



Full wwPDB EM Validation Report ⓘ

Mar 9, 2026 – 08:58 PM UTC

PDB ID : 6WMT / pdb_00006wmt
EMDB ID : EMD-21852
Title : F. tularensis RNAPs70-(MglA-SspA)-ppGpp-PigR-iglA DNA complex
Authors : Travis, B.A.; Brennan, R.G.; Schumacher, M.A.
Deposited on : 2020-04-21
Resolution : 4.43 Å(reported)

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

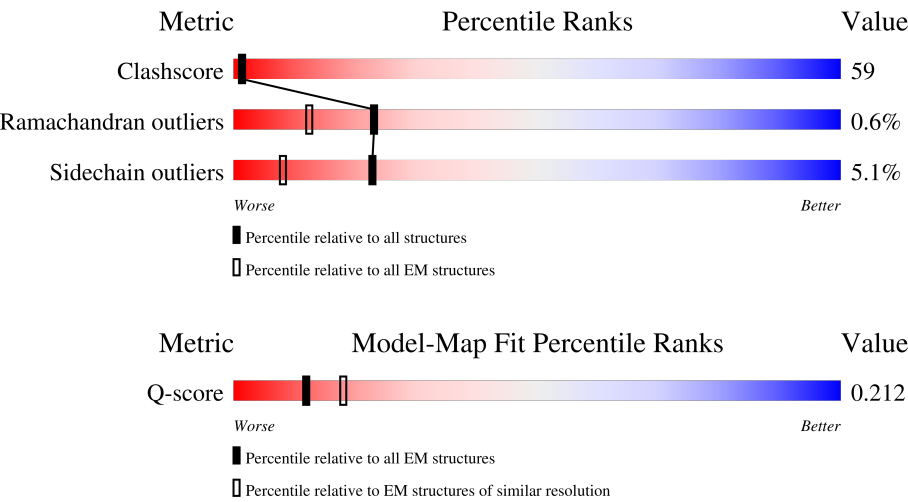
EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDb archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance i

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

The reported resolution of this entry is 4.43 Å.

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



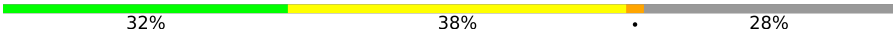
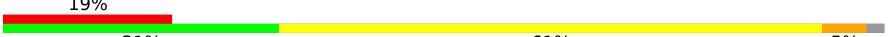
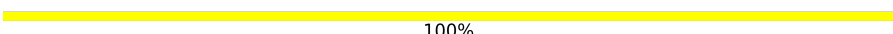
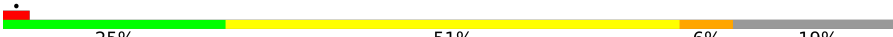
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	3083 (3.93 - 4.93)

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

Mol	Chain	Length	Quality of chain
1	E	72	
2	A	323	
3	B	317	
4	C	1358	

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Mol	Chain	Length	Quality of chain
5	D	1604	
6	G	52	
7	H	42	
8	J	11	
9	K	73	
9	L	73	
10	M	205	
11	S	210	
12	X	11	
13	Z	577	

2 Entry composition

There are 16 unique types of molecules in this entry. The entry contains 31942 atoms, of which 11 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-directed RNA polymerase subunit omega.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	E	69	Total	C	N	O	S	0	0
			543	335	92	113	3		

- Molecule 2 is a protein called DNA-directed RNA polymerase subunit alpha 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	A	223	Total	C	N	O	S	0	0
			1688	1075	280	331	2		

- Molecule 3 is a protein called DNA-directed RNA polymerase subunit alpha 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	B	230	Total	C	N	O	S	0	0
			1769	1116	289	358	6		

- Molecule 4 is a protein called DNA-directed RNA polymerase subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	C	1187	Total	C	N	O	S	0	0
			8926	5618	1561	1710	37		

- Molecule 5 is a protein called DNA-directed RNA polymerase subunit beta'.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	D	1159	Total	C	N	O	S	0	0
			8874	5586	1565	1681	42		

- Molecule 6 is a DNA chain called DNA NT-strand.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	G	52	Total	C	N	O	P	0	0
			1069	515	181	321	52		

- Molecule 7 is a DNA chain called DNA T-strand.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	H	42	Total	C	N	O	P	0	0
			852	411	156	244	41		

- Molecule 8 is a DNA chain called DNA T-strand downstream.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	J	11	Total	C	N	O	P	0	0
			226	106	44	65	11		

- Molecule 9 is a protein called aCTDs.

Mol	Chain	Residues	Atoms				AltConf	Trace
9	K	73	Total	C	N	O	0	0
			365	219	73	73		
9	L	73	Total	C	N	O	0	0
			365	219	73	73		

- Molecule 10 is a protein called Macrophage growth locus, subunit A.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	M	201	Total	C	N	O	S	0	0
			1598	1042	258	293	5		

- Molecule 11 is a protein called Glutathione S-transferase.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	S	202	Total	C	N	O	S	0	0
			1583	1024	265	287	7		

- Molecule 12 is a DNA chain called DNA NT-strand downstream.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	X	11	Total	C	N	O	P	0	0
			225	106	41	67	11		

- Molecule 13 is a protein called RNA polymerase sigma factor RpoD.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	Z	470	Total	C	N	O	S	0	0
			3772	2392	666	698	16		

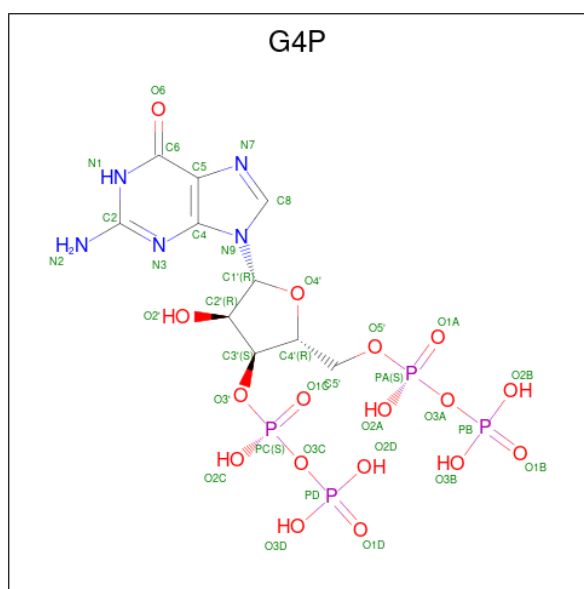
- Molecule 14 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
14	D	1	Total	Mg	0
			1	1	
14	S	1	Total	Mg	0
			1	1	

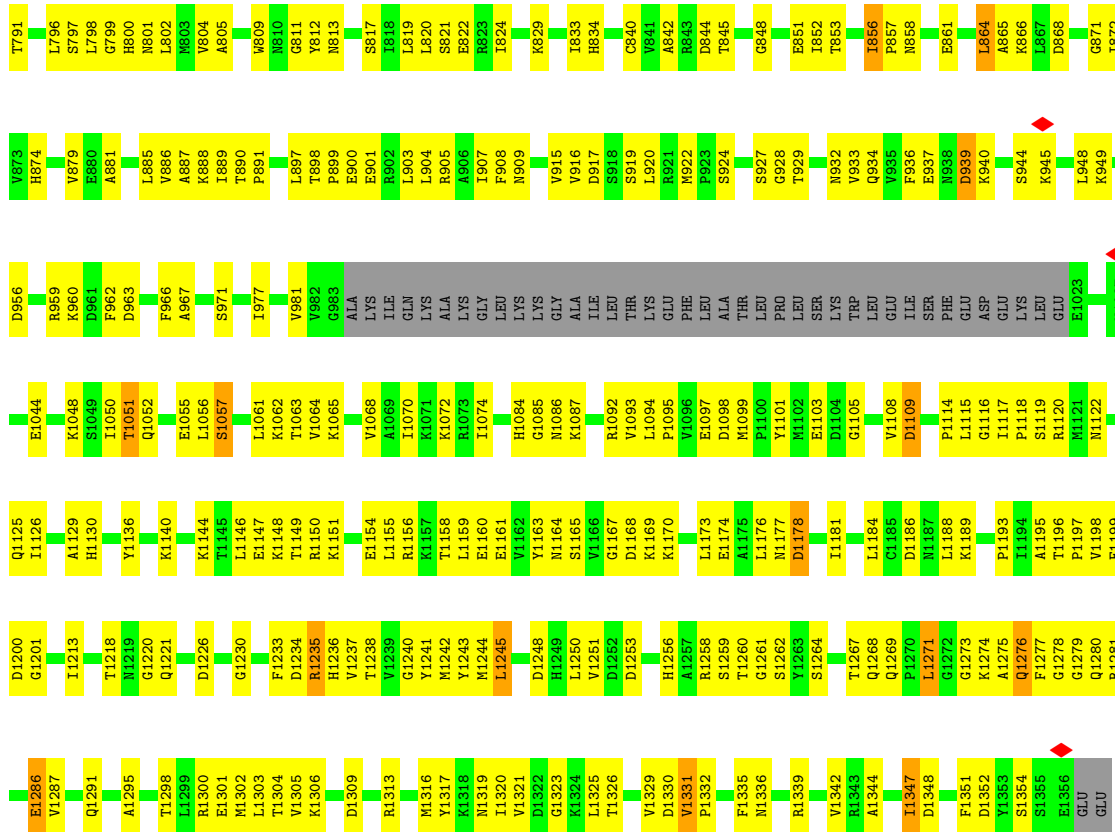
- Molecule 15 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
15	D	2	Total	Zn	0
			2	2	

- Molecule 16 is GUANOSINE-5',3'-TETRAPHOSPHATE (CCD ID: G4P) (formula: C₁₀H₁₇N₅O₁₇P₄).

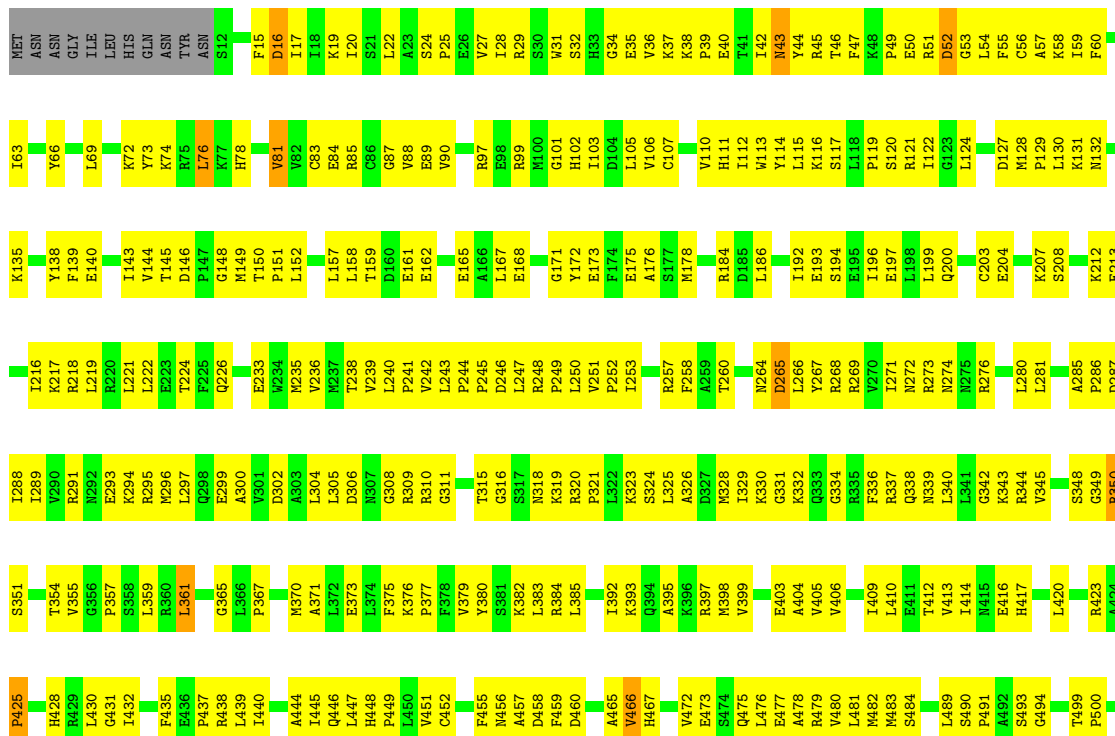


Mol	Chain	Residues	Atoms					AltConf
16	D	1	Total	C	N	O	P	0
			36	10	5	17	4	
16	M	1	Total	C	H	N	O	P
			47	10	11	5	17	4
								0



• Molecule 5: DNA-directed RNA polymerase subunit beta'

Chain D: 32% 38% 28%

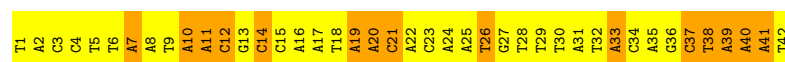






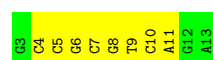
• Molecule 7: DNA T-strand

Chain H: 64% 36%



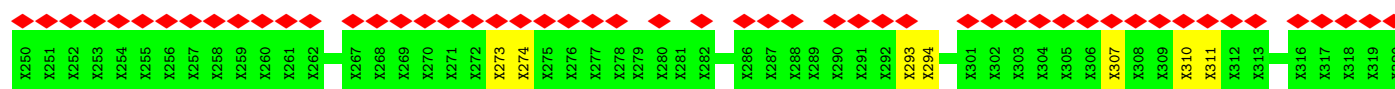
• Molecule 8: DNA T-strand downstream

Chain J: 27% 73%



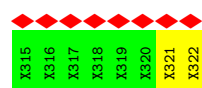
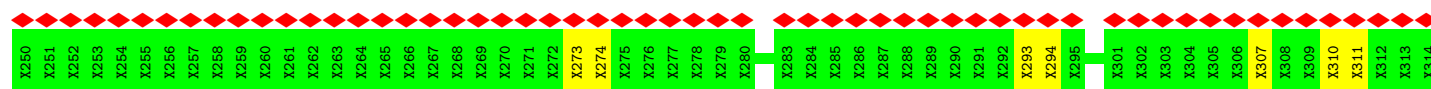
• Molecule 9: aCTDs

Chain K: 74% 88% 12%



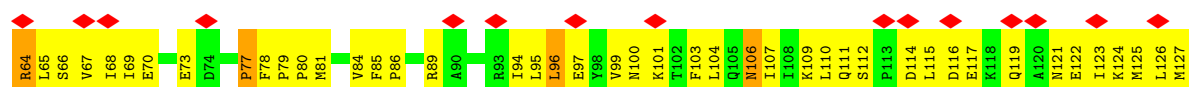
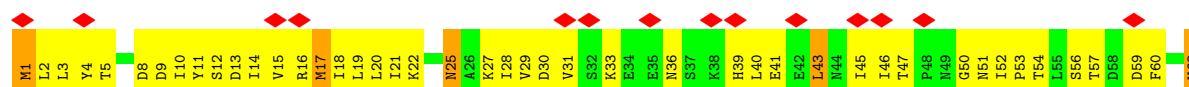
• Molecule 9: aCTDs

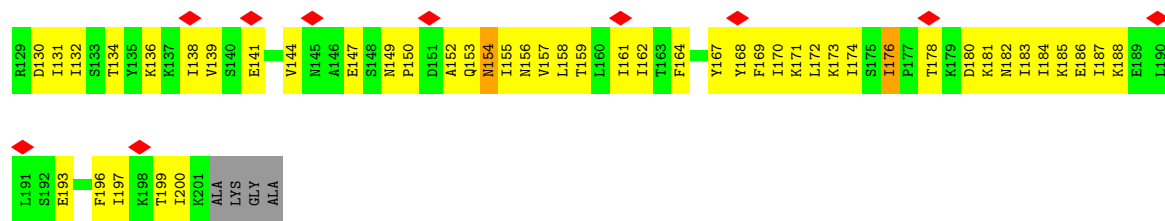
Chain L: 90% 88% 12%



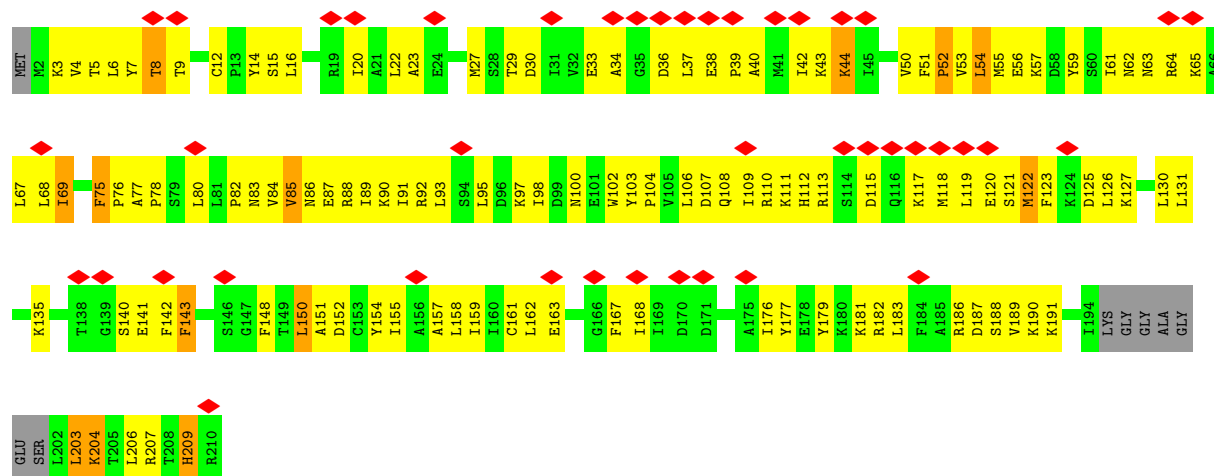
• Molecule 10: Macrophage growth locus, subunit A

Chain M: 19% 31% 61% 5%

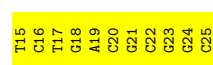




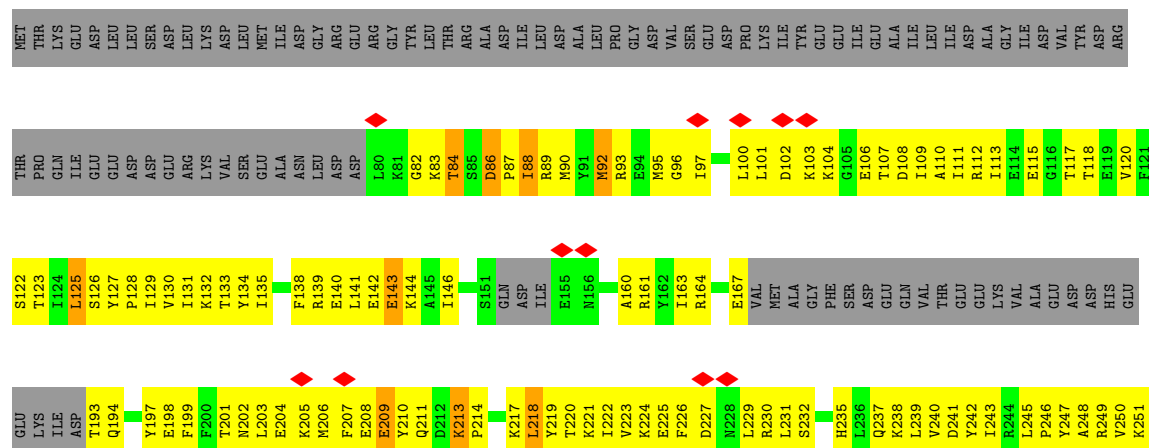
• Molecule 11: Glutathione S-transferase

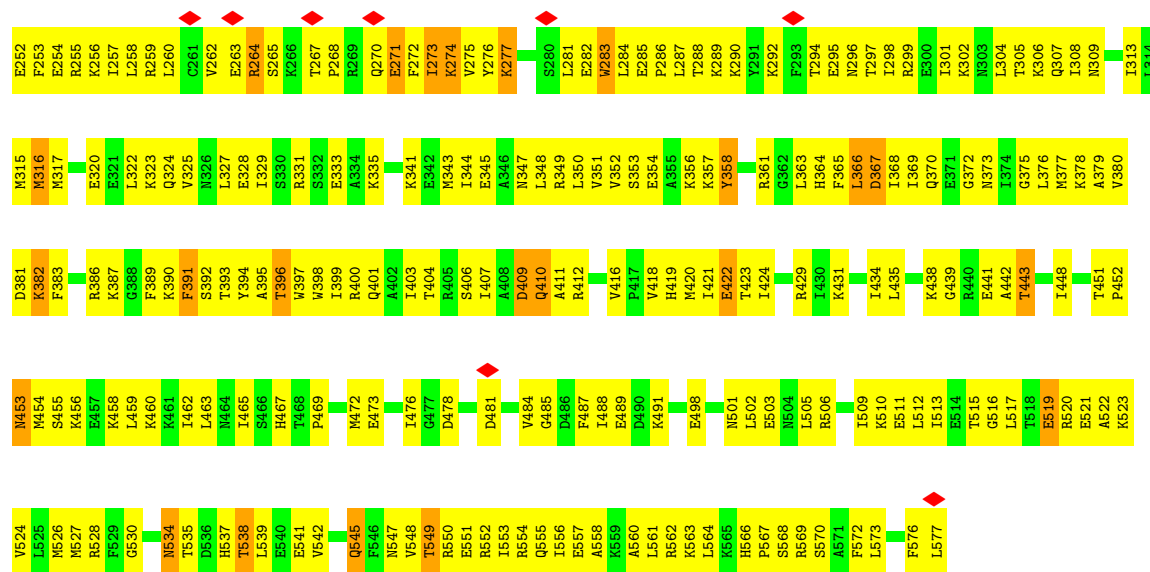


• Molecule 12: DNA NT-strand downstream



• Molecule 13: RNA polymerase sigma factor RpoD





4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	116936	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 ($e^-/\text{\AA}^2$)	60	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.026	Depositor
Minimum map value	-0.007	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.001	Depositor
Recommended contour level	0.004	Depositor
Map size ($\text{\AA}$)	376.64, 376.64, 376.64	wwPDB
Map dimensions	352, 352, 352	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.07, 1.07, 1.07	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: G4P, ZN, MG

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	E	0.99	0/544	1.26	0/729
2	A	1.05	0/1708	1.18	1/2318 (0.0%)
3	B	1.04	0/1789	1.14	0/2414
4	C	1.03	0/9068	1.20	2/12269 (0.0%)
5	D	1.02	0/8994	1.20	3/12142 (0.0%)
6	G	0.30	0/1196	1.22	11/1846 (0.6%)
7	H	0.28	0/956	1.24	16/1471 (1.1%)
8	J	0.26	0/253	1.08	0/388
10	M	0.98	0/1626	1.19	1/2208 (0.0%)
11	S	0.98	0/1611	1.19	2/2173 (0.1%)
12	X	0.26	0/251	1.15	0/385
13	Z	0.98	1/3825 (0.0%)	1.22	1/5138 (0.0%)
All	All	0.98	1/31821 (0.0%)	1.20	37/43481 (0.1%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	Z	317	MET	N-CA	5.11	1.49	1.46

All (37) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	H	33	DA	C2'-C3'-O3'	-6.29	102.07	111.50
10	M	77	PRO	N-CA-C	-6.22	107.52	114.92
7	H	21	DC	C2'-C3'-O3'	-6.21	102.19	111.50
6	G	19	DT	C2'-C3'-O3'	-6.21	102.19	111.50
6	G	20	DG	C2'-C3'-O3'	-6.16	102.27	111.50
2	A	154	GLY	CA-C-O	-6.15	117.99	122.23
7	H	11	DA	C2'-C3'-O3'	-6.12	102.31	111.50
5	D	611	GLY	CA-C-O	-6.08	117.93	122.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	18	DT	C2'-C3'-O3'	-6.06	102.41	111.50
6	G	14	DA	C2'-C3'-O3'	-6.04	102.44	111.50
11	S	176	ILE	N-CA-C	-6.03	106.88	112.43
7	H	14	DC	C2'-C3'-O3'	-5.86	102.72	111.50
6	G	22	DG	C2'-C3'-O3'	-5.83	102.76	111.50
6	G	39	DG	C2'-C3'-O3'	-5.73	102.91	111.50
7	H	40	DA	C2'-C3'-O3'	-5.68	102.97	111.50
4	C	733	ASN	N-CA-C	-5.55	108.30	114.62
7	H	38	DT	C2'-C3'-O3'	-5.47	103.29	111.50
7	H	26	DT	C2'-C3'-O3'	-5.46	103.31	111.50
7	H	20	DA	C2'-C3'-O3'	-5.42	103.36	111.50
11	S	75	PHE	CB-CA-C	5.41	115.96	109.31
7	H	41	DA	C2'-C3'-O3'	-5.37	103.44	111.50
13	Z	317	MET	CB-CA-C	-5.31	109.42	117.07
6	G	15	DA	C2'-C3'-O3'	-5.29	103.56	111.50
6	G	35	DT	C2'-C3'-O3'	-5.27	103.59	111.50
6	G	21	DT	C2'-C3'-O3'	-5.23	103.66	111.50
7	H	7	DA	C2'-C3'-O3'	-5.23	103.66	111.50
7	H	12	DC	C2'-C3'-O3'	-5.22	103.67	111.50
6	G	27	DT	C2'-C3'-O3'	-5.20	103.70	111.50
5	D	1163	ILE	CA-C-O	-5.18	118.12	122.63
7	H	19	DA	C2'-C3'-O3'	-5.18	103.73	111.50
6	G	41	DT	C2'-C3'-O3'	-5.16	103.75	111.50
7	H	33	DA	C4'-C3'-O3'	5.13	117.70	110.00
7	H	39	DA	C2'-C3'-O3'	-5.13	103.80	111.50
5	D	331	GLY	CA-C-O	-5.10	118.16	122.29
4	C	1167	GLY	CA-C-O	-5.08	118.17	122.29
7	H	37	DC	C2'-C3'-O3'	-5.02	103.97	111.50
7	H	10	DA	C2'-C3'-O3'	-5.01	103.99	111.50

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	E	543	0	551	68	0
2	A	1688	0	1726	189	0
3	B	1769	0	1767	213	0
4	C	8926	0	8670	791	0
5	D	8874	0	8944	874	0
6	G	1069	0	596	364	0
7	H	852	0	476	335	0
8	J	226	0	123	30	0
9	K	365	0	75	6	0
9	L	365	0	75	5	0
10	M	1598	0	1650	221	0
11	S	1583	0	1600	192	0
12	X	225	0	124	63	0
13	Z	3772	0	3813	597	0
14	D	1	0	0	0	0
14	S	1	0	0	0	0
15	D	2	0	0	0	0
16	D	36	0	11	2	0
16	M	36	11	11	3	0
All	All	31931	11	30212	3651	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 59.

