



Full wwPDB/EMDatabank EM Map/Model Validation Report ⓘ

Apr 12, 2017 – 03:12 PM EDT

PDB ID : 4A0O
EMDB ID: : EMD-1960
Title : Symmetry-free cryo-EM map of TRiC in the nucleotide-free (apo) state
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 : 2011-09-10
Resolution : 10.50 Å(reported)

This is a Full wwPDB/EMDatabank EM Map/Model Validation Report
for a publicly released PDB/EMDB entry.

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

A user guide is available at

<http://wwpdb.org/validation/2016/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

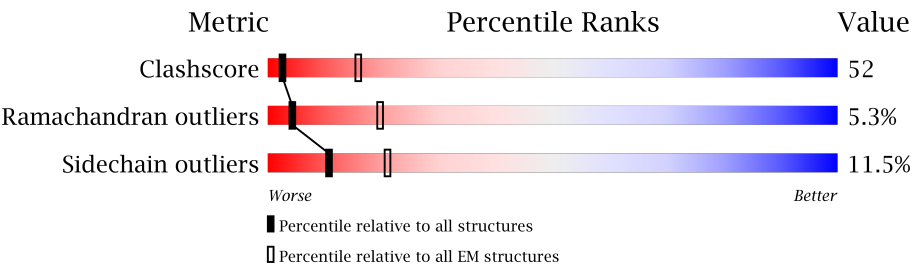
MolProbity : 4.02b-467
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : rb-20029077

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 10.50 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	125131	1336
Ramachandran outliers	121729	1120
Sidechain outliers	121581	1026

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. 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 $\leq 5\%$

Mol	Chain	Length	Quality of chain
1	A	513	<div><div>27%</div><div>33%</div><div>6%</div><div>•</div><div>34%</div></div>
1	B	513	<div><div>38%</div><div>49%</div><div>8%</div><div>• •</div></div>
1	C	513	<div><div>35%</div><div>50%</div><div>8%</div><div>•</div><div>6%</div></div>
1	D	513	<div><div>35%</div><div>50%</div><div>9%</div><div>•</div><div>5%</div></div>
1	E	513	<div><div>41%</div><div>45%</div><div>9%</div><div>• •</div></div>
1	F	513	<div><div>37%</div><div>48%</div><div>10%</div><div>5%</div></div>
1	G	513	<div><div>36%</div><div>50%</div><div>14%</div></div>
1	H	513	<div><div>33%</div><div>52%</div><div>11%</div><div>• •</div></div>
1	I	513	<div><div>33%</div><div>50%</div><div>8%</div><div>•</div><div>8%</div></div>

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Mol	Chain	Length	Quality of chain
1	J	513	<div><div></div><div>34%52%8% . .</div></div>
1	K	513	<div><div></div><div>35%51%10% .</div></div>
1	L	513	<div><div></div><div>31%55%10% .</div></div>
1	M	513	<div><div></div><div>29%40%6%24%</div></div>
1	N	513	<div><div></div><div>38%47%8% . 5%</div></div>
1	O	513	<div><div></div><div>36%46%11% . 6%</div></div>
1	P	513	<div><div></div><div>35%50%11% .</div></div>

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 56830 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.

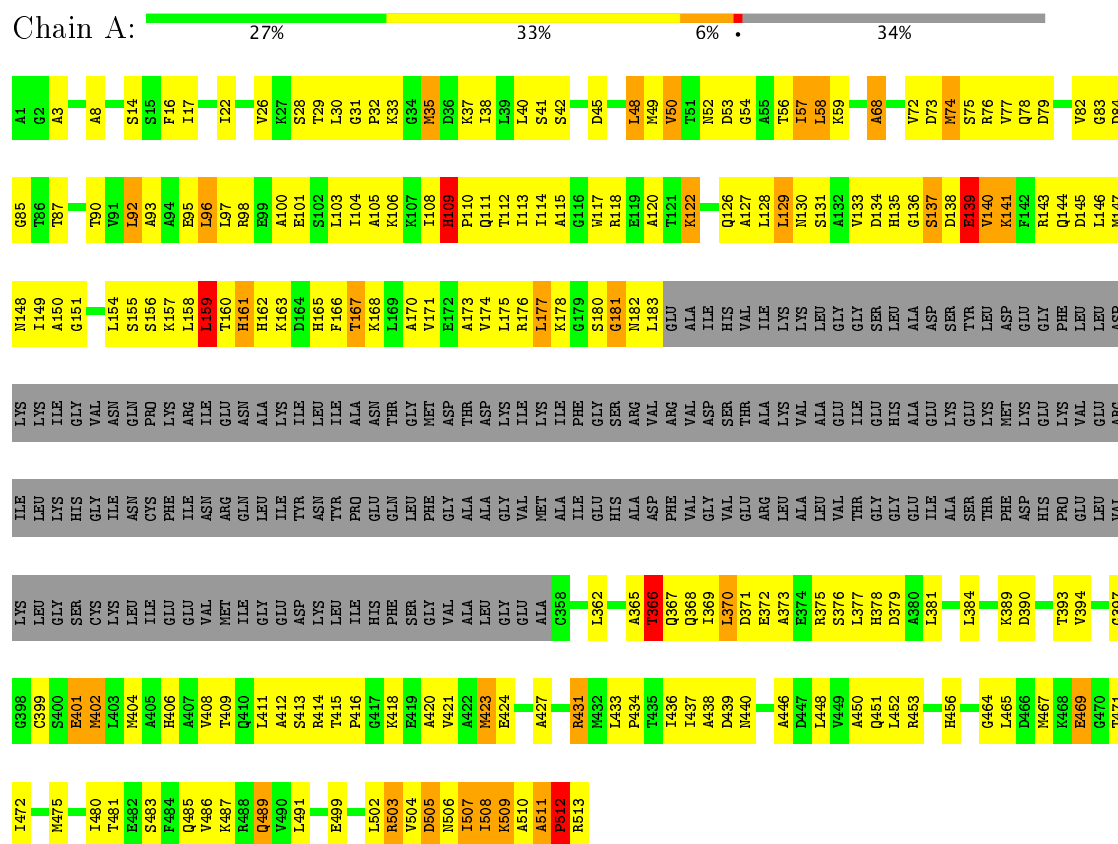
- Molecule 1 is a protein called T-COMPLEX PROTEIN 1 SUBUNIT BETA.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	339	Total	C	N	O	S	0	0
			2510	1552	449	496	13		
1	B	490	Total	C	N	O	S	0	0
			3677	2299	647	713	18		
1	C	482	Total	C	N	O	S	0	0
			3608	2255	634	701	18		
1	D	489	Total	C	N	O	S	0	0
			3666	2291	644	712	19		
1	E	492	Total	C	N	O	S	0	0
			3693	2308	649	717	19		
1	F	488	Total	C	N	O	S	0	0
			3661	2288	643	711	19		
1	G	513	Total	C	N	O	S	0	0
			3855	2409	679	748	19		
1	H	493	Total	C	N	O	S	0	0
			3702	2313	650	720	19		
1	I	473	Total	C	N	O	S	0	0
			3530	2206	620	686	18		
1	J	490	Total	C	N	O	S	0	0
			3673	2295	645	714	19		
1	K	496	Total	C	N	O	S	0	0
			3723	2327	654	723	19		
1	L	491	Total	C	N	O	S	0	0
			3685	2304	648	714	19		
1	M	388	Total	C	N	O	S	0	0
			2881	1792	506	569	14		
1	N	486	Total	C	N	O	S	0	0
			3643	2277	640	707	19		
1	O	481	Total	C	N	O	S	0	0
			3600	2251	633	698	18		
1	P	496	Total	C	N	O	S	0	0
			3723	2327	654	723	19		

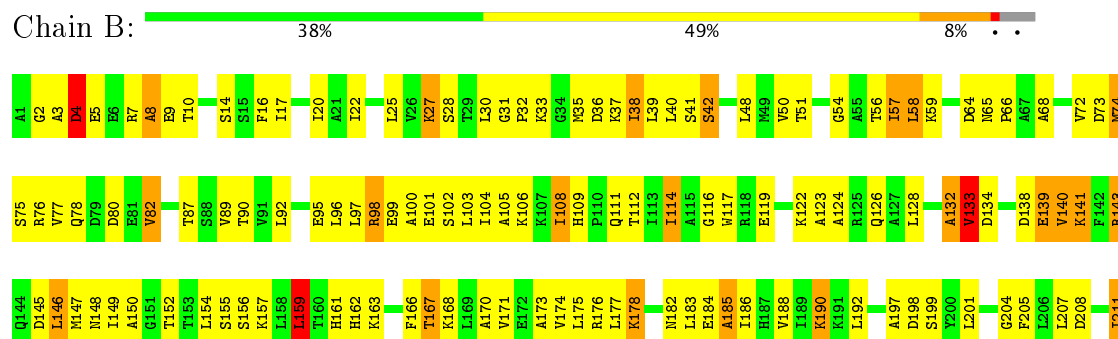
3 Residue-property plots

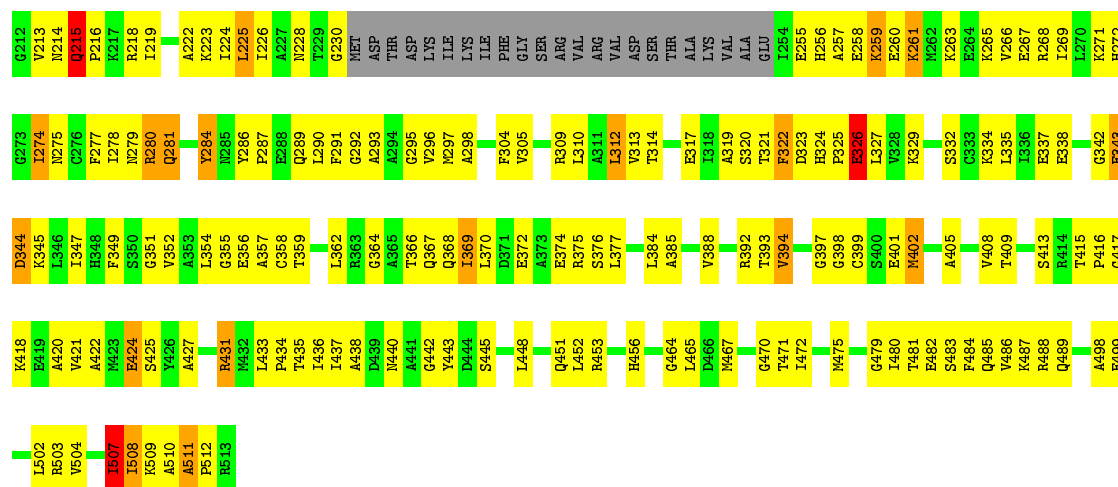
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according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



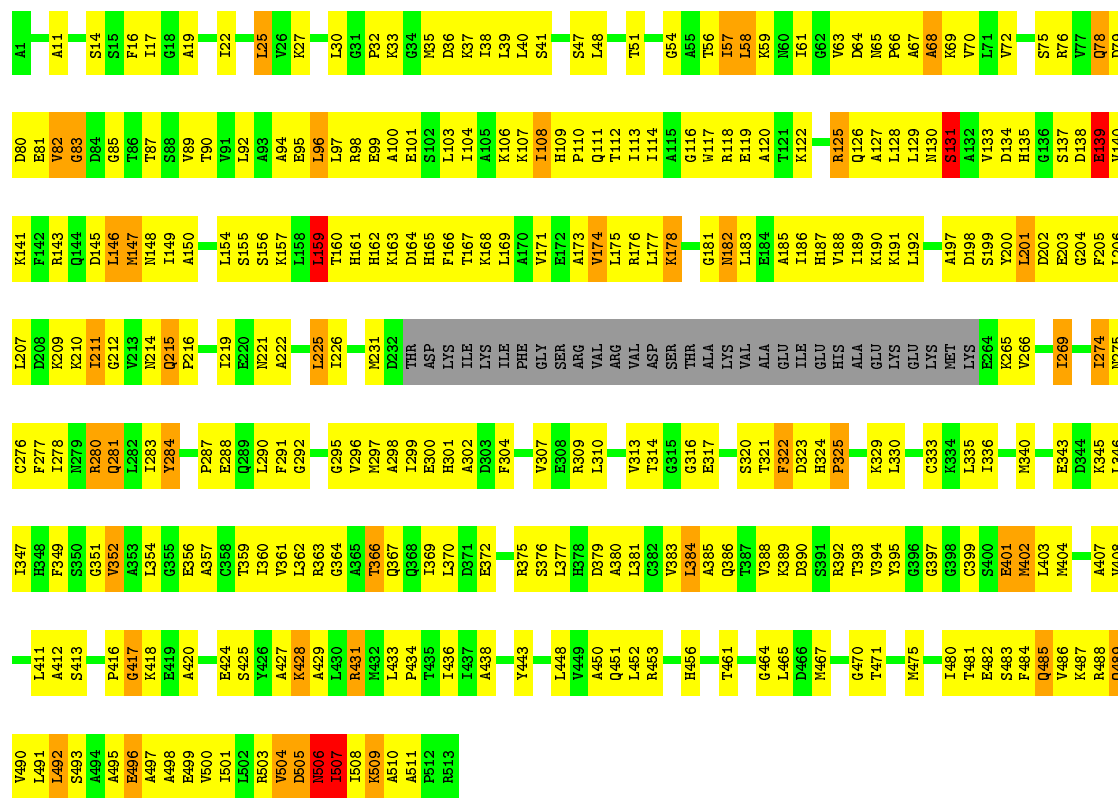
• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA





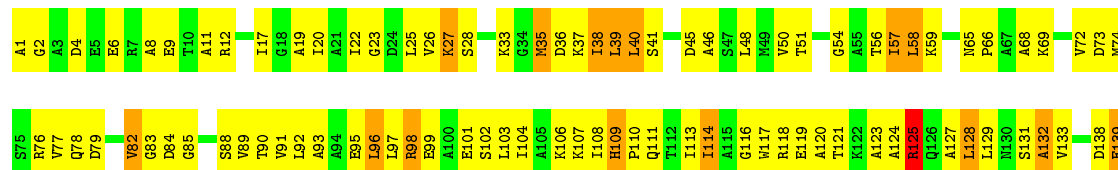
• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

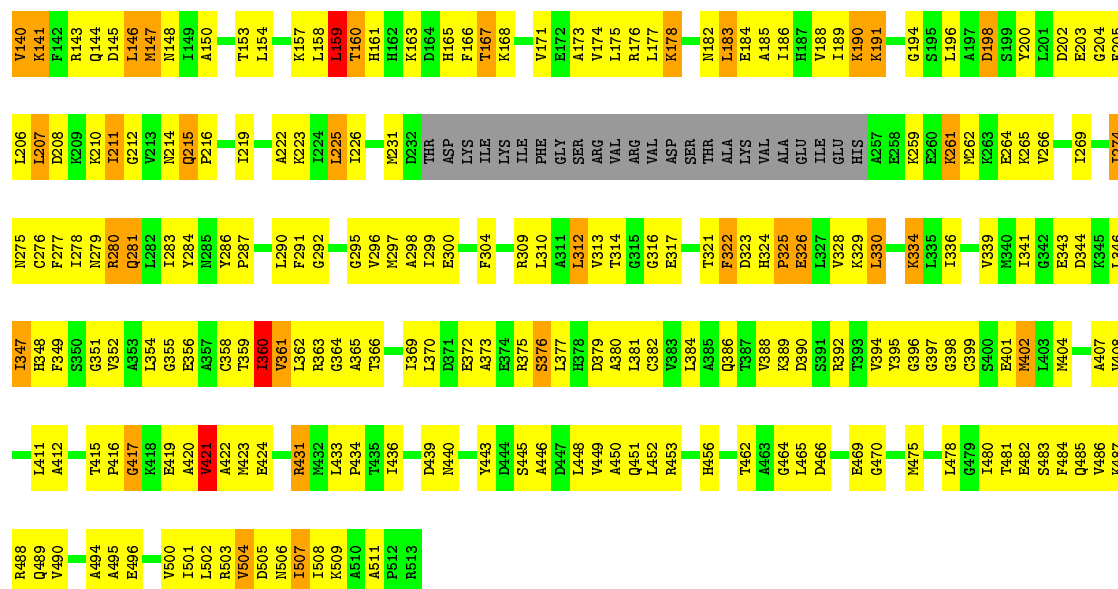
Chain C: 35% 50% 8% 6%



• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

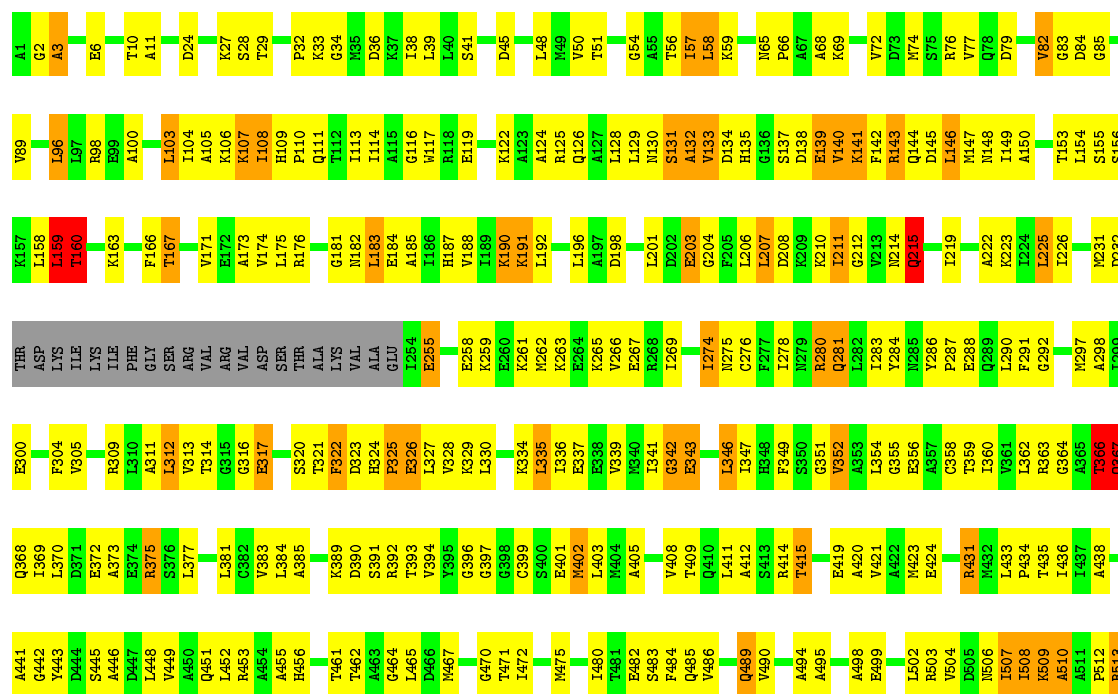
Chain D: 35% 50% 9% 5%





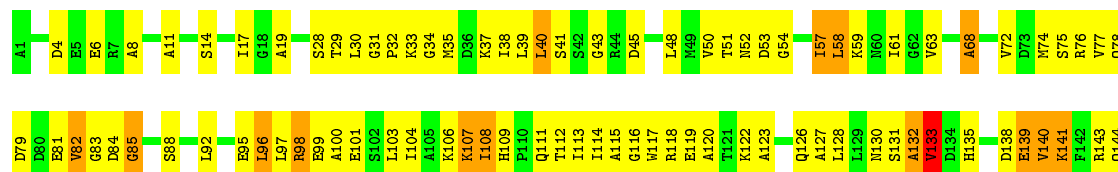
• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

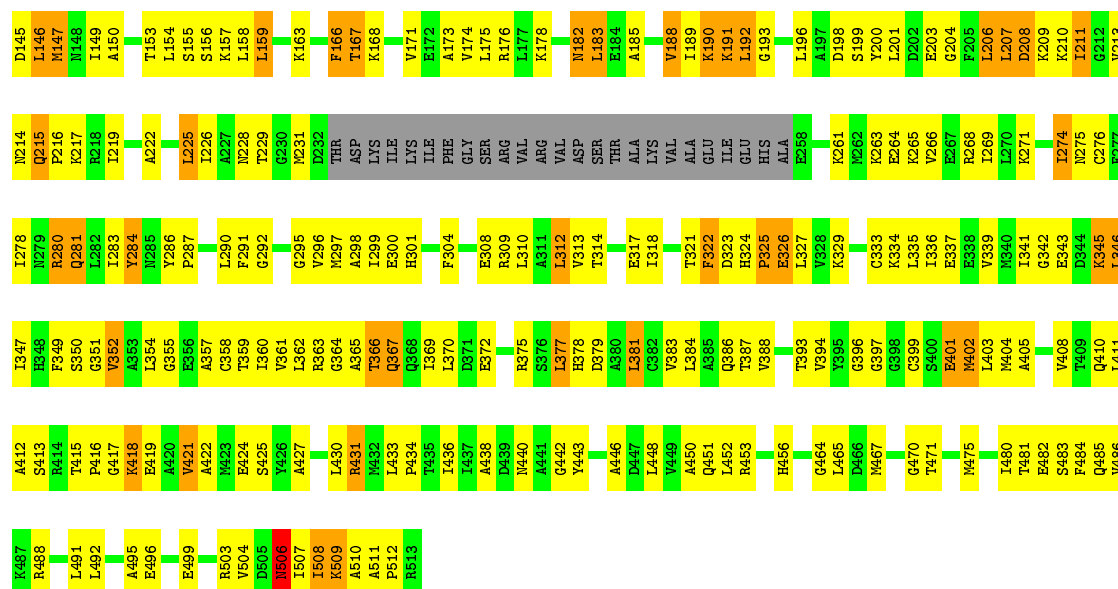
Chain E: 41% 45% 9%



• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

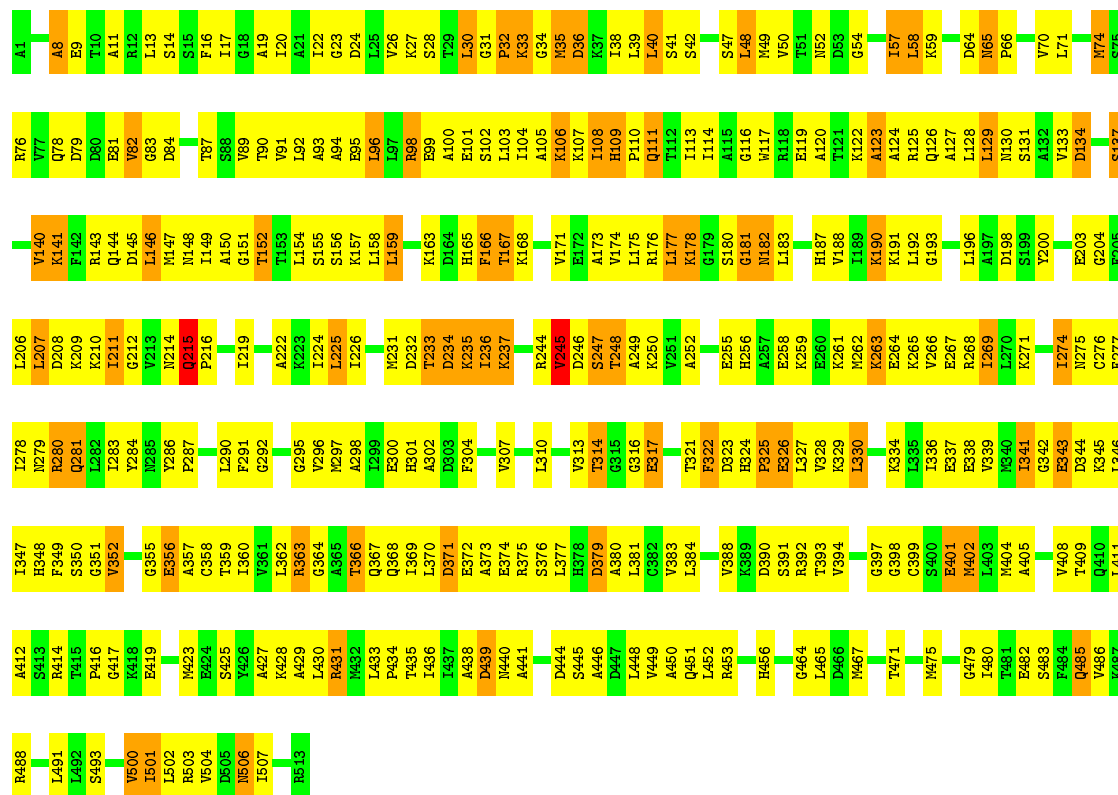
Chain F: 37% 48% 10% 5%





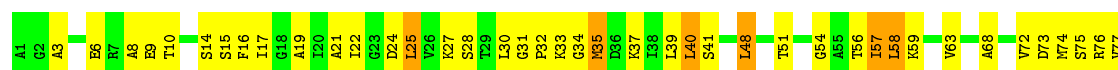
• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

Chain G: 36% 50% 14%

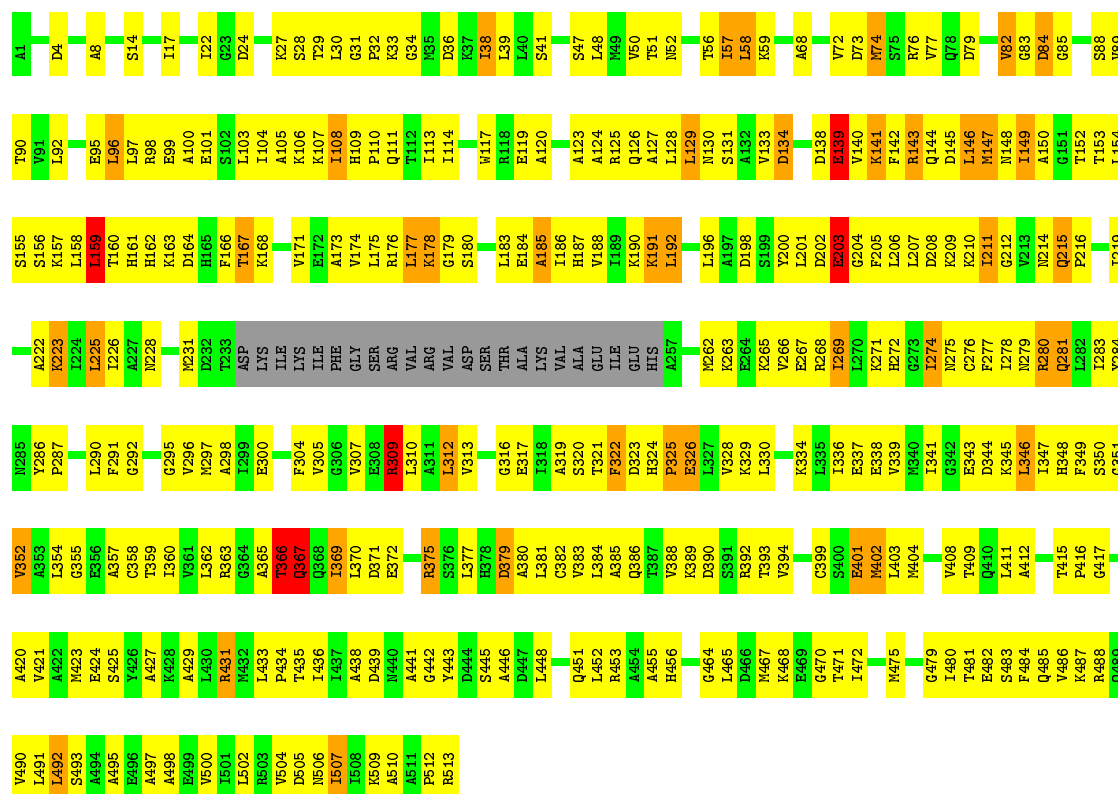


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

Chain H: 33% 52% 11%

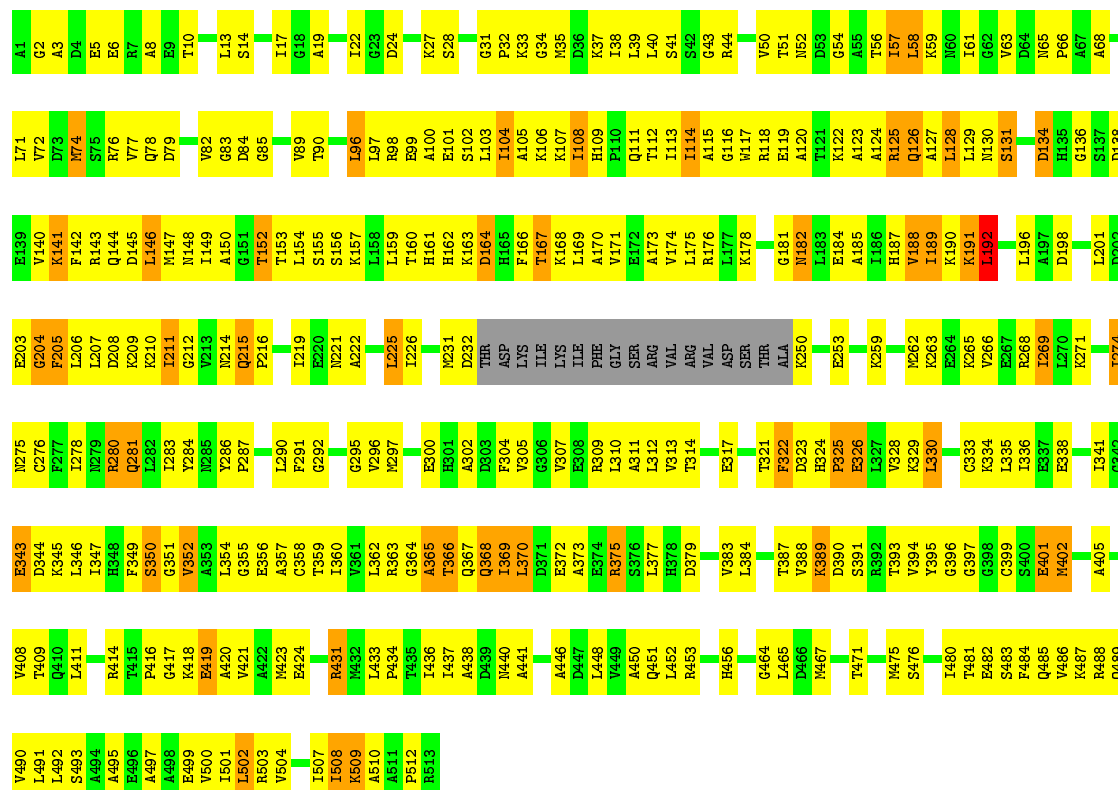






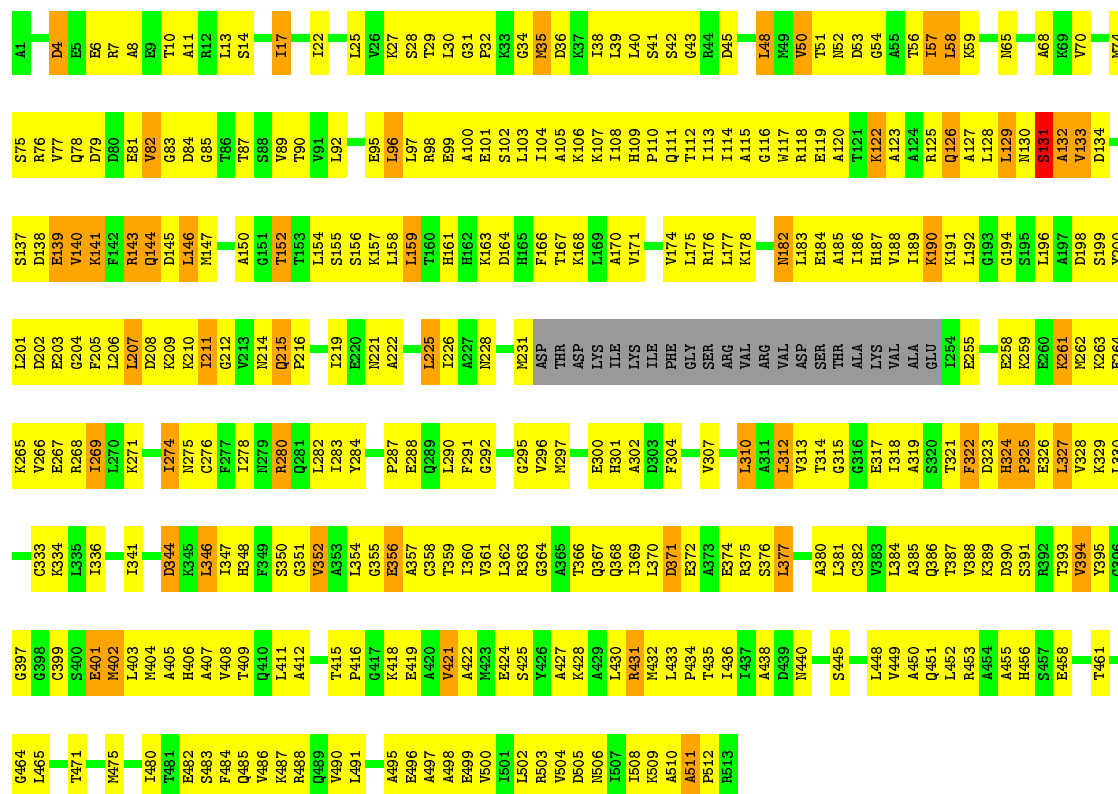
• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

Chain K: 35% 51% 10%



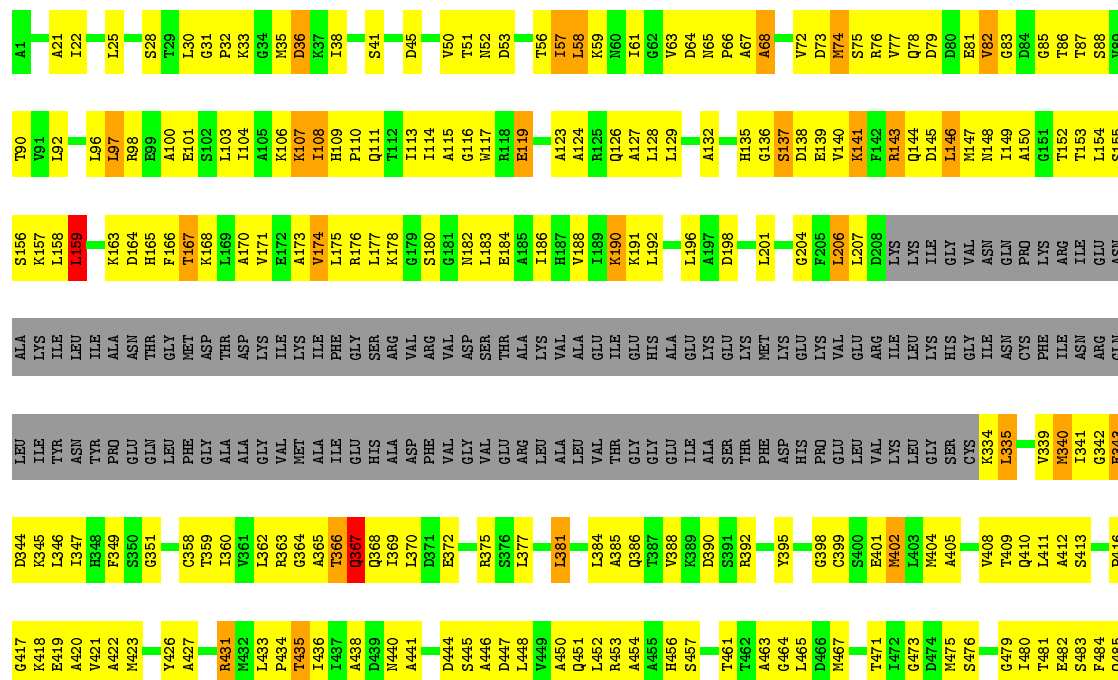
• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

Chain L: 



• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

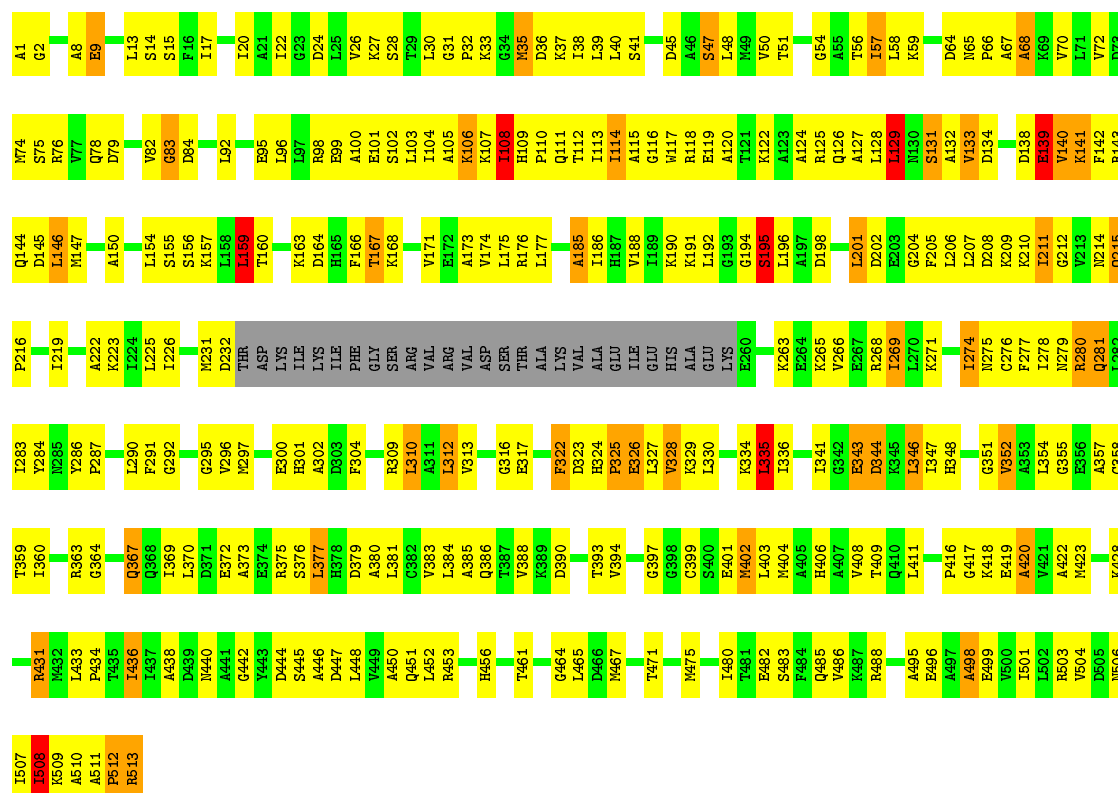
Chain M: 





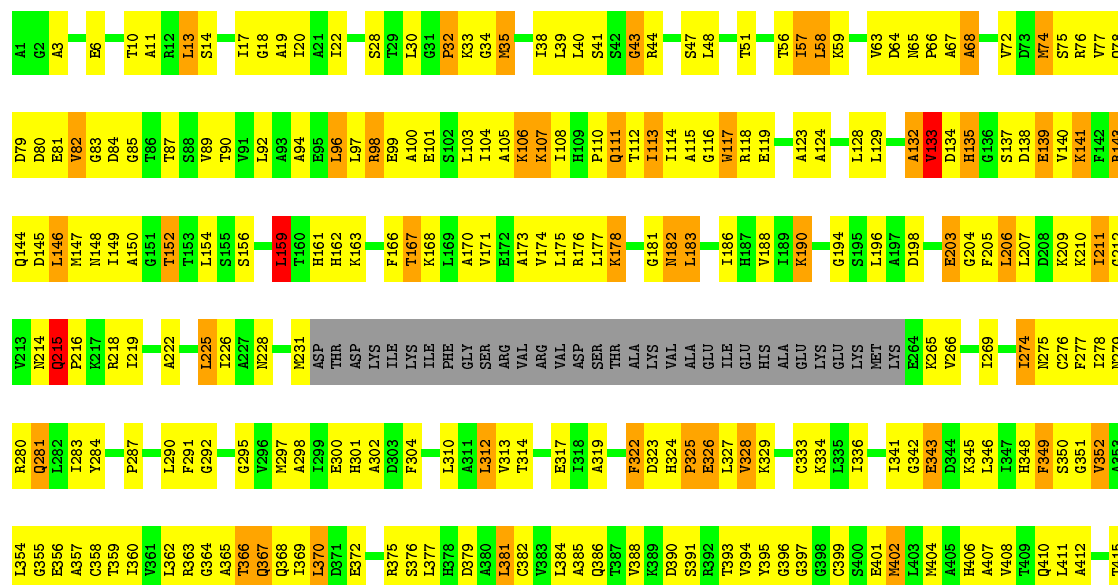
• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

Chain N: 38% 47% 8% 5%



• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

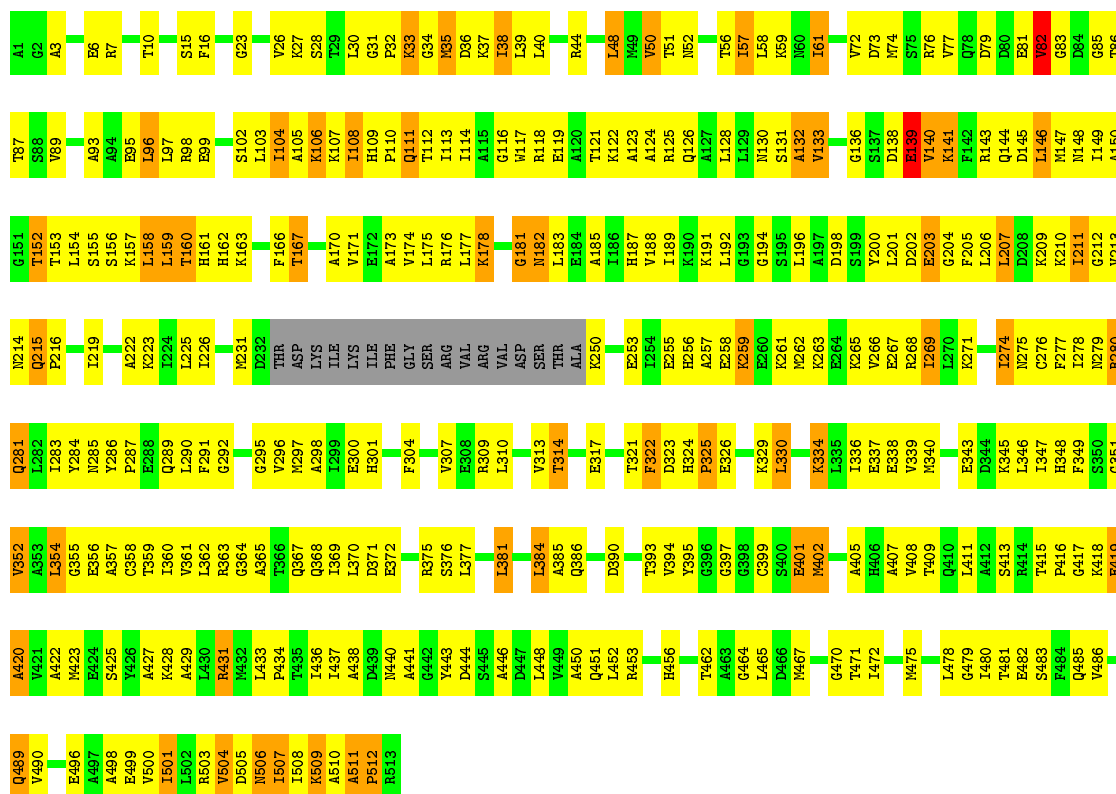
Chain O: 36% 46% 11% 6%





• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

Chain P: 35% 50% 11%



4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of particles used	47151	Depositor
Resolution determination method	Not provided	Depositor
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	Not provided	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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 >2	RMSZ	# Z >2
1	A	0.51	0/2531	0.81	1/3415 (0.0%)
1	B	0.46	0/3716	0.77	1/5007 (0.0%)
1	C	0.46	0/3646	0.80	2/4916 (0.0%)
1	D	0.47	0/3704	0.80	3/4990 (0.1%)
1	E	0.44	0/3732	0.75	0/5028
1	F	0.45	0/3699	0.80	3/4983 (0.1%)
1	G	0.48	0/3896	0.80	0/5249
1	H	0.46	0/3741	0.83	1/5040 (0.0%)
1	I	0.47	0/3568	0.79	1/4813 (0.0%)
1	J	0.45	0/3711	0.76	1/5000 (0.0%)
1	K	0.47	0/3762	0.77	0/5068
1	L	0.45	0/3724	0.80	1/5017 (0.0%)
1	M	0.47	0/2907	0.79	0/3920
1	N	0.45	0/3681	0.77	0/4960
1	O	0.48	0/3638	0.79	2/4905 (0.0%)
1	P	0.48	0/3762	0.80	2/5068 (0.0%)
All	All	0.46	0/57418	0.79	18/77379 (0.0%)

There are no bond length outliers.

All (18) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	J	309	ARG	NE-CZ-NH1	7.46	124.03	120.30
1	D	125	ARG	NE-CZ-NH1	7.40	124.00	120.30
1	A	512	PRO	CA-N-CD	-6.87	101.88	111.50
1	B	326	GLU	N-CA-CB	6.65	122.56	110.60
1	C	125	ARG	CB-CA-C	-6.35	97.70	110.40
1	O	419	GLU	N-CA-CB	-6.08	99.65	110.60
1	P	419	GLU	N-CA-CB	-6.06	99.69	110.60
1	L	7	ARG	N-CA-CB	-5.64	100.44	110.60
1	F	85	GLY	N-CA-C	-5.38	99.64	113.10
1	H	340	MET	N-CA-C	5.35	125.45	111.00
1	P	420	ALA	CB-CA-C	-5.23	102.25	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O	117	TRP	CA-CB-CG	-5.22	103.78	113.70
1	C	147	MET	N-CA-CB	-5.21	101.23	110.60
1	F	284	TYR	CB-CG-CD1	-5.18	117.89	121.00
1	D	183	LEU	N-CA-C	5.12	124.82	111.00
1	I	203	GLU	N-CA-CB	-5.05	101.52	110.60
1	F	166	PHE	CB-CA-C	-5.03	100.33	110.40
1	D	131	SER	CA-C-N	-5.03	106.14	117.20

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	2510	0	2583	272	0
1	B	3677	0	3782	401	0
1	C	3608	0	3706	388	0
1	D	3666	0	3771	394	0
1	E	3693	0	3795	373	0
1	F	3661	0	3766	436	0
1	G	3855	0	3970	419	0
1	H	3702	0	3801	405	0
1	I	3530	0	3620	431	0
1	J	3673	0	3778	410	0
1	K	3723	0	3828	437	0
1	L	3685	0	3791	434	0
1	M	2881	0	2960	316	0
1	N	3643	0	3747	395	0
1	O	3600	0	3702	447	0
1	P	3723	0	3828	445	0
All	All	56830	0	58428	6005	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 52.

