



Full wwPDB X-ray Structure Validation Report i

Nov 7, 2023 – 02:01 PM EST

PDB ID : 2QUI
Title : Crystal structures of human tryptophanyl-tRNA synthetase in complex with Tryptophanamide and ATP
Authors : Shen, N.; Ding, J.P.
Deposited on : 2007-08-05
Resolution : 2.40 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>
with specific help available everywhere you see the i symbol.

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

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

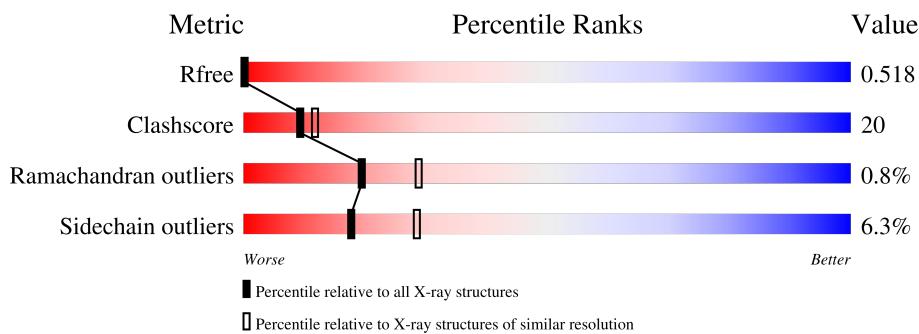
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

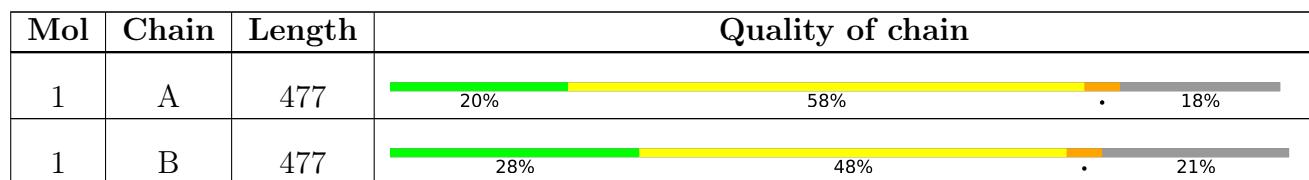
The reported resolution of this entry is 2.40 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	3907 (2.40-2.40)
Clashscore	141614	4398 (2.40-2.40)
Ramachandran outliers	138981	4318 (2.40-2.40)
Sidechain outliers	138945	4319 (2.40-2.40)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5%



The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	LTN	A	501	-	-	X	-
4	ATP	A	502	-	-	X	-

2 Entry composition (i)

There are 5 unique types of molecules in this entry. The entry contains 6469 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Tryptophanyl-tRNA synthetase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	390	3127	2005	525	582	15	0	0	0
1	B	379	3054	1960	519	560	15	0	0	0

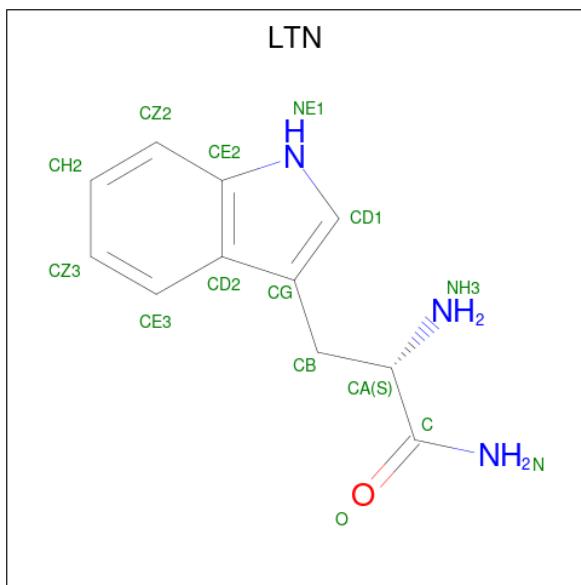
There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	472	HIS	-	expression tag	UNP P23381
A	473	HIS	-	expression tag	UNP P23381
A	474	HIS	-	expression tag	UNP P23381
A	475	HIS	-	expression tag	UNP P23381
A	476	HIS	-	expression tag	UNP P23381
A	477	HIS	-	expression tag	UNP P23381
B	472	HIS	-	expression tag	UNP P23381
B	473	HIS	-	expression tag	UNP P23381
B	474	HIS	-	expression tag	UNP P23381
B	475	HIS	-	expression tag	UNP P23381
B	476	HIS	-	expression tag	UNP P23381
B	477	HIS	-	expression tag	UNP P23381

- Molecule 2 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	A	1	Total Mg 1 1	0	0

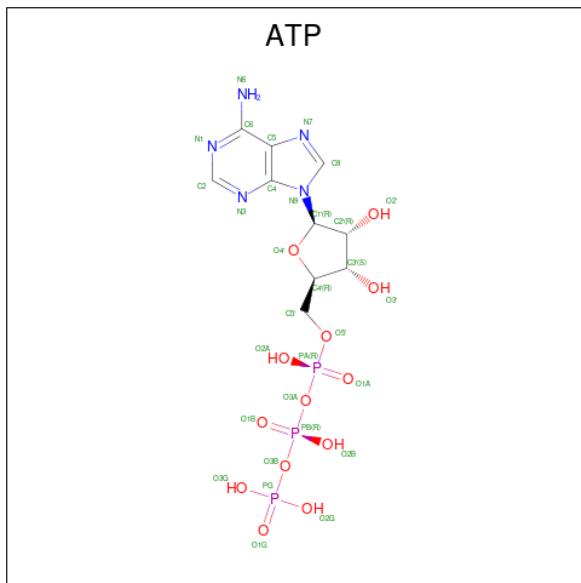
- Molecule 3 is L-TRYPTOPHANAMIDE (three-letter code: LTN) (formula: C₁₁H₁₃N₃O).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	A	1	Total	C	N	O	
			15	11	3	1	0

Mol	Chain	Residues	Total	C	N	O	ZeroOcc	AltConf
3	B	1	Total	C	N	O		
			15	11	3	1	0	0

- Molecule 4 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: C₁₀H₁₆N₅O₁₃P₃).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	A	1	Total	C	N	O	P		
			31	10	5	13	3	0	0

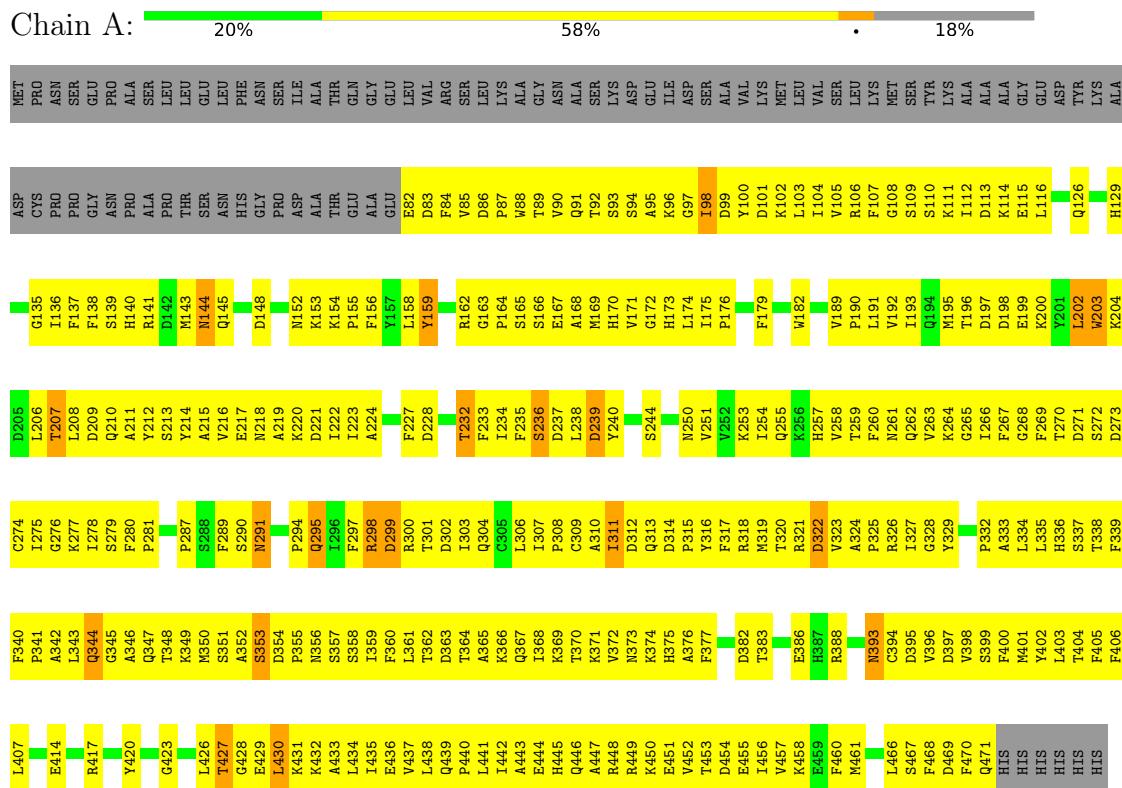
- Molecule 5 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	120	Total O 120 120	0	0
5	B	106	Total O 106 106	0	0

3 Residue-property plots

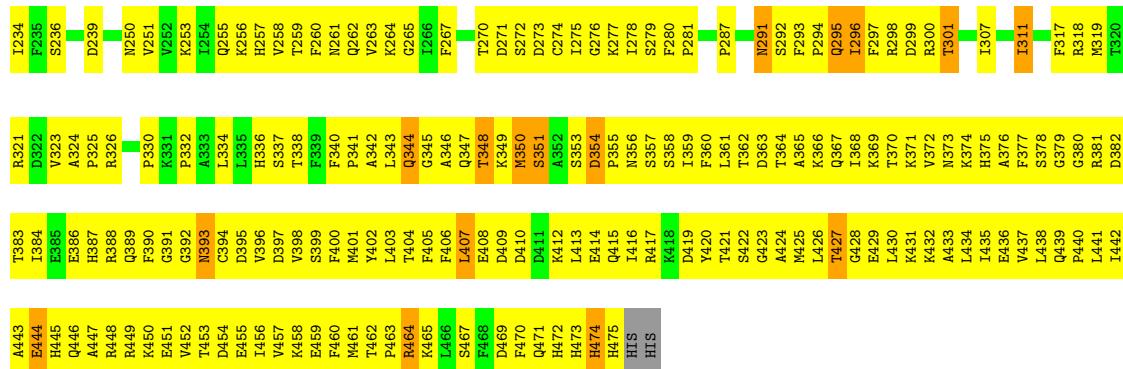
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded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



- Molecule 1: Tryptophanyl-tRNA synthetase





4 Data and refinement statistics i

Property	Value	Source
Space group	P 4 2 2	Depositor
Cell constants a, b, c, α , β , γ	79.70Å 79.70Å 383.20Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 2.40 48.57 – 2.40	Depositor EDS
% Data completeness (in resolution range)	95.3 (50.00-2.40) 95.1 (48.57-2.40)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ ¹	2.29 (at 2.39Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R , R_{free}	0.211 , 0.238 0.507 , 0.518	Depositor DCC
R_{free} test set	2417 reflections (5.08%)	wwPDB-VP
Wilson B-factor (Å ²)	43.4	Xtriage
Anisotropy	0.490	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.33 , 32.7	EDS
L-test for twinning ²	$< L > = 0.50$, $< L^2 > = 0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.55	EDS
Total number of atoms	6469	wwPDB-VP
Average B, all atoms (Å ²)	51.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.68% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: ATP, MG, LTN

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.38	0/3204	0.61	0/4331
1	B	0.39	0/3132	0.61	0/4230
All	All	0.38	0/6336	0.61	0/8561

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts i

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3127	0	3049	123	2188
1	B	3054	0	2978	126	1612
2	A	1	0	0	0	0
3	A	15	0	11	1	7
3	B	15	0	11	1	0
4	A	31	0	12	10	77
5	A	120	0	0	8	109
5	B	106	0	0	4	88
All	All	6469	0	6061	244	3584

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 20.

All (244) 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:B:250:ASN:HD21	1:B:291:ASN:ND2	1.59	0.98
1:A:207:THR:HG22	1:A:210:GLN:H	1.35	0.90
1:A:165:SER:HB2	4:A:502:ATP:O3G	1.73	0.88
1:A:250:ASN:HD21	1:A:291:ASN:ND2	1.73	0.87
1:A:344:GLN:HE22	1:A:357:SER:HA	1.40	0.87
1:A:98:ILE:HD11	1:A:103:LEU:HD22	1.61	0.83
1:B:250:ASN:HD21	1:B:291:ASN:HD21	1.27	0.80
1:A:227:PHE:HB3	1:A:232:THR:HG21	1.64	0.79
1:A:251:VAL:O	1:A:255:GLN:HG3	1.83	0.79
1:B:260:PHE:HE1	1:B:278:ILE:HD12	1.47	0.79
1:B:227:PHE:HB3	1:B:232:THR:HG21	1.65	0.78
1:A:250:ASN:HD21	1:A:291:ASN:HD21	1.30	0.78
1:B:409:ASP:OD2	1:B:412:LYS:HB2	1.85	0.77
1:B:293:PHE:HB3	1:B:296:ILE:HG23	1.65	0.77
1:B:129:HIS:HD2	1:B:131:PHE:H	1.30	0.77
1:A:141:ARG:HD2	1:A:334:LEU:HD12	1.65	0.76
1:A:92:THR:HG21	1:A:98:ILE:HA	1.67	0.76
1:B:372:VAL:HG12	1:B:431:LYS:HG3	1.66	0.76
1:B:293:PHE:HA	1:B:295:GLN:HE22	1.52	0.73
1:A:352:ALA:C	1:A:354:ASP:H	1.91	0.73
1:A:159:TYR:CZ	1:A:287:PRO:HG2	2.24	0.72
1:B:129:HIS:CD2	1:B:131:PHE:H	2.07	0.72
1:B:140:HIS:HD2	1:B:143:MET:H	1.35	0.72
1:A:307:ILE:HB	1:A:334:LEU:HD23	1.72	0.71
1:B:159:TYR:CZ	1:B:287:PRO:HG2	2.25	0.71
1:B:228:ASP:O	1:B:232:THR:HG23	1.91	0.70
1:A:364:THR:OG1	1:A:367:GLN:HG3	1.92	0.70
1:A:137:PHE:CZ	1:A:337:SER:HB3	2.27	0.69
1:A:228:ASP:O	1:A:232:THR:HG23	1.92	0.69
1:A:427:THR:HG21	5:A:597:HOH:O	1.92	0.69
1:A:95:ALA:HA	1:A:347:GLN:HE21	1.56	0.69
1:B:455:GLU:CD	1:B:455:GLU:H	1.96	0.69
1:B:393:ASN:HD22	1:B:393:ASN:C	1.97	0.68
1:A:253:LYS:O	1:A:257:HIS:HD2	1.78	0.66
1:A:376:ALA:HB3	1:A:431:LYS:HE2	1.78	0.66
1:B:324:ALA:HB3	1:B:325:PRO:HD3	1.77	0.66
1:B:307:ILE:HB	1:B:334:LEU:HD23	1.79	0.65
1:A:164:PRO:HG2	5:A:619:HOH:O	1.96	0.65
1:A:140:HIS:HD2	1:A:143:MET:H	1.45	0.65
1:A:271:ASP:HB3	1:B:261:ASN:ND2	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:137:PHE:CZ	1:B:337:SER:HB3	2.32	0.64
1:A:466:LEU:O	1:A:468:PHE:N	2.30	0.64
1:A:202:LEU:HA	1:B:256:LYS:HD3	1.80	0.64
1:B:140:HIS:CD2	1:B:143:MET:H	2.15	0.64
1:A:344:GLN:HE22	1:A:357:SER:CA	2.11	0.63
1:B:234:ILE:O	1:B:461:MET:HA	1.98	0.63
1:B:253:LYS:O	1:B:257:HIS:HD2	1.81	0.62
1:B:376:ALA:HB3	1:B:431:LYS:HE2	1.81	0.62
1:B:259:THR:OG1	1:B:262:GLN:HG3	1.99	0.62
1:B:442:ILE:O	1:B:446:GLN:HG3	1.99	0.62
1:B:294:PRO:HD2	1:B:295:GLN:NE2	2.15	0.62
1:A:207:THR:CG2	1:A:210:GLN:H	2.11	0.61
1:A:207:THR:HG22	1:A:210:GLN:HG3	1.81	0.61
1:B:295:GLN:NE2	1:B:295:GLN:H	1.99	0.60
1:A:303:ILE:HD12	1:A:303:ILE:N	2.16	0.60
1:A:340:PHE:HB3	4:A:502:ATP:HN62	1.67	0.60
1:B:260:PHE:CE1	1:B:278:ILE:HD12	2.32	0.60
1:A:350:MET:HG3	1:A:358:SER:HB3	1.83	0.59
1:B:169:MET:HE1	1:B:218:ASN:HA	1.82	0.59
1:B:393:ASN:ND2	1:B:395:ASP:H	2.01	0.59
1:A:350:MET:CG	1:A:358:SER:HB3	2.32	0.59
1:B:359:ILE:HD12	1:B:359:ILE:N	2.18	0.59
1:A:372:VAL:HG12	1:A:431:LYS:HG3	1.85	0.58
1:A:86:ASP:HB2	1:A:87:PRO:HD2	1.85	0.58
1:B:350:MET:O	1:B:351:SER:HB2	2.04	0.58
1:B:124:THR:CG2	1:B:186:VAL:HG13	2.34	0.58
1:A:139:SER:HB3	1:A:336:HIS:HB2	1.86	0.57
1:B:174:LEU:HD11	1:B:361:LEU:HD11	1.86	0.57
1:B:311:ILE:HG23	1:B:336:HIS:HB3	1.86	0.57
1:A:259:THR:HG23	1:A:262:GLN:HE21	1.69	0.57
1:B:170:HIS:HD2	1:B:172:GLY:H	1.53	0.56
1:B:294:PRO:HD2	1:B:295:GLN:HE21	1.70	0.56
1:A:341:PRO:HA	5:A:551:HOH:O	2.05	0.55
1:B:121:GLU:HG3	1:B:126:GLN:O	2.06	0.55
1:B:169:MET:CE	1:B:218:ASN:HA	2.37	0.55
1:A:90:VAL:HG21	1:A:349:LYS:HD3	1.89	0.54
1:A:162:ARG:O	1:A:164:PRO:HD3	2.08	0.54
1:A:442:ILE:O	1:A:446:GLN:HG3	2.06	0.54
1:B:124:THR:HG21	1:B:186:VAL:CG1	2.37	0.54
1:A:258:VAL:HG11	1:A:319:MET:HE2	1.90	0.54
1:A:207:THR:HG23	1:A:209:ASP:H	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:199:GLU:HB2	1:B:280:PHE:CE1	2.43	0.53
1:A:366:LYS:HB2	5:A:546:HOH:O	2.08	0.53
1:B:293:PHE:HB3	1:B:296:ILE:CG2	2.35	0.53
1:A:98:ILE:CD1	1:A:103:LEU:HD22	2.34	0.53
1:A:350:MET:HB3	4:A:502:ATP:HN61	1.74	0.52
1:A:453:THR:O	1:A:457:VAL:HG23	2.08	0.52
1:B:171:VAL:HG22	1:B:406:PHE:CZ	2.44	0.52
1:B:393:ASN:HD22	1:B:394:CYS:N	2.07	0.52
1:A:401:MET:O	1:A:404:THR:HB	2.09	0.52
1:B:221:ASP:OD2	1:B:445:HIS:HE1	1.92	0.52
1:B:259:THR:H	1:B:262:GLN:NE2	2.08	0.52
1:B:139:SER:HB3	1:B:336:HIS:HB2	1.92	0.52
1:A:95:ALA:HA	1:A:347:GLN:NE2	2.24	0.52
1:B:251:VAL:O	1:B:255:GLN:HG3	2.09	0.52
1:B:343:LEU:HG	1:B:358:SER:HA	1.91	0.52
1:B:219:ALA:O	1:B:223:ILE:HG13	2.10	0.52
1:B:340:PHE:O	1:B:350:MET:HE2	2.10	0.51
1:A:136:ILE:HD11	1:A:404:THR:HG22	1.91	0.51
1:A:259:THR:H	1:A:262:GLN:NE2	2.09	0.51
1:A:234:ILE:O	1:A:461:MET:HA	2.10	0.51
1:B:393:ASN:C	1:B:393:ASN:ND2	2.62	0.51
1:B:170:HIS:HD2	1:B:172:GLY:N	2.08	0.51
1:A:228:ASP:O	1:A:232:THR:CG2	2.59	0.51
1:A:349:LYS:HA	5:A:551:HOH:O	2.11	0.51
1:A:90:VAL:HG21	1:A:339:PHE:CE1	2.45	0.50
4:A:502:ATP:H5'1	5:A:622:HOH:O	2.12	0.50
1:A:170:HIS:HD2	1:A:172:GLY:N	2.10	0.50
1:A:192:VAL:HG13	1:A:235:PHE:HE1	1.77	0.50
1:A:303:ILE:HD12	1:A:303:ILE:H	1.76	0.50
1:B:260:PHE:CE2	1:B:264:LYS:HD2	2.47	0.50
1:A:393:ASN:ND2	1:A:395:ASP:H	2.10	0.50
3:A:501:LTN:N	4:A:502:ATP:H4'	2.27	0.49
1:A:350:MET:HB3	4:A:502:ATP:N6	2.27	0.49
1:A:344:GLN:NE2	1:A:357:SER:HB2	2.26	0.49
1:A:87:PRO:HG3	1:A:315:PRO:HG2	1.94	0.49
1:A:452:VAL:CG2	1:A:452:VAL:O	2.60	0.49
1:B:355:PRO:HA	1:B:360:PHE:CE2	2.47	0.49
1:A:86:ASP:HB2	1:A:87:PRO:CD	2.43	0.49
1:A:352:ALA:C	1:A:354:ASP:N	2.60	0.49
1:B:364:THR:OG1	1:B:367:GLN:HG3	2.13	0.49
1:B:354:ASP:OD2	1:B:357:SER:HB2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:92:THR:HG21	1:A:98:ILE:CA	2.38	0.49
1:A:259:THR:HA	1:B:274:CYS:HA	1.93	0.49
1:B:296:ILE:HD12	1:B:296:ILE:O	2.13	0.49
1:B:139:SER:OG	1:B:336:HIS:HD2	1.96	0.49
1:A:196:THR:HB	1:A:199:GLU:HB2	1.94	0.48
1:B:342:ALA:HA	1:B:350:MET:HG2	1.94	0.48
1:B:369:LYS:HA	1:B:435:ILE:HD13	1.94	0.48
1:B:358:SER:HB3	5:B:480:HOH:O	2.13	0.48
1:B:102:LYS:O	1:B:105:VAL:HG12	2.14	0.48
1:B:124:THR:HG21	1:B:186:VAL:HG13	1.96	0.48
1:B:464:ARG:NH1	5:B:509:HOH:O	2.46	0.48
1:A:86:ASP:OD2	1:A:86:ASP:N	2.46	0.48
1:B:250:ASN:ND2	1:B:291:ASN:HD21	2.03	0.47
1:A:221:ASP:OD1	1:A:445:HIS:HE1	1.97	0.47
1:A:324:ALA:N	1:A:325:PRO:HD2	2.29	0.47
1:B:398:VAL:HA	1:B:401:MET:HE3	1.95	0.47
1:A:87:PRO:HG2	1:A:267:PHE:HD2	1.80	0.47
1:A:198:ASP:O	1:A:202:LEU:HD22	2.14	0.47
1:A:100:TYR:O	1:A:104:ILE:HG13	2.14	0.47
1:A:87:PRO:HD3	1:A:315:PRO:HG3	1.98	0.46
1:A:312:ASP:OD2	4:A:502:ATP:O2'	2.31	0.46
1:B:267:PHE:HE1	1:B:319:MET:HE3	1.81	0.46
1:B:441:LEU:HD22	1:B:442:ILE:HD12	1.97	0.46
1:A:137:PHE:CE2	1:A:337:SER:HB3	2.51	0.46
1:A:144:ASN:HB3	5:A:506:HOH:O	2.15	0.46
1:A:207:THR:CG2	1:A:210:GLN:HG3	2.46	0.46
1:B:255:GLN:HE21	1:B:279:SER:HB2	1.80	0.46
1:B:448:ARG:HA	1:B:451:GLU:OE2	2.16	0.46
1:A:141:ARG:HB2	1:A:334:LEU:HB2	1.96	0.46
1:A:344:GLN:NE2	1:A:357:SER:CB	2.79	0.45
1:B:267:PHE:CE1	1:B:319:MET:HE3	2.51	0.45
1:B:330:PRO:HD2	5:B:515:HOH:O	2.16	0.45
1:B:391:GLY:HA3	1:B:421:THR:O	2.16	0.45
1:B:384:ILE:HG13	5:B:567:HOH:O	2.17	0.45
1:B:384:ILE:O	1:B:388:ARG:HG2	2.16	0.45
1:B:170:HIS:CD2	1:B:172:GLY:H	2.34	0.45
1:A:294:PRO:HG2	1:A:295:GLN:NE2	2.31	0.45
1:A:393:ASN:C	1:A:393:ASN:HD22	2.19	0.45
1:B:174:LEU:CD1	1:B:361:LEU:HD11	2.45	0.45
1:B:293:PHE:N	1:B:294:PRO:HD3	2.31	0.45
1:B:394:CYS:HB3	1:B:400:PHE:CD2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:233:PHE:CZ	1:A:235:PHE:HB3	2.52	0.45
1:B:169:MET:CE	1:B:221:ASP:HB2	2.47	0.45
1:B:393:ASN:HD21	1:B:395:ASP:HB2	1.82	0.45
1:A:207:THR:HG23	1:A:209:ASP:N	2.30	0.45
1:A:352:ALA:O	1:A:354:ASP:N	2.49	0.45
1:A:441:LEU:C	1:A:441:LEU:HD23	2.37	0.45
1:B:250:ASN:ND2	1:B:291:ASN:ND2	2.44	0.45
1:A:260:PHE:HA	1:A:263:VAL:HG22	1.99	0.44
1:B:453:THR:OG1	1:B:455:GLU:HG2	2.18	0.44
1:A:274:CYS:HA	1:B:259:THR:HA	1.99	0.44
1:B:199:GLU:HB2	1:B:280:PHE:CZ	2.53	0.44
1:B:141:ARG:HD2	1:B:334:LEU:HD12	1.99	0.44
1:B:453:THR:H	1:B:456:ILE:HD12	1.83	0.44
1:A:100:TYR:HB3	1:A:138:PHE:CE2	2.52	0.44
1:A:126:GLN:HG2	5:A:514:HOH:O	2.17	0.44
1:A:311:ILE:HD13	1:A:311:ILE:O	2.17	0.44
1:A:140:HIS:CD2	1:A:143:MET:H	2.29	0.44
1:B:359:ILE:N	1:B:359:ILE:CD1	2.81	0.44
1:A:200:LYS:HD3	1:A:200:LYS:HA	1.77	0.43
1:A:275:ILE:HG22	1:B:278:ILE:HG22	2.00	0.43
1:B:124:THR:HB	1:B:186:VAL:HG13	1.99	0.43
1:B:298:ARG:HD2	1:B:470:PHE:O	2.18	0.43
1:A:141:ARG:NH1	1:A:314:ASP:OD2	2.51	0.43
1:A:348:THR:HG22	1:A:349:LYS:N	2.33	0.43
1:A:420:TYR:HE1	1:A:427:THR:HA	1.83	0.43
1:B:294:PRO:CD	1:B:295:GLN:NE2	2.82	0.43
1:B:453:THR:OG1	1:B:456:ILE:HG13	2.18	0.43
1:B:397:ASP:C	1:B:401:MET:HE2	2.38	0.43
1:A:92:THR:HG22	1:A:93:SER:N	2.34	0.43
1:A:267:PHE:HE1	1:A:319:MET:HE3	1.83	0.43
1:B:100:TYR:O	1:B:104:ILE:HG13	2.19	0.43
1:A:159:TYR:O	1:A:307:ILE:HG23	2.19	0.43
1:A:129:HIS:HB2	1:A:182:TRP:CD2	2.54	0.42
1:B:175:ILE:HB	1:B:176:PRO:CD	2.49	0.42
1:B:229:ILE:HD11	1:B:459:GLU:HB3	2.00	0.42
1:B:455:GLU:CD	1:B:455:GLU:N	2.70	0.42
1:A:83:ASP:OD2	1:A:99:ASP:N	2.43	0.42
1:B:159:TYR:CZ	3:B:478:LTN:HZ2	2.55	0.42
1:B:323:VAL:HG12	1:B:326:ARG:NH2	2.34	0.42
1:B:373:ASN:HD22	1:B:431:LYS:HG2	1.83	0.42
1:B:441:LEU:CD2	1:B:442:ILE:HD12	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:139:SER:OG	1:A:336:HIS:HD2	2.03	0.42
1:B:130:HIS:HB3	1:B:133:ARG:NH2	2.35	0.42
1:A:259:THR:OG1	1:A:262:GLN:HG3	2.20	0.42
1:A:348:THR:HG22	1:A:349:LYS:O	2.20	0.42
1:B:159:TYR:CE2	1:B:287:PRO:HG2	2.54	0.42
1:A:196:THR:HB	1:A:199:GLU:CB	2.49	0.42
1:B:348:THR:OG1	1:B:349:LYS:N	2.53	0.42
1:B:126:GLN:HG3	1:B:186:VAL:HG22	2.01	0.42
1:B:351:SER:C	1:B:353:SER:H	2.23	0.42
1:A:137:PHE:CE1	1:A:337:SER:HB3	2.54	0.42
1:A:191:LEU:HD21	1:A:193:ILE:HD11	2.01	0.41
1:A:334:LEU:HD13	1:A:336:HIS:HE1	1.85	0.41
1:A:271:ASP:HB3	1:B:261:ASN:HD21	1.85	0.41
1:B:344:GLN:CD	1:B:344:GLN:H	2.23	0.41
1:A:162:ARG:NH1	4:A:502:ATP:O1G	2.50	0.41
1:A:344:GLN:HE21	1:A:357:SER:HB2	1.85	0.41
1:B:186:VAL:HG12	1:B:187:PHE:CD1	2.55	0.41
1:A:198:ASP:OD2	1:A:237:ASP:HB3	2.19	0.41
1:A:240:TYR:CZ	1:A:244:SER:HB2	2.56	0.41
1:A:340:PHE:HB3	4:A:502:ATP:N6	2.34	0.41
1:B:182:TRP:CZ2	1:B:186:VAL:HG21	2.55	0.41
1:B:280:PHE:N	1:B:281:PRO:CD	2.83	0.41
1:B:417:ARG:HH11	1:B:417:ARG:HG2	1.86	0.41
1:A:278:ILE:CD1	1:B:260:PHE:HB2	2.50	0.41
1:A:369:LYS:HG3	1:A:435:ILE:HD13	2.03	0.41
1:B:230:ASN:HB3	1:B:467:SER:OG	2.20	0.41
1:B:259:THR:HG23	1:B:262:GLN:HE21	1.84	0.41
1:A:136:ILE:HD13	1:A:405:PHE:CD2	2.56	0.41
1:A:173:HIS:CE1	4:A:502:ATP:O2G	2.74	0.41
1:A:189:VAL:HB	1:A:190:PRO:HD2	2.02	0.41
1:A:156:PHE:HB2	1:A:304:GLN:HB3	2.03	0.40
1:A:208:LEU:HD23	1:A:208:LEU:HA	1.95	0.40
1:B:457:VAL:HG12	1:B:461:MET:CE	2.51	0.40
1:B:301:THR:O	1:B:301:THR:HG23	2.21	0.40
1:A:344:GLN:NE2	1:A:357:SER:HA	2.22	0.40
1:B:162:ARG:O	1:B:164:PRO:HD3	2.21	0.40
1:B:229:ILE:HA	1:B:460:PHE:CE1	2.57	0.40
1:B:129:HIS:HB2	1:B:182:TRP:CD2	2.56	0.40
1:B:169:MET:HE1	1:B:221:ASP:HB2	2.03	0.40
1:B:292:SER:C	1:B:294:PRO:HD3	2.41	0.40

All (3584) symmetry-related close contacts are listed below. The label for Atom-2 includes the

symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:318:ARG:N	1:A:442:ILE:CG2[3_365]	0.14	2.06
1:A:322:ASP:N	1:A:443:ALA:O[3_365]	0.19	2.01
1:A:138:PHE:CA	1:A:431:LYS:CG[3_365]	0.20	2.00
1:A:140:HIS:O	1:A:435:ILE:C[3_365]	0.20	2.00
1:A:164:PRO:O	1:A:273:ASP:CG[4_435]	0.20	2.00
1:B:430:LEU:CD1	1:B:432:LYS:NZ[2_355]	0.20	2.00
1:B:381:ARG:CG	1:B:404:THR:C[4_445]	0.25	1.95
1:A:322:ASP:O	1:A:447:ALA:CB[3_365]	0.26	1.94
1:A:302:ASP:OD2	1:A:303:ILE:CA[2_345]	0.27	1.93
1:A:328:GLY:CA	1:A:469:ASP:CA[2_345]	0.27	1.93
1:A:457:VAL:CG2	1:B:273:ASP:C[4_435]	0.28	1.92
1:B:372:VAL:CG1	1:B:431:LYS:CE[3_465]	0.28	1.92
1:B:430:LEU:CA	1:B:433:ALA:N[4_445]	0.28	1.92
1:A:339:PHE:CE2	1:A:343:LEU:N[3_365]	0.31	1.89
1:A:84:PHE:CE2	1:A:356:ASN:ND2[2_245]	0.34	1.86
1:A:103:LEU:N	1:A:402:TYR:N[3_365]	0.34	1.86
1:A:328:GLY:C	1:A:469:ASP:C[2_345]	0.36	1.84
1:A:327:ILE:C	1:A:469:ASP:CG[2_345]	0.37	1.83
1:A:84:PHE:CZ	4:A:502:ATP:C5[3_365]	0.38	1.82
1:B:105:VAL:CG1	1:B:465:LYS:CG[3_365]	0.38	1.82
1:B:380:GLY:N	5:B:537:HOH:O[2_355]	0.38	1.82
1:B:426:LEU:N	1:B:436:GLU:CD[2_355]	0.38	1.82
1:A:89:THR:N	1:A:351:SER:C[3_365]	0.39	1.81
1:B:430:LEU:N	1:B:432:LYS:CB[2_355]	0.39	1.81
1:A:110:SER:CA	1:A:433:ALA:O[3_365]	0.40	1.80
1:A:84:PHE:CD1	4:A:502:ATP:N1[3_365]	0.42	1.78
1:A:218:ASN:ND2	1:A:269:PHE:CD2[4_435]	0.42	1.78
1:A:328:GLY:N	1:A:469:ASP:CB[2_345]	0.42	1.78
1:B:98:ILE:CG2	5:B:513:HOH:O[4_445]	0.42	1.78
1:B:375:HIS:CG	1:B:375:HIS:CD2[4_445]	0.42	1.78
1:A:114:LYS:N	1:A:429:GLU:CG[3_365]	0.43	1.77
1:A:311:ILE:O	1:A:359:ILE:CG1[3_365]	0.44	1.76
1:A:85:VAL:CG2	1:A:341:PRO:O[3_365]	0.45	1.75
1:A:454:ASP:CB	1:B:277:LYS:CD[4_435]	0.46	1.74
1:A:457:VAL:CA	1:B:273:ASP:N[4_435]	0.46	1.74
1:B:99:ASP:CG	1:B:448:ARG:O[4_445]	0.46	1.74
1:B:365:ALA:O	1:B:402:TYR:CD1[3_465]	0.46	1.74
1:A:101:ASP:CA	1:A:400:PHE:CA[3_365]	0.47	1.73
1:A:218:ASN:OD1	1:A:269:PHE:CB[4_435]	0.48	1.72
1:A:356:ASN:N	4:A:502:ATP:C2'[4_435]	0.48	1.72
1:B:372:VAL:C	1:B:373:ASN:N[4_445]	0.48	1.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:401:MET:N	1:B:439:GLN:CB[4_445]	0.48	1.72
1:A:321:ARG:CB	1:A:443:ALA:CB[3_365]	0.50	1.70
1:B:426:LEU:CA	1:B:436:GLU:CG[2_355]	0.51	1.69
1:A:105:VAL:CB	1:A:403:LEU:C[3_365]	0.53	1.67
1:A:83:ASP:CB	1:A:341:PRO:CG[3_365]	0.54	1.66
1:A:89:THR:OG1	1:A:351:SER:OG[3_365]	0.54	1.66
1:A:100:TYR:CA	1:A:398:VAL:C[3_365]	0.54	1.66
1:A:111:LYS:CE	1:A:430:LEU:CB[3_365]	0.54	1.66
1:A:266:ILE:CG2	1:A:361:LEU:CD1[3_365]	0.54	1.66
1:A:94:SER:N	1:A:94:SER:O[3_365]	0.55	1.65
1:A:140:HIS:CA	1:A:435:ILE:CB[3_365]	0.55	1.65
1:B:373:ASN:N	1:B:373:ASN:CA[4_445]	0.55	1.65
1:B:429:GLU:N	1:B:430:LEU:CA[4_445]	0.55	1.65
1:A:312:ASP:CB	1:A:358:SER:CA[3_365]	0.56	1.64
1:B:359:ILE:CG1	1:B:377:PHE:CB[3_465]	0.56	1.64
1:A:84:PHE:C	1:A:340:PHE:O[3_365]	0.57	1.63
1:A:89:THR:O	1:A:351:SER:N[3_365]	0.57	1.63
1:A:101:ASP:CB	1:A:400:PHE:CB[3_365]	0.57	1.63
1:A:257:HIS:O	1:A:450:LYS:N[3_365]	0.57	1.63
1:A:338:THR:CG2	1:A:376:ALA:C[3_365]	0.57	1.63
1:B:395:ASP:CA	1:B:441:LEU:CA[4_445]	0.57	1.63
1:A:307:ILE:C	1:A:366:LYS:C[3_365]	0.58	1.62
1:A:313:GLN:CG	1:A:371:LYS:NZ[3_365]	0.58	1.62
1:B:102:LYS:CB	1:B:451:GLU:C[4_445]	0.58	1.62
1:B:387:HIS:C	1:B:413:LEU:CD2[4_445]	0.59	1.61
1:A:318:ARG:O	1:A:442:ILE:O[3_365]	0.60	1.60
1:A:82:GLU:OE2	1:A:100:TYR:CE2[3_365]	0.61	1.59
1:A:92:THR:CG2	1:A:346:ALA:CA[3_365]	0.61	1.59
1:A:138:PHE:O	1:A:431:LYS:CA[3_365]	0.61	1.59
1:A:171:VAL:CG1	1:A:318:ARG:NH2[4_435]	0.61	1.59
1:B:395:ASP:O	1:B:441:LEU:C[4_445]	0.61	1.59
1:B:409:ASP:O	1:B:422:SER:O[3_465]	0.61	1.59
1:A:162:ARG:NE	1:A:269:PHE:N[4_435]	0.62	1.58
1:A:209:ASP:C	1:B:258:VAL:C[4_435]	0.62	1.58
1:A:308:PRO:CB	1:A:370:THR:OG1[3_365]	0.62	1.58
1:B:407:LEU:CG	1:B:420:TYR:O[3_465]	0.62	1.58
1:B:141:ARG:CG	1:B:472:HIS:CA[3_365]	0.63	1.57
1:A:317:PHE:CG	1:A:363:ASP:C[3_365]	0.64	1.56
1:A:320:THR:N	1:A:446:GLN:CG[3_365]	0.64	1.56
1:A:210:GLN:C	1:A:274:CYS:CA[4_435]	0.65	1.55
1:A:355:PRO:CG	4:A:502:ATP:C5'[4_435]	0.65	1.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:389:GLN:O	1:B:410:ASP:OD1[4_445]	0.65	1.55
1:A:110:SER:C	1:A:433:ALA:C[3_365]	0.66	1.54
1:A:302:ASP:CB	1:A:303:ILE:CG1[2_345]	0.66	1.54
1:B:109:SER:C	1:B:470:PHE:C[3_365]	0.66	1.54
1:B:366:LYS:C	1:B:402:TYR:CZ[3_465]	0.66	1.54
1:B:372:VAL:O	1:B:373:ASN:CA[2_355]	0.66	1.54
1:B:372:VAL:CA	1:B:373:ASN:O[2_355]	0.66	1.54
1:A:82:GLU:O	1:A:344:GLN:O[2_245]	0.67	1.53
1:A:94:SER:C	1:A:95:ALA:N[3_365]	0.67	1.53
1:A:101:ASP:C	1:A:400:PHE:C[3_365]	0.67	1.53
1:A:141:ARG:NE	1:A:438:LEU:C[3_365]	0.67	1.53
1:A:335:LEU:C	1:A:369:LYS:C[3_365]	0.67	1.53
1:B:104:ILE:CA	1:B:298:ARG:NH2[3_365]	0.67	1.53
1:B:371:LYS:O	1:B:374:LYS:CA[2_355]	0.67	1.53
1:B:380:GLY:C	1:B:402:TYR:O[4_445]	0.67	1.53
1:B:429:GLU:N	1:B:433:ALA:N[2_355]	0.67	1.53
1:B:430:LEU:O	1:B:432:LYS:CA[4_445]	0.67	1.53
1:A:219:ALA:C	1:A:260:PHE:C[4_435]	0.68	1.52
1:A:220:LYS:CE	1:B:275:ILE:N[4_435]	0.68	1.52
1:B:321:ARG:NE	1:B:472:HIS:CE1[3_365]	0.68	1.52
1:B:375:HIS:ND1	1:B:375:HIS:NE2[2_355]	0.68	1.52
1:B:381:ARG:C	1:B:401:MET:O[4_445]	0.68	1.52
1:B:455:GLU:CD	1:B:464:ARG:N[2_345]	0.68	1.52
1:A:89:THR:CB	1:A:351:SER:CB[3_365]	0.69	1.51
1:A:107:PHE:N	1:A:406:PHE:CD2[3_365]	0.69	1.51
1:A:209:ASP:C	1:B:258:VAL:O[4_435]	0.69	1.51
1:B:366:LYS:CD	1:B:377:PHE:CZ[2_355]	0.69	1.51
1:B:375:HIS:CE1	1:B:375:HIS:NE2[2_355]	0.69	1.51
1:B:388:ARG:NH2	1:B:417:ARG:N[4_445]	0.69	1.51
1:A:105:VAL:CB	1:A:403:LEU:O[3_365]	0.70	1.50
1:A:167:GLU:CB	1:A:277:LYS:O[4_435]	0.70	1.50
1:A:197:ASP:C	1:A:272:SER:CB[4_435]	0.70	1.50
1:A:209:ASP:CB	1:B:258:VAL:CA[4_435]	0.70	1.50
1:A:212:TYR:CA	1:B:260:PHE:N[4_435]	0.70	1.50
1:A:213:SER:OG	1:A:275:ILE:CB[4_435]	0.70	1.50
1:A:220:LYS:CA	1:A:259:THR:C[4_435]	0.70	1.50
1:A:306:LEU:O	1:A:366:LYS:CG[3_365]	0.70	1.50
1:A:322:ASP:CG	1:A:444:GLU:O[3_365]	0.70	1.50
1:B:171:VAL:CG1	1:B:366:LYS:CD[4_445]	0.70	1.50
1:B:416:ILE:CD1	1:B:425:MET:C[3_465]	0.70	1.50
1:A:91:GLN:C	1:A:348:THR:O[3_365]	0.71	1.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:91:GLN:CA	1:A:349:LYS:N[3_365]	0.71	1.49
1:A:102:LYS:N	1:A:400:PHE:C[3_365]	0.71	1.49
1:A:138:PHE:CB	1:A:431:LYS:CD[3_365]	0.71	1.49
1:A:212:TYR:CD1	1:B:260:PHE:C[4_435]	0.71	1.49
1:A:219:ALA:C	1:A:261:ASN:N[4_435]	0.71	1.49
1:A:322:ASP:CG	1:A:444:GLU:C[3_365]	0.71	1.49
1:B:426:LEU:CB	1:B:436:GLU:CB[2_355]	0.71	1.49
1:A:82:GLU:CB	1:A:377:PHE:CB[2_245]	0.72	1.48
1:A:164:PRO:C	1:A:273:ASP:OD2[4_435]	0.72	1.48
1:A:327:ILE:CA	1:A:469:ASP:OD2[2_345]	0.72	1.48
1:B:372:VAL:C	1:B:372:VAL:O[3_465]	0.72	1.48
1:A:88:TRP:C	1:A:351:SER:O[3_365]	0.73	1.47
1:A:102:LYS:C	1:A:401:MET:C[3_365]	0.73	1.47
1:A:165:SER:CA	5:A:620:HOH:O[4_435]	0.73	1.47
1:A:219:ALA:O	1:A:261:ASN:N[4_435]	0.73	1.47
1:B:341:PRO:CA	1:B:364:THR:N[4_445]	0.73	1.47
1:B:371:LYS:C	1:B:376:ALA:N[3_465]	0.73	1.47
1:A:155:PRO:CG	5:A:618:HOH:O[2_345]	0.74	1.46
1:A:166:SER:OG	1:A:203:TRP:CZ2[4_435]	0.74	1.46
1:A:346:ALA:O	1:A:347:GLN:OE1[3_365]	0.74	1.46
1:B:380:GLY:C	1:B:402:TYR:C[4_445]	0.74	1.46
1:B:386:GLU:OE1	5:B:533:HOH:O[4_445]	0.74	1.46
1:A:91:GLN:CA	1:A:348:THR:C[3_365]	0.75	1.45
1:A:367:GLN:NE2	3:A:501:LTN:CZ2[4_435]	0.75	1.45
1:B:384:ILE:CD1	1:B:394:CYS:CB[4_445]	0.75	1.45
1:B:431:LYS:N	1:B:431:LYS:C[4_445]	0.75	1.45
1:A:139:SER:C	1:A:435:ILE:CG1[3_365]	0.76	1.44
1:A:162:ARG:NE	1:A:268:GLY:C[4_435]	0.76	1.44
1:B:381:ARG:O	1:B:401:MET:C[4_445]	0.76	1.44
1:B:420:TYR:CD2	1:B:437:VAL:CG2[4_445]	0.76	1.44
1:A:93:SER:OG	1:A:98:ILE:N[3_365]	0.77	1.43
1:A:103:LEU:C	1:A:402:TYR:CB[3_365]	0.77	1.43
1:A:167:GLU:OE2	1:A:276:GLY:O[4_435]	0.77	1.43
1:B:98:ILE:O	1:B:446:GLN:C[4_445]	0.77	1.43
1:A:138:PHE:CD2	1:A:399:SER:OG[3_365]	0.78	1.42
1:B:375:HIS:CE1	1:B:375:HIS:CE1[3_465]	0.78	1.42
1:A:141:ARG:CZ	1:A:438:LEU:C[3_365]	0.79	1.41
1:A:236:SER:CA	1:A:271:ASP:OD2[4_435]	0.79	1.41
1:A:319:MET:O	1:A:446:GLN:CB[3_365]	0.79	1.41
1:A:335:LEU:CG	1:A:369:LYS:CG[3_365]	0.79	1.41
1:B:359:ILE:CD1	1:B:377:PHE:CA[3_465]	0.79	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:432:LYS:CG	1:B:433:ALA:N[3_465]	0.79	1.41
1:A:94:SER:OG	1:A:95:ALA:C[3_365]	0.80	1.40
1:A:106:ARG:CD	1:A:405:PHE:CD2[3_365]	0.80	1.40
1:A:319:MET:C	1:A:446:GLN:CG[3_365]	0.80	1.40
1:A:355:PRO:C	4:A:502:ATP:C3'[4_435]	0.80	1.40
1:B:110:SER:O	1:B:471:GLN:CD[3_365]	0.80	1.40
1:B:262:GLN:O	5:B:553:HOH:O[3_365]	0.80	1.40
1:A:97:GLY:CA	5:A:599:HOH:O[3_365]	0.81	1.39
1:A:111:LYS:O	1:A:433:ALA:N[3_365]	0.81	1.39
1:A:212:TYR:CD1	1:B:260:PHE:O[4_435]	0.81	1.39
1:A:300:ARG:CA	1:A:300:ARG:O[2_345]	0.81	1.39
1:A:338:THR:CA	1:A:376:ALA:N[3_365]	0.81	1.39
1:B:109:SER:C	1:B:470:PHE:O[3_365]	0.81	1.39
1:B:400:PHE:N	1:B:435:ILE:O[4_445]	0.81	1.39
1:A:88:TRP:CB	1:A:352:ALA:CA[3_365]	0.82	1.38
1:A:94:SER:CB	1:A:96:LYS:N[3_365]	0.82	1.38
1:A:137:PHE:CE1	1:A:374:LYS:CG[3_365]	0.82	1.38
1:A:141:ARG:CD	1:A:439:GLN:N[3_365]	0.82	1.38
1:A:148:ASP:CB	1:A:152:ASN:ND2[2_345]	0.82	1.38
1:A:169:MET:SD	1:A:263:VAL:O[4_435]	0.82	1.38
1:A:335:LEU:CA	1:A:369:LYS:CA[3_365]	0.82	1.38
1:A:349:LYS:NZ	1:A:354:ASP:CG[3_365]	0.82	1.38
1:B:381:ARG:O	1:B:401:MET:O[4_445]	0.82	1.38
1:A:101:ASP:N	1:A:400:PHE:N[3_365]	0.83	1.37
1:A:258:VAL:CG1	1:A:449:ARG:CG[3_365]	0.83	1.37
1:A:338:THR:CA	1:A:375:HIS:C[3_365]	0.83	1.37
1:B:106:ARG:CB	5:B:581:HOH:O[3_365]	0.83	1.37
1:B:341:PRO:C	1:B:364:THR:N[4_445]	0.83	1.37
1:B:345:GLY:N	1:B:363:ASP:OD2[4_445]	0.83	1.37
1:B:369:LYS:NZ	1:B:397:ASP:CG[2_355]	0.83	1.37
1:B:392:GLY:N	1:B:407:LEU:CA[4_445]	0.83	1.37
1:B:430:LEU:CA	1:B:432:LYS:CG[2_355]	0.83	1.37
1:A:103:LEU:CG	1:A:402:TYR:CD1[3_365]	0.84	1.36
1:A:103:LEU:CD2	1:A:402:TYR:CZ[3_365]	0.84	1.36
1:A:213:SER:CB	1:A:275:ILE:CA[4_435]	0.84	1.36
1:A:273:ASP:N	5:A:619:HOH:O[3_365]	0.84	1.36
1:A:328:GLY:O	1:A:470:PHE:N[2_345]	0.84	1.36
1:A:336:HIS:O	1:A:373:ASN:N[3_365]	0.84	1.36
1:A:440:PRO:CD	5:A:589:HOH:O[4_435]	0.84	1.36
1:B:397:ASP:CA	1:B:438:LEU:CB[4_445]	0.84	1.36
1:B:429:GLU:C	1:B:429:GLU:O[4_445]	0.84	1.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:94:SER:CA	1:A:94:SER:C[3_365]	0.85	1.35
1:A:221:ASP:C	1:A:262:GLN:CA[4_435]	0.85	1.35
1:A:221:ASP:CA	1:A:262:GLN:C[4_435]	0.85	1.35
1:B:274:CYS:CB	5:A:573:HOH:O[3_365]	0.85	1.35
1:B:109:SER:O	1:B:470:PHE:C[3_365]	0.85	1.35
1:B:340:PHE:O	1:B:364:THR:CG2[4_445]	0.85	1.35
1:B:368:ILE:CB	1:B:398:VAL:CG1[3_465]	0.85	1.35
1:A:212:TYR:O	1:B:260:PHE:CB[4_435]	0.86	1.34
1:A:307:ILE:CD1	1:A:364:THR:CB[3_365]	0.86	1.34
1:A:338:THR:N	1:A:376:ALA:N[3_365]	0.86	1.34
1:A:356:ASN:CB	4:A:502:ATP:N9[4_435]	0.86	1.34
1:B:459:GLU:CB	1:B:459:GLU:CG[2_345]	0.86	1.34
1:A:92:THR:C	1:A:347:GLN:OE1[2_245]	0.87	1.33
1:A:93:SER:CB	1:A:346:ALA:N[2_245]	0.87	1.33
1:A:323:VAL:CG1	1:A:446:GLN:O[3_365]	0.87	1.33
1:A:461:MET:CG	1:B:271:ASP:N[4_435]	0.87	1.33
1:B:307:ILE:CG2	1:B:475:HIS:CD2[3_365]	0.87	1.33
1:B:389:GLN:CA	5:B:502:HOH:O[4_445]	0.87	1.33
1:B:391:GLY:CA	1:B:407:LEU:O[4_445]	0.87	1.33
1:B:412:LYS:O	1:B:424:ALA:CA[3_465]	0.87	1.33
1:B:432:LYS:CD	1:B:433:ALA:CA[3_465]	0.87	1.33
1:A:87:PRO:CD	1:A:170:HIS:CB[3_365]	0.88	1.32
1:A:93:SER:O	1:A:97:GLY:O[3_365]	0.88	1.32
1:B:429:GLU:N	1:B:432:LYS:C[2_355]	0.88	1.32
1:B:430:LEU:C	1:B:432:LYS:CA[4_445]	0.88	1.32
1:A:83:ASP:O	1:A:341:PRO:N[3_365]	0.89	1.31
1:A:86:ASP:N	1:A:350:MET:CG[3_365]	0.89	1.31
1:A:90:VAL:CG2	1:A:357:SER:OG[3_365]	0.89	1.31
1:A:100:TYR:O	1:A:399:SER:C[3_365]	0.89	1.31
1:A:102:LYS:N	1:A:401:MET:N[3_365]	0.89	1.31
1:A:141:ARG:C	1:A:439:GLN:OE1[3_365]	0.89	1.31
1:A:141:ARG:CD	1:A:439:GLN:CA[3_365]	0.89	1.31
1:A:309:CYS:O	1:A:371:LYS:CA[3_365]	0.89	1.31
1:B:102:LYS:CD	1:B:452:VAL:CA[4_445]	0.89	1.31
1:B:141:ARG:CG	1:B:472:HIS:C[3_365]	0.89	1.31
1:B:372:VAL:O	1:B:373:ASN:N[4_445]	0.89	1.31
1:A:93:SER:CA	1:A:347:GLN:NE2[2_245]	0.90	1.30
1:A:236:SER:OG	1:B:261:ASN:ND2[4_435]	0.90	1.30
1:A:307:ILE:O	1:A:366:LYS:O[3_365]	0.90	1.30
1:A:317:PHE:CD2	1:A:363:ASP:C[3_365]	0.90	1.30
1:A:336:HIS:CB	1:A:372:VAL:CG2[3_365]	0.90	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:99:ASP:O	1:B:450:LYS:N[4_445]	0.90	1.30
1:B:102:LYS:N	1:B:451:GLU:CA[4_445]	0.90	1.30
1:B:341:PRO:N	1:B:364:THR:CA[4_445]	0.90	1.30
1:B:412:LYS:C	1:B:424:ALA:N[3_465]	0.90	1.30
1:A:94:SER:OG	1:A:95:ALA:O[3_365]	0.91	1.29
1:A:209:ASP:CA	1:B:258:VAL:C[4_435]	0.91	1.29
1:A:212:TYR:CE1	1:B:260:PHE:O[4_435]	0.91	1.29
1:A:297:PHE:O	1:A:301:THR:CG2[2_345]	0.91	1.29
1:A:299:ASP:CA	1:A:299:ASP:CA[2_345]	0.91	1.29
1:A:320:THR:CA	1:A:446:GLN:OE1[3_365]	0.91	1.29
1:A:334:LEU:N	1:A:439:GLN:NE2[3_365]	0.91	1.29
1:A:335:LEU:CG	1:A:369:LYS:CD[3_365]	0.91	1.29
1:A:338:THR:C	1:A:375:HIS:O[3_365]	0.91	1.29
1:B:372:VAL:N	1:B:373:ASN:O[2_355]	0.91	1.29
1:B:428:GLY:C	1:B:430:LEU:C[4_445]	0.91	1.29
1:B:453:THR:CB	1:B:465:LYS:N[2_345]	0.91	1.29
1:A:88:TRP:CA	1:A:352:ALA:CA[3_365]	0.92	1.28
1:A:103:LEU:C	1:A:402:TYR:CA[3_365]	0.92	1.28
1:A:105:VAL:CG1	1:A:403:LEU:O[3_365]	0.92	1.28
1:A:310:ALA:N	1:A:371:LYS:CG[3_365]	0.92	1.28
1:A:335:LEU:O	1:A:370:THR:N[3_365]	0.92	1.28
1:A:338:THR:CG2	1:A:376:ALA:O[3_365]	0.92	1.28
1:B:141:ARG:NE	1:B:472:HIS:CB[3_365]	0.92	1.28
1:B:459:GLU:CB	1:B:459:GLU:CB[2_345]	0.92	1.28
1:A:140:HIS:N	1:A:435:ILE:CB[3_365]	0.93	1.27
1:A:220:LYS:CE	1:B:274:CYS:C[4_435]	0.93	1.27
1:A:316:TYR:CD1	1:A:360:PHE:CB[3_365]	0.93	1.27
1:A:320:THR:N	1:A:446:GLN:CD[3_365]	0.93	1.27
1:B:340:PHE:CD1	5:B:524:HOH:O[4_445]	0.93	1.27
1:B:383:THR:CG2	1:B:443:ALA:CB[2_355]	0.93	1.27
1:A:91:GLN:CB	1:A:349:LYS:N[3_365]	0.94	1.26
1:A:108:GLY:C	1:A:437:VAL:CG1[3_365]	0.94	1.26
1:A:234:ILE:CD1	1:A:261:ASN:OD1[4_435]	0.94	1.26
1:A:309:CYS:O	1:A:371:LYS:N[3_365]	0.94	1.26
1:A:454:ASP:CG	1:B:277:LYS:CG[4_435]	0.94	1.26
1:B:346:ALA:C	1:B:362:THR:N[4_445]	0.94	1.26
1:B:374:LYS:O	1:B:374:LYS:CB[3_465]	0.94	1.26
1:A:141:ARG:O	1:A:439:GLN:OE1[3_365]	0.95	1.25
1:A:307:ILE:N	1:A:366:LYS:CA[3_365]	0.95	1.25
1:A:316:TYR:CA	1:A:362:THR:N[3_365]	0.95	1.25
1:A:317:PHE:CG	1:A:363:ASP:O[3_365]	0.95	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:110:SER:O	1:B:471:GLN:CG[3_365]	0.95	1.25
1:B:431:LYS:N	1:B:432:LYS:N[4_445]	0.95	1.25
1:A:82:GLU:CB	1:A:377:PHE:CG[2_245]	0.96	1.24
1:A:91:GLN:C	1:A:348:THR:C[3_365]	0.96	1.24
1:A:94:SER:CA	1:A:94:SER:O[3_365]	0.96	1.24
1:A:209:ASP:O	1:B:258:VAL:O[4_435]	0.96	1.24
1:A:307:ILE:C	1:A:366:LYS:O[3_365]	0.96	1.24
1:A:346:ALA:C	1:A:347:GLN:OE1[3_365]	0.96	1.24
1:A:356:ASN:CG	4:A:502:ATP:N9[4_435]	0.96	1.24
1:B:134:ARG:NE	1:B:390:PHE:N[3_465]	0.96	1.24
1:A:84:PHE:CD1	4:A:502:ATP:C6[3_365]	0.97	1.23
1:A:89:THR:CA	1:A:351:SER:CB[3_365]	0.97	1.23
1:A:89:THR:C	1:A:351:SER:N[3_365]	0.97	1.23
1:A:103:LEU:CB	1:A:402:TYR:CD1[3_365]	0.97	1.23
1:A:140:HIS:CA	1:A:435:ILE:CG2[3_365]	0.97	1.23
1:A:209:ASP:CB	1:B:258:VAL:CB[4_435]	0.97	1.23
1:A:215:ALA:O	1:A:260:PHE:CZ[4_435]	0.97	1.23
1:A:220:LYS:CA	1:A:259:THR:O[4_435]	0.97	1.23
1:A:257:HIS:CA	1:A:450:LYS:C[3_365]	0.97	1.23
1:A:300:ARG:C	1:A:300:ARG:CB[2_345]	0.97	1.23
1:A:318:ARG:CA	1:A:442:ILE:CB[3_365]	0.97	1.23
1:A:319:MET:SD	5:A:532:HOH:O[3_365]	0.97	1.23
1:A:322:ASP:OD1	1:A:444:GLU:C[3_365]	0.97	1.23
1:A:334:LEU:CD1	1:A:368:ILE:CD1[3_365]	0.97	1.23
1:A:338:THR:O	1:A:375:HIS:CA[3_365]	0.97	1.23
1:A:356:ASN:CB	4:A:502:ATP:C4[4_435]	0.97	1.23
1:B:110:SER:OG	5:B:494:HOH:O[3_365]	0.97	1.23
1:B:140:HIS:CA	1:B:473:HIS:CE1[3_365]	0.97	1.23
1:B:340:PHE:CE1	5:B:524:HOH:O[4_445]	0.97	1.23
1:B:370:THR:O	1:B:374:LYS:CA[4_445]	0.97	1.23
1:B:416:ILE:CD1	1:B:425:MET:CA[3_465]	0.97	1.23
1:B:431:LYS:CB	1:B:431:LYS:CB[3_465]	0.97	1.23
1:B:431:LYS:O	5:B:501:HOH:O[4_445]	0.97	1.23
1:A:111:LYS:N	1:A:433:ALA:C[3_365]	0.98	1.22
1:A:139:SER:O	1:A:435:ILE:CD1[3_365]	0.98	1.22
1:A:216:VAL:CG2	1:B:260:PHE:CE1[4_435]	0.98	1.22
1:A:266:ILE:CD1	1:A:445:HIS:NE2[3_365]	0.98	1.22
1:A:312:ASP:C	1:A:359:ILE:N[3_365]	0.98	1.22
1:A:328:GLY:O	1:A:469:ASP:C[2_345]	0.98	1.22
1:B:99:ASP:O	1:B:450:LYS:CA[4_445]	0.98	1.22
1:B:110:SER:N	1:B:471:GLN:N[3_365]	0.98	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:395:ASP:O	1:B:442:ILE:N[4_445]	0.98	1.22
1:A:86:ASP:CB	1:A:170:HIS:NE2[3_365]	0.99	1.21
1:A:164:PRO:CD	1:A:270:THR:CB[4_435]	0.99	1.21
1:A:216:VAL:CG2	1:B:260:PHE:CD1[4_435]	0.99	1.21
1:A:221:ASP:OD2	1:A:263:VAL:CG1[4_435]	0.99	1.21
1:A:312:ASP:CA	1:A:358:SER:C[3_365]	0.99	1.21
1:A:326:ARG:NH1	1:A:451:GLU:CG[3_365]	0.99	1.21
1:A:327:ILE:C	1:A:469:ASP:OD2[2_345]	0.99	1.21
1:A:338:THR:C	1:A:375:HIS:C[3_365]	0.99	1.21
1:B:141:ARG:NH2	1:B:298:ARG:O[3_365]	0.99	1.21
1:B:384:ILE:CG1	1:B:440:PRO:CG[2_355]	0.99	1.21
1:B:416:ILE:CB	1:B:436:GLU:OE1[4_445]	0.99	1.21
1:A:92:THR:C	1:A:346:ALA:O[3_365]	1.00	1.20
1:A:101:ASP:CA	1:A:400:PHE:N[3_365]	1.00	1.20
1:A:166:SER:CB	1:A:203:TRP:CZ2[4_435]	1.00	1.20
1:A:210:GLN:CB	1:A:274:CYS:CB[4_435]	1.00	1.20
1:A:319:MET:O	1:A:446:GLN:CA[3_365]	1.00	1.20
1:A:321:ARG:NE	1:A:439:GLN:O[3_365]	1.00	1.20
1:B:402:TYR:CA	1:B:439:GLN:NE2[4_445]	1.00	1.20
1:B:430:LEU:CB	1:B:432:LYS:CG[2_355]	1.00	1.20
1:A:137:PHE:CB	1:A:373:ASN:CB[3_365]	1.01	1.19
1:A:211:ALA:C	1:A:273:ASP:O[4_435]	1.01	1.19
1:A:307:ILE:CA	1:A:366:LYS:CA[3_365]	1.01	1.19
1:A:315:PRO:O	1:A:361:LEU:CA[3_365]	1.01	1.19
1:A:336:HIS:CE1	1:A:368:ILE:CG2[3_365]	1.01	1.19
1:B:99:ASP:CA	1:B:449:ARG:N[4_445]	1.01	1.19
1:B:103:LEU:N	1:B:450:LYS:O[4_445]	1.01	1.19
1:B:346:ALA:O	1:B:362:THR:N[4_445]	1.01	1.19
1:B:359:ILE:CD1	1:B:370:THR:OG1[4_445]	1.01	1.19
1:B:372:VAL:C	1:B:373:ASN:C[2_355]	1.01	1.19
1:B:401:MET:CA	1:B:439:GLN:CB[4_445]	1.01	1.19
1:B:430:LEU:C	1:B:432:LYS:C[4_445]	1.01	1.19
1:A:88:TRP:O	1:A:351:SER:O[3_365]	1.02	1.18
1:A:93:SER:C	1:A:347:GLN:NE2[2_245]	1.02	1.18
1:A:100:TYR:CB	1:A:399:SER:N[3_365]	1.02	1.18
1:A:116:LEU:CD2	1:A:432:LYS:CG[3_365]	1.02	1.18
1:A:220:LYS:CB	1:A:259:THR:C[4_435]	1.02	1.18
1:A:335:LEU:O	1:A:369:LYS:C[3_365]	1.02	1.18
1:A:336:HIS:O	1:A:372:VAL:C[3_365]	1.02	1.18
1:A:347:GLN:CA	1:A:347:GLN:CB[3_365]	1.02	1.18
1:B:369:LYS:CB	1:B:378:SER:CB[2_355]	1.02	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:372:VAL:C	1:B:373:ASN:CA[2_355]	1.02	1.18
1:A:83:ASP:C	1:A:341:PRO:N[3_365]	1.03	1.17
1:A:97:GLY:C	5:A:518:HOH:O[3_365]	1.03	1.17
1:A:100:TYR:CA	1:A:399:SER:N[3_365]	1.03	1.17
1:A:105:VAL:N	1:A:403:LEU:CA[3_365]	1.03	1.17
1:A:312:ASP:C	1:A:358:SER:C[3_365]	1.03	1.17
1:B:334:LEU:CA	1:B:473:HIS:CB[3_365]	1.03	1.17
1:B:344:GLN:N	1:B:371:LYS:CE[4_445]	1.03	1.17
1:B:366:LYS:C	1:B:402:TYR:OH[3_465]	1.03	1.17
1:B:368:ILE:CA	1:B:398:VAL:CG1[3_465]	1.03	1.17
1:B:384:ILE:CA	1:B:400:PHE:CE2[4_445]	1.03	1.17
1:B:426:LEU:N	1:B:436:GLU:OE2[2_355]	1.03	1.17
1:A:111:LYS:CG	1:A:430:LEU:C[3_365]	1.04	1.16
1:A:212:TYR:CG	1:B:260:PHE:C[4_435]	1.04	1.16
1:A:215:ALA:O	1:A:260:PHE:CE1[4_435]	1.04	1.16
1:A:258:VAL:N	1:A:449:ARG:O[3_365]	1.04	1.16
1:A:307:ILE:O	1:A:366:LYS:C[3_365]	1.04	1.16
1:A:318:ARG:C	1:A:442:ILE:O[3_365]	1.04	1.16
1:A:318:ARG:O	1:A:442:ILE:C[3_365]	1.04	1.16
1:A:458:LYS:O	1:B:270:THR:CG2[4_435]	1.04	1.16
1:B:130:HIS:NE2	1:B:381:ARG:NH2[3_465]	1.04	1.16
1:B:171:VAL:CG1	1:B:377:PHE:CZ[3_465]	1.04	1.16
1:B:262:GLN:C	5:B:553:HOH:O[3_365]	1.04	1.16
1:B:346:ALA:C	1:B:361:LEU:C[4_445]	1.04	1.16
1:B:392:GLY:O	1:B:406:PHE:O[4_445]	1.04	1.16
1:B:458:LYS:CB	1:B:462:THR:OG1[2_345]	1.04	1.16
1:A:83:ASP:O	1:A:341:PRO:CD[3_365]	1.05	1.15
1:A:88:TRP:CG	1:A:352:ALA:CB[3_365]	1.05	1.15
1:A:90:VAL:CG1	1:A:342:ALA:CB[3_365]	1.05	1.15
1:A:111:LYS:CG	1:A:430:LEU:CA[3_365]	1.05	1.15
1:A:111:LYS:C	1:A:433:ALA:N[3_365]	1.05	1.15
1:A:112:ILE:N	1:A:432:LYS:N[3_365]	1.05	1.15
1:A:169:MET:CB	1:A:267:PHE:CB[4_435]	1.05	1.15
1:A:213:SER:OG	1:A:275:ILE:CG2[4_435]	1.05	1.15
1:A:318:ARG:CD	1:A:441:LEU:CD2[3_365]	1.05	1.15
1:B:375:HIS:ND1	1:B:375:HIS:CD2[4_445]	1.05	1.15
1:A:106:ARG:CB	1:A:405:PHE:CB[3_365]	1.06	1.14
1:A:137:PHE:N	1:A:373:ASN:O[3_365]	1.06	1.14
1:A:162:ARG:CZ	1:A:268:GLY:C[4_435]	1.06	1.14
1:A:210:GLN:O	1:A:274:CYS:C[4_435]	1.06	1.14
1:A:221:ASP:C	1:A:262:GLN:C[4_435]	1.06	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:104:ILE:CG2	1:B:469:ASP:OD2[3_365]	1.06	1.14
1:B:105:VAL:CG2	5:B:492:HOH:O[3_365]	1.06	1.14
1:B:366:LYS:CG	1:B:377:PHE:CZ[2_355]	1.06	1.14
1:B:372:VAL:N	1:B:376:ALA:N[3_465]	1.06	1.14
1:A:86:ASP:CB	1:A:170:HIS:CD2[3_365]	1.07	1.13
1:A:103:LEU:CA	1:A:402:TYR:CA[3_365]	1.07	1.13
1:A:210:GLN:O	1:A:274:CYS:CA[4_435]	1.07	1.13
1:A:212:TYR:CE2	1:B:263:VAL:CG2[4_435]	1.07	1.13
1:A:216:VAL:CG1	1:B:278:ILE:CD1[4_435]	1.07	1.13
1:A:257:HIS:O	1:A:449:ARG:C[3_365]	1.07	1.13
1:A:335:LEU:N	1:A:369:LYS:CB[3_365]	1.07	1.13
1:B:371:LYS:CA	1:B:374:LYS:O[2_355]	1.07	1.13
1:B:374:LYS:C	1:B:375:HIS:CA[4_445]	1.07	1.13
1:B:416:ILE:CG2	1:B:436:GLU:OE1[4_445]	1.07	1.13
1:B:430:LEU:CA	1:B:432:LYS:C[4_445]	1.07	1.13
1:A:164:PRO:O	1:A:273:ASP:OD1[4_435]	1.08	1.12
1:A:166:SER:O	1:A:269:PHE:CE1[4_435]	1.08	1.12
1:A:197:ASP:CA	1:A:272:SER:N[4_435]	1.08	1.12
1:A:337:SER:N	1:A:371:LYS:C[3_365]	1.08	1.12
1:A:347:GLN:CB	1:A:347:GLN:CB[3_365]	1.08	1.12
1:B:107:PHE:C	1:B:298:ARG:CA[3_365]	1.08	1.12
1:B:375:HIS:NE2	1:B:375:HIS:NE2[4_445]	1.08	1.12
1:B:383:THR:O	1:B:404:THR:CG2[4_445]	1.08	1.12
1:A:84:PHE:CA	1:A:340:PHE:O[3_365]	1.09	1.11
1:A:103:LEU:N	1:A:401:MET:C[3_365]	1.09	1.11
1:A:105:VAL:O	1:A:406:PHE:CA[3_365]	1.09	1.11
1:A:106:ARG:NH1	1:A:340:PHE:CD1[3_365]	1.09	1.11
1:A:110:SER:C	1:A:434:LEU:N[3_365]	1.09	1.11
1:A:206:LEU:CD2	5:A:587:HOH:O[4_435]	1.09	1.11
1:A:209:ASP:CA	1:B:258:VAL:CA[4_435]	1.09	1.11
1:A:222:ILE:CA	1:A:261:ASN:O[4_435]	1.09	1.11
1:A:318:ARG:CA	1:A:442:ILE:CA[3_365]	1.09	1.11
1:A:329:TYR:CD1	1:A:470:PHE:C[2_345]	1.09	1.11
1:A:339:PHE:O	5:A:547:HOH:O[3_365]	1.09	1.11
1:B:458:LYS:CG	1:B:462:THR:OG1[2_345]	1.09	1.11
1:A:86:ASP:CG	1:A:170:HIS:CE1[3_365]	1.10	1.10
1:A:107:PHE:CA	1:A:406:PHE:CD2[3_365]	1.10	1.10
1:A:167:GLU:CG	1:A:277:LYS:C[4_435]	1.10	1.10
1:A:197:ASP:CB	1:A:272:SER:N[4_435]	1.10	1.10
1:A:211:ALA:O	1:A:273:ASP:O[4_435]	1.10	1.10
1:A:314:ASP:CB	1:A:359:ILE:CG2[3_365]	1.10	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:315:PRO:CD	1:A:359:ILE:O[3_365]	1.10	1.10
1:A:316:TYR:N	1:A:360:PHE:C[3_365]	1.10	1.10
1:A:317:PHE:CB	1:A:363:ASP:O[3_365]	1.10	1.10
1:A:326:ARG:CZ	1:A:451:GLU:CG[3_365]	1.10	1.10
1:B:274:CYS:SG	5:A:573:HOH:O[3_365]	1.10	1.10
1:B:109:SER:O	1:B:470:PHE:CA[3_365]	1.10	1.10
1:A:100:TYR:OH	1:A:343:LEU:O[3_365]	1.11	1.09
1:A:139:SER:O	1:A:435:ILE:CG1[3_365]	1.11	1.09
1:A:141:ARG:NE	1:A:438:LEU:O[3_365]	1.11	1.09
1:A:164:PRO:CD	1:A:270:THR:OG1[4_435]	1.11	1.09
1:A:300:ARG:O	1:A:300:ARG:CB[2_345]	1.11	1.09
1:A:312:ASP:CG	1:A:358:SER:N[3_365]	1.11	1.09
1:A:320:THR:CA	1:A:446:GLN:CD[3_365]	1.11	1.09
1:A:322:ASP:OD2	1:A:444:GLU:O[3_365]	1.11	1.09
1:A:440:PRO:CG	5:A:589:HOH:O[4_435]	1.11	1.09
1:A:457:VAL:CB	1:B:273:ASP:N[4_435]	1.11	1.09
1:B:102:LYS:CB	1:B:452:VAL:N[4_445]	1.11	1.09
1:B:107:PHE:O	1:B:298:ARG:CA[3_365]	1.11	1.09
1:B:392:GLY:N	1:B:407:LEU:CB[4_445]	1.11	1.09
1:B:407:LEU:CD2	1:B:420:TYR:O[3_465]	1.11	1.09
1:B:430:LEU:CB	1:B:433:ALA:C[4_445]	1.11	1.09
1:B:453:THR:CG2	1:B:465:LYS:CA[2_345]	1.11	1.09
1:A:89:THR:CA	1:A:351:SER:CA[3_365]	1.12	1.08
1:A:91:GLN:O	1:A:348:THR:O[3_365]	1.12	1.08
1:A:113:ASP:CA	1:A:429:GLU:CB[3_365]	1.12	1.08
1:A:113:ASP:C	1:A:429:GLU:CG[3_365]	1.12	1.08
1:A:197:ASP:O	1:A:272:SER:CB[4_435]	1.12	1.08
1:A:212:TYR:CB	1:B:259:THR:C[4_435]	1.12	1.08
1:A:300:ARG:CA	1:A:300:ARG:C[2_345]	1.12	1.08
1:A:307:ILE:N	1:A:366:LYS:CB[3_365]	1.12	1.08
1:A:316:TYR:N	1:A:360:PHE:O[3_365]	1.12	1.08
1:A:316:TYR:CD2	1:A:362:THR:OG1[3_365]	1.12	1.08
1:A:335:LEU:N	1:A:369:LYS:CA[3_365]	1.12	1.08
1:A:355:PRO:O	4:A:502:ATP:O3'[4_435]	1.12	1.08
1:B:108:GLY:CA	1:B:298:ARG:N[3_365]	1.12	1.08
1:B:334:LEU:O	1:B:473:HIS:CG[3_365]	1.12	1.08
1:B:369:LYS:CE	1:B:397:ASP:OD2[2_355]	1.12	1.08
1:B:392:GLY:CA	1:B:407:LEU:N[4_445]	1.12	1.08
1:B:402:TYR:N	1:B:439:GLN:NE2[4_445]	1.12	1.08
1:B:428:GLY:O	1:B:431:LYS:N[4_445]	1.12	1.08
1:A:257:HIS:CA	1:A:450:LYS:O[3_365]	1.13	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:314:ASP:CA	1:A:359:ILE:CG2[3_365]	1.13	1.07
1:A:338:THR:O	1:A:375:HIS:CB[3_365]	1.13	1.07
1:A:457:VAL:CB	1:B:273:ASP:CA[4_435]	1.13	1.07
1:B:171:VAL:N	1:B:366:LYS:NZ[4_445]	1.13	1.07
1:B:359:ILE:CB	1:B:377:PHE:CB[3_465]	1.13	1.07
1:B:369:LYS:NZ	1:B:397:ASP:OD2[2_355]	1.13	1.07
1:B:388:ARG:N	1:B:413:LEU:CD2[4_445]	1.13	1.07
1:B:426:LEU:CA	1:B:436:GLU:CD[2_355]	1.13	1.07
1:A:88:TRP:C	1:A:351:SER:C[3_365]	1.14	1.06
1:A:93:SER:N	1:A:347:GLN:OE1[2_245]	1.14	1.06
1:A:94:SER:CA	1:A:95:ALA:N[2_245]	1.14	1.06
1:A:113:ASP:CA	1:A:429:GLU:CA[3_365]	1.14	1.06
1:A:197:ASP:CA	1:A:272:SER:CA[4_435]	1.14	1.06
1:A:221:ASP:OD2	1:A:263:VAL:CB[4_435]	1.14	1.06
1:A:337:SER:N	1:A:372:VAL:N[3_365]	1.14	1.06
1:A:457:VAL:CA	1:B:272:SER:C[4_435]	1.14	1.06
1:B:103:LEU:CB	1:B:450:LYS:CG[4_445]	1.14	1.06
1:B:307:ILE:CD1	1:B:475:HIS:N[3_365]	1.14	1.06
1:B:334:LEU:CG	1:B:474:HIS:N[3_365]	1.14	1.06
1:B:346:ALA:N	1:B:360:PHE:O[4_445]	1.14	1.06
1:B:366:LYS:O	1:B:402:TYR:CZ[3_465]	1.14	1.06
1:B:384:ILE:N	1:B:440:PRO:CB[2_355]	1.14	1.06
1:B:400:PHE:CD1	1:B:436:GLU:O[4_445]	1.14	1.06
1:B:406:PHE:CE1	5:B:562:HOH:O[3_465]	1.14	1.06
1:B:412:LYS:NZ	1:B:419:ASP:CB[3_465]	1.14	1.06
1:B:428:GLY:C	1:B:430:LEU:CA[4_445]	1.14	1.06
1:A:84:PHE:CE1	4:A:502:ATP:C6[3_365]	1.15	1.05
1:A:88:TRP:CB	1:A:352:ALA:C[3_365]	1.15	1.05
1:A:97:GLY:N	5:A:599:HOH:O[3_365]	1.15	1.05
1:A:112:ILE:CA	1:A:432:LYS:N[3_365]	1.15	1.05
1:A:137:PHE:CA	1:A:373:ASN:CA[3_365]	1.15	1.05
1:A:167:GLU:CD	1:A:276:GLY:O[4_435]	1.15	1.05
1:A:219:ALA:O	1:A:261:ASN:CA[4_435]	1.15	1.05
1:A:335:LEU:CB	1:A:369:LYS:CG[3_365]	1.15	1.05
1:B:107:PHE:O	1:B:298:ARG:C[3_365]	1.15	1.05
1:B:341:PRO:CG	1:B:364:THR:C[4_445]	1.15	1.05
1:B:359:ILE:CB	1:B:377:PHE:CG[3_465]	1.15	1.05
1:B:371:LYS:CB	1:B:375:HIS:O[3_465]	1.15	1.05
1:B:381:ARG:CG	1:B:404:THR:O[4_445]	1.15	1.05
1:B:392:GLY:C	1:B:406:PHE:O[4_445]	1.15	1.05
1:B:392:GLY:C	1:B:406:PHE:C[4_445]	1.15	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:394:CYS:CA	1:B:437:VAL:O[4_445]	1.15	1.05
1:B:402:TYR:N	1:B:439:GLN:CD[4_445]	1.15	1.05
1:B:440:PRO:C	5:B:567:HOH:O[2_355]	1.15	1.05
1:A:84:PHE:CZ	4:A:502:ATP:C4[3_365]	1.16	1.04
1:A:102:LYS:C	1:A:401:MET:O[3_365]	1.16	1.04
1:A:102:LYS:O	1:A:401:MET:O[3_365]	1.16	1.04
1:A:106:ARG:O	1:A:406:PHE:CD1[3_365]	1.16	1.04
1:A:140:HIS:N	1:A:435:ILE:CG1[3_365]	1.16	1.04
1:A:222:ILE:N	1:A:261:ASN:O[4_435]	1.16	1.04
1:A:307:ILE:CA	1:A:366:LYS:CB[3_365]	1.16	1.04
1:A:327:ILE:O	1:A:469:ASP:OD1[2_345]	1.16	1.04
1:A:356:ASN:OD1	4:A:502:ATP:C8[4_435]	1.16	1.04
1:B:370:THR:O	1:B:371:LYS:O[3_465]	1.16	1.04
1:B:379:GLY:C	5:B:537:HOH:O[2_355]	1.16	1.04
1:B:395:ASP:C	1:B:441:LEU:CA[4_445]	1.16	1.04
1:B:397:ASP:O	1:B:439:GLN:N[4_445]	1.16	1.04
1:B:400:PHE:CG	1:B:436:GLU:O[4_445]	1.16	1.04
1:B:425:MET:CE	1:B:429:GLU:OE1[3_465]	1.16	1.04
1:B:455:GLU:OE2	1:B:464:ARG:N[2_345]	1.16	1.04
1:A:85:VAL:CA	1:A:350:MET:CB[3_365]	1.17	1.03
1:A:91:GLN:CG	5:A:531:HOH:O[2_245]	1.17	1.03
1:A:91:GLN:CB	5:A:531:HOH:O[2_245]	1.17	1.03
1:A:93:SER:N	1:A:346:ALA:O[3_365]	1.17	1.03
1:A:94:SER:CB	1:A:95:ALA:C[3_365]	1.17	1.03
1:A:95:ALA:N	1:A:95:ALA:N[4_435]	1.17	1.03
1:A:141:ARG:NH1	1:A:438:LEU:CB[3_365]	1.17	1.03
1:A:141:ARG:CZ	1:A:438:LEU:O[3_365]	1.17	1.03
1:A:217:GLU:CB	1:A:278:ILE:CG2[4_435]	1.17	1.03
1:A:279:SER:CA	5:A:555:HOH:O[3_365]	1.17	1.03
1:A:454:ASP:O	1:B:273:ASP:OD1[4_435]	1.17	1.03
1:A:454:ASP:CB	1:B:277:LYS:CE[4_435]	1.17	1.03
1:B:99:ASP:CB	1:B:448:ARG:C[4_445]	1.17	1.03
1:B:341:PRO:CA	1:B:364:THR:CA[4_445]	1.17	1.03
1:B:345:GLY:C	1:B:360:PHE:O[4_445]	1.17	1.03
1:B:374:LYS:CA	1:B:375:HIS:N[4_445]	1.17	1.03
1:B:388:ARG:C	5:B:535:HOH:O[4_445]	1.17	1.03
1:B:412:LYS:CB	1:B:422:SER:OG[3_465]	1.17	1.03
1:A:141:ARG:NE	1:A:439:GLN:N[3_365]	1.18	1.02
1:A:141:ARG:CB	1:A:439:GLN:CB[3_365]	1.18	1.02
1:A:211:ALA:CB	1:A:272:SER:O[4_435]	1.18	1.02
1:A:259:THR:CG2	1:A:452:VAL:CB[3_365]	1.18	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:266:ILE:CD1	1:A:445:HIS:CE1[3_365]	1.18	1.02
1:A:320:THR:CB	1:A:446:GLN:OE1[3_365]	1.18	1.02
1:A:336:HIS:C	1:A:372:VAL:N[3_365]	1.18	1.02
5:A:606:HOH:O	5:A:611:HOH:O[2_345]	1.18	1.02
1:B:98:ILE:O	1:B:446:GLN:O[4_445]	1.18	1.02
1:B:105:VAL:CG1	1:B:465:LYS:CB[3_365]	1.18	1.02
1:B:368:ILE:CB	1:B:398:VAL:CB[3_465]	1.18	1.02
1:B:409:ASP:O	1:B:422:SER:C[3_465]	1.18	1.02
1:B:413:LEU:N	1:B:423:GLY:C[3_465]	1.18	1.02
1:A:84:PHE:CE1	4:A:502:ATP:C5[3_365]	1.19	1.01
1:A:92:THR:O	1:A:347:GLN:C[3_365]	1.19	1.01
1:A:111:LYS:N	1:A:434:LEU:N[3_365]	1.19	1.01
1:A:169:MET:CG	1:A:267:PHE:CB[4_435]	1.19	1.01
1:A:195:MET:CB	1:A:271:ASP:OD1[4_435]	1.19	1.01
1:A:218:ASN:OD1	1:A:269:PHE:CG[4_435]	1.19	1.01
1:A:219:ALA:CA	1:A:260:PHE:C[4_435]	1.19	1.01
1:A:220:LYS:N	1:A:260:PHE:CA[4_435]	1.19	1.01
1:A:322:ASP:N	1:A:443:ALA:C[3_365]	1.19	1.01
1:A:339:PHE:N	1:A:375:HIS:O[3_365]	1.19	1.01
1:B:344:GLN:N	1:B:371:LYS:CD[4_445]	1.19	1.01
1:B:389:GLN:CB	5:B:502:HOH:O[4_445]	1.19	1.01
1:B:399:SER:OG	1:B:435:ILE:CG1[4_445]	1.19	1.01
1:B:400:PHE:CD2	1:B:440:PRO:CD[4_445]	1.19	1.01
1:B:413:LEU:CA	1:B:423:GLY:O[3_465]	1.19	1.01
1:B:429:GLU:O	1:B:429:GLU:O[3_465]	1.19	1.01
1:A:84:PHE:CZ	4:A:502:ATP:N7[3_365]	1.20	1.00
1:A:110:SER:OG	1:A:436:GLU:CB[3_365]	1.20	1.00
1:A:169:MET:CB	1:A:267:PHE:CG[4_435]	1.20	1.00
1:A:356:ASN:CG	4:A:502:ATP:C8[4_435]	1.20	1.00
1:B:159:TYR:O	1:B:475:HIS:CE1[3_365]	1.20	1.00
1:B:359:ILE:CG1	1:B:377:PHE:CA[3_465]	1.20	1.00
1:B:441:LEU:N	5:B:567:HOH:O[2_355]	1.20	1.00
1:A:92:THR:CB	1:A:346:ALA:C[3_365]	1.21	0.99
1:A:218:ASN:CG	1:A:269:PHE:CB[4_435]	1.21	0.99
1:A:317:PHE:C	1:A:442:ILE:CG2[3_365]	1.21	0.99
1:A:335:LEU:CA	1:A:369:LYS:CB[3_365]	1.21	0.99
1:A:336:HIS:C	1:A:372:VAL:CA[3_365]	1.21	0.99
1:B:100:TYR:N	1:B:447:ALA:O[4_445]	1.21	0.99
1:B:102:LYS:CD	1:B:452:VAL:C[4_445]	1.21	0.99
1:B:395:ASP:C	1:B:441:LEU:C[4_445]	1.21	0.99
1:B:399:SER:CB	1:B:435:ILE:CG1[4_445]	1.21	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:399:SER:CB	1:B:435:ILE:CB[4_445]	1.21	0.99
1:B:420:TYR:CD2	1:B:437:VAL:CB[4_445]	1.21	0.99
1:A:103:LEU:CG	1:A:402:TYR:CG[3_365]	1.22	0.98
1:A:321:ARG:CB	1:A:443:ALA:CA[3_365]	1.22	0.98
1:B:371:LYS:O	1:B:375:HIS:N[3_465]	1.22	0.98
1:B:375:HIS:CD2	1:B:375:HIS:NE2[4_445]	1.22	0.98
1:B:380:GLY:CA	1:B:402:TYR:C[4_445]	1.22	0.98
1:B:396:VAL:CG1	1:B:441:LEU:CD2[4_445]	1.22	0.98
1:B:400:PHE:CA	1:B:435:ILE:O[4_445]	1.22	0.98
1:A:175:ILE:O	1:A:374:LYS:CE[3_365]	1.23	0.97
1:A:175:ILE:O	1:A:374:LYS:NZ[3_365]	1.23	0.97
1:A:216:VAL:CG1	1:B:278:ILE:CG1[4_435]	1.23	0.97
1:A:302:ASP:N	1:A:303:ILE:CD1[2_345]	1.23	0.97
1:B:99:ASP:CB	1:B:448:ARG:O[4_445]	1.23	0.97
1:B:141:ARG:NE	1:B:472:HIS:CG[3_365]	1.23	0.97
1:B:346:ALA:O	1:B:361:LEU:C[4_445]	1.23	0.97
1:B:372:VAL:CA	1:B:373:ASN:C[2_355]	1.23	0.97
1:B:373:ASN:N	1:B:373:ASN:C[4_445]	1.23	0.97
1:B:387:HIS:C	1:B:413:LEU:CG[4_445]	1.23	0.97
1:A:86:ASP:CG	1:A:170:HIS:NE2[3_365]	1.24	0.96
1:A:97:GLY:O	5:A:518:HOH:O[3_365]	1.24	0.96
1:A:100:TYR:N	1:A:398:VAL:CA[3_365]	1.24	0.96
1:A:164:PRO:CA	1:A:273:ASP:OD2[4_435]	1.24	0.96
1:A:258:VAL:CG1	1:A:449:ARG:CD[3_365]	1.24	0.96
1:A:266:ILE:CG2	1:A:361:LEU:CG[3_365]	1.24	0.96
1:A:299:ASP:CB	5:A:601:HOH:O[2_345]	1.24	0.96
1:A:302:ASP:CG	1:A:303:ILE:CB[2_345]	1.24	0.96
1:A:306:LEU:C	1:A:366:LYS:CG[3_365]	1.24	0.96
1:A:315:PRO:C	1:A:361:LEU:CA[3_365]	1.24	0.96
1:A:329:TYR:CD1	1:A:470:PHE:O[2_345]	1.24	0.96
1:B:141:ARG:CB	1:B:473:HIS:N[3_365]	1.24	0.96
1:B:388:ARG:CZ	1:B:417:ARG:N[4_445]	1.24	0.96
1:B:429:GLU:CA	1:B:429:GLU:O[4_445]	1.24	0.96
1:A:103:LEU:CG	1:A:402:TYR:CE1[3_365]	1.25	0.95
1:A:116:LEU:CB	1:A:432:LYS:CE[3_365]	1.25	0.95
1:A:141:ARG:CZ	1:A:438:LEU:CA[3_365]	1.25	0.95
1:A:145:GLN:CG	1:A:152:ASN:O[2_345]	1.25	0.95
1:A:155:PRO:CD	5:A:618:HOH:O[2_345]	1.25	0.95
1:A:220:LYS:NZ	1:B:275:ILE:N[4_435]	1.25	0.95
1:A:220:LYS:NZ	1:B:275:ILE:CA[4_435]	1.25	0.95
1:A:302:ASP:CG	1:A:303:ILE:CA[2_345]	1.25	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:328:GLY:N	1:A:469:ASP:CG[2_345]	1.25	0.95
1:A:329:TYR:CD2	1:A:471:GLN:CB[2_345]	1.25	0.95
1:B:110:SER:N	1:B:471:GLN:CA[3_365]	1.25	0.95
1:B:368:ILE:CG2	1:B:398:VAL:CA[3_465]	1.25	0.95
1:B:374:LYS:O	1:B:375:HIS:CB[4_445]	1.25	0.95
1:B:396:VAL:N	1:B:441:LEU:CB[4_445]	1.25	0.95
1:B:427:THR:OG1	1:B:435:ILE:CG2[2_355]	1.25	0.95
1:B:430:LEU:N	1:B:433:ALA:N[4_445]	1.25	0.95
1:A:101:ASP:C	1:A:400:PHE:CA[3_365]	1.26	0.94
1:A:101:ASP:C	1:A:400:PHE:O[3_365]	1.26	0.94
1:A:106:ARG:N	1:A:402:TYR:O[3_365]	1.26	0.94
1:A:212:TYR:C	1:B:260:PHE:N[4_435]	1.26	0.94
1:A:312:ASP:CA	1:A:359:ILE:N[3_365]	1.26	0.94
1:A:338:THR:CB	1:A:376:ALA:C[3_365]	1.26	0.94
1:B:99:ASP:CG	1:B:448:ARG:C[4_445]	1.26	0.94
1:B:99:ASP:C	1:B:450:LYS:N[4_445]	1.26	0.94
1:B:369:LYS:NZ	1:B:438:LEU:CG[3_465]	1.26	0.94
1:B:371:LYS:O	1:B:374:LYS:C[2_355]	1.26	0.94
1:B:375:HIS:ND1	1:B:375:HIS:CE1[3_465]	1.26	0.94
1:B:389:GLN:N	5:B:502:HOH:O[4_445]	1.26	0.94
1:B:403:LEU:CD2	1:B:420:TYR:CE1[3_465]	1.26	0.94
1:B:409:ASP:CB	1:B:422:SER:CA[3_465]	1.26	0.94
1:B:426:LEU:N	1:B:436:GLU:OE1[2_355]	1.26	0.94
1:B:432:LYS:CD	1:B:433:ALA:N[3_465]	1.26	0.94
1:A:86:ASP:O	1:A:358:SER:CB[3_365]	1.27	0.93
1:A:167:GLU:CA	1:A:277:LYS:O[4_435]	1.27	0.93
1:A:208:LEU:O	1:B:259:THR:CB[4_435]	1.27	0.93
1:A:328:GLY:CA	1:A:469:ASP:CB[2_345]	1.27	0.93