All (3651) 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)
6:G:49:DT:H2''	6:G:50:DT:C5'	0.98	1.46
6:G:49:DT:C2'	6:G:50:DT:H5'	0.99	1.44
7:H:9:DT:H2'	7:H:10:DA:C8	1.74	1.21
6:G:28:DG:H2''	6:G:29:DG:H5'	1.21	1.20
2:A:12:PRO:HA	2:A:31:PRO:HG2	1.23	1.19
6:G:43:DA:H3'	13:Z:393:THR:CG2	1.72	1.18
6:G:6:DG:H2''	6:G:7:DC:C5'	1.74	1.17
7:H:3:DC:H2''	7:H:4:DC:H5'	1.19	1.17
3:B:18:ALA:HB3	3:B:21:ALA:HB3	1.18	1.17
10:M:31:VAL:HG13	10:M:40:LEU:HD13	1.22	1.17
7:H:40:DA:H2''	7:H:41:DA:C5'	1.74	1.17
11:S:9:THR:HB	11:S:51:PHE:HB3	1.25	1.17
7:H:41:DA:H2''	7:H:42:DT:C5'	1.75	1.17
4:C:2:SER:HB2	4:C:7:GLU:HB3	1.26	1.16
7:H:21:DC:C2'	7:H:22:DA:H5'	1.75	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:1363:MET:HA	5:D:1363:MET:CE	1.76	1.16
7:H:8:DA:H2'	7:H:9:DT:C7	1.75	1.15
10:M:1:MET:HA	10:M:1:MET:HE3	1.19	1.15
13:Z:358:TYR:HB3	13:Z:361:ARG:HD2	1.17	1.15
4:C:1325:LEU:HD12	4:C:1325:LEU:O	1.42	1.15
7:H:6:DT:H2''	7:H:7:DA:H5'	1.25	1.15
8:J:9:DT:H2''	8:J:10:DC:H5'	1.15	1.14
13:Z:517:LEU:CB	13:Z:521:GLU:HB2	1.76	1.14
5:D:926:LEU:O	5:D:926:LEU:HD12	1.47	1.14
4:C:1354:SER:HB2	5:D:17:ILE:HD13	1.28	1.13
11:S:122:MET:HA	11:S:122:MET:HE3	1.19	1.13
3:B:113:SER:HB2	3:B:124:ILE:HG12	1.27	1.12
4:C:94:THR:HG22	4:C:144:ASN:H	1.08	1.13
4:C:898:THR:CG2	4:C:899:PRO:HD2	1.79	1.12
13:Z:88:ILE:HG13	13:Z:366:LEU:HD11	1.31	1.12
12:X:19:DA:H2''	12:X:20:DC:C5'	1.80	1.12
6:G:19:DT:H2''	6:G:20:DG:H5'	1.30	1.12
6:G:6:DG:N2	7:H:37:DC:O2	1.83	1.11
2:A:32:VAL:HG21	2:A:192:GLU:HB2	1.27	1.11
6:G:6:DG:C2'	6:G:7:DC:H5'	1.79	1.11
6:G:22:DG:H2''	6:G:23:DT:H5'	1.17	1.11
7:H:8:DA:H2'	7:H:9:DT:H72	1.17	1.11
6:G:20:DG:H2''	6:G:21:DT:H5'	1.24	1.11
4:C:824:ILE:CG2	4:C:829:LYS:HB2	1.81	1.10
6:G:11:DA:H2'	6:G:12:DT:C6	1.86	1.10
8:J:10:DC:H2''	8:J:11:DA:H5'	1.24	1.10
6:G:17:DA:H2''	6:G:18:DT:H5'	1.29	1.10
10:M:77:PRO:CD	13:Z:545:GLN:HB2	1.82	1.10
11:S:84:VAL:HG23	11:S:87:GLU:HB2	1.27	1.10
3:B:91:LEU:HD23	3:B:147:LYS:HD2	1.19	1.10
7:H:41:DA:C2'	7:H:42:DT:H5'	1.80	1.10
13:Z:273:ILE:HD13	13:Z:273:ILE:H	1.16	1.10
5:D:895:TYR:HD2	5:D:905:VAL:HG21	1.16	1.10
6:G:11:DA:H2''	6:G:12:DT:H5'	1.34	1.10
4:C:212:ALA:HA	4:C:361:THR:HG23	1.28	1.09
5:D:899:LEU:O	5:D:899:LEU:HD23	1.52	1.09
7:H:24:DA:H2''	7:H:25:DA:H5'	1.20	1.09
10:M:78:PHE:CD2	10:M:79:PRO:HD2	1.87	1.09
4:C:824:ILE:HG23	4:C:829:LYS:CB	1.83	1.09
7:H:23:DC:H2''	7:H:24:DA:H5'	1.12	1.08
11:S:183:LEU:O	11:S:189:VAL:HG21	1.50	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:88:ILE:H	13:Z:88:ILE:HD12	1.08	1.08
6:G:43:DA:C3'	13:Z:393:THR:HG21	1.84	1.08
6:G:47:DG:H1'	13:Z:92:MET:SD	1.93	1.08
6:G:39:DG:H2'	6:G:40:DG:C8	1.86	1.08
7:H:13:DG:H2'	7:H:14:DC:C6	1.87	1.08
7:H:21:DC:H2''	7:H:22:DA:H5'	1.17	1.07
7:H:40:DA:C2'	7:H:41:DA:H5'	1.82	1.07
11:S:44:LYS:HE2	11:S:44:LYS:CA	1.84	1.07
1:E:13:VAL:HG11	1:E:19:LEU:HB2	1.13	1.07
5:D:1363:MET:HA	5:D:1363:MET:HE2	1.07	1.07
7:H:11:DA:H2'	7:H:12:DC:C6	1.90	1.07
10:M:25:ASN:O	10:M:25:ASN:ND2	1.87	1.06
11:S:44:LYS:HE2	11:S:44:LYS:HA	1.28	1.06
13:Z:271:GLU:OE1	13:Z:274:LYS:HE3	1.54	1.06
6:G:35:DT:N3	7:H:8:DA:C2	2.23	1.06
4:C:700:LYS:HD2	4:C:700:LYS:O	1.55	1.06
2:A:94:ASP:HB2	2:A:97:ILE:HG13	1.38	1.05
4:C:813:ASN:HA	4:C:817:SER:HB2	1.38	1.05
12:X:19:DA:C2'	12:X:20:DC:H5'	1.86	1.05
4:C:771:PRO:HA	4:C:786:ALA:HB2	1.35	1.05
12:X:15:DT:C2'	12:X:16:DC:H5'	1.86	1.05
13:Z:103:LYS:HB2	13:Z:390:LYS:HE2	1.34	1.05
5:D:540:ILE:HD12	5:D:540:ILE:H	1.17	1.05
4:C:389:GLY:HA2	4:C:393:ILE:HG13	1.34	1.04
5:D:323:LYS:HE2	5:D:328:MET:HG2	1.35	1.04
13:Z:549:THR:HG23	13:Z:552:ARG:CB	1.87	1.04
2:A:102:LEU:HD21	2:A:123:VAL:HG11	1.39	1.04
4:C:79:GLY:HA3	4:C:98:PRO:HG2	1.38	1.04
12:X:16:DC:H2'	12:X:17:DT:H72	1.39	1.04
2:A:62:ILE:HB	2:A:65:VAL:HG22	1.40	1.04
4:C:490:LEU:H	4:C:490:LEU:HD12	1.19	1.04
4:C:541:LEU:H	4:C:541:LEU:HD12	1.21	1.04
11:S:204:LYS:HA	11:S:204:LYS:HE2	1.39	1.04
1:E:40:GLU:O	1:E:44:LYS:HG2	1.58	1.03
4:C:1148:LYS:HG2	4:C:1149:THR:HG23	1.37	1.03
6:G:46:DT:H2''	13:Z:349:ARG:HB2	1.33	1.03
13:Z:351:VAL:HG13	13:Z:372:GLY:HA3	1.38	1.02
4:C:1256:HIS:CE1	4:C:1278:GLY:HA3	1.92	1.02
6:G:23:DT:C2'	6:G:24:DT:H5'	1.88	1.02
7:H:13:DG:H2'	7:H:14:DC:C5	1.92	1.02
12:X:15:DT:H2''	12:X:16:DC:H5'	1.41	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:14:DC:H2'	7:H:15:DC:C5	1.93	1.02
13:Z:210:TYR:HA	13:Z:214:PRO:CG	1.89	1.02
12:X:16:DC:H4'	12:X:17:DT:OP1	1.56	1.02
4:C:824:ILE:HG23	4:C:829:LYS:HB2	1.03	1.02
5:D:273:ARG:NH1	5:D:296:MET:HG2	1.74	1.02
5:D:569:ASN:HD22	5:D:569:ASN:H	1.04	1.02
6:G:40:DG:H2'	6:G:41:DT:C7	1.89	1.02
4:C:898:THR:HG22	4:C:899:PRO:HD2	1.05	1.01
6:G:23:DT:H2''	6:G:24:DT:C5'	1.89	1.01
6:G:33:DT:H2'	6:G:34:DA:C8	1.95	1.01
7:H:6:DT:H2''	7:H:7:DA:C5'	1.89	1.01
11:S:36:ASP:OD1	11:S:37:LEU:HD12	1.61	1.01
6:G:23:DT:H2''	6:G:24:DT:H5'	1.04	1.01
7:H:29:DT:H2''	7:H:30:DT:C5'	1.90	1.01
7:H:4:DC:H2''	7:H:5:DT:C6	1.95	1.01
6:G:22:DG:H2''	6:G:23:DT:C5'	1.91	1.01
7:H:41:DA:H2'	7:H:42:DT:C6	1.93	1.01
10:M:100:ASN:HA	10:M:104:LEU:HG	1.41	1.01
11:S:9:THR:HB	11:S:51:PHE:CB	1.91	1.01
4:C:490:LEU:H	4:C:490:LEU:CD1	1.74	1.00
3:B:104:LEU:HD23	3:B:104:LEU:H	1.23	1.00
6:G:31:DG:H2''	6:G:32:DT:H5'	1.01	1.00
12:X:24:DG:C2'	12:X:25:DC:H5''	1.91	1.00
1:E:13:VAL:CG1	1:E:19:LEU:HB2	1.92	1.00
6:G:31:DG:H2''	6:G:32:DT:C5'	1.92	1.00
7:H:30:DT:H2'	7:H:31:DA:C8	1.95	1.00
6:G:16:DC:H2''	6:G:17:DA:H5'	1.41	1.00
6:G:20:DG:H2'	6:G:21:DT:H71	1.42	1.00
6:G:44:DC:OP1	13:Z:390:LYS:HB2	1.62	1.00
6:G:32:DT:H3	7:H:11:DA:N6	1.59	0.99
7:H:7:DA:H2''	7:H:8:DA:H5'	1.44	0.99
6:G:15:DA:H2'	6:G:16:DC:C6	1.96	0.99
7:H:31:DA:H2'	7:H:32:DT:C5	1.97	0.99
3:B:102:PHE:HB2	3:B:141:ILE:HB	1.42	0.99
6:G:26:DT:H2'	6:G:27:DT:C5	1.98	0.99
13:Z:379:ALA:HA	13:Z:382:LYS:HE2	1.45	0.99
7:H:14:DC:H2'	7:H:15:DC:C6	1.98	0.99
5:D:833:VAL:HB	5:D:865:VAL:CG1	1.93	0.99
7:H:29:DT:C2'	7:H:30:DT:H5'	1.93	0.99
4:C:490:LEU:HD12	4:C:490:LEU:N	1.77	0.98
6:G:18:DT:H71	13:Z:555:GLN:HG2	1.43	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:21:DC:H2''	7:H:22:DA:C5'	1.92	0.98
10:M:94:ILE:HD11	11:S:61:ILE:HD11	1.42	0.98
5:D:58:LYS:HG3	5:D:87:GLY:HA3	1.42	0.98
12:X:19:DA:H2'	12:X:20:DC:C6	1.98	0.98
5:D:423:ARG:HG2	5:D:425:PRO:HD2	1.45	0.98
6:G:5:DA:H2	7:H:38:DT:N3	1.61	0.98
6:G:20:DG:H2''	6:G:21:DT:C5'	1.93	0.98
13:Z:210:TYR:HA	13:Z:214:PRO:HG2	0.99	0.98
7:H:29:DT:H2''	7:H:30:DT:H5'	0.98	0.98
7:H:31:DA:H2'	7:H:32:DT:C6	1.96	0.98
10:M:17:MET:HA	10:M:17:MET:HE3	1.46	0.97
6:G:31:DG:C2'	6:G:32:DT:H5'	1.92	0.97
5:D:240:LEU:HD12	5:D:240:LEU:O	1.62	0.97
7:H:28:DT:H2'	7:H:29:DT:C6	1.99	0.97
11:S:158:LEU:O	11:S:162:LEU:HD23	1.64	0.97
5:D:895:TYR:CD2	5:D:905:VAL:HG21	1.99	0.97
6:G:45:DT:H71	6:G:45:DT:OP2	1.63	0.97
10:M:152:ALA:O	10:M:153:GLN:HG3	1.64	0.97
2:A:48:LEU:HD23	2:A:52:LEU:HD21	1.47	0.97
6:G:34:DA:C2'	6:G:35:DT:H5'	1.94	0.97
4:C:349:ILE:HD12	4:C:349:ILE:H	1.29	0.97
4:C:771:PRO:HA	4:C:786:ALA:CB	1.94	0.97
4:C:650:SER:O	4:C:653:VAL:HG22	1.65	0.96
7:H:32:DT:H2'	7:H:33:DA:C8	2.00	0.96
6:G:22:DG:C2'	6:G:23:DT:H5'	1.96	0.96
11:S:163:GLU:HG2	11:S:168:ILE:HD13	1.48	0.95
7:H:7:DA:H2'	7:H:8:DA:C8	2.01	0.95
5:D:199:LEU:HG	5:D:219:LEU:HD21	1.45	0.95
6:G:11:DA:H2''	6:G:12:DT:C5'	1.96	0.95
10:M:1:MET:HA	10:M:1:MET:CE	1.94	0.95
11:S:109:ILE:HG22	11:S:122:MET:HG2	1.48	0.95
13:Z:296:ASN:O	13:Z:299:ARG:HG2	1.66	0.95
4:C:1256:HIS:HE1	4:C:1278:GLY:HA3	1.26	0.95
13:Z:363:LEU:HD12	13:Z:407:ILE:HD13	1.49	0.95
13:Z:549:THR:O	13:Z:549:THR:HG22	1.63	0.95
4:C:1115:LEU:O	4:C:1118:PRO:HD2	1.67	0.95
5:D:213:GLU:O	5:D:216:ILE:HG22	1.66	0.94
7:H:28:DT:H2'	7:H:29:DT:C5	2.01	0.94
10:M:159:THR:O	10:M:162:ILE:HG22	1.65	0.94
6:G:34:DA:H2''	6:G:35:DT:C5'	1.97	0.94
4:C:178:PRO:HB3	4:C:397:TYR:CZ	2.01	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:864:LEU:HD23	4:C:864:LEU:C	1.92	0.94
7:H:6:DT:C2'	7:H:7:DA:H5'	1.96	0.94
11:S:203:LEU:CD1	11:S:203:LEU:H	1.80	0.94
4:C:487:LYS:CB	4:C:490:LEU:HG	1.96	0.94
4:C:1303:LEU:HD22	5:D:343:LYS:HD2	1.50	0.94
5:D:610:LEU:HG	5:D:614:ALA:CB	1.98	0.94
13:Z:108:ASP:O	13:Z:111:ILE:HG12	1.67	0.94
4:C:1242:MET:HG3	4:C:1244:MET:HE2	1.48	0.94
10:M:64:ARG:O	10:M:68:ILE:HG13	1.66	0.94
4:C:184:LEU:HD21	4:C:198:ILE:HG12	1.50	0.94
1:E:13:VAL:HG11	1:E:19:LEU:CB	1.98	0.94
5:D:653:GLU:O	5:D:656:GLU:HG3	1.68	0.94
6:G:28:DG:H2'	6:G:29:DG:C8	2.03	0.94
12:X:16:DC:H2'	12:X:17:DT:C7	1.98	0.94
12:X:22:DC:H2''	12:X:23:DG:C8	2.03	0.94
3:B:67:LEU:HA	3:B:77:VAL:CG1	1.98	0.94
4:C:96:ASP:OD1	4:C:131:ASP:HB3	1.68	0.94
1:E:31:LEU:HD23	1:E:35:TYR:HE1	1.33	0.93
5:D:280:LEU:HD12	5:D:293:GLU:HG3	1.49	0.93
6:G:26:DT:H2'	6:G:27:DT:H72	1.47	0.93
4:C:1331:VAL:HG13	4:C:1332:PRO:HD2	1.50	0.93
11:S:203:LEU:HD12	11:S:203:LEU:N	1.82	0.93
4:C:1144:LYS:O	4:C:1147:GLU:HG2	1.68	0.93
10:M:43:LEU:O	10:M:47:THR:HG22	1.69	0.93
13:Z:379:ALA:HB1	13:Z:383:PHE:CZ	2.02	0.93
2:A:100:LEU:HD11	2:A:123:VAL:HG12	1.48	0.93
5:D:285:ALA:HB1	5:D:289:ILE:HD11	1.49	0.93
13:Z:210:TYR:CA	13:Z:214:PRO:HG2	1.96	0.93
4:C:1286:GLU:OE1	4:C:1286:GLU:N	2.01	0.93
5:D:833:VAL:HB	5:D:865:VAL:HG13	1.51	0.93
6:G:28:DG:H2''	6:G:29:DG:C5'	1.97	0.93
4:C:541:LEU:H	4:C:541:LEU:CD1	1.82	0.93
5:D:42:ILE:HD11	5:D:47:PHE:HA	1.46	0.93
5:D:285:ALA:CB	5:D:289:ILE:HD11	1.97	0.93
4:C:2:SER:CB	4:C:7:GLU:HB3	1.97	0.93
4:C:1303:LEU:CD1	5:D:1339:VAL:HG23	1.99	0.93
5:D:708:GLY:O	5:D:709:GLU:HB2	1.69	0.93
4:C:934:GLN:HB2	4:C:1065:LYS:HB2	1.49	0.92
13:Z:283:TRP:C	13:Z:286:PRO:HD2	1.94	0.92
2:A:32:VAL:CG2	2:A:192:GLU:HB2	1.97	0.92
4:C:379:ALA:HB3	4:C:382:SER:HB3	1.49	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:898:THR:HG22	4:C:899:PRO:CD	1.96	0.92
7:H:22:DA:H2'	7:H:23:DC:C5	2.05	0.92
10:M:197:ILE:HA	10:M:200:ILE:HD11	1.51	0.92
13:Z:209:GLU:O	13:Z:214:PRO:HD2	1.67	0.92
2:A:62:ILE:HB	2:A:65:VAL:CG2	1.97	0.92
3:B:67:LEU:HA	3:B:77:VAL:HG11	1.51	0.92
7:H:2:DA:H61	13:Z:401:GLN:HE22	1.07	0.92
13:Z:476:ILE:HD11	13:Z:484:VAL:HG23	1.51	0.92
2:A:156:LEU:H	2:A:156:LEU:HD12	1.34	0.92
7:H:19:DA:H2'	7:H:20:DA:C8	2.04	0.92
4:C:637:ILE:HD11	4:C:653:VAL:HG11	1.49	0.92
4:C:84:ASP:OD1	4:C:87:GLU:HB2	1.69	0.92
4:C:864:LEU:HD23	4:C:864:LEU:O	1.67	0.92
6:G:16:DC:H2'	6:G:17:DA:C8	2.05	0.92
13:Z:273:ILE:H	13:Z:273:ILE:CD1	1.83	0.92
4:C:696:LEU:HD21	4:C:833:ILE:HG13	1.49	0.91
3:B:58:LYS:HD3	3:B:61:ASP:HA	1.53	0.91
5:D:569:ASN:H	5:D:569:ASN:ND2	1.67	0.91
13:Z:345:GLU:HA	13:Z:348:LEU:HD13	1.50	0.91
4:C:1156:ARG:HH22	4:C:1174:GLU:HA	1.35	0.91
11:S:152:ASP:O	11:S:155:ILE:HG12	1.69	0.91
10:M:2:LEU:HD12	10:M:27:LYS:CB	2.00	0.91
4:C:433:GLU:HA	4:C:436:ILE:HD11	1.53	0.91
4:C:541:LEU:HD12	4:C:541:LEU:N	1.82	0.91
13:Z:104:LYS:O	13:Z:107:THR:HG22	1.70	0.91
4:C:472:TYR:O	4:C:475:GLU:HG3	1.71	0.91
4:C:799:GLY:HA3	4:C:1245:LEU:HD23	1.53	0.91
5:D:478:ALA:HA	5:D:482:MET:HE3	1.51	0.91
7:H:34:DC:H4'	7:H:35:DA:C5'	2.01	0.91
6:G:18:DT:H2'	6:G:19:DT:C7	2.01	0.90
2:A:36:MET:HE1	3:B:216:ILE:HG12	1.53	0.90
6:G:26:DT:H2'	6:G:27:DT:C7	2.01	0.90
5:D:744:MET:HA	5:D:744:MET:HE2	1.51	0.90
6:G:5:DA:H61	7:H:37:DC:H42	1.16	0.90
2:A:20:LEU:O	2:A:24:SER:HB2	1.71	0.90
10:M:78:PHE:CG	10:M:79:PRO:HD2	2.06	0.90
10:M:168:TYR:O	10:M:172:LEU:HD23	1.70	0.90
5:D:512:THR:HG21	5:D:594:LEU:HB2	1.52	0.90
6:G:10:DT:H2''	6:G:11:DA:C8	2.07	0.90
6:G:5:DA:C2	7:H:38:DT:N3	2.37	0.90
6:G:19:DT:H2''	6:G:20:DG:C5'	2.01	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:G:34:DA:H2''	6:G:35:DT:H5''	1.52	0.90
7:H:33:DA:H4'	7:H:34:DC:OP1	1.71	0.90
2:A:12:PRO:CA	2:A:31:PRO:HG2	2.01	0.90
4:C:856:ILE:HD12	4:C:857:PRO:HD2	1.50	0.90
6:G:5:DA:H2	7:H:38:DT:H3	1.01	0.90
5:D:1311:ALA:O	5:D:1316:THR:HG22	1.72	0.90
5:D:1331:ASN:H	5:D:1331:ASN:HD22	1.14	0.90
10:M:10:ILE:HG22	10:M:168:TYR:CE1	2.07	0.90
5:D:540:ILE:HD12	5:D:540:ILE:N	1.87	0.89
10:M:47:THR:CG2	10:M:50:GLY:HA2	2.02	0.89
3:B:44:THR:O	3:B:48:SER:HB2	1.72	0.89
6:G:29:DG:H2''	6:G:30:DC:H5'	1.55	0.89
6:G:34:DA:H2'	6:G:35:DT:H5'	1.51	0.89
4:C:936:PHE:O	4:C:1062:LYS:HG3	1.71	0.89
5:D:1359:LYS:O	5:D:1362:LYS:HG3	1.71	0.89
8:J:9:DT:H2'	8:J:10:DC:C6	2.08	0.89
6:G:24:DT:C2'	6:G:25:DA:C8	2.56	0.89
8:J:8:DG:H2'	8:J:9:DT:C7	2.03	0.89
10:M:43:LEU:HD23	10:M:43:LEU:C	1.97	0.89
5:D:325:LEU:HA	5:D:328:MET:HE2	1.55	0.89
5:D:414:ILE:HD11	5:D:439:LEU:HG	1.55	0.89
2:A:12:PRO:HA	2:A:31:PRO:CG	2.02	0.89
5:D:38:LYS:HG3	5:D:40:GLU:HG2	1.52	0.89
5:D:42:ILE:HD11	5:D:47:PHE:CA	2.03	0.89
5:D:150:THR:HG23	5:D:151:PRO:HD2	1.55	0.89
7:H:20:DA:H3'	13:Z:528:ARG:HH22	1.38	0.89
7:H:24:DA:H2'	7:H:25:DA:C8	2.08	0.89
6:G:18:DT:C7	13:Z:555:GLN:HG2	2.01	0.89
11:S:53:VAL:O	11:S:54:LEU:HB3	1.70	0.89
6:G:43:DA:H3'	13:Z:393:THR:HG21	0.90	0.89
10:M:128:GLN:O	10:M:131:ILE:HG22	1.72	0.89
12:X:20:DC:H2'	12:X:21:DG:H5''	1.55	0.89
13:Z:273:ILE:HD13	13:Z:273:ILE:N	1.87	0.89
13:Z:395:ALA:O	13:Z:399:ILE:HG12	1.73	0.89
5:D:32:SER:OG	5:D:102:HIS:HB3	1.74	0.88
5:D:744:MET:HA	5:D:744:MET:CE	2.03	0.88
7:H:19:DA:H2'	7:H:20:DA:H8	1.37	0.88
10:M:110:LEU:O	10:M:115:LEU:HD11	1.73	0.88
5:D:822:ILE:HD12	5:D:822:ILE:N	1.87	0.88
6:G:19:DT:H71	13:Z:551:GLU:HG3	1.54	0.88
4:C:567:PRO:CG	4:C:575:ILE:HG12	2.04	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:844:ASP:HB2	4:C:1061:LEU:HD21	1.54	0.88
5:D:336:PHE:HA	5:D:340:LEU:HD12	1.56	0.88
11:S:122:MET:HE3	11:S:122:MET:CA	2.02	0.88
12:X:19:DA:H2''	12:X:20:DC:H5'	0.91	0.88
13:Z:82:GLY:O	13:Z:83:LYS:HG2	1.73	0.88
2:A:104:LEU:C	2:A:104:LEU:HD23	1.97	0.88
5:D:786:LYS:O	5:D:786:LYS:HD2	1.73	0.88
7:H:7:DA:H2''	7:H:8:DA:C5'	2.03	0.88
2:A:48:LEU:HA	2:A:52:LEU:HD23	1.53	0.88
3:B:111:ILE:HD12	3:B:131:CYS:SG	2.14	0.88
6:G:12:DT:H2'	6:G:13:DA:C8	2.09	0.88
6:G:24:DT:H2''	6:G:25:DA:C8	2.08	0.88
13:Z:299:ARG:O	13:Z:302:LYS:HG2	1.73	0.88
3:B:7:LEU:HD11	3:B:190:LEU:HD13	1.54	0.88
6:G:35:DT:N3	7:H:8:DA:H2	1.70	0.88
3:B:103:GLU:HB2	3:B:140:LYS:HD3	1.57	0.87
7:H:28:DT:H2'	7:H:29:DT:C7	2.04	0.87
10:M:31:VAL:CG1	10:M:40:LEU:HD13	2.03	0.87
11:S:122:MET:HA	11:S:122:MET:CE	2.05	0.87
13:Z:208:GLU:O	13:Z:211:GLN:HG2	1.74	0.87
13:Z:220:THR:O	13:Z:223:VAL:HG22	1.72	0.87
4:C:363:GLU:O	4:C:366:VAL:HG12	1.74	0.87
10:M:144:VAL:O	10:M:147:GLU:HG3	1.74	0.87
7:H:2:DA:N6	13:Z:401:GLN:HE22	1.71	0.87
13:Z:140:GLU:O	13:Z:143:GLU:HG3	1.73	0.87
13:Z:368:ILE:HG23	13:Z:403:ILE:CD1	2.04	0.87
4:C:596:LYS:HG2	4:C:655:TYR:HE1	1.38	0.87
6:G:49:DT:H2''	6:G:50:DT:C4'	2.04	0.87
11:S:53:VAL:HG12	11:S:62:ASN:HA	1.57	0.87
5:D:560:ASN:ND2	5:D:560:ASN:H	1.69	0.87
6:G:35:DT:H2'	6:G:36:DT:C6	2.10	0.87
6:G:44:DC:H2'	6:G:45:DT:C5	2.09	0.87
3:B:7:LEU:HD23	3:B:7:LEU:H	1.39	0.87
13:Z:407:ILE:O	13:Z:411:ALA:HB2	1.74	0.87
13:Z:572:PHE:HD2	13:Z:573:LEU:HD12	1.38	0.87
5:D:208:SER:HA	5:D:212:LYS:HB2	1.55	0.87
7:H:9:DT:C2'	7:H:10:DA:C8	2.58	0.87
4:C:1197:PRO:CB	4:C:1200:ASP:HB3	2.04	0.86
5:D:406:VAL:O	5:D:409:ILE:HG22	1.74	0.86
5:D:351:SER:HB3	5:D:445:ILE:CD1	2.04	0.86
6:G:6:DG:H2''	6:G:7:DC:H5'	0.88	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:287:LEU:HD22	13:Z:290:LYS:HE3	1.56	0.86
6:G:27:DT:H2'	6:G:28:DG:C8	2.09	0.86
3:B:193:LEU:HD21	3:B:195:LEU:HG	1.57	0.86
4:C:819:LEU:HD21	4:C:1094:LEU:HD12	1.57	0.86
13:Z:294:THR:OG1	13:Z:297:THR:HB	1.75	0.86
12:X:20:DC:C2'	12:X:21:DG:H5''	2.05	0.86
4:C:1197:PRO:HB2	4:C:1200:ASP:HB3	1.54	0.86
8:J:9:DT:H2'	8:J:10:DC:H6	1.40	0.86
3:B:102:PHE:CB	3:B:141:ILE:HB	2.05	0.86
6:G:35:DT:H2''	6:G:36:DT:C5'	2.06	0.86
6:G:46:DT:H2''	13:Z:349:ARG:CB	2.05	0.86
10:M:181:LYS:O	10:M:184:ILE:HG12	1.76	0.86
11:S:84:VAL:CG2	11:S:87:GLU:HB2	2.04	0.86
10:M:197:ILE:HA	10:M:200:ILE:CD1	2.05	0.86
6:G:13:DA:H2'	6:G:14:DA:C8	2.11	0.85
6:G:14:DA:H2'	6:G:15:DA:C8	2.10	0.85
6:G:39:DG:H2'	6:G:40:DG:H8	1.39	0.85
7:H:27:DG:H2'	7:H:28:DT:C6	2.11	0.85
3:B:50:ALA:CB	3:B:149:VAL:HG12	2.05	0.85
5:D:645:PRO:HG2	5:D:648:LYS:HB2	1.58	0.85
7:H:9:DT:H2'	7:H:10:DA:H8	1.35	0.85
13:Z:122:SER:HA	13:Z:125:LEU:CD2	2.06	0.85
4:C:748:ASN:O	4:C:749:LEU:HB3	1.72	0.85
5:D:1137:PRO:HG2	5:D:1140:ALA:HB2	1.58	0.85
5:D:577:LEU:O	5:D:580:ILE:HG12	1.76	0.85
5:D:763:GLY:C	5:D:764:LEU:HD12	2.02	0.85
6:G:35:DT:H2'	6:G:36:DT:C7	2.05	0.85
7:H:15:DC:C2'	7:H:16:DA:C8	2.60	0.85
6:G:15:DA:C2'	6:G:16:DC:C6	2.60	0.85
6:G:35:DT:H2'	6:G:36:DT:C5	2.11	0.85
13:Z:301:ILE:O	13:Z:304:LEU:HG	1.76	0.85
13:Z:379:ALA:HB1	13:Z:383:PHE:HZ	1.40	0.85
1:E:67:ARG:O	1:E:70:ILE:HG12	1.75	0.85
4:C:1309:ASP:O	4:C:1313:ARG:HG3	1.76	0.85
4:C:561:LEU:HD13	4:C:576:ASN:HB3	1.59	0.85
13:Z:222:ILE:O	13:Z:225:GLU:HG3	1.75	0.85
2:A:94:ASP:HB2	2:A:97:ILE:CG1	2.07	0.85
4:C:50:SER:O	4:C:53:GLU:HG2	1.76	0.85
13:Z:298:ILE:O	13:Z:301:ILE:HG12	1.75	0.85
5:D:319:LYS:HE2	5:D:319:LYS:HA	1.57	0.84
13:Z:122:SER:O	13:Z:125:LEU:HD23	1.76	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:204:ASN:ND2	3:B:207:GLU:H	1.75	0.84
4:C:1114:PRO:O	4:C:1118:PRO:HD3	1.76	0.84
5:D:149:MET:O	5:D:149:MET:SD	2.35	0.84
6:G:38:DA:H2'	6:G:39:DG:C8	2.12	0.84
6:G:40:DG:H2'	6:G:41:DT:C5	2.12	0.84
13:Z:485:GLY:O	13:Z:488:ILE:HG12	1.77	0.84
4:C:695:THR:HG21	4:C:800:HIS:NE2	1.91	0.84
12:X:19:DA:H2'	12:X:20:DC:H6	1.39	0.84
4:C:64:SER:OG	4:C:482:MET:SD	2.35	0.84
5:D:692:GLY:O	5:D:695:MET:HG3	1.77	0.84
7:H:16:DA:H2'	7:H:17:DA:C8	2.13	0.84
11:S:4:VAL:HG11	11:S:27:MET:SD	2.16	0.84
4:C:1055:GLU:O	4:C:1056:LEU:HB2	1.78	0.84
7:H:11:DA:H2'	7:H:12:DC:H6	1.40	0.84
8:J:9:DT:H2''	8:J:10:DC:C5'	2.04	0.84
4:C:1159:LEU:HD13	4:C:1173:LEU:HD21	1.58	0.84
4:C:1319:ASN:HD21	4:C:1326:THR:HB	1.42	0.84
6:G:49:DT:C3'	6:G:50:DT:H5'	2.07	0.84
12:X:18:DG:H2''	12:X:19:DA:H5'	1.59	0.84
6:G:34:DA:C2'	6:G:35:DT:C5'	2.54	0.84
7:H:34:DC:C4'	7:H:35:DA:H5'	2.08	0.84
3:B:18:ALA:CB	3:B:21:ALA:HB3	2.04	0.83
5:D:250:LEU:O	5:D:250:LEU:HD23	1.77	0.83
5:D:560:ASN:H	5:D:560:ASN:HD22	1.26	0.83
6:G:49:DT:C1'	6:G:50:DT:H5'	2.08	0.83
13:Z:88:ILE:CG1	13:Z:366:LEU:HD11	2.07	0.83
13:Z:161:ARG:HG3	13:Z:164:ARG:O	1.78	0.83
5:D:1332:LEU:HB3	5:D:1337:GLU:HB3	1.60	0.83
10:M:12:SER:O	10:M:15:VAL:HG12	1.78	0.83
10:M:77:PRO:HD2	13:Z:545:GLN:HB2	1.59	0.83
13:Z:248:ALA:O	13:Z:252:GLU:HG3	1.79	0.83
6:G:17:DA:H2'	6:G:18:DT:C7	2.09	0.83
4:C:69:TYR:HA	4:C:105:LEU:HD11	1.61	0.83
4:C:379:ALA:HB3	4:C:382:SER:CB	2.08	0.83
4:C:821:SER:O	4:C:822:GLU:HB3	1.77	0.83
3:B:104:LEU:HD23	3:B:104:LEU:N	1.90	0.83
4:C:184:LEU:CD2	4:C:198:ILE:HG12	2.07	0.83
4:C:1136:TYR:HB2	4:C:1241:TYR:CE2	2.13	0.83
4:C:725:GLY:O	4:C:779:VAL:HG22	1.78	0.83
11:S:22:LEU:HD13	11:S:29:THR:HG21	1.60	0.83
4:C:466:GLN:HA	4:C:466:GLN:HE21	1.42	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:567:PRO:O	4:C:572:ILE:HB	1.78	0.83
6:G:33:DT:C2'	6:G:34:DA:C8	2.61	0.82
13:Z:281:LEU:HD11	13:Z:305:THR:HB	1.60	0.82
3:B:100:ILE:HB	3:B:143:ALA:HB3	1.61	0.82
7:H:7:DA:H2'	7:H:8:DA:H8	1.41	0.82
7:H:32:DT:OP2	7:H:32:DT:H73	1.79	0.82
13:Z:351:VAL:CG1	13:Z:372:GLY:HA3	2.09	0.82
7:H:13:DG:C2'	7:H:14:DC:C6	2.62	0.82
7:H:31:DA:H2'	7:H:32:DT:C7	2.09	0.82
7:H:39:DA:H2'	7:H:40:DA:C8	2.15	0.82
5:D:355:VAL:HA	5:D:459:PHE:CZ	2.14	0.82
5:D:1363:MET:HE2	5:D:1363:MET:CA	2.00	0.82
5:D:119:PRO:HG2	5:D:121:ARG:HH12	1.42	0.82
13:Z:115:GLU:O	13:Z:118:THR:HG22	1.78	0.82
13:Z:358:TYR:HB3	13:Z:361:ARG:CD	2.05	0.82
4:C:70:GLU:O	4:C:105:LEU:HA	1.80	0.82
5:D:679:ASN:O	5:D:683:ILE:HG13	1.79	0.82
7:H:2:DA:H2''	7:H:3:DC:H5'	1.61	0.82
7:H:8:DA:H2'	7:H:9:DT:C5	2.15	0.82
7:H:38:DT:H2'	7:H:39:DA:N7	1.94	0.82
6:G:18:DT:H71	13:Z:555:GLN:CG	2.10	0.82
7:H:19:DA:H2''	7:H:20:DA:H5'	1.60	0.82
7:H:31:DA:C2'	7:H:32:DT:C6	2.62	0.82
13:Z:247:TYR:O	13:Z:250:VAL:HG12	1.79	0.82
13:Z:549:THR:O	13:Z:549:THR:CG2	2.28	0.82
4:C:1336:ASN:O	4:C:1339:ARG:HG2	1.80	0.81
13:Z:88:ILE:HD12	13:Z:88:ILE:N	1.92	0.81
7:H:30:DT:C2'	7:H:31:DA:C8	2.63	0.81
11:S:88:ARG:O	11:S:91:ILE:HG22	1.80	0.81
11:S:122:MET:O	11:S:126:LEU:HG	1.80	0.81
5:D:1237:ASN:ND2	5:D:1239:LYS:HG2	1.96	0.81
6:G:9:DG:H2'	6:G:10:DT:C2	2.15	0.81
7:H:15:DC:H2'	7:H:16:DA:C8	2.15	0.81
7:H:17:DA:H2'	7:H:18:DT:C6	2.15	0.81
8:J:10:DC:H2'	8:J:11:DA:C8	2.15	0.81
10:M:47:THR:HG23	10:M:50:GLY:HA2	1.63	0.81
4:C:1086:ASN:HD21	4:C:1242:MET:HE2	1.45	0.81
6:G:40:DG:H2'	6:G:41:DT:H72	1.60	0.81
2:A:48:LEU:HA	2:A:52:LEU:CD2	2.10	0.81
4:C:1347:ILE:N	4:C:1347:ILE:HD12	1.95	0.81
4:C:1354:SER:CB	5:D:17:ILE:HD13	2.11	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:1335:LEU:N	5:D:1335:LEU:CD1	2.44	0.81
2:A:93:LEU:HD11	2:A:147:VAL:HG12	1.60	0.81
6:G:31:DG:H2'	6:G:32:DT:H71	1.61	0.81
11:S:69:ILE:N	11:S:69:ILE:HD12	1.96	0.81
5:D:250:LEU:O	5:D:250:LEU:CD2	2.29	0.81
5:D:199:LEU:HG	5:D:219:LEU:CD2	2.10	0.81
5:D:866:GLU:HG3	5:D:867:LEU:HD12	1.63	0.81
7:H:23:DC:H2''	7:H:24:DA:C5'	2.06	0.81
4:C:1258:ARG:CZ	4:C:1261:GLY:HA3	2.10	0.81
6:G:15:DA:H2'	6:G:16:DC:C5	2.16	0.81
4:C:1115:LEU:C	4:C:1118:PRO:HD2	2.06	0.80
5:D:1335:LEU:N	5:D:1335:LEU:HD12	1.96	0.80
7:H:32:DT:C2'	7:H:33:DA:C8	2.63	0.80
4:C:357:LEU:HD12	4:C:357:LEU:N	1.97	0.80
6:G:37:DA:H2'	6:G:38:DA:C8	2.17	0.80
10:M:100:ASN:CG	10:M:104:LEU:HD12	2.06	0.80
3:B:67:LEU:N	3:B:67:LEU:HD22	1.95	0.80
6:G:5:DA:H61	7:H:37:DC:N4	1.79	0.80
6:G:11:DA:C2'	6:G:12:DT:C6	2.65	0.80
6:G:19:DT:C7	13:Z:551:GLU:HG3	2.11	0.80
13:Z:459:LEU:HA	13:Z:462:ILE:CG2	2.11	0.80
3:B:27:GLU:OE2	3:B:182:ALA:HB1	1.80	0.80
3:B:91:LEU:HD23	3:B:147:LYS:CD	2.07	0.80
5:D:58:LYS:HG3	5:D:87:GLY:CA	2.10	0.80
7:H:32:DT:H2'	7:H:33:DA:N7	1.97	0.80
4:C:727:VAL:HG11	4:C:730:VAL:HG13	1.62	0.80
13:Z:459:LEU:HA	13:Z:462:ILE:HG22	1.62	0.80
4:C:1151:LYS:O	4:C:1155:LEU:HG	1.80	0.80
7:H:14:DC:C2'	7:H:15:DC:C6	2.65	0.80
8:J:8:DG:H2'	8:J:9:DT:H72	1.63	0.80
12:X:24:DG:H2'	12:X:25:DC:H5''	1.64	0.80
5:D:54:LEU:HD21	5:D:271:ILE:HD11	1.64	0.80
5:D:1287:GLU:O	5:D:1288:VAL:HG13	1.81	0.80
2:A:210:VAL:O	2:A:214:LEU:HD23	1.82	0.80
5:D:354:THR:OG1	5:D:446:GLN:HG2	1.82	0.80
5:D:409:ILE:O	5:D:412:THR:HG22	1.82	0.80
7:H:7:DA:C2'	7:H:8:DA:C8	2.64	0.80
1:E:38:SER:HB3	5:D:385:LEU:HD21	1.64	0.79
13:Z:394:TYR:O	13:Z:398:TRP:HD1	1.64	0.79
4:C:386:LEU:HD23	4:C:386:LEU:C	2.08	0.79
5:D:841:LEU:HD23	5:D:878:VAL:HG12	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:33:DA:OP1	9:K:294:UNK:HA	1.81	0.79
2:A:100:LEU:CD1	2:A:123:VAL:HG12	2.12	0.79
4:C:1302:MET:HG3	5:D:345:VAL:HG11	1.65	0.79
7:H:38:DT:C2'	7:H:39:DA:C8	2.65	0.79
10:M:176:ILE:N	10:M:176:ILE:HD12	1.97	0.79
13:Z:368:ILE:HG23	13:Z:403:ILE:HD11	1.62	0.79
13:Z:554:ARG:O	13:Z:557:GLU:HG2	1.83	0.79
3:B:53:CYS:SG	3:B:167:ALA:HB1	2.22	0.79
7:H:33:DA:H2'	7:H:34:DC:C2	2.18	0.79
2:A:218:CYS:SG	3:B:220:LEU:HD22	2.21	0.79
5:D:60:PHE:O	5:D:99:ARG:HD2	1.83	0.79
6:G:11:DA:H2'	6:G:12:DT:C5	2.16	0.79
4:C:936:PHE:HD2	4:C:1063:THR:HG23	1.47	0.79
6:G:28:DG:H2'	6:G:29:DG:H8	1.47	0.79
7:H:40:DA:H2''	7:H:41:DA:H5'	0.86	0.79
13:Z:106:GLU:O	13:Z:109:ILE:HG12	1.82	0.79
4:C:1281:ARG:HB2	5:D:344:ARG:HG2	1.64	0.79
5:D:1261:LYS:CB	5:D:1264:LYS:HD2	2.13	0.79
4:C:9:LYS:HE3	4:C:772:ILE:HG22	1.62	0.79
4:C:52:LEU:C	4:C:52:LEU:HD23	2.08	0.79
6:G:40:DG:H22	7:H:2:DA:N6	1.81	0.79
7:H:7:DA:C2'	7:H:8:DA:H8	1.96	0.79
4:C:94:THR:HG22	4:C:144:ASN:N	1.93	0.78
7:H:22:DA:C2'	7:H:23:DC:C6	2.66	0.78
10:M:172:LEU:O	10:M:173:LYS:HB2	1.83	0.78
4:C:374:PRO:HD2	13:Z:89:ARG:HH12	1.49	0.78
5:D:1318:ARG:O	5:D:1321:THR:HG22	1.83	0.78
3:B:11:ASN:C	3:B:12:ILE:HD12	2.09	0.78
4:C:603:THR:HG23	4:C:605:GLU:HG2	1.64	0.78
6:G:40:DG:H2'	6:G:41:DT:C6	2.17	0.78
4:C:683:LEU:C	4:C:683:LEU:HD23	2.08	0.78
7:H:15:DC:H2'	7:H:16:DA:N7	1.99	0.78
13:Z:306:LYS:HD3	13:Z:306:LYS:C	2.08	0.78
13:Z:502:LEU:HD23	13:Z:502:LEU:C	2.07	0.78
6:G:28:DG:C2	7:H:16:DA:C2	2.72	0.78
7:H:22:DA:H2'	7:H:23:DC:C6	2.18	0.78
12:X:21:DG:H2'	12:X:22:DC:C6	2.18	0.78
13:Z:110:ALA:O	13:Z:113:ILE:HG12	1.83	0.78
4:C:471:LEU:O	4:C:474:VAL:HG12	1.83	0.78
13:Z:382:LYS:HE3	13:Z:398:TRP:CZ3	2.17	0.78
2:A:32:VAL:HG23	2:A:34:LYS:H	1.49	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:138:TYR:HB3	13:Z:90:MET:HE1	1.65	0.78
5:D:540:ILE:H	5:D:540:ILE:CD1	1.95	0.78
10:M:123:ILE:O	10:M:127:MET:HG3	1.83	0.78
13:Z:551:GLU:O	13:Z:551:GLU:CD	2.27	0.78
4:C:108:TYR:CB	4:C:117:LYS:HA	2.13	0.78
4:C:1197:PRO:HG2	4:C:1200:ASP:HB3	1.65	0.78
6:G:35:DT:C2'	6:G:36:DT:C6	2.67	0.78
7:H:33:DA:H2'	7:H:34:DC:N3	1.99	0.78
13:Z:299:ARG:HA	13:Z:302:LYS:HE3	1.66	0.78
13:Z:459:LEU:O	13:Z:462:ILE:HG22	1.83	0.78
5:D:208:SER:CA	5:D:212:LYS:HB2	2.13	0.78
5:D:769:TYR:O	5:D:773:THR:HG23	1.84	0.78
6:G:49:DT:H4'	6:G:50:DT:OP1	1.84	0.78
3:B:60:ASN:O	3:B:63:LYS:HG2	1.84	0.77
4:C:616:ASN:H	4:C:616:ASN:HD22	1.30	0.77
5:D:351:SER:HB3	5:D:445:ILE:HD11	1.65	0.77
7:H:15:DC:H2''	7:H:16:DA:C8	2.19	0.77
11:S:209:HIS:HB3	13:Z:249:ARG:NH1	1.98	0.77
4:C:1276:GLN:OE1	4:C:1276:GLN:N	2.16	0.77
7:H:27:DG:H2'	7:H:28:DT:H71	1.66	0.77
4:C:1044:GLU:O	4:C:1048:LYS:N	2.17	0.77
6:G:5:DA:C2'	6:G:6:DG:C8	2.68	0.77
6:G:14:DA:C2'	6:G:15:DA:C8	2.68	0.77
6:G:16:DC:H2'	6:G:17:DA:H8	1.43	0.77
11:S:203:LEU:H	11:S:203:LEU:HD12	1.39	0.77
3:B:113:SER:HB2	3:B:124:ILE:CG1	2.12	0.77
4:C:819:LEU:HD21	4:C:1094:LEU:CD1	2.15	0.77
4:C:618:VAL:HG22	4:C:641:SER:HA	1.66	0.77
11:S:115:ASP:O	11:S:119:LEU:HD12	1.85	0.77
4:C:466:GLN:HA	4:C:466:GLN:NE2	1.99	0.77
5:D:791:GLY:O	5:D:794:THR:HG22	1.85	0.77
7:H:19:DA:C2'	7:H:20:DA:H8	1.97	0.77
11:S:206:LEU:HD23	11:S:206:LEU:C	2.10	0.77
4:C:506:LYS:O	4:C:510:THR:HG22	1.84	0.77
5:D:811:CYS:SG	5:D:813:THR:HG22	2.25	0.77
6:G:24:DT:H2'	6:G:25:DA:N7	1.99	0.77
4:C:349:ILE:HD12	4:C:349:ILE:N	1.99	0.77
5:D:1299:ARG:NH1	5:D:1302:LEU:HB2	2.00	0.77
10:M:109:LYS:O	10:M:115:LEU:HD21	1.84	0.77
12:X:15:DT:H2'	12:X:16:DC:C6	2.20	0.77
13:Z:283:TRP:O	13:Z:286:PRO:HD2	1.83	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:96:ASP:CG	4:C:131:ASP:HB3	2.10	0.77
4:C:879:VAL:HG23	4:C:922:MET:CE	2.14	0.77
4:C:1197:PRO:HB2	4:C:1200:ASP:CB	2.15	0.77
4:C:1197:PRO:CG	4:C:1200:ASP:HB3	2.15	0.77
4:C:727:VAL:CG1	4:C:730:VAL:HG13	2.16	0.76
4:C:822:GLU:HB2	4:C:1093:VAL:HG13	1.67	0.76
8:J:9:DT:C2'	8:J:10:DC:H5'	2.08	0.76
10:M:16:ARG:O	10:M:20:LEU:HD23	1.84	0.76
4:C:596:LYS:HG2	4:C:655:TYR:CE1	2.20	0.76
4:C:1354:SER:HB2	5:D:17:ILE:CD1	2.13	0.76
6:G:18:DT:H2'	6:G:19:DT:H72	1.67	0.76
4:C:1186:ASP:OD1	4:C:1189:LYS:NZ	2.18	0.76
7:H:19:DA:C2'	7:H:20:DA:C8	2.68	0.76
7:H:25:DA:H2'	7:H:26:DT:C6	2.20	0.76
12:X:23:DG:H2'	12:X:24:DG:H8	1.50	0.76
5:D:308:GLY:HA2	5:D:311:GLY:O	1.84	0.76
13:Z:237:GLN:O	13:Z:240:VAL:HG22	1.85	0.76
3:B:60:ASN:HB2	3:B:63:LYS:HB2	1.68	0.76
3:B:91:LEU:CD2	3:B:147:LYS:HD2	2.08	0.76
7:H:41:DA:H2''	7:H:42:DT:H5'	0.85	0.76
13:Z:141:LEU:HD21	13:Z:160:ALA:HB3	1.67	0.76
2:A:77:GLU:OE1	2:A:134:THR:HG22	1.86	0.76
4:C:1220:GLY:HA3	4:C:1238:THR:HG23	1.67	0.76
4:C:1280:GLN:NE2	5:D:350:ARG:HB3	1.99	0.76
3:B:104:LEU:N	3:B:104:LEU:CD2	2.49	0.76
4:C:1129:ALA:HB1	4:C:1240:GLY:HA3	1.67	0.76
13:Z:320:GLU:O	13:Z:324:GLN:NE2	2.19	0.76
4:C:26:TYR:HB3	4:C:29:SER:OG	1.85	0.76
4:C:1226:ASP:HB2	4:C:1233:PHE:CZ	2.20	0.76
4:C:790:ALA:O	4:C:796:LEU:HD12	1.85	0.76
5:D:822:ILE:HD11	5:D:835:ARG:HD2	1.67	0.76
7:H:25:DA:H2''	7:H:26:DT:O4'	1.86	0.76
7:H:31:DA:H2''	7:H:32:DT:H5'	1.68	0.76
3:B:58:LYS:HB2	3:B:162:GLU:HG2	1.67	0.76
3:B:209:LEU:C	3:B:209:LEU:HD23	2.10	0.76
4:C:1264:SER:HG	4:C:1267:THR:HG1	1.33	0.76
11:S:140:SER:HB3	11:S:143:PHE:O	1.86	0.76
12:X:22:DC:H2''	12:X:23:DG:H8	1.51	0.76
7:H:19:DA:H2''	7:H:20:DA:C5'	2.16	0.75
11:S:38:GLU:O	11:S:42:ILE:HG13	1.86	0.75
5:D:898:ASP:O	5:D:899:LEU:HB3	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:265:SER:O	13:Z:268:PRO:HD3	1.86	0.75
13:Z:345:GLU:CA	13:Z:348:LEU:HD13	2.16	0.75
13:Z:381:ASP:OD1	13:Z:382:LYS:N	2.19	0.75
2:A:20:LEU:C	2:A:20:LEU:HD12	2.10	0.75
4:C:26:TYR:CE2	4:C:28:LEU:HB2	2.21	0.75
4:C:727:VAL:HG22	4:C:737:ILE:CD1	2.16	0.75
7:H:34:DC:H4'	7:H:35:DA:H5'	1.68	0.75
5:D:140:GLU:OE2	13:Z:90:MET:HE2	1.86	0.75
6:G:12:DT:C2'	6:G:13:DA:C8	2.69	0.75
7:H:38:DT:H2'	7:H:39:DA:C8	2.21	0.75
5:D:58:LYS:CG	5:D:87:GLY:HA3	2.16	0.75
5:D:260:THR:HG23	13:Z:469:PRO:HB2	1.68	0.75
10:M:81:MET:HB3	10:M:157:VAL:HB	1.69	0.75
4:C:393:ILE:HG22	4:C:396:ARG:H	1.49	0.75
5:D:117:SER:HB3	5:D:120:SER:HA	1.66	0.75
6:G:24:DT:H2'	6:G:25:DA:C8	2.22	0.75
7:H:24:DA:C2'	7:H:25:DA:H5'	2.10	0.75
10:M:96:LEU:HD23	10:M:96:LEU:C	2.12	0.75
13:Z:443:THR:HG23	13:Z:443:THR:O	1.86	0.75
13:Z:505:LEU:HD23	13:Z:505:LEU:C	2.11	0.75
3:B:50:ALA:HB2	3:B:149:VAL:HG12	1.67	0.75
4:C:389:GLY:HA2	4:C:393:ILE:CG1	2.15	0.75
5:D:132:ASN:HB3	5:D:157:LEU:HD11	1.69	0.75
1:E:24:SER:HB2	5:D:473:GLU:HG3	1.69	0.75
5:D:581:LEU:HD11	5:D:590:LEU:HG	1.69	0.75
7:H:24:DA:H2''	7:H:25:DA:C5'	2.09	0.75
13:Z:120:VAL:O	13:Z:123:THR:HG22	1.86	0.75
13:Z:376:LEU:HB2	13:Z:399:ILE:HD11	1.69	0.75
5:D:428:HIS:ND1	5:D:430:LEU:HB2	2.01	0.75
5:D:1299:ARG:NH1	5:D:1302:LEU:CB	2.50	0.74
5:D:1332:LEU:HD13	5:D:1341:ILE:HD11	1.69	0.74
7:H:25:DA:C2'	7:H:26:DT:C6	2.70	0.74
12:X:16:DC:H2''	12:X:17:DT:H5'	1.67	0.74
4:C:178:PRO:CD	4:C:183:TRP:HB3	2.17	0.74
4:C:603:THR:CG2	4:C:605:GLU:HG2	2.17	0.74
5:D:172:TYR:O	5:D:173:GLU:HB2	1.86	0.74
13:Z:254:GLU:O	13:Z:257:ILE:HG22	1.87	0.74
3:B:184:VAL:CG2	3:B:190:LEU:HD12	2.17	0.74
5:D:589:LEU:HA	5:D:592:LYS:NZ	2.01	0.74
4:C:822:GLU:HB2	4:C:1093:VAL:CG1	2.17	0.74
4:C:1140:LYS:O	4:C:1144:LYS:HG2	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:520:GLY:HA2	5:D:523:LYS:HE2	1.68	0.74
6:G:26:DT:H2''	6:G:27:DT:C6	2.22	0.74
13:Z:204:GLU:O	13:Z:208:GLU:HG2	1.87	0.74
2:A:156:LEU:HD12	2:A:156:LEU:N	2.02	0.74
5:D:1331:ASN:HD22	5:D:1331:ASN:N	1.85	0.74
7:H:38:DT:H2''	7:H:39:DA:C8	2.22	0.74
10:M:31:VAL:HG13	10:M:40:LEU:CD1	2.12	0.74
11:S:44:LYS:HE2	11:S:44:LYS:N	2.02	0.74
5:D:285:ALA:HB1	5:D:289:ILE:CD1	2.17	0.74
13:Z:315:MET:HG2	13:Z:322:LEU:HD11	1.69	0.74
5:D:395:ALA:O	5:D:398:MET:HG2	1.87	0.74
6:G:20:DG:C2	7:H:24:DA:C2	2.75	0.74
6:G:43:DA:H5''	13:Z:393:THR:CB	2.17	0.74
4:C:70:GLU:H	4:C:105:LEU:HD12	1.53	0.74
5:D:35:GLU:OE1	5:D:37:LYS:HG3	1.88	0.74
5:D:1274:LEU:C	5:D:1274:LEU:HD12	2.13	0.74
10:M:10:ILE:HG22	10:M:168:TYR:CD1	2.23	0.74
2:A:48:LEU:O	2:A:52:LEU:HD23	1.87	0.74
3:B:67:LEU:H	3:B:67:LEU:CD2	2.01	0.74
4:C:107:VAL:O	4:C:120:GLU:N	2.20	0.74
6:G:46:DT:C2'	13:Z:349:ARG:HB2	2.15	0.74
10:M:47:THR:HG21	10:M:50:GLY:HA2	1.70	0.74
13:Z:256:LYS:O	13:Z:260:LEU:HD23	1.88	0.74
5:D:781:ALA:O	5:D:785:LEU:HD23	1.87	0.74
5:D:899:LEU:HD23	5:D:899:LEU:C	2.13	0.74
6:G:30:DC:H2'	6:G:31:DG:C8	2.22	0.74
4:C:67:GLY:HA3	4:C:69:TYR:CE2	2.23	0.73
4:C:1221:GLN:HA	4:C:1238:THR:HA	1.70	0.73
4:C:1242:MET:CG	4:C:1244:MET:HE2	2.16	0.73
5:D:926:LEU:HD12	5:D:926:LEU:C	2.11	0.73
3:B:30:GLU:HB3	3:B:33:VAL:CG2	2.18	0.73
4:C:27:LEU:HG	4:C:714:ASP:OD2	1.88	0.73
4:C:388:GLU:HA	4:C:392:PHE:HD2	1.53	0.73
4:C:596:LYS:O	4:C:603:THR:HG22	1.88	0.73
6:G:35:DT:H2''	6:G:36:DT:H5'	1.68	0.73
4:C:79:GLY:CA	4:C:98:PRO:HG2	2.15	0.73
5:D:478:ALA:CA	5:D:482:MET:HE3	2.19	0.73
7:H:4:DC:C2'	7:H:5:DT:C6	2.71	0.73
8:J:10:DC:H2''	8:J:11:DA:C5'	2.13	0.73
11:S:142:PHE:HE1	11:S:183:LEU:HA	1.53	0.73
2:A:20:LEU:HD12	2:A:24:SER:HB2	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:730:SER:OG	5:D:733:GLN:OE1	2.04	0.73
13:Z:281:LEU:HG	13:Z:305:THR:HG21	1.68	0.73
13:Z:502:LEU:HD23	13:Z:502:LEU:O	1.89	0.73
5:D:1335:LEU:CD1	5:D:1335:LEU:H	2.00	0.73
10:M:15:VAL:O	10:M:19:LEU:HD23	1.88	0.73
13:Z:345:GLU:HA	13:Z:348:LEU:CD1	2.19	0.73
3:B:193:LEU:HD23	3:B:193:LEU:C	2.13	0.73
10:M:66:SER:O	10:M:69:ILE:HG12	1.88	0.73
2:A:49:LEU:O	2:A:176:ASN:ND2	2.21	0.73
5:D:1157:THR:O	5:D:1157:THR:HG22	1.87	0.73
6:G:17:DA:H2''	6:G:18:DT:C5'	2.14	0.73
3:B:103:GLU:HB2	3:B:140:LYS:CD	2.18	0.73
4:C:845:THR:HG22	4:C:848:GLY:O	1.89	0.73
4:C:1276:GLN:N	4:C:1276:GLN:CD	2.46	0.73
6:G:20:DG:C2'	6:G:21:DT:H5'	2.11	0.73
3:B:60:ASN:CB	3:B:63:LYS:HB2	2.18	0.73
3:B:115:GLU:O	3:B:116:ALA:HB3	1.89	0.73
3:B:210:ARG:O	3:B:214:THR:HG23	1.88	0.73
6:G:19:DT:N3	7:H:25:DA:C2	2.57	0.73
6:G:32:DT:O2	7:H:11:DA:N1	2.20	0.73
6:G:38:DA:C2'	6:G:39:DG:C8	2.72	0.73
10:M:65:LEU:HD22	16:M:301:G4P:N7	2.04	0.73
13:Z:241:ASP:O	13:Z:245:LEU:HD23	1.89	0.73
2:A:224:PHE:O	2:A:227:LEU:HD22	1.89	0.73
4:C:69:TYR:HA	4:C:105:LEU:CD1	2.19	0.73
4:C:399:LEU:H	4:C:421:TYR:HB3	1.54	0.73
5:D:248:ARG:HD2	5:D:264:ASN:ND2	2.04	0.73
5:D:280:LEU:CD1	5:D:293:GLU:HG3	2.19	0.73
7:H:4:DC:C2'	7:H:5:DT:H5'	2.19	0.73
6:G:27:DT:H2''	6:G:28:DG:H5'	1.70	0.72
6:G:41:DT:H3	13:Z:401:GLN:HE21	1.37	0.72
7:H:12:DC:C2'	7:H:13:DG:C8	2.72	0.72
4:C:1347:ILE:CD1	4:C:1347:ILE:H	2.01	0.72
5:D:1280:LEU:C	5:D:1280:LEU:HD12	2.14	0.72
6:G:35:DT:H2''	6:G:36:DT:O5'	1.85	0.72
7:H:33:DA:C2'	7:H:34:DC:C2	2.72	0.72
13:Z:478:ASP:O	13:Z:481:ASP:N	2.21	0.72
11:S:163:GLU:CG	11:S:168:ILE:HD13	2.19	0.72
4:C:567:PRO:HG3	4:C:575:ILE:HG12	1.72	0.72
4:C:678:ASP:O	4:C:682:VAL:HG23	1.90	0.72
4:C:886:VAL:HG22	4:C:920:LEU:HB3	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:1341:ILE:HD12	5:D:1343:ARG:HD2	1.69	0.72
6:G:32:DT:H2'	6:G:33:DT:C5	2.25	0.72
7:H:8:DA:C2'	7:H:9:DT:H72	2.08	0.72
7:H:29:DT:H2'	7:H:30:DT:C6	2.24	0.72
5:D:287:ASP:O	5:D:291:ARG:HG3	1.89	0.72
5:D:598:GLU:OE1	5:D:598:GLU:N	2.23	0.72
6:G:32:DT:H2'	6:G:33:DT:C6	2.24	0.72
7:H:37:DC:H2'	7:H:38:DT:C6	2.25	0.72
11:S:69:ILE:CD1	11:S:69:ILE:H	2.03	0.72
4:C:37:LYS:HD2	4:C:38:PHE:N	2.04	0.72
5:D:898:ASP:HA	5:D:905:VAL:HG22	1.71	0.72
6:G:15:DA:C2'	6:G:16:DC:H6	2.02	0.72
13:Z:285:GLU:N	13:Z:285:GLU:OE1	2.20	0.72
13:Z:380:VAL:HG12	13:Z:391:PHE:HE1	1.54	0.72
4:C:805:ALA:HB2	4:C:1108:VAL:HG11	1.70	0.72
4:C:1281:ARG:CB	5:D:344:ARG:HG2	2.19	0.72
13:Z:560:ALA:O	13:Z:564:LEU:HD13	1.89	0.72
2:A:48:LEU:CA	2:A:52:LEU:HD23	2.19	0.72
5:D:926:LEU:HB2	5:D:1232:GLN:NE2	2.04	0.72
6:G:20:DG:H2'	6:G:21:DT:C7	2.20	0.72
10:M:152:ALA:C	10:M:153:GLN:HG3	2.15	0.72
4:C:1347:ILE:HD12	4:C:1347:ILE:H	1.54	0.72
5:D:735:ARG:O	5:D:739:GLY:N	2.22	0.72
5:D:1148:GLY:HA3	5:D:1164:GLU:O	1.89	0.72
11:S:150:LEU:HD22	11:S:154:TYR:CE2	2.25	0.72
13:Z:250:VAL:O	13:Z:254:GLU:HG3	1.90	0.72
4:C:48:LEU:HD23	4:C:48:LEU:O	1.90	0.72
4:C:704:GLY:O	4:C:1195:ALA:HA	1.90	0.72
5:D:1311:ALA:HA	5:D:1319:VAL:HG11	1.71	0.72
10:M:197:ILE:HA	10:M:200:ILE:CG1	2.19	0.72
13:Z:366:LEU:HD22	13:Z:366:LEU:N	2.05	0.72
5:D:581:LEU:HD12	5:D:590:LEU:HD12	1.72	0.71
7:H:32:DT:H2'	7:H:33:DA:C5	2.25	0.71
10:M:77:PRO:CG	13:Z:545:GLN:HB2	2.19	0.71
13:Z:214:PRO:HG3	13:Z:218:LEU:HD23	1.72	0.71
13:Z:505:LEU:HB2	13:Z:576:PHE:CE1	2.24	0.71
7:H:12:DC:H2'	7:H:13:DG:C8	2.25	0.71
3:B:109:GLU:OE1	3:B:109:GLU:HA	1.88	0.71
4:C:433:GLU:HA	4:C:436:ILE:CD1	2.20	0.71
4:C:622:ALA:HA	4:C:656:MET:HE2	1.72	0.71
5:D:376:LYS:HG2	5:D:380:TYR:CE2	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:7:GLU:N	4:C:7:GLU:OE1	2.23	0.71
4:C:727:VAL:HG22	4:C:737:ILE:HD11	1.71	0.71
7:H:2:DA:H61	13:Z:401:GLN:NE2	1.84	0.71
13:Z:273:ILE:O	13:Z:277:LYS:HE3	1.90	0.71
13:Z:301:ILE:HA	13:Z:304:LEU:CD2	2.21	0.71
2:A:55:ALA:CB	2:A:93:LEU:HD12	2.21	0.71
3:B:30:GLU:HB3	3:B:33:VAL:HG21	1.71	0.71
4:C:809:TRP:O	5:D:631:THR:HB	1.90	0.71
10:M:84:VAL:HG13	13:Z:534:ASN:HB3	1.73	0.71
10:M:100:ASN:HA	10:M:104:LEU:CG	2.17	0.71
11:S:44:LYS:CA	11:S:44:LYS:CE	2.64	0.71
4:C:349:ILE:H	4:C:349:ILE:CD1	2.02	0.71
5:D:908:GLY:O	5:D:1348:GLY:N	2.23	0.71
6:G:19:DT:N3	7:H:25:DA:H2	1.88	0.71
6:G:41:DT:H3	13:Z:401:GLN:HG3	1.55	0.71
11:S:16:LEU:O	11:S:20:ILE:HG13	1.90	0.71
4:C:2:SER:HB2	4:C:7:GLU:CB	2.13	0.71
5:D:216:ILE:HG23	5:D:217:LYS:HD2	1.73	0.71
5:D:558:LYS:CB	5:D:560:ASN:HD21	2.03	0.71
5:D:613:LYS:O	5:D:616:VAL:HG12	1.91	0.71
6:G:24:DT:H4'	6:G:25:DA:OP1	1.90	0.71
4:C:936:PHE:CD2	4:C:1063:THR:HG23	2.26	0.71
6:G:33:DT:O2	7:H:11:DA:C2	2.43	0.71
13:Z:448:ILE:HD13	13:Z:456:LYS:HG2	1.72	0.71
4:C:12:ARG:HD3	4:C:1195:ALA:HB2	1.71	0.71
5:D:208:SER:O	5:D:213:GLU:HG3	1.90	0.71
5:D:476:LEU:HD23	5:D:476:LEU:C	2.15	0.71
10:M:8:ASP:O	10:M:111:GLN:NE2	2.23	0.71
13:Z:109:ILE:O	13:Z:113:ILE:HG23	1.91	0.71
5:D:499:THR:HG22	5:D:603:ILE:HD12	1.73	0.71
11:S:155:ILE:HD12	11:S:179:TYR:HE2	1.56	0.71
12:X:17:DT:C2'	12:X:18:DG:C8	2.74	0.71
13:Z:135:ILE:O	13:Z:139:ARG:HG2	1.91	0.71
3:B:4:GLU:O	3:B:5:ASN:HB2	1.91	0.70
5:D:106:VAL:HG11	5:D:281:LEU:HD12	1.73	0.70
5:D:1149:MET:HA	5:D:1190:GLU:O	1.90	0.70
6:G:21:DT:H2'	6:G:22:DG:C8	2.26	0.70
6:G:31:DG:N2	7:H:13:DG:C6	2.59	0.70
5:D:76:LEU:HD12	5:D:76:LEU:N	2.05	0.70
5:D:735:ARG:O	5:D:739:GLY:CA	2.38	0.70
5:D:764:LEU:HD12	5:D:764:LEU:N	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:243:LEU:HD11	5:D:247:LEU:HD23	1.74	0.70
11:S:9:THR:HG23	11:S:12:CYS:HB2	1.71	0.70
12:X:17:DT:H2''	12:X:18:DG:C5'	2.21	0.70
4:C:669:ALA:O	4:C:705:THR:HG21	1.92	0.70
4:C:811:GLY:O	5:D:355:VAL:HG21	1.90	0.70
5:D:221:LEU:HD23	5:D:221:LEU:C	2.15	0.70
5:D:244:PRO:HD2	5:D:247:LEU:HD22	1.73	0.70
5:D:351:SER:HB3	5:D:445:ILE:CG1	2.21	0.70
5:D:811:CYS:SG	5:D:879:ARG:NH2	2.64	0.70
6:G:26:DT:C2'	6:G:27:DT:C5	2.72	0.70
13:Z:519:GLU:O	13:Z:523:LYS:HG2	1.91	0.70
4:C:390:LEU:HD23	4:C:391:PHE:CE2	2.27	0.70
4:C:891:PRO:HA	4:C:915:VAL:HA	1.73	0.70
13:Z:294:THR:CB	13:Z:297:THR:HB	2.21	0.70
5:D:287:ASP:OD1	5:D:288:ILE:HD12	1.92	0.70
5:D:351:SER:HB3	5:D:445:ILE:HG13	1.73	0.70
6:G:50:DT:H2''	6:G:51:DA:O4'	1.91	0.70
2:A:62:ILE:HD12	2:A:65:VAL:HG11	1.71	0.70
4:C:176:ILE:O	4:C:183:TRP:HB2	1.92	0.70
4:C:1258:ARG:NH1	4:C:1261:GLY:HA3	2.07	0.70
6:G:5:DA:N6	7:H:37:DC:H42	1.88	0.70
7:H:3:DC:C2'	7:H:4:DC:H5'	2.12	0.70
13:Z:219:TYR:O	13:Z:222:ILE:HG12	1.92	0.70
13:Z:376:LEU:HB2	13:Z:399:ILE:CD1	2.21	0.70
13:Z:380:VAL:HG12	13:Z:391:PHE:CE1	2.27	0.70
13:Z:392:SER:O	13:Z:396:THR:OG1	2.10	0.70
4:C:1115:LEU:HD21	5:D:506:LEU:HD22	1.74	0.70
5:D:138:TYR:O	5:D:139:PHE:HB2	1.92	0.70
7:H:27:DG:C2'	7:H:28:DT:C6	2.75	0.70
4:C:370:LYS:C	4:C:370:LYS:HD3	2.16	0.70
5:D:40:GLU:O	5:D:53:GLY:HA3	1.91	0.70
6:G:11:DA:C2'	6:G:12:DT:H5'	2.17	0.70
2:A:47:VAL:O	2:A:51:SER:HB2	1.91	0.69
4:C:404:ARG:NH2	4:C:422:THR:O	2.24	0.69
5:D:111:HIS:HD2	5:D:113:TRP:H	1.37	0.69
5:D:1214:LEU:HD23	5:D:1214:LEU:C	2.17	0.69
13:Z:221:LYS:O	13:Z:224:LYS:HG2	1.92	0.69
1:E:48:THR:HG21	5:D:475:GLN:HE21	1.55	0.69
3:B:18:ALA:HB3	3:B:21:ALA:CB	2.10	0.69
4:C:92:GLY:HA2	4:C:145:GLY:HA3	1.72	0.69
4:C:166:ASP:OD1	4:C:166:ASP:N	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:687:ASN:O	4:C:690:ARG:HG2	1.92	0.69
4:C:727:VAL:HA	4:C:737:ILE:HD13	1.73	0.69
4:C:1160:GLU:OE1	4:C:1164:ASN:ND2	2.26	0.69
11:S:43:LYS:HA	11:S:43:LYS:HE3	1.74	0.69
11:S:167:PHE:CD2	11:S:167:PHE:O	2.46	0.69
4:C:1271:LEU:HD22	4:C:1271:LEU:N	2.07	0.69
5:D:511:ILE:HD11	5:D:577:LEU:HD11	1.73	0.69
6:G:33:DT:C2'	6:G:34:DA:H8	2.04	0.69
10:M:109:LYS:O	10:M:115:LEU:CD2	2.40	0.69
13:Z:258:LEU:O	13:Z:262:VAL:HG22	1.92	0.69
2:A:126:ILE:N	2:A:126:ILE:HD12	2.06	0.69
5:D:273:ARG:CZ	5:D:296:MET:HG2	2.22	0.69
5:D:798:VAL:O	5:D:802:GLN:HB2	1.92	0.69
5:D:1157:THR:O	5:D:1158:LYS:HB2	1.91	0.69
7:H:1:DT:H3'	13:Z:429:ARG:NH2	2.07	0.69
4:C:1234:ASP:O	4:C:1235:ARG:HB2	1.90	0.69
5:D:101:GLY:C	5:D:242:VAL:HG22	2.16	0.69
5:D:1271:VAL:O	5:D:1274:LEU:HG	1.92	0.69
7:H:20:DA:H3'	13:Z:528:ARG:NH2	2.05	0.69
13:Z:323:LYS:O	13:Z:327:LEU:HG	1.93	0.69
2:A:211:THR:O	2:A:215:GLU:HG3	1.92	0.69
5:D:844:ASP:OD1	5:D:856:ALA:HB2	1.93	0.69
5:D:1214:LEU:HD23	5:D:1214:LEU:O	1.92	0.69
13:Z:258:LEU:O	13:Z:262:VAL:HG13	1.92	0.69
7:H:5:DT:H2''	7:H:6:DT:H5'	1.74	0.69
7:H:21:DC:H2'	7:H:22:DA:H5'	1.74	0.69
10:M:14:ILE:O	10:M:18:ILE:HG12	1.93	0.69
11:S:23:ALA:HB3	11:S:188:SER:HB2	1.74	0.69
13:Z:542:VAL:HG21	13:Z:553:ILE:HG21	1.75	0.69
4:C:24:VAL:HG11	4:C:710:ILE:HG21	1.74	0.69
4:C:1264:SER:N	4:C:1269:GLN:O	2.23	0.69
5:D:428:HIS:CE1	5:D:430:LEU:HB2	2.28	0.69
6:G:35:DT:C2	7:H:8:DA:H2	2.11	0.69
6:G:48:DC:H3'	6:G:49:DT:H5''	1.75	0.69
10:M:4:TYR:CD1	10:M:43:LEU:HD12	2.28	0.69
11:S:69:ILE:HD12	11:S:69:ILE:H	1.55	0.69
12:X:15:DT:H2''	12:X:16:DC:C5'	2.19	0.69
13:Z:550:ARG:C	13:Z:550:ARG:HD3	2.18	0.69
4:C:801:ASN:OD1	4:C:1243:TYR:HD1	1.73	0.69
5:D:628:LYS:O	5:D:631:THR:HG22	1.93	0.69
5:D:836:ALA:O	5:D:860:LEU:HD12	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:G:39:DG:H2''	6:G:40:DG:H5'	1.75	0.69
10:M:106:ASN:HB3	10:M:123:ILE:HG23	1.72	0.69
11:S:40:ALA:O	11:S:44:LYS:HG2	1.93	0.69
12:X:18:DG:H2''	12:X:19:DA:C5'	2.23	0.69
13:Z:129:ILE:O	13:Z:132:LYS:HG2	1.93	0.69
13:Z:250:VAL:HG23	13:Z:308:ILE:HD12	1.74	0.69
4:C:8:LYS:HB2	4:C:8:LYS:HZ2	1.56	0.68
4:C:209:ILE:O	4:C:213:LEU:HG	1.92	0.68
5:D:384:ARG:NH1	5:D:392:ILE:HG12	2.08	0.68
5:D:1240:HIS:O	5:D:1243:THR:HG22	1.93	0.68
6:G:17:DA:C2'	6:G:18:DT:H5'	2.17	0.68
6:G:42:DA:H2'	6:G:42:DA:N3	2.09	0.68
10:M:121:ASN:O	10:M:124:LYS:HG2	1.93	0.68
13:Z:217:LYS:O	13:Z:221:LYS:HG3	1.93	0.68
13:Z:418:VAL:O	13:Z:421:ILE:HG22	1.93	0.68
3:B:50:ALA:HA	3:B:149:VAL:HG12	1.76	0.68
3:B:118:LEU:HD12	3:B:118:LEU:N	2.08	0.68
4:C:178:PRO:HD3	4:C:183:TRP:HB3	1.75	0.68
4:C:210:LEU:HA	4:C:213:LEU:HD12	1.75	0.68
11:S:57:LYS:H	11:S:57:LYS:HD2	1.58	0.68
10:M:136:LYS:O	10:M:139:VAL:HG22	1.92	0.68
13:Z:264:ARG:HD2	13:Z:264:ARG:N	2.08	0.68
3:B:50:ALA:CA	3:B:149:VAL:HG12	2.23	0.68
11:S:126:LEU:O	11:S:130:LEU:HD13	1.93	0.68
4:C:1331:VAL:HG13	4:C:1332:PRO:CD	2.21	0.68
5:D:161:GLU:O	5:D:165:GLU:HG2	1.92	0.68
5:D:505:VAL:HG11	5:D:596:LYS:HB2	1.76	0.68
5:D:735:ARG:O	5:D:739:GLY:HA3	1.93	0.68
5:D:786:LYS:HD2	5:D:786:LYS:C	2.19	0.68
5:D:1336:LYS:O	5:D:1339:VAL:HG12	1.94	0.68
13:Z:101:LEU:HD11	13:Z:106:GLU:HG2	1.75	0.68
2:A:32:VAL:HG22	2:A:192:GLU:H	1.58	0.68
4:C:560:ARG:HG3	4:C:590:LEU:CB	2.23	0.68
5:D:306:ASP:HA	5:D:324:SER:CB	2.24	0.68
5:D:569:ASN:ND2	5:D:569:ASN:N	2.39	0.68
5:D:898:ASP:HA	5:D:905:VAL:CG2	2.23	0.68
6:G:18:DT:H2''	6:G:19:DT:O5'	1.93	0.68
7:H:41:DA:H2'	7:H:42:DT:C5	2.28	0.68
13:Z:282:GLU:O	13:Z:286:PRO:HD3	1.92	0.68
13:Z:451:THR:CG2	13:Z:452:PRO:HD2	2.22	0.68
13:Z:451:THR:HG23	13:Z:452:PRO:HD2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:489:GLU:OE2	13:Z:491:LYS:HE2	1.92	0.68
2:A:177:PRO:HG2	2:A:178:ILE:HD12	1.75	0.68
3:B:9:PRO:HG3	3:B:29:LEU:CD2	2.23	0.68
4:C:567:PRO:O	4:C:572:ILE:CB	2.42	0.68
4:C:629:ASN:HB3	4:C:631:HIS:CE1	2.29	0.68
6:G:16:DC:C2'	6:G:17:DA:C8	2.77	0.68
10:M:67:VAL:O	10:M:70:GLU:HG3	1.94	0.68
11:S:8:THR:HG1	11:S:15:SER:HG	0.69	0.68
1:E:14:GLU:N	1:E:14:GLU:OE1	2.27	0.68
1:E:20:VAL:CG2	5:D:480:VAL:HG11	2.24	0.68
4:C:34:SER:O	4:C:37:LYS:HG3	1.93	0.68
4:C:629:ASN:HB3	4:C:631:HIS:ND1	2.08	0.68
5:D:285:ALA:HB3	5:D:289:ILE:HD11	1.76	0.68
5:D:512:THR:CG2	5:D:594:LEU:HD12	2.23	0.68
10:M:11:TYR:CD1	10:M:65:LEU:HD13	2.28	0.68
13:Z:214:PRO:CG	13:Z:218:LEU:HD23	2.24	0.68
4:C:21:ILE:HD12	4:C:21:ILE:N	2.09	0.68
4:C:1303:LEU:HD11	5:D:1339:VAL:HG23	1.74	0.68
5:D:797:LEU:O	5:D:800:VAL:HG12	1.94	0.68
10:M:41:GLU:O	10:M:45:ILE:HG12	1.93	0.68
10:M:121:ASN:O	10:M:125:MET:HG2	1.94	0.68
13:Z:510:LYS:O	13:Z:513:ILE:HG12	1.93	0.68
2:A:34:LYS:HD3	2:A:191:SER:N	2.09	0.68
2:A:153:VAL:HG22	2:A:153:VAL:O	1.93	0.68
5:D:592:LYS:HD2	5:D:598:GLU:CG	2.24	0.68
6:G:21:DT:C2'	6:G:22:DG:C8	2.77	0.68
12:X:18:DG:H2'	12:X:19:DA:C8	2.29	0.68
13:Z:351:VAL:HG11	13:Z:369:ILE:O	1.94	0.68
2:A:156:LEU:H	2:A:156:LEU:CD1	2.05	0.67
4:C:519:ASP:N	4:C:519:ASP:OD1	2.26	0.67
5:D:122:ILE:HG12	5:D:235:MET:CE	2.24	0.67
5:D:822:ILE:HD12	5:D:822:ILE:H	1.54	0.67
6:G:26:DT:C2'	6:G:27:DT:C6	2.77	0.67
7:H:23:DC:C2'	7:H:24:DA:H5'	2.07	0.67
10:M:77:PRO:HD3	13:Z:545:GLN:HB2	1.75	0.67
13:Z:131:ILE:HB	13:Z:207:PHE:CE1	2.29	0.67
4:C:897:LEU:H	4:C:897:LEU:HD23	1.58	0.67
4:C:1103:GLU:HA	4:C:1103:GLU:OE1	1.94	0.67
4:C:1114:PRO:O	4:C:1118:PRO:CD	2.42	0.67
5:D:1357:SER:O	5:D:1361:GLU:HG2	1.95	0.67
13:Z:130:VAL:HG22	13:Z:243:ILE:HD11	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:451:THR:HG22	13:Z:453:ASN:H	1.58	0.67
2:A:62:ILE:HG21	2:A:65:VAL:HG13	1.77	0.67
4:C:523:PRO:HB3	4:C:717:ASN:ND2	2.09	0.67
5:D:592:LYS:HD2	5:D:598:GLU:HG2	1.76	0.67
6:G:43:DA:H5''	13:Z:393:THR:HB	1.76	0.67
6:G:44:DC:H2'	6:G:45:DT:C6	2.28	0.67
13:Z:512:LEU:HD23	13:Z:512:LEU:C	2.18	0.67
4:C:1101:TYR:HD2	4:C:1105:GLY:HA2	1.60	0.67
4:C:1335:PHE:HE2	4:C:1351:PHE:HE1	1.40	0.67
11:S:122:MET:O	11:S:122:MET:HE2	1.94	0.67
13:Z:294:THR:O	13:Z:298:ILE:HG13	1.94	0.67
13:Z:566:HIS:CD2	13:Z:567:PRO:HD2	2.29	0.67
2:A:32:VAL:HG13	2:A:192:GLU:O	1.95	0.67
5:D:1148:GLY:O	5:D:1192:VAL:CB	2.43	0.67
6:G:26:DT:C7	6:G:26:DT:OP2	2.43	0.67
6:G:48:DC:H4'	13:Z:356:LYS:HE2	1.77	0.67
10:M:80:PRO:O	10:M:154:ASN:ND2	2.28	0.67
12:X:21:DG:H3'	12:X:22:DC:C5	2.29	0.67
13:Z:382:LYS:HD2	13:Z:398:TRP:CZ2	2.29	0.67
2:A:45:ARG:HA	2:A:181:VAL:HG11	1.75	0.67
4:C:471:LEU:HA	4:C:474:VAL:HG12	1.77	0.67
11:S:190:LYS:HG2	11:S:190:LYS:O	1.94	0.67
4:C:209:ILE:N	4:C:209:ILE:HD12	2.10	0.67
5:D:127:ASP:HB2	5:D:218:ARG:CZ	2.25	0.67
5:D:844:ASP:OD1	5:D:856:ALA:N	2.27	0.67
13:Z:448:ILE:HG21	13:Z:456:LYS:HE2	1.75	0.67
5:D:167:LEU:O	5:D:171:GLY:N	2.27	0.67
5:D:918:SER:O	5:D:922:PRO:HD3	1.95	0.67
6:G:35:DT:H2'	6:G:36:DT:H72	1.76	0.67
4:C:79:GLY:HA3	4:C:98:PRO:CG	2.20	0.67
4:C:485:VAL:HG23	4:C:490:LEU:HD21	1.77	0.67
5:D:184:ARG:NH1	5:D:233:GLU:O	2.27	0.67
5:D:822:ILE:N	5:D:822:ILE:CD1	2.58	0.67
2:A:34:LYS:HD2	2:A:192:GLU:HG3	1.77	0.66
5:D:913:VAL:O	5:D:917:GLN:HG2	1.95	0.66
7:H:28:DT:H2'	7:H:29:DT:H72	1.77	0.66
4:C:105:LEU:O	4:C:121:ASP:CB	2.44	0.66
5:D:861:ASP:O	5:D:865:VAL:HG23	1.96	0.66
5:D:1207:ASP:OD1	5:D:1208:LEU:N	2.28	0.66
11:S:27:MET:HE3	11:S:29:THR:HB	1.76	0.66
5:D:1337:GLU:OE1	5:D:1337:GLU:N	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:572:PHE:CD2	13:Z:573:LEU:HD12	2.27	0.66
2:A:56:SER:HB3	2:A:173:ALA:HB1	1.78	0.66
3:B:204:ASN:HD21	3:B:207:GLU:H	1.44	0.66
4:C:401:ASP:HB2	4:C:421:TYR:CE1	2.31	0.66
4:C:1256:HIS:CE1	4:C:1274:LYS:HA	2.30	0.66
4:C:1303:LEU:CD2	5:D:343:LYS:HD2	2.25	0.66
5:D:928:MET:O	5:D:1232:GLN:NE2	2.28	0.66
5:D:1225:ALA:O	5:D:1228:VAL:HG12	1.95	0.66
5:D:1363:MET:CE	5:D:1363:MET:CA	2.64	0.66
7:H:42:DT:H73	7:H:42:DT:OP2	1.96	0.66
5:D:76:LEU:HD12	5:D:76:LEU:H	1.57	0.66
5:D:448:HIS:O	5:D:451:VAL:HG22	1.96	0.66
5:D:618:LEU:HD23	5:D:618:LEU:C	2.21	0.66
5:D:1220:TYR:O	5:D:1223:ILE:HG12	1.96	0.66
6:G:47:DG:N7	13:Z:96:GLY:HA3	2.10	0.66
8:J:5:DC:H2'	8:J:6:DG:C8	2.31	0.66
3:B:7:LEU:HD11	3:B:190:LEU:CD1	2.26	0.66
5:D:119:PRO:O	5:D:121:ARG:NH1	2.29	0.66
5:D:839:ARG:O	5:D:860:LEU:HG	1.96	0.66
12:X:20:DC:H2''	12:X:21:DG:C5'	2.26	0.66
13:Z:382:LYS:HE3	13:Z:398:TRP:CH2	2.31	0.66
3:B:67:LEU:N	3:B:67:LEU:CD2	2.58	0.66
3:B:225:ASP:CG	3:B:228:GLU:HG2	2.21	0.66
4:C:71:LEU:HD11	4:C:482:MET:HE1	1.78	0.66
5:D:252:PRO:HB3	5:D:258:PHE:CE2	2.31	0.66
7:H:11:DA:H2''	7:H:12:DC:H5'	1.75	0.66
7:H:37:DC:H2'	7:H:38:DT:C5	2.30	0.66
3:B:157:ASN:O	3:B:164:LEU:N	2.28	0.66
4:C:928:GLY:HA3	4:C:1068:VAL:CG1	2.26	0.66
4:C:1305:VAL:O	4:C:1313:ARG:HG2	1.96	0.66
4:C:1325:LEU:O	4:C:1325:LEU:CD1	2.33	0.66
4:C:1347:ILE:N	4:C:1347:ILE:CD1	2.59	0.66
1:E:20:VAL:HG22	5:D:480:VAL:HG11	1.78	0.66
4:C:719:ILE:C	4:C:720:ILE:HD12	2.21	0.66
5:D:286:PRO:HD2	5:D:289:ILE:HD13	1.77	0.66
5:D:1277:ASN:O	5:D:1281:ARG:CB	2.44	0.66
7:H:17:DA:H2''	7:H:18:DT:H5'	1.77	0.66
11:S:5:THR:HG22	11:S:30:ASP:HB2	1.78	0.66
13:Z:122:SER:HA	13:Z:125:LEU:HD22	1.78	0.66
4:C:720:ILE:HG13	4:C:784:ILE:HD13	1.76	0.66
5:D:42:ILE:HD11	5:D:47:PHE:CB	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:500:PRO:HB2	5:D:505:VAL:HG23	1.77	0.66
5:D:899:LEU:O	5:D:899:LEU:CD2	2.38	0.66
11:S:122:MET:HG3	11:S:126:LEU:HD11	1.76	0.66
2:A:214:LEU:HD12	3:B:220:LEU:HD21	1.78	0.65
3:B:67:LEU:HD22	3:B:67:LEU:H	1.57	0.65
3:B:184:VAL:O	3:B:184:VAL:HG12	1.95	0.65
4:C:8:LYS:HB2	4:C:8:LYS:NZ	2.10	0.65
4:C:632:PHE:HE2	4:C:653:VAL:HG21	1.61	0.65
6:G:20:DG:H2'	6:G:21:DT:C6	2.32	0.65
6:G:43:DA:C2'	6:G:44:DC:H5'	2.26	0.65
7:H:5:DT:H2'	7:H:6:DT:C6	2.30	0.65
11:S:5:THR:O	11:S:55:MET:N	2.28	0.65
2:A:150:GLY:O	2:A:175:PHE:HB3	1.95	0.65
4:C:74:VAL:HB	4:C:102:LYS:HB3	1.78	0.65
5:D:40:GLU:HB3	5:D:50:GLU:CD	2.20	0.65
5:D:918:SER:O	5:D:922:PRO:CD	2.44	0.65
6:G:32:DT:N3	7:H:11:DA:N6	2.24	0.65
6:G:44:DC:C2'	6:G:45:DT:C6	2.78	0.65
10:M:57:THR:HG22	10:M:60:PHE:O	1.95	0.65
11:S:109:ILE:CG2	11:S:122:MET:HG2	2.26	0.65
5:D:827:GLU:OE1	5:D:827:GLU:N	2.30	0.65
6:G:18:DT:H2'	6:G:19:DT:C5	2.31	0.65
6:G:19:DT:OP2	13:Z:549:THR:HA	1.95	0.65
6:G:32:DT:C2'	6:G:33:DT:C6	2.79	0.65
9:L:321:UNK:HA	9:L:322:UNK:C	2.27	0.65
11:S:6:LEU:HA	11:S:54:LEU:HA	1.78	0.65
13:Z:274:LYS:N	13:Z:274:LYS:HD3	2.12	0.65
4:C:553:VAL:HG23	5:D:777:ARG:HD2	1.77	0.65
5:D:150:THR:CG2	5:D:151:PRO:HD2	2.25	0.65
5:D:375:PHE:O	5:D:379:VAL:HG23	1.96	0.65
5:D:739:GLY:O	5:D:759:ASN:HB3	1.95	0.65
12:X:17:DT:H2''	12:X:18:DG:H5'	1.79	0.65
3:B:9:PRO:HG3	3:B:29:LEU:HD23	1.77	0.65
5:D:1336:LYS:O	5:D:1339:VAL:CG1	2.45	0.65
11:S:107:ASP:OD1	11:S:110:ARG:NH2	2.28	0.65
11:S:142:PHE:O	11:S:143:PHE:HB2	1.95	0.65
4:C:48:LEU:HD22	4:C:49:HIS:CD2	2.32	0.65
6:G:16:DC:C2'	6:G:17:DA:H8	2.07	0.65
6:G:36:DT:H2''	6:G:37:DA:C8	2.32	0.65
5:D:73:TYR:CE1	11:S:76:PRO:HB2	2.32	0.65
5:D:130:LEU:HD23	5:D:130:LEU:C	2.22	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:921:GLU:N	5:D:922:PRO:HD2	2.11	0.65
7:H:17:DA:H2'	7:H:18:DT:C5	2.31	0.65
11:S:167:PHE:O	11:S:167:PHE:HD2	1.79	0.65
13:Z:273:ILE:HG12	13:Z:274:LYS:CD	2.26	0.65
13:Z:423:THR:HG23	13:Z:462:ILE:HD11	1.79	0.65
13:Z:459:LEU:CA	13:Z:462:ILE:HG22	2.25	0.65
4:C:696:LEU:HD21	4:C:833:ILE:CG1	2.25	0.65
6:G:5:DA:H2''	6:G:6:DG:C8	2.32	0.65
10:M:5:THR:CG2	10:M:28:ILE:HG13	2.27	0.65
4:C:1155:LEU:HA	4:C:1158:THR:HG22	1.77	0.65
5:D:659:ILE:HD12	5:D:680:ILE:HG23	1.78	0.65
7:H:9:DT:H73	7:H:9:DT:OP2	1.97	0.65
13:Z:315:MET:HG3	13:Z:316:MET:HG2	1.76	0.65
3:B:80:ILE:O	3:B:84:VAL:HG23	1.96	0.65
10:M:154:ASN:ND2	10:M:154:ASN:C	2.55	0.65
13:Z:366:LEU:HD22	13:Z:366:LEU:H	1.61	0.65
2:A:18:GLU:O	2:A:18:GLU:HG3	1.96	0.64
3:B:124:ILE:HG23	3:B:126:GLU:H	1.61	0.64
4:C:840:CYS:HB3	4:C:1064:VAL:CG2	2.27	0.64
5:D:659:ILE:O	5:D:663:THR:HG23	1.96	0.64
7:H:22:DA:H2''	7:H:23:DC:C6	2.32	0.64
7:H:27:DG:H2'	7:H:28:DT:C5	2.33	0.64
13:Z:301:ILE:HA	13:Z:304:LEU:HD23	1.79	0.64
4:C:71:LEU:HD12	4:C:71:LEU:N	2.12	0.64
4:C:466:GLN:HE21	4:C:466:GLN:CA	2.10	0.64
4:C:799:GLY:CA	4:C:1245:LEU:HD23	2.26	0.64
7:H:20:DA:C2'	7:H:21:DC:H6	2.10	0.64
11:S:69:ILE:N	11:S:69:ILE:CD1	2.59	0.64
11:S:187:ASP:O	11:S:191:LYS:HE2	1.97	0.64
11:S:190:LYS:C	11:S:191:LYS:HD2	2.22	0.64
4:C:437:ASN:OD1	4:C:442:LYS:HB2	1.97	0.64
4:C:536:LEU:HD21	4:C:574:LEU:HD13	1.78	0.64
4:C:1347:ILE:HG21	5:D:20:ILE:HD11	1.79	0.64
5:D:886:THR:HG23	5:D:889:GLY:O	1.98	0.64
6:G:17:DA:H2'	6:G:18:DT:H72	1.78	0.64
6:G:40:DG:H22	7:H:2:DA:H61	1.42	0.64
12:X:24:DG:C3'	12:X:25:DC:H5''	2.26	0.64
4:C:205:CYS:SG	4:C:208:VAL:HG23	2.37	0.64
6:G:48:DC:C5	13:Z:92:MET:SD	2.90	0.64
7:H:7:DA:C2'	7:H:8:DA:H5'	2.24	0.64
13:Z:106:GLU:HA	13:Z:109:ILE:CD1	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:198:GLU:OE2	13:Z:202:ASN:ND2	2.27	0.64
13:Z:370:GLN:OE1	13:Z:370:GLN:HA	1.97	0.64
13:Z:566:HIS:CG	13:Z:567:PRO:HD2	2.32	0.64
4:C:358:THR:HG21	4:C:364:ALA:HB2	1.78	0.64
4:C:864:LEU:O	4:C:864:LEU:CD2	2.44	0.64
5:D:1239:LYS:HA	5:D:1242:GLU:HG2	1.79	0.64
6:G:20:DG:C2	6:G:21:DT:C2	2.85	0.64
6:G:40:DG:C2'	6:G:41:DT:C6	2.80	0.64
13:Z:274:LYS:HD3	13:Z:274:LYS:H	1.62	0.64
13:Z:400:ARG:O	13:Z:403:ILE:HG22	1.97	0.64
2:A:102:LEU:HD21	2:A:123:VAL:CG1	2.22	0.64
4:C:702:LEU:HD12	4:C:1241:TYR:CD2	2.33	0.64
5:D:105:LEU:HA	5:D:274:ASN:HD21	1.61	0.64
5:D:266:LEU:HD13	5:D:304:LEU:HA	1.78	0.64
5:D:919:ILE:CD1	5:D:1241:ILE:HD13	2.28	0.64
12:X:18:DG:C2'	12:X:19:DA:C8	2.80	0.64
13:Z:295:GLU:OE1	13:Z:299:ARG:NH2	2.31	0.64
1:E:54:GLU:HB3	1:E:60:ILE:CG1	2.28	0.64
4:C:1151:LYS:HB2	4:C:1154:GLU:OE1	1.98	0.64
5:D:350:ARG:HH11	5:D:350:ARG:HB2	1.62	0.64
5:D:1335:LEU:H	5:D:1335:LEU:HD13	1.60	0.64
6:G:10:DT:C2'	6:G:11:DA:C8	2.79	0.64
7:H:25:DA:H2''	7:H:26:DT:C6	2.33	0.64
8:J:10:DC:C2'	8:J:11:DA:H5'	2.15	0.64
13:Z:347:ASN:ND2	13:Z:391:PHE:CE2	2.66	0.64
13:Z:534:ASN:OD1	13:Z:534:ASN:N	2.30	0.64
1:E:13:VAL:HG21	1:E:19:LEU:CA	2.27	0.64
4:C:632:PHE:CE2	4:C:653:VAL:HG21	2.32	0.64
4:C:900:GLU:HG3	13:Z:509:ILE:CD1	2.27	0.64
6:G:13:DA:C2'	6:G:14:DA:C8	2.80	0.64
7:H:10:DA:C2'	7:H:11:DA:C8	2.81	0.64
12:X:23:DG:H2'	12:X:24:DG:C8	2.33	0.64
13:Z:458:LYS:O	13:Z:462:ILE:HB	1.98	0.64
4:C:400:SER:O	4:C:401:ASP:HB3	1.96	0.64
5:D:689:ASP:HA	5:D:735:ARG:NH2	2.11	0.64
7:H:4:DC:H4'	7:H:5:DT:OP1	1.97	0.64
7:H:12:DC:H2''	7:H:13:DG:C8	2.33	0.64
7:H:36:DG:H2''	7:H:37:DC:O5'	1.98	0.64
10:M:176:ILE:HD12	10:M:176:ILE:H	1.62	0.64
11:S:95:LEU:HD11	11:S:151:ALA:HB2	1.78	0.64
13:Z:127:TYR:OH	13:Z:325:VAL:HG22	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:257:ILE:HD12	13:Z:304:LEU:HD11	1.78	0.64
13:Z:505:LEU:O	13:Z:509:ILE:HG23	1.98	0.64
2:A:160:PRO:O	2:A:161:THR:HG23	1.97	0.64
4:C:42:ASP:OD2	4:C:45:LYS:N	2.24	0.64
4:C:433:GLU:O	4:C:436:ILE:HG13	1.98	0.64
4:C:890:THR:HG23	4:C:916:VAL:HG12	1.80	0.64
4:C:1319:ASN:ND2	4:C:1326:THR:HB	2.12	0.64
5:D:42:ILE:CD1	5:D:47:PHE:HA	2.24	0.64
5:D:1332:LEU:HB3	5:D:1337:GLU:CB	2.27	0.64
7:H:5:DT:H2'	7:H:6:DT:C5'	2.28	0.64
10:M:106:ASN:HB3	10:M:123:ILE:CG2	2.28	0.64
13:Z:386:ARG:NE	13:Z:386:ARG:HA	2.11	0.64
13:Z:549:THR:O	13:Z:553:ILE:HG12	1.97	0.64
5:D:1228:VAL:O	5:D:1231:MET:HG2	1.98	0.63
6:G:34:DA:N6	7:H:8:DA:N1	2.45	0.63
10:M:78:PHE:CG	10:M:79:PRO:CD	2.79	0.63
1:E:18:ASP:O	1:E:22:LEU:HG	1.97	0.63
3:B:7:LEU:H	3:B:7:LEU:CD2	2.11	0.63
