Full wwPDB EM Validation Report ⓘ

Nov 2, 2022 – 09:56 PM EDT

PDB ID	:	5U8T
EMDB ID	:	EMD-8519
Title	:	Structure of Eukaryotic CMG Helicase at a Replication Fork and Implications
Authors	:	Li, B.; Georgescu, R.; Yuan, Z.; Santos, R.; Sun, J.; Zhang, D.; Yurieva, O.; Li, H.; O'Donnell, M.E.
Deposited on	:	2016-12-15
Resolution	:	4.90 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

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

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

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

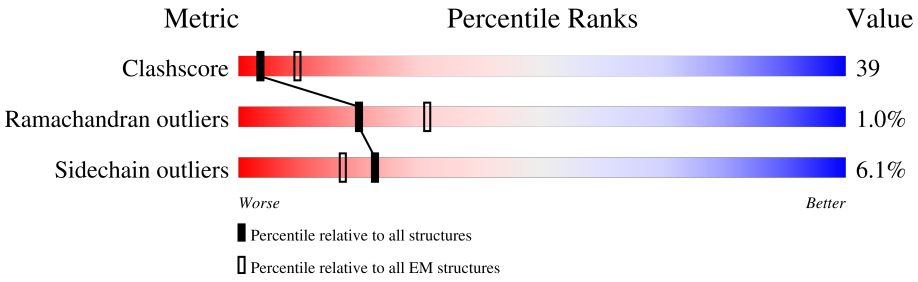
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 4.90 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	2	868	5% 23% 39% · 33%
2	3	971	5% 23% 34% · 39%
3	4	933	12% 27% 41% · 28%
4	5	775	9% 27% 47% · · 22%
5	6	1017	9% 21% 40% · 35%
6	7	845	18% 31% 44% · 22%
7	A	208	11% 39% 56% 5%
8	B	213	30% 52% · 15%

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Mol	Chain	Length	Quality of chain
9	C	194	32% 46% 18%
10	D	294	25% 47% 25%
11	E	650	33% 49% 15%
12	F	14	57% 29% 14%

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
13	ANP	2	901	-	-	X	-
13	ANP	3	1001	-	-	X	-
13	ANP	5	801	-	-	X	-

2 Entry composition (i)

There are 13 unique types of molecules in this entry. The entry contains 40788 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DNA replication licensing factor MCM2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	2	583	4591	2899	818	858	16	0	0

- Molecule 2 is a protein called DNA replication licensing factor MCM3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	3	589	4624	2915	824	872	13	0	0

- Molecule 3 is a protein called DNA replication licensing factor MCM4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	4	672	5318	3340	929	1021	28	0	0

- Molecule 4 is a protein called Minichromosome maintenance protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	5	602	4740	2980	815	921	24	0	0

- Molecule 5 is a protein called DNA replication licensing factor MCM6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	6	661	5142	3247	905	967	23	0	0

- Molecule 6 is a protein called DNA replication licensing factor MCM7.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	7	660	5201	3278	903	991	29	0	0

- Molecule 7 is a protein called DNA replication complex GINS protein PSF1.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	A	208	Total	C	N	O	S	0	0
			1696	1065	290	331	10		

- Molecule 8 is a protein called DNA replication complex GINS protein PSF2.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	B	181	Total	C	N	O	S	0	0
			1513	978	261	270	4		

- Molecule 9 is a protein called DNA replication complex GINS protein PSF3.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	C	159	Total	C	N	O	S	0	0
			1288	843	207	232	6		

- Molecule 10 is a protein called DNA replication complex GINS protein SLD5.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	D	221	Total	C	N	O	S	0	0
			1820	1159	300	348	13		

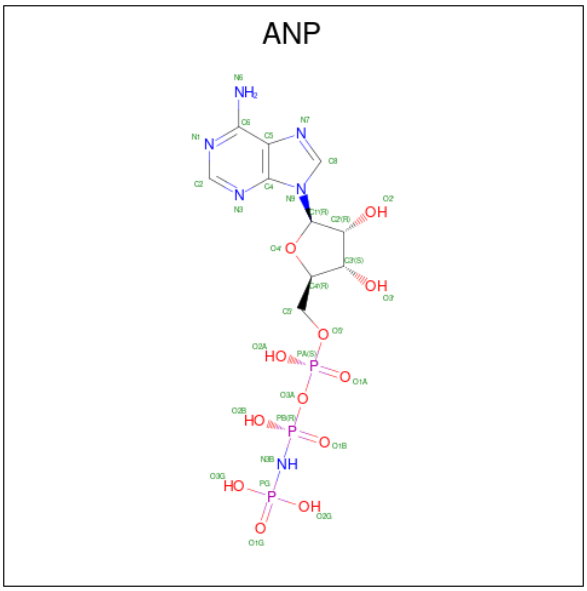
- Molecule 11 is a protein called Cell division control protein 45.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	E	553	Total	C	N	O	S	0	0
			4482	2862	763	844	13		

- Molecule 12 is a DNA chain called DNA (5'-D(P*TP*TP*TP*TP*TP*TP*TP*TP*TP*T P*TP*TP*TP*T)-3').

Mol	Chain	Residues	Atoms					AltConf	Trace
12	F	14	Total	C	N	O	P	0	0
			280	140	28	98	14		

- Molecule 13 is PHOSPHOAMINOPHOSPHONIC ACID-ADENYLATE ESTER (three-letter code: ANP) (formula: $C_{10}H_{17}N_6O_{12}P_3$).



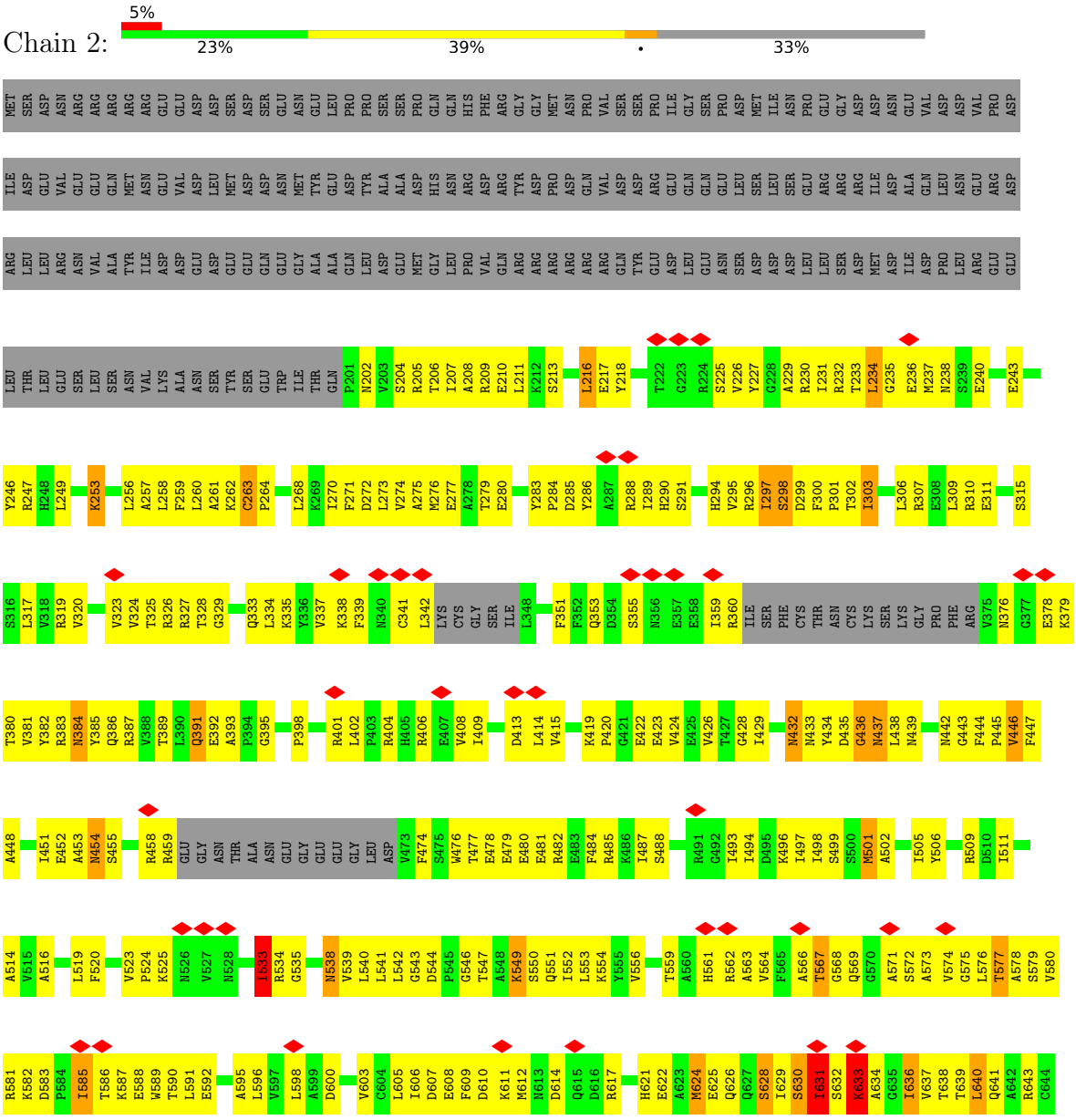
Mol	Chain	Residues	Atoms					AltConf
13	2	1	Total	C	N	O	P	0
			31	10	6	12	3	
13	3	1	Total	C	N	O	P	0
			31	10	6	12	3	
13	5	1	Total	C	N	O	P	0
			31	10	6	12	3	

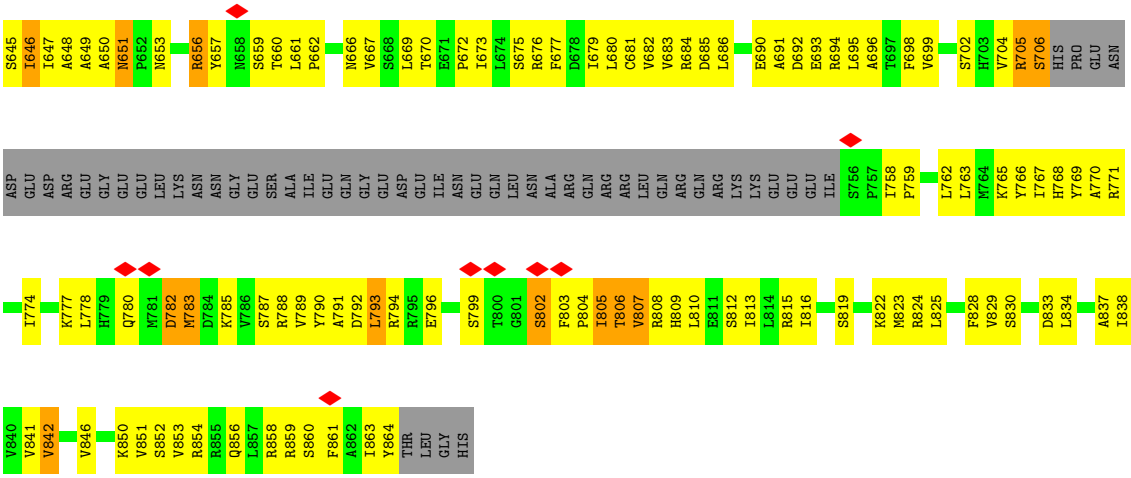
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: DNA replication licensing factor MCM2

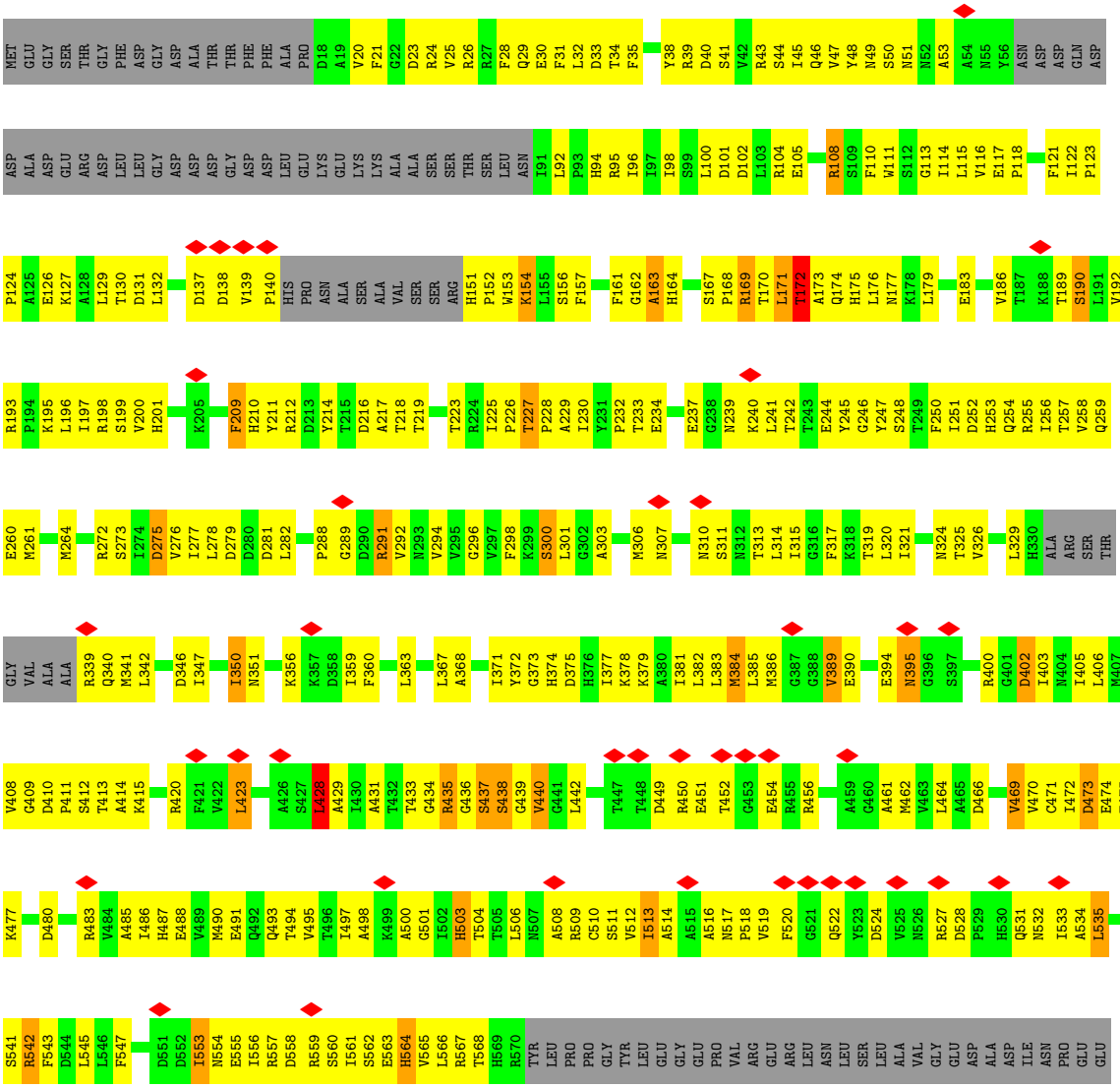
Chain 2:

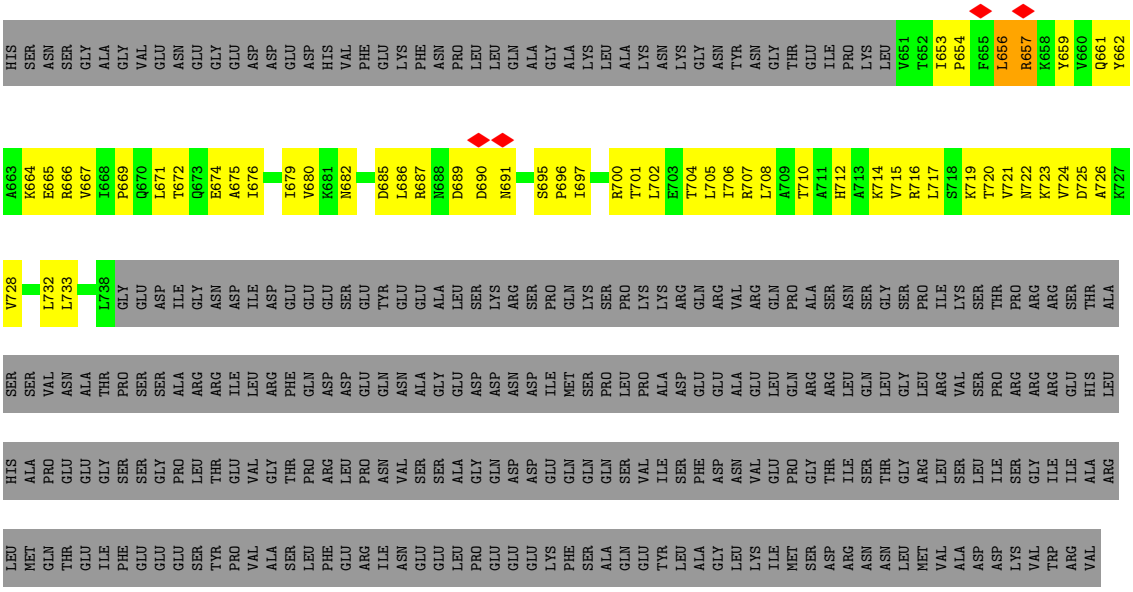




• Molecule 2: DNA replication licensing factor MCM3

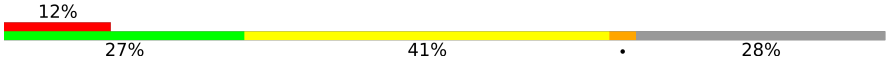
Chain 3:

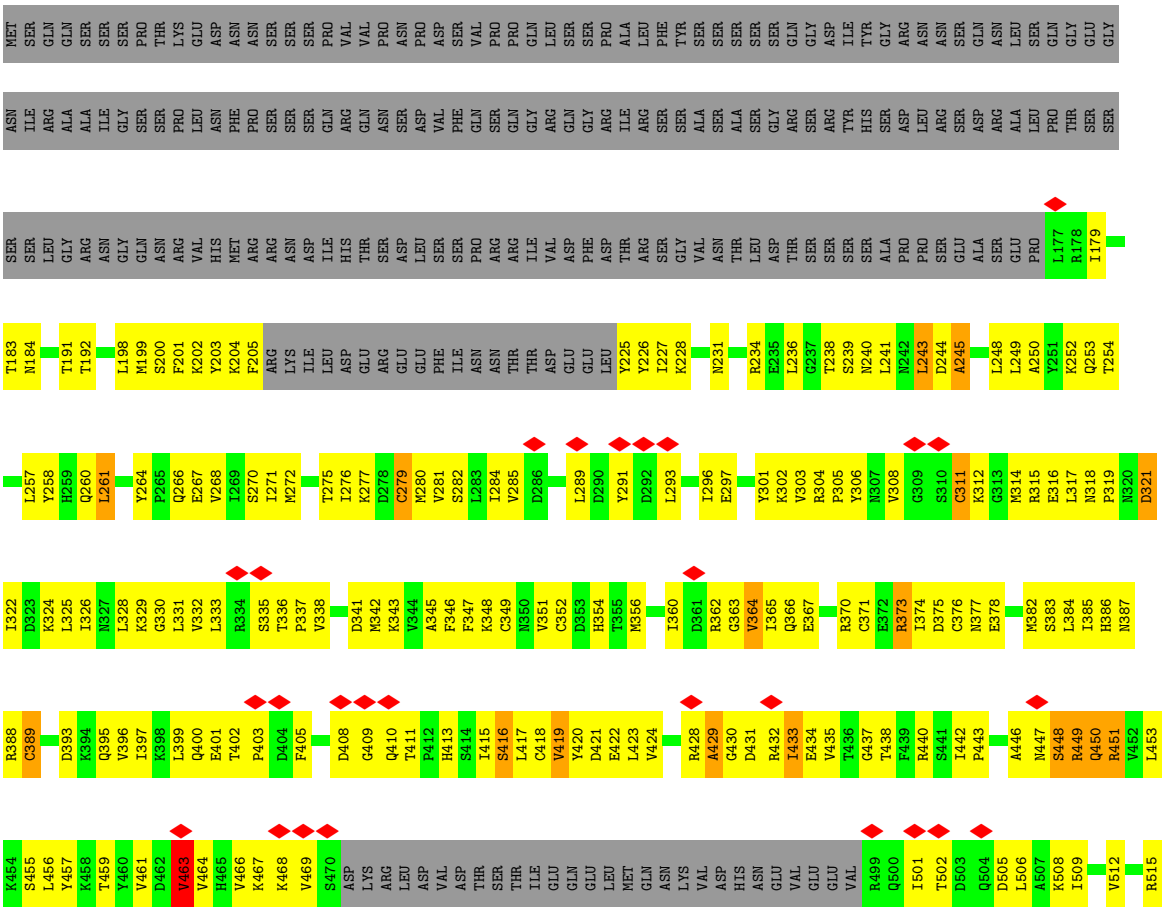


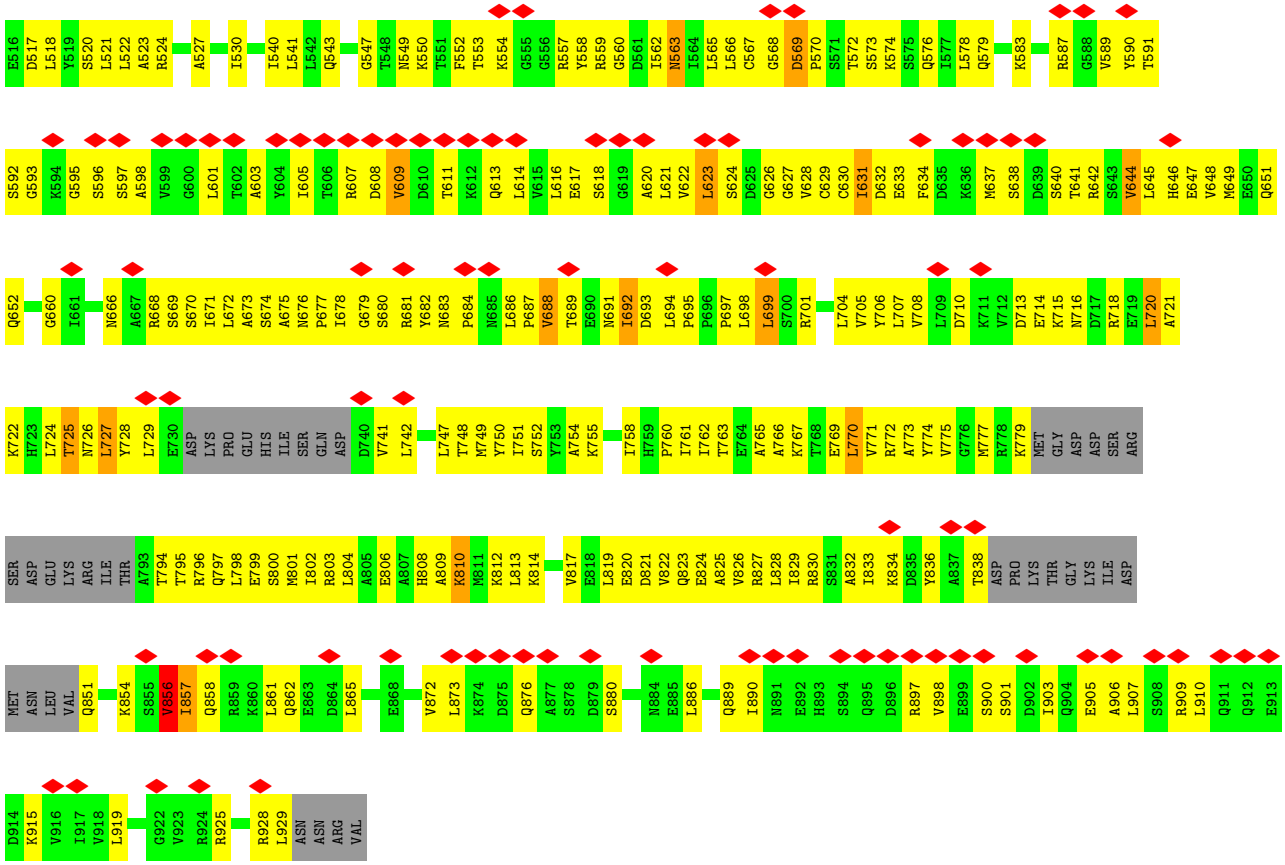


• Molecule 3: DNA replication licensing factor MCM4

Chain 4:

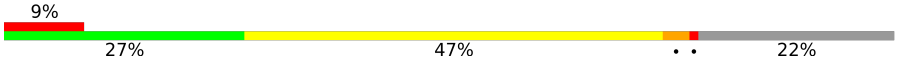


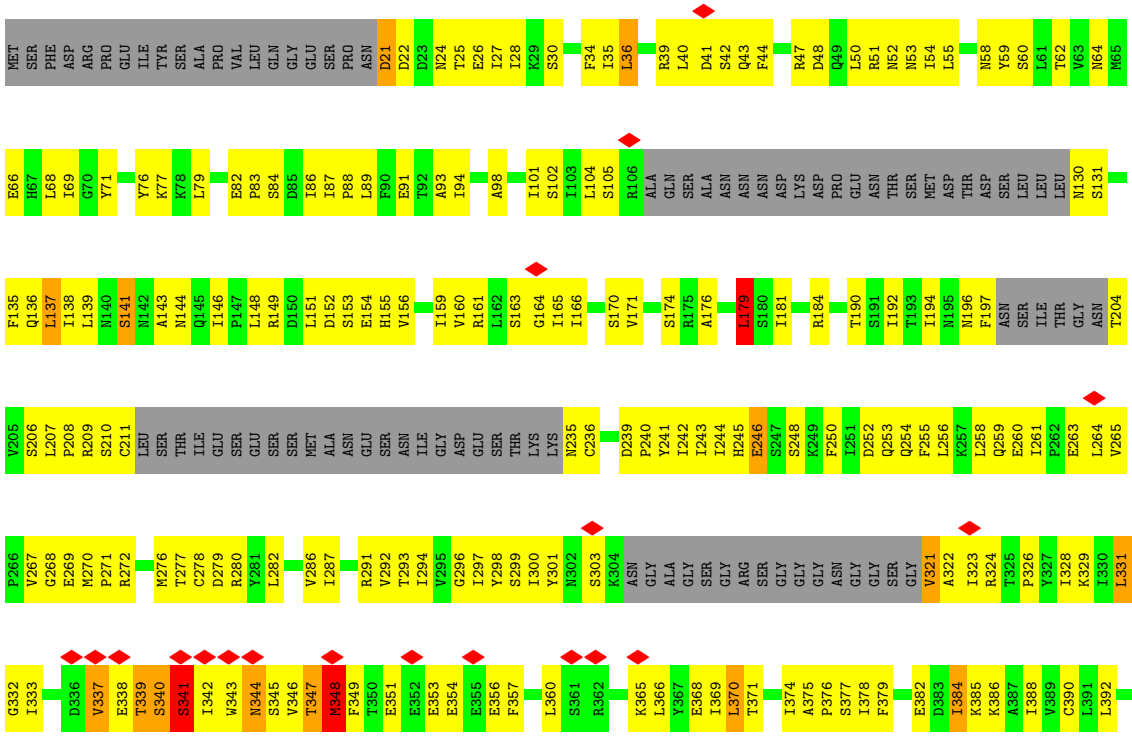


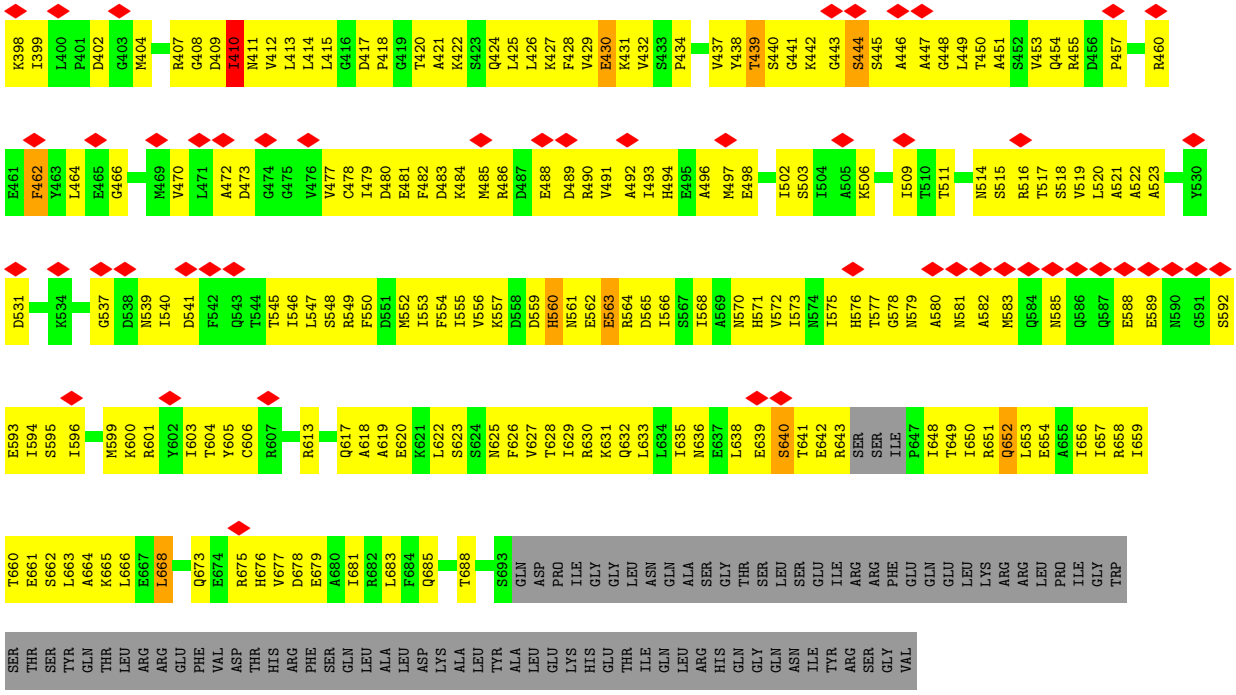


• Molecule 4: Minichromosome maintenance protein 5

Chain 5:

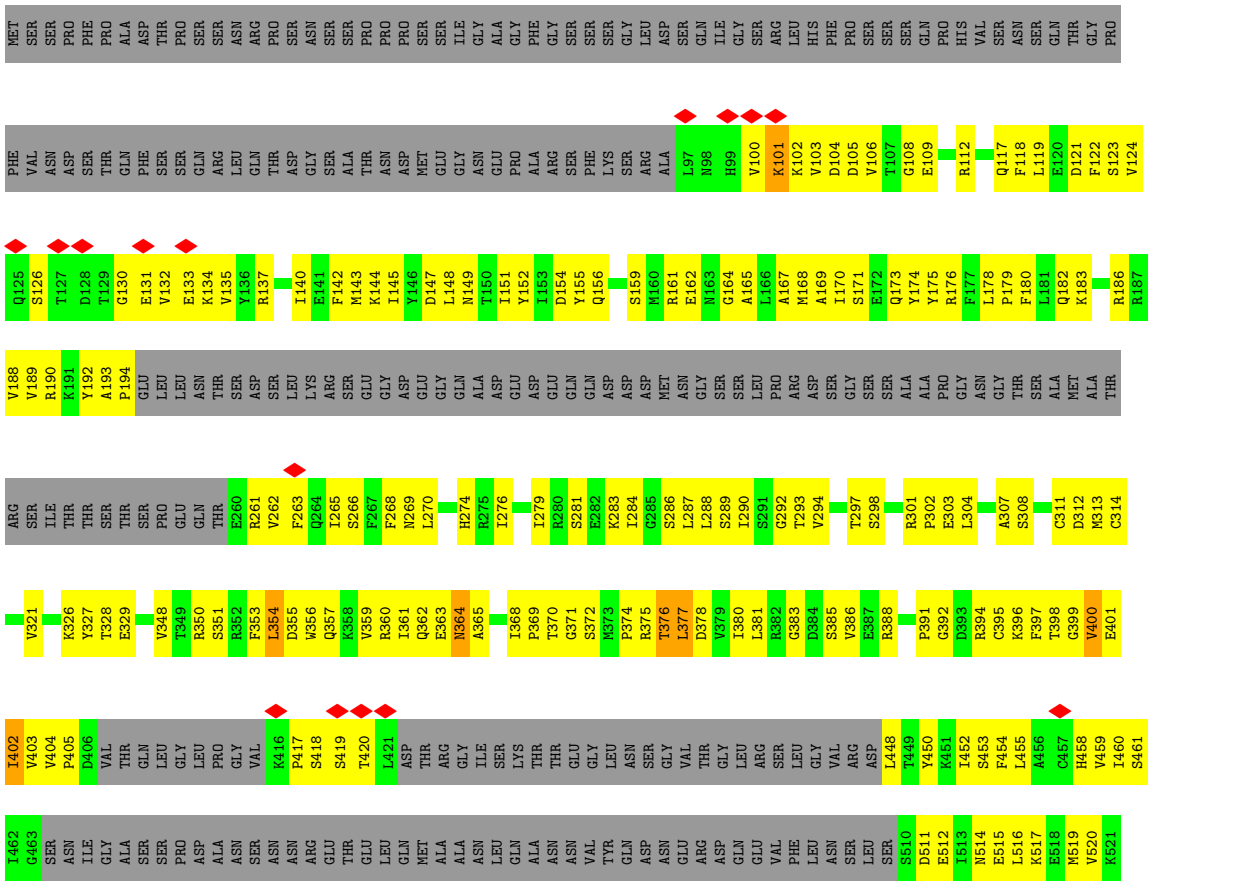


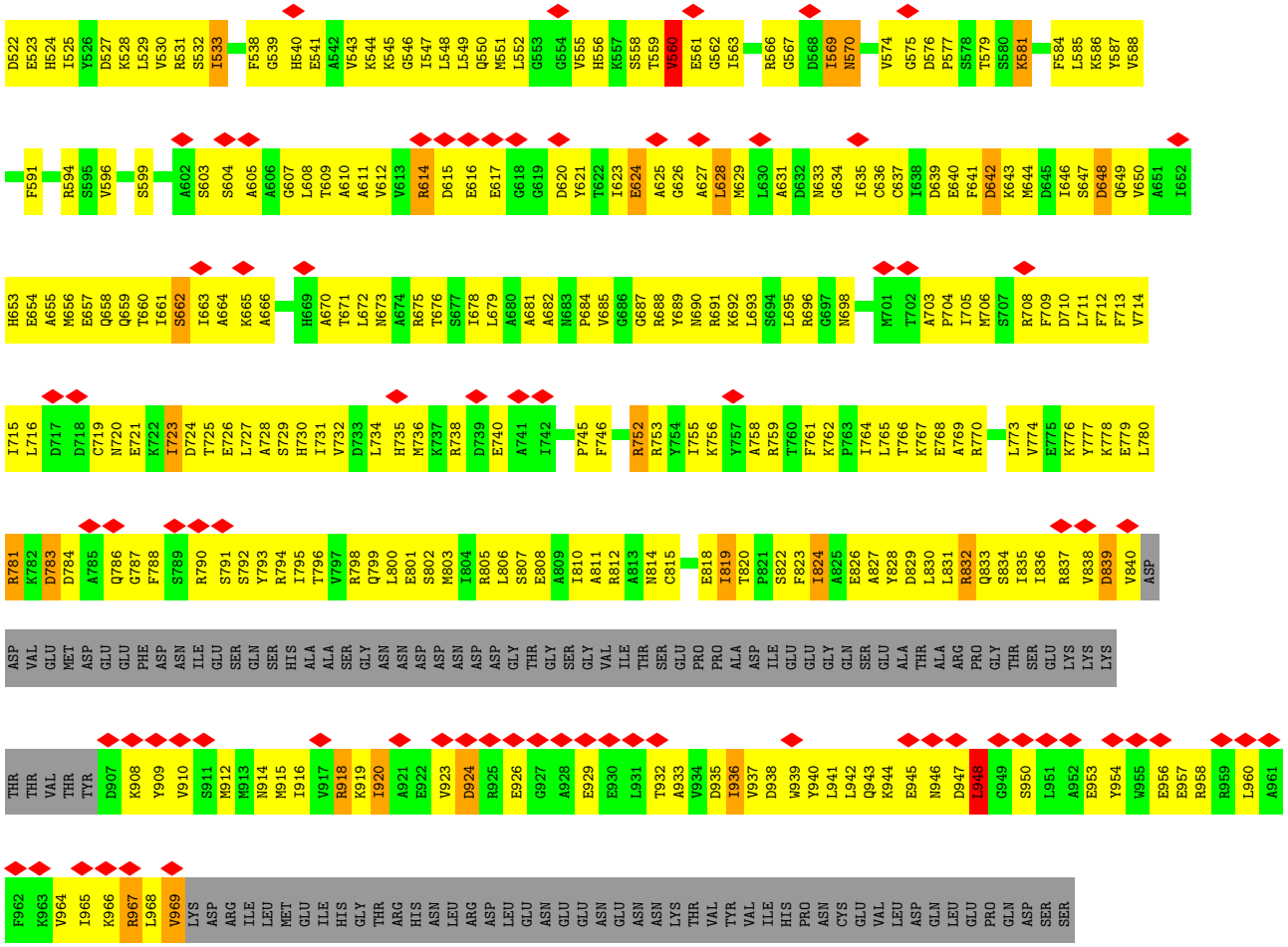




• Molecule 5: DNA replication licensing factor MCM6

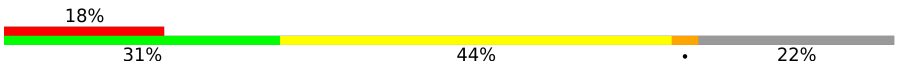
Chain 6:

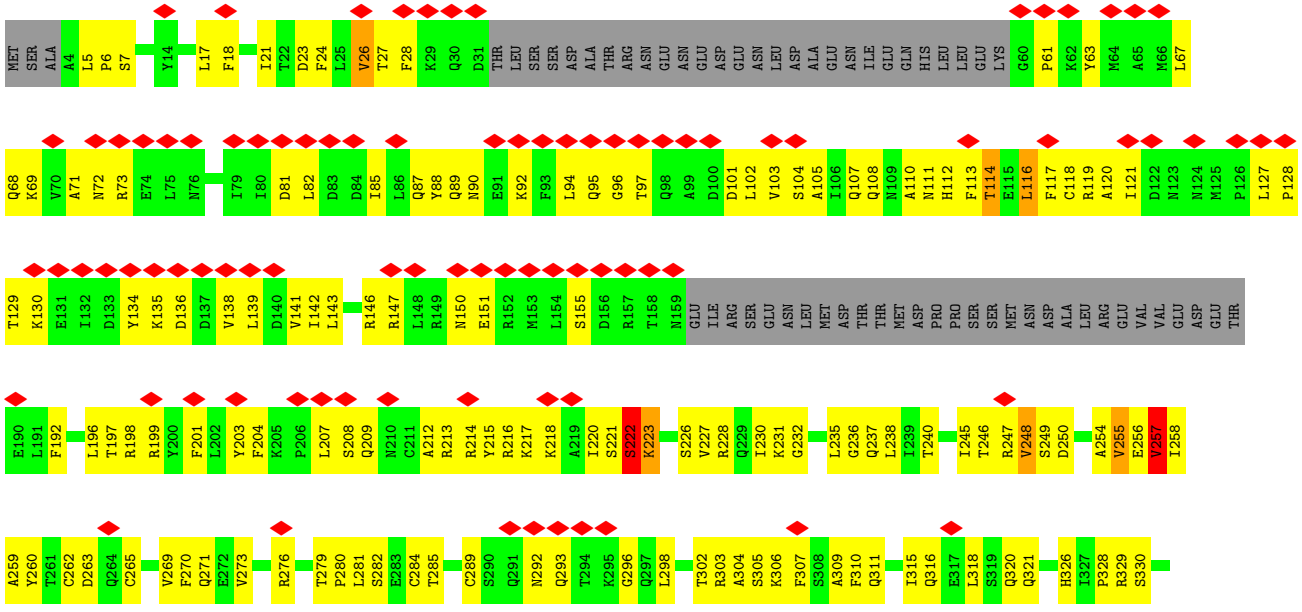


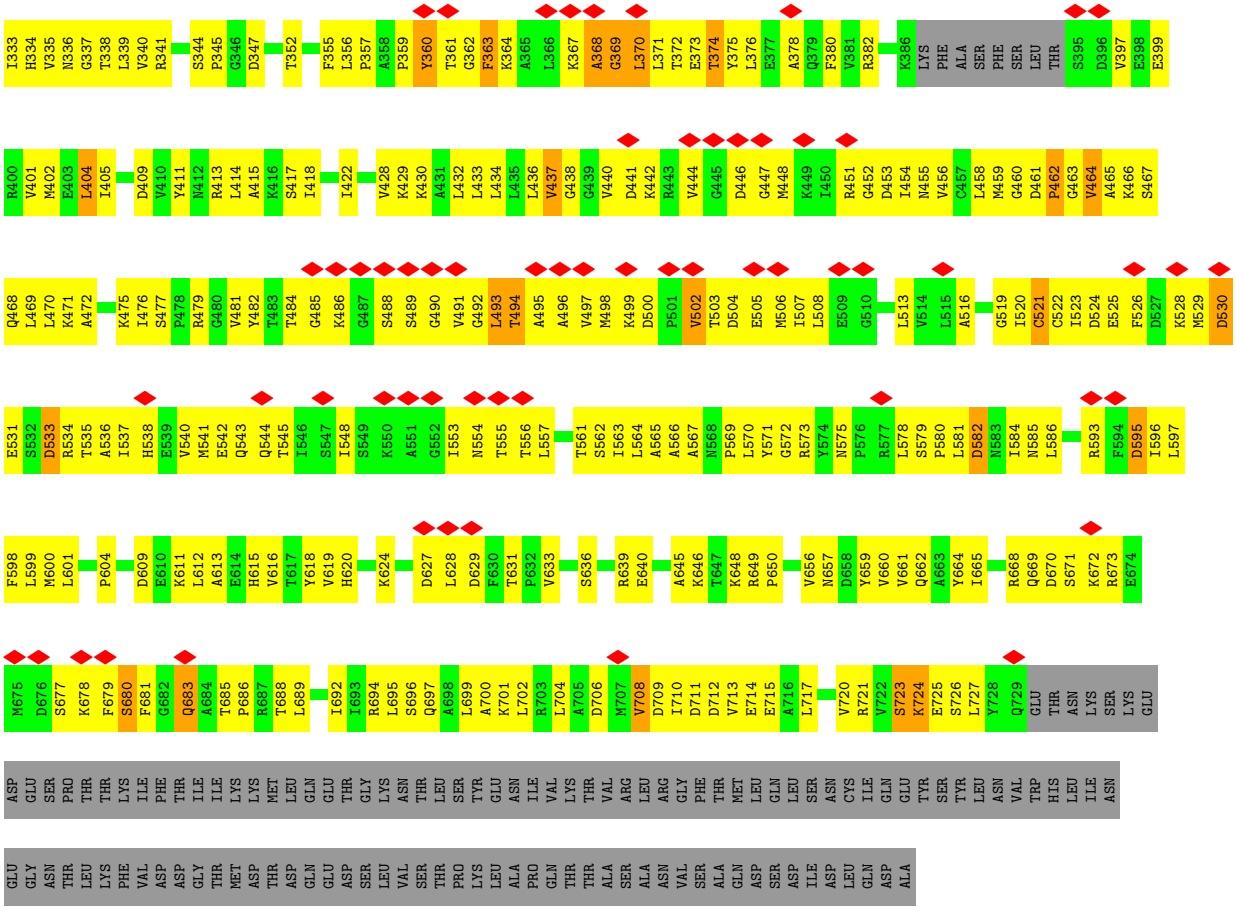


• Molecule 6: DNA replication licensing factor MCM7

Chain 7:

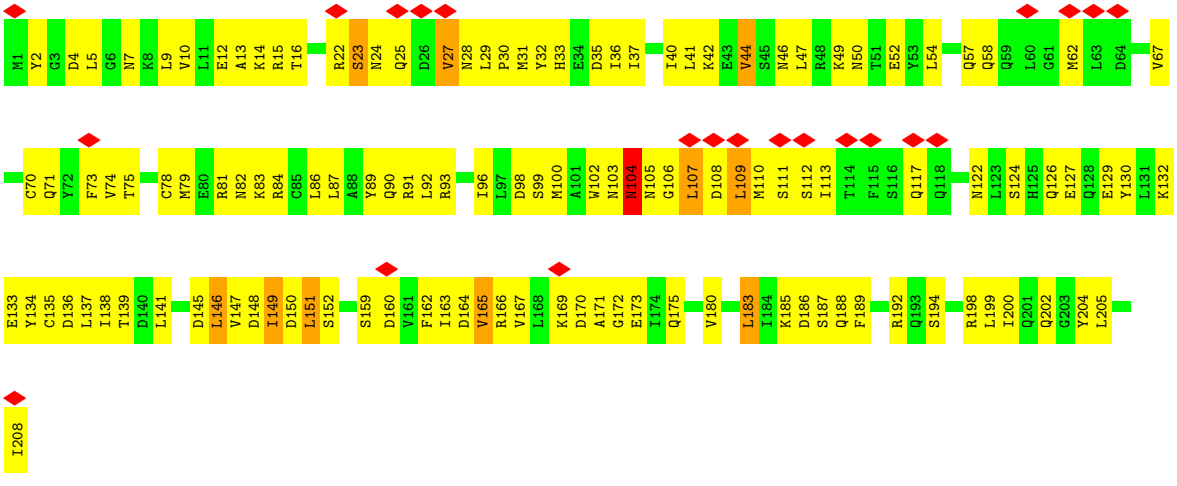






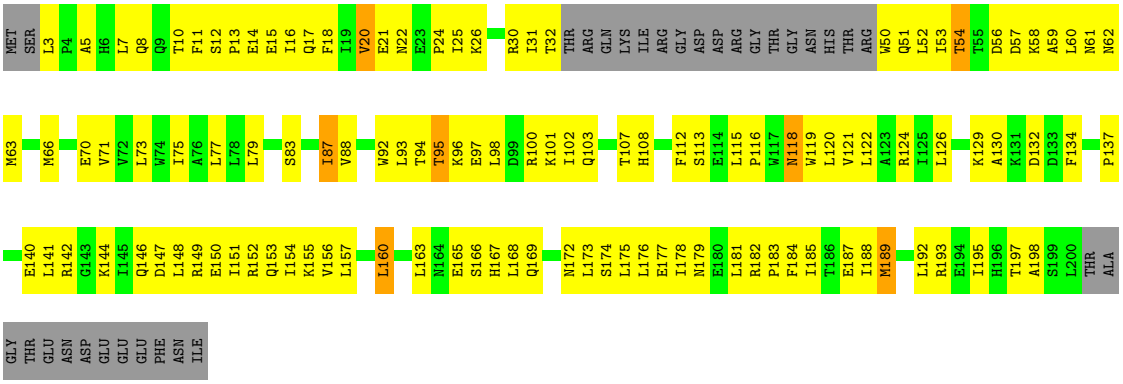
• Molecule 7: DNA replication complex GINS protein PSF1

Chain A:



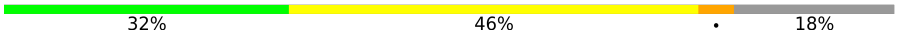
• Molecule 8: DNA replication complex GINS protein PSF2

