Full wwPDB X-ray Structure Validation Report ⓘ

Mar 5, 2026 – 03:46 AM UTC

PDB ID	:	4KZX / pdb_00004kzx
Title	:	Rabbit 40S ribosomal subunit in complex with eIF1.
Authors	:	Lomakin, I.B.; Steitz, T.A.
Deposited on	:	2013-05-30
Resolution	:	7.81 Å(reported)

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

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

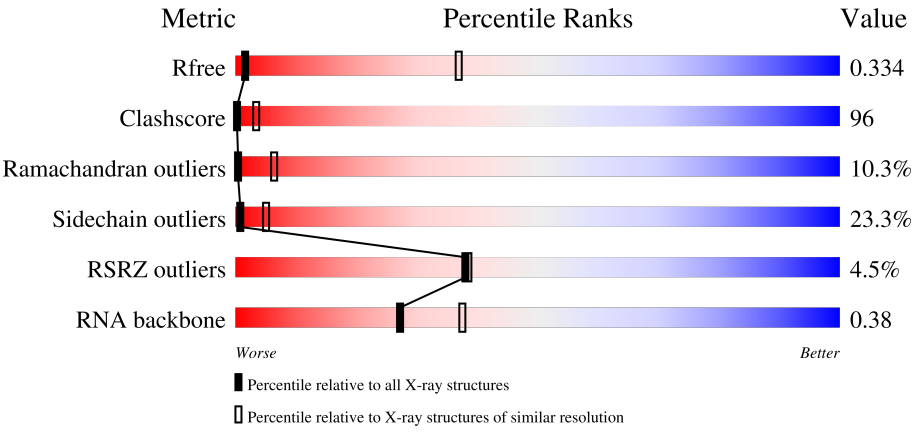
MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 7.81 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1168 (11.50-4.00)
Clashscore	190562	1001 (11.50-4.06)
Ramachandran outliers	187476	1055 (11.50-4.00)
Sidechain outliers	187428	1018 (11.50-4.00)
RSRZ outliers	180081	1162 (11.50-4.00)
RNA backbone	3983	1057 (11.50-3.10)

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

Mol	Chain	Length	Quality of chain
1	A	295	3% 8% 38% 19% 6% 29%
2	B	264	3% 15% 42% 20% • 19%
3	C	278	4% 13% 41% 22% 6% 19%
4	D	243	2% 19% 44% 25% 6% 7%

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Mol	Chain	Length	Quality of chain
5	E	263	14% 21% 46% 29%
6	F	204	2% 19% 44% 24% 7% 6%
7	G	249	4% 21% 45% 24% 5% 5%
8	H	194	2% 13% 48% 21% 15%
9	I	208	8% 25% 44% 20% 10%
10	J	194	7% 13% 48% 23% 10% 6%
11	K	165	3% 6% 24% 15% 15% 41%
12	L	158	13% 22% 41% 25% 13%
13	M	132	17% 42% 28% 8% 6%
14	N	151	4% 25% 48% 23%
15	O	151	4% 11% 52% 23% 10%
16	P	145	4% 10% 42% 25% 10% 12%
17	Q	146	12% 16% 46% 27% 7%
18	R	135	14% 51% 19% 10% 7%
19	S	152	4% 15% 47% 15% 13% 10%
20	T	145	% 17% 51% 20% 9%
21	U	119	8% 14% 36% 24% 13% 13%
22	V	83	13% 39% 30% 17%
23	W	130	12% 26% 57% 12%
24	X	143	14% 22% 49% 19% 10%
25	Y	133	2% 11% 46% 27% 11% 5%
26	Z	125	% 12% 27% 11% 10% 40%
27	a	115	10% 23% 45% 17% 9% 7%
28	b	84	10% 23% 42% 25% 11%
29	c	69	23% 38% 20% 12% 7%

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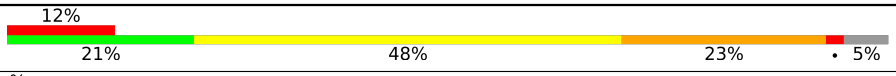
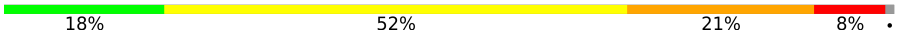
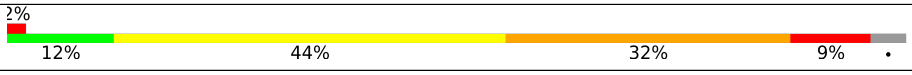
Mol	Chain	Length	Quality of chain
30	d	56	
31	e	133	
32	f	156	
33	g	317	
34	i	1863	
35	l	113	

2 Entry composition (i)

There are 35 unique types of molecules in this entry. The entry contains 77211 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	208	1642	1045	289	300	8	0	0	0

- Molecule 2 is a protein called 40S ribosomal protein S3a.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	215	1741	1107	309	310	15	0	0	0

- Molecule 3 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	C	226	1742	1127	300	306	9	0	0	0

- Molecule 4 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	D	227	1764	1124	317	315	8	0	0	0

- Molecule 5 is a protein called 40S ribosomal protein S4X.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	E	263	2083	1329	385	359	10	0	0	0

- Molecule 6 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
6	F	191	1509	943	286	273	7	0	0	0

- Molecule 7 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	237	Total	C	N	O	S	0	0	0
			1923	1200	387	329	7			

- Molecule 8 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	190	Total	C	N	O	S	0	0	0
			1530	975	281	273	1			

- Molecule 9 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	206	Total	C	N	O	S	0	0	0
			1679	1054	329	291	5			

- Molecule 10 is a protein called 40S Ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	182	Total	C	N	O	S	0	0	0
			1498	952	300	244	2			

- Molecule 11 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	98	Total	C	N	O	S	0	0	0
			827	539	148	134	6			

- Molecule 12 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	158	Total	C	N	O	S	0	0	0
			1296	827	241	221	7			

- Molecule 13 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	M	124	Total	C	N	O	S	0	0	0
			950	594	169	179	8			

- Molecule 14 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	N	150	Total	C	N	O	S	0	0	0
			1208	773	229	205	1			

- Molecule 15 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	O	136	Total	C	N	O	S	0	0	0
			1016	621	199	190	6			

- Molecule 16 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	P	127	Total	C	N	O	S	0	0	0
			1060	673	201	179	7			

- Molecule 17 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	Q	141	Total	C	N	O	S	0	0	0
			1124	715	212	194	3			

- Molecule 18 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	R	126	Total	C	N	O	S	0	0	0
			1019	639	188	187	5			

- Molecule 19 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	S	137	Total	C	N	O	S	0	0	0
			1139	714	231	193	1			

- Molecule 20 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	T	141	Total	C	N	O	S	0	0	0
			1112	701	213	195	3			

- Molecule 21 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	U	104	Total	C	N	O	S	0	0	0
			822	514	156	148	4			

- Molecule 22 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	V	82	Total	C	N	O	S	0	0	0
			619	378	117	119	5			

- Molecule 23 is a protein called 40S ribosomal protein S15A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	W	129	Total	C	N	O	S	0	0	0
			1034	659	193	176	6			

- Molecule 24 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	X	142	Total	C	N	O	S	0	0	0
			1106	698	220	184	4			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
X	1	MET	ALA	SEE REMARK 999	UNP G1SZ47

- Molecule 25 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	Y	126	Total	C	N	O	S	0	0	0
			1021	645	198	173	5			

- Molecule 26 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	Z	75	Total	C	N	O	S	0	0	0
			598	382	111	104	1			

- Molecule 27 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	a	107	Total	C	N	O	S	0	0	0
			844	527	173	138	6			

- Molecule 28 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	b	84	Total	C	N	O	S	0	0	0
			659	413	122	116	8			

- Molecule 29 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	c	64	Total	C	N	O	S	0	0	0
			506	308	102	94	2			

- Molecule 30 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	d	53	Total	C	N	O	S	0	0	0
			445	278	90	72	5			

- Molecule 31 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	e	59	Total	C	N	O	S	0	0	0
			473	293	104	75	1			

- Molecule 32 is a protein called 40S ribosomal protein S27A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	f	71	Total	C	N	O	S	0	0	0
			581	367	109	98	7			

- Molecule 33 is a protein called 40S ribosomal protein RACK1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	g	313	Total	C	N	O	S	0	0	0
			2436	1535	424	465	12			

- Molecule 34 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	i	1797	Total	C	N	O	P	0	0	0
			37514	16712	6633	12373	1796			

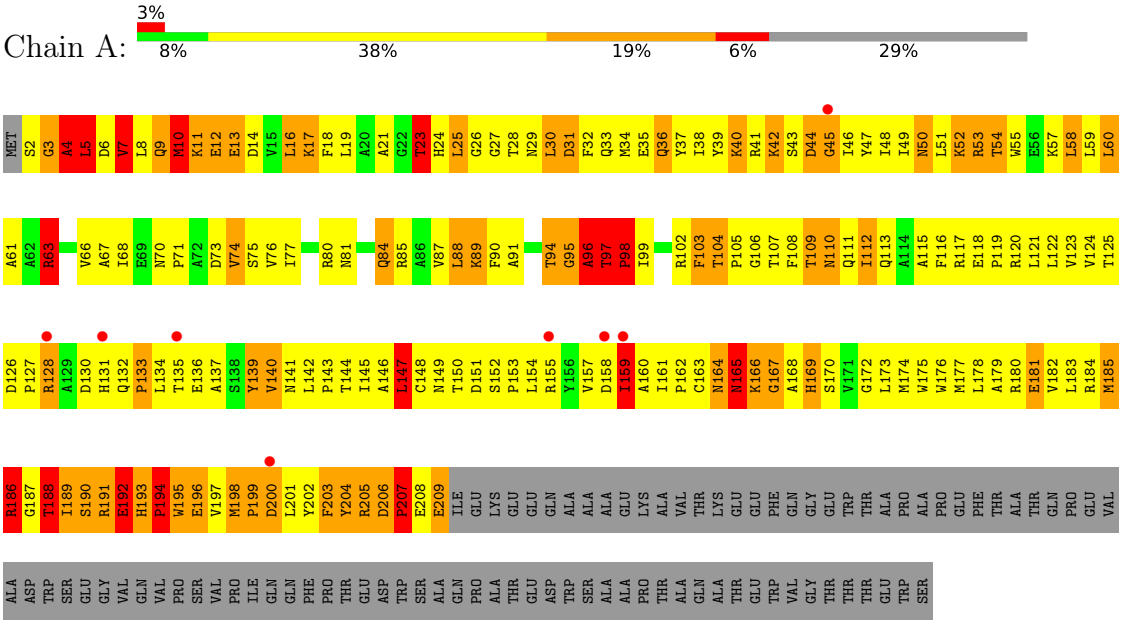
- Molecule 35 is a protein called Eukaryotic translation initiation factor 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	l	85	Total	C	N	O	S	0	0	0
			691	438	125	126	2			

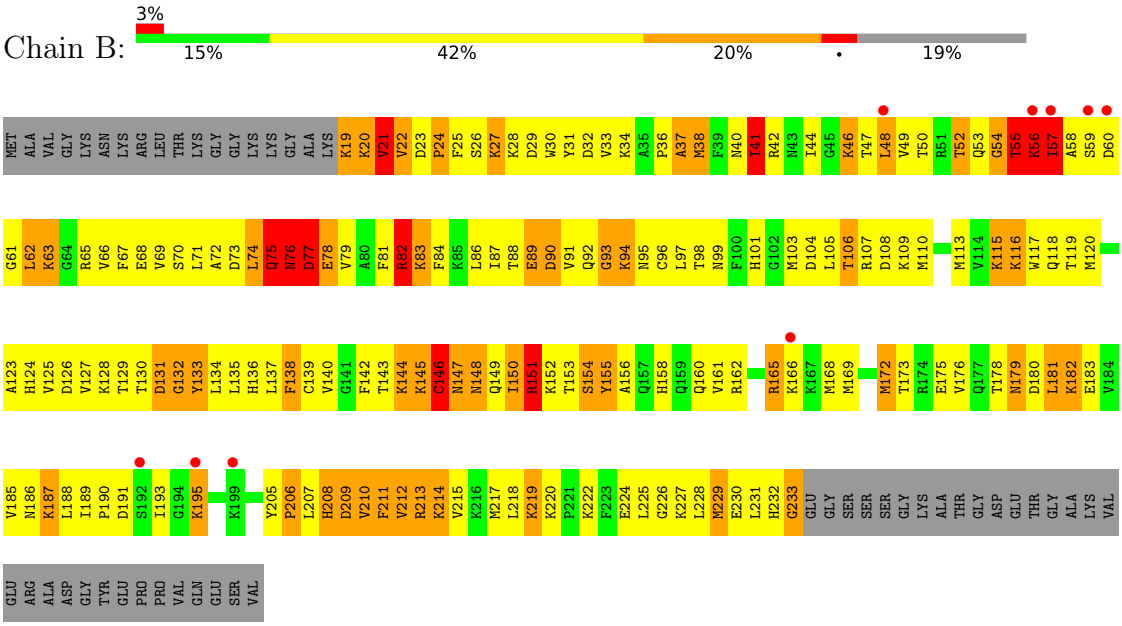
3 Residue-property plots (i)

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

• Molecule 1: 40S ribosomal protein SA

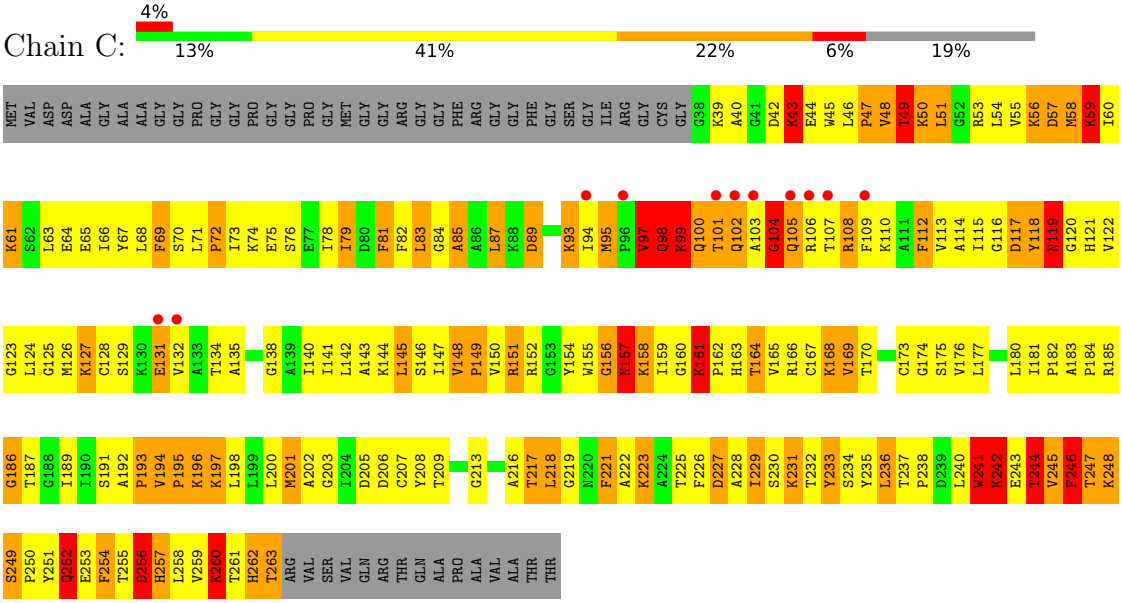


• Molecule 2: 40S ribosomal protein S3a



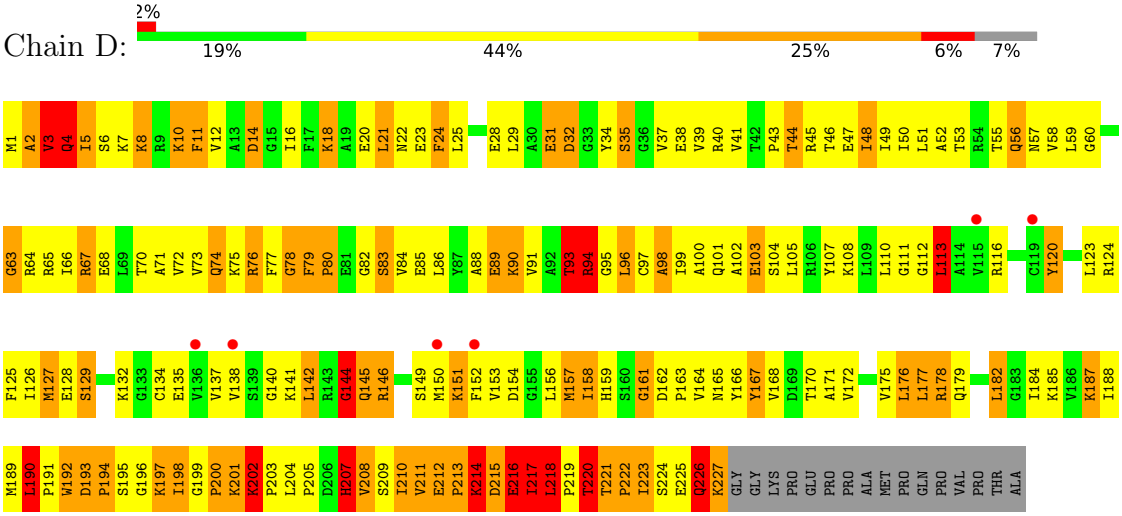
• Molecule 3: 40S ribosomal protein S2

Chain C:



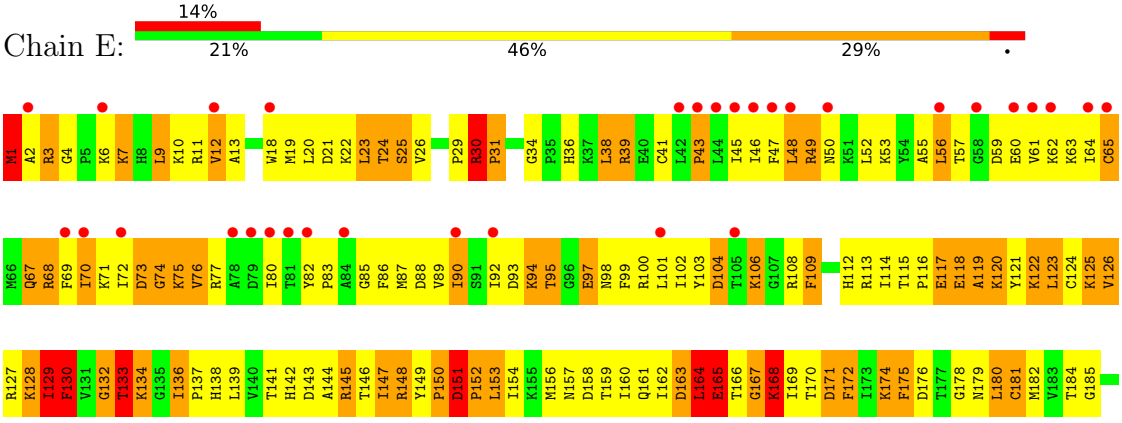
• Molecule 4: 40S ribosomal protein S3

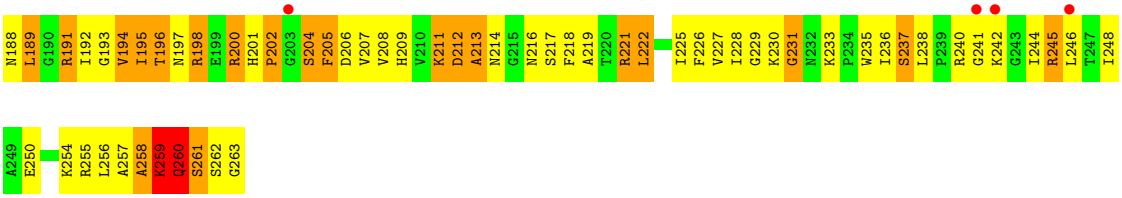
Chain D:



• Molecule 5: 40S ribosomal protein S4X

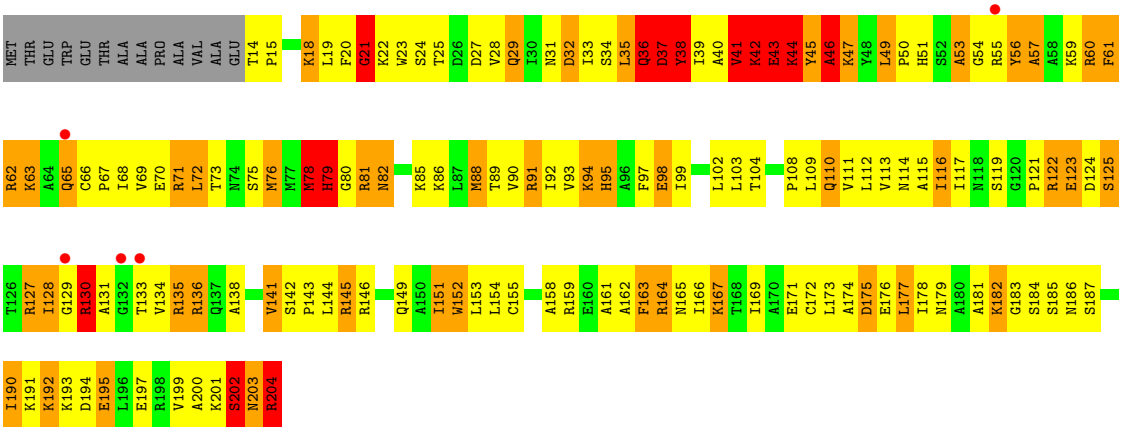
Chain E:





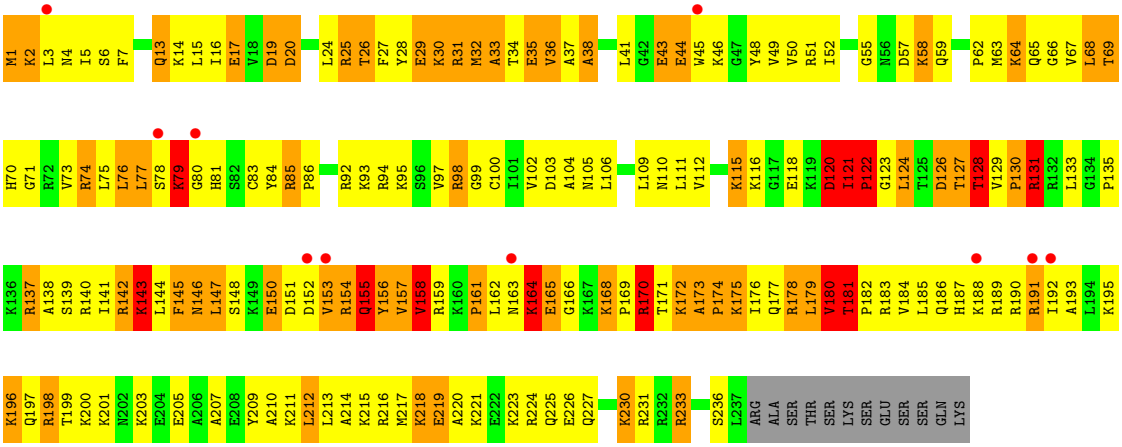
• Molecule 6: 40S ribosomal protein S5

Chain F:



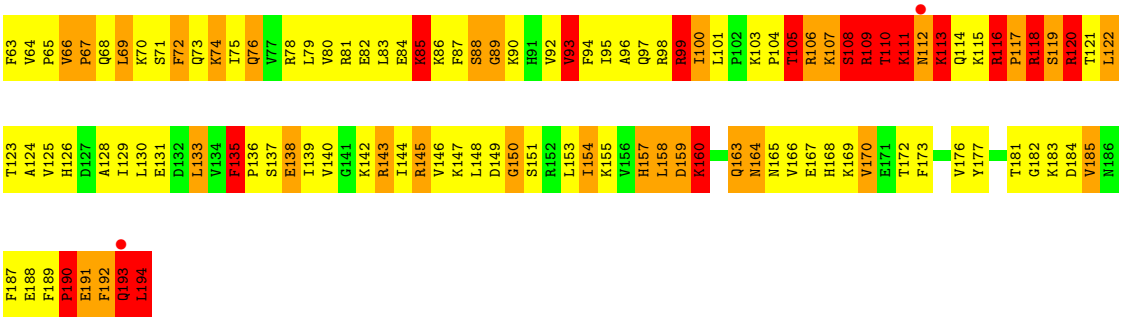
• Molecule 7: 40S ribosomal protein S6

Chain G:



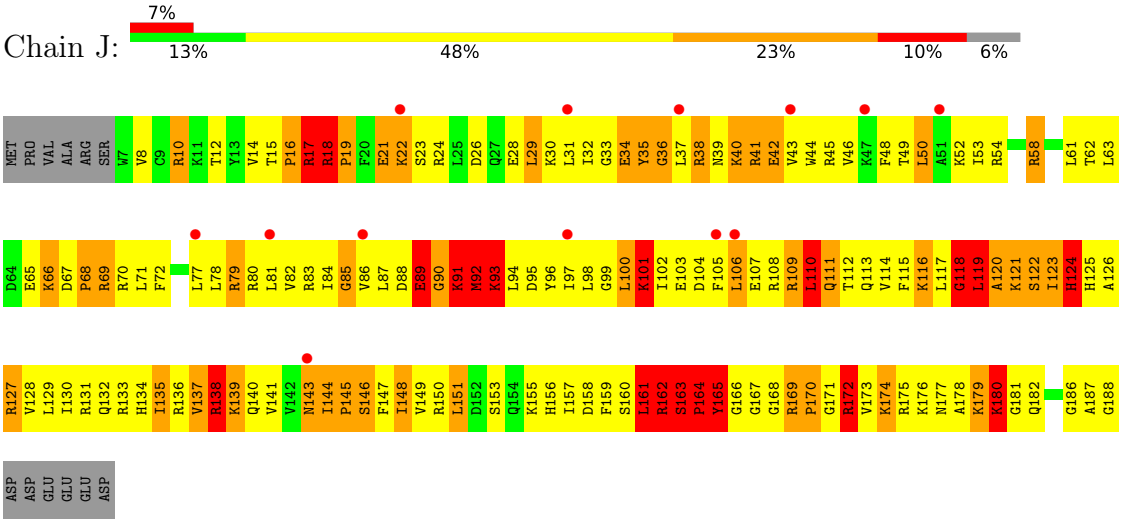
• Molecule 8: 40S ribosomal protein S7

Chain H:

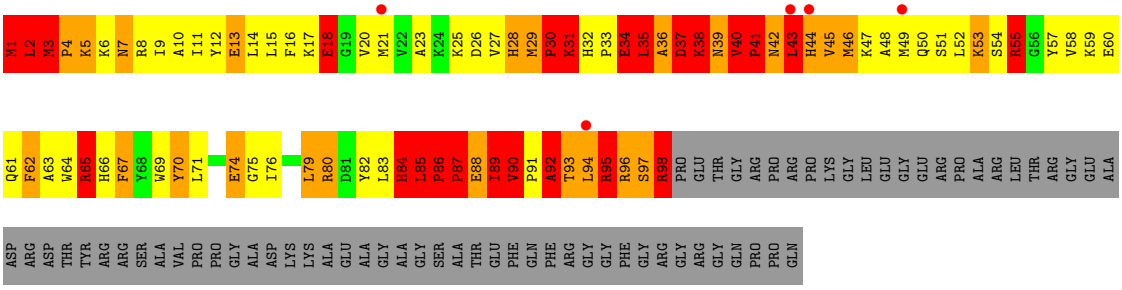


• Molecule 9: 40S ribosomal protein S8

• Molecule 10: 40S Ribosomal protein S9

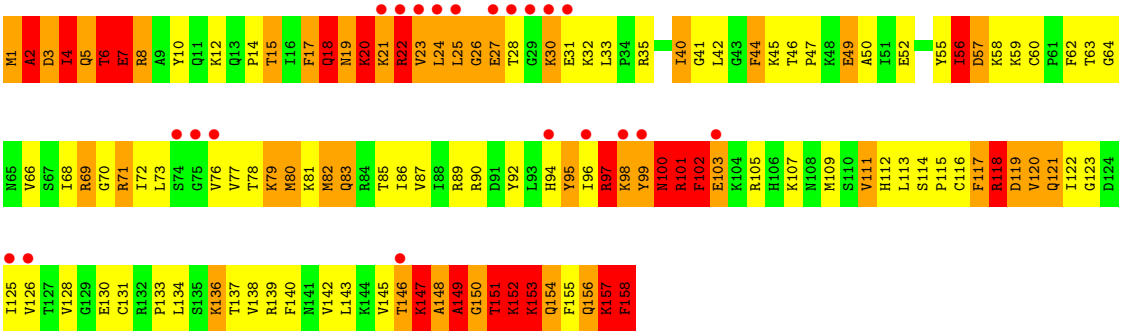


• Molecule 11: 40S ribosomal protein S10



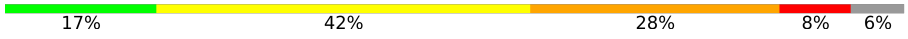
• Molecule 12: 40S ribosomal protein S11

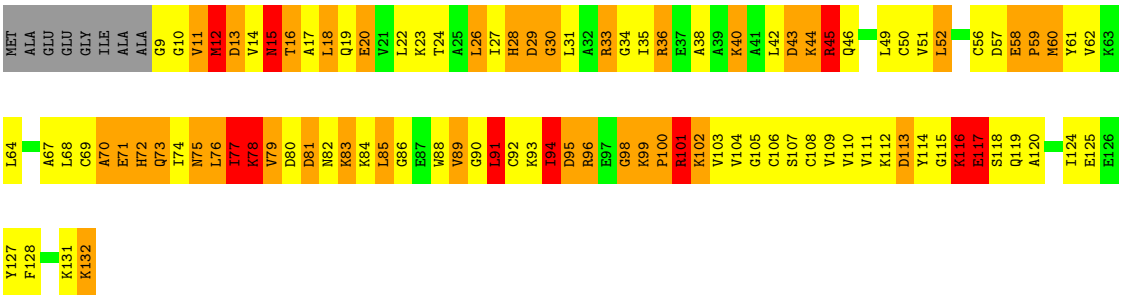
Chain L:



• Molecule 13: 40S ribosomal protein S12

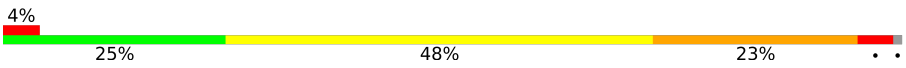
Chain M:

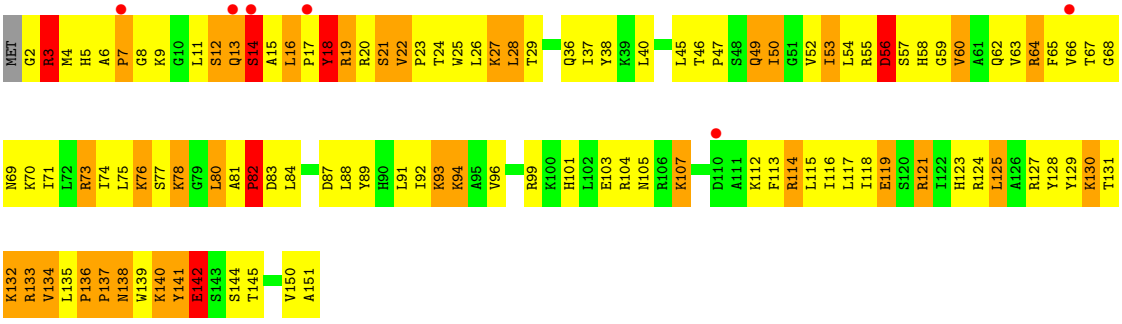




• Molecule 14: 40S ribosomal protein S13

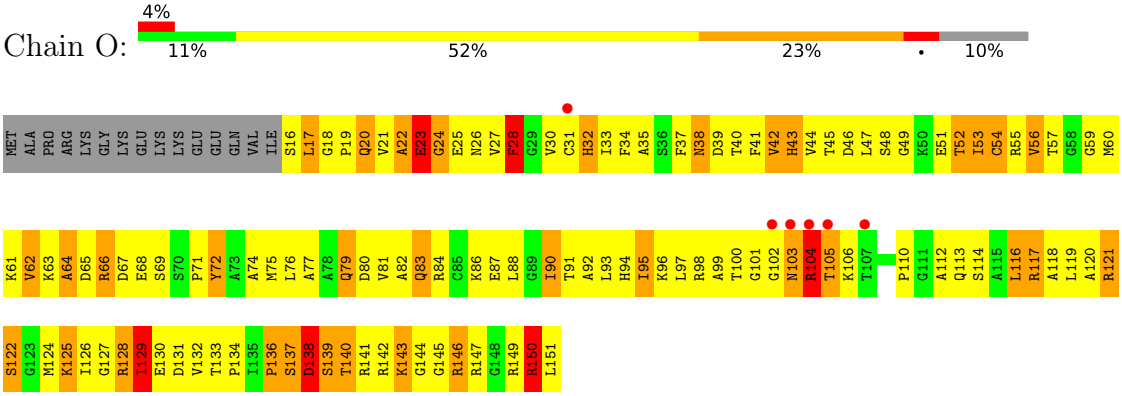
Chain N:





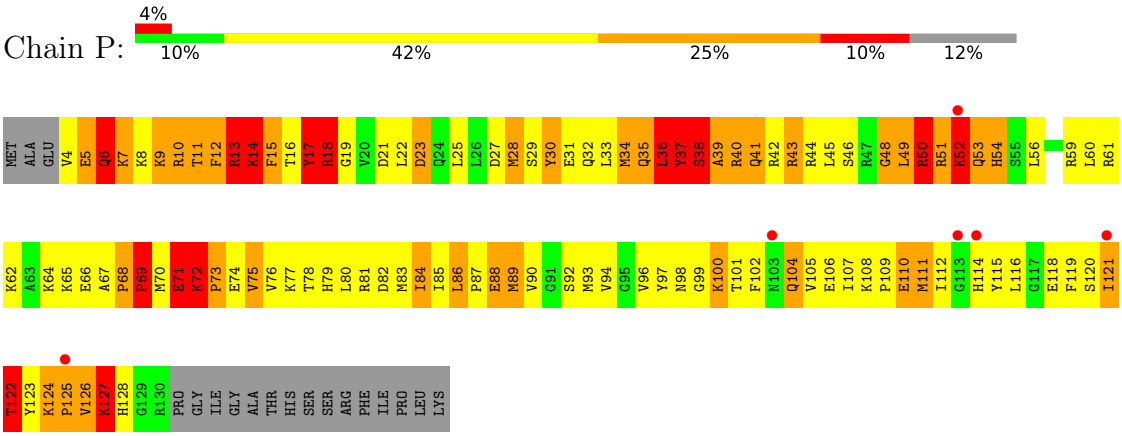
• Molecule 15: 40S ribosomal protein S14

Chain O:



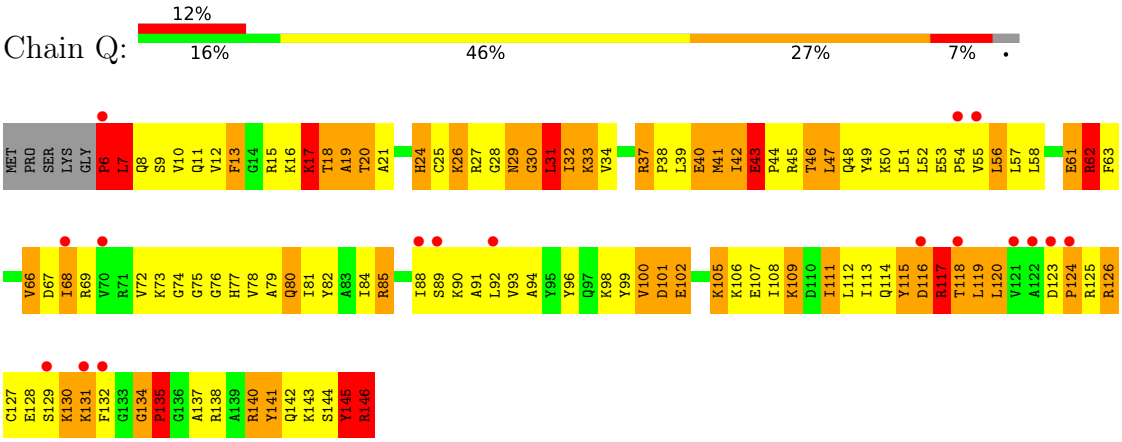
• Molecule 16: 40S ribosomal protein S15

Chain P:



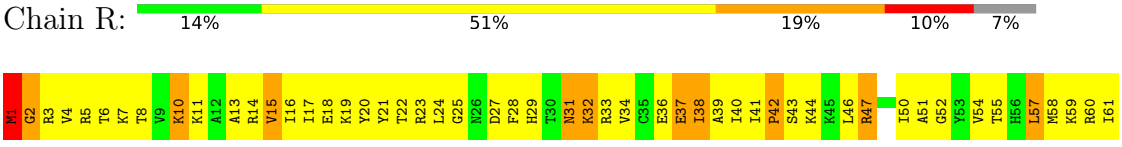
• Molecule 17: 40S ribosomal protein S16

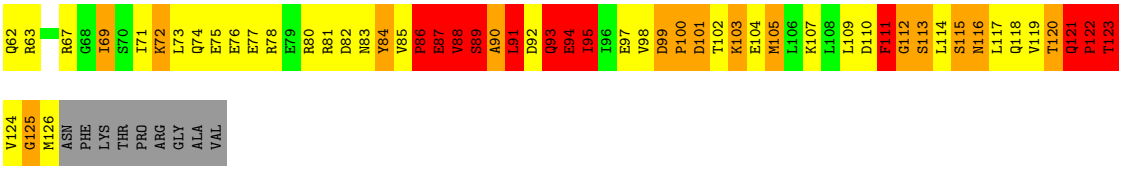
Chain Q:



• Molecule 18: 40S ribosomal protein S17

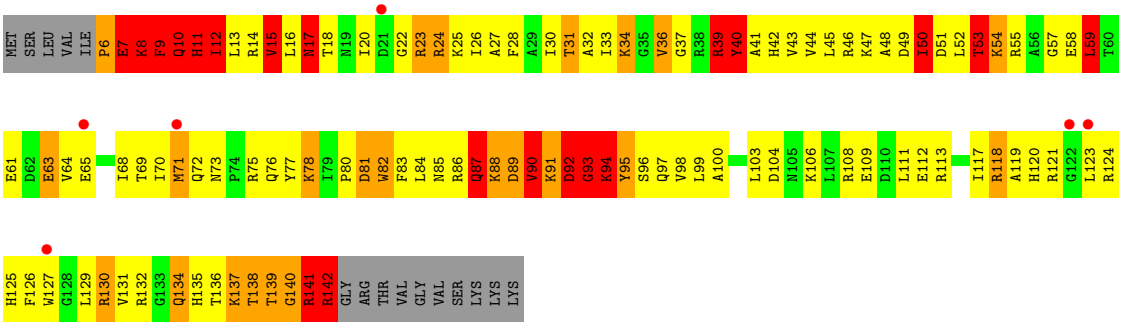
Chain R:





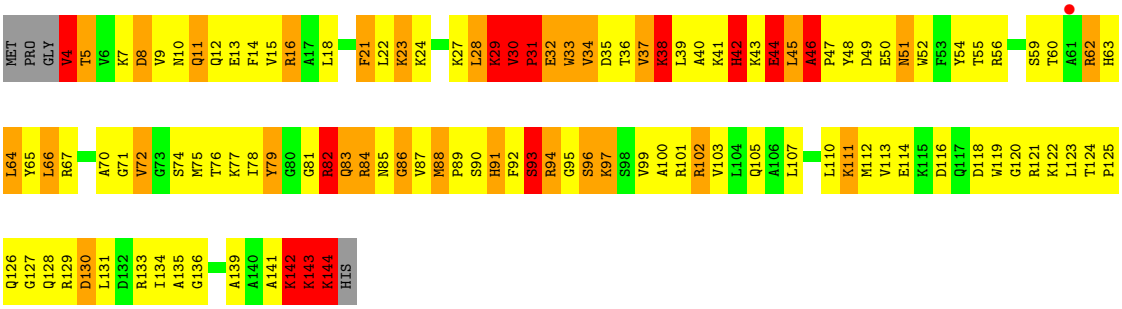
• Molecule 19: 40S ribosomal protein S18

Chain S:



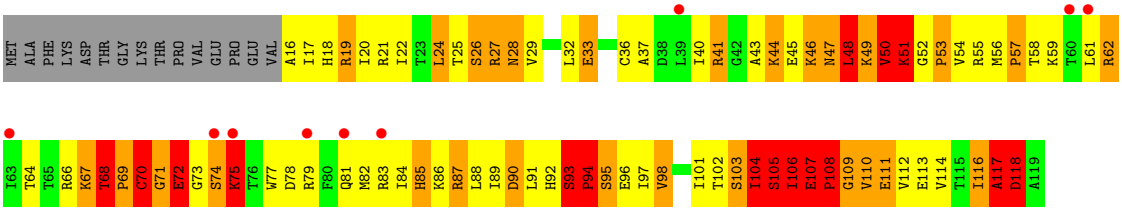
• Molecule 20: 40S ribosomal protein S19

Chain T:



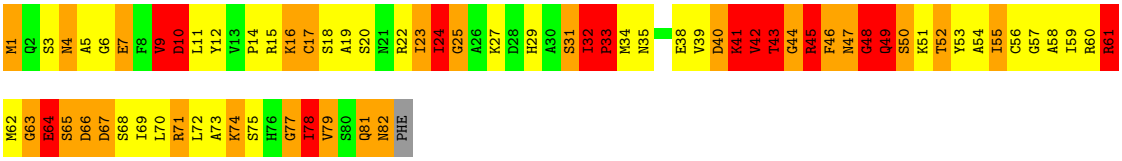
• Molecule 21: 40S ribosomal protein S20

Chain U:



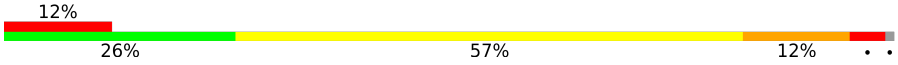
• Molecule 22: 40S ribosomal protein S21

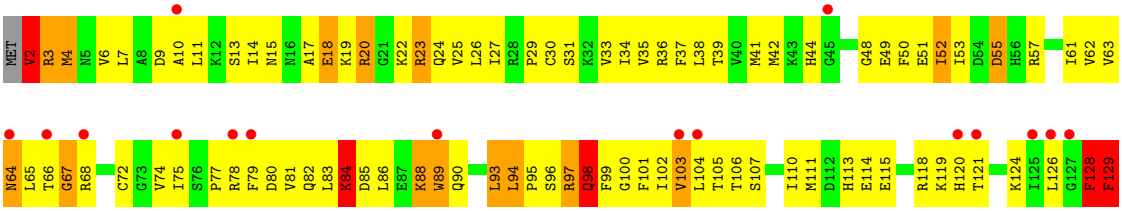
Chain V:

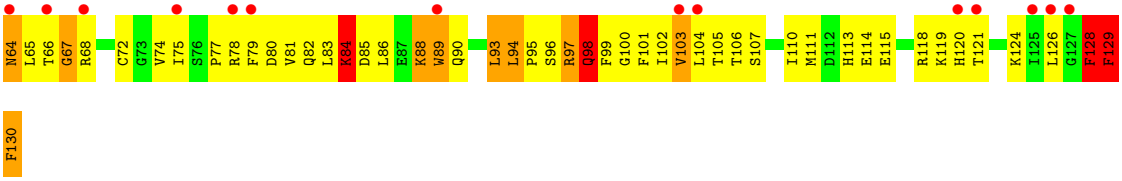


• Molecule 23: 40S ribosomal protein S15A

Chain W:

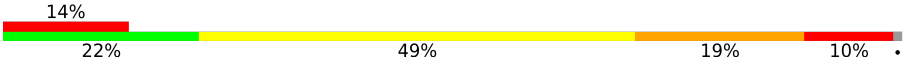


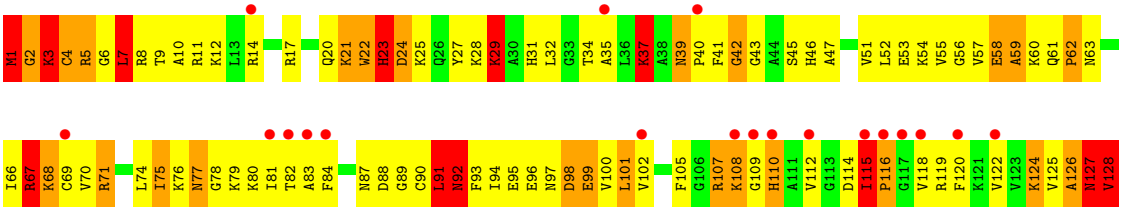


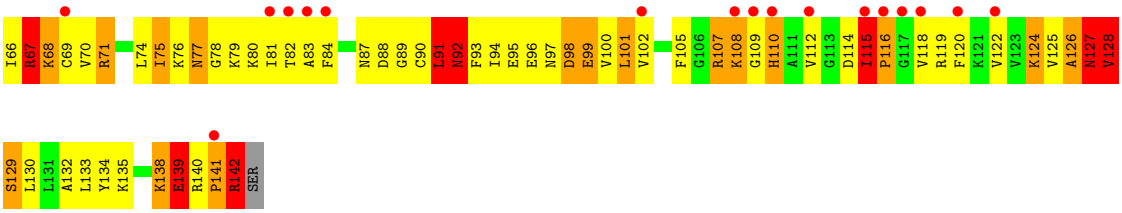


• Molecule 24: 40S ribosomal protein S23

Chain X:

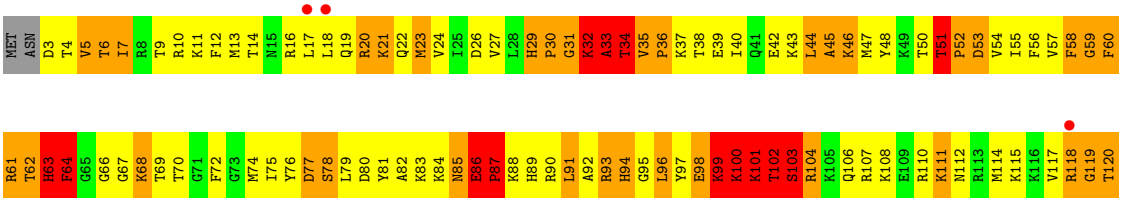


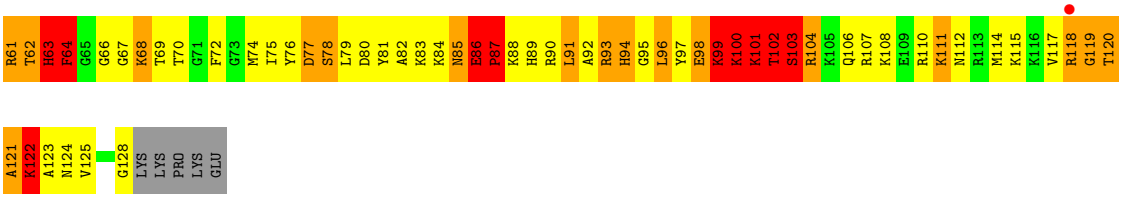




• Molecule 25: 40S ribosomal protein S24

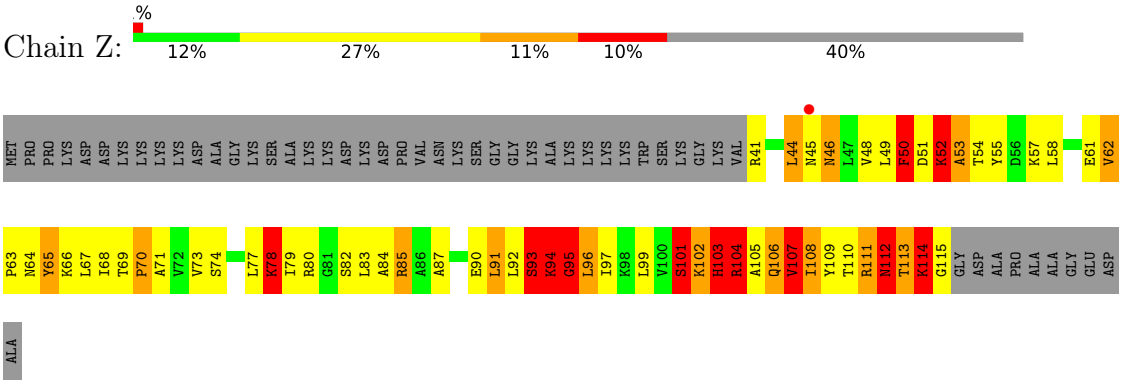
Chain Y:





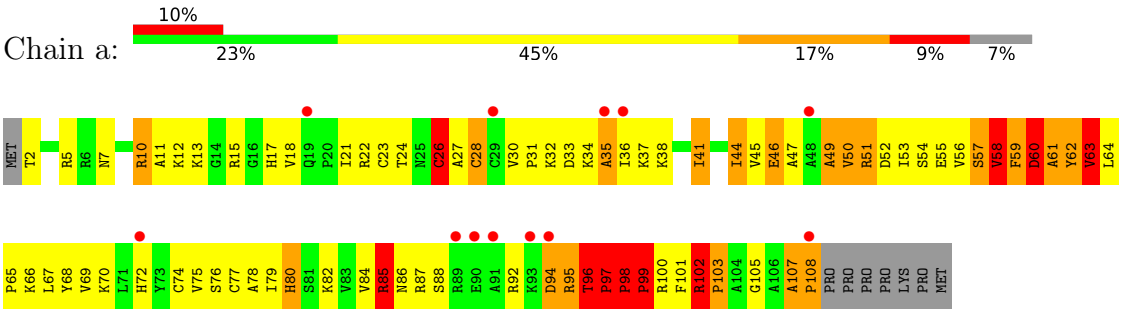
• Molecule 26: 40S ribosomal protein S25

Chain Z:



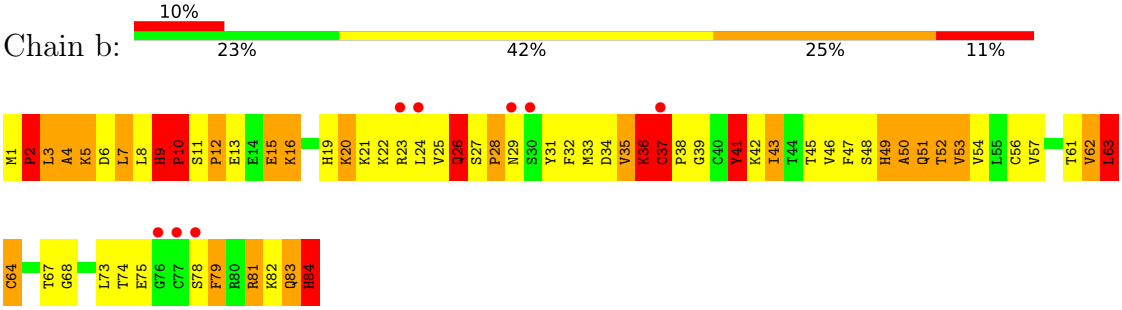
• Molecule 27: 40S ribosomal protein S26

Chain a:



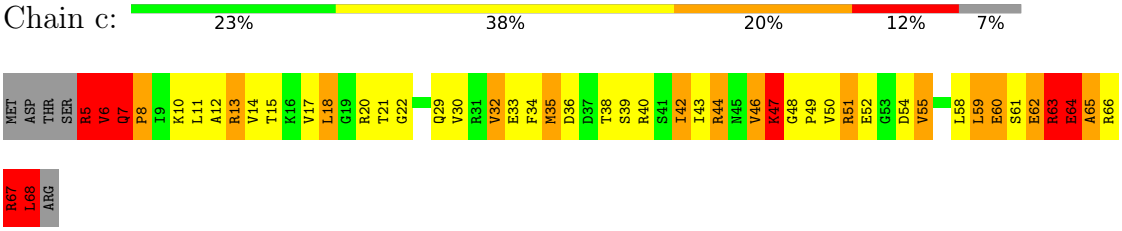
• Molecule 28: 40S ribosomal protein S27

Chain b:



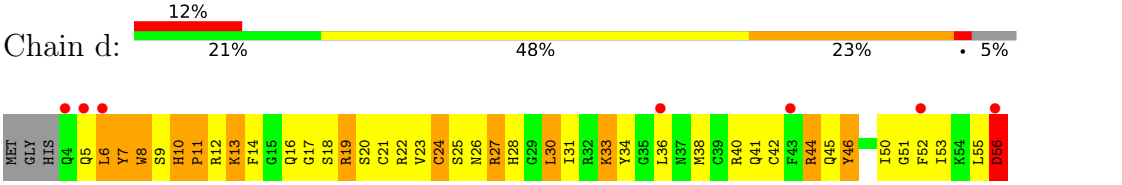
• Molecule 29: 40S ribosomal protein S28

Chain c:



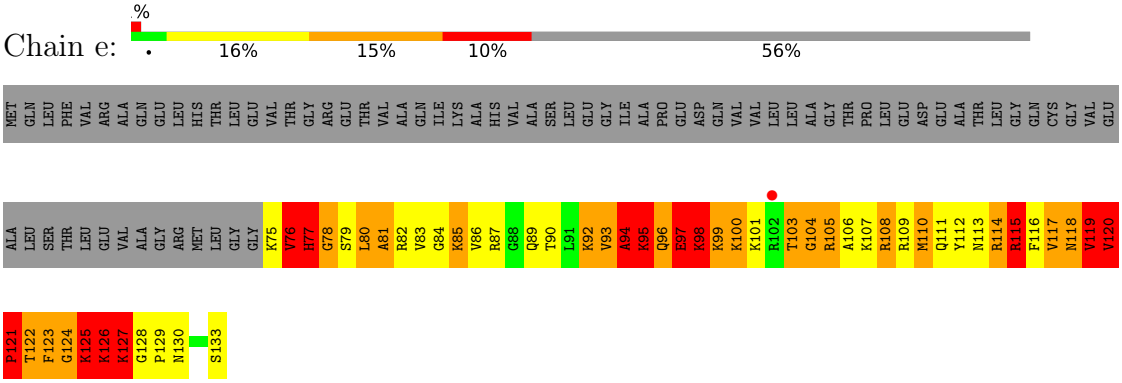
• Molecule 30: 40S ribosomal protein S29

Chain d:



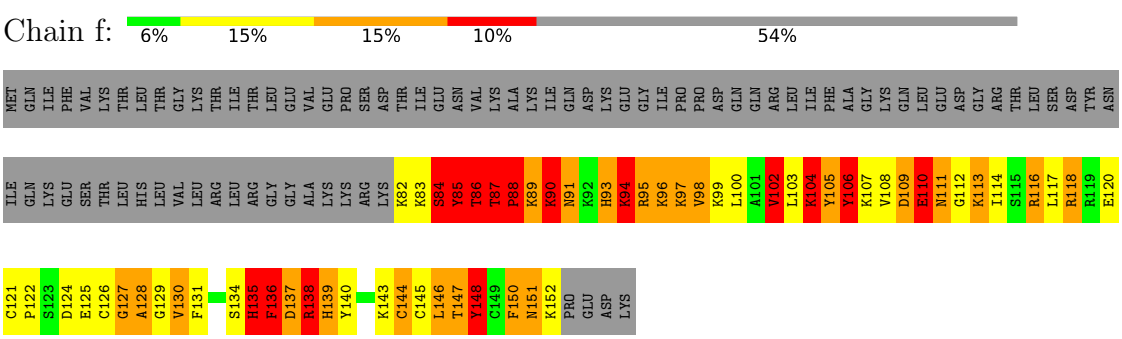
• Molecule 31: 40S ribosomal protein S30

Chain e:



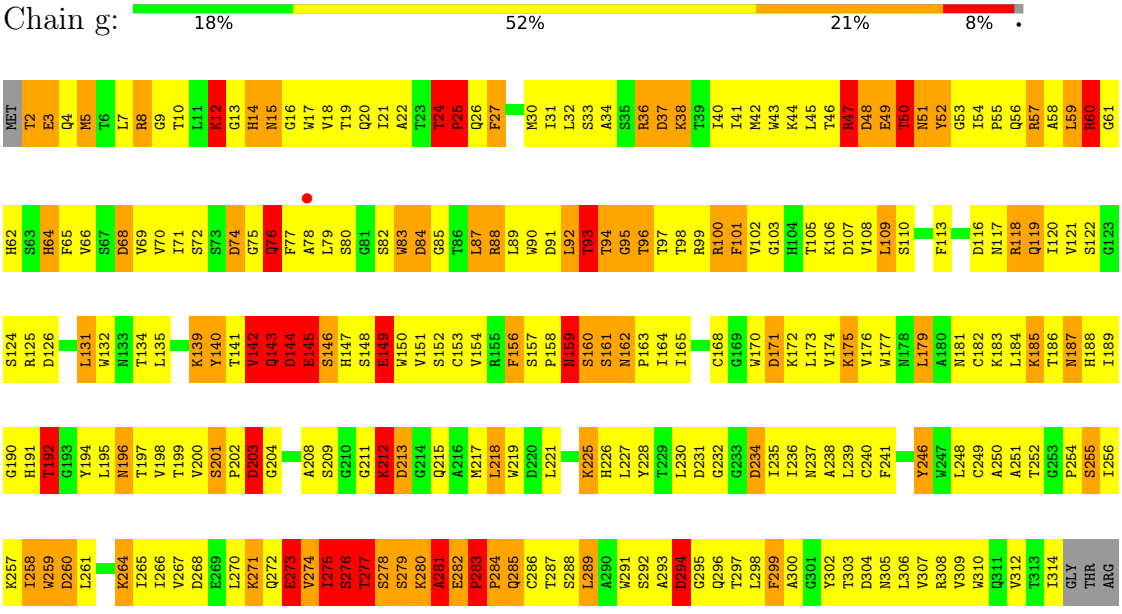
• Molecule 32: 40S ribosomal protein S27A

Chain f:



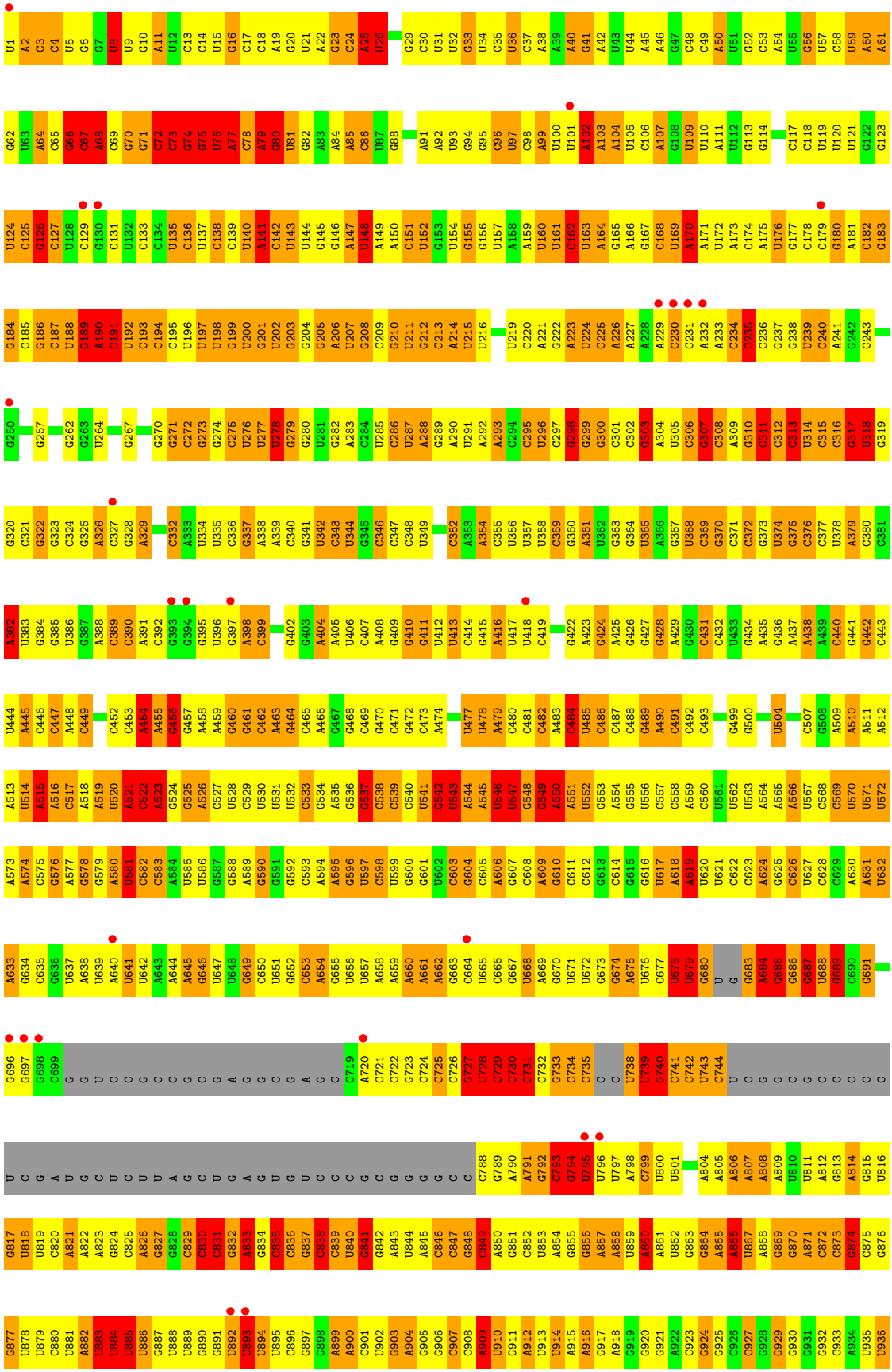
• Molecule 33: 40S ribosomal protein RACK1

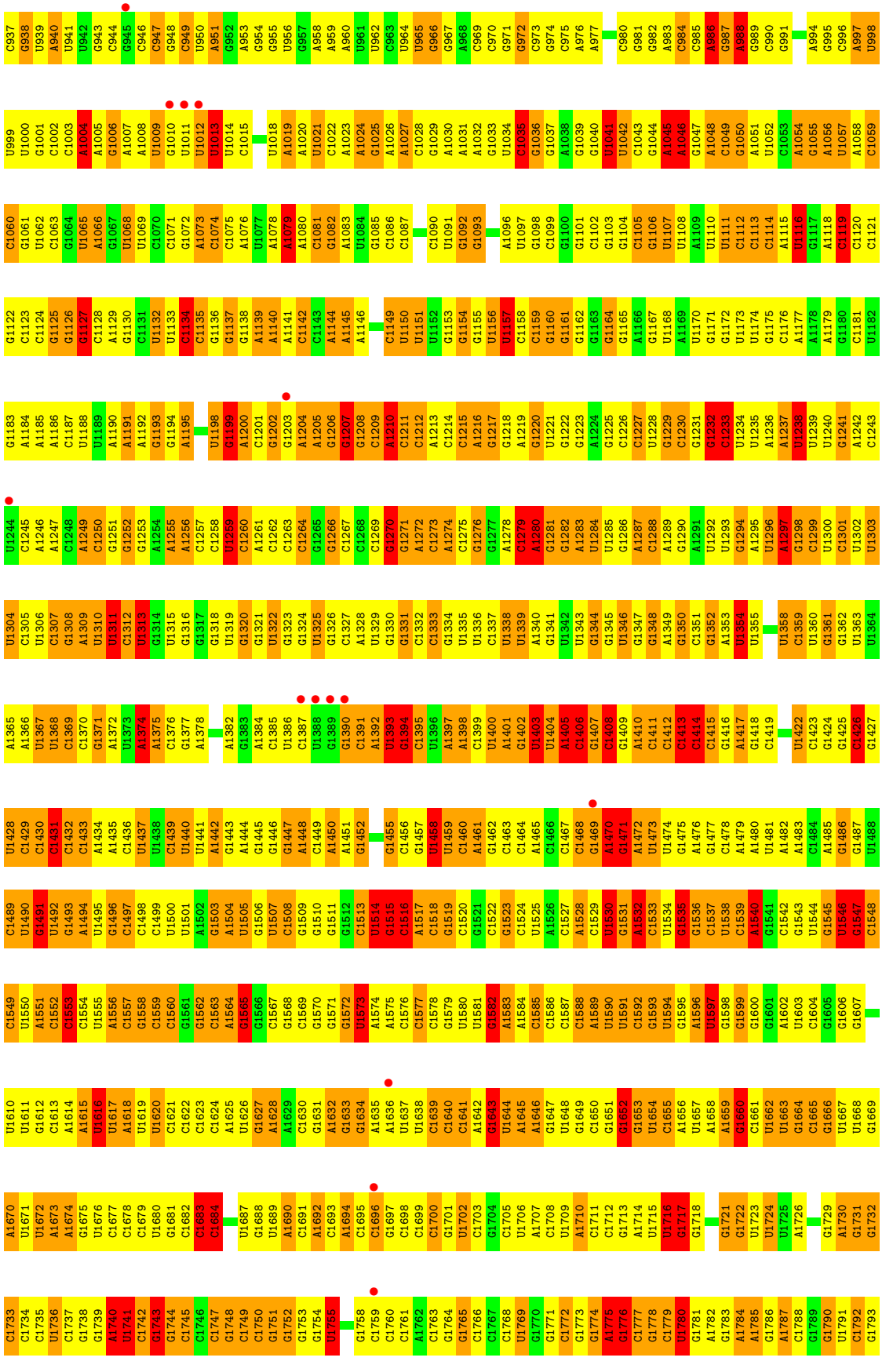
Chain g:

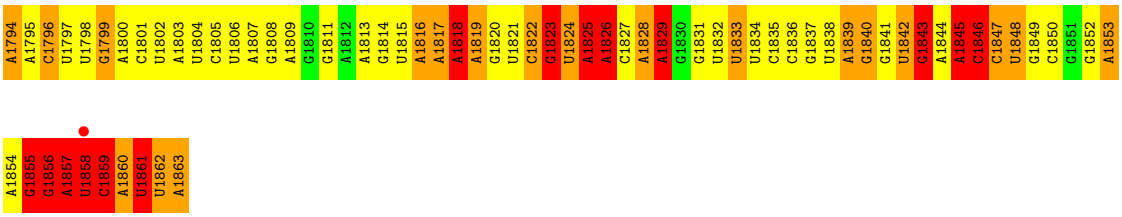


• Molecule 34: 18S ribosomal RNA

Chain i:







• Molecule 35: Eukaryotic translation initiation factor 1

Chain l:

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 31 2 1	Depositor
Cell constants a, b, c, α, β, γ	292.12Å 292.12Å 477.67Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	58.11 – 7.81 58.11 – 7.81	Depositor EDS
% Data completeness (in resolution range)	94.8 (58.11-7.81) 94.7 (58.11-7.81)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.96 (at 7.40Å)	Xtriage
Refinement program	PHENIX 1.7.3_928	Depositor
R, R_{free}	0.347 , 0.347 0.331 , 0.334	Depositor DCC
R_{free} test set	1305 reflections (4.76%)	wwPDB-VP
Wilson B-factor (Å^2)	667.2	Xtriage
Anisotropy	0.309	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.25 , 133.5	EDS
L-test for twinning[2]	$< \|L\| > = 0.34$, $< L^2 > = 0.17$	Xtriage
Estimated twinning fraction	0.120 for -h,-k,l	Xtriage
F_o,F_c correlation	0.87	EDS
Total number of atoms	77211	wwPDB-VP
Average B, all atoms (Å^2)	216.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.66% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality (i)

5.1 Standard geometry (i)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	1.05	15/1679 (0.9%)	1.62	46/2283 (2.0%)
2	B	0.94	8/1769 (0.5%)	1.64	44/2367 (1.9%)
3	C	1.38	23/1778 (1.3%)	1.88	54/2399 (2.3%)
4	D	1.57	9/1792 (0.5%)	1.97	56/2412 (2.3%)
5	E	0.90	8/2125 (0.4%)	1.48	47/2856 (1.6%)
6	F	1.29	10/1531 (0.7%)	1.77	40/2059 (1.9%)
7	G	1.30	27/1946 (1.4%)	1.76	48/2590 (1.9%)
8	H	1.48	20/1553 (1.3%)	2.04	61/2079 (2.9%)
9	I	1.58	20/1708 (1.2%)	1.98	50/2278 (2.2%)
10	J	1.86	27/1522 (1.8%)	2.13	75/2031 (3.7%)
11	K	1.72	19/851 (2.2%)	2.31	60/1147 (5.2%)
12	L	1.45	14/1319 (1.1%)	1.99	56/1761 (3.2%)
13	M	1.38	6/960 (0.6%)	1.79	27/1287 (2.1%)
14	N	1.01	8/1232 (0.6%)	1.27	15/1656 (0.9%)
15	O	0.89	6/1029 (0.6%)	1.55	25/1380 (1.8%)
16	P	1.03	8/1079 (0.7%)	1.85	51/1437 (3.5%)
17	Q	0.84	1/1142 (0.1%)	1.67	40/1528 (2.6%)
18	R	1.61	17/1031 (1.6%)	1.99	47/1383 (3.4%)
19	S	1.76	25/1157 (2.2%)	2.17	59/1548 (3.8%)
20	T	1.31	10/1132 (0.9%)	1.70	28/1517 (1.8%)
21	U	1.22	7/832 (0.8%)	2.34	53/1117 (4.7%)
22	V	1.13	5/626 (0.8%)	1.82	29/839 (3.5%)
23	W	1.10	4/1051 (0.4%)	1.38	15/1406 (1.1%)
24	X	1.49	16/1124 (1.4%)	1.97	36/1500 (2.4%)
25	Y	1.15	6/1038 (0.6%)	1.82	37/1380 (2.7%)
26	Z	1.17	6/604 (1.0%)	1.89	29/810 (3.6%)
27	a	1.32	11/860 (1.3%)	2.24	30/1156 (2.6%)
28	b	1.26	7/673 (1.0%)	2.20	33/902 (3.7%)
29	c	1.05	4/508 (0.8%)	1.77	20/680 (2.9%)
30	d	0.98	2/455 (0.4%)	1.23	3/603 (0.5%)
31	e	2.07	11/478 (2.3%)	2.14	21/628 (3.3%)
32	f	1.21	3/593 (0.5%)	2.01	34/786 (4.3%)
33	g	1.29	12/2493 (0.5%)	1.86	80/3394 (2.4%)
34	i	1.92	1351/41880 (3.2%)	1.94	2110/65161 (3.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
35	l	1.24	7/701 (1.0%)	1.39	8/936 (0.9%)
All	All	1.65	1733/82251 (2.1%)	1.90	3467/119296 (2.9%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	11
2	B	0	4
3	C	1	5
4	D	0	5
5	E	1	2
6	F	0	3
7	G	0	1
8	H	0	10
9	I	0	8
10	J	1	11
11	K	0	11
12	L	0	7
13	M	0	1
14	N	0	4
15	O	0	1
16	P	0	10
17	Q	0	4
18	R	1	5
19	S	1	10
20	T	1	6
21	U	0	8
22	V	0	9
23	W	0	2
24	X	0	4
25	Y	1	6
26	Z	0	6
27	a	0	2
28	b	0	3
31	e	0	5
32	f	0	6
33	g	0	13
34	i	6	0
All	All	13	183

All (1733) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	D	5	ILE	C-N	37.63	1.82	1.33
34	i	1683	C	O3'-P	32.89	2.10	1.61
31	e	95	LYS	C-N	30.57	1.76	1.33
10	J	85	GLY	C-N	-30.25	0.95	1.33
10	J	118	GLY	C-N	28.19	1.73	1.33
9	I	43	ILE	CA-C	-22.41	1.25	1.52
9	I	43	ILE	C-N	22.24	1.67	1.33
10	J	146	SER	C-N	22.23	1.61	1.33
23	W	2	VAL	C-N	19.51	1.59	1.33
19	S	141	ARG	C-N	19.44	1.60	1.33
19	S	40	TYR	CA-C	-18.60	1.29	1.52
34	i	1322	U	C2'-C1'	-18.35	1.25	1.53
34	i	66	G	C2'-C1'	-17.87	1.26	1.53
7	G	131	ARG	C-N	17.71	1.59	1.33
34	i	858	A	C2'-C1'	-17.47	1.27	1.53
34	i	1503	G	O4'-C1'	-17.47	1.15	1.42
18	R	1	MET	CA-C	-17.37	1.16	1.52
18	R	1	MET	C-N	-17.17	1.13	1.33
19	S	54	LYS	CA-C	17.14	1.75	1.52
18	R	1	MET	N-CA	17.13	1.78	1.46
34	i	652	G	C2'-C1'	-17.12	1.27	1.53
18	R	1	MET	CA-CB	17.11	1.87	1.53
19	S	54	LYS	N-CA	16.56	1.67	1.46
24	X	115	ILE	CA-C	-16.54	1.39	1.53
34	i	1307	C	C2'-C1'	-16.44	1.28	1.53
19	S	40	TYR	C-N	-16.39	1.09	1.33
34	i	521	A	C2'-C1'	-16.24	1.28	1.53
34	i	1037	G	C2'-C1'	-16.22	1.29	1.53
34	i	1233	C	C2'-C1'	-15.90	1.29	1.53
34	i	145	G	C2'-C1'	-15.83	1.29	1.53
18	R	89	SER	CA-C	15.63	1.73	1.52
34	i	287	U	C2'-C1'	-15.62	1.29	1.53
4	D	96	LEU	C-N	15.50	1.55	1.33
3	C	93	LYS	C-N	-15.25	1.18	1.33
34	i	1279	C	O4'-C1'	15.06	1.64	1.41
27	a	97	PRO	C-N	15.04	1.51	1.33
34	i	1472	A	O4'-C1'	-14.98	1.19	1.41
34	i	299	G	C2'-C1'	-14.97	1.30	1.53
34	i	1327	C	C2'-C1'	-14.91	1.30	1.53
34	i	389	C	O4'-C1'	14.90	1.64	1.42
34	i	215	U	C2'-C1'	-14.84	1.31	1.53
34	i	984	C	O4'-C1'	14.83	1.63	1.41

Continued on next page...