1:B:99:ASP:OD2	1:B:448:ARG:O[4_445]	1.27	0.93
1:B:101:ASP:O	1:B:465:LYS:NZ[3_365]	1.27	0.93
1:B:346:ALA:O	1:B:362:THR:CA[4_445]	1.27	0.93
1:B:374:LYS:C	1:B:375:HIS:N[4_445]	1.27	0.93
1:B:381:ARG:CB	1:B:404:THR:CA[4_445]	1.27	0.93
1:B:420:TYR:CG	1:B:437:VAL:CG2[4_445]	1.27	0.93
1:A:85:VAL:CG1	1:A:350:MET:CE[3_365]	1.28	0.92
1:A:114:LYS:N	1:A:429:GLU:CD[3_365]	1.28	0.92
1:A:213:SER:CB	1:A:275:ILE:CB[4_435]	1.28	0.92
1:A:220:LYS:N	1:A:260:PHE:C[4_435]	1.28	0.92
1:A:258:VAL:CA	1:A:449:ARG:O[3_365]	1.28	0.92
1:A:266:ILE:CB	1:A:361:LEU:CD1[3_365]	1.28	0.92
1:A:312:ASP:CB	1:A:358:SER:N[3_365]	1.28	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:321:ARG:C	1:A:443:ALA:O[3_365]	1.28	0.92
1:A:321:ARG:CD	1:A:439:GLN:O[3_365]	1.28	0.92
1:A:335:LEU:C	1:A:369:LYS:CA[3_365]	1.28	0.92
1:B:102:LYS:CE	1:B:453:THR:N[4_445]	1.28	0.92
1:B:366:LYS:CA	1:B:402:TYR:CZ[3_465]	1.28	0.92
1:B:388:ARG:NH2	1:B:416:ILE:C[4_445]	1.28	0.92
1:B:389:GLN:C	1:B:410:ASP:OD1[4_445]	1.28	0.92
1:B:397:ASP:C	1:B:438:LEU:CB[4_445]	1.28	0.92
1:B:399:SER:O	1:B:427:THR:CG2[3_465]	1.28	0.92
1:B:428:GLY:O	1:B:431:LYS:C[2_355]	1.28	0.92
1:B:453:THR:CG2	1:B:465:LYS:CB[2_345]	1.28	0.92
1:A:87:PRO:CB	1:A:360:PHE:CE2[3_365]	1.29	0.91
1:A:94:SER:CA	1:A:95:ALA:CA[2_245]	1.29	0.91
1:A:100:TYR:O	1:A:399:SER:CA[3_365]	1.29	0.91
1:A:140:HIS:O	1:A:435:ILE:O[3_365]	1.29	0.91
1:A:141:ARG:CG	1:A:439:GLN:N[3_365]	1.29	0.91
1:A:164:PRO:C	1:A:273:ASP:CG[4_435]	1.29	0.91
1:A:179:PHE:CE2	5:A:572:HOH:O[3_365]	1.29	0.91
1:A:197:ASP:CB	1:A:271:ASP:C[4_435]	1.29	0.91
1:A:219:ALA:N	1:A:260:PHE:O[4_435]	1.29	0.91
1:A:221:ASP:CA	1:A:263:VAL:N[4_435]	1.29	0.91
1:A:329:TYR:CE1	1:A:470:PHE:O[2_345]	1.29	0.91
1:A:355:PRO:C	4:A:502:ATP:O3'[4_435]	1.29	0.91
1:A:357:SER:N	4:A:502:ATP:O2'[4_435]	1.29	0.91
1:A:457:VAL:CG2	1:B:273:ASP:CA[4_435]	1.29	0.91
1:B:99:ASP:CB	1:B:449:ARG:N[4_445]	1.29	0.91
1:B:105:VAL:CB	1:B:465:LYS:CG[3_365]	1.29	0.91
1:B:381:ARG:CD	1:B:404:THR:O[4_445]	1.29	0.91
1:B:388:ARG:O	5:B:535:HOH:O[4_445]	1.29	0.91
1:B:412:LYS:C	1:B:424:ALA:CA[3_465]	1.29	0.91
1:A:82:GLU:OE2	1:A:100:TYR:CZ[3_365]	1.30	0.90
1:A:92:THR:CB	1:A:346:ALA:CA[3_365]	1.30	0.90
1:A:101:ASP:O	1:A:400:PHE:O[3_365]	1.30	0.90
1:A:103:LEU:CA	1:A:402:TYR:N[3_365]	1.30	0.90
1:A:106:ARG:CD	1:A:405:PHE:CG[3_365]	1.30	0.90
1:A:111:LYS:CB	1:A:430:LEU:O[3_365]	1.30	0.90
1:A:141:ARG:CB	1:A:439:GLN:CG[3_365]	1.30	0.90
1:A:221:ASP:CB	1:A:263:VAL:N[4_435]	1.30	0.90
1:B:101:ASP:CB	1:B:451:GLU:CG[4_445]	1.30	0.90
1:B:110:SER:C	1:B:471:GLN:CG[3_365]	1.30	0.90
1:B:229:ILE:CD1	1:B:459:GLU:OE2[2_345]	1.30	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:334:LEU:CB	1:B:473:HIS:CA[3_365]	1.30	0.90
1:B:372:VAL:CB	1:B:373:ASN:CG[4_445]	1.30	0.90
1:B:372:VAL:CG1	1:B:431:LYS:NZ[3_465]	1.30	0.90
1:B:428:GLY:O	1:B:432:LYS:N[2_355]	1.30	0.90
1:B:428:GLY:C	1:B:431:LYS:N[4_445]	1.30	0.90
1:B:432:LYS:CG	1:B:433:ALA:CA[3_465]	1.30	0.90
1:B:455:GLU:OE2	1:B:464:ARG:CA[2_345]	1.30	0.90
1:A:93:SER:N	1:A:347:GLN:CD[2_245]	1.31	0.89
1:A:164:PRO:O	1:A:273:ASP:OD2[4_435]	1.31	0.89
1:A:167:GLU:CG	1:A:277:LYS:O[4_435]	1.31	0.89
1:A:218:ASN:CG	1:A:269:PHE:CG[4_435]	1.31	0.89
1:A:220:LYS:CD	1:B:275:ILE:N[4_435]	1.31	0.89
1:A:234:ILE:CD1	1:A:261:ASN:CG[4_435]	1.31	0.89
1:A:307:ILE:CD1	1:A:364:THR:CA[3_365]	1.31	0.89
1:A:316:TYR:CA	1:A:361:LEU:C[3_365]	1.31	0.89
1:A:317:PHE:CZ	1:A:367:GLN:OE1[3_365]	1.31	0.89
1:A:349:LYS:NZ	1:A:354:ASP:OD2[3_365]	1.31	0.89
1:A:455:GLU:N	1:B:277:LYS:NZ[4_435]	1.31	0.89
1:B:106:ARG:CA	5:B:581:HOH:O[3_365]	1.31	0.89
1:B:334:LEU:N	1:B:473:HIS:CB[3_365]	1.31	0.89
1:B:341:PRO:CA	1:B:363:ASP:C[4_445]	1.31	0.89
1:B:369:LYS:NZ	1:B:397:ASP:CB[2_355]	1.31	0.89
1:B:380:GLY:O	1:B:402:TYR:O[4_445]	1.31	0.89
1:B:387:HIS:CE1	1:B:403:LEU:CB[4_445]	1.31	0.89
1:B:427:THR:OG1	1:B:435:ILE:CB[2_355]	1.31	0.89
1:B:428:GLY:C	1:B:432:LYS:C[2_355]	1.31	0.89
1:A:105:VAL:O	1:A:406:PHE:N[3_365]	1.32	0.88
1:A:327:ILE:O	1:A:469:ASP:CG[2_345]	1.32	0.88
1:A:355:PRO:CA	4:A:502:ATP:C3'[4_435]	1.32	0.88
1:A:356:ASN:N	4:A:502:ATP:C1'[4_435]	1.32	0.88
1:B:202:LEU:O	5:A:523:HOH:O[3_365]	1.32	0.88
1:B:109:SER:O	1:B:470:PHE:O[3_365]	1.32	0.88
1:B:140:HIS:CB	1:B:473:HIS:CE1[3_365]	1.32	0.88
1:B:373:ASN:ND2	1:B:431:LYS:CG[2_355]	1.32	0.88
1:B:397:ASP:CB	1:B:438:LEU:CA[4_445]	1.32	0.88
1:B:428:GLY:C	1:B:433:ALA:N[2_355]	1.32	0.88
1:A:89:THR:CB	1:A:351:SER:OG[3_365]	1.33	0.87
1:A:92:THR:CA	1:A:346:ALA:O[3_365]	1.33	0.87
1:A:92:THR:CG2	1:A:346:ALA:C[3_365]	1.33	0.87
1:A:95:ALA:CB	1:A:96:LYS:N[4_435]	1.33	0.87
1:A:103:LEU:CD2	1:A:402:TYR:CE1[3_365]	1.33	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:136:ILE:C	1:A:373:ASN:O[3_365]	1.33	0.87
1:A:197:ASP:OD1	1:B:261:ASN:OD1[4_435]	1.33	0.87
1:A:212:TYR:CB	1:B:260:PHE:N[4_435]	1.33	0.87
1:A:217:GLU:CA	1:A:278:ILE:CG2[4_435]	1.33	0.87
1:A:218:ASN:C	1:A:260:PHE:O[4_435]	1.33	0.87
1:A:220:LYS:C	1:A:259:THR:O[4_435]	1.33	0.87
1:A:257:HIS:C	1:A:450:LYS:CA[3_365]	1.33	0.87
1:A:300:ARG:CB	1:A:301:THR:N[2_345]	1.33	0.87
1:A:310:ALA:O	1:A:371:LYS:CD[3_365]	1.33	0.87
1:A:333:ALA:O	1:A:365:ALA:C[3_365]	1.33	0.87
1:A:335:LEU:C	1:A:369:LYS:O[3_365]	1.33	0.87
1:B:130:HIS:CA	1:B:390:PHE:CD2[3_465]	1.33	0.87
1:B:140:HIS:CA	1:B:473:HIS:NE2[3_365]	1.33	0.87
1:B:340:PHE:C	1:B:364:THR:CG2[4_445]	1.33	0.87
1:B:374:LYS:C	1:B:374:LYS:CB[3_465]	1.33	0.87
1:B:401:MET:N	1:B:439:GLN:CG[4_445]	1.33	0.87
1:B:420:TYR:OH	1:B:434:LEU:CD1[4_445]	1.33	0.87
1:B:428:GLY:N	1:B:432:LYS:O[2_355]	1.33	0.87
1:A:86:ASP:CB	1:A:170:HIS:CE1[3_365]	1.34	0.86
1:A:99:ASP:CB	1:A:401:MET:CG[3_365]	1.34	0.86
1:A:207:THR:CG2	1:B:257:HIS:C[4_435]	1.34	0.86
1:A:214:TYR:CE1	1:A:277:LYS:N[4_435]	1.34	0.86
1:A:309:CYS:SG	1:A:367:GLN:O[3_365]	1.34	0.86
1:A:319:MET:C	1:A:446:GLN:CB[3_365]	1.34	0.86
1:A:322:ASP:CA	1:A:443:ALA:O[3_365]	1.34	0.86
1:A:322:ASP:C	1:A:447:ALA:CB[3_365]	1.34	0.86
1:B:171:VAL:CB	1:B:366:LYS:CE[4_445]	1.34	0.86
1:B:334:LEU:O	1:B:473:HIS:ND1[3_365]	1.34	0.86
1:B:368:ILE:CG1	1:B:398:VAL:CB[3_465]	1.34	0.86
1:B:428:GLY:C	1:B:432:LYS:CG[3_465]	1.34	0.86
1:B:430:LEU:CG	1:B:432:LYS:NZ[2_355]	1.34	0.86
1:B:431:LYS:N	1:B:431:LYS:O[4_445]	1.34	0.86
1:A:89:THR:N	1:A:351:SER:CA[3_365]	1.35	0.85
1:A:94:SER:C	1:A:94:SER:C[4_435]	1.35	0.85
1:A:106:ARG:C	1:A:406:PHE:CD2[3_365]	1.35	0.85
1:A:165:SER:C	5:A:620:HOH:O[4_435]	1.35	0.85
1:A:222:ILE:N	1:A:261:ASN:C[4_435]	1.35	0.85
1:A:222:ILE:CB	1:A:261:ASN:O[4_435]	1.35	0.85
1:A:322:ASP:CB	1:A:444:GLU:O[3_365]	1.35	0.85
1:A:328:GLY:C	1:A:469:ASP:O[2_345]	1.35	0.85
1:A:457:VAL:CG2	1:B:273:ASP:O[4_435]	1.35	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:108:GLY:N	1:B:298:ARG:CA[3_365]	1.35	0.85
1:B:347:GLN:N	1:B:361:LEU:N[4_445]	1.35	0.85
1:B:374:LYS:CA	1:B:375:HIS:CA[4_445]	1.35	0.85
1:B:402:TYR:CB	1:B:439:GLN:NE2[4_445]	1.35	0.85
1:B:407:LEU:CD2	1:B:420:TYR:C[3_465]	1.35	0.85
1:B:431:LYS:CA	1:B:431:LYS:C[4_445]	1.35	0.85
1:A:82:GLU:CG	1:A:377:PHE:CG[2_245]	1.36	0.84
1:A:83:ASP:N	5:A:547:HOH:O[2_245]	1.36	0.84
1:A:84:PHE:CE2	4:A:502:ATP:C5[3_365]	1.36	0.84
1:A:92:THR:O	1:A:347:GLN:CA[3_365]	1.36	0.84
1:A:94:SER:CB	1:A:95:ALA:CB[2_245]	1.36	0.84
1:A:100:TYR:C	1:A:399:SER:C[3_365]	1.36	0.84
1:A:100:TYR:N	1:A:398:VAL:N[3_365]	1.36	0.84
1:A:162:ARG:CG	1:A:269:PHE:O[4_435]	1.36	0.84
1:A:165:SER:CB	5:A:620:HOH:O[4_435]	1.36	0.84
1:A:210:GLN:CD	1:B:256:LYS:O[4_435]	1.36	0.84
1:A:220:LYS:CB	1:A:259:THR:O[4_435]	1.36	0.84
1:A:257:HIS:CB	1:A:450:LYS:CB[3_365]	1.36	0.84
1:A:307:ILE:CG2	1:A:367:GLN:N[3_365]	1.36	0.84
1:A:315:PRO:CG	1:A:359:ILE:O[3_365]	1.36	0.84
1:A:316:TYR:O	1:A:361:LEU:O[3_365]	1.36	0.84
1:A:317:PHE:CD2	1:A:364:THR:N[3_365]	1.36	0.84
1:A:323:VAL:N	1:A:447:ALA:N[3_365]	1.36	0.84
1:B:97:GLY:O	1:B:445:HIS:ND1[4_445]	1.36	0.84
1:B:134:ARG:NH2	1:B:391:GLY:N[3_465]	1.36	0.84
1:B:134:ARG:CZ	1:B:390:PHE:CA[3_465]	1.36	0.84
1:B:372:VAL:O	1:B:373:ASN:C[3_465]	1.36	0.84
1:B:387:HIS:O	1:B:413:LEU:CD2[4_445]	1.36	0.84
1:B:392:GLY:N	1:B:407:LEU:N[4_445]	1.36	0.84
1:B:430:LEU:CA	1:B:432:LYS:CD[2_355]	1.36	0.84
1:A:84:PHE:CA	1:A:340:PHE:C[3_365]	1.37	0.83
1:A:99:ASP:OD2	5:A:603:HOH:O[3_365]	1.37	0.83
1:A:102:LYS:N	1:A:400:PHE:O[3_365]	1.37	0.83
1:A:137:PHE:CG	1:A:373:ASN:CB[3_365]	1.37	0.83
1:A:140:HIS:O	1:A:436:GLU:N[3_365]	1.37	0.83
1:A:166:SER:CB	1:A:203:TRP:CE2[4_435]	1.37	0.83
1:A:209:ASP:CA	1:B:259:THR:N[4_435]	1.37	0.83
1:A:302:ASP:OD2	1:A:303:ILE:N[2_345]	1.37	0.83
1:A:308:PRO:CA	1:A:370:THR:OG1[3_365]	1.37	0.83
1:A:308:PRO:CD	1:A:366:LYS:CD[3_365]	1.37	0.83
1:A:316:TYR:N	1:A:361:LEU:N[3_365]	1.37	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:318:ARG:C	1:A:442:ILE:C[3_365]	1.37	0.83
1:B:366:LYS:CG	1:B:377:PHE:CE1[2_355]	1.37	0.83
1:B:371:LYS:O	1:B:374:LYS:N[2_355]	1.37	0.83
1:B:395:ASP:C	1:B:441:LEU:CB[4_445]	1.37	0.83
1:B:397:ASP:O	1:B:438:LEU:C[4_445]	1.37	0.83
1:B:410:ASP:O	5:B:538:HOH:O[3_465]	1.37	0.83
1:B:429:GLU:N	1:B:430:LEU:C[4_445]	1.37	0.83
1:A:88:TRP:CD1	1:A:352:ALA:CB[3_365]	1.38	0.82
1:A:88:TRP:CB	1:A:352:ALA:CB[3_365]	1.38	0.82
1:A:91:GLN:N	1:A:349:LYS:O[3_365]	1.38	0.82
1:A:101:ASP:CB	1:A:400:PHE:CA[3_365]	1.38	0.82
1:A:111:LYS:CD	1:A:430:LEU:CB[3_365]	1.38	0.82
1:A:111:LYS:CA	1:A:430:LEU:O[3_365]	1.38	0.82
1:A:137:PHE:CE2	1:A:370:THR:O[3_365]	1.38	0.82
1:A:210:GLN:CA	1:A:274:CYS:CB[4_435]	1.38	0.82
1:A:221:ASP:CB	1:A:263:VAL:CA[4_435]	1.38	0.82
1:A:319:MET:CE	5:A:519:HOH:O[3_365]	1.38	0.82
1:A:319:MET:CG	5:A:532:HOH:O[3_365]	1.38	0.82
1:A:347:GLN:CA	1:A:347:GLN:CG[3_365]	1.38	0.82
1:B:134:ARG:N	1:B:390:PHE:CE1[3_465]	1.38	0.82
1:B:134:ARG:CD	1:B:386:GLU:O[3_465]	1.38	0.82
1:B:134:ARG:NH2	1:B:390:PHE:C[3_465]	1.38	0.82
1:B:366:LYS:C	1:B:402:TYR:CE1[3_465]	1.38	0.82
1:B:429:GLU:N	1:B:432:LYS:CG[3_465]	1.38	0.82
1:A:82:GLU:CG	1:A:377:PHE:CB[2_245]	1.39	0.81
1:A:84:PHE:CG	4:A:502:ATP:N1[3_365]	1.39	0.81
1:A:110:SER:CB	1:A:433:ALA:O[3_365]	1.39	0.81
1:A:114:LYS:NZ	1:A:388:ARG:NH1[3_365]	1.39	0.81
1:A:164:PRO:CB	1:A:270:THR:N[4_435]	1.39	0.81
1:A:206:LEU:CD1	5:A:529:HOH:O[4_435]	1.39	0.81
1:A:218:ASN:O	1:A:264:LYS:N[4_435]	1.39	0.81
1:A:220:LYS:N	1:A:260:PHE:N[4_435]	1.39	0.81
1:A:221:ASP:N	1:A:263:VAL:N[4_435]	1.39	0.81
1:A:318:ARG:CB	1:A:442:ILE:CG1[3_365]	1.39	0.81
1:A:326:ARG:CB	5:A:610:HOH:O[3_365]	1.39	0.81
1:A:328:GLY:C	1:A:470:PHE:N[2_345]	1.39	0.81
1:B:104:ILE:N	1:B:298:ARG:NH2[3_365]	1.39	0.81
1:B:307:ILE:CD1	1:B:475:HIS:CA[3_365]	1.39	0.81
1:B:384:ILE:CD1	1:B:394:CYS:SG[4_445]	1.39	0.81
1:B:397:ASP:CB	1:B:438:LEU:CB[4_445]	1.39	0.81
1:B:409:ASP:OD2	1:B:422:SER:CB[3_465]	1.39	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:102:LYS:C	1:A:402:TYR:N[3_365]	1.40	0.80
1:A:105:VAL:N	1:A:403:LEU:N[3_365]	1.40	0.80
1:A:106:ARG:O	1:A:406:PHE:CG[3_365]	1.40	0.80
1:A:109:SER:CB	1:A:434:LEU:O[3_365]	1.40	0.80
1:A:109:SER:O	1:A:437:VAL:CB[3_365]	1.40	0.80
1:A:110:SER:C	1:A:433:ALA:O[3_365]	1.40	0.80
1:A:111:LYS:CE	1:A:430:LEU:CG[3_365]	1.40	0.80
1:A:111:LYS:N	1:A:433:ALA:CA[3_365]	1.40	0.80
1:A:148:ASP:CG	1:A:152:ASN:ND2[2_345]	1.40	0.80
1:A:220:LYS:NZ	1:B:275:ILE:C[4_435]	1.40	0.80
1:A:307:ILE:CA	1:A:366:LYS:C[3_365]	1.40	0.80
1:A:317:PHE:CD1	1:A:363:ASP:CB[3_365]	1.40	0.80
1:A:322:ASP:CB	1:A:444:GLU:C[3_365]	1.40	0.80
1:A:339:PHE:CB	1:A:344:GLN:CD[3_365]	1.40	0.80
1:A:356:ASN:N	4:A:502:ATP:C3'[4_435]	1.40	0.80
1:A:356:ASN:N	4:A:502:ATP:O2'[4_435]	1.40	0.80
1:B:275:ILE:CG1	5:A:520:HOH:O[3_365]	1.40	0.80
1:B:171:VAL:CA	1:B:366:LYS:NZ[4_445]	1.40	0.80
1:B:369:LYS:CE	1:B:397:ASP:CG[2_355]	1.40	0.80
1:B:371:LYS:C	1:B:375:HIS:C[3_465]	1.40	0.80
1:B:381:ARG:CB	1:B:404:THR:C[4_445]	1.40	0.80
1:B:382:ASP:OD2	1:B:405:PHE:CZ[4_445]	1.40	0.80
1:A:89:THR:N	1:A:351:SER:O[3_365]	1.41	0.79
1:A:90:VAL:CG2	1:A:357:SER:CB[3_365]	1.41	0.79
1:A:98:ILE:CG1	1:A:398:VAL:CG2[3_365]	1.41	0.79
1:A:103:LEU:CB	1:A:402:TYR:CG[3_365]	1.41	0.79
1:A:106:ARG:C	1:A:406:PHE:CG[3_365]	1.41	0.79
1:A:111:LYS:NZ	1:A:430:LEU:CB[3_365]	1.41	0.79
1:A:138:PHE:CE1	1:A:376:ALA:CB[3_365]	1.41	0.79
1:A:166:SER:O	1:A:269:PHE:CD1[4_435]	1.41	0.79
1:A:169:MET:O	1:A:267:PHE:CD2[4_435]	1.41	0.79
1:A:169:MET:CA	1:A:267:PHE:CG[4_435]	1.41	0.79
1:A:197:ASP:CB	1:A:272:SER:CA[4_435]	1.41	0.79
1:A:209:ASP:OD2	1:B:258:VAL:CG2[4_435]	1.41	0.79
1:A:313:GLN:CB	1:A:363:ASP:OD2[3_365]	1.41	0.79
1:A:336:HIS:CB	1:A:372:VAL:CB[3_365]	1.41	0.79
1:A:355:PRO:CD	4:A:502:ATP:C5'[4_435]	1.41	0.79
1:A:386:GLU:OE2	1:A:417:ARG:NE[4_435]	1.41	0.79
1:B:140:HIS:N	1:B:471:GLN:NE2[3_365]	1.41	0.79
1:B:169:MET:O	1:B:347:GLN:CB[3_465]	1.41	0.79
1:B:317:PHE:CE1	1:B:475:HIS:C[3_365]	1.41	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:366:LYS:O	1:B:402:TYR:OH[3_465]	1.41	0.79
1:B:368:ILE:CG2	1:B:398:VAL:C[3_465]	1.41	0.79
1:B:381:ARG:CD	1:B:404:THR:C[4_445]	1.41	0.79
1:B:430:LEU:CB	1:B:433:ALA:CA[4_445]	1.41	0.79
1:B:430:LEU:CD1	1:B:432:LYS:CE[2_355]	1.41	0.79
1:B:453:THR:CG2	1:B:465:LYS:N[2_345]	1.41	0.79
1:A:84:PHE:CZ	1:A:356:ASN:ND2[2_245]	1.42	0.78
1:A:86:ASP:CB	1:A:170:HIS:CG[3_365]	1.42	0.78
1:A:96:LYS:O	1:A:377:PHE:CE2[3_365]	1.42	0.78
1:A:103:LEU:CD1	1:A:402:TYR:CE1[3_365]	1.42	0.78
1:A:111:LYS:CD	1:A:430:LEU:CA[3_365]	1.42	0.78
1:A:138:PHE:N	1:A:431:LYS:CG[3_365]	1.42	0.78
1:A:140:HIS:C	1:A:435:ILE:C[3_365]	1.42	0.78
1:A:162:ARG:CD	1:A:268:GLY:C[4_435]	1.42	0.78
1:A:169:MET:N	1:A:267:PHE:CD2[4_435]	1.42	0.78
1:A:169:MET:CB	1:A:267:PHE:CA[4_435]	1.42	0.78
1:A:210:GLN:N	1:B:258:VAL:O[4_435]	1.42	0.78
1:A:257:HIS:CA	1:A:450:LYS:CA[3_365]	1.42	0.78
1:A:312:ASP:OD2	1:A:358:SER:N[3_365]	1.42	0.78
1:A:314:ASP:N	1:A:359:ILE:CG2[3_365]	1.42	0.78
1:B:102:LYS:CA	1:B:451:GLU:CA[4_445]	1.42	0.78
1:B:341:PRO:CB	1:B:363:ASP:O[4_445]	1.42	0.78
1:B:344:GLN:CB	1:B:355:PRO:O[4_445]	1.42	0.78
1:B:365:ALA:C	1:B:402:TYR:CD1[3_465]	1.42	0.78
1:B:367:GLN:CG	5:B:480:HOH:O[3_465]	1.42	0.78
1:B:373:ASN:CB	1:B:431:LYS:NZ[4_445]	1.42	0.78
1:B:374:LYS:CB	1:B:375:HIS:CB[2_355]	1.42	0.78
1:B:374:LYS:O	1:B:375:HIS:CA[4_445]	1.42	0.78
1:B:375:HIS:CD2	1:B:375:HIS:CD2[4_445]	1.42	0.78
1:B:382:ASP:OD1	1:B:405:PHE:CE1[4_445]	1.42	0.78
1:B:429:GLU:CA	1:B:429:GLU:C[4_445]	1.42	0.78
1:B:429:GLU:C	1:B:432:LYS:CB[2_355]	1.42	0.78
1:A:169:MET:CA	1:A:267:PHE:CB[4_435]	1.43	0.77
1:A:210:GLN:OE1	1:B:256:LYS:O[4_435]	1.43	0.77
1:A:215:ALA:C	1:A:260:PHE:CE1[4_435]	1.43	0.77
1:A:218:ASN:O	1:A:260:PHE:O[4_435]	1.43	0.77
1:A:322:ASP:OD1	1:A:444:GLU:CA[3_365]	1.43	0.77
1:A:334:LEU:CA	1:A:365:ALA:O[3_365]	1.43	0.77
1:A:356:ASN:C	4:A:502:ATP:O2'[4_435]	1.43	0.77
1:B:264:LYS:CE	5:A:560:HOH:O[3_365]	1.43	0.77
1:B:134:ARG:CZ	1:B:390:PHE:N[3_465]	1.43	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:171:VAL:CB	1:B:366:LYS:CD[4_445]	1.43	0.77
1:B:372:VAL:O	1:B:373:ASN:O[3_465]	1.43	0.77
1:B:444:GLU:N	5:B:552:HOH:O[3_465]	1.43	0.77
1:A:84:PHE:CB	1:A:344:GLN:OE1[2_245]	1.44	0.76
1:A:85:VAL:CG2	1:A:341:PRO:C[3_365]	1.44	0.76
1:A:89:THR:O	1:A:350:MET:C[3_365]	1.44	0.76
1:A:89:THR:N	1:A:352:ALA:N[3_365]	1.44	0.76
1:A:90:VAL:C	1:A:349:LYS:O[3_365]	1.44	0.76
1:A:93:SER:CB	1:A:345:GLY:C[2_245]	1.44	0.76
1:A:99:ASP:O	1:A:401:MET:CB[3_365]	1.44	0.76
1:A:100:TYR:O	1:A:399:SER:O[3_365]	1.44	0.76
1:A:105:VAL:CG2	1:A:403:LEU:C[3_365]	1.44	0.76
1:A:107:PHE:CE1	1:A:340:PHE:CZ[3_365]	1.44	0.76
1:A:197:ASP:CA	1:A:272:SER:CB[4_435]	1.44	0.76
1:A:212:TYR:C	1:B:260:PHE:CA[4_435]	1.44	0.76
1:A:234:ILE:O	5:B:573:HOH:O[4_435]	1.44	0.76
1:A:302:ASP:CG	1:A:303:ILE:N[2_345]	1.44	0.76
1:A:302:ASP:OD2	1:A:303:ILE:C[2_345]	1.44	0.76
1:A:335:LEU:N	1:A:369:LYS:N[3_365]	1.44	0.76
1:A:337:SER:O	1:A:371:LYS:O[3_365]	1.44	0.76
1:B:368:ILE:CG1	1:B:398:VAL:CG2[3_465]	1.44	0.76
1:B:375:HIS:CG	1:B:375:HIS:ND1[3_465]	1.44	0.76
1:B:380:GLY:CA	1:B:403:LEU:N[4_445]	1.44	0.76
1:B:397:ASP:CA	1:B:438:LEU:CA[4_445]	1.44	0.76
1:A:112:ILE:O	1:A:428:GLY:C[3_365]	1.45	0.75
1:A:112:ILE:O	1:A:429:GLU:N[3_365]	1.45	0.75
1:A:169:MET:O	1:A:267:PHE:CE2[4_435]	1.45	0.75
1:A:212:TYR:CD1	1:B:261:ASN:N[4_435]	1.45	0.75
1:A:214:TYR:CA	1:A:278:ILE:CG1[4_435]	1.45	0.75
1:A:214:TYR:C	1:A:278:ILE:CG1[4_435]	1.45	0.75
1:A:215:ALA:C	1:A:260:PHE:CZ[4_435]	1.45	0.75
1:A:257:HIS:CB	1:A:450:LYS:CA[3_365]	1.45	0.75
1:A:289:PHE:CD1	1:A:471:GLN:C[2_345]	1.45	0.75
1:A:306:LEU:C	1:A:366:LYS:CB[3_365]	1.45	0.75
1:A:311:ILE:O	1:A:359:ILE:CD1[3_365]	1.45	0.75
1:A:316:TYR:CE1	1:A:360:PHE:CG[3_365]	1.45	0.75
1:A:321:ARG:NE	1:A:439:GLN:C[3_365]	1.45	0.75
1:A:367:GLN:CD	3:A:501:LTN:CZ2[4_435]	1.45	0.75
1:B:98:ILE:CB	5:B:513:HOH:O[4_445]	1.45	0.75
1:B:102:LYS:C	1:B:450:LYS:O[4_445]	1.45	0.75
1:B:110:SER:N	1:B:470:PHE:C[3_365]	1.45	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:371:LYS:CA	1:B:375:HIS:C[3_465]	1.45	0.75
1:B:372:VAL:N	1:B:376:ALA:CA[3_465]	1.45	0.75
1:B:381:ARG:CG	1:B:404:THR:CA[4_445]	1.45	0.75
1:B:428:GLY:CA	1:B:431:LYS:O[2_355]	1.45	0.75
1:B:430:LEU:N	1:B:432:LYS:CG[2_355]	1.45	0.75
1:A:94:SER:C	1:A:95:ALA:CA[3_365]	1.46	0.74
1:A:104:ILE:N	1:A:402:TYR:CB[3_365]	1.46	0.74
1:A:112:ILE:CG2	5:A:569:HOH:O[3_365]	1.46	0.74
1:A:162:ARG:O	1:A:270:THR:CG2[4_435]	1.46	0.74
1:A:169:MET:CA	1:A:267:PHE:CD2[4_435]	1.46	0.74
1:A:215:ALA:O	1:A:260:PHE:CE2[4_435]	1.46	0.74
1:A:217:GLU:N	1:A:278:ILE:CG2[4_435]	1.46	0.74
1:A:217:GLU:O	1:A:263:VAL:CG2[4_435]	1.46	0.74
1:A:218:ASN:ND2	1:A:269:PHE:CG[4_435]	1.46	0.74
1:A:219:ALA:CA	1:A:260:PHE:O[4_435]	1.46	0.74
1:A:299:ASP:C	1:A:299:ASP:C[2_345]	1.46	0.74
1:A:320:THR:C	1:A:446:GLN:OE1[3_365]	1.46	0.74
1:A:326:ARG:NH2	1:A:451:GLU:N[3_365]	1.46	0.74
1:A:335:LEU:CD1	1:A:369:LYS:CE[3_365]	1.46	0.74
1:A:336:HIS:CA	1:A:372:VAL:N[3_365]	1.46	0.74
1:A:338:THR:CA	1:A:375:HIS:O[3_365]	1.46	0.74
1:A:356:ASN:CA	4:A:502:ATP:C1'[4_435]	1.46	0.74
1:A:444:GLU:OE1	5:A:617:HOH:O[4_435]	1.46	0.74
1:B:334:LEU:C	1:B:473:HIS:CG[3_365]	1.46	0.74
1:B:384:ILE:CB	1:B:400:PHE:CE2[4_445]	1.46	0.74
1:B:399:SER:C	1:B:435:ILE:CG2[4_445]	1.46	0.74
1:B:409:ASP:CB	1:B:422:SER:CB[3_465]	1.46	0.74
1:B:431:LYS:CA	1:B:431:LYS:CB[3_465]	1.46	0.74
1:B:440:PRO:CA	5:B:567:HOH:O[2_355]	1.46	0.74
1:B:458:LYS:CB	1:B:462:THR:CB[2_345]	1.46	0.74
1:A:83:ASP:OD2	1:A:401:MET:SD[3_365]	1.47	0.73
1:A:103:LEU:CD2	1:A:402:TYR:CE2[3_365]	1.47	0.73
1:A:111:LYS:CG	1:A:430:LEU:O[3_365]	1.47	0.73
1:A:113:ASP:N	1:A:429:GLU:CA[3_365]	1.47	0.73
1:A:140:HIS:O	1:A:435:ILE:CA[3_365]	1.47	0.73
1:A:169:MET:C	1:A:267:PHE:CD2[4_435]	1.47	0.73
1:A:212:TYR:CB	1:B:259:THR:O[4_435]	1.47	0.73
1:A:218:ASN:OD1	1:A:269:PHE:CA[4_435]	1.47	0.73
1:A:220:LYS:O	1:A:262:GLN:CB[4_435]	1.47	0.73
1:A:221:ASP:CB	1:A:262:GLN:C[4_435]	1.47	0.73
1:A:257:HIS:C	1:A:449:ARG:O[3_365]	1.47	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:309:CYS:C	1:A:371:LYS:CG[3_365]	1.47	0.73
1:A:312:ASP:C	1:A:358:SER:O[3_365]	1.47	0.73
1:A:318:ARG:CA	1:A:442:ILE:CG2[3_365]	1.47	0.73
1:A:327:ILE:C	1:A:469:ASP:OD1[2_345]	1.47	0.73
1:A:336:HIS:CG	1:A:372:VAL:CG2[3_365]	1.47	0.73
1:A:456:ILE:O	1:B:272:SER:OG[4_435]	1.47	0.73
1:B:102:LYS:CG	1:B:452:VAL:C[4_445]	1.47	0.73
1:B:108:GLY:CA	1:B:297:PHE:C[3_365]	1.47	0.73
1:B:109:SER:C	1:B:471:GLN:N[3_365]	1.47	0.73
1:B:343:LEU:CD2	1:B:367:GLN:O[4_445]	1.47	0.73
1:B:348:THR:O	1:B:362:THR:OG1[4_445]	1.47	0.73
1:B:370:THR:O	1:B:371:LYS:C[3_465]	1.47	0.73
1:B:378:SER:O	1:B:402:TYR:CD2[4_445]	1.47	0.73
1:B:387:HIS:ND1	1:B:403:LEU:C[4_445]	1.47	0.73
1:B:388:ARG:NH1	1:B:416:ILE:N[4_445]	1.47	0.73
1:B:395:ASP:O	1:B:441:LEU:O[4_445]	1.47	0.73
1:B:426:LEU:CB	1:B:436:GLU:CG[2_355]	1.47	0.73
1:B:428:GLY:O	1:B:432:LYS:CA[3_465]	1.47	0.73
1:B:430:LEU:O	1:B:432:LYS:C[4_445]	1.47	0.73
1:B:431:LYS:CA	5:B:501:HOH:O[2_355]	1.47	0.73
1:B:432:LYS:CB	1:B:433:ALA:N[3_465]	1.47	0.73
1:B:455:GLU:OE1	5:B:563:HOH:O[2_345]	1.47	0.73
1:A:82:GLU:OE1	1:A:398:VAL:CG2[2_245]	1.48	0.72
1:A:83:ASP:O	1:A:340:PHE:C[3_365]	1.48	0.72
1:A:92:THR:CG2	1:A:346:ALA:CB[3_365]	1.48	0.72
1:A:92:THR:CA	1:A:346:ALA:C[3_365]	1.48	0.72
1:A:93:SER:OG	1:A:345:GLY:CA[2_245]	1.48	0.72
1:A:114:LYS:CG	1:A:429:GLU:OE1[3_365]	1.48	0.72
1:A:140:HIS:ND1	1:A:432:LYS:O[3_365]	1.48	0.72
1:A:141:ARG:CA	1:A:439:GLN:OE1[3_365]	1.48	0.72
1:A:207:THR:CG2	1:B:257:HIS:CA[4_435]	1.48	0.72
1:A:317:PHE:CD2	1:A:363:ASP:O[3_365]	1.48	0.72
1:A:355:PRO:CD	4:A:502:ATP:O5'[4_435]	1.48	0.72
1:A:356:ASN:ND2	4:A:502:ATP:C5[4_435]	1.48	0.72
1:A:356:ASN:CG	4:A:502:ATP:C4[4_435]	1.48	0.72
1:A:454:ASP:OD1	1:B:277:LYS:CG[4_435]	1.48	0.72
1:B:99:ASP:OD2	5:B:583:HOH:O[4_445]	1.48	0.72
1:B:109:SER:CA	1:B:470:PHE:O[3_365]	1.48	0.72
1:B:141:ARG:CD	1:B:472:HIS:CB[3_365]	1.48	0.72
1:B:171:VAL:CG1	1:B:366:LYS:CG[4_445]	1.48	0.72
1:B:343:LEU:C	1:B:371:LYS:CD[4_445]	1.48	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:347:GLN:N	1:B:361:LEU:CA[4_445]	1.48	0.72
1:B:372:VAL:CB	1:B:373:ASN:CB[4_445]	1.48	0.72
1:B:375:HIS:CG	1:B:375:HIS:NE2[4_445]	1.48	0.72
1:B:381:ARG:CD	1:B:405:PHE:N[4_445]	1.48	0.72
1:B:384:ILE:CB	1:B:440:PRO:CG[2_355]	1.48	0.72
1:B:388:ARG:CD	1:B:413:LEU:O[4_445]	1.48	0.72
1:B:409:ASP:CG	1:B:422:SER:CB[3_465]	1.48	0.72
1:B:430:LEU:C	1:B:432:LYS:N[4_445]	1.48	0.72
1:B:431:LYS:N	5:B:501:HOH:O[2_355]	1.48	0.72
1:A:82:GLU:OE1	1:A:98:ILE:O[3_365]	1.49	0.71
1:A:91:GLN:N	1:A:349:LYS:C[3_365]	1.49	0.71
1:A:110:SER:CA	1:A:433:ALA:C[3_365]	1.49	0.71
1:A:208:LEU:O	1:B:259:THR:CA[4_435]	1.49	0.71
1:A:217:GLU:OE1	1:B:275:ILE:CB[4_435]	1.49	0.71
1:A:257:HIS:CB	1:A:450:LYS:C[3_365]	1.49	0.71
1:A:258:VAL:CB	1:A:449:ARG:CG[3_365]	1.49	0.71
1:A:279:SER:C	5:A:555:HOH:O[3_365]	1.49	0.71
1:A:308:PRO:N	1:A:366:LYS:O[3_365]	1.49	0.71
1:A:312:ASP:O	1:A:359:ILE:N[3_365]	1.49	0.71
1:A:328:GLY:C	1:A:469:ASP:CA[2_345]	1.49	0.71
1:A:337:SER:C	1:A:371:LYS:O[3_365]	1.49	0.71
1:A:337:SER:CA	1:A:371:LYS:O[3_365]	1.49	0.71
1:A:339:PHE:CD2	1:A:344:GLN:N[3_365]	1.49	0.71
1:B:110:SER:O	1:B:471:GLN:OE1[3_365]	1.49	0.71
1:B:340:PHE:CG	5:B:524:HOH:O[4_445]	1.49	0.71
1:B:368:ILE:CG2	1:B:398:VAL:CB[3_465]	1.49	0.71
1:B:388:ARG:N	1:B:413:LEU:CG[4_445]	1.49	0.71
1:B:430:LEU:CD2	1:B:434:LEU:C[4_445]	1.49	0.71
1:A:82:GLU:CA	1:A:377:PHE:CB[2_245]	1.50	0.70
1:A:90:VAL:O	1:A:348:THR:CG2[3_365]	1.50	0.70
1:A:90:VAL:CG1	1:A:91:GLN:OE1[4_435]	1.50	0.70
1:A:94:SER:O	1:A:95:ALA:CA[3_365]	1.50	0.70
1:A:310:ALA:C	1:A:371:LYS:CB[3_365]	1.50	0.70
1:A:312:ASP:CB	1:A:358:SER:C[3_365]	1.50	0.70
1:A:320:THR:OG1	1:A:446:GLN:NE2[3_365]	1.50	0.70
1:A:339:PHE:CE2	1:A:343:LEU:CA[3_365]	1.50	0.70
1:A:355:PRO:C	4:A:502:ATP:C2'[4_435]	1.50	0.70
1:A:454:ASP:CB	1:B:277:LYS:CG[4_435]	1.50	0.70
1:A:457:VAL:O	1:B:270:THR:OG1[4_435]	1.50	0.70
1:B:102:LYS:CB	1:B:451:GLU:O[4_445]	1.50	0.70
1:B:133:ARG:CB	1:B:390:PHE:CZ[3_465]	1.50	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:346:ALA:O	1:B:361:LEU:O[4_445]	1.50	0.70
1:B:347:GLN:N	1:B:362:THR:N[4_445]	1.50	0.70
1:B:380:GLY:CA	1:B:402:TYR:O[4_445]	1.50	0.70
1:B:382:ASP:O	1:B:401:MET:CG[4_445]	1.50	0.70
1:B:382:ASP:CG	1:B:405:PHE:CE1[4_445]	1.50	0.70
1:B:412:LYS:NZ	1:B:419:ASP:CA[3_465]	1.50	0.70
1:B:430:LEU:CB	1:B:434:LEU:N[4_445]	1.50	0.70
1:A:84:PHE:O	1:A:350:MET:N[3_365]	1.51	0.69
1:A:90:VAL:CB	1:A:91:GLN:OE1[4_435]	1.51	0.69
1:A:212:TYR:CG	1:B:260:PHE:O[4_435]	1.51	0.69
1:A:257:HIS:O	1:A:450:LYS:CA[3_365]	1.51	0.69
1:A:313:GLN:C	1:A:363:ASP:OD2[3_365]	1.51	0.69
1:A:335:LEU:CD1	1:A:369:LYS:CD[3_365]	1.51	0.69
1:A:338:THR:N	1:A:375:HIS:C[3_365]	1.51	0.69
1:A:339:PHE:CD2	1:A:343:LEU:N[3_365]	1.51	0.69
1:A:457:VAL:CG2	1:B:274:CYS:N[4_435]	1.51	0.69
1:B:140:HIS:O	1:B:471:GLN:CB[3_365]	1.51	0.69
1:B:317:PHE:C	1:B:474:HIS:CE1[3_365]	1.51	0.69
1:B:317:PHE:CB	1:B:474:HIS:CD2[3_365]	1.51	0.69
1:B:344:GLN:CG	1:B:355:PRO:O[4_445]	1.51	0.69
1:B:366:LYS:CE	1:B:377:PHE:CZ[2_355]	1.51	0.69
1:B:381:ARG:CD	1:B:405:PHE:CA[4_445]	1.51	0.69
1:B:382:ASP:O	1:B:439:GLN:O[2_355]	1.51	0.69
1:B:395:ASP:CA	1:B:441:LEU:CB[4_445]	1.51	0.69
1:B:397:ASP:CB	1:B:438:LEU:N[4_445]	1.51	0.69
1:B:403:LEU:CD1	1:B:427:THR:N[3_465]	1.51	0.69
1:B:409:ASP:C	1:B:422:SER:O[3_465]	1.51	0.69
1:A:92:THR:CG2	1:A:346:ALA:N[3_365]	1.52	0.68
1:A:102:LYS:CB	1:A:401:MET:CA[3_365]	1.52	0.68
1:A:111:LYS:CD	1:A:430:LEU:CG[3_365]	1.52	0.68
1:A:141:ARG:NH1	1:A:438:LEU:CA[3_365]	1.52	0.68
1:A:196:THR:O	1:A:272:SER:OG[4_435]	1.52	0.68
1:A:211:ALA:CA	1:A:273:ASP:C[4_435]	1.52	0.68
1:A:307:ILE:CG1	1:A:364:THR:OG1[3_365]	1.52	0.68
1:A:309:CYS:O	1:A:371:LYS:CB[3_365]	1.52	0.68
1:A:318:ARG:N	1:A:442:ILE:CB[3_365]	1.52	0.68
1:A:329:TYR:CE2	1:A:471:GLN:CB[2_345]	1.52	0.68
1:A:337:SER:N	1:A:371:LYS:O[3_365]	1.52	0.68
1:A:339:PHE:CB	1:A:344:GLN:OE1[3_365]	1.52	0.68
1:A:339:PHE:CD2	1:A:343:LEU:CA[3_365]	1.52	0.68
1:B:429:GLU:N	1:B:432:LYS:CD[3_465]	1.52	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:86:ASP:CB	1:A:170:HIS:ND1[3_365]	1.53	0.67
1:A:93:SER:OG	1:A:97:GLY:C[3_365]	1.53	0.67
1:A:102:LYS:CA	1:A:401:MET:CA[3_365]	1.53	0.67
1:A:137:PHE:CZ	1:A:370:THR:O[3_365]	1.53	0.67
1:A:138:PHE:CA	1:A:431:LYS:CD[3_365]	1.53	0.67
1:A:140:HIS:C	1:A:435:ILE:CG2[3_365]	1.53	0.67
1:A:213:SER:OG	1:A:275:ILE:CG1[4_435]	1.53	0.67
1:A:213:SER:CB	1:A:275:ILE:N[4_435]	1.53	0.67
1:A:234:ILE:C	1:B:271:ASP:OD2[4_435]	1.53	0.67
1:A:236:SER:N	1:A:271:ASP:OD2[4_435]	1.53	0.67
1:A:336:HIS:NE2	1:A:368:ILE:CG2[3_365]	1.53	0.67
1:A:338:THR:CG2	1:A:376:ALA:CA[3_365]	1.53	0.67
1:A:382:ASP:OD1	1:A:400:PHE:CZ[4_435]	1.53	0.67
1:A:454:ASP:CA	1:B:277:LYS:CD[4_435]	1.53	0.67
1:B:97:GLY:N	1:B:445:HIS:CB[4_445]	1.53	0.67
1:B:98:ILE:C	1:B:446:GLN:O[4_445]	1.53	0.67
1:B:99:ASP:N	1:B:449:ARG:CB[4_445]	1.53	0.67
1:B:134:ARG:CZ	1:B:390:PHE:C[3_465]	1.53	0.67
1:B:340:PHE:CZ	5:B:524:HOH:O[4_445]	1.53	0.67
1:B:344:GLN:OE1	1:B:356:ASN:ND2[4_445]	1.53	0.67
1:B:344:GLN:CB	1:B:371:LYS:NZ[4_445]	1.53	0.67
1:B:370:THR:O	1:B:375:HIS:C[2_355]	1.53	0.67
1:B:378:SER:C	1:B:402:TYR:CD2[4_445]	1.53	0.67
1:B:381:ARG:CB	1:B:404:THR:CB[4_445]	1.53	0.67
1:B:412:LYS:O	1:B:424:ALA:C[3_465]	1.53	0.67
1:B:426:LEU:CG	1:B:436:GLU:CB[2_355]	1.53	0.67
1:B:431:LYS:CA	1:B:432:LYS:N[4_445]	1.53	0.67
1:B:455:GLU:N	1:B:463:PRO:O[2_345]	1.53	0.67
1:B:455:GLU:CB	1:B:462:THR:O[2_345]	1.53	0.67
1:A:84:PHE:CG	4:A:502:ATP:C6[3_365]	1.54	0.66
1:A:86:ASP:OD2	1:A:350:MET:O[3_365]	1.54	0.66
1:A:100:TYR:C	1:A:400:PHE:N[3_365]	1.54	0.66
1:A:107:PHE:CZ	1:A:171:VAL:CG2[3_365]	1.54	0.66
1:A:138:PHE:CA	1:A:431:LYS:CB[3_365]	1.54	0.66
1:A:140:HIS:NE2	1:A:436:GLU:CG[3_365]	1.54	0.66
1:A:140:HIS:N	1:A:435:ILE:CA[3_365]	1.54	0.66
1:A:208:LEU:O	1:B:259:THR:N[4_435]	1.54	0.66
1:A:222:ILE:N	1:A:262:GLN:N[4_435]	1.54	0.66
1:A:257:HIS:C	1:A:450:LYS:N[3_365]	1.54	0.66
1:A:317:PHE:CD1	1:A:363:ASP:C[3_365]	1.54	0.66
1:A:335:LEU:CA	1:A:369:LYS:C[3_365]	1.54	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:339:PHE:CE2	1:A:342:ALA:C[3_365]	1.54	0.66
1:A:349:LYS:NZ	1:A:354:ASP:OD1[3_365]	1.54	0.66
1:B:99:ASP:CB	1:B:449:ARG:CA[4_445]	1.54	0.66
1:B:109:SER:N	1:B:298:ARG:CB[3_365]	1.54	0.66
1:B:307:ILE:CD1	1:B:475:HIS:CB[3_365]	1.54	0.66
1:B:321:ARG:NH2	5:B:519:HOH:O[3_365]	1.54	0.66
1:B:344:GLN:CA	1:B:371:LYS:NZ[4_445]	1.54	0.66
1:B:347:GLN:CB	1:B:361:LEU:N[4_445]	1.54	0.66
1:B:359:ILE:CD1	1:B:377:PHE:CB[3_465]	1.54	0.66
1:B:369:LYS:CG	1:B:434:LEU:CD2[3_465]	1.54	0.66
1:B:371:LYS:CA	1:B:374:LYS:CB[4_445]	1.54	0.66
1:B:372:VAL:CB	1:B:431:LYS:CE[3_465]	1.54	0.66
1:B:381:ARG:CG	1:B:405:PHE:N[4_445]	1.54	0.66
1:B:391:GLY:C	1:B:407:LEU:O[4_445]	1.54	0.66
1:B:400:PHE:CD2	1:B:440:PRO:CG[4_445]	1.54	0.66
1:B:413:LEU:CA	1:B:423:GLY:C[3_465]	1.54	0.66
1:B:416:ILE:CG1	1:B:425:MET:CA[3_465]	1.54	0.66
1:A:84:PHE:N	1:A:340:PHE:C[3_365]	1.55	0.65
1:A:93:SER:N	1:A:347:GLN:NE2[2_245]	1.55	0.65
1:A:100:TYR:CD2	1:A:377:PHE:O[3_365]	1.55	0.65
1:A:100:TYR:C	1:A:399:SER:N[3_365]	1.55	0.65
1:A:103:LEU:CD1	1:A:402:TYR:CD1[3_365]	1.55	0.65
1:A:105:VAL:CA	1:A:403:LEU:CA[3_365]	1.55	0.65
1:A:108:GLY:O	1:A:437:VAL:CG1[3_365]	1.55	0.65
1:A:138:PHE:O	1:A:431:LYS:C[3_365]	1.55	0.65
1:A:144:ASN:O	1:A:152:ASN:OD1[2_345]	1.55	0.65
1:A:145:GLN:NE2	1:A:153:LYS:CB[2_345]	1.55	0.65
1:A:165:SER:O	1:A:277:LYS:NZ[4_435]	1.55	0.65
1:A:215:ALA:O	1:A:260:PHE:CD1[4_435]	1.55	0.65
1:A:221:ASP:CA	1:A:262:GLN:CA[4_435]	1.55	0.65
1:A:289:PHE:CD1	1:A:471:GLN:O[2_345]	1.55	0.65
1:A:311:ILE:C	1:A:359:ILE:CG1[3_365]	1.55	0.65
1:A:312:ASP:C	1:A:359:ILE:CA[3_365]	1.55	0.65
1:A:315:PRO:C	1:A:361:LEU:N[3_365]	1.55	0.65
1:A:321:ARG:CA	1:A:443:ALA:CA[3_365]	1.55	0.65
1:A:327:ILE:CG2	1:A:450:LYS:NZ[3_365]	1.55	0.65
1:A:339:PHE:CZ	1:A:357:SER:O[3_365]	1.55	0.65
1:A:458:LYS:C	1:B:270:THR:OG1[4_435]	1.55	0.65
1:A:458:LYS:CG	5:B:578:HOH:O[4_435]	1.55	0.65
1:B:102:LYS:CA	1:B:451:GLU:C[4_445]	1.55	0.65
1:B:108:GLY:N	1:B:298:ARG:CB[3_365]	1.55	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:341:PRO:CG	1:B:365:ALA:N[4_445]	1.55	0.65
1:B:347:GLN:N	1:B:361:LEU:C[4_445]	1.55	0.65
1:B:372:VAL:CG1	1:B:431:LYS:CD[3_465]	1.55	0.65
1:B:374:LYS:O	1:B:375:HIS:C[4_445]	1.55	0.65
1:B:396:VAL:CB	1:B:441:LEU:CD2[4_445]	1.55	0.65
1:B:425:MET:C	1:B:436:GLU:OE2[2_355]	1.55	0.65
1:B:430:LEU:CD2	1:B:433:ALA:O[4_445]	1.55	0.65
1:A:87:PRO:CB	1:A:360:PHE:CD2[3_365]	1.56	0.64
1:A:103:LEU:O	1:A:402:TYR:CB[3_365]	1.56	0.64
1:A:105:VAL:C	1:A:406:PHE:N[3_365]	1.56	0.64
1:A:210:GLN:NE2	1:B:256:LYS:CA[4_435]	1.56	0.64
1:A:212:TYR:O	1:B:260:PHE:CA[4_435]	1.56	0.64
1:A:218:ASN:CG	1:A:269:PHE:CD2[4_435]	1.56	0.64
1:A:302:ASP:OD2	1:A:303:ILE:CB[2_345]	1.56	0.64
1:A:311:ILE:CG2	1:A:343:LEU:CG[3_365]	1.56	0.64
1:A:311:ILE:O	1:A:359:ILE:CB[3_365]	1.56	0.64
1:A:321:ARG:C	1:A:443:ALA:C[3_365]	1.56	0.64
1:A:336:HIS:C	1:A:372:VAL:C[3_365]	1.56	0.64
1:A:457:VAL:N	1:B:272:SER:O[4_435]	1.56	0.64
1:A:461:MET:CB	1:B:270:THR:CA[4_435]	1.56	0.64
1:B:99:ASP:N	1:B:449:ARG:CA[4_445]	1.56	0.64
1:B:359:ILE:N	1:B:377:PHE:CD1[3_465]	1.56	0.64
1:B:370:THR:O	1:B:376:ALA:N[2_355]	1.56	0.64
1:B:371:LYS:O	1:B:375:HIS:CA[3_465]	1.56	0.64
1:B:373:ASN:OD1	1:B:399:SER:OG[2_355]	1.56	0.64
1:B:381:ARG:CB	1:B:404:THR:OG1[4_445]	1.56	0.64
1:B:387:HIS:O	1:B:413:LEU:CG[4_445]	1.56	0.64
1:B:399:SER:CA	1:B:435:ILE:CG2[4_445]	1.56	0.64
1:B:401:MET:CG	1:B:439:GLN:O[4_445]	1.56	0.64
1:B:403:LEU:N	1:B:439:GLN:OE1[4_445]	1.56	0.64
1:B:431:LYS:C	5:B:501:HOH:O[4_445]	1.56	0.64
1:A:83:ASP:CA	1:A:341:PRO:CG[3_365]	1.57	0.63
1:A:84:PHE:CZ	1:A:356:ASN:CG[2_245]	1.57	0.63
1:A:84:PHE:O	1:A:340:PHE:O[3_365]	1.57	0.63
1:A:100:TYR:N	1:A:397:ASP:C[3_365]	1.57	0.63
1:A:106:ARG:O	1:A:406:PHE:CE1[3_365]	1.57	0.63
1:A:109:SER:CA	1:A:438:LEU:N[3_365]	1.57	0.63
1:A:109:SER:C	1:A:437:VAL:CB[3_365]	1.57	0.63
1:A:112:ILE:O	1:A:428:GLY:O[3_365]	1.57	0.63
1:A:137:PHE:CA	1:A:373:ASN:C[3_365]	1.57	0.63
1:A:162:ARG:CZ	1:A:269:PHE:N[4_435]	1.57	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:164:PRO:CD	1:A:270:THR:CA[4_435]	1.57	0.63
1:A:216:VAL:O	1:A:260:PHE:CB[4_435]	1.57	0.63
1:A:273:ASP:CA	5:A:619:HOH:O[3_365]	1.57	0.63
1:A:320:THR:CB	1:A:446:GLN:CD[3_365]	1.57	0.63
1:A:356:ASN:CA	4:A:502:ATP:O2'[4_435]	1.57	0.63
1:B:108:GLY:N	1:B:298:ARG:N[3_365]	1.57	0.63
1:B:136:ILE:CG1	1:B:386:GLU:OE2[3_465]	1.57	0.63
1:B:341:PRO:CD	1:B:365:ALA:N[4_445]	1.57	0.63
1:B:368:ILE:CG1	1:B:398:VAL:CG1[3_465]	1.57	0.63
1:B:372:VAL:CA	1:B:372:VAL:O[3_465]	1.57	0.63
1:B:384:ILE:CG1	1:B:400:PHE:CD2[4_445]	1.57	0.63
1:B:387:HIS:CG	1:B:413:LEU:CD1[4_445]	1.57	0.63
1:B:395:ASP:N	1:B:441:LEU:CB[4_445]	1.57	0.63
1:A:110:SER:OG	1:A:436:GLU:CA[3_365]	1.58	0.62
1:A:138:PHE:CB	1:A:431:LYS:CG[3_365]	1.58	0.62
1:A:208:LEU:O	1:B:259:THR:CG2[4_435]	1.58	0.62
1:A:234:ILE:CB	1:B:271:ASP:OD2[4_435]	1.58	0.62
1:A:307:ILE:CB	1:A:367:GLN:N[3_365]	1.58	0.62
1:A:309:CYS:SG	1:A:367:GLN:C[3_365]	1.58	0.62
1:A:317:PHE:CE2	1:A:364:THR:N[3_365]	1.58	0.62
1:A:328:GLY:CA	1:A:469:ASP:N[2_345]	1.58	0.62
1:A:329:TYR:N	1:A:469:ASP:O[2_345]	1.58	0.62
1:A:335:LEU:CD2	1:A:369:LYS:CG[3_365]	1.58	0.62
1:A:349:LYS:CG	5:A:531:HOH:O[3_365]	1.58	0.62
1:A:356:ASN:CB	4:A:502:ATP:C1'[4_435]	1.58	0.62
1:A:383:THR:CG2	5:A:559:HOH:O[4_435]	1.58	0.62
1:B:105:VAL:O	1:B:295:GLN:O[3_365]	1.58	0.62
1:B:130:HIS:CD2	1:B:381:ARG:NH2[3_465]	1.58	0.62
1:B:340:PHE:C	1:B:364:THR:CB[4_445]	1.58	0.62
1:B:343:LEU:CA	1:B:367:GLN:O[4_445]	1.58	0.62
1:B:347:GLN:CA	1:B:361:LEU:N[4_445]	1.58	0.62
1:B:380:GLY:O	1:B:402:TYR:C[4_445]	1.58	0.62
1:B:382:ASP:CG	1:B:405:PHE:CZ[4_445]	1.58	0.62
1:B:416:ILE:CG1	1:B:436:GLU:OE1[4_445]	1.58	0.62
1:B:420:TYR:CE2	1:B:437:VAL:CB[4_445]	1.58	0.62
1:B:455:GLU:CG	1:B:464:ARG:N[2_345]	1.58	0.62
1:A:88:TRP:CA	1:A:352:ALA:C[3_365]	1.59	0.61
1:A:93:SER:C	1:A:94:SER:O[3_365]	1.59	0.61
1:A:112:ILE:N	1:A:431:LYS:C[3_365]	1.59	0.61
1:A:135:GLY:O	1:A:431:LYS:NZ[3_365]	1.59	0.61
1:A:169:MET:N	1:A:267:PHE:CG[4_435]	1.59	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:220:LYS:NZ	1:B:276:GLY:N[4_435]	1.59	0.61
1:A:222:ILE:CD1	1:A:264:LYS:CB[4_435]	1.59	0.61
1:A:259:THR:CG2	1:A:452:VAL:CG2[3_365]	1.59	0.61
1:A:313:GLN:CA	1:A:363:ASP:OD2[3_365]	1.59	0.61
1:A:322:ASP:OD1	1:A:445:HIS:N[3_365]	1.59	0.61
1:A:329:TYR:CG	1:A:471:GLN:N[2_345]	1.59	0.61
1:A:329:TYR:N	1:A:469:ASP:C[2_345]	1.59	0.61
1:A:347:GLN:O	1:A:348:THR:N[3_365]	1.59	0.61
1:B:334:LEU:CB	1:B:473:HIS:CB[3_365]	1.59	0.61
1:B:343:LEU:CD1	1:B:370:THR:CB[4_445]	1.59	0.61
1:B:373:ASN:N	1:B:373:ASN:N[4_445]	1.59	0.61
1:B:406:PHE:CZ	5:B:562:HOH:O[3_465]	1.59	0.61
1:B:408:GLU:N	5:B:580:HOH:O[3_465]	1.59	0.61