All (6005) 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:E:11:ALA:HB1	1:E:506:ASN:HB3	1.23	1.18
1:G:146:LEU:HD12	1:G:171:VAL:HG13	1.25	1.17
1:C:146:LEU:HD12	1:C:171:VAL:HG13	1.24	1.17
1:H:146:LEU:HD12	1:H:171:VAL:HG13	1.14	1.14
1:P:146:LEU:HD12	1:P:171:VAL:HG13	1.23	1.13
1:B:152:THR:HB	1:B:480:ILE:HG23	1.29	1.12
1:I:159:LEU:HB2	1:I:369:ILE:HG23	1.29	1.11
1:H:450:ALA:HB2	1:P:420:ALA:HB2	1.19	1.11
1:F:146:LEU:HD12	1:F:171:VAL:HG13	1.29	1.09
1:E:269:ILE:HG23	1:E:274:ILE:HG21	1.31	1.09
1:A:450:ALA:HB2	1:M:420:ALA:HB2	1.33	1.08
1:M:116:GLY:HA2	1:M:422:ALA:HB1	1.34	1.08
1:D:39:LEU:HA	1:E:507:ILE:HG23	1.36	1.08
1:N:1:ALA:HA	1:N:510:ALA:HB3	1.27	1.08
1:L:38:ILE:HG22	1:L:50:VAL:HB	1.35	1.07
1:K:188:VAL:HG13	1:K:377:LEU:HD21	1.30	1.07
1:E:266:VAL:HB	1:E:290:LEU:HD21	1.34	1.06
1:A:146:LEU:HD12	1:A:171:VAL:HG13	1.38	1.05
1:G:82:VAL:HG11	1:G:486:VAL:HG12	1.38	1.05
1:J:146:LEU:HD12	1:J:171:VAL:HG13	1.34	1.05
1:C:266:VAL:HB	1:C:290:LEU:HD21	1.34	1.04
1:B:146:LEU:HD23	1:B:147:MET:H	1.24	1.02
1:A:511:ALA:HB1	1:A:512:PRO:HD2	1.37	1.02
1:A:146:LEU:HD21	1:A:150:ALA:HB3	1.38	1.02
1:M:82:VAL:HG11	1:M:486:VAL:HA	1.37	1.02
1:D:146:LEU:HD21	1:D:150:ALA:HB3	1.42	1.02
1:C:108:ILE:HD12	1:C:418:LYS:HE3	1.42	1.02
1:I:61:ILE:HG21	1:N:511:ALA:HB1	1.36	1.02
1:D:146:LEU:HD12	1:D:171:VAL:HG13	1.42	1.01
1:K:150:ALA:HB2	1:K:384:LEU:HD11	1.41	1.01
1:J:129:LEU:HD22	1:J:129:LEU:H	1.25	1.01
1:P:266:VAL:HB	1:P:290:LEU:HD21	1.39	1.00
1:B:32:PRO:HD2	1:B:467:MET:SD	2.01	1.00
1:O:146:LEU:HD12	1:O:171:VAL:HG13	1.43	1.00
1:J:146:LEU:HD21	1:J:150:ALA:HB3	1.42	1.00
1:K:146:LEU:HD12	1:K:171:VAL:HG13	1.43	1.00
1:A:32:PRO:HG2	1:A:467:MET:SD	2.01	1.00
1:M:146:LEU:HD22	1:M:168:LYS:HA	1.44	1.00
1:B:114:ILE:HD11	1:B:502:LEU:HD22	1.43	1.00
1:L:39:LEU:HD22	1:M:508:ILE:HB	1.44	1.00
1:H:186:ILE:HG22	1:H:377:LEU:HD11	1.44	0.99
1:D:211:ILE:HD11	1:D:297:MET:HG3	1.43	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:173:ALA:HB2	1:E:360:ILE:HD11	1.45	0.98
1:E:140:VAL:HA	1:E:175:LEU:HD22	1.43	0.98
1:O:133:VAL:HG11	1:O:394:VAL:HA	1.45	0.98
1:C:453:ARG:HH22	1:L:421:VAL:HG22	1.22	0.98
1:B:504:VAL:HG11	1:B:507:ILE:HG23	1.43	0.98
1:K:266:VAL:HB	1:K:290:LEU:HD21	1.43	0.98
1:C:122:LYS:HE2	1:C:411:LEU:HD13	1.46	0.98
1:F:448:LEU:HD21	1:F:465:LEU:HD12	1.46	0.97
1:N:146:LEU:HD12	1:N:171:VAL:HG13	1.44	0.97
1:P:174:VAL:HG11	1:P:384:LEU:HB3	1.44	0.97
1:B:420:ALA:HB3	1:I:450:ALA:HB1	1.42	0.97
1:G:266:VAL:HB	1:G:290:LEU:HD21	1.47	0.97
1:N:103:LEU:HG	1:N:113:ILE:HD13	1.47	0.97
1:I:38:ILE:HG12	1:N:504:VAL:HG11	1.45	0.97
1:A:448:LEU:HD21	1:A:465:LEU:HD12	1.46	0.96
1:F:183:LEU:HD21	1:F:381:LEU:HD11	1.46	0.96
1:N:211:ILE:HD11	1:N:297:MET:HG3	1.47	0.96
1:C:173:ALA:HB2	1:C:360:ILE:HD11	1.47	0.95
1:N:146:LEU:HD21	1:N:150:ALA:HB3	1.46	0.95
1:B:27:LYS:HA	1:B:436:ILE:HD11	1.47	0.95
1:H:174:VAL:HG12	1:H:381:LEU:HG	1.48	0.95
1:E:38:ILE:HG22	1:E:50:VAL:HB	1.49	0.95
1:H:448:LEU:HD21	1:H:465:LEU:HD12	1.49	0.94
1:I:186:ILE:HD13	1:I:381:LEU:HG	1.49	0.94
1:I:133:VAL:HA	1:I:393:THR:O	1.67	0.94
1:D:171:VAL:HG12	1:D:384:LEU:HG	1.46	0.94
1:K:201:LEU:HD13	1:K:360:ILE:HG22	1.48	0.94
1:J:128:LEU:HD13	1:J:487:LYS:HB3	1.49	0.94
1:E:146:LEU:HD21	1:E:150:ALA:HB3	1.48	0.94
1:O:38:ILE:HD13	1:O:48:LEU:HD23	1.47	0.94
1:B:325:PRO:O	1:B:326:GLU:HG3	1.67	0.94
1:P:163:LYS:HA	1:P:166:PHE:CD1	2.03	0.93
1:H:154:LEU:HD21	1:H:163:LYS:HG3	1.51	0.93
1:P:140:VAL:HA	1:P:175:LEU:HD22	1.50	0.93
1:D:206:LEU:HD11	1:D:346:LEU:HD23	1.51	0.93
1:F:446:ALA:HB1	1:O:418:LYS:HD2	1.51	0.92
1:P:269:ILE:HG23	1:P:274:ILE:HG21	1.51	0.92
1:A:100:ALA:HA	1:A:103:LEU:HD13	1.51	0.92
1:B:146:LEU:HD12	1:B:171:VAL:HG13	1.50	0.92
1:G:211:ILE:HD11	1:G:297:MET:HG3	1.52	0.92
1:K:211:ILE:HD11	1:K:297:MET:HG3	1.51	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:38:ILE:HD13	1:N:48:LEU:HD23	1.50	0.92
1:N:109:HIS:CE1	1:N:111:GLN:HB2	2.04	0.92
1:M:128:LEU:HD11	1:M:491:LEU:HD12	1.49	0.92
1:H:450:ALA:CB	1:P:420:ALA:HB2	1.99	0.92
1:F:133:VAL:HA	1:F:393:THR:O	1.69	0.92
1:M:79:ASP:HA	1:M:83:GLY:CA	2.00	0.92
1:C:117:TRP:HE1	1:C:498:ALA:HB3	1.33	0.92
1:G:150:ALA:HB2	1:G:384:LEU:HD21	1.48	0.91
1:K:38:ILE:HG22	1:K:50:VAL:HB	1.50	0.91
1:O:269:ILE:HG23	1:O:274:ILE:CG2	2.01	0.91
1:B:146:LEU:HD21	1:B:167:THR:HG23	1.50	0.91
1:F:81:GLU:O	1:F:386:GLN:HG3	1.71	0.91
1:O:82:VAL:HG13	1:O:83:GLY:H	1.35	0.91
1:K:39:LEU:HD22	1:P:508:ILE:HD11	1.50	0.91
1:O:146:LEU:HD21	1:O:150:ALA:HB3	1.52	0.91
1:A:446:ALA:CB	1:M:421:VAL:HB	2.01	0.91
1:A:40:LEU:HD12	1:A:48:LEU:HG	1.53	0.90
1:C:161:HIS:CE1	1:C:369:ILE:HD13	2.06	0.90
1:J:111:GLN:HE21	1:J:114:ILE:HD11	1.33	0.90
1:L:146:LEU:HD21	1:L:167:THR:HG23	1.53	0.90
1:O:269:ILE:HG23	1:O:274:ILE:HG21	1.52	0.90
1:J:128:LEU:HD12	1:J:491:LEU:HD11	1.53	0.90
1:C:146:LEU:HD23	1:C:147:MET:H	1.35	0.90
1:A:28:SER:HB2	1:A:35:MET:SD	2.11	0.90
1:I:159:LEU:CB	1:I:369:ILE:HG23	2.01	0.89
1:H:364:GLY:HA3	1:H:370:LEU:HD21	1.55	0.89
1:G:146:LEU:HD21	1:G:150:ALA:HB3	1.55	0.89
1:H:174:VAL:HG11	1:H:384:LEU:HG	1.52	0.88
1:N:133:VAL:HG12	1:N:394:VAL:HG12	1.54	0.88
1:O:188:VAL:HG11	1:O:377:LEU:HD22	1.55	0.88
1:F:146:LEU:HD23	1:F:147:MET:H	1.37	0.88
1:I:448:LEU:HD21	1:I:465:LEU:HD12	1.53	0.88
1:A:158:LEU:HD22	1:C:503:ARG:HH22	1.38	0.88
1:O:140:VAL:HA	1:O:175:LEU:HD22	1.56	0.88
1:P:499:GLU:HG2	1:P:503:ARG:NH1	1.89	0.88
1:H:188:VAL:HB	1:H:377:LEU:HD13	1.56	0.88
1:O:448:LEU:HD21	1:O:465:LEU:HD12	1.56	0.88
1:F:174:VAL:HG11	1:F:384:LEU:HB2	1.56	0.88
1:M:128:LEU:HD22	1:M:487:LYS:HB3	1.54	0.88
1:N:126:GLN:HG2	1:N:411:LEU:HD11	1.56	0.88
1:F:211:ILE:HD11	1:F:297:MET:HG3	1.54	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:401:GLU:HG2	1:D:433:LEU:HD22	1.56	0.87
1:M:146:LEU:HD21	1:M:150:ALA:HB3	1.55	0.87
1:O:161:HIS:HE1	1:O:369:ILE:HD13	1.36	0.87
1:F:418:LYS:HD2	1:O:450:ALA:HB2	1.56	0.87
1:F:450:ALA:CB	1:O:417:GLY:HA2	2.05	0.87
1:L:158:LEU:HB3	1:M:503:ARG:NH2	1.89	0.87
1:J:201:LEU:HD23	1:J:360:ILE:HD13	1.53	0.87
1:K:146:LEU:HD23	1:K:147:MET:H	1.37	0.87
1:I:126:GLN:HG3	1:I:411:LEU:HD11	1.54	0.87
1:O:82:VAL:HG21	1:O:485:GLN:HB2	1.55	0.87
1:O:149:ILE:HD13	1:O:482:GLU:HA	1.57	0.87
1:D:40:LEU:HD23	1:E:507:ILE:HG21	1.58	0.86
1:A:56:THR:CG2	1:A:372:GLU:HG3	2.05	0.86
1:C:133:VAL:HG11	1:C:394:VAL:HA	1.57	0.86
1:G:108:ILE:HG22	1:G:109:HIS:H	1.40	0.86
1:I:475:MET:SD	1:I:480:ILE:HB	2.16	0.86
1:G:364:GLY:HA3	1:G:370:LEU:HD11	1.56	0.86
1:I:154:LEU:HD11	1:I:163:LYS:HG2	1.58	0.86
1:M:448:LEU:HD21	1:M:465:LEU:HD12	1.56	0.86
1:E:79:ASP:HA	1:E:83:GLY:CA	2.05	0.86
1:L:312:LEU:HA	1:P:213:VAL:HG11	1.58	0.86
1:H:313:VAL:HG22	1:H:357:ALA:HB1	1.56	0.85
1:L:283:ILE:HG22	1:L:300:GLU:HG3	1.57	0.85
1:N:266:VAL:HB	1:N:290:LEU:HD21	1.56	0.85
1:N:58:LEU:HB3	1:N:72:VAL:HG13	1.56	0.85
1:P:174:VAL:HG11	1:P:384:LEU:CB	2.05	0.85
1:B:401:GLU:HG2	1:B:433:LEU:HD22	1.55	0.85
1:F:269:ILE:HG23	1:F:274:ILE:HG22	1.58	0.85
1:D:140:VAL:HA	1:D:175:LEU:HD22	1.59	0.85
1:F:364:GLY:HA3	1:F:370:LEU:HD13	1.56	0.85
1:H:490:VAL:HG13	1:H:491:LEU:HD12	1.56	0.85
1:L:510:ALA:HB1	1:P:61:ILE:HD13	1.59	0.85
1:P:265:LYS:O	1:P:269:ILE:HB	1.74	0.85
1:P:32:PRO:HA	1:P:156:SER:HA	1.57	0.85
1:B:174:VAL:HG11	1:B:384:LEU:HB3	1.55	0.85
1:H:178:LYS:HD3	1:H:388:VAL:HG11	1.58	0.85
1:K:448:LEU:HD21	1:K:465:LEU:HD12	1.58	0.85
1:K:31:GLY:O	1:K:156:SER:HA	1.74	0.85
1:N:146:LEU:HD23	1:N:147:MET:H	1.41	0.85
1:A:420:ALA:HB3	1:M:450:ALA:HB1	1.57	0.85
1:A:421:VAL:HG21	1:M:446:ALA:HB1	1.56	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:146:LEU:HD22	1:F:168:LYS:HA	1.59	0.84
1:L:82:VAL:HA	1:L:386:GLN:HG3	1.59	0.84
1:F:109:HIS:CE1	1:F:111:GLN:HB2	2.12	0.84
1:J:109:HIS:CE1	1:N:35:MET:HE1	2.12	0.84
1:E:283:ILE:HG22	1:E:300:GLU:HG3	1.59	0.84
1:I:128:LEU:O	1:I:129:LEU:HD22	1.77	0.84
1:G:163:LYS:HG3	1:G:166:PHE:CD2	2.11	0.84
1:B:504:VAL:HG13	1:G:369:ILE:HD12	1.60	0.84
1:B:33:LYS:HB2	1:B:440:ASN:O	1.77	0.84
1:G:283:ILE:HG22	1:G:300:GLU:HG3	1.60	0.84
1:I:38:ILE:HG22	1:I:50:VAL:HB	1.59	0.84
1:N:513:ARG:CZ	1:N:513:ARG:HA	2.08	0.84
1:J:79:ASP:HA	1:J:83:GLY:CA	2.08	0.84
1:M:114:ILE:HD11	1:M:502:LEU:HD22	1.59	0.84
1:O:504:VAL:HG12	1:O:505:ASP:H	1.43	0.84
1:F:79:ASP:HA	1:F:83:GLY:CA	2.08	0.83
1:P:166:PHE:CZ	1:P:198:ASP:HB3	2.13	0.83
1:E:269:ILE:HG23	1:E:274:ILE:CG2	2.06	0.83
1:H:109:HIS:CE1	1:H:111:GLN:HB2	2.13	0.83
1:H:187:HIS:HA	1:H:377:LEU:HD21	1.60	0.83
1:J:211:ILE:HD11	1:J:297:MET:HG3	1.60	0.83
1:L:394:VAL:HG23	1:L:482:GLU:HB2	1.60	0.83
1:G:107:LYS:O	1:G:108:ILE:HG13	1.78	0.83
1:K:109:HIS:CE1	1:K:111:GLN:HB2	2.13	0.83
1:E:146:LEU:HD12	1:E:171:VAL:HG13	1.60	0.83
1:J:188:VAL:HG12	1:J:377:LEU:HD22	1.60	0.83
1:P:154:LEU:HD23	1:P:163:LYS:HG3	1.60	0.83
1:C:416:PRO:HA	1:L:450:ALA:HB2	1.60	0.83
1:F:163:LYS:HA	1:F:166:PHE:CD1	2.13	0.83
1:P:211:ILE:HD11	1:P:297:MET:HG3	1.60	0.83
1:P:198:ASP:HA	1:P:364:GLY:CA	2.09	0.83
1:I:173:ALA:HA	1:I:176:ARG:NH1	1.92	0.83
1:A:511:ALA:HB2	1:F:63:VAL:HA	1.60	0.83
1:E:448:LEU:HD21	1:E:465:LEU:HD12	1.58	0.83
1:J:109:HIS:HE1	1:N:35:MET:HE1	1.44	0.83
1:J:448:LEU:HD21	1:J:465:LEU:HD12	1.60	0.83
1:D:194:GLY:HA2	1:D:364:GLY:O	1.79	0.83
1:G:159:LEU:HD13	1:G:159:LEU:H	1.44	0.83
1:H:269:ILE:HG23	1:H:274:ILE:HG21	1.60	0.83
1:L:204:GLY:O	1:L:359:THR:HB	1.79	0.83
1:M:92:LEU:HD21	1:M:433:LEU:HD11	1.58	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:362:LEU:HD11	1:A:377:LEU:HD22	1.59	0.82
1:G:108:ILE:HG22	1:G:109:HIS:N	1.94	0.82
1:F:265:LYS:HE2	1:F:322:PHE:CE1	2.14	0.82
1:B:442:GLY:HA3	1:F:112:THR:OG1	1.79	0.82
1:F:38:ILE:HG22	1:F:50:VAL:HB	1.60	0.82
1:H:146:LEU:HD12	1:H:171:VAL:CG1	2.05	0.82
1:K:123:ALA:HA	1:K:126:GLN:OE1	1.78	0.82
1:C:117:TRP:NE1	1:C:498:ALA:HB3	1.94	0.82
1:N:448:LEU:HD21	1:N:465:LEU:HD12	1.61	0.82
1:H:283:ILE:HG22	1:H:300:GLU:HG3	1.60	0.82
1:M:140:VAL:HA	1:M:175:LEU:HD22	1.61	0.82
1:C:133:VAL:HG23	1:C:134:ASP:H	1.44	0.82
1:C:126:GLN:HE22	1:C:411:LEU:HD12	1.45	0.81
1:L:70:VAL:HG21	1:P:48:LEU:HD11	1.62	0.81
1:P:146:LEU:HD12	1:P:171:VAL:CG1	2.09	0.81
1:H:438:ALA:HB2	1:H:448:LEU:HG	1.63	0.81
1:M:339:VAL:O	1:M:340:MET:HG3	1.80	0.81
1:N:110:PRO:HA	1:N:113:ILE:HD12	1.61	0.81
1:B:39:LEU:O	1:B:48:LEU:HA	1.81	0.81
1:O:161:HIS:CE1	1:O:369:ILE:HD13	2.15	0.81
1:I:226:ILE:HD12	1:I:317:GLU:HG3	1.62	0.81
1:I:510:ALA:H	1:O:38:ILE:HD11	1.43	0.81
1:K:136:GLY:HA2	1:K:391:SER:O	1.80	0.81
1:P:122:LYS:O	1:P:125:ARG:HG2	1.80	0.81
1:H:51:THR:HG21	1:H:56:THR:HB	1.60	0.81
1:L:146:LEU:HD22	1:L:168:LYS:HA	1.61	0.81
1:O:211:ILE:HD11	1:O:297:MET:HG3	1.62	0.81
1:B:368:GLN:HB3	1:F:496:GLU:HB2	1.62	0.81
1:E:11:ALA:CB	1:E:506:ASN:HB3	2.08	0.81
1:G:324:HIS:O	1:G:329:LYS:HG2	1.80	0.81
1:N:174:VAL:HG21	1:N:384:LEU:CB	2.11	0.81
1:E:166:PHE:CZ	1:E:198:ASP:HB3	2.16	0.81
1:H:324:HIS:O	1:H:329:LYS:HG2	1.81	0.80
1:M:100:ALA:HA	1:M:103:LEU:HD13	1.62	0.80
1:G:146:LEU:HD12	1:G:171:VAL:CG1	2.10	0.80
1:H:32:PRO:HA	1:H:155:SER:O	1.80	0.80
1:H:89:VAL:HG12	1:H:490:VAL:HG23	1.61	0.80
1:L:133:VAL:HG23	1:L:393:THR:O	1.80	0.80
1:O:183:LEU:HD13	1:O:183:LEU:O	1.81	0.80
1:E:109:HIS:CE1	1:E:111:GLN:HB2	2.16	0.80
1:E:206:LEU:HD11	1:E:346:LEU:HD22	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:192:LEU:HD13	1:F:192:LEU:H	1.46	0.80
1:G:154:LEU:HD21	1:G:163:LYS:NZ	1.96	0.80
1:O:266:VAL:HB	1:O:290:LEU:HD21	1.60	0.80
1:P:149:ILE:HB	1:P:481:THR:O	1.81	0.80
1:P:226:ILE:HD13	1:P:307:VAL:HG13	1.63	0.80
1:K:71:LEU:HD12	1:K:501:ILE:HG13	1.63	0.80
1:M:124:ALA:HB1	1:M:491:LEU:HD13	1.62	0.80
1:M:174:VAL:HG11	1:M:384:LEU:HB3	1.63	0.80
1:O:100:ALA:HA	1:O:103:LEU:HD12	1.64	0.80
1:O:317:GLU:HB2	1:O:329:LYS:HG2	1.64	0.80
1:A:29:THR:O	1:A:156:SER:HB2	1.82	0.80
1:G:148:ASN:HA	1:G:479:GLY:O	1.81	0.80
1:L:352:VAL:HG22	1:L:355:GLY:H	1.47	0.80
1:N:140:VAL:HA	1:N:175:LEU:HD22	1.63	0.80
1:F:159:LEU:HB3	1:F:369:ILE:HG23	1.64	0.80
1:J:160:THR:HG23	1:J:164:ASP:HB3	1.64	0.79
1:J:269:ILE:HG23	1:J:274:ILE:HG21	1.62	0.79
1:C:146:LEU:HD21	1:C:150:ALA:HB3	1.63	0.79
1:H:211:ILE:CD1	1:H:211:ILE:H	1.93	0.79
1:C:89:VAL:HA	1:C:490:VAL:HG23	1.61	0.79
1:D:280:ARG:HG3	1:D:280:ARG:O	1.82	0.79
1:E:100:ALA:HA	1:E:103:LEU:HD22	1.65	0.79
1:G:40:LEU:HD22	1:G:48:LEU:HB3	1.63	0.79
1:B:146:LEU:HD23	1:B:147:MET:N	1.96	0.79
1:G:174:VAL:HA	1:G:177:LEU:HD23	1.65	0.79
1:K:283:ILE:HG22	1:K:300:GLU:HG3	1.64	0.79
1:N:138:ASP:O	1:N:139:GLU:HB3	1.81	0.79
1:B:402:MET:SD	1:B:456:HIS:HB2	2.22	0.79
1:D:183:LEU:HD12	1:D:186:ILE:HD12	1.64	0.79
1:J:166:PHE:CZ	1:J:198:ASP:HB3	2.18	0.79
1:O:111:GLN:HA	1:O:114:ILE:HD12	1.64	0.79
1:B:176:ARG:HH12	1:B:201:LEU:HD21	1.48	0.79
1:D:402:MET:SD	1:D:453:ARG:HA	2.23	0.79
1:H:177:LEU:HA	1:H:356:GLU:O	1.83	0.79
1:I:367:GLN:CG	1:I:369:ILE:HB	2.13	0.79
1:K:265:LYS:O	1:K:269:ILE:HB	1.82	0.79
1:E:163:LYS:HA	1:E:166:PHE:CD1	2.18	0.79
1:N:174:VAL:HG21	1:N:384:LEU:HB2	1.65	0.79
1:E:27:LYS:HB2	1:E:436:ILE:HD11	1.63	0.79
1:F:79:ASP:HA	1:F:83:GLY:HA3	1.64	0.79
1:K:325:PRO:O	1:K:326:GLU:HG3	1.83	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:206:LEU:HD21	1:C:346:LEU:HB3	1.65	0.79
1:F:269:ILE:HG23	1:F:274:ILE:CG2	2.13	0.79
1:B:39:LEU:HD22	1:F:510:ALA:HB2	1.65	0.79
1:O:149:ILE:HB	1:O:481:THR:O	1.82	0.79
1:A:111:GLN:HA	1:A:114:ILE:HD12	1.64	0.78
1:P:146:LEU:HD21	1:P:150:ALA:HB3	1.64	0.78
1:P:219:ILE:HD11	1:P:336:ILE:HB	1.65	0.78
1:A:163:LYS:HG3	1:A:166:PHE:CZ	2.19	0.78
1:B:511:ALA:HB3	1:B:512:PRO:HD3	1.65	0.78
1:C:131:SER:HB2	1:C:461:THR:HG22	1.66	0.78
1:C:483:SER:HB2	1:C:486:VAL:HG13	1.66	0.78
1:F:127:ALA:HB2	1:F:404:MET:SD	2.23	0.78
1:C:61:ILE:HG23	1:C:63:VAL:HG23	1.63	0.78
1:E:174:VAL:HG12	1:E:381:LEU:HD22	1.64	0.78
1:F:362:LEU:HD11	1:F:377:LEU:HD23	1.65	0.78
1:L:188:VAL:HG11	1:L:377:LEU:HD21	1.64	0.78
1:M:475:MET:SD	1:M:480:ILE:HB	2.22	0.78
1:P:79:ASP:HA	1:P:83:GLY:CA	2.13	0.78
1:D:399:CYS:SG	1:D:464:GLY:HA3	2.24	0.78
1:I:148:ASN:HB3	1:I:479:GLY:O	1.83	0.78
1:K:146:LEU:HD21	1:K:167:THR:HG23	1.63	0.78
1:O:66:PRO:HB3	1:O:508:ILE:O	1.83	0.78
1:G:313:VAL:HG22	1:G:357:ALA:HB3	1.65	0.78
1:I:283:ILE:HG22	1:I:300:GLU:HG3	1.64	0.78
1:B:38:ILE:O	1:F:507:ILE:HG21	1.84	0.78
1:L:166:PHE:CZ	1:L:198:ASP:HB3	2.18	0.78
1:M:173:ALA:HB2	1:M:360:ILE:HD11	1.64	0.78
1:L:504:VAL:HG22	1:P:36:ASP:O	1.83	0.78
1:A:84:ASP:CG	1:A:379:ASP:HB3	2.04	0.78
1:C:497:ALA:O	1:C:500:VAL:HG22	1.83	0.78
1:E:402:MET:SD	1:E:456:HIS:HB2	2.23	0.78
1:H:313:VAL:HG12	1:H:352:VAL:HG21	1.64	0.78
1:H:450:ALA:HB1	1:P:415:THR:O	1.84	0.78
1:M:32:PRO:HA	1:M:155:SER:O	1.82	0.78
1:O:133:VAL:CG1	1:O:394:VAL:HA	2.13	0.78
1:A:31:GLY:O	1:A:156:SER:HA	1.83	0.78
1:J:214:ASN:O	1:J:215:GLN:HB2	1.84	0.78
1:M:116:GLY:CA	1:M:422:ALA:HB1	2.13	0.78
1:M:163:LYS:HA	1:M:166:PHE:CD1	2.19	0.78
1:K:89:VAL:HG12	1:K:490:VAL:HG23	1.63	0.78
1:L:100:ALA:HA	1:L:103:LEU:HD22	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:146:LEU:CD2	1:L:167:THR:HG23	2.14	0.77
1:L:38:ILE:HG12	1:M:504:VAL:HG11	1.63	0.77
1:G:30:LEU:HD22	1:G:436:ILE:HD13	1.65	0.77
1:J:38:ILE:HB	1:J:48:LEU:HD11	1.65	0.77
1:C:146:LEU:HD12	1:C:171:VAL:CG1	2.11	0.77
1:F:146:LEU:HD21	1:F:167:THR:HG23	1.65	0.77
1:H:148:ASN:HB3	1:H:481:THR:HG22	1.67	0.77
1:I:211:ILE:HD11	1:I:297:MET:HG3	1.67	0.77
1:M:116:GLY:HA2	1:M:422:ALA:CB	2.14	0.77
1:N:402:MET:SD	1:N:456:HIS:HB2	2.24	0.77
1:O:116:GLY:O	1:O:119:GLU:HB2	1.84	0.77
1:C:453:ARG:NH2	1:L:421:VAL:HG22	1.99	0.77
1:B:146:LEU:CD2	1:B:147:MET:H	1.97	0.77
1:C:354:LEU:HD23	1:C:356:GLU:H	1.49	0.77
1:C:130:ASN:ND2	1:C:404:MET:HA	2.00	0.77
1:D:38:ILE:HG23	1:D:50:VAL:HB	1.66	0.77
1:J:442:GLY:HA2	1:K:109:HIS:CG	2.19	0.77
1:K:163:LYS:HA	1:K:166:PHE:CD1	2.20	0.77
1:O:399:CYS:SG	1:O:464:GLY:HA3	2.24	0.77
1:H:120:ALA:HA	1:H:123:ALA:HB3	1.65	0.77
1:I:200:TYR:CD1	1:I:363:ARG:HD2	2.19	0.77
1:A:154:LEU:HD21	1:A:163:LYS:NZ	2.00	0.77
1:D:508:ILE:HD12	1:H:63:VAL:HG22	1.67	0.77
1:G:448:LEU:HD21	1:G:465:LEU:HD12	1.66	0.77
1:M:146:LEU:HD12	1:M:171:VAL:HG13	1.65	0.77
1:B:438:ALA:HB2	1:B:448:LEU:HG	1.68	0.76
1:K:149:ILE:HD12	1:K:483:SER:H	1.49	0.76
1:L:324:HIS:HB2	1:L:329:LYS:NZ	2.01	0.76
1:L:178:LYS:NZ	1:L:388:VAL:HG13	2.00	0.76
1:P:448:LEU:HD11	1:P:465:LEU:HD11	1.67	0.76
1:D:269:ILE:HG23	1:D:274:ILE:CG2	2.16	0.76
1:G:265:LYS:O	1:G:269:ILE:HB	1.86	0.76
1:J:154:LEU:HD22	1:J:167:THR:HB	1.66	0.76
1:K:166:PHE:CD2	1:K:362:LEU:HD22	2.20	0.76
1:M:31:GLY:O	1:M:156:SER:HA	1.86	0.76
1:D:36:ASP:O	1:E:504:VAL:HG22	1.85	0.76
1:K:190:LYS:HA	1:K:362:LEU:O	1.85	0.76
1:D:59:LYS:HE2	1:D:76:ARG:HB2	1.68	0.76
1:J:110:PRO:HA	1:J:113:ILE:HD12	1.68	0.76
1:L:219:ILE:HD11	1:L:336:ILE:HB	1.68	0.76
1:D:121:THR:O	1:D:125:ARG:HB2	1.86	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:145:ASP:OD1	1:D:171:VAL:HB	1.86	0.76
1:G:32:PRO:HB2	1:G:467:MET:SD	2.25	0.76
1:J:399:CYS:SG	1:J:464:GLY:HA3	2.25	0.76
1:J:79:ASP:HA	1:J:83:GLY:HA3	1.68	0.76
1:L:159:LEU:HD23	1:L:163:LYS:HB3	1.67	0.76
1:B:140:VAL:HA	1:B:175:LEU:HD22	1.68	0.76
1:C:364:GLY:HA3	1:C:370:LEU:HD13	1.68	0.76
1:I:438:ALA:HB2	1:I:448:LEU:HG	1.66	0.76
1:A:79:ASP:HA	1:A:83:GLY:CA	2.16	0.76
1:B:176:ARG:NE	1:B:358:CYS:HB2	2.01	0.76
1:C:131:SER:CB	1:C:461:THR:HG22	2.16	0.76
1:P:214:ASN:O	1:P:215:GLN:HB2	1.85	0.76
1:B:214:ASN:O	1:B:215:GLN:HB2	1.85	0.75
1:K:146:LEU:HD21	1:K:150:ALA:HB3	1.68	0.75
1:G:95:GLU:OE1	1:G:429:ALA:HA	1.85	0.75
1:I:109:HIS:CE1	1:I:111:GLN:HB2	2.21	0.75
1:I:39:LEU:HD13	1:N:512:PRO:HA	1.69	0.75
1:A:402:MET:SD	1:A:456:HIS:HB2	2.27	0.75
1:E:79:ASP:HA	1:E:83:GLY:HA3	1.66	0.75
1:M:124:ALA:HB1	1:M:491:LEU:HB3	1.69	0.75
1:D:35:MET:SD	1:E:111:GLN:HB3	2.27	0.75
1:G:36:ASP:HB3	1:G:372:GLU:OE1	1.86	0.75
1:G:79:ASP:HA	1:G:83:GLY:HA3	1.67	0.75
1:I:364:GLY:HA3	1:I:370:LEU:CD1	2.16	0.75
1:N:214:ASN:O	1:N:215:GLN:HB2	1.86	0.75
1:P:146:LEU:HD23	1:P:147:MET:N	2.01	0.75
1:C:166:PHE:CZ	1:C:198:ASP:HB3	2.21	0.75
1:E:433:LEU:O	1:E:436:ILE:HG22	1.86	0.75
1:J:109:HIS:CD2	1:N:440:ASN:HA	2.21	0.75
1:L:484:PHE:CE2	1:L:488:ARG:HD3	2.21	0.75
1:L:346:LEU:HD22	1:L:346:LEU:H	1.51	0.75
1:I:92:LEU:HD21	1:I:433:LEU:HD21	1.69	0.75
1:J:114:ILE:HA	1:J:117:TRP:CE3	2.22	0.75
1:M:148:ASN:HB3	1:M:481:THR:HG22	1.66	0.75
1:B:211:ILE:HD11	1:B:297:MET:HG3	1.69	0.75
1:C:154:LEU:HD22	1:C:167:THR:HB	1.68	0.75
1:I:163:LYS:HA	1:I:166:PHE:CD1	2.22	0.75
1:I:325:PRO:O	1:I:326:GLU:HG2	1.86	0.75
1:I:40:LEU:HB2	1:I:48:LEU:HD23	1.67	0.75
1:J:438:ALA:HB2	1:J:448:LEU:HG	1.69	0.75
1:O:59:LYS:HE3	1:O:72:VAL:O	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:418:LYS:HD3	1:O:442:GLY:O	1.87	0.75
1:P:149:ILE:HD13	1:P:482:GLU:HA	1.69	0.75
1:A:399:CYS:SG	1:A:464:GLY:HA3	2.27	0.74
1:I:32:PRO:HA	1:I:155:SER:O	1.87	0.74
1:P:32:PRO:HD2	1:P:467:MET:SD	2.27	0.74
1:C:37:LYS:HD2	1:H:506:ASN:HB3	1.69	0.74
1:P:32:PRO:CA	1:P:156:SER:HA	2.16	0.74
1:K:500:VAL:O	1:K:503:ARG:HG2	1.87	0.74
1:E:324:HIS:O	1:E:329:LYS:HG2	1.87	0.74
1:G:127:ALA:HB2	1:G:404:MET:SD	2.28	0.74
1:J:159:LEU:HD23	1:J:163:LYS:HG2	1.66	0.74
1:P:187:HIS:O	1:P:359:THR:HG23	1.88	0.74
1:A:159:LEU:HD13	1:A:159:LEU:H	1.53	0.74
1:F:145:ASP:O	1:F:171:VAL:HG11	1.88	0.74
1:A:52:ASN:CG	1:A:157:LYS:HG2	2.07	0.74
1:I:38:ILE:HD12	1:I:48:LEU:HD13	1.70	0.74
1:K:140:VAL:HA	1:K:175:LEU:HD22	1.69	0.74
1:E:159:LEU:HD23	1:E:163:LYS:HG2	1.70	0.74
1:J:106:LYS:HD3	1:J:108:ILE:HD12	1.68	0.74
1:L:28:SER:O	1:L:34:GLY:HA2	1.87	0.74
1:F:450:ALA:HB2	1:O:417:GLY:HA2	1.68	0.74
1:J:309:ARG:HG3	1:J:309:ARG:HH11	1.52	0.74
1:O:128:LEU:HD22	1:O:484:PHE:CZ	2.21	0.74
1:P:146:LEU:HD23	1:P:147:MET:H	1.53	0.74
1:D:324:HIS:HB2	1:D:329:LYS:NZ	2.03	0.74
1:C:39:LEU:HD21	1:H:508:ILE:HD12	1.68	0.74
1:J:140:VAL:HA	1:J:175:LEU:HD22	1.70	0.74
1:N:188:VAL:HG21	1:N:377:LEU:HD21	1.69	0.74
1:A:511:ALA:CB	1:A:512:PRO:HD2	2.16	0.73
1:E:383:VAL:HG23	1:E:384:LEU:HD22	1.68	0.73
1:I:74:MET:SD	1:I:493:SER:HB2	2.28	0.73
1:C:413:SER:HA	1:L:453:ARG:NH1	2.03	0.73
1:H:269:ILE:HG23	1:H:274:ILE:CG2	2.18	0.73
1:J:188:VAL:CG1	1:J:377:LEU:HD22	2.17	0.73
1:J:433:LEU:O	1:J:436:ILE:HG22	1.87	0.73
1:L:500:VAL:O	1:L:504:VAL:HG23	1.89	0.73
1:I:33:LYS:HB3	1:N:109:HIS:CE1	2.22	0.73
1:C:146:LEU:CD2	1:C:147:MET:H	1.99	0.73
1:F:140:VAL:HA	1:F:175:LEU:HD22	1.70	0.73
1:O:19:ALA:HB1	1:O:94:ALA:HA	1.69	0.73
1:P:501:ILE:HA	1:P:504:VAL:HG12	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:188:VAL:CG1	1:E:377:LEU:HD22	2.17	0.73
1:F:128:LEU:HD21	1:F:488:ARG:HG2	1.69	0.73
1:F:399:CYS:SG	1:F:464:GLY:HA3	2.28	0.73
1:H:128:LEU:O	1:H:129:LEU:HG	1.89	0.73
1:B:32:PRO:HA	1:B:156:SER:HA	1.69	0.73
1:K:402:MET:SD	1:K:456:HIS:HB2	2.29	0.73
1:P:188:VAL:CG2	1:P:377:LEU:HD21	2.19	0.73
1:H:175:LEU:HD23	1:H:178:LYS:HE2	1.70	0.73
1:H:394:VAL:HG23	1:H:482:GLU:HB2	1.69	0.73
1:J:204:GLY:HA3	1:J:349:PHE:O	1.88	0.73
1:K:40:LEU:O	1:P:508:ILE:HB	1.87	0.73
1:C:161:HIS:HE1	1:C:369:ILE:HD13	1.51	0.73
1:F:100:ALA:HA	1:F:103:LEU:HD13	1.68	0.73
1:J:266:VAL:HB	1:J:290:LEU:HD21	1.70	0.73
1:D:125:ARG:HG3	1:D:125:ARG:HH11	1.53	0.73
1:D:82:VAL:HG22	1:D:386:GLN:HG3	1.70	0.73
1:F:214:ASN:O	1:F:215:GLN:HB2	1.88	0.73
1:G:438:ALA:HB2	1:G:448:LEU:HG	1.70	0.73
1:K:176:ARG:HH22	1:K:360:ILE:HG23	1.53	0.73
1:A:127:ALA:HB1	1:A:491:LEU:HD13	1.70	0.73
1:A:438:ALA:HB2	1:A:448:LEU:HG	1.71	0.73
1:D:448:LEU:HD11	1:D:465:LEU:HD11	1.71	0.73
1:L:146:LEU:HD23	1:L:147:MET:H	1.51	0.73
1:A:420:ALA:CB	1:M:450:ALA:HB1	2.19	0.72
1:F:106:LYS:HE2	1:F:421:VAL:HG21	1.69	0.72
1:J:185:ALA:HA	1:J:309:ARG:HD2	1.71	0.72
1:J:126:GLN:HE22	1:J:411:LEU:HD21	1.54	0.72
1:A:451:GLN:NE2	1:A:471:THR:HA	2.04	0.72
1:H:185:ALA:HB1	1:H:357:ALA:HB1	1.71	0.72
1:L:6:GLU:HB2	1:L:506:ASN:ND2	2.04	0.72
1:D:175:LEU:O	1:D:178:LYS:HG2	1.89	0.72
1:E:132:ALA:O	1:E:133:VAL:HG22	1.89	0.72
1:I:178:LYS:HD3	1:I:388:VAL:HG21	1.71	0.72
1:I:186:ILE:HD13	1:I:381:LEU:CG	2.19	0.72
1:L:397:GLY:O	1:L:465:LEU:HD23	1.88	0.72
1:N:116:GLY:O	1:N:119:GLU:HB2	1.89	0.72
1:B:503:ARG:HD2	1:G:367:GLN:OE1	1.89	0.72
1:H:451:GLN:NE2	1:H:471:THR:HA	2.04	0.72
1:J:366:THR:HB	1:K:77:VAL:HG11	1.72	0.72
1:N:58:LEU:HB3	1:N:72:VAL:CG1	2.20	0.72
1:E:324:HIS:HB2	1:E:329:LYS:NZ	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:499:GLU:O	1:E:503:ARG:HG3	1.89	0.72
1:F:166:PHE:CZ	1:F:198:ASP:HB3	2.25	0.72
1:F:84:ASP:OD2	1:F:379:ASP:HB3	1.90	0.72
1:J:283:ILE:HG22	1:J:300:GLU:HG3	1.71	0.72
1:L:38:ILE:HG22	1:L:50:VAL:CB	2.18	0.72
1:B:117:TRP:HE1	1:B:498:ALA:HB3	1.53	0.72
1:B:435:THR:HG23	1:B:445:SER:HB2	1.72	0.72
1:B:293:ALA:HB2	1:F:318:ILE:HG13	1.71	0.72
1:J:325:PRO:O	1:J:326:GLU:HG3	1.88	0.72
1:K:214:ASN:O	1:K:215:GLN:HB2	1.87	0.72
1:D:450:ALA:HB3	1:K:417:GLY:CA	2.20	0.72
1:L:79:ASP:HA	1:L:83:GLY:HA2	1.69	0.72
1:P:32:PRO:HA	1:P:156:SER:CA	2.19	0.72
1:B:148:ASN:HA	1:B:479:GLY:O	1.89	0.72
1:B:269:ILE:HG23	1:B:274:ILE:CG2	2.20	0.72
1:C:214:ASN:O	1:C:215:GLN:HB2	1.89	0.72
1:C:265:LYS:O	1:C:269:ILE:HB	1.89	0.72
1:F:450:ALA:CA	1:O:417:GLY:HA2	2.20	0.72
1:N:1:ALA:CA	1:N:510:ALA:HB3	2.14	0.72
1:C:138:ASP:O	1:C:139:GLU:HB2	1.89	0.72
1:I:148:ASN:HA	1:I:480:ILE:HA	1.71	0.72
1:J:146:LEU:HD12	1:J:171:VAL:CG1	2.17	0.72
1:L:157:LYS:HB3	1:L:159:LEU:HD13	1.70	0.72
1:L:82:VAL:HA	1:L:386:GLN:CG	2.18	0.72
1:M:79:ASP:HA	1:M:83:GLY:HA3	1.71	0.72
1:A:79:ASP:HA	1:A:83:GLY:HA2	1.71	0.72
1:D:323:ASP:OD2	1:H:254:ILE:HD12	1.89	0.72
1:L:216:PRO:HG2	1:L:295:GLY:HA2	1.72	0.72
1:M:31:GLY:HA3	1:M:440:ASN:ND2	2.05	0.72
1:P:176:ARG:NE	1:P:358:CYS:HB2	2.04	0.72
1:P:112:THR:HG22	1:P:418:LYS:HG3	1.71	0.72
1:O:214:ASN:O	1:O:215:GLN:HB2	1.90	0.72
1:O:82:VAL:N	1:O:386:GLN:HG3	2.05	0.72
1:O:74:MET:SD	1:O:493:SER:HB2	2.30	0.72
1:P:145:ASP:OD1	1:P:171:VAL:HB	1.90	0.72
1:I:205:PHE:O	1:I:348:HIS:HA	1.90	0.71
1:J:146:LEU:CD2	1:J:147:MET:H	2.02	0.71
1:M:146:LEU:HD23	1:M:147:MET:H	1.55	0.71
1:N:163:LYS:HA	1:N:166:PHE:CD1	2.25	0.71
1:N:133:VAL:HB	1:N:393:THR:O	1.90	0.71
1:B:504:VAL:HG13	1:G:369:ILE:CD1	2.20	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:135:HIS:O	1:E:392:ARG:HA	1.89	0.71
1:G:32:PRO:HA	1:G:155:SER:C	2.11	0.71
1:H:265:LYS:HZ2	1:H:287:PRO:HG3	1.56	0.71
1:H:324:HIS:O	1:H:328:VAL:HG23	1.90	0.71
1:K:51:THR:HG21	1:K:56:THR:HB	1.71	0.71
1:M:128:LEU:HD21	1:M:491:LEU:CD1	2.20	0.71
1:N:163:LYS:CE	1:N:373:ALA:HA	2.20	0.71
1:B:364:GLY:HA3	1:B:370:LEU:HD13	1.72	0.71
1:C:82:VAL:HG11	1:C:485:GLN:HG2	1.70	0.71
1:I:188:VAL:HG13	1:I:374:GLU:HA	1.72	0.71
1:K:32:PRO:HG2	1:K:467:MET:HE1	1.71	0.71
1:P:33:LYS:HB2	1:P:440:ASN:O	1.89	0.71
1:P:176:ARG:CZ	1:P:358:CYS:HB2	2.21	0.71
1:P:369:ILE:O	1:P:372:GLU:HB3	1.90	0.71
1:B:37:LYS:O	1:B:50:VAL:HA	1.89	0.71
1:C:89:VAL:HA	1:C:490:VAL:CG2	2.19	0.71
1:D:139:GLU:O	1:D:140:VAL:HB	1.90	0.71
1:D:283:ILE:HG22	1:D:300:GLU:HG3	1.72	0.71
1:G:325:PRO:O	1:G:326:GLU:HG3	1.89	0.71
1:H:508:ILE:HG22	1:H:509:LYS:HG2	1.69	0.71
1:K:149:ILE:HA	1:K:481:THR:O	1.89	0.71
1:N:283:ILE:HG22	1:N:300:GLU:HG3	1.73	0.71
1:O:128:LEU:HD21	1:O:488:ARG:HB3	1.72	0.71
1:E:214:ASN:O	1:E:215:GLN:HB2	1.90	0.71
1:G:82:VAL:HG12	1:G:84:ASP:H	1.55	0.71
1:H:214:ASN:O	1:H:215:GLN:HB2	1.89	0.71
1:J:208:ASP:O	1:J:209:LYS:HG3	1.91	0.71
1:N:399:CYS:SG	1:N:464:GLY:HA3	2.30	0.71
1:H:146:LEU:HB2	1:H:171:VAL:CG2	2.19	0.71
1:H:313:VAL:HG22	1:H:357:ALA:CB	2.21	0.71
1:I:324:HIS:HB2	1:I:329:LYS:NZ	2.06	0.71
1:J:129:LEU:HD22	1:J:129:LEU:N	2.04	0.71
1:K:324:HIS:ND1	1:K:325:PRO:HD3	2.06	0.71
1:I:109:HIS:HB2	1:O:439:ASP:O	1.89	0.71
1:P:58:LEU:HB3	1:P:72:VAL:HG11	1.71	0.71
1:P:79:ASP:HA	1:P:83:GLY:HA3	1.71	0.71
1:C:483:SER:O	1:C:486:VAL:HG22	1.90	0.71
1:C:51:THR:HG21	1:C:56:THR:HB	1.72	0.71
1:F:154:LEU:HD11	1:F:163:LYS:HG2	1.71	0.71
1:G:352:VAL:HG22	1:G:355:GLY:H	1.56	0.71
1:H:334:LYS:CD	1:H:351:GLY:HA3	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:188:VAL:HG21	1:I:362:LEU:HD12	1.72	0.71
1:K:399:CYS:SG	1:K:464:GLY:HA3	2.30	0.71
1:O:168:LYS:O	1:O:171:VAL:HG22	1.90	0.71
1:F:402:MET:SD	1:F:456:HIS:HB2	2.31	0.71
1:H:171:VAL:O	1:H:174:VAL:HG22	1.91	0.71
1:K:324:HIS:O	1:K:329:LYS:HG2	1.90	0.71
1:O:163:LYS:HA	1:O:166:PHE:CD1	2.25	0.71
1:F:508:ILE:HD12	1:F:508:ILE:N	2.05	0.71
1:G:31:GLY:O	1:G:156:SER:HA	1.90	0.71
1:G:27:LYS:O	1:G:436:ILE:HD11	1.90	0.71
1:J:372:GLU:HG3	1:J:375:ARG:NH1	2.05	0.71
1:M:52:ASN:H	1:M:375:ARG:NH2	1.89	0.71
1:O:438:ALA:HB2	1:O:448:LEU:HG	1.71	0.71
1:E:32:PRO:HA	1:E:155:SER:CB	2.21	0.71
1:F:146:LEU:HD21	1:F:150:ALA:HB3	1.72	0.71
1:G:203:GLU:HG2	1:G:350:SER:HB2	1.71	0.71
1:I:438:ALA:CB	1:I:448:LEU:HG	2.21	0.71
1:K:313:VAL:HG22	1:K:357:ALA:HB3	1.72	0.71
1:L:140:VAL:HA	1:L:175:LEU:HD22	1.71	0.71
1:O:32:PRO:HA	1:O:156:SER:O	1.90	0.71
1:B:475:MET:SD	1:B:480:ILE:HB	2.31	0.70
1:C:433:LEU:O	1:C:436:ILE:HG22	1.91	0.70
1:G:214:ASN:O	1:G:215:GLN:HB2	1.91	0.70
1:H:159:LEU:H	1:H:159:LEU:HD13	1.56	0.70
1:N:146:LEU:HD23	1:N:147:MET:N	2.06	0.70
1:P:511:ALA:N	1:P:512:PRO:HD2	2.05	0.70
1:A:475:MET:SD	1:A:480:ILE:HB	2.31	0.70
1:F:32:PRO:HG2	1:F:467:MET:CE	2.21	0.70
1:I:146:LEU:HD13	1:I:171:VAL:HG13	1.72	0.70
1:J:401:GLU:HG2	1:J:433:LEU:HD22	1.72	0.70
1:L:200:TYR:CD1	1:L:363:ARG:HD2	2.26	0.70
1:A:146:LEU:HD23	1:A:148:ASN:H	1.55	0.70
1:J:163:LYS:HA	1:J:166:PHE:CD1	2.25	0.70
1:J:59:LYS:HE2	1:J:76:ARG:HB2	1.73	0.70
1:O:166:PHE:CZ	1:O:198:ASP:HB3	2.25	0.70
1:P:133:VAL:HG11	1:P:394:VAL:HG12	1.73	0.70
1:A:38:ILE:HG22	1:A:50:VAL:HB	1.72	0.70
1:A:56:THR:HG21	1:A:372:GLU:HG3	1.73	0.70
1:B:32:PRO:HA	1:B:155:SER:O	1.91	0.70
1:C:81:GLU:C	1:C:386:GLN:HG3	2.10	0.70
1:E:415:THR:O	1:E:420:ALA:HB2	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:438:ALA:HB2	1:F:448:LEU:HG	1.73	0.70
1:K:166:PHE:HD2	1:K:362:LEU:HD22	1.56	0.70
1:P:39:LEU:HD11	1:P:57:ILE:HG13	1.73	0.70
1:A:450:ALA:HB2	1:M:420:ALA:CB	2.17	0.70
1:C:324:HIS:ND1	1:C:325:PRO:HD3	2.06	0.70
1:D:398:GLY:HA2	1:D:401:GLU:OE1	1.91	0.70
1:G:146:LEU:CD2	1:G:147:MET:H	2.05	0.70
1:H:185:ALA:HA	1:H:309:ARG:HB2	1.72	0.70
1:J:148:ASN:HA	1:J:479:GLY:O	1.92	0.70
1:E:421:VAL:HG11	1:J:446:ALA:HB1	1.73	0.70
1:J:110:PRO:HB2	1:J:502:LEU:HD21	1.73	0.70
1:K:27:LYS:O	1:K:436:ILE:HD11	1.91	0.70
1:N:269:ILE:HG23	1:N:274:ILE:CG2	2.22	0.70
1:N:377:LEU:HA	1:N:380:ALA:HB3	1.73	0.70
1:O:18:GLY:HA2	1:O:509:LYS:HG3	1.70	0.70
1:D:417:GLY:HA2	1:K:450:ALA:HB3	1.72	0.70
1:H:31:GLY:O	1:H:156:SER:HA	1.91	0.70
1:K:146:LEU:HD23	1:K:147:MET:N	2.07	0.70
1:L:266:VAL:HB	1:L:290:LEU:HD21	1.73	0.70
1:O:475:MET:SD	1:O:480:ILE:HB	2.32	0.70
1:B:424:GLU:HG2	1:B:425:SER:N	2.06	0.70
1:D:214:ASN:O	1:D:215:GLN:HB2	1.89	0.70
1:D:188:VAL:HG21	1:D:377:LEU:HD13	1.74	0.70
1:I:154:LEU:HD22	1:I:167:THR:HB	1.73	0.70
1:K:149:ILE:HD12	1:K:483:SER:N	2.06	0.70
1:L:133:VAL:HG22	1:L:134:ASP:O	1.92	0.70
1:B:399:CYS:SG	1:B:464:GLY:HA3	2.30	0.70
1:D:186:ILE:HD13	1:D:381:LEU:HD21	1.74	0.70
1:E:312:LEU:O	1:E:354:LEU:HD22	1.92	0.70
1:H:475:MET:SD	1:H:480:ILE:HB	2.31	0.70
1:H:512:PRO:O	1:H:513:ARG:HG2	1.91	0.70
1:I:146:LEU:HD22	1:I:167:THR:O	1.92	0.70
1:K:33:LYS:HG3	1:K:441:ALA:HA	1.73	0.70
1:M:438:ALA:HB2	1:M:448:LEU:HG	1.72	0.70
1:N:146:LEU:CD2	1:N:147:MET:H	2.04	0.70
1:A:146:LEU:CD1	1:A:171:VAL:HG13	2.20	0.70
1:E:38:ILE:HD12	1:E:48:LEU:HD22	1.73	0.70
1:G:145:ASP:O	1:G:171:VAL:HG11	1.91	0.70
1:J:32:PRO:N	1:J:155:SER:HB3	2.07	0.70
1:K:146:LEU:HD12	1:K:171:VAL:CG1	2.17	0.70
1:L:315:GLY:O	1:P:214:ASN:HB3	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:74:MET:O	1:M:77:VAL:HG12	1.92	0.70
1:N:324:HIS:HB2	1:N:329:LYS:NZ	2.07	0.70
1:N:38:ILE:HG22	1:N:50:VAL:HB	1.74	0.70
1:C:475:MET:SD	1:C:480:ILE:HB	2.32	0.70
1:D:402:MET:SD	1:D:456:HIS:HB2	2.32	0.70
1:E:51:THR:HG21	1:E:56:THR:HB	1.73	0.70
1:G:417:GLY:HA2	1:N:450:ALA:HB1	1.72	0.70
1:D:506:ASN:N	1:H:25:LEU:HG	2.07	0.70
1:H:483:SER:O	1:H:486:VAL:HG22	1.91	0.70
1:J:206:LEU:HD11	1:J:346:LEU:HG	1.72	0.70
1:K:184:GLU:OE2	1:K:312:LEU:HG	1.92	0.70
1:M:146:LEU:HD22	1:M:168:LYS:CA	2.21	0.70
1:N:146:LEU:HD21	1:N:167:THR:HG23	1.74	0.70
1:F:317:GLU:HB2	1:F:329:LYS:HG2	1.74	0.69
1:H:206:LEU:HD11	1:H:346:LEU:HG	1.71	0.69
1:I:434:PRO:HB3	1:I:452:LEU:CD2	2.22	0.69
1:L:111:GLN:O	1:L:114:ILE:HB	1.90	0.69
1:M:178:LYS:CD	1:M:388:VAL:HG21	2.21	0.69
1:M:483:SER:O	1:M:486:VAL:HG22	1.92	0.69
1:C:146:LEU:HD23	1:C:147:MET:N	2.07	0.69
1:C:211:ILE:HD11	1:C:297:MET:HG3	1.74	0.69
1:C:402:MET:SD	1:C:456:HIS:HB2	2.32	0.69
1:D:4:ASP:O	1:D:507:ILE:HD12	1.92	0.69
1:N:507:ILE:HG22	1:N:508:ILE:HG23	1.74	0.69
1:N:513:ARG:HA	1:N:513:ARG:NE	2.07	0.69
1:N:78:GLN:HG3	1:N:83:GLY:HA2	1.74	0.69
1:C:131:SER:HB2	1:C:461:THR:CG2	2.23	0.69
1:C:489:GLN:HA	1:C:492:LEU:HG	1.74	0.69
1:H:32:PRO:HA	1:H:155:SER:C	2.12	0.69
1:M:159:LEU:HD12	1:M:369:ILE:HG23	1.74	0.69
1:M:500:VAL:HA	1:M:503:ARG:HH11	1.57	0.69
1:F:38:ILE:HD12	1:F:48:LEU:HD22	1.73	0.69
1:G:146:LEU:HD23	1:G:147:MET:H	1.55	0.69
1:G:402:MET:SD	1:G:456:HIS:HB2	2.32	0.69
1:I:74:MET:O	1:I:77:VAL:HG12	1.92	0.69
1:M:128:LEU:HD22	1:M:487:LYS:CB	2.22	0.69
1:O:313:VAL:HG22	1:O:357:ALA:HB3	1.73	0.69
1:B:32:PRO:N	1:B:156:SER:HA	2.07	0.69
1:B:402:MET:SD	1:B:453:ARG:HA	2.31	0.69
1:K:114:ILE:HA	1:K:117:TRP:CE3	2.28	0.69
1:N:216:PRO:CG	1:N:295:GLY:HA2	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:324:HIS:HB2	1:O:329:LYS:NZ	2.06	0.69
1:D:159:LEU:HD23	1:D:163:LYS:HD3	1.74	0.69
1:H:402:MET:SD	1:H:456:HIS:HB2	2.33	0.69
1:H:452:LEU:HA	1:H:472:ILE:HG21	1.74	0.69
1:I:157:LYS:HB3	1:I:372:GLU:OE2	1.92	0.69
1:K:146:LEU:CD2	1:K:147:MET:H	2.05	0.69
1:K:173:ALA:HA	1:K:176:ARG:NE	2.08	0.69
1:O:402:MET:SD	1:O:456:HIS:HB2	2.33	0.69
1:P:402:MET:SD	1:P:453:ARG:HA	2.33	0.69
1:B:128:LEU:CD2	1:B:488:ARG:HA	2.22	0.69
1:G:71:LEU:HB2	1:G:501:ILE:HG13	1.74	0.69
1:I:146:LEU:HD21	1:I:167:THR:HG23	1.74	0.69
1:J:191:LYS:HE2	1:J:191:LYS:HA	1.75	0.69
1:P:216:PRO:CG	1:P:295:GLY:HA2	2.22	0.69
1:B:313:VAL:HG13	1:B:352:VAL:HB	1.75	0.69
1:C:206:LEU:HD11	1:C:346:LEU:HD23	1.74	0.69
1:J:505:ASP:HB3	1:N:37:LYS:NZ	2.07	0.69
1:L:36:ASP:O	1:M:504:VAL:HG22	1.92	0.69
1:N:364:GLY:HA3	1:N:370:LEU:HD13	1.74	0.69
1:E:32:PRO:O	1:E:155:SER:HB3	1.93	0.69
1:F:157:LYS:HE3	1:F:375:ARG:HD2	1.74	0.69
1:G:190:LYS:HA	1:G:362:LEU:O	1.91	0.69
1:I:146:LEU:CD2	1:I:167:THR:HG23	2.22	0.69
1:L:214:ASN:O	1:L:215:GLN:HB2	1.92	0.69
1:D:146:LEU:CD1	1:D:171:VAL:HG13	2.21	0.69
1:J:27:LYS:HB2	1:J:436:ILE:HD11	1.75	0.69
1:O:150:ALA:HB2	1:O:384:LEU:HD21	1.75	0.69
1:C:171:VAL:CG1	1:C:384:LEU:HG	2.23	0.69
1:D:274:ILE:O	1:D:296:VAL:HG22	1.93	0.69
1:E:176:ARG:HH12	1:E:201:LEU:HD21	1.56	0.69
1:J:110:PRO:O	1:J:113:ILE:HB	1.92	0.69
1:M:132:ALA:HB3	1:M:461:THR:OG1	1.93	0.69
1:P:188:VAL:HG22	1:P:377:LEU:HD21	1.73	0.69
1:A:59:LYS:HE2	1:A:76:ARG:HB2	1.75	0.68
1:F:283:ILE:HG22	1:F:300:GLU:HG3	1.74	0.68
1:G:154:LEU:HD21	1:G:163:LYS:HZ2	1.58	0.68
1:I:199:SER:HA	1:I:363:ARG:H	1.59	0.68
1:L:52:ASN:ND2	1:L:157:LYS:HG3	2.08	0.68
1:N:508:ILE:O	1:N:508:ILE:HG13	1.93	0.68
1:O:206:LEU:O	1:O:206:LEU:HD13	1.93	0.68
1:P:269:ILE:HG23	1:P:274:ILE:CG2	2.21	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:506:ASN:O	1:A:507:ILE:HG12	1.93	0.68
1:B:103:LEU:O	1:B:106:LYS:HB3	1.93	0.68
1:B:32:PRO:CA	1:B:156:SER:HA	2.22	0.68
1:B:274:ILE:O	1:B:296:VAL:HG22	1.92	0.68
1:D:58:LEU:HB3	1:D:72:VAL:HG11	1.74	0.68
1:E:190:LYS:HD3	1:E:370:LEU:O	1.93	0.68
1:K:185:ALA:HB3	1:K:357:ALA:CB	2.23	0.68
1:O:138:ASP:O	1:O:139:GLU:HB2	1.93	0.68
1:O:146:LEU:HD12	1:O:171:VAL:CG1	2.23	0.68
1:D:483:SER:O	1:D:486:VAL:HG22	1.94	0.68
1:E:188:VAL:HG13	1:E:377:LEU:HD22	1.72	0.68
1:E:393:THR:HG22	1:E:483:SER:HA	1.74	0.68
1:E:58:LEU:HB3	1:E:72:VAL:CG1	2.22	0.68
1:F:146:LEU:CD2	1:F:147:MET:H	2.06	0.68
1:H:173:ALA:O	1:H:176:ARG:HG2	1.93	0.68
1:N:82:VAL:HG13	1:N:83:GLY:H	1.58	0.68
1:O:159:LEU:HG	1:O:163:LYS:HG2	1.75	0.68
1:O:171:VAL:O	1:O:175:LEU:HG	1.93	0.68
1:L:496:GLU:OE1	1:P:369:ILE:HG13	1.94	0.68
1:A:158:LEU:HD22	1:C:503:ARG:NH2	2.08	0.68
1:A:452:LEU:HD13	1:A:465:LEU:HD13	1.73	0.68
1:C:191:LYS:HB3	1:C:363:ARG:CB	2.22	0.68
1:E:54:GLY:O	1:E:58:LEU:HD23	1.94	0.68
1:F:146:LEU:HD23	1:F:147:MET:N	2.06	0.68
1:F:438:ALA:CB	1:F:448:LEU:HG	2.23	0.68
1:I:216:PRO:HG2	1:I:295:GLY:HA2	1.75	0.68
1:M:364:GLY:HA3	1:M:370:LEU:HD13	1.73	0.68
1:B:146:LEU:HD11	1:B:150:ALA:CB	2.23	0.68
1:B:188:VAL:HG21	1:B:377:LEU:HD22	1.74	0.68
1:D:27:LYS:HD2	1:D:436:ILE:HD11	1.76	0.68
1:D:324:HIS:ND1	1:D:325:PRO:HD3	2.08	0.68
1:H:394:VAL:HG21	1:H:487:LYS:HG3	1.75	0.68
1:K:368:GLN:HG3	1:K:369:ILE:N	2.09	0.68
1:K:39:LEU:HB3	1:P:508:ILE:HD12	1.75	0.68
1:B:448:LEU:HD21	1:B:465:LEU:HD12	1.74	0.68
1:G:27:LYS:HA	1:G:30:LEU:HD13	1.76	0.68
1:G:411:LEU:HB3	1:G:423:MET:SD	2.34	0.68
1:H:257:ALA:O	1:H:261:LYS:HD2	1.93	0.68
1:K:176:ARG:NH2	1:K:360:ILE:HG23	2.09	0.68
1:M:32:PRO:HD2	1:M:467:MET:SD	2.34	0.68
1:A:511:ALA:HB1	1:A:512:PRO:CD	2.19	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:324:HIS:O	1:D:329:LYS:HG2	1.93	0.68
1:D:324:HIS:O	1:D:328:VAL:HG13	1.93	0.68
1:J:146:LEU:CD1	1:J:171:VAL:HG13	2.18	0.68
1:A:402:MET:SD	1:A:453:ARG:HA	2.33	0.68
1:C:146:LEU:HD13	1:C:168:LYS:HA	1.76	0.68
1:C:313:VAL:HG22	1:C:357:ALA:HB3	1.75	0.68
1:F:146:LEU:O	1:F:147:MET:HG2	1.94	0.68
1:F:417:GLY:HA3	1:O:450:ALA:HA	1.75	0.68
1:H:399:CYS:SG	1:H:464:GLY:HA3	2.34	0.68
1:I:185:ALA:HA	1:I:309:ARG:HD2	1.76	0.68
1:J:324:HIS:O	1:J:329:LYS:HG2	1.94	0.68
1:K:231:MET:HG3	1:K:283:ILE:HG13	1.76	0.68
1:L:103:LEU:HD23	1:L:502:LEU:HD11	1.75	0.68
1:B:154:LEU:HD22	1:B:167:THR:HB	1.76	0.68
1:H:259:LYS:O	1:H:263:LYS:HG2	1.94	0.68
1:M:106:LYS:O	1:M:107:LYS:HD2	1.94	0.68
1:M:190:LYS:HA	1:M:362:LEU:O	1.94	0.68
1:P:226:ILE:HG12	1:P:278:ILE:HG23	1.76	0.68
1:B:5:GLU:HG2	1:B:5:GLU:O	1.94	0.68
1:H:415:THR:O	1:H:420:ALA:HB2	1.94	0.68
1:J:100:ALA:O	1:J:103:LEU:HB3	1.94	0.68
1:M:149:ILE:HD12	1:M:483:SER:H	1.58	0.68
1:P:133:VAL:HG22	1:P:395:TYR:H	1.59	0.68
1:E:231:MET:HB2	1:E:284:TYR:H	1.59	0.67
1:F:51:THR:HA	1:F:375:ARG:NH1	2.08	0.67
1:G:145:ASP:OD1	1:G:171:VAL:HB	1.94	0.67
1:G:96:LEU:HD11	1:G:117:TRP:HZ2	1.59	0.67
1:E:369:ILE:O	1:E:372:GLU:HG2	1.93	0.67
1:G:114:ILE:HA	1:G:117:TRP:CE3	2.29	0.67
1:I:139:GLU:O	1:I:140:VAL:HB	1.94	0.67
1:I:184:GLU:O	1:I:186:ILE:HD12	1.94	0.67
1:N:101:GLU:O	1:N:104:ILE:HG22	1.94	0.67
1:O:174:VAL:HB	1:O:385:ALA:HA	1.76	0.67
1:P:159:LEU:HD23	1:P:163:LYS:HG2	1.76	0.67
1:B:364:GLY:HA3	1:B:370:LEU:CD1	2.24	0.67
1:F:225:LEU:HD13	1:F:329:LYS:HE3	1.76	0.67
1:G:371:ASP:O	1:G:374:GLU:HB3	1.94	0.67
1:I:25:LEU:HG	1:N:513:ARG:NH2	2.09	0.67
1:K:507:ILE:O	1:K:508:ILE:HD13	1.94	0.67
1:P:198:ASP:HA	1:P:364:GLY:HA2	1.73	0.67
1:A:109:HIS:CE1	1:A:111:GLN:HB2	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:269:ILE:HG23	1:B:274:ILE:HG21	1.76	0.67
1:C:130:ASN:HB3	1:C:403:LEU:HD23	1.77	0.67
1:D:138:ASP:O	1:D:139:GLU:HB2	1.93	0.67
1:D:433:LEU:O	1:D:436:ILE:HG22	1.93	0.67
1:H:188:VAL:HG21	1:H:362:LEU:HD12	1.76	0.67
1:B:420:ALA:CB	1:I:450:ALA:HB1	2.23	0.67
1:I:396:GLY:HA3	1:I:480:ILE:HG22	1.75	0.67
1:K:203:GLU:CB	1:K:350:SER:HB2	2.24	0.67
1:O:438:ALA:CB	1:O:448:LEU:HG	2.24	0.67
1:C:154:LEU:CD2	1:C:167:THR:HB	2.24	0.67
1:C:280:ARG:HG3	1:C:280:ARG:O	1.95	0.67
1:F:146:LEU:CD1	1:F:171:VAL:HG13	2.17	0.67
1:F:377:LEU:HD12	1:F:378:HIS:N	2.10	0.67
1:H:309:ARG:O	1:H:313:VAL:HG23	1.93	0.67
1:I:394:VAL:HG23	1:I:482:GLU:HB2	1.76	0.67
1:L:128:LEU:O	1:L:129:LEU:HD22	1.94	0.67
1:N:219:ILE:HD11	1:N:336:ILE:HB	1.77	0.67
1:P:204:GLY:HA3	1:P:349:PHE:O	1.95	0.67
1:E:414:ARG:HA	1:E:414:ARG:CZ	2.25	0.67
1:L:146:LEU:CD1	1:L:171:VAL:HG13	2.25	0.67
1:N:173:ALA:O	1:N:176:ARG:HG2	1.95	0.67
1:D:176:ARG:HE	1:D:358:CYS:CB	2.07	0.67
1:D:161:HIS:HE1	1:D:369:ILE:HG21	1.58	0.67
1:D:51:THR:HG21	1:D:56:THR:HB	1.75	0.67
1:E:32:PRO:HA	1:E:155:SER:HB3	1.76	0.67
1:E:185:ALA:HA	1:E:309:ARG:CD	2.25	0.67
1:F:452:LEU:HD13	1:F:465:LEU:HD13	1.74	0.67
1:I:106:LYS:HD3	1:I:113:ILE:HD11	1.77	0.67
1:L:341:ILE:HB	1:L:346:LEU:HD21	1.75	0.67
1:C:159:LEU:HD12	1:C:372:GLU:HG3	1.77	0.67
1:C:434:PRO:HB3	1:C:452:LEU:CD2	2.25	0.67
1:D:35:MET:CE	1:E:111:GLN:HB3	2.25	0.67
1:H:126:GLN:O	1:H:130:ASN:HB2	1.95	0.67
1:K:185:ALA:HB3	1:K:357:ALA:HB1	1.75	0.67
1:M:145:ASP:OD1	1:M:171:VAL:HB	1.95	0.67
1:F:421:VAL:HG13	1:O:453:ARG:HH22	1.58	0.67
1:P:313:VAL:HG13	1:P:352:VAL:HB	1.77	0.67
1:P:452:LEU:HD13	1:P:465:LEU:HD13	1.77	0.67
1:P:59:LYS:HE2	1:P:76:ARG:HB2	1.77	0.67
1:B:152:THR:CB	1:B:480:ILE:HG23	2.18	0.67
1:C:145:ASP:O	1:C:171:VAL:HG11	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:219:ILE:HD11	1:F:336:ILE:HB	1.77	0.67
1:H:166:PHE:CZ	1:H:198:ASP:HB3	2.30	0.67
1:I:166:PHE:CZ	1:I:198:ASP:HB3	2.30	0.67
1:J:159:LEU:HD13	1:J:159:LEU:H	1.60	0.67
1:J:269:ILE:HG23	1:J:274:ILE:CG2	2.25	0.67
1:L:157:LYS:HB3	1:L:159:LEU:CD1	2.25	0.67
1:L:402:MET:SD	1:L:456:HIS:HB2	2.35	0.67
1:A:408:VAL:HA	1:A:411:LEU:HD12	1.75	0.67
1:B:163:LYS:HA	1:B:166:PHE:CD1	2.30	0.67
1:F:141:LYS:HG2	1:F:144:GLN:HB2	1.77	0.67
1:I:147:MET:HB3	1:I:478:LEU:O	1.94	0.67
1:I:40:LEU:HB2	1:I:48:LEU:CD2	2.25	0.67
1:J:146:LEU:HD23	1:J:147:MET:H	1.60	0.67
1:J:28:SER:O	1:J:34:GLY:HA2	1.94	0.67
1:K:475:MET:SD	1:K:480:ILE:HB	2.34	0.67
1:N:54:GLY:O	1:N:58:LEU:HD23	1.95	0.67
1:O:324:HIS:ND1	1:O:325:PRO:HD3	2.10	0.67
1:C:191:LYS:HB3	1:C:363:ARG:HB3	1.76	0.66
1:E:191:LYS:HE3	1:E:191:LYS:HA	1.75	0.66
1:H:159:LEU:HD23	1:H:163:LYS:HG2	1.77	0.66
1:H:128:LEU:CD1	1:H:488:ARG:HA	2.24	0.66
1:J:192:LEU:HB3	1:J:366:THR:HG21	1.76	0.66
1:K:276:CYS:HA	1:K:297:MET:O	1.94	0.66
1:L:364:GLY:HA3	1:L:370:LEU:HD13	1.76	0.66
1:M:163:LYS:HG3	1:M:166:PHE:CG	2.29	0.66
1:F:416:PRO:HD2	1:F:419:GLU:OE1	1.95	0.66
1:G:140:VAL:HA	1:G:175:LEU:HD22	1.76	0.66
1:L:164:ASP:O	1:L:167:THR:HG22	1.95	0.66
1:L:341:ILE:HG23	1:L:363:ARG:HE	1.59	0.66
1:N:163:LYS:HG3	1:N:166:PHE:CG	2.30	0.66
1:N:265:LYS:HE2	1:N:322:PHE:CE1	2.31	0.66
1:A:483:SER:O	1:A:486:VAL:HG22	1.94	0.66
1:B:433:LEU:O	1:B:436:ILE:HG22	1.96	0.66
1:D:364:GLY:HA3	1:D:370:LEU:HD22	1.77	0.66
1:I:206:LEU:HD11	1:I:346:LEU:HD22	1.78	0.66
1:I:367:GLN:HG2	1:I:369:ILE:HB	1.76	0.66
1:J:27:LYS:CB	1:J:436:ILE:HD11	2.26	0.66
1:M:59:LYS:HE2	1:M:76:ARG:HB2	1.77	0.66
1:N:110:PRO:O	1:N:113:ILE:HB	1.96	0.66
1:O:225:LEU:HD13	1:O:329:LYS:CE	2.25	0.66
1:O:225:LEU:HD13	1:O:329:LYS:HE3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:415:THR:HG21	1:P:423:MET:HE3	1.76	0.66
1:E:324:HIS:ND1	1:E:325:PRO:HD3	2.10	0.66
1:B:289:GLN:O	1:F:318:ILE:HD12	1.95	0.66
1:K:209:LYS:HE3	1:K:302:ALA:HA	1.77	0.66
1:K:191:LYS:H	1:K:363:ARG:HA	1.59	0.66
1:N:28:SER:HB2	1:N:35:MET:SD	2.35	0.66
1:O:181:GLY:HA3	1:O:356:GLU:OE1	1.96	0.66
1:P:124:ALA:O	1:P:128:LEU:HG	1.95	0.66
1:H:134:ASP:HB3	1:H:395:TYR:CE2	2.30	0.66
1:I:317:GLU:OE1	1:I:329:LYS:HD2	1.95	0.66
1:K:191:LYS:HG3	1:K:343:GLU:OE2	1.95	0.66
1:M:411:LEU:HB3	1:M:423:MET:SD	2.35	0.66
1:P:157:LYS:HB3	1:P:159:LEU:HD11	1.78	0.66
1:B:438:ALA:CB	1:B:448:LEU:HG	2.26	0.66
1:B:114:ILE:CD1	1:B:502:LEU:HD22	2.23	0.66
1:J:372:GLU:HA	1:J:375:ARG:HD3	1.78	0.66
1:J:128:LEU:CD1	1:J:491:LEU:HD11	2.25	0.66
1:C:226:ILE:HD11	1:C:310:LEU:HD12	1.77	0.66
1:H:146:LEU:HD23	1:H:147:MET:H	1.60	0.66
1:L:216:PRO:CG	1:L:295:GLY:HA2	2.26	0.66
1:N:163:LYS:HE2	1:N:373:ALA:HA	1.78	0.66
1:B:74:MET:O	1:B:77:VAL:HG12	1.96	0.66
1:G:173:ALA:CB	1:G:360:ILE:HD11	2.26	0.66
1:K:483:SER:O	1:K:486:VAL:HG22	1.95	0.66
1:M:146:LEU:HD12	1:M:171:VAL:CG1	2.25	0.66
1:M:57:ILE:HG23	1:M:58:LEU:HD23	1.77	0.66
1:B:266:VAL:HB	1:B:290:LEU:HD21	1.78	0.66
1:C:145:ASP:OD1	1:C:171:VAL:HB	1.95	0.66
1:I:219:ILE:HD12	1:I:275:ASN:HB3	1.77	0.66
1:J:84:ASP:OD2	1:J:379:ASP:HA	1.96	0.66
1:L:146:LEU:HD12	1:L:171:VAL:HG13	1.75	0.66
1:P:32:PRO:HA	1:P:155:SER:O	1.94	0.66
1:D:37:LYS:HD3	1:E:504:VAL:HG13	1.79	0.66
1:D:79:ASP:HA	1:D:83:GLY:HA3	1.78	0.66
1:M:398:GLY:HA2	1:M:401:GLU:OE1	1.94	0.66
1:N:32:PRO:O	1:N:156:SER:HA	1.96	0.66
1:P:106:LYS:O	1:P:107:LYS:HG2	1.96	0.66
1:P:32:PRO:HA	1:P:155:SER:C	2.15	0.66
1:A:175:LEU:O	1:A:178:LYS:HG2	1.96	0.65
1:D:54:GLY:O	1:D:58:LEU:HD23	1.96	0.65
1:B:25:LEU:HD22	1:F:508:ILE:CD1	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:216:PRO:HG2	1:J:295:GLY:HA2	1.77	0.65
1:K:146:LEU:CD2	1:K:167:THR:HG23	2.27	0.65
1:M:82:VAL:CG1	1:M:486:VAL:HA	2.19	0.65
1:P:185:ALA:HA	1:P:309:ARG:CG	2.26	0.65
1:B:159:LEU:HD13	1:B:159:LEU:H	1.60	0.65
1:B:216:PRO:HG2	1:B:295:GLY:HA2	1.78	0.65
1:B:312:LEU:O	1:B:354:LEU:HD22	1.96	0.65
1:N:324:HIS:ND1	1:N:325:PRO:HD3	2.12	0.65
1:B:483:SER:O	1:B:486:VAL:HG22	1.95	0.65
1:G:163:LYS:HA	1:G:166:PHE:CE1	2.32	0.65
1:G:206:LEU:HD21	1:G:346:LEU:HB3	1.78	0.65
1:G:216:PRO:CG	1:G:295:GLY:HA2	2.26	0.65
1:J:369:ILE:O	1:J:372:GLU:HB3	1.96	0.65
1:K:163:LYS:HG3	1:K:166:PHE:CG	2.30	0.65
1:K:96:LEU:HD21	1:K:117:TRP:HZ2	1.61	0.65
1:C:163:LYS:HA	1:C:166:PHE:CD1	2.31	0.65
1:D:171:VAL:CG1	1:D:384:LEU:HG	2.22	0.65
1:G:399:CYS:SG	1:G:464:GLY:HA3	2.36	0.65
1:J:324:HIS:HB2	1:J:329:LYS:NZ	2.11	0.65
1:O:174:VAL:HB	1:O:385:ALA:CA	2.26	0.65
1:O:82:VAL:CG2	1:O:485:GLN:HB2	2.24	0.65
1:F:111:GLN:O	1:F:114:ILE:HB	1.96	0.65
1:G:146:LEU:HD23	1:G:147:MET:N	2.10	0.65
1:J:32:PRO:CA	1:J:155:SER:HB3	2.26	0.65
1:L:205:PHE:O	1:L:348:HIS:HA	1.97	0.65
1:P:368:GLN:O	1:P:371:ASP:HB3	1.96	0.65
1:P:437:ILE:HG22	1:P:467:MET:SD	2.36	0.65
1:A:163:LYS:HG3	1:A:166:PHE:CE2	2.31	0.65
1:A:163:LYS:HA	1:A:166:PHE:CE1	2.32	0.65
1:F:362:LEU:CD1	1:F:377:LEU:HD23	2.26	0.65
1:H:185:ALA:HB1	1:H:357:ALA:CB	2.26	0.65
1:I:171:VAL:O	1:I:174:VAL:HG22	1.96	0.65
1:B:106:LYS:HD3	1:I:446:ALA:HB3	1.78	0.65
1:L:401:GLU:HG2	1:L:433:LEU:HD22	1.77	0.65
1:D:58:LEU:HB3	1:D:72:VAL:CG1	2.27	0.65
1:F:372:GLU:O	1:F:375:ARG:HB3	1.96	0.65
1:H:190:LYS:HD3	1:H:370:LEU:HD23	1.79	0.65
1:I:399:CYS:SG	1:I:464:GLY:HA3	2.36	0.65
1:K:188:VAL:CG1	1:K:377:LEU:HD21	2.18	0.65
1:P:146:LEU:CD2	1:P:147:MET:H	2.08	0.65
1:P:171:VAL:O	1:P:174:VAL:HG22	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:312:LEU:HD13	1:B:354:LEU:HD21	1.79	0.65
1:C:78:GLN:HG3	1:C:83:GLY:HA2	1.77	0.65
1:F:117:TRP:HA	1:F:120:ALA:HB2	1.79	0.65
1:I:452:LEU:HD13	1:I:465:LEU:CD1	2.27	0.65
1:J:108:ILE:HD13	1:N:442:GLY:O	1.97	0.65
1:L:269:ILE:HG23	1:L:274:ILE:CG2	2.27	0.65
1:L:433:LEU:O	1:L:436:ILE:HG22	1.97	0.65
1:M:110:PRO:HA	1:M:113:ILE:HD12	1.76	0.65
1:M:173:ALA:CB	1:M:360:ILE:HD11	2.27	0.65
1:N:411:LEU:HB3	1:N:423:MET:SD	2.37	0.65
1:O:111:GLN:O	1:O:114:ILE:HB	1.96	0.65
1:O:14:SER:HB3	1:O:507:ILE:C	2.15	0.65
1:O:18:GLY:HA2	1:O:509:LYS:CG	2.27	0.65
1:A:369:ILE:O	1:A:372:GLU:HB3	1.97	0.65
1:C:173:ALA:HA	1:C:176:ARG:NH1	2.12	0.65
1:E:163:LYS:O	1:E:166:PHE:HB2	1.97	0.65
1:E:190:LYS:HA	1:E:362:LEU:O	1.97	0.65
1:G:334:LYS:HD3	1:G:351:GLY:HA3	1.78	0.65
1:H:219:ILE:HD11	1:H:336:ILE:HB	1.79	0.65
1:D:505:ASP:O	1:H:39:LEU:HD21	1.97	0.65
1:K:269:ILE:HG23	1:K:274:ILE:HG21	1.79	0.65
1:L:211:ILE:HG22	1:L:288:GLU:OE1	1.97	0.65
1:L:483:SER:O	1:L:486:VAL:HG22	1.96	0.65
1:M:426:TYR:OH	1:M:491:LEU:HD22	1.97	0.65
1:M:500:VAL:O	1:M:503:ARG:HB3	1.97	0.65
1:P:324:HIS:O	1:P:329:LYS:HG2	1.97	0.65
1:E:106:LYS:O	1:E:107:LYS:HD2	1.97	0.65
1:H:170:ALA:HB1	1:H:380:ALA:HB1	1.79	0.65
1:H:390:ASP:HB3	1:H:485:GLN:NE2	2.12	0.65
1:I:57:ILE:HG23	1:I:58:LEU:HD23	1.79	0.65
1:K:338:GLU:OE2	1:K:345:LYS:HE2	1.97	0.65
1:O:283:ILE:HG22	1:O:300:GLU:HG3	1.79	0.65
1:B:171:VAL:HA	1:B:174:VAL:HG22	1.79	0.64
1:B:216:PRO:CG	1:B:295:GLY:HA2	2.27	0.64
1:C:399:CYS:SG	1:C:464:GLY:HA3	2.36	0.64
1:D:117:TRP:NE1	1:D:495:ALA:HB3	2.12	0.64
1:G:475:MET:SD	1:G:480:ILE:HB	2.36	0.64
1:H:265:LYS:O	1:H:269:ILE:HB	1.96	0.64
1:H:59:LYS:HE2	1:H:76:ARG:HB2	1.79	0.64
1:J:492:LEU:HD13	1:J:493:SER:H	1.63	0.64
1:K:395:TYR:HE1	1:K:476:SER:HG	1.43	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:163:LYS:HE3	1:L:376:SER:HB3	1.78	0.64
1:L:185:ALA:HB3	1:L:357:ALA:HB1	1.76	0.64
1:L:334:LYS:HB2	1:L:351:GLY:HA3	1.79	0.64
1:M:128:LEU:HD21	1:M:491:LEU:HD11	1.77	0.64
1:F:446:ALA:CB	1:O:418:LYS:HD2	2.27	0.64
1:A:35:MET:HG3	1:C:111:GLN:HG2	1.79	0.64
1:A:509:LYS:HG2	1:A:510:ALA:H	1.62	0.64
1:H:324:HIS:HB2	1:H:329:LYS:NZ	2.13	0.64
1:H:157:LYS:HG2	1:H:372:GLU:OE2	1.96	0.64
1:K:32:PRO:HA	1:K:155:SER:O	1.96	0.64
1:N:324:HIS:O	1:N:329:LYS:HG2	1.98	0.64
1:P:126:GLN:O	1:P:130:ASN:HB2	1.97	0.64
1:C:82:VAL:HG13	1:C:83:GLY:N	2.12	0.64
1:F:128:LEU:CD2	1:F:488:ARG:HG2	2.27	0.64
1:G:176:ARG:HE	1:G:358:CYS:HB3	1.61	0.64
1:L:207:LEU:O	1:L:347:ILE:HG22	1.97	0.64
1:N:107:LYS:HG2	1:N:107:LYS:O	1.97	0.64
1:O:63:VAL:HG21	1:O:513:ARG:HB2	1.79	0.64
1:P:475:MET:SD	1:P:480:ILE:HB	2.37	0.64
1:B:159:LEU:HB3	1:B:369:ILE:HG22	1.79	0.64
1:C:219:ILE:HD11	1:C:336:ILE:HB	1.78	0.64
1:D:145:ASP:O	1:D:171:VAL:HG11	1.97	0.64
1:D:39:LEU:O	1:D:48:LEU:HA	1.98	0.64
1:D:74:MET:O	1:D:77:VAL:HG12	1.96	0.64
1:F:446:ALA:HB2	1:O:108:ILE:HG23	1.78	0.64
1:L:258:GLU:OE2	1:L:284:TYR:HE2	1.81	0.64
1:N:59:LYS:CE	1:N:76:ARG:HB2	2.28	0.64
1:O:206:LEU:HD12	1:O:359:THR:HG21	1.78	0.64
1:P:202:ASP:OD2	1:P:361:VAL:HG21	1.97	0.64
1:B:205:PHE:HA	1:B:359:THR:OG1	1.98	0.64
1:C:106:LYS:HG3	1:C:418:LYS:HZ2	1.63	0.64
1:D:6:GLU:OE1	1:D:11:ALA:HA	1.98	0.64
1:F:206:LEU:HD23	1:F:361:VAL:HG21	1.80	0.64
1:F:443:TYR:CE2	1:F:470:GLY:HA3	2.32	0.64
1:H:186:ILE:HG22	1:H:377:LEU:CD1	2.23	0.64
1:I:174:VAL:HG21	1:I:384:LEU:HG	1.78	0.64
1:L:226:ILE:HG12	1:L:278:ILE:HG23	1.78	0.64
1:M:497:ALA:O	1:M:500:VAL:HG12	1.97	0.64
1:O:173:ALA:HA	1:O:176:ARG:CZ	2.27	0.64
1:O:112:THR:CG2	1:O:418:LYS:HE2	2.26	0.64
1:P:119:GLU:HA	1:P:119:GLU:OE1	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:447:ASP:HB2	1:P:418:LYS:NZ	2.11	0.64
1:F:216:PRO:HG2	1:F:295:GLY:HA2	1.77	0.64
1:H:484:PHE:CE2	1:H:488:ARG:HD3	2.33	0.64
1:I:483:SER:O	1:I:486:VAL:HG22	1.98	0.64
1:M:401:GLU:HG2	1:M:433:LEU:HD22	1.78	0.64
1:M:483:SER:HB2	1:M:486:VAL:HG13	1.79	0.64
1:L:42:SER:O	1:M:512:PRO:HB2	1.96	0.64
1:P:157:LYS:HB2	1:P:159:LEU:HD21	1.78	0.64
1:P:402:MET:SD	1:P:456:HIS:HB2	2.38	0.64
1:P:399:CYS:SG	1:P:464:GLY:HA3	2.38	0.64
1:D:88:SER:O	1:D:92:LEU:HD13	1.97	0.64
1:H:74:MET:O	1:H:77:VAL:HG12	1.98	0.64
1:I:140:VAL:HA	1:I:175:LEU:HD13	1.78	0.64
1:I:176:ARG:HH22	1:I:360:ILE:HG13	1.62	0.64
1:I:199:SER:HA	1:I:363:ARG:N	2.11	0.64
1:J:190:LYS:HE2	1:J:371:ASP:OD1	1.97	0.64
1:K:108:ILE:HG22	1:K:109:HIS:N	2.12	0.64
1:L:324:HIS:ND1	1:L:325:PRO:HD3	2.13	0.64
1:M:159:LEU:HD13	1:M:159:LEU:H	1.63	0.64
1:O:174:VAL:HG11	1:O:384:LEU:HB2	1.80	0.64
1:D:190:LYS:HD3	1:D:190:LYS:O	1.96	0.64
1:E:191:LYS:CE	1:E:191:LYS:HA	2.27	0.64
1:F:193:GLY:HA3	1:F:343:GLU:OE1	1.98	0.64
1:F:446:ALA:HB1	1:O:418:LYS:CD	2.25	0.64
1:G:438:ALA:CB	1:G:448:LEU:HG	2.27	0.64
1:H:148:ASN:HB3	1:H:481:THR:CG2	2.28	0.64
1:H:32:PRO:HG2	1:H:467:MET:SD	2.37	0.64
1:J:316:GLY:O	1:J:330:LEU:HB2	1.98	0.64
1:J:483:SER:O	1:J:486:VAL:HG22	1.98	0.64
1:J:57:ILE:HG23	1:J:58:LEU:HD23	1.80	0.64
1:K:103:LEU:O	1:K:106:LYS:HB3	1.97	0.64
1:L:59:LYS:HE3	1:L:76:ARG:HB2	1.80	0.64
1:M:341:ILE:HG23	1:M:363:ARG:NH2	2.13	0.64
1:P:154:LEU:HD21	1:P:163:LYS:NZ	2.12	0.64
1:C:417:GLY:HA3	1:L:449:VAL:HB	1.79	0.64
1:D:163:LYS:HG3	1:D:166:PHE:CG	2.33	0.64
1:J:207:LEU:O	1:J:347:ILE:HG22	1.98	0.64
1:L:371:ASP:O	1:L:374:GLU:HB3	1.98	0.64
1:A:128:LEU:O	1:A:129:LEU:HB3	1.97	0.64
1:F:364:GLY:HA3	1:F:370:LEU:CD1	2.28	0.64
1:F:483:SER:O	1:F:486:VAL:HG22	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:244:ARG:HG2	1:G:245:VAL:N	2.12	0.64
1:L:111:GLN:HA	1:L:114:ILE:HG12	1.79	0.64
1:L:120:ALA:HA	1:L:123:ALA:HB3	1.80	0.64
1:L:312:LEU:HA	1:P:213:VAL:CG1	2.28	0.64
1:L:59:LYS:CE	1:L:76:ARG:HB2	2.28	0.64
1:A:450:ALA:HA	1:M:413:SER:HA	1.80	0.64
1:O:74:MET:O	1:O:77:VAL:HG12	1.97	0.64
1:P:345:LYS:O	1:P:346:LEU:HD12	1.97	0.64
1:A:41:SER:HB3	1:A:45:ASP:OD2	1.99	0.63
1:D:325:PRO:C	1:D:326:GLU:HG3	2.17	0.63
1:F:334:LYS:HG2	1:F:351:GLY:HA3	1.80	0.63
1:I:364:GLY:HA3	1:I:370:LEU:HD13	1.80	0.63
1:J:204:GLY:O	1:J:359:THR:HB	1.97	0.63
1:N:139:GLU:O	1:N:140:VAL:HB	1.97	0.63
1:B:338:GLU:OE1	1:B:345:LYS:HE2	1.98	0.63
1:C:89:VAL:HG12	1:C:490:VAL:HB	1.78	0.63
1:E:131:SER:HA	1:E:403:LEU:HD23	1.80	0.63
1:G:216:PRO:HG2	1:G:295:GLY:HA2	1.80	0.63
1:J:191:LYS:HA	1:J:191:LYS:CE	2.28	0.63
1:J:231:MET:HE1	1:J:265:LYS:HD3	1.80	0.63
1:K:101:GLU:O	1:K:104:ILE:HG23	1.98	0.63
1:K:171:VAL:HA	1:K:174:VAL:HG22	1.80	0.63
1:K:452:LEU:HD13	1:K:465:LEU:HD13	1.80	0.63
1:K:79:ASP:HA	1:K:83:GLY:HA2	1.81	0.63
1:I:58:LEU:HD22	1:N:513:ARG:HG3	1.79	0.63
1:O:133:VAL:HG11	1:O:394:VAL:CA	2.25	0.63
1:B:32:PRO:HA	1:B:156:SER:CA	2.27	0.63
1:F:475:MET:SD	1:F:480:ILE:HB	2.38	0.63
1:H:390:ASP:HB3	1:H:485:GLN:HE22	1.62	0.63
1:I:138:ASP:O	1:I:139:GLU:HB2	1.97	0.63
1:I:201:LEU:HD13	1:I:201:LEU:C	2.19	0.63
1:I:199:SER:HB2	1:I:362:LEU:HD22	1.81	0.63
1:J:32:PRO:HA	1:J:155:SER:HB3	1.79	0.63
1:J:305:VAL:O	1:J:309:ARG:HG2	1.99	0.63
1:J:309:ARG:CG	1:J:309:ARG:HH11	2.12	0.63
1:K:222:ALA:HA	1:K:275:ASN:OD1	1.99	0.63
1:K:39:LEU:HD12	1:K:57:ILE:HG13	1.79	0.63
1:M:399:CYS:SG	1:M:464:GLY:HA3	2.38	0.63
1:P:401:GLU:HG2	1:P:433:LEU:HD22	1.78	0.63
1:F:114:ILE:HA	1:F:117:TRP:CE3	2.34	0.63
1:F:408:VAL:HA	1:F:411:LEU:HD12	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:166:PHE:CZ	1:M:198:ASP:HB3	2.33	0.63
1:N:146:LEU:CD1	1:N:171:VAL:HG13	2.25	0.63
1:F:421:VAL:HG13	1:O:453:ARG:NH2	2.13	0.63
1:O:506:ASN:O	1:O:507:ILE:HG23	1.98	0.63
1:O:83:GLY:CA	1:O:486:VAL:HG12	2.28	0.63
1:D:231:MET:HB2	1:D:284:TYR:H	1.64	0.63
1:E:508:ILE:HG23	1:E:509:LYS:N	2.13	0.63
1:F:145:ASP:OD1	1:F:171:VAL:HB	1.98	0.63
1:F:173:ALA:CB	1:F:360:ILE:HD11	2.29	0.63
1:G:433:LEU:O	1:G:436:ILE:HG22	1.99	0.63
1:O:96:LEU:HA	1:O:99:GLU:OE1	1.97	0.63
1:A:154:LEU:HD22	1:A:167:THR:HB	1.80	0.63
1:B:166:PHE:CZ	1:B:198:ASP:HB3	2.33	0.63
1:C:159:LEU:HG	1:C:163:LYS:HG2	1.79	0.63
1:H:128:LEU:HD13	1:H:488:ARG:HA	1.81	0.63
1:H:140:VAL:HA	1:H:175:LEU:HD22	1.80	0.63
1:I:505:ASP:HB3	1:O:35:MET:HB3	1.80	0.63
1:K:269:ILE:HG23	1:K:274:ILE:CG2	2.28	0.63
1:L:27:LYS:HB2	1:L:436:ILE:HD11	1.81	0.63
1:D:159:LEU:HD12	1:D:372:GLU:CD	2.19	0.63
1:E:226:ILE:HG12	1:E:278:ILE:HG23	1.80	0.63
1:H:147:MET:O	1:H:479:GLY:HA2	1.99	0.63
1:K:341:ILE:HG13	1:K:346:LEU:HD13	1.80	0.63
1:K:364:GLY:HA3	1:K:370:LEU:HD21	1.80	0.63
1:L:194:GLY:HA2	1:L:364:GLY:O	1.98	0.63
1:N:142:PHE:O	1:N:143:ARG:HG3	1.99	0.63
1:O:124:ALA:O	1:O:128:LEU:HG	1.98	0.63
1:B:152:THR:HB	1:B:480:ILE:CG2	2.18	0.63
1:C:173:ALA:HB2	1:C:360:ILE:CD1	2.26	0.63
1:D:204:GLY:HA3	1:D:349:PHE:O	1.98	0.63
1:D:2:GLY:H	1:D:509:LYS:HA	1.63	0.63
1:F:207:LEU:O	1:F:208:ASP:HB2	1.98	0.63
1:G:225:LEU:HD13	1:G:329:LYS:HE2	1.81	0.63
1:H:219:ILE:HD12	1:H:275:ASN:HB3	1.79	0.63
1:K:154:LEU:HD22	1:K:167:THR:HB	1.80	0.63
1:N:173:ALA:HA	1:N:176:ARG:NH1	2.14	0.63
1:I:40:LEU:HD12	1:N:508:ILE:HB	1.81	0.63
1:P:59:LYS:HE3	1:P:73:ASP:HA	1.81	0.63
1:A:140:VAL:HA	1:A:175:LEU:HD22	1.81	0.63
1:D:125:ARG:CG	1:D:125:ARG:HH11	2.11	0.63
1:I:341:ILE:HD11	1:I:348:HIS:CE1	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:146:LEU:HD23	1:J:147:MET:N	2.12	0.63
1:L:50:VAL:O	1:L:375:ARG:HD2	1.99	0.63
1:M:369:ILE:O	1:M:372:GLU:HB3	1.98	0.63
1:P:317:GLU:HB2	1:P:329:LYS:HD3	1.79	0.63
1:P:448:LEU:HD21	1:P:465:LEU:HD12	1.81	0.63
1:A:146:LEU:HB2	1:A:171:VAL:HG21	1.81	0.62
1:B:146:LEU:HD22	1:B:168:LYS:HA	1.80	0.62
1:C:126:GLN:HA	1:C:129:LEU:HB2	1.79	0.62
1:C:126:GLN:NE2	1:C:411:LEU:HD12	2.12	0.62
1:E:150:ALA:HB2	1:E:384:LEU:HD11	1.80	0.62
1:F:209:LYS:HE2	1:F:301:HIS:O	1.99	0.62
1:G:14:SER:O	1:G:17:ILE:HG22	1.98	0.62
1:G:269:ILE:HG23	1:G:274:ILE:HG21	1.81	0.62
1:J:88:SER:O	1:J:92:LEU:HD13	1.99	0.62
1:L:219:ILE:HB	1:L:275:ASN:HB3	1.81	0.62
1:N:316:GLY:O	1:N:330:LEU:HB2	1.99	0.62
1:N:343:GLU:HG3	1:N:344:ASP:N	2.13	0.62
1:B:146:LEU:CD1	1:B:171:VAL:HG13	2.26	0.62
1:B:3:ALA:HB3	1:G:40:LEU:HG	1.81	0.62
1:C:154:LEU:HD23	1:C:163:LYS:HG3	1.81	0.62
1:C:417:GLY:CA	1:L:449:VAL:HB	2.28	0.62
1:E:41:SER:O	1:E:45:ASP:HB2	1.99	0.62
1:F:216:PRO:CG	1:F:295:GLY:HA2	2.29	0.62
1:H:209:LYS:HE2	1:H:301:HIS:O	1.99	0.62
1:J:145:ASP:O	1:J:171:VAL:HG11	1.98	0.62
1:L:106:LYS:HD2	1:L:113:ILE:HD11	1.81	0.62
1:O:421:VAL:O	1:O:424:GLU:HG2	1.98	0.62
1:O:18:GLY:HA2	1:O:509:LYS:HB2	1.81	0.62
1:P:148:ASN:HA	1:P:479:GLY:O	1.99	0.62
1:P:159:LEU:HB2	1:P:163:LYS:CB	2.28	0.62
1:P:146:LEU:HB2	1:P:171:VAL:HG21	1.80	0.62
1:P:283:ILE:HG22	1:P:300:GLU:HG3	1.80	0.62
1:P:216:PRO:HG2	1:P:295:GLY:HA2	1.81	0.62
1:A:127:ALA:CB	1:A:491:LEU:HD13	2.28	0.62
1:D:111:GLN:O	1:D:114:ILE:HB	1.99	0.62
1:D:22:ILE:HD12	1:D:90:THR:HG22	1.80	0.62
1:F:154:LEU:HD11	1:F:159:LEU:HD21	1.82	0.62
1:H:184:GLU:HG2	1:H:184:GLU:O	1.99	0.62
1:J:129:LEU:CD2	1:J:129:LEU:H	2.08	0.62
1:J:171:VAL:HA	1:J:174:VAL:HG22	1.80	0.62
1:N:159:LEU:HA	1:N:369:ILE:HD12	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:450:ALA:HA	1:O:417:GLY:HA2	1.81	0.62
1:A:452:LEU:HD13	1:A:465:LEU:CD1	2.30	0.62
1:D:22:ILE:HD12	1:D:90:THR:CG2	2.30	0.62
1:F:352:VAL:HG22	1:F:355:GLY:H	1.64	0.62
1:G:126:GLN:HE22	1:G:411:LEU:HD11	1.62	0.62
1:H:187:HIS:O	1:H:359:THR:HG23	2.00	0.62
1:H:266:VAL:HB	1:H:290:LEU:HD21	1.81	0.62
1:J:442:GLY:HA3	1:K:112:THR:OG1	1.99	0.62
1:K:207:LEU:HD11	1:K:209:LYS:HE2	1.80	0.62
1:L:158:LEU:HB3	1:M:503:ARG:CZ	2.28	0.62
1:N:146:LEU:CD2	1:N:167:THR:HG23	2.30	0.62
1:O:57:ILE:HG23	1:O:58:LEU:HD23	1.80	0.62
1:O:82:VAL:HG21	1:O:485:GLN:CB	2.27	0.62
1:D:191:LYS:NZ	1:D:191:LYS:HA	2.15	0.62
1:E:183:LEU:O	1:E:183:LEU:HG	2.00	0.62
1:G:434:PRO:HB3	1:G:452:LEU:CD2	2.29	0.62
1:H:119:GLU:CD	1:H:419:GLU:HG2	2.19	0.62
1:J:341:ILE:HG23	1:J:363:ARG:NH1	2.15	0.62
1:L:116:GLY:HA3	1:L:422:ALA:HB1	1.82	0.62
1:M:109:HIS:CE1	1:M:111:GLN:HB2	2.33	0.62
1:P:108:ILE:HG22	1:P:109:HIS:N	2.14	0.62
1:C:61:ILE:CG2	1:C:63:VAL:HG23	2.30	0.62
1:E:489:GLN:H	1:E:489:GLN:HE21	1.46	0.62
1:F:138:ASP:O	1:F:139:GLU:HB2	1.97	0.62
1:G:82:VAL:HG21	1:G:485:GLN:HG2	1.80	0.62
1:I:40:LEU:HB3	1:N:508:ILE:HA	1.82	0.62
1:K:269:ILE:HG12	1:K:274:ILE:HG21	1.80	0.62
1:L:188:VAL:CG1	1:L:377:LEU:HD21	2.30	0.62
1:L:82:VAL:CA	1:L:386:GLN:HG3	2.28	0.62
1:M:111:GLN:O	1:M:114:ILE:HB	2.00	0.62
1:N:31:GLY:O	1:N:156:SER:HB3	1.99	0.62
1:O:415:THR:O	1:O:420:ALA:HB2	2.00	0.62
1:P:159:LEU:N	1:P:159:LEU:HD13	2.14	0.62
1:A:157:LYS:HB3	1:A:159:LEU:HD21	1.80	0.62
1:D:146:LEU:HD12	1:D:171:VAL:CG1	2.25	0.62
1:D:159:LEU:HD12	1:D:372:GLU:HG2	1.82	0.62
1:D:364:GLY:HA3	1:D:370:LEU:CD2	2.29	0.62
1:E:32:PRO:C	1:E:155:SER:HB3	2.20	0.62
1:K:59:LYS:HE3	1:K:72:VAL:O	1.99	0.62
1:L:115:ALA:O	1:L:118:ARG:HB3	2.00	0.62
1:N:174:VAL:HG21	1:N:384:LEU:HB3	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:83:GLY:HA2	1:O:486:VAL:HG12	1.80	0.62
1:P:38:ILE:HG22	1:P:48:LEU:HD13	1.81	0.62
1:A:485:GLN:HB3	1:A:489:GLN:HE22	1.65	0.62
1:A:504:VAL:HG12	1:A:505:ASP:OD1	1.99	0.62
1:C:372:GLU:O	1:C:375:ARG:HB3	2.00	0.62
1:E:145:ASP:O	1:E:171:VAL:HG11	2.00	0.62
1:E:154:LEU:CD2	1:E:163:LYS:HG3	2.29	0.62
1:E:39:LEU:O	1:E:48:LEU:HA	2.00	0.62
1:B:38:ILE:H	1:F:507:ILE:HG12	1.64	0.62
1:H:146:LEU:HD23	1:H:147:MET:N	2.12	0.62
1:H:154:LEU:HD22	1:H:167:THR:HB	1.81	0.62
1:K:191:LYS:NZ	1:K:346:LEU:HD11	2.15	0.62
1:K:205:PHE:H	1:K:359:THR:HB	1.65	0.62
1:L:117:TRP:HD1	1:L:495:ALA:HB1	1.63	0.62
1:L:408:VAL:HA	1:L:411:LEU:HD12	1.82	0.62
1:C:416:PRO:CA	1:L:450:ALA:HB2	2.30	0.62
1:M:174:VAL:CG1	1:M:384:LEU:HB3	2.29	0.62
1:P:194:GLY:HA2	1:P:364:GLY:O	2.00	0.62
1:P:325:PRO:O	1:P:326:GLU:HG3	1.98	0.62
1:A:483:SER:HB2	1:A:486:VAL:HG13	1.80	0.62
1:G:310:LEU:O	1:G:313:VAL:HB	2.00	0.62
1:J:145:ASP:OD1	1:J:171:VAL:HB	2.00	0.62
1:L:334:LYS:CB	1:L:351:GLY:HA3	2.30	0.62
1:L:40:LEU:HB2	1:L:48:LEU:HD23	1.81	0.62
1:L:496:GLU:HB3	1:P:369:ILE:HG12	1.80	0.62
1:P:32:PRO:HG2	1:P:467:MET:SD	2.40	0.62
1:C:186:ILE:HD13	1:C:381:LEU:HG	1.82	0.62
1:C:133:VAL:HG21	1:C:393:THR:O	1.99	0.62
1:E:452:LEU:HD13	1:E:465:LEU:HD13	1.81	0.62
1:G:33:LYS:O	1:G:440:ASN:HB2	2.00	0.62
1:G:8:ALA:O	1:G:11:ALA:HB3	2.00	0.62
1:H:177:LEU:HD13	1:H:177:LEU:C	2.19	0.62
1:I:173:ALA:HB2	1:I:360:ILE:HD12	1.81	0.62
1:J:176:ARG:HD2	1:J:358:CYS:HB2	1.81	0.62
1:J:372:GLU:HG3	1:J:375:ARG:CZ	2.29	0.62
1:K:117:TRP:CZ2	1:K:502:LEU:HD12	2.35	0.62
1:L:231:MET:HG3	1:L:283:ILE:HG13	1.82	0.62
1:N:401:GLU:HG2	1:N:433:LEU:HD22	1.81	0.62
1:O:228:ASN:OD1	1:O:319:ALA:HB3	1.99	0.62
1:P:58:LEU:HB3	1:P:72:VAL:CG1	2.29	0.62
1:C:226:ILE:HG12	1:C:278:ILE:HG23	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:445:SER:OG	1:K:108:ILE:HD13	1.99	0.61
1:E:132:ALA:HB2	1:E:461:THR:HG21	1.82	0.61
1:H:145:ASP:O	1:H:171:VAL:HG11	2.00	0.61
1:I:31:GLY:C	1:I:156:SER:HA	2.21	0.61
1:J:149:ILE:HG23	1:J:383:VAL:HG12	1.82	0.61
1:K:192:LEU:N	1:K:365:ALA:HB3	2.16	0.61
1:N:154:LEU:HD21	1:N:163:LYS:HZ2	1.65	0.61
1:O:115:ALA:O	1:O:118:ARG:HB3	2.00	0.61
1:D:59:LYS:CE	1:D:76:ARG:HB2	2.30	0.61
1:E:74:MET:O	1:E:77:VAL:HG12	2.00	0.61
1:F:146:LEU:HD12	1:F:171:VAL:CG1	2.18	0.61
1:H:206:LEU:HB2	1:H:361:VAL:HG22	1.82	0.61
1:I:154:LEU:HD11	1:I:163:LYS:CG	2.29	0.61
1:I:154:LEU:HD21	1:I:163:LYS:HG3	1.82	0.61
1:I:145:ASP:OD1	1:I:171:VAL:HB	2.01	0.61
1:N:159:LEU:HD23	1:N:160:THR:N	2.15	0.61
1:O:204:GLY:O	1:O:359:THR:HB	2.01	0.61
1:P:114:ILE:HA	1:P:117:TRP:CE3	2.34	0.61
1:A:146:LEU:CD2	1:A:147:MET:H	2.13	0.61
1:D:110:PRO:HG2	1:D:502:LEU:CD1	2.29	0.61
1:E:191:LYS:HE3	1:E:191:LYS:CA	2.30	0.61
1:G:380:ALA:O	1:G:384:LEU:HD23	1.99	0.61
1:H:150:ALA:O	1:H:154:LEU:HB2	1.99	0.61
1:K:203:GLU:HB2	1:K:350:SER:HB2	1.82	0.61
1:K:369:ILE:O	1:K:372:GLU:HG2	2.00	0.61
1:K:38:ILE:HG22	1:K:50:VAL:CB	2.28	0.61
1:L:274:ILE:O	1:L:296:VAL:HG22	1.99	0.61
1:L:159:LEU:HD12	1:L:372:GLU:HG2	1.83	0.61
1:N:133:VAL:HG12	1:N:394:VAL:CG1	2.29	0.61
1:P:185:ALA:HA	1:P:309:ARG:HG2	1.82	0.61
1:P:31:GLY:HA3	1:P:440:ASN:HD21	1.66	0.61
1:A:42:SER:OG	1:C:509:LYS:HE3	2.00	0.61
1:E:219:ILE:HD11	1:E:336:ILE:HB	1.82	0.61
1:B:442:GLY:HA2	1:F:109:HIS:ND1	2.15	0.61
1:F:334:LYS:HG3	1:F:335:LEU:N	2.15	0.61
1:G:324:HIS:HB2	1:G:329:LYS:NZ	2.15	0.61
1:J:184:GLU:HG2	1:J:309:ARG:CD	2.31	0.61
1:K:324:HIS:HB2	1:K:329:LYS:NZ	2.14	0.61
1:L:448:LEU:HD11	1:L:465:LEU:HD11	1.81	0.61
1:M:207:LEU:O	1:M:347:ILE:HG22	2.00	0.61
1:N:114:ILE:HG21	1:N:503:ARG:HH21	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:312:LEU:HD22	1:P:213:VAL:CG2	2.30	0.61
1:A:114:ILE:HG12	1:A:502:LEU:HB3	1.81	0.61
1:A:145:ASP:OD1	1:A:171:VAL:HB	2.01	0.61
1:A:74:MET:O	1:A:77:VAL:HG22	1.99	0.61
1:H:108:ILE:HD12	1:P:444:ASP:HB2	1.82	0.61
1:H:317:GLU:HB3	1:H:329:LYS:HD3	1.82	0.61
1:L:327:LEU:HD13	1:L:327:LEU:H	1.66	0.61
1:M:438:ALA:CB	1:M:448:LEU:HG	2.29	0.61
1:N:166:PHE:CZ	1:N:198:ASP:HB3	2.36	0.61
1:N:352:VAL:HG22	1:N:355:GLY:H	1.66	0.61
1:O:181:GLY:O	1:O:182:ASN:HB3	2.00	0.61
1:P:141:LYS:HG2	1:P:144:GLN:HB2	1.80	0.61
1:P:39:LEU:HD11	1:P:57:ILE:CG1	2.30	0.61
1:C:225:LEU:HD12	1:C:226:ILE:N	2.16	0.61
1:C:324:HIS:O	1:C:329:LYS:HG2	2.00	0.61
1:F:171:VAL:HG12	1:F:384:LEU:CD1	2.30	0.61
1:G:219:ILE:HD11	1:G:336:ILE:HB	1.82	0.61
1:G:367:GLN:HG2	1:G:370:LEU:HB2	1.81	0.61
1:H:211:ILE:HD12	1:H:211:ILE:H	1.62	0.61
1:H:402:MET:SD	1:H:453:ARG:HA	2.40	0.61
1:H:58:LEU:HB3	1:H:72:VAL:CG1	2.30	0.61
1:I:186:ILE:HD13	1:I:381:LEU:CD1	2.30	0.61
1:J:154:LEU:HD21	1:J:163:LYS:HG3	1.82	0.61
1:K:250:LYS:O	1:K:253:GLU:HG2	1.99	0.61
1:L:117:TRP:CD1	1:L:495:ALA:HB1	2.36	0.61
1:M:158:LEU:HD23	1:M:369:ILE:HD11	1.82	0.61
1:M:500:VAL:HA	1:M:503:ARG:HD2	1.82	0.61
1:P:109:HIS:NE2	1:P:111:GLN:HG2	2.15	0.61
1:D:35:MET:HB3	1:E:503:ARG:HB3	1.82	0.61
1:E:334:LYS:HD3	1:E:351:GLY:HA3	1.82	0.61
1:G:446:ALA:HB1	1:N:418:LYS:HE2	1.83	0.61
1:K:152:THR:HG21	1:K:482:GLU:HG2	1.83	0.61
1:L:163:LYS:HG3	1:L:166:PHE:CD1	2.36	0.61
1:L:511:ALA:HB1	1:L:512:PRO:CD	2.31	0.61
1:M:141:LYS:HG2	1:M:144:GLN:HB2	1.82	0.61
1:M:511:ALA:N	1:M:512:PRO:HD2	2.15	0.61
1:M:64:ASP:HB3	1:M:66:PRO:HD2	1.83	0.61
1:O:497:ALA:O	1:O:501:ILE:HG12	2.01	0.61
1:C:265:LYS:HE2	1:C:322:PHE:CE1	2.36	0.61
1:E:106:LYS:HD3	1:E:113:ILE:HD11	1.83	0.61
1:E:59:LYS:HE2	1:E:76:ARG:HB2	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:188:VAL:HG21	1:F:377:LEU:HD21	1.83	0.61
1:H:324:HIS:ND1	1:H:325:PRO:HD3	2.16	0.61
1:J:177:LEU:HG	1:J:186:ILE:HD11	1.83	0.61
1:M:176:ARG:HH22	1:M:360:ILE:HG13	1.64	0.61
1:C:216:PRO:HG2	1:C:295:GLY:HA2	1.83	0.61
1:C:161:HIS:HE1	1:C:369:ILE:HG21	1.65	0.61
1:C:150:ALA:HB2	1:C:384:LEU:HD21	1.82	0.61
1:F:204:GLY:O	1:F:359:THR:HB	2.01	0.61
1:H:401:GLU:OE1	1:H:433:LEU:HB3	2.00	0.61
1:I:341:ILE:HD11	1:I:348:HIS:NE2	2.16	0.61
1:J:369:ILE:HG12	1:K:500:VAL:CG2	2.31	0.61
1:J:74:MET:O	1:J:77:VAL:HG12	1.99	0.61
1:K:148:ASN:HB3	1:K:481:THR:HG22	1.83	0.61
1:L:399:CYS:SG	1:L:464:GLY:HA3	2.40	0.61
1:N:145:ASP:O	1:N:171:VAL:HG11	2.01	0.61
1:N:59:LYS:HE2	1:N:76:ARG:HB2	1.83	0.61
1:P:114:ILE:HG13	1:P:503:ARG:HD2	1.81	0.61
1:C:174:VAL:HG11	1:C:384:LEU:HB2	1.83	0.61
1:C:448:LEU:HD21	1:C:465:LEU:HD12	1.82	0.61
1:B:39:LEU:CD2	1:F:510:ALA:HB2	2.31	0.61
1:G:284:TYR:O	1:G:287:PRO:HD2	2.00	0.61
1:G:66:PRO:HA	1:G:507:ILE:HD11	1.83	0.61
1:I:324:HIS:O	1:I:329:LYS:HG2	1.99	0.61
1:J:205:PHE:CE2	1:J:207:LEU:HB2	2.36	0.61
1:J:402:MET:SD	1:J:456:HIS:HB2	2.40	0.61
1:K:433:LEU:O	1:K:436:ILE:HG22	2.01	0.61
1:L:59:LYS:NZ	1:L:76:ARG:HB2	2.16	0.61
1:P:416:PRO:O	1:P:419:GLU:HB2	2.01	0.61
1:D:190:LYS:HD3	1:D:190:LYS:C	2.22	0.60
1:D:450:ALA:HB2	1:D:453:ARG:HH21	1.66	0.60
1:D:484:PHE:HE2	1:D:488:ARG:NE	1.98	0.60
1:E:312:LEU:HD13	1:E:354:LEU:HD21	1.83	0.60
1:E:33:LYS:HD2	1:G:111:GLN:HG3	1.84	0.60
1:F:59:LYS:HD3	1:F:76:ARG:HB2	1.83	0.60
1:K:334:LYS:HB3	1:K:351:GLY:HA3	1.81	0.60
1:D:420:ALA:HB3	1:K:450:ALA:HB2	1.82	0.60
1:L:171:VAL:O	1:L:174:VAL:HG22	2.01	0.60
1:M:126:GLN:NE2	1:M:411:LEU:HD11	2.15	0.60
1:O:133:VAL:HG22	1:O:134:ASP:N	2.15	0.60
1:O:434:PRO:HB3	1:O:452:LEU:CD2	2.31	0.60
1:O:507:ILE:O	1:O:508:ILE:HB	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:152:THR:OG1	1:P:480:ILE:HG21	2.01	0.60
1:A:84:ASP:CG	1:A:85:GLY:H	2.05	0.60
1:B:398:GLY:HA2	1:B:401:GLU:OE1	2.00	0.60
1:C:109:HIS:ND1	1:C:112:THR:HG23	2.15	0.60
1:C:498:ALA:HA	1:C:501:ILE:HG12	1.83	0.60
1:E:146:LEU:CD1	1:E:171:VAL:HG13	2.29	0.60
1:H:163:LYS:O	1:H:166:PHE:HB2	2.02	0.60
1:H:28:SER:O	1:H:34:GLY:HA2	2.01	0.60
1:H:211:ILE:HD11	1:H:297:MET:HG3	1.83	0.60
1:I:148:ASN:HB2	1:I:481:THR:H	1.65	0.60
1:I:159:LEU:HG	1:I:163:LYS:CB	2.31	0.60
1:I:352:VAL:CG2	1:I:355:GLY:H	2.14	0.60
1:M:58:LEU:HB3	1:M:72:VAL:HG13	1.83	0.60
1:N:377:LEU:HD23	1:N:377:LEU:H	1.66	0.60
1:O:176:ARG:HD2	1:O:358:CYS:SG	2.41	0.60
1:O:500:VAL:O	1:O:504:VAL:HG23	2.00	0.60
1:P:159:LEU:HB2	1:P:163:LYS:HB2	1.83	0.60
1:P:390:ASP:HB3	1:P:485:GLN:OE1	2.01	0.60
1:A:146:LEU:HB2	1:A:171:VAL:CG2	2.31	0.60
1:B:117:TRP:HE1	1:B:498:ALA:CB	2.14	0.60
1:E:117:TRP:HD1	1:E:495:ALA:O	1.85	0.60
1:F:451:GLN:HE22	1:F:471:THR:HA	1.66	0.60
1:G:111:GLN:O	1:G:114:ILE:HB	2.01	0.60
1:I:134:ASP:OD1	1:I:392:ARG:HA	2.01	0.60
1:J:101:GLU:O	1:J:104:ILE:HG12	2.01	0.60
1:K:219:ILE:HD12	1:K:275:ASN:HB3	1.82	0.60
1:M:148:ASN:HA	1:M:479:GLY:O	2.02	0.60
1:N:139:GLU:OE2	1:N:140:VAL:HG23	2.00	0.60
1:N:216:PRO:HG2	1:N:295:GLY:HA2	1.81	0.60
1:O:502:LEU:HG	1:O:502:LEU:O	2.01	0.60
1:O:18:GLY:HA2	1:O:509:LYS:CB	2.31	0.60
1:B:215:GLN:HG3	1:B:292:GLY:CA	2.32	0.60
1:B:324:HIS:HB2	1:B:329:LYS:NZ	2.17	0.60
1:E:33:LYS:HG3	1:G:109:HIS:NE2	2.16	0.60
1:I:122:LYS:O	1:I:126:GLN:HG2	2.01	0.60
1:I:367:GLN:HG2	1:I:369:ILE:H	1.66	0.60
1:J:334:LYS:CB	1:J:351:GLY:HA3	2.31	0.60
1:J:176:ARG:CD	1:J:358:CYS:HB2	2.30	0.60
1:K:187:HIS:O	1:K:359:THR:HG23	2.02	0.60
1:L:168:LYS:O	1:L:171:VAL:HG22	2.01	0.60
1:L:364:GLY:HA3	1:L:370:LEU:CD1	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:131:SER:HA	1:N:403:LEU:HD23	1.83	0.60
1:O:372:GLU:O	1:O:375:ARG:HB3	2.02	0.60
1:B:413:SER:CA	1:I:454:ALA:HA	2.32	0.60
1:C:225:LEU:HD11	1:C:324:HIS:ND1	2.17	0.60
1:E:132:ALA:CB	1:E:461:THR:HG21	2.31	0.60
1:B:259:LYS:HE2	1:F:321:THR:OG1	2.00	0.60
1:G:137:SER:HB3	1:G:391:SER:HA	1.83	0.60
1:H:188:VAL:CG1	1:H:377:LEU:HB2	2.32	0.60
1:C:25:LEU:HG	1:H:508:ILE:HG12	1.84	0.60
1:I:159:LEU:HG	1:I:163:LYS:HG2	1.83	0.60
1:K:418:LYS:HZ2	1:K:418:LYS:HB3	1.67	0.60
1:K:37:LYS:O	1:K:50:VAL:HG23	2.01	0.60
1:L:146:LEU:HD22	1:L:168:LYS:CA	2.30	0.60
1:O:210:LYS:HE3	1:O:212:GLY:O	2.02	0.60
1:A:33:LYS:HB2	1:A:440:ASN:HB2	1.83	0.60