3:B:168:THR:HG23	5:D:533:ARG:HD2	1.80	0.63
4:C:520:GLN:HB3	4:C:761:SER:HB2	1.79	0.63
4:C:1155:LEU:O	4:C:1158:THR:HG22	1.98	0.63
5:D:355:VAL:HG13	5:D:357:PRO:HD3	1.80	0.63
5:D:384:ARG:HH12	5:D:392:ILE:CA	2.11	0.63
6:G:46:DT:O2	13:Z:347:ASN:HA	1.98	0.63
11:S:186:ARG:O	11:S:189:VAL:HG22	1.97	0.63
13:Z:273:ILE:HG12	13:Z:274:LYS:HD3	1.80	0.63
13:Z:283:TRP:O	13:Z:287:LEU:HD23	1.98	0.63
2:A:94:ASP:H	2:A:97:ILE:HD12	1.62	0.63
3:B:110:GLU:HB3	3:B:112:PHE:CE2	2.33	0.63
4:C:17:VAL:O	4:C:17:VAL:HG22	1.99	0.63
4:C:62:VAL:CG2	4:C:71:LEU:HD13	2.28	0.63
4:C:887:ALA:HA	4:C:919:SER:HB3	1.79	0.63
5:D:39:PRO:HB2	5:D:268:ARG:HG3	1.78	0.63
5:D:384:ARG:HH12	5:D:392:ILE:HA	1.62	0.63
2:A:151:ARG:NH1	3:B:6:LEU:HD21	2.12	0.63
4:C:204:PHE:HE2	4:C:209:ILE:HD11	1.63	0.63
5:D:1332:LEU:HD13	5:D:1341:ILE:CD1	2.27	0.63
6:G:26:DT:OP2	6:G:26:DT:H72	1.97	0.63
7:H:34:DC:H1'	7:H:35:DA:C4	2.33	0.63
10:M:17:MET:O	10:M:21:ILE:HG12	1.99	0.63
12:X:20:DC:C2'	12:X:21:DG:C5'	2.77	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:109:ILE:HA	13:Z:112:ARG:HH11	1.62	0.63
13:Z:435:LEU:HD12	13:Z:439:GLY:O	1.98	0.63
3:B:43:GLN:OE1	3:B:43:GLN:HA	1.99	0.63
4:C:567:PRO:HD3	4:C:575:ILE:HB	1.81	0.63
4:C:717:ASN:O	4:C:788:GLY:HA3	1.99	0.63
5:D:336:PHE:O	5:D:340:LEU:HB2	1.98	0.63
5:D:668:SER:HB2	5:D:670:LEU:HG	1.79	0.63
7:H:11:DA:H2'	7:H:12:DC:C5	2.33	0.63
13:Z:210:TYR:CA	13:Z:218:LEU:HD23	2.28	0.63
2:A:52:LEU:HG	2:A:178:ILE:HD13	1.81	0.63
4:C:720:ILE:HD12	4:C:720:ILE:N	2.14	0.63
4:C:1242:MET:O	4:C:1244:MET:HG2	1.98	0.63
4:C:1336:ASN:HA	4:C:1339:ARG:HD2	1.79	0.63
5:D:759:ASN:OD1	5:D:762:GLU:HB3	1.98	0.63
6:G:5:DA:H2''	6:G:6:DG:H8	1.63	0.63
6:G:45:DT:C7	13:Z:396:THR:HG21	2.28	0.63
7:H:29:DT:H2'	7:H:30:DT:C5	2.33	0.63
10:M:43:LEU:C	10:M:43:LEU:CD2	2.70	0.63
4:C:736:VAL:HG22	4:C:752:ILE:HD12	1.81	0.63
5:D:477:GLU:OE2	5:D:1349:THR:HG21	1.99	0.63
5:D:1249:LEU:HD21	5:D:1294:LEU:HD13	1.81	0.63
6:G:25:DA:C2	7:H:18:DT:C2	2.87	0.63
6:G:32:DT:H3	7:H:11:DA:H61	1.09	0.63
7:H:31:DA:H2'	7:H:32:DT:H72	1.80	0.63
8:J:4:DC:H2'	8:J:5:DC:C6	2.34	0.63
3:B:9:PRO:HA	3:B:28:ALA:HB3	1.81	0.63
4:C:149:VAL:HG23	4:C:518:MET:HB2	1.80	0.63
4:C:1281:ARG:HA	5:D:344:ARG:HG2	1.80	0.63
5:D:383:LEU:HD13	5:D:398:MET:SD	2.38	0.63
5:D:560:ASN:ND2	5:D:560:ASN:N	2.45	0.63
7:H:5:DT:C2'	7:H:6:DT:C6	2.82	0.63
7:H:27:DG:O5'	7:H:27:DG:H8	1.82	0.63
10:M:17:MET:O	10:M:17:MET:HE2	1.99	0.63
13:Z:219:TYR:O	13:Z:223:VAL:HG13	1.99	0.63
4:C:731:ASP:OD1	4:C:734:ARG:HD3	1.98	0.63
5:D:348:SER:HB3	5:D:467:HIS:HD2	1.63	0.63
5:D:376:LYS:N	5:D:377:PRO:HD2	2.14	0.63
5:D:668:SER:O	5:D:669:SER:HB3	1.99	0.63
7:H:29:DT:H2'	7:H:30:DT:C7	2.29	0.63
13:Z:287:LEU:HD22	13:Z:290:LYS:CE	2.28	0.63
4:C:1295:ALA:HA	5:D:477:GLU:OE2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:243:LEU:HD11	5:D:247:LEU:CD2	2.29	0.62
5:D:1161:GLN:HB3	5:D:1175:GLU:CB	2.29	0.62
1:E:16:ARG:HG2	5:D:481:LEU:CD2	2.29	0.62
2:A:143:LEU:HD12	2:A:143:LEU:C	2.24	0.62
4:C:478:ILE:HD11	4:C:496:VAL:HA	1.81	0.62
6:G:45:DT:H72	13:Z:396:THR:HG21	1.80	0.62
7:H:2:DA:C2'	7:H:3:DC:H5'	2.29	0.62
10:M:112:SER:O	10:M:115:LEU:HG	1.98	0.62
10:M:116:ASP:HB3	10:M:119:GLN:HE21	1.63	0.62
13:Z:106:GLU:HA	13:Z:109:ILE:HD11	1.81	0.62
13:Z:412:ARG:NH1	13:Z:421:ILE:HD11	2.13	0.62
1:E:49:VAL:HG21	5:D:416:GLU:OE1	1.99	0.62
4:C:127:VAL:HG11	4:C:496:VAL:HG21	1.81	0.62
4:C:567:PRO:HG3	4:C:575:ILE:CG1	2.28	0.62
4:C:626:LEU:HD13	4:C:630:ASN:HA	1.80	0.62
6:G:5:DA:C2'	6:G:6:DG:H8	2.13	0.62
6:G:34:DA:C2	7:H:10:DA:C2	2.88	0.62
13:Z:434:ILE:HG12	13:Z:443:THR:HG21	1.81	0.62
4:C:560:ARG:HG3	4:C:590:LEU:HB2	1.81	0.62
4:C:864:LEU:C	4:C:864:LEU:CD2	2.67	0.62
5:D:296:MET:O	5:D:299:GLU:HG2	1.99	0.62
10:M:11:TYR:HD1	10:M:65:LEU:HD13	1.63	0.62
10:M:25:ASN:ND2	10:M:25:ASN:C	2.58	0.62
1:E:16:ARG:HG2	5:D:481:LEU:HD21	1.80	0.62
2:A:153:VAL:HG22	2:A:157:SER:OG	2.00	0.62
6:G:9:DG:H2''	6:G:10:DT:O4'	1.98	0.62
7:H:5:DT:H2'	7:H:6:DT:C5	2.33	0.62
13:Z:512:LEU:HD21	13:Z:564:LEU:HG	1.80	0.62
4:C:51:GLY:O	4:C:55:VAL:HG23	1.99	0.62
4:C:1253:ASP:O	4:C:1274:LYS:HE2	1.98	0.62
5:D:323:LYS:HE2	5:D:328:MET:CG	2.19	0.62
5:D:1239:LYS:HA	5:D:1242:GLU:CD	2.24	0.62
6:G:12:DT:C4	6:G:13:DA:N6	2.68	0.62
6:G:35:DT:C4	7:H:8:DA:N1	2.68	0.62
8:J:4:DC:N4	12:X:23:DG:O6	2.31	0.62
10:M:94:ILE:CD1	11:S:61:ILE:HD11	2.24	0.62
13:Z:441:GLU:H	13:Z:441:GLU:CD	2.08	0.62
13:Z:552:ARG:O	13:Z:556:ILE:HG13	1.99	0.62
5:D:695:MET:SD	5:D:696:MET:N	2.72	0.62
6:G:11:DA:N6	7:H:31:DA:H61	1.97	0.62
10:M:101:LYS:HD2	10:M:101:LYS:C	2.23	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S:5:THR:OG1	11:S:55:MET:HB3	1.99	0.62
13:Z:379:ALA:CA	13:Z:382:LYS:HE2	2.26	0.62
2:A:14:ILE:HD13	2:A:207:LEU:CD1	2.30	0.62
4:C:680:ASN:OD1	5:D:776:ALA:HB1	1.99	0.62
6:G:18:DT:H2'	6:G:19:DT:C6	2.35	0.62
6:G:36:DT:C2'	6:G:37:DA:C8	2.83	0.62
7:H:20:DA:C4	7:H:21:DC:C5	2.88	0.62
8:J:6:DG:H2'	8:J:7:DC:C6	2.35	0.62
10:M:197:ILE:HA	10:M:200:ILE:HG12	1.81	0.62
12:X:21:DG:H3'	12:X:22:DC:C6	2.34	0.62
13:Z:376:LEU:CA	13:Z:399:ILE:HD11	2.30	0.62
2:A:68:GLU:O	2:A:79:VAL:HB	2.00	0.62
2:A:160:PRO:C	2:A:161:THR:HG23	2.24	0.62
3:B:180:LYS:O	3:B:192:LYS:N	2.29	0.62
4:C:1329:VAL:HG23	4:C:1329:VAL:O	1.98	0.62
7:H:20:DA:C2'	7:H:21:DC:C6	2.82	0.62
13:Z:160:ALA:O	13:Z:161:ARG:NH2	2.32	0.62
13:Z:442:ALA:O	13:Z:443:THR:HG22	2.00	0.62
1:E:45:GLU:HB2	5:D:416:GLU:OE1	2.00	0.62
4:C:856:ILE:HD12	4:C:857:PRO:CD	2.26	0.62
6:G:30:DC:C2'	6:G:31:DG:C8	2.82	0.62
5:D:423:ARG:NE	5:D:457:ALA:HB2	2.15	0.61
6:G:23:DT:H2'	6:G:24:DT:H71	1.81	0.61
13:Z:194:GLN:H	13:Z:194:GLN:CD	2.08	0.61
13:Z:341:LYS:HA	13:Z:344:ILE:HG22	1.81	0.61
13:Z:459:LEU:C	13:Z:462:ILE:HG22	2.25	0.61
13:Z:489:GLU:OE1	13:Z:489:GLU:N	2.33	0.61
1:E:54:GLU:HB3	1:E:60:ILE:HG12	1.82	0.61
7:H:28:DT:C2'	7:H:29:DT:C6	2.80	0.61
11:S:44:LYS:N	11:S:44:LYS:CE	2.62	0.61
11:S:204:LYS:HA	11:S:204:LYS:CE	2.09	0.61
13:Z:366:LEU:H	13:Z:366:LEU:CD2	2.13	0.61
13:Z:453:ASN:ND2	13:Z:455:SER:H	1.97	0.61
5:D:111:HIS:HB3	5:D:114:TYR:HD2	1.64	0.61
13:Z:376:LEU:CB	13:Z:399:ILE:HD11	2.28	0.61
3:B:156:ASP:O	3:B:164:LEU:HB2	2.00	0.61
4:C:585:ASN:OD1	4:C:588:GLY:N	2.34	0.61
4:C:1148:LYS:CG	4:C:1149:THR:HG23	2.24	0.61
6:G:45:DT:H72	13:Z:396:THR:CG2	2.31	0.61
7:H:3:DC:H2''	7:H:4:DC:C5'	2.12	0.61
7:H:17:DA:H8	7:H:17:DA:OP2	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:103:LYS:HB2	13:Z:390:LYS:CE	2.22	0.61
2:A:25:TYR:CG	2:A:206:PRO:HG2	2.35	0.61
3:B:45:MET:HG2	3:B:172:VAL:HG21	1.83	0.61
4:C:426:SER:O	4:C:429:VAL:HG12	2.00	0.61
4:C:944:SER:O	4:C:948:LEU:N	2.25	0.61
6:G:24:DT:H2''	6:G:25:DA:O5'	1.99	0.61
10:M:10:ILE:HG22	10:M:168:TYR:CZ	2.34	0.61
4:C:1130:HIS:CD2	4:C:1220:GLY:HA3	2.36	0.61
2:A:92:LYS:HB3	2:A:124:GLU:HB3	1.83	0.61
4:C:593:PRO:HB2	4:C:658:VAL:HG21	1.83	0.61
5:D:34:GLY:HA3	5:D:59:ILE:CG2	2.30	0.61
5:D:395:ALA:O	5:D:399:VAL:HG23	2.00	0.61
6:G:20:DG:N3	7:H:24:DA:C2	2.68	0.61
6:G:33:DT:H2'	6:G:34:DA:H8	1.55	0.61
7:H:27:DG:H2'	7:H:28:DT:C7	2.31	0.61
13:Z:214:PRO:HG3	13:Z:218:LEU:CD2	2.30	0.61
13:Z:452:PRO:HA	13:Z:454:MET:HE2	1.82	0.61
3:B:184:VAL:HG21	3:B:190:LEU:HD12	1.82	0.61
4:C:135:MET:CG	4:C:139:GLY:HA2	2.31	0.61
4:C:674:LEU:HB3	4:C:1198:VAL:HG23	1.82	0.61
5:D:131:LYS:O	5:D:135:LYS:HG3	2.01	0.61
5:D:288:ILE:HD12	5:D:288:ILE:H	1.66	0.61
5:D:1299:ARG:NH1	5:D:1302:LEU:HB3	2.15	0.61
7:H:20:DA:C2	7:H:21:DC:C4	2.89	0.61
4:C:62:VAL:CG2	4:C:71:LEU:HD22	2.30	0.61
4:C:1298:THR:O	4:C:1301:GLU:HG3	2.00	0.61
5:D:350:ARG:HB2	5:D:350:ARG:NH1	2.15	0.61
5:D:589:LEU:HA	5:D:592:LYS:HZ1	1.64	0.61
6:G:18:DT:C2'	6:G:19:DT:C6	2.83	0.61
7:H:10:DA:H2''	7:H:11:DA:H8	1.65	0.61
10:M:5:THR:HG21	10:M:28:ILE:HG13	1.83	0.61
13:Z:123:THR:HG23	13:Z:329:ILE:HD11	1.82	0.61
13:Z:202:ASN:HA	13:Z:205:LYS:HE3	1.83	0.61
1:E:48:THR:HG22	5:D:472:VAL:HG13	1.83	0.61
3:B:7:LEU:HD23	3:B:7:LEU:N	2.14	0.61
3:B:115:GLU:O	3:B:116:ALA:CB	2.48	0.61
4:C:178:PRO:HD2	4:C:183:TRP:HB3	1.83	0.61
4:C:376:ASP:HB2	13:Z:89:ARG:HH21	1.64	0.61
5:D:1282:LYS:HE2	5:D:1285:LYS:CD	2.31	0.61
6:G:19:DT:C2	7:H:25:DA:H2	2.18	0.61
11:S:97:LYS:C	11:S:97:LYS:HD3	2.26	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:107:THR:O	13:Z:111:ILE:HG23	2.00	0.61
13:Z:458:LYS:O	13:Z:462:ILE:N	2.33	0.61
3:B:93:GLU:H	3:B:93:GLU:CD	2.09	0.60
4:C:85:GLU:O	4:C:88:CYS:SG	2.52	0.60
4:C:560:ARG:CG	4:C:590:LEU:HB2	2.31	0.60
4:C:1300:ARG:HD3	5:D:1344:LEU:HG	1.83	0.60
10:M:81:MET:HA	10:M:155:ILE:O	2.01	0.60
10:M:141:GLU:O	10:M:144:VAL:HG12	2.01	0.60
1:E:31:LEU:HD23	1:E:35:TYR:CE1	2.25	0.60
7:H:4:DC:C2'	7:H:5:DT:C5	2.84	0.60
13:Z:109:ILE:HA	13:Z:112:ARG:HD3	1.82	0.60
6:G:5:DA:H2	7:H:38:DT:C2	2.20	0.60
6:G:13:DA:C2	7:H:31:DA:C2	2.90	0.60
6:G:39:DG:C2'	6:G:40:DG:C8	2.74	0.60
11:S:6:LEU:HD23	11:S:7:TYR:N	2.15	0.60
11:S:104:PRO:HA	11:S:108:GLN:HG3	1.83	0.60
2:A:55:ALA:HB1	2:A:93:LEU:HD12	1.82	0.60
2:A:102:LEU:CD2	2:A:123:VAL:HG11	2.24	0.60
3:B:204:ASN:OD1	3:B:207:GLU:HB3	2.01	0.60
4:C:485:VAL:HG23	4:C:490:LEU:CD2	2.31	0.60
4:C:586:ASP:N	4:C:586:ASP:OD1	2.34	0.60
4:C:1339:ARG:HA	4:C:1342:VAL:HG12	1.83	0.60
5:D:512:THR:HG21	5:D:594:LEU:HD12	1.82	0.60
5:D:520:GLY:HA3	5:D:540:ILE:HG23	1.82	0.60
5:D:610:LEU:HG	5:D:614:ALA:HB3	1.80	0.60
5:D:804:LEU:O	5:D:805:VAL:HG23	2.00	0.60
5:D:1140:ALA:O	5:D:1141:ALA:HB2	2.01	0.60
7:H:2:DA:H2''	7:H:3:DC:C5'	2.31	0.60
13:Z:217:LYS:HB3	13:Z:221:LYS:HZ2	1.64	0.60
2:A:78:ASP:O	2:A:82:ILE:HG13	2.01	0.60
3:B:112:PHE:CE1	3:B:129:PHE:HB2	2.37	0.60
4:C:347:ARG:O	4:C:347:ARG:HG2	2.01	0.60
4:C:428:ILE:O	4:C:432:ILE:HG13	2.00	0.60
5:D:73:TYR:CE1	11:S:76:PRO:CB	2.84	0.60
5:D:286:PRO:O	5:D:289:ILE:HG12	2.01	0.60
6:G:33:DT:H2'	6:G:34:DA:N7	2.16	0.60
7:H:21:DC:H2'	7:H:22:DA:H8	1.65	0.60
8:J:7:DC:H2'	8:J:8:DG:H5''	1.83	0.60
3:B:125:THR:O	3:B:125:THR:HG22	2.01	0.60
3:B:138:LYS:HD2	3:B:138:LYS:C	2.27	0.60
5:D:479:ARG:HG3	5:D:483:MET:CE	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:1125:LEU:N	5:D:1126:PRO:CD	2.64	0.60
13:Z:82:GLY:O	13:Z:83:LYS:CG	2.48	0.60
4:C:696:LEU:CD2	4:C:833:ILE:HG13	2.29	0.60
7:H:24:DA:C2'	7:H:25:DA:C8	2.85	0.60
10:M:107:ILE:HD11	10:M:127:MET:HE1	1.83	0.60
4:C:675:GLU:OE1	4:C:675:GLU:N	2.25	0.60
5:D:881:PRO:O	5:D:884:CYS:HB3	2.01	0.60
6:G:48:DC:H2'	6:G:49:DT:C6	2.37	0.60
11:S:50:VAL:HG12	11:S:52:PRO:HD2	1.82	0.60
13:Z:341:LYS:O	13:Z:344:ILE:HG22	2.01	0.60
3:B:16:GLU:HG3	3:B:22:THR:HG22	1.82	0.60
3:B:200:ASN:HD21	3:B:202:ASN:ND2	1.99	0.60
4:C:48:LEU:HD23	4:C:48:LEU:C	2.26	0.60
6:G:43:DA:H5''	13:Z:393:THR:HG21	1.83	0.60
7:H:21:DC:H2'	7:H:22:DA:C8	2.36	0.60
11:S:9:THR:CG2	11:S:12:CYS:HB2	2.31	0.60
13:Z:567:PRO:HA	13:Z:570:SER:OG	2.02	0.60
2:A:62:ILE:CD1	2:A:65:VAL:HG11	2.31	0.60
3:B:17:TYR:CE1	3:B:23:LYS:HG3	2.37	0.60
5:D:548:LEU:HD22	5:D:550:ILE:CG2	2.32	0.60
5:D:752:ILE:HG22	5:D:754:THR:HG22	1.83	0.60
6:G:13:DA:H2''	6:G:14:DA:C5'	2.32	0.60
7:H:30:DT:H2'	7:H:31:DA:N7	2.16	0.60
11:S:9:THR:HB	11:S:51:PHE:CG	2.36	0.60
11:S:63:ASN:O	11:S:67:LEU:HB2	2.01	0.60
13:Z:465:ILE:HG13	13:Z:465:ILE:O	2.02	0.60
3:B:45:MET:CG	3:B:172:VAL:HG21	2.32	0.59
4:C:369:TYR:HB2	4:C:383:VAL:HG23	1.84	0.59
4:C:758:PHE:H	4:C:768:ASN:HB3	1.67	0.59
10:M:60:PHE:HB3	11:S:90:LYS:NZ	2.17	0.59
4:C:1339:ARG:O	4:C:1342:VAL:HG12	2.00	0.59
5:D:103:ILE:HG13	5:D:242:VAL:CG1	2.31	0.59
5:D:139:PHE:CD1	5:D:178:MET:HG3	2.37	0.59
5:D:1361:GLU:O	5:D:1364:ARG:HG3	2.02	0.59
11:S:53:VAL:O	11:S:54:LEU:CB	2.46	0.59
11:S:150:LEU:HD23	11:S:150:LEU:O	2.03	0.59
13:Z:100:LEU:HD23	13:Z:101:LEU:N	2.17	0.59
13:Z:358:TYR:HD1	13:Z:361:ARG:NE	2.00	0.59
1:E:60:ILE:O	1:E:61:THR:HB	2.01	0.59
2:A:20:LEU:O	2:A:20:LEU:HD12	2.01	0.59
3:B:184:VAL:O	3:B:184:VAL:CG1	2.49	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:729:GLU:HB3	4:C:734:ARG:HH22	1.67	0.59
5:D:34:GLY:HA3	5:D:59:ILE:HG23	1.84	0.59
7:H:10:DA:C2'	7:H:11:DA:H8	2.14	0.59
11:S:37:LEU:O	11:S:42:ILE:HD11	2.02	0.59
4:C:179:TYR:CG	4:C:400:SER:HB3	2.37	0.59
4:C:743:LYS:HA	4:C:743:LYS:HE3	1.83	0.59
4:C:1050:ILE:O	4:C:1051:THR:CB	2.49	0.59
5:D:112:ILE:HD12	5:D:302:ASP:HB3	1.84	0.59
5:D:250:LEU:HD23	5:D:258:PHE:HB3	1.85	0.59
5:D:447:LEU:HD23	5:D:447:LEU:H	1.66	0.59
5:D:569:ASN:HD22	5:D:569:ASN:N	1.87	0.59
13:Z:127:TYR:CZ	13:Z:325:VAL:CG2	2.85	0.59
2:A:36:MET:O	2:A:40:LEU:HG	2.02	0.59
3:B:93:GLU:OE1	3:B:93:GLU:N	2.33	0.59
4:C:770:ARG:O	4:C:786:ALA:HB1	2.03	0.59
5:D:613:LYS:O	5:D:616:VAL:CG1	2.50	0.59
10:M:70:GLU:OE1	11:S:92:ARG:HD2	2.03	0.59
13:Z:129:ILE:HG23	13:Z:132:LYS:HD3	1.83	0.59
2:A:11:VAL:HG11	3:B:222:ASN:CG	2.27	0.59
8:J:8:DG:H2''	8:J:9:DT:O5'	1.98	0.59
13:Z:419:HIS:O	13:Z:422:GLU:HG3	2.02	0.59
4:C:21:ILE:HG21	4:C:595:ARG:HD2	1.83	0.59
5:D:139:PHE:HZ	5:D:294:LYS:HE3	1.68	0.59
5:D:1239:LYS:HA	5:D:1242:GLU:CG	2.32	0.59
6:G:34:DA:C2	7:H:10:DA:N3	2.71	0.59
7:H:20:DA:H2'	7:H:21:DC:C6	2.37	0.59
2:A:82:ILE:O	2:A:86:LEU:HG	2.03	0.59
3:B:9:PRO:O	3:B:28:ALA:HB3	2.02	0.59
5:D:919:ILE:HD13	5:D:1241:ILE:HD13	1.83	0.59
7:H:20:DA:H2''	7:H:21:DC:H6	1.67	0.59
3:B:8:HIS:O	3:B:10:THR:HG23	2.02	0.59
4:C:60:PHE:CD2	4:C:73:TYR:HB2	2.38	0.59
4:C:85:GLU:HA	4:C:88:CYS:SG	2.43	0.59
4:C:822:GLU:HG2	4:C:822:GLU:O	2.02	0.59
5:D:276:ARG:HD2	13:Z:370:GLN:HB3	1.83	0.59
5:D:384:ARG:NH1	5:D:392:ILE:CG1	2.65	0.59
6:G:44:DC:OP2	13:Z:393:THR:OG1	2.06	0.59
10:M:130:ASP:O	10:M:134:THR:HG23	2.02	0.59
13:Z:382:LYS:HE3	13:Z:398:TRP:CE3	2.37	0.59
13:Z:502:LEU:C	13:Z:502:LEU:CD2	2.76	0.59
4:C:927:SER:O	4:C:1070:ILE:HD13	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:1221:GLN:HA	4:C:1238:THR:CA	2.32	0.59
5:D:508:LEU:O	5:D:511:ILE:HG12	2.02	0.59
5:D:618:LEU:HD21	5:D:622:LEU:HD11	1.85	0.59
6:G:20:DG:N2	7:H:23:DC:O2	2.35	0.59
7:H:9:DT:H2''	7:H:10:DA:H5'	1.83	0.59
11:S:117:LYS:NZ	11:S:121:SER:OG	2.35	0.59
11:S:122:MET:CE	11:S:125:ASP:HB3	2.33	0.59
13:Z:264:ARG:N	13:Z:264:ARG:CD	2.66	0.59
13:Z:572:PHE:HD2	13:Z:573:LEU:CD1	2.14	0.59
2:A:182:ALA:O	2:A:197:PHE:N	2.34	0.58
4:C:357:LEU:HD12	4:C:357:LEU:H	1.66	0.58
4:C:760:ARG:NH1	4:C:764:ASN:OD1	2.36	0.58
4:C:927:SER:O	4:C:1070:ILE:HB	2.03	0.58
4:C:939:ASP:OD1	4:C:1052:GLN:CB	2.51	0.58
4:C:1275:ALA:HB3	4:C:1276:GLN:NE2	2.18	0.58
5:D:110:VAL:HG22	5:D:236:VAL:HG22	1.84	0.58
7:H:4:DC:H2'	7:H:5:DT:C5	2.38	0.58
7:H:4:DC:H2'	7:H:5:DT:C7	2.32	0.58
7:H:12:DC:H2''	7:H:13:DG:H8	1.68	0.58
10:M:52:ILE:HG23	10:M:53:PRO:HA	1.85	0.58
11:S:141:GLU:HG3	11:S:142:PHE:CD2	2.38	0.58
13:Z:95:MET:SD	13:Z:349:ARG:HG2	2.43	0.58
2:A:229:VAL:HA	3:B:12:ILE:HD13	1.84	0.58
4:C:886:VAL:O	4:C:919:SER:HB2	2.03	0.58
5:D:42:ILE:HD11	5:D:47:PHE:HB3	1.85	0.58
5:D:822:ILE:H	5:D:822:ILE:CD1	2.14	0.58
5:D:1137:PRO:HG2	5:D:1140:ALA:CB	2.29	0.58
7:H:13:DG:C2'	7:H:14:DC:H6	2.16	0.58
13:Z:88:ILE:H	13:Z:88:ILE:CD1	1.86	0.58
1:E:6:VAL:HG21	5:D:480:VAL:HA	1.85	0.58
4:C:21:ILE:HD12	4:C:21:ILE:H	1.68	0.58
4:C:199:ASP:O	4:C:200:ARG:HG3	2.03	0.58
5:D:143:ILE:HD13	5:D:186:LEU:CD1	2.32	0.58
5:D:193:GLU:OE2	5:D:193:GLU:N	2.32	0.58
5:D:1125:LEU:HD23	5:D:1125:LEU:O	2.02	0.58
6:G:43:DA:H5''	13:Z:393:THR:CG2	2.33	0.58
8:J:6:DG:H2'	8:J:7:DC:H6	1.69	0.58
11:S:50:VAL:CG1	11:S:52:PRO:HD2	2.34	0.58
11:S:111:LYS:HD2	11:S:112:HIS:N	2.19	0.58
11:S:135:LYS:N	11:S:135:LYS:HD2	2.17	0.58
2:A:93:LEU:HD11	2:A:147:VAL:CG1	2.31	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:100:ASN:OD1	4:C:128:TYR:HA	2.03	0.58
4:C:157:SER:HB3	4:C:453:ASN:O	2.02	0.58
4:C:1119:SER:HB3	5:D:728:ARG:HG3	1.85	0.58
4:C:1159:LEU:CD1	4:C:1173:LEU:HD21	2.31	0.58
4:C:1161:GLU:O	4:C:1165:SER:OG	2.21	0.58
4:C:1218:THR:HG22	4:C:1218:THR:O	2.02	0.58
5:D:54:LEU:HD21	5:D:271:ILE:CD1	2.33	0.58
5:D:124:LEU:HD23	5:D:221:LEU:HD12	1.85	0.58
10:M:30:ASP:HB3	10:M:33:LYS:HG2	1.84	0.58
11:S:140:SER:O	11:S:182:ARG:NH2	2.36	0.58
13:Z:112:ARG:O	13:Z:115:GLU:HG2	2.03	0.58
13:Z:344:ILE:O	13:Z:348:LEU:CD1	2.51	0.58
1:E:19:LEU:HA	1:E:22:LEU:HD12	1.85	0.58
4:C:189:ASP:CB	4:C:193:ILE:HG22	2.33	0.58
4:C:1274:LYS:O	4:C:1274:LYS:HG2	2.04	0.58
4:C:1344:ALA:O	5:D:241:PRO:HG2	2.04	0.58
5:D:1331:ASN:N	5:D:1331:ASN:ND2	2.46	0.58
7:H:28:DT:C2	7:H:29:DT:C4	2.92	0.58
7:H:41:DA:C2'	7:H:42:DT:C6	2.78	0.58
12:X:16:DC:H2''	12:X:17:DT:C6	2.39	0.58
1:E:4:VAL:N	5:D:483:MET:HE1	2.18	0.58
4:C:471:LEU:O	4:C:474:VAL:CG1	2.50	0.58
4:C:616:ASN:H	4:C:616:ASN:ND2	1.99	0.58
5:D:58:LYS:HE2	5:D:87:GLY:HA3	1.86	0.58
6:G:49:DT:C1'	6:G:50:DT:C5'	2.76	0.58
7:H:34:DC:H4'	7:H:35:DA:H5''	1.85	0.58
10:M:43:LEU:HD23	10:M:47:THR:HG22	1.85	0.58
3:B:67:LEU:HA	3:B:77:VAL:HG13	1.81	0.58
3:B:113:SER:CB	3:B:124:ILE:HG12	2.17	0.58
3:B:203:VAL:CG2	3:B:207:GLU:CG	2.82	0.58
4:C:433:GLU:HA	4:C:436:ILE:CG1	2.34	0.58
5:D:76:LEU:H	5:D:76:LEU:CD1	2.16	0.58
5:D:293:GLU:OE2	13:Z:370:GLN:HG3	2.04	0.58
5:D:414:ILE:HD11	5:D:439:LEU:CG	2.32	0.58
10:M:63:TYR:O	10:M:64:ARG:CB	2.51	0.58
11:S:122:MET:CE	11:S:122:MET:O	2.52	0.58
12:X:24:DG:H2''	12:X:25:DC:H5''	1.84	0.58
13:Z:505:LEU:HB2	13:Z:576:PHE:CD1	2.39	0.58
4:C:8:LYS:NZ	4:C:8:LYS:CB	2.66	0.58
4:C:1221:GLN:HA	4:C:1237:VAL:C	2.28	0.58
5:D:478:ALA:CB	5:D:482:MET:HE3	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:1263:VAL:O	5:D:1263:VAL:HG12	2.02	0.58
10:M:17:MET:HE3	10:M:17:MET:CA	2.26	0.58
10:M:84:VAL:HG22	13:Z:534:ASN:CG	2.28	0.58
13:Z:441:GLU:OE1	13:Z:441:GLU:N	2.30	0.58
1:E:15:THR:HA	5:D:906:ASN:ND2	2.19	0.58
2:A:52:LEU:HG	2:A:178:ILE:CD1	2.33	0.58
4:C:30:ILE:HD13	4:C:584:VAL:HG21	1.85	0.58
4:C:1303:LEU:HD13	5:D:1339:VAL:HG23	1.83	0.58
11:S:142:PHE:CE1	11:S:183:LEU:HA	2.38	0.58
13:Z:386:ARG:HA	13:Z:386:ARG:HE	1.67	0.58
4:C:368:ILE:HD13	4:C:387:PHE:HE1	1.69	0.57
4:C:499:LYS:N	4:C:500:PRO:HD2	2.19	0.57
4:C:677:ASP:OD2	4:C:1084:HIS:HD2	1.87	0.57
4:C:771:PRO:HA	4:C:786:ALA:HB1	1.85	0.57
13:Z:210:TYR:CB	13:Z:218:LEU:HG	2.34	0.57
4:C:142:ILE:N	4:C:142:ILE:HD12	2.18	0.57
4:C:622:ALA:HA	4:C:656:MET:CE	2.33	0.57
4:C:787:ASP:HB2	4:C:791:THR:OG1	2.04	0.57
4:C:1092:ARG:HG2	4:C:1093:VAL:N	2.19	0.57
5:D:74:LYS:HG2	5:D:74:LYS:O	2.03	0.57
5:D:146:ASP:C	5:D:146:ASP:OD1	2.47	0.57
5:D:267:TYR:O	5:D:271:ILE:HG13	2.04	0.57
5:D:1226:GLN:NE2	5:D:1238:ASP:HB3	2.19	0.57
10:M:77:PRO:HD2	13:Z:545:GLN:OE1	2.04	0.57
13:Z:237:GLN:O	13:Z:240:VAL:CG2	2.53	0.57
5:D:548:LEU:HD22	5:D:550:ILE:HG22	1.86	0.57
5:D:687:THR:O	5:D:691:VAL:HG23	2.04	0.57
5:D:709:GLU:HG2	5:D:710:LYS:H	1.69	0.57
7:H:4:DC:H2''	7:H:5:DT:H5'	1.85	0.57
11:S:120:GLU:HA	11:S:123:PHE:HD2	1.69	0.57
13:Z:282:GLU:O	13:Z:286:PRO:CD	2.52	0.57
3:B:26:PHE:O	3:B:192:LYS:HG2	2.03	0.57
4:C:604:ASP:O	4:C:606:ILE:HD12	2.04	0.57
4:C:890:THR:HG23	4:C:916:VAL:CG1	2.34	0.57
5:D:316:GLY:O	5:D:319:LYS:HE3	2.05	0.57
6:G:15:DA:H2''	6:G:16:DC:H6	1.69	0.57
13:Z:441:GLU:CD	13:Z:441:GLU:N	2.63	0.57
5:D:833:VAL:CB	5:D:865:VAL:HG13	2.32	0.57
11:S:148:PHE:HB2	11:S:186:ARG:HH12	1.70	0.57
12:X:24:DG:C3'	12:X:25:DC:C5'	2.83	0.57
1:E:48:THR:CG2	5:D:472:VAL:HG13	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:9:GLU:CD	2:A:9:GLU:N	2.62	0.57
2:A:120:THR:HG23	2:A:123:VAL:CG2	2.35	0.57
3:B:112:PHE:HE1	3:B:129:PHE:HB2	1.69	0.57
3:B:160:ASP:OD1	3:B:160:ASP:N	2.38	0.57
5:D:1275:GLU:HA	5:D:1287:GLU:HB3	1.85	0.57
8:J:8:DG:H2''	8:J:9:DT:OP1	2.01	0.57
13:Z:297:THR:O	13:Z:301:ILE:HG23	2.04	0.57
4:C:408:ASN:O	4:C:412:GLY:N	2.37	0.57
5:D:1255:LEU:N	5:D:1289:GLU:O	2.34	0.57
11:S:190:LYS:O	11:S:191:LYS:HD2	2.04	0.57
13:Z:112:ARG:HA	13:Z:115:GLU:OE2	2.04	0.57
2:A:32:VAL:HG22	2:A:192:GLU:N	2.20	0.57
2:A:120:THR:O	2:A:123:VAL:HG22	2.03	0.57
4:C:108:TYR:CB	4:C:118:ILE:H	2.18	0.57
4:C:554:HIS:O	4:C:557:HIS:HB2	2.05	0.57
4:C:677:ASP:OD2	4:C:1084:HIS:CD2	2.57	0.57
4:C:868:ASP:OD1	4:C:871:GLY:N	2.37	0.57
5:D:73:TYR:HE1	11:S:76:PRO:HB2	1.70	0.57
5:D:89:GLU:HG2	5:D:90:VAL:N	2.18	0.57
5:D:644:ILE:HG23	5:D:645:PRO:HD2	1.86	0.57
6:G:28:DG:C2'	6:G:29:DG:H5'	2.15	0.57
10:M:197:ILE:O	10:M:200:ILE:HG12	2.04	0.57
13:Z:231:LEU:N	13:Z:231:LEU:HD23	2.20	0.57
13:Z:243:ILE:O	13:Z:246:PRO:HD2	2.05	0.57
13:Z:263:GLU:O	13:Z:267:THR:HG22	2.04	0.57
4:C:565:GLU:O	4:C:566:THR:HG23	2.05	0.57
4:C:705:THR:HA	4:C:1196:THR:O	2.05	0.57
4:C:872:ILE:HG21	4:C:933:VAL:HG11	1.87	0.57
4:C:879:VAL:HG23	4:C:922:MET:HE2	1.86	0.57
5:D:122:ILE:HG12	5:D:235:MET:HE1	1.86	0.57
6:G:44:DC:H2''	6:G:45:DT:C6	2.40	0.57
3:B:50:ALA:HB2	3:B:149:VAL:CG1	2.34	0.57
3:B:98:GLY:HA3	3:B:122:LEU:HD21	1.87	0.57
4:C:36:LYS:O	4:C:40:THR:N	2.38	0.57
5:D:113:TRP:CE2	5:D:1317:THR:HG23	2.40	0.57
5:D:116:LYS:HE2	5:D:310:ARG:HB3	1.86	0.57
5:D:122:ILE:HG12	5:D:235:MET:HE3	1.86	0.57
5:D:200:GLN:O	5:D:204:GLU:N	2.35	0.57
7:H:4:DC:C3'	7:H:5:DT:H5'	2.34	0.57
11:S:67:LEU:HD23	11:S:67:LEU:C	2.29	0.57
13:Z:127:TYR:CZ	13:Z:325:VAL:HG22	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:539:LEU:O	13:Z:542:VAL:HG22	2.04	0.57
4:C:388:GLU:HA	4:C:392:PHE:CD2	2.37	0.56
4:C:1281:ARG:CA	5:D:344:ARG:HG2	2.34	0.56
4:C:1351:PHE:HB3	5:D:15:PHE:CG	2.39	0.56
5:D:81:VAL:CG1	11:S:76:PRO:HG3	2.35	0.56
5:D:658:GLU:O	5:D:662:ILE:HG12	2.05	0.56
5:D:695:MET:SD	5:D:695:MET:C	2.88	0.56
5:D:708:GLY:O	5:D:709:GLU:CB	2.47	0.56
5:D:1142:ILE:C	5:D:1143:LEU:HD22	2.30	0.56
6:G:19:DT:C5	13:Z:551:GLU:HG3	2.40	0.56
7:H:33:DA:H2''	7:H:34:DC:C2	2.39	0.56
10:M:59:ASP:OD1	11:S:86:ASN:ND2	2.38	0.56
1:E:54:GLU:O	1:E:57:GLU:HG2	2.05	0.56
2:A:69:TYR:HE1	4:C:833:ILE:HD13	1.71	0.56
2:A:153:VAL:O	2:A:153:VAL:CG2	2.53	0.56
3:B:102:PHE:HB2	3:B:141:ILE:CB	2.26	0.56
4:C:399:LEU:HG	4:C:421:TYR:O	2.05	0.56
4:C:1052:GLN:CB	4:C:1056:LEU:HD11	2.34	0.56
4:C:1262:SER:O	4:C:1271:LEU:HD23	2.04	0.56
5:D:919:ILE:HD12	5:D:1244:ILE:HD12	1.85	0.56
6:G:21:DT:C2'	6:G:22:DG:H8	2.18	0.56
6:G:37:DA:C2'	6:G:38:DA:C8	2.86	0.56
11:S:44:LYS:HA	11:S:44:LYS:CE	2.17	0.56
11:S:53:VAL:HG12	11:S:62:ASN:CA	2.33	0.56
13:Z:304:LEU:HD12	13:Z:305:THR:N	2.20	0.56
1:E:13:VAL:HG21	1:E:19:LEU:HB2	1.86	0.56
3:B:82:LEU:HD21	5:D:524:LEU:HG	1.86	0.56
4:C:426:SER:O	4:C:429:VAL:CG1	2.53	0.56
4:C:804:VAL:HG21	4:C:1242:MET:HB3	1.87	0.56
4:C:897:LEU:HD23	4:C:897:LEU:N	2.20	0.56
4:C:1330:ASP:O	4:C:1331:VAL:HG23	2.06	0.56
5:D:25:PRO:O	5:D:29:ARG:HG3	2.05	0.56
5:D:844:ASP:OD1	5:D:856:ALA:CB	2.53	0.56
5:D:922:PRO:HB2	5:D:1234:VAL:HG11	1.87	0.56
6:G:5:DA:H2'	6:G:6:DG:C8	2.39	0.56
7:H:19:DA:C2	7:H:20:DA:C4	2.93	0.56
11:S:159:ILE:O	11:S:163:GLU:HG3	2.04	0.56
12:X:21:DG:C2'	12:X:22:DC:C6	2.87	0.56
13:Z:265:SER:HB3	13:Z:292:LYS:CB	2.35	0.56
13:Z:283:TRP:CE3	13:Z:287:LEU:HD21	2.40	0.56
13:Z:420:MET:O	13:Z:423:THR:HG22	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:453:ASN:ND2	13:Z:455:SER:O	2.38	0.56
13:Z:472:MET:HG3	13:Z:473:GLU:N	2.19	0.56
13:Z:506:ARG:O	13:Z:509:ILE:HG12	2.05	0.56
2:A:39:ILE:HG23	3:B:40:ALA:CB	2.36	0.56
4:C:471:LEU:C	4:C:474:VAL:HG12	2.30	0.56
4:C:581:TYR:HD2	4:C:662:GLN:HA	1.70	0.56
4:C:621:GLN:NE2	4:C:623:SER:OG	2.38	0.56
5:D:409:ILE:O	5:D:412:THR:CG2	2.54	0.56
5:D:435:PHE:CE1	5:D:484:SER:HB3	2.41	0.56
5:D:717:ASN:OD1	5:D:719:VAL:N	2.38	0.56
10:M:152:ALA:O	10:M:153:GLN:CG	2.48	0.56
11:S:113:ARG:HD2	11:S:118:MET:CB	2.35	0.56
11:S:122:MET:CA	11:S:122:MET:CE	2.74	0.56
13:Z:304:LEU:HD12	13:Z:304:LEU:C	2.31	0.56
4:C:108:TYR:CB	4:C:117:LYS:CA	2.82	0.56
4:C:1234:ASP:O	4:C:1235:ARG:CB	2.53	0.56
5:D:832:LEU:HD12	5:D:832:LEU:O	2.05	0.56
11:S:186:ARG:HB2	11:S:189:VAL:HG22	1.87	0.56
13:Z:210:TYR:N	13:Z:218:LEU:HD23	2.20	0.56
13:Z:252:GLU:HA	13:Z:255:ARG:HH11	1.71	0.56
4:C:384:LYS:C	4:C:384:LYS:HD3	2.30	0.56
4:C:1302:MET:SD	4:C:1306:LYS:HD2	2.45	0.56
13:Z:117:THR:O	13:Z:120:VAL:HG12	2.05	0.56
13:Z:140:GLU:O	13:Z:143:GLU:CG	2.52	0.56
3:B:104:LEU:CD1	3:B:111:ILE:HD11	2.35	0.56
4:C:2:SER:CB	4:C:7:GLU:CB	2.78	0.56
4:C:1163:TYR:OH	4:C:1188:LEU:HD11	2.06	0.56
5:D:306:ASP:CG	5:D:309:ARG:HG3	2.30	0.56
5:D:476:LEU:HD23	5:D:476:LEU:O	2.06	0.56
10:M:100:ASN:CB	10:M:104:LEU:HD12	2.35	0.56
11:S:14:TYR:HD2	11:S:64:ARG:HH21	1.53	0.56
5:D:589:LEU:HB3	5:D:602:ILE:HG12	1.86	0.56
5:D:1156:ASP:CG	5:D:1160:LYS:HZ3	2.13	0.56
6:G:44:DC:H2'	6:G:45:DT:C7	2.36	0.56
10:M:78:PHE:CE2	10:M:79:PRO:HD2	2.36	0.56
10:M:182:ASN:O	10:M:185:LYS:HG2	2.06	0.56
13:Z:242:TYR:O	13:Z:246:PRO:HD3	2.06	0.56
13:Z:354:GLU:OE2	13:Z:357:LYS:HE2	2.05	0.56
2:A:160:PRO:O	2:A:161:THR:OG1	2.24	0.56
4:C:618:VAL:HG22	4:C:641:SER:CA	2.34	0.56
4:C:821:SER:O	4:C:822:GLU:CB	2.51	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:1136:TYR:HB2	4:C:1241:TYR:HE2	1.69	0.56
4:C:1267:THR:HG21	5:D:339:ASN:ND2	2.20	0.56
5:D:423:ARG:HG2	5:D:425:PRO:CD	2.28	0.56
7:H:25:DA:H2'	7:H:26:DT:C5	2.41	0.56
10:M:11:TYR:CE1	10:M:104:LEU:HD13	2.41	0.56
10:M:110:LEU:O	10:M:115:LEU:CD1	2.52	0.56
13:Z:242:TYR:O	13:Z:246:PRO:CD	2.54	0.56
2:A:224:PHE:O	2:A:227:LEU:CD2	2.53	0.56
3:B:113:SER:OG	3:B:126:GLU:O	2.21	0.56
4:C:62:VAL:HG22	4:C:71:LEU:HD22	1.86	0.56
4:C:956:ASP:O	4:C:960:LYS:N	2.31	0.56
4:C:1271:LEU:N	4:C:1271:LEU:CD2	2.69	0.56
5:D:69:LEU:O	5:D:69:LEU:HD23	2.06	0.56
6:G:21:DT:H2'	6:G:22:DG:H8	1.71	0.56
10:M:11:TYR:OH	10:M:104:LEU:HB3	2.06	0.56
10:M:43:LEU:O	10:M:43:LEU:HD23	2.05	0.56
11:S:152:ASP:O	11:S:155:ILE:CG1	2.50	0.56
13:Z:401:GLN:OE1	13:Z:401:GLN:HA	2.06	0.56
13:Z:542:VAL:CG2	13:Z:553:ILE:HG21	2.35	0.56
2:A:18:GLU:O	2:A:18:GLU:CG	2.54	0.55
3:B:7:LEU:CD1	3:B:190:LEU:HD13	2.32	0.55
4:C:569:GLY:O	4:C:572:ILE:HG22	2.06	0.55
4:C:856:ILE:CD1	4:C:917:ASP:HB3	2.36	0.55
5:D:112:ILE:HD11	5:D:309:ARG:HB2	1.88	0.55
5:D:786:LYS:C	5:D:786:LYS:CD	2.79	0.55
12:X:17:DT:H2'	12:X:18:DG:C8	2.41	0.55
12:X:22:DC:C2'	12:X:23:DG:C8	2.86	0.55
13:Z:253:PHE:CB	13:Z:308:ILE:HD11	2.36	0.55
2:A:155:ILE:CG1	2:A:156:LEU:HD12	2.36	0.55
4:C:432:ILE:O	4:C:436:ILE:HG12	2.05	0.55
5:D:192:ILE:HG22	5:D:196:ILE:HD11	1.86	0.55
5:D:518:ALA:HB1	5:D:541:ASP:HB2	1.88	0.55
5:D:845:VAL:HG12	5:D:854:LEU:HB2	1.87	0.55
5:D:1239:LYS:O	5:D:1242:GLU:HG2	2.06	0.55
13:Z:88:ILE:HG13	13:Z:366:LEU:CD1	2.22	0.55
1:E:10:LEU:O	1:E:13:VAL:O	2.25	0.55
2:A:104:LEU:C	2:A:104:LEU:CD2	2.71	0.55
2:A:120:THR:HG23	2:A:123:VAL:CG1	2.37	0.55
3:B:150:GLY:O	3:B:169:PHE:HB2	2.05	0.55
5:D:192:ILE:HG22	5:D:196:ILE:CD1	2.35	0.55
5:D:1299:ARG:HA	5:D:1299:ARG:NE	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:X:18:DG:C2'	12:X:19:DA:H8	2.17	0.55
4:C:102:LYS:HE3	4:C:124:GLU:HG3	1.88	0.55
4:C:209:ILE:N	4:C:209:ILE:CD1	2.68	0.55
4:C:370:LYS:HD3	4:C:370:LYS:O	2.06	0.55
6:G:33:DT:O5'	6:G:33:DT:H6	1.88	0.55
10:M:36:ASN:OD1	10:M:39:HIS:CD2	2.60	0.55
10:M:182:ASN:HA	10:M:185:LYS:HG2	1.87	0.55
1:E:14:GLU:C	1:E:15:THR:HG23	2.31	0.55
4:C:515:SER:C	4:C:516:GLN:HG3	2.32	0.55
4:C:585:ASN:ND2	4:C:589:PHE:HB2	2.22	0.55
5:D:306:ASP:HA	5:D:324:SER:HB2	1.88	0.55
6:G:7:DC:H2''	6:G:8:DT:O4'	2.06	0.55
2:A:9:GLU:CD	2:A:9:GLU:H	2.15	0.55
4:C:724:VAL:HG23	4:C:779:VAL:O	2.06	0.55
4:C:748:ASN:O	4:C:749:LEU:CB	2.53	0.55
5:D:119:PRO:HG2	5:D:121:ARG:NH1	2.17	0.55
10:M:17:MET:HA	10:M:17:MET:CE	2.31	0.55
10:M:63:TYR:CE1	11:S:93:LEU:HD21	2.42	0.55
13:Z:526:MET:O	13:Z:530:GLY:N	2.40	0.55
1:E:38:SER:CB	5:D:385:LEU:HD21	2.34	0.55
2:A:20:LEU:C	2:A:20:LEU:CD1	2.80	0.55
4:C:852:ILE:HG12	4:C:888:LYS:HG2	1.88	0.55
5:D:24:SER:O	5:D:28:ILE:HG13	2.07	0.55
5:D:898:ASP:CA	5:D:905:VAL:HG22	2.36	0.55
6:G:13:DA:H2''	6:G:14:DA:H5'	1.89	0.55
7:H:10:DA:H2''	7:H:11:DA:C8	2.41	0.55
7:H:20:DA:C2	7:H:21:DC:N3	2.75	0.55
5:D:240:LEU:HD12	5:D:240:LEU:C	2.30	0.55
6:G:41:DT:H71	13:Z:398:TRP:CZ3	2.41	0.55
10:M:11:TYR:HE1	10:M:104:LEU:HD13	1.71	0.55
13:Z:213:LYS:H	13:Z:214:PRO:HD2	1.72	0.55
1:E:23:ALA:HB1	5:D:476:LEU:HD11	1.89	0.55
2:A:25:TYR:CD2	2:A:206:PRO:HG3	2.42	0.55
2:A:180:ARG:HD3	2:A:199:LYS:HD3	1.88	0.55
4:C:560:ARG:HG3	4:C:590:LEU:HB3	1.86	0.55
5:D:299:GLU:HG3	5:D:300:ALA:N	2.22	0.55
6:G:28:DG:C2'	6:G:29:DG:C8	2.85	0.55
10:M:70:GLU:OE1	11:S:92:ARG:NH1	2.40	0.55
3:B:193:LEU:CD2	3:B:195:LEU:HG	2.35	0.55
4:C:1184:LEU:C	4:C:1184:LEU:HD23	2.32	0.55
5:D:581:LEU:CD1	5:D:590:LEU:HG	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:1275:GLU:O	5:D:1279:LYS:HB2	2.07	0.55
6:G:33:DT:OP2	6:G:33:DT:H73	2.07	0.55
10:M:180:ASP:OD2	10:M:183:ILE:HG12	2.06	0.55
13:Z:379:ALA:O	13:Z:382:LYS:HG3	2.07	0.55
1:E:5:THR:C	1:E:7:GLU:H	2.15	0.54
3:B:73:CYS:SG	3:B:75:GLU:O	2.65	0.54
4:C:154:LEU:HD13	4:C:456:VAL:HG12	1.88	0.54
4:C:523:PRO:HB3	4:C:717:ASN:HD22	1.70	0.54
5:D:52:ASP:OD1	5:D:52:ASP:N	2.39	0.54
5:D:414:ILE:CD1	5:D:439:LEU:HG	2.34	0.54
5:D:1162:ARG:O	5:D:1175:GLU:CB	2.55	0.54
16:D:1704:G4P:O1D	16:D:1704:G4P:O2'	2.19	0.54
6:G:11:DA:H61	7:H:31:DA:N6	2.04	0.54
7:H:21:DC:C2	7:H:22:DA:C8	2.94	0.54
11:S:57:LYS:H	11:S:57:LYS:CD	2.20	0.54
11:S:203:LEU:H	11:S:203:LEU:HD13	1.69	0.54
13:Z:253:PHE:HB2	13:Z:308:ILE:HD11	1.88	0.54
13:Z:510:LYS:O	13:Z:513:ILE:CG1	2.54	0.54
2:A:94:ASP:HB2	2:A:97:ILE:CD1	2.36	0.54
4:C:5:TYR:CE2	4:C:9:LYS:HE2	2.42	0.54
4:C:101:VAL:HG22	4:C:129:MET:CG	2.36	0.54
4:C:372:LEU:CD1	4:C:386:LEU:HD21	2.37	0.54
4:C:515:SER:O	4:C:516:GLN:HG3	2.07	0.54
5:D:610:LEU:HG	5:D:614:ALA:HB1	1.85	0.54
7:H:26:DT:O5'	7:H:26:DT:H6	1.90	0.54
13:Z:102:ASP:OD2	13:Z:103:LYS:N	2.40	0.54
13:Z:259:ARG:O	13:Z:263:GLU:HG3	2.08	0.54
13:Z:557:GLU:HG3	13:Z:558:ALA:N	2.21	0.54
2:A:62:ILE:CG2	2:A:65:VAL:HG13	2.38	0.54
3:B:92:ALA:HB3	3:B:95:VAL:HG22	1.90	0.54
4:C:1347:ILE:CG2	5:D:20:ILE:HG12	2.37	0.54
5:D:1282:LYS:HE2	5:D:1285:LYS:HD3	1.88	0.54
5:D:1362:LYS:HD2	5:D:1363:MET:N	2.22	0.54
6:G:12:DT:H2'	6:G:13:DA:N7	2.21	0.54
6:G:46:DT:H4'	13:Z:353:SER:CB	2.38	0.54
10:M:157:VAL:HG13	10:M:158:LEU:HD12	1.89	0.54
11:S:91:ILE:O	11:S:95:LEU:HD13	2.08	0.54
13:Z:367:ASP:OD1	13:Z:367:ASP:N	2.40	0.54
1:E:24:SER:CB	5:D:473:GLU:HG3	2.37	0.54
3:B:209:LEU:C	3:B:209:LEU:CD2	2.81	0.54
4:C:683:LEU:C	4:C:683:LEU:CD2	2.81	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:727:VAL:HG11	4:C:730:VAL:CG1	2.33	0.54
4:C:1087:LYS:HE2	5:D:460:ASP:HB2	1.89	0.54
4:C:1348:ASP:HB2	5:D:31:TRP:HH2	1.73	0.54
5:D:58:LYS:HG3	5:D:87:GLY:C	2.31	0.54
5:D:657:LYS:NZ	5:D:660:LYS:HD2	2.23	0.54
5:D:1256:ASP:OD2	5:D:1256:ASP:C	2.49	0.54
7:H:28:DT:C2'	7:H:29:DT:H72	2.38	0.54
7:H:41:DA:H2'	7:H:42:DT:H6	1.62	0.54
10:M:167:TYR:CE1	10:M:171:LYS:HE3	2.42	0.54
13:Z:271:GLU:CD	13:Z:274:LYS:HE3	2.30	0.54
5:D:83:CYS:SG	5:D:85:ARG:HB2	2.48	0.54
5:D:158:LEU:N	5:D:158:LEU:HD12	2.23	0.54
5:D:472:VAL:O	5:D:475:GLN:HG2	2.07	0.54
5:D:500:PRO:HB2	5:D:505:VAL:CG2	2.37	0.54
7:H:17:DA:C2'	7:H:18:DT:C6	2.87	0.54
13:Z:197:TYR:O	13:Z:201:THR:HG23	2.06	0.54
2:A:205:GLU:OE1	2:A:205:GLU:N	2.39	0.54
3:B:57:ILE:HD11	3:B:84:VAL:CG1	2.37	0.54
4:C:1258:ARG:HD2	4:C:1277:PHE:CD2	2.42	0.54
5:D:139:PHE:HA	5:D:178:MET:HE2	1.90	0.54
5:D:217:LYS:HD2	5:D:217:LYS:H	1.73	0.54
5:D:582:PRO:HG2	5:D:585:LEU:HD12	1.90	0.54
5:D:823:VAL:HG22	5:D:825:ASP:H	1.73	0.54
5:D:923:GLY:O	5:D:926:LEU:HG	2.07	0.54
6:G:7:DC:C2'	6:G:8:DT:O4'	2.55	0.54
6:G:12:DT:N3	6:G:13:DA:C6	2.76	0.54
6:G:44:DC:P	13:Z:390:LYS:HB2	2.47	0.54
10:M:70:GLU:CD	11:S:92:ARG:HD2	2.32	0.54
13:Z:272:PHE:O	13:Z:275:VAL:HG22	2.08	0.54
13:Z:484:VAL:HA	13:Z:487:PHE:HD2	1.72	0.54
4:C:208:VAL:HG13	4:C:364:ALA:HB1	1.90	0.54
4:C:1264:SER:O	4:C:1268:GLN:N	2.40	0.54
4:C:1339:ARG:O	4:C:1342:VAL:CG1	2.56	0.54
5:D:73:TYR:OH	11:S:76:PRO:HG2	2.08	0.54
5:D:520:GLY:O	5:D:523:LYS:HG3	2.08	0.54
5:D:539:THR:OG1	5:D:540:ILE:HD12	2.08	0.54
5:D:1141:ALA:O	5:D:1142:ILE:HD13	2.08	0.54
6:G:17:DA:H2'	6:G:18:DT:C6	2.42	0.54
9:L:310:UNK:O	9:L:311:UNK:CB	2.56	0.54
10:M:154:ASN:HD22	10:M:155:ILE:N	2.06	0.54
13:Z:117:THR:O	13:Z:120:VAL:CG1	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:284:LEU:HD11	13:Z:301:ILE:HD12	1.89	0.54
2:A:39:ILE:CG2	3:B:40:ALA:HB1	2.38	0.54
4:C:700:LYS:HD2	4:C:700:LYS:C	2.29	0.54
4:C:805:ALA:CB	4:C:1108:VAL:HG11	2.37	0.54
5:D:589:LEU:O	5:D:592:LYS:HG2	2.07	0.54
5:D:1275:GLU:HG3	5:D:1287:GLU:HB2	1.90	0.54
6:G:17:DA:C2'	6:G:18:DT:C6	2.90	0.54
6:G:20:DG:C2'	6:G:21:DT:C6	2.91	0.54
6:G:48:DC:C3'	6:G:49:DT:H5''	2.37	0.54
7:H:37:DC:H2'	7:H:38:DT:C7	2.37	0.54
11:S:83:ASN:O	11:S:88:ARG:NH2	2.40	0.54
13:Z:84:THR:HG22	13:Z:86:ASP:OD1	2.07	0.54
13:Z:366:LEU:N	13:Z:366:LEU:CD2	2.70	0.54
2:A:214:LEU:HD12	3:B:220:LEU:CD2	2.37	0.54
3:B:56:SER:OG	3:B:162:GLU:HB3	2.08	0.54
4:C:900:GLU:CG	13:Z:509:ILE:HD13	2.37	0.54
4:C:1273:GLY:O	4:C:1274:LYS:HB3	2.08	0.54
5:D:348:SER:HB3	5:D:467:HIS:CD2	2.43	0.54
5:D:888:ARG:HH12	5:D:1333:ARG:HH11	1.54	0.54
6:G:26:DT:C2'	6:G:27:DT:H72	2.32	0.54
13:Z:306:LYS:C	13:Z:306:LYS:CD	2.81	0.54
13:Z:375:GLY:O	13:Z:378:LYS:HG2	2.08	0.54
3:B:157:ASN:OD1	3:B:157:ASN:N	2.41	0.54
4:C:135:MET:SD	4:C:139:GLY:HA2	2.47	0.54
4:C:426:SER:HA	4:C:429:VAL:HG12	1.90	0.54
5:D:192:ILE:O	5:D:196:ILE:HG13	2.08	0.54
5:D:744:MET:HE2	5:D:744:MET:CA	2.31	0.54
5:D:767:LEU:O	5:D:771:THR:HG23	2.07	0.54
5:D:1287:GLU:CD	5:D:1287:GLU:H	2.16	0.54
6:G:9:DG:O6	7:H:33:DA:C2	2.61	0.54
7:H:36:DG:C2'	7:H:37:DC:C6	2.91	0.54
7:H:36:DG:H4'	7:H:37:DC:OP1	2.06	0.54
10:M:176:ILE:N	10:M:176:ILE:CD1	2.69	0.54
12:X:17:DT:C2'	12:X:18:DG:H5'	2.38	0.54
13:Z:459:LEU:HA	13:Z:462:ILE:HG21	1.88	0.54
4:C:357:LEU:N	4:C:357:LEU:CD1	2.68	0.53
4:C:379:ALA:HB3	4:C:382:SER:HB2	1.90	0.53
4:C:1256:HIS:CE1	4:C:1274:LYS:HB2	2.43	0.53
5:D:101:GLY:CA	5:D:242:VAL:HG22	2.38	0.53
5:D:489:LEU:HD22	5:D:494:GLY:O	2.08	0.53
5:D:524:LEU:HD12	5:D:547:LYS:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:884:CYS:SG	5:D:886:THR:HG22	2.48	0.53
7:H:31:DA:H2''	7:H:32:DT:C5'	2.38	0.53
13:Z:163:ILE:O	13:Z:235:HIS:ND1	2.41	0.53
13:Z:443:THR:O	13:Z:443:THR:CG2	2.56	0.53
4:C:901:GLU:O	4:C:905:ARG:HG2	2.07	0.53
4:C:908:PHE:HE1	13:Z:570:SER:HB2	1.73	0.53
5:D:551:ASP:HA	5:D:564:GLU:O	2.08	0.53
5:D:880:SER:HB2	5:D:881:PRO:HD2	1.89	0.53
9:K:310:UNK:O	9:K:311:UNK:CB	2.56	0.53
13:Z:401:GLN:O	13:Z:404:THR:HG22	2.08	0.53
4:C:627:ASP:O	4:C:628:GLU:CB	2.56	0.53
4:C:637:ILE:HD11	4:C:653:VAL:CG1	2.31	0.53
5:D:589:LEU:HA	5:D:592:LYS:HZ3	1.70	0.53
5:D:618:LEU:HD21	5:D:622:LEU:CD1	2.39	0.53
6:G:48:DC:C2	13:Z:92:MET:HE3	2.43	0.53
6:G:48:DC:C6	13:Z:92:MET:SD	3.01	0.53
13:Z:252:GLU:O	13:Z:256:LYS:HG3	2.09	0.53
13:Z:377:MET:O	13:Z:380:VAL:HG22	2.07	0.53
4:C:885:LEU:HD21	4:C:922:MET:HG3	1.89	0.53
4:C:889:ILE:HB	4:C:915:VAL:HG21	1.91	0.53
4:C:1184:LEU:HD23	4:C:1184:LEU:O	2.07	0.53
5:D:479:ARG:HG3	5:D:483:MET:HE1	1.89	0.53
5:D:542:ILE:O	5:D:572:VAL:HB	2.08	0.53
5:D:570:THR:HG21	5:D:587:PHE:CE2	2.43	0.53
5:D:689:ASP:HA	5:D:735:ARG:HH22	1.74	0.53
6:G:46:DT:H4'	13:Z:353:SER:HB2	1.91	0.53
7:H:12:DC:C2'	7:H:13:DG:H8	2.17	0.53
7:H:23:DC:C2	7:H:24:DA:N7	2.77	0.53
12:X:21:DG:C3'	12:X:22:DC:C6	2.91	0.53
13:Z:231:LEU:HD23	13:Z:231:LEU:H	1.73	0.53
13:Z:538:THR:OG1	13:Z:539:LEU:N	2.40	0.53
3:B:168:THR:HG21	5:D:533:ARG:NH1	2.23	0.53
3:B:177:PHE:CB	3:B:195:LEU:HD23	2.38	0.53
5:D:20:ILE:O	5:D:1327:SER:HA	2.08	0.53
5:D:548:LEU:HD23	5:D:549:ARG:N	2.23	0.53
5:D:926:LEU:C	5:D:926:LEU:CD1	2.81	0.53
5:D:1274:LEU:HD12	5:D:1275:GLU:N	2.23	0.53
6:G:11:DA:C8	6:G:12:DT:C4	2.97	0.53
7:H:17:DA:H2''	7:H:18:DT:C5'	2.37	0.53
13:Z:333:GLU:HA	13:Z:333:GLU:OE2	2.08	0.53
13:Z:354:GLU:OE1	13:Z:354:GLU:HA	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:358:TYR:HD1	13:Z:361:ARG:CZ	2.21	0.53
2:A:14:ILE:HG12	2:A:207:LEU:HD21	1.88	0.53
4:C:55:VAL:HG22	4:C:468:ARG:HH21	1.73	0.53
4:C:389:GLY:CA	4:C:393:ILE:HG13	2.24	0.53
4:C:798:LEU:C	4:C:1245:LEU:HD22	2.33	0.53
11:S:206:LEU:C	11:S:206:LEU:CD2	2.81	0.53
13:Z:286:PRO:HA	13:Z:289:LYS:NZ	2.23	0.53
13:Z:431:LYS:HA	13:Z:434:ILE:HG22	1.90	0.53
13:Z:539:LEU:O	13:Z:542:VAL:CG2	2.56	0.53
2:A:207:LEU:HD13	2:A:207:LEU:O	2.09	0.53
3:B:52:ALA:HA	3:B:147:LYS:HA	1.90	0.53
4:C:75:ASP:OD2	4:C:76:TYR:N	2.41	0.53
4:C:552:ASP:OD2	5:D:747:PRO:HB3	2.09	0.53
4:C:852:ILE:HG22	4:C:852:ILE:O	2.09	0.53
4:C:1154:GLU:OE1	4:C:1154:GLU:N	2.41	0.53
5:D:248:ARG:HD2	5:D:264:ASN:HD21	1.73	0.53
5:D:315:THR:HG22	5:D:321:PRO:HA	1.90	0.53
5:D:816:GLY:HA2	5:D:883:THR:HG21	1.91	0.53
5:D:1299:ARG:HH12	5:D:1302:LEU:HB3	1.73	0.53
13:Z:122:SER:C	13:Z:125:LEU:HD23	2.34	0.53
13:Z:217:LYS:HB3	13:Z:221:LYS:NZ	2.24	0.53
2:A:100:LEU:CD2	2:A:147:VAL:HB	2.38	0.53
2:A:138:GLN:OE1	2:A:139:ARG:N	2.42	0.53
2:A:165:ARG:HB2	2:A:168:ASP:OD1	2.09	0.53
3:B:27:GLU:O	3:B:28:ALA:HB3	2.08	0.53
3:B:57:ILE:HD11	3:B:84:VAL:HB	1.90	0.53
4:C:95:TYR:CD2	4:C:134:LEU:HB2	2.43	0.53
4:C:553:VAL:HG23	5:D:777:ARG:CD	2.39	0.53
5:D:116:LYS:CE	5:D:310:ARG:HB3	2.37	0.53
5:D:143:ILE:HD13	5:D:186:LEU:HD11	1.90	0.53
5:D:581:LEU:HG	5:D:590:LEU:HD11	1.91	0.53
5:D:740:MET:HE3	5:D:757:THR:HA	1.89	0.53
12:X:24:DG:H2'	12:X:25:DC:C5'	2.37	0.53
13:Z:132:LYS:HB3	13:Z:207:PHE:CZ	2.44	0.53
3:B:44:THR:O	3:B:48:SER:CB	2.53	0.53
3:B:209:LEU:HD23	3:B:209:LEU:O	2.09	0.53
4:C:472:TYR:C	4:C:472:TYR:CD2	2.87	0.53
5:D:17:ILE:HD12	5:D:1329:ILE:HD11	1.91	0.53
5:D:38:LYS:HE2	5:D:40:GLU:HG3	1.91	0.53
5:D:895:TYR:HD2	5:D:905:VAL:CG2	2.05	0.53
6:G:24:DT:O2	7:H:19:DA:H2	1.92	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:G:35:DT:O4	7:H:8:DA:N1	2.42	0.53
10:M:96:LEU:O	10:M:99:VAL:HG12	2.09	0.53
11:S:68:LEU:HB3	11:S:150:LEU:HD11	1.90	0.53
2:A:126:ILE:N	2:A:126:ILE:CD1	2.71	0.53
3:B:44:THR:HA	3:B:48:SER:OG	2.08	0.53
3:B:74:ASP:OD2	3:B:132:SER:OG	2.27	0.53
4:C:20:HIS:NE2	4:C:23:ASP:HA	2.24	0.53
4:C:360:ASN:OD1	4:C:363:GLU:HB2	2.09	0.53
4:C:699:GLU:O	4:C:797:SER:HB2	2.07	0.53
5:D:571:THR:HB	5:D:574:ARG:HG3	1.90	0.53
5:D:653:GLU:C	5:D:656:GLU:HG3	2.33	0.53
5:D:1295:MET:HE3	5:D:1299:ARG:HG3	1.91	0.53
11:S:4:VAL:HG11	11:S:27:MET:CE	2.38	0.53
13:Z:210:TYR:HA	13:Z:218:LEU:HD23	1.90	0.53
1:E:40:GLU:HB3	1:E:44:LYS:HD2	1.90	0.52
3:B:71:ILE:HD11	3:B:73:CYS:SG	2.49	0.52
4:C:17:VAL:O	4:C:17:VAL:CG2	2.56	0.52
4:C:433:GLU:O	4:C:436:ILE:CG1	2.56	0.52
4:C:908:PHE:HD2	13:Z:577:LEU:HD12	1.73	0.52
5:D:662:ILE:HG22	5:D:676:ARG:HG3	1.91	0.52
5:D:887:ARG:HB3	5:D:1269:GLU:OE1	2.09	0.52
5:D:1281:ARG:C	5:D:1282:LYS:HD3	2.34	0.52
10:M:12:SER:O	10:M:15:VAL:CG1	2.54	0.52
10:M:43:LEU:HD23	10:M:47:THR:CG2	2.39	0.52
11:S:103:TYR:N	11:S:104:PRO:CD	2.72	0.52
12:X:23:DG:C2'	12:X:24:DG:H8	2.21	0.52
13:Z:167:GLU:CB	13:Z:229:LEU:HD12	2.39	0.52
13:Z:363:LEU:CD1	13:Z:407:ILE:HD13	2.32	0.52
1:E:6:VAL:HG21	5:D:480:VAL:HG13	1.91	0.52
2:A:48:LEU:C	2:A:52:LEU:HD23	2.34	0.52
2:A:62:ILE:HB	2:A:65:VAL:HG21	1.88	0.52
4:C:96:ASP:OD2	4:C:97:ALA:N	2.42	0.52
4:C:209:ILE:CD1	4:C:209:ILE:H	2.21	0.52
4:C:1243:TYR:HE2	4:C:1245:LEU:HD21	1.74	0.52
6:G:17:DA:H2'	6:G:18:DT:C5	2.43	0.52
7:H:2:DA:P	13:Z:429:ARG:HH12	2.32	0.52
9:L:273:UNK:O	9:L:274:UNK:CB	2.57	0.52
10:M:5:THR:HG21	10:M:28:ILE:CG1	2.39	0.52
10:M:81:MET:CB	10:M:157:VAL:HB	2.38	0.52
13:Z:88:ILE:HG23	13:Z:366:LEU:CD1	2.39	0.52
13:Z:274:LYS:N	13:Z:274:LYS:CD	2.71	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:476:LEU:O	5:D:480:VAL:HG23	2.10	0.52
5:D:863:ASN:N	5:D:863:ASN:OD1	2.42	0.52
7:H:1:DT:H3'	13:Z:429:ARG:CZ	2.40	0.52
13:Z:505:LEU:C	13:Z:505:LEU:CD2	2.82	0.52
3:B:159:LYS:HB2	3:B:164:LEU:HD11	1.91	0.52
4:C:674:LEU:CD1	4:C:682:VAL:HG11	2.40	0.52
5:D:106:VAL:HG11	5:D:281:LEU:CD1	2.38	0.52
5:D:926:LEU:HB2	5:D:1232:GLN:CD	2.35	0.52
7:H:16:DA:C2'	7:H:17:DA:C8	2.90	0.52
10:M:100:ASN:C	10:M:100:ASN:OD1	2.52	0.52
13:Z:511:GLU:O	13:Z:515:THR:HG23	2.08	0.52
5:D:199:LEU:HD21	5:D:218:ARG:HB3	1.91	0.52
5:D:1334:GLY:O	5:D:1338:ASN:ND2	2.42	0.52
6:G:13:DA:H2	7:H:31:DA:C2	2.26	0.52
6:G:39:DG:H2''	6:G:40:DG:C5'	2.38	0.52
10:M:66:SER:O	10:M:69:ILE:CG1	2.58	0.52
10:M:193:GLU:O	10:M:197:ILE:HG13	2.10	0.52
3:B:30:GLU:HB3	3:B:33:VAL:HG23	1.91	0.52
3:B:98:GLY:CA	3:B:122:LEU:HD21	2.40	0.52
5:D:145:THR:N	5:D:175:GLU:O	2.43	0.52
5:D:208:SER:O	5:D:213:GLU:CG	2.58	0.52
7:H:20:DA:OP1	13:Z:528:ARG:NH1	2.39	0.52
13:Z:435:LEU:O	13:Z:439:GLY:N	2.43	0.52
1:E:46:LYS:O	1:E:50:VAL:HG23	2.10	0.52
4:C:198:ILE:O	4:C:200:ARG:N	2.43	0.52
4:C:417:SER:HB3	4:C:420:ILE:HG22	1.91	0.52
4:C:1256:HIS:CE1	4:C:1274:LYS:CA	2.92	0.52
4:C:1352:ASP:OD2	5:D:19:LYS:HD3	2.10	0.52
6:G:42:DA:H1'	13:Z:394:TYR:HA	1.92	0.52
6:G:43:DA:H2'	6:G:44:DC:H5'	1.91	0.52
7:H:10:DA:H2'	7:H:11:DA:C8	2.44	0.52
13:Z:219:TYR:O	13:Z:222:ILE:CG1	2.57	0.52
4:C:471:LEU:CA	4:C:474:VAL:HG12	2.38	0.52
4:C:751:ASP:O	4:C:752:ILE:HD13	2.09	0.52
5:D:66:TYR:HA	5:D:90:VAL:HG13	1.91	0.52
5:D:116:LYS:HD2	5:D:310:ARG:HB3	1.92	0.52
5:D:504:ILE:HD13	5:D:623:MET:HG3	1.92	0.52
6:G:17:DA:C2	6:G:18:DT:C2	2.98	0.52
7:H:2:DA:OP1	13:Z:429:ARG:NH2	2.41	0.52
8:J:9:DT:C2'	8:J:10:DC:H6	2.17	0.52
10:M:47:THR:HG23	10:M:50:GLY:CA	2.36	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:221:LYS:O	13:Z:224:LYS:CG	2.57	0.52
13:Z:368:ILE:HG23	13:Z:403:ILE:HD13	1.89	0.52
4:C:193:ILE:HD11	4:C:352:THR:HA	1.92	0.52
4:C:521:ASP:OD1	4:C:763:LYS:HG3	2.09	0.52
4:C:567:PRO:CD	4:C:575:ILE:HG12	2.39	0.52
5:D:334:GLY:O	5:D:338:GLN:HB3	2.10	0.52
6:G:14:DA:C2	7:H:29:DT:N3	2.76	0.52
10:M:64:ARG:HH21	11:S:100:ASN:ND2	2.08	0.52
10:M:85:PHE:O	10:M:89:ARG:HG3	2.10	0.52
4:C:127:VAL:HG21	4:C:496:VAL:HB	1.90	0.52
5:D:116:LYS:CD	5:D:310:ARG:HB3	2.40	0.52
5:D:371:ALA:O	5:D:375:PHE:HD2	1.93	0.52
6:G:14:DA:H2''	6:G:15:DA:O5'	2.09	0.52
6:G:33:DT:H2''	6:G:34:DA:C8	2.43	0.52
7:H:33:DA:C4'	7:H:34:DC:OP1	2.51	0.52
10:M:73:GLU:OE1	10:M:73:GLU:HA	2.09	0.52
11:S:7:TYR:HE2	11:S:37:LEU:HD21	1.73	0.52
12:X:19:DA:C2'	12:X:20:DC:C6	2.85	0.52
13:Z:309:ASN:O	13:Z:313:ILE:HG13	2.10	0.52
13:Z:407:ILE:O	13:Z:411:ALA:CB	2.53	0.52
2:A:94:ASP:CB	2:A:97:ILE:HG13	2.25	0.51
2:A:182:ALA:HB3	2:A:197:PHE:HB3	1.92	0.51
3:B:45:MET:SD	3:B:172:VAL:HG21	2.50	0.51
3:B:60:ASN:HB3	3:B:63:LYS:HB2	1.92	0.51
4:C:363:GLU:O	4:C:366:VAL:CG1	2.54	0.51
4:C:388:GLU:O	4:C:392:PHE:N	2.42	0.51
4:C:514:LEU:O	4:C:516:GLN:NE2	2.43	0.51
4:C:531:ARG:NH2	4:C:580:SER:HA	2.25	0.51
4:C:720:ILE:CG2	4:C:782:GLY:HA2	2.40	0.51
5:D:84:GLU:OE1	5:D:84:GLU:N	2.33	0.51
5:D:253:ILE:HG22	5:D:257:ARG:HG3	1.91	0.51
5:D:1154:ASN:HD22	5:D:1161:GLN:HB2	1.75	0.51
4:C:1325:LEU:HD12	4:C:1325:LEU:C	2.30	0.51
5:D:76:LEU:N	5:D:76:LEU:CD1	2.73	0.51
5:D:403:GLU:OE1	5:D:404:ALA:N	2.43	0.51
5:D:589:LEU:O	5:D:592:LYS:HE2	2.10	0.51
5:D:657:LYS:HA	5:D:657:LYS:HE3	1.92	0.51
5:D:1237:ASN:HB3	5:D:1240:HIS:CD2	2.45	0.51
5:D:1282:LYS:HE2	5:D:1285:LYS:HD2	1.92	0.51
6:G:12:DT:C4	6:G:13:DA:C6	2.98	0.51
11:S:179:TYR:HA	11:S:182:ARG:HE	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:265:SER:O	13:Z:268:PRO:CD	2.58	0.51
13:Z:265:SER:HA	13:Z:292:LYS:CB	2.40	0.51
13:Z:376:LEU:N	13:Z:399:ILE:HD13	2.25	0.51
13:Z:435:LEU:O	13:Z:439:GLY:CA	2.58	0.51
2:A:86:LEU:HD23	2:A:132:ILE:HD12	1.93	0.51
4:C:27:LEU:HA	4:C:531:ARG:NH1	2.25	0.51
4:C:487:LYS:O	4:C:490:LEU:HD11	2.11	0.51
4:C:1319:ASN:O	4:C:1323:GLY:N	2.35	0.51
5:D:805:VAL:HG22	5:D:910:SER:HA	1.92	0.51
5:D:1220:TYR:O	5:D:1223:ILE:CG1	2.59	0.51
7:H:2:DA:H2'	7:H:3:DC:C5	2.45	0.51
11:S:68:LEU:HD12	11:S:150:LEU:HD21	1.91	0.51
12:X:15:DT:H2'	12:X:16:DC:H6	1.72	0.51
4:C:594:TYR:CE1	4:C:619:ILE:HG21	2.45	0.51
4:C:886:VAL:CG2	4:C:920:LEU:HB3	2.39	0.51
4:C:889:ILE:HB	4:C:915:VAL:CG2	2.40	0.51
4:C:890:THR:CG2	4:C:916:VAL:CG1	2.89	0.51
5:D:560:ASN:HD22	5:D:560:ASN:N	2.03	0.51
10:M:141:GLU:O	10:M:144:VAL:CG1	2.59	0.51
13:Z:203:LEU:HA	13:Z:206:MET:HE3	1.91	0.51
1:E:13:VAL:HG21	1:E:19:LEU:CB	2.40	0.51
4:C:349:ILE:HG22	4:C:353:LEU:CD1	2.40	0.51
4:C:900:GLU:OE1	4:C:900:GLU:N	2.36	0.51
4:C:937:GLU:O	4:C:1056:LEU:HD11	2.11	0.51
5:D:143:ILE:O	5:D:176:ALA:HA	2.11	0.51
5:D:1271:VAL:HA	5:D:1274:LEU:CD2	2.39	0.51
6:G:36:DT:H2'	6:G:37:DA:C8	2.45	0.51
9:K:273:UNK:O	9:K:274:UNK:CB	2.58	0.51
11:S:12:CYS:HB3	11:S:15:SER:HB3	1.91	0.51
2:A:104:LEU:HD23	2:A:104:LEU:O	2.09	0.51
3:B:37:LEU:O	3:B:41:LEU:HD23	2.11	0.51
3:B:44:THR:C	3:B:48:SER:HB2	2.36	0.51
4:C:20:HIS:CE1	4:C:23:ASP:HA	2.46	0.51
4:C:977:ILE:O	4:C:981:VAL:N	2.44	0.51
5:D:218:ARG:O	5:D:222:LEU:HG	2.10	0.51
5:D:833:VAL:HB	5:D:865:VAL:HG11	1.88	0.51
6:G:14:DA:H2''	6:G:15:DA:C8	2.44	0.51
10:M:51:ASN:O	10:M:54:THR:OG1	2.21	0.51
10:M:100:ASN:HA	10:M:104:LEU:CD1	2.40	0.51
13:Z:218:LEU:HD12	13:Z:218:LEU:O	2.11	0.51
13:Z:222:ILE:HA	13:Z:225:GLU:CG	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:37:GLU:O	1:E:38:SER:HB2	2.11	0.51
2:A:160:PRO:O	2:A:161:THR:CB	2.58	0.51
2:A:229:VAL:HG13	3:B:10:THR:O	2.09	0.51
4:C:370:LYS:C	4:C:370:LYS:CD	2.83	0.51
4:C:532:ARG:HD3	4:C:575:ILE:HD12	1.92	0.51
4:C:1259:SER:HB2	5:D:373:GLU:O	2.11	0.51
5:D:355:VAL:HA	5:D:459:PHE:CE1	2.45	0.51
7:H:9:DT:C2'	7:H:10:DA:H8	2.12	0.51
11:S:89:ILE:HA	11:S:92:ARG:NH1	2.25	0.51
13:Z:106:GLU:O	13:Z:109:ILE:CG1	2.57	0.51
13:Z:222:ILE:C	13:Z:225:GLU:HG3	2.35	0.51
1:E:54:GLU:HA	1:E:57:GLU:CD	2.36	0.51
4:C:79:GLY:O	4:C:98:PRO:HD2	2.10	0.51
4:C:101:VAL:HG22	4:C:129:MET:SD	2.51	0.51
4:C:184:LEU:HG	4:C:391:PHE:CZ	2.46	0.51
5:D:575:ALA:O	5:D:578:LEU:HB3	2.10	0.51
5:D:828:VAL:O	5:D:829:LYS:HB3	2.10	0.51
7:H:12:DC:H2'	7:H:13:DG:N7	2.25	0.51
7:H:34:DC:C3'	7:H:35:DA:H5'	2.41	0.51
13:Z:566:HIS:CG	13:Z:567:PRO:CD	2.93	0.51
2:A:155:ILE:HG12	2:A:156:LEU:HD12	1.93	0.51
2:A:186:PHE:HB2	2:A:193:THR:HG23	1.92	0.51
3:B:148:GLY:O	3:B:169:PHE:HB3	2.10	0.51
4:C:1056:LEU:O	4:C:1057:SER:OG	2.27	0.51
5:D:854:LEU:HD11	5:D:868:LEU:HD21	1.91	0.51
5:D:887:ARG:CZ	5:D:1272:ARG:HG2	2.40	0.51
5:D:1140:ALA:HB1	5:D:1202:PRO:O	2.11	0.51
5:D:1282:LYS:HD3	5:D:1282:LYS:N	2.25	0.51
6:G:10:DT:C6	6:G:10:DT:OP2	2.64	0.51
11:S:113:ARG:O	11:S:119:LEU:HD11	2.11	0.51
11:S:190:LYS:O	11:S:190:LYS:CG	2.58	0.51
3:B:102:PHE:O	3:B:104:LEU:HD22	2.11	0.51
4:C:761:SER:HG	4:C:765:THR:H	1.56	0.51
4:C:1177:ASN:C	4:C:1177:ASN:OD1	2.54	0.51
4:C:1302:MET:CG	5:D:345:VAL:HG11	2.40	0.51
5:D:15:PHE:CG	5:D:15:PHE:O	2.63	0.51
5:D:111:HIS:CD2	5:D:113:TRP:HB2	2.45	0.51
5:D:243:LEU:HD12	5:D:244:PRO:CD	2.40	0.51
5:D:318:ASN:O	5:D:319:LYS:HB2	2.10	0.51
5:D:512:THR:HG21	5:D:594:LEU:CB	2.31	0.51
6:G:27:DT:H2''	6:G:28:DG:C5'	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:129:ILE:O	13:Z:133:THR:HG23	2.11	0.51
13:Z:285:GLU:HB2	13:Z:286:PRO:HD3	1.93	0.51
2:A:68:GLU:HG3	2:A:169:ILE:HD13	1.93	0.50
4:C:69:TYR:CA	4:C:105:LEU:CD1	2.89	0.50
4:C:552:ASP:OD1	4:C:553:VAL:N	2.45	0.50
4:C:897:LEU:H	4:C:897:LEU:CD2	2.24	0.50
4:C:945:LYS:O	4:C:949:LYS:CB	2.59	0.50
4:C:1052:GLN:CB	4:C:1056:LEU:CD1	2.88	0.50
5:D:199:LEU:HB3	5:D:219:LEU:HD11	1.93	0.50
5:D:447:LEU:HD23	5:D:447:LEU:N	2.26	0.50
7:H:34:DC:C4'	7:H:35:DA:C5'	2.72	0.50
10:M:43:LEU:HA	10:M:46:ILE:HG12	1.93	0.50
10:M:136:LYS:O	10:M:139:VAL:CG2	2.59	0.50
13:Z:134:TYR:OH	13:Z:235:HIS:CE1	2.64	0.50
13:Z:409:ASP:OD2	13:Z:409:ASP:C	2.54	0.50
13:Z:523:LYS:O	13:Z:527:MET:HG2	2.11	0.50
13:Z:535:THR:O	13:Z:535:THR:HG22	2.10	0.50
2:A:13:ASN:O	2:A:29:LEU:HA	2.11	0.50
2:A:99:ARG:HG3	2:A:148:SER:HB3	1.93	0.50
2:A:126:ILE:CD1	2:A:126:ILE:H	2.24	0.50
4:C:10:ARG:CZ	4:C:700:LYS:HG2	2.42	0.50
4:C:471:LEU:HA	4:C:474:VAL:CG1	2.40	0.50
4:C:1196:THR:OG1	4:C:1201:GLY:HA2	2.10	0.50
4:C:1281:ARG:HA	5:D:344:ARG:HA	1.92	0.50
5:D:101:GLY:O	5:D:242:VAL:N	2.26	0.50
5:D:403:GLU:OE1	5:D:405:VAL:N	2.32	0.50
5:D:510:TYR:HD1	5:D:721:MET:HE1	1.75	0.50
5:D:618:LEU:CD2	5:D:622:LEU:HD12	2.41	0.50
5:D:861:ASP:H	5:D:864:LEU:HB2	1.76	0.50
6:G:35:DT:C4	7:H:8:DA:C2	2.98	0.50
7:H:30:DT:H2''	7:H:31:DA:C8	2.46	0.50
7:H:31:DA:H2''	7:H:32:DT:C6	2.45	0.50
13:Z:254:GLU:O	13:Z:257:ILE:CG2	2.57	0.50
3:B:67:LEU:O	3:B:77:VAL:HG12	2.11	0.50
4:C:693:VAL:CG2	4:C:1248:ASP:HB2	2.42	0.50
4:C:881:ALA:HB1	4:C:924:SER:HA	1.93	0.50
5:D:103:ILE:HB	5:D:240:LEU:HD11	1.94	0.50
5:D:117:SER:HB3	5:D:119:PRO:O	2.12	0.50
5:D:306:ASP:OD2	5:D:309:ARG:HG3	2.11	0.50
6:G:10:DT:H2'	6:G:11:DA:N7	2.27	0.50
6:G:29:DG:H2''	6:G:30:DC:C5'	2.33	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:G:39:DG:C2'	6:G:40:DG:H8	2.16	0.50
10:M:40:LEU:O	10:M:40:LEU:HD12	2.12	0.50
11:S:43:LYS:HA	11:S:43:LYS:CE	2.39	0.50
11:S:77:ALA:HB1	11:S:78:PRO:HD2	1.93	0.50
13:Z:141:LEU:O	13:Z:141:LEU:HD23	2.12	0.50
13:Z:522:ALA:O	13:Z:526:MET:HG3	2.11	0.50
2:A:30:SER:OG	2:A:31:PRO:HD3	2.10	0.50
2:A:100:LEU:HD23	2:A:147:VAL:O	2.11	0.50
3:B:68:GLU:CD	3:B:68:GLU:N	2.69	0.50
4:C:36:LYS:O	4:C:40:THR:OG1	2.21	0.50
4:C:1220:GLY:CA	4:C:1238:THR:HG23	2.38	0.50
5:D:144:VAL:HA	5:D:175:GLU:O	2.12	0.50
5:D:318:ASN:HB2	5:D:320:ARG:HD3	1.93	0.50
5:D:657:LYS:HZ1	5:D:660:LYS:HD2	1.76	0.50
8:J:9:DT:C2	8:J:10:DC:C5	3.00	0.50
10:M:5:THR:OG1	10:M:12:SER:HB3	2.12	0.50
13:Z:95:MET:SD	13:Z:95:MET:C	2.94	0.50
13:Z:127:TYR:CZ	13:Z:325:VAL:HG21	2.46	0.50
13:Z:140:GLU:C	13:Z:143:GLU:HG3	2.35	0.50
13:Z:394:TYR:O	13:Z:398:TRP:CD1	2.56	0.50
4:C:567:PRO:HD2	4:C:572:ILE:HA	1.94	0.50
4:C:868:ASP:CB	4:C:874:HIS:CE1	2.95	0.50
4:C:1221:GLN:HA	4:C:1238:THR:N	2.27	0.50
5:D:511:ILE:CD1	5:D:577:LEU:HD11	2.41	0.50
5:D:753:GLU:HG3	5:D:754:THR:N	2.27	0.50
6:G:40:DG:C8	6:G:41:DT:H72	2.46	0.50
7:H:29:DT:C2'	7:H:30:DT:C6	2.93	0.50
11:S:186:ARG:O	11:S:189:VAL:CG2	2.60	0.50
12:X:19:DA:C2'	12:X:20:DC:H6	2.20	0.50
13:Z:86:ASP:OD1	13:Z:86:ASP:N	2.45	0.50
13:Z:93:ARG:O	13:Z:97:ILE:HG13	2.10	0.50
13:Z:275:VAL:HG23	13:Z:276:TYR:HD1	1.77	0.50
4:C:26:TYR:HB3	4:C:29:SER:HG	1.76	0.50
4:C:376:ASP:OD1	4:C:377:PRO:HD2	2.12	0.50
4:C:1177:ASN:O	4:C:1181:ILE:HG12	2.11	0.50
4:C:1302:MET:O	4:C:1306:LYS:HB2	2.11	0.50
5:D:43:ASN:ND2	5:D:45:ARG:H	2.10	0.50
5:D:365:GLY:HA3	5:D:440:ILE:HD13	1.94	0.50
5:D:668:SER:O	5:D:669:SER:CB	2.59	0.50
6:G:8:DT:H3	7:H:35:DA:H2	1.58	0.50
10:M:97:GLU:OE1	11:S:65:LYS:NZ	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:117:THR:HA	13:Z:120:VAL:HG12	1.93	0.50
13:Z:237:GLN:HA	13:Z:240:VAL:HG22	1.93	0.50
3:B:7:LEU:CD1	3:B:190:LEU:CD1	2.90	0.50
3:B:181:ASP:OD1	3:B:182:ALA:N	2.44	0.50
4:C:617:TYR:CG	4:C:655:TYR:HE2	2.30	0.50
4:C:890:THR:O	4:C:916:VAL:HG12	2.11	0.50
5:D:207:LYS:C	5:D:212:LYS:HB2	2.36	0.50
5:D:355:VAL:HG22	5:D:357:PRO:HD3	1.92	0.50
5:D:797:LEU:HD22	5:D:1244:ILE:HD13	1.94	0.50
6:G:19:DT:C2	7:H:25:DA:C2	3.00	0.50
6:G:26:DT:O2	7:H:17:DA:C2	2.65	0.50
6:G:34:DA:N1	7:H:10:DA:C2	2.80	0.50
11:S:67:LEU:HD23	11:S:67:LEU:O	2.12	0.50
13:Z:112:ARG:O	13:Z:115:GLU:CG	2.60	0.50
13:Z:238:LYS:HA	13:Z:241:ASP:OD2	2.11	0.50
1:E:23:ALA:CB	5:D:476:LEU:HD11	2.41	0.50
4:C:52:LEU:HD11	4:C:99:LEU:HD11	1.93	0.50
4:C:399:LEU:HD12	4:C:404:ARG:HB2	1.94	0.50
4:C:618:VAL:HG22	4:C:641:SER:CB	2.42	0.50
4:C:1125:GLN:HG3	4:C:1242:MET:SD	2.51	0.50
5:D:24:SER:OG	5:D:27:VAL:HG23	2.12	0.50
5:D:250:LEU:CD2	5:D:258:PHE:HB3	2.41	0.50
5:D:273:ARG:HD3	5:D:296:MET:HB3	1.94	0.50
5:D:1204:ASP:HB3	5:D:1207:ASP:OD2	2.11	0.50
5:D:1214:LEU:C	5:D:1214:LEU:CD2	2.83	0.50
6:G:13:DA:C6	6:G:14:DA:C6	2.99	0.50
11:S:102:TRP:CD1	11:S:158:LEU:HD11	2.46	0.50
1:E:14:GLU:O	1:E:15:THR:OG1	2.28	0.50
4:C:768:ASN:N	4:C:768:ASN:OD1	2.45	0.50
4:C:1159:LEU:HB3	4:C:1173:LEU:HD22	1.94	0.50
4:C:1243:TYR:CE2	4:C:1245:LEU:HD21	2.47	0.50
5:D:139:PHE:CA	5:D:178:MET:HE2	2.42	0.50
5:D:208:SER:HA	5:D:212:LYS:CB	2.37	0.50
5:D:921:GLU:N	5:D:922:PRO:CD	2.75	0.50
6:G:16:DC:C2	6:G:17:DA:N7	2.79	0.50
6:G:38:DA:H2"	6:G:39:DG:C8	2.46	0.50
10:M:156:ASN:OD1	10:M:158:LEU:HB2	2.11	0.50
1:E:54:GLU:HB3	1:E:60:ILE:HG13	1.93	0.49
5:D:103:ILE:HD13	5:D:271:ILE:HG12	1.94	0.49
5:D:653:GLU:HA	5:D:656:GLU:CG	2.42	0.49
10:M:60:PHE:CZ	11:S:89:ILE:HD12	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S:127:LYS:O	11:S:131:LEU:HG	2.12	0.49
2:A:100:LEU:HD21	2:A:147:VAL:HB	1.93	0.49
4:C:932:ASN:OD1	4:C:933:VAL:N	2.45	0.49
10:M:114:ASP:OD1	10:M:114:ASP:N	2.46	0.49
11:S:84:VAL:HG23	11:S:87:GLU:CB	2.20	0.49
2:A:32:VAL:CG2	2:A:192:GLU:CB	2.83	0.49
4:C:4:SER:O	4:C:8:LYS:N	2.44	0.49
4:C:112:ALA:O	4:C:113:LEU:CB	2.60	0.49
4:C:749:LEU:HG	4:C:749:LEU:O	2.11	0.49
4:C:1347:ILE:CG2	5:D:20:ILE:HD11	2.41	0.49
5:D:81:VAL:HG11	11:S:76:PRO:HB3	1.95	0.49
5:D:257:ARG:HB3	13:Z:467:HIS:CE1	2.46	0.49
5:D:273:ARG:HH11	5:D:296:MET:HG2	1.72	0.49
5:D:656:GLU:OE2	5:D:657:LYS:HD2	2.12	0.49
5:D:684:TRP:O	5:D:687:THR:CG2	2.60	0.49
5:D:1251:LYS:HZ3	5:D:1267:SER:HB2	1.77	0.49
5:D:1316:THR:O	5:D:1319:VAL:HG12	2.13	0.49
7:H:4:DC:C4'	7:H:5:DT:OP1	2.60	0.49
7:H:34:DC:H2''	7:H:35:DA:C8	2.47	0.49
10:M:155:ILE:N	10:M:155:ILE:HD12	2.27	0.49
12:X:18:DG:H2'	12:X:19:DA:H8	1.71	0.49
13:Z:296:ASN:HA	13:Z:299:ARG:NE	2.27	0.49
2:A:126:ILE:HD12	2:A:126:ILE:H	1.75	0.49
3:B:68:GLU:CD	3:B:68:GLU:H	2.21	0.49
4:C:174:ALA:HB3	4:C:186:PHE:HB2	1.93	0.49
4:C:649:GLU:HG3	4:C:651:SER:H	1.76	0.49
4:C:1178:ASP:N	4:C:1178:ASP:OD1	2.45	0.49
4:C:1330:ASP:OD1	4:C:1331:VAL:N	2.45	0.49
5:D:361:LEU:HD12	5:D:361:LEU:O	2.13	0.49
10:M:57:THR:HG23	10:M:60:PHE:H	1.78	0.49
10:M:182:ASN:O	10:M:185:LYS:CG	2.60	0.49
12:X:16:DC:C2'	12:X:17:DT:H5'	2.41	0.49
13:Z:267:THR:N	13:Z:268:PRO:CD	2.76	0.49
13:Z:282:GLU:HA	13:Z:285:GLU:OE2	2.12	0.49
13:Z:569:ARG:O	13:Z:573:LEU:HD13	2.13	0.49
5:D:550:ILE:HG13	5:D:550:ILE:O	2.13	0.49
6:G:41:DT:N3	13:Z:401:GLN:HG3	2.25	0.49
7:H:11:DA:C2'	7:H:12:DC:H6	2.18	0.49
7:H:29:DT:H2'	7:H:30:DT:H72	1.93	0.49
13:Z:363:LEU:HD11	13:Z:410:GLN:HG3	1.94	0.49
13:Z:511:GLU:OE2	13:Z:515:THR:HG21	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:27:GLU:CD	3:B:182:ALA:HB1	2.37	0.49
5:D:54:LEU:O	5:D:60:PHE:CE2	2.66	0.49
5:D:1127:ARG:NH1	5:D:1131:LEU:HD21	2.28	0.49
10:M:81:MET:HB3	10:M:157:VAL:CB	2.41	0.49
2:A:40:LEU:O	2:A:44:ILE:HG13	2.12	0.49
4:C:26:TYR:HE2	4:C:28:LEU:HB2	1.72	0.49