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1393	U	C2'-C1'	-14.76	1.30	1.53
34	i	1233	C	O4'-C1'	14.63	1.63	1.41
34	i	626	C	O4'-C1'	14.55	1.63	1.41
34	i	630	A	C2'-C1'	-14.52	1.31	1.53
34	i	343	C	C2'-C1'	-14.46	1.31	1.53
10	J	164	PRO	C-N	14.40	1.53	1.33
34	i	612	C	C2'-C1'	-14.40	1.31	1.53
34	i	1407	G	C2'-C1'	-14.35	1.31	1.53
34	i	1467	C	O4'-C1'	14.34	1.63	1.41
34	i	956	U	C2'-C1'	-14.33	1.31	1.53
34	i	1738	G	C2'-C1'	-14.31	1.31	1.53
34	i	1733	C	O4'-C1'	14.19	1.62	1.41
34	i	1043	C	O4'-C1'	14.18	1.62	1.41
4	D	4	GLN	C-N	-14.13	1.20	1.33
34	i	611	C	O4'-C1'	14.12	1.62	1.41
34	i	1308	G	C2'-C1'	-14.05	1.31	1.53
34	i	1855	G	C2'-C1'	-14.02	1.32	1.53
34	i	277	U	O4'-C1'	14.02	1.62	1.41
34	i	1308	G	O4'-C1'	14.02	1.62	1.42
34	i	689	G	O4'-C1'	13.99	1.62	1.41
34	i	684	A	C2'-C1'	-13.97	1.32	1.53
34	i	604	G	O4'-C1'	13.95	1.62	1.42
34	i	1496	G	C2'-C1'	-13.90	1.32	1.53
34	i	390	C	O4'-C1'	13.78	1.62	1.42
34	i	1159	C	C2'-C1'	-13.77	1.32	1.53
34	i	446	C	O4'-C1'	13.74	1.62	1.41
34	i	1227	C	C2'-C1'	-13.67	1.32	1.53
34	i	1305	C	O4'-C1'	13.62	1.62	1.41
34	i	1012	U	O4'-C1'	13.61	1.62	1.42
34	i	286	C	O4'-C1'	13.61	1.62	1.41
34	i	1432	C	O4'-C1'	13.60	1.62	1.41
34	i	594	A	O4'-C1'	13.57	1.62	1.41
9	I	3	ILE	CA-CB	-13.56	1.38	1.54
34	i	1227	C	O4'-C1'	13.45	1.61	1.41
34	i	518	A	C2'-C1'	-13.45	1.33	1.53
34	i	1194	G	C2'-C1'	-13.43	1.33	1.53
20	T	4	VAL	C-N	13.42	1.52	1.33
34	i	741	C	O4'-C1'	13.41	1.61	1.41
34	i	1766	C	O4'-C1'	13.40	1.61	1.41
34	i	225	C	O4'-C1'	13.38	1.62	1.42
34	i	1288	C	O4'-C1'	13.38	1.61	1.41
34	i	794	G	O4'-C1'	13.37	1.62	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	X	128	VAL	CA-CB	-13.34	1.40	1.54
34	i	1237	A	O4'-C1'	13.32	1.61	1.41
34	i	730	C	O4'-C1'	13.31	1.61	1.41
34	i	909	A	O4'-C1'	13.27	1.61	1.42
34	i	1524	C	O4'-C1'	13.19	1.61	1.41
34	i	179	C	O4'-C1'	13.18	1.61	1.41
7	G	130	PRO	C-N	-13.15	1.16	1.33
34	i	1222	G	C2'-C1'	-13.14	1.33	1.53
7	G	170	ARG	CA-C	-13.10	1.36	1.52
34	i	1774	G	C2'-C1'	-13.09	1.33	1.53
34	i	1393	U	O4'-C1'	13.07	1.61	1.42
34	i	443	C	C2'-C1'	-13.04	1.33	1.53
34	i	859	U	C2'-C1'	-13.01	1.33	1.53
34	i	214	A	O4'-C1'	12.96	1.61	1.41
34	i	1307	C	O4'-C1'	12.96	1.61	1.41
34	i	1406	C	O4'-C1'	12.96	1.61	1.41
34	i	1226	C	C2'-C1'	-12.93	1.33	1.53
4	D	4	GLN	N-CA	-12.90	1.29	1.46
10	J	187	ALA	CA-C	12.90	1.68	1.53
34	i	606	A	C2'-C1'	-12.86	1.34	1.53
34	i	538	C	O4'-C1'	12.84	1.60	1.41
34	i	838	C	O4'-C1'	12.80	1.60	1.41
34	i	1587	C	O4'-C1'	12.78	1.60	1.41
24	X	24	ASP	CA-C	-12.77	1.34	1.52
34	i	970	C	O4'-C1'	12.77	1.60	1.41
34	i	873	C	O4'-C1'	12.72	1.60	1.41
34	i	1413	C	O4'-C1'	12.72	1.60	1.41
34	i	1703	C	O4'-C1'	12.71	1.60	1.41
34	i	1090	C	O4'-C1'	12.71	1.60	1.41
25	Y	91	LEU	C-N	12.69	1.50	1.33
34	i	1289	A	O4'-C1'	12.67	1.60	1.41
34	i	1199	G	C2'-C1'	-12.66	1.34	1.53
34	i	438	A	O4'-C1'	-12.61	1.23	1.42
34	i	1230	C	O4'-C1'	12.60	1.60	1.41
34	i	1699	C	O4'-C1'	12.60	1.60	1.41
34	i	41	G	C2'-C1'	-12.59	1.34	1.53
34	i	431	C	O4'-C1'	12.58	1.60	1.41
34	i	1214	C	C2'-C1'	-12.53	1.34	1.53
34	i	1010	G	C2'-C1'	-12.52	1.34	1.53
34	i	1144	A	O4'-C1'	-12.45	1.23	1.42
34	i	1376	C	O4'-C1'	12.43	1.60	1.41
34	i	144	U	O4'-C1'	12.38	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	215	U	O4'-C1'	12.37	1.60	1.41
34	i	1258	C	C2'-C1'	-12.37	1.34	1.53
34	i	1348	G	C2'-C1'	-12.35	1.34	1.53
34	i	1214	C	O4'-C1'	12.35	1.60	1.41
7	G	131	ARG	N-CA	-12.33	1.30	1.46
34	i	1738	G	O4'-C1'	12.31	1.60	1.41
34	i	35	C	O4'-C1'	12.29	1.60	1.41
34	i	1044	G	C2'-C1'	-12.29	1.34	1.53
34	i	838	C	C2'-C1'	-12.25	1.34	1.53
8	H	111	LYS	CA-C	-12.23	1.34	1.53
34	i	1691	C	O4'-C1'	12.22	1.59	1.41
34	i	1732	G	C2'-C1'	-12.22	1.35	1.53
34	i	929	G	C2'-C1'	-12.22	1.35	1.53
34	i	1736	U	O4'-C1'	12.21	1.59	1.41
34	i	94	G	C2'-C1'	-12.20	1.35	1.53
34	i	852	C	O4'-C1'	12.19	1.59	1.41
34	i	844	U	C2'-C1'	-12.14	1.35	1.53
34	i	1184	A	O4'-C1'	12.14	1.59	1.41
34	i	1520	C	O4'-C1'	12.13	1.59	1.41
7	G	36	VAL	CA-CB	-12.12	1.38	1.55
34	i	187	C	O4'-C1'	12.12	1.59	1.41
34	i	830	C	O4'-C1'	12.09	1.59	1.41
34	i	435	A	C2'-C1'	-12.04	1.35	1.53
34	i	1003	C	O4'-C1'	12.04	1.59	1.41
34	i	168	C	O4'-C1'	12.03	1.59	1.41
34	i	947	C	O4'-C1'	12.01	1.59	1.41
34	i	1325	U	C2'-C1'	-12.01	1.35	1.53
34	i	616	G	O4'-C1'	12.00	1.59	1.41
7	G	157	VAL	CA-CB	-11.99	1.40	1.54
34	i	735	C	O4'-C1'	11.96	1.59	1.41
34	i	801	U	O4'-C1'	11.96	1.59	1.41
34	i	1002	C	O4'-C1'	11.93	1.59	1.41
34	i	1571	G	C2'-C1'	-11.93	1.35	1.53
34	i	604	G	C2'-C1'	-11.92	1.35	1.53
21	U	93	SER	C-N	11.91	1.61	1.33
27	a	97	PRO	CA-C	11.90	1.63	1.52
34	i	1433	C	O4'-C1'	11.90	1.59	1.41
34	i	605	C	O4'-C1'	11.89	1.59	1.41
34	i	1693	C	O4'-C1'	11.88	1.59	1.42
16	P	122	THR	CA-CB	11.88	1.72	1.53
34	i	1419	C	O4'-C1'	11.87	1.59	1.41
34	i	92	A	C2'-C1'	-11.86	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1263	C	O4'-C1'	11.86	1.59	1.41
34	i	340	C	O4'-C1'	11.83	1.59	1.41
34	i	1847	C	C2'-C1'	-11.81	1.35	1.53
34	i	377	C	O4'-C1'	11.81	1.59	1.41
34	i	564	A	O4'-C1'	11.79	1.59	1.41
34	i	446	C	C2'-C1'	-11.78	1.35	1.53
34	i	1022	C	O4'-C1'	11.77	1.59	1.41
34	i	734	C	O4'-C1'	11.76	1.59	1.41
34	i	1666	G	C2'-C1'	-11.76	1.35	1.53
34	i	312	C	O4'-C1'	11.75	1.59	1.41
34	i	1400	U	O4'-C1'	11.74	1.59	1.42
34	i	1404	U	O4'-C1'	11.74	1.59	1.41
34	i	1617	U	O4'-C1'	11.74	1.59	1.42
34	i	1563	C	C2'-C1'	-11.73	1.35	1.53
34	i	1805	C	O4'-C1'	11.72	1.59	1.41
34	i	568	C	O4'-C1'	11.72	1.59	1.41
34	i	1411	C	O4'-C1'	11.71	1.59	1.41
34	i	402	G	O4'-C1'	11.69	1.59	1.41
34	i	792	G	C2'-C1'	-11.68	1.35	1.53
13	M	132	LYS	C-OXT	-11.67	1.00	1.23
34	i	13	C	O4'-C1'	11.67	1.59	1.41
34	i	788	C	C2'-C1'	-11.67	1.35	1.53
34	i	858	A	O4'-C1'	11.67	1.59	1.41
6	F	204	ARG	C-OXT	-11.66	1.00	1.23
8	H	194	LEU	C-O	-11.66	1.00	1.23
34	i	1436	C	O4'-C1'	11.64	1.59	1.41
24	X	142	ARG	C-O	-11.63	1.00	1.23
28	b	84	HIS	C-OXT	-11.63	1.00	1.23
20	T	144	LYS	C-O	-11.62	1.00	1.23
34	i	728	U	O4'-C1'	11.62	1.59	1.41
10	J	188	GLY	C-O	-11.62	1.00	1.23
14	N	151	ALA	C-OXT	-11.61	1.00	1.23
34	i	1267	C	O4'-C1'	11.60	1.59	1.41
4	D	227	LYS	C-O	-11.59	1.00	1.23
14	N	151	ALA	C-O	-11.59	1.00	1.23
34	i	1847	C	O4'-C1'	11.58	1.59	1.41
13	M	132	LYS	C-O	-11.58	1.00	1.23
34	i	1736	U	C2'-C1'	-11.58	1.35	1.53
23	W	130	PHE	C-OXT	-11.57	1.00	1.23
31	e	133	SER	C-OXT	-11.57	1.00	1.23
5	E	263	GLY	C-OXT	-11.57	1.00	1.23
23	W	130	PHE	C-O	-11.57	1.00	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	f	152	LYS	C-O	-11.57	1.00	1.23
34	i	287	U	O4'-C1'	11.57	1.59	1.41
34	i	1683	C	C2'-C1'	-11.55	1.36	1.53
5	E	263	GLY	C-O	-11.54	1.00	1.23
25	Y	128	GLY	C-O	-11.54	1.00	1.23
34	i	1063	C	O4'-C1'	11.54	1.58	1.41
34	i	1666	G	O4'-C1'	11.54	1.58	1.41
3	C	263	THR	C-O	-11.52	1.00	1.23
31	e	133	SER	C-O	-11.52	1.00	1.23
9	I	207	GLY	C-O	-11.51	1.00	1.23
33	g	314	ILE	C-O	-11.51	1.00	1.23
11	K	98	ARG	C-O	-11.51	1.00	1.23
30	d	56	ASP	C-O	-11.51	1.00	1.23
34	i	179	C	C2'-C1'	-11.51	1.36	1.53
29	c	68	LEU	C-O	-11.50	1.00	1.23
10	J	91	LYS	C-O	-11.50	1.09	1.24
34	i	54	A	O4'-C1'	11.50	1.58	1.41
8	H	194	LEU	C-OXT	-11.49	1.00	1.23
26	Z	115	GLY	C-O	-11.49	1.00	1.23
34	i	143	U	C2'-C1'	-11.49	1.35	1.53
1	A	209	GLU	C-O	-11.48	1.00	1.23
8	H	109	ARG	CA-CB	-11.48	1.34	1.53
30	d	56	ASP	C-OXT	-11.47	1.00	1.23
12	L	158	PHE	C-OXT	-11.47	1.00	1.23
12	L	158	PHE	C-O	-11.46	1.00	1.23
34	i	830	C	C2'-C1'	-11.46	1.36	1.53
34	i	1777	C	O4'-C1'	11.44	1.59	1.42
2	B	233	GLY	C-O	-11.44	1.00	1.23
34	i	1257	C	O4'-C1'	11.44	1.58	1.41
34	i	541	U	C2'-C1'	-11.42	1.36	1.53
34	i	1232	G	O4'-C1'	-11.42	1.24	1.41
6	F	204	ARG	C-O	-11.41	1.00	1.23
34	i	1688	G	C2'-C1'	-11.41	1.36	1.53
34	i	174	C	O4'-C1'	11.39	1.58	1.41
28	b	84	HIS	C-O	-11.38	1.00	1.23
34	i	1447	G	O4'-C1'	11.37	1.58	1.41
34	i	826	A	O4'-C1'	-11.37	1.24	1.41
34	i	877	G	C2'-C1'	-11.34	1.36	1.53
34	i	1452	G	C2'-C1'	-11.34	1.36	1.53
34	i	581	U	C2'-C1'	-11.33	1.36	1.53
34	i	1683	C	O4'-C1'	11.33	1.58	1.41
34	i	186	G	C2'-C1'	-11.26	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1015	C	O4'-C1'	11.25	1.58	1.41
34	i	565	A	O4'-C1'	11.25	1.58	1.41
34	i	1075	C	O4'-C1'	11.23	1.58	1.41
34	i	657	U	C2'-C1'	-11.19	1.36	1.53
34	i	986	A	O4'-C1'	11.18	1.58	1.42
34	i	1660	G	C2'-C1'	-11.17	1.36	1.53
34	i	1542	C	O4'-C1'	11.17	1.58	1.41
27	a	10	ARG	CD-NE	11.16	1.61	1.46
34	i	1018	U	C2'-C1'	-11.15	1.36	1.53
34	i	222	G	C2'-C1'	-11.13	1.36	1.53
34	i	1690	A	O4'-C1'	11.12	1.58	1.42
34	i	973	C	O4'-C1'	11.12	1.58	1.41
34	i	62	G	C2'-C1'	-11.11	1.36	1.53
34	i	1539	C	O4'-C1'	11.10	1.58	1.41
34	i	408	A	C2'-C1'	-11.10	1.36	1.53
34	i	687	G	O4'-C1'	11.09	1.58	1.41
34	i	1171	G	C2'-C1'	-11.07	1.36	1.53
34	i	1563	C	O4'-C1'	11.07	1.58	1.41
34	i	1087	C	O4'-C1'	11.04	1.58	1.41
7	G	170	ARG	CA-CB	11.03	1.70	1.53
34	i	539	C	O4'-C1'	11.02	1.58	1.41
34	i	1659	A	C2'-C1'	-11.01	1.36	1.53
34	i	164	A	C2'-C1'	-10.97	1.36	1.53
34	i	4	C	C2'-C1'	-10.97	1.36	1.53
34	i	986	A	C2'-C1'	-10.96	1.36	1.53
34	i	324	C	O4'-C1'	10.96	1.58	1.41
34	i	1012	U	C2'-C1'	-10.96	1.36	1.53
34	i	788	C	O4'-C1'	10.94	1.58	1.41
34	i	193	C	O4'-C1'	10.93	1.58	1.41
34	i	80	G	O4'-C1'	10.92	1.58	1.41
34	i	731	C	O4'-C1'	10.92	1.58	1.41
19	S	139	THR	CA-C	-10.91	1.47	1.53
34	i	1494	A	C2'-C1'	-10.89	1.37	1.53
34	i	1615	A	C2'-C1'	-10.87	1.36	1.53
34	i	1610	U	C2'-C1'	-10.86	1.37	1.53
18	R	89	SER	C-N	10.85	1.48	1.33
19	S	88	LYS	CA-C	10.84	1.65	1.53
34	i	205	G	C2'-C1'	-10.84	1.37	1.53
34	i	734	C	C2'-C1'	-10.84	1.37	1.53
34	i	1113	C	O4'-C1'	-10.83	1.25	1.41
34	i	188	U	C2'-C1'	-10.82	1.37	1.53
34	i	64	A	O4'-C1'	-10.80	1.25	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1856	G	O4'-C1'	10.80	1.58	1.42
34	i	484	C	O4'-C1'	10.80	1.57	1.41
34	i	1711	C	O4'-C1'	10.80	1.57	1.41
34	i	914	U	C2'-C1'	-10.79	1.37	1.53
34	i	48	C	O4'-C1'	10.78	1.57	1.41
34	i	225	C	C2'-C1'	-10.77	1.36	1.53
34	i	1451	A	O4'-C1'	10.77	1.57	1.41
34	i	728	U	C2'-C1'	-10.75	1.37	1.53
34	i	1142	C	C2'-C1'	-10.74	1.37	1.53
34	i	1216	A	C2'-C1'	-10.74	1.37	1.53
34	i	985	C	O4'-C1'	10.73	1.58	1.42
34	i	1259	U	O4'-C1'	10.70	1.57	1.41
34	i	650	C	O4'-C1'	10.68	1.57	1.41
34	i	1656	A	C2'-C1'	-10.66	1.37	1.53
10	J	144	ILE	CA-CB	-10.66	1.40	1.54
34	i	744	C	O4'-C1'	10.65	1.57	1.41
34	i	1677	C	O4'-C1'	10.65	1.57	1.42
34	i	1263	C	C2'-C1'	-10.63	1.37	1.53
34	i	522	C	O4'-C1'	10.63	1.57	1.41
34	i	1014	U	C2'-C1'	-10.62	1.37	1.53
34	i	81	U	C2'-C1'	-10.62	1.37	1.53
34	i	62	G	O4'-C1'	10.60	1.57	1.41
22	V	64	GLU	CA-C	10.59	1.62	1.52
34	i	804	A	C2'-C1'	-10.59	1.37	1.53
34	i	1262	C	O4'-C1'	10.58	1.57	1.41
34	i	1222	G	O4'-C1'	10.57	1.57	1.41
34	i	1229	G	C2'-C1'	-10.56	1.37	1.53
34	i	1338	U	O4'-C1'	10.55	1.57	1.42
34	i	482	C	O4'-C1'	10.54	1.57	1.42
34	i	1611	U	C2'-C1'	-10.54	1.37	1.53
10	J	101	LYS	N-CA	10.53	1.58	1.46
11	K	93	THR	CA-C	10.53	1.66	1.52
34	i	845	A	C2'-C1'	-10.51	1.37	1.53
34	i	598	C	O4'-C1'	10.50	1.57	1.41
34	i	1734	C	O4'-C1'	10.50	1.57	1.41
34	i	1532	A	O4'-C1'	10.48	1.57	1.41
34	i	1755	U	C2'-C1'	-10.48	1.37	1.53
34	i	1548	C	O4'-C1'	-10.45	1.25	1.41
34	i	1650	C	O4'-C1'	10.44	1.57	1.41
34	i	1416	G	C2'-C1'	-10.44	1.37	1.53
34	i	623	C	O4'-C1'	10.43	1.57	1.41
34	i	1322	U	O4'-C1'	10.42	1.57	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	431	C	C2'-C1'	-10.42	1.37	1.53
34	i	465	C	O4'-C1'	10.40	1.57	1.41
34	i	1801	C	O4'-C1'	10.40	1.57	1.41
34	i	276	U	O4'-C1'	10.37	1.57	1.41
34	i	1140	A	C2'-C1'	-10.33	1.37	1.53
34	i	1828	A	C2'-C1'	-10.33	1.37	1.53
34	i	1602	A	C2'-C1'	-10.32	1.37	1.53
34	i	583	C	O4'-C1'	10.30	1.57	1.41
34	i	1801	C	C2'-C1'	-10.30	1.38	1.53
34	i	1428	U	O4'-C1'	10.27	1.57	1.41
34	i	1788	C	O4'-C1'	10.27	1.57	1.41
34	i	302	C	O4'-C1'	10.26	1.57	1.41
34	i	1628	A	O4'-C1'	10.26	1.57	1.41
34	i	299	G	O4'-C1'	10.24	1.57	1.42
34	i	612	C	O4'-C1'	10.24	1.57	1.41
34	i	1251	G	C2'-C1'	-10.22	1.38	1.53
34	i	887	G	C2'-C1'	-10.21	1.38	1.53
34	i	1557	C	C2'-C1'	-10.20	1.38	1.53
34	i	1793	G	C2'-C1'	-10.20	1.38	1.53
34	i	1587	C	C2'-C1'	-10.18	1.38	1.53
34	i	569	C	O4'-C1'	10.18	1.56	1.41
34	i	325	G	O4'-C1'	-10.17	1.26	1.41
34	i	18	C	O4'-C1'	10.16	1.56	1.41
34	i	623	C	C2'-C1'	-10.16	1.38	1.53
34	i	907	C	O4'-C1'	10.14	1.56	1.41
34	i	852	C	C2'-C1'	-10.12	1.38	1.53
34	i	1387	C	O4'-C1'	10.11	1.56	1.41
34	i	1060	C	O4'-C1'	10.10	1.56	1.41
34	i	1537	C	O4'-C1'	10.09	1.56	1.41
34	i	545	A	O4'-C1'	10.08	1.56	1.41
34	i	884	U	C2'-C1'	-10.08	1.38	1.53
34	i	1765	G	C2'-C1'	-10.08	1.38	1.53
34	i	1427	G	C2'-C1'	-10.06	1.38	1.53
11	K	46	MET	CA-C	-10.04	1.40	1.52
34	i	864	G	O4'-C1'	10.03	1.57	1.42
34	i	1114	C	O4'-C1'	-10.01	1.26	1.41
34	i	1732	G	O4'-C1'	10.01	1.56	1.41
7	G	36	VAL	CA-C	-10.00	1.42	1.52
34	i	606	A	O4'-C1'	10.00	1.56	1.41
34	i	1698	C	O4'-C1'	10.00	1.56	1.41
34	i	915	A	C2'-C1'	-9.98	1.38	1.53
34	i	1241	G	C2'-C1'	-9.97	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	X	126	ALA	CA-CB	-9.96	1.38	1.53
34	i	1074	C	O4'-C1'	9.94	1.56	1.41
34	i	407	C	O4'-C1'	9.93	1.56	1.41
9	I	134	GLU	CA-C	-9.92	1.40	1.52
34	i	436	G	O4'-C1'	9.92	1.56	1.41
34	i	622	C	O4'-C1'	9.89	1.56	1.41
34	i	553	G	O4'-C1'	9.88	1.56	1.42
34	i	903	G	C2'-C1'	-9.88	1.38	1.53
34	i	1124	C	O4'-C1'	9.87	1.56	1.41
34	i	887	G	O4'-C1'	9.85	1.56	1.41
34	i	1181	C	O4'-C1'	9.84	1.56	1.41
34	i	1091	U	C2'-C1'	-9.83	1.38	1.53
34	i	1623	C	C2'-C1'	-9.82	1.38	1.53
34	i	839	C	O4'-C1'	9.82	1.56	1.41
34	i	1577	C	C2'-C1'	-9.81	1.38	1.53
34	i	1044	G	O4'-C1'	9.80	1.56	1.41
34	i	1669	G	O4'-C1'	9.80	1.56	1.41
34	i	538	C	C2'-C1'	-9.80	1.38	1.53
34	i	414	C	O4'-C1'	9.80	1.56	1.41
34	i	548	G	C2'-C1'	-9.79	1.38	1.53
34	i	980	C	C2'-C1'	-9.76	1.38	1.53
34	i	900	A	O4'-C1'	9.76	1.56	1.41
34	i	1406	C	C2'-C1'	-9.75	1.38	1.53
34	i	1639	C	C2'-C1'	-9.74	1.38	1.53
34	i	521	A	O4'-C1'	9.74	1.56	1.41
34	i	144	U	C2'-C1'	-9.74	1.38	1.53
10	J	164	PRO	N-CA	-9.73	1.34	1.47
34	i	510	A	C2'-C1'	-9.73	1.38	1.53
34	i	1074	C	C2'-C1'	-9.73	1.38	1.53
34	i	479	A	O4'-C1'	9.71	1.56	1.41
34	i	1455	G	C2'-C1'	-9.70	1.38	1.53
34	i	1433	C	C2'-C1'	-9.68	1.38	1.53
34	i	1583	A	C2'-C1'	-9.68	1.38	1.53
8	H	110	THR	CA-C	-9.67	1.39	1.52
34	i	1792	C	O4'-C1'	9.67	1.56	1.41
34	i	964	U	O4'-C1'	9.67	1.56	1.41
31	e	120	VAL	CA-CB	-9.67	1.47	1.53
34	i	1128	C	C2'-C1'	-9.66	1.38	1.53
34	i	871	A	O4'-C1'	9.66	1.56	1.41
7	G	131	ARG	C-O	-9.65	1.11	1.23
34	i	1471	G	C2'-C1'	-9.65	1.38	1.53
34	i	635	C	O4'-C1'	9.64	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	84	A	O4'-C1'	9.63	1.56	1.41
10	J	163	SER	C-N	-9.61	1.21	1.33
34	i	542	G	C2'-C1'	-9.60	1.39	1.53
34	i	582	C	O4'-C1'	-9.59	1.27	1.42
34	i	1546	U	C2'-C1'	-9.57	1.39	1.53
34	i	1270	G	C2'-C1'	-9.56	1.38	1.53
34	i	1771	G	C2'-C1'	-9.55	1.39	1.53
34	i	4	C	O4'-C1'	9.54	1.55	1.41
34	i	1390	G	C2'-C1'	-9.54	1.39	1.53
34	i	1369	C	O4'-C1'	9.51	1.55	1.41
34	i	1585	C	O4'-C1'	9.51	1.55	1.41
34	i	1515	G	C2'-C1'	-9.51	1.39	1.53
12	L	151	THR	CA-C	9.50	1.64	1.52
34	i	1226	C	O4'-C1'	9.49	1.55	1.41
34	i	1600	G	C2'-C1'	-9.49	1.39	1.53
34	i	462	C	O4'-C1'	9.48	1.55	1.41
34	i	901	C	O4'-C1'	9.48	1.55	1.41
34	i	1122	G	C2'-C1'	-9.47	1.39	1.53
34	i	1715	U	C2'-C1'	9.47	1.67	1.53
34	i	1048	A	O4'-C1'	9.45	1.55	1.41
34	i	1792	C	C2'-C1'	-9.44	1.39	1.53
34	i	432	C	O4'-C1'	9.42	1.55	1.41
34	i	812	A	O4'-C1'	9.42	1.55	1.41
34	i	1448	A	O4'-C1'	9.41	1.56	1.42
34	i	308	C	O4'-C1'	9.40	1.55	1.41
25	Y	86	GLU	C-N	9.40	1.55	1.33
34	i	664	C	O4'-C1'	9.39	1.55	1.41
34	i	640	A	O4'-C1'	9.39	1.55	1.41
34	i	1603	U	O4'-C1'	9.39	1.55	1.41
34	i	1708	C	O4'-C1'	9.38	1.55	1.41
34	i	274	G	C2'-C1'	-9.38	1.39	1.53
34	i	726	C	C2'-C1'	-9.37	1.39	1.53
24	X	23	HIS	N-CA	-9.36	1.34	1.46
34	i	488	C	O4'-C1'	9.36	1.55	1.41
34	i	1176	C	O4'-C1'	9.34	1.55	1.41
24	X	115	ILE	N-CA	-9.34	1.38	1.46
34	i	853	U	C2'-C1'	-9.32	1.39	1.53
34	i	975	C	O4'-C1'	9.32	1.55	1.41
34	i	1578	C	O4'-C1'	9.32	1.55	1.41
34	i	1159	C	O4'-C1'	9.32	1.55	1.41
34	i	1496	G	O4'-C1'	9.32	1.55	1.41
34	i	352	C	O4'-C1'	9.32	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1160	G	C2'-C1'	-9.31	1.39	1.53
34	i	1632	A	C2'-C1'	9.30	1.67	1.53
34	i	1837	G	C2'-C1'	-9.30	1.39	1.53
34	i	868	A	O4'-C1'	-9.29	1.28	1.42
9	I	125	LYS	CA-C	9.28	1.64	1.52
34	i	282	G	C2'-C1'	-9.28	1.39	1.53
34	i	1209	C	O4'-C1'	9.28	1.55	1.41
34	i	741	C	C2'-C1'	-9.28	1.39	1.53
3	C	119	ASN	CA-C	-9.27	1.42	1.53
1	A	200	ASP	CA-C	-9.26	1.39	1.52
34	i	1786	G	C2'-C1'	-9.25	1.39	1.53
34	i	1079	A	C2'-C1'	-9.25	1.39	1.53
34	i	1105	C	O4'-C1'	-9.23	1.27	1.41
34	i	798	A	C2'-C1'	-9.22	1.39	1.53
34	i	546	U	C2'-C1'	-9.20	1.39	1.53
34	i	1481	U	O4'-C1'	9.18	1.55	1.41
34	i	1436	C	C2'-C1'	-9.14	1.39	1.53
34	i	646	G	C2'-C1'	-9.14	1.39	1.53
34	i	981	G	C2'-C1'	-9.14	1.39	1.53
34	i	1063	C	C2'-C1'	-9.14	1.39	1.53
34	i	1258	C	O4'-C1'	9.13	1.55	1.41
34	i	560	C	O4'-C1'	9.13	1.55	1.41
7	G	131	ARG	CG-CD	9.13	1.79	1.52
34	i	449	C	O4'-C1'	9.12	1.55	1.41
34	i	1003	C	C2'-C1'	-9.12	1.39	1.53
34	i	1700	C	O4'-C1'	9.12	1.55	1.41
34	i	155	G	C2'-C1'	-9.12	1.39	1.53
34	i	1165	G	C2'-C1'	-9.12	1.39	1.53
34	i	622	C	C2'-C1'	-9.11	1.39	1.53
34	i	633	A	O4'-C1'	9.11	1.55	1.42
3	C	47	PRO	N-CD	9.11	1.60	1.47
34	i	1300	U	C2'-C1'	-9.11	1.39	1.53
34	i	907	C	C2'-C1'	-9.11	1.39	1.53
19	S	82	TRP	CA-CB	-9.11	1.37	1.53
34	i	1778	G	O4'-C1'	9.10	1.55	1.41
34	i	529	C	O4'-C1'	9.09	1.55	1.41
34	i	487	C	O4'-C1'	9.09	1.55	1.41
19	S	10	GLN	CA-C	9.09	1.65	1.52
34	i	416	A	O4'-C1'	9.09	1.55	1.41
34	i	480	C	O4'-C1'	9.08	1.55	1.41
34	i	1326	G	C2'-C1'	-9.07	1.39	1.53
34	i	34	U	C2'-C1'	-9.06	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1376	C	C2'-C1'	-9.06	1.39	1.53
34	i	933	C	O4'-C1'	9.06	1.55	1.41
31	e	100	LYS	CA-C	-9.05	1.41	1.52
34	i	1076	A	O4'-C1'	-9.05	1.28	1.42
34	i	1835	C	O4'-C1'	9.06	1.55	1.41
34	i	1200	A	O4'-C1'	9.05	1.55	1.41
34	i	355	C	O4'-C1'	9.04	1.55	1.41
33	g	143	GLN	CA-C	-9.01	1.40	1.52
34	i	729	C	O4'-C1'	9.01	1.55	1.41
34	i	547	U	O4'-C1'	9.01	1.55	1.41
34	i	1128	C	O4'-C1'	9.00	1.55	1.41
34	i	1002	C	C2'-C1'	-9.00	1.39	1.53
34	i	230	C	O4'-C1'	8.99	1.55	1.41
34	i	558	C	O4'-C1'	8.99	1.55	1.41
34	i	143	U	O4'-C1'	8.98	1.55	1.42
34	i	170	A	O4'-C1'	-8.97	1.28	1.41
34	i	611	C	C2'-C1'	-8.96	1.40	1.53
19	S	6	PRO	CA-C	8.96	1.71	1.52
33	g	12	LYS	CA-C	-8.95	1.43	1.53
34	i	1312	C	C2'-C1'	-8.95	1.40	1.53
10	J	17	ARG	CA-C	-8.95	1.40	1.52
34	i	1280	A	O4'-C1'	8.94	1.55	1.42
34	i	1398	A	O4'-C1'	8.94	1.55	1.41
34	i	382	A	O4'-C1'	8.94	1.55	1.41
24	X	116	PRO	CA-C	8.93	1.65	1.52
34	i	1116	U	C2'-C1'	-8.93	1.40	1.53
34	i	1579	G	C2'-C1'	-8.93	1.39	1.53
34	i	1755	U	O4'-C1'	8.92	1.55	1.41
34	i	638	A	C2'-C1'	-8.92	1.40	1.53
14	N	14	SER	CA-C	-8.91	1.41	1.53
34	i	970	C	C2'-C1'	-8.91	1.40	1.53
34	i	1066	A	C2'-C1'	-8.90	1.40	1.53
11	K	89	ILE	N-CA	-8.90	1.35	1.46
34	i	1262	C	C2'-C1'	-8.89	1.40	1.53
34	i	1573	U	O4'-C1'	-8.89	1.28	1.42
34	i	825	C	O4'-C1'	8.89	1.55	1.42
11	K	35	LEU	CA-C	-8.88	1.40	1.52
34	i	1542	C	C2'-C1'	-8.88	1.40	1.53
27	a	63	VAL	CA-C	8.87	1.64	1.52
34	i	1573	U	C2'-C1'	8.86	1.66	1.53
34	i	1783	G	O4'-C1'	8.86	1.54	1.41
34	i	369	C	C2'-C1'	-8.85	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	977	A	O4'-C1'	8.85	1.54	1.41
34	i	1682	C	O4'-C1'	8.85	1.54	1.41
34	i	56	G	C2'-C1'	-8.84	1.40	1.53
34	i	1165	G	O4'-C1'	8.84	1.54	1.41
34	i	1261	A	C2'-C1'	-8.84	1.39	1.53
34	i	1377	G	O4'-C1'	-8.84	1.28	1.41
34	i	209	C	O4'-C1'	8.83	1.54	1.41
34	i	1272	A	O4'-C1'	8.83	1.54	1.41
34	i	316	C	O4'-C1'	8.82	1.55	1.42
34	i	869	G	C2'-C1'	-8.82	1.40	1.53
34	i	1404	U	C2'-C1'	-8.80	1.40	1.53
34	i	1524	C	C2'-C1'	-8.79	1.40	1.53
34	i	1827	C	O4'-C1'	8.79	1.54	1.41
34	i	142	C	O4'-C1'	-8.77	1.28	1.42
34	i	1737	C	C2'-C1'	-8.77	1.40	1.53
34	i	1600	G	O4'-C1'	8.77	1.54	1.41
34	i	1114	C	C2'-C1'	8.75	1.66	1.53
35	l	67	PHE	CA-C	-8.74	1.40	1.52
34	i	76	U	O4'-C1'	8.73	1.54	1.41
34	i	67	C	C2'-C1'	8.73	1.66	1.53
34	i	1133	U	O4'-C1'	8.72	1.54	1.41
34	i	971	G	C2'-C1'	-8.72	1.40	1.53
34	i	727	G	C2'-C1'	-8.71	1.40	1.53
34	i	1009	U	C2'-C1'	-8.71	1.40	1.53
34	i	1312	C	O4'-C1'	8.69	1.54	1.41
34	i	396	U	C2'-C1'	-8.69	1.40	1.53
34	i	956	U	O4'-C1'	8.68	1.54	1.41
34	i	1195	A	C2'-C1'	-8.68	1.40	1.53
34	i	809	A	O4'-C1'	8.66	1.54	1.41
34	i	1576	C	O4'-C1'	8.66	1.54	1.42
34	i	149	A	O4'-C1'	8.66	1.54	1.41
34	i	1787	A	O4'-C1'	8.66	1.54	1.41
34	i	670	G	C2'-C1'	-8.66	1.40	1.53
34	i	241	A	O4'-C1'	8.65	1.54	1.42
12	L	152	LYS	C-N	8.63	1.45	1.33
34	i	664	C	C2'-C1'	-8.62	1.40	1.53
9	I	6	ASP	N-CA	-8.61	1.35	1.46
34	i	111	A	O4'-C1'	-8.61	1.28	1.41
34	i	318	U	C2'-C1'	-8.60	1.40	1.53
34	i	946	C	O4'-C1'	8.60	1.54	1.41
34	i	1559	C	O4'-C1'	8.60	1.54	1.41
3	C	262	HIS	CA-C	-8.58	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	533	C	O4'-C1'	8.58	1.54	1.41
34	i	1096	A	O4'-C1'	8.58	1.54	1.41
34	i	1822	C	O4'-C1'	8.58	1.54	1.41
34	i	1006	G	O4'-C1'	-8.57	1.28	1.41
6	F	43	GLU	CA-C	-8.57	1.41	1.52
34	i	486	C	O4'-C1'	8.56	1.54	1.41
20	T	93	SER	CA-C	-8.56	1.44	1.53
34	i	1316	G	O4'-C1'	-8.55	1.28	1.41
34	i	805	A	C2'-C1'	-8.54	1.40	1.53
34	i	66	G	O4'-C1'	8.54	1.54	1.41
34	i	1678	C	O4'-C1'	8.53	1.54	1.41
34	i	392	C	O4'-C1'	8.52	1.54	1.41
34	i	906	G	C2'-C1'	-8.52	1.40	1.53
34	i	639	U	C2'-C1'	-8.52	1.40	1.53
34	i	833	A	C2'-C1'	-8.51	1.40	1.53
8	H	111	LYS	N-CA	8.51	1.58	1.46
10	J	144	ILE	C-N	8.51	1.44	1.34
34	i	96	C	O4'-C1'	8.50	1.54	1.41
34	i	1359	C	O4'-C1'	8.50	1.54	1.42
32	f	136	PHE	CA-C	-8.49	1.42	1.52
34	i	667	G	C2'-C1'	-8.49	1.40	1.53
34	i	313	C	O4'-C1'	8.48	1.54	1.42
34	i	589	A	C2'-C1'	-8.47	1.40	1.53
34	i	549	G	C2'-C1'	-8.47	1.40	1.53
34	i	471	C	C2'-C1'	-8.47	1.40	1.53
34	i	668	U	C2'-C1'	-8.46	1.40	1.53
34	i	539	C	C2'-C1'	-8.45	1.40	1.53
34	i	1296	U	O4'-C1'	-8.44	1.29	1.42
34	i	559	A	C2'-C1'	-8.44	1.40	1.53
34	i	507	C	O4'-C1'	8.42	1.54	1.41
34	i	298	G	O4'-C1'	-8.41	1.29	1.41
34	i	48	C	C2'-C1'	-8.40	1.40	1.53
34	i	1101	G	C2'-C1'	-8.40	1.40	1.53
34	i	976	A	C2'-C1'	-8.39	1.40	1.53
21	U	107	GLU	CA-C	8.38	1.63	1.52
34	i	500	G	C2'-C1'	-8.37	1.40	1.53
34	i	1112	C	O4'-C1'	-8.37	1.29	1.42
34	i	743	U	O4'-C1'	8.36	1.54	1.41
34	i	851	G	C2'-C1'	-8.36	1.40	1.53
34	i	1120	C	O4'-C1'	8.36	1.54	1.41
34	i	1572	G	O4'-C1'	8.36	1.54	1.41
3	C	161	LYS	CA-C	-8.35	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1323	G	C2'-C1'	-8.35	1.40	1.53
8	H	36	LEU	CA-C	-8.35	1.41	1.52
34	i	1202	G	C2'-C1'	-8.34	1.40	1.53
8	H	14	GLU	CA-C	-8.34	1.42	1.52
34	i	77	A	C2'-C1'	8.33	1.65	1.53
34	i	419	C	O4'-C1'	8.33	1.54	1.41
34	i	1251	G	O4'-C1'	8.31	1.54	1.41
34	i	448	A	O4'-C1'	8.31	1.54	1.41
34	i	947	C	C2'-C1'	-8.29	1.41	1.53
34	i	1025	G	C2'-C1'	-8.29	1.41	1.53
34	i	67	C	O4'-C1'	-8.29	1.29	1.41
34	i	1775	A	C2'-C1'	-8.28	1.41	1.53
34	i	445	A	O4'-C1'	8.28	1.54	1.41
34	i	150	A	O4'-C1'	8.28	1.54	1.41
34	i	288	A	C2'-C1'	-8.27	1.41	1.53
34	i	457	G	O4'-C1'	8.26	1.54	1.41
9	I	132	GLU	C-N	8.25	1.45	1.33
34	i	1015	C	C2'-C1'	-8.25	1.41	1.53
26	Z	104	ARG	N-CA	-8.24	1.35	1.46
13	M	116	LYS	N-CA	8.24	1.56	1.46
34	i	1653	G	C2'-C1'	-8.24	1.41	1.53
34	i	323	G	C2'-C1'	-8.24	1.41	1.53
34	i	335	U	C2'-C1'	-8.23	1.41	1.53
34	i	436	G	C2'-C1'	-8.23	1.41	1.53
34	i	657	U	O4'-C1'	8.23	1.54	1.41
25	Y	91	LEU	N-CA	-8.23	1.36	1.46
31	e	120	VAL	CA-C	-8.23	1.45	1.52
34	i	936	U	C2'-C1'	-8.21	1.41	1.53
34	i	1260	C	C2'-C1'	-8.21	1.40	1.53
34	i	395	G	C2'-C1'	-8.21	1.41	1.53
3	C	98	GLN	N-CA	8.20	1.55	1.46
34	i	1464	C	O4'-C1'	8.20	1.53	1.41
34	i	884	U	O4'-C1'	8.19	1.53	1.41
34	i	1120	C	C2'-C1'	-8.18	1.41	1.53
34	i	452	C	C2'-C1'	-8.16	1.41	1.53
34	i	1339	U	O4'-C1'	8.16	1.53	1.41
34	i	938	G	C2'-C1'	-8.16	1.41	1.53
34	i	1220	G	C2'-C1'	-8.16	1.41	1.53
34	i	1301	C	O4'-C1'	8.16	1.53	1.41
34	i	402	G	C2'-C1'	-8.15	1.41	1.53
11	K	35	LEU	N-CA	-8.15	1.35	1.46
3	C	193	PRO	N-CD	8.15	1.59	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	I	133	GLU	C-N	8.15	1.44	1.33
34	i	1029	G	O4'-C1'	8.14	1.53	1.41
34	i	1101	G	O4'-C1'	8.14	1.53	1.41
34	i	173	A	O4'-C1'	8.14	1.53	1.41
34	i	678	U	O4'-C1'	-8.14	1.29	1.42
34	i	311	C	O4'-C1'	8.12	1.53	1.41
12	L	20	LYS	N-CA	-8.12	1.35	1.46
8	H	118	ARG	CA-C	-8.11	1.40	1.52
34	i	212	G	O4'-C1'	8.10	1.53	1.41
34	i	360	G	C2'-C1'	-8.10	1.40	1.53
34	i	1025	G	O4'-C1'	8.10	1.53	1.41
34	i	347	C	C2'-C1'	-8.10	1.41	1.53
34	i	691	G	C2'-C1'	-8.10	1.41	1.53
18	R	89	SER	N-CA	8.10	1.56	1.46
34	i	614	C	O4'-C1'	8.09	1.53	1.41
34	i	927	C	O4'-C1'	8.09	1.53	1.41
34	i	1289	A	C2'-C1'	-8.09	1.41	1.53
34	i	726	C	O4'-C1'	8.08	1.53	1.41
34	i	980	C	O4'-C1'	8.08	1.53	1.41
34	i	1328	A	O4'-C1'	8.08	1.53	1.41
7	G	180	VAL	CA-CB	-8.07	1.43	1.54
34	i	1337	C	O4'-C1'	8.05	1.54	1.42
34	i	171	A	O4'-C1'	-8.05	1.29	1.42
34	i	944	C	O4'-C1'	8.05	1.53	1.41
34	i	1813	A	C2'-C1'	-8.04	1.41	1.53
34	i	1403	U	C2'-C1'	-8.04	1.41	1.53
34	i	1834	U	C2'-C1'	-8.03	1.41	1.53
34	i	1622	C	O4'-C1'	8.01	1.53	1.41
34	i	939	U	O4'-C1'	8.01	1.53	1.41
34	i	618	A	O4'-C1'	-8.01	1.29	1.41
34	i	1735	C	O4'-C1'	8.01	1.53	1.41
34	i	870	G	C2'-C1'	-8.01	1.41	1.53
34	i	547	U	C2'-C1'	-8.00	1.41	1.53
34	i	481	C	O4'-C1'	8.00	1.53	1.41
34	i	1557	C	O4'-C1'	8.00	1.53	1.41
34	i	790	A	O4'-C1'	7.99	1.53	1.41
1	A	159	ILE	CA-CB	-7.98	1.43	1.54
34	i	1568	G	C2'-C1'	-7.98	1.41	1.53
34	i	839	C	C2'-C1'	-7.97	1.41	1.53
35	l	97	LEU	CA-C	7.97	1.62	1.52
34	i	1729	G	C2'-C1'	-7.97	1.41	1.53
3	C	98	GLN	CA-C	7.96	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	53	C	O4'-C1'	7.96	1.53	1.41
34	i	285	U	O4'-C1'	7.96	1.53	1.42
34	i	1729	G	O4'-C1'	7.96	1.53	1.41
34	i	1716	U	C2'-C1'	7.96	1.65	1.53
34	i	1460	C	O4'-C1'	7.96	1.53	1.41
34	i	483	A	C2'-C1'	-7.96	1.41	1.53
34	i	414	C	C2'-C1'	-7.95	1.41	1.53
34	i	685	G	C1'-N9	-7.95	1.36	1.48
34	i	1238	U	C2'-C1'	-7.94	1.41	1.53
34	i	666	C	O4'-C1'	7.94	1.53	1.41
12	L	102	PHE	C-O	7.93	1.34	1.23
34	i	1050	G	C2'-C1'	-7.93	1.41	1.53
26	Z	103	HIS	C-N	-7.92	1.22	1.33
34	i	332	C	O4'-C1'	7.92	1.53	1.41
34	i	1527	C	C2'-C1'	-7.92	1.41	1.53
34	i	1208	G	C2'-C1'	-7.92	1.41	1.53
10	J	18	ARG	CA-C	-7.91	1.42	1.52
28	b	36	LYS	CA-C	7.90	1.62	1.52
24	X	115	ILE	C-O	-7.90	1.14	1.24
34	i	683	G	O4'-C1'	7.89	1.53	1.41
34	i	895	U	O4'-C1'	7.88	1.53	1.41
34	i	883	U	O4'-C1'	-7.87	1.30	1.42
34	i	1565	G	O4'-C1'	-7.87	1.29	1.41
34	i	507	C	C2'-C1'	-7.86	1.41	1.53
25	Y	33	ALA	CA-C	-7.86	1.42	1.52
34	i	54	A	C2'-C1'	-7.86	1.41	1.53
34	i	1207	G	C2'-C1'	-7.86	1.41	1.53
34	i	1547	G	C2'-C1'	7.86	1.65	1.53
34	i	804	A	O4'-C1'	7.85	1.53	1.41
34	i	1684	C	C2'-C1'	-7.85	1.41	1.53
34	i	1850	C	O4'-C1'	7.85	1.53	1.41
34	i	1807	A	C2'-C1'	-7.85	1.41	1.53
34	i	1780	U	O4'-C1'	7.84	1.53	1.41
34	i	605	C	C2'-C1'	-7.83	1.41	1.53
34	i	1341	G	O4'-C1'	7.83	1.53	1.41
34	i	106	C	O4'-C1'	7.83	1.53	1.41
34	i	1049	C	O4'-C1'	7.83	1.53	1.41
34	i	1257	C	C2'-C1'	-7.83	1.41	1.53
34	i	1301	C	C2'-C1'	-7.83	1.41	1.53
34	i	286	C	C2'-C1'	-7.82	1.41	1.53
34	i	373	G	O4'-C1'	7.81	1.53	1.41
34	i	1018	U	O4'-C1'	7.81	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	69	C	O4'-C1'	7.80	1.53	1.41
10	J	186	GLY	C-N	7.80	1.40	1.33
34	i	653	C	O4'-C1'	7.80	1.53	1.41
34	i	1259	U	C2'-C1'	-7.80	1.41	1.53
34	i	689	G	C1'-N9	-7.80	1.36	1.48
34	i	1481	U	C2'-C1'	-7.79	1.41	1.53
34	i	211	U	O4'-C1'	7.78	1.53	1.41
34	i	327	C	C2'-C1'	-7.77	1.41	1.53
34	i	1533	C	O4'-C1'	7.75	1.53	1.41
27	a	98	PRO	CA-C	7.73	1.59	1.52
34	i	1385	C	O4'-C1'	7.73	1.53	1.41
34	i	1791	U	O4'-C1'	7.72	1.53	1.41
34	i	875	C	C2'-C1'	-7.71	1.41	1.53
10	J	165	TYR	N-CA	-7.71	1.36	1.46
12	L	152	LYS	CA-C	-7.71	1.42	1.52
7	G	131	ARG	CA-C	7.70	1.62	1.52
34	i	1375	A	C2'-C1'	-7.70	1.41	1.53
34	i	1230	C	C2'-C1'	-7.69	1.41	1.53
34	i	50	A	C2'-C1'	-7.69	1.41	1.53
34	i	1752	G	C2'-C1'	-7.69	1.41	1.53
34	i	984	C	C2'-C1'	-7.67	1.41	1.53
22	V	67	ASP	N-CA	-7.67	1.37	1.46
34	i	315	C	C2'-C1'	7.67	1.64	1.53
34	i	1324	G	C2'-C1'	-7.66	1.41	1.53
34	i	916	A	C2'-C1'	-7.66	1.41	1.53
34	i	1142	C	O4'-C1'	7.66	1.53	1.41
34	i	79	A	C2'-C1'	7.66	1.64	1.53
34	i	178	C	O4'-C1'	7.66	1.53	1.41
34	i	220	C	O4'-C1'	7.66	1.53	1.41
11	K	89	ILE	CA-C	-7.65	1.43	1.52
11	K	31	LYS	N-CA	-7.65	1.36	1.46
34	i	1578	C	C2'-C1'	-7.64	1.41	1.53
34	i	1407	G	O4'-C1'	7.64	1.53	1.41
34	i	1054	A	O4'-C1'	7.63	1.53	1.41
34	i	1400	U	C2'-C1'	-7.63	1.41	1.53
34	i	1571	G	O4'-C1'	7.63	1.53	1.41
34	i	853	U	O4'-C1'	7.63	1.53	1.41
34	i	1478	C	O4'-C1'	7.63	1.53	1.41
34	i	1624	C	C2'-C1'	-7.63	1.42	1.53
34	i	16	G	C2'-C1'	-7.62	1.42	1.53
34	i	1465	A	O4'-C1'	7.62	1.53	1.41
34	i	1742	C	O3'-P	-7.62	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1486	G	C2'-C1'	-7.62	1.42	1.53
34	i	510	A	O4'-C1'	7.62	1.53	1.41
34	i	380	C	O4'-C1'	7.61	1.53	1.41
34	i	97	U	O4'-C1'	7.60	1.53	1.41
34	i	385	G	C2'-C1'	-7.60	1.42	1.53
27	a	96	THR	C-N	7.59	1.42	1.33
34	i	352	C	C2'-C1'	-7.59	1.42	1.53
34	i	1104	G	O4'-C1'	-7.59	1.30	1.41
34	i	1370	C	O4'-C1'	7.58	1.53	1.41
34	i	575	C	O4'-C1'	7.58	1.53	1.41
18	R	121	GLN	CA-C	7.58	1.62	1.52
34	i	1456	C	O4'-C1'	7.58	1.53	1.41
34	i	41	G	O4'-C1'	7.57	1.53	1.42
34	i	178	C	C2'-C1'	-7.57	1.42	1.53
34	i	194	C	O4'-C1'	7.57	1.52	1.41
34	i	410	G	C2'-C1'	-7.57	1.42	1.53
13	M	116	LYS	CA-C	7.56	1.62	1.52
34	i	936	U	O4'-C1'	7.55	1.52	1.41
34	i	26	U	O4'-C1'	7.55	1.52	1.41
34	i	52	G	C2'-C1'	-7.54	1.42	1.53
34	i	653	C	C2'-C1'	-7.54	1.42	1.53
34	i	1221	U	O4'-C1'	7.54	1.52	1.41
34	i	1411	C	C2'-C1'	-7.54	1.42	1.53
34	i	1779	C	C2'-C1'	7.54	1.64	1.53
2	B	155	TYR	CA-C	-7.53	1.43	1.53
11	K	40	VAL	CA-CB	-7.53	1.44	1.54
34	i	1504	A	C2'-C1'	7.53	1.64	1.53
26	Z	104	ARG	CD-NE	-7.52	1.35	1.46
34	i	1271	G	C2'-C1'	-7.52	1.42	1.53
34	i	1434	A	O4'-C1'	7.51	1.52	1.41
34	i	540	C	O4'-C1'	7.51	1.52	1.41
34	i	1304	U	O4'-C1'	-7.51	1.30	1.42
34	i	1560	C	O4'-C1'	7.51	1.52	1.41
2	B	41	ILE	N-CA	-7.51	1.36	1.46
34	i	189	G	O4'-C1'	7.51	1.52	1.41
34	i	1775	A	O4'-C1'	7.50	1.52	1.41
34	i	844	U	O4'-C1'	7.50	1.52	1.41
34	i	1813	A	O4'-C1'	7.49	1.52	1.41
10	J	101	LYS	CA-C	7.49	1.62	1.52
34	i	670	G	O4'-C1'	7.49	1.52	1.41
34	i	1098	G	C2'-C1'	-7.49	1.42	1.53
34	i	1829	A	O4'-C1'	7.49	1.53	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1158	C	O4'-C1'	7.48	1.52	1.41
34	i	1410	A	C2'-C1'	-7.48	1.42	1.53
34	i	823	A	C2'-C1'	-7.47	1.42	1.53
34	i	30	C	O4'-C1'	7.46	1.52	1.41
34	i	50	A	O4'-C1'	7.46	1.52	1.41
34	i	84	A	C2'-C1'	-7.46	1.42	1.53
34	i	437	A	C2'-C1'	7.45	1.64	1.53
34	i	683	G	C2'-C1'	-7.45	1.42	1.53
34	i	1617	U	C2'-C1'	-7.44	1.41	1.53
34	i	1682	C	C2'-C1'	-7.44	1.42	1.53
34	i	75	G	C2'-C1'	-7.44	1.42	1.53
34	i	235	C	O4'-C1'	7.44	1.52	1.41
34	i	1611	U	O4'-C1'	7.43	1.52	1.41
34	i	563	U	C2'-C1'	-7.42	1.42	1.53
34	i	596	G	O4'-C1'	-7.42	1.30	1.42
34	i	17	C	O4'-C1'	7.42	1.52	1.41
34	i	543	U	O4'-C1'	7.42	1.52	1.41
34	i	1181	C	C2'-C1'	-7.42	1.42	1.53
34	i	1345	G	O4'-C1'	7.42	1.52	1.41
34	i	1212	C	O4'-C1'	7.41	1.52	1.41
34	i	1825	A	O4'-C1'	7.41	1.52	1.41
34	i	1309	A	C2'-C1'	-7.41	1.42	1.53
34	i	1624	C	O4'-C1'	7.41	1.52	1.41
34	i	453	C	O4'-C1'	7.40	1.52	1.41
34	i	311	C	C2'-C1'	-7.40	1.42	1.53
34	i	1630	C	O4'-C1'	7.39	1.52	1.41
21	U	68	THR	CA-C	7.39	1.62	1.53
34	i	1740	A	C2'-C1'	7.37	1.64	1.53
34	i	409	G	O4'-C1'	7.37	1.52	1.41
34	i	1071	C	C2'-C1'	-7.37	1.42	1.53
34	i	1440	U	O4'-C1'	7.37	1.52	1.41
34	i	1139	A	C2'-C1'	-7.37	1.42	1.53
7	G	36	VAL	N-CA	-7.36	1.37	1.46
34	i	649	G	O4'-C1'	-7.36	1.30	1.41
34	i	1185	A	O4'-C1'	7.36	1.52	1.41
34	i	443	C	O4'-C1'	7.36	1.52	1.41
34	i	82	G	C2'-C1'	7.36	1.64	1.53
34	i	1651	G	C2'-C1'	-7.35	1.42	1.53
34	i	1527	C	O4'-C1'	7.35	1.52	1.41
34	i	1325	U	O4'-C1'	7.35	1.52	1.41
34	i	1819	A	C2'-C1'	7.35	1.64	1.53
6	F	108	PRO	N-CD	7.34	1.58	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	S	88	LYS	N-CA	-7.33	1.36	1.46
34	i	1467	C	C2'-C1'	-7.33	1.42	1.53
14	N	137	PRO	N-CD	7.33	1.58	1.47
34	i	1861	U	O4'-C1'	-7.33	1.30	1.42
34	i	193	C	C2'-C1'	-7.33	1.42	1.53
34	i	1766	C	C2'-C1'	-7.33	1.42	1.53
34	i	120	U	C2'-C1'	-7.33	1.42	1.53
34	i	1223	G	O4'-C1'	7.32	1.52	1.41
34	i	1264	C	O4'-C1'	7.32	1.52	1.41
34	i	1594	U	C2'-C1'	7.32	1.64	1.53
34	i	824	G	O4'-C1'	-7.31	1.30	1.41
34	i	1209	C	C2'-C1'	-7.29	1.42	1.53
34	i	855	G	C2'-C1'	-7.28	1.42	1.53
7	G	121	ILE	CA-C	-7.28	1.45	1.52
34	i	588	G	C2'-C1'	-7.28	1.42	1.53
34	i	1029	G	C2'-C1'	-7.28	1.42	1.53
34	i	1577	C	O4'-C1'	7.28	1.52	1.41
34	i	236	C	O4'-C1'	7.27	1.52	1.41
19	S	87	GLN	C-N	-7.26	1.24	1.33
34	i	1807	A	O4'-C1'	7.26	1.52	1.41
34	i	428	G	C2'-C1'	7.26	1.64	1.53
34	i	937	C	O4'-C1'	7.26	1.52	1.41
34	i	560	C	C2'-C1'	-7.25	1.42	1.53
34	i	625	G	O4'-C1'	7.25	1.52	1.41
34	i	1476	A	O4'-C1'	7.25	1.52	1.41
34	i	923	C	O4'-C1'	7.24	1.52	1.41
34	i	1201	C	C2'-C1'	-7.24	1.42	1.53
34	i	528	U	O4'-C1'	7.24	1.52	1.41
34	i	1661	C	O4'-C1'	7.24	1.52	1.41
34	i	1428	U	C2'-C1'	-7.23	1.42	1.53
34	i	176	U	O4'-C1'	7.22	1.52	1.41
16	P	18	ARG	CA-CB	7.21	1.62	1.52
34	i	902	U	O4'-C1'	7.21	1.52	1.41
34	i	1055	G	C2'-C1'	-7.21	1.42	1.53
34	i	1079	A	O4'-C1'	7.21	1.52	1.41
34	i	159	A	O4'-C1'	7.20	1.52	1.41
34	i	317	G	O4'-C1'	-7.20	1.31	1.42
34	i	219	U	O4'-C1'	7.20	1.52	1.41
11	K	40	VAL	CA-C	-7.19	1.45	1.52
34	i	85	A	C2'-C1'	-7.19	1.42	1.53
3	C	105	GLN	N-CA	7.19	1.55	1.45
34	i	1679	C	O4'-C1'	7.18	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	564	A	C2'-C1'	-7.18	1.42	1.53
34	i	1183	G	O4'-C1'	7.18	1.52	1.41
34	i	348	C	O4'-C1'	7.17	1.52	1.41
34	i	604	G	C1'-N9	-7.16	1.36	1.47
10	J	144	ILE	CA-C	-7.15	1.45	1.52
34	i	1585	C	C2'-C1'	-7.15	1.42	1.53
34	i	1329	U	C2'-C1'	7.15	1.64	1.53
34	i	1785	A	O4'-C1'	7.15	1.52	1.41
34	i	557	C	O4'-C1'	7.15	1.52	1.41
34	i	1320	G	C2'-C1'	-7.15	1.42	1.53
34	i	1252	G	O4'-C1'	7.14	1.52	1.41
34	i	932	G	C2'-C1'	-7.14	1.42	1.53
25	Y	103	SER	C-N	7.14	1.43	1.33
34	i	1204	A	C2'-C1'	7.14	1.64	1.53
34	i	1338	U	C2'-C1'	-7.13	1.42	1.53
34	i	481	C	C2'-C1'	-7.12	1.42	1.53
34	i	654	A	C2'-C1'	-7.12	1.42	1.53
27	a	10	ARG	NE-CZ	7.11	1.40	1.33
34	i	1437	U	C2'-C1'	7.11	1.63	1.53
4	D	193	ASP	N-CA	-7.11	1.40	1.46
34	i	888	U	C2'-C1'	-7.11	1.42	1.53
34	i	1150	U	O4'-C1'	-7.11	1.31	1.42
34	i	875	C	O4'-C1'	7.11	1.52	1.41
10	J	187	ALA	N-CA	7.10	1.57	1.46
34	i	1480	A	O4'-C1'	7.09	1.52	1.41
34	i	234	C	C2'-C1'	7.09	1.63	1.53
34	i	487	C	C2'-C1'	-7.08	1.42	1.53
34	i	1086	C	O4'-C1'	7.08	1.52	1.41
34	i	1462	G	C2'-C1'	-7.08	1.42	1.53
34	i	511	A	C2'-C1'	-7.08	1.42	1.53
19	S	6	PRO	C-N	7.07	1.43	1.33
34	i	164	A	O4'-C1'	7.07	1.52	1.41
34	i	1140	A	O4'-C1'	7.07	1.52	1.41
34	i	1808	G	C2'-C1'	-7.07	1.42	1.53
34	i	1432	C	C2'-C1'	-7.07	1.42	1.53
34	i	965	U	O4'-C1'	7.06	1.52	1.42
34	i	544	A	C2'-C1'	-7.06	1.42	1.53
26	Z	112	ASN	CA-C	7.05	1.61	1.52
34	i	1031	A	C2'-C1'	-7.05	1.42	1.53
34	i	88	G	C2'-C1'	-7.05	1.42	1.53
34	i	799	C	C2'-C1'	-7.05	1.42	1.53
34	i	13	C	C2'-C1'	-7.04	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1309	A	O4'-C1'	7.04	1.52	1.42
10	J	89	GLU	N-CA	7.04	1.54	1.46
34	i	537	G	O4'-C1'	7.04	1.52	1.41
34	i	727	G	O4'-C1'	7.04	1.52	1.41
33	g	143	GLN	N-CA	-7.03	1.37	1.46
34	i	1390	G	O4'-C1'	7.03	1.52	1.41
34	i	1784	A	C2'-C1'	-7.03	1.42	1.53
11	K	80	ARG	CA-C	-7.02	1.43	1.52
34	i	1028	C	O4'-C1'	7.01	1.52	1.41
34	i	1861	U	C2'-C1'	7.00	1.63	1.53
15	O	103	ASN	CA-C	-7.00	1.42	1.52
34	i	1707	A	C2'-C1'	-7.00	1.42	1.53
34	i	829	C	C2'-C1'	-7.00	1.42	1.53
34	i	31	U	C2'-C1'	6.99	1.63	1.53
34	i	1099	C	C2'-C1'	-6.99	1.42	1.53
34	i	1536	G	C2'-C1'	-6.99	1.42	1.53
34	i	1781	G	C2'-C1'	-6.99	1.42	1.53
34	i	1794	A	O4'-C1'	6.99	1.52	1.41
34	i	1450	A	O4'-C1'	6.99	1.52	1.41
34	i	1201	C	O4'-C1'	6.99	1.52	1.41
34	i	463	A	O4'-C1'	6.97	1.52	1.41
34	i	1790	G	C2'-C1'	-6.97	1.42	1.53
34	i	1522	C	O4'-C1'	6.97	1.52	1.41
34	i	959	A	O4'-C1'	-6.96	1.31	1.41
34	i	908	C	O4'-C1'	6.96	1.52	1.42
34	i	1211	C	C2'-C1'	6.96	1.63	1.53
34	i	624	A	O4'-C1'	6.96	1.52	1.41
34	i	298	G	C2'-C1'	6.95	1.63	1.53
34	i	593	C	O4'-C1'	6.95	1.52	1.42
34	i	1705	C	O4'-C1'	6.95	1.52	1.41
34	i	1548	C	C2'-C1'	6.95	1.63	1.53
34	i	1534	U	C2'-C1'	6.95	1.63	1.53
18	R	87	GLU	CA-C	-6.94	1.43	1.52
34	i	1367	U	O4'-C1'	6.94	1.52	1.42
34	i	369	C	O4'-C1'	6.93	1.52	1.41
34	i	863	G	O4'-C1'	6.93	1.52	1.41
34	i	1669	G	C2'-C1'	-6.93	1.43	1.53
34	i	1107	U	O4'-C1'	6.93	1.52	1.41
10	J	164	PRO	CA-CB	-6.93	1.44	1.53
34	i	1402	G	C2'-C1'	-6.93	1.43	1.53
34	i	1623	C	O4'-C1'	6.92	1.52	1.41
34	i	359	C	C2'-C1'	-6.92	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	599	U	O4'-C1'	6.92	1.52	1.41
34	i	1503	G	C2'-C1'	-6.92	1.42	1.53
34	i	166	A	C2'-C1'	-6.91	1.43	1.53
34	i	645	A	C2'-C1'	-6.91	1.42	1.53
8	H	109	ARG	N-CA	-6.91	1.37	1.46
34	i	675	A	C2'-C1'	-6.91	1.43	1.53
34	i	630	A	O4'-C1'	6.90	1.52	1.41
10	J	100	LEU	N-CA	6.90	1.54	1.45
34	i	1440	U	C2'-C1'	-6.90	1.43	1.53
34	i	440	C	C2'-C1'	6.89	1.63	1.53
34	i	829	C	O4'-C1'	6.89	1.51	1.41
34	i	988	A	O4'-C1'	6.89	1.51	1.41
34	i	1818	A	O4'-C1'	-6.89	1.31	1.41
34	i	1824	U	O4'-C1'	6.87	1.52	1.42
34	i	1713	G	C2'-C1'	-6.87	1.43	1.53
34	i	1604	C	O4'-C1'	6.86	1.51	1.41
7	G	157	VAL	CA-C	-6.86	1.44	1.52
34	i	536	G	O4'-C1'	6.85	1.51	1.41
34	i	739	U	O4'-C1'	6.84	1.52	1.42
11	K	93	THR	CA-CB	6.83	1.63	1.53
15	O	129	ILE	CA-CB	-6.83	1.45	1.54
34	i	1261	A	O4'-C1'	6.83	1.52	1.42
34	i	399	C	O4'-C1'	6.82	1.51	1.41
34	i	1118	A	C2'-C1'	6.82	1.63	1.53
34	i	336	C	O4'-C1'	6.82	1.51	1.41
34	i	1123	C	O4'-C1'	6.82	1.51	1.41
34	i	1477	G	C2'-C1'	-6.82	1.43	1.53
34	i	1403	U	O4'-C1'	6.81	1.51	1.41
34	i	969	C	O4'-C1'	6.81	1.51	1.41
34	i	1321	G	O4'-C1'	6.80	1.51	1.41
34	i	190	A	O4'-C1'	6.79	1.51	1.41
12	L	151	THR	CA-CB	6.79	1.62	1.53
34	i	1126	G	O4'-C1'	-6.78	1.31	1.41
34	i	1275	C	C2'-C1'	6.77	1.63	1.53
34	i	1365	A	C2'-C1'	-6.77	1.43	1.53
34	i	337	G	O4'-C1'	6.77	1.51	1.41
34	i	447	C	O4'-C1'	6.75	1.51	1.41
34	i	492	C	O4'-C1'	6.75	1.52	1.42
34	i	1618	A	C2'-C1'	6.74	1.63	1.53
34	i	367	G	C2'-C1'	-6.74	1.43	1.53
34	i	1849	G	C2'-C1'	-6.74	1.43	1.53
6	F	130	ARG	N-CA	6.74	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1607	G	C2'-C1'	6.73	1.63	1.53
34	i	1027	A	O4'-C1'	6.73	1.51	1.41
34	i	880	C	O4'-C1'	6.72	1.51	1.41
34	i	1638	U	O4'-C1'	6.71	1.51	1.41
34	i	42	A	C2'-C1'	-6.71	1.43	1.53
34	i	275	C	O4'-C1'	6.71	1.51	1.41
34	i	1071	C	O4'-C1'	6.71	1.51	1.41
34	i	1327	C	O4'-C1'	6.71	1.52	1.42
9	I	54	LYS	C-N	-6.71	1.24	1.33
34	i	666	C	C2'-C1'	-6.71	1.43	1.53
34	i	1579	G	O4'-C1'	6.71	1.52	1.42
34	i	827	G	C2'-C1'	-6.70	1.43	1.53
34	i	1796	C	O4'-C1'	6.70	1.51	1.41
4	D	94	ARG	CA-C	-6.70	1.43	1.52
34	i	405	A	C2'-C1'	6.70	1.63	1.53
24	X	77	ASN	CA-C	-6.70	1.42	1.52
34	i	563	U	O4'-C1'	6.70	1.51	1.41
34	i	650	C	C2'-C1'	-6.70	1.43	1.53
34	i	452	C	O4'-C1'	6.69	1.51	1.41
4	D	4	GLN	CA-C	-6.68	1.43	1.52
34	i	37	C	O4'-C1'	6.68	1.51	1.41
34	i	49	C	O4'-C1'	6.68	1.51	1.41
34	i	49	C	C2'-C1'	-6.68	1.43	1.53
34	i	1559	C	C2'-C1'	-6.68	1.43	1.53
34	i	1385	C	C2'-C1'	-6.68	1.43	1.53
34	i	1744	G	C2'-C1'	-6.68	1.43	1.53
2	B	21	VAL	CA-CB	-6.67	1.45	1.54
34	i	1332	C	O4'-C1'	6.66	1.51	1.41
4	D	193	ASP	CA-C	-6.66	1.44	1.52
28	b	26	GLN	CA-C	-6.66	1.44	1.53
34	i	1040	G	C2'-C1'	-6.66	1.43	1.53
34	i	1177	A	C2'-C1'	-6.66	1.43	1.53
34	i	1187	C	O4'-C1'	6.65	1.51	1.41
13	M	52	LEU	CA-C	-6.64	1.50	1.53
34	i	872	C	O4'-C1'	6.64	1.51	1.41
3	C	105	GLN	CA-C	6.64	1.62	1.53
34	i	60	A	O4'-C1'	-6.63	1.31	1.41
31	e	77	HIS	C-N	6.63	1.43	1.33
34	i	1299	C	O4'-C1'	-6.63	1.31	1.41
34	i	1028	C	C2'-C1'	-6.63	1.43	1.53
34	i	1692	A	C2'-C1'	6.62	1.62	1.53
34	i	544	A	O4'-C1'	-6.62	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1245	C	O4'-C1'	6.62	1.51	1.41
34	i	1382	A	O4'-C1'	6.62	1.51	1.41
34	i	725	C	O4'-C1'	6.62	1.51	1.41
34	i	972	G	C2'-C1'	-6.62	1.43	1.53
34	i	1423	C	O4'-C1'	6.62	1.51	1.41
16	P	37	TYR	C-N	6.61	1.43	1.33
34	i	1646	A	C2'-C1'	6.60	1.63	1.53
34	i	820	C	O4'-C1'	6.60	1.51	1.41
34	i	938	G	O4'-C1'	6.59	1.51	1.41
34	i	1823	G	O4'-C1'	6.58	1.51	1.41
34	i	1633	G	O4'-C1'	6.58	1.51	1.41
28	b	53	VAL	CA-CB	-6.58	1.46	1.54
34	i	1647	G	C2'-C1'	-6.58	1.43	1.53
10	J	100	LEU	CA-C	6.58	1.62	1.53
24	X	24	ASP	N-CA	-6.57	1.37	1.46
34	i	518	A	O4'-C1'	6.57	1.51	1.41
34	i	1045	A	O4'-C1'	-6.57	1.31	1.41
34	i	859	U	O4'-C1'	6.57	1.51	1.41
34	i	1343	U	O4'-C1'	6.57	1.51	1.41
34	i	900	A	C2'-C1'	-6.57	1.43	1.53
1	A	53	ARG	CA-CB	-6.56	1.43	1.53
34	i	818	U	O4'-C1'	6.55	1.51	1.41
34	i	204	G	C2'-C1'	6.55	1.63	1.53
1	A	194	PRO	CA-C	6.54	1.61	1.52
12	L	20	LYS	CA-C	6.54	1.61	1.52
34	i	1041	U	O4'-C1'	6.54	1.51	1.41
34	i	1384	A	O4'-C1'	6.54	1.51	1.41
34	i	170	A	C2'-C1'	-6.53	1.43	1.53
34	i	741	C	O3'-P	-6.53	1.51	1.61
1	A	159	ILE	CA-C	-6.53	1.44	1.52
3	C	46	LEU	CA-C	-6.53	1.46	1.52
3	C	72	PRO	N-CD	6.53	1.56	1.47
34	i	1425	G	O3'-P	-6.52	1.51	1.61
34	i	846	C	O4'-C1'	6.52	1.51	1.41
34	i	292	A	C2'-C1'	6.51	1.63	1.53
34	i	442	G	O4'-C1'	6.51	1.51	1.41
34	i	1288	C	C2'-C1'	-6.51	1.43	1.53
21	U	69	PRO	N-CA	-6.50	1.39	1.47
34	i	1292	U	O4'-C1'	6.50	1.51	1.41
34	i	1799	G	O4'-C1'	6.49	1.51	1.41
34	i	939	U	C2'-C1'	-6.49	1.43	1.53
34	i	1336	U	C2'-C1'	6.49	1.63	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	386	U	O4'-C1'	6.49	1.51	1.41
34	i	1176	C	C2'-C1'	-6.49	1.43	1.53
34	i	147	A	C2'-C1'	6.48	1.62	1.53
34	i	1039	G	C2'-C1'	-6.47	1.43	1.53
34	i	342	U	O4'-C1'	6.47	1.51	1.41
34	i	1678	C	C2'-C1'	-6.47	1.43	1.53
34	i	1808	G	O4'-C1'	6.47	1.51	1.41
34	i	1138	G	O4'-C1'	-6.46	1.31	1.41
34	i	69	C	C2'-C1'	-6.46	1.43	1.53
33	g	277	THR	CA-C	-6.46	1.44	1.53
34	i	514	U	O4'-C1'	6.46	1.51	1.41
34	i	845	A	O4'-C1'	6.45	1.51	1.41
24	X	58	GLU	CA-C	6.45	1.60	1.53
34	i	1137	G	O4'-C1'	-6.44	1.31	1.41
7	G	131	ARG	CB-CG	6.43	1.71	1.52
34	i	485	U	O4'-C1'	6.43	1.51	1.41
34	i	1218	G	C2'-C1'	-6.43	1.43	1.53
34	i	1706	U	C2'-C1'	-6.42	1.43	1.53
27	a	85	ARG	CA-C	6.42	1.60	1.52
34	i	656	U	O4'-C1'	6.42	1.51	1.41
34	i	1186	A	O4'-C1'	6.42	1.51	1.41
34	i	343	C	O4'-C1'	6.41	1.51	1.41
34	i	813	G	C2'-C1'	-6.41	1.43	1.53
9	I	134	GLU	CA-CB	6.41	1.63	1.53
34	i	1568	G	O4'-C1'	6.41	1.51	1.41
34	i	432	C	C2'-C1'	-6.40	1.43	1.53
34	i	574	A	C2'-C1'	-6.40	1.43	1.53
34	i	428	G	O4'-C1'	-6.40	1.32	1.41
34	i	1490	U	C2'-C1'	6.40	1.62	1.53
34	i	1091	U	O4'-C1'	6.40	1.51	1.41
21	U	108	PRO	CA-C	-6.39	1.44	1.52
1	A	193	HIS	N-CA	6.39	1.54	1.45
34	i	1313	U	O4'-C1'	6.38	1.51	1.41
34	i	840	U	O4'-C1'	6.38	1.51	1.41
34	i	1225	G	C2'-C1'	-6.38	1.43	1.53
34	i	1221	U	C2'-C1'	-6.38	1.43	1.53
34	i	677	C	C2'-C1'	-6.37	1.43	1.53
34	i	798	A	O4'-C1'	6.37	1.51	1.41
34	i	324	C	C2'-C1'	-6.37	1.43	1.53
34	i	213	C	O4'-C1'	6.36	1.51	1.41
34	i	86	C	O4'-C1'	6.36	1.51	1.41
34	i	347	C	O4'-C1'	6.36	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1798	U	O4'-C1'	6.36	1.51	1.41
19	S	39	ARG	C-N	6.35	1.42	1.33
5	E	150	PRO	N-CD	6.34	1.56	1.47
34	i	1493	G	O4'-C1'	6.34	1.51	1.42
34	i	278	U	O4'-C1'	6.34	1.51	1.42
34	i	989	G	C2'-C1'	-6.32	1.43	1.53
34	i	327	C	O4'-C1'	6.32	1.51	1.41
34	i	354	A	C2'-C1'	-6.32	1.43	1.53
34	i	807	A	C2'-C1'	-6.32	1.43	1.53
34	i	1363	U	O4'-C1'	6.32	1.51	1.41
11	K	41	PRO	C-N	6.32	1.41	1.33
34	i	72	C	C2'-C1'	6.32	1.62	1.53
34	i	1822	C	C2'-C1'	-6.32	1.43	1.53
14	N	142	GLU	C-O	-6.31	1.16	1.24
34	i	120	U	O4'-C1'	6.31	1.51	1.41
12	L	2	ALA	CA-C	-6.31	1.44	1.52
34	i	1085	G	C2'-C1'	-6.31	1.43	1.53
20	T	42	HIS	CB-CG	-6.30	1.41	1.50
34	i	168	C	C2'-C1'	-6.30	1.44	1.53
5	E	202	PRO	CA-C	-6.30	1.45	1.52
34	i	223	A	O4'-C1'	6.30	1.51	1.41
34	i	361	A	O4'-C1'	6.30	1.51	1.41
34	i	1059	C	O4'-C1'	6.29	1.51	1.41
34	i	1068	U	C2'-C1'	6.29	1.62	1.53
9	I	134	GLU	N-CA	6.29	1.53	1.46
34	i	441	G	C2'-C1'	-6.29	1.44	1.53
34	i	856	G	O4'-C1'	6.29	1.51	1.41
34	i	107	A	C2'-C1'	6.28	1.62	1.53
34	i	376	C	C2'-C1'	-6.28	1.44	1.53
34	i	1267	C	C2'-C1'	-6.28	1.44	1.53
34	i	1304	U	C2'-C1'	6.28	1.62	1.53
34	i	85	A	O4'-C1'	6.27	1.51	1.41
15	O	43	HIS	CA-C	6.27	1.61	1.52
17	Q	18	THR	CA-CB	6.26	1.64	1.53
34	i	33	G	C2'-C1'	-6.26	1.44	1.53
33	g	203	ASP	CA-C	6.25	1.61	1.52
34	i	1260	C	O4'-C1'	6.25	1.51	1.42
34	i	216	U	O4'-C1'	6.25	1.51	1.41
34	i	990	C	C2'-C1'	-6.25	1.44	1.53
20	T	82	ARG	CD-NE	6.24	1.54	1.46
34	i	360	G	O4'-C1'	6.24	1.51	1.42
34	i	148	U	C2'-C1'	6.24	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	632	U	O4'-C1'	6.23	1.51	1.41
34	i	74	G	O4'-C1'	6.23	1.50	1.41
34	i	576	G	O4'-C1'	6.23	1.50	1.41
34	i	1331	G	C2'-C1'	-6.23	1.44	1.53
34	i	1532	A	C2'-C1'	6.22	1.62	1.53
34	i	493	C	O4'-C1'	6.22	1.51	1.42
34	i	42	A	O4'-C1'	6.22	1.50	1.41
34	i	1151	U	O4'-C1'	6.21	1.51	1.42
34	i	1405	A	O4'-C1'	6.21	1.50	1.41
34	i	521	A	O3'-P	-6.21	1.51	1.61
34	i	660	A	O4'-C1'	-6.21	1.32	1.41
34	i	211	U	O3'-P	-6.21	1.51	1.61
34	i	1495	U	C2'-C1'	-6.20	1.44	1.53
7	G	128	THR	CA-C	6.20	1.61	1.52
2	B	155	TYR	CB-CG	-6.19	1.38	1.51
35	l	68	ALA	CA-CB	-6.19	1.43	1.53
34	i	303	G	C2'-C1'	6.18	1.62	1.53
34	i	1340	A	O4'-C1'	6.18	1.51	1.42
34	i	1569	C	C2'-C1'	-6.18	1.44	1.53
34	i	625	G	C2'-C1'	-6.17	1.44	1.53
34	i	1335	U	P-O5'	-6.17	1.50	1.59
8	H	16	PRO	CA-C	-6.17	1.43	1.52
34	i	1200	A	C2'-C1'	-6.17	1.44	1.53
11	K	84	HIS	CA-C	-6.16	1.45	1.52
34	i	165	G	C2'-C1'	6.16	1.62	1.53
34	i	361	A	C2'-C1'	-6.16	1.44	1.53
18	R	86	PRO	N-CD	6.16	1.56	1.47
19	S	91	LYS	C-N	6.16	1.42	1.33
13	M	99	LYS	CA-C	6.15	1.57	1.53
6	F	81	ARG	C-N	-6.15	1.24	1.33
22	V	42	VAL	CA-CB	-6.13	1.46	1.54
34	i	1583	A	O4'-C1'	6.13	1.50	1.41
34	i	537	G	C2'-C1'	-6.13	1.44	1.53
34	i	1138	G	C2'-C1'	6.13	1.62	1.53
34	i	1295	A	C2'-C1'	6.13	1.62	1.53
34	i	941	U	C2'-C1'	-6.12	1.44	1.53
34	i	824	G	C2'-C1'	-6.11	1.44	1.53
34	i	652	G	O4'-C1'	6.11	1.51	1.42
34	i	832	G	C2'-C1'	6.11	1.62	1.53
34	i	1717	G	O4'-C1'	6.10	1.50	1.41
34	i	1292	U	C2'-C1'	-6.10	1.44	1.53
34	i	104	A	O4'-C1'	6.09	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	688	U	C2'-C1'	-6.09	1.44	1.53
34	i	1250	C	O4'-C1'	6.09	1.50	1.41
33	g	284	PRO	CA-C	-6.09	1.46	1.53
34	i	1723	U	O4'-C1'	6.09	1.50	1.41
3	C	195	PRO	N-CD	6.09	1.56	1.47
34	i	1414	C	C2'-C1'	-6.09	1.44	1.53
34	i	1672	U	C2'-C1'	6.09	1.62	1.53
34	i	187	C	C2'-C1'	-6.08	1.44	1.53
16	P	37	TYR	N-CA	-6.08	1.38	1.46
34	i	53	C	C2'-C1'	6.08	1.62	1.53
19	S	91	LYS	N-CA	-6.07	1.39	1.46
34	i	661	A	C2'-C1'	-6.07	1.44	1.53
2	B	77	ASP	N-CA	6.07	1.54	1.46
34	i	462	C	C2'-C1'	-6.06	1.44	1.53
34	i	1168	U	C2'-C1'	6.06	1.62	1.53
34	i	271	G	O3'-P	-6.05	1.52	1.61
34	i	1395	C	O4'-C1'	6.05	1.50	1.41
21	U	104	ILE	CA-CB	6.05	1.62	1.54
34	i	676	U	C2'-C1'	6.05	1.62	1.53
34	i	81	U	O4'-C1'	6.04	1.50	1.41
34	i	983	A	O4'-C1'	6.04	1.50	1.41
34	i	668	U	O4'-C1'	6.04	1.50	1.41
15	O	129	ILE	CA-C	-6.03	1.45	1.52
34	i	40	A	C2'-C1'	6.03	1.62	1.53
34	i	1019	A	C2'-C1'	6.03	1.62	1.53
34	i	1670	A	O4'-C1'	-6.03	1.32	1.41
34	i	465	C	C2'-C1'	-6.03	1.44	1.53
34	i	918	A	C2'-C1'	6.02	1.62	1.53
34	i	876	G	O4'-C1'	-6.02	1.32	1.41
1	A	193	HIS	CA-C	6.02	1.60	1.53
34	i	147	A	O4'-C1'	-6.02	1.32	1.42
34	i	18	C	C2'-C1'	-6.01	1.44	1.53
34	i	1102	C	C2'-C1'	6.00	1.62	1.53
34	i	1001	G	C2'-C1'	-6.00	1.44	1.53
9	I	8	TRP	CD2-CE3	-6.00	1.30	1.40
34	i	601	G	O4'-C1'	6.00	1.50	1.41
34	i	1401	A	C2'-C1'	-6.00	1.44	1.53
34	i	118	C	O4'-C1'	6.00	1.50	1.41
34	i	1075	C	C2'-C1'	-6.00	1.44	1.53
34	i	916	A	O4'-C1'	5.99	1.50	1.42
34	i	1519	G	O4'-C1'	-5.99	1.32	1.41
34	i	943	G	C2'-C1'	-5.99	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1699	C	C2'-C1'	-5.99	1.44	1.53
34	i	57	U	C2'-C1'	5.98	1.62	1.53
34	i	313	C	C2'-C1'	-5.98	1.44	1.53
12	L	18	GLN	N-CA	-5.98	1.38	1.46
34	i	1394	G	C2'-C1'	-5.98	1.44	1.53
34	i	1255	A	O4'-C1'	-5.98	1.32	1.41
8	H	106	ARG	CA-C	-5.98	1.44	1.52
34	i	1784	A	O4'-C1'	5.97	1.50	1.41
34	i	1857	A	C2'-C1'	5.97	1.62	1.53
3	C	257	HIS	N-CA	-5.97	1.39	1.46
27	a	60	ASP	CA-C	5.97	1.60	1.53
34	i	899	A	O4'-C1'	-5.97	1.32	1.41
34	i	955	G	C2'-C1'	-5.97	1.44	1.53
8	H	110	THR	N-CA	-5.96	1.38	1.46
34	i	811	U	O4'-C1'	5.96	1.50	1.41
34	i	1149	C	O4'-C1'	-5.95	1.33	1.42
18	R	111	PHE	CA-C	5.95	1.59	1.52
34	i	1414	C	O4'-C1'	-5.95	1.33	1.42
34	i	1447	G	C2'-C1'	-5.95	1.44	1.53
34	i	1782	A	O4'-C1'	5.95	1.50	1.41
34	i	1840	G	C2'-C1'	-5.95	1.44	1.53
34	i	1059	C	C2'-C1'	-5.95	1.44	1.53
3	C	217	THR	CA-C	5.94	1.62	1.52
19	S	50	ILE	N-CA	5.94	1.53	1.46
34	i	823	A	O4'-C1'	5.93	1.50	1.41
34	i	103	A	O4'-C1'	-5.93	1.33	1.42
34	i	1039	G	O4'-C1'	5.93	1.50	1.41
34	i	1558	G	C2'-C1'	-5.92	1.44	1.53
34	i	1487	G	C2'-C1'	-5.92	1.44	1.53
34	i	996	C	O4'-C1'	5.92	1.50	1.41
34	i	618	A	C2'-C1'	5.92	1.62	1.53
34	i	1279	C	C2'-C1'	-5.91	1.44	1.53
34	i	903	G	O4'-C1'	5.91	1.50	1.41
34	i	1525	U	O4'-C1'	5.90	1.50	1.41
34	i	948	G	C2'-C1'	-5.90	1.44	1.53
18	R	3	ARG	CA-C	-5.90	1.44	1.53
34	i	1391	C	O4'-C1'	5.90	1.50	1.41
34	i	152	U	C2'-C1'	-5.89	1.44	1.53
34	i	434	G	O4'-C1'	-5.89	1.32	1.41
18	R	91	LEU	N-CA	-5.89	1.38	1.46
33	g	213	ASP	CA-C	-5.89	1.45	1.52
34	i	1621	C	O4'-C1'	5.89	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	I	184	ARG	CD-NE	5.89	1.54	1.46
34	i	435	A	O4'-C1'	5.89	1.50	1.41
34	i	1386	U	C2'-C1'	-5.89	1.44	1.53
33	g	50	THR	N-CA	-5.88	1.38	1.46
34	i	86	C	C2'-C1'	-5.88	1.44	1.53
34	i	924	G	C2'-C1'	-5.88	1.44	1.53
19	S	6	PRO	N-CA	5.88	1.55	1.47
34	i	1733	C	C2'-C1'	-5.88	1.44	1.53
34	i	1537	C	C2'-C1'	-5.88	1.44	1.53
34	i	14	C	O4'-C1'	5.87	1.50	1.41
34	i	1800	A	C2'-C1'	-5.87	1.44	1.53
34	i	1061	G	C2'-C1'	-5.87	1.44	1.53
34	i	1046	A	C2'-C1'	-5.86	1.44	1.53
19	S	95	TYR	N-CA	-5.86	1.38	1.46
8	H	67	PRO	N-CD	5.86	1.55	1.47
34	i	26	U	C2'-C1'	-5.86	1.44	1.53
34	i	953	A	C2'-C1'	-5.86	1.44	1.53
34	i	302	C	C2'-C1'	-5.86	1.44	1.53
34	i	37	C	C2'-C1'	-5.86	1.44	1.53
24	X	58	GLU	N-CA	5.85	1.53	1.46
34	i	607	G	C2'-C1'	-5.85	1.44	1.53
34	i	470	G	O4'-C1'	5.85	1.50	1.41
34	i	941	U	O4'-C1'	5.85	1.50	1.41
34	i	1842	U	O4'-C1'	5.85	1.50	1.41
34	i	171	A	C2'-C1'	5.85	1.61	1.53
34	i	1535	G	C2'-C1'	-5.85	1.44	1.53
34	i	486	C	C2'-C1'	-5.84	1.44	1.53
18	R	122	PRO	CA-C	5.84	1.60	1.52
34	i	743	U	O3'-P	-5.84	1.52	1.61
9	I	184	ARG	CA-C	-5.84	1.45	1.52
34	i	1452	G	O4'-C1'	5.84	1.50	1.41
34	i	1203	G	O4'-C1'	5.83	1.50	1.41
1	A	188	THR	CA-C	-5.83	1.45	1.52
34	i	314	U	O4'-C1'	-5.83	1.32	1.41
7	G	169	PRO	C-N	5.82	1.41	1.33
34	i	338	A	C2'-C1'	-5.82	1.44	1.53
34	i	628	C	O4'-C1'	5.81	1.50	1.41
35	l	68	ALA	N-CA	-5.81	1.38	1.46
34	i	557	C	C2'-C1'	-5.81	1.44	1.53
24	X	92	ASN	CA-C	-5.80	1.45	1.52
34	i	172	U	O4'-C1'	5.80	1.50	1.42
34	i	1446	G	C2'-C1'	-5.80	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1712	C	O4'-C1'	5.80	1.50	1.41
34	i	1211	C	O4'-C1'	5.80	1.50	1.42
7	G	158	VAL	CA-CB	-5.80	1.46	1.54
34	i	189	G	C2'-C1'	-5.79	1.44	1.53
34	i	1652	G	C2'-C1'	-5.79	1.44	1.53
34	i	273	G	O4'-C1'	5.79	1.50	1.41
34	i	225	C	O3'-P	-5.78	1.52	1.61
24	X	24	ASP	C-N	-5.78	1.26	1.33
34	i	930	G	C2'-C1'	-5.77	1.44	1.53
34	i	1259	U	C5'-C4'	5.77	1.59	1.51
34	i	835	C	C2'-C1'	-5.77	1.44	1.53
34	i	513	A	O4'-C1'	5.77	1.50	1.41
34	i	1592	C	C2'-C1'	-5.76	1.44	1.53
34	i	1707	A	O4'-C1'	5.76	1.50	1.41
34	i	896	C	O4'-C1'	5.76	1.50	1.41
34	i	1696	C	O4'-C1'	5.75	1.50	1.42
34	i	1836	C	O4'-C1'	5.75	1.50	1.41
34	i	1797	U	O4'-C1'	5.75	1.50	1.41
34	i	1378	A	O4'-C1'	5.75	1.50	1.41
34	i	1480	A	C2'-C1'	-5.75	1.44	1.53
34	i	338	A	O4'-C1'	5.75	1.50	1.41
8	H	118	ARG	CA-CB	-5.73	1.42	1.53
7	G	131	ARG	NE-CZ	5.73	1.39	1.33
34	i	370	G	O4'-C1'	-5.73	1.33	1.41
34	i	1626	U	O4'-C1'	5.73	1.50	1.41
34	i	38	A	C2'-C1'	5.72	1.61	1.53
20	T	42	HIS	CA-C	-5.72	1.44	1.52
34	i	165	G	O4'-C1'	-5.72	1.33	1.41
18	R	3	ARG	C-N	-5.72	1.25	1.33
6	F	82	ASN	N-CA	-5.72	1.38	1.46
34	i	1102	C	O4'-C1'	5.71	1.50	1.41
34	i	461	G	O4'-C1'	-5.71	1.33	1.42
9	I	8	TRP	CA-CB	5.70	1.63	1.53
34	i	9	U	O4'-C1'	5.70	1.50	1.41
34	i	456	G	C4'-C3'	5.70	1.61	1.52
34	i	1664	G	C2'-C1'	-5.70	1.44	1.53
34	i	1687	U	C2'-C1'	-5.68	1.44	1.53
34	i	29	G	C2'-C1'	-5.68	1.44	1.53
34	i	205	G	O4'-C1'	5.68	1.50	1.41
34	i	1051	A	O4'-C1'	5.68	1.50	1.41
14	N	20	ARG	NE-CZ	5.68	1.39	1.33
34	i	1035	C	O4'-C1'	5.67	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1444	A	C2'-C1'	-5.67	1.44	1.53
34	i	200	U	C2'-C1'	-5.66	1.44	1.53
34	i	566	A	C2'-C1'	-5.66	1.44	1.53
34	i	1741	U	O3'-P	5.66	1.69	1.61
34	i	799	C	O4'-C1'	5.65	1.50	1.41
34	i	1615	A	O4'-C1'	-5.65	1.33	1.42
34	i	1031	A	O4'-C1'	5.65	1.50	1.41
22	V	24	ILE	CA-CB	-5.65	1.47	1.54
34	i	355	C	C2'-C1'	-5.65	1.44	1.53
34	i	1654	U	O3'-P	-5.65	1.52	1.61
34	i	119	U	C2'-C1'	-5.64	1.44	1.53
16	P	17	TYR	C-N	5.64	1.41	1.33
34	i	876	G	C2'-C1'	5.64	1.61	1.53
34	i	368	U	C2'-C1'	-5.64	1.44	1.53
34	i	846	C	C2'-C1'	-5.64	1.44	1.53
34	i	1392	A	C2'-C1'	5.64	1.61	1.53
34	i	227	A	O4'-C1'	5.64	1.50	1.41
34	i	1737	C	O4'-C1'	5.64	1.50	1.41
34	i	1061	G	O4'-C1'	5.63	1.50	1.41
34	i	1121	C	O4'-C1'	5.63	1.50	1.41
34	i	1634	G	O4'-C1'	5.63	1.50	1.41
14	N	132	LYS	CA-C	-5.63	1.45	1.53
34	i	874	G	C2'-C1'	-5.62	1.45	1.53
34	i	806	A	O4'-C1'	5.62	1.50	1.41
21	U	69	PRO	CA-C	-5.62	1.47	1.52
34	i	639	U	O4'-C1'	5.62	1.50	1.41
26	Z	107	VAL	N-CA	-5.62	1.40	1.46
34	i	637	U	O4'-C1'	5.61	1.50	1.41
34	i	471	C	O4'-C1'	5.61	1.50	1.41
34	i	1610	U	O4'-C1'	5.61	1.50	1.41
34	i	3	C	C2'-C1'	5.60	1.61	1.53
34	i	1463	C	O4'-C1'	5.59	1.50	1.41
34	i	1398	A	C2'-C1'	-5.59	1.45	1.53
34	i	100	U	O4'-C1'	5.59	1.50	1.41
34	i	226	A	C2'-C1'	-5.59	1.45	1.53
34	i	1173	U	O4'-C1'	5.58	1.50	1.41
34	i	460	G	C2'-C1'	-5.58	1.45	1.53
34	i	1044	G	C5'-C4'	5.58	1.59	1.51
34	i	1444	A	O4'-C1'	5.58	1.50	1.41
10	J	188	GLY	N-CA	5.58	1.54	1.45
3	C	46	LEU	N-CA	-5.58	1.37	1.45
34	i	1499	C	O4'-C1'	5.58	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	194	C	C2'-C1'	-5.57	1.45	1.53
34	i	1392	A	O4'-C1'	-5.57	1.33	1.41
34	i	94	G	O4'-C1'	5.57	1.50	1.41
34	i	449	C	C2'-C1'	-5.57	1.45	1.53
29	c	7	GLN	CA-C	5.56	1.59	1.52
34	i	377	C	C2'-C1'	-5.56	1.45	1.53
31	e	94	ALA	CA-C	-5.56	1.46	1.52
18	R	42	PRO	N-CD	5.56	1.55	1.47
6	F	79	HIS	N-CA	-5.54	1.39	1.46
34	i	515	A	C2'-C1'	-5.54	1.45	1.53
34	i	202	U	C2'-C1'	-5.54	1.45	1.53
34	i	1814	G	C2'-C1'	-5.53	1.45	1.53
34	i	969	C	C5'-C4'	5.53	1.59	1.51
34	i	1423	C	C2'-C1'	5.53	1.61	1.53
8	H	119	SER	CA-C	-5.53	1.47	1.53
34	i	264	U	O3'-P	-5.53	1.52	1.61
34	i	1278	A	O4'-C1'	5.52	1.50	1.41
19	S	89	ASP	CA-C	-5.51	1.45	1.52
34	i	892	U	O4'-C1'	5.51	1.50	1.41
7	G	36	VAL	CB-CG1	-5.51	1.34	1.52
34	i	1243	C	O4'-C1'	5.50	1.50	1.42
19	S	53	THR	C-N	5.50	1.41	1.33
34	i	1676	U	C2'-C1'	-5.50	1.45	1.53
34	i	1215	C	O4'-C1'	5.50	1.49	1.41
1	A	159	ILE	N-CA	-5.49	1.39	1.46
16	P	36	LEU	N-CA	-5.49	1.39	1.46
34	i	1840	G	O4'-C1'	5.49	1.49	1.41
34	i	1569	C	O4'-C1'	5.48	1.49	1.41
34	i	1472	A	C2'-C1'	5.48	1.61	1.53
34	i	933	C	C2'-C1'	-5.48	1.45	1.53
29	c	6	VAL	N-CA	5.48	1.52	1.46
34	i	95	G	C2'-C1'	-5.48	1.45	1.53
24	X	115	ILE	CA-CB	-5.48	1.47	1.54
34	i	33	G	O4'-C1'	5.48	1.49	1.41
34	i	485	U	C2'-C1'	-5.47	1.45	1.53
34	i	567	U	O4'-C1'	5.47	1.49	1.41
31	e	130	ASN	C-N	5.46	1.41	1.33
34	i	1334	G	O4'-C1'	5.46	1.49	1.41
34	i	1626	U	C2'-C1'	-5.46	1.45	1.53
34	i	1684	C	O4'-C1'	5.46	1.49	1.41
34	i	1835	C	C2'-C1'	-5.46	1.45	1.53
6	F	82	ASN	CA-CB	-5.46	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	F	82	ASN	CA-C	-5.45	1.45	1.52
34	i	1345	G	C2'-C1'	-5.45	1.45	1.53
34	i	1123	C	C2'-C1'	-5.45	1.45	1.53
20	T	4	VAL	CA-C	5.45	1.64	1.52
34	i	1489	C	C2'-C1'	5.45	1.61	1.53
34	i	1778	G	C2'-C1'	-5.45	1.45	1.53
34	i	408	A	O4'-C1'	5.45	1.49	1.41
34	i	1006	G	C2'-C1'	5.45	1.61	1.53
34	i	399	C	C2'-C1'	-5.44	1.45	1.53
34	i	1051	A	C5'-C4'	5.44	1.59	1.51
34	i	1402	G	O4'-C1'	5.44	1.49	1.41
34	i	686	G	C2'-C1'	-5.44	1.45	1.53
34	i	74	G	O5'-C5'	5.43	1.50	1.42
9	I	131	PRO	C-N	5.43	1.42	1.33
34	i	1465	A	C2'-C1'	-5.42	1.45	1.53
18	R	88	VAL	C-N	-5.42	1.26	1.33
34	i	954	G	O4'-C1'	-5.41	1.33	1.41
34	i	1085	G	O4'-C1'	5.41	1.49	1.41
34	i	1850	C	C2'-C1'	-5.41	1.45	1.53
34	i	982	G	C2'-C1'	-5.40	1.45	1.53
35	l	57	LYS	CA-C	5.40	1.59	1.52
34	i	469	C	O4'-C1'	5.39	1.49	1.41
3	C	182	PRO	N-CD	5.39	1.55	1.47
8	H	109	ARG	CA-C	-5.39	1.45	1.52
19	S	9	PHE	CA-C	5.39	1.59	1.52
34	i	864	G	C2'-C1'	-5.39	1.45	1.53
34	i	867	U	O4'-C1'	-5.39	1.33	1.42
34	i	1018	U	O3'-P	-5.39	1.53	1.61
34	i	1663	U	P-O5'	-5.38	1.51	1.59
5	E	165	GLU	N-CA	-5.37	1.40	1.46
23	W	129	PHE	CA-C	-5.37	1.46	1.52
34	i	388	A	O4'-C1'	5.37	1.50	1.42
34	i	1434	A	C2'-C1'	5.37	1.61	1.53
34	i	1415	C	O4'-C1'	5.36	1.49	1.41
34	i	1641	C	C4'-O4'	-5.36	1.37	1.45
16	P	18	ARG	NE-CZ	5.36	1.39	1.33
34	i	1774	G	O4'-C1'	5.36	1.49	1.41
34	i	516	A	C2'-C1'	-5.35	1.45	1.53
34	i	488	C	C2'-C1'	-5.35	1.45	1.53
34	i	1424	G	C2'-C1'	5.35	1.61	1.53
19	S	50	ILE	CA-C	5.35	1.58	1.52
34	i	1740	A	O4'-C1'	-5.35	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	g	281	ALA	CA-CB	-5.34	1.44	1.53
34	i	404	A	O4'-C1'	5.34	1.49	1.41
28	b	53	VAL	N-CA	-5.34	1.39	1.46
34	i	418	U	C2'-C1'	5.34	1.61	1.53
3	C	119	ASN	N-CA	-5.33	1.40	1.46
34	i	665	U	O4'-C1'	5.33	1.49	1.41
34	i	1032	A	O4'-C1'	5.33	1.49	1.41
34	i	1078	A	O4'-C1'	5.33	1.49	1.41
2	B	133	TYR	N-CA	-5.33	1.39	1.46
34	i	1045	A	C2'-C1'	5.33	1.61	1.53
34	i	820	C	C2'-C1'	-5.33	1.45	1.53
34	i	1800	A	O4'-C1'	5.33	1.49	1.41
7	G	43	GLU	CA-C	-5.32	1.45	1.52
16	P	49	LEU	N-CA	5.32	1.53	1.46
34	i	960	A	C2'-C1'	5.32	1.61	1.53
34	i	1093	G	O4'-C1'	-5.32	1.33	1.41
34	i	160	U	O4'-C1'	5.32	1.50	1.42
34	i	404	A	C2'-C1'	5.32	1.61	1.53
34	i	1657	U	O4'-C1'	5.32	1.49	1.41
34	i	1293	U	C2'-C1'	5.32	1.61	1.53
34	i	871	A	C2'-C1'	-5.31	1.45	1.53
7	G	121	ILE	CA-CB	-5.31	1.47	1.54
28	b	36	LYS	N-CA	5.30	1.52	1.46
7	G	169	PRO	N-CD	5.30	1.55	1.47
34	i	897	G	C2'-C1'	-5.29	1.45	1.53
34	i	356	U	O4'-C1'	5.29	1.49	1.41
34	i	1096	A	C2'-C1'	-5.29	1.45	1.53
34	i	1839	A	C2'-C1'	-5.29	1.45	1.53
34	i	470	G	C2'-C1'	-5.29	1.45	1.53
34	i	1145	A	C2'-C1'	-5.29	1.45	1.53
34	i	1042	U	O4'-C1'	5.29	1.49	1.41
8	H	119	SER	C-N	-5.29	1.26	1.33
11	K	79	LEU	C-N	5.29	1.40	1.33
12	L	103	GLU	N-CA	-5.29	1.39	1.46
20	T	82	ARG	NE-CZ	5.29	1.38	1.33
34	i	1582	G	O4'-C1'	-5.29	1.34	1.42
35	l	67	PHE	C-O	-5.29	1.17	1.23
34	i	411	G	O3'-P	-5.29	1.53	1.61
34	i	1482	A	P-O5'	-5.29	1.51	1.59
34	i	318	U	O4'-C1'	5.28	1.49	1.41
34	i	1311	U	C5'-C4'	5.28	1.59	1.51
2	B	57	ILE	CA-C	5.28	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1223	G	C2'-C1'	-5.28	1.45	1.53
10	J	89	GLU	CA-C	5.28	1.60	1.52
34	i	1668	U	C2'-C1'	-5.27	1.45	1.53
34	i	396	U	O4'-C1'	5.26	1.49	1.41
34	i	619	A	C2'-C1'	5.26	1.60	1.53
34	i	1008	A	C2'-C1'	-5.26	1.45	1.53
34	i	621	U	C2'-C1'	-5.26	1.45	1.53
34	i	1037	G	O4'-C1'	5.26	1.49	1.41
1	A	188	THR	CA-CB	-5.26	1.44	1.53
35	l	67	PHE	CD2-CE2	-5.25	1.22	1.38
34	i	1132	U	O4'-C1'	5.25	1.49	1.41
34	i	1066	A	O4'-C1'	5.25	1.49	1.41
34	i	1387	C	C2'-C1'	-5.25	1.45	1.53
34	i	1514	U	C2'-C1'	5.25	1.60	1.53
27	a	58	VAL	CA-C	-5.25	1.46	1.52
34	i	1460	C	C2'-C1'	-5.24	1.45	1.53
34	i	632	U	C2'-C1'	-5.23	1.45	1.53
34	i	1355	U	C2'-C1'	5.23	1.61	1.53
34	i	1804	U	O4'-C1'	5.23	1.49	1.41
19	S	91	LYS	CA-C	-5.23	1.46	1.52
34	i	937	C	C2'-C1'	-5.23	1.45	1.53
34	i	335	U	O4'-C1'	5.23	1.49	1.41
1	A	96	ALA	C-N	-5.22	1.23	1.33
34	i	35	C	C2'-C1'	-5.22	1.45	1.53
8	H	9	VAL	CA-C	5.22	1.60	1.52
34	i	1033	G	C2'-C1'	-5.22	1.45	1.53
7	G	158	VAL	N-CA	-5.22	1.39	1.46
34	i	1040	G	O4'-C1'	5.21	1.49	1.41
7	G	170	ARG	NE-CZ	5.21	1.38	1.33
34	i	818	U	C2'-C1'	-5.21	1.45	1.53
32	f	86	THR	N-CA	5.21	1.52	1.46
34	i	6	G	C2'-C1'	-5.21	1.45	1.53
34	i	1710	A	O4'-C1'	5.20	1.49	1.41
22	V	33	PRO	N-CD	5.20	1.55	1.47
34	i	382	A	C2'-C1'	-5.20	1.45	1.53
34	i	1523	G	O4'-C1'	-5.19	1.33	1.41
34	i	742	C	C2'-C1'	-5.19	1.45	1.53
3	C	119	ASN	C-O	-5.18	1.18	1.23
34	i	735	C	C2'-C1'	-5.18	1.45	1.53
9	I	30	GLY	CA-C	5.18	1.57	1.51
34	i	68	A	O4'-C1'	5.18	1.49	1.41
34	i	1817	A	O5'-C5'	-5.18	1.35	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	O	143	LYS	CA-C	-5.17	1.46	1.52
29	c	7	GLN	N-CA	5.17	1.51	1.46
34	i	880	C	C2'-C1'	-5.17	1.45	1.53
34	i	438	A	C2'-C1'	5.17	1.60	1.53
34	i	860	A	C2'-C1'	-5.17	1.45	1.53
34	i	1311	U	O4'-C1'	-5.17	1.33	1.41
34	i	609	A	C2'-C1'	5.17	1.61	1.53
34	i	1427	G	O4'-C1'	5.17	1.49	1.41
1	A	53	ARG	N-CA	-5.16	1.40	1.46
19	S	94	LYS	C-N	-5.16	1.26	1.33
11	K	55	ARG	NE-CZ	5.16	1.38	1.33
20	T	46	ALA	C-N	-5.16	1.28	1.33
31	e	95	LYS	CA-C	5.16	1.59	1.52
11	K	36	ALA	CA-C	5.16	1.59	1.53
34	i	175	A	O4'-C1'	5.16	1.49	1.41
34	i	596	G	C2'-C1'	-5.15	1.45	1.53
34	i	805	A	O4'-C1'	5.15	1.49	1.41
34	i	655	G	C2'-C1'	-5.15	1.45	1.53
3	C	161	LYS	C-N	-5.14	1.27	1.33
8	H	110	THR	C-N	5.14	1.40	1.33
34	i	1172	G	O4'-C1'	5.14	1.49	1.41
10	J	188	GLY	CA-C	5.14	1.61	1.52
9	I	55	TYR	CA-C	-5.14	1.46	1.52
34	i	1043	C	C2'-C1'	-5.13	1.45	1.53
15	O	150	ARG	NE-CZ	5.13	1.38	1.33
34	i	1125	G	C2'-C1'	-5.13	1.45	1.53
34	i	1256	A	C2'-C1'	-5.13	1.45	1.53
34	i	1845	A	O4'-C1'	5.13	1.49	1.41
34	i	1256	A	O3'-P	-5.12	1.53	1.61
34	i	1385	C	P-O5'	-5.12	1.52	1.59
34	i	879	U	C5'-C4'	5.12	1.58	1.51
20	T	46	ALA	CA-C	-5.12	1.46	1.52
34	i	959	A	C2'-C1'	-5.12	1.45	1.53
11	K	30	PRO	C-N	-5.12	1.27	1.33
34	i	1639	C	O4'-C1'	5.11	1.49	1.41
34	i	1021	U	C2'-C1'	5.11	1.61	1.53
34	i	930	G	O4'-C1'	5.11	1.49	1.41
34	i	155	G	O4'-C1'	5.11	1.49	1.41
33	g	94	THR	N-CA	-5.10	1.39	1.46
34	i	566	A	O4'-C1'	5.10	1.49	1.41
11	K	80	ARG	NE-CZ	5.10	1.38	1.33
34	i	556	U	C2'-C1'	5.10	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	133	THR	N-CA	5.09	1.52	1.46
31	e	99	LYS	N-CA	5.09	1.52	1.46
34	i	1809	A	O4'-C1'	5.09	1.49	1.41
5	E	171	ASP	CA-CB	-5.09	1.44	1.53
34	i	1174	U	C2'-C1'	-5.09	1.45	1.53
34	i	1681	G	C2'-C1'	-5.09	1.45	1.53
34	i	988	A	C2'-C1'	-5.08	1.45	1.53
34	i	688	U	C1'-N1	5.08	1.55	1.47
34	i	1419	C	C2'-C1'	-5.08	1.45	1.53
34	i	1303	U	C2'-C1'	5.08	1.60	1.53
12	L	120	VAL	N-CA	-5.08	1.41	1.46
34	i	990	C	O4'-C1'	5.08	1.49	1.41
1	A	63	ARG	N-CA	-5.08	1.40	1.46
34	i	1567	C	O4'-C1'	5.08	1.49	1.41
34	i	325	G	C2'-C1'	5.07	1.60	1.53
34	i	1073	A	O4'-C1'	5.07	1.49	1.41
34	i	1175	G	C2'-C1'	-5.07	1.45	1.53
27	a	108	PRO	N-CD	5.07	1.54	1.47
34	i	1836	C	C2'-C1'	-5.07	1.45	1.53
34	i	1054	A	C2'-C1'	-5.07	1.45	1.53
34	i	231	C	C2'-C1'	-5.06	1.45	1.53
5	E	31	PRO	N-CD	5.06	1.54	1.47
3	C	99	LYS	CA-C	5.06	1.58	1.52
34	i	1528	A	C2'-C1'	-5.06	1.45	1.53
34	i	1805	C	C2'-C1'	-5.06	1.45	1.53
34	i	151	C	P-O5'	-5.06	1.52	1.59
14	N	136	PRO	N-CD	5.05	1.54	1.47
34	i	647	U	O4'-C1'	5.05	1.49	1.41
34	i	1144	A	C2'-C1'	5.05	1.60	1.53
34	i	1731	G	C2'-C1'	-5.05	1.45	1.53
34	i	674	G	C2'-C1'	-5.04	1.45	1.53
34	i	1394	G	O4'-C1'	5.04	1.49	1.41
34	i	1032	A	C5'-C4'	5.04	1.58	1.51
34	i	1324	G	O4'-C1'	5.04	1.49	1.41
34	i	1730	A	O4'-C1'	5.04	1.49	1.41
9	I	6	ASP	CA-C	-5.04	1.46	1.52
34	i	1473	U	O4'-C1'	5.04	1.49	1.41
34	i	812	A	C2'-C1'	-5.04	1.45	1.53
34	i	1591	U	O4'-C1'	5.04	1.49	1.41
33	g	145	GLU	CA-C	-5.03	1.46	1.52
34	i	1691	C	C2'-C1'	-5.03	1.45	1.53
34	i	1821	U	O4'-C1'	5.03	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4	ALA	CA-C	-5.03	1.46	1.53
10	J	124	HIS	CA-C	-5.02	1.46	1.52
34	i	464	G	C2'-C1'	-5.02	1.45	1.53
34	i	1843	G	C2'-C1'	-5.02	1.45	1.53
3	C	99	LYS	N-CA	5.02	1.52	1.45
34	i	59	U	C2'-C1'	5.01	1.60	1.53
7	G	131	ARG	CD-NE	5.01	1.53	1.46
34	i	231	C	O4'-C1'	5.01	1.49	1.41
12	L	19	ASN	C-N	-5.01	1.26	1.33
34	i	306	C	O4'-C1'	5.00	1.49	1.41
34	i	1618	A	O4'-C1'	-5.00	1.34	1.41

