A:58:LEU:HD23	1.68	0.76
1:B:433:LEU:O	1:B:436:ILE:HG22	1.86	0.76
1:H:130:ASN:O	1:H:131:SER:HB2	1.86	0.76
1:P:402:MET:SD	1:P:453:ARG:HA	2.26	0.76
1:F:79:ASP:HA	1:F:83:GLY:HA3	1.66	0.75
1:J:79:ASP:HA	1:J:83:GLY:CA	2.14	0.75
1:K:211:ILE:HD11	1:K:297:MET:HG3	1.67	0.75
1:A:149:ILE:HD13	1:A:383:VAL:HG11	1.68	0.75
1:D:124:ALA:O	1:D:128:LEU:HG	1.86	0.75
1:H:28:SER:O	1:H:34:GLY:HA2	1.87	0.75
1:E:32:PRO:HA	1:E:155:SER:CB	2.17	0.75
1:E:134:ASP:HB3	1:E:393:THR:OG1	1.87	0.75
1:N:214:ASN:O	1:N:215:GLN:HB2	1.85	0.75
1:A:40:LEU:HB2	1:A:48:LEU:HD23	1.69	0.75
1:A:53:ASP:HB2	1:A:375:ARG:CD	2.16	0.75
1:L:211:ILE:HG22	1:L:288:GLU:OE1	1.86	0.75
1:O:114:ILE:HD11	1:O:502:LEU:HD22	1.67	0.75
1:B:380:ALA:O	1:B:384:LEU:HD23	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:119:GLU:O	1:C:122:LYS:HB3	1.87	0.75
1:D:402:MET:SD	1:D:453:ARG:HA	2.27	0.75
1:I:63:VAL:HG22	1:N:511:ALA:O	1.87	0.75
1:I:475:MET:SD	1:I:480:ILE:HB	2.27	0.75
1:A:504:VAL:HG13	1:F:37:LYS:HA	1.68	0.75
1:D:79:ASP:HA	1:D:83:GLY:HA3	1.67	0.75
1:G:173:ALA:HB2	1:G:360:ILE:HD11	1.69	0.75
1:G:483:SER:O	1:G:486:VAL:HG22	1.85	0.75
1:M:126:GLN:HE22	1:M:411:LEU:HD11	1.50	0.75
1:N:411:LEU:HB3	1:N:423:MET:SD	2.26	0.75
1:A:214:ASN:O	1:A:215:GLN:HB2	1.87	0.75
1:C:79:ASP:HA	1:C:83:GLY:CA	2.17	0.75
1:F:269:ILE:HG23	1:F:274:ILE:HG22	1.68	0.75
1:H:141:LYS:HD2	1:H:144:GLN:HB2	1.69	0.75
1:I:174:VAL:HG11	1:I:384:LEU:CB	2.17	0.75
1:A:324:HIS:O	1:A:329:LYS:HG2	1.87	0.75
1:C:402:MET:SD	1:C:456:HIS:HB2	2.26	0.75
1:F:140:VAL:HA	1:F:175:LEU:HD22	1.67	0.75
1:G:96:LEU:HD11	1:G:117:TRP:HZ2	1.52	0.75
1:H:146:LEU:HD21	1:H:150:ALA:HB3	1.67	0.75
1:N:110:PRO:HA	1:N:113:ILE:HD12	1.69	0.75
1:C:417:GLY:CA	1:L:450:ALA:HA	2.17	0.74
1:F:146:LEU:HD23	1:F:147:MET:H	1.50	0.74
1:H:174:VAL:HG11	1:H:384:LEU:CB	2.17	0.74
1:D:159:LEU:HD13	1:D:159:LEU:H	1.51	0.74
1:E:192:LEU:HD22	1:E:343:GLU:OE1	1.87	0.74
1:F:95:GLU:OE1	1:F:432:MET:HG2	1.87	0.74
1:G:159:LEU:HD13	1:G:159:LEU:H	1.52	0.74
1:H:283:ILE:HG22	1:H:300:GLU:HG3	1.69	0.74
1:N:140:VAL:HA	1:N:175:LEU:HD22	1.69	0.74
1:A:128:LEU:HD22	1:A:484:PHE:CE1	2.21	0.74
1:C:475:MET:SD	1:C:480:ILE:HB	2.27	0.74
1:E:269:ILE:HG23	1:E:274:ILE:CG2	2.15	0.74
1:G:108:ILE:HG13	1:N:446:ALA:HB2	1.68	0.74
1:I:283:ILE:HG22	1:I:300:GLU:HG3	1.69	0.74
1:N:38:ILE:HD12	1:N:48:LEU:HD23	1.68	0.74
1:P:109:HIS:NE2	1:P:112:THR:HG23	2.01	0.74
1:A:128:LEU:HD22	1:A:484:PHE:CZ	2.22	0.74
1:D:450:ALA:HB3	1:K:417:GLY:HA2	1.69	0.74
1:E:27:LYS:HB2	1:E:436:ILE:HD11	1.69	0.74
1:G:108:ILE:HG22	1:G:109:HIS:H	1.51	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:128:LEU:O	1:H:129:LEU:HG	1.87	0.74
1:H:206:LEU:HD11	1:H:346:LEU:HD23	1.68	0.74
1:L:411:LEU:HB3	1:L:423:MET:SD	2.28	0.74
1:O:38:ILE:CG2	1:O:50:VAL:HB	2.17	0.74
1:O:183:LEU:HD13	1:O:381:LEU:HD11	1.67	0.74
1:D:325:PRO:O	1:D:326:GLU:HG3	1.87	0.74
1:E:414:ARG:CZ	1:E:414:ARG:HA	2.17	0.74
1:H:40:LEU:HD22	1:H:48:LEU:HG	1.69	0.74
1:F:145:ASP:O	1:F:171:VAL:HG11	1.88	0.74
1:G:31:GLY:C	1:G:156:SER:HA	2.08	0.74
1:L:32:PRO:HD2	1:L:467:MET:SD	2.26	0.74
1:O:67:ALA:N	1:O:507:ILE:HG21	2.01	0.74
1:O:225:LEU:HD13	1:O:329:LYS:HE3	1.69	0.74
1:B:113:ILE:HG23	1:B:422:ALA:HB2	1.69	0.74
1:C:122:LYS:O	1:C:125:ARG:HG3	1.87	0.74
1:E:150:ALA:HB2	1:E:384:LEU:HD21	1.67	0.74
1:K:500:VAL:HG22	1:K:503:ARG:HH21	1.53	0.74
1:A:37:LYS:HA	1:C:503:ARG:O	1.87	0.74
1:E:448:LEU:HD21	1:E:465:LEU:HD12	1.69	0.74
1:F:190:LYS:HD3	1:F:190:LYS:O	1.86	0.74
1:G:399:CYS:SG	1:G:464:GLY:HA3	2.28	0.74
1:G:402:MET:SD	1:G:456:HIS:HB2	2.28	0.74
1:L:146:LEU:HD21	1:L:167:THR:HG23	1.68	0.74
1:M:313:VAL:HG13	1:M:352:VAL:HB	1.69	0.74
1:C:131:SER:HB2	1:C:403:LEU:HD21	1.69	0.74
1:C:433:LEU:O	1:C:436:ILE:HG22	1.88	0.74
1:J:124:ALA:O	1:J:128:LEU:HG	1.87	0.74
1:C:109:HIS:CE1	1:C:111:GLN:HB2	2.21	0.74
1:C:188:VAL:HG21	1:C:377:LEU:HD13	1.68	0.74
1:F:126:GLN:OE1	1:F:411:LEU:HD11	1.88	0.74
1:F:146:LEU:HD22	1:F:168:LYS:HA	1.70	0.74
1:L:95:GLU:OE1	1:L:432:MET:HB2	1.87	0.74
1:O:149:ILE:HD13	1:O:482:GLU:HA	1.69	0.74
1:P:106:LYS:O	1:P:107:LYS:HG2	1.88	0.74
1:B:171:VAL:HA	1:B:174:VAL:HG22	1.70	0.73
1:D:149:ILE:HD12	1:D:482:GLU:HA	1.67	0.73
1:L:269:ILE:HG23	1:L:274:ILE:CG2	2.17	0.73
1:M:100:ALA:HA	1:M:103:LEU:HD22	1.68	0.73
1:P:174:VAL:HG11	1:P:384:LEU:HB2	1.71	0.73
1:K:250:LYS:O	1:K:253:GLU:HG2	1.88	0.73
1:L:188:VAL:HG21	1:L:377:LEU:CD2	2.17	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:85:GLY:HA2	1:O:153:THR:HG23	1.67	0.73
1:P:208:ASP:O	1:P:209:LYS:HG3	1.88	0.73
1:E:32:PRO:CA	1:E:155:SER:HB3	2.19	0.73
1:E:79:ASP:HA	1:E:83:GLY:HA3	1.68	0.73
1:E:114:ILE:HD11	1:E:502:LEU:HD12	1.70	0.73
1:G:393:THR:HG22	1:G:483:SER:HA	1.69	0.73
1:B:158:LEU:HD23	1:F:503:ARG:HH21	1.54	0.73
1:B:185:ALA:HB1	1:B:357:ALA:HA	1.70	0.73
1:G:112:THR:HG21	1:G:418:LYS:NZ	2.04	0.73
1:H:214:ASN:O	1:H:215:GLN:HB2	1.86	0.73
1:I:313:VAL:HG13	1:I:352:VAL:CG2	2.17	0.73
1:M:32:PRO:HD2	1:M:467:MET:SD	2.29	0.73
1:P:313:VAL:HG22	1:P:357:ALA:HB3	1.70	0.73
1:E:369:ILE:HD11	1:G:500:VAL:HG11	1.70	0.73
1:F:265:LYS:HE2	1:F:322:PHE:CE1	2.23	0.73
1:K:11:ALA:HB1	1:K:505:ASP:O	1.88	0.73
1:O:399:CYS:SG	1:O:464:GLY:HA3	2.29	0.73
1:B:133:VAL:HA	1:B:393:THR:O	1.88	0.73
1:C:145:ASP:O	1:C:171:VAL:HG11	1.89	0.73
1:J:89:VAL:HG12	1:J:490:VAL:HG23	1.69	0.73
1:N:100:ALA:HA	1:N:103:LEU:HD13	1.69	0.73
1:A:283:ILE:HG22	1:A:300:GLU:HG3	1.69	0.73
1:E:116:GLY:O	1:E:119:GLU:HB2	1.86	0.73
1:F:364:GLY:HA3	1:F:370:LEU:CD1	2.18	0.73
1:G:124:ALA:HA	1:G:491:LEU:HD13	1.71	0.73
1:H:313:VAL:HG13	1:H:352:VAL:HG21	1.71	0.73
1:J:492:LEU:HD13	1:J:493:SER:N	2.04	0.73
1:K:140:VAL:HA	1:K:175:LEU:HD22	1.71	0.73
1:N:108:ILE:HG22	1:N:109:HIS:N	2.03	0.73
1:M:89:VAL:HG12	1:M:490:VAL:HG23	1.71	0.73
1:G:128:LEU:HB3	1:G:129:LEU:HD13	1.71	0.72
1:G:334:LYS:HD3	1:G:351:GLY:HA3	1.71	0.72
1:N:59:LYS:HE2	1:N:76:ARG:HB2	1.70	0.72
1:N:198:ASP:HA	1:N:363:ARG:O	1.89	0.72
1:O:128:LEU:O	1:O:129:LEU:HB2	1.89	0.72
1:D:188:VAL:HG13	1:D:377:LEU:HD21	1.69	0.72
1:E:502:LEU:HD13	1:E:502:LEU:O	1.89	0.72
1:H:390:ASP:HB3	1:H:485:GLN:NE2	2.03	0.72
1:L:146:LEU:HD23	1:L:147:MET:H	1.54	0.72
1:M:500:VAL:HA	1:M:503:ARG:CD	2.19	0.72
1:N:399:CYS:SG	1:N:464:GLY:HA3	2.29	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:145:ASP:OD1	1:O:171:VAL:HB	1.88	0.72
1:E:324:HIS:O	1:E:329:LYS:HG2	1.89	0.72
1:M:81:GLU:OE1	1:M:81:GLU:HA	1.88	0.72
1:P:157:LYS:HB3	1:P:159:LEU:HD11	1.71	0.72
1:B:146:LEU:HD23	1:B:147:MET:N	2.04	0.72
1:G:334:LYS:CD	1:G:351:GLY:HA3	2.18	0.72
1:H:174:VAL:HG11	1:H:384:LEU:HB3	1.70	0.72
1:A:362:LEU:HD13	1:A:373:ALA:HB1	1.72	0.72
1:B:27:LYS:HA	1:B:436:ILE:HD11	1.71	0.72
1:G:236:ILE:HG22	1:G:237:LYS:N	2.03	0.72
1:I:148:ASN:HA	1:I:480:ILE:HA	1.70	0.72
1:N:59:LYS:CE	1:N:76:ARG:HB2	2.18	0.72
1:A:154:LEU:HD21	1:A:163:LYS:HZ3	1.54	0.72
1:A:509:LYS:CB	1:F:61:ILE:HG21	2.15	0.72
1:B:263:LYS:HA	1:B:266:VAL:HG12	1.71	0.72
1:C:159:LEU:HD12	1:C:372:GLU:HG3	1.71	0.72
1:C:214:ASN:O	1:C:215:GLN:HB2	1.90	0.72
1:D:324:HIS:O	1:D:329:LYS:HG2	1.89	0.72
1:G:450:ALA:CB	1:N:417:GLY:HA2	2.20	0.72
1:L:401:GLU:HG2	1:L:433:LEU:HD22	1.71	0.72
1:C:51:THR:HG21	1:C:56:THR:HB	1.71	0.72
1:J:146:LEU:CD1	1:J:171:VAL:HG13	2.19	0.72
1:K:149:ILE:O	1:K:152:THR:HG22	1.89	0.72
1:L:319:ALA:HB3	1:P:289:GLN:HE22	1.55	0.72
1:N:283:ILE:HG22	1:N:300:GLU:HG3	1.70	0.72
1:B:106:LYS:HG3	1:B:108:ILE:HG22	1.71	0.72
1:E:188:VAL:CG1	1:E:377:LEU:HD21	2.19	0.72
1:E:402:MET:SD	1:E:456:HIS:HB2	2.30	0.72
1:K:146:LEU:HD23	1:K:147:MET:N	2.05	0.72
1:M:448:LEU:HD21	1:M:465:LEU:HD12	1.71	0.72
1:O:402:MET:SD	1:O:456:HIS:HB2	2.30	0.72
1:A:265:LYS:O	1:A:269:ILE:HB	1.89	0.72
1:C:146:LEU:HD21	1:C:167:THR:HG23	1.71	0.72
1:C:146:LEU:CD2	1:C:147:MET:H	2.03	0.72
1:E:36:ASP:CG	1:E:158:LEU:HB2	2.10	0.72
1:H:145:ASP:O	1:H:171:VAL:HG11	1.90	0.72
1:H:181:GLY:O	1:H:182:ASN:HB2	1.88	0.72
1:K:124:ALA:HA	1:K:491:LEU:HD13	1.72	0.72
1:E:192:LEU:HG	1:E:366:THR:HG23	1.71	0.72
1:F:214:ASN:O	1:F:215:GLN:HB2	1.89	0.72
1:H:146:LEU:CD1	1:H:171:VAL:HG13	2.18	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:154:LEU:HD22	1:I:167:THR:HB	1.72	0.72
1:L:214:ASN:O	1:L:215:GLN:HB2	1.90	0.72
1:O:283:ILE:HG22	1:O:300:GLU:HG3	1.71	0.72
1:K:31:GLY:C	1:K:156:SER:HA	2.10	0.71
1:K:214:ASN:O	1:K:215:GLN:HB2	1.89	0.71
1:P:448:LEU:HD21	1:P:465:LEU:HD12	1.69	0.71
1:B:145:ASP:O	1:B:171:VAL:HG11	1.89	0.71
1:B:157:LYS:HE3	1:B:379:ASP:OD2	1.90	0.71
1:B:214:ASN:O	1:B:215:GLN:HB2	1.89	0.71
1:E:214:ASN:O	1:E:215:GLN:HB2	1.90	0.71
1:F:399:CYS:SG	1:F:464:GLY:HA3	2.30	0.71
1:G:145:ASP:OD1	1:G:171:VAL:HB	1.90	0.71
1:K:79:ASP:HA	1:K:83:GLY:CA	2.20	0.71
1:N:324:HIS:HB2	1:N:329:LYS:NZ	2.05	0.71
1:O:369:ILE:O	1:O:372:GLU:HB3	1.90	0.71
1:P:207:LEU:O	1:P:347:ILE:HG22	1.90	0.71
1:P:452:LEU:HD13	1:P:465:LEU:HD13	1.72	0.71
1:C:126:GLN:NE2	1:C:408:VAL:HG12	2.05	0.71
1:C:226:ILE:HG12	1:C:278:ILE:HG23	1.72	0.71
1:D:38:ILE:HG22	1:D:50:VAL:HG12	1.71	0.71
1:G:475:MET:SD	1:G:480:ILE:HB	2.29	0.71
1:O:148:ASN:HA	1:O:479:GLY:O	1.90	0.71
1:P:159:LEU:HD12	1:P:372:GLU:CD	2.11	0.71
1:H:200:TYR:CD1	1:H:363:ARG:HD2	2.25	0.71
1:I:269:ILE:HG23	1:I:274:ILE:HG21	1.73	0.71
1:M:214:ASN:O	1:M:215:GLN:HB2	1.89	0.71
1:O:52:ASN:HB3	1:O:375:ARG:NH1	2.05	0.71
1:P:32:PRO:HA	1:P:155:SER:O	1.91	0.71
1:C:138:ASP:O	1:C:139:GLU:HB2	1.89	0.71
1:G:114:ILE:HA	1:G:117:TRP:CE3	2.25	0.71
1:G:153:THR:HG21	1:G:379:ASP:HB3	1.72	0.71
1:K:146:LEU:HD21	1:K:150:ALA:HB3	1.70	0.71
1:L:126:GLN:OE1	1:L:411:LEU:HD11	1.89	0.71
1:M:266:VAL:HB	1:M:290:LEU:HD21	1.72	0.71
1:N:402:MET:SD	1:N:456:HIS:HB2	2.29	0.71
1:O:438:ALA:CB	1:O:448:LEU:HG	2.21	0.71
1:P:82:VAL:O	1:P:386:GLN:HG3	1.91	0.71
1:P:324:HIS:HB2	1:P:329:LYS:NZ	2.05	0.71
1:F:111:GLN:O	1:F:114:ILE:HB	1.90	0.71
1:J:324:HIS:O	1:J:329:LYS:HG2	1.91	0.71
1:O:74:MET:O	1:O:77:VAL:HG12	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:79:ASP:HA	1:A:83:GLY:HA3	1.72	0.71
1:D:372:GLU:HG3	1:D:375:ARG:NH2	2.06	0.71
1:F:39:LEU:HD11	1:F:57:ILE:HG13	1.71	0.71
1:G:218:ARG:HD2	1:G:335:LEU:HD11	1.72	0.71
1:J:59:LYS:HE2	1:J:76:ARG:HB2	1.73	0.71
1:O:483:SER:HB2	1:O:486:VAL:HG13	1.72	0.71
1:P:313:VAL:HG13	1:P:352:VAL:HB	1.73	0.71
1:A:225:LEU:HD13	1:A:329:LYS:HE2	1.72	0.71
1:E:393:THR:HG22	1:E:483:SER:HA	1.73	0.71
1:F:141:LYS:HG2	1:F:144:GLN:HB2	1.71	0.71
1:G:52:ASN:H	1:G:375:ARG:HD2	1.55	0.71
1:G:146:LEU:CD1	1:G:171:VAL:HG13	2.21	0.71
1:H:451:GLN:NE2	1:H:471:THR:HA	2.06	0.71
1:K:269:ILE:HG12	1:K:274:ILE:HG21	1.72	0.71
1:K:324:HIS:O	1:K:329:LYS:HG2	1.89	0.71
1:K:399:CYS:SG	1:K:464:GLY:HA3	2.31	0.71
1:O:207:LEU:HD22	1:O:208:ASP:H	1.55	0.71
1:A:324:HIS:O	1:A:328:VAL:HG23	1.91	0.71
1:E:140:VAL:HA	1:E:175:LEU:HD22	1.70	0.71
1:F:372:GLU:HG3	1:F:375:ARG:NH2	2.06	0.71
1:J:32:PRO:CA	1:J:155:SER:HB2	2.20	0.71
1:K:92:LEU:HG	1:K:433:LEU:HD11	1.72	0.71
1:L:313:VAL:HG22	1:L:357:ALA:HB3	1.73	0.71
1:B:159:LEU:HD12	1:B:372:GLU:HG2	1.73	0.71
1:C:446:ALA:CB	1:L:108:ILE:HG12	2.21	0.71
1:D:70:VAL:HG21	1:D:507:ILE:HD11	1.72	0.71
1:D:84:ASP:CG	1:D:379:ASP:HA	2.11	0.71
1:D:214:ASN:O	1:D:215:GLN:HB2	1.90	0.71
1:E:433:LEU:O	1:E:436:ILE:HG22	1.90	0.71
1:G:128:LEU:O	1:G:129:LEU:HD22	1.90	0.71
1:G:145:ASP:O	1:G:171:VAL:HG11	1.91	0.71
1:I:269:ILE:HG23	1:I:274:ILE:CG2	2.21	0.71
1:L:448:LEU:HD11	1:L:465:LEU:HD11	1.71	0.71
1:O:266:VAL:HB	1:O:290:LEU:HD21	1.72	0.71
1:C:125:ARG:O	1:C:129:LEU:HB2	1.91	0.70
1:E:206:LEU:CD2	1:E:346:LEU:HD11	2.20	0.70
1:H:376:SER:HA	1:H:379:ASP:OD1	1.90	0.70
1:K:119:GLU:HB3	1:K:423:MET:HE3	1.71	0.70
1:M:171:VAL:HG12	1:M:384:LEU:HG	1.73	0.70
1:N:133:VAL:HB	1:N:393:THR:C	2.11	0.70
1:P:240:GLY:O	1:P:241:SER:HB2	1.89	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:500:VAL:HG21	1:C:504:VAL:HG23	1.72	0.70
1:M:74:MET:O	1:M:77:VAL:HG12	1.91	0.70
1:B:82:VAL:CG2	1:B:485:GLN:HB3	2.21	0.70
1:B:417:GLY:HA3	1:I:447:ASP:HA	1.73	0.70
1:D:81:GLU:O	1:D:82:VAL:HG23	1.91	0.70
1:G:354:LEU:HD23	1:G:356:GLU:H	1.55	0.70
1:K:188:VAL:HG13	1:K:377:LEU:HD21	1.73	0.70
1:C:140:VAL:H	1:C:178:LYS:NZ	1.90	0.70
1:H:176:ARG:NE	1:H:358:CYS:HB2	2.05	0.70
1:M:325:PRO:O	1:M:326:GLU:HG3	1.90	0.70
1:A:159:LEU:HD11	1:A:372:GLU:HG2	1.74	0.70
1:P:448:LEU:HD11	1:P:465:LEU:HD11	1.73	0.70
1:C:204:GLY:O	1:C:359:THR:HB	1.92	0.70
1:D:324:HIS:O	1:D:328:VAL:HG13	1.92	0.70
1:E:43:GLY:O	1:E:44:ARG:HG3	1.92	0.70
1:G:133:VAL:HG23	1:G:134:ASP:H	1.56	0.70
1:H:380:ALA:O	1:H:384:LEU:HD23	1.92	0.70
1:A:32:PRO:HD3	1:A:467:MET:CE	2.22	0.70
1:C:27:LYS:HB2	1:C:436:ILE:CG1	2.22	0.70
1:D:191:LYS:HE3	1:D:346:LEU:HD11	1.72	0.70
1:J:79:ASP:HA	1:J:83:GLY:HA3	1.71	0.70
1:K:159:LEU:HD13	1:K:372:GLU:HG2	1.72	0.70
1:M:233:THR:HG21	1:M:261:LYS:HE3	1.74	0.70
1:N:146:LEU:CB	1:N:171:VAL:HG21	2.18	0.70
1:O:214:ASN:O	1:O:215:GLN:HB2	1.89	0.70
1:D:204:GLY:HA3	1:D:349:PHE:O	1.91	0.70
1:I:512:PRO:O	1:I:513:ARG:HB2	1.90	0.70
1:J:145:ASP:O	1:J:171:VAL:HG11	1.92	0.70
1:F:128:LEU:HD13	1:F:488:ARG:HG2	1.72	0.70
1:G:209:LYS:HE2	1:G:301:HIS:O	1.92	0.70
1:K:88:SER:O	1:K:92:LEU:HD13	1.91	0.70
1:A:401:GLU:HG2	1:A:433:LEU:HD22	1.74	0.70
1:D:446:ALA:HB2	1:K:108:ILE:HD13	1.74	0.70
1:G:128:LEU:HD21	1:G:488:ARG:HG2	1.73	0.70
1:I:399:CYS:SG	1:I:464:GLY:HA3	2.32	0.70
1:M:112:THR:HG22	1:M:418:LYS:HG2	1.73	0.70
1:E:324:HIS:HB2	1:E:329:LYS:NZ	2.06	0.69
1:F:59:LYS:HE2	1:F:76:ARG:HB2	1.74	0.69
1:K:124:ALA:O	1:K:128:LEU:HG	1.92	0.69
1:P:109:HIS:CE1	1:P:111:GLN:HG2	2.26	0.69
1:A:36:ASP:H	1:C:503:ARG:HD2	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:74:MET:O	1:B:77:VAL:HG12	1.91	0.69
1:E:324:HIS:ND1	1:E:325:PRO:HD3	2.07	0.69
1:F:324:HIS:HB2	1:F:329:LYS:NZ	2.06	0.69
1:F:433:LEU:O	1:F:436:ILE:HG22	1.91	0.69
1:G:214:ASN:O	1:G:215:GLN:HB2	1.91	0.69
1:K:74:MET:O	1:K:77:VAL:HG12	1.91	0.69
1:M:114:ILE:HA	1:M:117:TRP:CE3	2.27	0.69
1:A:372:GLU:HA	1:A:375:ARG:HH12	1.56	0.69
1:E:188:VAL:HG11	1:E:377:LEU:HD11	1.73	0.69
1:F:146:LEU:CD1	1:F:171:VAL:HG13	2.22	0.69
1:H:59:LYS:HE2	1:H:76:ARG:HB2	1.72	0.69
1:I:146:LEU:CD1	1:I:171:VAL:HG13	2.20	0.69
1:A:173:ALA:CB	1:A:360:ILE:HD11	2.23	0.69
1:E:145:ASP:O	1:E:171:VAL:HG11	1.91	0.69
1:K:96:LEU:HD21	1:K:117:TRP:HZ2	1.56	0.69
1:O:58:LEU:HB3	1:O:72:VAL:HG11	1.74	0.69
1:B:146:LEU:CD2	1:B:147:MET:H	2.05	0.69
1:E:38:ILE:CD1	1:G:504:VAL:HG13	2.21	0.69
1:E:364:GLY:HA3	1:E:370:LEU:HD13	1.75	0.69
1:F:148:ASN:HA	1:F:479:GLY:O	1.92	0.69
1:H:173:ALA:HB2	1:H:360:ILE:HD11	1.73	0.69
1:K:173:ALA:HB2	1:K:360:ILE:HD11	1.74	0.69
1:K:500:VAL:HG22	1:K:503:ARG:NH2	2.07	0.69
1:M:130:ASN:O	1:M:131:SER:HB3	1.92	0.69
1:P:268:ARG:O	1:P:271:LYS:HG2	1.93	0.69
1:A:74:MET:O	1:A:77:VAL:HG22	1.93	0.69
1:A:415:THR:O	1:A:420:ALA:HB2	1.92	0.69
1:I:369:ILE:O	1:I:372:GLU:HB3	1.93	0.69
1:J:438:ALA:HB2	1:J:448:LEU:HG	1.74	0.69
1:N:133:VAL:HG23	1:N:134:ASP:H	1.58	0.69
1:D:188:VAL:CG1	1:D:377:LEU:HD21	2.23	0.69
1:G:146:LEU:HD12	1:G:171:VAL:CG1	2.23	0.69
1:G:146:LEU:HD23	1:G:147:MET:H	1.56	0.69
1:H:266:VAL:HB	1:H:290:LEU:HD21	1.75	0.69
1:P:149:ILE:O	1:P:152:THR:HG22	1.93	0.69
1:B:40:LEU:HB2	1:B:48:LEU:HD23	1.73	0.69
1:C:79:ASP:HA	1:C:83:GLY:HA2	1.73	0.69
1:E:383:VAL:HG23	1:E:384:LEU:HD22	1.75	0.69
1:G:101:GLU:O	1:G:104:ILE:HG12	1.92	0.69
1:H:402:MET:SD	1:H:456:HIS:HB2	2.33	0.69
1:I:116:GLY:O	1:I:119:GLU:HB2	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:146:LEU:HD23	1:K:147:MET:H	1.57	0.69
1:L:74:MET:O	1:L:77:VAL:HG12	1.92	0.69
1:M:146:LEU:CD1	1:M:171:VAL:HG13	2.21	0.69
1:M:354:LEU:HD23	1:M:356:GLU:H	1.56	0.69
1:N:101:GLU:O	1:N:104:ILE:HG12	1.93	0.69
1:O:128:LEU:HD22	1:O:484:PHE:CZ	2.27	0.69
1:O:390:ASP:HB3	1:O:485:GLN:OE1	1.92	0.69
1:A:364:GLY:HA3	1:A:370:LEU:HD13	1.75	0.69
1:B:402:MET:SD	1:B:453:ARG:HA	2.32	0.69
1:E:122:LYS:O	1:E:125:ARG:HG2	1.92	0.69
1:I:448:LEU:HD21	1:I:465:LEU:CD1	2.22	0.69
1:J:178:LYS:NZ	1:J:388:VAL:HG21	2.08	0.69
1:N:171:VAL:HA	1:N:384:LEU:HD23	1.74	0.69
1:O:146:LEU:HD21	1:O:167:THR:HG23	1.74	0.69
1:O:176:ARG:HH21	1:O:360:ILE:HG12	1.58	0.69
1:N:109:HIS:CE1	1:N:111:GLN:HB2	2.28	0.69
1:D:57:ILE:HG23	1:D:58:LEU:HD23	1.74	0.68
1:F:206:LEU:HG	1:F:361:VAL:HG21	1.75	0.68
1:F:373:ALA:O	1:F:377:LEU:HG	1.93	0.68
1:P:27:LYS:HA	1:P:436:ILE:HD11	1.76	0.68
1:C:206:LEU:HD21	1:C:346:LEU:HB3	1.75	0.68
1:F:114:ILE:HA	1:F:117:TRP:CE3	2.29	0.68
1:F:362:LEU:CD1	1:F:377:LEU:HD23	2.21	0.68
1:F:483:SER:O	1:F:486:VAL:HG22	1.93	0.68
1:N:216:PRO:CG	1:N:295:GLY:HA2	2.23	0.68
1:B:369:ILE:O	1:B:372:GLU:HB3	1.94	0.68
1:D:269:ILE:HG23	1:D:274:ILE:HG21	1.75	0.68
1:L:133:VAL:HG23	1:L:134:ASP:H	1.58	0.68
1:A:145:ASP:OD1	1:A:171:VAL:HB	1.93	0.68
1:B:420:ALA:HB3	1:I:450:ALA:HB2	1.75	0.68
1:E:181:GLY:O	1:E:182:ASN:HB2	1.92	0.68
1:E:441:ALA:HB2	1:E:467:MET:HG2	1.74	0.68
1:H:324:HIS:O	1:H:329:LYS:HG2	1.92	0.68
1:I:32:PRO:HD2	1:I:440:ASN:OD1	1.93	0.68
1:L:59:LYS:HE2	1:L:76:ARG:HB2	1.76	0.68
1:L:106:LYS:CE	1:L:418:LYS:HE3	2.22	0.68
1:L:166:PHE:CE1	1:L:198:ASP:HB3	2.28	0.68
1:M:324:HIS:O	1:M:329:LYS:HG2	1.93	0.68
1:M:433:LEU:O	1:M:436:ILE:HG22	1.93	0.68
1:P:324:HIS:O	1:P:329:LYS:HG2	1.94	0.68
1:A:475:MET:SD	1:A:480:ILE:HB	2.34	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:134:ASP:HA	1:D:395:TYR:CZ	2.28	0.68
1:E:109:HIS:CE1	1:E:111:GLN:HB2	2.28	0.68
1:H:201:LEU:HD23	1:H:360:ILE:HG12	1.75	0.68
1:K:372:GLU:HG3	1:K:375:ARG:NH1	2.08	0.68
1:L:225:LEU:HD13	1:L:329:LYS:CE	2.24	0.68
1:C:141:LYS:HG2	1:C:144:GLN:HB2	1.75	0.68
1:F:27:LYS:HB2	1:F:436:ILE:HG13	1.75	0.68
1:G:365:ALA:HB3	1:G:367:GLN:HE22	1.58	0.68
1:J:159:LEU:HD12	1:J:372:GLU:HG2	1.73	0.68
1:K:79:ASP:HA	1:K:83:GLY:HA3	1.75	0.68
1:K:128:LEU:HD22	1:K:488:ARG:HG2	1.75	0.68
1:L:204:GLY:O	1:L:359:THR:HB	1.94	0.68
1:P:32:PRO:HD2	1:P:467:MET:SD	2.33	0.68
1:A:213:VAL:CG1	1:C:318:ILE:HG23	2.23	0.68
1:B:324:HIS:O	1:B:329:LYS:HG2	1.94	0.68
1:C:248:THR:O	1:C:251:VAL:HG12	1.94	0.68
1:K:265:LYS:O	1:K:269:ILE:HB	1.93	0.68
1:K:392:ARG:HD2	1:K:484:PHE:CG	2.28	0.68
1:N:269:ILE:HG23	1:N:274:ILE:CG2	2.24	0.68
1:D:402:MET:SD	1:D:456:HIS:HB2	2.34	0.68
1:D:511:ALA:H	1:D:512:PRO:HD2	1.59	0.68
1:L:364:GLY:HA3	1:L:370:LEU:HD13	1.75	0.68
1:A:103:LEU:HD21	1:A:113:ILE:HG21	1.76	0.68
1:B:75:SER:O	1:B:78:GLN:HB3	1.93	0.68
1:B:82:VAL:HG21	1:B:485:GLN:HB3	1.76	0.68
1:B:216:PRO:HG2	1:B:295:GLY:HA2	1.76	0.68
1:B:372:GLU:HG3	1:B:375:ARG:HH21	1.57	0.68
1:C:146:LEU:HD23	1:C:147:MET:N	2.08	0.68
1:E:163:LYS:HA	1:E:166:PHE:CD1	2.29	0.68
1:G:153:THR:CG2	1:G:379:ASP:HB3	2.24	0.68
1:G:450:ALA:HB3	1:N:417:GLY:HA2	1.74	0.68
1:J:433:LEU:O	1:J:436:ILE:HG22	1.94	0.68
1:M:163:LYS:HA	1:M:166:PHE:CD1	2.29	0.68
1:M:217:LYS:NZ	1:O:318:ILE:HD11	2.09	0.68
1:C:114:ILE:HA	1:C:117:TRP:CE3	2.29	0.68
1:E:188:VAL:HG13	1:E:377:LEU:HD21	1.76	0.68
1:F:74:MET:O	1:F:77:VAL:HG12	1.94	0.68
1:F:146:LEU:HD12	1:F:171:VAL:CG1	2.22	0.68
1:H:171:VAL:HG12	1:H:384:LEU:HD11	1.76	0.68
1:I:178:LYS:HB2	1:I:388:VAL:HG21	1.76	0.68
1:K:114:ILE:HD11	1:K:502:LEU:HD23	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:166:PHE:CZ	1:L:198:ASP:HB3	2.29	0.68
1:L:364:GLY:HA3	1:L:370:LEU:CD1	2.23	0.68
1:M:32:PRO:CA	1:M:155:SER:HB3	2.24	0.68
1:N:433:LEU:O	1:N:436:ILE:HG22	1.93	0.68
1:O:122:LYS:O	1:O:126:GLN:HG2	1.93	0.68
1:D:36:ASP:OD2	1:D:158:LEU:HB2	1.94	0.67
1:E:154:LEU:HD22	1:E:167:THR:HB	1.76	0.67
1:I:171:VAL:O	1:I:174:VAL:HG22	1.93	0.67
1:J:163:LYS:HA	1:J:166:PHE:CD1	2.29	0.67
1:N:58:LEU:HB3	1:N:72:VAL:CG1	2.23	0.67
1:D:118:ARG:CZ	1:D:118:ARG:HB2	2.22	0.67
1:I:132:ALA:O	1:I:133:VAL:HG22	1.93	0.67
1:L:146:LEU:CD1	1:L:171:VAL:HG13	2.25	0.67
1:M:160:THR:HA	1:M:163:LYS:HB3	1.76	0.67
1:N:39:LEU:HD11	1:N:57:ILE:HD11	1.76	0.67
1:E:201:LEU:HD23	1:E:360:ILE:HG12	1.75	0.67
1:I:59:LYS:HE2	1:I:76:ARG:CB	2.23	0.67
1:K:141:LYS:HD2	1:K:144:GLN:HB2	1.76	0.67
1:L:4:ASP:OD1	1:L:508:ILE:HA	1.93	0.67
1:O:438:ALA:HB2	1:O:448:LEU:HG	1.76	0.67
1:B:219:ILE:HD12	1:B:275:ASN:HB3	1.77	0.67
1:D:408:VAL:HA	1:D:411:LEU:HD12	1.75	0.67
1:K:40:LEU:HD12	1:K:48:LEU:HD12	1.76	0.67
1:O:146:LEU:HB2	1:O:171:VAL:CG1	2.24	0.67
1:D:205:PHE:HA	1:D:359:THR:OG1	1.95	0.67
1:F:438:ALA:HB2	1:F:448:LEU:HG	1.75	0.67
1:H:185:ALA:HA	1:H:309:ARG:HD3	1.75	0.67
1:M:399:CYS:SG	1:M:464:GLY:HA3	2.34	0.67
1:F:116:GLY:N	1:F:422:ALA:HB1	2.10	0.67
1:F:206:LEU:HD11	1:F:346:LEU:HD23	1.76	0.67
1:G:150:ALA:HB2	1:G:384:LEU:HD21	1.77	0.67
1:H:106:LYS:HE2	1:P:446:ALA:HB2	1.76	0.67
1:H:175:LEU:O	1:H:178:LYS:HG2	1.95	0.67
1:K:483:SER:HB2	1:K:486:VAL:HG13	1.76	0.67
1:L:399:CYS:SG	1:L:464:GLY:HA3	2.34	0.67
1:L:438:ALA:HB2	1:L:448:LEU:HG	1.76	0.67
1:M:38:ILE:HD12	1:M:38:ILE:H	1.59	0.67
1:M:316:GLY:O	1:M:330:LEU:HB2	1.94	0.67
1:N:513:ARG:HH11	1:N:513:ARG:HG3	1.58	0.67
1:O:32:PRO:HD2	1:O:467:MET:SD	2.34	0.67
1:D:96:LEU:HD13	1:D:97:LEU:N	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:446:ALA:HB1	1:K:418:LYS:CD	2.24	0.67
1:E:176:ARG:CZ	1:E:358:CYS:HB2	2.25	0.67
1:F:402:MET:SD	1:F:456:HIS:HB2	2.35	0.67
1:I:509:LYS:O	1:I:509:LYS:HD3	1.93	0.67
1:J:269:ILE:HG23	1:J:274:ILE:CG2	2.24	0.67
1:P:433:LEU:O	1:P:436:ILE:HG22	1.95	0.67
1:D:89:VAL:HG12	1:D:490:VAL:HG23	1.76	0.67
1:D:369:ILE:O	1:D:372:GLU:HB3	1.95	0.67
1:G:111:GLN:HA	1:G:114:ILE:HG12	1.77	0.67
1:G:450:ALA:HB1	1:N:416:PRO:O	1.94	0.67
1:N:103:LEU:HG	1:N:113:ILE:HD13	1.76	0.67
1:B:132:ALA:O	1:B:133:VAL:HG22	1.95	0.67
1:B:134:ASP:OD1	1:B:392:ARG:HA	1.95	0.67
1:B:408:VAL:HA	1:B:411:LEU:HD12	1.76	0.67
1:E:219:ILE:HD11	1:E:336:ILE:HB	1.77	0.67
1:H:399:CYS:SG	1:H:464:GLY:HA3	2.35	0.67
1:B:101:GLU:O	1:B:104:ILE:HG12	1.94	0.67
1:C:280:ARG:HD3	1:C:304:PHE:HB2	1.76	0.67
1:F:163:LYS:HD2	1:F:166:PHE:CG	2.30	0.67
1:F:369:ILE:O	1:F:372:GLU:HB3	1.95	0.67
1:L:475:MET:SD	1:L:480:ILE:HB	2.35	0.67
1:A:109:HIS:CE1	1:A:111:GLN:HB2	2.30	0.66
1:B:324:HIS:HB2	1:B:329:LYS:NZ	2.10	0.66
1:B:483:SER:O	1:B:486:VAL:HG22	1.94	0.66
1:F:109:HIS:CE1	1:F:111:GLN:HG2	2.30	0.66
1:K:324:HIS:HB2	1:K:329:LYS:NZ	2.11	0.66
1:M:154:LEU:HD23	1:M:163:LYS:HG3	1.76	0.66
1:M:192:LEU:HB2	1:M:343:GLU:OE2	1.94	0.66
1:M:219:ILE:HD11	1:M:336:ILE:HB	1.77	0.66
1:M:411:LEU:O	1:M:415:THR:HG23	1.95	0.66
1:A:452:LEU:HD13	1:A:465:LEU:HD13	1.76	0.66
1:C:37:LYS:HD2	1:H:506:ASN:CB	2.25	0.66
1:F:39:LEU:O	1:F:48:LEU:HA	1.94	0.66
1:F:452:LEU:HD13	1:F:465:LEU:HD13	1.76	0.66
1:H:59:LYS:HE2	1:H:76:ARG:CB	2.24	0.66
1:J:166:PHE:CZ	1:J:198:ASP:HB3	2.31	0.66
1:J:240:GLY:O	1:J:241:SER:HB2	1.96	0.66
1:M:64:ASP:HB3	1:M:66:PRO:HD2	1.77	0.66
1:M:174:VAL:HG11	1:M:384:LEU:HB2	1.77	0.66
1:O:317:GLU:HB3	1:O:329:LYS:HG2	1.76	0.66
1:P:268:ARG:HG2	1:P:268:ARG:HH11	1.58	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:402:MET:SD	1:P:456:HIS:HB2	2.36	0.66
1:H:159:LEU:HB3	1:H:372:GLU:HG2	1.76	0.66
1:J:324:HIS:O	1:J:328:VAL:HG22	1.95	0.66
1:K:188:VAL:CG1	1:K:377:LEU:HD21	2.25	0.66
1:K:452:LEU:HD13	1:K:465:LEU:HD13	1.77	0.66
1:A:177:LEU:O	1:A:177:LEU:HD12	1.96	0.66
1:D:325:PRO:C	1:D:326:GLU:HG3	2.16	0.66
1:F:46:ALA:O	1:F:47:SER:HB2	1.94	0.66
1:F:269:ILE:HG23	1:F:274:ILE:HG21	1.77	0.66
1:F:450:ALA:HA	1:O:417:GLY:CA	2.25	0.66
1:G:85:GLY:O	1:G:153:THR:HG23	1.95	0.66
1:J:324:HIS:HB2	1:J:329:LYS:NZ	2.10	0.66
1:A:180:SER:HB2	1:A:389:LYS:HG3	1.78	0.66
1:C:450:ALA:HB2	1:L:418:LYS:CG	2.19	0.66
1:E:236:ILE:HG23	1:E:237:LYS:H	1.60	0.66
1:F:145:ASP:OD1	1:F:171:VAL:HB	1.95	0.66
1:L:79:ASP:HA	1:L:83:GLY:HA3	1.76	0.66
1:M:99:GLU:O	1:M:103:LEU:HD13	1.96	0.66
1:O:133:VAL:HB	1:O:393:THR:O	1.95	0.66
1:B:154:LEU:HD21	1:B:163:LYS:HG3	1.76	0.66
1:D:101:GLU:O	1:D:104:ILE:HG12	1.95	0.66
1:J:154:LEU:HD23	1:J:163:LYS:HG3	1.78	0.66
1:J:174:VAL:HG11	1:J:384:LEU:HB2	1.77	0.66
1:K:15:SER:HB3	1:K:501:ILE:CG2	2.24	0.66
1:P:114:ILE:HD11	1:P:502:LEU:HD22	1.78	0.66
1:A:82:VAL:CG2	1:A:486:VAL:HG12	2.23	0.66
1:A:380:ALA:O	1:A:384:LEU:HD23	1.96	0.66
1:B:108:ILE:HG23	1:B:109:HIS:N	2.11	0.66
1:C:324:HIS:HB2	1:C:329:LYS:NZ	2.11	0.66
1:H:133:VAL:HG23	1:H:134:ASP:H	1.61	0.66
1:H:219:ILE:HD12	1:H:275:ASN:HB3	1.76	0.66
1:H:313:VAL:HG22	1:H:357:ALA:HB3	1.77	0.66
1:M:401:GLU:HG2	1:M:433:LEU:HD22	1.78	0.66
1:N:124:ALA:O	1:N:128:LEU:HB2	1.95	0.66
1:O:59:LYS:HE2	1:O:76:ARG:HB2	1.77	0.66
1:O:159:LEU:H	1:O:159:LEU:CD1	2.07	0.66
1:P:216:PRO:HG2	1:P:295:GLY:HA2	1.78	0.66
1:A:92:LEU:O	1:A:95:GLU:HG2	1.96	0.66
1:H:92:LEU:HD21	1:H:433:LEU:HD21	1.78	0.66
1:H:450:ALA:HB1	1:P:415:THR:O	1.95	0.66
1:J:125:ARG:HA	1:J:128:LEU:HD12	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:160:THR:HG23	1:J:164:ASP:HB3	1.78	0.66
1:N:316:GLY:O	1:N:330:LEU:HB2	1.95	0.66
1:O:265:LYS:HE2	1:O:322:PHE:CE1	2.29	0.66
1:P:209:LYS:NZ	1:P:302:ALA:HA	2.10	0.66
1:A:58:LEU:HB3	1:A:72:VAL:CG1	2.26	0.66
1:A:501:ILE:O	1:A:502:LEU:HB2	1.96	0.66
1:E:232:ASP:HA	1:E:284:TYR:CD1	2.30	0.66
1:J:163:LYS:NZ	1:J:373:ALA:HA	2.11	0.66
1:J:393:THR:HB	1:J:482:GLU:O	1.96	0.66
1:K:483:SER:O	1:K:486:VAL:HG22	1.95	0.66
1:L:216:PRO:HG2	1:L:295:GLY:HA2	1.76	0.66
1:P:44:ARG:CG	1:P:44:ARG:HH11	2.09	0.66
1:A:96:LEU:HD13	1:A:97:LEU:N	2.10	0.66
1:E:146:LEU:HD12	1:E:171:VAL:CG1	2.13	0.66
1:H:450:ALA:HB2	1:P:420:ALA:HB3	1.77	0.66
1:A:28:SER:HB2	1:A:35:MET:SD	2.35	0.65
1:A:438:ALA:HB2	1:A:448:LEU:HG	1.76	0.65
1:A:452:LEU:HA	1:A:472:ILE:HG21	1.78	0.65
1:A:503:ARG:NH2	1:F:158:LEU:HD22	2.11	0.65
1:B:38:ILE:O	1:F:507:ILE:HG23	1.96	0.65
1:B:108:ILE:HD13	1:B:418:LYS:HE2	1.78	0.65
1:C:324:HIS:ND1	1:C:325:PRO:HD3	2.12	0.65
1:E:366:THR:H	1:E:370:LEU:HD22	1.60	0.65
1:L:145:ASP:O	1:L:171:VAL:HG11	1.96	0.65
1:L:146:LEU:HD12	1:L:171:VAL:HG13	1.76	0.65
1:A:204:GLY:HA3	1:A:349:PHE:O	1.96	0.65
1:A:216:PRO:CG	1:A:295:GLY:HA2	2.26	0.65
1:F:159:LEU:H	1:F:159:LEU:CD1	2.09	0.65
1:F:450:ALA:HB2	1:O:418:LYS:H	1.61	0.65
1:K:231:MET:HG3	1:K:283:ILE:HG13	1.78	0.65
1:P:191:LYS:HB3	1:P:363:ARG:HA	1.77	0.65
1:B:475:MET:SD	1:B:480:ILE:HB	2.36	0.65
1:I:367:GLN:CG	1:I:369:ILE:HB	2.26	0.65
1:J:88:SER:O	1:J:92:LEU:HD13	1.96	0.65
1:K:146:LEU:CD2	1:K:147:MET:H	2.09	0.65
1:K:222:ALA:HA	1:K:275:ASN:OD1	1.96	0.65
1:L:128:LEU:O	1:L:129:LEU:HD22	1.96	0.65
1:N:133:VAL:HG12	1:N:394:VAL:CG1	2.23	0.65
1:P:112:THR:HB	1:P:418:LYS:NZ	2.11	0.65
1:A:89:VAL:HG12	1:A:490:VAL:HG23	1.77	0.65
1:D:265:LYS:HE2	1:D:322:PHE:CE1	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:146:LEU:HD23	1:E:147:MET:N	2.12	0.65
1:L:362:LEU:HD11	1:L:377:LEU:HD22	1.76	0.65
1:M:122:LYS:O	1:M:125:ARG:HB3	1.97	0.65
1:A:204:GLY:O	1:A:359:THR:HB	1.97	0.65
1:B:145:ASP:OD1	1:B:171:VAL:HB	1.95	0.65
1:C:171:VAL:HG12	1:C:384:LEU:HG	1.79	0.65
1:D:132:ALA:HB2	1:D:461:THR:HG21	1.79	0.65
1:E:452:LEU:HD13	1:E:465:LEU:HD13	1.78	0.65
1:G:159:LEU:HD23	1:G:163:LYS:HG2	1.79	0.65
1:I:189:ILE:HG22	1:I:190:LYS:N	2.08	0.65
1:K:325:PRO:C	1:K:326:GLU:HG3	2.17	0.65
1:K:372:GLU:O	1:K:375:ARG:HB3	1.96	0.65
1:M:146:LEU:HD13	1:M:167:THR:O	1.96	0.65
1:C:324:HIS:O	1:C:328:VAL:HG23	1.96	0.65
1:D:324:HIS:ND1	1:D:325:PRO:HD3	2.12	0.65
1:F:216:PRO:HG2	1:F:295:GLY:HA2	1.78	0.65
1:G:35:MET:O	1:G:36:ASP:HB2	1.97	0.65
1:M:325:PRO:C	1:M:326:GLU:HG3	2.15	0.65
1:P:166:PHE:CZ	1:P:198:ASP:HB3	2.32	0.65
1:P:226:ILE:HD13	1:P:307:VAL:HG13	1.78	0.65
1:B:109:HIS:NE2	1:B:111:GLN:HB2	2.11	0.65
1:H:139:GLU:O	1:H:140:VAL:HB	1.97	0.65
1:I:3:ALA:O	1:I:4:ASP:HB2	1.96	0.65
1:I:438:ALA:HB2	1:I:448:LEU:HG	1.77	0.65
1:K:38:ILE:HD11	1:P:507:ILE:HD12	1.78	0.65
1:M:392:ARG:HG2	1:M:392:ARG:HH11	1.61	0.65
1:P:216:PRO:CG	1:P:295:GLY:HA2	2.27	0.65
1:B:173:ALA:O	1:B:176:ARG:HG2	1.97	0.65
1:C:417:GLY:HA2	1:C:420:ALA:HB3	1.79	0.65
1:C:496:GLU:HG3	1:C:497:ALA:H	1.60	0.65
1:D:177:LEU:HD12	1:D:186:ILE:HD11	1.78	0.65
1:D:324:HIS:HB2	1:D:329:LYS:NZ	2.11	0.65
1:G:398:GLY:HA2	1:G:401:GLU:OE1	1.96	0.65
1:H:173:ALA:HA	1:H:176:ARG:CZ	2.27	0.65
1:I:509:LYS:HD3	1:I:509:LYS:C	2.17	0.65
1:J:101:GLU:O	1:J:104:ILE:HG12	1.96	0.65
1:K:207:LEU:O	1:K:347:ILE:HG22	1.97	0.65
1:O:159:LEU:HD13	1:O:159:LEU:N	2.08	0.65
1:P:174:VAL:HG11	1:P:384:LEU:CB	2.27	0.65
1:A:38:ILE:HG22	1:A:50:VAL:HB	1.79	0.65
1:A:185:ALA:HA	1:A:309:ARG:HB3	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:59:LYS:HE2	1:B:76:ARG:HB2	1.79	0.65
1:C:139:GLU:O	1:C:140:VAL:HB	1.97	0.65
1:C:483:SER:O	1:C:486:VAL:HG22	1.97	0.65
1:E:171:VAL:HG12	1:E:384:LEU:HG	1.79	0.65
1:G:206:LEU:C	1:G:206:LEU:HD13	2.17	0.65
1:H:284:TYR:O	1:H:287:PRO:HD2	1.96	0.65
1:I:128:LEU:O	1:I:129:LEU:HD22	1.97	0.65
1:O:32:PRO:HA	1:O:155:SER:C	2.17	0.65
1:O:32:PRO:HA	1:O:155:SER:O	1.95	0.65
1:O:186:ILE:HG23	1:O:360:ILE:HD12	1.78	0.65
1:P:122:LYS:HD3	1:P:423:MET:HE3	1.79	0.65
1:P:159:LEU:HD13	1:P:159:LEU:N	2.11	0.65
1:D:145:ASP:OD1	1:D:171:VAL:HB	1.96	0.65
1:G:448:LEU:HD21	1:G:465:LEU:HD12	1.78	0.65
1:K:40:LEU:H	1:P:508:ILE:HG22	1.62	0.65
1:L:178:LYS:NZ	1:L:388:VAL:HG13	2.12	0.65
1:N:324:HIS:O	1:N:329:LYS:HG2	1.97	0.65
1:A:154:LEU:HD21	1:A:163:LYS:NZ	2.12	0.64
1:C:159:LEU:HG	1:C:163:LYS:HG2	1.78	0.64
1:F:154:LEU:CD2	1:F:163:LYS:HG3	2.27	0.64
1:F:367:GLN:OE1	1:F:369:ILE:HB	1.96	0.64
1:H:6:GLU:HB2	1:H:10:THR:HG22	1.79	0.64
1:L:139:GLU:O	1:L:140:VAL:HB	1.95	0.64
1:L:274:ILE:O	1:L:296:VAL:HG22	1.98	0.64
1:M:324:HIS:HB2	1:M:329:LYS:NZ	2.12	0.64
1:N:210:LYS:HE2	1:N:212:GLY:O	1.97	0.64
1:P:31:GLY:C	1:P:156:SER:HA	2.17	0.64
1:P:269:ILE:HG23	1:P:274:ILE:CG2	2.24	0.64
1:B:58:LEU:HB3	1:B:72:VAL:HG11	1.79	0.64
1:I:192:LEU:HD21	1:I:366:THR:HG21	1.79	0.64
1:K:100:ALA:HA	1:K:103:LEU:HD13	1.79	0.64
1:A:51:THR:HG21	1:A:57:ILE:HB	1.78	0.64
1:A:140:VAL:HA	1:A:175:LEU:HD22	1.77	0.64
1:C:171:VAL:CG1	1:C:384:LEU:HG	2.28	0.64
1:C:434:PRO:HB3	1:C:452:LEU:CD2	2.27	0.64
1:D:190:LYS:HD3	1:D:190:LYS:C	2.16	0.64
1:F:138:ASP:O	1:F:139:GLU:HB2	1.98	0.64
1:H:146:LEU:HD23	1:H:148:ASN:H	1.62	0.64
1:H:154:LEU:HD13	1:H:167:THR:OG1	1.98	0.64
1:N:78:GLN:HG3	1:N:83:GLY:HA2	1.79	0.64
1:E:44:ARG:HH11	1:E:44:ARG:CG	2.10	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:399:CYS:SG	1:E:464:GLY:HA3	2.36	0.64
1:F:124:ALA:HB1	1:F:491:LEU:HB3	1.79	0.64
1:F:313:VAL:HG22	1:F:357:ALA:HB3	1.78	0.64
1:H:148:ASN:HB3	1:H:481:THR:CG2	2.27	0.64
1:I:483:SER:O	1:I:486:VAL:HG22	1.98	0.64
1:J:74:MET:O	1:J:77:VAL:HG12	1.98	0.64
1:K:206:LEU:HD21	1:K:346:LEU:HB3	1.80	0.64
1:M:32:PRO:HA	1:M:155:SER:HB3	1.79	0.64
1:C:37:LYS:HD2	1:H:506:ASN:HB2	1.79	0.64
1:F:154:LEU:HD22	1:F:167:THR:HB	1.80	0.64
1:I:191:LYS:NZ	1:I:346:LEU:HD11	2.12	0.64
1:L:163:LYS:HA	1:L:166:PHE:CD1	2.33	0.64
1:L:188:VAL:HG11	1:L:377:LEU:CD2	2.27	0.64
1:A:59:LYS:HE2	1:A:76:ARG:HB2	1.80	0.64
1:B:188:VAL:HG11	1:B:377:LEU:HD22	1.80	0.64
1:D:35:MET:HE2	1:E:111:GLN:HG2	1.79	0.64
1:D:415:THR:HB	1:D:419:GLU:HB3	1.80	0.64
1:J:174:VAL:HG11	1:J:384:LEU:CB	2.27	0.64
1:J:283:ILE:HG22	1:J:300:GLU:HG3	1.79	0.64
1:P:210:LYS:HE2	1:P:212:GLY:O	1.98	0.64
1:C:225:LEU:HD13	1:C:329:LYS:HE3	1.79	0.64
1:D:421:VAL:HA	1:D:424:GLU:OE2	1.98	0.64
1:E:146:LEU:CD2	1:E:147:MET:H	2.09	0.64
1:E:368:GLN:HG2	1:G:70:VAL:HG12	1.80	0.64
1:F:79:ASP:HA	1:F:83:GLY:HA2	1.79	0.64
1:F:159:LEU:HD23	1:F:163:LYS:HG2	1.80	0.64
1:H:128:LEU:HD11	1:H:488:ARG:HG2	1.78	0.64
1:H:402:MET:SD	1:H:453:ARG:HA	2.38	0.64
1:L:402:MET:SD	1:L:456:HIS:HB2	2.38	0.64
1:L:497:ALA:O	1:L:500:VAL:HG22	1.98	0.64
1:O:312:LEU:O	1:O:354:LEU:HD22	1.96	0.64
1:A:420:ALA:HB3	1:M:450:ALA:HB1	1.80	0.64
1:D:32:PRO:CA	1:D:155:SER:HB3	2.26	0.64
1:E:27:LYS:HB2	1:E:436:ILE:CD1	2.27	0.64
1:G:190:LYS:HD3	1:G:371:ASP:HA	1.80	0.64
1:G:417:GLY:HA2	1:N:450:ALA:HB2	1.79	0.64
1:I:163:LYS:HA	1:I:166:PHE:CD1	2.33	0.64
1:K:103:LEU:HG	1:K:113:ILE:HD13	1.80	0.64
1:K:126:GLN:HE22	1:K:411:LEU:HD11	1.62	0.64
1:L:79:ASP:HA	1:L:83:GLY:HA2	1.80	0.64
1:M:185:ALA:HA	1:M:309:ARG:NE	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:39:LEU:O	1:N:48:LEU:HA	1.97	0.64
1:N:483:SER:O	1:N:486:VAL:HG22	1.98	0.64
1:P:40:LEU:HG	1:P:48:LEU:HG	1.79	0.64
1:A:274:ILE:O	1:A:296:VAL:HG22	1.97	0.64
1:A:508:ILE:O	1:F:39:LEU:HB3	1.96	0.64
1:B:367:GLN:O	1:B:370:LEU:HB3	1.98	0.64
1:C:500:VAL:CG2	1:C:504:VAL:HG23	2.28	0.64
1:E:89:VAL:HG12	1:E:490:VAL:HG23	1.78	0.64
1:F:209:LYS:HE2	1:F:301:HIS:O	1.98	0.64
1:K:324:HIS:ND1	1:K:325:PRO:HD3	2.13	0.64
1:M:324:HIS:ND1	1:M:325:PRO:HD3	2.13	0.64
1:O:41:SER:HB2	1:O:45:ASP:OD2	1.98	0.64
1:O:401:GLU:HG2	1:O:433:LEU:HD13	1.79	0.64
1:B:448:LEU:HD21	1:B:465:LEU:HD12	1.78	0.64
1:B:509:LYS:HG2	1:B:510:ALA:H	1.62	0.64
1:E:145:ASP:OD1	1:E:171:VAL:HB	1.97	0.64
1:G:191:LYS:CE	1:G:346:LEU:HD11	2.28	0.64
1:G:269:ILE:HG23	1:G:274:ILE:CG2	2.28	0.64
1:K:367:GLN:O	1:K:368:GLN:HB3	1.98	0.64
1:L:352:VAL:HG22	1:L:355:GLY:H	1.63	0.64
1:M:31:GLY:O	1:M:156:SER:HA	1.97	0.64
1:C:128:LEU:HD22	1:C:484:PHE:CZ	2.33	0.63
1:D:178:LYS:NZ	1:D:388:VAL:HA	2.13	0.63
1:F:127:ALA:HB2	1:F:404:MET:SD	2.38	0.63
1:G:32:PRO:HD2	1:G:440:ASN:OD1	1.98	0.63
1:G:233:THR:HG21	1:G:261:LYS:HE2	1.78	0.63
1:H:123:ALA:HA	1:H:126:GLN:NE2	2.13	0.63
1:M:126:GLN:NE2	1:M:411:LEU:HD11	2.13	0.63
1:O:31:GLY:O	1:O:156:SER:HA	1.98	0.63
1:P:475:MET:SD	1:P:480:ILE:HB	2.38	0.63
1:M:334:LYS:HD2	1:M:351:GLY:HA3	1.78	0.63
1:C:146:LEU:HD21	1:C:150:ALA:HB3	1.80	0.63
1:D:140:VAL:HA	1:D:175:LEU:HD22	1.79	0.63
1:E:34:GLY:HA3	1:E:156:SER:HA	1.80	0.63
1:M:231:MET:HG3	1:M:283:ILE:HG13	1.81	0.63
1:O:114:ILE:HA	1:O:117:TRP:CE3	2.33	0.63
1:A:216:PRO:HG2	1:A:295:GLY:HA2	1.79	0.63
1:A:324:HIS:ND1	1:A:325:PRO:HD3	2.13	0.63
1:B:108:ILE:HG12	1:B:109:HIS:H	1.63	0.63
1:D:74:MET:O	1:D:77:VAL:HG12	1.99	0.63
1:K:478:LEU:HB3	1:K:480:ILE:HD13	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:59:LYS:HE2	1:M:76:ARG:HB2	1.81	0.63
1:N:40:LEU:HD13	1:N:48:LEU:HD12	1.79	0.63
1:O:130:ASN:HD21	1:O:407:ALA:HB3	1.64	0.63
1:P:341:ILE:HD11	1:P:348:HIS:HE1	1.64	0.63
1:P:369:ILE:O	1:P:372:GLU:HB3	1.98	0.63
1:B:211:ILE:H	1:B:211:ILE:HD12	1.64	0.63
1:C:317:GLU:HB2	1:C:329:LYS:HG2	1.80	0.63
1:E:204:GLY:HA3	1:E:349:PHE:O	1.99	0.63
1:H:148:ASN:HB3	1:H:481:THR:HG22	1.81	0.63
1:J:265:LYS:HE2	1:J:322:PHE:CE1	2.34	0.63
1:L:140:VAL:HA	1:L:175:LEU:HD22	1.81	0.63
1:L:269:ILE:HG23	1:L:274:ILE:HG21	1.79	0.63
1:A:106:LYS:HG2	1:A:108:ILE:HD11	1.79	0.63
1:D:274:ILE:O	1:D:296:VAL:HG22	1.99	0.63
1:E:119:GLU:O	1:E:122:LYS:HB3	1.98	0.63
1:F:174:VAL:HG12	1:F:381:LEU:HD22	1.81	0.63
1:I:146:LEU:HD21	1:I:167:THR:HG23	1.79	0.63
1:I:149:ILE:HB	1:I:482:GLU:HA	1.80	0.63
1:J:146:LEU:HD13	1:J:168:LYS:HA	1.81	0.63
1:O:387:THR:HA	1:O:390:ASP:OD2	1.99	0.63
1:P:181:GLY:HA3	1:P:356:GLU:OE2	1.97	0.63
1:E:207:LEU:HD22	1:E:208:ASP:H	1.61	0.63
1:F:159:LEU:HD13	1:F:159:LEU:N	2.12	0.63
1:G:11:ALA:HB1	1:G:505:ASP:O	1.99	0.63
1:G:108:ILE:HG22	1:G:109:HIS:N	2.14	0.63
1:H:219:ILE:HD11	1:H:336:ILE:HB	1.80	0.63
1:J:364:GLY:HA3	1:J:370:LEU:HD11	1.81	0.63
1:K:114:ILE:HA	1:K:117:TRP:CE3	2.34	0.63
1:O:398:GLY:HA2	1:O:401:GLU:OE1	1.98	0.63
1:P:133:VAL:HG13	1:P:134:ASP:H	1.63	0.63
1:F:31:GLY:HA2	1:F:86:THR:HG21	1.81	0.63
1:H:433:LEU:O	1:H:436:ILE:HG22	1.99	0.63
1:I:176:ARG:NE	1:I:358:CYS:HB2	2.13	0.63
1:I:324:HIS:O	1:I:329:LYS:HG2	1.99	0.63
1:L:38:ILE:HG12	1:M:504:VAL:CG1	2.29	0.63
1:O:82:VAL:HG13	1:O:83:GLY:N	2.14	0.63
1:P:79:ASP:O	1:P:83:GLY:HA2	1.98	0.63
1:E:99:GLU:HG3	1:E:425:SER:HB2	1.81	0.63
1:H:101:GLU:O	1:H:104:ILE:HG12	1.99	0.63
1:I:140:VAL:HA	1:I:175:LEU:HD22	1.81	0.63
1:I:317:GLU:HB3	1:I:329:LYS:HD3	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:316:GLY:O	1:K:330:LEU:HB2	1.99	0.63
1:K:408:VAL:HA	1:K:411:LEU:HD12	1.79	0.63
1:M:438:ALA:CB	1:M:448:LEU:HG	2.29	0.63
1:O:108:ILE:HG22	1:O:109:HIS:N	2.10	0.63
1:B:452:LEU:HD13	1:B:465:LEU:HD13	1.79	0.62
1:D:22:ILE:HD12	1:D:90:THR:HG22	1.79	0.62
1:D:450:ALA:HB2	1:D:453:ARG:HH21	1.64	0.62
1:E:187:HIS:O	1:E:359:THR:HG23	1.99	0.62
1:F:222:ALA:HA	1:F:275:ASN:OD1	1.98	0.62
1:G:14:SER:O	1:G:17:ILE:HG22	1.99	0.62
1:G:138:ASP:O	1:G:139:GLU:HB2	1.98	0.62
1:G:502:LEU:O	1:G:502:LEU:HD22	1.98	0.62
1:H:78:GLN:OE1	1:H:489:GLN:HG3	1.99	0.62
1:H:364:GLY:HA3	1:H:370:LEU:HD13	1.81	0.62
1:H:420:ALA:HB3	1:P:450:ALA:HB2	1.80	0.62
1:K:364:GLY:HA3	1:K:370:LEU:HD21	1.81	0.62
1:M:146:LEU:HD23	1:M:148:ASN:H	1.64	0.62
1:M:265:LYS:HE2	1:M:322:PHE:CE2	2.34	0.62
1:M:269:ILE:HG23	1:M:274:ILE:HG22	1.81	0.62
1:N:448:LEU:HD21	1:N:465:LEU:HD12	1.80	0.62
1:O:126:GLN:O	1:O:130:ASN:HB3	1.98	0.62
1:O:324:HIS:HB2	1:O:329:LYS:HE2	1.80	0.62
1:P:28:SER:O	1:P:34:GLY:HA2	1.99	0.62
1:P:207:LEU:HD11	1:P:209:LYS:HE3	1.79	0.62
1:B:143:ARG:HA	1:B:143:ARG:HE	1.64	0.62
1:E:444:ASP:OD1	1:J:108:ILE:HD12	1.99	0.62
1:F:100:ALA:HA	1:F:103:LEU:HD13	1.81	0.62
1:G:131:SER:HB2	1:G:403:LEU:HD23	1.81	0.62
1:H:364:GLY:HA3	1:H:370:LEU:CD1	2.29	0.62
1:J:96:LEU:HD13	1:J:96:LEU:C	2.20	0.62
1:J:300:GLU:OE2	1:J:301:HIS:HB2	1.99	0.62
1:K:146:LEU:HD13	1:K:167:THR:O	1.99	0.62
1:M:57:ILE:HG23	1:M:58:LEU:HD23	1.81	0.62
1:A:324:HIS:HB2	1:A:329:LYS:NZ	2.14	0.62
1:A:343:GLU:HG3	1:A:344:ASP:H	1.63	0.62
1:B:163:LYS:HA	1:B:166:PHE:CD1	2.34	0.62
1:B:438:ALA:CB	1:B:448:LEU:HG	2.28	0.62
1:B:447:ASP:HA	1:I:417:GLY:HA3	1.81	0.62
1:C:166:PHE:CZ	1:C:198:ASP:HB3	2.34	0.62
1:E:88:SER:O	1:E:92:LEU:HD13	1.98	0.62
1:E:146:LEU:HD13	1:E:167:THR:O	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:341:ILE:HD12	1:G:346:LEU:HD12	1.82	0.62
1:H:74:MET:O	1:H:77:VAL:HG12	1.98	0.62
1:H:324:HIS:HB2	1:H:329:LYS:NZ	2.14	0.62
1:I:191:LYS:HA	1:I:191:LYS:HE3	1.80	0.62
1:K:52:ASN:HB2	1:K:375:ARG:CZ	2.29	0.62
1:L:100:ALA:HA	1:L:103:LEU:HD22	1.80	0.62
1:F:112:THR:CG2	1:F:418:LYS:HE2	2.28	0.62
1:F:352:VAL:HG22	1:F:355:GLY:H	1.63	0.62
1:F:450:ALA:HA	1:O:417:GLY:H	1.64	0.62
1:I:17:ILE:HA	1:I:20:ILE:HG22	1.81	0.62
1:I:74:MET:O	1:I:77:VAL:HG12	1.98	0.62
1:J:146:LEU:HD12	1:J:171:VAL:CG1	2.29	0.62
1:K:114:ILE:HA	1:K:117:TRP:CZ3	2.35	0.62
1:M:82:VAL:HG13	1:M:83:GLY:N	2.13	0.62
1:M:141:LYS:HG3	1:M:144:GLN:HB2	1.80	0.62
1:A:31:GLY:O	1:A:156:SER:HB3	1.99	0.62
1:A:367:GLN:HG3	1:A:370:LEU:N	2.15	0.62
1:B:334:LYS:CB	1:B:351:GLY:HA3	2.29	0.62
1:D:352:VAL:HG22	1:D:355:GLY:H	1.65	0.62
1:I:59:LYS:HE2	1:I:76:ARG:H	1.64	0.62
1:J:139:GLU:O	1:J:140:VAL:HB	1.98	0.62
1:M:149:ILE:HG21	1:M:383:VAL:HG11	1.80	0.62
1:P:226:ILE:HG12	1:P:278:ILE:HG23	1.81	0.62
1:A:84:ASP:HB3	1:A:379:ASP:OD1	1.98	0.62
1:B:43:GLY:O	1:B:45:ASP:N	2.33	0.62
1:B:413:SER:O	1:I:454:ALA:HB2	2.00	0.62
1:G:143:ARG:HA	1:G:143:ARG:HE	1.65	0.62
1:H:134:ASP:HB3	1:H:395:TYR:CE2	2.35	0.62
1:I:7:ARG:HH22	1:O:513:ARG:HH21	1.47	0.62
1:I:176:ARG:CZ	1:I:358:CYS:HB2	2.29	0.62
1:L:266:VAL:HB	1:L:290:LEU:HD21	1.82	0.62
1:L:280:ARG:HD2	1:L:304:PHE:HB2	1.82	0.62
1:O:407:ALA:O	1:O:410:GLN:HG2	1.99	0.62
1:C:392:ARG:O	1:C:484:PHE:HB2	1.99	0.62
1:E:313:VAL:HG22	1:E:357:ALA:HB3	1.81	0.62
1:F:3:ALA:HA	1:F:511:ALA:HB3	1.79	0.62
1:F:117:TRP:CD1	1:F:499:GLU:HB2	2.34	0.62
1:K:20:ILE:HB	1:K:98:ARG:NH2	2.14	0.62
1:M:368:GLN:O	1:M:371:ASP:HB2	1.99	0.62
1:C:364:GLY:HA3	1:C:370:LEU:HD11	1.82	0.62
1:C:496:GLU:O	1:C:499:GLU:HB3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:163:LYS:HA	1:D:166:PHE:CD1	2.35	0.62
1:F:116:GLY:HA2	1:F:422:ALA:HB1	1.81	0.62
1:F:188:VAL:CG2	1:F:377:LEU:HD22	2.30	0.62
1:H:82:VAL:HA	1:H:386:GLN:HG3	1.80	0.62
1:H:171:VAL:O	1:H:175:LEU:HG	1.99	0.62
1:J:324:HIS:ND1	1:J:325:PRO:HD3	2.15	0.62
1:K:15:SER:HB3	1:K:501:ILE:HG23	1.80	0.62
1:O:310:LEU:O	1:O:314:THR:HG22	1.99	0.62
1:A:173:ALA:HB2	1:A:360:ILE:HD11	1.81	0.62
1:C:341:ILE:HD11	1:C:348:HIS:CE1	2.34	0.62
1:C:401:GLU:HG2	1:C:433:LEU:HD22	1.82	0.62
1:D:58:LEU:HB3	1:D:72:VAL:HG11	1.82	0.62
1:G:284:TYR:O	1:G:287:PRO:HD2	2.00	0.62
1:H:59:LYS:HE3	1:H:73:ASP:HA	1.82	0.62
1:H:146:LEU:HB2	1:H:171:VAL:CG2	2.30	0.62
1:K:92:LEU:HD21	1:K:433:LEU:HD21	1.81	0.62
1:M:35:MET:HE1	1:O:503:ARG:CZ	2.30	0.62
1:M:188:VAL:HB	1:M:377:LEU:HD22	1.82	0.62
1:O:128:LEU:HD13	1:O:488:ARG:HG2	1.81	0.62
1:O:141:LYS:HG2	1:O:144:GLN:HB2	1.82	0.62
1:C:131:SER:OG	1:C:403:LEU:HD11	1.99	0.62
1:D:483:SER:O	1:D:486:VAL:HG22	2.00	0.62
1:E:44:ARG:HG3	1:E:44:ARG:HH11	1.65	0.62
1:E:161:HIS:HA	1:G:118:ARG:HH21	1.65	0.62
1:G:59:LYS:HE2	1:G:76:ARG:HB2	1.82	0.62
1:H:265:LYS:HZ2	1:H:287:PRO:HG3	1.64	0.62
1:J:163:LYS:HD2	1:J:166:PHE:CG	2.34	0.62
1:J:173:ALA:O	1:J:176:ARG:HG2	2.00	0.62
1:J:175:LEU:O	1:J:178:LYS:HD2	2.00	0.62
1:P:173:ALA:HA	1:P:176:ARG:NH1	2.14	0.62
1:B:37:LYS:O	1:B:50:VAL:HA	1.99	0.61
1:B:163:LYS:HD2	1:B:166:PHE:CD1	2.35	0.61
1:B:496:GLU:O	1:B:500:VAL:HG23	2.00	0.61
1:C:265:LYS:HE2	1:C:322:PHE:CE1	2.35	0.61
1:D:96:LEU:HD13	1:D:97:LEU:HD12	1.82	0.61
1:E:141:LYS:HG2	1:E:144:GLN:HB2	1.82	0.61
1:E:210:LYS:HD2	1:E:345:LYS:CE	2.30	0.61
1:G:146:LEU:CD2	1:G:167:THR:HG23	2.30	0.61
1:H:171:VAL:HG12	1:H:384:LEU:CD1	2.30	0.61
1:H:204:GLY:HA3	1:H:349:PHE:O	2.00	0.61
1:K:500:VAL:HA	1:K:503:ARG:HE	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:127:ALA:H	1:N:130:ASN:ND2	1.98	0.61
1:N:216:PRO:HG3	1:N:295:GLY:HA2	1.82	0.61
1:O:324:HIS:ND1	1:O:325:PRO:HD3	2.14	0.61
1:O:434:PRO:HB3	1:O:452:LEU:CD2	2.30	0.61
1:A:402:MET:SD	1:A:453:ARG:HA	2.39	0.61
1:B:28:SER:O	1:B:34:GLY:HA2	2.00	0.61
1:B:149:ILE:HG21	1:B:387:THR:OG1	2.00	0.61
1:E:154:LEU:HD22	1:E:167:THR:CB	2.30	0.61
1:E:324:HIS:O	1:E:328:VAL:HG22	1.99	0.61
1:F:500:VAL:HA	1:F:503:ARG:HD2	1.82	0.61
1:J:59:LYS:HE3	1:J:73:ASP:HA	1.81	0.61
1:N:274:ILE:O	1:N:296:VAL:HG22	1.99	0.61
1:P:152:THR:CB	1:P:480:ILE:HG23	2.29	0.61
1:A:159:LEU:HD13	1:A:159:LEU:N	2.08	0.61
1:B:57:ILE:HG23	1:B:58:LEU:HD22	1.82	0.61
1:E:338:GLU:HG3	1:E:347:ILE:HG22	1.82	0.61
1:H:166:PHE:CZ	1:H:198:ASP:HB3	2.35	0.61
1:H:480:ILE:H	1:H:480:ILE:HD13	1.64	0.61
1:I:163:LYS:O	1:I:166:PHE:HB2	2.01	0.61
1:K:7:ARG:H	1:K:10:THR:HG22	1.66	0.61
1:K:265:LYS:HE2	1:K:322:PHE:CE1	2.35	0.61
1:L:3:ALA:O	1:L:508:ILE:HG23	2.00	0.61
1:L:92:LEU:HA	1:L:95:GLU:OE2	2.01	0.61
1:N:233:THR:HG21	1:N:261:LYS:HE2	1.82	0.61
1:O:161:HIS:CD2	1:O:162:HIS:H	2.17	0.61
1:P:185:ALA:HA	1:P:309:ARG:CD	2.30	0.61
1:P:399:CYS:SG	1:P:464:GLY:HA3	2.40	0.61
1:A:166:PHE:CE1	1:A:198:ASP:HB2	2.35	0.61
1:E:58:LEU:HB3	1:E:72:VAL:CG1	2.30	0.61
1:E:59:LYS:HE2	1:E:76:ARG:HB2	1.82	0.61
1:F:216:PRO:CG	1:F:295:GLY:HA2	2.30	0.61
1:G:74:MET:O	1:G:77:VAL:HG12	2.00	0.61
1:L:483:SER:O	1:L:486:VAL:HG22	2.01	0.61
1:M:166:PHE:CZ	1:M:198:ASP:HB3	2.34	0.61
1:N:513:ARG:HG3	1:N:513:ARG:NH1	2.15	0.61
1:P:58:LEU:HB3	1:P:72:VAL:HG11	1.81	0.61
1:P:122:LYS:O	1:P:125:ARG:HG2	1.99	0.61
1:P:192:LEU:HA	1:P:366:THR:CG2	2.30	0.61
1:P:231:MET:HG3	1:P:283:ILE:HG13	1.82	0.61
1:B:99:GLU:HG3	1:B:425:SER:HB2	1.81	0.61
1:F:114:ILE:HD11	1:F:502:LEU:HD12	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:32:PRO:HA	1:G:155:SER:O	2.00	0.61
1:J:475:MET:SD	1:J:480:ILE:HB	2.40	0.61
1:K:96:LEU:HD21	1:K:117:TRP:CZ2	2.36	0.61
1:M:41:SER:HB3	1:M:45:ASP:OD2	2.00	0.61
1:M:134:ASP:HB3	1:M:393:THR:OG1	2.01	0.61
1:N:159:LEU:HD23	1:N:160:THR:N	2.15	0.61
1:O:100:ALA:HA	1:O:103:LEU:HD12	1.83	0.61
1:O:324:HIS:O	1:O:328:VAL:HG22	2.00	0.61
1:P:274:ILE:O	1:P:296:VAL:HG22	2.01	0.61
1:B:508:ILE:O	1:B:509:LYS:HB2	1.98	0.61
1:D:166:PHE:CZ	1:D:198:ASP:HB3	2.35	0.61
1:D:390:ASP:HB3	1:D:485:GLN:HE22	1.64	0.61
1:D:446:ALA:CA	1:K:108:ILE:HD13	2.31	0.61
1:G:148:ASN:HA	1:G:479:GLY:O	2.01	0.61
1:H:447:ASP:HB2	1:P:418:LYS:HD3	1.82	0.61
1:J:236:ILE:HG23	1:J:238:ILE:H	1.64	0.61
1:K:101:GLU:O	1:K:104:ILE:HG23	2.01	0.61
1:K:187:HIS:O	1:K:359:THR:HG23	2.01	0.61
1:L:108:ILE:HG22	1:L:109:HIS:N	2.16	0.61
1:L:114:ILE:HD11	1:L:502:LEU:CD2	2.31	0.61
1:M:402:MET:SD	1:M:456:HIS:HB2	2.40	0.61
1:O:82:VAL:CG2	1:O:486:VAL:HG12	2.31	0.61
1:P:159:LEU:HB3	1:P:372:GLU:OE1	2.00	0.61
1:P:188:VAL:HB	1:P:377:LEU:HD13	1.82	0.61
1:C:417:GLY:H	1:L:450:ALA:HA	1.63	0.61
1:H:317:GLU:CB	1:H:329:LYS:HD3	2.30	0.61
1:K:191:LYS:HE2	1:K:191:LYS:HA	1.83	0.61
1:L:114:ILE:HA	1:L:117:TRP:CE3	2.36	0.61
1:N:185:ALA:HB1	1:N:357:ALA:HB1	1.82	0.61
1:O:396:GLY:HA3	1:O:480:ILE:HG22	1.83	0.61
1:P:149:ILE:HG21	1:P:387:THR:OG1	2.01	0.61
1:P:280:ARG:HA	1:P:302:ALA:O	2.00	0.61
1:A:163:LYS:HG3	1:A:166:PHE:CD2	2.36	0.61
1:B:163:LYS:HE3	1:B:376:SER:CB	2.31	0.61
1:E:173:ALA:HA	1:E:176:ARG:CZ	2.31	0.61
1:E:276:CYS:HA	1:E:297:MET:O	2.01	0.61
1:I:154:LEU:CD2	1:I:163:LYS:HG3	2.30	0.61
1:I:324:HIS:O	1:I:328:VAL:HG23	2.00	0.61
1:M:171:VAL:O	1:M:174:VAL:HG22	1.99	0.61
1:O:372:GLU:O	1:O:375:ARG:HB3	2.01	0.61
1:A:128:LEU:O	1:A:129:LEU:HB3	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:438:ALA:HB2	1:B:448:LEU:HG	1.82	0.61
1:C:146:LEU:HD22	1:C:168:LYS:HA	1.83	0.61
1:C:284:TYR:O	1:C:287:PRO:HD2	2.01	0.61
1:D:390:ASP:HB3	1:D:485:GLN:OE1	2.00	0.61
1:D:433:LEU:O	1:D:436:ILE:HG22	2.01	0.61
1:E:176:ARG:NE	1:E:358:CYS:HB2	2.15	0.61
1:F:324:HIS:ND1	1:F:325:PRO:HD3	2.16	0.61
1:K:146:LEU:HD11	1:K:150:ALA:HB3	1.81	0.61
1:K:475:MET:SD	1:K:480:ILE:HB	2.40	0.61
1:L:38:ILE:HD12	1:L:48:LEU:HD23	1.82	0.61
1:M:213:VAL:HG12	1:O:318:ILE:HG23	1.80	0.61
1:P:171:VAL:O	1:P:175:LEU:HG	2.01	0.61
1:P:438:ALA:HB2	1:P:448:LEU:HG	1.81	0.61
1:B:111:GLN:HA	1:B:114:ILE:HG12	1.82	0.61
1:D:32:PRO:HD2	1:D:467:MET:SD	2.40	0.61
1:G:65:ASN:CG	1:G:66:PRO:HD3	2.21	0.61
1:H:39:LEU:O	1:H:48:LEU:HA	2.01	0.61
1:I:63:VAL:HG12	1:I:64:ASP:HB3	1.82	0.61
1:J:322:PHE:HA	1:J:324:HIS:CD2	2.35	0.61
1:K:114:ILE:HD11	1:K:502:LEU:CD2	2.30	0.61
1:K:233:THR:O	1:K:234:ASP:HB3	2.01	0.61
1:O:171:VAL:HG12	1:O:384:LEU:CD1	2.31	0.61
1:O:177:LEU:CD1	1:O:186:ILE:HD11	2.27	0.61
1:B:503:ARG:HB3	1:G:369:ILE:HG21	1.82	0.60
1:H:192:LEU:O	1:H:366:THR:HG22	2.00	0.60
1:N:79:ASP:HA	1:N:83:GLY:HA3	1.83	0.60
1:N:159:LEU:HD12	1:N:372:GLU:HB3	1.82	0.60
1:A:38:ILE:HG22	1:A:50:VAL:CB	2.31	0.60
1:A:159:LEU:HD11	1:A:372:GLU:CG	2.31	0.60
1:F:171:VAL:O	1:F:175:LEU:HG	2.01	0.60
1:G:390:ASP:HB3	1:G:485:GLN:HE22	1.66	0.60
1:I:96:LEU:C	1:I:96:LEU:HD13	2.21	0.60
1:I:216:PRO:HG2	1:I:295:GLY:HA2	1.83	0.60
1:J:364:GLY:HA3	1:J:370:LEU:CD1	2.31	0.60
1:K:176:ARG:HH12	1:K:201:LEU:HD21	1.66	0.60
1:M:145:ASP:O	1:M:171:VAL:HG11	2.01	0.60
1:M:313:VAL:HG13	1:M:352:VAL:CB	2.30	0.60
1:P:317:GLU:HB2	1:P:329:LYS:HD3	1.83	0.60
1:A:226:ILE:O	1:A:329:LYS:HE3	2.01	0.60
1:A:450:ALA:HB3	1:M:417:GLY:HA2	1.81	0.60
1:A:504:VAL:HG11	1:F:38:ILE:H	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:211:ILE:CD1	1:D:297:MET:HG3	2.30	0.60
1:G:38:ILE:HD12	1:G:48:LEU:HD11	1.83	0.60
1:J:52:ASN:ND2	1:J:157:LYS:HA	2.16	0.60
1:A:188:VAL:HG13	1:A:377:LEU:HD21	1.83	0.60
1:A:325:PRO:C	1:A:326:GLU:HG3	2.21	0.60
1:B:103:LEU:O	1:B:106:LYS:HB3	2.01	0.60
1:B:187:HIS:O	1:B:359:THR:HG23	2.01	0.60
1:C:128:LEU:HD13	1:C:484:PHE:HZ	1.67	0.60
1:C:219:ILE:HD12	1:C:275:ASN:HB3	1.82	0.60
1:E:417:GLY:H	1:J:450:ALA:HB3	1.66	0.60
1:H:341:ILE:O	1:H:343:GLU:N	2.34	0.60
1:I:51:THR:HG21	1:I:56:THR:HB	1.83	0.60
1:I:146:LEU:HB2	1:I:171:VAL:CG2	2.31	0.60
1:I:226:ILE:HG12	1:I:278:ILE:HG23	1.83	0.60
1:J:317:GLU:HB3	1:J:329:LYS:HD3	1.82	0.60
1:L:317:GLU:HB2	1:L:329:LYS:HG2	1.82	0.60
1:M:394:VAL:HG23	1:M:482:GLU:HB2	1.83	0.60
1:B:211:ILE:H	1:B:211:ILE:HD13	1.64	0.60
1:D:177:LEU:HA	1:D:356:GLU:O	2.01	0.60
1:H:59:LYS:CE	1:H:76:ARG:HB2	2.31	0.60
1:I:396:GLY:HA3	1:I:480:ILE:HG22	1.82	0.60
1:J:173:ALA:HB2	1:J:360:ILE:HD11	1.83	0.60
1:J:280:ARG:HD2	1:J:304:PHE:HB2	1.83	0.60
1:M:173:ALA:CB	1:M:360:ILE:HD11	2.32	0.60
1:O:171:VAL:HG12	1:O:384:LEU:HD13	1.82	0.60
1:A:114:ILE:HA	1:A:117:TRP:CZ3	2.36	0.60
1:C:209:LYS:HE2	1:C:301:HIS:O	2.02	0.60
1:C:431:ARG:CZ	1:C:431:ARG:HA	2.31	0.60
1:E:225:LEU:HD11	1:E:324:HIS:ND1	2.16	0.60
1:E:483:SER:O	1:E:486:VAL:HG22	2.02	0.60
1:H:324:HIS:ND1	1:H:325:PRO:HD3	2.16	0.60
1:K:63:VAL:HG22	1:P:509:LYS:HE2	1.83	0.60
1:M:452:LEU:HD13	1:M:465:LEU:HD13	1.82	0.60
1:B:30:LEU:HD22	1:B:436:ILE:HD13	1.84	0.60
1:C:101:GLU:O	1:C:104:ILE:HG12	2.01	0.60
1:C:132:ALA:N	1:C:461:THR:HG21	2.16	0.60
1:C:188:VAL:HA	1:C:360:ILE:O	2.02	0.60
1:F:32:PRO:O	1:F:33:LYS:HD2	2.02	0.60
1:F:173:ALA:HB1	1:F:360:ILE:HD11	1.82	0.60
1:G:122:LYS:O	1:G:126:GLN:HG3	2.02	0.60
1:G:149:ILE:HB	1:G:481:THR:O	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:146:LEU:HB2	1:H:171:VAL:HG21	1.84	0.60
1:I:173:ALA:HA	1:I:176:ARG:NH1	2.16	0.60
1:J:32:PRO:N	1:J:155:SER:HB2	2.16	0.60
1:K:159:LEU:HD23	1:K:159:LEU:H	1.66	0.60
1:K:188:VAL:HG22	1:K:377:LEU:HD21	1.84	0.60
1:N:265:LYS:HE2	1:N:322:PHE:CE1	2.36	0.60
1:O:57:ILE:HG23	1:O:58:LEU:HD22	1.84	0.60
1:O:176:ARG:NH2	1:O:360:ILE:HG12	2.15	0.60
1:P:138:ASP:O	1:P:139:GLU:HB2	2.02	0.60
1:B:274:ILE:O	1:B:296:VAL:HG22	2.02	0.60
1:B:312:LEU:O	1:B:354:LEU:HD22	2.02	0.60
1:C:79:ASP:HA	1:C:83:GLY:HA3	1.82	0.60
1:C:155:SER:HA	1:C:160:THR:HG21	1.84	0.60
1:C:325:PRO:C	1:C:326:GLU:HG3	2.22	0.60
1:D:96:LEU:CD1	1:D:97:LEU:HD12	2.32	0.60
1:D:448:LEU:HD21	1:D:465:LEU:CD1	2.31	0.60
1:F:37:LYS:O	1:F:50:VAL:HA	2.01	0.60
1:I:39:LEU:HD13	1:N:512:PRO:HB3	1.82	0.60
1:I:59:LYS:HE2	1:I:76:ARG:HB2	1.82	0.60
1:I:125:ARG:O	1:I:128:LEU:HB2	2.02	0.60
1:I:191:LYS:HZ3	1:I:346:LEU:HD11	1.67	0.60
1:J:412:ALA:HB1	1:J:424:GLU:HB3	1.83	0.60
1:L:341:ILE:HG23	1:L:363:ARG:NH2	2.16	0.60
1:N:207:LEU:O	1:N:347:ILE:HG22	2.01	0.60
1:N:380:ALA:O	1:N:384:LEU:HD13	2.01	0.60
1:A:104:ILE:HG13	1:A:105:ALA:N	2.17	0.60
1:A:265:LYS:HE2	1:A:322:PHE:CE1	2.37	0.60
1:B:32:PRO:HA	1:B:155:SER:C	2.21	0.60
1:C:451:GLN:NE2	1:C:471:THR:HA	2.16	0.60
1:D:191:LYS:NZ	1:D:344:ASP:HB3	2.17	0.60
1:E:218:ARG:HD2	1:E:335:LEU:HD11	1.83	0.60
1:E:317:GLU:HB3	1:E:329:LYS:HD3	1.82	0.60
1:E:500:VAL:HA	1:E:503:ARG:HD2	1.84	0.60
1:G:109:HIS:NE2	1:G:111:GLN:HG2	2.16	0.60
1:I:154:LEU:CD2	1:I:167:THR:HB	2.31	0.60
1:I:425:SER:O	1:I:428:LYS:HG2	2.02	0.60
1:N:126:GLN:HA	1:N:130:ASN:HD21	1.65	0.60
1:P:313:VAL:CG1	1:P:352:VAL:HB	2.31	0.60
1:A:96:LEU:HA	1:A:99:GLU:OE2	2.01	0.60
1:C:96:LEU:HD12	1:C:97:LEU:HD12	1.83	0.60
1:C:111:GLN:O	1:C:114:ILE:HB	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:268:ARG:O	1:C:271:LYS:HG2	2.01	0.60
1:D:37:LYS:HA	1:E:504:VAL:HG12	1.83	0.60
1:D:202:ASP:OD2	1:D:361:VAL:HG21	2.02	0.60
1:D:287:PRO:O	1:D:291:PHE:HD1	1.84	0.60
1:J:182:ASN:CG	1:J:183:LEU:H	2.05	0.60
1:K:146:LEU:HD11	1:K:150:ALA:CB	2.32	0.60
1:K:171:VAL:O	1:K:174:VAL:HG22	2.01	0.60
1:K:188:VAL:HG23	1:K:360:ILE:O	2.02	0.60
1:B:324:HIS:CG	1:B:325:PRO:HD3	2.37	0.59
1:C:269:ILE:HG23	1:C:274:ILE:CG2	2.31	0.59
1:D:58:LEU:HB3	1:D:72:VAL:CG1	2.32	0.59
1:E:211:ILE:HD11	1:E:297:MET:HG3	1.84	0.59
1:I:32:PRO:HA	1:I:155:SER:O	2.01	0.59
1:I:63:VAL:HG23	1:N:513:ARG:N	2.17	0.59
1:I:274:ILE:O	1:I:296:VAL:HG22	2.02	0.59
1:I:452:LEU:HD13	1:I:465:LEU:HD13	1.84	0.59
1:M:38:ILE:HG22	1:M:50:VAL:HB	1.84	0.59
1:N:139:GLU:O	1:N:140:VAL:HB	2.02	0.59
1:A:163:LYS:HG3	1:A:166:PHE:CE2	2.37	0.59
1:D:450:ALA:HB3	1:K:417:GLY:N	2.17	0.59
1:G:14:SER:OG	1:G:507:ILE:HD13	2.02	0.59
1:G:128:LEU:HD11	1:G:488:ARG:HG2	1.84	0.59
1:G:163:LYS:HD2	1:G:166:PHE:CG	2.37	0.59
1:G:408:VAL:HA	1:G:411:LEU:HD12	1.83	0.59
1:G:448:LEU:HD21	1:G:465:LEU:CD1	2.33	0.59
1:H:114:ILE:CD1	1:H:502:LEU:HD22	2.30	0.59
1:H:163:LYS:HA	1:H:166:PHE:CD1	2.37	0.59
1:J:452:LEU:HD13	1:J:465:LEU:HD13	1.85	0.59
1:L:397:GLY:O	1:L:465:LEU:HD23	2.02	0.59
1:L:483:SER:HB2	1:L:486:VAL:HG13	1.84	0.59
1:M:283:ILE:HG22	1:M:300:GLU:HG3	1.84	0.59
1:N:176:ARG:NE	1:N:358:CYS:HB2	2.17	0.59
1:O:146:LEU:CG	1:O:147:MET:H	2.15	0.59
1:O:171:VAL:O	1:O:174:VAL:HG22	2.02	0.59
1:A:38:ILE:HD11	1:C:504:VAL:HG13	1.83	0.59
1:C:89:VAL:HA	1:C:490:VAL:HG23	1.84	0.59
1:C:280:ARG:CD	1:C:304:PHE:HB2	2.31	0.59
1:E:39:LEU:O	1:E:48:LEU:HA	2.02	0.59
1:E:132:ALA:O	1:E:133:VAL:HG22	2.02	0.59
1:G:40:LEU:HB2	1:G:48:LEU:HD12	1.83	0.59
1:G:159:LEU:HB2	1:G:163:LYS:HB2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:91:VAL:HG11	1:K:436:ILE:HD12	1.84	0.59
1:K:132:ALA:CB	1:K:394:VAL:HA	2.32	0.59
1:L:310:LEU:O	1:L:314:THR:HG22	2.02	0.59
1:N:24:ASP:O	1:N:27:LYS:HG2	2.03	0.59
1:N:222:ALA:HA	1:N:275:ASN:OD1	2.03	0.59
1:P:44:ARG:HH11	1:P:44:ARG:HG3	1.68	0.59
1:P:88:SER:O	1:P:92:LEU:HD13	2.02	0.59
1:B:171:VAL:O	1:B:175:LEU:HG	2.03	0.59
1:B:284:TYR:O	1:B:287:PRO:HD2	2.03	0.59
1:E:325:PRO:C	1:E:326:GLU:HG3	2.23	0.59
1:G:411:LEU:HB3	1:G:423:MET:SD	2.43	0.59
1:J:312:LEU:O	1:J:354:LEU:HD22	2.02	0.59
1:K:219:ILE:HB	1:K:275:ASN:HB3	1.84	0.59
1:L:488:ARG:HG3	1:L:489:GLN:OE1	2.03	0.59
1:M:425:SER:O	1:M:428:LYS:HG2	2.02	0.59
1:O:483:SER:O	1:O:486:VAL:HG22	2.03	0.59
1:A:437:ILE:HG23	1:A:467:MET:SD	2.42	0.59
1:B:116:GLY:O	1:B:119:GLU:HB2	2.02	0.59
1:B:188:VAL:CG1	1:B:377:LEU:HD22	2.32	0.59
1:C:161:HIS:CE1	1:C:369:ILE:HD13	2.37	0.59
1:F:85:GLY:O	1:F:153:THR:HA	2.02	0.59
1:H:149:ILE:H	1:H:481:THR:HG22	1.66	0.59
1:J:159:LEU:HG	1:J:163:LYS:HG2	1.84	0.59
1:K:32:PRO:HD2	1:K:467:MET:SD	2.43	0.59
1:L:16:PHE:HA	1:L:97:LEU:HD23	1.83	0.59
1:M:154:LEU:CD2	1:M:163:LYS:HG3	2.32	0.59
1:P:341:ILE:HD11	1:P:348:HIS:CE1	2.37	0.59
1:E:443:TYR:HA	1:N:444:ASP:OD2	2.03	0.59
1:E:502:LEU:HD13	1:E:502:LEU:C	2.22	0.59
1:F:190:LYS:HE3	1:F:371:ASP:OD1	2.02	0.59
1:G:226:ILE:HG12	1:G:278:ILE:HG23	1.83	0.59
1:J:140:VAL:HA	1:J:175:LEU:HD22	1.84	0.59
1:K:145:ASP:O	1:K:171:VAL:HG11	2.03	0.59
1:A:32:PRO:HA	1:A:155:SER:HB3	1.83	0.59
1:C:283:ILE:HG22	1:C:300:GLU:HG3	1.84	0.59
1:C:287:PRO:O	1:C:291:PHE:HD1	1.86	0.59
1:D:146:LEU:CD1	1:D:171:VAL:HG13	2.27	0.59
1:E:417:GLY:H	1:J:450:ALA:CB	2.15	0.59
1:F:3:ALA:HA	1:F:511:ALA:CB	2.33	0.59
1:G:33:LYS:HG2	1:G:158:LEU:HA	1.82	0.59
1:K:109:HIS:CE1	1:K:111:GLN:HB2	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:145:ASP:OD1	1:L:171:VAL:HB	2.01	0.59
1:B:364:GLY:HA3	1:B:370:LEU:HD13	1.85	0.59
1:D:99:GLU:O	1:D:103:LEU:HD13	2.01	0.59
1:E:154:LEU:HD21	1:E:163:LYS:NZ	2.17	0.59
1:E:211:ILE:HG22	1:E:288:GLU:OE1	2.02	0.59
1:F:112:THR:HG21	1:F:418:LYS:CE	2.29	0.59
1:G:157:LYS:HE2	1:G:379:ASP:OD2	2.03	0.59
1:G:204:GLY:HA3	1:G:349:PHE:O	2.03	0.59
1:I:79:ASP:HA	1:I:83:GLY:HA2	1.84	0.59
1:I:402:MET:SD	1:I:453:ARG:HA	2.42	0.59
1:J:79:ASP:HA	1:J:83:GLY:HA2	1.84	0.59
1:K:210:LYS:HE2	1:K:212:GLY:O	2.02	0.59
1:N:269:ILE:HG23	1:N:274:ILE:HG21	1.84	0.59
1:O:166:PHE:CZ	1:O:198:ASP:HB3	2.38	0.59
1:O:171:VAL:O	1:O:175:LEU:HG	2.02	0.59
1:A:53:ASP:HB2	1:A:375:ARG:NE	2.17	0.59
1:B:338:GLU:OE1	1:B:345:LYS:HE3	2.02	0.59
1:F:274:ILE:O	1:F:296:VAL:HG22	2.03	0.59
1:I:448:LEU:HD11	1:I:465:LEU:HD11	1.85	0.59
1:K:127:ALA:HB2	1:K:404:MET:SD	2.43	0.59
1:L:141:LYS:HG2	1:L:144:GLN:HB2	1.84	0.59
1:L:269:ILE:HG23	1:L:274:ILE:HG22	1.85	0.59
1:M:111:GLN:HA	1:M:114:ILE:HG12	1.85	0.59
1:N:146:LEU:CD2	1:N:167:THR:HG23	2.32	0.59
1:P:51:THR:HG21	1:P:56:THR:HB	1.84	0.59
1:P:310:LEU:O	1:P:314:THR:HG22	2.03	0.59
1:A:146:LEU:HB2	1:A:171:VAL:HG21	1.85	0.59
1:B:38:ILE:HD12	1:B:48:LEU:HD22	1.83	0.59
1:C:48:LEU:H	1:C:48:LEU:HD22	1.68	0.59
1:C:226:ILE:HD11	1:C:310:LEU:HD12	1.85	0.59
1:C:408:VAL:HG23	1:C:427:ALA:HB1	1.85	0.59
1:E:226:ILE:HG12	1:E:278:ILE:HG23	1.84	0.59
1:K:106:LYS:HD3	1:K:108:ILE:HD12	1.85	0.59
1:K:176:ARG:NE	1:K:358:CYS:HB2	2.18	0.59
1:M:500:VAL:HA	1:M:503:ARG:HD3	1.84	0.59
1:P:103:LEU:O	1:P:106:LYS:HB2	2.03	0.59
1:C:132:ALA:HB3	1:C:461:THR:HG21	1.85	0.58
1:C:219:ILE:HD11	1:C:336:ILE:HB	1.83	0.58
1:D:146:LEU:HD23	1:D:148:ASN:H	1.68	0.58
1:H:402:MET:HE2	1:H:453:ARG:HG2	1.85	0.58
1:I:111:GLN:O	1:I:114:ILE:HB	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:117:TRP:CD1	1:N:495:ALA:HB1	2.39	0.58
1:P:154:LEU:HD22	1:P:167:THR:HB	1.85	0.58
1:A:203:GLU:HG2	1:A:350:SER:HB2	1.85	0.58
1:B:334:LYS:HB3	1:B:351:GLY:HA3	1.85	0.58
1:E:236:ILE:HG23	1:E:237:LYS:N	2.17	0.58
1:G:140:VAL:HA	1:G:175:LEU:HD22	1.85	0.58
1:I:154:LEU:HD21	1:I:163:LYS:HG3	1.83	0.58
1:J:235:LYS:O	1:J:236:ILE:HG22	2.04	0.58
1:K:153:THR:HG21	1:K:379:ASP:HB3	1.83	0.58
1:N:116:GLY:O	1:N:119:GLU:HB2	2.02	0.58
1:O:334:LYS:CD	1:O:351:GLY:HA3	2.33	0.58
1:P:380:ALA:O	1:P:384:LEU:HD22	2.03	0.58
1:C:313:VAL:HG22	1:C:357:ALA:HB3	1.86	0.58
1:E:415:THR:O	1:E:420:ALA:HB2	2.03	0.58
1:I:510:ALA:C	1:I:512:PRO:HD3	2.24	0.58
1:J:109:HIS:CE1	1:N:440:ASN:HA	2.38	0.58
1:K:38:ILE:HG22	1:K:50:VAL:HG11	1.84	0.58
1:K:132:ALA:HB2	1:K:395:TYR:H	1.68	0.58
1:L:208:ASP:O	1:L:209:LYS:HG3	2.03	0.58
1:N:99:GLU:HG2	1:N:425:SER:HB2	1.84	0.58
1:O:160:THR:HG23	1:O:164:ASP:HB3	1.85	0.58
1:P:96:LEU:HD13	1:P:96:LEU:C	2.23	0.58
1:P:325:PRO:O	1:P:326:GLU:HG3	2.03	0.58
1:A:433:LEU:O	1:A:436:ILE:HG22	2.03	0.58
1:B:506:ASN:OD1	1:G:38:ILE:HG12	2.02	0.58
1:D:190:LYS:HE2	1:D:371:ASP:OD1	2.04	0.58
1:E:146:LEU:HD23	1:E:147:MET:H	1.66	0.58
1:F:325:PRO:C	1:F:326:GLU:HG3	2.24	0.58
1:G:324:HIS:HB2	1:G:329:LYS:NZ	2.18	0.58
1:M:322:PHE:HA	1:M:324:HIS:CD2	2.39	0.58
1:M:324:HIS:O	1:M:328:VAL:HG13	2.02	0.58
1:O:173:ALA:HA	1:O:176:ARG:CZ	2.34	0.58
1:O:216:PRO:CG	1:O:295:GLY:HA2	2.34	0.58
1:A:92:LEU:HD21	1:A:433:LEU:HD21	1.85	0.58
1:A:133:VAL:O	1:A:135:HIS:N	2.36	0.58
1:A:442:GLY:HA2	1:C:109:HIS:CE1	2.38	0.58
1:B:99:GLU:CD	1:B:425:SER:HB2	2.24	0.58
1:C:231:MET:HB2	1:C:284:TYR:H	1.68	0.58
1:C:450:ALA:HA	1:L:417:GLY:HA3	1.84	0.58
1:D:103:LEU:HG	1:D:113:ILE:HD13	1.84	0.58
1:E:258:GLU:CD	1:E:284:TYR:HE2	2.07	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:58:LEU:HB3	1:F:72:VAL:HG11	1.85	0.58
1:I:187:HIS:O	1:I:359:THR:HG23	2.02	0.58
1:K:146:LEU:CD2	1:K:167:THR:HG23	2.34	0.58
1:O:30:LEU:HD22	1:O:436:ILE:HD13	1.86	0.58
1:O:317:GLU:CB	1:O:329:LYS:HG2	2.33	0.58
1:B:106:LYS:HG2	1:B:113:ILE:HD11	1.85	0.58
1:I:32:PRO:HD2	1:I:440:ASN:CG	2.23	0.58
1:I:146:LEU:HD22	1:I:167:THR:HG23	1.86	0.58