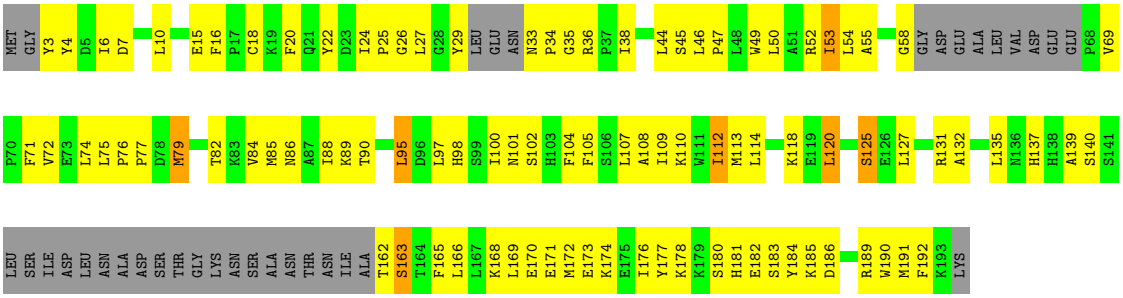
Chain B:



• Molecule 9: DNA replication complex GINS protein PSF3

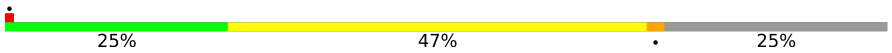
Chain C:

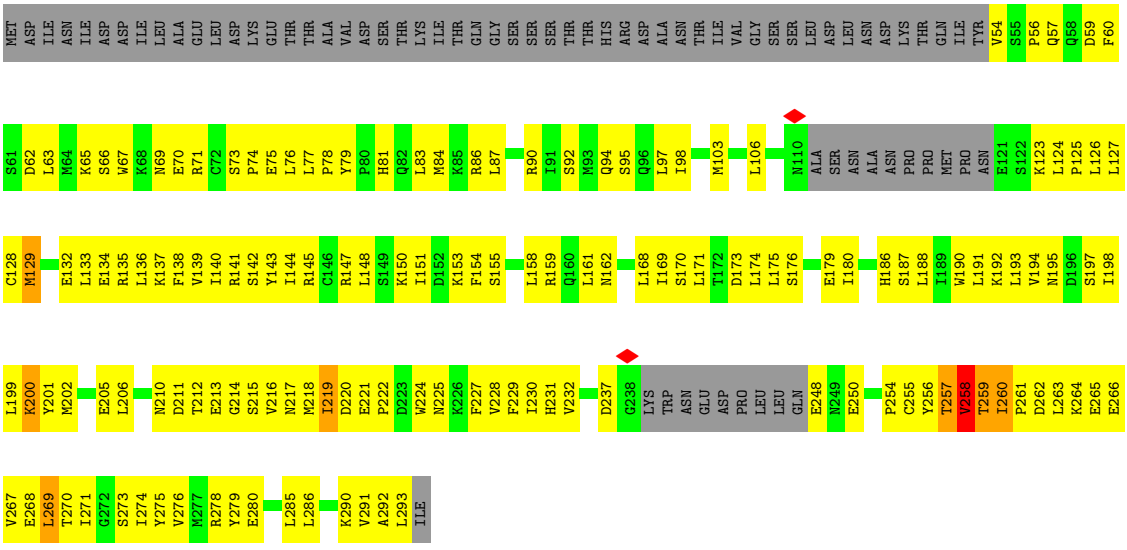




• Molecule 10: DNA replication complex GINS protein SLD5

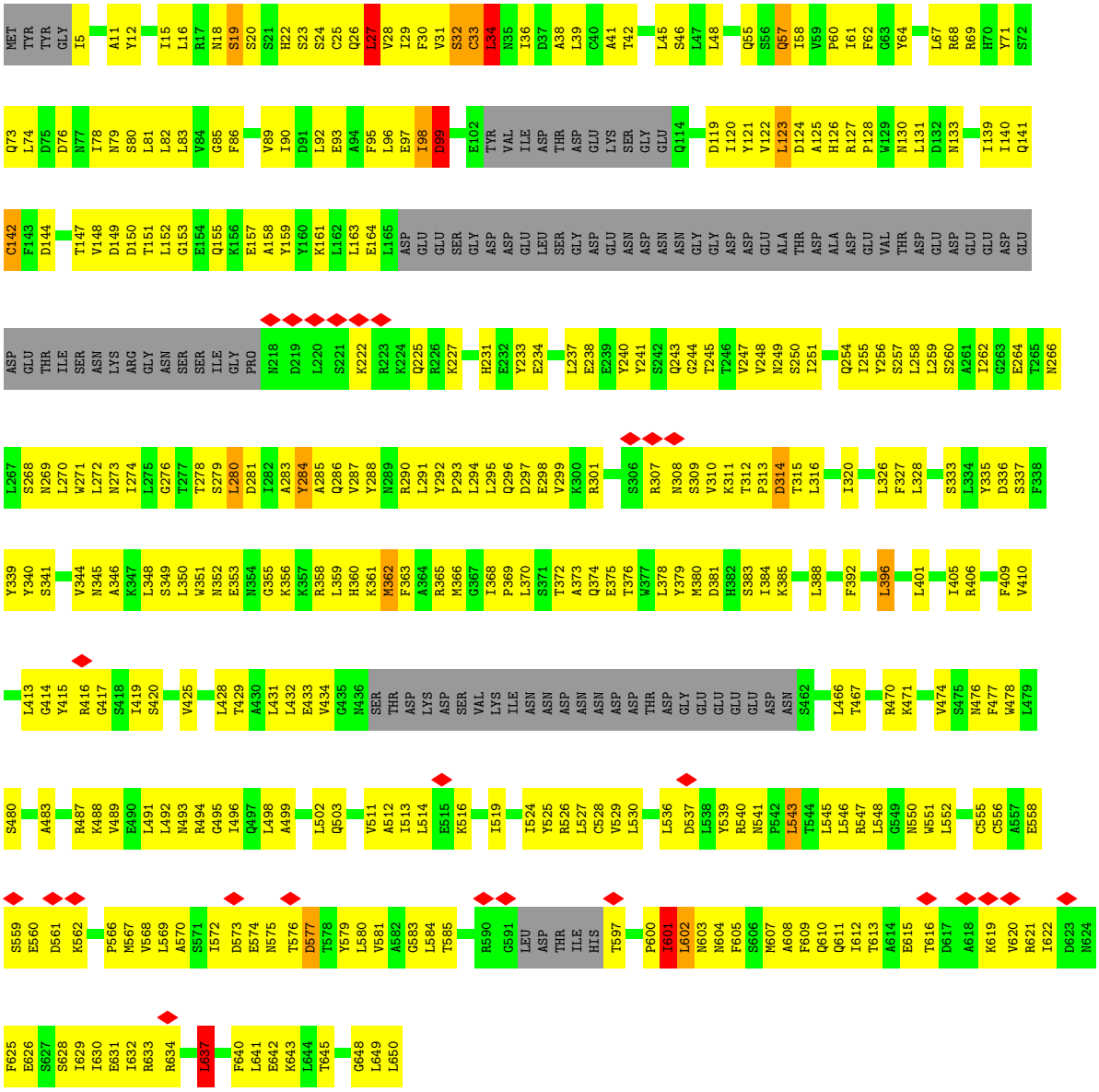
Chain D:





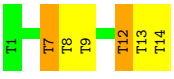
• Molecule 11: Cell division control protein 45

Chain E:



• Molecule 12: DNA (5'-D(P*TP*TP*TP*TP*TP*TP*TP*TP*TP*TP*TP*TP*TP*T)-3')

Chain F:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	395443	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	10	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.103	Depositor
Minimum map value	-0.032	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.006	Depositor
Recommended contour level	0.03	Depositor
Map size (Å)	332.8, 332.8, 332.8	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.3, 1.3, 1.3	Depositor

5 Model quality

5.1 Standard geometry

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

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	2	0.37	1/4668 (0.0%)	0.65	2/6306 (0.0%)
2	3	0.32	0/4702	0.63	1/6374 (0.0%)
3	4	0.31	0/5388	0.63	0/7273
4	5	0.34	0/4805	0.65	1/6489 (0.0%)
5	6	0.36	0/5218	0.69	3/7039 (0.0%)
6	7	0.33	0/5281	0.65	2/7136 (0.0%)
7	A	0.36	0/1718	0.70	1/2314 (0.0%)
8	B	0.33	0/1545	0.62	0/2092
9	C	0.32	0/1320	0.60	1/1784 (0.1%)
10	D	0.34	0/1853	0.69	2/2500 (0.1%)
11	E	0.33	0/4563	0.63	5/6173 (0.1%)
12	F	0.88	1/307 (0.3%)	1.42	3/472 (0.6%)
All	All	0.34	2/41368 (0.0%)	0.66	21/55952 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	2	0	2
2	3	0	5
3	4	0	3
4	5	0	1
5	6	0	1
6	7	0	5
7	A	0	2
10	D	0	1
All	All	0	20

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2	633	LYS	CE-NZ	6.70	1.65	1.49
12	F	12	DT	O5'-C5'	-5.01	1.29	1.42

All (21) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	7	369	GLY	N-CA-C	8.34	133.96	113.10
12	F	7	DT	O4'-C4'-C3'	-7.76	101.35	106.00
12	F	12	DT	OP1-P-OP2	7.47	130.81	119.60
10	D	269	LEU	CA-CB-CG	7.46	132.46	115.30
5	6	948	LEU	CA-CB-CG	7.37	132.25	115.30
5	6	839	ASP	N-CA-C	7.03	129.97	111.00
11	E	19	SER	N-CA-C	6.92	129.70	111.00
6	7	263	ASP	N-CA-C	6.33	128.09	111.00
11	E	34	LEU	CA-CB-CG	6.06	129.24	115.30
9	C	120	LEU	CA-CB-CG	5.80	128.65	115.30
2	3	428	LEU	CA-CB-CG	5.76	128.54	115.30
11	E	637	LEU	CA-CB-CG	5.66	128.31	115.30
4	5	179	LEU	CA-CB-CG	5.64	128.27	115.30
5	6	628	LEU	CA-CB-CG	5.50	127.96	115.30
1	2	436	GLY	N-CA-C	5.46	126.75	113.10
11	E	543	LEU	CB-CG-CD1	-5.42	101.78	111.00
7	A	146	LEU	CA-CB-CG	5.37	127.66	115.30
10	D	258	VAL	N-CA-C	-5.23	96.88	111.00
11	E	27	LEU	CA-CB-CG	5.23	127.32	115.30
1	2	216	LEU	CA-CB-CG	5.20	127.27	115.30
12	F	12	DT	O5'-P-OP2	-5.17	101.04	105.70

There are no chirality outliers.

All (20) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	2	355	SER	Peptide
1	2	633	LYS	Peptide
2	3	163	ALA	Peptide
2	3	172	THR	Peptide
2	3	428	LEU	Peptide
2	3	437	SER	Peptide
2	3	498	ALA	Peptide
3	4	245	ALA	Peptide
3	4	374	ILE	Peptide
3	4	448	SER	Peptide

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Mol	Chain	Res	Type	Group
4	5	348	MET	Peptide
5	6	560	VAL	Peptide
6	7	257	VAL	Peptide
6	7	360	TYR	Peptide
6	7	368	ALA	Peptide
6	7	680	SER	Peptide
6	7	683	GLN	Peptide
7	A	104	ASN	Peptide
7	A	159	SER	Peptide
10	D	200	LYS	Peptide

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	2	4591	0	4639	428	0
2	3	4624	0	4689	376	0
3	4	5318	0	5390	424	0
4	5	4740	0	4798	439	0
5	6	5142	0	5093	499	0
6	7	5201	0	5276	422	0
7	A	1696	0	1698	141	0
8	B	1513	0	1558	124	0
9	C	1288	0	1298	92	0
10	D	1820	0	1824	201	0
11	E	4482	0	4499	367	0
12	F	280	0	169	8	0
13	2	31	0	13	9	0
13	3	31	0	13	10	0
13	5	31	0	13	9	0
All	All	40788	0	40970	3219	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 39.