1:C:116:GLY:O	1:C:119:GLU:HB2	2.02	0.60
1:C:231:MET:HB2	1:C:284:TYR:H	1.65	0.60
1:C:283:ILE:HG22	1:C:300:GLU:HG3	1.84	0.60
1:E:366:THR:HG21	1:G:74:MET:HG2	1.83	0.60
1:H:334:LYS:HD3	1:H:351:GLY:HA3	1.83	0.60
1:I:112:THR:OG1	1:O:442:GLY:HA3	2.01	0.60
1:J:59:LYS:HE3	1:J:73:ASP:HA	1.82	0.60
1:K:159:LEU:HB3	1:K:163:LYS:HD3	1.83	0.60
1:M:28:SER:HB2	1:M:35:MET:SD	2.41	0.60
1:O:211:ILE:HB	1:O:215:GLN:OE1	2.01	0.60
1:O:396:GLY:HA3	1:O:480:ILE:HG22	1.82	0.60
1:O:81:GLU:O	1:O:82:VAL:HB	2.00	0.60
1:A:154:LEU:HD22	1:A:167:THR:CB	2.32	0.60
1:C:154:LEU:HD23	1:C:163:LYS:CG	2.32	0.60
1:C:500:VAL:O	1:C:504:VAL:HG23	2.02	0.60
1:D:163:LYS:HG3	1:D:166:PHE:CD1	2.36	0.60
1:F:154:LEU:HD22	1:F:167:THR:HB	1.83	0.60
1:J:161:HIS:CD2	1:J:162:HIS:H	2.19	0.60
1:J:146:LEU:HD13	1:J:168:LYS:HA	1.83	0.60
1:M:402:MET:SD	1:M:456:HIS:HB2	2.42	0.60
1:N:274:ILE:O	1:N:296:VAL:HG22	2.01	0.60
1:N:402:MET:SD	1:N:453:ARG:HA	2.42	0.60
1:G:106:LYS:C	1:N:446:ALA:HB2	2.21	0.60
1:O:79:ASP:OD1	1:O:84:ASP:HB3	2.02	0.60
1:P:163:LYS:HD2	1:P:166:PHE:CG	2.37	0.60
1:C:175:LEU:O	1:C:178:LYS:HG2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:126:GLN:HG3	1:E:411:LEU:HD11	1.84	0.60
1:M:485:GLN:HB3	1:M:489:GLN:HE22	1.65	0.60
1:P:173:ALA:HA	1:P:176:ARG:CZ	2.31	0.60
1:P:185:ALA:O	1:P:357:ALA:HB1	2.02	0.60
1:B:377:LEU:HD23	1:B:377:LEU:O	2.02	0.60
1:G:324:HIS:O	1:G:328:VAL:HG23	2.01	0.60
1:H:390:ASP:HB3	1:H:485:GLN:OE1	2.02	0.60
1:J:41:SER:HB2	1:K:509:LYS:NZ	2.17	0.60
1:L:117:TRP:HA	1:L:120:ALA:HB3	1.84	0.60
1:L:166:PHE:CE1	1:L:198:ASP:HB3	2.37	0.60
1:L:178:LYS:HZ3	1:L:388:VAL:HG13	1.66	0.60
1:L:39:LEU:HD22	1:M:508:ILE:CB	2.28	0.60
1:M:150:ALA:HB1	1:M:167:THR:OG1	2.02	0.60
1:M:402:MET:SD	1:M:453:ARG:HA	2.42	0.60
1:O:367:GLN:CG	1:O:369:ILE:HB	2.32	0.60
1:A:509:LYS:HB3	1:F:39:LEU:HD22	1.83	0.60
1:B:59:LYS:HE2	1:B:76:ARG:HB2	1.84	0.60
1:G:268:ARG:O	1:G:271:LYS:HG2	2.02	0.60
1:H:146:LEU:HB2	1:H:171:VAL:HG22	1.84	0.60
1:K:143:ARG:HA	1:K:143:ARG:NE	2.17	0.60
1:K:500:VAL:HA	1:K:503:ARG:NE	2.15	0.60
1:L:448:LEU:HD21	1:L:465:LEU:CD1	2.32	0.60
1:N:204:GLY:O	1:N:359:THR:HB	2.02	0.60
1:O:231:MET:HG3	1:O:283:ILE:HG13	1.83	0.60
1:O:39:LEU:HD12	1:O:57:ILE:HG13	1.83	0.60
1:P:505:ASP:O	1:P:506:ASN:HB3	2.02	0.60
1:B:41:SER:HB2	1:F:510:ALA:O	2.02	0.59
1:B:39:LEU:HD11	1:B:57:ILE:CG1	2.32	0.59
1:D:159:LEU:H	1:D:159:LEU:HD13	1.67	0.59
1:G:106:LYS:HG3	1:G:106:LYS:O	2.01	0.59
1:I:324:HIS:O	1:I:328:VAL:HG23	2.01	0.59
1:I:61:ILE:HG13	1:I:62:GLY:N	2.16	0.59
1:I:74:MET:CE	1:I:493:SER:HB2	2.33	0.59
1:J:124:ALA:HB1	1:J:491:LEU:HD13	1.83	0.59
1:N:133:VAL:HG23	1:N:134:ASP:H	1.66	0.59
1:O:39:LEU:CD1	1:O:57:ILE:HG13	2.32	0.59
1:P:343:GLU:CD	1:P:343:GLU:H	2.05	0.59
1:A:509:LYS:HG2	1:A:510:ALA:N	2.16	0.59
1:B:146:LEU:HB2	1:B:171:VAL:HG21	1.84	0.59
1:B:4:ASP:OD1	1:B:508:ILE:HG23	2.02	0.59
1:D:219:ILE:HD11	1:D:336:ILE:HB	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:188:VAL:HG11	1:D:377:LEU:HD22	1.84	0.59
1:E:159:LEU:N	1:E:159:LEU:HD22	2.17	0.59
1:F:132:ALA:O	1:F:133:VAL:HG13	2.02	0.59
1:F:171:VAL:O	1:F:174:VAL:HG22	2.02	0.59
1:G:269:ILE:HG23	1:G:274:ILE:CG2	2.32	0.59
1:G:193:GLY:H	1:G:343:GLU:CD	2.05	0.59
1:G:206:LEU:HD23	1:G:348:HIS:CD2	2.36	0.59
1:G:128:LEU:CD2	1:G:488:ARG:HG2	2.32	0.59
1:H:434:PRO:HB3	1:H:452:LEU:CD2	2.31	0.59
1:I:126:GLN:HG3	1:I:411:LEU:CD1	2.28	0.59
1:J:324:HIS:ND1	1:J:325:PRO:HD3	2.17	0.59
1:K:334:LYS:CB	1:K:351:GLY:HA3	2.32	0.59
1:K:74:MET:O	1:K:77:VAL:HG12	2.02	0.59
1:L:96:LEU:C	1:L:96:LEU:HD13	2.22	0.59
1:M:178:LYS:HD3	1:M:388:VAL:HG21	1.82	0.59
1:N:483:SER:O	1:N:486:VAL:HG22	2.02	0.59
1:P:163:LYS:HA	1:P:166:PHE:CE1	2.37	0.59
1:C:210:LYS:HE2	1:C:212:GLY:O	2.01	0.59
1:C:99:GLU:CG	1:C:425:SER:HB3	2.32	0.59
1:E:58:LEU:HB3	1:E:72:VAL:HG13	1.82	0.59
1:F:190:LYS:HA	1:F:362:LEU:O	2.02	0.59
1:F:28:SER:O	1:F:34:GLY:HA2	2.02	0.59
1:F:324:HIS:O	1:F:329:LYS:HG3	2.01	0.59
1:F:114:ILE:HG23	1:F:499:GLU:HG3	1.83	0.59
1:G:159:LEU:HG	1:G:163:LYS:CD	2.32	0.59
1:G:30:LEU:HG	1:G:87:THR:O	2.03	0.59
1:K:159:LEU:HD23	1:K:163:LYS:CD	2.32	0.59
1:L:6:GLU:HB2	1:L:506:ASN:HD21	1.67	0.59
1:N:32:PRO:HG3	1:N:467:MET:HE3	1.84	0.59
1:N:82:VAL:HG13	1:N:83:GLY:N	2.18	0.59
1:O:324:HIS:O	1:O:328:VAL:HG22	2.02	0.59
1:O:75:SER:O	1:O:78:GLN:HB3	2.02	0.59
1:A:173:ALA:O	1:A:176:ARG:HG2	2.02	0.59
1:B:99:GLU:HG3	1:B:425:SER:HB2	1.85	0.59
1:B:82:VAL:HG21	1:B:486:VAL:N	2.16	0.59
1:D:127:ALA:HB2	1:D:404:MET:HG3	1.84	0.59
1:D:415:THR:HB	1:D:419:GLU:HB3	1.83	0.59
1:F:114:ILE:HG13	1:F:503:ARG:CB	2.33	0.59
1:F:168:LYS:O	1:F:171:VAL:HG22	2.03	0.59
1:A:505:ASP:HB3	1:F:37:LYS:CD	2.32	0.59
1:L:310:LEU:O	1:L:314:THR:HG22	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:188:VAL:HG21	1:O:377:LEU:HD22	1.84	0.59
1:O:433:LEU:O	1:O:436:ILE:HG22	2.01	0.59
1:P:205:PHE:HA	1:P:359:THR:OG1	2.02	0.59
1:P:433:LEU:O	1:P:437:ILE:HG12	2.03	0.59
1:B:284:TYR:O	1:B:287:PRO:HD2	2.03	0.59
1:E:154:LEU:HD22	1:E:167:THR:HB	1.82	0.59
1:E:185:ALA:HA	1:E:309:ARG:NE	2.17	0.59
1:H:190:LYS:HB2	1:H:370:LEU:HG	1.84	0.59
1:I:110:PRO:O	1:I:113:ILE:HB	2.02	0.59
1:L:287:PRO:O	1:L:291:PHE:HD1	1.86	0.59
1:L:225:LEU:HD11	1:L:324:HIS:CE1	2.36	0.59
1:M:96:LEU:HD21	1:M:117:TRP:CZ2	2.38	0.59
1:P:173:ALA:O	1:P:176:ARG:HG2	2.02	0.59
1:L:321:THR:HG21	1:P:255:GLU:OE1	2.02	0.59
1:B:485:GLN:HG2	1:B:488:ARG:HH21	1.67	0.59
1:C:161:HIS:CE1	1:C:369:ILE:HG21	2.38	0.59
1:E:325:PRO:C	1:E:326:GLU:HG3	2.21	0.59
1:E:408:VAL:HA	1:E:411:LEU:HD12	1.83	0.59
1:F:159:LEU:HG	1:F:163:LYS:HG2	1.84	0.59
1:G:324:HIS:ND1	1:G:325:PRO:HD3	2.18	0.59
1:G:82:VAL:CG2	1:G:485:GLN:HG2	2.32	0.59
1:H:284:TYR:O	1:H:287:PRO:HD2	2.03	0.59
1:I:201:LEU:HD23	1:I:360:ILE:HG12	1.84	0.59
1:J:150:ALA:HB2	1:J:384:LEU:HD21	1.84	0.59
1:M:154:LEU:HD21	1:M:163:LYS:NZ	2.17	0.59
1:M:171:VAL:O	1:M:174:VAL:HG22	2.02	0.59
1:O:226:ILE:HG12	1:O:278:ILE:HG23	1.83	0.59
1:O:92:LEU:HD11	1:O:433:LEU:HD21	1.83	0.59
1:B:452:LEU:HD13	1:B:465:LEU:HD13	1.83	0.59
1:C:324:HIS:HB2	1:C:329:LYS:NZ	2.17	0.59
1:C:187:HIS:HB3	1:C:359:THR:HG23	1.84	0.59
1:C:369:ILE:HA	1:C:372:GLU:HG2	1.84	0.59
1:D:478:LEU:HB3	1:D:480:ILE:HD12	1.84	0.59
1:E:159:LEU:HB2	1:E:163:LYS:HB2	1.84	0.59
1:E:24:ASP:O	1:E:27:LYS:HG2	2.02	0.59
1:E:506:ASN:ND2	1:E:507:ILE:HG12	2.18	0.59
1:F:107:LYS:O	1:F:107:LYS:HG2	2.02	0.59
1:F:116:GLY:HA3	1:F:422:ALA:CB	2.33	0.59
1:F:503:ARG:HG3	1:F:504:VAL:HG23	1.83	0.59
1:F:96:LEU:HD13	1:F:97:LEU:N	2.17	0.59
1:G:129:LEU:HD23	1:G:129:LEU:C	2.22	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:393:THR:HG22	1:H:483:SER:HA	1.85	0.59
1:I:168:LYS:O	1:I:171:VAL:HG22	2.02	0.59
1:I:219:ILE:HB	1:I:275:ASN:HB3	1.84	0.59
1:I:188:VAL:HG21	1:I:362:LEU:CD1	2.32	0.59
1:I:186:ILE:CD1	1:I:381:LEU:HG	2.30	0.59
1:J:154:LEU:HD22	1:J:167:THR:CB	2.33	0.59
1:J:173:ALA:HB2	1:J:360:ILE:HD11	1.85	0.59
1:K:146:LEU:HD13	1:K:167:THR:O	2.03	0.59
1:K:128:LEU:HD11	1:K:492:LEU:HD11	1.84	0.59
1:N:216:PRO:HG3	1:N:295:GLY:HA2	1.84	0.59
1:N:39:LEU:CD1	1:N:57:ILE:HD11	2.32	0.59
1:O:110:PRO:HA	1:O:113:ILE:HG13	1.85	0.59
1:O:368:GLN:O	1:O:372:GLU:HB2	2.03	0.59
1:P:206:LEU:HD21	1:P:348:HIS:CD2	2.38	0.59
1:A:390:ASP:HB3	1:A:485:GLN:OE1	2.03	0.59
1:C:150:ALA:HB1	1:C:167:THR:OG1	2.03	0.59
1:D:269:ILE:HG23	1:D:274:ILE:HG21	1.84	0.59
1:D:364:GLY:HA3	1:D:370:LEU:HD13	1.85	0.59
1:E:342:GLY:O	1:E:343:GLU:HB2	2.03	0.59
1:F:345:LYS:O	1:F:346:LEU:HD13	2.01	0.59
1:E:158:LEU:HD11	1:G:503:ARG:NE	2.18	0.59
1:H:372:GLU:O	1:H:375:ARG:HG2	2.03	0.59
1:H:433:LEU:O	1:H:436:ILE:HG22	2.03	0.59
1:I:178:LYS:HD3	1:I:388:VAL:CG2	2.32	0.59
1:K:402:MET:CE	1:K:453:ARG:HG2	2.32	0.59
1:L:32:PRO:HA	1:L:155:SER:HB3	1.84	0.59
1:L:210:LYS:HE2	1:L:212:GLY:O	2.03	0.59
1:M:146:LEU:HD21	1:M:167:THR:HG23	1.85	0.59
1:M:178:LYS:HD2	1:M:388:VAL:HG21	1.84	0.59
1:O:188:VAL:HG11	1:O:377:LEU:CD2	2.30	0.59
1:O:114:ILE:CG2	1:O:499:GLU:HG3	2.32	0.59
1:B:106:LYS:HD3	1:I:446:ALA:CB	2.33	0.59
1:B:31:GLY:C	1:B:156:SER:HA	2.23	0.59
1:C:176:ARG:HH22	1:C:360:ILE:HG13	1.66	0.59
1:C:207:LEU:O	1:C:347:ILE:HG22	2.02	0.59
1:H:149:ILE:HD13	1:H:383:VAL:HG11	1.84	0.59
1:I:115:ALA:O	1:I:118:ARG:HB3	2.03	0.59
1:I:149:ILE:HD12	1:I:383:VAL:HG11	1.85	0.59
1:I:452:LEU:HD13	1:I:465:LEU:HD13	1.85	0.59
1:J:89:VAL:HG12	1:J:490:VAL:HG23	1.85	0.59
1:L:127:ALA:HB3	1:L:491:LEU:HD13	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:231:MET:HB2	1:L:284:TYR:H	1.68	0.59
1:L:79:ASP:HA	1:L:83:GLY:CA	2.31	0.59
1:M:510:ALA:C	1:M:512:PRO:HD2	2.23	0.59
1:O:146:LEU:HB2	1:O:171:VAL:HG11	1.85	0.59
1:O:81:GLU:C	1:O:386:GLN:HG3	2.23	0.59
1:A:154:LEU:HD21	1:A:163:LYS:HZ2	1.64	0.59
1:B:114:ILE:HA	1:B:117:TRP:CE3	2.38	0.59
1:B:317:GLU:HB2	1:B:329:LYS:HD3	1.85	0.59
1:C:40:LEU:HD22	1:C:41:SER:N	2.18	0.59
1:C:58:LEU:HB3	1:C:72:VAL:CG1	2.32	0.59
1:E:211:ILE:HD11	1:E:297:MET:HG3	1.85	0.59
1:H:146:LEU:HB2	1:H:171:VAL:HG21	1.83	0.59
1:H:82:VAL:HG11	1:H:486:VAL:HG12	1.84	0.59
1:L:11:ALA:HB1	1:L:506:ASN:HA	1.84	0.59
1:N:111:GLN:O	1:N:114:ILE:HB	2.02	0.59
1:O:101:GLU:O	1:O:104:ILE:HG12	2.03	0.59
1:O:154:LEU:HD21	1:O:163:LYS:HG3	1.85	0.59
1:P:268:ARG:O	1:P:271:LYS:HG2	2.03	0.59
1:A:145:ASP:O	1:A:171:VAL:HG11	2.02	0.58
1:B:145:ASP:OD1	1:B:171:VAL:HB	2.03	0.58
1:C:404:MET:O	1:C:408:VAL:HG22	2.03	0.58
1:C:418:LYS:HE2	1:L:445:SER:HB2	1.84	0.58
1:G:226:ILE:HG12	1:G:278:ILE:HG23	1.85	0.58
1:G:356:GLU:OE1	1:G:356:GLU:HA	2.02	0.58
1:G:157:LYS:HD3	1:G:376:SER:CB	2.33	0.58
1:H:313:VAL:HG13	1:H:352:VAL:HG11	1.85	0.58
1:I:185:ALA:HA	1:I:309:ARG:HB2	1.84	0.58
1:J:128:LEU:HD12	1:J:491:LEU:CD1	2.30	0.58
1:K:305:VAL:HG22	1:K:309:ARG:HH12	1.67	0.58
1:L:119:GLU:HA	1:L:119:GLU:OE1	2.03	0.58
1:L:182:ASN:HD22	1:L:182:ASN:H	1.51	0.58
1:M:372:GLU:HG3	1:M:375:ARG:NH1	2.17	0.58
1:O:59:LYS:HE2	1:O:76:ARG:HB2	1.83	0.58
1:P:231:MET:HG3	1:P:283:ILE:HG13	1.84	0.58
1:P:485:GLN:HB3	1:P:489:GLN:HE22	1.68	0.58
1:D:132:ALA:O	1:D:133:VAL:HG22	2.03	0.58
1:D:352:VAL:HG22	1:D:355:GLY:H	1.66	0.58
1:I:219:ILE:HD11	1:I:336:ILE:HB	1.85	0.58
1:I:334:LYS:CD	1:I:351:GLY:HA3	2.33	0.58
1:I:452:LEU:HD22	1:I:465:LEU:HD21	1.85	0.58
1:J:154:LEU:CD2	1:J:163:LYS:HG3	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:190:LYS:HD2	1:J:370:LEU:HG	1.84	0.58
1:L:178:LYS:HZ1	1:L:388:VAL:HG13	1.67	0.58
1:L:4:ASP:CG	1:L:509:LYS:HB2	2.24	0.58
1:J:509:LYS:HA	1:N:40:LEU:CB	2.34	0.58
1:O:161:HIS:CG	1:O:162:HIS:H	2.21	0.58
1:A:92:LEU:HD13	1:A:93:ALA:N	2.18	0.58
1:D:133:VAL:HG12	1:D:395:TYR:CD2	2.37	0.58
1:F:198:ASP:C	1:F:363:ARG:HB2	2.23	0.58
1:G:113:ILE:HG22	1:G:117:TRP:HZ3	1.68	0.58
1:G:157:LYS:HD3	1:G:376:SER:HB2	1.86	0.58
1:G:159:LEU:HG	1:G:163:LYS:HD2	1.85	0.58
1:G:59:LYS:HE2	1:G:76:ARG:HB2	1.86	0.58
1:H:78:GLN:OE1	1:H:489:GLN:HB3	2.04	0.58
1:I:114:ILE:CD1	1:I:502:LEU:HD13	2.33	0.58
1:I:113:ILE:HD13	1:I:418:LYS:HZ3	1.67	0.58
1:L:29:THR:O	1:L:156:SER:HB2	2.03	0.58
1:M:513:ARG:HG3	1:M:513:ARG:O	2.04	0.58
1:O:325:PRO:C	1:O:326:GLU:HG3	2.23	0.58
1:P:31:GLY:O	1:P:156:SER:HA	2.04	0.58
1:A:373:ALA:HA	1:A:376:SER:OG	2.04	0.58
1:A:58:LEU:HB3	1:A:72:VAL:CG1	2.33	0.58
1:E:103:LEU:HG	1:E:113:ILE:HD13	1.86	0.58
1:F:324:HIS:HB2	1:F:329:LYS:NZ	2.18	0.58
1:G:128:LEU:O	1:G:129:LEU:HD22	2.03	0.58
1:G:192:LEU:O	1:G:366:THR:HG23	2.04	0.58
1:I:114:ILE:HA	1:I:117:TRP:CE3	2.39	0.58
1:K:484:PHE:CE2	1:K:488:ARG:HD3	2.38	0.58
1:M:170:ALA:HB1	1:M:384:LEU:HD11	1.84	0.58
1:O:324:HIS:HB2	1:O:329:LYS:HE2	1.85	0.58
1:P:162:HIS:HB3	1:P:198:ASP:OD2	2.02	0.58
1:P:219:ILE:HB	1:P:275:ASN:HB3	1.86	0.58
1:P:310:LEU:O	1:P:314:THR:HG22	2.03	0.58
1:P:324:HIS:ND1	1:P:325:PRO:HD3	2.17	0.58
1:P:85:GLY:O	1:P:153:THR:HA	2.03	0.58
1:C:126:GLN:HA	1:C:129:LEU:CB	2.33	0.58
1:D:141:LYS:HG2	1:D:144:GLN:HB2	1.84	0.58
1:D:372:GLU:O	1:D:375:ARG:HB3	2.03	0.58
1:D:445:SER:HA	1:D:448:LEU:HB3	1.86	0.58
1:D:19:ALA:HB3	1:D:98:ARG:HH22	1.67	0.58
1:E:85:GLY:O	1:E:153:THR:HA	2.03	0.58
1:G:435:THR:HG23	1:G:445:SER:HB3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:404:MET:O	1:H:408:VAL:HG22	2.03	0.58
1:I:274:ILE:O	1:I:296:VAL:HG22	2.03	0.58
1:I:216:PRO:CG	1:I:295:GLY:HA2	2.33	0.58
1:I:148:ASN:CA	1:I:480:ILE:HA	2.33	0.58
1:L:324:HIS:HB2	1:L:329:LYS:CE	2.33	0.58
1:L:341:ILE:HB	1:L:346:LEU:CD2	2.32	0.58
1:N:119:GLU:HB3	1:N:423:MET:HG3	1.85	0.58
1:N:145:ASP:CG	1:N:171:VAL:HB	2.24	0.58
1:E:324:HIS:HB2	1:E:329:LYS:HZ3	1.68	0.58
1:F:81:GLU:C	1:F:386:GLN:HG3	2.24	0.58
1:G:28:SER:HB2	1:G:35:MET:SD	2.44	0.58
1:I:58:LEU:HB3	1:I:72:VAL:HG13	1.86	0.58
1:J:312:LEU:O	1:J:354:LEU:HD22	2.03	0.58
1:L:199:SER:HA	1:L:363:ARG:H	1.68	0.58
1:L:511:ALA:HB1	1:L:512:PRO:HD2	1.84	0.58
1:L:82:VAL:CB	1:L:386:GLN:HG3	2.34	0.58
1:M:101:GLU:O	1:M:104:ILE:HG12	2.02	0.58
1:M:365:ALA:O	1:M:366:THR:HB	2.03	0.58
1:M:434:PRO:HB3	1:M:452:LEU:CD2	2.34	0.58
1:N:317:GLU:HB2	1:N:329:LYS:HD3	1.85	0.58
1:O:177:LEU:HD23	1:O:186:ILE:HD11	1.86	0.58
1:O:159:LEU:HB2	1:O:369:ILE:HG23	1.85	0.58
1:O:58:LEU:HB3	1:O:72:VAL:HG11	1.84	0.58
1:O:82:VAL:HG22	1:O:486:VAL:HG12	1.86	0.58
1:A:122:LYS:O	1:A:126:GLN:HG3	2.04	0.58
1:A:503:ARG:NH2	1:F:158:LEU:HB3	2.18	0.58
1:B:39:LEU:HD11	1:B:57:ILE:HG12	1.84	0.58
1:F:276:CYS:HA	1:F:297:MET:O	2.03	0.58
1:H:312:LEU:O	1:H:354:LEU:HD22	2.04	0.58
1:K:216:PRO:CG	1:K:295:GLY:HA2	2.34	0.58
1:J:369:ILE:HG12	1:K:500:VAL:HG21	1.84	0.58
1:N:119:GLU:CD	1:N:423:MET:HG3	2.24	0.58
1:O:145:ASP:CG	1:O:171:VAL:HB	2.23	0.58
1:O:173:ALA:HA	1:O:176:ARG:NH1	2.18	0.58
1:D:39:LEU:HB2	1:E:508:ILE:HG22	1.85	0.58
1:E:255:GLU:O	1:E:258:GLU:HB3	2.04	0.58
1:F:139:GLU:O	1:F:140:VAL:HB	2.04	0.58
1:F:79:ASP:HA	1:F:83:GLY:HA2	1.83	0.58
1:I:354:LEU:HD21	1:I:356:GLU:HB3	1.85	0.58
1:E:446:ALA:CB	1:J:106:LYS:HG2	2.34	0.58
1:J:179:GLY:HA2	1:J:389:LYS:HE2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:317:GLU:HB2	1:J:329:LYS:HD3	1.85	0.58
1:O:146:LEU:HD23	1:O:148:ASN:H	1.69	0.58
1:A:451:GLN:HE22	1:A:471:THR:HA	1.68	0.58
1:C:40:LEU:HD22	1:C:41:SER:H	1.69	0.58
1:D:174:VAL:HG21	1:D:384:LEU:HB3	1.86	0.58
1:F:383:VAL:HG12	1:F:384:LEU:HD23	1.85	0.58
1:I:334:LYS:HD3	1:I:351:GLY:HA3	1.85	0.58
1:I:113:ILE:HD13	1:I:418:LYS:NZ	2.19	0.58
1:K:161:HIS:CD2	1:K:162:HIS:H	2.21	0.58
1:P:206:LEU:HD12	1:P:361:VAL:HG22	1.85	0.58
1:D:48:LEU:HD23	1:E:507:ILE:HD11	1.84	0.58
1:D:117:TRP:HE1	1:D:495:ALA:HB3	1.69	0.58
1:E:334:LYS:HB3	1:E:351:GLY:HA3	1.86	0.58
1:H:128:LEU:HD21	1:H:491:LEU:HD13	1.85	0.58
1:I:176:ARG:HH12	1:I:360:ILE:HG13	1.69	0.58
1:J:163:LYS:O	1:J:166:PHE:HB2	2.04	0.58
1:M:159:LEU:HG	1:M:163:LYS:CD	2.34	0.58
1:A:413:SER:OG	1:M:454:ALA:HA	2.04	0.58
1:O:133:VAL:HB	1:O:395:TYR:CD2	2.39	0.58
1:O:312:LEU:O	1:O:354:LEU:HD22	2.04	0.58
1:O:58:LEU:HB3	1:O:72:VAL:CG1	2.33	0.58
1:O:64:ASP:C	1:O:66:PRO:HD2	2.24	0.58
1:P:146:LEU:HD13	1:P:167:THR:O	2.03	0.58
1:L:312:LEU:HA	1:P:213:VAL:HG21	1.85	0.58
1:C:209:LYS:HE2	1:C:301:HIS:O	2.04	0.57
1:D:280:ARG:CD	1:D:304:PHE:HB2	2.34	0.57
1:D:440:ASN:HA	1:E:109:HIS:CG	2.38	0.57
1:E:163:LYS:HD2	1:E:166:PHE:CG	2.39	0.57
1:E:201:LEU:HD23	1:E:360:ILE:HG12	1.86	0.57
1:E:434:PRO:HB3	1:E:452:LEU:CD2	2.34	0.57
1:F:379:ASP:O	1:F:383:VAL:HG23	2.04	0.57
1:H:122:LYS:O	1:H:122:LYS:HG3	2.02	0.57
1:H:368:GLN:HG3	1:H:369:ILE:H	1.69	0.57
1:I:82:VAL:HG21	1:I:486:VAL:HG12	1.85	0.57
1:K:394:VAL:HG21	1:K:487:LYS:HG3	1.85	0.57
1:L:128:LEU:HD11	1:L:488:ARG:HB2	1.85	0.57
1:L:145:ASP:O	1:L:171:VAL:HG11	2.03	0.57
1:L:367:GLN:O	1:L:367:GLN:HG2	2.04	0.57
1:O:324:HIS:HB2	1:O:329:LYS:CE	2.34	0.57
1:C:438:ALA:HB2	1:C:448:LEU:HG	1.84	0.57
1:D:41:SER:HB3	1:D:45:ASP:OD2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:399:CYS:SG	1:E:464:GLY:HA3	2.44	0.57
1:F:131:SER:HA	1:F:403:LEU:HD23	1.84	0.57
1:G:175:LEU:O	1:G:178:LYS:HG2	2.04	0.57
1:H:114:ILE:CD1	1:H:503:ARG:HA	2.34	0.57
1:C:36:ASP:O	1:H:504:VAL:HG11	2.04	0.57
1:I:149:ILE:HB	1:I:481:THR:O	2.04	0.57
1:J:127:ALA:HB3	1:J:404:MET:HG3	1.86	0.57
1:L:280:ARG:HA	1:L:302:ALA:O	2.03	0.57
1:L:390:ASP:HB2	1:L:485:GLN:HE22	1.68	0.57
1:M:390:ASP:CB	1:M:485:GLN:HE22	2.17	0.57
1:P:146:LEU:CD2	1:P:167:THR:HG23	2.34	0.57
1:P:146:LEU:HB2	1:P:171:VAL:CG2	2.34	0.57
1:P:222:ALA:HA	1:P:275:ASN:HB2	1.86	0.57
1:A:177:LEU:C	1:A:177:LEU:HD13	2.24	0.57
1:B:162:HIS:HB3	1:B:198:ASP:OD2	2.04	0.57
1:E:145:ASP:OD1	1:E:171:VAL:HB	2.04	0.57
1:F:280:ARG:HD2	1:F:304:PHE:HB2	1.85	0.57
1:A:112:THR:HG23	1:F:442:GLY:CA	2.34	0.57
1:G:96:LEU:HD21	1:G:117:TRP:CZ2	2.39	0.57
1:I:126:GLN:CG	1:I:411:LEU:HD11	2.33	0.57
1:J:452:LEU:HD13	1:J:465:LEU:HD13	1.86	0.57
1:L:82:VAL:HG23	1:L:386:GLN:HG3	1.85	0.57
1:M:128:LEU:CD1	1:M:491:LEU:HD12	2.30	0.57
1:C:171:VAL:HG13	1:C:384:LEU:HG	1.85	0.57
1:K:368:GLN:CG	1:K:369:ILE:N	2.67	0.57
1:M:198:ASP:O	1:M:363:ARG:HB2	2.04	0.57
1:M:367:GLN:CD	1:M:369:ILE:HB	2.24	0.57
1:N:67:ALA:HB2	1:N:507:ILE:HD13	1.86	0.57
1:P:104:ILE:HG13	1:P:105:ALA:N	2.19	0.57
1:P:362:LEU:HD12	1:P:377:LEU:HD22	1.86	0.57
1:A:126:GLN:NE2	1:A:411:LEU:HB3	2.20	0.57
1:B:116:GLY:O	1:B:119:GLU:HB2	2.04	0.57
1:B:157:LYS:HB2	1:B:159:LEU:HD21	1.87	0.57
1:C:80:ASP:HA	1:C:183:LEU:HD22	1.87	0.57
1:D:163:LYS:O	1:D:163:LYS:HG2	2.03	0.57
1:D:93:ALA:HA	1:D:494:ALA:CB	2.34	0.57
1:E:126:GLN:NE2	1:E:130:ASN:HD22	2.03	0.57
1:E:210:LYS:HE2	1:E:212:GLY:O	2.05	0.57
1:H:154:LEU:CD2	1:H:163:LYS:HG3	2.31	0.57
1:I:280:ARG:HD2	1:I:304:PHE:HB2	1.86	0.57
1:I:402:MET:SD	1:I:453:ARG:HA	2.45	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:188:VAL:HG11	1:K:377:LEU:HD11	1.86	0.57
1:L:159:LEU:HD12	1:L:372:GLU:CD	2.25	0.57
1:N:119:GLU:HA	1:N:119:GLU:OE1	2.05	0.57
1:N:24:ASP:O	1:N:27:LYS:HG2	2.04	0.57
1:N:324:HIS:O	1:N:328:VAL:HG22	2.05	0.57
1:N:33:LYS:O	1:N:35:MET:HE3	2.03	0.57
1:F:418:LYS:CD	1:O:450:ALA:HB2	2.33	0.57
1:P:149:ILE:HD13	1:P:482:GLU:HG2	1.87	0.57
1:B:215:GLN:HG3	1:B:292:GLY:HA2	1.87	0.57
1:B:324:HIS:ND1	1:B:325:PRO:HD3	2.19	0.57
1:C:219:ILE:HD12	1:C:275:ASN:HB3	1.86	0.57
1:C:452:LEU:HD13	1:C:465:LEU:CD1	2.35	0.57
1:F:74:MET:O	1:F:77:VAL:HG12	2.04	0.57
1:H:173:ALA:HB2	1:H:360:ILE:HD11	1.86	0.57
1:J:188:VAL:CG2	1:J:362:LEU:HG	2.34	0.57
1:J:176:ARG:NE	1:J:358:CYS:HB2	2.19	0.57
1:K:189:ILE:HG23	1:K:190:LYS:N	2.20	0.57
1:K:84:ASP:OD2	1:K:379:ASP:HB2	2.04	0.57
1:O:159:LEU:HD13	1:O:372:GLU:OE2	2.04	0.57
1:A:499:GLU:O	1:A:503:ARG:HD3	2.03	0.57
1:B:114:ILE:HD11	1:B:502:LEU:CD2	2.28	0.57
1:C:163:LYS:HD2	1:C:166:PHE:CG	2.40	0.57
1:E:122:LYS:NZ	1:E:411:LEU:HD22	2.19	0.57
1:E:139:GLU:O	1:E:140:VAL:HB	2.03	0.57
1:F:204:GLY:HA3	1:F:349:PHE:O	2.04	0.57
1:F:313:VAL:HG22	1:F:357:ALA:HB3	1.87	0.57
1:G:110:PRO:HA	1:G:113:ILE:HD12	1.86	0.57
1:J:187:HIS:O	1:J:359:THR:HG23	2.04	0.57
1:K:141:LYS:HD2	1:K:144:GLN:HB2	1.85	0.57
1:K:508:ILE:HG22	1:K:509:LYS:N	2.20	0.57
1:L:369:ILE:O	1:L:372:GLU:HB3	2.04	0.57
1:M:451:GLN:HE22	1:M:471:THR:HA	1.70	0.57
1:P:6:GLU:O	1:P:7:ARG:HG3	2.04	0.57
1:A:182:ASN:CG	1:A:183:LEU:H	2.08	0.57
1:E:116:GLY:O	1:E:119:GLU:HB2	2.04	0.57
1:E:39:LEU:HD12	1:E:57:ILE:HG13	1.87	0.57
1:F:163:LYS:HD2	1:F:166:PHE:CG	2.39	0.57
1:F:310:LEU:O	1:F:313:VAL:HB	2.05	0.57
1:G:171:VAL:O	1:G:175:LEU:HG	2.05	0.57
1:J:219:ILE:HD11	1:J:336:ILE:HB	1.87	0.57
1:K:283:ILE:HG22	1:K:300:GLU:CG	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:96:LEU:HD21	1:K:117:TRP:CZ2	2.39	0.57
1:L:10:THR:O	1:L:13:LEU:HB3	2.05	0.57
1:L:317:GLU:HB2	1:L:329:LYS:HG2	1.87	0.57
1:M:79:ASP:HA	1:M:83:GLY:HA2	1.84	0.57
1:N:485:GLN:HE21	1:N:488:ARG:HH21	1.52	0.57
1:B:322:PHE:HA	1:B:324:HIS:CD2	2.40	0.57
1:C:154:LEU:CD2	1:C:163:LYS:HG3	2.34	0.57
1:C:399:CYS:HA	1:C:456:HIS:NE2	2.19	0.57
1:E:391:SER:O	1:E:392:ARG:HG2	2.05	0.57
1:F:116:GLY:HA3	1:F:422:ALA:HB3	1.87	0.57
1:I:145:ASP:O	1:I:171:VAL:HG11	2.04	0.57
1:K:106:LYS:O	1:K:108:ILE:HD12	2.05	0.57
1:K:280:ARG:O	1:K:281:GLN:HB3	2.05	0.57
1:K:79:ASP:HA	1:K:83:GLY:CA	2.34	0.57
1:M:192:LEU:O	1:M:343:GLU:HG2	2.05	0.57
1:N:231:MET:HB2	1:N:284:TYR:H	1.70	0.57
1:O:159:LEU:CB	1:O:369:ILE:HG23	2.35	0.57
1:A:127:ALA:HB1	1:A:491:LEU:CD1	2.35	0.57
1:A:76:ARG:O	1:A:79:ASP:HB3	2.05	0.57
1:B:146:LEU:CD2	1:B:167:THR:HG23	2.29	0.57
1:E:138:ASP:O	1:E:139:GLU:HB2	2.03	0.57
1:E:27:LYS:CB	1:E:436:ILE:HD11	2.33	0.57
1:F:200:TYR:HB2	1:F:341:ILE:HD11	1.87	0.57
1:F:88:SER:O	1:F:92:LEU:HD13	2.04	0.57
1:G:313:VAL:HG22	1:G:357:ALA:CB	2.34	0.57
1:G:334:LYS:CD	1:G:351:GLY:HA3	2.34	0.57
1:H:211:ILE:HD13	1:H:211:ILE:H	1.68	0.57
1:H:39:LEU:O	1:H:48:LEU:HA	2.05	0.57
1:J:226:ILE:HG12	1:J:278:ILE:HG23	1.86	0.57
1:K:226:ILE:HG12	1:K:278:ILE:HG23	1.87	0.57
1:L:109:HIS:CE1	1:P:440:ASN:HA	2.39	0.57
1:O:82:VAL:HA	1:O:386:GLN:HG3	1.86	0.57
1:P:185:ALA:HA	1:P:309:ARG:CB	2.35	0.57
1:P:231:MET:HE1	1:P:265:LYS:HD3	1.87	0.57
1:P:363:ARG:O	1:P:370:LEU:HD11	2.05	0.57
1:B:132:ALA:O	1:B:133:VAL:HG12	2.05	0.56
1:B:263:LYS:HA	1:B:266:VAL:HG12	1.86	0.56
1:B:190:LYS:CG	1:B:374:GLU:HB3	2.35	0.56
1:E:126:GLN:HE21	1:E:130:ASN:HD22	1.53	0.56
1:F:114:ILE:HG13	1:F:503:ARG:HB3	1.87	0.56
1:F:127:ALA:HB3	1:F:491:LEU:HD11	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:16:PHE:CE2	1:G:98:ARG:HA	2.40	0.56
1:G:191:LYS:HB3	1:G:343:GLU:OE1	2.05	0.56
1:H:40:LEU:HD22	1:H:41:SER:N	2.20	0.56
1:I:188:VAL:HB	1:I:377:LEU:HD23	1.86	0.56
1:J:280:ARG:HD2	1:J:304:PHE:HB2	1.86	0.56
1:L:431:ARG:NH2	1:L:434:PRO:HG2	2.20	0.56
1:O:163:LYS:O	1:O:166:PHE:HB2	2.05	0.56
1:H:106:LYS:HE3	1:P:446:ALA:HB2	1.87	0.56
1:P:448:LEU:HD11	1:P:465:LEU:CD1	2.35	0.56
1:B:367:GLN:HG2	1:F:492:LEU:HD12	1.87	0.56
1:C:16:PHE:HA	1:C:97:LEU:HD23	1.86	0.56
1:G:54:GLY:O	1:G:58:LEU:HD23	2.05	0.56
1:E:367:GLN:HB2	1:G:70:VAL:CG1	2.35	0.56
1:H:137:SER:HB2	1:H:393:THR:OG1	2.05	0.56
1:H:482:GLU:OE1	1:H:487:LYS:HE3	2.04	0.56
1:I:364:GLY:HA3	1:I:370:LEU:HD11	1.87	0.56
1:K:159:LEU:HD23	1:K:163:LYS:HD3	1.86	0.56
1:O:112:THR:HG21	1:O:418:LYS:HE2	1.87	0.56
1:P:269:ILE:CG2	1:P:274:ILE:HG21	2.31	0.56
1:P:277:PHE:O	1:P:298:ALA:HA	2.05	0.56
1:B:116:GLY:HA3	1:B:422:ALA:HB3	1.86	0.56
1:D:191:LYS:HZ3	1:D:191:LYS:HA	1.68	0.56
1:D:364:GLY:HA3	1:D:370:LEU:CD1	2.34	0.56
1:D:390:ASP:CB	1:D:485:GLN:HE22	2.18	0.56
1:F:192:LEU:HD22	1:F:192:LEU:O	2.05	0.56
1:F:99:GLU:HG2	1:F:425:SER:HB2	1.86	0.56
1:G:128:LEU:HD21	1:G:488:ARG:HA	1.87	0.56
1:H:154:LEU:HD22	1:H:167:THR:CB	2.34	0.56
1:I:207:LEU:O	1:I:347:ILE:HG22	2.05	0.56
1:J:117:TRP:HE1	1:J:498:ALA:HB3	1.70	0.56
1:J:341:ILE:HG23	1:J:363:ARG:CZ	2.35	0.56
1:L:367:GLN:C	1:L:369:ILE:H	2.07	0.56
1:N:223:LYS:HB2	1:N:274:ILE:HA	1.87	0.56
1:O:152:THR:OG1	1:O:480:ILE:HD12	2.05	0.56
1:B:114:ILE:HA	1:B:117:TRP:CZ3	2.40	0.56
1:D:159:LEU:N	1:D:159:LEU:HD13	2.20	0.56
1:D:159:LEU:HD12	1:D:372:GLU:CG	2.36	0.56
1:F:185:ALA:HA	1:F:309:ARG:HH11	1.71	0.56
1:F:274:ILE:O	1:F:296:VAL:HG22	2.04	0.56
1:A:511:ALA:HB3	1:F:61:ILE:HD11	1.86	0.56
1:G:66:PRO:CA	1:G:507:ILE:HD11	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:50:VAL:HG22	1:G:372:GLU:CG	2.35	0.56
1:H:159:LEU:HG	1:H:372:GLU:HG2	1.88	0.56
1:I:231:MET:HB2	1:I:284:TYR:H	1.71	0.56
1:J:274:ILE:O	1:J:296:VAL:HG22	2.06	0.56
1:J:185:ALA:CA	1:J:309:ARG:HD2	2.35	0.56
1:K:411:LEU:HB3	1:K:423:MET:SD	2.45	0.56
1:M:154:LEU:HD22	1:M:167:THR:HB	1.87	0.56
1:O:231:MET:HB2	1:O:284:TYR:H	1.71	0.56
1:O:152:THR:OG1	1:O:480:ILE:HG23	2.05	0.56
1:A:49:MET:CB	1:A:369:ILE:HG21	2.36	0.56
1:B:225:LEU:HD12	1:B:226:ILE:N	2.20	0.56
1:C:22:ILE:HD12	1:C:90:THR:CG2	2.35	0.56
1:D:450:ALA:HB3	1:K:417:GLY:N	2.20	0.56
1:D:448:LEU:HD21	1:D:465:LEU:CD1	2.35	0.56
1:F:210:LYS:NZ	1:F:213:VAL:HA	2.21	0.56
1:G:316:GLY:O	1:G:317:GLU:HG2	2.04	0.56
1:I:274:ILE:HG23	1:I:296:VAL:HG21	1.88	0.56
1:I:192:LEU:HG	1:I:366:THR:HG22	1.87	0.56
1:J:215:GLN:HG3	1:J:292:GLY:HA2	1.87	0.56
1:K:402:MET:HG2	1:K:431:ARG:HH22	1.70	0.56
1:N:452:LEU:HD13	1:N:465:LEU:CD1	2.35	0.56
1:I:111:GLN:HG2	1:O:33:LYS:CB	2.35	0.56
1:O:386:GLN:NE2	1:O:386:GLN:HA	2.19	0.56
1:A:101:GLU:O	1:A:104:ILE:HG12	2.05	0.56
1:A:59:LYS:HE3	1:A:73:ASP:HA	1.87	0.56
1:B:286:TYR:HB2	1:B:287:PRO:HD3	1.88	0.56
1:C:128:LEU:HD22	1:C:394:VAL:HG11	1.87	0.56
1:C:59:LYS:HE3	1:C:76:ARG:HB2	1.87	0.56
1:C:22:ILE:HD12	1:C:90:THR:HG23	1.87	0.56
1:D:89:VAL:HA	1:D:490:VAL:CG2	2.36	0.56
1:E:158:LEU:C	1:E:159:LEU:HD13	2.26	0.56
1:A:112:THR:HG23	1:F:442:GLY:HA2	1.86	0.56
1:G:352:VAL:CG2	1:G:355:GLY:H	2.19	0.56
1:G:48:LEU:HD13	1:G:48:LEU:O	2.05	0.56
1:H:122:LYS:O	1:H:126:GLN:HG3	2.05	0.56
1:H:205:PHE:HB3	1:H:349:PHE:HB3	1.88	0.56
1:J:131:SER:HB3	1:J:403:LEU:CD2	2.36	0.56
1:J:411:LEU:HB3	1:J:423:MET:SD	2.45	0.56
1:K:268:ARG:O	1:K:271:LYS:HG2	2.05	0.56
1:K:99:GLU:O	1:K:102:SER:HB2	2.05	0.56
1:L:226:ILE:HD13	1:L:307:VAL:HG13	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:438:ALA:HB2	1:N:448:LEU:HG	1.86	0.56
1:P:394:VAL:CG2	1:P:482:GLU:HB2	2.36	0.56
1:C:58:LEU:HB3	1:C:72:VAL:HG13	1.86	0.56
1:C:82:VAL:CG1	1:C:83:GLY:H	2.18	0.56
1:D:176:ARG:HE	1:D:358:CYS:HB2	1.68	0.56
1:D:82:VAL:O	1:D:382:CYS:HB3	2.06	0.56
1:F:418:LYS:HG2	1:O:450:ALA:HB1	1.86	0.56
1:G:38:ILE:HB	1:G:48:LEU:CD2	2.35	0.56
1:E:343:GLU:HG2	1:G:76:ARG:HH12	1.71	0.56
1:C:39:LEU:CD2	1:H:508:ILE:HD12	2.34	0.56
1:I:122:LYS:NZ	1:I:125:ARG:HH21	2.03	0.56
1:I:326:GLU:HG3	1:I:327:LEU:N	2.21	0.56
1:K:120:ALA:HA	1:K:123:ALA:HB3	1.88	0.56
1:K:32:PRO:HA	1:K:155:SER:C	2.26	0.56
1:L:146:LEU:HD12	1:L:171:VAL:CG1	2.36	0.56
1:O:175:LEU:O	1:O:178:LYS:HG2	2.06	0.56
1:A:139:GLU:O	1:A:140:VAL:HB	2.06	0.56
1:A:49:MET:HG3	1:A:369:ILE:HB	1.88	0.56
1:B:133:VAL:HG22	1:B:134:ASP:H	1.70	0.56
1:B:190:LYS:O	1:B:190:LYS:HD2	2.06	0.56
1:D:35:MET:SD	1:E:111:GLN:HG2	2.45	0.56
1:D:445:SER:O	1:D:449:VAL:HG23	2.05	0.56
1:D:508:ILE:HG22	1:D:509:LYS:HG2	1.87	0.56
1:F:188:VAL:HG11	1:F:377:LEU:HD21	1.88	0.56
1:F:33:LYS:HD2	1:F:440:ASN:O	2.06	0.56
1:J:338:GLU:OE2	1:J:345:LYS:HE2	2.05	0.56
1:K:225:LEU:HD11	1:K:324:HIS:ND1	2.21	0.56
1:K:364:GLY:HA3	1:K:370:LEU:CD2	2.35	0.56
1:K:112:THR:HG22	1:K:418:LYS:NZ	2.20	0.56
1:K:74:MET:HG3	1:K:497:ALA:HB1	1.88	0.56
1:L:346:LEU:N	1:L:346:LEU:HD22	2.20	0.56
1:L:487:LYS:O	1:L:491:LEU:HG	2.06	0.56
1:P:185:ALA:HA	1:P:309:ARG:HB3	1.86	0.56
1:B:324:HIS:CG	1:B:325:PRO:HD3	2.41	0.56
1:C:106:LYS:O	1:C:107:LYS:HG2	2.06	0.56
1:C:82:VAL:HG13	1:C:83:GLY:H	1.69	0.56
1:E:187:HIS:O	1:E:359:THR:HG23	2.06	0.56
1:F:231:MET:HG3	1:F:283:ILE:HG13	1.86	0.56
1:I:306:GLY:HA2	1:I:309:ARG:CZ	2.35	0.56
1:I:190:LYS:HD3	1:I:371:ASP:HB3	1.88	0.56
1:K:368:GLN:HE22	1:P:503:ARG:CZ	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:6:GLU:OE1	1:L:11:ALA:HA	2.05	0.56
1:L:120:ALA:HA	1:L:123:ALA:CB	2.35	0.56
1:M:204:GLY:HA3	1:M:349:PHE:O	2.06	0.56
1:N:191:LYS:HG2	1:N:341:ILE:CG2	2.35	0.56
1:N:2:GLY:HA3	1:N:513:ARG:OXT	2.05	0.56
1:P:111:GLN:HA	1:P:114:ILE:HG12	1.87	0.56
1:C:140:VAL:HA	1:C:175:LEU:HD22	1.88	0.56
1:D:59:LYS:HE3	1:D:73:ASP:HA	1.88	0.56
1:E:29:THR:O	1:E:156:SER:HB3	2.06	0.56
1:E:117:TRP:HE1	1:E:498:ALA:HB3	1.70	0.56
1:F:226:ILE:HG12	1:F:278:ILE:HG23	1.87	0.56
1:G:171:VAL:O	1:G:174:VAL:HG22	2.06	0.56
1:H:33:LYS:HB2	1:H:440:ASN:HB2	1.88	0.56
1:I:274:ILE:HG23	1:I:296:VAL:CG2	2.36	0.56
1:I:59:LYS:HZ1	1:I:76:ARG:H	1.52	0.56
1:J:442:GLY:HA2	1:K:109:HIS:ND1	2.20	0.56
1:J:59:LYS:HE2	1:J:76:ARG:CB	2.36	0.56
1:L:122:LYS:O	1:L:125:ARG:HB2	2.06	0.56
1:L:280:ARG:HD2	1:L:304:PHE:HB2	1.88	0.56
1:L:415:THR:HB	1:L:419:GLU:CB	2.35	0.56
1:N:188:VAL:HG21	1:N:377:LEU:HD11	1.87	0.56
1:O:13:LEU:HD12	1:O:13:LEU:O	2.05	0.56
1:P:161:HIS:CG	1:P:162:HIS:H	2.24	0.56
1:P:313:VAL:HG22	1:P:357:ALA:HB3	1.87	0.56
1:P:74:MET:O	1:P:77:VAL:HG12	2.06	0.56
1:C:168:LYS:O	1:C:171:VAL:HG22	2.06	0.56
1:C:431:ARG:CZ	1:C:431:ARG:HA	2.36	0.56
1:C:451:GLN:NE2	1:C:471:THR:HA	2.21	0.56
1:D:312:LEU:O	1:D:354:LEU:HD22	2.06	0.56
1:D:96:LEU:O	1:D:96:LEU:HD22	2.05	0.56
1:F:178:LYS:NZ	1:F:388:VAL:HG22	2.21	0.56
1:F:6:GLU:HB3	1:F:11:ALA:HB2	1.88	0.56
1:H:154:LEU:HD11	1:H:163:LYS:HZ2	1.71	0.56
1:I:151:GLY:HA2	1:I:167:THR:HG21	1.87	0.56
1:J:322:PHE:HA	1:J:324:HIS:CD2	2.40	0.56
1:J:452:LEU:HD13	1:J:465:LEU:CD1	2.35	0.56
1:J:58:LEU:HB3	1:J:72:VAL:CG1	2.36	0.56
1:K:259:LYS:O	1:K:262:MET:HB3	2.06	0.56
1:L:183:LEU:HD11	1:L:381:LEU:HD22	1.87	0.56
1:L:408:VAL:HG23	1:L:427:ALA:HB1	1.88	0.56
1:N:372:GLU:O	1:N:375:ARG:HB3	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:32:PRO:HG2	1:P:467:MET:CE	2.35	0.56
1:P:393:THR:HG22	1:P:483:SER:HA	1.87	0.56
1:A:22:ILE:HD12	1:A:90:THR:CG2	2.36	0.55
1:B:146:LEU:HD12	1:B:171:VAL:CG1	2.28	0.55
1:B:265:LYS:HE2	1:B:322:PHE:CE1	2.41	0.55
1:D:161:HIS:CE1	1:D:369:ILE:HG21	2.41	0.55
1:D:163:LYS:HE3	1:D:373:ALA:HA	1.88	0.55
1:E:513:ARG:HA	1:E:513:ARG:NE	2.21	0.55
1:G:92:LEU:HD11	1:G:433:LEU:HD11	1.87	0.55
1:H:171:VAL:HA	1:H:174:VAL:HG13	1.88	0.55
1:I:381:LEU:HD13	1:I:381:LEU:C	2.26	0.55
1:J:106:LYS:O	1:J:107:LYS:HG2	2.06	0.55
1:K:145:ASP:O	1:K:171:VAL:HG11	2.06	0.55
1:L:209:LYS:HE2	1:L:301:HIS:O	2.06	0.55
1:L:434:PRO:HB3	1:L:452:LEU:CD2	2.36	0.55
1:P:175:LEU:O	1:P:178:LYS:HG2	2.05	0.55
1:P:280:ARG:HD2	1:P:304:PHE:HB2	1.87	0.55
1:A:143:ARG:HE	1:A:143:ARG:HA	1.70	0.55
1:A:174:VAL:HG11	1:A:384:LEU:HB2	1.88	0.55
1:B:145:ASP:O	1:B:171:VAL:HG11	2.05	0.55
1:C:155:SER:HA	1:C:160:THR:HG21	1.87	0.55
1:C:191:LYS:H	1:C:363:ARG:HA	1.71	0.55
1:E:58:LEU:HB3	1:E:72:VAL:HG11	1.87	0.55
1:F:324:HIS:ND1	1:F:325:PRO:HD3	2.22	0.55
1:G:287:PRO:O	1:G:291:PHE:HD1	1.90	0.55
1:H:216:PRO:HG2	1:H:295:GLY:HA2	1.87	0.55
1:I:185:ALA:HA	1:I:309:ARG:CD	2.36	0.55
1:K:191:LYS:HA	1:K:191:LYS:HE3	1.87	0.55
1:K:438:ALA:CB	1:K:448:LEU:HG	2.35	0.55
1:L:185:ALA:HB3	1:L:357:ALA:CB	2.36	0.55
1:M:106:LYS:HD3	1:M:106:LYS:O	2.06	0.55
1:O:323:ASP:C	1:O:325:PRO:HD2	2.27	0.55
1:B:111:GLN:CD	1:G:158:LEU:HD11	2.27	0.55
1:B:32:PRO:HG2	1:B:467:MET:HB2	1.88	0.55
1:C:317:GLU:HB2	1:C:329:LYS:HD3	1.87	0.55
1:E:57:ILE:HG23	1:E:58:LEU:HD22	1.89	0.55
1:G:204:GLY:HA3	1:G:350:SER:HA	1.87	0.55
1:G:48:LEU:HD21	1:G:368:GLN:NE2	2.21	0.55
1:G:448:LEU:HD21	1:G:465:LEU:CD1	2.36	0.55
1:L:141:LYS:HE2	1:L:144:GLN:HB2	1.87	0.55
1:L:31:GLY:O	1:L:156:SER:HA	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:497:ALA:O	1:L:500:VAL:HG22	2.06	0.55
1:M:157:LYS:HB3	1:M:159:LEU:HD11	1.87	0.55
1:M:343:GLU:HG3	1:M:344:ASP:H	1.71	0.55
1:M:32:PRO:CD	1:M:467:MET:SD	2.95	0.55
1:P:118:ARG:O	1:P:121:THR:HB	2.07	0.55
1:P:372:GLU:HA	1:P:375:ARG:NH1	2.22	0.55
1:H:420:ALA:HB3	1:P:450:ALA:CB	2.36	0.55
1:A:30:LEU:HD11	1:A:87:THR:O	2.06	0.55
1:B:96:LEU:HD11	1:B:117:TRP:HZ2	1.71	0.55
1:B:146:LEU:HB2	1:B:171:VAL:CG2	2.37	0.55
1:B:163:LYS:HE3	1:B:376:SER:HB3	1.88	0.55
1:E:276:CYS:HA	1:E:297:MET:O	2.06	0.55
1:A:510:ALA:HB2	1:F:39:LEU:HD13	1.88	0.55
1:G:50:VAL:HG22	1:G:372:GLU:CD	2.27	0.55
1:G:78:GLN:HG3	1:G:83:GLY:HA2	1.89	0.55
1:H:222:ALA:HA	1:H:275:ASN:OD1	2.05	0.55
1:H:316:GLY:O	1:H:330:LEU:HB2	2.07	0.55
1:J:367:GLN:HB3	1:K:74:MET:CG	2.36	0.55
1:J:433:LEU:HA	1:J:436:ILE:HG22	1.89	0.55
1:K:164:ASP:O	1:K:167:THR:HG22	2.06	0.55
1:K:389:LYS:HD2	1:K:389:LYS:N	2.21	0.55
1:M:124:ALA:O	1:M:128:LEU:HG	2.07	0.55
1:M:452:LEU:HD13	1:M:465:LEU:CD1	2.35	0.55
1:N:163:LYS:HG2	1:N:163:LYS:O	2.05	0.55
1:O:11:ALA:HB1	1:O:505:ASP:HA	1.87	0.55
1:H:444:ASP:OD2	1:P:106:LYS:HE2	2.06	0.55
1:L:312:LEU:CA	1:P:213:VAL:HG11	2.34	0.55
1:P:372:GLU:HG3	1:P:375:ARG:HH11	1.71	0.55
1:B:143:ARG:HA	1:B:143:ARG:HE	1.72	0.55
1:C:114:ILE:HA	1:C:117:TRP:CE3	2.42	0.55
1:C:75:SER:O	1:C:78:GLN:HB3	2.06	0.55
1:D:116:GLY:CA	1:D:422:ALA:HB1	2.37	0.55
1:D:211:ILE:HG12	1:D:298:ALA:H	1.70	0.55
1:G:178:LYS:NZ	1:G:388:VAL:HG11	2.20	0.55
1:H:231:MET:HG3	1:H:283:ILE:HG13	1.87	0.55
1:I:231:MET:HG3	1:I:283:ILE:HG13	1.88	0.55
1:J:192:LEU:HA	1:J:366:THR:OG1	2.07	0.55
1:N:32:PRO:HB3	1:N:155:SER:HB3	1.89	0.55
1:O:188:VAL:HG21	1:O:377:LEU:HD13	1.89	0.55
1:P:103:LEU:O	1:P:106:LYS:HB3	2.07	0.55
1:A:171:VAL:HA	1:A:174:VAL:HG22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:380:ALA:O	1:C:384:LEU:HD22	2.07	0.55
1:C:485:GLN:HB2	1:C:489:GLN:OE1	2.07	0.55
1:D:265:LYS:HE2	1:D:322:PHE:CE1	2.41	0.55
1:D:78:GLN:HG3	1:D:83:GLY:HA2	1.89	0.55
1:F:101:GLU:O	1:F:104:ILE:HG12	2.06	0.55
1:G:414:ARG:O	1:G:416:PRO:HD3	2.07	0.55
1:I:148:ASN:CB	1:I:480:ILE:HA	2.37	0.55
1:J:324:HIS:CG	1:J:325:PRO:HD3	2.42	0.55
1:D:446:ALA:HB1	1:K:418:LYS:HG2	1.89	0.55
1:K:433:LEU:O	1:K:437:ILE:HG12	2.07	0.55
1:O:364:GLY:HA3	1:O:370:LEU:HD21	1.88	0.55
1:O:67:ALA:CB	1:O:507:ILE:HG21	2.35	0.55
1:P:110:PRO:HA	1:P:113:ILE:HD12	1.87	0.55
1:B:324:HIS:HB2	1:B:329:LYS:HE2	1.89	0.55
1:B:354:LEU:CD2	1:B:356:GLU:HB3	2.36	0.55
1:C:78:GLN:CG	1:C:83:GLY:HA2	2.36	0.55
1:D:341:ILE:HD12	1:D:363:ARG:CZ	2.36	0.55
1:G:173:ALA:HB2	1:G:360:ILE:HD11	1.87	0.55
1:H:177:LEU:HD13	1:H:177:LEU:O	2.07	0.55
1:J:201:LEU:CD2	1:J:360:ILE:HD13	2.30	0.55
1:L:211:ILE:HD11	1:L:297:MET:HG3	1.89	0.55
1:L:127:ALA:HB1	1:L:404:MET:SD	2.47	0.55
1:M:103:LEU:HA	1:M:106:LYS:HB2	1.89	0.55
1:N:122:LYS:O	1:N:126:GLN:HB2	2.06	0.55
1:N:57:ILE:HG23	1:N:58:LEU:HD22	1.89	0.55
1:O:146:LEU:HD13	1:O:168:LYS:HA	1.88	0.55
1:O:216:PRO:CG	1:O:295:GLY:HA2	2.36	0.55
1:O:426:TYR:OH	1:O:491:LEU:HD22	2.07	0.55
1:O:6:GLU:OE1	1:O:11:ALA:HA	2.07	0.55
1:P:96:LEU:O	1:P:96:LEU:HD22	2.07	0.55
1:A:108:ILE:HD13	1:M:444:ASP:HA	1.88	0.55
1:B:413:SER:HA	1:I:454:ALA:HA	1.89	0.55
1:C:269:ILE:HG23	1:C:274:ILE:CG2	2.37	0.55
1:D:219:ILE:HB	1:D:275:ASN:HB3	1.87	0.55
1:D:408:VAL:HA	1:D:411:LEU:HD12	1.89	0.55
1:E:265:LYS:HE2	1:E:322:PHE:CE1	2.41	0.55
1:F:341:ILE:HG23	1:F:363:ARG:NH2	2.21	0.55
1:G:225:LEU:HD22	1:G:329:LYS:HG3	1.88	0.55
1:H:174:VAL:O	1:H:178:LYS:HG3	2.07	0.55
1:K:265:LYS:HE2	1:K:322:PHE:CE2	2.42	0.55
1:K:33:LYS:HB2	1:K:440:ASN:CG	2.27	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:97:LEU:HD13	1:M:97:LEU:H	1.72	0.55
1:N:157:LYS:HE3	1:N:375:ARG:HD3	1.89	0.55
1:N:159:LEU:HG	1:N:163:LYS:HD3	1.87	0.55
1:N:219:ILE:HB	1:N:275:ASN:HB3	1.89	0.55
1:A:165:HIS:O	1:A:168:LYS:HB3	2.07	0.55
1:A:367:GLN:CG	1:A:368:GLN:H	2.17	0.55
1:A:174:VAL:HG11	1:A:384:LEU:CB	2.37	0.55
1:C:408:VAL:HG23	1:C:427:ALA:HB1	1.89	0.55
1:D:89:VAL:O	1:D:490:VAL:HG23	2.07	0.55
1:F:384:LEU:HA	1:F:387:THR:OG1	2.07	0.55
1:F:450:ALA:HA	1:O:417:GLY:CA	2.36	0.55
1:G:154:LEU:HD22	1:G:167:THR:OG1	2.06	0.55
1:G:343:GLU:OE2	1:G:344:ASP:HB2	2.06	0.55
1:H:146:LEU:CD2	1:H:147:MET:H	2.20	0.55
1:H:231:MET:HB2	1:H:284:TYR:H	1.72	0.55
1:I:58:LEU:HD22	1:N:513:ARG:CG	2.37	0.55
1:J:24:ASP:O	1:J:27:LYS:HG2	2.07	0.55
1:K:203:GLU:HB2	1:K:350:SER:CB	2.36	0.55
1:K:280:ARG:HD2	1:K:304:PHE:HB2	1.89	0.55
1:K:225:LEU:HD11	1:K:324:HIS:CE1	2.41	0.55
1:L:176:ARG:NH2	1:L:360:ILE:HG12	2.21	0.55
1:L:96:LEU:HD22	1:L:96:LEU:O	2.07	0.55
1:N:176:ARG:HH22	1:N:360:ILE:HG13	1.71	0.55
1:N:269:ILE:HG23	1:N:274:ILE:HG21	1.89	0.55
1:P:93:ALA:HB1	1:P:498:ALA:HB2	1.87	0.55
1:A:178:LYS:HB2	1:A:389:LYS:HE2	1.89	0.55
1:A:130:ASN:HB3	1:A:404:MET:HA	1.89	0.55
1:A:96:LEU:HD13	1:A:97:LEU:N	2.22	0.55
1:B:222:ALA:HA	1:B:275:ASN:HB2	1.89	0.55
1:B:452:LEU:HD13	1:B:465:LEU:CD1	2.37	0.55
1:C:171:VAL:HG12	1:C:384:LEU:HG	1.88	0.55
1:C:317:GLU:CB	1:C:329:LYS:HD3	2.37	0.55
1:D:280:ARG:HD3	1:D:304:PHE:HB2	1.89	0.55
1:E:334:LYS:CD	1:E:351:GLY:HA3	2.37	0.55
1:F:149:ILE:HB	1:F:481:THR:O	2.07	0.55
1:G:13:LEU:O	1:G:16:PHE:HB3	2.07	0.55
1:G:65:ASN:OD1	1:G:66:PRO:HD3	2.07	0.55
1:H:160:THR:HA	1:H:163:LYS:HB3	1.89	0.55
1:J:50:VAL:HG22	1:J:375:ARG:HH21	1.72	0.55
1:L:143:ARG:HE	1:L:143:ARG:HA	1.72	0.55
1:L:496:GLU:O	1:L:499:GLU:HB3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:75:SER:O	1:M:78:GLN:HB3	2.06	0.55
1:N:176:ARG:CD	1:N:358:CYS:HB2	2.37	0.55
1:J:509:LYS:HG3	1:N:40:LEU:HG	1.89	0.55
1:O:276:CYS:HA	1:O:297:MET:O	2.07	0.55
1:B:176:ARG:CZ	1:B:358:CYS:HB2	2.37	0.54
1:C:81:GLU:O	1:C:386:GLN:HG3	2.07	0.54
1:D:191:LYS:HA	1:D:191:LYS:CE	2.38	0.54
1:E:32:PRO:CA	1:E:155:SER:HB3	2.37	0.54
1:E:176:ARG:NH1	1:E:201:LEU:HD21	2.22	0.54
1:E:341:ILE:HG23	1:E:363:ARG:NH2	2.22	0.54
1:E:364:GLY:HA3	1:E:370:LEU:CD1	2.37	0.54
1:E:489:GLN:N	1:E:489:GLN:HE21	2.05	0.54
1:F:117:TRP:HA	1:F:120:ALA:CB	2.36	0.54
1:G:231:MET:HG3	1:G:283:ILE:HG13	1.88	0.54
1:G:38:ILE:HB	1:G:48:LEU:HD23	1.89	0.54
1:H:369:ILE:C	1:H:371:ASP:H	2.09	0.54
1:K:111:GLN:O	1:K:114:ILE:HB	2.07	0.54
1:K:159:LEU:HB3	1:K:163:LYS:CD	2.37	0.54
1:K:438:ALA:HB2	1:K:448:LEU:HG	1.88	0.54
1:K:54:GLY:O	1:K:58:LEU:HD23	2.06	0.54
1:N:173:ALA:HB2	1:N:360:ILE:CD1	2.37	0.54
1:N:192:LEU:HD12	1:N:343:GLU:OE1	2.07	0.54
1:N:367:GLN:HG2	1:N:369:ILE:H	1.72	0.54
1:N:82:VAL:CG1	1:N:83:GLY:H	2.20	0.54
1:P:448:LEU:C	1:P:448:LEU:HD13	2.27	0.54
1:A:503:ARG:HH21	1:F:158:LEU:HD22	1.72	0.54
1:B:141:LYS:HA	1:B:141:LYS:HE2	1.90	0.54
1:B:417:GLY:O	1:I:450:ALA:HB3	2.08	0.54
1:C:219:ILE:HB	1:C:275:ASN:HB3	1.89	0.54
1:D:79:ASP:HA	1:D:83:GLY:CA	2.36	0.54
1:F:190:LYS:C	1:F:190:LYS:HD2	2.27	0.54
1:G:192:LEU:HB2	1:G:343:GLU:OE2	2.07	0.54
1:G:310:LEU:O	1:G:314:THR:HG22	2.08	0.54
1:H:146:LEU:HD13	1:H:167:THR:O	2.08	0.54
1:H:317:GLU:CB	1:H:329:LYS:HD3	2.37	0.54
1:K:231:MET:HE1	1:K:265:LYS:HD3	1.89	0.54
1:O:145:ASP:OD1	1:O:171:VAL:HB	2.08	0.54
1:P:159:LEU:HD13	1:P:159:LEU:H	1.72	0.54
1:P:183:LEU:HD13	1:P:385:ALA:CB	2.37	0.54
1:A:38:ILE:HA	1:A:49:MET:O	2.06	0.54
1:B:280:ARG:HD2	1:B:304:PHE:HB2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:412:ALA:CB	1:C:424:GLU:HB3	2.38	0.54
1:D:19:ALA:HB3	1:D:98:ARG:NH2	2.22	0.54
1:E:145:ASP:OD2	1:E:175:LEU:HD11	2.07	0.54
1:E:27:LYS:HB2	1:E:436:ILE:CD1	2.34	0.54
1:E:188:VAL:HG12	1:E:360:ILE:O	2.07	0.54
1:G:163:LYS:HA	1:G:166:PHE:CD1	2.43	0.54
1:G:316:GLY:C	1:G:317:GLU:HG2	2.27	0.54
1:G:317:GLU:HB3	1:G:329:LYS:HD3	1.87	0.54
1:G:124:ALA:HB1	1:G:491:LEU:HB3	1.89	0.54
1:J:109:HIS:CE1	1:J:111:GLN:HB2	2.42	0.54
1:K:211:ILE:CD1	1:K:297:MET:HG3	2.29	0.54
1:L:269:ILE:HG23	1:L:274:ILE:HG22	1.89	0.54
1:L:415:THR:HB	1:L:419:GLU:HB2	1.89	0.54
1:L:431:ARG:NH1	1:L:453:ARG:HD3	2.23	0.54
1:A:446:ALA:HB3	1:M:421:VAL:HB	1.88	0.54
1:N:100:ALA:HA	1:N:103:LEU:HD22	1.90	0.54
1:N:210:LYS:HE2	1:N:212:GLY:O	2.07	0.54
1:P:313:VAL:O	1:P:352:VAL:HG23	2.07	0.54
1:A:154:LEU:HD21	1:A:163:LYS:HZ3	1.71	0.54
1:B:431:ARG:O	1:B:434:PRO:HD2	2.06	0.54
1:C:204:GLY:HA3	1:C:349:PHE:O	2.08	0.54
1:C:274:ILE:O	1:C:296:VAL:HG22	2.07	0.54
1:A:40:LEU:HD22	1:C:507:ILE:O	2.08	0.54
1:D:125:ARG:O	1:D:129:LEU:HD13	2.08	0.54
1:D:508:ILE:HD12	1:H:63:VAL:CG2	2.35	0.54
1:F:157:LYS:CE	1:F:375:ARG:HD2	2.36	0.54
1:F:402:MET:CE	1:F:453:ARG:HG2	2.38	0.54
1:H:421:VAL:HA	1:H:424:GLU:OE1	2.08	0.54
1:J:141:LYS:HG2	1:J:144:GLN:HB2	1.90	0.54
1:J:225:LEU:HD11	1:J:324:HIS:ND1	2.23	0.54
1:J:219:ILE:HD12	1:J:275:ASN:HB3	1.88	0.54
1:J:321:THR:O	1:J:323:ASP:N	2.41	0.54
1:J:451:GLN:HE22	1:J:471:THR:HA	1.72	0.54
1:K:148:ASN:HB3	1:K:481:THR:CG2	2.37	0.54
1:L:116:GLY:O	1:L:119:GLU:HB2	2.07	0.54
1:N:198:ASP:OD1	1:N:364:GLY:HA2	2.08	0.54
1:J:507:ILE:HA	1:N:38:ILE:HD11	1.88	0.54
1:N:419:GLU:H	1:N:419:GLU:CD	2.11	0.54
1:I:111:GLN:HG2	1:O:33:LYS:HB2	1.89	0.54
1:P:511:ALA:N	1:P:512:PRO:CD	2.70	0.54
1:A:140:VAL:HA	1:A:178:LYS:HZ2	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:408:VAL:HG23	1:A:427:ALA:HB1	1.88	0.54
1:D:231:MET:HG3	1:D:283:ILE:HG13	1.88	0.54
1:D:93:ALA:HA	1:D:494:ALA:HB1	1.89	0.54
1:F:217:LYS:HB2	1:F:217:LYS:NZ	2.23	0.54
1:I:188:VAL:HB	1:I:377:LEU:CD2	2.36	0.54
1:I:61:ILE:HG21	1:N:511:ALA:CB	2.25	0.54
1:J:372:GLU:HA	1:J:375:ARG:CD	2.37	0.54
1:L:145:ASP:CG	1:L:171:VAL:HB	2.27	0.54
1:M:114:ILE:C	1:M:116:GLY:H	2.10	0.54
1:N:114:ILE:HG22	1:N:114:ILE:O	2.07	0.54
1:J:510:ALA:H	1:N:40:LEU:HG	1.73	0.54
1:O:504:VAL:HG12	1:O:505:ASP:N	2.18	0.54
1:O:512:PRO:O	1:O:513:ARG:HB3	2.07	0.54
1:O:6:GLU:OE2	1:O:506:ASN:HA	2.06	0.54
1:B:146:LEU:HD11	1:B:150:ALA:HB2	1.88	0.54
1:C:110:PRO:O	1:C:113:ILE:HB	2.07	0.54
1:D:415:THR:HB	1:D:419:GLU:CB	2.38	0.54
1:E:390:ASP:CB	1:E:485:GLN:HE22	2.21	0.54
1:F:219:ILE:HB	1:F:275:ASN:HB3	1.89	0.54
1:F:266:VAL:HB	1:F:290:LEU:HD21	1.88	0.54
1:H:369:ILE:HG23	1:H:370:LEU:N	2.23	0.54
1:I:399:CYS:HA	1:I:456:HIS:NE2	2.23	0.54
1:I:512:PRO:O	1:O:40:LEU:HD12	2.07	0.54
1:K:96:LEU:O	1:K:96:LEU:HD22	2.08	0.54
1:M:51:THR:HG21	1:M:56:THR:HB	1.89	0.54
1:N:390:ASP:HB3	1:N:485:GLN:HE22	1.72	0.54
1:O:107:LYS:HD2	1:O:107:LYS:C	2.28	0.54
1:O:133:VAL:HG21	1:O:394:VAL:HA	1.90	0.54
1:O:283:ILE:HG22	1:O:300:GLU:CG	2.38	0.54
1:O:176:ARG:NE	1:O:358:CYS:HB2	2.23	0.54
1:I:509:LYS:HA	1:O:38:ILE:HG12	1.89	0.54
1:O:59:LYS:HE2	1:O:76:ARG:H	1.72	0.54
1:P:483:SER:O	1:P:486:VAL:HG22	2.07	0.54
1:P:499:GLU:HG2	1:P:503:ARG:CZ	2.38	0.54
1:B:154:LEU:HD13	1:B:167:THR:OG1	2.08	0.54
1:B:177:LEU:HD22	1:B:186:ILE:HD11	1.89	0.54
1:D:364:GLY:CA	1:D:370:LEU:HD13	2.38	0.54
1:D:500:VAL:HG12	1:D:503:ARG:HH21	1.73	0.54
1:G:11:ALA:O	1:G:506:ASN:HB3	2.08	0.54
1:H:108:ILE:CD1	1:P:444:ASP:HB2	2.37	0.54
1:I:159:LEU:HD13	1:I:372:GLU:HB3	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:445:SER:OG	1:K:106:LYS:HE3	2.07	0.54
1:K:146:LEU:HD22	1:K:168:LYS:HA	1.90	0.54
1:K:163:LYS:O	1:K:166:PHE:HB2	2.08	0.54
1:L:393:THR:HB	1:L:482:GLU:O	2.08	0.54
1:M:82:VAL:HG22	1:M:486:VAL:HG12	1.89	0.54
1:N:51:THR:HG21	1:N:56:THR:HB	1.89	0.54
1:O:206:LEU:HD12	1:O:359:THR:CG2	2.36	0.54
1:P:209:LYS:HE2	1:P:301:HIS:O	2.08	0.54
1:B:128:LEU:HD21	1:B:488:ARG:HA	1.88	0.54
1:B:139:GLU:O	1:B:140:VAL:HB	2.08	0.54
1:C:451:GLN:HE22	1:C:471:THR:HA	1.73	0.54
1:E:108:ILE:HG23	1:E:109:HIS:N	2.22	0.54
1:E:352:VAL:HG22	1:E:355:GLY:H	1.73	0.54
1:F:284:TYR:O	1:F:287:PRO:HD2	2.07	0.54
1:F:346:LEU:N	1:F:346:LEU:HD22	2.22	0.54
1:A:511:ALA:HB3	1:F:61:ILE:CG1	2.38	0.54
1:G:133:VAL:HA	1:G:393:THR:O	2.08	0.54
1:H:216:PRO:CG	1:H:295:GLY:HA2	2.37	0.54
1:I:17:ILE:HA	1:I:20:ILE:HG22	1.90	0.54
1:J:421:VAL:O	1:J:424:GLU:HG2	2.08	0.54
1:K:259:LYS:O	1:K:263:LYS:HG2	2.08	0.54
1:K:231:MET:HB2	1:K:284:TYR:H	1.73	0.54
1:L:96:LEU:HD11	1:L:498:ALA:HB1	1.89	0.54
1:M:146:LEU:CD2	1:M:147:MET:H	2.20	0.54
1:M:58:LEU:HD12	1:M:72:VAL:HG22	1.90	0.54
1:N:159:LEU:CD1	1:N:372:GLU:HB3	2.38	0.54
1:N:390:ASP:CB	1:N:485:GLN:HE22	2.21	0.54
1:O:43:GLY:O	1:O:44:ARG:HB2	2.07	0.54
1:P:372:GLU:O	1:P:375:ARG:HB3	2.07	0.54
1:P:133:VAL:HG21	1:P:394:VAL:HB	1.90	0.54
1:B:106:LYS:NZ	1:B:108:ILE:HB	2.23	0.54
1:B:178:LYS:HE2	1:B:388:VAL:HB	1.90	0.54
1:B:274:ILE:HG23	1:B:296:VAL:HG21	1.89	0.54
1:C:122:LYS:HE2	1:C:411:LEU:CD1	2.30	0.54
1:C:128:LEU:HD13	1:C:484:PHE:CE1	2.43	0.54
1:C:27:LYS:HG3	1:C:436:ILE:HD12	1.90	0.54
1:D:507:ILE:C	1:D:507:ILE:HD13	2.28	0.54
1:E:159:LEU:CD2	1:E:163:LYS:HG2	2.35	0.54
1:E:183:LEU:HD13	1:E:381:LEU:CD1	2.37	0.54
1:G:401:GLU:HG2	1:G:433:LEU:HD22	1.90	0.54
1:I:31:GLY:O	1:I:156:SER:HA	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:439:ASP:OD2	1:K:107:LYS:HE2	2.08	0.54
1:K:207:LEU:O	1:K:347:ILE:HG22	2.07	0.54
1:K:284:TYR:O	1:K:287:PRO:HD2	2.07	0.54
1:K:206:LEU:HD11	1:K:346:LEU:CD2	2.38	0.54
1:L:313:VAL:HG13	1:L:352:VAL:HB	1.89	0.54
1:L:116:GLY:HA3	1:L:422:ALA:CB	2.37	0.54
1:M:119:GLU:HG2	1:M:422:ALA:HB3	1.90	0.54
1:M:128:LEU:HD21	1:M:491:LEU:HD12	1.88	0.54
1:M:159:LEU:HG	1:M:163:LYS:HD3	1.88	0.54
1:N:393:THR:HB	1:N:482:GLU:O	2.08	0.54
1:O:209:LYS:HE2	1:O:301:HIS:O	2.08	0.54
1:P:109:HIS:CD2	1:P:111:GLN:HG2	2.43	0.54
1:B:141:LYS:HA	1:B:141:LYS:CE	2.38	0.54
1:C:163:LYS:HE3	1:C:376:SER:HB2	1.90	0.54
1:D:448:LEU:C	1:D:448:LEU:HD13	2.28	0.54
1:F:219:ILE:HD12	1:F:275:ASN:HB3	1.89	0.54
1:H:187:HIS:HA	1:H:377:LEU:CD2	2.34	0.54
1:H:89:VAL:HG12	1:H:490:VAL:CG2	2.37	0.54
1:I:89:VAL:HG12	1:I:490:VAL:HG23	1.90	0.54
1:J:208:ASP:HB2	1:J:346:LEU:HD12	1.90	0.54
1:K:52:ASN:ND2	1:K:157:LYS:HG2	2.22	0.54
1:K:352:VAL:HG22	1:K:355:GLY:H	1.73	0.54
1:L:146:LEU:CD2	1:L:147:MET:H	2.20	0.54
1:L:438:ALA:HB2	1:L:448:LEU:HG	1.90	0.54
1:N:163:LYS:HE3	1:N:373:ALA:HA	1.88	0.54
1:O:117:TRP:HD1	1:O:495:ALA:HB1	1.72	0.54
1:P:339:VAL:HB	1:P:348:HIS:CE1	2.43	0.54
1:P:390:ASP:HB3	1:P:485:GLN:HE22	1.73	0.54
1:P:116:GLY:HA3	1:P:422:ALA:CB	2.38	0.54
1:P:57:ILE:HG23	1:P:58:LEU:HD22	1.90	0.54
1:E:431:ARG:HH21	1:E:434:PRO:HG2	1.72	0.53
1:E:448:LEU:HD21	1:E:465:LEU:CD1	2.33	0.53
1:G:209:LYS:HE2	1:G:301:HIS:O	2.08	0.53
1:G:188:VAL:HG21	1:G:377:LEU:HD13	1.89	0.53
1:H:280:ARG:O	1:H:281:GLN:HB3	2.06	0.53
1:I:111:GLN:O	1:I:114:ILE:HB	2.08	0.53
1:I:32:PRO:HB2	1:I:33:LYS:HD2	1.89	0.53
1:K:203:GLU:HB3	1:K:350:SER:HB2	1.89	0.53
1:K:208:ASP:O	1:K:209:LYS:HG3	2.08	0.53
1:K:59:LYS:NZ	1:K:76:ARG:HB2	2.23	0.53
1:J:366:THR:CB	1:K:77:VAL:HG21	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:89:VAL:HG12	1:K:490:VAL:CG2	2.33	0.53
1:A:79:ASP:OD1	1:A:378:HIS:HD2	1.91	0.53
1:B:185:ALA:HA	1:B:309:ARG:HG2	1.90	0.53
1:B:82:VAL:CG2	1:B:485:GLN:HB2	2.38	0.53
1:B:82:VAL:HG13	1:B:486:VAL:HG12	1.88	0.53
1:C:284:TYR:O	1:C:287:PRO:HD2	2.08	0.53
1:C:130:ASN:HD21	1:C:404:MET:HA	1.70	0.53
1:C:438:ALA:CB	1:C:448:LEU:HG	2.38	0.53
1:E:402:MET:SD	1:E:453:ARG:HA	2.48	0.53
1:F:341:ILE:HG22	1:F:346:LEU:HD21	1.90	0.53
1:F:446:ALA:HB2	1:O:108:ILE:CG2	2.38	0.53
1:F:54:GLY:O	1:F:58:LEU:HD23	2.07	0.53
1:F:96:LEU:C	1:F:96:LEU:HD13	2.28	0.53
1:H:175:LEU:HA	1:H:178:LYS:HE2	1.90	0.53
1:H:447:ASP:HA	1:P:417:GLY:C	2.29	0.53
1:H:54:GLY:O	1:H:58:LEU:HD23	2.09	0.53
1:I:122:LYS:O	1:I:125:ARG:HG2	2.09	0.53
1:I:324:HIS:ND1	1:I:325:PRO:HD3	2.22	0.53
1:I:343:GLU:HG3	1:I:344:ASP:H	1.73	0.53
1:I:448:LEU:HD21	1:I:465:LEU:CD1	2.31	0.53
1:J:210:LYS:HE2	1:J:212:GLY:O	2.08	0.53
1:K:19:ALA:CB	1:K:97:LEU:HD12	2.38	0.53
1:L:150:ALA:HB1	1:L:167:THR:OG1	2.08	0.53
1:M:499:GLU:O	1:M:503:ARG:HB2	2.08	0.53
1:N:232:ASP:HA	1:N:284:TYR:HB2	1.90	0.53
1:O:171:VAL:O	1:O:174:VAL:HG22	2.07	0.53
1:B:59:LYS:HE3	1:B:73:ASP:HA	1.91	0.53
1:C:174:VAL:HG11	1:C:384:LEU:CB	2.39	0.53
1:E:110:PRO:O	1:E:113:ILE:HB	2.09	0.53
1:E:122:LYS:HE2	1:E:125:ARG:NH2	2.23	0.53
1:E:223:LYS:HB2	1:E:274:ILE:HA	1.90	0.53
1:E:390:ASP:HB2	1:E:485:GLN:HE22	1.73	0.53
1:E:134:ASP:HB3	1:E:393:THR:OG1	2.08	0.53
1:G:283:ILE:HG22	1:G:300:GLU:CG	2.37	0.53
1:H:114:ILE:HD12	1:H:503:ARG:HA	1.88	0.53
1:H:310:LEU:O	1:H:313:VAL:HB	2.08	0.53
1:H:183:LEU:HD22	1:H:382:CYS:SG	2.49	0.53
1:I:116:GLY:O	1:I:119:GLU:HB2	2.08	0.53
1:I:146:LEU:HD21	1:I:150:ALA:HB3	1.90	0.53
1:I:64:ASP:HB2	1:I:66:PRO:HD2	1.88	0.53
1:J:366:THR:HG23	1:J:370:LEU:HD23	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:148:ASN:HB3	1:J:481:THR:HG22	1.90	0.53
1:J:492:LEU:HD13	1:J:493:SER:N	2.21	0.53
1:K:191:LYS:CA	1:K:191:LYS:HE3	2.39	0.53
1:K:58:LEU:HB3	1:K:72:VAL:CG1	2.38	0.53
1:L:101:GLU:O	1:L:104:ILE:HG12	2.07	0.53
1:L:324:HIS:HB2	1:L:329:LYS:HE2	1.91	0.53
1:L:128:LEU:HD21	1:L:488:ARG:HA	1.89	0.53
1:P:171:VAL:O	1:P:175:LEU:HG	2.08	0.53
1:P:390:ASP:CB	1:P:485:GLN:HE22	2.20	0.53
1:P:32:PRO:CD	1:P:467:MET:SD	2.95	0.53
1:A:448:LEU:HD11	1:A:465:LEU:HD11	1.91	0.53
1:A:56:THR:HG23	1:A:375:ARG:NE	2.23	0.53
1:B:289:GLN:C	1:F:318:ILE:HG23	2.27	0.53
1:B:30:LEU:HD22	1:B:436:ILE:HD13	1.91	0.53
1:B:58:LEU:HB3	1:B:72:VAL:HG11	1.89	0.53
1:B:75:SER:O	1:B:78:GLN:HB3	2.09	0.53
1:C:500:VAL:O	1:C:503:ARG:HB2	2.08	0.53
1:A:40:LEU:HD13	1:C:508:ILE:HG22	1.90	0.53
1:C:82:VAL:CG1	1:C:83:GLY:N	2.71	0.53
1:D:118:ARG:O	1:D:121:THR:HB	2.09	0.53
1:D:417:GLY:CA	1:K:450:ALA:HB3	2.39	0.53
1:F:159:LEU:HG	1:F:163:LYS:CG	2.38	0.53
1:G:65:ASN:CG	1:G:66:PRO:HD3	2.29	0.53
1:J:263:LYS:HA	1:J:266:VAL:HG12	1.90	0.53
1:J:223:LYS:HD3	1:J:272:HIS:O	2.08	0.53
1:K:210:LYS:HE2	1:K:212:GLY:O	2.07	0.53
1:K:40:LEU:HD23	1:K:41:SER:N	2.23	0.53
1:L:128:LEU:C	1:L:129:LEU:HD13	2.28	0.53
1:L:206:LEU:HD21	1:L:348:HIS:NE2	2.24	0.53
1:L:322:PHE:O	1:L:325:PRO:HD2	2.08	0.53
1:P:210:LYS:HE2	1:P:212:GLY:O	2.08	0.53
1:P:250:LYS:O	1:P:253:GLU:HB3	2.07	0.53
1:B:511:ALA:CB	1:B:512:PRO:HD3	2.38	0.53
1:C:216:PRO:CG	1:C:295:GLY:HA2	2.38	0.53
1:C:32:PRO:HA	1:C:156:SER:HA	1.89	0.53
1:E:133:VAL:HG23	1:E:134:ASP:N	2.23	0.53
1:J:415:THR:HG23	1:J:420:ALA:CA	2.39	0.53
1:D:439:ASP:HB2	1:K:108:ILE:HD11	1.90	0.53
1:K:266:VAL:HB	1:K:290:LEU:CD2	2.28	0.53
1:L:170:ALA:HB1	1:L:380:ALA:HB1	1.91	0.53
1:L:14:SER:O	1:L:17:ILE:HG22	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:110:PRO:O	1:M:113:ILE:HB	2.08	0.53
1:N:511:ALA:HB1	1:N:512:PRO:HD2	1.89	0.53
1:N:78:GLN:CG	1:N:83:GLY:HA2	2.39	0.53
1:O:269:ILE:HG23	1:O:274:ILE:HG22	1.86	0.53
1:P:438:ALA:HB2	1:P:448:LEU:HG	1.91	0.53
1:P:39:LEU:O	1:P:48:LEU:HA	2.08	0.53
1:B:163:LYS:HG3	1:B:166:PHE:CG	2.43	0.53
1:C:150:ALA:HB2	1:C:384:LEU:HD11	1.90	0.53
1:C:81:GLU:O	1:C:82:VAL:HB	2.09	0.53
1:D:159:LEU:HD22	1:D:160:THR:N	2.24	0.53
1:D:226:ILE:HA	1:D:278:ILE:O	2.07	0.53
1:D:200:TYR:HB2	1:D:363:ARG:CZ	2.38	0.53
1:E:222:ALA:HA	1:E:275:ASN:OD1	2.08	0.53
1:F:154:LEU:HD11	1:F:163:LYS:CG	2.39	0.53
1:H:276:CYS:HA	1:H:297:MET:O	2.08	0.53
1:H:502:LEU:HD22	1:H:502:LEU:O	2.09	0.53
1:I:177:LEU:HG	1:I:186:ILE:HD11	1.90	0.53
1:I:210:LYS:HE2	1:I:212:GLY:O	2.09	0.53
1:I:448:LEU:C	1:I:448:LEU:HD13	2.29	0.53
1:I:59:LYS:NZ	1:I:76:ARG:H	2.07	0.53
1:I:92:LEU:O	1:I:95:GLU:HG2	2.08	0.53
1:J:114:ILE:HA	1:J:117:TRP:CZ3	2.44	0.53
1:K:176:ARG:HH12	1:K:201:LEU:HD11	1.73	0.53
1:N:173:ALA:HA	1:N:176:ARG:CZ	2.39	0.53
1:N:341:ILE:HD11	1:N:348:HIS:CE1	2.44	0.53
1:P:313:VAL:CG1	1:P:352:VAL:HB	2.38	0.53
1:P:82:VAL:HG13	1:P:486:VAL:HG12	1.90	0.53
1:B:451:GLN:HE22	1:B:471:THR:HA	1.74	0.53
1:C:166:PHE:CE1	1:C:198:ASP:HB3	2.43	0.53
1:C:485:GLN:HB3	1:C:488:ARG:HH21	1.72	0.53
1:F:108:ILE:HG22	1:F:109:HIS:N	2.24	0.53
1:F:394:VAL:HG23	1:F:482:GLU:HB2	1.89	0.53
1:G:127:ALA:O	1:G:130:ASN:HB3	2.09	0.53
1:G:231:MET:HB2	1:G:284:TYR:H	1.73	0.53
1:G:32:PRO:HG2	1:G:467:MET:CE	2.39	0.53
1:K:312:LEU:O	1:K:354:LEU:HD22	2.08	0.53
1:K:402:MET:SD	1:K:453:ARG:HA	2.49	0.53
1:K:117:TRP:CH2	1:K:502:LEU:HD12	2.43	0.53
1:L:312:LEU:HD22	1:P:213:VAL:HG22	1.91	0.53
1:L:41:SER:OG	1:M:510:ALA:HB3	2.07	0.53
1:N:191:LYS:HG2	1:N:341:ILE:HG21	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:222:ALA:HA	1:N:275:ASN:OD1	2.09	0.53
1:P:38:ILE:CG2	1:P:48:LEU:HD13	2.38	0.53
1:A:146:LEU:HD23	1:A:147:MET:N	2.23	0.53
1:A:79:ASP:HA	1:A:83:GLY:HA3	1.91	0.53
1:B:372:GLU:O	1:B:375:ARG:HB3	2.09	0.53
1:B:431:ARG:HH21	1:B:434:PRO:HG2	1.74	0.53
1:C:425:SER:O	1:C:428:LYS:HG2	2.09	0.53
1:C:448:LEU:HD21	1:C:465:LEU:CD1	2.39	0.53
1:C:492:LEU:HD12	1:C:493:SER:N	2.24	0.53
1:D:177:LEU:HD13	1:D:356:GLU:O	2.09	0.53
1:E:334:LYS:O	1:E:335:LEU:HB2	2.09	0.53
1:D:37:LYS:CD	1:E:504:VAL:HG13	2.39	0.53
1:F:188:VAL:CG2	1:F:377:LEU:HD21	2.38	0.53
1:F:32:PRO:HG2	1:F:467:MET:HE1	1.89	0.53
1:G:82:VAL:HG12	1:G:83:GLY:N	2.22	0.53
1:H:100:ALA:HA	1:H:103:LEU:HD13	1.91	0.53
1:H:146:LEU:HD23	1:H:148:ASN:H	1.73	0.53
1:H:146:LEU:HD11	1:H:150:ALA:CB	2.39	0.53
1:I:183:LEU:HD13	1:I:385:ALA:HB2	1.91	0.53
1:J:211:ILE:HD13	1:J:215:GLN:CB	2.39	0.53
1:J:412:ALA:HB1	1:J:424:GLU:HB3	1.91	0.53
1:K:141:LYS:O	1:K:145:ASP:HB2	2.09	0.53
1:K:280:ARG:HG3	1:K:304:PHE:HB2	1.89	0.53
1:L:284:TYR:O	1:L:287:PRO:HD2	2.08	0.53
1:L:38:ILE:HG23	1:M:504:VAL:HG21	1.91	0.53
1:O:431:ARG:O	1:O:434:PRO:HD2	2.09	0.53
1:P:31:GLY:C	1:P:156:SER:HA	2.29	0.53
1:P:200:TYR:CD1	1:P:363:ARG:HD2	2.43	0.53
1:L:312:LEU:HA	1:P:213:VAL:CB	2.39	0.53
1:P:222:ALA:HA	1:P:275:ASN:OD1	2.09	0.53
1:P:324:HIS:HB2	1:P:329:LYS:NZ	2.24	0.53
1:A:111:GLN:HA	1:A:114:ILE:CD1	2.37	0.53
1:A:433:LEU:O	1:A:436:ILE:HG22	2.09	0.53
1:A:57:ILE:HG23	1:A:58:LEU:HD23	1.89	0.53
1:B:163:LYS:HG3	1:B:166:PHE:CD1	2.44	0.53
1:B:176:ARG:NH1	1:B:201:LEU:HD21	2.21	0.53
1:B:95:GLU:HA	1:B:98:ARG:HD2	1.91	0.53
1:D:202:ASP:OD2	1:D:361:VAL:HG21	2.08	0.53
1:F:375:ARG:HG3	1:F:375:ARG:HH11	1.73	0.53
1:F:508:ILE:N	1:F:508:ILE:CD1	2.71	0.53
1:G:216:PRO:HG2	1:G:295:GLY:CA	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:79:ASP:HA	1:G:83:GLY:CA	2.37	0.53
1:H:200:TYR:CD1	1:H:363:ARG:HD3	2.44	0.53
1:H:232:ASP:HA	1:H:284:TYR:HB2	1.91	0.53
1:I:280:ARG:O	1:I:281:GLN:HB3	2.09	0.53
1:J:185:ALA:HA	1:J:309:ARG:CD	2.39	0.53
1:N:284:TYR:O	1:N:287:PRO:HD2	2.09	0.53
1:O:108:ILE:HG21	1:O:418:LYS:HZ3	1.73	0.53
1:O:137:SER:HB3	1:O:391:SER:HA	1.91	0.53
1:O:96:LEU:HD13	1:O:97:LEU:N	2.22	0.53
1:H:450:ALA:CA	1:P:420:ALA:HB2	2.38	0.53
1:B:111:GLN:O	1:B:114:ILE:HB	2.09	0.53
1:C:495:ALA:O	1:C:497:ALA:N	2.42	0.53
1:C:69:LYS:HB3	1:C:508:ILE:HD12	1.90	0.53
1:F:112:THR:HG21	1:F:418:LYS:HE2	1.91	0.53
1:B:289:GLN:O	1:F:318:ILE:HG23	2.09	0.53
1:F:448:LEU:HA	1:F:451:GLN:HE21	1.73	0.53
1:F:57:ILE:HG23	1:F:58:LEU:HD22	1.91	0.53
1:G:128:LEU:HD22	1:G:488:ARG:HG2	1.91	0.53
1:H:173:ALA:HB2	1:H:360:ILE:CD1	2.38	0.53
1:H:189:ILE:HG13	1:H:206:LEU:HD12	1.91	0.53
1:H:59:LYS:HE3	1:H:73:ASP:HA	1.91	0.53
1:I:132:ALA:HB1	1:I:395:TYR:CD2	2.44	0.53
1:I:188:VAL:O	1:I:374:GLU:HG3	2.08	0.53
1:J:176:ARG:HD2	1:J:358:CYS:SG	2.48	0.53
1:M:433:LEU:O	1:M:436:ILE:HG22	2.09	0.53
1:N:232:ASP:HA	1:N:284:TYR:CD1	2.44	0.53
1:O:225:LEU:HG	1:O:277:PHE:CD1	2.44	0.53
1:P:99:GLU:O	1:P:103:LEU:HD13	2.08	0.53
1:P:33:LYS:HD3	1:P:441:ALA:HA	1.91	0.53
1:A:448:LEU:HD21	1:A:465:LEU:CD1	2.30	0.52
1:B:154:LEU:HD21	1:B:163:LYS:HG2	1.91	0.52
1:B:274:ILE:HG23	1:B:296:VAL:CG2	2.39	0.52
1:B:442:GLY:HA2	1:F:109:HIS:CG	2.44	0.52
1:C:364:GLY:HA3	1:C:370:LEU:CD1	2.38	0.52
1:D:125:ARG:HA	1:D:128:LEU:CD1	2.39	0.52
1:D:225:LEU:HD11	1:D:324:HIS:ND1	2.24	0.52
1:E:32:PRO:HB2	1:E:467:MET:CE	2.39	0.52
1:G:141:LYS:HG2	1:G:144:GLN:HB2	1.90	0.52
1:G:193:GLY:HA3	1:G:343:GLU:HB2	1.91	0.52
1:I:187:HIS:CE1	1:I:189:ILE:HD12	2.44	0.52
1:I:412:ALA:CB	1:I:424:GLU:HB3	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:109:HIS:HB3	1:K:112:THR:OG1	2.09	0.52
1:L:145:ASP:OD1	1:L:171:VAL:HB	2.08	0.52
1:L:262:MET:SD	1:L:290:LEU:HB2	2.49	0.52
1:L:92:LEU:HA	1:L:95:GLU:OE2	2.08	0.52
1:N:131:SER:HA	1:N:403:LEU:CD2	2.39	0.52
1:N:287:PRO:O	1:N:291:PHE:HD1	1.92	0.52
1:N:188:VAL:HG11	1:N:377:LEU:HG	1.90	0.52
1:N:15:SER:HB3	1:N:501:ILE:HG22	1.91	0.52
1:B:64:ASP:OD1	1:B:66:PRO:HD2	2.09	0.52
1:C:111:GLN:O	1:C:114:ILE:HB	2.09	0.52
1:D:92:LEU:HB2	1:D:490:VAL:CG2	2.38	0.52
1:G:163:LYS:HG3	1:G:166:PHE:CG	2.44	0.52
1:G:210:LYS:HE2	1:G:212:GLY:O	2.08	0.52
1:G:70:VAL:HG23	1:G:501:ILE:HG12	1.90	0.52
1:G:64:ASP:CG	1:G:66:PRO:HD2	2.30	0.52
1:H:485:GLN:HE21	1:H:488:ARG:HH21	1.57	0.52
1:I:106:LYS:HB2	1:I:106:LYS:NZ	2.24	0.52
1:I:116:GLY:HA3	1:I:422:ALA:HB3	1.91	0.52
1:I:146:LEU:HD11	1:I:150:ALA:HB3	1.92	0.52
1:I:326:GLU:HG3	1:I:327:LEU:H	1.75	0.52
1:J:441:ALA:HB2	1:J:467:MET:HG2	1.91	0.52
1:K:452:LEU:HD11	1:K:456:HIS:HE1	1.74	0.52
1:L:43:GLY:HA2	1:M:513:ARG:HB2	1.91	0.52
1:O:112:THR:HG22	1:O:418:LYS:HE2	1.91	0.52
1:P:215:GLN:HG3	1:P:292:GLY:HA2	1.91	0.52
1:P:219:ILE:CD1	1:P:276:CYS:HB2	2.40	0.52
1:P:381:LEU:O	1:P:381:LEU:HD22	2.09	0.52
1:P:408:VAL:HA	1:P:411:LEU:HD12	1.90	0.52
1:A:431:ARG:O	1:A:434:PRO:HD2	2.09	0.52
1:A:448:LEU:HD11	1:A:465:LEU:CD1	2.40	0.52
1:B:324:HIS:HB2	1:B:329:LYS:CE	2.39	0.52
1:B:183:LEU:HD13	1:B:385:ALA:HB2	1.91	0.52
1:D:22:ILE:O	1:D:26:VAL:HG22	2.10	0.52
1:D:163:LYS:NZ	1:D:376:SER:HB3	2.24	0.52
1:D:59:LYS:HE2	1:D:76:ARG:CB	2.38	0.52
1:E:185:ALA:HA	1:E:309:ARG:HD3	1.91	0.52
1:F:433:LEU:O	1:F:436:ILE:HG22	2.09	0.52
1:G:124:ALA:CB	1:G:491:LEU:HB3	2.39	0.52
1:I:146:LEU:HG	1:I:148:ASN:H	1.73	0.52
1:I:371:ASP:O	1:I:374:GLU:HB3	2.09	0.52
1:J:402:MET:CE	1:J:453:ARG:HG2	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:274:ILE:HG23	1:N:296:VAL:HG21	1.92	0.52
1:N:344:ASP:O	1:N:346:LEU:HD13	2.09	0.52
1:N:40:LEU:HD13	1:N:40:LEU:C	2.30	0.52
1:F:453:ARG:HH22	1:O:421:VAL:HB	1.74	0.52
1:B:108:ILE:HG22	1:B:109:HIS:N	2.25	0.52
1:B:211:ILE:HG21	1:B:215:GLN:NE2	2.25	0.52
1:D:205:PHE:HA	1:D:359:THR:OG1	2.10	0.52
1:D:82:VAL:HG22	1:D:386:GLN:CG	2.38	0.52
1:E:137:SER:O	1:E:391:SER:HA	2.09	0.52
1:F:31:GLY:O	1:F:156:SER:HA	2.08	0.52
1:F:421:VAL:O	1:F:424:GLU:HG2	2.08	0.52
1:G:390:ASP:HB3	1:G:485:GLN:HE22	1.74	0.52
1:I:103:LEU:HD11	1:I:113:ILE:HD12	1.91	0.52
1:I:161:HIS:HB3	1:N:118:ARG:HH22	1.74	0.52
1:K:175:LEU:O	1:K:178:LYS:HG2	2.08	0.52
1:L:159:LEU:HD12	1:L:372:GLU:CG	2.40	0.52
1:L:38:ILE:HD12	1:L:48:LEU:HD22	1.90	0.52
1:L:84:ASP:CG	1:L:85:GLY:H	2.11	0.52
1:M:61:ILE:CG1	1:M:63:VAL:HG23	2.38	0.52
1:N:381:LEU:O	1:N:381:LEU:HD13	2.09	0.52
1:I:510:ALA:N	1:O:38:ILE:HD11	2.20	0.52
1:B:223:LYS:HE2	1:B:272:HIS:NE2	2.24	0.52
1:B:367:GLN:O	1:B:370:LEU:HB3	2.09	0.52
1:B:82:VAL:HG11	1:B:486:VAL:HA	1.91	0.52
1:C:159:LEU:CB	1:C:369:ILE:HG23	2.40	0.52
1:C:211:ILE:HG13	1:C:298:ALA:O	2.10	0.52
1:C:106:LYS:HG3	1:C:418:LYS:NZ	2.25	0.52
1:A:40:LEU:HB3	1:C:507:ILE:O	2.10	0.52
1:C:79:ASP:HA	1:C:83:GLY:HA3	1.92	0.52
1:F:29:THR:HG23	1:F:52:ASN:OD1	2.10	0.52
1:F:81:GLU:O	1:F:82:VAL:HB	2.10	0.52
1:G:483:SER:O	1:G:486:VAL:HG22	2.10	0.52
1:I:226:ILE:HG12	1:I:278:ILE:HG23	1.91	0.52
1:L:312:LEU:HD22	1:P:213:VAL:HG21	1.92	0.52
1:L:186:ILE:HA	1:L:358:CYS:O	2.10	0.52
1:L:131:SER:OG	1:L:403:LEU:HD21	2.10	0.52
1:M:381:LEU:O	1:M:381:LEU:HD22	2.10	0.52
1:M:452:LEU:HD13	1:M:465:LEU:HD13	1.91	0.52
1:N:274:ILE:HG23	1:N:296:VAL:CG2	2.39	0.52
1:N:38:ILE:HD13	1:N:48:LEU:CD2	2.32	0.52
1:M:35:MET:HE2	1:O:111:GLN:HG2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:161:HIS:CD2	1:O:162:HIS:H	2.28	0.52
1:P:59:LYS:HE2	1:P:76:ARG:CB	2.38	0.52
1:C:269:ILE:HG12	1:C:274:ILE:HG21	1.92	0.52
1:F:431:ARG:HA	1:F:431:ARG:NE	2.24	0.52
1:F:96:LEU:O	1:F:96:LEU:HD22	2.10	0.52
1:G:59:LYS:NZ	1:G:59:LYS:HB2	2.25	0.52
1:H:165:HIS:O	1:H:168:LYS:HB3	2.09	0.52
1:H:211:ILE:HG13	1:H:298:ALA:H	1.73	0.52
1:I:451:GLN:HE22	1:I:471:THR:HA	1.75	0.52
1:K:96:LEU:HD13	1:K:97:LEU:N	2.25	0.52
1:L:119:GLU:O	1:L:123:ALA:N	2.43	0.52
1:L:22:ILE:HD12	1:L:90:THR:CG2	2.39	0.52
1:M:177:LEU:HD11	1:M:183:LEU:HD12	1.90	0.52
1:M:345:LYS:C	1:M:346:LEU:HD12	2.30	0.52
1:M:502:LEU:O	1:M:502:LEU:HD23	2.09	0.52
1:P:194:GLY:HA2	1:P:365:ALA:HA	1.90	0.52
1:B:188:VAL:CG2	1:B:377:LEU:HD22	2.39	0.52
1:F:176:ARG:HH12	1:F:201:LEU:HD21	1.75	0.52
1:F:431:ARG:HA	1:F:431:ARG:CZ	2.39	0.52
1:H:143:ARG:HA	1:H:143:ARG:NE	2.25	0.52
1:H:189:ILE:CG1	1:H:206:LEU:HD12	2.39	0.52
1:I:140:VAL:HA	1:I:175:LEU:CD1	2.40	0.52
1:J:313:VAL:HG22	1:J:357:ALA:HB3	1.92	0.52
1:J:36:ASP:O	1:K:504:VAL:HG22	2.09	0.52
1:K:201:LEU:CD1	1:K:360:ILE:HG22	2.32	0.52
1:K:368:GLN:CG	1:K:369:ILE:H	2.22	0.52
1:L:475:MET:SD	1:L:480:ILE:HB	2.50	0.52
1:O:89:VAL:HB	1:O:490:VAL:CG2	2.40	0.52
1:P:126:GLN:NE2	1:P:411:LEU:HD22	2.24	0.52
1:P:154:LEU:HD22	1:P:167:THR:HB	1.92	0.52
1:P:330:LEU:HD23	1:P:330:LEU:N	2.25	0.52
1:B:287:PRO:O	1:B:291:PHE:HD2	1.92	0.52
1:B:289:GLN:NE2	1:F:228:ASN:HD22	2.08	0.52
1:C:130:ASN:HB3	1:C:403:LEU:CD2	2.38	0.52
1:D:277:PHE:CE2	1:D:279:ASN:HB2	2.44	0.52
1:D:284:TYR:O	1:D:287:PRO:HD2	2.09	0.52
1:E:280:ARG:HD2	1:E:304:PHE:HB2	1.90	0.52
1:E:191:LYS:HZ1	1:E:346:LEU:HD21	1.74	0.52
1:E:375:ARG:HD3	1:E:375:ARG:H	1.74	0.52
1:G:222:ALA:HA	1:G:275:ASN:OD1	2.10	0.52
1:G:500:VAL:O	1:G:504:VAL:HG23	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:396:GLY:HA3	1:H:480:ILE:HG22	1.91	0.52
1:H:390:ASP:HB3	1:H:485:GLN:CD	2.30	0.52
1:H:59:LYS:HE2	1:H:76:ARG:CB	2.40	0.52
1:I:363:ARG:O	1:I:370:LEU:HD11	2.09	0.52
1:J:380:ALA:O	1:J:384:LEU:HD23	2.09	0.52
1:K:421:VAL:O	1:K:424:GLU:HG2	2.10	0.52
1:M:171:VAL:HA	1:M:174:VAL:HG13	1.91	0.52
1:M:159:LEU:CD1	1:M:369:ILE:HG23	2.39	0.52
1:M:448:LEU:C	1:M:448:LEU:HD13	2.30	0.52
1:N:128:LEU:C	1:N:129:LEU:HD22	2.30	0.52
1:O:107:LYS:O	1:O:108:ILE:HG13	2.10	0.52
1:O:163:LYS:HE3	1:O:376:SER:HB3	1.92	0.52
1:O:397:GLY:HA3	1:O:475:MET:CE	2.40	0.52
1:P:452:LEU:HA	1:P:472:ILE:HG21	1.91	0.52
1:P:81:GLU:O	1:P:386:GLN:HG3	2.10	0.52
1:A:141:LYS:HE2	1:A:144:GLN:HE21	1.75	0.52
1:B:109:HIS:CE1	1:B:111:GLN:HB3	2.45	0.52
1:B:354:LEU:HG	1:B:356:GLU:CB	2.40	0.52
1:C:508:ILE:HG13	1:C:508:ILE:O	2.10	0.52
1:D:225:LEU:HD11	1:D:324:HIS:CE1	2.45	0.52
1:D:65:ASN:CG	1:D:66:PRO:HD3	2.30	0.52
1:D:96:LEU:HG	1:D:495:ALA:HB2	1.92	0.52
1:E:154:LEU:HD22	1:E:167:THR:CB	2.40	0.52
1:E:445:SER:O	1:E:449:VAL:HG23	2.10	0.52
1:F:114:ILE:HA	1:F:117:TRP:HE3	1.75	0.52
1:G:280:ARG:HD2	1:G:304:PHE:HB2	1.92	0.52
1:J:175:LEU:O	1:J:178:LYS:HG2	2.09	0.52
1:K:150:ALA:HB1	1:K:167:THR:OG1	2.10	0.52
1:L:163:LYS:HA	1:L:166:PHE:CD1	2.45	0.52
1:L:265:LYS:O	1:L:269:ILE:HB	2.10	0.52
1:N:280:ARG:HD2	1:N:304:PHE:HB2	1.90	0.52
1:N:438:ALA:CB	1:N:448:LEU:HG	2.39	0.52
1:O:28:SER:O	1:O:34:GLY:HA2	2.09	0.52
1:O:352:VAL:HG22	1:O:355:GLY:H	1.75	0.52
1:O:366:THR:O	1:O:367:GLN:HB3	2.10	0.52
1:F:417:GLY:CA	1:O:450:ALA:HA	2.38	0.52
1:O:487:LYS:O	1:O:491:LEU:HG	2.10	0.52
1:A:177:LEU:O	1:A:177:LEU:HD22	2.10	0.52
1:B:32:PRO:CD	1:B:467:MET:SD	2.88	0.52
1:C:174:VAL:HB	1:C:385:ALA:HA	1.92	0.52
1:C:33:LYS:NZ	1:H:118:ARG:HH22	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:141:LYS:HG2	1:E:144:GLN:HB2	1.92	0.52
1:E:258:GLU:CD	1:E:284:TYR:HE2	2.13	0.52
1:E:352:VAL:CG2	1:E:355:GLY:H	2.23	0.52
1:G:145:ASP:OD2	1:G:175:LEU:HD11	2.10	0.52
1:H:185:ALA:CA	1:H:309:ARG:HB2	2.37	0.52
1:H:40:LEU:HD22	1:H:41:SER:H	1.74	0.52
1:H:149:ILE:HB	1:H:481:THR:O	2.09	0.52
1:K:149:ILE:HG21	1:K:387:THR:OG1	2.11	0.52
1:K:146:LEU:HB2	1:K:171:VAL:HG21	1.91	0.52
1:L:268:ARG:O	1:L:271:LYS:HG2	2.10	0.52
1:L:112:THR:HB	1:L:418:LYS:NZ	2.25	0.52
1:L:114:ILE:HD12	1:L:499:GLU:HG3	1.91	0.52
1:M:128:LEU:HD22	1:M:487:LYS:CG	2.40	0.52
1:M:410:GLN:O	1:M:413:SER:HB3	2.10	0.52
1:N:113:ILE:C	1:N:115:ALA:H	2.14	0.52
1:N:159:LEU:HD12	1:N:372:GLU:HB3	1.91	0.52
1:O:317:GLU:CB	1:O:329:LYS:HG2	2.37	0.52
1:P:145:ASP:O	1:P:171:VAL:HG11	2.10	0.52
1:P:99:GLU:CD	1:P:425:SER:HB2	2.30	0.52
1:A:437:ILE:HG23	1:A:467:MET:SD	2.50	0.51
1:B:146:LEU:HD11	1:B:150:ALA:HB3	1.91	0.51
1:B:25:LEU:HD22	1:F:508:ILE:HD13	1.92	0.51
1:C:199:SER:HB2	1:C:362:LEU:HD22	1.92	0.51
1:C:205:PHE:HA	1:C:359:THR:HB	1.92	0.51
1:E:284:TYR:O	1:E:287:PRO:HD2	2.10	0.51
1:E:334:LYS:CB	1:E:351:GLY:HA3	2.40	0.51
1:F:114:ILE:HD13	1:F:117:TRP:CZ3	2.45	0.51
1:F:231:MET:HE1	1:F:265:LYS:HD3	1.92	0.51
1:G:187:HIS:O	1:G:359:THR:HG23	2.11	0.51
1:H:265:LYS:HE2	1:H:322:PHE:CE1	2.43	0.51
1:H:425:SER:O	1:H:428:LYS:HG2	2.10	0.51
1:I:173:ALA:HB2	1:I:360:ILE:CD1	2.40	0.51
1:I:191:LYS:HE3	1:I:191:LYS:HA	1.92	0.51
1:I:33:LYS:HB2	1:I:440:ASN:O	2.10	0.51
1:J:149:ILE:HG23	1:J:383:VAL:CG1	2.40	0.51
1:J:386:GLN:HE21	1:J:485:GLN:NE2	2.08	0.51
1:K:310:LEU:O	1:K:313:VAL:HB	2.10	0.51
1:K:451:GLN:HE22	1:K:471:THR:HA	1.74	0.51
1:L:141:LYS:HE2	1:L:144:GLN:HE21	1.75	0.51
1:N:231:MET:HG3	1:N:283:ILE:HG13	1.92	0.51
1:N:40:LEU:HD13	1:N:41:SER:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:82:VAL:HA	1:O:386:GLN:CB	2.40	0.51
1:P:274:ILE:HG23	1:P:296:VAL:CG2	2.40	0.51
1:C:390:ASP:HB3	1:C:485:GLN:OE1	2.10	0.51
1:D:317:GLU:HB2	1:D:329:LYS:HD3	1.92	0.51
1:E:435:THR:HG23	1:E:445:SER:HB3	1.92	0.51
1:E:452:LEU:HD13	1:E:465:LEU:CD1	2.40	0.51
1:F:52:ASN:H	1:F:375:ARG:NE	2.07	0.51
1:G:133:VAL:O	1:G:134:ASP:HB3	2.10	0.51
1:G:274:ILE:HG23	1:G:296:VAL:HG21	1.91	0.51
1:H:163:LYS:HA	1:H:166:PHE:CD1	2.45	0.51
1:I:163:LYS:HD2	1:I:166:PHE:CG	2.45	0.51
1:J:497:ALA:O	1:J:500:VAL:HG22	2.10	0.51
1:K:317:GLU:HB2	1:K:329:LYS:HD3	1.91	0.51
1:L:11:ALA:HB3	1:L:505:ASP:O	2.10	0.51
1:L:222:ALA:HA	1:L:275:ASN:HB2	1.93	0.51
1:N:48:LEU:HD12	1:N:48:LEU:N	2.25	0.51
1:N:2:GLY:HA2	1:N:506:ASN:HD21	1.75	0.51
1:A:75:SER:O	1:A:78:GLN:HB3	2.10	0.51
1:C:226:ILE:HD13	1:C:307:VAL:HG13	1.92	0.51
1:C:188:VAL:HG11	1:C:377:LEU:HD22	1.91	0.51
1:D:287:PRO:O	1:D:291:PHE:HD1	1.94	0.51
1:D:407:ALA:O	1:D:411:LEU:HG	2.10	0.51
1:D:450:ALA:HA	1:D:453:ARG:HE	1.75	0.51
1:E:173:ALA:CB	1:E:360:ILE:HD11	2.31	0.51
1:E:414:ARG:HA	1:E:414:ARG:NE	2.25	0.51
1:F:108:ILE:HB	1:O:446:ALA:CB	2.40	0.51
1:F:402:MET:SD	1:F:453:ARG:HA	2.50	0.51
1:G:146:LEU:HD13	1:G:168:LYS:HA	1.91	0.51
1:H:451:GLN:HE22	1:H:471:THR:HA	1.73	0.51
1:I:173:ALA:HA	1:I:176:ARG:CZ	2.40	0.51
1:I:284:TYR:O	1:I:287:PRO:HD2	2.08	0.51
1:K:367:GLN:HG2	1:K:368:GLN:HG2	1.92	0.51
1:L:109:HIS:ND1	1:L:111:GLN:HB2	2.25	0.51
1:M:57:ILE:HG23	1:M:58:LEU:CD2	2.41	0.51
1:M:61:ILE:HG13	1:M:63:VAL:HG23	1.92	0.51
1:N:108:ILE:HG22	1:N:109:HIS:N	2.25	0.51
1:N:211:ILE:CD1	1:N:297:MET:HG3	2.29	0.51
1:N:325:PRO:C	1:N:326:GLU:HG3	2.29	0.51
1:O:10:THR:O	1:O:13:LEU:HB3	2.10	0.51
1:A:58:LEU:HB3	1:A:72:VAL:HG11	1.92	0.51
1:D:225:LEU:HD12	1:D:226:ILE:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:92:LEU:O	1:D:95:GLU:HG2	2.10	0.51
1:E:171:VAL:O	1:E:174:VAL:HG22	2.10	0.51
1:E:448:LEU:HA	1:E:451:GLN:HE21	1.75	0.51
1:E:483:SER:O	1:E:486:VAL:HG22	2.11	0.51
1:F:32:PRO:HA	1:F:155:SER:HB3	1.92	0.51
1:F:171:VAL:O	1:F:175:LEU:HG	2.10	0.51
1:F:397:GLY:HA3	1:F:475:MET:CE	2.40	0.51
1:E:367:GLN:HB2	1:G:70:VAL:HG12	1.91	0.51
1:H:150:ALA:HB3	1:H:167:THR:HG23	1.91	0.51
1:H:452:LEU:HD13	1:H:465:LEU:CD1	2.40	0.51
1:J:222:ALA:HA	1:J:275:ASN:OD1	2.09	0.51
1:K:171:VAL:O	1:K:174:VAL:HG22	2.10	0.51
1:K:140:VAL:H	1:K:178:LYS:NZ	2.08	0.51
1:L:341:ILE:HG23	1:L:363:ARG:NE	2.24	0.51
1:N:194:GLY:O	1:N:195:SER:HB2	2.10	0.51
1:O:143:ARG:HE	1:O:143:ARG:HA	1.75	0.51
1:O:364:GLY:HA3	1:O:370:LEU:CG	2.41	0.51
1:P:50:VAL:HG13	1:P:375:ARG:NH2	2.26	0.51
1:A:96:LEU:HD22	1:A:96:LEU:O	2.10	0.51
1:B:207:LEU:HD13	1:B:208:ASP:N	2.26	0.51
1:B:392:ARG:HG3	1:B:484:PHE:CB	2.41	0.51
1:B:57:ILE:HG23	1:B:58:LEU:HD23	1.93	0.51
1:C:274:ILE:HG23	1:C:296:VAL:HG21	1.91	0.51
1:D:125:ARG:HG3	1:D:125:ARG:NH1	2.23	0.51
1:D:421:VAL:O	1:D:424:GLU:HG2	2.10	0.51
1:D:96:LEU:HD13	1:D:96:LEU:C	2.31	0.51
1:F:313:VAL:HG13	1:F:352:VAL:CB	2.41	0.51
1:F:452:LEU:HD13	1:F:465:LEU:CD1	2.41	0.51
1:E:33:LYS:HG3	1:G:109:HIS:HE2	1.75	0.51
1:G:125:ARG:O	1:G:128:LEU:HB2	2.10	0.51
1:G:154:LEU:HD21	1:G:163:LYS:HZ3	1.72	0.51
1:H:110:PRO:O	1:H:113:ILE:HB	2.10	0.51
1:H:179:GLY:HA3	1:H:356:GLU:OE1	2.10	0.51
1:J:216:PRO:CG	1:J:295:GLY:HA2	2.41	0.51
1:K:157:LYS:HB3	1:K:159:LEU:HD22	1.92	0.51
1:K:22:ILE:HD12	1:K:90:THR:CG2	2.40	0.51
1:L:132:ALA:HB3	1:L:461:THR:CB	2.40	0.51
1:L:96:LEU:HD13	1:L:97:LEU:N	2.25	0.51
1:M:176:ARG:HH22	1:M:360:ILE:CG1	2.22	0.51
1:M:124:ALA:CB	1:M:491:LEU:HD13	2.35	0.51
1:N:284:TYR:CE2	1:N:286:TYR:CD1	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:22:ILE:HD12	1:O:90:THR:CG2	2.41	0.51