1:I:159:LEU:HD23	1:I:163:LYS:HG2	1.85	0.58
1:J:161:HIS:CD2	1:J:162:HIS:H	2.22	0.58
1:J:245:VAL:HG21	1:J:251:VAL:HG23	1.86	0.58
1:K:159:LEU:H	1:K:159:LEU:CD2	2.17	0.58
1:L:159:LEU:HB2	1:L:163:LYS:HB2	1.84	0.58
1:L:319:ALA:HB3	1:P:289:GLN:NE2	2.17	0.58
1:O:174:VAL:HG11	1:O:384:LEU:HG	1.84	0.58
1:P:248:THR:O	1:P:251:VAL:HG22	2.03	0.58
1:A:397:GLY:O	1:A:465:LEU:HB2	2.04	0.58
1:A:504:VAL:HG11	1:F:38:ILE:HG12	1.86	0.58
1:B:341:ILE:O	1:B:343:GLU:N	2.37	0.58
1:C:16:PHE:HA	1:C:97:LEU:HD23	1.86	0.58
1:C:37:LYS:O	1:C:50:VAL:HA	2.03	0.58
1:C:92:LEU:O	1:C:95:GLU:HG2	2.04	0.58
1:E:138:ASP:O	1:E:139:GLU:HB2	2.04	0.58
1:E:346:LEU:HD13	1:E:347:ILE:N	2.18	0.58
1:F:84:ASP:OD2	1:F:379:ASP:HB3	2.03	0.58
1:H:110:PRO:HB2	1:H:502:LEU:HD11	1.85	0.58
1:K:269:ILE:HG23	1:K:274:ILE:HG22	1.85	0.58
1:M:224:ILE:HD11	1:M:349:PHE:HE2	1.69	0.58
1:A:372:GLU:HA	1:A:375:ARG:NH1	2.18	0.58
1:B:114:ILE:HA	1:B:117:TRP:CE3	2.39	0.58
1:B:173:ALA:HB2	1:B:360:ILE:HD11	1.85	0.58
1:C:124:ALA:O	1:C:128:LEU:HG	2.04	0.58
1:C:209:LYS:HB2	1:C:299:ILE:HG23	1.86	0.58
1:C:324:HIS:HB2	1:C:329:LYS:HE2	1.85	0.58
1:E:82:VAL:HG23	1:E:386:GLN:HG3	1.86	0.58
1:E:312:LEU:O	1:E:354:LEU:HD22	2.04	0.58
1:J:163:LYS:NZ	1:J:376:SER:HB3	2.19	0.58
1:N:216:PRO:HG2	1:N:295:GLY:HA2	1.84	0.58
1:O:154:LEU:HD22	1:O:167:THR:HB	1.86	0.58
1:B:115:ALA:HB3	1:B:419:GLU:OE1	2.03	0.58
1:C:96:LEU:HA	1:C:99:GLU:OE2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:171:VAL:O	1:C:174:VAL:HG22	2.03	0.58
1:D:153:THR:HG21	1:D:379:ASP:HB3	1.86	0.58
1:D:177:LEU:HD23	1:D:177:LEU:O	2.03	0.58
1:D:446:ALA:CB	1:K:108:ILE:HG21	2.30	0.58
1:E:118:ARG:O	1:E:121:THR:HB	2.04	0.58
1:E:159:LEU:HG	1:E:163:LYS:HB2	1.86	0.58
1:G:176:ARG:HE	1:G:358:CYS:HB3	1.68	0.58
1:H:483:SER:O	1:H:486:VAL:HG22	2.04	0.58
1:I:191:LYS:HG2	1:I:341:ILE:HB	1.85	0.58
1:L:106:LYS:NZ	1:L:418:LYS:HE3	2.19	0.58
1:N:208:ASP:O	1:N:209:LYS:HG3	2.04	0.58
1:N:324:HIS:O	1:N:328:VAL:HG22	2.04	0.58
1:A:111:GLN:HA	1:A:114:ILE:HD12	1.84	0.58
1:B:99:GLU:HG3	1:B:425:SER:CB	2.34	0.58
1:B:392:ARG:HB3	1:B:484:PHE:CB	2.34	0.58
1:B:417:GLY:CA	1:I:447:ASP:HA	2.33	0.58
1:C:269:ILE:HG23	1:C:274:ILE:HG21	1.85	0.58
1:C:501:ILE:O	1:C:501:ILE:HG22	2.03	0.58
1:G:152:THR:HB	1:G:480:ILE:HG23	1.84	0.58
1:G:316:GLY:O	1:G:317:GLU:HG2	2.04	0.58
1:H:149:ILE:HD12	1:H:482:GLU:HA	1.83	0.58
1:H:280:ARG:HD2	1:H:304:PHE:HB2	1.86	0.58
1:I:25:LEU:HG	1:N:513:ARG:HH21	1.69	0.58
1:K:392:ARG:HD2	1:K:484:PHE:CD2	2.39	0.58
1:L:178:LYS:HZ3	1:L:388:VAL:HG13	1.67	0.58
1:N:163:LYS:O	1:N:166:PHE:HB2	2.04	0.58
1:O:58:LEU:HB3	1:O:72:VAL:CG1	2.34	0.58
1:O:159:LEU:HD23	1:O:163:LYS:HG2	1.86	0.58
1:O:205:PHE:HA	1:O:359:THR:CB	2.34	0.58
1:B:174:VAL:HG11	1:B:384:LEU:HB2	1.85	0.57
1:C:452:LEU:HD13	1:C:465:LEU:CD2	2.34	0.57
1:D:280:ARG:HD2	1:D:302:ALA:O	2.04	0.57
1:F:198:ASP:HA	1:F:363:ARG:HB2	1.86	0.57
1:H:176:ARG:HD2	1:H:358:CYS:SG	2.44	0.57
1:I:106:LYS:NZ	1:I:421:VAL:HG21	2.19	0.57
1:I:219:ILE:HD12	1:I:275:ASN:HB3	1.86	0.57
1:J:146:LEU:HD12	1:J:171:VAL:HG22	1.86	0.57
1:M:30:LEU:HD13	1:M:436:ILE:HD11	1.86	0.57
1:P:32:PRO:N	1:P:156:SER:HA	2.19	0.57
1:A:340:MET:SD	1:A:340:MET:N	2.77	0.57
1:C:58:LEU:HB3	1:C:72:VAL:CG1	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2:GLY:HA3	1:D:508:ILE:HG21	1.86	0.57
1:F:508:ILE:O	1:F:509:LYS:HB3	2.03	0.57
1:G:166:PHE:CZ	1:G:198:ASP:HB3	2.39	0.57
1:H:148:ASN:HA	1:H:479:GLY:C	2.24	0.57
1:H:408:VAL:HA	1:H:411:LEU:HD12	1.85	0.57
1:H:480:ILE:H	1:H:480:ILE:CD1	2.17	0.57
1:J:216:PRO:HG2	1:J:295:GLY:HA2	1.87	0.57
1:K:141:LYS:CD	1:K:144:GLN:HB2	2.33	0.57
1:P:39:LEU:O	1:P:48:LEU:HA	2.03	0.57
1:P:112:THR:CB	1:P:418:LYS:HZ1	2.18	0.57
1:A:185:ALA:CA	1:A:309:ARG:HB3	2.33	0.57
1:B:106:LYS:HZ1	1:B:108:ILE:HG21	1.70	0.57
1:D:506:ASN:O	1:D:507:ILE:HB	2.04	0.57
1:E:38:ILE:O	1:E:38:ILE:HD13	2.05	0.57
1:F:128:LEU:HD22	1:F:488:ARG:HG2	1.86	0.57
1:F:396:GLY:HA3	1:F:480:ILE:HG22	1.86	0.57
1:F:451:GLN:HE22	1:F:471:THR:HA	1.69	0.57
1:G:222:ALA:HA	1:G:275:ASN:OD1	2.03	0.57
1:K:146:LEU:HD22	1:K:167:THR:HG23	1.85	0.57
1:L:376:SER:O	1:L:379:ASP:HB2	2.05	0.57
1:L:434:PRO:HB3	1:L:452:LEU:CD2	2.34	0.57
1:M:211:ILE:HG12	1:M:215:GLN:OE1	2.04	0.57
1:O:124:ALA:O	1:O:128:LEU:HG	2.04	0.57
1:P:185:ALA:HA	1:P:309:ARG:HD3	1.85	0.57
1:A:59:LYS:HE3	1:A:73:ASP:HA	1.87	0.57
1:C:162:HIS:HB3	1:C:198:ASP:OD2	2.02	0.57
1:C:211:ILE:HG13	1:C:298:ALA:O	2.04	0.57
1:D:163:LYS:HG3	1:D:166:PHE:CG	2.39	0.57
1:D:334:LYS:HB3	1:D:351:GLY:HA3	1.87	0.57
1:E:367:GLN:CG	1:E:369:ILE:HB	2.34	0.57
1:F:32:PRO:HA	1:F:155:SER:CB	2.34	0.57
1:H:154:LEU:HD22	1:H:167:THR:HB	1.86	0.57
1:J:367:GLN:CG	1:J:369:ILE:HB	2.34	0.57
1:J:435:THR:HG23	1:J:445:SER:HB3	1.85	0.57
1:K:46:ALA:O	1:K:47:SER:HB3	2.04	0.57
1:K:51:THR:HG21	1:K:56:THR:HB	1.87	0.57
1:K:216:PRO:HG2	1:K:295:GLY:HA2	1.87	0.57
1:K:305:VAL:HG22	1:K:309:ARG:NH1	2.19	0.57
1:L:448:LEU:HD21	1:L:465:LEU:CD1	2.34	0.57
1:M:280:ARG:HD2	1:M:304:PHE:HB2	1.87	0.57
1:N:191:LYS:HE3	1:N:346:LEU:CD2	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:103:LEU:HD22	1:O:113:ILE:HD13	1.86	0.57
1:O:231:MET:HG3	1:O:283:ILE:HG13	1.85	0.57
1:A:231:MET:HG3	1:A:283:ILE:HG13	1.87	0.57
1:B:352:VAL:HG22	1:B:355:GLY:H	1.69	0.57
1:D:146:LEU:CD2	1:D:150:ALA:HB3	2.26	0.57
1:E:245:VAL:HG11	1:E:251:VAL:HB	1.86	0.57
1:H:154:LEU:HD11	1:H:163:LYS:CG	2.34	0.57
1:H:176:ARG:HH12	1:H:201:LEU:HD21	1.69	0.57
1:K:31:GLY:O	1:K:156:SER:HA	2.05	0.57
1:L:38:ILE:CG1	1:M:504:VAL:HG11	2.33	0.57
1:M:365:ALA:HB3	1:M:367:GLN:HE22	1.69	0.57
1:O:132:ALA:CB	1:O:461:THR:HG21	2.31	0.57
1:O:207:LEU:HD22	1:O:208:ASP:N	2.18	0.57
1:O:211:ILE:HB	1:O:215:GLN:OE1	2.04	0.57
1:O:325:PRO:C	1:O:326:GLU:HG3	2.25	0.57
1:P:284:TYR:O	1:P:287:PRO:HD2	2.03	0.57
1:B:159:LEU:HG	1:B:163:LYS:HG2	1.85	0.57
1:C:123:ALA:HA	1:C:126:GLN:HG2	1.86	0.57
1:D:145:ASP:O	1:D:171:VAL:HG11	2.04	0.57
1:D:154:LEU:HD22	1:D:167:THR:HB	1.86	0.57
1:F:126:GLN:O	1:F:130:ASN:HB2	2.04	0.57
1:F:327:LEU:HD22	1:F:327:LEU:H	1.69	0.57
1:G:277:PHE:O	1:G:298:ALA:HA	2.05	0.57
1:I:140:VAL:HG22	1:I:175:LEU:HD13	1.87	0.57
1:I:191:LYS:HG3	1:I:192:LEU:N	2.19	0.57
1:K:209:LYS:HE2	1:K:301:HIS:O	2.03	0.57
1:L:176:ARG:NH2	1:L:360:ILE:HG12	2.19	0.57
1:M:158:LEU:HD13	1:O:503:ARG:HH22	1.69	0.57
1:M:341:ILE:HG23	1:M:363:ARG:NH2	2.19	0.57
1:N:150:ALA:O	1:N:154:LEU:HD13	2.04	0.57
1:N:325:PRO:C	1:N:326:GLU:HG3	2.24	0.57
1:N:509:LYS:HG2	1:N:510:ALA:H	1.70	0.57
1:P:114:ILE:HA	1:P:117:TRP:CE3	2.40	0.57
1:P:163:LYS:HG2	1:P:163:LYS:O	2.05	0.57
1:A:334:LYS:CG	1:A:351:GLY:HA3	2.35	0.57
1:B:126:GLN:HE22	1:B:411:LEU:HD21	1.70	0.57
1:D:381:LEU:HD22	1:D:381:LEU:O	2.05	0.57
1:E:125:ARG:HA	1:E:128:LEU:HD12	1.86	0.57
1:E:434:PRO:HB3	1:E:452:LEU:CD2	2.35	0.57
1:G:283:ILE:HG22	1:G:300:GLU:CG	2.34	0.57
1:I:48:LEU:H	1:I:48:LEU:HD12	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:188:VAL:CG2	1:K:377:LEU:HD21	2.35	0.57
1:L:394:VAL:HG21	1:L:487:LYS:HG3	1.87	0.57
1:L:408:VAL:HA	1:L:411:LEU:HD12	1.86	0.57
1:M:126:GLN:HE22	1:M:411:LEU:CD1	2.18	0.57
1:N:143:ARG:NE	1:N:143:ARG:HA	2.19	0.57
1:N:506:ASN:O	1:N:507:ILE:HB	2.03	0.57
1:O:324:HIS:HB2	1:O:329:LYS:NZ	2.20	0.57
1:P:146:LEU:HG	1:P:171:VAL:CG1	2.35	0.57
1:P:206:LEU:HD12	1:P:361:VAL:CG2	2.27	0.57
1:C:276:CYS:HA	1:C:297:MET:O	2.04	0.57
1:D:365:ALA:O	1:D:366:THR:HG22	2.04	0.57
1:F:276:CYS:HA	1:F:297:MET:O	2.05	0.57
1:G:146:LEU:HD22	1:G:168:LYS:CA	2.33	0.57
1:G:171:VAL:O	1:G:175:LEU:HG	2.03	0.57
1:G:203:GLU:HG2	1:G:350:SER:CB	2.35	0.57
1:H:128:LEU:C	1:H:129:LEU:HG	2.24	0.57
1:I:114:ILE:HD11	1:I:502:LEU:HB3	1.85	0.57
1:M:82:VAL:CG1	1:M:83:GLY:H	2.14	0.57
1:M:475:MET:SD	1:M:480:ILE:HB	2.45	0.57
1:N:188:VAL:HG21	1:N:377:LEU:CD2	2.26	0.57
1:N:205:PHE:HA	1:N:359:THR:OG1	2.03	0.57
1:P:192:LEU:HA	1:P:366:THR:HG22	1.85	0.57
1:B:14:SER:O	1:B:17:ILE:HG22	2.05	0.57
1:C:324:HIS:HB2	1:C:329:LYS:CE	2.35	0.57
1:G:141:LYS:HG2	1:G:144:GLN:HB2	1.85	0.57
1:H:5:GLU:O	1:H:5:GLU:HG2	2.05	0.57
1:I:145:ASP:O	1:I:171:VAL:HG11	2.04	0.57
1:I:402:MET:SD	1:I:456:HIS:HB2	2.45	0.57
1:J:114:ILE:HA	1:J:117:TRP:CZ3	2.40	0.57
1:M:159:LEU:HB3	1:M:163:LYS:HB2	1.86	0.57
1:M:232:ASP:HA	1:M:284:TYR:HB2	1.85	0.57
1:N:163:LYS:HA	1:N:166:PHE:CD1	2.40	0.57
1:N:313:VAL:HG22	1:N:357:ALA:HB3	1.87	0.57
1:O:276:CYS:HA	1:O:297:MET:O	2.05	0.57
1:P:32:PRO:HA	1:P:156:SER:HA	1.86	0.57
1:B:159:LEU:CD1	1:B:372:GLU:HG2	2.34	0.57
1:C:161:HIS:CG	1:C:162:HIS:H	2.22	0.57
1:C:225:LEU:HD13	1:C:329:LYS:CE	2.34	0.57
1:D:22:ILE:HD12	1:D:90:THR:CG2	2.34	0.57
1:E:174:VAL:HG11	1:E:384:LEU:HB2	1.87	0.57
1:F:159:LEU:HD23	1:F:163:LYS:CG	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:367:GLN:H	1:G:370:LEU:HB2	1.69	0.57
1:H:365:ALA:H	1:H:370:LEU:HD22	1.70	0.57
1:I:96:LEU:HD13	1:I:97:LEU:N	2.19	0.57
1:L:103:LEU:HG	1:L:113:ILE:CD1	2.34	0.57
1:M:32:PRO:N	1:M:155:SER:HB3	2.20	0.57
1:O:231:MET:HB2	1:O:284:TYR:H	1.70	0.57
1:P:145:ASP:OD1	1:P:171:VAL:HB	2.04	0.57
1:P:153:THR:HG21	1:P:379:ASP:HB3	1.85	0.57
1:A:420:ALA:HB3	1:M:450:ALA:CB	2.35	0.56
1:B:154:LEU:HD22	1:B:167:THR:CB	2.33	0.56
1:D:116:GLY:HA3	1:D:422:ALA:HB1	1.87	0.56
1:E:163:LYS:O	1:E:166:PHE:HB2	2.05	0.56
1:G:52:ASN:H	1:G:375:ARG:CD	2.18	0.56
1:G:154:LEU:HD23	1:G:163:LYS:HG3	1.87	0.56
1:G:418:LYS:HG2	1:N:446:ALA:HB1	1.86	0.56
1:I:173:ALA:O	1:I:176:ARG:HG2	2.05	0.56
1:J:367:GLN:O	1:J:370:LEU:HB3	2.05	0.56
1:M:190:LYS:HB2	1:M:370:LEU:HG	1.85	0.56
1:N:231:MET:HB2	1:N:284:TYR:H	1.69	0.56
1:O:78:GLN:HG2	1:O:83:GLY:HA3	1.86	0.56
1:P:274:ILE:HG23	1:P:296:VAL:HG21	1.88	0.56
1:B:6:GLU:H	1:B:506:ASN:HD22	1.53	0.56
1:B:78:GLN:HE22	1:B:489:GLN:HB2	1.69	0.56
1:B:126:GLN:O	1:B:130:ASN:HB2	2.05	0.56
1:B:210:LYS:HD3	1:B:345:LYS:HG2	1.87	0.56
1:H:174:VAL:HG11	1:H:384:LEU:HB2	1.86	0.56
1:K:163:LYS:HD2	1:K:166:PHE:CG	2.40	0.56
1:M:188:VAL:HB	1:M:377:LEU:CD2	2.34	0.56
1:O:364:GLY:HA3	1:O:370:LEU:HD12	1.87	0.56
1:A:58:LEU:HB3	1:A:72:VAL:HG13	1.86	0.56
1:B:32:PRO:HG2	1:B:467:MET:HE3	1.87	0.56
1:B:166:PHE:CZ	1:B:198:ASP:HB3	2.40	0.56
1:C:89:VAL:HG12	1:C:490:VAL:HB	1.87	0.56
1:D:448:LEU:C	1:D:448:LEU:HD13	2.26	0.56
1:D:475:MET:SD	1:D:480:ILE:HB	2.45	0.56
1:D:507:ILE:O	1:D:507:ILE:HD13	2.04	0.56
1:F:154:LEU:CD2	1:F:167:THR:HB	2.35	0.56
1:F:266:VAL:HB	1:F:290:LEU:HD21	1.87	0.56
1:F:438:ALA:CB	1:F:448:LEU:HG	2.35	0.56
1:G:81:GLU:O	1:G:82:VAL:HB	2.05	0.56
1:G:287:PRO:O	1:G:291:PHE:HD1	1.89	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:343:GLU:HG3	1:H:344:ASP:H	1.69	0.56
1:I:7:ARG:NH2	1:O:513:ARG:HH21	2.03	0.56
1:I:159:LEU:HD22	1:I:159:LEU:N	2.20	0.56
1:I:376:SER:O	1:I:379:ASP:HB2	2.06	0.56
1:J:159:LEU:HD23	1:J:160:THR:N	2.19	0.56
1:K:161:HIS:CD2	1:K:162:HIS:H	2.23	0.56
1:K:166:PHE:CZ	1:K:198:ASP:HB3	2.40	0.56
1:K:324:HIS:O	1:K:328:VAL:HG23	2.06	0.56
1:L:146:LEU:HD12	1:L:171:VAL:CG1	2.35	0.56
1:L:219:ILE:HD11	1:L:336:ILE:HB	1.87	0.56
1:M:37:LYS:NZ	1:O:504:VAL:HA	2.19	0.56
1:N:475:MET:SD	1:N:480:ILE:HB	2.45	0.56
1:O:66:PRO:HA	1:O:507:ILE:HG22	1.87	0.56
1:P:192:LEU:HB2	1:P:343:GLU:HG2	1.87	0.56
1:A:106:LYS:HE2	1:A:113:ILE:HD11	1.87	0.56
1:A:173:ALA:HA	1:A:176:ARG:CZ	2.36	0.56
1:A:368:GLN:O	1:A:371:ASP:HB2	2.06	0.56
1:C:163:LYS:HD2	1:C:166:PHE:CG	2.41	0.56
1:C:365:ALA:HB3	1:C:367:GLN:HE22	1.69	0.56
1:C:513:ARG:H	1:C:513:ARG:HD3	1.70	0.56
1:D:342:GLY:O	1:D:343:GLU:HB2	2.05	0.56
1:I:146:LEU:HD13	1:I:167:THR:O	2.05	0.56
1:I:334:LYS:HD3	1:I:351:GLY:HA3	1.86	0.56
1:J:106:LYS:C	1:J:107:LYS:HG2	2.26	0.56
1:K:178:LYS:NZ	1:K:388:VAL:HG21	2.20	0.56
1:A:192:LEU:O	1:A:343:GLU:HB2	2.06	0.56
1:C:38:ILE:HG22	1:C:50:VAL:HB	1.88	0.56
1:C:179:GLY:O	1:C:389:LYS:HE2	2.05	0.56
1:E:334:LYS:CG	1:E:351:GLY:HA3	2.36	0.56
1:E:390:ASP:CB	1:E:485:GLN:HE22	2.18	0.56
1:E:450:ALA:HB1	1:J:417:GLY:C	2.25	0.56
1:F:24:ASP:O	1:F:27:LYS:HG2	2.06	0.56
1:F:408:VAL:HA	1:F:411:LEU:HD12	1.87	0.56
1:F:446:ALA:O	1:O:418:LYS:HB3	2.06	0.56
1:G:114:ILE:HA	1:G:117:TRP:CZ3	2.41	0.56
1:G:412:ALA:CB	1:G:424:GLU:HB3	2.35	0.56
1:G:415:THR:O	1:G:420:ALA:HB2	2.06	0.56
1:H:185:ALA:HA	1:H:309:ARG:CD	2.35	0.56
1:K:111:GLN:O	1:K:114:ILE:HB	2.06	0.56
1:K:433:LEU:O	1:K:436:ILE:HG22	2.06	0.56
1:M:154:LEU:HD22	1:M:167:THR:CB	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:280:ARG:HD2	1:N:304:PHE:HB2	1.87	0.56
1:O:59:LYS:HE2	1:O:76:ARG:CB	2.36	0.56
1:O:101:GLU:O	1:O:104:ILE:HG12	2.05	0.56
1:P:500:VAL:O	1:P:501:ILE:HG23	2.05	0.56
1:A:159:LEU:HD12	1:A:369:ILE:CG2	2.23	0.56
1:A:185:ALA:HB2	1:A:309:ARG:HB3	1.88	0.56
1:A:185:ALA:CB	1:A:309:ARG:HB3	2.35	0.56
1:C:19:ALA:HB1	1:C:94:ALA:HA	1.88	0.56
1:C:173:ALA:CB	1:C:360:ILE:HD11	2.36	0.56
1:D:505:ASP:CB	1:H:37:LYS:HD2	2.35	0.56
1:H:316:GLY:O	1:H:330:LEU:HB2	2.06	0.56
1:K:266:VAL:HB	1:K:290:LEU:CD2	2.24	0.56
1:K:269:ILE:HG23	1:K:274:ILE:CG2	2.36	0.56
1:K:438:ALA:HB2	1:K:448:LEU:HG	1.87	0.56
1:K:485:GLN:HG2	1:K:488:ARG:HH21	1.70	0.56
1:L:431:ARG:HA	1:L:431:ARG:CZ	2.35	0.56
1:P:40:LEU:CG	1:P:48:LEU:HG	2.35	0.56
1:P:269:ILE:CG2	1:P:274:ILE:HG21	2.32	0.56
1:A:269:ILE:HG23	1:A:274:ILE:HG21	1.86	0.56
1:D:446:ALA:CB	1:K:108:ILE:HD13	2.35	0.56
1:D:485:GLN:HB3	1:D:489:GLN:HE22	1.70	0.56
1:F:128:LEU:CD1	1:F:488:ARG:HG2	2.36	0.56
1:H:51:THR:HG21	1:H:56:THR:HB	1.86	0.56
1:H:178:LYS:CB	1:H:388:VAL:HG21	2.36	0.56
1:J:239:PHE:HZ	1:K:238:ILE:HD12	1.71	0.56
1:L:10:THR:O	1:L:13:LEU:HB3	2.06	0.56
1:L:320:SER:HB3	1:P:259:LYS:HD2	1.87	0.56
1:M:154:LEU:HD22	1:M:167:THR:OG1	2.06	0.56
1:N:324:HIS:ND1	1:N:325:PRO:HD3	2.21	0.56
1:O:133:VAL:HG23	1:O:134:ASP:N	2.20	0.56
1:O:186:ILE:HD12	1:O:381:LEU:HG	1.86	0.56
1:P:222:ALA:HA	1:P:275:ASN:HB2	1.87	0.56
1:B:158:LEU:HD23	1:F:503:ARG:NH2	2.21	0.56
1:D:15:SER:HB3	1:D:501:ILE:HD13	1.87	0.56
1:E:188:VAL:HG11	1:E:377:LEU:HD21	1.87	0.56
1:G:155:SER:HA	1:G:160:THR:HG21	1.87	0.56
1:G:269:ILE:CG2	1:G:274:ILE:HG21	2.34	0.56
1:G:401:GLU:HG2	1:G:433:LEU:HD22	1.88	0.56
1:I:231:MET:HG3	1:I:283:ILE:HG13	1.88	0.56
1:K:337:GLU:HG3	1:K:339:VAL:HG23	1.87	0.56
1:M:103:LEU:O	1:M:106:LYS:HB3	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:372:GLU:O	1:N:375:ARG:HB3	2.06	0.56
1:P:206:LEU:HD21	1:P:348:HIS:CD2	2.41	0.56
1:A:140:VAL:HG22	1:A:178:LYS:HE3	1.86	0.56
1:A:411:LEU:HB3	1:A:423:MET:SD	2.45	0.56
1:B:176:ARG:NH2	1:B:201:LEU:HD21	2.11	0.56
1:B:211:ILE:HD11	1:B:297:MET:HG3	1.86	0.56
1:D:39:LEU:HD22	1:E:508:ILE:CG1	2.33	0.56
1:D:497:ALA:O	1:D:500:VAL:HG22	2.04	0.56
1:E:110:PRO:HA	1:E:113:ILE:HD12	1.87	0.56
1:E:237:LYS:O	1:E:238:ILE:HD13	2.05	0.56
1:F:57:ILE:HG23	1:F:58:LEU:CD2	2.36	0.56
1:G:30:LEU:HD11	1:G:87:THR:O	2.05	0.56
1:G:78:GLN:OE1	1:G:489:GLN:HB3	2.06	0.56
1:G:188:VAL:CG2	1:G:377:LEU:HD13	2.36	0.56
1:I:82:VAL:HG13	1:I:83:GLY:H	1.71	0.56
1:I:216:PRO:CG	1:I:295:GLY:HA2	2.35	0.56
1:J:225:LEU:HD11	1:J:324:HIS:ND1	2.21	0.56
1:K:30:LEU:HD11	1:K:87:THR:O	2.05	0.56
1:O:130:ASN:HD21	1:O:407:ALA:CB	2.17	0.56
1:O:130:ASN:O	1:O:131:SER:HB2	2.06	0.56
1:P:108:ILE:HG23	1:P:109:HIS:N	2.21	0.56
1:A:313:VAL:HG22	1:A:357:ALA:HB3	1.87	0.56
1:B:313:VAL:HG13	1:B:352:VAL:CB	2.33	0.56
1:C:145:ASP:OD1	1:C:171:VAL:HB	2.06	0.56
1:D:334:LYS:CB	1:D:351:GLY:HA3	2.36	0.56
1:E:190:LYS:HD2	1:E:370:LEU:HG	1.86	0.56
1:I:103:LEU:O	1:I:106:LYS:HB3	2.06	0.56
1:J:201:LEU:HD12	1:J:202:ASP:N	2.21	0.56
1:J:452:LEU:HD13	1:J:465:LEU:CD1	2.36	0.56
1:L:124:ALA:HB1	1:L:491:LEU:HD13	1.87	0.56
1:M:61:ILE:CG1	1:M:63:VAL:HG23	2.36	0.56
1:O:128:LEU:CD1	1:O:488:ARG:HG2	2.36	0.56
1:A:503:ARG:HH22	1:F:158:LEU:HD22	1.69	0.55
1:D:219:ILE:HB	1:D:275:ASN:HB3	1.87	0.55
1:D:390:ASP:HB3	1:D:485:GLN:NE2	2.20	0.55
1:E:171:VAL:HA	1:E:174:VAL:HG22	1.89	0.55
1:F:154:LEU:HD21	1:F:163:LYS:HG3	1.88	0.55
1:I:173:ALA:HA	1:I:176:ARG:CZ	2.36	0.55
1:J:148:ASN:HB3	1:J:481:THR:HG22	1.88	0.55
1:K:154:LEU:CD2	1:K:163:LYS:HG3	2.36	0.55
1:K:280:ARG:HD2	1:K:304:PHE:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:95:GLU:HG2	1:L:432:MET:SD	2.46	0.55
1:L:226:ILE:HA	1:L:278:ILE:O	2.06	0.55
1:N:173:ALA:O	1:N:176:ARG:HG2	2.06	0.55
1:N:386:GLN:HB3	1:N:485:GLN:OE1	2.06	0.55
1:P:111:GLN:HA	1:P:114:ILE:HG12	1.88	0.55
1:P:171:VAL:O	1:P:174:VAL:HG22	2.05	0.55
1:P:280:ARG:HD2	1:P:304:PHE:HB2	1.89	0.55
1:A:5:GLU:HG3	1:A:508:ILE:CG2	2.34	0.55
1:A:79:ASP:HA	1:A:83:GLY:HA2	1.87	0.55
1:A:123:ALA:HA	1:A:126:GLN:HG2	1.88	0.55
1:B:138:ASP:O	1:B:139:GLU:HB2	2.06	0.55
1:B:504:VAL:HG22	1:G:369:ILE:CG1	2.36	0.55
1:E:185:ALA:HA	1:E:309:ARG:CG	2.36	0.55
1:E:185:ALA:HA	1:E:309:ARG:HG2	1.89	0.55
1:F:287:PRO:O	1:F:291:PHE:HD2	1.89	0.55
1:F:334:LYS:CG	1:F:351:GLY:HA3	2.36	0.55
1:F:397:GLY:HA3	1:F:475:MET:CE	2.36	0.55
1:H:202:ASP:OD2	1:H:361:VAL:HG21	2.06	0.55
1:H:211:ILE:HD13	1:H:211:ILE:N	2.19	0.55
1:L:131:SER:OG	1:L:461:THR:HG21	2.06	0.55
1:O:114:ILE:HA	1:O:117:TRP:CZ3	2.41	0.55
1:O:280:ARG:HD2	1:O:304:PHE:HB2	1.88	0.55
1:B:106:LYS:O	1:B:107:LYS:HG2	2.06	0.55
1:B:146:LEU:HD13	1:B:167:THR:O	2.06	0.55
1:E:65:ASN:CG	1:E:66:PRO:HD3	2.26	0.55
1:F:171:VAL:O	1:F:174:VAL:HG22	2.06	0.55
1:F:417:GLY:HA3	1:O:450:ALA:HA	1.87	0.55
1:G:268:ARG:O	1:G:271:LYS:HG2	2.06	0.55
1:H:447:ASP:HA	1:P:417:GLY:C	2.27	0.55
1:I:114:ILE:HA	1:I:117:TRP:CZ3	2.41	0.55
1:J:162:HIS:HB3	1:J:198:ASP:OD2	2.06	0.55
1:K:226:ILE:HG12	1:K:278:ILE:HG23	1.88	0.55
1:L:369:ILE:HG23	1:L:372:GLU:OE1	2.05	0.55
1:O:85:GLY:HA2	1:O:153:THR:CG2	2.35	0.55
1:O:157:LYS:HD3	1:O:372:GLU:OE2	2.07	0.55
1:O:324:HIS:HB2	1:O:329:LYS:CE	2.36	0.55
1:P:157:LYS:HB3	1:P:159:LEU:CD1	2.35	0.55
1:B:199:SER:O	1:B:200:TYR:HD1	1.89	0.55
1:C:100:ALA:O	1:C:103:LEU:HB2	2.07	0.55
1:C:397:GLY:O	1:C:465:LEU:HG	2.05	0.55
1:C:418:LYS:H	1:L:450:ALA:CB	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:96:LEU:HD13	1:D:96:LEU:C	2.27	0.55
1:E:114:ILE:HD11	1:E:502:LEU:CD1	2.36	0.55
1:E:462:THR:O	1:E:475:MET:HB3	2.07	0.55
1:F:146:LEU:HD22	1:F:168:LYS:CA	2.36	0.55
1:F:211:ILE:CD1	1:F:297:MET:HG3	2.32	0.55
1:G:32:PRO:N	1:G:156:SER:HA	2.20	0.55
1:H:145:ASP:OD1	1:H:171:VAL:HB	2.07	0.55
1:H:484:PHE:CE2	1:H:488:ARG:HD3	2.42	0.55
1:K:92:LEU:HD11	1:K:433:LEU:HG	1.89	0.55
1:K:115:ALA:O	1:K:119:GLU:HG2	2.06	0.55
1:K:216:PRO:CG	1:K:295:GLY:HA2	2.37	0.55
1:K:305:VAL:HG22	1:K:309:ARG:HH12	1.70	0.55
1:L:82:VAL:CG1	1:L:486:VAL:HG12	2.36	0.55
1:L:263:LYS:HA	1:L:266:VAL:HG12	1.88	0.55
1:N:159:LEU:HG	1:N:163:LYS:HG2	1.88	0.55
1:P:139:GLU:O	1:P:140:VAL:HB	2.07	0.55
1:P:310:LEU:O	1:P:313:VAL:HB	2.06	0.55
1:A:310:LEU:O	1:A:313:VAL:HB	2.06	0.55
1:B:188:VAL:CG2	1:B:377:LEU:HD13	2.36	0.55
1:B:322:PHE:HA	1:B:324:HIS:CD2	2.41	0.55
1:B:417:GLY:HA2	1:I:450:ALA:HB3	1.89	0.55
1:C:334:LYS:O	1:C:335:LEU:HB3	2.06	0.55
1:C:364:GLY:CA	1:C:370:LEU:HD11	2.36	0.55
1:E:154:LEU:CD2	1:E:163:LYS:HG3	2.35	0.55
1:F:111:GLN:HA	1:F:114:ILE:HG12	1.89	0.55
1:G:112:THR:HG21	1:G:418:LYS:HZ3	1.70	0.55
1:H:116:GLY:CA	1:H:422:ALA:HB1	2.37	0.55
1:I:367:GLN:HG2	1:I:369:ILE:HB	1.88	0.55
1:J:231:MET:HE1	1:J:265:LYS:HD3	1.87	0.55
1:J:234:ASP:CG	1:J:235:LYS:H	2.10	0.55
1:K:163:LYS:O	1:K:166:PHE:HB2	2.07	0.55
1:M:152:THR:O	1:M:155:SER:HB2	2.07	0.55
1:M:381:LEU:O	1:M:381:LEU:HD22	2.05	0.55
1:A:206:LEU:O	1:A:207:LEU:HG	2.06	0.55
1:D:35:MET:CE	1:E:111:GLN:HG2	2.35	0.55
1:D:152:THR:O	1:D:155:SER:HB2	2.07	0.55
1:F:126:GLN:HE22	1:F:411:LEU:HD21	1.72	0.55
1:F:417:GLY:HA2	1:F:420:ALA:HB3	1.88	0.55
1:G:51:THR:HG22	1:G:53:ASP:H	1.72	0.55
1:K:266:VAL:CB	1:K:290:LEU:HD21	2.28	0.55
1:L:435:THR:HG23	1:L:445:SER:OG	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:15:SER:HB2	1:O:501:ILE:CG2	2.35	0.55
1:O:146:LEU:HD13	1:O:171:VAL:CG1	2.36	0.55
1:O:222:ALA:HA	1:O:275:ASN:HB2	1.89	0.55
1:P:140:VAL:HA	1:P:175:LEU:HD22	1.89	0.55
1:P:274:ILE:HG23	1:P:296:VAL:CG2	2.37	0.55
1:A:114:ILE:HA	1:A:117:TRP:CE3	2.42	0.55
1:B:59:LYS:HE3	1:B:73:ASP:HA	1.88	0.55
1:B:431:ARG:O	1:B:434:PRO:HD2	2.07	0.55
1:C:399:CYS:SG	1:C:464:GLY:HA3	2.46	0.55
1:G:203:GLU:HG2	1:G:350:SER:HB2	1.89	0.55
1:H:317:GLU:HB3	1:H:329:LYS:HD3	1.88	0.55
1:I:452:LEU:HD22	1:I:465:LEU:HD11	1.88	0.55
1:J:58:LEU:HB3	1:J:72:VAL:CG1	2.37	0.55
1:J:274:ILE:O	1:J:296:VAL:HG22	2.07	0.55
1:J:402:MET:SD	1:J:456:HIS:HB2	2.47	0.55
1:O:192:LEU:HG	1:O:366:THR:HG21	1.88	0.55
1:A:106:LYS:HG2	1:A:108:ILE:CD1	2.37	0.55
1:B:324:HIS:ND1	1:B:325:PRO:HD3	2.21	0.55
1:D:88:SER:O	1:D:92:LEU:HD13	2.07	0.55
1:D:149:ILE:HB	1:D:481:THR:O	2.06	0.55
1:E:74:MET:O	1:E:77:VAL:HG12	2.06	0.55
1:F:38:ILE:HG22	1:F:50:VAL:HB	1.89	0.55
1:F:174:VAL:HG11	1:F:384:LEU:CB	2.36	0.55
1:H:114:ILE:HA	1:H:117:TRP:CE3	2.42	0.55
1:I:438:ALA:CB	1:I:448:LEU:HG	2.37	0.55
1:J:451:GLN:HE22	1:J:471:THR:HA	1.71	0.55
1:K:38:ILE:HG22	1:K:50:VAL:CG1	2.37	0.55
1:K:96:LEU:O	1:K:96:LEU:HD22	2.07	0.55
1:K:268:ARG:O	1:K:271:LYS:HG2	2.07	0.55
1:L:171:VAL:O	1:L:174:VAL:HG22	2.07	0.55
1:L:192:LEU:O	1:L:366:THR:HG21	2.07	0.55
1:M:104:ILE:HG13	1:M:105:ALA:N	2.21	0.55
1:M:116:GLY:O	1:M:119:GLU:HB2	2.06	0.55
1:O:14:SER:HB2	1:O:508:ILE:H	1.71	0.55
1:A:231:MET:HB2	1:A:284:TYR:H	1.71	0.55
1:A:390:ASP:HB3	1:A:485:GLN:HE22	1.72	0.55
1:B:504:VAL:HG11	1:B:507:ILE:HG12	1.88	0.55
1:E:166:PHE:CE2	1:E:362:LEU:HD22	2.41	0.55
1:E:452:LEU:HD13	1:E:465:LEU:CD1	2.37	0.55
1:E:475:MET:SD	1:E:480:ILE:HB	2.46	0.55
1:G:129:LEU:HD13	1:G:129:LEU:N	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:176:ARG:HH22	1:G:360:ILE:HG13	1.70	0.55
1:H:112:THR:HG21	1:H:418:LYS:HD2	1.88	0.55
1:H:222:ALA:HA	1:H:275:ASN:OD1	2.07	0.55
1:H:309:ARG:O	1:H:313:VAL:HG23	2.06	0.55
1:H:451:GLN:HE22	1:H:471:THR:HA	1.69	0.55
1:I:231:MET:HB2	1:I:284:TYR:H	1.72	0.55
1:J:84:ASP:OD2	1:J:379:ASP:HB2	2.07	0.55
1:K:171:VAL:CG1	1:K:384:LEU:HG	2.32	0.55
1:L:326:GLU:HG3	1:L:327:LEU:N	2.22	0.55
1:N:206:LEU:HD11	1:N:346:LEU:HD23	1.89	0.55
1:P:102:SER:O	1:P:105:ALA:HB3	2.06	0.55
1:A:116:GLY:O	1:A:119:GLU:HB2	2.06	0.55
1:A:509:LYS:HB3	1:F:61:ILE:CG2	2.21	0.55
1:A:509:LYS:HG2	1:F:63:VAL:HG21	1.88	0.55
1:B:431:ARG:HH21	1:B:434:PRO:HG2	1.71	0.55
1:C:437:ILE:HB	1:C:465:LEU:HD12	1.89	0.55
1:D:35:MET:SD	1:E:111:GLN:HG2	2.47	0.55
1:D:505:ASP:HB3	1:H:37:LYS:HD2	1.89	0.55
1:F:178:LYS:HZ3	1:F:388:VAL:HB	1.71	0.55
1:G:231:MET:HG3	1:G:283:ILE:HG13	1.89	0.55
1:H:274:ILE:O	1:H:274:ILE:HG23	2.07	0.55
1:I:219:ILE:HB	1:I:275:ASN:HB3	1.88	0.55
1:K:38:ILE:HD11	1:P:507:ILE:CD1	2.37	0.55
1:K:173:ALA:O	1:K:176:ARG:HG2	2.07	0.55
1:K:369:ILE:O	1:K:372:GLU:HB3	2.06	0.55
1:M:146:LEU:HD12	1:M:171:VAL:CG1	2.28	0.55
1:N:154:LEU:HD21	1:N:163:LYS:HG3	1.89	0.55
1:P:233:THR:O	1:P:234:ASP:HB3	2.07	0.55
1:B:231:MET:HG3	1:B:283:ILE:HG13	1.89	0.54
1:B:317:GLU:HB2	1:B:329:LYS:HD3	1.88	0.54
1:C:161:HIS:CD2	1:C:162:HIS:H	2.25	0.54
1:C:274:ILE:O	1:C:296:VAL:HG22	2.07	0.54
1:D:139:GLU:O	1:D:140:VAL:HB	2.07	0.54
1:D:146:LEU:HB2	1:D:171:VAL:HG21	1.89	0.54
1:D:235:LYS:HE2	1:D:239:PHE:CG	2.43	0.54
1:E:85:GLY:O	1:E:153:THR:HA	2.08	0.54
1:F:280:ARG:HD2	1:F:304:PHE:HB2	1.89	0.54
1:G:188:VAL:CG1	1:G:377:LEU:HD22	2.38	0.54
1:G:402:MET:HG2	1:G:431:ARG:HH22	1.73	0.54
1:H:450:ALA:HB3	1:P:417:GLY:O	2.07	0.54
1:I:326:GLU:HG3	1:I:327:LEU:H	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:154:LEU:CD2	1:J:163:LYS:HG3	2.38	0.54
1:J:324:HIS:CG	1:J:325:PRO:HD3	2.42	0.54
1:J:483:SER:O	1:J:486:VAL:HG22	2.06	0.54
1:K:236:ILE:HG23	1:K:237:LYS:N	2.21	0.54
1:K:312:LEU:O	1:K:354:LEU:HD22	2.06	0.54
1:N:185:ALA:HA	1:N:309:ARG:HD3	1.87	0.54
1:O:22:ILE:HD12	1:O:90:THR:CG2	2.37	0.54
1:B:287:PRO:O	1:B:291:PHE:HD1	1.90	0.54
1:C:55:ALA:O	1:C:59:LYS:HG3	2.08	0.54
1:E:321:THR:O	1:E:323:ASP:N	2.40	0.54
1:E:450:ALA:HB1	1:J:417:GLY:HA2	1.89	0.54
1:G:139:GLU:O	1:G:140:VAL:HB	2.07	0.54
1:H:201:LEU:CD2	1:H:360:ILE:HG12	2.36	0.54
1:I:39:LEU:O	1:I:48:LEU:HA	2.07	0.54
1:I:57:ILE:HG23	1:I:58:LEU:HD23	1.89	0.54
1:L:89:VAL:HG12	1:L:490:VAL:HG23	1.90	0.54
1:L:367:GLN:C	1:L:369:ILE:H	2.11	0.54
1:M:217:LYS:HZ1	1:O:318:ILE:HD11	1.70	0.54
1:M:376:SER:O	1:M:379:ASP:HB2	2.07	0.54
1:N:160:THR:HA	1:N:163:LYS:HB3	1.89	0.54
1:A:59:LYS:HE2	1:A:76:ARG:CB	2.38	0.54
1:A:75:SER:O	1:A:78:GLN:HB3	2.06	0.54
1:A:154:LEU:HD22	1:A:167:THR:HB	1.89	0.54
1:G:433:LEU:O	1:G:436:ILE:HG22	2.08	0.54
1:J:188:VAL:CG2	1:J:377:LEU:HD13	2.36	0.54
1:J:478:LEU:HB3	1:J:480:ILE:HD12	1.90	0.54
1:K:128:LEU:CD2	1:K:488:ARG:HG2	2.36	0.54
1:K:284:TYR:O	1:K:287:PRO:HD2	2.07	0.54
1:K:433:LEU:HB2	1:K:434:PRO:HD3	1.90	0.54
1:L:206:LEU:HD11	1:L:346:LEU:HD23	1.89	0.54
1:L:265:LYS:HE2	1:L:322:PHE:CZ	2.42	0.54
1:M:367:GLN:HB2	1:M:369:ILE:HB	1.90	0.54
1:A:268:ARG:HB3	1:A:271:LYS:HZ3	1.72	0.54
1:B:219:ILE:HB	1:B:275:ASN:HB3	1.89	0.54
1:C:258:GLU:OE2	1:C:284:TYR:HE2	1.91	0.54
1:C:372:GLU:O	1:C:375:ARG:HB3	2.07	0.54
1:E:57:ILE:HG23	1:E:58:LEU:HD23	1.88	0.54
1:E:171:VAL:O	1:E:175:LEU:HG	2.06	0.54
1:E:402:MET:SD	1:E:453:ARG:HA	2.47	0.54
1:F:371:ASP:O	1:F:374:GLU:HB3	2.08	0.54
1:G:368:GLN:HG3	1:G:368:GLN:O	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:149:ILE:N	1:H:481:THR:HG22	2.22	0.54
1:I:11:ALA:HB1	1:I:505:ASP:O	2.07	0.54
1:J:215:GLN:HG3	1:J:292:GLY:HA2	1.88	0.54
1:K:226:ILE:HB	1:K:317:GLU:OE2	2.07	0.54
1:L:27:LYS:NZ	1:L:439:ASP:HB3	2.23	0.54
1:N:434:PRO:HB3	1:N:452:LEU:CD2	2.37	0.54
1:O:225:LEU:HD13	1:O:329:LYS:CE	2.37	0.54
1:P:152:THR:HB	1:P:480:ILE:HG23	1.89	0.54
1:P:283:ILE:HG22	1:P:300:GLU:HG3	1.89	0.54
1:A:283:ILE:HG22	1:A:300:GLU:CG	2.36	0.54
1:A:509:LYS:HG2	1:F:63:VAL:CG2	2.37	0.54
1:B:265:LYS:O	1:B:269:ILE:HB	2.06	0.54
1:C:58:LEU:HB3	1:C:72:VAL:HG13	1.90	0.54
1:C:59:LYS:HE2	1:C:76:ARG:HB2	1.88	0.54
1:C:495:ALA:O	1:C:497:ALA:N	2.41	0.54
1:D:103:LEU:O	1:D:106:LYS:HB3	2.08	0.54
1:D:134:ASP:HA	1:D:395:TYR:CE2	2.43	0.54
1:D:448:LEU:HD11	1:D:465:LEU:HD11	1.90	0.54
1:E:231:MET:HB2	1:E:284:TYR:H	1.72	0.54
1:E:414:ARG:HA	1:E:414:ARG:NE	2.22	0.54
1:G:175:LEU:O	1:G:178:LYS:HD2	2.08	0.54
1:G:487:LYS:HA	1:G:490:VAL:HG12	1.88	0.54
1:H:185:ALA:HB1	1:H:357:ALA:HB1	1.88	0.54
1:H:364:GLY:HA3	1:H:370:LEU:CD2	2.38	0.54
1:I:146:LEU:HD12	1:I:171:VAL:CG1	2.27	0.54
1:K:112:THR:HG21	1:K:418:LYS:HE2	1.89	0.54
1:K:396:GLY:HA3	1:K:480:ILE:HG22	1.89	0.54
1:M:58:LEU:HD12	1:M:72:VAL:HG22	1.90	0.54
1:M:485:GLN:HB3	1:M:489:GLN:HE22	1.71	0.54
1:O:404:MET:HE2	1:O:430:LEU:HG	1.88	0.54
1:A:159:LEU:HD11	1:A:372:GLU:CD	2.28	0.54
1:B:154:LEU:CD2	1:B:163:LYS:HG3	2.37	0.54
1:D:146:LEU:HD13	1:D:167:THR:O	2.08	0.54
1:D:231:MET:HB2	1:D:284:TYR:H	1.72	0.54
1:E:442:GLY:CA	1:G:109:HIS:HB2	2.38	0.54
1:F:96:LEU:C	1:F:96:LEU:HD13	2.28	0.54
1:F:114:ILE:HA	1:F:117:TRP:CZ3	2.43	0.54
1:F:146:LEU:CD2	1:F:147:MET:H	2.19	0.54
1:G:71:LEU:HG	1:G:497:ALA:HB1	1.90	0.54
1:G:352:VAL:CG2	1:G:355:GLY:H	2.21	0.54
1:H:57:ILE:HG23	1:H:58:LEU:HD23	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:405:ALA:O	1:H:409:THR:HG22	2.07	0.54
1:J:32:PRO:HD2	1:J:467:MET:CE	2.38	0.54
1:M:58:LEU:HB3	1:M:72:VAL:CG1	2.37	0.54
1:M:124:ALA:O	1:M:128:LEU:HG	2.06	0.54
1:M:500:VAL:HA	1:M:503:ARG:HD2	1.89	0.54
1:P:171:VAL:HA	1:P:174:VAL:HG22	1.90	0.54
1:A:341:ILE:HG23	1:A:363:ARG:CZ	2.37	0.54
1:C:114:ILE:HD12	1:C:499:GLU:HG3	1.90	0.54
1:C:211:ILE:HG12	1:C:298:ALA:H	1.73	0.54
1:D:277:PHE:CE2	1:D:279:ASN:HB2	2.42	0.54
1:E:99:GLU:O	1:E:102:SER:HB2	2.07	0.54
1:E:284:TYR:O	1:E:287:PRO:HD2	2.08	0.54
1:H:287:PRO:O	1:H:291:PHE:HD2	1.91	0.54
1:H:337:GLU:HG3	1:H:339:VAL:HG23	1.90	0.54
1:I:334:LYS:CD	1:I:351:GLY:HA3	2.37	0.54
1:J:52:ASN:OD1	1:J:157:LYS:HG2	2.07	0.54
1:K:82:VAL:HG11	1:K:486:VAL:HA	1.88	0.54
1:K:219:ILE:HD12	1:K:275:ASN:HB3	1.89	0.54
1:L:287:PRO:O	1:L:291:PHE:HD1	1.90	0.54
1:L:324:HIS:HB2	1:L:329:LYS:HZ3	1.70	0.54
1:N:268:ARG:HH11	1:N:271:LYS:NZ	2.06	0.54
1:O:14:SER:HB2	1:O:508:ILE:N	2.23	0.54
1:O:183:LEU:HD13	1:O:381:LEU:CD1	2.34	0.54
1:P:242:ARG:O	1:P:243:VAL:HB	2.06	0.54
1:B:393:THR:HB	1:B:481:THR:OG1	2.08	0.54
1:E:119:GLU:OE1	1:E:423:MET:HE3	2.05	0.54
1:F:431:ARG:HH21	1:F:434:PRO:HG2	1.73	0.54
1:G:263:LYS:O	1:G:267:GLU:HG2	2.08	0.54
1:I:326:GLU:HG3	1:I:327:LEU:N	2.22	0.54
1:J:57:ILE:HG23	1:J:58:LEU:HD23	1.89	0.54
1:J:408:VAL:HA	1:J:411:LEU:HD12	1.90	0.54
1:L:127:ALA:HB2	1:L:404:MET:SD	2.48	0.54
1:N:345:LYS:O	1:N:346:LEU:HD12	2.07	0.54
1:N:452:LEU:HD13	1:N:465:LEU:CD1	2.38	0.54
1:O:149:ILE:HB	1:O:481:THR:O	2.08	0.54
1:P:268:ARG:HH11	1:P:268:ARG:CG	2.21	0.54
1:B:163:LYS:HE3	1:B:376:SER:HB3	1.89	0.54
1:B:368:GLN:HB3	1:F:496:GLU:HB3	1.90	0.54
1:F:453:ARG:HD2	1:O:417:GLY:HA2	1.89	0.54
1:G:219:ILE:CD1	1:G:276:CYS:HB2	2.38	0.54
1:H:21:ALA:O	1:H:25:LEU:HD23	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:99:GLU:O	1:I:103:LEU:HD13	2.06	0.54
1:I:324:HIS:ND1	1:I:325:PRO:HD3	2.23	0.54
1:K:150:ALA:O	1:K:154:LEU:HD13	2.08	0.54
1:O:65:ASN:N	1:O:66:PRO:HD2	2.22	0.54
1:O:103:LEU:O	1:O:106:LYS:HB3	2.08	0.54
1:P:312:LEU:HD22	1:P:354:LEU:HD22	1.90	0.54
1:P:313:VAL:HG13	1:P:352:VAL:CB	2.37	0.54
1:P:390:ASP:HB2	1:P:485:GLN:HE22	1.72	0.54
1:A:117:TRP:CD1	1:A:495:ALA:HA	2.42	0.54
1:C:99:GLU:O	1:C:103:LEU:HD13	2.08	0.54
1:D:146:LEU:HD12	1:D:171:VAL:CG1	2.31	0.54
1:F:41:SER:HB3	1:F:45:ASP:OD2	2.07	0.54
1:G:310:LEU:O	1:G:314:THR:HG22	2.07	0.54
1:J:204:GLY:HA3	1:J:349:PHE:O	2.08	0.54
1:K:57:ILE:HG23	1:K:58:LEU:HD23	1.89	0.54
1:K:338:GLU:HA	1:K:346:LEU:O	2.07	0.54
1:L:231:MET:HB2	1:L:284:TYR:H	1.73	0.54
1:M:40:LEU:HB2	1:M:48:LEU:HG	1.89	0.54
1:M:82:VAL:CG2	1:M:486:VAL:HG12	2.20	0.54
1:M:153:THR:HG21	1:M:379:ASP:CB	2.35	0.54
1:N:231:MET:HG3	1:N:283:ILE:HG13	1.90	0.54
1:N:402:MET:SD	1:N:453:ARG:HA	2.48	0.54
1:O:408:VAL:HG23	1:O:427:ALA:HB1	1.89	0.54
1:P:116:GLY:CA	1:P:422:ALA:HB1	2.38	0.54
1:P:330:LEU:CD2	1:P:330:LEU:N	2.71	0.54
1:P:352:VAL:HG22	1:P:355:GLY:H	1.73	0.54
1:A:188:VAL:HG13	1:A:377:LEU:CD2	2.38	0.53
1:A:451:GLN:NE2	1:A:471:THR:HA	2.23	0.53
1:A:508:ILE:H	1:F:39:LEU:HD22	1.73	0.53
1:D:385:ALA:O	1:D:388:VAL:HG22	2.08	0.53
1:E:57:ILE:HG23	1:E:58:LEU:CD2	2.38	0.53
1:F:198:ASP:C	1:F:363:ARG:HB2	2.29	0.53
1:H:191:LYS:O	1:H:370:LEU:HD21	2.08	0.53
1:J:148:ASN:HA	1:J:479:GLY:O	2.09	0.53
1:J:163:LYS:HZ1	1:J:376:SER:HB3	1.73	0.53
1:J:402:MET:HG2	1:J:431:ARG:HH22	1.73	0.53
1:N:438:ALA:CB	1:N:448:LEU:HG	2.38	0.53
1:O:146:LEU:CD2	1:O:167:THR:HG23	2.37	0.53
1:P:219:ILE:CD1	1:P:276:CYS:HB2	2.38	0.53
1:P:369:ILE:O	1:P:372:GLU:CB	2.56	0.53
1:B:280:ARG:HD2	1:B:304:PHE:HB2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:433:LEU:HA	1:B:436:ILE:HG22	1.89	0.53
1:C:154:LEU:HD22	1:C:167:THR:HB	1.90	0.53
1:D:59:LYS:HE2	1:D:76:ARG:HB2	1.90	0.53
1:D:146:LEU:HD21	1:D:150:ALA:CB	2.27	0.53
1:E:163:LYS:HD2	1:E:166:PHE:CG	2.43	0.53
1:F:32:PRO:HA	1:F:155:SER:HB3	1.91	0.53
1:F:327:LEU:HD13	1:F:327:LEU:N	2.22	0.53
1:H:6:GLU:HB2	1:H:10:THR:CG2	2.38	0.53
1:J:146:LEU:CD2	1:J:147:MET:H	2.22	0.53
1:K:500:VAL:O	1:K:504:VAL:HG23	2.08	0.53
1:M:317:GLU:HB2	1:M:329:LYS:HD3	1.89	0.53
1:N:145:ASP:O	1:N:171:VAL:HG11	2.09	0.53
1:N:438:ALA:HB2	1:N:448:LEU:HG	1.89	0.53
1:A:58:LEU:HB3	1:A:72:VAL:HG11	1.91	0.53
1:A:146:LEU:HG	1:A:171:VAL:CG1	2.39	0.53
1:A:176:ARG:NH2	1:A:201:LEU:HD21	2.23	0.53
1:B:99:GLU:CG	1:B:425:SER:HB2	2.38	0.53
1:E:32:PRO:HD2	1:E:467:MET:HE1	1.89	0.53
1:G:266:VAL:HB	1:G:290:LEU:CD2	2.30	0.53
1:H:5:GLU:HA	1:H:508:ILE:HA	1.89	0.53
1:I:53:ASP:HB3	1:I:375:ARG:CD	2.38	0.53
1:I:160:THR:HA	1:I:163:LYS:HB3	1.91	0.53
1:K:79:ASP:HA	1:K:83:GLY:HA2	1.91	0.53
1:K:190:LYS:HB2	1:K:370:LEU:CD1	2.39	0.53
1:K:452:LEU:HD13	1:K:465:LEU:CD1	2.39	0.53
1:L:435:THR:HG23	1:L:445:SER:CB	2.38	0.53
1:L:451:GLN:HE22	1:L:471:THR:HA	1.72	0.53
1:N:223:LYS:HB2	1:N:274:ILE:HA	1.89	0.53
1:N:274:ILE:HG23	1:N:296:VAL:CG2	2.38	0.53
1:O:59:LYS:HE3	1:O:73:ASP:HA	1.90	0.53
1:O:222:ALA:HA	1:O:275:ASN:OD1	2.08	0.53
1:P:30:LEU:HD22	1:P:436:ILE:HD13	1.91	0.53
1:P:54:GLY:O	1:P:58:LEU:HD23	2.07	0.53
1:P:183:LEU:HD13	1:P:381:LEU:HD11	1.90	0.53
1:P:448:LEU:HD11	1:P:465:LEU:CD1	2.37	0.53
1:B:140:VAL:HA	1:B:175:LEU:HD22	1.90	0.53
1:D:185:ALA:HB3	1:D:357:ALA:CB	2.39	0.53
1:E:316:GLY:C	1:E:317:GLU:HG2	2.28	0.53
1:F:159:LEU:HB3	1:F:369:ILE:HG22	1.89	0.53
1:F:324:HIS:HB2	1:F:329:LYS:CE	2.39	0.53
1:G:96:LEU:HD11	1:G:117:TRP:CZ2	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:317:GLU:HB3	1:G:329:LYS:HD3	1.90	0.53
1:H:117:TRP:CD1	1:H:499:GLU:HB3	2.43	0.53
1:H:146:LEU:HD12	1:H:171:VAL:CG1	2.29	0.53
1:H:425:SER:O	1:H:428:LYS:HG2	2.07	0.53
1:I:157:LYS:HG2	1:I:372:GLU:OE2	2.08	0.53
1:J:178:LYS:HZ3	1:J:388:VAL:HG21	1.73	0.53
1:L:191:LYS:HG3	1:L:193:GLY:H	1.73	0.53
1:M:145:ASP:OD1	1:M:171:VAL:HB	2.08	0.53
1:M:211:ILE:HD11	1:M:297:MET:HG3	1.90	0.53
1:O:280:ARG:O	1:O:281:GLN:HB3	2.08	0.53
1:P:123:ALA:O	1:P:126:GLN:HG2	2.09	0.53
1:B:110:PRO:O	1:B:113:ILE:HB	2.09	0.53
1:B:225:LEU:HD11	1:B:324:HIS:ND1	2.23	0.53
1:C:500:VAL:HB	1:C:503:ARG:HE	1.73	0.53
1:D:173:ALA:HA	1:D:176:ARG:CZ	2.38	0.53
1:D:509:LYS:O	1:H:40:LEU:HD11	2.09	0.53
1:E:39:LEU:CD1	1:E:57:ILE:HD11	2.39	0.53
1:E:367:GLN:HG2	1:E:369:ILE:HB	1.89	0.53
1:F:154:LEU:O	1:F:157:LYS:HB2	2.09	0.53
1:F:209:LYS:HD3	1:F:300:GLU:O	2.09	0.53
1:F:210:LYS:HE3	1:F:212:GLY:O	2.08	0.53
1:G:89:VAL:HG12	1:G:490:VAL:CG2	2.30	0.53
1:G:157:LYS:HB3	1:G:159:LEU:HD11	1.91	0.53
1:H:185:ALA:CB	1:H:357:ALA:HB1	2.36	0.53
1:K:181:GLY:O	1:K:182:ASN:HB3	2.08	0.53
1:K:225:LEU:HD11	1:K:324:HIS:ND1	2.24	0.53
1:K:255:GLU:HG3	1:K:256:HIS:N	2.22	0.53
1:L:4:ASP:OD1	1:L:508:ILE:HD13	2.07	0.53
1:L:211:ILE:HG23	1:L:298:ALA:O	2.08	0.53
1:N:110:PRO:O	1:N:113:ILE:HB	2.09	0.53
1:O:16:PHE:HA	1:O:97:LEU:HD23	1.89	0.53
1:P:141:LYS:HE2	1:P:144:GLN:HB2	1.91	0.53
1:P:363:ARG:O	1:P:370:LEU:HD21	2.08	0.53
1:A:146:LEU:HD12	1:A:171:VAL:HG13	1.89	0.53
1:A:274:ILE:HG23	1:A:296:VAL:CG2	2.39	0.53
1:B:40:LEU:HB2	1:B:48:LEU:CD2	2.37	0.53
1:C:341:ILE:HD11	1:C:348:HIS:HE1	1.70	0.53
1:D:191:LYS:HZ3	1:D:344:ASP:HB3	1.74	0.53
1:D:431:ARG:O	1:D:434:PRO:HD2	2.09	0.53
1:F:34:GLY:H	1:F:156:SER:HA	1.73	0.53
1:H:36:ASP:HB3	1:H:50:VAL:CG2	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:219:ILE:HB	1:H:275:ASN:HB3	1.91	0.53
1:H:417:GLY:N	1:P:450:ALA:HB3	2.24	0.53
1:J:146:LEU:HD23	1:J:148:ASN:H	1.74	0.53
1:L:231:MET:HG3	1:L:283:ILE:HG13	1.88	0.53
1:M:324:HIS:HB2	1:M:329:LYS:CE	2.38	0.53
1:N:367:GLN:HG2	1:N:369:ILE:H	1.73	0.53
1:O:503:ARG:O	1:O:504:VAL:HB	2.08	0.53
1:P:185:ALA:HB1	1:P:357:ALA:HB1	1.91	0.53
1:A:139:GLU:OE1	1:A:178:LYS:HD3	2.09	0.53
1:E:166:PHE:CZ	1:E:198:ASP:HB3	2.44	0.53
1:E:280:ARG:O	1:E:281:GLN:HB3	2.09	0.53
1:F:30:LEU:HG	1:F:87:THR:O	2.09	0.53
1:F:58:LEU:HB3	1:F:72:VAL:CG1	2.39	0.53
1:F:188:VAL:HG21	1:F:377:LEU:HD22	1.91	0.53
1:F:417:GLY:HA3	1:O:450:ALA:O	2.08	0.53
1:G:126:GLN:O	1:G:130:ASN:HB3	2.09	0.53
1:H:207:LEU:O	1:H:347:ILE:HG22	2.08	0.53
1:L:191:LYS:HZ2	1:L:346:LEU:HD11	1.73	0.53
1:N:334:LYS:HD3	1:N:335:LEU:HB2	1.90	0.53
1:N:369:ILE:HA	1:N:372:GLU:OE1	2.09	0.53
1:P:161:HIS:CD2	1:P:162:HIS:H	2.27	0.53
1:B:39:LEU:HD22	1:F:509:LYS:O	2.08	0.53
1:C:108:ILE:HG22	1:C:109:HIS:N	2.24	0.53
1:C:312:LEU:O	1:C:354:LEU:HD22	2.09	0.53
1:C:334:LYS:CB	1:C:351:GLY:HA3	2.38	0.53
1:C:451:GLN:HE22	1:C:471:THR:HA	1.73	0.53
1:D:245:VAL:HG12	1:D:247:SER:H	1.73	0.53
1:D:420:ALA:HB1	1:K:453:ARG:HH21	1.74	0.53
1:E:206:LEU:HG	1:E:361:VAL:HG22	1.90	0.53
1:H:178:LYS:HB2	1:H:388:VAL:HG21	1.91	0.53
1:H:211:ILE:HG23	1:H:298:ALA:O	2.09	0.53
1:J:508:ILE:HD12	1:N:63:VAL:HG11	1.91	0.53
1:K:82:VAL:HG13	1:K:486:VAL:HG12	1.90	0.53
1:L:119:GLU:OE1	1:L:119:GLU:HA	2.09	0.53
1:M:390:ASP:CB	1:M:485:GLN:HE22	2.22	0.53
1:O:82:VAL:HG22	1:O:486:VAL:HG12	1.91	0.53
1:A:125:ARG:O	1:A:128:LEU:HB2	2.09	0.53
1:A:263:LYS:HA	1:A:266:VAL:HG12	1.91	0.53
1:B:211:ILE:HG23	1:B:298:ALA:O	2.09	0.53
1:C:399:CYS:HA	1:C:456:HIS:NE2	2.24	0.53
1:C:407:ALA:O	1:C:411:LEU:HD13	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:266:VAL:HB	1:D:290:LEU:HD21	1.91	0.53
1:D:284:TYR:O	1:D:287:PRO:HD2	2.08	0.53
1:D:438:ALA:CB	1:D:448:LEU:HG	2.39	0.53
1:F:6:GLU:OE1	1:F:11:ALA:HA	2.09	0.53
1:F:59:LYS:HE3	1:F:73:ASP:HA	1.90	0.53
1:G:133:VAL:CG1	1:G:394:VAL:HG12	2.39	0.53
1:G:173:ALA:HB2	1:G:360:ILE:CD1	2.38	0.53
1:G:222:ALA:HA	1:G:275:ASN:HB2	1.91	0.53
1:I:280:ARG:HD2	1:I:304:PHE:HB2	1.89	0.53
1:J:504:VAL:HB	1:N:38:ILE:HG12	1.91	0.53
1:K:500:VAL:HA	1:K:503:ARG:NE	2.23	0.53
1:L:164:ASP:O	1:L:167:THR:HG22	2.09	0.53
1:M:503:ARG:HG3	1:M:504:VAL:HG23	1.90	0.53
1:N:75:SER:O	1:N:78:GLN:HB3	2.09	0.53
1:P:305:VAL:HG22	1:P:309:ARG:NH1	2.24	0.53
1:P:312:LEU:O	1:P:354:LEU:HD22	2.08	0.53
1:A:41:SER:O	1:A:45:ASP:HB2	2.09	0.53
1:A:92:LEU:HD11	1:A:433:LEU:HD21	1.90	0.53
1:A:274:ILE:HG23	1:A:296:VAL:HG21	1.91	0.53
1:B:261:LYS:O	1:B:265:LYS:HG3	2.09	0.53
1:C:117:TRP:O	1:C:120:ALA:HB3	2.08	0.53
1:D:259:LYS:O	1:D:262:MET:HB3	2.09	0.53
1:E:143:ARG:HA	1:E:143:ARG:NE	2.24	0.53
1:F:159:LEU:HD23	1:F:163:LYS:CB	2.39	0.53
1:H:120:ALA:HA	1:H:123:ALA:HB3	1.91	0.53
1:H:450:ALA:HB2	1:P:420:ALA:CB	2.38	0.53
1:I:117:TRP:CD1	1:I:499:GLU:HG3	2.43	0.53
1:I:405:ALA:HA	1:I:408:VAL:HG22	1.91	0.53
1:J:129:LEU:N	1:J:129:LEU:HD22	2.23	0.53
1:K:96:LEU:HD13	1:K:97:LEU:N	2.24	0.53
1:M:30:LEU:HD13	1:M:436:ILE:CD1	2.38	0.53
1:M:149:ILE:HB	1:M:481:THR:O	2.08	0.53
1:M:496:GLU:O	1:M:500:VAL:HG13	2.08	0.53
1:N:27:LYS:HA	1:N:436:ILE:HD11	1.91	0.53
1:N:124:ALA:HB1	1:N:491:LEU:HD13	1.90	0.53
1:O:18:GLY:HA2	1:O:509:LYS:NZ	2.24	0.53
1:P:32:PRO:CA	1:P:156:SER:HA	2.39	0.53
1:P:226:ILE:HA	1:P:278:ILE:O	2.08	0.53
1:P:324:HIS:HB2	1:P:329:LYS:HZ1	1.74	0.53
1:A:175:LEU:O	1:A:178:LYS:HE2	2.09	0.52
1:D:65:ASN:CG	1:D:66:PRO:HD3	2.29	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:188:VAL:HG21	1:D:362:LEU:HG	1.91	0.52
1:G:310:LEU:O	1:G:313:VAL:HB	2.10	0.52
1:H:277:PHE:O	1:H:298:ALA:HA	2.10	0.52
1:H:312:LEU:O	1:H:354:LEU:HD22	2.09	0.52
1:I:284:TYR:O	1:I:287:PRO:HD2	2.08	0.52
1:J:209:LYS:HE2	1:J:301:HIS:O	2.09	0.52
1:L:28:SER:O	1:L:34:GLY:HA2	2.09	0.52
1:L:321:THR:N	1:P:259:LYS:HE3	2.25	0.52
1:M:61:ILE:HG13	1:M:63:VAL:HG23	1.91	0.52
1:M:324:HIS:HB2	1:M:329:LYS:HE2	1.91	0.52
1:N:127:ALA:H	1:N:130:ASN:HD21	1.57	0.52
1:N:191:LYS:HD3	1:N:192:LEU:H	1.74	0.52
1:O:381:LEU:O	1:O:381:LEU:HD22	2.09	0.52
1:A:334:LYS:HD2	1:A:351:GLY:HA3	1.91	0.52
1:C:146:LEU:HD13	1:C:168:LYS:HA	1.91	0.52
1:C:216:PRO:HG2	1:C:295:GLY:HA2	1.90	0.52
1:C:345:LYS:C	1:C:346:LEU:HD12	2.30	0.52
1:F:27:LYS:HA	1:F:436:ILE:HD11	1.91	0.52
1:F:57:ILE:HG23	1:F:58:LEU:HD23	1.92	0.52
1:G:52:ASN:CG	1:G:375:ARG:HD2	2.29	0.52
1:I:75:SER:O	1:I:78:GLN:HB3	2.09	0.52
1:J:131:SER:OG	1:J:403:LEU:HD21	2.08	0.52
1:J:508:ILE:HG21	1:N:63:VAL:CG1	2.37	0.52
1:M:68:ALA:O	1:M:72:VAL:HG23	2.08	0.52
1:M:185:ALA:HA	1:M:309:ARG:CD	2.40	0.52
1:O:117:TRP:CD1	1:O:499:GLU:HB2	2.44	0.52
1:O:157:LYS:HB3	1:O:159:LEU:CD1	2.34	0.52
1:A:341:ILE:O	1:A:343:GLU:N	2.39	0.52
1:B:64:ASP:OD2	1:B:66:PRO:HD2	2.10	0.52
1:B:82:VAL:HG11	1:B:486:VAL:HA	1.90	0.52
1:B:106:LYS:NZ	1:B:108:ILE:HG21	2.24	0.52
1:C:168:LYS:O	1:C:171:VAL:HG22	2.09	0.52
1:C:380:ALA:O	1:C:384:LEU:HD22	2.08	0.52
1:E:30:LEU:HD11	1:E:87:THR:O	2.09	0.52
1:E:250:LYS:O	1:E:253:GLU:HG2	2.10	0.52
1:H:146:LEU:HD13	1:H:167:THR:O	2.09	0.52
1:H:154:LEU:HD11	1:H:163:LYS:HG3	1.92	0.52
1:I:145:ASP:OD2	1:I:175:LEU:HD11	2.09	0.52
1:I:345:LYS:C	1:I:346:LEU:HD12	2.30	0.52
1:J:163:LYS:O	1:J:166:PHE:HB2	2.09	0.52
1:J:402:MET:CE	1:J:453:ARG:HG2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:451:GLN:HE22	1:P:471:THR:HA	1.75	0.52
1:A:390:ASP:HB3	1:A:485:GLN:OE1	2.09	0.52
1:B:32:PRO:HA	1:B:156:SER:N	2.23	0.52
1:C:122:LYS:NZ	1:C:411:LEU:HD23	2.24	0.52
1:E:29:THR:O	1:E:156:SER:HB3	2.09	0.52
1:E:78:GLN:HE22	1:E:489:GLN:CB	2.23	0.52
1:E:146:LEU:HD22	1:E:167:THR:HG23	1.90	0.52
1:E:169:LEU:HD11	1:E:201:LEU:HB2	1.92	0.52
1:F:3:ALA:CB	1:F:510:ALA:H	2.22	0.52
1:F:258:GLU:HA	1:F:261:LYS:HD3	1.91	0.52
1:H:174:VAL:HG21	1:H:384:LEU:HB3	1.92	0.52
1:H:447:ASP:O	1:P:417:GLY:HA2	2.09	0.52
1:J:40:LEU:HD23	1:J:48:LEU:HG	1.92	0.52
1:J:512:PRO:O	1:J:513:ARG:HB2	2.09	0.52
1:L:39:LEU:HD11	1:L:57:ILE:HD11	1.92	0.52
1:L:280:ARG:HG3	1:L:304:PHE:HB2	1.92	0.52
1:M:365:ALA:HB3	1:M:367:GLN:NE2	2.24	0.52
1:N:92:LEU:HD11	1:N:433:LEU:HD21	1.91	0.52
1:N:219:ILE:HB	1:N:275:ASN:HB3	1.92	0.52
1:N:408:VAL:HA	1:N:411:LEU:HD12	1.92	0.52
1:P:133:VAL:HG22	1:P:134:ASP:OD1	2.09	0.52
1:A:57:ILE:C	1:A:57:ILE:HD13	2.30	0.52
1:A:209:LYS:O	1:A:347:ILE:HG13	2.09	0.52
1:C:225:LEU:HD11	1:C:324:HIS:CE1	2.45	0.52
1:D:402:MET:HG2	1:D:431:ARG:NH2	2.24	0.52
1:F:324:HIS:HB2	1:F:329:LYS:HE2	1.92	0.52
1:F:412:ALA:HB1	1:F:424:GLU:HB3	1.92	0.52
1:I:28:SER:O	1:I:34:GLY:HA2	2.09	0.52
1:I:509:LYS:HA	1:O:40:LEU:HG	1.92	0.52
1:J:245:VAL:HG12	1:J:247:SER:O	2.08	0.52
1:L:189:ILE:HG22	1:L:190:LYS:H	1.75	0.52
1:M:201:LEU:O	1:M:201:LEU:HG	2.10	0.52
1:O:89:VAL:HG12	1:O:490:VAL:CG2	2.37	0.52
1:A:117:TRP:O	1:A:120:ALA:HB3	2.10	0.52
1:A:224:ILE:HD11	1:A:349:PHE:CE2	2.45	0.52
1:B:112:THR:HB	1:B:418:LYS:NZ	2.24	0.52
1:B:188:VAL:HG21	1:B:377:LEU:HD13	1.91	0.52
1:C:352:VAL:HG23	1:C:355:GLY:H	1.74	0.52
1:D:78:GLN:HG3	1:D:83:GLY:HA2	1.92	0.52
1:D:402:MET:HE1	1:D:406:HIS:HB2	1.91	0.52
1:E:280:ARG:O	1:E:280:ARG:HD3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:64:ASP:CG	1:G:66:PRO:HD2	2.30	0.52
1:G:352:VAL:HG22	1:G:355:GLY:H	1.75	0.52
1:I:146:LEU:CD2	1:I:147:MET:H	2.13	0.52
1:I:188:VAL:CG1	1:I:377:LEU:HD21	2.26	0.52
1:L:99:GLU:O	1:L:103:LEU:HD13	2.09	0.52
1:L:191:LYS:HZ2	1:L:344:ASP:HB3	1.75	0.52
1:N:38:ILE:HD12	1:N:48:LEU:CD2	2.39	0.52
1:N:284:TYR:O	1:N:287:PRO:HD2	2.09	0.52
1:N:431:ARG:O	1:N:434:PRO:HD2	2.10	0.52
1:O:64:ASP:C	1:O:66:PRO:HD2	2.30	0.52
1:B:219:ILE:HD11	1:B:336:ILE:HB	1.91	0.52
1:C:366:THR:HA	1:C:370:LEU:HD22	1.92	0.52
1:D:96:LEU:O	1:D:96:LEU:HD22	2.10	0.52
1:D:219:ILE:HD11	1:D:336:ILE:HB	1.91	0.52
1:E:32:PRO:HA	1:E:155:SER:OG	2.09	0.52
1:E:369:ILE:O	1:E:372:GLU:HB3	2.10	0.52
1:F:59:LYS:CE	1:F:76:ARG:HB2	2.39	0.52
1:G:38:ILE:HG13	1:G:39:LEU:H	1.74	0.52
1:H:99:GLU:O	1:H:103:LEU:HD13	2.09	0.52
1:I:398:GLY:HA3	1:I:465:LEU:HD23	1.91	0.52
1:K:280:ARG:HG3	1:K:304:PHE:HB2	1.92	0.52
1:L:163:LYS:HE3	1:L:376:SER:HB3	1.92	0.52
1:L:226:ILE:HD13	1:L:307:VAL:HG13	1.91	0.52
1:M:452:LEU:HD22	1:M:465:LEU:HD21	1.91	0.52
1:O:66:PRO:HG3	1:O:509:LYS:HG2	1.92	0.52
1:P:152:THR:OG1	1:P:480:ILE:HG23	2.10	0.52
1:P:219:ILE:HB	1:P:275:ASN:HB3	1.91	0.52
1:A:89:VAL:HG12	1:A:490:VAL:CG2	2.39	0.52
1:A:183:LEU:CB	1:A:186:ILE:HD12	2.40	0.52
1:A:442:GLY:HA2	1:C:109:HIS:ND1	2.24	0.52
1:C:32:PRO:HD2	1:C:467:MET:CE	2.39	0.52
1:D:109:HIS:CE1	1:D:111:GLN:HB2	2.45	0.52
1:E:79:ASP:HA	1:E:83:GLY:HA2	1.90	0.52
1:E:222:ALA:HA	1:E:275:ASN:OD1	2.10	0.52
1:E:233:THR:O	1:E:234:ASP:HB3	2.09	0.52
1:F:444:ASP:OD1	1:O:108:ILE:HD13	2.09	0.52
1:I:189:ILE:O	1:I:362:LEU:HB2	2.09	0.52
1:J:145:ASP:OD1	1:J:171:VAL:HB	2.08	0.52
1:J:228:ASN:ND2	1:J:319:ALA:HB3	2.24	0.52
1:J:324:HIS:HB2	1:J:329:LYS:HZ3	1.74	0.52
1:K:152:THR:OG1	1:K:480:ILE:HG13	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:128:LEU:C	1:L:129:LEU:HD13	2.29	0.52
1:L:372:GLU:O	1:L:375:ARG:HB3	2.10	0.52
1:L:432:MET:O	1:L:435:THR:HB	2.09	0.52
1:M:15:SER:HB2	1:M:501:ILE:HG21	1.90	0.52
1:M:58:LEU:HB3	1:M:72:VAL:HG13	1.92	0.52
1:P:100:ALA:HA	1:P:103:LEU:HD13	1.92	0.52
1:P:134:ASP:OD1	1:P:392:ARG:HA	2.09	0.52
1:P:157:LYS:HB2	1:P:159:LEU:HD21	1.90	0.52
1:A:53:ASP:HB2	1:A:375:ARG:HE	1.75	0.52
1:B:36:ASP:HB3	1:B:50:VAL:CG2	2.40	0.52
1:C:511:ALA:HB1	1:C:512:PRO:CD	2.40	0.52
1:D:511:ALA:N	1:D:512:PRO:HD2	2.23	0.52
1:F:188:VAL:HG23	1:F:360:ILE:O	2.10	0.52
1:G:485:GLN:HB2	1:G:489:GLN:HE22	1.75	0.52
1:H:127:ALA:HA	1:H:404:MET:SD	2.50	0.52
1:H:150:ALA:O	1:H:154:LEU:HB2	2.10	0.52
1:I:334:LYS:O	1:I:335:LEU:HB2	2.09	0.52
1:L:319:ALA:HA	1:L:329:LYS:HZ1	1.74	0.52
1:M:435:THR:O	1:M:439:ASP:HB2	2.09	0.52
1:N:352:VAL:HG22	1:N:355:GLY:H	1.74	0.52
1:O:6:GLU:HB3	1:O:11:ALA:HB2	1.92	0.52
1:O:14:SER:HB2	1:O:508:ILE:HA	1.92	0.52
1:O:50:VAL:HG11	1:O:368:GLN:NE2	2.24	0.52
1:O:433:LEU:HB2	1:O:434:PRO:HD3	1.92	0.52
1:P:57:ILE:HD13	1:P:57:ILE:C	2.29	0.52
1:P:74:MET:O	1:P:77:VAL:HG12	2.10	0.52
1:P:433:LEU:HA	1:P:436:ILE:HG22	1.92	0.52
1:A:133:VAL:CG2	1:A:392:ARG:HA	2.40	0.52
1:C:431:ARG:HH21	1:C:434:PRO:HG2	1.75	0.52
1:C:487:LYS:O	1:C:491:LEU:HG	2.10	0.52
1:F:206:LEU:HD22	1:F:207:LEU:N	2.25	0.52
1:F:398:GLY:HA2	1:F:401:GLU:OE1	2.10	0.52
1:F:434:PRO:HB3	1:F:452:LEU:CD2	2.40	0.52
1:F:452:LEU:HD22	1:F:465:LEU:HD11	1.91	0.52
1:G:130:ASN:O	1:G:131:SER:HB3	2.10	0.52
1:G:280:ARG:HD2	1:G:304:PHE:HB2	1.91	0.52
1:H:134:ASP:HB3	1:H:395:TYR:CZ	2.45	0.52
1:H:402:MET:HG2	1:H:431:ARG:HH22	1.75	0.52
1:H:431:ARG:HH21	1:H:434:PRO:HG2	1.75	0.52
1:I:174:VAL:HG21	1:I:384:LEU:HB3	1.92	0.52
1:I:310:LEU:O	1:I:314:THR:HG22	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:38:ILE:CD1	1:L:48:LEU:HD23	2.40	0.52
1:L:390:ASP:CB	1:L:485:GLN:HE22	2.22	0.52
1:M:219:ILE:HB	1:M:275:ASN:HB3	1.91	0.52
1:O:133:VAL:HG11	1:O:484:PHE:CE2	2.45	0.52
1:A:311:ALA:HA	1:A:314:THR:CG2	2.39	0.51
1:D:59:LYS:HE3	1:D:73:ASP:HA	1.92	0.51
1:D:143:ARG:NE	1:D:143:ARG:HA	2.25	0.51
1:G:38:ILE:HG22	1:G:50:VAL:HB	1.92	0.51
1:G:59:LYS:HE2	1:G:76:ARG:HE	1.75	0.51
1:G:96:LEU:O	1:G:96:LEU:HD22	2.09	0.51
1:H:200:TYR:CE1	1:H:363:ARG:HD2	2.46	0.51
1:H:317:GLU:HB3	1:H:329:LYS:HA	1.92	0.51
1:I:114:ILE:HA	1:I:117:TRP:CE3	2.45	0.51
1:K:154:LEU:HD23	1:K:163:LYS:HG3	1.91	0.51
1:M:334:LYS:CD	1:M:351:GLY:HA3	2.40	0.51
1:N:146:LEU:HD13	1:N:171:VAL:CG2	2.36	0.51
1:O:92:LEU:HD21	1:O:433:LEU:HD11	1.92	0.51
1:O:95:GLU:HA	1:O:98:ARG:HD2	1.91	0.51
1:O:334:LYS:HD3	1:O:351:GLY:HA3	1.90	0.51
1:O:397:GLY:HA3	1:O:475:MET:CE	2.40	0.51
1:P:161:HIS:CG	1:P:162:HIS:H	2.28	0.51
1:P:200:TYR:CD1	1:P:363:ARG:HD2	2.45	0.51
1:A:204:GLY:HA3	1:A:350:SER:HA	1.92	0.51
1:A:269:ILE:HG23	1:A:274:ILE:CG2	2.40	0.51
1:B:269:ILE:HG23	1:B:274:ILE:HG22	1.90	0.51
1:C:37:LYS:HB3	1:H:506:ASN:HB3	1.92	0.51
1:F:397:GLY:HA3	1:F:475:MET:HE1	1.92	0.51
1:H:274:ILE:O	1:H:296:VAL:HG22	2.10	0.51
1:K:225:LEU:HD11	1:K:324:HIS:CE1	2.45	0.51
1:M:452:LEU:HD13	1:M:465:LEU:CD1	2.40	0.51
1:O:18:GLY:HA2	1:O:509:LYS:HZ3	1.75	0.51
1:A:188:VAL:HG22	1:A:377:LEU:HD22	1.91	0.51
1:A:402:MET:HE2	1:A:453:ARG:HG2	1.92	0.51
1:E:32:PRO:HD2	1:E:467:MET:CE	2.40	0.51
1:E:185:ALA:HB1	1:E:357:ALA:HB1	1.93	0.51
1:E:192:LEU:H	1:E:192:LEU:HD12	1.76	0.51
1:E:210:LYS:HD2	1:E:345:LYS:HZ1	1.75	0.51
1:E:439:ASP:HB2	1:J:107:LYS:NZ	2.25	0.51
1:F:225:LEU:HD22	1:F:329:LYS:HD2	1.92	0.51
1:F:232:ASP:HA	1:F:284:TYR:HB2	1.91	0.51
1:G:225:LEU:CD1	1:G:329:LYS:HE2	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:334:LYS:HD2	1:G:351:GLY:HA3	1.93	0.51
1:G:364:GLY:HA3	1:G:370:LEU:CD1	2.40	0.51
1:H:231:MET:HG3	1:H:283:ILE:HG13	1.91	0.51
1:I:148:ASN:OD1	1:I:481:THR:HG22	2.09	0.51
1:I:285:ASN:HD22	1:N:318:ILE:HD12	1.76	0.51
1:J:216:PRO:CG	1:J:295:GLY:HA2	2.40	0.51
1:K:8:ALA:O	1:K:11:ALA:HB3	2.11	0.51
1:K:63:VAL:CG2	1:P:509:LYS:HE2	2.41	0.51
1:L:433:LEU:O	1:L:436:ILE:HG22	2.11	0.51
1:O:114:ILE:HD13	1:O:117:TRP:CZ3	2.46	0.51
1:P:340:MET:HE1	1:P:345:LYS:HE2	1.90	0.51
1:P:345:LYS:O	1:P:346:LEU:HD12	2.10	0.51
1:B:274:ILE:HG23	1:B:296:VAL:HG21	1.92	0.51
1:D:286:TYR:HB2	1:D:287:PRO:HD3	1.93	0.51
1:E:132:ALA:O	1:E:133:VAL:HG13	2.10	0.51
1:E:163:LYS:HE3	1:E:376:SER:OG	2.10	0.51
1:F:231:MET:HG2	1:F:279:ASN:HD22	1.76	0.51
1:G:219:ILE:HD11	1:G:336:ILE:HB	1.92	0.51
1:G:231:MET:HB2	1:G:284:TYR:H	1.76	0.51
1:G:240:GLY:O	1:G:241:SER:HB2	2.11	0.51
1:G:434:PRO:HB3	1:G:452:LEU:CD2	2.41	0.51
1:H:37:LYS:O	1:H:50:VAL:HA	2.09	0.51
1:H:189:ILE:HG22	1:H:190:LYS:N	2.26	0.51
1:H:390:ASP:HB3	1:H:485:GLN:CD	2.30	0.51
1:K:57:ILE:HG23	1:K:58:LEU:CD2	2.41	0.51
1:L:405:ALA:HA	1:L:408:VAL:HG22	1.93	0.51
1:O:219:ILE:HD11	1:O:336:ILE:HB	1.92	0.51
1:O:232:ASP:HA	1:O:284:TYR:CD1	2.46	0.51
1:P:122:LYS:HD3	1:P:423:MET:CE	2.40	0.51
1:A:226:ILE:HG12	1:A:278:ILE:CG2	2.40	0.51
1:A:448:LEU:HA	1:A:451:GLN:HE21	1.75	0.51
1:B:78:GLN:OE1	1:B:489:GLN:HB3	2.11	0.51
1:B:148:ASN:HA	1:B:479:GLY:O	2.10	0.51
1:C:191:LYS:HB3	1:C:363:ARG:HA	1.93	0.51
1:D:84:ASP:OD2	1:D:379:ASP:HA	2.11	0.51
1:E:177:LEU:HG	1:E:186:ILE:HD11	1.91	0.51
1:G:324:HIS:ND1	1:G:325:PRO:HD3	2.25	0.51
1:I:148:ASN:CG	1:I:481:THR:HG22	2.31	0.51
1:J:316:GLY:O	1:J:330:LEU:HB2	2.10	0.51
1:J:392:ARG:O	1:J:484:PHE:HB2	2.11	0.51
1:L:412:ALA:CB	1:L:424:GLU:HB3	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:182:ASN:HB3	1:M:184:GLU:HG2	1.92	0.51
1:P:283:ILE:HG22	1:P:300:GLU:CG	2.40	0.51
1:C:418:LYS:HD2	1:L:447:ASP:HA	1.92	0.51
1:E:28:SER:HB2	1:E:35:MET:HB2	1.93	0.51
1:E:191:LYS:HE2	1:E:344:ASP:HB3	1.92	0.51
1:F:114:ILE:CD1	1:F:502:LEU:HD12	2.41	0.51
1:G:380:ALA:O	1:G:384:LEU:HD23	2.10	0.51
1:G:438:ALA:CB	1:G:448:LEU:HG	2.40	0.51
1:H:452:LEU:HD22	1:H:465:LEU:HD21	1.91	0.51
1:I:216:PRO:HG2	1:I:295:GLY:CA	2.41	0.51
1:I:226:ILE:HD12	1:I:317:GLU:HG3	1.91	0.51
1:I:280:ARG:HG3	1:I:304:PHE:CA	2.40	0.51
1:J:110:PRO:C	1:J:502:LEU:HD21	2.31	0.51
1:J:402:MET:SD	1:J:453:ARG:HA	2.51	0.51
1:K:280:ARG:HG3	1:K:304:PHE:N	2.26	0.51
1:L:192:LEU:HA	1:L:366:THR:CG2	2.41	0.51
1:O:452:LEU:HD13	1:O:465:LEU:CD1	2.41	0.51
1:A:157:LYS:HB3	1:A:159:LEU:HD21	1.92	0.51
1:A:206:LEU:HD22	1:A:207:LEU:H	1.75	0.51
1:A:269:ILE:HG12	1:A:274:ILE:HG21	1.92	0.51
1:A:287:PRO:O	1:A:291:PHE:HD1	1.93	0.51
1:B:484:PHE:CE2	1:B:488:ARG:HD3	2.46	0.51
1:C:116:GLY:O	1:C:119:GLU:HB2	2.11	0.51
1:D:163:LYS:O	1:D:166:PHE:HB2	2.10	0.51
1:D:445:SER:O	1:D:449:VAL:HG23	2.10	0.51
1:E:241:SER:O	1:E:243:VAL:HG13	2.11	0.51
1:E:245:VAL:HB	1:E:251:VAL:HG21	1.92	0.51
1:F:96:LEU:O	1:F:96:LEU:HD22	2.10	0.51
1:F:159:LEU:CD2	1:F:163:LYS:HG2	2.41	0.51
1:G:364:GLY:HA3	1:G:370:LEU:HD11	1.92	0.51
1:H:283:ILE:HG22	1:H:300:GLU:CG	2.40	0.51
1:H:452:LEU:CD2	1:H:465:LEU:HD21	2.41	0.51
1:I:53:ASP:HB3	1:I:375:ARG:NE	2.25	0.51
1:I:434:PRO:HB3	1:I:452:LEU:CD2	2.41	0.51
1:J:59:LYS:HE2	1:J:76:ARG:CB	2.39	0.51
1:J:109:HIS:HB3	1:J:112:THR:OG1	2.11	0.51
1:K:163:LYS:HE3	1:K:376:SER:HB3	1.93	0.51
1:K:373:ALA:O	1:K:377:LEU:HB2	2.10	0.51
1:N:103:LEU:O	1:N:106:LYS:HB2	2.10	0.51
1:N:323:ASP:C	1:N:325:PRO:HD2	2.31	0.51
1:O:6:GLU:OE2	1:O:508:ILE:HG12	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:261:LYS:O	1:P:265:LYS:HG3	2.10	0.51
1:A:30:LEU:HD11	1:A:87:THR:O	2.10	0.51
1:A:64:ASP:HB2	1:A:66:PRO:HD2	1.92	0.51
1:A:163:LYS:HA	1:A:166:PHE:CD1	2.43	0.51
1:A:171:VAL:O	1:A:174:VAL:HG22	2.10	0.51
1:B:126:GLN:CD	1:B:411:LEU:HD11	2.31	0.51
1:B:191:LYS:HA	1:B:191:LYS:HE2	1.93	0.51
1:C:154:LEU:HD23	1:C:163:LYS:CG	2.38	0.51
1:D:371:ASP:O	1:D:374:GLU:HB3	2.10	0.51
1:D:438:ALA:HB2	1:D:448:LEU:HG	1.93	0.51
1:E:122:LYS:HG2	1:E:125:ARG:HE	1.76	0.51
1:E:245:VAL:HB	1:E:251:VAL:CG2	2.41	0.51
1:F:413:SER:HB3	1:O:406:HIS:ND1	2.26	0.51
1:G:59:LYS:HE2	1:G:76:ARG:CB	2.40	0.51
1:G:145:ASP:OD2	1:G:175:LEU:HD11	2.10	0.51
1:G:274:ILE:HG23	1:G:296:VAL:HG21	1.93	0.51
1:H:211:ILE:HD12	1:H:298:ALA:N	2.25	0.51
1:H:231:MET:HB2	1:H:283:ILE:HG13	1.93	0.51
1:I:324:HIS:HB2	1:I:329:LYS:HZ3	1.75	0.51
1:J:51:THR:HG21	1:J:56:THR:HB	1.92	0.51
1:K:99:GLU:O	1:K:102:SER:HB2	2.10	0.51
1:K:442:GLY:HA3	1:P:109:HIS:CG	2.45	0.51
1:L:408:VAL:HG23	1:L:427:ALA:HB1	1.92	0.51
1:M:222:ALA:HA	1:M:275:ASN:HB2	1.92	0.51
1:M:394:VAL:CG2	1:M:482:GLU:HB2	2.40	0.51
1:O:157:LYS:HB2	1:O:159:LEU:HD21	1.92	0.51
1:O:507:ILE:O	1:O:508:ILE:HB	2.10	0.51
1:P:222:ALA:HB1	1:P:336:ILE:HD12	1.93	0.51
1:P:372:GLU:O	1:P:375:ARG:HB3	2.11	0.51
1:A:369:ILE:O	1:A:372:GLU:CB	2.59	0.51
1:A:508:ILE:N	1:F:39:LEU:HD22	2.25	0.51
1:B:79:ASP:OD1	1:B:83:GLY:HA2	2.11	0.51
1:B:109:HIS:CE1	1:G:33:LYS:HD2	2.46	0.51
1:B:117:TRP:HE1	1:B:498:ALA:HB3	1.75	0.51
1:B:338:GLU:HG3	1:B:346:LEU:O	2.11	0.51
1:C:163:LYS:O	1:C:166:PHE:HB2	2.10	0.51
1:D:177:LEU:CD1	1:D:186:ILE:HD11	2.38	0.51
1:G:159:LEU:HD12	1:G:372:GLU:CD	2.32	0.51
1:H:104:ILE:HG13	1:H:105:ALA:N	2.25	0.51
1:H:185:ALA:HA	1:H:309:ARG:CG	2.40	0.51
1:I:146:LEU:HB2	1:I:171:VAL:CG1	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:402:MET:HE2	1:J:453:ARG:HG2	1.92	0.51
1:J:431:ARG:O	1:J:434:PRO:HD2	2.11	0.51
1:L:207:LEU:O	1:L:347:ILE:HG22	2.10	0.51
1:M:114:ILE:HA	1:M:117:TRP:CZ3	2.46	0.51
1:M:483:SER:HB2	1:M:486:VAL:HG13	1.91	0.51
1:N:204:GLY:O	1:N:359:THR:HB	2.11	0.51
1:O:66:PRO:HA	1:O:507:ILE:CG2	2.40	0.51
1:O:146:LEU:HD22	1:O:168:LYS:HA	1.93	0.51
1:O:205:PHE:HD1	1:O:359:THR:HG1	1.59	0.51
1:P:266:VAL:HB	1:P:290:LEU:CD2	2.36	0.51
1:D:283:ILE:HG22	1:D:300:GLU:HG3	1.93	0.51
1:D:402:MET:CE	1:D:453:ARG:HG2	2.41	0.51
1:F:263:LYS:HA	1:F:266:VAL:HG12	1.93	0.51
1:G:93:ALA:O	1:G:96:LEU:HB3	2.12	0.51
1:G:117:TRP:O	1:G:120:ALA:HB3	2.10	0.51
1:I:146:LEU:HB3	1:I:168:LYS:HA	1.93	0.51
1:I:418:LYS:NZ	1:I:418:LYS:HB3	2.25	0.51
1:I:448:LEU:C	1:I:448:LEU:HD13	2.32	0.51
1:J:163:LYS:HD2	1:J:166:PHE:CD1	2.46	0.51
1:M:364:GLY:HA3	1:M:370:LEU:CD1	2.41	0.51
1:O:111:GLN:HA	1:O:114:ILE:HG12	1.92	0.51
1:P:483:SER:O	1:P:486:VAL:HG22	2.10	0.51
1:B:158:LEU:CD2	1:F:503:ARG:HH21	2.22	0.50
1:B:168:LYS:O	1:B:171:VAL:HG22	2.11	0.50
1:B:173:ALA:CB	1:B:360:ILE:HD11	2.42	0.50
1:B:435:THR:HG23	1:B:445:SER:HB2	1.93	0.50
1:B:446:ALA:HB2	1:I:106:LYS:HZ2	1.77	0.50
1:C:511:ALA:HB1	1:C:512:PRO:HD2	1.92	0.50
1:D:82:VAL:HG12	1:D:83:GLY:N	2.25	0.50
1:D:154:LEU:HD13	1:D:167:THR:OG1	2.11	0.50
1:D:508:ILE:HG22	1:D:509:LYS:HG3	1.94	0.50
1:E:58:LEU:HB3	1:E:72:VAL:HG13	1.92	0.50
1:H:171:VAL:HA	1:H:174:VAL:HG22	1.92	0.50
1:H:265:LYS:HE2	1:H:322:PHE:CE1	2.46	0.50
1:I:274:ILE:HG23	1:I:296:VAL:CG2	2.41	0.50
1:J:367:GLN:HG2	1:J:369:ILE:HB	1.93	0.50
1:J:421:VAL:O	1:J:424:GLU:HG2	2.10	0.50
1:K:91:VAL:HG21	1:K:436:ILE:CD1	2.41	0.50
1:K:211:ILE:HG12	1:K:298:ALA:H	1.77	0.50
1:K:402:MET:HG2	1:K:431:ARG:HH22	1.76	0.50
1:L:219:ILE:HB	1:L:275:ASN:HB3	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:174:VAL:HG21	1:M:384:LEU:HB3	1.93	0.50
1:M:497:ALA:O	1:M:500:VAL:HG22	2.11	0.50
1:N:82:VAL:HG13	1:N:83:GLY:N	2.26	0.50
1:N:287:PRO:O	1:N:291:PHE:HD2	1.94	0.50
1:O:78:GLN:CG	1:O:83:GLY:HA3	2.41	0.50
1:O:204:GLY:O	1:O:359:THR:HB	2.11	0.50
1:O:433:LEU:O	1:O:436:ILE:HG22	2.12	0.50
1:B:163:LYS:HE3	1:B:376:SER:OG	2.11	0.50
1:D:258:GLU:OE2	1:D:284:TYR:HE2	1.94	0.50
1:E:41:SER:HB3	1:E:45:ASP:OD2	2.10	0.50
1:E:58:LEU:HB3	1:E:72:VAL:HG11	1.91	0.50
1:E:173:ALA:O	1:E:176:ARG:HG2	2.11	0.50
1:E:283:ILE:HG22	1:E:300:GLU:CG	2.41	0.50
1:F:132:ALA:HB2	1:F:461:THR:HG21	1.93	0.50
1:L:185:ALA:HB1	1:L:357:ALA:HB1	1.92	0.50
1:M:52:ASN:ND2	1:M:157:LYS:HA	2.26	0.50
1:N:185:ALA:HA	1:N:309:ARG:CD	2.41	0.50
1:P:390:ASP:CB	1:P:485:GLN:HE22	2.23	0.50
1:B:124:ALA:O	1:B:128:LEU:HG	2.11	0.50
1:B:194:GLY:HA2	1:B:364:GLY:O	2.10	0.50
1:C:110:PRO:O	1:C:113:ILE:HB	2.10	0.50
1:C:225:LEU:HD22	1:C:329:LYS:HD2	1.93	0.50
1:F:431:ARG:HD3	1:F:453:ARG:HH21	1.77	0.50
1:H:364:GLY:HA3	1:H:370:LEU:HD22	1.93	0.50
1:I:43:GLY:O	1:I:44:ARG:HB3	2.12	0.50
1:I:82:VAL:HG13	1:I:83:GLY:N	2.26	0.50
1:I:89:VAL:HG12	1:I:490:VAL:CG2	2.38	0.50
1:I:174:VAL:HG11	1:I:384:LEU:CG	2.41	0.50
1:J:157:LYS:HE2	1:J:379:ASP:OD2	2.12	0.50
1:J:211:ILE:HG12	1:J:298:ALA:H	1.77	0.50
1:J:244:ARG:HD3	1:J:245:VAL:H	1.76	0.50
1:J:245:VAL:HG21	1:J:251:VAL:CG2	2.41	0.50
1:J:506:ASN:ND2	1:J:508:ILE:HD11	2.21	0.50
1:M:154:LEU:HD22	1:M:167:THR:HB	1.92	0.50
1:O:146:LEU:CG	1:O:147:MET:N	2.74	0.50
1:P:309:ARG:O	1:P:313:VAL:HG23	2.10	0.50
1:B:219:ILE:HD12	1:B:275:ASN:CB	2.41	0.50
1:B:402:MET:CE	1:B:453:ARG:HG2	2.41	0.50
1:C:210:LYS:HE2	1:C:212:GLY:O	2.11	0.50
1:F:284:TYR:O	1:F:287:PRO:HD2	2.11	0.50
1:F:312:LEU:O	1:F:354:LEU:HD22	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:191:LYS:HE2	1:G:346:LEU:HD11	1.93	0.50
1:G:259:LYS:O	1:G:263:LYS:HG2	2.11	0.50
1:H:58:LEU:HB3	1:H:72:VAL:CG1	2.42	0.50
1:H:446:ALA:HB2	1:P:106:LYS:CE	2.40	0.50
1:I:451:GLN:HE22	1:I:471:THR:HA	1.76	0.50
1:J:345:LYS:C	1:J:346:LEU:HD12	2.32	0.50
1:K:226:ILE:HA	1:K:278:ILE:O	2.12	0.50
1:L:321:THR:H	1:P:259:LYS:HD2	1.76	0.50
1:N:313:VAL:HG13	1:N:352:VAL:CG2	2.42	0.50
1:O:67:ALA:H	1:O:507:ILE:HG21	1.73	0.50
1:O:225:LEU:HD11	1:O:324:HIS:CE1	2.47	0.50
1:P:188:VAL:CB	1:P:377:LEU:HD13	2.41	0.50
1:P:340:MET:CE	1:P:345:LYS:HE2	2.41	0.50
1:B:231:MET:HB2	1:B:284:TYR:H	1.77	0.50
1:C:89:VAL:HA	1:C:490:VAL:CG2	2.41	0.50
1:E:101:GLU:O	1:E:104:ILE:HG12	2.11	0.50
1:E:448:LEU:HD13	1:E:448:LEU:C	2.31	0.50
1:F:154:LEU:HD23	1:F:163:LYS:HG3	1.93	0.50
1:J:268:ARG:O	1:J:271:LYS:HG2	2.11	0.50
1:K:204:GLY:HA3	1:K:349:PHE:O	2.11	0.50
1:N:28:SER:O	1:N:34:GLY:HA2	2.11	0.50
1:N:40:LEU:HD13	1:N:48:LEU:CD1	2.41	0.50
1:N:163:LYS:HE3	1:N:376:SER:CB	2.41	0.50
1:N:297:MET:CE	1:N:347:ILE:HD11	2.42	0.50
1:O:146:LEU:HG	1:O:147:MET:N	2.26	0.50
1:P:277:PHE:O	1:P:298:ALA:HA	2.12	0.50
1:P:345:LYS:C	1:P:346:LEU:HD12	2.31	0.50
1:A:508:ILE:CG1	1:F:39:LEU:HD22	2.42	0.50
1:B:334:LYS:CG	1:B:351:GLY:HA3	2.42	0.50
1:B:405:ALA:HA	1:B:408:VAL:HG22	1.94	0.50
1:D:222:ALA:HA	1:D:275:ASN:OD1	2.12	0.50
1:F:334:LYS:HD2	1:F:351:GLY:HA3	1.94	0.50
1:H:226:ILE:O	1:H:329:LYS:HE3	2.11	0.50
1:H:404:MET:O	1:H:408:VAL:HG22	2.10	0.50
1:L:33:LYS:HB2	1:L:33:LYS:NZ	2.27	0.50
1:L:38:ILE:HG12	1:M:504:VAL:HG21	1.93	0.50
1:L:318:ILE:HD13	1:P:290:LEU:HD12	1.94	0.50
1:M:65:ASN:N	1:M:66:PRO:HD2	2.26	0.50
1:M:119:GLU:HB3	1:M:423:MET:HE3	1.93	0.50
1:O:318:ILE:HG12	1:O:328:VAL:O	2.12	0.50