1:B:412:LYS:CE	1:B:419:ASP:CB[3_465]	1.59	0.61
1:B:430:LEU:CB	1:B:433:ALA:N[4_445]	1.59	0.61
1:B:455:GLU:C	1:B:464:ARG:CD[2_345]	1.59	0.61
1:A:85:VAL:C	1:A:350:MET:CB[3_365]	1.60	0.60
1:A:91:GLN:N	1:A:349:LYS:N[3_365]	1.60	0.60
1:A:92:THR:O	1:A:347:GLN:O[3_365]	1.60	0.60
1:A:137:PHE:CB	1:A:373:ASN:CA[3_365]	1.60	0.60
1:A:138:PHE:CE2	1:A:399:SER:OG[3_365]	1.60	0.60
1:A:145:GLN:CD	1:A:152:ASN:O[2_345]	1.60	0.60
1:A:162:ARG:CZ	1:A:268:GLY:O[4_435]	1.60	0.60
1:A:166:SER:OG	1:A:203:TRP:CE2[4_435]	1.60	0.60
1:A:212:TYR:CZ	1:B:260:PHE:O[4_435]	1.60	0.60
1:A:213:SER:O	1:A:278:ILE:CD1[4_435]	1.60	0.60
1:A:217:GLU:OE2	1:B:275:ILE:O[4_435]	1.60	0.60
1:A:239:ASP:OD1	1:B:265:GLY:N[4_435]	1.60	0.60
1:A:311:ILE:CB	1:A:343:LEU:CD2[3_365]	1.60	0.60
1:A:311:ILE:C	1:A:359:ILE:CD1[3_365]	1.60	0.60
1:A:316:TYR:CB	1:A:362:THR:N[3_365]	1.60	0.60
1:A:328:GLY:CA	1:A:469:ASP:C[2_345]	1.60	0.60
1:A:329:TYR:CD1	1:A:471:GLN:N[2_345]	1.60	0.60
1:A:334:LEU:CD1	1:A:368:ILE:CG1[3_365]	1.60	0.60
1:A:338:THR:CA	1:A:376:ALA:CA[3_365]	1.60	0.60
1:A:339:PHE:CD2	1:A:343:LEU:C[3_365]	1.60	0.60
1:A:356:ASN:OD1	4:A:502:ATP:N9[4_435]	1.60	0.60
1:A:386:GLU:OE2	1:A:417:ARG:CZ[4_435]	1.60	0.60
1:B:326:ARG:NH1	5:A:511:HOH:O[3_365]	1.60	0.60
1:B:104:ILE:CA	1:B:298:ARG:CZ[3_365]	1.60	0.60
1:B:131:PHE:CE1	1:B:381:ARG:NH1[3_465]	1.60	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:371:LYS:CB	1:B:375:HIS:C[3_465]	1.60	0.60
1:B:389:GLN:O	1:B:410:ASP:CG[4_445]	1.60	0.60
1:B:394:CYS:O	1:B:441:LEU:N[4_445]	1.60	0.60
1:B:399:SER:O	1:B:435:ILE:CG2[4_445]	1.60	0.60
1:B:400:PHE:C	1:B:439:GLN:CB[4_445]	1.60	0.60
1:B:412:LYS:C	1:B:423:GLY:C[3_465]	1.60	0.60
1:B:412:LYS:O	1:B:424:ALA:N[3_465]	1.60	0.60
1:B:413:LEU:N	1:B:424:ALA:N[3_465]	1.60	0.60
1:B:455:GLU:CA	1:B:462:THR:O[2_345]	1.60	0.60
1:A:83:ASP:C	1:A:341:PRO:CD[3_365]	1.61	0.59
1:A:83:ASP:C	1:A:340:PHE:C[3_365]	1.61	0.59
1:A:85:VAL:N	1:A:340:PHE:O[3_365]	1.61	0.59
1:A:86:ASP:OD1	1:A:170:HIS:NE2[3_365]	1.61	0.59
1:A:92:THR:C	1:A:346:ALA:C[3_365]	1.61	0.59
1:A:100:TYR:N	1:A:397:ASP:O[3_365]	1.61	0.59
1:A:100:TYR:C	1:A:399:SER:CA[3_365]	1.61	0.59
1:A:100:TYR:CD1	1:A:398:VAL:CG1[3_365]	1.61	0.59
1:A:102:LYS:CA	1:A:400:PHE:O[3_365]	1.61	0.59
1:A:102:LYS:CA	1:A:401:MET:C[3_365]	1.61	0.59
1:A:105:VAL:CA	1:A:403:LEU:C[3_365]	1.61	0.59
1:A:107:PHE:CB	1:A:438:LEU:CD2[3_365]	1.61	0.59
1:A:112:ILE:CG2	1:A:428:GLY:O[3_365]	1.61	0.59
1:A:138:PHE:C	1:A:431:LYS:CB[3_365]	1.61	0.59
1:A:197:ASP:CB	1:A:271:ASP:O[4_435]	1.61	0.59
1:A:209:ASP:O	1:B:258:VAL:C[4_435]	1.61	0.59
1:A:221:ASP:O	1:A:262:GLN:CA[4_435]	1.61	0.59
1:A:234:ILE:CG2	1:B:271:ASP:OD2[4_435]	1.61	0.59
1:A:257:HIS:C	1:A:449:ARG:C[3_365]	1.61	0.59
1:A:299:ASP:CG	5:A:601:HOH:O[2_345]	1.61	0.59
1:A:302:ASP:CB	1:A:303:ILE:CB[2_345]	1.61	0.59
1:A:311:ILE:CG2	1:A:343:LEU:CD2[3_365]	1.61	0.59
1:A:321:ARG:CA	1:A:443:ALA:CB[3_365]	1.61	0.59
1:A:322:ASP:C	1:A:447:ALA:N[3_365]	1.61	0.59
1:A:349:LYS:CB	5:A:531:HOH:O[3_365]	1.61	0.59
1:A:440:PRO:N	5:A:589:HOH:O[4_435]	1.61	0.59
1:A:458:LYS:O	1:B:270:THR:CB[4_435]	1.61	0.59
1:B:141:ARG:CD	1:B:472:HIS:C[3_365]	1.61	0.59
1:B:141:ARG:CB	1:B:472:HIS:C[3_365]	1.61	0.59
1:B:321:ARG:CD	1:B:472:HIS:CE1[3_365]	1.61	0.59
1:B:344:GLN:CG	1:B:371:LYS:NZ[4_445]	1.61	0.59
1:B:366:LYS:CE	1:B:377:PHE:CE2[2_355]	1.61	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:371:LYS:C	1:B:374:LYS:C[2_355]	1.61	0.59
1:B:372:VAL:C	1:B:373:ASN:O[2_355]	1.61	0.59
1:B:375:HIS:N	1:B:375:HIS:N[3_465]	1.61	0.59
1:B:378:SER:OG	1:B:402:TYR:CB[4_445]	1.61	0.59
1:B:381:ARG:O	1:B:401:MET:CA[4_445]	1.61	0.59
1:B:384:ILE:N	1:B:440:PRO:CA[2_355]	1.61	0.59
1:B:396:VAL:O	1:B:442:ILE:CD1[4_445]	1.61	0.59
1:B:416:ILE:CG2	1:B:426:LEU:CG[3_465]	1.61	0.59
1:B:416:ILE:CG2	1:B:436:GLU:CD[4_445]	1.61	0.59
1:B:427:THR:O	1:B:430:LEU:O[4_445]	1.61	0.59
1:B:430:LEU:CA	1:B:433:ALA:CA[4_445]	1.61	0.59
1:B:430:LEU:O	1:B:432:LYS:CB[4_445]	1.61	0.59
1:A:86:ASP:OD1	1:A:170:HIS:CE1[3_365]	1.62	0.58
1:A:87:PRO:O	1:A:360:PHE:CZ[3_365]	1.62	0.58
1:A:100:TYR:CA	1:A:398:VAL:O[3_365]	1.62	0.58
1:A:109:SER:O	1:A:437:VAL:CG2[3_365]	1.62	0.58
1:A:159:TYR:CB	5:A:585:HOH:O[3_365]	1.62	0.58
1:A:159:TYR:CE2	1:A:364:THR:CG2[3_365]	1.62	0.58
1:A:164:PRO:CG	1:A:270:THR:C[4_435]	1.62	0.58
1:A:167:GLU:OE1	1:A:279:SER:N[4_435]	1.62	0.58
1:A:300:ARG:CD	1:A:301:THR:CA[2_345]	1.62	0.58
1:A:302:ASP:CG	1:A:303:ILE:CG1[2_345]	1.62	0.58
1:A:339:PHE:CZ	1:A:343:LEU:N[3_365]	1.62	0.58
1:A:457:VAL:N	1:B:272:SER:C[4_435]	1.62	0.58
1:B:134:ARG:CZ	1:B:391:GLY:N[3_465]	1.62	0.58
1:B:141:ARG:CD	1:B:472:HIS:CG[3_365]	1.62	0.58
1:B:342:ALA:N	1:B:367:GLN:OE1[4_445]	1.62	0.58
1:B:371:LYS:CA	1:B:376:ALA:N[3_465]	1.62	0.58
1:B:393:ASN:N	1:B:406:PHE:O[4_445]	1.62	0.58
1:B:396:VAL:N	1:B:441:LEU:CG[4_445]	1.62	0.58
1:B:397:ASP:CA	1:B:438:LEU:CG[4_445]	1.62	0.58
1:B:401:MET:N	1:B:439:GLN:CA[4_445]	1.62	0.58
1:B:416:ILE:CD1	1:B:425:MET:O[3_465]	1.62	0.58
1:B:428:GLY:O	1:B:432:LYS:CB[3_465]	1.62	0.58
1:B:454:ASP:C	1:B:463:PRO:O[2_345]	1.62	0.58
1:A:84:PHE:CE2	1:A:356:ASN:CG[2_245]	1.63	0.57
1:A:92:THR:C	1:A:347:GLN:CD[2_245]	1.63	0.57
1:A:98:ILE:N	5:A:518:HOH:O[3_365]	1.63	0.57
1:A:100:TYR:CZ	1:A:343:LEU:O[3_365]	1.63	0.57
1:A:110:SER:O	1:A:434:LEU:N[3_365]	1.63	0.57
1:A:162:ARG:NH1	1:A:268:GLY:C[4_435]	1.63	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:214:TYR:CD1	1:A:274:CYS:O[4_435]	1.63	0.57
1:A:220:LYS:CA	1:A:260:PHE:N[4_435]	1.63	0.57
1:A:221:ASP:CB	1:A:262:GLN:O[4_435]	1.63	0.57
1:A:222:ILE:N	1:A:262:GLN:CA[4_435]	1.63	0.57
1:A:317:PHE:CD1	1:A:363:ASP:CA[3_365]	1.63	0.57
1:A:322:ASP:C	1:A:447:ALA:CA[3_365]	1.63	0.57
1:A:335:LEU:CB	1:A:369:LYS:CB[3_365]	1.63	0.57
1:A:461:MET:CE	1:B:260:PHE:CE2[4_435]	1.63	0.57
1:A:461:MET:CG	1:B:270:THR:C[4_435]	1.63	0.57
1:B:110:SER:CA	1:B:471:GLN:N[3_365]	1.63	0.57
1:B:134:ARG:NH2	1:B:390:PHE:CA[3_465]	1.63	0.57
1:B:134:ARG:CG	1:B:390:PHE:CD1[3_465]	1.63	0.57
1:B:141:ARG:N	1:B:473:HIS:ND1[3_365]	1.63	0.57
1:B:229:ILE:CD1	1:B:459:GLU:CD[2_345]	1.63	0.57
1:B:342:ALA:CA	1:B:367:GLN:CD[4_445]	1.63	0.57
1:B:348:THR:C	1:B:362:THR:OG1[4_445]	1.63	0.57
1:B:375:HIS:CD2	1:B:375:HIS:CE1[2_355]	1.63	0.57
1:B:380:GLY:CA	5:B:537:HOH:O[2_355]	1.63	0.57
1:B:430:LEU:CA	1:B:432:LYS:CB[2_355]	1.63	0.57
1:A:84:PHE:CD1	4:A:502:ATP:C2[3_365]	1.64	0.56
1:A:84:PHE:CE1	4:A:502:ATP:N1[3_365]	1.64	0.56
1:A:89:THR:CG2	1:A:354:ASP:OD1[2_245]	1.64	0.56
1:A:92:THR:CA	1:A:347:GLN:OE1[2_245]	1.64	0.56
1:A:106:ARG:CG	1:A:405:PHE:CB[3_365]	1.64	0.56
1:A:138:PHE:CB	1:A:431:LYS:CE[3_365]	1.64	0.56
1:A:138:PHE:C	1:A:431:LYS:CA[3_365]	1.64	0.56
1:A:209:ASP:CG	1:B:258:VAL:CG2[4_435]	1.64	0.56
1:A:209:ASP:C	1:B:259:THR:N[4_435]	1.64	0.56
1:A:221:ASP:C	1:A:262:GLN:O[4_435]	1.64	0.56
1:A:238:LEU:CB	1:B:261:ASN:CB[4_435]	1.64	0.56
1:A:257:HIS:CB	1:A:450:LYS:CG[3_365]	1.64	0.56
1:A:309:CYS:C	1:A:371:LYS:CB[3_365]	1.64	0.56
1:A:336:HIS:N	1:A:369:LYS:O[3_365]	1.64	0.56
1:A:355:PRO:CG	4:A:502:ATP:C4'[4_435]	1.64	0.56
1:A:458:LYS:N	1:B:273:ASP:CG[4_435]	1.64	0.56
1:B:99:ASP:N	1:B:449:ARG:N[4_445]	1.64	0.56
1:B:334:LEU:CG	1:B:473:HIS:C[3_365]	1.64	0.56
1:B:341:PRO:CD	1:B:364:THR:CA[4_445]	1.64	0.56
1:B:342:ALA:CA	1:B:367:GLN:OE1[4_445]	1.64	0.56
1:B:345:GLY:O	1:B:363:ASP:CG[4_445]	1.64	0.56
1:B:367:GLN:N	1:B:402:TYR:OH[3_465]	1.64	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:367:GLN:CB	5:B:480:HOH:O[3_465]	1.64	0.56
1:B:372:VAL:CB	1:B:373:ASN:OD1[4_445]	1.64	0.56
1:B:415:GLN:NE2	5:B:536:HOH:O[3_465]	1.64	0.56
1:B:425:MET:C	1:B:436:GLU:CD[2_355]	1.64	0.56
1:B:429:GLU:N	1:B:430:LEU:N[4_445]	1.64	0.56
1:A:100:TYR:CA	1:A:398:VAL:CA[3_365]	1.65	0.55
1:A:100:TYR:N	1:A:398:VAL:C[3_365]	1.65	0.55
1:A:112:ILE:CB	1:A:432:LYS:N[3_365]	1.65	0.55
1:A:154:LYS:CE	1:A:304:GLN:CG[2_345]	1.65	0.55
1:A:210:GLN:CA	1:A:274:CYS:CA[4_435]	1.65	0.55
1:A:217:GLU:OE2	1:B:275:ILE:CA[4_435]	1.65	0.55
1:A:302:ASP:OD1	1:A:303:ILE:CD1[2_345]	1.65	0.55
1:A:309:CYS:CB	1:A:367:GLN:O[3_365]	1.65	0.55
1:A:317:PHE:CG	1:A:364:THR:N[3_365]	1.65	0.55
1:A:326:ARG:NE	1:A:447:ALA:O[3_365]	1.65	0.55
1:A:338:THR:O	1:A:375:HIS:C[3_365]	1.65	0.55
1:A:347:GLN:N	1:A:347:GLN:OE1[3_365]	1.65	0.55
1:B:99:ASP:OD1	1:B:448:ARG:O[4_445]	1.65	0.55
1:B:317:PHE:O	1:B:474:HIS:ND1[3_365]	1.65	0.55
1:B:341:PRO:O	1:B:364:THR:OG1[4_445]	1.65	0.55
1:B:344:GLN:O	1:B:360:PHE:N[4_445]	1.65	0.55
1:B:344:GLN:CA	1:B:371:LYS:CD[4_445]	1.65	0.55
1:B:347:GLN:N	1:B:360:PHE:C[4_445]	1.65	0.55
1:B:365:ALA:O	1:B:402:TYR:CG[3_465]	1.65	0.55
1:B:368:ILE:O	1:B:376:ALA:CB[3_465]	1.65	0.55
1:B:372:VAL:C	1:B:372:VAL:C[3_465]	1.65	0.55
1:B:387:HIS:ND1	1:B:403:LEU:CB[4_445]	1.65	0.55
1:B:391:GLY:C	1:B:407:LEU:CA[4_445]	1.65	0.55
1:B:429:GLU:CA	1:B:430:LEU:N[4_445]	1.65	0.55
1:A:84:PHE:CD2	1:A:356:ASN:ND2[2_245]	1.66	0.54
1:A:88:TRP:N	1:A:352:ALA:CA[3_365]	1.66	0.54
1:A:89:THR:C	1:A:351:SER:CA[3_365]	1.66	0.54
1:A:93:SER:CA	1:A:347:GLN:CD[2_245]	1.66	0.54
1:A:94:SER:N	1:A:347:GLN:NE2[2_245]	1.66	0.54
1:A:99:ASP:N	1:A:401:MET:SD[3_365]	1.66	0.54
1:A:107:PHE:N	1:A:406:PHE:CG[3_365]	1.66	0.54
1:A:111:LYS:NZ	1:A:430:LEU:CD1[3_365]	1.66	0.54
1:A:112:ILE:CD1	5:A:569:HOH:O[3_365]	1.66	0.54
1:A:159:TYR:CG	5:A:585:HOH:O[3_365]	1.66	0.54
1:A:164:PRO:O	1:A:273:ASP:CB[4_435]	1.66	0.54
1:A:214:TYR:C	1:A:278:ILE:CD1[4_435]	1.66	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:220:LYS:O	1:A:262:GLN:CG[4_435]	1.66	0.54
1:A:307:ILE:CD1	1:A:364:THR:OG1[3_365]	1.66	0.54
1:A:313:GLN:N	1:A:358:SER:O[3_365]	1.66	0.54
1:A:316:TYR:C	1:A:361:LEU:C[3_365]	1.66	0.54
1:A:323:VAL:N	1:A:447:ALA:CA[3_365]	1.66	0.54
1:A:327:ILE:CA	1:A:469:ASP:CG[2_345]	1.66	0.54
1:A:332:PRO:C	1:A:365:ALA:CB[3_365]	1.66	0.54
1:B:99:ASP:CA	1:B:448:ARG:C[4_445]	1.66	0.54
1:B:321:ARG:NE	1:B:472:HIS:ND1[3_365]	1.66	0.54
1:B:391:GLY:C	1:B:407:LEU:C[4_445]	1.66	0.54
1:B:397:ASP:CB	1:B:438:LEU:CG[4_445]	1.66	0.54
1:B:469:ASP:O	5:B:577:HOH:O[4_435]	1.66	0.54
1:A:82:GLU:CD	1:A:100:TYR:CE2[3_365]	1.67	0.53
1:A:105:VAL:CB	1:A:404:THR:N[3_365]	1.67	0.53
1:A:106:ARG:CZ	1:A:340:PHE:CD1[3_365]	1.67	0.53
1:A:138:PHE:C	1:A:431:LYS:CG[3_365]	1.67	0.53
1:A:167:GLU:C	1:A:269:PHE:CZ[4_435]	1.67	0.53
1:A:171:VAL:CB	1:A:318:ARG:NH2[4_435]	1.67	0.53
1:A:208:LEU:CB	1:B:262:GLN:NE2[4_435]	1.67	0.53
1:A:210:GLN:NE2	1:B:256:LYS:CB[4_435]	1.67	0.53
1:A:212:TYR:CG	1:B:260:PHE:CA[4_435]	1.67	0.53
1:A:291:ASN:CB	1:A:298:ARG:O[2_345]	1.67	0.53
1:A:300:ARG:N	1:A:300:ARG:N[2_345]	1.67	0.53
1:A:306:LEU:O	1:A:366:LYS:CB[3_365]	1.67	0.53
1:A:308:PRO:C	1:A:370:THR:CB[3_365]	1.67	0.53
1:A:313:GLN:CG	1:A:371:LYS:CE[3_365]	1.67	0.53
1:A:318:ARG:CB	1:A:442:ILE:CB[3_365]	1.67	0.53
1:A:327:ILE:C	1:A:469:ASP:CB[2_345]	1.67	0.53
1:B:102:LYS:CD	1:B:453:THR:N[4_445]	1.67	0.53
1:B:111:LYS:CB	1:B:469:ASP:OD1[3_365]	1.67	0.53
1:B:134:ARG:NH1	1:B:391:GLY:N[3_465]	1.67	0.53
1:B:374:LYS:C	1:B:375:HIS:CB[4_445]	1.67	0.53
1:B:392:GLY:C	1:B:407:LEU:N[4_445]	1.67	0.53
1:B:394:CYS:O	5:B:567:HOH:O[3_465]	1.67	0.53
1:A:87:PRO:CD	1:A:170:HIS:CG[3_365]	1.68	0.52
1:A:90:VAL:CA	1:A:349:LYS:O[3_365]	1.68	0.52
1:A:92:THR:N	1:A:348:THR:O[3_365]	1.68	0.52
1:A:93:SER:O	1:A:97:GLY:C[3_365]	1.68	0.52
1:A:103:LEU:CA	1:A:402:TYR:CB[3_365]	1.68	0.52
1:A:105:VAL:CA	1:A:403:LEU:O[3_365]	1.68	0.52
1:A:109:SER:N	1:A:437:VAL:CG1[3_365]	1.68	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:110:SER:O	1:A:435:ILE:N[3_365]	1.68	0.52
1:A:111:LYS:CD	1:A:430:LEU:CD2[3_365]	1.68	0.52
1:A:197:ASP:C	1:A:272:SER:CA[4_435]	1.68	0.52
1:A:218:ASN:CA	1:A:263:VAL:CG2[4_435]	1.68	0.52
1:A:236:SER:N	1:B:264:LYS:NZ[4_435]	1.68	0.52
1:A:254:ILE:O	5:A:515:HOH:O[3_365]	1.68	0.52
1:A:302:ASP:OD1	1:A:303:ILE:N[2_345]	1.68	0.52
1:A:307:ILE:C	1:A:367:GLN:N[3_365]	1.68	0.52
1:A:309:CYS:C	1:A:371:LYS:CA[3_365]	1.68	0.52
1:A:313:GLN:N	1:A:359:ILE:CA[3_365]	1.68	0.52
1:A:314:ASP:O	1:A:442:ILE:CD1[3_365]	1.68	0.52
1:A:317:PHE:CE1	1:A:363:ASP:CA[3_365]	1.68	0.52
1:A:319:MET:O	1:A:446:GLN:N[3_365]	1.68	0.52
1:B:99:ASP:O	1:B:450:LYS:C[4_445]	1.68	0.52
1:B:105:VAL:CG1	1:B:465:LYS:CD[3_365]	1.68	0.52
1:B:106:ARG:O	1:B:294:PRO:O[3_365]	1.68	0.52
1:B:108:GLY:CA	1:B:298:ARG:CA[3_365]	1.68	0.52
1:B:133:ARG:CA	1:B:390:PHE:CZ[3_465]	1.68	0.52
1:B:141:ARG:CD	1:B:472:HIS:CA[3_365]	1.68	0.52
1:B:341:PRO:CB	1:B:363:ASP:C[4_445]	1.68	0.52
1:B:341:PRO:N	1:B:364:THR:CB[4_445]	1.68	0.52
1:B:365:ALA:O	1:B:402:TYR:CE1[3_465]	1.68	0.52
1:B:367:GLN:CA	5:B:480:HOH:O[3_465]	1.68	0.52
1:B:369:LYS:CE	1:B:438:LEU:CD1[3_465]	1.68	0.52
1:B:372:VAL:N	1:B:376:ALA:CB[3_465]	1.68	0.52
1:B:412:LYS:CD	1:B:419:ASP:O[3_465]	1.68	0.52
1:B:429:GLU:CA	1:B:433:ALA:N[2_355]	1.68	0.52
1:B:432:LYS:O	1:B:432:LYS:NZ[4_445]	1.68	0.52
1:B:458:LYS:CB	1:B:462:THR:CG2[2_345]	1.68	0.52
1:A:82:GLU:OE2	1:A:100:TYR:CD2[3_365]	1.69	0.51
1:A:91:GLN:O	5:A:551:HOH:O[3_365]	1.69	0.51
1:A:94:SER:N	1:A:94:SER:C[3_365]	1.69	0.51
1:A:107:PHE:CE1	1:A:340:PHE:CE2[3_365]	1.69	0.51
1:A:112:ILE:C	1:A:429:GLU:C[3_365]	1.69	0.51
1:A:141:ARG:O	1:A:439:GLN:CD[3_365]	1.69	0.51
1:A:162:ARG:NE	1:A:268:GLY:O[4_435]	1.69	0.51
1:A:162:ARG:NH1	1:A:268:GLY:CA[4_435]	1.69	0.51
1:A:164:PRO:CG	1:A:270:THR:O[4_435]	1.69	0.51
1:A:169:MET:CG	1:A:267:PHE:CA[4_435]	1.69	0.51
1:A:197:ASP:OD2	1:B:261:ASN:CG[4_435]	1.69	0.51
1:A:220:LYS:CB	1:A:259:THR:CA[4_435]	1.69	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:299:ASP:C	1:A:300:ARG:N[2_345]	1.69	0.51
1:A:312:ASP:OD1	1:A:358:SER:O[3_365]	1.69	0.51
1:A:316:TYR:CB	1:A:363:ASP:N[3_365]	1.69	0.51
1:A:316:TYR:CE1	1:A:360:PHE:CB[3_365]	1.69	0.51
1:A:322:ASP:CG	1:A:445:HIS:N[3_365]	1.69	0.51
1:A:339:PHE:CD1	1:A:344:GLN:NE2[3_365]	1.69	0.51
1:A:339:PHE:CE1	1:A:357:SER:CA[3_365]	1.69	0.51
1:A:386:GLU:OE1	1:A:414:GLU:OE1[4_435]	1.69	0.51
1:A:457:VAL:CA	1:B:273:ASP:CA[4_435]	1.69	0.51
1:A:458:LYS:CD	5:B:578:HOH:O[4_435]	1.69	0.51
5:A:583:HOH:O	5:A:583:HOH:O[2_345]	1.69	0.51
1:B:107:PHE:C	1:B:298:ARG:CB[3_365]	1.69	0.51
1:B:307:ILE:CG1	1:B:475:HIS:CG[3_365]	1.69	0.51
1:B:370:THR:OG1	1:B:377:PHE:CA[2_355]	1.69	0.51
1:B:372:VAL:O	1:B:373:ASN:CB[2_355]	1.69	0.51
1:B:392:GLY:CA	1:B:407:LEU:CA[4_445]	1.69	0.51
1:B:393:ASN:N	1:B:406:PHE:C[4_445]	1.69	0.51
1:B:395:ASP:CA	1:B:441:LEU:N[4_445]	1.69	0.51
1:B:412:LYS:CA	1:B:424:ALA:N[3_465]	1.69	0.51
1:A:89:THR:CG2	1:A:351:SER:CB[3_365]	1.70	0.50
1:A:100:TYR:CG	1:A:398:VAL:CB[3_365]	1.70	0.50
1:A:112:ILE:O	1:A:429:GLU:CA[3_365]	1.70	0.50
1:A:145:GLN:CG	1:A:152:ASN:C[2_345]	1.70	0.50
1:A:148:ASP:OD2	1:A:152:ASN:CG[2_345]	1.70	0.50
1:A:208:LEU:C	1:B:262:GLN:NE2[4_435]	1.70	0.50
1:A:210:GLN:C	1:A:274:CYS:N[4_435]	1.70	0.50
1:A:214:TYR:OH	1:A:274:CYS:SG[4_435]	1.70	0.50
1:A:220:LYS:NZ	1:B:274:CYS:C[4_435]	1.70	0.50
1:A:302:ASP:CA	1:A:303:ILE:CD1[2_345]	1.70	0.50
1:A:322:ASP:O	1:A:447:ALA:CA[3_365]	1.70	0.50
1:A:328:GLY:N	1:A:469:ASP:CA[2_345]	1.70	0.50
1:A:356:ASN:ND2	4:A:502:ATP:N7[4_435]	1.70	0.50
1:A:440:PRO:O	5:A:613:HOH:O[4_435]	1.70	0.50
1:A:457:VAL:CB	1:B:273:ASP:C[4_435]	1.70	0.50
1:B:102:LYS:CG	1:B:453:THR:N[4_445]	1.70	0.50
1:B:102:LYS:CG	1:B:452:VAL:CA[4_445]	1.70	0.50
1:B:300:ARG:CD	5:B:548:HOH:O[4_435]	1.70	0.50
1:B:368:ILE:N	1:B:398:VAL:CG1[3_465]	1.70	0.50
1:B:370:THR:CG2	1:B:375:HIS:O[2_355]	1.70	0.50
1:B:370:THR:O	1:B:374:LYS:N[4_445]	1.70	0.50
1:B:374:LYS:CB	1:B:375:HIS:N[4_445]	1.70	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:381:ARG:CA	1:B:401:MET:O[4_445]	1.70	0.50
1:A:88:TRP:CA	1:A:352:ALA:N[3_365]	1.71	0.49
1:A:92:THR:N	1:A:348:THR:N[3_365]	1.71	0.49
1:A:111:LYS:O	1:A:432:LYS:C[3_365]	1.71	0.49
1:A:209:ASP:CG	1:B:258:VAL:CB[4_435]	1.71	0.49
1:A:210:GLN:CG	1:B:256:LYS:C[4_435]	1.71	0.49
1:A:212:TYR:CA	1:B:260:PHE:CA[4_435]	1.71	0.49
1:A:224:ALA:N	1:A:262:GLN:CG[4_435]	1.71	0.49
1:A:312:ASP:CG	1:A:358:SER:CA[3_365]	1.71	0.49
1:A:313:GLN:C	1:A:360:PHE:N[3_365]	1.71	0.49
1:A:316:TYR:N	1:A:361:LEU:CA[3_365]	1.71	0.49
1:A:317:PHE:CE1	1:A:363:ASP:CB[3_365]	1.71	0.49
1:A:318:ARG:CB	1:A:442:ILE:CA[3_365]	1.71	0.49
1:A:356:ASN:CB	4:A:502:ATP:N3[4_435]	1.71	0.49
1:A:367:GLN:CD	3:A:501:LTN:CH2[4_435]	1.71	0.49
1:A:382:ASP:OD1	1:A:400:PHE:CE2[4_435]	1.71	0.49
1:B:141:ARG:CG	1:B:472:HIS:N[3_365]	1.71	0.49
1:B:159:TYR:O	1:B:475:HIS:NE2[3_365]	1.71	0.49
1:B:334:LEU:CD2	1:B:474:HIS:O[3_365]	1.71	0.49
1:B:343:LEU:CB	1:B:367:GLN:O[4_445]	1.71	0.49
1:B:344:GLN:N	1:B:371:LYS:NZ[4_445]	1.71	0.49
1:B:371:LYS:C	1:B:374:LYS:CA[2_355]	1.71	0.49
1:B:372:VAL:CA	1:B:373:ASN:CB[4_445]	1.71	0.49
1:B:373:ASN:O	1:B:373:ASN:CB[3_465]	1.71	0.49
1:B:377:PHE:O	1:B:438:LEU:CD1[4_445]	1.71	0.49
1:B:378:SER:CA	1:B:402:TYR:CD2[4_445]	1.71	0.49
1:B:381:ARG:N	1:B:402:TYR:O[4_445]	1.71	0.49
1:B:391:GLY:C	1:B:407:LEU:N[4_445]	1.71	0.49
1:B:396:VAL:CA	1:B:441:LEU:CD2[4_445]	1.71	0.49
1:B:412:LYS:NZ	1:B:419:ASP:C[3_465]	1.71	0.49
1:B:428:GLY:O	1:B:430:LEU:C[4_445]	1.71	0.49
1:B:430:LEU:CD1	1:B:432:LYS:O[4_445]	1.71	0.49
1:A:84:PHE:CE1	4:A:502:ATP:C4[3_365]	1.72	0.48
1:A:84:PHE:CE2	4:A:502:ATP:N7[3_365]	1.72	0.48
1:A:89:THR:CB	1:A:351:SER:CA[3_365]	1.72	0.48
1:A:91:GLN:CD	5:A:531:HOH:O[2_245]	1.72	0.48
1:A:92:THR:N	1:A:348:THR:C[3_365]	1.72	0.48
1:A:103:LEU:CG	1:A:402:TYR:CD2[3_365]	1.72	0.48
1:A:141:ARG:NH1	1:A:438:LEU:C[3_365]	1.72	0.48
1:A:143:MET:CE	1:A:369:LYS:NZ[3_365]	1.72	0.48
1:A:212:TYR:CZ	1:B:264:LYS:N[4_435]	1.72	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:213:SER:C	1:A:278:ILE:CD1[4_435]	1.72	0.48
1:A:214:TYR:CZ	1:A:274:CYS:SG[4_435]	1.72	0.48
1:A:220:LYS:N	1:A:259:THR:C[4_435]	1.72	0.48
1:A:234:ILE:CA	1:B:271:ASP:OD2[4_435]	1.72	0.48
1:A:329:TYR:CG	1:A:471:GLN:CB[2_345]	1.72	0.48
1:A:334:LEU:CD2	1:A:364:THR:O[3_365]	1.72	0.48
1:A:336:HIS:C	1:A:373:ASN:N[3_365]	1.72	0.48
1:A:336:HIS:O	1:A:372:VAL:CA[3_365]	1.72	0.48
1:A:338:THR:C	1:A:375:HIS:CA[3_365]	1.72	0.48
1:B:98:ILE:O	1:B:447:ALA:N[4_445]	1.72	0.48
1:B:340:PHE:CD2	1:B:364:THR:OG1[4_445]	1.72	0.48
1:B:342:ALA:O	1:B:363:ASP:CB[4_445]	1.72	0.48
1:B:343:LEU:CG	1:B:367:GLN:O[4_445]	1.72	0.48
1:B:366:LYS:CD	1:B:377:PHE:CE1[2_355]	1.72	0.48
1:B:379:GLY:O	1:B:406:PHE:CB[4_445]	1.72	0.48
1:B:384:ILE:CA	1:B:440:PRO:CB[2_355]	1.72	0.48
1:B:386:GLU:CD	5:B:533:HOH:O[4_445]	1.72	0.48
1:B:388:ARG:NH2	1:B:417:ARG:CA[4_445]	1.72	0.48
1:B:400:PHE:N	1:B:435:ILE:C[4_445]	1.72	0.48
1:B:432:LYS:CE	1:B:433:ALA:CA[3_465]	1.72	0.48
1:B:455:GLU:OE1	1:B:464:ARG:N[2_345]	1.72	0.48
1:A:82:GLU:CG	1:A:377:PHE:CD2[2_245]	1.73	0.47
1:A:84:PHE:CB	1:A:344:GLN:CD[2_245]	1.73	0.47
1:A:89:THR:OG1	1:A:351:SER:CB[3_365]	1.73	0.47
1:A:102:LYS:N	1:A:401:MET:CA[3_365]	1.73	0.47
1:A:103:LEU:N	1:A:402:TYR:CA[3_365]	1.73	0.47
1:A:105:VAL:O	1:A:406:PHE:C[3_365]	1.73	0.47
1:A:106:ARG:NE	1:A:405:PHE:CD2[3_365]	1.73	0.47
1:A:108:GLY:CA	1:A:437:VAL:CG1[3_365]	1.73	0.47
1:A:112:ILE:C	1:A:429:GLU:CA[3_365]	1.73	0.47
1:A:113:ASP:C	1:A:429:GLU:CB[3_365]	1.73	0.47
1:A:140:HIS:CB	1:A:435:ILE:CG2[3_365]	1.73	0.47
1:A:140:HIS:C	1:A:435:ILE:CA[3_365]	1.73	0.47
1:A:164:PRO:CG	1:A:270:THR:CA[4_435]	1.73	0.47
1:A:210:GLN:CG	1:B:256:LYS:O[4_435]	1.73	0.47
1:A:210:GLN:O	1:A:274:CYS:N[4_435]	1.73	0.47
1:A:211:ALA:C	1:A:273:ASP:C[4_435]	1.73	0.47
1:A:300:ARG:N	1:A:300:ARG:O[2_345]	1.73	0.47
1:A:300:ARG:CG	1:A:301:THR:CA[2_345]	1.73	0.47
1:A:307:ILE:N	1:A:366:LYS:N[3_365]	1.73	0.47
1:A:312:ASP:CA	1:A:358:SER:CA[3_365]	1.73	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:313:GLN:CD	1:A:371:LYS:NZ[3_365]	1.73	0.47
1:A:321:ARG:CG	1:A:443:ALA:CB[3_365]	1.73	0.47
1:A:328:GLY:O	1:A:469:ASP:O[2_345]	1.73	0.47
1:A:333:ALA:N	1:A:365:ALA:CB[3_365]	1.73	0.47
1:A:338:THR:CB	1:A:376:ALA:CA[3_365]	1.73	0.47
1:B:101:ASP:O	1:B:465:LYS:CE[3_365]	1.73	0.47
1:B:108:GLY:C	1:B:298:ARG:CB[3_365]	1.73	0.47
1:B:109:SER:CB	5:B:508:HOH:O[3_365]	1.73	0.47
1:B:171:VAL:CB	1:B:377:PHE:CZ[3_465]	1.73	0.47
1:B:334:LEU:C	1:B:473:HIS:CB[3_365]	1.73	0.47
1:B:341:PRO:CD	1:B:364:THR:C[4_445]	1.73	0.47
1:B:371:LYS:C	1:B:374:LYS:N[4_445]	1.73	0.47
1:B:375:HIS:CG	1:B:375:HIS:CG[3_465]	1.73	0.47
1:B:379:GLY:O	1:B:406:PHE:CD1[4_445]	1.73	0.47
1:B:387:HIS:CD2	1:B:413:LEU:CD1[4_445]	1.73	0.47
1:B:391:GLY:N	1:B:407:LEU:O[4_445]	1.73	0.47
1:B:393:ASN:N	1:B:406:PHE:CB[4_445]	1.73	0.47
1:B:428:GLY:C	1:B:432:LYS:CB[3_465]	1.73	0.47
1:B:430:LEU:CB	1:B:432:LYS:CD[2_355]	1.73	0.47
1:B:430:LEU:CG	1:B:433:ALA:C[4_445]	1.73	0.47
1:B:432:LYS:CE	1:B:433:ALA:O[3_465]	1.73	0.47
1:B:432:LYS:C	1:B:432:LYS:CG[4_445]	1.73	0.47
1:A:82:GLU:CB	1:A:377:PHE:CA[2_245]	1.74	0.46
1:A:86:ASP:CA	1:A:170:HIS:CG[3_365]	1.74	0.46
1:A:88:TRP:C	1:A:352:ALA:N[3_365]	1.74	0.46
1:A:89:THR:CA	1:A:351:SER:C[3_365]	1.74	0.46
1:A:94:SER:OG	1:A:96:LYS:N[3_365]	1.74	0.46
1:A:99:ASP:C	1:A:397:ASP:O[3_365]	1.74	0.46
1:A:100:TYR:CD1	1:A:398:VAL:CB[3_365]	1.74	0.46
1:A:100:TYR:CB	1:A:398:VAL:C[3_365]	1.74	0.46
1:A:106:ARG:CA	1:A:405:PHE:CB[3_365]	1.74	0.46
1:A:114:LYS:CA	1:A:429:GLU:CD[3_365]	1.74	0.46
1:A:140:HIS:C	1:A:435:ILE:CB[3_365]	1.74	0.46
1:A:141:ARG:NH2	1:A:438:LEU:CA[3_365]	1.74	0.46
1:A:163:GLY:CA	1:A:270:THR:CG2[4_435]	1.74	0.46
1:A:209:ASP:N	1:B:259:THR:N[4_435]	1.74	0.46
1:A:210:GLN:N	1:B:258:VAL:C[4_435]	1.74	0.46
1:A:212:TYR:C	1:B:260:PHE:CB[4_435]	1.74	0.46
1:A:218:ASN:ND2	1:A:269:PHE:CE2[4_435]	1.74	0.46
1:A:219:ALA:C	1:A:260:PHE:O[4_435]	1.74	0.46
1:A:221:ASP:CG	1:A:263:VAL:CA[4_435]	1.74	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:222:ILE:CA	1:A:261:ASN:C[4_435]	1.74	0.46
1:A:258:VAL:CG1	1:A:449:ARG:NE[3_365]	1.74	0.46
1:A:272:SER:C	5:A:619:HOH:O[3_365]	1.74	0.46
1:A:297:PHE:C	1:A:301:THR:CG2[2_345]	1.74	0.46
1:A:299:ASP:CA	1:A:299:ASP:C[2_345]	1.74	0.46
1:A:307:ILE:CD1	1:A:364:THR:C[3_365]	1.74	0.46
1:A:309:CYS:C	1:A:371:LYS:N[3_365]	1.74	0.46
1:A:310:ALA:CA	1:A:371:LYS:CB[3_365]	1.74	0.46
1:A:310:ALA:N	1:A:371:LYS:CB[3_365]	1.74	0.46
1:A:315:PRO:O	1:A:361:LEU:CB[3_365]	1.74	0.46
1:A:317:PHE:CA	1:A:363:ASP:O[3_365]	1.74	0.46
1:A:333:ALA:O	1:A:366:LYS:N[3_365]	1.74	0.46
1:B:102:LYS:CE	1:B:452:VAL:C[4_445]	1.74	0.46
1:B:108:GLY:O	1:B:297:PHE:O[3_365]	1.74	0.46
1:B:134:ARG:NE	1:B:390:PHE:CA[3_465]	1.74	0.46
1:B:134:ARG:NH1	1:B:390:PHE:C[3_465]	1.74	0.46
1:B:139:SER:OG	1:B:471:GLN:NE2[3_365]	1.74	0.46
1:B:317:PHE:CB	1:B:474:HIS:NE2[3_365]	1.74	0.46
1:B:342:ALA:N	1:B:364:THR:N[4_445]	1.74	0.46
1:B:344:GLN:CD	1:B:371:LYS:CE[4_445]	1.74	0.46
1:B:367:GLN:N	5:B:480:HOH:O[3_465]	1.74	0.46
1:B:368:ILE:CB	1:B:398:VAL:CA[3_465]	1.74	0.46
1:B:373:ASN:CB	1:B:376:ALA:CB[2_355]	1.74	0.46
1:B:373:ASN:ND2	1:B:431:LYS:CD[2_355]	1.74	0.46
1:B:381:ARG:N	1:B:402:TYR:C[4_445]	1.74	0.46
1:B:396:VAL:N	1:B:441:LEU:CD2[4_445]	1.74	0.46
1:B:400:PHE:CD1	1:B:436:GLU:C[4_445]	1.74	0.46
1:B:407:LEU:CD2	1:B:421:THR:N[3_465]	1.74	0.46
1:B:409:ASP:N	1:B:421:THR:O[3_465]	1.74	0.46
1:B:431:LYS:N	1:B:432:LYS:CA[4_445]	1.74	0.46
1:A:84:PHE:C	1:A:340:PHE:C[3_365]	1.75	0.45
1:A:86:ASP:N	1:A:350:MET:SD[3_365]	1.75	0.45
1:A:86:ASP:N	1:A:350:MET:CB[3_365]	1.75	0.45
1:A:86:ASP:OD1	4:A:502:ATP:N7[3_365]	1.75	0.45
1:A:101:ASP:CA	1:A:400:PHE:CB[3_365]	1.75	0.45
1:A:105:VAL:O	1:A:406:PHE:CB[3_365]	1.75	0.45
1:A:108:GLY:N	1:A:406:PHE:CB[3_365]	1.75	0.45
1:A:110:SER:N	1:A:434:LEU:O[3_365]	1.75	0.45
1:A:138:PHE:O	1:A:431:LYS:CB[3_365]	1.75	0.45
1:A:140:HIS:CB	1:A:435:ILE:CB[3_365]	1.75	0.45
1:A:171:VAL:CG1	1:A:318:ARG:CZ[4_435]	1.75	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:214:TYR:O	1:A:278:ILE:CG1[4_435]	1.75	0.45
1:A:219:ALA:CB	1:A:260:PHE:CD2[4_435]	1.75	0.45
1:A:220:LYS:CE	1:B:275:ILE:CA[4_435]	1.75	0.45
1:A:257:HIS:C	1:A:450:LYS:C[3_365]	1.75	0.45
1:A:300:ARG:O	1:A:300:ARG:CG[2_345]	1.75	0.45
1:A:300:ARG:CA	1:A:300:ARG:CA[2_345]	1.75	0.45
1:A:302:ASP:CB	1:A:303:ILE:CD1[2_345]	1.75	0.45
1:A:307:ILE:C	1:A:366:LYS:CA[3_365]	1.75	0.45
1:A:312:ASP:O	1:A:358:SER:C[3_365]	1.75	0.45
1:A:316:TYR:C	1:A:361:LEU:O[3_365]	1.75	0.45
1:A:316:TYR:O	1:A:446:GLN:NE2[3_365]	1.75	0.45
1:A:322:ASP:OD1	1:A:444:GLU:CB[3_365]	1.75	0.45
1:A:337:SER:N	1:A:372:VAL:CA[3_365]	1.75	0.45
1:A:367:GLN:NE2	3:A:501:LTN:CH2[4_435]	1.75	0.45
1:A:457:VAL:C	1:B:273:ASP:N[4_435]	1.75	0.45
1:A:457:VAL:N	1:B:273:ASP:N[4_435]	1.75	0.45
1:B:109:SER:OG	1:B:298:ARG:NH1[3_365]	1.75	0.45
1:B:109:SER:OG	1:B:298:ARG:CD[3_365]	1.75	0.45
1:B:130:HIS:CB	1:B:390:PHE:CD2[3_465]	1.75	0.45
1:B:141:ARG:CB	1:B:472:HIS:CA[3_365]	1.75	0.45
1:B:262:GLN:CA	5:B:553:HOH:O[3_365]	1.75	0.45
1:B:307:ILE:CG2	1:B:475:HIS:NE2[3_365]	1.75	0.45
1:B:343:LEU:N	1:B:367:GLN:CB[4_445]	1.75	0.45
1:B:381:ARG:CA	1:B:405:PHE:N[4_445]	1.75	0.45
1:B:387:HIS:CB	1:B:413:LEU:CD1[4_445]	1.75	0.45
1:B:393:ASN:CG	1:B:441:LEU:CD1[4_445]	1.75	0.45
1:B:428:GLY:CA	5:B:501:HOH:O[3_465]	1.75	0.45
1:B:428:GLY:C	1:B:432:LYS:N[2_355]	1.75	0.45
1:B:430:LEU:C	1:B:433:ALA:N[4_445]	1.75	0.45
1:A:82:GLU:O	1:A:344:GLN:C[2_245]	1.76	0.44
1:A:84:PHE:CZ	4:A:502:ATP:C6[3_365]	1.76	0.44
1:A:92:THR:N	5:A:571:HOH:O[2_245]	1.76	0.44
1:A:103:LEU:CG	1:A:402:TYR:CZ[3_365]	1.76	0.44
1:A:103:LEU:C	1:A:402:TYR:C[3_365]	1.76	0.44
1:A:115:GLU:N	1:A:429:GLU:OE2[3_365]	1.76	0.44
1:A:137:PHE:CA	1:A:373:ASN:O[3_365]	1.76	0.44
1:A:140:HIS:C	1:A:435:ILE:O[3_365]	1.76	0.44
1:A:212:TYR:CA	1:B:259:THR:C[4_435]	1.76	0.44
1:A:213:SER:CB	1:A:275:ILE:CG2[4_435]	1.76	0.44
1:A:217:GLU:OE2	1:B:275:ILE:C[4_435]	1.76	0.44
1:A:234:ILE:CD1	1:A:261:ASN:ND2[4_435]	1.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:257:HIS:N	1:A:450:LYS:O[3_365]	1.76	0.44
1:A:311:ILE:CA	1:A:359:ILE:CD1[3_365]	1.76	0.44
1:A:313:GLN:CB	1:A:371:LYS:NZ[3_365]	1.76	0.44
1:A:328:GLY:O	1:A:470:PHE:CA[2_345]	1.76	0.44
1:A:329:TYR:CB	1:A:471:GLN:N[2_345]	1.76	0.44
1:A:356:ASN:CG	4:A:502:ATP:N7[4_435]	1.76	0.44
1:A:460:PHE:N	1:B:272:SER:OG[4_435]	1.76	0.44
1:B:142:ASP:N	5:B:565:HOH:O[3_365]	1.76	0.44
1:B:171:VAL:CB	1:B:366:LYS:NZ[4_445]	1.76	0.44
1:B:372:VAL:CG2	1:B:373:ASN:OD1[4_445]	1.76	0.44
1:B:380:GLY:O	1:B:402:TYR:CA[4_445]	1.76	0.44
1:B:381:ARG:CZ	1:B:405:PHE:O[4_445]	1.76	0.44
1:B:399:SER:CB	1:B:435:ILE:CA[4_445]	1.76	0.44
1:B:401:MET:CG	1:B:439:GLN:CA[4_445]	1.76	0.44
1:B:453:THR:OG1	1:B:464:ARG:CB[2_345]	1.76	0.44
1:B:459:GLU:CA	1:B:459:GLU:CA[2_345]	1.76	0.44
1:A:93:SER:OG	1:A:98:ILE:CA[3_365]	1.77	0.43
1:A:101:ASP:O	1:A:400:PHE:C[3_365]	1.77	0.43
1:A:109:SER:OG	1:A:434:LEU:O[3_365]	1.77	0.43
1:A:112:ILE:CA	1:A:432:LYS:CA[3_365]	1.77	0.43
1:A:137:PHE:CE2	1:A:370:THR:C[3_365]	1.77	0.43
1:A:141:ARG:CD	1:A:438:LEU:C[3_365]	1.77	0.43
1:A:141:ARG:NH2	1:A:438:LEU:O[3_365]	1.77	0.43
1:A:162:ARG:NH1	1:A:268:GLY:O[4_435]	1.77	0.43
1:A:162:ARG:NE	1:A:269:PHE:CA[4_435]	1.77	0.43
1:A:168:ALA:CB	1:A:316:TYR:OH[4_435]	1.77	0.43
1:A:208:LEU:O	1:B:259:THR:OG1[4_435]	1.77	0.43
1:A:210:GLN:CD	1:B:256:LYS:C[4_435]	1.77	0.43
1:A:211:ALA:N	1:A:274:CYS:N[4_435]	1.77	0.43
1:A:211:ALA:N	1:A:274:CYS:CA[4_435]	1.77	0.43
1:A:219:ALA:CA	1:A:261:ASN:N[4_435]	1.77	0.43
1:A:313:GLN:O	1:A:363:ASP:OD2[3_365]	1.77	0.43
1:A:334:LEU:CA	1:A:439:GLN:NE2[3_365]	1.77	0.43
1:A:339:PHE:CA	1:A:344:GLN:OE1[3_365]	1.77	0.43
1:A:356:ASN:CA	4:A:502:ATP:C2'[4_435]	1.77	0.43
1:A:461:MET:CE	1:B:260:PHE:CZ[4_435]	1.77	0.43
1:B:98:ILE:O	1:B:446:GLN:CA[4_445]	1.77	0.43
1:B:134:ARG:NH2	1:B:390:PHE:N[3_465]	1.77	0.43
1:B:299:ASP:CB	1:B:318:ARG:CD[4_435]	1.77	0.43
1:B:345:GLY:CA	1:B:360:PHE:N[4_445]	1.77	0.43
1:B:366:LYS:CA	1:B:402:TYR:CE1[3_465]	1.77	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:368:ILE:CG2	1:B:399:SER:N[3_465]	1.77	0.43
1:B:426:LEU:C	1:B:436:GLU:CG[2_355]	1.77	0.43
1:B:428:GLY:C	1:B:432:LYS:CA[2_355]	1.77	0.43
1:B:428:GLY:CA	1:B:430:LEU:CB[4_445]	1.77	0.43
1:B:456:ILE:N	1:B:464:ARG:CD[2_345]	1.77	0.43
1:B:459:GLU:CG	1:B:459:GLU:CG[2_345]	1.77	0.43
1:A:83:ASP:CB	1:A:341:PRO:CD[3_365]	1.78	0.42
1:A:85:VAL:C	1:A:350:MET:CG[3_365]	1.78	0.42
1:A:92:THR:OG1	1:A:345:GLY:O[3_365]	1.78	0.42
1:A:101:ASP:N	1:A:400:PHE:CA[3_365]	1.78	0.42
1:A:103:LEU:O	1:A:402:TYR:CA[3_365]	1.78	0.42
1:A:106:ARG:N	1:A:406:PHE:N[3_365]	1.78	0.42
1:A:112:ILE:O	1:A:429:GLU:C[3_365]	1.78	0.42
1:A:137:PHE:CD2	1:A:373:ASN:CB[3_365]	1.78	0.42
1:A:139:SER:C	1:A:435:ILE:CD1[3_365]	1.78	0.42
1:A:169:MET:CB	1:A:267:PHE:N[4_435]	1.78	0.42
1:A:212:TYR:N	1:B:260:PHE:N[4_435]	1.78	0.42
1:A:220:LYS:CE	1:B:274:CYS:O[4_435]	1.78	0.42
1:A:221:ASP:OD2	1:A:263:VAL:CA[4_435]	1.78	0.42
1:A:326:ARG:NH2	1:A:451:GLU:CB[3_365]	1.78	0.42
1:A:337:SER:CB	1:A:375:HIS:N[3_365]	1.78	0.42
1:A:339:PHE:CG	1:A:344:GLN:N[3_365]	1.78	0.42
1:A:454:ASP:CG	1:B:277:LYS:CD[4_435]	1.78	0.42
1:B:101:ASP:CA	1:B:451:GLU:CG[4_445]	1.78	0.42
1:B:140:HIS:O	1:B:471:GLN:CA[3_365]	1.78	0.42
1:B:159:TYR:O	1:B:475:HIS:ND1[3_365]	1.78	0.42
1:B:366:LYS:CA	1:B:402:TYR:CE2[3_465]	1.78	0.42
1:B:372:VAL:CA	1:B:373:ASN:N[4_445]	1.78	0.42
1:B:381:ARG:N	1:B:404:THR:N[4_445]	1.78	0.42
1:B:416:ILE:CD1	1:B:426:LEU:N[3_465]	1.78	0.42
1:B:431:LYS:CG	1:B:431:LYS:CG[3_465]	1.78	0.42
1:B:455:GLU:N	1:B:463:PRO:C[2_345]	1.78	0.42
1:B:459:GLU:CA	1:B:459:GLU:CB[2_345]	1.78	0.42
1:A:82:GLU:CB	1:A:377:PHE:CD1[2_245]	1.79	0.41
1:A:82:GLU:C	1:A:344:GLN:O[2_245]	1.79	0.41
1:A:84:PHE:CA	1:A:340:PHE:N[3_365]	1.79	0.41
1:A:91:GLN:CA	1:A:348:THR:O[3_365]	1.79	0.41
1:A:92:THR:CB	1:A:347:GLN:N[3_365]	1.79	0.41
1:A:94:SER:O	1:A:95:ALA:N[3_365]	1.79	0.41
1:A:101:ASP:CB	1:A:400:PHE:CG[3_365]	1.79	0.41
1:A:102:LYS:O	1:A:401:MET:C[3_365]	1.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:104:ILE:CA	1:A:434:LEU:CD1[3_365]	1.79	0.41
1:A:106:ARG:NH2	1:A:340:PHE:CB[3_365]	1.79	0.41
1:A:108:GLY:O	1:A:437:VAL:CA[3_365]	1.79	0.41
1:A:111:LYS:NZ	1:A:430:LEU:CG[3_365]	1.79	0.41
1:A:140:HIS:CE1	1:A:432:LYS:O[3_365]	1.79	0.41
1:A:197:ASP:N	1:A:272:SER:N[4_435]	1.79	0.41
1:A:262:GLN:NE2	1:A:452:VAL:CG1[3_365]	1.79	0.41
1:A:315:PRO:CD	1:A:359:ILE:C[3_365]	1.79	0.41
1:A:319:MET:O	1:A:446:GLN:CG[3_365]	1.79	0.41
1:A:334:LEU:C	1:A:369:LYS:CB[3_365]	1.79	0.41
1:A:458:LYS:O	1:B:270:THR:OG1[4_435]	1.79	0.41
1:B:98:ILE:N	1:B:446:GLN:CA[4_445]	1.79	0.41
1:B:99:ASP:CA	1:B:449:ARG:CA[4_445]	1.79	0.41
1:B:102:LYS:N	1:B:451:GLU:N[4_445]	1.79	0.41
1:B:102:LYS:CB	1:B:451:GLU:CA[4_445]	1.79	0.41
1:B:345:GLY:CA	1:B:363:ASP:OD2[4_445]	1.79	0.41
1:B:373:ASN:O	1:B:376:ALA:N[4_445]	1.79	0.41
1:B:387:HIS:ND1	1:B:403:LEU:CA[4_445]	1.79	0.41
1:B:400:PHE:CE1	1:B:426:LEU:CD2[3_465]	1.79	0.41
1:B:408:GLU:N	1:B:421:THR:O[3_465]	1.79	0.41
1:B:412:LYS:CA	1:B:424:ALA:CB[3_465]	1.79	0.41
1:B:416:ILE:CG2	1:B:426:LEU:CB[3_465]	1.79	0.41
1:B:427:THR:C	1:B:430:LEU:O[4_445]	1.79	0.41
1:B:428:GLY:CA	1:B:430:LEU:C[4_445]	1.79	0.41
1:B:469:ASP:C	5:B:577:HOH:O[4_435]	1.79	0.41
1:A:101:ASP:CA	1:A:400:PHE:C[3_365]	1.80	0.40
1:A:110:SER:OG	1:A:436:GLU:N[3_365]	1.80	0.40
1:A:140:HIS:CA	1:A:435:ILE:CG1[3_365]	1.80	0.40
1:A:141:ARG:N	1:A:435:ILE:CG2[3_365]	1.80	0.40
1:A:164:PRO:CG	1:A:270:THR:OG1[4_435]	1.80	0.40
1:A:197:ASP:CG	1:B:261:ASN:OD1[4_435]	1.80	0.40
1:A:208:LEU:C	1:B:259:THR:N[4_435]	1.80	0.40
1:A:219:ALA:N	1:A:260:PHE:C[4_435]	1.80	0.40
1:A:302:ASP:CA	1:A:303:ILE:CG1[2_345]	1.80	0.40
1:A:317:PHE:CE2	1:A:363:ASP:C[3_365]	1.80	0.40
1:A:318:ARG:C	1:A:442:ILE:CA[3_365]	1.80	0.40
1:A:339:PHE:CG	1:A:344:GLN:NE2[3_365]	1.80	0.40
1:A:339:PHE:CB	1:A:344:GLN:N[3_365]	1.80	0.40
1:B:109:SER:O	1:B:470:PHE:N[3_365]	1.80	0.40
1:B:342:ALA:C	1:B:367:GLN:CB[4_445]	1.80	0.40
1:B:344:GLN:CA	1:B:371:LYS:CE[4_445]	1.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:369:LYS:CD	1:B:378:SER:CA[2_355]	1.80	0.40
1:B:372:VAL:CG1	1:B:373:ASN:CG[4_445]	1.80	0.40
1:B:375:HIS:CB	1:B:375:HIS:CD2[4_445]	1.80	0.40
1:B:381:ARG:CB	1:B:405:PHE:N[4_445]	1.80	0.40
1:B:388:ARG:CD	1:B:413:LEU:C[4_445]	1.80	0.40
1:B:391:GLY:O	1:B:407:LEU:N[4_445]	1.80	0.40
1:B:397:ASP:CG	1:B:438:LEU:CG[4_445]	1.80	0.40
1:B:407:LEU:CG	1:B:420:TYR:C[3_465]	1.80	0.40
1:B:416:ILE:CD1	1:B:425:MET:N[3_465]	1.80	0.40
1:B:426:LEU:CA	1:B:436:GLU:CB[2_355]	1.80	0.40
1:B:427:THR:O	1:B:432:LYS:CA[2_355]	1.80	0.40
1:B:428:GLY:N	1:B:430:LEU:CG[4_445]	1.80	0.40
1:B:455:GLU:CD	1:B:463:PRO:C[2_345]	1.80	0.40
1:B:455:GLU:CD	1:B:464:ARG:CA[2_345]	1.80	0.40
1:A:87:PRO:CD	1:A:170:HIS:CA[3_365]	1.81	0.39
1:A:98:ILE:CG2	1:A:345:GLY:C[3_365]	1.81	0.39
1:A:100:TYR:CE2	1:A:377:PHE:N[3_365]	1.81	0.39
1:A:104:ILE:CG2	1:A:403:LEU:CD2[3_365]	1.81	0.39
1:A:107:PHE:CA	1:A:406:PHE:CE2[3_365]	1.81	0.39
1:A:112:ILE:C	1:A:428:GLY:O[3_365]	1.81	0.39
1:A:113:ASP:CB	1:A:429:GLU:CB[3_365]	1.81	0.39
1:A:114:LYS:CB	1:A:429:GLU:CD[3_365]	1.81	0.39
1:A:139:SER:N	1:A:372:VAL:CG1[3_365]	1.81	0.39
1:A:163:GLY:O	1:A:268:GLY:O[4_435]	1.81	0.39
1:A:164:PRO:C	1:A:273:ASP:OD1[4_435]	1.81	0.39
1:A:212:TYR:OH	1:B:264:LYS:N[4_435]	1.81	0.39
1:A:217:GLU:CD	1:B:275:ILE:CB[4_435]	1.81	0.39
1:A:259:THR:CG2	1:A:452:VAL:CG1[3_365]	1.81	0.39
1:A:449:ARG:NH1	1:B:275:ILE:CD1[4_435]	1.81	0.39
1:A:460:PHE:CD2	1:B:272:SER:CB[4_435]	1.81	0.39
1:B:100:TYR:N	1:B:447:ALA:C[4_445]	1.81	0.39
1:B:102:LYS:N	1:B:451:GLU:CB[4_445]	1.81	0.39
1:B:130:HIS:CB	1:B:390:PHE:CB[3_465]	1.81	0.39
1:B:371:LYS:O	1:B:376:ALA:N[3_465]	1.81	0.39
1:B:381:ARG:C	1:B:401:MET:C[4_445]	1.81	0.39
1:B:392:GLY:O	1:B:406:PHE:C[4_445]	1.81	0.39
1:B:395:ASP:N	1:B:441:LEU:CA[4_445]	1.81	0.39
1:B:416:ILE:CG2	1:B:426:LEU:N[3_465]	1.81	0.39
1:B:428:GLY:C	1:B:430:LEU:N[4_445]	1.81	0.39
1:B:430:LEU:CG	1:B:432:LYS:O[4_445]	1.81	0.39
1:A:82:GLU:OE1	1:A:98:ILE:N[3_365]	1.82	0.38