All (3467) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1683	C	P-O3'-C3'	-37.84	63.44	120.20
27	a	97	PRO	N-CA-C	32.73	150.64	110.70
34	i	1774	G	P-O3'-C3'	30.14	165.42	120.20
4	D	5	ILE	O-C-N	-29.06	97.69	122.97
8	H	109	ARG	NE-CZ-NH2	-28.48	93.57	119.20
27	a	97	PRO	CB-CA-C	-26.17	78.99	110.92
34	i	24	C	C1'-C2'-O2'	-25.86	73.02	111.80
10	J	146	SER	O-C-N	-24.50	86.44	121.72
28	b	36	LYS	N-CA-C	24.19	137.27	111.14
19	S	40	TYR	N-CA-C	23.18	135.87	111.07
21	U	93	SER	CA-C-N	-22.90	91.22	119.84
21	U	93	SER	C-N-CA	-22.90	91.22	119.84
34	i	1664	G	P-O5'-C5'	22.78	155.07	120.90
34	i	1683	C	OP1-P-O3'	-22.74	39.79	108.00
34	i	883	U	P-O3'-C3'	22.22	153.53	120.20
9	I	43	ILE	O-C-N	-22.16	98.62	123.00
34	i	1080	A	P-O3'-C3'	21.46	152.39	120.20
34	i	1817	A	P-O3'-C3'	21.44	152.35	120.20
3	C	93	LYS	CA-C-N	21.38	145.87	122.14
3	C	93	LYS	C-N-CA	21.38	145.87	122.14
2	B	41	ILE	CB-CA-C	21.33	135.06	111.59
34	i	521	A	P-O3'-C3'	20.99	151.68	120.20
34	i	1503	G	O4'-C1'-C2'	20.62	126.42	105.80
7	G	157	VAL	N-CA-C	20.45	135.97	109.58
4	D	193	ASP	N-CA-C	-20.22	85.25	112.75
8	H	109	ARG	NE-CZ-NH1	20.15	141.65	121.50
9	I	134	GLU	N-CA-CB	20.14	139.21	110.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	G	131	ARG	CB-CA-C	19.90	145.24	109.62
15	O	145	GLY	N-CA-C	19.84	130.80	111.95
10	J	146	SER	CA-C-N	19.69	150.43	120.89
10	J	146	SER	C-N-CA	19.69	150.43	120.89
26	Z	107	VAL	N-CA-CB	-19.58	87.64	110.55
34	i	295	C	C4'-C3'-O3'	-19.54	80.09	109.40
34	i	329	A	C4'-C3'-O3'	-19.45	83.82	113.00
9	I	43	ILE	CA-C-O	19.17	140.94	121.19
34	i	1627	G	P-O3'-C3'	19.07	148.81	120.20
7	G	131	ARG	CB-CG-CD	18.96	154.91	111.30
34	i	730	C	P-O3'-C3'	18.77	148.35	120.20
34	i	1470	A	P-O3'-C3'	18.68	148.22	120.20
34	i	317	G	P-O3'-C3'	18.65	148.17	120.20
34	i	1114	C	O4'-C1'-N1	18.61	136.42	108.50
25	Y	86	GLU	CA-C-O	-18.56	94.74	120.16
18	R	1	MET	N-CA-CB	18.31	141.62	110.50
34	i	1459	U	C4'-C3'-O3'	-18.18	82.13	109.40
34	i	66	G	P-O3'-C3'	18.12	147.38	120.20
19	S	9	PHE	N-CA-C	17.98	130.99	111.03
34	i	520	U	C4'-C3'-O3'	-17.96	86.07	113.00
34	i	211	U	P-O3'-C3'	17.94	147.10	120.20
34	i	793	C	P-O3'-C3'	17.88	147.02	120.20
34	i	126	G	C4'-C3'-O3'	-17.84	82.64	109.40
27	a	97	PRO	CA-C-N	-17.83	102.02	120.38
27	a	97	PRO	C-N-CA	-17.83	102.02	120.38
25	Y	86	GLU	N-CA-C	17.68	148.89	109.81
17	Q	31	LEU	N-CA-C	17.62	132.64	110.61
34	i	140	U	P-O3'-C3'	17.59	146.59	120.20
16	P	37	TYR	N-CA-CB	-17.51	80.90	110.49
34	i	1643	G	C4'-C3'-O3'	17.50	135.65	109.40
34	i	836	C	P-O3'-C3'	17.49	146.44	120.20
34	i	582	C	O4'-C1'-N1	17.29	134.14	108.20
34	i	685	G	P-O3'-C3'	17.04	145.75	120.20
34	i	1226	C	N1-C1'-C2'	16.95	137.43	112.00
24	X	128	VAL	N-CA-C	16.91	129.50	113.10
34	i	1516	C	P-O3'-C3'	16.89	145.54	120.20
24	X	23	HIS	O-C-N	-16.89	102.46	122.22
34	i	743	U	P-O3'-C3'	16.82	145.44	120.20
34	i	722	C	P-O3'-C3'	16.65	145.18	120.20
34	i	67	C	O4'-C1'-N1	16.49	133.24	108.50
34	i	1473	U	P-O3'-C3'	16.42	144.83	120.20
1	A	193	HIS	CA-C-N	16.41	140.35	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	193	HIS	C-N-CA	16.41	140.35	119.84
24	X	91	LEU	N-CA-C	-16.39	93.53	111.07
34	i	1151	U	N1-C1'-C2'	16.29	138.44	114.00
34	i	264	U	P-O3'-C3'	16.26	144.59	120.20
7	G	181	THR	CA-C-N	16.25	136.56	118.85
7	G	181	THR	C-N-CA	16.25	136.56	118.85
34	i	1391	C	P-O3'-C3'	16.23	144.54	120.20
34	i	1429	C	O3'-P-O5'	-16.21	79.68	104.00
34	i	72	C	O4'-C1'-N1	16.20	132.50	108.20
4	D	4	GLN	CG-CD-NE2	16.17	140.66	116.40
4	D	193	ASP	CA-C-N	-16.15	99.65	119.84
4	D	193	ASP	C-N-CA	-16.15	99.65	119.84
34	i	1414	C	C3'-C2'-C1'	-16.10	85.40	101.50
18	R	88	VAL	O-C-N	-16.05	102.51	122.57
18	R	89	SER	N-CA-C	16.01	144.89	110.80
34	i	837	G	C1'-C2'-O2'	-15.99	84.41	108.40
34	i	1563	C	N1-C1'-C2'	15.85	135.77	112.00
34	i	1281	G	C4'-C3'-O3'	15.79	133.09	109.40
9	I	3	ILE	N-CA-C	15.71	130.83	108.36
33	g	275	ILE	N-CA-C	15.71	130.57	107.80
33	g	274	VAL	CA-C-N	-15.68	102.74	123.12
33	g	274	VAL	C-N-CA	-15.68	102.74	123.12
34	i	1393	U	N1-C1'-C2'	15.66	137.49	114.00
4	D	5	ILE	CA-C-N	15.64	144.36	120.75
4	D	5	ILE	C-N-CA	15.64	144.36	120.75
34	i	1413	C	O4'-C1'-C2'	-15.61	91.99	107.60
34	i	1392	A	P-O3'-C3'	15.61	143.61	120.20
34	i	678	U	O4'-C1'-N1	15.59	131.58	108.20
2	B	40	ASN	CA-C-N	-15.59	98.66	120.95
2	B	40	ASN	C-N-CA	-15.59	98.66	120.95
10	J	89	GLU	N-CA-C	15.55	137.03	111.37
34	i	424	G	C4'-C3'-O3'	-15.49	89.77	113.00
4	D	82	GLY	CA-C-N	-15.46	98.34	120.29
4	D	82	GLY	C-N-CA	-15.46	98.34	120.29
34	i	1469	G	O3'-P-O5'	15.36	127.04	104.00
34	i	551	A	C4'-C3'-O3'	-15.31	90.04	113.00
34	i	319	G	P-O3'-C3'	15.31	143.16	120.20
34	i	1012	U	N1-C1'-C2'	15.30	136.95	114.00
34	i	1819	A	P-O3'-C3'	15.28	143.12	120.20
34	i	79	A	O4'-C1'-C2'	-15.27	90.53	105.80
34	i	1233	C	N1-C1'-C2'	15.27	134.90	112.00
7	G	170	ARG	CA-CB-CG	15.18	144.46	114.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	180	G	P-O3'-C3'	-15.16	97.46	120.20
9	I	134	GLU	CB-CA-C	-15.16	87.08	110.88
34	i	1548	C	O4'-C1'-N1	15.16	131.24	108.50
26	Z	112	ASN	N-CA-C	15.13	127.27	111.07
34	i	738	U	O4'-C1'-N1	15.12	130.89	108.20
34	i	793	C	O4'-C1'-N1	15.07	130.80	108.20
34	i	225	C	P-O3'-C3'	15.03	142.75	120.20
34	i	1549	C	O3'-P-O5'	-15.02	81.47	104.00
7	G	170	ARG	N-CA-CB	14.96	133.00	110.70
34	i	1471	G	P-O3'-C3'	14.96	142.64	120.20
8	H	110	THR	CA-C-O	-14.94	99.14	120.51
24	X	115	ILE	N-CA-C	-14.88	91.10	107.77
34	i	1322	U	N1-C1'-C2'	14.85	136.27	114.00
34	i	697	G	P-O3'-C3'	14.77	142.36	120.20
33	g	274	VAL	O-C-N	-14.73	107.86	123.03
34	i	78	C	P-O3'-C3'	14.72	142.28	120.20
23	W	100	GLY	N-CA-C	-14.71	94.67	112.48
3	C	105	GLN	N-CA-C	14.66	129.45	110.53
34	i	418	U	O4'-C1'-N1	14.64	130.16	108.20
34	i	1299	C	O4'-C1'-N1	14.63	130.44	108.50
17	Q	18	THR	N-CA-CB	14.62	134.23	110.69
19	S	141	ARG	O-C-N	-14.59	100.78	122.96
34	i	126	G	P-O3'-C3'	14.58	142.07	120.20
34	i	688	U	P-O3'-C3'	14.57	142.06	120.20
18	R	2	GLY	O-C-N	-14.49	106.30	122.68
1	A	10	MET	N-CA-C	14.49	126.79	111.14
31	e	95	LYS	O-C-N	-14.47	103.57	122.39
25	Y	103	SER	O-C-N	-14.45	99.88	123.00
34	i	1113	C	O4'-C1'-N1	14.37	130.06	108.50
11	K	42	ASN	CA-C-O	-14.32	106.37	121.55
9	I	5	ARG	CA-C-N	14.31	141.07	120.90
9	I	5	ARG	C-N-CA	14.31	141.07	120.90
8	H	109	ARG	CD-NE-CZ	14.29	144.41	124.40
7	G	131	ARG	CA-CB-CG	14.28	142.66	114.10
5	E	259	LYS	N-CA-C	14.26	131.64	108.55
34	i	72	C	P-O3'-C3'	14.24	141.56	120.20
34	i	1544	U	P-O3'-C3'	14.09	141.34	120.20
34	i	299	G	N9-C1'-C2'	14.07	135.11	114.00
34	i	1133	U	P-O3'-C3'	14.07	141.30	120.20
34	i	215	U	N1-C1'-C2'	14.04	133.06	112.00
31	e	120	VAL	CB-CA-C	-14.03	99.48	114.35
3	C	93	LYS	O-C-N	-14.00	109.60	123.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	b	36	LYS	CA-C-N	13.99	155.94	121.80
28	b	36	LYS	C-N-CA	13.99	155.94	121.80
25	Y	64	PHE	CA-C-N	-13.93	106.87	123.44
25	Y	64	PHE	C-N-CA	-13.93	106.87	123.44
34	i	727	G	P-O3'-C3'	13.93	141.09	120.20
24	X	37	LYS	N-CA-C	13.91	126.16	111.14
29	c	6	VAL	N-CA-C	13.89	127.48	107.75
24	X	98	ASP	N-CA-C	13.88	126.49	111.36
19	S	87	GLN	O-C-N	-13.87	105.59	122.65
34	i	180	G	C4'-C3'-O3'	13.82	130.12	109.40
12	L	153	LYS	O-C-N	-13.81	104.22	122.59
34	i	1227	C	N1-C1'-C2'	13.81	132.71	112.00
34	i	257	G	P-O3'-C3'	13.69	140.74	120.20
5	E	75	LYS	N-CA-C	13.68	131.07	108.49
34	i	1458	U	C4'-C3'-O3'	13.68	129.92	109.40
34	i	189	G	P-O3'-C3'	13.59	140.59	120.20
34	i	524	G	P-O3'-C3'	13.58	140.57	120.20
21	U	67	LYS	CA-C-N	-13.57	100.05	120.68
21	U	67	LYS	C-N-CA	-13.57	100.05	120.68
8	H	118	ARG	NE-CZ-NH1	13.52	135.02	121.50
34	i	1105	C	O4'-C1'-N1	13.52	128.78	108.50
2	B	63	LYS	N-CA-C	13.51	125.73	111.14
33	g	50	THR	CA-C-N	-13.43	103.26	123.14
33	g	50	THR	C-N-CA	-13.43	103.26	123.14
34	i	1018	U	N1-C1'-C2'	13.39	132.09	112.00
34	i	1327	C	N1-C1'-C2'	13.39	134.08	114.00
34	i	135	U	P-O3'-C3'	13.36	140.23	120.20
10	J	145	PRO	N-CA-C	-13.34	96.09	113.57
14	N	19	ARG	N-CA-C	-13.34	91.43	110.24
34	i	1503	G	C1'-C2'-O2'	13.31	131.76	111.80
12	L	28	THR	CA-C-N	13.30	131.85	121.61
12	L	28	THR	C-N-CA	13.30	131.85	121.61
17	Q	134	GLY	CA-C-N	-13.30	105.68	120.04
17	Q	134	GLY	C-N-CA	-13.30	105.68	120.04
34	i	1311	U	O4'-C1'-N1	13.29	128.44	108.50
34	i	136	C	P-O3'-C3'	13.29	140.14	120.20
28	b	79	PHE	N-CA-C	13.24	129.70	107.20
21	U	93	SER	O-C-N	13.22	136.52	121.32
34	i	831	C	P-O5'-C5'	13.21	140.72	120.90
34	i	490	A	O3'-P-O5'	-13.19	84.21	104.00
6	F	36	GLN	N-CA-C	-13.13	90.61	110.30
34	i	287	U	N1-C1'-C2'	13.13	131.70	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	239	U	P-O3'-C3'	13.11	139.87	120.20
10	J	138	ARG	N-CA-C	13.09	138.69	110.80
18	R	1	MET	CA-C-N	-13.06	97.54	120.79
18	R	1	MET	C-N-CA	-13.06	97.54	120.79
34	i	222	G	P-O3'-C3'	13.06	139.79	120.20
34	i	1392	A	O4'-C1'-N9	13.05	128.08	108.50
28	b	53	VAL	CA-C-N	-13.03	107.04	123.19
28	b	53	VAL	C-N-CA	-13.03	107.04	123.19
5	E	171	ASP	N-CA-C	13.02	138.53	110.80
28	b	37	CYS	CA-C-N	13.02	136.11	119.84
28	b	37	CYS	C-N-CA	13.02	136.11	119.84
34	i	1081	C	P-O5'-C5'	-13.00	101.40	120.90
34	i	848	G	C4'-C3'-O3'	-12.98	93.52	113.00
20	T	4	VAL	N-CA-C	12.97	147.32	111.00
19	S	91	LYS	CG-CD-CE	12.97	141.13	111.30
8	H	192	PHE	N-CA-C	12.92	126.76	110.61
16	P	51	ARG	N-CA-C	12.92	124.89	111.07
6	F	130	ARG	N-CA-C	12.90	129.08	111.54
34	i	867	U	O4'-C1'-N1	12.90	127.55	108.20
34	i	830	C	N1-C1'-C2'	12.89	131.34	112.00
33	g	159	ASN	CA-C-N	-12.85	104.87	123.11
33	g	159	ASN	C-N-CA	-12.85	104.87	123.11
34	i	1414	C	O4'-C1'-C2'	12.84	118.64	105.80
24	X	126	ALA	N-CA-C	-12.82	97.22	112.86
34	i	1257	C	N1-C1'-C2'	12.82	131.23	112.00
34	i	1010	G	O4'-C1'-C2'	12.81	120.41	107.60
34	i	1408	C	O3'-P-O5'	-12.80	84.80	104.00
34	i	340	C	O4'-C1'-C2'	-12.79	94.81	107.60
33	g	145	GLU	N-CA-C	-12.79	87.23	113.31
34	i	835	C	N1-C1'-C2'	12.76	133.14	114.00
34	i	358	U	P-O3'-C3'	12.74	139.31	120.20
13	M	10	GLY	N-CA-C	12.67	131.96	114.85
10	J	101	LYS	N-CA-C	12.64	128.74	108.76
7	G	173	ALA	CA-C-N	12.63	135.63	119.84
7	G	173	ALA	C-N-CA	12.63	135.63	119.84
12	L	98	LYS	N-CA-C	-12.60	95.63	111.75
34	i	1307	C	N1-C1'-C2'	12.58	130.87	112.00
11	K	1	MET	N-CA-CB	-12.58	89.12	110.50
34	i	1859	C	C4'-C3'-O3'	12.57	128.25	109.40
34	i	207	U	C4'-C3'-O3'	12.55	131.82	113.00
31	e	118	ASN	N-CA-C	12.53	124.67	111.14
18	R	111	PHE	N-CA-C	12.52	130.31	108.02