1:P:231:MET:HB2	1:P:284:TYR:H	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:140:VAL:H	1:C:178:LYS:HZ3	1.59	0.50
1:E:171:VAL:CG1	1:E:384:LEU:HG	2.41	0.50
1:E:225:LEU:HD13	1:E:329:LYS:HE2	1.94	0.50
1:F:106:LYS:HG2	1:F:113:ILE:HD11	1.94	0.50
1:F:405:ALA:HA	1:F:408:VAL:HG22	1.93	0.50
1:F:431:ARG:O	1:F:434:PRO:HD2	2.12	0.50
1:G:163:LYS:HD2	1:G:166:PHE:CD1	2.47	0.50
1:H:141:LYS:O	1:H:145:ASP:HB2	2.11	0.50
1:H:225:LEU:HD13	1:H:329:LYS:HE2	1.93	0.50
1:H:276:CYS:HA	1:H:297:MET:O	2.12	0.50
1:I:61:ILE:HD13	1:N:511:ALA:HB1	1.94	0.50
1:I:78:GLN:HE22	1:I:489:GLN:HB2	1.77	0.50
1:I:222:ALA:HA	1:I:275:ASN:OD1	2.12	0.50
1:I:380:ALA:O	1:I:384:LEU:HD22	2.12	0.50
1:L:146:LEU:CD2	1:L:147:MET:H	2.24	0.50
1:L:185:ALA:HB1	1:L:357:ALA:CB	2.42	0.50
1:L:313:VAL:CG2	1:L:357:ALA:HB3	2.39	0.50
1:L:321:THR:OG1	1:P:259:LYS:HG3	2.11	0.50
1:L:324:HIS:ND1	1:L:325:PRO:HD3	2.27	0.50
1:M:146:LEU:CD2	1:M:147:MET:H	2.25	0.50
1:M:506:ASN:O	1:M:508:ILE:HG13	2.11	0.50
1:O:340:MET:HG2	1:O:345:LYS:HG2	1.93	0.50
1:P:448:LEU:HD13	1:P:448:LEU:C	2.31	0.50
1:P:484:PHE:CE2	1:P:488:ARG:HD3	2.45	0.50
1:A:225:LEU:CD1	1:A:329:LYS:HE2	2.39	0.50
1:A:284:TYR:O	1:A:287:PRO:HD2	2.11	0.50
1:B:205:PHE:HA	1:B:359:THR:CB	2.42	0.50
1:B:448:LEU:HD13	1:B:448:LEU:C	2.32	0.50
1:C:39:LEU:HD12	1:C:57:ILE:HG13	1.94	0.50
1:C:141:LYS:CG	1:C:144:GLN:HB2	2.41	0.50
1:C:245:VAL:HG11	1:C:250:LYS:HB3	1.94	0.50
1:E:158:LEU:HD11	1:G:503:ARG:NE	2.27	0.50
1:E:211:ILE:HG12	1:E:298:ALA:H	1.76	0.50
1:I:188:VAL:HB	1:I:360:ILE:HB	1.93	0.50
1:I:211:ILE:HD13	1:I:215:GLN:CB	2.42	0.50
1:J:321:THR:O	1:J:323:ASP:N	2.45	0.50
1:K:206:LEU:HD11	1:K:346:LEU:HD23	1.94	0.50
1:K:231:MET:HB2	1:K:284:TYR:H	1.76	0.50
1:M:81:GLU:O	1:M:82:VAL:HB	2.12	0.50
1:M:140:VAL:H	1:M:178:LYS:NZ	2.09	0.50
1:N:114:ILE:HA	1:N:117:TRP:CE3	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:112:THR:CB	1:P:418:LYS:NZ	2.74	0.50
1:P:209:LYS:HZ3	1:P:302:ALA:HA	1.76	0.50
1:P:287:PRO:O	1:P:291:PHE:HD2	1.95	0.50
1:P:324:HIS:ND1	1:P:325:PRO:HD3	2.27	0.50
1:A:335:LEU:HD21	1:A:337:GLU:CD	2.32	0.50
1:B:312:LEU:HD13	1:B:354:LEU:HD21	1.93	0.50
1:C:39:LEU:O	1:C:48:LEU:HA	2.11	0.50
1:C:191:LYS:NZ	1:C:346:LEU:HD11	2.27	0.50
1:E:119:GLU:HB3	1:E:423:MET:CE	2.42	0.50
1:H:216:PRO:CG	1:H:295:GLY:HA2	2.42	0.50
1:H:313:VAL:CG1	1:H:352:VAL:HG21	2.41	0.50
1:H:345:LYS:C	1:H:346:LEU:HD12	2.33	0.50
1:H:452:LEU:HD13	1:H:465:LEU:HD13	1.93	0.50
1:I:61:ILE:HG23	1:N:512:PRO:O	2.12	0.50
1:I:154:LEU:HD22	1:I:167:THR:CB	2.42	0.50
1:J:152:THR:HA	1:J:155:SER:HB3	1.94	0.50
1:K:211:ILE:CD1	1:K:297:MET:HG3	2.40	0.50
1:K:334:LYS:CD	1:K:351:GLY:HA3	2.42	0.50
1:L:143:ARG:HA	1:L:143:ARG:HE	1.76	0.50
1:M:65:ASN:CG	1:M:66:PRO:HD3	2.33	0.50
1:O:177:LEU:HD11	1:O:186:ILE:CD1	2.32	0.50
1:P:143:ARG:NE	1:P:143:ARG:HA	2.27	0.50
1:A:448:LEU:HD11	1:A:465:LEU:HD11	1.93	0.49
1:B:110:PRO:HA	1:B:113:ILE:HD12	1.94	0.49
1:B:174:VAL:HG11	1:B:384:LEU:CB	2.42	0.49
1:B:216:PRO:CG	1:B:295:GLY:HA2	2.41	0.49
1:B:313:VAL:O	1:B:352:VAL:HG23	2.12	0.49
1:E:38:ILE:HG23	1:G:504:VAL:HG22	1.94	0.49
1:F:152:THR:OG1	1:F:480:ILE:HD12	2.12	0.49
1:F:509:LYS:O	1:F:509:LYS:HG3	2.12	0.49
1:G:128:LEU:C	1:G:129:LEU:HD13	2.31	0.49
1:J:206:LEU:HD11	1:J:346:LEU:HD23	1.94	0.49
1:K:32:PRO:HD2	1:K:467:MET:CE	2.42	0.49
1:K:265:LYS:HZ2	1:K:287:PRO:HG3	1.77	0.49
1:M:190:LYS:CB	1:M:370:LEU:HG	2.42	0.49
1:M:411:LEU:HB3	1:M:423:MET:SD	2.52	0.49
1:N:274:ILE:HG23	1:N:296:VAL:HG21	1.94	0.49
1:O:96:LEU:C	1:O:96:LEU:HD13	2.33	0.49
1:O:497:ALA:O	1:O:500:VAL:HG22	2.12	0.49
1:A:36:ASP:H	1:C:503:ARG:CD	2.25	0.49
1:C:40:LEU:HB2	1:C:48:LEU:HD12	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:84:ASP:OD2	1:C:379:ASP:HB3	2.12	0.49
1:C:379:ASP:O	1:C:383:VAL:HG23	2.12	0.49
1:E:238:ILE:O	1:E:238:ILE:CG2	2.60	0.49
1:F:188:VAL:HB	1:F:360:ILE:HB	1.94	0.49
1:F:203:GLU:HB2	1:F:350:SER:HB2	1.94	0.49
1:G:133:VAL:HG23	1:G:134:ASP:N	2.22	0.49
1:H:146:LEU:CD2	1:H:147:MET:H	2.25	0.49
1:H:154:LEU:HD11	1:H:163:LYS:HG2	1.93	0.49
1:I:33:LYS:H	1:I:440:ASN:HB2	1.77	0.49
1:I:171:VAL:HG12	1:I:384:LEU:HG	1.93	0.49
1:J:163:LYS:HZ1	1:J:373:ALA:HA	1.77	0.49
1:J:231:MET:HG3	1:J:283:ILE:HG13	1.93	0.49
1:K:157:LYS:HD3	1:K:375:ARG:HD3	1.93	0.49
1:K:283:ILE:HG22	1:K:300:GLU:CG	2.39	0.49
1:M:343:GLU:HG3	1:M:344:ASP:H	1.78	0.49
1:N:133:VAL:HG23	1:N:134:ASP:N	2.26	0.49
1:O:161:HIS:CG	1:O:162:HIS:H	2.30	0.49
1:P:219:ILE:HD12	1:P:275:ASN:HB3	1.93	0.49
1:C:148:ASN:HB3	1:C:481:THR:HG22	1.94	0.49
1:C:452:LEU:HD13	1:C:465:LEU:HD23	1.94	0.49
1:E:188:VAL:HG11	1:E:377:LEU:CD1	2.41	0.49
1:E:280:ARG:HG3	1:E:304:PHE:CA	2.42	0.49
1:E:431:ARG:HH21	1:E:434:PRO:HG2	1.77	0.49
1:E:452:LEU:HA	1:E:472:ILE:HG21	1.94	0.49
1:G:216:PRO:HG2	1:G:295:GLY:HA2	1.94	0.49
1:H:447:ASP:HB2	1:P:418:LYS:CD	2.42	0.49
1:J:161:HIS:CG	1:J:162:HIS:H	2.30	0.49
1:J:266:VAL:CB	1:J:290:LEU:HD21	2.33	0.49
1:K:96:LEU:HD13	1:K:96:LEU:C	2.32	0.49
1:L:13:LEU:O	1:L:13:LEU:HD22	2.12	0.49
1:L:284:TYR:O	1:L:287:PRO:HD2	2.12	0.49
1:M:191:LYS:HE3	1:M:346:LEU:HD11	1.94	0.49
1:M:214:ASN:HA	1:O:318:ILE:CG2	2.42	0.49
1:M:231:MET:HB2	1:M:284:TYR:H	1.78	0.49
1:N:92:LEU:HA	1:N:95:GLU:OE2	2.12	0.49
1:P:462:THR:O	1:P:475:MET:HB3	2.13	0.49
1:A:183:LEU:HB2	1:A:186:ILE:HD12	1.93	0.49
1:B:451:GLN:HE22	1:B:471:THR:HA	1.78	0.49
1:C:452:LEU:HD11	1:C:456:HIS:CE1	2.47	0.49
1:D:186:ILE:HG21	1:D:381:LEU:HD23	1.94	0.49
1:D:222:ALA:O	1:D:333:CYS:HA	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:235:LYS:HE2	1:D:239:PHE:HA	1.94	0.49
1:E:35:MET:HG3	1:G:111:GLN:NE2	2.27	0.49
1:E:211:ILE:HG13	1:E:298:ALA:O	2.12	0.49
1:F:124:ALA:CB	1:F:491:LEU:HB3	2.41	0.49
1:F:219:ILE:HB	1:F:275:ASN:HB3	1.95	0.49
1:G:148:ASN:HB3	1:G:481:THR:HG22	1.94	0.49
1:G:325:PRO:C	1:G:326:GLU:HG3	2.31	0.49
1:H:405:ALA:HA	1:H:408:VAL:HG22	1.93	0.49
1:H:434:PRO:HB3	1:H:452:LEU:CD2	2.42	0.49
1:I:106:LYS:HZ1	1:I:421:VAL:HG21	1.77	0.49
1:K:511:ALA:HB1	1:K:512:PRO:HD2	1.93	0.49
1:L:366:THR:HG22	1:L:370:LEU:HD22	1.94	0.49
1:N:313:VAL:HG13	1:N:352:VAL:HG21	1.93	0.49
1:N:484:PHE:CE2	1:N:488:ARG:HD3	2.47	0.49
1:O:150:ALA:HB1	1:O:167:THR:OG1	2.11	0.49
1:O:317:GLU:HB3	1:O:329:LYS:CG	2.41	0.49
1:P:207:LEU:CD1	1:P:209:LYS:HE3	2.41	0.49
1:A:96:LEU:HD22	1:A:96:LEU:O	2.12	0.49
1:A:133:VAL:HG23	1:A:392:ARG:HA	1.94	0.49
1:B:335:LEU:HD21	1:B:337:GLU:OE1	2.13	0.49
1:E:210:LYS:HB2	1:E:345:LYS:NZ	2.26	0.49
1:E:211:ILE:HD13	1:E:215:GLN:OE1	2.12	0.49
1:E:451:GLN:HE22	1:E:471:THR:HA	1.78	0.49
1:G:44:ARG:HG3	1:G:44:ARG:O	2.13	0.49
1:H:143:ARG:NE	1:H:143:ARG:HA	2.26	0.49
1:I:30:LEU:HG	1:I:87:THR:O	2.12	0.49
1:I:110:PRO:HA	1:I:113:ILE:HG12	1.95	0.49
1:J:510:ALA:O	1:J:512:PRO:HD3	2.13	0.49
1:K:30:LEU:O	1:K:440:ASN:ND2	2.45	0.49
1:L:163:LYS:HG3	1:L:166:PHE:CG	2.48	0.49
1:M:206:LEU:HD21	1:M:346:LEU:HB3	1.94	0.49
1:N:82:VAL:HG13	1:N:83:GLY:H	1.77	0.49
1:O:14:SER:CB	1:O:508:ILE:HA	2.42	0.49
1:P:188:VAL:CG2	1:P:377:LEU:HD13	2.42	0.49
1:P:261:LYS:O	1:P:264:GLU:HG2	2.11	0.49
1:A:16:PHE:HA	1:A:97:LEU:HD22	1.94	0.49
1:A:133:VAL:O	1:A:133:VAL:HG22	2.11	0.49
1:A:225:LEU:HD11	1:A:324:HIS:ND1	2.28	0.49
1:D:176:ARG:NH2	1:D:358:CYS:HB2	2.28	0.49
1:D:339:VAL:HB	1:D:348:HIS:CE1	2.47	0.49
1:D:484:PHE:CE2	1:D:488:ARG:NE	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:28:SER:HB2	1:E:35:MET:SD	2.53	0.49
1:G:111:GLN:HA	1:G:114:ILE:CG1	2.42	0.49
1:G:114:ILE:HD13	1:G:117:TRP:CZ3	2.47	0.49
1:I:171:VAL:O	1:I:175:LEU:HG	2.12	0.49
1:I:183:LEU:HD11	1:I:381:LEU:HD11	1.95	0.49
1:I:274:ILE:HG23	1:I:296:VAL:HG21	1.94	0.49
1:K:223:LYS:HB2	1:K:274:ILE:HA	1.94	0.49
1:K:339:VAL:HB	1:K:348:HIS:CE1	2.48	0.49
1:K:431:ARG:HH21	1:K:434:PRO:HG2	1.77	0.49
1:M:53:ASP:H	1:M:375:ARG:NH1	2.11	0.49
1:M:390:ASP:HB3	1:M:485:GLN:HE22	1.77	0.49
1:O:154:LEU:CD2	1:O:163:LYS:HG3	2.42	0.49
1:O:431:ARG:O	1:O:434:PRO:HD2	2.12	0.49
1:P:224:ILE:HD11	1:P:336:ILE:HD11	1.94	0.49
1:P:276:CYS:HA	1:P:297:MET:O	2.13	0.49
1:A:268:ARG:HD2	1:A:271:LYS:NZ	2.28	0.49
1:B:84:ASP:CG	1:B:85:GLY:H	2.15	0.49
1:B:206:LEU:H	1:B:359:THR:HG21	1.77	0.49
1:B:215:GLN:HE21	1:B:292:GLY:N	2.11	0.49
1:B:483:SER:HB2	1:B:486:VAL:HG13	1.95	0.49
1:C:219:ILE:HB	1:C:275:ASN:HB3	1.94	0.49
1:C:431:ARG:NH2	1:C:434:PRO:HG2	2.27	0.49
1:D:393:THR:HG22	1:D:483:SER:HA	1.94	0.49
1:E:431:ARG:O	1:E:434:PRO:HD2	2.11	0.49
1:E:451:GLN:NE2	1:E:471:THR:HA	2.27	0.49
1:F:225:LEU:HD13	1:F:329:LYS:HE3	1.95	0.49
1:F:310:LEU:O	1:F:313:VAL:HB	2.12	0.49
1:G:82:VAL:HG11	1:G:486:VAL:HA	1.93	0.49
1:G:322:PHE:HA	1:G:324:HIS:CD2	2.47	0.49
1:I:408:VAL:HA	1:I:411:LEU:HD12	1.94	0.49
1:J:38:ILE:HD13	1:K:504:VAL:HG22	1.95	0.49
1:J:327:LEU:C	1:J:327:LEU:HD13	2.33	0.49
1:K:402:MET:CE	1:K:453:ARG:HG2	2.42	0.49
1:K:431:ARG:O	1:K:434:PRO:HD2	2.12	0.49
1:L:231:MET:HE1	1:L:265:LYS:HD3	1.95	0.49
1:L:326:GLU:HG3	1:L:327:LEU:H	1.75	0.49
1:L:435:THR:HG23	1:L:445:SER:HB3	1.95	0.49
1:M:211:ILE:CD1	1:M:211:ILE:N	2.70	0.49
1:N:154:LEU:CD2	1:N:163:LYS:HG3	2.42	0.49
1:N:265:LYS:O	1:N:269:ILE:HB	2.13	0.49
1:P:231:MET:CG	1:P:283:ILE:HG13	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:190:LYS:HE3	1:A:371:ASP:OD1	2.13	0.49
1:A:266:VAL:CG2	1:A:290:LEU:HD11	2.42	0.49
1:B:207:LEU:HD13	1:B:208:ASP:N	2.28	0.49
1:C:27:LYS:HB2	1:C:436:ILE:HG13	1.95	0.49
1:C:37:LYS:HD2	1:H:506:ASN:HB3	1.94	0.49
1:C:242:ARG:O	1:C:243:VAL:HG12	2.13	0.49
1:C:309:ARG:O	1:C:313:VAL:HG23	2.13	0.49
1:D:51:THR:HA	1:D:375:ARG:CZ	2.43	0.49
1:D:52:ASN:HB3	1:D:157:LYS:HD3	1.95	0.49
1:F:128:LEU:HD22	1:F:488:ARG:CG	2.42	0.49
1:F:448:LEU:HD11	1:F:465:LEU:CD1	2.43	0.49
1:G:22:ILE:HD12	1:G:90:THR:CG2	2.43	0.49
1:H:75:SER:O	1:H:78:GLN:HB3	2.13	0.49
1:H:163:LYS:HA	1:H:166:PHE:HD1	1.75	0.49
1:J:231:MET:HB2	1:J:284:TYR:H	1.77	0.49
1:J:372:GLU:HG3	1:J:375:ARG:CZ	2.42	0.49
1:L:173:ALA:HA	1:L:176:ARG:NH1	2.28	0.49
1:O:148:ASN:HB3	1:O:481:THR:HG22	1.94	0.49
1:O:404:MET:CE	1:O:430:LEU:HG	2.42	0.49
1:P:146:LEU:HG	1:P:171:VAL:HG13	1.95	0.49
1:A:311:ALA:HA	1:A:314:THR:HG22	1.93	0.49
1:A:448:LEU:C	1:A:448:LEU:HD13	2.33	0.49
1:D:226:ILE:HA	1:D:278:ILE:O	2.13	0.49
1:E:104:ILE:HG13	1:E:105:ALA:N	2.27	0.49
1:E:223:LYS:HB2	1:E:274:ILE:HA	1.95	0.49
1:G:118:ARG:O	1:G:121:THR:HB	2.13	0.49
1:H:448:LEU:HD13	1:H:448:LEU:C	2.33	0.49
1:H:506:ASN:HD21	1:H:508:ILE:HG12	1.77	0.49
1:J:178:LYS:HZ1	1:J:388:VAL:HG21	1.75	0.49
1:J:207:LEU:HD13	1:J:208:ASP:N	2.28	0.49
1:J:274:ILE:O	1:J:274:ILE:HG23	2.11	0.49
1:J:484:PHE:CE2	1:J:488:ARG:HD3	2.47	0.49
1:J:497:ALA:O	1:J:500:VAL:HG22	2.12	0.49
1:K:372:GLU:HA	1:K:375:ARG:HH11	1.77	0.49
1:K:402:MET:SD	1:K:453:ARG:HA	2.53	0.49
1:L:3:ALA:O	1:L:4:ASP:HB3	2.13	0.49
1:L:166:PHE:CE1	1:L:198:ASP:CB	2.95	0.49
1:M:106:LYS:CE	1:M:421:VAL:HG11	2.42	0.49
1:M:431:ARG:HH21	1:M:434:PRO:HG2	1.78	0.49
1:O:499:GLU:O	1:O:503:ARG:HB3	2.12	0.49
1:A:509:LYS:HB2	1:F:57:ILE:HD11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:226:ILE:HB	1:B:317:GLU:OE2	2.13	0.49
1:D:223:LYS:HB2	1:D:274:ILE:HA	1.95	0.49
1:E:202:ASP:HB2	1:E:359:THR:O	2.12	0.49
1:F:179:GLY:O	1:F:181:GLY:N	2.38	0.49
1:F:435:THR:HG23	1:F:445:SER:HB3	1.94	0.49
1:G:166:PHE:CZ	1:G:198:ASP:CB	2.96	0.49
1:H:181:GLY:HA3	1:H:356:GLU:CD	2.34	0.49
1:I:148:ASN:ND2	1:I:481:THR:HG22	2.27	0.49
1:K:154:LEU:HD22	1:K:167:THR:HB	1.94	0.49
1:K:236:ILE:HG23	1:K:237:LYS:H	1.77	0.49
1:L:268:ARG:O	1:L:271:LYS:HG2	2.12	0.49
1:N:110:PRO:HB2	1:N:502:LEU:HD21	1.94	0.49
1:N:202:ASP:HB2	1:N:359:THR:O	2.13	0.49
1:N:312:LEU:O	1:N:354:LEU:HD22	2.13	0.49
1:O:207:LEU:HB3	1:O:347:ILE:HG23	1.94	0.49
1:O:215:GLN:HG3	1:O:292:GLY:HA2	1.95	0.49
1:O:284:TYR:O	1:O:287:PRO:HD2	2.13	0.49
1:O:448:LEU:C	1:O:448:LEU:HD13	2.33	0.49
1:O:452:LEU:HD13	1:O:465:LEU:HD13	1.95	0.49
1:P:324:HIS:HB2	1:P:329:LYS:HZ3	1.77	0.49
1:A:100:ALA:HA	1:A:103:LEU:HD13	1.94	0.48
1:A:174:VAL:HA	1:A:177:LEU:CD2	2.39	0.48
1:A:412:ALA:HB1	1:A:424:GLU:HB2	1.95	0.48
1:B:268:ARG:O	1:B:271:LYS:HG2	2.13	0.48
1:E:117:TRP:HD1	1:E:495:ALA:HB1	1.77	0.48
1:E:268:ARG:O	1:E:271:LYS:HG2	2.12	0.48
1:E:390:ASP:HB3	1:E:485:GLN:HE22	1.76	0.48
1:F:96:LEU:HD13	1:F:97:LEU:N	2.26	0.48
1:G:166:PHE:HD2	1:G:362:LEU:HD22	1.77	0.48
1:G:390:ASP:HB3	1:G:485:GLN:NE2	2.28	0.48
1:H:339:VAL:HB	1:H:348:HIS:CE1	2.48	0.48
1:I:198:ASP:O	1:I:363:ARG:HB2	2.12	0.48
1:J:369:ILE:O	1:J:372:GLU:HB3	2.13	0.48
1:J:507:ILE:C	1:J:508:ILE:HG12	2.34	0.48
1:L:126:GLN:NE2	1:L:411:LEU:HD21	2.20	0.48
1:M:143:ARG:HA	1:M:143:ARG:NE	2.28	0.48
1:M:313:VAL:CG1	1:M:352:VAL:HB	2.39	0.48
1:N:191:LYS:HE3	1:N:346:LEU:HD22	1.95	0.48
1:A:22:ILE:HD12	1:A:90:THR:CG2	2.43	0.48
1:A:111:GLN:HA	1:A:114:ILE:CD1	2.42	0.48
1:A:145:ASP:OD2	1:A:175:LEU:HD11	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:323:ASP:C	1:A:325:PRO:HD2	2.33	0.48
1:A:483:SER:O	1:A:486:VAL:HG22	2.13	0.48
1:B:324:HIS:HB2	1:B:329:LYS:CE	2.42	0.48
1:C:236:ILE:HG13	1:C:237:LYS:H	1.78	0.48
1:D:283:ILE:HG22	1:D:300:GLU:CG	2.43	0.48
1:E:146:LEU:CD2	1:E:167:THR:HG23	2.43	0.48
1:E:412:ALA:HB1	1:E:424:GLU:HB3	1.94	0.48
1:F:111:GLN:HA	1:F:114:ILE:CG1	2.42	0.48
1:F:160:THR:HG22	1:F:160:THR:O	2.13	0.48
1:G:99:GLU:O	1:G:103:LEU:HD13	2.12	0.48
1:G:106:LYS:HD2	1:G:108:ILE:HB	1.95	0.48
1:G:363:ARG:O	1:G:370:LEU:HD11	2.12	0.48
1:G:417:GLY:HA2	1:N:450:ALA:CB	2.41	0.48
1:H:89:VAL:HG12	1:H:490:VAL:HG23	1.94	0.48
1:H:317:GLU:HB2	1:H:329:LYS:HD3	1.94	0.48
1:J:14:SER:O	1:J:17:ILE:HG22	2.12	0.48
1:J:57:ILE:HG23	1:J:58:LEU:CD2	2.43	0.48
1:J:171:VAL:O	1:J:175:LEU:HG	2.13	0.48
1:J:431:ARG:NH2	1:J:434:PRO:HG2	2.28	0.48
1:L:334:LYS:CB	1:L:351:GLY:HA3	2.43	0.48
1:M:122:LYS:HE2	1:M:126:GLN:NE2	2.28	0.48
1:M:402:MET:CE	1:M:453:ARG:HG2	2.44	0.48
1:N:109:HIS:ND1	1:N:112:THR:HG23	2.28	0.48
1:N:173:ALA:HA	1:N:176:ARG:NH1	2.28	0.48
1:N:322:PHE:HA	1:N:324:HIS:CD2	2.48	0.48
1:P:32:PRO:HA	1:P:156:SER:CA	2.43	0.48
1:P:117:TRP:CD1	1:P:499:GLU:HB2	2.48	0.48
1:A:32:PRO:HA	1:A:155:SER:CB	2.43	0.48
1:A:276:CYS:HA	1:A:297:MET:O	2.12	0.48
1:A:446:ALA:HB2	1:M:106:LYS:HD2	1.94	0.48
1:B:415:THR:O	1:I:450:ALA:HB1	2.13	0.48
1:C:120:ALA:O	1:C:123:ALA:HB3	2.12	0.48
1:C:243:VAL:HG13	1:C:244:ARG:N	2.29	0.48
1:C:396:GLY:HA3	1:C:480:ILE:HG22	1.94	0.48
1:D:364:GLY:HA3	1:D:370:LEU:CD1	2.44	0.48
1:E:27:LYS:CB	1:E:436:ILE:HD11	2.42	0.48
1:E:316:GLY:O	1:E:330:LEU:HB2	2.13	0.48
1:F:226:ILE:HG12	1:F:278:ILE:CG2	2.43	0.48
1:G:59:LYS:CE	1:G:76:ARG:HB2	2.42	0.48
1:H:364:GLY:CA	1:H:370:LEU:HD13	2.44	0.48
1:I:287:PRO:O	1:I:291:PHE:HD1	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:176:ARG:NE	1:J:358:CYS:HB2	2.28	0.48
1:J:510:ALA:O	1:J:511:ALA:HB3	2.14	0.48
1:L:103:LEU:HG	1:L:113:ILE:HD13	1.94	0.48
1:M:226:ILE:HG12	1:M:278:ILE:HG23	1.95	0.48
1:M:432:MET:O	1:M:435:THR:HB	2.14	0.48
1:O:40:LEU:HD13	1:O:41:SER:N	2.28	0.48
1:O:111:GLN:O	1:O:114:ILE:HB	2.12	0.48
1:O:117:TRP:O	1:O:120:ALA:HB3	2.13	0.48
1:O:192:LEU:HA	1:O:366:THR:HG23	1.94	0.48
1:P:204:GLY:O	1:P:359:THR:HB	2.12	0.48
1:P:500:VAL:O	1:P:501:ILE:HG12	2.14	0.48
1:A:159:LEU:H	1:A:159:LEU:CD1	2.03	0.48
1:B:163:LYS:HD2	1:B:166:PHE:CG	2.48	0.48
1:B:205:PHE:HA	1:B:359:THR:HB	1.96	0.48
1:B:342:GLY:O	1:B:343:GLU:HG3	2.13	0.48
1:C:431:ARG:O	1:C:434:PRO:HD2	2.12	0.48
1:D:68:ALA:O	1:D:72:VAL:HG23	2.12	0.48
1:E:245:VAL:CG1	1:E:251:VAL:HB	2.42	0.48
1:E:284:TYR:CE2	1:E:286:TYR:HD2	2.31	0.48
1:G:38:ILE:HG13	1:G:39:LEU:N	2.28	0.48
1:G:59:LYS:HB2	1:G:59:LYS:NZ	2.28	0.48
1:H:286:TYR:HB2	1:H:287:PRO:HD3	1.95	0.48
1:I:205:PHE:HA	1:I:359:THR:OG1	2.14	0.48
1:J:110:PRO:O	1:J:502:LEU:HD21	2.13	0.48
1:K:38:ILE:HG23	1:P:504:VAL:HG11	1.94	0.48
1:K:266:VAL:HB	1:K:290:LEU:HD11	1.96	0.48
1:N:141:LYS:HE2	1:N:144:GLN:HB2	1.96	0.48
1:O:508:ILE:HG22	1:O:509:LYS:N	2.28	0.48
1:A:146:LEU:HG	1:A:171:VAL:HG11	1.95	0.48
1:A:171:VAL:O	1:A:175:LEU:HG	2.13	0.48
1:A:452:LEU:HD13	1:A:465:LEU:CD1	2.42	0.48
1:A:508:ILE:HG12	1:F:39:LEU:HD22	1.94	0.48
1:B:274:ILE:O	1:B:274:ILE:HG23	2.14	0.48
1:B:313:VAL:CG1	1:B:352:VAL:HB	2.40	0.48
1:C:219:ILE:HD12	1:C:275:ASN:CB	2.44	0.48
1:C:404:MET:O	1:C:408:VAL:HG22	2.13	0.48
1:D:103:LEU:HG	1:D:113:ILE:CD1	2.43	0.48
1:D:159:LEU:HG	1:D:163:LYS:CD	2.44	0.48
1:D:259:LYS:O	1:D:263:LYS:HG2	2.13	0.48
1:E:222:ALA:HA	1:E:275:ASN:HB2	1.96	0.48
1:E:287:PRO:O	1:E:291:PHE:HD1	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:154:LEU:HD23	1:G:163:LYS:CG	2.43	0.48
1:G:201:LEU:HD23	1:G:360:ILE:HG12	1.96	0.48
1:G:448:LEU:C	1:G:448:LEU:HD13	2.34	0.48
1:G:452:LEU:HD13	1:G:465:LEU:HD13	1.94	0.48
1:H:211:ILE:HD12	1:H:298:ALA:O	2.14	0.48
1:I:207:LEU:HD13	1:I:208:ASP:N	2.28	0.48
1:I:276:CYS:HA	1:I:297:MET:O	2.14	0.48
1:I:337:GLU:HG3	1:I:339:VAL:HG23	1.95	0.48
1:K:159:LEU:HG	1:K:163:LYS:HG2	1.96	0.48
1:K:171:VAL:O	1:K:175:LEU:HG	2.14	0.48
1:L:82:VAL:HG13	1:L:486:VAL:HG12	1.94	0.48
1:L:122:LYS:O	1:L:125:ARG:HG2	2.13	0.48
1:N:142:PHE:N	1:N:142:PHE:CD1	2.81	0.48
1:N:381:LEU:C	1:N:381:LEU:HD13	2.33	0.48
1:P:173:ALA:O	1:P:176:ARG:HG2	2.13	0.48
1:A:53:ASP:HB2	1:A:375:ARG:HG3	1.95	0.48
1:D:1:ALA:HB3	1:H:63:VAL:HG11	1.95	0.48
1:D:9:GLU:O	1:D:10:THR:HG22	2.13	0.48
1:D:178:LYS:HZ1	1:D:388:VAL:HA	1.78	0.48
1:G:106:LYS:HG3	1:G:106:LYS:O	2.14	0.48
1:G:216:PRO:CG	1:G:295:GLY:HA2	2.43	0.48
1:H:61:ILE:HG13	1:H:62:GLY:N	2.28	0.48
1:H:226:ILE:HG12	1:H:278:ILE:CG2	2.43	0.48
1:H:310:LEU:O	1:H:314:THR:HG22	2.12	0.48
1:H:367:GLN:HG2	1:H:369:ILE:H	1.78	0.48
1:H:415:THR:O	1:P:450:ALA:HB1	2.13	0.48
1:I:185:ALA:HA	1:I:309:ARG:HG2	1.94	0.48
1:K:365:ALA:O	1:K:366:THR:HB	2.14	0.48
1:L:261:LYS:O	1:L:264:GLU:HG2	2.13	0.48
1:M:284:TYR:O	1:M:287:PRO:HD2	2.13	0.48
1:N:129:LEU:HG	1:N:129:LEU:O	2.13	0.48
1:N:166:PHE:CZ	1:N:198:ASP:HB3	2.49	0.48
1:O:402:MET:CE	1:O:453:ARG:HG2	2.44	0.48
1:A:32:PRO:HD3	1:A:467:MET:HE1	1.95	0.48
1:A:57:ILE:HD13	1:A:57:ILE:O	2.13	0.48
1:A:187:HIS:O	1:A:359:THR:HG23	2.13	0.48
1:B:107:LYS:HG3	1:B:107:LYS:O	2.14	0.48
1:B:126:GLN:NE2	1:B:411:LEU:HD11	2.28	0.48
1:B:160:THR:HA	1:B:163:LYS:HB3	1.96	0.48
1:C:433:LEU:HA	1:C:436:ILE:HG22	1.96	0.48
1:D:96:LEU:HA	1:D:99:GLU:OE1	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:222:ALA:HA	1:D:275:ASN:HB2	1.95	0.48
1:D:235:LYS:HE2	1:D:239:PHE:CD2	2.48	0.48
1:D:397:GLY:O	1:D:465:LEU:HB2	2.13	0.48
1:E:57:ILE:HD13	1:E:57:ILE:C	2.34	0.48
1:F:313:VAL:HG13	1:F:352:VAL:HB	1.95	0.48
1:G:126:GLN:HE22	1:G:411:LEU:HD11	1.78	0.48
1:H:126:GLN:HA	1:H:130:ASN:HD22	1.78	0.48
1:H:231:MET:CG	1:H:283:ILE:HG13	2.44	0.48
1:H:420:ALA:CB	1:P:450:ALA:HB2	2.42	0.48
1:I:431:ARG:O	1:I:434:PRO:HD2	2.13	0.48
1:J:266:VAL:HB	1:J:290:LEU:CD2	2.35	0.48
1:K:19:ALA:HB2	1:K:97:LEU:HD12	1.96	0.48
1:K:324:HIS:HB2	1:K:329:LYS:CE	2.44	0.48
1:L:96:LEU:O	1:L:96:LEU:HD22	2.13	0.48
1:L:124:ALA:CB	1:L:491:LEU:HD13	2.43	0.48
1:L:188:VAL:CG1	1:L:377:LEU:HD23	2.41	0.48
1:L:222:ALA:HA	1:L:275:ASN:OD1	2.14	0.48
1:M:177:LEU:HG	1:M:186:ILE:HD11	1.96	0.48
1:M:207:LEU:HD13	1:M:208:ASP:N	2.29	0.48
1:M:226:ILE:HB	1:M:317:GLU:OE2	2.13	0.48
1:M:402:MET:SD	1:M:453:ARG:HA	2.54	0.48
1:N:102:SER:O	1:N:105:ALA:HB3	2.14	0.48
1:P:59:LYS:CE	1:P:76:ARG:HB2	2.43	0.48
1:P:206:LEU:HD21	1:P:348:HIS:CE1	2.47	0.48
1:P:265:LYS:HE2	1:P:322:PHE:CE1	2.49	0.48
1:P:286:TYR:HB2	1:P:287:PRO:HD3	1.96	0.48
1:P:431:ARG:O	1:P:434:PRO:HD2	2.14	0.48
1:A:38:ILE:CD1	1:C:504:VAL:HG13	2.44	0.48
1:A:52:ASN:OD1	1:A:157:LYS:HG2	2.13	0.48
1:B:204:GLY:HA3	1:B:349:PHE:O	2.14	0.48
1:C:420:ALA:HB3	1:L:453:ARG:NH2	2.29	0.48
1:D:111:GLN:HA	1:D:114:ILE:CG1	2.43	0.48
1:D:171:VAL:HG12	1:D:384:LEU:HG	1.95	0.48
1:E:171:VAL:O	1:E:174:VAL:HG22	2.14	0.48
1:E:346:LEU:HD13	1:E:346:LEU:C	2.34	0.48
1:E:412:ALA:CB	1:E:424:GLU:HB3	2.43	0.48
1:F:341:ILE:HG23	1:F:363:ARG:NE	2.28	0.48
1:H:126:GLN:HA	1:H:130:ASN:ND2	2.29	0.48
1:I:421:VAL:O	1:I:424:GLU:HG2	2.14	0.48
1:J:58:LEU:HB3	1:J:72:VAL:HG11	1.94	0.48
1:J:251:VAL:O	1:J:254:ILE:HB	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:185:ALA:HA	1:K:309:ARG:HG2	1.96	0.48
1:K:498:ALA:O	1:K:501:ILE:HB	2.14	0.48
1:L:111:GLN:H	1:L:111:GLN:NE2	2.04	0.48
1:L:405:ALA:HA	1:L:408:VAL:CG2	2.44	0.48
1:M:82:VAL:HG11	1:M:486:VAL:HA	1.95	0.48
1:N:171:VAL:O	1:N:174:VAL:HG22	2.13	0.48
1:A:171:VAL:HA	1:A:174:VAL:HG22	1.95	0.48
1:B:185:ALA:HB1	1:B:357:ALA:CA	2.39	0.48
1:B:448:LEU:HD11	1:B:465:LEU:HD11	1.95	0.48
1:C:325:PRO:O	1:C:326:GLU:HG3	2.14	0.48
1:C:453:ARG:NH2	1:L:421:VAL:HG13	2.21	0.48
1:D:313:VAL:HG13	1:D:352:VAL:HB	1.95	0.48
1:D:415:THR:HB	1:D:419:GLU:CB	2.43	0.48
1:F:28:SER:HA	1:F:440:ASN:HB3	1.96	0.48
1:F:381:LEU:C	1:F:381:LEU:HD13	2.33	0.48
1:F:453:ARG:HD2	1:O:417:GLY:CA	2.44	0.48
1:G:146:LEU:HD21	1:G:150:ALA:HB3	1.94	0.48
1:H:96:LEU:HD13	1:H:97:LEU:N	2.29	0.48
1:H:431:ARG:CZ	1:H:431:ARG:HA	2.44	0.48
1:I:109:HIS:NE2	1:I:111:GLN:HB2	2.29	0.48
1:I:277:PHE:CE2	1:I:279:ASN:HB2	2.48	0.48
1:I:398:GLY:HA2	1:I:401:GLU:OE1	2.14	0.48
1:J:100:ALA:O	1:J:103:LEU:HB3	2.14	0.48
1:J:106:LYS:O	1:J:107:LYS:HG2	2.13	0.48
1:J:146:LEU:HD13	1:J:168:LYS:CA	2.44	0.48
1:K:368:GLN:O	1:K:371:ASP:HB2	2.13	0.48
1:L:41:SER:HA	1:M:509:LYS:HD2	1.94	0.48
1:L:225:LEU:HD13	1:L:329:LYS:HE3	1.96	0.48
1:M:143:ARG:HA	1:M:143:ARG:HE	1.79	0.48
1:N:111:GLN:O	1:N:114:ILE:HB	2.14	0.48
1:N:406:HIS:O	1:N:409:THR:HG22	2.14	0.48
1:O:190:LYS:HD2	1:O:190:LYS:C	2.34	0.48
1:A:38:ILE:HG22	1:A:50:VAL:HG23	1.96	0.48
1:A:50:VAL:HG12	1:A:368:GLN:HG2	1.96	0.48
1:A:68:ALA:O	1:A:72:VAL:HG23	2.14	0.48
1:A:161:HIS:CG	1:A:162:HIS:H	2.31	0.48
1:A:222:ALA:CB	1:A:336:ILE:HD12	2.44	0.48
1:A:280:ARG:HD2	1:A:304:PHE:HB2	1.96	0.48
1:B:32:PRO:HA	1:B:156:SER:HA	1.95	0.48
1:B:112:THR:HB	1:B:418:LYS:HZ2	1.78	0.48
1:C:250:LYS:O	1:C:253:GLU:HG2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:274:ILE:O	1:D:274:ILE:HG23	2.14	0.48
1:D:280:ARG:O	1:D:280:ARG:HG3	2.13	0.48
1:E:32:PRO:C	1:E:155:SER:HB3	2.33	0.48
1:E:105:ALA:O	1:E:107:LYS:HG3	2.13	0.48
1:E:134:ASP:HB3	1:E:393:THR:HG1	1.79	0.48
1:E:438:ALA:HB2	1:E:448:LEU:HG	1.95	0.48
1:F:204:GLY:HA3	1:F:350:SER:HA	1.95	0.48
1:F:205:PHE:HA	1:F:359:THR:OG1	2.14	0.48
1:G:171:VAL:O	1:G:174:VAL:HG22	2.14	0.48
1:G:274:ILE:HG23	1:G:274:ILE:O	2.14	0.48
1:G:394:VAL:CG2	1:G:482:GLU:HB2	2.44	0.48
1:G:436:ILE:HA	1:G:439:ASP:OD2	2.14	0.48
1:H:188:VAL:CG2	1:H:377:LEU:HD13	2.44	0.48
1:H:280:ARG:HG3	1:H:304:PHE:HA	1.96	0.48
1:J:226:ILE:HD11	1:J:310:LEU:HD12	1.96	0.48
1:J:503:ARG:HH11	1:N:36:ASP:HB2	1.78	0.48
1:K:82:VAL:HG11	1:K:486:VAL:CA	2.44	0.48
1:K:206:LEU:HD13	1:K:206:LEU:C	2.34	0.48
1:L:324:HIS:HB2	1:L:329:LYS:CE	2.43	0.48
1:L:367:GLN:HG3	1:L:369:ILE:HB	1.95	0.48
1:M:190:LYS:HA	1:M:362:LEU:O	2.13	0.48
1:M:318:ILE:HB	1:M:328:VAL:CG2	2.44	0.48
1:M:405:ALA:HA	1:M:408:VAL:HG22	1.96	0.48
1:N:174:VAL:HG21	1:N:384:LEU:HB3	1.96	0.48
1:N:196:LEU:HD13	1:N:196:LEU:C	2.34	0.48
1:P:431:ARG:HH21	1:P:434:PRO:HG2	1.78	0.48
1:A:313:VAL:CG1	1:A:352:VAL:HB	2.44	0.47
1:B:225:LEU:HD12	1:B:226:ILE:N	2.29	0.47
1:C:232:ASP:HA	1:C:284:TYR:CD1	2.49	0.47
1:C:334:LYS:CD	1:C:351:GLY:HA3	2.44	0.47
1:D:143:ARG:HA	1:D:143:ARG:HE	1.78	0.47
1:E:154:LEU:HD22	1:E:167:THR:OG1	2.14	0.47
1:H:209:LYS:HE2	1:H:301:HIS:O	2.14	0.47
1:H:506:ASN:O	1:H:507:ILE:HG23	2.14	0.47
1:I:110:PRO:HA	1:I:113:ILE:CG1	2.44	0.47
1:J:274:ILE:HG23	1:J:296:VAL:CG2	2.44	0.47
1:K:57:ILE:HD13	1:K:57:ILE:C	2.35	0.47
1:K:158:LEU:HG	1:K:158:LEU:O	2.13	0.47
1:L:341:ILE:HB	1:L:346:LEU:HD13	1.96	0.47
1:N:226:ILE:HG12	1:N:278:ILE:CG2	2.44	0.47
1:N:334:LYS:HB3	1:N:351:GLY:HA3	1.94	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:174:VAL:HG21	1:O:384:LEU:CD1	2.44	0.47
1:O:183:LEU:CD1	1:O:381:LEU:HD11	2.43	0.47
1:P:266:VAL:CB	1:P:290:LEU:HD21	2.39	0.47
1:A:52:ASN:HB3	1:A:375:ARG:CZ	2.44	0.47
1:A:53:ASP:HB2	1:A:375:ARG:CG	2.44	0.47
1:C:27:LYS:HB2	1:C:436:ILE:HG12	1.94	0.47
1:C:390:ASP:CB	1:C:485:GLN:HE22	2.27	0.47
1:D:231:MET:O	1:D:284:TYR:HB2	2.15	0.47
1:E:40:LEU:HB2	1:E:48:LEU:HD23	1.96	0.47
1:E:103:LEU:HG	1:E:113:ILE:HD13	1.96	0.47
1:E:346:LEU:HD12	1:E:348:HIS:CE1	2.49	0.47
1:F:46:ALA:O	1:F:47:SER:CB	2.62	0.47
1:F:53:ASP:HB2	1:F:375:ARG:HH11	1.79	0.47
1:F:146:LEU:O	1:F:147:MET:HG2	2.13	0.47
1:H:137:SER:CA	1:H:141:LYS:HE3	2.43	0.47
1:I:62:GLY:HA2	1:N:513:ARG:OXT	2.14	0.47
1:J:500:VAL:HA	1:J:503:ARG:NE	2.29	0.47
1:K:19:ALA:CB	1:K:97:LEU:HD12	2.44	0.47
1:K:143:ARG:NE	1:K:143:ARG:HA	2.29	0.47
1:K:145:ASP:OD1	1:K:171:VAL:HB	2.14	0.47
1:K:146:LEU:HB2	1:K:171:VAL:HG21	1.96	0.47
1:L:145:ASP:CG	1:L:171:VAL:HB	2.35	0.47
1:M:133:VAL:HG21	1:M:393:THR:O	2.14	0.47
1:M:163:LYS:HD2	1:M:166:PHE:CD1	2.49	0.47
1:M:448:LEU:HD13	1:M:448:LEU:C	2.33	0.47
1:P:222:ALA:HA	1:P:275:ASN:CB	2.44	0.47
1:P:402:MET:CE	1:P:453:ARG:HG3	2.44	0.47
1:A:185:ALA:HA	1:A:309:ARG:HD2	1.96	0.47
1:C:25:LEU:HG	1:H:508:ILE:CD1	2.41	0.47
1:D:17:ILE:O	1:D:20:ILE:HG22	2.14	0.47
1:E:52:ASN:ND2	1:E:157:LYS:HA	2.30	0.47
1:E:207:LEU:O	1:E:346:LEU:HD22	2.14	0.47
1:E:447:ASP:HA	1:J:418:LYS:HD3	1.96	0.47
1:G:100:ALA:O	1:G:103:LEU:HB2	2.14	0.47
1:G:226:ILE:HD13	1:G:307:VAL:HG13	1.96	0.47
1:H:268:ARG:O	1:H:271:LYS:HG2	2.14	0.47
1:I:61:ILE:CD1	1:N:511:ALA:HB1	2.44	0.47
1:I:117:TRP:O	1:I:120:ALA:HB3	2.14	0.47
1:J:27:LYS:HB2	1:J:436:ILE:CG1	2.45	0.47
1:J:367:GLN:OE1	1:J:370:LEU:HB2	2.15	0.47
1:M:57:ILE:HG23	1:M:58:LEU:CD2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:117:TRP:O	1:N:120:ALA:HB3	2.13	0.47
1:N:509:LYS:HG2	1:N:510:ALA:N	2.29	0.47
1:O:82:VAL:HG13	1:O:83:GLY:H	1.79	0.47
1:O:223:LYS:HB2	1:O:274:ILE:HA	1.97	0.47
1:P:209:LYS:HZ2	1:P:302:ALA:HA	1.79	0.47
1:P:367:GLN:CG	1:P:369:ILE:HB	2.45	0.47
1:P:438:ALA:CB	1:P:448:LEU:HG	2.44	0.47
1:A:154:LEU:HA	1:A:157:LYS:HD2	1.97	0.47
1:A:431:ARG:O	1:A:434:PRO:HD2	2.13	0.47
1:A:504:VAL:CG1	1:F:37:LYS:HA	2.41	0.47
1:B:324:HIS:HB2	1:B:329:LYS:HE2	1.96	0.47
1:D:397:GLY:HA3	1:D:475:MET:CE	2.44	0.47
1:E:236:ILE:HG12	1:E:237:LYS:H	1.80	0.47
1:E:455:ALA:HB2	1:E:472:ILE:HD12	1.96	0.47
1:G:219:ILE:HB	1:G:275:ASN:HB3	1.95	0.47
1:G:224:ILE:HD11	1:G:349:PHE:HE2	1.78	0.47
1:I:159:LEU:CD2	1:I:163:LYS:HG2	2.45	0.47
1:J:171:VAL:O	1:J:174:VAL:HG22	2.14	0.47
1:J:178:LYS:O	1:J:178:LYS:HG2	2.15	0.47
1:K:14:SER:O	1:K:17:ILE:HG22	2.14	0.47
1:K:317:GLU:HB2	1:K:329:LYS:HD3	1.96	0.47
1:L:143:ARG:HH22	1:L:168:LYS:HE3	1.79	0.47
1:L:265:LYS:HZ2	1:L:287:PRO:HG3	1.78	0.47
1:L:274:ILE:HG23	1:L:296:VAL:HG21	1.97	0.47
1:M:146:LEU:HB2	1:M:171:VAL:HG21	1.96	0.47
1:M:265:LYS:HE2	1:M:322:PHE:CZ	2.50	0.47
1:O:205:PHE:HA	1:O:359:THR:HB	1.96	0.47
1:O:219:ILE:CD1	1:O:276:CYS:HB2	2.44	0.47
1:O:287:PRO:O	1:O:291:PHE:HD2	1.98	0.47
1:P:108:ILE:CG2	1:P:109:HIS:N	2.77	0.47
1:P:262:MET:SD	1:P:290:LEU:HD22	2.55	0.47
1:A:431:ARG:HH21	1:A:434:PRO:HG2	1.79	0.47
1:A:505:ASP:CG	1:F:37:LYS:HZ2	2.18	0.47
1:C:54:GLY:O	1:C:58:LEU:HD23	2.15	0.47
1:C:110:PRO:HA	1:C:113:ILE:CD1	2.34	0.47
1:C:140:VAL:H	1:C:178:LYS:HZ2	1.60	0.47
1:C:246:ASP:O	1:C:247:SER:HB2	2.15	0.47
1:D:96:LEU:HD11	1:D:498:ALA:CB	2.37	0.47
1:D:484:PHE:HE2	1:D:488:ARG:NE	2.12	0.47
1:E:22:ILE:O	1:E:26:VAL:HG22	2.14	0.47
1:E:106:LYS:NZ	1:E:418:LYS:HE3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:154:LEU:HD21	1:E:163:LYS:HZ2	1.78	0.47
1:F:75:SER:O	1:F:78:GLN:HB3	2.14	0.47
1:F:154:LEU:HD22	1:F:167:THR:CB	2.44	0.47
1:G:173:ALA:O	1:G:176:ARG:HG2	2.14	0.47
1:H:215:GLN:HE21	1:H:292:GLY:N	2.13	0.47
1:K:176:ARG:CZ	1:K:358:CYS:HB2	2.44	0.47
1:M:276:CYS:HA	1:M:297:MET:O	2.14	0.47
1:N:74:MET:O	1:N:77:VAL:HG22	2.15	0.47
1:N:188:VAL:CG2	1:N:377:LEU:HD21	2.31	0.47
1:P:215:GLN:HG3	1:P:292:GLY:HA2	1.96	0.47
1:A:185:ALA:HB3	1:A:357:ALA:CB	2.40	0.47
1:A:334:LYS:HG3	1:A:351:GLY:HA3	1.96	0.47
1:B:506:ASN:C	1:B:507:ILE:HG13	2.33	0.47
1:D:280:ARG:HD3	1:D:304:PHE:HB2	1.96	0.47
1:G:206:LEU:CD2	1:G:346:LEU:HB3	2.45	0.47
1:H:230:GLY:HA2	1:H:279:ASN:HD21	1.77	0.47
1:H:452:LEU:HD13	1:H:465:LEU:CD1	2.43	0.47
1:I:116:GLY:HA3	1:I:422:ALA:CB	2.45	0.47
1:I:143:ARG:HA	1:I:143:ARG:HE	1.79	0.47
1:I:408:VAL:HG23	1:I:427:ALA:HB1	1.96	0.47
1:K:262:MET:SD	1:K:290:LEU:HD22	2.54	0.47
1:L:48:LEU:H	1:L:48:LEU:HD12	1.78	0.47
1:M:364:GLY:HA3	1:M:370:LEU:HD13	1.97	0.47
1:N:146:LEU:HD23	1:N:147:MET:H	1.79	0.47
1:N:174:VAL:HG11	1:N:384:LEU:CB	2.44	0.47
1:N:222:ALA:HA	1:N:275:ASN:HB2	1.96	0.47
1:N:324:HIS:HB2	1:N:329:LYS:CE	2.45	0.47
1:P:206:LEU:HD21	1:P:348:HIS:CG	2.50	0.47
1:P:323:ASP:C	1:P:325:PRO:HD2	2.34	0.47
1:P:334:LYS:HD2	1:P:351:GLY:HA3	1.97	0.47
1:A:174:VAL:HG11	1:A:384:LEU:CB	2.45	0.47
1:A:280:ARG:HG3	1:A:304:PHE:HB2	1.96	0.47
1:A:438:ALA:CB	1:A:448:LEU:HG	2.44	0.47
1:B:88:SER:O	1:B:92:LEU:HD13	2.14	0.47
1:D:22:ILE:O	1:D:26:VAL:HG22	2.14	0.47
1:D:32:PRO:HG2	1:D:467:MET:CE	2.45	0.47
1:D:231:MET:HG3	1:D:283:ILE:HG13	1.95	0.47
1:E:192:LEU:CG	1:E:366:THR:HG23	2.40	0.47
1:E:196:LEU:C	1:E:196:LEU:HD13	2.35	0.47
1:E:203:GLU:H	1:E:203:GLU:CD	2.18	0.47
1:E:226:ILE:HA	1:E:278:ILE:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:341:ILE:O	1:E:343:GLU:N	2.47	0.47
1:E:380:ALA:O	1:E:384:LEU:HD23	2.15	0.47
1:E:390:ASP:O	1:E:392:ARG:HG2	2.14	0.47
1:G:180:SER:HB3	1:G:356:GLU:OE1	2.14	0.47
1:G:211:ILE:CD1	1:G:297:MET:HG3	2.36	0.47
1:G:324:HIS:O	1:G:328:VAL:HG23	2.15	0.47
1:H:27:LYS:HA	1:H:30:LEU:HD13	1.96	0.47
1:H:96:LEU:HD13	1:H:96:LEU:C	2.35	0.47
1:H:176:ARG:CD	1:H:358:CYS:HB2	2.44	0.47
1:H:211:ILE:HD12	1:H:298:ALA:H	1.80	0.47
1:H:222:ALA:HA	1:H:275:ASN:CG	2.35	0.47
1:H:269:ILE:CG2	1:H:274:ILE:HG21	2.36	0.47
1:I:23:GLY:HA2	1:I:26:VAL:HG22	1.97	0.47
1:I:139:GLU:C	1:I:141:LYS:H	2.18	0.47
1:I:188:VAL:CG1	1:I:377:LEU:HD11	2.35	0.47
1:I:426:TYR:OH	1:I:491:LEU:HD22	2.14	0.47
1:J:126:GLN:O	1:J:130:ASN:HB2	2.15	0.47
1:J:143:ARG:HA	1:J:143:ARG:NE	2.29	0.47
1:J:341:ILE:HB	1:J:346:LEU:HD13	1.96	0.47
1:J:448:LEU:HD13	1:J:448:LEU:C	2.35	0.47
1:K:452:LEU:HD11	1:K:456:HIS:HE1	1.79	0.47
1:L:206:LEU:HD21	1:L:346:LEU:HD23	1.96	0.47
1:L:341:ILE:HG23	1:L:363:ARG:CZ	2.44	0.47
1:L:508:ILE:HB	1:P:39:LEU:HA	1.96	0.47
1:M:222:ALA:O	1:M:333:CYS:HB3	2.15	0.47
1:P:274:ILE:O	1:P:274:ILE:HG23	2.15	0.47
1:P:367:GLN:HG3	1:P:369:ILE:HB	1.95	0.47
1:A:53:ASP:HB2	1:A:375:ARG:HD3	1.92	0.47
1:B:284:TYR:CE2	1:B:286:TYR:CD1	3.02	0.47
1:B:392:ARG:HB3	1:B:484:PHE:HB3	1.97	0.47
1:D:111:GLN:HA	1:D:114:ILE:HG12	1.97	0.47
1:D:406:HIS:O	1:D:409:THR:HG22	2.15	0.47
1:E:280:ARG:HD2	1:E:304:PHE:HB2	1.97	0.47
1:F:146:LEU:HB2	1:F:171:VAL:HG21	1.97	0.47
1:F:183:LEU:HD13	1:F:381:LEU:HD11	1.96	0.47
1:G:32:PRO:HA	1:G:156:SER:CA	2.45	0.47
1:G:188:VAL:HG11	1:G:377:LEU:HD22	1.97	0.47
1:G:317:GLU:HB3	1:G:329:LYS:CD	2.45	0.47
1:H:7:ARG:HA	1:H:11:ALA:HB2	1.97	0.47
1:H:163:LYS:HE3	1:H:376:SER:HB2	1.96	0.47
1:I:93:ALA:CB	1:I:497:ALA:HB3	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:96:LEU:HG	1:I:498:ALA:HB1	1.96	0.47
1:I:145:ASP:OD1	1:I:171:VAL:HB	2.13	0.47
1:I:225:LEU:HD11	1:I:324:HIS:CE1	2.50	0.47
1:I:403:LEU:HD22	1:I:461:THR:HG22	1.95	0.47
1:L:82:VAL:HG12	1:L:83:GLY:N	2.29	0.47
1:M:199:SER:HB2	1:M:362:LEU:HD23	1.96	0.47
1:M:225:LEU:HD11	1:M:324:HIS:ND1	2.30	0.47
1:N:334:LYS:HD3	1:N:334:LYS:C	2.35	0.47
1:O:145:ASP:OD2	1:O:175:LEU:HD11	2.13	0.47
1:O:152:THR:OG1	1:O:480:ILE:HD12	2.15	0.47
1:O:225:LEU:HG	1:O:277:PHE:CD1	2.50	0.47
1:P:58:LEU:HB3	1:P:72:VAL:CG1	2.43	0.47
1:P:190:LYS:HB2	1:P:370:LEU:CD2	2.45	0.47
1:P:216:PRO:HG3	1:P:295:GLY:HA2	1.96	0.47
1:A:174:VAL:HG11	1:A:384:LEU:HB2	1.97	0.47
1:B:341:ILE:HG23	1:B:363:ARG:CZ	2.45	0.47
1:D:93:ALA:O	1:D:96:LEU:HD12	2.15	0.47
1:E:54:GLY:O	1:E:58:LEU:HD23	2.15	0.47
1:G:52:ASN:OD1	1:G:157:LYS:HE3	2.15	0.47
1:G:151:GLY:HA2	1:G:167:THR:HG21	1.97	0.47
1:G:226:ILE:HA	1:G:278:ILE:O	2.15	0.47
1:I:7:ARG:HH22	1:O:513:ARG:NH2	2.10	0.47
1:J:141:LYS:HG3	1:J:142:PHE:N	2.29	0.47
1:J:183:LEU:O	1:J:184:GLU:HB3	2.14	0.47
1:K:122:LYS:NZ	1:K:411:LEU:HD22	2.30	0.47
1:L:68:ALA:O	1:L:72:VAL:HG23	2.15	0.47
1:M:48:LEU:H	1:M:48:LEU:HD12	1.79	0.47
1:M:352:VAL:HG22	1:M:355:GLY:H	1.80	0.47
1:O:138:ASP:O	1:O:139:GLU:HB2	2.14	0.47
1:A:146:LEU:HB2	1:A:171:VAL:CG2	2.45	0.47
1:A:334:LYS:CD	1:A:351:GLY:HA3	2.45	0.47
1:A:362:LEU:CD1	1:A:373:ALA:HB1	2.42	0.47
1:A:486:VAL:O	1:A:490:VAL:HG12	2.14	0.47
1:B:369:ILE:HG13	1:F:496:GLU:OE1	2.14	0.47
1:B:376:SER:O	1:B:379:ASP:HB2	2.15	0.47
1:B:450:ALA:HB2	1:I:420:ALA:CB	2.45	0.47
1:C:178:LYS:HE2	1:C:388:VAL:HG21	1.96	0.47
1:C:222:ALA:HA	1:C:275:ASN:HB2	1.96	0.47
1:C:317:GLU:HB2	1:C:329:LYS:HA	1.96	0.47
1:C:334:LYS:HB2	1:C:351:GLY:HA3	1.97	0.47
1:D:19:ALA:HB3	1:D:98:ARG:NH2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:448:LEU:HA	1:D:451:GLN:HE21	1.79	0.47
1:E:269:ILE:CG2	1:E:274:ILE:HG21	2.40	0.47
1:F:40:LEU:HD22	1:F:41:SER:N	2.30	0.47
1:F:313:VAL:CG1	1:F:352:VAL:HB	2.45	0.47
1:G:431:ARG:HA	1:G:431:ARG:CZ	2.45	0.47
1:G:433:LEU:HB2	1:G:434:PRO:HD3	1.97	0.47
1:H:16:PHE:HA	1:H:97:LEU:CD2	2.45	0.47
1:H:112:THR:CG2	1:H:418:LYS:HD2	2.45	0.47
1:H:146:LEU:HD23	1:H:147:MET:N	2.30	0.47
1:H:149:ILE:HG12	1:H:383:VAL:HG11	1.97	0.47
1:J:146:LEU:HD13	1:J:167:THR:O	2.15	0.47
1:K:28:SER:HB2	1:K:35:MET:CG	2.45	0.47
1:K:103:LEU:HG	1:K:113:ILE:CD1	2.45	0.47
1:K:370:LEU:HD22	1:K:370:LEU:HA	1.66	0.47
1:L:173:ALA:HA	1:L:176:ARG:CZ	2.45	0.47
1:L:291:PHE:HB3	1:L:296:VAL:O	2.14	0.47
1:L:506:ASN:OD1	1:L:508:ILE:HD11	2.15	0.47
1:M:37:LYS:HZ3	1:O:504:VAL:HA	1.78	0.47
1:M:52:ASN:HD21	1:M:157:LYS:HA	1.79	0.47
1:M:199:SER:HB2	1:M:362:LEU:CD2	2.45	0.47
1:P:57:ILE:HG23	1:P:58:LEU:CD2	2.45	0.47
1:P:145:ASP:O	1:P:171:VAL:HG11	2.15	0.47
1:P:198:ASP:HA	1:P:364:GLY:HA2	1.97	0.47
1:A:37:LYS:H	1:C:503:ARG:HG3	1.80	0.46
1:D:191:LYS:HB3	1:D:363:ARG:HB3	1.97	0.46
1:E:402:MET:CE	1:E:453:ARG:HG2	2.45	0.46
1:F:52:ASN:HB3	1:F:375:ARG:HH22	1.80	0.46
1:F:110:PRO:O	1:F:113:ILE:HB	2.15	0.46
1:F:231:MET:HG3	1:F:283:ILE:HG13	1.98	0.46
1:H:41:SER:O	1:H:45:ASP:HB2	2.15	0.46
1:H:274:ILE:HG23	1:H:296:VAL:CG2	2.45	0.46
1:I:97:LEU:HD21	1:I:501:ILE:HG21	1.96	0.46
1:I:191:LYS:HA	1:I:191:LYS:CE	2.44	0.46
1:J:286:TYR:HB2	1:J:287:PRO:HD3	1.97	0.46
1:K:99:GLU:HG2	1:K:425:SER:HB2	1.97	0.46
1:M:365:ALA:O	1:M:366:THR:HG23	2.15	0.46
1:M:431:ARG:O	1:M:434:PRO:HD2	2.14	0.46
1:N:215:GLN:HA	1:N:292:GLY:HA2	1.97	0.46
1:O:186:ILE:CG2	1:O:360:ILE:HD12	2.45	0.46
1:P:16:PHE:HA	1:P:97:LEU:HD23	1.96	0.46
1:B:452:LEU:HD13	1:B:465:LEU:CD1	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:482:GLU:OE1	1:D:487:LYS:HE3	2.15	0.46
1:F:109:HIS:NE2	1:F:111:GLN:HG2	2.30	0.46
1:F:198:ASP:CA	1:F:363:ARG:HB2	2.45	0.46
1:G:102:SER:O	1:G:105:ALA:HB3	2.15	0.46
1:G:337:GLU:HG3	1:G:339:VAL:HG23	1.97	0.46
1:G:412:ALA:HB1	1:G:424:GLU:HB3	1.96	0.46
1:H:334:LYS:HG3	1:H:351:GLY:HA3	1.97	0.46
1:I:100:ALA:HA	1:I:103:LEU:HD22	1.97	0.46
1:I:157:LYS:CE	1:I:376:SER:HB3	2.45	0.46
1:I:324:HIS:HB2	1:I:329:LYS:HZ1	1.76	0.46
1:L:39:LEU:CD1	1:L:57:ILE:HD11	2.45	0.46
1:L:57:ILE:C	1:L:57:ILE:HD13	2.35	0.46
1:L:265:LYS:HE2	1:L:322:PHE:CE1	2.49	0.46
1:M:173:ALA:O	1:M:176:ARG:HG2	2.15	0.46
1:M:431:ARG:CZ	1:M:431:ARG:HA	2.46	0.46
1:O:206:LEU:C	1:O:206:LEU:HD13	2.35	0.46
1:A:381:LEU:O	1:A:381:LEU:HD22	2.14	0.46
1:B:22:ILE:HD12	1:B:90:THR:CG2	2.46	0.46
1:B:106:LYS:CG	1:B:108:ILE:HG22	2.44	0.46
1:C:27:LYS:CB	1:C:436:ILE:HD11	2.46	0.46
1:C:57:ILE:HG23	1:C:58:LEU:CD2	2.45	0.46
1:C:143:ARG:O	1:C:143:ARG:HG3	2.15	0.46
1:C:146:LEU:HD11	1:C:150:ALA:CB	2.46	0.46
1:D:36:ASP:O	1:E:504:VAL:HG12	2.15	0.46
1:F:448:LEU:HD11	1:F:465:LEU:HD11	1.97	0.46
1:G:297:MET:CE	1:G:347:ILE:HD11	2.45	0.46
1:G:313:VAL:HG13	1:G:352:VAL:HG11	1.96	0.46
1:G:402:MET:CE	1:G:453:ARG:HG2	2.45	0.46
1:H:38:ILE:HD12	1:H:48:LEU:HD23	1.97	0.46
1:I:188:VAL:HG23	1:I:360:ILE:O	2.16	0.46
1:I:283:ILE:HG22	1:I:300:GLU:CG	2.40	0.46
1:I:402:MET:CE	1:I:453:ARG:HG2	2.45	0.46
1:J:219:ILE:HD12	1:J:275:ASN:HB3	1.96	0.46
1:J:369:ILE:O	1:J:372:GLU:CB	2.63	0.46
1:J:431:ARG:HH21	1:J:434:PRO:HG2	1.80	0.46
1:K:442:GLY:HA3	1:P:109:HIS:NE2	2.29	0.46
1:M:224:ILE:CD1	1:M:349:PHE:HE2	2.27	0.46
1:N:183:LEU:CD1	1:N:186:ILE:HD11	2.45	0.46
1:N:192:LEU:HD23	1:N:343:GLU:OE2	2.15	0.46
1:N:317:GLU:HB2	1:N:329:LYS:HD3	1.97	0.46
1:P:305:VAL:HG22	1:P:309:ARG:HH12	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:36:ASP:CG	1:A:50:VAL:HG21	2.36	0.46
1:A:192:LEU:HB2	1:A:343:GLU:HG2	1.98	0.46
1:A:433:LEU:HB2	1:A:434:PRO:HD3	1.98	0.46
1:B:7:ARG:O	1:B:10:THR:HG23	2.15	0.46
1:B:159:LEU:HD23	1:B:160:THR:N	2.30	0.46
1:B:509:LYS:HA	1:G:48:LEU:HB3	1.97	0.46
1:C:417:GLY:HA3	1:L:450:ALA:HA	1.95	0.46
1:D:70:VAL:CG2	1:D:507:ILE:HD11	2.43	0.46
1:D:96:LEU:CD1	1:D:498:ALA:HB1	2.38	0.46
1:D:496:GLU:O	1:D:500:VAL:HG13	2.15	0.46
1:E:108:ILE:HG22	1:E:109:HIS:N	2.30	0.46
1:E:505:ASP:O	1:E:506:ASN:HB3	2.15	0.46
1:F:448:LEU:HA	1:F:451:GLN:HE21	1.81	0.46
1:F:452:LEU:HD11	1:F:456:HIS:CE1	2.51	0.46
1:G:146:LEU:CD2	1:G:147:MET:H	2.23	0.46
1:G:205:PHE:HA	1:G:359:THR:OG1	2.16	0.46
1:G:261:LYS:O	1:G:264:GLU:HG2	2.15	0.46
1:G:431:ARG:O	1:G:434:PRO:HD2	2.15	0.46
1:H:58:LEU:HB3	1:H:72:VAL:HG11	1.97	0.46
1:H:367:GLN:CD	1:H:369:ILE:HB	2.35	0.46
1:H:397:GLY:O	1:H:465:LEU:HD23	2.16	0.46
1:H:450:ALA:HB3	1:P:417:GLY:N	2.31	0.46
1:I:174:VAL:HG11	1:I:384:LEU:HB3	1.95	0.46
1:I:316:GLY:C	1:I:317:GLU:HG2	2.35	0.46
1:J:131:SER:O	1:J:132:ALA:HB3	2.15	0.46
1:L:209:LYS:HE3	1:L:301:HIS:O	2.15	0.46
1:M:106:LYS:C	1:M:107:LYS:HG2	2.35	0.46
1:N:139:GLU:OE2	1:N:140:VAL:HG23	2.15	0.46
1:N:402:MET:HG2	1:N:431:ARG:HH22	1.80	0.46
1:O:269:ILE:HG23	1:O:274:ILE:HG21	1.96	0.46
1:O:280:ARG:HG3	1:O:304:PHE:CA	2.45	0.46
1:P:32:PRO:HD2	1:P:467:MET:CE	2.45	0.46
1:P:109:HIS:HE1	1:P:111:GLN:HG2	1.78	0.46
1:P:334:LYS:CD	1:P:351:GLY:HA3	2.44	0.46
1:A:149:ILE:HD13	1:A:383:VAL:CG1	2.41	0.46
1:B:33:LYS:O	1:B:440:ASN:HB2	2.16	0.46
1:B:219:ILE:CD1	1:B:275:ASN:HB3	2.44	0.46
1:B:500:VAL:CG1	1:G:367:GLN:HG2	2.38	0.46
1:C:182:ASN:HB3	1:C:184:GLU:HG2	1.98	0.46
1:E:57:ILE:HD13	1:E:57:ILE:O	2.15	0.46
1:F:51:THR:HG22	1:F:53:ASP:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:505:ASP:O	1:F:506:ASN:HB2	2.15	0.46
1:G:149:ILE:CG2	1:G:383:VAL:HG11	2.45	0.46
1:G:154:LEU:O	1:G:160:THR:HG23	2.15	0.46
1:H:325:PRO:C	1:H:326:GLU:HG3	2.34	0.46
1:I:85:GLY:O	1:I:153:THR:HG23	2.16	0.46
1:J:160:THR:HA	1:J:163:LYS:HB3	1.97	0.46
1:L:59:LYS:CE	1:L:76:ARG:HB2	2.45	0.46
1:L:222:ALA:HA	1:L:275:ASN:HB2	1.96	0.46
1:L:394:VAL:HG23	1:L:482:GLU:HB2	1.97	0.46
1:L:499:GLU:O	1:L:503:ARG:HD3	2.15	0.46
1:M:38:ILE:CG2	1:M:50:VAL:HB	2.45	0.46
1:M:190:LYS:HG3	1:M:370:LEU:HG	1.97	0.46
1:M:324:HIS:CG	1:M:325:PRO:HD3	2.51	0.46
1:N:231:MET:HE1	1:N:265:LYS:HD3	1.97	0.46
1:O:22:ILE:O	1:O:26:VAL:HG22	2.15	0.46
1:P:206:LEU:HD12	1:P:361:VAL:HG11	1.97	0.46
1:A:146:LEU:CD1	1:A:171:VAL:HG13	2.45	0.46
1:A:402:MET:CE	1:A:453:ARG:HG2	2.45	0.46
1:B:207:LEU:HB3	1:B:347:ILE:HG23	1.97	0.46
1:B:286:TYR:HB2	1:B:287:PRO:HD3	1.98	0.46
1:C:25:LEU:CG	1:H:508:ILE:HD13	2.40	0.46
1:D:211:ILE:HB	1:D:215:GLN:OE1	2.15	0.46
1:D:231:MET:C	1:D:284:TYR:HB2	2.36	0.46
1:I:349:PHE:HE1	1:I:352:VAL:HG23	1.80	0.46
1:J:111:GLN:HE21	1:J:111:GLN:HB3	1.64	0.46
1:J:121:THR:O	1:J:125:ARG:HG3	2.16	0.46
1:J:405:ALA:HA	1:J:408:VAL:HG22	1.98	0.46
1:K:231:MET:HE1	1:K:265:LYS:HD3	1.97	0.46
1:M:274:ILE:O	1:M:274:ILE:HG23	2.15	0.46
1:N:232:ASP:HA	1:N:284:TYR:CD1	2.51	0.46
1:N:268:ARG:O	1:N:271:LYS:HG2	2.16	0.46
1:N:280:ARG:HA	1:N:302:ALA:O	2.16	0.46
1:N:452:LEU:HD13	1:N:465:LEU:HD13	1.97	0.46
1:O:96:LEU:O	1:O:96:LEU:HD22	2.16	0.46
1:O:226:ILE:HG12	1:O:278:ILE:HG23	1.98	0.46
1:P:133:VAL:HG23	1:P:393:THR:O	2.16	0.46
1:P:216:PRO:HG2	1:P:295:GLY:CA	2.45	0.46
1:A:137:SER:O	1:A:141:LYS:HB2	2.15	0.46
1:B:274:ILE:HG23	1:B:296:VAL:CG2	2.45	0.46
1:C:67:ALA:HB2	1:C:507:ILE:HG13	1.97	0.46
1:C:452:LEU:HD22	1:C:465:LEU:HD21	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:216:PRO:HG2	1:D:295:GLY:HA2	1.98	0.46
1:E:78:GLN:HE22	1:E:489:GLN:HB2	1.81	0.46
1:E:274:ILE:O	1:E:274:ILE:HG23	2.15	0.46
1:F:297:MET:CE	1:F:347:ILE:HD11	2.45	0.46
1:F:503:ARG:HG2	1:F:504:VAL:HG23	1.97	0.46
1:G:218:ARG:HG3	1:G:337:GLU:HB3	1.97	0.46
1:G:250:LYS:O	1:G:253:GLU:HG2	2.15	0.46
1:G:431:ARG:NH2	1:G:434:PRO:HG2	2.30	0.46
1:H:133:VAL:HA	1:H:461:THR:HB	1.98	0.46
1:H:371:ASP:O	1:H:374:GLU:HB3	2.16	0.46
1:I:108:ILE:HG22	1:I:109:HIS:N	2.31	0.46
1:I:448:LEU:HD11	1:I:465:LEU:CD1	2.45	0.46
1:K:27:LYS:HB2	1:K:436:ILE:HG13	1.98	0.46
1:K:448:LEU:HD13	1:K:448:LEU:C	2.36	0.46
1:N:196:LEU:HD13	1:N:196:LEU:O	2.16	0.46
1:N:431:ARG:NH2	1:N:434:PRO:HG2	2.29	0.46
1:O:222:ALA:HA	1:O:275:ASN:CB	2.45	0.46
1:O:324:HIS:O	1:O:329:LYS:HG3	2.16	0.46
1:P:371:ASP:O	1:P:374:GLU:HB3	2.16	0.46
1:A:139:GLU:O	1:A:140:VAL:HB	2.16	0.46
1:A:417:GLY:O	1:M:450:ALA:HB3	2.15	0.46
1:B:40:LEU:HD22	1:B:41:SER:N	2.31	0.46
1:B:89:VAL:HG12	1:B:490:VAL:CG2	2.46	0.46
1:B:508:ILE:O	1:B:509:LYS:CB	2.64	0.46
1:D:29:THR:O	1:D:156:SER:HB2	2.16	0.46
1:D:225:LEU:HD12	1:D:226:ILE:N	2.31	0.46
1:F:28:SER:HA	1:F:440:ASN:CB	2.46	0.46
1:F:30:LEU:O	1:F:31:GLY:O	2.34	0.46
1:G:341:ILE:HG23	1:G:363:ARG:NH2	2.31	0.46
1:H:96:LEU:O	1:H:96:LEU:HD22	2.15	0.46
1:H:216:PRO:HG2	1:H:295:GLY:HA2	1.97	0.46
1:J:48:LEU:H	1:J:48:LEU:HD12	1.80	0.46
1:J:113:ILE:HD12	1:J:113:ILE:N	2.30	0.46
1:J:174:VAL:HG11	1:J:384:LEU:HB3	1.97	0.46
1:J:219:ILE:HB	1:J:275:ASN:HB3	1.96	0.46
1:K:261:LYS:O	1:K:264:GLU:HG2	2.15	0.46
1:L:171:VAL:CG1	1:L:384:LEU:HG	2.45	0.46
1:L:434:PRO:HB3	1:L:452:LEU:HD22	1.97	0.46
1:M:216:PRO:HG2	1:M:295:GLY:HA2	1.97	0.46
1:O:139:GLU:O	1:O:141:LYS:N	2.46	0.46
1:O:226:ILE:HG12	1:O:278:ILE:CG2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:40:LEU:CD2	1:P:41:SER:H	2.29	0.46
1:P:223:LYS:HE3	1:P:272:HIS:O	2.16	0.46
1:A:128:LEU:HD11	1:A:488:ARG:HD3	1.98	0.46
1:A:141:LYS:HE3	1:A:144:GLN:HG2	1.97	0.46
1:A:159:LEU:CD1	1:A:372:GLU:HG2	2.44	0.46
1:A:317:GLU:HB3	1:A:329:LYS:HA	1.98	0.46
1:A:466:ASP:HB3	1:A:469:GLU:HB3	1.98	0.46
1:B:261:LYS:O	1:B:264:GLU:HG2	2.16	0.46
1:B:364:GLY:HA3	1:B:370:LEU:CD1	2.45	0.46
1:B:413:SER:HB2	1:I:453:ARG:C	2.37	0.46
1:C:466:ASP:HB3	1:C:469:GLU:HB3	1.98	0.46
1:D:359:THR:O	1:D:359:THR:HG22	2.16	0.46
1:D:448:LEU:HD21	1:D:465:LEU:HD12	1.97	0.46
1:E:24:ASP:O	1:E:27:LYS:HG2	2.16	0.46
1:F:15:SER:HB3	1:F:501:ILE:HG21	1.98	0.46
1:F:377:LEU:HD12	1:F:378:HIS:H	1.81	0.46
1:G:38:ILE:HB	1:G:48:LEU:HD21	1.98	0.46
1:G:84:ASP:OD2	1:G:382:CYS:HB2	2.15	0.46
1:G:161:HIS:CG	1:G:162:HIS:H	2.34	0.46
1:H:188:VAL:HB	1:H:377:LEU:HD22	1.98	0.46
1:I:375:ARG:HB3	1:I:375:ARG:NH1	2.31	0.46
1:I:510:ALA:O	1:I:511:ALA:HB3	2.16	0.46
1:J:96:LEU:HG	1:J:498:ALA:CB	2.46	0.46
1:J:287:PRO:O	1:J:291:PHE:HD1	1.99	0.46
1:K:100:ALA:HA	1:K:103:LEU:HD22	1.98	0.46
1:K:231:MET:CG	1:K:283:ILE:HG13	2.45	0.46
1:M:22:ILE:HD12	1:M:90:THR:CG2	2.45	0.46
1:M:171:VAL:O	1:M:175:LEU:HG	2.16	0.46
1:M:206:LEU:HD11	1:M:346:LEU:HD22	1.97	0.46
1:N:313:VAL:CG2	1:N:357:ALA:HB3	2.46	0.46
1:O:283:ILE:HG22	1:O:300:GLU:CG	2.43	0.46
1:O:502:LEU:HD23	1:O:502:LEU:O	2.16	0.46
1:P:57:ILE:HD13	1:P:57:ILE:O	2.15	0.46
1:P:238:ILE:O	1:P:238:ILE:HG13	2.16	0.46
1:A:154:LEU:HD13	1:A:167:THR:OG1	2.16	0.46
1:A:215:GLN:HG3	1:A:292:GLY:HA2	1.97	0.46
1:B:126:GLN:HE22	1:B:411:LEU:CD2	2.29	0.46
1:B:226:ILE:HG12	1:B:278:ILE:HG23	1.97	0.46
1:C:107:LYS:O	1:C:107:LYS:HG2	2.16	0.46
1:C:324:HIS:O	1:C:329:LYS:HG3	2.16	0.46
1:D:190:LYS:HA	1:D:362:LEU:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:139:GLU:O	1:F:140:VAL:HB	2.15	0.46
1:F:160:THR:HA	1:F:163:LYS:HB3	1.98	0.46
1:F:161:HIS:CG	1:F:162:HIS:H	2.33	0.46
1:G:124:ALA:O	1:G:128:LEU:HD13	2.16	0.46
1:G:215:GLN:HG3	1:G:292:GLY:HA2	1.98	0.46
1:G:402:MET:SD	1:G:456:HIS:CB	3.01	0.46
1:H:57:ILE:HG23	1:H:58:LEU:CD2	2.46	0.46
1:H:222:ALA:HA	1:H:275:ASN:HB2	1.98	0.46
1:H:397:GLY:HA3	1:H:475:MET:HE1	1.97	0.46
1:J:27:LYS:CB	1:J:436:ILE:HD11	2.46	0.46
1:J:52:ASN:CG	1:J:157:LYS:HG2	2.36	0.46
1:K:95:GLU:OE2	1:K:432:MET:HB3	2.16	0.46
1:K:141:LYS:O	1:K:145:ASP:HB2	2.16	0.46
1:L:225:LEU:HD13	1:L:329:LYS:HE2	1.97	0.46
1:N:377:LEU:HA	1:N:380:ALA:HB3	1.98	0.46
1:N:397:GLY:O	1:N:465:LEU:HD23	2.15	0.46
1:N:402:MET:CE	1:N:453:ARG:HG2	2.46	0.46
1:O:159:LEU:HB3	1:O:369:ILE:HB	1.97	0.46
1:O:367:GLN:HG3	1:O:369:ILE:HG12	1.98	0.46
1:O:397:GLY:HA3	1:O:475:MET:HE1	1.96	0.46
1:P:233:THR:HG21	1:P:261:LYS:HE2	1.97	0.46
1:A:38:ILE:HG22	1:A:50:VAL:CG2	2.46	0.45
1:A:76:ARG:O	1:A:79:ASP:HB3	2.15	0.45
1:A:84:ASP:CG	1:A:85:GLY:H	2.17	0.45
1:A:390:ASP:HB3	1:A:485:GLN:NE2	2.31	0.45
1:A:405:ALA:HA	1:A:408:VAL:HG22	1.98	0.45
1:A:507:ILE:O	1:A:507:ILE:HG22	2.17	0.45
1:B:146:LEU:HD21	1:B:167:THR:HG23	1.97	0.45
1:C:324:HIS:HB2	1:C:329:LYS:HZ3	1.81	0.45
1:D:146:LEU:CD2	1:D:147:MET:H	2.29	0.45
1:F:226:ILE:HG12	1:F:278:ILE:HG23	1.98	0.45
1:F:452:LEU:HD11	1:F:456:HIS:HE1	1.81	0.45
1:G:32:PRO:HA	1:G:156:SER:HA	1.97	0.45
1:G:219:ILE:HD12	1:G:275:ASN:HB3	1.98	0.45
1:H:325:PRO:O	1:H:326:GLU:HG3	2.16	0.45
1:I:280:ARG:HG3	1:I:304:PHE:HB2	1.98	0.45
1:K:52:ASN:CB	1:K:375:ARG:CZ	2.94	0.45
1:K:245:VAL:HG11	1:K:250:LYS:HB2	1.98	0.45
1:K:322:PHE:HA	1:K:324:HIS:CD2	2.51	0.45
1:L:202:ASP:OD2	1:L:361:VAL:HG21	2.16	0.45
1:L:324:HIS:O	1:L:329:LYS:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:99:GLU:O	1:M:102:SER:HB2	2.16	0.45
1:M:122:LYS:HG2	1:M:126:GLN:HE21	1.81	0.45
1:M:134:ASP:C	1:M:136:GLY:H	2.20	0.45
1:M:283:ILE:HG22	1:M:300:GLU:CG	2.46	0.45
1:O:417:GLY:HA2	1:O:420:ALA:HB3	1.98	0.45
1:A:372:GLU:CD	1:A:375:ARG:HH12	2.19	0.45
1:A:397:GLY:HA3	1:A:475:MET:HE1	1.97	0.45
1:C:207:LEU:HD13	1:C:208:ASP:N	2.30	0.45
1:D:15:SER:CB	1:D:501:ILE:HD13	2.46	0.45
1:F:152:THR:CB	1:F:480:ILE:HD12	2.45	0.45
1:G:131:SER:HB2	1:G:403:LEU:CD2	2.45	0.45
1:G:211:ILE:HB	1:G:215:GLN:OE1	2.17	0.45
1:G:324:HIS:HB2	1:G:329:LYS:HZ1	1.80	0.45
1:H:2:GLY:O	1:H:3:ALA:HB2	2.16	0.45
1:H:146:LEU:HD22	1:H:168:LYS:HA	1.98	0.45
1:H:334:LYS:O	1:H:335:LEU:HB2	2.17	0.45
1:I:149:ILE:CG2	1:I:383:VAL:HG11	2.47	0.45
1:I:211:ILE:HG13	1:I:298:ALA:O	2.16	0.45
1:J:57:ILE:C	1:J:57:ILE:HD13	2.37	0.45
1:J:133:VAL:HB	1:J:134:ASP:H	1.50	0.45
1:J:163:LYS:HA	1:J:166:PHE:HD1	1.78	0.45
1:K:28:SER:HB2	1:K:35:MET:HG3	1.99	0.45
1:K:82:VAL:HG13	1:K:83:GLY:N	2.31	0.45
1:L:111:GLN:HE21	1:L:111:GLN:N	2.06	0.45
1:M:99:GLU:HG2	1:M:425:SER:HB3	1.99	0.45
1:M:128:LEU:HD21	1:M:488:ARG:HG2	1.98	0.45
1:M:277:PHE:O	1:M:298:ALA:HA	2.16	0.45
1:M:506:ASN:O	1:M:506:ASN:ND2	2.49	0.45
1:O:384:LEU:HA	1:O:387:THR:OG1	2.16	0.45
1:A:367:GLN:O	1:A:370:LEU:HB3	2.16	0.45
1:A:395:TYR:HE1	1:A:476:SER:HG	1.64	0.45
1:B:452:LEU:HD22	1:B:465:LEU:HD11	1.98	0.45
1:C:84:ASP:CG	1:C:85:GLY:H	2.19	0.45
1:C:417:GLY:HA3	1:L:449:VAL:HG12	1.98	0.45
1:D:185:ALA:HA	1:D:309:ARG:CG	2.46	0.45
1:E:500:VAL:HA	1:E:503:ARG:CD	2.45	0.45
1:F:433:LEU:HB2	1:F:434:PRO:HD3	1.97	0.45
1:G:414:ARG:O	1:G:416:PRO:HD3	2.16	0.45
1:H:215:GLN:HG3	1:H:292:GLY:HA2	1.99	0.45
1:I:63:VAL:HG12	1:I:64:ASP:CB	2.47	0.45
1:I:508:ILE:O	1:O:48:LEU:HD21	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:44:ARG:O	1:J:44:ARG:HG2	2.16	0.45
1:J:276:CYS:HA	1:J:297:MET:O	2.16	0.45
1:L:32:PRO:HA	1:L:155:SER:HB3	1.98	0.45
1:L:82:VAL:HG11	1:L:486:VAL:HG12	1.98	0.45
1:L:89:VAL:HG12	1:L:490:VAL:CG2	2.46	0.45
1:L:223:LYS:HD3	1:L:272:HIS:CE1	2.51	0.45
1:N:146:LEU:O	1:N:147:MET:HB2	2.15	0.45
1:P:146:LEU:HB2	1:P:171:VAL:HG21	1.98	0.45
1:A:99:GLU:HG3	1:A:425:SER:HB2	1.98	0.45
1:A:268:ARG:HD2	1:A:271:LYS:HZ3	1.81	0.45
1:B:100:ALA:HA	1:B:103:LEU:HD13	1.98	0.45
1:C:390:ASP:HB3	1:C:485:GLN:HE22	1.81	0.45
1:D:28:SER:O	1:D:34:GLY:HA2	2.17	0.45
1:D:261:LYS:H	1:D:261:LYS:HD2	1.82	0.45
1:D:317:GLU:HB3	1:D:330:LEU:H	1.81	0.45
1:D:324:HIS:HB2	1:D:329:LYS:CE	2.46	0.45
1:E:130:ASN:O	1:E:131:SER:CB	2.63	0.45
1:E:441:ALA:HB2	1:E:467:MET:CG	2.46	0.45
1:F:188:VAL:HG13	1:F:377:LEU:HD13	1.97	0.45
1:F:313:VAL:HG13	1:F:352:VAL:CB	2.46	0.45
1:F:511:ALA:HA	1:F:512:PRO:HD3	1.85	0.45
1:G:220:GLU:HG2	1:G:335:LEU:HD13	1.99	0.45
1:H:59:LYS:HE2	1:H:76:ARG:HB3	1.97	0.45
1:J:451:GLN:NE2	1:J:471:THR:HA	2.32	0.45
1:J:513:ARG:OXT	1:J:513:ARG:HG2	2.15	0.45
1:K:157:LYS:HE3	1:K:375:ARG:HD3	1.99	0.45
1:K:287:PRO:O	1:K:291:PHE:HD1	1.99	0.45
1:K:435:THR:HG23	1:K:445:SER:HB3	1.97	0.45
1:L:2:GLY:O	1:L:4:ASP:N	2.50	0.45
1:L:171:VAL:HG12	1:L:384:LEU:HG	1.98	0.45
1:M:35:MET:HE1	1:O:503:ARG:HE	1.77	0.45
1:N:171:VAL:HG22	1:N:384:LEU:CD2	2.46	0.45
1:N:226:ILE:HB	1:N:317:GLU:OE2	2.17	0.45
1:O:82:VAL:HG11	1:O:489:GLN:OE1	2.16	0.45
1:O:354:LEU:CD2	1:O:356:GLU:HB2	2.46	0.45
1:P:84:ASP:CG	1:P:85:GLY:H	2.19	0.45
1:A:183:LEU:O	1:A:183:LEU:HD13	2.17	0.45
1:A:334:LYS:HD3	1:A:335:LEU:N	2.30	0.45
1:A:372:GLU:CA	1:A:375:ARG:HH12	2.28	0.45
1:B:109:HIS:HE1	1:G:33:LYS:HD2	1.79	0.45
1:B:191:LYS:CE	1:B:346:LEU:HD11	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:372:GLU:O	1:B:375:ARG:HB3	2.16	0.45
1:B:411:LEU:HB3	1:B:423:MET:CE	2.47	0.45
1:C:323:ASP:C	1:C:325:PRO:HD2	2.37	0.45
1:C:326:GLU:HB2	1:C:327:LEU:H	1.59	0.45
1:D:2:GLY:O	1:D:3:ALA:HB2	2.16	0.45
1:D:381:LEU:HD22	1:D:381:LEU:C	2.37	0.45
1:D:431:ARG:HH21	1:D:434:PRO:HG2	1.81	0.45
1:D:446:ALA:HB1	1:K:418:LYS:CE	2.47	0.45
1:E:48:LEU:HD22	1:G:67:ALA:HB2	1.99	0.45
1:E:110:PRO:O	1:E:113:ILE:HB	2.17	0.45
1:E:366:THR:HA	1:E:370:LEU:CD2	2.46	0.45
1:F:230:GLY:HA2	1:F:279:ASN:HD21	1.82	0.45
1:G:316:GLY:C	1:G:317:GLU:HG2	2.37	0.45
1:H:269:ILE:HG23	1:H:274:ILE:HG22	1.94	0.45
1:I:59:LYS:CE	1:I:76:ARG:HB2	2.47	0.45
1:I:79:ASP:HA	1:I:83:GLY:CA	2.46	0.45
1:I:175:LEU:O	1:I:178:LYS:HG2	2.16	0.45
1:I:326:GLU:CG	1:I:327:LEU:H	2.27	0.45
1:J:146:LEU:HD23	1:J:147:MET:N	2.31	0.45
1:K:30:LEU:HD22	1:K:436:ILE:HD13	1.99	0.45
1:N:57:ILE:HD13	1:N:57:ILE:C	2.37	0.45
1:N:118:ARG:O	1:N:121:THR:HB	2.16	0.45
1:N:448:LEU:C	1:N:448:LEU:HD13	2.37	0.45
1:O:370:LEU:HD22	1:O:370:LEU:HA	1.76	0.45
1:O:402:MET:SD	1:O:453:ARG:HA	2.55	0.45
1:P:284:TYR:CE2	1:P:286:TYR:HD2	2.35	0.45
1:A:211:ILE:HB	1:A:215:GLN:OE1	2.17	0.45
1:A:226:ILE:HG12	1:A:278:ILE:HG23	1.98	0.45
1:A:313:VAL:HG13	1:A:352:VAL:HB	1.97	0.45
1:A:448:LEU:HD11	1:A:465:LEU:CD1	2.47	0.45
1:B:277:PHE:O	1:B:298:ALA:HA	2.16	0.45
1:C:123:ALA:HA	1:C:126:GLN:CG	2.47	0.45
1:C:231:MET:HG3	1:C:283:ILE:HG13	1.98	0.45
1:C:236:ILE:HG23	1:C:237:LYS:N	2.31	0.45
1:D:261:LYS:O	1:D:265:LYS:HG3	2.16	0.45
1:E:366:THR:N	1:E:370:LEU:HD22	2.30	0.45
1:F:411:LEU:HB3	1:F:423:MET:HE3	1.99	0.45
1:G:57:ILE:HG23	1:G:58:LEU:HD23	1.98	0.45
1:G:452:LEU:HD22	1:G:465:LEU:HD21	1.98	0.45
1:H:12:ARG:HD2	1:H:100:ALA:HB1	1.99	0.45
1:H:173:ALA:HA	1:H:176:ARG:NE	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:324:HIS:O	1:H:328:VAL:HG23	2.16	0.45
1:I:31:GLY:O	1:I:156:SER:HA	2.17	0.45
1:J:209:LYS:HD3	1:J:300:GLU:O	2.16	0.45
1:J:334:LYS:HG2	1:J:335:LEU:N	2.29	0.45
1:J:438:ALA:CB	1:J:448:LEU:HG	2.45	0.45
1:K:341:ILE:HD11	1:K:348:HIS:CE1	2.52	0.45
1:L:146:LEU:HD13	1:L:171:VAL:HG13	1.97	0.45
1:L:215:GLN:HG3	1:L:292:GLY:HA2	1.99	0.45
1:L:402:MET:CE	1:L:453:ARG:HG2	2.47	0.45
1:M:89:VAL:HG12	1:M:490:VAL:CG2	2.44	0.45
1:M:268:ARG:O	1:M:271:LYS:HG2	2.17	0.45
1:M:393:THR:HB	1:M:482:GLU:O	2.17	0.45
1:O:52:ASN:HB3	1:O:375:ARG:HH12	1.81	0.45
1:O:501:ILE:O	1:O:502:LEU:HB2	2.17	0.45
1:P:163:LYS:HG3	1:P:166:PHE:HB2	1.98	0.45
1:P:177:LEU:C	1:P:177:LEU:HD13	2.36	0.45
1:A:59:LYS:CE	1:A:76:ARG:HB2	2.47	0.45
1:A:210:LYS:HE2	1:A:212:GLY:O	2.16	0.45
1:C:187:HIS:HB3	1:C:359:THR:HG23	1.99	0.45
1:C:370:LEU:O	1:C:373:ALA:HB3	2.17	0.45
1:C:452:LEU:CD2	1:C:465:LEU:HD21	2.47	0.45
1:D:390:ASP:HB3	1:D:485:GLN:CD	2.36	0.45
1:D:438:ALA:O	1:D:441:ALA:HB3	2.17	0.45
1:E:190:LYS:HA	1:E:362:LEU:O	2.17	0.45
1:F:91:VAL:HG11	1:F:436:ILE:HD12	1.97	0.45
1:F:402:MET:SD	1:F:453:ARG:HA	2.56	0.45
1:G:397:GLY:HA3	1:G:475:MET:HE1	1.99	0.45
1:H:192:LEU:HB3	1:H:366:THR:HG22	1.97	0.45
1:I:139:GLU:O	1:I:140:VAL:HB	2.16	0.45
1:I:174:VAL:HG11	1:I:384:LEU:HB2	1.96	0.45
1:I:286:TYR:HB2	1:I:287:PRO:HD3	1.99	0.45
1:I:322:PHE:HA	1:I:324:HIS:CD2	2.52	0.45
1:I:404:MET:O	1:I:408:VAL:HG22	2.16	0.45
1:J:158:LEU:CD2	1:K:503:ARG:HD3	2.47	0.45
1:J:226:ILE:HG12	1:J:278:ILE:HG23	1.97	0.45
1:J:226:ILE:O	1:J:329:LYS:HE3	2.17	0.45
1:J:284:TYR:O	1:J:287:PRO:HD2	2.17	0.45
1:N:171:VAL:O	1:N:175:LEU:HG	2.17	0.45
1:O:122:LYS:O	1:O:126:GLN:N	2.47	0.45
1:P:397:GLY:HA3	1:P:475:MET:CE	2.47	0.45
1:A:96:LEU:HD13	1:A:96:LEU:C	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:143:ARG:HA	1:A:143:ARG:HE	1.81	0.45
1:A:501:ILE:O	1:A:502:LEU:CB	2.65	0.45
1:B:5:GLU:O	1:B:5:GLU:HG2	2.16	0.45
1:B:154:LEU:HD13	1:B:167:THR:OG1	2.16	0.45
1:B:210:LYS:HB2	1:B:210:LYS:NZ	2.32	0.45
1:C:402:MET:SD	1:C:456:HIS:CB	3.01	0.45
1:D:84:ASP:OD1	1:D:379:ASP:HA	2.17	0.45
1:F:14:SER:O	1:F:17:ILE:HG22	2.16	0.45
1:G:173:ALA:HA	1:G:176:ARG:NH1	2.32	0.45
1:G:191:LYS:HD2	1:G:344:ASP:HB3	1.99	0.45
1:H:261:LYS:O	1:H:264:GLU:HG2	2.17	0.45
1:H:507:ILE:O	1:H:507:ILE:HG12	2.16	0.45
1:I:191:LYS:HG3	1:I:192:LEU:H	1.79	0.45
1:J:24:ASP:O	1:J:27:LYS:HG2	2.17	0.45
1:J:235:LYS:HG3	1:J:236:ILE:N	2.31	0.45
1:K:126:GLN:NE2	1:K:411:LEU:HD11	2.30	0.45
1:K:367:GLN:HE22	1:K:369:ILE:HD12	1.81	0.45
1:L:101:GLU:O	1:L:104:ILE:HG12	2.16	0.45
1:L:187:HIS:O	1:L:359:THR:HG23	2.17	0.45
1:L:206:LEU:HD22	1:L:207:LEU:N	2.31	0.45
1:M:106:LYS:HE2	1:M:421:VAL:HG11	1.99	0.45
1:O:84:ASP:OD2	1:O:383:VAL:HG23	2.17	0.45
1:O:188:VAL:CG1	1:O:377:LEU:HD22	2.47	0.45
1:O:310:LEU:HD22	1:O:310:LEU:HA	1.81	0.45
1:O:452:LEU:HA	1:O:472:ILE:HG21	1.98	0.45
1:A:321:THR:O	1:A:323:ASP:N	2.50	0.45
1:B:448:LEU:HD21	1:B:465:LEU:CD1	2.45	0.45
1:C:274:ILE:HG23	1:C:296:VAL:HG21	1.98	0.45
1:C:388:VAL:HG13	1:C:389:LYS:HG3	1.99	0.45
1:D:321:THR:O	1:D:323:ASP:N	2.49	0.45
1:E:100:ALA:HA	1:E:103:LEU:HD13	1.99	0.45
1:E:334:LYS:HG3	1:E:351:GLY:HA3	1.99	0.45
1:F:131:SER:HA	1:F:403:LEU:CD2	2.47	0.45
1:F:150:ALA:O	1:F:154:LEU:HD13	2.17	0.45
1:G:13:LEU:O	1:G:16:PHE:HB3	2.17	0.45
1:G:59:LYS:HE2	1:G:76:ARG:NE	2.32	0.45
1:G:78:GLN:HG3	1:G:83:GLY:HA2	1.99	0.45
1:G:211:ILE:HG12	1:G:298:ALA:H	1.81	0.45
1:G:376:SER:O	1:G:379:ASP:HB2	2.17	0.45
1:H:89:VAL:HG12	1:H:490:VAL:CG2	2.47	0.45
1:I:59:LYS:NZ	1:I:75:SER:HB3	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:452:LEU:HD11	1:J:456:HIS:CE1	2.51	0.45
1:J:499:GLU:O	1:J:503:ARG:HG2	2.16	0.45
1:K:57:ILE:HD13	1:K:57:ILE:O	2.16	0.45
1:K:82:VAL:CG1	1:K:486:VAL:HG12	2.46	0.45
1:K:107:LYS:C	1:K:108:ILE:HG13	2.37	0.45
1:L:159:LEU:HB2	1:L:163:LYS:CB	2.46	0.45
1:M:141:LYS:HA	1:M:141:LYS:HD2	1.72	0.45
1:M:171:VAL:HG12	1:M:384:LEU:CG	2.43	0.45
1:O:163:LYS:O	1:O:166:PHE:HB2	2.17	0.45
1:O:211:ILE:HG12	1:O:298:ALA:H	1.81	0.45
1:O:280:ARG:O	1:O:281:GLN:CB	2.64	0.45
1:O:323:ASP:C	1:O:325:PRO:HD2	2.37	0.45
1:P:100:ALA:O	1:P:103:LEU:HB2	2.17	0.45
1:P:236:ILE:HG23	1:P:236:ILE:O	2.17	0.45
1:A:190:LYS:HE3	1:A:371:ASP:HA	1.98	0.45
1:A:266:VAL:HB	1:A:290:LEU:CD2	2.39	0.45
1:B:24:ASP:O	1:B:27:LYS:HB3	2.16	0.45
1:B:36:ASP:OD1	1:B:52:ASN:HB2	2.17	0.45
1:B:132:ALA:HB1	1:B:394:VAL:HA	1.99	0.45
1:B:222:ALA:HA	1:B:275:ASN:HB2	1.99	0.45
1:B:509:LYS:CG	1:B:510:ALA:H	2.29	0.45
1:C:37:LYS:NZ	1:H:505:ASP:H	2.15	0.45
1:C:163:LYS:HA	1:C:166:PHE:HD1	1.77	0.45
1:C:501:ILE:HD13	1:C:501:ILE:HA	1.84	0.45
1:D:374:GLU:O	1:D:377:LEU:HB3	2.17	0.45
1:D:416:PRO:O	1:D:419:GLU:HB2	2.16	0.45
1:H:438:ALA:CB	1:H:448:LEU:HG	2.39	0.45
1:H:502:LEU:O	1:H:502:LEU:HD23	2.17	0.45
1:J:163:LYS:HZ2	1:J:373:ALA:HA	1.80	0.45
1:J:247:SER:O	1:J:249:ALA:N	2.49	0.45
1:K:160:THR:HA	1:K:163:LYS:HB3	1.99	0.45
1:L:57:ILE:HD13	1:L:57:ILE:O	2.17	0.45
1:L:163:LYS:HA	1:L:166:PHE:HD1	1.78	0.45
1:M:196:LEU:C	1:M:196:LEU:HD13	2.37	0.45
1:M:284:TYR:CE2	1:M:286:TYR:CD1	3.05	0.45
1:N:133:VAL:HG11	1:N:484:PHE:HD1	1.82	0.45
1:O:40:LEU:HD13	1:O:40:LEU:C	2.37	0.45
1:O:136:GLY:O	1:O:137:SER:HB3	2.17	0.45
1:O:341:ILE:HG23	1:O:363:ARG:NH2	2.32	0.45
1:P:133:VAL:HG22	1:P:134:ASP:N	2.32	0.45
1:P:231:MET:HE1	1:P:265:LYS:HD3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:261:LYS:O	1:A:264:GLU:HG2	2.18	0.44
1:B:99:GLU:O	1:B:102:SER:HB2	2.17	0.44
1:B:504:VAL:HG11	1:B:507:ILE:CG1	2.47	0.44
1:C:30:LEU:HG	1:C:87:THR:O	2.17	0.44
1:C:143:ARG:NE	1:C:143:ARG:HA	2.32	0.44
1:C:366:THR:N	1:C:370:LEU:HD22	2.31	0.44
1:D:206:LEU:H	1:D:359:THR:HG21	1.81	0.44
1:D:276:CYS:HA	1:D:297:MET:O	2.17	0.44
1:D:505:ASP:O	1:D:506:ASN:HB2	2.18	0.44
1:E:225:LEU:HD13	1:E:329:LYS:CE	2.47	0.44
1:G:103:LEU:HG	1:G:113:ILE:HD13	1.99	0.44
1:G:228:ASN:OD1	1:G:319:ALA:HB3	2.17	0.44
1:H:133:VAL:CG2	1:H:134:ASP:H	2.25	0.44
1:J:128:LEU:C	1:J:129:LEU:HD13	2.38	0.44
1:J:211:ILE:HG13	1:J:298:ALA:O	2.17	0.44
1:K:280:ARG:HG3	1:K:304:PHE:CA	2.47	0.44
1:L:27:LYS:HA	1:L:436:ILE:HD11	1.99	0.44
1:L:33:LYS:HD3	1:L:441:ALA:O	2.17	0.44
1:L:100:ALA:O	1:L:103:LEU:HB2	2.17	0.44
1:N:205:PHE:HA	1:N:359:THR:CB	2.47	0.44
1:O:484:PHE:HE1	1:O:488:ARG:HE	1.62	0.44
1:A:399:CYS:SG	1:A:464:GLY:CA	3.01	0.44
1:A:448:LEU:HD21	1:A:465:LEU:CD1	2.42	0.44
1:B:192:LEU:O	1:B:366:THR:HG22	2.17	0.44
1:B:203:GLU:CD	1:B:203:GLU:H	2.20	0.44
1:C:64:ASP:CG	1:C:66:PRO:HD2	2.38	0.44
1:D:89:VAL:HG12	1:D:490:VAL:CG2	2.46	0.44
1:D:187:HIS:HB2	1:D:309:ARG:NH1	2.33	0.44
1:E:159:LEU:HG	1:E:163:LYS:HD3	1.99	0.44
1:G:108:ILE:HG21	1:G:418:LYS:HE2	1.98	0.44
1:G:277:PHE:CE2	1:G:279:ASN:HB2	2.51	0.44
1:G:284:TYR:CE2	1:G:286:TYR:HD2	2.34	0.44