All (3219) 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)
10:D:260:ILE:HG13	10:D:266:GLU:CG	1.46	1.45
6:7:221:SER:CA	6:7:222:SER:HB2	1.40	1.44
10:D:260:ILE:CG1	10:D:266:GLU:CD	1.87	1.42
10:D:260:ILE:HG12	10:D:266:GLU:CD	1.38	1.38
10:D:260:ILE:CG1	10:D:266:GLU:OE2	1.74	1.35
10:D:260:ILE:CD1	10:D:266:GLU:OE2	1.78	1.30
4:5:341:SER:O	4:5:345:SER:HB2	1.28	1.30
4:5:623:SER:O	4:5:627:VAL:HG13	1.27	1.30
6:7:221:SER:HA	6:7:222:SER:CB	1.58	1.29
6:7:490:GLY:O	6:7:494:THR:HG22	1.33	1.20
10:D:260:ILE:CG2	10:D:265:GLU:HA	1.71	1.18
7:A:108:ASP:HB3	7:A:109:LEU:CB	1.74	1.17
1:2:632:SER:HB2	4:5:442:LYS:HB3	1.25	1.15
11:E:540:ARG:NH2	11:E:574:GLU:HB2	1.61	1.15
7:A:108:ASP:CB	7:A:109:LEU:HB3	1.77	1.14
3:4:623:LEU:HD22	5:6:370:THR:HG21	1.23	1.13
3:4:623:LEU:HD22	5:6:370:THR:CG2	1.77	1.12
10:D:260:ILE:HD11	10:D:266:GLU:OE2	1.42	1.12
10:D:258:VAL:HB	10:D:259:THR:HA	1.24	1.11
1:2:846:VAL:O	1:2:853:VAL:HG21	1.46	1.11
3:4:332:VAL:HB	3:4:429:ALA:HA	1.27	1.11
10:D:260:ILE:HG12	10:D:266:GLU:OE2	1.40	1.07
11:E:579:TYR:CE2	11:E:634:ARG:HB3	1.89	1.07
10:D:260:ILE:CG1	10:D:266:GLU:CG	2.28	1.06
6:7:221:SER:N	6:7:222:SER:HB2	1.69	1.05
6:7:221:SER:CA	6:7:222:SER:CB	2.25	1.05
3:4:624:SER:O	3:4:626:GLY:O	1.75	1.04
10:D:260:ILE:HG21	10:D:265:GLU:HA	1.38	1.04
6:7:472:ALA:O	6:7:476:ILE:HD13	1.57	1.04
5:6:418:SER:HG	5:6:448:LEU:N	1.58	1.01
11:E:576:THR:O	11:E:577:ASP:CG	1.99	1.01
10:D:260:ILE:HG23	10:D:265:GLU:C	1.81	1.01
1:2:608:GLU:HB3	1:2:611:LYS:HD3	1.42	1.00
3:4:727:LEU:N	3:4:728:TYR:HB3	1.77	1.00
4:5:143:ALA:HA	11:E:379:TYR:HE2	1.23	1.00
6:7:221:SER:HA	6:7:222:SER:HB2	1.02	1.00
3:4:449:ARG:HG3	3:4:450:GLN:H	1.23	0.99
4:5:477:VAL:HB	4:5:519:VAL:HA	1.40	0.99
11:E:5:ILE:N	11:E:142:CYS:HG	1.61	0.98
3:4:432:ARG:NH2	6:7:557:LEU:HB3	1.77	0.98
3:4:589:VAL:HG21	3:4:624:SER:OG	1.62	0.97
5:6:100:VAL:HG23	5:6:101:LYS:CG	1.94	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:778:LEU:HG	4:5:577:THR:CG2	1.94	0.97
4:5:196:ASN:HB3	4:5:197:PHE:HD1	1.30	0.97
3:4:202:LYS:HB3	3:4:203:TYR:HB3	1.47	0.97
4:5:448:GLY:HA2	4:5:486:ARG:HH12	1.27	0.96
1:2:540:LEU:HA	1:2:648:ALA:HB3	1.48	0.95
5:6:790:ARG:NH2	5:6:839:ASP:O	1.99	0.95
2:3:25:VAL:O	2:3:29:GLN:HG2	1.66	0.95
11:E:15:ILE:O	11:E:19:SER:OG	1.83	0.95
5:6:653:HIS:HA	5:6:656:MET:HG2	1.49	0.94
6:7:470:LEU:HD21	6:7:564:LEU:HD22	1.49	0.94
1:2:842:VAL:O	1:2:846:VAL:HG23	1.67	0.93
6:7:489:SER:O	6:7:493:LEU:HG	1.68	0.93
10:D:260:ILE:HG13	10:D:266:GLU:HG3	0.96	0.93
10:D:260:ILE:CG1	10:D:266:GLU:HG3	1.92	0.93
3:4:689:THR:HG1	3:4:851:GLN:N	1.68	0.92
5:6:558:SER:HB3	5:6:559:THR:HA	1.51	0.92
6:7:94:LEU:HB2	6:7:95:GLN:HB2	1.52	0.92
4:5:482:PHE:HB3	4:5:523:ALA:HB2	1.51	0.91
3:4:623:LEU:CD2	5:6:370:THR:HG21	2.00	0.91
1:2:502:ALA:HB1	1:2:505:ILE:HB	1.51	0.91
5:6:304:LEU:HD11	5:6:307:ALA:HB2	1.52	0.91
6:7:489:SER:O	6:7:493:LEU:CD2	2.18	0.91
6:7:459:MET:HB2	6:7:597:LEU:HD21	1.53	0.91
2:3:533:ILE:HG22	2:3:535:LEU:H	1.35	0.91
6:7:220:ILE:C	6:7:222:SER:HB2	1.92	0.90
2:3:192:VAL:HB	6:7:329:ARG:HH12	1.36	0.90
5:6:167:ALA:O	5:6:171:SER:OG	1.89	0.89
10:D:260:ILE:CG2	10:D:265:GLU:CA	2.50	0.89
10:D:260:ILE:HG23	10:D:265:GLU:CA	2.02	0.89
6:7:118:CYS:SG	6:7:198:ARG:NH2	2.45	0.89
4:5:664:ALA:HA	4:5:676:HIS:HE1	1.36	0.89
8:B:7:LEU:N	8:B:8:GLN:HA	1.85	0.89
6:7:490:GLY:O	6:7:494:THR:CG2	2.21	0.88
6:7:472:ALA:O	6:7:476:ILE:CD1	2.22	0.88
4:5:369:ILE:HG23	4:5:594:ILE:HD11	1.56	0.88
1:2:634:ALA:O	4:5:448:GLY:N	2.07	0.87
1:2:384:ASN:HB2	1:2:415:VAL:HG21	1.57	0.87
11:E:540:ARG:HH21	11:E:574:GLU:HB2	1.37	0.87
1:2:580:VAL:HG22	1:2:591:LEU:HG	1.57	0.86
6:7:459:MET:HB3	6:7:599:LEU:HA	1.55	0.86
4:5:276:MET:HG2	4:5:328:ILE:HB	1.56	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:646:ILE:HA	5:6:649:GLN:HG2	1.54	0.86
6:7:256:GLU:HA	6:7:273:VAL:HG21	1.57	0.86
10:D:260:ILE:HG23	10:D:265:GLU:HA	1.57	0.86
3:4:804:LEU:HD21	3:4:828:LEU:HD12	1.57	0.86
11:E:579:TYR:O	11:E:581:VAL:HG23	1.76	0.86
10:D:260:ILE:HG13	10:D:266:GLU:CD	1.73	0.86
2:3:104:ARG:NH1	9:C:90:THR:HG23	1.90	0.86
6:7:466:LYS:HA	6:7:469:LEU:HD13	1.57	0.85
6:7:520:ILE:HA	6:7:562:SER:HB2	1.57	0.85
10:D:67:TRP:HE1	10:D:142:SER:HB3	1.41	0.85
10:D:123:LYS:HE3	11:E:20:SER:HB3	1.56	0.85
3:4:629:CYS:HB3	3:4:671:ILE:HG12	1.57	0.85
4:5:413:LEU:HD13	4:5:553:ILE:HG13	1.58	0.85
1:2:574:VAL:HG22	1:2:595:ALA:HB2	1.57	0.85
3:4:243:LEU:HD22	3:4:305:PRO:HA	1.59	0.85
5:6:689:TYR:HA	5:6:690:ASN:HB2	1.58	0.85
5:6:720:ASN:O	5:6:724:ASP:N	2.10	0.85
6:7:315:ILE:HD13	6:7:333:ILE:HD12	1.59	0.85
11:E:83:LEU:HD21	11:E:86:PHE:HB2	1.58	0.84
5:6:693:LEU:HD13	5:6:698:ASN:HA	1.58	0.84
10:D:79:TYR:HA	10:D:147:ARG:HH12	1.43	0.84
3:4:713:ASP:HB2	3:4:716:ASN:HB2	1.56	0.84
10:D:250:GLU:HA	10:D:256:TYR:HB3	1.59	0.84
2:3:176:LEU:HD23	2:3:177:ASN:HB2	1.60	0.84
1:2:325:THR:HG21	1:2:391:GLN:HB3	1.60	0.84
1:2:611:LYS:HE2	5:6:650:VAL:HG21	1.59	0.84
4:5:649:THR:H	4:5:652:GLN:HG3	1.43	0.83
8:B:11:PHE:HB2	8:B:179:ASN:HD21	1.41	0.83
1:2:262:LYS:HE2	1:2:263:CYS:SG	2.17	0.83
5:6:802:SER:HA	5:6:805:ARG:HG2	1.58	0.83
5:6:570:ASN:HD21	5:6:678:ILE:H	1.24	0.83
3:4:332:VAL:CB	3:4:429:ALA:HA	2.07	0.83
1:2:428:GLY:HA3	1:2:453:ALA:HA	1.60	0.83
11:E:33:CYS:SG	11:E:34:LEU:N	2.50	0.83
3:4:563:ASN:ND2	3:4:649:MET:SD	2.52	0.83
6:7:440:VAL:HG11	6:7:649:ARG:HA	1.58	0.83
2:3:389:VAL:HG12	2:3:390:GLU:H	1.44	0.83
4:5:39:ARG:HG2	4:5:41:ASP:H	1.42	0.83
3:4:248:LEU:HB2	3:4:258:TYR:HB2	1.60	0.82
5:6:795:ILE:HG22	5:6:799:GLN:HG3	1.61	0.82
5:6:533:ILE:HG21	5:6:548:LEU:HD11	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:461:ASP:HB3	6:7:569:PRO:HD2	1.61	0.82
8:B:71:VAL:HB	8:B:75:ILE:HD11	1.59	0.82
11:E:502:LEU:HD13	11:E:547:ARG:HH22	1.44	0.82
1:2:591:LEU:HB3	4:5:270:MET:HE1	1.60	0.82
3:4:771:VAL:HG13	5:6:728:ALA:HB1	1.59	0.82
10:D:220:ASP:HB3	10:D:221:GLU:HG2	1.60	0.82
6:7:489:SER:O	6:7:493:LEU:CG	2.28	0.82
1:2:571:ALA:HB3	5:6:664:ALA:HB3	1.61	0.82
2:3:172:THR:O	2:3:175:HIS:ND1	2.13	0.82
3:4:587:ARG:HD3	3:4:623:LEU:O	1.80	0.82
6:7:504:ASP:HB3	6:7:505:GLU:HB3	1.62	0.82
5:6:326:LYS:H	5:6:327:TYR:HA	1.45	0.81
3:4:342:MET:HB3	3:4:360:ILE:HD13	1.63	0.81
3:4:448:SER:HB3	3:4:449:ARG:HB3	1.60	0.81
6:7:670:ASP:HA	6:7:673:ARG:HG2	1.60	0.81
11:E:344:VAL:HG13	11:E:348:LEU:HD12	1.59	0.81
2:3:519:VAL:HG22	2:3:534:ALA:HB2	1.62	0.81
4:5:143:ALA:HA	11:E:379:TYR:CE2	2.11	0.81
5:6:791:SER:HB3	5:6:835:ILE:HG22	1.63	0.81
5:6:100:VAL:HG23	5:6:101:LYS:HG2	1.61	0.81
1:2:294:HIS:O	1:2:296:ARG:NH1	2.14	0.81
3:4:589:VAL:CG2	3:4:624:SER:OG	2.28	0.81
5:6:525:ILE:HA	5:6:528:LYS:HB2	1.62	0.81
11:E:604:ASN:HB2	11:E:650:LEU:HD23	1.63	0.80
3:4:338:VAL:HB	5:6:452:ILE:HD11	1.62	0.80
4:5:261:ILE:HD11	4:5:264:LEU:HG	1.61	0.80
10:D:132:GLU:HG2	10:D:135:ARG:HH12	1.46	0.80
11:E:26:GLN:HB3	11:E:78:ILE:HA	1.63	0.80
1:2:610:ASP:OD2	1:2:651:ASN:ND2	2.15	0.80
1:2:684:ARG:HB3	1:2:685:ASP:HB3	1.63	0.80
4:5:184:ARG:HH11	4:5:240:PRO:HA	1.46	0.80
5:6:796:THR:HG22	5:6:798:ARG:H	1.46	0.80
7:A:145:ASP:HA	7:A:146:LEU:HB3	1.64	0.80
10:D:230:ILE:HD12	10:D:291:VAL:HG21	1.62	0.80
6:7:490:GLY:HA2	6:7:493:LEU:HD11	1.63	0.80
6:7:228:ARG:HH12	6:7:326:HIS:HB3	1.45	0.80
1:2:675:SER:HG	1:2:806:THR:HG1	1.25	0.80
1:2:641:GLN:HB3	1:2:643:ARG:HH12	1.46	0.79
5:6:603:SER:H	5:6:604:SER:HA	1.48	0.79
1:2:792:ASP:O	1:2:859:ARG:NH1	2.16	0.79
2:3:437:SER:HA	2:3:440:VAL:H	1.45	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:D:216:VAL:HG13	10:D:217:ASN:HA	1.65	0.79
11:E:29:ILE:HD13	11:E:31:VAL:HG23	1.65	0.79
4:5:138:ILE:HG12	4:5:282:LEU:HD21	1.63	0.79
11:E:363:PHE:HA	11:E:366:MET:HB2	1.63	0.79
1:2:338:LYS:HD2	1:2:379:LYS:HB3	1.63	0.79
2:3:405:ILE:HG23	2:3:545:LEU:HB2	1.64	0.79
3:4:449:ARG:HG3	3:4:450:GLN:N	1.97	0.79
3:4:726:ASN:C	3:4:727:LEU:HG	2.03	0.79
6:7:143:LEU:HD21	6:7:197:THR:HG22	1.65	0.79
10:D:256:TYR:HB2	10:D:257:THR:HG23	1.65	0.79
2:3:665:GLU:HG2	2:3:666:ARG:HG3	1.64	0.78
11:E:572:ILE:HG12	11:E:577:ASP:HA	1.64	0.78
6:7:289:CYS:HB3	6:7:296:GLY:HA3	1.63	0.78
11:E:540:ARG:HH22	11:E:574:GLU:HB2	1.49	0.78
10:D:216:VAL:HG22	10:D:219:ILE:HG13	1.66	0.78
11:E:61:ILE:H	11:E:61:ILE:HD12	1.48	0.78
11:E:337:SER:O	11:E:341:SER:OG	2.01	0.78
2:3:177:ASN:ND2	4:5:246:GLU:O	2.17	0.78
6:7:677:SER:O	6:7:680:SER:HB3	1.83	0.78
11:E:288:TYR:OH	11:E:406:ARG:NH1	2.16	0.78
1:2:846:VAL:O	1:2:853:VAL:CG2	2.29	0.78
2:3:382:LEU:HD12	2:3:385:LEU:HD12	1.66	0.78
11:E:26:GLN:HG3	11:E:78:ILE:HG13	1.66	0.78
3:4:798:LEU:HA	3:4:801:MET:HB2	1.63	0.78
7:A:79:MET:HB3	10:D:206:LEU:HD11	1.66	0.78
5:6:112:ARG:HH22	5:6:183:LYS:HG3	1.47	0.78
11:E:572:ILE:HD13	11:E:579:TYR:H	1.48	0.78
3:4:512:VAL:HG12	3:4:518:LEU:HD12	1.66	0.78
5:6:151:ILE:O	5:6:266:SER:OG	2.00	0.78
1:2:538:ASN:HB2	1:2:677:PHE:HA	1.64	0.77
3:4:721:ALA:O	3:4:725:THR:N	2.17	0.77
11:E:335:TYR:HB2	11:E:373:ALA:HB1	1.66	0.77
3:4:432:ARG:HH22	6:7:557:LEU:HB3	1.49	0.77
4:5:656:ILE:HA	4:5:659:ILE:HD12	1.64	0.77
5:6:765:LEU:HD12	5:6:819:ILE:HB	1.66	0.77
10:D:232:VAL:HB	10:D:271:ILE:HA	1.67	0.77
1:2:501:MET:HG2	1:2:516:ALA:HB2	1.67	0.77
3:4:433:ILE:HD13	3:4:469:VAL:HA	1.67	0.77
5:6:100:VAL:HG23	5:6:101:LYS:HG3	1.66	0.77
8:B:168:LEU:HB2	10:D:276:VAL:HB	1.67	0.77
2:3:275:ASP:N	2:3:275:ASP:OD1	2.16	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:632:SER:HB2	4:5:442:LYS:CB	2.12	0.77
3:4:303:VAL:HG12	3:4:305:PRO:HD3	1.65	0.77
3:4:623:LEU:HD22	5:6:370:THR:HG23	1.67	0.77
5:6:533:ILE:O	5:6:587:TYR:CZ	2.38	0.77
5:6:794:ARG:H	5:6:795:ILE:HA	1.48	0.77
6:7:68:GLN:O	6:7:72:ASN:N	2.18	0.77
2:3:261:MET:HB2	2:3:264:MET:HG2	1.66	0.77
4:5:579:ASN:HB2	4:5:582:ALA:HB3	1.65	0.77
11:E:315:THR:N	11:E:316:LEU:HB3	2.00	0.77
1:2:813:ILE:HD12	1:2:841:VAL:HG21	1.65	0.77
1:2:231:ILE:HG23	1:2:279:THR:HG23	1.66	0.76
6:7:368:ALA:H	6:7:370:LEU:HD22	1.48	0.76
1:2:338:LYS:H	1:2:380:THR:HG22	1.49	0.76
1:2:569:GLN:HB2	1:2:612:MET:HA	1.66	0.76
3:4:315:ARG:NH1	6:7:250:ASP:OD1	2.18	0.76
4:5:414:LEU:HD13	4:5:422:LYS:HB2	1.66	0.76
10:D:260:ILE:HG22	10:D:264:LYS:O	1.85	0.76
1:2:777:LYS:H	1:2:828:PHE:HA	1.51	0.76
1:2:523:VAL:HG12	1:2:525:LYS:HB3	1.67	0.76
1:2:672:PRO:HA	4:5:418:PRO:HG3	1.66	0.76
5:6:117:GLN:O	5:6:121:ASP:N	2.19	0.76
5:6:530:VAL:HA	5:6:533:ILE:HD11	1.67	0.76
11:E:150:ASP:HB3	11:E:152:LEU:HB2	1.67	0.76
2:3:272:ARG:HD2	4:5:171:VAL:HG13	1.67	0.76
4:5:287:ILE:HD11	4:5:342:ILE:HG23	1.68	0.76
2:3:437:SER:HB3	2:3:438:SER:HA	1.67	0.76
2:3:435:ARG:NH1	2:3:477:LYS:O	2.18	0.76
5:6:773:LEU:HD12	5:6:824:ILE:HG21	1.66	0.76
1:2:422:GLU:OE2	1:2:562:ARG:NH1	2.19	0.75
2:3:189:THR:HA	2:3:256:ILE:HD12	1.68	0.75
2:3:428:LEU:HB3	2:3:429:ALA:HA	1.68	0.75
3:4:928:ARG:HB2	5:6:946:ASN:HB2	1.68	0.75
8:B:21:GLU:HA	8:B:73:LEU:HD23	1.66	0.75
11:E:92:LEU:HA	11:E:95:PHE:HB3	1.68	0.75
3:4:830:ARG:O	3:4:834:LYS:N	2.19	0.75
1:2:790:TYR:OH	1:2:794:ARG:NH2	2.19	0.75
3:4:726:ASN:O	3:4:727:LEU:HG	1.86	0.74
6:7:493:LEU:HD21	6:7:533:ASP:CG	2.07	0.74
2:3:195:LYS:HE3	6:7:369:GLY:HA3	1.69	0.74
1:2:448:ALA:HA	5:6:301:ARG:HD3	1.69	0.74
5:6:828:TYR:OH	5:6:832:ARG:NH2	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:252:LYS:HG2	3:4:253:GLN:HA	1.67	0.74
5:6:162:GLU:HG3	5:6:165:ALA:HB3	1.69	0.74
2:3:113:GLY:HA2	2:3:116:VAL:HB	1.68	0.74
5:6:819:ILE:HG22	5:6:820:THR:H	1.53	0.74
10:D:76:LEU:HD11	10:D:147:ARG:HE	1.52	0.74
3:4:598:ALA:HA	3:4:644:VAL:HG22	1.68	0.74
5:6:533:ILE:O	5:6:587:TYR:CE1	2.40	0.74
7:A:84:ARG:HH22	10:D:217:ASN:HB3	1.53	0.74
8:B:25:ILE:HD12	8:B:87:ILE:HD13	1.70	0.74
1:2:692:ASP:OD2	5:6:781:ARG:NH2	2.20	0.74
11:E:576:THR:O	11:E:577:ASP:CB	2.34	0.74
1:2:286:TYR:HA	1:2:289:ILE:HB	1.70	0.74
5:6:792:SER:HA	5:6:793:TYR:HB2	1.69	0.74
1:2:268:LEU:HA	1:2:271:PHE:HB3	1.70	0.74
1:2:398:PRO:HG2	1:2:401:ARG:HD2	1.69	0.74
5:6:628:LEU:HG	5:6:631:ALA:HB3	1.69	0.74
5:6:720:ASN:HB3	5:6:723:ILE:HB	1.68	0.74
6:7:220:ILE:HB	6:7:222:SER:OG	1.87	0.73
6:7:255:VAL:HG23	6:7:258:ILE:HG13	1.69	0.73
3:4:725:THR:HG23	6:7:657:ASN:HD21	1.51	0.73
11:E:576:THR:O	11:E:577:ASP:OD2	2.04	0.73
2:3:156:SER:HB2	2:3:325:THR:HG22	1.69	0.73
4:5:66:GLU:HA	4:5:69:ILE:HG22	1.69	0.73
5:6:570:ASN:HD21	5:6:678:ILE:N	1.85	0.73
6:7:256:GLU:HG3	6:7:257:VAL:HG22	1.69	0.73
6:7:645:ALA:HB1	6:7:701:LYS:HB3	1.70	0.73
1:2:659:SER:HA	3:4:928:ARG:HH22	1.53	0.73
2:3:138:ASP:CG	2:3:140:PRO:HD2	2.08	0.73
6:7:476:ILE:HD12	6:7:476:ILE:N	2.03	0.73
10:D:258:VAL:CB	10:D:259:THR:HA	2.06	0.73
1:2:384:ASN:OD1	1:2:384:ASN:N	2.14	0.73
2:3:276:VAL:HG22	2:3:321:ILE:HB	1.69	0.73
11:E:81:LEU:HB3	11:E:120:ILE:HG13	1.71	0.73
3:4:862:GLN:HA	3:4:865:LEU:HB2	1.71	0.73
11:E:159:TYR:O	11:E:163:LEU:N	2.15	0.73
11:E:579:TYR:HB2	11:E:632:ILE:O	1.87	0.73
2:3:214:TYR:HA	2:3:227:THR:HG21	1.70	0.73
2:3:298:PHE:HD1	2:3:321:ILE:HG12	1.52	0.73
1:2:488:SER:HA	1:2:493:ILE:HD13	1.71	0.73
3:4:254:THR:HB	3:4:257:LEU:HB3	1.70	0.73
5:6:288:LEU:H	5:6:399:GLY:H	1.37	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:394:GLU:O	2:3:395:ASN:ND2	2.14	0.72
6:7:258:ILE:H	6:7:305:SER:HA	1.51	0.72
8:B:17:GLN:OE1	9:C:190:TRP:NE1	2.19	0.72
9:C:112:ILE:HG23	9:C:113:MET:HE2	1.71	0.72
3:4:557:ARG:HH22	3:4:652:GLN:HB3	1.53	0.72
4:5:43:GLN:HB3	9:C:192:PHE:CZ	2.23	0.72
5:6:137:ARG:NH2	5:6:192:TYR:OH	2.22	0.72
1:2:780:GLN:HE22	4:5:573:ILE:HG22	1.53	0.72
3:4:557:ARG:HE	3:4:668:ARG:HH21	1.37	0.72
4:5:379:PHE:HB3	4:5:568:ILE:HD13	1.70	0.72
7:A:149:ILE:HA	7:A:150:ASP:HB2	1.71	0.72
1:2:533:ILE:HD13	4:5:576:HIS:CE1	2.25	0.72
11:E:25:CYS:HB3	11:E:26:GLN:HA	1.69	0.72
11:E:392:PHE:HA	11:E:396:LEU:HD23	1.72	0.72
3:4:543:GLN:HA	3:4:562:ILE:HD11	1.71	0.72
8:B:5:ALA:O	8:B:8:GLN:HB3	1.88	0.72
8:B:184:PHE:O	8:B:188:ILE:HD12	1.90	0.72
5:6:511:ASP:OD1	5:6:514:ASN:ND2	2.22	0.72
5:6:810:ILE:HD11	5:6:827:ALA:HB2	1.69	0.72
1:2:778:LEU:HG	4:5:577:THR:HG21	1.71	0.72
2:3:554:ASN:HB2	2:3:557:ARG:HB2	1.71	0.72
3:4:572:THR:HG21	3:4:708:VAL:HG21	1.71	0.72
8:B:119:TRP:HE1	8:B:174:SER:HB2	1.53	0.72
3:4:234:ARG:HB2	3:4:291:TYR:HE2	1.55	0.71
5:6:294:VAL:HB	5:6:391:PRO:HA	1.72	0.71
5:6:695:LEU:H	5:6:838:VAL:HG13	1.54	0.71
11:E:19:SER:O	11:E:25:CYS:SG	2.48	0.71
3:4:428:ARG:O	3:4:429:ALA:HB2	1.87	0.71
3:4:765:ALA:HB1	3:4:819:LEU:HD12	1.71	0.71
5:6:944:LYS:HD2	5:6:957:GLU:HB3	1.70	0.71
1:2:422:GLU:HG3	1:2:598:LEU:HD11	1.71	0.71
1:2:856:GLN:HE22	1:2:859:ARG:HH21	1.37	0.71
2:3:190:SER:O	2:3:254:GLN:NE2	2.21	0.71
3:4:601:LEU:HG	3:4:620:ALA:HB3	1.72	0.71
4:5:138:ILE:HG23	4:5:332:GLY:HA3	1.72	0.71
1:2:546:GLY:HA3	5:6:796:THR:HG23	1.73	0.71
4:5:588:GLU:O	4:5:593:GLU:N	2.23	0.71
1:2:614:ASP:OD1	1:2:617:ARG:NH1	2.24	0.71
6:7:490:GLY:C	6:7:494:THR:HG22	2.11	0.71
11:E:29:ILE:HA	11:E:82:LEU:HB3	1.72	0.71
4:5:578:GLY:O	4:5:579:ASN:C	2.28	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:334:HIS:N	6:7:376:LEU:O	2.22	0.71
1:2:656:ARG:NH1	5:6:793:TYR:O	2.23	0.71
2:3:193:ARG:HD2	6:7:371:LEU:HG	1.73	0.71
3:4:364:VAL:HB	3:4:366:GLN:HE22	1.56	0.71
4:5:196:ASN:HB3	4:5:197:PHE:CD1	2.21	0.71
4:5:412:VAL:HG22	4:5:552:MET:HB2	1.72	0.71
9:C:118:LYS:HD2	9:C:118:LYS:O	1.91	0.71
5:6:603:SER:HB3	5:6:607:GLY:HA2	1.72	0.70
11:E:498:LEU:O	11:E:502:LEU:HG	1.90	0.70
2:3:292:VAL:HG11	2:3:326:VAL:HG13	1.72	0.70
3:4:758:ILE:HD13	3:4:813:LEU:HA	1.73	0.70
5:6:609:THR:HG23	5:6:663:ILE:HG12	1.73	0.70
2:3:39:ARG:HH22	2:3:132:LEU:HD11	1.56	0.70
4:5:298:TYR:HA	4:5:328:ILE:HG12	1.73	0.70
11:E:269:ASN:O	11:E:273:ASN:ND2	2.23	0.70
1:2:542:LEU:HD23	1:2:682:VAL:HG13	1.73	0.70
3:4:524:ARG:HG3	3:4:742:LEU:HD23	1.73	0.70
5:6:653:HIS:CD2	5:6:705:ILE:HA	2.27	0.70
3:4:646:HIS:HA	3:4:701:ARG:HH22	1.56	0.70
5:6:695:LEU:HA	5:6:698:ASN:HB2	1.73	0.70
5:6:937:VAL:HG12	5:6:941:LEU:HD21	1.72	0.70
11:E:637:LEU:HA	11:E:640:PHE:HB3	1.72	0.70
1:2:780:GLN:NE2	4:5:573:ILE:O	2.25	0.70
4:5:384:ILE:HG13	4:5:554:PHE:HD2	1.55	0.70
7:A:134:TYR:HE1	10:D:186:HIS:HD1	1.38	0.70
2:3:450:ARG:O	2:3:456:ARG:NH1	2.25	0.70
6:7:220:ILE:C	6:7:222:SER:CB	2.60	0.70
9:C:55:ALA:HB2	9:C:74:LEU:HD11	1.72	0.70
4:5:422:LYS:NZ	13:5:801:ANP:O2B	2.25	0.70
6:7:221:SER:HA	6:7:222:SER:HB3	1.70	0.70
4:5:455:ARG:HA	4:5:462:PHE:HA	1.72	0.69
2:3:440:VAL:HG12	2:3:461:ALA:HB3	1.74	0.69
3:4:634:PHE:HA	3:4:637:MET:HG2	1.74	0.69
5:6:533:ILE:CG2	5:6:548:LEU:HD11	2.22	0.69
6:7:432:LEU:HD11	6:7:469:LEU:HD23	1.75	0.69
7:A:199:LEU:HB2	7:A:205:LEU:HG	1.72	0.69
2:3:193:ARG:NH2	2:3:452:THR:OG1	2.21	0.69
5:6:566:ARG:NH2	5:6:655:ALA:O	2.21	0.69
2:3:259:GLN:HG3	2:3:273:SER:HB3	1.74	0.69
6:7:82:LEU:HA	6:7:85:ILE:HD12	1.75	0.69
6:7:357:PRO:HA	6:7:374:THR:HA	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:108:ASP:HB3	7:A:109:LEU:HB3	0.83	0.69
8:B:52:LEU:HD13	10:D:125:PRO:HB2	1.72	0.69
10:D:266:GLU:HB3	10:D:268:GLU:HG3	1.74	0.69
4:5:414:LEU:HB2	4:5:522:ALA:HA	1.73	0.69
4:5:434:PRO:HA	4:5:600:LYS:HE2	1.74	0.69
5:6:297:THR:HA	5:6:359:VAL:HG12	1.75	0.69
6:7:271:GLN:NE2	6:7:279:THR:O	2.24	0.69
1:2:218:TYR:HB3	1:2:227:TYR:HE2	1.57	0.69
1:2:442:ASN:OD1	1:2:443:GLY:N	2.24	0.69
5:6:953:GLU:O	5:6:957:GLU:HG2	1.93	0.69
11:E:45:LEU:HD21	11:E:82:LEU:HD11	1.74	0.69
2:3:33:ASP:HB2	2:3:39:ARG:HH11	1.58	0.69
3:4:876:GLN:NE2	3:4:880:SER:O	2.26	0.69
4:5:83:PRO:O	4:5:87:ILE:HG13	1.92	0.69
6:7:662:GLN:HA	6:7:665:ILE:HD12	1.74	0.69
10:D:143:TYR:OH	10:D:147:ARG:NH1	2.25	0.69
10:D:260:ILE:HG23	10:D:266:GLU:N	2.08	0.69
11:E:270:LEU:O	11:E:274:ILE:HG13	1.92	0.69
1:2:404:ARG:NH2	5:6:297:THR:OG1	2.25	0.69
2:3:209:PHE:O	6:7:7:SER:OG	2.08	0.69
2:3:413:THR:HB	2:3:415:LYS:HE2	1.75	0.69
5:6:625:ALA:HB3	5:6:626:GLY:HA2	1.75	0.69
6:7:139:LEU:HA	6:7:142:ILE:HB	1.74	0.69
6:7:680:SER:HB2	6:7:681:PHE:HA	1.74	0.69
1:2:550:SER:N	13:2:901:ANP:O1A	2.25	0.69
2:3:223:THR:HG21	4:5:245:HIS:H	1.58	0.69
7:A:188:GLN:HG3	11:E:58:ILE:HD12	1.74	0.69
1:2:571:ALA:CB	5:6:664:ALA:HB3	2.23	0.69
3:4:824:GLU:HA	3:4:827:ARG:HB3	1.75	0.69
4:5:55:LEU:HB3	9:C:137:HIS:HB3	1.73	0.69
5:6:612:VAL:HG23	5:6:623:ILE:HA	1.75	0.69
1:2:547:THR:O	13:2:901:ANP:O2A	2.11	0.68
1:2:706:SER:OG	1:2:706:SER:O	2.11	0.68
2:3:229:ALA:CB	6:7:370:LEU:HD21	2.24	0.68
4:5:547:LEU:HD22	4:5:553:ILE:HG12	1.73	0.68
5:6:284:ILE:HA	5:6:401:GLU:HB3	1.75	0.68
5:6:361:ILE:HD12	5:6:397:PHE:HE2	1.57	0.68
11:E:577:ASP:HB2	11:E:633:ARG:HE	1.58	0.68
1:2:638:THR:H	4:5:445:SER:H	1.40	0.68
1:2:806:THR:H	1:2:809:HIS:HB2	1.57	0.68
2:3:23:ASP:OD1	2:3:26:ARG:NH2	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:257:THR:HA	2:3:275:ASP:HA	1.75	0.68
4:5:282:LEU:HD22	4:5:333:ILE:HG22	1.75	0.68
7:A:200:ILE:HD11	7:A:208:ILE:HD11	1.75	0.68
1:2:541:LEU:N	1:2:648:ALA:O	2.22	0.68
2:3:48:TYR:HB3	2:3:92:LEU:HD11	1.76	0.68
3:4:607:ARG:HG2	3:4:609:VAL:H	1.57	0.68
3:4:692:ILE:HD11	3:4:705:VAL:HG11	1.75	0.68
4:5:341:SER:O	4:5:345:SER:CB	2.24	0.68
4:5:623:SER:O	4:5:627:VAL:CG1	2.23	0.68
2:3:347:ILE:O	2:3:351:ASN:ND2	2.27	0.68
5:6:738:ARG:HD3	5:6:740:GLU:H	1.59	0.68
7:A:147:VAL:H	7:A:148:ASP:HA	1.59	0.68
3:4:623:LEU:HB3	5:6:370:THR:HG21	1.76	0.68
5:6:522:ASP:HB2	5:6:525:ILE:HG23	1.74	0.68
11:E:316:LEU:HD11	11:E:414:GLY:N	2.09	0.68
1:2:339:PHE:HA	1:2:378:GLU:HB3	1.75	0.68
2:3:163:ALA:H	2:3:164:HIS:HB2	1.58	0.68
2:3:406:LEU:HD12	2:3:514:ALA:HB3	1.75	0.68
10:D:232:VAL:HG21	10:D:269:LEU:HD12	1.76	0.68
10:D:258:VAL:HB	10:D:259:THR:CA	2.14	0.68
3:4:718:ARG:HG3	6:7:661:VAL:HG11	1.74	0.68
6:7:466:LYS:HD2	6:7:566:ALA:HB1	1.75	0.68
11:E:85:GLY:N	11:E:123:LEU:O	2.26	0.68
2:3:687:ARG:HB3	6:7:604:PRO:HB3	1.76	0.68
7:A:46:ASN:O	7:A:50:ASN:ND2	2.27	0.68
11:E:381:ASP:HB2	11:E:384:ILE:HG13	1.76	0.68
1:2:824:ARG:NH2	1:2:833:ASP:OD1	2.27	0.67
2:3:101:ASP:HA	2:3:104:ARG:HH21	1.59	0.67
3:4:683:ASN:HD21	3:4:686:LEU:HD22	1.59	0.67
11:E:140:ILE:HA	11:E:141:GLN:HB3	1.75	0.67
1:2:328:THR:O	1:2:386:GLN:NE2	2.26	0.67
6:7:434:LEU:HD13	6:7:695:LEU:HD22	1.76	0.67
7:A:71:GLN:HA	7:A:74:VAL:HB	1.76	0.67
11:E:31:VAL:HG22	11:E:42:THR:HG21	1.74	0.67
3:4:524:ARG:HG3	3:4:742:LEU:CD2	2.24	0.67
6:7:104:SER:OG	6:7:216:ARG:NE	2.27	0.67
6:7:256:GLU:N	6:7:306:LYS:O	2.22	0.67
2:3:25:VAL:CG2	2:3:124:PRO:HB2	2.25	0.67
6:7:461:ASP:HB2	6:7:462:PRO:HA	1.77	0.67
3:4:873:LEU:HD22	5:6:942:LEU:HG	1.76	0.67
4:5:255:PHE:HA	4:5:277:THR:HG22	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:413:LEU:HD11	4:5:550:PHE:CD2	2.29	0.67
6:7:208:SER:HB2	6:7:209:GLN:HA	1.76	0.67
5:6:143:MET:HE3	5:6:148:LEU:H	1.60	0.67
11:E:540:ARG:NH2	11:E:574:GLU:CB	2.50	0.67
2:3:429:ALA:H	2:3:469:VAL:H	1.43	0.67
5:6:396:LYS:HB3	5:6:460:ILE:HG22	1.76	0.67
8:B:10:THR:HA	8:B:182:ARG:HH11	1.60	0.67
8:B:112:PHE:O	8:B:152:ARG:NH1	2.26	0.67
2:3:199:SER:HB3	2:3:212:ARG:HB3	1.76	0.67
3:4:589:VAL:HG21	3:4:624:SER:CB	2.25	0.67
5:6:400:VAL:HG23	5:6:455:LEU:O	1.94	0.67
10:D:83:LEU:O	10:D:87:LEU:HG	1.95	0.67
1:2:423:GLU:HB2	1:2:459:ARG:HD3	1.77	0.67
2:3:183:GLU:OE1	2:3:183:GLU:N	2.23	0.67
3:4:714:GLU:H	3:4:715:LYS:HB3	1.58	0.67
5:6:381:LEU:HB3	5:6:386:VAL:HA	1.77	0.67
5:6:533:ILE:O	5:6:587:TYR:OH	2.13	0.67
6:7:26:VAL:H	6:7:63:TYR:HB2	1.59	0.67
3:4:647:GLU:O	3:4:651:GLN:HB2	1.95	0.67
6:7:458:LEU:HB2	6:7:566:ALA:HA	1.77	0.67
2:3:30:GLU:O	2:3:34:THR:OG1	2.13	0.66
3:4:521:LEU:HD11	3:4:741:VAL:O	1.96	0.66
3:4:607:ARG:HA	3:4:614:LEU:HA	1.75	0.66
5:6:122:PHE:HB2	5:6:124:VAL:HB	1.78	0.66
8:B:10:THR:OG1	8:B:179:ASN:OD1	2.13	0.66
2:3:192:VAL:HB	6:7:329:ARG:NH1	2.07	0.66
2:3:701:THR:O	2:3:704:THR:OG1	2.13	0.66
7:A:149:ILE:HD11	10:D:141:ARG:HG2	1.76	0.66
1:2:653:ASN:ND2	1:2:666:ASN:O	2.28	0.66
1:2:660:THR:OG1	3:4:928:ARG:NH1	2.28	0.66
3:4:302:LYS:NZ	3:4:421:ASP:OD2	2.28	0.66
3:4:527:ALA:HB1	3:4:530:ILE:HD13	1.77	0.66
4:5:453:VAL:HG21	4:5:509:ILE:HD11	1.77	0.66
6:7:318:LEU:HD23	6:7:321:GLN:HG3	1.77	0.66
2:3:339:ARG:HB2	2:3:340:GLN:HA	1.77	0.66
2:3:706:ILE:O	2:3:710:THR:OG1	2.13	0.66
3:4:354:HIS:CD2	3:4:356:MET:HG2	2.31	0.66
4:5:426:LEU:HD21	4:5:520:LEU:HD22	1.78	0.66
6:7:656:VAL:O	6:7:660:VAL:HG23	1.96	0.66
8:B:7:LEU:H	8:B:8:GLN:HA	1.61	0.66
10:D:218:MET:HA	10:D:220:ASP:N	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:325:THR:OG1	1:2:389:THR:O	2.12	0.66
2:3:451:GLU:HG3	2:3:452:THR:HG23	1.76	0.66
3:4:701:ARG:HA	3:4:796:ARG:HH21	1.61	0.66
4:5:562:GLU:HB3	4:5:563:GLU:HG3	1.76	0.66
7:A:7:ASN:HA	7:A:10:VAL:HG12	1.78	0.66
8:B:12:SER:HB3	8:B:15:GLU:HG3	1.76	0.66
1:2:234:LEU:HB3	1:2:237:MET:HB3	1.78	0.66
2:3:116:VAL:HG12	2:3:117:GLU:HG3	1.77	0.66
5:6:355:ASP:HB3	5:6:356:TRP:HA	1.77	0.66
11:E:360:HIS:HA	11:E:363:PHE:HD2	1.61	0.66
4:5:571:HIS:O	4:5:581:ASN:ND2	2.29	0.66
6:7:668:ARG:HD2	6:7:672:LYS:HZ1	1.59	0.66
1:2:484:PHE:CE1	1:2:766:TYR:HA	2.30	0.66
1:2:572:SER:C	5:6:664:ALA:HB2	2.16	0.66
2:3:439:GLY:HA3	2:3:442:LEU:HD22	1.78	0.66
3:4:714:GLU:N	3:4:715:LYS:HB3	2.11	0.66
4:5:321:VAL:N	4:5:323:ILE:HG13	2.11	0.66
4:5:649:THR:N	4:5:652:GLN:HG3	2.09	0.66
5:6:533:ILE:HG12	5:6:548:LEU:HD11	1.77	0.66
1:2:567:THR:HG23	1:2:568:GLY:N	2.10	0.66
2:3:156:SER:O	2:3:324:ASN:ND2	2.28	0.66
8:B:52:LEU:HD11	10:D:129:MET:HB2	1.78	0.66
11:E:621:ARG:HB2	11:E:631:GLU:HB2	1.78	0.66
2:3:367:LEU:HD12	2:3:378:LYS:HB3	1.78	0.65
6:7:69:LYS:HA	6:7:72:ASN:HB2	1.78	0.65
10:D:94:GLN:HA	10:D:97:LEU:HB3	1.78	0.65
1:2:539:VAL:HB	1:2:647:ILE:HA	1.79	0.65
4:5:377:SER:OG	4:5:424:GLN:NE2	2.27	0.65
4:5:451:ALA:HB2	4:5:470:VAL:HG21	1.78	0.65
5:6:171:SER:O	5:6:286:SER:HB2	1.96	0.65
5:6:561:GLU:N	5:6:562:GLY:HA3	2.10	0.65
6:7:496:ALA:O	6:7:508:LEU:HG	1.95	0.65
1:2:632:SER:CB	4:5:442:LYS:HB3	2.16	0.65
1:2:789:VAL:HG13	1:2:863:ILE:HD12	1.78	0.65
7:A:138:ILE:HD12	7:A:141:LEU:HD23	1.77	0.65
11:E:131:LEU:O	11:E:155:GLN:NE2	2.29	0.65
3:4:589:VAL:HB	3:4:629:CYS:HA	1.78	0.65
5:6:662:SER:HB3	5:6:671:THR:HG22	1.78	0.65
10:D:200:LYS:H	10:D:201:TYR:HB2	1.61	0.65
11:E:73:GLN:HG2	11:E:74:LEU:HG	1.77	0.65
1:2:803:PHE:HB3	1:2:805:ILE:H	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:21:ILE:HG21	6:7:117:PHE:HA	1.77	0.65
5:6:122:PHE:HA	5:6:123:SER:HB2	1.78	0.65
1:2:436:GLY:N	1:2:437:ASN:HA	2.11	0.65
1:2:481:GLU:HA	1:2:484:PHE:HB3	1.79	0.65
2:3:314:LEU:HD23	4:5:253:GLN:HE22	1.62	0.65
3:4:572:THR:HB	3:4:574:LYS:HE3	1.79	0.65
6:7:368:ALA:N	6:7:370:LEU:HD22	2.11	0.65
10:D:159:ARG:HA	10:D:162:ASN:HB3	1.78	0.65
1:2:317:LEU:HA	1:2:429:ILE:HG22	1.79	0.65
1:2:334:LEU:HA	1:2:382:TYR:CD1	2.32	0.65
3:4:613:GLN:HG3	5:6:360:ARG:HH22	1.62	0.65
4:5:53:ASN:HB3	4:5:58:ASN:HB3	1.79	0.65
4:5:62:THR:HA	4:5:138:ILE:O	1.97	0.65
4:5:481:GLU:HG2	4:5:484:LYS:HB2	1.79	0.65
5:6:348:VAL:O	5:6:351:SER:OG	2.14	0.65
11:E:526:ARG:HB2	11:E:567:MET:SD	2.37	0.65
1:2:685:ASP:O	5:6:794:ARG:NE	2.25	0.65
3:4:907:LEU:HD23	3:4:910:LEU:HD12	1.78	0.65
4:5:664:ALA:HA	4:5:676:HIS:CE1	2.26	0.65
5:6:783:ASP:OD1	5:6:783:ASP:N	2.27	0.65
6:7:513:LEU:HA	6:7:561:THR:HG21	1.79	0.65
2:3:47:VAL:HG12	2:3:51:ASN:HD21	1.63	0.64
2:3:471:CYS:HA	2:3:513:ILE:O	1.97	0.64
3:4:201:PHE:HB2	3:4:202:LYS:HA	1.79	0.64
4:5:181:ILE:HG21	4:5:241:TYR:HB3	1.78	0.64
11:E:489:VAL:O	11:E:493:ASN:ND2	2.29	0.64
5:6:174:TYR:CE2	5:6:178:LEU:HD11	2.33	0.64
5:6:605:ALA:O	5:6:607:GLY:HA3	1.96	0.64
6:7:531:GLU:HA	6:7:534:ARG:HB2	1.78	0.64
6:7:575:ASN:HB3	6:7:578:LEU:HD22	1.79	0.64
9:C:104:PHE:O	9:C:108:ALA:N	2.28	0.64
9:C:105:PHE:HZ	9:C:127:LEU:HD22	1.62	0.64
11:E:285:ALA:HB1	11:E:288:TYR:HB3	1.79	0.64
11:E:611:GLN:HG3	11:E:649:LEU:HD21	1.78	0.64
6:7:311:GLN:O	6:7:335:VAL:HB	1.96	0.64
4:5:165:ILE:HG12	4:5:291:ARG:HA	1.79	0.64
4:5:356:GLU:O	4:5:360:LEU:HG	1.98	0.64
5:6:964:VAL:HA	5:6:967:ARG:HB3	1.79	0.64
7:A:167:VAL:HG21	7:A:183:LEU:HD12	1.79	0.64
11:E:292:TYR:O	11:E:296:GLN:N	2.28	0.64
2:3:139:VAL:N	2:3:140:PRO:HD2	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:332:VAL:HB	3:4:429:ALA:CA	2.18	0.64
3:4:461:VAL:HG12	3:4:463:VAL:H	1.63	0.64
3:4:649:MET:HG3	3:4:701:ARG:HD3	1.78	0.64
4:5:366:LEU:HA	4:5:369:ILE:HG22	1.79	0.64
4:5:464:LEU:HD23	4:5:466:GLY:H	1.61	0.64
2:3:139:VAL:N	2:3:140:PRO:CD	2.58	0.64
3:4:271:ILE:O	3:4:275:THR:HG23	1.97	0.64
4:5:343:TRP:O	4:5:344:ASN:HB3	1.96	0.64
4:5:378:ILE:HA	13:5:801:ANP:HN61	1.62	0.64
10:D:59:ASP:OD2	10:D:90:ARG:NH1	2.30	0.64
3:4:183:THR:HG21	3:4:267:GLU:HG3	1.80	0.64
4:5:375:ALA:HB3	4:5:385:LYS:HE3	1.80	0.64
6:7:23:ASP:O	6:7:27:THR:OG1	2.16	0.64
2:3:292:VAL:HG11	2:3:326:VAL:CG1	2.27	0.64
10:D:123:LYS:HD3	11:E:22:HIS:NE2	2.13	0.64
3:4:241:LEU:HD22	3:4:303:VAL:HG22	1.79	0.64
3:4:574:LYS:NZ	3:4:675:ALA:O	2.23	0.64
3:4:682:TYR:O	3:4:691:ASN:ND2	2.31	0.64
4:5:368:GLU:O	4:5:371:THR:OG1	2.12	0.64
4:5:254:GLN:HB3	4:5:278:CYS:HB2	1.80	0.63
11:E:24:SER:HB2	11:E:25:CYS:HB2	1.80	0.63
2:3:433:THR:HG23	4:5:503:SER:HB3	1.81	0.63
2:3:524:ASP:HA	2:3:532:ASN:HD21	1.63	0.63
3:4:289:LEU:HB3	3:4:293:LEU:HD21	1.80	0.63
3:4:443:PRO:HB2	3:4:453:LEU:HD22	1.80	0.63
4:5:606:CYS:O	4:5:665:LYS:NZ	2.29	0.63
5:6:304:LEU:HA	5:6:353:PHE:CE1	2.32	0.63
1:2:575:GLY:N	5:6:664:ALA:HB1	2.13	0.63
2:3:49:ASN:OD1	2:3:50:SER:N	2.32	0.63
3:4:727:LEU:N	3:4:728:TYR:CB	2.58	0.63
5:6:119:LEU:HD11	5:6:188:VAL:HG21	1.81	0.63
5:6:355:ASP:OD2	5:6:383:GLY:N	2.31	0.63
6:7:108:GLN:OE1	6:7:237:GLN:NE2	2.31	0.63
6:7:147:ARG:HH21	6:7:197:THR:HG23	1.63	0.63
6:7:489:SER:O	6:7:493:LEU:HD23	1.97	0.63
4:5:440:SER:HA	4:5:480:ASP:HB2	1.80	0.63
11:E:575:ASN:O	11:E:576:THR:OG1	2.07	0.63
3:4:419:VAL:HB	3:4:423:LEU:HB2	1.81	0.63
4:5:144:ASN:HD22	11:E:375:GLU:HA	1.63	0.63
1:2:229:ALA:O	1:2:233:THR:OG1	2.14	0.63
2:3:53:ALA:HA	6:7:218:LYS:HD2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:830:ARG:HA	3:4:833:ILE:HB	1.81	0.63
4:5:343:TRP:O	4:5:344:ASN:CB	2.47	0.63
4:5:639:GLU:HB2	4:5:641:THR:HG23	1.81	0.63
5:6:523:GLU:OE1	5:6:524:HIS:ND1	2.31	0.63
5:6:708:ARG:HD3	5:6:798:ARG:HD3	1.80	0.63
6:7:411:TYR:CD1	6:7:433:LEU:HD23	2.34	0.63
6:7:417:SER:HB3	6:7:633:VAL:HB	1.81	0.63
1:2:309:LEU:O	1:2:310:ARG:NH1	2.31	0.63
2:3:564:HIS:HA	2:3:567:ARG:HG2	1.81	0.63
3:4:771:VAL:HG22	5:6:732:VAL:HG21	1.80	0.63
7:A:109:LEU:HG	7:A:111:SER:HB3	1.80	0.63
10:D:224:TRP:O	10:D:280:GLU:N	2.31	0.63
1:2:612:MET:O	1:2:617:ARG:NH2	2.32	0.63
1:2:630:SER:HA	4:5:445:SER:HB2	1.81	0.63
10:D:269:LEU:HD13	10:D:275:TYR:CD2	2.34	0.63
1:2:320:VAL:HB	1:2:426:VAL:HG23	1.79	0.63
1:2:573:ALA:HB2	5:6:663:ILE:O	1.99	0.63
2:3:434:GLY:N	2:3:473:ASP:O	2.32	0.63
5:6:533:ILE:HG21	5:6:548:LEU:CD1	2.28	0.63
5:6:560:VAL:HB	5:6:561:GLU:HA	1.81	0.63
6:7:541:MET:HB2	6:7:593:ARG:HH11	1.64	0.63
8:B:11:PHE:HB2	8:B:179:ASN:ND2	2.12	0.63
1:2:704:VAL:HG13	5:6:766:THR:HG23	1.81	0.62
2:3:171:LEU:HD23	2:3:172:THR:H	1.64	0.62
3:4:324:LYS:O	3:4:438:THR:HA	1.99	0.62
5:6:581:LYS:NZ	5:6:682:ALA:O	2.32	0.62
7:A:31:MET:O	7:A:93:ARG:NH2	2.31	0.62
1:2:581:ARG:NH1	1:2:592:GLU:OE2	2.32	0.62
2:3:706:ILE:HG21	6:7:620:HIS:HE2	1.64	0.62
6:7:265:CYS:N	6:7:289:CYS:SG	2.66	0.62
6:7:543:GLN:HG3	6:7:544:GLN:H	1.65	0.62
8:B:165:GLU:OE1	8:B:165:GLU:N	2.30	0.62
10:D:73:SER:OG	10:D:150:LYS:NZ	2.31	0.62
1:2:335:LYS:HB2	1:2:381:VAL:O	2.00	0.62
2:3:360:PHE:HD1	2:3:715:VAL:HG11	1.64	0.62
5:6:653:HIS:CD2	5:6:656:MET:HB2	2.34	0.62
5:6:805:ARG:HA	5:6:808:GLU:CD	2.20	0.62
11:E:351:TRP:HB2	11:E:511:VAL:HG13	1.81	0.62
1:2:641:GLN:HB3	1:2:643:ARG:NH1	2.14	0.62
2:3:100:LEU:HB3	2:3:111:TRP:HZ3	1.65	0.62
5:6:625:ALA:HB2	5:6:629:MET:HE2	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:513:LEU:HD13	6:7:540:VAL:HG21	1.80	0.62
11:E:30:PHE:CE2	11:E:81:LEU:HD21	2.35	0.62
3:4:628:VAL:HA	3:4:670:SER:O	1.99	0.62
5:6:610:ALA:HB3	5:6:663:ILE:HG21	1.80	0.62
10:D:143:TYR:O	10:D:147:ARG:HG3	1.99	0.62
1:2:438:LEU:HD13	5:6:301:ARG:HH12	1.63	0.62
3:4:234:ARG:HB3	3:4:280:MET:HE1	1.80	0.62
3:4:236:LEU:HB3	3:4:238:THR:HG23	1.80	0.62
4:5:349:PHE:CD2	4:5:351:GLU:HA	2.34	0.62
5:6:614:ARG:NH2	12:F:12:DT:O4’	2.32	0.62
10:D:200:LYS:HB2	10:D:201:TYR:CG	2.35	0.62
2:3:168:PRO:HG2	2:3:260:GLU:HB3	1.82	0.62
3:4:695:PRO:HB2	3:4:697:PRO:HG2	1.82	0.62
5:6:831:LEU:O	5:6:835:ILE:HG13	1.99	0.62
11:E:285:ALA:HB3	11:E:286:GLN:HA	1.82	0.62
11:E:292:TYR:HB2	11:E:293:PRO:HD3	1.82	0.62
2:3:138:ASP:CB	2:3:140:PRO:HD2	2.30	0.62
3:4:400:GLN:HG3	6:7:508:LEU:HB2	1.81	0.62
3:4:428:ARG:O	3:4:429:ALA:CB	2.47	0.62
3:4:758:ILE:HD11	3:4:813:LEU:HD23	1.81	0.62
4:5:136:GLN:HB2	4:5:280:ARG:HE	1.65	0.62
5:6:576:ASP:O	5:6:579:THR:OG1	2.09	0.62
5:6:703:ALA:HA	5:6:706:MET:HB3	1.81	0.62
7:A:100:MET:HG2	7:A:117:GLN:HE21	1.64	0.62
9:C:170:GLU:O	9:C:174:LYS:N	2.33	0.62
11:E:312:THR:OG1	11:E:314:ASP:O	2.18	0.62
1:2:414:LEU:HD22	1:2:455:SER:HA	1.81	0.62
3:4:418:CYS:O	3:4:419:VAL:HG22	2.00	0.62
5:6:941:LEU:HD22	5:6:958:ARG:HH21	1.65	0.62
1:2:622:GLU:HG3	1:2:626:GLN:NE2	2.15	0.62
2:3:100:LEU:HB3	2:3:111:TRP:CZ3	2.35	0.62
3:4:547:GLY:HA3	3:4:560:GLY:HA2	1.81	0.62
4:5:410:ILE:O	4:5:411:ASN:ND2	2.31	0.62
5:6:796:THR:HG22	5:6:798:ARG:N	2.14	0.62
7:A:37:ILE:O	7:A:41:LEU:HG	2.00	0.62
8:B:195:ILE:HG22	9:C:109:ILE:HD13	1.81	0.62
9:C:180:SER:O	9:C:183:SER:OG	2.15	0.62
2:3:414:ALA:HA	13:3:1001:ANP:H5’1	1.82	0.61
5:6:399:GLY:HA2	5:6:454:PHE:CZ	2.35	0.61
5:6:662:SER:HA	5:6:671:THR:HA	1.82	0.61
3:4:549:ASN:OD1	3:4:559:ARG:NH2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:138:ILE:HA	7:A:141:LEU:HD23	1.82	0.61
11:E:530:LEU:HD22	11:E:536:LEU:HD11	1.81	0.61
3:4:722:LYS:HA	3:4:725:THR:HB	1.80	0.61
3:4:727:LEU:H	3:4:728:TYR:HB3	1.65	0.61
4:5:347:THR:HB	4:5:349:PHE:HA	1.81	0.61
6:7:459:MET:HG3	6:7:460:GLY:H	1.64	0.61
8:B:13:PRO:HA	8:B:16:ILE:HG12	1.81	0.61
8:B:192:LEU:O	8:B:195:ILE:HG13	2.00	0.61
1:2:300:PHE:O	1:2:302:THR:OG1	2.15	0.61
6:7:415:ALA:HA	6:7:418:ILE:HD12	1.81	0.61
7:A:150:ASP:OD1	7:A:198:ARG:NH2	2.34	0.61
10:D:74:PRO:HG3	10:D:279:TYR:CG	2.36	0.61
11:E:413:LEU:HD23	11:E:416:ARG:HD2	1.81	0.61
4:5:64:ASN:HD21	4:5:66:GLU:HB2	1.65	0.61
5:6:540:HIS:HD2	5:6:715:ILE:HG21	1.66	0.61
11:E:336:ASP:HA	11:E:339:TYR:HB3	1.82	0.61
11:E:551:TRP:HE3	11:E:552:LEU:HD12	1.65	0.61
1:2:853:VAL:HA	1:2:856:GLN:HB3	1.82	0.61
3:4:396:VAL:HA	3:4:418:CYS:HA	1.82	0.61
10:D:260:ILE:HG12	10:D:266:GLU:OE1	1.96	0.61
2:3:254:GLN:HE21	2:3:256:ILE:HD11	1.64	0.61
4:5:51:ARG:HA	4:5:54:ILE:HG12	1.83	0.61
4:5:553:ILE:H	4:5:553:ILE:HD12	1.66	0.61
5:6:919:LYS:HD2	5:6:936:ILE:HB	1.82	0.61
11:E:12:TYR:CE1	11:E:48:LEU:HD21	2.36	0.61
11:E:316:LEU:HD21	11:E:413:LEU:O	2.00	0.61
1:2:479:GLU:O	1:2:482:ARG:HG2	2.01	0.61
1:2:543:GLY:N	1:2:650:ALA:O	2.33	0.61
2:3:301:LEU:H	2:3:319:THR:HG22	1.66	0.61
2:3:356:LYS:HB2	2:3:359:ILE:HG23	1.83	0.61
5:6:189:VAL:O	5:6:193:ALA:N	2.33	0.61
5:6:940:TYR:OH	5:6:957:GLU:OE1	2.19	0.61
9:C:82:THR:HA	9:C:85:MET:HG2	1.81	0.61
11:E:33:CYS:SG	11:E:62:PHE:HA	2.40	0.61
11:E:68:ARG:HB2	11:E:95:PHE:CE2	2.35	0.61
1:2:296:ARG:O	1:2:455:SER:OG	2.08	0.61
3:4:822:VAL:HA	3:4:825:ALA:HB3	1.83	0.61
6:7:82:LEU:HB3	6:7:207:LEU:HD23	1.83	0.61
11:E:243:GLN:N	11:E:607:MET:SD	2.74	0.61
11:E:577:ASP:HB2	11:E:633:ARG:NE	2.15	0.61
1:2:299:ASP:HB3	1:2:319:ARG:NH1	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:244:GLU:O	2:3:248:SER:OG	2.16	0.61
2:3:409:GLY:O	2:3:415:LYS:NZ	2.34	0.61
3:4:518:LEU:HG	3:4:522:LEU:HG	1.83	0.61
4:5:349:PHE:HD2	4:5:351:GLU:HA	1.65	0.61
7:A:198:ARG:O	7:A:202:GLN:HB2	2.01	0.61
9:C:162:THR:N	9:C:163:SER:HA	2.14	0.61
2:3:193:ARG:HH22	2:3:452:THR:HG1	1.49	0.60
4:5:339:THR:O	4:5:341:SER:OG	2.17	0.60
5:6:690:ASN:HB3	5:6:693:LEU:HD12	1.83	0.60
2:3:554:ASN:O	2:3:558:ASP:N	2.34	0.60
3:4:826:VAL:HA	3:4:829:ILE:HD12	1.81	0.60
5:6:943:GLN:HA	5:6:946:ASN:HD21	1.66	0.60
6:7:228:ARG:NH1	6:7:326:HIS:HB3	2.15	0.60
2:3:210:HIS:HB3	6:7:5:LEU:HD21	1.83	0.60
6:7:369:GLY:H	6:7:371:LEU:HB2	1.66	0.60
6:7:440:VAL:HG23	6:7:697:GLN:HB3	1.81	0.60
11:E:311:LYS:N	11:E:312:THR:HA	2.16	0.60
1:2:564:VAL:HG11	1:2:595:ALA:HB1	1.83	0.60
1:2:793:LEU:HD11	1:2:863:ILE:HG21	1.83	0.60
2:3:105:GLU:OE1	2:3:105:GLU:N	2.34	0.60
2:3:402:ASP:OD1	2:3:402:ASP:N	2.29	0.60
13:3:1001:ANP:O2B	13:3:1001:ANP:O3G	2.20	0.60
7:A:22:ARG:HB3	7:A:23:SER:HA	1.83	0.60
7:A:67:VAL:HG21	9:C:25:PRO:HD2	1.83	0.60
11:E:431:LEU:O	11:E:476:ASN:ND2	2.33	0.60
2:3:53:ALA:O	6:7:217:LYS:NZ	2.32	0.60
3:4:608:ASP:OD2	3:4:611:THR:OG1	2.18	0.60
3:4:725:THR:O	3:4:728:TYR:HB2	2.01	0.60
4:5:144:ASN:ND2	11:E:374:GLN:O	2.35	0.60
9:C:107:LEU:O	9:C:110:LYS:N	2.32	0.60
1:2:783:MET:HB3	4:5:573:ILE:HG21	1.81	0.60
3:4:517:ASP:O	3:4:521:LEU:N	2.26	0.60
4:5:485:MET:HE3	4:5:490:ARG:HA	1.84	0.60
4:5:675:ARG:HA	4:5:678:ASP:HB2	1.84	0.60
5:6:725:THR:HA	5:6:728:ALA:HB3	1.84	0.60
6:7:664:TYR:CG	6:7:689:LEU:HD13	2.36	0.60
11:E:346:ALA:HB2	11:E:555:CYS:HA	1.84	0.60
11:E:583:GLY:N	11:E:628:SER:O	2.27	0.60
1:2:275:ALA:O	1:2:279:THR:N	2.33	0.60
1:2:611:LYS:N	1:2:611:LYS:HD2	2.17	0.60
2:3:303:ALA:HB1	2:3:307:ASN:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:137:LEU:HD11	4:5:139:LEU:HD23	1.82	0.60
11:E:92:LEU:O	11:E:96:LEU:N	2.34	0.60
11:E:567:MET:HB2	11:E:584:LEU:HB2	1.83	0.60
2:3:161:PHE:HB3	2:3:162:GLY:HA3	1.84	0.60
2:3:229:ALA:O	2:3:230:ILE:HG23	2.01	0.60
11:E:512:ALA:O	11:E:516:LYS:HG3	2.02	0.60
3:4:260:GLN:HG2	6:7:135:LYS:HZ1	1.66	0.60
4:5:338:GLU:HG2	4:5:340:SER:OG	2.01	0.60
1:2:283:TYR:O	1:2:285:ASP:N	2.33	0.60
3:4:755:LYS:HA	3:4:810:LYS:HD3	1.82	0.60
4:5:66:GLU:OE1	4:5:66:GLU:N	2.35	0.60
5:6:304:LEU:HD12	5:6:353:PHE:HE1	1.67	0.60
11:E:346:ALA:HB1	11:E:558:GLU:HG3	1.83	0.60
1:2:778:LEU:HG	4:5:577:THR:HG22	1.83	0.59
2:3:553:ILE:HG22	4:5:630:ARG:HH11	1.67	0.59
5:6:357:GLN:HE21	5:6:381:LEU:HD12	1.66	0.59
6:7:113:PHE:O	6:7:117:PHE:HB3	2.00	0.59
11:E:227:LYS:O	11:E:231:HIS:ND1	2.30	0.59
1:2:306:LEU:HD11	1:2:406:ARG:HG2	1.84	0.59
1:2:803:PHE:HB3	1:2:805:ILE:HD12	1.83	0.59
3:4:642:ARG:HA	3:4:645:LEU:HB2	1.85	0.59
3:4:758:ILE:CD1	3:4:813:LEU:HA	2.31	0.59
5:6:910:VAL:O	5:6:914:ASN:HB2	2.02	0.59
6:7:490:GLY:HA2	6:7:493:LEU:CD1	2.32	0.59
8:B:25:ILE:HD11	8:B:73:LEU:HA	1.84	0.59
2:3:200:VAL:HB	2:3:244:GLU:HB2	1.83	0.59
2:3:372:TYR:OH	2:3:564:HIS:HB3	2.02	0.59
6:7:495:ALA:HB3	6:7:557:LEU:HD21	1.84	0.59
6:7:521:CYS:N	6:7:562:SER:O	2.27	0.59
7:A:47:LEU:HD22	7:A:79:MET:SD	2.42	0.59
8:B:132:ASP:OD1	8:B:132:ASP:N	2.31	0.59
11:E:574:GLU:O	11:E:575:ASN:HB2	2.01	0.59
2:3:25:VAL:HG22	2:3:124:PRO:HB2	1.85	0.59
2:3:228:PRO:HB2	2:3:229:ALA:HB2	1.85	0.59
4:5:136:GLN:HA	4:5:280:ARG:HH21	1.66	0.59
5:6:616:GLU:N	5:6:617:GLU:HA	2.17	0.59
6:7:364:LYS:O	6:7:367:LYS:N	2.36	0.59
11:E:148:VAL:HG13	11:E:150:ASP:HB2	1.84	0.59
1:2:328:THR:HG22	1:2:387:ARG:O	2.02	0.59
1:2:659:SER:HA	3:4:928:ARG:NH2	2.18	0.59
2:3:368:ALA:HB1	2:3:371:ILE:HB	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:686:LEU:HD12	3:4:687:PRO:HD2	1.84	0.59
5:6:400:VAL:CG2	5:6:455:LEU:O	2.49	0.59
6:7:444:VAL:HG22	6:7:448:MET:H	1.68	0.59
7:A:150:ASP:HB2	10:D:141:ARG:HH21	1.68	0.59
10:D:231:HIS:O	10:D:292:ALA:N	2.35	0.59
11:E:434:VAL:O	11:E:476:ASN:ND2	2.34	0.59
2:3:229:ALA:CB	6:7:370:LEU:CD2	2.81	0.59
3:4:234:ARG:HB2	3:4:291:TYR:CE2	2.36	0.59
4:5:298:TYR:HD1	4:5:328:ILE:HD11	1.67	0.59
4:5:633:LEU:HD12	4:5:648:ILE:HG13	1.85	0.59
10:D:70:GLU:O	10:D:150:LYS:NZ	2.35	0.59
11:E:541:ASN:HD21	11:E:543:LEU:HB2	1.66	0.59
2:3:408:VAL:HA	2:3:516:ALA:O	2.03	0.59
3:4:605:ILE:HG13	3:4:616:LEU:HD12	1.84	0.59
3:4:886:LEU:O	3:4:890:ILE:HG12	2.03	0.59
6:7:128:PRO:HD2	6:7:129:THR:HA	1.84	0.59
10:D:77:LEU:O	10:D:147:ARG:NH2	2.36	0.59
1:2:633:LYS:HD2	12:F:12:DT:P	2.43	0.59
8:B:122:LEU:O	8:B:126:LEU:HG	2.03	0.59
10:D:59:ASP:HB3	10:D:87:LEU:HD21	1.85	0.59
11:E:576:THR:C	11:E:577:ASP:CG	2.59	0.59
1:2:605:LEU:HD23	1:2:647:ILE:HB	1.83	0.59
3:4:435:VAL:HA	3:4:466:VAL:HG22	1.84	0.59
5:6:307:ALA:HA	5:6:351:SER:HB3	1.84	0.59
5:6:795:ILE:CG2	5:6:799:GLN:HG3	2.30	0.59
5:6:806:LEU:HD13	5:6:827:ALA:HB1	1.85	0.59
2:3:326:VAL:O	2:3:326:VAL:HG12	2.02	0.59
6:7:380:PHE:HE2	6:7:382:ARG:HB2	1.68	0.59
11:E:327:PHE:N	11:E:341:SER:OG	2.32	0.59
2:3:186:VAL:O	2:3:289:GLY:N	2.28	0.58
2:3:679:ILE:HB	2:3:705:LEU:HD13	1.85	0.58
5:6:182:GLN:HG2	5:6:265:ILE:HD13	1.85	0.58
5:6:723:ILE:O	5:6:727:LEU:HG	2.03	0.58
6:7:284:CYS:SG	6:7:289:CYS:HB2	2.42	0.58
6:7:650:PRO:HA	6:7:706:ASP:HA	1.85	0.58
8:B:59:ALA:HB1	8:B:60:LEU:HB2	1.84	0.58
11:E:540:ARG:HH22	11:E:574:GLU:CB	2.13	0.58
5:6:689:TYR:HD2	5:6:716:LEU:HD12	1.68	0.58
6:7:282:SER:HA	6:7:298:LEU:HD11	1.85	0.58
7:A:5:LEU:HD11	7:A:36:ILE:HD11	1.86	0.58
2:3:428:LEU:HB3	2:3:429:ALA:CA	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:301:TYR:CE1	4:5:303:SER:HB3	2.39	0.58
4:5:374:ILE:HA	4:5:428:PHE:CE2	2.38	0.58
5:6:714:VAL:HB	5:6:837:ARG:HD3	1.84	0.58
5:6:765:LEU:HB2	5:6:819:ILE:HD13	1.85	0.58
6:7:465:ALA:HB1	6:7:468:GLN:HG2	1.83	0.58
1:2:499:SER:HB2	1:2:509:ARG:HH22	1.68	0.58
1:2:661:LEU:HB3	1:2:662:PRO:HD2	1.84	0.58
2:3:43:ARG:O	2:3:47:VAL:HG23	2.02	0.58
2:3:196:LEU:HD23	6:7:370:LEU:HB2	1.85	0.58
4:5:176:ALA:HA	4:5:250:PHE:CD1	2.39	0.58
4:5:342:ILE:HG13	4:5:342:ILE:O	2.03	0.58
5:6:610:ALA:HA	5:6:624:GLU:HG2	1.85	0.58
6:7:71:ALA:HB1	6:7:129:THR:HG21	1.86	0.58
8:B:113:SER:O	8:B:172:ASN:ND2	2.27	0.58
1:2:506:TYR:HB2	1:2:698:PHE:CE2	2.39	0.58
1:2:549:LYS:HA	1:2:552:ILE:HD12	1.84	0.58
2:3:200:VAL:HG21	2:3:247:TYR:CD2	2.39	0.58
3:4:348:LYS:O	3:4:383:SER:N	2.24	0.58
3:4:705:VAL:H	3:4:832:ALA:HB2	1.68	0.58
5:6:143:MET:HE3	5:6:148:LEU:N	2.18	0.58
5:6:914:ASN:O	5:6:918:ARG:HB2	2.04	0.58
6:7:142:ILE:O	6:7:146:ARG:HG2	2.04	0.58
2:3:228:PRO:CB	2:3:229:ALA:HB2	2.33	0.58
3:4:601:LEU:HB3	3:4:621:LEU:HG	1.86	0.58
6:7:203:TYR:OH	6:7:338:THR:N	2.37	0.58
9:C:178:LYS:O	9:C:182:GLU:HG2	2.04	0.58
11:E:579:TYR:CD1	11:E:637:LEU:HD21	2.39	0.58
2:3:32:LEU:HG	2:3:132:LEU:HD22	1.85	0.58
3:4:280:MET:O	3:4:284:ILE:HG12	2.04	0.58
3:4:348:LYS:N	3:4:383:SER:O	2.35	0.58
4:5:136:GLN:NE2	4:5:279:ASP:O	2.33	0.58
4:5:321:VAL:CA	4:5:323:ILE:HG13	2.34	0.58
6:7:68:GLN:HG2	6:7:72:ASN:HD21	1.69	0.58
8:B:120:LEU:HB2	8:B:176:LEU:HD13	1.85	0.58
10:D:138:PHE:HA	10:D:141:ARG:HH11	1.68	0.58
1:2:534:ARG:HH11	1:2:815:ARG:HH22	1.52	0.58
7:A:136:ASP:O	7:A:139:THR:OG1	2.20	0.58
10:D:62:ASP:HA	10:D:65:LYS:HB3	1.86	0.58
4:5:76:TYR:HA	4:5:79:LEU:HB3	1.85	0.58
4:5:673:GLN:HB2	4:5:676:HIS:HB2	1.85	0.58
5:6:533:ILE:CG1	5:6:548:LEU:HD11	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:545:LYS:O	5:6:549:LEU:HG	2.03	0.58
5:6:558:SER:HB3	5:6:559:THR:CA	2.31	0.58
6:7:259:ALA:HB3	6:7:304:ALA:HB1	1.86	0.58
6:7:664:TYR:CD1	6:7:689:LEU:HD13	2.38	0.58
9:C:3:TYR:HE1	10:D:218:MET:HG3	1.69	0.58
10:D:60:PHE:HA	10:D:63:LEU:HB3	1.84	0.58
11:E:24:SER:HB3	11:E:55:GLN:OE1	2.03	0.58
1:2:524:PRO:HB2	1:2:525:LYS:HA	1.85	0.58
13:3:1001:ANP:O5'	4:5:651:ARG:NH1	2.36	0.58
3:4:777:MET:SD	3:4:830:ARG:NE	2.77	0.58
5:6:326:LYS:N	5:6:327:TYR:HA	2.12	0.58
10:D:144:ILE:HG13	10:D:145:ARG:N	2.19	0.58
10:D:211:ASP:HB2	10:D:219:ILE:HD11	1.86	0.58
2:3:371:ILE:HA	13:3:1001:ANP:N6	2.18	0.57
3:4:568:GLY:HA3	3:4:708:VAL:HB	1.86	0.57
4:5:571:HIS:O	4:5:575:ILE:HG13	2.04	0.57
3:4:554:LYS:NZ	5:6:752:ARG:HH22	2.02	0.57
5:6:550:GLN:HG2	5:6:569:ILE:HG23	1.86	0.57
6:7:534:ARG:HH21	6:7:586:LEU:HD23	1.67	0.57
9:C:132:ALA:HA	9:C:135:LEU:HB2	1.86	0.57
11:E:30:PHE:HD1	11:E:61:ILE:HD11	1.69	0.57
11:E:30:PHE:HE2	11:E:81:LEU:HD21	1.69	0.57
11:E:642:GLU:O	11:E:645:THR:OG1	2.22	0.57
1:2:546:GLY:CA	5:6:796:THR:HG23	2.34	0.57
1:2:656:ARG:NH1	5:6:792:SER:HB2	2.19	0.57
2:3:378:LYS:HA	2:3:381:ILE:HD12	1.85	0.57
3:4:402:THR:O	3:4:405:PHE:N	2.34	0.57
4:5:654:GLU:O	4:5:657:ILE:HB	2.05	0.57
5:6:168:MET:O	5:6:171:SER:HB2	2.03	0.57
7:A:106:GLY:H	7:A:107:LEU:HD22	1.69	0.57
10:D:257:THR:H	10:D:269:LEU:HB2	1.68	0.57
11:E:5:ILE:N	11:E:142:CYS:SG	2.74	0.57
2:3:291:ARG:HB2	2:3:329:LEU:HG	1.85	0.57
3:4:447:ASN:O	3:4:450:GLN:HB2	2.04	0.57
5:6:966:LYS:HA	5:6:969:VAL:HG12	1.85	0.57
1:2:573:ALA:HB3	5:6:670:ALA:H	1.67	0.57
3:4:367:GLU:OE1	3:4:367:GLU:N	2.36	0.57
4:5:148:LEU:HD23	4:5:260:GLU:HB3	1.85	0.57
4:5:375:ALA:HB1	4:5:378:ILE:H	1.70	0.57
4:5:407:ARG:CZ	4:5:658:ARG:HH12	2.18	0.57
4:5:486:ARG:NH2	4:5:489:ASP:OD2	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:124:VAL:HG11	5:6:132:VAL:HG23	1.86	0.57
6:7:612:LEU:O	6:7:616:VAL:HG23	2.04	0.57
9:C:50:LEU:O	9:C:54:LEU:HG	2.05	0.57
11:E:29:ILE:HG22	11:E:82:LEU:HD13	1.85	0.57
11:E:81:LEU:N	11:E:119:ASP:O	2.38	0.57
1:2:302:THR:O	1:2:303:ILE:HG22	2.04	0.57
5:6:765:LEU:HD22	5:6:770:ARG:HB3	1.87	0.57
6:7:374:THR:OG1	6:7:375:TYR:N	2.36	0.57
8:B:92:TRP:CD2	8:B:116:PRO:HG2	2.40	0.57
1:2:763:LEU:O	1:2:766:TYR:HB3	2.04	0.57
2:3:40:ASP:OD1	2:3:41:SER:N	2.33	0.57
3:4:900:SER:HA	3:4:903:ILE:HD12	1.87	0.57
4:5:22:ASP:O	4:5:26:GLU:HG2	2.05	0.57
4:5:66:GLU:OE1	4:5:141:SER:OG	2.21	0.57
4:5:323:ILE:O	4:5:323:ILE:HG22	2.04	0.57
5:6:365:ALA:HA	5:6:368:ILE:HG12	1.85	0.57
6:7:689:LEU:O	6:7:692:ILE:HG22	2.04	0.57
7:A:170:ASP:HB3	7:A:204:TYR:CD1	2.40	0.57
9:C:86:ASN:HA	9:C:89:LYS:HD3	1.85	0.57
10:D:57:GLN:N	10:D:57:GLN:OE1	2.38	0.57
10:D:132:GLU:HA	10:D:135:ARG:NH2	2.18	0.57
10:D:132:GLU:HA	10:D:135:ARG:HH22	1.70	0.57
11:E:556:CYS:O	11:E:560:GLU:HG2	2.03	0.57
3:4:418:CYS:SG	3:4:419:VAL:N	2.78	0.57
6:7:411:TYR:HD1	6:7:702:LEU:CD1	2.18	0.57
11:E:249:ASN:HB2	11:E:254:GLN:HE22	1.70	0.57
11:E:287:VAL:HG13	11:E:290:ARG:HH11	1.69	0.57
1:2:686:LEU:HG	5:6:788:PHE:CE1	2.40	0.57
3:4:388:ARG:HH22	5:6:176:ARG:HD2	1.69	0.57
3:4:623:LEU:CD2	5:6:370:THR:CG2	2.66	0.57
3:4:688:VAL:HG11	3:4:836:TYR:HD1	1.69	0.57
3:4:748:THR:HA	3:4:751:ILE:HD12	1.86	0.57
5:6:696:ARG:HD2	5:6:706:MET:SD	2.43	0.57
6:7:302:THR:O	6:7:305:SER:OG	2.22	0.57
6:7:479:ARG:HG3	6:7:516:ALA:HB1	1.86	0.57
1:2:238:ASN:HD21	11:E:370:LEU:HB2	1.70	0.57
1:2:422:GLU:OE1	1:2:458:ARG:NE	2.37	0.57
5:6:268:PHE:HB3	5:6:458:HIS:CE1	2.40	0.57
5:6:636:CYS:HB3	5:6:678:ILE:HD13	1.87	0.57
6:7:720:VAL:O	6:7:723:SER:OG	2.23	0.57
11:E:64:TYR:HB2	11:E:625:PHE:HA	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:149:ASP:N	11:E:150:ASP:HA	2.19	0.57
1:2:569:GLN:HB2	1:2:612:MET:HG2	1.87	0.56
1:2:578:ALA:O	1:2:631:ILE:HG21	2.04	0.56
2:3:491:GLU:HB2	2:3:542:ARG:NE	2.20	0.56
2:3:716:ARG:HH12	2:3:722:ASN:HB3	1.70	0.56
3:4:349:CYS:SG	3:4:382:MET:HA	2.45	0.56
3:4:365:ILE:O	5:6:420:THR:OG1	2.22	0.56
3:4:395:GLN:HB2	3:4:424:VAL:HG13	1.87	0.56
4:5:439:THR:HA	4:5:444:SER:CB	2.34	0.56
5:6:418:SER:HA	5:6:448:LEU:HG	1.87	0.56
5:6:908:LYS:HB3	5:6:960:LEU:HD21	1.86	0.56
6:7:481:VAL:HG22	6:7:516:ALA:HB3	1.85	0.56
10:D:92:SER:HA	10:D:95:SER:HB3	1.87	0.56
11:E:244:GLY:HA3	11:E:602:LEU:HB3	1.87	0.56
1:2:568:GLY:HA2	1:2:606:ILE:HG23	1.86	0.56
3:4:557:ARG:NH2	3:4:652:GLN:HB3	2.18	0.56
3:4:798:LEU:HG	5:6:735:HIS:CE1	2.40	0.56
5:6:801:GLU:OE2	5:6:805:ARG:NE	2.36	0.56
1:2:233:THR:O	1:2:237:MET:N	2.31	0.56
1:2:295:VAL:O	1:2:454:ASN:ND2	2.39	0.56
1:2:334:LEU:HA	1:2:382:TYR:HD1	1.68	0.56
1:2:637:VAL:HA	4:5:447:ALA:HB2	1.86	0.56
1:2:805:ILE:HA	1:2:809:HIS:ND1	2.21	0.56
1:2:837:ALA:O	1:2:841:VAL:HG23	2.04	0.56
2:3:669:PRO:O	2:3:720:THR:HA	2.05	0.56
4:5:47:ARG:HD3	8:B:146:GLN:HG2	1.85	0.56
4:5:559:ASP:HB2	4:5:561:ASN:ND2	2.20	0.56
4:5:571:HIS:ND1	4:5:575:ILE:HD11	2.21	0.56
5:6:261:ARG:HD2	5:6:263:PHE:HE1	1.70	0.56
5:6:403:VAL:CG1	5:6:450:TYR:HB3	2.35	0.56
5:6:517:LYS:HA	5:6:520:VAL:HG22	1.86	0.56
6:7:646:LYS:HA	6:7:701:LYS:HE3	1.86	0.56
7:A:27:VAL:HG13	7:A:28:ASN:H	1.70	0.56
11:E:12:TYR:HE1	11:E:48:LEU:HD21	1.68	0.56
11:E:425:VAL:HA	11:E:428:LEU:HD12	1.87	0.56
1:2:240:GLU:HB3	1:2:290:HIS:ND1	2.20	0.56
3:4:929:LEU:HB2	5:6:947:ASP:HB3	1.88	0.56
5:6:364:ASN:HB3	5:6:394:ARG:HD3	1.86	0.56
11:E:536:LEU:HB3	11:E:573:ASP:HB2	1.88	0.56
11:E:559:SER:HA	11:E:560:GLU:HB3	1.87	0.56
1:2:856:GLN:HE22	1:2:859:ARG:NH2	2.01	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:156:SER:CB	2:3:325:THR:HG22	2.35	0.56
4:5:156:VAL:HG22	4:5:298:TYR:HD2	1.71	0.56
4:5:371:THR:O	4:5:385:LYS:HE2	2.06	0.56
5:6:944:LYS:O	5:6:948:LEU:HD13	2.06	0.56
7:A:96:ILE:O	7:A:99:SER:OG	2.22	0.56
10:D:269:LEU:HA	10:D:275:TYR:CE2	2.41	0.56
10:D:286:LEU:HD11	10:D:293:LEU:HD11	1.86	0.56
11:E:12:TYR:O	11:E:15:ILE:HG22	2.05	0.56
11:E:81:LEU:O	11:E:121:TYR:N	2.36	0.56
2:3:197:ILE:HD11	2:3:251:ILE:HB	1.87	0.56
4:5:264:LEU:HB2	4:5:265:VAL:HG22	1.88	0.56
6:7:215:TYR:HE1	6:7:217:LYS:HD3	1.71	0.56
9:C:165:PHE:O	9:C:168:LYS:HG2	2.06	0.56
3:4:578:LEU:HD21	3:4:672:LEU:HD22	1.87	0.56
4:5:417:ASP:O	4:5:420:THR:OG1	2.21	0.56
6:7:147:ARG:HA	6:7:150:ASN:HB3	1.88	0.56
6:7:545:THR:HG23	6:7:556:THR:HB	1.88	0.56
11:E:86:PHE:CE1	11:E:625:PHE:HB2	2.40	0.56
11:E:161:LYS:HB3	11:E:233:TYR:CE2	2.40	0.56
1:2:573:ALA:HB3	5:6:670:ALA:N	2.21	0.56
2:3:294:VAL:HG22	2:3:326:VAL:HG22	1.87	0.56
2:3:296:GLY:HA2	2:3:324:ASN:HB2	1.88	0.56
2:3:712:HIS:ND1	2:3:725:ASP:OD1	2.39	0.56
3:4:590:TYR:HA	3:4:630:CYS:O	2.06	0.56
6:7:436:LEU:HD23	6:7:477:SER:HB2	1.87	0.56
11:E:474:VAL:O	11:E:477:PHE:HB3	2.06	0.56
11:E:566:PRO:HB2	11:E:605:PHE:CE2	2.41	0.56
2:3:216:ASP:OD1	2:3:217:ALA:N	2.39	0.56
2:3:389:VAL:HG22	2:3:714:LYS:HE3	1.88	0.56
3:4:613:GLN:HB3	5:6:360:ARG:HH12	1.71	0.56
4:5:256:LEU:H	4:5:256:LEU:HD12	1.71	0.56
5:6:829:ASP:HA	5:6:832:ARG:HB3	1.88	0.56
6:7:456:VAL:O	6:7:564:LEU:HG	2.05	0.56
10:D:74:PRO:HG3	10:D:279:TYR:CD2	2.41	0.56
10:D:260:ILE:CG2	10:D:261:PRO:HD2	2.36	0.56
11:E:231:HIS:HA	11:E:234:GLU:HB2	1.88	0.56
11:E:254:GLN:OE1	11:E:254:GLN:N	2.39	0.56
11:E:315:THR:H	11:E:316:LEU:HB3	1.67	0.56
11:E:546:LEU:O	11:E:550:ASN:HB2	2.05	0.56
1:2:285:ASP:O	1:2:286:TYR:HB2	2.06	0.56
1:2:296:ARG:HH21	1:2:413:ASP:HB2	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:474:GLU:HG3	4:5:491:VAL:CG1	2.35	0.56
3:4:758:ILE:HG22	3:4:760:PRO:HD3	1.88	0.56