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:82:GLU:OE1	1:A:98:ILE:C[3_365]	1.82	0.38
1:A:84:PHE:CZ	4:A:502:ATP:N9[3_365]	1.82	0.38
1:A:84:PHE:CZ	4:A:502:ATP:C8[3_365]	1.82	0.38
1:A:86:ASP:OD2	1:A:350:MET:C[3_365]	1.82	0.38
1:A:87:PRO:N	1:A:170:HIS:CB[3_365]	1.82	0.38
1:A:88:TRP:O	1:A:354:ASP:N[3_365]	1.82	0.38
1:A:99:ASP:CB	1:A:401:MET:CE[3_365]	1.82	0.38
1:A:108:GLY:O	1:A:437:VAL:C[3_365]	1.82	0.38
1:A:112:ILE:CB	5:A:569:HOH:O[3_365]	1.82	0.38
1:A:167:GLU:OE1	1:A:279:SER:CA[4_435]	1.82	0.38
1:A:204:LYS:CE	5:A:607:HOH:O[4_435]	1.82	0.38
1:A:224:ALA:CB	1:A:262:GLN:OE1[4_435]	1.82	0.38
1:A:281:PRO:CB	5:A:608:HOH:O[3_365]	1.82	0.38
1:A:326:ARG:NH2	1:A:451:GLU:CG[3_365]	1.82	0.38
1:A:335:LEU:CG	1:A:369:LYS:CE[3_365]	1.82	0.38
1:A:335:LEU:CA	1:A:369:LYS:CG[3_365]	1.82	0.38
1:A:386:GLU:OE2	1:A:417:ARG:NH2[4_435]	1.82	0.38
1:A:458:LYS:CA	1:B:273:ASP:OD2[4_435]	1.82	0.38
1:B:102:LYS:CG	1:B:452:VAL:N[4_445]	1.82	0.38
1:B:107:PHE:O	1:B:298:ARG:O[3_365]	1.82	0.38
1:B:130:HIS:O	1:B:390:PHE:CD1[3_465]	1.82	0.38
1:B:317:PHE:O	1:B:474:HIS:CE1[3_365]	1.82	0.38
1:B:338:THR:OG1	5:B:556:HOH:O[3_465]	1.82	0.38
1:B:370:THR:N	1:B:376:ALA:O[2_355]	1.82	0.38
1:B:374:LYS:CA	1:B:374:LYS:C[4_445]	1.82	0.38
1:B:378:SER:CB	1:B:402:TYR:CD2[4_445]	1.82	0.38
1:B:379:GLY:C	1:B:406:PHE:CD1[4_445]	1.82	0.38
1:B:387:HIS:O	1:B:413:LEU:CB[4_445]	1.82	0.38
1:B:388:ARG:NE	1:B:413:LEU:O[4_445]	1.82	0.38
1:B:394:CYS:C	1:B:437:VAL:O[4_445]	1.82	0.38
1:B:401:MET:CG	1:B:439:GLN:C[4_445]	1.82	0.38
1:A:91:GLN:N	1:A:349:LYS:CA[3_365]	1.83	0.37
1:A:100:TYR:C	1:A:398:VAL:C[3_365]	1.83	0.37
1:A:101:ASP:N	1:A:399:SER:C[3_365]	1.83	0.37
1:A:105:VAL:CG2	1:A:403:LEU:CB[3_365]	1.83	0.37
1:A:106:ARG:NE	1:A:405:PHE:CE2[3_365]	1.83	0.37
1:A:113:ASP:N	1:A:429:GLU:C[3_365]	1.83	0.37
1:A:113:ASP:N	1:A:429:GLU:O[3_365]	1.83	0.37
1:A:148:ASP:CA	1:A:152:ASN:ND2[2_345]	1.83	0.37
1:A:164:PRO:CD	1:A:270:THR:CG2[4_435]	1.83	0.37
1:A:164:PRO:CA	1:A:270:THR:N[4_435]	1.83	0.37