1:H:206:LEU:HD21	1:H:346:LEU:HB3	1.98	0.44
1:J:27:LYS:HB2	1:J:436:ILE:HG13	2.00	0.44
1:J:57:ILE:HD13	1:J:57:ILE:O	2.17	0.44
1:K:192:LEU:HG	1:K:366:THR:OG1	2.16	0.44
1:K:215:GLN:HE21	1:K:292:GLY:N	2.16	0.44
1:K:334:LYS:HD2	1:K:351:GLY:HA3	1.99	0.44
1:K:365:ALA:O	1:K:366:THR:CB	2.65	0.44
1:K:405:ALA:HA	1:K:408:VAL:HG22	2.00	0.44
1:L:84:ASP:OD2	1:L:379:ASP:HB3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:213:VAL:HG11	1:O:319:ALA:H	1.82	0.44
1:M:433:LEU:HA	1:M:436:ILE:HG22	1.97	0.44
1:N:192:LEU:HD12	1:N:192:LEU:N	2.32	0.44
1:N:222:ALA:HA	1:N:275:ASN:CG	2.38	0.44
1:N:412:ALA:CB	1:N:424:GLU:HB3	2.46	0.44
1:P:360:ILE:HG22	1:P:360:ILE:O	2.17	0.44
1:C:128:LEU:HD13	1:C:484:PHE:CZ	2.48	0.44
1:C:176:ARG:HH22	1:C:360:ILE:HG12	1.81	0.44
1:D:154:LEU:HD21	1:D:163:LYS:HG2	1.99	0.44
1:E:433:LEU:HB2	1:E:434:PRO:HD3	1.99	0.44
1:E:450:ALA:HB1	1:J:417:GLY:CA	2.47	0.44
1:F:148:ASN:HB3	1:F:481:THR:HG22	1.99	0.44
1:F:274:ILE:O	1:F:274:ILE:HG23	2.18	0.44
1:G:233:THR:O	1:G:234:ASP:HB3	2.16	0.44
1:G:431:ARG:HH21	1:G:434:PRO:HG2	1.82	0.44
1:H:324:HIS:HB2	1:H:329:LYS:HZ3	1.81	0.44
1:H:402:MET:HE1	1:H:406:HIS:HB2	1.98	0.44
1:I:58:LEU:HD12	1:I:72:VAL:HG22	1.98	0.44
1:J:225:LEU:HD13	1:J:226:ILE:N	2.32	0.44
1:J:280:ARG:O	1:J:281:GLN:HB3	2.17	0.44
1:L:196:LEU:HD13	1:L:196:LEU:C	2.38	0.44
1:L:313:VAL:O	1:L:352:VAL:HG23	2.16	0.44
1:L:504:VAL:HG11	1:P:38:ILE:HG12	1.98	0.44
1:M:59:LYS:HE3	1:M:73:ASP:HA	2.00	0.44
1:M:213:VAL:CG1	1:O:318:ILE:HA	2.47	0.44
1:M:231:MET:CG	1:M:283:ILE:HG13	2.46	0.44
1:M:366:THR:O	1:M:367:GLN:HG3	2.17	0.44
1:N:17:ILE:O	1:N:20:ILE:HG22	2.18	0.44
1:N:37:LYS:O	1:N:50:VAL:HA	2.17	0.44
1:N:171:VAL:HG22	1:N:384:LEU:HD21	1.98	0.44
1:O:68:ALA:O	1:O:72:VAL:HG23	2.17	0.44
1:O:222:ALA:HA	1:O:275:ASN:CG	2.37	0.44
1:P:14:SER:O	1:P:17:ILE:HG22	2.18	0.44
1:P:26:VAL:HG23	1:P:91:VAL:HG22	1.99	0.44
1:P:40:LEU:HB2	1:P:48:LEU:HG	1.98	0.44
1:P:150:ALA:O	1:P:154:LEU:HD13	2.16	0.44
1:A:310:LEU:O	1:A:314:THR:HG22	2.16	0.44
1:A:450:ALA:HB3	1:M:417:GLY:O	2.17	0.44
1:B:417:GLY:CA	1:I:450:ALA:HB3	2.47	0.44
1:C:32:PRO:HA	1:C:155:SER:HB3	1.99	0.44
1:C:171:VAL:HG13	1:C:384:LEU:HG	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:187:HIS:O	1:C:359:THR:HG23	2.17	0.44
1:C:277:PHE:CE2	1:C:279:ASN:HB2	2.53	0.44
1:D:310:LEU:O	1:D:313:VAL:HB	2.18	0.44
1:E:41:SER:O	1:E:45:ASP:HB2	2.18	0.44
1:E:189:ILE:HG22	1:E:190:LYS:N	2.32	0.44
1:E:280:ARG:CD	1:E:304:PHE:HB2	2.48	0.44
1:E:381:LEU:HD13	1:E:381:LEU:C	2.37	0.44
1:F:41:SER:HB3	1:F:45:ASP:CG	2.37	0.44
1:F:128:LEU:CD2	1:F:488:ARG:HG2	2.46	0.44
1:F:183:LEU:HD22	1:F:382:CYS:SG	2.57	0.44
1:H:466:ASP:HB3	1:H:469:GLU:HB3	1.98	0.44
1:J:174:VAL:HG21	1:J:384:LEU:HB3	2.00	0.44
1:J:263:LYS:O	1:J:266:VAL:HG12	2.18	0.44
1:K:39:LEU:HD22	1:P:508:ILE:HG21	1.98	0.44
1:K:368:GLN:HA	1:K:371:ASP:OD2	2.17	0.44
1:L:143:ARG:HA	1:L:143:ARG:NE	2.33	0.44
1:O:431:ARG:HH21	1:O:434:PRO:HG2	1.82	0.44
1:O:503:ARG:O	1:O:504:VAL:CB	2.64	0.44
1:A:173:ALA:HA	1:A:176:ARG:NH2	2.31	0.44
1:A:223:LYS:HD3	1:A:272:HIS:NE2	2.33	0.44
1:A:277:PHE:CE2	1:A:279:ASN:HB2	2.52	0.44
1:A:317:GLU:CB	1:A:329:LYS:HD3	2.48	0.44
1:B:231:MET:CG	1:B:283:ILE:HG13	2.47	0.44
1:B:509:LYS:HG3	1:G:48:LEU:HB3	2.00	0.44
1:C:129:LEU:HD23	1:C:129:LEU:C	2.38	0.44
1:C:191:LYS:HD3	1:C:192:LEU:H	1.82	0.44
1:C:274:ILE:O	1:C:274:ILE:HG23	2.17	0.44
1:D:110:PRO:O	1:D:114:ILE:HG12	2.18	0.44
1:D:128:LEU:HD13	1:D:488:ARG:HG2	2.00	0.44
1:D:133:VAL:HA	1:D:394:VAL:HA	2.00	0.44
1:D:178:LYS:HZ3	1:D:388:VAL:HA	1.82	0.44
1:D:341:ILE:HG23	1:D:363:ARG:CZ	2.47	0.44
1:D:394:VAL:CG2	1:D:482:GLU:HB2	2.47	0.44
1:D:396:GLY:HA3	1:D:480:ILE:HG22	1.98	0.44
1:E:122:LYS:HE2	1:E:125:ARG:HH21	1.82	0.44
1:E:143:ARG:HA	1:E:143:ARG:HE	1.83	0.44
1:E:146:LEU:HD11	1:E:150:ALA:HB3	1.99	0.44
1:F:115:ALA:O	1:F:118:ARG:HB3	2.18	0.44
1:G:335:LEU:HD21	1:G:337:GLU:OE2	2.17	0.44
1:H:138:ASP:O	1:H:139:GLU:HB3	2.17	0.44
1:I:78:GLN:HE22	1:I:489:GLN:CB	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:506:ASN:HB3	1:N:25:LEU:HD21	2.00	0.44
1:J:509:LYS:HG2	1:J:510:ALA:N	2.32	0.44
1:K:6:GLU:HB2	1:K:10:THR:HG23	2.00	0.44
1:L:150:ALA:O	1:L:154:LEU:HD13	2.17	0.44
1:L:225:LEU:HD21	1:L:324:HIS:CE1	2.53	0.44
1:N:141:LYS:HG2	1:N:144:GLN:HB2	1.98	0.44
1:N:146:LEU:HD21	1:N:167:THR:HG23	1.98	0.44
1:N:171:VAL:CA	1:N:384:LEU:HD23	2.45	0.44
1:N:206:LEU:HD21	1:N:346:LEU:HD23	2.00	0.44
1:N:277:PHE:CE2	1:N:279:ASN:HB2	2.52	0.44
1:P:111:GLN:O	1:P:114:ILE:HB	2.18	0.44
1:P:266:VAL:HB	1:P:290:LEU:HD11	1.98	0.44
1:P:280:ARG:O	1:P:281:GLN:HB3	2.18	0.44
1:A:313:VAL:HG13	1:A:352:VAL:CB	2.47	0.44
1:B:154:LEU:CD2	1:B:167:THR:HB	2.40	0.44
1:B:297:MET:CE	1:B:347:ILE:HD11	2.48	0.44
1:B:504:VAL:HG22	1:G:369:ILE:HD13	1.99	0.44
1:C:245:VAL:HG12	1:C:246:ASP:OD1	2.18	0.44
1:D:159:LEU:HD12	1:D:372:GLU:HG2	1.99	0.44
1:D:201:LEU:CD2	1:D:360:ILE:HA	2.48	0.44
1:D:233:THR:O	1:D:234:ASP:HB3	2.16	0.44
1:D:367:GLN:O	1:D:370:LEU:HB3	2.18	0.44
1:E:159:LEU:HG	1:E:163:LYS:CG	2.47	0.44
1:E:225:LEU:HD11	1:E:324:HIS:CE1	2.53	0.44
1:G:448:LEU:HA	1:G:451:GLN:HE21	1.81	0.44
1:H:140:VAL:HA	1:H:175:LEU:HD22	2.00	0.44
1:H:310:LEU:O	1:H:313:VAL:HB	2.18	0.44
1:J:187:HIS:O	1:J:359:THR:HG23	2.18	0.44
1:J:509:LYS:HG2	1:J:510:ALA:H	1.81	0.44
1:K:372:GLU:HA	1:K:375:ARG:NH1	2.32	0.44
1:L:209:LYS:HD3	1:L:300:GLU:O	2.17	0.44
1:M:421:VAL:O	1:M:424:GLU:HG2	2.16	0.44
1:N:193:GLY:HA3	1:N:342:GLY:HA3	1.99	0.44
1:N:433:LEU:HB2	1:N:434:PRO:HD3	1.98	0.44
1:N:487:LYS:O	1:N:491:LEU:HG	2.17	0.44
1:O:175:LEU:O	1:O:178:LYS:HG2	2.18	0.44
1:A:369:ILE:O	1:A:372:GLU:HB2	2.18	0.44
1:B:109:HIS:HA	1:B:110:PRO:HD2	1.91	0.44
1:B:504:VAL:HG13	1:G:369:ILE:HD13	1.99	0.44
1:D:446:ALA:HB1	1:K:418:LYS:HE3	2.00	0.44
1:D:502:LEU:C	1:D:502:LEU:HD13	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:102:SER:O	1:E:105:ALA:HB3	2.18	0.44
1:F:145:ASP:OD2	1:F:175:LEU:HD11	2.17	0.44
1:F:146:LEU:HB2	1:F:171:VAL:CG2	2.48	0.44
1:G:116:GLY:O	1:G:119:GLU:HB3	2.18	0.44
1:G:133:VAL:HG12	1:G:394:VAL:HG12	1.99	0.44
1:G:149:ILE:HG21	1:G:383:VAL:CG1	2.47	0.44
1:H:452:LEU:HA	1:H:472:ILE:HG21	1.98	0.44
1:I:141:LYS:HE2	1:I:144:GLN:HB2	1.99	0.44
1:I:146:LEU:HD22	1:I:167:THR:C	2.38	0.44
1:I:364:GLY:HA3	1:I:370:LEU:HD13	2.00	0.44
1:J:354:LEU:HD21	1:J:356:GLU:HB3	2.00	0.44
1:K:280:ARG:O	1:K:281:GLN:HB3	2.18	0.44
1:K:286:TYR:HB2	1:K:287:PRO:HD3	1.99	0.44
1:K:452:LEU:HD22	1:K:465:LEU:HD11	2.00	0.44
1:L:404:MET:O	1:L:408:VAL:HG22	2.17	0.44
1:M:32:PRO:HA	1:M:155:SER:O	2.18	0.44
1:M:57:ILE:O	1:M:57:ILE:HD13	2.18	0.44
1:M:166:PHE:CZ	1:M:198:ASP:CB	3.00	0.44
1:N:22:ILE:O	1:N:26:VAL:HG22	2.17	0.44
1:P:138:ASP:O	1:P:139:GLU:CB	2.66	0.44
1:P:211:ILE:HG12	1:P:298:ALA:H	1.83	0.44
1:B:27:LYS:CA	1:B:436:ILE:HD11	2.44	0.44
1:C:63:VAL:CG1	1:H:509:LYS:HE2	2.48	0.44
1:C:510:ALA:O	1:C:511:ALA:HB2	2.18	0.44
1:D:397:GLY:HA3	1:D:475:MET:HE1	1.99	0.44
1:E:280:ARG:O	1:E:281:GLN:CB	2.66	0.44
1:E:374:GLU:O	1:E:377:LEU:HD23	2.17	0.44
1:F:183:LEU:HD13	1:F:381:LEU:CD1	2.48	0.44
1:F:200:TYR:CD1	1:F:363:ARG:CZ	3.01	0.44
1:G:183:LEU:HD11	1:G:381:LEU:HD11	1.98	0.44
1:G:196:LEU:C	1:G:196:LEU:HD13	2.38	0.44
1:G:366:THR:HA	1:G:370:LEU:HD22	2.00	0.44
1:H:22:ILE:HD12	1:H:90:THR:CG2	2.47	0.44
1:H:134:ASP:OD1	1:H:394:VAL:HA	2.17	0.44
1:I:146:LEU:HB2	1:I:171:VAL:HG21	1.99	0.44
1:I:321:THR:O	1:I:323:ASP:N	2.51	0.44
1:K:150:ALA:HB2	1:K:384:LEU:HD21	2.00	0.44
1:K:310:LEU:O	1:K:314:THR:HG22	2.18	0.44
1:M:373:ALA:HA	1:M:376:SER:HB3	2.00	0.44
1:N:96:LEU:HD22	1:N:498:ALA:HB1	2.00	0.44
1:N:139:GLU:OE1	1:N:178:LYS:HD3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:209:LYS:NZ	1:N:303:ASP:H	2.16	0.44
1:N:399:CYS:SG	1:N:464:GLY:CA	3.04	0.44
1:O:32:PRO:CD	1:O:467:MET:SD	3.03	0.44
1:O:40:LEU:HB2	1:O:48:LEU:HD23	1.99	0.44
1:O:181:GLY:O	1:O:182:ASN:HB3	2.18	0.44
1:O:231:MET:HE1	1:O:265:LYS:HD3	1.99	0.44
1:A:27:LYS:HG3	1:A:436:ILE:HG13	2.00	0.44
1:A:106:LYS:HG3	1:M:446:ALA:CB	2.48	0.44
1:A:166:PHE:CD1	1:A:166:PHE:N	2.86	0.44
1:A:367:GLN:HG3	1:A:370:LEU:H	1.81	0.44
1:B:39:LEU:HB3	1:F:510:ALA:HB2	2.00	0.44
1:B:95:GLU:HA	1:B:98:ARG:HD2	2.00	0.44
1:C:203:GLU:HG2	1:C:350:SER:HB2	2.00	0.44
1:C:226:ILE:HD13	1:C:307:VAL:HG13	1.98	0.44
1:C:454:ALA:HB2	1:L:416:PRO:HA	2.00	0.44
1:D:146:LEU:HD11	1:D:150:ALA:HB3	1.99	0.44
1:E:280:ARG:HG3	1:E:304:PHE:HB2	2.00	0.44
1:F:402:MET:HB3	1:F:456:HIS:CG	2.53	0.44
1:F:416:PRO:CA	1:O:454:ALA:HB2	2.41	0.44
1:H:149:ILE:HD12	1:H:483:SER:H	1.82	0.44
1:H:417:GLY:O	1:P:450:ALA:HB3	2.17	0.44
1:I:506:ASN:O	1:O:38:ILE:HD11	2.18	0.44
1:J:51:THR:HG22	1:J:53:ASP:O	2.18	0.44
1:J:233:THR:O	1:J:234:ASP:HB3	2.18	0.44
1:K:188:VAL:HG13	1:K:377:LEU:CD2	2.46	0.44
1:K:431:ARG:CZ	1:K:431:ARG:HA	2.47	0.44
1:L:394:VAL:CG2	1:L:482:GLU:HB2	2.48	0.44
1:M:132:ALA:O	1:M:395:TYR:HE2	2.01	0.44
1:M:265:LYS:HZ2	1:M:287:PRO:HG3	1.83	0.44
1:O:16:PHE:HA	1:O:97:LEU:CD2	2.48	0.44
1:O:77:VAL:O	1:O:80:ASP:HB3	2.18	0.44
1:O:154:LEU:CD2	1:O:167:THR:HB	2.46	0.44
1:O:206:LEU:H	1:O:359:THR:HG21	1.83	0.44
1:O:371:ASP:O	1:O:374:GLU:HB3	2.18	0.44
1:O:405:ALA:HA	1:O:408:VAL:HG22	2.00	0.44
1:P:106:LYS:C	1:P:107:LYS:HG2	2.38	0.44
1:P:393:THR:HB	1:P:481:THR:OG1	2.18	0.44
1:A:312:LEU:O	1:A:354:LEU:HD22	2.17	0.43
1:A:324:HIS:HB2	1:A:329:LYS:HZ3	1.83	0.43
1:A:372:GLU:CD	1:A:375:ARG:NH1	2.72	0.43
1:B:226:ILE:HD13	1:B:307:VAL:HG13	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:171:VAL:O	1:D:174:VAL:HG22	2.18	0.43
1:D:312:LEU:O	1:D:354:LEU:HD22	2.18	0.43
1:D:354:LEU:HG	1:D:356:GLU:HB2	1.99	0.43
1:E:160:THR:HA	1:E:163:LYS:HB3	1.99	0.43
1:G:75:SER:O	1:G:78:GLN:HB3	2.17	0.43
1:G:188:VAL:HB	1:G:377:LEU:HD22	2.00	0.43
1:G:341:ILE:O	1:G:341:ILE:HG22	2.18	0.43
1:G:397:GLY:HA3	1:G:475:MET:CE	2.48	0.43
1:G:452:LEU:HD11	1:G:456:HIS:CE1	2.53	0.43
1:I:511:ALA:N	1:I:512:PRO:CD	2.81	0.43
1:J:171:VAL:HG12	1:J:384:LEU:CD1	2.48	0.43
1:J:222:ALA:HA	1:J:275:ASN:OD1	2.18	0.43
1:K:20:ILE:HB	1:K:98:ARG:HH22	1.82	0.43
1:K:112:THR:HG21	1:K:418:LYS:CE	2.48	0.43
1:K:203:GLU:H	1:K:203:GLU:CD	2.22	0.43
1:K:324:HIS:HB2	1:K:329:LYS:HE2	2.00	0.43
1:L:188:VAL:HA	1:L:360:ILE:O	2.17	0.43
1:L:321:THR:O	1:L:323:ASP:N	2.50	0.43
1:L:502:LEU:HD23	1:L:502:LEU:C	2.38	0.43
1:O:157:LYS:CB	1:O:159:LEU:HD21	2.47	0.43
1:O:443:TYR:CD2	1:O:470:GLY:HA2	2.53	0.43
1:P:163:LYS:O	1:P:166:PHE:N	2.51	0.43
1:P:402:MET:HB3	1:P:456:HIS:CG	2.53	0.43
1:B:92:LEU:HA	1:B:95:GLU:OE2	2.18	0.43
1:B:138:ASP:O	1:B:139:GLU:CB	2.65	0.43
1:B:402:MET:SD	1:B:456:HIS:CB	3.02	0.43
1:C:215:GLN:HE21	1:C:292:GLY:CA	2.31	0.43
1:D:240:GLY:O	1:D:243:VAL:HG22	2.18	0.43
1:E:245:VAL:HG22	1:E:246:ASP:H	1.83	0.43
1:E:258:GLU:OE2	1:E:284:TYR:HE2	2.01	0.43
1:F:159:LEU:HD11	1:F:372:GLU:CD	2.39	0.43
1:F:225:LEU:HD11	1:F:324:HIS:CE1	2.53	0.43
1:G:78:GLN:HG3	1:G:83:GLY:CA	2.47	0.43
1:G:261:LYS:O	1:G:265:LYS:HG3	2.17	0.43
1:H:190:LYS:C	1:H:190:LYS:HD2	2.39	0.43
1:H:341:ILE:HD12	1:H:346:LEU:HD22	2.00	0.43
1:H:466:ASP:OD2	1:H:478:LEU:HD11	2.18	0.43
1:I:510:ALA:H	1:O:40:LEU:CD1	2.30	0.43
1:I:511:ALA:HA	1:O:42:SER:HA	2.00	0.43
1:J:354:LEU:HG	1:J:356:GLU:H	1.83	0.43
1:J:431:ARG:HA	1:J:431:ARG:CZ	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:154:LEU:CD2	1:K:167:THR:HB	2.47	0.43
1:K:373:ALA:O	1:K:377:LEU:CB	2.65	0.43
1:M:324:HIS:HB2	1:M:329:LYS:HZ1	1.83	0.43
1:O:128:LEU:O	1:O:129:LEU:CB	2.62	0.43
1:P:187:HIS:O	1:P:359:THR:HG23	2.17	0.43
1:A:183:LEU:HB3	1:A:381:LEU:HD21	1.99	0.43
1:A:334:LYS:HD3	1:A:335:LEU:CB	2.48	0.43
1:B:114:ILE:HA	1:B:117:TRP:CZ3	2.53	0.43
1:B:146:LEU:CD2	1:B:167:THR:HG23	2.48	0.43
1:B:265:LYS:HE2	1:B:322:PHE:CE1	2.53	0.43
1:B:322:PHE:O	1:B:325:PRO:HD2	2.17	0.43
1:C:129:LEU:HD22	1:C:130:ASN:HD22	1.83	0.43
1:C:140:VAL:N	1:C:178:LYS:NZ	2.63	0.43
1:C:222:ALA:HA	1:C:275:ASN:CB	2.47	0.43
1:C:233:THR:O	1:C:234:ASP:HB3	2.18	0.43
1:C:243:VAL:HG22	1:C:244:ARG:H	1.84	0.43
1:D:59:LYS:CE	1:D:76:ARG:HB2	2.48	0.43
1:D:163:LYS:HG3	1:D:166:PHE:CD1	2.53	0.43
1:D:487:LYS:HA	1:D:487:LYS:HD3	1.82	0.43
1:D:500:VAL:HG12	1:D:503:ARG:NH2	2.33	0.43
1:E:324:HIS:CG	1:E:325:PRO:HD3	2.52	0.43
1:F:280:ARG:O	1:F:281:GLN:HB3	2.17	0.43
1:G:188:VAL:HG21	1:G:377:LEU:HD13	2.00	0.43
1:H:5:GLU:HG3	1:H:509:LYS:H	1.84	0.43
1:H:159:LEU:HA	1:H:372:GLU:OE2	2.17	0.43
1:I:58:LEU:HB3	1:I:72:VAL:CG1	2.48	0.43
1:I:511:ALA:N	1:I:512:PRO:HD3	2.33	0.43
1:J:104:ILE:HG13	1:J:105:ALA:N	2.33	0.43
1:K:321:THR:O	1:K:323:ASP:N	2.51	0.43
1:L:318:ILE:HA	1:P:289:GLN:HB3	1.98	0.43
1:L:433:LEU:HA	1:L:436:ILE:HG22	2.00	0.43
1:M:57:ILE:HD13	1:M:57:ILE:C	2.39	0.43
1:M:112:THR:HB	1:M:418:LYS:HE3	1.99	0.43
1:M:226:ILE:HG12	1:M:278:ILE:CG2	2.48	0.43
1:M:338:GLU:OE2	1:M:345:LYS:HD3	2.18	0.43
1:O:225:LEU:CD1	1:O:329:LYS:HE3	2.44	0.43
1:P:211:ILE:HG13	1:P:298:ALA:O	2.17	0.43
1:A:88:SER:O	1:A:92:LEU:HD13	2.18	0.43
1:A:101:GLU:O	1:A:104:ILE:HG12	2.17	0.43
1:A:222:ALA:HA	1:A:275:ASN:OD1	2.19	0.43
1:A:451:GLN:HE22	1:A:471:THR:HA	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:36:ASP:HB3	1:B:50:VAL:HG23	2.00	0.43
1:C:125:ARG:HD3	1:C:126:GLN:N	2.34	0.43
1:C:215:GLN:HE21	1:C:292:GLY:N	2.16	0.43
1:D:57:ILE:HG23	1:D:58:LEU:CD2	2.46	0.43
1:D:242:ARG:C	1:D:243:VAL:HG23	2.38	0.43
1:D:448:LEU:HA	1:D:451:GLN:NE2	2.33	0.43
1:E:100:ALA:O	1:E:103:LEU:HB2	2.19	0.43
1:E:170:ALA:O	1:E:173:ALA:HB3	2.18	0.43
1:E:175:LEU:O	1:E:178:LYS:HG2	2.19	0.43
1:E:238:ILE:HD12	1:E:238:ILE:HA	1.86	0.43
1:E:255:GLU:O	1:E:258:GLU:HB3	2.17	0.43
1:E:402:MET:HB3	1:E:456:HIS:CG	2.53	0.43
1:F:177:LEU:O	1:F:177:LEU:HD13	2.19	0.43
1:F:196:LEU:HD13	1:F:196:LEU:C	2.39	0.43
1:H:57:ILE:O	1:H:57:ILE:HD13	2.18	0.43
1:I:222:ALA:HA	1:I:275:ASN:HB2	2.00	0.43
1:L:320:SER:HB3	1:P:259:LYS:CD	2.48	0.43
1:L:433:LEU:HB2	1:L:434:PRO:HD3	2.01	0.43
1:M:448:LEU:HA	1:M:451:GLN:HE21	1.83	0.43
1:N:216:PRO:HG2	1:N:295:GLY:CA	2.48	0.43
1:O:373:ALA:HA	1:O:376:SER:OG	2.18	0.43
1:P:153:THR:CG2	1:P:379:ASP:HB3	2.48	0.43
1:P:154:LEU:HD22	1:P:167:THR:CB	2.47	0.43
1:B:59:LYS:CE	1:B:76:ARG:HB2	2.48	0.43
1:B:504:VAL:HG22	1:G:369:ILE:HG12	2.01	0.43
1:C:171:VAL:O	1:C:175:LEU:HG	2.18	0.43
1:D:235:LYS:CE	1:D:239:PHE:HA	2.48	0.43
1:E:277:PHE:CE2	1:E:279:ASN:HB2	2.54	0.43
1:E:324:HIS:HB2	1:E:329:LYS:HZ1	1.80	0.43
1:E:324:HIS:HB2	1:E:329:LYS:HZ3	1.83	0.43
1:F:54:GLY:O	1:F:58:LEU:HD23	2.18	0.43
1:F:223:LYS:HB2	1:F:274:ILE:HA	2.01	0.43
1:F:291:PHE:HD1	1:F:296:VAL:CG1	2.32	0.43
1:G:159:LEU:HD12	1:G:372:GLU:HG2	2.00	0.43
1:G:163:LYS:HE3	1:G:376:SER:CB	2.47	0.43
1:G:208:ASP:O	1:G:209:LYS:CG	2.57	0.43
1:G:225:LEU:HD12	1:G:226:ILE:N	2.34	0.43
1:H:95:GLU:HA	1:H:98:ARG:HD2	2.00	0.43
1:H:338:GLU:OE1	1:H:345:LYS:HE2	2.17	0.43
1:H:444:ASP:OD2	1:P:108:ILE:HG21	2.18	0.43
1:H:482:GLU:OE1	1:H:487:LYS:HE2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:343:GLU:HG3	1:I:344:ASP:N	2.34	0.43
1:J:284:TYR:CE2	1:J:286:TYR:CD1	3.06	0.43
1:J:503:ARG:HH11	1:N:36:ASP:CB	2.31	0.43
1:L:192:LEU:HA	1:L:366:THR:HG22	1.99	0.43
1:L:417:GLY:O	1:L:420:ALA:HB3	2.18	0.43
1:M:146:LEU:HB2	1:M:171:VAL:CG2	2.49	0.43
1:M:483:SER:O	1:M:486:VAL:HG22	2.17	0.43
1:N:24:ASP:HA	1:N:27:LYS:HD3	2.01	0.43
1:O:146:LEU:HD23	1:O:147:MET:H	1.83	0.43
1:O:166:PHE:CZ	1:O:198:ASP:CB	3.02	0.43
1:O:341:ILE:HD11	1:O:348:HIS:CE1	2.53	0.43
1:O:354:LEU:HD21	1:O:356:GLU:HB2	2.00	0.43
1:P:41:SER:HB3	1:P:45:ASP:HB2	2.00	0.43
1:P:173:ALA:HA	1:P:176:ARG:CZ	2.48	0.43
1:P:234:ASP:OD1	1:P:235:LYS:HG3	2.18	0.43
1:A:211:ILE:HG13	1:A:298:ALA:O	2.18	0.43
1:A:284:TYR:CE2	1:A:286:TYR:CD1	3.07	0.43
1:B:177:LEU:O	1:B:178:LYS:O	2.37	0.43
1:C:231:MET:HE1	1:C:265:LYS:HD3	2.01	0.43
1:C:266:VAL:HB	1:C:290:LEU:CD2	2.26	0.43
1:C:280:ARG:O	1:C:281:GLN:CB	2.66	0.43
1:D:420:ALA:HB1	1:K:453:ARG:NH2	2.33	0.43
1:G:325:PRO:O	1:G:326:GLU:HG3	2.18	0.43
1:H:92:LEU:O	1:H:95:GLU:HG2	2.19	0.43
1:H:174:VAL:HG21	1:H:384:LEU:HD12	2.01	0.43
1:H:222:ALA:HA	1:H:275:ASN:CB	2.49	0.43
1:I:170:ALA:O	1:I:174:VAL:HG13	2.19	0.43
1:I:284:TYR:CE2	1:I:286:TYR:CD1	3.06	0.43
1:J:226:ILE:HG12	1:J:278:ILE:CG2	2.49	0.43
1:J:405:ALA:HA	1:J:408:VAL:CG2	2.49	0.43
1:K:367:GLN:HE22	1:K:369:ILE:CD1	2.32	0.43
1:K:380:ALA:O	1:K:384:LEU:HD23	2.18	0.43
1:K:504:VAL:HG12	1:K:505:ASP:N	2.32	0.43
1:L:19:ALA:HB3	1:L:97:LEU:HD22	2.01	0.43
1:L:133:VAL:CB	1:L:393:THR:O	2.57	0.43
1:L:171:VAL:O	1:L:175:LEU:HG	2.18	0.43
1:L:313:VAL:HG13	1:L:352:VAL:HG21	1.99	0.43
1:L:485:GLN:HB3	1:L:489:GLN:NE2	2.33	0.43
1:M:15:SER:HB3	1:M:501:ILE:CG2	2.40	0.43
1:M:263:LYS:O	1:M:267:GLU:HG2	2.18	0.43
1:M:380:ALA:O	1:M:384:LEU:HD22	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:435:THR:HG23	1:M:445:SER:HB3	2.00	0.43
1:M:500:VAL:O	1:M:503:ARG:HG2	2.19	0.43
1:N:100:ALA:O	1:N:103:LEU:HB2	2.17	0.43
1:P:27:LYS:CA	1:P:436:ILE:HD11	2.47	0.43
1:P:146:LEU:HG	1:P:171:VAL:HG11	1.99	0.43
1:A:317:GLU:HB2	1:A:329:LYS:HD3	2.01	0.43
1:B:226:ILE:HG12	1:B:278:ILE:CG2	2.48	0.43
1:C:417:GLY:HA2	1:L:453:ARG:HH21	1.82	0.43
1:C:442:GLY:O	1:H:109:HIS:CE1	2.71	0.43
1:C:445:SER:O	1:C:449:VAL:HG23	2.19	0.43
1:D:225:LEU:CD1	1:D:329:LYS:HE2	2.48	0.43
1:D:226:ILE:HG12	1:D:278:ILE:HG23	2.00	0.43
1:D:233:THR:HG21	1:D:261:LYS:CE	2.48	0.43
1:D:233:THR:HG21	1:D:261:LYS:HE2	2.00	0.43
1:E:120:ALA:O	1:E:123:ALA:HB3	2.19	0.43
1:E:408:VAL:HG23	1:E:427:ALA:HB1	2.01	0.43
1:F:19:ALA:HB3	1:F:98:ARG:HH22	1.84	0.43
1:F:68:ALA:O	1:F:72:VAL:HG23	2.19	0.43
1:F:152:THR:OG1	1:F:480:ILE:HG23	2.18	0.43
1:F:266:VAL:CG2	1:F:290:LEU:HD11	2.49	0.43
1:G:222:ALA:HA	1:G:275:ASN:CG	2.39	0.43
1:I:97:LEU:HD21	1:I:501:ILE:CD1	2.44	0.43
1:J:38:ILE:HD11	1:K:504:VAL:CG1	2.43	0.43
1:J:312:LEU:HD13	1:J:354:LEU:CD2	2.49	0.43
1:J:354:LEU:CD2	1:J:356:GLU:HB3	2.47	0.43
1:J:363:ARG:O	1:J:370:LEU:HD21	2.19	0.43
1:J:371:ASP:O	1:J:374:GLU:HG2	2.18	0.43
1:K:226:ILE:HG12	1:K:278:ILE:CG2	2.49	0.43
1:L:159:LEU:HD23	1:L:163:LYS:HD3	2.00	0.43
1:L:163:LYS:O	1:L:166:PHE:HB2	2.18	0.43
1:L:317:GLU:HB2	1:L:329:LYS:HA	2.01	0.43
1:M:146:LEU:HD23	1:M:147:MET:N	2.32	0.43
1:M:274:ILE:O	1:M:296:VAL:HG22	2.19	0.43
1:N:500:VAL:O	1:N:503:ARG:HB3	2.19	0.43
1:O:50:VAL:HG11	1:O:368:GLN:HE21	1.83	0.43
1:P:22:ILE:O	1:P:26:VAL:HG22	2.19	0.43
1:A:369:ILE:O	1:A:372:GLU:HB3	2.18	0.43
1:D:14:SER:O	1:D:17:ILE:HG22	2.19	0.43
1:D:133:VAL:HG12	1:D:394:VAL:HG12	2.01	0.43
1:E:484:PHE:CE2	1:E:488:ARG:NE	2.87	0.43
1:F:3:ALA:HB1	1:F:510:ALA:H	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:216:PRO:HG2	1:F:295:GLY:CA	2.47	0.43
1:G:50:VAL:HG22	1:G:375:ARG:NH1	2.16	0.43
1:G:222:ALA:CB	1:G:336:ILE:HD12	2.48	0.43
1:G:312:LEU:O	1:G:312:LEU:HD22	2.19	0.43
1:H:57:ILE:HD13	1:H:57:ILE:C	2.39	0.43
1:H:159:LEU:HD22	1:H:159:LEU:N	2.34	0.43
1:H:178:LYS:HB3	1:H:388:VAL:HG21	2.00	0.43
1:H:203:GLU:HG2	1:H:350:SER:HB2	2.00	0.43
1:I:140:VAL:HA	1:I:175:LEU:CD2	2.48	0.43
1:I:452:LEU:HA	1:I:472:ILE:HG21	2.01	0.43
1:J:510:ALA:C	1:J:512:PRO:HD3	2.39	0.43
1:K:343:GLU:HG3	1:K:344:ASP:N	2.30	0.43
1:K:345:LYS:C	1:K:346:LEU:HD12	2.39	0.43
1:L:390:ASP:HB3	1:L:485:GLN:HE22	1.84	0.43
1:M:29:THR:O	1:M:156:SER:HB2	2.18	0.43
1:M:216:PRO:CG	1:M:295:GLY:HA2	2.49	0.43
1:N:124:ALA:HB1	1:N:491:LEU:CD1	2.49	0.43
1:N:143:ARG:HA	1:N:143:ARG:HE	1.83	0.43
1:N:225:LEU:HD11	1:N:324:HIS:CE1	2.54	0.43
1:O:189:ILE:HG22	1:O:190:LYS:N	2.34	0.43
1:P:23:GLY:HA2	1:P:26:VAL:HG22	2.00	0.43
1:P:209:LYS:HZ3	1:P:303:ASP:H	1.67	0.43
1:A:16:PHE:HA	1:A:97:LEU:CD2	2.49	0.43
1:B:207:LEU:HB3	1:B:347:ILE:CG2	2.49	0.43
1:B:284:TYR:CE2	1:B:286:TYR:HD1	2.36	0.43
1:D:118:ARG:HB2	1:D:118:ARG:NH1	2.33	0.43
1:D:498:ALA:O	1:D:501:ILE:HG13	2.17	0.43
1:F:163:LYS:HA	1:F:166:PHE:CE1	2.50	0.43
1:F:166:PHE:CE2	1:F:363:ARG:O	2.71	0.43
1:I:397:GLY:O	1:I:465:LEU:HB2	2.19	0.43
1:J:201:LEU:HD13	1:J:360:ILE:HG12	2.00	0.43
1:J:312:LEU:O	1:J:312:LEU:HD22	2.19	0.43
1:J:392:ARG:C	1:J:484:PHE:HB2	2.39	0.43
1:J:434:PRO:HB3	1:J:452:LEU:CD2	2.49	0.43
1:K:135:HIS:CG	1:K:136:GLY:H	2.35	0.43
1:K:152:THR:OG1	1:K:480:ILE:HG23	2.17	0.43
1:M:428:LYS:O	1:M:431:ARG:HB3	2.19	0.43
1:N:64:ASP:CG	1:N:66:PRO:HD2	2.38	0.43
1:N:206:LEU:H	1:N:359:THR:HG21	1.83	0.43
1:P:37:LYS:O	1:P:50:VAL:HA	2.19	0.43
1:P:109:HIS:CD2	1:P:112:THR:HG23	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:59:LYS:HZ3	1:A:76:ARG:HB2	1.83	0.43
1:A:146:LEU:HD21	1:A:150:ALA:HB3	2.01	0.43
1:B:32:PRO:HD2	1:B:467:MET:HE1	2.01	0.43
1:B:341:ILE:HD12	1:B:346:LEU:HD12	2.00	0.43
1:C:22:ILE:HD12	1:C:90:THR:CG2	2.49	0.43
1:C:321:THR:O	1:C:323:ASP:N	2.52	0.43
1:D:191:LYS:CE	1:D:346:LEU:HD11	2.44	0.43
1:D:324:HIS:HB2	1:D:329:LYS:HE2	2.01	0.43
1:D:431:ARG:HA	1:D:431:ARG:CZ	2.48	0.43
1:E:368:GLN:O	1:E:371:ASP:HB2	2.19	0.43
1:G:222:ALA:HA	1:G:275:ASN:CB	2.49	0.43
1:G:483:SER:HB2	1:G:486:VAL:HG13	2.00	0.43
1:H:159:LEU:HB2	1:H:163:LYS:HB2	2.01	0.43
1:H:323:ASP:C	1:H:325:PRO:HD2	2.40	0.43
1:H:394:VAL:HG23	1:H:482:GLU:HB2	1.99	0.43
1:I:202:ASP:OD1	1:I:361:VAL:HG23	2.18	0.43
1:I:207:LEU:O	1:I:347:ILE:HG22	2.18	0.43
1:I:341:ILE:HD11	1:I:348:HIS:CE1	2.53	0.43
1:J:154:LEU:HD13	1:J:167:THR:OG1	2.18	0.43
1:J:367:GLN:HG3	1:J:369:ILE:HB	1.99	0.43
1:K:433:LEU:HA	1:K:436:ILE:HG22	2.00	0.43
1:K:452:LEU:HD11	1:K:456:HIS:CE1	2.54	0.43
1:L:216:PRO:CG	1:L:295:GLY:HA2	2.47	0.43
1:L:274:ILE:O	1:L:274:ILE:HG23	2.19	0.43
1:M:124:ALA:CA	1:M:491:LEU:HD13	2.28	0.43
1:O:381:LEU:HD22	1:O:381:LEU:C	2.39	0.43
1:P:108:ILE:HG23	1:P:109:HIS:H	1.83	0.43
1:P:114:ILE:HA	1:P:117:TRP:CZ3	2.54	0.43
1:P:188:VAL:HG21	1:P:377:LEU:HD13	2.01	0.43
1:P:190:LYS:O	1:P:190:LYS:HD2	2.19	0.43
1:P:206:LEU:HD22	1:P:346:LEU:HB3	2.00	0.43
1:P:341:ILE:O	1:P:341:ILE:HG22	2.19	0.43
1:A:176:ARG:CZ	1:A:201:LEU:HD21	2.48	0.42
1:A:189:ILE:HD13	1:A:189:ILE:HA	1.84	0.42
1:A:206:LEU:HD11	1:A:346:LEU:HD13	2.00	0.42
1:A:219:ILE:HD11	1:A:336:ILE:HB	2.00	0.42
1:B:111:GLN:O	1:B:114:ILE:HB	2.19	0.42
1:B:384:LEU:N	1:B:384:LEU:HD22	2.33	0.42
1:D:466:ASP:HB3	1:D:469:GLU:HB3	2.00	0.42
1:E:405:ALA:HA	1:E:408:VAL:HG22	2.00	0.42
1:F:130:ASN:O	1:F:131:SER:CB	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:334:LYS:CD	1:F:351:GLY:HA3	2.49	0.42
1:F:450:ALA:CB	1:O:418:LYS:H	2.30	0.42
1:H:163:LYS:HE3	1:H:376:SER:CB	2.49	0.42
1:H:319:ALA:HA	1:H:329:LYS:NZ	2.34	0.42
1:I:146:LEU:HD22	1:I:168:LYS:HA	1.99	0.42
1:I:211:ILE:CD1	1:I:297:MET:HG3	2.38	0.42
1:I:433:LEU:HB2	1:I:434:PRO:HD3	2.00	0.42
1:I:486:VAL:O	1:I:490:VAL:HB	2.19	0.42
1:J:433:LEU:HB2	1:J:434:PRO:HD3	2.01	0.42
1:K:82:VAL:HG11	1:K:486:VAL:N	2.34	0.42
1:K:232:ASP:OD1	1:K:284:TYR:HD1	2.02	0.42
1:L:59:LYS:HE2	1:L:76:ARG:CB	2.48	0.42
1:L:85:GLY:O	1:L:153:THR:HA	2.18	0.42
1:L:140:VAL:HG12	1:L:141:LYS:N	2.34	0.42
1:L:163:LYS:O	1:L:163:LYS:HG2	2.18	0.42
1:M:63:VAL:HG12	1:M:64:ASP:OD1	2.19	0.42
1:M:88:SER:O	1:M:92:LEU:HD13	2.19	0.42
1:N:57:ILE:HD13	1:N:57:ILE:O	2.18	0.42
1:N:274:ILE:O	1:N:274:ILE:HG23	2.19	0.42
1:O:326:GLU:HB2	1:O:327:LEU:H	1.60	0.42
1:A:128:LEU:O	1:A:129:LEU:CB	2.65	0.42
1:A:143:ARG:HA	1:A:143:ARG:NE	2.34	0.42
1:A:274:ILE:O	1:A:274:ILE:HG23	2.20	0.42
1:B:32:PRO:HG2	1:B:467:MET:CE	2.49	0.42
1:B:225:LEU:HD13	1:B:329:LYS:CE	2.49	0.42
1:C:58:LEU:HB3	1:C:72:VAL:HG11	2.01	0.42
1:C:143:ARG:HA	1:C:143:ARG:HE	1.84	0.42
1:C:206:LEU:HD13	1:C:206:LEU:C	2.39	0.42
1:C:209:LYS:CB	1:C:299:ILE:HG23	2.48	0.42
1:C:500:VAL:HG12	1:C:503:ARG:HH21	1.83	0.42
1:D:78:GLN:O	1:D:83:GLY:N	2.52	0.42
1:E:51:THR:HG21	1:E:57:ILE:CB	2.38	0.42
1:E:210:LYS:HD2	1:E:345:LYS:NZ	2.34	0.42
1:F:274:ILE:HG23	1:F:296:VAL:HG21	2.01	0.42
1:F:418:LYS:HG2	1:O:450:ALA:HB1	2.01	0.42
1:G:96:LEU:HD21	1:G:117:TRP:CZ2	2.55	0.42
1:G:161:HIS:CD2	1:G:162:HIS:H	2.37	0.42
1:G:176:ARG:HE	1:G:358:CYS:CB	2.32	0.42
1:G:248:THR:O	1:G:249:ALA:HB2	2.19	0.42
1:G:321:THR:O	1:G:323:ASP:N	2.51	0.42
1:I:192:LEU:HD22	1:I:343:GLU:OE2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:371:ASP:O	1:I:374:GLU:HB3	2.19	0.42
1:I:475:MET:O	1:I:478:LEU:HB2	2.18	0.42
1:J:222:ALA:HA	1:J:275:ASN:CG	2.40	0.42
1:J:433:LEU:HA	1:J:436:ILE:HG22	2.00	0.42
1:K:39:LEU:HD22	1:P:508:ILE:HD13	2.01	0.42
1:K:367:GLN:NE2	1:K:369:ILE:HD12	2.34	0.42
1:L:109:HIS:CE1	1:P:442:GLY:HA2	2.55	0.42
1:L:415:THR:HB	1:L:419:GLU:CB	2.49	0.42
1:N:31:GLY:HA2	1:N:86:THR:HG21	2.01	0.42
1:N:280:ARG:HG3	1:N:304:PHE:CA	2.49	0.42
1:O:324:HIS:HB2	1:O:329:LYS:HZ3	1.84	0.42
1:O:341:ILE:HG13	1:O:346:LEU:HD12	2.01	0.42
1:P:133:VAL:HA	1:P:393:THR:O	2.19	0.42
1:P:452:LEU:HD22	1:P:465:LEU:HD11	2.01	0.42
1:A:222:ALA:HA	1:A:275:ASN:HB2	2.01	0.42
1:B:4:ASP:OD1	1:B:6:GLU:HG3	2.19	0.42
1:B:82:VAL:HG23	1:B:485:GLN:HB3	2.01	0.42
1:B:115:ALA:O	1:B:118:ARG:HB3	2.20	0.42
1:B:123:ALA:O	1:B:126:GLN:HG2	2.20	0.42
1:C:149:ILE:HD12	1:C:482:GLU:HA	2.01	0.42
1:C:163:LYS:HE3	1:C:376:SER:HB2	2.00	0.42
1:C:399:CYS:SG	1:C:464:GLY:CA	3.06	0.42
1:C:450:ALA:HA	1:L:417:GLY:CA	2.50	0.42
1:D:230:GLY:HA2	1:D:279:ASN:HD21	1.83	0.42
1:D:235:LYS:HG3	1:D:238:ILE:O	2.19	0.42
1:D:372:GLU:HG3	1:D:375:ARG:HH21	1.79	0.42
1:E:139:GLU:O	1:E:140:VAL:HB	2.20	0.42
1:F:92:LEU:HG	1:F:433:LEU:HD11	2.01	0.42
1:F:188:VAL:CG1	1:F:377:LEU:HD13	2.49	0.42
1:F:215:GLN:HG3	1:F:292:GLY:HA2	2.00	0.42
1:G:189:ILE:HG22	1:G:190:LYS:N	2.34	0.42
1:G:466:ASP:HB3	1:G:469:GLU:HB3	2.01	0.42
1:H:431:ARG:O	1:H:434:PRO:HD2	2.19	0.42
1:I:157:LYS:HB3	1:I:159:LEU:HD21	2.02	0.42
1:I:225:LEU:HD11	1:I:324:HIS:ND1	2.34	0.42
1:I:433:LEU:O	1:I:436:ILE:HG22	2.19	0.42
1:J:263:LYS:O	1:J:267:GLU:HG2	2.19	0.42
1:J:265:LYS:O	1:J:269:ILE:HB	2.19	0.42
1:K:190:LYS:HD2	1:K:370:LEU:O	2.19	0.42
1:K:313:VAL:CG1	1:K:352:VAL:HB	2.49	0.42
1:K:374:GLU:HG3	1:K:375:ARG:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:92:LEU:HD21	1:L:433:LEU:HD21	2.01	0.42
1:L:228:ASN:ND2	1:P:289:GLN:NE2	2.67	0.42
1:L:485:GLN:HB3	1:L:489:GLN:HE22	1.84	0.42
1:M:85:GLY:O	1:M:153:THR:HA	2.18	0.42
1:M:408:VAL:HA	1:M:411:LEU:CD1	2.49	0.42
1:O:57:ILE:O	1:O:57:ILE:HD13	2.20	0.42
1:O:110:PRO:O	1:O:113:ILE:HB	2.19	0.42
1:O:140:VAL:HA	1:O:175:LEU:CD2	2.41	0.42
1:O:182:ASN:CG	1:O:183:LEU:H	2.22	0.42
1:P:109:HIS:HA	1:P:110:PRO:HD2	1.88	0.42
1:A:65:ASN:N	1:A:66:PRO:HD2	2.34	0.42
1:A:408:VAL:HA	1:A:411:LEU:HD12	2.01	0.42
1:B:32:PRO:HB3	1:B:155:SER:HB3	2.00	0.42
1:B:317:GLU:OE2	1:B:329:LYS:HE3	2.18	0.42
1:B:368:GLN:O	1:B:371:ASP:HB2	2.20	0.42
1:B:415:THR:HB	1:B:419:GLU:HB2	2.01	0.42
1:B:452:LEU:HA	1:B:472:ILE:HG21	2.02	0.42
1:C:28:SER:HA	1:C:440:ASN:HB2	2.01	0.42
1:C:320:SER:HB2	1:C:321:THR:H	1.72	0.42
1:D:85:GLY:O	1:D:153:THR:HA	2.20	0.42
1:D:211:ILE:HG12	1:D:298:ALA:H	1.84	0.42
1:D:452:LEU:HD11	1:D:456:HIS:HE1	1.83	0.42
1:D:478:LEU:HB3	1:D:480:ILE:HD12	2.01	0.42
1:E:209:LYS:HE2	1:E:301:HIS:O	2.20	0.42
1:F:171:VAL:HA	1:F:174:VAL:HG22	2.00	0.42
1:G:160:THR:HA	1:G:163:LYS:HB3	2.01	0.42
1:H:146:LEU:HD13	1:H:168:LYS:HA	2.01	0.42
1:H:265:LYS:NZ	1:H:287:PRO:HG3	2.32	0.42
1:I:219:ILE:HD11	1:I:336:ILE:HB	2.02	0.42
1:J:38:ILE:CD1	1:K:504:VAL:HG13	2.45	0.42
1:J:171:VAL:HA	1:J:174:VAL:HG22	2.00	0.42
1:J:274:ILE:HG23	1:J:296:VAL:HG21	2.00	0.42
1:K:128:LEU:HD22	1:K:488:ARG:CG	2.46	0.42
1:K:428:LYS:O	1:K:431:ARG:HB3	2.19	0.42
1:L:143:ARG:NH2	1:L:168:LYS:HE3	2.35	0.42
1:M:408:VAL:HA	1:M:411:LEU:HD12	2.02	0.42
1:O:104:ILE:HG13	1:O:105:ALA:N	2.34	0.42
1:O:146:LEU:CD2	1:O:168:LYS:HA	2.49	0.42
1:P:206:LEU:CD1	1:P:361:VAL:HG21	2.31	0.42
1:P:232:ASP:OD1	1:P:284:TYR:HD1	2.02	0.42
1:P:433:LEU:HB2	1:P:434:PRO:HD3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:277:PHE:O	1:A:298:ALA:HA	2.19	0.42
1:B:6:GLU:H	1:B:506:ASN:ND2	2.16	0.42
1:B:413:SER:HB2	1:I:454:ALA:N	2.34	0.42
1:B:431:ARG:CZ	1:B:453:ARG:HD3	2.50	0.42
1:C:57:ILE:HD13	1:C:57:ILE:C	2.39	0.42
1:C:233:THR:HG21	1:C:261:LYS:HE2	2.02	0.42
1:C:250:LYS:HE3	1:C:253:GLU:OE2	2.19	0.42
1:C:390:ASP:HB3	1:C:485:GLN:OE1	2.20	0.42
1:C:441:ALA:CB	1:C:467:MET:HB3	2.49	0.42
1:D:32:PRO:HG2	1:D:467:MET:SD	2.59	0.42
1:D:57:ILE:O	1:D:57:ILE:HD13	2.19	0.42
1:D:146:LEU:CD1	1:D:167:THR:O	2.67	0.42
1:D:207:LEU:HB3	1:D:347:ILE:CG2	2.48	0.42
1:D:211:ILE:HD13	1:D:215:GLN:CB	2.49	0.42
1:E:159:LEU:HG	1:E:163:LYS:CB	2.49	0.42
1:E:322:PHE:HA	1:E:324:HIS:CD2	2.54	0.42
1:F:323:ASP:C	1:F:325:PRO:HD2	2.39	0.42
1:G:128:LEU:HD21	1:G:488:ARG:CG	2.46	0.42
1:H:84:ASP:O	1:H:85:GLY:C	2.58	0.42
1:H:110:PRO:O	1:H:113:ILE:HB	2.20	0.42
1:H:152:THR:OG1	1:H:480:ILE:HG13	2.20	0.42
1:H:177:LEU:C	1:H:177:LEU:HD13	2.40	0.42
1:J:111:GLN:H	1:J:111:GLN:HG2	1.62	0.42
1:J:154:LEU:HD22	1:J:167:THR:HB	2.02	0.42
1:K:190:LYS:HB2	1:K:370:LEU:HD12	2.01	0.42
1:L:191:LYS:NZ	1:L:346:LEU:HD11	2.33	0.42
1:L:225:LEU:HD11	1:L:324:HIS:CE1	2.54	0.42
1:L:345:LYS:HB3	1:L:345:LYS:HE2	1.94	0.42
1:L:367:GLN:O	1:L:368:GLN:HG2	2.20	0.42
1:L:415:THR:HB	1:L:419:GLU:HB3	2.02	0.42
1:M:326:GLU:HB2	1:M:327:LEU:H	1.63	0.42
1:M:452:LEU:CD2	1:M:465:LEU:HD21	2.48	0.42
1:N:471:THR:OG1	1:N:472:ILE:N	2.52	0.42
1:O:65:ASN:H	1:O:65:ASN:HD22	1.68	0.42
1:O:216:PRO:HG2	1:O:295:GLY:HA2	2.00	0.42
1:P:176:ARG:NH2	1:P:360:ILE:HG12	2.35	0.42
1:A:133:VAL:O	1:A:133:VAL:CG2	2.68	0.42
1:A:258:GLU:O	1:A:261:LYS:HB2	2.20	0.42
1:B:431:ARG:C	1:B:434:PRO:HD2	2.40	0.42
1:C:57:ILE:HD13	1:C:57:ILE:O	2.19	0.42
1:C:104:ILE:HG13	1:C:105:ALA:N	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:226:ILE:HG12	1:C:278:ILE:CG2	2.46	0.42
1:D:399:CYS:SG	1:D:475:MET:HB2	2.58	0.42
1:E:159:LEU:HA	1:E:161:HIS:CE1	2.54	0.42
1:E:174:VAL:HG11	1:E:384:LEU:CB	2.50	0.42
1:E:311:ALA:HA	1:E:314:THR:HG22	2.02	0.42
1:H:48:LEU:HD12	1:H:48:LEU:H	1.84	0.42
1:I:159:LEU:HD22	1:I:159:LEU:H	1.83	0.42
1:I:177:LEU:HD13	1:I:177:LEU:C	2.39	0.42
1:I:210:LYS:HE2	1:I:212:GLY:O	2.19	0.42
1:J:313:VAL:CG1	1:J:352:VAL:HB	2.50	0.42
1:K:39:LEU:CD1	1:K:57:ILE:HD11	2.49	0.42
1:K:43:GLY:O	1:K:44:ARG:HB2	2.19	0.42
1:M:154:LEU:HD21	1:M:163:LYS:NZ	2.34	0.42
1:N:284:TYR:CE2	1:N:286:TYR:CD1	3.08	0.42
1:N:324:HIS:HB2	1:N:329:LYS:HZ3	1.83	0.42
1:P:16:PHE:HA	1:P:97:LEU:CD2	2.49	0.42
1:P:277:PHE:CE2	1:P:279:ASN:HB2	2.55	0.42
1:P:411:LEU:HB3	1:P:423:MET:SD	2.59	0.42
1:P:452:LEU:HD11	1:P:456:HIS:HE1	1.84	0.42
1:A:219:ILE:HB	1:A:275:ASN:HB3	2.01	0.42
1:A:259:LYS:O	1:A:262:MET:HB3	2.20	0.42
1:A:408:VAL:HG23	1:A:427:ALA:HB1	2.01	0.42
1:C:118:ARG:O	1:C:121:THR:HB	2.20	0.42
1:D:22:ILE:HG13	1:D:23:GLY:N	2.35	0.42
1:D:144:GLN:H	1:D:144:GLN:HG2	1.67	0.42
1:D:452:LEU:HD13	1:D:465:LEU:HD13	2.01	0.42
1:E:124:ALA:O	1:E:128:LEU:HG	2.18	0.42
1:E:157:LYS:HB3	1:E:159:LEU:CD2	2.49	0.42
1:F:206:LEU:HD21	1:F:346:LEU:HB3	2.02	0.42
1:G:32:PRO:CA	1:G:156:SER:HA	2.49	0.42
1:H:211:ILE:H	1:H:211:ILE:CD1	2.17	0.42
1:H:324:HIS:O	1:H:329:LYS:CG	2.66	0.42
1:I:222:ALA:HA	1:I:275:ASN:CG	2.40	0.42
1:K:271:LYS:HG3	1:K:272:HIS:N	2.34	0.42
1:L:159:LEU:HG	1:L:163:LYS:HD2	2.02	0.42
1:L:262:MET:CE	1:L:290:LEU:HB2	2.49	0.42
1:L:390:ASP:HB3	1:L:485:GLN:NE2	2.35	0.42
1:M:59:LYS:CE	1:M:76:ARG:HB2	2.48	0.42
1:M:96:LEU:HD22	1:M:498:ALA:HB1	2.01	0.42
1:N:106:LYS:HB3	1:N:106:LYS:HZ2	1.84	0.42
1:N:163:LYS:HE3	1:N:376:SER:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:191:LYS:HB3	1:N:362:LEU:O	2.19	0.42
1:N:405:ALA:HA	1:N:408:VAL:HG22	2.02	0.42
1:N:421:VAL:O	1:N:424:GLU:HG2	2.19	0.42
1:O:163:LYS:HA	1:O:166:PHE:HD1	1.76	0.42
1:P:99:GLU:HG2	1:P:425:SER:HB2	2.02	0.42
1:P:448:LEU:HD21	1:P:465:LEU:CD1	2.44	0.42
1:A:175:LEU:HA	1:A:178:LYS:HE2	2.02	0.42
1:B:1:ALA:HA	1:G:41:SER:O	2.20	0.42
1:B:82:VAL:O	1:B:386:GLN:HG3	2.20	0.42
1:B:372:GLU:HG3	1:B:375:ARG:NH2	2.32	0.42
1:C:192:LEU:HA	1:C:366:THR:CG2	2.50	0.42
1:C:486:VAL:O	1:C:490:VAL:HG12	2.20	0.42
1:D:154:LEU:O	1:D:157:LYS:HB2	2.20	0.42
1:D:215:GLN:HE21	1:D:292:GLY:N	2.17	0.42
1:E:51:THR:CG2	1:E:57:ILE:HB	2.38	0.42
1:E:106:LYS:CE	1:E:418:LYS:HE3	2.50	0.42
1:E:286:TYR:HB2	1:E:287:PRO:HD3	2.01	0.42
1:E:313:VAL:HG13	1:E:352:VAL:CB	2.49	0.42
1:E:404:MET:O	1:E:408:VAL:HG22	2.19	0.42
1:F:57:ILE:HD13	1:F:57:ILE:C	2.40	0.42
1:F:157:LYS:HE2	1:F:375:ARG:HH12	1.83	0.42
1:F:220:GLU:O	1:F:221:ASN:OD1	2.38	0.42
1:F:262:MET:SD	1:F:290:LEU:HB2	2.59	0.42
1:G:59:LYS:NZ	1:G:76:ARG:HB2	2.35	0.42
1:I:127:ALA:HB1	1:I:404:MET:CE	2.49	0.42
1:K:177:LEU:HD21	1:K:183:LEU:HD12	2.00	0.42
1:K:397:GLY:HA3	1:K:475:MET:CE	2.50	0.42
1:L:390:ASP:HB2	1:L:485:GLN:HE22	1.85	0.42
1:M:466:ASP:HB3	1:M:469:GLU:HB3	2.02	0.42
1:N:27:LYS:HB2	1:N:436:ILE:CD1	2.50	0.42
1:O:438:ALA:HB1	1:O:448:LEU:HG	1.99	0.42
1:P:82:VAL:CG2	1:P:485:GLN:HB2	2.49	0.42
1:A:20:ILE:HB	1:A:98:ARG:HH12	1.85	0.42
1:B:211:ILE:HG22	1:B:288:GLU:OE1	2.20	0.42
1:B:504:VAL:HG13	1:G:369:ILE:CD1	2.50	0.42
1:B:509:LYS:O	1:B:510:ALA:HB3	2.20	0.42
1:C:175:LEU:O	1:C:178:LYS:HB3	2.20	0.42
1:C:394:VAL:HG21	1:C:487:LYS:HG3	2.01	0.42
1:D:57:ILE:HD13	1:D:57:ILE:C	2.40	0.42
1:E:508:ILE:HG22	1:E:509:LYS:HB2	2.02	0.42
1:F:40:LEU:HB2	1:F:48:LEU:HG	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:149:ILE:HD12	1:H:483:SER:N	2.35	0.42
1:I:57:ILE:HG23	1:I:58:LEU:CD2	2.50	0.42
1:I:312:LEU:O	1:I:354:LEU:HD22	2.19	0.42
1:I:452:LEU:HD13	1:I:465:LEU:CD1	2.48	0.42
1:J:190:LYS:HD2	1:J:190:LYS:O	2.20	0.42
1:K:92:LEU:N	1:K:92:LEU:CD1	2.83	0.42
1:L:106:LYS:HE3	1:L:418:LYS:HE3	2.02	0.42
1:L:216:PRO:HD3	1:L:292:GLY:O	2.20	0.42
1:M:287:PRO:O	1:M:290:LEU:HB3	2.19	0.42
1:O:66:PRO:HG3	1:O:509:LYS:CG	2.50	0.42
1:O:96:LEU:HD13	1:O:97:LEU:N	2.33	0.42
1:P:59:LYS:HE2	1:P:76:ARG:HB2	2.01	0.42
1:P:190:LYS:C	1:P:190:LYS:CD	2.88	0.42
1:P:322:PHE:HA	1:P:324:HIS:CD2	2.54	0.42
1:P:396:GLY:O	1:P:475:MET:HG2	2.19	0.42
1:P:433:LEU:H	1:P:433:LEU:HD12	1.85	0.42
1:P:511:ALA:H	1:P:512:PRO:HD2	1.84	0.42
1:B:117:TRP:CD1	1:B:495:ALA:O	2.73	0.42
1:B:269:ILE:CG2	1:B:274:ILE:HG21	2.41	0.42
1:C:188:VAL:HG23	1:C:362:LEU:HG	2.02	0.42
1:C:192:LEU:HA	1:C:366:THR:HG22	2.02	0.42
1:D:111:GLN:O	1:D:114:ILE:HB	2.19	0.42
1:E:58:LEU:HD12	1:E:72:VAL:HG22	2.01	0.42
1:E:126:GLN:O	1:E:130:ASN:HB3	2.20	0.42
1:E:175:LEU:HA	1:E:178:LYS:HE2	2.02	0.42
1:E:218:ARG:HD3	1:E:337:GLU:HB3	2.02	0.42
1:E:338:GLU:CG	1:E:347:ILE:HG22	2.49	0.42
1:E:442:GLY:O	1:G:108:ILE:HG23	2.20	0.42
1:F:163:LYS:HD2	1:F:166:PHE:CD1	2.54	0.42
1:G:153:THR:HG22	1:G:379:ASP:HB3	2.00	0.42
1:G:159:LEU:CD2	1:G:163:LYS:HG2	2.48	0.42
1:G:190:LYS:HA	1:G:362:LEU:O	2.19	0.42
1:G:191:LYS:HB3	1:G:363:ARG:HA	2.02	0.42
1:G:191:LYS:HE3	1:G:346:LEU:HD11	1.99	0.42
1:G:259:LYS:HD2	1:G:259:LYS:N	2.35	0.42
1:G:452:LEU:HD13	1:G:465:LEU:CD1	2.50	0.42
1:H:78:GLN:OE1	1:H:78:GLN:HA	2.20	0.42
1:H:133:VAL:HA	1:H:461:THR:CG2	2.49	0.42
1:K:102:SER:O	1:K:105:ALA:HB3	2.20	0.42
1:K:367:GLN:HE22	1:K:369:ILE:HB	1.84	0.42
1:L:198:ASP:O	1:L:199:SER:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:265:LYS:HG2	1:L:322:PHE:CE1	2.55	0.42
1:M:131:SER:HB2	1:M:403:LEU:CD2	2.50	0.42
1:M:209:LYS:HE2	1:M:301:HIS:O	2.20	0.42
1:M:214:ASN:HB2	1:O:320:SER:HB3	2.01	0.42
1:M:226:ILE:HA	1:M:278:ILE:O	2.20	0.42
1:N:366:THR:O	1:N:367:GLN:HB3	2.19	0.42
1:O:341:ILE:O	1:O:343:GLU:N	2.44	0.42
1:O:390:ASP:HB3	1:O:485:GLN:CD	2.41	0.42
1:P:115:ALA:O	1:P:119:GLU:HG2	2.20	0.42
1:P:183:LEU:HD22	1:P:381:LEU:HD11	2.01	0.42
1:P:280:ARG:HG3	1:P:304:PHE:CA	2.50	0.42
1:P:381:LEU:HD13	1:P:381:LEU:C	2.40	0.42
1:P:405:ALA:HA	1:P:408:VAL:HG22	2.02	0.42
1:P:452:LEU:HA	1:P:472:ILE:HG21	2.01	0.42
1:A:161:HIS:CD2	1:A:162:HIS:H	2.38	0.41
1:A:222:ALA:HB3	1:A:336:ILE:HD12	2.02	0.41
1:B:139:GLU:O	1:B:141:LYS:N	2.52	0.41
1:B:143:ARG:HG3	1:B:143:ARG:O	2.20	0.41
1:B:421:VAL:O	1:B:424:GLU:HG2	2.20	0.41
1:C:2:GLY:O	1:C:3:ALA:CB	2.68	0.41
1:C:40:LEU:HB2	1:C:48:LEU:CD1	2.50	0.41
1:C:111:GLN:HA	1:C:114:ILE:HG12	2.02	0.41
1:C:214:ASN:O	1:C:215:GLN:CB	2.66	0.41
1:C:433:LEU:HB2	1:C:434:PRO:HD3	2.00	0.41
1:D:61:ILE:HG13	1:D:63:VAL:HG23	2.01	0.41
1:D:317:GLU:HB2	1:D:329:LYS:HD3	2.02	0.41
1:E:128:LEU:O	1:E:130:ASN:N	2.53	0.41
1:E:236:ILE:HG12	1:E:237:LYS:N	2.34	0.41
1:E:366:THR:HA	1:E:370:LEU:HD22	2.00	0.41
1:F:31:GLY:O	1:F:33:LYS:N	2.38	0.41
1:F:206:LEU:HG	1:F:361:VAL:CG2	2.44	0.41
1:F:221:ASN:HA	1:F:333:CYS:HB2	2.02	0.41
1:F:265:LYS:O	1:F:269:ILE:HG13	2.20	0.41
1:F:450:ALA:HB2	1:O:418:LYS:HG2	2.01	0.41
1:F:452:LEU:HD13	1:F:465:LEU:CD1	2.47	0.41
1:G:265:LYS:HZ2	1:G:287:PRO:HG3	1.85	0.41
1:I:64:ASP:CG	1:I:66:PRO:HD2	2.39	0.41
1:J:327:LEU:HD13	1:J:328:VAL:N	2.34	0.41
1:J:334:LYS:HB3	1:J:351:GLY:HA3	2.02	0.41
1:J:452:LEU:HD22	1:J:465:LEU:HD11	2.02	0.41
1:K:40:LEU:N	1:P:508:ILE:HG22	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:95:GLU:CD	1:K:432:MET:HB3	2.40	0.41
1:K:116:GLY:O	1:K:119:GLU:HB2	2.20	0.41
1:K:159:LEU:HG	1:K:163:LYS:CG	2.50	0.41
1:K:191:LYS:HG2	1:K:341:ILE:HG21	2.02	0.41
1:K:219:ILE:HD11	1:K:336:ILE:HB	2.02	0.41
1:K:245:VAL:HG12	1:K:246:ASP:N	2.35	0.41
1:K:496:GLU:O	1:K:500:VAL:HG23	2.20	0.41
1:L:170:ALA:O	1:L:173:ALA:HB3	2.20	0.41
1:L:191:LYS:HD3	1:L:192:LEU:H	1.84	0.41
1:L:276:CYS:HA	1:L:297:MET:O	2.20	0.41
1:L:372:GLU:HG3	1:L:375:ARG:CZ	2.50	0.41
1:M:22:ILE:O	1:M:26:VAL:HG22	2.20	0.41
1:M:412:ALA:O	1:M:420:ALA:HB2	2.20	0.41
1:N:274:ILE:HG23	1:N:296:VAL:HG22	2.02	0.41
1:N:337:GLU:HG3	1:N:339:VAL:HG23	2.02	0.41
1:O:122:LYS:HA	1:O:125:ARG:HG2	2.02	0.41
1:P:154:LEU:HD21	1:P:163:LYS:HZ3	1.85	0.41
1:P:280:ARG:O	1:P:281:GLN:CB	2.68	0.41
1:P:359:THR:HG22	1:P:361:VAL:HG23	2.02	0.41
1:A:130:ASN:HB3	1:A:403:LEU:CD2	2.50	0.41
1:A:145:ASP:O	1:A:171:VAL:HG11	2.20	0.41
1:A:159:LEU:HB2	1:A:163:LYS:HB2	2.01	0.41
1:B:106:LYS:HG3	1:B:108:ILE:CG2	2.47	0.41
1:B:310:LEU:O	1:B:310:LEU:HD13	2.20	0.41
1:B:372:GLU:CG	1:B:375:ARG:HH21	2.28	0.41
1:C:130:ASN:HD21	1:C:407:ALA:HB1	1.85	0.41
1:C:173:ALA:HA	1:C:176:ARG:NH1	2.35	0.41
1:D:37:LYS:HA	1:E:504:VAL:CG1	2.50	0.41
1:D:206:LEU:HD11	1:D:346:LEU:CD2	2.50	0.41
1:D:257:ALA:O	1:D:260:GLU:HB3	2.20	0.41
1:D:453:ARG:NH2	1:K:420:ALA:HB3	2.35	0.41
1:E:59:LYS:CE	1:E:76:ARG:HB2	2.49	0.41
1:E:78:GLN:HE22	1:E:489:GLN:HB3	1.85	0.41
1:E:152:THR:HA	1:E:155:SER:OG	2.19	0.41
1:G:206:LEU:CD2	1:G:346:LEU:HD13	2.44	0.41
1:G:207:LEU:HB2	1:G:347:ILE:CG2	2.49	0.41
1:G:225:LEU:HG	1:G:277:PHE:CD1	2.55	0.41
1:H:176:ARG:HD2	1:H:358:CYS:HB2	2.02	0.41
1:I:421:VAL:HA	1:I:424:GLU:HG2	2.02	0.41
1:K:191:LYS:HA	1:K:191:LYS:CE	2.50	0.41
1:L:106:LYS:O	1:L:107:LYS:HB3	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:106:LYS:HD3	1:L:113:ILE:HD11	2.02	0.41
1:M:352:VAL:CG2	1:M:355:GLY:H	2.33	0.41
1:N:174:VAL:HG11	1:N:384:LEU:HB2	2.02	0.41
1:N:211:ILE:HG12	1:N:298:ALA:H	1.85	0.41
1:N:506:ASN:O	1:N:507:ILE:CB	2.68	0.41
1:O:159:LEU:HD12	1:O:372:GLU:OE1	2.20	0.41
1:O:321:THR:O	1:O:323:ASP:N	2.54	0.41
1:O:352:VAL:HG22	1:O:355:GLY:H	1.85	0.41
1:O:508:ILE:CG2	1:O:509:LYS:N	2.83	0.41
1:P:171:VAL:HG12	1:P:384:LEU:HG	2.03	0.41
1:P:246:ASP:O	1:P:247:SER:HB2	2.20	0.41
1:A:130:ASN:HB3	1:A:403:LEU:HD23	2.01	0.41
1:A:310:LEU:C	1:A:310:LEU:HD13	2.40	0.41
1:B:321:THR:O	1:B:323:ASP:N	2.53	0.41
1:B:341:ILE:HD12	1:B:346:LEU:CD1	2.50	0.41
1:C:132:ALA:CB	1:C:461:THR:HG21	2.50	0.41
1:C:207:LEU:HB3	1:C:347:ILE:HG23	2.02	0.41
1:C:286:TYR:HB2	1:C:287:PRO:HD3	2.00	0.41
1:D:243:VAL:HG12	1:D:244:ARG:H	1.85	0.41
1:D:280:ARG:O	1:D:281:GLN:HB3	2.19	0.41
1:D:342:GLY:O	1:D:343:GLU:CB	2.68	0.41
1:D:508:ILE:H	1:D:508:ILE:HG13	1.51	0.41
1:F:19:ALA:HB1	1:F:94:ALA:HA	2.03	0.41
1:H:297:MET:HE1	1:H:336:ILE:HG22	2.01	0.41
1:H:466:ASP:CG	1:H:478:LEU:HD11	2.40	0.41
1:I:36:ASP:HB2	1:N:503:ARG:HH11	1.86	0.41
1:I:366:THR:HA	1:I:370:LEU:HD22	2.02	0.41
1:J:22:ILE:HD12	1:J:90:THR:CG2	2.50	0.41
1:J:146:LEU:HD12	1:J:171:VAL:CG2	2.49	0.41
1:J:207:LEU:HB3	1:J:347:ILE:CG2	2.50	0.41
1:J:280:ARG:O	1:J:281:GLN:CB	2.68	0.41
1:K:211:ILE:HB	1:K:215:GLN:OE1	2.20	0.41
1:K:215:GLN:HG3	1:K:292:GLY:HA2	2.02	0.41
1:K:245:VAL:O	1:K:246:ASP:CB	2.68	0.41
1:L:431:ARG:HH21	1:L:434:PRO:HG2	1.85	0.41
1:M:146:LEU:CD2	1:M:150:ALA:HB3	2.34	0.41
1:M:505:ASP:O	1:M:506:ASN:ND2	2.54	0.41
1:N:82:VAL:CG1	1:N:83:GLY:H	2.32	0.41
1:N:117:TRP:NE1	1:N:499:GLU:HB2	2.35	0.41
1:O:505:ASP:O	1:O:507:ILE:HG12	2.20	0.41
1:P:146:LEU:CD1	1:P:171:VAL:HG13	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:344:ASP:O	1:A:345:LYS:HB3	2.20	0.41
1:A:390:ASP:CB	1:A:485:GLN:HE22	2.32	0.41
1:B:54:GLY:O	1:B:57:ILE:HG22	2.19	0.41
1:D:100:ALA:HA	1:D:103:LEU:HB2	2.02	0.41
1:D:185:ALA:HA	1:D:309:ARG:HG2	2.01	0.41
1:D:261:LYS:HD2	1:D:261:LYS:N	2.35	0.41
1:D:337:GLU:HG3	1:D:339:VAL:HG23	2.02	0.41
1:E:103:LEU:O	1:E:106:LYS:HB3	2.21	0.41
1:E:274:ILE:O	1:E:296:VAL:HG22	2.20	0.41
1:F:82:VAL:HG11	1:F:486:VAL:HA	2.01	0.41
1:F:141:LYS:CG	1:F:144:GLN:HB2	2.45	0.41
1:F:207:LEU:HD23	1:F:207:LEU:HA	1.89	0.41
1:F:313:VAL:HG13	1:F:352:VAL:HG21	2.02	0.41
1:G:326:GLU:HB2	1:G:327:LEU:H	1.64	0.41
1:H:175:LEU:O	1:H:178:LYS:HE2	2.20	0.41
1:I:308:GLU:OE1	1:I:308:GLU:HA	2.20	0.41
1:J:176:ARG:CD	1:J:358:CYS:HB2	2.50	0.41
1:J:376:SER:O	1:J:379:ASP:OD1	2.38	0.41
1:K:40:LEU:HD23	1:K:41:SER:N	2.35	0.41
1:K:163:LYS:HE3	1:K:376:SER:CB	2.50	0.41
1:K:177:LEU:HD21	1:K:183:LEU:CD1	2.50	0.41
1:L:51:THR:HG21	1:L:56:THR:HB	2.02	0.41
1:L:225:LEU:HG	1:L:277:PHE:CD1	2.56	0.41
1:M:280:ARG:HG3	1:M:304:PHE:HA	2.02	0.41
1:M:463:ALA:HA	1:M:473:GLY:O	2.19	0.41
1:N:133:VAL:CG2	1:N:134:ASP:H	2.31	0.41
1:N:222:ALA:HA	1:N:275:ASN:CB	2.51	0.41
1:O:19:ALA:HB1	1:O:94:ALA:HA	2.02	0.41
1:O:154:LEU:HD21	1:O:163:LYS:HG3	2.02	0.41
1:O:501:ILE:O	1:O:502:LEU:CB	2.68	0.41
1:P:27:LYS:HB2	1:P:436:ILE:HG13	2.02	0.41
1:C:154:LEU:HD22	1:C:167:THR:CB	2.51	0.41
1:C:335:LEU:HD11	1:C:337:GLU:OE2	2.19	0.41
1:C:513:ARG:H	1:C:513:ARG:CD	2.31	0.41
1:D:109:HIS:ND1	1:D:111:GLN:HB2	2.36	0.41
1:E:17:ILE:O	1:E:20:ILE:HG22	2.20	0.41
1:E:300:GLU:OE2	1:E:301:HIS:HB2	2.21	0.41
1:E:334:LYS:CB	1:E:351:GLY:HA3	2.50	0.41
1:E:396:GLY:O	1:E:398:GLY:N	2.54	0.41
1:F:39:LEU:HD11	1:F:57:ILE:CG1	2.47	0.41
1:F:326:GLU:HB2	1:F:327:LEU:H	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:345:LYS:C	1:F:346:LEU:HD12	2.41	0.41
1:F:451:GLN:NE2	1:F:471:THR:HA	2.33	0.41
1:G:257:ALA:O	1:G:261:LYS:HD2	2.20	0.41
1:H:19:ALA:HB1	1:H:94:ALA:HA	2.01	0.41
1:H:41:SER:HB3	1:H:45:ASP:OD2	2.21	0.41
1:H:133:VAL:HG23	1:H:134:ASP:N	2.31	0.41
1:I:226:ILE:HA	1:I:278:ILE:O	2.21	0.41
1:J:28:SER:O	1:J:34:GLY:HA2	2.20	0.41
1:J:68:ALA:O	1:J:72:VAL:HG23	2.21	0.41
1:J:131:SER:CB	1:J:403:LEU:HD21	2.50	0.41
1:J:245:VAL:CG2	1:J:251:VAL:HG23	2.48	0.41
1:J:492:LEU:HD13	1:J:492:LEU:C	2.40	0.41
1:K:82:VAL:CG1	1:K:486:VAL:HA	2.50	0.41
1:K:438:ALA:CB	1:K:448:LEU:HG	2.48	0.41
1:L:138:ASP:O	1:L:139:GLU:CB	2.68	0.41
1:L:448:LEU:C	1:L:448:LEU:HD13	2.40	0.41
1:M:20:ILE:HA	1:M:98:ARG:HH12	1.85	0.41
1:M:127:ALA:HB2	1:M:404:MET:SD	2.61	0.41
1:M:486:VAL:O	1:M:490:VAL:HG12	2.20	0.41
1:N:106:LYS:O	1:N:108:ILE:HG13	2.20	0.41
1:N:109:HIS:HA	1:N:110:PRO:HD2	1.97	0.41
1:N:168:LYS:O	1:N:171:VAL:HG23	2.20	0.41
1:N:183:LEU:HD13	1:N:381:LEU:HD11	2.02	0.41
1:O:173:ALA:O	1:O:176:ARG:HG2	2.20	0.41
1:O:214:ASN:O	1:O:215:GLN:CB	2.65	0.41
1:P:57:ILE:HG23	1:P:58:LEU:HD23	2.03	0.41
1:P:321:THR:O	1:P:323:ASP:N	2.53	0.41
1:B:32:PRO:HA	1:B:156:SER:CA	2.50	0.41
1:B:354:LEU:CD2	1:B:356:GLU:HB3	2.51	0.41
1:B:417:GLY:N	1:I:450:ALA:HB3	2.36	0.41
1:C:85:GLY:O	1:C:153:THR:HG23	2.21	0.41
1:C:258:GLU:OE2	1:C:284:TYR:CE2	2.70	0.41
1:D:506:ASN:O	1:D:507:ILE:CB	2.68	0.41
1:E:158:LEU:HD11	1:G:503:ARG:CD	2.50	0.41
1:E:277:PHE:O	1:E:298:ALA:HA	2.20	0.41
1:E:453:ARG:NH2	1:J:421:VAL:HG22	2.36	0.41
1:F:198:ASP:O	1:F:199:SER:HB3	2.21	0.41
1:G:57:ILE:C	1:G:57:ILE:HD13	2.41	0.41
1:G:58:LEU:HB3	1:G:72:VAL:CG1	2.50	0.41
1:G:274:ILE:HG23	1:G:296:VAL:CG2	2.49	0.41
1:H:65:ASN:ND2	1:H:66:PRO:HD3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:35:MET:HG2	1:K:111:GLN:NE2	2.35	0.41
1:J:352:VAL:CG2	1:J:355:GLY:H	2.33	0.41
1:L:19:ALA:CB	1:L:97:LEU:HD22	2.51	0.41
1:M:115:ALA:O	1:M:119:GLU:HG2	2.21	0.41
1:M:231:MET:HE1	1:M:265:LYS:HD3	2.01	0.41
1:M:287:PRO:O	1:M:291:PHE:HD2	2.04	0.41
1:N:324:HIS:HB2	1:N:329:LYS:HE2	2.02	0.41
1:O:17:ILE:O	1:O:20:ILE:HG22	2.21	0.41
1:O:277:PHE:CE2	1:O:279:ASN:HB2	2.55	0.41
1:A:343:GLU:CG	1:A:344:ASP:H	2.27	0.41
1:A:344:ASP:HB3	1:A:345:LYS:H	1.61	0.41
1:A:431:ARG:CZ	1:A:431:ARG:HA	2.50	0.41
1:B:176:ARG:HH22	1:B:201:LEU:CD2	2.16	0.41
1:D:65:ASN:OD1	1:D:66:PRO:HD3	2.20	0.41
1:D:215:GLN:HG3	1:D:292:GLY:HA2	2.03	0.41
1:F:334:LYS:HG3	1:F:351:GLY:HA3	2.01	0.41
1:F:431:ARG:HD3	1:F:453:ARG:NH2	2.35	0.41
1:G:4:ASP:HB3	1:G:509:LYS:HB2	2.03	0.41
1:G:52:ASN:OD1	1:G:375:ARG:HD2	2.21	0.41
1:G:417:GLY:CA	1:N:450:ALA:HB2	2.50	0.41
1:H:231:MET:C	1:H:284:TYR:HB2	2.41	0.41
1:H:334:LYS:CG	1:H:351:GLY:HA3	2.49	0.41
1:H:453:ARG:HH21	1:P:420:ALA:HB1	1.84	0.41
1:I:280:ARG:O	1:I:281:GLN:CB	2.68	0.41
1:I:405:ALA:HA	1:I:408:VAL:CG2	2.51	0.41
1:J:225:LEU:HD11	1:J:324:HIS:CE1	2.55	0.41
1:J:504:VAL:O	1:J:504:VAL:HG13	2.21	0.41
1:K:159:LEU:HD22	1:K:372:GLU:OE2	2.20	0.41
1:L:177:LEU:HD13	1:L:177:LEU:C	2.40	0.41
1:L:188:VAL:HG21	1:L:377:LEU:HD22	2.00	0.41
1:M:32:PRO:HA	1:M:155:SER:CB	2.50	0.41
1:M:139:GLU:O	1:M:141:LYS:N	2.53	0.41
1:M:163:LYS:O	1:M:166:PHE:HB2	2.21	0.41
1:M:280:ARG:HG3	1:M:304:PHE:CA	2.50	0.41
1:O:45:ASP:O	1:O:46:ALA:HB3	2.20	0.41
1:O:399:CYS:SG	1:O:464:GLY:CA	3.04	0.41
1:O:433:LEU:O	1:O:437:ILE:HG12	2.20	0.41
1:P:40:LEU:HD23	1:P:41:SER:H	1.86	0.41
1:A:191:LYS:HA	1:A:191:LYS:HD3	1.90	0.41
1:B:44:ARG:N	1:B:44:ARG:HD2	2.35	0.41
1:B:173:ALA:HA	1:B:176:ARG:CZ	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:226:ILE:HA	1:B:278:ILE:O	2.20	0.41
1:C:24:ASP:O	1:C:27:LYS:HG2	2.20	0.41
1:C:173:ALA:HA	1:C:176:ARG:CZ	2.51	0.41
1:C:455:ALA:HB2	1:C:472:ILE:HD12	2.03	0.41
1:E:210:LYS:HB2	1:E:345:LYS:HZ1	1.85	0.41
1:E:446:ALA:HB2	1:J:108:ILE:HG13	2.03	0.41
1:F:126:GLN:HE22	1:F:411:LEU:CD2	2.33	0.41
1:F:194:GLY:HA2	1:F:364:GLY:O	2.21	0.41
1:F:211:ILE:HG12	1:F:298:ALA:H	1.85	0.41
1:F:325:PRO:O	1:F:326:GLU:HG3	2.20	0.41
1:G:57:ILE:HG23	1:G:58:LEU:CD2	2.50	0.41
1:G:372:GLU:O	1:G:375:ARG:HB3	2.21	0.41
1:H:199:SER:HB2	1:H:362:LEU:HD23	2.02	0.41
1:H:225:LEU:HD11	1:H:324:HIS:ND1	2.36	0.41
1:H:397:GLY:HA3	1:H:475:MET:CE	2.50	0.41
1:I:63:VAL:CG2	1:N:513:ARG:N	2.83	0.41
1:I:310:LEU:O	1:I:310:LEU:HD13	2.21	0.41
1:L:206:LEU:H	1:L:359:THR:HG21	1.85	0.41
1:L:277:PHE:CE2	1:L:279:ASN:HB2	2.55	0.41
1:M:173:ALA:HB2	1:M:360:ILE:HD11	2.03	0.41
1:M:266:VAL:HB	1:M:290:LEU:CD2	2.44	0.41
1:N:111:GLN:HA	1:N:114:ILE:HG12	2.02	0.41
1:P:462:THR:HB	1:P:474:ASP:OD1	2.21	0.41
1:A:14:SER:O	1:A:17:ILE:HG22	2.21	0.41
1:A:129:LEU:HD23	1:A:129:LEU:O	2.21	0.41
1:A:137:SER:O	1:A:141:LYS:HD3	2.19	0.41
1:A:192:LEU:HD12	1:A:192:LEU:N	2.36	0.41
1:A:280:ARG:O	1:A:281:GLN:CB	2.68	0.41
1:B:58:LEU:HB3	1:B:72:VAL:CG1	2.48	0.41
1:B:128:LEU:CD2	1:B:488:ARG:HG2	2.36	0.41
1:B:173:ALA:HA	1:B:176:ARG:NH2	2.35	0.41
1:B:205:PHE:HA	1:B:359:THR:OG1	2.21	0.41
1:B:309:ARG:O	1:B:313:VAL:HG23	2.21	0.41
1:C:245:VAL:HG12	1:C:246:ASP:N	2.36	0.41
1:C:261:LYS:O	1:C:264:GLU:HG2	2.20	0.41
1:C:268:ARG:HB3	1:C:271:LYS:HE2	2.03	0.41
1:C:297:MET:HE1	1:C:347:ILE:HD11	2.03	0.41
1:C:397:GLY:HA3	1:C:475:MET:CE	2.51	0.41
1:C:438:ALA:HB2	1:C:448:LEU:HG	2.03	0.41
1:D:205:PHE:H	1:D:349:PHE:HB3	1.85	0.41
1:D:245:VAL:HG11	1:D:251:VAL:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:310:LEU:O	1:D:314:THR:HG22	2.21	0.41
1:E:32:PRO:CD	1:E:467:MET:HE1	2.51	0.41
1:E:38:ILE:CD1	1:E:38:ILE:H	2.34	0.41
1:E:396:GLY:HA2	1:E:482:GLU:HG3	2.02	0.41
1:E:402:MET:HG2	1:E:431:ARG:HH22	1.86	0.41
1:F:61:ILE:O	1:F:61:ILE:HG23	2.21	0.41
1:F:64:ASP:CG	1:F:66:PRO:HD2	2.41	0.41
1:F:324:HIS:O	1:F:329:LYS:HG3	2.20	0.41
1:F:367:GLN:HB2	1:F:368:GLN:H	1.68	0.41
1:G:149:ILE:O	1:G:152:THR:HG22	2.20	0.41
1:G:183:LEU:HD13	1:G:385:ALA:CB	2.51	0.41
1:G:452:LEU:CD2	1:G:465:LEU:HD21	2.51	0.41
1:G:502:LEU:HD22	1:G:502:LEU:C	2.41	0.41
1:H:3:ALA:HB3	1:H:509:LYS:O	2.21	0.41
1:H:64:ASP:CG	1:H:66:PRO:HD2	2.41	0.41
1:H:426:TYR:O	1:H:429:ALA:HB3	2.21	0.41
1:I:148:ASN:HB3	1:I:149:ILE:H	1.51	0.41
1:I:159:LEU:HB2	1:I:163:LYS:HB2	2.02	0.41
1:I:216:PRO:HG2	1:I:295:GLY:C	2.41	0.41
1:J:102:SER:O	1:J:105:ALA:HB3	2.20	0.41
1:J:146:LEU:CD1	1:J:167:THR:O	2.69	0.41
1:J:216:PRO:HG2	1:J:295:GLY:CA	2.50	0.41
1:J:219:ILE:HD13	1:J:276:CYS:HB2	2.03	0.41
1:J:412:ALA:CB	1:J:424:GLU:HB3	2.50	0.41
1:K:168:LYS:O	1:K:171:VAL:HG22	2.21	0.41
1:K:364:GLY:HA3	1:K:370:LEU:HD11	2.01	0.41
1:L:30:LEU:HD13	1:L:436:ILE:CD1	2.50	0.41
1:L:40:LEU:H	1:M:507:ILE:HG23	1.85	0.41
1:L:148:ASN:HA	1:L:479:GLY:O	2.20	0.41
1:M:32:PRO:CD	1:M:467:MET:SD	3.07	0.41
1:M:117:TRP:O	1:M:120:ALA:HB3	2.20	0.41
1:M:280:ARG:O	1:M:281:GLN:CB	2.69	0.41
1:M:284:TYR:CE2	1:M:286:TYR:HD1	2.39	0.41
1:M:317:GLU:OE2	1:M:329:LYS:HE3	2.20	0.41
1:M:408:VAL:HG23	1:M:427:ALA:HB1	2.03	0.41
1:N:173:ALA:HB2	1:N:360:ILE:HD11	2.03	0.41
1:N:286:TYR:HB2	1:N:287:PRO:HD3	2.03	0.41
1:N:390:ASP:O	1:N:392:ARG:HG2	2.21	0.41
1:O:79:ASP:HA	1:O:83:GLY:O	2.21	0.41
1:O:271:LYS:HG3	1:O:272:HIS:N	2.35	0.41
1:O:280:ARG:HA	1:O:302:ALA:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:320:SER:HB2	1:O:321:THR:H	1.67	0.41
1:O:325:PRO:O	1:O:326:GLU:HG3	2.20	0.41
1:O:386:GLN:HG3	1:O:485:GLN:OE1	2.21	0.41
1:O:451:GLN:NE2	1:O:471:THR:HA	2.35	0.41
1:P:19:ALA:HB1	1:P:94:ALA:HA	2.02	0.41
1:P:30:LEU:O	1:P:440:ASN:ND2	2.54	0.41
1:P:259:LYS:HA	1:P:259:LYS:HD3	1.77	0.41
1:P:291:PHE:HD1	1:P:296:VAL:CG1	2.34	0.41
1:A:95:GLU:OE1	1:A:432:MET:HB3	2.20	0.41
1:A:499:GLU:O	1:A:503:ARG:HB3	2.20	0.41
1:B:3:ALA:O	1:B:4:ASP:CB	2.69	0.41
1:B:402:MET:HG2	1:B:431:ARG:HH22	1.86	0.41
1:C:126:GLN:HA	1:C:129:LEU:CB	2.51	0.41
1:C:397:GLY:HA3	1:C:475:MET:HE1	2.03	0.41
1:C:418:LYS:HG3	1:L:450:ALA:HB2	2.02	0.41
1:D:104:ILE:HG13	1:D:105:ALA:N	2.36	0.41
1:D:159:LEU:HG	1:D:163:LYS:HD2	2.01	0.41
1:D:219:ILE:CD1	1:D:276:CYS:HB2	2.51	0.41
1:E:39:LEU:HD11	1:E:57:ILE:HD11	2.03	0.41
1:E:106:LYS:HE3	1:E:418:LYS:HE3	2.03	0.41
1:F:109:HIS:CE1	1:F:111:GLN:CG	3.03	0.41
1:F:204:GLY:O	1:F:359:THR:HB	2.21	0.41
1:G:163:LYS:HA	1:G:166:PHE:CE1	2.55	0.41
1:G:330:LEU:HD13	1:G:330:LEU:HA	1.85	0.41
1:I:510:ALA:H	1:O:40:LEU:HD12	1.86	0.41
1:J:58:LEU:HB3	1:J:72:VAL:HG13	2.01	0.41
1:J:125:ARG:HA	1:J:128:LEU:CD1	2.48	0.41
1:J:206:LEU:HD21	1:J:346:LEU:HD23	2.02	0.41
1:J:455:ALA:HB2	1:J:472:ILE:HD12	2.03	0.41
1:K:65:ASN:CG	1:K:66:PRO:HD3	2.41	0.41
1:K:244:ARG:O	1:K:245:VAL:HB	2.21	0.41
1:K:421:VAL:O	1:K:424:GLU:HG2	2.21	0.41
1:L:448:LEU:HD21	1:L:465:LEU:HD13	2.03	0.41
1:M:140:VAL:HA	1:M:175:LEU:HD22	2.03	0.41
1:N:224:ILE:HD11	1:N:336:ILE:HD11	2.03	0.41
1:O:57:ILE:HD13	1:O:57:ILE:C	2.41	0.41
1:O:103:LEU:HD22	1:O:113:ILE:CD1	2.51	0.41
1:P:146:LEU:HD12	1:P:171:VAL:HG13	2.03	0.41
1:P:475:MET:O	1:P:478:LEU:HB2	2.21	0.41
1:A:340:MET:SD	1:A:340:MET:O	2.80	0.40
1:A:433:LEU:O	1:A:437:ILE:HG12	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:65:ASN:N	1:B:66:PRO:CD	2.84	0.40
1:B:111:GLN:HB3	1:G:158:LEU:HD13	2.04	0.40
1:B:158:LEU:O	1:B:160:THR:N	2.54	0.40
1:B:196:LEU:C	1:B:196:LEU:HD13	2.41	0.40
1:E:154:LEU:CD2	1:E:167:THR:HB	2.49	0.40
1:E:231:MET:C	1:E:284:TYR:HB2	2.41	0.40
1:F:38:ILE:O	1:F:38:ILE:HG13	2.20	0.40
1:F:166:PHE:CE1	1:F:198:ASP:HB3	2.55	0.40
1:F:402:MET:HG3	1:F:452:LEU:HG	2.03	0.40
1:F:499:GLU:O	1:F:503:ARG:HB3	2.21	0.40
1:G:78:GLN:OE1	1:G:78:GLN:HA	2.21	0.40
1:G:157:LYS:HB3	1:G:159:LEU:CD1	2.50	0.40
1:G:428:LYS:O	1:G:431:ARG:HB3	2.21	0.40
1:H:22:ILE:O	1:H:26:VAL:HG22	2.20	0.40
1:H:146:LEU:HB2	1:H:171:VAL:HG22	2.03	0.40
1:I:147:MET:HG3	1:I:478:LEU:O	2.21	0.40
1:I:280:ARG:HG3	1:I:304:PHE:HA	2.02	0.40
1:I:280:ARG:O	1:I:281:GLN:HB3	2.22	0.40
1:I:431:ARG:HH21	1:I:434:PRO:HG2	1.85	0.40
1:J:96:LEU:HD13	1:J:97:LEU:N	2.36	0.40
1:J:277:PHE:CE2	1:J:279:ASN:HB2	2.57	0.40
1:J:503:ARG:NH1	1:N:36:ASP:HB2	2.37	0.40
1:K:190:LYS:HA	1:K:362:LEU:HB2	2.03	0.40
1:K:338:GLU:OE1	1:K:345:LYS:HE2	2.21	0.40
1:K:354:LEU:HG	1:K:356:GLU:H	1.85	0.40
1:L:128:LEU:HD11	1:L:488:ARG:HB3	2.03	0.40
1:M:52:ASN:HB3	1:M:375:ARG:HH12	1.85	0.40
1:N:92:LEU:O	1:N:95:GLU:HG2	2.21	0.40
1:N:159:LEU:N	1:N:159:LEU:HD22	2.36	0.40
1:N:182:ASN:CG	1:N:183:LEU:H	2.24	0.40
1:A:190:LYS:HB3	1:A:370:LEU:HG	2.04	0.40
1:A:508:ILE:HG13	1:A:509:LYS:N	2.36	0.40
1:B:199:SER:HA	1:B:363:ARG:H	1.86	0.40
1:B:222:ALA:HA	1:B:275:ASN:OD1	2.22	0.40
1:B:224:ILE:CD1	1:B:349:PHE:HE2	2.34	0.40
1:B:225:LEU:HG	1:B:277:PHE:CD1	2.56	0.40
1:C:431:ARG:HD2	1:C:453:ARG:NH1	2.36	0.40
1:D:6:GLU:HB3	1:D:11:ALA:HB2	2.03	0.40
1:F:173:ALA:O	1:F:176:ARG:HG2	2.22	0.40
1:F:219:ILE:HD11	1:F:336:ILE:HB	2.02	0.40
1:F:434:PRO:HB3	1:F:452:LEU:HD22	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:168:LYS:O	1:G:171:VAL:HG22	2.21	0.40
1:G:314:THR:O	1:G:332:SER:HB3	2.21	0.40
1:G:450:ALA:HB1	1:N:417:GLY:HA2	2.00	0.40
1:G:452:LEU:HD11	1:G:456:HIS:HE1	1.86	0.40
1:H:173:ALA:O	1:H:176:ARG:HG2	2.21	0.40
1:H:452:LEU:HD11	1:H:456:HIS:CE1	2.56	0.40
1:I:189:ILE:CG2	1:I:190:LYS:N	2.78	0.40
1:K:22:ILE:O	1:K:26:VAL:HG22	2.20	0.40
1:K:178:LYS:HB2	1:K:178:LYS:HE2	1.93	0.40
1:K:207:LEU:HD13	1:K:208:ASP:N	2.36	0.40
1:K:222:ALA:HA	1:K:275:ASN:CG	2.41	0.40
1:K:432:MET:O	1:K:435:THR:HB	2.22	0.40
1:M:213:VAL:HG12	1:O:318:ILE:HA	2.02	0.40
1:P:92:LEU:N	1:P:92:LEU:CD1	2.83	0.40
1:A:17:ILE:O	1:A:20:ILE:HG22	2.21	0.40
1:A:367:GLN:OE1	1:A:369:ILE:HG22	2.21	0.40
1:B:17:ILE:O	1:B:20:ILE:HG22	2.22	0.40
1:D:393:THR:HB	1:D:481:THR:OG1	2.21	0.40
1:D:404:MET:O	1:D:408:VAL:HG22	2.21	0.40
1:D:431:ARG:HA	1:D:431:ARG:NE	2.36	0.40
1:D:450:ALA:HB2	1:D:453:ARG:NH2	2.35	0.40
1:E:150:ALA:HB2	1:E:384:LEU:CD2	2.46	0.40
1:E:367:GLN:O	1:E:370:LEU:HB3	2.22	0.40
1:F:206:LEU:HD11	1:F:346:LEU:CD2	2.47	0.40
1:F:297:MET:HE1	1:F:336:ILE:HG22	2.02	0.40
1:F:448:LEU:C	1:F:448:LEU:HD13	2.42	0.40
1:G:397:GLY:O	1:G:465:LEU:HB2	2.21	0.40
1:H:5:GLU:O	1:H:5:GLU:CG	2.68	0.40
1:H:108:ILE:HD13	1:H:108:ILE:HA	1.90	0.40
1:H:125:ARG:O	1:H:128:LEU:O	2.39	0.40
1:H:146:LEU:HD12	1:H:171:VAL:H	1.87	0.40
1:H:157:LYS:HE3	1:H:379:ASP:CG	2.42	0.40
1:H:171:VAL:O	1:H:174:VAL:HG22	2.21	0.40
1:H:181:GLY:O	1:H:182:ASN:CB	2.63	0.40
1:I:399:CYS:HA	1:I:456:HIS:NE2	2.36	0.40
1:J:415:THR:HG23	1:J:420:ALA:CB	2.40	0.40
1:K:37:LYS:O	1:K:50:VAL:HB	2.22	0.40
1:L:134:ASP:OD1	1:L:392:ARG:HA	2.21	0.40
1:L:312:LEU:HD22	1:L:312:LEU:O	2.21	0.40
1:L:321:THR:H	1:P:259:LYS:CE	2.34	0.40
1:M:61:ILE:HG12	1:M:63:VAL:HG23	2.01	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:65:ASN:N	1:M:66:PRO:CD	2.84	0.40
1:N:345:LYS:C	1:N:346:LEU:HD12	2.42	0.40
1:N:384:LEU:HD12	1:N:384:LEU:N	2.36	0.40
1:N:404:MET:O	1:N:408:VAL:HG22	2.22	0.40
1:N:511:ALA:HA	1:N:512:PRO:HD3	1.82	0.40
1:O:452:LEU:HD11	1:O:456:HIS:CE1	2.56	0.40
1:P:199:SER:HB2	1:P:362:LEU:CD2	2.51	0.40
1:P:268:ARG:CG	1:P:268:ARG:NH1	2.83	0.40
1:P:337:GLU:HG3	1:P:339:VAL:HG23	2.02	0.40
1:P:486:VAL:O	1:P:490:VAL:HG12	2.21	0.40
1:A:402:MET:HG2	1:A:431:ARG:HH22	1.86	0.40
1:B:188:VAL:O	1:B:189:ILE:HD13	2.21	0.40
1:B:334:LYS:HD3	1:B:335:LEU:N	2.36	0.40
1:D:37:LYS:HD3	1:E:504:VAL:HG12	2.04	0.40
1:E:39:LEU:CD2	1:G:506:ASN:HD22	2.34	0.40
1:E:215:GLN:HG3	1:E:292:GLY:HA2	2.04	0.40
1:F:92:LEU:HA	1:F:95:GLU:OE2	2.22	0.40
1:F:225:LEU:HD13	1:F:329:LYS:CE	2.51	0.40
1:G:240:GLY:O	1:G:241:SER:CB	2.69	0.40
1:H:148:ASN:HA	1:H:479:GLY:O	2.21	0.40
1:H:446:ALA:CB	1:P:106:LYS:HE2	2.44	0.40
1:I:269:ILE:HG23	1:I:274:ILE:HG22	2.00	0.40
1:I:324:HIS:CG	1:I:325:PRO:HD3	2.56	0.40
1:J:17:ILE:O	1:J:20:ILE:HG22	2.21	0.40
1:J:284:TYR:CE2	1:J:286:TYR:HD1	2.38	0.40
1:K:10:THR:O	1:K:13:LEU:HB3	2.22	0.40
1:K:146:LEU:CD2	1:K:147:MET:N	2.76	0.40
1:L:178:LYS:HZ2	1:L:388:VAL:HG13	1.86	0.40
1:L:223:LYS:HD3	1:L:272:HIS:NE2	2.37	0.40
1:L:445:SER:O	1:L:449:VAL:HG23	2.21	0.40
1:O:280:ARG:HG3	1:O:304:PHE:HB2	2.02	0.40
1:O:487:LYS:HD3	1:O:487:LYS:HA	1.96	0.40
1:A:453:ARG:NH2	1:M:420:ALA:HB1	2.37	0.40
1:B:58:LEU:CB	1:B:72:VAL:HG11	2.50	0.40
1:B:108:ILE:HG23	1:B:109:HIS:H	1.84	0.40
1:B:215:GLN:HG3	1:B:292:GLY:HA2	2.04	0.40
1:C:269:ILE:HG23	1:C:274:ILE:HG22	2.03	0.40
1:C:297:MET:CE	1:C:347:ILE:HD11	2.52	0.40
1:C:341:ILE:HG23	1:C:363:ARG:CZ	2.51	0.40
1:D:265:LYS:O	1:D:269:ILE:HG13	2.22	0.40
1:D:475:MET:O	1:D:478:LEU:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:500:VAL:HA	1:D:503:ARG:NE	2.36	0.40
1:E:154:LEU:HD21	1:E:163:LYS:HZ3	1.84	0.40
1:F:146:LEU:HD11	1:F:150:ALA:CB	2.51	0.40
1:F:297:MET:HE1	1:F:347:ILE:HD11	2.01	0.40
1:F:312:LEU:O	1:F:312:LEU:HD22	2.21	0.40
1:G:32:PRO:HA	1:G:156:SER:C	2.42	0.40
1:H:146:LEU:HD12	1:H:171:VAL:HG22	2.04	0.40
1:H:163:LYS:HD2	1:H:166:PHE:CG	2.56	0.40
1:I:53:ASP:HB3	1:I:375:ARG:HD3	2.04	0.40
1:I:59:LYS:HE3	1:I:73:ASP:HA	2.03	0.40
1:J:65:ASN:CG	1:J:66:PRO:HD3	2.41	0.40
1:J:182:ASN:CG	1:J:183:LEU:N	2.74	0.40
1:K:22:ILE:HD12	1:K:90:THR:CG2	2.51	0.40
1:K:166:PHE:HZ	1:K:198:ASP:HB3	1.86	0.40
1:K:354:LEU:CD2	1:K:356:GLU:HB3	2.52	0.40
1:K:487:LYS:HD3	1:K:487:LYS:HA	1.94	0.40
1:L:390:ASP:HB3	1:L:485:GLN:OE1	2.21	0.40
1:L:452:LEU:HD13	1:L:465:LEU:HD22	2.04	0.40
1:M:145:ASP:OD2	1:M:175:LEU:HD11	2.21	0.40
1:N:159:LEU:CD1	1:N:372:GLU:HB3	2.49	0.40
1:P:190:LYS:HB2	1:P:370:LEU:HG	2.04	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	A	488/513 (95%)	432 (88%)	24 (5%)	32 (7%)	1	16
1	B	480/513 (94%)	430 (90%)	23 (5%)	27 (6%)	2	19
1	C	511/513 (100%)	456 (89%)	25 (5%)	30 (6%)	1	17
1	D	511/513 (100%)	456 (89%)	25 (5%)	30 (6%)	1	17