4:5:40:LEU:O	11:E:416:ARG:NH2	2.39	0.56
4:5:375:ALA:HB1	4:5:378:ILE:HB	1.88	0.56
7:A:50:ASN:O	7:A:54:LEU:HG	2.05	0.56
8:B:11:PHE:HE1	10:D:71:ARG:HB2	1.69	0.56
8:B:137:PRO:HA	8:B:141:LEU:HD13	1.88	0.56
8:B:193:ARG:CZ	10:D:225:ASN:HB3	2.36	0.56
9:C:135:LEU:HD13	9:C:176:ILE:HD11	1.88	0.56
1:2:625:GLU:CD	13:5:801:ANP:HNB1	2.09	0.55
2:3:176:LEU:HD12	2:3:298:PHE:HE2	1.71	0.55
2:3:200:VAL:HG23	2:3:248:SER:HB3	1.88	0.55
2:3:438:SER:OG	12:F:9:DT:OP2	2.09	0.55
3:4:506:LEU:HD23	3:4:509:ILE:HD12	1.89	0.55
6:7:367:LYS:HA	6:7:368:ALA:HB3	1.86	0.55
8:B:140:GLU:O	8:B:144:LYS:HG2	2.05	0.55
11:E:543:LEU:HA	11:E:546:LEU:HB3	1.87	0.55
1:2:435:ASP:N	1:2:436:GLY:HA3	2.21	0.55
2:3:491:GLU:HB2	2:3:542:ARG:CZ	2.37	0.55
3:4:304:ARG:NH2	3:4:422:GLU:OE1	2.39	0.55
4:5:321:VAL:HA	4:5:323:ILE:HG13	1.88	0.55
7:A:104:ASN:O	7:A:104:ASN:ND2	2.35	0.55
11:E:308:ASN:HA	11:E:309:SER:HB2	1.87	0.55
2:3:108:ARG:HA	2:3:111:TRP:HB3	1.89	0.55
2:3:227:THR:N	2:3:228:PRO:HD2	2.21	0.55
2:3:379:LYS:O	2:3:383:LEU:HG	2.07	0.55
3:4:321:ASP:OD1	3:4:321:ASP:N	2.35	0.55
4:5:407:ARG:HD2	4:5:497:MET:O	2.06	0.55
7:A:2:TYR:OH	7:A:75:THR:HA	2.04	0.55
10:D:216:VAL:CG1	10:D:217:ASN:HA	2.37	0.55
11:E:151:THR:HB	11:E:153:GLY:N	2.22	0.55
1:2:567:THR:HG23	1:2:568:GLY:H	1.72	0.55
2:3:46:GLN:HA	2:3:49:ASN:HD21	1.70	0.55
2:3:163:ALA:N	2:3:164:HIS:HB2	2.21	0.55
2:3:195:LYS:NZ	2:3:218:THR:OG1	2.39	0.55
3:4:574:LYS:HD3	3:4:674:SER:HB2	1.87	0.55
4:5:287:ILE:HD11	4:5:342:ILE:CG2	2.34	0.55
5:6:124:VAL:CG2	5:6:132:VAL:HA	2.36	0.55
5:6:134:LYS:HB3	5:6:137:ARG:H	1.70	0.55
5:6:155:TYR:CE1	5:6:167:ALA:HB1	2.42	0.55
3:4:385:ILE:HG22	3:4:388:ARG:H	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:710:ASP:OD1	6:7:672:LYS:NZ	2.35	0.55
4:5:25:THR:HA	4:5:28:ILE:HD12	1.87	0.55
4:5:28:ILE:HG23	4:5:93:ALA:HB2	1.87	0.55
4:5:555:ILE:HG22	4:5:557:LYS:HD3	1.88	0.55
6:7:24:PHE:HE1	6:7:85:ILE:HA	1.71	0.55
6:7:143:LEU:HA	6:7:146:ARG:HB2	1.89	0.55
6:7:461:ASP:OD2	6:7:573:ARG:HA	2.07	0.55
7:A:42:LYS:O	7:A:46:ASN:HB2	2.07	0.55
10:D:69:ASN:HA	10:D:293:LEU:HD22	1.89	0.55
1:2:432:ASN:HB2	1:2:447:PHE:HB3	1.89	0.55
1:2:581:ARG:NH2	5:6:621:TYR:HB3	2.22	0.55
4:5:428:PHE:O	4:5:432:VAL:HG23	2.07	0.55
5:6:290:ILE:HD13	5:6:454:PHE:CZ	2.42	0.55
6:7:470:LEU:HD13	6:7:522:CYS:HB3	1.88	0.55
8:B:124:ARG:HD3	9:C:190:TRP:CH2	2.41	0.55
10:D:200:LYS:N	10:D:201:TYR:HB2	2.22	0.55
11:E:574:GLU:O	11:E:575:ASN:CB	2.54	0.55
2:3:483:ARG:HD3	2:3:539:LEU:HD11	1.87	0.55
3:4:332:VAL:HG13	3:4:397:ILE:HG21	1.89	0.55
3:4:919:LEU:HD13	3:4:925:ARG:HD2	1.89	0.55
5:6:105:ASP:O	5:6:108:GLY:N	2.40	0.55
5:6:288:LEU:H	5:6:399:GLY:N	2.05	0.55
5:6:551:MET:HA	5:6:635:ILE:HD11	1.89	0.55
5:6:768:GLU:OE1	5:6:768:GLU:N	2.35	0.55
5:6:777:TYR:CZ	5:6:781:ARG:HD2	2.42	0.55
10:D:84:MET:O	10:D:87:LEU:HB2	2.07	0.55
1:2:207:ILE:HG22	1:2:211:LEU:HD23	1.88	0.55
1:2:256:LEU:HD23	1:2:259:PHE:HD2	1.72	0.55
1:2:567:THR:O	1:2:606:ILE:HG23	2.07	0.55
2:3:176:LEU:HD22	4:5:250:PHE:HD2	1.72	0.55
3:4:245:ALA:HB3	3:4:306:TYR:O	2.05	0.55
6:7:134:TYR:HB2	6:7:141:VAL:HG12	1.89	0.55
7:A:170:ASP:HB3	7:A:204:TYR:HD1	1.70	0.55
11:E:360:HIS:HA	11:E:363:PHE:CD2	2.40	0.55
1:2:276:MET:O	1:2:280:GLU:N	2.40	0.55
1:2:571:ALA:O	5:6:663:ILE:HA	2.07	0.55
1:2:702:SER:O	5:6:559:THR:HG21	2.06	0.55
2:3:372:TYR:CZ	2:3:564:HIS:HB3	2.41	0.55
3:4:417:LEU:HB2	3:4:463:VAL:HG11	1.88	0.55
3:4:550:LYS:HE2	3:4:558:TYR:HD2	1.71	0.55
5:6:274:HIS:CG	5:6:288:LEU:HD11	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:610:ALA:H	5:6:663:ILE:HD13	1.72	0.55
6:7:482:TYR:HA	6:7:522:CYS:HB2	1.89	0.55
6:7:499:LYS:NZ	6:7:500:ASP:O	2.36	0.55
8:B:120:LEU:HD11	8:B:177:GLU:HG3	1.89	0.55
11:E:433:GLU:OE1	11:E:433:GLU:N	2.34	0.55
1:2:766:TYR:OH	1:2:823:MET:O	2.25	0.55
3:4:453:LEU:H	6:7:280:PRO:HD3	1.71	0.55
3:4:547:GLY:O	3:4:810:LYS:NZ	2.40	0.55
3:4:596:SER:O	3:4:641:THR:OG1	2.25	0.55
3:4:638:SER:OG	3:4:641:THR:OG1	2.15	0.55
3:4:646:HIS:HA	3:4:701:ARG:NH2	2.21	0.55
5:6:923:VAL:HA	5:6:926:GLU:HG2	1.88	0.55
6:7:68:GLN:HG2	6:7:72:ASN:ND2	2.21	0.55
6:7:422:ILE:HD13	6:7:469:LEU:HD11	1.88	0.55
6:7:533:ASP:N	6:7:533:ASP:OD1	2.39	0.55
7:A:90:GLN:HA	7:A:93:ARG:HB3	1.88	0.55
10:D:83:LEU:O	10:D:83:LEU:HD23	2.07	0.55
1:2:553:LEU:HD12	1:2:554:LYS:N	2.22	0.54
2:3:254:GLN:NE2	2:3:256:ILE:HD11	2.21	0.54
2:3:517:ASN:ND2	13:3:1001:ANP:O1G	2.31	0.54
6:7:318:LEU:HG	6:7:320:GLN:HG2	1.88	0.54
10:D:137:LYS:HG2	10:D:141:ARG:NH1	2.21	0.54
11:E:81:LEU:HD22	11:E:82:LEU:H	1.73	0.54
2:3:25:VAL:HG23	2:3:124:PRO:HB2	1.89	0.54
2:3:201:HIS:HB3	2:3:241:LEU:HB3	1.89	0.54
2:3:667:VAL:HG11	2:3:719:LYS:NZ	2.21	0.54
5:6:803:MET:HA	5:6:806:LEU:HD12	1.87	0.54
1:2:631:ILE:HG13	4:5:445:SER:O	2.07	0.54
13:3:1001:ANP:O2B	13:3:1001:ANP:O2A	2.25	0.54
3:4:183:THR:OG1	6:7:303:ARG:NH2	2.41	0.54
3:4:330:GLY:HA2	3:4:403:PRO:HD2	1.89	0.54
4:5:64:ASN:ND2	4:5:66:GLU:HB2	2.21	0.54
4:5:390:CYS:O	4:5:662:SER:HB2	2.07	0.54
7:A:13:ALA:HA	7:A:16:THR:HG22	1.89	0.54
1:2:519:LEU:HD13	1:2:556:VAL:HG13	1.88	0.54
3:4:889:GLN:O	3:4:897:ARG:NH1	2.41	0.54
4:5:685:GLN:O	4:5:688:THR:OG1	2.25	0.54
5:6:796:THR:O	5:6:799:GLN:HG2	2.07	0.54
6:7:245:ILE:HG12	6:7:347:ASP:O	2.07	0.54
6:7:260:TYR:CD1	6:7:298:LEU:HD13	2.43	0.54
7:A:33:HIS:HB3	7:A:36:ILE:HG22	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:109:LEU:HD23	7:A:109:LEU:O	2.07	0.54
7:A:162:PHE:HD1	7:A:192:ARG:HA	1.73	0.54
11:E:355:GLY:HA2	11:E:358:ARG:HB3	1.88	0.54
1:2:324:VAL:HG23	1:2:422:GLU:O	2.07	0.54
1:2:696:ALA:HA	1:2:699:VAL:HB	1.89	0.54
3:4:773:ALA:O	3:4:777:MET:HG2	2.07	0.54
5:6:637:CYS:HA	5:6:679:LEU:O	2.06	0.54
6:7:595:ASP:HB3	6:7:694:ARG:NH1	2.23	0.54
8:B:121:VAL:HG22	8:B:176:LEU:HD12	1.89	0.54
9:C:97:LEU:O	9:C:100:ILE:HG12	2.07	0.54
10:D:212:THR:N	10:D:213:GLU:HA	2.21	0.54
1:2:639:THR:HA	4:5:445:SER:HB3	1.89	0.54
4:5:382:GLU:OE1	4:5:382:GLU:N	2.38	0.54
13:5:801:ANP:O2B	13:5:801:ANP:O3G	2.26	0.54
5:6:152:TYR:HB3	5:6:268:PHE:HE2	1.71	0.54
5:6:574:VAL:HG12	5:6:684:PRO:HG3	1.89	0.54
5:6:796:THR:HG22	5:6:798:ARG:HB3	1.89	0.54
6:7:147:ARG:NH2	6:7:192:PHE:HB2	2.23	0.54
8:B:163:LEU:HD22	8:B:189:MET:HE2	1.90	0.54
12:F:7:DT:C6	12:F:7:DT:H5'	2.43	0.54
2:3:371:ILE:HA	13:3:1001:ANP:HN61	1.71	0.54
2:3:433:THR:O	2:3:433:THR:OG1	2.26	0.54
6:7:103:VAL:HG11	6:7:207:LEU:HD21	1.89	0.54
7:A:29:LEU:HD23	7:A:93:ARG:HD3	1.88	0.54
10:D:144:ILE:O	10:D:148:LEU:HG	2.08	0.54
11:E:83:LEU:HB3	11:E:122:VAL:HG22	1.90	0.54
11:E:327:PHE:CE2	11:E:503:GLN:HG3	2.43	0.54
1:2:289:ILE:HG22	1:2:290:HIS:CE1	2.43	0.54
1:2:419:LYS:NZ	1:2:598:LEU:HD12	2.23	0.54
4:5:488:GLU:HG2	4:5:489:ASP:N	2.23	0.54
4:5:554:PHE:HZ	4:5:683:LEU:O	1.90	0.54
5:6:283:LYS:HD2	5:6:288:LEU:HD22	1.90	0.54
5:6:796:THR:CG2	5:6:798:ARG:HB3	2.38	0.54
6:7:203:TYR:OH	6:7:339:LEU:N	2.33	0.54
7:A:102:TRP:HB3	10:D:145:ARG:NH2	2.22	0.54
10:D:132:GLU:HG2	10:D:135:ARG:NH1	2.18	0.54
10:D:176:SER:HB3	10:D:179:GLU:HG3	1.89	0.54
10:D:257:THR:O	10:D:268:GLU:HB3	2.08	0.54
10:D:264:LYS:HG2	10:D:265:GLU:H	1.72	0.54
11:E:5:ILE:HG12	11:E:142:CYS:SG	2.48	0.54
1:2:333:GLN:HB2	1:2:385:TYR:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:432:ARG:HH12	6:7:555:THR:HB	1.73	0.54
3:4:521:LEU:O	3:4:524:ARG:HG2	2.08	0.54
4:5:479:ILE:CG2	4:5:482:PHE:HB2	2.38	0.54
5:6:648:ASP:OD1	5:6:648:ASP:N	2.29	0.54
5:6:727:LEU:O	5:6:731:ILE:HB	2.08	0.54
5:6:833:GLN:O	5:6:837:ARG:N	2.41	0.54
5:6:834:SER:HA	5:6:837:ARG:HB2	1.90	0.54
6:7:460:GLY:HA3	6:7:600:MET:O	2.08	0.54
10:D:171:LEU:HB2	10:D:173:ASP:H	1.71	0.54
11:E:499:ALA:HA	11:E:502:LEU:HD12	1.90	0.54
1:2:493:ILE:HG13	1:2:494:ILE:N	2.23	0.54
3:4:333:LEU:HD21	3:4:400:GLN:HG2	1.89	0.54
4:5:414:LEU:HD11	4:5:425:LEU:HD22	1.90	0.54
4:5:482:PHE:HB3	4:5:523:ALA:CB	2.32	0.54
5:6:538:PHE:HB2	5:6:730:HIS:ND1	2.22	0.54
5:6:773:LEU:HD21	5:6:800:LEU:HD11	1.91	0.54
6:7:668:ARG:HH22	6:7:686:PRO:HD3	1.73	0.54
8:B:54:THR:HG22	10:D:132:GLU:HG3	1.88	0.54
8:B:103:GLN:O	8:B:107:THR:HG22	2.07	0.54
11:E:613:THR:HG22	11:E:620:VAL:HG11	1.90	0.54
1:2:328:THR:HG23	1:2:329:GLY:O	2.08	0.53
1:2:631:ILE:N	4:5:445:SER:O	2.41	0.53
3:4:225:TYR:N	3:4:228:LYS:HB2	2.23	0.53
3:4:393:ASP:OD1	5:6:281:SER:N	2.40	0.53
4:5:59:TYR:HD1	4:5:135:PHE:HE1	1.57	0.53
5:6:147:ASP:OD2	5:6:261:ARG:NH2	2.41	0.53
5:6:941:LEU:HA	5:6:944:LYS:HD3	1.90	0.53
6:7:498:MET:HG3	6:7:498:MET:O	2.08	0.53
7:A:47:LEU:HD21	7:A:75:THR:HB	1.90	0.53
7:A:189:PHE:CE1	11:E:57:GLN:HB2	2.43	0.53
1:2:778:LEU:CG	4:5:577:THR:CG2	2.78	0.53
2:3:292:VAL:HG12	2:3:294:VAL:HG23	1.90	0.53
4:5:55:LEU:HD22	9:C:137:HIS:CG	2.43	0.53
4:5:349:PHE:CZ	4:5:354:GLU:HG3	2.43	0.53
5:6:276:ILE:HD13	5:6:375:ARG:O	2.08	0.53
7:A:89:TYR:OH	7:A:93:ARG:NH2	2.42	0.53
9:C:15:GLU:HB3	9:C:45:SER:HB2	1.90	0.53
10:D:257:THR:H	10:D:269:LEU:CB	2.20	0.53
1:2:549:LYS:NZ	13:2:901:ANP:O3G	2.35	0.53
2:3:199:SER:HB2	2:3:214:TYR:CE2	2.44	0.53
2:3:225:ILE:HD12	2:3:225:ILE:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:402:ILE:HG13	5:6:453:SER:OG	2.09	0.53
5:6:551:MET:O	5:6:759:ARG:NH1	2.41	0.53
5:6:810:ILE:O	5:6:814:ASN:ND2	2.40	0.53
7:A:145:ASP:HA	7:A:146:LEU:CB	2.38	0.53
8:B:50:TRP:N	8:B:51:GLN:OE1	2.41	0.53
8:B:165:GLU:HG3	8:B:193:ARG:HA	1.88	0.53
9:C:26:GLY:H	9:C:36:ARG:HG3	1.74	0.53
9:C:165:PHE:CE2	9:C:169:LEU:HD11	2.43	0.53
11:E:126:HIS:CD2	11:E:247:VAL:HG22	2.44	0.53
2:3:527:ARG:HD3	2:3:531:GLN:HB2	1.91	0.53
3:4:179:ILE:HD11	3:4:184:ASN:HB2	1.89	0.53
4:5:77:LYS:HZ3	11:E:383:SER:H	1.57	0.53
4:5:439:THR:HA	4:5:444:SER:OG	2.09	0.53
5:6:168:MET:HA	5:6:171:SER:HB2	1.91	0.53
6:7:111:ASN:HB2	6:7:356:LEU:HD11	1.91	0.53
11:E:259:LEU:HG	11:E:264:GLU:HB2	1.90	0.53
11:E:607:MET:O	11:E:611:GLN:HG2	2.08	0.53
13:2:901:ANP:O3G	5:6:704:PRO:HB3	2.08	0.53
13:2:901:ANP:HNB1	5:6:653:HIS:HE1	1.56	0.53
2:3:403:ILE:HG22	2:3:405:ILE:HD11	1.91	0.53
2:3:412:SER:OG	4:5:649:THR:HB	2.08	0.53
3:4:202:LYS:CB	3:4:203:TYR:HB3	2.30	0.53
3:4:277:LYS:O	3:4:281:VAL:HG23	2.07	0.53
4:5:209:ARG:HA	4:5:241:TYR:CE2	2.42	0.53
4:5:496:ALA:HB1	4:5:515:SER:OG	2.08	0.53
4:5:568:ILE:O	4:5:572:VAL:HG23	2.09	0.53
5:6:794:ARG:N	5:6:795:ILE:HA	2.22	0.53
10:D:228:VAL:O	10:D:276:VAL:HG13	2.08	0.53
11:E:433:GLU:HB3	11:E:541:ASN:ND2	2.24	0.53
11:E:605:PHE:HA	11:E:608:ALA:HB3	1.89	0.53
1:2:533:ILE:CD1	4:5:576:HIS:CE1	2.92	0.53
4:5:392:LEU:HB3	4:5:603:ILE:HD13	1.91	0.53
5:6:552:LEU:HD23	5:6:812:ARG:HB2	1.90	0.53
5:6:729:SER:OG	5:6:730:HIS:N	2.42	0.53
11:E:76:ASP:H	11:E:78:ILE:HD13	1.72	0.53
11:E:97:GLU:HA	11:E:98:ILE:O	2.09	0.53
11:E:579:TYR:HE2	11:E:634:ARG:HB3	1.66	0.53
1:2:428:GLY:HA3	1:2:452:GLU:O	2.08	0.53
2:3:303:ALA:CB	2:3:307:ASN:HB2	2.39	0.53
2:3:682:ASN:O	2:3:686:LEU:HG	2.09	0.53
3:4:335:SER:HB3	3:4:395:GLN:HE22	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:411:ASN:HA	4:5:519:VAL:O	2.09	0.53
5:6:140:ILE:HA	5:6:143:MET:HB3	1.89	0.53
5:6:355:ASP:HB3	5:6:356:TRP:CA	2.38	0.53
11:E:349:SER:HA	11:E:351:TRP:CZ3	2.44	0.53
1:2:839:LYS:HD3	1:2:864:TYR:HA	1.91	0.53
2:3:156:SER:CA	2:3:325:THR:HG22	2.39	0.53
2:3:223:THR:CG2	4:5:245:HIS:H	2.20	0.53
2:3:314:LEU:HD23	4:5:253:GLN:NE2	2.24	0.53
2:3:518:PRO:HG3	2:3:524:ASP:HB2	1.90	0.53
3:4:802:ILE:O	3:4:806:GLU:N	2.31	0.53
4:5:548:SER:HB2	4:5:649:THR:HG21	1.90	0.53
5:6:362:GLN:HG3	5:6:376:THR:HG21	1.91	0.53
5:6:529:LEU:O	5:6:533:ILE:HG13	2.09	0.53
6:7:88:TYR:O	6:7:92:LYS:HG2	2.09	0.53
7:A:129:GLU:HA	7:A:132:LYS:HE3	1.91	0.53
8:B:97:GLU:O	8:B:100:ARG:HG2	2.08	0.53
11:E:93:GLU:HG3	11:E:98:ILE:HG22	1.90	0.53
1:2:585:ILE:HG12	1:2:586:THR:HG23	1.91	0.53
2:3:176:LEU:HA	2:3:298:PHE:HD2	1.73	0.53
2:3:386:MET:HB3	2:3:714:LYS:HD2	1.90	0.53
4:5:170:SER:HB3	4:5:254:GLN:O	2.08	0.53
4:5:235:ASN:HA	4:5:236:CYS:C	2.29	0.53
4:5:365:LYS:O	4:5:369:ILE:N	2.37	0.53
4:5:626:PHE:CD2	4:5:653:LEU:HD12	2.43	0.53
5:6:625:ALA:HB1	5:6:629:MET:HB2	1.90	0.53
5:6:640:GLU:HA	5:6:682:ALA:HA	1.91	0.53
5:6:784:ASP:OD2	5:6:795:ILE:HG12	2.08	0.53
6:7:660:VAL:HG12	6:7:689:LEU:HD11	1.91	0.53
8:B:51:GLN:H	8:B:53:ILE:HD12	1.74	0.53
11:E:34:LEU:HD21	11:E:543:LEU:HD11	1.90	0.53
1:2:519:LEU:HG	1:2:767:ILE:HD13	1.91	0.53
3:4:448:SER:CB	3:4:449:ARG:HB3	2.35	0.53
4:5:439:THR:O	4:5:479:ILE:HA	2.09	0.53
4:5:545:THR:O	4:5:548:SER:OG	2.19	0.53
5:6:654:GLU:HB2	5:6:661:ILE:HG12	1.91	0.53
7:A:81:ARG:HD3	9:C:49:TRP:CD2	2.44	0.53
8:B:16:ILE:O	8:B:20:VAL:HG12	2.08	0.53
8:B:198:ALA:HB1	9:C:113:MET:HE3	1.90	0.53
11:E:11:ALA:HB1	11:E:121:TYR:HE1	1.72	0.53
11:E:257:SER:HA	11:E:260:SER:HB3	1.91	0.53
11:E:271:TRP:HA	11:E:274:ILE:HD12	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:484:PHE:HA	1:2:487:ILE:HD12	1.91	0.52
1:2:541:LEU:HA	1:2:681:CYS:HB2	1.91	0.52
1:2:578:ALA:O	1:2:631:ILE:HD13	2.09	0.52
2:3:306:MET:HB3	4:5:206:SER:HA	1.91	0.52
3:4:794:THR:HG22	3:4:797:GLN:HG2	1.90	0.52
4:5:209:ARG:HA	4:5:241:TYR:HE2	1.74	0.52
4:5:321:VAL:HG23	4:5:322:ALA:HA	1.91	0.52
6:7:116:LEU:O	6:7:119:ARG:HG2	2.09	0.52
6:7:257:VAL:HA	6:7:258:ILE:HB	1.90	0.52
8:B:195:ILE:HD11	9:C:125:SER:HB2	1.91	0.52
9:C:20:PHE:CD1	9:C:72:VAL:HG22	2.44	0.52
11:E:298:GLU:HA	11:E:301:ARG:HB2	1.91	0.52
1:2:553:LEU:CD2	1:2:607:ASP:HB3	2.39	0.52
3:4:679:GLY:HA3	3:4:681:ARG:O	2.08	0.52
3:4:823:GLN:OE1	3:4:823:GLN:N	2.39	0.52
4:5:448:GLY:HA2	4:5:486:ARG:NH1	2.11	0.52
6:7:333:ILE:HG12	6:7:376:LEU:HB3	1.91	0.52
11:E:98:ILE:N	11:E:99:ASP:HB3	2.24	0.52
11:E:494:ARG:O	11:E:498:LEU:HG	2.08	0.52
1:2:778:LEU:HD13	1:2:783:MET:HG2	1.91	0.52
2:3:475:PHE:HE1	2:3:486:ILE:HD13	1.74	0.52
3:4:411:THR:OG1	6:7:507:ILE:HD13	2.09	0.52
3:4:928:ARG:CB	5:6:946:ASN:HB2	2.38	0.52
5:6:126:SER:H	5:6:131:GLU:HG3	1.74	0.52
6:7:721:ARG:O	6:7:725:GLU:HG2	2.10	0.52
8:B:185:ILE:H	8:B:185:ILE:HD12	1.73	0.52
9:C:47:PRO:HD2	9:C:50:LEU:HD21	1.92	0.52
10:D:144:ILE:HG13	10:D:145:ARG:H	1.73	0.52
10:D:195:ASN:HA	10:D:199:LEU:HD12	1.91	0.52
1:2:216:LEU:HD12	1:2:217:GLU:HB3	1.91	0.52
2:3:201:HIS:HA	2:3:242:THR:O	2.08	0.52
3:4:239:SER:OG	3:4:240:ASN:N	2.41	0.52
3:4:315:ARG:N	3:4:401:GLU:OE1	2.43	0.52
3:4:726:ASN:C	3:4:728:TYR:HB3	2.29	0.52
4:5:482:PHE:CB	4:5:523:ALA:HB2	2.32	0.52
5:6:284:ILE:N	5:6:401:GLU:OE1	2.42	0.52
5:6:308:SER:CB	5:6:350:ARG:HB2	2.40	0.52
5:6:530:VAL:O	5:6:533:ILE:HD12	2.09	0.52
5:6:634:GLY:H	5:6:676:THR:HG22	1.74	0.52
1:2:271:PHE:CE2	1:2:295:VAL:HG11	2.45	0.52
1:2:335:LYS:HE3	1:2:383:ARG:HD2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:538:ASN:HB3	1:2:677:PHE:HD1	1.74	0.52
3:4:826:VAL:O	3:4:830:ARG:HG2	2.09	0.52
4:5:409:ASP:O	4:5:410:ILE:HG12	2.10	0.52
5:6:118:PHE:HB2	5:6:161:ARG:HD3	1.91	0.52
5:6:556:HIS:H	5:6:567:GLY:HA2	1.75	0.52
5:6:608:LEU:HD23	5:6:628:LEU:HD13	1.89	0.52
5:6:936:ILE:HA	5:6:939:TRP:HE1	1.74	0.52
6:7:249:SER:O	6:7:311:GLN:HG3	2.10	0.52
6:7:437:VAL:HG21	6:7:702:LEU:HD21	1.91	0.52
6:7:495:ALA:CB	6:7:557:LEU:HD21	2.40	0.52
6:7:680:SER:CB	6:7:681:PHE:HA	2.38	0.52
1:2:424:VAL:HG23	1:2:458:ARG:HA	1.91	0.52
1:2:516:ALA:HA	1:2:519:LEU:HB3	1.91	0.52
1:2:596:LEU:HD12	1:2:629:ILE:HD11	1.90	0.52
2:3:176:LEU:HD12	2:3:298:PHE:CE2	2.45	0.52
2:3:223:THR:HG21	4:5:244:ILE:HA	1.90	0.52
2:3:661:GLN:HA	2:3:664:LYS:HD3	1.90	0.52
3:4:332:VAL:CG1	3:4:429:ALA:HA	2.39	0.52
3:4:399:LEU:HB3	3:4:415:ILE:HB	1.91	0.52
3:4:578:LEU:HD13	3:4:630:CYS:HB3	1.92	0.52
3:4:925:ARG:HH21	3:4:928:ARG:HD3	1.74	0.52
6:7:609:ASP:HA	6:7:612:LEU:HB3	1.92	0.52
7:A:175:GLN:HB3	7:A:180:VAL:HA	1.91	0.52
8:B:120:LEU:HD13	8:B:176:LEU:HD22	1.91	0.52
9:C:186:ASP:OD1	9:C:189:ARG:NH2	2.42	0.52
10:D:169:ILE:HG22	10:D:170:SER:H	1.73	0.52
1:2:624:MET:HE3	1:2:676:ARG:HD2	1.92	0.52
1:2:641:GLN:NE2	4:5:263:GLU:HA	2.24	0.52
2:3:685:ASP:O	2:3:689:ASP:HB2	2.10	0.52
3:4:336:THR:O	3:4:395:GLN:NE2	2.36	0.52
3:4:347:PHE:CE1	3:4:384:LEU:HD12	2.43	0.52
4:5:629:ILE:HG22	4:5:648:ILE:HD11	1.91	0.52
5:6:118:PHE:O	5:6:123:SER:OG	2.26	0.52
5:6:540:HIS:CD2	5:6:715:ILE:HG21	2.44	0.52
5:6:560:VAL:HB	5:6:561:GLU:CA	2.40	0.52
6:7:235:LEU:HD22	6:7:357:PRO:HD3	1.91	0.52
6:7:404:LEU:HD11	6:7:414:LEU:HD21	1.92	0.52
8:B:115:LEU:HD11	8:B:152:ARG:CZ	2.39	0.52
11:E:405:ILE:H	11:E:405:ILE:HD12	1.75	0.52
1:2:306:LEU:HD22	1:2:392:GLU:HB2	1.90	0.52
1:2:780:GLN:NE2	4:5:573:ILE:HG22	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:278:LEU:HB3	2:3:282:LEU:HB2	1.92	0.52
2:3:559:ARG:O	2:3:562:SER:OG	2.20	0.52
3:4:387:ASN:HD21	5:6:402:ILE:HG22	1.75	0.52
4:5:572:VAL:HA	4:5:575:ILE:HD12	1.92	0.52
5:6:103:VAL:HB	5:6:104:ASP:HB2	1.91	0.52
7:A:2:TYR:CE2	7:A:78:CYS:HB2	2.44	0.52
9:C:3:TYR:CG	9:C:4:TYR:N	2.78	0.52
11:E:67:LEU:HD12	11:E:86:PHE:HD2	1.75	0.52
1:2:243:GLU:OE2	1:2:298:SER:HB3	2.10	0.52
3:4:446:ALA:O	3:4:447:ASN:OD1	2.27	0.52
3:4:633:GLU:OE2	3:4:676:ASN:HB2	2.10	0.52
5:6:755:ILE:O	5:6:759:ARG:N	2.42	0.52
6:7:316:GLN:HG2	6:7:330:SER:HB3	1.92	0.52
10:D:168:LEU:HD21	10:D:173:ASP:OD2	2.09	0.52
11:E:327:PHE:CE2	11:E:328:LEU:HG	2.45	0.52
2:3:491:GLU:OE2	2:3:700:ARG:NH1	2.43	0.52
2:3:566:LEU:HD13	4:5:619:ALA:HB1	1.92	0.52
4:5:252:ASP:OD1	4:5:253:GLN:N	2.42	0.52
4:5:398:LYS:HZ1	4:5:613:ARG:HD2	1.72	0.52
4:5:560:HIS:ND1	4:5:560:HIS:N	2.56	0.52
4:5:662:SER:OG	4:5:663:LEU:N	2.44	0.52
8:B:18:PHE:CE1	10:D:135:ARG:HG2	2.45	0.52
8:B:119:TRP:HZ2	8:B:177:GLU:OE2	1.93	0.52
10:D:161:LEU:HD21	10:D:169:ILE:HA	1.92	0.52
1:2:433:ASN:HB2	1:2:434:TYR:HB3	1.91	0.51
4:5:632:GLN:O	4:5:636:ASN:HB2	2.09	0.51
5:6:519:MET:O	5:6:525:ILE:HG21	2.10	0.51
6:7:428:VAL:HA	6:7:598:PHE:CE2	2.45	0.51
11:E:38:ALA:O	11:E:42:THR:N	2.31	0.51
1:2:632:SER:HA	4:5:443:GLY:H	1.74	0.51
3:4:410:GLN:HE21	6:7:345:PRO:HG3	1.76	0.51
3:4:461:VAL:O	3:4:463:VAL:HG22	2.10	0.51
4:5:347:THR:OG1	4:5:348:MET:HA	2.10	0.51
6:7:248:VAL:HG11	6:7:345:PRO:HD3	1.92	0.51
8:B:112:PHE:HB3	8:B:152:ARG:NH1	2.25	0.51
8:B:197:THR:HG22	10:D:263:LEU:HD23	1.91	0.51
11:E:155:GLN:HA	11:E:158:ALA:HB3	1.93	0.51
11:E:157:GLU:O	11:E:161:LYS:HB2	2.10	0.51
11:E:561:ASP:HB3	11:E:562:LYS:HG2	1.92	0.51
2:3:20:VAL:O	2:3:24:ARG:HG2	2.11	0.51
6:7:362:GLY:HA2	6:7:363:PHE:CD2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:516:ALA:O	6:7:561:THR:HG22	2.10	0.51
11:E:619:LYS:HD2	11:E:633:ARG:HG3	1.93	0.51
1:2:454:ASN:ND2	1:2:454:ASN:O	2.40	0.51
1:2:484:PHE:CZ	1:2:766:TYR:HA	2.44	0.51
1:2:660:THR:HG21	5:6:947:ASP:HB2	1.93	0.51
1:2:686:LEU:HG	5:6:788:PHE:CZ	2.45	0.51
1:2:794:ARG:HH11	4:5:560:HIS:HA	1.76	0.51
3:4:277:LYS:HA	3:4:301:TYR:HD2	1.76	0.51
5:6:570:ASN:ND2	5:6:678:ILE:H	2.02	0.51
9:C:16:PHE:HZ	9:C:107:LEU:HD21	1.75	0.51
1:2:474:PHE:HZ	1:2:561:HIS:HA	1.76	0.51
1:2:477:THR:HG22	1:2:478:GLU:H	1.74	0.51
1:2:550:SER:HB2	13:2:901:ANP:O1A	2.10	0.51
2:3:686:LEU:O	2:3:690:ASP:N	2.40	0.51
3:4:203:TYR:CG	3:4:204:LYS:N	2.77	0.51
3:4:329:LYS:HB2	3:4:402:THR:HG22	1.93	0.51
4:5:253:GLN:HE21	4:5:277:THR:HB	1.75	0.51
4:5:338:GLU:N	4:5:339:THR:HA	2.26	0.51
4:5:343:TRP:C	4:5:345:SER:HA	2.31	0.51
6:7:579:SER:O	6:7:582:ASP:HB2	2.10	0.51
6:7:659:TYR:CG	6:7:710:ILE:HD11	2.45	0.51
7:A:166:ARG:HG3	7:A:188:GLN:HB3	1.92	0.51
11:E:125:ALA:HB1	11:E:248:VAL:H	1.75	0.51
1:2:253:LYS:HE2	1:2:253:LYS:HA	1.92	0.51
1:2:544:ASP:OD2	1:2:547:THR:OG1	2.27	0.51
1:2:816:ILE:O	1:2:819:SER:OG	2.28	0.51
3:4:319:PRO:HB3	6:7:307:PHE:HB2	1.91	0.51
4:5:136:GLN:CB	4:5:280:ARG:HE	2.24	0.51
4:5:441:GLY:HA3	4:5:443:GLY:N	2.25	0.51
4:5:631:LYS:HE3	4:5:635:ILE:HD11	1.91	0.51
6:7:490:GLY:O	6:7:494:THR:N	2.41	0.51
8:B:61:ASN:OD1	8:B:62:ASN:N	2.44	0.51
9:C:20:PHE:HE1	9:C:46:LEU:HD11	1.75	0.51
1:2:496:LYS:HG2	1:2:758:ILE:HG13	1.93	0.51
1:2:628:SER:HB2	1:2:640:LEU:O	2.10	0.51
1:2:796:GLU:HB2	1:2:859:ARG:HE	1.76	0.51
2:3:472:ILE:HD13	2:3:475:PHE:CD1	2.46	0.51
2:3:556:ILE:H	2:3:556:ILE:HD12	1.75	0.51
3:4:547:GLY:HA2	3:4:806:GLU:HG3	1.93	0.51
3:4:720:LEU:O	3:4:724:LEU:HG	2.10	0.51
4:5:407:ARG:HD3	4:5:498:GLU:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:656:MET:HG3	5:6:709:PHE:CE1	2.46	0.51
6:7:619:VAL:HG12	6:7:620:HIS:ND1	2.26	0.51
7:A:58:GLN:HA	7:A:62:MET:HB2	1.92	0.51
11:E:30:PHE:CD1	11:E:61:ILE:HD11	2.45	0.51
1:2:260:LEU:HA	1:2:264:PRO:HB3	1.92	0.51
1:2:690:GLU:HA	1:2:693:GLU:CD	2.31	0.51
1:2:695:LEU:O	1:2:699:VAL:HG23	2.09	0.51
1:2:838:ILE:O	1:2:842:VAL:HG23	2.11	0.51
3:4:330:GLY:O	3:4:432:ARG:HA	2.10	0.51
4:5:239:ASP:N	4:5:239:ASP:OD1	2.43	0.51
4:5:377:SER:HB3	4:5:378:ILE:HD12	1.93	0.51
6:7:584:ILE:HG22	6:7:586:LEU:H	1.76	0.51
7:A:35:ASP:N	7:A:35:ASP:OD1	2.43	0.51
7:A:173:GLU:HB3	7:A:183:LEU:H	1.74	0.51
1:2:566:ALA:O	1:2:572:SER:HB2	2.10	0.51
1:2:579:SER:HA	1:2:633:LYS:HE3	1.93	0.51
1:2:778:LEU:CD1	4:5:577:THR:HG23	2.41	0.51
2:3:216:ASP:O	2:3:219:THR:HG22	2.11	0.51
2:3:483:ARG:HA	2:3:486:ILE:HD12	1.92	0.51
2:3:533:ILE:CG2	2:3:540:LEU:HD11	2.40	0.51
3:4:861:LEU:O	3:4:865:LEU:HG	2.10	0.51
3:4:919:LEU:HB2	3:4:925:ARG:HB2	1.93	0.51
5:6:920:ILE:HB	5:6:924:ASP:HB3	1.92	0.51
6:7:255:VAL:CG2	6:7:258:ILE:HG13	2.40	0.51
7:A:49:LYS:O	7:A:52:GLU:HG2	2.10	0.51
8:B:11:PHE:CE1	10:D:71:ARG:HB2	2.45	0.51
10:D:78:PRO:HA	10:D:174:LEU:HD12	1.93	0.51
3:4:692:ILE:HG21	3:4:699:LEU:HD13	1.91	0.51
4:5:184:ARG:HD2	4:5:240:PRO:HA	1.91	0.51
4:5:439:THR:HA	4:5:444:SER:HB2	1.92	0.51
5:6:179:PRO:O	5:6:183:LYS:HG2	2.11	0.51
5:6:303:GLU:HB2	5:6:354:LEU:HG	1.92	0.51
6:7:340:VAL:HG13	6:7:341:ARG:HG3	1.92	0.51
6:7:536:ALA:O	6:7:540:VAL:HG23	2.10	0.51
10:D:260:ILE:CG2	10:D:264:LYS:O	2.56	0.51
11:E:339:TYR:O	11:E:350:LEU:HD13	2.11	0.51
11:E:600:PRO:O	11:E:601:ILE:HG13	2.11	0.51
2:3:104:ARG:NH2	9:C:86:ASN:HB2	2.25	0.50
2:3:198:ARG:O	2:3:248:SER:HB2	2.11	0.50
2:3:671:LEU:HD11	2:3:676:ILE:HD11	1.93	0.50
3:4:200:SER:HB3	3:4:202:LYS:HB2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:682:TYR:CZ	3:4:707:LEU:HD21	2.46	0.50
4:5:104:LEU:HD22	4:5:105:SER:H	1.76	0.50
6:7:256:GLU:O	6:7:306:LYS:HB3	2.11	0.50
7:A:170:ASP:OD2	7:A:204:TYR:HA	2.10	0.50
11:E:514:LEU:HD11	11:E:555:CYS:SG	2.51	0.50
1:2:264:PRO:HG3	1:2:317:LEU:N	2.26	0.50
1:2:767:ILE:HG13	1:2:768:HIS:N	2.26	0.50
3:4:261:LEU:HB2	3:4:268:VAL:HG11	1.93	0.50
4:5:101:ILE:HG23	8:B:150:GLU:OE2	2.11	0.50
4:5:153:SER:OG	4:5:154:GLU:N	2.44	0.50
4:5:287:ILE:HG12	4:5:342:ILE:HD13	1.92	0.50
5:6:149:ASN:HB3	5:6:262:VAL:O	2.11	0.50
6:7:428:VAL:HA	6:7:598:PHE:CD2	2.46	0.50
6:7:440:VAL:HG21	6:7:650:PRO:HD2	1.93	0.50
6:7:685:THR:HB	6:7:686:PRO:HD2	1.93	0.50
8:B:107:THR:HG23	8:B:108:HIS:ND1	2.26	0.50
8:B:134:PHE:HB2	8:B:137:PRO:HG3	1.91	0.50
11:E:345:ASN:ND2	11:E:555:CYS:HB2	2.27	0.50
2:3:495:VAL:HG23	2:3:508:ALA:HB2	1.94	0.50
3:4:750:TYR:CE1	3:4:754:ALA:HB2	2.47	0.50
3:4:766:ALA:O	3:4:770:LEU:HB3	2.11	0.50
4:5:679:GLU:O	4:5:683:LEU:HB2	2.11	0.50
5:6:653:HIS:HA	5:6:656:MET:CG	2.31	0.50
6:7:89:GLN:HA	6:7:92:LYS:HB2	1.94	0.50
6:7:227:VAL:HG13	6:7:230:ILE:HD12	1.93	0.50
8:B:193:ARG:HD2	10:D:278:ARG:NE	2.25	0.50
11:E:612:ILE:HG21	11:E:640:PHE:CD1	2.46	0.50
1:2:301:PRO:HA	1:2:302:THR:OG1	2.10	0.50
1:2:586:THR:HA	4:5:457:PRO:HB2	1.93	0.50
2:3:258:VAL:O	2:3:273:SER:HA	2.11	0.50
2:3:347:ILE:HA	2:3:350:ILE:HD13	1.93	0.50
3:4:204:LYS:HA	3:4:205:PHE:C	2.31	0.50
3:4:346:PHE:H	3:4:389:CYS:HB3	1.77	0.50
3:4:449:ARG:C	3:4:451:ARG:H	2.15	0.50
3:4:566:LEU:HA	3:4:706:TYR:HB2	1.92	0.50
5:6:109:GLU:O	5:6:112:ARG:HB3	2.10	0.50
5:6:533:ILE:HG22	5:6:587:TYR:CE2	2.47	0.50
5:6:819:ILE:HA	5:6:823:PHE:HD2	1.76	0.50
5:6:834:SER:HA	5:6:837:ARG:HD2	1.92	0.50
5:6:945:GLU:O	5:6:948:LEU:HD22	2.11	0.50
6:7:481:VAL:CG2	6:7:516:ALA:HB3	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:493:LEU:HD22	6:7:533:ASP:HB3	1.92	0.50
11:E:5:ILE:N	11:E:142:CYS:O	2.44	0.50
11:E:22:HIS:HA	11:E:23:SER:C	2.30	0.50
11:E:315:THR:N	11:E:316:LEU:CB	2.73	0.50
1:2:256:LEU:HD23	1:2:259:PHE:CD2	2.47	0.50
2:3:562:SER:O	2:3:566:LEU:HG	2.11	0.50
4:5:412:VAL:C	4:5:413:LEU:HD12	2.32	0.50
6:7:440:VAL:HG22	6:7:701:LYS:HD2	1.93	0.50
7:A:32:TYR:CA	7:A:93:ARG:HH12	2.24	0.50
8:B:124:ARG:HD3	9:C:190:TRP:CZ3	2.47	0.50
10:D:269:LEU:HD13	10:D:275:TYR:HD2	1.75	0.50
11:E:18:ASN:O	11:E:79:ASN:ND2	2.34	0.50
11:E:128:PRO:HB2	11:E:240:TYR:CZ	2.47	0.50
11:E:158:ALA:HB1	11:E:237:LEU:HD22	1.93	0.50
1:2:302:THR:OG1	1:2:319:ARG:HB3	2.12	0.50
1:2:706:SER:O	5:6:762:LYS:NZ	2.45	0.50
2:3:400:ARG:O	2:3:707:ARG:NE	2.39	0.50
3:4:291:TYR:HB2	3:4:296:ILE:HG12	1.93	0.50
5:6:170:ILE:O	5:6:174:TYR:HB2	2.11	0.50
5:6:377:LEU:HD11	5:6:454:PHE:HB2	1.93	0.50
5:6:776:LYS:HA	5:6:779:GLU:HG2	1.94	0.50
7:A:4:ASP:N	7:A:4:ASP:OD1	2.43	0.50
7:A:113:ILE:H	7:A:113:ILE:HD12	1.77	0.50
7:A:124:SER:OG	7:A:127:GLU:HG2	2.12	0.50
8:B:173:LEU:HD23	8:B:178:ILE:HG12	1.94	0.50
11:E:42:THR:O	11:E:46:SER:N	2.32	0.50
1:2:632:SER:HA	4:5:443:GLY:N	2.27	0.50
3:4:330:GLY:HA3	3:4:400:GLN:O	2.12	0.50
3:4:812:LYS:HE3	3:4:814:LYS:HG3	1.93	0.50
4:5:181:ILE:HG12	4:5:243:ILE:HA	1.93	0.50
4:5:384:ILE:HD13	4:5:414:LEU:HD23	1.93	0.50
6:7:581:LEU:HB2	6:7:681:PHE:CZ	2.47	0.50
8:B:54:THR:CG2	10:D:132:GLU:HG3	2.42	0.50
11:E:144:ASP:OD2	11:E:148:VAL:HB	2.12	0.50
11:E:603:ASN:OD1	11:E:605:PHE:N	2.36	0.50
11:E:609:PHE:O	11:E:613:THR:HG23	2.12	0.50
1:2:778:LEU:HD12	4:5:577:THR:HG23	1.93	0.50
1:2:782:ASP:OD1	1:2:782:ASP:N	2.38	0.50
2:3:41:SER:HA	2:3:44:SER:HB3	1.93	0.50
2:3:237:GLU:O	2:3:239:ASN:N	2.44	0.50
6:7:724:LYS:C	6:7:726:SER:H	2.15	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:615:GLU:HG2	11:E:616:THR:H	1.77	0.50
2:3:111:TRP:CZ2	9:C:90:THR:HG22	2.47	0.50
2:3:196:LEU:HA	2:3:250:PHE:CD1	2.47	0.50
2:3:313:THR:HA	4:5:301:TYR:CD1	2.47	0.50
3:4:314:MET:SD	3:4:415:ILE:HA	2.52	0.50
3:4:330:GLY:C	3:4:432:ARG:HA	2.32	0.50
3:4:592:SER:OG	3:4:593:GLY:N	2.45	0.50
4:5:71:TYR:HD1	11:E:415:TYR:HE1	1.59	0.50
4:5:659:ILE:O	4:5:662:SER:OG	2.18	0.50
5:6:839:ASP:O	5:6:840:VAL:C	2.51	0.50
6:7:352:THR:OG1	6:7:380:PHE:HB3	2.11	0.50
10:D:191:LEU:HA	10:D:194:VAL:HG12	1.94	0.50
10:D:254:PRO:HG2	10:D:270:THR:HG21	1.94	0.50
11:E:537:ASP:HA	11:E:540:ARG:HG3	1.94	0.50
1:2:246:TYR:CE2	1:2:300:PHE:HD1	2.30	0.49
1:2:256:LEU:HA	1:2:259:PHE:CD2	2.46	0.49
1:2:641:GLN:HE22	4:5:263:GLU:HA	1.76	0.49
2:3:374:HIS:HB2	2:3:378:LYS:NZ	2.26	0.49
3:4:264:TYR:HE2	6:7:135:LYS:HE2	1.76	0.49
3:4:613:GLN:CG	5:6:360:ARG:HH22	2.25	0.49
4:5:166:ILE:HD11	4:5:256:LEU:HD23	1.94	0.49
5:6:134:LYS:N	5:6:135:VAL:HA	2.27	0.49
5:6:641:PHE:CD1	5:6:682:ALA:HB2	2.47	0.49
6:7:475:LYS:C	6:7:476:ILE:HD12	2.32	0.49
6:7:493:LEU:HD21	6:7:533:ASP:CB	2.42	0.49
7:A:82:ASN:O	7:A:86:LEU:HG	2.12	0.49
11:E:67:LEU:HD11	11:E:83:LEU:HD11	1.94	0.49
11:E:83:LEU:N	11:E:121:TYR:O	2.45	0.49
2:3:47:VAL:HG12	2:3:51:ASN:ND2	2.26	0.49
2:3:113:GLY:HA3	2:3:121:PHE:CE2	2.47	0.49
2:3:300:SER:HB2	4:5:250:PHE:CE2	2.46	0.49
2:3:409:GLY:O	2:3:518:PRO:HD3	2.12	0.49
3:4:506:LEU:O	3:4:509:ILE:HB	2.12	0.49
3:4:747:LEU:O	3:4:751:ILE:HG13	2.12	0.49
3:4:872:VAL:O	3:4:876:GLN:N	2.35	0.49
4:5:628:THR:O	4:5:632:GLN:HB2	2.10	0.49
6:7:446:ASP:HB2	6:7:447:GLY:HA2	1.92	0.49
10:D:151:ILE:O	10:D:155:SER:N	2.45	0.49
11:E:124:ASP:OD1	11:E:125:ALA:N	2.45	0.49
2:3:359:ILE:O	2:3:363:LEU:HG	2.12	0.49
3:4:198:LEU:HG	3:4:227:ILE:HD11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:527:ASP:OD2	5:6:531:ARG:NH1	2.45	0.49
6:7:523:ILE:HG21	6:7:526:PHE:HD1	1.77	0.49
6:7:581:LEU:HB2	6:7:681:PHE:HZ	1.77	0.49
6:7:711:ASP:HA	6:7:714:GLU:HB3	1.93	0.49
9:C:165:PHE:CZ	9:C:169:LEU:HD11	2.47	0.49
10:D:60:PHE:HE1	10:D:139:VAL:HG21	1.78	0.49
11:E:258:LEU:O	11:E:262:ILE:HG13	2.11	0.49
1:2:226:VAL:O	1:2:230:ARG:HG2	2.11	0.49
1:2:272:ASP:OD1	1:2:273:LEU:N	2.46	0.49
2:3:130:THR:HG22	2:3:153:TRP:CD1	2.47	0.49
4:5:491:VAL:HA	4:5:494:HIS:HB2	1.93	0.49
5:6:765:LEU:CD2	5:6:770:ARG:HB3	2.42	0.49
10:D:56:PRO:HA	10:D:90:ARG:HH12	1.78	0.49
10:D:103:MET:HA	10:D:106:LEU:HD13	1.93	0.49
11:E:67:LEU:HD12	11:E:86:PHE:CD2	2.47	0.49
1:2:626:GLN:HA	4:5:427:LYS:HZ1	1.78	0.49
1:2:636:ILE:HG23	4:5:446:ALA:HB3	1.94	0.49
1:2:810:LEU:O	1:2:813:ILE:HG12	2.11	0.49
1:2:858:ARG:HA	1:2:861:PHE:CE2	2.47	0.49
2:3:300:SER:HB2	4:5:250:PHE:HE2	1.78	0.49
2:3:702:LEU:O	2:3:705:LEU:N	2.43	0.49
3:4:362:ARG:O	3:4:364:VAL:HG22	2.12	0.49
3:4:365:ILE:HB	5:6:419:SER:HA	1.94	0.49
4:5:413:LEU:HD11	4:5:550:PHE:CG	2.47	0.49
5:6:560:VAL:HB	5:6:561:GLU:HG3	1.93	0.49
5:6:695:LEU:O	5:6:695:LEU:HD23	2.12	0.49
5:6:793:TYR:CD2	5:6:795:ILE:HG23	2.48	0.49
6:7:112:HIS:CE1	6:7:116:LEU:HD13	2.47	0.49
7:A:130:TYR:CD2	10:D:193:LEU:HD22	2.47	0.49
8:B:142:ARG:NH1	11:E:314:ASP:OD2	2.45	0.49
11:E:69:ARG:O	11:E:73:GLN:HB2	2.12	0.49
1:2:603:VAL:HG22	1:2:645:SER:HB2	1.93	0.49
3:4:666:ASN:HD22	3:4:668:ARG:NH2	2.10	0.49
6:7:73:ARG:HA	6:7:199:ARG:HH22	1.78	0.49
6:7:128:PRO:CD	6:7:129:THR:HA	2.42	0.49
7:A:192:ARG:H	11:E:55:GLN:HE21	1.61	0.49
11:E:256:TYR:OH	11:E:298:GLU:OE1	2.22	0.49
1:2:232:ARG:HA	1:2:283:TYR:CE2	2.47	0.49
1:2:582:LYS:HA	1:2:589:TRP:HA	1.93	0.49
2:3:41:SER:O	2:3:45:ILE:HG12	2.12	0.49
2:3:50:SER:HA	2:3:53:ALA:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:53:ALA:HA	6:7:218:LYS:CD	2.42	0.49
2:3:252:ASP:OD1	2:3:253:HIS:N	2.46	0.49
3:4:416:SER:OG	3:4:459:THR:O	2.26	0.49
3:4:456:LEU:HG	6:7:254:ALA:HA	1.94	0.49
3:4:644:VAL:O	3:4:648:VAL:HG23	2.12	0.49
4:5:625:ASN:O	4:5:629:ILE:HG13	2.12	0.49
5:6:126:SER:O	5:6:132:VAL:HB	2.12	0.49
5:6:290:ILE:HD13	5:6:454:PHE:CE1	2.48	0.49
5:6:385:SER:HA	5:6:388:ARG:HE	1.78	0.49
5:6:939:TRP:O	5:6:942:LEU:HB3	2.13	0.49
5:6:965:ILE:O	5:6:969:VAL:HB	2.13	0.49
6:7:269:VAL:HG21	6:7:285:THR:HB	1.93	0.49
6:7:669:GLN:O	6:7:673:ARG:N	2.36	0.49
7:A:100:MET:HE2	7:A:117:GLN:HG2	1.94	0.49
10:D:67:TRP:HD1	10:D:143:TYR:HB2	1.78	0.49
11:E:467:THR:O	11:E:471:LYS:HB2	2.12	0.49
11:E:620:VAL:HG13	11:E:630:ILE:HD12	1.94	0.49
1:2:842:VAL:C	1:2:846:VAL:HG23	2.32	0.49
3:4:331:LEU:HB2	3:4:430:GLY:HA2	1.94	0.49
4:5:91:GLU:OE2	4:5:137:LEU:N	2.46	0.49
4:5:600:LYS:O	4:5:604:THR:HG23	2.13	0.49
5:6:641:PHE:HD1	5:6:682:ALA:HB2	1.77	0.49
6:7:21:ILE:HD13	6:7:117:PHE:HA	1.95	0.49
6:7:262:CYS:HA	6:7:298:LEU:HB3	1.93	0.49
6:7:488:SER:OG	6:7:492:GLY:O	2.30	0.49
9:C:162:THR:HG21	9:C:166:LEU:HD13	1.93	0.49
11:E:291:LEU:HD23	11:E:294:LEU:HD12	1.95	0.49
1:2:326:ARG:NH2	1:2:389:THR:HG21	2.28	0.49
1:2:442:ASN:OD1	1:2:444:PHE:N	2.41	0.49
1:2:770:ALA:O	1:2:774:ILE:HG22	2.13	0.49
2:3:260:GLU:CD	2:3:272:ARG:H	2.16	0.49
2:3:277:ILE:HD12	2:3:320:LEU:HD11	1.95	0.49
4:5:379:PHE:HD2	4:5:568:ILE:HB	1.77	0.49
4:5:450:THR:HG21	4:5:492:ALA:HB3	1.95	0.49
5:6:696:ARG:HA	5:6:706:MET:HE3	1.94	0.49
6:7:146:ARG:HH22	6:7:304:ALA:HA	1.78	0.49
6:7:220:ILE:O	6:7:222:SER:CB	2.60	0.49
7:A:130:TYR:CG	10:D:193:LEU:HD22	2.48	0.49
7:A:192:ARG:H	11:E:55:GLN:NE2	2.10	0.49
8:B:157:LEU:HD21	9:C:137:HIS:NE2	2.28	0.49
1:2:636:ILE:HG12	1:2:638:THR:HG23	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:705:ARG:HB2	5:6:559:THR:HB	1.94	0.49
2:3:476:ASP:OD2	2:3:517:ASN:N	2.46	0.49
3:4:754:ALA:O	3:4:758:ILE:HD12	2.13	0.49
5:6:831:LEU:HB3	5:6:835:ILE:HD11	1.95	0.49
6:7:228:ARG:HH12	6:7:326:HIS:CB	2.22	0.49
6:7:648:LYS:HE2	6:7:704:LEU:HD22	1.95	0.49
7:A:126:GLN:OE1	10:D:197:SER:OG	2.22	0.49
8:B:193:ARG:NH1	10:D:225:ASN:HB3	2.28	0.49
1:2:402:LEU:HD11	3:4:660:GLY:HA2	1.95	0.48
1:2:850:LYS:HG3	1:2:852:SER:H	1.78	0.48
4:5:578:GLY:O	4:5:580:ALA:N	2.45	0.48
5:6:269:ASN:H	5:6:396:LYS:HE2	1.78	0.48
5:6:649:GLN:HB3	5:6:705:ILE:HD13	1.95	0.48
5:6:777:TYR:HD1	5:6:780:LEU:HD13	1.78	0.48
6:7:151:GLU:O	6:7:155:SER:N	2.45	0.48
6:7:677:SER:O	6:7:678:LYS:C	2.49	0.48
7:A:9:LEU:HD21	7:A:89:TYR:HB2	1.94	0.48
11:E:12:TYR:O	11:E:16:LEU:HG	2.13	0.48
11:E:351:TRP:HB3	11:E:511:VAL:HG22	1.95	0.48
2:3:480:ASP:OD1	2:3:480:ASP:N	2.45	0.48
3:4:341:ASP:HB3	3:4:343:LYS:HZ1	1.78	0.48
4:5:627:VAL:O	4:5:631:LYS:HB2	2.12	0.48
6:7:204:PHE:O	6:7:380:PHE:HB2	2.12	0.48
6:7:217:LYS:O	6:7:220:ILE:HG12	2.12	0.48
6:7:484:THR:HA	6:7:524:ASP:H	1.77	0.48
8:B:14:GLU:O	8:B:17:GLN:HG2	2.12	0.48
10:D:60:PHE:HD1	10:D:63:LEU:HD23	1.77	0.48
11:E:31:VAL:HG11	11:E:477:PHE:CZ	2.47	0.48
11:E:34:LEU:HD21	11:E:432:LEU:HB3	1.95	0.48
1:2:607:ASP:HA	1:2:649:ALA:O	2.14	0.48
2:3:176:LEU:HD22	4:5:250:PHE:CD2	2.48	0.48
4:5:652:GLN:O	4:5:656:ILE:HG13	2.14	0.48
6:7:213:ARG:C	6:7:215:TYR:HB3	2.34	0.48
6:7:255:VAL:HG23	6:7:258:ILE:CG1	2.40	0.48
6:7:618:TYR:HE2	6:7:624:LYS:O	1.96	0.48
6:7:628:LEU:N	6:7:629:ASP:HA	2.28	0.48
8:B:198:ALA:CB	9:C:113:MET:HE3	2.43	0.48
10:D:54:VAL:HA	10:D:86:ARG:HH12	1.78	0.48
1:2:572:SER:HB3	5:6:662:SER:HB2	1.95	0.48
1:2:595:ALA:O	1:2:598:LEU:HB3	2.12	0.48
3:4:258:TYR:CZ	3:4:308:VAL:HG12	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:308:VAL:HG21	3:4:325:LEU:HD12	1.94	0.48
4:5:21:ASP:O	4:5:25:THR:N	2.47	0.48
4:5:568:ILE:HD12	4:5:571:HIS:HB3	1.96	0.48
5:6:727:LEU:HA	5:6:731:ILE:HG13	1.95	0.48
5:6:732:VAL:O	5:6:736:MET:HG2	2.13	0.48
6:7:135:LYS:HA	6:7:136:ASP:C	2.33	0.48
9:C:88:ILE:HD12	9:C:127:LEU:HD12	1.95	0.48
11:E:545:LEU:HA	11:E:548:LEU:HB3	1.95	0.48
1:2:444:PHE:HB3	1:2:445:PRO:HD2	1.95	0.48
2:3:360:PHE:CD1	2:3:715:VAL:HG11	2.46	0.48
2:3:671:LEU:HA	2:3:721:VAL:HB	1.94	0.48
4:5:91:GLU:HA	4:5:94:ILE:HG13	1.95	0.48
6:7:380:PHE:CE2	6:7:382:ARG:HB2	2.47	0.48
6:7:520:ILE:HG13	6:7:562:SER:HB2	1.95	0.48
6:7:596:ILE:HG23	6:7:723:SER:HB3	1.94	0.48
8:B:92:TRP:CE2	8:B:116:PRO:HG2	2.48	0.48
1:2:409:ILE:HB	1:2:452:GLU:HG2	1.96	0.48
2:3:95:ARG:NH2	2:3:281:ASP:OD1	2.47	0.48
2:3:487:HIS:HB3	2:3:542:ARG:HH21	1.79	0.48
2:3:494:THR:HA	2:3:508:ALA:H	1.78	0.48
4:5:349:PHE:CE2	4:5:353:GLU:HB2	2.48	0.48
5:6:807:SER:HB2	5:6:819:ILE:HG21	1.96	0.48
6:7:226:SER:HB2	6:7:321:GLN:HB3	1.95	0.48
6:7:228:ARG:HH22	6:7:326:HIS:HB3	1.78	0.48
6:7:463:GLY:C	6:7:465:ALA:H	2.17	0.48
7:A:188:GLN:HG2	11:E:478:TRP:CH2	2.48	0.48
8:B:30:ARG:HD3	8:B:66:MET:HE1	1.95	0.48
8:B:167:HIS:NE2	10:D:267:VAL:HG11	2.28	0.48
11:E:25:CYS:H	11:E:26:GLN:CA	2.26	0.48
11:E:327:PHE:CZ	11:E:328:LEU:HG	2.48	0.48
1:2:829:VAL:HG13	1:2:833:ASP:HB2	1.96	0.48
3:4:713:ASP:HB2	3:4:716:ASN:CB	2.38	0.48
4:5:407:ARG:CD	4:5:498:GLU:HA	2.44	0.48
5:6:516:LEU:O	5:6:520:VAL:HG13	2.14	0.48
5:6:546:GLY:O	5:6:550:GLN:N	2.46	0.48
5:6:560:VAL:CB	5:6:561:GLU:HA	2.43	0.48
6:7:359:PRO:HA	6:7:360:TYR:HA	1.66	0.48
6:7:530:ASP:O	6:7:534:ARG:NH1	2.43	0.48
6:7:535:THR:HA	6:7:538:HIS:HB3	1.95	0.48
10:D:70:GLU:O	10:D:73:SER:OG	2.22	0.48
10:D:231:HIS:HA	10:D:274:ILE:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:307:ARG:HD3	11:E:308:ASN:H	1.78	0.48
2:3:340:GLN:HB3	2:3:661:GLN:HE22	1.78	0.48
2:3:340:GLN:HG2	2:3:341:MET:H	1.78	0.48
2:3:712:HIS:CD2	2:3:728:VAL:HG21	2.48	0.48
3:4:803:ARG:HA	3:4:806:GLU:HG2	1.94	0.48
4:5:165:ILE:N	4:5:259:GLN:O	2.29	0.48
4:5:374:ILE:HG21	4:5:388:ILE:HD13	1.96	0.48
5:6:289:SER:HA	5:6:397:PHE:O	2.14	0.48
6:7:696:SER:HA	6:7:699:LEU:HB2	1.96	0.48
7:A:14:LYS:HA	9:C:6:ILE:HD13	1.96	0.48
9:C:18:CYS:HB3	9:C:72:VAL:CG1	2.44	0.48
11:E:24:SER:O	11:E:26:GLN:NE2	2.47	0.48
11:E:57:GLN:OE1	11:E:58:ILE:N	2.47	0.48
1:2:640:LEU:HA	1:2:640:LEU:HD23	1.51	0.48
3:4:443:PRO:HD3	3:4:457:TYR:CE2	2.49	0.48
3:4:572:THR:HG23	3:4:708:VAL:HG11	1.95	0.48
4:5:413:LEU:HG	4:5:521:ALA:HB3	1.96	0.48
5:6:777:TYR:CG	5:6:800:LEU:HD13	2.49	0.48
10:D:54:VAL:HA	10:D:86:ARG:NH1	2.28	0.48
10:D:133:LEU:O	10:D:136:LEU:N	2.46	0.48
11:E:558:GLU:HB2	11:E:559:SER:C	2.33	0.48
11:E:613:THR:HG21	11:E:622:ILE:HD11	1.94	0.48
2:3:246:GLY:N	6:7:236:GLY:HA3	2.29	0.48
2:3:347:ILE:HD11	2:3:662:TYR:CZ	2.49	0.48
2:3:372:TYR:H	13:3:1001:ANP:HN62	1.62	0.48
2:3:470:VAL:HB	2:3:512:VAL:HG13	1.95	0.48
3:4:324:LYS:NZ	6:7:138:VAL:HG11	2.29	0.48
3:4:354:HIS:HD2	3:4:356:MET:HG2	1.76	0.48
3:4:592:SER:HA	3:4:632:ASP:HB2	1.96	0.48
5:6:596:VAL:HG21	5:6:631:ALA:HB2	1.95	0.48
5:6:616:GLU:CB	5:6:620:ASP:HA	2.43	0.48
5:6:918:ARG:HD3	5:6:918:ARG:HA	1.71	0.48
6:7:21:ILE:HG12	6:7:117:PHE:HD1	1.78	0.48
6:7:227:VAL:HA	6:7:230:ILE:HG13	1.95	0.48
8:B:50:TRP:N	8:B:51:GLN:HA	2.28	0.48
1:2:580:VAL:HG12	1:2:589:TRP:HB3	1.96	0.47
1:2:696:ALA:HB1	5:6:800:LEU:HD22	1.95	0.47
2:3:200:VAL:HG21	2:3:247:TYR:CE2	2.49	0.47
2:3:255:ARG:O	2:3:256:ILE:HD13	2.14	0.47
3:4:249:LEU:HA	3:4:250:ALA:HA	1.61	0.47
5:6:819:ILE:O	5:6:820:THR:HG23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:257:VAL:H	6:7:273:VAL:CG2	2.25	0.47
8:B:60:LEU:HB3	8:B:63:MET:HG2	1.95	0.47
8:B:118:ASN:OD1	8:B:118:ASN:N	2.47	0.47
11:E:480:SER:HA	11:E:483:ALA:HB3	1.96	0.47
1:2:408:VAL:HA	1:2:451:ILE:O	2.14	0.47
1:2:660:THR:OG1	5:6:947:ASP:HA	2.14	0.47
1:2:785:LYS:HG3	1:2:788:ARG:HH21	1.78	0.47
2:3:101:ASP:OD2	9:C:86:ASN:ND2	2.48	0.47
2:3:533:ILE:HG21	2:3:540:LEU:HD11	1.96	0.47
3:4:633:GLU:N	3:4:674:SER:O	2.38	0.47
4:5:294:ILE:HG12	4:5:333:ILE:HG13	1.96	0.47
4:5:371:THR:HG21	4:5:386:LYS:HG2	1.96	0.47
4:5:441:GLY:HA3	4:5:442:LYS:C	2.35	0.47
4:5:540:ILE:HG22	4:5:546:ILE:HD13	1.96	0.47
5:6:591:PHE:CE1	5:6:752:ARG:HG3	2.49	0.47
5:6:731:ILE:HG22	5:6:735:HIS:CD2	2.49	0.47
10:D:269:LEU:HA	10:D:275:TYR:HE2	1.76	0.47
11:E:29:ILE:HD11	11:E:58:ILE:HG23	1.96	0.47
11:E:60:PRO:HG3	11:E:478:TRP:NE1	2.29	0.47
11:E:268:SER:O	11:E:271:TRP:N	2.48	0.47
1:2:264:PRO:HD2	1:2:315:SER:O	2.14	0.47
1:2:566:ALA:C	1:2:572:SER:HB2	2.35	0.47
1:2:585:ILE:HG23	1:2:586:THR:H	1.78	0.47
2:3:21:PHE:O	2:3:25:VAL:HG23	2.13	0.47
2:3:25:VAL:CG2	2:3:124:PRO:CB	2.92	0.47
2:3:172:THR:OG1	2:3:173:ALA:HA	2.14	0.47
3:4:228:LYS:HA	3:4:231:ASN:HB2	1.95	0.47
3:4:330:GLY:HA2	3:4:403:PRO:CD	2.43	0.47
3:4:386:HIS:CE1	5:6:405:PRO:HD3	2.48	0.47
6:7:567:ALA:O	6:7:569:PRO:HD3	2.14	0.47
8:B:56:ASP:OD1	8:B:56:ASP:N	2.35	0.47
10:D:79:TYR:CE2	10:D:81:HIS:HB3	2.49	0.47
1:2:338:LYS:O	1:2:378:GLU:N	2.26	0.47
1:2:379:LYS:NZ	4:5:82:GLU:OE2	2.46	0.47
1:2:525:LYS:HE3	4:5:576:HIS:O	2.13	0.47
1:2:525:LYS:HE2	4:5:576:HIS:ND1	2.30	0.47
2:3:234:GLU:OE1	2:3:240:LYS:HD2	2.14	0.47
2:3:405:ILE:HB	2:3:513:ILE:HG12	1.96	0.47
3:4:631:ILE:O	3:4:674:SER:N	2.48	0.47
3:4:775:VAL:O	3:4:779:LYS:N	2.45	0.47
3:4:821:ASP:N	3:4:821:ASP:OD1	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:21:ASP:N	4:5:21:ASP:OD1	2.47	0.47
4:5:253:GLN:HE21	4:5:277:THR:CB	2.27	0.47
5:6:659:GLN:HG3	5:6:675:ARG:HA	1.96	0.47
6:7:650:PRO:HG3	6:7:700:ALA:HB3	1.95	0.47
7:A:110:MET:N	7:A:111:SER:HA	2.27	0.47
7:A:175:GLN:CB	7:A:180:VAL:HA	2.44	0.47
9:C:172:MET:O	9:C:176:ILE:HG23	2.14	0.47
10:D:260:ILE:HG23	10:D:261:PRO:HD2	1.97	0.47
11:E:370:LEU:O	11:E:374:GLN:HG2	2.15	0.47
1:2:550:SER:OG	13:2:901:ANP:O1G	2.26	0.47
3:4:854:LYS:HE2	3:4:857:ILE:HD11	1.97	0.47
4:5:382:GLU:HA	4:5:385:LYS:HB3	1.97	0.47
4:5:422:LYS:HA	4:5:425:LEU:HB3	1.95	0.47
5:6:614:ARG:CZ	5:6:614:ARG:HB3	2.44	0.47
5:6:665:LYS:HD3	5:6:665:LYS:HA	1.72	0.47
5:6:761:PHE:HB2	5:6:812:ARG:HE	1.79	0.47
5:6:776:LYS:O	5:6:780:LEU:N	2.47	0.47
6:7:87:GLN:O	6:7:90:ASN:HB2	2.15	0.47
6:7:107:GLN:HA	6:7:238:LEU:HB3	1.96	0.47
6:7:114:THR:HG23	6:7:204:PHE:HE2	1.79	0.47
6:7:437:VAL:HG12	6:7:701:LYS:HZ1	1.80	0.47
7:A:185:LYS:HD2	7:A:186:ASP:N	2.29	0.47
1:2:828:PHE:CE2	11:E:516:LYS:HG2	2.49	0.47
2:3:260:GLU:OE1	2:3:260:GLU:N	2.40	0.47
2:3:317:PHE:HE2	4:5:176:ALA:HB2	1.80	0.47
2:3:389:VAL:HG21	2:3:669:PRO:HD2	1.95	0.47
3:4:796:ARG:O	3:4:799:GLU:HB3	2.15	0.47
4:5:566:ILE:O	4:5:570:ASN:HB2	2.15	0.47
4:5:635:ILE:HA	4:5:638:LEU:HG	1.96	0.47
5:6:126:SER:HB3	5:6:131:GLU:HB3	1.96	0.47
5:6:298:SER:O	5:6:357:GLN:HB2	2.15	0.47
6:7:18:PHE:CE1	6:7:120:ALA:HB2	2.50	0.47
6:7:455:ASN:HA	6:7:563:ILE:O	2.13	0.47
9:C:7:ASP:HA	9:C:10:LEU:HB3	1.95	0.47
9:C:58:GLY:HA3	9:C:69:VAL:O	2.15	0.47
11:E:280:LEU:O	11:E:283:ALA:N	2.42	0.47
11:E:359:LEU:O	11:E:362:MET:HB2	2.15	0.47
11:E:519:ILE:HA	11:E:528:CYS:SG	2.55	0.47
1:2:232:ARG:HG3	1:2:283:TYR:OH	2.14	0.47
1:2:432:ASN:OD1	1:2:432:ASN:N	2.48	0.47
1:2:435:ASP:HB3	1:2:447:PHE:HE1	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:676:ARG:HH12	4:5:418:PRO:HB2	1.79	0.47
1:2:796:GLU:O	1:2:799:SER:HB2	2.14	0.47
2:3:200:VAL:HG21	2:3:247:TYR:HD2	1.80	0.47
2:3:201:HIS:NE2	2:3:232:PRO:HD2	2.29	0.47
2:3:662:TYR:HE1	2:3:666:ARG:HD2	1.79	0.47
3:4:330:GLY:O	3:4:399:LEU:HD11	2.15	0.47
4:5:22:ASP:HA	4:5:25:THR:HB	1.95	0.47
4:5:149:ARG:NH2	4:5:269:GLU:OE1	2.48	0.47
4:5:299:SER:OG	4:5:300:ILE:N	2.48	0.47
4:5:382:GLU:O	4:5:386:LYS:HG3	2.15	0.47
5:6:313:MET:HA	5:6:314:CYS:HA	1.62	0.47
5:6:368:ILE:HG21	5:6:374:PRO:HB3	1.97	0.47
5:6:603:SER:N	5:6:604:SER:HA	2.17	0.47
5:6:753:ARG:HA	5:6:756:LYS:HE2	1.96	0.47
5:6:943:GLN:HA	5:6:946:ASN:ND2	2.29	0.47
5:6:945:GLU:HA	5:6:948:LEU:HD13	1.97	0.47
6:7:519:GLY:O	6:7:562:SER:N	2.39	0.47
6:7:645:ALA:HB1	6:7:701:LYS:CB	2.44	0.47
7:A:23:SER:N	7:A:24:ASN:HA	2.29	0.47
10:D:137:LYS:HG2	10:D:141:ARG:HH12	1.80	0.47
11:E:28:VAL:HG12	11:E:29:ILE:O	2.15	0.47
11:E:32:SER:HA	11:E:33:CYS:HA	1.41	0.47
11:E:41:ALA:HB1	11:E:255:ILE:HD12	1.95	0.47
11:E:89:VAL:O	11:E:130:ASN:ND2	2.48	0.47
11:E:222:LYS:HA	11:E:225:GLN:HB3	1.97	0.47
11:E:264:GLU:N	11:E:264:GLU:OE1	2.44	0.47
11:E:284:TYR:HB2	11:E:285:ALA:H	1.56	0.47
11:E:372:THR:HG23	11:E:375:GLU:OE1	2.15	0.47
11:E:566:PRO:HB2	11:E:605:PHE:HE2	1.76	0.47
1:2:567:THR:HG22	1:2:572:SER:HB2	1.96	0.47
3:4:629:CYS:SG	3:4:630:CYS:N	2.87	0.47
3:4:689:THR:OG1	3:4:851:GLN:N	2.40	0.47
4:5:98:ALA:O	4:5:102:SER:N	2.42	0.47
4:5:379:PHE:CD2	4:5:568:ILE:HB	2.49	0.47
4:5:473:ASP:HA	4:5:517:THR:HG22	1.95	0.47
4:5:575:ILE:HG13	4:5:581:ASN:HD22	1.78	0.47
5:6:371:GLY:HA3	6:7:554:ASN:OD1	2.15	0.47
5:6:608:LEU:HA	5:6:627:ALA:HB3	1.96	0.47
5:6:711:LEU:HB3	5:6:713:PHE:CE1	2.50	0.47
6:7:441:ASP:H	6:7:452:GLY:HA2	1.78	0.47
6:7:485:GLY:H	6:7:525:GLU:HB2	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:B:94:THR:O	8:B:98:LEU:HG	2.15	0.47
9:C:101:ASN:HD22	9:C:104:PHE:HB2	1.79	0.47
11:E:419:ILE:HG22	11:E:420:SER:O	2.14	0.47
11:E:489:VAL:HG12	11:E:493:ASN:HD21	1.79	0.47
1:2:580:VAL:HG21	4:5:446:ALA:HB1	1.95	0.47
4:5:344:ASN:N	4:5:345:SER:HA	2.29	0.47
4:5:353:GLU:O	4:5:357:PHE:N	2.43	0.47
4:5:514:ASN:OD1	4:5:516:ARG:NH2	2.48	0.47
5:6:122:PHE:HA	5:6:123:SER:CB	2.45	0.47
5:6:529:LEU:O	5:6:533:ILE:CG1	2.62	0.47
5:6:656:MET:SD	5:6:678:ILE:HG13	2.55	0.47
5:6:964:VAL:HG13	5:6:967:ARG:NE	2.30	0.47
6:7:476:ILE:CD1	6:7:476:ILE:N	2.73	0.47
6:7:489:SER:O	6:7:493:LEU:HD21	2.13	0.47
7:A:103:ASN:OD1	7:A:104:ASN:N	2.44	0.47
8:B:184:PHE:O	8:B:188:ILE:CD1	2.63	0.47
1:2:323:VAL:HG23	1:2:393:ALA:HB2	1.97	0.47
2:3:101:ASP:OD1	2:3:104:ARG:NH2	2.48	0.47
2:3:389:VAL:HG12	2:3:390:GLU:N	2.23	0.47
3:4:258:TYR:OH	3:4:308:VAL:HG12	2.15	0.47
3:4:618:SER:HB3	3:4:622:VAL:HB	1.95	0.47
4:5:166:ILE:HG12	4:5:258:LEU:HB3	1.97	0.47
4:5:384:ILE:HG13	4:5:554:PHE:CD2	2.43	0.47
4:5:565:ASP:O	4:5:568:ILE:N	2.48	0.47
5:6:174:TYR:O	5:6:178:LEU:HD12	2.15	0.47
5:6:363:GLU:HB3	5:6:374:PRO:HB2	1.96	0.47
5:6:660:THR:HG22	5:6:673:ASN:HA	1.96	0.47
5:6:758:ALA:HA	5:6:761:PHE:CE2	2.49	0.47
6:7:454:ILE:HG22	6:7:456:VAL:HG23	1.96	0.47
8:B:151:ILE:O	8:B:154:ILE:HG13	2.14	0.47
10:D:159:ARG:NH2	10:D:187:SER:OG	2.48	0.47
11:E:158:ALA:HB2	11:E:237:LEU:HD13	1.97	0.47
11:E:641:LEU:O	11:E:645:THR:HG23	2.15	0.47
1:2:270:ILE:O	1:2:274:VAL:HG23	2.15	0.46
1:2:337:VAL:HB	1:2:351:PHE:H	1.79	0.46
2:3:104:ARG:HH22	9:C:86:ASN:HB2	1.79	0.46
3:4:794:THR:HG23	3:4:796:ARG:H	1.79	0.46
3:4:910:LEU:O	3:4:915:LYS:N	2.32	0.46
4:5:184:ARG:HH21	4:5:242:ILE:HD11	1.80	0.46
5:6:288:LEU:O	5:6:399:GLY:N	2.48	0.46
5:6:713:PHE:HA	5:6:834:SER:OG	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:777:TYR:O	5:6:780:LEU:HB3	2.14	0.46
6:7:459:MET:HG3	6:7:460:GLY:N	2.30	0.46
7:A:27:VAL:HG11	7:A:100:MET:CE	2.45	0.46
7:A:151:LEU:O	10:D:145:ARG:NH1	2.48	0.46
10:D:260:ILE:HD12	10:D:260:ILE:H	1.80	0.46
11:E:164:GLU:OE1	11:E:164:GLU:N	2.46	0.46
1:2:549:LYS:HG3	1:2:550:SER:H	1.81	0.46
3:4:666:ASN:HD22	3:4:668:ARG:HH22	1.61	0.46
5:6:130:GLY:CA	5:6:131:GLU:HB3	2.45	0.46
5:6:361:ILE:HD12	5:6:397:PHE:CE2	2.45	0.46
8:B:7:LEU:HD22	8:B:10:THR:HG23	1.98	0.46
10:D:212:THR:H	10:D:213:GLU:HA	1.79	0.46
10:D:237:ASP:OD2	10:D:248:GLU:N	2.48	0.46
2:3:151:HIS:CG	2:3:152:PRO:HD2	2.50	0.46
3:4:573:SER:HA	3:4:576:GLN:HG2	1.96	0.46
3:4:613:GLN:OE1	5:6:360:ARG:NH1	2.49	0.46
3:4:646:HIS:HE1	3:4:698:LEU:HD13	1.79	0.46
5:6:689:TYR:CD2	5:6:716:LEU:HD12	2.50	0.46
5:6:727:LEU:HB3	5:6:731:ILE:HD12	1.97	0.46
7:A:98:ASP:O	7:A:102:TRP:HD1	1.98	0.46
8:B:92:TRP:CH2	8:B:93:LEU:HD12	2.50	0.46
9:C:16:PHE:CZ	9:C:107:LEU:HD21	2.50	0.46
10:D:268:GLU:O	10:D:269:LEU:HD22	2.16	0.46
11:E:320:ILE:HG22	11:E:409:PHE:HD1	1.80	0.46
1:2:296:ARG:HD2	1:2:414:LEU:HD21	1.97	0.46
1:2:487:ILE:O	1:2:493:ILE:HG21	2.15	0.46
2:3:490:MET:HB2	2:3:542:ARG:HD2	1.97	0.46
2:3:680:VAL:HG13	6:7:613:ALA:HB3	1.96	0.46
3:4:572:THR:CG2	3:4:708:VAL:HG11	2.45	0.46
4:5:50:LEU:HD11	4:5:135:PHE:CZ	2.51	0.46
4:5:176:ALA:HA	4:5:250:PHE:CE1	2.51	0.46
4:5:360:LEU:HB3	4:5:366:LEU:HD22	1.97	0.46
4:5:660:THR:HG22	4:5:677:VAL:HG13	1.98	0.46
5:6:186:ARG:O	5:6:190:ARG:HB2	2.16	0.46
5:6:689:TYR:HB3	5:6:691:ARG:HD3	1.97	0.46
5:6:950:SER:HB2	5:6:953:GLU:HG2	1.98	0.46
6:7:467:SER:O	6:7:471:LYS:HB2	2.14	0.46
6:7:669:GLN:O	6:7:673:ARG:HG2	2.16	0.46
6:7:714:GLU:HA	6:7:717:LEU:HB2	1.96	0.46
7:A:105:ASN:ND2	7:A:110:MET:SD	2.88	0.46
7:A:171:ALA:HA	7:A:172:GLY:HA3	1.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:155:GLN:HA	11:E:158:ALA:CB	2.46	0.46
11:E:234:GLU:O	11:E:238:GLU:HB2	2.16	0.46
11:E:316:LEU:HD21	11:E:413:LEU:C	2.34	0.46
11:E:376:THR:HG22	11:E:378:LEU:H	1.80	0.46
1:2:428:GLY:CA	1:2:453:ALA:HA	2.37	0.46
2:3:384:MET:HA	2:3:403:ILE:HD13	1.98	0.46
3:4:447:ASN:N	3:4:448:SER:HA	2.29	0.46
3:4:570:PRO:HD3	3:4:680:SER:HB2	1.97	0.46
4:5:375:ALA:CB	4:5:378:ILE:HB	2.45	0.46
4:5:425:LEU:O	4:5:429:VAL:HG23	2.16	0.46
4:5:493:ILE:O	4:5:497:MET:HG3	2.16	0.46
5:6:122:PHE:CB	5:6:124:VAL:HB	2.45	0.46
5:6:357:GLN:HG2	5:6:386:VAL:HG23	1.96	0.46
8:B:18:PHE:HE1	10:D:135:ARG:HG2	1.80	0.46
8:B:184:PHE:CZ	9:C:132:ALA:HB1	2.50	0.46
10:D:195:ASN:HA	10:D:199:LEU:HB2	1.97	0.46
10:D:255:CYS:HB2	10:D:270:THR:HG22	1.98	0.46
11:E:120:ILE:HB	11:E:139:ILE:O	2.15	0.46
3:4:566:LEU:HG	3:4:672:LEU:HD21	1.97	0.46
5:6:397:PHE:HD1	5:6:459:VAL:HG22	1.80	0.46
7:A:67:VAL:O	7:A:70:CYS:HB2	2.15	0.46
7:A:187:SER:OG	11:E:57:GLN:NE2	2.43	0.46
8:B:184:PHE:CE1	8:B:188:ILE:HD11	2.51	0.46
8:B:187:GLU:CD	9:C:176:ILE:HG22	2.36	0.46
10:D:135:ARG:CZ	10:D:135:ARG:HB3	2.46	0.46
10:D:257:THR:O	10:D:269:LEU:HB2	2.15	0.46
11:E:353:GLU:O	11:E:356:LYS:HB3	2.16	0.46
11:E:466:LEU:O	11:E:470:ARG:HG3	2.16	0.46
1:2:210:GLU:O	1:2:213:SER:HB3	2.15	0.46
1:2:812:SER:O	1:2:816:ILE:HG13	2.16	0.46
1:2:813:ILE:HD12	1:2:841:VAL:CG2	2.42	0.46
2:3:195:LYS:HZ1	2:3:218:THR:HG1	1.61	0.46
5:6:801:GLU:OE1	5:6:805:ARG:NH2	2.44	0.46
5:6:909:TYR:HA	5:6:912:MET:HB2	1.98	0.46
7:A:102:TRP:CZ3	7:A:151:LEU:HD23	2.51	0.46
7:A:133:GLU:O	7:A:136:ASP:HB2	2.15	0.46
9:C:53:ILE:HG12	9:C:54:LEU:N	2.31	0.46
10:D:162:ASN:HA	10:D:169:ILE:HG23	1.98	0.46
11:E:140:ILE:HA	11:E:141:GLN:CB	2.43	0.46
1:2:624:MET:HE3	1:2:624:MET:HB2	1.83	0.46
3:4:428:ARG:HE	5:6:369:PRO:CG	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:563:ASN:OD1	3:4:563:ASN:N	2.47	0.46
4:5:353:GLU:O	4:5:356:GLU:HG2	2.15	0.46
4:5:409:ASP:O	4:5:518:SER:HB2	2.16	0.46
4:5:439:THR:H	4:5:478:CYS:HB2	1.80	0.46
5:6:302:PRO:HB2	5:6:353:PHE:CD2	2.50	0.46
5:6:356:TRP:CZ3	5:6:380:ILE:HB	2.51	0.46
5:6:730:HIS:CE1	5:6:734:LEU:HD21	2.51	0.46
5:6:767:LYS:HG2	5:6:769:ALA:H	1.81	0.46
5:6:811:ALA:O	5:6:815:CYS:N	2.49	0.46
11:E:358:ARG:O	11:E:361:LYS:HB3	2.15	0.46
11:E:625:PHE:CE1	11:E:626:GLU:HB2	2.51	0.46
1:2:533:ILE:HD13	4:5:576:HIS:NE2	2.30	0.46
1:2:856:GLN:NE2	1:2:859:ARG:HH21	2.09	0.46