1:A:137:SER:O	1:A:141:LYS:HB2	2.11	0.51
1:A:57:ILE:O	1:A:57:ILE:HD13	2.11	0.51
1:A:59:LYS:HE2	1:A:76:ARG:CB	2.40	0.51
1:B:265:LYS:O	1:B:269:ILE:HB	2.10	0.51
1:B:504:VAL:CG1	1:B:507:ILE:HG23	2.29	0.51
1:C:269:ILE:HG23	1:C:274:ILE:HG21	1.92	0.51
1:C:19:ALA:HB1	1:C:94:ALA:HA	1.92	0.51
1:D:161:HIS:CE1	1:D:369:ILE:HD13	2.46	0.51
1:E:57:ILE:HG23	1:E:58:LEU:CD2	2.41	0.51
1:E:79:ASP:HA	1:E:83:GLY:HA2	1.89	0.51
1:F:111:GLN:HG3	1:F:503:ARG:O	2.09	0.51
1:F:57:ILE:HG23	1:F:58:LEU:CD2	2.40	0.51
1:G:173:ALA:HA	1:G:176:ARG:CZ	2.40	0.51
1:G:206:LEU:HD22	1:G:207:LEU:N	2.25	0.51
1:G:341:ILE:HG22	1:G:341:ILE:O	2.11	0.51
1:H:277:PHE:O	1:H:298:ALA:HA	2.10	0.51
1:H:397:GLY:O	1:H:465:LEU:HD23	2.11	0.51
1:H:58:LEU:HB3	1:H:72:VAL:HG13	1.93	0.51
1:I:41:SER:HB3	1:I:45:ASP:CB	2.41	0.51
1:I:433:LEU:HB2	1:I:434:PRO:HD3	1.92	0.51
1:I:62:GLY:HA3	1:I:69:LYS:HD2	1.93	0.51
1:J:51:THR:HG21	1:J:56:THR:HB	1.93	0.51
1:K:34:GLY:HA3	1:K:156:SER:O	2.10	0.51
1:K:134:ASP:HB2	1:K:393:THR:O	2.11	0.51
1:K:395:TYR:HE1	1:K:476:SER:OG	1.94	0.51
1:O:159:LEU:HG	1:O:163:LYS:CG	2.38	0.51
1:O:216:PRO:HG2	1:O:295:GLY:HA2	1.93	0.51
1:O:82:VAL:HG13	1:O:83:GLY:N	2.15	0.51
1:P:274:ILE:HG23	1:P:296:VAL:HG21	1.93	0.51
1:A:512:PRO:O	1:A:513:ARG:HB2	2.10	0.51
1:B:502:LEU:O	1:B:502:LEU:HD23	2.10	0.51
1:E:231:MET:HG3	1:E:283:ILE:HG13	1.92	0.51
1:E:431:ARG:O	1:E:434:PRO:HD2	2.10	0.51
1:D:40:LEU:H	1:E:507:ILE:CG2	2.23	0.51
1:F:188:VAL:HG11	1:F:377:LEU:CD2	2.41	0.51
1:G:226:ILE:HD13	1:G:307:VAL:HG13	1.92	0.51
1:G:280:ARG:O	1:G:281:GLN:HB3	2.11	0.51
1:G:215:GLN:HG3	1:G:292:GLY:HA2	1.93	0.51
1:J:125:ARG:O	1:J:129:LEU:HD21	2.09	0.51
1:J:504:VAL:HG22	1:N:36:ASP:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:112:THR:HG22	1:K:418:LYS:HZ3	1.75	0.51
1:K:452:LEU:HD22	1:K:465:LEU:HD11	1.92	0.51
1:L:126:GLN:HE22	1:L:408:VAL:CG1	2.23	0.51
1:L:103:LEU:HD23	1:L:502:LEU:CD1	2.39	0.51
1:M:372:GLU:HG3	1:M:375:ARG:CZ	2.40	0.51
1:M:50:VAL:HG11	1:M:368:GLN:HB2	1.91	0.51
1:O:385:ALA:O	1:O:388:VAL:HG12	2.11	0.51
1:O:397:GLY:HA3	1:O:475:MET:HE1	1.91	0.51
1:B:305:VAL:HB	1:B:309:ARG:HH12	1.75	0.51
1:B:99:GLU:CD	1:B:425:SER:HB2	2.31	0.51
1:C:99:GLU:HG3	1:C:425:SER:HB3	1.93	0.51
1:E:122:LYS:HE2	1:E:125:ARG:HH21	1.76	0.51
1:E:159:LEU:HD23	1:E:163:LYS:CG	2.39	0.51
1:G:452:LEU:HD11	1:G:456:HIS:CE1	2.45	0.51
1:H:119:GLU:OE1	1:H:419:GLU:HG2	2.11	0.51
1:H:402:MET:HE2	1:H:453:ARG:HG2	1.93	0.51
1:I:134:ASP:O	1:I:135:HIS:HB3	2.11	0.51
1:I:402:MET:CE	1:I:453:ARG:HG2	2.40	0.51
1:K:219:ILE:HD11	1:K:336:ILE:HB	1.93	0.51
1:L:114:ILE:HD13	1:L:117:TRP:CZ3	2.45	0.51
1:L:36:ASP:OD1	1:L:52:ASN:HB2	2.10	0.51
1:L:431:ARG:CZ	1:L:431:ARG:HA	2.41	0.51
1:F:421:VAL:HG22	1:O:453:ARG:HH22	1.76	0.51
1:P:177:LEU:HD22	1:P:356:GLU:OE2	2.10	0.51
1:P:352:VAL:HG22	1:P:355:GLY:H	1.74	0.51
1:P:451:GLN:HE22	1:P:471:THR:HA	1.76	0.51
1:P:79:ASP:HA	1:P:83:GLY:HA2	1.90	0.51
1:A:439:ASP:OD1	1:M:107:LYS:HD3	2.11	0.51
1:B:166:PHE:CE1	1:B:198:ASP:HB3	2.46	0.51
1:B:324:HIS:O	1:B:329:LYS:HG2	2.10	0.51
1:D:101:GLU:O	1:D:104:ILE:HG12	2.10	0.51
1:D:376:SER:O	1:D:379:ASP:HB2	2.11	0.51
1:E:441:ALA:HB2	1:E:467:MET:HG2	1.93	0.51
1:G:71:LEU:HB2	1:G:501:ILE:CG1	2.40	0.51
1:H:408:VAL:HG23	1:H:427:ALA:HB1	1.93	0.51
1:H:492:LEU:O	1:H:496:GLU:HG2	2.11	0.51
1:I:283:ILE:HG22	1:I:300:GLU:CG	2.38	0.51
1:I:30:LEU:HG	1:I:87:THR:O	2.10	0.51
1:J:390:ASP:HB3	1:J:485:GLN:CD	2.30	0.51
1:J:438:ALA:CB	1:J:448:LEU:HG	2.38	0.51
1:J:96:LEU:HD22	1:J:96:LEU:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:431:ARG:HH21	1:K:434:PRO:HG2	1.75	0.51
1:L:106:LYS:HB3	1:L:108:ILE:HG12	1.91	0.51
1:M:38:ILE:O	1:M:38:ILE:HD12	2.11	0.51
1:P:207:LEU:O	1:P:347:ILE:HG22	2.11	0.51
1:A:149:ILE:HB	1:A:481:THR:O	2.11	0.51
1:C:133:VAL:CG1	1:C:394:VAL:HA	2.33	0.51
1:D:27:LYS:HG3	1:D:28:SER:N	2.24	0.51
1:D:310:LEU:O	1:D:313:VAL:HB	2.11	0.51
1:E:154:LEU:HD23	1:E:163:LYS:HG3	1.93	0.51
1:F:159:LEU:HB3	1:F:369:ILE:CG2	2.40	0.51
1:F:191:LYS:HD3	1:F:192:LEU:H	1.77	0.51
1:F:106:LYS:CE	1:F:421:VAL:HG21	2.39	0.51
1:F:52:ASN:H	1:F:375:ARG:HD3	1.76	0.51
1:G:100:ALA:HA	1:G:103:LEU:HD22	1.93	0.51
1:G:222:ALA:HB1	1:G:336:ILE:HD12	1.93	0.51
1:K:310:LEU:HD21	1:K:349:PHE:CD1	2.46	0.51
1:L:146:LEU:HD21	1:L:150:ALA:HB3	1.92	0.51
1:N:173:ALA:HB2	1:N:360:ILE:HD12	1.93	0.51
1:O:222:ALA:HB1	1:O:336:ILE:HD12	1.93	0.51
1:O:38:ILE:HD13	1:O:48:LEU:CD2	2.32	0.51
1:O:64:ASP:CG	1:O:66:PRO:HD2	2.31	0.51
1:P:274:ILE:O	1:P:296:VAL:HG22	2.11	0.51
1:K:368:GLN:HE22	1:P:503:ARG:NH2	2.09	0.51
1:A:367:GLN:O	1:A:370:LEU:HB3	2.11	0.50
1:A:370:LEU:O	1:A:370:LEU:HD12	2.11	0.50
1:B:269:ILE:HG23	1:B:274:ILE:HG22	1.93	0.50
1:C:159:LEU:HG	1:C:163:LYS:CG	2.39	0.50
1:C:163:LYS:HD2	1:C:166:PHE:CD1	2.46	0.50
1:C:452:LEU:HD13	1:C:465:LEU:HD13	1.93	0.50
1:E:85:GLY:HA2	1:E:153:THR:OG1	2.11	0.50
1:F:19:ALA:HB3	1:F:98:ARG:HH22	1.76	0.50
1:G:208:ASP:O	1:G:209:LYS:HG3	2.11	0.50
1:G:222:ALA:HA	1:G:275:ASN:HB2	1.94	0.50
1:H:103:LEU:HA	1:H:106:LYS:HB2	1.92	0.50
1:H:334:LYS:HD2	1:H:351:GLY:HA3	1.92	0.50
1:H:95:GLU:HA	1:H:98:ARG:HD2	1.93	0.50
1:J:200:TYR:HB2	1:J:363:ARG:NH2	2.26	0.50
1:J:431:ARG:O	1:J:434:PRO:HD2	2.11	0.50
1:K:96:LEU:C	1:K:96:LEU:HD13	2.31	0.50
1:L:140:VAL:HA	1:L:175:LEU:CD2	2.41	0.50
1:L:364:GLY:C	1:L:370:LEU:HD22	2.31	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:431:ARG:HH21	1:M:434:PRO:HG2	1.75	0.50
1:M:128:LEU:HD13	1:M:488:ARG:HA	1.94	0.50
1:N:15:SER:HB3	1:N:501:ILE:CG2	2.41	0.50
1:N:68:ALA:O	1:N:72:VAL:HG23	2.10	0.50
1:O:402:MET:SD	1:O:453:ARG:HA	2.51	0.50
1:O:40:LEU:C	1:O:40:LEU:HD13	2.32	0.50
1:P:280:ARG:HG3	1:P:304:PHE:HB2	1.93	0.50
1:P:431:ARG:O	1:P:434:PRO:HD2	2.12	0.50
1:B:173:ALA:HA	1:B:176:ARG:CZ	2.41	0.50
1:C:27:LYS:HG3	1:C:436:ILE:CD1	2.41	0.50
1:C:345:LYS:C	1:C:346:LEU:HD12	2.32	0.50
1:C:117:TRP:HD1	1:C:496:GLU:N	2.09	0.50
1:E:385:ALA:O	1:E:389:LYS:HB2	2.10	0.50
1:F:188:VAL:HG21	1:F:377:LEU:CD2	2.40	0.50
1:I:183:LEU:HD13	1:I:385:ALA:CB	2.42	0.50
1:I:405:ALA:HA	1:I:408:VAL:HG22	1.93	0.50
1:I:41:SER:OG	1:N:511:ALA:HB2	2.11	0.50
1:J:268:ARG:O	1:J:271:LYS:HG2	2.11	0.50
1:J:206:LEU:HD21	1:J:346:LEU:HB3	1.94	0.50
1:K:431:ARG:O	1:K:434:PRO:HD2	2.11	0.50
1:L:50:VAL:HG13	1:L:375:ARG:CZ	2.42	0.50
1:M:114:ILE:O	1:M:117:TRP:HE3	1.94	0.50
1:M:366:THR:HG23	1:M:366:THR:O	2.11	0.50
1:N:231:MET:HE1	1:N:265:LYS:HD3	1.92	0.50
1:N:381:LEU:HD13	1:N:381:LEU:C	2.31	0.50
1:O:106:LYS:HD3	1:O:108:ILE:HD13	1.93	0.50
1:O:114:ILE:HA	1:O:117:TRP:CE3	2.47	0.50
1:O:215:GLN:HG3	1:O:292:GLY:HA2	1.93	0.50
1:O:149:ILE:CD1	1:O:482:GLU:HA	2.35	0.50
1:P:154:LEU:HD21	1:P:163:LYS:HZ2	1.75	0.50
1:P:16:PHE:HA	1:P:97:LEU:HD23	1.93	0.50
1:P:36:ASP:OD1	1:P:52:ASN:HB2	2.12	0.50
1:P:44:ARG:HG2	1:P:44:ARG:HH11	1.77	0.50
1:P:501:ILE:HA	1:P:504:VAL:CG1	2.38	0.50
1:B:38:ILE:H	1:F:507:ILE:CG1	2.25	0.50
1:C:106:LYS:HD2	1:C:418:LYS:HD3	1.92	0.50
1:C:139:GLU:O	1:C:140:VAL:HB	2.12	0.50
1:D:120:ALA:O	1:D:124:ALA:HB3	2.12	0.50
1:D:171:VAL:O	1:D:174:VAL:HG22	2.10	0.50
1:F:222:ALA:HA	1:F:275:ASN:HB2	1.93	0.50
1:G:32:PRO:HA	1:G:155:SER:HB3	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:59:LYS:HE2	1:G:76:ARG:HE	1.76	0.50
1:G:96:LEU:HD11	1:G:117:TRP:CZ2	2.45	0.50
1:I:100:ALA:O	1:I:103:LEU:HB3	2.12	0.50
1:I:188:VAL:HG21	1:I:362:LEU:CG	2.41	0.50
1:I:287:PRO:O	1:I:291:PHE:HD1	1.95	0.50
1:I:338:GLU:HA	1:I:347:ILE:HA	1.94	0.50
1:I:398:GLY:HA2	1:I:401:GLU:OE1	2.12	0.50
1:J:231:MET:HB2	1:J:284:TYR:H	1.77	0.50
1:J:266:VAL:HB	1:J:290:LEU:CD2	2.41	0.50
1:J:415:THR:CG2	1:J:420:ALA:HA	2.41	0.50
1:E:107:LYS:HE3	1:J:443:TYR:O	2.11	0.50
1:J:124:ALA:CA	1:J:491:LEU:HD13	2.41	0.50
1:K:111:GLN:HA	1:K:114:ILE:HG12	1.92	0.50
1:K:226:ILE:HA	1:K:278:ILE:O	2.10	0.50
1:K:262:MET:SD	1:K:290:LEU:HB2	2.52	0.50
1:K:373:ALA:O	1:K:377:LEU:HB2	2.11	0.50
1:L:109:HIS:CE1	1:L:111:GLN:HE21	2.30	0.50
1:L:139:GLU:O	1:L:140:VAL:HB	2.11	0.50
1:L:163:LYS:O	1:L:163:LYS:HG2	2.11	0.50
1:O:341:ILE:HG23	1:O:363:ARG:NH2	2.25	0.50
1:P:146:LEU:HD21	1:P:167:THR:HG23	1.93	0.50
1:P:183:LEU:HD13	1:P:385:ALA:HB2	1.93	0.50
1:B:291:PHE:HD1	1:B:296:VAL:CG1	2.24	0.50
1:B:99:GLU:HG3	1:B:425:SER:CB	2.41	0.50
1:B:99:GLU:CG	1:B:425:SER:HB2	2.40	0.50
1:C:287:PRO:O	1:C:291:PHE:HD1	1.94	0.50
1:C:316:GLY:O	1:C:330:LEU:HB2	2.12	0.50
1:C:35:MET:HB3	1:H:504:VAL:HG12	1.94	0.50
1:D:485:GLN:HB3	1:D:489:GLN:HE22	1.76	0.50
1:D:502:LEU:C	1:D:502:LEU:HD13	2.32	0.50
1:E:110:PRO:HA	1:E:113:ILE:HD12	1.93	0.50
1:E:313:VAL:HG13	1:E:352:VAL:HB	1.94	0.50
1:H:274:ILE:O	1:H:274:ILE:HG23	2.11	0.50
1:H:219:ILE:HB	1:H:275:ASN:HB3	1.92	0.50
1:H:287:PRO:O	1:H:291:PHE:HD1	1.95	0.50
1:H:369:ILE:HG23	1:H:370:LEU:H	1.77	0.50
1:I:211:ILE:HB	1:I:215:GLN:OE1	2.10	0.50
1:J:176:ARG:HD2	1:J:358:CYS:CB	2.41	0.50
1:K:176:ARG:NE	1:K:358:CYS:HB3	2.25	0.50
1:K:78:GLN:OE1	1:K:489:GLN:HB3	2.11	0.50
1:M:64:ASP:CB	1:M:66:PRO:HD2	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:114:ILE:HA	1:N:117:TRP:CZ3	2.47	0.50
1:N:124:ALA:O	1:N:128:LEU:HG	2.10	0.50
1:J:506:ASN:HB3	1:N:37:LYS:HD2	1.92	0.50
1:N:79:ASP:HA	1:N:83:GLY:HA3	1.93	0.50
1:P:226:ILE:HA	1:P:278:ILE:O	2.12	0.50
1:A:122:LYS:HD3	1:A:423:MET:SD	2.52	0.50
1:A:26:VAL:O	1:A:29:THR:HB	2.11	0.50
1:D:145:ASP:OD2	1:D:175:LEU:HD11	2.11	0.50
1:F:287:PRO:O	1:F:291:PHE:HD2	1.94	0.50
1:F:341:ILE:HG23	1:F:363:ARG:HH22	1.77	0.50
1:G:11:ALA:HB1	1:G:506:ASN:CG	2.30	0.50
1:G:166:PHE:N	1:G:166:PHE:CD1	2.79	0.50
1:I:104:ILE:HG13	1:I:105:ALA:N	2.25	0.50
1:I:171:VAL:HA	1:I:174:VAL:HG13	1.94	0.50
1:I:181:GLY:HA3	1:I:356:GLU:CD	2.32	0.50
1:I:324:HIS:HB2	1:I:329:LYS:HZ3	1.75	0.50
1:J:415:THR:HG23	1:J:420:ALA:HA	1.94	0.50
1:M:334:LYS:O	1:M:335:LEU:HB2	2.11	0.50
1:N:394:VAL:HG23	1:N:482:GLU:HB2	1.94	0.50
1:P:438:ALA:CB	1:P:448:LEU:HG	2.40	0.50
1:A:163:LYS:HA	1:A:166:PHE:CD1	2.46	0.50
1:B:116:GLY:HA3	1:B:422:ALA:CB	2.41	0.50
1:B:509:LYS:HG3	1:B:510:ALA:H	1.75	0.50
1:D:158:LEU:HD13	1:E:503:ARG:HH22	1.76	0.50
1:D:452:LEU:HD11	1:D:456:HIS:HE1	1.77	0.50
1:E:114:ILE:HA	1:E:117:TRP:CE3	2.46	0.50
1:G:107:LYS:O	1:N:444:ASP:HB3	2.11	0.50
1:G:81:GLU:O	1:G:82:VAL:HG23	2.12	0.50
1:I:188:VAL:CG1	1:I:374:GLU:HA	2.41	0.50
1:I:207:LEU:HB3	1:I:347:ILE:CG2	2.41	0.50
1:J:99:GLU:HG2	1:J:425:SER:HB2	1.92	0.50
1:K:39:LEU:CD1	1:K:57:ILE:HG13	2.41	0.50
1:L:127:ALA:CB	1:L:491:LEU:HD13	2.41	0.50
1:L:259:LYS:O	1:L:262:MET:HB3	2.11	0.50
1:L:222:ALA:O	1:L:333:CYS:HB3	2.12	0.50
1:M:390:ASP:HB3	1:M:485:GLN:OE1	2.12	0.50
1:N:168:LYS:O	1:N:171:VAL:HG22	2.11	0.50
1:N:209:LYS:HE2	1:N:301:HIS:O	2.12	0.50
1:O:203:GLU:HG2	1:O:350:SER:HB2	1.93	0.50
1:O:402:MET:CE	1:O:453:ARG:HG2	2.41	0.50
1:O:390:ASP:HB3	1:O:485:GLN:CD	2.32	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:222:ALA:HA	1:P:275:ASN:CB	2.41	0.50
1:P:433:LEU:O	1:P:436:ILE:HG22	2.12	0.50
1:P:462:THR:O	1:P:475:MET:HB3	2.11	0.50
1:A:145:ASP:OD2	1:A:175:LEU:HD11	2.12	0.50
1:B:124:ALA:O	1:B:128:LEU:HG	2.12	0.50
1:B:268:ARG:O	1:B:271:LYS:HG2	2.12	0.50
1:B:443:TYR:CG	1:B:470:GLY:HA3	2.47	0.50
1:C:276:CYS:HA	1:C:297:MET:O	2.12	0.50
1:C:99:GLU:HG2	1:C:425:SER:HB3	1.94	0.50
1:D:116:GLY:O	1:D:120:ALA:N	2.45	0.50
1:D:159:LEU:HD23	1:D:163:LYS:HB3	1.94	0.50
1:D:394:VAL:CG2	1:D:482:GLU:HB2	2.42	0.50
1:D:68:ALA:O	1:D:72:VAL:HG23	2.11	0.50
1:G:297:MET:CE	1:G:347:ILE:HD11	2.41	0.50
1:H:24:ASP:O	1:H:27:LYS:HB3	2.11	0.50
1:I:352:VAL:HG22	1:I:355:GLY:H	1.76	0.50
1:J:152:THR:O	1:J:155:SER:HB2	2.12	0.50
1:J:82:VAL:HG13	1:J:83:GLY:N	2.27	0.50
1:K:274:ILE:O	1:K:274:ILE:HG23	2.12	0.50
1:L:402:MET:CE	1:L:453:ARG:HG2	2.42	0.50
1:N:64:ASP:OD2	1:N:66:PRO:HD2	2.12	0.50
1:P:51:THR:HG21	1:P:56:THR:HB	1.93	0.50
1:B:343:GLU:HG2	1:B:344:ASP:N	2.27	0.50
1:D:448:LEU:HA	1:D:451:GLN:HE21	1.76	0.50
1:E:149:ILE:HD12	1:E:483:SER:H	1.76	0.50
1:E:160:THR:HA	1:E:163:LYS:HB3	1.93	0.50
1:E:452:LEU:HA	1:E:472:ILE:HG21	1.94	0.50
1:F:39:LEU:O	1:F:48:LEU:HA	2.12	0.50
1:F:452:LEU:HD22	1:F:465:LEU:HD11	1.94	0.50
1:G:165:HIS:O	1:G:168:LYS:HB3	2.11	0.50
1:G:262:MET:HG2	1:G:290:LEU:HD22	1.93	0.50
1:G:277:PHE:O	1:G:298:ALA:HA	2.11	0.50
1:G:38:ILE:HA	1:G:50:VAL:HG23	1.93	0.50
1:J:226:ILE:HD13	1:J:307:VAL:HG13	1.92	0.50
1:J:443:TYR:CD2	1:J:470:GLY:HA2	2.47	0.50
1:L:317:GLU:OE1	1:L:329:LYS:HB3	2.10	0.50
1:N:219:ILE:CD1	1:N:276:CYS:HB2	2.42	0.50
1:J:507:ILE:HG23	1:N:38:ILE:HD11	1.93	0.50
1:N:59:LYS:HE3	1:N:76:ARG:HB2	1.92	0.50
1:O:163:LYS:HE3	1:O:376:SER:CB	2.41	0.50
1:P:206:LEU:HD21	1:P:348:HIS:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:231:MET:HB2	1:P:284:TYR:H	1.77	0.50
1:B:166:PHE:CE1	1:B:198:ASP:CB	2.95	0.50
1:D:163:LYS:HE3	1:D:373:ALA:CA	2.42	0.50
1:E:442:GLY:HA3	1:G:108:ILE:C	2.33	0.50
1:E:510:ALA:C	1:E:512:PRO:HD3	2.32	0.50
1:F:14:SER:O	1:F:17:ILE:HG22	2.12	0.50
1:F:313:VAL:HG13	1:F:352:VAL:HB	1.94	0.50
1:G:152:THR:OG1	1:G:480:ILE:HG23	2.12	0.50
1:H:354:LEU:HG	1:H:356:GLU:HB2	1.94	0.50
1:I:140:VAL:HA	1:I:175:LEU:HD22	1.94	0.50
1:I:159:LEU:HG	1:I:163:LYS:CG	2.41	0.50
1:I:205:PHE:CE2	1:I:207:LEU:HB2	2.47	0.50
1:I:199:SER:HB2	1:I:362:LEU:CD2	2.41	0.50
1:J:231:MET:HG3	1:J:283:ILE:HG13	1.94	0.50
1:J:475:MET:SD	1:J:480:ILE:HB	2.52	0.50
1:K:219:ILE:HB	1:K:275:ASN:HB3	1.94	0.50
1:L:221:ASN:HA	1:L:333:CYS:HB2	1.94	0.50
1:L:451:GLN:HE22	1:L:471:THR:HA	1.77	0.50
1:L:40:LEU:HD12	1:L:48:LEU:HG	1.94	0.50
1:P:390:ASP:HB3	1:P:485:GLN:NE2	2.27	0.50
1:A:111:GLN:HG2	1:F:35:MET:HE1	1.93	0.49
1:A:53:ASP:HB3	1:A:376:SER:HB2	1.93	0.49
1:B:225:LEU:HD21	1:B:324:HIS:CE1	2.46	0.49
1:D:26:VAL:HG23	1:D:91:VAL:HG22	1.93	0.49
1:E:258:GLU:OE2	1:E:284:TYR:HE2	1.95	0.49
1:F:146:LEU:HD11	1:F:150:ALA:CB	2.42	0.49
1:F:188:VAL:CG1	1:F:377:LEU:HD21	2.42	0.49
1:G:448:LEU:HD13	1:G:448:LEU:C	2.32	0.49
1:H:402:MET:HE1	1:H:406:HIS:HB2	1.94	0.49
1:I:42:SER:H	1:N:510:ALA:HA	1.76	0.49
1:I:433:LEU:O	1:I:436:ILE:HG22	2.12	0.49
1:I:59:LYS:HE3	1:I:73:ASP:HA	1.93	0.49
1:K:175:LEU:HA	1:K:178:LYS:HE3	1.94	0.49
1:K:171:VAL:O	1:K:175:LEU:HG	2.12	0.49
1:K:416:PRO:O	1:K:419:GLU:HG2	2.12	0.49
1:L:106:LYS:O	1:L:107:LYS:HG2	2.12	0.49
1:L:159:LEU:HB3	1:L:369:ILE:HG23	1.94	0.49
1:L:276:CYS:HA	1:L:297:MET:O	2.12	0.49
1:L:265:LYS:HE2	1:L:322:PHE:CZ	2.47	0.49
1:M:485:GLN:HE21	1:M:488:ARG:HH21	1.60	0.49
1:O:198:ASP:OD1	1:O:364:GLY:HA2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:157:LYS:HB3	1:A:159:LEU:CD2	2.41	0.49
1:B:128:LEU:HD22	1:B:488:ARG:CG	2.42	0.49
1:B:257:ALA:O	1:B:260:GLU:HB3	2.12	0.49
1:B:313:VAL:HG13	1:B:352:VAL:CB	2.41	0.49
1:B:413:SER:HB2	1:I:454:ALA:HA	1.94	0.49
1:B:421:VAL:N	1:I:450:ALA:HB2	2.27	0.49
1:B:433:LEU:HA	1:B:436:ILE:HG22	1.94	0.49
1:B:82:VAL:CG1	1:B:486:VAL:HG12	2.42	0.49
1:C:101:GLU:O	1:C:104:ILE:HG12	2.12	0.49
1:C:57:ILE:HG23	1:C:58:LEU:HD23	1.94	0.49
1:C:30:LEU:HG	1:C:87:THR:O	2.12	0.49
1:E:317:GLU:HB3	1:E:329:LYS:HD3	1.94	0.49
1:E:367:GLN:CG	1:E:369:ILE:HB	2.42	0.49
1:F:32:PRO:HA	1:F:155:SER:CB	2.42	0.49
1:H:104:ILE:HG13	1:H:105:ALA:N	2.27	0.49
1:H:431:ARG:CZ	1:H:431:ARG:HA	2.42	0.49
1:I:106:LYS:HG3	1:I:107:LYS:N	2.27	0.49
1:J:138:ASP:O	1:J:139:GLU:HB2	2.11	0.49
1:J:160:THR:HA	1:J:163:LYS:HB3	1.94	0.49
1:J:266:VAL:CB	1:J:290:LEU:HD21	2.41	0.49
1:J:434:PRO:HB3	1:J:452:LEU:CD2	2.42	0.49
1:K:130:ASN:O	1:K:131:SER:HB2	2.12	0.49
1:J:366:THR:HB	1:K:77:VAL:HG21	1.92	0.49
1:L:176:ARG:HH21	1:L:360:ILE:HG12	1.77	0.49
1:M:145:ASP:O	1:M:171:VAL:HG11	2.12	0.49
1:M:386:GLN:NE2	1:M:485:GLN:HG2	2.27	0.49
1:O:310:LEU:O	1:O:314:THR:HG22	2.11	0.49
1:O:448:LEU:C	1:O:448:LEU:HD13	2.33	0.49
1:A:161:HIS:CG	1:A:162:HIS:H	2.31	0.49
1:A:171:VAL:O	1:A:174:VAL:HG22	2.12	0.49
1:B:226:ILE:HG12	1:B:278:ILE:HG23	1.95	0.49
1:B:199:SER:HA	1:B:362:LEU:HA	1.93	0.49
1:C:111:GLN:HA	1:C:114:ILE:HG12	1.92	0.49
1:A:38:ILE:HD11	1:C:504:VAL:HG22	1.94	0.49
1:E:146:LEU:HD23	1:E:148:ASN:H	1.77	0.49
1:E:280:ARG:O	1:E:281:GLN:HB3	2.11	0.49
1:E:462:THR:O	1:E:475:MET:HB3	2.11	0.49
1:G:166:PHE:CZ	1:G:198:ASP:HB3	2.48	0.49
1:G:211:ILE:HG12	1:G:298:ALA:H	1.77	0.49
1:H:338:GLU:HA	1:H:347:ILE:HA	1.94	0.49
1:H:376:SER:O	1:H:379:ASP:HB3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:191:LYS:HE2	1:I:344:ASP:HB3	1.93	0.49
1:I:48:LEU:HD12	1:N:70:VAL:CG1	2.42	0.49
1:J:109:HIS:ND1	1:J:111:GLN:HB2	2.27	0.49
1:L:75:SER:O	1:L:78:GLN:HB3	2.11	0.49
1:M:177:LEU:HD13	1:M:177:LEU:C	2.33	0.49
1:L:36:ASP:HB2	1:M:503:ARG:HD3	1.94	0.49
1:N:334:LYS:O	1:N:335:LEU:HB2	2.11	0.49
1:N:163:LYS:HE3	1:N:376:SER:HB2	1.94	0.49
1:O:163:LYS:HD2	1:O:166:PHE:CG	2.48	0.49
1:O:173:ALA:O	1:O:176:ARG:HG2	2.13	0.49
1:O:284:TYR:O	1:O:287:PRO:HD2	2.12	0.49
1:F:410:GLN:OE1	1:O:410:GLN:HG2	2.12	0.49
1:O:38:ILE:CD1	1:O:48:LEU:HD23	2.30	0.49
1:P:161:HIS:CD2	1:P:162:HIS:H	2.30	0.49
1:P:35:MET:SD	1:P:35:MET:N	2.85	0.49
1:A:49:MET:HG3	1:A:369:ILE:CB	2.43	0.49
1:A:92:LEU:O	1:A:95:GLU:HB3	2.12	0.49
1:D:185:ALA:HA	1:D:309:ARG:HD3	1.93	0.49
1:D:110:PRO:HG2	1:D:502:LEU:HD11	1.93	0.49
1:D:37:LYS:O	1:D:50:VAL:HA	2.12	0.49
1:E:438:ALA:HB2	1:E:448:LEU:HG	1.94	0.49
1:E:451:GLN:HE22	1:E:471:THR:HA	1.78	0.49
1:F:231:MET:HB2	1:F:284:TYR:H	1.78	0.49
1:F:375:ARG:HB2	1:F:375:ARG:NH1	2.27	0.49
1:E:33:LYS:HG3	1:G:109:HIS:CE1	2.47	0.49
1:H:280:ARG:HD2	1:H:304:PHE:HB2	1.94	0.49
1:H:58:LEU:HB3	1:H:72:VAL:HG11	1.93	0.49
1:I:114:ILE:HD12	1:I:502:LEU:HD13	1.94	0.49
1:I:305:VAL:O	1:I:309:ARG:HG2	2.11	0.49
1:I:367:GLN:HG2	1:I:369:ILE:N	2.28	0.49
1:J:124:ALA:CB	1:J:491:LEU:HD13	2.43	0.49
1:J:408:VAL:HG23	1:J:427:ALA:HB1	1.94	0.49
1:J:415:THR:HG23	1:J:420:ALA:HB2	1.95	0.49
1:J:512:PRO:O	1:J:513:ARG:CB	2.61	0.49
1:K:330:LEU:CD2	1:K:330:LEU:N	2.75	0.49
1:L:35:MET:HB3	1:M:503:ARG:O	2.13	0.49
1:N:141:LYS:HD2	1:N:144:GLN:HB2	1.94	0.49
1:N:206:LEU:HD21	1:N:346:LEU:HB3	1.93	0.49
1:O:483:SER:O	1:O:486:VAL:HG22	2.11	0.49
1:P:15:SER:OG	1:P:501:ILE:HG22	2.12	0.49
1:P:425:SER:O	1:P:428:LYS:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:52:ASN:OD1	1:A:157:LYS:HG2	2.11	0.49
1:B:211:ILE:HG21	1:B:215:GLN:HE22	1.76	0.49
1:B:190:LYS:HG3	1:B:374:GLU:HB3	1.94	0.49
1:C:171:VAL:O	1:C:175:LEU:HG	2.12	0.49
1:C:201:LEU:HD22	1:C:202:ASP:N	2.27	0.49
1:C:79:ASP:OD1	1:C:83:GLY:HA3	2.12	0.49
1:D:33:LYS:O	1:D:35:MET:SD	2.71	0.49
1:D:35:MET:CB	1:E:503:ARG:HB3	2.42	0.49
1:D:360:ILE:HG22	1:D:361:VAL:N	2.27	0.49
1:D:57:ILE:HG23	1:D:58:LEU:HD22	1.94	0.49
1:F:154:LEU:HD21	1:F:163:LYS:HG3	1.94	0.49
1:F:397:GLY:HA3	1:F:475:MET:HE1	1.94	0.49
1:G:207:LEU:HD23	1:G:208:ASP:H	1.78	0.49
1:G:343:GLU:CG	1:G:344:ASP:N	2.75	0.49
1:H:297:MET:HE1	1:H:336:ILE:HG22	1.95	0.49
1:H:310:LEU:O	1:H:314:THR:HG22	2.13	0.49
1:H:452:LEU:HD13	1:H:465:LEU:HD13	1.95	0.49
1:H:57:ILE:HG23	1:H:58:LEU:CD2	2.43	0.49
1:I:187:HIS:NE2	1:I:189:ILE:HD12	2.27	0.49
1:K:452:LEU:HD13	1:K:465:LEU:CD1	2.42	0.49
1:N:103:LEU:O	1:N:106:LYS:HB2	2.13	0.49
1:N:313:VAL:HG13	1:N:352:VAL:HG21	1.94	0.49
1:N:408:VAL:HA	1:N:411:LEU:HD12	1.93	0.49
1:J:109:HIS:CG	1:N:440:ASN:HA	2.48	0.49
1:O:141:LYS:HG2	1:O:144:GLN:HB2	1.93	0.49
1:H:420:ALA:HB3	1:P:450:ALA:HB2	1.94	0.49
1:L:70:VAL:HG11	1:P:48:LEU:CD1	2.43	0.49
1:A:365:ALA:O	1:A:366:THR:HG23	2.13	0.49
1:A:404:MET:O	1:A:408:VAL:HG22	2.12	0.49
1:B:25:LEU:HD22	1:F:508:ILE:HG12	1.95	0.49
1:C:369:ILE:HA	1:C:372:GLU:CG	2.42	0.49
1:D:344:ASP:O	1:D:346:LEU:HD12	2.11	0.49
1:E:34:GLY:HA3	1:E:156:SER:HA	1.93	0.49
1:E:366:THR:O	1:E:367:GLN:HB3	2.13	0.49
1:H:431:ARG:HH21	1:H:434:PRO:HG2	1.77	0.49
1:H:129:LEU:HB3	1:H:484:PHE:CZ	2.47	0.49
1:I:32:PRO:HA	1:I:156:SER:HA	1.93	0.49
1:J:111:GLN:HE21	1:J:114:ILE:CD1	2.17	0.49
1:K:38:ILE:CG2	1:K:369:ILE:HD11	2.42	0.49
1:L:111:GLN:HA	1:L:114:ILE:CG1	2.42	0.49
1:L:11:ALA:CB	1:L:506:ASN:HA	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:50:VAL:HG21	1:M:368:GLN:NE2	2.28	0.49
1:A:32:PRO:HA	1:A:155:SER:HB3	1.94	0.49
1:C:191:LYS:HB3	1:C:363:ARG:HB2	1.93	0.49
1:D:114:ILE:HA	1:D:117:TRP:CE3	2.48	0.49
1:D:431:ARG:O	1:D:434:PRO:HD2	2.12	0.49
1:F:173:ALA:O	1:F:176:ARG:HG2	2.13	0.49
1:F:207:LEU:HB3	1:F:347:ILE:CG2	2.43	0.49
1:H:146:LEU:HD21	1:H:167:THR:HG23	1.94	0.49
1:H:186:ILE:O	1:H:377:LEU:HD21	2.12	0.49
1:I:82:VAL:HG13	1:I:83:GLY:N	2.28	0.49
1:J:85:GLY:O	1:J:153:THR:HA	2.13	0.49
1:K:166:PHE:CZ	1:K:198:ASP:HB3	2.47	0.49
1:L:269:ILE:HG23	1:L:274:ILE:HG21	1.95	0.49
1:L:77:VAL:HG13	1:P:192:LEU:HD23	1.94	0.49
1:M:114:ILE:C	1:M:116:GLY:N	2.66	0.49
1:M:68:ALA:O	1:M:72:VAL:HG23	2.13	0.49
1:N:312:LEU:O	1:N:354:LEU:HD22	2.11	0.49
1:J:505:ASP:HB3	1:N:37:LYS:HZ3	1.76	0.49
1:O:393:THR:HG22	1:O:483:SER:HA	1.94	0.49
1:P:211:ILE:HG12	1:P:298:ALA:H	1.78	0.49
1:A:126:GLN:NE2	1:A:423:MET:SD	2.86	0.49
1:A:57:ILE:HD13	1:A:57:ILE:C	2.32	0.49
1:B:174:VAL:CG1	1:B:384:LEU:HB3	2.36	0.49
1:C:95:GLU:CD	1:C:429:ALA:HB1	2.33	0.49
1:C:59:LYS:CE	1:C:76:ARG:HB2	2.43	0.49
1:E:369:ILE:HG23	1:E:372:GLU:OE1	2.12	0.49
1:D:506:ASN:H	1:H:25:LEU:HG	1.77	0.49
1:H:30:LEU:HD22	1:H:436:ILE:HD13	1.94	0.49
1:J:184:GLU:HG2	1:J:309:ARG:HD2	1.95	0.49
1:J:52:ASN:OD1	1:J:157:LYS:HG2	2.13	0.49
1:N:222:ALA:HA	1:N:275:ASN:HB2	1.95	0.49
1:N:313:VAL:HG13	1:N:352:VAL:CG2	2.43	0.49
1:P:185:ALA:H	1:P:309:ARG:HG2	1.78	0.49
1:P:286:TYR:HB2	1:P:287:PRO:HD3	1.94	0.49
1:A:146:LEU:CD2	1:A:147:MET:N	2.74	0.49
1:C:122:LYS:O	1:C:125:ARG:HB2	2.12	0.49
1:C:209:LYS:HB2	1:C:299:ILE:HG23	1.93	0.49
1:C:397:GLY:HA3	1:C:475:MET:HE1	1.94	0.49
1:D:222:ALA:HA	1:D:275:ASN:OD1	2.13	0.49
1:E:226:ILE:HD12	1:E:317:GLU:HG3	1.95	0.49
1:E:274:ILE:HG23	1:E:274:ILE:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:211:ILE:HG13	1:E:298:ALA:O	2.13	0.49
1:F:226:ILE:HG12	1:F:278:ILE:CG2	2.43	0.49
1:G:22:ILE:HD12	1:G:90:THR:CG2	2.43	0.49
1:I:201:LEU:CD2	1:I:360:ILE:HG12	2.42	0.49
1:I:96:LEU:HD22	1:I:96:LEU:O	2.13	0.49
1:J:274:ILE:HG23	1:J:296:VAL:CG2	2.43	0.49
1:J:431:ARG:NH2	1:J:434:PRO:HG2	2.28	0.49
1:J:435:THR:HG23	1:J:445:SER:HB3	1.94	0.49
1:L:323:ASP:C	1:L:325:PRO:HD2	2.33	0.49
1:M:404:MET:O	1:M:408:VAL:HG22	2.13	0.49
1:M:433:LEU:HB2	1:M:434:PRO:HD3	1.95	0.49
1:M:399:CYS:HA	1:M:456:HIS:NE2	2.28	0.49
1:N:431:ARG:O	1:N:434:PRO:HD2	2.13	0.49
1:N:57:ILE:HD13	1:N:57:ILE:C	2.33	0.49
1:O:114:ILE:HG23	1:O:499:GLU:HA	1.94	0.49
1:O:139:GLU:OE2	1:O:178:LYS:HD2	2.13	0.49
1:O:222:ALA:HA	1:O:275:ASN:HB2	1.94	0.49
1:O:39:LEU:HB3	1:O:513:ARG:HG2	1.94	0.49
1:P:139:GLU:O	1:P:140:VAL:HB	2.12	0.49
1:A:38:ILE:HD12	1:A:48:LEU:HB3	1.95	0.49
1:B:92:LEU:HD11	1:B:433:LEU:HD21	1.95	0.49
1:C:96:LEU:HD22	1:C:96:LEU:O	2.13	0.49
1:D:111:GLN:HA	1:D:114:ILE:HG12	1.94	0.49
1:D:173:ALA:HA	1:D:176:ARG:CZ	2.43	0.49
1:D:341:ILE:HD11	1:D:346:LEU:HD13	1.95	0.49
1:E:146:LEU:HD21	1:E:150:ALA:CB	2.33	0.49
1:F:431:ARG:O	1:F:434:PRO:HD2	2.12	0.49
1:G:176:ARG:HE	1:G:358:CYS:CB	2.25	0.49
1:G:367:GLN:HE21	1:G:369:ILE:HB	1.78	0.49
1:H:14:SER:O	1:H:17:ILE:HG22	2.13	0.49
1:H:188:VAL:HG12	1:H:377:LEU:HB2	1.93	0.49
1:H:448:LEU:HD13	1:H:448:LEU:C	2.33	0.49
1:J:29:THR:O	1:J:156:SER:HB2	2.13	0.49
1:L:263:LYS:O	1:L:267:GLU:HG2	2.12	0.49
1:N:334:LYS:HB3	1:N:351:GLY:HA3	1.94	0.49
1:O:334:LYS:HD2	1:O:351:GLY:HA3	1.93	0.49
1:O:376:SER:O	1:O:379:ASP:HB2	2.12	0.49
1:O:67:ALA:HB3	1:O:507:ILE:HG21	1.94	0.49
1:A:377:LEU:HG	1:A:377:LEU:O	2.13	0.48
1:A:511:ALA:O	1:A:513:ARG:N	2.46	0.48
1:B:14:SER:O	1:B:17:ILE:HG22	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:185:ALA:HB1	1:B:357:ALA:HB2	1.95	0.48
1:B:392:ARG:HG3	1:B:484:PHE:CG	2.48	0.48
1:B:132:ALA:CB	1:B:394:VAL:HG13	2.43	0.48
1:B:32:PRO:HG2	1:B:467:MET:CB	2.44	0.48
1:B:57:ILE:HG23	1:B:58:LEU:CD2	2.44	0.48
1:C:126:GLN:HE21	1:C:407:ALA:HB1	1.78	0.48
1:D:157:LYS:HB3	1:D:159:LEU:CD1	2.43	0.48
1:D:266:VAL:HB	1:D:290:LEU:HD21	1.94	0.48
1:D:153:THR:HG21	1:D:379:ASP:HB3	1.95	0.48
1:E:219:ILE:HB	1:E:275:ASN:HB3	1.94	0.48
1:E:222:ALA:HA	1:E:275:ASN:HB2	1.95	0.48
1:E:225:LEU:HD11	1:E:324:HIS:ND1	2.28	0.48
1:F:146:LEU:HD22	1:F:168:LYS:CA	2.37	0.48
1:G:38:ILE:HG13	1:G:39:LEU:N	2.28	0.48
1:H:286:TYR:HB2	1:H:287:PRO:HD3	1.94	0.48
1:J:185:ALA:CB	1:J:357:ALA:HB1	2.42	0.48
1:J:219:ILE:HB	1:J:275:ASN:HB3	1.95	0.48
1:J:123:ALA:HB1	1:J:408:VAL:HG12	1.95	0.48
1:E:107:LYS:NZ	1:J:439:ASP:HA	2.27	0.48
1:J:512:PRO:O	1:J:513:ARG:HB2	2.13	0.48
1:K:127:ALA:HB1	1:K:491:LEU:HD13	1.94	0.48
1:K:128:LEU:HD11	1:K:492:LEU:CD1	2.43	0.48
1:L:372:GLU:HA	1:L:375:ARG:CZ	2.42	0.48
1:M:59:LYS:HE3	1:M:73:ASP:HA	1.95	0.48
1:N:334:LYS:CG	1:N:351:GLY:HA3	2.43	0.48
1:O:188:VAL:CG1	1:O:377:LEU:HD22	2.36	0.48
1:C:150:ALA:O	1:C:154:LEU:HD13	2.14	0.48
1:D:124:ALA:O	1:D:127:ALA:HB3	2.13	0.48
1:D:207:LEU:HB3	1:D:347:ILE:HG23	1.94	0.48
1:D:211:ILE:CD1	1:D:297:MET:HG3	2.31	0.48
1:D:59:LYS:HZ3	1:D:76:ARG:HB2	1.78	0.48
1:E:82:VAL:HG13	1:E:83:GLY:N	2.28	0.48
1:F:85:GLY:O	1:F:153:THR:HG23	2.13	0.48
1:G:436:ILE:HA	1:G:439:ASP:OD2	2.14	0.48
1:G:149:ILE:HD12	1:G:483:SER:N	2.28	0.48
1:H:109:HIS:HB3	1:H:112:THR:OG1	2.13	0.48
1:J:206:LEU:CD2	1:J:346:LEU:HB3	2.43	0.48
1:J:96:LEU:C	1:J:96:LEU:HD13	2.34	0.48
1:L:106:LYS:HD3	1:L:108:ILE:HD11	1.95	0.48
1:L:171:VAL:HG12	1:L:384:LEU:HG	1.95	0.48
1:N:145:ASP:OD1	1:N:171:VAL:HB	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:78:GLN:CD	1:N:83:GLY:HA2	2.34	0.48
1:O:205:PHE:HA	1:O:359:THR:OG1	2.12	0.48
1:P:123:ALA:HB2	1:P:423:MET:HE2	1.95	0.48
1:B:106:LYS:HZ2	1:B:108:ILE:HB	1.77	0.48
1:B:448:LEU:HD13	1:B:448:LEU:C	2.33	0.48
1:C:225:LEU:HG	1:C:277:PHE:CD1	2.47	0.48
1:D:145:ASP:CG	1:D:171:VAL:HB	2.32	0.48
1:D:222:ALA:HA	1:D:275:ASN:HB2	1.96	0.48
1:D:448:LEU:HA	1:D:451:GLN:HG2	1.96	0.48
1:E:6:GLU:HA	1:E:10:THR:OG1	2.13	0.48
1:E:124:ALA:O	1:E:128:LEU:HG	2.13	0.48
1:E:176:ARG:NH2	1:E:360:ILE:HG13	2.28	0.48
1:G:101:GLU:O	1:G:104:ILE:HG12	2.13	0.48
1:G:452:LEU:HD13	1:G:465:LEU:CD1	2.43	0.48
1:I:110:PRO:HA	1:I:113:ILE:HG12	1.95	0.48
1:I:418:LYS:HA	1:I:418:LYS:HZ2	1.78	0.48
1:J:33:LYS:NZ	1:J:468:LYS:HG3	2.28	0.48
1:K:103:LEU:HG	1:K:113:ILE:CD1	2.44	0.48
1:K:166:PHE:CE1	1:K:198:ASP:HB2	2.47	0.48
1:K:185:ALA:HA	1:K:309:ARG:CG	2.43	0.48
1:K:84:ASP:CG	1:K:85:GLY:H	2.15	0.48
1:L:313:VAL:O	1:L:352:VAL:HG23	2.14	0.48
1:L:40:LEU:HD23	1:L:41:SER:N	2.27	0.48
1:N:226:ILE:HG12	1:N:278:ILE:CG2	2.43	0.48
1:N:269:ILE:HG23	1:N:274:ILE:HG22	1.95	0.48
1:N:397:GLY:O	1:N:465:LEU:HD23	2.14	0.48
1:N:433:LEU:O	1:N:436:ILE:HG22	2.14	0.48
1:O:146:LEU:HD13	1:O:167:THR:O	2.13	0.48
1:P:231:MET:CG	1:P:283:ILE:HG13	2.43	0.48
1:P:313:VAL:HG13	1:P:352:VAL:CB	2.43	0.48
1:P:397:GLY:HA3	1:P:475:MET:CE	2.43	0.48
1:P:30:LEU:HG	1:P:87:THR:O	2.13	0.48
1:P:96:LEU:HD13	1:P:96:LEU:C	2.33	0.48
1:B:317:GLU:CB	1:B:329:LYS:HD3	2.43	0.48
1:B:190:LYS:HG2	1:B:374:GLU:HB3	1.96	0.48
1:D:420:ALA:HB1	1:K:453:ARG:NH2	2.29	0.48
1:G:231:MET:HE1	1:G:265:LYS:HD3	1.95	0.48
1:G:341:ILE:O	1:G:343:GLU:N	2.45	0.48
1:G:149:ILE:HD12	1:G:483:SER:H	1.77	0.48
1:H:145:ASP:OD1	1:H:171:VAL:HB	2.13	0.48
1:I:146:LEU:HD22	1:I:167:THR:C	2.33	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:452:LEU:CD2	1:I:465:LEU:HD21	2.44	0.48
1:J:283:ILE:CG2	1:J:300:GLU:HG3	2.42	0.48
1:J:27:LYS:HB2	1:J:436:ILE:CD1	2.43	0.48
1:K:397:GLY:HA3	1:K:475:MET:CE	2.44	0.48
1:L:163:LYS:HA	1:L:166:PHE:HD1	1.78	0.48
1:M:129:LEU:HG	1:M:392:ARG:HH22	1.79	0.48
1:M:65:ASN:N	1:M:66:PRO:HD2	2.29	0.48
1:N:215:GLN:HA	1:N:292:GLY:HA2	1.95	0.48
1:N:447:ASP:O	1:N:451:GLN:HG2	2.14	0.48
1:O:452:LEU:HD13	1:O:465:LEU:HD13	1.95	0.48
1:O:82:VAL:HG22	1:O:83:GLY:N	2.29	0.48
1:P:89:VAL:HG12	1:P:490:VAL:HG21	1.96	0.48
1:C:159:LEU:HD13	1:C:372:GLU:OE1	2.13	0.48
1:C:57:ILE:HG23	1:C:58:LEU:CD2	2.43	0.48
1:D:317:GLU:HB3	1:D:330:LEU:H	1.78	0.48
1:D:411:LEU:HB3	1:D:423:MET:SD	2.54	0.48
1:D:89:VAL:HG12	1:D:490:VAL:HB	1.94	0.48
1:D:92:LEU:HB2	1:D:490:VAL:HG21	1.94	0.48
1:E:448:LEU:C	1:E:448:LEU:HD13	2.34	0.48
1:F:211:ILE:HG12	1:F:298:ALA:H	1.77	0.48
1:F:171:VAL:HG12	1:F:384:LEU:HD13	1.95	0.48
1:F:448:LEU:C	1:F:448:LEU:HD13	2.33	0.48
1:G:134:ASP:HB3	1:G:393:THR:OG1	2.14	0.48
1:G:431:ARG:HH21	1:G:434:PRO:HG2	1.79	0.48
1:I:159:LEU:HB2	1:I:369:ILE:CG2	2.21	0.48
1:I:163:LYS:HD2	1:I:166:PHE:HB2	1.95	0.48
1:I:402:MET:SD	1:I:456:HIS:HB2	2.54	0.48
1:J:148:ASN:HB3	1:J:481:THR:CG2	2.43	0.48
1:K:146:LEU:HB2	1:K:171:VAL:CG2	2.43	0.48
1:K:262:MET:SD	1:K:290:LEU:HD22	2.53	0.48
1:L:40:LEU:HD12	1:L:48:LEU:CD2	2.43	0.48
1:N:14:SER:O	1:N:17:ILE:HG22	2.14	0.48
1:N:132:ALA:HB3	1:N:461:THR:HG21	1.95	0.48
1:O:345:LYS:C	1:O:346:LEU:HD12	2.33	0.48
1:O:334:LYS:CD	1:O:351:GLY:HA3	2.43	0.48
1:O:133:VAL:HG21	1:O:394:VAL:CA	2.43	0.48
1:P:166:PHE:CE1	1:P:198:ASP:HB3	2.48	0.48
1:P:500:VAL:O	1:P:501:ILE:HB	2.14	0.48
1:P:37:LYS:O	1:P:50:VAL:HA	2.14	0.48
1:A:369:ILE:O	1:A:372:GLU:CB	2.60	0.48
1:C:222:ALA:HA	1:C:275:ASN:OD1	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:173:ALA:CB	1:C:360:ILE:HD11	2.32	0.48
1:A:158:LEU:CD2	1:C:503:ARG:HH22	2.18	0.48
1:C:505:ASP:O	1:C:506:ASN:HB3	2.14	0.48
1:D:259:LYS:O	1:D:262:MET:HB3	2.13	0.48
1:E:154:LEU:CD2	1:E:167:THR:HB	2.42	0.48
1:F:123:ALA:O	1:F:126:GLN:HB2	2.13	0.48
1:F:372:GLU:HG3	1:F:375:ARG:HE	1.78	0.48
1:G:102:SER:O	1:G:105:ALA:HB3	2.13	0.48
1:G:133:VAL:HG23	1:G:134:ASP:H	1.79	0.48
1:G:157:LYS:CD	1:G:376:SER:HB2	2.44	0.48
1:I:190:LYS:O	1:I:190:LYS:HG3	2.11	0.48
1:I:390:ASP:HB3	1:I:485:GLN:CD	2.34	0.48
1:I:397:GLY:HA3	1:I:475:MET:CE	2.43	0.48
1:I:40:LEU:CB	1:I:48:LEU:HD23	2.40	0.48
1:J:274:ILE:O	1:J:274:ILE:HG23	2.14	0.48
1:D:445:SER:CB	1:K:108:ILE:HD13	2.43	0.48
1:K:226:ILE:HB	1:K:317:GLU:OE2	2.13	0.48
1:K:485:GLN:HG2	1:K:488:ARG:HH21	1.79	0.48
1:L:312:LEU:O	1:P:213:VAL:HG11	2.12	0.48
1:L:334:LYS:HD3	1:L:351:GLY:HA3	1.94	0.48
1:L:366:THR:HA	1:L:370:LEU:HB3	1.96	0.48
1:M:157:LYS:HG2	1:M:372:GLU:OE2	2.13	0.48
1:M:334:LYS:CG	1:M:351:GLY:HA3	2.43	0.48
1:M:58:LEU:HB3	1:M:72:VAL:CG1	2.43	0.48
1:N:324:HIS:HB2	1:N:329:LYS:CE	2.43	0.48
1:O:154:LEU:CD2	1:O:163:LYS:HG3	2.43	0.48
1:O:265:LYS:HE2	1:O:322:PHE:CE1	2.48	0.48
1:P:231:MET:CE	1:P:265:LYS:HD3	2.44	0.48
1:P:263:LYS:HA	1:P:266:VAL:HG12	1.96	0.48
1:P:284:TYR:O	1:P:287:PRO:HD2	2.13	0.48
1:P:32:PRO:HA	1:P:156:SER:N	2.29	0.48
1:A:106:LYS:HE3	1:M:446:ALA:HB2	1.96	0.48
1:B:170:ALA:O	1:B:173:ALA:HB3	2.13	0.48
1:B:219:ILE:HD12	1:B:275:ASN:HB3	1.96	0.48
1:B:325:PRO:C	1:B:326:GLU:HG3	2.31	0.48
1:B:82:VAL:HG23	1:B:485:GLN:HB2	1.94	0.48
1:C:143:ARG:NE	1:C:143:ARG:HA	2.28	0.48
1:C:78:GLN:CD	1:C:83:GLY:HA2	2.33	0.48
1:D:163:LYS:HG3	1:D:166:PHE:HB2	1.95	0.48
1:D:380:ALA:O	1:D:384:LEU:HD23	2.12	0.48
1:D:402:MET:HG2	1:D:431:ARG:NH2	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:219:ILE:HD12	1:E:275:ASN:HB3	1.95	0.48
1:E:313:VAL:HG13	1:E:352:VAL:HG11	1.96	0.48
1:E:89:VAL:HG12	1:E:490:VAL:HG23	1.95	0.48
1:F:112:THR:CG2	1:F:418:LYS:CE	2.91	0.48
1:F:405:ALA:HA	1:F:408:VAL:HG22	1.96	0.48
1:G:108:ILE:CG2	1:G:109:HIS:N	2.67	0.48
1:G:154:LEU:HD22	1:G:167:THR:CB	2.43	0.48
1:G:193:GLY:HA3	1:G:343:GLU:CB	2.44	0.48
1:G:367:GLN:HG3	1:G:370:LEU:N	2.28	0.48
1:H:498:ALA:HA	1:H:501:ILE:HD12	1.94	0.48
1:I:160:THR:HA	1:I:163:LYS:HB3	1.96	0.48
1:J:287:PRO:O	1:J:291:PHE:HD1	1.97	0.48
1:K:117:TRP:HD1	1:K:499:GLU:HA	1.78	0.48
1:K:171:VAL:CA	1:K:174:VAL:HG22	2.43	0.48
1:K:206:LEU:HD11	1:K:346:LEU:HD23	1.95	0.48
1:M:433:LEU:HA	1:M:436:ILE:HG22	1.96	0.48
1:N:445:SER:HA	1:N:448:LEU:HB3	1.95	0.48
1:O:418:LYS:O	1:O:421:VAL:HG12	2.14	0.48
1:F:108:ILE:HG13	1:O:446:ALA:H	1.79	0.48
1:P:194:GLY:CA	1:P:365:ALA:HA	2.44	0.48
1:A:128:LEU:O	1:A:129:LEU:CB	2.61	0.48
1:A:148:ASN:HA	1:A:480:ILE:HA	1.96	0.48
1:A:401:GLU:HG2	1:A:433:LEU:HD22	1.94	0.48
1:A:40:LEU:HD23	1:A:41:SER:N	2.28	0.48
1:A:68:ALA:O	1:A:72:VAL:HG23	2.13	0.48
1:D:159:LEU:CD2	1:D:163:LYS:HD3	2.41	0.48
1:D:324:HIS:HB2	1:D:329:LYS:HZ1	1.75	0.48
1:D:392:ARG:HD3	1:D:484:PHE:CE1	2.49	0.48
1:E:381:LEU:HD13	1:E:381:LEU:C	2.34	0.48
1:F:108:ILE:HB	1:O:446:ALA:HB2	1.95	0.48
1:F:108:ILE:HG13	1:O:444:ASP:OD1	2.14	0.48
1:F:375:ARG:CG	1:F:375:ARG:HH11	2.26	0.48
1:F:446:ALA:HB1	1:O:418:LYS:CE	2.44	0.48
1:J:203:GLU:HG2	1:J:350:SER:HB2	1.94	0.48
1:K:216:PRO:HG2	1:K:295:GLY:HA2	1.94	0.48
1:K:191:LYS:HD2	1:K:344:ASP:OD1	2.14	0.48
1:L:222:ALA:HA	1:L:275:ASN:OD1	2.14	0.48
1:L:83:GLY:HA3	1:L:382:CYS:HB3	1.96	0.48
1:L:57:ILE:HG23	1:L:58:LEU:HD23	1.96	0.48
1:M:190:LYS:HG3	1:M:370:LEU:CG	2.44	0.48
1:M:485:GLN:CB	1:M:489:GLN:HE22	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:386:GLN:HG2	1:N:485:GLN:HG2	1.96	0.48
1:O:119:GLU:OE2	1:O:419:GLU:HG2	2.14	0.48
1:P:116:GLY:HA3	1:P:422:ALA:HB1	1.95	0.48
1:P:219:ILE:HD13	1:P:276:CYS:HB2	1.95	0.48
1:B:101:GLU:O	1:B:104:ILE:HG12	2.14	0.48
1:C:108:ILE:HG22	1:C:109:HIS:N	2.29	0.48
1:C:36:ASP:O	1:C:37:LYS:HD3	2.14	0.48
1:C:381:LEU:C	1:C:381:LEU:HD13	2.35	0.48
1:D:317:GLU:OE2	1:D:329:LYS:HD2	2.13	0.48
1:E:311:ALA:HA	1:E:314:THR:HG22	1.96	0.48
1:E:324:HIS:O	1:E:328:VAL:HG23	2.14	0.48
1:E:475:MET:SD	1:E:480:ILE:HB	2.54	0.48
1:F:96:LEU:HD21	1:F:117:TRP:HZ2	1.78	0.48
1:G:402:MET:HG2	1:G:431:ARG:HH22	1.79	0.48
1:H:206:LEU:HD21	1:H:346:LEU:HB2	1.96	0.48
1:H:225:LEU:HD11	1:H:324:HIS:CE1	2.49	0.48
1:I:96:LEU:HD13	1:I:97:LEU:N	2.29	0.48
1:K:115:ALA:O	1:K:119:GLU:HG2	2.14	0.48
1:K:170:ALA:O	1:K:173:ALA:HB3	2.14	0.48
1:K:32:PRO:HG2	1:K:467:MET:CE	2.43	0.48
1:L:431:ARG:HH21	1:L:434:PRO:HG2	1.79	0.48
1:N:154:LEU:HD13	1:N:167:THR:OG1	2.14	0.48
1:N:117:TRP:HD1	1:N:495:ALA:HB1	1.79	0.48
1:O:65:ASN:CG	1:O:66:PRO:HD3	2.34	0.48
1:P:321:THR:HG22	1:P:322:PHE:H	1.78	0.48
1:P:402:MET:CE	1:P:453:ARG:HG3	2.43	0.48
1:C:27:LYS:O	1:C:436:ILE:HD11	2.14	0.48
1:C:176:ARG:NH2	1:C:360:ILE:HG13	2.29	0.48
1:D:143:ARG:HE	1:D:143:ARG:HA	1.78	0.48
1:D:443:TYR:CE1	1:D:470:GLY:HA3	2.49	0.48
1:E:196:LEU:HD13	1:E:196:LEU:C	2.34	0.48
1:H:447:ASP:HA	1:P:417:GLY:HA2	1.96	0.48
1:I:146:LEU:HB2	1:I:171:VAL:CG1	2.43	0.48
1:I:216:PRO:HG2	1:I:295:GLY:CA	2.43	0.48
1:I:332:SER:OG	1:I:349:PHE:HZ	1.96	0.48
1:K:38:ILE:HA	1:K:50:VAL:HB	1.96	0.48
1:L:96:LEU:HD21	1:L:117:TRP:HZ2	1.79	0.48
1:M:82:VAL:CG2	1:M:486:VAL:HG12	2.44	0.48
1:O:225:LEU:HD11	1:O:324:HIS:CE1	2.49	0.48
1:O:152:THR:CB	1:O:480:ILE:HD12	2.44	0.48
1:O:59:LYS:HE2	1:O:76:ARG:N	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:283:ILE:HG22	1:P:300:GLU:CG	2.43	0.48
1:B:188:VAL:CB	1:B:377:LEU:HD22	2.44	0.47
1:B:448:LEU:HD11	1:B:465:LEU:HD11	1.96	0.47
1:C:412:ALA:HB1	1:C:424:GLU:HB3	1.96	0.47
1:E:263:LYS:O	1:E:267:GLU:HG2	2.14	0.47
1:E:312:LEU:HD13	1:E:354:LEU:CD2	2.43	0.47
1:E:443:TYR:CD2	1:E:470:GLY:HA3	2.49	0.47
1:D:38:ILE:O	1:E:507:ILE:HA	2.14	0.47
1:F:192:LEU:CD1	1:F:192:LEU:H	2.23	0.47
1:I:222:ALA:HA	1:I:275:ASN:CG	2.34	0.47
1:I:58:LEU:HB3	1:I:72:VAL:CG1	2.43	0.47
1:J:179:GLY:HA2	1:J:389:LYS:CE	2.44	0.47
1:K:124:ALA:O	1:K:127:ALA:HB3	2.13	0.47
1:K:61:ILE:HG22	1:K:63:VAL:HG23	1.96	0.47
1:L:166:PHE:CE1	1:L:198:ASP:CB	2.97	0.47
1:L:334:LYS:HD3	1:L:351:GLY:CA	2.43	0.47
1:M:124:ALA:HB1	1:M:491:LEU:CD1	2.38	0.47
1:G:108:ILE:HD11	1:N:447:ASP:HB2	1.95	0.47
1:O:394:VAL:HG23	1:O:482:GLU:HB2	1.95	0.47
1:A:154:LEU:HD22	1:A:167:THR:OG1	2.14	0.47
1:B:354:LEU:HD21	1:B:356:GLU:HB3	1.96	0.47
1:B:128:LEU:HD22	1:B:488:ARG:HG2	1.96	0.47
1:B:4:ASP:HB2	1:B:508:ILE:HG12	1.95	0.47
1:C:164:ASP:O	1:C:167:THR:HG22	2.14	0.47
1:C:146:LEU:HD21	1:C:167:THR:HG23	1.97	0.47
1:C:181:GLY:O	1:C:182:ASN:HB2	2.14	0.47
1:C:204:GLY:O	1:C:359:THR:HB	2.14	0.47
1:E:143:ARG:HE	1:E:143:ARG:HA	1.77	0.47
1:E:334:LYS:HD3	1:E:351:GLY:CA	2.45	0.47
1:E:412:ALA:CB	1:E:424:GLU:HB3	2.44	0.47
1:E:442:GLY:HA3	1:G:108:ILE:O	2.14	0.47
1:G:256:HIS:O	1:G:259:LYS:HB2	2.15	0.47
1:J:171:VAL:O	1:J:175:LEU:HG	2.14	0.47
1:J:226:ILE:HA	1:J:278:ILE:O	2.14	0.47
1:J:369:ILE:HG13	1:J:372:GLU:OE1	2.14	0.47
1:K:140:VAL:H	1:K:178:LYS:HZ2	1.61	0.47
1:L:261:LYS:O	1:L:264:GLU:HG2	2.14	0.47
1:M:22:ILE:HD12	1:M:90:THR:CG2	2.44	0.47
1:M:41:SER:O	1:M:45:ASP:HB2	2.14	0.47
1:N:334:LYS:CB	1:N:351:GLY:HA3	2.45	0.47
1:N:96:LEU:HD23	1:N:498:ALA:HB1	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:287:PRO:O	1:O:291:PHE:HD1	1.96	0.47
1:P:111:GLN:O	1:P:114:ILE:HB	2.14	0.47
1:B:509:LYS:HG3	1:B:510:ALA:N	2.29	0.47
1:C:143:ARG:HA	1:C:143:ARG:HE	1.79	0.47
1:C:192:LEU:O	1:C:366:THR:HG21	2.15	0.47
1:C:394:VAL:CG2	1:C:482:GLU:HB2	2.44	0.47
1:D:163:LYS:CG	1:D:166:PHE:HB2	2.44	0.47
1:D:324:HIS:HB2	1:D:329:LYS:CE	2.44	0.47
1:E:451:GLN:NE2	1:E:471:THR:HA	2.29	0.47
1:D:40:LEU:H	1:E:507:ILE:HG21	1.79	0.47
1:G:38:ILE:HG21	1:G:368:GLN:OE1	2.14	0.47
1:G:431:ARG:O	1:G:434:PRO:HD2	2.14	0.47
1:H:265:LYS:NZ	1:H:287:PRO:HG3	2.24	0.47
1:H:394:VAL:HB	1:H:400:SER:OG	2.14	0.47
1:I:206:LEU:HD21	1:I:346:LEU:CB	2.44	0.47
1:I:431:ARG:O	1:I:434:PRO:HD2	2.13	0.47
1:K:368:GLN:OE1	1:P:500:VAL:HG12	2.14	0.47
1:L:138:ASP:O	1:L:139:GLU:HB2	2.14	0.47
1:M:111:GLN:HA	1:M:114:ILE:HG12	1.95	0.47
1:M:164:ASP:O	1:M:167:THR:HG22	2.14	0.47
1:M:79:ASP:HA	1:M:83:GLY:N	2.29	0.47
1:N:108:ILE:CG2	1:N:109:HIS:N	2.78	0.47
1:N:176:ARG:HD2	1:N:358:CYS:N	2.29	0.47
1:G:417:GLY:CA	1:N:450:ALA:HB1	2.43	0.47
1:O:194:GLY:HA2	1:O:364:GLY:C	2.35	0.47
1:P:259:LYS:HE3	1:P:259:LYS:HA	1.96	0.47
1:P:280:ARG:O	1:P:281:GLN:HB3	2.13	0.47
1:P:148:ASN:HA	1:P:480:ILE:HA	1.96	0.47
1:A:469:GLU:HG2	1:A:471:THR:OG1	2.14	0.47
1:C:401:GLU:HG2	1:C:433:LEU:HD22	1.95	0.47
1:D:124:ALA:O	1:D:128:LEU:HG	2.15	0.47
1:D:39:LEU:O	1:D:39:LEU:HG	2.15	0.47
1:D:117:TRP:CZ2	1:D:495:ALA:CB	2.97	0.47
1:E:211:ILE:HG22	1:E:288:GLU:OE1	2.14	0.47
1:E:367:GLN:HG2	1:E:369:ILE:H	1.79	0.47
1:F:159:LEU:HG	1:F:163:LYS:CB	2.45	0.47
1:F:225:LEU:HB2	1:F:274:ILE:HD11	1.95	0.47
1:F:222:ALA:HA	1:F:275:ASN:CB	2.44	0.47
1:B:38:ILE:HG13	1:F:507:ILE:HG12	1.96	0.47
1:B:42:SER:H	1:F:512:PRO:HG3	1.78	0.47
1:F:84:ASP:CG	1:F:85:GLY:H	2.17	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:28:SER:O	1:G:34:GLY:HA2	2.14	0.47
1:H:188:VAL:HG11	1:H:373:ALA:O	2.14	0.47
1:H:274:ILE:HG23	1:H:296:VAL:CG2	2.45	0.47
1:H:178:LYS:CD	1:H:388:VAL:HG11	2.39	0.47
1:I:274:ILE:HG23	1:I:274:ILE:O	2.15	0.47
1:J:219:ILE:HD13	1:J:276:CYS:HB2	1.95	0.47
1:J:265:LYS:HE2	1:J:322:PHE:CE1	2.49	0.47
1:K:397:GLY:HA3	1:K:475:MET:HE1	1.95	0.47
1:K:32:PRO:HB2	1:K:467:MET:SD	2.54	0.47
1:L:187:HIS:O	1:L:359:THR:HG23	2.13	0.47
1:L:325:PRO:O	1:L:326:GLU:HG2	2.13	0.47
1:L:412:ALA:CB	1:L:424:GLU:HB3	2.44	0.47
1:O:112:THR:HG22	1:O:418:LYS:CE	2.45	0.47
1:M:35:MET:HG2	1:O:503:ARG:CG	2.43	0.47
1:P:206:LEU:HD21	1:P:348:HIS:NE2	2.30	0.47
1:P:337:GLU:HG3	1:P:339:VAL:HG23	1.96	0.47
1:B:122:LYS:O	1:B:126:GLN:HG3	2.14	0.47
1:B:171:VAL:O	1:B:174:VAL:HG22	2.15	0.47
1:B:211:ILE:HG12	1:B:298:ALA:H	1.79	0.47
1:C:280:ARG:CG	1:C:280:ARG:O	2.63	0.47
1:D:496:GLU:O	1:D:500:VAL:HG13	2.14	0.47
1:E:188:VAL:CG1	1:E:360:ILE:HB	2.44	0.47
1:F:263:LYS:HA	1:F:266:VAL:HG12	1.95	0.47
1:G:313:VAL:HG13	1:G:352:VAL:HB	1.96	0.47
1:D:503:ARG:HB3	1:H:37:LYS:HD3	1.96	0.47
1:I:191:LYS:HD3	1:I:346:LEU:HD11	1.95	0.47
1:I:37:LYS:O	1:I:50:VAL:HA	2.14	0.47
1:I:397:GLY:HA3	1:I:475:MET:HE1	1.96	0.47
1:I:92:LEU:HA	1:I:95:GLU:OE2	2.15	0.47
1:J:171:VAL:O	1:J:174:VAL:HG22	2.13	0.47
1:J:345:LYS:O	1:J:346:LEU:HD13	2.14	0.47
1:J:38:ILE:CG2	1:J:50:VAL:HB	2.43	0.47
1:K:102:SER:O	1:K:105:ALA:HB3	2.14	0.47
1:K:163:LYS:HG3	1:K:166:PHE:HB2	1.95	0.47
1:K:169:LEU:HD11	1:K:201:LEU:HB2	1.97	0.47
1:K:185:ALA:HB3	1:K:357:ALA:HB2	1.95	0.47
1:L:318:ILE:HG21	1:P:285:ASN:O	2.15	0.47
1:L:321:THR:O	1:L:323:ASP:N	2.48	0.47
1:L:57:ILE:C	1:L:57:ILE:HD13	2.35	0.47
1:M:510:ALA:O	1:M:511:ALA:HB3	2.15	0.47
1:N:99:GLU:O	1:N:103:LEU:HD13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:17:ILE:O	1:N:20:ILE:HG22	2.14	0.47
1:N:57:ILE:O	1:N:57:ILE:HD13	2.15	0.47
1:O:133:VAL:HG21	1:O:394:VAL:C	2.34	0.47
1:O:186:ILE:HD13	1:O:381:LEU:HD21	1.95	0.47
1:O:274:ILE:O	1:O:274:ILE:HG23	2.15	0.47
1:O:348:HIS:O	1:O:349:PHE:C	2.52	0.47
1:O:40:LEU:HD23	1:O:48:LEU:HD12	1.95	0.47
1:O:40:LEU:HD22	1:O:41:SER:H	1.79	0.47
1:F:108:ILE:CG1	1:O:446:ALA:H	2.28	0.47
1:O:68:ALA:O	1:O:72:VAL:HG23	2.15	0.47
1:B:225:LEU:HG	1:B:277:PHE:CE1	2.49	0.47
1:B:334:LYS:CB	1:B:351:GLY:HA3	2.44	0.47
1:B:313:VAL:HG13	1:B:352:VAL:CG2	2.44	0.47
1:C:280:ARG:HD3	1:C:304:PHE:HB2	1.96	0.47
1:C:39:LEU:HD21	1:H:508:ILE:CD1	2.41	0.47
1:E:130:ASN:O	1:E:131:SER:HB2	2.14	0.47
1:E:313:VAL:HG13	1:E:352:VAL:CB	2.43	0.47
1:E:133:VAL:HB	1:E:393:THR:O	2.14	0.47
1:F:451:GLN:NE2	1:F:471:THR:HA	2.29	0.47
1:G:236:ILE:CG2	1:G:237:LYS:N	2.77	0.47
1:H:191:LYS:HD3	1:H:191:LYS:HA	1.76	0.47
1:H:197:ALA:O	1:H:198:ASP:HB2	2.14	0.47
1:H:397:GLY:HA3	1:H:475:MET:CE	2.44	0.47
1:I:222:ALA:HA	1:I:275:ASN:OD1	2.14	0.47
1:I:219:ILE:CD1	1:I:276:CYS:HB2	2.44	0.47
1:I:33:LYS:N	1:I:33:LYS:HD2	2.29	0.47
1:I:510:ALA:H	1:O:38:ILE:CD1	2.21	0.47
1:I:61:ILE:HG12	1:I:63:VAL:HG22	1.96	0.47
1:J:143:ARG:HA	1:J:143:ARG:NE	2.30	0.47
1:J:157:LYS:HB3	1:J:159:LEU:HD21	1.97	0.47
1:K:231:MET:CG	1:K:283:ILE:HG13	2.43	0.47
1:K:269:ILE:CG1	1:K:274:ILE:HG21	2.44	0.47
1:L:156:SER:OG	1:L:157:LYS:HD2	2.15	0.47
1:L:188:VAL:HA	1:L:360:ILE:O	2.14	0.47
1:L:228:ASN:CG	1:L:319:ALA:HB3	2.35	0.47
1:L:70:VAL:HG11	1:P:48:LEU:HG	1.97	0.47
1:M:114:ILE:HA	1:M:117:TRP:CZ3	2.49	0.47
1:M:136:GLY:O	1:M:137:SER:HB3	2.13	0.47
1:N:171:VAL:HG12	1:N:384:LEU:HG	1.96	0.47
1:O:431:ARG:HH21	1:O:434:PRO:HG2	1.79	0.47
1:P:174:VAL:O	1:P:177:LEU:HB3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:397:GLY:HA3	1:B:475:MET:CE	2.45	0.47
1:B:413:SER:O	1:I:454:ALA:HA	2.15	0.47
1:B:3:ALA:HB1	1:B:508:ILE:CD1	2.45	0.47
1:D:125:ARG:HA	1:D:128:LEU:HD12	1.95	0.47
1:D:163:LYS:HZ2	1:D:376:SER:HB3	1.78	0.47
1:E:173:ALA:O	1:E:176:ARG:HG2	2.14	0.47
1:F:203:GLU:HG2	1:F:350:SER:HB2	1.97	0.47
1:A:505:ASP:HB3	1:F:37:LYS:HD3	1.96	0.47
1:G:452:LEU:HD22	1:G:465:LEU:HD21	1.96	0.47
1:H:269:ILE:CG2	1:H:274:ILE:HG21	2.39	0.47
1:I:214:ASN:O	1:I:215:GLN:HB2	2.14	0.47
1:K:191:LYS:HZ3	1:K:346:LEU:HD11	1.78	0.47
1:L:114:ILE:HD13	1:L:117:TRP:HZ3	1.78	0.47
1:M:106:LYS:C	1:M:107:LYS:HE2	2.35	0.47
1:M:143:ARG:HE	1:M:143:ARG:HA	1.80	0.47
1:N:323:ASP:C	1:N:325:PRO:HD2	2.34	0.47
1:N:369:ILE:HA	1:N:372:GLU:OE2	2.14	0.47
1:N:127:ALA:HB2	1:N:404:MET:HG3	1.95	0.47
1:N:92:LEU:HA	1:N:95:GLU:OE2	2.15	0.47
1:O:133:VAL:CG2	1:O:394:VAL:HA	2.45	0.47
1:F:413:SER:HG	1:O:406:HIS:CE1	2.32	0.47
1:P:222:ALA:HA	1:P:275:ASN:CG	2.35	0.47
1:L:509:LYS:HE3	1:P:40:LEU:HD12	1.96	0.47
1:B:499:GLU:O	1:B:503:ARG:HG2	2.15	0.47
1:D:146:LEU:HD13	1:D:167:THR:O	2.15	0.47
1:D:1:ALA:HA	1:D:509:LYS:HD2	1.97	0.47
1:E:354:LEU:HD21	1:E:356:GLU:HB3	1.96	0.47
1:E:451:GLN:HG3	1:E:472:ILE:HG23	1.96	0.47
1:F:141:LYS:CG	1:F:144:GLN:HB2	2.45	0.47
1:F:365:ALA:O	1:F:366:THR:HB	2.15	0.47
1:G:434:PRO:HB3	1:G:452:LEU:HD23	1.95	0.47
1:H:111:GLN:O	1:H:114:ILE:HB	2.15	0.47
1:H:32:PRO:HG3	1:H:155:SER:HB3	1.96	0.47
1:I:109:HIS:CD2	1:O:440:ASN:HA	2.50	0.47
1:J:158:LEU:O	1:J:160:THR:N	2.48	0.47
1:J:226:ILE:HB	1:J:317:GLU:OE2	2.14	0.47
1:K:215:GLN:HE21	1:K:292:GLY:N	2.13	0.47
1:K:448:LEU:C	1:K:448:LEU:HD13	2.35	0.47
1:M:41:SER:HB2	1:M:45:ASP:OD2	2.15	0.47
1:M:431:ARG:O	1:M:434:PRO:HD2	2.14	0.47
1:A:413:SER:OG	1:M:457:SER:HB2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:97:LEU:HD13	1:M:97:LEU:N	2.28	0.47
1:N:146:LEU:HB2	1:N:171:VAL:CG1	2.45	0.47
1:N:222:ALA:HA	1:N:275:ASN:CG	2.34	0.47
1:N:433:LEU:HB2	1:N:434:PRO:HD3	1.95	0.47
1:O:78:GLN:NE2	1:O:82:VAL:HG13	2.30	0.47
1:P:196:LEU:HD13	1:P:196:LEU:C	2.35	0.47
1:P:274:ILE:HG23	1:P:274:ILE:O	2.15	0.47
1:B:25:LEU:N	1:B:25:LEU:HD23	2.29	0.47
1:B:39:LEU:HB3	1:F:510:ALA:HB1	1.96	0.47
1:B:451:GLN:NE2	1:B:471:THR:HA	2.30	0.47
1:C:500:VAL:HA	1:C:503:ARG:HG3	1.97	0.47
1:D:449:VAL:O	1:D:453:ARG:HG3	2.15	0.47
1:E:146:LEU:HB2	1:E:171:VAL:HG21	1.96	0.47
1:E:59:LYS:CE	1:E:76:ARG:HB2	2.44	0.47
1:G:117:TRP:C	1:G:119:GLU:H	2.17	0.47
1:G:373:ALA:HA	1:G:376:SER:OG	2.15	0.47
1:H:317:GLU:HB3	1:H:329:LYS:HA	1.97	0.47
1:H:188:VAL:HG11	1:H:377:LEU:HB2	1.97	0.47
1:I:225:LEU:HD11	1:I:324:HIS:ND1	2.29	0.47
1:I:40:LEU:HB3	1:N:508:ILE:CA	2.45	0.47
1:B:417:GLY:HA3	1:I:451:GLN:HB3	1.97	0.47
1:I:96:LEU:HD13	1:I:96:LEU:C	2.36	0.47
1:J:162:HIS:HB3	1:J:198:ASP:OD2	2.15	0.47
1:J:505:ASP:HB3	1:N:37:LYS:HZ2	1.79	0.47
1:J:58:LEU:HB3	1:J:72:VAL:HG11	1.97	0.47
1:K:341:ILE:HG22	1:K:341:ILE:O	2.15	0.47
1:K:33:LYS:HB2	1:K:440:ASN:CB	2.45	0.47
1:K:495:ALA:O	1:K:499:GLU:HB2	2.15	0.47
1:K:57:ILE:HG23	1:K:58:LEU:CD2	2.44	0.47
1:M:53:ASP:H	1:M:375:ARG:NH1	2.13	0.47
1:O:104:ILE:HG13	1:O:105:ALA:N	2.28	0.47
1:P:216:PRO:HG2	1:P:295:GLY:CA	2.44	0.47
1:P:433:LEU:HB2	1:P:434:PRO:HD3	1.95	0.47
1:B:171:VAL:CA	1:B:174:VAL:HG22	2.43	0.47
1:B:219:ILE:HB	1:B:275:ASN:HB3	1.97	0.47
1:B:225:LEU:HD11	1:B:324:HIS:ND1	2.30	0.47
1:B:277:PHE:O	1:B:298:ALA:HA	2.15	0.47
1:H:231:MET:CG	1:H:283:ILE:HG13	2.44	0.47
1:H:259:LYS:HE3	1:H:259:LYS:HA	1.97	0.47
1:H:341:ILE:O	1:H:343:GLU:N	2.48	0.47
1:I:119:GLU:HG3	1:I:419:GLU:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:402:MET:HG2	1:J:431:ARG:HH22	1.79	0.47
1:J:404:MET:O	1:J:408:VAL:HG22	2.15	0.47
1:L:326:GLU:HG3	1:L:327:LEU:N	2.30	0.47
1:L:38:ILE:O	1:L:39:LEU:HD23	2.14	0.47
1:M:174:VAL:CG1	1:M:384:LEU:HD13	2.45	0.47
1:N:107:LYS:CG	1:N:107:LYS:O	2.63	0.47
1:O:452:LEU:HD13	1:O:465:LEU:CD1	2.44	0.47
1:O:508:ILE:HG12	1:O:509:LYS:H	1.79	0.47
1:A:141:LYS:HG2	1:A:144:GLN:HB2	1.97	0.47
1:B:163:LYS:HA	1:B:166:PHE:HD1	1.79	0.47
1:B:173:ALA:O	1:B:176:ARG:HG2	2.15	0.47
1:B:216:PRO:HG3	1:B:295:GLY:HA2	1.94	0.47
1:D:150:ALA:O	1:D:154:LEU:HD13	2.15	0.47
1:D:207:LEU:HD12	1:D:299:ILE:HD13	1.97	0.47
1:F:324:HIS:HB2	1:F:329:LYS:HE2	1.97	0.47
1:F:418:LYS:HG2	1:O:450:ALA:CB	2.44	0.47
1:F:412:ALA:CB	1:F:424:GLU:HB3	2.44	0.47
1:B:37:LYS:HA	1:F:507:ILE:HG13	1.98	0.47
1:G:274:ILE:HG23	1:G:296:VAL:CG2	2.45	0.47
1:J:52:ASN:CG	1:J:157:LYS:HG2	2.35	0.47
1:J:324:HIS:O	1:J:328:VAL:HG22	2.15	0.47
1:L:117:TRP:HA	1:L:120:ALA:CB	2.45	0.47
1:L:146:LEU:HD13	1:L:171:VAL:HG13	1.97	0.47
1:L:402:MET:SD	1:L:453:ARG:HA	2.55	0.47
1:M:38:ILE:HG22	1:M:50:VAL:HB	1.97	0.47
1:M:408:VAL:HG23	1:M:427:ALA:HB1	1.96	0.47
1:M:500:VAL:HA	1:M:503:ARG:NH1	2.27	0.47
1:N:114:ILE:HA	1:N:117:TRP:CE3	2.50	0.47
1:N:452:LEU:HD11	1:N:456:HIS:CE1	2.50	0.47
1:N:48:LEU:H	1:N:48:LEU:HD12	1.80	0.47
1:N:92:LEU:HD21	1:N:433:LEU:HD11	1.95	0.47
1:O:231:MET:HE1	1:O:265:LYS:HD3	1.96	0.47
1:P:452:LEU:HD11	1:P:456:HIS:HE1	1.80	0.47
1:A:411:LEU:HA	1:A:414:ARG:HB3	1.95	0.46
1:B:256:HIS:O	1:B:259:LYS:HB2	2.15	0.46
1:B:30:LEU:HD13	1:B:436:ILE:HD11	1.97	0.46
1:B:352:VAL:HG22	1:B:355:GLY:H	1.80	0.46
1:C:14:SER:O	1:C:17:ILE:HG22	2.14	0.46
1:D:339:VAL:HB	1:D:348:HIS:CE1	2.51	0.46
1:D:89:VAL:HA	1:D:490:VAL:HB	1.96	0.46
1:E:204:GLY:HA3	1:E:349:PHE:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:159:LEU:H	1:F:159:LEU:CD2	2.28	0.46
1:G:269:ILE:HG12	1:G:274:ILE:HG21	1.97	0.46
1:H:339:VAL:HG13	1:H:340:MET:N	2.31	0.46
1:H:204:GLY:HA3	1:H:349:PHE:O	2.15	0.46
1:J:173:ALA:O	1:J:176:ARG:HG2	2.15	0.46
1:J:385:ALA:O	1:J:388:VAL:HG12	2.15	0.46
1:K:126:GLN:NE2	1:K:411:LEU:HD22	2.30	0.46
1:L:119:GLU:OE2	1:L:419:GLU:HB3	2.14	0.46
1:L:385:ALA:O	1:L:388:VAL:HB	2.15	0.46
1:N:334:LYS:C	1:N:334:LYS:HD3	2.35	0.46
1:N:207:LEU:HB3	1:N:347:ILE:CG2	2.45	0.46
1:N:363:ARG:O	1:N:370:LEU:HD11	2.14	0.46
1:N:448:LEU:HD13	1:N:448:LEU:C	2.36	0.46
1:N:434:PRO:HB3	1:N:452:LEU:CD2	2.45	0.46
1:O:82:VAL:CA	1:O:386:GLN:HG3	2.45	0.46
1:O:96:LEU:HD22	1:O:96:LEU:O	2.15	0.46
1:P:145:ASP:OD2	1:P:175:LEU:HD11	2.16	0.46
1:B:443:TYR:CD1	1:B:470:GLY:CA	2.98	0.46
1:B:503:ARG:HG3	1:B:504:VAL:HG23	1.97	0.46
1:B:54:GLY:O	1:B:58:LEU:HD23	2.15	0.46
1:C:310:LEU:O	1:C:313:VAL:HB	2.15	0.46
1:E:131:SER:O	1:E:133:VAL:N	2.49	0.46
1:E:337:GLU:HG3	1:E:339:VAL:HG23	1.97	0.46
1:F:178:LYS:HG3	1:F:388:VAL:CG1	2.45	0.46
1:G:110:PRO:O	1:G:113:ILE:HB	2.15	0.46
1:G:206:LEU:HD11	1:G:346:LEU:HD23	1.96	0.46
1:G:71:LEU:H	1:G:501:ILE:HD11	1.80	0.46
1:I:116:GLY:HA3	1:I:422:ALA:CB	2.45	0.46
1:J:163:LYS:HA	1:J:166:PHE:HD1	1.77	0.46
1:J:448:LEU:HD13	1:J:448:LEU:C	2.35	0.46
1:K:130:ASN:O	1:K:131:SER:CB	2.62	0.46
1:K:154:LEU:HD13	1:K:167:THR:OG1	2.14	0.46
1:K:215:GLN:HG3	1:K:292:GLY:HA2	1.96	0.46
1:K:219:ILE:HD12	1:K:275:ASN:CB	2.45	0.46
1:K:433:LEU:HA	1:K:436:ILE:HG22	1.97	0.46
1:L:102:SER:O	1:L:105:ALA:HB3	2.15	0.46
1:L:440:ASN:HA	1:M:109:HIS:CE1	2.50	0.46
1:M:30:LEU:HD11	1:M:87:THR:O	2.15	0.46
1:N:146:LEU:HD22	1:N:168:LYS:HA	1.96	0.46
1:N:216:PRO:HG2	1:N:295:GLY:CA	2.46	0.46
1:O:222:ALA:HA	1:O:275:ASN:OD1	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:261:LYS:O	1:P:265:LYS:HG3	2.15	0.46
1:B:17:ILE:O	1:B:20:ILE:HG22	2.15	0.46
1:B:437:ILE:HG23	1:B:467:MET:SD	2.56	0.46
1:B:51:THR:HG21	1:B:56:THR:HB	1.96	0.46
1:C:402:MET:SD	1:C:453:ARG:HA	2.55	0.46
1:D:484:PHE:CE2	1:D:488:ARG:NE	2.80	0.46
1:D:390:ASP:HB3	1:D:485:GLN:HE22	1.78	0.46
1:F:11:ALA:HB3	1:F:506:ASN:CG	2.36	0.46
1:G:17:ILE:O	1:G:20:ILE:HG22	2.14	0.46
1:G:74:MET:CE	1:G:493:SER:HA	2.45	0.46
1:H:114:ILE:HD11	1:H:502:LEU:HD22	1.98	0.46
1:H:261:LYS:O	1:H:264:GLU:HG2	2.15	0.46
1:H:222:ALA:HA	1:H:275:ASN:CG	2.36	0.46
1:H:191:LYS:HG3	1:H:343:GLU:CD	2.36	0.46
1:H:92:LEU:O	1:H:95:GLU:HG2	2.15	0.46
1:I:206:LEU:HD21	1:I:346:LEU:HB2	1.96	0.46
1:J:185:ALA:N	1:J:309:ARG:HD2	2.31	0.46
1:J:33:LYS:HD3	1:J:467:MET:CE	2.46	0.46
1:J:127:ALA:CB	1:J:404:MET:HA	2.46	0.46
1:K:204:GLY:O	1:K:349:PHE:HB3	2.16	0.46
1:K:153:THR:OG1	1:K:383:VAL:HG21	2.15	0.46
1:K:38:ILE:CG2	1:K:50:VAL:HB	2.33	0.46
1:L:190:LYS:HE3	1:L:192:LEU:HG	1.97	0.46
1:M:452:LEU:HD22	1:M:465:LEU:HD21	1.97	0.46
1:L:38:ILE:O	1:M:507:ILE:HA	2.15	0.46
1:N:117:TRP:HE1	1:N:495:ALA:HA	1.81	0.46
1:O:211:ILE:HG12	1:O:298:ALA:H	1.79	0.46
1:O:443:TYR:CD2	1:O:470:GLY:HA2	2.50	0.46
1:P:176:ARG:HH12	1:P:201:LEU:HD11	1.79	0.46
1:P:262:MET:SD	1:P:290:LEU:HB2	2.55	0.46
1:P:211:ILE:CD1	1:P:297:MET:HG3	2.40	0.46
1:A:509:LYS:CG	1:A:510:ALA:H	2.24	0.46
1:B:78:GLN:NE2	1:B:486:VAL:HA	2.31	0.46
1:C:125:ARG:O	1:C:129:LEU:N	2.48	0.46
1:D:334:LYS:CB	1:D:351:GLY:HA3	2.45	0.46
1:D:399:CYS:SG	1:D:475:MET:HB2	2.56	0.46
1:D:443:TYR:CD1	1:D:470:GLY:CA	2.98	0.46
1:D:12:ARG:HB2	1:D:502:LEU:HD23	1.97	0.46
1:F:215:GLN:HG3	1:F:292:GLY:HA2	1.98	0.46
1:G:211:ILE:HB	1:G:215:GLN:OE1	2.15	0.46
1:G:450:ALA:HA	1:N:417:GLY:HA3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:122:LYS:HG3	1:H:126:GLN:HE21	1.81	0.46
1:H:96:LEU:O	1:H:96:LEU:HD22	2.15	0.46
1:H:16:PHE:HA	1:H:97:LEU:HD23	1.96	0.46
1:I:127:ALA:CB	1:I:491:LEU:HD11	2.45	0.46
1:I:176:ARG:HD2	1:I:358:CYS:CB	2.46	0.46
1:I:206:LEU:C	1:I:206:LEU:HD13	2.36	0.46
1:J:104:ILE:HG13	1:J:105:ALA:N	2.30	0.46
1:J:58:LEU:HB3	1:J:72:VAL:HG13	1.98	0.46
1:K:116:GLY:O	1:K:119:GLU:HB2	2.16	0.46
1:J:158:LEU:CD2	1:K:503:ARG:HB2	2.46	0.46
1:M:343:GLU:CG	1:M:344:ASP:H	2.28	0.46
1:N:146:LEU:HD11	1:N:150:ALA:CB	2.45	0.46
1:N:431:ARG:HH21	1:N:434:PRO:HG2	1.80	0.46
1:O:277:PHE:CE2	1:O:279:ASN:HB2	2.50	0.46
1:P:116:GLY:HA2	1:P:119:GLU:HB2	1.98	0.46
1:P:38:ILE:HG23	1:P:50:VAL:HB	1.98	0.46
1:A:104:ILE:HG13	1:A:105:ALA:N	2.30	0.46
1:A:157:LYS:CB	1:A:159:LEU:HD21	2.44	0.46
1:B:225:LEU:HG	1:B:277:PHE:CD1	2.51	0.46
1:C:431:ARG:O	1:C:434:PRO:HD2	2.15	0.46
1:D:216:PRO:HG2	1:D:295:GLY:HA2	1.96	0.46
1:D:434:PRO:HB3	1:D:452:LEU:CD2	2.46	0.46
1:E:305:VAL:O	1:E:309:ARG:HG3	2.16	0.46
1:F:40:LEU:HD22	1:F:41:SER:N	2.30	0.46
1:F:52:ASN:H	1:F:375:ARG:CD	2.29	0.46
1:G:452:LEU:HD13	1:G:465:LEU:HD13	1.97	0.46
1:H:48:LEU:N	1:H:48:LEU:HD13	2.31	0.46
1:I:157:LYS:HB3	1:I:159:LEU:HD22	1.97	0.46
1:I:166:PHE:CE1	1:I:198:ASP:HB3	2.51	0.46
1:I:337:GLU:HG3	1:I:339:VAL:CG2	2.45	0.46
1:I:312:LEU:O	1:I:354:LEU:HD22	2.15	0.46
1:J:334:LYS:CD	1:J:351:GLY:HA3	2.45	0.46
1:K:10:THR:O	1:K:13:LEU:HB3	2.15	0.46
1:L:30:LEU:HD11	1:L:87:THR:O	2.15	0.46
1:L:96:LEU:CD1	1:L:498:ALA:HB1	2.46	0.46
1:M:206:LEU:HD11	1:M:346:LEU:CD2	2.46	0.46
1:M:176:ARG:NH2	1:M:360:ILE:HG13	2.29	0.46
1:N:451:GLN:HE22	1:N:471:THR:HA	1.81	0.46
1:O:140:VAL:HA	1:O:175:LEU:CD2	2.38	0.46
1:O:310:LEU:O	1:O:313:VAL:HB	2.16	0.46
1:O:32:PRO:C	1:O:33:LYS:HD2	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:511:ALA:HB1	1:O:512:PRO:HD2	1.98	0.46
1:P:27:LYS:HA	1:P:30:LEU:HD13	1.96	0.46
1:P:287:PRO:O	1:P:291:PHE:HD1	1.98	0.46
1:P:154:LEU:HG	1:P:376:SER:OG	2.16	0.46
1:B:261:LYS:O	1:B:265:LYS:HG3	2.16	0.46
1:B:310:LEU:O	1:B:314:THR:HG22	2.16	0.46
1:C:137:SER:OG	1:C:388:VAL:HA	2.16	0.46
1:D:207:LEU:HD22	1:D:208:ASP:H	1.79	0.46
1:D:226:ILE:HG12	1:D:278:ILE:HG23	1.96	0.46
1:D:150:ALA:HB2	1:D:384:LEU:HD21	1.98	0.46
1:F:163:LYS:O	1:F:166:PHE:HB2	2.16	0.46
1:B:369:ILE:HG12	1:F:496:GLU:CD	2.36	0.46
1:G:177:LEU:HG	1:G:177:LEU:O	2.15	0.46
1:G:247:SER:O	1:G:248:THR:CB	2.64	0.46
1:G:59:LYS:HE2	1:G:76:ARG:NE	2.31	0.46
1:I:109:HIS:HB3	1:O:442:GLY:HA2	1.97	0.46
1:I:106:LYS:CD	1:I:113:ILE:HD11	2.44	0.46
1:I:24:ASP:O	1:I:27:LYS:HG2	2.15	0.46
1:J:487:LYS:O	1:J:490:VAL:HG12	2.16	0.46
1:K:154:LEU:O	1:K:157:LYS:HB2	2.16	0.46
1:K:211:ILE:HB	1:K:215:GLN:OE1	2.16	0.46
1:J:38:ILE:CG1	1:K:507:ILE:HG12	2.46	0.46
1:A:446:ALA:HB1	1:M:421:VAL:HB	1.92	0.46
1:N:277:PHE:CE2	1:N:279:ASN:HB2	2.50	0.46
1:N:377:LEU:H	1:N:377:LEU:CD2	2.29	0.46
1:O:139:GLU:OE2	1:O:140:VAL:HG23	2.15	0.46
1:O:280:ARG:O	1:O:280:ARG:HD3	2.15	0.46
1:O:486:VAL:O	1:O:490:VAL:HG12	2.15	0.46
1:O:51:THR:HG21	1:O:56:THR:HB	1.98	0.46
1:P:163:LYS:HD2	1:P:166:PHE:CD1	2.51	0.46
1:P:321:THR:C	1:P:323:ASP:H	2.19	0.46
1:B:161:HIS:CE1	1:B:369:ILE:HD12	2.50	0.46
1:B:40:LEU:O	1:F:511:ALA:HA	2.16	0.46
1:D:210:LYS:HE2	1:D:212:GLY:O	2.16	0.46
1:D:313:VAL:HG13	1:D:352:VAL:HB	1.97	0.46
1:D:321:THR:O	1:D:323:ASP:N	2.49	0.46
1:F:117:TRP:CD1	1:F:495:ALA:O	2.69	0.46
1:F:337:GLU:HG3	1:F:339:VAL:HG23	1.98	0.46
1:F:41:SER:O	1:F:45:ASP:HB2	2.15	0.46
1:H:154:LEU:HD22	1:H:167:THR:OG1	2.16	0.46
1:H:89:VAL:CG1	1:H:490:VAL:HG23	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:146:LEU:CD2	1:I:168:LYS:HA	2.46	0.46
1:I:146:LEU:HD13	1:I:171:VAL:CG1	2.44	0.46
1:I:28:SER:O	1:I:34:GLY:HA2	2.16	0.46
1:I:310:LEU:O	1:I:314:THR:HG22	2.16	0.46
1:I:462:THR:O	1:I:475:MET:HB3	2.15	0.46
1:J:173:ALA:HA	1:J:176:ARG:CZ	2.46	0.46
1:J:185:ALA:HB3	1:J:357:ALA:HB1	1.97	0.46
1:J:274:ILE:HG23	1:J:296:VAL:HG21	1.98	0.46
1:J:208:ASP:HB2	1:J:346:LEU:CD1	2.46	0.46
1:K:368:GLN:HG3	1:K:369:ILE:H	1.77	0.46
1:J:158:LEU:HD23	1:K:503:ARG:CB	2.46	0.46
1:L:106:LYS:HE2	1:L:421:VAL:HG11	1.97	0.46
1:N:265:LYS:O	1:N:269:ILE:HB	2.15	0.46
1:O:146:LEU:HB2	1:O:171:VAL:CG1	2.46	0.46
1:O:365:ALA:O	1:O:366:THR:HG23	2.15	0.46
1:O:407:ALA:O	1:O:411:LEU:HG	2.15	0.46
1:O:40:LEU:HB2	1:O:48:LEU:HG	1.98	0.46
1:O:40:LEU:HD22	1:O:41:SER:N	2.31	0.46
1:P:286:TYR:O	1:P:289:GLN:HG2	2.16	0.46
1:P:443:TYR:CD2	1:P:470:GLY:HA2	2.50	0.46
1:A:381:LEU:O	1:A:381:LEU:HD22	2.16	0.46
1:A:58:LEU:HB3	1:A:72:VAL:HG13	1.97	0.46
1:C:108:ILE:CD1	1:C:418:LYS:HE3	2.29	0.46
1:D:123:ALA:HB1	1:D:408:VAL:HG12	1.98	0.46
1:D:146:LEU:HD23	1:D:148:ASN:H	1.80	0.46
1:E:176:ARG:HH22	1:E:360:ILE:HG13	1.81	0.46
1:E:28:SER:O	1:E:34:GLY:HA2	2.15	0.46
1:E:448:LEU:HD11	1:E:465:LEU:HD11	1.98	0.46
1:F:393:THR:HB	1:F:482:GLU:O	2.16	0.46
1:G:107:LYS:N	1:N:446:ALA:HB2	2.31	0.46
1:G:226:ILE:HA	1:G:278:ILE:O	2.15	0.46
1:G:93:ALA:O	1:G:96:LEU:HB3	2.16	0.46
1:H:190:LYS:C	1:H:190:LYS:HD2	2.36	0.46
1:H:199:SER:HB2	1:H:362:LEU:CD2	2.46	0.46
1:H:39:LEU:CD1	1:H:57:ILE:HD11	2.46	0.46
1:I:143:ARG:HA	1:I:143:ARG:HE	1.81	0.46
1:I:443:TYR:CE1	1:I:470:GLY:HA3	2.51	0.46
1:J:133:VAL:O	1:J:134:ASP:HB3	2.16	0.46
1:J:145:ASP:OD2	1:J:175:LEU:HD11	2.16	0.46
1:J:265:LYS:O	1:J:269:ILE:HB	2.15	0.46
1:K:452:LEU:HD11	1:K:456:HIS:CE1	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:19:ALA:HB2	1:K:97:LEU:HD12	1.96	0.46
1:M:206:LEU:HD22	1:M:207:LEU:N	2.31	0.46
1:M:367:GLN:OE1	1:M:369:ILE:HB	2.16	0.46
1:N:207:LEU:HD13	1:N:208:ASP:N	2.31	0.46
1:N:324:HIS:HB2	1:N:329:LYS:HZ3	1.81	0.46
1:O:139:GLU:O	1:O:140:VAL:HB	2.16	0.46
1:O:154:LEU:CD2	1:O:167:THR:HB	2.46	0.46
1:O:28:SER:HB2	1:O:35:MET:SD	2.56	0.46
1:P:110:PRO:O	1:P:113:ILE:HB	2.16	0.46
1:P:157:LYS:CB	1:P:159:LEU:HD21	2.43	0.46
1:P:280:ARG:O	1:P:281:GLN:CB	2.63	0.46
1:P:369:ILE:HD12	1:P:372:GLU:OE1	2.16	0.46
1:A:159:LEU:HA	1:A:161:HIS:CE1	2.51	0.46
1:B:102:SER:O	1:B:105:ALA:HB3	2.16	0.46
1:C:117:TRP:CD1	1:C:495:ALA:HA	2.51	0.46
1:C:165:HIS:HD2	1:C:197:ALA:O	1.99	0.46
1:C:32:PRO:HD2	1:C:467:MET:HE1	1.98	0.46
1:C:82:VAL:HG23	1:C:386:GLN:HB2	1.97	0.46
1:D:453:ARG:NH2	1:K:420:ALA:HB3	2.31	0.46
1:E:226:ILE:HA	1:E:278:ILE:O	2.15	0.46
1:E:231:MET:HE1	1:E:265:LYS:HD3	1.97	0.46
1:E:261:LYS:O	1:E:265:LYS:HG3	2.16	0.46
1:E:455:ALA:HB2	1:E:472:ILE:HD12	1.98	0.46
1:G:168:LYS:O	1:G:171:VAL:HG22	2.16	0.46
1:H:268:ARG:O	1:H:271:LYS:HG2	2.15	0.46
1:I:434:PRO:HB3	1:I:452:LEU:HD23	1.94	0.46
1:J:126:GLN:O	1:J:130:ASN:HB2	2.15	0.46
1:J:149:ILE:CG2	1:J:383:VAL:HG12	2.46	0.46
1:J:504:VAL:HA	1:N:36:ASP:O	2.15	0.46
1:K:487:LYS:O	1:K:490:VAL:HG12	2.16	0.46
1:K:65:ASN:CG	1:K:66:PRO:HD3	2.36	0.46
1:N:297:MET:CE	1:N:347:ILE:HD11	2.46	0.46
1:N:185:ALA:H	1:N:309:ARG:HE	1.64	0.46
1:O:128:LEU:O	1:O:129:LEU:HB2	2.16	0.46
1:O:219:ILE:HD11	1:O:336:ILE:HB	1.97	0.46
1:O:96:LEU:HD13	1:O:96:LEU:C	2.36	0.46
1:P:154:LEU:HD22	1:P:167:THR:CB	2.46	0.46
1:A:151:GLY:O	1:A:155:SER:N	2.49	0.46
1:A:16:PHE:HA	1:A:97:LEU:CD2	2.46	0.46
1:A:415:THR:HB	1:A:416:PRO:HD2	1.97	0.46
1:A:418:LYS:HD2	1:A:418:LYS:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:100:ALA:HA	1:B:103:LEU:HD13	1.97	0.46
1:B:408:VAL:HG23	1:B:427:ALA:HB1	1.97	0.46
1:B:78:GLN:NE2	1:B:82:VAL:HG11	2.30	0.46
1:C:274:ILE:HG23	1:C:296:VAL:CG2	2.46	0.46
1:C:397:GLY:HA3	1:C:475:MET:CE	2.46	0.46
1:F:112:THR:HG22	1:F:418:LYS:HE3	1.98	0.46
1:F:326:GLU:HB2	1:F:327:LEU:H	1.56	0.46
1:F:126:GLN:NE2	1:F:411:LEU:HD21	2.31	0.46
1:G:322:PHE:HA	1:G:324:HIS:CD2	2.51	0.46
1:G:207:LEU:O	1:G:347:ILE:HG22	2.16	0.46
1:H:6:GLU:HB2	1:H:10:THR:OG1	2.15	0.46
1:I:191:LYS:C	1:I:193:GLY:H	2.18	0.46
1:I:222:ALA:HA	1:I:275:ASN:HB2	1.98	0.46
1:I:222:ALA:HA	1:I:275:ASN:CB	2.46	0.46
1:I:335:LEU:HD21	1:I:337:GLU:OE2	2.16	0.46
1:I:402:MET:HG3	1:I:452:LEU:HG	1.97	0.46
1:I:509:LYS:N	1:I:509:LYS:HD2	2.31	0.46
1:J:158:LEU:C	1:J:160:THR:H	2.18	0.46
1:J:352:VAL:CG2	1:J:355:GLY:H	2.28	0.46
1:K:149:ILE:N	1:K:481:THR:HG22	2.31	0.46
1:K:231:MET:CE	1:K:265:LYS:HD3	2.45	0.46
1:L:132:ALA:HB1	1:L:395:TYR:HE1	1.81	0.46
1:L:131:SER:HB2	1:L:461:THR:CG2	2.46	0.46
1:L:38:ILE:CG2	1:L:50:VAL:HB	2.25	0.46
1:M:159:LEU:HG	1:M:163:LYS:HD2	1.98	0.46
1:M:188:VAL:HB	1:M:377:LEU:HD13	1.98	0.46
1:M:390:ASP:HB2	1:M:485:GLN:HE22	1.81	0.46
1:N:399:CYS:SG	1:N:464:GLY:CA	3.02	0.46
1:O:280:ARG:HE	1:O:304:PHE:HB2	1.80	0.46
1:O:433:LEU:HB2	1:O:434:PRO:HD3	1.97	0.46
1:P:170:ALA:O	1:P:173:ALA:HB3	2.16	0.46
1:P:206:LEU:HD22	1:P:346:LEU:HB3	1.97	0.46
1:A:117:TRP:O	1:A:120:ALA:HB3	2.17	0.45
1:C:169:LEU:HD11	1:C:201:LEU:HB2	1.97	0.45
1:C:205:PHE:HD2	1:C:359:THR:HG1	1.64	0.45
1:C:431:ARG:HH21	1:C:434:PRO:HG2	1.81	0.45
1:C:448:LEU:C	1:C:448:LEU:HD13	2.37	0.45
1:D:313:VAL:HG13	1:D:352:VAL:CG2	2.46	0.45
1:E:36:ASP:OD1	1:E:158:LEU:HB2	2.15	0.45
1:E:508:ILE:HG23	1:E:509:LYS:H	1.80	0.45
1:B:192:LEU:CD2	1:F:77:VAL:HG21	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:133:VAL:CA	1:G:393:THR:O	2.64	0.45
1:G:274:ILE:O	1:G:274:ILE:HG23	2.16	0.45
1:G:31:GLY:O	1:G:33:LYS:N	2.47	0.45
1:G:137:SER:CB	1:G:391:SER:HA	2.45	0.45
1:H:106:LYS:CE	1:P:446:ALA:HB2	2.45	0.45
1:H:183:LEU:HD11	1:H:381:LEU:HB2	1.98	0.45
1:H:211:ILE:HG23	1:H:298:ALA:O	2.16	0.45
1:I:110:PRO:HA	1:I:113:ILE:CG1	2.45	0.45
1:I:310:LEU:C	1:I:310:LEU:HD13	2.37	0.45
1:I:113:ILE:CD1	1:I:418:LYS:HZ3	2.27	0.45
1:B:421:VAL:HB	1:I:450:ALA:HB2	1.97	0.45
1:J:127:ALA:HA	1:J:130:ASN:HB2	1.98	0.45
1:J:265:LYS:HE2	1:J:322:PHE:CZ	2.51	0.45
1:K:149:ILE:CD1	1:K:483:SER:H	2.25	0.45
1:L:161:HIS:HE1	1:L:369:ILE:HG21	1.81	0.45
1:L:388:VAL:HG12	1:L:389:LYS:N	2.31	0.45
1:N:116:GLY:HA2	1:N:422:ALA:HB1	1.98	0.45
1:N:37:LYS:O	1:N:50:VAL:HA	2.17	0.45
1:N:416:PRO:HB2	1:N:419:GLU:OE2	2.16	0.45
1:N:452:LEU:HD13	1:N:465:LEU:HD11	1.98	0.45
1:O:443:TYR:CD1	1:O:470:GLY:HA3	2.52	0.45
1:O:66:PRO:CG	1:O:509:LYS:HA	2.46	0.45
1:P:354:LEU:HD13	1:P:356:GLU:CB	2.45	0.45
1:P:372:GLU:HA	1:P:375:ARG:HH12	1.81	0.45
1:A:399:CYS:SG	1:A:464:GLY:CA	3.02	0.45
1:A:448:LEU:C	1:A:448:LEU:HD13	2.36	0.45
1:B:123:ALA:O	1:B:126:GLN:HB2	2.17	0.45
1:B:405:ALA:HA	1:B:408:VAL:HG22	1.98	0.45
1:B:58:LEU:HB3	1:B:72:VAL:CG1	2.46	0.45
1:C:171:VAL:O	1:C:174:VAL:HG22	2.16	0.45
1:C:82:VAL:HB	1:C:386:GLN:HG3	1.98	0.45
1:D:280:ARG:HD2	1:D:304:PHE:HB2	1.98	0.45
1:D:448:LEU:HA	1:D:451:GLN:NE2	2.31	0.45
1:E:190:LYS:HG3	1:E:370:LEU:HG	1.97	0.45
1:E:411:LEU:HB3	1:E:423:MET:CE	2.46	0.45
1:F:182:ASN:CG	1:F:183:LEU:H	2.20	0.45
1:F:229:THR:HG21	1:F:321:THR:HG22	1.97	0.45
1:F:261:LYS:O	1:F:264:GLU:HG2	2.16	0.45
1:F:265:LYS:HE2	1:F:322:PHE:CZ	2.50	0.45
1:F:434:PRO:HB3	1:F:452:LEU:CD2	2.46	0.45
1:G:143:ARG:HE	1:G:143:ARG:HA	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:151:GLY:HA2	1:G:167:THR:HG21	1.98	0.45
1:G:263:LYS:O	1:G:267:GLU:HG2	2.16	0.45
1:G:384:LEU:N	1:G:384:LEU:HD22	2.32	0.45
1:G:16:PHE:HE2	1:G:98:ARG:HA	1.80	0.45
1:H:146:LEU:HD11	1:H:150:ALA:HB2	1.97	0.45
1:H:211:ILE:HG12	1:H:215:GLN:OE1	2.16	0.45
1:I:170:ALA:O	1:I:173:ALA:HB3	2.16	0.45
1:I:176:ARG:CD	1:I:358:CYS:HB2	2.46	0.45
1:I:280:ARG:HG3	1:I:304:PHE:CA	2.45	0.45
1:I:176:ARG:NH2	1:I:360:ILE:HG13	2.29	0.45
1:I:149:ILE:HG21	1:I:383:VAL:HG11	1.97	0.45
1:K:39:LEU:HB3	1:P:508:ILE:CD1	2.46	0.45
1:K:401:GLU:HG2	1:K:433:LEU:HD22	1.98	0.45
1:N:159:LEU:HB2	1:N:163:LYS:HB3	1.98	0.45
1:N:324:HIS:HB2	1:N:329:LYS:HE2	1.98	0.45
1:O:211:ILE:HG13	1:O:298:ALA:O	2.16	0.45
1:O:82:VAL:HG11	1:O:485:GLN:HB3	1.98	0.45
1:P:177:LEU:C	1:P:177:LEU:HD13	2.36	0.45
1:P:265:LYS:HE2	1:P:322:PHE:CE2	2.52	0.45
1:P:321:THR:HG22	1:P:322:PHE:N	2.31	0.45
1:B:154:LEU:CD2	1:B:163:LYS:HG2	2.46	0.45
1:B:402:MET:CE	1:B:453:ARG:HG2	2.46	0.45
1:C:225:LEU:HG	1:C:277:PHE:CE1	2.52	0.45
1:D:206:LEU:HD11	1:D:346:LEU:CD2	2.35	0.45
1:D:276:CYS:HA	1:D:297:MET:O	2.16	0.45
1:D:466:ASP:HB3	1:D:469:GLU:HB3	1.98	0.45
1:D:394:VAL:HG21	1:D:487:LYS:HG3	1.98	0.45
1:B:3:ALA:HB3	1:G:40:LEU:CD2	2.46	0.45
1:H:22:ILE:HD12	1:H:90:THR:CG2	2.46	0.45
1:H:261:LYS:O	1:H:265:LYS:HG3	2.17	0.45
1:H:274:ILE:O	1:H:296:VAL:HG22	2.17	0.45
1:H:369:ILE:C	1:H:371:ASP:N	2.70	0.45
1:H:405:ALA:HA	1:H:408:VAL:HG22	1.98	0.45
1:H:133:VAL:O	1:H:461:THR:HG21	2.16	0.45
1:I:326:GLU:CG	1:I:327:LEU:H	2.29	0.45
1:J:206:LEU:CD1	1:J:346:LEU:HG	2.41	0.45
1:J:188:VAL:HG21	1:J:362:LEU:HG	1.98	0.45
1:J:451:GLN:NE2	1:J:471:THR:HA	2.31	0.45
1:K:365:ALA:N	1:K:370:LEU:HG	2.30	0.45
1:M:154:LEU:HD13	1:M:167:THR:OG1	2.16	0.45
1:M:190:LYS:HG3	1:M:370:LEU:HD21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:19:ALA:HB3	1:O:98:ARG:NH2	2.31	0.45
1:B:204:GLY:O	1:B:359:THR:HB	2.16	0.45
1:B:354:LEU:HG	1:B:356:GLU:HB3	1.99	0.45
1:B:482:GLU:OE1	1:B:487:LYS:HE3	2.16	0.45
1:B:39:LEU:HD11	1:B:57:ILE:HG13	1.98	0.45
1:D:188:VAL:CG1	1:D:377:LEU:HD22	2.46	0.45
1:D:286:TYR:HB2	1:D:287:PRO:HD3	1.97	0.45
1:D:310:LEU:O	1:D:314:THR:HG22	2.16	0.45
1:D:354:LEU:CD2	1:D:356:GLU:HB3	2.46	0.45
1:E:146:LEU:HD13	1:E:167:THR:O	2.16	0.45
1:E:313:VAL:HG13	1:E:352:VAL:CG1	2.46	0.45
1:G:394:VAL:CG2	1:G:482:GLU:HB2	2.46	0.45
1:G:483:SER:HB2	1:G:486:VAL:HG13	1.97	0.45
1:H:384:LEU:HA	1:H:387:THR:OG1	2.16	0.45
1:I:431:ARG:HH21	1:I:434:PRO:HG2	1.81	0.45
1:K:206:LEU:HD21	1:K:346:LEU:HB3	1.98	0.45
1:K:89:VAL:CG1	1:K:490:VAL:HG23	2.40	0.45
1:K:74:MET:CE	1:K:493:SER:HB3	2.46	0.45
1:L:54:GLY:O	1:L:58:LEU:HD23	2.16	0.45
1:M:173:ALA:O	1:M:176:ARG:HG2	2.17	0.45
1:N:159:LEU:N	1:N:159:LEU:HD22	2.32	0.45
1:N:222:ALA:HA	1:N:275:ASN:CB	2.46	0.45
1:N:30:LEU:HD22	1:N:436:ILE:HD12	1.98	0.45
1:A:41:SER:O	1:A:45:ASP:HB2	2.17	0.45
1:C:484:PHE:CE2	1:C:488:ARG:HD3	2.51	0.45
1:D:274:ILE:HG23	1:D:296:VAL:CG2	2.46	0.45
1:E:375:ARG:HD3	1:E:375:ARG:N	2.32	0.45
1:F:6:GLU:OE1	1:F:11:ALA:HA	2.17	0.45
1:G:32:PRO:CA	1:G:155:SER:HB3	2.47	0.45
1:G:159:LEU:HG	1:G:163:LYS:HD3	1.98	0.45
1:G:324:HIS:HB2	1:G:329:LYS:HZ3	1.81	0.45
1:D:111:GLN:CD	1:H:35:MET:HG2	2.37	0.45
1:I:103:LEU:O	1:I:106:LYS:HG2	2.15	0.45
1:K:226:ILE:HD13	1:K:307:VAL:HG13	1.99	0.45
1:K:370:LEU:O	1:K:373:ALA:HB3	2.17	0.45
1:K:402:MET:HE2	1:K:453:ARG:HG2	1.99	0.45
1:L:231:MET:HE1	1:L:265:LYS:HD3	1.98	0.45
1:L:404:MET:HE3	1:L:430:LEU:HD11	1.99	0.45
1:L:82:VAL:CG2	1:L:386:GLN:HG3	2.46	0.45
1:M:204:GLY:O	1:M:359:THR:HB	2.17	0.45
1:M:96:LEU:HD21	1:M:117:TRP:HZ2	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:146:LEU:CD2	1:O:147:MET:H	2.29	0.45
1:O:78:GLN:HE21	1:O:82:VAL:HG13	1.82	0.45
1:O:30:LEU:HG	1:O:87:THR:O	2.16	0.45
1:P:280:ARG:HG3	1:P:304:PHE:CA	2.47	0.45
1:A:56:THR:HG22	1:A:372:GLU:HG3	1.90	0.45
1:A:397:GLY:O	1:A:465:LEU:HB2	2.17	0.45
1:B:305:VAL:HB	1:B:309:ARG:NH1	2.31	0.45
1:D:362:LEU:HD11	1:D:377:LEU:CD1	2.47	0.45
1:F:483:SER:HB2	1:F:486:VAL:HG13	1.97	0.45
1:G:219:ILE:HB	1:G:275:ASN:HB3	1.98	0.45
1:I:313:VAL:HG13	1:I:352:VAL:HB	1.97	0.45
1:I:384:LEU:HD13	1:I:384:LEU:HA	1.79	0.45
1:J:160:THR:HG22	1:J:160:THR:O	2.17	0.45
1:J:386:GLN:NE2	1:J:485:GLN:HE22	2.15	0.45
1:L:291:PHE:HB3	1:L:296:VAL:O	2.16	0.45
1:L:407:ALA:O	1:L:411:LEU:HG	2.16	0.45
1:L:126:GLN:HE22	1:L:408:VAL:HG12	1.81	0.45
1:M:341:ILE:HG23	1:M:363:ARG:CZ	2.47	0.45
1:M:33:LYS:HG3	1:M:441:ALA:HA	1.99	0.45
1:M:59:LYS:CE	1:M:76:ARG:HB2	2.43	0.45
1:J:506:ASN:CB	1:N:37:LYS:HD2	2.47	0.45
1:O:345:LYS:O	1:O:346:LEU:HD12	2.17	0.45
1:P:146:LEU:HD22	1:P:167:THR:HG23	1.97	0.45
1:P:48:LEU:HD12	1:P:48:LEU:O	2.16	0.45
1:B:149:ILE:HG13	1:B:481:THR:O	2.17	0.45
1:C:78:GLN:CD	1:C:489:GLN:HG3	2.37	0.45
1:D:35:MET:SD	1:E:111:GLN:CB	3.02	0.45
1:E:145:ASP:CG	1:E:171:VAL:HB	2.37	0.45
1:E:287:PRO:O	1:E:291:PHE:HD1	1.98	0.45
1:E:490:VAL:O	1:E:494:ALA:HB2	2.16	0.45
1:F:269:ILE:HG23	1:F:274:ILE:HG21	1.95	0.45
1:G:394:VAL:HG23	1:G:482:GLU:HB2	1.97	0.45
1:H:128:LEU:HD11	1:H:488:ARG:HA	1.99	0.45
1:H:146:LEU:HD22	1:H:168:LYS:HA	1.97	0.45