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1406	C	N1-C1'-C2'	12.51	130.76	112.00
4	D	4	GLN	N-CA-CB	-12.47	89.41	110.49
11	K	55	ARG	CG-CD-NE	12.47	139.44	112.00
34	i	522	C	O4'-C1'-C2'	-12.45	95.15	107.60
10	J	187	ALA	N-CA-C	12.45	124.25	108.19
23	W	2	VAL	CA-C-N	-12.44	104.89	122.93
23	W	2	VAL	C-N-CA	-12.44	104.89	122.93
32	f	104	LYS	N-CA-C	-12.43	97.95	112.87
15	O	129	ILE	CB-CA-C	-12.43	90.91	111.29
30	d	6	LEU	N-CA-C	-12.38	97.47	111.71
34	i	622	C	N1-C1'-C2'	12.38	130.58	112.00
34	i	141	A	P-O3'-C3'	12.36	138.74	120.20
3	C	242	LYS	N-CA-C	12.35	129.58	109.95
34	i	1150	U	O4'-C1'-N1	12.34	126.72	108.20
33	g	159	ASN	N-CA-C	12.34	137.08	110.80
16	P	52	LYS	CA-C-N	-12.30	102.92	122.73
16	P	52	LYS	C-N-CA	-12.30	102.92	122.73
6	F	38	TYR	CA-C-N	-12.30	106.81	122.93
6	F	38	TYR	C-N-CA	-12.30	106.81	122.93
19	S	10	GLN	N-CA-C	12.29	126.08	111.82
34	i	837	G	C2'-C3'-O3'	-12.29	95.27	113.70
34	i	1564	A	O4'-C1'-N9	12.29	126.93	108.50
34	i	1304	U	O4'-C1'-N1	12.26	126.59	108.20
19	S	54	LYS	N-CA-C	12.24	136.87	110.80
34	i	165	G	O4'-C1'-N9	12.23	126.85	108.50
7	G	173	ALA	O-C-N	-12.17	109.69	121.38
31	e	119	VAL	CA-C-N	12.17	127.91	120.24
31	e	119	VAL	C-N-CA	12.17	127.91	120.24
10	J	180	LYS	N-CA-C	12.12	127.56	113.01
34	i	728	U	P-O5'-C5'	12.12	139.08	120.90
34	i	138	C	P-O3'-C3'	12.10	138.36	120.20
34	i	1425	G	P-O3'-C3'	12.08	138.32	120.20
34	i	1472	A	O4'-C1'-N9	12.07	126.61	108.50
34	i	295	C	P-O3'-C3'	12.04	138.26	120.20
34	i	1044	G	N9-C1'-C2'	12.01	130.01	112.00
20	T	42	HIS	CB-CG-CD2	-12.00	115.60	131.20
22	V	64	GLU	N-CA-C	11.95	128.82	112.93
34	i	544	A	O4'-C1'-N9	11.93	126.39	108.50
34	i	4	C	N1-C1'-C2'	11.89	129.83	112.00
2	B	76	ASN	N-CA-C	11.87	128.14	111.52
12	L	20	LYS	N-CA-CB	-11.86	90.44	110.49
7	G	170	ARG	CB-CG-CD	11.85	138.56	111.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	396	U	P-O3'-C3'	11.83	137.94	120.20
28	b	53	VAL	N-CA-C	-11.82	93.82	109.30
21	U	104	ILE	N-CA-C	-11.80	84.80	109.34
4	D	4	GLN	CG-CD-OE1	-11.79	97.22	120.80
34	i	1279	C	P-O3'-C3'	11.79	137.89	120.20
34	i	1532	A	O4'-C1'-C2'	-11.78	95.82	107.60
24	X	23	HIS	CA-C-N	11.75	139.95	121.26
24	X	23	HIS	C-N-CA	11.75	139.95	121.26
33	g	160	SER	N-CA-C	11.75	128.78	107.99
34	i	524	G	O3'-P-O5'	-11.74	86.39	104.00
34	i	905	G	O3'-P-O5'	11.74	121.61	104.00
34	i	314	U	O4'-C1'-N1	11.73	126.10	108.50
19	S	139	THR	N-CA-C	11.73	118.40	108.78
34	i	1235	U	P-O3'-C3'	-11.71	102.63	120.20
24	X	127	ASN	N-CA-C	-11.71	98.57	112.86
34	i	1552	C	O4'-C1'-N1	11.70	125.76	108.20
19	S	93	GLY	O-C-N	11.70	133.87	122.41
1	A	84	GLN	N-CA-C	11.68	123.76	111.14
34	i	835	C	C3'-C2'-C1'	-11.64	89.86	101.50
34	i	616	G	O4'-C1'-C2'	-11.63	95.97	107.60
34	i	1573	U	O4'-C1'-N1	11.62	125.64	108.20
34	i	734	C	P-O3'-C3'	11.62	137.63	120.20
34	i	1360	U	O3'-P-O5'	11.62	121.43	104.00
34	i	179	C	N1-C1'-C2'	11.60	129.40	112.00
34	i	876	G	O4'-C1'-N9	11.60	125.90	108.50
34	i	1549	C	C2'-C3'-O3'	-11.60	96.30	113.70
34	i	1816	A	C4'-C3'-O3'	-11.54	95.68	113.00
6	F	131	ALA	N-CA-C	11.53	126.65	112.58
34	i	1530	U	C4'-C3'-O3'	11.50	126.65	109.40
19	S	88	LYS	CA-C-N	-11.49	99.59	121.54
19	S	88	LYS	C-N-CA	-11.49	99.59	121.54
34	i	1492	U	P-O3'-C3'	11.48	137.43	120.20
34	i	1776	G	O4'-C1'-N9	11.48	125.72	108.50
34	i	907	C	P-O5'-C5'	11.48	138.12	120.90
34	i	1515	G	N9-C1'-C2'	11.46	129.20	112.00
21	U	103	SER	CA-C-N	-11.46	101.34	121.97
21	U	103	SER	C-N-CA	-11.46	101.34	121.97
34	i	1328	A	O4'-C1'-C2'	-11.45	96.16	107.60
18	R	1	MET	CA-C-O	11.44	140.25	120.80
7	G	180	VAL	CB-CA-C	-11.43	92.54	111.29
34	i	24	C	O3'-P-O5'	-11.43	86.85	104.00
34	i	1296	U	O4'-C1'-N1	11.43	125.34	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	l	67	PHE	N-CA-C	-11.42	97.29	114.64
34	i	478	U	P-O3'-C3'	11.41	137.32	120.20
34	i	734	C	N1-C1'-C2'	11.39	129.09	112.00
20	T	93	SER	N-CA-CB	11.38	132.08	111.36
34	i	1261	A	N9-C1'-C2'	11.39	131.08	114.00
34	i	1683	C	O3'-P-O5'	11.37	121.06	104.00
34	i	170	A	O4'-C1'-C2'	11.35	118.95	107.60
34	i	538	C	P-O3'-C3'	11.35	137.23	120.20
34	i	1361	G	C4'-C3'-O3'	-11.34	96.00	113.00
34	i	454	A	P-O3'-C3'	-11.33	103.21	120.20
12	L	17	PHE	O-C-N	11.32	137.42	123.16
24	X	22	TRP	CA-C-N	-11.32	103.98	120.28
24	X	22	TRP	C-N-CA	-11.32	103.98	120.28
17	Q	18	THR	CA-CB-OG1	11.30	126.56	109.60
34	i	1390	G	P-O3'-C3'	11.29	137.14	120.20
34	i	133	C	P-O3'-C3'	11.25	137.08	120.20
34	i	298	G	O4'-C1'-N9	11.25	125.37	108.50
11	K	87	PRO	CA-C-N	11.24	143.01	121.54
11	K	87	PRO	C-N-CA	11.24	143.01	121.54
18	R	86	PRO	CA-N-CD	-11.24	96.27	112.00
34	i	720	A	P-O3'-C3'	11.23	137.05	120.20
34	i	847	C	O3'-P-O5'	-11.23	87.15	104.00
34	i	1845	A	O4'-C1'-C2'	-11.20	96.40	107.60
10	J	165	TYR	CB-CA-C	11.20	128.23	109.75
34	i	109	U	C4'-C3'-O3'	-11.19	96.22	113.00
18	R	1	MET	N-CA-C	-11.15	79.77	111.00
3	C	157	ASN	N-CA-C	11.12	128.44	107.75
7	G	131	ARG	CA-C-N	-11.09	101.83	120.68
7	G	131	ARG	C-N-CA	-11.09	101.83	120.68
34	i	1562	G	O4'-C1'-N9	11.09	125.14	108.50
34	i	1412	C	P-O3'-C3'	11.08	136.82	120.20
34	i	1468	C	C4'-C3'-O3'	11.08	129.62	113.00
34	i	1496	G	N9-C1'-C2'	11.05	128.57	112.00
9	I	5	ARG	O-C-N	-11.04	109.61	122.20
34	i	519	A	P-O3'-C3'	-11.02	103.67	120.20
3	C	69	PHE	CA-CB-CG	-11.01	102.79	113.80
34	i	1824	U	P-O3'-C3'	10.98	136.67	120.20
34	i	1238	U	N1-C1'-C2'	10.97	130.46	114.00
34	i	53	C	O4'-C1'-C2'	-10.92	96.68	107.60
2	B	37	ALA	CA-C-N	-10.92	102.49	120.72
2	B	37	ALA	C-N-CA	-10.92	102.49	120.72
27	a	10	ARG	NE-CZ-NH2	10.92	129.02	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	C	98	GLN	N-CA-C	10.91	124.53	108.60
9	I	31	ARG	N-CA-C	10.90	118.03	108.22
8	H	118	ARG	NE-CZ-NH2	-10.88	109.41	119.20
22	V	67	ASP	CB-CA-C	10.85	128.05	110.90
34	i	730	C	O4'-C1'-C2'	-10.85	96.75	107.60
21	U	68	THR	CB-CA-C	10.84	126.72	109.27
34	i	1738	G	N9-C1'-C2'	10.83	128.25	112.00
34	i	849	C	O3'-P-O5'	10.83	120.25	104.00
34	i	1441	U	C4'-C3'-O3'	-10.82	96.77	113.00
34	i	546	U	P-O5'-C5'	10.81	137.12	120.90
27	a	97	PRO	N-CA-CB	-10.80	92.60	103.08
11	K	42	ASN	N-CA-C	-10.80	95.66	110.35
19	S	53	THR	O-C-N	-10.76	108.28	122.59
34	i	1414	C	P-O5'-C5'	10.75	137.03	120.90
34	i	240	C	P-O3'-C3'	10.75	136.32	120.20
27	a	10	ARG	CB-CG-CD	10.75	136.02	111.30
6	F	38	TYR	N-CA-C	-10.72	99.67	113.17
34	i	1716	U	O4'-C1'-C2'	-10.69	96.91	107.60
34	i	543	U	O4'-C1'-C2'	-10.69	96.91	107.60
34	i	1184	A	O4'-C1'-C2'	-10.69	96.91	107.60
34	i	727	G	O3'-P-O5'	10.68	120.02	104.00
34	i	794	G	P-O3'-C3'	10.68	136.22	120.20
34	i	1819	A	O4'-C1'-N9	10.67	124.51	108.50
34	i	276	U	P-O3'-C3'	10.67	136.20	120.20
34	i	570	U	C4'-C3'-O3'	10.66	128.99	113.00
34	i	1112	C	O4'-C1'-N1	10.66	124.19	108.20
34	i	1134	C	C4'-C3'-O3'	-10.64	97.04	113.00
34	i	1773	G	P-O3'-C3'	10.64	136.16	120.20
21	U	71	GLY	N-CA-C	10.63	138.38	113.18
24	X	23	HIS	CB-CA-C	10.63	130.30	110.63
34	i	1082	G	O3'-P-O5'	-10.62	88.07	104.00
10	J	118	GLY	O-C-N	-10.61	108.91	122.70
34	i	436	G	N9-C1'-C2'	10.61	127.91	112.00
34	i	1741	U	C4'-C3'-O3'	10.61	128.91	113.00
34	i	313	C	P-O3'-C3'	10.60	136.10	120.20
34	i	325	G	O4'-C1'-N9	10.58	124.37	108.50
34	i	986	A	N9-C1'-C2'	10.57	129.86	114.00
34	i	858	A	N9-C1'-C2'	10.57	127.86	112.00
8	H	111	LYS	N-CA-C	-10.56	87.64	107.71
12	L	147	LYS	N-CA-C	10.56	133.29	110.80
34	i	905	G	C4'-C3'-O3'	10.55	128.82	113.00
34	i	1135	C	C4'-C3'-O3'	-10.53	97.21	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	618	A	O4'-C1'-N9	10.52	124.28	108.50
34	i	1862	U	P-O3'-C3'	10.51	135.96	120.20
27	a	96	THR	O-C-N	10.50	133.40	121.32
34	i	1297	A	C4'-C3'-O3'	10.50	128.75	113.00
34	i	1505	U	C4'-C3'-O3'	-10.49	93.67	109.40
34	i	1548	C	C3'-C2'-C1'	-10.46	90.84	101.30
19	S	88	LYS	CB-CA-C	10.44	131.51	112.30
34	i	1856	G	O4'-C1'-C2'	-10.44	95.36	105.80
34	i	794	G	O4'-C1'-C2'	-10.44	95.36	105.80
34	i	1272	A	O4'-C1'-C2'	-10.43	97.17	107.60
34	i	829	C	P-O3'-C3'	10.42	135.82	120.20
34	i	1716	U	O4'-C1'-N1	10.41	124.11	108.50
21	U	106	ILE	N-CA-C	10.38	123.93	108.46
34	i	578	G	O3'-P-O5'	-10.36	88.46	104.00
34	i	1741	U	P-O3'-C3'	10.35	135.72	120.20
34	i	1074	C	N1-C1'-C2'	10.33	127.50	112.00
34	i	1404	U	N1-C1'-C2'	10.33	127.49	112.00
18	R	94	GLU	N-CA-C	-10.32	96.83	110.24
34	i	1426	C	O4'-C1'-N1	10.30	123.94	108.50
34	i	317	G	O4'-C1'-N9	10.26	123.59	108.20
34	i	524	G	C4'-C3'-O3'	10.26	128.38	113.00
34	i	1118	A	O4'-C1'-C2'	-10.25	97.35	107.60
34	i	141	A	O4'-C1'-C2'	-10.24	95.56	105.80
34	i	24	C	P-O3'-C3'	10.24	135.56	120.20
34	i	191	C	C4'-C3'-O3'	10.23	128.34	113.00
34	i	742	C	P-O3'-C3'	10.19	135.48	120.20
5	E	151	ASP	CB-CA-C	10.18	121.83	109.31
34	i	616	G	C3'-C2'-C1'	10.18	111.48	101.30
34	i	1857	A	O4'-C1'-C2'	-10.17	95.63	105.80
19	S	138	THR	CA-C-N	-10.17	112.06	123.04
19	S	138	THR	C-N-CA	-10.17	112.06	123.04
21	U	104	ILE	N-CA-CB	10.17	128.01	111.23
34	i	1434	A	O4'-C1'-C2'	-10.16	97.44	107.60
10	J	161	LEU	O-C-N	-10.16	109.08	122.59
34	i	168	C	N1-C1'-C2'	10.15	127.22	112.00
3	C	149	PRO	CA-C-O	-10.14	109.77	121.34
34	i	526	A	C4'-C3'-O3'	10.14	128.22	113.00
29	c	60	GLU	N-CA-C	-10.14	95.94	110.24
18	R	42	PRO	CA-N-CD	-10.14	97.80	112.00
9	I	132	GLU	CA-C-O	-10.14	108.78	121.55
17	Q	18	THR	N-CA-C	-10.14	93.27	109.59
27	a	80	HIS	N-CA-CB	-10.12	95.33	110.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1358	U	O4'-C1'-N1	10.12	123.38	108.20
26	Z	107	VAL	N-CA-C	10.11	120.12	110.42
10	J	93	LYS	CA-C-N	10.10	140.84	121.54
10	J	93	LYS	C-N-CA	10.10	140.84	121.54
34	i	964	U	O4'-C1'-C2'	-10.09	97.51	107.60
34	i	82	G	O4'-C1'-C2'	-10.07	97.53	107.60
34	i	1715	U	P-O3'-C3'	10.07	135.31	120.20
34	i	1828	A	N9-C1'-C2'	10.07	129.10	114.00
34	i	883	U	P-O5'-C5'	10.05	135.98	120.90
8	H	105	THR	CB-CA-C	10.04	126.76	110.29
34	i	876	G	P-O3'-C3'	10.04	135.26	120.20
34	i	1515	G	O3'-P-O5'	10.04	119.06	104.00
34	i	1258	C	N1-C1'-C2'	10.03	127.05	112.00
34	i	73	C	O4'-C1'-C2'	-10.03	95.77	105.80
34	i	207	U	O3'-P-O5'	-10.03	88.96	104.00
34	i	142	C	O4'-C1'-N1	10.02	123.22	108.20
22	V	66	ASP	CA-C-N	-10.01	106.82	120.44
22	V	66	ASP	C-N-CA	-10.01	106.82	120.44
24	X	58	GLU	N-CA-C	10.01	126.21	110.70
34	i	546	U	C4'-C3'-C2'	-10.00	92.60	102.60
34	i	869	G	P-O3'-C3'	10.00	135.20	120.20
15	O	102	GLY	CA-C-N	-9.99	106.05	122.54
15	O	102	GLY	C-N-CA	-9.99	106.05	122.54
27	a	10	ARG	CD-NE-CZ	9.99	138.38	124.40
34	i	1305	C	O4'-C1'-C2'	-9.99	97.61	107.60
34	i	1715	U	O4'-C1'-C2'	-9.98	97.62	107.60
34	i	721	C	P-O3'-C3'	9.97	135.16	120.20
34	i	1402	G	P-O3'-C3'	9.97	135.15	120.20
34	i	547	U	N1-C1'-C2'	9.95	126.93	112.00
34	i	594	A	P-O3'-C3'	9.95	135.12	120.20
10	J	166	GLY	CA-C-N	-9.94	106.14	121.45
10	J	166	GLY	C-N-CA	-9.94	106.14	121.45
34	i	914	U	N1-C1'-C2'	9.92	126.88	112.00
34	i	125	C	C4'-C3'-O3'	9.89	124.24	109.40
34	i	1211	C	O4'-C1'-C2'	-9.89	95.91	105.80
34	i	1859	C	C2'-C3'-O3'	-9.89	94.66	109.50
1	A	193	HIS	N-CA-C	9.89	124.67	110.24
34	i	66	G	C1'-O4'-C4'	-9.89	100.01	109.90
34	i	1255	A	O4'-C1'-C2'	9.88	117.48	107.60
26	Z	104	ARG	CD-NE-CZ	-9.88	110.57	124.40
11	K	1	MET	CB-CG-SD	9.88	142.33	112.70
16	P	36	LEU	N-CA-C	-9.87	93.17	109.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1068	U	O4'-C1'-C2'	-9.87	97.73	107.60
34	i	1534	U	O4'-C1'-C2'	-9.87	97.73	107.60
34	i	854	A	O4'-C1'-C2'	-9.86	97.74	107.60
34	i	1533	C	P-O3'-C3'	9.85	134.97	120.20
8	H	113	LYS	CA-C-O	-9.84	110.20	121.81
34	i	1194	G	O4'-C1'-C2'	9.83	117.43	107.60
4	D	52	ALA	CA-C-N	-9.81	103.81	122.06
4	D	52	ALA	C-N-CA	-9.81	103.81	122.06
34	i	904	A	O3'-P-O5'	-9.81	89.28	104.00
34	i	1855	G	O4'-C1'-C2'	9.81	115.61	105.80
34	i	1742	C	C2'-C3'-O3'	-9.81	98.99	113.70
7	G	155	GLN	CA-C-N	-9.81	107.29	123.37
7	G	155	GLN	C-N-CA	-9.81	107.29	123.37
34	i	139	C	P-O3'-C3'	9.80	134.90	120.20
34	i	1060	C	O4'-C1'-C2'	-9.79	97.81	107.60
34	i	883	U	O4'-C1'-N1	9.78	122.87	108.20
12	L	102	PHE	N-CA-C	-9.77	94.41	109.85
34	i	1024	A	C4'-C3'-O3'	-9.77	98.34	113.00
10	J	100	LEU	N-CA-C	9.77	125.50	110.36
34	i	1490	U	C2'-C3'-O3'	9.76	124.14	109.50
34	i	80	G	O4'-C1'-C2'	-9.75	97.85	107.60
34	i	954	G	O4'-C1'-N9	9.75	123.13	108.50
10	J	161	LEU	CA-C-N	-9.74	102.94	121.54
10	J	161	LEU	C-N-CA	-9.74	102.94	121.54
34	i	684	A	O4'-C1'-C2'	9.73	117.33	107.60
9	I	156	ALA	N-CA-C	-9.72	101.62	113.19
34	i	872	C	O4'-C1'-C2'	-9.72	97.88	107.60
34	i	1743	G	P-O5'-C5'	9.71	135.47	120.90
33	g	277	THR	N-CA-C	-9.71	97.80	110.33
34	i	520	U	O4'-C4'-C3'	-9.69	94.31	104.00
34	i	570	U	P-O3'-C3'	-9.67	105.69	120.20
3	C	241	TRP	CA-C-N	-9.66	107.32	122.87
3	C	241	TRP	C-N-CA	-9.66	107.32	122.87
27	a	63	VAL	CA-C-N	9.65	145.36	121.80
27	a	63	VAL	C-N-CA	9.65	145.36	121.80
34	i	1588	C	P-O3'-C3'	9.65	134.68	120.20
34	i	1134	C	O3'-P-O5'	9.65	118.48	104.00
34	i	1597	U	O3'-P-O5'	-9.64	89.53	104.00
34	i	342	U	O4'-C1'-C2'	-9.64	97.96	107.60
34	i	911	G	O4'-C1'-N9	9.64	122.96	108.50
34	i	66	G	N9-C1'-C2'	9.64	126.46	112.00
7	G	122	PRO	CA-N-CD	-9.63	98.52	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	77	A	P-O3'-C3'	9.63	134.65	120.20
34	i	71	G	C4'-C3'-O3'	9.62	123.83	109.40
34	i	1546	U	O4'-C1'-C2'	9.62	117.22	107.60
34	i	526	A	P-O3'-C3'	-9.61	105.78	120.20
21	U	94	PRO	CA-N-CD	-9.60	98.56	112.00
10	J	164	PRO	CA-C-N	-9.59	109.48	122.72
10	J	164	PRO	C-N-CA	-9.59	109.48	122.72
34	i	594	A	O4'-C1'-C2'	-9.59	98.01	107.60
34	i	735	C	O4'-C1'-C2'	-9.59	98.01	107.60
34	i	1742	C	C4'-C3'-O3'	-9.59	98.62	113.00
34	i	162	C	C4'-C3'-O3'	9.59	127.38	113.00
34	i	1673	A	O4'-C1'-N9	9.57	122.85	108.50
21	U	53	PRO	CA-N-CD	-9.56	98.61	112.00
3	C	156	GLY	CA-C-N	-9.55	109.58	122.85
3	C	156	GLY	C-N-CA	-9.55	109.58	122.85
9	I	191	GLU	N-CA-C	9.55	121.27	108.38
32	f	87	THR	N-CA-C	-9.54	88.72	109.81
34	i	1530	U	O3'-P-O5'	-9.54	89.68	104.00
34	i	696	G	P-O3'-C3'	9.53	134.50	120.20
34	i	1140	A	N9-C1'-C2'	9.53	126.29	112.00
27	a	58	VAL	CB-CA-C	-9.52	95.68	111.29
34	i	899	A	O4'-C1'-N9	9.51	122.77	108.50
34	i	1405	A	P-O5'-C5'	9.51	135.16	120.90
34	i	1585	C	N1-C1'-C2'	9.51	126.26	112.00
34	i	1483	A	C4'-C3'-O3'	-9.51	98.74	113.00
34	i	947	C	P-O5'-C5'	9.50	135.15	120.90
34	i	1473	U	P-O5'-C5'	9.50	135.15	120.90
20	T	51	ASN	CA-C-N	9.49	135.91	120.63
20	T	51	ASN	C-N-CA	9.49	135.91	120.63
34	i	542	G	P-O5'-C5'	9.49	135.13	120.90
34	i	431	C	N1-C1'-C2'	9.47	126.20	112.00
34	i	1430	C	P-O3'-C3'	9.46	134.40	120.20
34	i	542	G	P-O3'-C3'	9.45	134.38	120.20
33	g	185	LYS	N-CA-C	9.45	121.35	111.14
21	U	70	CYS	CA-C-N	9.43	139.90	121.41
21	U	70	CYS	C-N-CA	9.43	139.90	121.41
34	i	1562	G	C3'-C2'-C1'	-9.43	91.87	101.30
34	i	1494	A	C1'-O4'-C4'	-9.43	100.47	109.90
34	i	1233	C	C1'-O4'-C4'	-9.41	100.49	109.90
34	i	277	U	C3'-C2'-C1'	9.40	110.70	101.30
25	Y	86	GLU	C-N-CD	-9.40	86.46	125.00
34	i	728	U	N1-C1'-C2'	9.39	126.09	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	200	ASP	CB-CA-C	-9.38	91.03	110.17
7	G	170	ARG	CB-CA-C	-9.38	93.66	110.36
12	L	153	LYS	CA-C-N	9.38	142.02	122.41
12	L	153	LYS	C-N-CA	9.38	142.02	122.41
34	i	408	A	N9-C1'-C2'	9.37	126.05	112.00
6	F	163	PHE	N-CA-C	9.36	121.08	111.07
34	i	1288	C	N1-C1'-C2'	9.36	126.03	112.00
34	i	1397	A	P-O3'-C3'	9.35	134.23	120.20
34	i	1736	U	N1-C1'-C2'	9.35	126.03	112.00
34	i	689	G	O4'-C1'-C2'	-9.35	98.25	107.60
4	D	82	GLY	O-C-N	-9.34	110.97	122.46
6	F	45	TYR	CA-CB-CG	-9.34	97.10	113.90
12	L	152	LYS	CA-C-O	-9.34	107.16	120.51
34	i	237	G	P-O3'-C3'	9.33	134.19	120.20
34	i	1740	A	O4'-C1'-N9	9.32	122.48	108.50
10	J	180	LYS	CA-C-N	9.31	139.67	121.41
10	J	180	LYS	C-N-CA	9.31	139.67	121.41
33	g	12	LYS	CA-C-N	9.31	134.52	123.44
33	g	12	LYS	C-N-CA	9.31	134.52	123.44
34	i	1199	G	N9-C1'-C2'	9.31	125.97	112.00
34	i	446	C	N1-C1'-C2'	9.30	125.96	112.00
34	i	1235	U	C4'-C3'-O3'	-9.29	99.07	113.00
34	i	1403	U	N1-C1'-C2'	9.29	125.93	112.00
34	i	893	U	O3'-P-O5'	-9.28	90.08	104.00
8	H	99	ARG	N-CA-C	9.26	121.46	111.36
28	b	12	PRO	CA-N-CD	-9.26	99.04	112.00
2	B	147	ASN	CA-C-N	-9.26	103.86	121.54
2	B	147	ASN	C-N-CA	-9.26	103.86	121.54
34	i	1377	G	O4'-C1'-N9	9.26	122.38	108.50
34	i	484	C	O4'-C1'-C2'	-9.25	98.35	107.60
27	a	102	ARG	C-N-CD	-9.24	87.12	125.00
34	i	1043	C	O4'-C1'-C2'	-9.23	98.36	107.60
34	i	927	C	O4'-C1'-C2'	-9.23	98.37	107.60
34	i	225	C	C3'-C2'-C1'	9.23	110.73	101.50
34	i	915	A	P-O3'-C3'	9.23	134.04	120.20
34	i	1237	A	C3'-C2'-C1'	9.23	110.53	101.30
3	C	104	GLY	N-CA-C	9.22	135.04	113.18
19	S	139	THR	CB-CA-C	-9.22	103.80	117.07
24	X	67	ARG	N-CA-C	9.22	121.09	111.14
34	i	929	G	C1'-O4'-C4'	-9.21	100.69	109.90
19	S	142	ARG	CB-CA-C	-9.20	92.61	110.10
34	i	1517	A	C2'-C3'-O3'	-9.20	99.90	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	P	121	ILE	O-C-N	-9.20	113.29	122.67
33	g	149	GLU	N-CA-C	9.20	120.76	108.07
34	i	35	C	O4'-C1'-C2'	-9.20	98.40	107.60
34	i	414	C	N1-C1'-C2'	9.20	125.80	112.00
34	i	1659	A	P-O3'-C3'	9.20	134.00	120.20
20	T	4	VAL	N-CA-CB	-9.19	95.87	111.50
29	c	7	GLN	N-CA-C	9.19	119.96	108.11
34	i	743	U	O4'-C1'-C2'	-9.19	98.41	107.60
34	i	735	C	N1-C1'-C2'	9.18	125.77	112.00
2	B	41	ILE	N-CA-C	-9.18	100.05	110.05
34	i	1149	C	O4'-C1'-N1	9.18	121.97	108.20
34	i	1716	U	N1-C1'-C2'	-9.18	98.23	112.00
34	i	428	G	O4'-C1'-N9	9.17	122.26	108.50
34	i	1186	A	O4'-C1'-C2'	-9.17	98.43	107.60
34	i	1237	A	O4'-C1'-C2'	-9.17	98.43	107.60
16	P	18	ARG	N-CA-CB	9.17	122.00	110.45
25	Y	52	PRO	CA-N-CD	-9.17	99.17	112.00
34	i	1316	G	O4'-C1'-N9	9.17	122.25	108.50
34	i	807	A	P-O3'-C3'	9.16	133.94	120.20
34	i	1615	A	N9-C1'-C2'	9.16	127.73	114.00
3	C	254	PHE	CA-CB-CG	-9.15	104.65	113.80
34	i	454	A	O3'-P-O5'	9.15	117.73	104.00
34	i	143	U	N1-C1'-C2'	9.15	127.72	114.00
19	S	9	PHE	CA-C-N	-9.15	106.41	120.31
19	S	9	PHE	C-N-CA	-9.15	106.41	120.31
34	i	1399	C	O4'-C1'-N1	9.15	121.92	108.20
34	i	1660	G	O4'-C1'-C2'	9.15	114.95	105.80
34	i	868	A	P-O3'-C3'	9.14	133.92	120.20
9	I	184	ARG	N-CA-CB	9.14	126.03	110.68
34	i	972	G	P-O5'-C5'	9.14	134.61	120.90
34	i	656	U	O4'-C1'-C2'	-9.14	98.46	107.60
34	i	278	U	P-O3'-C3'	9.13	133.90	120.20
18	R	89	SER	O-C-N	-9.13	110.45	122.59
10	J	18	ARG	CA-C-N	-9.12	108.44	119.84
10	J	18	ARG	C-N-CA	-9.12	108.44	119.84
34	i	915	A	N9-C1'-C2'	9.12	127.69	114.00
34	i	1538	U	P-O3'-C3'	9.12	133.88	120.20
34	i	187	C	O4'-C1'-C2'	-9.12	98.48	107.60
34	i	873	C	O4'-C1'-C2'	-9.12	98.48	107.60
34	i	1847	C	N1-C1'-C2'	9.12	125.68	112.00
34	i	1024	A	P-O3'-C3'	-9.11	106.53	120.20
34	i	1442	A	C4'-C3'-O3'	9.11	123.06	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	547	U	O4'-C1'-C2'	-9.10	98.50	107.60
34	i	947	C	C3'-C2'-C1'	9.10	110.40	101.30
34	i	1560	C	O4'-C1'-C2'	-9.10	98.50	107.60
34	i	277	U	O4'-C1'-C2'	-9.09	98.51	107.60
2	B	151	ARG	CA-C-N	-9.09	106.50	120.31
2	B	151	ARG	C-N-CA	-9.09	106.50	120.31
34	i	1214	C	N1-C1'-C2'	9.08	125.62	112.00
34	i	346	C	O4'-C1'-N1	9.08	122.12	108.50
34	i	653	C	N1-C1'-C2'	9.07	125.61	112.00
34	i	239	U	C4'-C3'-O3'	-9.06	99.41	113.00
34	i	791	A	O4'-C1'-C2'	-9.06	98.54	107.60
34	i	1045	A	O4'-C1'-N9	9.05	122.07	108.50
34	i	956	U	N1-C1'-C2'	9.05	125.57	112.00
34	i	857	A	N9-C1'-C2'	-9.04	98.43	112.00
34	i	1451	A	O4'-C1'-C2'	-9.04	98.56	107.60
34	i	1232	G	O4'-C1'-C2'	9.04	116.64	107.60
19	S	95	TYR	N-CA-CB	-9.03	95.47	109.92
34	i	1133	U	C2'-C3'-O3'	9.03	127.25	113.70
34	i	437	A	O4'-C1'-C2'	-9.03	96.77	105.80
34	i	868	A	O4'-C1'-N9	9.03	121.74	108.20
34	i	343	C	C5'-C4'-C3'	9.02	129.53	116.00
34	i	189	G	N9-C1'-C2'	9.02	125.53	112.00
34	i	545	A	O4'-C1'-C2'	-9.02	98.58	107.60
33	g	50	THR	CB-CA-C	9.01	128.35	110.42
34	i	145	G	C1'-O4'-C4'	-8.99	100.91	109.90
33	g	15	ASN	CA-C-N	-8.99	109.56	121.96
33	g	15	ASN	C-N-CA	-8.99	109.56	121.96
32	f	148	TYR	CA-C-N	8.98	135.64	122.16
32	f	148	TYR	C-N-CA	8.98	135.64	122.16
11	K	35	LEU	N-CA-C	-8.98	91.68	110.80
34	i	1159	C	N1-C1'-C2'	8.97	125.46	112.00
24	X	39	ASN	N-CA-C	8.97	119.92	109.60
1	A	200	ASP	CA-CB-CG	-8.97	103.63	112.60
34	i	1607	G	N9-C1'-C2'	-8.96	98.56	112.00
34	i	1552	C	C2'-C3'-O3'	8.96	122.93	109.50
34	i	1222	G	N9-C1'-C2'	8.95	125.42	112.00
34	i	482	C	O4'-C1'-C2'	-8.95	96.85	105.80
14	N	56	ASP	N-CA-C	8.95	121.11	111.36
34	i	1275	C	O4'-C1'-C2'	-8.94	98.66	107.60
16	P	36	LEU	CA-C-O	8.94	130.12	120.38
34	i	1432	C	C3'-C2'-C1'	8.94	110.24	101.30
24	X	62	PRO	CA-N-CD	-8.93	99.00	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	S	94	LYS	CA-C-N	8.93	133.94	120.82
19	S	94	LYS	C-N-CA	8.93	133.94	120.82
28	b	10	PRO	CA-N-CD	-8.93	99.50	112.00
34	i	1348	G	C1'-O4'-C4'	-8.92	100.98	109.90
32	f	122	PRO	CA-N-CD	-8.92	99.52	112.00
34	i	819	U	O4'-C1'-N1	8.90	121.84	108.50
34	i	611	C	N1-C1'-C2'	8.89	125.34	112.00
1	A	128	ARG	N-CA-C	8.89	120.74	111.14
14	N	14	SER	N-CA-C	-8.89	98.79	110.43
34	i	170	A	C1'-O4'-C4'	-8.89	101.01	109.90
34	i	409	G	O4'-C1'-C2'	-8.88	98.72	107.60
16	P	69	PRO	CA-N-CD	-8.88	99.58	112.00
34	i	141	A	C2'-C3'-O3'	8.88	122.81	109.50
34	i	841	G	C4'-C3'-O3'	-8.86	99.70	113.00
34	i	1783	G	O4'-C1'-C2'	-8.86	98.74	107.60
32	f	148	TYR	N-CA-C	8.86	129.67	110.80
34	i	885	U	O4'-C1'-N1	8.86	121.79	108.50
34	i	1208	G	N9-C1'-C2'	8.85	125.27	112.00
34	i	1670	A	N9-C1'-C2'	-8.85	98.73	112.00
1	A	166	LYS	N-CA-C	-8.84	101.64	111.28
34	i	817	G	C2'-C3'-O3'	8.84	122.77	109.50
34	i	1788	C	O4'-C1'-C2'	-8.84	98.76	107.60
34	i	234	C	O4'-C1'-C2'	-8.84	96.96	105.80
34	i	1552	C	P-O3'-C3'	8.84	133.46	120.20
21	U	69	PRO	N-CA-C	-8.84	96.63	110.50
34	i	74	G	O4'-C1'-N9	8.84	121.75	108.50
27	a	98	PRO	N-CA-C	8.83	121.48	110.70
34	i	1408	C	C2'-C3'-O3'	-8.82	100.46	113.70
34	i	275	C	O4'-C1'-C2'	-8.82	98.78	107.60
34	i	728	U	P-O3'-C3'	8.82	133.43	120.20
34	i	903	G	N9-C1'-C2'	8.82	125.23	112.00
34	i	1618	A	O4'-C1'-N9	8.81	121.72	108.50
10	J	89	GLU	CA-C-N	8.80	129.68	120.00
10	J	89	GLU	C-N-CA	8.80	129.68	120.00
22	V	47	ASN	N-CA-C	-8.80	93.91	108.34
34	i	80	G	P-O5'-C5'	8.80	134.10	120.90
34	i	729	C	O4'-C1'-C2'	-8.80	98.80	107.60
34	i	1620	U	C4'-C3'-O3'	-8.79	99.81	113.00
5	E	130	PHE	N-CA-C	8.79	123.22	108.90
12	L	17	PHE	CA-C-N	8.79	133.19	120.71
12	L	17	PHE	C-N-CA	8.79	133.19	120.71
34	i	523	A	C4'-C3'-O3'	-8.79	99.82	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	g	142	VAL	O-C-N	8.78	133.54	122.57
34	i	536	G	P-O3'-C3'	8.78	133.37	120.20
34	i	225	C	C2'-C3'-O3'	8.77	122.65	109.50
34	i	93	U	O4'-C1'-C2'	-8.76	98.84	107.60
1	A	147	LEU	CA-C-N	-8.76	109.25	122.74
1	A	147	LEU	C-N-CA	-8.76	109.25	122.74
34	i	1405	A	O4'-C1'-C2'	-8.76	98.84	107.60
34	i	1470	A	O4'-C1'-N9	8.76	121.63	108.50
34	i	24	C	C4'-C3'-O3'	8.75	122.53	109.40
10	J	179	LYS	CA-C-N	8.75	138.50	121.18
10	J	179	LYS	C-N-CA	8.75	138.50	121.18
34	i	1297	A	C2'-C3'-O3'	-8.75	100.58	113.70
34	i	171	A	O4'-C1'-N9	8.74	121.31	108.20
34	i	1426	C	O4'-C1'-C2'	-8.74	98.86	107.60
9	I	133	GLU	O-C-N	-8.73	110.97	122.59
5	E	43	PRO	CA-N-CD	-8.73	99.78	112.00
34	i	826	A	O4'-C1'-N9	8.73	121.60	108.50
25	Y	86	GLU	CB-CA-C	-8.73	92.98	110.17
2	B	55	THR	N-CA-C	-8.72	103.73	112.97
34	i	795	U	N1-C1'-C2'	8.71	125.07	112.00
34	i	725	C	O4'-C1'-C2'	-8.71	98.89	107.60
31	e	77	HIS	CA-C-N	8.70	138.47	121.41
31	e	77	HIS	C-N-CA	8.70	138.47	121.41
34	i	329	A	C2'-C3'-O3'	8.70	126.75	113.70
6	F	37	ASP	N-CA-C	8.69	129.32	110.80
31	e	122	THR	O-C-N	-8.69	111.89	123.10
34	i	1497	C	O3'-P-O5'	-8.69	90.97	104.00
34	i	474	A	P-O3'-C3'	8.68	133.23	120.20
12	L	62	PHE	CA-CB-CG	-8.68	105.12	113.80
34	i	1414	C	P-O3'-C3'	8.68	133.22	120.20
34	i	927	C	C5'-C4'-C3'	-8.68	102.99	116.00
34	i	1576	C	O4'-C1'-C2'	-8.68	97.12	105.80
14	N	81	ALA	C-N-CD	-8.67	89.45	125.00
34	i	1405	A	P-O3'-C3'	8.66	133.19	120.20
3	C	217	THR	CA-C-N	8.66	138.08	121.54
3	C	217	THR	C-N-CA	8.66	138.08	121.54
34	i	1550	U	C2'-C3'-O3'	-8.66	100.71	113.70
5	E	164	LEU	CA-C-N	-8.65	108.87	120.63
5	E	164	LEU	C-N-CA	-8.65	108.87	120.63
10	J	17	ARG	N-CA-C	-8.64	101.77	111.71
34	i	509	A	O4'-C1'-C2'	-8.64	98.96	107.60
34	i	1002	C	N1-C1'-C2'	8.64	124.97	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	D	4	GLN	CA-C-O	8.64	132.86	120.51
34	i	1294	G	O4'-C1'-N9	8.64	121.46	108.50
34	i	1533	C	O4'-C1'-C2'	-8.64	98.96	107.60
34	i	227	A	O4'-C1'-C2'	-8.62	98.98	107.60
34	i	1423	C	O4'-C1'-C2'	-8.62	98.98	107.60
34	i	1774	G	O3'-P-O5'	8.62	116.93	104.00
1	A	133	PRO	CA-N-CD	-8.62	99.93	112.00
30	d	9	SER	N-CA-C	8.62	123.49	108.75
34	i	904	A	C4'-C3'-O3'	-8.62	100.07	113.00
34	i	1414	C	C1'-O4'-C4'	-8.62	101.08	109.70
34	i	144	U	N1-C1'-C2'	8.62	124.92	112.00
34	i	79	A	C4'-C3'-C2'	-8.61	93.99	102.60
34	i	1411	C	N1-C1'-C2'	8.61	124.91	112.00
34	i	125	C	O3'-P-O5'	8.60	116.91	104.00
34	i	310	G	C4'-C3'-O3'	8.60	125.90	113.00
34	i	1014	U	N1-C1'-C2'	8.60	124.90	112.00
34	i	1742	C	P-O3'-C3'	8.60	133.10	120.20
34	i	824	G	O4'-C1'-C2'	8.60	116.20	107.60
34	i	1037	G	C1'-O4'-C4'	-8.60	101.30	109.90
8	H	191	GLU	O-C-N	-8.60	111.16	122.59
11	K	89	ILE	CA-C-O	-8.60	110.03	120.78
14	N	7	PRO	CA-N-CD	-8.60	99.96	112.00
8	H	109	ARG	CA-CB-CG	-8.59	96.92	114.10
34	i	161	U	O4'-C1'-C2'	-8.59	97.21	105.80
1	A	5	LEU	N-CA-C	8.58	120.25	111.07
16	P	17	TYR	CB-CA-C	8.57	127.47	110.42
19	S	6	PRO	N-CA-C	8.57	133.52	112.10
34	i	540	C	O3'-P-O5'	-8.56	91.15	104.00
12	L	150	GLY	N-CA-C	-8.56	97.91	112.30
34	i	97	U	N1-C1'-C2'	8.56	124.84	112.00
32	f	88	PRO	O-C-N	-8.55	111.10	122.64
34	i	1366	A	O4'-C1'-C2'	-8.54	99.06	107.60
5	E	258	ALA	CA-C-N	-8.54	105.90	121.69
5	E	258	ALA	C-N-CA	-8.54	105.90	121.69
2	B	54	GLY	N-CA-C	-8.53	103.07	113.99
8	H	109	ARG	O-C-N	8.52	133.93	122.59
34	i	92	A	N9-C1'-C2'	8.52	126.77	114.00
34	i	376	C	N1-C1'-C2'	8.52	124.77	112.00
34	i	520	U	P-O5'-C5'	-8.51	108.13	120.90
25	Y	87	PRO	CA-N-CD	-8.51	100.09	112.00
21	U	57	PRO	CA-N-CD	-8.50	100.11	112.00
34	i	521	A	C1'-O4'-C4'	-8.49	101.41	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	J	91	LYS	O-C-N	-8.49	111.30	122.59
34	i	1288	C	C3'-C2'-C1'	8.48	109.78	101.30
34	i	1691	C	N1-C1'-C2'	8.48	124.72	112.00
18	R	3	ARG	N-CA-CB	8.48	127.77	110.64
34	i	546	U	N1-C1'-C2'	8.47	124.70	112.00
34	i	73	C	O4'-C1'-N1	8.47	120.90	108.20
34	i	207	U	P-O3'-C3'	8.47	132.90	120.20
34	i	949	C	C4'-C3'-O3'	-8.46	100.30	113.00
5	E	133	THR	N-CA-C	8.46	122.03	109.59
34	i	1659	A	N9-C1'-C2'	8.45	126.68	114.00
5	E	30	ARG	CA-C-N	8.44	128.95	119.83
5	E	30	ARG	C-N-CA	8.44	128.95	119.83
34	i	313	C	C2'-C3'-O3'	8.44	122.16	109.50
34	i	1144	A	O4'-C1'-N9	8.44	120.86	108.20
34	i	25	A	O4'-C1'-C2'	-8.44	97.36	105.80
34	i	1407	G	C1'-O4'-C4'	-8.43	101.47	109.90
34	i	1012	U	C3'-C2'-C1'	8.42	109.92	101.50
11	K	86	PRO	CA-C-N	8.42	130.37	119.84
11	K	86	PRO	C-N-CA	8.42	130.37	119.84
19	S	49	ASP	O-C-N	-8.42	112.48	122.58
34	i	605	C	N1-C1'-C2'	8.41	124.62	112.00
11	K	90	VAL	N-CA-C	8.41	127.04	108.88
15	O	43	HIS	N-CA-C	8.41	128.71	110.80
34	i	286	C	O4'-C1'-C2'	-8.40	99.20	107.60
11	K	46	MET	N-CA-CB	8.40	122.19	110.01
21	U	104	ILE	CA-C-N	-8.40	110.43	122.36
21	U	104	ILE	C-N-CA	-8.40	110.43	122.36
34	i	70	G	O3'-P-O5'	-8.40	91.40	104.00
34	i	626	C	P-O5'-C5'	8.40	133.50	120.90
34	i	190	A	O4'-C1'-C2'	-8.39	99.21	107.60
34	i	1079	A	C1'-O4'-C4'	-8.38	101.52	109.90
34	i	1471	G	P-O5'-C5'	8.38	133.47	120.90
21	U	68	THR	CA-C-N	-8.37	109.93	120.23
21	U	68	THR	C-N-CA	-8.37	109.93	120.23
34	i	391	A	O4'-C1'-C2'	-8.37	99.23	107.60
34	i	1075	C	C3'-C2'-C1'	8.36	109.66	101.30
34	i	74	G	C3'-C2'-C1'	8.35	109.65	101.30
34	i	739	U	O4'-C1'-C2'	-8.35	97.45	105.80
10	J	91	LYS	N-CA-C	-8.35	93.02	110.80
33	g	234	ASP	CA-CB-CG	-8.35	104.25	112.60
34	i	272	C	O3'-P-O5'	8.35	116.52	104.00
3	C	245	VAL	N-CA-C	-8.34	101.11	110.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	459	A	O4'-C1'-C2'	-8.34	99.26	107.60
26	Z	104	ARG	N-CA-CB	-8.34	96.40	110.49
34	i	1529	C	O4'-C1'-C2'	-8.34	97.46	105.80
18	R	89	SER	CA-C-N	-8.34	103.61	121.45
18	R	89	SER	C-N-CA	-8.34	103.61	121.45
34	i	1037	G	O4'-C1'-C2'	8.34	115.94	107.60
34	i	1408	C	P-O3'-C3'	8.34	132.70	120.20
18	R	87	GLU	CB-CA-C	-8.33	96.68	110.85
34	i	835	C	C1'-O4'-C4'	-8.32	101.38	109.70
34	i	1467	C	N1-C1'-C2'	8.32	124.48	112.00
34	i	1655	C	C5'-C4'-C3'	-8.32	103.52	116.00
34	i	1786	G	O4'-C1'-C2'	8.32	115.92	107.60
18	R	89	SER	CA-C-O	-8.31	108.62	120.51
12	L	148	ALA	N-CA-C	8.31	122.48	110.10
34	i	1537	C	O5'-C5'-C4'	8.31	123.97	111.50
34	i	543	U	C4'-C3'-C2'	-8.31	94.29	102.60
31	e	100	LYS	N-CA-C	-8.30	95.70	109.07
34	i	1785	A	O4'-C1'-C2'	-8.30	99.30	107.60
34	i	1816	A	O3'-P-O5'	-8.31	91.54	104.00
34	i	145	G	N9-C1'-C2'	8.30	124.45	112.00
19	S	50	ILE	N-CA-C	8.30	120.56	108.53
16	P	53	GLN	N-CA-C	-8.30	103.26	112.72
34	i	205	G	N9-C1'-C2'	8.29	124.44	112.00
34	i	844	U	N1-C1'-C2'	8.29	124.44	112.00
12	L	18	GLN	CA-C-N	-8.29	108.80	121.40
12	L	18	GLN	C-N-CA	-8.29	108.80	121.40
34	i	685	G	O4'-C1'-C2'	-8.28	99.32	107.60
9	I	129	LEU	CA-C-O	-8.28	112.13	120.82
20	T	30	VAL	N-CA-C	8.27	126.75	108.88
34	i	208	G	C4'-C3'-O3'	-8.27	100.59	113.00
34	i	1369	C	O4'-C1'-C2'	-8.26	99.34	107.60
5	E	165	GLU	N-CA-C	-8.26	101.87	111.03
34	i	1056	A	O4'-C1'-N9	8.26	120.58	108.20
34	i	190	A	O3'-P-O5'	8.25	116.38	104.00
2	B	77	ASP	N-CA-C	8.25	128.38	110.80
33	g	161	SER	N-CA-C	8.25	123.66	112.68
34	i	477	U	P-O3'-C3'	8.25	132.57	120.20
26	Z	70	PRO	CA-N-CD	-8.25	100.45	112.00
34	i	840	U	O4'-C1'-C2'	-8.25	99.35	107.60
9	I	184	ARG	CB-CA-C	-8.24	94.62	109.71
34	i	385	G	C1'-O4'-C4'	-8.24	101.66	109.90
19	S	94	LYS	CA-C-O	8.24	130.22	121.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	435	A	N9-C1'-C2'	8.24	124.36	112.00
34	i	1650	C	N1-C1'-C2'	8.24	124.36	112.00
34	i	464	G	N9-C1'-C2'	8.24	124.36	112.00
34	i	837	G	O4'-C4'-C3'	-8.23	95.77	104.00
9	I	55	TYR	CA-CB-CG	-8.23	99.08	113.90
34	i	1289	A	N9-C1'-C2'	8.22	124.34	112.00
34	i	1405	A	C5'-C4'-C3'	8.22	128.33	116.00
34	i	1777	C	O4'-C1'-C2'	-8.22	97.58	105.80
34	i	685	G	O3'-P-O5'	8.22	116.33	104.00
9	I	184	ARG	NE-CZ-NH1	-8.22	113.28	121.50
34	i	1312	C	N1-C1'-C2'	8.21	124.31	112.00
22	V	10	ASP	CA-C-N	-8.21	109.52	122.08
22	V	10	ASP	C-N-CA	-8.21	109.52	122.08
34	i	620	U	O4'-C1'-N1	8.20	120.81	108.50
34	i	1299	C	C3'-C2'-C1'	-8.20	93.10	101.30
7	G	161	PRO	CA-N-CD	-8.20	100.52	112.00
34	i	1204	A	O4'-C1'-C2'	-8.20	99.40	107.60
34	i	1632	A	P-O3'-C3'	8.20	132.49	120.20
16	P	50	ARG	CA-C-N	8.19	131.09	120.44
16	P	50	ARG	C-N-CA	8.19	131.09	120.44
34	i	650	C	N1-C1'-C2'	8.19	124.29	112.00
34	i	96	C	N1-C1'-C2'	8.18	124.26	112.00
10	J	17	ARG	CB-CA-C	-8.17	95.52	110.63
34	i	79	A	O5'-C5'-C4'	8.17	123.96	111.70
34	i	64	A	O4'-C1'-N9	8.17	120.45	108.20
34	i	150	A	O4'-C1'-C2'	-8.17	99.43	107.60
34	i	486	C	O4'-C1'-C2'	-8.17	99.43	107.60
4	D	94	ARG	CB-CA-C	-8.16	95.31	110.01
33	g	14	HIS	CA-C-N	-8.16	108.32	122.36
33	g	14	HIS	C-N-CA	-8.16	108.32	122.36
34	i	1774	G	C1'-O4'-C4'	-8.16	101.74	109.90
22	V	61	ARG	NE-CZ-NH2	-8.16	111.85	119.20
34	i	626	C	O4'-C1'-C2'	-8.15	99.45	107.60
29	c	8	PRO	CA-C-N	-8.15	111.61	122.94
29	c	8	PRO	C-N-CA	-8.15	111.61	122.94
34	i	1282	G	C4'-C3'-O3'	-8.15	97.18	109.40
34	i	1678	C	N1-C1'-C2'	8.14	124.21	112.00
34	i	909	A	O4'-C1'-C2'	-8.13	97.67	105.80
34	i	1091	U	N1-C1'-C2'	8.13	124.20	112.00
8	H	39	GLN	CA-C-N	-8.13	109.39	120.44
8	H	39	GLN	C-N-CA	-8.13	109.39	120.44
34	i	541	U	N1-C1'-C2'	8.12	124.18	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	f	148	TYR	CA-CB-CG	-8.11	99.30	113.90
34	i	1255	A	C3'-C2'-C1'	-8.11	93.19	101.30
10	J	162	ARG	N-CA-C	8.11	128.07	110.80
34	i	1416	G	C1'-O4'-C4'	-8.11	101.79	109.90
34	i	1666	G	N9-C1'-C2'	8.11	124.16	112.00
34	i	1449	C	N1-C1'-C2'	8.10	124.16	112.00
16	P	71	GLU	CA-C-N	8.10	134.88	121.92
16	P	71	GLU	C-N-CA	8.10	134.88	121.92
22	V	24	ILE	CB-CA-C	-8.10	100.86	110.91
19	S	92	ASP	N-CA-C	8.10	128.05	110.80
34	i	287	U	C1'-O4'-C4'	-8.10	101.80	109.90
34	i	1524	C	N1-C1'-C2'	8.10	124.15	112.00
34	i	1191	A	O4'-C4'-C3'	-8.10	95.90	104.00
34	i	635	C	O4'-C1'-C2'	-8.09	99.51	107.60
34	i	894	U	P-O3'-C3'	8.09	132.34	120.20
11	K	90	VAL	CA-C-N	8.08	129.94	119.84
11	K	90	VAL	C-N-CA	8.08	129.94	119.84
34	i	612	C	N1-C1'-C2'	8.08	124.13	112.00
10	J	164	PRO	N-CA-CB	-8.08	94.67	103.39
19	S	10	GLN	CA-C-N	8.08	136.97	121.54
19	S	10	GLN	C-N-CA	8.08	136.97	121.54
10	J	166	GLY	N-CA-C	-8.07	104.18	115.32
34	i	147	A	N9-C1'-C2'	-8.07	101.90	114.00
34	i	1674	A	P-O3'-C3'	8.07	132.31	120.20
34	i	1006	G	O4'-C1'-N9	8.07	120.60	108.50
5	E	151	ASP	CA-C-N	8.06	129.92	119.84
5	E	151	ASP	C-N-CA	8.06	129.92	119.84
34	i	1415	C	O4'-C1'-C2'	-8.06	99.54	107.60
20	T	45	LEU	O-C-N	-8.06	113.83	123.10
34	i	907	C	N1-C1'-C2'	8.06	124.08	112.00
7	G	38	ALA	N-CA-C	8.05	119.83	111.14
1	A	109	THR	N-CA-C	-8.04	99.70	110.55
34	i	837	G	P-O5'-C5'	8.04	132.96	120.90
4	D	190	LEU	O-C-N	-8.04	113.64	121.19
34	i	1210	A	P-O3'-C3'	8.04	132.26	120.20
34	i	174	C	O4'-C1'-C2'	-8.03	99.57	107.60
10	J	40	LYS	N-CA-C	-8.03	102.53	111.28
12	L	151	THR	CA-C-N	8.03	136.87	121.54
12	L	151	THR	C-N-CA	8.03	136.87	121.54
34	i	733	G	O4'-C1'-C2'	-8.02	99.58	107.60
10	J	93	LYS	O-C-N	-8.02	112.76	123.19
6	F	46	ALA	CA-C-N	-8.01	106.24	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	F	46	ALA	C-N-CA	-8.01	106.24	121.54
34	i	950	U	C4'-C3'-O3'	8.01	121.42	109.40
34	i	1003	C	N1-C1'-C2'	8.01	124.02	112.00
17	Q	146	ARG	NE-CZ-NH2	8.01	126.41	119.20
34	i	170	A	C3'-C2'-C1'	-8.01	93.29	101.30
34	i	1413	C	C3'-C2'-C1'	7.99	109.29	101.30
29	c	18	LEU	N-CA-C	7.99	120.07	111.36
34	i	296	U	P-O5'-C5'	7.99	132.88	120.90
34	i	619	A	O4'-C1'-C2'	-7.99	97.81	105.80
29	c	32	VAL	N-CA-C	7.98	119.40	107.75
34	i	794	G	P-O5'-C5'	7.98	132.86	120.90
11	K	55	ARG	CB-CG-CD	7.97	129.64	111.30
18	R	1	MET	O-C-N	7.96	135.74	123.00
34	i	1425	G	O3'-P-O5'	-7.96	92.05	104.00
17	Q	46	THR	N-CA-C	-7.96	101.55	111.11
19	S	93	GLY	CA-C-N	7.96	132.13	120.90
19	S	93	GLY	C-N-CA	7.96	132.13	120.90
17	Q	7	LEU	N-CA-C	7.96	119.12	108.38
34	i	80	G	C3'-C2'-C1'	7.95	109.25	101.30
2	B	146	CYS	CA-C-N	-7.94	109.83	120.54
2	B	146	CYS	C-N-CA	-7.94	109.83	120.54
34	i	76	U	P-O5'-C5'	7.94	132.80	120.90
34	i	626	C	C3'-C2'-C1'	7.94	109.24	101.30
34	i	1531	G	C4'-C3'-O3'	-7.93	101.10	113.00
34	i	1776	G	C5'-C4'-C3'	7.93	127.90	116.00
34	i	630	A	N9-C1'-C2'	7.93	123.90	112.00
5	E	103	TYR	N-CA-C	7.93	122.01	110.28
4	D	144	GLY	CA-C-N	7.92	130.90	120.28
4	D	144	GLY	C-N-CA	7.92	130.90	120.28
34	i	526	A	C2'-C3'-O3'	-7.92	101.81	113.70
34	i	1414	C	C1'-C2'-O2'	7.92	123.68	111.80
34	i	1715	U	C1'-O4'-C4'	7.92	117.82	109.90
32	f	134	SER	O-C-N	7.91	132.42	122.93
34	i	1102	C	O4'-C1'-C2'	-7.91	99.69	107.60
34	i	295	C	O3'-P-O5'	7.91	115.86	104.00
34	i	1263	C	N1-C1'-C2'	7.91	123.86	112.00
34	i	1408	C	C4'-C3'-O3'	7.91	124.86	113.00
3	C	112	PHE	CA-CB-CG	-7.91	105.89	113.80
18	R	1	MET	CB-CA-C	7.91	125.12	110.10
4	D	159	HIS	N-CA-C	7.90	119.97	111.36
10	J	144	ILE	CA-CB-CG1	-7.90	96.97	110.40
3	C	217	THR	CB-CA-C	7.89	120.93	111.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	M	116	LYS	N-CA-C	7.89	127.61	110.80
34	i	741	C	O4'-C1'-C2'	-7.88	99.72	107.60
34	i	316	C	O4'-C1'-C2'	-7.88	97.92	105.80
3	C	157	ASN	CA-C-O	7.88	129.35	120.84
34	i	424	G	O3'-P-O5'	-7.88	92.18	104.00
34	i	1654	U	O3'-P-O5'	7.88	115.82	104.00
34	i	1677	C	O4'-C1'-C2'	-7.88	97.92	105.80
34	i	1080	A	C2'-C3'-O3'	-7.88	101.89	113.70
32	f	124	ASP	CA-C-N	-7.87	110.16	122.67
32	f	124	ASP	C-N-CA	-7.87	110.16	122.67
34	i	189	G	C1'-O4'-C4'	-7.87	102.03	109.90
34	i	299	G	O4'-C1'-C2'	7.87	113.67	105.80
34	i	973	C	O4'-C1'-C2'	-7.86	99.74	107.60
34	i	639	U	N1-C1'-C2'	7.86	123.79	112.00
32	f	88	PRO	CA-C-N	-7.86	109.81	121.05
32	f	88	PRO	C-N-CA	-7.86	109.81	121.05
34	i	201	G	O4'-C1'-C2'	-7.86	99.74	107.60
34	i	1355	U	O4'-C1'-C2'	-7.86	99.74	107.60
34	i	1551	A	P-O3'-C3'	7.86	131.98	120.20
34	i	1663	U	O4'-C1'-N1	7.85	120.28	108.50
16	P	49	LEU	CA-C-N	-7.85	106.55	121.54
16	P	49	LEU	C-N-CA	-7.85	106.55	121.54
34	i	65	C	P-O3'-C3'	7.84	131.97	120.20
34	i	1543	G	O4'-C1'-N9	7.84	120.26	108.50
34	i	1028	C	N1-C1'-C2'	7.84	123.76	112.00
12	L	157	LYS	N-CA-C	7.83	122.00	108.76
34	i	606	A	N9-C1'-C2'	7.83	123.75	112.00
34	i	1779	C	O4'-C1'-C2'	-7.83	97.97	105.80
34	i	25	A	N9-C1'-C2'	-7.83	102.26	114.00
34	i	1607	G	O4'-C1'-N9	7.83	120.24	108.50
34	i	1698	C	O4'-C1'-C2'	-7.83	99.77	107.60
34	i	204	G	O4'-C1'-C2'	-7.83	99.77	107.60
33	g	47	ARG	N-CA-C	-7.82	94.14	110.80
15	O	143	LYS	N-CA-C	7.82	121.85	110.28
34	i	1251	G	C1'-O4'-C4'	-7.82	102.08	109.90
34	i	223	A	O4'-C1'-C2'	-7.81	99.79	107.60
34	i	1459	U	P-O5'-C5'	7.81	132.62	120.90
21	U	70	CYS	O-C-N	-7.81	112.20	122.59
34	i	1743	G	O5'-C5'-C4'	7.80	123.21	111.50
34	i	60	A	O4'-C1'-N9	7.80	120.20	108.50
13	M	70	ALA	N-CA-C	7.80	119.41	111.07
32	f	88	PRO	N-CA-C	-7.80	96.41	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1670	A	O4'-C1'-N9	7.80	120.19	108.50
3	C	217	THR	N-CA-C	7.79	123.32	112.72
34	i	1194	G	C1'-O4'-C4'	-7.79	102.11	109.90
34	i	838	C	C3'-C2'-C1'	7.79	109.08	101.30
34	i	1022	C	O4'-C1'-C2'	-7.78	99.82	107.60
34	i	102	A	P-O3'-C3'	7.78	131.87	120.20
34	i	224	U	N1-C1'-C2'	-7.78	102.33	114.00
34	i	1547	G	O4'-C1'-C2'	-7.78	99.82	107.60
34	i	1303	U	P-O3'-C3'	7.77	131.86	120.20
34	i	652	G	N9-C1'-C2'	7.77	125.66	114.00
34	i	1144	A	O4'-C1'-C2'	7.77	113.57	105.80
18	R	88	VAL	CA-C-N	-7.77	106.70	121.54
18	R	88	VAL	C-N-CA	-7.77	106.70	121.54
26	Z	107	VAL	CA-C-N	7.77	135.95	121.97
26	Z	107	VAL	C-N-CA	7.77	135.95	121.97
34	i	126	G	O3'-P-O5'	7.76	115.65	104.00
34	i	1010	G	C1'-O4'-C4'	-7.76	102.14	109.90
34	i	1219	A	O4'-C1'-C2'	-7.76	99.84	107.60
34	i	1559	C	N1-C1'-C2'	7.76	123.65	112.00
34	i	1696	C	O4'-C1'-C2'	-7.75	98.05	105.80
27	a	63	VAL	CB-CA-C	7.75	124.00	111.29
34	i	574	A	P-O5'-C5'	7.75	132.53	120.90
34	i	865	A	P-O3'-C3'	7.75	131.83	120.20
11	K	41	PRO	N-CA-C	-7.75	96.51	112.47
34	i	1087	C	O4'-C1'-C2'	-7.74	99.86	107.60
34	i	392	C	O4'-C1'-C2'	-7.73	99.87	107.60
34	i	1019	A	O4'-C1'-C2'	-7.73	99.87	107.60
22	V	81	GLN	O-C-N	-7.72	112.32	122.59
34	i	1717	G	P-O5'-C5'	7.72	132.49	120.90
34	i	81	U	N1-C1'-C2'	7.71	123.57	112.00
34	i	1643	G	P-O3'-C3'	7.71	131.76	120.20
34	i	1771	G	C3'-C2'-C1'	-7.71	93.59	101.30
3	C	83	LEU	CA-C-N	-7.70	108.79	122.97
3	C	83	LEU	C-N-CA	-7.70	108.79	122.97
34	i	170	A	C5'-C4'-C3'	-7.70	104.44	116.00
34	i	383	U	O4'-C1'-N1	7.70	119.75	108.20
34	i	1298	G	C2'-C3'-O3'	-7.70	97.94	109.50
34	i	3	C	O4'-C1'-C2'	-7.69	98.11	105.80
34	i	71	G	C2'-C3'-O3'	-7.69	97.97	109.50
3	C	186	GLY	N-CA-C	-7.69	105.93	115.08
34	i	1741	U	C2'-C3'-O3'	-7.69	102.17	113.70
34	i	830	C	C1'-O4'-C4'	-7.68	102.22	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	C	149	PRO	CB-CA-C	-7.68	101.55	111.46
34	i	929	G	O4'-C1'-C2'	7.68	115.28	107.60
34	i	581	U	O4'-C1'-N1	7.68	119.71	108.20
34	i	1325	U	N1-C1'-C2'	7.67	123.51	112.00
34	i	1343	U	O4'-C1'-C2'	-7.67	99.92	107.60
31	e	122	THR	CA-C-N	-7.67	110.17	122.66
31	e	122	THR	C-N-CA	-7.67	110.17	122.66
34	i	548	G	C1'-C2'-O2'	7.67	119.90	108.40
34	i	70	G	C4'-C3'-O3'	-7.66	101.50	113.00
34	i	980	C	N1-C1'-C2'	7.66	123.50	112.00
34	i	371	C	C4'-C3'-O3'	-7.66	101.51	113.00
33	g	192	THR	N-CA-C	7.66	120.68	110.88
34	i	857	A	O4'-C1'-N9	7.65	119.97	108.50
34	i	31	U	P-O3'-C3'	7.65	131.67	120.20
34	i	111	A	O4'-C1'-N9	7.64	119.97	108.50
34	i	541	U	P-O5'-C5'	7.64	132.37	120.90
5	E	170	THR	CA-C-N	7.64	136.13	121.54
5	E	170	THR	C-N-CA	7.64	136.13	121.54
17	Q	43	GLU	CA-C-N	7.63	127.52	119.05
17	Q	43	GLU	C-N-CA	7.63	127.52	119.05
15	O	95	ILE	N-CA-C	7.63	120.08	108.71
17	Q	145	TYR	CA-C-N	7.63	135.43	121.70
17	Q	145	TYR	C-N-CA	7.63	135.43	121.70
3	C	85	ALA	N-CA-C	-7.63	98.73	110.10
34	i	521	A	O4'-C4'-C3'	-7.62	96.38	104.00
33	g	294	ASP	N-CA-CB	-7.62	100.49	111.54
34	i	1015	C	N1-C1'-C2'	7.62	123.43	112.00
30	d	24	CYS	N-CA-C	7.61	122.65	112.30
34	i	1557	C	N1-C1'-C2'	7.61	123.41	112.00
34	i	21	U	O4'-C1'-C2'	-7.60	100.00	107.60
21	U	68	THR	N-CA-CB	-7.59	99.02	110.11
34	i	1450	A	O4'-C1'-C2'	-7.59	100.01	107.60
34	i	1773	G	O4'-C1'-N9	7.59	119.88	108.50
6	F	131	ALA	CA-C-N	-7.58	106.54	121.41
6	F	131	ALA	C-N-CA	-7.58	106.54	121.41
34	i	894	U	P-O5'-C5'	7.58	132.28	120.90
34	i	743	U	O3'-P-O5'	-7.57	92.64	104.00
27	a	60	ASP	N-CA-C	7.57	121.73	108.56
26	Z	112	ASN	N-CA-CB	-7.57	99.04	110.01
34	i	825	C	O4'-C1'-C2'	-7.57	98.23	105.80
11	K	38	LYS	N-CA-C	-7.56	94.69	110.80
33	g	24	THR	C-N-CD	-7.56	93.99	125.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1288	C	P-O5'-C5'	-7.56	109.56	120.90
34	i	1424	G	O4'-C1'-N9	7.56	119.84	108.50
24	X	43	GLY	N-CA-C	-7.56	104.31	115.72
34	i	1503	G	C1'-O4'-C4'	-7.56	102.14	109.70
34	i	1594	U	O4'-C1'-N1	7.56	119.83	108.50
11	K	84	HIS	CB-CA-C	-7.55	94.29	110.76
27	a	10	ARG	NH1-CZ-NH2	-7.55	109.49	119.30
34	i	1755	U	P-O5'-C5'	7.54	132.22	120.90
19	S	95	TYR	N-CA-C	7.54	120.05	110.24
34	i	909	A	C3'-C2'-C1'	7.54	109.04	101.50
34	i	1475	G	O4'-C1'-N9	7.54	119.81	108.50
6	F	42	LYS	N-CA-C	7.54	119.87	109.54
4	D	190	LEU	CA-C-N	-7.53	110.34	120.96
4	D	190	LEU	C-N-CA	-7.53	110.34	120.96
33	g	25	PRO	CA-C-N	-7.53	110.65	120.44
33	g	25	PRO	C-N-CA	-7.53	110.65	120.44
34	i	1191	A	C2'-C3'-O3'	-7.53	102.41	113.70
34	i	1858	U	P-O5'-C5'	7.53	132.19	120.90
34	i	49	C	N1-C1'-C2'	7.52	123.29	112.00
34	i	1116	U	N1-C1'-C2'	7.52	123.28	112.00
34	i	1690	A	O4'-C1'-C2'	-7.52	98.28	105.80
5	E	129	ILE	CA-C-N	7.52	133.59	122.99
5	E	129	ILE	C-N-CA	7.52	133.59	122.99
34	i	1111	U	O4'-C1'-C2'	7.52	113.32	105.80
3	C	118	TYR	CA-C-N	-7.52	112.13	122.95
3	C	118	TYR	C-N-CA	-7.52	112.13	122.95
34	i	1425	G	P-O5'-C5'	7.52	132.18	120.90
34	i	1504	A	N9-C1'-C2'	-7.51	102.73	114.00
33	g	273	GLU	CA-C-N	7.51	134.19	122.70
33	g	273	GLU	C-N-CA	7.51	134.19	122.70
34	i	1349	A	O3'-P-O5'	-7.51	92.73	104.00
7	G	85	ARG	CA-C-N	7.51	127.49	119.76
7	G	85	ARG	C-N-CA	7.51	127.49	119.76
34	i	871	A	O4'-C1'-C2'	-7.51	100.09	107.60
34	i	1344	G	O4'-C1'-N9	7.51	119.77	108.50
34	i	214	A	C3'-C2'-C1'	7.51	108.81	101.30
34	i	1861	U	O4'-C1'-N1	7.50	119.46	108.20
34	i	1414	C	O4'-C1'-N1	7.50	119.45	108.20
34	i	1004	A	P-O3'-C3'	7.50	131.45	120.20
34	i	1705	C	O4'-C1'-C2'	-7.50	100.10	107.60
34	i	543	U	O4'-C1'-N1	7.49	119.73	108.50
12	L	151	THR	CB-CA-C	7.48	127.07	110.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1022	C	C3'-C2'-C1'	7.48	108.78	101.30
34	i	286	C	N1-C1'-C2'	7.48	123.21	112.00
9	I	178	ARG	CG-CD-NE	-7.47	95.56	112.00
8	H	108	SER	N-CA-CB	7.47	123.12	110.49
34	i	970	C	N1-C1'-C2'	7.47	123.21	112.00
5	E	130	PHE	CA-C-N	-7.47	113.14	122.48
5	E	130	PHE	C-N-CA	-7.47	113.14	122.48
34	i	958	A	O4'-C1'-C2'	-7.47	100.13	107.60
34	i	677	C	O4'-C1'-N1	7.46	119.39	108.20
34	i	912	A	O4'-C1'-N9	7.46	119.39	108.20
10	J	144	ILE	CB-CA-C	7.46	124.94	111.36
34	i	1467	C	O4'-C1'-C2'	-7.46	100.14	107.60
8	H	93	VAL	CA-C-N	-7.45	112.27	122.77
8	H	93	VAL	C-N-CA	-7.45	112.27	122.77
34	i	1412	C	O4'-C1'-N1	7.45	119.67	108.50
34	i	730	C	O3'-P-O5'	7.44	115.17	104.00
19	S	142	ARG	N-CA-CB	-7.44	97.85	110.50
34	i	793	C	C3'-C2'-C1'	7.44	108.94	101.50
13	M	10	GLY	CA-C-N	7.43	131.48	122.26
13	M	10	GLY	C-N-CA	7.43	131.48	122.26
34	i	79	A	C5'-C4'-O4'	7.43	120.24	109.10
34	i	1501	U	O4'-C1'-C2'	-7.43	100.17	107.60
34	i	235	C	O4'-C1'-C2'	-7.43	100.17	107.60
34	i	518	A	N9-C1'-C2'	7.42	123.13	112.00
34	i	1249	A	P-O3'-C3'	7.42	131.33	120.20
8	H	191	GLU	CA-C-N	-7.42	109.04	122.54
8	H	191	GLU	C-N-CA	-7.42	109.04	122.54
34	i	1646	A	O4'-C1'-C2'	-7.42	100.18	107.60
2	B	41	ILE	CA-C-N	7.41	133.56	121.99
2	B	41	ILE	C-N-CA	7.41	133.56	121.99
11	K	89	ILE	CA-CB-CG2	7.41	123.09	110.50
34	i	67	C	C3'-C2'-C1'	-7.41	93.89	101.30
34	i	1637	U	O4'-C1'-N1	7.41	119.61	108.50
34	i	826	A	C3'-C2'-C1'	-7.41	93.89	101.30
34	i	1533	C	C4'-C3'-C2'	-7.40	95.20	102.60
9	I	43	ILE	N-CA-C	-7.39	97.84	108.42
34	i	1411	C	O4'-C1'-C2'	-7.39	100.20	107.60
9	I	29	LEU	CA-C-N	7.39	134.96	120.84
9	I	29	LEU	C-N-CA	7.39	134.96	120.84
34	i	1042	U	O4'-C1'-C2'	-7.39	100.21	107.60
34	i	1716	U	P-O3'-C3'	7.39	131.29	120.20
28	b	43	ILE	N-CA-C	7.39	118.71	107.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1491	G	C2'-C3'-O3'	-7.39	102.62	113.70
34	i	569	C	O4'-C1'-C2'	-7.38	100.22	107.60
10	J	92	MET	O-C-N	7.38	129.62	121.87
34	i	398	A	O4'-C1'-C2'	-7.38	100.22	107.60
13	M	16	THR	N-CA-C	-7.38	103.54	112.54
34	i	210	G	O4'-C1'-N9	7.38	119.57	108.50
34	i	1432	C	O4'-C1'-C2'	-7.37	100.23	107.60
34	i	292	A	O4'-C1'-C2'	-7.37	100.23	107.60
26	Z	106	GLN	CA-C-N	7.37	129.84	120.56
26	Z	106	GLN	C-N-CA	7.37	129.84	120.56
34	i	1515	G	C1'-C2'-O2'	7.37	119.45	108.40
26	Z	104	ARG	N-CA-C	7.36	126.48	110.80
34	i	1490	U	P-O3'-C3'	7.36	131.24	120.20
34	i	640	A	C3'-C2'-C1'	7.36	108.66	101.30
34	i	895	U	O4'-C1'-C2'	-7.36	100.24	107.60
34	i	484	C	C3'-C2'-C1'	7.36	108.66	101.30
34	i	317	G	C2'-C3'-O3'	7.35	120.53	109.50
34	i	1432	C	P-O3'-C3'	7.35	131.23	120.20
34	i	1472	A	N9-C1'-C2'	-7.35	100.98	112.00
34	i	230	C	O4'-C1'-C2'	-7.34	100.26	107.60
34	i	994	A	O4'-C1'-C2'	-7.34	100.26	107.60
34	i	204	G	N9-C1'-C2'	-7.34	100.99	112.00
34	i	1530	U	P-O3'-C3'	7.34	131.21	120.20
4	D	3	VAL	CA-C-N	7.34	135.56	121.54
4	D	3	VAL	C-N-CA	7.34	135.56	121.54
34	i	38	A	N9-C1'-C2'	-7.34	102.99	114.00
34	i	507	C	N1-C1'-C2'	7.34	123.00	112.00
17	Q	135	PRO	CB-CA-C	7.33	122.11	111.04
34	i	821	A	C4'-C3'-O3'	-7.33	102.00	113.00
34	i	192	U	O5'-C5'-C4'	-7.33	100.51	111.50
34	i	1382	A	O4'-C1'-C2'	-7.33	100.27	107.60
34	i	1468	C	C2'-C3'-O3'	-7.33	102.71	113.70
13	M	99	LYS	C-N-CD	-7.33	94.97	125.00
34	i	997	A	O4'-C1'-C2'	-7.32	98.48	105.80
34	i	191	C	C2'-C3'-O3'	-7.32	102.72	113.70
34	i	1818	A	O4'-C1'-N9	7.32	119.48	108.50
34	i	545	A	P-O3'-C3'	7.30	131.16	120.20
34	i	1261	A	C3'-C2'-C1'	7.30	108.80	101.50
16	P	36	LEU	CA-C-N	7.30	135.48	121.54
16	P	36	LEU	C-N-CA	7.30	135.48	121.54
34	i	374	U	N1-C1'-C2'	7.30	122.95	112.00
34	i	985	C	O4'-C1'-C2'	-7.30	98.50	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1402	G	N9-C1'-C2'	7.30	122.95	112.00
21	U	117	ALA	O-C-N	7.30	132.29	122.59
34	i	1106	G	O4'-C1'-C2'	-7.30	100.30	107.60
34	i	1293	U	O4'-C1'-N1	7.30	119.44	108.50
18	R	123	THR	CB-CA-C	-7.29	93.05	109.10
25	Y	31	GLY	N-CA-C	7.29	130.47	113.18
34	i	597	U	N1-C1'-C2'	7.29	122.94	112.00
34	i	377	C	N1-C1'-C2'	7.29	122.93	112.00
34	i	365	U	P-O5'-C5'	7.29	131.83	120.90
34	i	343	C	N1-C1'-C2'	7.28	122.92	112.00
4	D	52	ALA	O-C-N	-7.27	114.53	123.33
34	i	234	C	C1'-O4'-C4'	7.27	116.97	109.70
4	D	83	SER	N-CA-CB	7.27	120.92	110.16
27	a	97	PRO	CA-CB-CG	7.27	118.31	104.50
34	i	160	U	P-O3'-C3'	7.27	131.10	120.20
34	i	1013	U	O4'-C1'-C2'	-7.27	100.33	107.60
24	X	138	LYS	O-C-N	-7.27	114.38	123.17
34	i	1556	A	O4'-C1'-C2'	-7.26	100.34	107.60
24	X	42	GLY	CA-C-N	-7.26	112.20	122.00
24	X	42	GLY	C-N-CA	-7.26	112.20	122.00
7	G	121	ILE	N-CA-CB	7.26	121.37	111.21
4	D	96	LEU	O-C-N	-7.26	113.42	122.35
20	T	42	HIS	CB-CA-C	-7.26	95.01	110.32
12	L	56	ILE	N-CA-C	7.25	118.56	111.67
34	i	79	A	O3'-P-O5'	-7.25	93.13	104.00
17	Q	18	THR	CA-C-N	7.25	135.38	121.54
17	Q	18	THR	C-N-CA	7.25	135.38	121.54
7	G	128	THR	N-CA-CB	-7.24	98.25	110.49
34	i	206	A	O3'-P-O5'	7.24	114.86	104.00
34	i	583	C	C3'-C2'-C1'	7.24	108.54	101.30
34	i	1436	C	C3'-C2'-C1'	7.24	108.54	101.30
15	O	43	HIS	CA-C-N	-7.24	110.04	121.62
15	O	43	HIS	C-N-CA	-7.24	110.04	121.62
34	i	536	G	O4'-C1'-C2'	-7.24	100.36	107.60
34	i	571	U	C4'-C3'-O3'	-7.24	102.15	113.00
34	i	1428	U	C3'-C2'-C1'	7.24	108.53	101.30
34	i	404	A	O4'-C1'-C2'	-7.23	100.37	107.60
4	D	207	HIS	N-CA-C	7.23	120.43	109.23
34	i	101	U	O4'-C1'-C2'	-7.23	100.37	107.60
34	i	850	A	P-O5'-C5'	7.23	131.74	120.90
34	i	649	G	O4'-C1'-N9	7.22	119.34	108.50
35	l	85	LEU	N-CA-C	-7.22	99.23	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	277	U	O4'-C1'-N1	-7.22	97.67	108.50
17	Q	116	ASP	N-CA-C	7.22	118.69	108.00
34	i	1823	G	O4'-C1'-C2'	-7.22	100.38	107.60
3	C	241	TRP	O-C-N	-7.22	113.97	122.20
34	i	1721	G	O4'-C1'-N9	7.21	119.32	108.50
34	i	1024	A	C5'-C4'-C3'	-7.21	105.18	116.00
34	i	1161	G	N9-C1'-C2'	-7.21	103.18	114.00
18	R	25	GLY	O-C-N	7.21	130.93	123.29
34	i	1229	G	O4'-C1'-C2'	7.21	114.81	107.60
6	F	41	VAL	N-CA-C	-7.21	94.35	109.34
5	E	151	ASP	CA-C-O	7.20	127.68	119.61
34	i	1472	A	C1'-O4'-C4'	7.20	117.10	109.90
34	i	1515	G	C1'-O4'-C4'	-7.20	102.70	109.90
33	g	196	ASN	N-CA-C	7.20	119.21	111.36
8	H	118	ARG	CA-C-O	7.20	128.11	119.61
12	L	149	ALA	N-CA-C	-7.20	103.60	112.38
16	P	18	ARG	CB-CG-CD	7.20	127.85	111.30
34	i	790	A	O4'-C1'-C2'	-7.20	100.40	107.60
34	i	960	A	O4'-C1'-C2'	-7.20	100.41	107.60
22	V	67	ASP	N-CA-C	-7.19	103.37	111.14
34	i	193	C	N1-C1'-C2'	7.19	122.79	112.00
34	i	1455	G	C1'-O4'-C4'	-7.19	102.71	109.90
34	i	640	A	O4'-C1'-C2'	-7.18	100.42	107.60
34	i	296	U	P-O3'-C3'	-7.18	109.43	120.20
2	B	133	TYR	N-CA-CB	-7.18	98.28	109.69
34	i	1003	C	O4'-C1'-C2'	-7.17	100.42	107.60
34	i	1393	U	O4'-C1'-N1	-7.17	97.44	108.20
34	i	1112	C	O4'-C1'-C2'	7.17	112.97	105.80
34	i	1824	U	C3'-C2'-C1'	7.17	108.67	101.50
34	i	1341	G	O4'-C1'-C2'	-7.17	100.44	107.60
34	i	1251	G	N9-C1'-C2'	7.16	122.74	112.00
1	A	186	ARG	CA-C-N	7.16	135.44	121.41
1	A	186	ARG	C-N-CA	7.16	135.44	121.41
11	K	4	PRO	CA-C-O	-7.16	112.00	122.31
34	i	564	A	C3'-C2'-C1'	7.16	108.46	101.30
34	i	1539	C	O4'-C1'-C2'	-7.15	100.45	107.60
5	E	22	LYS	N-CA-C	7.15	119.16	111.36
34	i	1127	G	O4'-C1'-C2'	-7.15	100.45	107.60
2	B	75	GLN	CA-C-N	7.15	132.27	122.34
2	B	75	GLN	C-N-CA	7.15	132.27	122.34
34	i	471	C	N1-C1'-C2'	7.15	122.72	112.00
7	G	180	VAL	N-CA-C	7.14	124.20	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	T	70	ALA	CA-C-N	7.14	127.82	121.82
20	T	70	ALA	C-N-CA	7.14	127.82	121.82
34	i	368	U	C4'-C3'-C2'	-7.14	95.45	102.60
4	D	144	GLY	N-CA-C	7.14	123.99	111.14
19	S	8	LYS	CA-C-N	7.14	130.34	120.63
19	S	8	LYS	C-N-CA	7.14	130.34	120.63
34	i	540	C	O4'-C1'-C2'	-7.14	100.46	107.60
33	g	237	ASN	CA-CB-CG	-7.14	105.46	112.60
34	i	853	U	N1-C1'-C2'	7.14	122.70	112.00
34	i	1778	G	N9-C1'-C2'	7.13	122.69	112.00
34	i	733	G	C1'-O4'-C4'	7.13	117.03	109.90
25	Y	96	LEU	N-CA-CB	7.12	122.53	110.49
34	i	15	U	O4'-C1'-C2'	-7.12	100.48	107.60
34	i	1045	A	C4'-C3'-C2'	-7.12	95.48	102.60
34	i	1158	C	O4'-C1'-C2'	-7.12	100.48	107.60
34	i	1444	A	P-O3'-C3'	7.12	130.88	120.20
27	a	26	CYS	N-CA-C	-7.12	104.41	113.23
32	f	146	LEU	N-CA-C	-7.12	106.51	114.62
34	i	1653	G	O4'-C1'-C2'	7.12	114.72	107.60
27	a	98	PRO	CA-C-N	7.12	128.73	119.84
27	a	98	PRO	C-N-CA	7.12	128.73	119.84
33	g	276	SER	N-CA-CB	-7.12	106.98	114.10
34	i	966	G	C2'-C3'-O3'	7.12	120.17	109.50
34	i	1546	U	C1'-O4'-C4'	-7.12	102.78	109.90
34	i	1003	C	C3'-C2'-C1'	7.11	108.41	101.30
34	i	1350	G	C2'-C3'-O3'	7.11	124.37	113.70
34	i	1861	U	C3'-C2'-C1'	-7.11	94.39	101.50
17	Q	124	PRO	CB-CA-C	-7.11	101.89	112.55
7	G	79	LYS	N-CA-C	-7.10	100.69	110.35
6	F	82	ASN	CA-CB-CG	-7.10	105.50	112.60
34	i	241	A	O4'-C1'-C2'	-7.10	98.70	105.80
34	i	1455	G	N9-C1'-C2'	7.10	122.64	112.00
10	J	180	LYS	CB-CA-C	-7.09	95.70	110.17
7	G	156	TYR	N-CA-C	7.09	121.19	107.71
34	i	307	G	P-O5'-C5'	7.09	131.53	120.90
34	i	1068	U	C1'-O4'-C4'	7.09	116.99	109.90
34	i	1126	G	N9-C1'-C2'	-7.08	101.37	112.00
34	i	1348	G	O4'-C1'-C2'	7.08	114.69	107.60
34	i	1754	G	O4'-C1'-N9	7.08	119.13	108.50
13	M	75	ASN	CA-CB-CG	-7.08	105.52	112.60
11	K	3	MET	CA-C-N	7.08	128.03	120.11
11	K	3	MET	C-N-CA	7.08	128.03	120.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	123	G	C4'-C3'-O3'	-7.07	102.39	113.00
34	i	512	A	P-O5'-C5'	7.07	131.51	120.90
34	i	538	C	N1-C1'-C2'	7.07	122.61	112.00
34	i	849	C	P-O3'-C3'	-7.07	109.59	120.20
34	i	332	C	O4'-C1'-C2'	-7.07	100.53	107.60
34	i	823	A	N9-C1'-C2'	7.07	122.60	112.00
31	e	95	LYS	CA-C-N	7.06	135.03	121.54
31	e	95	LYS	C-N-CA	7.06	135.03	121.54
1	A	68	ILE	CA-C-N	-7.06	110.83	120.44
1	A	68	ILE	C-N-CA	-7.06	110.83	120.44
4	D	167	TYR	N-CA-C	7.06	120.38	111.69
34	i	222	G	O4'-C1'-C2'	7.06	114.66	107.60
11	K	45	VAL	O-C-N	-7.06	114.99	121.91
34	i	270	G	C4'-C3'-O3'	-7.06	102.41	113.00
34	i	1632	A	N9-C1'-C2'	-7.05	103.42	114.00
11	K	89	ILE	CA-CB-CG1	-7.05	98.41	110.40
8	H	111	LYS	N-CA-CB	7.05	127.53	110.32
34	i	65	C	O4'-C1'-C2'	-7.05	100.55	107.60
27	a	98	PRO	C-N-CD	-7.05	96.09	125.00
34	i	103	A	O4'-C1'-C2'	7.05	112.85	105.80
33	g	92	LEU	CA-C-N	7.05	130.43	120.28
33	g	92	LEU	C-N-CA	7.05	130.43	120.28
34	i	1078	A	O4'-C1'-C2'	-7.05	100.55	107.60
34	i	1775	A	P-O5'-C5'	7.04	131.46	120.90
8	H	16	PRO	CA-C-N	7.04	134.99	121.54
8	H	16	PRO	C-N-CA	7.04	134.99	121.54
34	i	438	A	O4'-C1'-N9	7.04	118.76	108.20
34	i	432	C	N1-C1'-C2'	7.04	122.56	112.00
34	i	556	U	O4'-C1'-N1	7.04	119.06	108.50
34	i	164	A	N9-C1'-C2'	7.04	122.56	112.00
7	G	155	GLN	O-C-N	-7.03	110.28	121.53
33	g	159	ASN	O-C-N	-7.03	113.23	122.59
34	i	1523	G	C3'-C2'-C1'	-7.03	94.27	101.30
34	i	1645	A	O4'-C1'-C2'	-7.03	100.57	107.60
34	i	534	G	O4'-C1'-C2'	-7.03	100.57	107.60
34	i	824	G	C3'-C2'-C1'	-7.03	94.27	101.30
34	i	192	U	P-O5'-C5'	7.03	131.44	120.90
34	i	983	A	P-O5'-C5'	-7.03	110.36	120.90
16	P	13	ARG	N-CA-C	-7.02	105.64	114.56
34	i	298	G	C3'-C2'-C1'	-7.02	94.28	101.30
15	O	20	GLN	N-CA-C	7.02	119.23	108.42
34	i	688	U	C2'-C3'-O3'	7.02	120.03	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	60	A	C3'-C2'-C1'	-7.01	94.29	101.30
34	i	1853	A	C4'-C3'-O3'	-7.01	102.48	113.00
34	i	1065	U	P-O3'-C3'	7.01	130.72	120.20
33	g	143	GLN	N-CA-C	-7.01	95.88	110.80
34	i	308	C	O4'-C1'-C2'	-7.01	100.59	107.60
34	i	1514	U	O4'-C1'-N1	7.01	118.71	108.20
34	i	1449	C	O4'-C1'-N1	7.00	119.00	108.50
34	i	1716	U	O3'-P-O5'	7.00	114.50	104.00
25	Y	62	THR	CA-C-N	-7.00	108.17	121.54
25	Y	62	THR	C-N-CA	-7.00	108.17	121.54
34	i	22	A	O4'-C1'-C2'	-7.00	100.60	107.60
34	i	162	C	C2'-C3'-O3'	-7.00	103.20	113.70
34	i	1616	U	O4'-C1'-N1	7.00	118.69	108.20
34	i	315	C	O4'-C1'-C2'	-6.99	98.81	105.80
34	i	1071	C	N1-C1'-C2'	6.99	122.49	112.00
34	i	1510	G	O4'-C1'-N9	6.99	118.99	108.50
34	i	599	U	O4'-C1'-C2'	-6.99	100.61	107.60
34	i	1376	C	N1-C1'-C2'	6.99	122.49	112.00
34	i	1385	C	P-O5'-C5'	6.99	131.39	120.90
9	I	125	LYS	N-CA-C	6.99	119.79	109.24
34	i	442	G	C3'-C2'-C1'	6.98	108.28	101.30
10	J	34	GLU	O-C-N	6.98	130.38	122.22
10	J	137	VAL	CA-C-N	6.98	134.87	121.54
10	J	137	VAL	C-N-CA	6.98	134.87	121.54
12	L	120	VAL	N-CA-C	-6.98	98.77	108.12
34	i	548	G	O4'-C1'-N9	6.98	118.97	108.50
34	i	222	G	C1'-O4'-C4'	-6.98	102.92	109.90
34	i	480	C	O4'-C1'-C2'	-6.97	100.63	107.60
10	J	145	PRO	CA-C-N	-6.97	109.70	122.31
10	J	145	PRO	C-N-CA	-6.97	109.70	122.31
34	i	1202	G	N9-C1'-C2'	6.97	122.45	112.00
34	i	1693	C	O4'-C1'-C2'	-6.97	98.83	105.80
34	i	1272	A	C3'-C2'-C1'	6.96	108.26	101.30
28	b	52	THR	O-C-N	6.96	131.08	122.86
34	i	679	U	O3'-P-O5'	-6.96	93.56	104.00
34	i	171	A	N9-C1'-C2'	-6.96	103.56	114.00
34	i	342	U	C5'-C4'-C3'	-6.96	105.56	116.00
34	i	1449	C	C1'-C2'-O2'	6.96	118.83	108.40
20	T	44	GLU	N-CA-C	6.95	118.94	111.36
34	i	530	U	O4'-C1'-N1	6.95	118.93	108.50
34	i	478	U	O4'-C1'-N1	6.95	118.92	108.50
34	i	1658	A	O4'-C1'-C2'	-6.95	100.65	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	X	142	ARG	CA-C-O	-6.95	108.99	120.80
34	i	960	A	O4'-C1'-N9	6.95	118.92	108.50
4	D	93	THR	CA-C-N	6.94	134.94	122.38
4	D	93	THR	C-N-CA	6.94	134.94	122.38
9	I	4	SER	CB-CA-C	-6.94	101.65	111.85
34	i	147	A	O4'-C1'-N9	6.94	118.61	108.20
34	i	282	G	N9-C1'-C2'	6.94	122.41	112.00
4	D	227	LYS	CA-C-O	-6.94	109.00	120.80
34	i	276	U	C3'-C2'-C1'	6.94	108.24	101.30
34	i	889	U	O4'-C1'-N1	6.93	118.90	108.50
34	i	1769	U	O4'-C1'-N1	6.93	118.90	108.50
8	H	19	PHE	CA-CB-CG	-6.93	106.87	113.80
34	i	947	C	N1-C1'-C2'	6.93	122.39	112.00
34	i	1702	U	N1-C1'-C2'	6.93	122.40	112.00
5	E	129	ILE	O-C-N	6.93	130.17	123.03
34	i	208	G	P-O5'-C5'	6.93	131.29	120.90
34	i	1503	G	O4'-C1'-N9	6.93	118.59	108.20
1	A	50	ASN	CA-C-N	-6.93	110.31	120.28
1	A	50	ASN	C-N-CA	-6.93	110.31	120.28
34	i	389	C	O4'-C1'-C2'	-6.92	98.88	105.80
3	C	263	THR	CA-C-O	-6.92	109.03	120.80
34	i	156	G	P-O3'-C3'	-6.92	109.82	120.20
21	U	108	PRO	CB-CA-C	-6.92	101.92	110.98
4	D	11	PHE	CA-CB-CG	-6.92	106.88	113.80
8	H	16	PRO	O-C-N	-6.92	113.30	122.64
34	i	1011	U	O4'-C1'-N1	6.92	118.88	108.50
34	i	1860	A	C4'-C3'-O3'	-6.92	102.62	113.00
34	i	1284	U	N1-C1'-C2'	6.91	122.37	112.00
10	J	85	GLY	CA-C-N	-6.91	110.61	120.42
10	J	85	GLY	C-N-CA	-6.91	110.61	120.42
24	X	24	ASP	CB-CA-C	-6.91	100.46	110.06
34	i	1267	C	O4'-C1'-C2'	-6.91	100.69	107.60
13	M	99	LYS	N-CA-C	6.91	126.69	112.40
6	F	135	ARG	CB-CA-C	6.90	122.39	110.45
34	i	546	U	C1'-C2'-O2'	6.90	118.75	108.40
34	i	523	A	C2'-C3'-O3'	6.90	124.05	113.70
34	i	987	G	O4'-C1'-C2'	6.90	114.50	107.60
1	A	209	GLU	CA-C-O	-6.89	109.08	120.80
4	D	83	SER	CA-C-N	-6.89	110.59	121.62
4	D	83	SER	C-N-CA	-6.89	110.59	121.62
34	i	176	U	N1-C1'-C2'	6.89	122.34	112.00
11	K	98	ARG	CA-C-O	-6.89	109.08	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	L	30	LYS	N-CA-C	6.89	118.87	111.36
34	i	905	G	P-O3'-C3'	-6.89	109.87	120.20
34	i	78	C	N1-C1'-C2'	-6.89	103.67	114.00
29	c	68	LEU	CA-C-O	-6.88	109.10	120.80
34	i	1656	A	N9-C1'-C2'	6.88	122.33	112.00
34	i	882	A	O3'-P-O5'	6.88	114.33	104.00
8	H	104	PRO	CA-C-N	6.88	131.70	121.72
8	H	104	PRO	C-N-CA	6.88	131.70	121.72
34	i	419	C	O4'-C1'-C2'	-6.88	100.72	107.60
34	i	550	A	O5'-C5'-C4'	6.88	121.82	111.50
19	S	40	TYR	CA-C-O	6.88	128.04	120.82
33	g	24	THR	CA-C-N	-6.88	111.25	119.84
33	g	24	THR	C-N-CA	-6.88	111.25	119.84
8	H	119	SER	N-CA-C	-6.87	101.13	110.68
34	i	959	A	O4'-C1'-C2'	6.87	114.47	107.60
34	i	1776	G	C3'-C2'-C1'	-6.87	94.43	101.30
34	i	1801	C	N1-C1'-C2'	6.87	122.31	112.00
34	i	1229	G	C1'-O4'-C4'	-6.87	103.03	109.90
34	i	1469	G	P-O3'-C3'	6.87	130.50	120.20
3	C	244	THR	N-CA-C	6.87	125.42	110.80
11	K	3	MET	O-C-N	6.86	129.21	121.32
17	Q	17	LYS	O-C-N	-6.86	113.47	122.59
34	i	548	G	C3'-C2'-C1'	-6.86	94.44	101.30
24	X	91	LEU	CA-CB-CG	6.86	140.30	116.30
34	i	837	G	O4'-C1'-N9	6.86	118.78	108.50
27	a	100	ARG	N-CA-C	6.85	122.04	112.93
29	c	60	GLU	CA-C-N	-6.85	111.73	122.49
29	c	60	GLU	C-N-CA	-6.85	111.73	122.49
34	i	1151	U	P-O5'-C5'	6.85	131.18	120.90
34	i	1199	G	C1'-O4'-C4'	-6.85	103.05	109.90
34	i	406	U	O4'-C1'-N1	6.85	118.77	108.50
34	i	155	G	C5'-C4'-C3'	6.84	126.27	116.00
34	i	321	C	O4'-C1'-C2'	-6.84	98.96	105.80
9	I	4	SER	N-CA-C	6.84	119.77	108.49
24	X	61	GLN	C-N-CD	6.83	135.64	120.60
34	i	1044	G	C1'-O4'-C4'	-6.83	103.06	109.90
34	i	455	A	C4'-C3'-O3'	6.83	119.65	109.40
33	g	314	ILE	CA-C-O	-6.83	109.19	120.80
34	i	1436	C	N1-C1'-C2'	6.83	122.25	112.00
34	i	1482	A	O4'-C1'-N9	6.83	118.75	108.50
17	Q	31	LEU	CA-C-N	6.83	134.26	121.97
17	Q	31	LEU	C-N-CA	6.83	134.26	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	Z	96	LEU	N-CA-C	-6.83	103.77	111.14
34	i	679	U	P-O3'-C3'	-6.83	109.96	120.20
32	f	152	LYS	CA-C-O	-6.83	109.19	120.80
34	i	1	U	O4'-C1'-N1	6.83	118.44	108.20
34	i	1376	C	C3'-C2'-C1'	6.83	108.13	101.30
34	i	830	C	C1'-C2'-O2'	6.83	118.64	108.40
34	i	610	G	O4'-C1'-C2'	-6.82	100.78	107.60
34	i	1249	A	O4'-C1'-N9	6.82	118.43	108.20
34	i	835	C	O3'-P-O5'	-6.82	93.77	104.00
7	G	157	VAL	CA-C-O	6.82	128.53	121.23
12	L	147	LYS	CA-C-N	6.82	130.44	120.82
12	L	147	LYS	C-N-CA	6.82	130.44	120.82
34	i	1256	A	N9-C1'-C2'	6.82	122.23	112.00
17	Q	77	HIS	N-CA-C	6.82	118.71	111.28
34	i	1325	U	C1'-O4'-C4'	-6.81	103.09	109.90
34	i	1771	G	O4'-C1'-C2'	6.81	114.41	107.60
11	K	1	MET	N-CA-C	6.81	130.07	111.00
34	i	604	G	C3'-C2'-C1'	6.81	108.31	101.50
34	i	299	G	C1'-O4'-C4'	-6.80	102.90	109.70
1	A	16	LEU	N-CA-C	6.80	118.48	111.14
4	D	217	ILE	N-CA-C	6.80	116.00	107.70
34	i	176	U	O4'-C1'-C2'	-6.80	100.80	107.60
34	i	627	U	O4'-C1'-N1	6.80	118.70	108.50
19	S	100	ALA	CB-CA-C	-6.80	108.74	116.63
34	i	1313	U	O4'-C1'-C2'	-6.80	100.80	107.60
12	L	24	LEU	CA-C-N	6.79	134.52	121.54
12	L	24	LEU	C-N-CA	6.79	134.52	121.54
34	i	689	G	P-O3'-C3'	6.79	130.39	120.20
34	i	1774	G	N9-C1'-C2'	6.79	122.19	112.00
34	i	425	A	C4'-C3'-O3'	6.79	119.59	109.40
15	O	103	ASN	N-CA-CB	6.79	120.54	110.49
21	U	118	ASP	N-CA-C	-6.79	96.34	110.80
34	i	38	A	O4'-C1'-N9	6.79	118.38	108.20
21	U	41	ARG	N-CA-C	6.79	118.47	111.14
34	i	1081	C	C4'-C3'-O3'	6.79	119.58	109.40
34	i	1048	A	O4'-C1'-C2'	-6.78	100.82	107.60
34	i	62	G	N9-C1'-C2'	6.78	122.17	112.00
34	i	1207	G	N9-C1'-C2'	6.78	122.16	112.00
34	i	189	G	O5'-C5'-C4'	6.77	121.66	111.50
15	O	143	LYS	CB-CA-C	-6.77	98.07	109.65
34	i	1232	G	C3'-C2'-C1'	-6.77	94.53	101.30
34	i	887	G	N9-C1'-C2'	6.76	122.15	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1233	C	C3'-C2'-C1'	6.76	108.06	101.30
34	i	385	G	O4'-C1'-C2'	6.76	114.36	107.60
34	i	1346	U	O4'-C1'-C2'	-6.76	100.84	107.60
34	i	190	A	C5'-C4'-C3'	-6.76	105.86	116.00
34	i	883	U	C2'-C3'-O3'	6.76	119.64	109.50
34	i	1243	C	O4'-C1'-C2'	-6.75	99.05	105.80
34	i	1523	G	O4'-C1'-N9	6.75	118.63	108.50
20	T	144	LYS	CA-C-O	-6.75	109.32	120.80
34	i	1841	G	O4'-C1'-N9	6.75	118.62	108.50
17	Q	17	LYS	CA-C-N	6.75	132.71	122.93
17	Q	17	LYS	C-N-CA	6.75	132.71	122.93
34	i	1594	U	P-O5'-C5'	6.75	131.02	120.90
34	i	1784	A	N9-C1'-C2'	6.74	122.11	112.00
34	i	139	C	O4'-C1'-C2'	-6.74	100.86	107.60
34	i	738	U	P-O3'-C3'	6.74	130.30	120.20
34	i	311	C	C3'-C2'-C1'	6.73	108.03	101.30
34	i	796	U	C5'-C4'-C3'	-6.73	105.90	116.00
34	i	1655	C	P-O3'-C3'	-6.73	110.10	120.20
34	i	1596	A	P-O3'-C3'	6.73	130.30	120.20
34	i	1208	G	C1'-O4'-C4'	-6.73	103.17	109.90
34	i	1775	A	P-O3'-C3'	6.73	130.29	120.20
34	i	683	G	O4'-C4'-C3'	-6.73	97.27	104.00
34	i	1191	A	C4'-C3'-O3'	-6.73	102.91	113.00
34	i	1703	C	O4'-C1'-C2'	-6.73	100.87	107.60
8	H	110	THR	CA-CB-CG2	6.72	121.93	110.50
12	L	81	LYS	N-CA-C	6.72	118.68	111.36
34	i	1634	G	O4'-C1'-C2'	-6.71	100.89	107.60
34	i	1132	U	O4'-C1'-C2'	-6.71	100.89	107.60
19	S	39	ARG	O-C-N	6.71	130.07	122.22
12	L	4	ILE	N-CA-C	-6.70	95.40	109.34
34	i	518	A	C1'-O4'-C4'	-6.70	103.20	109.90
34	i	1167	G	O4'-C1'-C2'	-6.70	99.10	105.80
24	X	24	ASP	CA-C-N	-6.70	111.30	120.28
24	X	24	ASP	C-N-CA	-6.70	111.30	120.28
34	i	415	G	O4'-C1'-N9	6.69	118.54	108.50
34	i	424	G	C2'-C3'-O3'	6.69	123.73	113.70
34	i	1322	U	C3'-C2'-C1'	6.69	108.19	101.50
21	U	109	GLY	CA-C-N	-6.68	109.94	121.97
21	U	109	GLY	C-N-CA	-6.68	109.94	121.97
34	i	859	U	C1'-O4'-C4'	-6.68	103.22	109.90
34	i	1145	A	O4'-C1'-N9	6.68	118.22	108.20
16	P	49	LEU	O-C-N	-6.68	113.71	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	g	15	ASN	N-CA-CB	6.68	119.47	110.59
6	F	152	TRP	N-CA-C	-6.67	103.70	110.97
3	C	256	ASP	O-C-N	6.67	129.19	122.12
13	M	73	GLN	N-CA-C	-6.67	103.11	110.91
26	Z	101	SER	CA-C-O	-6.67	112.56	120.43
7	G	180	VAL	N-CA-CB	-6.67	100.23	111.23
34	i	68	A	O4'-C1'-C2'	-6.66	100.94	107.60
3	C	83	LEU	O-C-N	-6.66	115.06	122.72
34	i	74	G	O4'-C1'-C2'	-6.66	100.94	107.60
8	H	164	ASN	CA-CB-CG	-6.66	105.94	112.60
34	i	1714	A	C1'-O4'-C4'	6.66	116.56	109.90
34	i	456	G	O4'-C1'-N9	6.65	118.48	108.50
34	i	951	A	P-O3'-C3'	6.65	130.18	120.20
34	i	1104	G	P-O3'-C3'	6.65	130.18	120.20
34	i	64	A	N9-C1'-C2'	-6.65	104.03	114.00
34	i	123	G	O4'-C1'-N9	6.65	118.47	108.50
34	i	1151	U	C5'-C4'-O4'	6.65	119.07	109.10
34	i	103	A	C3'-C2'-C1'	-6.64	94.86	101.50
6	F	130	ARG	N-CA-CB	6.64	121.73	111.84
27	a	57	SER	O-C-N	-6.64	115.22	122.79
34	i	279	G	P-O5'-C5'	6.64	130.86	120.90
34	i	455	A	P-O3'-C3'	6.64	130.16	120.20
34	i	1550	U	O4'-C4'-C3'	-6.64	97.36	104.00
34	i	1129	A	O5'-C5'-C4'	-6.64	101.55	111.50
34	i	1288	C	O4'-C1'-C2'	-6.63	100.97	107.60
34	i	1014	U	C1'-O4'-C4'	-6.63	103.27	109.90
34	i	1056	A	N9-C1'-C2'	6.63	123.95	114.00
34	i	1280	A	O4'-C1'-C2'	-6.63	99.17	105.80
22	V	42	VAL	CB-CA-C	-6.63	100.42	111.29
33	g	162	ASN	N-CA-C	6.63	113.97	108.07
34	i	639	U	C1'-O4'-C4'	-6.63	103.27	109.90
34	i	1066	A	N9-C1'-C2'	6.63	121.94	112.00
34	i	1226	C	C1'-O4'-C4'	-6.63	103.27	109.90
34	i	1550	U	C4'-C3'-O3'	-6.63	103.06	113.00
34	i	1433	C	N1-C1'-C2'	6.62	121.94	112.00
10	J	124	HIS	N-CA-C	-6.62	96.69	110.80
34	i	1030	A	O4'-C1'-C2'	-6.62	100.98	107.60
11	K	2	LEU	N-CA-C	6.62	129.54	111.00
33	g	212	LYS	CA-C-N	-6.62	111.41	120.28
33	g	212	LYS	C-N-CA	-6.62	111.41	120.28
22	V	24	ILE	CA-C-N	-6.62	117.61	122.18
22	V	24	ILE	C-N-CA	-6.62	117.61	122.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1240	U	O4'-C1'-N1	6.62	118.43	108.50
34	i	1384	A	O4'-C1'-C2'	-6.62	100.98	107.60
34	i	1688	G	C1'-O4'-C4'	-6.62	103.28	109.90
34	i	1395	C	C5'-C4'-C3'	-6.62	106.08	116.00
34	i	296	U	C4'-C3'-O3'	6.61	119.32	109.40
34	i	1776	G	O5'-C5'-C4'	6.61	121.42	111.50
34	i	104	A	O4'-C1'-C2'	-6.61	100.99	107.60
34	i	887	G	C1'-O4'-C4'	-6.61	103.29	109.90
34	i	1695	C	O4'-C1'-C2'	-6.61	99.19	105.80
25	Y	103	SER	CA-C-N	6.61	134.16	121.54
25	Y	103	SER	C-N-CA	6.61	134.16	121.54
34	i	352	C	N1-C1'-C2'	6.61	121.91	112.00
12	L	3	ASP	N-CA-C	-6.61	100.65	110.23
34	i	549	G	N9-C1'-C2'	6.60	121.90	112.00
34	i	821	A	P-O3'-C3'	-6.60	110.30	120.20
34	i	1181	C	N1-C1'-C2'	6.60	121.90	112.00
34	i	389	C	C3'-C2'-C1'	6.60	108.10	101.50
34	i	1168	U	O4'-C1'-N1	6.60	118.40	108.50
35	l	73	VAL	N-CA-C	6.60	118.36	106.61
34	i	290	A	O4'-C1'-C2'	-6.60	101.00	107.60
34	i	1809	A	O4'-C1'-C2'	-6.60	101.00	107.60
34	i	744	C	C3'-C2'-C1'	6.59	107.89	101.30
34	i	59	U	O4'-C1'-N1	6.59	118.38	108.50
34	i	1548	C	P-O3'-C3'	6.58	130.08	120.20
34	i	1135	C	P-O5'-C5'	-6.58	111.03	120.90
16	P	17	TYR	N-CA-CB	6.58	121.61	110.49
34	i	544	A	C3'-C2'-C1'	-6.58	94.72	101.30
34	i	835	C	P-O3'-C3'	6.58	130.06	120.20
34	i	946	C	O4'-C1'-C2'	-6.58	101.03	107.60
34	i	1272	A	N9-C1'-C2'	-6.57	102.14	112.00
34	i	598	C	C3'-C2'-C1'	6.57	107.87	101.30
34	i	563	U	N1-C1'-C2'	6.57	121.86	112.00
34	i	1565	G	O4'-C1'-N9	6.57	118.35	108.50
34	i	1711	C	O4'-C1'-C2'	-6.57	101.03	107.60
34	i	1307	C	C1'-O4'-C4'	-6.57	103.33	109.90
34	i	1794	A	O4'-C1'-C2'	-6.57	101.03	107.60
34	i	1461	A	O4'-C1'-C2'	-6.57	101.03	107.60
21	U	48	LEU	N-CA-C	-6.56	104.21	111.82
33	g	76	GLN	N-CA-C	6.56	118.51	111.36
34	i	72	C	C1'-C2'-O2'	6.56	121.64	111.80
34	i	1627	G	C2'-C3'-O3'	6.56	119.34	109.50
6	F	43	GLU	N-CA-C	-6.56	96.83	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1478	C	O4'-C1'-C2'	-6.56	101.04	107.60
5	E	132	GLY	CA-C-N	6.55	130.68	121.24
5	E	132	GLY	C-N-CA	6.55	130.68	121.24
34	i	313	C	C3'-C2'-C1'	6.55	108.06	101.50
34	i	390	C	O4'-C1'-C2'	-6.55	99.25	105.80
34	i	186	G	C1'-O4'-C4'	-6.55	103.35	109.90
33	g	258	ILE	CA-C-N	-6.55	111.88	122.36
33	g	258	ILE	C-N-CA	-6.55	111.88	122.36
34	i	685	G	C5'-C4'-C3'	6.55	125.83	116.00
34	i	1735	C	O4'-C1'-C2'	-6.55	101.05	107.60
34	i	1861	U	O4'-C1'-C2'	-6.55	99.25	105.80
34	i	868	A	O4'-C1'-C2'	6.55	112.35	105.80
34	i	908	C	C3'-C2'-C1'	6.55	108.05	101.50
34	i	142	C	O4'-C1'-C2'	6.55	112.35	105.80
34	i	866	A	O4'-C1'-N9	6.54	118.02	108.20
34	i	1533	C	P-O5'-C5'	-6.54	111.08	120.90
34	i	192	U	C2'-C3'-O3'	-6.54	103.89	113.70
34	i	881	U	O4'-C1'-C2'	-6.54	101.06	107.60
34	i	678	U	C1'-C2'-O2'	6.54	121.61	111.80
34	i	405	A	N9-C1'-C2'	-6.54	102.19	112.00
25	Y	122	LYS	N-CA-C	-6.54	104.16	111.28
34	i	792	G	P-O3'-C3'	6.53	130.00	120.20
22	V	67	ASP	N-CA-CB	-6.53	100.60	110.07
34	i	1369	C	C3'-C2'-C1'	6.53	107.83	101.30
32	f	125	GLU	CB-CA-C	6.53	121.53	111.02
34	i	1683	C	OP2-P-O3'	6.53	127.57	108.00
34	i	359	C	O4'-C1'-N1	6.52	117.98	108.20
34	i	385	G	C3'-C2'-C1'	-6.52	94.78	101.30
12	L	151	THR	N-CA-C	-6.52	100.01	113.31
34	i	325	G	C1'-C2'-O2'	6.52	118.18	108.40
34	i	325	G	N9-C1'-C2'	-6.52	102.22	112.00
34	i	553	G	O4'-C1'-C2'	-6.52	99.28	105.80
34	i	1846	C	N1-C1'-C2'	6.52	121.78	112.00
20	T	86	GLY	N-CA-C	-6.52	105.68	111.67
34	i	1361	G	P-O5'-C5'	6.51	130.67	120.90
13	M	58	GLU	CA-C-N	6.51	127.98	119.84
13	M	58	GLU	C-N-CA	6.51	127.98	119.84
31	e	121	PRO	CA-N-CD	-6.51	102.88	112.00
34	i	312	C	O4'-C1'-C2'	-6.51	101.09	107.60
34	i	435	A	C1'-O4'-C4'	-6.51	103.39	109.90
34	i	58	C	N1-C1'-C2'	-6.51	104.24	114.00
34	i	342	U	C3'-C2'-C1'	6.50	107.81	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	630	A	C1'-O4'-C4'	-6.50	103.39	109.90
34	i	1326	G	O4'-C1'-C2'	6.50	112.31	105.80
5	E	202	PRO	N-CA-C	-6.50	101.44	111.13
12	L	101	ARG	N-CA-C	-6.50	98.78	108.99
34	i	740	G	O3'-P-O5'	-6.50	94.25	104.00
26	Z	52	LYS	N-CA-C	-6.50	96.95	110.80
34	i	147	A	C1'-O4'-C4'	6.49	116.19	109.70
27	a	99	PRO	CA-C-N	-6.49	111.76	122.79
27	a	99	PRO	C-N-CA	-6.49	111.76	122.79
34	i	1577	C	N1-C1'-C2'	6.49	121.73	112.00
34	i	75	G	O4'-C1'-N9	6.48	118.22	108.50
34	i	1316	G	C3'-C2'-C1'	-6.48	94.82	101.30
5	E	258	ALA	O-C-N	-6.47	114.31	122.27
34	i	1571	G	N9-C1'-C2'	6.47	121.71	112.00
34	i	816	U	O4'-C1'-N1	6.47	118.21	108.50
34	i	1167	G	O4'-C1'-N9	6.47	117.91	108.20
34	i	60	A	O4'-C1'-C2'	6.47	114.07	107.60
34	i	788	C	N1-C1'-C2'	6.47	121.70	112.00
34	i	147	A	O4'-C1'-C2'	-6.46	99.33	105.80
34	i	1235	U	O3'-P-O5'	6.46	113.70	104.00
34	i	295	C	C2'-C3'-O3'	6.46	119.19	109.50
21	U	69	PRO	CB-CA-C	-6.46	104.52	111.56
25	Y	34	THR	N-CA-C	6.46	124.56	110.80
34	i	1104	G	O4'-C1'-N9	6.46	118.19	108.50
34	i	977	A	C3'-C2'-C1'	6.46	107.76	101.30
16	P	53	GLN	CB-CA-C	6.46	121.59	110.94
34	i	146	G	O4'-C1'-N9	6.46	117.89	108.20
34	i	1482	A	O5'-C5'-C4'	-6.46	101.82	111.50
8	H	54	GLY	N-CA-C	6.45	120.47	112.73
4	D	48	ILE	CA-C-N	-6.45	114.64	122.90
4	D	48	ILE	C-N-CA	-6.45	114.64	122.90
34	i	1442	A	P-O3'-C3'	6.45	129.87	120.20
34	i	1539	C	C3'-C2'-C1'	6.45	107.75	101.30
34	i	209	C	P-O5'-C5'	6.44	130.57	120.90
34	i	623	C	N1-C1'-C2'	6.44	121.66	112.00
34	i	1527	C	N1-C1'-C2'	6.44	121.66	112.00
15	O	149	ARG	N-CA-C	-6.44	100.31	109.96
34	i	848	G	P-O3'-C3'	6.44	129.85	120.20
34	i	1547	G	P-O5'-C5'	6.44	130.56	120.90
9	I	6	ASP	N-CA-CB	-6.43	99.46	109.69
23	W	97	ARG	N-CA-C	-6.43	104.27	111.28
10	J	186	GLY	CA-C-N	6.43	133.91	122.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	J	186	GLY	C-N-CA	6.43	133.91	122.08
34	i	224	U	O4'-C1'-N1	6.43	117.85	108.20
34	i	1655	C	C4'-C3'-O3'	-6.43	103.35	113.00
25	Y	64	PHE	N-CA-CB	-6.43	99.78	110.39
34	i	1428	U	N1-C1'-C2'	6.43	121.64	112.00
1	A	97	THR	CA-C-N	6.42	127.87	119.84
1	A	97	THR	C-N-CA	6.42	127.87	119.84
34	i	368	U	N1-C1'-C2'	6.42	121.63	112.00
34	i	279	G	O4'-C1'-C2'	-6.42	101.18	107.60
5	E	13	ALA	N-CA-C	-6.42	103.98	113.61
34	i	604	G	N9-C1'-C2'	6.42	123.63	114.00
26	Z	94	LYS	N-CA-C	-6.41	98.28	108.73
34	i	57	U	O4'-C1'-C2'	-6.41	101.19	107.60
34	i	1800	A	N9-C1'-C2'	6.41	121.62	112.00
3	C	216	ALA	O-C-N	-6.41	114.06	122.39
17	Q	29	ASN	O-C-N	6.41	128.91	122.12
28	b	15	GLU	N-CA-C	-6.41	103.81	111.69
34	i	455	A	O3'-P-O5'	-6.41	94.39	104.00
34	i	54	A	N9-C1'-C2'	6.41	121.61	112.00
34	i	1817	A	C2'-C3'-O3'	-6.41	99.89	109.50
34	i	1563	C	C1'-C2'-O2'	6.40	118.01	108.40
34	i	145	G	O4'-C1'-C2'	6.40	114.00	107.60
34	i	1805	C	O4'-C1'-C2'	-6.40	101.20	107.60