2:3:29:GLN:O	2:3:32:LEU:HB2	2.16	0.46
2:3:566:LEU:HB3	4:5:619:ALA:HB1	1.98	0.46
3:4:397:ILE:HB	3:4:417:LEU:HD11	1.98	0.46
3:4:821:ASP:OD1	3:4:822:VAL:HG23	2.16	0.46
4:5:396:SER:HB3	4:5:661:GLU:CD	2.36	0.46
4:5:411:ASN:ND2	4:5:519:VAL:HB	2.30	0.46
4:5:412:VAL:HB	4:5:520:LEU:HG	1.97	0.46
5:6:566:ARG:HA	5:6:567:GLY:HA3	1.73	0.46
6:7:143:LEU:O	6:7:146:ARG:HB2	2.16	0.46
6:7:493:LEU:HD11	6:7:533:ASP:HA	1.98	0.46
6:7:656:VAL:HG11	6:7:708:VAL:O	2.16	0.46
7:A:107:LEU:HD21	7:A:152:SER:C	2.36	0.46
8:B:198:ALA:HB1	9:C:113:MET:SD	2.56	0.46
9:C:46:LEU:HB3	9:C:50:LEU:HD11	1.98	0.46
11:E:130:ASN:OD1	11:E:131:LEU:N	2.48	0.46
11:E:133:ASN:O	11:E:140:ILE:CD1	2.64	0.46
11:E:256:TYR:HB2	11:E:273:ASN:OD1	2.16	0.46
11:E:524:ILE:HB	11:E:525:TYR:HD2	1.80	0.46
1:2:519:LEU:HD21	1:2:559:THR:HG21	1.98	0.46
2:3:520:PHE:HB3	2:3:527:ARG:HH22	1.80	0.46
3:4:419:VAL:HG23	3:4:420:TYR:N	2.31	0.46
3:4:501:ILE:HG23	3:4:749:MET:HE3	1.97	0.46
3:4:550:LYS:HE2	3:4:558:TYR:CD2	2.49	0.46
3:4:603:ALA:HA	3:4:617:GLU:O	2.16	0.46
4:5:41:ASP:HA	4:5:42:SER:HA	1.66	0.46
4:5:420:THR:N	13:5:801:ANP:O2A	2.49	0.46
4:5:496:ALA:HB2	4:5:502:ILE:HG12	1.98	0.46
4:5:578:GLY:O	4:5:579:ASN:OD1	2.35	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:714:VAL:HB	5:6:837:ARG:HB3	1.98	0.46
6:7:26:VAL:H	6:7:63:TYR:CB	2.28	0.46
8:B:97:GLU:OE2	8:B:101:LYS:NZ	2.39	0.46
10:D:75:GLU:OE1	10:D:222:PRO:HA	2.16	0.46
11:E:26:GLN:CB	11:E:78:ILE:HA	2.39	0.46
11:E:28:VAL:HG13	11:E:57:GLN:O	2.15	0.46
11:E:133:ASN:O	11:E:142:CYS:HB3	2.16	0.46
11:E:150:ASP:N	11:E:151:THR:HA	2.31	0.46
1:2:494:ILE:O	1:2:498:ILE:HG13	2.16	0.45
1:2:520:PHE:CE2	1:2:822:LYS:HB3	2.50	0.45
1:2:657:TYR:HE2	1:2:660:THR:HG22	1.81	0.45
2:3:435:ARG:HA	2:3:436:GLY:HA3	1.54	0.45
2:3:565:VAL:O	2:3:568:THR:HB	2.16	0.45
3:4:199:MET:H	3:4:227:ILE:HG12	1.80	0.45
3:4:467:LYS:HG3	3:4:468:LYS:HB2	1.97	0.45
4:5:68:LEU:HD21	4:5:76:TYR:HB2	1.98	0.45
4:5:300:ILE:HD13	4:5:326:PRO:HA	1.97	0.45
5:6:270:LEU:H	5:6:396:LYS:NZ	2.14	0.45
5:6:532:SER:HB2	5:6:746:PHE:HB2	1.96	0.45
5:6:555:VAL:HG13	5:6:808:GLU:HG2	1.97	0.45
6:7:411:TYR:HD1	6:7:702:LEU:HD13	1.82	0.45
6:7:422:ILE:HD13	6:7:469:LEU:CD1	2.46	0.45
7:A:130:TYR:HB2	10:D:193:LEU:HD13	1.98	0.45
7:A:163:ILE:HG22	7:A:164:ASP:H	1.80	0.45
7:A:185:LYS:HD2	7:A:186:ASP:H	1.80	0.45
11:E:81:LEU:HB3	11:E:120:ILE:HA	1.98	0.45
11:E:349:SER:HB3	11:E:352:ASN:ND2	2.31	0.45
11:E:483:ALA:HA	11:E:491:LEU:HD11	1.97	0.45
11:E:637:LEU:O	11:E:641:LEU:HG	2.16	0.45
1:2:432:ASN:HA	1:2:448:ALA:O	2.16	0.45
1:2:479:GLU:H	1:2:479:GLU:CD	2.17	0.45
1:2:520:PHE:CD1	1:2:823:MET:HG2	2.52	0.45
1:2:778:LEU:H	4:5:577:THR:HG21	1.81	0.45
2:3:28:PHE:O	2:3:31:PHE:HB3	2.16	0.45
3:4:257:LEU:HD12	3:4:260:GLN:HB2	1.97	0.45
3:4:336:THR:O	5:6:375:ARG:NH1	2.49	0.45
3:4:410:GLN:OE1	3:4:411:THR:HG22	2.16	0.45
4:5:479:ILE:O	4:5:522:ALA:HB3	2.16	0.45
5:6:558:SER:CB	5:6:559:THR:HA	2.28	0.45
5:6:941:LEU:HD13	5:6:958:ARG:NH2	2.31	0.45
8:B:24:PRO:HB2	8:B:70:GLU:OE2	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:C:105:PHE:CZ	9:C:127:LEU:HD22	2.48	0.45
1:2:624:MET:HG2	1:2:646:ILE:CD1	2.47	0.45
1:2:828:PHE:CZ	11:E:516:LYS:HG2	2.52	0.45
3:4:779:LYS:HA	3:4:779:LYS:HD2	1.71	0.45
4:5:143:ALA:HB3	4:5:161:ARG:CD	2.46	0.45
4:5:146:ILE:HD12	4:5:160:VAL:HG13	1.99	0.45
5:6:777:TYR:CD1	5:6:780:LEU:HD13	2.51	0.45
5:6:956:GLU:O	5:6:960:LEU:HB2	2.16	0.45
6:7:203:TYR:HE2	6:7:338:THR:HB	1.81	0.45
6:7:273:VAL:O	6:7:273:VAL:HG12	2.16	0.45
6:7:334:HIS:O	6:7:378:ALA:N	2.46	0.45
6:7:451:ARG:HA	6:7:452:GLY:HA3	1.64	0.45
7:A:199:LEU:CB	7:A:205:LEU:HG	2.45	0.45
8:B:167:HIS:NE2	10:D:267:VAL:CG1	2.79	0.45
10:D:230:ILE:HA	10:D:293:LEU:HA	1.97	0.45
11:E:25:CYS:H	11:E:26:GLN:CB	2.30	0.45
11:E:288:TYR:HA	11:E:291:LEU:HB2	1.98	0.45
11:E:493:ASN:HA	11:E:496:ILE:HD12	1.99	0.45
11:E:536:LEU:HD13	11:E:536:LEU:HA	1.78	0.45
12:F:12:DT:H1'	12:F:13:DT:OP2	2.15	0.45
1:2:788:ARG:O	1:2:791:ALA:HB3	2.16	0.45
1:2:839:LYS:HD2	1:2:839:LYS:HA	1.61	0.45
2:3:533:ILE:O	2:3:534:ALA:HB3	2.16	0.45
3:4:373:ARG:HD3	3:4:373:ARG:HA	1.54	0.45
4:5:149:ARG:NH1	4:5:272:ARG:HG3	2.32	0.45
4:5:398:LYS:NZ	4:5:613:ARG:HD2	2.31	0.45
4:5:442:LYS:O	4:5:449:LEU:HD12	2.17	0.45
4:5:497:MET:HG2	4:5:519:VAL:HG21	1.99	0.45
4:5:537:GLY:C	4:5:539:ASN:H	2.19	0.45
5:6:791:SER:CB	5:6:835:ILE:HG22	2.41	0.45
6:7:87:GLN:OE1	6:7:214:ARG:NH1	2.49	0.45
6:7:677:SER:O	6:7:680:SER:N	2.49	0.45
7:A:135:CYS:O	7:A:139:THR:HG23	2.17	0.45
8:B:30:ARG:NH1	8:B:66:MET:HE1	2.30	0.45
9:C:6:ILE:HG13	9:C:7:ASP:N	2.32	0.45
10:D:83:LEU:O	10:D:86:ARG:HG2	2.16	0.45
10:D:215:SER:HA	10:D:216:VAL:HA	1.55	0.45
1:2:216:LEU:HD12	1:2:217:GLU:N	2.31	0.45
1:2:288:ARG:HH21	11:E:384:ILE:HG12	1.82	0.45
1:2:419:LYS:HG3	1:2:420:PRO:HD2	1.99	0.45
2:3:96:ILE:HD13	2:3:129:LEU:HD11	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:363:LEU:HD22	2:3:656:LEU:HD12	1.97	0.45
2:3:436:GLY:O	4:5:506:LYS:HG2	2.17	0.45
3:4:397:ILE:O	3:4:417:LEU:HG	2.17	0.45
3:4:434:GLU:HB3	3:4:467:LYS:O	2.16	0.45
4:5:413:LEU:HB2	4:5:553:ILE:HA	1.99	0.45
4:5:629:ILE:HG22	4:5:648:ILE:CD1	2.47	0.45
5:6:547:ILE:O	5:6:550:GLN:HB2	2.17	0.45
5:6:941:LEU:HA	5:6:944:LYS:CD	2.47	0.45
6:7:67:LEU:HD11	6:7:121:ILE:HG23	1.99	0.45
7:A:84:ARG:HH12	10:D:217:ASN:CB	2.30	0.45
11:E:259:LEU:HD21	11:E:269:ASN:HD22	1.81	0.45
11:E:561:ASP:HB3	11:E:562:LYS:CG	2.47	0.45
11:E:607:MET:O	11:E:610:GLN:HB2	2.17	0.45
1:2:206:THR:HA	1:2:209:ARG:HD3	1.99	0.45
1:2:253:LYS:HA	1:2:253:LYS:CE	2.44	0.45
1:2:614:ASP:HA	1:2:617:ARG:NH1	2.31	0.45
1:2:803:PHE:HB2	1:2:804:PRO:HA	1.98	0.45
2:3:377:ILE:O	2:3:381:ILE:HG13	2.16	0.45
2:3:466:ASP:HA	2:3:510:CYS:SG	2.57	0.45
2:3:706:ILE:HD13	6:7:620:HIS:CE1	2.52	0.45
3:4:567:CYS:HB3	3:4:675:ALA:HB3	1.99	0.45
3:4:634:PHE:CZ	3:4:642:ARG:HG2	2.52	0.45
3:4:749:MET:O	3:4:752:SER:OG	2.28	0.45
4:5:44:PHE:HB2	4:5:47:ARG:HB3	1.98	0.45
4:5:411:ASN:HB3	4:5:550:PHE:CD1	2.52	0.45
4:5:585:ASN:O	4:5:589:GLU:HG2	2.16	0.45
5:6:112:ARG:HH22	5:6:183:LYS:CG	2.25	0.45
5:6:611:ALA:N	5:6:624:GLU:HG2	2.32	0.45
5:6:823:PHE:O	5:6:826:GLU:HB2	2.17	0.45
10:D:274:ILE:HG13	10:D:274:ILE:O	2.16	0.45
11:E:29:ILE:CD1	11:E:31:VAL:HG23	2.42	0.45
11:E:125:ALA:HB2	11:E:249:ASN:O	2.16	0.45
11:E:147:THR:OG1	11:E:148:VAL:N	2.50	0.45
11:E:414:GLY:O	11:E:417:GLY:N	2.37	0.45
1:2:571:ALA:HB3	5:6:664:ALA:O	2.16	0.45
1:2:581:ARG:HH22	5:6:621:TYR:HB3	1.79	0.45
1:2:667:VAL:HG22	1:2:669:LEU:H	1.82	0.45
2:3:226:PRO:C	2:3:228:PRO:HD2	2.37	0.45
2:3:405:ILE:HD13	2:3:513:ILE:HD11	1.99	0.45
3:4:202:LYS:HB3	3:4:203:TYR:CB	2.32	0.45
3:4:348:LYS:HG2	3:4:354:HIS:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:68:LEU:CD2	4:5:76:TYR:HB2	2.47	0.45
4:5:568:ILE:O	4:5:571:HIS:HB3	2.17	0.45
5:6:721:GLU:OE1	5:6:721:GLU:N	2.42	0.45
7:A:135:CYS:O	7:A:138:ILE:HG22	2.17	0.45
7:A:165:VAL:HG11	7:A:205:LEU:HD22	1.99	0.45
7:A:194:SER:OG	10:D:134:GLU:OE2	2.29	0.45
11:E:286:GLN:NE2	11:E:597:THR:HG21	2.31	0.45
11:E:310:VAL:HG13	11:E:311:LYS:HD2	1.98	0.45
11:E:559:SER:HB2	11:E:560:GLU:C	2.37	0.45
1:2:339:PHE:HD1	1:2:341:CYS:H	1.65	0.45
1:2:693:GLU:H	1:2:693:GLU:HG3	1.65	0.45
2:3:410:ASP:OD1	2:3:522:GLN:HA	2.17	0.45
4:5:91:GLU:HA	4:5:94:ILE:CG1	2.46	0.45
5:6:559:THR:O	5:6:559:THR:OG1	2.32	0.45
5:6:610:ALA:H	5:6:663:ILE:HG21	1.81	0.45
7:A:84:ARG:HD3	7:A:84:ARG:HA	1.75	0.45
8:B:107:THR:HG23	8:B:108:HIS:CE1	2.52	0.45
9:C:20:PHE:HA	9:C:72:VAL:HA	1.98	0.45
10:D:262:ASP:OD1	10:D:263:LEU:N	2.49	0.45
11:E:585:THR:HB	11:E:601:ILE:HD11	1.99	0.45
1:2:481:GLU:O	1:2:485:ARG:HG2	2.17	0.45
2:3:39:ARG:NH2	2:3:132:LEU:HD11	2.29	0.45
3:4:191:THR:HG23	3:4:192:THR:HG23	1.98	0.45
3:4:688:VAL:HG22	3:4:838:THR:HG22	1.99	0.45
4:5:353:GLU:HB3	4:5:357:PHE:CE2	2.52	0.45
4:5:455:ARG:HH11	4:5:460:ARG:HD2	1.81	0.45
5:6:786:GLN:HG3	5:6:787:GLY:HA2	1.99	0.45
5:6:801:GLU:CD	5:6:805:ARG:HH21	2.21	0.45
6:7:404:LEU:HD21	6:7:414:LEU:HD11	1.98	0.45
8:B:169:GLN:HG2	10:D:275:TYR:CE1	2.52	0.45
9:C:76:PRO:HA	9:C:77:PRO:HD3	1.81	0.45
10:D:220:ASP:HA	10:D:222:PRO:HD2	1.98	0.45
11:E:15:ILE:HD13	11:E:121:TYR:HE2	1.82	0.45
11:E:495:GLY:HA2	11:E:498:LEU:HB2	1.99	0.45
1:2:234:LEU:HA	1:2:235:GLY:C	2.37	0.45
1:2:588:GLU:H	1:2:588:GLU:CD	2.19	0.45
1:2:609:PHE:CZ	1:2:648:ALA:HB1	2.52	0.45
2:3:674:GLU:HB3	2:3:723:LYS:HB2	1.99	0.45
3:4:631:ILE:H	3:4:673:ALA:HA	1.82	0.45
3:4:761:ILE:O	3:4:817:VAL:HG12	2.17	0.45
3:4:769:GLU:OE1	3:4:823:GLN:NE2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:179:LEU:HD22	4:5:243:ILE:HG12	1.99	0.45
5:6:650:VAL:HA	5:6:653:HIS:HB3	1.99	0.45
5:6:665:LYS:NZ	12:F:14:DT:OP1	2.36	0.45
11:E:615:GLU:OE1	11:E:643:LYS:HB3	2.16	0.45
11:E:622:ILE:O	11:E:622:ILE:HG22	2.17	0.45
1:2:656:ARG:HB2	5:6:794:ARG:HH22	1.81	0.44
2:3:229:ALA:HB1	6:7:370:LEU:CD2	2.46	0.44
2:3:373:GLY:O	2:3:378:LYS:NZ	2.36	0.44
2:3:474:GLU:HG3	4:5:491:VAL:HG11	1.98	0.44
2:3:497:ILE:O	2:3:503:HIS:HA	2.17	0.44
3:4:264:TYR:CE2	6:7:135:LYS:HE2	2.52	0.44
3:4:267:GLU:O	3:4:270:SER:OG	2.23	0.44
4:5:420:THR:HG23	4:5:556:VAL:HG11	2.00	0.44
5:6:168:MET:O	5:6:171:SER:N	2.48	0.44
5:6:293:THR:HG23	5:6:392:GLY:HA2	1.98	0.44
5:6:362:GLN:HA	5:6:376:THR:HG21	1.98	0.44
6:7:411:TYR:HD1	6:7:702:LEU:HD12	1.83	0.44
7:A:105:ASN:HB3	7:A:110:MET:SD	2.56	0.44
7:A:134:TYR:O	7:A:137:LEU:HB3	2.18	0.44
8:B:51:GLN:N	8:B:52:LEU:HA	2.32	0.44
10:D:161:LEU:HD21	10:D:168:LEU:O	2.17	0.44
11:E:34:LEU:HD11	11:E:543:LEU:HG	1.99	0.44
11:E:163:LEU:HA	11:E:164:GLU:HA	1.70	0.44
1:2:208:ALA:HA	1:2:211:LEU:HG	1.99	0.44
1:2:327:ARG:HE	1:2:420:PRO:HD3	1.83	0.44
1:2:480:GLU:HB3	1:2:765:LYS:HE2	1.98	0.44
1:2:685:ASP:OD1	1:2:685:ASP:N	2.50	0.44
1:2:850:LYS:HG3	1:2:851:VAL:N	2.31	0.44
2:3:24:ARG:CZ	2:3:121:PHE:HE1	2.30	0.44
2:3:245:TYR:CZ	6:7:357:PRO:HG2	2.53	0.44
2:3:524:ASP:OD1	2:3:532:ASN:ND2	2.50	0.44
3:4:677:PRO:HB3	3:4:682:TYR:HB3	1.99	0.44
3:4:767:LYS:O	3:4:771:VAL:HB	2.17	0.44
3:4:854:LYS:HB3	3:4:857:ILE:HD11	1.99	0.44
4:5:156:VAL:HG22	4:5:298:TYR:CD2	2.50	0.44
4:5:374:ILE:HD13	4:5:388:ILE:HB	1.99	0.44
5:6:169:ALA:O	5:6:173:GLN:HB2	2.18	0.44
5:6:919:LYS:NZ	5:6:929:GLU:OE2	2.33	0.44
6:7:18:PHE:CZ	6:7:120:ALA:HB2	2.52	0.44
6:7:355:PHE:CZ	6:7:374:THR:HG21	2.52	0.44
6:7:451:ARG:HB2	6:7:453:ASP:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:529:MET:HE2	6:7:533:ASP:HB2	1.98	0.44
11:E:131:LEU:HD22	11:E:237:LEU:HD11	1.98	0.44
11:E:290:ARG:C	11:E:293:PRO:HD2	2.37	0.44
11:E:577:ASP:O	11:E:633:ARG:HA	2.17	0.44
1:2:286:TYR:HA	1:2:289:ILE:CB	2.45	0.44
2:3:169:ARG:NH2	2:3:272:ARG:HH12	2.15	0.44
3:4:388:ARG:NH2	5:6:176:ARG:HD2	2.32	0.44
3:4:718:ARG:O	3:4:722:LYS:HG2	2.17	0.44
4:5:184:ARG:NH1	4:5:239:ASP:O	2.51	0.44
4:5:286:VAL:HG11	4:5:292:VAL:HG11	1.99	0.44
4:5:345:SER:OG	4:5:346:VAL:N	2.51	0.44
4:5:402:ASP:O	4:5:404:MET:N	2.51	0.44
4:5:477:VAL:HG11	4:5:519:VAL:HG22	2.00	0.44
5:6:134:LYS:CB	5:6:137:ARG:H	2.29	0.44
5:6:142:PHE:HA	5:6:145:ILE:HG12	1.99	0.44
5:6:794:ARG:HD3	5:6:794:ARG:HA	1.78	0.44
6:7:228:ARG:HD3	6:7:228:ARG:HA	1.77	0.44
6:7:247:ARG:CZ	6:7:502:VAL:HG21	2.47	0.44
6:7:362:GLY:HA2	6:7:363:PHE:CG	2.52	0.44
6:7:472:ALA:O	6:7:476:ILE:HD12	2.13	0.44
6:7:543:GLN:CG	6:7:544:GLN:H	2.28	0.44
6:7:571:TYR:HA	6:7:572:GLY:HA2	1.70	0.44
8:B:102:ILE:HG22	8:B:148:LEU:HG	1.99	0.44
9:C:33:ASN:HB3	9:C:34:PRO:HD3	1.99	0.44
10:D:66:SER:O	10:D:70:GLU:HB2	2.18	0.44
10:D:200:LYS:HB2	10:D:201:TYR:CD2	2.53	0.44
10:D:286:LEU:HD21	10:D:293:LEU:HD11	1.98	0.44
11:E:27:LEU:HA	11:E:80:SER:O	2.17	0.44
2:3:33:ASP:HB2	2:3:39:ARG:NH1	2.31	0.44
2:3:115:LEU:HA	2:3:179:LEU:HB3	1.99	0.44
2:3:138:ASP:OD2	2:3:140:PRO:HD2	2.17	0.44
3:4:627:GLY:O	3:4:669:SER:HB2	2.18	0.44
3:4:728:TYR:CG	3:4:729:LEU:N	2.83	0.44
4:5:296:GLY:HA2	4:5:331:LEU:H	1.81	0.44
5:6:575:GLY:HA3	5:6:715:ILE:O	2.18	0.44
5:6:662:SER:HB3	5:6:670:ALA:O	2.18	0.44
5:6:787:GLY:O	5:6:790:ARG:HB2	2.17	0.44
5:6:948:LEU:CD1	5:6:954:TYR:HA	2.48	0.44
6:7:260:TYR:HD1	6:7:298:LEU:HD13	1.81	0.44
6:7:374:THR:O	6:7:375:TYR:HB3	2.17	0.44
6:7:493:LEU:CD2	6:7:533:ASP:HB3	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:595:ASP:OD1	6:7:595:ASP:N	2.44	0.44
7:A:167:VAL:HG13	7:A:170:ASP:HB2	2.00	0.44
11:E:278:THR:HA	11:E:281:ASP:CG	2.38	0.44
1:2:342:LEU:HD11	1:2:376:ASN:HD21	1.82	0.44
1:2:547:THR:HG21	1:2:683:VAL:HB	1.99	0.44
1:2:551:GLN:OE1	5:6:563:ILE:HG21	2.18	0.44
1:2:567:THR:O	1:2:606:ILE:HA	2.18	0.44
2:3:21:PHE:CE1	2:3:124:PRO:HD3	2.52	0.44
3:4:431:ASP:HB3	3:4:433:ILE:CD1	2.48	0.44
4:5:34:PHE:HA	4:5:71:TYR:CZ	2.53	0.44
4:5:331:LEU:HA	4:5:332:GLY:HA2	1.61	0.44
4:5:636:ASN:CG	4:5:643:ARG:HH22	2.21	0.44
5:6:124:VAL:HG21	5:6:133:GLU:H	1.82	0.44
5:6:512:GLU:O	5:6:516:LEU:HG	2.18	0.44
5:6:561:GLU:N	5:6:562:GLY:CA	2.79	0.44
5:6:585:LEU:HA	5:6:585:LEU:HD23	1.55	0.44
5:6:655:ALA:O	5:6:659:GLN:HA	2.18	0.44
5:6:758:ALA:HA	5:6:761:PHE:CD2	2.53	0.44
5:6:806:LEU:HB3	5:6:827:ALA:HB1	1.99	0.44
6:7:372:THR:O	6:7:373:GLU:HB3	2.17	0.44
6:7:476:ILE:O	6:7:639:ARG:HD3	2.17	0.44
6:7:486:LYS:NZ	6:7:530:ASP:OD2	2.33	0.44
7:A:36:ILE:O	7:A:40:ILE:HG13	2.17	0.44
7:A:92:LEU:O	7:A:96:ILE:HG22	2.17	0.44
10:D:151:ILE:HA	10:D:158:LEU:HD11	1.99	0.44
1:2:218:TYR:O	1:2:225:SER:OG	2.24	0.44
1:2:437:ASN:O	1:2:437:ASN:ND2	2.35	0.44
1:2:625:GLU:OE1	13:5:801:ANP:N3B	2.50	0.44
2:3:154:LYS:HD3	2:3:154:LYS:HA	1.61	0.44
3:4:833:ILE:HA	3:4:836:TYR:CD2	2.52	0.44
4:5:264:LEU:HA	4:5:265:VAL:HA	1.79	0.44
4:5:385:LYS:HA	4:5:388:ILE:HD12	1.98	0.44
4:5:498:GLU:OE1	4:5:498:GLU:N	2.51	0.44
5:6:581:LYS:HD3	5:6:681:ALA:HB1	1.99	0.44
5:6:807:SER:HA	5:6:810:ILE:HB	1.99	0.44
6:7:235:LEU:HD23	6:7:235:LEU:HA	1.68	0.44
6:7:240:THR:HA	6:7:352:THR:HG22	1.99	0.44
6:7:309:ALA:O	6:7:336:ASN:HA	2.18	0.44
7:A:12:GLU:O	7:A:15:ARG:HG2	2.18	0.44
9:C:52:ARG:HG3	9:C:114:LEU:HD13	2.00	0.44
11:E:541:ASN:ND2	11:E:543:LEU:HB2	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:271:PHE:CE2	1:2:295:VAL:HG21	2.52	0.44
1:2:395:GLY:HA2	5:6:672:LEU:HA	1.99	0.44
1:2:856:GLN:NE2	1:2:856:GLN:O	2.50	0.44
2:3:414:ALA:H	13:3:1001:ANP:H5'2	1.83	0.44
2:3:558:ASP:OD2	4:5:627:VAL:HA	2.18	0.44
3:4:331:LEU:CD1	6:7:553:ILE:HG12	2.48	0.44
3:4:455:SER:HB3	6:7:276:ARG:O	2.18	0.44
3:4:597:SER:HB2	3:4:640:SER:OG	2.17	0.44
3:4:862:GLN:NE2	3:4:909:ARG:HB3	2.33	0.44
4:5:412:VAL:O	4:5:521:ALA:N	2.35	0.44
4:5:439:THR:OG1	4:5:478:CYS:O	2.24	0.44
5:6:175:TYR:HA	5:6:178:LEU:HD13	2.00	0.44
5:6:793:TYR:HB3	5:6:795:ILE:HA	1.99	0.44
6:7:362:GLY:HA2	6:7:363:PHE:CB	2.47	0.44
6:7:422:ILE:O	6:7:422:ILE:HG13	2.18	0.44
7:A:83:LYS:HE2	10:D:206:LEU:HB3	2.00	0.44
8:B:7:LEU:HD11	8:B:12:SER:HB2	1.98	0.44
8:B:108:HIS:O	8:B:155:LYS:NZ	2.29	0.44
8:B:182:ARG:N	8:B:183:PRO:HD2	2.33	0.44
9:C:75:LEU:HG	9:C:76:PRO:HD2	2.00	0.44
10:D:220:ASP:HA	10:D:221:GLU:HA	1.56	0.44
1:2:341:CYS:N	1:2:342:LEU:HA	2.32	0.44
2:3:127:LYS:O	2:3:131:ASP:HB2	2.18	0.44
2:3:139:VAL:HB	2:3:140:PRO:HD3	1.98	0.44
3:4:331:LEU:HD13	6:7:553:ILE:HG12	2.00	0.44
3:4:512:VAL:HG13	3:4:515:ARG:NH1	2.32	0.44
3:4:682:TYR:HB2	3:4:691:ASN:ND2	2.32	0.44
3:4:688:VAL:HG11	3:4:836:TYR:HA	1.99	0.44
4:5:677:VAL:HG12	4:5:681:ILE:CD1	2.48	0.44
5:6:178:LEU:N	5:6:179:PRO:HD2	2.33	0.44
5:6:584:PHE:O	5:6:587:TYR:HB3	2.17	0.44
5:6:937:VAL:O	5:6:941:LEU:HG	2.17	0.44
10:D:63:LEU:HD11	10:D:140:ILE:HG22	2.00	0.44
1:2:485:ARG:NH1	1:2:825:LEU:HD23	2.33	0.44
1:2:538:ASN:CB	1:2:677:PHE:HA	2.41	0.44
1:2:767:ILE:O	1:2:771:ARG:HG3	2.18	0.44
2:3:48:TYR:HD2	2:3:92:LEU:HG	1.83	0.44
2:3:411:PRO:HB3	13:3:1001:ANP:O2G	2.18	0.44
3:4:395:GLN:HG2	3:4:396:VAL:H	1.83	0.44
3:4:568:GLY:O	3:4:677:PRO:HD2	2.18	0.44
4:5:86:ILE:O	4:5:89:LEU:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:710:ASP:HA	5:6:711:LEU:HA	1.39	0.44
6:7:24:PHE:HD1	6:7:88:TYR:CD2	2.36	0.44
6:7:335:VAL:HG11	6:7:340:VAL:HA	2.00	0.44
7:A:33:HIS:O	7:A:37:ILE:HG12	2.18	0.44
7:A:149:ILE:HG23	7:A:151:LEU:N	2.33	0.44
8:B:18:PHE:O	8:B:22:ASN:ND2	2.51	0.44
8:B:57:ASP:OD1	8:B:58:LYS:N	2.51	0.44
8:B:185:ILE:HG22	8:B:189:MET:HG2	1.98	0.44
9:C:27:LEU:CD2	9:C:29:TYR:H	2.31	0.44
10:D:125:PRO:HA	10:D:128:CYS:HB3	2.00	0.44
10:D:229:PHE:HD1	10:D:276:VAL:HG21	1.82	0.44
11:E:26:GLN:O	11:E:79:ASN:N	2.51	0.44
11:E:34:LEU:HD11	11:E:543:LEU:CG	2.48	0.44
11:E:124:ASP:CG	11:E:126:HIS:HD1	2.21	0.44
11:E:540:ARG:HH22	11:E:574:GLU:CA	2.31	0.44
1:2:246:TYR:CE2	1:2:300:PHE:CD1	3.06	0.43
1:2:246:TYR:OH	1:2:257:ALA:HB1	2.18	0.43
1:2:563:ALA:HA	1:2:603:VAL:O	2.17	0.43
2:3:372:TYR:OH	2:3:560:SER:O	2.24	0.43
2:3:420:ARG:O	2:3:423:LEU:HB3	2.17	0.43
2:3:475:PHE:CE1	2:3:486:ILE:HD13	2.53	0.43
3:4:345:ALA:HA	3:4:389:CYS:HB3	1.98	0.43
3:4:349:CYS:HB2	3:4:351:VAL:O	2.17	0.43
3:4:824:GLU:HA	3:4:827:ARG:CB	2.44	0.43
4:5:342:ILE:HA	4:5:343:TRP:HA	1.57	0.43
4:5:438:TYR:HA	4:5:478:CYS:HB2	1.99	0.43
4:5:531:ASP:OD2	4:5:539:ASN:ND2	2.51	0.43
4:5:640:SER:O	4:5:640:SER:OG	2.30	0.43
5:6:417:PRO:O	5:6:448:LEU:N	2.50	0.43
5:6:819:ILE:HG22	5:6:820:THR:N	2.26	0.43
5:6:830:LEU:HA	5:6:833:GLN:OE1	2.18	0.43
6:7:203:TYR:CE2	6:7:339:LEU:HG	2.53	0.43
6:7:292:ASN:OD1	6:7:293:GLN:HB2	2.18	0.43
9:C:139:ALA:HB1	9:C:184:TYR:CZ	2.53	0.43
11:E:25:CYS:N	11:E:26:GLN:HA	2.33	0.43
1:2:774:ILE:HG12	1:2:825:LEU:HA	1.99	0.43
2:3:98:ILE:HB	2:3:157:PHE:HD1	1.83	0.43
2:3:167:SER:HB3	2:3:168:PRO:HD2	2.00	0.43
2:3:244:GLU:HB3	2:3:247:TYR:HB3	2.01	0.43
2:3:667:VAL:HG11	2:3:719:LYS:HZ1	1.83	0.43
3:4:437:GLY:CA	3:4:464:VAL:H	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:909:ARG:CZ	5:6:685:VAL:HB	2.48	0.43
4:5:329:LYS:HD2	4:5:329:LYS:HA	1.79	0.43
4:5:617:GLN:O	4:5:620:GLU:HG2	2.18	0.43
5:6:594:ARG:HD2	5:6:633:ASN:O	2.17	0.43
5:6:695:LEU:HA	5:6:698:ASN:CB	2.44	0.43
5:6:941:LEU:HD22	5:6:944:LYS:HZ3	1.83	0.43
6:7:370:LEU:HD22	6:7:370:LEU:HA	1.69	0.43
7:A:110:MET:SD	7:A:113:ILE:HG13	2.58	0.43
10:D:70:GLU:OE2	10:D:147:ARG:HG2	2.18	0.43
11:E:38:ALA:HA	11:E:251:ILE:HD11	1.99	0.43
11:E:340:TYR:HB3	11:E:503:GLN:HE21	1.83	0.43
11:E:384:ILE:O	11:E:388:LEU:HB2	2.18	0.43
11:E:429:THR:HA	11:E:432:LEU:CD1	2.48	0.43
1:2:506:TYR:OH	1:2:694:ARG:HD3	2.18	0.43
2:3:279:ASP:H	2:3:282:LEU:HD12	1.83	0.43
2:3:368:ALA:CB	2:3:378:LYS:HE3	2.48	0.43
2:3:449:ASP:HA	2:3:454:GLU:O	2.18	0.43
3:4:521:LEU:HD11	3:4:741:VAL:HB	2.00	0.43
3:4:774:TYR:CG	3:4:798:LEU:HD22	2.54	0.43
4:5:176:ALA:CB	4:5:194:ILE:HG21	2.48	0.43
4:5:577:THR:HG23	4:5:577:THR:O	2.18	0.43
4:5:652:GLN:HE21	4:5:652:GLN:HB3	1.67	0.43
5:6:266:SER:HB2	5:6:458:HIS:CD2	2.53	0.43
5:6:399:GLY:C	5:6:400:VAL:CG2	2.85	0.43
5:6:399:GLY:O	5:6:400:VAL:HG23	2.18	0.43
6:7:201:PHE:CZ	6:7:337:GLY:HA2	2.53	0.43
10:D:69:ASN:O	10:D:73:SER:HB3	2.18	0.43
10:D:154:PHE:O	10:D:158:LEU:HG	2.18	0.43
11:E:79:ASN:OD1	11:E:80:SER:OG	2.23	0.43
11:E:131:LEU:HD21	11:E:240:TYR:HD2	1.83	0.43
11:E:251:ILE:O	11:E:255:ILE:HG13	2.18	0.43
11:E:513:ILE:HG12	11:E:516:LYS:HZ1	1.82	0.43
11:E:558:GLU:N	11:E:559:SER:HA	2.32	0.43
1:2:204:SER:O	1:2:207:ILE:HB	2.18	0.43
1:2:339:PHE:CD2	1:2:376:ASN:HB3	2.53	0.43
2:3:122:ILE:O	2:3:126:GLU:HB2	2.19	0.43
2:3:695:SER:HB3	2:3:696:PRO:HA	2.00	0.43
3:4:351:VAL:HA	3:4:352:CYS:HA	1.55	0.43
5:6:194:PRO:O	5:6:261:ARG:NE	2.51	0.43
5:6:533:ILE:HG12	5:6:548:LEU:HD21	1.99	0.43
5:6:689:TYR:HB2	5:6:716:LEU:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:146:ARG:HH12	6:7:304:ALA:HA	1.84	0.43
6:7:484:THR:OG1	6:7:485:GLY:N	2.50	0.43
10:D:205:GLU:OE1	10:D:205:GLU:N	2.46	0.43
11:E:25:CYS:H	11:E:26:GLN:HA	1.83	0.43
11:E:285:ALA:HB3	11:E:286:GLN:CA	2.47	0.43
1:2:577:THR:OG1	5:6:666:ALA:HB2	2.18	0.43
2:3:138:ASP:HB3	2:3:140:PRO:HD2	2.00	0.43
2:3:227:THR:N	2:3:228:PRO:CD	2.81	0.43
2:3:374:HIS:O	2:3:378:LYS:HG2	2.19	0.43
2:3:520:PHE:HB3	2:3:527:ARG:NH2	2.32	0.43
4:5:409:ASP:C	4:5:410:ILE:HG12	2.39	0.43
5:6:122:PHE:CD1	5:6:124:VAL:HB	2.54	0.43
5:6:122:PHE:CG	5:6:124:VAL:HB	2.54	0.43
5:6:532:SER:HB3	5:6:745:PRO:HG2	1.99	0.43
6:7:101:ASP:OD2	6:7:105:ALA:N	2.51	0.43
6:7:541:MET:HB2	6:7:593:ARG:HD3	2.00	0.43
7:A:29:LEU:HD23	7:A:93:ARG:CD	2.49	0.43
7:A:73:PHE:CE2	9:C:53:ILE:HG13	2.54	0.43
7:A:108:ASP:CB	7:A:109:LEU:CB	2.62	0.43
9:C:109:ILE:HA	9:C:112:ILE:HG22	2.00	0.43
9:C:131:ARG:HD3	9:C:131:ARG:HA	1.71	0.43
11:E:276:GLY:O	11:E:279:SER:HB3	2.19	0.43
11:E:286:GLN:HA	11:E:286:GLN:OE1	2.18	0.43
11:E:328:LEU:HD11	11:E:499:ALA:HB3	2.01	0.43
11:E:388:LEU:HG	11:E:392:PHE:CZ	2.53	0.43
1:2:213:SER:HA	1:2:217:GLU:OE1	2.17	0.43
1:2:334:LEU:HA	1:2:382:TYR:CE1	2.53	0.43
1:2:520:PHE:CE1	1:2:823:MET:HG2	2.53	0.43
2:3:317:PHE:CE2	4:5:176:ALA:HB2	2.54	0.43
2:3:518:PRO:CG	2:3:524:ASP:HB2	2.49	0.43
4:5:207:LEU:HA	4:5:208:PRO:HD2	1.81	0.43
4:5:413:LEU:HD12	4:5:413:LEU:N	2.34	0.43
5:6:173:GLN:O	5:6:176:ARG:HB3	2.19	0.43
6:7:147:ARG:HH22	6:7:192:PHE:HB2	1.83	0.43
11:E:579:TYR:CD1	11:E:637:LEU:CD2	3.02	0.43
1:2:271:PHE:HE2	1:2:295:VAL:HG11	1.82	0.43
1:2:628:SER:OG	1:2:629:ILE:N	2.51	0.43
2:3:400:ARG:HE	2:3:707:ARG:NH2	2.17	0.43
3:4:443:PRO:HD3	3:4:457:TYR:CZ	2.54	0.43
4:5:130:ASN:HA	4:5:131:SER:HA	1.79	0.43
4:5:375:ALA:HA	4:5:376:PRO:HD2	1.89	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:397:LYS:NZ	4:5:399:ILE:HD11	2.34	0.43
5:6:541:GLU:O	5:6:544:LYS:HG2	2.19	0.43
5:6:915:MET:HA	5:6:918:ARG:HB2	2.01	0.43
6:7:441:ASP:OD1	6:7:442:LYS:N	2.51	0.43
6:7:470:LEU:HD23	6:7:470:LEU:HA	1.62	0.43
6:7:689:LEU:HD12	6:7:692:ILE:HG21	2.00	0.43
7:A:7:ASN:HA	7:A:10:VAL:CG1	2.48	0.43
7:A:87:LEU:HD23	10:D:198:ILE:HD11	2.00	0.43
7:A:105:ASN:HA	7:A:106:GLY:HA3	1.71	0.43
7:A:109:LEU:O	7:A:110:MET:C	2.56	0.43
8:B:77:LEU:HD21	8:B:129:LYS:HE3	1.99	0.43
11:E:126:HIS:O	11:E:127:ARG:NH1	2.46	0.43
11:E:487:ARG:HG3	11:E:488:LYS:N	2.33	0.43
1:2:621:HIS:HA	1:2:624:MET:HE1	2.00	0.43
2:3:195:LYS:HA	6:7:371:LEU:HA	2.00	0.43
2:3:342:LEU:HD21	2:3:661:GLN:HE21	1.84	0.43
2:3:439:GLY:HA3	2:3:442:LEU:HB2	2.00	0.43
3:4:239:SER:OG	3:4:301:TYR:HA	2.18	0.43
3:4:579:GLN:HG3	6:7:542:GLU:HG3	2.01	0.43
3:4:714:GLU:HG3	3:4:718:ARG:HH12	1.84	0.43
3:4:858:GLN:OE1	3:4:906:ALA:HB2	2.19	0.43
4:5:149:ARG:HG3	4:5:265:VAL:O	2.18	0.43
4:5:386:LYS:NZ	4:5:679:GLU:OE2	2.52	0.43
4:5:430:GLU:OE1	4:5:431:LYS:HG2	2.18	0.43
5:6:658:GLN:C	5:6:660:THR:H	2.22	0.43
5:6:912:MET:HB3	5:6:964:VAL:HG21	2.00	0.43
6:7:269:VAL:HG21	6:7:285:THR:CB	2.49	0.43
6:7:411:TYR:OH	6:7:430:LYS:HG3	2.18	0.43
6:7:442:LYS:HA	6:7:442:LYS:HD2	1.80	0.43
7:A:41:LEU:HA	7:A:44:VAL:HG12	2.01	0.43
7:A:102:TRP:CE3	7:A:151:LEU:HD23	2.54	0.43
7:A:199:LEU:HA	7:A:202:GLN:CB	2.48	0.43
8:B:165:GLU:HA	8:B:166:SER:HA	1.49	0.43
8:B:181:LEU:HD13	8:B:185:ILE:HD11	2.00	0.43
11:E:268:SER:O	11:E:272:LEU:HG	2.18	0.43
11:E:316:LEU:HD11	11:E:414:GLY:CA	2.49	0.43
1:2:307:ARG:NH1	1:2:398:PRO:HG3	2.33	0.43
1:2:600:ASP:HB3	4:5:268:GLY:HA2	1.99	0.43
1:2:778:LEU:HA	1:2:829:VAL:HB	2.01	0.43
2:3:276:VAL:HG21	2:3:294:VAL:HG11	2.00	0.43
2:3:298:PHE:CD1	2:3:321:ILE:HG12	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:166:ILE:HA	4:5:258:LEU:HA	2.01	0.43
4:5:300:ILE:HG22	4:5:324:ARG:HB2	2.00	0.43
4:5:347:THR:CB	4:5:349:PHE:HA	2.47	0.43
5:6:261:ARG:HD2	5:6:263:PHE:CE1	2.50	0.43
5:6:284:ILE:HG13	5:6:402:ILE:HA	2.01	0.43
5:6:403:VAL:HG11	5:6:450:TYR:HB3	2.01	0.43
6:7:192:PHE:HB3	6:7:196:LEU:HD13	2.00	0.43
9:C:181:HIS:ND1	9:C:185:LYS:HD2	2.34	0.43
11:E:291:LEU:O	11:E:295:LEU:HG	2.18	0.43
1:2:202:ASN:O	1:2:205:ARG:HB3	2.18	0.43
1:2:670:THR:OG1	1:2:672:PRO:HD2	2.19	0.43
1:2:783:MET:SD	1:2:834:LEU:HD11	2.58	0.43
2:3:464:LEU:HD12	2:3:464:LEU:HA	1.89	0.43
3:4:282:SER:O	3:4:285:VAL:HG22	2.18	0.43
3:4:332:VAL:O	3:4:429:ALA:HB1	2.18	0.43
3:4:363:GLY:O	3:4:364:VAL:HG13	2.18	0.43
3:4:501:ILE:HG21	3:4:506:LEU:HD21	2.01	0.43
3:4:559:ARG:HB3	3:4:560:GLY:H	1.58	0.43
3:4:683:ASN:ND2	3:4:686:LEU:HD22	2.31	0.43
4:5:36:LEU:HD22	4:5:47:ARG:CZ	2.49	0.43
4:5:559:ASP:HB2	4:5:561:ASN:HD21	1.83	0.43
4:5:571:HIS:HA	4:5:581:ASN:HD21	1.84	0.43
5:6:599:SER:HA	5:6:639:ASP:H	1.83	0.43
6:7:24:PHE:CE1	6:7:85:ILE:HA	2.53	0.43
6:7:528:LYS:HD2	6:7:528:LYS:N	2.34	0.43
8:B:147:ASP:O	8:B:150:GLU:HB3	2.19	0.43
9:C:29:TYR:HE2	9:C:44:LEU:HD13	1.83	0.43
10:D:256:TYR:HD1	10:D:257:THR:OG1	2.02	0.43
11:E:536:LEU:HA	11:E:539:TYR:HD2	1.84	0.43
1:2:311:GLU:OE1	1:2:311:GLU:N	2.42	0.42
1:2:497:ILE:H	1:2:497:ILE:HG13	1.63	0.42
2:3:347:ILE:HG12	2:3:351:ASN:HD21	1.84	0.42
2:3:487:HIS:NE2	2:3:539:LEU:HG	2.34	0.42
2:3:504:THR:HG21	6:7:328:PRO:HB2	2.01	0.42
2:3:555:GLU:HA	2:3:558:ASP:HB3	2.00	0.42
3:4:257:LEU:HA	3:4:260:GLN:HB2	2.00	0.42
3:4:508:LYS:O	3:4:512:VAL:HG23	2.19	0.42
3:4:579:GLN:O	3:4:583:LYS:NZ	2.29	0.42
3:4:714:GLU:OE2	6:7:665:ILE:HG21	2.18	0.42
4:5:50:LEU:HD12	4:5:50:LEU:HA	1.73	0.42
4:5:151:LEU:HA	4:5:155:HIS:NE2	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:179:LEU:HD12	4:5:192:ILE:HB	2.00	0.42
4:5:421:ALA:HA	13:5:801:ANP:C5'	2.49	0.42
4:5:486:ARG:O	4:5:490:ARG:HB2	2.19	0.42
5:6:287:LEU:HG	5:6:398:THR:CG2	2.49	0.42
5:6:764:ILE:O	5:6:818:GLU:HA	2.19	0.42
6:7:209:GLN:HB3	6:7:212:ALA:HB2	2.01	0.42
7:A:91:ARG:HA	10:D:190:TRP:HH2	1.83	0.42
8:B:112:PHE:HD1	8:B:152:ARG:HG3	1.84	0.42
8:B:149:ARG:NH1	8:B:153:GLN:OE1	2.52	0.42
10:D:273:SER:HB3	10:D:275:TYR:CE1	2.53	0.42
11:E:266:ASN:HB2	11:E:269:ASN:ND2	2.33	0.42
11:E:285:ALA:CB	11:E:288:TYR:HB3	2.47	0.42
1:2:631:ILE:HB	1:2:633:LYS:HE2	2.02	0.42
1:2:638:THR:H	4:5:445:SER:N	2.13	0.42
2:3:94:HIS:HB3	2:3:153:TRP:CE3	2.54	0.42
2:3:553:ILE:O	2:3:553:ILE:HG13	2.19	0.42
2:3:662:TYR:CE1	2:3:666:ARG:HD2	2.54	0.42
3:4:276:ILE:HA	3:4:279:CYS:HB2	2.01	0.42
3:4:311:CYS:HB3	3:4:326:ILE:HG23	2.01	0.42
3:4:630:CYS:HA	3:4:672:LEU:O	2.19	0.42
4:5:176:ALA:HA	4:5:250:PHE:HD1	1.82	0.42
5:6:144:LYS:HE2	5:6:194:PRO:HD2	2.01	0.42
5:6:328:THR:HA	5:6:329:GLU:HA	1.80	0.42
5:6:948:LEU:HD11	5:6:954:TYR:HA	2.01	0.42
6:7:333:ILE:HD13	6:7:376:LEU:HD23	2.01	0.42
6:7:493:LEU:CD2	6:7:533:ASP:CB	2.97	0.42
9:C:84:VAL:O	9:C:88:ILE:HG23	2.19	0.42
10:D:136:LEU:O	10:D:139:VAL:HB	2.19	0.42
10:D:285:LEU:HD22	10:D:290:LYS:HD2	2.00	0.42
11:E:288:TYR:HA	11:E:291:LEU:CG	2.49	0.42
11:E:295:LEU:O	11:E:299:VAL:HG23	2.19	0.42
11:E:580:LEU:HD11	11:E:629:ILE:HD11	2.01	0.42
1:2:534:ARG:HH11	1:2:815:ARG:NH2	2.17	0.42
1:2:585:ILE:HG23	1:2:586:THR:N	2.35	0.42
1:2:645:SER:C	1:2:646:ILE:HG13	2.40	0.42
2:3:310:ASN:HA	2:3:311:SER:HA	1.52	0.42
2:3:431:ALA:HB2	2:3:471:CYS:HB2	2.01	0.42
3:4:401:GLU:HG2	3:4:413:HIS:O	2.19	0.42
3:4:552:PHE:HB3	3:4:553:THR:H	1.62	0.42
3:4:727:LEU:HA	3:4:728:TYR:C	2.40	0.42
3:4:800:SER:HA	3:4:803:ARG:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:820:GLU:HG3	3:4:823:GLN:CD	2.39	0.42
4:5:166:ILE:HG13	4:5:292:VAL:HG21	2.01	0.42
5:6:122:PHE:HB2	5:6:124:VAL:CB	2.48	0.42
5:6:292:GLY:O	5:6:394:ARG:HA	2.19	0.42
7:A:47:LEU:HD21	7:A:75:THR:CB	2.48	0.42
9:C:174:LYS:O	9:C:177:TYR:HB3	2.19	0.42
10:D:257:THR:HB	10:D:258:VAL:O	2.19	0.42
11:E:81:LEU:HD12	11:E:120:ILE:HG23	2.00	0.42
11:E:274:ILE:HG23	11:E:409:PHE:HD2	1.84	0.42
11:E:540:ARG:O	11:E:580:LEU:HD13	2.19	0.42
1:2:236:GLU:OE2	11:E:361:LYS:HB2	2.20	0.42
1:2:258:LEU:HD12	1:2:261:ALA:HB3	1.99	0.42
1:2:446:VAL:HG13	5:6:301:ARG:HD2	2.01	0.42
1:2:693:GLU:HG2	5:6:778:LYS:HD3	2.01	0.42
1:2:806:THR:HG22	1:2:807:VAL:H	1.85	0.42
2:3:100:LEU:HD21	2:3:157:PHE:CG	2.54	0.42
2:3:437:SER:HA	2:3:440:VAL:N	2.24	0.42
3:4:572:THR:O	3:4:572:THR:HG22	2.19	0.42
3:4:686:LEU:HD23	3:4:691:ASN:CG	2.39	0.42
3:4:714:GLU:OE2	6:7:665:ILE:HD13	2.18	0.42
4:5:395:GLY:N	4:5:409:ASP:HB2	2.35	0.42
5:6:726:GLU:C	5:6:729:SER:H	2.23	0.42
6:7:231:LYS:HG2	6:7:232:GLY:N	2.35	0.42
6:7:499:LYS:HD2	6:7:506:MET:H	1.85	0.42
6:7:580:PRO:HG2	6:7:679:PHE:O	2.20	0.42
10:D:214:GLY:HA2	10:D:215:SER:HA	1.45	0.42
11:E:348:LEU:HD21	11:E:401:LEU:HD21	2.01	0.42
1:2:246:TYR:CD2	1:2:300:PHE:HD1	2.37	0.42
1:2:325:THR:O	1:2:326:ARG:C	2.58	0.42
1:2:564:VAL:HG21	1:2:595:ALA:O	2.19	0.42
2:3:300:SER:OG	4:5:245:HIS:ND1	2.44	0.42
2:3:527:ARG:HG2	2:3:528:ASP:N	2.35	0.42
3:4:266:GLN:OE1	3:4:440:ARG:NH2	2.53	0.42
3:4:328:LEU:O	3:4:435:VAL:N	2.52	0.42
3:4:704:LEU:HD12	3:4:704:LEU:HA	1.89	0.42
3:4:704:LEU:HD12	3:4:832:ALA:HB2	2.01	0.42
4:5:143:ALA:HB3	4:5:161:ARG:HD3	2.01	0.42
4:5:388:ILE:HD11	4:5:425:LEU:HD11	2.02	0.42
4:5:392:LEU:HD23	4:5:392:LEU:HA	1.77	0.42
4:5:411:ASN:HB2	4:5:550:PHE:HA	2.01	0.42
4:5:579:ASN:O	4:5:583:MET:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:124:VAL:HG22	5:6:132:VAL:HA	2.00	0.42
5:6:530:VAL:HA	5:6:533:ILE:CD1	2.43	0.42
5:6:625:ALA:HB3	5:6:626:GLY:CA	2.45	0.42
5:6:956:GLU:HB2	5:6:960:LEU:HD13	2.02	0.42
6:7:134:TYR:HB2	6:7:141:VAL:CG1	2.48	0.42
9:C:79:MET:HE2	9:C:79:MET:HB3	1.96	0.42
11:E:25:CYS:CB	11:E:26:GLN:HA	2.34	0.42
1:2:540:LEU:HD23	1:2:680:LEU:HG	2.02	0.42
3:4:243:LEU:HD13	3:4:303:VAL:HG13	2.02	0.42
3:4:281:VAL:HG22	3:4:297:GLU:CG	2.49	0.42
3:4:433:ILE:HG21	3:4:468:LYS:C	2.40	0.42
5:6:563:ILE:H	5:6:563:ILE:HD12	1.84	0.42
6:7:17:LEU:HD21	6:7:113:PHE:CE1	2.54	0.42
6:7:107:GLN:HB2	6:7:238:LEU:O	2.19	0.42
10:D:123:LYS:O	10:D:126:LEU:HB3	2.20	0.42
1:2:574:VAL:HB	5:6:666:ALA:HA	2.01	0.42
2:3:493:GLN:NE2	2:3:509:ARG:HA	2.35	0.42
2:3:716:ARG:NH1	2:3:722:ASN:HB3	2.32	0.42
3:4:318:ASN:OD1	6:7:341:ARG:NH1	2.46	0.42
3:4:337:PRO:HA	5:6:375:ARG:HH11	1.84	0.42
3:4:593:GLY:C	3:4:595:GLY:H	2.22	0.42
4:5:244:ILE:O	4:5:248:SER:OG	2.36	0.42
4:5:484:LYS:HD2	4:5:484:LYS:N	2.34	0.42
4:5:618:ALA:O	4:5:622:LEU:HG	2.19	0.42
5:6:711:LEU:HD12	5:6:712:PHE:H	1.84	0.42
5:6:802:SER:O	5:6:806:LEU:HG	2.20	0.42
6:7:129:THR:OG1	6:7:130:LYS:N	2.52	0.42
6:7:310:PHE:HE1	6:7:334:HIS:CG	2.38	0.42
6:7:361:THR:OG1	6:7:362:GLY:N	2.53	0.42
8:B:15:GLU:O	8:B:18:PHE:HB3	2.19	0.42
10:D:218:MET:HG2	10:D:220:ASP:HB2	2.01	0.42
11:E:140:ILE:HB	11:E:141:GLN:C	2.40	0.42
11:E:148:VAL:CG1	11:E:150:ASP:HB2	2.48	0.42
1:2:279:THR:O	1:2:283:TYR:N	2.49	0.42
1:2:569:GLN:HA	1:2:571:ALA:CB	2.50	0.42
1:2:631:ILE:HB	1:2:632:SER:H	1.60	0.42
2:3:156:SER:OG	2:3:157:PHE:N	2.53	0.42
2:3:233:THR:C	2:3:234:GLU:HG2	2.40	0.42
2:3:485:ALA:O	2:3:488:GLU:HB3	2.20	0.42
3:4:243:LEU:HD21	3:4:245:ALA:HB2	2.02	0.42
3:4:501:ILE:HD11	3:4:752:SER:OG	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:856:VAL:HG23	3:4:857:ILE:H	1.82	0.42
4:5:40:LEU:HA	4:5:40:LEU:HD12	1.79	0.42
4:5:349:PHE:HE2	4:5:354:GLU:H	1.68	0.42
5:6:133:GLU:HA	5:6:134:LYS:HA	1.72	0.42
5:6:194:PRO:HG2	5:6:261:ARG:NH2	2.35	0.42
5:6:512:GLU:O	5:6:515:GLU:HB3	2.19	0.42
6:7:493:LEU:HD21	6:7:533:ASP:OD1	2.19	0.42
8:B:26:LYS:HB2	8:B:88:VAL:HG11	2.01	0.42
9:C:182:GLU:HA	9:C:185:LYS:HB2	2.01	0.42
11:E:410:VAL:HA	11:E:420:SER:HA	2.02	0.42
11:E:572:ILE:HD12	11:E:572:ILE:HA	1.86	0.42
1:2:289:ILE:HD12	1:2:289:ILE:HG23	1.80	0.42
1:2:856:GLN:OE1	1:2:859:ARG:HD3	2.20	0.42
2:3:214:TYR:HD1	2:3:227:THR:HG22	1.84	0.42
2:3:706:ILE:HG21	6:7:620:HIS:NE2	2.31	0.42
3:4:248:LEU:HB3	3:4:254:THR:O	2.19	0.42
3:4:467:LYS:HA	3:4:468:LYS:HA	1.85	0.42
3:4:522:LEU:HB2	3:4:541:LEU:HD11	2.02	0.42
3:4:830:ARG:HB3	3:4:834:LYS:HE2	2.01	0.42
4:5:347:THR:CB	4:5:348:MET:HA	2.49	0.42
4:5:444:SER:HA	4:5:445:SER:HA	1.77	0.42
5:6:543:VAL:HG23	5:6:713:PHE:HB3	2.02	0.42
6:7:81:ASP:OD1	6:7:81:ASP:N	2.44	0.42
6:7:82:LEU:HD23	6:7:85:ILE:HD12	2.01	0.42
6:7:139:LEU:CA	6:7:142:ILE:HB	2.47	0.42
7:A:37:ILE:HA	7:A:40:ILE:HD12	2.02	0.42
7:A:57:GLN:HG2	7:A:62:MET:HG2	2.01	0.42
10:D:199:LEU:HD13	10:D:202:MET:HE3	2.02	0.42
10:D:286:LEU:HD21	10:D:293:LEU:HD21	2.02	0.42
11:E:131:LEU:HD13	11:E:237:LEU:HD21	2.01	0.42
11:E:150:ASP:CB	11:E:152:LEU:HB2	2.42	0.42
11:E:280:LEU:H	11:E:280:LEU:HG	1.54	0.42
11:E:283:ALA:HB1	11:E:284:TYR:CE2	2.55	0.42
11:E:327:PHE:CZ	11:E:503:GLN:HG3	2.55	0.42
11:E:524:ILE:HD13	11:E:648:GLY:HA3	2.02	0.42
11:E:545:LEU:HD22	11:E:580:LEU:HD23	2.02	0.42
11:E:619:LYS:HB3	11:E:633:ARG:CG	2.50	0.42
1:2:218:TYR:HD2	1:2:227:TYR:CE2	2.37	0.42
1:2:423:GLU:OE1	1:2:423:GLU:N	2.52	0.42
1:2:790:TYR:HA	1:2:793:LEU:HB2	2.02	0.42
1:2:830:SER:N	1:2:833:ASP:OD2	2.41	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:122:ILE:HG22	2:3:123:PRO:HD3	2.02	0.42
2:3:228:PRO:HA	2:3:229:ALA:HA	1.75	0.42
2:3:687:ARG:HE	6:7:604:PRO:HA	1.85	0.42
3:4:909:ARG:NH2	5:6:685:VAL:HB	2.35	0.42
4:5:258:LEU:HD21	4:5:276:MET:SD	2.60	0.42
4:5:413:LEU:HD22	4:5:553:ILE:HG23	2.00	0.42
4:5:566:ILE:H	4:5:566:ILE:HG13	1.72	0.42
5:6:173:GLN:N	5:6:173:GLN:OE1	2.53	0.42
5:6:585:LEU:HA	5:6:588:VAL:HG23	2.01	0.42
5:6:642:ASP:OD1	5:6:642:ASP:N	2.51	0.42
5:6:767:LYS:HB3	5:6:767:LYS:HE3	1.76	0.42
5:6:834:SER:O	5:6:838:VAL:HG23	2.20	0.42
5:6:919:LYS:HB2	5:6:939:TRP:HZ2	1.84	0.42
5:6:932:THR:OG1	5:6:933:ALA:N	2.53	0.42
7:A:22:ARG:N	7:A:23:SER:HA	2.35	0.42
7:A:145:ASP:CA	7:A:146:LEU:HB3	2.42	0.42
7:A:169:LYS:HA	7:A:185:LYS:HD3	2.02	0.42
11:E:575:ASN:O	11:E:576:THR:CB	2.68	0.42
3:4:434:GLU:O	3:4:466:VAL:HG13	2.20	0.41
3:4:626:GLY:N	3:4:668:ARG:O	2.48	0.41
3:4:795:THR:O	3:4:799:GLU:HB2	2.20	0.41
3:4:808:HIS:ND1	3:4:808:HIS:O	2.53	0.41
4:5:181:ILE:HG23	4:5:242:ILE:O	2.20	0.41
4:5:337:VAL:HA	4:5:338:GLU:HA	1.70	0.41
5:6:794:ARG:HB2	5:6:795:ILE:C	2.41	0.41
6:7:214:ARG:N	6:7:215:TYR:HA	2.34	0.41
6:7:401:VAL:HG12	6:7:405:ILE:HG13	2.02	0.41
8:B:184:PHE:HB2	9:C:180:SER:OG	2.20	0.41
10:D:76:LEU:HD11	10:D:147:ARG:NE	2.25	0.41
11:E:36:ILE:HG23	11:E:39:LEU:HD12	2.02	0.41
11:E:579:TYR:CZ	11:E:634:ARG:HB3	2.49	0.41
1:2:273:LEU:O	1:2:277:GLU:HG2	2.20	0.41
1:2:523:VAL:O	1:2:535:GLY:HA3	2.21	0.41
1:2:544:ASP:H	1:2:549:LYS:HE2	1.85	0.41
1:2:626:GLN:HG3	1:2:628:SER:N	2.35	0.41
1:2:640:LEU:HD21	4:5:271:PRO:HD3	2.02	0.41
2:3:174:GLN:H	2:3:174:GLN:CD	2.24	0.41
2:3:211:TYR:CE1	6:7:6:PRO:HG2	2.56	0.41
2:3:234:GLU:H	2:3:241:LEU:HD12	1.85	0.41
2:3:687:ARG:HB3	6:7:604:PRO:CB	2.47	0.41
3:4:191:THR:HB	3:4:275:THR:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:342:MET:HG3	5:6:417:PRO:HG3	2.02	0.41
3:4:410:GLN:HE21	6:7:345:PRO:CG	2.33	0.41
3:4:633:GLU:HA	3:4:675:ALA:HA	2.01	0.41
5:6:126:SER:O	5:6:130:GLY:HA3	2.19	0.41
5:6:533:ILE:HG22	5:6:587:TYR:CZ	2.55	0.41
6:7:28:PHE:O	6:7:61:PRO:HB3	2.20	0.41
6:7:399:GLU:HA	6:7:402:MET:HB2	2.02	0.41
6:7:709:ASP:HB2	6:7:712:ASP:HB2	2.01	0.41
8:B:15:GLU:O	8:B:18:PHE:N	2.53	0.41
8:B:124:ARG:HD2	9:C:191:MET:O	2.19	0.41
1:2:550:SER:HB3	5:6:657:GLU:CD	2.40	0.41
1:2:846:VAL:HG13	1:2:856:GLN:HG3	2.02	0.41
2:3:672:THR:OG1	2:3:721:VAL:O	2.23	0.41
2:3:675:ALA:HB1	2:3:726:ALA:HB2	2.01	0.41
2:3:687:ARG:CG	2:3:697:ILE:HG21	2.50	0.41
2:3:704:THR:O	2:3:708:LEU:HD13	2.20	0.41
3:4:449:ARG:CG	3:4:450:GLN:N	2.77	0.41
3:4:449:ARG:O	3:4:451:ARG:N	2.50	0.41
4:5:87:ILE:N	4:5:88:PRO:HD2	2.35	0.41
4:5:408:GLY:HA2	4:5:409:ASP:HA	1.44	0.41
5:6:556:HIS:ND1	5:6:556:HIS:O	2.53	0.41
5:6:836:ILE:HA	5:6:839:ASP:HB2	2.02	0.41
6:7:428:VAL:O	6:7:432:LEU:HG	2.21	0.41
8:B:144:LYS:O	8:B:148:LEU:HB2	2.20	0.41
8:B:152:ARG:O	8:B:156:VAL:HG23	2.20	0.41
9:C:22:TYR:CD2	9:C:71:PHE:HD1	2.38	0.41
9:C:27:LEU:HD12	9:C:35:GLY:HA3	2.02	0.41
10:D:260:ILE:HA	10:D:261:PRO:HD3	1.60	0.41
11:E:36:ILE:HD11	11:E:429:THR:HG22	2.02	0.41
1:2:335:LYS:HA	1:2:353:GLN:O	2.19	0.41
1:2:404:ARG:NH2	5:6:298:SER:O	2.53	0.41
1:2:476:TRP:CG	1:2:769:TYR:HD1	2.39	0.41
2:3:462:MET:SD	2:3:470:VAL:HG21	2.60	0.41
3:4:437:GLY:HA3	3:4:464:VAL:H	1.86	0.41
3:4:506:LEU:HA	3:4:509:ILE:HD12	2.02	0.41
3:4:598:ALA:HB2	3:4:640:SER:O	2.20	0.41
3:4:621:LEU:HD23	3:4:621:LEU:HA	1.92	0.41
3:4:692:ILE:HG21	3:4:699:LEU:CD1	2.51	0.41
4:5:297:ILE:N	4:5:328:ILE:HG23	2.36	0.41
5:6:279:ILE:HG21	5:6:452:ILE:HD13	2.02	0.41
5:6:711:LEU:CD2	5:6:834:SER:HB2	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:945:GLU:HA	5:6:948:LEU:CD1	2.50	0.41
6:7:82:LEU:CB	6:7:207:LEU:HD23	2.48	0.41
6:7:570:LEU:HB2	6:7:585:ASN:HD21	1.85	0.41
7:A:14:LYS:HZ1	9:C:171:GLU:CD	2.23	0.41
8:B:26:LYS:O	8:B:88:VAL:HG12	2.20	0.41
8:B:126:LEU:O	8:B:130:ALA:N	2.54	0.41
9:C:98:HIS:HA	9:C:102:SER:HB2	2.02	0.41
9:C:127:LEU:HD23	9:C:131:ARG:HG2	2.01	0.41
10:D:67:TRP:O	10:D:70:GLU:HB3	2.20	0.41
11:E:36:ILE:HB	11:E:279:SER:OG	2.21	0.41
11:E:369:PRO:HD2	11:E:372:THR:HB	2.01	0.41
12:F:7:DT:H5'	12:F:7:DT:H6	1.85	0.41
1:2:327:ARG:NH2	4:5:269:GLU:OE1	2.54	0.41
1:2:525:LYS:HZ1	4:5:576:HIS:C	2.24	0.41
1:2:586:THR:O	1:2:586:THR:OG1	2.34	0.41
1:2:780:GLN:NE2	4:5:577:THR:O	2.42	0.41
2:3:31:PHE:HZ	2:3:38:TYR:HE2	1.68	0.41
2:3:257:THR:HB	2:3:273:SER:HB2	2.03	0.41
2:3:350:ILE:HG23	2:3:659:TYR:HD1	1.85	0.41
3:4:225:TYR:HA	3:4:226:TYR:HA	1.67	0.41
3:4:252:LYS:CG	3:4:253:GLN:HA	2.46	0.41
3:4:314:MET:HA	3:4:317:LEU:HG	2.02	0.41
3:4:761:ILE:HG22	3:4:763:THR:H	1.86	0.41
5:6:154:ASP:OD2	5:6:156:GLN:HB3	2.20	0.41
5:6:159:SER:O	5:6:164:GLY:N	2.54	0.41
5:6:398:THR:OG1	5:6:458:HIS:HB3	2.20	0.41
6:7:203:TYR:CZ	6:7:339:LEU:HG	2.56	0.41
6:7:409:ASP:O	6:7:413:ARG:HB3	2.20	0.41
6:7:453:ASP:OD1	6:7:562:SER:HA	2.20	0.41
6:7:470:LEU:HD22	6:7:522:CYS:SG	2.60	0.41
6:7:713:VAL:HG12	6:7:717:LEU:CD1	2.50	0.41
7:A:110:MET:HG2	7:A:112:SER:N	2.35	0.41
10:D:188:LEU:O	10:D:192:LYS:HG2	2.20	0.41
1:2:249:LEU:HG	1:2:257:ALA:HB2	2.03	0.41
1:2:506:TYR:HD2	1:2:695:LEU:HD12	1.85	0.41
1:2:562:ARG:HD2	1:2:600:ASP:O	2.20	0.41
1:2:621:HIS:CD2	1:2:673:ILE:HG13	2.55	0.41
2:3:118:PRO:O	2:3:122:ILE:HG22	2.20	0.41
2:3:300:SER:O	4:5:245:HIS:ND1	2.54	0.41
2:3:437:SER:O	4:5:506:LYS:HA	2.21	0.41
2:3:500:ALA:H	2:3:501:GLY:HA3	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:272:MET:HB3	3:4:303:VAL:HG21	2.02	0.41
3:4:319:PRO:O	3:4:322:ILE:HG23	2.21	0.41
3:4:343:LYS:HZ3	3:4:343:LYS:HG2	1.74	0.41
3:4:754:ALA:O	3:4:810:LYS:HG2	2.20	0.41
4:5:455:ARG:HG3	4:5:462:PHE:CD1	2.55	0.41
4:5:490:ARG:NH1	4:5:541:ASP:OD2	2.54	0.41
4:5:660:THR:CG2	4:5:677:VAL:HG13	2.51	0.41
5:6:102:LYS:HE2	5:6:102:LYS:HB2	1.90	0.41
5:6:403:VAL:HG12	5:6:404:VAL:N	2.36	0.41
6:7:201:PHE:CE2	6:7:337:GLY:HA2	2.55	0.41
6:7:438:GLY:HA2	6:7:454:ILE:HG13	2.01	0.41
6:7:495:ALA:O	6:7:548:ILE:HG21	2.20	0.41
10:D:175:LEU:HB2	10:D:180:ILE:HG23	2.02	0.41
11:E:30:PHE:HD1	11:E:61:ILE:CD1	2.33	0.41
11:E:285:ALA:CA	11:E:288:TYR:HB3	2.51	0.41
11:E:288:TYR:HA	11:E:291:LEU:HG	2.01	0.41
1:2:433:ASN:HB2	1:2:434:TYR:HD2	1.86	0.41
1:2:445:PRO:HG3	5:6:304:LEU:HB3	2.01	0.41
1:2:479:GLU:OE1	1:2:479:GLU:N	2.45	0.41
1:2:567:THR:CG2	1:2:568:GLY:N	2.77	0.41
2:3:43:ARG:HD2	2:3:43:ARG:HA	1.84	0.41
2:3:110:PHE:O	2:3:114:ILE:HG13	2.20	0.41
2:3:488:GLU:HG3	2:3:494:THR:O	2.20	0.41
2:3:545:LEU:HD13	2:3:547:PHE:CZ	2.56	0.41
2:3:653:ILE:O	2:3:656:LEU:HB3	2.20	0.41
2:3:714:LYS:O	2:3:717:LEU:HD12	2.20	0.41
3:4:540:ILE:O	3:4:543:GLN:HB3	2.20	0.41
3:4:683:ASN:HA	3:4:684:PRO:HD3	1.94	0.41
3:4:901:SER:O	3:4:905:GLU:HG2	2.21	0.41
4:5:27:ILE:O	4:5:30:SER:HB3	2.20	0.41
4:5:286:VAL:CG1	4:5:292:VAL:HG11	2.51	0.41
4:5:343:TRP:CE3	4:5:344:ASN:HB3	2.56	0.41
5:6:539:GLY:O	5:6:544:LYS:HE3	2.20	0.41
6:7:523:ILE:HD13	6:7:526:PHE:CE1	2.56	0.41
7:A:138:ILE:HD12	7:A:138:ILE:HA	1.97	0.41
10:D:87:LEU:O	10:D:90:ARG:N	2.54	0.41
10:D:94:GLN:O	10:D:98:ILE:HG23	2.20	0.41
10:D:200:LYS:C	10:D:202:MET:H	2.23	0.41
11:E:561:ASP:HA	11:E:562:LYS:HA	1.76	0.41
1:2:660:THR:O	1:2:850:LYS:HB2	2.20	0.41
2:3:35:PHE:CE2	2:3:102:ASP:HB3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:102:ASP:O	2:3:105:GLU:HB2	2.21	0.41
4:5:136:GLN:CD	4:5:280:ARG:HB2	2.41	0.41
5:6:266:SER:HB2	5:6:458:HIS:HD2	1.85	0.41
5:6:577:PRO:HD2	5:6:687:GLY:O	2.21	0.41
6:7:611:LYS:O	6:7:615:HIS:HB2	2.21	0.41
7:A:145:ASP:HB3	7:A:147:VAL:HG23	2.01	0.41
8:B:160:LEU:HD21	8:B:184:PHE:HE2	1.86	0.41
11:E:297:ASP:O	11:E:301:ARG:N	2.54	0.41
11:E:431:LEU:H	11:E:431:LEU:HG	1.62	0.41
11:E:569:LEU:O	11:E:581:VAL:HA	2.20	0.41
11:E:577:ASP:OD2	11:E:633:ARG:NH2	2.53	0.41
1:2:240:GLU:HB3	1:2:290:HIS:CE1	2.56	0.41
1:2:439:ASN:O	1:2:442:ASN:N	2.39	0.41
1:2:505:ILE:O	13:2:901:ANP:N6	2.24	0.41
1:2:569:GLN:C	1:2:571:ALA:HA	2.42	0.41
1:2:802:SER:HA	1:2:803:PHE:HA	1.66	0.41
2:3:356:LYS:HB2	2:3:359:ILE:CG2	2.48	0.41
2:3:375:ASP:O	2:3:379:LYS:HG3	2.21	0.41
2:3:528:ASP:O	2:3:532:ASN:HB2	2.21	0.41
2:3:716:ARG:HH22	2:3:724:VAL:HB	1.86	0.41
3:4:375:ASP:HA	3:4:376:CYS:C	2.42	0.41
3:4:376:CYS:HA	3:4:377:ASN:C	2.42	0.41
3:4:569:ASP:HB3	6:7:683:GLN:OE1	2.21	0.41
4:5:52:ASN:OD1	9:C:140:SER:HB3	2.21	0.41
4:5:422:LYS:NZ	13:5:801:ANP:O3G	2.54	0.41
4:5:483:ASP:HB3	4:5:484:LYS:HD2	2.02	0.41
4:5:557:LYS:HA	4:5:557:LYS:HD2	1.79	0.41
4:5:599:MET:HB2	4:5:599:MET:HE2	1.90	0.41
4:5:601:ARG:HA	4:5:601:ARG:HD2	1.82	0.41
5:6:656:MET:HG3	5:6:709:PHE:HE1	1.84	0.41
5:6:774:VAL:HG12	5:6:778:LYS:HZ3	1.85	0.41
6:7:89:GLN:HG3	6:7:102:LEU:HD12	2.03	0.41
6:7:110:ALA:HB2	6:7:238:LEU:N	2.35	0.41
6:7:246:THR:HG21	6:7:316:GLN:NE2	2.36	0.41
6:7:429:LYS:HA	6:7:432:LEU:HD12	2.02	0.41
6:7:464:VAL:HG11	6:7:600:MET:SD	2.61	0.41
6:7:486:LYS:HA	6:7:486:LYS:HD3	1.90	0.41
6:7:537:ILE:HG23	6:7:541:MET:HE2	2.02	0.41
6:7:564:LEU:HD23	6:7:565:ALA:N	2.36	0.41
6:7:650:PRO:HB3	6:7:706:ASP:HA	2.03	0.41
6:7:668:ARG:HH22	6:7:686:PRO:CD	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:688:THR:O	6:7:692:ILE:HB	2.21	0.41
6:7:699:LEU:HD13	6:7:715:GLU:HB3	2.01	0.41
7:A:30:PRO:O	7:A:122:ASN:ND2	2.42	0.41
7:A:31:MET:HG2	7:A:32:TYR:N	2.36	0.41
7:A:102:TRP:CD1	8:B:3:LEU:HG	2.56	0.41
8:B:32:THR:C	8:B:62:ASN:HB2	2.40	0.41
9:C:95:LEU:O	9:C:131:ARG:NH2	2.54	0.41
9:C:172:MET:HG3	9:C:173:GLU:N	2.36	0.41
10:D:135:ARG:O	10:D:139:VAL:HG23	2.20	0.41
1:2:759:PRO:HG2	1:2:762:LEU:HD12	2.02	0.41
1:2:803:PHE:HB3	1:2:805:ILE:N	2.30	0.41
2:3:410:ASP:O	2:3:413:THR:OG1	2.29	0.41
3:4:388:ARG:NH2	5:6:176:ARG:HB2	2.36	0.41
3:4:565:LEU:HD23	3:4:566:LEU:N	2.35	0.41
4:5:163:SER:OG	4:5:164:GLY:N	2.54	0.41
4:5:494:HIS:HB3	4:5:549:ARG:NE	2.36	0.41
4:5:564:ARG:O	4:5:568:ILE:HG22	2.20	0.41
5:6:395:CYS:SG	5:6:461:SER:HA	2.62	0.41
5:6:836:ILE:O	5:6:839:ASP:HB2	2.20	0.41
6:7:217:LYS:HG3	6:7:218:LYS:H	1.86	0.41
6:7:499:LYS:NZ	6:7:504:ASP:OD1	2.35	0.41
6:7:660:VAL:HG22	6:7:713:VAL:HG11	2.03	0.41
7:A:32:TYR:CB	7:A:124:SER:HB3	2.51	0.41
7:A:46:ASN:OD1	7:A:50:ASN:ND2	2.52	0.41
7:A:87:LEU:HD13	9:C:4:TYR:OH	2.21	0.41
7:A:127:GLU:CD	10:D:193:LEU:HD11	2.41	0.41
8:B:79:LEU:O	8:B:83:SER:N	2.54	0.41
8:B:182:ARG:HA	10:D:229:PHE:HE2	1.86	0.41
11:E:34:LEU:HD22	11:E:34:LEU:O	2.20	0.41
11:E:60:PRO:HG3	11:E:478:TRP:HE1	1.85	0.41
11:E:97:GLU:HA	11:E:98:ILE:C	2.42	0.41
11:E:240:TYR:O	11:E:241:TYR:HB3	2.21	0.41
11:E:356:LYS:O	11:E:360:HIS:ND1	2.45	0.41
11:E:368:ILE:HA	11:E:369:PRO:HD3	1.92	0.41
1:2:553:LEU:HD21	1:2:607:ASP:HB3	2.03	0.40
1:2:778:LEU:CD1	4:5:577:THR:CG2	2.99	0.40
2:3:197:ILE:O	2:3:214:TYR:HB2	2.21	0.40
2:3:315:ILE:HG22	4:5:255:PHE:CZ	2.56	0.40
2:3:519:VAL:HB	2:3:527:ARG:HH12	1.86	0.40
2:3:527:ARG:NH1	2:3:531:GLN:O	2.54	0.40
2:3:654:PRO:HA	2:3:657:ARG:CZ	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:312:LYS:O	3:4:316:GLU:HB3	2.22	0.40
4:5:258:LEU:HD11	4:5:276:MET:HE3	2.03	0.40
4:5:378:ILE:HA	13:5:801:ANP:N6	2.30	0.40
5:6:738:ARG:HD3	5:6:738:ARG:HA	1.91	0.40
6:7:71:ALA:CB	6:7:129:THR:HG21	2.51	0.40
6:7:222:SER:HB3	6:7:223:LYS:H	1.67	0.40
6:7:451:ARG:HB2	6:7:453:ASP:H	1.86	0.40
10:D:143:TYR:CZ	10:D:147:ARG:HD2	2.56	0.40
11:E:127:ARG:O	11:E:245:THR:HA	2.20	0.40
11:E:380:MET:HB2	11:E:385:LYS:HE2	2.02	0.40
12:F:8:DT:H6	12:F:8:DT:H2'	1.68	0.40
1:2:243:GLU:HA	1:2:296:ARG:HB2	2.02	0.40
1:2:574:VAL:C	1:2:576:LEU:H	2.23	0.40
1:2:587:LYS:HE3	1:2:587:LYS:HB2	1.93	0.40
1:2:676:ARG:HA	1:2:676:ARG:HD3	1.75	0.40
1:2:783:MET:SD	1:2:783:MET:N	2.94	0.40
3:4:228:LYS:HA	3:4:231:ASN:HD22	1.86	0.40
3:4:370:ARG:HD2	3:4:378:GLU:O	2.21	0.40
4:5:60:SER:HA	4:5:136:GLN:O	2.22	0.40
4:5:153:SER:O	4:5:156:VAL:HG23	2.21	0.40
4:5:413:LEU:HD23	4:5:415:LEU:CD2	2.52	0.40
5:6:311:CYS:HA	5:6:312:ASP:CB	2.50	0.40
5:6:360:ARG:HA	5:6:378:ASP:HA	2.04	0.40
5:6:544:LYS:HE2	5:6:584:PHE:HE1	1.85	0.40
5:6:641:PHE:H	5:6:682:ALA:HB2	1.86	0.40
6:7:110:ALA:CB	6:7:238:LEU:HB2	2.51	0.40
6:7:368:ALA:HA	6:7:369:GLY:HA2	1.79	0.40
6:7:523:ILE:O	6:7:566:ALA:N	2.36	0.40
6:7:544:GLN:O	6:7:545:THR:OG1	2.24	0.40
6:7:700:ALA:O	6:7:704:LEU:N	2.54	0.40
7:A:150:ASP:O	10:D:141:ARG:NE	2.52	0.40
8:B:166:SER:HB3	10:D:227:PHE:HE1	1.86	0.40
10:D:69:ASN:OD1	10:D:293:LEU:HD13	2.22	0.40
10:D:150:LYS:HA	10:D:153:LYS:HE2	2.02	0.40
11:E:64:TYR:OH	11:E:90:ILE:HB	2.21	0.40
1:2:247:ARG:HH11	1:2:247:ARG:HA	1.86	0.40
1:2:606:ILE:HG22	1:2:609:PHE:HE1	1.86	0.40
1:2:803:PHE:CB	1:2:805:ILE:H	2.29	0.40
1:2:806:THR:H	1:2:809:HIS:CB	2.30	0.40
2:3:245:TYR:CD2	6:7:356:LEU:HD22	2.56	0.40
2:3:406:LEU:HD13	2:3:543:PHE:CE2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:469:VAL:HA	2:3:511:SER:O	2.21	0.40
3:4:345:ALA:N	3:4:360:ILE:HG13	2.36	0.40
3:4:442:ILE:HG22	3:4:443:PRO:O	2.20	0.40
3:4:557:ARG:HE	3:4:668:ARG:NH2	2.10	0.40
3:4:678:ILE:HD11	3:4:693:ASP:HA	2.02	0.40
3:4:898:VAL:O	3:4:903:ILE:HD11	2.22	0.40
4:5:437:VAL:HG23	4:5:472:ALA:HB2	2.03	0.40
5:6:640:GLU:HB3	5:6:643:LYS:HG2	2.04	0.40
6:7:96:GLY:HA3	6:7:97:THR:HA	1.92	0.40
6:7:397:VAL:HG12	6:7:640:GLU:HG2	2.02	0.40
6:7:495:ALA:O	6:7:548:ILE:HG12	2.20	0.40
8:B:18:PHE:HE1	10:D:135:ARG:CG	2.35	0.40
11:E:71:TYR:CD2	11:E:96:LEU:HD13	2.55	0.40
1:2:514:ALA:HB1	1:2:679:ILE:HG21	2.03	0.40
13:2:901:ANP:HNB1	5:6:653:HIS:CE1	2.36	0.40
2:3:288:PRO:O	2:3:464:LEU:HD11	2.22	0.40
2:3:372:TYR:CZ	2:3:561:ILE:HA	2.56	0.40
3:4:243:LEU:CG	3:4:244:ASP:H	2.34	0.40
3:4:505:ASP:HA	3:4:508:LYS:HB3	2.02	0.40
3:4:865:LEU:HD21	3:4:903:ILE:HG23	2.03	0.40
4:5:24:ASN:O	4:5:28:ILE:HG13	2.21	0.40
4:5:94:ILE:HD12	4:5:135:PHE:HD2	1.87	0.40
4:5:369:ILE:HD11	4:5:592:SER:C	2.42	0.40
5:6:548:LEU:O	5:6:552:LEU:HD13	2.21	0.40
5:6:585:LEU:HD21	5:6:679:LEU:CD2	2.51	0.40
5:6:610:ALA:N	5:6:663:ILE:HD13	2.35	0.40
6:7:81:ASP:O	6:7:85:ILE:HG13	2.21	0.40
6:7:220:ILE:O	6:7:222:SER:HB2	2.17	0.40
6:7:259:ALA:HB2	6:7:270:PHE:CE1	2.56	0.40
6:7:459:MET:CB	6:7:597:LEU:HD21	2.38	0.40
8:B:95:THR:HG23	8:B:96:LYS:H	1.86	0.40
8:B:198:ALA:HB1	9:C:113:MET:CE	2.52	0.40
11:E:28:VAL:CG2	11:E:57:GLN:HB3	2.51	0.40
11:E:313:PRO:HA	11:E:415:TYR:CE2	2.57	0.40
1:2:284:PRO:HD2	11:E:365:ARG:HD3	2.03	0.40
1:2:359:ILE:HA	1:2:360:ARG:HA	1.79	0.40
1:2:691:ALA:O	1:2:694:ARG:HB3	2.20	0.40
2:3:53:ALA:CA	6:7:218:LYS:HD2	2.51	0.40
2:3:130:THR:HG22	2:3:153:TRP:HD1	1.86	0.40
2:3:245:TYR:C	6:7:236:GLY:HA3	2.41	0.40
2:3:687:ARG:HG3	2:3:697:ILE:HG21	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:234:ARG:HB3	3:4:280:MET:CE	2.48	0.40
3:4:408:ASP:HA	3:4:409:GLY:HA2	1.66	0.40
3:4:520:SER:O	3:4:523:ALA:HB3	2.22	0.40
3:4:760:PRO:HB2	3:4:809:ALA:HB1	2.03	0.40
4:5:370:LEU:HD23	4:5:666:LEU:HD22	2.03	0.40
4:5:605:TYR:HE2	4:5:668:LEU:HD11	1.87	0.40
5:6:152:TYR:HB3	5:6:268:PHE:CE2	2.55	0.40
6:7:139:LEU:HA	6:7:142:ILE:CB	2.49	0.40
6:7:360:TYR:CE2	6:7:363:PHE:HB2	2.57	0.40
6:7:441:ASP:N	6:7:452:GLY:HA2	2.37	0.40
6:7:541:MET:HE1	6:7:563:ILE:HG21	2.04	0.40
6:7:650:PRO:CA	6:7:706:ASP:HA	2.50	0.40
7:A:106:GLY:N	7:A:107:LEU:HD22	2.36	0.40
7:A:199:LEU:HA	7:A:202:GLN:HB3	2.03	0.40
8:B:166:SER:HB3	10:D:227:PHE:CE1	2.57	0.40
9:C:38:ILE:HD13	9:C:38:ILE:HG21	1.86	0.40
9:C:101:ASN:HB2	9:C:102:SER:C	2.42	0.40
10:D:98:ILE:HG22	10:D:129:MET:HG2	2.03	0.40
11:E:527:LEU:HD12	11:E:568:VAL:HB	2.04	0.40
11:E:570:ALA:HB2	11:E:581:VAL:HG22	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	2	573/868 (66%)	502 (88%)	63 (11%)	8 (1%)	11 46
2	3	579/971 (60%)	525 (91%)	52 (9%)	2 (0%)	41 76
3	4	660/933 (71%)	577 (87%)	72 (11%)	11 (2%)	9 43
4	5	590/775 (76%)	537 (91%)	48 (8%)	5 (1%)	19 60