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	E	511/513 (100%)	458 (90%)	24 (5%)	29 (6%)	1	18
1	F	485/513 (94%)	429 (88%)	31 (6%)	25 (5%)	2	19
1	G	511/513 (100%)	456 (89%)	29 (6%)	26 (5%)	2	19
1	H	481/513 (94%)	427 (89%)	25 (5%)	29 (6%)	1	17
1	I	472/513 (92%)	433 (92%)	15 (3%)	24 (5%)	2	19
1	J	511/513 (100%)	457 (89%)	26 (5%)	28 (6%)	2	19
1	K	511/513 (100%)	462 (90%)	23 (4%)	26 (5%)	2	19
1	L	480/513 (94%)	437 (91%)	22 (5%)	21 (4%)	2	22
1	M	482/513 (94%)	437 (91%)	23 (5%)	22 (5%)	2	21
1	N	486/513 (95%)	439 (90%)	27 (6%)	20 (4%)	3	23
1	O	478/513 (93%)	427 (89%)	27 (6%)	24 (5%)	2	20
1	P	511/513 (100%)	453 (89%)	29 (6%)	29 (6%)	1	18
All	All	7909/8208 (96%)	7089 (90%)	398 (5%)	422 (5%)	3	19

All (422) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	8	ALA
1	A	37	LYS
1	A	68	ALA
1	A	84	ASP
1	A	133	VAL
1	A	134	ASP
1	A	135	HIS
1	A	139	GLU
1	A	142	PHE
1	A	180	SER
1	A	182	ASN
1	A	215	GLN
1	A	281	GLN
1	A	325	PRO
1	A	342	GLY
1	A	344	ASP
1	A	345	LYS
1	A	366	THR
1	A	509	LYS
1	A	511	ALA
1	B	4	ASP