1:H:226:ILE:HG12	1:H:278:ILE:HG23	1.99	0.45
1:H:431:ARG:O	1:H:434:PRO:HD2	2.17	0.45
1:J:334:LYS:HB2	1:J:351:GLY:HA3	1.98	0.45
1:K:128:LEU:HD11	1:K:492:LEU:CG	2.47	0.45
1:K:269:ILE:CG2	1:K:274:ILE:HG21	2.46	0.45
1:L:367:GLN:C	1:L:369:ILE:N	2.70	0.45
1:L:393:THR:HA	1:L:484:PHE:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:405:ALA:HA	1:L:408:VAL:HG22	1.99	0.45
1:M:109:HIS:ND1	1:M:111:GLN:HB2	2.31	0.45
1:M:385:ALA:O	1:M:388:VAL:HG12	2.17	0.45
1:O:364:GLY:HA3	1:O:370:LEU:CD2	2.46	0.45
1:P:434:PRO:HB3	1:P:452:LEU:CD2	2.47	0.45
1:C:133:VAL:HA	1:C:395:TYR:CE2	2.51	0.45
1:C:487:LYS:O	1:C:490:VAL:HG12	2.17	0.45
1:C:92:LEU:HB2	1:C:490:VAL:CG2	2.46	0.45
1:D:416:PRO:HD2	1:D:419:GLU:HB2	1.98	0.45
1:D:397:GLY:HA3	1:D:475:MET:CE	2.47	0.45
1:E:158:LEU:HD13	1:G:503:ARG:HB3	1.98	0.45
1:E:211:ILE:HD13	1:E:215:GLN:OE1	2.17	0.45
1:E:2:GLY:O	1:E:3:ALA:HB3	2.17	0.45
1:E:32:PRO:HA	1:E:155:SER:OG	2.17	0.45
1:E:367:GLN:HG2	1:E:369:ILE:HB	1.99	0.45
1:E:41:SER:HB3	1:E:45:ASP:OD2	2.16	0.45
1:F:115:ALA:O	1:F:118:ARG:HB3	2.17	0.45
1:F:280:ARG:O	1:F:281:GLN:HB3	2.17	0.45
1:F:325:PRO:O	1:F:326:GLU:HG3	2.17	0.45
1:G:134:ASP:OD1	1:G:392:ARG:HA	2.16	0.45
1:G:364:GLY:HA3	1:G:370:LEU:CD1	2.38	0.45
1:H:438:ALA:CB	1:H:448:LEU:HG	2.42	0.45
1:H:499:GLU:HG2	1:H:503:ARG:HD3	1.98	0.45
1:H:57:ILE:C	1:H:57:ILE:HD13	2.37	0.45
1:J:32:PRO:HD2	1:J:467:MET:CE	2.46	0.45
1:J:392:ARG:C	1:J:484:PHE:HB2	2.37	0.45
1:K:119:GLU:HG3	1:K:419:GLU:OE1	2.16	0.45
1:L:312:LEU:CB	1:P:213:VAL:HG21	2.47	0.45
1:N:157:LYS:CE	1:N:375:ARG:HD3	2.45	0.45
1:O:174:VAL:O	1:O:177:LEU:HB3	2.17	0.45
1:O:300:GLU:OE2	1:O:301:HIS:HB2	2.17	0.45
1:O:370:LEU:HA	1:O:370:LEU:HD22	1.72	0.45
1:P:176:ARG:HD2	1:P:358:CYS:SG	2.57	0.45
1:A:154:LEU:HG	1:A:157:LYS:HD2	1.98	0.45
1:A:146:LEU:HD13	1:A:167:THR:O	2.16	0.45
1:B:226:ILE:HG12	1:B:278:ILE:CG2	2.47	0.45
1:B:128:LEU:HD22	1:B:488:ARG:HA	1.98	0.45
1:C:215:GLN:HE21	1:C:292:GLY:N	2.15	0.45
1:D:211:ILE:HD13	1:D:215:GLN:CB	2.46	0.45
1:D:211:ILE:HG12	1:D:298:ALA:N	2.31	0.45
1:D:402:MET:CE	1:D:453:ARG:HG2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:401:GLU:HG2	1:F:433:LEU:HD22	1.99	0.45
1:G:334:LYS:HB3	1:G:351:GLY:HA3	1.99	0.45
1:H:82:VAL:HG22	1:H:386:GLN:HG3	1.97	0.45
1:I:154:LEU:CD2	1:I:163:LYS:HG3	2.47	0.45
1:J:352:VAL:HG22	1:J:355:GLY:H	1.81	0.45
1:J:174:VAL:HG11	1:J:384:LEU:HB2	1.97	0.45
1:K:154:LEU:HD22	1:K:167:THR:CB	2.47	0.45
1:K:190:LYS:HD2	1:K:370:LEU:HB3	1.99	0.45
1:K:287:PRO:O	1:K:291:PHE:HD1	2.00	0.45
1:K:134:ASP:CB	1:K:393:THR:O	2.65	0.45
1:L:216:PRO:HG2	1:L:295:GLY:CA	2.43	0.45
1:M:146:LEU:CD1	1:M:171:VAL:HG13	2.41	0.45
1:N:280:ARG:HA	1:N:302:ALA:O	2.17	0.45
1:N:219:ILE:CD1	1:N:336:ILE:HB	2.46	0.45
1:O:163:LYS:HA	1:O:166:PHE:HD1	1.79	0.45
1:P:354:LEU:HD13	1:P:356:GLU:HB3	1.98	0.45
1:B:216:PRO:HG2	1:B:295:GLY:CA	2.46	0.45
1:D:168:LYS:O	1:D:171:VAL:HG22	2.17	0.45
1:D:412:ALA:HB1	1:D:424:GLU:HB3	1.99	0.45
1:E:191:LYS:HD2	1:E:341:ILE:HG22	1.98	0.45
1:F:452:LEU:HD11	1:F:456:HIS:CE1	2.51	0.45
1:G:111:GLN:HA	1:G:114:ILE:HG12	1.99	0.45
1:G:114:ILE:O	1:G:117:TRP:HB2	2.17	0.45
1:G:32:PRO:HA	1:G:155:SER:CB	2.47	0.45
1:H:354:LEU:C	1:H:356:GLU:H	2.19	0.45
1:H:398:GLY:HA2	1:H:401:GLU:OE2	2.17	0.45
1:H:128:LEU:HG	1:H:491:LEU:HD22	1.99	0.45
1:I:146:LEU:HB2	1:I:171:VAL:CG2	2.47	0.45
1:I:40:LEU:C	1:I:40:LEU:HD13	2.37	0.45
1:J:337:GLU:HG3	1:J:339:VAL:HG23	1.98	0.45
1:K:108:ILE:HG22	1:K:109:HIS:H	1.79	0.45
1:K:163:LYS:HG3	1:K:166:PHE:CB	2.47	0.45
1:K:222:ALA:HA	1:K:275:ASN:CG	2.37	0.45
1:L:99:GLU:O	1:L:103:LEU:HD13	2.16	0.45
1:L:190:LYS:HE2	1:L:190:LYS:O	2.17	0.45
1:M:405:ALA:HA	1:M:408:VAL:HG22	1.98	0.45
1:A:418:LYS:HE3	1:M:447:ASP:OD2	2.17	0.45
1:M:81:GLU:HB3	1:M:489:GLN:HG2	1.99	0.45
1:M:88:SER:O	1:M:92:LEU:HD13	2.17	0.45
1:N:174:VAL:HG13	1:N:385:ALA:HA	1.97	0.45
1:N:313:VAL:HG13	1:N:352:VAL:HB	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:135:HIS:CD2	1:O:135:HIS:H	2.34	0.45
1:O:381:LEU:O	1:O:381:LEU:HD22	2.17	0.45
1:O:66:PRO:HB3	1:O:509:LYS:HG2	1.98	0.45
1:P:99:GLU:O	1:P:102:SER:HB2	2.17	0.45
1:B:3:ALA:HB3	1:G:40:LEU:CG	2.45	0.44
1:C:221:ASN:HA	1:C:333:CYS:HB2	2.00	0.44
1:C:402:MET:CG	1:C:453:ARG:HG2	2.47	0.44
1:C:89:VAL:HA	1:C:490:VAL:CB	2.47	0.44
1:D:431:ARG:HH21	1:D:434:PRO:HG2	1.82	0.44
1:F:291:PHE:HD1	1:F:296:VAL:CG1	2.30	0.44
1:F:341:ILE:CG2	1:F:346:LEU:HD21	2.47	0.44
1:F:112:THR:CG2	1:F:418:LYS:HE3	2.46	0.44
1:G:175:LEU:HA	1:G:178:LYS:HE2	1.98	0.44
1:G:327:LEU:C	1:G:327:LEU:HD13	2.36	0.44
1:G:71:LEU:HB2	1:G:501:ILE:CD1	2.47	0.44
1:H:402:MET:HG2	1:H:431:ARG:HH22	1.80	0.44
1:H:390:ASP:CB	1:H:485:GLN:HE22	2.28	0.44
1:J:161:HIS:CG	1:J:162:HIS:H	2.35	0.44
1:K:59:LYS:HE2	1:K:76:ARG:HB2	1.99	0.44
1:L:216:PRO:HG3	1:L:295:GLY:HA2	1.99	0.44
1:L:455:ALA:O	1:L:458:GLU:HB3	2.16	0.44
1:L:485:GLN:HE21	1:L:488:ARG:HH21	1.65	0.44
1:M:149:ILE:HD12	1:M:482:GLU:HA	1.99	0.44
1:N:452:LEU:HD13	1:N:465:LEU:HD13	1.99	0.44
1:N:38:ILE:CD1	1:N:48:LEU:HD23	2.34	0.44
1:O:182:ASN:ND2	1:O:183:LEU:H	2.15	0.44
1:O:19:ALA:HB1	1:O:94:ALA:CA	2.43	0.44
1:O:393:THR:HA	1:O:484:PHE:N	2.32	0.44
1:O:89:VAL:HB	1:O:490:VAL:HG23	1.99	0.44
1:P:6:GLU:HB2	1:P:10:THR:OG1	2.17	0.44
1:L:509:LYS:HA	1:P:40:LEU:O	2.17	0.44
1:P:431:ARG:HH21	1:P:434:PRO:HG2	1.81	0.44
1:A:505:ASP:HB3	1:F:37:LYS:HD2	1.97	0.44
1:B:92:LEU:HD11	1:B:433:LEU:HD11	1.99	0.44
1:C:100:ALA:HA	1:C:103:LEU:HD13	1.99	0.44
1:C:146:LEU:HD22	1:C:168:LYS:HA	1.98	0.44
1:D:146:LEU:CD2	1:D:147:MET:H	2.30	0.44
1:D:325:PRO:O	1:D:326:GLU:HG3	2.17	0.44
1:E:146:LEU:CD1	1:E:167:THR:O	2.65	0.44
1:E:286:TYR:HB2	1:E:287:PRO:HD3	1.98	0.44
1:F:297:MET:HE1	1:F:336:ILE:HG22	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:232:ASP:HA	1:G:284:TYR:CD1	2.52	0.44
1:G:30:LEU:HD11	1:G:91:VAL:HG21	1.98	0.44
1:G:96:LEU:HD21	1:G:117:TRP:HZ2	1.82	0.44
1:H:176:ARG:HH22	1:H:360:ILE:HG13	1.82	0.44
1:J:57:ILE:O	1:J:57:ILE:HD13	2.18	0.44
1:K:367:GLN:O	1:K:368:GLN:HB3	2.17	0.44
1:L:174:VAL:O	1:L:177:LEU:HB3	2.17	0.44
1:L:262:MET:CE	1:L:290:LEU:HB2	2.47	0.44
1:L:297:MET:HE1	1:L:347:ILE:HD11	1.98	0.44
1:M:191:LYS:HE2	1:M:341:ILE:HB	1.99	0.44
1:O:325:PRO:O	1:O:326:GLU:HG3	2.17	0.44
1:O:206:LEU:CD1	1:O:359:THR:HG21	2.47	0.44
1:P:131:SER:O	1:P:132:ALA:HB2	2.17	0.44
1:P:143:ARG:HA	1:P:143:ARG:HE	1.82	0.44
1:L:312:LEU:CA	1:P:213:VAL:HG21	2.46	0.44
1:P:276:CYS:HA	1:P:297:MET:O	2.17	0.44
1:A:133:VAL:HG23	1:A:393:THR:O	2.16	0.44
1:A:431:ARG:HH21	1:A:434:PRO:HG2	1.82	0.44
1:B:176:ARG:HG3	1:B:177:LEU:N	2.32	0.44
1:B:265:LYS:NZ	1:B:287:PRO:HG3	2.31	0.44
1:B:30:LEU:HD11	1:B:87:THR:O	2.16	0.44
1:B:32:PRO:CA	1:B:155:SER:O	2.62	0.44
1:B:314:THR:HA	1:B:332:SER:HB2	1.99	0.44
1:C:280:ARG:O	1:C:281:GLN:HB3	2.17	0.44
1:C:54:GLY:O	1:C:58:LEU:HD23	2.18	0.44
1:D:157:LYS:HB3	1:D:159:LEU:HD11	1.99	0.44
1:D:177:LEU:HG	1:D:177:LEU:O	2.17	0.44
1:E:158:LEU:O	1:E:159:LEU:HD13	2.18	0.44
1:E:316:GLY:C	1:E:317:GLU:HG2	2.38	0.44
1:F:11:ALA:HB3	1:F:506:ASN:ND2	2.32	0.44
1:A:507:ILE:HG22	1:F:38:ILE:HD11	1.99	0.44
1:G:321:THR:O	1:G:323:ASP:N	2.51	0.44
1:G:451:GLN:HE22	1:G:471:THR:HA	1.83	0.44
1:H:147:MET:HG3	1:H:168:LYS:CD	2.47	0.44
1:I:201:LEU:HD13	1:I:202:ASP:N	2.32	0.44
1:I:284:TYR:CE2	1:I:286:TYR:HD1	2.35	0.44
1:L:207:LEU:HD22	1:L:208:ASP:N	2.33	0.44
1:L:416:PRO:HD2	1:L:419:GLU:HG3	2.00	0.44
1:M:390:ASP:HB3	1:M:485:GLN:HE22	1.81	0.44
1:N:157:LYS:HB2	1:N:159:LEU:HD21	1.99	0.44
1:N:397:GLY:HA3	1:N:475:MET:CE	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:122:LYS:NZ	1:P:122:LYS:HB2	2.32	0.44
1:P:50:VAL:HG13	1:P:375:ARG:HH21	1.82	0.44
1:A:397:GLY:HA3	1:A:475:MET:HE1	1.99	0.44
1:A:453:ARG:NH2	1:M:412:ALA:HB3	2.33	0.44
1:B:111:GLN:HA	1:B:114:ILE:HG12	2.00	0.44
1:B:25:LEU:CD2	1:F:508:ILE:HG12	2.48	0.44
1:C:162:HIS:HB3	1:C:198:ASP:OD2	2.17	0.44
1:C:324:HIS:HB2	1:C:329:LYS:HE2	2.00	0.44
1:C:499:GLU:O	1:C:503:ARG:HG2	2.17	0.44
1:D:159:LEU:H	1:D:159:LEU:CD1	2.28	0.44
1:D:127:ALA:CB	1:D:404:MET:HG3	2.48	0.44
1:D:502:LEU:O	1:D:502:LEU:HD13	2.18	0.44
1:E:171:VAL:O	1:E:175:LEU:HG	2.18	0.44
1:F:58:LEU:HB3	1:F:72:VAL:HG11	1.99	0.44
1:G:32:PRO:CB	1:G:155:SER:HB3	2.47	0.44
1:G:433:LEU:HB2	1:G:434:PRO:HD3	1.99	0.44
1:H:170:ALA:HB1	1:H:380:ALA:CB	2.46	0.44
1:H:230:GLY:HA2	1:H:279:ASN:HD21	1.83	0.44
1:H:191:LYS:HD2	1:H:344:ASP:CB	2.47	0.44
1:H:370:LEU:HG	1:H:370:LEU:O	2.18	0.44
1:D:503:ARG:O	1:H:37:LYS:HD2	2.17	0.44
1:I:154:LEU:HD23	1:I:164:ASP:HA	1.99	0.44
1:I:396:GLY:HA3	1:I:480:ILE:CG2	2.44	0.44
1:I:41:SER:HB3	1:I:45:ASP:HB2	2.00	0.44
1:K:143:ARG:NE	1:K:143:ARG:CA	2.81	0.44
1:K:192:LEU:H	1:K:365:ALA:HB3	1.82	0.44
1:D:106:LYS:NZ	1:K:446:ALA:HB2	2.32	0.44
1:L:196:LEU:C	1:L:196:LEU:HD13	2.38	0.44
1:M:186:ILE:HD12	1:M:381:LEU:HG	2.00	0.44
1:M:196:LEU:HD13	1:M:196:LEU:C	2.38	0.44
1:M:484:PHE:CE2	1:M:488:ARG:HD3	2.53	0.44
1:N:326:GLU:HB2	1:N:327:LEU:H	1.59	0.44
1:J:509:LYS:HD3	1:N:48:LEU:HD21	2.00	0.44
1:O:341:ILE:HG23	1:O:363:ARG:HH21	1.81	0.44
1:O:402:MET:CG	1:O:453:ARG:HG2	2.47	0.44
1:P:148:ASN:HB3	1:P:481:THR:HG22	1.99	0.44
1:B:415:THR:HB	1:B:416:PRO:HD2	2.00	0.44
1:C:225:LEU:CD1	1:C:329:LYS:HE2	2.47	0.44
1:C:211:ILE:HG12	1:C:298:ALA:H	1.83	0.44
1:D:207:LEU:HD22	1:D:208:ASP:N	2.32	0.44
1:D:40:LEU:HB3	1:D:48:LEU:HG	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:500:VAL:HG12	1:D:503:ARG:NH2	2.33	0.44
1:D:57:ILE:HG23	1:D:58:LEU:CD2	2.47	0.44
1:F:59:LYS:HD2	1:F:76:ARG:HD3	1.99	0.44
1:G:107:LYS:O	1:G:108:ILE:CG1	2.60	0.44
1:J:386:GLN:NE2	1:J:485:GLN:NE2	2.64	0.44
1:J:509:LYS:HA	1:N:40:LEU:HB3	1.98	0.44
1:K:161:HIS:CG	1:K:162:HIS:H	2.35	0.44
1:K:6:GLU:HB2	1:K:10:THR:OG1	2.17	0.44
1:L:109:HIS:CE1	1:L:111:GLN:NE2	2.86	0.44
1:L:206:LEU:HD22	1:L:346:LEU:HD23	1.99	0.44
1:L:57:ILE:O	1:L:57:ILE:HD13	2.17	0.44
1:M:143:ARG:O	1:M:143:ARG:HG3	2.16	0.44
1:M:154:LEU:HD21	1:M:163:LYS:HZ2	1.81	0.44
1:M:82:VAL:HG21	1:M:486:VAL:N	2.33	0.44
1:N:100:ALA:O	1:N:103:LEU:HB2	2.18	0.44
1:N:139:GLU:HA	1:N:388:VAL:HG23	2.00	0.44
1:N:263:LYS:O	1:N:266:VAL:HG12	2.18	0.44
1:N:263:LYS:HA	1:N:266:VAL:HG12	2.00	0.44
1:N:22:ILE:O	1:N:26:VAL:HG22	2.17	0.44
1:I:286:TYR:OH	1:N:328:VAL:HA	2.16	0.44
1:G:450:ALA:CB	1:N:418:LYS:N	2.80	0.44
1:N:417:GLY:O	1:N:420:ALA:HB3	2.18	0.44
1:I:57:ILE:CD1	1:N:512:PRO:HB3	2.47	0.44
1:O:206:LEU:C	1:O:206:LEU:HD13	2.37	0.44
1:O:40:LEU:HD13	1:O:41:SER:N	2.33	0.44
1:O:40:LEU:HD23	1:O:48:LEU:CD1	2.46	0.44
1:P:334:LYS:CB	1:P:351:GLY:HA3	2.47	0.44
1:P:38:ILE:HG12	1:P:38:ILE:H	1.67	0.44
1:P:89:VAL:HG12	1:P:490:VAL:CG2	2.48	0.44
1:A:402:MET:HE2	1:A:453:ARG:HG2	2.00	0.44
1:A:434:PRO:HB3	1:A:452:LEU:CD2	2.47	0.44
1:A:508:ILE:O	1:A:509:LYS:HB2	2.18	0.44
1:C:340:MET:HG2	1:C:345:LYS:HG2	2.00	0.44
1:D:194:GLY:HA2	1:D:365:ALA:HA	2.00	0.44
1:D:283:ILE:HG22	1:D:300:GLU:CG	2.44	0.44
1:D:59:LYS:NZ	1:D:76:ARG:HB2	2.32	0.44
1:E:176:ARG:CZ	1:E:358:CYS:HB2	2.47	0.44
1:E:399:CYS:HA	1:E:456:HIS:NE2	2.32	0.44
1:F:321:THR:O	1:F:323:ASP:N	2.36	0.44
1:B:39:LEU:HB3	1:F:510:ALA:CB	2.48	0.44
1:G:166:PHE:CE1	1:G:198:ASP:HB2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:261:LYS:O	1:G:264:GLU:HG2	2.17	0.44
1:G:269:ILE:CG2	1:G:274:ILE:HG21	2.47	0.44
1:H:191:LYS:HD2	1:H:344:ASP:HB2	2.00	0.44
1:H:21:ALA:O	1:H:25:LEU:HD22	2.18	0.44
1:H:88:SER:O	1:H:92:LEU:HD13	2.18	0.44
1:I:146:LEU:CG	1:I:147:MET:N	2.79	0.44
1:I:367:GLN:CD	1:I:369:ILE:HB	2.38	0.44
1:J:191:LYS:NZ	1:J:344:ASP:HB3	2.32	0.44
1:J:183:LEU:HD11	1:J:381:LEU:HD21	2.00	0.44
1:K:431:ARG:HA	1:K:431:ARG:CZ	2.48	0.44
1:L:32:PRO:CA	1:L:155:SER:HB3	2.47	0.44
1:L:184:GLU:OE1	1:L:356:GLU:HG2	2.18	0.44
1:L:318:ILE:HG12	1:P:289:GLN:HB3	1.98	0.44
1:A:439:ASP:CG	1:M:107:LYS:HD3	2.38	0.44
1:M:146:LEU:HD13	1:M:171:VAL:HG22	1.99	0.44
1:M:206:LEU:HD21	1:M:346:LEU:HB3	1.98	0.44
1:O:14:SER:O	1:O:17:ILE:HG22	2.17	0.44
1:O:334:LYS:CG	1:O:351:GLY:HA3	2.47	0.44
1:O:341:ILE:C	1:O:343:GLU:H	2.21	0.44
1:O:404:MET:O	1:O:408:VAL:HG22	2.18	0.44
1:P:198:ASP:HA	1:P:364:GLY:N	2.31	0.44
1:B:228:ASN:ND2	1:B:319:ALA:HB3	2.33	0.44
1:B:402:MET:SD	1:B:456:HIS:CB	3.01	0.44
1:C:206:LEU:HG	1:C:361:VAL:HG21	2.00	0.44
1:D:215:GLN:HE21	1:D:292:GLY:N	2.15	0.44
1:D:439:ASP:OD2	1:K:107:LYS:HG3	2.18	0.44
1:E:508:ILE:CG2	1:E:509:LYS:N	2.80	0.44
1:F:146:LEU:CD2	1:F:167:THR:HG23	2.41	0.44
1:F:335:LEU:HD21	1:F:337:GLU:OE2	2.17	0.44
1:G:159:LEU:HB2	1:G:163:LYS:HB2	1.99	0.44
1:G:250:LYS:HB3	1:G:250:LYS:HZ2	1.83	0.44
1:G:50:VAL:HG22	1:G:372:GLU:HG3	1.98	0.44
1:G:99:GLU:O	1:G:103:LEU:HD13	2.17	0.44
1:J:141:LYS:CG	1:J:144:GLN:HB2	2.48	0.44
1:J:14:SER:O	1:J:17:ILE:HG22	2.18	0.44
1:J:79:ASP:HA	1:J:83:GLY:HA2	1.93	0.44
1:K:185:ALA:HA	1:K:309:ARG:HG3	1.99	0.44
1:M:139:GLU:O	1:M:141:LYS:N	2.48	0.44
1:M:365:ALA:O	1:M:366:THR:CB	2.64	0.44
1:M:485:GLN:HB3	1:M:489:GLN:NE2	2.33	0.44
1:N:146:LEU:HB2	1:N:171:VAL:HG11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:205:PHE:HA	1:N:359:THR:OG1	2.18	0.44
1:O:14:SER:HB3	1:O:508:ILE:N	2.33	0.44
1:O:377:LEU:HD23	1:O:377:LEU:C	2.38	0.44
1:O:506:ASN:C	1:O:507:ILE:HG12	2.37	0.44
1:P:30:LEU:O	1:P:440:ASN:ND2	2.51	0.44
1:A:32:PRO:HG2	1:A:467:MET:CE	2.47	0.44
1:A:397:GLY:HA3	1:A:475:MET:CE	2.47	0.44
1:A:96:LEU:HD13	1:A:96:LEU:C	2.37	0.44
1:B:138:ASP:O	1:B:139:GLU:CB	2.66	0.44
1:B:146:LEU:HD13	1:B:167:THR:O	2.18	0.44
1:B:443:TYR:CD1	1:B:470:GLY:HA3	2.52	0.44
1:D:27:LYS:HD2	1:D:436:ILE:CD1	2.45	0.44
1:D:316:GLY:O	1:D:330:LEU:HB2	2.17	0.44
1:D:443:TYR:CD1	1:D:470:GLY:HA2	2.53	0.44
1:E:343:GLU:HG2	1:G:76:ARG:NH1	2.31	0.44
1:E:390:ASP:HB3	1:E:485:GLN:OE1	2.18	0.44
1:E:402:MET:HG2	1:E:431:ARG:HH22	1.82	0.44
1:G:313:VAL:CG1	1:G:352:VAL:HB	2.48	0.44
1:G:345:LYS:C	1:G:346:LEU:HD12	2.38	0.44
1:G:59:LYS:HE2	1:G:76:ARG:CD	2.48	0.44
1:H:174:VAL:HG21	1:H:384:LEU:HD12	2.00	0.44
1:H:390:ASP:OD2	1:H:484:PHE:HB3	2.17	0.44
1:H:399:CYS:SG	1:H:464:GLY:CA	3.03	0.44
1:H:468:LYS:HD2	1:H:469:GLU:N	2.32	0.44
1:I:277:PHE:CE2	1:I:279:ASN:HB2	2.53	0.44
1:I:188:VAL:HG21	1:I:362:LEU:HG	1.99	0.44
1:I:92:LEU:HG	1:I:433:LEU:HD11	1.98	0.44
1:J:150:ALA:HB2	1:J:384:LEU:HD11	2.00	0.44
1:K:196:LEU:HD22	1:K:196:LEU:O	2.18	0.44
1:K:28:SER:HB2	1:K:35:MET:HB2	1.99	0.44
1:K:325:PRO:C	1:K:326:GLU:HG3	2.38	0.44
1:K:57:ILE:C	1:K:57:ILE:HD13	2.38	0.44
1:L:190:LYS:C	1:L:190:LYS:HD2	2.38	0.44
1:L:81:GLU:O	1:L:82:VAL:HB	2.17	0.44
1:M:146:LEU:CD2	1:M:167:THR:HG23	2.47	0.44
1:O:448:LEU:HD21	1:O:465:LEU:CD1	2.36	0.44
1:O:57:ILE:HG23	1:O:58:LEU:CD2	2.45	0.44
1:P:154:LEU:HD21	1:P:163:LYS:HZ1	1.80	0.44
1:P:231:MET:C	1:P:284:TYR:HB2	2.38	0.44
1:A:14:SER:HA	1:A:17:ILE:HG22	2.00	0.44
1:A:412:ALA:CB	1:A:424:GLU:HB3	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:163:LYS:O	1:B:166:PHE:HB2	2.18	0.44
1:B:2:GLY:H	1:G:42:SER:HB2	1.83	0.44
1:C:38:ILE:O	1:C:38:ILE:HG13	2.18	0.44
1:C:114:ILE:HD12	1:C:499:GLU:HA	1.98	0.44
1:A:40:LEU:CD1	1:C:508:ILE:HG22	2.48	0.44
1:D:166:PHE:CZ	1:D:198:ASP:HB3	2.52	0.44
1:E:104:ILE:HG13	1:E:105:ALA:N	2.33	0.44
1:E:419:GLU:HA	1:E:419:GLU:OE1	2.18	0.44
1:E:96:LEU:O	1:E:96:LEU:HD22	2.18	0.44
1:F:284:TYR:HE2	1:F:286:TYR:CD1	2.35	0.44
1:B:37:LYS:HD2	1:F:507:ILE:HA	2.00	0.44
1:G:108:ILE:HD12	1:N:446:ALA:HB3	2.00	0.44
1:G:334:LYS:HD3	1:G:351:GLY:CA	2.47	0.44
1:G:379:ASP:O	1:G:383:VAL:HG23	2.18	0.44
1:I:122:LYS:HZ3	1:I:125:ARG:HH21	1.66	0.44
1:J:32:PRO:HA	1:J:155:SER:CB	2.47	0.44
1:J:452:LEU:HD11	1:J:456:HIS:CE1	2.52	0.44
1:K:176:ARG:NH1	1:K:201:LEU:HD11	2.33	0.44
1:K:221:ASN:HA	1:K:333:CYS:HB2	1.99	0.44
1:K:368:GLN:HG3	1:K:369:ILE:HB	2.00	0.44
1:L:159:LEU:CB	1:L:369:ILE:HG23	2.48	0.44
1:L:438:ALA:HB3	1:L:445:SER:OG	2.18	0.44
1:N:379:ASP:O	1:N:383:VAL:HG23	2.18	0.44
1:N:390:ASP:HB3	1:N:485:GLN:NE2	2.32	0.44
1:N:112:THR:HB	1:N:418:LYS:HE3	1.99	0.44
1:O:154:LEU:HD22	1:O:167:THR:HB	1.99	0.44
1:O:39:LEU:HD13	1:O:57:ILE:CD1	2.48	0.44
1:H:420:ALA:HB3	1:P:450:ALA:HB1	2.00	0.44
1:A:452:LEU:HD22	1:A:465:LEU:HD11	1.99	0.43
1:B:28:SER:HA	1:B:35:MET:HE1	1.99	0.43
1:B:431:ARG:CZ	1:B:431:ARG:HA	2.48	0.43
1:C:313:VAL:CG2	1:C:357:ALA:HB3	2.46	0.43
1:D:119:GLU:HB3	1:D:423:MET:CE	2.47	0.43
1:E:159:LEU:HD23	1:E:163:LYS:CB	2.48	0.43
1:E:33:LYS:HD2	1:G:111:GLN:CG	2.47	0.43
1:G:133:VAL:HG23	1:G:134:ASP:N	2.32	0.43
1:G:171:VAL:HA	1:G:174:VAL:HG22	2.00	0.43
1:H:369:ILE:O	1:H:371:ASP:N	2.51	0.43
1:J:365:ALA:HB3	1:J:367:GLN:NE2	2.33	0.43
1:J:394:VAL:HG23	1:J:482:GLU:HB2	1.99	0.43
1:K:128:LEU:C	1:K:130:ASN:H	2.20	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:211:ILE:HD13	1:K:215:GLN:CB	2.48	0.43
1:K:369:ILE:HG23	1:K:369:ILE:O	2.18	0.43
1:C:450:ALA:CB	1:L:418:LYS:HG2	2.48	0.43
1:L:38:ILE:CG1	1:M:507:ILE:HG12	2.48	0.43
1:N:115:ALA:O	1:N:118:ARG:HB3	2.18	0.43
1:F:446:ALA:CA	1:O:418:LYS:HD2	2.47	0.43
1:O:43:GLY:O	1:O:44:ARG:CB	2.66	0.43
1:P:265:LYS:NZ	1:P:287:PRO:HG3	2.33	0.43
1:L:508:ILE:HB	1:P:39:LEU:CD2	2.48	0.43
1:P:59:LYS:CE	1:P:76:ARG:HB2	2.46	0.43
1:A:183:LEU:HD11	1:A:381:LEU:HD11	2.00	0.43
1:A:32:PRO:HD2	1:A:440:ASN:ND2	2.33	0.43
1:B:485:GLN:HG2	1:B:488:ARG:NH2	2.31	0.43
1:C:11:ALA:HB1	1:C:505:ASP:OD1	2.17	0.43
1:C:159:LEU:O	1:C:163:LYS:HB2	2.18	0.43
1:C:178:LYS:HZ3	1:C:388:VAL:HG21	1.84	0.43
1:C:383:VAL:HG12	1:C:384:LEU:HD13	2.00	0.43
1:C:385:ALA:O	1:C:388:VAL:HG22	2.18	0.43
1:C:78:GLN:O	1:C:83:GLY:N	2.51	0.43
1:D:117:TRP:CE2	1:D:495:ALA:HB3	2.53	0.43
1:E:174:VAL:HG11	1:E:384:LEU:HB2	2.01	0.43
1:F:103:LEU:HG	1:F:113:ILE:HD13	2.00	0.43
1:F:191:LYS:HD3	1:F:192:LEU:N	2.32	0.43
1:F:324:HIS:HB2	1:F:329:LYS:CE	2.47	0.43
1:F:446:ALA:HB2	1:O:108:ILE:HG12	2.00	0.43
1:G:146:LEU:CD1	1:G:171:VAL:HG13	2.19	0.43
1:G:337:GLU:HG3	1:G:339:VAL:HG23	1.99	0.43
1:H:101:GLU:O	1:H:104:ILE:HG12	2.17	0.43
1:H:325:PRO:C	1:H:326:GLU:HG3	2.37	0.43
1:I:146:LEU:HD11	1:I:150:ALA:CB	2.47	0.43
1:I:211:ILE:HG13	1:I:298:ALA:O	2.18	0.43
1:I:280:ARG:O	1:I:281:GLN:CB	2.67	0.43
1:I:321:THR:O	1:I:323:ASP:N	2.50	0.43
1:J:369:ILE:HG12	1:K:500:VAL:HG22	2.00	0.43
1:J:455:ALA:HB2	1:J:472:ILE:HD12	2.00	0.43
1:K:100:ALA:HA	1:K:103:LEU:HD13	1.99	0.43
1:K:311:ALA:HA	1:K:314:THR:HG22	2.00	0.43
1:K:33:LYS:HB2	1:K:440:ASN:HB2	2.00	0.43
1:K:117:TRP:HB3	1:K:499:GLU:HG3	1.99	0.43
1:L:110:PRO:HD2	1:L:111:GLN:HE22	1.83	0.43
1:L:261:LYS:O	1:L:265:LYS:HG3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:39:LEU:O	1:O:48:LEU:HA	2.17	0.43
1:O:18:GLY:CA	1:O:509:LYS:HG3	2.44	0.43
1:O:65:ASN:N	1:O:66:PRO:HD2	2.33	0.43
1:P:126:GLN:CD	1:P:411:LEU:HD22	2.38	0.43
1:B:149:ILE:HA	1:B:152:THR:HG22	1.99	0.43
1:B:157:LYS:HB2	1:B:159:LEU:CD2	2.48	0.43
1:B:16:PHE:HA	1:B:97:LEU:HD23	2.00	0.43
1:B:280:ARG:O	1:B:281:GLN:HB3	2.19	0.43
1:E:405:ALA:HA	1:E:408:VAL:HG22	2.01	0.43
1:F:261:LYS:O	1:F:265:LYS:HG3	2.18	0.43
1:F:50:VAL:HG22	1:F:375:ARG:NH2	2.33	0.43
1:B:368:GLN:CB	1:F:496:GLU:HB2	2.43	0.43
1:F:58:LEU:HB3	1:F:72:VAL:CG1	2.47	0.43
1:G:188:VAL:HG23	1:G:360:ILE:O	2.18	0.43
1:G:19:ALA:HB1	1:G:94:ALA:HA	2.00	0.43
1:I:354:LEU:CD2	1:I:356:GLU:HB3	2.49	0.43
1:J:146:LEU:HB2	1:J:171:VAL:HG21	1.99	0.43
1:J:343:GLU:H	1:J:343:GLU:CD	2.21	0.43
1:J:339:VAL:HB	1:J:348:HIS:CE1	2.53	0.43
1:K:14:SER:O	1:K:17:ILE:HG22	2.19	0.43
1:K:508:ILE:CG2	1:K:509:LYS:N	2.81	0.43
1:N:163:LYS:CG	1:N:166:PHE:HB2	2.49	0.43
1:O:377:LEU:O	1:O:377:LEU:HD23	2.18	0.43
1:P:141:LYS:HG3	1:P:144:GLN:H	1.83	0.43
1:P:188:VAL:CG2	1:P:360:ILE:HB	2.48	0.43
1:P:407:ALA:O	1:P:411:LEU:HG	2.18	0.43
1:B:198:ASP:HA	1:B:364:GLY:HA2	2.00	0.43
1:C:82:VAL:N	1:C:386:GLN:HG3	2.33	0.43
1:C:392:ARG:C	1:C:484:PHE:HB2	2.39	0.43
1:D:2:GLY:N	1:D:509:LYS:HA	2.32	0.43
1:A:511:ALA:HB3	1:F:61:ILE:CD1	2.48	0.43
1:G:190:LYS:HG3	1:G:370:LEU:HD21	2.00	0.43
1:G:502:LEU:HD13	1:G:502:LEU:C	2.38	0.43
1:H:215:GLN:HE21	1:H:292:GLY:N	2.16	0.43
1:I:30:LEU:HD22	1:I:436:ILE:HD13	2.01	0.43
1:I:51:THR:HG21	1:I:56:THR:HB	2.00	0.43
1:J:280:ARG:O	1:J:281:GLN:HB3	2.19	0.43
1:L:431:ARG:O	1:L:434:PRO:HD2	2.18	0.43
1:M:149:ILE:HD12	1:M:483:SER:N	2.28	0.43
1:M:86:THR:HG22	1:M:156:SER:HB3	1.99	0.43
1:A:446:ALA:HB2	1:M:421:VAL:HB	1.94	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:106:LYS:C	1:P:107:LYS:HG2	2.38	0.43
1:P:23:GLY:HA2	1:P:26:VAL:HG22	2.00	0.43
1:P:258:GLU:CD	1:P:284:TYR:HE2	2.21	0.43
1:P:324:HIS:O	1:P:329:LYS:CG	2.65	0.43
1:B:484:PHE:CE2	1:B:488:ARG:HD3	2.54	0.43
1:C:324:HIS:HB2	1:C:329:LYS:CE	2.49	0.43
1:C:408:VAL:HG23	1:C:427:ALA:CB	2.48	0.43
1:D:6:GLU:HB3	1:D:11:ALA:HB2	2.00	0.43
1:D:17:ILE:O	1:D:20:ILE:HG22	2.19	0.43
1:E:146:LEU:O	1:E:147:MET:HB2	2.18	0.43
1:E:203:GLU:H	1:E:203:GLU:CD	2.22	0.43
1:E:225:LEU:HD13	1:E:329:LYS:HE2	2.00	0.43
1:E:438:ALA:CB	1:E:448:LEU:HG	2.48	0.43
1:F:190:LYS:O	1:F:190:LYS:HD2	2.19	0.43
1:F:433:LEU:HB2	1:F:434:PRO:HD3	2.01	0.43
1:F:52:ASN:HB3	1:F:375:ARG:CD	2.48	0.43
1:G:127:ALA:C	1:G:130:ASN:HB3	2.39	0.43
1:G:181:GLY:HA3	1:G:356:GLU:HG3	1.99	0.43
1:G:234:ASP:CG	1:G:235:LYS:H	2.22	0.43
1:G:204:GLY:O	1:G:359:THR:HB	2.19	0.43
1:H:19:ALA:HB1	1:H:94:ALA:HA	2.01	0.43
1:H:191:LYS:HG3	1:H:343:GLU:OE2	2.19	0.43
1:H:455:ALA:HB2	1:H:472:ILE:HD12	2.01	0.43
1:H:93:ALA:HB2	1:H:494:ALA:HA	2.00	0.43
1:I:318:ILE:O	1:I:329:LYS:NZ	2.52	0.43
1:J:191:LYS:HB3	1:J:363:ARG:HA	2.00	0.43
1:J:191:LYS:HG3	1:J:343:GLU:OE2	2.18	0.43
1:J:211:ILE:HG12	1:J:298:ALA:H	1.83	0.43
1:J:226:ILE:HG21	1:J:307:VAL:CG1	2.48	0.43
1:K:390:ASP:O	1:K:391:SER:HB3	2.18	0.43
1:L:163:LYS:HG3	1:L:166:PHE:CG	2.53	0.43
1:M:159:LEU:HD12	1:M:369:ILE:CG2	2.44	0.43
1:M:165:HIS:O	1:M:168:LYS:HB3	2.18	0.43
1:N:225:LEU:HD12	1:N:226:ILE:N	2.33	0.43
1:O:108:ILE:HG21	1:O:418:LYS:NZ	2.34	0.43
1:P:28:SER:O	1:P:34:GLY:HA2	2.18	0.43
1:B:109:HIS:NE2	1:B:111:GLN:HB3	2.34	0.43
1:B:230:GLY:HA2	1:B:279:ASN:HD21	1.84	0.43
1:C:117:TRP:O	1:C:120:ALA:HB3	2.18	0.43
1:C:133:VAL:HG23	1:C:134:ASP:N	2.23	0.43
1:D:166:PHE:CE1	1:D:198:ASP:HB2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:431:ARG:NH2	1:E:434:PRO:HG2	2.33	0.43
1:B:39:LEU:CA	1:F:510:ALA:HB1	2.48	0.43
1:G:65:ASN:HB2	1:G:507:ILE:HD13	2.01	0.43
1:G:57:ILE:HD13	1:G:57:ILE:C	2.39	0.43
1:I:117:TRP:O	1:I:120:ALA:HB3	2.18	0.43
1:I:125:ARG:O	1:I:128:LEU:HB2	2.18	0.43
1:I:32:PRO:HG3	1:I:155:SER:HB3	2.01	0.43
1:I:223:LYS:H	1:I:275:ASN:HB2	1.84	0.43
1:I:311:ALA:HA	1:I:314:THR:HG22	2.00	0.43
1:I:316:GLY:O	1:I:330:LEU:HB2	2.18	0.43
1:I:324:HIS:CG	1:I:325:PRO:HD3	2.54	0.43
1:J:146:LEU:HD13	1:J:167:THR:O	2.19	0.43
1:J:171:VAL:CA	1:J:174:VAL:HG22	2.47	0.43
1:K:321:THR:O	1:K:323:ASP:N	2.51	0.43
1:K:43:GLY:O	1:K:44:ARG:HB2	2.19	0.43
1:K:117:TRP:CD1	1:K:499:GLU:HA	2.54	0.43
1:K:58:LEU:HB3	1:K:72:VAL:HG13	2.01	0.43
1:L:57:ILE:HG23	1:L:58:LEU:CD2	2.49	0.43
1:M:32:PRO:CA	1:M:155:SER:O	2.61	0.43
1:N:408:VAL:HG12	1:N:411:LEU:HD12	2.00	0.43
1:O:106:LYS:HG3	1:O:108:ILE:HB	2.00	0.43
1:O:190:LYS:HA	1:O:362:LEU:HB2	2.00	0.43
1:P:176:ARG:NH1	1:P:201:LEU:HD11	2.33	0.43
1:H:447:ASP:HB2	1:P:418:LYS:HZ1	1.79	0.43
1:A:31:GLY:O	1:A:156:SER:CA	2.59	0.43
1:B:274:ILE:HG23	1:B:274:ILE:O	2.19	0.43
1:B:453:ARG:HB2	1:I:413:SER:OG	2.18	0.43
1:C:280:ARG:O	1:C:281:GLN:CB	2.66	0.43
1:C:369:ILE:O	1:C:372:GLU:HG2	2.19	0.43
1:C:452:LEU:HD11	1:C:456:HIS:CE1	2.54	0.43
1:D:22:ILE:HG13	1:D:23:GLY:N	2.34	0.43
1:G:206:LEU:HD21	1:G:346:LEU:HD23	2.00	0.43
1:G:266:VAL:HB	1:G:290:LEU:CD2	2.32	0.43
1:H:186:ILE:HG13	1:H:381:LEU:HD22	2.00	0.43
1:H:187:HIS:CA	1:H:377:LEU:HD21	2.41	0.43
1:H:466:ASP:OD1	1:H:468:LYS:HG3	2.17	0.43
1:K:138:ASP:H	1:K:141:LYS:HE3	1.82	0.43
1:K:216:PRO:HG3	1:K:295:GLY:HA2	1.99	0.43
1:K:324:HIS:HB2	1:K:329:LYS:CE	2.48	0.43
1:K:32:PRO:HD2	1:K:437:ILE:HG23	2.01	0.43
1:K:57:ILE:O	1:K:57:ILE:HD13	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:59:LYS:CE	1:K:76:ARG:HB2	2.49	0.43
1:L:171:VAL:CG1	1:L:384:LEU:HG	2.48	0.43
1:L:312:LEU:HA	1:P:213:VAL:CG2	2.47	0.43
1:L:325:PRO:O	1:L:328:VAL:HG22	2.19	0.43
1:L:204:GLY:HA3	1:L:350:SER:HB3	2.01	0.43
1:L:50:VAL:O	1:L:375:ARG:CD	2.66	0.43
1:M:190:LYS:HG3	1:M:370:LEU:HG	2.00	0.43
1:L:40:LEU:O	1:M:509:LYS:HA	2.19	0.43
1:N:499:GLU:O	1:N:503:ARG:HG3	2.18	0.43
1:O:209:LYS:HE2	1:O:302:ALA:HA	1.99	0.43
1:O:324:HIS:O	1:O:329:LYS:HG3	2.19	0.43
1:P:96:LEU:HD21	1:P:117:TRP:CZ2	2.54	0.43
1:P:508:ILE:CG2	1:P:509:LYS:N	2.82	0.43
1:A:181:GLY:O	1:A:182:ASN:HB3	2.18	0.43
1:B:289:GLN:HE22	1:F:228:ASN:ND2	2.17	0.43
1:B:322:PHE:O	1:B:325:PRO:HD2	2.18	0.43
1:C:185:ALA:HB1	1:C:357:ALA:HB1	2.00	0.43
1:D:431:ARG:HA	1:D:431:ARG:CZ	2.49	0.43
1:D:57:ILE:HD13	1:D:57:ILE:O	2.19	0.43
1:D:99:GLU:O	1:D:103:LEU:HD13	2.18	0.43
1:E:226:ILE:HG12	1:E:278:ILE:CG2	2.49	0.43
1:E:280:ARG:O	1:E:281:GLN:CB	2.67	0.43
1:E:445:SER:HB2	1:J:105:ALA:O	2.19	0.43
1:F:189:ILE:HG22	1:F:190:LYS:N	2.33	0.43
1:G:277:PHE:CE2	1:G:279:ASN:HB2	2.54	0.43
1:G:343:GLU:HG2	1:G:344:ASP:N	2.34	0.43
1:G:338:GLU:HA	1:G:347:ILE:HA	1.99	0.43
1:G:367:GLN:HG3	1:G:370:LEU:H	1.83	0.43
1:G:178:LYS:HZ1	1:G:388:VAL:HG11	1.83	0.43
1:G:408:VAL:HG21	1:G:427:ALA:HA	2.01	0.43
1:J:154:LEU:HD13	1:J:167:THR:OG1	2.19	0.43
1:J:222:ALA:HA	1:J:275:ASN:CG	2.39	0.43
1:J:369:ILE:HA	1:J:372:GLU:CB	2.48	0.43
1:K:388:VAL:HG23	1:K:389:LYS:CD	2.49	0.43
1:K:52:ASN:HD21	1:K:157:LYS:HG2	1.83	0.43
1:L:274:ILE:HG23	1:L:296:VAL:HG21	1.99	0.43
1:M:431:ARG:HD3	1:M:453:ARG:NH2	2.34	0.43
1:M:124:ALA:CB	1:M:491:LEU:HB3	2.44	0.43
1:N:380:ALA:O	1:N:384:LEU:HD23	2.19	0.43
1:N:82:VAL:CG1	1:N:83:GLY:N	2.81	0.43
1:O:170:ALA:O	1:O:174:VAL:HG13	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:177:LEU:HD12	1:O:385:ALA:HB1	2.00	0.43
1:O:360:ILE:HG21	1:O:377:LEU:HD11	2.01	0.43
1:O:114:ILE:HG21	1:O:503:ARG:NH2	2.34	0.43
1:A:110:PRO:O	1:A:113:ILE:HB	2.19	0.43
1:A:126:GLN:CG	1:A:411:LEU:HD13	2.49	0.43
1:A:32:PRO:HD2	1:A:440:ASN:HD21	1.84	0.43
1:E:188:VAL:HG11	1:E:360:ILE:HB	2.01	0.43
1:E:354:LEU:HG	1:E:356:GLU:H	1.83	0.43
1:F:204:GLY:HA3	1:F:350:SER:HA	2.01	0.43
1:F:211:ILE:CD1	1:F:297:MET:HG3	2.39	0.43
1:G:181:GLY:O	1:G:182:ASN:CB	2.66	0.43
1:G:252:ALA:O	1:G:255:GLU:HB3	2.19	0.43
1:G:219:ILE:HD12	1:G:275:ASN:HB3	2.00	0.43
1:H:392:ARG:C	1:H:484:PHE:HB2	2.39	0.43
1:I:123:ALA:O	1:I:126:GLN:HB2	2.19	0.43
1:I:185:ALA:HA	1:I:309:ARG:CB	2.48	0.43
1:I:280:ARG:HG3	1:I:304:PHE:HB2	2.00	0.43
1:I:132:ALA:CB	1:I:395:TYR:CD2	3.02	0.43
1:J:375:ARG:HH11	1:J:375:ARG:HB2	1.83	0.43
1:J:188:VAL:HG11	1:J:377:LEU:HD22	2.00	0.43
1:J:27:LYS:HB2	1:J:436:ILE:CG1	2.49	0.43
1:J:92:LEU:O	1:J:95:GLU:HG2	2.19	0.43
1:K:50:VAL:H	1:K:375:ARG:HH22	1.67	0.43
1:J:367:GLN:HB3	1:K:74:MET:CB	2.49	0.43
1:L:106:LYS:CE	1:L:421:VAL:HG21	2.49	0.43
1:L:225:LEU:HD11	1:L:324:HIS:ND1	2.34	0.43
1:N:9:GLU:CD	1:N:9:GLU:H	2.22	0.43
1:O:364:GLY:HA3	1:O:370:LEU:HG	2.01	0.43
1:O:443:TYR:CE1	1:O:470:GLY:HA3	2.54	0.43
1:F:421:VAL:CG1	1:O:453:ARG:HH22	2.30	0.43
1:P:174:VAL:HG11	1:P:384:LEU:HB2	1.93	0.43
1:P:394:VAL:HG23	1:P:482:GLU:HB2	2.01	0.43
1:B:218:ARG:HG2	1:B:219:ILE:N	2.34	0.43
1:B:263:LYS:O	1:B:267:GLU:HG2	2.19	0.43
1:D:189:ILE:HG22	1:D:190:LYS:N	2.34	0.43
1:D:96:LEU:HD13	1:D:97:LEU:N	2.33	0.43
1:B:289:GLN:HE22	1:F:228:ASN:HD22	1.67	0.43
1:F:159:LEU:CB	1:F:369:ILE:HG23	2.43	0.43
1:G:452:LEU:CD2	1:G:465:LEU:HD21	2.49	0.43
1:H:511:ALA:O	1:H:512:PRO:O	2.37	0.43
1:I:171:VAL:O	1:I:175:LEU:HG	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:204:GLY:HA3	1:K:350:SER:HA	2.00	0.43
1:K:185:ALA:CB	1:K:357:ALA:HB1	2.46	0.43
1:K:32:PRO:CD	1:K:437:ILE:HD12	2.48	0.43
1:K:451:GLN:NE2	1:K:471:THR:HA	2.34	0.43
1:L:191:LYS:O	1:L:370:LEU:HD21	2.18	0.43
1:M:191:LYS:HG2	1:M:341:ILE:HG22	2.01	0.43
1:M:176:ARG:HD2	1:M:358:CYS:HB2	2.01	0.43
1:O:417:GLY:O	1:O:420:ALA:HB3	2.19	0.43
1:O:110:PRO:HB2	1:O:502:LEU:HG	2.01	0.43
1:O:508:ILE:HG23	1:O:509:LYS:N	2.33	0.43
1:P:452:LEU:HD22	1:P:465:LEU:HD11	2.01	0.43
1:A:399:CYS:HA	1:A:456:HIS:NE2	2.33	0.42
1:B:297:MET:CE	1:B:347:ILE:HD11	2.49	0.42
1:B:59:LYS:CE	1:B:76:ARG:HB2	2.48	0.42
1:C:150:ALA:CB	1:C:384:LEU:HD21	2.49	0.42
1:D:269:ILE:HG23	1:D:274:ILE:HG22	1.96	0.42
1:E:100:ALA:O	1:E:103:LEU:HB2	2.19	0.42
1:E:128:LEU:O	1:E:130:ASN:N	2.52	0.42
1:E:190:LYS:HB3	1:E:373:ALA:HB3	2.00	0.42
1:E:326:GLU:HB2	1:E:327:LEU:H	1.60	0.42
1:F:32:PRO:HG2	1:F:467:MET:SD	2.58	0.42
1:F:112:THR:HG22	1:F:418:LYS:CE	2.49	0.42
1:G:124:ALA:HB1	1:G:491:LEU:CB	2.49	0.42
1:H:452:LEU:CD2	1:H:465:LEU:HD21	2.49	0.42
1:J:284:TYR:O	1:J:287:PRO:HD2	2.19	0.42
1:K:159:LEU:CD1	1:K:159:LEU:N	2.82	0.42
1:L:127:ALA:CB	1:L:404:MET:SD	3.07	0.42
1:L:59:LYS:HE3	1:L:76:ARG:HE	1.83	0.42
1:M:395:TYR:HE1	1:M:476:SER:OG	2.02	0.42
1:N:198:ASP:CB	1:N:364:GLY:HA2	2.49	0.42
1:N:310:LEU:O	1:N:310:LEU:HD13	2.19	0.42
1:O:416:PRO:O	1:O:419:GLU:HB3	2.19	0.42
1:O:92:LEU:HD21	1:O:433:LEU:HD21	2.01	0.42
1:P:126:GLN:O	1:P:130:ASN:CB	2.65	0.42
1:P:253:GLU:O	1:P:256:HIS:HB3	2.19	0.42
1:P:28:SER:HB2	1:P:35:MET:SD	2.59	0.42
1:H:454:ALA:HB2	1:P:413:SER:O	2.19	0.42
1:A:32:PRO:HA	1:A:155:SER:C	2.39	0.42
1:B:399:CYS:SG	1:B:464:GLY:CA	3.05	0.42
1:D:280:ARG:O	1:D:281:GLN:HB3	2.20	0.42
1:D:334:LYS:HB3	1:D:351:GLY:HA3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:397:GLY:HA3	1:D:475:MET:HE1	2.01	0.42
1:D:92:LEU:HG	1:D:433:LEU:HD21	2.01	0.42
1:E:231:MET:CE	1:E:265:LYS:HD3	2.49	0.42
1:G:129:LEU:CD2	1:G:129:LEU:C	2.87	0.42
1:G:483:SER:HB2	1:G:486:VAL:CG1	2.48	0.42
1:G:57:ILE:HG23	1:G:58:LEU:HD22	2.01	0.42
1:H:147:MET:C	1:H:479:GLY:HA2	2.39	0.42
1:I:159:LEU:CG	1:I:163:LYS:HG2	2.48	0.42
1:I:39:LEU:O	1:I:48:LEU:HA	2.19	0.42
1:K:154:LEU:HD21	1:K:163:LYS:HG2	2.02	0.42
1:K:24:ASP:O	1:K:27:LYS:HG2	2.19	0.42
1:K:74:MET:HE1	1:K:493:SER:HB3	2.01	0.42
1:L:226:ILE:HA	1:L:278:ILE:O	2.19	0.42
1:L:394:VAL:HG21	1:L:487:LYS:HG3	2.01	0.42
1:N:188:VAL:CG2	1:N:377:LEU:HD11	2.49	0.42
1:N:402:MET:CE	1:N:453:ARG:HG2	2.50	0.42
1:O:146:LEU:HD23	1:O:147:MET:N	2.34	0.42
1:O:280:ARG:HG3	1:O:304:PHE:HB2	2.00	0.42
1:O:352:VAL:CG2	1:O:355:GLY:H	2.32	0.42
1:P:146:LEU:HD11	1:P:150:ALA:CB	2.49	0.42
1:P:188:VAL:CG1	1:P:377:LEU:HD21	2.49	0.42
1:P:32:PRO:CG	1:P:467:MET:SD	3.06	0.42
1:P:437:ILE:CG2	1:P:467:MET:SD	3.06	0.42
1:A:112:THR:CG2	1:F:442:GLY:HA2	2.49	0.42
1:A:115:ALA:O	1:A:118:ARG:HB3	2.20	0.42
1:B:114:ILE:HD13	1:B:117:TRP:CZ3	2.54	0.42
1:B:431:ARG:HA	1:B:431:ARG:NE	2.34	0.42
1:B:504:VAL:HG11	1:B:507:ILE:CG2	2.32	0.42
1:B:7:ARG:O	1:B:8:ALA:HB3	2.19	0.42
1:C:211:ILE:HG22	1:C:288:GLU:OE1	2.19	0.42
1:C:310:LEU:O	1:C:314:THR:HG22	2.18	0.42
1:C:40:LEU:HD23	1:C:47:SER:O	2.20	0.42
1:D:390:ASP:HB2	1:D:485:GLN:HE22	1.83	0.42
1:D:507:ILE:HA	1:H:39:LEU:HD22	2.01	0.42
1:D:85:GLY:HA2	1:D:153:THR:OG1	2.19	0.42
1:F:393:THR:HA	1:F:484:PHE:N	2.34	0.42
1:G:397:GLY:HA3	1:G:475:MET:CE	2.49	0.42
1:H:201:LEU:HD23	1:H:360:ILE:HG12	2.02	0.42
1:H:57:ILE:O	1:H:57:ILE:HD13	2.18	0.42
1:H:75:SER:O	1:H:78:GLN:HB3	2.20	0.42
1:I:276:CYS:HA	1:I:297:MET:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:176:ARG:HD2	1:I:358:CYS:HB2	2.01	0.42
1:I:411:LEU:HB3	1:I:423:MET:CE	2.50	0.42
1:J:309:ARG:O	1:J:313:VAL:HG23	2.19	0.42
1:L:341:ILE:HD12	1:L:363:ARG:HH21	1.85	0.42
1:M:163:LYS:O	1:M:166:PHE:HB2	2.18	0.42
1:M:486:VAL:O	1:M:490:VAL:HG12	2.19	0.42
1:N:280:ARG:HG3	1:N:304:PHE:HA	2.01	0.42
1:N:286:TYR:HB2	1:N:287:PRO:HD3	2.01	0.42
1:O:106:LYS:HG3	1:O:106:LYS:O	2.20	0.42
1:O:174:VAL:HG21	1:O:384:LEU:HB3	2.01	0.42
1:P:226:ILE:HG12	1:P:278:ILE:CG2	2.48	0.42
1:P:95:GLU:OE1	1:P:429:ALA:HA	2.18	0.42
1:A:150:ALA:HB2	1:A:384:LEU:HD21	2.01	0.42
1:C:116:GLY:HA2	1:C:119:GLU:OE1	2.20	0.42
1:C:369:ILE:CA	1:C:372:GLU:HG2	2.48	0.42
1:D:196:LEU:HD13	1:D:196:LEU:C	2.40	0.42
1:D:219:ILE:CD1	1:D:276:CYS:HB2	2.49	0.42
1:D:280:ARG:O	1:D:280:ARG:CG	2.61	0.42
1:E:215:GLN:HE21	1:E:292:GLY:N	2.18	0.42
1:F:127:ALA:HB3	1:F:491:LEU:CD1	2.49	0.42
1:F:171:VAL:HG12	1:F:384:LEU:HD11	2.01	0.42
1:F:40:LEU:HB2	1:F:48:LEU:CD2	2.49	0.42
1:F:485:GLN:NE2	1:F:488:ARG:HH21	2.17	0.42
1:G:405:ALA:HB2	1:G:430:LEU:HB2	2.01	0.42
1:H:211:ILE:CD1	1:H:211:ILE:N	2.70	0.42
1:H:394:VAL:CG2	1:H:482:GLU:HB2	2.45	0.42
1:I:114:ILE:HD11	1:I:502:LEU:HD22	2.00	0.42
1:I:146:LEU:HG	1:I:147:MET:N	2.35	0.42
1:I:32:PRO:CA	1:I:156:SER:HA	2.50	0.42
1:I:48:LEU:HD12	1:N:70:VAL:HG13	2.00	0.42
1:J:263:LYS:O	1:J:267:GLU:HG2	2.19	0.42
1:J:402:MET:SD	1:J:453:ARG:HA	2.59	0.42
1:J:57:ILE:C	1:J:57:ILE:HD13	2.39	0.42
1:K:192:LEU:HA	1:K:364:GLY:O	2.20	0.42
1:L:215:GLN:HE21	1:L:292:GLY:CA	2.32	0.42
1:L:282:LEU:H	1:L:282:LEU:HD22	1.85	0.42
1:L:372:GLU:HG3	1:L:375:ARG:NH2	2.35	0.42
1:L:448:LEU:HD13	1:L:448:LEU:C	2.40	0.42
1:L:448:LEU:HD21	1:L:465:LEU:HD12	2.01	0.42
1:M:158:LEU:HD23	1:M:369:ILE:CD1	2.48	0.42
1:M:36:ASP:N	1:M:36:ASP:OD1	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:154:LEU:HD21	1:N:163:LYS:NZ	2.33	0.42
1:N:268:ARG:O	1:N:271:LYS:HG2	2.20	0.42
1:O:82:VAL:HA	1:O:386:GLN:CG	2.49	0.42
1:P:438:ALA:HB2	1:P:448:LEU:CD1	2.50	0.42
1:A:433:LEU:HB2	1:A:434:PRO:HD3	2.01	0.42
1:A:49:MET:SD	1:A:365:ALA:HB3	2.59	0.42
1:B:117:TRP:CD1	1:B:499:GLU:HG3	2.54	0.42
1:B:402:MET:HE2	1:B:453:ARG:HG2	2.00	0.42
1:C:106:LYS:HE2	1:C:113:ILE:CG1	2.49	0.42
1:C:324:HIS:CG	1:C:325:PRO:HD3	2.53	0.42
1:C:37:LYS:HD2	1:H:506:ASN:CB	2.44	0.42
1:D:99:GLU:O	1:D:102:SER:HB2	2.20	0.42
1:D:116:GLY:HA3	1:D:422:ALA:HB1	2.01	0.42
1:F:443:TYR:CZ	1:F:470:GLY:HA3	2.54	0.42
1:G:203:GLU:CD	1:G:203:GLU:H	2.22	0.42
1:G:399:CYS:SG	1:G:464:GLY:CA	3.06	0.42
1:G:433:LEU:HA	1:G:436:ILE:HG22	2.02	0.42
1:H:216:PRO:HG2	1:H:295:GLY:CA	2.48	0.42
1:I:102:SER:O	1:I:105:ALA:HB3	2.19	0.42
1:I:225:LEU:HD11	1:I:324:HIS:CE1	2.54	0.42
1:J:191:LYS:HB2	1:J:191:LYS:HE3	1.91	0.42
1:J:305:VAL:HG22	1:J:309:ARG:CZ	2.49	0.42
1:J:27:LYS:HA	1:J:30:LEU:HD13	2.01	0.42
1:K:150:ALA:HB2	1:K:384:LEU:CD1	2.30	0.42
1:L:259:LYS:O	1:L:263:LYS:HG2	2.19	0.42
1:L:39:LEU:O	1:L:48:LEU:HA	2.20	0.42
1:L:79:ASP:CA	1:L:83:GLY:HA2	2.44	0.42
1:M:123:ALA:O	1:M:126:GLN:HG2	2.19	0.42
1:M:132:ALA:H	1:M:461:THR:HG21	1.85	0.42
1:M:163:LYS:HG2	1:M:163:LYS:O	2.20	0.42
1:M:435:THR:HG22	1:M:445:SER:HB3	2.01	0.42
1:N:163:LYS:HG3	1:N:166:PHE:HB2	2.02	0.42
1:O:143:ARG:HG3	1:O:143:ARG:O	2.20	0.42
1:O:280:ARG:O	1:O:281:GLN:CB	2.67	0.42
1:P:207:LEU:HB3	1:P:347:ILE:CG2	2.50	0.42
1:P:408:VAL:HG23	1:P:427:ALA:HB1	2.01	0.42
1:P:485:GLN:HB3	1:P:489:GLN:NE2	2.34	0.42
1:B:128:LEU:CD1	1:B:488:ARG:HA	2.50	0.42
1:B:150:ALA:HB1	1:B:167:THR:OG1	2.19	0.42
1:B:65:ASN:ND2	1:B:66:PRO:HD3	2.35	0.42
1:C:309:ARG:O	1:C:313:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:412:ALA:O	1:C:420:ALA:HB1	2.20	0.42
1:C:443:TYR:CE1	1:C:470:GLY:HA3	2.55	0.42
1:D:93:ALA:HB1	1:D:494:ALA:HA	2.01	0.42
1:F:145:ASP:OD2	1:F:175:LEU:HD11	2.19	0.42
1:F:166:PHE:CE2	1:F:363:ARG:O	2.72	0.42
1:G:108:ILE:HG13	1:N:446:ALA:HB3	2.01	0.42
1:G:314:THR:HG23	1:G:316:GLY:H	1.84	0.42
1:G:414:ARG:HH21	1:N:406:HIS:CE1	2.37	0.42
1:G:99:GLU:OE2	1:G:425:SER:HB2	2.20	0.42
1:H:188:VAL:HG12	1:H:377:LEU:HD22	2.02	0.42
1:H:30:LEU:HG	1:H:87:THR:O	2.19	0.42
1:H:82:VAL:HG21	1:H:485:GLN:HB3	2.01	0.42
1:I:133:VAL:HA	1:I:393:THR:C	2.35	0.42
1:I:198:ASP:HA	1:I:364:GLY:HA2	2.02	0.42
1:J:225:LEU:HD13	1:J:226:ILE:N	2.35	0.42
1:J:280:ARG:O	1:J:281:GLN:CB	2.68	0.42
1:J:415:THR:O	1:J:420:ALA:HB2	2.20	0.42
1:J:452:LEU:HD22	1:J:465:LEU:HD11	2.00	0.42
1:J:96:LEU:HD13	1:J:97:LEU:N	2.34	0.42
1:K:185:ALA:HA	1:K:309:ARG:CD	2.50	0.42
1:K:313:VAL:CG1	1:K:352:VAL:HB	2.50	0.42
1:K:396:GLY:HA3	1:K:480:ILE:HG22	2.01	0.42
1:J:367:GLN:HB3	1:K:74:MET:HB2	2.02	0.42
1:N:142:PHE:C	1:N:143:ARG:HG3	2.40	0.42
1:N:394:VAL:CG2	1:N:482:GLU:HB2	2.50	0.42
1:O:206:LEU:CG	1:O:359:THR:HG21	2.49	0.42
1:O:408:VAL:HG23	1:O:427:ALA:HB1	2.00	0.42
1:F:421:VAL:HG22	1:O:453:ARG:NH2	2.34	0.42
1:P:123:ALA:O	1:P:126:GLN:HB2	2.19	0.42
1:P:166:PHE:CE1	1:P:198:ASP:CB	3.02	0.42
1:P:203:GLU:H	1:P:203:GLU:CD	2.23	0.42
1:P:448:LEU:HD21	1:P:465:LEU:CD1	2.47	0.42
1:P:57:ILE:C	1:P:57:ILE:HD13	2.40	0.42
1:A:367:GLN:HG2	1:A:368:GLN:H	1.85	0.42
1:C:192:LEU:N	1:C:192:LEU:HD12	2.35	0.42
1:D:194:GLY:CA	1:D:365:ALA:HA	2.50	0.42
1:D:505:ASP:HB2	1:H:25:LEU:HB3	2.01	0.42
1:F:107:LYS:O	1:F:108:ILE:HD13	2.20	0.42
1:F:188:VAL:HG23	1:F:360:ILE:O	2.20	0.42
1:F:313:VAL:CG1	1:F:352:VAL:HB	2.49	0.42
1:G:452:LEU:HD11	1:G:456:HIS:HE1	1.81	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:206:LEU:HG	1:H:361:VAL:HG13	2.01	0.42
1:H:28:SER:OG	1:H:37:LYS:HE3	2.19	0.42
1:H:498:ALA:O	1:H:501:ILE:HB	2.20	0.42
1:I:366:THR:O	1:I:367:GLN:HB3	2.20	0.42
1:J:158:LEU:C	1:J:160:THR:N	2.73	0.42
1:J:146:LEU:CD1	1:J:167:THR:O	2.68	0.42
1:J:286:TYR:HB2	1:J:287:PRO:HD3	2.02	0.42
1:J:369:ILE:HA	1:J:372:GLU:HB2	2.00	0.42
1:J:399:CYS:SG	1:J:464:GLY:CA	3.01	0.42
1:K:40:LEU:HB2	1:P:507:ILE:HG22	2.01	0.42
1:K:58:LEU:HB3	1:K:72:VAL:HG11	2.02	0.42
1:L:367:GLN:O	1:L:368:GLN:HB3	2.19	0.42
1:L:51:THR:HG21	1:L:56:THR:HB	2.02	0.42
1:M:21:ALA:O	1:M:25:LEU:HD23	2.20	0.42
1:O:226:ILE:HA	1:O:278:ILE:O	2.20	0.42
1:O:418:LYS:HA	1:O:421:VAL:HG12	2.01	0.42
1:O:59:LYS:HZ1	1:O:75:SER:HB3	1.84	0.42
1:O:82:VAL:HG22	1:O:486:VAL:CG1	2.49	0.42
1:P:263:LYS:O	1:P:267:GLU:HG2	2.19	0.42
1:A:452:LEU:HA	1:A:472:ILE:HG21	2.02	0.42
1:B:224:ILE:CD1	1:B:349:PHE:HE2	2.33	0.42
1:B:25:LEU:HD22	1:F:508:ILE:CG1	2.49	0.42
1:C:149:ILE:HB	1:C:481:THR:HG23	2.02	0.42
1:C:231:MET:HE1	1:C:265:LYS:HD3	2.01	0.42
1:C:211:ILE:HG23	1:C:298:ALA:HB3	2.01	0.42
1:C:450:ALA:HB2	1:L:418:LYS:HG2	2.01	0.42
1:E:122:LYS:CE	1:E:125:ARG:HH21	2.33	0.42
1:F:209:LYS:HB2	1:F:299:ILE:HG23	2.01	0.42
1:F:345:LYS:C	1:F:346:LEU:HD13	2.40	0.42
1:F:417:GLY:O	1:O:453:ARG:NH2	2.52	0.42
1:G:450:ALA:HB2	1:N:418:LYS:N	2.35	0.42
1:H:157:LYS:CB	1:H:159:LEU:HD21	2.49	0.42
1:H:433:LEU:HB2	1:H:434:PRO:HD3	2.01	0.42
1:I:154:LEU:HD22	1:I:167:THR:CB	2.47	0.42
1:I:39:LEU:CD1	1:I:57:ILE:HD11	2.50	0.42
1:J:163:LYS:HD2	1:J:166:PHE:CG	2.54	0.42
1:J:196:LEU:HD13	1:J:196:LEU:C	2.40	0.42
1:J:343:GLU:N	1:J:343:GLU:CD	2.73	0.42
1:J:506:ASN:O	1:N:38:ILE:HG13	2.20	0.42
1:K:154:LEU:HA	1:K:157:LYS:HD2	2.02	0.42
1:K:191:LYS:HZ2	1:K:346:LEU:HD11	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:154:LEU:CD2	1:L:167:THR:HB	2.50	0.42
1:L:222:ALA:HA	1:L:275:ASN:CB	2.50	0.42
1:O:190:LYS:HG3	1:O:190:LYS:H	1.64	0.42
1:P:510:ALA:C	1:P:512:PRO:HD2	2.40	0.42
1:B:112:THR:HG21	1:B:418:LYS:NZ	2.35	0.42
1:B:22:ILE:HD12	1:B:90:THR:CG2	2.49	0.42
1:C:222:ALA:HA	1:C:275:ASN:CG	2.39	0.42
1:D:261:LYS:O	1:D:264:GLU:HG2	2.19	0.42
1:D:312:LEU:HD23	1:D:312:LEU:HA	1.84	0.42
1:D:93:ALA:CB	1:D:494:ALA:HA	2.50	0.42
1:E:367:GLN:HG2	1:E:369:ILE:N	2.35	0.42
1:G:196:LEU:HD13	1:G:196:LEU:C	2.40	0.42
1:G:19:ALA:HB3	1:G:98:ARG:NH2	2.35	0.42
1:H:262:MET:SD	1:H:290:LEU:HB2	2.60	0.42
1:H:129:LEU:HB3	1:H:484:PHE:HZ	1.85	0.42
1:I:101:GLU:O	1:I:104:ILE:HG12	2.20	0.42
1:I:154:LEU:CD2	1:I:164:ASP:HA	2.49	0.42
1:J:415:THR:HG23	1:J:420:ALA:CB	2.50	0.42
1:J:32:PRO:HD2	1:J:467:MET:HE2	2.01	0.42
1:N:173:ALA:HB2	1:N:360:ILE:HD11	2.02	0.42
1:O:150:ALA:HB3	1:O:167:THR:HG23	2.02	0.42
1:O:399:CYS:HA	1:O:456:HIS:NE2	2.34	0.42
1:P:150:ALA:HB1	1:P:167:THR:OG1	2.20	0.42
1:A:127:ALA:CB	1:A:491:LEU:HD22	2.50	0.42
1:B:197:ALA:O	1:B:198:ASP:HB2	2.20	0.42
1:B:431:ARG:CZ	1:B:453:ARG:HD3	2.50	0.42
1:C:280:ARG:HA	1:C:302:ALA:O	2.20	0.42
1:C:379:ASP:O	1:C:383:VAL:HG23	2.20	0.42
1:C:402:MET:CE	1:C:453:ARG:HG2	2.50	0.42
1:C:92:LEU:HB2	1:C:490:VAL:HG22	2.02	0.42
1:D:361:VAL:HG12	1:D:363:ARG:HH12	1.85	0.42
1:D:395:TYR:OH	1:D:462:THR:HG22	2.20	0.42
1:E:182:ASN:CG	1:E:183:LEU:H	2.24	0.42
1:E:232:ASP:HA	1:E:284:TYR:CD1	2.54	0.42
1:E:280:ARG:HG3	1:E:304:PHE:HA	2.01	0.42
1:E:415:THR:HB	1:E:419:GLU:HB2	2.01	0.42
1:F:106:LYS:O	1:O:445:SER:HB2	2.20	0.42
1:F:198:ASP:O	1:F:199:SER:HB3	2.20	0.42
1:B:213:VAL:HG11	1:F:308:GLU:O	2.20	0.42
1:G:116:GLY:O	1:G:119:GLU:HB2	2.20	0.42
1:G:330:LEU:HD13	1:G:330:LEU:HA	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:200:TYR:HE2	1:G:363:ARG:HH21	1.68	0.42
1:G:404:MET:CE	1:G:430:LEU:HD11	2.50	0.42
1:H:146:LEU:HD21	1:H:150:ALA:HB3	2.02	0.42
1:H:280:ARG:O	1:H:281:GLN:CB	2.68	0.42
1:I:139:GLU:OE1	1:I:178:LYS:HE3	2.19	0.42
1:I:313:VAL:CG1	1:I:352:VAL:HB	2.50	0.42
1:I:394:VAL:HB	1:I:400:SER:OG	2.20	0.42
1:J:206:LEU:HD21	1:J:346:LEU:CB	2.49	0.42
1:K:324:HIS:HB2	1:K:329:LYS:HE2	2.02	0.42
1:K:408:VAL:HA	1:K:411:LEU:HD12	2.01	0.42
1:L:269:ILE:HD13	1:L:274:ILE:HG21	2.02	0.42
1:L:425:SER:O	1:L:428:LYS:HG2	2.20	0.42
1:L:496:GLU:HG3	1:P:367:GLN:CD	2.40	0.42
1:M:146:LEU:HB2	1:M:171:VAL:HG21	2.01	0.42
1:M:154:LEU:HD21	1:M:163:LYS:HZ3	1.84	0.42
1:M:486:VAL:HG23	1:M:487:LYS:CE	2.50	0.42
1:N:159:LEU:CG	1:N:163:LYS:HD3	2.49	0.42
1:G:108:ILE:CG1	1:N:446:ALA:HB3	2.50	0.42
1:O:17:ILE:O	1:O:20:ILE:HG22	2.19	0.42
1:O:326:GLU:HB2	1:O:327:LEU:H	1.59	0.42
1:P:405:ALA:HA	1:P:408:VAL:HG22	2.02	0.42
1:P:99:GLU:OE1	1:P:425:SER:HB2	2.20	0.42
1:A:109:HIS:HA	1:A:110:PRO:HD2	1.94	0.41
1:A:32:PRO:O	1:A:155:SER:O	2.38	0.41
1:B:214:ASN:O	1:B:215:GLN:CB	2.63	0.41
1:B:335:LEU:HD21	1:B:337:GLU:OE2	2.20	0.41
1:B:437:ILE:CG2	1:B:467:MET:SD	3.08	0.41
1:D:104:ILE:O	1:D:107:LYS:HB3	2.18	0.41
1:D:143:ARG:O	1:D:143:ARG:HG3	2.20	0.41
1:D:57:ILE:HD13	1:D:57:ILE:C	2.40	0.41
1:F:119:GLU:O	1:F:122:LYS:HB3	2.20	0.41
1:G:33:LYS:HD3	1:G:441:ALA:HA	2.02	0.41
1:G:40:LEU:HD12	1:G:41:SER:N	2.34	0.41
1:H:116:GLY:O	1:H:119:GLU:HB2	2.19	0.41
1:H:145:ASP:C	1:H:171:VAL:HG21	2.40	0.41
1:H:284:TYR:CE2	1:H:286:TYR:CD1	3.08	0.41
1:I:313:VAL:HG13	1:I:352:VAL:CB	2.50	0.41
1:K:122:LYS:HA	1:K:125:ARG:HG2	2.02	0.41
1:K:354:LEU:CD2	1:K:356:GLU:HB3	2.49	0.41
1:K:433:LEU:HB2	1:K:434:PRO:HD3	2.02	0.41
1:L:274:ILE:O	1:L:274:ILE:HG23	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:89:VAL:HG12	1:L:490:VAL:HB	2.02	0.41
1:L:59:LYS:HE3	1:L:76:ARG:CB	2.50	0.41
1:N:138:ASP:O	1:N:139:GLU:CB	2.62	0.41
1:N:431:ARG:CZ	1:N:431:ARG:HA	2.49	0.41
1:P:32:PRO:CA	1:P:155:SER:O	2.66	0.41
1:P:475:MET:O	1:P:478:LEU:HB2	2.20	0.41
1:A:135:HIS:HB3	1:A:136:GLY:H	1.68	0.41
1:A:158:LEU:C	1:A:160:THR:H	2.23	0.41
1:A:170:ALA:O	1:A:173:ALA:HB3	2.19	0.41
1:B:354:LEU:HG	1:B:356:GLU:H	1.85	0.41
1:C:146:LEU:HD11	1:C:150:ALA:CB	2.50	0.41
1:C:231:MET:C	1:C:284:TYR:HB2	2.41	0.41
1:D:274:ILE:HG23	1:D:296:VAL:HG21	2.01	0.41
1:E:321:THR:O	1:E:323:ASP:N	2.52	0.41
1:E:191:LYS:HD2	1:E:341:ILE:HB	2.02	0.41
1:E:403:LEU:HD22	1:E:461:THR:HG22	2.02	0.41
1:F:112:THR:HG21	1:F:418:LYS:CE	2.50	0.41
1:F:408:VAL:HG23	1:F:427:ALA:HB1	2.02	0.41
1:F:68:ALA:O	1:F:72:VAL:HG23	2.21	0.41
1:F:92:LEU:HA	1:F:95:GLU:OE2	2.19	0.41
1:G:247:SER:O	1:G:248:THR:HB	2.21	0.41
1:G:284:TYR:CE2	1:G:286:TYR:HD1	2.38	0.41
1:G:334:LYS:CB	1:G:351:GLY:HA3	2.50	0.41
1:G:398:GLY:HA2	1:G:401:GLU:OE1	2.19	0.41
1:H:253:GLU:O	1:H:257:ALA:N	2.53	0.41
1:H:183:LEU:HD11	1:H:381:LEU:CB	2.49	0.41
1:I:311:ALA:HA	1:I:314:THR:CG2	2.50	0.41
1:I:127:ALA:HA	1:I:404:MET:SD	2.60	0.41
1:J:174:VAL:HG11	1:J:384:LEU:CB	2.50	0.41
1:J:191:LYS:HZ2	1:J:344:ASP:HB3	1.85	0.41
1:J:366:THR:HB	1:K:77:VAL:CG1	2.47	0.41
1:K:106:LYS:HG2	1:K:113:ILE:HD11	2.02	0.41
1:K:190:LYS:NZ	1:K:370:LEU:HB3	2.36	0.41
1:K:274:ILE:O	1:K:296:VAL:HG22	2.20	0.41
1:K:297:MET:CE	1:K:347:ILE:HD11	2.50	0.41
1:L:111:GLN:NE2	1:L:111:GLN:H	2.18	0.41
1:L:191:LYS:HE3	1:L:344:ASP:HB2	2.01	0.41
1:L:393:THR:N	1:L:484:PHE:HB2	2.34	0.41
1:L:402:MET:HE1	1:L:406:HIS:HB2	2.01	0.41
1:M:108:ILE:HG22	1:M:109:HIS:N	2.35	0.41
1:M:141:LYS:CG	1:M:144:GLN:HB2	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:411:LEU:CB	1:M:423:MET:SD	3.06	0.41
1:M:67:ALA:HB2	1:M:507:ILE:HD12	2.02	0.41
1:M:58:LEU:CB	1:M:72:VAL:HG13	2.48	0.41
1:N:159:LEU:HA	1:N:369:ILE:HG23	2.02	0.41
1:N:190:LYS:HD2	1:N:190:LYS:C	2.40	0.41
1:P:138:ASP:O	1:P:139:GLU:CB	2.68	0.41
1:A:174:VAL:O	1:A:177:LEU:HD12	2.19	0.41
1:A:42:SER:CB	1:C:509:LYS:HE3	2.51	0.41
1:B:397:GLY:HA3	1:B:475:MET:HE1	2.01	0.41
1:C:114:ILE:O	1:C:117:TRP:HB2	2.20	0.41
1:C:163:LYS:HZ1	1:C:376:SER:CB	2.33	0.41
1:C:200:TYR:CD1	1:C:363:ARG:NE	2.88	0.41
1:C:47:SER:HB2	1:C:48:LEU:HD22	2.02	0.41
1:D:165:HIS:O	1:D:168:LYS:HB3	2.19	0.41
1:D:284:TYR:CE2	1:D:286:TYR:CD1	3.08	0.41
1:E:146:LEU:CD2	1:E:147:MET:H	2.33	0.41
1:F:34:GLY:HA3	1:F:156:SER:OG	2.21	0.41
1:F:159:LEU:CD2	1:F:159:LEU:N	2.84	0.41
1:F:19:ALA:HB3	1:F:98:ARG:NH2	2.35	0.41
1:F:58:LEU:C	1:F:72:VAL:HG11	2.40	0.41
1:G:192:LEU:HD23	1:G:366:THR:HG22	2.01	0.41
1:G:276:CYS:HA	1:G:297:MET:O	2.19	0.41
1:H:117:TRP:CH2	1:H:502:LEU:HD11	2.55	0.41
1:I:127:ALA:HB1	1:I:491:LEU:HD11	2.02	0.41
1:I:154:LEU:O	1:I:157:LYS:HB2	2.20	0.41
1:I:334:LYS:CB	1:I:351:GLY:HA3	2.50	0.41
1:I:31:GLY:HA3	1:I:440:ASN:ND2	2.36	0.41
1:I:148:ASN:HA	1:I:480:ILE:HG12	2.02	0.41
1:J:190:LYS:HB2	1:J:370:LEU:HD11	2.02	0.41
1:J:277:PHE:CE2	1:J:279:ASN:HB2	2.56	0.41
1:K:171:VAL:CG1	1:K:384:LEU:HD12	2.49	0.41
1:K:284:TYR:CE2	1:K:286:TYR:CD1	3.08	0.41
1:L:313:VAL:CG1	1:L:352:VAL:HB	2.51	0.41
1:L:354:LEU:HG	1:L:356:GLU:HB2	2.01	0.41
1:M:100:ALA:CA	1:M:103:LEU:HD13	2.43	0.41
1:M:145:ASP:OD2	1:M:175:LEU:HD11	2.20	0.41
1:M:463:ALA:HA	1:M:473:GLY:O	2.20	0.41
1:N:126:GLN:OE1	1:N:411:LEU:HD21	2.20	0.41
1:N:206:LEU:HD11	1:N:346:LEU:HD23	2.00	0.41
1:O:188:VAL:HG21	1:O:377:LEU:CD1	2.50	0.41
1:O:204:GLY:HA3	1:O:350:SER:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:280:ARG:C	1:O:280:ARG:HD3	2.40	0.41
1:O:399:CYS:SG	1:O:464:GLY:CA	3.03	0.41
1:A:134:ASP:OD2	1:A:393:THR:HG22	2.20	0.41
1:A:38:ILE:HG22	1:A:50:VAL:CB	2.47	0.41
1:A:84:ASP:CG	1:A:85:GLY:N	2.73	0.41
1:B:452:LEU:HA	1:B:472:ILE:HG21	2.03	0.41
1:C:127:ALA:HA	1:C:404:MET:HG3	2.02	0.41
1:C:206:LEU:C	1:C:206:LEU:HD13	2.40	0.41
1:C:351:GLY:C	1:C:352:VAL:HG13	2.40	0.41
1:C:402:MET:HG2	1:C:431:ARG:NH2	2.34	0.41
1:C:431:ARG:NH2	1:C:434:PRO:HG2	2.34	0.41
1:C:67:ALA:O	1:C:68:ALA:HB2	2.20	0.41
1:E:207:LEU:HD22	1:E:208:ASP:H	1.85	0.41
1:E:259:LYS:O	1:E:262:MET:HB3	2.19	0.41
1:E:354:LEU:CD2	1:E:356:GLU:HB3	2.50	0.41
1:E:36:ASP:CG	1:E:158:LEU:HB2	2.41	0.41
1:E:192:LEU:HA	1:E:370:LEU:HD21	2.01	0.41
1:F:196:LEU:C	1:F:196:LEU:HD13	2.40	0.41
1:F:176:ARG:NE	1:F:358:CYS:HB2	2.35	0.41
1:G:191:LYS:HZ3	1:G:346:LEU:HD11	1.85	0.41
1:G:23:GLY:HA2	1:G:26:VAL:HG22	2.02	0.41
1:G:341:ILE:HG23	1:G:363:ARG:CZ	2.50	0.41
1:H:109:HIS:O	1:H:113:ILE:HG12	2.20	0.41
1:H:222:ALA:HA	1:H:275:ASN:HB2	2.01	0.41
1:H:32:PRO:HB2	1:H:33:LYS:HD2	2.01	0.41
1:J:133:VAL:HA	1:J:393:THR:O	2.20	0.41
1:J:201:LEU:HD22	1:J:202:ASP:N	2.36	0.41
1:J:345:LYS:C	1:J:346:LEU:HD13	2.40	0.41
1:K:207:LEU:HD21	1:K:209:LYS:CE	2.50	0.41
1:K:225:LEU:HD13	1:K:329:LYS:HE3	2.03	0.41
1:L:431:ARG:HD2	1:L:453:ARG:NH1	2.35	0.41
1:L:41:SER:HB3	1:L:45:ASP:OD2	2.20	0.41
1:N:32:PRO:HG3	1:N:467:MET:CE	2.50	0.41
1:O:106:LYS:HD3	1:O:108:ILE:CD1	2.50	0.41
1:F:446:ALA:N	1:O:108:ILE:HG12	2.36	0.41
1:O:196:LEU:HD13	1:O:196:LEU:C	2.40	0.41
1:P:390:ASP:HB3	1:P:485:GLN:CD	2.40	0.41
1:B:334:LYS:HB3	1:B:351:GLY:HA3	2.02	0.41
1:B:393:THR:HB	1:B:481:THR:OG1	2.20	0.41
1:D:125:ARG:CG	1:D:125:ARG:NH1	2.78	0.41
1:D:420:ALA:HB1	1:K:453:ARG:HH21	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:508:ILE:O	1:H:40:LEU:O	2.39	0.41
1:F:126:GLN:O	1:F:130:ASN:HB2	2.20	0.41
1:F:173:ALA:HA	1:F:176:ARG:CZ	2.51	0.41
1:F:265:LYS:O	1:F:269:ILE:HG13	2.20	0.41
1:F:284:TYR:CE2	1:F:286:TYR:CD1	3.09	0.41
1:G:146:LEU:HD13	1:G:167:THR:O	2.20	0.41
1:G:313:VAL:HG13	1:G:352:VAL:CB	2.50	0.41
1:H:426:TYR:O	1:H:429:ALA:HB3	2.19	0.41
1:H:502:LEU:HD13	1:H:502:LEU:C	2.40	0.41
1:I:211:ILE:HG12	1:I:298:ALA:H	1.85	0.41
1:I:199:SER:CB	1:I:362:LEU:HD22	2.48	0.41
1:B:413:SER:CB	1:I:454:ALA:HA	2.50	0.41
1:D:27:LYS:CE	1:K:107:LYS:HE3	2.50	0.41
1:K:154:LEU:HD21	1:K:163:LYS:HZ3	1.85	0.41
1:K:266:VAL:CG2	1:K:290:LEU:HD11	2.50	0.41
1:L:368:GLN:HG3	1:L:368:GLN:O	2.21	0.41
1:L:40:LEU:HA	1:L:48:LEU:HA	2.01	0.41
1:N:269:ILE:HG12	1:N:274:ILE:HG21	2.03	0.41
1:O:174:VAL:HG11	1:O:384:LEU:CB	2.49	0.41
1:O:117:TRP:CD1	1:O:495:ALA:HA	2.55	0.41
1:P:259:LYS:O	1:P:262:MET:HB3	2.19	0.41
1:P:57:ILE:HD13	1:P:57:ILE:O	2.19	0.41
1:A:146:LEU:HD22	1:A:147:MET:H	1.85	0.41
1:B:226:ILE:HB	1:B:317:GLU:OE2	2.20	0.41
1:C:274:ILE:HG23	1:C:274:ILE:O	2.20	0.41
1:C:163:LYS:CE	1:C:376:SER:HB2	2.50	0.41
1:C:157:LYS:HE2	1:C:379:ASP:OD2	2.21	0.41
1:C:92:LEU:O	1:C:95:GLU:HG2	2.21	0.41
1:E:133:VAL:CG1	1:E:394:VAL:HG12	2.51	0.41
1:F:159:LEU:HD12	1:F:369:ILE:O	2.19	0.41
1:G:449:VAL:O	1:G:453:ARG:HG3	2.20	0.41
1:I:59:LYS:HD2	1:I:76:ARG:HB2	2.03	0.41
1:J:117:TRP:HD1	1:J:495:ALA:CA	2.33	0.41
1:J:146:LEU:HD13	1:J:168:LYS:CA	2.51	0.41
1:K:149:ILE:HD13	1:K:383:VAL:HG13	2.02	0.41
1:L:152:THR:OG1	1:L:480:ILE:HG23	2.20	0.41
1:L:177:LEU:HD21	1:L:183:LEU:HA	2.02	0.41
1:L:326:GLU:HG3	1:L:327:LEU:HD22	2.03	0.41
1:L:200:TYR:HD1	1:L:363:ARG:HD2	1.82	0.41
1:L:499:GLU:O	1:L:503:ARG:HG2	2.20	0.41
1:M:116:GLY:HA2	1:M:422:ALA:CA	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:159:LEU:HD23	1:M:163:LYS:HB3	2.03	0.41
1:M:188:VAL:CG2	1:M:362:LEU:HG	2.50	0.41
1:M:419:GLU:O	1:M:422:ALA:HB3	2.21	0.41
1:M:452:LEU:HD11	1:M:456:HIS:CE1	2.55	0.41
1:N:125:ARG:HG3	1:N:126:GLN:N	2.35	0.41
1:N:176:ARG:HD2	1:N:358:CYS:HB2	2.02	0.41
1:N:513:ARG:CA	1:N:513:ARG:NE	2.77	0.41
1:O:159:LEU:HD13	1:O:372:GLU:CD	2.41	0.41
1:O:222:ALA:HA	1:O:275:ASN:CB	2.51	0.41
1:O:341:ILE:O	1:O:343:GLU:N	2.47	0.41
1:P:32:PRO:N	1:P:156:SER:HA	2.35	0.41
1:P:159:LEU:H	1:P:159:LEU:HD22	1.86	0.41
1:P:277:PHE:CE2	1:P:279:ASN:HB2	2.55	0.41
1:P:433:LEU:HD12	1:P:433:LEU:H	1.85	0.41
1:P:152:THR:HB	1:P:480:ILE:HG23	2.03	0.41
1:P:496:GLU:O	1:P:499:GLU:HB3	2.20	0.41
1:A:148:ASN:HB3	1:A:481:THR:H	1.85	0.41
1:A:438:ALA:CB	1:A:448:LEU:HG	2.46	0.41
1:A:54:GLY:O	1:A:58:LEU:HD23	2.21	0.41
1:B:122:LYS:NZ	1:B:126:GLN:HE21	2.18	0.41
1:C:198:ASP:O	1:C:363:ARG:O	2.39	0.41
1:D:186:ILE:HG21	1:D:381:LEU:HG	2.03	0.41
1:D:450:ALA:HB3	1:K:417:GLY:HA2	1.97	0.41
1:D:501:ILE:HA	1:D:504:VAL:HG23	2.03	0.41
1:E:183:LEU:O	1:E:184:GLU:HG3	2.21	0.41
1:E:188:VAL:HG21	1:E:377:LEU:HB2	2.03	0.41
1:E:166:PHE:CE1	1:E:198:ASP:HB3	2.55	0.41
1:E:191:LYS:HB3	1:E:363:ARG:HG2	2.02	0.41
1:E:394:VAL:HG23	1:E:482:GLU:HB2	2.01	0.41
1:E:69:LYS:O	1:E:72:VAL:HB	2.21	0.41
1:F:216:PRO:HG2	1:F:295:GLY:CA	2.45	0.41
1:F:286:TYR:HB2	1:F:287:PRO:HD3	2.03	0.41
1:F:119:GLU:OE1	1:F:415:THR:HG21	2.20	0.41
1:F:402:MET:HE3	1:F:453:ARG:HG2	2.03	0.41
1:F:127:ALA:CB	1:F:491:LEU:HD11	2.51	0.41
1:G:233:THR:HG21	1:G:261:LYS:HE3	2.02	0.41
1:G:280:ARG:HG2	1:G:302:ALA:O	2.20	0.41
1:G:27:LYS:CA	1:G:436:ILE:HD11	2.51	0.41
1:H:157:LYS:HB3	1:H:159:LEU:HD11	2.03	0.41
1:H:259:LYS:O	1:H:262:MET:HB3	2.20	0.41
1:H:206:LEU:CD1	1:H:346:LEU:HG	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:32:PRO:HA	1:I:156:SER:CA	2.50	0.41
1:I:33:LYS:HB3	1:N:109:HIS:HE1	1.79	0.41
1:I:412:ALA:HB1	1:I:424:GLU:HB3	2.02	0.41
1:J:117:TRP:O	1:J:120:ALA:HB3	2.21	0.41
1:J:207:LEU:HD22	1:J:208:ASP:H	1.86	0.41
1:J:341:ILE:HD11	1:J:348:HIS:CE1	2.55	0.41
1:J:334:LYS:HB3	1:J:351:GLY:HA3	2.00	0.41
1:K:115:ALA:O	1:K:118:ARG:HB3	2.21	0.41
1:K:286:TYR:HB2	1:K:287:PRO:HD3	2.02	0.41
1:K:324:HIS:O	1:K:328:VAL:HG22	2.21	0.41
1:L:109:HIS:HA	1:L:110:PRO:HD3	1.92	0.41
1:N:313:VAL:CG1	1:N:352:VAL:HB	2.51	0.41
1:N:119:GLU:CB	1:N:423:MET:HG3	2.50	0.41
1:O:188:VAL:HG21	1:O:377:LEU:CD2	2.47	0.41
1:P:103:LEU:HD23	1:P:113:ILE:HD13	2.03	0.41
1:P:116:GLY:O	1:P:119:GLU:HB2	2.21	0.41
1:P:149:ILE:CD1	1:P:482:GLU:HG2	2.50	0.41
1:L:318:ILE:CG1	1:P:289:GLN:HB3	2.51	0.41
1:P:359:THR:HG22	1:P:361:VAL:CG2	2.51	0.41
1:A:173:ALA:HA	1:A:176:ARG:NH1	2.36	0.41
1:A:140:VAL:CA	1:A:178:LYS:HZ2	2.33	0.41
1:B:106:LYS:HZ2	1:B:109:HIS:H	1.67	0.41
1:B:321:THR:O	1:B:323:ASP:N	2.54	0.41
1:B:334:LYS:CD	1:B:351:GLY:HA3	2.50	0.41
1:B:38:ILE:CG2	1:B:50:VAL:HB	2.51	0.41
1:C:399:CYS:SG	1:C:464:GLY:CA	3.07	0.41
1:D:146:LEU:CD1	1:D:167:THR:O	2.69	0.41
1:D:274:ILE:HG23	1:D:274:ILE:O	2.21	0.41
1:D:359:THR:O	1:D:360:ILE:HG12	2.21	0.41
1:D:384:LEU:N	1:D:384:LEU:HD22	2.36	0.41
1:D:448:LEU:HD21	1:D:465:LEU:HD12	2.03	0.41
1:D:69:LYS:O	1:D:72:VAL:HB	2.21	0.41
1:E:65:ASN:CG	1:E:66:PRO:HD3	2.41	0.41
1:F:109:HIS:ND1	1:F:111:GLN:HB2	2.33	0.41
1:F:214:ASN:O	1:F:215:GLN:CB	2.65	0.41
1:F:405:ALA:HA	1:F:408:VAL:CG2	2.51	0.41
1:G:107:LYS:C	1:G:108:ILE:HG13	2.41	0.41
1:G:183:LEU:HD11	1:G:381:LEU:HD11	2.02	0.41
1:H:225:LEU:HD13	1:H:329:LYS:HE2	2.02	0.41
1:I:286:TYR:HB2	1:I:287:PRO:HD3	2.02	0.41
1:I:354:LEU:HD21	1:I:356:GLU:CB	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:446:ALA:HB3	1:J:106:LYS:HG2	2.01	0.41
1:J:207:LEU:HD22	1:J:208:ASP:N	2.36	0.41
1:J:507:ILE:HA	1:N:38:ILE:CD1	2.51	0.41
1:K:181:GLY:O	1:K:182:ASN:CG	2.59	0.41
1:K:284:TYR:CE2	1:K:286:TYR:HD1	2.39	0.41
1:L:265:LYS:HE2	1:L:322:PHE:CE2	2.55	0.41
1:L:387:THR:HA	1:L:390:ASP:OD1	2.20	0.41
1:M:495:ALA:O	1:M:499:GLU:HB2	2.20	0.41
1:I:33:LYS:CB	1:N:109:HIS:CE1	3.00	0.41
1:N:128:LEU:O	1:N:129:LEU:HD13	2.20	0.41
1:N:142:PHE:O	1:N:143:ARG:CG	2.66	0.41
1:N:448:LEU:HD21	1:N:465:LEU:CD1	2.42	0.41
1:N:47:SER:HB3	1:N:48:LEU:H	1.70	0.41
1:O:313:VAL:HG13	1:O:352:VAL:CB	2.51	0.41
1:O:384:LEU:HD22	1:O:384:LEU:N	2.36	0.41
1:P:181:GLY:O	1:P:182:ASN:HB3	2.20	0.41
1:P:339:VAL:HB	1:P:348:HIS:ND1	2.36	0.41
1:P:166:PHE:CD2	1:P:362:LEU:HD22	2.55	0.41
1:P:114:ILE:CG1	1:P:503:ARG:HD2	2.49	0.41
1:A:154:LEU:CD2	1:A:163:LYS:HG2	2.50	0.41
1:A:32:PRO:CG	1:A:467:MET:SD	2.90	0.41
1:A:512:PRO:O	1:A:513:ARG:CB	2.68	0.41
1:B:100:ALA:O	1:B:103:LEU:HB2	2.21	0.41
1:B:367:GLN:HB3	1:B:369:ILE:HG13	2.03	0.41
1:C:173:ALA:O	1:C:176:ARG:HG2	2.20	0.41
1:C:321:THR:O	1:C:323:ASP:N	2.53	0.41
1:C:206:LEU:HD21	1:C:346:LEU:HD23	2.03	0.41
1:C:82:VAL:HG11	1:C:485:GLN:CG	2.45	0.41
1:D:133:VAL:HB	1:D:394:VAL:HA	2.03	0.41
1:E:103:LEU:HG	1:E:113:ILE:CD1	2.50	0.41
1:E:191:LYS:HD2	1:E:341:ILE:CG2	2.50	0.41
1:E:392:ARG:C	1:E:484:PHE:HB2	2.41	0.41
1:F:107:LYS:CG	1:F:107:LYS:O	2.69	0.41
1:F:312:LEU:O	1:F:354:LEU:HD22	2.21	0.41
1:F:377:LEU:CD1	1:F:377:LEU:C	2.89	0.41
1:F:452:LEU:HD11	1:F:456:HIS:HE1	1.86	0.41
1:I:149:ILE:O	1:I:149:ILE:HD13	2.20	0.41
1:I:74:MET:SD	1:I:74:MET:C	2.99	0.41
1:J:39:LEU:O	1:J:48:LEU:HD12	2.21	0.41
1:K:113:ILE:HG22	1:K:117:TRP:HZ3	1.84	0.41
1:K:122:LYS:O	1:K:125:ARG:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:232:ASP:HA	1:K:284:TYR:CD1	2.55	0.41
1:L:128:LEU:HD11	1:L:488:ARG:CB	2.51	0.41
1:M:511:ALA:O	1:M:512:PRO:O	2.38	0.41
1:N:146:LEU:HD11	1:N:150:ALA:HB2	2.03	0.41
1:N:185:ALA:N	1:N:309:ARG:HG2	2.36	0.41
1:N:219:ILE:HD13	1:N:276:CYS:HB2	2.02	0.41
1:N:313:VAL:HG13	1:N:352:VAL:CB	2.51	0.41
1:O:412:ALA:O	1:O:420:ALA:HB1	2.21	0.41
1:P:394:VAL:O	1:P:482:GLU:N	2.51	0.41
1:A:394:VAL:HG21	1:A:487:LYS:HG3	2.03	0.41
1:A:149:ILE:HD12	1:A:483:SER:H	1.85	0.41
1:B:448:LEU:HD11	1:B:465:LEU:CD1	2.51	0.41
1:C:433:LEU:HB2	1:C:434:PRO:HD3	2.03	0.41
1:C:64:ASP:CG	1:C:66:PRO:HD2	2.42	0.41
1:D:132:ALA:O	1:D:133:VAL:CG2	2.67	0.41
1:D:177:LEU:HD23	1:D:186:ILE:HD11	2.02	0.41
1:E:48:LEU:HD11	1:G:65:ASN:O	2.21	0.41
1:F:268:ARG:O	1:F:271:LYS:HG2	2.20	0.41
1:F:312:LEU:HD22	1:F:312:LEU:O	2.20	0.41
1:F:341:ILE:HG12	1:F:363:ARG:NH2	2.36	0.41
1:F:450:ALA:HA	1:O:417:GLY:H	1.86	0.41
1:F:396:GLY:HA3	1:F:480:ILE:HG22	2.02	0.41
1:F:82:VAL:HG13	1:F:83:GLY:N	2.36	0.41
1:F:96:LEU:HA	1:F:99:GLU:OE1	2.20	0.41
1:G:117:TRP:O	1:G:120:ALA:HB3	2.21	0.41
1:H:15:SER:HB2	1:H:501:ILE:HD13	2.02	0.41
1:I:182:ASN:HB2	1:I:312:LEU:HG	2.02	0.41
1:J:129:LEU:HD12	1:J:484:PHE:CZ	2.56	0.41
1:J:31:GLY:C	1:J:155:SER:HB3	2.41	0.41
1:J:22:ILE:HD12	1:J:90:THR:CG2	2.50	0.41
1:J:310:LEU:HD13	1:J:310:LEU:O	2.21	0.41
1:J:313:VAL:CG1	1:J:352:VAL:HB	2.51	0.41
1:J:178:LYS:NZ	1:J:388:VAL:HG21	2.36	0.41
1:K:65:ASN:ND2	1:K:66:PRO:HD3	2.36	0.41
1:L:126:GLN:HB2	1:L:126:GLN:HE21	1.64	0.41
1:L:154:LEU:HD22	1:L:167:THR:HB	2.03	0.41
1:L:324:HIS:CG	1:L:325:PRO:HD3	2.56	0.41
1:L:362:LEU:HD11	1:L:377:LEU:HD22	2.03	0.41
1:L:377:LEU:O	1:L:380:ALA:HB3	2.21	0.41
1:L:384:LEU:HD22	1:L:384:LEU:N	2.35	0.41
1:M:334:LYS:HG3	1:M:351:GLY:HA3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:117:TRP:O	1:N:120:ALA:HB3	2.20	0.41
1:O:313:VAL:HG13	1:O:352:VAL:HB	2.02	0.41
1:O:394:VAL:CG2	1:O:482:GLU:HB2	2.51	0.41
1:O:393:THR:HA	1:O:484:PHE:H	1.86	0.41
1:O:82:VAL:CG1	1:O:83:GLY:H	2.15	0.41
1:P:159:LEU:O	1:P:161:HIS:N	2.53	0.41
1:P:359:THR:HG22	1:P:361:VAL:HG23	2.03	0.41
1:P:485:GLN:CB	1:P:489:GLN:HE22	2.33	0.41
1:B:255:GLU:O	1:B:258:GLU:HB3	2.21	0.41
1:C:197:ALA:O	1:C:198:ASP:HB2	2.21	0.41
1:D:117:TRP:HA	1:D:120:ALA:CB	2.50	0.41
1:D:146:LEU:HD21	1:D:150:ALA:CB	2.30	0.41
1:D:431:ARG:HA	1:D:431:ARG:NE	2.36	0.41
1:E:108:ILE:CG2	1:E:109:HIS:N	2.84	0.41
1:E:154:LEU:HD21	1:E:163:LYS:HG3	2.01	0.41
1:E:211:ILE:HG12	1:E:298:ALA:H	1.85	0.41
1:E:171:VAL:CG1	1:E:384:LEU:HD12	2.51	0.41
1:F:116:GLY:HA3	1:F:422:ALA:HB1	2.02	0.41
1:F:178:LYS:HG3	1:F:388:VAL:HG13	2.01	0.41
1:F:310:LEU:O	1:F:314:THR:HG22	2.20	0.41
1:G:52:ASN:CG	1:G:157:LYS:HG2	2.42	0.41
1:G:66:PRO:N	1:G:507:ILE:HD11	2.36	0.41
1:H:226:ILE:HG12	1:H:278:ILE:CG2	2.51	0.41
1:H:402:MET:CE	1:H:406:HIS:HB2	2.50	0.41
1:I:169:LEU:HD23	1:I:362:LEU:CD2	2.50	0.41
1:I:219:ILE:HD13	1:I:276:CYS:HB2	2.02	0.41
1:K:191:LYS:HA	1:K:191:LYS:CE	2.51	0.41
1:K:191:LYS:HE3	1:K:191:LYS:HB2	1.89	0.41
1:L:128:LEU:HD21	1:L:488:ARG:CA	2.50	0.41
1:L:177:LEU:HD13	1:L:177:LEU:C	2.41	0.41
1:L:187:HIS:CE1	1:L:189:ILE:HD11	2.55	0.41
1:L:496:GLU:HB3	1:P:369:ILE:CG1	2.48	0.41
1:M:51:THR:HG22	1:M:53:ASP:O	2.20	0.41
1:N:201:LEU:HD22	1:N:202:ASP:O	2.21	0.41
1:N:284:TYR:CE2	1:N:286:TYR:HD1	2.37	0.41
1:G:450:ALA:CA	1:N:417:GLY:HA3	2.51	0.41
1:N:41:SER:O	1:N:45:ASP:HB2	2.21	0.41
1:B:25:LEU:HD12	1:F:509:LYS:HD2	2.02	0.40
1:B:27:LYS:HA	1:B:436:ILE:CD1	2.34	0.40
1:B:310:LEU:HD13	1:B:310:LEU:O	2.21	0.40
1:B:36:ASP:O	1:F:504:VAL:HG21	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:443:TYR:CD1	1:B:470:GLY:HA2	2.56	0.40
1:C:452:LEU:CD2	1:C:465:LEU:HD21	2.51	0.40
1:C:117:TRP:HD1	1:C:495:ALA:C	2.24	0.40
1:C:58:LEU:HB3	1:C:72:VAL:HG11	2.01	0.40
1:C:78:GLN:HA	1:C:78:GLN:OE1	2.21	0.40
1:D:110:PRO:O	1:D:113:ILE:HB	2.21	0.40
1:D:140:VAL:HG12	1:D:141:LYS:N	2.36	0.40
1:E:215:GLN:HG3	1:E:292:GLY:HA2	2.02	0.40
1:E:367:GLN:O	1:E:370:LEU:HB3	2.21	0.40
1:F:154:LEU:CD1	1:F:159:LEU:HD21	2.49	0.40
1:F:75:SER:O	1:F:78:GLN:HB3	2.21	0.40
1:G:166:PHE:HD1	1:G:166:PHE:N	2.18	0.40
1:G:198:ASP:O	1:G:363:ARG:HB2	2.21	0.40
1:G:96:LEU:O	1:G:96:LEU:HD22	2.21	0.40
1:H:189:ILE:HG22	1:H:190:LYS:N	2.35	0.40
1:I:322:PHE:HA	1:I:324:HIS:CD2	2.57	0.40
1:J:159:LEU:HD23	1:J:163:LYS:CG	2.42	0.40
1:J:276:CYS:HA	1:J:297:MET:O	2.22	0.40
1:J:228:ASN:ND2	1:J:319:ALA:HB3	2.36	0.40
1:K:185:ALA:HA	1:K:309:ARG:HD3	2.02	0.40
1:K:310:LEU:HD21	1:K:349:PHE:CE1	2.56	0.40
1:K:388:VAL:HG23	1:K:389:LYS:HD2	2.02	0.40
1:M:65:ASN:N	1:M:66:PRO:CD	2.84	0.40
1:M:76:ARG:O	1:M:79:ASP:HB3	2.21	0.40
1:G:444:ASP:OD1	1:N:108:ILE:HG21	2.21	0.40
1:N:201:LEU:HD23	1:N:360:ILE:HG12	2.02	0.40
1:N:216:PRO:HG2	1:N:295:GLY:C	2.42	0.40
1:O:205:PHE:HA	1:O:359:THR:CB	2.51	0.40
1:O:28:SER:HB2	1:O:35:MET:CG	2.51	0.40
1:O:84:ASP:OD2	1:O:382:CYS:HB2	2.21	0.40
1:O:38:ILE:C	1:O:39:LEU:HG	2.40	0.40
1:O:65:ASN:N	1:O:66:PRO:CD	2.84	0.40
1:P:226:ILE:HG21	1:P:307:VAL:CG1	2.51	0.40
1:P:280:ARG:HG3	1:P:304:PHE:CB	2.51	0.40
1:A:182:ASN:CG	1:A:183:LEU:N	2.74	0.40
1:A:126:GLN:HG2	1:A:411:LEU:HD13	2.03	0.40
1:E:158:LEU:HG	1:E:158:LEU:O	2.20	0.40
1:E:312:LEU:HD22	1:E:312:LEU:HA	1.86	0.40
1:E:394:VAL:CG2	1:E:482:GLU:HB2	2.51	0.40
1:F:159:LEU:HD22	1:F:159:LEU:H	1.86	0.40
1:F:412:ALA:HB1	1:F:424:GLU:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:59:LYS:HE2	1:F:59:LYS:HB2	1.92	0.40
1:G:110:PRO:HD2	1:G:111:GLN:OE1	2.21	0.40
1:G:24:ASP:O	1:G:27:LYS:HG2	2.21	0.40
1:G:313:VAL:HG13	1:G:352:VAL:CG1	2.51	0.40
1:G:74:MET:HE1	1:G:493:SER:HA	2.03	0.40
1:H:146:LEU:HD11	1:H:150:ALA:HB3	2.02	0.40
1:H:166:PHE:CE1	1:H:198:ASP:HB3	2.56	0.40
1:H:232:ASP:HA	1:H:284:TYR:CD1	2.56	0.40
1:H:219:ILE:CD1	1:H:275:ASN:HB3	2.49	0.40
1:H:57:ILE:HG23	1:H:58:LEU:HD22	2.02	0.40
1:I:146:LEU:CD1	1:I:171:VAL:CG1	3.00	0.40
1:I:38:ILE:O	1:I:38:ILE:HG13	2.20	0.40
1:J:133:VAL:CA	1:J:393:THR:O	2.69	0.40
1:J:277:PHE:O	1:J:298:ALA:HA	2.21	0.40
1:J:448:LEU:HD22	1:J:451:GLN:HE21	1.86	0.40
1:J:452:LEU:HD11	1:J:456:HIS:HE1	1.86	0.40
1:J:484:PHE:CE2	1:J:488:ARG:NE	2.89	0.40
1:K:173:ALA:O	1:K:176:ARG:HG2	2.20	0.40
1:K:287:PRO:O	1:K:290:LEU:HB3	2.22	0.40
1:K:206:LEU:HD21	1:K:346:LEU:CB	2.52	0.40
1:L:131:SER:HB2	1:L:461:THR:HG21	2.02	0.40
1:L:176:ARG:HH22	1:L:201:LEU:HD21	1.87	0.40
1:L:432:MET:O	1:L:435:THR:HB	2.21	0.40
1:L:440:ASN:HA	1:M:109:HIS:ND1	2.37	0.40
1:M:166:PHE:CE1	1:M:198:ASP:CB	3.04	0.40
1:N:110:PRO:O	1:N:114:ILE:HG12	2.21	0.40
1:N:475:MET:SD	1:N:480:ILE:HB	2.61	0.40
1:O:129:LEU:O	1:O:132:ALA:HB2	2.20	0.40
1:O:159:LEU:HD22	1:O:159:LEU:N	2.36	0.40
1:O:222:ALA:O	1:O:333:CYS:HA	2.22	0.40
1:P:257:ALA:O	1:P:261:LYS:HD2	2.20	0.40
1:P:415:THR:HG21	1:P:423:MET:CE	2.47	0.40
1:P:27:LYS:HB2	1:P:436:ILE:HD13	2.03	0.40
1:A:141:LYS:HG3	1:A:144:GLN:H	1.86	0.40
1:A:433:LEU:O	1:A:437:ILE:HG12	2.21	0.40
1:B:65:ASN:CG	1:B:66:PRO:HD3	2.42	0.40
1:C:313:VAL:CG1	1:C:352:VAL:HB	2.51	0.40
1:C:507:ILE:HB	1:C:508:ILE:H	1.68	0.40
1:C:57:ILE:O	1:C:57:ILE:HD13	2.21	0.40
1:D:388:VAL:HG13	1:D:389:LYS:N	2.36	0.40
1:D:396:GLY:HA3	1:D:480:ILE:HG22	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:323:ASP:C	1:E:325:PRO:HD2	2.42	0.40
1:E:341:ILE:O	1:E:343:GLU:N	2.54	0.40
1:E:188:VAL:CG2	1:E:377:LEU:HD22	2.51	0.40
1:F:217:LYS:HB2	1:F:217:LYS:HZ2	1.86	0.40
1:F:53:ASP:N	1:F:375:ARG:HD3	2.36	0.40
1:F:386:GLN:HB3	1:F:485:GLN:HG3	2.03	0.40
1:F:50:VAL:O	1:F:375:ARG:NH1	2.50	0.40
1:G:123:ALA:O	1:G:126:GLN:HB2	2.21	0.40
1:G:49:MET:HB3	1:G:375:ARG:NH1	2.36	0.40
1:G:390:ASP:HB3	1:G:485:GLN:OE1	2.22	0.40
1:H:219:ILE:HD12	1:H:275:ASN:CB	2.50	0.40
1:H:232:ASP:N	1:H:284:TYR:HB2	2.35	0.40
1:I:163:LYS:HE2	1:I:373:ALA:CB	2.51	0.40
1:I:163:LYS:O	1:I:166:PHE:HB2	2.21	0.40
1:I:222:ALA:HB1	1:I:336:ILE:HD12	2.02	0.40
1:K:405:ALA:HA	1:K:408:VAL:HG22	2.03	0.40
1:L:32:PRO:HA	1:L:155:SER:CB	2.50	0.40
1:L:38:ILE:HG22	1:L:50:VAL:CG2	2.51	0.40
1:L:51:THR:HG22	1:L:53:ASP:O	2.22	0.40
1:M:85:GLY:O	1:M:153:THR:HA	2.21	0.40
1:M:166:PHE:CE1	1:M:198:ASP:HB3	2.56	0.40
1:M:490:VAL:HG13	1:M:491:LEU:HG	2.03	0.40
1:N:102:SER:O	1:N:105:ALA:HB3	2.20	0.40
1:N:164:ASP:O	1:N:167:THR:HG22	2.21	0.40
1:N:280:ARG:O	1:N:281:GLN:CB	2.69	0.40
1:O:141:LYS:HA	1:O:141:LYS:HD2	1.95	0.40
1:O:78:GLN:NE2	1:O:486:VAL:HA	2.36	0.40
1:P:158:LEU:HA	1:P:158:LEU:HD23	1.84	0.40
1:P:280:ARG:CG	1:P:304:PHE:HB2	2.52	0.40
1:P:338:GLU:HA	1:P:347:ILE:HA	2.02	0.40
1:A:402:MET:HE1	1:A:406:HIS:HB2	2.02	0.40
1:B:198:ASP:HA	1:B:364:GLY:CA	2.51	0.40
1:B:317:GLU:OE2	1:B:329:LYS:HE3	2.21	0.40
1:C:219:ILE:HG21	1:C:275:ASN:O	2.22	0.40
1:C:70:VAL:HG13	1:C:508:ILE:HG21	2.03	0.40
1:E:131:SER:HA	1:E:403:LEU:CD2	2.47	0.40
1:E:191:LYS:HB2	1:E:191:LYS:HE3	1.88	0.40
1:E:207:LEU:HD13	1:E:208:ASP:N	2.37	0.40
1:E:313:VAL:CG1	1:E:352:VAL:HB	2.51	0.40
1:E:65:ASN:ND2	1:E:66:PRO:HD3	2.37	0.40
1:F:222:ALA:HA	1:F:275:ASN:CG	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:394:VAL:CG2	1:F:482:GLU:HB2	2.51	0.40
1:G:129:LEU:O	1:G:129:LEU:HD23	2.21	0.40
1:G:38:ILE:HG22	1:G:50:VAL:CG2	2.51	0.40
1:H:202:ASP:HB2	1:H:361:VAL:CG2	2.51	0.40
1:I:124:ALA:O	1:I:128:LEU:HG	2.22	0.40
1:I:146:LEU:HD22	1:I:168:LYS:HA	2.03	0.40
1:I:182:ASN:CB	1:I:312:LEU:HG	2.51	0.40
1:I:408:VAL:HA	1:I:411:LEU:HD12	2.03	0.40
1:I:431:ARG:CZ	1:I:431:ARG:HA	2.51	0.40
1:I:484:PHE:HE2	1:I:488:ARG:HE	1.66	0.40
1:J:149:ILE:HG22	1:J:384:LEU:HD13	2.03	0.40
1:K:207:LEU:HD21	1:K:209:LYS:HE2	2.02	0.40
1:L:202:ASP:OD2	1:L:361:VAL:HG21	2.22	0.40
1:L:448:LEU:HD11	1:L:465:LEU:CD1	2.51	0.40
1:M:106:LYS:C	1:M:107:LYS:HD2	2.40	0.40
1:M:126:GLN:HG3	1:M:127:ALA:N	2.37	0.40
1:L:158:LEU:HD21	1:M:499:GLU:OE2	2.22	0.40
1:N:313:VAL:HG22	1:N:357:ALA:HB3	2.04	0.40
1:N:402:MET:HG2	1:N:431:ARG:HH22	1.85	0.40
1:N:452:LEU:CD2	1:N:465:LEU:HD21	2.52	0.40
1:O:225:LEU:HG	1:O:277:PHE:HD1	1.85	0.40
1:A:138:ASP:O	1:A:139:GLU:O	2.39	0.40
1:A:40:LEU:HD22	1:C:508:ILE:HA	2.03	0.40
1:A:59:LYS:CE	1:A:76:ARG:HB2	2.46	0.40
1:B:277:PHE:CE2	1:B:279:ASN:HB2	2.56	0.40
1:B:40:LEU:HD23	1:B:48:LEU:CD1	2.51	0.40
1:C:231:MET:HG3	1:C:283:ILE:HG13	2.03	0.40
1:D:109:HIS:CE1	1:D:111:GLN:HB2	2.57	0.40
1:D:324:HIS:HB2	1:D:329:LYS:HE2	2.03	0.40
1:E:171:VAL:HA	1:E:174:VAL:HG22	2.03	0.40
1:D:25:LEU:HG	1:E:508:ILE:HG12	2.03	0.40
1:F:417:GLY:C	1:O:450:ALA:HA	2.42	0.40
1:F:430:LEU:HA	1:F:430:LEU:HD13	1.86	0.40
1:F:57:ILE:HD13	1:F:57:ILE:C	2.42	0.40
1:G:224:ILE:HD11	1:G:349:PHE:HE2	1.85	0.40
1:G:57:ILE:HG23	1:G:58:LEU:CD2	2.52	0.40
1:H:147:MET:HG3	1:H:168:LYS:HD3	2.04	0.40
1:H:163:LYS:HA	1:H:166:PHE:HD1	1.85	0.40
1:H:231:MET:C	1:H:284:TYR:HB2	2.42	0.40
1:H:280:ARG:HG2	1:H:302:ALA:O	2.22	0.40
1:H:398:GLY:HA2	1:H:401:GLU:CD	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:32:PRO:CA	1:I:155:SER:O	2.62	0.40
1:I:17:ILE:O	1:I:20:ILE:HG22	2.21	0.40
1:I:198:ASP:O	1:I:199:SER:HB3	2.21	0.40
1:I:226:ILE:HA	1:I:278:ILE:O	2.21	0.40
1:I:341:ILE:HA	1:I:341:ILE:HD13	1.93	0.40
1:I:452:LEU:HD13	1:I:465:LEU:HD11	2.04	0.40
1:I:63:VAL:HG21	1:N:511:ALA:O	2.21	0.40
1:J:109:HIS:HA	1:J:110:PRO:HD2	1.82	0.40
1:J:95:GLU:OE2	1:J:429:ALA:HB1	2.21	0.40
1:J:59:LYS:CE	1:J:76:ARG:HB2	2.48	0.40
1:J:158:LEU:HD23	1:K:503:ARG:NE	2.36	0.40
1:L:137:SER:H	1:L:391:SER:HA	1.86	0.40
1:N:163:LYS:HG3	1:N:166:PHE:CB	2.51	0.40
1:O:313:VAL:CG2	1:O:357:ALA:HB3	2.49	0.40
1:O:510:ALA:O	1:O:511:ALA:HB2	2.22	0.40
1:P:262:MET:SD	1:P:290:LEU:HD22	2.62	0.40
1:P:52:ASN:HB2	1:P:375:ARG:HD3	2.02	0.40
1:P:96:LEU:HD13	1:P:97:LEU:N	2.37	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	335/513 (65%)	299 (89%)	14 (4%)	22 (7%)	1	21
1	B	486/513 (95%)	441 (91%)	18 (4%)	27 (6%)	2	25
1	C	478/513 (93%)	425 (89%)	28 (6%)	25 (5%)	2	26
1	D	485/513 (94%)	439 (90%)	21 (4%)	25 (5%)	2	26
1	E	488/513 (95%)	443 (91%)	16 (3%)	29 (6%)	2	23
1	F	484/513 (94%)	439 (91%)	22 (4%)	23 (5%)	2	28