34	i	881	U	O4'-C1'-N1	6.40	118.10	108.50
15	O	105	THR	N-CA-C	6.40	118.25	111.28
34	i	1371	G	O4'-C1'-C2'	-6.40	101.20	107.60
11	K	43	LEU	CA-CB-CG	6.39	138.68	116.30
28	b	36	LYS	O-C-N	-6.39	115.18	122.09
34	i	124	U	O3'-P-O5'	-6.39	94.41	104.00
34	i	131	C	P-O3'-C3'	6.39	129.78	120.20
18	R	121	GLN	N-CA-C	6.39	123.92	109.81
34	i	853	U	P-O5'-C5'	-6.39	111.32	120.90
34	i	1023	A	O3'-P-O5'	6.39	113.58	104.00
34	i	1618	A	C3'-C2'-C1'	-6.39	94.91	101.30
19	S	15	VAL	O-C-N	-6.38	115.98	123.00
29	c	55	VAL	N-CA-C	6.38	117.67	108.48
34	i	1010	G	C3'-C2'-C1'	-6.38	94.92	101.30
34	i	730	C	N1-C1'-C2'	6.38	121.57	112.00
23	W	94	LEU	CA-C-N	6.38	125.61	118.97
23	W	94	LEU	C-N-CA	6.38	125.61	118.97
34	i	1345	G	N9-C1'-C2'	6.38	121.57	112.00
1	A	4	ALA	CA-C-N	6.38	128.73	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	4	ALA	C-N-CA	6.38	128.73	120.44
6	F	27	ASP	CA-C-N	-6.38	115.28	123.19
6	F	27	ASP	C-N-CA	-6.38	115.28	123.19
8	H	135	PHE	CA-CB-CG	-6.38	107.42	113.80
34	i	1518	C	C4'-C3'-O3'	-6.38	103.43	113.00
34	i	520	U	C2'-C3'-O3'	-6.38	104.14	113.70
34	i	1542	C	O4'-C1'-C2'	-6.38	101.22	107.60
10	J	179	LYS	O-C-N	6.37	130.31	122.34
11	K	18	GLU	N-CA-C	6.37	118.31	111.36
18	R	84	TYR	N-CA-C	6.37	119.02	110.35
34	i	1414	C	O4'-C4'-C3'	-6.37	99.73	106.10
11	K	42	ASN	CA-CB-CG	6.37	118.97	112.60
12	L	118	ARG	N-CA-C	6.37	118.98	108.99
34	i	1097	U	O4'-C1'-N1	6.37	118.05	108.50
34	i	1416	G	N9-C1'-C2'	6.37	121.55	112.00
34	i	1431	C	C5'-C4'-C3'	6.37	125.55	116.00
11	K	43	LEU	CA-C-N	-6.36	109.39	121.54
11	K	43	LEU	C-N-CA	-6.36	109.39	121.54
34	i	983	A	O4'-C1'-C2'	-6.36	101.24	107.60
34	i	677	C	O4'-C1'-C2'	6.36	112.16	105.80
34	i	1359	C	C3'-C2'-C1'	6.36	107.86	101.50
34	i	966	G	P-O3'-C3'	6.36	129.74	120.20
34	i	1537	C	C1'-O4'-C4'	-6.36	103.54	109.90
11	K	43	LEU	N-CA-C	-6.36	97.26	110.80
25	Y	78	SER	CA-C-N	-6.36	110.39	120.63
25	Y	78	SER	C-N-CA	-6.36	110.39	120.63
34	i	520	U	O5'-C5'-C4'	6.36	121.04	111.50
34	i	596	G	O4'-C1'-N9	6.36	117.74	108.20
34	i	280	G	O4'-C1'-N9	6.36	118.03	108.50
8	H	34	SER	N-CA-C	-6.35	99.65	109.24
34	i	277	U	N1-C1'-C2'	6.35	121.53	112.00
34	i	1293	U	O4'-C1'-C2'	-6.35	101.25	107.60
34	i	1470	A	O3'-P-O5'	6.35	113.53	104.00
34	i	1786	G	C1'-O4'-C4'	-6.35	103.55	109.90
34	i	20	G	O4'-C1'-N9	6.35	118.03	108.50
34	i	960	A	C1'-O4'-C4'	6.35	116.25	109.90
34	i	446	C	O4'-C1'-C2'	-6.35	101.25	107.60
14	N	82	PRO	CA-C-O	6.34	132.15	120.60
34	i	180	G	O3'-P-O5'	6.34	113.52	104.00
32	f	106	TYR	N-CA-C	-6.34	97.29	110.80
34	i	1269	C	P-O3'-C3'	-6.34	110.69	120.20
23	W	98	GLN	N-CA-C	6.34	118.19	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	504	U	N1-C1'-C2'	6.34	121.51	112.00
34	i	959	A	P-O5'-C5'	-6.34	111.39	120.90
34	i	1706	U	N1-C1'-C2'	6.34	121.50	112.00
14	N	14	SER	CB-CA-C	-6.33	96.54	109.65
16	P	37	TYR	CB-CA-C	6.33	123.02	110.42
21	U	109	GLY	N-CA-C	-6.33	98.17	113.18
34	i	1753	G	O4'-C1'-N9	6.33	118.00	108.50
7	G	121	ILE	O-C-N	6.33	128.32	121.10
9	I	104	ILE	N-CA-C	6.33	122.51	109.34
10	J	164	PRO	N-CD-CG	-6.33	93.71	103.20
33	g	27	PHE	CA-CB-CG	-6.33	107.47	113.80
34	i	1661	C	O4'-C1'-C2'	-6.33	101.27	107.60
34	i	1028	C	O4'-C1'-C2'	-6.33	101.27	107.60
34	i	407	C	O4'-C1'-C2'	-6.32	101.28	107.60
34	i	1337	C	O4'-C1'-C2'	-6.32	99.48	105.80
34	i	1429	C	C2'-C3'-O3'	-6.32	104.22	113.70
34	i	1006	G	C3'-C2'-C1'	-6.32	94.98	101.30
34	i	278	U	P-O5'-C5'	6.32	130.37	120.90
34	i	691	G	P-O3'-C3'	6.32	129.68	120.20
34	i	986	A	C3'-C2'-C1'	6.32	107.81	101.50
34	i	594	A	C3'-C2'-C1'	6.31	107.61	101.30
2	B	76	ASN	CA-C-O	-6.31	114.26	121.65
34	i	1250	C	O4'-C1'-C2'	-6.31	101.29	107.60
10	J	40	LYS	CA-C-N	-6.31	111.82	120.28
10	J	40	LYS	C-N-CA	-6.31	111.82	120.28
34	i	793	C	P-O5'-C5'	6.31	130.36	120.90
6	F	57	ALA	N-CA-C	6.31	118.16	111.28
34	i	684	A	P-O5'-C5'	6.31	130.36	120.90
34	i	981	G	O4'-C1'-C2'	6.30	112.11	105.80
34	i	390	C	C1'-C2'-O2'	-6.30	102.34	111.80
34	i	1289	A	C3'-C2'-C1'	6.30	107.60	101.30
34	i	180	G	C2'-C3'-O3'	-6.30	100.05	109.50
34	i	446	C	C3'-C2'-C1'	6.30	107.60	101.30
34	i	1215	C	C3'-C2'-C1'	6.30	107.60	101.30
34	i	1127	G	C5'-C4'-C3'	-6.30	106.55	116.00
34	i	545	A	O3'-P-O5'	6.30	113.45	104.00
6	F	46	ALA	O-C-N	-6.30	114.22	122.59
34	i	596	G	O4'-C1'-C2'	6.30	112.10	105.80
34	i	1144	A	C1'-C2'-O2'	6.30	121.25	111.80
28	b	41	TYR	N-CA-CB	-6.29	102.53	110.90
29	c	47	LYS	N-CA-C	6.29	117.94	111.14
33	g	213	ASP	N-CA-C	-6.29	104.42	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	240	C	C4'-C3'-O3'	6.29	118.84	109.40
34	i	1220	G	N9-C1'-C2'	6.29	121.44	112.00
34	i	368	U	C1'-O4'-C4'	-6.29	103.61	109.90
14	N	137	PRO	CA-C-O	-6.29	114.17	121.34
34	i	1630	C	O4'-C1'-C2'	-6.29	101.31	107.60
34	i	1646	A	N9-C1'-C2'	-6.29	102.57	112.00
34	i	1447	G	C3'-C2'-C1'	6.29	107.59	101.30
32	f	86	THR	N-CA-C	-6.29	97.41	110.80
34	i	274	G	N9-C1'-C2'	6.29	121.43	112.00
29	c	46	VAL	N-CA-C	6.28	117.53	108.48
17	Q	6	PRO	CB-CA-C	-6.28	98.17	110.10
34	i	546	U	C5'-C4'-C3'	6.27	125.41	116.00
34	i	1126	G	O4'-C1'-N9	6.27	117.91	108.50
34	i	225	C	N1-C1'-C2'	6.27	123.41	114.00
34	i	835	C	O4'-C1'-N1	6.27	117.61	108.20
35	l	35	ILE	N-CA-C	-6.27	100.39	109.29
11	K	95	ARG	N-CA-C	6.27	124.15	110.80
34	i	359	C	N1-C1'-C2'	6.27	123.40	114.00
34	i	520	U	P-O3'-C3'	6.26	129.60	120.20
34	i	306	C	O4'-C1'-C2'	-6.26	101.34	107.60
34	i	1615	A	C1'-O4'-C4'	-6.26	103.44	109.70
34	i	1632	A	C1'-O4'-C4'	6.26	115.96	109.70
34	i	856	G	N9-C1'-C2'	6.26	121.39	112.00
34	i	1198	U	N1-C1'-C2'	-6.26	102.61	112.00
34	i	1407	G	C1'-C2'-O2'	6.26	117.79	108.40
34	i	426	G	O4'-C1'-N9	6.26	117.89	108.50
14	N	142	GLU	CA-C-O	-6.26	113.60	120.36
34	i	315	C	P-O3'-C3'	6.26	129.58	120.20
34	i	1188	U	O4'-C1'-N1	6.26	117.88	108.50
4	D	142	LEU	O-C-N	-6.25	115.25	123.13
34	i	35	C	C3'-C2'-C1'	6.25	107.55	101.30
34	i	1043	C	C3'-C2'-C1'	6.25	107.55	101.30
34	i	1550	U	O4'-C1'-N1	6.25	117.88	108.50
34	i	531	U	O4'-C1'-N1	6.25	117.88	108.50
34	i	1262	C	N1-C1'-C2'	6.25	121.37	112.00
34	i	1322	U	C1'-O4'-C4'	-6.25	103.45	109.70
33	g	212	LYS	N-CA-C	6.24	118.17	111.36
34	i	581	U	O4'-C1'-C2'	6.24	112.04	105.80
34	i	850	A	O5'-C5'-C4'	-6.24	102.14	111.50
21	U	27	ARG	O-C-N	-6.24	114.29	122.59
34	i	274	G	O4'-C1'-C2'	6.24	113.84	107.60
34	i	1156	U	O3'-P-O5'	6.24	113.36	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1514	U	O4'-C1'-C2'	-6.24	99.56	105.80
16	P	35	GLN	CA-C-N	-6.23	114.40	123.00
16	P	35	GLN	C-N-CA	-6.23	114.40	123.00
34	i	841	G	P-O3'-C3'	-6.23	110.85	120.20
34	i	1407	G	N9-C1'-C2'	6.23	121.35	112.00
34	i	535	A	O4'-C1'-C2'	-6.23	101.37	107.60
34	i	1390	G	N9-C1'-C2'	6.23	121.34	112.00
34	i	884	U	P-O5'-C5'	6.23	130.24	120.90
34	i	461	G	O4'-C1'-N9	6.22	117.54	108.20
34	i	1406	C	C3'-C2'-C1'	6.22	107.52	101.30
34	i	548	G	O3'-P-O5'	-6.22	94.67	104.00
11	K	37	ASP	CA-C-N	6.22	133.42	121.54
11	K	37	ASP	C-N-CA	6.22	133.42	121.54
34	i	74	G	C4'-C3'-C2'	-6.22	96.38	102.60
10	J	35	TYR	CA-C-N	6.22	133.59	121.41
10	J	35	TYR	C-N-CA	6.22	133.59	121.41
34	i	412	U	O4'-C1'-N1	6.21	117.82	108.50
34	i	1549	C	C4'-C3'-O3'	6.21	122.32	113.00
34	i	1035	C	O4'-C1'-C2'	-6.21	101.39	107.60
34	i	236	C	O4'-C1'-C2'	-6.21	101.39	107.60
34	i	804	A	N9-C1'-C2'	6.21	121.31	112.00
34	i	1838	U	O4'-C1'-N1	6.21	117.81	108.50
4	D	210	ILE	O-C-N	6.20	129.92	123.03
27	a	63	VAL	N-CA-C	6.20	122.24	109.34
34	i	493	C	O4'-C1'-C2'	-6.20	99.60	105.80
8	H	85	LYS	N-CA-C	6.20	117.84	111.14
28	b	35	VAL	CA-C-N	6.20	128.87	120.44
28	b	35	VAL	C-N-CA	6.20	128.87	120.44
34	i	1425	G	N9-C1'-C2'	-6.20	102.70	112.00
24	X	24	ASP	N-CA-CB	6.20	119.44	109.28
34	i	1660	G	C1'-O4'-C4'	-6.20	103.50	109.70
2	B	56	LYS	CA-C-N	6.20	133.12	121.97
2	B	56	LYS	C-N-CA	6.20	133.12	121.97
34	i	1183	G	O4'-C1'-C2'	-6.20	101.40	107.60
34	i	1271	G	O3'-P-O5'	-6.20	94.71	104.00
2	B	155	TYR	CB-CA-C	-6.19	96.98	109.68
7	G	48	TYR	O-C-N	-6.19	115.41	122.97
33	g	95	GLY	N-CA-C	-6.19	102.03	110.20
14	N	12	SER	N-CA-C	-6.19	99.12	108.46
34	i	1297	A	O3'-P-O5'	-6.19	94.72	104.00
34	i	1310	U	O4'-C1'-N1	6.19	117.78	108.50
25	Y	94	HIS	CE1-NE2-CD2	-6.19	102.81	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1065	U	P-O5'-C5'	-6.19	111.62	120.90
34	i	168	C	C3'-C2'-C1'	6.18	107.48	101.30
34	i	1049	C	O4'-C1'-C2'	-6.18	101.42	107.60
4	D	145	GLN	N-CA-C	-6.18	104.55	111.28
11	K	46	MET	CB-CA-C	-6.18	101.18	110.88
34	i	162	C	P-O3'-C3'	6.18	129.47	120.20
32	f	144	CYS	N-CA-C	-6.18	97.64	110.80
34	i	136	C	C5'-C4'-C3'	6.18	124.17	114.90
34	i	168	C	O4'-C1'-C2'	-6.18	101.42	107.60
34	i	227	A	C1'-O4'-C4'	6.18	116.08	109.90
34	i	1051	A	O4'-C1'-C2'	-6.18	101.42	107.60
34	i	1410	A	C4'-C3'-O3'	-6.18	103.74	113.00
34	i	1786	G	C3'-C2'-C1'	-6.18	95.12	101.30
34	i	1858	U	O4'-C1'-C2'	-6.18	101.42	107.60
24	X	23	HIS	N-CA-C	-6.17	104.61	111.71
34	i	343	C	C4'-C3'-C2'	6.17	108.78	102.60
34	i	520	U	O4'-C1'-N1	6.16	117.75	108.50
34	i	817	G	O4'-C1'-N9	6.16	117.45	108.20
34	i	1372	A	O4'-C1'-N9	6.16	117.74	108.50
34	i	1771	G	C1'-O4'-C4'	-6.16	103.74	109.90
34	i	608	C	O4'-C1'-C2'	-6.16	101.44	107.60
34	i	1274	A	P-O5'-C5'	6.16	130.14	120.90
34	i	276	U	O4'-C1'-C2'	-6.16	101.44	107.60
2	B	212	VAL	N-CA-C	-6.16	99.43	108.54
34	i	1587	C	N1-C1'-C2'	6.16	121.23	112.00
34	i	164	A	C1'-O4'-C4'	-6.15	103.75	109.90
34	i	436	G	C3'-C2'-C1'	6.15	107.45	101.30
34	i	1160	G	N9-C1'-C2'	6.15	121.22	112.00
34	i	1532	A	C5'-C4'-C3'	-6.15	106.78	116.00
34	i	1542	C	N1-C1'-C2'	6.15	121.22	112.00
16	P	122	THR	N-CA-C	-6.15	103.31	111.24
12	L	100	ASN	N-CA-C	6.14	120.76	107.49
34	i	1570	G	C4'-C3'-C2'	-6.14	96.46	102.60
34	i	1149	C	O4'-C1'-C2'	6.14	111.94	105.80
8	H	109	ARG	N-CA-C	6.14	123.87	110.80
34	i	1090	C	O4'-C1'-C2'	-6.13	101.47	107.60
34	i	1437	U	O4'-C1'-N1	6.13	117.40	108.20
34	i	1504	A	C1'-O4'-C4'	6.13	115.83	109.70
34	i	798	A	C1'-C2'-O2'	6.13	117.60	108.40
34	i	1231	G	O4'-C1'-N9	6.13	117.70	108.50
34	i	1589	A	C5'-C4'-C3'	6.13	125.20	116.00
9	I	116	HIS	N-CA-C	6.13	118.04	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1656	A	O5'-C5'-C4'	-6.13	102.31	111.50
33	g	2	THR	CA-C-N	-6.12	109.84	121.54
33	g	2	THR	C-N-CA	-6.12	109.84	121.54
1	A	53	ARG	N-CA-CB	-6.12	101.12	110.12
3	C	81	PHE	CA-CB-CG	-6.12	107.68	113.80
21	U	27	ARG	CA-C-N	-6.12	112.01	121.56
21	U	27	ARG	C-N-CA	-6.12	112.01	121.56
25	Y	36	PRO	CA-C-O	-6.12	114.46	121.56
34	i	151	C	O5'-C5'-C4'	-6.12	102.32	111.50
34	i	1255	A	O4'-C1'-N9	6.12	117.68	108.50
34	i	1355	U	O4'-C1'-N1	6.12	117.68	108.50
34	i	1518	C	P-O5'-C5'	-6.12	111.72	120.90
34	i	998	U	O4'-C1'-C2'	-6.12	101.48	107.60
34	i	1448	A	C3'-C2'-C1'	6.12	107.62	101.50
34	i	560	C	N1-C1'-C2'	6.12	121.17	112.00
33	g	93	THR	CB-CA-C	-6.11	99.32	110.63
34	i	1289	A	O4'-C1'-C2'	-6.11	101.49	107.60
34	i	216	U	O4'-C1'-C2'	-6.11	101.49	107.60
34	i	149	A	O4'-C1'-C2'	-6.11	101.49	107.60
34	i	1191	A	O3'-P-O5'	-6.11	94.84	104.00
6	F	81	ARG	O-C-N	-6.11	115.65	122.12
13	M	101	ARG	CA-C-N	6.11	128.46	120.28
13	M	101	ARG	C-N-CA	6.11	128.46	120.28
34	i	1318	G	O4'-C1'-C2'	-6.11	101.50	107.60
34	i	1776	G	O4'-C4'-C3'	-6.10	97.90	104.00
34	i	1671	U	O4'-C1'-N1	6.10	117.65	108.50
34	i	1086	C	O4'-C1'-C2'	-6.10	101.50	107.60
34	i	1390	G	C2'-C3'-O3'	6.10	122.85	113.70
21	U	105	SER	CA-C-O	-6.10	114.77	121.84
34	i	1418	G	O4'-C1'-N9	6.10	117.64	108.50
11	K	41	PRO	CA-N-CD	-6.09	103.47	112.00
34	i	396	U	N1-C1'-C2'	6.09	121.14	112.00
34	i	1766	C	O4'-C1'-C2'	-6.09	101.51	107.60
33	g	278	SER	N-CA-C	6.09	117.72	111.14
34	i	491	C	P-O3'-C3'	6.09	129.34	120.20
34	i	1282	G	O3'-P-O5'	-6.09	94.87	104.00
34	i	1446	G	O4'-C1'-N9	6.09	117.63	108.50
3	C	262	HIS	CB-CA-C	-6.09	98.31	110.42
34	i	651	U	O4'-C1'-C2'	-6.09	101.51	107.60
34	i	733	G	N9-C1'-C2'	-6.09	102.87	112.00
34	i	984	C	O4'-C1'-C2'	-6.09	101.51	107.60
34	i	1519	G	O4'-C4'-C3'	-6.09	97.91	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1781	G	C1'-C2'-O2'	6.09	117.53	108.40
34	i	1315	U	O4'-C1'-N1	6.08	117.63	108.50
34	i	148	U	O4'-C1'-C2'	-6.08	101.52	107.60
34	i	796	U	O4'-C1'-N1	6.08	117.62	108.50
34	i	1370	C	N1-C1'-C2'	6.08	121.12	112.00
34	i	1826	A	P-O5'-C5'	6.08	130.02	120.90
10	J	164	PRO	CB-CA-C	6.08	121.69	112.21
33	g	12	LYS	CB-CA-C	-6.08	100.12	114.16
34	i	1026	A	O4'-C1'-C2'	-6.08	101.52	107.60
4	D	129	SER	N-CA-C	-6.08	104.72	111.71
34	i	1447	G	O3'-P-O5'	-6.08	94.89	104.00
7	G	129	VAL	CA-C-N	6.07	126.39	119.83
7	G	129	VAL	C-N-CA	6.07	126.39	119.83
14	N	82	PRO	N-CA-C	6.07	124.98	112.47
34	i	490	A	P-O3'-C3'	6.07	129.31	120.20
34	i	1708	C	N1-C1'-C2'	6.07	121.11	112.00
34	i	1199	G	O4'-C1'-C2'	6.07	113.67	107.60
34	i	1782	A	O4'-C1'-C2'	-6.07	101.53	107.60
25	Y	7	ILE	CA-C-N	6.07	131.55	123.00
25	Y	7	ILE	C-N-CA	6.07	131.55	123.00
34	i	1305	C	C3'-C2'-C1'	6.07	107.36	101.30
34	i	432	C	C3'-C2'-C1'	6.06	107.36	101.30
22	V	9	VAL	CA-C-N	6.06	133.11	121.54
22	V	9	VAL	C-N-CA	6.06	133.11	121.54
34	i	1023	A	C2'-C3'-O3'	-6.06	104.61	113.70
34	i	1361	G	O5'-C5'-C4'	-6.06	102.41	111.50
12	L	150	GLY	O-C-N	6.06	128.83	122.59
34	i	358	U	O4'-C1'-N1	6.06	117.29	108.20
34	i	1517	A	P-O3'-C3'	-6.06	111.11	120.20
28	b	50	ALA	N-CA-C	6.06	121.52	114.62
26	Z	107	VAL	CA-CB-CG2	6.05	120.69	110.40
34	i	1617	U	C1'-C2'-O2'	-6.05	102.72	111.80
34	i	1806	U	O4'-C1'-N1	6.05	117.58	108.50
12	L	152	LYS	N-CA-C	-6.05	97.92	110.80
21	U	108	PRO	CA-N-CD	-6.05	103.53	112.00
34	i	1103	G	O4'-C1'-N9	6.05	117.57	108.50
34	i	637	U	O4'-C1'-C2'	-6.05	101.55	107.60
25	Y	99	LYS	N-CA-C	6.04	123.68	110.80
11	K	40	VAL	CB-CA-C	-6.04	100.36	111.36
16	P	23	ASP	N-CA-C	-6.04	103.65	111.02
34	i	1118	A	C4'-C3'-C2'	-6.04	96.56	102.60
34	i	1145	A	O4'-C1'-C2'	6.04	111.84	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	L	95	TYR	CA-C-N	-6.04	115.04	123.13
12	L	95	TYR	C-N-CA	-6.04	115.04	123.13
34	i	1344	G	N9-C1'-C2'	-6.04	102.94	112.00
34	i	1527	C	C3'-C2'-C1'	6.04	107.34	101.30
34	i	76	U	N1-C1'-C2'	6.04	121.06	112.00
4	D	167	TYR	CA-CB-CG	-6.04	103.03	113.90
16	P	17	TYR	CA-C-O	-6.04	111.88	120.51
5	E	109	PHE	N-CA-C	-6.03	101.37	110.24
34	i	1515	G	C5'-C4'-C3'	6.03	125.05	116.00
34	i	1546	U	C1'-C2'-O2'	6.03	117.45	108.40
34	i	94	G	N9-C1'-C2'	6.03	121.05	112.00
34	i	514	U	O4'-C1'-C2'	-6.03	101.57	107.60
34	i	441	G	P-O5'-C5'	6.03	129.94	120.90
4	D	113	LEU	N-CA-C	-6.02	97.97	110.80
7	G	35	GLU	CA-C-N	-6.02	114.92	123.17
7	G	35	GLU	C-N-CA	-6.02	114.92	123.17
17	Q	145	TYR	CB-CA-C	-6.02	107.91	116.34
34	i	1833	U	O4'-C1'-N1	6.02	117.54	108.50
34	i	564	A	N9-C1'-C2'	6.02	121.03	112.00
34	i	625	G	C5'-C4'-C3'	6.02	125.03	116.00
34	i	727	G	N9-C1'-C2'	6.02	121.03	112.00
16	P	121	ILE	CA-C-N	-6.02	111.13	120.88
16	P	121	ILE	C-N-CA	-6.02	111.13	120.88
34	i	617	U	O4'-C1'-C2'	-6.02	99.78	105.80
34	i	839	C	O4'-C1'-C2'	-6.02	101.58	107.60
34	i	1301	C	N1-C1'-C2'	6.02	121.03	112.00
34	i	1052	U	P-O3'-C3'	-6.02	111.17	120.20
34	i	541	U	O4'-C1'-C2'	6.02	113.62	107.60
20	T	42	HIS	ND1-CE1-NE2	6.01	114.42	108.40
27	a	49	ALA	N-CA-C	6.01	118.61	111.33
34	i	689	G	C3'-C2'-C1'	6.01	107.31	101.30
34	i	1413	C	C5'-C4'-C3'	6.01	125.02	116.00
34	i	1520	C	O4'-C1'-C2'	-6.01	101.59	107.60
34	i	1270	G	C3'-C2'-C1'	6.01	107.51	101.50
16	P	72	LYS	CA-C-N	-6.01	112.33	119.84
16	P	72	LYS	C-N-CA	-6.01	112.33	119.84
34	i	337	G	O4'-C1'-C2'	-6.01	101.59	107.60
34	i	639	U	C1'-C2'-O2'	6.01	117.41	108.40
34	i	835	C	C1'-C2'-O2'	6.01	120.81	111.80
3	C	57	ASP	CA-CB-CG	-6.01	106.59	112.60
25	Y	45	ALA	N-CA-C	-6.01	104.06	111.33
34	i	14	C	O4'-C1'-C2'	-6.00	101.60	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	g	109	LEU	N-CA-C	6.00	117.90	111.36
34	i	443	C	N1-C1'-C2'	6.00	121.00	112.00
34	i	525	G	P-O3'-C3'	6.00	129.20	120.20
21	U	75	LYS	N-CA-C	-6.00	99.37	108.67
34	i	427	G	N9-C1'-C2'	6.00	121.00	112.00
34	i	1111	U	P-O3'-C3'	6.00	129.19	120.20
34	i	1637	U	O4'-C1'-C2'	-6.00	101.60	107.60
34	i	1271	G	C5'-C4'-C3'	6.00	124.99	116.00
32	f	102	VAL	N-CA-C	5.99	121.81	109.34
34	i	343	C	C4'-C3'-O3'	-5.99	104.01	113.00
34	i	1319	U	O4'-C1'-N1	5.99	117.49	108.50
12	L	117	PHE	CA-CB-CG	-5.99	107.81	113.80
8	H	193	GLN	CA-C-N	5.99	132.48	121.70
8	H	193	GLN	C-N-CA	5.99	132.48	121.70
34	i	741	C	C5'-C4'-C3'	5.99	124.98	116.00
34	i	1037	G	N9-C1'-C2'	5.99	120.98	112.00
34	i	976	A	C1'-O4'-C4'	-5.99	103.92	109.90
34	i	1773	G	O3'-P-O5'	5.98	112.98	104.00
18	R	25	GLY	CA-C-N	5.98	130.71	120.72
18	R	25	GLY	C-N-CA	5.98	130.71	120.72
34	i	1157	U	O4'-C1'-N1	5.98	117.47	108.50
34	i	1413	C	C1'-O4'-C4'	5.98	115.88	109.90
6	F	44	LYS	N-CA-C	5.98	123.54	110.80
34	i	516	A	C5'-C4'-C3'	5.98	124.97	116.00
34	i	1007	A	O4'-C1'-N9	5.98	117.47	108.50
34	i	1348	G	N9-C1'-C2'	5.98	120.97	112.00
34	i	1425	G	C3'-C2'-O2'	5.98	119.67	110.70
34	i	820	C	N1-C1'-C2'	5.98	120.97	112.00
17	Q	146	ARG	CA-CB-CG	5.97	126.05	114.10
34	i	1059	C	C3'-C2'-C1'	5.97	107.27	101.30
34	i	582	C	N1-C1'-C2'	-5.97	105.04	114.00
34	i	1258	C	C1'-O4'-C4'	-5.97	103.93	109.90
34	i	740	G	C3'-C2'-C1'	5.97	107.27	101.30
19	S	139	THR	CA-C-O	5.97	121.40	117.94
34	i	160	U	C2'-C3'-O3'	5.97	118.45	109.50
34	i	417	U	O4'-C1'-N1	5.97	117.45	108.50
10	J	89	GLU	CB-CA-C	-5.96	100.84	110.74
33	g	144	ASP	N-CA-C	5.96	123.50	110.80
34	i	107	A	O4'-C1'-C2'	-5.96	101.64	107.60
34	i	462	C	N1-C1'-C2'	5.96	120.94	112.00
33	g	139	LYS	N-CA-C	5.96	117.86	111.36
34	i	1300	U	N1-C1'-C2'	5.96	120.94	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	110	U	C4'-C3'-O3'	-5.96	104.06	113.00
34	i	853	U	C1'-O4'-C4'	-5.96	103.94	109.90
24	X	7	LEU	N-CA-C	-5.96	104.79	111.28
34	i	1860	A	P-O3'-C3'	5.96	129.13	120.20
33	g	276	SER	CA-C-O	5.96	124.06	119.18
33	g	92	LEU	O-C-N	5.95	128.43	122.12
34	i	235	C	N1-C1'-C2'	5.95	120.93	112.00
34	i	520	U	N1-C1'-C2'	-5.95	103.07	112.00
34	i	1514	U	N1-C1'-C2'	-5.95	105.07	114.00
26	Z	95	GLY	N-CA-C	5.95	119.63	111.54
33	g	201	SER	CA-C-N	5.95	125.65	119.05
33	g	201	SER	C-N-CA	5.95	125.65	119.05
34	i	172	U	O4'-C1'-C2'	-5.95	99.85	105.80
34	i	680	G	C2'-C3'-O3'	-5.95	104.78	113.70
34	i	1671	U	P-O3'-C3'	-5.95	111.28	120.20
34	i	1044	G	P-O5'-C5'	5.94	129.82	120.90
22	V	24	ILE	N-CA-C	-5.94	100.02	108.58
34	i	1600	G	C1'-O4'-C4'	-5.94	103.96	109.90
34	i	1740	A	C4'-C3'-C2'	-5.94	96.66	102.60
34	i	1184	A	C3'-C2'-C1'	5.94	107.24	101.30
34	i	1593	G	C2'-C3'-O3'	5.94	118.41	109.50
34	i	817	G	P-O3'-C3'	5.94	129.11	120.20
34	i	224	U	P-O5'-C5'	5.93	129.80	120.90
34	i	319	G	O3'-P-O5'	5.93	112.90	104.00
34	i	672	U	O4'-C1'-N1	5.93	117.40	108.50
34	i	1200	A	O4'-C1'-C2'	-5.93	101.67	107.60
34	i	1267	C	N1-C1'-C2'	5.93	120.90	112.00
34	i	1516	C	O3'-P-O5'	5.93	112.90	104.00
34	i	332	C	C3'-C2'-C1'	5.93	107.23	101.30
34	i	570	U	C2'-C3'-O3'	-5.93	104.80	113.70
2	B	57	ILE	CA-C-N	-5.93	111.72	120.38
2	B	57	ILE	C-N-CA	-5.93	111.72	120.38
16	P	35	GLN	O-C-N	5.93	129.16	122.22
34	i	1376	C	O4'-C1'-C2'	-5.93	101.67	107.60
34	i	1718	G	O4'-C1'-N9	5.93	117.39	108.50
34	i	798	A	C1'-O4'-C4'	-5.93	103.97	109.90
34	i	800	U	O4'-C1'-N1	5.93	117.39	108.50
34	i	1209	C	N1-C1'-C2'	5.93	120.89	112.00
34	i	1827	C	C3'-C2'-C1'	5.93	107.23	101.30
4	D	102	ALA	O-C-N	-5.92	115.87	122.03
34	i	558	C	O4'-C1'-C2'	-5.92	101.68	107.60
23	W	55	ASP	N-CA-C	-5.92	102.56	110.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1766	C	C3'-C2'-C1'	5.92	107.22	101.30
16	P	14	LYS	CB-CA-C	-5.92	109.76	116.63
9	I	8	TRP	CG-CD2-CE3	-5.92	127.98	133.90
34	i	1269	C	O3'-P-O5'	-5.92	95.12	104.00
34	i	31	U	O4'-C1'-N1	5.91	117.37	108.50
34	i	440	C	O4'-C1'-C2'	-5.91	101.69	107.60
34	i	1060	C	C3'-C2'-C1'	5.91	107.21	101.30
34	i	1604	C	O4'-C1'-C2'	-5.91	101.69	107.60
34	i	1819	A	C2'-C3'-O3'	5.91	122.57	113.70
34	i	655	G	N9-C1'-C2'	5.91	120.87	112.00
34	i	1634	G	C3'-C2'-C1'	5.91	107.21	101.30
24	X	25	LYS	N-CA-C	5.91	117.72	111.28
34	i	836	C	O3'-P-O5'	-5.91	95.14	104.00
34	i	1105	C	O4'-C1'-C2'	5.91	113.51	107.60
33	g	284	PRO	N-CA-C	-5.91	95.44	113.27
1	A	168	ALA	CB-CA-C	-5.90	109.75	116.54
34	i	1020	A	O4'-C1'-C2'	-5.90	101.70	107.60
8	H	36	LEU	CA-CB-CG	-5.90	95.65	116.30
6	F	61	PHE	N-CA-C	5.90	117.79	111.36
8	H	111	LYS	CA-CB-CG	5.90	125.89	114.10
21	U	27	ARG	N-CA-C	5.90	123.36	110.80
34	i	365	U	O4'-C1'-N1	5.89	117.34	108.50
34	i	429	A	N9-C1'-C2'	-5.89	103.16	112.00
2	B	187	LYS	N-CA-C	5.89	117.78	111.36
34	i	910	U	O4'-C1'-C2'	-5.89	101.71	107.60
20	T	4	VAL	O-C-N	-5.89	113.58	123.00
21	U	103	SER	O-C-N	-5.89	114.74	122.39
18	R	90	ALA	N-CA-C	5.88	118.12	110.53
34	i	368	U	O4'-C1'-N1	5.88	117.32	108.50
28	b	4	ALA	N-CA-C	5.88	117.20	107.20
32	f	85	TYR	CA-C-N	5.88	132.77	121.54
32	f	85	TYR	C-N-CA	5.88	132.77	121.54
34	i	1479	A	O4'-C1'-C2'	-5.88	101.72	107.60
34	i	34	U	C1'-O4'-C4'	-5.88	104.02	109.90
34	i	163	U	O4'-C4'-C3'	-5.88	98.12	104.00
34	i	178	C	N1-C1'-C2'	5.88	120.82	112.00
34	i	1603	U	N1-C1'-C2'	5.88	120.82	112.00
34	i	1723	U	O4'-C1'-C2'	-5.88	101.72	107.60
23	W	84	LYS	CA-C-N	5.88	132.16	121.41
23	W	84	LYS	C-N-CA	5.88	132.16	121.41
34	i	169	U	P-O3'-C3'	5.88	129.01	120.20
34	i	385	G	O4'-C1'-N9	5.88	117.31	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1596	A	C2'-C3'-O3'	-5.88	104.88	113.70
34	i	1679	C	O4'-C1'-C2'	-5.88	101.72	107.60
34	i	997	A	C1'-O4'-C4'	5.87	115.57	109.70
1	A	159	ILE	CA-CB-CG1	-5.87	100.42	110.40
24	X	139	GLU	N-CA-C	5.87	119.78	109.80
34	i	1000	U	O4'-C1'-N1	5.87	117.31	108.50
34	i	1404	U	C1'-O4'-C4'	-5.87	104.03	109.90
34	i	1447	G	O4'-C1'-C2'	-5.87	101.73	107.60
10	J	110	LEU	CA-C-N	5.87	132.75	121.54
10	J	110	LEU	C-N-CA	5.87	132.75	121.54
34	i	635	C	C3'-C2'-C1'	5.87	107.17	101.30
34	i	1578	C	C3'-C2'-C1'	5.87	107.17	101.30
34	i	1742	C	O3'-P-O5'	-5.87	95.20	104.00
11	K	62	PHE	CA-CB-CG	-5.87	107.94	113.80
34	i	489	G	P-O5'-C5'	-5.87	112.10	120.90
34	i	149	A	C3'-C2'-C1'	5.86	107.16	101.30
34	i	1433	C	C1'-O4'-C4'	-5.86	104.04	109.90
15	O	138	ASP	N-CA-C	5.86	123.28	110.80
34	i	227	A	C3'-C2'-C1'	5.86	107.16	101.30
3	C	233	TYR	CA-CB-CG	-5.86	103.36	113.90
10	J	123	ILE	CA-C-N	5.86	132.73	121.54
10	J	123	ILE	C-N-CA	5.86	132.73	121.54
34	i	1331	G	N9-C1'-C2'	5.86	120.78	112.00
34	i	1355	U	C1'-O4'-C4'	5.85	115.75	109.90
1	A	53	ARG	N-CA-C	5.85	117.66	111.28
15	O	42	VAL	O-C-N	5.85	129.17	123.03
16	P	37	TYR	CA-C-N	5.85	132.71	121.54
16	P	37	TYR	C-N-CA	5.85	132.71	121.54
34	i	1691	C	O4'-C1'-C2'	-5.85	101.75	107.60
18	R	60	ARG	N-CA-C	5.84	117.73	111.36
34	i	1019	A	C1'-O4'-C4'	5.84	115.74	109.90
1	A	53	ARG	CD-NE-CZ	-5.84	116.22	124.40
19	S	82	TRP	CB-CA-C	-5.84	97.99	110.32
34	i	301	C	O4'-C1'-C2'	-5.84	101.76	107.60
34	i	53	C	C3'-C2'-C1'	5.84	107.14	101.30
34	i	207	U	N1-C1'-C2'	5.84	120.76	112.00
34	i	571	U	P-O3'-C3'	-5.84	111.44	120.20
34	i	1090	C	N1-C1'-C2'	5.84	120.75	112.00
9	I	191	GLU	CB-CA-C	-5.83	99.89	111.91
34	i	410	G	C1'-O4'-C4'	-5.83	104.07	109.90
34	i	413	U	O4'-C1'-N1	5.83	117.25	108.50
17	Q	134	GLY	O-C-N	-5.83	115.94	121.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1417	A	O4'-C1'-C2'	-5.83	101.77	107.60
4	D	24	PHE	CA-CB-CG	-5.83	107.97	113.80
26	Z	106	GLN	N-CA-C	5.83	117.54	107.93
34	i	378	U	N1-C1'-C2'	5.83	120.74	112.00
34	i	1427	G	N9-C1'-C2'	5.82	120.73	112.00
20	T	82	ARG	NH1-CZ-NH2	-5.82	111.73	119.30
34	i	1206	G	O4'-C1'-N9	5.82	117.23	108.50
22	V	71	ARG	N-CA-C	-5.82	104.29	111.33
34	i	1737	C	N1-C1'-C2'	5.82	120.73	112.00
9	I	134	GLU	CA-C-N	-5.82	112.69	120.54
9	I	134	GLU	C-N-CA	-5.82	112.69	120.54
19	S	6	PRO	CA-C-N	-5.82	110.43	121.54
19	S	6	PRO	C-N-CA	-5.82	110.43	121.54
21	U	68	THR	O-C-N	5.82	127.93	121.53
34	i	2	A	P-O3'-C3'	5.82	128.93	120.20
34	i	893	U	C4'-C3'-O3'	5.82	121.72	113.00
34	i	529	C	O4'-C1'-C2'	-5.81	101.79	107.60
3	C	108	ARG	N-CA-C	5.81	117.62	108.96
34	i	1489	C	N1-C1'-C2'	-5.81	105.28	114.00
34	i	1726	A	O4'-C1'-C2'	-5.81	101.79	107.60
18	R	115	SER	N-CA-C	5.81	117.62	108.96
34	i	275	C	C3'-C2'-C1'	5.81	107.11	101.30
25	Y	11	LYS	N-CA-C	5.81	119.41	111.39
34	i	1637	U	C1'-O4'-C4'	5.81	115.71	109.90
28	b	68	GLY	N-CA-C	-5.81	105.63	113.24
34	i	1113	C	C3'-C2'-C1'	-5.81	95.49	101.30
34	i	1542	C	C3'-C2'-C1'	5.81	107.11	101.30
13	M	119	GLN	CB-CA-C	-5.80	108.21	116.34
22	V	41	LYS	CB-CA-C	-5.80	109.34	117.23
34	i	1455	G	O4'-C1'-C2'	5.80	113.40	107.60
34	i	77	A	N9-C1'-C2'	-5.80	103.30	112.00
16	P	38	SER	CA-C-N	5.80	132.62	121.54
16	P	38	SER	C-N-CA	5.80	132.62	121.54
34	i	376	C	P-O5'-C5'	-5.80	112.20	120.90
34	i	614	C	C5'-C4'-C3'	-5.80	107.30	116.00
34	i	633	A	O4'-C1'-C2'	-5.80	100.00	105.80
34	i	1500	U	O4'-C1'-N1	5.80	117.20	108.50
32	f	134	SER	CA-C-N	5.80	130.97	121.58
32	f	134	SER	C-N-CA	5.80	130.97	121.58
34	i	103	A	O4'-C1'-N9	5.79	116.89	108.20
34	i	411	G	O4'-C1'-N9	5.79	117.19	108.50
34	i	1666	G	C1'-O4'-C4'	-5.79	104.11	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	861	A	O4'-C1'-N9	5.79	117.19	108.50
7	G	147	LEU	N-CA-C	5.79	123.13	110.80
34	i	371	C	O3'-P-O5'	-5.79	95.32	104.00
19	S	49	ASP	CA-C-N	-5.79	115.64	123.10
19	S	49	ASP	C-N-CA	-5.79	115.64	123.10
34	i	1179	A	O4'-C1'-C2'	-5.79	101.81	107.60
26	Z	50	PHE	CB-CA-C	-5.78	100.12	109.72
34	i	949	C	O3'-P-O5'	-5.78	95.32	104.00
34	i	57	U	C1'-O4'-C4'	5.78	115.68	109.90
34	i	1164	G	O4'-C1'-C2'	-5.78	101.82	107.60
34	i	1544	U	N1-C1'-C2'	5.78	120.67	112.00
34	i	407	C	C3'-C2'-C1'	5.78	107.08	101.30
11	K	65	ARG	CA-C-N	-5.78	112.50	122.79
11	K	65	ARG	C-N-CA	-5.78	112.50	122.79
34	i	525	G	O3'-P-O5'	-5.78	95.34	104.00
34	i	1815	U	O4'-C1'-N1	5.77	117.16	108.50
34	i	859	U	N1-C1'-C2'	5.77	120.65	112.00
7	G	120	ASP	CA-C-N	-5.77	111.46	122.13
7	G	120	ASP	C-N-CA	-5.77	111.46	122.13
34	i	465	C	C3'-C2'-C1'	5.77	107.07	101.30
16	P	122	THR	CB-CA-C	5.77	120.37	110.86
26	Z	107	VAL	CB-CA-C	-5.76	104.59	111.97
34	i	1822	C	O4'-C1'-C2'	-5.76	101.84	107.60
34	i	276	U	P-O5'-C5'	-5.76	112.26	120.90
26	Z	101	SER	CA-C-N	5.76	132.54	121.54
26	Z	101	SER	C-N-CA	5.76	132.54	121.54
9	I	129	LEU	N-CA-C	-5.76	104.91	111.07
9	I	88	ASN	CA-CB-CG	-5.76	106.84	112.60
34	i	1023	A	C4'-C3'-O3'	5.76	121.63	113.00
34	i	1739	G	C1'-O4'-C4'	5.76	115.46	109.70
20	T	41	LYS	N-CA-C	-5.75	105.09	111.71
8	H	16	PRO	CA-N-CD	-5.75	103.95	112.00
15	O	122	SER	N-CA-C	-5.75	104.91	111.07
34	i	1328	A	C3'-C2'-C1'	5.75	107.05	101.30
9	I	8	TRP	CB-CG-CD1	5.75	135.53	126.90
34	i	1622	C	C4'-C3'-O3'	-5.75	104.37	113.00
34	i	1738	G	C1'-O4'-C4'	-5.75	104.15	109.90
22	V	46	PHE	N-CA-C	-5.75	102.03	110.42
16	P	16	THR	N-CA-C	-5.75	99.87	109.24
17	Q	134	GLY	C-N-CD	-5.75	101.44	125.00
34	i	431	C	C1'-O4'-C4'	-5.74	104.16	109.90
34	i	544	A	C1'-C2'-O2'	5.74	117.02	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1014	U	C1'-C2'-O2'	5.74	117.01	108.40
34	i	1386	U	N1-C1'-C2'	5.74	120.61	112.00
34	i	1693	C	C3'-C2'-C1'	5.74	107.24	101.50
7	G	128	THR	CA-C-N	-5.74	111.52	122.13
7	G	128	THR	C-N-CA	-5.74	111.52	122.13
34	i	1287	A	O4'-C1'-C2'	-5.74	101.86	107.60
34	i	377	C	O4'-C1'-C2'	-5.74	101.86	107.60
35	l	64	LYS	N-CA-C	-5.74	104.02	111.02
10	J	123	ILE	N-CA-C	-5.73	105.55	113.00
34	i	1535	G	P-O5'-C5'	-5.73	112.30	120.90
34	i	568	C	O4'-C1'-C2'	-5.73	101.87	107.60
34	i	1393	U	C5'-C4'-C3'	5.73	123.80	115.20
34	i	1437	U	O4'-C1'-C2'	-5.73	100.07	105.80
19	S	141	ARG	CA-C-N	-5.73	111.39	121.70
19	S	141	ARG	C-N-CA	-5.73	111.39	121.70
34	i	913	U	O4'-C1'-C2'	-5.73	101.87	107.60
34	i	1610	U	N1-C1'-C2'	5.73	120.59	112.00
34	i	1194	G	C3'-C2'-C1'	-5.72	95.58	101.30
34	i	1452	G	C1'-O4'-C4'	-5.72	104.17	109.90
34	i	1656	A	C1'-O4'-C4'	-5.72	104.17	109.90
34	i	1000	U	O4'-C1'-C2'	-5.72	101.88	107.60
2	B	21	VAL	N-CA-C	5.72	121.24	109.34
2	B	146	CYS	O-C-N	-5.72	116.49	123.30
34	i	209	C	O5'-C5'-C4'	-5.72	102.92	111.50
9	I	184	ARG	CB-CG-CD	5.72	124.46	111.30
20	T	8	ASP	CA-CB-CG	-5.72	106.88	112.60
34	i	539	C	O4'-C1'-C2'	-5.72	101.88	107.60
34	i	689	G	N9-C1'-C2'	5.72	120.58	112.00
11	K	86	PRO	CA-C-O	-5.72	112.27	120.56
34	i	1638	U	C3'-C2'-C1'	5.72	107.02	101.30
19	S	40	TYR	CB-CG-CD1	5.71	129.37	120.80
34	i	373	G	C3'-C2'-C1'	5.71	107.02	101.30
34	i	1648	U	O4'-C1'-C2'	-5.71	101.89	107.60
18	R	1	MET	CA-CB-CG	5.71	125.52	114.10
34	i	1080	A	C4'-C3'-O3'	5.71	121.56	113.00
34	i	1714	A	O4'-C1'-C2'	-5.71	101.89	107.60
15	O	151	LEU	N-CA-CB	5.71	120.20	110.50
34	i	1233	C	C1'-C2'-O2'	5.71	116.96	108.40
6	F	21	GLY	N-CA-C	-5.71	99.66	113.18
2	B	90	ASP	N-CA-C	5.70	116.93	108.60
34	i	1711	C	N1-C1'-C2'	5.70	120.56	112.00
34	i	1730	A	N9-C1'-C2'	5.70	120.55	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	74	LEU	N-CA-C	5.70	117.58	111.36
33	g	294	ASP	CB-CA-C	5.70	120.07	111.18
34	i	903	G	C1'-C2'-O2'	5.70	116.95	108.40
34	i	1323	G	N9-C1'-C2'	5.70	120.55	112.00
34	i	1717	G	C5'-C4'-C3'	-5.70	107.45	116.00
3	C	149	PRO	N-CA-CB	-5.70	98.24	103.31
25	Y	59	GLY	N-CA-C	-5.70	102.75	111.24
34	i	306	C	P-O5'-C5'	-5.70	112.35	120.90
34	i	977	A	O4'-C1'-C2'	-5.70	101.90	107.60
1	A	53	ARG	CB-CG-CD	-5.69	98.20	111.30
34	i	192	U	O3'-P-O5'	-5.69	95.46	104.00
34	i	1309	A	O4'-C1'-C2'	-5.69	100.11	105.80
34	i	1848	U	O4'-C1'-N1	5.69	117.04	108.50
3	C	148	VAL	CA-C-N	5.69	125.62	119.76
3	C	148	VAL	C-N-CA	5.69	125.62	119.76
11	K	93	THR	CB-CA-C	5.69	118.92	109.53
34	i	109	U	C2'-C3'-O3'	5.69	122.23	113.70
3	C	59	LYS	CA-C-N	-5.69	116.14	123.19
3	C	59	LYS	C-N-CA	-5.69	116.14	123.19
19	S	82	TRP	N-CA-C	5.69	119.32	112.38
34	i	293	A	O3'-P-O5'	-5.69	95.47	104.00
34	i	77	A	C5'-C4'-C3'	5.68	124.53	116.00
34	i	1112	C	C1'-C2'-O2'	5.68	120.33	111.80
34	i	1442	A	C2'-C3'-O3'	-5.68	100.97	109.50
34	i	1715	U	O4'-C1'-N1	5.68	117.03	108.50
4	D	125	PHE	CA-CB-CG	-5.68	108.12	113.80
34	i	684	A	C1'-O4'-C4'	-5.68	104.22	109.90
1	A	194	PRO	CA-C-O	-5.68	110.26	120.60
8	H	33	ASN	O-C-N	5.68	130.15	122.59
34	i	1773	G	C3'-C2'-C1'	-5.68	95.62	101.30
9	I	155	ASN	CB-CA-C	-5.68	101.36	110.79
34	i	369	C	C3'-C2'-C1'	5.68	106.98	101.30
28	b	29	ASN	CB-CA-C	-5.68	101.58	111.35
9	I	207	GLY	CA-C-O	-5.68	108.88	120.80
26	Z	115	GLY	CA-C-O	-5.68	108.88	120.80
31	e	115	ARG	N-CA-C	5.68	117.27	111.14
34	i	741	C	C3'-C2'-C1'	5.68	106.98	101.30
34	i	1841	G	N9-C1'-C2'	-5.68	103.49	112.00
34	i	1452	G	N9-C1'-C2'	5.67	120.51	112.00
13	M	30	GLY	CA-C-N	-5.67	115.47	122.84
13	M	30	GLY	C-N-CA	-5.67	115.47	122.84
18	R	87	GLU	N-CA-C	-5.67	105.18	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1648	U	O4'-C1'-N1	5.67	117.01	108.50
34	i	1111	U	O4'-C1'-N1	5.67	116.70	108.20
34	i	956	U	C1'-O4'-C4'	-5.67	104.23	109.90
34	i	1251	G	P-O3'-C3'	-5.67	111.70	120.20
34	i	1837	G	O4'-C1'-C2'	5.67	113.27	107.60
8	H	106	ARG	CD-NE-CZ	5.66	132.33	124.40
17	Q	145	TYR	N-CA-C	-5.66	99.62	108.00
34	i	1700	C	O4'-C1'-C2'	-5.66	101.94	107.60
5	E	74	GLY	CA-C-N	-5.66	115.44	123.03
5	E	74	GLY	C-N-CA	-5.66	115.44	123.03
34	i	913	U	O4'-C1'-N1	5.66	116.99	108.50
4	D	152	PHE	CA-CB-CG	-5.66	108.14	113.80
34	i	1572	G	O4'-C1'-C2'	-5.66	101.94	107.60
34	i	1633	G	C3'-C2'-C1'	5.66	106.96	101.30
2	B	132	GLY	N-CA-C	5.66	121.23	113.99
34	i	1055	G	P-O3'-C3'	5.66	128.69	120.20
34	i	1813	A	N9-C1'-C2'	5.66	120.48	112.00
3	C	97	VAL	O-C-N	-5.65	115.51	122.57
25	Y	26	ASP	N-CA-C	-5.65	99.20	108.41
34	i	419	C	N1-C1'-C2'	5.65	120.47	112.00
8	H	106	ARG	CA-CB-CG	-5.65	102.81	114.10
34	i	948	G	O4'-C1'-N9	5.65	116.97	108.50
34	i	1611	U	N1-C1'-C2'	5.65	120.47	112.00
21	U	107	GLU	N-CA-C	5.64	122.28	109.81
29	c	5	ARG	N-CA-C	5.64	126.80	111.00
34	i	53	C	C1'-O4'-C4'	5.64	115.54	109.90
34	i	1063	C	N1-C1'-C2'	5.64	120.46	112.00
9	I	178	ARG	CD-NE-CZ	5.64	132.30	124.40
4	D	14	ASP	CA-CB-CG	-5.64	106.96	112.60
11	K	40	VAL	O-C-N	5.64	127.53	121.10
34	i	1537	C	N1-C1'-C2'	5.64	120.45	112.00
34	i	795	U	P-O3'-C3'	5.63	128.65	120.20
34	i	1482	A	O4'-C1'-C2'	-5.63	101.97	107.60
34	i	312	C	C3'-C2'-C1'	5.63	106.93	101.30
6	F	78	MET	O-C-N	5.63	130.16	123.24
9	I	3	ILE	CA-C-N	5.63	130.57	123.03
9	I	3	ILE	C-N-CA	5.63	130.57	123.03
34	i	742	C	C4'-C3'-C2'	-5.63	96.97	102.60
10	J	188	GLY	CA-C-O	-5.62	108.99	120.80
34	i	537	G	O3'-P-O5'	-5.62	95.56	104.00
34	i	1237	A	P-O3'-C3'	5.62	128.64	120.20
18	R	122	PRO	N-CA-C	5.62	124.06	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1553	C	O3'-P-O5'	-5.62	95.56	104.00
34	i	1154	G	O4'-C1'-N9	5.62	116.93	108.50
34	i	1772	C	O4'-C1'-N1	5.62	116.93	108.50
34	i	1847	C	C1'-O4'-C4'	-5.62	104.28	109.90
34	i	1139	A	N9-C1'-C2'	5.62	120.43	112.00
34	i	1290	G	O4'-C1'-N9	5.62	116.93	108.50
34	i	918	A	O4'-C1'-N9	5.62	116.92	108.50
34	i	1234	U	C4'-C3'-O3'	-5.62	104.58	113.00
35	l	67	PHE	O-C-N	5.62	127.88	121.93
34	i	314	U	C1'-C2'-O2'	5.61	116.82	108.40
34	i	1648	U	P-O3'-C3'	5.61	128.62	120.20
34	i	1308	G	O4'-C1'-N9	-5.61	99.78	108.20
34	i	684	A	C3'-C2'-C1'	-5.61	95.69	101.30
34	i	1062	U	O4'-C1'-N1	5.61	116.92	108.50
3	C	229	ILE	CB-CA-C	-5.61	104.57	112.14
28	b	67	THR	N-CA-C	5.61	115.42	108.19
34	i	1124	C	O4'-C1'-C2'	-5.61	101.99	107.60
34	i	61	A	O4'-C1'-N9	5.61	116.91	108.50
34	i	31	U	C1'-O4'-C4'	5.60	115.50	109.90
34	i	84	A	P-O5'-C5'	-5.60	112.50	120.90
34	i	832	G	O4'-C1'-N9	5.60	116.91	108.50
34	i	305	U	P-O3'-C3'	-5.60	111.80	120.20
34	i	1448	A	O4'-C1'-C2'	-5.60	100.20	105.80
34	i	895	U	P-O5'-C5'	5.60	129.30	120.90
34	i	1368	U	O4'-C1'-C2'	-5.60	102.00	107.60
12	L	146	THR	O-C-N	-5.60	115.77	122.15
33	g	83	TRP	N-CA-C	-5.60	105.18	111.28
34	i	1775	A	C3'-C2'-C1'	5.60	106.90	101.30
34	i	551	A	C2'-C3'-O3'	5.60	122.09	113.70
34	i	790	A	C3'-C2'-C1'	5.60	106.90	101.30
34	i	1138	G	O4'-C1'-N9	5.60	116.89	108.50
34	i	341	G	C4'-C3'-C2'	-5.59	97.00	102.60
12	L	6	THR	CA-C-N	-5.59	110.86	121.54
12	L	6	THR	C-N-CA	-5.59	110.86	121.54
25	Y	128	GLY	CA-C-O	-5.59	109.05	120.80
34	i	739	U	O4'-C1'-N1	5.59	116.59	108.20
26	Z	78	LYS	N-CA-C	-5.59	98.90	110.80
34	i	356	U	O4'-C1'-C2'	-5.59	102.01	107.60
34	i	827	G	O4'-C1'-N9	5.59	116.88	108.50
19	S	94	LYS	O-C-N	5.59	129.79	122.97
34	i	1837	G	C1'-O4'-C4'	-5.59	104.31	109.90
34	i	542	G	C3'-C2'-C1'	-5.58	95.72	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	684	A	O4'-C1'-N9	5.58	116.88	108.50
34	i	862	U	O4'-C1'-N1	5.58	116.87	108.50
34	i	1651	G	C1'-O4'-C4'	-5.58	104.32	109.90
5	E	70	ILE	N-CA-C	5.58	115.90	107.75
34	i	1021	U	O4'-C1'-C2'	-5.58	102.02	107.60
34	i	1118	A	C1'-O4'-C4'	5.58	115.48	109.90
34	i	531	U	O4'-C1'-C2'	-5.58	102.02	107.60
1	A	193	HIS	CA-C-O	-5.58	114.89	120.64
9	I	129	LEU	CA-C-N	5.58	127.73	120.26
9	I	129	LEU	C-N-CA	5.58	127.73	120.26
15	O	79	GLN	N-CA-C	5.58	117.17	111.14
10	J	165	TYR	O-C-N	-5.58	116.97	123.27
20	T	38	LYS	N-CA-C	5.58	117.44	111.36
34	i	1742	C	C5'-C4'-C3'	5.58	124.37	116.00
34	i	1857	A	C1'-O4'-C4'	5.58	115.28	109.70
34	i	1645	A	P-O5'-C5'	-5.58	112.54	120.90
21	U	108	PRO	N-CA-C	-5.57	102.52	111.38
34	i	1517	A	C5'-C4'-O4'	5.57	118.16	109.80
34	i	789	G	C4'-C3'-C2'	-5.57	97.03	102.60
34	i	671	U	O4'-C1'-N1	5.57	116.86	108.50
34	i	1311	U	C3'-C2'-C1'	-5.57	95.73	101.30
34	i	676	U	O4'-C1'-N1	5.57	116.85	108.50
34	i	1642	A	C3'-C2'-C1'	-5.57	95.93	101.50
13	M	81	ASP	CA-C-N	5.57	127.74	120.28
13	M	81	ASP	C-N-CA	5.57	127.74	120.28
34	i	578	G	C4'-C3'-O3'	-5.57	101.05	109.40
34	i	1503	G	C3'-C2'-C1'	-5.56	95.94	101.50
34	i	510	A	C1'-O4'-C4'	-5.56	104.34	109.90
34	i	1672	U	O4'-C1'-N1	5.56	116.84	108.50
34	i	514	U	N1-C1'-C2'	5.56	120.34	112.00
34	i	808	A	O4'-C1'-C2'	-5.56	102.04	107.60
34	i	909	A	C1'-C2'-O2'	-5.56	103.46	111.80
34	i	975	C	O4'-C1'-C2'	-5.56	102.04	107.60
34	i	1442	A	O3'-P-O5'	-5.56	95.66	104.00
20	T	143	LYS	CA-CB-CG	-5.56	102.99	114.10
34	i	1193	G	O4'-C1'-N9	5.56	116.84	108.50
34	i	1859	C	P-O3'-C3'	-5.56	111.86	120.20
34	i	1107	U	O4'-C1'-C2'	-5.55	102.05	107.60
33	g	101	PHE	CA-CB-CG	-5.55	108.25	113.80
2	B	146	CYS	N-CA-C	5.55	117.95	108.90
23	W	128	PHE	N-CA-C	5.55	116.70	108.60
34	i	1486	G	O4'-C1'-C2'	5.55	113.15	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	c	63	ARG	CA-C-N	-5.55	110.94	121.54
29	c	63	ARG	C-N-CA	-5.55	110.94	121.54
34	i	458	A	P-O5'-C5'	-5.55	112.58	120.90
34	i	631	A	O4'-C1'-N9	5.55	116.83	108.50
34	i	1787	A	O4'-C1'-C2'	-5.55	102.05	107.60
34	i	98	C	N1-C1'-C2'	-5.55	105.68	114.00
34	i	1114	C	C1'-C2'-O2'	5.55	116.72	108.40
34	i	1326	G	C1'-O4'-C4'	-5.55	104.15	109.70
34	i	1471	G	C4'-C3'-C2'	-5.55	97.05	102.60
34	i	1513	C	P-O3'-C3'	-5.55	111.88	120.20
34	i	1190	A	O3'-P-O5'	-5.54	95.68	104.00
12	L	157	LYS	CA-C-N	5.54	131.68	121.70
12	L	157	LYS	C-N-CA	5.54	131.68	121.70
34	i	1779	C	N1-C1'-C2'	-5.54	105.69	114.00
29	c	64	GLU	N-CA-C	5.54	122.60	110.80
9	I	105	ASP	CB-CA-C	5.54	121.44	110.42
10	J	144	ILE	O-C-N	5.54	127.41	121.10
2	B	233	GLY	CA-C-O	-5.54	109.18	120.80
34	i	827	G	C3'-C2'-C1'	-5.54	95.77	101.30
34	i	1128	C	N1-C1'-C2'	5.54	120.30	112.00
34	i	443	C	C3'-C2'-C1'	5.53	106.83	101.30
34	i	867	U	C1'-C2'-O2'	5.53	120.10	111.80
34	i	25	A	O4'-C4'-C3'	-5.53	100.57	106.10
34	i	405	A	O4'-C1'-N9	5.53	116.80	108.50
34	i	438	A	C3'-C2'-C1'	-5.53	95.97	101.50
34	i	877	G	C1'-O4'-C4'	-5.53	104.37	109.90
34	i	1573	U	C1'-O4'-C4'	5.53	115.23	109.70
23	W	88	LYS	N-CA-C	5.53	117.11	111.14
29	c	5	ARG	CA-C-N	-5.53	115.92	122.11
29	c	5	ARG	C-N-CA	-5.53	115.92	122.11
34	i	159	A	O4'-C1'-C2'	-5.53	102.08	107.60
12	L	22	ARG	CA-C-N	5.52	131.91	121.97
12	L	22	ARG	C-N-CA	5.52	131.91	121.97
34	i	79	A	O4'-C1'-N9	5.52	116.48	108.20
34	i	283	A	C4'-C3'-O3'	-5.52	104.72	113.00
2	B	21	VAL	CB-CA-C	-5.52	102.24	111.29
20	T	51	ASN	CA-CB-CG	-5.52	107.08	112.60
22	V	45	ARG	N-CA-C	5.52	119.01	111.39
34	i	625	G	N9-C1'-C2'	5.52	120.28	112.00
34	i	1818	A	P-O3'-C3'	5.52	128.48	120.20
34	i	200	U	O4'-C1'-N1	5.52	116.78	108.50
34	i	311	C	N1-C1'-C2'	5.52	120.28	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	432	C	O4'-C1'-C2'	-5.52	102.08	107.60
6	F	53	ALA	N-CA-C	-5.51	105.27	111.28
34	i	1849	G	O4'-C1'-C2'	5.51	113.11	107.60
6	F	151	ILE	CA-C-N	-5.51	113.37	120.65
6	F	151	ILE	C-N-CA	-5.51	113.37	120.65
34	i	999	U	O4'-C1'-C2'	-5.51	102.09	107.60
34	i	1682	C	C3'-C2'-C1'	5.51	106.81	101.30
16	P	28	MET	CA-C-O	5.51	128.39	120.51
34	i	1137	G	P-O5'-C5'	5.51	129.16	120.90
17	Q	30	GLY	CA-C-N	-5.51	112.52	122.54
17	Q	30	GLY	C-N-CA	-5.51	112.52	122.54
5	E	170	THR	O-C-N	5.51	131.24	122.81
22	V	82	ASN	CB-CA-C	-5.51	99.64	110.10
34	i	846	C	N1-C1'-C2'	5.51	120.26	112.00
34	i	457	G	O4'-C1'-C2'	-5.50	102.09	107.60
9	I	157	LYS	N-CA-C	-5.50	105.18	111.07
34	i	1777	C	C3'-C2'-C1'	5.50	107.00	101.50
1	A	165	ASN	N-CA-C	5.50	122.51	110.80
8	H	7	LYS	CA-C-N	-5.50	112.08	121.97
8	H	7	LYS	C-N-CA	-5.50	112.08	121.97
34	i	592	G	O4'-C1'-N9	5.50	116.75	108.50
34	i	991	G	O4'-C1'-N9	5.50	116.74	108.50
34	i	1052	U	C4'-C3'-O3'	-5.50	104.76	113.00
34	i	1068	U	P-O3'-C3'	5.50	128.44	120.20
34	i	1329	U	O4'-C1'-C2'	-5.50	102.10	107.60
8	H	93	VAL	N-CA-C	5.49	120.77	109.34
21	U	72	GLU	N-CA-C	-5.49	102.17	110.24
34	i	522	C	C4'-C3'-C2'	-5.49	97.11	102.60
34	i	564	A	O4'-C1'-C2'	-5.49	102.11	107.60
35	l	111	HIS	N-CA-C	-5.49	99.43	108.49
34	i	1845	A	P-O3'-C3'	5.48	128.43	120.20
34	i	589	A	N9-C1'-C2'	5.48	120.22	112.00
34	i	840	U	P-O3'-C3'	-5.48	111.98	120.20
11	K	87	PRO	CA-C-O	-5.48	110.63	120.60
31	e	95	LYS	N-CA-C	5.48	119.06	112.38
34	i	456	G	O4'-C1'-C2'	5.48	113.08	107.60
34	i	856	G	O4'-C1'-C2'	-5.48	102.12	107.60
34	i	1021	U	O4'-C1'-N1	5.48	116.72	108.50
8	H	56	GLY	N-CA-C	5.48	126.16	113.18
34	i	549	G	O3'-P-O5'	-5.48	95.78	104.00
34	i	622	C	C3'-C2'-C1'	5.48	106.78	101.30
34	i	734	C	O4'-C1'-C2'	-5.48	102.12	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1667	U	N1-C1'-C2'	5.48	120.22	112.00
19	S	89	ASP	CB-CA-C	-5.48	99.52	110.42
3	C	252	GLN	N-CA-C	5.47	117.33	111.36
6	F	56	TYR	CA-CB-CG	-5.47	104.05	113.90
34	i	57	U	O4'-C1'-N1	5.47	116.71	108.50
34	i	410	G	O4'-C1'-C2'	5.47	113.07	107.60
34	i	796	U	N1-C1'-C2'	5.47	120.21	112.00
34	i	1315	U	O4'-C1'-C2'	-5.47	102.12	107.60
11	K	85	LEU	N-CA-C	5.47	117.78	109.41
34	i	372	C	P-O3'-C3'	-5.47	111.99	120.20
34	i	1424	G	N9-C1'-C2'	-5.47	103.79	112.00
34	i	1536	G	O4'-C1'-N9	5.47	116.71	108.50
34	i	1765	G	N9-C1'-C2'	5.47	120.21	112.00
20	T	37	VAL	N-CA-C	5.47	116.65	109.21
34	i	1699	C	O4'-C1'-C2'	-5.47	102.13	107.60
3	C	46	LEU	N-CA-C	-5.47	99.91	109.48
9	I	134	GLU	CA-C-O	-5.47	115.08	120.82
2	B	37	ALA	O-C-N	-5.46	115.55	122.27
34	i	1622	C	N1-C1'-C2'	5.46	120.20	112.00
34	i	1092	G	C2'-C3'-O3'	5.46	117.69	109.50
34	i	1458	U	O3'-P-O5'	-5.46	95.81	104.00
34	i	1779	C	C1'-O4'-C4'	5.46	115.16	109.70
34	i	146	G	O4'-C1'-C2'	-5.46	100.34	105.80
34	i	186	G	N9-C1'-C2'	5.46	120.19	112.00
34	i	900	A	C1'-O4'-C4'	-5.46	104.44	109.90
5	E	167	GLY	N-CA-C	-5.46	101.67	110.95
34	i	114	G	O4'-C4'-C3'	-5.46	100.64	106.10
34	i	1361	G	O3'-P-O5'	-5.46	95.81	104.00
27	a	80	HIS	N-CA-C	-5.46	105.23	111.07
34	i	72	C	P-O5'-C5'	5.46	129.08	120.90
34	i	437	A	C1'-O4'-C4'	5.46	115.16	109.70
34	i	1114	C	C1'-O4'-C4'	5.46	115.36	109.90
13	M	15	ASN	CA-CB-CG	-5.45	107.15	112.60
34	i	657	U	N1-C1'-C2'	5.45	120.18	112.00
34	i	1223	G	N9-C1'-C2'	5.45	120.18	112.00
34	i	1360	U	P-O3'-C3'	-5.45	112.02	120.20
34	i	1546	U	N1-C1'-C2'	5.45	120.18	112.00
34	i	1743	G	O4'-C1'-N9	5.45	116.68	108.50
6	F	35	LEU	O-C-N	5.45	129.48	122.39
34	i	188	U	N1-C1'-C2'	5.45	120.18	112.00
34	i	878	U	O4'-C1'-N1	5.45	116.68	108.50
34	i	1216	A	C1'-O4'-C4'	-5.45	104.45	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	g	213	ASP	CA-C-N	-5.45	113.63	122.30
33	g	213	ASP	C-N-CA	-5.45	113.63	122.30
34	i	10	G	P-O3'-C3'	-5.45	112.03	120.20
34	i	899	A	C3'-C2'-C1'	-5.45	95.85	101.30
34	i	1299	C	C1'-C2'-O2'	5.45	116.57	108.40
34	i	1467	C	C3'-C2'-C1'	5.45	106.75	101.30
34	i	376	C	C5'-C4'-C3'	-5.45	107.83	116.00
34	i	984	C	N1-C1'-C2'	5.45	120.17	112.00
34	i	1305	C	N1-C1'-C2'	5.45	120.17	112.00
34	i	1391	C	O4'-C1'-C2'	-5.45	102.16	107.60
34	i	1643	G	O3'-P-O5'	-5.45	95.83	104.00
34	i	1667	U	C1'-C2'-O2'	5.45	116.57	108.40
34	i	1692	A	N9-C1'-C2'	-5.44	105.84	114.00
34	i	448	A	O4'-C1'-C2'	-5.44	102.16	107.60
34	i	1354	U	O4'-C1'-N1	5.44	116.66	108.50
34	i	1329	U	O4'-C1'-N1	5.44	116.65	108.50
34	i	1374	A	O4'-C1'-C2'	-5.44	100.36	105.80
34	i	678	U	C4'-C3'-O3'	5.43	117.55	109.40
34	i	1724	U	O4'-C1'-N1	5.43	116.65	108.50
21	U	93	SER	C-N-CD	5.43	147.28	125.00
31	e	100	LYS	CA-C-N	-5.43	111.15	122.07
31	e	100	LYS	C-N-CA	-5.43	111.15	122.07
34	i	1375	A	C5'-C4'-C3'	-5.43	107.85	116.00
34	i	1665	C	O4'-C1'-C2'	-5.43	102.17	107.60
7	G	131	ARG	CG-CD-NE	5.43	123.95	112.00
15	O	145	GLY	CA-C-O	5.43	125.75	122.22
28	b	28	PRO	CA-C-N	5.43	132.42	122.54
28	b	28	PRO	C-N-CA	5.43	132.42	122.54
34	i	966	G	O3'-P-O5'	-5.43	95.86	104.00
34	i	1863	A	O4'-C1'-C2'	-5.43	102.17	107.60
34	i	154	U	O4'-C1'-C2'	-5.43	102.17	107.60
34	i	1171	G	C1'-O4'-C4'	-5.43	104.47	109.90
18	R	91	LEU	N-CA-CB	-5.43	101.32	110.49
34	i	794	G	N9-C1'-C2'	5.43	122.14	114.00
34	i	849	C	C4'-C3'-O3'	5.43	121.14	113.00
1	A	195	TRP	N-CA-C	5.42	118.24	109.40
34	i	1413	C	O3'-P-O5'	5.42	112.14	104.00
34	i	210	G	N9-C1'-C2'	-5.42	103.86	112.00
34	i	1288	C	C4'-C3'-O3'	-5.42	104.87	113.00
11	K	35	LEU	CA-CB-CG	-5.42	97.33	116.30
19	S	81	ASP	CA-C-N	-5.42	111.92	120.60
19	S	81	ASP	C-N-CA	-5.42	111.92	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	65	C	C1'-O4'-C4'	5.42	115.32	109.90
34	i	155	G	O5'-C5'-C4'	-5.42	103.37	111.50
34	i	338	A	N9-C1'-C2'	5.42	120.13	112.00
34	i	984	C	C3'-C2'-C1'	5.42	106.72	101.30
34	i	1555	U	O4'-C1'-N1	5.42	116.63	108.50
34	i	1671	U	C1'-C2'-O2'	5.42	116.53	108.40
34	i	1669	G	N9-C1'-C2'	5.42	120.13	112.00
19	S	139	THR	O-C-N	5.42	125.53	121.47
34	i	577	A	P-O3'-C3'	-5.42	112.07	120.20
34	i	154	U	O4'-C1'-N1	5.42	116.62	108.50
34	i	163	U	O3'-P-O5'	-5.42	95.88	104.00
34	i	1004	A	O3'-P-O5'	-5.42	95.87	104.00
34	i	340	C	C3'-C2'-C1'	5.42	106.72	101.30
34	i	826	A	O4'-C1'-C2'	5.42	113.02	107.60
34	i	1794	A	C3'-C2'-C1'	5.41	106.71	101.30
28	b	63	LEU	CA-C-N	5.41	131.88	121.54
28	b	63	LEU	C-N-CA	5.41	131.88	121.54
34	i	1471	G	O4'-C1'-C2'	5.41	111.21	105.80
3	C	257	HIS	N-CA-C	-5.41	105.38	111.28
6	F	60	ARG	N-CA-C	5.41	116.98	111.14
34	i	204	G	O4'-C1'-N9	5.41	116.61	108.50
34	i	318	U	C5'-C4'-C3'	5.41	124.11	116.00
34	i	906	G	C1'-O4'-C4'	-5.41	104.49	109.90
34	i	1456	C	O4'-C1'-C2'	-5.41	102.19	107.60
34	i	1615	A	O4'-C1'-N9	5.41	116.31	108.20
1	A	189	ILE	N-CA-C	-5.41	106.53	111.67
34	i	1650	C	O4'-C1'-C2'	-5.41	102.19	107.60
24	X	124	LYS	CA-C-N	5.41	130.37	122.69
24	X	124	LYS	C-N-CA	5.41	130.37	122.69
34	i	896	C	P-O5'-C5'	5.41	129.01	120.90
34	i	1346	U	O4'-C1'-N1	5.41	116.61	108.50
34	i	1546	U	C3'-C2'-C1'	-5.41	95.89	101.30
34	i	589	A	C1'-C2'-O2'	5.40	116.51	108.40
5	E	133	THR	CB-CA-C	-5.40	102.16	110.26
13	M	12	MET	CA-C-N	5.40	130.96	122.21
13	M	12	MET	C-N-CA	5.40	130.96	122.21
34	i	94	G	C1'-O4'-C4'	-5.40	104.50	109.90
2	B	75	GLN	O-C-N	5.40	129.25	122.23
32	f	138	ARG	CA-C-N	5.40	129.91	121.76
32	f	138	ARG	C-N-CA	5.40	129.91	121.76
34	i	163	U	C4'-C3'-O3'	-5.40	104.90	113.00
11	K	80	ARG	N-CA-C	-5.40	105.40	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	463	A	O4'-C1'-C2'	-5.40	102.20	107.60
34	i	31	U	O4'-C1'-C2'	-5.40	102.20	107.60
25	Y	77	ASP	CA-C-N	-5.39	115.38	122.99
25	Y	77	ASP	C-N-CA	-5.39	115.38	122.99
34	i	882	A	C3'-C2'-C1'	5.39	106.69	101.30
34	i	23	G	C4'-C3'-O3'	-5.39	104.91	113.00
34	i	406	U	O4'-C1'-C2'	-5.39	102.21	107.60
34	i	1170	U	O4'-C1'-N1	5.39	116.59	108.50
34	i	1287	A	P-O3'-C3'	5.39	128.29	120.20
34	i	1773	G	N9-C1'-C2'	-5.39	103.91	112.00
34	i	1603	U	O4'-C1'-C2'	-5.39	102.21	107.60
34	i	611	C	C3'-C2'-C1'	5.39	106.69	101.30
34	i	830	C	P-O3'-C3'	5.39	128.28	120.20
34	i	906	G	O4'-C1'-C2'	5.39	112.99	107.60
34	i	1853	A	O3'-P-O5'	-5.39	95.92	104.00
21	U	69	PRO	CA-C-O	-5.39	114.62	120.92
34	i	220	C	N1-C1'-C2'	5.38	120.08	112.00
34	i	410	G	N9-C1'-C2'	5.38	120.08	112.00
34	i	1105	C	C3'-C2'-C1'	-5.38	95.92	101.30
34	i	1525	U	O4'-C1'-C2'	-5.38	102.22	107.60
34	i	1636	A	O4'-C1'-C2'	-5.38	102.22	107.60
34	i	1699	C	N1-C1'-C2'	5.38	120.08	112.00
34	i	1479	A	C4'-C3'-C2'	-5.38	97.22	102.60
34	i	1570	G	O4'-C1'-N9	5.38	116.57	108.50
34	i	1295	A	O4'-C1'-N9	5.38	116.57	108.50
34	i	1624	C	O4'-C4'-C3'	-5.38	98.62	104.00
34	i	662	A	O4'-C1'-N9	5.38	116.26	108.20
34	i	1732	G	N9-C1'-C2'	5.38	120.06	112.00
8	H	13	GLY	O-C-N	-5.37	115.57	122.39
34	i	612	C	C1'-O4'-C4'	-5.37	104.53	109.90
34	i	729	C	C3'-C2'-C1'	5.37	106.67	101.30
34	i	1457	G	O4'-C1'-C2'	-5.37	102.23	107.60
34	i	1110	U	O4'-C1'-C2'	-5.37	100.43	105.80
34	i	1339	U	C3'-C2'-C1'	5.37	106.67	101.30
34	i	93	U	O4'-C1'-N1	5.37	116.55	108.50
34	i	576	G	O4'-C1'-C2'	-5.37	102.23	107.60
34	i	672	U	O5'-C5'-C4'	-5.37	103.45	111.50
19	S	88	LYS	N-CA-C	-5.37	104.31	111.02
1	A	63	ARG	N-CA-CB	5.37	118.01	110.12
1	A	94	THR	N-CA-C	-5.37	103.61	110.53
11	K	7	ASN	CA-CB-CG	-5.37	107.23	112.60
17	Q	66	VAL	N-CA-C	5.37	116.39	108.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1281	G	C2'-C3'-O3'	-5.37	101.45	109.50
34	i	1733	C	O4'-C1'-C2'	-5.37	102.23	107.60
34	i	445	A	O4'-C1'-C2'	-5.36	102.24	107.60
34	i	1119	C	O4'-C1'-C2'	-5.36	102.24	107.60
34	i	129	C	O3'-P-O5'	-5.36	95.97	104.00
34	i	41	G	C1'-O4'-C4'	-5.35	104.35	109.70
34	i	657	U	C1'-O4'-C4'	-5.35	104.55	109.90
23	W	2	VAL	O-C-N	-5.35	114.44	123.00
34	i	491	C	N1-C1'-C2'	5.35	120.03	112.00
34	i	538	C	O4'-C1'-C2'	-5.35	102.25	107.60
16	P	122	THR	N-CA-CB	5.35	117.94	110.07
25	Y	101	LYS	CA-C-N	-5.35	111.32	121.54
25	Y	101	LYS	C-N-CA	-5.35	111.32	121.54
34	i	1687	U	C1'-C2'-O2'	5.35	116.42	108.40
34	i	792	G	C3'-C2'-C1'	-5.34	95.96	101.30
34	i	1479	A	O4'-C1'-N9	5.34	116.52	108.50
34	i	468	G	P-O5'-C5'	5.34	128.91	120.90
5	E	75	LYS	N-CA-CB	-5.34	103.06	111.23
21	U	90	ASP	N-CA-C	5.34	117.45	107.99
26	Z	104	ARG	NE-CZ-NH1	-5.34	116.16	121.50
34	i	19	A	O4'-C1'-N9	5.34	116.51	108.50
6	F	130	ARG	CA-CB-CG	-5.34	103.42	114.10
32	f	135	HIS	N-CA-C	5.34	116.74	107.93
34	i	299	G	P-O3'-C3'	5.34	128.21	120.20
34	i	920	G	O4'-C1'-C2'	-5.34	102.26	107.60
34	i	213	C	O4'-C1'-C2'	-5.34	102.26	107.60
34	i	1584	A	O4'-C1'-N9	5.33	116.50	108.50
34	i	1733	C	N1-C1'-C2'	5.33	120.00	112.00
8	H	32	MET	N-CA-C	-5.33	102.16	110.10
34	i	1333	C	C2'-C3'-O3'	5.33	121.70	113.70
8	H	36	LEU	N-CA-CB	5.33	119.33	110.91
12	L	6	THR	O-C-N	-5.33	115.50	122.59
34	i	1204	A	N9-C1'-C2'	-5.33	104.00	112.00
34	i	1336	U	O4'-C1'-C2'	-5.33	102.27	107.60
34	i	789	G	O4'-C1'-N9	5.33	116.49	108.50
34	i	1334	G	O4'-C1'-C2'	-5.33	102.27	107.60
34	i	1399	C	O4'-C1'-C2'	5.33	111.13	105.80
10	J	35	TYR	CA-CB-CG	-5.33	104.31	113.90
34	i	542	G	O4'-C1'-N9	5.33	116.49	108.50
34	i	950	U	C2'-C3'-O3'	-5.33	101.51	109.50
18	R	3	ARG	NE-CZ-NH2	5.32	123.99	119.20
34	i	1359	C	C4'-C3'-O3'	5.32	117.38	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	M	11	VAL	CB-CA-C	-5.32	106.08	112.19
35	l	94	CYS	N-CA-C	-5.32	104.94	111.75
6	F	56	TYR	CA-C-N	5.32	127.40	120.28
6	F	56	TYR	C-N-CA	5.32	127.40	120.28
34	i	209	C	O4'-C1'-C2'	-5.32	102.28	107.60
34	i	267	G	P-O3'-C3'	5.32	128.17	120.20
34	i	1104	G	C2'-C3'-O3'	5.32	121.67	113.70
34	i	1233	C	C4'-C3'-C2'	-5.32	97.28	102.60
34	i	1627	G	C5'-C4'-C3'	5.32	123.17	115.20
20	T	42	HIS	CA-CB-CG	-5.31	108.49	113.80
6	F	130	ARG	CB-CG-CD	5.31	123.52	111.30
34	i	190	A	P-O5'-C5'	-5.31	112.93	120.90
34	i	795	U	C4'-C3'-C2'	-5.31	97.29	102.60
34	i	1079	A	N9-C1'-C2'	5.31	119.97	112.00
34	i	1615	A	C1'-C2'-O2'	5.31	119.77	111.80
34	i	1652	G	C1'-O4'-C4'	-5.31	104.59	109.90
12	L	138	VAL	N-CA-C	5.31	116.00	107.98
23	W	89	TRP	N-CA-C	5.31	117.50	111.02
34	i	1496	G	C1'-O4'-C4'	-5.31	104.59	109.90
10	J	41	ARG	N-CA-C	-5.31	105.49	111.28
17	Q	6	PRO	CA-C-N	-5.31	113.28	122.10
17	Q	6	PRO	C-N-CA	-5.31	113.28	122.10
34	i	1288	C	O4'-C1'-N1	-5.31	100.54	108.50
9	I	82	VAL	N-CA-C	5.30	117.20	111.58
34	i	1150	U	C4'-C3'-C2'	-5.30	97.30	102.60
34	i	1071	C	C1'-O4'-C4'	-5.30	104.60	109.90
2	B	22	VAL	N-CA-C	5.30	120.37	109.34
34	i	1562	G	P-O3'-C3'	-5.30	112.25	120.20
28	b	28	PRO	O-C-N	5.30	129.40	123.04
34	i	1010	G	O4'-C1'-N9	5.30	116.45	108.50
34	i	1273	C	N1-C1'-C2'	5.30	119.95	112.00
34	i	1590	U	N1-C1'-C2'	-5.30	104.05	112.00
28	b	53	VAL	CB-CA-C	-5.30	103.34	111.71
34	i	67	C	C1'-C2'-O2'	5.30	116.34	108.40
34	i	276	U	N1-C1'-C2'	5.30	119.94	112.00
34	i	544	A	O4'-C1'-C2'	5.30	112.90	107.60
34	i	1039	G	C3'-C2'-C1'	5.30	106.60	101.30
34	i	127	C	P-O3'-C3'	5.29	128.14	120.20
34	i	1232	G	C3'-C2'-O2'	5.29	118.64	110.70
34	i	1459	U	O5'-C5'-C4'	-5.29	103.76	111.70
4	D	145	GLN	CA-C-O	5.29	126.16	120.55
34	i	1222	G	C1'-O4'-C4'	-5.29	104.61	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	443	C	C5'-C4'-C3'	-5.29	108.07	116.00
34	i	552	U	O4'-C4'-C3'	5.29	109.29	104.00
34	i	38	A	C1'-O4'-C4'	5.29	114.99	109.70
34	i	1405	A	O5'-C5'-C4'	5.29	119.43	111.50
34	i	1426	C	P-O5'-C5'	-5.29	112.97	120.90
3	C	49	THR	N-CA-C	5.29	118.10	109.59
34	i	105	U	O4'-C1'-C2'	-5.29	102.31	107.60
34	i	829	C	O4'-C1'-C2'	-5.29	102.31	107.60
34	i	1214	C	C3'-C2'-C1'	5.29	106.59	101.30
14	N	132	LYS	CA-CB-CG	-5.28	103.53	114.10
34	i	534	G	C1'-O4'-C4'	5.28	115.18	109.90
34	i	147	A	C2'-C3'-O3'	5.28	117.42	109.50
34	i	322	G	O4'-C1'-N9	5.28	116.42	108.50
34	i	548	G	C1'-O4'-C4'	-5.28	104.62	109.90
34	i	1672	U	N1-C1'-C2'	-5.28	104.08	112.00
34	i	40	A	C1'-O4'-C4'	5.28	115.18	109.90
2	B	38	MET	N-CA-CB	5.28	119.15	110.39
11	K	1	MET	CA-C-N	5.28	131.20	121.70
11	K	1	MET	C-N-CA	5.28	131.20	121.70
13	M	99	LYS	CB-CA-C	-5.28	105.75	110.71
21	U	104	ILE	CA-CB-CG1	5.28	119.37	110.40
32	f	86	THR	N-CA-CB	5.28	119.41	110.49
34	i	812	A	O4'-C1'-C2'	-5.28	102.32	107.60
34	i	1249	A	C2'-C3'-O3'	5.28	117.41	109.50
34	i	214	A	O3'-P-O5'	5.27	111.91	104.00
34	i	1375	A	N9-C1'-C2'	5.27	119.91	112.00
8	H	15	LYS	C-N-CD	-5.27	103.38	125.00
31	e	77	HIS	ND1-CE1-NE2	5.27	113.67	108.40
34	i	285	U	C3'-C2'-C1'	5.27	106.77	101.50
33	g	299	PHE	CA-CB-CG	-5.27	108.53	113.80
34	i	11	A	O3'-P-O5'	5.27	111.91	104.00
34	i	38	A	C5'-C4'-C3'	-5.27	107.30	115.20
34	i	796	U	C4'-C3'-O3'	-5.27	105.09	113.00
28	b	75	GLU	CB-CA-C	-5.27	110.06	117.23
34	i	167	G	O4'-C1'-N9	5.27	116.40	108.50
34	i	272	C	P-O5'-C5'	-5.27	113.00	120.90
34	i	279	G	N9-C1'-C2'	-5.27	104.10	112.00
34	i	479	A	P-O5'-C5'	5.27	128.80	120.90
34	i	230	C	N1-C1'-C2'	5.27	119.90	112.00
34	i	1663	U	O5'-C5'-C4'	-5.26	103.61	111.50
8	H	113	LYS	N-CA-C	-5.26	103.45	110.55
34	i	815	G	O4'-C1'-N9	5.26	116.39	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1270	G	C2'-C3'-O3'	5.26	117.39	109.50
22	V	32	ILE	CA-C-N	-5.26	113.27	119.84
22	V	32	ILE	C-N-CA	-5.26	113.27	119.84
34	i	585	U	O4'-C1'-N1	5.26	116.39	108.50
12	L	44	PHE	CA-CB-CG	-5.26	108.54	113.80
8	H	13	GLY	CA-C-N	-5.25	112.69	121.94
8	H	13	GLY	C-N-CA	-5.25	112.69	121.94
25	Y	51	THR	C-N-CD	-5.25	103.45	125.00
34	i	110	U	P-O3'-C3'	-5.25	112.32	120.20
34	i	792	G	O4'-C1'-N9	5.25	116.38	108.50
34	i	1461	A	C1'-O4'-C4'	5.25	115.15	109.90
34	i	1646	A	C1'-O4'-C4'	5.25	115.15	109.90
34	i	1741	U	C1'-C2'-O2'	5.25	116.28	108.40
34	i	76	U	O4'-C1'-C2'	-5.25	102.35	107.60
34	i	582	C	C1'-C2'-O2'	5.25	119.67	111.80
8	H	55	GLY	N-CA-C	-5.25	107.27	113.99
33	g	260	ASP	CA-CB-CG	-5.25	107.35	112.60
34	i	871	A	N9-C1'-C2'	5.25	119.87	112.00
34	i	384	G	C5'-C4'-C3'	-5.25	108.13	116.00
34	i	581	U	N1-C1'-C2'	5.25	121.87	114.00
34	i	388	A	O4'-C4'-C3'	-5.25	100.86	106.10
34	i	726	C	P-O3'-C3'	5.25	128.07	120.20
9	I	134	GLU	N-CA-C	-5.24	105.46	111.07
11	K	62	PHE	N-CA-C	5.24	117.80	111.40
34	i	210	G	P-O3'-C3'	-5.24	112.33	120.20
1	A	193	HIS	CB-CA-C	-5.24	101.25	109.11
17	Q	68	ILE	N-CA-C	5.24	115.40	107.75
33	g	142	VAL	CA-C-N	5.24	131.55	121.54
33	g	142	VAL	C-N-CA	5.24	131.55	121.54
33	g	273	GLU	O-C-N	5.24	129.69	122.72
34	i	1644	U	P-O3'-C3'	-5.24	112.34	120.20
34	i	1729	G	C3'-C2'-C1'	5.24	106.54	101.30
34	i	935	U	O4'-C1'-N1	5.24	116.36	108.50
16	P	36	LEU	CB-CA-C	5.24	118.78	109.72
34	i	517	C	O4'-C1'-N1	5.23	116.35	108.50
34	i	1414	C	C2'-C3'-O3'	5.23	117.35	109.50
5	E	4	GLY	CA-C-N	5.23	125.48	119.83
5	E	4	GLY	C-N-CA	5.23	125.48	119.83
7	G	143	LYS	N-CA-C	5.23	117.06	111.36
22	V	23	ILE	CA-C-N	-5.23	115.62	122.37
22	V	23	ILE	C-N-CA	-5.23	115.62	122.37
34	i	547	U	C1'-C2'-O2'	5.23	116.25	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1118	A	N9-C1'-C2'	-5.23	104.15	112.00
5	E	172	PHE	N-CA-C	5.23	116.79	108.79
26	Z	104	ARG	CB-CA-C	-5.23	100.02	110.42
34	i	730	C	C3'-C2'-C1'	5.23	106.53	101.30
34	i	1400	U	N1-C1'-C2'	5.23	121.84	114.00
34	i	1656	A	C3'-C2'-C1'	-5.23	96.07	101.30
34	i	262	G	P-O3'-C3'	5.23	128.04	120.20
34	i	349	U	O4'-C1'-N1	5.23	116.34	108.50
34	i	1024	A	O5'-C5'-C4'	-5.23	103.66	111.50
34	i	1151	U	O4'-C1'-N1	5.23	116.04	108.20
28	b	26	GLN	N-CA-C	-5.22	103.58	110.43
34	i	1072	G	O4'-C1'-N9	5.22	116.34	108.50
34	i	1226	C	C1'-C2'-O2'	5.22	116.24	108.40
34	i	1530	U	C2'-C3'-O3'	-5.22	101.66	109.50
34	i	806	A	C3'-C2'-C1'	5.22	106.52	101.30
34	i	1414	C	C5'-C4'-C3'	5.22	123.03	115.20
1	A	63	ARG	CA-C-O	-5.22	115.02	120.55
19	S	82	TRP	O-C-N	5.22	129.18	122.39
34	i	74	G	P-O3'-C3'	5.22	128.03	120.20
34	i	1552	C	O3'-P-O5'	5.22	111.83	104.00
34	i	537	G	N9-C1'-C2'	5.22	119.83	112.00
34	i	541	U	C1'-O4'-C4'	-5.22	104.68	109.90
34	i	1415	C	C3'-C2'-C1'	5.22	106.52	101.30
34	i	1551	A	O4'-C1'-N9	5.22	116.03	108.20
23	W	93	LEU	N-CA-C	5.22	120.29	112.94
34	i	274	G	C1'-O4'-C4'	-5.22	104.68	109.90
34	i	568	C	C3'-C2'-C1'	5.22	106.52	101.30
18	R	37	GLU	N-CA-C	5.21	117.04	111.36
34	i	1540	A	P-O5'-C5'	-5.21	113.08	120.90
34	i	1640	C	P-O3'-C3'	5.21	128.02	120.20
34	i	1693	C	P-O3'-C3'	5.21	128.02	120.20
34	i	862	U	C3'-C2'-C1'	-5.21	96.09	101.30
34	i	1494	A	O4'-C1'-C2'	5.21	112.81	107.60
8	H	36	LEU	N-CA-C	-5.21	106.68	112.57
32	f	88	PRO	CA-N-CD	-5.21	104.70	112.00
34	i	62	G	C1'-O4'-C4'	-5.21	104.69	109.90
34	i	1662	U	O4'-C1'-N1	5.21	116.32	108.50
34	i	1811	G	O4'-C1'-N9	5.21	116.32	108.50
24	X	2	GLY	N-CA-C	-5.21	100.83	113.18
18	R	2	GLY	CA-C-N	5.21	131.87	123.33
18	R	2	GLY	C-N-CA	5.21	131.87	123.33
34	i	36	U	O4'-C1'-C2'	-5.21	102.39	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1615	A	C2'-C3'-O3'	5.21	117.31	109.50
34	i	1636	A	C3'-C2'-C1'	5.21	106.51	101.30
15	O	43	HIS	N-CA-CB	-5.21	101.69	110.49
34	i	488	C	O4'-C1'-C2'	-5.21	102.39	107.60
34	i	728	U	C1'-O4'-C4'	-5.21	104.69	109.90
3	C	148	VAL	C-N-CD	-5.20	103.67	125.00
21	U	51	LYS	N-CA-C	-5.20	99.72	110.80
34	i	1266	G	O4'-C1'-C2'	-5.20	102.40	107.60
20	T	4	VAL	CA-C-O	-5.20	111.96	120.80
33	g	187	ASN	CA-CB-CG	-5.20	107.40	112.60
34	i	879	U	O4'-C1'-C2'	-5.20	102.40	107.60
32	f	151	ASN	N-CA-C	5.20	116.66	107.61
34	i	924	G	N9-C1'-C2'	5.20	119.79	112.00
34	i	1019	A	N9-C1'-C2'	-5.20	104.21	112.00
34	i	1328	A	C4'-C3'-C2'	-5.20	97.40	102.60
34	i	1365	A	N9-C1'-C2'	5.20	119.79	112.00
34	i	1583	A	N9-C1'-C2'	5.20	119.79	112.00
34	i	729	C	C4'-C3'-C2'	-5.19	97.41	102.60
14	N	132	LYS	CA-C-O	5.19	126.83	120.55
34	i	1251	G	C1'-C2'-O2'	5.19	116.19	108.40
34	i	1695	C	N1-C1'-C2'	-5.19	106.21	114.00
34	i	1472	A	C1'-C2'-O2'	5.19	116.19	108.40
34	i	1555	U	C4'-C3'-C2'	-5.19	97.41	102.60
34	i	1833	U	O4'-C1'-C2'	-5.19	102.41	107.60
7	G	170	ARG	O-C-N	5.19	130.18	122.97
34	i	1332	C	O4'-C1'-C2'	-5.19	102.41	107.60
34	i	1531	G	P-O5'-C5'	5.19	128.68	120.90
18	R	57	LEU	N-CA-C	5.19	116.62	111.07
34	i	206	A	C2'-C3'-O3'	-5.19	105.92	113.70
34	i	167	G	N9-C1'-C2'	-5.18	104.22	112.00
34	i	359	C	O4'-C4'-C3'	-5.18	100.92	106.10
34	i	1682	C	O4'-C1'-C2'	-5.18	102.42	107.60
5	E	204	SER	N-CA-C	5.18	116.29	108.46
34	i	64	A	O4'-C1'-C2'	5.18	110.98	105.80
34	i	193	C	C3'-C2'-C1'	5.18	106.48	101.30
34	i	520	U	C4'-C3'-C2'	-5.18	97.42	102.60
34	i	1370	C	O4'-C1'-C2'	-5.18	102.42	107.60
34	i	300	G	O4'-C1'-N9	5.18	116.26	108.50
34	i	369	C	P-O3'-C3'	5.18	127.96	120.20
34	i	971	G	O4'-C4'-C3'	-5.18	98.82	104.00
34	i	1520	C	N1-C1'-C2'	5.18	119.77	112.00
34	i	1523	G	O5'-C5'-C4'	-5.18	103.73	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	N	18	TYR	O-C-N	5.17	127.41	122.03
34	i	541	U	C1'-C2'-O2'	5.17	116.16	108.40
26	Z	50	PHE	N-CA-C	5.17	117.73	110.23
31	e	94	ALA	N-CA-C	-5.17	103.52	110.24
34	i	1559	C	P-O5'-C5'	5.17	128.66	120.90
34	i	1602	A	O4'-C1'-C2'	5.17	112.77	107.60
34	i	985	C	C1'-C2'-O2'	-5.17	104.04	111.80
4	D	161	GLY	CA-C-N	5.17	126.21	120.06
4	D	161	GLY	C-N-CA	5.17	126.21	120.06
16	P	37	TYR	CA-CB-CG	5.17	123.21	113.90
34	i	206	A	C4'-C3'-O3'	5.17	120.75	113.00
34	i	940	A	C3'-C2'-C1'	5.17	106.47	101.30
34	i	1015	C	C3'-C2'-C1'	5.17	106.47	101.30
34	i	641	U	O4'-C1'-C2'	-5.17	102.43	107.60
34	i	809	A	O4'-C1'-C2'	-5.17	102.43	107.60
34	i	1658	A	C3'-C2'-C1'	5.17	106.47	101.30
11	K	95	ARG	CA-C-N	5.17	131.41	121.54
11	K	95	ARG	C-N-CA	5.17	131.41	121.54
34	i	82	G	C1'-O4'-C4'	5.17	115.07	109.90
15	O	28	PHE	N-CA-C	5.17	117.32	108.90
34	i	358	U	C2'-C3'-O3'	5.17	117.25	109.50
5	E	23	LEU	CA-C-O	-5.16	115.57	121.82
34	i	144	U	C1'-O4'-C4'	-5.16	104.74	109.90
34	i	1397	A	O4'-C1'-N9	5.16	116.25	108.50
34	i	1202	G	C1'-O4'-C4'	-5.16	104.74	109.90
1	A	159	ILE	O-C-N	5.16	129.02	122.57
34	i	549	G	O4'-C4'-C3'	-5.16	98.84	104.00
34	i	728	U	O4'-C1'-C2'	-5.16	102.44	107.60
34	i	1108	U	P-O5'-C5'	-5.16	113.16	120.90
34	i	1722	G	O4'-C1'-N9	5.16	116.24	108.50
11	K	37	ASP	N-CA-C	-5.16	99.82	110.80
34	i	570	U	O3'-P-O5'	5.16	111.73	104.00
34	i	1606	G	O3'-P-O5'	-5.15	96.27	104.00
12	L	123	GLY	N-CA-C	-5.15	107.76	113.79
32	f	84	SER	CA-C-N	5.15	131.38	121.54
32	f	84	SER	C-N-CA	5.15	131.38	121.54
34	i	144	U	C1'-C2'-O2'	5.15	116.13	108.40
34	i	595	A	O5'-C5'-C4'	5.15	119.23	111.50
34	i	794	G	O5'-C5'-C4'	5.15	119.43	111.70
34	i	1404	U	O3'-P-O5'	5.15	111.73	104.00
34	i	110	U	P-O5'-C5'	-5.15	113.17	120.90
34	i	117	C	O4'-C1'-C2'	-5.15	102.45	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	R	95	ILE	N-CA-C	5.15	120.05	109.34
34	i	656	U	C4'-C3'-O3'	-5.15	105.28	113.00
34	i	795	U	O4'-C1'-N1	5.15	116.22	108.50
34	i	1394	G	P-O3'-C3'	-5.15	112.48	120.20
19	S	75	ARG	N-CA-C	-5.15	105.67	111.28
34	i	1246	A	O4'-C1'-C2'	-5.15	100.65	105.80
34	i	91	A	O4'-C1'-C2'	-5.15	102.45	107.60
34	i	680	G	C5'-C4'-C3'	5.15	123.72	116.00
2	B	152	LYS	CB-CA-C	5.14	120.55	110.67
34	i	291	U	O4'-C1'-C2'	-5.14	102.46	107.60
34	i	590	G	O4'-C1'-N9	5.14	116.22	108.50
34	i	1352	G	C4'-C3'-O3'	-5.14	105.28	113.00
8	H	67	PRO	N-CA-C	-5.14	107.43	113.86
33	g	274	VAL	N-CA-CB	-5.14	104.38	111.99
34	i	642	U	O4'-C1'-C2'	-5.14	102.46	107.60
34	i	959	A	C3'-C2'-C1'	-5.14	96.16	101.30
34	i	971	G	O4'-C1'-N9	5.14	116.21	108.50
1	A	167	GLY	N-CA-C	5.14	125.36	113.18
34	i	461	G	N9-C1'-C2'	-5.14	106.29	114.00
34	i	1120	C	N1-C1'-C2'	5.14	119.71	112.00
34	i	1780	U	O4'-C1'-C2'	-5.14	102.46	107.60
16	P	38	SER	N-CA-C	5.14	121.74	110.80
34	i	794	G	C3'-C2'-C1'	5.14	106.64	101.50
34	i	1286	G	C4'-C3'-O3'	-5.14	105.30	113.00
34	i	727	G	C5'-C4'-O4'	-5.13	102.10	109.80
34	i	1241	G	P-O5'-C5'	5.13	128.60	120.90
34	i	1207	G	C1'-C2'-O2'	5.13	116.10	108.40
34	i	1246	A	N9-C1'-C2'	-5.13	106.30	114.00
34	i	1285	U	O3'-P-O5'	-5.13	96.30	104.00
4	D	32	ASP	CA-CB-CG	-5.13	107.47	112.60
20	T	79	TYR	O-C-N	5.13	128.58	122.27
26	Z	46	ASN	N-CA-C	5.13	117.26	108.90
34	i	321	C	O4'-C1'-N1	5.13	115.89	108.20
34	i	796	U	O5'-C5'-C4'	-5.13	103.81	111.50
34	i	1359	C	P-O5'-C5'	5.13	128.59	120.90
34	i	1422	U	O4'-C1'-C2'	-5.13	102.47	107.60
34	i	1562	G	O4'-C4'-C3'	-5.13	98.87	104.00
12	L	26	GLY	CA-C-N	5.13	130.93	121.70
12	L	26	GLY	C-N-CA	5.13	130.93	121.70
34	i	445	A	C3'-C2'-C1'	5.13	106.43	101.30
34	i	1273	C	C5'-C4'-C3'	5.12	123.69	116.00
34	i	1513	C	O4'-C4'-C3'	-5.12	98.88	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1185	A	O4'-C1'-C2'	-5.12	102.48	107.60
3	C	194	VAL	CB-CA-C	-5.12	108.92	114.35
4	D	193	ASP	C-N-CD	5.12	146.00	125.00
7	G	157	VAL	O-C-N	5.12	128.19	122.61
34	i	744	C	O4'-C1'-C2'	-5.12	102.48	107.60
34	i	835	C	C2'-C3'-O3'	5.12	117.18	109.50
34	i	1602	A	N9-C1'-C2'	5.12	119.68	112.00
22	V	41	LYS	N-CA-C	5.12	117.22	108.67
34	i	533	C	N1-C1'-C2'	5.12	119.68	112.00
34	i	1283	A	O4'-C1'-C2'	-5.12	102.48	107.60
34	i	837	G	C3'-C2'-O2'	5.12	118.37	110.70
34	i	904	A	C3'-C2'-O2'	5.12	118.37	110.70
34	i	1151	U	C3'-C2'-C1'	5.12	106.61	101.50
34	i	1441	U	P-O3'-C3'	-5.12	112.53	120.20
34	i	1473	U	C2'-C3'-O3'	5.12	121.37	113.70
33	g	192	THR	N-CA-CB	5.11	119.08	111.51
34	i	79	A	C3'-C2'-O2'	-5.11	106.93	114.60
34	i	140	U	O4'-C1'-C2'	-5.11	102.49	107.60
34	i	161	U	C2'-C3'-O3'	5.11	117.17	109.50
5	E	260	GLN	N-CA-C	-5.11	99.91	110.80
32	f	138	ARG	N-CA-C	5.11	121.69	110.80
34	i	663	G	O4'-C1'-N9	5.11	116.17	108.50
34	i	1534	U	C1'-O4'-C4'	5.11	115.01	109.90
8	H	89	GLY	N-CA-C	-5.11	108.22	115.43
34	i	1227	C	C3'-C2'-C1'	5.11	106.41	101.30
34	i	1435	A	O4'-C1'-N9	5.11	116.17	108.50
34	i	1	U	O4'-C4'-C3'	-5.11	100.99	106.10
34	i	61	A	O4'-C1'-C2'	-5.11	102.49	107.60
10	J	34	GLU	CA-C-N	5.11	131.11	123.24
10	J	34	GLU	C-N-CA	5.11	131.11	123.24
34	i	1329	U	N1-C1'-C2'	-5.11	104.34	112.00
34	i	1390	G	C1'-O4'-C4'	-5.11	104.79	109.90
34	i	1407	G	O4'-C1'-C2'	5.11	112.71	107.60
24	X	29	LYS	N-CA-C	-5.11	105.84	111.71
34	i	572	U	C4'-C3'-O3'	-5.11	105.34	113.00
34	i	1205	A	N9-C1'-C2'	-5.11	104.34	112.00
34	i	1796	C	N1-C1'-C2'	5.11	119.66	112.00
34	i	1819	A	C3'-C2'-C1'	-5.11	96.19	101.30
20	T	71	GLY	N-CA-C	5.10	118.59	111.14
34	i	1563	C	O3'-P-O5'	5.10	111.66	104.00
25	Y	94	HIS	ND1-CE1-NE2	5.10	113.50	108.40
34	i	1093	G	C5'-C4'-O4'	5.10	117.45	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1439	C	O4'-C1'-C2'	-5.10	102.50	107.60
34	i	214	A	O4'-C1'-C2'	-5.10	102.50	107.60
3	C	227	ASP	CA-CB-CG	-5.10	107.50	112.60
34	i	625	G	P-O5'-C5'	-5.10	113.25	120.90
34	i	1461	A	P-O5'-C5'	5.10	128.55	120.90
34	i	1778	G	O4'-C1'-C2'	-5.10	102.50	107.60
16	P	28	MET	N-CA-CB	5.10	119.11	110.49
34	i	550	A	C3'-C2'-C1'	-5.10	96.20	101.30
34	i	1276	G	O4'-C1'-N9	5.10	116.15	108.50
21	U	104	ILE	CB-CA-C	-5.10	102.93	111.29
34	i	78	C	O4'-C1'-C2'	-5.10	100.70	105.80
34	i	1405	A	C1'-O4'-C4'	5.10	115.00	109.90
1	A	98	PRO	CB-CA-C	-5.09	103.15	111.56
34	i	603	C	O4'-C1'-C2'	-5.09	100.71	105.80
10	J	89	GLU	N-CA-CB	-5.09	101.48	109.78
34	i	26	U	P-O5'-C5'	5.09	128.54	120.90
1	A	3	GLY	O-C-N	5.09	129.32	122.70
34	i	903	G	C1'-O4'-C4'	-5.09	104.81	109.90
16	P	49	LEU	CA-C-O	-5.09	113.23	120.51
20	T	82	ARG	NE-CZ-NH2	5.09	123.78	119.20
33	g	143	GLN	CB-CA-C	-5.09	100.29	110.42
34	i	1648	U	N1-C1'-C2'	-5.09	104.37	112.00
18	R	23	ARG	N-CA-C	5.09	116.91	111.36
21	U	28	ASN	CA-C-N	5.09	131.12	121.97
21	U	28	ASN	C-N-CA	5.09	131.12	121.97
34	i	1584	A	N9-C1'-C2'	-5.09	104.37	112.00
34	i	312	C	P-O3'-C3'	5.08	127.83	120.20
34	i	59	U	O4'-C1'-C2'	-5.08	102.52	107.60
34	i	361	A	P-O5'-C5'	-5.08	113.28	120.90
34	i	1705	C	C3'-C2'-C1'	5.08	106.38	101.30
2	B	62	LEU	N-CA-C	-5.08	106.42	113.18
9	I	61	ASP	CA-C-N	-5.08	114.62	122.69
9	I	61	ASP	C-N-CA	-5.08	114.62	122.69
34	i	1568	G	C4'-C3'-C2'	-5.08	97.52	102.60
34	i	1568	G	N9-C1'-C2'	5.08	119.62	112.00
34	i	1694	A	P-O3'-C3'	-5.08	112.58	120.20
34	i	1186	A	C3'-C2'-C1'	5.08	106.38	101.30
34	i	542	G	C1'-O4'-C4'	-5.08	104.82	109.90
34	i	1663	U	C3'-C2'-O2'	5.08	118.31	110.70
34	i	1698	C	C3'-C2'-C1'	5.08	106.38	101.30
34	i	5	U	O4'-C1'-N1	5.07	116.11	108.50
34	i	549	G	C4'-C3'-O3'	-5.07	105.39	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1490	U	O4'-C1'-N1	5.07	115.81	108.20
34	i	1779	C	P-O3'-C3'	5.07	127.81	120.20
18	R	52	GLY	N-CA-C	5.07	118.38	112.50
34	i	207	U	C2'-C3'-O3'	-5.07	106.09	113.70
34	i	1122	G	C1'-O4'-C4'	-5.07	104.83	109.90
34	i	644	A	O4'-C1'-C2'	-5.07	102.53	107.60
34	i	1255	A	C1'-C2'-O2'	5.07	116.01	108.40
16	P	30	TYR	N-CA-C	-5.07	105.88	111.71
16	P	105	VAL	N-CA-C	5.07	115.33	107.78
34	i	1798	U	O4'-C1'-N1	5.07	116.10	108.50
34	i	410	G	C4'-C3'-C2'	-5.07	97.53	102.60
34	i	243	C	P-O3'-C3'	5.07	127.80	120.20
15	O	150	ARG	CB-CA-C	5.06	118.10	109.75
34	i	121	U	O4'-C1'-N1	5.06	116.09	108.50
5	E	117	GLU	N-CA-C	-5.06	102.02	109.86
13	M	9	GLY	CA-C-N	-5.06	115.49	122.63
13	M	9	GLY	C-N-CA	-5.06	115.49	122.63
34	i	665	U	O4'-C1'-N1	5.06	116.09	108.50
34	i	1594	U	C4'-C3'-O3'	-5.06	105.41	113.00
34	i	344	U	O4'-C1'-N1	5.06	116.09	108.50
34	i	573	A	O4'-C1'-C2'	-5.06	102.54	107.60
6	F	152	TRP	CB-CA-C	-5.06	103.17	110.96
34	i	479	A	O4'-C1'-C2'	-5.06	102.54	107.60
17	Q	146	ARG	NE-CZ-NH1	-5.06	116.44	121.50
34	i	1269	C	C2'-C3'-O3'	-5.06	101.92	109.50
34	i	1407	G	P-O5'-C5'	5.06	128.48	120.90
7	G	158	VAL	N-CA-CB	-5.05	102.89	111.23
11	K	92	ALA	CA-C-N	5.05	129.57	122.09
11	K	92	ALA	C-N-CA	5.05	129.57	122.09
18	R	31	ASN	N-CA-C	-5.05	105.90	111.71
18	R	113	SER	CA-C-N	5.05	130.17	120.97
18	R	113	SER	C-N-CA	5.05	130.17	120.97
34	i	341	G	O4'-C4'-C3'	-5.05	98.94	104.00
34	i	105	U	O4'-C1'-N1	5.05	116.08	108.50
34	i	1413	C	O4'-C4'-C3'	-5.05	98.95	104.00
22	V	17	CYS	O-C-N	5.05	129.31	122.59
34	i	876	G	C3'-C2'-C1'	-5.05	96.25	101.30
34	i	1337	C	C3'-C2'-C1'	5.05	106.55	101.50
34	i	1303	U	P-O5'-C5'	5.05	128.47	120.90
34	i	1663	U	C4'-C3'-C2'	-5.05	97.55	102.60
34	i	375	G	O4'-C4'-C3'	-5.05	101.05	106.10
34	i	673	G	C4'-C3'-O3'	-5.05	105.43	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	868	A	C2'-C3'-O3'	5.05	117.07	109.50
34	i	1734	C	N1-C1'-C2'	5.05	119.57	112.00
34	i	994	A	C1'-O4'-C4'	5.04	114.94	109.90
1	A	68	ILE	O-C-N	-5.04	117.18	122.83
17	Q	116	ASP	CB-CA-C	-5.04	109.28	116.34
34	i	360	G	O4'-C4'-C3'	-5.04	101.06	106.10
34	i	883	U	O3'-P-O5'	5.04	111.56	104.00
34	i	1594	U	O4'-C1'-C2'	-5.04	102.56	107.60
19	S	23	ARG	O-C-N	5.04	128.12	122.22
34	i	542	G	O3'-P-O5'	-5.04	96.44	104.00
34	i	609	A	N9-C1'-C2'	-5.04	104.44	112.00
34	i	1234	U	O4'-C1'-N1	5.04	116.06	108.50
34	i	879	U	O4'-C1'-N1	5.04	116.06	108.50
28	b	29	ASN	N-CA-C	-5.04	104.31	110.61
34	i	465	C	N1-C1'-C2'	5.04	119.56	112.00
34	i	1168	U	O4'-C1'-C2'	-5.04	102.56	107.60
34	i	1232	G	O4'-C1'-N9	5.04	116.06	108.50
10	J	99	GLY	N-CA-C	-5.04	107.04	115.80
34	i	402	G	N9-C1'-C2'	5.04	119.55	112.00
34	i	1232	G	C4'-C3'-O3'	-5.04	105.45	113.00
34	i	789	G	O3'-P-O5'	5.03	111.55	104.00
34	i	895	U	O5'-C5'-C4'	-5.03	103.95	111.50
34	i	1279	C	O4'-C1'-C2'	-5.03	102.57	107.60
34	i	1459	U	P-O3'-C3'	-5.03	112.65	120.20
34	i	1545	G	P-O3'-C3'	5.03	127.75	120.20
34	i	1827	C	N1-C1'-C2'	5.03	119.55	112.00
34	i	742	C	C2'-C3'-O3'	5.03	121.25	113.70
34	i	1818	A	C1'-C2'-O2'	5.03	115.94	108.40
34	i	8	U	O4'-C1'-C2'	-5.03	100.77	105.80
34	i	1293	U	C1'-O4'-C4'	5.03	114.93	109.90
34	i	1414	C	N1-C1'-C2'	5.03	121.54	114.00
28	b	9	HIS	C-N-CD	-5.03	104.39	125.00
31	e	125	LYS	N-CA-C	-5.03	107.10	113.23
34	i	829	C	N1-C1'-C2'	5.03	119.54	112.00
34	i	951	A	O4'-C1'-N9	5.03	115.74	108.20
15	O	129	ILE	CA-C-N	-5.03	114.70	122.59
15	O	129	ILE	C-N-CA	-5.03	114.70	122.59
34	i	1779	C	C2'-C3'-O3'	5.03	117.04	109.50
5	E	202	PRO	O-C-N	5.02	129.07	123.04
34	i	1479	A	N9-C1'-C2'	-5.02	104.46	112.00
4	D	94	ARG	CA-C-O	5.02	125.36	119.28
34	i	73	C	O5'-C5'-C4'	5.02	119.23	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1167	G	C3'-C2'-C1'	-5.02	96.48	101.50
34	i	1534	U	C3'-C2'-C1'	5.02	106.32	101.30
17	Q	118	THR	N-CA-CB	-5.02	108.45	114.17
34	i	687	G	N9-C1'-C2'	5.02	119.53	112.00
34	i	1029	G	N9-C1'-C2'	5.02	119.53	112.00
12	L	154	GLN	O-C-N	-5.02	118.54	123.26
14	N	133	ARG	CB-CA-C	-5.02	100.44	110.42
34	i	205	G	C1'-O4'-C4'	-5.02	104.88	109.90
34	i	1563	C	C1'-O4'-C4'	-5.02	104.88	109.90
34	i	1673	A	C3'-C2'-C1'	-5.02	96.28	101.30
8	H	53	VAL	O-C-N	-5.02	117.76	123.18
25	Y	63	HIS	N-CA-C	5.02	121.48	110.80
19	S	142	ARG	CA-C-O	-5.01	112.28	120.80
34	i	1663	U	P-O5'-C5'	5.01	128.42	120.90
13	M	60	MET	N-CA-C	-5.01	105.94	111.71
34	i	623	C	C3'-C2'-C1'	5.01	106.31	101.30
34	i	1334	G	C4'-C3'-C2'	-5.01	97.59	102.60
34	i	1808	G	N9-C1'-C2'	5.01	119.52	112.00
18	R	4	VAL	N-CA-C	5.01	114.78	107.37
34	i	14	C	P-O5'-C5'	-5.01	113.39	120.90
34	i	1377	G	C3'-C2'-C1'	-5.01	96.29	101.30
34	i	1635	A	O4'-C1'-C2'	-5.01	102.59	107.60
34	i	1234	U	C5'-C4'-C3'	5.01	123.51	116.00
7	G	181	THR	CA-C-O	5.01	127.02	120.16
10	J	123	ILE	CB-CA-C	5.01	125.62	111.05
34	i	71	G	O3'-P-O5'	5.01	111.51	104.00
34	i	367	G	C4'-C3'-O3'	-5.01	105.49	113.00
34	i	528	U	N1-C1'-C2'	5.01	119.51	112.00
34	i	533	C	O4'-C1'-C2'	-5.01	102.59	107.60
34	i	1030	A	C1'-O4'-C4'	5.01	114.91	109.90
34	i	1322	U	O4'-C1'-C2'	5.01	110.81	105.80
34	i	1582	G	O4'-C1'-N9	5.01	115.71	108.20
34	i	1803	A	O4'-C1'-N9	5.01	116.01	108.50
29	c	59	LEU	O-C-N	5.00	128.02	122.11
34	i	1405	A	O4'-C4'-C3'	-5.00	99.00	104.00
34	i	824	G	C1'-O4'-C4'	-5.00	104.90	109.90
34	i	1036	G	O4'-C1'-N9	5.00	116.00	108.50
34	i	1428	U	O4'-C1'-C2'	-5.00	102.60	107.60