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Mol	Chain	Res	Type
1	B	8	ALA
1	B	44	ARG
1	B	108	ILE
1	B	133	VAL
1	B	139	GLU
1	B	141	LYS
1	B	178	LYS
1	B	185	ALA
1	B	215	GLN
1	B	326	GLU
1	B	342	GLY
1	B	417	GLY
1	B	509	LYS
1	C	139	GLU
1	C	141	LYS
1	C	215	GLN
1	C	234	ASP
1	C	241	SER
1	C	243	VAL
1	C	246	ASP
1	C	281	GLN
1	C	325	PRO
1	C	366	THR
1	C	443	TYR
1	C	496	GLU
1	C	501	ILE
1	D	3	ALA
1	D	82	VAL
1	D	134	ASP
1	D	139	GLU
1	D	141	LYS
1	D	180	SER
1	D	184	GLU
1	D	215	GLN
1	D	234	ASP
1	D	243	VAL
1	D	281	GLN
1	D	421	VAL
1	D	507	ILE
1	D	508	ILE
1	D	511	ALA
1	D	512	PRO

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Mol	Chain	Res	Type
1	E	44	ARG
1	E	129	LEU
1	E	131	SER
1	E	132	ALA
1	E	133	VAL
1	E	136	GLY
1	E	139	GLU
1	E	182	ASN
1	E	215	GLN
1	E	236	ILE
1	E	281	GLN
1	E	322	PHE
1	E	325	PRO
1	E	342	GLY
1	E	397	GLY
1	E	510	ALA
1	F	31	GLY
1	F	32	PRO
1	F	43	GLY
1	F	47	SER
1	F	68	ALA
1	F	129	LEU
1	F	131	SER
1	F	139	GLU
1	F	141	LYS
1	F	180	SER
1	F	188	VAL
1	F	215	GLN
1	F	366	THR
1	G	8	ALA
1	G	82	VAL
1	G	83	GLY
1	G	108	ILE
1	G	139	GLU
1	G	209	LYS
1	G	215	GLN
1	G	236	ILE
1	G	241	SER
1	G	249	ALA
1	H	3	ALA
1	H	131	SER
1	H	135	HIS