4:C:393:ILE:CG2	4:C:396:ARG:HB2	2.43	0.49
4:C:646:ILE:HG13	5:D:753:GLU:OE2	2.13	0.49
4:C:686:ALA:O	4:C:689:GLN:HG2	2.13	0.49
4:C:1260:THR:O	4:C:1277:PHE:CE2	2.66	0.49
5:D:60:PHE:CD1	5:D:245:PRO:HD3	2.48	0.49
5:D:139:PHE:HD1	5:D:178:MET:HG3	1.75	0.49
5:D:194:SER:O	5:D:197:GLU:HG3	2.12	0.49
10:M:2:LEU:HD21	10:M:29:VAL:HG21	1.94	0.49
13:Z:122:SER:CA	13:Z:125:LEU:CD2	2.87	0.49
13:Z:221:LYS:HA	13:Z:224:LYS:HG2	1.94	0.49
2:A:120:THR:CG2	2:A:123:VAL:HG21	2.43	0.49
3:B:204:ASN:CG	3:B:207:GLU:HB3	2.38	0.49
4:C:1149:THR:O	4:C:1154:GLU:OE2	2.31	0.49
5:D:22:LEU:HD21	5:D:114:TYR:OH	2.12	0.49
5:D:410:LEU:O	5:D:414:ILE:HG12	2.13	0.49
5:D:458:ASP:N	5:D:458:ASP:OD1	2.44	0.49
6:G:32:DT:C2	7:H:11:DA:N1	2.80	0.49
6:G:43:DA:H2'	6:G:43:DA:N3	2.27	0.49
10:M:10:ILE:HA	10:M:168:TYR:CZ	2.47	0.49
13:Z:202:ASN:HA	13:Z:205:LYS:CE	2.42	0.49
2:A:25:TYR:CD2	2:A:206:PRO:CG	2.96	0.49
2:A:68:GLU:H	2:A:68:GLU:CD	2.19	0.49
4:C:29:SER:O	4:C:33:GLU:HG2	2.13	0.49
4:C:62:VAL:HG22	4:C:71:LEU:HD13	1.93	0.49
4:C:369:TYR:HD1	4:C:386:LEU:HD13	1.78	0.49
4:C:900:GLU:HG3	13:Z:509:ILE:HD13	1.95	0.49
4:C:1287:VAL:O	4:C:1291:GLN:HG3	2.12	0.49
5:D:97:ARG:HG2	5:D:246:ASP:CB	2.43	0.49
5:D:791:GLY:O	5:D:794:THR:CG2	2.59	0.49
5:D:806:VAL:HA	5:D:890:LEU:O	2.12	0.49
5:D:1275:GLU:O	5:D:1279:LYS:N	2.46	0.49
6:G:10:DT:OP2	6:G:10:DT:C5	2.65	0.49
6:G:38:DA:C2'	6:G:39:DG:H8	2.21	0.49
8:J:5:DC:N4	12:X:23:DG:H1	2.11	0.49
10:M:100:ASN:O	10:M:104:LEU:HB2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S:209:HIS:HB3	13:Z:249:ARG:HH12	1.75	0.49
13:Z:125:LEU:HD11	13:Z:223:VAL:HB	1.95	0.49
13:Z:130:VAL:CG2	13:Z:243:ILE:HD11	2.42	0.49
2:A:150:GLY:C	2:A:175:PHE:CG	2.91	0.49
2:A:164:GLU:CD	2:A:165:ARG:HG3	2.37	0.49
3:B:47:TYR:O	3:B:150:GLY:HA2	2.13	0.49
3:B:67:LEU:CA	3:B:77:VAL:CG1	2.83	0.49
4:C:21:ILE:H	4:C:21:ILE:CD1	2.24	0.49
4:C:67:GLY:HA3	4:C:69:TYR:CD2	2.48	0.49
4:C:616:ASN:ND2	4:C:616:ASN:N	2.61	0.49
5:D:36:VAL:HG11	5:D:54:LEU:HD23	1.95	0.49
5:D:510:TYR:HD1	5:D:721:MET:CE	2.25	0.49
12:X:15:DT:H2'	12:X:16:DC:H5'	1.84	0.49
13:Z:379:ALA:HB2	13:Z:398:TRP:CB	2.43	0.49
2:A:14:ILE:HG12	2:A:207:LEU:CD2	2.43	0.48
2:A:30:SER:N	2:A:31:PRO:CD	2.76	0.48
2:A:70:SER:O	2:A:79:VAL:HG23	2.12	0.48
4:C:9:LYS:HE3	4:C:772:ILE:CG2	2.38	0.48
4:C:63:GLU:OE1	4:C:63:GLU:N	2.46	0.48
5:D:40:GLU:O	5:D:53:GLY:CA	2.58	0.48
5:D:260:THR:CG2	13:Z:469:PRO:HB2	2.40	0.48
5:D:824:GLU:O	5:D:825:ASP:CB	2.60	0.48
5:D:1237:ASN:HB3	5:D:1240:HIS:HD2	1.77	0.48
6:G:20:DG:H2'	6:G:21:DT:C5	2.47	0.48
7:H:1:DT:H3'	13:Z:429:ARG:HH22	1.78	0.48
7:H:14:DC:H2''	7:H:15:DC:C6	2.47	0.48
9:L:293:UNK:O	9:L:294:UNK:CB	2.60	0.48
12:X:17:DT:H2''	12:X:18:DG:O5'	2.13	0.48
13:Z:120:VAL:O	13:Z:123:THR:CG2	2.60	0.48
13:Z:271:GLU:OE2	13:Z:274:LYS:HD3	2.13	0.48
13:Z:569:ARG:HD3	13:Z:569:ARG:N	2.27	0.48
3:B:223:ILE:HG22	3:B:223:ILE:O	2.11	0.48
4:C:10:ARG:NH2	4:C:700:LYS:HG2	2.28	0.48
4:C:879:VAL:HG23	4:C:922:MET:HE1	1.93	0.48
5:D:354:THR:N	5:D:445:ILE:O	2.41	0.48
5:D:354:THR:HG23	5:D:444:ALA:HB1	1.96	0.48
5:D:417:HIS:O	5:D:437:PRO:HD2	2.14	0.48
5:D:476:LEU:C	5:D:476:LEU:CD2	2.85	0.48
5:D:677:TYR:CZ	5:D:681:ILE:HD11	2.47	0.48
5:D:684:TRP:O	5:D:687:THR:HG22	2.13	0.48
5:D:1225:ALA:O	5:D:1228:VAL:CG1	2.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:M:149:ASN:OD1	10:M:150:PRO:HD2	2.13	0.48
12:X:24:DG:C2'	12:X:25:DC:C5'	2.78	0.48
13:Z:315:MET:O	13:Z:316:MET:HB3	2.13	0.48
13:Z:376:LEU:N	13:Z:399:ILE:CD1	2.76	0.48
1:E:13:VAL:CG2	1:E:19:LEU:HB2	2.43	0.48
3:B:159:LYS:HE3	3:B:164:LEU:HD11	1.95	0.48
4:C:425:ASN:OD1	4:C:426:SER:N	2.46	0.48
4:C:581:TYR:HB2	4:C:662:GLN:HG3	1.94	0.48
4:C:674:LEU:HD11	4:C:682:VAL:HG11	1.95	0.48
5:D:243:LEU:HD12	5:D:244:PRO:HD3	1.95	0.48
5:D:438:ARG:O	5:D:440:ILE:HG23	2.13	0.48
5:D:510:TYR:CD1	5:D:721:MET:HE1	2.48	0.48
5:D:618:LEU:CD2	5:D:622:LEU:CD1	2.91	0.48
6:G:6:DG:N3	7:H:38:DT:O2	2.46	0.48
6:G:17:DA:C2	6:G:18:DT:N3	2.81	0.48
6:G:28:DG:C6	6:G:29:DG:C6	3.00	0.48
8:J:10:DC:H2'	8:J:11:DA:H8	1.73	0.48
13:Z:126:SER:O	13:Z:219:TYR:OH	2.19	0.48
1:E:61:THR:O	1:E:65:ILE:HG13	2.13	0.48
2:A:160:PRO:O	2:A:161:THR:CG2	2.61	0.48
2:A:164:GLU:OE1	2:A:165:ARG:HG3	2.12	0.48
4:C:890:THR:N	4:C:916:VAL:O	2.42	0.48
4:C:898:THR:CG2	4:C:899:PRO:CD	2.70	0.48
5:D:73:TYR:CZ	11:S:76:PRO:CG	2.96	0.48
5:D:431:GLY:O	5:D:455:PHE:CE1	2.66	0.48
11:S:6:LEU:HD23	11:S:6:LEU:C	2.39	0.48
13:Z:112:ARG:HA	13:Z:115:GLU:CD	2.37	0.48
3:B:203:VAL:HG22	3:B:207:GLU:HG3	1.95	0.48
5:D:113:TRP:CZ2	5:D:1317:THR:HG23	2.48	0.48
5:D:332:LYS:HA	5:D:337:ARG:NE	2.28	0.48
5:D:489:LEU:HD11	5:D:607:PHE:CE2	2.48	0.48
5:D:500:PRO:HB3	5:D:504:ILE:HB	1.94	0.48
10:M:3:LEU:HD11	10:M:53:PRO:HB2	1.95	0.48
11:S:82:PRO:HG2	11:S:88:ARG:HA	1.95	0.48
11:S:89:ILE:HA	11:S:92:ARG:HH11	1.78	0.48
3:B:71:ILE:CD1	3:B:73:CYS:SG	3.02	0.48
4:C:196:ALA:O	4:C:204:PHE:CE1	2.66	0.48
4:C:558:TYR:C	4:C:558:TYR:CD2	2.90	0.48
4:C:1086:ASN:HD21	4:C:1242:MET:CE	2.20	0.48
4:C:1271:LEU:CD2	4:C:1271:LEU:H	2.25	0.48
6:G:42:DA:H4'	13:Z:397:TRP:NE1	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:20:DA:P	13:Z:528:ARG:HH12	2.35	0.48
7:H:36:DG:C5	7:H:37:DC:C4	3.01	0.48
10:M:30:ASP:HB3	10:M:33:LYS:CG	2.43	0.48
13:Z:209:GLU:O	13:Z:214:PRO:CD	2.52	0.48
4:C:514:LEU:O	4:C:516:GLN:CD	2.57	0.48
5:D:1156:ASP:HA	5:D:1160:LYS:HD3	1.94	0.48
5:D:1280:LEU:C	5:D:1280:LEU:CD1	2.85	0.48
6:G:20:DG:C4	7:H:24:DA:C2	3.01	0.48
6:G:46:DT:H1'	13:Z:350:LEU:N	2.28	0.48
6:G:50:DT:H6	6:G:50:DT:H2'	1.54	0.48
7:H:4:DC:C1'	7:H:5:DT:H5'	2.44	0.48
11:S:82:PRO:HG2	11:S:88:ARG:CA	2.43	0.48
13:Z:272:PHE:O	13:Z:276:TYR:CD1	2.67	0.48
13:Z:537:HIS:HB3	13:Z:541:GLU:HG2	1.95	0.48
4:C:12:ARG:CD	4:C:1195:ALA:HB2	2.40	0.48
4:C:154:LEU:HD12	4:C:455:ARG:O	2.14	0.48
4:C:164:LYS:HG3	4:C:171:ALA:C	2.39	0.48
4:C:726:GLU:O	4:C:738:LYS:HG2	2.14	0.48
4:C:761:SER:OG	4:C:765:THR:N	2.34	0.48
5:D:69:LEU:HB2	5:D:88:VAL:HG21	1.96	0.48
5:D:319:LYS:HA	5:D:319:LYS:CE	2.37	0.48
5:D:921:GLU:O	5:D:924:THR:HG22	2.14	0.48
5:D:1271:VAL:HA	5:D:1274:LEU:HD23	1.95	0.48
6:G:46:DT:H1'	13:Z:350:LEU:CA	2.43	0.48
7:H:23:DC:H41	13:Z:554:ARG:CZ	2.26	0.48
8:J:6:DG:C2	8:J:7:DC:C4	3.02	0.48
11:S:88:ARG:O	11:S:92:ARG:HG3	2.14	0.48
1:E:14:GLU:HG2	1:E:15:THR:HG23	1.96	0.48
1:E:67:ARG:O	1:E:70:ILE:CG1	2.56	0.48
2:A:100:LEU:CD1	2:A:123:VAL:CG1	2.89	0.48
2:A:113:SER:HA	2:A:131:PRO:HA	1.95	0.48
4:C:471:LEU:HD12	4:C:474:VAL:HG11	1.96	0.48
4:C:688:MET:CE	4:C:1085:GLY:HA2	2.43	0.48
4:C:903:LEU:O	4:C:903:LEU:HD23	2.14	0.48
5:D:116:LYS:HE2	5:D:310:ARG:CB	2.44	0.48
5:D:152:LEU:HD13	5:D:158:LEU:HD21	1.95	0.48
5:D:332:LYS:HA	5:D:337:ARG:CD	2.44	0.48
6:G:35:DT:C2'	6:G:36:DT:H6	2.22	0.48
7:H:4:DC:C4'	7:H:5:DT:H5'	2.44	0.48
13:Z:135:ILE:HG23	13:Z:204:GLU:HG2	1.96	0.48
13:Z:230:ARG:C	13:Z:230:ARG:HD3	2.39	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:391:PHE:CD2	13:Z:391:PHE:C	2.91	0.48
13:Z:573:LEU:HD12	13:Z:573:LEU:N	2.29	0.48
1:E:15:THR:O	1:E:16:ARG:HB3	2.14	0.48
3:B:182:ALA:HB2	3:B:192:LYS:HB2	1.95	0.48
3:B:204:ASN:ND2	3:B:207:GLU:HB3	2.29	0.48
4:C:861:GLU:O	4:C:865:ALA:N	2.47	0.48
5:D:19:LYS:HB3	5:D:1329:ILE:HD13	1.96	0.48
5:D:306:ASP:OD1	5:D:306:ASP:N	2.47	0.48
5:D:741:ARG:HB2	5:D:756:ILE:HB	1.94	0.48
6:G:44:DC:O5'	13:Z:393:THR:HG23	2.14	0.48
10:M:141:GLU:HA	10:M:144:VAL:HG12	1.96	0.48
13:Z:138:PHE:O	13:Z:142:GLU:HG3	2.13	0.48
13:Z:237:GLN:C	13:Z:240:VAL:HG22	2.39	0.48
1:E:21:VAL:HG12	1:E:25:MET:HE3	1.96	0.47
2:A:155:ILE:HG13	2:A:156:LEU:HD12	1.96	0.47
4:C:1256:HIS:CE1	4:C:1274:LYS:CB	2.97	0.47
4:C:1258:ARG:HD2	4:C:1277:PHE:HD2	1.79	0.47
5:D:57:ALA:CB	5:D:88:VAL:HG22	2.44	0.47
5:D:167:LEU:O	5:D:171:GLY:HA2	2.13	0.47
5:D:295:ARG:CD	13:Z:87:PRO:HB3	2.43	0.47
5:D:746:LYS:HB2	5:D:747:PRO:CD	2.44	0.47
5:D:791:GLY:HA2	5:D:794:THR:HG22	1.96	0.47
16:M:301:G4P:O3B	16:M:301:G4P:O1A	2.31	0.47
11:S:77:ALA:HB1	11:S:78:PRO:CD	2.44	0.47
13:Z:376:LEU:O	13:Z:380:VAL:HG13	2.13	0.47
13:Z:376:LEU:HA	13:Z:399:ILE:HD11	1.96	0.47
4:C:686:ALA:HA	4:C:689:GLN:HE21	1.79	0.47
4:C:1115:LEU:HD23	5:D:722:MET:SD	2.53	0.47
4:C:1156:ARG:NH1	4:C:1176:LEU:O	2.46	0.47
4:C:1286:GLU:HG3	5:D:432:ILE:HD11	1.96	0.47
4:C:1316:MET:O	4:C:1320:ILE:HG13	2.14	0.47
5:D:51:ARG:O	5:D:56:CYS:SG	2.52	0.47
5:D:167:LEU:O	5:D:171:GLY:CA	2.62	0.47
5:D:449:PRO:HA	5:D:452:CYS:SG	2.54	0.47
5:D:861:ASP:O	5:D:865:VAL:N	2.43	0.47
5:D:884:CYS:SG	5:D:886:THR:CG2	3.02	0.47
5:D:922:PRO:HG3	5:D:1236:ILE:HD11	1.96	0.47
6:G:49:DT:C4'	6:G:50:DT:OP1	2.60	0.47
10:M:134:THR:O	10:M:138:ILE:HG13	2.14	0.47
13:Z:459:LEU:O	13:Z:463:LEU:HG	2.13	0.47
13:Z:520:ARG:HB3	13:Z:520:ARG:NH1	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:1303:LEU:O	5:D:343:LYS:HD3	2.14	0.47
5:D:47:PHE:CE1	5:D:258:PHE:CZ	3.02	0.47
13:Z:230:ARG:HH12	13:Z:232:SER:HB3	1.79	0.47
13:Z:294:THR:HB	13:Z:297:THR:HB	1.94	0.47
13:Z:379:ALA:HB2	13:Z:398:TRP:CG	2.48	0.47
2:A:141:PHE:HE2	2:A:143:LEU:HD23	1.79	0.47
4:C:774:ASN:HB2	4:C:777:ASP:OD2	2.14	0.47
5:D:139:PHE:O	5:D:178:MET:CE	2.62	0.47
7:H:28:DT:C2	7:H:29:DT:C5	3.02	0.47
4:C:70:GLU:H	4:C:105:LEU:CD1	2.23	0.47
4:C:670:LEU:HD23	4:C:707:MET:HB3	1.97	0.47
4:C:686:ALA:HA	4:C:689:GLN:NE2	2.29	0.47
4:C:842:ALA:HB2	4:C:852:ILE:HD11	1.96	0.47
5:D:115:LEU:O	5:D:120:SER:HB3	2.14	0.47
5:D:764:LEU:N	5:D:764:LEU:CD1	2.77	0.47
6:G:45:DT:C4	13:Z:396:THR:HG21	2.50	0.47
10:M:185:LYS:HG3	10:M:186:GLU:N	2.30	0.47
13:Z:247:TYR:CE2	13:Z:251:LYS:HD3	2.50	0.47
13:Z:550:ARG:HD3	13:Z:551:GLU:N	2.29	0.47
1:E:9:CYS:O	1:E:13:VAL:HG12	2.14	0.47
1:E:45:GLU:OE2	1:E:49:VAL:HG12	2.13	0.47
4:C:5:TYR:CZ	4:C:9:LYS:HE2	2.49	0.47
4:C:594:TYR:CE1	4:C:619:ILE:HD13	2.49	0.47
4:C:674:LEU:HD23	4:C:1198:VAL:CG2	2.44	0.47
4:C:904:LEU:CD1	13:Z:505:LEU:HD11	2.44	0.47
4:C:1335:PHE:HE2	4:C:1351:PHE:CE1	2.28	0.47
5:D:138:TYR:O	5:D:139:PHE:CB	2.62	0.47
5:D:359:LEU:CD2	5:D:438:ARG:HD3	2.45	0.47
6:G:32:DT:H2''	6:G:33:DT:C6	2.48	0.47
6:G:44:DC:P	13:Z:393:THR:HG23	2.54	0.47
10:M:197:ILE:CA	10:M:200:ILE:HG12	2.44	0.47
11:S:97:LYS:HD3	11:S:98:ILE:N	2.30	0.47
13:Z:424:ILE:HG12	13:Z:462:ILE:HG12	1.96	0.47
2:A:18:GLU:HA	2:A:18:GLU:OE2	2.15	0.47
3:B:17:TYR:HE1	3:B:23:LYS:HG3	1.78	0.47
3:B:72:PRO:HD2	3:B:139:LEU:HD22	1.96	0.47
3:B:184:VAL:HB	3:B:190:LEU:HD12	1.97	0.47
4:C:21:ILE:N	4:C:21:ILE:CD1	2.76	0.47
4:C:48:LEU:C	4:C:48:LEU:CD2	2.87	0.47
4:C:95:TYR:HE2	4:C:134:LEU:HD12	1.79	0.47
4:C:160:ALA:HB2	4:C:407:LEU:HD21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:558:TYR:HB2	5:D:770:PHE:CE1	2.49	0.47
4:C:695:THR:HG21	4:C:800:HIS:CD2	2.50	0.47
4:C:758:PHE:HA	4:C:766:CYS:SG	2.55	0.47
4:C:959:ARG:O	4:C:963:ASP:N	2.42	0.47
4:C:1114:PRO:HB2	5:D:722:MET:HE1	1.97	0.47
5:D:318:ASN:O	5:D:319:LYS:CB	2.63	0.47
5:D:478:ALA:O	5:D:482:MET:N	2.43	0.47
5:D:1237:ASN:HD21	5:D:1239:LYS:HE3	1.80	0.47
5:D:1239:LYS:CA	5:D:1242:GLU:HG2	2.45	0.47
6:G:23:DT:H2'	6:G:24:DT:C6	2.50	0.47
10:M:64:ARG:HA	10:M:64:ARG:HH11	1.79	0.47
10:M:112:SER:O	10:M:115:LEU:CG	2.62	0.47
11:S:37:LEU:HB2	11:S:42:ILE:HG12	1.96	0.47
13:Z:83:LYS:HG3	13:Z:83:LYS:O	2.15	0.47
13:Z:284:LEU:O	13:Z:288:THR:HG23	2.14	0.47
13:Z:459:LEU:HD13	13:Z:462:ILE:HG21	1.97	0.47
3:B:104:LEU:CD1	3:B:111:ILE:CD1	2.93	0.47
4:C:578:LEU:HG	4:C:582:ALA:HB3	1.97	0.47
4:C:694:PRO:HG3	4:C:789:PHE:CZ	2.50	0.47
4:C:1199:PHE:CD1	5:D:766:VAL:HG22	2.50	0.47
7:H:21:DC:P	13:Z:528:ARG:HH21	2.38	0.47
10:M:36:ASN:ND2	10:M:39:HIS:CG	2.83	0.47
13:Z:142:GLU:O	13:Z:146:ILE:HD13	2.15	0.47
1:E:16:ARG:HD3	5:D:481:LEU:HD23	1.97	0.47
4:C:597:VAL:HG12	4:C:602:VAL:HG22	1.95	0.47
4:C:1155:LEU:O	4:C:1158:THR:CG2	2.62	0.47
5:D:112:ILE:HD13	5:D:306:ASP:OD1	2.14	0.47
5:D:653:GLU:O	5:D:656:GLU:CG	2.54	0.47
6:G:41:DT:H3	13:Z:401:GLN:NE2	2.08	0.47
6:G:47:DG:O4'	13:Z:95:MET:HE1	2.15	0.47
7:H:19:DA:P	7:H:19:DA:H8	2.37	0.47
11:S:33:GLU:O	11:S:37:LEU:CD1	2.63	0.47
13:Z:230:ARG:HD3	13:Z:230:ARG:O	2.14	0.47
13:Z:298:ILE:HA	13:Z:301:ILE:CD1	2.45	0.47
1:E:20:VAL:HG22	5:D:480:VAL:HG21	1.96	0.47
1:E:37:GLU:O	1:E:38:SER:CB	2.62	0.47
4:C:63:GLU:O	4:C:64:SER:C	2.57	0.47
4:C:101:VAL:HG22	4:C:129:MET:HG2	1.97	0.47
4:C:1161:GLU:O	4:C:1165:SER:CB	2.63	0.47
5:D:49:PRO:HG2	5:D:57:ALA:HB2	1.96	0.47
5:D:246:ASP:O	5:D:249:PRO:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:295:ARG:HE	13:Z:87:PRO:HB3	1.80	0.47
5:D:326:ALA:O	5:D:330:LYS:HG2	2.14	0.47
5:D:359:LEU:HD23	5:D:438:ARG:HD3	1.97	0.47
5:D:616:VAL:HG22	16:D:1704:G4P:O6	2.15	0.47
5:D:1127:ARG:O	5:D:1131:LEU:HG	2.14	0.47
6:G:15:DA:C2	6:G:16:DC:C2	3.03	0.47
6:G:18:DT:C6	6:G:19:DT:H72	2.50	0.47
7:H:2:DA:C2'	7:H:3:DC:C6	2.98	0.47
7:H:2:DA:C2'	7:H:3:DC:OP2	2.62	0.47
7:H:28:DT:N3	7:H:29:DT:C4	2.82	0.47
7:H:37:DC:H2'	7:H:38:DT:H72	1.97	0.47
10:M:5:THR:HB	10:M:28:ILE:HD11	1.97	0.47
10:M:18:ILE:O	10:M:22:LYS:HD3	2.15	0.47
10:M:21:ILE:O	10:M:78:PHE:CE2	2.68	0.47
10:M:132:ILE:HD11	10:M:178:THR:HB	1.96	0.47
11:S:53:VAL:HG12	11:S:62:ASN:CB	2.45	0.47
13:Z:222:ILE:O	13:Z:225:GLU:CG	2.56	0.47
13:Z:287:LEU:HA	13:Z:290:LYS:HE3	1.97	0.47
13:Z:376:LEU:CA	13:Z:399:ILE:CD1	2.92	0.47
13:Z:387:LYS:HG2	13:Z:389:PHE:CD2	2.50	0.47
2:A:221:ILE:O	2:A:221:ILE:CG2	2.63	0.46
4:C:648:THR:HG21	4:C:652:ARG:HH21	1.79	0.46
4:C:681:ARG:HG2	4:C:1122:ASN:HB3	1.97	0.46
4:C:772:ILE:HG22	4:C:772:ILE:O	2.14	0.46
4:C:1256:HIS:HE1	4:C:1274:LYS:HA	1.78	0.46
4:C:1347:ILE:HG21	5:D:20:ILE:CD1	2.45	0.46
5:D:1285:LYS:O	5:D:1286:LYS:C	2.58	0.46
6:G:12:DT:H2''	6:G:13:DA:C8	2.48	0.46
6:G:20:DG:C2'	6:G:21:DT:H6	2.28	0.46
6:G:43:DA:H2''	6:G:44:DC:H5'	1.97	0.46
7:H:20:DA:H2'	7:H:21:DC:C5	2.51	0.46
13:Z:92:MET:HE2	13:Z:352:VAL:HG21	1.97	0.46
13:Z:109:ILE:HD12	13:Z:343:MET:HG3	1.97	0.46
13:Z:352:VAL:HA	13:Z:369:ILE:CD1	2.45	0.46
13:Z:406:SER:O	13:Z:410:GLN:HG2	2.15	0.46
4:C:388:GLU:O	4:C:392:PHE:HB2	2.15	0.46
4:C:927:SER:O	4:C:1070:ILE:CG1	2.63	0.46
5:D:161:GLU:HG2	5:D:162:GLU:N	2.29	0.46
5:D:351:SER:CB	5:D:445:ILE:HG13	2.44	0.46
5:D:618:LEU:HD23	5:D:622:LEU:HD12	1.96	0.46
5:D:672:THR:HG23	5:D:675:GLU:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:1231:MET:HG3	5:D:1232:GLN:N	2.30	0.46
10:M:107:ILE:CD1	10:M:127:MET:HE1	2.45	0.46
10:M:119:GLN:O	10:M:122:GLU:HG3	2.15	0.46
11:S:22:LEU:CD1	11:S:29:THR:HG21	2.37	0.46
13:Z:142:GLU:O	13:Z:146:ILE:CD1	2.63	0.46
13:Z:344:ILE:O	13:Z:348:LEU:HD12	2.15	0.46
13:Z:422:GLU:OE1	13:Z:423:THR:N	2.48	0.46
13:Z:537:HIS:H	13:Z:537:HIS:CD2	2.32	0.46
2:A:30:SER:N	2:A:31:PRO:HD3	2.30	0.46
4:C:210:LEU:HD21	4:C:432:ILE:HD12	1.96	0.46
4:C:532:ARG:HG3	4:C:575:ILE:HG23	1.97	0.46
4:C:594:TYR:CD2	4:C:609:LEU:HD12	2.49	0.46
4:C:834:HIS:CE1	4:C:1072:LYS:HD2	2.50	0.46
4:C:962:PHE:O	4:C:966:PHE:N	2.31	0.46
4:C:1072:LYS:HD3	4:C:1250:LEU:HD13	1.98	0.46
4:C:1281:ARG:HB2	5:D:344:ARG:CG	2.41	0.46
5:D:276:ARG:HG2	5:D:293:GLU:CD	2.40	0.46
5:D:1157:THR:O	5:D:1157:THR:CG2	2.56	0.46
6:G:5:DA:C2	6:G:6:DG:C6	3.03	0.46
6:G:11:DA:C4	6:G:12:DT:C2	3.03	0.46
8:J:5:DC:H42	12:X:23:DG:H1	1.61	0.46
10:M:96:LEU:C	10:M:96:LEU:CD2	2.84	0.46
10:M:157:VAL:O	10:M:161:ILE:HG13	2.16	0.46
11:S:56:GLU:HB2	11:S:59:TYR:O	2.16	0.46
13:Z:131:ILE:HD12	13:Z:226:PHE:CE1	2.50	0.46
2:A:14:ILE:HG23	2:A:14:ILE:O	2.16	0.46
4:C:674:LEU:HD23	4:C:1198:VAL:HG21	1.97	0.46
4:C:802:LEU:O	4:C:1241:TYR:O	2.33	0.46
5:D:318:ASN:HB2	5:D:320:ARG:CD	2.45	0.46
5:D:476:LEU:HD23	5:D:480:VAL:HG23	1.98	0.46
5:D:919:ILE:O	5:D:922:PRO:HG2	2.15	0.46
7:H:27:DG:H2'	7:H:28:DT:H6	1.72	0.46
10:M:43:LEU:CD2	10:M:47:THR:CG2	2.94	0.46
11:S:158:LEU:O	11:S:162:LEU:CD2	2.51	0.46
2:A:62:ILE:HG21	2:A:65:VAL:CG1	2.43	0.46
3:B:16:GLU:CG	3:B:22:THR:HG22	2.45	0.46
4:C:71:LEU:N	4:C:71:LEU:CD1	2.78	0.46
5:D:216:ILE:CG2	5:D:217:LYS:HD2	2.42	0.46
5:D:273:ARG:NH2	13:Z:364:HIS:CE1	2.83	0.46
5:D:851:VAL:HG13	5:D:851:VAL:O	2.15	0.46
5:D:899:LEU:C	5:D:899:LEU:CD2	2.86	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:1144:SER:HB3	5:D:1198:LEU:HD11	1.98	0.46
5:D:1338:ASN:HD22	5:D:1338:ASN:N	2.14	0.46
6:G:26:DT:C2	7:H:17:DA:C2	3.03	0.46
6:G:30:DC:H2''	6:G:31:DG:O5'	2.16	0.46
7:H:8:DA:C2'	7:H:9:DT:C5	2.94	0.46
10:M:184:ILE:O	10:M:188:LYS:HG3	2.15	0.46
11:S:80:LEU:O	11:S:150:LEU:N	2.45	0.46
11:S:113:ARG:O	11:S:119:LEU:CD1	2.64	0.46
13:Z:214:PRO:HG2	13:Z:218:LEU:HD23	1.96	0.46
13:Z:516:GLY:HA3	13:Z:563:LYS:HZ2	1.79	0.46
2:A:14:ILE:CD1	2:A:207:LEU:HD22	2.46	0.46
3:B:133:TYR:CE2	3:B:135:GLY:HA2	2.51	0.46
4:C:50:SER:O	4:C:54:ILE:HG13	2.16	0.46
4:C:62:VAL:HG21	4:C:71:LEU:HD22	1.96	0.46
4:C:499:LYS:N	4:C:500:PRO:CD	2.78	0.46
5:D:385:LEU:C	5:D:385:LEU:HD23	2.40	0.46
7:H:38:DT:C2'	7:H:39:DA:N7	2.72	0.46
10:M:154:ASN:C	10:M:154:ASN:HD22	2.21	0.46
11:S:27:MET:SD	11:S:75:PHE:CZ	3.09	0.46
3:B:60:ASN:O	3:B:63:LYS:CG	2.57	0.46
3:B:177:PHE:HB2	3:B:195:LEU:HD23	1.97	0.46
4:C:408:ASN:ND2	4:C:418:LYS:HG2	2.31	0.46
4:C:819:LEU:HD11	4:C:1094:LEU:HG	1.97	0.46
5:D:73:TYR:HE1	11:S:76:PRO:CB	2.26	0.46
5:D:296:MET:SD	13:Z:366:LEU:HB3	2.56	0.46
6:G:8:DT:O2	6:G:9:DG:C6	2.69	0.46
7:H:8:DA:C2'	7:H:9:DT:C6	2.98	0.46
9:K:321:UNK:HA	9:K:322:UNK:HA	1.52	0.46
12:X:17:DT:H2''	12:X:18:DG:C8	2.48	0.46
13:Z:351:VAL:HG21	13:Z:373:ASN:N	2.30	0.46
4:C:411:LEU:N	4:C:411:LEU:HD22	2.30	0.46
4:C:820:LEU:HD11	4:C:1074:ILE:HD13	1.97	0.46
4:C:900:GLU:CG	13:Z:509:ILE:CD1	2.91	0.46
4:C:1155:LEU:CA	4:C:1158:THR:HG22	2.43	0.46
4:C:1352:ASP:O	5:D:17:ILE:HG12	2.16	0.46
5:D:17:ILE:HB	5:D:1329:ILE:HD11	1.98	0.46
5:D:653:GLU:HA	5:D:656:GLU:HG2	1.98	0.46
5:D:681:ILE:HD13	5:D:751:MET:HB2	1.98	0.46
6:G:10:DT:C2'	6:G:11:DA:N7	2.79	0.46
11:S:33:GLU:O	11:S:37:LEU:HD13	2.16	0.46
13:Z:451:THR:HG22	13:Z:452:PRO:HD2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:520:ARG:O	13:Z:524:VAL:HG23	2.16	0.46
2:A:11:VAL:HG12	3:B:222:ASN:HB2	1.97	0.46
2:A:33:GLU:OE1	3:B:219:GLN:NE2	2.46	0.46
3:B:203:VAL:CG2	3:B:207:GLU:HG3	2.46	0.46
4:C:585:ASN:OD1	4:C:589:PHE:N	2.45	0.46
4:C:751:ASP:C	4:C:752:ILE:HD13	2.41	0.46
4:C:1097:GLU:HG2	4:C:1098:ASP:N	2.31	0.46
4:C:1248:ASP:OD1	4:C:1248:ASP:O	2.34	0.46
5:D:150:THR:HG22	5:D:152:LEU:H	1.81	0.46
5:D:200:GLN:O	5:D:203:CYS:HB3	2.16	0.46
5:D:898:ASP:CB	5:D:905:VAL:HG22	2.46	0.46
5:D:908:GLY:O	5:D:1348:GLY:CA	2.64	0.46
5:D:1156:ASP:HA	5:D:1160:LYS:CD	2.46	0.46
5:D:1200:ASP:OD1	5:D:1201:GLY:N	2.49	0.46
6:G:31:DG:N2	7:H:13:DG:N1	2.64	0.46
6:G:38:DA:H2'	6:G:39:DG:N7	2.30	0.46
6:G:42:DA:H4'	13:Z:397:TRP:CE2	2.51	0.46
10:M:10:ILE:O	10:M:14:ILE:HG13	2.15	0.46
10:M:12:SER:C	10:M:15:VAL:HG12	2.41	0.46
11:S:120:GLU:HA	11:S:123:PHE:CD2	2.50	0.46
11:S:177:TYR:CE1	11:S:181:LYS:HE3	2.51	0.46
2:A:12:PRO:C	2:A:31:PRO:HG2	2.40	0.46
3:B:47:TYR:OH	5:D:536:ASN:HB2	2.15	0.46
3:B:102:PHE:HB3	3:B:141:ILE:HB	1.95	0.46
3:B:204:ASN:HD21	3:B:207:GLU:N	2.10	0.46
4:C:2:SER:O	4:C:3:TYR:HB2	2.16	0.46
4:C:71:LEU:HA	4:C:103:LEU:HD11	1.97	0.46
5:D:159:THR:HG23	5:D:162:GLU:H	1.81	0.46
5:D:250:LEU:HG	5:D:260:THR:HG22	1.98	0.46
5:D:326:ALA:O	5:D:329:ILE:HG12	2.16	0.46
5:D:699:ILE:HG23	5:D:700:SER:N	2.30	0.46
5:D:746:LYS:HB2	5:D:747:PRO:HD2	1.98	0.46
5:D:1125:LEU:HD23	5:D:1125:LEU:C	2.41	0.46
5:D:1253:VAL:O	5:D:1290:TYR:HA	2.16	0.46
6:G:36:DT:O2	7:H:7:DA:H2	1.98	0.46
7:H:34:DC:H4'	7:H:35:DA:OP1	2.16	0.46
13:Z:127:TYR:OH	13:Z:325:VAL:CG2	2.64	0.46
13:Z:268:PRO:O	13:Z:270:GLN:N	2.44	0.46
2:A:14:ILE:HD13	2:A:207:LEU:HD13	1.96	0.45
4:C:40:THR:O	4:C:47:ARG:NE	2.42	0.45
4:C:92:GLY:HA2	4:C:145:GLY:CA	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:192:ILE:CG2	5:D:196:ILE:HD11	2.47	0.45
5:D:861:ASP:HB3	5:D:864:LEU:HG	1.96	0.45
5:D:1220:TYR:HA	5:D:1223:ILE:CD1	2.46	0.45
7:H:4:DC:H4'	7:H:5:DT:C5'	2.46	0.45
7:H:21:DC:OP2	13:Z:528:ARG:NH2	2.48	0.45
10:M:17:MET:HB2	10:M:164:PHE:HZ	1.81	0.45
13:Z:123:THR:HG23	13:Z:329:ILE:CD1	2.47	0.45
13:Z:382:LYS:CD	13:Z:398:TRP:CZ2	2.98	0.45
13:Z:549:THR:HG23	13:Z:552:ARG:CA	2.44	0.45
5:D:35:GLU:OE1	5:D:35:GLU:C	2.59	0.45
5:D:103:ILE:O	5:D:239:VAL:HG23	2.17	0.45
6:G:23:DT:C2'	6:G:24:DT:OP2	2.63	0.45
6:G:35:DT:H2''	6:G:36:DT:H6	1.81	0.45
7:H:28:DT:C6	7:H:29:DT:H72	2.51	0.45
7:H:32:DT:H2'	7:H:33:DA:C4	2.51	0.45
7:H:33:DA:H2'	7:H:34:DC:C4	2.51	0.45
10:M:5:THR:HG22	10:M:28:ILE:HG13	1.95	0.45
13:Z:199:PHE:HA	13:Z:202:ASN:HD22	1.81	0.45
13:Z:219:TYR:HA	13:Z:222:ILE:HG12	1.98	0.45
13:Z:247:TYR:C	13:Z:250:VAL:HG12	2.41	0.45
13:Z:512:LEU:C	13:Z:512:LEU:CD2	2.89	0.45
13:Z:539:LEU:HA	13:Z:542:VAL:HG22	1.98	0.45
2:A:165:ARG:HB2	2:A:168:ASP:CG	2.41	0.45
4:C:34:SER:O	4:C:37:LYS:HE3	2.15	0.45
4:C:71:LEU:HD11	4:C:482:MET:CE	2.45	0.45
4:C:179:TYR:CB	4:C:400:SER:HB3	2.47	0.45
4:C:520:GLN:H	4:C:763:LYS:HG2	1.81	0.45
4:C:1146:LEU:HD12	4:C:1150:ARG:HG2	1.97	0.45
4:C:1159:LEU:HD13	4:C:1173:LEU:CD2	2.39	0.45
13:Z:106:GLU:C	13:Z:109:ILE:HG12	2.42	0.45
13:Z:140:GLU:HA	13:Z:143:GLU:CG	2.45	0.45
4:C:726:GLU:OE1	4:C:726:GLU:N	2.50	0.45
4:C:802:LEU:HD13	4:C:824:ILE:HD13	1.98	0.45
5:D:1282:LYS:CE	5:D:1285:LYS:HD2	2.47	0.45
6:G:19:DT:H2'	6:G:20:DG:C8	2.52	0.45
7:H:24:DA:C5	7:H:25:DA:C6	3.05	0.45
13:Z:101:LEU:HD23	13:Z:101:LEU:H	1.81	0.45
4:C:30:ILE:HD13	4:C:584:VAL:CG2	2.45	0.45
4:C:97:ALA:HB2	4:C:134:LEU:HD11	1.99	0.45
4:C:405:MET:HE1	4:C:587:TYR:CD1	2.51	0.45
4:C:415:LYS:N	4:C:415:LYS:HD2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:221:LEU:C	5:D:221:LEU:CD2	2.86	0.45
5:D:265:ASP:N	5:D:265:ASP:OD1	2.49	0.45
5:D:581:LEU:CD1	5:D:590:LEU:CD1	2.95	0.45
5:D:666:TYR:CE1	5:D:673:GLU:HB2	2.51	0.45
5:D:1230:ARG:HD3	5:D:1230:ARG:HA	1.82	0.45
6:G:45:DT:C5	13:Z:396:THR:HG21	2.50	0.45
10:M:124:LYS:HG3	10:M:125:MET:N	2.32	0.45
10:M:197:ILE:C	10:M:200:ILE:HG12	2.41	0.45
13:Z:161:ARG:NH1	13:Z:193:THR:OG1	2.45	0.45
13:Z:341:LYS:HA	13:Z:344:ILE:CG2	2.47	0.45
13:Z:435:LEU:O	13:Z:439:GLY:HA2	2.17	0.45
3:B:12:ILE:HD12	3:B:12:ILE:N	2.31	0.45
3:B:26:PHE:HD2	3:B:193:LEU:HD22	1.81	0.45
3:B:184:VAL:CB	3:B:190:LEU:HD12	2.46	0.45
3:B:225:ASP:C	3:B:225:ASP:OD1	2.59	0.45
4:C:1256:HIS:HD1	4:C:1274:LYS:HG3	1.80	0.45
5:D:107:CYS:SG	5:D:297:LEU:HD23	2.56	0.45
6:G:5:DA:H1'	7:H:39:DA:H2	1.81	0.45
6:G:12:DT:H2''	6:G:13:DA:H5'	1.99	0.45
6:G:33:DT:H2''	6:G:34:DA:H8	1.79	0.45
10:M:110:LEU:HD21	10:M:123:ILE:HD12	1.97	0.45
11:S:122:MET:HE2	11:S:126:LEU:HG	1.99	0.45
13:Z:535:THR:O	13:Z:535:THR:CG2	2.65	0.45
2:A:217:PHE:CZ	2:A:221:ILE:HD11	2.52	0.45
3:B:82:LEU:HD21	5:D:524:LEU:CD2	2.47	0.45
3:B:106:GLY:O	3:B:133:TYR:CE2	2.70	0.45
5:D:72:LYS:NZ	5:D:84:GLU:OE2	2.48	0.45
5:D:73:TYR:CZ	11:S:76:PRO:HG2	2.51	0.45
5:D:112:ILE:HG22	5:D:305:LEU:HD12	1.98	0.45
5:D:319:LYS:HE2	5:D:319:LYS:CA	2.38	0.45
5:D:666:TYR:HB2	5:D:676:ARG:HD2	1.99	0.45
5:D:695:MET:HE3	5:D:738:ALA:HB3	1.99	0.45
5:D:919:ILE:HD11	5:D:1241:ILE:HD13	1.98	0.45
6:G:15:DA:H2''	6:G:16:DC:C6	2.44	0.45
6:G:25:DA:H2'	6:G:26:DT:C5	2.51	0.45
7:H:36:DG:H2'	7:H:37:DC:C5	2.52	0.45
10:M:17:MET:CA	10:M:17:MET:CE	2.93	0.45
13:Z:341:LYS:CA	13:Z:344:ILE:HG22	2.46	0.45
4:C:606:ILE:HD12	4:C:606:ILE:N	2.31	0.45
5:D:43:ASN:ND2	5:D:45:ARG:N	2.64	0.45
5:D:73:TYR:OH	11:S:76:PRO:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:128:MET:HB2	5:D:129:PRO:HD2	1.98	0.45
5:D:145:THR:HA	5:D:186:LEU:HD21	1.99	0.45
5:D:582:PRO:CG	5:D:585:LEU:HD12	2.47	0.45
5:D:902:GLU:OE1	5:D:902:GLU:HA	2.16	0.45
5:D:919:ILE:HD12	5:D:1244:ILE:CD1	2.46	0.45
5:D:1239:LYS:C	5:D:1242:GLU:HG2	2.42	0.45
7:H:6:DT:C2'	7:H:7:DA:C8	3.00	0.45
9:K:293:UNK:O	9:K:294:UNK:CB	2.65	0.45
10:M:43:LEU:HD11	10:M:52:ILE:HD11	1.99	0.45
10:M:167:TYR:HE1	10:M:171:LYS:HE3	1.80	0.45
13:Z:265:SER:CB	13:Z:292:LYS:CB	2.95	0.45
13:Z:272:PHE:O	13:Z:276:TYR:HD1	2.00	0.45
13:Z:434:ILE:HG12	13:Z:443:THR:CG2	2.46	0.45
4:C:1092:ARG:HG2	4:C:1093:VAL:H	1.82	0.45
4:C:1339:ARG:CA	4:C:1342:VAL:HG12	2.45	0.45
5:D:273:ARG:HH22	13:Z:364:HIS:CE1	2.34	0.45
5:D:1282:LYS:CE	5:D:1285:LYS:CD	2.95	0.45
6:G:20:DG:H2'	6:G:21:DT:H6	1.81	0.45
7:H:4:DC:H2'	7:H:5:DT:H71	1.98	0.45
13:Z:202:ASN:C	13:Z:206:MET:HE2	2.42	0.45
3:B:57:ILE:CD1	3:B:84:VAL:HB	2.46	0.45
4:C:24:VAL:HG11	4:C:710:ILE:HD13	1.99	0.45
4:C:799:GLY:N	4:C:1243:TYR:OH	2.47	0.45
5:D:397:ARG:HD2	5:D:397:ARG:HA	1.74	0.45
5:D:752:ILE:CG2	5:D:754:THR:HG22	2.46	0.45
5:D:1336:LYS:HA	5:D:1339:VAL:HG12	1.98	0.45
5:D:1337:GLU:O	5:D:1341:ILE:HG12	2.16	0.45
6:G:15:DA:H2'	6:G:16:DC:H6	1.60	0.45
13:Z:95:MET:HG2	13:Z:348:LEU:HB3	1.99	0.45
13:Z:194:GLN:CD	13:Z:194:GLN:N	2.74	0.45
13:Z:241:ASP:C	13:Z:245:LEU:HD23	2.42	0.45
13:Z:351:VAL:CG2	13:Z:372:GLY:C	2.89	0.45
13:Z:526:MET:O	13:Z:530:GLY:CA	2.64	0.45
13:Z:549:THR:CG2	13:Z:552:ARG:CB	2.78	0.45
1:E:5:THR:C	1:E:7:GLU:N	2.75	0.44
2:A:39:ILE:HG21	3:B:40:ALA:HB1	1.97	0.44
3:B:225:ASP:HB3	3:B:228:GLU:OE1	2.16	0.44
4:C:52:LEU:C	4:C:52:LEU:CD2	2.81	0.44
4:C:1117:ILE:O	4:C:1120:ARG:O	2.35	0.44
4:C:1256:HIS:CE1	4:C:1279:GLY:H	2.35	0.44
5:D:250:LEU:O	5:D:250:LEU:HD22	2.13	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:534:ALA:HB1	5:D:540:ILE:CD1	2.47	0.44
5:D:581:LEU:HD12	5:D:590:LEU:CD1	2.42	0.44
5:D:837:LEU:HD13	5:D:865:VAL:HG21	1.99	0.44
5:D:1140:ALA:HA	5:D:1202:PRO:HD2	1.99	0.44
5:D:1263:VAL:O	5:D:1263:VAL:CG1	2.65	0.44
5:D:1316:THR:O	5:D:1319:VAL:CG1	2.65	0.44
6:G:27:DT:H73	6:G:27:DT:OP2	2.17	0.44
11:S:7:TYR:CE2	11:S:37:LEU:HD21	2.53	0.44
11:S:61:ILE:HG23	11:S:61:ILE:O	2.16	0.44
13:Z:90:MET:HA	13:Z:93:ARG:NH2	2.32	0.44
3:B:29:LEU:O	3:B:190:LEU:HB3	2.17	0.44
4:C:85:GLU:OE1	4:C:86:THR:N	2.50	0.44
5:D:1220:TYR:HA	5:D:1223:ILE:HD11	1.99	0.44
6:G:47:DG:OP2	13:Z:349:ARG:HD3	2.17	0.44
7:H:9:DT:C2	7:H:10:DA:C5	3.05	0.44
13:Z:206:MET:O	13:Z:218:LEU:HD21	2.16	0.44
13:Z:547:ASN:O	13:Z:548:VAL:HG13	2.17	0.44
1:E:6:VAL:O	1:E:6:VAL:CG1	2.64	0.44
1:E:6:VAL:O	1:E:10:LEU:HG	2.18	0.44
1:E:26:ARG:O	1:E:30:ILE:HG13	2.17	0.44
3:B:101:THR:O	3:B:116:ALA:HB1	2.18	0.44
3:B:183:ARG:HB3	3:B:188:THR:HG22	2.00	0.44
4:C:1280:GLN:HE22	5:D:350:ARG:HB3	1.80	0.44
5:D:578:LEU:HD13	5:D:587:PHE:HD1	1.82	0.44
5:D:582:PRO:HD2	5:D:585:LEU:HD12	1.99	0.44
5:D:699:ILE:CG2	5:D:700:SER:N	2.80	0.44
8:J:8:DG:H2'	8:J:9:DT:H73	1.95	0.44
10:M:122:GLU:HG3	10:M:123:ILE:N	2.32	0.44
12:X:17:DT:C2	12:X:18:DG:C5	3.05	0.44
13:Z:122:SER:O	13:Z:125:LEU:CD2	2.58	0.44
2:A:120:THR:HG22	2:A:123:VAL:HG21	1.98	0.44
5:D:149:MET:SD	5:D:149:MET:C	2.99	0.44
5:D:212:LYS:HD3	5:D:212:LYS:HA	1.60	0.44
5:D:349:GLY:O	5:D:465:ALA:HA	2.17	0.44
5:D:478:ALA:O	5:D:482:MET:HB2	2.17	0.44
5:D:684:TRP:HA	5:D:687:THR:HG22	2.00	0.44
7:H:7:DA:H2''	7:H:8:DA:H8	1.80	0.44
7:H:21:DC:N3	7:H:22:DA:C5	2.86	0.44
10:M:156:ASN:OD1	10:M:158:LEU:N	2.50	0.44
11:S:88:ARG:O	11:S:91:ILE:CG2	2.59	0.44
13:Z:283:TRP:CD2	13:Z:287:LEU:HD21	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:344:ILE:O	13:Z:348:LEU:HD13	2.18	0.44
13:Z:448:ILE:HG21	13:Z:456:LYS:HG2	2.00	0.44
2:A:100:LEU:HD23	2:A:100:LEU:N	2.32	0.44
3:B:127:GLU:HG3	3:B:127:GLU:O	2.17	0.44
4:C:60:PHE:N	4:C:61:PRO:HD2	2.32	0.44
4:C:349:ILE:HG22	4:C:353:LEU:HD11	2.00	0.44
4:C:1155:LEU:C	4:C:1158:THR:HG22	2.42	0.44
5:D:38:LYS:HG3	5:D:40:GLU:CG	2.37	0.44
5:D:1336:LYS:O	5:D:1339:VAL:HG13	2.16	0.44
7:H:17:DA:C8	7:H:17:DA:OP2	2.67	0.44
10:M:106:ASN:N	10:M:106:ASN:OD1	2.49	0.44
10:M:128:GLN:HE21	10:M:174:ILE:HG22	1.81	0.44
13:Z:295:GLU:OE1	13:Z:296:ASN:N	2.49	0.44
2:A:36:MET:CE	3:B:216:ILE:HG12	2.37	0.44
3:B:82:LEU:HD21	5:D:524:LEU:CG	2.48	0.44
3:B:207:GLU:HG3	3:B:208:ALA:N	2.33	0.44
4:C:179:TYR:HB2	4:C:400:SER:HB3	2.00	0.44
4:C:404:ARG:HG2	4:C:418:LYS:O	2.17	0.44
4:C:857:PRO:O	4:C:858:ASN:HB3	2.17	0.44
5:D:132:ASN:CB	5:D:157:LEU:HD11	2.44	0.44
5:D:1250:ARG:NH2	5:D:1300:SER:OG	2.51	0.44
6:G:20:DG:O6	13:Z:551:GLU:HG2	2.18	0.44
7:H:10:DA:C2	7:H:11:DA:C5	3.05	0.44
11:S:103:TYR:HB2	11:S:104:PRO:HD3	1.98	0.44
11:S:135:LYS:HD2	11:S:135:LYS:H	1.81	0.44
13:Z:274:LYS:HB3	13:Z:283:TRP:CZ2	2.53	0.44
13:Z:345:GLU:C	13:Z:348:LEU:HD13	2.41	0.44
13:Z:505:LEU:HD23	13:Z:505:LEU:O	2.17	0.44
2:A:78:ASP:OD2	2:A:79:VAL:N	2.51	0.44
2:A:129:ASP:OD1	2:A:130:GLN:N	2.51	0.44
3:B:106:GLY:O	3:B:133:TYR:CD2	2.71	0.44
3:B:180:LYS:HB2	3:B:192:LYS:HD2	2.00	0.44
4:C:735:ILE:HG13	4:C:755:LEU:HD11	2.00	0.44
4:C:856:ILE:HD13	4:C:917:ASP:HB3	2.00	0.44
5:D:258:PHE:O	13:Z:469:PRO:CB	2.65	0.44
5:D:295:ARG:NE	13:Z:87:PRO:HB3	2.33	0.44
5:D:765:SER:OG	5:D:768:GLN:HG3	2.18	0.44
6:G:11:DA:H2''	6:G:12:DT:O4'	2.18	0.44
10:M:96:LEU:HA	10:M:99:VAL:HG12	1.99	0.44
1:E:54:GLU:HA	1:E:57:GLU:CG	2.48	0.44
4:C:41:VAL:HB	4:C:47:ARG:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:153:GLN:HA	4:C:534:SER:O	2.18	0.44
4:C:1095:PRO:HD2	4:C:1098:ASP:HB2	2.00	0.44
5:D:32:SER:CB	5:D:102:HIS:HB3	2.46	0.44
5:D:40:GLU:CB	5:D:50:GLU:CD	2.88	0.44
5:D:49:PRO:HD2	5:D:69:LEU:HD11	1.99	0.44
5:D:58:LYS:CE	5:D:87:GLY:HA3	2.48	0.44
5:D:1350:GLY:O	5:D:1354:ARG:HG3	2.17	0.44
6:G:25:DA:C2	7:H:18:DT:O2	2.69	0.44
7:H:5:DT:H2''	7:H:6:DT:C6	2.52	0.44
8:J:9:DT:C2	8:J:10:DC:C6	3.06	0.44
13:Z:351:VAL:HG21	13:Z:372:GLY:C	2.43	0.44
13:Z:456:LYS:O	13:Z:460:LYS:HG3	2.18	0.44
4:C:399:LEU:H	4:C:421:TYR:CB	2.27	0.44
4:C:939:ASP:O	4:C:940:LYS:CB	2.66	0.44
4:C:1103:GLU:OE1	4:C:1103:GLU:CA	2.65	0.44
4:C:1109:ASP:N	4:C:1109:ASP:OD1	2.49	0.44
5:D:420:LEU:O	5:D:466:VAL:HA	2.18	0.44
5:D:613:LYS:HA	5:D:616:VAL:HG12	1.99	0.44
5:D:1250:ARG:O	5:D:1268:ILE:HG12	2.17	0.44
7:H:8:DA:H2''	7:H:9:DT:O5'	2.17	0.44
7:H:24:DA:C6	7:H:25:DA:C6	3.06	0.44
8:J:8:DG:H2'	8:J:9:DT:C5	2.52	0.44
13:Z:247:TYR:HA	13:Z:250:VAL:HG12	1.99	0.44
13:Z:452:PRO:O	13:Z:454:MET:HG2	2.18	0.44
13:Z:453:ASN:OD1	13:Z:458:LYS:HD2	2.17	0.44
2:A:11:VAL:CG1	3:B:222:ASN:CG	2.90	0.43
2:A:39:ILE:HG23	3:B:40:ALA:HB2	1.99	0.43
2:A:105:SER:H	2:A:118:LYS:NZ	2.16	0.43
4:C:71:LEU:HD21	4:C:478:ILE:HG21	2.00	0.43
4:C:408:ASN:HD22	4:C:418:LYS:HG2	1.83	0.43
4:C:414:ASP:OD1	4:C:414:ASP:O	2.36	0.43
4:C:868:ASP:HB3	4:C:874:HIS:CE1	2.53	0.43
4:C:903:LEU:HD23	4:C:907:ILE:HG13	2.00	0.43
4:C:928:GLY:HA3	4:C:1068:VAL:HG12	2.00	0.43
4:C:1339:ARG:HA	4:C:1342:VAL:CG1	2.47	0.43
4:C:1339:ARG:C	4:C:1342:VAL:HG12	2.42	0.43
5:D:393:LYS:HD2	5:D:393:LYS:O	2.18	0.43
8:J:9:DT:H2'	8:J:10:DC:C5	2.52	0.43
11:S:5:THR:CG2	11:S:30:ASP:HB2	2.47	0.43
11:S:123:PHE:HA	11:S:126:LEU:HD12	2.00	0.43
13:Z:365:PHE:O	13:Z:369:ILE:HG12	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:39:ILE:CG2	3:B:40:ALA:CB	2.96	0.43
4:C:426:SER:HA	4:C:429:VAL:CG1	2.48	0.43
4:C:585:ASN:OD1	4:C:585:ASN:C	2.62	0.43
5:D:40:GLU:HB3	5:D:50:GLU:OE1	2.17	0.43
5:D:217:LYS:H	5:D:217:LYS:CD	2.31	0.43
5:D:1280:LEU:HD12	5:D:1280:LEU:O	2.18	0.43
5:D:1313:PHE:O	5:D:1314:GLN:HB3	2.19	0.43
6:G:3:DT:H2''	6:G:4:DT:C5	2.53	0.43
6:G:18:DT:H2''	6:G:19:DT:C5'	2.48	0.43
7:H:6:DT:H2'	7:H:7:DA:C8	2.53	0.43
7:H:18:DT:H2''	7:H:19:DA:C8	2.53	0.43
7:H:20:DA:N3	7:H:21:DC:C6	2.86	0.43
10:M:183:ILE:O	10:M:187:ILE:HG13	2.18	0.43
10:M:196:PHE:CZ	10:M:200:ILE:HG21	2.54	0.43
12:X:16:DC:C2'	12:X:17:DT:C6	3.00	0.43
13:Z:86:ASP:O	13:Z:90:MET:HG3	2.19	0.43
13:Z:134:TYR:HE1	13:Z:235:HIS:NE2	2.15	0.43
13:Z:141:LEU:HD23	13:Z:141:LEU:C	2.43	0.43
13:Z:272:PHE:CZ	13:Z:273:ILE:HG23	2.53	0.43
4:C:522:ASN:N	4:C:522:ASN:OD1	2.51	0.43
4:C:567:PRO:HG2	4:C:575:ILE:HG12	1.97	0.43
4:C:1155:LEU:HA	4:C:1158:THR:CG2	2.45	0.43
5:D:243:LEU:CD1	5:D:244:PRO:HD2	2.48	0.43
6:G:18:DT:C2	6:G:19:DT:C4	3.07	0.43
6:G:20:DG:O6	13:Z:551:GLU:CD	2.62	0.43
6:G:21:DT:H2''	6:G:22:DG:C8	2.52	0.43
6:G:44:DC:OP1	13:Z:390:LYS:CB	2.49	0.43
7:H:8:DA:H2'	7:H:9:DT:C6	2.54	0.43
10:M:5:THR:O	10:M:30:ASP:HA	2.17	0.43
10:M:126:LEU:HD23	10:M:126:LEU:HA	1.91	0.43
13:Z:131:ILE:O	13:Z:135:ILE:HG13	2.18	0.43
2:A:57:ILE:CG2	2:A:145:ALA:HB1	2.49	0.43
2:A:77:GLU:OE1	2:A:134:THR:N	2.51	0.43
4:C:60:PHE:N	4:C:61:PRO:CD	2.82	0.43
4:C:207:THR:O	4:C:211:LYS:HG3	2.18	0.43
5:D:111:HIS:HD2	5:D:113:TRP:N	2.11	0.43
5:D:121:ARG:HG3	5:D:1325:ILE:CD1	2.48	0.43
6:G:8:DT:C4'	6:G:9:DG:OP1	2.65	0.43
6:G:11:DA:C5	6:G:12:DT:N3	2.87	0.43
7:H:2:DA:H2'	7:H:3:DC:C6	2.53	0.43
7:H:20:DA:N3	7:H:21:DC:C5	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:36:DG:N3	7:H:37:DC:C2	2.86	0.43
10:M:116:ASP:HB3	10:M:119:GLN:NE2	2.32	0.43
2:A:18:GLU:OE2	2:A:18:GLU:CA	2.66	0.43
2:A:34:LYS:HD3	2:A:191:SER:CA	2.49	0.43
4:C:41:VAL:CG1	4:C:50:SER:HB2	2.48	0.43
4:C:99:LEU:HD23	4:C:99:LEU:C	2.44	0.43
4:C:1226:ASP:O	4:C:1230:GLY:N	2.51	0.43
5:D:598:GLU:OE1	5:D:598:GLU:CA	2.66	0.43
5:D:842:ALA:HB3	5:D:877:LYS:HG2	2.00	0.43
5:D:1226:GLN:HE22	5:D:1238:ASP:HB3	1.83	0.43
5:D:1239:LYS:O	5:D:1242:GLU:CG	2.67	0.43
5:D:1338:ASN:HB3	5:D:1343:ARG:O	2.19	0.43
6:G:23:DT:C1'	6:G:24:DT:H5'	2.46	0.43
7:H:5:DT:C6	7:H:6:DT:C4	3.06	0.43
7:H:20:DA:C2	7:H:21:DC:C2	3.06	0.43
11:S:206:LEU:HD23	11:S:206:LEU:O	2.19	0.43
13:Z:327:LEU:O	13:Z:331:ARG:HG3	2.18	0.43
2:A:62:ILE:HG22	2:A:64:ASN:H	1.83	0.43
3:B:41:LEU:O	3:B:44:THR:HG22	2.19	0.43
3:B:77:VAL:O	3:B:81:ILE:HG13	2.18	0.43
4:C:401:ASP:HA	4:C:421:TYR:CE1	2.54	0.43
5:D:43:ASN:C	5:D:43:ASN:HD22	2.25	0.43
5:D:224:THR:CG2	5:D:1326:ASN:HA	2.49	0.43
5:D:922:PRO:CB	5:D:1234:VAL:HG11	2.49	0.43
6:G:13:DA:H2'	6:G:14:DA:H8	1.72	0.43
6:G:13:DA:H2	7:H:30:DT:H3	1.58	0.43
6:G:34:DA:C6	7:H:10:DA:C2	3.06	0.43
10:M:3:LEU:HD21	10:M:15:VAL:HG13	1.99	0.43
10:M:128:GLN:O	10:M:131:ILE:CG2	2.55	0.43
11:S:163:GLU:CG	11:S:168:ILE:CD1	2.94	0.43
12:X:16:DC:H2'	12:X:17:DT:C5	2.51	0.43
12:X:17:DT:C2'	12:X:18:DG:H8	2.30	0.43
2:A:11:VAL:O	2:A:31:PRO:HG2	2.19	0.43
3:B:71:ILE:CD1	3:B:80:ILE:HD12	2.49	0.43
3:B:125:THR:O	3:B:125:THR:CG2	2.65	0.43
4:C:62:VAL:HG23	4:C:71:LEU:HD13	2.00	0.43
4:C:802:LEU:HD13	4:C:824:ILE:CD1	2.48	0.43
5:D:243:LEU:HG	5:D:244:PRO:HD2	1.99	0.43
5:D:448:HIS:CE1	5:D:623:MET:SD	3.12	0.43
5:D:756:ILE:HG23	5:D:768:GLN:CD	2.43	0.43
5:D:827:GLU:HG2	5:D:829:LYS:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:895:TYR:CE1	5:D:1239:LYS:HD3	2.54	0.43
5:D:1301:SER:O	5:D:1304:THR:HG22	2.18	0.43
6:G:9:DG:C6	7:H:33:DA:C2	3.07	0.43
6:G:27:DT:H2'	6:G:28:DG:H8	1.74	0.43
7:H:6:DT:C2	7:H:7:DA:C5	3.07	0.43
7:H:18:DT:C2'	7:H:19:DA:C8	3.02	0.43
10:M:176:ILE:H	10:M:176:ILE:CD1	2.29	0.43
13:Z:347:ASN:ND2	13:Z:391:PHE:CZ	2.87	0.43
13:Z:383:PHE:CE1	13:Z:394:TYR:CB	3.01	0.43
2:A:33:GLU:HG2	3:B:215:LYS:HE2	2.00	0.43
3:B:58:LYS:HD3	3:B:61:ASP:CA	2.38	0.43
3:B:98:GLY:HA2	3:B:122:LEU:HD11	2.01	0.43
4:C:19:PRO:O	4:C:21:ILE:HD12	2.18	0.43
4:C:34:SER:OG	4:C:458:SER:CB	2.67	0.43
4:C:426:SER:C	4:C:429:VAL:HG12	2.43	0.43
4:C:1199:PHE:CG	5:D:766:VAL:HG22	2.53	0.43
4:C:1301:GLU:OE1	4:C:1306:LYS:HE3	2.19	0.43
5:D:34:GLY:CA	5:D:59:ILE:HG23	2.48	0.43
5:D:115:LEU:O	5:D:120:SER:CB	2.67	0.43
5:D:124:LEU:HD23	5:D:221:LEU:CD1	2.47	0.43
5:D:697:ASP:O	5:D:701:LYS:HB2	2.19	0.43
5:D:805:VAL:CG1	5:D:806:VAL:N	2.81	0.43
5:D:1257:GLU:CB	5:D:1261:LYS:O	2.67	0.43
6:G:5:DA:H2''	6:G:6:DG:H5'	2.00	0.43
13:Z:82:GLY:O	13:Z:83:LYS:CB	2.66	0.43
13:Z:393:THR:HA	13:Z:396:THR:OG1	2.19	0.43
1:E:18:ASP:N	1:E:18:ASP:OD1	2.52	0.43
3:B:60:ASN:O	3:B:63:LYS:CB	2.67	0.43
6:G:24:DT:C2	6:G:25:DA:C4	3.07	0.43
6:G:28:DG:N3	7:H:16:DA:C2	2.86	0.43
7:H:37:DC:C2'	7:H:38:DT:C6	3.00	0.43
10:M:121:ASN:O	10:M:124:LYS:CG	2.66	0.43
11:S:163:GLU:CB	11:S:168:ILE:HD13	2.47	0.43
13:Z:557:GLU:O	13:Z:561:LEU:HD13	2.19	0.43
3:B:177:PHE:HB2	3:B:195:LEU:CD2	2.49	0.43
4:C:135:MET:HG2	4:C:136:THR:O	2.19	0.43
4:C:178:PRO:HB3	4:C:397:TYR:CE2	2.50	0.43
4:C:427:ASP:OD1	4:C:427:ASP:N	2.52	0.43
4:C:542:SER:HB3	4:C:545:ARG:HG2	2.01	0.43
4:C:604:ASP:O	4:C:606:ILE:CD1	2.67	0.43
4:C:1280:GLN:NE2	5:D:350:ARG:CB	2.76	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:376:LYS:N	5:D:377:PRO:CD	2.82	0.43
5:D:618:LEU:C	5:D:618:LEU:CD2	2.92	0.43
7:H:5:DT:C2'	7:H:6:DT:H5'	2.45	0.43
7:H:9:DT:H2''	7:H:10:DA:C5'	2.48	0.43
7:H:21:DC:N4	7:H:22:DA:N6	2.66	0.43
7:H:41:DA:H2'	7:H:42:DT:C7	2.49	0.43
11:S:148:PHE:HB2	11:S:186:ARG:NH1	2.33	0.43
13:Z:284:LEU:N	13:Z:284:LEU:HD22	2.34	0.43
13:Z:431:LYS:HA	13:Z:434:ILE:CG2	2.49	0.43
4:C:70:GLU:CB	4:C:106:VAL:HG22	2.49	0.42
4:C:368:ILE:CD1	4:C:387:PHE:CE1	3.02	0.42
4:C:567:PRO:HD3	4:C:575:ILE:CG1	2.48	0.42
4:C:812:TYR:CE1	4:C:1092:ARG:HD2	2.54	0.42
4:C:1116:GLY:O	4:C:1120:ARG:HG2	2.19	0.42
5:D:44:TYR:CG	5:D:45:ARG:N	2.87	0.42
5:D:72:LYS:HD2	5:D:85:ARG:CZ	2.49	0.42
5:D:786:LYS:O	5:D:786:LYS:CD	2.58	0.42
6:G:12:DT:H2''	6:G:13:DA:C5'	2.49	0.42
6:G:12:DT:H73	6:G:12:DT:OP2	2.19	0.42
7:H:24:DA:C2	7:H:25:DA:C2	3.07	0.42
10:M:197:ILE:O	10:M:200:ILE:CG1	2.66	0.42
11:S:119:LEU:O	11:S:123:PHE:CD2	2.71	0.42
11:S:163:GLU:CB	11:S:168:ILE:CD1	2.97	0.42
13:Z:285:GLU:N	13:Z:286:PRO:CD	2.82	0.42
2:A:14:ILE:HD13	2:A:207:LEU:HD11	2.01	0.42
2:A:121:GLN:C	2:A:121:GLN:OE1	2.62	0.42
3:B:168:THR:CG2	5:D:533:ARG:HD2	2.48	0.42
4:C:99:LEU:HD12	4:C:132:ILE:HG13	2.01	0.42
4:C:101:VAL:CG2	4:C:129:MET:SD	3.08	0.42
4:C:401:ASP:O	4:C:401:ASP:OD2	2.37	0.42
4:C:852:ILE:HD12	4:C:1062:LYS:HE3	2.02	0.42
5:D:49:PRO:HG3	5:D:63:ILE:HD11	2.01	0.42
5:D:66:TYR:HA	5:D:90:VAL:CG1	2.49	0.42
5:D:139:PHE:O	5:D:178:MET:HE2	2.19	0.42
5:D:409:ILE:HA	5:D:412:THR:HG22	2.01	0.42
5:D:816:GLY:H	5:D:877:LYS:CE	2.32	0.42
5:D:1207:ASP:OD1	5:D:1207:ASP:C	2.62	0.42
7:H:17:DA:H2''	7:H:18:DT:O4'	2.19	0.42
7:H:34:DC:H6	7:H:34:DC:H2'	1.55	0.42
10:M:12:SER:HA	10:M:15:VAL:HG12	2.00	0.42
10:M:116:ASP:OD2	10:M:117:GLU:N	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:296:ASN:HA	13:Z:299:ARG:CD	2.48	0.42
13:Z:498:GLU:O	13:Z:501:ASN:OD1	2.36	0.42
2:A:79:VAL:O	2:A:83:VAL:HG23	2.18	0.42
4:C:426:SER:CA	4:C:429:VAL:HG12	2.50	0.42
4:C:674:LEU:HB3	4:C:1198:VAL:CG2	2.49	0.42
4:C:720:ILE:HG21	4:C:782:GLY:HA2	2.01	0.42
4:C:890:THR:HG22	4:C:916:VAL:HG13	2.00	0.42
5:D:43:ASN:HD22	5:D:45:ARG:N	2.18	0.42
5:D:159:THR:CG2	5:D:162:GLU:CB	2.97	0.42
5:D:253:ILE:CG2	5:D:257:ARG:HG3	2.49	0.42
5:D:609:VAL:HG23	5:D:610:LEU:N	2.35	0.42
5:D:659:ILE:CD1	5:D:680:ILE:HG23	2.49	0.42
5:D:919:ILE:C	5:D:922:PRO:HD2	2.44	0.42
5:D:1215:GLU:OE1	5:D:1215:GLU:N	2.52	0.42
6:G:24:DT:O2	7:H:19:DA:C2	2.70	0.42
6:G:40:DG:N2	7:H:2:DA:C6	2.85	0.42
10:M:9:ASP:OD2	10:M:12:SER:N	2.35	0.42
10:M:65:LEU:HG	10:M:66:SER:N	2.34	0.42
11:S:151:ALA:HA	11:S:154:TYR:HD2	1.84	0.42
2:A:13:ASN:H	2:A:31:PRO:CD	2.32	0.42
4:C:369:TYR:CD1	4:C:386:LEU:HD13	2.54	0.42
4:C:929:THR:O	4:C:1068:VAL:HA	2.19	0.42
5:D:384:ARG:NH1	5:D:392:ILE:HA	2.32	0.42
5:D:791:GLY:C	5:D:794:THR:HG22	2.43	0.42
5:D:804:LEU:O	5:D:805:VAL:CG2	2.67	0.42
5:D:817:LEU:O	5:D:877:LYS:HA	2.19	0.42
5:D:1252:ALA:HB2	5:D:1268:ILE:HD11	2.00	0.42
6:G:18:DT:N3	7:H:25:DA:C2	2.77	0.42
7:H:36:DG:H2''	7:H:37:DC:C5'	2.49	0.42
7:H:36:DG:H2'	7:H:37:DC:C6	2.54	0.42
13:Z:247:TYR:O	13:Z:250:VAL:CG1	2.59	0.42
13:Z:526:MET:O	13:Z:530:GLY:HA2	2.20	0.42
13:Z:558:ALA:O	13:Z:562:ARG:HG2	2.20	0.42
3:B:175:CYS:O	3:B:196:ASN:O	2.37	0.42
4:C:108:TYR:CB	4:C:118:ILE:N	2.82	0.42
4:C:188:PHE:CE2	4:C:439:ARG:HB2	2.54	0.42
4:C:404:ARG:NE	4:C:420:ILE:O	2.49	0.42
4:C:674:LEU:CB	4:C:1198:VAL:HG23	2.47	0.42
5:D:367:PRO:HG2	5:D:370:MET:SD	2.60	0.42
6:G:7:DC:H2'	6:G:8:DT:O4'	2.19	0.42
6:G:43:DA:C4	6:G:44:DC:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:J:7:DC:C2'	8:J:8:DG:H5''	2.47	0.42
10:M:96:LEU:O	10:M:99:VAL:CG1	2.67	0.42
13:Z:127:TYR:HA	13:Z:128:PRO:HD3	1.85	0.42
13:Z:241:ASP:HB2	13:Z:245:LEU:CD2	2.50	0.42
13:Z:420:MET:O	13:Z:423:THR:CG2	2.67	0.42
1:E:12:LYS:HD2	1:E:12:LYS:N	2.34	0.42
4:C:184:LEU:HD23	4:C:198:ILE:HG12	1.96	0.42
4:C:551:ARG:O	5:D:777:ARG:HD3	2.20	0.42
4:C:1184:LEU:HD23	4:C:1188:LEU:HG	2.01	0.42
4:C:1256:HIS:ND1	4:C:1274:LYS:HG3	2.35	0.42
5:D:105:LEU:HB2	5:D:238:THR:O	2.20	0.42
6:G:12:DT:C2	6:G:13:DA:C5	3.08	0.42
6:G:49:DT:C2'	6:G:50:DT:C5'	1.94	0.42
7:H:28:DT:C2'	7:H:29:DT:C7	2.87	0.42
10:M:10:ILE:HG13	10:M:11:TYR:N	2.35	0.42
10:M:17:MET:O	10:M:17:MET:CE	2.67	0.42
13:Z:92:MET:HE1	13:Z:352:VAL:HG11	2.01	0.42
13:Z:123:THR:CG2	13:Z:329:ILE:CD1	2.98	0.42
13:Z:351:VAL:HG12	13:Z:369:ILE:HA	2.00	0.42
2:A:11:VAL:CG1	3:B:222:ASN:HB2	2.50	0.42
2:A:207:LEU:HD13	2:A:207:LEU:C	2.44	0.42
2:A:227:LEU:HG	3:B:206:GLU:OE2	2.20	0.42
3:B:148:GLY:N	3:B:169:PHE:CE1	2.87	0.42
4:C:178:PRO:HB3	4:C:397:TYR:OH	2.20	0.42
4:C:506:LYS:C	4:C:506:LYS:HD3	2.45	0.42
4:C:720:ILE:N	4:C:720:ILE:CD1	2.80	0.42
5:D:15:PHE:O	5:D:15:PHE:CD2	2.72	0.42
5:D:316:GLY:O	5:D:319:LYS:CE	2.67	0.42
7:H:8:DA:H2''	7:H:9:DT:C6	2.55	0.42
10:M:36:ASN:ND2	10:M:39:HIS:HB2	2.34	0.42
13:Z:263:GLU:HB2	13:Z:264:ARG:HD2	2.02	0.42
3:B:193:LEU:HD23	3:B:194:GLU:N	2.34	0.42
4:C:452:GLY:O	4:C:589:PHE:CE1	2.73	0.42
4:C:520:GLN:CB	4:C:761:SER:HB2	2.48	0.42
4:C:562:CYS:CB	4:C:665:SER:HB3	2.49	0.42
4:C:1117:ILE:N	4:C:1118:PRO:CD	2.82	0.42
4:C:1156:ARG:NH2	4:C:1174:GLU:HA	2.17	0.42
5:D:55:PHE:CZ	5:D:250:LEU:HB2	2.55	0.42
5:D:116:LYS:HE2	5:D:310:ARG:CA	2.50	0.42
6:G:47:DG:C6	13:Z:93:ARG:HA	2.54	0.42
7:H:27:DG:C2'	7:H:28:DT:H6	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:M:17:MET:HA	10:M:199:THR:HG21	2.02	0.42
10:M:100:ASN:OD1	10:M:104:LEU:HD12	2.18	0.42
11:S:4:VAL:CG1	11:S:27:MET:SD	2.99	0.42
13:Z:143:GLU:OE1	13:Z:144:LYS:N	2.52	0.42
13:Z:219:TYR:CD2	13:Z:222:ILE:HD11	2.55	0.42
13:Z:331:ARG:O	13:Z:335:LYS:HG2	2.20	0.42
13:Z:383:PHE:CZ	13:Z:394:TYR:C	2.98	0.42
13:Z:509:ILE:HG13	13:Z:510:LYS:N	2.34	0.42
2:A:120:THR:CG2	2:A:123:VAL:CG2	2.97	0.42
4:C:88:CYS:SG	4:C:89:GLN:N	2.92	0.42
4:C:110:LYS:HA	4:C:116:GLU:HA	2.01	0.42
4:C:182:SER:O	4:C:397:TYR:HE1	2.03	0.42
4:C:866:LYS:O	4:C:874:HIS:CD2	2.72	0.42
4:C:1304:THR:O	4:C:1309:ASP:HB2	2.20	0.42
5:D:490:SER:O	5:D:493:SER:O	2.37	0.42
5:D:644:ILE:CG2	5:D:645:PRO:HD2	2.50	0.42
5:D:744:MET:HA	5:D:744:MET:HE3	1.92	0.42
5:D:829:LYS:NZ	5:D:1230:ARG:CB	2.83	0.42
6:G:11:DA:N6	7:H:31:DA:N6	2.62	0.42
6:G:40:DG:C2'	6:G:41:DT:H72	2.40	0.42
7:H:31:DA:C2'	7:H:32:DT:H6	2.29	0.42
7:H:40:DA:C2	7:H:41:DA:C4	3.08	0.42
13:Z:231:LEU:HD12	13:Z:235:HIS:HB3	2.02	0.42
13:Z:235:HIS:O	13:Z:239:LEU:HG	2.19	0.42
13:Z:283:TRP:CZ3	13:Z:287:LEU:HD21	2.55	0.42
13:Z:438:LYS:HE3	13:Z:438:LYS:HB3	1.87	0.42
2:A:14:ILE:CG1	2:A:207:LEU:HD21	2.50	0.42
2:A:164:GLU:OE2	2:A:165:ARG:HG3	2.20	0.42
3:B:87:LEU:HD23	3:B:128:VAL:CG1	2.50	0.42
3:B:192:LYS:NZ	3:B:194:GLU:OE2	2.46	0.42
4:C:160:ALA:HA	4:C:175:ARG:O	2.20	0.42
4:C:755:LEU:N	4:C:755:LEU:HD12	2.35	0.42
4:C:759:LYS:N	4:C:767:ILE:O	2.48	0.42
4:C:851:GLU:HG3	4:C:853:THR:HB	2.01	0.42
4:C:1221:GLN:CA	4:C:1238:THR:HA	2.44	0.42
6:G:5:DA:C4	6:G:6:DG:C5	3.08	0.42
6:G:17:DA:H2'	6:G:18:DT:H73	1.98	0.42
6:G:35:DT:H2''	6:G:36:DT:C6	2.49	0.42
6:G:41:DT:C7	13:Z:398:TRP:CH2	3.02	0.42
10:M:47:THR:HG23	10:M:47:THR:O	2.19	0.42
10:M:63:TYR:CE2	11:S:93:LEU:HD11	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:566:HIS:CE1	13:Z:567:PRO:HD2	2.55	0.42
2:A:220:GLN:O	2:A:223:VAL:HG12	2.20	0.41
3:B:166:ASP:OD1	3:B:166:ASP:N	2.53	0.41
3:B:204:ASN:HD21	3:B:207:GLU:HB3	1.84	0.41
4:C:360:ASN:OD1	4:C:360:ASN:N	2.53	0.41
4:C:583:ARG:O	4:C:590:LEU:HA	2.20	0.41
4:C:1262:SER:O	4:C:1271:LEU:CD2	2.68	0.41
5:D:384:ARG:HH12	5:D:392:ILE:N	2.18	0.41
5:D:525:PHE:CD2	5:D:546:ILE:HD12	2.55	0.41
6:G:14:DA:C2	7:H:30:DT:C2	3.08	0.41
1:E:21:VAL:CG1	1:E:25:MET:HE3	2.49	0.41
3:B:113:SER:OG	3:B:127:GLU:HA	2.20	0.41
4:C:545:ARG:HA	4:C:545:ARG:HD3	1.50	0.41
4:C:1165:SER:HB3	4:C:1213:ILE:CD1	2.49	0.41
5:D:101:GLY:O	5:D:242:VAL:HG22	2.19	0.41
5:D:105:LEU:HA	5:D:274:ASN:ND2	2.30	0.41
5:D:208:SER:N	5:D:212:LYS:HB2	2.36	0.41
5:D:251:VAL:HG23	5:D:252:PRO:HD2	2.02	0.41
5:D:430:LEU:HD11	5:D:491:PRO:HD3	2.02	0.41
5:D:525:PHE:CG	5:D:531:VAL:HG22	2.54	0.41
5:D:534:ALA:O	5:D:537:SER:OG	2.24	0.41
5:D:578:LEU:HD13	5:D:587:PHE:CD1	2.55	0.41
5:D:898:ASP:O	5:D:899:LEU:CB	2.60	0.41
5:D:898:ASP:CA	5:D:905:VAL:CG2	2.95	0.41
5:D:1157:THR:O	5:D:1158:LYS:CB	2.65	0.41
7:H:39:DA:C2'	7:H:40:DA:C8	2.94	0.41
9:L:307:UNK:O	9:L:311:UNK:N	2.53	0.41
11:S:109:ILE:HG13	11:S:110:ARG:N	2.36	0.41
13:Z:260:LEU:O	13:Z:264:ARG:HD3	2.20	0.41
13:Z:517:LEU:CB	13:Z:521:GLU:CB	2.71	0.41
3:B:53:CYS:SG	3:B:167:ALA:CB	3.02	0.41
4:C:96:ASP:OD2	4:C:131:ASP:HB3	2.19	0.41
4:C:1274:LYS:HA	4:C:1278:GLY:HA3	2.02	0.41
4:C:1347:ILE:CG2	5:D:20:ILE:CG1	2.98	0.41
5:D:269:ARG:HA	5:D:272:ASN:HD21	1.85	0.41
5:D:365:GLY:HA3	5:D:446:GLN:HB2	2.03	0.41
5:D:724:LYS:HD2	5:D:724:LYS:HA	1.88	0.41
5:D:867:LEU:HD12	5:D:867:LEU:H	1.84	0.41
7:H:20:DA:C3'	13:Z:528:ARG:NH2	2.81	0.41
10:M:65:LEU:HD23	10:M:66:SER:H	1.85	0.41
10:M:128:GLN:HG2	10:M:169:PHE:HZ	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:92:MET:HE1	13:Z:352:VAL:CG1	2.50	0.41
13:Z:284:LEU:HD11	13:Z:301:ILE:CD1	2.50	0.41
1:E:13:VAL:HG21	1:E:19:LEU:N	2.36	0.41
1:E:51:ALA:O	1:E:55:ILE:HG13	2.21	0.41
2:A:14:ILE:CD1	2:A:207:LEU:CD2	2.98	0.41
2:A:103:GLU:O	2:A:118:LYS:HG2	2.20	0.41
3:B:220:LEU:O	3:B:224:VAL:N	2.53	0.41
4:C:411:LEU:N	4:C:411:LEU:CD2	2.83	0.41
5:D:69:LEU:HD23	5:D:69:LEU:C	2.46	0.41
5:D:146:ASP:OD1	5:D:148:GLY:N	2.54	0.41
5:D:1336:LYS:C	5:D:1339:VAL:HG12	2.45	0.41
6:G:16:DC:O2	6:G:17:DA:C8	2.74	0.41
11:S:84:VAL:CG2	11:S:87:GLU:CB	2.87	0.41
11:S:85:VAL:O	11:S:89:ILE:HG13	2.19	0.41
13:Z:254:GLU:O	13:Z:258:LEU:HG	2.20	0.41
2:A:26:LYS:HA	2:A:196:VAL:O	2.20	0.41
2:A:68:GLU:OE1	2:A:68:GLU:N	2.38	0.41
2:A:178:ILE:HG21	2:A:181:VAL:CG2	2.51	0.41
4:C:386:LEU:HD23	4:C:387:PHE:N	2.35	0.41
4:C:585:ASN:HD21	4:C:589:PHE:HB2	1.84	0.41
4:C:607:GLU:OE1	4:C:609:LEU:HG	2.20	0.41
4:C:1126:ILE:CG2	4:C:1130:HIS:CE1	3.03	0.41
5:D:172:TYR:O	5:D:173:GLU:CB	2.59	0.41
5:D:361:LEU:HD13	5:D:361:LEU:HA	1.88	0.41
5:D:409:ILE:C	5:D:412:THR:HG22	2.44	0.41
5:D:613:LYS:C	5:D:616:VAL:HG12	2.44	0.41
13:Z:135:ILE:HD13	13:Z:204:GLU:HA	2.03	0.41
2:A:13:ASN:O	2:A:29:LEU:HD22	2.20	0.41
2:A:206:PRO:O	2:A:210:VAL:HG23	2.21	0.41
3:B:71:ILE:HG13	3:B:73:CYS:SG	2.60	0.41
3:B:75:GLU:OE1	3:B:75:GLU:N	2.54	0.41
3:B:225:ASP:O	3:B:229:ILE:HG13	2.21	0.41
4:C:4:SER:O	4:C:8:LYS:HB2	2.21	0.41
5:D:252:PRO:HB3	5:D:258:PHE:CZ	2.55	0.41
5:D:456:ASN:O	5:D:456:ASN:CG	2.64	0.41
5:D:610:LEU:CD2	5:D:614:ALA:HB1	2.51	0.41
5:D:829:LYS:HZ1	5:D:1230:ARG:HB2	1.83	0.41
5:D:861:ASP:OD1	5:D:862:GLU:N	2.53	0.41
10:M:4:TYR:HE2	10:M:56:SER:HB2	1.85	0.41
10:M:13:ASP:OD1	10:M:16:ARG:NH2	2.53	0.41
13:Z:88:ILE:HG23	13:Z:366:LEU:HD13	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:100:LEU:HD23	13:Z:101:LEU:H	1.86	0.41
2:A:107:ASN:O	2:A:138:GLN:NE2	2.53	0.41
3:B:220:LEU:HD12	3:B:220:LEU:N	2.36	0.41
4:C:819:LEU:HD21	4:C:1094:LEU:HD11	1.98	0.41
4:C:851:GLU:HG3	4:C:853:THR:H	1.85	0.41
4:C:1169:LYS:HA	4:C:1169:LYS:HD3	1.63	0.41
5:D:43:ASN:ND2	5:D:46:THR:H	2.18	0.41
5:D:43:ASN:HD22	5:D:46:THR:H	1.69	0.41
5:D:102:HIS:HA	5:D:241:PRO:HA	2.02	0.41
5:D:159:THR:HG23	5:D:162:GLU:CB	2.51	0.41
5:D:580:ILE:HD12	5:D:622:LEU:HD23	2.03	0.41
5:D:620:ASP:O	5:D:624:TYR:HD2	2.04	0.41
5:D:884:CYS:SG	5:D:1246:ARG:NH1	2.94	0.41
6:G:14:DA:H2'	6:G:15:DA:N7	2.32	0.41
6:G:14:DA:C2	7:H:30:DT:N3	2.89	0.41
7:H:11:DA:H2''	7:H:12:DC:C5'	2.47	0.41
10:M:4:TYR:CE1	10:M:43:LEU:HB2	2.56	0.41
11:S:38:GLU:OE2	11:S:39:PRO:HD2	2.20	0.41
11:S:203:LEU:O	11:S:207:ARG:HD3	2.21	0.41
13:Z:88:ILE:HG23	13:Z:366:LEU:HD11	2.02	0.41
13:Z:245:LEU:N	13:Z:246:PRO:CD	2.84	0.41
2:A:43:SER:O	2:A:47:VAL:HG23	2.20	0.41
2:A:57:ILE:HG12	2:A:147:VAL:HG22	2.02	0.41
4:C:27:LEU:HA	4:C:531:ARG:HH12	1.86	0.41
4:C:363:GLU:C	4:C:366:VAL:HG12	2.42	0.41
4:C:821:SER:CB	4:C:1099:MET:HG3	2.50	0.41
4:C:1331:VAL:CG1	4:C:1332:PRO:N	2.83	0.41
5:D:342:GLY:O	5:D:343:LYS:C	2.63	0.41
5:D:805:VAL:HG12	5:D:806:VAL:N	2.36	0.41
5:D:908:GLY:O	5:D:1348:GLY:HA2	2.21	0.41
9:K:307:UNK:O	9:K:311:UNK:N	2.53	0.41
11:S:157:ALA:O	11:S:161:CYS:SG	2.75	0.41
13:Z:276:TYR:O	13:Z:277:LYS:C	2.64	0.41
13:Z:568:SER:OG	13:Z:569:ARG:HD3	2.20	0.41
2:A:12:PRO:HD2	3:B:219:GLN:O	2.21	0.41
4:C:357:LEU:H	4:C:357:LEU:CD1	2.30	0.41
4:C:368:ILE:CD1	4:C:387:PHE:HE1	2.31	0.41
4:C:401:ASP:CB	4:C:421:TYR:CE1	3.03	0.41
4:C:567:PRO:CG	4:C:575:ILE:CG1	2.84	0.41
4:C:1146:LEU:O	4:C:1150:ARG:HG2	2.21	0.41
4:C:1220:GLY:C	4:C:1238:THR:HA	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:117:SER:HB3	5:D:120:SER:CA	2.45	0.41
5:D:548:LEU:HD23	5:D:548:LEU:C	2.46	0.41
5:D:605:GLN:O	5:D:609:VAL:HG22	2.21	0.41
5:D:1269:GLU:O	5:D:1273:ILE:HG22	2.21	0.41
6:G:36:DT:H2'	6:G:37:DA:N7	2.36	0.41
6:G:41:DT:H71	13:Z:398:TRP:CH2	2.56	0.41
10:M:36:ASN:HD21	10:M:39:HIS:CG	2.39	0.41
10:M:63:TYR:CD1	10:M:63:TYR:N	2.88	0.41
10:M:85:PHE:HA	10:M:86:PRO:HD3	1.93	0.41
11:S:3:LYS:O	11:S:3:LYS:HG3	2.21	0.41
11:S:97:LYS:C	11:S:97:LYS:CD	2.91	0.41
11:S:119:LEU:HB3	11:S:123:PHE:CE2	2.56	0.41
12:X:15:DT:C3'	12:X:16:DC:H5'	2.45	0.41
13:Z:227:ASP:C	13:Z:227:ASP:OD1	2.64	0.41
13:Z:298:ILE:C	13:Z:301:ILE:HG12	2.43	0.41
13:Z:363:LEU:HB2	13:Z:407:ILE:CD1	2.51	0.41
13:Z:363:LEU:HD22	13:Z:367:ASP:OD2	2.21	0.41
1:E:60:ILE:O	1:E:61:THR:CB	2.69	0.41
3:B:59:ILE:O	3:B:140:LYS:O	2.39	0.41
4:C:743:LYS:HA	4:C:743:LYS:CE	2.48	0.41
4:C:864:LEU:O	4:C:864:LEU:CG	2.69	0.41
4:C:967:ALA:O	4:C:971:SER:N	2.43	0.41
4:C:1188:LEU:HD22	4:C:1193:PRO:HD3	2.02	0.41
5:D:103:ILE:HB	5:D:240:LEU:CD1	2.51	0.41
6:G:4:DT:H2'	6:G:5:DA:C8	2.56	0.41
6:G:4:DT:H2''	6:G:5:DA:O4'	2.20	0.41
7:H:25:DA:H2''	7:H:26:DT:C1'	2.51	0.41
13:Z:220:THR:O	13:Z:223:VAL:CG2	2.57	0.41
13:Z:363:LEU:HD23	13:Z:363:LEU:HA	1.85	0.41
1:E:16:ARG:HD3	5:D:481:LEU:CD2	2.51	0.40
2:A:153:VAL:HG13	2:A:157:SER:O	2.21	0.40
3:B:177:PHE:CB	3:B:195:LEU:CD2	2.99	0.40
4:C:367:GLU:O	4:C:371:VAL:HG23	2.21	0.40
4:C:903:LEU:CD2	4:C:907:ILE:HG13	2.51	0.40
4:C:1221:GLN:HB3	4:C:1236:HIS:C	2.46	0.40
5:D:923:GLY:O	5:D:926:LEU:CD1	2.69	0.40
6:G:20:DG:C4	6:G:21:DT:C5	3.09	0.40
6:G:38:DA:H2'	6:G:39:DG:H8	1.76	0.40
6:G:40:DG:N2	7:H:2:DA:H61	2.14	0.40
7:H:30:DT:H73	7:H:30:DT:OP2	2.21	0.40
10:M:4:TYR:CG	10:M:43:LEU:HD12	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:M:95:LEU:HD23	10:M:158:LEU:CD2	2.51	0.40
10:M:169:PHE:CZ	10:M:174:ILE:CG2	3.04	0.40
11:S:34:ALA:CB	11:S:51:PHE:HD2	2.33	0.40
13:Z:222:ILE:HA	13:Z:225:GLU:HG2	2.01	0.40
13:Z:241:ASP:HB2	13:Z:245:LEU:HD23	2.03	0.40
13:Z:284:LEU:CD1	13:Z:301:ILE:CD1	2.99	0.40
13:Z:315:MET:O	13:Z:316:MET:CB	2.68	0.40
2:A:57:ILE:HG21	2:A:145:ALA:HB1	2.02	0.40
2:A:222:SER:O	2:A:225:VAL:HG12	2.22	0.40
4:C:14:GLU:HB3	4:C:1169:LYS:HG3	2.03	0.40
4:C:373:ARG:HB3	13:Z:89:ARG:NH2	2.37	0.40
4:C:375:GLY:HA3	13:Z:84:THR:OG1	2.21	0.40
4:C:607:GLU:OE1	4:C:607:GLU:C	2.64	0.40
4:C:708:GLU:OE1	4:C:708:GLU:N	2.42	0.40
4:C:1119:SER:HB3	5:D:728:ARG:CG	2.50	0.40
4:C:1170:LYS:HD3	4:C:1170:LYS:HA	1.79	0.40
5:D:382:LYS:HG3	5:D:413:VAL:CG2	2.51	0.40
5:D:608:ARG:HG3	5:D:609:VAL:HG13	2.03	0.40
5:D:1362:LYS:HD2	5:D:1363:MET:HE3	2.02	0.40
6:G:14:DA:C2'	6:G:15:DA:H8	2.27	0.40
6:G:21:DT:H2''	6:G:22:DG:H8	1.86	0.40
6:G:28:DG:C2'	6:G:29:DG:H8	2.26	0.40
7:H:36:DG:C4	7:H:37:DC:C4	3.09	0.40
10:M:63:TYR:O	10:M:64:ARG:HB3	2.20	0.40
10:M:77:PRO:HB3	13:Z:541:GLU:HG3	2.02	0.40
11:S:43:LYS:HE3	11:S:43:LYS:CA	2.43	0.40
11:S:106:LEU:O	11:S:109:ILE:HG12	2.21	0.40
13:Z:134:TYR:CE1	13:Z:235:HIS:NE2	2.90	0.40
13:Z:237:GLN:CA	13:Z:240:VAL:HG22	2.52	0.40
4:C:183:TRP:CD1	4:C:183:TRP:O	2.75	0.40
4:C:415:LYS:N	4:C:415:LYS:CD	2.84	0.40
4:C:477:GLY:O	4:C:481:SER:N	2.50	0.40
4:C:560:ARG:HG2	4:C:590:LEU:HB2	2.02	0.40
4:C:564:ILE:HG22	4:C:564:ILE:O	2.22	0.40
4:C:899:PRO:HG2	4:C:900:GLU:OE1	2.21	0.40
4:C:1251:VAL:O	4:C:1251:VAL:HG22	2.20	0.40
4:C:1256:HIS:ND1	4:C:1274:LYS:HB2	2.36	0.40
5:D:16:ASP:OD1	5:D:16:ASP:N	2.44	0.40
5:D:581:LEU:HD23	5:D:581:LEU:HA	1.89	0.40
5:D:605:GLN:O	5:D:608:ARG:HG2	2.21	0.40
5:D:829:LYS:NZ	5:D:1230:ARG:HB2	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:897:ARG:O	5:D:1239:LYS:NZ	2.53	0.40
10:M:8:ASP:O	10:M:8:ASP:CG	2.65	0.40
10:M:154:ASN:ND2	10:M:155:ILE:N	2.69	0.40
10:M:183:ILE:HD13	10:M:183:ILE:HA	1.97	0.40
13:Z:341:LYS:C	13:Z:344:ILE:HG22	2.47	0.40
13:Z:550:ARG:C	13:Z:550:ARG:CD	2.88	0.40
3:B:89:VAL:HG11	3:B:145:VAL:HG11	2.04	0.40
4:C:210:LEU:HD21	4:C:432:ILE:CD1	2.51	0.40
4:C:374:PRO:HG2	13:Z:84:THR:HG23	2.03	0.40
4:C:451:LEU:HD23	4:C:451:LEU:HA	1.90	0.40
4:C:1317:TYR:O	4:C:1321:VAL:HG23	2.22	0.40
5:D:1311:ALA:CA	5:D:1319:VAL:HG11	2.48	0.40
10:M:103:PHE:O	10:M:107:ILE:HG12	2.21	0.40
11:S:37:LEU:HD12	11:S:37:LEU:N	2.36	0.40
11:S:51:PHE:N	11:S:52:PRO:CD	2.84	0.40
12:X:23:DG:C2	12:X:24:DG:C5	3.10	0.40
13:Z:420:MET:O	13:Z:424:ILE:HG13	2.20	0.40
13:Z:524:VAL:HG13	13:Z:553:ILE:HG23	2.03	0.40
4:C:755:LEU:N	4:C:755:LEU:CD1	2.84	0.40
5:D:572:VAL:O	5:D:576:LEU:HG	2.22	0.40
5:D:785:LEU:HD22	5:D:785:LEU:N	2.36	0.40
5:D:1154:ASN:O	5:D:1155:ARG:CB	2.69	0.40
6:G:18:DT:C2	6:G:19:DT:C5	3.09	0.40
6:G:35:DT:C2'	6:G:36:DT:H5'	2.46	0.40
7:H:23:DC:H41	13:Z:554:ARG:NH1	2.19	0.40
10:M:65:LEU:CD2	16:M:301:G4P:N7	2.81	0.40
10:M:124:LYS:O	10:M:128:GLN:HG3	2.20	0.40
13:Z:129:ILE:HG13	13:Z:315:MET:O	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	E	67/72 (93%)	62 (92%)	3 (4%)	2 (3%)	3	22
2	A	221/323 (68%)	211 (96%)	8 (4%)	2 (1%)	14	49
3	B	228/317 (72%)	222 (97%)	4 (2%)	2 (1%)	14	49
4	C	1181/1358 (87%)	1135 (96%)	39 (3%)	7 (1%)	21	58
5	D	1155/1604 (72%)	1116 (97%)	36 (3%)	3 (0%)	36	71
10	M	199/205 (97%)	194 (98%)	4 (2%)	1 (0%)	24	62
11	S	198/210 (94%)	185 (93%)	10 (5%)	3 (2%)	8	38
13	Z	464/577 (80%)	444 (96%)	17 (4%)	3 (1%)	21	58
All	All	3713/4666 (80%)	3569 (96%)	121 (3%)	23 (1%)	23	58