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
5	6	649/1017 (64%)	571 (88%)	72 (11%)	6 (1%)	17 56
6	7	652/845 (77%)	566 (87%)	76 (12%)	10 (2%)	10 46
7	A	206/208 (99%)	185 (90%)	20 (10%)	1 (0%)	29 68
8	B	177/213 (83%)	156 (88%)	21 (12%)	0	100 100
9	C	151/194 (78%)	140 (93%)	11 (7%)	0	100 100
10	D	215/294 (73%)	193 (90%)	19 (9%)	3 (1%)	11 46
11	E	543/650 (84%)	488 (90%)	50 (9%)	5 (1%)	17 56
All	All	4995/6968 (72%)	4440 (89%)	504 (10%)	51 (1%)	20 54

All (51) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	4	429	ALA
4	5	596	ILE
6	7	26	VAL
6	7	222	SER
6	7	464	VAL
11	E	577	ASP
11	E	601	ILE
2	3	389	VAL
3	4	419	VAL
3	4	433	ILE
4	5	410	ILE
5	6	402	ILE
5	6	560	VAL
5	6	569	ILE
5	6	819	ILE
1	2	533	ILE
1	2	656	ARG
3	4	450	GLN
3	4	609	VAL
4	5	340	SER
10	D	219	ILE
1	2	291	SER
1	2	585	ILE
1	2	631	ILE
2	3	440	VAL
3	4	857	ILE
4	5	267	VAL
4	5	341	SER