All (13) chirality outliers are listed below:

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Mol	Chain	Res	Type	Atom
3	C	157	ASN	CA
5	E	171	ASP	CA
10	J	138	ARG	CA
18	R	3	ARG	CA
19	S	92	ASP	CA
20	T	93	SER	CA
25	Y	86	GLU	CA
34	i	544	A	C1'
34	i	794	G	C4'
34	i	835	C	C1'
34	i	1151	U	C1'
34	i	1414	C	C1'
34	i	1503	G	C1'

All (183) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	146	ALA	Mainchain
1	A	185	MET	Mainchain
1	A	192	GLU	Mainchain,Peptide
1	A	199	PRO	Mainchain
1	A	206	ASP	Mainchain,Peptide
1	A	23	THR	Mainchain
1	A	4	ALA	Peptide
1	A	63	ARG	Sidechain
1	A	97	THR	Mainchain
2	B	146	CYS	Peptide
2	B	56	LYS	Mainchain
2	B	75	GLN	Peptide
2	B	76	ASN	Peptide
3	C	157	ASN	Peptide
3	C	160	GLY	Mainchain
3	C	241	TRP	Mainchain
3	C	97	VAL	Mainchain,Peptide
4	D	144	GLY	Peptide
4	D	190	LEU	Mainchain
4	D	3	VAL	Mainchain,Peptide
4	D	96	LEU	Mainchain
5	E	1	MET	Peptide
5	E	129	ILE	Peptide
6	F	43	GLU	Peptide

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Mol	Chain	Res	Type	Group
6	F	44	LYS	Peptide
6	F	79	HIS	Peptide
7	G	155	GLN	Mainchain
8	H	105	THR	Peptide
8	H	108	SER	Peptide
8	H	109	ARG	Sidechain
8	H	113	LYS	Mainchain
8	H	118	ARG	Sidechain
8	H	16	PRO	Peptide
8	H	17	ASP	Peptide
8	H	190	PRO	Peptide
8	H	193	GLN	Peptide
8	H	53	VAL	Peptide
9	I	123	ARG	Mainchain
9	I	129	LEU	Mainchain
9	I	131	PRO	Mainchain
9	I	155	ASN	Peptide
9	I	190	LEU	Mainchain
9	I	2	GLY	Mainchain
9	I	3	ILE	Peptide
9	I	55	TYR	Sidechain
10	J	146	SER	Mainchain
10	J	16	PRO	Peptide
10	J	161	LEU	Mainchain,Peptide
10	J	162	ARG	Peptide
10	J	164	PRO	Mainchain
10	J	165	TYR	Peptide
10	J	85	GLY	Mainchain
10	J	90	GLY	Peptide
10	J	91	LYS	Mainchain
10	J	92	MET	Peptide
11	K	29	MET	Peptide
11	K	30	PRO	Peptide
11	K	37	ASP	Peptide
11	K	43	LEU	Peptide
11	K	55	ARG	Sidechain
11	K	70	TYR	Sidechain
11	K	86	PRO	Peptide
11	K	89	ILE	Mainchain
11	K	90	VAL	Mainchain
11	K	92	ALA	Peptide
11	K	97	SER	Peptide

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Mol	Chain	Res	Type	Group
12	L	147	LYS	Peptide
12	L	149	ALA	Mainchain
12	L	152	LYS	Mainchain
12	L	18	GLN	Peptide
12	L	26	GLY	Peptide
12	L	27	GLU	Peptide
12	L	97	ARG	Peptide
13	M	98	GLY	Peptide
14	N	13	GLN	Peptide
14	N	14	SER	Peptide
14	N	18	TYR	Peptide
14	N	82	PRO	Peptide
15	O	138	ASP	Peptide
16	P	17	TYR	Sidechain,Peptide
16	P	18	ARG	Sidechain
16	P	27	ASP	Peptide
16	P	36	LEU	Peptide
16	P	37	TYR	Peptide
16	P	38	SER	Peptide
16	P	48	GLY	Mainchain,Peptide
16	P	50	ARG	Peptide
17	Q	146	ARG	Sidechain
17	Q	31	LEU	Peptide
17	Q	43	GLU	Peptide
17	Q	47	LEU	Peptide
18	R	1	MET	Mainchain
18	R	122	PRO	Peptide
18	R	88	VAL	Mainchain,Peptide
18	R	89	SER	Peptide
19	S	10	GLN	Peptide
19	S	141	ARG	Mainchain
19	S	15	VAL	Peptide
19	S	40	TYR	Mainchain,Sidechain
19	S	8	LYS	Peptide
19	S	87	GLN	Mainchain
19	S	9	PHE	Peptide
19	S	93	GLY	Peptide
19	S	94	LYS	Peptide
20	T	142	LYS	Mainchain,Peptide
20	T	4	VAL	Mainchain,Peptide
20	T	42	HIS	Sidechain
20	T	82	ARG	Sidechain

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Mol	Chain	Res	Type	Group
21	U	104	ILE	Mainchain
21	U	105	SER	Mainchain
21	U	108	PRO	Peptide
21	U	46	LYS	Peptide
21	U	50	VAL	Peptide
21	U	68	THR	Peptide
21	U	70	CYS	Mainchain
21	U	93	SER	Mainchain
22	V	25	GLY	Peptide
22	V	48	GLY	Mainchain,Peptide
22	V	49	GLN	Peptide
22	V	61	ARG	Sidechain
22	V	63	GLY	Mainchain
22	V	81	GLN	Mainchain,Peptide
22	V	9	VAL	Peptide
23	W	2	VAL	Mainchain
23	W	84	LYS	Peptide
24	X	1	MET	Peptide
24	X	127	ASN	Peptide
24	X	23	HIS	Mainchain
24	X	42	GLY	Peptide
25	Y	103	SER	Peptide
25	Y	32	LYS	Peptide
25	Y	33	ALA	Peptide
25	Y	34	THR	Peptide
25	Y	85	ASN	Peptide
25	Y	86	GLU	Mainchain
26	Z	101	SER	Mainchain
26	Z	104	ARG	Mainchain,Sidechain
26	Z	41	ARG	Peptide
26	Z	93	SER	Peptide
26	Z	95	GLY	Peptide
27	a	96	THR	Mainchain,Peptide
28	b	2	PRO	Mainchain
28	b	36	LYS	Peptide
28	b	37	CYS	Mainchain
31	e	93	VAL	Mainchain
31	e	94	ALA	Mainchain,Peptide
31	e	96	GLN	Mainchain
31	e	97	GLU	Peptide
32	f	102	VAL	Peptide
32	f	105	TYR	Peptide

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Mol	Chain	Res	Type	Group
32	f	135	HIS	Mainchain
32	f	148	TYR	Peptide
32	f	84	SER	Peptide
32	f	90	LYS	Peptide
33	g	12	LYS	Peptide
33	g	142	VAL	Mainchain
33	g	148	SER	Mainchain
33	g	158	PRO	Peptide
33	g	159	ASN	Mainchain,Peptide
33	g	160	SER	Peptide
33	g	192	THR	Peptide
33	g	273	GLU	Peptide
33	g	283	PRO	Peptide
33	g	47	ARG	Peptide
33	g	59	LEU	Mainchain
33	g	60	ARG	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1642	0	1642	652	0
2	B	1741	0	1809	510	3
3	C	1742	0	1830	620	6
4	D	1764	0	1858	621	9
5	E	2083	0	2189	543	0
6	F	1509	0	1559	552	0
7	G	1923	0	2086	566	33
8	H	1530	0	1624	509	0
9	I	1679	0	1762	472	31
10	J	1498	0	1596	632	0
11	K	827	0	853	365	34
12	L	1296	0	1370	420	0
13	M	950	0	969	282	0
14	N	1208	0	1294	324	0
15	O	1016	0	1039	388	0
16	P	1060	0	1120	507	0
17	Q	1124	0	1193	500	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
18	R	1019	0	1070	380	0
19	S	1139	0	1188	462	23
20	T	1112	0	1149	428	0
21	U	822	0	887	234	0
22	V	619	0	620	282	0
23	W	1034	0	1079	311	0
24	X	1106	0	1177	334	0
25	Y	1021	0	1083	512	0
26	Z	598	0	652	215	0
27	a	844	0	895	186	0
28	b	659	0	681	265	0
29	c	506	0	536	185	0
30	d	445	0	441	141	0
31	e	473	0	521	212	32
32	f	581	0	598	193	0
33	g	2436	0	2388	709	0
34	i	37514	0	18810	1229	116
35	l	691	0	704	164	19
All	All	77211	0	60272	13123	168

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 96.