All (23) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	E	6	VAL
4	C	64	SER
4	C	113	LEU
4	C	114	PRO
5	D	709	GLU
11	S	143	PHE
13	Z	316	MET
2	A	161	THR
3	B	116	ALA
4	C	1051	THR
5	D	1141	ALA
10	M	64	ARG
4	C	201	LYS
4	C	1235	ARG
11	S	54	LEU
13	Z	213	LYS
13	Z	519	GLU
4	C	1057	SER
1	E	61	THR
3	B	5	ASN
11	S	52	PRO
2	A	131	PRO
5	D	425	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	E	61/64 (95%)	56 (92%)	5 (8%)	10	31
2	A	189/287 (66%)	180 (95%)	9 (5%)	23	45
3	B	194/276 (70%)	187 (96%)	7 (4%)	31	52
4	C	911/1169 (78%)	864 (95%)	47 (5%)	21	43
5	D	936/1374 (68%)	900 (96%)	36 (4%)	29	50
10	M	179/191 (94%)	169 (94%)	10 (6%)	19	41
11	S	165/184 (90%)	156 (94%)	9 (6%)	19	42
13	Z	401/527 (76%)	368 (92%)	33 (8%)	10	31
All	All	3036/4072 (75%)	2880 (95%)	156 (5%)	23	43