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Mol	Chain	Res	Type
1	H	136	GLY
1	H	178	LYS
1	H	182	ASN
1	H	215	GLN
1	H	274	ILE
1	H	325	PRO
1	H	342	GLY
1	H	343	GLU
1	H	480	ILE
1	H	507	ILE
1	H	509	LYS
1	H	510	ALA
1	H	512	PRO
1	I	4	ASP
1	I	82	VAL
1	I	129	LEU
1	I	139	GLU
1	I	147	MET
1	I	195	SER
1	I	281	GLN
1	I	326	GLU
1	I	362	LEU
1	I	366	THR
1	I	511	ALA
1	J	84	ASP
1	J	132	ALA
1	J	139	GLU
1	J	182	ASN
1	J	184	GLU
1	J	234	ASP
1	J	236	ILE
1	J	241	SER
1	J	274	ILE
1	J	281	GLN
1	J	322	PHE
1	J	325	PRO
1	J	366	THR
1	J	510	ALA
1	J	511	ALA
1	K	3	ALA
1	K	82	VAL
1	K	134	ASP

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Mol	Chain	Res	Type
1	K	215	GLN
1	K	234	ASP
1	K	236	ILE
1	K	245	VAL
1	K	246	ASP
1	K	281	GLN
1	K	366	THR
1	K	367	GLN
1	L	3	ALA
1	L	4	ASP
1	L	141	LYS
1	L	182	ASN
1	L	215	GLN
1	L	416	PRO
1	L	512	PRO
1	M	82	VAL
1	M	139	GLU
1	M	142	PHE
1	M	182	ASN
1	M	215	GLN
1	M	281	GLN
1	M	340	MET
1	M	366	THR
1	M	416	PRO
1	N	82	VAL
1	N	140	VAL
1	N	215	GLN
1	N	325	PRO
1	N	366	THR
1	N	416	PRO
1	O	8	ALA
1	O	82	VAL
1	O	108	ILE
1	O	129	LEU
1	O	131	SER
1	O	141	LYS
1	O	215	GLN
1	O	281	GLN
1	O	325	PRO
1	O	504	VAL
1	O	506	ASN
1	O	508	ILE