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:176:PRO:C	1:A:374:LYS:NZ[3_365]	1.83	0.37
1:A:202:LEU:CD1	5:A:553:HOH:O[3_365]	1.83	0.37
1:A:209:ASP:N	1:B:262:GLN:NE2[4_435]	1.83	0.37
1:A:211:ALA:O	1:A:273:ASP:C[4_435]	1.83	0.37
1:A:215:ALA:N	1:A:278:ILE:CD1[4_435]	1.83	0.37
1:A:219:ALA:CB	1:A:260:PHE:CG[4_435]	1.83	0.37
1:A:318:ARG:CA	1:A:442:ILE:C[3_365]	1.83	0.37
1:A:323:VAL:CA	1:A:447:ALA:CA[3_365]	1.83	0.37
1:A:344:GLN:CB	5:A:551:HOH:O[4_435]	1.83	0.37
1:A:355:PRO:CB	4:A:502:ATP:C4'[4_435]	1.83	0.37
1:B:103:LEU:N	1:B:450:LYS:C[4_445]	1.83	0.37
1:B:108:GLY:CA	1:B:298:ARG:CB[3_365]	1.83	0.37
1:B:140:HIS:C	1:B:473:HIS:CE1[3_365]	1.83	0.37
1:B:321:ARG:CZ	5:B:519:HOH:O[3_365]	1.83	0.37
1:B:340:PHE:CZ	1:B:366:LYS:N[4_445]	1.83	0.37
1:B:341:PRO:CA	1:B:363:ASP:O[4_445]	1.83	0.37
1:B:341:PRO:CG	1:B:364:THR:O[4_445]	1.83	0.37
1:B:348:THR:CG2	1:B:360:PHE:CB[4_445]	1.83	0.37
1:B:359:ILE:CB	1:B:377:PHE:CD2[3_465]	1.83	0.37
1:B:366:LYS:O	1:B:402:TYR:CE2[3_465]	1.83	0.37
1:B:369:LYS:CB	1:B:378:SER:CA[2_355]	1.83	0.37
1:B:369:LYS:O	1:B:376:ALA:O[2_355]	1.83	0.37
1:B:371:LYS:C	1:B:373:ASN:O[2_355]	1.83	0.37
1:B:373:ASN:CG	1:B:431:LYS:CE[2_355]	1.83	0.37
1:B:380:GLY:C	1:B:403:LEU:N[4_445]	1.83	0.37
1:B:388:ARG:O	1:B:410:ASP:O[4_445]	1.83	0.37
1:B:391:GLY:CA	1:B:407:LEU:C[4_445]	1.83	0.37
1:B:397:ASP:CG	1:B:434:LEU:O[4_445]	1.83	0.37
1:B:402:TYR:N	1:B:439:GLN:CG[4_445]	1.83	0.37
1:B:427:THR:CB	1:B:435:ILE:CG2[2_355]	1.83	0.37
1:A:99:ASP:N	1:A:401:MET:CE[3_365]	1.84	0.36
1:A:110:SER:N	1:A:433:ALA:O[3_365]	1.84	0.36
1:A:145:GLN:CA	1:A:152:ASN:CB[2_345]	1.84	0.36
1:A:145:GLN:CB	1:A:152:ASN:O[2_345]	1.84	0.36
1:A:159:TYR:O	5:A:585:HOH:O[3_365]	1.84	0.36
1:A:167:GLU:CB	1:A:277:LYS:C[4_435]	1.84	0.36
1:A:209:ASP:CB	1:B:258:VAL:N[4_435]	1.84	0.36
1:A:210:GLN:C	1:A:274:CYS:CB[4_435]	1.84	0.36
1:A:217:GLU:CB	1:A:278:ILE:C[4_435]	1.84	0.36
1:A:220:LYS:N	1:A:259:THR:O[4_435]	1.84	0.36
1:A:258:VAL:CG2	5:A:515:HOH:O[3_365]	1.84	0.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:267:PHE:CZ	5:A:542:HOH:O[3_365]	1.84	0.36
1:A:300:ARG:N	1:A:300:ARG:C[2_345]	1.84	0.36
1:A:310:ALA:CA	1:A:371:LYS:CG[3_365]	1.84	0.36
1:A:317:PHE:CG	1:A:363:ASP:CA[3_365]	1.84	0.36
1:A:335:LEU:C	1:A:370:THR:N[3_365]	1.84	0.36
1:A:339:PHE:CG	1:A:344:GLN:CD[3_365]	1.84	0.36
1:A:347:GLN:CB	1:A:347:GLN:CG[3_365]	1.84	0.36
1:A:349:LYS:N	5:A:531:HOH:O[3_365]	1.84	0.36
1:A:356:ASN:ND2	4:A:502:ATP:C4[4_435]	1.84	0.36
1:A:454:ASP:OD2	1:B:277:LYS:CG[4_435]	1.84	0.36
1:B:101:ASP:CB	1:B:451:GLU:CD[4_445]	1.84	0.36
1:B:103:LEU:CG	1:B:450:LYS:CG[4_445]	1.84	0.36
1:B:229:ILE:CD1	1:B:459:GLU:OE1[2_345]	1.84	0.36
1:B:344:GLN:O	1:B:359:ILE:CA[4_445]	1.84	0.36
1:B:369:LYS:C	1:B:376:ALA:O[2_355]	1.84	0.36
1:B:369:LYS:CD	1:B:438:LEU:CD1[3_465]	1.84	0.36
1:B:370:THR:CA	1:B:376:ALA:O[2_355]	1.84	0.36
1:B:371:LYS:CA	1:B:374:LYS:C[2_355]	1.84	0.36
1:B:381:ARG:NE	1:B:404:THR:O[4_445]	1.84	0.36
1:B:384:ILE:CG1	1:B:394:CYS:CB[4_445]	1.84	0.36
1:B:384:ILE:CD1	1:B:394:CYS:CA[4_445]	1.84	0.36
1:B:392:GLY:CA	1:B:406:PHE:C[4_445]	1.84	0.36
1:B:430:LEU:CG	1:B:433:ALA:O[4_445]	1.84	0.36
1:A:91:GLN:CB	1:A:349:LYS:CA[3_365]	1.85	0.35
1:A:114:LYS:CA	1:A:429:GLU:CG[3_365]	1.85	0.35
1:A:139:SER:CA	1:A:431:LYS:O[3_365]	1.85	0.35
1:A:215:ALA:O	1:A:260:PHE:CD2[4_435]	1.85	0.35
1:A:217:GLU:C	1:A:263:VAL:CG2[4_435]	1.85	0.35
1:A:219:ALA:C	1:A:260:PHE:CA[4_435]	1.85	0.35
1:A:220:LYS:CG	1:A:259:THR:C[4_435]	1.85	0.35
1:A:221:ASP:N	1:A:259:THR:O[4_435]	1.85	0.35
1:A:222:ILE:N	1:A:262:GLN:C[4_435]	1.85	0.35
1:A:257:HIS:O	1:A:449:ARG:O[3_365]	1.85	0.35
1:A:257:HIS:CB	1:A:450:LYS:O[3_365]	1.85	0.35
1:A:300:ARG:C	1:A:300:ARG:C[2_345]	1.85	0.35
1:A:308:PRO:CA	1:A:370:THR:CB[3_365]	1.85	0.35
1:A:309:CYS:N	1:A:367:GLN:O[3_365]	1.85	0.35
1:A:316:TYR:C	1:A:362:THR:N[3_365]	1.85	0.35
1:A:318:ARG:CG	1:A:442:ILE:N[3_365]	1.85	0.35
1:A:319:MET:N	1:A:442:ILE:O[3_365]	1.85	0.35
1:A:335:LEU:O	1:A:369:LYS:O[3_365]	1.85	0.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:338:THR:CB	1:A:376:ALA:N[3_365]	1.85	0.35
1:A:349:LYS:NZ	1:A:354:ASP:CB[3_365]	1.85	0.35
1:A:457:VAL:CB	1:B:273:ASP:CB[4_435]	1.85	0.35
1:B:274:CYS:CA	5:A:573:HOH:O[3_365]	1.85	0.35
1:B:102:LYS:CG	1:B:451:GLU:O[4_445]	1.85	0.35
1:B:141:ARG:CG	1:B:472:HIS:O[3_365]	1.85	0.35
1:B:340:PHE:CE2	1:B:366:LYS:CB[4_445]	1.85	0.35
1:B:341:PRO:C	1:B:364:THR:CA[4_445]	1.85	0.35
1:B:343:LEU:CD1	1:B:370:THR:CG2[4_445]	1.85	0.35
1:B:397:ASP:OD1	1:B:434:LEU:O[4_445]	1.85	0.35
1:B:413:LEU:N	1:B:423:GLY:O[3_465]	1.85	0.35
1:B:429:GLU:N	1:B:432:LYS:CB[3_465]	1.85	0.35
1:B:431:LYS:C	1:B:431:LYS:CB[3_465]	1.85	0.35
1:B:453:THR:OG1	1:B:465:LYS:N[2_345]	1.85	0.35
1:A:85:VAL:CB	1:A:341:PRO:O[3_365]	1.86	0.34
1:A:91:GLN:C	1:A:349:LYS:N[3_365]	1.86	0.34
1:A:93:SER:C	1:A:97:GLY:O[3_365]	1.86	0.34
1:A:98:ILE:CG2	1:A:345:GLY:CA[3_365]	1.86	0.34
1:A:104:ILE:N	1:A:402:TYR:CA[3_365]	1.86	0.34
1:A:106:ARG:CA	1:A:406:PHE:N[3_365]	1.86	0.34
1:A:106:ARG:CG	1:A:405:PHE:CG[3_365]	1.86	0.34
1:A:110:SER:O	1:A:433:ALA:C[3_365]	1.86	0.34
1:A:112:ILE:CB	1:A:428:GLY:O[3_365]	1.86	0.34
1:A:116:LEU:CD2	1:A:432:LYS:CD[3_365]	1.86	0.34
1:A:140:HIS:CA	1:A:435:ILE:CA[3_365]	1.86	0.34
1:A:145:GLN:OE1	1:A:152:ASN:O[2_345]	1.86	0.34
1:A:158:LEU:CD2	1:A:366:LYS:CE[3_365]	1.86	0.34
1:A:165:SER:O	1:A:277:LYS:CE[4_435]	1.86	0.34
1:A:210:GLN:NE2	1:B:256:LYS:CG[4_435]	1.86	0.34
1:A:307:ILE:CB	1:A:366:LYS:N[3_365]	1.86	0.34
1:A:307:ILE:CG2	1:A:364:THR:OG1[3_365]	1.86	0.34
1:A:313:GLN:OE1	1:A:360:PHE:CD1[3_365]	1.86	0.34
1:A:313:GLN:O	1:A:360:PHE:N[3_365]	1.86	0.34
1:A:320:THR:CA	1:A:446:GLN:CG[3_365]	1.86	0.34
1:A:320:THR:N	1:A:446:GLN:OE1[3_365]	1.86	0.34
1:A:327:ILE:O	1:A:469:ASP:OD2[2_345]	1.86	0.34
1:A:338:THR:CB	1:A:375:HIS:O[3_365]	1.86	0.34
1:A:347:GLN:N	1:A:347:GLN:CG[3_365]	1.86	0.34
1:B:97:GLY:C	1:B:445:HIS:ND1[4_445]	1.86	0.34
1:B:98:ILE:C	1:B:446:GLN:C[4_445]	1.86	0.34
1:B:344:GLN:O	1:B:359:ILE:C[4_445]	1.86	0.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:369:LYS:CD	1:B:397:ASP:OD2[2_355]	1.86	0.34
1:B:371:LYS:O	1:B:375:HIS:C[3_465]	1.86	0.34
1:B:375:HIS:CG	1:B:375:HIS:CE1[3_465]	1.86	0.34
1:B:382:ASP:O	1:B:401:MET:CB[4_445]	1.86	0.34
1:B:388:ARG:CD	1:B:414:GLU:CA[4_445]	1.86	0.34
1:B:395:ASP:C	1:B:442:ILE:N[4_445]	1.86	0.34
1:B:399:SER:CB	1:B:435:ILE:CG2[4_445]	1.86	0.34
1:B:400:PHE:CG	1:B:436:GLU:C[4_445]	1.86	0.34
1:B:403:LEU:CD1	1:B:426:LEU:C[3_465]	1.86	0.34
1:B:412:LYS:CA	1:B:424:ALA:CA[3_465]	1.86	0.34
1:B:426:LEU:CB	1:B:430:LEU:CD1[4_445]	1.86	0.34
1:B:426:LEU:N	1:B:436:GLU:CG[2_355]	1.86	0.34
1:A:86:ASP:C	1:A:358:SER:CB[3_365]	1.87	0.33
1:A:99:ASP:CB	1:A:401:MET:SD[3_365]	1.87	0.33
1:A:105:VAL:CB	1:A:403:LEU:CA[3_365]	1.87	0.33
1:A:108:GLY:O	1:A:437:VAL:O[3_365]	1.87	0.33
1:A:109:SER:C	1:A:434:LEU:O[3_365]	1.87	0.33
1:A:114:LYS:NZ	1:A:423:GLY:O[3_365]	1.87	0.33
1:A:138:PHE:CG	1:A:399:SER:OG[3_365]	1.87	0.33
1:A:141:ARG:CG	1:A:439:GLN:CA[3_365]	1.87	0.33
1:A:164:PRO:N	1:A:270:THR:N[4_435]	1.87	0.33
1:A:170:HIS:O	1:A:266:ILE:O[4_435]	1.87	0.33
1:A:197:ASP:CG	1:A:271:ASP:C[4_435]	1.87	0.33
1:A:210:GLN:NE2	1:B:256:LYS:CD[4_435]	1.87	0.33
1:A:221:ASP:CA	1:A:262:GLN:O[4_435]	1.87	0.33
1:A:307:ILE:O	1:A:367:GLN:N[3_365]	1.87	0.33
1:A:316:TYR:CE1	1:A:360:PHE:CD2[3_365]	1.87	0.33
1:A:326:ARG:NH2	1:A:451:GLU:CA[3_365]	1.87	0.33
1:A:338:THR:CG2	1:A:377:PHE:N[3_365]	1.87	0.33
1:A:355:PRO:O	4:A:502:ATP:C3'[4_435]	1.87	0.33
1:A:355:PRO:C	4:A:502:ATP:O2'[4_435]	1.87	0.33
1:B:136:ILE:CD1	5:B:560:HOH:O[3_465]	1.87	0.33
1:B:307:ILE:CG2	1:B:475:HIS:CG[3_365]	1.87	0.33
1:B:321:ARG:CZ	1:B:472:HIS:CE1[3_365]	1.87	0.33
1:B:369:LYS:CE	1:B:438:LEU:CG[3_465]	1.87	0.33
1:B:378:SER:O	1:B:402:TYR:CE2[4_445]	1.87	0.33
1:B:396:VAL:C	1:B:442:ILE:CD1[4_445]	1.87	0.33
1:B:409:ASP:CA	1:B:422:SER:CA[3_465]	1.87	0.33
1:B:426:LEU:O	1:B:436:GLU:OE2[2_355]	1.87	0.33
1:B:427:THR:CG2	1:B:435:ILE:CG2[2_355]	1.87	0.33
1:A:91:GLN:CA	1:A:348:THR:CA[3_365]	1.88	0.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:92:THR:O	1:A:347:GLN:CB[2_245]	1.88	0.32
1:A:106:ARG:O	1:A:406:PHE:CD2[3_365]	1.88	0.32
1:A:148:ASP:OD2	1:A:152:ASN:OD1[2_345]	1.88	0.32
1:A:167:GLU:OE1	1:A:280:PHE:N[4_435]	1.88	0.32
1:A:209:ASP:CB	1:B:258:VAL:CG2[4_435]	1.88	0.32
1:A:210:GLN:O	1:A:274:CYS:O[4_435]	1.88	0.32
1:A:214:TYR:CE2	1:A:277:LYS:CG[4_435]	1.88	0.32
1:A:214:TYR:CE2	1:A:277:LYS:CD[4_435]	1.88	0.32
1:A:219:ALA:CB	1:A:260:PHE:CB[4_435]	1.88	0.32
1:A:219:ALA:O	1:A:260:PHE:C[4_435]	1.88	0.32
1:A:236:SER:CA	1:A:271:ASP:CG[4_435]	1.88	0.32
1:A:266:ILE:CG1	1:A:445:HIS:NE2[3_365]	1.88	0.32
1:A:299:ASP:N	1:A:299:ASP:O[2_345]	1.88	0.32
1:A:300:ARG:NH1	5:A:568:HOH:O[2_345]	1.88	0.32
1:A:323:VAL:CG1	1:A:446:GLN:C[3_365]	1.88	0.32
1:A:338:THR:CB	1:A:376:ALA:O[3_365]	1.88	0.32
1:A:456:ILE:O	1:B:272:SER:CB[4_435]	1.88	0.32
1:B:106:ARG:N	5:B:581:HOH:O[3_365]	1.88	0.32
1:B:110:SER:C	1:B:471:GLN:CD[3_365]	1.88	0.32
1:B:334:LEU:CG	1:B:473:HIS:CA[3_365]	1.88	0.32
1:B:334:LEU:O	1:B:473:HIS:CD2[3_365]	1.88	0.32
1:B:373:ASN:CG	1:B:431:LYS:NZ[4_445]	1.88	0.32
1:B:388:ARG:NH1	1:B:413:LEU:O[4_445]	1.88	0.32
1:B:400:PHE:CB	1:B:435:ILE:O[4_445]	1.88	0.32
1:B:409:ASP:OD2	1:B:422:SER:OG[3_465]	1.88	0.32
1:B:428:GLY:CA	1:B:432:LYS:C[2_355]	1.88	0.32
1:B:428:GLY:CA	1:B:431:LYS:N[4_445]	1.88	0.32
1:B:443:ALA:N	5:B:552:HOH:O[3_465]	1.88	0.32
1:B:453:THR:CB	1:B:464:ARG:C[2_345]	1.88	0.32
1:B:455:GLU:CG	1:B:464:ARG:CG[2_345]	1.88	0.32
1:A:88:TRP:CG	1:A:352:ALA:CA[3_365]	1.89	0.31
1:A:106:ARG:CB	1:A:405:PHE:CG[3_365]	1.89	0.31
1:A:109:SER:CA	1:A:434:LEU:O[3_365]	1.89	0.31
1:A:111:LYS:CA	1:A:433:ALA:N[3_365]	1.89	0.31
1:A:112:ILE:CG1	5:A:569:HOH:O[3_365]	1.89	0.31
1:A:164:PRO:CG	1:A:270:THR:N[4_435]	1.89	0.31
1:A:197:ASP:OD2	1:A:271:ASP:O[4_435]	1.89	0.31
1:A:209:ASP:OD1	1:B:258:VAL:CG1[4_435]	1.89	0.31
1:A:267:PHE:CE1	5:A:542:HOH:O[3_365]	1.89	0.31
1:A:309:CYS:CA	1:A:367:GLN:O[3_365]	1.89	0.31
1:A:320:THR:CB	1:A:446:GLN:NE2[3_365]	1.89	0.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:338:THR:CB	1:A:377:PHE:N[3_365]	1.89	0.31
1:A:356:ASN:CG	4:A:502:ATP:C5[4_435]	1.89	0.31
1:A:454:ASP:C	1:B:277:LYS:NZ[4_435]	1.89	0.31
1:A:458:LYS:N	1:B:273:ASP:OD2[4_435]	1.89	0.31
1:B:110:SER:N	1:B:470:PHE:O[3_365]	1.89	0.31
1:B:141:ARG:CG	1:B:472:HIS:CB[3_365]	1.89	0.31
1:B:321:ARG:NE	1:B:472:HIS:NE2[3_365]	1.89	0.31
1:B:340:PHE:CD2	5:B:524:HOH:O[4_445]	1.89	0.31
1:B:341:PRO:O	1:B:364:THR:N[4_445]	1.89	0.31
1:B:366:LYS:CG	1:B:377:PHE:CE2[2_355]	1.89	0.31
1:B:367:GLN:N	1:B:402:TYR:CE1[3_465]	1.89	0.31
1:B:372:VAL:CG2	1:B:376:ALA:O[3_465]	1.89	0.31
1:B:379:GLY:O	1:B:406:PHE:CG[4_445]	1.89	0.31
1:B:397:ASP:N	1:B:438:LEU:CA[4_445]	1.89	0.31
1:B:425:MET:SD	5:B:490:HOH:O[3_465]	1.89	0.31
1:B:427:THR:OG1	1:B:435:ILE:CG1[2_355]	1.89	0.31
1:B:428:GLY:C	1:B:431:LYS:C[2_355]	1.89	0.31
1:B:428:GLY:O	1:B:430:LEU:N[4_445]	1.89	0.31
1:B:429:GLU:N	1:B:432:LYS:CA[2_355]	1.89	0.31
1:B:454:ASP:CB	1:B:463:PRO:O[2_345]	1.89	0.31
1:A:84:PHE:N	1:A:341:PRO:N[3_365]	1.90	0.30
1:A:96:LYS:O	1:A:377:PHE:CZ[3_365]	1.90	0.30
1:A:105:VAL:CG2	1:A:403:LEU:O[3_365]	1.90	0.30
1:A:106:ARG:CD	1:A:405:PHE:CE2[3_365]	1.90	0.30
1:A:109:SER:CA	1:A:437:VAL:C[3_365]	1.90	0.30
1:A:111:LYS:C	1:A:432:LYS:C[3_365]	1.90	0.30
1:A:111:LYS:O	1:A:433:ALA:CA[3_365]	1.90	0.30
1:A:136:ILE:O	1:A:373:ASN:O[3_365]	1.90	0.30
1:A:137:PHE:CZ	1:A:374:LYS:CG[3_365]	1.90	0.30
1:A:138:PHE:CD1	1:A:376:ALA:CB[3_365]	1.90	0.30
1:A:154:LYS:CE	1:A:304:GLN:CB[2_345]	1.90	0.30
1:A:162:ARG:CD	1:A:268:GLY:CA[4_435]	1.90	0.30
1:A:162:ARG:CD	1:A:269:PHE:N[4_435]	1.90	0.30
1:A:212:TYR:CD2	1:B:263:VAL:CG2[4_435]	1.90	0.30
1:A:220:LYS:CG	1:A:260:PHE:N[4_435]	1.90	0.30
1:A:234:ILE:CG2	1:B:271:ASP:CG[4_435]	1.90	0.30
1:A:258:VAL:CA	1:A:449:ARG:C[3_365]	1.90	0.30
1:A:299:ASP:OD2	5:A:574:HOH:O[2_345]	1.90	0.30
1:A:307:ILE:CG1	1:A:364:THR:CB[3_365]	1.90	0.30
1:A:319:MET:CB	5:A:532:HOH:O[3_365]	1.90	0.30
1:A:320:THR:N	1:A:446:GLN:CB[3_365]	1.90	0.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:322:ASP:OD1	1:A:444:GLU:O[3_365]	1.90	0.30
1:A:329:TYR:CG	1:A:471:GLN:CA[2_345]	1.90	0.30
1:A:454:ASP:CA	1:B:277:LYS:CE[4_435]	1.90	0.30
1:A:458:LYS:N	1:B:273:ASP:OD1[4_435]	1.90	0.30
1:A:461:MET:CA	5:B:573:HOH:O[4_435]	1.90	0.30
1:B:102:LYS:CG	1:B:451:GLU:C[4_445]	1.90	0.30
1:B:141:ARG:NE	1:B:472:HIS:CD2[3_365]	1.90	0.30
1:B:141:ARG:CD	1:B:472:HIS:O[3_365]	1.90	0.30
1:B:342:ALA:N	1:B:363:ASP:CA[4_445]	1.90	0.30
1:B:344:GLN:C	1:B:363:ASP:OD2[4_445]	1.90	0.30
1:B:345:GLY:O	1:B:363:ASP:OD1[4_445]	1.90	0.30
1:B:346:ALA:C	1:B:361:LEU:O[4_445]	1.90	0.30
1:B:347:GLN:CA	1:B:361:LEU:CA[4_445]	1.90	0.30
1:B:347:GLN:N	1:B:360:PHE:O[4_445]	1.90	0.30
1:B:350:MET:CG	1:B:367:GLN:CD[4_445]	1.90	0.30
1:B:359:ILE:CG1	1:B:377:PHE:CG[3_465]	1.90	0.30
1:B:369:LYS:CB	1:B:434:LEU:CD2[3_465]	1.90	0.30
1:B:370:THR:O	1:B:375:HIS:CA[2_355]	1.90	0.30
1:B:387:HIS:CE1	1:B:403:LEU:CA[4_445]	1.90	0.30
1:B:388:ARG:NE	1:B:417:ARG:CB[4_445]	1.90	0.30
1:B:400:PHE:CE2	1:B:440:PRO:CG[4_445]	1.90	0.30
1:B:426:LEU:CA	1:B:436:GLU:OE2[2_355]	1.90	0.30
1:B:428:GLY:C	1:B:430:LEU:CB[4_445]	1.90	0.30
1:B:428:GLY:O	1:B:430:LEU:O[2_355]	1.90	0.30
1:A:86:ASP:O	1:A:358:SER:OG[3_365]	1.91	0.29
1:A:92:THR:OG1	1:A:346:ALA:CA[3_365]	1.91	0.29
1:A:92:THR:O	1:A:347:GLN:OE1[2_245]	1.91	0.29
1:A:100:TYR:CE2	1:A:377:PHE:CB[3_365]	1.91	0.29
1:A:101:ASP:C	1:A:401:MET:N[3_365]	1.91	0.29
1:A:110:SER:N	1:A:437:VAL:N[3_365]	1.91	0.29
1:A:112:ILE:CA	1:A:432:LYS:CB[3_365]	1.91	0.29
1:A:141:ARG:CG	1:A:439:GLN:CB[3_365]	1.91	0.29
1:A:164:PRO:CD	1:A:270:THR:N[4_435]	1.91	0.29
1:A:165:SER:O	5:A:620:HOH:O[4_435]	1.91	0.29
1:A:210:GLN:CD	1:B:256:LYS:CA[4_435]	1.91	0.29
1:A:212:TYR:N	1:B:259:THR:CA[4_435]	1.91	0.29
1:A:212:TYR:OH	1:B:264:LYS:CA[4_435]	1.91	0.29
1:A:214:TYR:N	1:A:278:ILE:CD1[4_435]	1.91	0.29
1:A:215:ALA:O	1:A:260:PHE:CG[4_435]	1.91	0.29
1:A:217:GLU:CB	1:A:278:ILE:CB[4_435]	1.91	0.29
1:A:257:HIS:CG	1:A:450:LYS:CG[3_365]	1.91	0.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:299:ASP:OD2	5:A:601:HOH:O[2_345]	1.91	0.29
1:A:307:ILE:CG2	1:A:367:GLN:CG[3_365]	1.91	0.29
1:A:308:PRO:CA	1:A:366:LYS:O[3_365]	1.91	0.29
1:A:308:PRO:N	1:A:366:LYS:C[3_365]	1.91	0.29
1:A:312:ASP:CA	1:A:358:SER:O[3_365]	1.91	0.29
1:A:336:HIS:N	1:A:369:LYS:C[3_365]	1.91	0.29
1:A:347:GLN:N	1:A:347:GLN:CD[3_365]	1.91	0.29
1:A:355:PRO:N	4:A:502:ATP:O5'[4_435]	1.91	0.29
1:A:458:LYS:CB	5:B:578:HOH:O[4_435]	1.91	0.29
1:B:99:ASP:OD1	1:B:451:GLU:CB[4_445]	1.91	0.29
1:B:99:ASP:CA	1:B:450:LYS:N[4_445]	1.91	0.29
1:B:140:HIS:O	1:B:471:GLN:C[3_365]	1.91	0.29
1:B:141:ARG:CG	1:B:473:HIS:N[3_365]	1.91	0.29
1:B:141:ARG:CZ	1:B:472:HIS:CB[3_365]	1.91	0.29
1:B:340:PHE:CE2	5:B:524:HOH:O[4_445]	1.91	0.29
1:B:341:PRO:CB	1:B:364:THR:N[4_445]	1.91	0.29
1:B:346:ALA:CB	1:B:442:ILE:CG2[4_445]	1.91	0.29
1:B:365:ALA:C	1:B:402:TYR:CE1[3_465]	1.91	0.29
1:B:366:LYS:CD	1:B:377:PHE:CE2[2_355]	1.91	0.29
1:B:369:LYS:O	1:B:431:LYS:NZ[2_355]	1.91	0.29
1:B:369:LYS:CE	1:B:397:ASP:OD1[2_355]	1.91	0.29
1:B:370:THR:C	1:B:374:LYS:CA[4_445]	1.91	0.29
1:B:372:VAL:O	1:B:372:VAL:O[3_465]	1.91	0.29
1:B:373:ASN:CA	1:B:431:LYS:NZ[4_445]	1.91	0.29
1:B:382:ASP:N	1:B:401:MET:O[4_445]	1.91	0.29
1:B:382:ASP:OD1	1:B:405:PHE:CZ[4_445]	1.91	0.29
1:B:387:HIS:CA	1:B:413:LEU:CD2[4_445]	1.91	0.29
1:B:428:GLY:N	1:B:432:LYS:C[2_355]	1.91	0.29
1:A:82:GLU:CD	1:A:398:VAL:CG2[2_245]	1.92	0.28
1:A:100:TYR:CE1	1:A:343:LEU:O[3_365]	1.92	0.28
1:A:105:VAL:CG2	1:A:403:LEU:CA[3_365]	1.92	0.28
1:A:106:ARG:NH1	1:A:340:PHE:CG[3_365]	1.92	0.28
1:A:107:PHE:N	1:A:406:PHE:CE2[3_365]	1.92	0.28
1:A:109:SER:CB	1:A:438:LEU:N[3_365]	1.92	0.28
1:A:109:SER:CA	1:A:437:VAL:CB[3_365]	1.92	0.28
1:A:109:SER:N	1:A:437:VAL:CB[3_365]	1.92	0.28
1:A:111:LYS:CA	1:A:434:LEU:N[3_365]	1.92	0.28
1:A:111:LYS:N	1:A:433:ALA:CB[3_365]	1.92	0.28
1:A:148:ASP:CG	1:A:152:ASN:CG[2_345]	1.92	0.28
1:A:166:SER:CB	1:A:203:TRP:CH2[4_435]	1.92	0.28
1:A:198:ASP:N	1:A:272:SER:CB[4_435]	1.92	0.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:210:GLN:C	1:A:274:CYS:C[4_435]	1.92	0.28
1:A:211:ALA:CA	1:A:273:ASP:O[4_435]	1.92	0.28
1:A:212:TYR:CB	1:B:260:PHE:CA[4_435]	1.92	0.28
1:A:214:TYR:CZ	1:A:277:LYS:CG[4_435]	1.92	0.28
1:A:215:ALA:CA	1:A:260:PHE:CZ[4_435]	1.92	0.28
1:A:220:LYS:N	1:A:261:ASN:N[4_435]	1.92	0.28
1:A:224:ALA:CB	1:A:262:GLN:CG[4_435]	1.92	0.28
1:A:258:VAL:O	5:A:539:HOH:O[3_365]	1.92	0.28
1:A:317:PHE:CZ	1:A:363:ASP:CA[3_365]	1.92	0.28
1:A:337:SER:C	1:A:376:ALA:N[3_365]	1.92	0.28
1:A:338:THR:CB	1:A:375:HIS:C[3_365]	1.92	0.28
1:A:339:PHE:CB	1:A:344:GLN:CG[3_365]	1.92	0.28
1:A:457:VAL:N	1:B:273:ASP:CA[4_435]	1.92	0.28
1:A:461:MET:CG	1:B:271:ASP:CA[4_435]	1.92	0.28
1:B:109:SER:CB	1:B:298:ARG:CD[3_365]	1.92	0.28
1:B:229:ILE:CG2	5:B:572:HOH:O[2_345]	1.92	0.28
1:B:340:PHE:CZ	1:B:366:LYS:CB[4_445]	1.92	0.28
1:B:344:GLN:CG	1:B:371:LYS:CE[4_445]	1.92	0.28
1:B:366:LYS:N	1:B:402:TYR:CE1[3_465]	1.92	0.28
1:B:371:LYS:C	1:B:374:LYS:O[2_355]	1.92	0.28
1:B:373:ASN:CA	1:B:373:ASN:O[4_445]	1.92	0.28
1:B:387:HIS:C	1:B:413:LEU:CD1[4_445]	1.92	0.28
1:B:408:GLU:CA	5:B:580:HOH:O[3_465]	1.92	0.28
1:B:430:LEU:N	1:B:432:LYS:CA[2_355]	1.92	0.28
1:A:84:PHE:N	1:A:340:PHE:O[3_365]	1.93	0.27
1:A:84:PHE:CE2	4:A:502:ATP:C4[3_365]	1.93	0.27
1:A:93:SER:O	5:A:518:HOH:O[2_245]	1.93	0.27
1:A:93:SER:OG	1:A:346:ALA:N[2_245]	1.93	0.27
1:A:107:PHE:CD1	1:A:340:PHE:CZ[3_365]	1.93	0.27
1:A:109:SER:CA	1:A:437:VAL:CA[3_365]	1.93	0.27
1:A:111:LYS:CE	1:A:430:LEU:CA[3_365]	1.93	0.27
1:A:112:ILE:C	1:A:429:GLU:O[3_365]	1.93	0.27
1:A:114:LYS:N	1:A:429:GLU:CB[3_365]	1.93	0.27
1:A:137:PHE:CE1	1:A:374:LYS:CB[3_365]	1.93	0.27
1:A:140:HIS:N	1:A:435:ILE:N[3_365]	1.93	0.27
1:A:141:ARG:NE	1:A:439:GLN:CA[3_365]	1.93	0.27
1:A:165:SER:N	1:A:273:ASP:OD2[4_435]	1.93	0.27
1:A:208:LEU:CA	1:B:262:GLN:NE2[4_435]	1.93	0.27
1:A:212:TYR:CG	1:B:261:ASN:N[4_435]	1.93	0.27
1:A:217:GLU:CG	1:A:278:ILE:CG2[4_435]	1.93	0.27
1:A:220:LYS:CA	1:A:259:THR:CA[4_435]	1.93	0.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:258:VAL:N	1:A:449:ARG:C[3_365]	1.93	0.27
1:A:266:ILE:CD1	1:A:445:HIS:CD2[3_365]	1.93	0.27
1:A:307:ILE:CA	1:A:367:GLN:N[3_365]	1.93	0.27
1:A:327:ILE:CB	1:A:450:LYS:NZ[3_365]	1.93	0.27
1:A:335:LEU:CD2	1:A:369:LYS:CE[3_365]	1.93	0.27
1:A:452:VAL:O	1:B:274:CYS:CB[4_435]	1.93	0.27
1:A:457:VAL:CB	1:B:273:ASP:O[4_435]	1.93	0.27
1:A:461:MET:CB	1:B:271:ASP:N[4_435]	1.93	0.27
1:B:99:ASP:CB	1:B:449:ARG:C[4_445]	1.93	0.27
1:B:105:VAL:C	1:B:295:GLN:O[3_365]	1.93	0.27
1:B:106:ARG:CA	1:B:295:GLN:O[3_365]	1.93	0.27
1:B:110:SER:CA	1:B:471:GLN:CG[3_365]	1.93	0.27
1:B:130:HIS:CB	1:B:390:PHE:CG[3_465]	1.93	0.27
1:B:134:ARG:NE	1:B:386:GLU:O[3_465]	1.93	0.27
1:B:171:VAL:CB	1:B:377:PHE:CE2[3_465]	1.93	0.27
1:B:378:SER:CB	1:B:402:TYR:CG[4_445]	1.93	0.27
1:B:384:ILE:CB	1:B:440:PRO:CB[2_355]	1.93	0.27
1:B:395:ASP:O	1:B:441:LEU:CA[4_445]	1.93	0.27
1:B:395:ASP:CB	1:B:441:LEU:CA[4_445]	1.93	0.27
1:B:397:ASP:OD2	1:B:434:LEU:CD1[4_445]	1.93	0.27
1:B:407:LEU:CB	1:B:420:TYR:O[3_465]	1.93	0.27
1:B:413:LEU:N	1:B:423:GLY:CA[3_465]	1.93	0.27
1:B:413:LEU:C	1:B:423:GLY:O[3_465]	1.93	0.27
1:B:416:ILE:CG1	1:B:424:ALA:O[3_465]	1.93	0.27
1:B:453:THR:CG2	1:B:465:LYS:C[2_345]	1.93	0.27
1:B:455:GLU:N	1:B:464:ARG:CB[2_345]	1.93	0.27
1:A:83:ASP:CG	1:A:341:PRO:CG[3_365]	1.94	0.26
1:A:84:PHE:CZ	1:A:356:ASN:CB[2_245]	1.94	0.26
1:A:84:PHE:CD1	4:A:502:ATP:N6[3_365]	1.94	0.26
1:A:89:THR:O	1:A:351:SER:CA[3_365]	1.94	0.26
1:A:91:GLN:CA	1:A:349:LYS:CA[3_365]	1.94	0.26
1:A:102:LYS:O	1:A:402:TYR:C[3_365]	1.94	0.26
1:A:105:VAL:N	1:A:402:TYR:C[3_365]	1.94	0.26
1:A:137:PHE:N	1:A:373:ASN:C[3_365]	1.94	0.26
1:A:141:ARG:NH2	1:A:438:LEU:C[3_365]	1.94	0.26
1:A:165:SER:O	1:A:277:LYS:CD[4_435]	1.94	0.26
1:A:166:SER:O	1:A:269:PHE:CZ[4_435]	1.94	0.26
1:A:167:GLU:CG	1:A:277:LYS:CA[4_435]	1.94	0.26
1:A:167:GLU:OE2	1:A:276:GLY:C[4_435]	1.94	0.26
1:A:167:GLU:CD	1:A:280:PHE:N[4_435]	1.94	0.26
1:A:207:THR:CG2	1:B:258:VAL:N[4_435]	1.94	0.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:209:ASP:N	1:B:258:VAL:CA[4_435]	1.94	0.26
1:A:213:SER:OG	1:A:275:ILE:CA[4_435]	1.94	0.26
1:A:218:ASN:N	1:A:263:VAL:CG2[4_435]	1.94	0.26
1:A:299:ASP:N	1:A:299:ASP:CA[2_345]	1.94	0.26
1:A:315:PRO:C	1:A:360:PHE:C[3_365]	1.94	0.26
1:A:332:PRO:O	1:A:365:ALA:CB[3_365]	1.94	0.26
1:A:333:ALA:O	1:A:365:ALA:CB[3_365]	1.94	0.26
1:A:333:ALA:O	1:A:365:ALA:CA[3_365]	1.94	0.26
1:A:335:LEU:O	1:A:370:THR:CA[3_365]	1.94	0.26
1:A:336:HIS:ND1	1:A:368:ILE:O[3_365]	1.94	0.26
1:A:339:PHE:CB	1:A:344:GLN:CB[3_365]	1.94	0.26
1:A:347:GLN:C	1:A:347:GLN:CB[3_365]	1.94	0.26
1:A:347:GLN:CA	1:A:347:GLN:CD[3_365]	1.94	0.26
1:B:275:ILE:CD1	5:A:520:HOH:O[3_365]	1.94	0.26
1:B:99:ASP:OD2	1:B:448:ARG:C[4_445]	1.94	0.26
1:B:102:LYS:CA	1:B:451:GLU:O[4_445]	1.94	0.26
1:B:104:ILE:CB	1:B:298:ARG:NH2[3_365]	1.94	0.26
1:B:110:SER:CB	5:B:494:HOH:O[3_365]	1.94	0.26
1:B:317:PHE:CD1	1:B:475:HIS:C[3_365]	1.94	0.26
1:B:375:HIS:ND1	1:B:375:HIS:ND1[3_465]	1.94	0.26
1:B:384:ILE:CG2	1:B:400:PHE:CZ[4_445]	1.94	0.26
1:B:388:ARG:CD	1:B:414:GLU:N[4_445]	1.94	0.26
1:B:397:ASP:CG	1:B:438:LEU:CB[4_445]	1.94	0.26
1:B:399:SER:CB	1:B:427:THR:OG1[3_465]	1.94	0.26
1:B:400:PHE:CB	1:B:436:GLU:C[4_445]	1.94	0.26
1:B:429:GLU:CA	1:B:432:LYS:CB[3_465]	1.94	0.26
1:B:431:LYS:CA	1:B:431:LYS:O[4_445]	1.94	0.26
1:B:432:LYS:C	1:B:432:LYS:CD[4_445]	1.94	0.26
1:B:432:LYS:N	1:B:432:LYS:N[4_445]	1.94	0.26
1:A:82:GLU:OE1	1:A:98:ILE:CA[3_365]	1.95	0.25
1:A:87:PRO:C	1:A:358:SER:OG[3_365]	1.95	0.25
1:A:98:ILE:CG2	1:A:345:GLY:N[3_365]	1.95	0.25
1:A:103:LEU:CG	1:A:402:TYR:CE2[3_365]	1.95	0.25
1:A:108:GLY:O	1:A:437:VAL:CB[3_365]	1.95	0.25
1:A:108:GLY:C	1:A:437:VAL:CB[3_365]	1.95	0.25
1:A:207:THR:CB	1:B:257:HIS:CA[4_435]	1.95	0.25
1:A:209:ASP:CG	1:B:258:VAL:CG1[4_435]	1.95	0.25
1:A:210:GLN:O	1:A:275:ILE:N[4_435]	1.95	0.25
1:A:217:GLU:CB	1:A:278:ILE:O[4_435]	1.95	0.25
1:A:219:ALA:O	1:A:261:ASN:C[4_435]	1.95	0.25
1:A:221:ASP:CA	1:A:262:GLN:CB[4_435]	1.95	0.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:221:ASP:CG	1:A:263:VAL:CG1[4_435]	1.95	0.25
1:A:221:ASP:N	1:A:262:GLN:C[4_435]	1.95	0.25
1:A:255:GLN:O	5:A:539:HOH:O[3_365]	1.95	0.25
1:A:312:ASP:CG	1:A:358:SER:O[3_365]	1.95	0.25
1:A:313:GLN:NE2	1:A:360:PHE:CE1[3_365]	1.95	0.25
1:A:316:TYR:CD1	1:A:360:PHE:CG[3_365]	1.95	0.25
1:A:355:PRO:CB	4:A:502:ATP:C3'[4_435]	1.95	0.25
1:A:461:MET:CB	1:B:270:THR:C[4_435]	1.95	0.25
1:B:109:SER:O	1:B:470:PHE:CB[3_365]	1.95	0.25
1:B:332:PRO:O	1:B:473:HIS:O[3_365]	1.95	0.25
1:B:334:LEU:CD2	1:B:474:HIS:N[3_365]	1.95	0.25
1:B:341:PRO:CG	1:B:364:THR:CA[4_445]	1.95	0.25
1:B:341:PRO:C	1:B:363:ASP:C[4_445]	1.95	0.25
1:B:345:GLY:O	1:B:363:ASP:N[4_445]	1.95	0.25
1:B:369:LYS:NZ	1:B:438:LEU:CB[3_465]	1.95	0.25
1:B:378:SER:N	1:B:402:TYR:CE2[4_445]	1.95	0.25
1:B:381:ARG:NH1	1:B:405:PHE:O[4_445]	1.95	0.25
1:B:389:GLN:N	5:B:535:HOH:O[4_445]	1.95	0.25
1:B:401:MET:CA	1:B:439:GLN:CG[4_445]	1.95	0.25
1:B:403:LEU:CD1	1:B:436:GLU:CG[4_445]	1.95	0.25
1:B:420:TYR:CB	1:B:437:VAL:CG2[4_445]	1.95	0.25
1:B:428:GLY:CA	1:B:430:LEU:CG[4_445]	1.95	0.25
1:B:429:GLU:N	1:B:432:LYS:O[2_355]	1.95	0.25
1:A:86:ASP:C	1:A:170:HIS:ND1[3_365]	1.96	0.24
1:A:88:TRP:CB	1:A:352:ALA:N[3_365]	1.96	0.24
1:A:100:TYR:CZ	1:A:377:PHE:N[3_365]	1.96	0.24
1:A:114:LYS:CB	1:A:429:GLU:OE1[3_365]	1.96	0.24
1:A:114:LYS:CA	1:A:429:GLU:OE2[3_365]	1.96	0.24
1:A:164:PRO:CB	1:A:273:ASP:OD2[4_435]	1.96	0.24
1:A:175:ILE:C	1:A:374:LYS:CE[3_365]	1.96	0.24
1:A:211:ALA:CA	1:A:274:CYS:N[4_435]	1.96	0.24
1:A:212:TYR:CE1	1:B:260:PHE:C[4_435]	1.96	0.24
1:A:213:SER:O	1:A:278:ILE:CB[4_435]	1.96	0.24
1:A:219:ALA:C	1:A:261:ASN:CA[4_435]	1.96	0.24
1:A:221:ASP:C	1:A:262:GLN:N[4_435]	1.96	0.24
1:A:307:ILE:CB	1:A:366:LYS:CA[3_365]	1.96	0.24
1:A:310:ALA:O	1:A:371:LYS:CG[3_365]	1.96	0.24
1:A:313:GLN:O	1:A:360:PHE:O[3_365]	1.96	0.24
1:A:320:THR:N	1:A:446:GLN:NE2[3_365]	1.96	0.24
1:A:322:ASP:OD2	1:A:444:GLU:C[3_365]	1.96	0.24
1:A:335:LEU:CD2	1:A:369:LYS:CD[3_365]	1.96	0.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:336:HIS:CA	1:A:372:VAL:CB[3_365]	1.96	0.24
1:A:337:SER:CB	1:A:374:LYS:N[3_365]	1.96	0.24
1:A:355:PRO:CB	4:A:502:ATP:C5'[4_435]	1.96	0.24
1:A:457:VAL:CG1	1:B:273:ASP:O[4_435]	1.96	0.24
1:B:99:ASP:O	1:B:450:LYS:CB[4_445]	1.96	0.24
1:B:103:LEU:CA	1:B:450:LYS:O[4_445]	1.96	0.24
1:B:307:ILE:CB	1:B:475:HIS:CD2[3_365]	1.96	0.24
1:B:334:LEU:C	1:B:473:HIS:CD2[3_365]	1.96	0.24
1:B:344:GLN:O	1:B:358:SER:O[4_445]	1.96	0.24
1:B:369:LYS:CD	1:B:434:LEU:CG[3_465]	1.96	0.24
1:B:373:ASN:CA	1:B:373:ASN:CA[4_445]	1.96	0.24
1:B:380:GLY:C	1:B:402:TYR:CA[4_445]	1.96	0.24
1:B:384:ILE:CG1	1:B:440:PRO:CD[2_355]	1.96	0.24
1:B:397:ASP:C	1:B:438:LEU:CA[4_445]	1.96	0.24
1:B:401:MET:CA	1:B:439:GLN:CA[4_445]	1.96	0.24
1:B:407:LEU:CD2	1:B:421:THR:C[3_465]	1.96	0.24
1:B:469:ASP:CB	5:B:577:HOH:O[4_435]	1.96	0.24
1:A:82:GLU:CD	1:A:377:PHE:CB[2_245]	1.97	0.23
1:A:83:ASP:CB	1:A:341:PRO:CB[3_365]	1.97	0.23
1:A:83:ASP:O	1:A:340:PHE:CA[3_365]	1.97	0.23
1:A:89:THR:CA	1:A:351:SER:N[3_365]	1.97	0.23
1:A:90:VAL:O	1:A:348:THR:CB[3_365]	1.97	0.23
1:A:91:GLN:N	1:A:348:THR:C[3_365]	1.97	0.23
1:A:92:THR:N	1:A:348:THR:CA[3_365]	1.97	0.23
1:A:95:ALA:O	1:A:97:GLY:O[4_435]	1.97	0.23
1:A:99:ASP:OD2	1:A:394:CYS:O[3_365]	1.97	0.23
1:A:100:TYR:CE2	1:A:377:PHE:CA[3_365]	1.97	0.23
1:A:107:PHE:CA	1:A:406:PHE:CG[3_365]	1.97	0.23
1:A:110:SER:N	1:A:434:LEU:C[3_365]	1.97	0.23
1:A:162:ARG:C	1:A:270:THR:CG2[4_435]	1.97	0.23
1:A:212:TYR:CG	1:B:259:THR:O[4_435]	1.97	0.23
1:A:212:TYR:N	1:B:259:THR:CB[4_435]	1.97	0.23
1:A:213:SER:N	1:B:260:PHE:N[4_435]	1.97	0.23
1:A:222:ILE:CG1	1:A:261:ASN:O[4_435]	1.97	0.23
1:A:234:ILE:CG1	1:A:261:ASN:OD1[4_435]	1.97	0.23
1:A:290:SER:OG	1:A:300:ARG:NE[2_345]	1.97	0.23
1:A:308:PRO:CG	1:A:370:THR:OG1[3_365]	1.97	0.23
1:A:309:CYS:N	1:A:370:THR:CB[3_365]	1.97	0.23
1:A:319:MET:C	1:A:446:GLN:CA[3_365]	1.97	0.23
1:A:326:ARG:CG	5:A:610:HOH:O[3_365]	1.97	0.23
1:A:336:HIS:CA	1:A:368:ILE:O[3_365]	1.97	0.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:339:PHE:CE1	1:A:357:SER:C[3_365]	1.97	0.23
1:B:99:ASP:O	1:B:449:ARG:C[4_445]	1.97	0.23
1:B:99:ASP:O	1:B:451:GLU:N[4_445]	1.97	0.23
1:B:105:VAL:N	1:B:465:LYS:CE[3_365]	1.97	0.23
1:B:133:ARG:N	1:B:390:PHE:CZ[3_465]	1.97	0.23
1:B:343:LEU:O	1:B:371:LYS:CD[4_445]	1.97	0.23
1:B:373:ASN:OD1	1:B:431:LYS:CE[2_355]	1.97	0.23
1:B:380:GLY:CA	1:B:403:LEU:CA[4_445]	1.97	0.23
1:B:396:VAL:CA	1:B:442:ILE:CD1[4_445]	1.97	0.23
1:B:407:LEU:CD1	1:B:420:TYR:O[3_465]	1.97	0.23
1:B:416:ILE:CG1	1:B:425:MET:C[3_465]	1.97	0.23
1:B:428:GLY:C	1:B:431:LYS:O[2_355]	1.97	0.23
1:B:430:LEU:N	1:B:430:LEU:O[4_445]	1.97	0.23
1:A:84:PHE:CA	1:A:340:PHE:CA[3_365]	1.98	0.22
1:A:85:VAL:C	1:A:350:MET:SD[3_365]	1.98	0.22
1:A:92:THR:CB	1:A:346:ALA:N[3_365]	1.98	0.22
1:A:103:LEU:CA	1:A:402:TYR:CD1[3_365]	1.98	0.22
1:A:103:LEU:CD2	1:A:402:TYR:OH[3_365]	1.98	0.22
1:A:106:ARG:CA	1:A:405:PHE:C[3_365]	1.98	0.22
1:A:137:PHE:CD1	1:A:374:LYS:CG[3_365]	1.98	0.22
1:A:137:PHE:CG	1:A:373:ASN:CA[3_365]	1.98	0.22
1:A:138:PHE:O	1:A:431:LYS:N[3_365]	1.98	0.22
1:A:141:ARG:CB	1:A:439:GLN:CD[3_365]	1.98	0.22
1:A:167:GLU:CG	1:A:278:ILE:N[4_435]	1.98	0.22
1:A:197:ASP:O	1:A:272:SER:CA[4_435]	1.98	0.22
1:A:208:LEU:C	1:B:259:THR:CG2[4_435]	1.98	0.22
1:A:212:TYR:CB	1:B:260:PHE:C[4_435]	1.98	0.22
1:A:217:GLU:OE2	1:B:275:ILE:CB[4_435]	1.98	0.22
1:A:220:LYS:NZ	1:B:274:CYS:O[4_435]	1.98	0.22
1:A:239:ASP:OD1	1:B:264:LYS:C[4_435]	1.98	0.22
1:A:289:PHE:CG	1:A:471:GLN:C[2_345]	1.98	0.22
1:A:307:ILE:N	1:A:366:LYS:CG[3_365]	1.98	0.22
1:A:311:ILE:N	1:A:343:LEU:CD1[3_365]	1.98	0.22
1:A:312:ASP:O	1:A:359:ILE:C[3_365]	1.98	0.22
1:A:316:TYR:O	1:A:361:LEU:C[3_365]	1.98	0.22
1:A:319:MET:CA	1:A:446:GLN:CG[3_365]	1.98	0.22
1:A:327:ILE:CB	1:A:469:ASP:OD2[2_345]	1.98	0.22
1:A:327:ILE:N	1:A:469:ASP:OD2[2_345]	1.98	0.22
1:A:334:LEU:CD1	1:A:368:ILE:CB[3_365]	1.98	0.22
1:A:336:HIS:CA	1:A:372:VAL:CA[3_365]	1.98	0.22
1:A:454:ASP:O	1:B:273:ASP:CG[4_435]	1.98	0.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:461:MET:N	1:B:270:THR:CB[4_435]	1.98	0.22
1:B:103:LEU:CD1	1:B:450:LYS:CG[4_445]	1.98	0.22
1:B:107:PHE:O	1:B:298:ARG:CB[3_365]	1.98	0.22
1:B:130:HIS:O	1:B:390:PHE:CG[3_465]	1.98	0.22
1:B:133:ARG:NE	1:B:389:GLN:NE2[3_465]	1.98	0.22
1:B:340:PHE:C	1:B:364:THR:CA[4_445]	1.98	0.22
1:B:343:LEU:CB	1:B:371:LYS:CG[4_445]	1.98	0.22
1:B:343:LEU:C	1:B:371:LYS:CG[4_445]	1.98	0.22
1:B:346:ALA:C	1:B:362:THR:CA[4_445]	1.98	0.22
1:B:367:GLN:N	1:B:402:TYR:CZ[3_465]	1.98	0.22
1:B:370:THR:CA	1:B:376:ALA:C[2_355]	1.98	0.22
1:B:373:ASN:CA	1:B:373:ASN:C[4_445]	1.98	0.22
1:B:384:ILE:CA	1:B:440:PRO:CG[2_355]	1.98	0.22
1:B:395:ASP:CA	1:B:441:LEU:C[4_445]	1.98	0.22
1:B:397:ASP:CA	1:B:438:LEU:CD2[4_445]	1.98	0.22
1:B:397:ASP:C	1:B:438:LEU:C[4_445]	1.98	0.22
1:B:402:TYR:CA	1:B:439:GLN:CD[4_445]	1.98	0.22
1:B:412:LYS:CG	1:B:422:SER:OG[3_465]	1.98	0.22
1:B:427:THR:O	5:B:501:HOH:O[3_465]	1.98	0.22
1:B:432:LYS:NZ	1:B:436:GLU:N[3_465]	1.98	0.22
1:B:440:PRO:N	5:B:567:HOH:O[2_355]	1.98	0.22
1:B:455:GLU:CB	1:B:464:ARG:CD[2_345]	1.98	0.22
1:B:455:GLU:OE2	1:B:464:ARG:C[2_345]	1.98	0.22
1:A:82:GLU:OE2	1:A:398:VAL:CG2[2_245]	1.99	0.21
1:A:82:GLU:C	5:A:547:HOH:O[2_245]	1.99	0.21
1:A:92:THR:C	1:A:347:GLN:CA[3_365]	1.99	0.21
1:A:93:SER:CB	1:A:98:ILE:N[3_365]	1.99	0.21
1:A:93:SER:OG	1:A:345:GLY:C[2_245]	1.99	0.21
1:A:100:TYR:OH	1:A:343:LEU:C[3_365]	1.99	0.21
1:A:101:ASP:CG	1:A:400:PHE:CB[3_365]	1.99	0.21
1:A:105:VAL:C	1:A:402:TYR:O[3_365]	1.99	0.21
1:A:110:SER:C	1:A:433:ALA:CA[3_365]	1.99	0.21
1:A:112:ILE:CG1	1:A:432:LYS:N[3_365]	1.99	0.21
1:A:137:PHE:CE2	1:A:370:THR:CA[3_365]	1.99	0.21
1:A:166:SER:C	1:A:269:PHE:CE1[4_435]	1.99	0.21
1:A:166:SER:OG	1:A:203:TRP:CH2[4_435]	1.99	0.21
1:A:167:GLU:OE1	1:A:279:SER:C[4_435]	1.99	0.21
1:A:197:ASP:CA	1:A:272:SER:OG[4_435]	1.99	0.21
1:A:209:ASP:N	1:B:258:VAL:C[4_435]	1.99	0.21
1:A:209:ASP:C	1:B:258:VAL:CA[4_435]	1.99	0.21
1:A:212:TYR:CD2	1:B:260:PHE:O[4_435]	1.99	0.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:212:TYR:O	1:B:260:PHE:CG[4_435]	1.99	0.21
1:A:239:ASP:OD1	1:B:264:LYS:CB[4_435]	1.99	0.21
1:A:313:GLN:O	1:A:363:ASP:CG[3_365]	1.99	0.21
1:A:314:ASP:N	1:A:359:ILE:CA[3_365]	1.99	0.21
1:A:318:ARG:CG	1:A:441:LEU:CD2[3_365]	1.99	0.21
1:A:321:ARG:N	1:A:446:GLN:OE1[3_365]	1.99	0.21
1:A:327:ILE:CG2	1:A:450:LYS:CE[3_365]	1.99	0.21
1:A:347:GLN:CG	1:A:347:GLN:CG[3_365]	1.99	0.21
1:A:349:LYS:CE	1:A:354:ASP:CG[3_365]	1.99	0.21
1:B:100:TYR:CA	1:B:450:LYS:CB[4_445]	1.99	0.21
1:B:111:LYS:CA	1:B:469:ASP:OD1[3_365]	1.99	0.21
1:B:307:ILE:CG1	1:B:475:HIS:CB[3_365]	1.99	0.21
1:B:307:ILE:CG1	1:B:475:HIS:ND1[3_365]	1.99	0.21
1:B:341:PRO:N	1:B:364:THR:N[4_445]	1.99	0.21
1:B:359:ILE:CA	1:B:377:PHE:CB[3_465]	1.99	0.21
1:B:381:ARG:CB	1:B:404:THR:N[4_445]	1.99	0.21
1:B:392:GLY:N	1:B:407:LEU:C[4_445]	1.99	0.21
1:B:393:ASN:ND2	1:B:441:LEU:CD1[4_445]	1.99	0.21
1:B:399:SER:O	1:B:439:GLN:OE1[4_445]	1.99	0.21
1:B:429:GLU:N	1:B:433:ALA:CA[2_355]	1.99	0.21
1:B:429:GLU:C	1:B:429:GLU:C[3_465]	1.99	0.21
1:B:430:LEU:CD2	1:B:434:LEU:O[4_445]	1.99	0.21
1:B:455:GLU:OE2	1:B:463:PRO:C[2_345]	1.99	0.21
1:A:92:THR:C	1:A:347:GLN:N[3_365]	2.00	0.20
1:A:99:ASP:C	1:A:398:VAL:CA[3_365]	2.00	0.20
1:A:102:LYS:CA	1:A:401:MET:N[3_365]	2.00	0.20
1:A:135:GLY:CA	1:A:427:THR:OG1[3_365]	2.00	0.20
1:A:212:TYR:CE2	1:B:263:VAL:CB[4_435]	2.00	0.20
1:A:212:TYR:N	1:A:273:ASP:O[4_435]	2.00	0.20
1:A:221:ASP:O	1:A:262:GLN:O[4_435]	2.00	0.20
1:A:307:ILE:CG2	1:A:367:GLN:CB[3_365]	2.00	0.20
1:A:307:ILE:CG2	1:A:367:GLN:CA[3_365]	2.00	0.20
1:A:307:ILE:CB	1:A:364:THR:OG1[3_365]	2.00	0.20
1:A:316:TYR:CB	1:A:362:THR:CA[3_365]	2.00	0.20
1:A:317:PHE:CZ	1:A:364:THR:N[3_365]	2.00	0.20
1:A:333:ALA:O	1:A:365:ALA:O[3_365]	2.00	0.20
1:A:354:ASP:OD2	4:A:502:ATP:O1A[4_435]	2.00	0.20
1:A:444:GLU:CD	5:A:617:HOH:O[4_435]	2.00	0.20
1:B:133:ARG:CB	1:B:390:PHE:CE2[3_465]	2.00	0.20
1:B:307:ILE:CD1	1:B:474:HIS:C[3_365]	2.00	0.20
1:B:321:ARG:CD	1:B:472:HIS:NE2[3_365]	2.00	0.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:341:PRO:CB	1:B:364:THR:CA[4_445]	2.00	0.20
1:B:342:ALA:O	1:B:363:ASP:CG[4_445]	2.00	0.20
1:B:359:ILE:CA	1:B:377:PHE:CG[3_465]	2.00	0.20
1:B:373:ASN:N	1:B:373:ASN:O[4_445]	2.00	0.20
1:B:381:ARG:N	1:B:403:LEU:C[4_445]	2.00	0.20
1:B:398:VAL:O	1:B:439:GLN:CG[4_445]	2.00	0.20
1:B:399:SER:C	1:B:435:ILE:O[4_445]	2.00	0.20
1:B:403:LEU:CD2	1:B:420:TYR:CZ[3_465]	2.00	0.20
1:B:407:LEU:CD2	1:B:421:THR:CA[3_465]	2.00	0.20
1:B:413:LEU:N	5:B:538:HOH:O[3_465]	2.00	0.20
1:B:427:THR:C	1:B:432:LYS:O[2_355]	2.00	0.20
1:B:430:LEU:CB	1:B:432:LYS:C[4_445]	2.00	0.20
1:B:430:LEU:CG	1:B:432:LYS:CE[2_355]	2.00	0.20
1:B:455:GLU:CG	1:B:464:ARG:CA[2_345]	2.00	0.20
1:B:458:LYS:CD	1:B:462:THR:OG1[2_345]	2.00	0.20
1:A:83:ASP:CA	1:A:341:PRO:CD[3_365]	2.01	0.19
1:A:93:SER:O	1:A:95:ALA:O[2_245]	2.01	0.19
1:A:98:ILE:CD1	1:A:398:VAL:CG1[3_365]	2.01	0.19
1:A:99:ASP:CA	1:A:401:MET:CE[3_365]	2.01	0.19
1:A:101:ASP:CA	1:A:399:SER:C[3_365]	2.01	0.19
1:A:102:LYS:CA	1:A:400:PHE:C[3_365]	2.01	0.19
1:A:154:LYS:CD	1:A:304:GLN:CG[2_345]	2.01	0.19
1:A:162:ARG:CZ	1:A:268:GLY:CA[4_435]	2.01	0.19
1:A:164:PRO:CB	1:A:270:THR:O[4_435]	2.01	0.19
1:A:169:MET:SD	1:A:263:VAL:C[4_435]	2.01	0.19
1:A:169:MET:CE	1:A:267:PHE:N[4_435]	2.01	0.19
1:A:197:ASP:C	1:A:272:SER:OG[4_435]	2.01	0.19
1:A:197:ASP:CG	1:A:271:ASP:O[4_435]	2.01	0.19
1:A:214:TYR:CD1	1:A:277:LYS:CB[4_435]	2.01	0.19
1:A:219:ALA:O	1:A:261:ASN:CB[4_435]	2.01	0.19
1:A:220:LYS:CB	1:A:260:PHE:N[4_435]	2.01	0.19
1:A:266:ILE:CG2	1:A:361:LEU:CD2[3_365]	2.01	0.19
1:A:316:TYR:CB	1:A:362:THR:C[3_365]	2.01	0.19
1:A:316:TYR:CG	1:A:362:THR:OG1[3_365]	2.01	0.19
1:A:317:PHE:CE1	1:A:367:GLN:OE1[3_365]	2.01	0.19
1:A:318:ARG:CG	1:A:442:ILE:CA[3_365]	2.01	0.19
1:A:321:ARG:N	1:A:443:ALA:CA[3_365]	2.01	0.19
1:A:326:ARG:NH1	1:A:451:GLU:CD[3_365]	2.01	0.19
1:A:328:GLY:N	1:A:469:ASP:OD2[2_345]	2.01	0.19
1:A:333:ALA:C	1:A:365:ALA:CB[3_365]	2.01	0.19
1:A:338:THR:N	1:A:375:HIS:CA[3_365]	2.01	0.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:354:ASP:CA	4:A:502:ATP:O1A[4_435]	2.01	0.19
1:A:355:PRO:CG	4:A:502:ATP:O5'[4_435]	2.01	0.19
1:A:367:GLN:NE2	3:A:501:LTN:CE2[4_435]	2.01	0.19
1:A:456:ILE:C	1:B:272:SER:O[4_435]	2.01	0.19
1:A:471:GLN:CA	5:A:568:HOH:O[2_345]	2.01	0.19
1:B:97:GLY:O	1:B:445:HIS:O[4_445]	2.01	0.19
1:B:103:LEU:CD1	1:B:450:LYS:CE[4_445]	2.01	0.19
1:B:110:SER:OG	1:B:471:GLN:N[3_365]	2.01	0.19
1:B:359:ILE:CD1	1:B:377:PHE:N[3_465]	2.01	0.19
1:B:368:ILE:CB	1:B:398:VAL:C[3_465]	2.01	0.19
1:B:369:LYS:CG	1:B:378:SER:CA[2_355]	2.01	0.19
1:B:394:CYS:C	1:B:441:LEU:N[4_445]	2.01	0.19
1:B:395:ASP:O	1:B:442:ILE:CA[4_445]	2.01	0.19
1:B:401:MET:C	1:B:439:GLN:CD[4_445]	2.01	0.19
1:B:401:MET:CB	1:B:439:GLN:CA[4_445]	2.01	0.19
1:B:409:ASP:C	1:B:422:SER:C[3_465]	2.01	0.19
1:B:412:LYS:CG	1:B:419:ASP:O[3_465]	2.01	0.19
1:B:416:ILE:N	1:B:424:ALA:O[3_465]	2.01	0.19
1:B:425:MET:CE	5:B:490:HOH:O[3_465]	2.01	0.19
1:B:426:LEU:CB	1:B:432:LYS:NZ[3_465]	2.01	0.19
1:B:430:LEU:CD2	1:B:435:ILE:N[4_445]	2.01	0.19
1:B:431:LYS:CB	1:B:431:LYS:CG[4_445]	2.01	0.19
1:A:82:GLU:OE2	1:A:377:PHE:CB[2_245]	2.02	0.18
1:A:82:GLU:CA	1:A:377:PHE:CA[2_245]	2.02	0.18
1:A:84:PHE:CD2	4:A:502:ATP:C6[3_365]	2.02	0.18
1:A:84:PHE:N	1:A:344:GLN:CB[2_245]	2.02	0.18
1:A:88:TRP:CB	1:A:353:SER:N[3_365]	2.02	0.18
1:A:89:THR:CA	1:A:351:SER:OG[3_365]	2.02	0.18
1:A:92:THR:CB	1:A:345:GLY:O[3_365]	2.02	0.18
1:A:93:SER:CB	1:A:345:GLY:CA[2_245]	2.02	0.18
1:A:99:ASP:CA	1:A:401:MET:SD[3_365]	2.02	0.18
1:A:100:TYR:O	1:A:400:PHE:N[3_365]	2.02	0.18
1:A:102:LYS:CA	1:A:401:MET:O[3_365]	2.02	0.18
1:A:102:LYS:CE	5:A:603:HOH:O[3_365]	2.02	0.18
1:A:105:VAL:CG1	1:A:403:LEU:C[3_365]	2.02	0.18
1:A:112:ILE:CD1	1:A:373:ASN:OD1[3_365]	2.02	0.18
1:A:113:ASP:CA	1:A:429:GLU:CG[3_365]	2.02	0.18
1:A:135:GLY:O	1:A:431:LYS:CE[3_365]	2.02	0.18
1:A:144:ASN:C	1:A:152:ASN:OD1[2_345]	2.02	0.18
1:A:159:TYR:C	5:A:585:HOH:O[3_365]	2.02	0.18
1:A:213:SER:CA	1:A:275:ILE:CG2[4_435]	2.02	0.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:214:TYR:CA	1:A:278:ILE:CD1[4_435]	2.02	0.18
1:A:234:ILE:O	1:B:271:ASP:OD2[4_435]	2.02	0.18
1:A:310:ALA:O	1:A:371:LYS:CB[3_365]	2.02	0.18
1:A:322:ASP:CB	1:A:445:HIS:N[3_365]	2.02	0.18
1:A:337:SER:N	1:A:372:VAL:C[3_365]	2.02	0.18
1:A:348:THR:OG1	1:A:348:THR:OG1[3_365]	2.02	0.18
1:A:349:LYS:CA	5:A:531:HOH:O[3_365]	2.02	0.18
1:B:104:ILE:C	1:B:298:ARG:NH2[3_365]	2.02	0.18