All (156) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	E	6	VAL
1	E	8	ASP
1	E	18	ASP
1	E	44	LYS
1	E	59	GLU
2	A	9	GLU
2	A	17	LYS
2	A	32	VAL
2	A	104	LEU
2	A	126	ILE
2	A	153	VAL
2	A	156	LEU
2	A	207	LEU
2	A	227	LEU
3	B	67	LEU
3	B	104	LEU
3	B	109	GLU
3	B	118	LEU
3	B	128	VAL

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Mol	Chain	Res	Type
3	B	157	ASN
3	B	207	GLU
4	C	2	SER
4	C	8	LYS
4	C	17	VAL
4	C	21	ILE
4	C	52	LEU
4	C	60	PHE
4	C	66	ASN
4	C	73	TYR
4	C	105	LEU
4	C	166	ASP
4	C	188	PHE
4	C	199	ASP
4	C	209	ILE
4	C	349	ILE
4	C	357	LEU
4	C	360	ASN
4	C	386	LEU
4	C	427	ASP
4	C	436	ILE
4	C	459	VAL
4	C	466	GLN
4	C	490	LEU
4	C	519	ASP
4	C	541	LEU
4	C	572	ILE
4	C	586	ASP
4	C	616	ASN
4	C	627	ASP
4	C	683	LEU
4	C	700	LYS
4	C	720	ILE
4	C	739	VAL
4	C	768	ASN
4	C	773	VAL
4	C	856	ILE
4	C	864	LEU
4	C	909	ASN
4	C	939	ASP
4	C	1109	ASP
4	C	1168	ASP