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Mol	Chain	Res	Type
5	6	106	VAL
5	6	321	VAL
6	7	502	VAL
7	A	27	VAL
10	D	210	ASN
3	4	373	ARG
6	7	255	VAL
6	7	374	THR
11	E	602	LEU
1	2	297	ILE
6	7	248	VAL
6	7	257	VAL
11	E	98	ILE
3	4	364	VAL
1	2	842	VAL
3	4	463	VAL
3	4	856	VAL
6	7	708	VAL
10	D	258	VAL
1	2	303	ILE
3	4	694	LEU
6	7	462	PRO
11	E	99	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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	2	502/770 (65%)	460 (92%)	42 (8%)	11 36
2	3	512/835 (61%)	475 (93%)	37 (7%)	14 41
3	4	599/848 (71%)	570 (95%)	29 (5%)	25 51
4	5	542/688 (79%)	500 (92%)	42 (8%)	13 39
5	6	539/886 (61%)	497 (92%)	42 (8%)	12 38
6	7	582/753 (77%)	553 (95%)	29 (5%)	24 50

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
7	A	193/193 (100%)	182 (94%)	11 (6%)	20 47
8	B	171/198 (86%)	162 (95%)	9 (5%)	22 49
9	C	144/173 (83%)	136 (94%)	8 (6%)	21 48
10	D	213/279 (76%)	207 (97%)	6 (3%)	43 65
11	E	499/586 (85%)	479 (96%)	20 (4%)	31 56
All	All	4496/6209 (72%)	4221 (94%)	275 (6%)	22 46

All (275) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	2	234	LEU
1	2	253	LYS
1	2	263	CYS
1	2	297	ILE
1	2	298	SER
1	2	384	ASN
1	2	391	GLN
1	2	432	ASN
1	2	437	ASN
1	2	446	VAL
1	2	454	ASN
1	2	501	MET
1	2	511	ILE
1	2	533	ILE
1	2	538	ASN
1	2	549	LYS
1	2	567	THR
1	2	577	THR
1	2	583	ASP
1	2	590	THR
1	2	624	MET
1	2	628	SER
1	2	630	SER
1	2	631	ILE
1	2	633	LYS
1	2	636	ILE
1	2	640	LEU
1	2	646	ILE
1	2	651	ASN
1	2	705	ARG

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Mol	Chain	Res	Type
1	2	706	SER
1	2	782	ASP
1	2	783	MET
1	2	787	SER
1	2	793	LEU
1	2	802	SER
1	2	805	ILE
1	2	806	THR
1	2	807	VAL
1	2	808	ARG
1	2	854	ARG
1	2	860	SER
2	3	108	ARG
2	3	137	ASP
2	3	154	LYS
2	3	169	ARG
2	3	170	THR
2	3	171	LEU
2	3	172	THR
2	3	190	SER
2	3	209	PHE
2	3	227	THR
2	3	275	ASP
2	3	291	ARG
2	3	300	SER
2	3	346	ASP
2	3	350	ILE
2	3	384	MET
2	3	395	ASN
2	3	402	ASP
2	3	423	LEU
2	3	435	ARG
2	3	438	SER
2	3	469	VAL
2	3	473	ASP
2	3	503	HIS
2	3	506	LEU
2	3	513	ILE
2	3	535	LEU
2	3	541	SER
2	3	542	ARG
2	3	553	ILE