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	G	511/513 (100%)	450 (88%)	31 (6%)	30 (6%)	2	23
1	H	489/513 (95%)	434 (89%)	31 (6%)	24 (5%)	2	27
1	I	469/513 (91%)	421 (90%)	18 (4%)	30 (6%)	1	22
1	J	486/513 (95%)	438 (90%)	25 (5%)	23 (5%)	3	28
1	K	492/513 (96%)	438 (89%)	25 (5%)	29 (6%)	2	23
1	L	487/513 (95%)	450 (92%)	21 (4%)	16 (3%)	4	35
1	M	384/513 (75%)	347 (90%)	17 (4%)	20 (5%)	2	26
1	N	482/513 (94%)	429 (89%)	26 (5%)	27 (6%)	2	25
1	O	477/513 (93%)	422 (88%)	28 (6%)	27 (6%)	2	24
1	P	492/513 (96%)	449 (91%)	21 (4%)	22 (4%)	3	29
All	All	7525/8208 (92%)	6764 (90%)	362 (5%)	399 (5%)	4	26

All (399) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	3	ALA
1	A	37	LYS
1	A	68	ALA
1	A	139	GLU
1	A	180	SER
1	A	505	ASP
1	A	509	LYS
1	A	512	PRO
1	B	132	ALA
1	B	133	VAL
1	B	178	LYS
1	B	182	ASN
1	B	215	GLN
1	B	326	GLU
1	B	366	THR
1	B	511	ALA
1	C	68	ALA
1	C	82	VAL
1	C	131	SER
1	C	139	GLU
1	C	215	GLN
1	C	281	GLN
1	C	325	PRO