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Mol	Chain	Res	Type
4	C	1178	ASP
4	C	1245	LEU
4	C	1271	LEU
4	C	1276	GLN
4	C	1286	GLU
4	C	1331	VAL
4	C	1347	ILE
5	D	16	ASP
5	D	43	ASN
5	D	52	ASP
5	D	76	LEU
5	D	78	HIS
5	D	81	VAL
5	D	168	GLU
5	D	226	GLN
5	D	265	ASP
5	D	350	ARG
5	D	361	LEU
5	D	466	VAL
5	D	514	GLU
5	D	530	ASP
5	D	540	ILE
5	D	560	ASN
5	D	569	ASN
5	D	598	GLU
5	D	620	ASP
5	D	744	MET
5	D	764	LEU
5	D	822	ILE
5	D	832	LEU
5	D	844	ASP
5	D	863	ASN
5	D	882	ILE
5	D	884	CYS
5	D	1256	ASP
5	D	1274	LEU
5	D	1288	VAL
5	D	1329	ILE
5	D	1331	ASN
5	D	1332	LEU
5	D	1335	LEU
5	D	1338	ASN

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Mol	Chain	Res	Type
5	D	1363	MET
10	M	1	MET
10	M	17	MET
10	M	25	ASN
10	M	43	LEU
10	M	63	TYR
10	M	96	LEU
10	M	106	ASN
10	M	154	ASN
10	M	170	ILE
10	M	176	ILE
11	S	8	THR
11	S	44	LYS
11	S	69	ILE
11	S	85	VAL
11	S	122	MET
11	S	150	LEU
11	S	203	LEU
11	S	204	LYS
11	S	209	HIS
13	Z	84	THR
13	Z	86	ASP
13	Z	88	ILE
13	Z	92	MET
13	Z	125	LEU
13	Z	143	GLU
13	Z	209	GLU
13	Z	218	LEU
13	Z	264	ARG
13	Z	271	GLU
13	Z	273	ILE
13	Z	274	LYS
13	Z	277	LYS
13	Z	283	TRP
13	Z	307	GLN
13	Z	328	GLU
13	Z	358	TYR
13	Z	366	LEU
13	Z	367	ASP
13	Z	382	LYS
13	Z	391	PHE
13	Z	396	THR

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Mol	Chain	Res	Type
13	Z	409	ASP
13	Z	410	GLN
13	Z	416	VAL
13	Z	422	GLU
13	Z	443	THR
13	Z	453	ASN
13	Z	503	GLU
13	Z	534	ASN
13	Z	538	THR
13	Z	545	GLN
13	Z	549	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (60) such sidechains are listed below:

Mol	Chain	Res	Type
2	A	42	ASN
3	B	83	ASN
3	B	202	ASN
3	B	204	ASN
4	C	31	GLN
4	C	408	ASN
4	C	529	HIS
4	C	557	HIS
4	C	616	ASN
4	C	621	GLN
4	C	676	HIS
4	C	689	GLN
4	C	717	ASN
4	C	801	ASN
4	C	810	ASN
4	C	874	HIS
4	C	909	ASN
4	C	1084	HIS
4	C	1268	GLN
4	C	1319	ASN
4	C	1328	ASN
4	C	1336	ASN
5	D	43	ASN
5	D	111	HIS
5	D	226	GLN
5	D	264	ASN
5	D	284	ASN

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Mol	Chain	Res	Type
5	D	362	HIS
5	D	417	HIS
5	D	433	GLN
5	D	467	HIS
5	D	475	GLN
5	D	486	ASN
5	D	487	ASN
5	D	553	GLN
5	D	560	ASN
5	D	563	ASN
5	D	569	ASN
5	D	667	GLN
5	D	871	ASN
5	D	1154	ASN
5	D	1206	HIS
5	D	1240	HIS
5	D	1277	ASN
5	D	1328	GLN
5	D	1331	ASN
5	D	1338	ASN
10	M	36	ASN
10	M	39	HIS
10	M	105	GLN
10	M	119	GLN
10	M	128	GLN
10	M	154	ASN
11	S	112	HIS
13	Z	202	ASN
13	Z	373	ASN
13	Z	401	GLN
13	Z	464	ASN
13	Z	537	HIS
13	Z	566	HIS

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 oligosaccharides in this entry.