All (13123) 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)
33:g:5:MET:SD	33:g:312:VAL:HG22	1.20	1.78
28:b:64:CYS:SG	28:b:73:LEU:HD23	1.11	1.68
9:I:141:ARG:CB	9:I:144:LYS:HB2	1.24	1.68
3:C:197:LYS:HA	3:C:200:LEU:CD2	1.22	1.66
17:Q:135:PRO:HD3	17:Q:141:TYR:CE1	1.16	1.66
16:P:41:GLN:CG	16:P:84:ILE:HG21	1.18	1.65
28:b:33:MET:HE3	28:b:79:PHE:CB	1.25	1.65
10:J:124:HIS:CD2	34:i:516:A:H5"	1.32	1.65
11:K:16:PHE:CE2	11:K:79:LEU:HB2	1.24	1.65
14:N:24:THR:CB	28:b:84:HIS:HE1	1.07	1.64
21:U:40:ILE:CD1	21:U:53:PRO:HG3	1.19	1.64
33:g:194:TYR:CE2	33:g:212:LYS:HD3	1.11	1.64
3:C:50:LYS:HD2	3:C:251:TYR:CE1	1.20	1.64
14:N:24:THR:HB	28:b:84:HIS:CE1	1.28	1.64
25:Y:78:SER:HB3	25:Y:81:TYR:CD2	1.32	1.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:41:LEU:CD2	7:G:45:TRP:CZ3	1.80	1.63
11:K:21:MET:HE1	11:K:49:MET:SD	1.37	1.63
20:T:77:LYS:HG3	20:T:92:PHE:CE2	1.13	1.63
1:A:58:LEU:CD2	1:A:178:LEU:HD23	1.28	1.62
5:E:129:ILE:HG12	5:E:139:LEU:CD2	1.25	1.62
3:C:93:LYS:HD2	3:C:218:LEU:CD2	1.27	1.62
16:P:4:VAL:CA	16:P:10:ARG:HD3	1.18	1.62
19:S:42:HIS:CD2	20:T:45:LEU:HD11	1.21	1.62
11:K:27:VAL:CG1	11:K:43:LEU:HD22	1.29	1.61
19:S:34:LYS:CB	19:S:103:LEU:HD21	1.17	1.61
16:P:53:GLN:HG2	16:P:80:LEU:CD1	1.23	1.61
22:V:11:LEU:CD1	22:V:12:TYR:HD2	1.12	1.61
16:P:123:TYR:CE2	19:S:120:HIS:CE1	1.85	1.61
34:i:1207:G:C2	34:i:1684:C:C2	1.88	1.61
34:i:1207:G:C6	34:i:1684:C:C4	1.86	1.61
3:C:55:VAL:HG13	3:C:82:PHE:CE2	1.34	1.60
16:P:41:GLN:HG2	16:P:84:ILE:CG1	1.29	1.60
6:F:25:THR:HG21	6:F:42:LYS:CG	1.22	1.60
16:P:33:LEU:CD2	16:P:87:PRO:HD3	1.20	1.60
33:g:118:ARG:HH21	33:g:134:THR:CG2	1.12	1.60
4:D:132:LYS:CB	4:D:191:PRO:HG3	1.23	1.60
5:E:129:ILE:CG1	5:E:139:LEU:CD2	1.80	1.60
32:f:135:HIS:HB3	32:f:138:ARG:CG	1.22	1.59
5:E:70:ILE:HG12	5:E:92:ILE:CD1	1.12	1.59
25:Y:78:SER:CB	25:Y:81:TYR:HD2	1.16	1.59
21:U:61:LEU:CD2	30:d:34:TYR:CZ	1.77	1.59
8:H:40:LEU:CD2	8:H:43:LEU:HD12	1.14	1.58
4:D:158:ILE:CD1	4:D:189:MET:HE1	1.30	1.58
17:Q:9:SER:CB	17:Q:26:LYS:HG3	1.34	1.58
6:F:14:THR:HG21	17:Q:56:LEU:CG	1.32	1.58
7:G:41:LEU:HD22	7:G:45:TRP:CZ3	1.34	1.58
24:X:27:TYR:CE1	24:X:31:HIS:NE2	1.70	1.58
33:g:140:TYR:CE2	33:g:182:CYS:CB	1.74	1.57
2:B:71:LEU:HD13	2:B:84:PHE:CE2	1.39	1.57
2:B:66:VAL:CG2	2:B:87:ILE:HG22	1.23	1.57
4:D:12:VAL:CG1	30:d:36:LEU:HD11	1.24	1.57
8:H:146:VAL:HG21	23:W:50:PHE:CZ	1.37	1.57
22:V:17:CYS:SG	22:V:56:CYS:HB3	1.44	1.57
33:g:12:LYS:HD2	33:g:13:GLY:CA	1.32	1.56
8:H:83:LEU:HD13	8:H:92:VAL:CG2	1.25	1.56
11:K:14:LEU:HD22	11:K:35:LEU:CD2	1.22	1.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:55:ILE:HG12	25:Y:75:ILE:CG1	1.22	1.56
1:A:21:ALA:HB2	1:A:173:LEU:CD1	1.34	1.56
16:P:41:GLN:CG	16:P:84:ILE:CG2	1.79	1.56
17:Q:42:ILE:HD13	17:Q:51:LEU:CD2	1.16	1.56
17:Q:93:VAL:CG1	17:Q:105:LYS:HE2	1.10	1.56
35:l:30:TYR:CE1	35:l:107:GLN:HG2	1.40	1.56
1:A:21:ALA:CB	1:A:173:LEU:CD1	1.78	1.55
3:C:93:LYS:CD	3:C:218:LEU:HD21	1.12	1.55
30:d:23:VAL:CG2	30:d:38:MET:CE	1.81	1.55
7:G:131:ARG:CG	7:G:131:ARG:CD	1.79	1.55
1:A:30:LEU:HD13	1:A:38:ILE:CD1	1.32	1.54
17:Q:9:SER:HB3	17:Q:26:LYS:CG	1.35	1.54
25:Y:29:HIS:CE1	25:Y:68:LYS:N	1.74	1.54
3:C:50:LYS:CD	3:C:251:TYR:CE1	1.90	1.54
5:E:248:ILE:HD12	10:J:72:PHE:CD2	1.02	1.54
19:S:54:LYS:CA	19:S:54:LYS:C	1.75	1.54
4:D:12:VAL:HG11	30:d:36:LEU:CD1	1.08	1.54
6:F:14:THR:CG2	17:Q:56:LEU:HD22	1.07	1.54
7:G:41:LEU:HD22	7:G:45:TRP:CE3	1.37	1.54
7:G:121:ILE:HG23	7:G:122:PRO:CD	1.38	1.54
34:i:1055:G:N2	34:i:1824:U:C5'	1.67	1.54
19:S:39:ARG:CZ	20:T:38:LYS:CE	1.83	1.53
5:E:248:ILE:CD1	10:J:72:PHE:CG	1.89	1.53
6:F:103:LEU:CD2	6:F:178:ILE:HD13	1.38	1.53
17:Q:135:PRO:CD	17:Q:141:TYR:HE1	1.19	1.53
21:U:61:LEU:HD22	30:d:34:TYR:CE2	1.41	1.53
16:P:4:VAL:HA	16:P:10:ARG:CD	1.07	1.53
6:F:14:THR:HG21	17:Q:56:LEU:CD2	1.05	1.53
1:A:141:ASN:C	22:V:32:ILE:HG12	1.27	1.52
9:I:142:SER:CB	9:I:143:LYS:HB2	1.35	1.52
10:J:17:ARG:HG2	10:J:18:ARG:CD	1.33	1.52
18:R:1:MET:CA	18:R:1:MET:CB	1.87	1.52
2:B:113:MET:HE1	2:B:211:PHE:CE2	1.38	1.52
3:C:50:LYS:CD	3:C:251:TYR:HE1	1.19	1.52
9:I:69:SER:CB	12:L:19:ASN:HD21	1.17	1.52
14:N:24:THR:CB	28:b:84:HIS:CE1	1.80	1.52
25:Y:55:ILE:CG1	25:Y:75:ILE:HG12	1.35	1.52
5:E:99:PHE:CE1	5:E:113:ARG:HG3	1.45	1.52
2:B:25:PHE:CE2	15:O:88:LEU:CD1	1.91	1.51
16:P:33:LEU:CD2	16:P:87:PRO:CD	1.82	1.51
19:S:54:LYS:CA	19:S:54:LYS:N	1.67	1.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:55:VAL:CG1	3:C:82:PHE:CE2	1.93	1.51
4:D:158:ILE:CD1	4:D:189:MET:CE	1.81	1.51
9:I:25:ARG:HD2	9:I:27:TYR:CE2	1.42	1.51
6:F:61:PHE:CZ	29:c:51:ARG:CB	1.91	1.51
3:C:50:LYS:HD2	3:C:251:TYR:CD1	1.43	1.51
26:Z:99:LEU:HD13	26:Z:102:LYS:CE	1.35	1.50
1:A:30:LEU:CD1	1:A:38:ILE:HD11	1.06	1.50
18:R:99:ASP:C	18:R:119:VAL:HG11	1.08	1.50
21:U:61:LEU:HD22	30:d:34:TYR:CZ	0.99	1.50
19:S:34:LYS:HB3	19:S:103:LEU:CD2	1.08	1.50
9:I:157:LYS:CB	12:L:22:ARG:NH1	1.71	1.50
15:O:19:PRO:CG	15:O:27:VAL:CG2	1.86	1.50
28:b:33:MET:CE	28:b:79:PHE:CG	1.95	1.50
4:D:76:ARG:NE	11:K:66:HIS:CE1	1.76	1.50
25:Y:18:LEU:CB	25:Y:20:ARG:HH11	1.22	1.50
4:D:197:LYS:HB2	4:D:198:ILE:CG1	1.35	1.49
11:K:3:MET:CE	11:K:8:ARG:NH2	1.74	1.49
18:R:99:ASP:CA	18:R:119:VAL:HG11	1.40	1.49
34:i:1206:G:C2	34:i:1207:G:H1'	1.48	1.49
3:C:93:LYS:CD	3:C:218:LEU:CD2	1.78	1.49
19:S:39:ARG:NE	20:T:38:LYS:HE3	1.26	1.49
33:g:140:TYR:CE2	33:g:182:CYS:HB3	0.97	1.49
26:Z:99:LEU:CD1	26:Z:102:LYS:HE2	1.43	1.48
16:P:41:GLN:CD	16:P:84:ILE:HG21	1.39	1.48
8:H:144:ILE:HB	23:W:52:ILE:CG2	1.38	1.47
5:E:248:ILE:HG13	10:J:72:PHE:CD1	1.48	1.47
12:L:149:ALA:HB2	12:L:156:GLN:CD	1.37	1.47
19:S:42:HIS:CD2	20:T:45:LEU:CD1	1.92	1.47
22:V:11:LEU:CD1	22:V:12:TYR:CD2	1.94	1.47
23:W:14:ILE:CD1	23:W:72:CYS:SG	2.01	1.47
31:e:119:VAL:C	31:e:121:PRO:HD2	1.35	1.47
12:L:149:ALA:CB	12:L:156:GLN:CG	1.89	1.47
19:S:58:GLU:C	19:S:59:LEU:HD13	1.35	1.47
4:D:211:VAL:HG23	18:R:38:ILE:C	1.38	1.47
11:K:27:VAL:HG13	11:K:43:LEU:CD2	1.02	1.47
5:E:248:ILE:CD1	10:J:72:PHE:CD2	1.89	1.46
8:H:122:LEU:HD13	8:H:123:THR:N	1.21	1.46
9:I:161:LEU:HD11	9:I:199:LEU:CD1	1.43	1.46
19:S:8:LYS:HB2	19:S:9:PHE:CD1	1.46	1.46
16:P:79:HIS:CE1	16:P:102:PHE:HZ	1.32	1.46
29:c:15:THR:CG2	29:c:33:GLU:HG2	1.45	1.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:63:LYS:HD3	6:F:71:ARG:CZ	1.41	1.46
17:Q:93:VAL:CG1	17:Q:105:LYS:CE	1.94	1.46
5:E:248:ILE:HD12	10:J:72:PHE:CG	1.49	1.46
18:R:99:ASP:CA	18:R:119:VAL:CG1	1.92	1.46
7:G:157:VAL:CG1	7:G:159:ARG:H	1.28	1.45
20:T:23:LYS:HD3	20:T:54:TYR:CD2	1.47	1.45
12:L:149:ALA:HB2	12:L:156:GLN:NE2	1.17	1.45
3:C:55:VAL:HG13	3:C:82:PHE:CZ	1.49	1.45
6:F:42:LYS:HB2	6:F:45:TYR:N	1.21	1.45
10:J:118:GLY:C	10:J:119:LEU:N	1.73	1.45
25:Y:29:HIS:HE1	25:Y:68:LYS:N	1.03	1.45
32:f:140:TYR:OH	32:f:146:LEU:CA	1.63	1.45
3:C:155:TRP:CH2	23:W:97:ARG:NH1	1.73	1.45
5:E:159:THR:HG23	5:E:227:VAL:CG2	1.43	1.45
15:O:79:GLN:NE2	29:c:5:ARG:HD3	1.22	1.45
7:G:76:LEU:CD2	7:G:92:ARG:HG2	1.44	1.44
10:J:38:ARG:NH2	31:e:104:GLY:CA	1.77	1.44
16:P:49:LEU:CD1	16:P:51:ARG:HE	1.25	1.44
19:S:120:HIS:NE2	19:S:124:ARG:NE	1.62	1.44
7:G:176:ILE:CB	7:G:179:LEU:HD23	1.47	1.44
9:I:142:SER:HB3	9:I:143:LYS:CB	1.44	1.44
10:J:38:ARG:NH2	31:e:104:GLY:HA3	1.19	1.44
10:J:89:GLU:HA	10:J:92:MET:CG	1.45	1.44
12:L:149:ALA:HB1	12:L:156:GLN:CB	1.46	1.44
5:E:208:VAL:HB	5:E:225:ILE:CD1	1.46	1.44
11:K:11:ILE:CG2	11:K:49:MET:CE	1.95	1.44
15:O:19:PRO:CG	15:O:27:VAL:HG21	0.97	1.44
18:R:1:MET:CA	18:R:1:MET:N	1.78	1.44
8:H:146:VAL:HG21	23:W:50:PHE:CE1	1.50	1.44
10:J:110:LEU:HD13	10:J:130:ILE:CD1	1.47	1.44
33:g:172:LYS:CE	33:g:191:HIS:O	1.63	1.43
2:B:137:LEU:CD2	2:B:215:VAL:HG13	1.45	1.43
1:A:57:LYS:NZ	22:V:70:LEU:HD11	1.34	1.43
5:E:153:LEU:HD13	5:E:172:PHE:CZ	1.51	1.43
12:L:80:MET:CE	12:L:120:VAL:O	1.65	1.43
16:P:33:LEU:HD22	16:P:87:PRO:CD	1.41	1.43
1:A:58:LEU:CD2	1:A:178:LEU:CD2	1.95	1.43
7:G:16:ILE:HD13	7:G:45:TRP:CZ2	1.51	1.43
14:N:55:ARG:NH1	28:b:47:PHE:CD2	1.83	1.43
18:R:20:TYR:CE1	18:R:38:ILE:HG21	1.52	1.43
34:i:1055:G:N2	34:i:1824:U:H5”	1.14	1.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:167:LYS:HD3	6:F:171:GLU:CG	1.47	1.42
1:A:58:LEU:HD21	1:A:178:LEU:CD2	1.47	1.42
6:F:61:PHE:CZ	29:c:51:ARG:HB3	1.49	1.42
10:J:90:GLY:O	10:J:96:TYR:CD2	1.73	1.42
16:P:123:TYR:CE2	19:S:120:HIS:HE1	1.24	1.42
4:D:195:SER:C	4:D:197:LYS:HA	1.41	1.42
12:L:80:MET:CE	12:L:120:VAL:C	1.93	1.42
25:Y:18:LEU:CD1	25:Y:20:ARG:HH12	1.32	1.42
32:f:108:VAL:CG2	32:f:114:ILE:HG22	1.46	1.42
3:C:223:LYS:CE	34:i:1351:C:O2'	1.66	1.42
17:Q:8:GLN:CG	17:Q:99:TYR:CE1	2.01	1.42
10:J:170:PRO:HG2	10:J:175:ARG:CG	1.46	1.42
1:A:176:TRP:CZ3	1:A:177:MET:SD	2.13	1.41
16:P:41:GLN:CG	16:P:84:ILE:HG12	1.47	1.41
34:i:1206:G:C2	34:i:1207:G:C1'	2.02	1.41
2:B:113:MET:CE	2:B:211:PHE:CE2	2.03	1.41
16:P:44:ARG:HE	16:P:84:ILE:CD1	1.28	1.41
21:U:40:ILE:HD11	21:U:53:PRO:CG	1.47	1.41
9:I:69:SER:HB2	12:L:19:ASN:ND2	1.32	1.41
18:R:20:TYR:OH	18:R:38:ILE:CG2	1.67	1.41
25:Y:102:THR:HG21	25:Y:107:ARG:NE	1.16	1.41
10:J:38:ARG:HH21	31:e:104:GLY:CA	1.27	1.41
28:b:64:CYS:SG	28:b:73:LEU:CD2	2.08	1.41
6:F:25:THR:CG2	6:F:42:LYS:HG3	1.47	1.41
6:F:103:LEU:HD23	6:F:178:ILE:CD1	1.49	1.41
10:J:134:HIS:ND1	10:J:163:SER:HB2	1.29	1.41
4:D:112:GLY:C	4:D:113:LEU:HD12	1.46	1.40
5:E:98:ASN:ND2	5:E:119:ALA:HB2	1.28	1.40
5:E:208:VAL:CB	5:E:225:ILE:CD1	1.99	1.40
10:J:177:ASN:O	10:J:180:LYS:CG	1.69	1.40
19:S:39:ARG:NH2	20:T:38:LYS:CE	1.76	1.40
25:Y:29:HIS:CE1	25:Y:67:GLY:C	1.99	1.40
30:d:13:LYS:CG	30:d:14:PHE:HD2	1.32	1.40
3:C:223:LYS:NZ	34:i:1351:C:H2'	1.20	1.40
7:G:85:ARG:HD2	25:Y:118:ARG:NH2	1.25	1.40
7:G:157:VAL:HG11	7:G:159:ARG:CG	1.51	1.40
18:R:20:TYR:CZ	18:R:38:ILE:CG2	2.03	1.40
34:i:1057:U:C4	35:l:64:LYS:HE2	1.57	1.40
4:D:59:LEU:HD12	4:D:60:GLY:N	1.37	1.40
10:J:89:GLU:HA	10:J:92:MET:CB	1.48	1.40
16:P:44:ARG:NE	16:P:84:ILE:HD12	1.34	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:46:ARG:NH2	20:T:50:GLU:HB3	1.16	1.40
28:b:33:MET:CE	28:b:79:PHE:CB	1.94	1.40
11:K:60:GLU:CD	11:K:67:PHE:HD1	1.26	1.40
17:Q:135:PRO:CD	17:Q:141:TYR:CE1	1.92	1.40
19:S:39:ARG:HH21	20:T:38:LYS:NZ	1.16	1.40
2:B:113:MET:CE	2:B:211:PHE:HE2	1.34	1.39
34:i:626:C:C1'	34:i:626:C:O4'	1.63	1.39
4:D:132:LYS:HB2	4:D:191:PRO:CG	1.52	1.39
7:G:32:MET:SD	7:G:100:CYS:HB3	1.63	1.39
11:K:2:LEU:HD13	11:K:3:MET:N	1.32	1.39
2:B:113:MET:HE3	2:B:209:ASP:CG	1.45	1.39
3:C:101:THR:CG2	3:C:103:ALA:O	1.69	1.39
10:J:110:LEU:CD1	10:J:130:ILE:CD1	1.96	1.39
15:O:19:PRO:HG3	15:O:27:VAL:CG2	1.39	1.39
19:S:39:ARG:CZ	20:T:38:LYS:HE3	0.92	1.39
21:U:50:VAL:HG22	21:U:51:LYS:C	1.43	1.39
25:Y:36:PRO:HG2	25:Y:39:GLU:CG	1.51	1.39
10:J:37:LEU:CD1	10:J:42:GLU:HB3	1.51	1.39
30:d:23:VAL:CG2	30:d:38:MET:HE1	0.91	1.39
31:e:95:LYS:C	31:e:96:GLN:N	1.76	1.39
1:A:97:THR:CG2	1:A:98:PRO:HD2	1.52	1.38
27:a:23:CYS:HB2	27:a:28:CYS:SG	1.63	1.38
6:F:45:TYR:O	6:F:47:LYS:CE	1.71	1.38
8:H:143:ARG:CD	23:W:53:ILE:HG12	1.53	1.38
9:I:155:ASN:O	12:L:22:ARG:CD	1.71	1.38
10:J:79:ARG:NH1	10:J:83:ARG:NH1	1.62	1.38
18:R:99:ASP:C	18:R:119:VAL:CG1	1.94	1.38
6:F:45:TYR:O	6:F:47:LYS:CD	1.70	1.38
10:J:38:ARG:CG	31:e:105:ARG:HB2	1.51	1.38
12:L:99:TYR:OH	24:X:14:ARG:CA	1.69	1.38
19:S:138:THR:CA	19:S:141:ARG:NH2	1.86	1.38
31:e:118:ASN:N	31:e:119:VAL:HB	1.34	1.38
5:E:248:ILE:HD12	10:J:72:PHE:CE2	1.55	1.38
10:J:30:LYS:HA	31:e:112:TYR:CE1	1.59	1.38
10:J:39:ASN:CG	10:J:42:GLU:OE2	1.66	1.38
10:J:48:PHE:CE1	10:J:52:LYS:HE3	1.57	1.38
18:R:99:ASP:HA	18:R:119:VAL:CG1	1.53	1.38
10:J:38:ARG:CZ	31:e:104:GLY:HA3	1.51	1.38
16:P:79:HIS:HE1	16:P:102:PHE:CZ	1.40	1.38
3:C:223:LYS:NZ	34:i:1351:C:C2'	1.84	1.37
19:S:42:HIS:NE2	20:T:45:LEU:CD2	1.84	1.37