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Mol	Chain	Res	Type
1	P	3	ALA
1	P	139	GLU
1	P	215	GLN
1	P	236	ILE
1	P	241	SER
1	P	247	SER
1	P	281	GLN
1	P	325	PRO
1	P	501	ILE
1	P	506	ASN
1	P	509	LYS
1	P	512	PRO
1	A	274	ILE
1	A	316	GLY
1	A	322	PHE
1	A	502	LEU
1	A	507	ILE
1	A	508	ILE
1	A	510	ALA
1	B	68	ALA
1	B	159	LEU
1	B	184	GLU
1	B	274	ILE
1	B	322	PHE
1	B	508	ILE
1	C	3	ALA
1	C	68	ALA
1	C	160	THR
1	C	236	ILE
1	C	274	ILE
1	C	322	PHE
1	C	335	LEU
1	C	495	ALA
1	C	502	LEU
1	D	84	ASP
1	D	274	ILE
1	D	322	PHE
1	D	343	GLU
1	D	417	GLY
1	E	8	ALA
1	E	82	VAL
1	E	141	LYS

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Mol	Chain	Res	Type
1	E	159	LEU
1	E	180	SER
1	E	234	ASP
1	E	247	SER
1	E	274	ILE
1	F	82	VAL
1	F	114	ILE
1	F	274	ILE
1	F	325	PRO
1	G	42	SER
1	G	68	ALA
1	G	107	LYS
1	G	141	LYS
1	G	142	PHE
1	G	160	THR
1	G	234	ASP
1	G	274	ILE
1	G	322	PHE
1	G	325	PRO
1	G	512	PRO
1	H	8	ALA
1	H	68	ALA
1	H	133	VAL
1	H	138	ASP
1	H	141	LYS
1	H	322	PHE
1	I	8	ALA
1	I	68	ALA
1	I	133	VAL
1	I	141	LYS
1	I	160	THR
1	I	322	PHE
1	J	8	ALA
1	J	82	VAL
1	J	114	ILE
1	J	133	VAL
1	J	141	LYS
1	J	214	ASN
1	J	239	PHE
1	J	382	CYS
1	K	8	ALA
1	K	68	ALA

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Mol	Chain	Res	Type
1	K	141	LYS
1	K	142	PHE
1	K	182	ASN
1	K	322	PHE
1	L	8	ALA
1	L	68	ALA
1	L	138	ASP
1	L	274	ILE
1	L	322	PHE
1	L	325	PRO
1	L	366	THR
1	M	8	ALA
1	M	131	SER
1	M	160	THR
1	M	274	ILE
1	N	8	ALA
1	N	139	GLU
1	N	141	LYS
1	N	274	ILE
1	N	322	PHE
1	N	342	GLY
1	N	507	ILE
1	O	42	SER
1	O	139	GLU
1	O	159	LEU
1	O	182	ASN
1	O	322	PHE
1	O	342	GLY
1	O	502	LEU
1	O	507	ILE
1	P	8	ALA
1	P	68	ALA
1	P	131	SER
1	P	141	LYS
1	P	160	THR
1	P	234	ASP
1	P	243	VAL
1	P	274	ILE
1	P	322	PHE
1	A	141	LYS
1	A	207	LEU
1	B	3	ALA

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Mol	Chain	Res	Type
1	B	132	ALA
1	B	281	GLN
1	B	343	GLU
1	C	82	VAL
1	C	506	ASN
1	D	4	ASP
1	D	237	LYS
1	D	241	SER
1	E	68	ALA
1	F	132	ALA
1	F	148	ASN
1	F	159	LEU
1	F	281	GLN
1	F	509	LYS
1	G	281	GLN
1	H	281	GLN
1	H	335	LEU
1	I	335	LEU
1	J	129	LEU
1	K	114	ILE
1	K	131	SER
1	K	139	GLU
1	L	47	SER
1	M	83	GLY
1	M	114	ILE
1	M	322	PHE
1	N	160	THR
1	N	281	GLN
1	N	367	GLN
1	O	137	SER
1	P	137	SER
1	P	245	VAL
1	A	114	ILE
1	B	507	ILE
1	C	131	SER
1	D	108	ILE
1	D	416	PRO
1	D	504	VAL
1	F	133	VAL
1	F	199	SER
1	G	129	LEU
1	H	362	LEU

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Mol	Chain	Res	Type
1	I	342	GLY
1	J	68	ALA
1	K	47	SER
1	K	505	ASP
1	L	139	GLU
1	L	140	VAL
1	L	345	LYS
1	M	141	LYS
1	M	199	SER
1	M	511	ALA
1	N	108	ILE
1	O	83	GLY
1	O	366	THR
1	P	367	GLN
1	C	247	SER
1	E	506	ASN
1	G	39	LEU
1	H	320	SER
1	H	501	ILE
1	I	142	PHE
1	I	189	ILE
1	J	140	VAL
1	K	108	ILE
1	K	192	LEU
1	L	181	GLY
1	L	417	GLY
1	M	326	GLU
1	P	132	ALA
1	P	342	GLY
1	C	511	ALA
1	E	181	GLY
1	F	506	ASN
1	H	140	VAL
1	I	132	ALA
1	J	508	ILE
1	N	146	LEU
1	O	160	THR
1	A	140	VAL
1	C	108	ILE
1	D	342	GLY
1	I	108	ILE
1	M	140	VAL

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Mol	Chain	Res	Type
1	N	83	GLY
1	B	82	VAL
1	C	140	VAL
1	C	238	ILE
1	D	361	VAL
1	E	396	GLY
1	G	181	GLY
1	K	2	GLY
1	N	508	ILE
1	P	511	ALA
1	E	108	ILE
1	G	140	VAL
1	J	215	GLN
1	K	325	PRO
1	L	108	ILE
1	M	108	ILE
1	P	133	VAL
1	A	179	GLY
1	B	140	VAL
1	D	193	GLY
1	I	2	GLY
1	P	360	ILE
1	H	85	GLY

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	A	391/409 (96%)	341 (87%)	50 (13%)	4 18
1	B	384/409 (94%)	343 (89%)	41 (11%)	6 23
1	C	409/409 (100%)	362 (88%)	47 (12%)	5 21
1	D	409/409 (100%)	362 (88%)	47 (12%)	5 21
1	E	409/409 (100%)	359 (88%)	50 (12%)	5 20
1	F	388/409 (95%)	338 (87%)	50 (13%)	4 18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	G	409/409 (100%)	364 (89%)	45 (11%)	6	22
1	H	385/409 (94%)	340 (88%)	45 (12%)	5	21
1	I	376/409 (92%)	336 (89%)	40 (11%)	6	24
1	J	409/409 (100%)	363 (89%)	46 (11%)	6	22
1	K	409/409 (100%)	366 (90%)	43 (10%)	7	24
1	L	384/409 (94%)	341 (89%)	43 (11%)	6	22
1	M	386/409 (94%)	347 (90%)	39 (10%)	7	25
1	N	389/409 (95%)	353 (91%)	36 (9%)	9	28
1	O	382/409 (93%)	343 (90%)	39 (10%)	7	25
1	P	409/409 (100%)	366 (90%)	43 (10%)	7	24
All	All	6328/6544 (97%)	5624 (89%)	704 (11%)	9	22

All (704) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	35	MET
1	A	48	LEU
1	A	51	THR
1	A	57	ILE
1	A	58	LEU
1	A	64	ASP
1	A	74	MET
1	A	82	VAL
1	A	96	LEU
1	A	98	ARG
1	A	108	ILE
1	A	133	VAL
1	A	134	ASP
1	A	139	GLU
1	A	146	LEU
1	A	152	THR
1	A	158	LEU
1	A	159	LEU
1	A	166	PHE
1	A	167	THR
1	A	177	LEU
1	A	180	SER
1	A	183	LEU

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Mol	Chain	Res	Type
1	A	188	VAL
1	A	189	ILE
1	A	190	LYS
1	A	203	GLU
1	A	206	LEU
1	A	211	ILE
1	A	215	GLN
1	A	217	LYS
1	A	225	LEU
1	A	269	ILE
1	A	280	ARG
1	A	308	GLU
1	A	312	LEU
1	A	317	GLU
1	A	326	GLU
1	A	327	LEU
1	A	330	LEU
1	A	340	MET
1	A	344	ASP
1	A	347	ILE
1	A	352	VAL
1	A	378	HIS
1	A	401	GLU
1	A	402	MET
1	A	409	THR
1	A	428	LYS
1	A	431	ARG
1	B	5	GLU
1	B	10	THR
1	B	35	MET
1	B	42	SER
1	B	44	ARG
1	B	48	LEU
1	B	49	MET
1	B	57	ILE
1	B	65	ASN
1	B	82	VAL
1	B	98	ARG
1	B	101	GLU
1	B	137	SER
1	B	139	GLU
1	B	141	LYS

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Mol	Chain	Res	Type
1	B	143	ARG
1	B	146	LEU
1	B	147	MET
1	B	152	THR
1	B	154	LEU
1	B	159	LEU
1	B	167	THR
1	B	176	ARG
1	B	203	GLU
1	B	211	ILE
1	B	225	LEU
1	B	280	ARG
1	B	312	LEU
1	B	326	GLU
1	B	327	LEU
1	B	352	VAL
1	B	381	LEU
1	B	392	ARG
1	B	402	MET
1	B	418	LYS
1	B	431	ARG
1	B	469	GLU
1	B	485	GLN
1	B	489	GLN
1	B	507	ILE
1	B	508	ILE
1	C	17	ILE
1	C	35	MET
1	C	48	LEU
1	C	57	ILE
1	C	58	LEU
1	C	65	ASN
1	C	74	MET
1	C	96	LEU
1	C	98	ARG
1	C	101	GLU
1	C	125	ARG
1	C	128	LEU
1	C	139	GLU
1	C	146	LEU
1	C	147	MET
1	C	152	THR

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Mol	Chain	Res	Type
1	C	159	LEU
1	C	160	THR
1	C	167	THR
1	C	177	LEU
1	C	190	LYS
1	C	203	GLU
1	C	211	ILE
1	C	225	LEU
1	C	243	VAL
1	C	269	ILE
1	C	280	ARG
1	C	288	GLU
1	C	312	LEU
1	C	320	SER
1	C	326	GLU
1	C	335	LEU
1	C	352	VAL
1	C	356	GLU
1	C	381	LEU
1	C	383	VAL
1	C	384	LEU
1	C	401	GLU
1	C	402	MET
1	C	409	THR
1	C	431	ARG
1	C	444	ASP
1	C	480	ILE
1	C	496	GLU
1	C	500	VAL
1	C	502	LEU
1	C	513	ARG
1	D	9	GLU
1	D	35	MET
1	D	49	MET
1	D	50	VAL
1	D	57	ILE
1	D	58	LEU
1	D	81	GLU
1	D	96	LEU
1	D	98	ARG
1	D	118	ARG
1	D	134	ASP

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Mol	Chain	Res	Type
1	D	135	HIS
1	D	139	GLU
1	D	144	GLN
1	D	146	LEU
1	D	147	MET
1	D	159	LEU
1	D	160	THR
1	D	167	THR
1	D	188	VAL
1	D	190	LYS
1	D	207	LEU
1	D	211	ILE
1	D	223	LYS
1	D	236	ILE
1	D	241	SER
1	D	243	VAL
1	D	247	SER
1	D	261	LYS
1	D	280	ARG
1	D	284	TYR
1	D	320	SER
1	D	326	GLU
1	D	330	LEU
1	D	334	LYS
1	D	381	LEU
1	D	382	CYS
1	D	384	LEU
1	D	401	GLU
1	D	402	MET
1	D	428	LYS
1	D	431	ARG
1	D	468	LYS
1	D	489	GLN
1	D	504	VAL
1	D	507	ILE
1	D	512	PRO
1	E	6	GLU
1	E	9	GLU
1	E	35	MET
1	E	38	ILE
1	E	44	ARG
1	E	48	LEU

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Mol	Chain	Res	Type
1	E	57	ILE
1	E	58	LEU
1	E	80	ASP
1	E	92	LEU
1	E	98	ARG
1	E	126	GLN
1	E	139	GLU
1	E	146	LEU
1	E	159	LEU
1	E	167	THR
1	E	177	LEU
1	E	178	LYS
1	E	180	SER
1	E	188	VAL
1	E	203	GLU
1	E	207	LEU
1	E	211	ILE
1	E	215	GLN
1	E	225	LEU
1	E	231	MET
1	E	235	LYS
1	E	238	ILE
1	E	239	PHE
1	E	248	THR
1	E	261	LYS
1	E	280	ARG
1	E	308	GLU
1	E	310	LEU
1	E	312	LEU
1	E	317	GLU
1	E	326	GLU
1	E	328	VAL
1	E	330	LEU
1	E	352	VAL
1	E	375	ARG
1	E	377	LEU
1	E	401	GLU
1	E	402	MET
1	E	409	THR
1	E	414	ARG
1	E	431	ARG
1	E	469	GLU

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Mol	Chain	Res	Type
1	E	502	LEU
1	E	509	LYS
1	F	25	LEU
1	F	29	THR
1	F	35	MET
1	F	44	ARG
1	F	47	SER
1	F	57	ILE
1	F	58	LEU
1	F	74	MET
1	F	88	SER
1	F	96	LEU
1	F	98	ARG
1	F	101	GLU
1	F	107	LYS
1	F	111	GLN
1	F	133	VAL
1	F	135	HIS
1	F	139	GLU
1	F	143	ARG
1	F	146	LEU
1	F	147	MET
1	F	152	THR
1	F	159	LEU
1	F	167	THR
1	F	180	SER
1	F	187	HIS
1	F	189	ILE
1	F	190	LYS
1	F	207	LEU
1	F	211	ILE
1	F	217	LYS
1	F	225	LEU
1	F	280	ARG
1	F	288	GLU
1	F	312	LEU
1	F	326	GLU
1	F	327	LEU
1	F	332	SER
1	F	341	ILE
1	F	348	HIS
1	F	352	VAL

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Mol	Chain	Res	Type
1	F	367	GLN
1	F	368	GLN
1	F	369	ILE
1	F	377	LEU
1	F	402	MET
1	F	428	LYS
1	F	431	ARG
1	F	433	LEU
1	F	489	GLN
1	F	508	ILE
1	G	35	MET
1	G	42	SER
1	G	57	ILE
1	G	58	LEU
1	G	96	LEU
1	G	98	ARG
1	G	106	LYS
1	G	107	LYS
1	G	111	GLN
1	G	122	LYS
1	G	129	LEU
1	G	135	HIS
1	G	139	GLU
1	G	146	LEU
1	G	147	MET
1	G	152	THR
1	G	159	LEU
1	G	160	THR
1	G	167	THR
1	G	178	LYS
1	G	182	ASN
1	G	190	LYS
1	G	202	ASP
1	G	206	LEU
1	G	211	ILE
1	G	215	GLN
1	G	225	LEU
1	G	245	VAL
1	G	247	SER
1	G	259	LYS
1	G	269	ILE
1	G	280	ARG

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Mol	Chain	Res	Type
1	G	312	LEU
1	G	326	GLU
1	G	330	LEU
1	G	340	MET
1	G	352	VAL
1	G	368	GLN
1	G	369	ILE
1	G	402	MET
1	G	431	ARG
1	G	439	ASP
1	G	485	GLN
1	G	502	LEU
1	G	508	ILE
1	H	35	MET
1	H	57	ILE
1	H	58	LEU
1	H	96	LEU
1	H	98	ARG
1	H	129	LEU
1	H	131	SER
1	H	135	HIS
1	H	139	GLU
1	H	143	ARG
1	H	146	LEU
1	H	152	THR
1	H	159	LEU
1	H	164	ASP
1	H	167	THR
1	H	168	LYS
1	H	178	LYS
1	H	182	ASN
1	H	190	LYS
1	H	207	LEU
1	H	211	ILE
1	H	223	LYS
1	H	225	LEU
1	H	280	ARG
1	H	284	TYR
1	H	288	GLU
1	H	314	THR
1	H	317	GLU
1	H	320	SER

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Mol	Chain	Res	Type
1	H	326	GLU
1	H	366	THR
1	H	374	GLU
1	H	376	SER
1	H	402	MET
1	H	409	THR
1	H	421	VAL
1	H	423	MET
1	H	426	TYR
1	H	431	ARG
1	H	439	ASP
1	H	480	ILE
1	H	489	GLN
1	H	500	VAL
1	H	505	ASP
1	H	507	ILE
1	I	37	LYS
1	I	53	ASP
1	I	57	ILE
1	I	58	LEU
1	I	84	ASP
1	I	96	LEU
1	I	98	ARG
1	I	103	LEU
1	I	104	ILE
1	I	122	LYS
1	I	129	LEU
1	I	142	PHE
1	I	143	ARG
1	I	148	ASN
1	I	149	ILE
1	I	159	LEU
1	I	167	THR
1	I	182	ASN
1	I	190	LYS
1	I	202	ASP
1	I	211	ILE
1	I	225	LEU
1	I	269	ILE
1	I	280	ARG
1	I	312	LEU
1	I	317	GLU

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Mol	Chain	Res	Type
1	I	330	LEU
1	I	352	VAL
1	I	360	ILE
1	I	367	GLN
1	I	375	ARG
1	I	384	LEU
1	I	402	MET
1	I	409	THR
1	I	418	LYS
1	I	428	LYS
1	I	431	ARG
1	I	480	ILE
1	I	507	ILE
1	I	509	LYS
1	J	29	THR
1	J	35	MET
1	J	36	ASP
1	J	57	ILE
1	J	58	LEU
1	J	82	VAL
1	J	92	LEU
1	J	96	LEU
1	J	98	ARG
1	J	111	GLN
1	J	129	LEU
1	J	137	SER
1	J	139	GLU
1	J	143	ARG
1	J	146	LEU
1	J	147	MET
1	J	152	THR
1	J	159	LEU
1	J	167	THR
1	J	178	LYS
1	J	190	LYS
1	J	201	LEU
1	J	203	GLU
1	J	211	ILE
1	J	225	LEU
1	J	235	LYS
1	J	244	ARG
1	J	262	MET

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Mol	Chain	Res	Type
1	J	269	ILE
1	J	280	ARG
1	J	312	LEU
1	J	317	GLU
1	J	320	SER
1	J	326	GLU
1	J	327	LEU
1	J	344	ASP
1	J	352	VAL
1	J	363	ARG
1	J	367	GLN
1	J	402	MET
1	J	409	THR
1	J	431	ARG
1	J	492	LEU
1	J	501	ILE
1	J	507	ILE
1	J	508	ILE
1	K	10	THR
1	K	50	VAL
1	K	57	ILE
1	K	58	LEU
1	K	59	LYS
1	K	74	MET
1	K	92	LEU
1	K	96	LEU
1	K	98	ARG
1	K	104	ILE
1	K	122	LYS
1	K	125	ARG
1	K	131	SER
1	K	135	HIS
1	K	146	LEU
1	K	159	LEU
1	K	167	THR
1	K	191	LYS
1	K	201	LEU
1	K	203	GLU
1	K	211	ILE
1	K	225	LEU
1	K	235	LYS
1	K	244	ARG

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Mol	Chain	Res	Type
1	K	255	GLU
1	K	269	ILE
1	K	280	ARG
1	K	320	SER
1	K	326	GLU
1	K	343	GLU
1	K	352	VAL
1	K	366	THR
1	K	367	GLN
1	K	370	LEU
1	K	374	GLU
1	K	375	ARG
1	K	392	ARG
1	K	401	GLU
1	K	402	MET
1	K	409	THR
1	K	431	ARG
1	K	432	MET
1	K	505	ASP
1	L	4	ASP
1	L	13	LEU
1	L	30	LEU
1	L	33	LYS
1	L	35	MET
1	L	57	ILE
1	L	58	LEU
1	L	69	LYS
1	L	78	GLN
1	L	87	THR
1	L	96	LEU
1	L	98	ARG
1	L	108	ILE
1	L	111	GLN
1	L	118	ARG
1	L	129	LEU
1	L	146	LEU
1	L	152	THR
1	L	158	LEU
1	L	159	LEU
1	L	167	THR
1	L	189	ILE
1	L	190	LYS

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Mol	Chain	Res	Type
1	L	206	LEU
1	L	211	ILE
1	L	217	LYS
1	L	218	ARG
1	L	225	LEU
1	L	263	LYS
1	L	280	ARG
1	L	284	TYR
1	L	310	LEU
1	L	312	LEU
1	L	343	GLU
1	L	344	ASP
1	L	384	LEU
1	L	401	GLU
1	L	402	MET
1	L	428	LYS
1	L	431	ARG
1	L	501	ILE
1	L	503	ARG
1	L	507	ILE
1	M	30	LEU
1	M	36	ASP
1	M	38	ILE
1	M	57	ILE
1	M	58	LEU
1	M	78	GLN
1	M	81	GLU
1	M	98	ARG
1	M	103	LEU
1	M	106	LYS
1	M	107	LYS
1	M	109	HIS
1	M	129	LEU
1	M	139	GLU
1	M	141	LYS
1	M	146	LEU
1	M	167	THR
1	M	190	LYS
1	M	201	LEU
1	M	211	ILE
1	M	225	LEU
1	M	280	ARG

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Mol	Chain	Res	Type
1	M	312	LEU
1	M	326	GLU
1	M	343	GLU
1	M	352	VAL
1	M	356	GLU
1	M	366	THR
1	M	381	LEU
1	M	384	LEU
1	M	401	GLU
1	M	402	MET
1	M	409	THR
1	M	415	THR
1	M	416	PRO
1	M	428	LYS
1	M	431	ARG
1	M	489	GLN
1	M	506	ASN
1	N	33	LYS
1	N	35	MET
1	N	57	ILE
1	N	58	LEU
1	N	65	ASN
1	N	89	VAL
1	N	98	ARG
1	N	106	LYS
1	N	129	LEU
1	N	130	ASN
1	N	135	HIS
1	N	139	GLU
1	N	142	PHE
1	N	146	LEU
1	N	152	THR
1	N	159	LEU
1	N	167	THR
1	N	177	LEU
1	N	186	ILE
1	N	191	LYS
1	N	211	ILE
1	N	215	GLN
1	N	225	LEU
1	N	269	ILE
1	N	280	ARG

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Mol	Chain	Res	Type
1	N	312	LEU
1	N	326	GLU
1	N	328	VAL
1	N	335	LEU
1	N	352	VAL
1	N	389	LYS
1	N	394	VAL
1	N	401	GLU
1	N	402	MET
1	N	431	ARG
1	N	471	THR
1	O	35	MET
1	O	57	ILE
1	O	65	ASN
1	O	74	MET
1	O	78	GLN
1	O	96	LEU
1	O	98	ARG
1	O	101	GLU
1	O	107	LYS
1	O	135	HIS
1	O	143	ARG
1	O	159	LEU
1	O	167	THR
1	O	178	LYS
1	O	183	LEU
1	O	190	LYS
1	O	203	GLU
1	O	207	LEU
1	O	211	ILE
1	O	215	GLN
1	O	225	LEU
1	O	280	ARG
1	O	310	LEU
1	O	312	LEU
1	O	317	GLU
1	O	320	SER
1	O	326	GLU
1	O	330	LEU
1	O	352	VAL
1	O	370	LEU
1	O	381	LEU

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Mol	Chain	Res	Type
1	O	384	LEU
1	O	402	MET
1	O	418	LYS
1	O	428	LYS
1	O	430	LEU
1	O	431	ARG
1	O	433	LEU
1	O	507	ILE
1	P	40	LEU
1	P	44	ARG
1	P	57	ILE
1	P	58	LEU
1	P	74	MET
1	P	80	ASP
1	P	92	LEU
1	P	96	LEU
1	P	98	ARG
1	P	108	ILE
1	P	111	GLN
1	P	131	SER
1	P	137	SER
1	P	139	GLU
1	P	146	LEU
1	P	158	LEU
1	P	159	LEU
1	P	160	THR
1	P	167	THR
1	P	190	LYS
1	P	203	GLU
1	P	211	ILE
1	P	225	LEU
1	P	236	ILE
1	P	241	SER
1	P	243	VAL
1	P	244	ARG
1	P	269	ILE
1	P	280	ARG
1	P	312	LEU
1	P	314	THR
1	P	330	LEU
1	P	352	VAL
1	P	367	GLN

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Mol	Chain	Res	Type
1	P	376	SER
1	P	384	LEU
1	P	401	GLU
1	P	402	MET
1	P	431	ARG
1	P	489	GLN
1	P	506	ASN
1	P	508	ILE
1	P	512	PRO

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (115) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	221	ASN
1	A	368	GLN
1	A	378	HIS
1	A	386	GLN
1	A	410	GLN
1	A	451	GLN
1	A	489	GLN
1	B	126	GLN
1	B	161	HIS
1	B	386	GLN
1	B	410	GLN
1	B	451	GLN
1	B	485	GLN
1	C	78	GLN
1	C	126	GLN
1	C	130	ASN
1	C	182	ASN
1	C	348	HIS
1	C	386	GLN
1	C	410	GLN
1	C	451	GLN
1	D	109	HIS
1	D	126	GLN
1	D	386	GLN
1	D	406	HIS
1	D	451	GLN
1	D	489	GLN
1	E	78	GLN
1	E	126	GLN

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Mol	Chain	Res	Type
1	E	161	HIS
1	E	182	ASN
1	E	289	GLN
1	E	348	HIS
1	E	410	GLN
1	E	451	GLN
1	E	489	GLN
1	F	52	ASN
1	F	221	ASN
1	F	386	GLN
1	F	451	GLN
1	F	485	GLN
1	F	489	GLN
1	G	111	GLN
1	G	126	GLN
1	G	135	HIS
1	G	221	ASN
1	G	367	GLN
1	G	410	GLN
1	G	451	GLN
1	G	506	ASN
1	H	130	ASN
1	H	165	HIS
1	H	182	ASN
1	H	367	GLN
1	H	368	GLN
1	H	410	GLN
1	H	440	ASN
1	H	451	GLN
1	I	285	ASN
1	I	348	HIS
1	I	368	GLN
1	I	386	GLN
1	I	410	GLN
1	I	451	GLN
1	I	489	GLN
1	J	111	GLN
1	J	161	HIS
1	J	386	GLN
1	J	410	GLN
1	J	451	GLN
1	J	489	GLN

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Mol	Chain	Res	Type
1	K	52	ASN
1	K	126	GLN
1	K	161	HIS
1	K	368	GLN
1	K	410	GLN
1	L	111	GLN
1	L	126	GLN
1	L	165	HIS
1	L	228	ASN
1	L	451	GLN
1	M	52	ASN
1	M	109	HIS
1	M	126	GLN
1	M	161	HIS
1	M	182	ASN
1	M	386	GLN
1	M	410	GLN
1	M	451	GLN
1	M	485	GLN
1	M	489	GLN
1	M	506	ASN
1	N	130	ASN
1	N	144	GLN
1	N	161	HIS
1	N	182	ASN
1	N	410	GLN
1	O	65	ASN
1	O	126	GLN
1	O	130	ASN
1	O	161	HIS
1	O	162	HIS
1	O	182	ASN
1	O	348	HIS
1	O	368	GLN
1	O	410	GLN
1	O	506	ASN
1	P	111	GLN
1	P	165	HIS
1	P	182	ASN
1	P	289	GLN
1	P	348	HIS
1	P	410	GLN

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Mol	Chain	Res	Type
1	P	451	GLN
1	P	489	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 monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

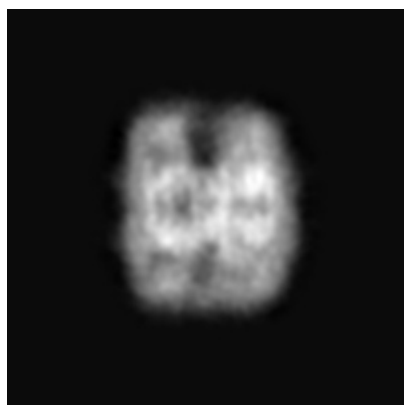
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-1961. These allow visual inspection of the internal detail of the map and identification of artifacts.

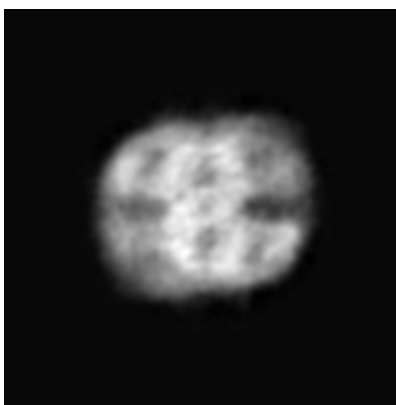
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

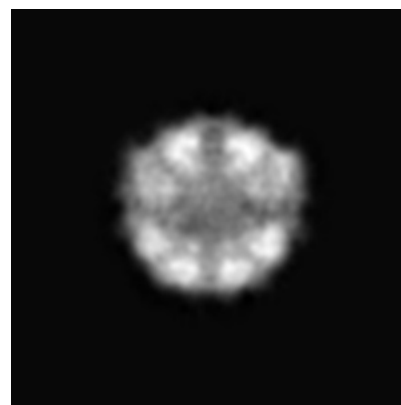
6.1.1 Primary map



X



Y

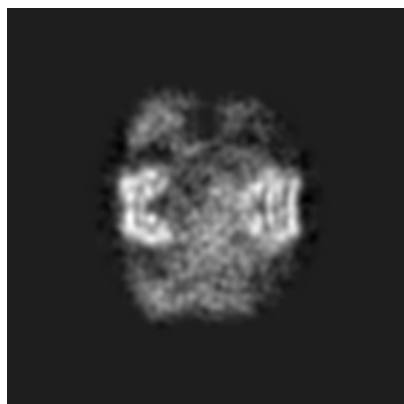


Z

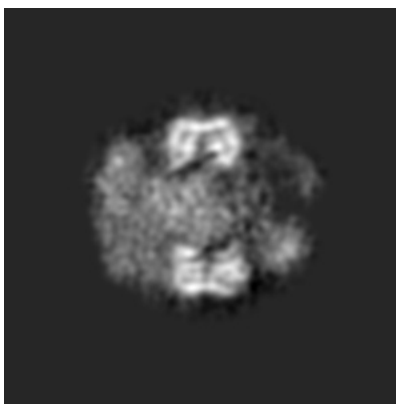
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

6.2.1 Primary map



X Index: 72



Y Index: 72



Z Index: 72

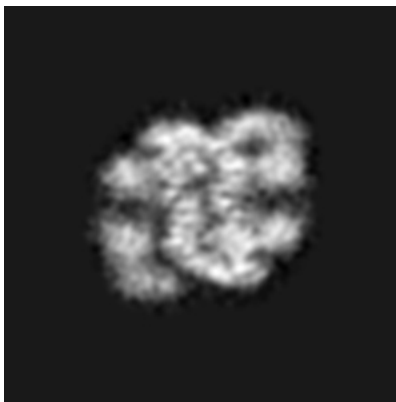
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

6.3.1 Primary map



X Index: 88



Y Index: 90



Z Index: 81

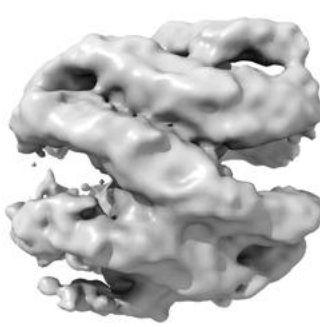
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views [i](#)

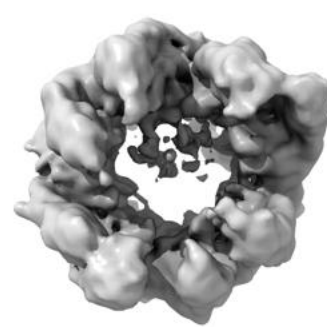
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 1.13. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

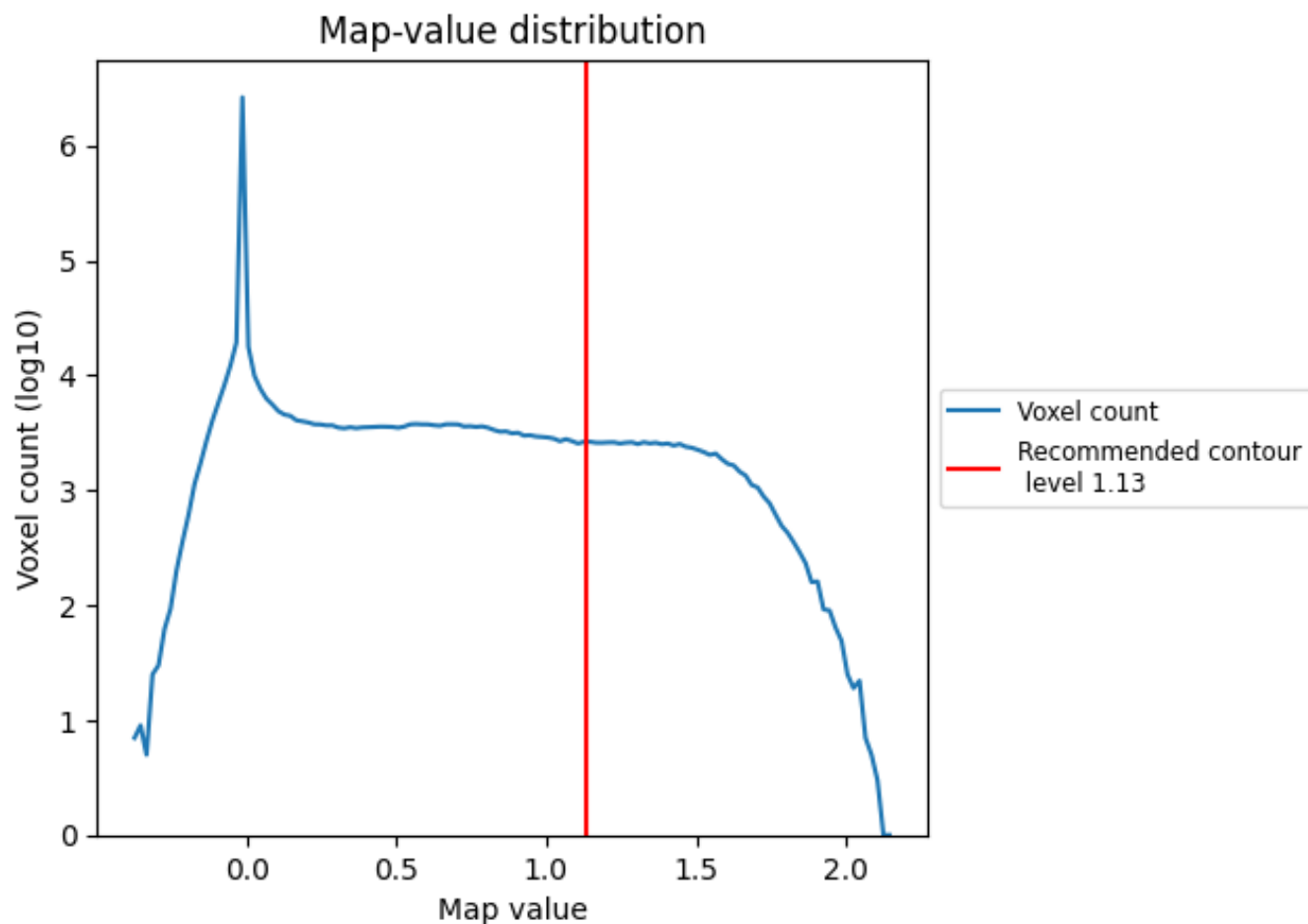
6.5 Mask visualisation

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

7 Map analysis [i](#)

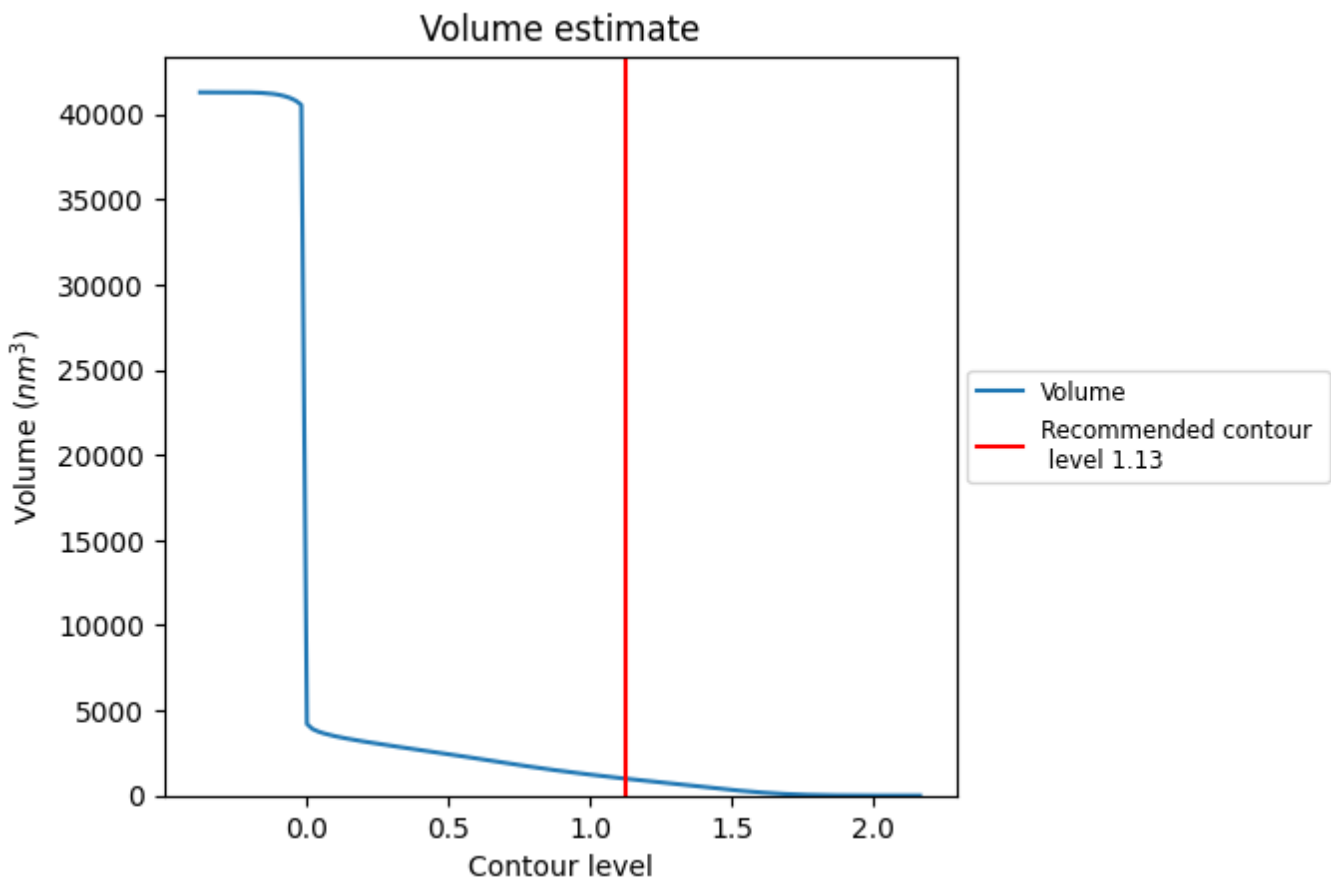
This section contains the results of statistical analysis of the map.

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.

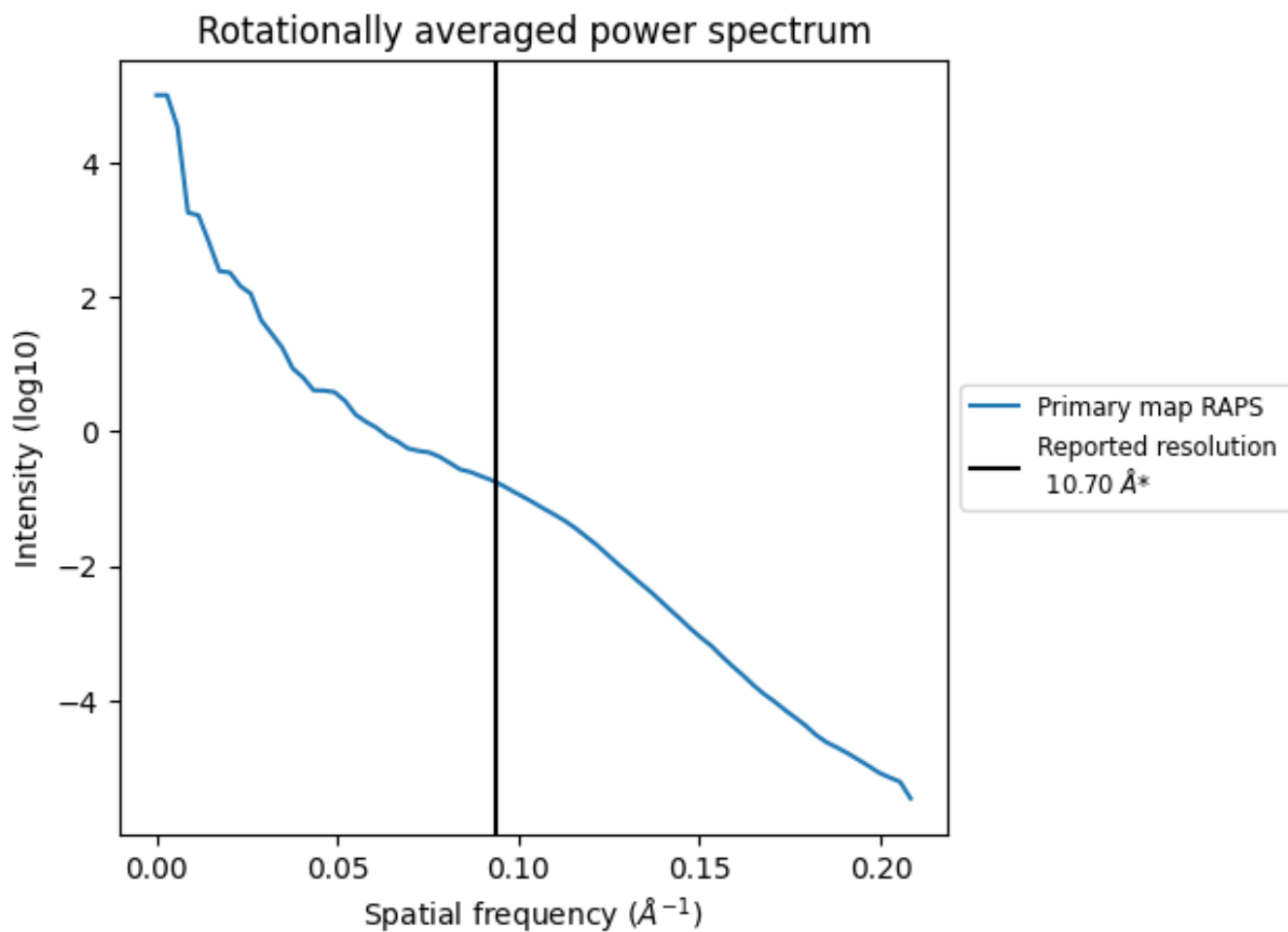
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 987 nm^3 ; this corresponds to an approximate mass of 892 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 [i](#)



*Reported resolution corresponds to spatial frequency of 0.093 Å⁻¹

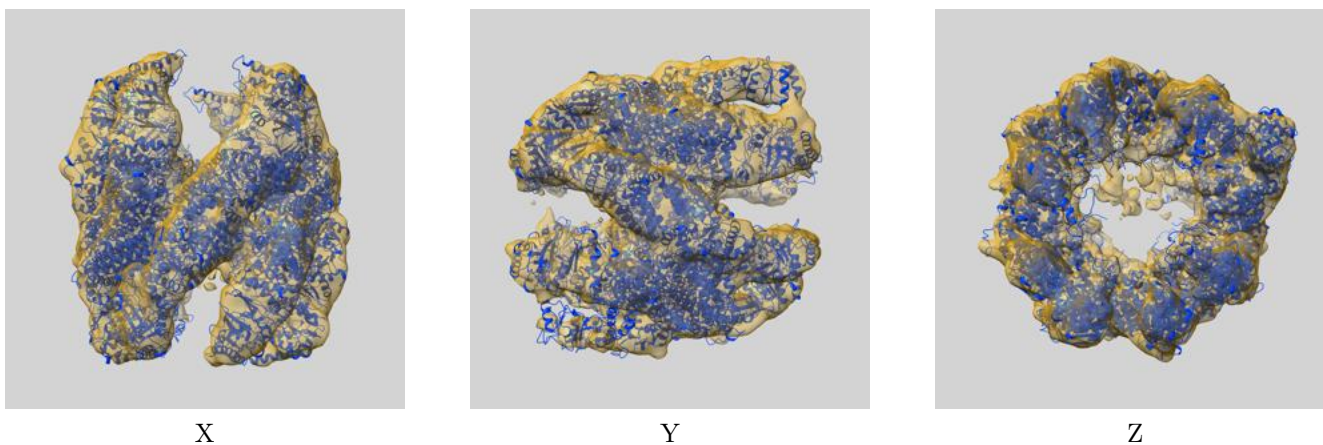
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

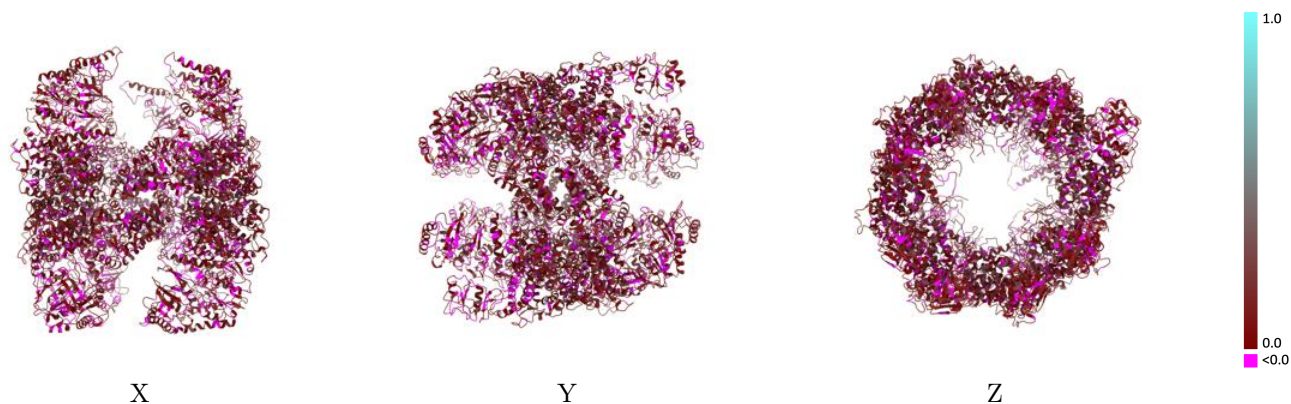
This section contains information regarding the fit between EMDB map EMD-1961 and PDB model 4A0V. Per-residue inclusion information can be found in section 3 on page 5.

9.1 Map-model overlay [i](#)



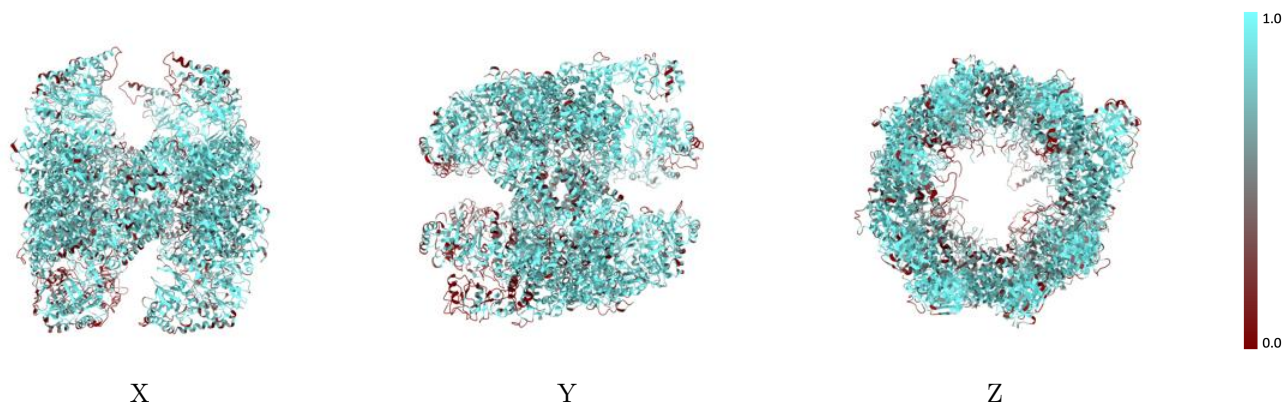
The images above show the 3D surface view of the map at the recommended contour level 1.13 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



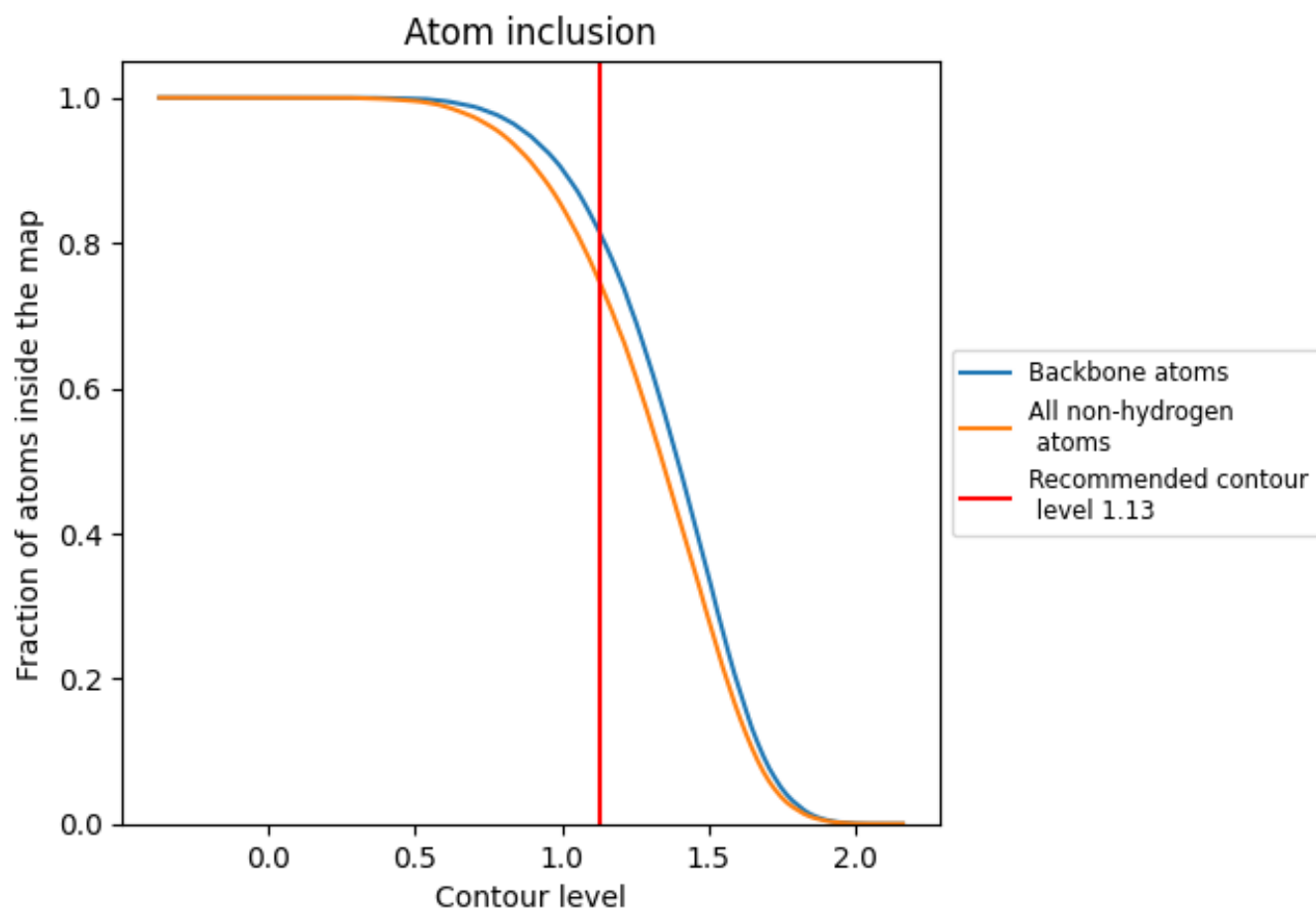
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (1.13).



































9.4 Atom inclusion [i](#)



At the recommended contour level, 81% of all backbone atoms, 75% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (1.13) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7464	 0.0930
A	 0.7965	 0.1060
B	 0.7883	 0.0940
C	 0.7742	 0.1070
D	 0.8147	 0.0920
E	 0.8026	 0.1030
F	 0.8296	 0.0980
G	 0.7834	 0.0880
H	 0.8010	 0.0880
I	 0.5887	 0.0670
J	 0.7837	 0.0910
K	 0.7839	 0.0910
L	 0.7203	 0.0990
M	 0.6521	 0.0980
N	 0.6974	 0.0820
O	 0.5881	 0.0780
P	 0.7174	 0.0960