1:B:109:SER:N	1:B:470:PHE:O[3_365]	2.02	0.18
1:B:307:ILE:CB	1:B:475:HIS:CG[3_365]	2.02	0.18
1:B:345:GLY:O	1:B:363:ASP:CB[4_445]	2.02	0.18
1:B:347:GLN:O	1:B:362:THR:OG1[4_445]	2.02	0.18
1:B:368:ILE:CG1	1:B:398:VAL:CA[3_465]	2.02	0.18
1:B:381:ARG:C	1:B:404:THR:OG1[4_445]	2.02	0.18
1:B:384:ILE:CG1	1:B:400:PHE:CE2[4_445]	2.02	0.18
1:B:387:HIS:ND1	1:B:403:LEU:O[4_445]	2.02	0.18
1:B:387:HIS:NE2	1:B:403:LEU:CB[4_445]	2.02	0.18
1:B:389:GLN:CA	1:B:410:ASP:OD1[4_445]	2.02	0.18
1:B:397:ASP:O	1:B:438:LEU:CA[4_445]	2.02	0.18
1:B:401:MET:SD	1:B:442:ILE:CB[4_445]	2.02	0.18
1:B:427:THR:OG1	1:B:435:ILE:CD1[2_355]	2.02	0.18
1:B:430:LEU:CA	1:B:432:LYS:O[4_445]	2.02	0.18
1:B:430:LEU:CD2	1:B:433:ALA:C[4_445]	2.02	0.18
1:B:443:ALA:C	5:B:552:HOH:O[3_465]	2.02	0.18
1:A:82:GLU:N	1:A:377:PHE:CA[2_245]	2.03	0.17
1:A:84:PHE:CE1	4:A:502:ATP:C2[3_365]	2.03	0.17
1:A:89:THR:C	1:A:350:MET:C[3_365]	2.03	0.17
1:A:91:GLN:CB	1:A:348:THR:C[3_365]	2.03	0.17
1:A:91:GLN:OE1	5:A:531:HOH:O[2_245]	2.03	0.17
1:A:93:SER:N	1:A:346:ALA:C[3_365]	2.03	0.17
1:A:96:LYS:C	5:A:599:HOH:O[3_365]	2.03	0.17
1:A:106:ARG:O	1:A:406:PHE:CZ[3_365]	2.03	0.17
1:A:110:SER:C	1:A:434:LEU:CA[3_365]	2.03	0.17
1:A:112:ILE:N	1:A:432:LYS:CA[3_365]	2.03	0.17
1:A:135:GLY:C	1:A:431:LYS:NZ[3_365]	2.03	0.17
1:A:139:SER:C	1:A:435:ILE:CB[3_365]	2.03	0.17
1:A:143:MET:SD	1:A:369:LYS:NZ[3_365]	2.03	0.17
1:A:212:TYR:CE2	1:B:260:PHE:O[4_435]	2.03	0.17
1:A:213:SER:O	1:A:278:ILE:CG1[4_435]	2.03	0.17
1:A:220:LYS:C	1:A:262:GLN:N[4_435]	2.03	0.17
1:A:220:LYS:CG	1:A:259:THR:CA[4_435]	2.03	0.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:307:ILE:CB	1:A:366:LYS:C[3_365]	2.03	0.17
1:A:314:ASP:N	1:A:359:ILE:CB[3_365]	2.03	0.17
1:A:315:PRO:O	1:A:361:LEU:C[3_365]	2.03	0.17
1:A:356:ASN:N	4:A:502:ATP:O3'[4_435]	2.03	0.17
1:A:367:GLN:CG	3:A:501:LTN:CH2[4_435]	2.03	0.17
1:B:110:SER:O	1:B:471:GLN:NE2[3_365]	2.03	0.17
1:B:130:HIS:O	1:B:390:PHE:CE1[3_465]	2.03	0.17
1:B:139:SER:C	1:B:471:GLN:NE2[3_365]	2.03	0.17
1:B:318:ARG:N	1:B:474:HIS:CE1[3_365]	2.03	0.17
1:B:343:LEU:CD2	1:B:370:THR:N[4_445]	2.03	0.17
1:B:346:ALA:CA	1:B:363:ASP:N[4_445]	2.03	0.17
1:B:350:MET:CG	1:B:367:GLN:NE2[4_445]	2.03	0.17
1:B:359:ILE:CG1	1:B:377:PHE:N[3_465]	2.03	0.17
1:B:366:LYS:C	1:B:402:TYR:CE2[3_465]	2.03	0.17
1:B:372:VAL:O	1:B:374:LYS:N[2_355]	2.03	0.17
1:B:374:LYS:N	1:B:374:LYS:C[4_445]	2.03	0.17
1:B:400:PHE:O	1:B:439:GLN:OE1[4_445]	2.03	0.17
1:B:425:MET:C	1:B:436:GLU:OE1[2_355]	2.03	0.17
1:B:430:LEU:O	1:B:432:LYS:O[4_445]	2.03	0.17
1:B:454:ASP:CA	1:B:463:PRO:O[2_345]	2.03	0.17
1:B:455:GLU:OE1	1:B:463:PRO:CA[2_345]	2.03	0.17
1:B:455:GLU:N	1:B:464:ARG:N[2_345]	2.03	0.17
1:A:82:GLU:N	5:A:547:HOH:O[2_245]	2.04	0.16
1:A:87:PRO:N	1:A:170:HIS:ND1[3_365]	2.04	0.16
1:A:88:TRP:N	1:A:352:ALA:N[3_365]	2.04	0.16
1:A:100:TYR:CE1	1:A:398:VAL:CG1[3_365]	2.04	0.16
1:A:103:LEU:CA	1:A:402:TYR:CG[3_365]	2.04	0.16
1:A:109:SER:OG	1:A:434:LEU:CD1[3_365]	2.04	0.16
1:A:110:SER:O	1:A:434:LEU:C[3_365]	2.04	0.16
1:A:114:LYS:CB	1:A:429:GLU:OE2[3_365]	2.04	0.16
1:A:114:LYS:N	1:A:429:GLU:OE2[3_365]	2.04	0.16
1:A:138:PHE:CD2	1:A:399:SER:CB[3_365]	2.04	0.16
1:A:141:ARG:N	1:A:439:GLN:OE1[3_365]	2.04	0.16
1:A:148:ASP:OD2	1:A:152:ASN:ND2[2_345]	2.04	0.16
1:A:159:TYR:CD2	1:A:364:THR:CG2[3_365]	2.04	0.16
1:A:167:GLU:N	1:A:277:LYS:O[4_435]	2.04	0.16
1:A:169:MET:CB	1:A:267:PHE:CD1[4_435]	2.04	0.16
1:A:209:ASP:CB	1:B:258:VAL:C[4_435]	2.04	0.16
1:A:210:GLN:CG	1:B:256:LYS:CA[4_435]	2.04	0.16
1:A:224:ALA:CB	1:A:262:GLN:CD[4_435]	2.04	0.16
1:A:238:LEU:CB	1:B:261:ASN:CG[4_435]	2.04	0.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:308:PRO:CB	1:A:370:THR:CB[3_365]	2.04	0.16
1:A:312:ASP:O	1:A:359:ILE:CA[3_365]	2.04	0.16
1:A:316:TYR:CA	1:A:361:LEU:CA[3_365]	2.04	0.16
1:A:317:PHE:CD1	1:A:364:THR:N[3_365]	2.04	0.16
1:A:317:PHE:CD2	1:A:363:ASP:CA[3_365]	2.04	0.16
1:A:322:ASP:CG	1:A:444:GLU:CA[3_365]	2.04	0.16
1:A:338:THR:O	1:A:375:HIS:O[3_365]	2.04	0.16
1:B:108:GLY:CA	1:B:297:PHE:O[3_365]	2.04	0.16
1:B:110:SER:C	1:B:471:GLN:OE1[3_365]	2.04	0.16
1:B:229:ILE:CG1	1:B:459:GLU:OE1[2_345]	2.04	0.16
1:B:345:GLY:CA	1:B:360:PHE:O[4_445]	2.04	0.16
1:B:359:ILE:CD1	1:B:377:PHE:C[3_465]	2.04	0.16
1:B:368:ILE:CA	1:B:398:VAL:CB[3_465]	2.04	0.16
1:B:371:LYS:C	1:B:375:HIS:CA[3_465]	2.04	0.16
1:B:373:ASN:N	1:B:373:ASN:CB[4_445]	2.04	0.16
1:B:379:GLY:CA	1:B:406:PHE:CD1[4_445]	2.04	0.16
1:B:388:ARG:CZ	1:B:413:LEU:O[4_445]	2.04	0.16
1:B:393:ASN:CA	1:B:406:PHE:O[4_445]	2.04	0.16
1:B:412:LYS:O	1:B:423:GLY:O[3_465]	2.04	0.16
1:B:428:GLY:CA	1:B:432:LYS:CG[3_465]	2.04	0.16
1:B:428:GLY:O	1:B:431:LYS:O[2_355]	2.04	0.16
1:A:86:ASP:CA	1:A:170:HIS:CD2[3_365]	2.05	0.15
1:A:91:GLN:O	1:A:348:THR:C[3_365]	2.05	0.15
1:A:92:THR:O	1:A:347:GLN:CD[2_245]	2.05	0.15
1:A:102:LYS:C	1:A:401:MET:CA[3_365]	2.05	0.15
1:A:103:LEU:O	1:A:402:TYR:C[3_365]	2.05	0.15
1:A:104:ILE:N	1:A:402:TYR:C[3_365]	2.05	0.15
1:A:107:PHE:O	1:A:441:LEU:CD1[3_365]	2.05	0.15
1:A:107:PHE:CE2	1:A:171:VAL:CG2[3_365]	2.05	0.15
1:A:111:LYS:CB	1:A:430:LEU:C[3_365]	2.05	0.15
1:A:136:ILE:C	1:A:431:LYS:NZ[3_365]	2.05	0.15
1:A:137:PHE:CD1	1:A:374:LYS:N[3_365]	2.05	0.15
1:A:162:ARG:NE	1:A:268:GLY:CA[4_435]	2.05	0.15
1:A:162:ARG:CD	1:A:268:GLY:O[4_435]	2.05	0.15
1:A:173:HIS:ND1	1:A:267:PHE:O[4_435]	2.05	0.15
1:A:174:LEU:CD2	1:A:266:ILE:CA[4_435]	2.05	0.15
1:A:175:ILE:C	1:A:374:LYS:NZ[3_365]	2.05	0.15
1:A:209:ASP:CB	1:B:258:VAL:CG1[4_435]	2.05	0.15
1:A:214:TYR:CG	1:A:274:CYS:O[4_435]	2.05	0.15
1:A:238:LEU:N	1:B:261:ASN:OD1[4_435]	2.05	0.15
1:A:310:ALA:C	1:A:371:LYS:CG[3_365]	2.05	0.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:314:ASP:CG	1:A:442:ILE:CD1[3_365]	2.05	0.15
1:A:320:THR:OG1	1:A:446:GLN:CD[3_365]	2.05	0.15
1:A:334:LEU:N	1:A:439:GLN:CD[3_365]	2.05	0.15
1:A:336:HIS:N	1:A:368:ILE:O[3_365]	2.05	0.15
1:A:356:ASN:CA	4:A:502:ATP:N9[4_435]	2.05	0.15
1:A:458:LYS:CA	1:B:270:THR:OG1[4_435]	2.05	0.15
1:B:307:ILE:CA	1:B:475:HIS:CE1[3_365]	2.05	0.15
1:B:342:ALA:CA	1:B:367:GLN:CB[4_445]	2.05	0.15
1:B:345:GLY:O	1:B:360:PHE:O[4_445]	2.05	0.15
1:B:345:GLY:N	1:B:363:ASP:CG[4_445]	2.05	0.15
1:B:368:ILE:CG2	1:B:398:VAL:N[3_465]	2.05	0.15
1:B:378:SER:OG	1:B:434:LEU:CD2[4_445]	2.05	0.15
1:B:384:ILE:N	1:B:440:PRO:CG[2_355]	2.05	0.15
1:B:384:ILE:CA	1:B:400:PHE:CD2[4_445]	2.05	0.15
1:B:388:ARG:NE	1:B:417:ARG:N[4_445]	2.05	0.15
1:B:400:PHE:C	1:B:439:GLN:CG[4_445]	2.05	0.15
1:B:402:TYR:O	5:B:537:HOH:O[4_445]	2.05	0.15
1:B:430:LEU:CD2	1:B:434:LEU:CA[4_445]	2.05	0.15
1:B:430:LEU:C	1:B:432:LYS:CG[2_355]	2.05	0.15
1:B:430:LEU:C	1:B:432:LYS:O[4_445]	2.05	0.15
1:B:440:PRO:CB	5:B:567:HOH:O[2_355]	2.05	0.15
1:A:86:ASP:OD2	1:A:170:HIS:CE1[3_365]	2.06	0.14
1:A:86:ASP:CA	1:A:170:HIS:ND1[3_365]	2.06	0.14
1:A:87:PRO:CA	1:A:360:PHE:CE2[3_365]	2.06	0.14
1:A:88:TRP:CB	1:A:352:ALA:O[3_365]	2.06	0.14
1:A:94:SER:CB	1:A:96:LYS:CA[3_365]	2.06	0.14
1:A:98:ILE:O	1:A:396:VAL:O[3_365]	2.06	0.14
1:A:100:TYR:C	1:A:398:VAL:O[3_365]	2.06	0.14
1:A:103:LEU:CD2	1:A:402:TYR:CD1[3_365]	2.06	0.14
1:A:137:PHE:CG	1:A:373:ASN:C[3_365]	2.06	0.14
1:A:173:HIS:CE1	1:A:267:PHE:O[4_435]	2.06	0.14
1:A:221:ASP:O	1:A:262:GLN:C[4_435]	2.06	0.14
1:A:236:SER:C	1:A:271:ASP:OD2[4_435]	2.06	0.14
1:A:259:THR:CA	1:A:452:VAL:CG2[3_365]	2.06	0.14
1:A:266:ILE:CD1	1:A:445:HIS:ND1[3_365]	2.06	0.14
1:A:279:SER:N	5:A:555:HOH:O[3_365]	2.06	0.14
1:A:297:PHE:CB	5:A:558:HOH:O[2_345]	2.06	0.14
1:A:307:ILE:CA	1:A:366:LYS:N[3_365]	2.06	0.14
1:A:312:ASP:CG	1:A:358:SER:C[3_365]	2.06	0.14
1:A:315:PRO:C	1:A:360:PHE:O[3_365]	2.06	0.14
1:A:321:ARG:C	1:A:443:ALA:CA[3_365]	2.06	0.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:336:HIS:CB	1:A:372:VAL:CA[3_365]	2.06	0.14
1:A:349:LYS:CD	1:A:357:SER:CB[3_365]	2.06	0.14
1:B:97:GLY:O	1:B:445:HIS:CE1[4_445]	2.06	0.14
1:B:103:LEU:CD1	1:B:450:LYS:CD[4_445]	2.06	0.14
1:B:133:ARG:C	1:B:390:PHE:CE1[3_465]	2.06	0.14
1:B:171:VAL:CG1	1:B:366:LYS:CE[4_445]	2.06	0.14
1:B:171:VAL:CG1	1:B:377:PHE:CE2[3_465]	2.06	0.14
1:B:347:GLN:CA	1:B:362:THR:N[4_445]	2.06	0.14
1:B:368:ILE:CD1	1:B:398:VAL:CA[3_465]	2.06	0.14
1:B:369:LYS:NZ	1:B:397:ASP:OD1[2_355]	2.06	0.14
1:B:381:ARG:O	1:B:402:TYR:N[4_445]	2.06	0.14
1:B:381:ARG:N	1:B:403:LEU:N[4_445]	2.06	0.14
1:B:395:ASP:N	1:B:441:LEU:N[4_445]	2.06	0.14
1:B:412:LYS:O	1:B:423:GLY:C[3_465]	2.06	0.14
1:B:412:LYS:CB	1:B:424:ALA:N[3_465]	2.06	0.14
1:B:416:ILE:CD1	1:B:436:GLU:OE2[4_445]	2.06	0.14
1:B:454:ASP:O	1:B:462:THR:CG2[2_345]	2.06	0.14
1:A:84:PHE:CE1	4:A:502:ATP:N3[3_365]	2.07	0.13
1:A:87:PRO:CA	1:A:358:SER:OG[3_365]	2.07	0.13
1:A:87:PRO:CG	1:A:360:PHE:CD2[3_365]	2.07	0.13
1:A:90:VAL:CB	1:A:357:SER:OG[3_365]	2.07	0.13
1:A:105:VAL:O	1:A:407:LEU:N[3_365]	2.07	0.13
1:A:109:SER:C	1:A:437:VAL:N[3_365]	2.07	0.13
1:A:137:PHE:CA	1:A:373:ASN:CB[3_365]	2.07	0.13
1:A:140:HIS:CE1	1:A:436:GLU:CG[3_365]	2.07	0.13
1:A:211:ALA:O	1:A:273:ASP:N[4_435]	2.07	0.13
1:A:212:TYR:CB	1:B:261:ASN:N[4_435]	2.07	0.13
1:A:222:ILE:CB	1:A:261:ASN:C[4_435]	2.07	0.13
1:A:223:ILE:N	1:A:261:ASN:CB[4_435]	2.07	0.13
1:A:236:SER:CB	1:A:271:ASP:OD2[4_435]	2.07	0.13
1:A:239:ASP:CG	1:B:264:LYS:CB[4_435]	2.07	0.13
1:A:317:PHE:CB	1:A:363:ASP:C[3_365]	2.07	0.13
1:A:321:ARG:CB	1:A:443:ALA:N[3_365]	2.07	0.13
1:A:329:TYR:CG	1:A:470:PHE:C[2_345]	2.07	0.13
1:A:347:GLN:C	1:A:347:GLN:O[4_435]	2.07	0.13
1:A:349:LYS:CE	1:A:354:ASP:OD1[3_365]	2.07	0.13
1:B:99:ASP:C	1:B:447:ALA:O[4_445]	2.07	0.13
1:B:106:ARG:N	1:B:295:GLN:O[3_365]	2.07	0.13
1:B:350:MET:CG	1:B:367:GLN:OE1[4_445]	2.07	0.13
1:B:399:SER:OG	1:B:435:ILE:CD1[4_445]	2.07	0.13
1:B:430:LEU:CB	1:B:432:LYS:CE[2_355]	2.07	0.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:83:ASP:C	1:A:341:PRO:CA[3_365]	2.08	0.12
1:A:89:THR:C	1:A:351:SER:CB[3_365]	2.08	0.12
1:A:93:SER:CB	1:A:97:GLY:C[3_365]	2.08	0.12
1:A:106:ARG:CA	1:A:405:PHE:CA[3_365]	2.08	0.12
1:A:111:LYS:CG	1:A:430:LEU:CB[3_365]	2.08	0.12
1:A:114:LYS:C	1:A:429:GLU:OE2[3_365]	2.08	0.12
1:A:137:PHE:CE1	1:A:374:LYS:CD[3_365]	2.08	0.12
1:A:137:PHE:CB	1:A:373:ASN:CG[3_365]	2.08	0.12
1:A:137:PHE:CB	1:A:373:ASN:C[3_365]	2.08	0.12
1:A:141:ARG:CD	1:A:439:GLN:CB[3_365]	2.08	0.12
1:A:141:ARG:CA	1:A:439:GLN:CD[3_365]	2.08	0.12
1:A:141:ARG:N	1:A:435:ILE:O[3_365]	2.08	0.12
1:A:167:GLU:CG	1:A:276:GLY:O[4_435]	2.08	0.12
1:A:214:TYR:CE1	1:A:277:LYS:CA[4_435]	2.08	0.12
1:A:216:VAL:C	1:A:260:PHE:CD1[4_435]	2.08	0.12
1:A:216:VAL:CB	1:B:260:PHE:CD1[4_435]	2.08	0.12
1:A:259:THR:CB	1:A:452:VAL:CG2[3_365]	2.08	0.12
1:A:300:ARG:NH2	1:A:303:ILE:N[2_345]	2.08	0.12
1:A:309:CYS:SG	1:A:368:ILE:N[3_365]	2.08	0.12
1:A:317:PHE:CE2	1:A:363:ASP:CA[3_365]	2.08	0.12
1:A:318:ARG:O	1:A:443:ALA:N[3_365]	2.08	0.12
1:A:327:ILE:CG2	1:A:450:LYS:CD[3_365]	2.08	0.12
1:A:329:TYR:CZ	1:A:471:GLN:CB[2_345]	2.08	0.12
1:A:339:PHE:CE1	1:A:357:SER:O[3_365]	2.08	0.12
1:A:457:VAL:CA	1:B:272:SER:O[4_435]	2.08	0.12
1:B:104:ILE:CB	1:B:469:ASP:OD2[3_365]	2.08	0.12
1:B:317:PHE:CE1	1:B:475:HIS:O[3_365]	2.08	0.12
1:B:334:LEU:O	1:B:473:HIS:CB[3_365]	2.08	0.12
1:B:334:LEU:CA	1:B:473:HIS:CA[3_365]	2.08	0.12
1:B:341:PRO:O	1:B:364:THR:CA[4_445]	2.08	0.12
1:B:343:LEU:CD2	1:B:367:GLN:C[4_445]	2.08	0.12
1:B:344:GLN:CB	1:B:371:LYS:CE[4_445]	2.08	0.12
1:B:366:LYS:O	1:B:402:TYR:CE1[3_465]	2.08	0.12
1:B:371:LYS:O	1:B:373:ASN:C[2_355]	2.08	0.12
1:B:372:VAL:CB	1:B:376:ALA:CB[3_465]	2.08	0.12
1:B:373:ASN:O	1:B:376:ALA:CB[4_445]	2.08	0.12
1:B:384:ILE:CD1	1:B:437:VAL:O[2_355]	2.08	0.12
1:B:388:ARG:CA	1:B:413:LEU:CG[4_445]	2.08	0.12
1:B:393:ASN:N	1:B:406:PHE:CA[4_445]	2.08	0.12
1:B:408:GLU:C	1:B:421:THR:O[3_465]	2.08	0.12
1:B:416:ILE:CG1	1:B:425:MET:N[3_465]	2.08	0.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:426:LEU:CB	1:B:436:GLU:CD[2_355]	2.08	0.12
1:B:455:GLU:CB	1:B:464:ARG:CG[2_345]	2.08	0.12
1:A:84:PHE:CG	1:A:344:GLN:OE1[2_245]	2.09	0.11
1:A:84:PHE:CB	1:A:344:GLN:CG[2_245]	2.09	0.11
1:A:86:ASP:CA	1:A:350:MET:CG[3_365]	2.09	0.11
1:A:88:TRP:C	1:A:352:ALA:CA[3_365]	2.09	0.11
1:A:91:GLN:CG	1:A:349:LYS:N[3_365]	2.09	0.11
1:A:92:THR:CB	1:A:347:GLN:OE1[2_245]	2.09	0.11
1:A:94:SER:C	1:A:94:SER:O[3_365]	2.09	0.11
1:A:110:SER:CB	5:A:600:HOH:O[3_365]	2.09	0.11
1:A:111:LYS:CA	1:A:433:ALA:CA[3_365]	2.09	0.11
1:A:148:ASP:CB	1:A:152:ASN:CG[2_345]	2.09	0.11
1:A:167:GLU:O	1:A:281:PRO:CG[4_435]	2.09	0.11
1:A:167:GLU:O	1:A:269:PHE:CZ[4_435]	2.09	0.11
1:A:209:ASP:CG	1:B:258:VAL:CA[4_435]	2.09	0.11
1:A:212:TYR:CD1	1:B:261:ASN:CA[4_435]	2.09	0.11
1:A:214:TYR:CD1	1:A:277:LYS:N[4_435]	2.09	0.11
1:A:214:TYR:CD2	1:A:277:LYS:CD[4_435]	2.09	0.11
1:A:216:VAL:CB	1:B:260:PHE:CE1[4_435]	2.09	0.11
1:A:224:ALA:CA	1:A:262:GLN:CG[4_435]	2.09	0.11
1:A:312:ASP:CB	1:A:358:SER:CB[3_365]	2.09	0.11
1:A:313:GLN:CA	1:A:360:PHE:N[3_365]	2.09	0.11
1:A:313:GLN:N	1:A:358:SER:C[3_365]	2.09	0.11
1:A:313:GLN:N	1:A:359:ILE:N[3_365]	2.09	0.11
1:A:316:TYR:O	1:A:362:THR:CA[3_365]	2.09	0.11
1:A:334:LEU:CD2	1:A:368:ILE:N[3_365]	2.09	0.11
1:A:337:SER:CA	1:A:371:LYS:C[3_365]	2.09	0.11
1:A:355:PRO:CD	4:A:502:ATP:O2A[4_435]	2.09	0.11
1:A:461:MET:CB	5:B:573:HOH:O[4_435]	2.09	0.11
1:B:99:ASP:CA	1:B:449:ARG:C[4_445]	2.09	0.11
1:B:159:TYR:CE2	1:B:475:HIS:O[3_365]	2.09	0.11
1:B:159:TYR:CD2	1:B:475:HIS:CB[3_365]	2.09	0.11
1:B:346:ALA:C	1:B:361:LEU:CA[4_445]	2.09	0.11
1:B:366:LYS:CA	1:B:402:TYR:OH[3_465]	2.09	0.11
1:B:369:LYS:CG	1:B:378:SER:CB[2_355]	2.09	0.11
1:B:371:LYS:N	1:B:374:LYS:CB[4_445]	2.09	0.11
1:B:371:LYS:CB	1:B:374:LYS:O[2_355]	2.09	0.11
1:B:372:VAL:CG2	1:B:376:ALA:CB[3_465]	2.09	0.11
1:B:384:ILE:CG2	1:B:417:ARG:CG[4_445]	2.09	0.11
1:B:391:GLY:C	1:B:407:LEU:CB[4_445]	2.09	0.11
1:B:392:GLY:O	1:B:407:LEU:CA[4_445]	2.09	0.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:394:CYS:O	1:B:437:VAL:O[4_445]	2.09	0.11
1:B:397:ASP:OD2	1:B:434:LEU:O[4_445]	2.09	0.11
1:B:397:ASP:OD2	1:B:438:LEU:CG[4_445]	2.09	0.11
1:B:401:MET:CE	1:B:442:ILE:CB[4_445]	2.09	0.11
1:B:412:LYS:CD	1:B:425:MET:N[3_465]	2.09	0.11
1:B:430:LEU:N	1:B:433:ALA:CA[4_445]	2.09	0.11
1:A:84:PHE:CD1	4:A:502:ATP:C5[3_365]	2.10	0.10
1:A:101:ASP:OD1	1:A:430:LEU:CD2[3_365]	2.10	0.10
1:A:104:ILE:CG1	1:A:434:LEU:CB[3_365]	2.10	0.10
1:A:113:ASP:C	1:A:429:GLU:CA[3_365]	2.10	0.10
1:A:139:SER:CB	1:A:372:VAL:CG1[3_365]	2.10	0.10
1:A:141:ARG:CZ	1:A:439:GLN:N[3_365]	2.10	0.10
1:A:141:ARG:CA	1:A:435:ILE:O[3_365]	2.10	0.10
1:A:159:TYR:CD2	5:A:585:HOH:O[3_365]	2.10	0.10
1:A:163:GLY:N	1:A:270:THR:CG2[4_435]	2.10	0.10
1:A:197:ASP:OD2	1:B:261:ASN:OD1[4_435]	2.10	0.10
1:A:202:LEU:CG	5:A:553:HOH:O[3_365]	2.10	0.10
1:A:210:GLN:O	1:A:273:ASP:O[4_435]	2.10	0.10
1:A:217:GLU:OE1	1:B:275:ILE:CG1[4_435]	2.10	0.10
1:A:221:ASP:N	1:A:262:GLN:CA[4_435]	2.10	0.10
1:A:223:ILE:N	1:A:262:GLN:N[4_435]	2.10	0.10
1:A:300:ARG:N	1:A:300:ARG:CA[2_345]	2.10	0.10
1:A:334:LEU:CB	1:A:365:ALA:O[3_365]	2.10	0.10
1:A:335:LEU:CB	1:A:369:LYS:C[3_365]	2.10	0.10
1:A:336:HIS:C	1:A:372:VAL:CB[3_365]	2.10	0.10
1:A:356:ASN:ND2	4:A:502:ATP:C8[4_435]	2.10	0.10
1:A:449:ARG:NH2	1:B:275:ILE:CG2[4_435]	2.10	0.10
1:A:457:VAL:CG1	1:B:273:ASP:N[4_435]	2.10	0.10
1:B:99:ASP:C	1:B:450:LYS:CA[4_445]	2.10	0.10
1:B:100:TYR:CA	1:B:447:ALA:O[4_445]	2.10	0.10
1:B:108:GLY:C	1:B:297:PHE:O[3_365]	2.10	0.10
1:B:110:SER:CB	1:B:471:GLN:N[3_365]	2.10	0.10
1:B:317:PHE:CB	1:B:474:HIS:CG[3_365]	2.10	0.10
1:B:334:LEU:O	1:B:473:HIS:CE1[3_365]	2.10	0.10
1:B:334:LEU:CD1	1:B:474:HIS:N[3_365]	2.10	0.10
1:B:340:PHE:CD2	1:B:364:THR:CB[4_445]	2.10	0.10
1:B:341:PRO:O	1:B:364:THR:O[4_445]	2.10	0.10
1:B:369:LYS:O	1:B:372:VAL:CA[3_465]	2.10	0.10
1:B:388:ARG:CA	1:B:413:LEU:CD2[4_445]	2.10	0.10
1:B:393:ASN:CB	1:B:406:PHE:CB[4_445]	2.10	0.10
1:B:395:ASP:C	1:B:441:LEU:CG[4_445]	2.10	0.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:408:GLU:O	5:B:521:HOH:O[3_465]	2.10	0.10
1:B:413:LEU:CA	1:B:423:GLY:CA[3_465]	2.10	0.10
1:B:416:ILE:CD1	1:B:436:GLU:OE1[4_445]	2.10	0.10
1:B:426:LEU:C	1:B:436:GLU:OE2[2_355]	2.10	0.10
1:B:428:GLY:CA	1:B:432:LYS:O[2_355]	2.10	0.10
1:B:430:LEU:CD1	1:B:436:GLU:N[4_445]	2.10	0.10
1:B:453:THR:CB	1:B:465:LYS:CA[2_345]	2.10	0.10
1:A:84:PHE:CE2	4:A:502:ATP:C6[3_365]	2.11	0.09
1:A:84:PHE:CG	4:A:502:ATP:N6[3_365]	2.11	0.09
1:A:93:SER:O	1:A:95:ALA:CA[2_245]	2.11	0.09
1:A:93:SER:O	1:A:97:GLY:N[3_365]	2.11	0.09
1:A:98:ILE:CG1	1:A:398:VAL:CB[3_365]	2.11	0.09
1:A:104:ILE:N	1:A:403:LEU:N[3_365]	2.11	0.09
1:A:106:ARG:C	1:A:406:PHE:CE2[3_365]	2.11	0.09
1:A:106:ARG:NH1	1:A:340:PHE:CE1[3_365]	2.11	0.09
1:A:107:PHE:CD1	1:A:406:PHE:CE2[3_365]	2.11	0.09
1:A:141:ARG:C	1:A:439:GLN:CD[3_365]	2.11	0.09
1:A:169:MET:N	1:A:267:PHE:CB[4_435]	2.11	0.09
1:A:212:TYR:CD2	1:B:259:THR:O[4_435]	2.11	0.09
1:A:217:GLU:CB	1:A:278:ILE:CA[4_435]	2.11	0.09
1:A:300:ARG:NH2	1:A:303:ILE:O[2_345]	2.11	0.09
1:A:306:LEU:O	1:A:366:LYS:CD[3_365]	2.11	0.09
1:A:321:ARG:NE	1:A:440:PRO:N[3_365]	2.11	0.09
1:A:321:ARG:O	1:A:443:ALA:O[3_365]	2.11	0.09
1:A:334:LEU:CG	1:A:368:ILE:CB[3_365]	2.11	0.09
1:A:337:SER:OG	1:A:371:LYS:O[3_365]	2.11	0.09
1:A:338:THR:N	1:A:375:HIS:N[3_365]	2.11	0.09
1:A:444:GLU:CG	5:A:613:HOH:O[4_435]	2.11	0.09
1:A:457:VAL:C	1:B:270:THR:OG1[4_435]	2.11	0.09
1:B:97:GLY:CA	1:B:445:HIS:ND1[4_445]	2.11	0.09
1:B:101:ASP:N	1:B:451:GLU:CG[4_445]	2.11	0.09
1:B:140:HIS:O	1:B:472:HIS:N[3_365]	2.11	0.09
1:B:140:HIS:N	1:B:473:HIS:NE2[3_365]	2.11	0.09
1:B:141:ARG:N	1:B:473:HIS:CE1[3_365]	2.11	0.09
1:B:317:PHE:C	1:B:474:HIS:ND1[3_365]	2.11	0.09
1:B:321:ARG:NH1	5:B:519:HOH:O[3_365]	2.11	0.09
1:B:334:LEU:CA	1:B:473:HIS:CG[3_365]	2.11	0.09
1:B:340:PHE:O	1:B:364:THR:CB[4_445]	2.11	0.09
1:B:340:PHE:CE2	1:B:366:LYS:N[4_445]	2.11	0.09
1:B:342:ALA:N	1:B:363:ASP:C[4_445]	2.11	0.09
1:B:343:LEU:CA	1:B:367:GLN:C[4_445]	2.11	0.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:344:GLN:NE2	1:B:371:LYS:CE[4_445]	2.11	0.09
1:B:359:ILE:CG1	1:B:377:PHE:C[3_465]	2.11	0.09
1:B:371:LYS:CA	1:B:375:HIS:O[3_465]	2.11	0.09
1:B:373:ASN:ND2	1:B:431:LYS:CE[2_355]	2.11	0.09
1:B:379:GLY:O	5:B:537:HOH:O[2_355]	2.11	0.09
1:B:381:ARG:NE	1:B:405:PHE:C[4_445]	2.11	0.09
1:B:383:THR:CA	1:B:440:PRO:CA[2_355]	2.11	0.09
1:B:400:PHE:CD1	1:B:436:GLU:CA[4_445]	2.11	0.09
1:B:400:PHE:CE1	1:B:436:GLU:O[4_445]	2.11	0.09
1:B:400:PHE:CD2	1:B:436:GLU:O[4_445]	2.11	0.09
1:B:401:MET:CB	1:B:439:GLN:CB[4_445]	2.11	0.09
1:B:403:LEU:CD2	1:B:420:TYR:CD1[3_465]	2.11	0.09
1:B:416:ILE:CD1	1:B:436:GLU:CD[4_445]	2.11	0.09
1:B:430:LEU:O	1:B:432:LYS:N[4_445]	2.11	0.09
1:B:432:LYS:CG	1:B:434:LEU:N[3_465]	2.11	0.09
1:B:455:GLU:OE1	1:B:463:PRO:C[2_345]	2.11	0.09
1:A:87:PRO:N	1:A:170:HIS:CG[3_365]	2.12	0.08
1:A:87:PRO:CG	1:A:170:HIS:CB[3_365]	2.12	0.08
1:A:92:THR:CG2	1:A:347:GLN:OE1[2_245]	2.12	0.08
1:A:93:SER:O	1:A:347:GLN:NE2[2_245]	2.12	0.08
1:A:99:ASP:CA	1:A:397:ASP:O[3_365]	2.12	0.08
1:A:103:LEU:N	1:A:401:MET:O[3_365]	2.12	0.08
1:A:105:VAL:CG2	1:A:404:THR:N[3_365]	2.12	0.08
1:A:138:PHE:O	1:A:431:LYS:O[3_365]	2.12	0.08
1:A:167:GLU:CA	1:A:277:LYS:C[4_435]	2.12	0.08
1:A:169:MET:CG	1:A:267:PHE:N[4_435]	2.12	0.08
1:A:169:MET:CE	1:A:268:GLY:N[4_435]	2.12	0.08
1:A:195:MET:CG	1:A:271:ASP:OD1[4_435]	2.12	0.08
1:A:209:ASP:CA	1:B:258:VAL:O[4_435]	2.12	0.08
1:A:214:TYR:CB	1:A:273:ASP:CB[4_435]	2.12	0.08
1:A:236:SER:OG	1:B:261:ASN:CG[4_435]	2.12	0.08
1:A:258:VAL:N	5:A:539:HOH:O[3_365]	2.12	0.08
1:A:262:GLN:OE1	1:A:449:ARG:N[3_365]	2.12	0.08
1:A:312:ASP:OD2	1:A:355:PRO:O[3_365]	2.12	0.08
1:A:312:ASP:OD1	1:A:355:PRO:O[3_365]	2.12	0.08
1:A:316:TYR:N	1:A:361:LEU:C[3_365]	2.12	0.08
1:A:317:PHE:O	1:A:442:ILE:CG2[3_365]	2.12	0.08
1:A:318:ARG:CA	1:A:442:ILE:CG1[3_365]	2.12	0.08
1:A:320:THR:CA	1:A:446:GLN:CB[3_365]	2.12	0.08
1:A:321:ARG:NH2	1:A:440:PRO:CA[3_365]	2.12	0.08
1:A:334:LEU:O	1:A:435:ILE:CG2[3_365]	2.12	0.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:335:LEU:O	1:A:369:LYS:CA[3_365]	2.12	0.08
1:A:339:PHE:CB	1:A:344:GLN:CA[3_365]	2.12	0.08
1:A:382:ASP:O	5:A:577:HOH:O[4_435]	2.12	0.08
1:A:449:ARG:NH2	1:B:275:ILE:CD1[4_435]	2.12	0.08
1:A:457:VAL:O	1:B:272:SER:N[4_435]	2.12	0.08
1:B:109:SER:C	1:B:470:PHE:CA[3_365]	2.12	0.08
1:B:109:SER:CA	1:B:470:PHE:C[3_365]	2.12	0.08
1:B:130:HIS:C	1:B:390:PHE:CD2[3_465]	2.12	0.08
1:B:370:THR:O	1:B:374:LYS:C[4_445]	2.12	0.08
1:B:370:THR:O	1:B:372:VAL:N[3_465]	2.12	0.08
1:B:382:ASP:N	1:B:405:PHE:CD1[4_445]	2.12	0.08
1:B:384:ILE:CG2	1:B:400:PHE:CE2[4_445]	2.12	0.08
1:B:384:ILE:N	1:B:440:PRO:N[2_355]	2.12	0.08
1:B:387:HIS:CA	1:B:413:LEU:CD1[4_445]	2.12	0.08
1:B:388:ARG:CA	5:B:535:HOH:O[4_445]	2.12	0.08
1:B:393:ASN:OD1	1:B:441:LEU:CD1[4_445]	2.12	0.08
1:B:400:PHE:CD1	1:B:426:LEU:CD2[3_465]	2.12	0.08
1:B:403:LEU:CD1	1:B:426:LEU:CA[3_465]	2.12	0.08
1:B:416:ILE:CG1	1:B:426:LEU:N[3_465]	2.12	0.08
1:B:426:LEU:CD2	1:B:436:GLU:CB[2_355]	2.12	0.08
1:B:453:THR:OG1	1:B:464:ARG:C[2_345]	2.12	0.08
1:B:455:GLU:N	1:B:464:ARG:CA[2_345]	2.12	0.08
1:A:92:THR:C	1:A:347:GLN:C[3_365]	2.13	0.07
1:A:99:ASP:CG	5:A:603:HOH:O[3_365]	2.13	0.07
1:A:100:TYR:CD2	1:A:398:VAL:CB[3_365]	2.13	0.07
1:A:103:LEU:C	1:A:402:TYR:N[3_365]	2.13	0.07
1:A:103:LEU:N	1:A:401:MET:CA[3_365]	2.13	0.07
1:A:109:SER:C	1:A:437:VAL:CA[3_365]	2.13	0.07
1:A:113:ASP:CA	1:A:429:GLU:C[3_365]	2.13	0.07
1:A:159:TYR:CA	5:A:585:HOH:O[3_365]	2.13	0.07
1:A:164:PRO:CG	1:A:270:THR:CB[4_435]	2.13	0.07
1:A:210:GLN:CA	1:B:258:VAL:O[4_435]	2.13	0.07
1:A:212:TYR:N	1:B:259:THR:C[4_435]	2.13	0.07
1:A:213:SER:CA	1:A:275:ILE:CA[4_435]	2.13	0.07
1:A:218:ASN:OD1	1:A:269:PHE:CD1[4_435]	2.13	0.07
1:A:220:LYS:C	1:A:259:THR:C[4_435]	2.13	0.07
1:A:220:LYS:C	1:A:262:GLN:CB[4_435]	2.13	0.07
1:A:279:SER:O	5:A:555:HOH:O[3_365]	2.13	0.07
1:A:299:ASP:OD1	1:A:299:ASP:OD2[2_345]	2.13	0.07
1:A:335:LEU:CG	1:A:369:LYS:CB[3_365]	2.13	0.07
1:A:335:LEU:C	1:A:369:LYS:N[3_365]	2.13	0.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:337:SER:CA	1:A:372:VAL:C[3_365]	2.13	0.07
1:A:337:SER:OG	1:A:375:HIS:N[3_365]	2.13	0.07
1:A:338:THR:C	1:A:375:HIS:CB[3_365]	2.13	0.07
1:A:356:ASN:O	4:A:502:ATP:N3[4_435]	2.13	0.07
1:A:356:ASN:CB	4:A:502:ATP:C8[4_435]	2.13	0.07
1:B:264:LYS:NZ	5:A:560:HOH:O[3_365]	2.13	0.07
1:B:99:ASP:OD1	1:B:448:ARG:C[4_445]	2.13	0.07
1:B:102:LYS:CD	1:B:452:VAL:CB[4_445]	2.13	0.07
1:B:102:LYS:CD	1:B:452:VAL:N[4_445]	2.13	0.07
1:B:130:HIS:CA	1:B:390:PHE:CE2[3_465]	2.13	0.07
1:B:134:ARG:CD	1:B:390:PHE:CD1[3_465]	2.13	0.07
1:B:134:ARG:NE	1:B:390:PHE:CB[3_465]	2.13	0.07
1:B:341:PRO:CB	1:B:364:THR:C[4_445]	2.13	0.07
1:B:345:GLY:C	1:B:363:ASP:CG[4_445]	2.13	0.07
1:B:348:THR:CA	1:B:362:THR:OG1[4_445]	2.13	0.07
1:B:370:THR:O	1:B:375:HIS:N[2_355]	2.13	0.07
1:B:384:ILE:CA	1:B:400:PHE:CZ[4_445]	2.13	0.07
1:B:395:ASP:CB	5:B:514:HOH:O[4_445]	2.13	0.07
1:B:400:PHE:CG	1:B:440:PRO:CD[4_445]	2.13	0.07
1:B:401:MET:C	1:B:439:GLN:CB[4_445]	2.13	0.07
1:B:426:LEU:O	1:B:432:LYS:O[2_355]	2.13	0.07
1:B:428:GLY:O	1:B:430:LEU:CA[4_445]	2.13	0.07
1:B:455:GLU:CA	1:B:464:ARG:CD[2_345]	2.13	0.07
1:A:90:VAL:N	1:A:349:LYS:O[3_365]	2.14	0.06
1:A:94:SER:O	1:A:94:SER:CB[4_435]	2.14	0.06
1:A:94:SER:O	1:A:347:GLN:NE2[3_365]	2.14	0.06
1:A:103:LEU:C	1:A:402:TYR:CG[3_365]	2.14	0.06
1:A:103:LEU:CB	1:A:402:TYR:CB[3_365]	2.14	0.06
1:A:105:VAL:N	1:A:402:TYR:O[3_365]	2.14	0.06
1:A:111:LYS:C	1:A:432:LYS:N[3_365]	2.14	0.06
1:A:114:LYS:CE	1:A:388:ARG:NH1[3_365]	2.14	0.06
1:A:137:PHE:O	1:A:373:ASN:OD1[3_365]	2.14	0.06
1:A:141:ARG:CG	1:A:435:ILE:O[3_365]	2.14	0.06
1:A:141:ARG:CB	1:A:439:GLN:OE1[3_365]	2.14	0.06
1:A:154:LYS:NZ	1:A:304:GLN:CB[2_345]	2.14	0.06
1:A:155:PRO:CB	5:A:618:HOH:O[2_345]	2.14	0.06
1:A:176:PRO:O	1:A:374:LYS:NZ[3_365]	2.14	0.06
1:A:195:MET:O	1:A:271:ASP:CB[4_435]	2.14	0.06
1:A:206:LEU:CG	5:A:529:HOH:O[4_435]	2.14	0.06
1:A:207:THR:CG2	1:B:257:HIS:O[4_435]	2.14	0.06
1:A:210:GLN:O	1:A:273:ASP:C[4_435]	2.14	0.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:211:ALA:CA	1:A:272:SER:O[4_435]	2.14	0.06
1:A:214:TYR:CE1	1:A:277:LYS:CB[4_435]	2.14	0.06
1:A:220:LYS:CD	1:B:275:ILE:CA[4_435]	2.14	0.06
1:A:221:ASP:OD1	1:A:319:MET:CE[4_435]	2.14	0.06
1:A:235:PHE:C	1:A:271:ASP:OD2[4_435]	2.14	0.06
1:A:257:HIS:CG	1:A:450:LYS:O[3_365]	2.14	0.06
1:A:262:GLN:OE1	1:A:449:ARG:CA[3_365]	2.14	0.06
1:A:281:PRO:O	1:A:362:THR:CG2[3_365]	2.14	0.06
1:A:299:ASP:N	1:A:299:ASP:C[2_345]	2.14	0.06
1:A:312:ASP:CB	1:A:357:SER:C[3_365]	2.14	0.06
1:A:318:ARG:O	1:A:442:ILE:CA[3_365]	2.14	0.06
1:A:326:ARG:NE	1:A:451:GLU:CG[3_365]	2.14	0.06
1:A:333:ALA:C	1:A:439:GLN:NE2[3_365]	2.14	0.06
1:A:333:ALA:CA	1:A:365:ALA:CB[3_365]	2.14	0.06
1:A:334:LEU:N	1:A:365:ALA:O[3_365]	2.14	0.06
1:A:440:PRO:CB	5:A:589:HOH:O[4_435]	2.14	0.06
1:A:457:VAL:O	1:B:270:THR:C[4_435]	2.14	0.06
1:A:461:MET:SD	1:B:270:THR:C[4_435]	2.14	0.06
1:B:99:ASP:OD1	1:B:451:GLU:N[4_445]	2.14	0.06
1:B:109:SER:O	1:B:471:GLN:N[3_365]	2.14	0.06
1:B:133:ARG:C	1:B:390:PHE:CZ[3_465]	2.14	0.06
1:B:171:VAL:CG1	1:B:377:PHE:CE1[3_465]	2.14	0.06
1:B:334:LEU:N	1:B:473:HIS:CA[3_365]	2.14	0.06
1:B:334:LEU:CD1	1:B:474:HIS:CD2[3_365]	2.14	0.06
1:B:342:ALA:CB	1:B:367:GLN:OE1[4_445]	2.14	0.06
1:B:369:LYS:CD	1:B:434:LEU:CD1[3_465]	2.14	0.06
1:B:371:LYS:CG	1:B:375:HIS:O[3_465]	2.14	0.06
1:B:372:VAL:CG2	5:B:479:HOH:O[3_465]	2.14	0.06
1:B:372:VAL:N	1:B:372:VAL:O[3_465]	2.14	0.06
1:B:374:LYS:CA	1:B:376:ALA:N[4_445]	2.14	0.06
1:B:378:SER:OG	1:B:402:TYR:CG[4_445]	2.14	0.06
1:B:383:THR:C	1:B:440:PRO:CA[2_355]	2.14	0.06
1:B:397:ASP:O	1:B:438:LEU:CB[4_445]	2.14	0.06
1:B:398:VAL:N	1:B:438:LEU:CB[4_445]	2.14	0.06
1:B:416:ILE:CG2	1:B:426:LEU:CA[3_465]	2.14	0.06
1:B:426:LEU:CB	1:B:436:GLU:CA[2_355]	2.14	0.06
1:B:428:GLY:C	1:B:430:LEU:O[4_445]	2.14	0.06
1:B:428:GLY:CA	1:B:430:LEU:CA[4_445]	2.14	0.06
1:A:83:ASP:OD1	1:A:377:PHE:CE1[2_245]	2.15	0.05
1:A:84:PHE:O	1:A:349:LYS:C[3_365]	2.15	0.05
1:A:86:ASP:CA	1:A:350:MET:SD[3_365]	2.15	0.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:88:TRP:O	1:A:351:SER:C[3_365]	2.15	0.05
1:A:88:TRP:CA	1:A:351:SER:O[3_365]	2.15	0.05
1:A:88:TRP:C	1:A:352:ALA:C[3_365]	2.15	0.05
1:A:89:THR:N	1:A:351:SER:CB[3_365]	2.15	0.05
1:A:92:THR:CG2	1:A:347:GLN:N[3_365]	2.15	0.05
1:A:92:THR:CB	1:A:346:ALA:O[3_365]	2.15	0.05
1:A:100:TYR:O	1:A:399:SER:N[3_365]	2.15	0.05
1:A:101:ASP:O	1:A:400:PHE:CA[3_365]	2.15	0.05
1:A:103:LEU:CB	1:A:402:TYR:CE1[3_365]	2.15	0.05
1:A:114:LYS:CE	1:A:426:LEU:N[3_365]	2.15	0.05
1:A:141:ARG:CG	1:A:439:GLN:CG[3_365]	2.15	0.05
1:A:141:ARG:CZ	1:A:438:LEU:CB[3_365]	2.15	0.05
1:A:168:ALA:N	1:A:269:PHE:CZ[4_435]	2.15	0.05
1:A:197:ASP:OD2	1:B:261:ASN:ND2[4_435]	2.15	0.05
1:A:215:ALA:CB	1:A:271:ASP:CA[4_435]	2.15	0.05
1:A:216:VAL:O	1:A:260:PHE:CG[4_435]	2.15	0.05
1:A:217:GLU:CG	1:A:278:ILE:C[4_435]	2.15	0.05
1:A:219:ALA:N	1:A:260:PHE:CD1[4_435]	2.15	0.05
1:A:219:ALA:N	1:A:260:PHE:CG[4_435]	2.15	0.05
1:A:220:LYS:O	1:A:262:GLN:N[4_435]	2.15	0.05
1:A:221:ASP:CG	1:A:263:VAL:CB[4_435]	2.15	0.05
1:A:236:SER:CB	1:B:261:ASN:ND2[4_435]	2.15	0.05
1:A:257:HIS:CD2	1:A:450:LYS:CG[3_365]	2.15	0.05
1:A:310:ALA:C	1:A:371:LYS:CD[3_365]	2.15	0.05
1:A:316:TYR:CA	1:A:362:THR:CA[3_365]	2.15	0.05
1:A:336:HIS:N	1:A:369:LYS:CA[3_365]	2.15	0.05
1:A:336:HIS:ND1	1:A:368:ILE:CG2[3_365]	2.15	0.05
1:A:339:PHE:CD2	1:A:342:ALA:C[3_365]	2.15	0.05
1:A:344:GLN:CG	1:A:349:LYS:CB[4_435]	2.15	0.05
1:A:347:GLN:CA	1:A:347:GLN:OE1[3_365]	2.15	0.05
1:A:367:GLN:OE1	3:A:501:LTN:CZ2[4_435]	2.15	0.05
1:B:100:TYR:CD1	1:B:447:ALA:CA[4_445]	2.15	0.05
1:B:107:PHE:O	1:B:299:ASP:N[3_365]	2.15	0.05
1:B:110:SER:CA	1:B:470:PHE:C[3_365]	2.15	0.05
1:B:171:VAL:CG1	1:B:366:LYS:CB[4_445]	2.15	0.05
1:B:342:ALA:CB	1:B:367:GLN:CD[4_445]	2.15	0.05
1:B:348:THR:O	1:B:362:THR:CB[4_445]	2.15	0.05
1:B:369:LYS:CB	1:B:378:SER:OG[2_355]	2.15	0.05
1:B:371:LYS:C	1:B:376:ALA:CA[3_465]	2.15	0.05
1:B:381:ARG:CA	1:B:404:THR:OG1[4_445]	2.15	0.05
1:B:384:ILE:CB	1:B:400:PHE:CD2[4_445]	2.15	0.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:387:HIS:ND1	1:B:404:THR:N[4_445]	2.15	0.05
1:B:394:CYS:CB	1:B:437:VAL:O[4_445]	2.15	0.05
1:B:397:ASP:OD2	1:B:434:LEU:CG[4_445]	2.15	0.05
1:B:400:PHE:CB	1:B:436:GLU:O[4_445]	2.15	0.05
1:B:420:TYR:CD2	1:B:437:VAL:CG1[4_445]	2.15	0.05
1:B:425:MET:CE	1:B:429:GLU:CD[3_465]	2.15	0.05
1:B:427:THR:CB	1:B:434:LEU:CB[4_445]	2.15	0.05
1:B:430:LEU:CB	1:B:433:ALA:O[4_445]	2.15	0.05
1:B:430:LEU:CG	1:B:435:ILE:N[4_445]	2.15	0.05
1:B:455:GLU:CD	5:B:563:HOH:O[2_345]	2.15	0.05
1:B:456:ILE:N	1:B:464:ARG:CB[2_345]	2.15	0.05
1:B:458:LYS:CA	1:B:462:THR:OG1[2_345]	2.15	0.05
1:A:87:PRO:C	1:A:360:PHE:CZ[3_365]	2.16	0.04
1:A:89:THR:CA	1:A:351:SER:O[3_365]	2.16	0.04
1:A:90:VAL:N	1:A:351:SER:N[3_365]	2.16	0.04
1:A:98:ILE:N	1:A:345:GLY:CA[3_365]	2.16	0.04
1:A:98:ILE:CB	1:A:398:VAL:CG2[3_365]	2.16	0.04
1:A:103:LEU:CD2	1:A:402:TYR:CD2[3_365]	2.16	0.04
1:A:106:ARG:O	1:A:406:PHE:CE2[3_365]	2.16	0.04
1:A:108:GLY:C	1:A:437:VAL:C[3_365]	2.16	0.04
1:A:109:SER:OG	1:A:434:LEU:CG[3_365]	2.16	0.04
1:A:110:SER:O	1:A:432:LYS:O[3_365]	2.16	0.04
1:A:111:LYS:N	1:A:433:ALA:N[3_365]	2.16	0.04
1:A:114:LYS:CD	5:A:536:HOH:O[3_365]	2.16	0.04
1:A:141:ARG:NE	1:A:438:LEU:CA[3_365]	2.16	0.04
1:A:167:GLU:O	1:A:269:PHE:CE2[4_435]	2.16	0.04
1:A:167:GLU:OE1	1:A:276:GLY:O[4_435]	2.16	0.04
1:A:167:GLU:CD	1:A:276:GLY:C[4_435]	2.16	0.04
1:A:167:GLU:OE1	1:A:279:SER:OG[4_435]	2.16	0.04
1:A:169:MET:CA	1:A:267:PHE:CA[4_435]	2.16	0.04
1:A:209:ASP:O	1:B:259:THR:N[4_435]	2.16	0.04
1:A:220:LYS:CE	1:B:274:CYS:CA[4_435]	2.16	0.04
1:A:222:ILE:CG1	1:A:265:GLY:N[4_435]	2.16	0.04
1:A:223:ILE:CB	1:A:259:THR:OG1[4_435]	2.16	0.04
1:A:234:ILE:CB	1:B:271:ASP:CG[4_435]	2.16	0.04
1:A:258:VAL:CG2	1:A:449:ARG:CG[3_365]	2.16	0.04
1:A:299:ASP:CA	1:A:299:ASP:CB[2_345]	2.16	0.04
1:A:309:CYS:O	1:A:371:LYS:C[3_365]	2.16	0.04
1:A:317:PHE:O	5:A:527:HOH:O[3_365]	2.16	0.04
1:A:326:ARG:CZ	1:A:451:GLU:CB[3_365]	2.16	0.04
1:A:337:SER:C	1:A:375:HIS:N[3_365]	2.16	0.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:355:PRO:N	4:A:502:ATP:C5'[4_435]	2.16	0.04
1:A:355:PRO:CD	4:A:502:ATP:PA[4_435]	2.16	0.04
1:A:461:MET:SD	1:B:260:PHE:CZ[4_435]	2.16	0.04
1:A:471:GLN:N	5:A:568:HOH:O[2_345]	2.16	0.04
1:B:99:ASP:N	1:B:449:ARG:C[4_445]	2.16	0.04
1:B:321:ARG:CZ	1:B:472:HIS:ND1[3_365]	2.16	0.04
1:B:371:LYS:CB	1:B:376:ALA:N[3_465]	2.16	0.04
1:B:371:LYS:O	1:B:374:LYS:CB[2_355]	2.16	0.04
1:B:372:VAL:C	1:B:374:LYS:N[2_355]	2.16	0.04
1:B:380:GLY:N	1:B:402:TYR:O[4_445]	2.16	0.04
1:B:388:ARG:NH2	1:B:416:ILE:O[4_445]	2.16	0.04
1:B:390:PHE:O	1:B:407:LEU:O[4_445]	2.16	0.04
1:B:395:ASP:C	1:B:441:LEU:O[4_445]	2.16	0.04
1:B:399:SER:O	1:B:439:GLN:CD[4_445]	2.16	0.04
1:B:402:TYR:N	1:B:439:GLN:OE1[4_445]	2.16	0.04
1:B:407:LEU:C	1:B:421:THR:O[3_465]	2.16	0.04
1:B:409:ASP:O	1:B:423:GLY:N[3_465]	2.16	0.04
1:B:416:ILE:CG2	5:B:490:HOH:O[3_465]	2.16	0.04
1:B:420:TYR:CE2	1:B:437:VAL:CG1[4_445]	2.16	0.04
1:B:420:TYR:CE2	1:B:437:VAL:CG2[4_445]	2.16	0.04
1:B:427:THR:O	1:B:431:LYS:CA[4_445]	2.16	0.04
1:B:428:GLY:O	1:B:431:LYS:CA[2_355]	2.16	0.04
1:B:431:LYS:CD	1:B:435:ILE:CD1[2_355]	2.16	0.04
1:A:90:VAL:CG1	1:A:342:ALA:CA[3_365]	2.17	0.03
1:A:92:THR:OG1	1:A:345:GLY:C[3_365]	2.17	0.03
1:A:98:ILE:O	1:A:398:VAL:N[3_365]	2.17	0.03
1:A:99:ASP:O	1:A:401:MET:CG[3_365]	2.17	0.03
1:A:104:ILE:C	1:A:403:LEU:N[3_365]	2.17	0.03
1:A:106:ARG:C	1:A:406:PHE:CD1[3_365]	2.17	0.03
1:A:107:PHE:C	1:A:406:PHE:CG[3_365]	2.17	0.03
1:A:109:SER:N	1:A:438:LEU:N[3_365]	2.17	0.03
1:A:110:SER:O	1:A:434:LEU:CA[3_365]	2.17	0.03
1:A:111:LYS:N	1:A:433:ALA:O[3_365]	2.17	0.03
1:A:138:PHE:CD1	1:A:372:VAL:O[3_365]	2.17	0.03
1:A:138:PHE:CG	1:A:431:LYS:CD[3_365]	2.17	0.03
1:A:165:SER:N	5:A:620:HOH:O[4_435]	2.17	0.03
1:A:179:PHE:CD2	5:A:572:HOH:O[3_365]	2.17	0.03
1:A:218:ASN:CB	1:A:269:PHE:CB[4_435]	2.17	0.03
1:A:257:HIS:O	1:A:450:LYS:C[3_365]	2.17	0.03
1:A:313:GLN:CD	5:A:543:HOH:O[3_365]	2.17	0.03
1:A:321:ARG:CD	1:A:439:GLN:C[3_365]	2.17	0.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:336:HIS:CE1	1:A:368:ILE:CB[3_365]	2.17	0.03
1:A:336:HIS:O	1:A:372:VAL:O[3_365]	2.17	0.03
1:A:336:HIS:C	1:A:371:LYS:C[3_365]	2.17	0.03
1:A:336:HIS:CD2	1:A:372:VAL:CG2[3_365]	2.17	0.03
1:A:337:SER:CB	1:A:374:LYS:CA[3_365]	2.17	0.03
1:A:356:ASN:ND2	4:A:502:ATP:N9[4_435]	2.17	0.03
1:A:356:ASN:CG	4:A:502:ATP:C1'[4_435]	2.17	0.03
1:A:457:VAL:CG2	1:B:273:ASP:N[4_435]	2.17	0.03
1:B:109:SER:C	1:B:471:GLN:CA[3_365]	2.17	0.03
1:B:110:SER:N	1:B:471:GLN:CB[3_365]	2.17	0.03
1:B:140:HIS:CA	1:B:473:HIS:ND1[3_365]	2.17	0.03
1:B:345:GLY:C	1:B:360:PHE:C[4_445]	2.17	0.03
1:B:346:ALA:CA	1:B:360:PHE:O[4_445]	2.17	0.03
1:B:370:THR:O	1:B:374:LYS:CB[4_445]	2.17	0.03
1:B:371:LYS:CA	1:B:375:HIS:CA[3_465]	2.17	0.03
1:B:372:VAL:N	1:B:374:LYS:N[4_445]	2.17	0.03
1:B:379:GLY:N	1:B:438:LEU:CD2[4_445]	2.17	0.03
1:B:383:THR:CG2	1:B:443:ALA:CA[2_355]	2.17	0.03
1:B:392:GLY:C	1:B:407:LEU:CA[4_445]	2.17	0.03
1:B:400:PHE:C	1:B:439:GLN:OE1[4_445]	2.17	0.03
1:B:401:MET:C	1:B:439:GLN:CG[4_445]	2.17	0.03
1:B:426:LEU:CA	1:B:436:GLU:OE1[2_355]	2.17	0.03
1:B:428:GLY:O	1:B:432:LYS:CG[3_465]	2.17	0.03
1:B:430:LEU:CD1	1:B:436:GLU:CB[4_445]	2.17	0.03
1:A:88:TRP:CA	1:A:351:SER:C[3_365]	2.18	0.02
1:A:93:SER:OG	5:A:518:HOH:O[2_245]	2.18	0.02
1:A:93:SER:CB	1:A:346:ALA:CA[2_245]	2.18	0.02
1:A:112:ILE:O	1:A:430:LEU:N[3_365]	2.18	0.02
1:A:162:ARG:NH1	1:A:267:PHE:O[4_435]	2.18	0.02
1:A:197:ASP:CG	1:B:261:ASN:CG[4_435]	2.18	0.02
1:A:221:ASP:N	1:A:262:GLN:N[4_435]	2.18	0.02
1:A:258:VAL:CG2	5:A:524:HOH:O[3_365]	2.18	0.02
1:A:314:ASP:C	1:A:442:ILE:CD1[3_365]	2.18	0.02
1:A:316:TYR:CA	1:A:360:PHE:O[3_365]	2.18	0.02
1:A:316:TYR:CG	1:A:360:PHE:CB[3_365]	2.18	0.02
1:A:316:TYR:C	1:A:362:THR:CA[3_365]	2.18	0.02
1:A:322:ASP:OD2	1:A:448:ARG:CG[3_365]	2.18	0.02
1:A:329:TYR:CE1	1:A:470:PHE:C[2_345]	2.18	0.02
1:A:337:SER:CB	1:A:371:LYS:O[3_365]	2.18	0.02
1:A:339:PHE:N	1:A:375:HIS:C[3_365]	2.18	0.02
1:A:454:ASP:OD1	1:B:277:LYS:CB[4_435]	2.18	0.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:460:PHE:CB	1:B:272:SER:CB[4_435]	2.18	0.02
1:B:99:ASP:CG	1:B:448:ARG:CA[4_445]	2.18	0.02
1:B:342:ALA:CA	1:B:367:GLN:CG[4_445]	2.18	0.02
1:B:343:LEU:C	1:B:371:LYS:CE[4_445]	2.18	0.02
1:B:344:GLN:C	1:B:371:LYS:NZ[4_445]	2.18	0.02
1:B:347:GLN:CA	1:B:361:LEU:C[4_445]	2.18	0.02
1:B:366:LYS:N	1:B:402:TYR:CD1[3_465]	2.18	0.02
1:B:369:LYS:CE	5:B:479:HOH:O[2_355]	2.18	0.02
1:B:382:ASP:N	1:B:404:THR:OG1[4_445]	2.18	0.02
1:B:410:ASP:C	5:B:538:HOH:O[3_465]	2.18	0.02
1:B:412:LYS:C	1:B:423:GLY:O[3_465]	2.18	0.02
1:B:427:THR:O	1:B:430:LEU:C[4_445]	2.18	0.02
1:B:430:LEU:CB	1:B:432:LYS:O[4_445]	2.18	0.02
1:B:459:GLU:CD	1:B:459:GLU:CD[2_345]	2.18	0.02
1:A:83:ASP:N	1:A:339:PHE:O[3_365]	2.19	0.01
1:A:83:ASP:OD1	1:A:377:PHE:CD1[2_245]	2.19	0.01
1:A:100:TYR:CG	1:A:398:VAL:CA[3_365]	2.19	0.01
1:A:102:LYS:N	1:A:400:PHE:CA[3_365]	2.19	0.01
1:A:102:LYS:C	1:A:402:TYR:CA[3_365]	2.19	0.01
1:A:103:LEU:O	1:A:402:TYR:O[3_365]	2.19	0.01
1:A:104:ILE:CB	1:A:434:LEU:CD1[3_365]	2.19	0.01
1:A:106:ARG:CD	1:A:405:PHE:CB[3_365]	2.19	0.01
1:A:111:LYS:CB	1:A:433:ALA:CB[3_365]	2.19	0.01
1:A:114:LYS:CG	1:A:429:GLU:CD[3_365]	2.19	0.01
1:A:138:PHE:CG	1:A:431:LYS:CE[3_365]	2.19	0.01
1:A:164:PRO:N	1:A:270:THR:CG2[4_435]	2.19	0.01
1:A:167:GLU:N	1:A:277:LYS:C[4_435]	2.19	0.01
1:A:209:ASP:CA	1:B:258:VAL:CB[4_435]	2.19	0.01
1:A:211:ALA:CB	1:A:272:SER:C[4_435]	2.19	0.01
1:A:218:ASN:C	1:A:263:VAL:CG2[4_435]	2.19	0.01
1:A:220:LYS:CB	1:A:259:THR:N[4_435]	2.19	0.01
1:A:220:LYS:O	1:A:262:GLN:CA[4_435]	2.19	0.01
1:A:223:ILE:N	1:A:261:ASN:C[4_435]	2.19	0.01
1:A:278:ILE:O	5:A:555:HOH:O[3_365]	2.19	0.01
1:A:281:PRO:CG	5:A:542:HOH:O[3_365]	2.19	0.01
1:A:289:PHE:CE1	1:A:471:GLN:O[2_345]	2.19	0.01
1:A:316:TYR:CA	1:A:361:LEU:N[3_365]	2.19	0.01
1:A:317:PHE:CE1	1:A:363:ASP:C[3_365]	2.19	0.01
1:A:319:MET:C	1:A:446:GLN:N[3_365]	2.19	0.01
1:A:333:ALA:C	1:A:365:ALA:C[3_365]	2.19	0.01
1:A:334:LEU:CD2	1:A:365:ALA:O[3_365]	2.19	0.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:336:HIS:O	1:A:372:VAL:CB[3_365]	2.19	0.01
1:A:458:LYS:C	1:B:270:THR:CG2[4_435]	2.19	0.01
1:B:97:GLY:N	1:B:445:HIS:CG[4_445]	2.19	0.01
1:B:102:LYS:CB	1:B:452:VAL:CA[4_445]	2.19	0.01
1:B:134:ARG:N	1:B:390:PHE:CZ[3_465]	2.19	0.01
1:B:134:ARG:NE	1:B:389:GLN:C[3_465]	2.19	0.01
1:B:307:ILE:CB	1:B:474:HIS:O[3_365]	2.19	0.01
1:B:344:GLN:C	1:B:360:PHE:N[4_445]	2.19	0.01
1:B:369:LYS:CD	1:B:434:LEU:CD2[3_465]	2.19	0.01
1:B:387:HIS:O	1:B:413:LEU:CD1[4_445]	2.19	0.01
1:B:388:ARG:CZ	1:B:416:ILE:C[4_445]	2.19	0.01
1:B:399:SER:CA	1:B:435:ILE:CB[4_445]	2.19	0.01
1:B:414:GLU:N	5:B:538:HOH:O[3_465]	2.19	0.01
1:B:415:GLN:CD	5:B:536:HOH:O[3_465]	2.19	0.01
1:B:428:GLY:N	1:B:430:LEU:C[4_445]	2.19	0.01
1:B:428:GLY:O	1:B:433:ALA:N[2_355]	2.19	0.01
1:B:429:GLU:O	1:B:432:LYS:CB[4_445]	2.19	0.01