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Mol	Chain	Res	Type
1	C	366	THR
1	C	496	GLU
1	C	504	VAL
1	C	506	ASN
1	C	511	ALA
1	D	8	ALA
1	D	82	VAL
1	D	132	ALA
1	D	139	GLU
1	D	215	GLN
1	D	325	PRO
1	D	360	ILE
1	D	366	THR
1	E	82	VAL
1	E	129	LEU
1	E	131	SER
1	E	132	ALA
1	E	133	VAL
1	E	139	GLU
1	E	215	GLN
1	E	281	GLN
1	E	325	PRO
1	E	342	GLY
1	E	343	GLU
1	E	397	GLY
1	E	507	ILE
1	F	4	ASP
1	F	68	ALA
1	F	82	VAL
1	F	133	VAL
1	F	139	GLU
1	F	188	VAL
1	F	208	ASP
1	F	215	GLN
1	F	322	PHE
1	F	506	ASN
1	G	32	PRO
1	G	36	ASP
1	G	82	VAL
1	G	108	ILE
1	G	180	SER
1	G	182	ASN

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Mol	Chain	Res	Type
1	G	215	GLN
1	G	234	ASP
1	G	237	LYS
1	G	248	THR
1	G	342	GLY
1	G	366	THR
1	G	412	ALA
1	H	182	ASN
1	H	184	GLU
1	H	185	ALA
1	H	215	GLN
1	H	274	ILE
1	H	281	GLN
1	H	325	PRO
1	H	340	MET
1	H	342	GLY
1	H	366	THR
1	H	370	LEU
1	H	480	ILE
1	H	512	PRO
1	I	82	VAL
1	I	129	LEU
1	I	137	SER
1	I	139	GLU
1	I	184	GLU
1	I	195	SER
1	I	196	LEU
1	I	215	GLN
1	I	281	GLN
1	I	326	GLU
1	I	417	GLY
1	J	4	ASP
1	J	47	SER
1	J	82	VAL
1	J	84	ASP
1	J	134	ASP
1	J	141	LYS
1	J	142	PHE
1	J	185	ALA
1	J	274	ILE
1	J	281	GLN
1	J	322	PHE