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Mol	Chain	Res	Type
2	3	563	GLU
2	3	564	HIS
2	3	656	LEU
2	3	657	ARG
2	3	691	ASN
2	3	732	LEU
2	3	733	LEU
3	4	243	LEU
3	4	261	LEU
3	4	279	CYS
3	4	311	CYS
3	4	321	ASP
3	4	371	CYS
3	4	389	CYS
3	4	416	SER
3	4	449	ARG
3	4	451	ARG
3	4	463	VAL
3	4	502	THR
3	4	563	ASN
3	4	569	ASP
3	4	591	THR
3	4	623	LEU
3	4	631	ILE
3	4	644	VAL
3	4	688	VAL
3	4	692	ILE
3	4	699	LEU
3	4	720	LEU
3	4	725	THR
3	4	727	LEU
3	4	762	ILE
3	4	770	LEU
3	4	772	ARG
3	4	810	LYS
3	4	856	VAL
4	5	21	ASP
4	5	35	ILE
4	5	36	LEU
4	5	48	ASP
4	5	84	SER
4	5	137	LEU

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Mol	Chain	Res	Type
4	5	141	SER
4	5	152	ASP
4	5	159	ILE
4	5	174	SER
4	5	179	LEU
4	5	190	THR
4	5	204	THR
4	5	210	SER
4	5	211	CYS
4	5	246	GLU
4	5	293	THR
4	5	321	VAL
4	5	331	LEU
4	5	337	VAL
4	5	339	THR
4	5	341	SER
4	5	344	ASN
4	5	347	THR
4	5	348	MET
4	5	370	LEU
4	5	384	ILE
4	5	410	ILE
4	5	430	GLU
4	5	439	THR
4	5	444	SER
4	5	454	GLN
4	5	462	PHE
4	5	511	THR
4	5	560	HIS
4	5	563	GLU
4	5	595	SER
4	5	640	SER
4	5	642	GLU
4	5	650	ILE
4	5	652	GLN
4	5	668	LEU
5	6	101	LYS
5	6	180	PHE
5	6	354	LEU
5	6	364	ASN
5	6	372	SER
5	6	376	THR

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Mol	Chain	Res	Type
5	6	377	LEU
5	6	400	VAL
5	6	533	ILE
5	6	560	VAL
5	6	570	ASN
5	6	581	LYS
5	6	586	LYS
5	6	614	ARG
5	6	615	ASP
5	6	624	GLU
5	6	642	ASP
5	6	644	MET
5	6	647	SER
5	6	648	ASP
5	6	662	SER
5	6	688	ARG
5	6	692	LYS
5	6	719	CYS
5	6	723	ILE
5	6	752	ARG
5	6	781	ARG
5	6	783	ASP
5	6	822	SER
5	6	824	ILE
5	6	832	ARG
5	6	916	ILE
5	6	918	ARG
5	6	920	ILE
5	6	924	ASP
5	6	935	ASP
5	6	936	ILE
5	6	938	ASP
5	6	948	LEU
5	6	967	ARG
5	6	968	LEU
5	6	969	VAL
6	7	114	THR
6	7	116	LEU
6	7	127	LEU
6	7	222	SER
6	7	223	LYS
6	7	281	LEU

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Mol	Chain	Res	Type
6	7	344	SER
6	7	363	PHE
6	7	370	LEU
6	7	404	LEU
6	7	437	VAL
6	7	491	VAL
6	7	493	LEU
6	7	494	THR
6	7	497	VAL
6	7	503	THR
6	7	521	CYS
6	7	530	ASP
6	7	533	ASP
6	7	582	ASP
6	7	595	ASP
6	7	601	LEU
6	7	627	ASP
6	7	631	THR
6	7	636	SER
6	7	671	SER
6	7	723	SER
6	7	724	LYS
6	7	727	LEU
7	A	23	SER
7	A	25	GLN
7	A	44	VAL
7	A	104	ASN
7	A	107	LEU
7	A	109	LEU
7	A	149	ILE
7	A	151	LEU
7	A	160	ASP
7	A	165	VAL
7	A	183	LEU
8	B	20	VAL
8	B	31	ILE
8	B	54	THR
8	B	87	ILE
8	B	95	THR
8	B	118	ASN
8	B	160	LEU
8	B	175	LEU

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Mol	Chain	Res	Type
8	B	189	MET
9	C	24	ILE
9	C	53	ILE
9	C	79	MET
9	C	95	LEU
9	C	112	ILE
9	C	120	LEU
9	C	125	SER
9	C	163	SER
10	D	124	LEU
10	D	127	LEU
10	D	129	MET
10	D	257	THR
10	D	259	THR
10	D	260	ILE
11	E	27	LEU
11	E	32	SER
11	E	33	CYS
11	E	34	LEU
11	E	57	GLN
11	E	99	ASP
11	E	123	LEU
11	E	142	CYS
11	E	250	SER
11	E	280	LEU
11	E	284	TYR
11	E	314	ASP
11	E	326	LEU
11	E	333	SER
11	E	362	MET
11	E	396	LEU
11	E	492	LEU
11	E	529	VAL
11	E	601	ILE
11	E	637	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (29) such sidechains are listed below:

Mol	Chain	Res	Type
1	2	238	ASN
1	2	641	GLN
1	2	651	ASN

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Mol	Chain	Res	Type
1	2	780	GLN
1	2	856	GLN
2	3	51	ASN
2	3	351	ASN
2	3	417	GLN
2	3	532	ASN
3	4	400	GLN
3	4	582	HIS
4	5	140	ASN
4	5	253	GLN
4	5	411	ASN
4	5	454	GLN
4	5	561	ASN
4	5	581	ASN
4	5	676	HIS
5	6	458	HIS
5	6	570	ASN
5	6	653	HIS
5	6	735	HIS
6	7	657	ASN
8	B	128	ASN
9	C	101	ASN
11	E	155	GLN
11	E	269	ASN
11	E	286	GLN
11	E	493	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

3 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
13	ANP	5	801	-	29,33,33	1.63	5 (17%)	31,52,52	1.31	3 (9%)
13	ANP	2	901	-	29,33,33	2.10	6 (20%)	31,52,52	1.50	5 (16%)
13	ANP	3	1001	-	29,33,33	2.17	6 (20%)	31,52,52	1.33	4 (12%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
13	ANP	5	801	-	-	5/14/38/38	0/3/3/3
13	ANP	2	901	-	-	6/14/38/38	0/3/3/3
13	ANP	3	1001	-	-	10/14/38/38	0/3/3/3

All (17) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	2	901	ANP	PG-O1G	7.53	1.58	1.46
13	3	1001	ANP	PG-O1G	7.46	1.58	1.46
13	3	1001	ANP	PB-O1B	6.52	1.56	1.46
13	5	801	ANP	PB-O1B	6.32	1.56	1.46
13	2	901	ANP	PB-O1B	5.83	1.55	1.46
13	3	1001	ANP	PB-O2B	-2.93	1.48	1.56
13	2	901	ANP	PB-O3A	-2.88	1.55	1.59
13	5	801	ANP	PB-O3A	-2.79	1.55	1.59
13	3	1001	ANP	PG-O2G	-2.71	1.49	1.56
13	3	1001	ANP	PB-O3A	-2.70	1.55	1.59
13	5	801	ANP	PG-O1G	2.49	1.50	1.46
13	5	801	ANP	PB-O2B	-2.46	1.50	1.56
13	3	1001	ANP	PG-N3B	2.45	1.69	1.63

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	2	901	ANP	PG-N3B	2.43	1.69	1.63
13	2	901	ANP	PG-O2G	-2.41	1.50	1.56
13	2	901	ANP	PB-O2B	-2.39	1.50	1.56
13	5	801	ANP	PG-N3B	2.19	1.69	1.63

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	2	901	ANP	PB-O3A-PA	-5.77	112.30	132.62
13	5	801	ANP	PB-O3A-PA	-4.51	116.73	132.62
13	3	1001	ANP	PB-O3A-PA	-4.05	118.36	132.62
13	2	901	ANP	O1B-PB-N3B	-3.13	107.17	111.77
13	3	1001	ANP	O3G-PG-O1G	-2.63	106.85	113.45
13	3	1001	ANP	O1G-PG-N3B	-2.62	107.92	111.77
13	5	801	ANP	C3'-C2'-C1'	2.55	104.81	100.98
13	5	801	ANP	C5-C6-N6	2.41	124.02	120.35
13	2	901	ANP	O3G-PG-O1G	-2.24	107.81	113.45
13	3	1001	ANP	C5-C6-N6	2.19	123.68	120.35
13	2	901	ANP	C5-C6-N6	2.12	123.58	120.35
13	2	901	ANP	O3A-PB-N3B	2.03	112.21	106.59

There are no chirality outliers.

All (21) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
13	2	901	ANP	PB-N3B-PG-O1G
13	2	901	ANP	C5'-O5'-PA-O1A
13	2	901	ANP	C5'-O5'-PA-O2A
13	2	901	ANP	O4'-C4'-C5'-O5'
13	3	1001	ANP	PB-N3B-PG-O1G
13	3	1001	ANP	PG-N3B-PB-O1B
13	3	1001	ANP	PA-O3A-PB-O1B
13	3	1001	ANP	PA-O3A-PB-O2B
13	3	1001	ANP	C5'-O5'-PA-O3A
13	5	801	ANP	PG-N3B-PB-O1B
13	5	801	ANP	O4'-C4'-C5'-O5'
13	3	1001	ANP	O4'-C4'-C5'-O5'
13	5	801	ANP	C4'-C5'-O5'-PA
13	2	901	ANP	C5'-O5'-PA-O3A
13	5	801	ANP	C5'-O5'-PA-O3A
13	3	1001	ANP	C5'-O5'-PA-O2A
13	3	1001	ANP	PB-O3A-PA-O2A

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Mol	Chain	Res	Type	Atoms
13	3	1001	ANP	C3'-C4'-C5'-O5'
13	2	901	ANP	C3'-C4'-C5'-O5'
13	5	801	ANP	C3'-C4'-C5'-O5'
13	3	1001	ANP	PB-O3A-PA-O1A

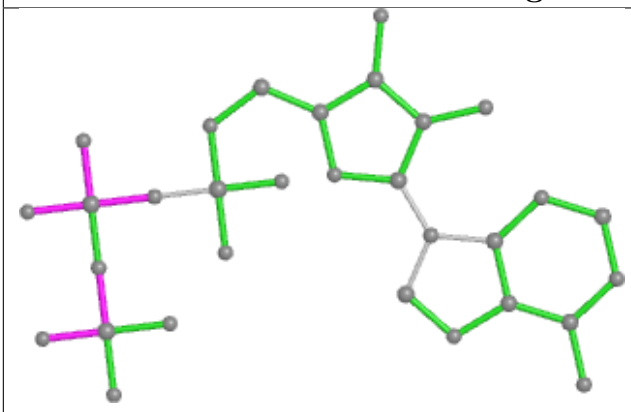
There are no ring outliers.

3 monomers are involved in 28 short contacts:

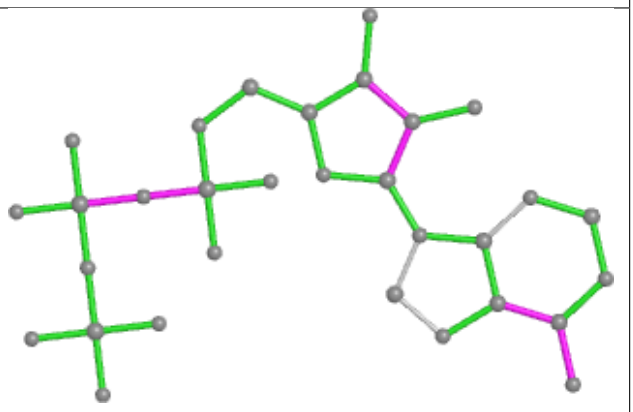
Mol	Chain	Res	Type	Clashes	Symm-Clashes
13	5	801	ANP	9	0
13	2	901	ANP	9	0
13	3	1001	ANP	10	0

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 then 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.

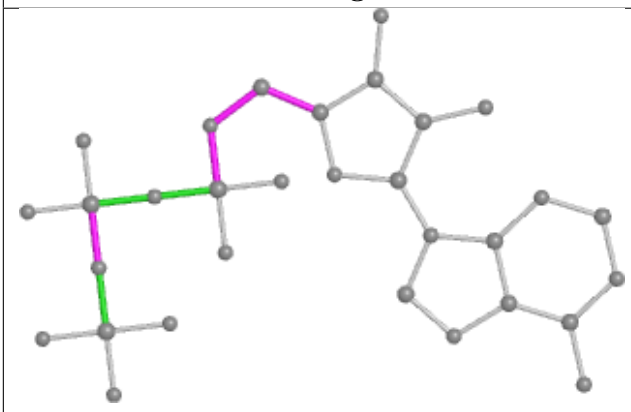
Ligand ANP 5 801



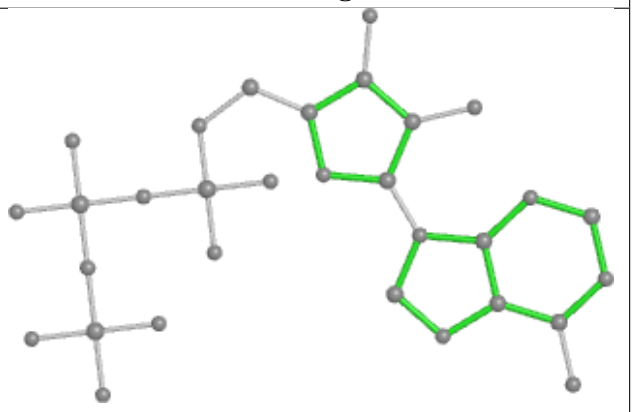
Bond lengths



Bond angles

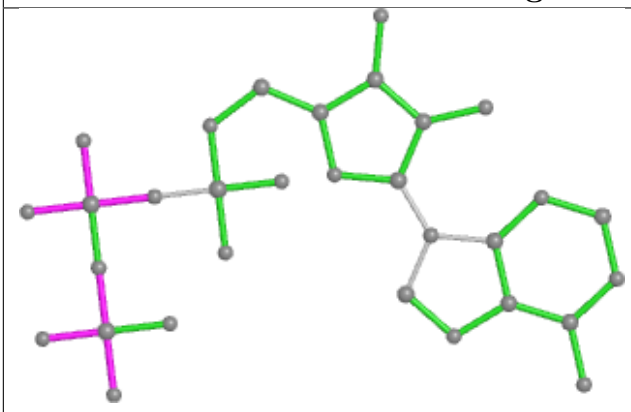


Torsions

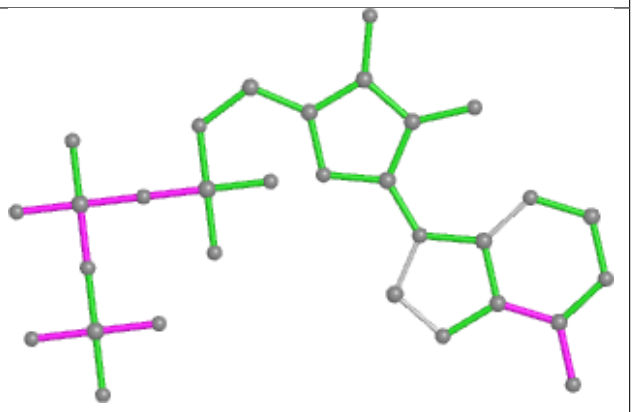


Rings

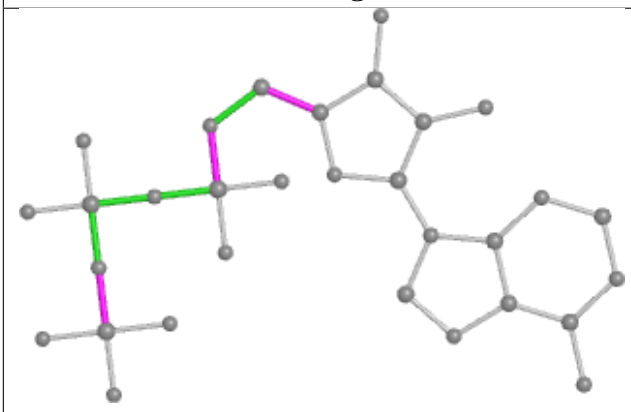
Ligand ANP 2 901



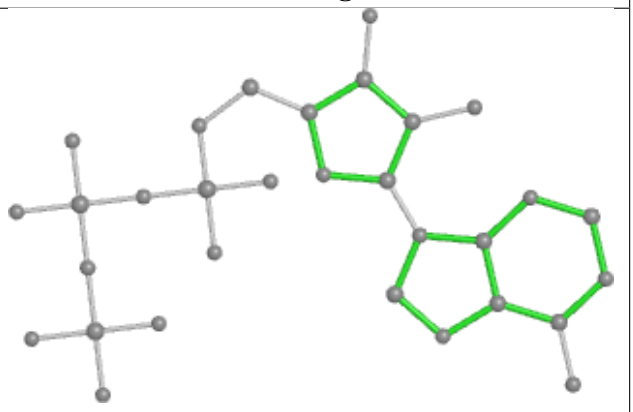
Bond lengths



Bond angles

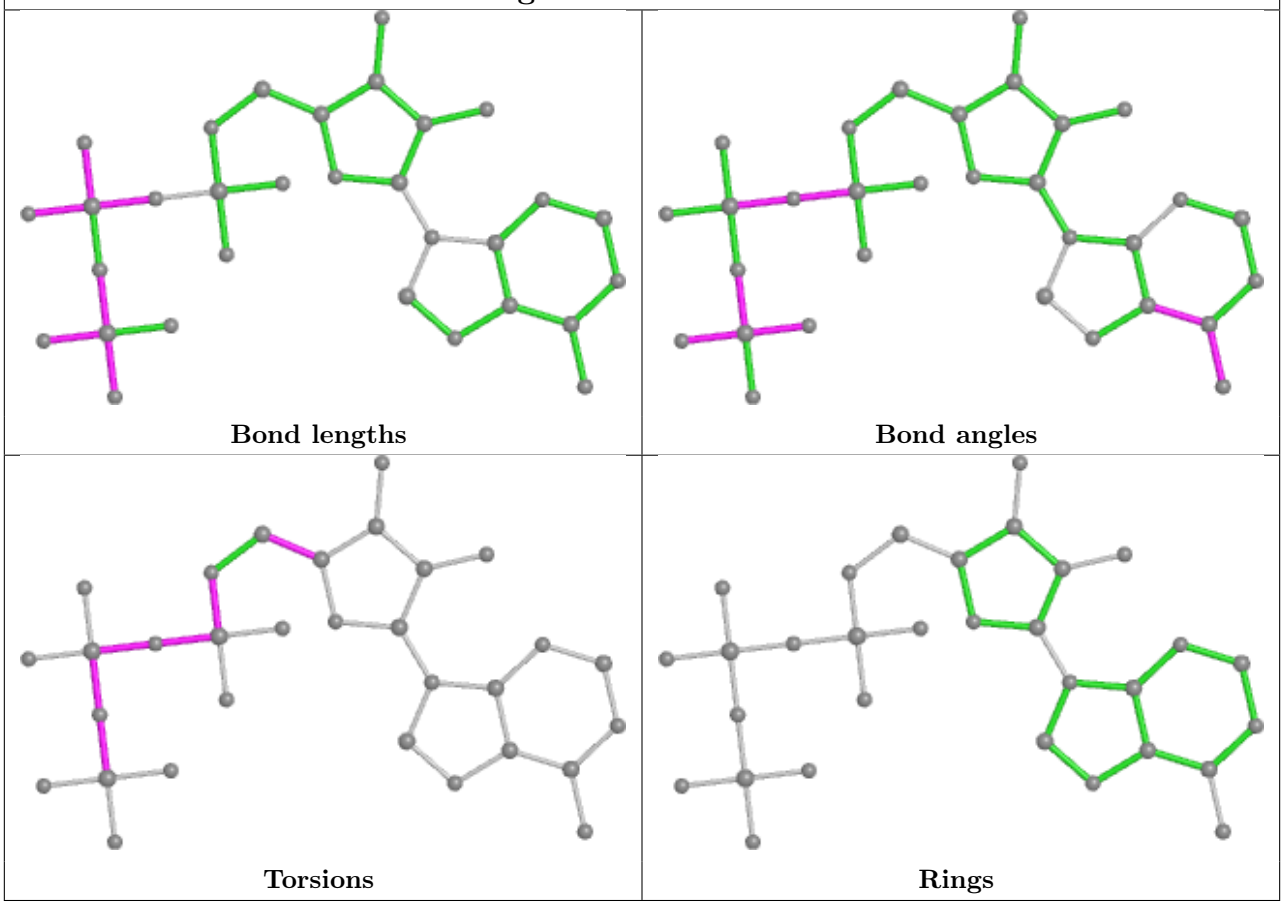


Torsions



Rings

Ligand ANP 3 1001



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

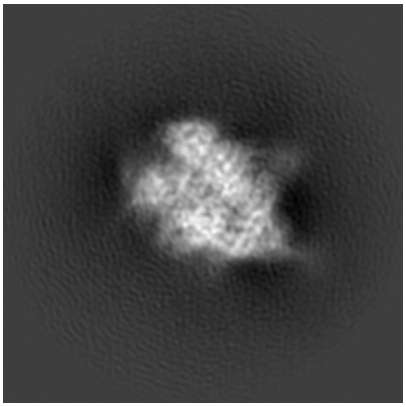
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-8519. These allow visual inspection of the internal detail of the map and identification of artifacts.

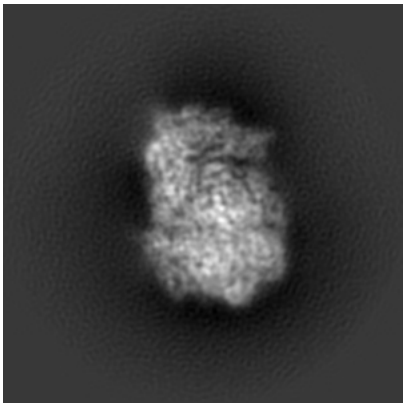
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

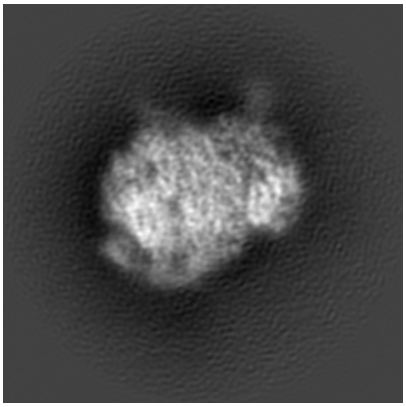
6.1.1 Primary map



X



Y

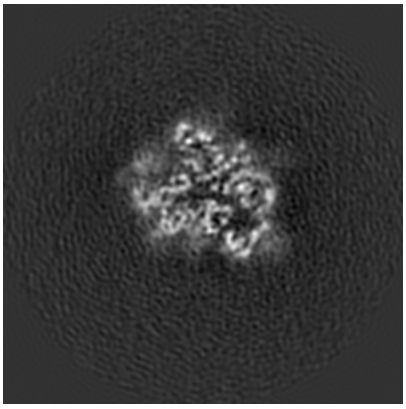


Z

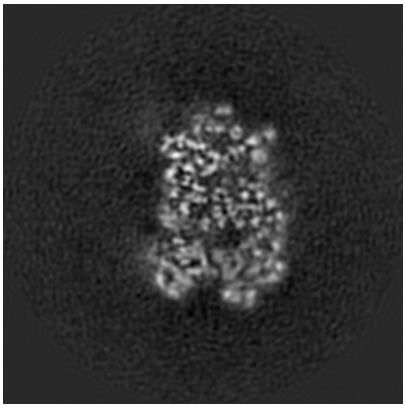
The images above show the map projected in three orthogonal directions.

6.2 Central slices

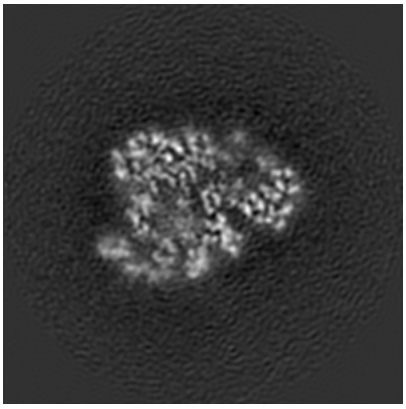
6.2.1 Primary map



X Index: 128



Y Index: 128

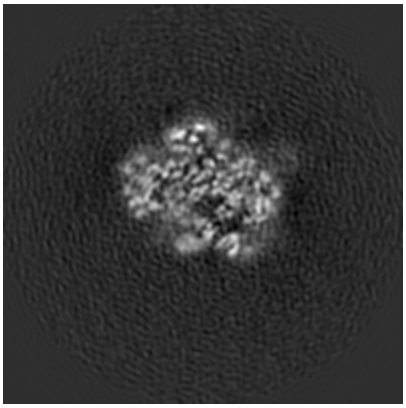


Z Index: 128

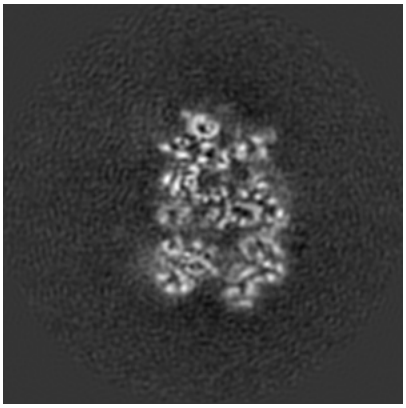
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

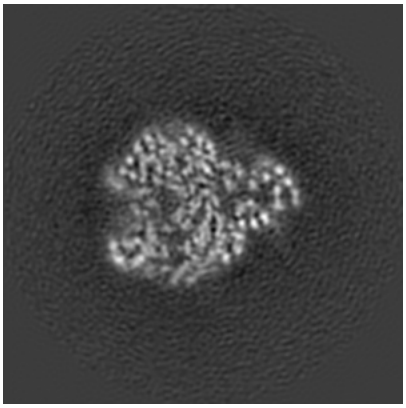
6.3.1 Primary map



X Index: 121



Y Index: 125

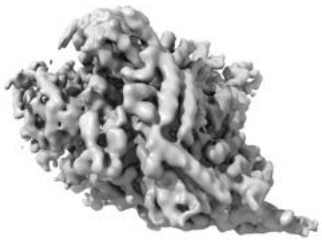


Z Index: 137

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

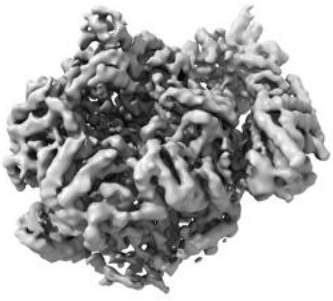
6.4 Orthogonal surface views (i)

6.4.1 Primary map



X

Y



Z

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

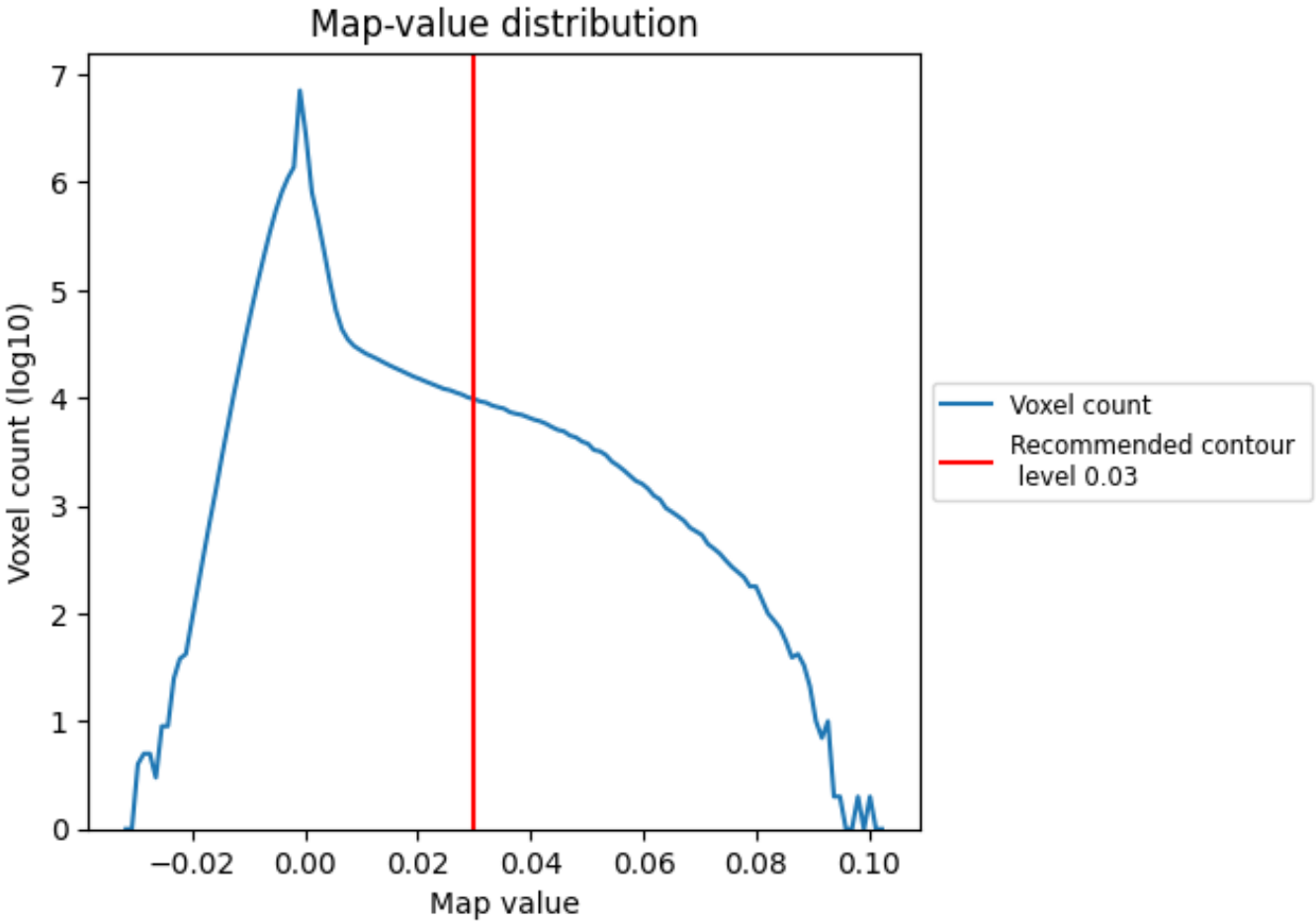
6.5 Mask visualisation (i)

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

7 Map analysis

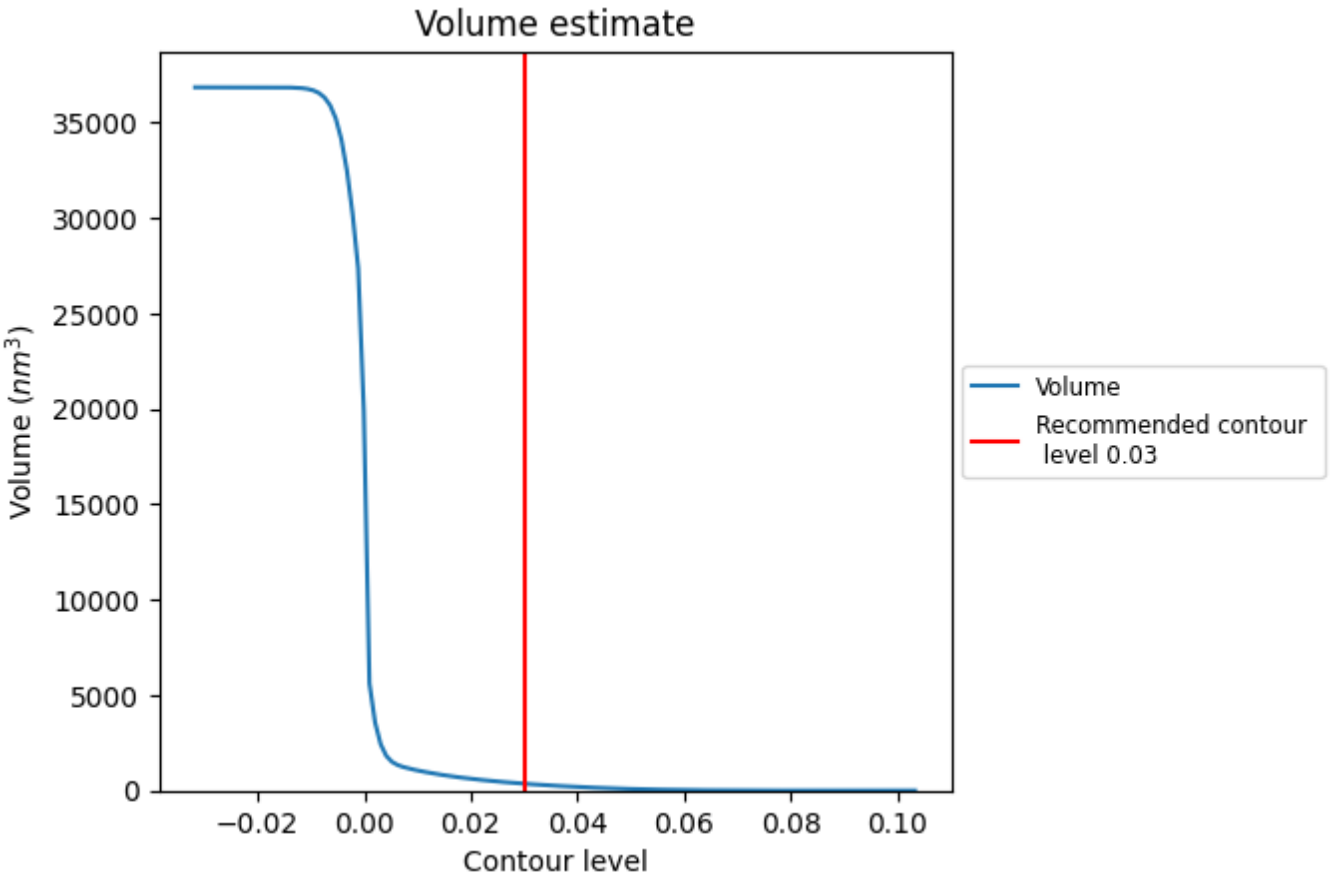
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

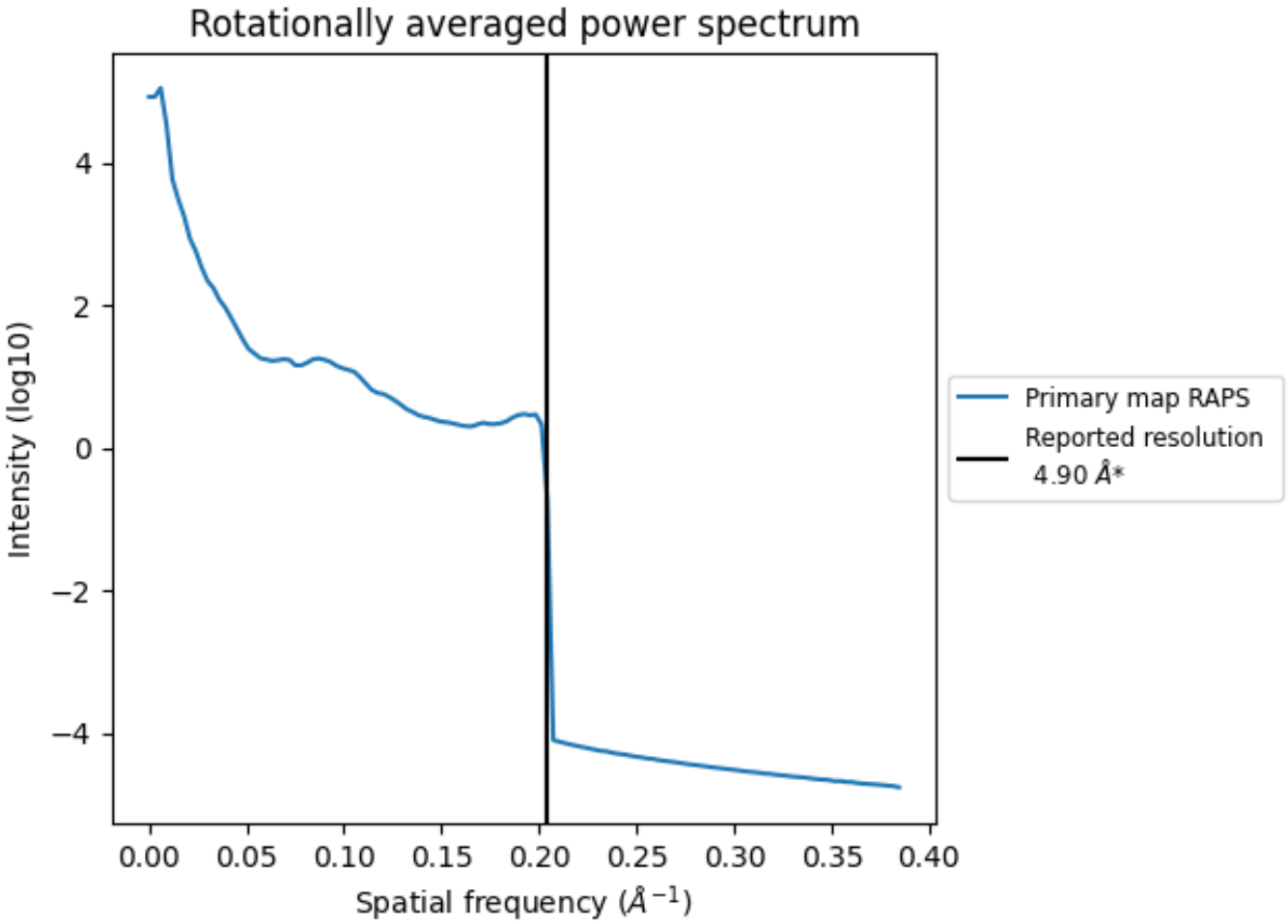
7.2 Volume estimate



The volume at the recommended contour level is 361 nm^3; this corresponds to an approximate mass of 326 kDa.

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

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.204 Å^{-1}

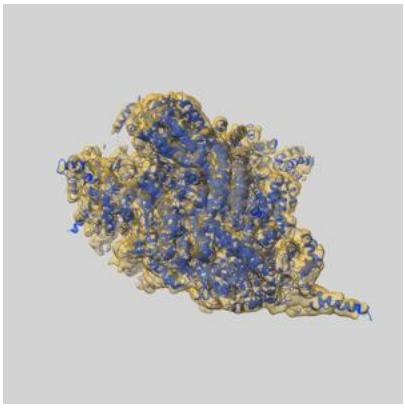
8 Fourier-Shell correlation (i)

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

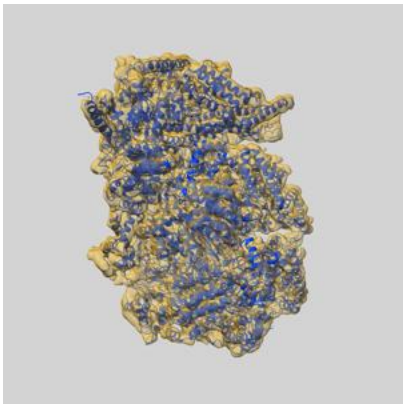
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-8519 and PDB model 5U8T. Per-residue inclusion information can be found in section 3 on page 7.

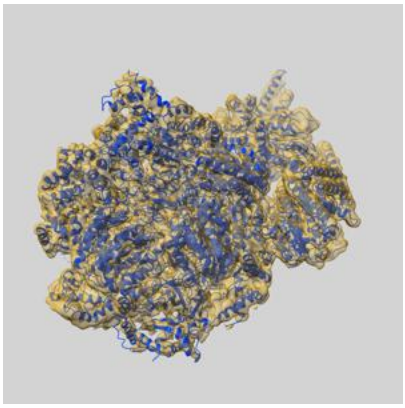
9.1 Map-model overlay



X



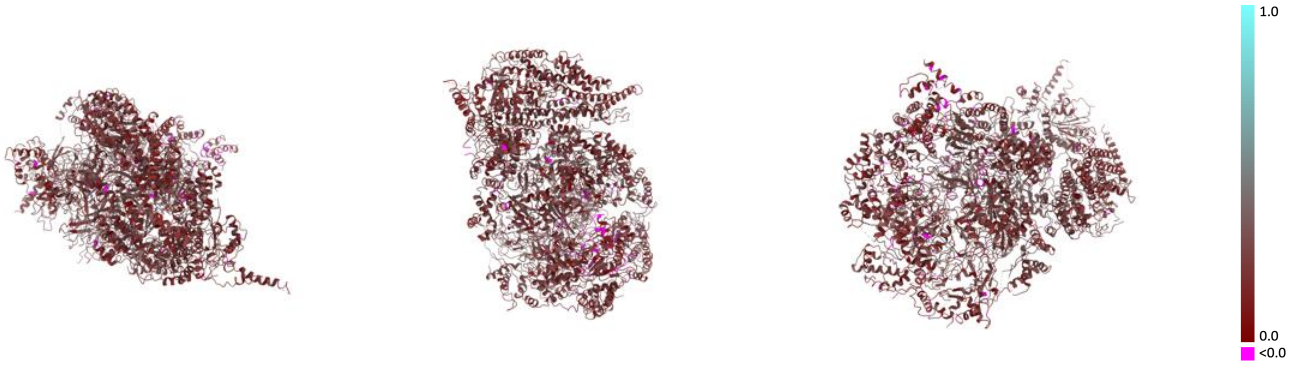
Y



Z

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

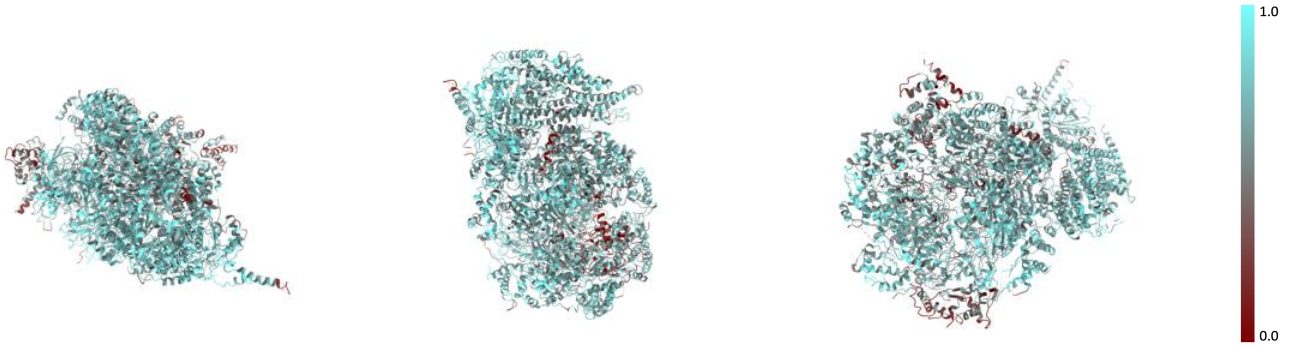
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

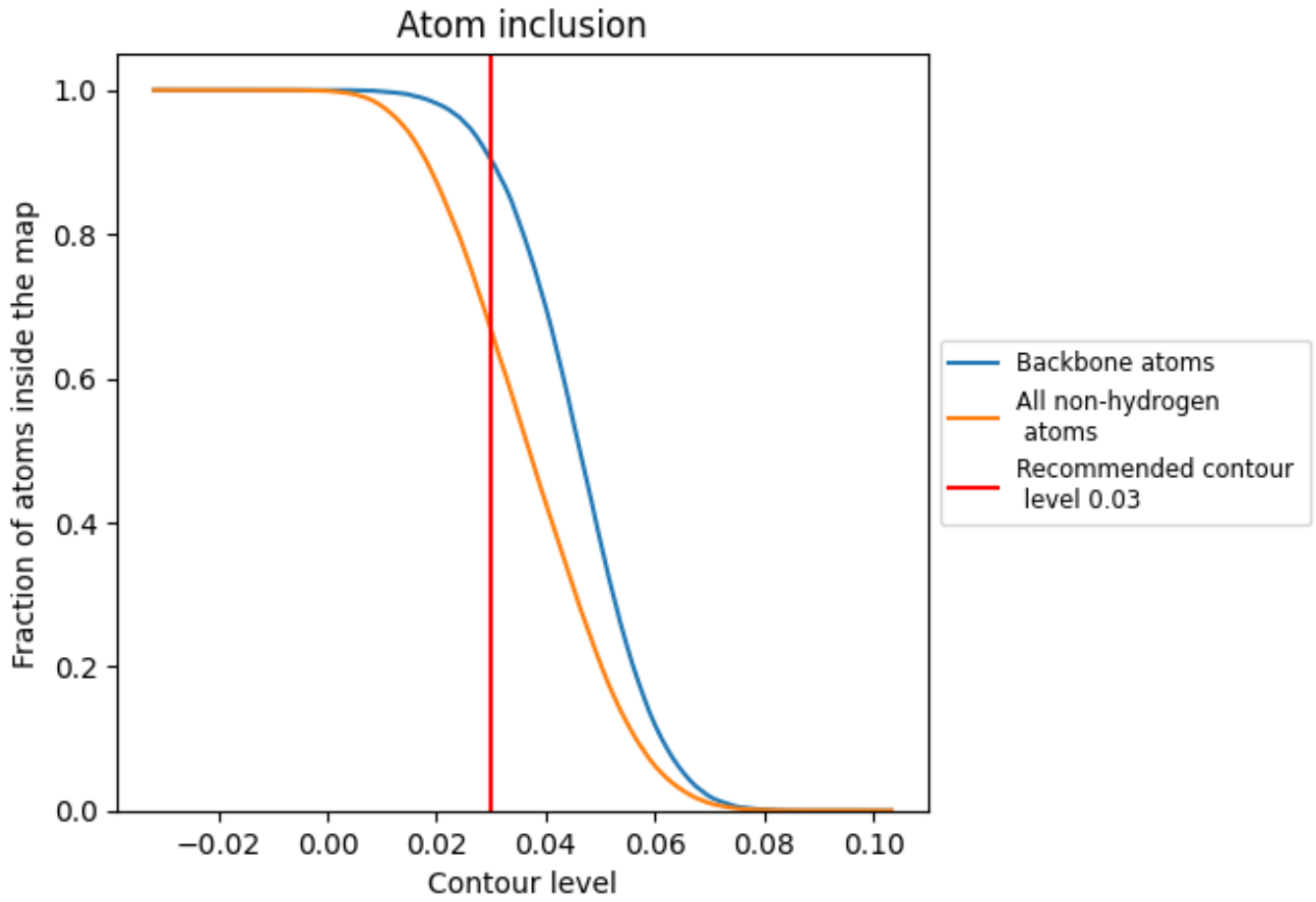
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

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

9.4 Atom inclusion (i)



At the recommended contour level, 90% of all backbone atoms, 67% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

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

Chain	Atom inclusion	Q-score
All	0.6669	0.2390
2	0.6860	0.2540
3	0.6920	0.2550
4	0.6429	0.2080
5	0.6434	0.2580
6	0.6507	0.2250
7	0.5680	0.2290
A	0.6476	0.2140
B	0.7349	0.2550
C	0.7404	0.2550
D	0.7521	0.2420
E	0.7307	0.2430
F	0.7607	0.3030