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:57:LYS:CE	22:V:70:LEU:HD11	1.55	1.37
7:G:25:ARG:HG2	7:G:28:TYR:CD2	1.60	1.37
8:H:31:GLU:OE2	8:H:41:ARG:CD	1.71	1.37
18:R:44:LYS:CE	18:R:47:ARG:HH22	1.34	1.37
18:R:122:PRO:CA	18:R:123:THR:HG23	1.51	1.37
20:T:77:LYS:CG	20:T:92:PHE:CE2	2.07	1.37
6:F:25:THR:CG2	6:F:42:LYS:HD2	1.55	1.36
6:F:91:ARG:NH1	6:F:94:LYS:CB	1.85	1.36
25:Y:20:ARG:HG3	25:Y:74:MET:CE	1.53	1.36
8:H:83:LEU:CD1	8:H:92:VAL:HG21	1.52	1.36
9:I:69:SER:CB	12:L:19:ASN:ND2	1.83	1.36
14:N:55:ARG:NH1	28:b:47:PHE:HD2	1.16	1.36
1:A:76:VAL:HG21	1:A:90:PHE:CD2	1.60	1.36
1:A:176:TRP:HZ3	1:A:177:MET:SD	1.46	1.36
2:B:66:VAL:HG22	2:B:87:ILE:CG2	1.55	1.36
7:G:32:MET:CE	7:G:100:CYS:HA	1.56	1.36
10:J:61:LEU:HD22	10:J:98:LEU:CD1	1.56	1.36
11:K:83:LEU:HB3	11:K:85:LEU:CD2	1.56	1.36
18:R:17:ILE:CG2	18:R:69:ILE:HD11	1.54	1.36
4:D:5:ILE:C	4:D:6:SER:N	1.82	1.36
7:G:14:LYS:NZ	7:G:123:GLY:HA3	1.36	1.36
16:P:41:GLN:HG2	16:P:84:ILE:CB	1.54	1.36
11:K:2:LEU:CD1	11:K:3:MET:H	1.37	1.35
22:V:11:LEU:HD11	22:V:12:TYR:CD2	1.58	1.35
33:g:191:HIS:CD2	33:g:195:LEU:HD21	1.59	1.35
34:i:1207:G:C6	34:i:1684:C:N4	1.92	1.35
6:F:59:LYS:HD2	6:F:62:ARG:NH2	1.03	1.35
18:R:21:TYR:CB	18:R:71:ILE:HD13	1.53	1.35
1:A:21:ALA:CB	1:A:173:LEU:HD12	1.42	1.35
11:K:16:PHE:CE2	11:K:79:LEU:CB	2.07	1.35
25:Y:78:SER:CB	25:Y:81:TYR:CD2	1.98	1.35
5:E:128:LYS:HD3	5:E:130:PHE:CE1	1.60	1.35
5:E:248:ILE:HB	10:J:72:PHE:CZ	1.60	1.35
6:F:59:LYS:CD	6:F:62:ARG:HH21	1.38	1.35
10:J:90:GLY:O	10:J:96:TYR:CE2	1.77	1.35
28:b:33:MET:HE1	28:b:79:PHE:CG	1.52	1.35
33:g:5:MET:SD	33:g:312:VAL:CG2	2.15	1.35
33:g:194:TYR:CE2	33:g:212:LYS:CD	2.07	1.35
3:C:142:LEU:HA	3:C:145:LEU:CD2	1.56	1.34
15:O:79:GLN:NE2	29:c:5:ARG:CD	1.89	1.34
17:Q:34:VAL:HG23	17:Q:39:LEU:CD2	1.56	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:14:ARG:NH1	19:S:17:ASN:HA	1.37	1.34
20:T:77:LYS:HB2	20:T:94:ARG:CD	1.57	1.34
31:e:114:ARG:O	31:e:119:VAL:CG2	1.73	1.34
13:M:13:ASP:O	13:M:16:THR:CG2	1.72	1.34
19:S:46:ARG:HG2	20:T:50:GLU:OE2	1.19	1.34
24:X:114:ASP:O	24:X:116:PRO:HD3	1.16	1.34
1:A:48:ILE:HD13	18:R:105:MET:SD	1.65	1.34
35:l:35:ILE:O	35:l:113:PHE:HB3	1.19	1.34
23:W:14:ILE:HD11	23:W:72:CYS:SG	1.64	1.34
6:F:63:LYS:HD3	6:F:71:ARG:NH2	1.39	1.34
12:L:147:LYS:CD	12:L:148:ALA:HA	1.55	1.34
17:Q:42:ILE:CD1	17:Q:51:LEU:HD21	1.58	1.34
24:X:105:PHE:CE2	24:X:119:ARG:HA	1.60	1.34
9:I:141:ARG:CG	9:I:144:LYS:HB2	1.57	1.33
16:P:4:VAL:N	16:P:10:ARG:HG2	1.40	1.33
33:g:118:ARG:NH2	33:g:134:THR:HG21	1.02	1.33
34:i:1207:G:O6	34:i:1684:C:N4	1.58	1.33
2:B:25:PHE:CE2	15:O:88:LEU:HD11	1.52	1.33
5:E:19:MET:CE	34:i:842:G:H2'	1.57	1.33
7:G:63:MET:CE	7:G:106:LEU:HD11	1.56	1.33
7:G:157:VAL:HG13	7:G:159:ARG:N	1.39	1.33
16:P:49:LEU:HD12	16:P:51:ARG:NE	1.40	1.33
25:Y:44:LEU:HD11	25:Y:48:TYR:CE2	1.63	1.33
35:l:35:ILE:HG22	35:l:113:PHE:CD1	1.60	1.33
1:A:109:THR:OG1	34:i:1348:G:H5"	1.18	1.33
5:E:153:LEU:CD1	5:E:172:PHE:CZ	2.11	1.33
19:S:42:HIS:CG	20:T:45:LEU:HD11	1.62	1.33
34:i:1055:G:C2	34:i:1824:U:H5"	1.62	1.33
24:X:2:GLY:O	24:X:3:LYS:HG3	1.23	1.33
34:i:1057:U:O4	35:l:64:LYS:CE	1.76	1.33
5:E:159:THR:CG2	5:E:227:VAL:HG23	1.59	1.32
10:J:15:THR:HG22	10:J:44:TRP:CE3	1.64	1.32
1:A:177:MET:HE1	1:A:180:ARG:NH2	1.00	1.32
7:G:1:MET:CE	7:G:106:LEU:O	1.77	1.32
30:d:13:LYS:HE3	30:d:14:PHE:CE2	1.60	1.32
4:D:197:LYS:HB3	4:D:198:ILE:CG2	1.57	1.32
17:Q:38:PRO:HG2	17:Q:41:MET:SD	1.69	1.32
25:Y:18:LEU:HD13	25:Y:20:ARG:NH1	1.41	1.32
5:E:70:ILE:CG1	5:E:92:ILE:CD1	2.07	1.32
6:F:91:ARG:HH11	6:F:94:LYS:CB	1.41	1.32
10:J:39:ASN:ND2	10:J:42:GLU:OE2	1.58	1.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:65:ARG:NH2	30:d:25:SER:OG	1.58	1.32
20:T:77:LYS:HG3	20:T:92:PHE:CZ	1.63	1.32
23:W:62:VAL:HG21	28:b:8:LEU:CD2	1.59	1.32
28:b:33:MET:HE1	28:b:79:PHE:CD2	1.62	1.32
33:g:87:LEU:HD12	33:g:101:PHE:CB	1.60	1.32
6:F:204:ARG:NH1	29:c:60:GLU:OE2	1.57	1.32
7:G:176:ILE:HG21	7:G:179:LEU:CD2	1.60	1.32
13:M:28:HIS:CD2	13:M:115:GLY:HA3	1.62	1.32
14:N:38:TYR:HE2	14:N:74:ILE:CG2	1.43	1.32
33:g:12:LYS:CD	33:g:13:GLY:HA2	1.58	1.32
2:B:205:TYR:CD2	2:B:206:PRO:HD2	1.62	1.31
6:F:122:ARG:O	6:F:141:VAL:HG13	1.26	1.31
6:F:204:ARG:CD	29:c:60:GLU:OE2	1.75	1.31
9:I:136:ILE:CG2	9:I:139:LYS:HE3	1.60	1.31
19:S:42:HIS:CE1	20:T:45:LEU:HD21	1.62	1.31
12:L:80:MET:HE1	12:L:121:GLN:CA	1.60	1.31
34:i:1279:C:C1'	34:i:1279:C:O4'	1.64	1.31
1:A:154:LEU:HD12	22:V:63:GLY:C	1.54	1.31
6:F:141:VAL:CB	29:c:47:LYS:HZ1	1.44	1.31
8:H:6:ALA:CA	8:H:10:LYS:HD3	1.58	1.31
12:L:71:ARG:CD	12:L:73:LEU:HD21	1.57	1.31
12:L:147:LYS:CG	12:L:148:ALA:HA	1.61	1.31
18:R:5:ARG:HB2	18:R:10:LYS:NZ	1.39	1.31
18:R:21:TYR:HB2	18:R:71:ILE:CD1	1.59	1.31
26:Z:112:ASN:O	26:Z:113:THR:HG23	1.23	1.31
11:K:83:LEU:CD1	11:K:85:LEU:HD21	1.60	1.31
13:M:13:ASP:HB2	13:M:16:THR:CB	1.58	1.31
4:D:157:MET:CE	4:D:187:LYS:HD3	1.59	1.31
8:H:40:LEU:CD2	8:H:43:LEU:CD1	2.09	1.31
8:H:122:LEU:CD1	8:H:123:THR:N	1.94	1.31
3:C:223:LYS:CE	34:i:1351:C:C2'	2.06	1.30
4:D:7:LYS:NZ	21:U:113:GLU:OE2	1.60	1.30
11:K:21:MET:CE	11:K:49:MET:SD	2.17	1.30
11:K:60:GLU:OE1	11:K:67:PHE:CD1	1.84	1.30
14:N:24:THR:CG2	28:b:84:HIS:CE1	2.12	1.30
21:U:62:ARG:NH1	21:U:64:THR:HG21	1.42	1.30
1:A:76:VAL:HG13	1:A:175:TRP:CH2	1.65	1.30
4:D:210:ILE:CD1	18:R:15:VAL:CG1	2.09	1.30
5:E:49:ARG:C	5:E:49:ARG:HD3	1.40	1.30
6:F:141:VAL:HB	29:c:47:LYS:CE	1.60	1.30
16:P:53:GLN:CG	16:P:80:LEU:CD1	2.08	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:11:GLN:NE2	20:T:62:ARG:CZ	1.93	1.30
34:i:1701:G:H1'	34:i:1844:A:O2'	1.14	1.30
3:C:101:THR:HG22	3:C:104:GLY:O	1.13	1.30
3:C:167:CYS:SG	23:W:95:PRO:HB3	1.72	1.30
25:Y:18:LEU:CD1	25:Y:20:ARG:NH1	1.90	1.30
31:e:105:ARG:NH2	31:e:105:ARG:HB3	1.39	1.30
9:I:25:ARG:CD	9:I:27:TYR:HE2	1.43	1.30
16:P:79:HIS:CE1	16:P:102:PHE:CZ	2.18	1.30
19:S:120:HIS:NE2	19:S:124:ARG:CZ	1.93	1.30
22:V:24:ILE:HD13	22:V:25:GLY:N	1.45	1.30
25:Y:13:MET:HE3	25:Y:14:THR:N	1.45	1.30
32:f:144:CYS:CB	32:f:147:THR:HG22	1.60	1.30
12:L:149:ALA:CB	12:L:156:GLN:HG2	1.55	1.30
24:X:29:LYS:HD2	24:X:34:THR:OG1	1.31	1.30
25:Y:18:LEU:CB	25:Y:20:ARG:NH1	1.94	1.30
33:g:172:LYS:CE	33:g:192:THR:HG22	1.59	1.30
3:C:79:ILE:HD13	3:C:147:ILE:CD1	1.59	1.29
6:F:61:PHE:CZ	29:c:51:ARG:HB2	1.60	1.29
7:G:32:MET:SD	7:G:100:CYS:CB	2.17	1.29
10:J:38:ARG:HG2	31:e:105:ARG:CB	1.62	1.29
18:R:5:ARG:O	18:R:10:LYS:HE2	1.27	1.29
18:R:20:TYR:OH	18:R:38:ILE:HG22	1.20	1.29
21:U:62:ARG:NH1	21:U:64:THR:CG2	1.95	1.29
22:V:55:ILE:HD11	22:V:68:SER:OG	1.26	1.29
30:d:23:VAL:HG21	30:d:38:MET:CE	1.45	1.29
33:g:20:GLN:NE2	33:g:68:ASP:OD2	1.62	1.29
8:H:122:LEU:HD13	8:H:122:LEU:C	1.57	1.29
11:K:3:MET:HE1	11:K:8:ARG:NH2	0.97	1.29
19:S:11:HIS:HD2	19:S:23:ARG:NH2	1.31	1.29
2:B:87:ILE:HD13	2:B:101:HIS:CD2	1.66	1.29
3:C:110:LYS:HE2	3:C:112:PHE:CZ	1.66	1.29
4:D:123:LEU:HD21	4:D:154:ASP:CB	1.63	1.29
23:W:14:ILE:HD12	23:W:72:CYS:SG	1.67	1.29
1:A:109:THR:HB	34:i:1348:G:OP1	1.24	1.29
3:C:241:TRP:HB3	23:W:68:ARG:NH1	1.47	1.29
4:D:218:LEU:CG	4:D:220:THR:CG2	2.10	1.29
7:G:65:GLN:NE2	34:i:1741:U:OP1	1.65	1.29
9:I:144:LYS:HG3	34:i:189:G:OP1	1.31	1.29
10:J:88:ASP:C	10:J:92:MET:HG3	1.58	1.29
11:K:43:LEU:O	11:K:45:VAL:N	1.65	1.29
20:T:23:LYS:HD3	20:T:54:TYR:CG	1.65	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:197:LYS:CB	4:D:198:ILE:HG23	1.63	1.29
9:I:37:LYS:O	9:I:59:ARG:HA	1.27	1.29
16:P:9:LYS:O	16:P:10:ARG:HG3	1.19	1.29
25:Y:99:LYS:N	25:Y:99:LYS:HE3	1.45	1.29
4:D:210:ILE:HD12	18:R:15:VAL:CG1	1.62	1.28
7:G:176:ILE:CG2	7:G:179:LEU:CD2	2.10	1.28
8:H:138:GLU:OE2	14:N:19:ARG:HB3	1.29	1.28
10:J:37:LEU:O	31:e:105:ARG:HG2	1.29	1.28
18:R:20:TYR:CZ	18:R:38:ILE:HG21	1.63	1.28
34:i:1701:G:H22	34:i:1843:G:N2	1.28	1.28
34:i:1825:A:C5'	34:i:1845:A:H61	1.40	1.28
1:A:21:ALA:CB	1:A:173:LEU:HD11	1.49	1.28
3:C:154:TYR:OH	3:C:161:LYS:CA	1.81	1.28
8:H:6:ALA:HA	8:H:10:LYS:CD	1.62	1.28
10:J:38:ARG:HH21	31:e:104:GLY:N	1.28	1.28
18:R:99:ASP:O	18:R:119:VAL:HG11	1.30	1.28
20:T:31:PRO:O	20:T:33:TRP:N	1.63	1.28
24:X:142:ARG:HH11	24:X:142:ARG:CB	1.44	1.28
33:g:194:TYR:HE2	33:g:212:LYS:CD	1.43	1.28
35:l:35:ILE:C	35:l:113:PHE:HB3	1.55	1.28
23:W:62:VAL:CB	28:b:8:LEU:HD21	1.60	1.28
34:i:1207:G:N1	34:i:1684:C:C4	2.01	1.28
6:F:14:THR:CG2	17:Q:56:LEU:HB3	1.64	1.28
8:H:83:LEU:CD1	8:H:92:VAL:CG2	2.06	1.28
12:L:80:MET:HE1	12:L:121:GLN:N	1.46	1.28
17:Q:42:ILE:CD1	17:Q:51:LEU:CD2	2.10	1.28
19:S:42:HIS:CD2	20:T:45:LEU:HD21	1.68	1.28
19:S:132:ARG:HB2	19:S:134:GLN:OE1	1.18	1.28
10:J:15:THR:HG22	10:J:44:TRP:CZ3	1.66	1.28
19:S:117:ILE:O	19:S:118:ARG:HG2	1.12	1.28
25:Y:102:THR:CG2	25:Y:107:ARG:HE	1.46	1.28
6:F:14:THR:CG2	17:Q:56:LEU:CD2	1.76	1.27
10:J:134:HIS:ND1	10:J:163:SER:CB	1.96	1.27
18:R:44:LYS:HG3	18:R:47:ARG:CZ	1.63	1.27
24:X:51:VAL:HG13	24:X:70:VAL:CG1	1.60	1.27
30:d:13:LYS:CG	30:d:14:PHE:CD2	2.17	1.27
4:D:16:ILE:HD13	30:d:22:ARG:NH2	1.47	1.27
32:f:106:TYR:OH	32:f:131:PHE:CZ	1.80	1.27
4:D:2:ALA:HB3	4:D:3:VAL:CA	1.65	1.27
9:I:144:LYS:O	9:I:145:ILE:HG12	1.30	1.27
10:J:17:ARG:CG	10:J:18:ARG:HD3	1.64	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:93:VAL:HG11	17:Q:105:LYS:CE	1.52	1.27
26:Z:99:LEU:HD23	26:Z:109:TYR:CE1	1.68	1.27
3:C:69:PHE:HZ	3:C:247:THR:OG1	1.03	1.27
4:D:105:LEU:CD2	4:D:184:ILE:HD12	1.63	1.27
6:F:63:LYS:CD	6:F:71:ARG:NH1	1.98	1.27
10:J:89:GLU:C	10:J:92:MET:HB2	1.57	1.27
20:T:141:ALA:O	20:T:142:LYS:HG3	1.13	1.27
1:A:176:TRP:CZ2	1:A:195:TRP:HE3	1.06	1.27
4:D:97:CYS:O	4:D:99:ILE:N	1.67	1.27
6:F:25:THR:CG2	6:F:42:LYS:CD	2.12	1.27
7:G:183:ARG:NH1	34:i:307:G:C8	2.02	1.27
33:g:7:LEU:CD1	33:g:310:TRP:HE1	1.47	1.27
34:i:389:C:C1'	34:i:389:C:O4'	1.64	1.27
1:A:145:ILE:CD1	1:A:159:ILE:HG21	1.65	1.26
17:Q:25:CYS:SG	17:Q:91:ALA:HB1	1.74	1.26
18:R:44:LYS:HE3	18:R:47:ARG:NH2	1.48	1.26
25:Y:10:ARG:NE	25:Y:24:VAL:HG11	1.50	1.26
25:Y:13:MET:HE2	25:Y:14:THR:O	1.28	1.26
34:i:61:A:C2	34:i:326:A:N9	2.03	1.26
1:A:177:MET:CE	1:A:180:ARG:NH2	1.95	1.26
3:C:151:ARG:NH1	3:C:240:LEU:HD11	1.50	1.26
11:K:30:PRO:O	11:K:31:LYS:HG3	1.13	1.26
18:R:91:LEU:CD1	18:R:92:ASP:HA	1.64	1.26
34:i:1701:G:N2	34:i:1843:G:N2	1.80	1.26
3:C:138:GLY:O	3:C:141:ILE:HG22	1.32	1.26
6:F:14:THR:OG1	17:Q:56:LEU:CB	1.83	1.26
7:G:176:ILE:CG2	7:G:179:LEU:HD23	1.65	1.26
15:O:113:GLN:CG	27:a:46:GLU:OE2	1.81	1.26
35:l:30:TYR:CE1	35:l:107:GLN:CG	2.17	1.26
12:L:71:ARG:HD3	12:L:73:LEU:CD2	1.66	1.26
15:O:142:ARG:NH1	27:a:27:ALA:HB2	1.47	1.26
19:S:42:HIS:NE2	20:T:45:LEU:HD21	0.94	1.26
32:f:135:HIS:CB	32:f:138:ARG:CG	2.14	1.26
33:g:282:GLU:HG3	33:g:283:PRO:CD	1.65	1.26
3:C:244:THR:HG23	3:C:246:PHE:N	1.51	1.26
4:D:35:SER:CA	4:D:99:ILE:HD11	1.63	1.26
5:E:208:VAL:CG2	5:E:225:ILE:HD12	1.66	1.26
11:K:11:ILE:CG2	11:K:49:MET:HE1	1.60	1.26
16:P:62:LYS:O	16:P:65:LYS:HG2	1.21	1.26
33:g:140:TYR:CZ	33:g:182:CYS:CB	2.18	1.26
34:i:1825:A:C5'	34:i:1845:A:N6	1.83	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:46:THR:OG1	14:N:49:GLN:HG2	1.35	1.25
17:Q:57:LEU:HD11	17:Q:115:TYR:CZ	1.71	1.25
19:S:8:LYS:HD3	19:S:9:PHE:CE1	1.69	1.25
9:I:161:LEU:CD1	9:I:199:LEU:CD1	2.12	1.25
17:Q:34:VAL:CG2	17:Q:39:LEU:HD23	1.65	1.25
6:F:145:ARG:HG2	29:c:48:GLY:CA	1.67	1.25
9:I:157:LYS:HB2	12:L:22:ARG:CD	1.64	1.25
7:G:25:ARG:HG2	7:G:28:TYR:CE2	1.72	1.25
12:L:101:ARG:O	24:X:10:ALA:HB2	1.29	1.25
12:L:147:LYS:HG3	12:L:148:ALA:CA	1.65	1.25
17:Q:38:PRO:CG	17:Q:41:MET:SD	2.23	1.25
15:O:52:THR:O	15:O:53:ILE:HG23	1.28	1.25
31:e:125:LYS:C	31:e:126:LYS:HD2	1.60	1.25
3:C:79:ILE:CD1	3:C:147:ILE:HD12	1.65	1.25
5:E:248:ILE:CG1	10:J:72:PHE:CD1	2.17	1.25
19:S:42:HIS:CD2	20:T:45:LEU:CG	2.19	1.25
2:B:137:LEU:HD21	2:B:215:VAL:CG1	1.65	1.25
6:F:28:VAL:HG13	6:F:110:GLN:CD	1.60	1.25
17:Q:109:LYS:HG3	17:Q:113:ILE:CD1	1.66	1.25
19:S:46:ARG:CZ	20:T:50:GLU:HB3	1.66	1.25
28:b:33:MET:HA	28:b:81:ARG:O	1.21	1.25
2:B:105:LEU:HD12	2:B:110:MET:CE	1.66	1.24
6:F:42:LYS:CB	6:F:45:TYR:H	1.48	1.24
9:I:116:HIS:O	9:I:152:ARG:NH1	1.67	1.24
9:I:141:ARG:CD	9:I:144:LYS:CB	2.15	1.24
11:K:3:MET:HE1	11:K:8:ARG:CZ	1.67	1.24
11:K:83:LEU:CB	11:K:85:LEU:HD21	1.66	1.24
18:R:44:LYS:CE	18:R:47:ARG:NH2	1.98	1.24
34:i:984:C:C1'	34:i:984:C:O4'	1.63	1.24
5:E:129:ILE:CG1	5:E:139:LEU:HD22	1.45	1.24
10:J:17:ARG:CG	10:J:18:ARG:HG2	1.66	1.24
11:K:27:VAL:CG1	11:K:43:LEU:CD2	1.94	1.24
14:N:53:ILE:CD1	28:b:52:THR:HG21	1.68	1.24
17:Q:92:LEU:CD1	17:Q:96:TYR:HE2	1.49	1.24
21:U:59:LYS:HB2	21:U:84:ILE:CG2	1.67	1.24
5:E:62:LYS:CD	5:E:80:ILE:HD11	1.68	1.24
12:L:80:MET:HE1	12:L:120:VAL:C	1.58	1.24
19:S:138:THR:HA	19:S:141:ARG:NH2	0.92	1.24
25:Y:34:THR:O	25:Y:35:VAL:HG22	1.09	1.24
30:d:5:GLN:HB3	30:d:7:TYR:CD2	1.70	1.24
1:A:176:TRP:CZ2	1:A:195:TRP:CE3	1.94	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:195:PRO:HB3	3:C:221:PHE:CZ	1.73	1.24
9:I:194:GLU:HG2	12:L:12:LYS:NZ	1.53	1.24
10:J:28:GLU:OE1	10:J:40:LYS:HD2	1.33	1.24
17:Q:34:VAL:CG2	17:Q:39:LEU:CD2	2.15	1.24
17:Q:38:PRO:HD2	17:Q:41:MET:SD	1.76	1.24
17:Q:50:LYS:HZ1	17:Q:85:ARG:NH2	1.35	1.24
22:V:1:MET:CE	22:V:10:ASP:HB2	1.68	1.24
30:d:13:LYS:HG2	30:d:14:PHE:CD2	1.72	1.24
33:g:261:LEU:O	33:g:264:LYS:HE3	1.14	1.24
8:H:40:LEU:HD21	8:H:43:LEU:CD1	1.64	1.24
18:R:29:HIS:CE1	33:g:65:PHE:CZ	2.26	1.24
19:S:94:LYS:HD3	19:S:96:SER:OG	1.38	1.24
23:W:62:VAL:CG2	28:b:8:LEU:CD2	2.16	1.24
2:B:25:PHE:CE2	15:O:88:LEU:HD13	1.62	1.23
11:K:71:LEU:CD2	11:K:76:ILE:HD13	1.67	1.23
11:K:83:LEU:CB	11:K:85:LEU:CD2	2.15	1.23
15:O:95:ILE:CD1	15:O:116:LEU:HD21	1.67	1.23
16:P:128:HIS:CE1	34:i:1516:C:H1'	1.72	1.23
24:X:60:LYS:HG3	24:X:116:PRO:CG	1.68	1.23
25:Y:22:GLN:HB3	25:Y:74:MET:SD	1.78	1.23
25:Y:55:ILE:HG12	25:Y:75:ILE:CD1	1.66	1.23
28:b:81:ARG:HB2	28:b:82:LYS:CB	1.67	1.23
10:J:37:LEU:O	31:e:105:ARG:CG	1.84	1.23
12:L:118:ARG:HD2	12:L:118:ARG:O	1.38	1.23
14:N:25:TRP:HB3	28:b:83:GLN:CG	1.69	1.23
18:R:1:MET:N	18:R:1:MET:C	1.95	1.23
25:Y:18:LEU:HB3	25:Y:20:ARG:NH1	1.51	1.23
1:A:154:LEU:HD12	22:V:63:GLY:O	1.09	1.23
4:D:201:LYS:O	4:D:203:PRO:HD2	1.08	1.23
4:D:211:VAL:HG23	18:R:38:ILE:O	1.37	1.23
7:G:1:MET:HE2	7:G:106:LEU:O	1.30	1.23
11:K:65:ARG:HB3	11:K:65:ARG:NH1	1.51	1.23
16:P:10:ARG:HH21	16:P:11:THR:CB	1.50	1.23
19:S:61:GLU:O	19:S:64:VAL:HG22	1.33	1.23
22:V:11:LEU:HD12	22:V:12:TYR:CD2	1.65	1.23
25:Y:114:MET:HA	25:Y:124:ASN:ND2	1.54	1.23
34:i:127:C:C4	34:i:180:G:O2'	1.85	1.23
5:E:126:VAL:HG13	5:E:158:ASP:O	1.35	1.23
9:I:157:LYS:HB3	12:L:22:ARG:CZ	1.68	1.23
25:Y:120:THR:HB	25:Y:122:LYS:CE	1.67	1.23
33:g:7:LEU:CD1	33:g:310:TRP:NE1	2.02	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1825:A:O5'	34:i:1845:A:N1	1.72	1.23
8:H:53:VAL:CG2	8:H:57:ARG:O	1.86	1.23
17:Q:8:GLN:HG2	17:Q:99:TYR:CD1	1.73	1.23
18:R:29:HIS:NE2	33:g:65:PHE:CZ	2.07	1.23
5:E:47:PHE:CE2	5:E:52:LEU:HD11	1.73	1.22
6:F:36:GLN:HG3	6:F:37:ASP:OD1	1.36	1.22
9:I:141:ARG:CD	9:I:144:LYS:HB3	1.67	1.22
11:K:40:VAL:HG22	11:K:41:PRO:CD	1.69	1.22
16:P:49:LEU:O	16:P:51:ARG:HA	1.31	1.22
17:Q:98:LYS:O	33:g:57:ARG:NH2	1.72	1.22
31:e:114:ARG:O	31:e:119:VAL:HG23	1.33	1.22
3:C:197:LYS:CA	3:C:200:LEU:CD2	2.15	1.22
4:D:46:THR:OG1	4:D:79:PHE:CZ	1.82	1.22
4:D:47:GLU:CG	4:D:85:GLU:OE2	1.85	1.22
12:L:118:ARG:HD2	12:L:118:ARG:C	1.57	1.22
14:N:46:THR:OG1	14:N:49:GLN:CG	1.86	1.22
25:Y:99:LYS:HE3	25:Y:99:LYS:CA	1.47	1.22
6:F:204:ARG:HD2	29:c:60:GLU:OE2	1.19	1.22
7:G:85:ARG:CD	25:Y:118:ARG:NH2	2.03	1.22
13:M:78:LYS:O	13:M:79:VAL:HG23	1.06	1.22
34:i:1207:G:C6	34:i:1684:C:N3	2.05	1.22
34:i:1233:C:C1'	34:i:1233:C:O4'	1.63	1.22
2:B:113:MET:CE	2:B:209:ASP:OD1	1.86	1.22
3:C:156:GLY:C	3:C:157:ASN:HD22	1.44	1.22
5:E:62:LYS:HD3	5:E:80:ILE:CD1	1.67	1.22
9:I:136:ILE:O	9:I:139:LYS:HG3	1.04	1.22
11:K:60:GLU:CD	11:K:67:PHE:CD1	2.14	1.22
16:P:126:VAL:CG1	16:P:127:LYS:H	1.47	1.22
34:i:1206:G:N2	34:i:1207:G:H1'	1.53	1.22
2:B:57:ILE:CD1	2:B:60:ASP:OD1	1.87	1.22
6:F:14:THR:OG1	17:Q:56:LEU:HB2	1.35	1.22
10:J:61:LEU:CD2	10:J:98:LEU:HD11	1.68	1.22
11:K:71:LEU:CD2	11:K:76:ILE:CD1	2.17	1.22
17:Q:85:ARG:HH12	17:Q:117:ARG:CG	1.53	1.22
26:Z:48:VAL:O	26:Z:83:LEU:HD11	1.36	1.22
3:C:74:LYS:NZ	34:i:1348:G:OP1	1.72	1.21
6:F:18:LYS:NZ	6:F:46:ALA:O	1.73	1.21
7:G:32:MET:HE1	7:G:100:CYS:CA	1.69	1.21
10:J:17:ARG:CB	10:J:18:ARG:HG2	1.70	1.21
10:J:89:GLU:CA	10:J:92:MET:SD	2.28	1.21
11:K:14:LEU:CD2	11:K:35:LEU:CD2	2.18	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:46:SER:O	16:P:49:LEU:HB2	1.11	1.21
25:Y:54:VAL:HG11	25:Y:76:TYR:O	1.35	1.21
32:f:135:HIS:CB	32:f:138:ARG:HG3	1.70	1.21
5:E:38:LEU:C	5:E:38:LEU:HD12	1.56	1.21
6:F:141:VAL:HB	29:c:47:LYS:NZ	1.53	1.21
7:G:63:MET:CE	7:G:106:LEU:CD1	2.17	1.21
8:H:83:LEU:CD2	8:H:92:VAL:HG11	1.71	1.21
8:H:93:VAL:CG2	8:H:94:PHE:H	1.43	1.21
10:J:124:HIS:CD2	34:i:516:A:C5'	2.23	1.21
16:P:41:GLN:HE21	16:P:84:ILE:CB	1.54	1.21
34:i:184:G:N1	34:i:211:U:N3	1.88	1.21
2:B:66:VAL:CG2	2:B:87:ILE:CG2	2.15	1.21
6:F:76:MET:CE	6:F:169:ILE:HG21	1.68	1.21
10:J:15:THR:CG2	10:J:44:TRP:CZ3	2.22	1.21
13:M:13:ASP:CB	13:M:16:THR:HB	1.62	1.21
1:A:11:LYS:CG	1:A:13:GLU:HG2	1.70	1.21
4:D:35:SER:HA	4:D:99:ILE:CD1	1.69	1.21
4:D:157:MET:HE1	4:D:187:LYS:CD	1.68	1.21
6:F:42:LYS:C	6:F:44:LYS:H	1.32	1.21
6:F:61:PHE:CE1	29:c:51:ARG:HB3	1.75	1.21
6:F:63:LYS:CD	6:F:71:ARG:CZ	2.19	1.21
12:L:156:GLN:OE1	12:L:158:PHE:CE2	1.92	1.21
19:S:8:LYS:CB	19:S:9:PHE:HD1	1.53	1.21
31:e:124:GLY:O	31:e:125:LYS:HG3	1.39	1.21
1:A:109:THR:OG1	34:i:1348:G:C5'	1.88	1.21
18:R:33:ARG:HB3	33:g:150:TRP:CZ2	1.74	1.21
25:Y:12:PHE:CZ	25:Y:21:LYS:HB3	1.76	1.21
3:C:223:LYS:HE3	34:i:1351:C:O2'	1.03	1.20
8:H:146:VAL:CG2	23:W:50:PHE:CE1	2.22	1.20
9:I:161:LEU:CD1	9:I:199:LEU:HD11	1.67	1.20
10:J:177:ASN:O	10:J:180:LYS:HG2	1.22	1.20
14:N:24:THR:CG2	28:b:84:HIS:HE1	1.50	1.20
17:Q:93:VAL:HG13	17:Q:105:LYS:CD	1.69	1.20
25:Y:36:PRO:CG	25:Y:39:GLU:CD	2.14	1.20
33:g:162:ASN:ND2	33:g:163:PRO:HD2	1.57	1.20
6:F:25:THR:CG2	6:F:42:LYS:CG	2.07	1.20
6:F:44:LYS:HB3	6:F:45:TYR:CE1	1.76	1.20
12:L:103:GLU:OE1	24:X:11:ARG:HB2	1.06	1.20
18:R:105:MET:O	18:R:109:LEU:HG	1.40	1.20
25:Y:19:GLN:HG2	25:Y:81:TYR:CD1	1.76	1.20
26:Z:44:LEU:C	26:Z:44:LEU:HD13	1.64	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:195:PRO:CB	3:C:221:PHE:HZ	1.54	1.20
9:I:194:GLU:CD	12:L:12:LYS:HZ3	1.50	1.20
12:L:149:ALA:HB2	12:L:156:GLN:CG	1.60	1.20
13:M:98:GLY:O	13:M:100:PRO:HD3	1.36	1.20
14:N:25:TRP:CB	28:b:83:GLN:HG2	1.71	1.20
25:Y:32:LYS:CG	25:Y:33:ALA:H	1.55	1.20
25:Y:120:THR:HB	25:Y:122:LYS:HE2	1.20	1.20
4:D:218:LEU:CG	4:D:220:THR:HG23	1.69	1.20
8:H:85:LYS:HD2	8:H:85:LYS:C	1.61	1.20
11:K:16:PHE:CD2	11:K:79:LEU:CB	2.23	1.20
12:L:17:PHE:CZ	12:L:18:GLN:O	1.94	1.20
15:O:56:VAL:CG1	15:O:81:VAL:CG2	2.18	1.20
17:Q:50:LYS:NZ	17:Q:85:ARG:NH2	1.89	1.20
9:I:141:ARG:CB	9:I:144:LYS:CB	2.18	1.20
9:I:157:LYS:HB3	12:L:22:ARG:NH1	0.87	1.20
10:J:17:ARG:HG3	10:J:17:ARG:O	1.41	1.20
10:J:134:HIS:CE1	10:J:163:SER:HB2	1.76	1.20
12:L:149:ALA:CB	12:L:156:GLN:NE2	2.05	1.20
24:X:27:TYR:CZ	24:X:31:HIS:NE2	2.09	1.20
33:g:57:ARG:CD	33:g:94:THR:O	1.90	1.20
33:g:261:LEU:O	33:g:264:LYS:CE	1.89	1.20
10:J:10:ARG:NH1	10:J:10:ARG:HB3	1.57	1.19
12:L:80:MET:HE3	12:L:120:VAL:C	1.59	1.19
16:P:41:GLN:NE2	16:P:84:ILE:HB	1.56	1.19
23:W:11:LEU:O	23:W:14:ILE:HG12	1.38	1.19
25:Y:22:GLN:CB	25:Y:74:MET:SD	2.29	1.19
34:i:138:C:OP2	34:i:1768:C:O3'	1.56	1.19
3:C:101:THR:HG21	3:C:103:ALA:O	1.43	1.19
5:E:212:ASP:OD1	5:E:216:ASN:HB2	1.41	1.19
9:I:136:ILE:HG23	9:I:139:LYS:CE	1.70	1.19
29:c:10:LYS:HD2	29:c:61:SER:CB	1.70	1.19
33:g:194:TYR:CZ	33:g:212:LYS:HD3	1.75	1.19
1:A:104:THR:O	1:A:107:THR:HG23	1.38	1.19
7:G:195:LYS:HE2	34:i:125:C:O2'	1.38	1.19
14:N:99:ARG:NH2	14:N:115:LEU:HD21	1.56	1.19
16:P:123:TYR:OH	19:S:124:ARG:NH1	1.76	1.19
21:U:50:VAL:O	21:U:51:LYS:HD2	1.39	1.19
23:W:118:ARG:CD	34:i:730:C:H4'	1.73	1.19
2:B:71:LEU:CD1	2:B:84:PHE:HE2	1.54	1.19
4:D:218:LEU:CD1	4:D:220:THR:HG21	1.71	1.19
10:J:17:ARG:HG2	10:J:18:ARG:CG	1.73	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:84:LYS:HD2	25:Y:84:LYS:O	1.43	1.19
1:A:13:GLU:O	1:A:17:LYS:HE3	1.41	1.19
4:D:158:ILE:HD11	4:D:189:MET:CE	1.54	1.19
5:E:25:SER:HB3	34:i:485:U:O2'	1.41	1.19
17:Q:92:LEU:CD1	17:Q:96:TYR:CE2	2.25	1.19
35:l:31:ILE:HD13	35:l:49:GLY:O	1.39	1.19
1:A:141:ASN:C	22:V:32:ILE:CG1	2.16	1.18
3:C:79:ILE:CD1	3:C:147:ILE:CD1	2.19	1.18
3:C:158:LYS:HE2	3:C:158:LYS:O	1.42	1.18
6:F:14:THR:CG2	17:Q:56:LEU:CB	2.21	1.18
17:Q:47:LEU:CD2	17:Q:81:ILE:CD1	2.22	1.18
23:W:62:VAL:CG2	28:b:8:LEU:HD23	1.74	1.18
33:g:144:ASP:C	33:g:145:GLU:HG2	1.64	1.18
5:E:21:ASP:OD2	5:E:24:THR:CG2	1.90	1.18
6:F:59:LYS:CD	6:F:62:ARG:NH2	1.98	1.18
7:G:32:MET:SD	7:G:100:CYS:CA	2.31	1.18
11:K:83:LEU:HB3	11:K:85:LEU:HD23	1.20	1.18
13:M:85:LEU:HA	13:M:88:TRP:CE3	1.77	1.18
1:A:125:THR:O	1:A:147:LEU:HB3	1.42	1.18
23:W:18:GLU:OE2	23:W:67:GLY:HA2	1.36	1.18
32:f:105:TYR:O	32:f:106:TYR:CD2	1.97	1.18
1:A:30:LEU:CD1	1:A:38:ILE:CD1	1.96	1.18
13:M:78:LYS:O	13:M:79:VAL:CG2	1.91	1.18
17:Q:9:SER:CB	17:Q:26:LYS:HE3	1.72	1.18
18:R:29:HIS:NE2	33:g:65:PHE:HZ	1.40	1.18
25:Y:120:THR:CB	25:Y:122:LYS:HE2	1.72	1.18
26:Z:99:LEU:CD2	26:Z:102:LYS:HD3	1.73	1.18
32:f:120:GLU:OE1	32:f:128:ALA:O	1.62	1.18
1:A:5:LEU:HB3	22:V:41:LYS:HE2	1.18	1.18
11:K:18:GLU:O	11:K:92:ALA:CB	1.92	1.18
12:L:147:LYS:HD2	12:L:148:ALA:CA	1.71	1.18
16:P:84:ILE:O	16:P:86:LEU:CD2	1.92	1.18
26:Z:99:LEU:CD2	26:Z:109:TYR:CE1	2.26	1.18
29:c:67:ARG:C	29:c:68:LEU:HD23	1.66	1.18
32:f:140:TYR:OH	32:f:146:LEU:HA	1.02	1.18
33:g:57:ARG:NE	33:g:94:THR:O	1.76	1.18
34:i:61:A:H2	34:i:326:A:C8	1.62	1.18
1:A:118:GLU:HB3	3:C:50:LYS:NZ	1.57	1.17
2:B:137:LEU:CD2	2:B:215:VAL:CG1	2.20	1.17
4:D:210:ILE:CD1	18:R:15:VAL:HG11	1.73	1.17
7:G:180:VAL:O	7:G:181:THR:HG22	1.41	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:46:SER:O	16:P:49:LEU:CB	1.91	1.17
1:A:30:LEU:HD21	1:A:35:GLU:CG	1.73	1.17
4:D:56:GLN:O	4:D:59:LEU:HG	1.41	1.17
8:H:163:GLN:OE1	8:H:189:PHE:CE2	1.97	1.17
12:L:153:LYS:HG3	14:N:131:THR:O	1.41	1.17
15:O:61:LYS:HE3	15:O:80:ASP:OD2	1.03	1.17
16:P:41:GLN:HG2	16:P:84:ILE:CG2	1.57	1.17
17:Q:58:LEU:CD2	17:Q:111:ILE:CD1	2.22	1.17
19:S:39:ARG:NH2	20:T:38:LYS:HZ2	1.36	1.17
19:S:47:LYS:HE3	19:S:77:TYR:O	0.99	1.17
20:T:23:LYS:CD	20:T:54:TYR:CD2	2.26	1.17
33:g:20:GLN:CG	33:g:68:ASP:HA	1.74	1.17
34:i:181:A:C4'	34:i:182:C:H5'	1.74	1.17
3:C:154:TYR:OH	3:C:161:LYS:HA	1.01	1.17
4:D:76:ARG:CD	11:K:66:HIS:CE1	2.27	1.17
4:D:177:LEU:CD2	4:D:182:LEU:HD23	1.72	1.17
4:D:226:GLN:NE2	4:D:226:GLN:HA	1.58	1.17
14:N:62:GLN:HB2	14:N:65:PHE:CD2	1.78	1.17
15:O:113:GLN:HG3	27:a:46:GLU:OE2	1.01	1.17
17:Q:47:LEU:HD22	17:Q:81:ILE:CD1	1.73	1.17
24:X:52:LEU:HD21	24:X:71:ARG:HB3	1.26	1.17
25:Y:63:HIS:CG	25:Y:64:PHE:CE1	2.32	1.17
30:d:5:GLN:HB3	30:d:7:TYR:CE2	1.78	1.17
34:i:1592:C:H4'	34:i:1598:G:O6	1.40	1.17
1:A:120:ARG:HD2	3:C:251:TYR:HE2	1.03	1.17
1:A:154:LEU:CD1	22:V:63:GLY:O	1.91	1.17
4:D:47:GLU:HG2	4:D:85:GLU:OE2	1.41	1.17
4:D:197:LYS:H	4:D:198:ILE:C	1.53	1.17
17:Q:47:LEU:CD2	17:Q:81:ILE:HD12	1.72	1.17
19:S:8:LYS:O	26:Z:49:LEU:CD2	1.93	1.17
24:X:51:VAL:HG13	24:X:70:VAL:HG11	1.23	1.17
3:C:151:ARG:HH12	3:C:240:LEU:CD1	1.56	1.17
7:G:27:PHE:CE2	7:G:41:LEU:HD12	1.79	1.17
8:H:53:VAL:HG22	8:H:57:ARG:O	0.99	1.17
8:H:144:ILE:CB	23:W:52:ILE:CG2	2.22	1.17
9:I:141:ARG:HB2	9:I:144:LYS:CB	1.75	1.17
10:J:138:ARG:NH1	10:J:156:HIS:CE1	2.13	1.17
16:P:52:LYS:O	16:P:52:LYS:HD3	1.44	1.17
18:R:122:PRO:HB3	18:R:123:THR:CG2	1.75	1.17
24:X:126:ALA:CB	24:X:128:VAL:HB	1.71	1.17
25:Y:102:THR:CG2	25:Y:107:ARG:NE	2.04	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:b:73:LEU:CD1	28:b:79:PHE:CE2	2.28	1.17
28:b:81:ARG:CB	28:b:82:LYS:HB2	1.73	1.17
33:g:8:ARG:HA	33:g:8:ARG:NE	1.43	1.17
1:A:5:LEU:HD13	1:A:6:ASP:N	1.59	1.16
1:A:141:ASN:CA	22:V:32:ILE:HG12	1.75	1.16
4:D:55:THR:O	4:D:58:VAL:HG22	1.41	1.16
4:D:218:LEU:HG	4:D:220:THR:CG2	1.69	1.16
5:E:129:ILE:HG13	5:E:139:LEU:CD2	1.70	1.16
6:F:201:LYS:CE	6:F:204:ARG:HH21	1.58	1.16
18:R:100:PRO:HB2	18:R:119:VAL:HG21	1.24	1.16
28:b:2:PRO:CA	28:b:3:LEU:HD23	1.73	1.16
32:f:144:CYS:HB3	32:f:147:THR:CG2	1.73	1.16
33:g:100:ARG:HG3	33:g:100:ARG:HH11	1.07	1.16
9:I:136:ILE:O	9:I:139:LYS:CG	1.92	1.16
12:L:101:ARG:O	24:X:10:ALA:CB	1.92	1.16
12:L:149:ALA:CB	12:L:156:GLN:HE21	1.55	1.16
19:S:138:THR:HA	19:S:141:ARG:CZ	1.75	1.16
20:T:77:LYS:CG	20:T:92:PHE:HE2	1.48	1.16
25:Y:92:ALA:N	25:Y:97:TYR:HB3	1.59	1.16
34:i:181:A:H4'	34:i:182:C:C5'	1.76	1.16
4:D:158:ILE:HD13	4:D:189:MET:CE	1.73	1.16
6:F:36:GLN:HG3	6:F:37:ASP:CG	1.71	1.16
7:G:145:PHE:HB3	7:G:147:LEU:CD1	1.73	1.16
8:H:31:GLU:OE2	8:H:41:ARG:HD2	1.01	1.16
10:J:143:ASN:O	10:J:145:PRO:HD3	1.41	1.16
12:L:149:ALA:CB	12:L:156:GLN:CB	2.17	1.16
15:O:128:ARG:HA	27:a:62:TYR:CZ	1.80	1.16
16:P:41:GLN:HE22	16:P:45:LEU:CG	1.56	1.16
17:Q:50:LYS:NZ	17:Q:117:ARG:HD2	1.59	1.16
20:T:75:MET:HE3	20:T:79:TYR:CE2	1.79	1.16
25:Y:63:HIS:CG	25:Y:64:PHE:HE1	1.62	1.16
32:f:89:LYS:HG3	32:f:89:LYS:O	1.43	1.16
1:A:57:LYS:HZ1	22:V:70:LEU:CD1	1.59	1.16
3:C:82:PHE:O	3:C:83:LEU:HD12	1.44	1.16
3:C:195:PRO:CG	3:C:221:PHE:HZ	1.57	1.16
3:C:244:THR:HG22	3:C:246:PHE:CD2	1.81	1.16
5:E:248:ILE:HB	10:J:72:PHE:CE1	1.81	1.16
8:H:85:LYS:HD2	8:H:85:LYS:O	1.43	1.16
8:H:143:ARG:HD3	23:W:53:ILE:CG1	1.75	1.16
10:J:110:LEU:CD1	10:J:130:ILE:CG1	2.22	1.16
14:N:87:ASP:OD2	14:N:129:TYR:OH	1.64	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:61:LYS:O	15:O:62:VAL:HG23	1.41	1.16
26:Z:62:VAL:HG13	26:Z:68:ILE:HD13	1.17	1.16
28:b:12:PRO:HD2	28:b:13:GLU:H	1.07	1.16
30:d:23:VAL:HG23	30:d:38:MET:CE	1.54	1.16
4:D:12:VAL:CG1	30:d:36:LEU:CD1	1.97	1.16
4:D:21:LEU:CD1	4:D:48:ILE:HD12	1.74	1.16
7:G:63:MET:HE1	7:G:106:LEU:CD1	1.73	1.16
8:H:65:PRO:HD2	8:H:68:GLN:OE1	1.41	1.16
10:J:92:MET:O	10:J:93:LYS:HE3	1.40	1.16
11:K:14:LEU:HD22	11:K:35:LEU:HD21	1.17	1.16
11:K:16:PHE:CD2	11:K:79:LEU:HB2	1.80	1.16
16:P:10:ARG:HH21	16:P:11:THR:HB	1.05	1.16
16:P:123:TYR:CD2	19:S:120:HIS:HE1	1.64	1.16
17:Q:38:PRO:CD	17:Q:41:MET:SD	2.32	1.16
17:Q:58:LEU:HD23	17:Q:111:ILE:HD13	1.25	1.16
17:Q:128:GLU:CB	34:i:1644:U:OP1	1.93	1.16
19:S:47:LYS:NZ	19:S:78:LYS:HB2	1.59	1.16
20:T:84:ARG:HB2	20:T:84:ARG:NH2	1.59	1.16
22:V:1:MET:HE2	22:V:10:ASP:CB	1.76	1.16
25:Y:7:ILE:HD12	25:Y:43:LYS:CG	1.76	1.16
25:Y:20:ARG:CG	25:Y:74:MET:HE3	1.74	1.16
25:Y:92:ALA:HA	25:Y:97:TYR:O	1.45	1.16
1:A:103:PHE:CE2	1:A:136:GLU:OE1	1.99	1.15
11:K:16:PHE:HE2	11:K:79:LEU:CB	1.51	1.15
11:K:23:ALA:O	11:K:66:HIS:O	1.64	1.15
11:K:71:LEU:HD21	11:K:76:ILE:HD13	1.18	1.15
18:R:17:ILE:HG21	18:R:69:ILE:CD1	1.74	1.15
20:T:40:ALA:HB3	20:T:43:LYS:CG	1.73	1.15
25:Y:20:ARG:CG	25:Y:74:MET:CE	2.23	1.15
32:f:102:VAL:HG12	32:f:103:LEU:N	1.52	1.15
5:E:19:MET:HE2	34:i:842:G:H2'	1.26	1.15
7:G:16:ILE:CD1	7:G:45:TRP:HZ2	1.60	1.15
13:M:94:ILE:HG23	13:M:95:ASP:N	1.45	1.15
20:T:77:LYS:CB	20:T:94:ARG:HD3	1.75	1.15
4:D:132:LYS:CB	4:D:191:PRO:CG	2.16	1.15
7:G:157:VAL:HG11	7:G:159:ARG:HG2	1.16	1.15
9:I:116:HIS:O	9:I:152:ARG:CZ	1.93	1.15
10:J:61:LEU:HD13	10:J:94:LEU:CD1	1.76	1.15
12:L:157:LYS:C	12:L:158:PHE:CD2	2.25	1.15
15:O:95:ILE:HD13	15:O:116:LEU:HD21	1.18	1.15
18:R:17:ILE:CG2	18:R:69:ILE:CD1	2.25	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:139:THR:O	19:S:141:ARG:HG3	1.46	1.15
33:g:20:GLN:HG3	33:g:68:ASP:CA	1.76	1.15
33:g:118:ARG:NH2	33:g:134:THR:CG2	1.83	1.15
2:B:137:LEU:HD22	2:B:215:VAL:CG2	1.77	1.15
4:D:126:ILE:HD11	4:D:134:CYS:SG	1.86	1.15
4:D:132:LYS:CA	4:D:191:PRO:CG	2.25	1.15
5:E:100:ARG:HD3	5:E:102:ILE:HD11	1.19	1.15
5:E:208:VAL:HG21	5:E:225:ILE:HD12	1.24	1.15
7:G:98:ARG:HD3	7:G:99:GLY:N	1.61	1.15
12:L:101:ARG:C	24:X:10:ALA:HB2	1.70	1.15
13:M:94:ILE:CG2	13:M:95:ASP:H	1.56	1.15
17:Q:42:ILE:HG21	17:Q:51:LEU:CD2	1.75	1.15
22:V:11:LEU:HD11	22:V:12:TYR:CE2	1.80	1.15
28:b:16:LYS:HA	28:b:23:ARG:NH2	1.59	1.15
33:g:219:TRP:CZ3	33:g:226:HIS:HD2	1.63	1.15
33:g:298:LEU:HD12	33:g:298:LEU:O	1.47	1.15
2:B:26:SER:O	2:B:27:LYS:HG3	1.44	1.15
3:C:54:LEU:CD1	3:C:258:LEU:HD11	1.69	1.15
4:D:47:GLU:HG2	4:D:85:GLU:CD	1.71	1.15
4:D:76:ARG:CZ	11:K:66:HIS:CE1	2.30	1.15
10:J:48:PHE:CE1	10:J:52:LYS:CE	2.29	1.15
10:J:110:LEU:CD1	10:J:130:ILE:HG12	1.74	1.15
12:L:10:TYR:CD2	12:L:12:LYS:NZ	2.14	1.15
15:O:113:GLN:HG3	27:a:46:GLU:CD	1.71	1.15
15:O:124:MET:O	27:a:56:VAL:HG13	1.46	1.15
25:Y:93:ARG:HG2	25:Y:93:ARG:HH11	1.02	1.15
26:Z:85:ARG:NH1	26:Z:85:ARG:HB3	1.60	1.15
32:f:108:VAL:HG22	32:f:114:ILE:CG2	1.77	1.15
2:B:20:LYS:O	2:B:21:VAL:HG12	1.43	1.14
2:B:57:ILE:HD13	2:B:60:ASP:OD1	0.96	1.14
6:F:42:LYS:O	6:F:44:LYS:N	1.77	1.14
6:F:91:ARG:NH1	6:F:94:LYS:HB2	1.46	1.14
10:J:125:HIS:CD2	10:J:129:LEU:HD11	1.80	1.14
10:J:169:ARG:HB3	10:J:170:PRO:CD	1.77	1.14
13:M:93:LYS:O	13:M:94:ILE:HG22	1.42	1.14
14:N:13:GLN:OE1	28:b:21:LYS:HE2	1.46	1.14
14:N:80:LEU:O	14:N:82:PRO:HD3	1.43	1.14
14:N:125:LEU:HD13	14:N:129:TYR:CE2	1.82	1.14
19:S:8:LYS:CD	19:S:9:PHE:HE1	1.60	1.14
21:U:67:LYS:HG2	21:U:78:ASP:OD2	1.45	1.14
31:e:105:ARG:HB3	31:e:105:ARG:CZ	1.75	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:186:ARG:HG2	1:A:186:ARG:HH11	1.01	1.14
4:D:218:LEU:CB	4:D:220:THR:CG2	2.25	1.14
10:J:48:PHE:CZ	10:J:52:LYS:NZ	2.16	1.14
11:K:30:PRO:O	11:K:31:LYS:CG	1.94	1.14
11:K:62:PHE:HD1	11:K:67:PHE:CZ	1.64	1.14
15:O:105:THR:O	15:O:106:LYS:HG2	1.45	1.14
17:Q:109:LYS:CG	17:Q:113:ILE:HD12	1.76	1.14
1:A:32:PHE:CE1	1:A:33:GLN:HG2	1.83	1.14
3:C:70:SER:O	22:V:29:HIS:ND1	1.78	1.14
4:D:176:LEU:H	4:D:176:LEU:HD12	1.13	1.14
4:D:210:ILE:CD1	18:R:15:VAL:HG12	1.75	1.14
7:G:85:ARG:CD	25:Y:118:ARG:CZ	2.25	1.14
16:P:44:ARG:HH21	16:P:84:ILE:HB	1.10	1.14
18:R:100:PRO:HG2	18:R:119:VAL:HG22	1.29	1.14
19:S:42:HIS:CD2	20:T:45:LEU:CD2	2.25	1.14
19:S:139:THR:O	19:S:141:ARG:CG	1.95	1.14
21:U:109:GLY:O	21:U:110:VAL:HG23	1.45	1.14
21:U:109:GLY:O	21:U:110:VAL:CG2	1.95	1.14
33:g:8:ARG:HE	33:g:8:ARG:CA	1.55	1.14
33:g:294:ASP:O	33:g:296:GLN:N	1.80	1.14
1:A:57:LYS:NZ	22:V:70:LEU:CD1	2.11	1.14
2:B:25:PHE:CZ	15:O:88:LEU:HD13	1.83	1.14
2:B:105:LEU:HD11	2:B:213:ARG:HB2	1.17	1.14
3:C:260:LYS:HG3	3:C:261:THR:H	1.08	1.14
6:F:63:LYS:HD2	6:F:71:ARG:NH1	1.59	1.14
8:H:12:ASN:ND2	8:H:46:THR:OG1	1.80	1.14
10:J:89:GLU:CA	10:J:92:MET:HB2	1.77	1.14
14:N:62:GLN:HB2	14:N:65:PHE:HD2	1.07	1.14
16:P:53:GLN:HG2	16:P:80:LEU:HD11	1.26	1.14
17:Q:85:ARG:NH1	17:Q:117:ARG:HG2	1.62	1.14
30:d:5:GLN:CB	30:d:7:TYR:CE2	2.29	1.14
33:g:152:SER:OG	33:g:168:CYS:SG	2.05	1.14
1:A:103:PHE:CZ	1:A:136:GLU:OE1	2.00	1.14
7:G:181:THR:OG1	7:G:182:PRO:HD2	1.47	1.14
16:P:44:ARG:NH2	16:P:84:ILE:H	1.45	1.14
20:T:46:ALA:HB1	20:T:47:PRO:CD	1.76	1.14
24:X:71:ARG:HG2	24:X:82:THR:HG22	1.29	1.14
25:Y:122:LYS:HD3	25:Y:123:ALA:H	1.05	1.14
33:g:191:HIS:CG	33:g:195:LEU:HD21	1.81	1.14
34:i:181:A:C8	34:i:182:C:C4	2.36	1.14
4:D:212:GLU:CG	18:R:19:LYS:CD	2.25	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:93:VAL:O	6:F:97:PHE:CD1	2.01	1.13
7:G:50:VAL:HG11	7:G:111:LEU:HD13	1.19	1.13
9:I:25:ARG:CD	9:I:27:TYR:CE2	2.24	1.13
11:K:60:GLU:OE1	11:K:67:PHE:CE1	1.99	1.13
14:N:28:LEU:O	14:N:29:THR:HG23	1.45	1.13
21:U:36:CYS:SG	21:U:53:PRO:HB3	1.89	1.13
24:X:126:ALA:HB3	24:X:128:VAL:HB	1.15	1.13
25:Y:54:VAL:CG1	25:Y:76:TYR:O	1.95	1.13
25:Y:92:ALA:HA	25:Y:97:TYR:C	1.71	1.13
26:Z:62:VAL:HG13	26:Z:68:ILE:CD1	1.78	1.13
1:A:110:ASN:HA	34:i:1347:G:H4'	1.16	1.13
2:B:25:PHE:CD2	15:O:88:LEU:HD22	1.83	1.13
4:D:70:THR:HG22	4:D:86:LEU:HD13	1.31	1.13
5:E:129:ILE:HG12	5:E:139:LEU:HD21	1.19	1.13
5:E:159:THR:CG2	5:E:227:VAL:CG2	2.16	1.13
7:G:14:LYS:NZ	7:G:123:GLY:CA	2.11	1.13
7:G:14:LYS:HZ2	7:G:123:GLY:CA	1.61	1.13
10:J:91:LYS:HA	10:J:96:TYR:CB	1.77	1.13
10:J:114:VAL:HG12	10:J:120:ALA:HB2	1.23	1.13
12:L:113:LEU:HD11	12:L:120:VAL:HG21	1.24	1.13
12:L:157:LYS:C	12:L:158:PHE:HD2	1.56	1.13
15:O:99:ALA:H	15:O:133:THR:CG2	1.60	1.13
17:Q:85:ARG:NH2	17:Q:117:ARG:HG2	1.63	1.13
21:U:59:LYS:HB2	21:U:84:ILE:HG22	1.21	1.13
26:Z:48:VAL:CG2	26:Z:80:ARG:HD3	1.77	1.13
34:i:1057:U:O4	35:l:64:LYS:HE2	0.95	1.13
3:C:197:LYS:CA	3:C:200:LEU:HD21	1.78	1.13
5:E:100:ARG:HD3	5:E:102:ILE:CD1	1.78	1.13
6:F:167:LYS:HD3	6:F:171:GLU:HG3	1.29	1.13
7:G:63:MET:HE1	7:G:106:LEU:HD11	1.16	1.13
9:I:154:LYS:HE2	9:I:154:LYS:CA	1.66	1.13
10:J:170:PRO:CG	10:J:175:ARG:CG	2.26	1.13
11:K:62:PHE:CD1	11:K:67:PHE:CE2	2.36	1.13
13:M:12:MET:HE1	13:M:120:ALA:CB	1.78	1.13
16:P:53:GLN:NE2	16:P:80:LEU:HD13	1.60	1.13
17:Q:57:LEU:HD11	17:Q:115:TYR:CE2	1.82	1.13
19:S:46:ARG:NH2	20:T:50:GLU:CB	2.12	1.13
20:T:31:PRO:HB3	20:T:33:TRP:CZ2	1.83	1.13
21:U:40:ILE:HD13	21:U:53:PRO:HG3	1.27	1.13
29:c:67:ARG:HG2	29:c:68:LEU:N	1.43	1.13
33:g:48:ASP:OD2	33:g:49:GLU:HB2	1.46	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:98:ASN:ND2	5:E:119:ALA:CB	2.10	1.13
6:F:14:THR:HG23	17:Q:56:LEU:HB3	1.28	1.13
6:F:34:SER:CB	29:c:55:VAL:HB	1.76	1.13
6:F:47:LYS:HG3	17:Q:117:ARG:NH2	1.63	1.13
7:G:32:MET:CE	7:G:100:CYS:CA	2.27	1.13
9:I:141:ARG:HD2	9:I:144:LYS:HB3	1.20	1.13
9:I:153:LYS:O	9:I:154:LYS:HB3	1.40	1.13
12:L:76:VAL:HG12	12:L:125:ILE:CD1	1.78	1.13
16:P:33:LEU:HD22	16:P:87:PRO:CG	1.78	1.13
17:Q:57:LEU:CD1	17:Q:115:TYR:CE2	2.31	1.13
17:Q:85:ARG:HD3	17:Q:119:LEU:HD23	1.24	1.13
18:R:122:PRO:HA	18:R:123:THR:HG23	1.13	1.13
24:X:99:GLU:O	24:X:100:VAL:HG13	1.44	1.13
33:g:5:MET:CE	33:g:312:VAL:HG13	1.78	1.13
1:A:66:VAL:HG22	1:A:186:ARG:HD3	1.13	1.12
1:A:118:GLU:CB	3:C:50:LYS:NZ	2.11	1.12
3:C:197:LYS:O	3:C:200:LEU:HG	1.48	1.13
3:C:234:SER:HA	22:V:23:ILE:CD1	1.78	1.13
3:C:260:LYS:CG	3:C:261:THR:H	1.56	1.12
5:E:208:VAL:HG11	5:E:225:ILE:HD13	1.27	1.13
17:Q:102:GLU:OE1	33:g:55:PRO:CB	1.94	1.12
19:S:39:ARG:NH2	20:T:38:LYS:HE3	1.43	1.12
21:U:61:LEU:CD2	30:d:34:TYR:OH	1.96	1.13
5:E:129:ILE:CG1	5:E:139:LEU:HD23	1.73	1.12
6:F:176:GLU:OE1	6:F:187:SER:OG	1.63	1.12
28:b:12:PRO:O	28:b:16:LYS:CD	1.96	1.12
3:C:154:TYR:OH	3:C:162:PRO:HD3	1.49	1.12
3:C:223:LYS:HE2	34:i:1351:C:O2	1.47	1.12
6:F:25:THR:HG22	6:F:42:LYS:CD	1.78	1.12
10:J:170:PRO:CG	10:J:175:ARG:HG3	1.79	1.12
11:K:5:LYS:HG3	11:K:5:LYS:O	1.44	1.12
14:N:22:VAL:HB	14:N:23:PRO:HA	1.21	1.12
19:S:47:LYS:CE	19:S:77:TYR:O	1.95	1.12
23:W:118:ARG:HD3	34:i:730:C:C4'	1.79	1.12
33:g:5:MET:HE1	33:g:312:VAL:CG1	1.78	1.12
33:g:119:GLN:NE2	33:g:121:VAL:CG2	2.10	1.12
1:A:106:GLY:O	1:A:113:GLN:OE1	1.67	1.12
2:B:57:ILE:HD13	2:B:60:ASP:CG	1.65	1.12
3:C:87:LEU:HD21	3:C:115:ILE:HG23	1.16	1.12
8:H:8:ILE:CG2	8:H:9:VAL:HG22	1.79	1.12
8:H:144:ILE:CD1	23:W:52:ILE:HG21	1.79	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:70:ARG:HH21	10:J:94:LEU:HD21	1.02	1.12
15:O:79:GLN:NE2	29:c:5:ARG:CG	2.11	1.12
15:O:136:PRO:O	15:O:138:ASP:N	1.81	1.12
16:P:11:THR:O	16:P:12:PHE:HB2	1.47	1.12
23:W:36:ARG:HD3	23:W:110:ILE:HD12	1.28	1.12
23:W:93:LEU:HD21	23:W:128:PHE:CD2	1.84	1.12
24:X:105:PHE:HE2	24:X:119:ARG:CA	1.60	1.12
1:A:5:LEU:CB	22:V:41:LYS:HE2	1.79	1.12
1:A:110:ASN:CA	34:i:1347:G:H4'	1.53	1.12
4:D:132:LYS:CA	4:D:191:PRO:HG3	1.80	1.12
4:D:214:LYS:HG3	4:D:215:ASP:OD2	1.48	1.12
6:F:61:PHE:HZ	29:c:51:ARG:CB	1.37	1.12
9:I:194:GLU:CG	12:L:12:LYS:NZ	2.13	1.12
28:b:12:PRO:O	28:b:16:LYS:HG2	1.48	1.12
33:g:172:LYS:HE2	33:g:191:HIS:O	0.96	1.12
1:A:24:HIS:NE2	18:R:105:MET:HG3	1.64	1.12
2:B:160:GLN:NE2	2:B:205:TYR:CD1	2.18	1.12
4:D:166:TYR:CD1	4:D:200:PRO:HB2	1.84	1.12
5:E:248:ILE:CB	10:J:72:PHE:CE1	2.33	1.12
6:F:42:LYS:C	6:F:44:LYS:N	1.88	1.12
10:J:61:LEU:CD2	10:J:98:LEU:CD1	2.27	1.12
12:L:4:ILE:HD12	12:L:4:ILE:N	1.60	1.12
16:P:41:GLN:NE2	16:P:45:LEU:HG	1.65	1.12
16:P:41:GLN:CB	16:P:84:ILE:HG12	1.80	1.12
17:Q:92:LEU:HD11	17:Q:96:TYR:CE2	1.85	1.12
17:Q:102:GLU:OE1	33:g:55:PRO:CG	1.98	1.12
17:Q:128:GLU:HB2	34:i:1644:U:OP1	0.96	1.12
19:S:58:GLU:O	19:S:59:LEU:HD22	1.50	1.12
24:X:60:LYS:HG3	24:X:116:PRO:HG2	1.26	1.12
1:A:120:ARG:HD2	3:C:251:TYR:CE2	1.84	1.11
6:F:39:ILE:HG23	6:F:68:ILE:HG21	1.20	1.11
9:I:114:GLU:OE1	9:I:133:GLU:HG3	1.50	1.11
15:O:79:GLN:HE21	29:c:5:ARG:HG2	1.03	1.11
16:P:126:VAL:HG12	16:P:127:LYS:N	1.34	1.11
17:Q:44:PRO:HG2	17:Q:81:ILE:HD11	1.28	1.11
19:S:58:GLU:C	19:S:59:LEU:CD1	2.22	1.11
22:V:32:ILE:HD12	22:V:60:ARG:NH1	1.65	1.11
22:V:55:ILE:HD13	22:V:65:SER:HA	1.25	1.11
33:g:172:LYS:CD	33:g:191:HIS:O	1.98	1.11
1:A:97:THR:HG23	1:A:98:PRO:HD2	1.21	1.11
3:C:60:ILE:O	3:C:82:PHE:CE1	2.03	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:37:LEU:HD11	10:J:42:GLU:CB	1.77	1.11
18:R:20:TYR:CZ	18:R:38:ILE:CB	2.33	1.11
18:R:29:HIS:CE1	33:g:65:PHE:HZ	1.64	1.11
26:Z:69:THR:HB	26:Z:70:PRO:HD3	1.24	1.11
33:g:32:LEU:HB2	33:g:71:ILE:HD11	1.26	1.11
34:i:1057:U:C4	35:l:64:LYS:CE	2.29	1.11
2:B:105:LEU:CD1	2:B:110:MET:HE2	1.80	1.11
4:D:16:ILE:HG21	30:d:22:ARG:HH22	1.14	1.11
4:D:218:LEU:HD12	4:D:220:THR:HG21	1.19	1.11
5:E:70:ILE:HG12	5:E:92:ILE:HD12	1.24	1.11
8:H:8:ILE:HG23	8:H:9:VAL:CG2	1.80	1.11
9:I:155:ASN:O	12:L:22:ARG:HD2	1.31	1.11
10:J:110:LEU:HD12	10:J:130:ILE:CD1	1.74	1.11
13:M:64:LEU:HD12	32:f:104:LYS:HZ3	0.99	1.11
15:O:35:ALA:HB2	15:O:112:ALA:HB2	1.33	1.11
16:P:49:LEU:HA	16:P:51:ARG:HG3	1.30	1.11
16:P:53:GLN:CG	16:P:80:LEU:HD13	1.74	1.11
20:T:143:LYS:HD2	20:T:144:LYS:N	1.65	1.11
21:U:50:VAL:HG13	21:U:51:LYS:H	0.99	1.11
25:Y:34:THR:O	25:Y:35:VAL:CG2	1.97	1.11
26:Z:70:PRO:HD2	26:Z:71:ALA:H	1.14	1.11
33:g:298:LEU:HD11	33:g:310:TRP:CE3	1.85	1.11
34:i:1055:G:N2	34:i:1824:U:H5'	1.56	1.11
2:B:71:LEU:CD1	2:B:84:PHE:CE2	2.31	1.11
4:D:195:SER:O	4:D:197:LYS:HG2	1.48	1.11
7:G:50:VAL:HG12	7:G:111:LEU:HD22	1.31	1.11
17:Q:47:LEU:HD22	17:Q:81:ILE:HD12	1.26	1.11
24:X:67:ARG:O	24:X:68:LYS:HG3	1.51	1.11
32:f:106:TYR:OH	32:f:131:PHE:CE2	2.03	1.11
33:g:286:CYS:HB2	33:g:302:TYR:CZ	1.85	1.11
33:g:286:CYS:HB2	33:g:302:TYR:CE2	1.86	1.11
34:i:1701:G:C1'	34:i:1844:A:O2'	1.98	1.11
2:B:83:LYS:NZ	15:O:130:GLU:OE1	1.82	1.11
3:C:142:LEU:HA	3:C:145:LEU:HD21	1.27	1.11
5:E:89:VAL:O	5:E:99:PHE:O	1.68	1.11
5:E:208:VAL:CB	5:E:225:ILE:HD11	1.68	1.11
7:G:176:ILE:HG21	7:G:179:LEU:HD22	1.12	1.11
8:H:83:LEU:CD1	8:H:92:VAL:CB	2.27	1.11
9:I:85:ALA:HB1	12:L:8:ARG:HH11	1.11	1.11
10:J:38:ARG:NH2	31:e:104:GLY:N	1.90	1.11
10:J:169:ARG:HB3	10:J:170:PRO:HD2	1.17	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:28:LEU:O	14:N:29:THR:CG2	1.99	1.11
16:P:53:GLN:HG2	16:P:80:LEU:HD13	1.23	1.11
22:V:17:CYS:SG	22:V:56:CYS:CB	2.37	1.11
30:d:27:ARG:HH11	30:d:27:ARG:HB2	0.97	1.11
33:g:20:GLN:HE21	33:g:68:ASP:CG	1.57	1.11
33:g:282:GLU:HG3	33:g:283:PRO:HD3	1.24	1.11
5:E:99:PHE:CE1	5:E:113:ARG:CG	2.34	1.10
7:G:16:ILE:CD1	7:G:45:TRP:CZ2	2.33	1.10
9:I:157:LYS:CB	12:L:22:ARG:HD3	1.78	1.10
11:K:28:HIS:CE1	30:d:8:TRP:NE1	2.18	1.10
16:P:10:ARG:NH2	16:P:11:THR:HB	1.66	1.10
18:R:1:MET:CB	18:R:1:MET:HA	1.68	1.10
18:R:122:PRO:CB	18:R:123:THR:CG2	2.29	1.10
24:X:139:GLU:C	24:X:141:PRO:HD3	1.76	1.10
25:Y:62:THR:HG22	25:Y:69:THR:CG2	1.80	1.10
33:g:275:ILE:HD12	33:g:276:SER:H	1.06	1.10
1:A:30:LEU:CD2	1:A:35:GLU:HG3	1.79	1.10
4:D:212:GLU:HG2	18:R:19:LYS:CD	1.80	1.10
6:F:14:THR:CG2	17:Q:56:LEU:CG	2.10	1.10
6:F:42:LYS:O	6:F:44:LYS:CA	1.98	1.10
10:J:89:GLU:HA	10:J:92:MET:HB2	1.21	1.10
12:L:147:LYS:HD2	12:L:148:ALA:HA	1.13	1.10
12:L:149:ALA:CB	12:L:156:GLN:HB3	1.79	1.10
14:N:125:LEU:HD13	14:N:129:TYR:HE2	1.11	1.10
16:P:108:LYS:O	16:P:111:MET:HG3	1.51	1.10
17:Q:85:ARG:CZ	17:Q:117:ARG:HG2	1.82	1.10
26:Z:103:HIS:CD2	26:Z:105:ALA:HB3	1.86	1.10
2:B:135:LEU:HD21	2:B:217:MET:SD	1.91	1.10
3:C:55:VAL:CG2	3:C:82:PHE:HE2	1.63	1.10
8:H:37:LYS:HE2	8:H:41:ARG:HH11	1.16	1.10
9:I:154:LYS:HG3	9:I:155:ASN:H	1.15	1.10
14:N:132:LYS:CA	14:N:132:LYS:HE3	1.70	1.10
25:Y:51:THR:HB	25:Y:52:PRO:HD3	1.34	1.10
33:g:7:LEU:HD11	33:g:310:TRP:HE1	1.01	1.10
2:B:25:PHE:CD2	15:O:88:LEU:CD2	2.34	1.10
4:D:211:VAL:CG2	18:R:38:ILE:C	2.24	1.10
4:D:218:LEU:HB2	4:D:220:THR:CG2	1.82	1.10
7:G:176:ILE:CB	7:G:179:LEU:CD2	2.29	1.10
8:H:144:ILE:HD12	23:W:52:ILE:CG2	1.82	1.10
9:I:69:SER:HB3	12:L:19:ASN:HD21	1.11	1.10
9:I:140:LYS:CG	9:I:141:ARG:H	1.64	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:89:GLU:CA	10:J:92:MET:CG	2.29	1.10
18:R:1:MET:CB	18:R:2:GLY:N	2.13	1.10
26:Z:99:LEU:HD22	26:Z:102:LYS:HD3	1.19	1.10
27:a:28:CYS:SG	27:a:74:CYS:HB3	1.92	1.10
27:a:58:VAL:HG12	27:a:59:PHE:N	1.61	1.10
34:i:1207:G:N1	34:i:1684:C:N3	1.97	1.10
1:A:24:HIS:CD2	18:R:105:MET:CE	2.34	1.10
1:A:185:MET:CE	22:V:39:VAL:HG12	1.82	1.10
6:F:116:ILE:HD13	6:F:116:ILE:N	1.64	1.10
9:I:139:LYS:HB3	9:I:145:ILE:CD1	1.82	1.10
10:J:115:PHE:HD1	10:J:122:SER:N	1.48	1.10
10:J:179:LYS:HG2	10:J:182:GLN:OE1	1.50	1.10
14:N:24:THR:HG21	28:b:84:HIS:CE1	1.84	1.10
17:Q:19:ALA:HB2	17:Q:74:GLY:O	1.50	1.10
17:Q:85:ARG:HD3	17:Q:119:LEU:CD2	1.81	1.10
17:Q:105:LYS:O	17:Q:105:LYS:HD2	1.49	1.10
18:R:91:LEU:HB2	18:R:92:ASP:C	1.77	1.10
21:U:64:THR:HG22	21:U:79:ARG:HG2	1.10	1.10
29:c:21:THR:HG22	29:c:22:GLY:H	0.96	1.10
31:e:120:VAL:N	31:e:121:PRO:HD2	1.61	1.10
33:g:275:ILE:HD12	33:g:276:SER:N	1.66	1.10
2:B:113:MET:HE3	2:B:209:ASP:OD1	0.92	1.09
3:C:102:GLN:HG3	3:C:103:ALA:H	1.05	1.09
3:C:260:LYS:HD2	3:C:261:THR:HG22	1.18	1.09
4:D:195:SER:HA	4:D:197:LYS:O	1.49	1.09
6:F:20:PHE:O	6:F:22:LYS:N	1.83	1.09
6:F:91:ARG:NE	6:F:91:ARG:HA	1.42	1.09
6:F:141:VAL:HB	29:c:47:LYS:HE3	1.26	1.09
6:F:204:ARG:NH1	29:c:60:GLU:CD	2.08	1.09
8:H:36:LEU:HD12	8:H:36:LEU:O	1.51	1.09
16:P:107:ILE:HA	16:P:111:MET:CE	1.80	1.09
18:R:91:LEU:HD12	18:R:91:LEU:N	1.66	1.09
18:R:100:PRO:HA	18:R:103:LYS:HB2	1.13	1.09
20:T:111:LYS:HB3	20:T:126:GLN:NE2	1.67	1.09
25:Y:7:ILE:HD12	25:Y:43:LYS:HG2	1.20	1.09
28:b:2:PRO:C	28:b:3:LEU:HD23	1.76	1.09
33:g:282:GLU:CG	33:g:283:PRO:CD	2.29	1.09
4:D:210:ILE:HD13	18:R:15:VAL:HG12	1.33	1.09
5:E:47:PHE:CZ	5:E:52:LEU:HD11	1.86	1.09
5:E:49:ARG:HD3	5:E:49:ARG:O	1.52	1.09
7:G:76:LEU:HD21	7:G:92:ARG:HG2	1.32	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:176:ILE:HG22	7:G:179:LEU:HB3	1.25	1.09
8:H:93:VAL:HG23	8:H:94:PHE:H	1.11	1.09
11:K:71:LEU:HD23	11:K:76:ILE:CD1	1.81	1.09
12:L:147:LYS:C	12:L:147:LYS:HD3	1.73	1.09
14:N:38:TYR:CE2	14:N:74:ILE:CG2	2.34	1.09
15:O:99:ALA:N	15:O:133:THR:HG22	1.68	1.09
16:P:49:LEU:O	16:P:51:ARG:CA	1.99	1.09
16:P:121:ILE:CG2	19:S:123:LEU:HD12	1.80	1.09
16:P:127:LYS:HB2	16:P:127:LYS:NZ	1.64	1.09
17:Q:54:PRO:HG3	17:Q:88:ILE:CD1	1.82	1.09
18:R:122:PRO:CA	18:R:123:THR:CG2	2.30	1.09
21:U:103:SER:O	21:U:106:ILE:CG2	1.99	1.09
24:X:40:PRO:HB3	24:X:81:ILE:HD11	1.30	1.09
31:e:119:VAL:C	31:e:121:PRO:CD	2.25	1.09
1:A:45:GLY:O	1:A:46:ILE:HG12	1.50	1.09
1:A:133:PRO:HD2	1:A:134:LEU:H	1.03	1.09
1:A:141:ASN:HA	22:V:32:ILE:CG1	1.82	1.09
6:F:185:SER:HA	6:F:190:ILE:HG21	1.11	1.09
8:H:143:ARG:HE	23:W:53:ILE:HG23	1.10	1.09
14:N:38:TYR:CD1	14:N:78:LYS:HD2	1.86	1.09
18:R:17:ILE:HG22	18:R:69:ILE:HD11	1.14	1.09
19:S:46:ARG:CZ	20:T:50:GLU:CB	2.30	1.09
19:S:124:ARG:HD3	19:S:130:ARG:O	1.52	1.09
23:W:11:LEU:O	23:W:14:ILE:CG1	1.99	1.09
25:Y:10:ARG:HG2	25:Y:24:VAL:HB	1.31	1.09
31:e:124:GLY:C	31:e:125:LYS:HG3	1.70	1.09
33:g:87:LEU:HD12	33:g:101:PHE:HB2	1.14	1.09
33:g:284:PRO:O	33:g:302:TYR:HD1	1.35	1.09
4:D:47:GLU:HG2	4:D:85:GLU:CG	1.82	1.09
5:E:21:ASP:OD2	5:E:24:THR:HG21	1.52	1.09
13:M:124:ILE:HA	13:M:127:TYR:CD2	1.88	1.09
18:R:91:LEU:HD12	18:R:91:LEU:H	1.10	1.09
20:T:18:LEU:HD13	20:T:134:ILE:HD13	1.22	1.09
24:X:2:GLY:O	24:X:3:LYS:CG	2.01	1.09
24:X:52:LEU:HD12	24:X:53:GLU:N	1.68	1.09
24:X:128:VAL:HG13	24:X:128:VAL:O	1.51	1.09
25:Y:7:ILE:CD1	25:Y:43:LYS:CG	2.30	1.09
25:Y:63:HIS:HB3	25:Y:64:PHE:CD1	1.86	1.09
26:Z:48:VAL:HG22	26:Z:80:ARG:CD	1.82	1.09
1:A:205:ARG:CG	1:A:206:ASP:H	1.65	1.09
2:B:36:PRO:CB	2:B:231:LEU:HD21	1.82	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:137:LEU:CD2	2:B:215:VAL:HG22	1.83	1.09
5:E:38:LEU:HD12	5:E:38:LEU:O	1.53	1.09
6:F:47:LYS:HG3	17:Q:117:ARG:HH22	1.12	1.09
8:H:146:VAL:CG2	23:W:50:PHE:CZ	2.32	1.09
9:I:141:ARG:O	9:I:143:LYS:HE2	1.50	1.09
11:K:40:VAL:CG2	11:K:41:PRO:CD	2.30	1.09
17:Q:8:GLN:HG3	17:Q:99:TYR:HE1	0.97	1.09
17:Q:8:GLN:CB	17:Q:99:TYR:CE1	2.35	1.09
19:S:138:THR:CA	19:S:141:ARG:HH21	1.53	1.09
20:T:84:ARG:HH21	20:T:84:ARG:CG	1.66	1.09
23:W:26:LEU:HD12	23:W:26:LEU:O	1.53	1.09
30:d:5:GLN:CG	30:d:7:TYR:CE2	2.36	1.09
33:g:5:MET:HE1	33:g:312:VAL:HG13	1.25	1.09
34:i:181:A:H4'	34:i:182:C:H5'	1.29	1.09
34:i:1207:G:C2	34:i:1684:C:N3	2.21	1.09
1:A:58:LEU:HD23	1:A:178:LEU:CD2	1.74	1.08
2:B:124:HIS:HD2	2:B:136:HIS:NE2	1.50	1.08
6:F:41:VAL:HG22	6:F:42:LYS:CD	1.80	1.08
6:F:167:LYS:HD3	6:F:171:GLU:CB	1.83	1.08
10:J:100:LEU:CD1	10:J:104:ASP:OD2	2.01	1.08
10:J:127:ARG:HH11	10:J:127:ARG:CG	1.66	1.08
12:L:40:ILE:HD11	12:L:68:ILE:HB	1.30	1.08
15:O:56:VAL:HG12	15:O:81:VAL:HG22	1.30	1.08
15:O:61:LYS:CE	15:O:80:ASP:OD2	2.00	1.08
23:W:104:LEU:CD1	23:W:106:THR:HG23	1.83	1.08
25:Y:63:HIS:HB3	25:Y:64:PHE:CE1	1.88	1.08
28:b:33:MET:HE2	28:b:35:VAL:HG22	1.11	1.08
33:g:12:LYS:HG2	33:g:13:GLY:N	1.63	1.08
33:g:282:GLU:CB	33:g:283:PRO:HD2	1.72	1.08
2:B:137:LEU:CB	2:B:172:MET:HE1	1.83	1.08
4:D:197:LYS:CB	4:D:198:ILE:CG1	2.30	1.08
4:D:201:LYS:HE2	4:D:201:LYS:HA	1.35	1.08
7:G:76:LEU:HD22	7:G:92:ARG:CG	1.84	1.08
9:I:114:GLU:OE1	9:I:133:GLU:CG	2.00	1.08
9:I:141:ARG:HB2	9:I:144:LYS:HB2	1.09	1.08
11:K:40:VAL:HG22	11:K:41:PRO:N	1.59	1.08
13:M:116:LYS:O	13:M:117:GLU:HB2	1.43	1.08
1:A:66:VAL:HG11	1:A:186:ARG:HB3	1.35	1.08
3:C:51:LEU:O	3:C:51:LEU:HD22	1.54	1.08
4:D:132:LYS:H	4:D:191:PRO:HD3	1.06	1.08
5:E:153:LEU:HD23	7:G:216:ARG:HH22	1.14	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:49:LEU:HD12	6:F:50:PRO:HD2	1.29	1.08
7:G:142:ARG:HD3	7:G:147:LEU:CB	1.84	1.08
10:J:130:ILE:HG23	10:J:135:ILE:HD11	1.35	1.08
12:L:147:LYS:CD	12:L:148:ALA:CA	2.30	1.08
17:Q:30:GLY:O	17:Q:31:LEU:HD12	1.52	1.08
19:S:137:LYS:HG2	19:S:138:THR:HG23	1.34	1.08
20:T:31:PRO:CB	20:T:33:TRP:CE2	2.37	1.08
21:U:61:LEU:HD23	30:d:34:TYR:OH	1.53	1.08
31:e:114:ARG:C	31:e:119:VAL:CG2	2.26	1.08
34:i:1207:G:C5	34:i:1684:C:N3	2.22	1.08
35:l:88:ASP:HB2	35:l:90:ARG:NH2	1.69	1.08
6:F:14:THR:HG22	17:Q:56:LEU:HD22	1.15	1.08
6:F:45:TYR:O	6:F:47:LYS:HD3	1.44	1.08
6:F:78:MET:O	6:F:79:HIS:HB2	1.44	1.08
7:G:50:VAL:CG1	7:G:111:LEU:HD22	1.84	1.08
7:G:67:VAL:HG23	7:G:68:LEU:O	1.54	1.08
7:G:184:VAL:HG12	7:G:188:LYS:HE2	1.33	1.08
8:H:10:LYS:HE3	8:H:17:ASP:H	1.00	1.08
8:H:83:LEU:HD11	8:H:92:VAL:HB	1.16	1.08
10:J:119:LEU:N	10:J:119:LEU:HD23	1.64	1.08
10:J:134:HIS:O	10:J:135:ILE:HG23	1.54	1.08
11:K:14:LEU:HD22	11:K:35:LEU:HD22	1.09	1.08
17:Q:74:GLY:O	17:Q:80:GLN:NE2	1.87	1.08
21:U:48:LEU:N	21:U:48:LEU:HD23	1.65	1.08
26:Z:73:VAL:HG12	26:Z:79:ILE:HG21	1.35	1.08
1:A:141:ASN:O	22:V:32:ILE:HG12	1.50	1.08
2:B:124:HIS:CD2	2:B:136:HIS:NE2	2.22	1.08
8:H:9:VAL:HG12	8:H:44:ASN:OD1	1.53	1.08
14:N:28:LEU:HD11	14:N:58:HIS:NE2	1.69	1.08
15:O:142:ARG:NH1	27:a:27:ALA:CB	2.17	1.08
16:P:126:VAL:CG1	16:P:127:LYS:N	2.06	1.08
18:R:122:PRO:CB	18:R:123:THR:HG23	1.83	1.08
21:U:40:ILE:CD1	21:U:53:PRO:CG	2.13	1.08
24:X:105:PHE:CE2	24:X:119:ARG:CA	2.36	1.08
26:Z:103:HIS:CD2	26:Z:105:ALA:H	1.72	1.08
30:d:5:GLN:HG2	30:d:7:TYR:CE2	1.88	1.08
30:d:27:ARG:HH11	30:d:27:ARG:CB	1.66	1.08
35:l:30:TYR:CD1	35:l:107:GLN:HB3	1.88	1.08
1:A:176:TRP:CE3	1:A:177:MET:SD	2.46	1.07
2:B:150:ILE:HG13	18:R:124:VAL:HG13	1.36	1.07
3:C:154:TYR:CE1	3:C:162:PRO:HG3	1.89	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:197:LYS:HA	3:C:200:LEU:HD23	1.10	1.07
4:D:197:LYS:HB2	4:D:198:ILE:HG12	1.30	1.07
4:D:212:GLU:HB2	4:D:213:PRO:HD2	1.28	1.07
6:F:41:VAL:HG22	6:F:42:LYS:HD3	1.25	1.07
6:F:42:LYS:C	6:F:42:LYS:HE3	1.78	1.07
7:G:184:VAL:HG22	34:i:306:C:OP2	1.51	1.07
15:O:22:ALA:O	15:O:24:GLY:N	1.85	1.07
16:P:62:LYS:O	16:P:65:LYS:CG	2.01	1.07
18:R:20:TYR:CZ	18:R:38:ILE:HB	1.89	1.07
18:R:22:THR:HG22	18:R:73:LEU:HD11	1.30	1.07
18:R:33:ARG:HB2	33:g:150:TRP:CH2	1.88	1.07
19:S:94:LYS:HB3	19:S:95:TYR:O	1.54	1.07
28:b:2:PRO:HA	28:b:3:LEU:HD23	1.23	1.07
28:b:12:PRO:O	28:b:16:LYS:CG	2.00	1.07
29:c:15:THR:HG22	29:c:33:GLU:HG2	1.12	1.07
35:l:35:ILE:CG2	35:l:113:PHE:CD1	2.38	1.07
2:B:150:ILE:HD11	18:R:126:MET:HB2	1.36	1.07
3:C:51:LEU:HD13	3:C:78:ILE:HD13	1.30	1.07
3:C:84:GLY:HA2	3:C:87:LEU:HB3	1.30	1.07
3:C:98:GLN:HB2	3:C:106:ARG:O	1.55	1.07
3:C:234:SER:O	22:V:23:ILE:HD11	1.55	1.07
4:D:123:LEU:HD21	4:D:154:ASP:HB3	1.29	1.07
4:D:197:LYS:HB2	4:D:198:ILE:HG13	1.16	1.07
5:E:92:ILE:HB	5:E:97:GLU:OE1	1.52	1.07
6:F:14:THR:CB	17:Q:56:LEU:HD13	1.82	1.07
6:F:201:LYS:HE3	6:F:204:ARG:HH21	1.17	1.07
7:G:142:ARG:HD3	7:G:147:LEU:HB2	1.15	1.07
10:J:91:LYS:HA	10:J:96:TYR:HB2	1.29	1.07
11:K:11:ILE:HG21	11:K:49:MET:HE2	1.23	1.07
14:N:53:ILE:CD1	28:b:52:THR:CG2	2.32	1.07
15:O:19:PRO:HG2	15:O:27:VAL:CG2	1.62	1.07
16:P:8:LYS:O	16:P:11:THR:HG22	1.54	1.07
18:R:105:MET:O	18:R:109:LEU:CG	2.00	1.07
28:b:73:LEU:HD12	28:b:79:PHE:CE2	1.87	1.07
33:g:282:GLU:HB3	33:g:283:PRO:HD2	1.09	1.07
1:A:39:TYR:HB2	1:A:50:ASN:ND2	1.70	1.07
1:A:154:LEU:O	1:A:154:LEU:HD13	1.53	1.07
3:C:54:LEU:HD11	3:C:258:LEU:HD11	1.19	1.07
3:C:108:ARG:HD3	34:i:1354:U:OP1	1.54	1.07
5:E:248:ILE:HD11	10:J:72:PHE:CG	1.79	1.07
10:J:17:ARG:CG	10:J:18:ARG:CG	2.30	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:138:ARG:HH11	10:J:156:HIS:CG	1.72	1.07
11:K:11:ILE:HG21	11:K:49:MET:CE	1.71	1.07
12:L:99:TYR:CZ	24:X:14:ARG:HA	1.89	1.07
12:L:103:GLU:OE1	24:X:11:ARG:CB	2.02	1.07
14:N:12:SER:O	14:N:13:GLN:CG	2.02	1.07
14:N:16:LEU:HD11	14:N:62:GLN:HE22	1.12	1.07
14:N:132:LYS:HA	14:N:132:LYS:CE	1.69	1.07
15:O:20:GLN:HG2	15:O:21:VAL:N	1.61	1.07
15:O:131:ASP:HB2	27:a:67:LEU:HD21	1.12	1.07
20:T:30:VAL:HG23	20:T:30:VAL:O	1.53	1.07
20:T:141:ALA:O	20:T:142:LYS:CG	2.01	1.07
24:X:126:ALA:HB3	24:X:128:VAL:CB	1.84	1.07
25:Y:29:HIS:ND1	25:Y:67:GLY:C	2.13	1.07
31:e:119:VAL:CA	31:e:121:PRO:HD2	1.82	1.07
33:g:49:GLU:O	33:g:50:THR:HG23	1.50	1.07
1:A:141:ASN:CA	22:V:32:ILE:CG1	2.31	1.07
2:B:137:LEU:HB2	2:B:172:MET:HE1	1.08	1.07
3:C:93:LYS:CE	3:C:218:LEU:HD21	1.84	1.07
4:D:112:GLY:N	4:D:113:LEU:HD12	1.69	1.07
5:E:23:LEU:O	5:E:24:THR:HG23	1.52	1.07
6:F:14:THR:CB	17:Q:56:LEU:HB3	1.83	1.07
8:H:144:ILE:HB	23:W:52:ILE:HG23	1.34	1.07
10:J:170:PRO:HA	10:J:174:LYS:NZ	1.70	1.07
12:L:94:HIS:HB2	12:L:105:ARG:HD2	1.33	1.07
22:V:17:CYS:HG	22:V:56:CYS:CB	1.68	1.07
24:X:60:LYS:HE2	24:X:116:PRO:HG3	1.29	1.07
25:Y:34:THR:HG22	25:Y:35:VAL:N	1.60	1.07
34:i:61:A:H2	34:i:326:A:N9	1.45	1.07
34:i:1816:A:H2'	34:i:1817:A:C8	1.90	1.07
4:D:212:GLU:HG2	18:R:19:LYS:HD3	1.30	1.07
6:F:44:LYS:HB3	6:F:45:TYR:HE1	1.09	1.07
8:H:40:LEU:HD23	8:H:43:LEU:HD12	1.16	1.07
9:I:85:ALA:CB	12:L:8:ARG:HH11	1.66	1.07
9:I:136:ILE:HG23	9:I:139:LYS:HE3	1.14	1.07
17:Q:9:SER:CB	17:Q:26:LYS:CG	2.08	1.07
17:Q:42:ILE:HD13	17:Q:51:LEU:HD22	1.33	1.07
25:Y:19:GLN:OE1	25:Y:85:ASN:ND2	1.88	1.07
32:f:108:VAL:HG13	32:f:113:LYS:O	1.54	1.07
1:A:11:LYS:HG2	1:A:13:GLU:CG	1.84	1.06
1:A:180:ARG:HD3	1:A:184:ARG:NH2	1.70	1.06
2:B:153:THR:HG23	2:B:154:SER:H	1.16	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:12:VAL:HG11	30:d:36:LEU:HD12	1.36	1.06
4:D:157:MET:CE	4:D:187:LYS:CD	2.31	1.06
6:F:46:ALA:O	6:F:47:LYS:HD2	1.53	1.06
7:G:74:ARG:HD3	7:G:94:ARG:HD2	1.36	1.06
9:I:69:SER:HB3	12:L:19:ASN:ND2	1.66	1.06
10:J:89:GLU:O	10:J:92:MET:HB2	1.51	1.06
10:J:178:ALA:O	10:J:182:GLN:HG3	1.52	1.06
11:K:11:ILE:HG22	11:K:49:MET:HE1	1.27	1.06
11:K:15:LEU:HD13	11:K:21:MET:HE2	1.07	1.06
12:L:99:TYR:OH	24:X:14:ARG:HA	0.90	1.06
12:L:101:ARG:HB3	24:X:7:LEU:O	1.55	1.06
12:L:151:THR:O	12:L:153:LYS:HD3	1.53	1.06
16:P:49:LEU:CD1	16:P:51:ARG:NE	2.02	1.06
16:P:68:PRO:CB	16:P:69:PRO:HD3	1.84	1.06
17:Q:19:ALA:HB2	17:Q:74:GLY:C	1.78	1.06
17:Q:109:LYS:HG3	17:Q:113:ILE:HD12	1.22	1.06
19:S:39:ARG:NH2	20:T:38:LYS:NZ	1.80	1.06
20:T:46:ALA:CB	20:T:47:PRO:HD2	1.85	1.06
26:Z:48:VAL:HG22	26:Z:80:ARG:HD3	1.27	1.06
27:a:58:VAL:CG1	27:a:59:PHE:H	1.56	1.06
28:b:46:VAL:HG21	28:b:63:LEU:HD21	1.37	1.06
30:d:5:GLN:CG	30:d:7:TYR:HE2	1.66	1.06
31:e:113:ASN:ND2	34:i:542:G:OP1	1.89	1.06
1:A:118:GLU:CB	3:C:50:LYS:HZ1	1.65	1.06
1:A:125:THR:O	1:A:147:LEU:CB	2.02	1.06
1:A:145:ILE:HA	1:A:159:ILE:CG2	1.84	1.06
2:B:25:PHE:CZ	15:O:88:LEU:CD1	2.36	1.06
2:B:25:PHE:CD2	15:O:88:LEU:HD13	1.91	1.06
2:B:31:TYR:CD1	2:B:94:LYS:HA	1.90	1.06
2:B:63:LYS:O	2:B:88:THR:O	1.71	1.06
4:D:76:ARG:CD	11:K:66:HIS:HE1	1.63	1.06
6:F:34:SER:HB2	29:c:55:VAL:HB	1.36	1.06
7:G:41:LEU:HD21	7:G:45:TRP:CZ3	1.61	1.06
7:G:50:VAL:HG11	7:G:111:LEU:CD1	1.84	1.06
8:H:10:LYS:CE	8:H:17:ASP:H	1.67	1.06
8:H:145:ARG:HD2	23:W:51:GLU:HG2	1.30	1.06
10:J:50:LEU:HD12	10:J:102:ILE:CD1	1.85	1.06
11:K:34:GLU:O	11:K:35:LEU:HB2	1.31	1.06
12:L:80:MET:HE3	12:L:120:VAL:O	1.27	1.06
16:P:4:VAL:N	16:P:10:ARG:CG	2.19	1.06
16:P:41:GLN:HG3	16:P:84:ILE:HG21	1.13	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:53:GLN:CD	16:P:80:LEU:HD13	1.79	1.06
16:P:121:ILE:HG21	19:S:123:LEU:HD12	1.11	1.06
17:Q:58:LEU:CD2	17:Q:111:ILE:HD12	1.85	1.06
17:Q:58:LEU:CD1	17:Q:108:ILE:HG23	1.86	1.06
19:S:39:ARG:CD	20:T:38:LYS:CE	2.33	1.06
20:T:40:ALA:CB	20:T:43:LYS:HG2	1.84	1.06
20:T:46:ALA:HB1	20:T:47:PRO:HD2	1.08	1.06
25:Y:54:VAL:O	25:Y:75:ILE:HA	1.55	1.06
33:g:12:LYS:CD	33:g:13:GLY:CA	2.22	1.06
1:A:21:ALA:HB3	1:A:173:LEU:HD12	1.21	1.06
1:A:97:THR:HG22	1:A:98:PRO:HD2	1.31	1.06
6:F:41:VAL:HG22	6:F:42:LYS:N	1.53	1.06
8:H:164:ASN:OD1	8:H:167:GLU:OE2	1.74	1.06
8:H:191:GLU:O	8:H:192:PHE:CD1	2.08	1.06
8:H:191:GLU:O	8:H:192:PHE:CG	2.08	1.06
9:I:110:ARG:HH21	9:I:124:LYS:HD3	1.20	1.06
9:I:140:LYS:HG3	9:I:141:ARG:H	1.16	1.06
11:K:16:PHE:CD2	11:K:79:LEU:HB3	1.88	1.06
12:L:17:PHE:CE1	12:L:18:GLN:O	2.08	1.06
16:P:39:ALA:HA	16:P:42:ARG:NE	1.70	1.06
19:S:120:HIS:CD2	19:S:124:ARG:NE	2.23	1.06
25:Y:13:MET:CE	25:Y:14:THR:O	2.02	1.06
27:a:58:VAL:HG12	27:a:59:PHE:H	1.08	1.06
31:e:114:ARG:C	31:e:119:VAL:HG21	1.81	1.06
33:g:42:MET:CG	33:g:92:LEU:HD11	1.85	1.06
34:i:1825:A:H5'	34:i:1845:A:N6	1.19	1.06
2:B:67:PHE:CE1	15:O:48:SER:N	2.22	1.06
4:D:132:LYS:N	4:D:191:PRO:HD3	1.70	1.06
4:D:177:LEU:HD23	4:D:182:LEU:CD2	1.84	1.06
6:F:41:VAL:CG2	6:F:42:LYS:H	1.62	1.06
6:F:154:LEU:HD12	6:F:155:CYS:N	1.71	1.06
7:G:121:ILE:CG2	7:G:122:PRO:CD	2.33	1.06
7:G:145:PHE:HB3	7:G:147:LEU:HD11	1.30	1.06
12:L:146:THR:O	12:L:147:LYS:HB3	1.28	1.06
16:P:49:LEU:O	16:P:51:ARG:N	1.89	1.06
16:P:121:ILE:HG21	19:S:123:LEU:CD1	1.86	1.06
18:R:20:TYR:OH	18:R:38:ILE:CB	2.02	1.06
19:S:14:ARG:HH12	19:S:17:ASN:CA	1.68	1.06
32:f:135:HIS:CG	32:f:138:ARG:HG2	1.89	1.06
33:g:282:GLU:CB	33:g:283:PRO:CD	2.30	1.06
34:i:1055:G:C2	34:i:1824:U:OP1	2.08	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:19:LYS:HB2	2:B:19:LYS:NZ	1.69	1.06
2:B:66:VAL:HG21	2:B:87:ILE:HG22	1.35	1.06
4:D:2:ALA:HB3	4:D:3:VAL:HA	1.09	1.06
4:D:201:LYS:O	4:D:203:PRO:CD	2.04	1.06
5:E:248:ILE:CG1	10:J:72:PHE:CE1	2.39	1.06
7:G:212:LEU:HA	7:G:215:LYS:HE2	1.35	1.06
10:J:66:LYS:HA	10:J:71:LEU:HD11	1.37	1.06
12:L:95:TYR:HA	12:L:102:PHE:HB3	1.14	1.06
12:L:149:ALA:HB3	12:L:156:GLN:HG2	1.33	1.06
14:N:38:TYR:HE2	14:N:74:ILE:HG22	1.21	1.06
19:S:6:PRO:HA	26:Z:50:PHE:HB2	1.11	1.06
21:U:61:LEU:CD2	30:d:34:TYR:CE1	2.38	1.06
23:W:90:GLN:HA	23:W:102:ILE:HD11	1.37	1.06
24:X:94:ILE:HG12	24:X:125:VAL:HG21	1.32	1.06
25:Y:32:LYS:HG3	25:Y:33:ALA:H	1.11	1.06
28:b:16:LYS:HA	28:b:23:ARG:HH21	0.96	1.06
33:g:172:LYS:HE2	33:g:192:THR:HG22	1.15	1.06
1:A:110:ASN:HA	34:i:1347:G:C4'	1.84	1.05
2:B:107:ARG:NH2	15:O:133:THR:O	1.86	1.05
6:F:76:MET:HE1	6:F:169:ILE:HG21	1.32	1.05
7:G:121:ILE:HG23	7:G:122:PRO:HD3	1.09	1.05
10:J:39:ASN:OD1	10:J:42:GLU:OE2	1.73	1.05
15:O:23:GLU:O	15:O:23:GLU:HG2	1.52	1.05
15:O:35:ALA:CB	15:O:112:ALA:HB2	1.84	1.05
15:O:125:LYS:NZ	27:a:57:SER:C	2.14	1.05
17:Q:54:PRO:HG3	17:Q:88:ILE:HD11	1.37	1.05
20:T:144:LYS:HB2	20:T:144:LYS:NZ	1.71	1.05
25:Y:10:ARG:HE	25:Y:24:VAL:CG1	1.68	1.05
25:Y:61:ARG:N	25:Y:61:ARG:HD2	1.70	1.05
25:Y:101:LYS:O	25:Y:102:THR:HG23	1.56	1.05
33:g:201:SER:HB2	33:g:202:PRO:CD	1.86	1.05
1:A:190:SER:O	1:A:191:ARG:HG2	1.56	1.05
3:C:76:SER:O	3:C:79:ILE:HG23	1.54	1.05
3:C:142:LEU:CA	3:C:145:LEU:CD2	2.34	1.05
4:D:112:GLY:C	4:D:113:LEU:CD1	2.28	1.05
4:D:218:LEU:CG	4:D:220:THR:HG21	1.79	1.05
5:E:159:THR:HG23	5:E:227:VAL:HG22	1.30	1.05
7:G:64:LYS:CG	7:G:67:VAL:HG13	1.86	1.05
8:H:83:LEU:CD1	8:H:92:VAL:HB	1.86	1.05
9:I:139:LYS:CB	9:I:145:ILE:CD1	2.34	1.05
9:I:154:LYS:C	9:I:154:LYS:CE	2.29	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:94:HIS:CB	12:L:105:ARG:HD2	1.86	1.05
13:M:91:LEU:HD22	13:M:104:VAL:HG13	1.33	1.05
15:O:129:ILE:HB	27:a:65:PRO:HG3	1.38	1.05
20:T:89:PRO:O	20:T:91:HIS:NE2	1.90	1.05
24:X:100:VAL:HG12	24:X:125:VAL:HG22	1.36	1.05
25:Y:61:ARG:HH21	25:Y:61:ARG:CG	1.66	1.05
29:c:15:THR:HG21	29:c:33:GLU:HG2	1.38	1.05
33:g:261:LEU:C	33:g:264:LYS:HE3	1.79	1.05
6:F:42:LYS:C	6:F:42:LYS:CE	2.29	1.05
6:F:145:ARG:HD3	29:c:49:PRO:CD	1.86	1.05
7:G:70:HIS:HB2	7:G:103:ASP:OD2	1.55	1.05
10:J:21:GLU:O	10:J:23:SER:N	1.88	1.05
10:J:131:ARG:HD2	10:J:143:ASN:OD1	1.56	1.05
11:K:60:GLU:OE2	11:K:67:PHE:HD1	1.38	1.05
25:Y:20:ARG:HD2	25:Y:74:MET:HE2	1.38	1.05
26:Z:99:LEU:CD1	26:Z:102:LYS:CE	2.14	1.05
35:l:88:ASP:HB2	35:l:90:ARG:HH22	1.19	1.05
1:A:11:LYS:CG	1:A:13:GLU:CG	2.35	1.05
1:A:112:ILE:CD1	34:i:1346:U:H4'	1.86	1.05
2:B:113:MET:CE	2:B:211:PHE:CZ	2.39	1.05
2:B:209:ASP:OD1	2:B:211:PHE:HZ	1.37	1.05
4:D:196:GLY:N	4:D:197:LYS:HA	1.58	1.05
4:D:213:PRO:O	4:D:214:LYS:HB3	1.50	1.05
6:F:25:THR:HG21	6:F:42:LYS:CD	1.78	1.05
6:F:123:GLU:CD	29:c:59:LEU:HD11	1.78	1.05
6:F:145:ARG:HD3	29:c:49:PRO:HD2	1.39	1.05
7:G:176:ILE:HB	7:G:179:LEU:CD2	1.87	1.05
8:H:83:LEU:HD22	8:H:92:VAL:HG11	1.09	1.05
9:I:142:SER:HB2	9:I:143:LYS:NZ	1.72	1.05
10:J:37:LEU:HD21	10:J:42:GLU:CB	1.87	1.05
10:J:122:SER:OG	10:J:124:HIS:HB2	1.57	1.05
11:K:3:MET:CE	11:K:8:ARG:CZ	2.31	1.05
18:R:5:ARG:O	18:R:10:LYS:CE	2.05	1.05
20:T:29:LYS:HA	20:T:29:LYS:HE3	1.37	1.05
35:l:71:GLY:HA2	35:l:85:LEU:HA	1.39	1.05
1:A:177:MET:HE1	1:A:180:ARG:CZ	1.85	1.05
2:B:131:ASP:OD2	2:B:180:ASP:HB2	1.57	1.05
3:C:59:LYS:HG3	3:C:254:PHE:CD1	1.92	1.05
6:F:122:ARG:NE	6:F:193:LYS:HZ1	1.54	1.05
6:F:141:VAL:CG1	29:c:47:LYS:HZ1	1.70	1.05
7:G:184:VAL:HG22	34:i:306:C:P	1.96	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:88:ASP:O	10:J:91:LYS:HB2	1.55	1.05
12:L:10:TYR:CE2	12:L:12:LYS:HE3	1.92	1.05
12:L:147:LYS:CD	12:L:147:LYS:C	2.30	1.05
15:O:131:ASP:HB2	27:a:67:LEU:CD2	1.87	1.05
17:Q:9:SER:HB2	17:Q:26:LYS:CE	1.86	1.05
17:Q:30:GLY:HA2	17:Q:66:VAL:O	1.55	1.05
21:U:50:VAL:HG21	21:U:52:GLY:CA	1.87	1.05
25:Y:36:PRO:CD	25:Y:39:GLU:OE1	2.04	1.05
25:Y:60:PHE:C	25:Y:61:ARG:HD2	1.82	1.05
34:i:61:A:C2	34:i:326:A:C8	2.44	1.05
1:A:30:LEU:HD11	1:A:38:ILE:HD11	1.35	1.04
1:A:120:ARG:CD	3:C:251:TYR:HE2	1.68	1.04
1:A:205:ARG:HG2	1:A:206:ASP:H	0.93	1.04
2:B:179:ASN:CG	2:B:183:GLU:OE1	1.99	1.04
6:F:123:GLU:CG	29:c:59:LEU:HD11	1.87	1.04
9:I:48:VAL:HG22	9:I:52:ASN:O	1.57	1.04
10:J:89:GLU:N	10:J:92:MET:SD	2.29	1.04
11:K:96:ARG:HG3	11:K:97:SER:H	1.21	1.04
16:P:10:ARG:HH21	16:P:11:THR:CG2	1.69	1.04
16:P:41:GLN:HG3	16:P:84:ILE:CG2	1.65	1.04
17:Q:85:ARG:HH12	17:Q:117:ARG:HG2	1.18	1.04
17:Q:112:LEU:HD22	17:Q:119:LEU:CD1	1.85	1.04
19:S:16:LEU:O	19:S:17:ASN:CG	2.00	1.04
21:U:61:LEU:HD22	30:d:34:TYR:CE1	1.91	1.04
25:Y:7:ILE:CD1	25:Y:43:LYS:HB3	1.86	1.04
26:Z:64:ASN:O	26:Z:111:ARG:NH2	1.88	1.04
28:b:33:MET:CE	28:b:79:PHE:HB3	1.83	1.04
31:e:127:LYS:C	31:e:127:LYS:CD	2.30	1.04
1:A:188:THR:O	1:A:188:THR:HG23	1.56	1.04
4:D:2:ALA:HB1	4:D:3:VAL:C	1.82	1.04
4:D:18:LYS:NZ	4:D:37:VAL:HG23	1.71	1.04
8:H:15:LYS:HB3	8:H:16:PRO:CD	1.84	1.04
8:H:40:LEU:HD23	8:H:43:LEU:CD1	1.81	1.04
10:J:18:ARG:HB2	10:J:21:GLU:OE2	1.57	1.04
18:R:122:PRO:HA	18:R:123:THR:CG2	1.86	1.04
19:S:61:GLU:O	19:S:64:VAL:CG2	2.05	1.04
22:V:24:ILE:CD1	22:V:25:GLY:N	2.18	1.04
24:X:109:GLY:O	24:X:119:ARG:HD3	1.56	1.04
25:Y:21:LYS:HE2	25:Y:77:ASP:OD1	1.57	1.04
25:Y:36:PRO:HG2	25:Y:39:GLU:HG3	1.36	1.04
25:Y:61:ARG:HG3	25:Y:61:ARG:NH2	1.63	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:f:135:HIS:HB3	32:f:138:ARG:HG2	1.30	1.04
33:g:140:TYR:CE2	33:g:182:CYS:SG	2.51	1.04
33:g:172:LYS:CE	33:g:192:THR:CG2	2.35	1.04
1:A:85:ARG:HH21	1:A:201:LEU:HD12	1.22	1.04
2:B:19:LYS:O	2:B:21:VAL:CG1	2.05	1.04
2:B:105:LEU:CD1	2:B:110:MET:CE	2.36	1.04
7:G:226:GLU:O	7:G:230:LYS:NZ	1.91	1.04
8:H:9:VAL:CG1	8:H:44:ASN:OD1	2.05	1.04
8:H:50:GLU:OE2	8:H:58:LYS:HD3	1.57	1.04
10:J:110:LEU:HD12	10:J:130:ILE:HD13	1.36	1.04
10:J:130:ILE:HG12	10:J:135:ILE:HD13	1.36	1.04
12:L:158:PHE:HD2	12:L:158:PHE:N	1.56	1.04
13:M:94:ILE:CG2	13:M:95:ASP:N	2.17	1.04
18:R:33:ARG:HB2	33:g:150:TRP:HH2	1.16	1.04
20:T:31:PRO:HB3	20:T:33:TRP:CE2	1.91	1.04
21:U:50:VAL:HG21	21:U:52:GLY:HA2	1.05	1.04
29:c:59:LEU:HB2	29:c:60:GLU:OE1	1.56	1.04
32:f:140:TYR:OH	32:f:146:LEU:CB	2.05	1.04
33:g:42:MET:HG3	33:g:92:LEU:HD11	1.08	1.04
1:A:32:PHE:HE1	1:A:33:GLN:NE2	1.56	1.04
2:B:105:LEU:O	2:B:106:THR:HG23	1.58	1.04
2:B:113:MET:CE	2:B:209:ASP:CG	2.29	1.04
3:C:149:PRO:HB2	3:C:233:TYR:CD2	1.93	1.04
4:D:158:ILE:CD1	4:D:189:MET:HE2	1.87	1.04
4:D:176:LEU:HD12	4:D:176:LEU:N	1.68	1.04
8:H:145:ARG:HD2	23:W:51:GLU:CG	1.88	1.04
17:Q:93:VAL:HG13	17:Q:105:LYS:CE	1.71	1.04
20:T:28:LEU:O	20:T:28:LEU:HD22	1.58	1.04
20:T:77:LYS:CG	20:T:92:PHE:CZ	2.34	1.04
20:T:111:LYS:CB	20:T:126:GLN:NE2	2.20	1.04
22:V:40:ASP:CB	22:V:47:ASN:ND2	2.20	1.04
22:V:78:ILE:HD13	22:V:79:VAL:H	1.14	1.04
25:Y:29:HIS:CE1	25:Y:67:GLY:CA	2.39	1.04
25:Y:36:PRO:CG	25:Y:39:GLU:CG	2.36	1.04
25:Y:61:ARG:HH21	25:Y:61:ARG:HG3	0.91	1.04
28:b:34:ASP:HB3	28:b:43:ILE:HG21	1.37	1.04
33:g:7:LEU:HD12	33:g:310:TRP:NE1	1.68	1.04
33:g:202:PRO:HB2	33:g:203:ASP:OD1	1.58	1.04
34:i:1207:G:N3	34:i:1684:C:C2	2.23	1.04
1:A:43:SER:C	1:A:44:ASP:OD1	1.99	1.04
2:B:113:MET:SD	2:B:211:PHE:CE2	2.49	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:225:LEU:HB3	2:B:229:MET:HE2	1.37	1.04
4:D:2:ALA:CB	4:D:3:VAL:CA	2.29	1.04
5:E:208:VAL:CG1	5:E:225:ILE:HD13	1.86	1.04
6:F:185:SER:HA	6:F:190:ILE:CG2	1.88	1.04
8:H:144:ILE:HB	23:W:52:ILE:HG22	1.09	1.04
8:H:146:VAL:CG1	23:W:42:MET:SD	2.46	1.04
9:I:194:GLU:CG	12:L:12:LYS:HZ1	1.68	1.04
10:J:67:ASP:OD1	10:J:68:PRO:HD2	1.56	1.04
14:N:55:ARG:NH2	28:b:51:GLN:NE2	2.06	1.04
16:P:123:TYR:CE2	19:S:120:HIS:NE2	2.25	1.04
18:R:105:MET:O	18:R:109:LEU:CD1	2.05	1.04
19:S:120:HIS:CE1	19:S:124:ARG:NH2	2.25	1.04
21:U:18:HIS:HE1	21:U:98:VAL:CG2	1.69	1.04
28:b:82:LYS:O	28:b:83:GLN:NE2	1.91	1.04
30:d:23:VAL:HG23	30:d:38:MET:SD	1.98	1.04
1:A:34:MET:HE3	1:A:37:TYR:HD2	1.18	1.03
1:A:136:GLU:OE2	34:i:1374:A:N6	1.89	1.03
2:B:20:LYS:C	2:B:21:VAL:CG1	2.29	1.03
3:C:234:SER:O	22:V:23:ILE:CD1	2.06	1.03
6:F:42:LYS:HD3	6:F:42:LYS:N	1.39	1.03
8:H:23:ILE:HD13	8:H:27:LEU:HD23	1.34	1.03
9:I:154:LYS:HD3	9:I:155:ASN:N	1.72	1.03
10:J:110:LEU:HD12	10:J:130:ILE:CG1	1.87	1.03
11:K:40:VAL:HG22	11:K:41:PRO:O	1.56	1.03
14:N:127:ARG:O	14:N:131:THR:HG23	1.58	1.03
16:P:9:LYS:C	16:P:10:ARG:HG3	1.82	1.03
16:P:33:LEU:CD2	16:P:87:PRO:HD2	1.84	1.03
17:Q:58:LEU:CD2	17:Q:111:ILE:HD13	1.84	1.03
18:R:42:PRO:HD2	18:R:43:SER:H	1.22	1.03
23:W:129:PHE:O	23:W:129:PHE:HD1	1.40	1.03
24:X:95:GLU:CG	24:X:140:ARG:HH22	1.70	1.03
24:X:142:ARG:HH11	24:X:142:ARG:CG	1.65	1.03
29:c:10:LYS:HD2	29:c:61:SER:HB2	1.39	1.03
30:d:26:ASN:ND2	34:i:1491:G:O2'	1.90	1.03
32:f:98:VAL:CG1	32:f:99:LYS:H	1.69	1.03
33:g:232:GLY:HA2	33:g:257:LYS:HZ2	1.20	1.03
1:A:30:LEU:HD21	1:A:35:GLU:HG3	1.06	1.03
2:B:25:PHE:CD2	15:O:88:LEU:CD1	2.40	1.03
4:D:2:ALA:CB	4:D:3:VAL:C	2.29	1.03
6:F:201:LYS:HD2	6:F:204:ARG:NH2	1.74	1.03
8:H:93:VAL:CG2	8:H:94:PHE:N	2.13	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:21:TYR:CE2	9:I:22:HIS:CD2	2.47	1.03
11:K:11:ILE:HG23	11:K:49:MET:CE	1.84	1.03
11:K:14:LEU:CD2	11:K:35:LEU:HD22	1.80	1.03
12:L:4:ILE:HD12	12:L:4:ILE:H	1.12	1.03
16:P:53:GLN:HG2	16:P:80:LEU:HD12	1.39	1.03
16:P:83:MET:HE3	16:P:116:LEU:HD11	1.07	1.03
17:Q:76:GLY:O	17:Q:80:GLN:HG3	1.56	1.03
17:Q:100:VAL:CG1	17:Q:101:ASP:H	1.72	1.03
19:S:11:HIS:CD2	19:S:23:ARG:NH2	2.23	1.03
22:V:42:VAL:O	22:V:43:THR:HG23	1.55	1.03
26:Z:80:ARG:HG2	26:Z:82:SER:OG	1.56	1.03
27:a:62:TYR:O	27:a:63:VAL:CB	2.06	1.03
29:c:5:ARG:O	29:c:6:VAL:HG23	1.57	1.03
33:g:12:LYS:CG	33:g:13:GLY:N	2.17	1.03
4:D:218:LEU:HG	4:D:220:THR:HG23	1.05	1.03
5:E:70:ILE:HG12	5:E:92:ILE:HD13	1.37	1.03
16:P:118:GLU:O	19:S:119:ALA:HB1	1.58	1.03
16:P:127:LYS:HB2	16:P:127:LYS:HZ2	0.88	1.03
21:U:49:LYS:O	21:U:50:VAL:HG12	1.57	1.03
33:g:46:THR:O	33:g:47:ARG:CB	2.05	1.03
1:A:34:MET:HE1	1:A:37:TYR:CE2	1.93	1.03
6:F:14:THR:HG21	17:Q:56:LEU:CD1	1.88	1.03
6:F:42:LYS:CD	6:F:42:LYS:C	2.29	1.03
6:F:45:TYR:O	6:F:47:LYS:HE2	1.56	1.03
6:F:91:ARG:HH12	6:F:94:LYS:CG	1.72	1.03
13:M:12:MET:HG3	13:M:16:THR:HG23	1.10	1.03
15:O:55:ARG:O	15:O:56:VAL:HG12	1.57	1.03
16:P:128:HIS:HE1	34:i:1516:C:O2	1.42	1.03
19:S:120:HIS:CD2	19:S:124:ARG:HE	1.73	1.03
22:V:24:ILE:O	22:V:24:ILE:HG23	1.58	1.03
24:X:107:ARG:O	24:X:110:HIS:CE1	2.12	1.03
25:Y:78:SER:HB2	25:Y:81:TYR:CD2	1.90	1.03
1:A:118:GLU:OE1	3:C:50:LYS:NZ	1.91	1.03
2:B:67:PHE:CE1	15:O:47:LEU:C	2.37	1.03
3:C:197:LYS:CA	3:C:200:LEU:HD23	1.81	1.03
3:C:223:LYS:HE3	34:i:1351:C:C2'	1.80	1.03
5:E:248:ILE:O	10:J:72:PHE:HE1	1.42	1.03
7:G:27:PHE:CZ	7:G:41:LEU:HD12	1.94	1.03
7:G:121:ILE:HG23	7:G:122:PRO:HD2	1.39	1.03
8:H:23:ILE:HD13	8:H:27:LEU:CD2	1.89	1.03
8:H:144:ILE:CB	23:W:52:ILE:HG23	1.87	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:161:LEU:O	10:J:162:ARG:CB	1.96	1.03
16:P:82:ASP:OD2	34:i:1614:A:O2'	1.75	1.03
18:R:91:LEU:HD13	18:R:92:ASP:HA	1.38	1.03
19:S:117:ILE:O	19:S:118:ARG:CG	2.07	1.03
20:T:76:THR:O	20:T:95:GLY:N	1.90	1.03
23:W:128:PHE:CE1	23:W:130:PHE:CE2	2.45	1.03
28:b:81:ARG:HB2	28:b:82:LYS:HB2	1.04	1.03
30:d:23:VAL:CB	30:d:38:MET:HE1	1.87	1.03
33:g:143:GLN:CD	33:g:144:ASP:CA	2.32	1.03
33:g:176:VAL:HB	33:g:186:THR:HG22	1.35	1.03
1:A:145:ILE:HA	1:A:159:ILE:HG22	1.41	1.02
1:A:185:MET:O	1:A:186:ARG:C	2.01	1.02
4:D:112:GLY:CA	4:D:113:LEU:HD12	1.89	1.02
6:F:25:THR:HG23	6:F:41:VAL:CG2	1.89	1.02
6:F:42:LYS:CB	6:F:45:TYR:N	2.14	1.02
8:H:10:LYS:HE3	8:H:17:ASP:N	1.72	1.02
8:H:16:PRO:HA	8:H:17:ASP:HB2	1.39	1.02
8:H:144:ILE:HD12	23:W:52:ILE:HG21	1.05	1.02
10:J:127:ARG:HG3	10:J:127:ARG:NH1	1.55	1.02
11:K:28:HIS:HE1	30:d:8:TRP:NE1	1.50	1.02
17:Q:112:LEU:HD22	17:Q:119:LEU:HD13	1.04	1.02
18:R:90:ALA:HB1	18:R:92:ASP:OD2	1.57	1.02
25:Y:21:LYS:HD3	25:Y:21:LYS:N	1.74	1.02
2:B:120:MET:HE3	2:B:142:PHE:HZ	1.24	1.02
3:C:101:THR:CG2	3:C:104:GLY:O	2.06	1.02
8:H:146:VAL:HG12	23:W:42:MET:SD	1.99	1.02
12:L:4:ILE:H	12:L:4:ILE:CD1	1.68	1.02
12:L:147:LYS:CG	12:L:148:ALA:CA	2.29	1.02
16:P:108:LYS:H	16:P:111:MET:HE3	1.18	1.02
17:Q:100:VAL:HG12	17:