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	388/477 (81%)	366 (94%)	18 (5%)	4 (1%)	15 23
1	B	377/477 (79%)	359 (95%)	16 (4%)	2 (0%)	29 41
All	All	765/954 (80%)	725 (95%)	34 (4%)	6 (1%)	19 29

All (6) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	467	SER
1	B	351	SER
1	A	298	ARG

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Mol	Chain	Res	Type
1	A	353	SER
1	B	350	MET
1	A	299	ASP

5.3.2 Protein sidechains [\(i\)](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	340/416 (82%)	323 (95%)	17 (5%)	24 40
1	B	331/416 (80%)	306 (92%)	25 (8%)	13 20
All	All	671/832 (81%)	629 (94%)	42 (6%)	18 28

All (42) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	98	ILE
1	A	144	ASN
1	A	159	TYR
1	A	202	LEU
1	A	203	TRP
1	A	207	THR
1	A	232	THR
1	A	236	SER
1	A	239	ASP
1	A	291	ASN
1	A	295	GLN
1	A	311	ILE
1	A	322	ASP
1	A	344	GLN
1	A	393	ASN
1	A	427	THR
1	A	430	LEU
1	B	114	LYS
1	B	148	ASP
1	B	171	VAL

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Mol	Chain	Res	Type
1	B	186	VAL
1	B	188	ASN
1	B	192	VAL
1	B	202	LEU
1	B	203	TRP
1	B	232	THR
1	B	236	SER
1	B	239	ASP
1	B	291	ASN
1	B	295	GLN
1	B	296	ILE
1	B	301	THR
1	B	311	ILE
1	B	344	GLN
1	B	348	THR
1	B	354	ASP
1	B	393	ASN
1	B	407	LEU
1	B	427	THR
1	B	444	GLU
1	B	464	ARG
1	B	474	HIS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (30) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	140	HIS
1	A	257	HIS
1	A	262	GLN
1	A	291	ASN
1	A	295	GLN
1	A	336	HIS
1	A	344	GLN
1	A	347	GLN
1	A	393	ASN
1	A	445	HIS
1	B	129	HIS
1	B	140	HIS
1	B	145	GLN
1	B	170	HIS
1	B	188	ASN
1	B	255	GLN

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Mol	Chain	Res	Type
1	B	257	HIS
1	B	261	ASN
1	B	262	GLN
1	B	291	ASN
1	B	295	GLN
1	B	304	GLN
1	B	336	HIS
1	B	344	GLN
1	B	356	ASN
1	B	373	ASN
1	B	393	ASN
1	B	445	HIS
1	B	471	GLN
1	B	474	HIS

5.3.3 RNA [\(i\)](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [\(i\)](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [\(i\)](#)

Of 4 ligands modelled in this entry, 1 is monoatomic - leaving 3 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	LTN	A	501	-	15,16,16	2.88	8 (53%)	17,22,22	1.54	4 (23%)
4	ATP	A	502	-	26,33,33	0.96	1 (3%)	31,52,52	1.59	5 (16%)
3	LTN	B	478	-	15,16,16	2.95	8 (53%)	17,22,22	1.58	4 (23%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	LTN	A	501	-	-	2/7/8/8	0/2/2/2
4	ATP	A	502	-	-	0/18/38/38	0/3/3/3
3	LTN	B	478	-	-	2/7/8/8	0/2/2/2

All (17) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	478	LTN	O-C	7.98	1.38	1.23
3	A	501	LTN	O-C	7.81	1.38	1.23
3	B	478	LTN	C-N	-4.30	1.22	1.32
3	A	501	LTN	C-N	-4.26	1.22	1.32
3	B	478	LTN	CH2-CZ2	3.88	1.45	1.36
3	A	501	LTN	CH2-CZ2	3.71	1.45	1.36
3	B	478	LTN	CZ3-CE3	3.23	1.44	1.36
3	A	501	LTN	CZ3-CE3	3.05	1.43	1.36
3	A	501	LTN	CH2-CZ3	2.69	1.45	1.38
3	B	478	LTN	CH2-CZ3	2.64	1.45	1.38
4	A	502	ATP	O4'-C1'	2.29	1.44	1.41
3	B	478	LTN	CZ2-CE2	2.23	1.45	1.41
3	A	501	LTN	CE2-NE1	-2.20	1.31	1.38
3	A	501	LTN	CZ2-CE2	2.17	1.45	1.41
3	B	478	LTN	CD1-NE1	-2.14	1.32	1.36
3	B	478	LTN	CE2-NE1	-2.04	1.32	1.38
3	A	501	LTN	CD1-NE1	-2.02	1.32	1.36

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	502	ATP	N3-C2-N1	-4.45	121.72	128.68
4	A	502	ATP	PA-O3A-PB	-3.80	119.79	132.83
4	A	502	ATP	PB-O3B-PG	-3.52	120.74	132.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	B	478	LTN	CB-CG-CD1	-3.35	123.82	127.97
3	B	478	LTN	O-C-N	-3.15	117.53	123.00
3	A	501	LTN	O-C-N	-3.09	117.63	123.00
3	A	501	LTN	CA-C-N	2.92	121.69	116.68
4	A	502	ATP	C3'-C2'-C1'	-2.81	96.74	100.98
3	A	501	LTN	CB-CG-CD1	-2.81	124.49	127.97
3	B	478	LTN	CA-C-N	2.77	121.44	116.68
4	A	502	ATP	O4'-C1'-C2'	-2.43	103.38	106.93
3	A	501	LTN	CE3-CD2-CE2	2.31	121.23	118.17
3	B	478	LTN	CE3-CD2-CE2	2.28	121.20	118.17

There are no chirality outliers.

All (4) torsion outliers are listed below:

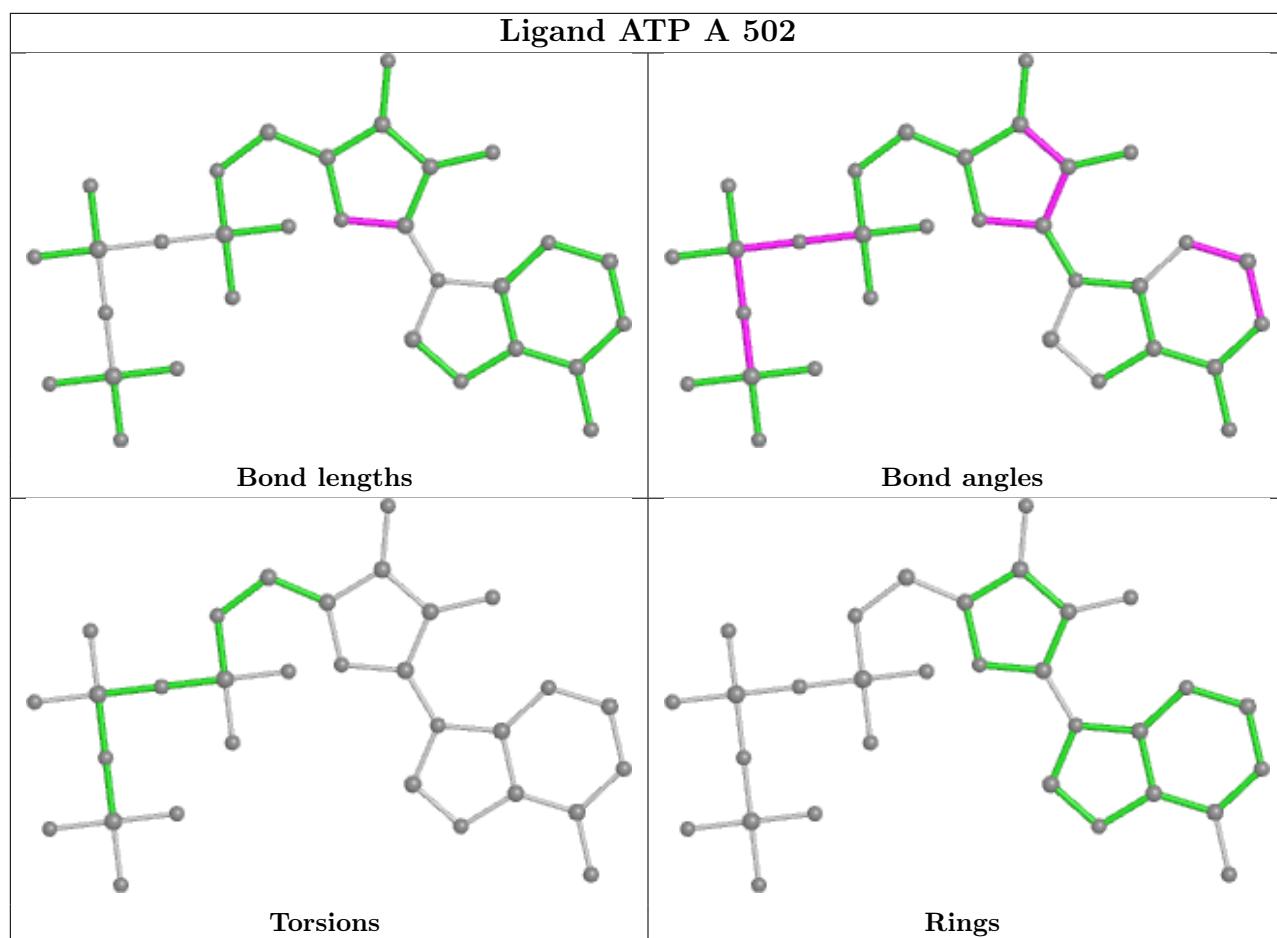
Mol	Chain	Res	Type	Atoms
3	A	501	LTN	O-C-CA-NH3
3	B	478	LTN	O-C-CA-NH3
3	A	501	LTN	O-C-CA-CB
3	B	478	LTN	O-C-CA-CB

There are no ring outliers.

3 monomers are involved in 95 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	501	LTN	1	7
4	A	502	ATP	10	77
3	B	478	LTN	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



5.7 Other polymers [\(i\)](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [\(i\)](#)

There are no chain breaks in this entry.

6 Fit of model and data [\(i\)](#)

6.1 Protein, DNA and RNA chains [\(i\)](#)

Unable to reproduce the depositors R factor - this section is therefore empty.

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

Unable to reproduce the depositors R factor - this section is therefore empty.

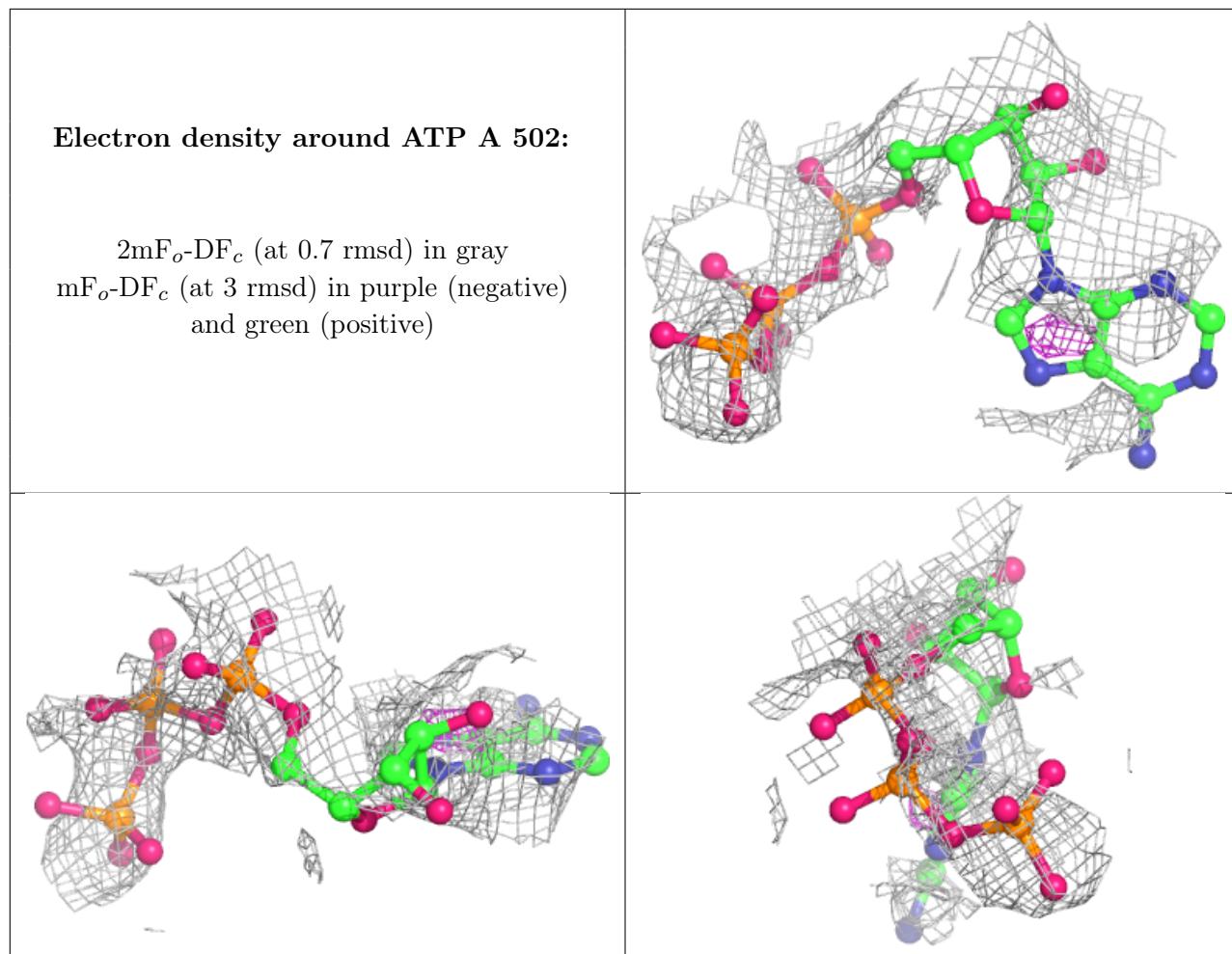
6.3 Carbohydrates [\(i\)](#)

Unable to reproduce the depositors R factor - this section is therefore empty.

6.4 Ligands [\(i\)](#)

Unable to reproduce the depositors R factor - this section is therefore empty.

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.



6.5 Other polymers [\(i\)](#)

Unable to reproduce the depositors R factor - this section is therefore empty.