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Mol	Chain	Res	Type
1	J	325	PRO
1	J	382	CYS
1	K	3	ALA
1	K	131	SER
1	K	182	ASN
1	K	192	LEU
1	K	215	GLN
1	K	325	PRO
1	K	350	SER
1	K	365	ALA
1	K	368	GLN
1	K	509	LYS
1	K	512	PRO
1	L	4	ASP
1	L	8	ALA
1	L	82	VAL
1	L	131	SER
1	L	132	ALA
1	L	215	GLN
1	L	325	PRO
1	L	511	ALA
1	M	184	GLU
1	M	340	MET
1	M	366	THR
1	M	511	ALA
1	M	512	PRO
1	N	68	ALA
1	N	84	ASP
1	N	129	LEU
1	N	133	VAL
1	N	139	GLU
1	N	140	VAL
1	N	141	LYS
1	N	185	ALA
1	N	195	SER
1	N	215	GLN
1	N	281	GLN
1	N	325	PRO
1	N	344	ASP
1	N	508	ILE
1	O	3	ALA
1	O	82	VAL

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Mol	Chain	Res	Type
1	O	132	ALA
1	O	139	GLU
1	O	141	LYS
1	O	215	GLN
1	O	281	GLN
1	O	325	PRO
1	O	366	THR
1	O	507	ILE
1	O	508	ILE
1	P	132	ALA
1	P	281	GLN
1	P	325	PRO
1	P	512	PRO
1	A	8	ALA
1	A	82	VAL
1	A	131	SER
1	A	141	LYS
1	A	159	LEU
1	A	366	THR
1	A	507	ILE
1	A	511	ALA
1	B	68	ALA
1	B	114	ILE
1	B	139	GLU
1	B	159	LEU
1	B	274	ILE
1	B	322	PHE
1	B	342	GLY
1	B	508	ILE
1	C	83	GLY
1	C	141	LYS
1	C	274	ILE
1	C	322	PHE
1	C	510	ALA
1	D	46	ALA
1	D	84	ASP
1	D	141	LYS
1	D	274	ILE
1	D	322	PHE
1	D	361	VAL
1	D	417	GLY
1	D	421	VAL

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Mol	Chain	Res	Type
1	D	504	VAL
1	E	68	ALA
1	E	84	ASP
1	E	159	LEU
1	E	181	GLY
1	E	274	ILE
1	E	322	PHE
1	E	366	THR
1	F	8	ALA
1	F	43	GLY
1	F	141	LYS
1	F	182	ASN
1	F	325	PRO
1	G	8	ALA
1	G	30	LEU
1	G	47	SER
1	G	134	ASP
1	G	141	LYS
1	G	245	VAL
1	G	249	ALA
1	G	322	PHE
1	H	8	ALA
1	H	68	ALA
1	H	140	VAL
1	H	160	THR
1	I	4	ASP
1	I	8	ALA
1	I	68	ALA
1	I	133	VAL
1	I	160	THR
1	I	182	ASN
1	I	192	LEU
1	I	274	ILE
1	I	322	PHE
1	I	366	THR
1	I	394	VAL
1	J	8	ALA
1	J	159	LEU
1	K	5	GLU
1	K	8	ALA
1	K	68	ALA
1	K	82	VAL

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Mol	Chain	Res	Type
1	K	141	LYS
1	K	142	PHE
1	K	274	ILE
1	K	322	PHE
1	K	366	THR
1	K	508	ILE
1	L	68	ALA
1	L	141	LYS
1	L	274	ILE
1	L	322	PHE
1	L	371	ASP
1	M	68	ALA
1	M	82	VAL
1	M	135	HIS
1	M	137	SER
1	M	141	LYS
1	M	159	LEU
1	M	417	GLY
1	N	114	ILE
1	N	159	LEU
1	N	274	ILE
1	N	322	PHE
1	N	420	ALA
1	N	509	LYS
1	N	512	PRO
1	O	80	ASP
1	O	85	GLY
1	O	123	ALA
1	O	159	LEU
1	O	274	ILE
1	O	322	PHE
1	O	342	GLY
1	O	349	PHE
1	P	3	ALA
1	P	160	THR
1	P	182	ASN
1	P	274	ILE
1	P	322	PHE
1	P	501	ILE
1	P	509	LYS
1	A	129	LEU
1	B	4	ASP

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Mol	Chain	Res	Type
1	B	8	ALA
1	B	141	LYS
1	B	146	LEU
1	B	184	GLU
1	B	281	GLN
1	C	159	LEU
1	C	182	ASN
1	C	507	ILE
1	D	159	LEU
1	D	182	ASN
1	D	184	GLU
1	D	281	GLN
1	E	141	LYS
1	E	142	PHE
1	E	335	LEU
1	E	367	GLN
1	E	396	GLY
1	E	510	ALA
1	F	281	GLN
1	F	366	THR
1	G	123	ALA
1	G	181	GLY
1	G	281	GLN
1	G	325	PRO
1	H	3	ALA
1	H	133	VAL
1	H	368	GLN
1	I	199	SER
1	I	343	GLU
1	J	139	GLU
1	J	366	THR
1	K	281	GLN
1	L	139	GLU
1	M	108	ILE
1	M	115	ALA
1	M	335	LEU
1	M	342	GLY
1	M	367	GLN
1	M	416	PRO
1	N	8	ALA
1	N	83	GLY
1	N	335	LEU

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Mol	Chain	Res	Type
1	O	68	ALA
1	O	182	ASN
1	O	367	GLN
1	P	136	GLY
1	P	215	GLN
1	B	82	VAL
1	B	507	ILE
1	C	148	ASN
1	C	352	VAL
1	C	417	GLY
1	D	140	VAL
1	D	343	GLU
1	D	511	ALA
1	E	3	ALA
1	E	160	THR
1	F	132	ALA
1	G	131	SER
1	G	274	ILE
1	G	371	ASP
1	H	141	LYS
1	I	109	HIS
1	J	68	ALA
1	J	367	GLN
1	K	205	PHE
1	K	510	ALA
1	M	182	ASN
1	N	108	ILE
1	N	367	GLN
1	P	133	VAL
1	P	139	GLU
1	P	181	GLY
1	A	109	HIS
1	A	137	SER
1	A	161	HIS
1	B	140	VAL
1	B	185	ALA
1	F	140	VAL
1	F	367	GLN
1	G	137	SER
1	H	326	GLU
1	H	362	LEU
1	I	141	LYS

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Mol	Chain	Res	Type
1	I	178	LYS
1	J	203	GLU
1	J	215	GLN
1	J	417	GLY
1	K	160	THR
1	N	498	ALA
1	O	133	VAL
1	P	141	LYS
1	P	506	ASN
1	F	274	ILE
1	F	342	GLY
1	J	416	PRO
1	L	324	HIS
1	O	32	PRO
1	O	504	VAL
1	O	511	ALA
1	P	108	ILE
1	A	181	GLY
1	C	108	ILE
1	G	140	VAL
1	I	140	VAL
1	A	140	VAL
1	C	85	GLY
1	E	140	VAL
1	M	507	ILE
1	O	43	GLY
1	P	82	VAL
1	P	511	ALA
1	B	108	ILE
1	D	108	ILE
1	F	108	ILE
1	H	82	VAL
1	I	508	ILE
1	K	108	ILE
1	K	114	ILE
1	P	140	VAL
1	I	108	ILE
1	K	2	GLY
1	K	204	GLY
1	L	140	VAL

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	266/409 (65%)	238 (90%)	28 (10%)	8	32
1	B	389/409 (95%)	351 (90%)	38 (10%)	9	34
1	C	382/409 (93%)	339 (89%)	43 (11%)	7	29
1	D	388/409 (95%)	346 (89%)	42 (11%)	7	31
1	E	391/409 (96%)	347 (89%)	44 (11%)	7	29
1	F	388/409 (95%)	348 (90%)	40 (10%)	8	32
1	G	409/409 (100%)	349 (85%)	60 (15%)	3	20
1	H	392/409 (96%)	335 (86%)	57 (14%)	4	21
1	I	373/409 (91%)	327 (88%)	46 (12%)	5	26
1	J	389/409 (95%)	344 (88%)	45 (12%)	6	28
1	K	394/409 (96%)	354 (90%)	40 (10%)	8	33
1	L	390/409 (95%)	343 (88%)	47 (12%)	6	27
1	M	305/409 (75%)	276 (90%)	29 (10%)	10	36
1	N	386/409 (94%)	344 (89%)	42 (11%)	7	30
1	O	381/409 (93%)	337 (88%)	44 (12%)	6	28
1	P	394/409 (96%)	347 (88%)	47 (12%)	6	27
All	All	6017/6544 (92%)	5325 (88%)	692 (12%)	11	28

All (692) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	35	MET
1	A	48	LEU
1	A	50	VAL
1	A	57	ILE
1	A	58	LEU
1	A	74	MET
1	A	92	LEU
1	A	96	LEU

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Mol	Chain	Res	Type
1	A	98	ARG
1	A	109	HIS
1	A	122	LYS
1	A	139	GLU
1	A	159	LEU
1	A	167	THR
1	A	177	LEU
1	A	366	THR
1	A	370	LEU
1	A	371	ASP
1	A	401	GLU
1	A	402	MET
1	A	409	THR
1	A	423	MET
1	A	431	ARG
1	A	469	GLU
1	A	489	GLN
1	A	503	ARG
1	A	508	ILE
1	A	512	PRO
1	B	4	ASP
1	B	9	GLU
1	B	10	THR
1	B	27	LYS
1	B	38	ILE
1	B	42	SER
1	B	57	ILE
1	B	58	LEU
1	B	74	MET
1	B	80	ASP
1	B	89	VAL
1	B	98	ARG
1	B	133	VAL
1	B	143	ARG
1	B	159	LEU
1	B	167	THR
1	B	190	LYS
1	B	211	ILE
1	B	215	GLN
1	B	225	LEU
1	B	259	LYS
1	B	261	LYS

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Mol	Chain	Res	Type
1	B	280	ARG
1	B	284	TYR
1	B	312	LEU
1	B	320	SER
1	B	326	GLU
1	B	327	LEU
1	B	343	GLU
1	B	344	ASP
1	B	369	ILE
1	B	394	VAL
1	B	402	MET
1	B	409	THR
1	B	424	GLU
1	B	431	ARG
1	B	489	GLN
1	B	507	ILE
1	C	25	LEU
1	C	57	ILE
1	C	58	LEU
1	C	65	ASN
1	C	78	GLN
1	C	96	LEU
1	C	98	ARG
1	C	118	ARG
1	C	131	SER
1	C	135	HIS
1	C	139	GLU
1	C	146	LEU
1	C	159	LEU
1	C	174	VAL
1	C	177	LEU
1	C	178	LYS
1	C	189	ILE
1	C	190	LYS
1	C	201	LEU
1	C	203	GLU
1	C	211	ILE
1	C	225	LEU
1	C	269	ILE
1	C	280	ARG
1	C	284	TYR
1	C	320	SER

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Mol	Chain	Res	Type
1	C	335	LEU
1	C	343	GLU
1	C	367	GLN
1	C	384	LEU
1	C	389	LYS
1	C	401	GLU
1	C	402	MET
1	C	428	LYS
1	C	431	ARG
1	C	485	GLN
1	C	489	GLN
1	C	491	LEU
1	C	492	LEU
1	C	505	ASP
1	C	506	ASN
1	C	507	ILE
1	C	509	LYS
1	D	9	GLU
1	D	27	LYS
1	D	35	MET
1	D	38	ILE
1	D	39	LEU
1	D	40	LEU
1	D	57	ILE
1	D	58	LEU
1	D	96	LEU
1	D	98	ARG
1	D	109	HIS
1	D	114	ILE
1	D	125	ARG
1	D	128	LEU
1	D	146	LEU
1	D	147	MET
1	D	159	LEU
1	D	160	THR
1	D	167	THR
1	D	178	LYS
1	D	190	LYS
1	D	191	LYS
1	D	198	ASP
1	D	203	GLU
1	D	207	LEU

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Mol	Chain	Res	Type
1	D	211	ILE
1	D	223	LYS
1	D	225	LEU
1	D	261	LYS
1	D	280	ARG
1	D	312	LEU
1	D	326	GLU
1	D	330	LEU
1	D	334	LYS
1	D	347	ILE
1	D	360	ILE
1	D	376	SER
1	D	402	MET
1	D	421	VAL
1	D	431	ARG
1	D	481	THR
1	D	507	ILE
1	E	57	ILE
1	E	58	LEU
1	E	96	LEU
1	E	98	ARG
1	E	103	LEU
1	E	107	LYS
1	E	108	ILE
1	E	143	ARG
1	E	146	LEU
1	E	159	LEU
1	E	160	THR
1	E	167	THR
1	E	183	LEU
1	E	190	LYS
1	E	191	LYS
1	E	203	GLU
1	E	207	LEU
1	E	211	ILE
1	E	215	GLN
1	E	225	LEU
1	E	255	GLU
1	E	280	ARG
1	E	312	LEU
1	E	317	GLU
1	E	320	SER

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Mol	Chain	Res	Type
1	E	326	GLU
1	E	330	LEU
1	E	346	LEU
1	E	347	ILE
1	E	352	VAL
1	E	366	THR
1	E	367	GLN
1	E	368	GLN
1	E	375	ARG
1	E	401	GLU
1	E	402	MET
1	E	409	THR
1	E	415	THR
1	E	431	ARG
1	E	489	GLN
1	E	502	LEU
1	E	508	ILE
1	E	509	LYS
1	E	513	ARG
1	F	30	LEU
1	F	40	LEU
1	F	57	ILE
1	F	58	LEU
1	F	96	LEU
1	F	98	ARG
1	F	107	LYS
1	F	133	VAL
1	F	135	HIS
1	F	143	ARG
1	F	146	LEU
1	F	147	MET
1	F	159	LEU
1	F	167	THR
1	F	183	LEU
1	F	190	LYS
1	F	191	LYS
1	F	192	LEU
1	F	206	LEU
1	F	207	LEU
1	F	211	ILE
1	F	225	LEU
1	F	280	ARG

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Mol	Chain	Res	Type
1	F	312	LEU
1	F	326	GLU
1	F	333	CYS
1	F	345	LYS
1	F	346	LEU
1	F	352	VAL
1	F	367	GLN
1	F	377	LEU
1	F	381	LEU
1	F	401	GLU
1	F	402	MET
1	F	418	LYS
1	F	421	VAL
1	F	431	ARG
1	F	506	ASN
1	F	508	ILE
1	F	509	LYS
1	G	9	GLU
1	G	33	LYS
1	G	35	MET
1	G	40	LEU
1	G	48	LEU
1	G	57	ILE
1	G	58	LEU
1	G	65	ASN
1	G	74	MET
1	G	89	VAL
1	G	96	LEU
1	G	98	ARG
1	G	106	LYS
1	G	109	HIS
1	G	111	GLN
1	G	122	LYS
1	G	129	LEU
1	G	146	LEU
1	G	152	THR
1	G	159	LEU
1	G	166	PHE
1	G	167	THR
1	G	177	LEU
1	G	178	LYS
1	G	190	LYS

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Mol	Chain	Res	Type
1	G	207	LEU
1	G	211	ILE
1	G	215	GLN
1	G	225	LEU
1	G	233	THR
1	G	235	LYS
1	G	236	ILE
1	G	245	VAL
1	G	246	ASP
1	G	247	SER
1	G	258	GLU
1	G	263	LYS
1	G	269	ILE
1	G	280	ARG
1	G	314	THR
1	G	317	GLU
1	G	326	GLU
1	G	330	LEU
1	G	341	ILE
1	G	343	GLU
1	G	352	VAL
1	G	356	GLU
1	G	363	ARG
1	G	379	ASP
1	G	401	GLU
1	G	402	MET
1	G	409	THR
1	G	419	GLU
1	G	428	LYS
1	G	431	ARG
1	G	439	ASP
1	G	485	GLN
1	G	500	VAL
1	G	501	ILE
1	G	506	ASN
1	H	9	GLU
1	H	25	LEU
1	H	35	MET
1	H	40	LEU
1	H	48	LEU
1	H	57	ILE
1	H	58	LEU

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Mol	Chain	Res	Type
1	H	96	LEU
1	H	98	ARG
1	H	106	LYS
1	H	122	LYS
1	H	128	LEU
1	H	129	LEU
1	H	131	SER
1	H	137	SER
1	H	142	PHE
1	H	144	GLN
1	H	146	LEU
1	H	152	THR
1	H	154	LEU
1	H	159	LEU
1	H	167	THR
1	H	177	LEU
1	H	182	ASN
1	H	184	GLU
1	H	190	LYS
1	H	191	LYS
1	H	203	GLU
1	H	207	LEU
1	H	211	ILE
1	H	225	LEU
1	H	259	LYS
1	H	267	GLU
1	H	269	ILE
1	H	278	ILE
1	H	280	ARG
1	H	303	ASP
1	H	314	THR
1	H	317	GLU
1	H	320	SER
1	H	326	GLU
1	H	339	VAL
1	H	340	MET
1	H	363	ARG
1	H	367	GLN
1	H	384	LEU
1	H	393	THR
1	H	402	MET
1	H	418	LYS

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Mol	Chain	Res	Type
1	H	423	MET
1	H	426	TYR
1	H	431	ARG
1	H	468	LYS
1	H	481	THR
1	H	502	LEU
1	H	504	VAL
1	H	507	ILE
1	I	36	ASP
1	I	53	ASP
1	I	57	ILE
1	I	58	LEU
1	I	61	ILE
1	I	65	ASN
1	I	96	LEU
1	I	98	ARG
1	I	106	LYS
1	I	108	ILE
1	I	114	ILE
1	I	129	LEU
1	I	130	ASN
1	I	134	ASP
1	I	139	GLU
1	I	149	ILE
1	I	167	THR
1	I	178	LYS
1	I	189	ILE
1	I	191	LYS
1	I	196	LEU
1	I	201	LEU
1	I	202	ASP
1	I	211	ILE
1	I	215	GLN
1	I	225	LEU
1	I	280	ARG
1	I	330	LEU
1	I	352	VAL
1	I	354	LEU
1	I	366	THR
1	I	375	ARG
1	I	384	LEU
1	I	394	VAL

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Mol	Chain	Res	Type
1	I	402	MET
1	I	409	THR
1	I	414	ARG
1	I	418	LYS
1	I	431	ARG
1	I	467	MET
1	I	487	LYS
1	I	489	GLN
1	I	496	GLU
1	I	507	ILE
1	I	508	ILE
1	I	509	LYS
1	J	38	ILE
1	J	57	ILE
1	J	58	LEU
1	J	74	MET
1	J	96	LEU
1	J	98	ARG
1	J	108	ILE
1	J	119	GLU
1	J	129	LEU
1	J	139	GLU
1	J	143	ARG
1	J	146	LEU
1	J	147	MET
1	J	149	ILE
1	J	159	LEU
1	J	167	THR
1	J	177	LEU
1	J	178	LYS
1	J	180	SER
1	J	191	LYS
1	J	192	LEU
1	J	203	GLU
1	J	211	ILE
1	J	223	LYS
1	J	225	LEU
1	J	262	MET
1	J	269	ILE
1	J	280	ARG
1	J	309	ARG
1	J	312	LEU

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Mol	Chain	Res	Type
1	J	320	SER
1	J	326	GLU
1	J	346	LEU
1	J	352	VAL
1	J	366	THR
1	J	367	GLN
1	J	369	ILE
1	J	375	ARG
1	J	379	ASP
1	J	401	GLU
1	J	402	MET
1	J	409	THR
1	J	431	ARG
1	J	492	LEU
1	J	507	ILE
1	K	57	ILE
1	K	58	LEU
1	K	74	MET
1	K	96	LEU
1	K	98	ARG
1	K	104	ILE
1	K	125	ARG
1	K	126	GLN
1	K	128	LEU
1	K	129	LEU
1	K	134	ASP
1	K	146	LEU
1	K	152	THR
1	K	164	ASP
1	K	167	THR
1	K	188	VAL
1	K	189	ILE
1	K	191	LYS
1	K	192	LEU
1	K	211	ILE
1	K	225	LEU
1	K	269	ILE
1	K	280	ARG
1	K	326	GLU
1	K	330	LEU
1	K	335	LEU
1	K	343	GLU

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Mol	Chain	Res	Type
1	K	352	VAL
1	K	366	THR
1	K	369	ILE
1	K	370	LEU
1	K	375	ARG
1	K	389	LYS
1	K	401	GLU
1	K	402	MET
1	K	409	THR
1	K	414	ARG
1	K	419	GLU
1	K	431	ARG
1	K	502	LEU
1	L	17	ILE
1	L	25	LEU
1	L	35	MET
1	L	48	LEU
1	L	50	VAL
1	L	57	ILE
1	L	58	LEU
1	L	65	ASN
1	L	74	MET
1	L	96	LEU
1	L	98	ARG
1	L	122	LYS
1	L	126	GLN
1	L	129	LEU
1	L	130	ASN
1	L	131	SER
1	L	133	VAL
1	L	143	ARG
1	L	144	GLN
1	L	146	LEU
1	L	152	THR
1	L	159	LEU
1	L	182	ASN
1	L	190	LYS
1	L	203	GLU
1	L	207	LEU
1	L	211	ILE
1	L	225	LEU
1	L	255	GLU

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Mol	Chain	Res	Type
1	L	261	LYS
1	L	269	ILE
1	L	280	ARG
1	L	310	LEU
1	L	312	LEU
1	L	327	LEU
1	L	330	LEU
1	L	344	ASP
1	L	346	LEU
1	L	352	VAL
1	L	356	GLU
1	L	377	LEU
1	L	394	VAL
1	L	401	GLU
1	L	402	MET
1	L	409	THR
1	L	421	VAL
1	L	431	ARG
1	M	36	ASP
1	M	57	ILE
1	M	58	LEU
1	M	74	MET
1	M	97	LEU
1	M	98	ARG
1	M	107	LYS
1	M	119	GLU
1	M	138	ASP
1	M	143	ARG
1	M	146	LEU
1	M	152	THR
1	M	159	LEU
1	M	167	THR
1	M	174	VAL
1	M	180	SER
1	M	190	LYS
1	M	201	LEU
1	M	206	LEU
1	M	343	GLU
1	M	367	GLN
1	M	381	LEU
1	M	402	MET
1	M	409	THR

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Mol	Chain	Res	Type
1	M	418	LYS
1	M	431	ARG
1	M	435	THR
1	M	487	LYS
1	M	509	LYS
1	N	9	GLU
1	N	13	LEU
1	N	35	MET
1	N	47	SER
1	N	57	ILE
1	N	65	ASN
1	N	74	MET
1	N	75	SER
1	N	98	ARG
1	N	106	LYS
1	N	108	ILE
1	N	129	LEU
1	N	131	SER
1	N	139	GLU
1	N	146	LEU
1	N	159	LEU
1	N	167	THR
1	N	177	LEU
1	N	186	ILE
1	N	195	SER
1	N	196	LEU
1	N	201	LEU
1	N	211	ILE
1	N	269	ILE
1	N	280	ARG
1	N	310	LEU
1	N	312	LEU
1	N	326	GLU
1	N	328	VAL
1	N	335	LEU
1	N	343	GLU
1	N	346	LEU
1	N	352	VAL
1	N	377	LEU
1	N	402	MET
1	N	409	THR
1	N	428	LYS

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Mol	Chain	Res	Type
1	N	431	ARG
1	N	436	ILE
1	N	496	GLU
1	N	508	ILE
1	N	513	ARG
1	O	13	LEU
1	O	35	MET
1	O	47	SER
1	O	57	ILE
1	O	58	LEU
1	O	74	MET
1	O	96	LEU
1	O	98	ARG
1	O	106	LYS
1	O	107	LYS
1	O	111	GLN
1	O	113	ILE
1	O	133	VAL
1	O	135	HIS
1	O	143	ARG
1	O	146	LEU
1	O	152	THR
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	206	LEU
1	O	207	LEU
1	O	211	ILE
1	O	215	GLN
1	O	218	ARG
1	O	225	LEU
1	O	312	LEU
1	O	326	GLU
1	O	328	VAL
1	O	343	GLU
1	O	352	VAL
1	O	370	LEU
1	O	381	LEU
1	O	401	GLU

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Mol	Chain	Res	Type
1	O	402	MET
1	O	431	ARG
1	O	483	SER
1	O	502	LEU
1	O	505	ASP
1	O	507	ILE
1	O	513	ARG
1	P	33	LYS
1	P	35	MET
1	P	38	ILE
1	P	48	LEU
1	P	50	VAL
1	P	57	ILE
1	P	61	ILE
1	P	82	VAL
1	P	86	THR
1	P	96	LEU
1	P	98	ARG
1	P	104	ILE
1	P	106	LYS
1	P	111	GLN
1	P	139	GLU
1	P	146	LEU
1	P	152	THR
1	P	158	LEU
1	P	159	LEU
1	P	160	THR
1	P	167	THR
1	P	178	LYS
1	P	189	ILE
1	P	191	LYS
1	P	203	GLU
1	P	207	LEU
1	P	211	ILE
1	P	223	LYS
1	P	225	LEU
1	P	259	LYS
1	P	269	ILE
1	P	280	ARG
1	P	314	THR
1	P	330	LEU
1	P	334	LYS

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Mol	Chain	Res	Type
1	P	340	MET
1	P	352	VAL
1	P	354	LEU
1	P	381	LEU
1	P	384	LEU
1	P	401	GLU
1	P	402	MET
1	P	409	THR
1	P	431	ARG
1	P	489	GLN
1	P	504	VAL
1	P	507	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (105) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	52	ASN
1	A	126	GLN
1	A	144	GLN
1	A	161	HIS
1	A	378	HIS
1	A	386	GLN
1	A	410	GLN
1	A	451	GLN
1	A	489	GLN
1	B	111	GLN
1	B	126	GLN
1	B	161	HIS
1	B	215	GLN
1	B	386	GLN
1	B	410	GLN
1	B	451	GLN
1	C	126	GLN
1	C	130	ASN
1	C	161	HIS
1	C	165	HIS
1	C	182	ASN
1	C	410	GLN
1	C	451	GLN
1	D	161	HIS
1	D	182	ASN
1	D	348	HIS

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Mol	Chain	Res	Type
1	D	386	GLN
1	D	451	GLN
1	D	485	GLN
1	E	126	GLN
1	E	289	GLN
1	E	410	GLN
1	E	451	GLN
1	E	489	GLN
1	E	506	ASN
1	F	228	ASN
1	F	386	GLN
1	F	451	GLN
1	F	485	GLN
1	F	506	ASN
1	G	126	GLN
1	G	182	ASN
1	G	348	HIS
1	G	451	GLN
1	G	506	ASN
1	H	126	GLN
1	H	367	GLN
1	H	410	GLN
1	H	451	GLN
1	H	485	GLN
1	I	130	ASN
1	I	161	HIS
1	I	410	GLN
1	I	451	GLN
1	I	489	GLN
1	J	109	HIS
1	J	111	GLN
1	J	126	GLN
1	J	161	HIS
1	J	348	HIS
1	J	410	GLN
1	J	451	GLN
1	J	485	GLN
1	J	489	GLN
1	K	52	ASN
1	K	161	HIS
1	K	410	GLN
1	K	451	GLN

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Mol	Chain	Res	Type
1	K	506	ASN
1	L	52	ASN
1	L	109	HIS
1	L	111	GLN
1	L	126	GLN
1	L	144	GLN
1	L	161	HIS
1	L	165	HIS
1	L	182	ASN
1	L	451	GLN
1	L	489	GLN
1	L	506	ASN
1	M	109	HIS
1	M	148	ASN
1	M	368	GLN
1	M	386	GLN
1	M	410	GLN
1	M	451	GLN
1	M	489	GLN
1	N	65	ASN
1	N	161	HIS
1	N	410	GLN
1	N	451	GLN
1	N	485	GLN
1	O	60	ASN
1	O	135	HIS
1	O	161	HIS
1	O	182	ASN
1	O	378	HIS
1	O	386	GLN
1	O	451	GLN
1	P	148	ASN
1	P	182	ASN
1	P	289	GLN
1	P	410	GLN
1	P	451	GLN
1	P	489	GLN

5.3.3 RNA ⓘ

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 carbohydrates 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.