5.6 Ligand geometry

Of 6 ligands modelled in this entry, 4 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
16	G4P	M	301	-	36,38,38	1.12	4 (11%)	56,61,61	1.66	7 (12%)
16	G4P	D	1704	-	36,38,38	1.12	3 (8%)	56,61,61	1.68	8 (14%)

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
16	G4P	M	301	-	-	3/27/43/43	0/3/3/3
16	G4P	D	1704	-	-	12/27/43/43	0/3/3/3

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	D	1704	G4P	C5-C4	3.09	1.47	1.38
16	M	301	G4P	C5-C4	3.08	1.47	1.38
16	D	1704	G4P	C6-N1	-2.48	1.34	1.38
16	M	301	G4P	C6-N1	-2.40	1.34	1.38
16	M	301	G4P	C5-N7	-2.08	1.34	1.39
16	M	301	G4P	PA-O3A	2.02	1.61	1.59
16	D	1704	G4P	C5-N7	-2.02	1.35	1.39

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	M	301	G4P	C5-C4-N3	-6.13	118.64	128.39
16	D	1704	G4P	C5-C4-N3	-6.03	118.79	128.39
16	D	1704	G4P	C2-N3-C4	5.00	120.92	112.30
16	M	301	G4P	C2-N3-C4	4.87	120.70	112.30
16	D	1704	G4P	N9-C4-N3	4.57	135.08	125.95
16	M	301	G4P	N9-C4-N3	4.55	135.04	125.95
16	M	301	G4P	C6-C5-N7	3.27	136.24	130.29
16	D	1704	G4P	C6-C5-N7	3.27	136.23	130.29
16	M	301	G4P	C4-C5-N7	-2.74	106.33	110.67
16	D	1704	G4P	C3'-C2'-C1'	2.62	105.66	99.89
16	D	1704	G4P	C4-C5-N7	-2.43	106.82	110.67
16	D	1704	G4P	O6-C6-C5	-2.18	120.77	126.53
16	M	301	G4P	C8-N7-C5	2.12	108.03	104.26
16	M	301	G4P	C3'-C2'-C1'	2.07	104.45	99.89
16	D	1704	G4P	C5-C6-N1	2.03	118.42	113.25

There are no chirality outliers.

All (15) torsion outliers are listed below:

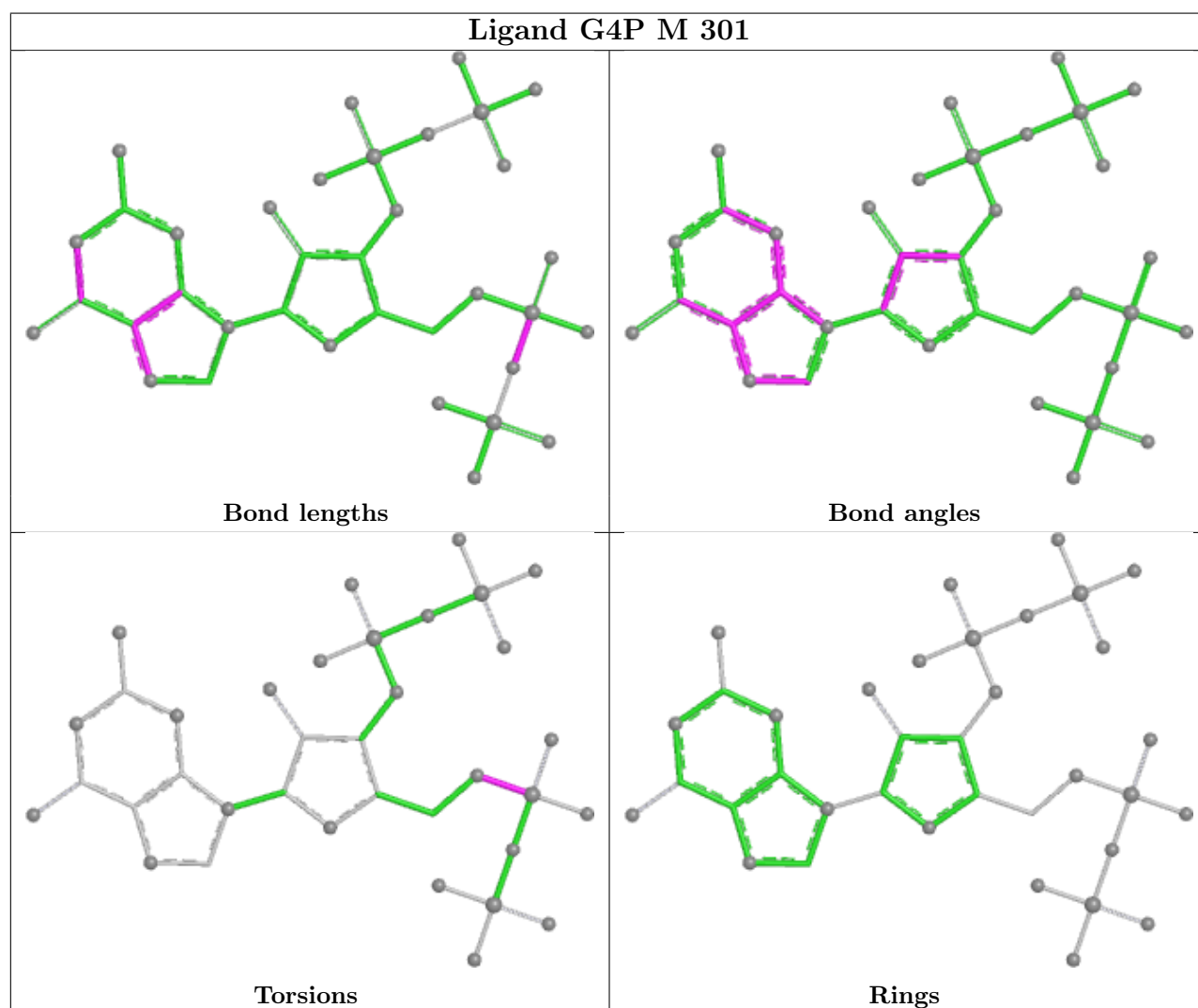
Mol	Chain	Res	Type	Atoms
16	D	1704	G4P	C5'-O5'-PA-O3A
16	D	1704	G4P	C5'-O5'-PA-O1A
16	D	1704	G4P	C5'-O5'-PA-O2A
16	D	1704	G4P	C3'-O3'-PC-O3C
16	M	301	G4P	C5'-O5'-PA-O3A
16	M	301	G4P	C5'-O5'-PA-O1A
16	D	1704	G4P	O4'-C4'-C5'-O5'
16	D	1704	G4P	PD-O3C-PC-O3'
16	D	1704	G4P	C3'-O3'-PC-O2C
16	M	301	G4P	C5'-O5'-PA-O2A
16	D	1704	G4P	C3'-C4'-C5'-O5'
16	D	1704	G4P	C3'-O3'-PC-O1C
16	D	1704	G4P	C2'-C3'-O3'-PC
16	D	1704	G4P	PB-O3A-PA-O2A
16	D	1704	G4P	PD-O3C-PC-O2C

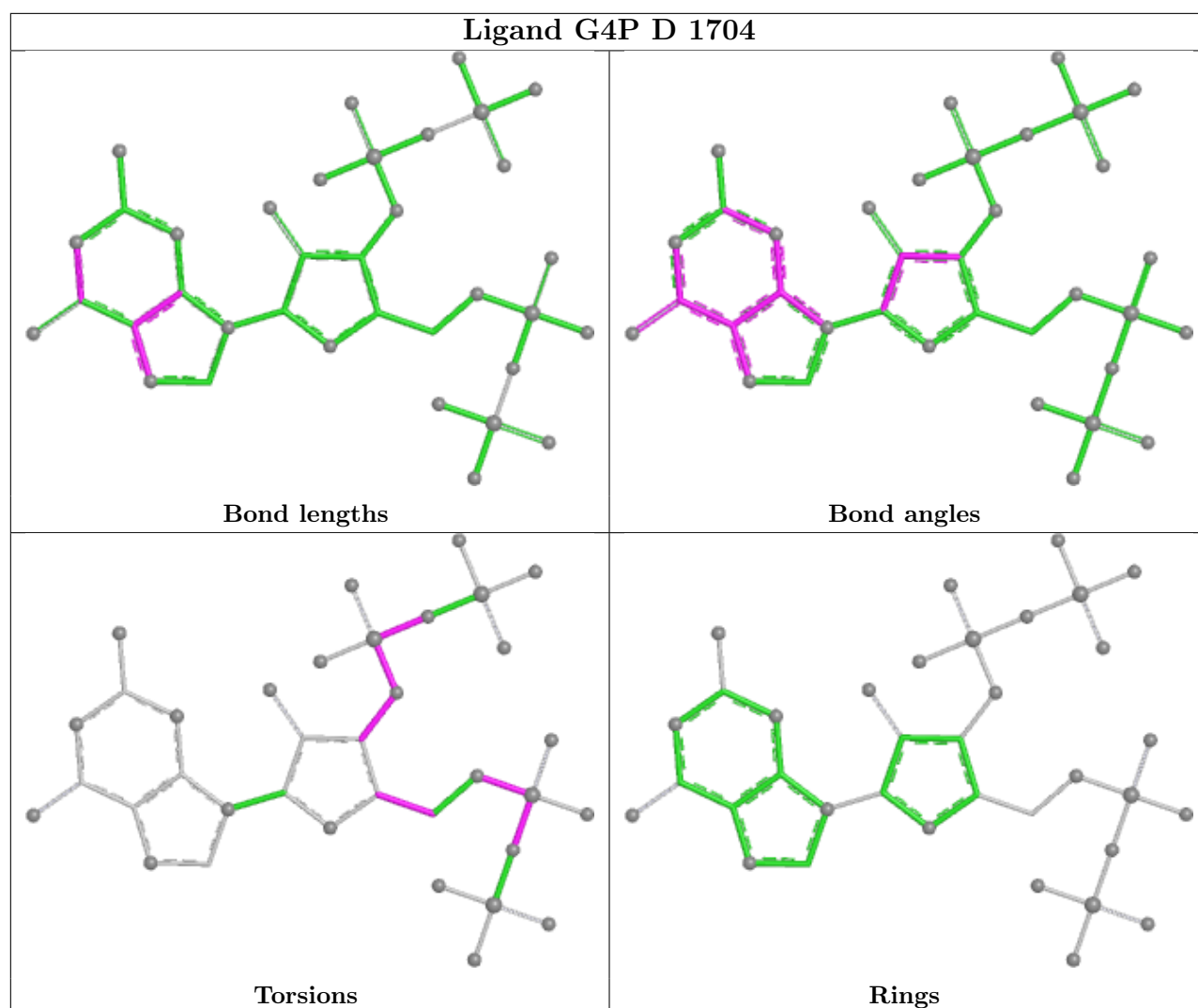
There are no ring outliers.

2 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
16	M	301	G4P	3	0
16	D	1704	G4P	2	0

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





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

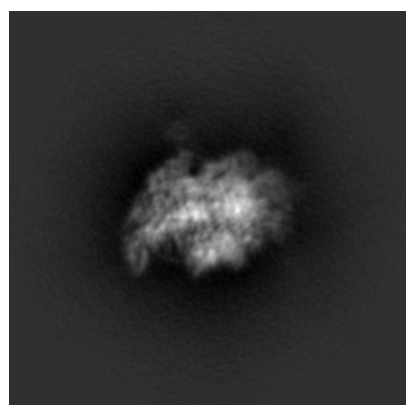
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-21852. These allow visual inspection of the internal detail of the map and identification of artifacts.

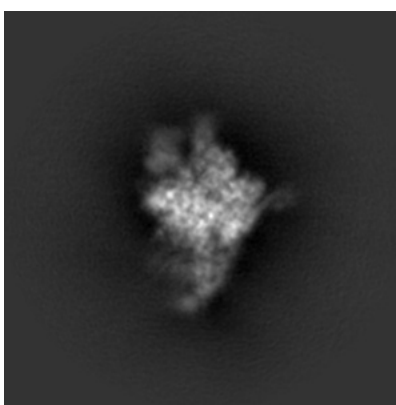
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

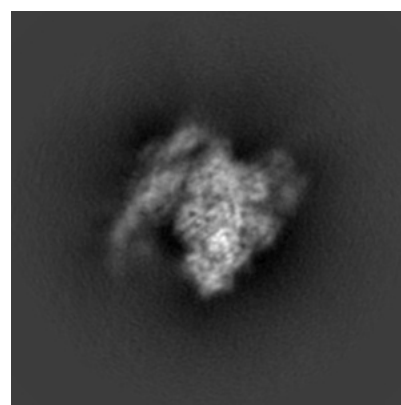
6.1.1 Primary map



X



Y

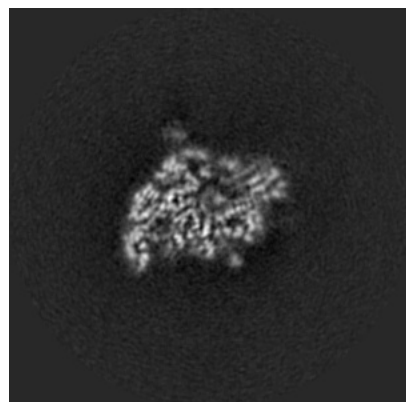


Z

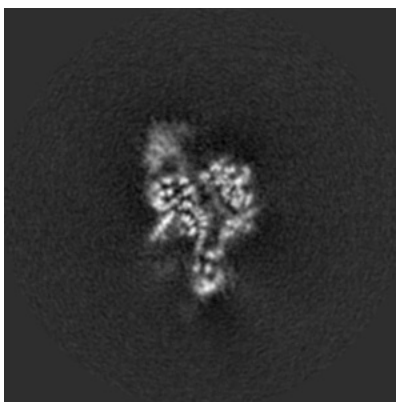
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

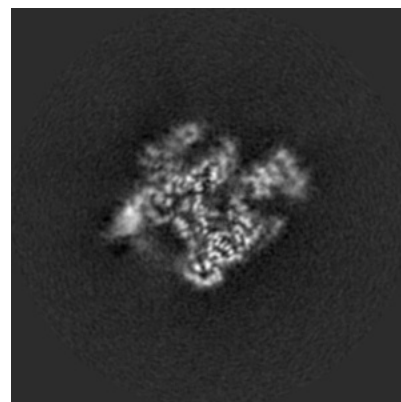
6.2.1 Primary map



X Index: 176



Y Index: 176

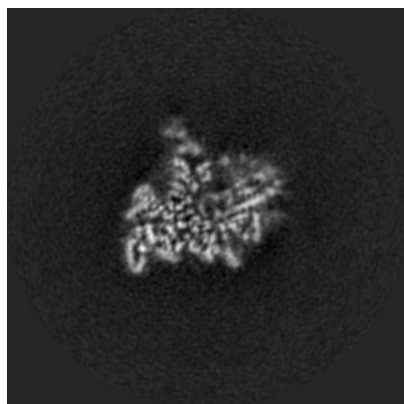


Z Index: 176

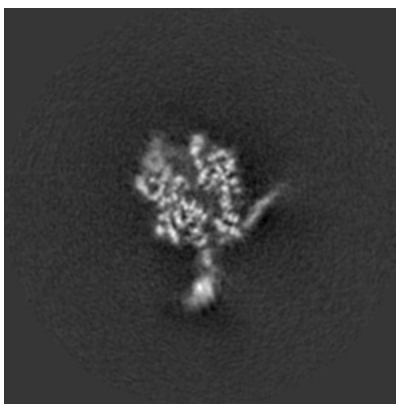
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

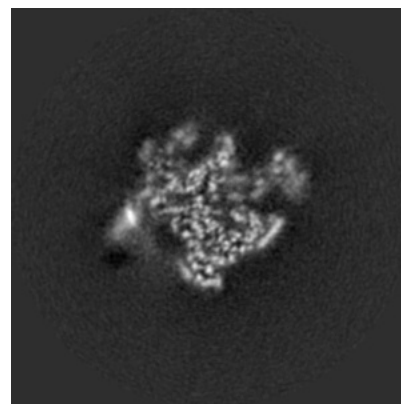
6.3.1 Primary map



X Index: 180



Y Index: 165



Z Index: 172

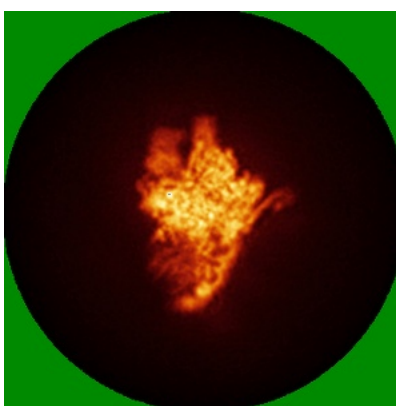
The images above show the largest variance slices of the map in three orthogonal directions.

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

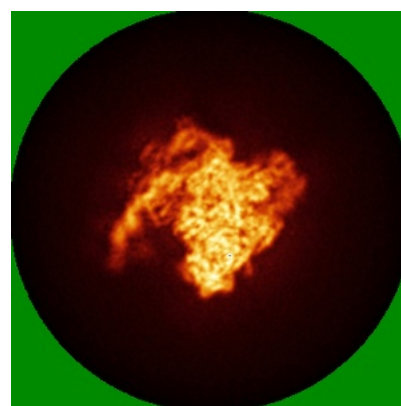
6.4.1 Primary map



X



Y

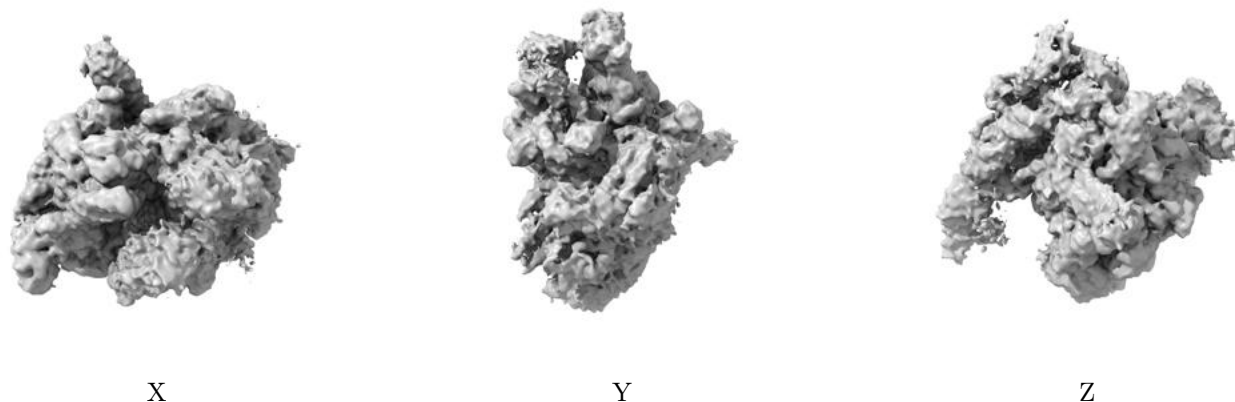


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.004. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

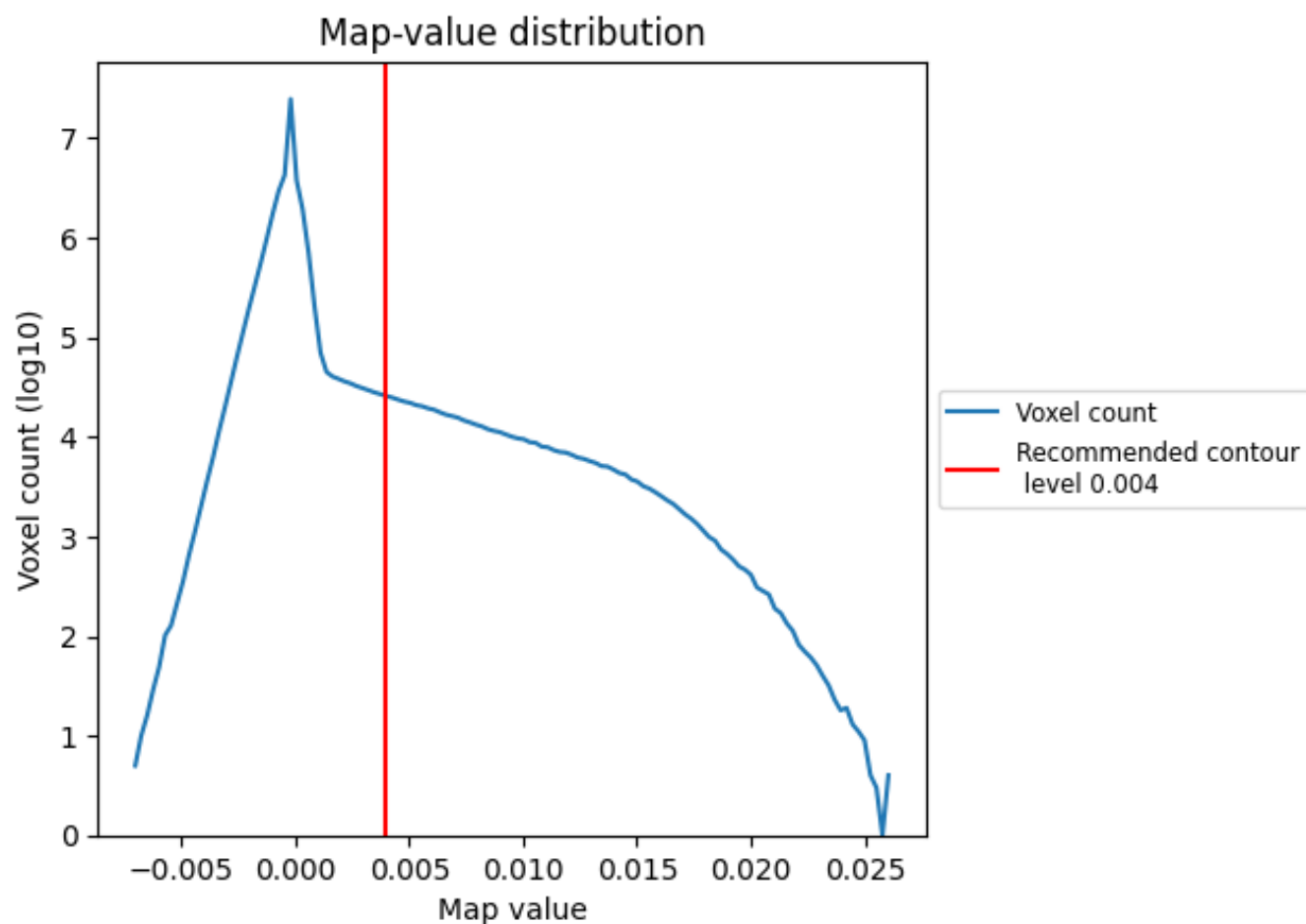
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

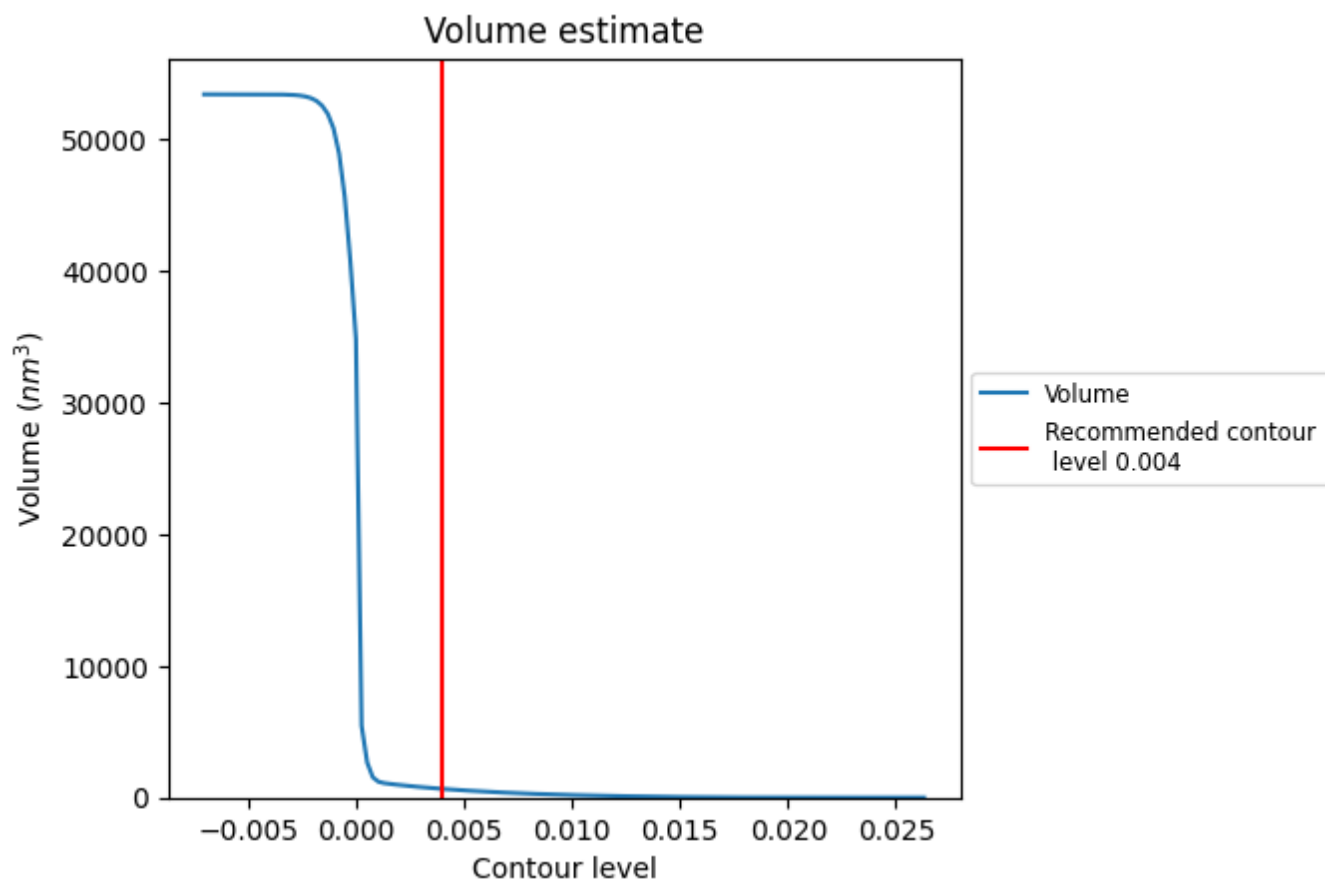
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

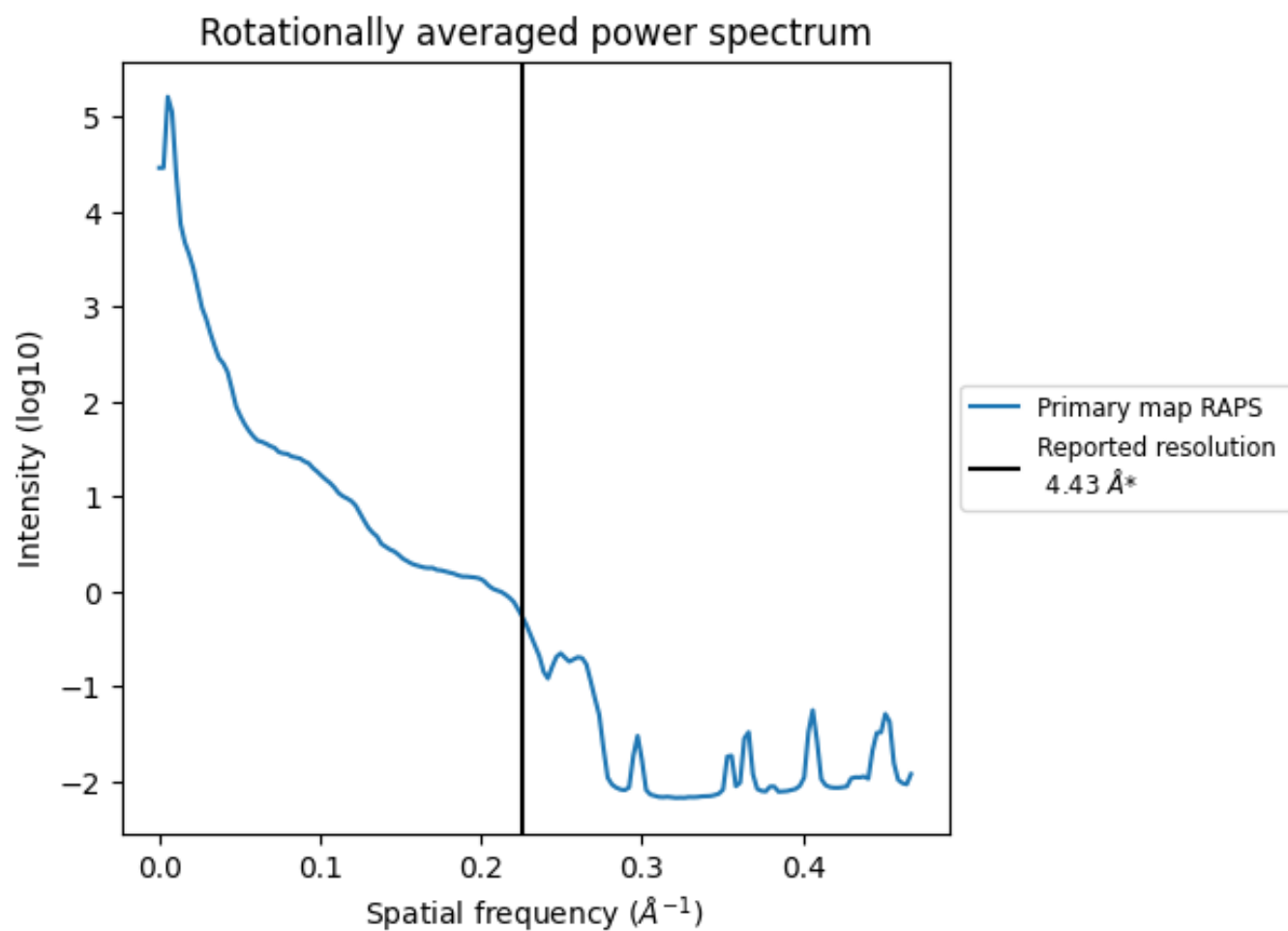
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 662 nm³; this corresponds to an approximate mass of 598 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

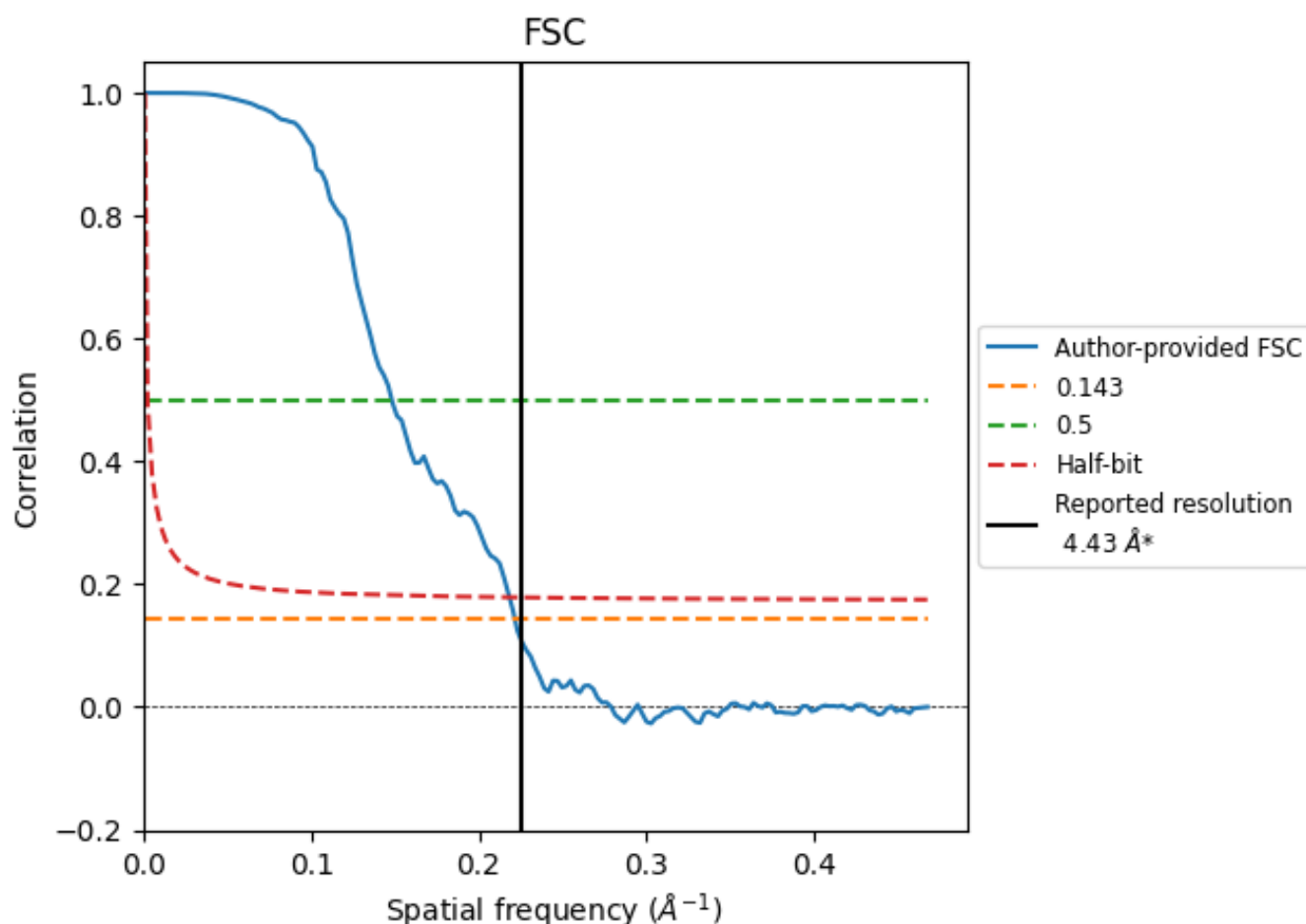


*Reported resolution corresponds to spatial frequency of 0.226 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.226 Å⁻¹

8.2 Resolution estimates [i](#)

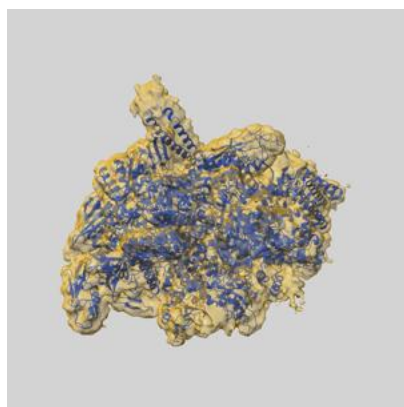
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.43	-	-
Author-provided FSC curve	4.51	6.75	4.58
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

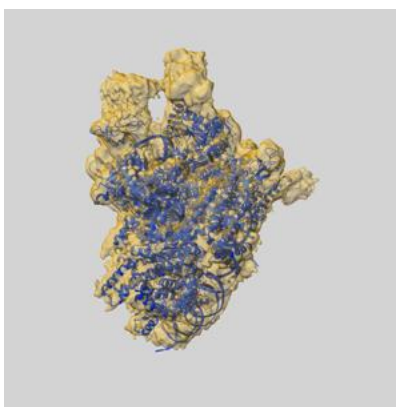
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-21852 and PDB model 6WMT. Per-residue inclusion information can be found in section 3 on page 7.

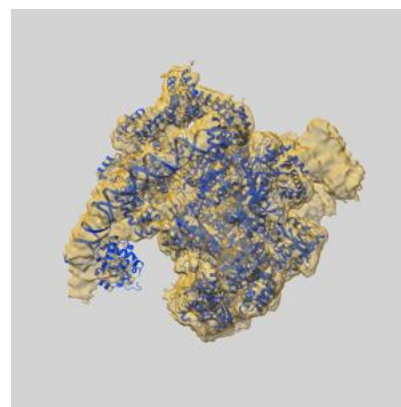
9.1 Map-model overlay [i](#)



X



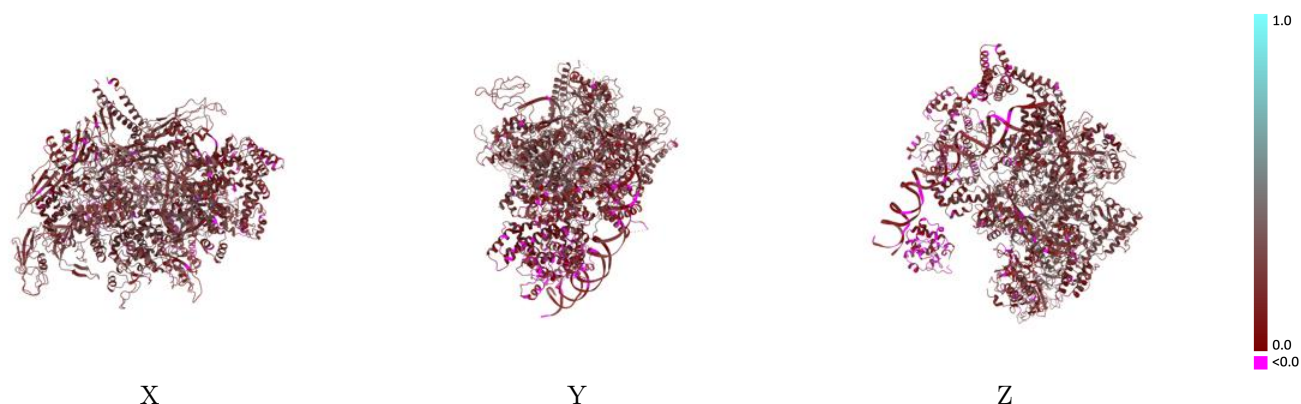
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.004 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



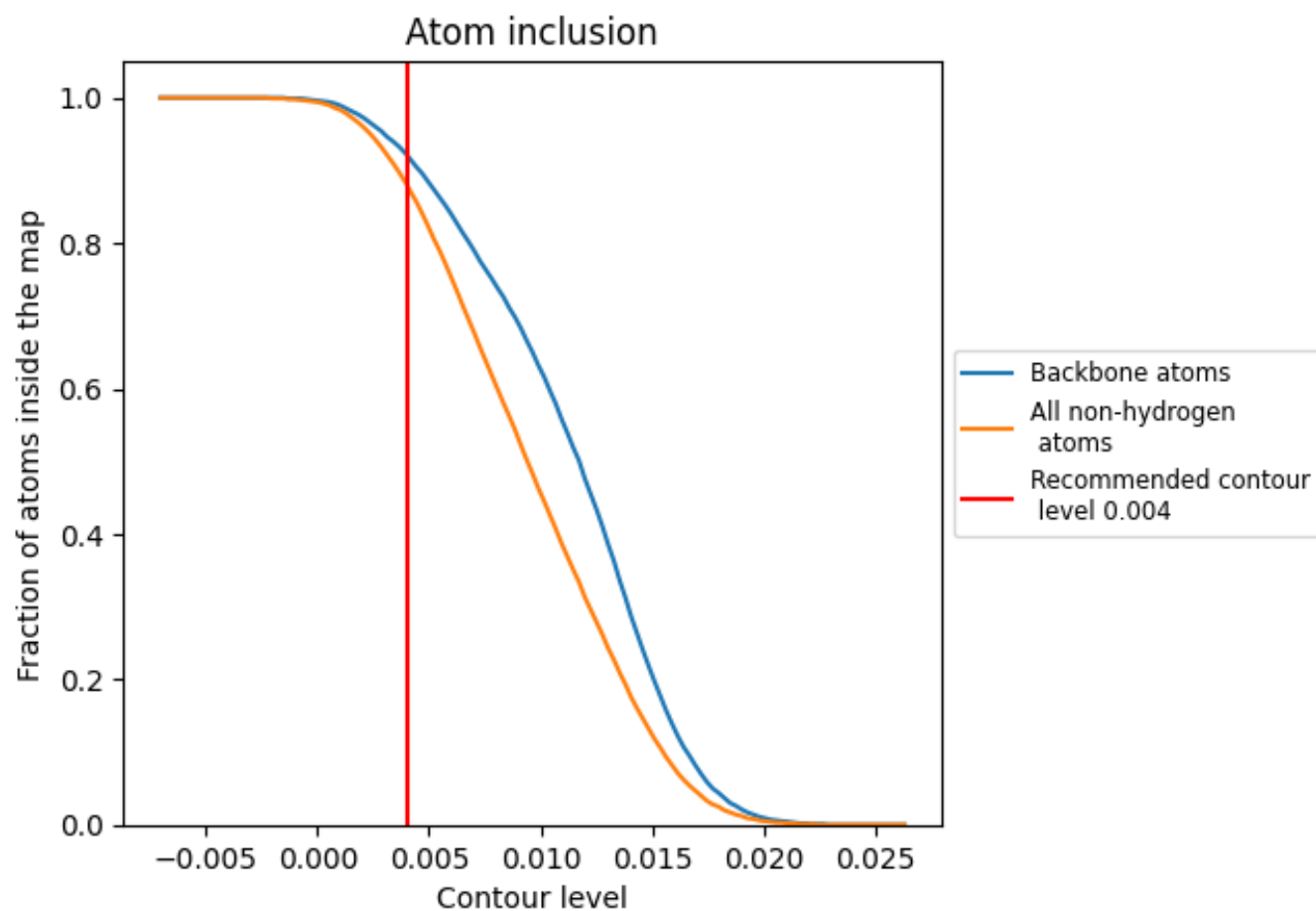
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.004).

9.4 Atom inclusion [i](#)



At the recommended contour level, 92% of all backbone atoms, 88% 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 (0.004) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8810	 0.2120
A	 0.9470	 0.1830
B	 0.9590	 0.2040
C	 0.9400	 0.2540
D	 0.9430	 0.2530
E	 0.8170	 0.1590
G	 0.9150	 0.0980
H	 0.9680	 0.1490
J	 0.9690	 0.2570
K	 0.2820	 0.0640
L	 0.1040	 0.0250
M	 0.6650	 0.1380
S	 0.6360	 0.1560
X	 0.9380	 0.2070
Z	 0.8420	 0.1760

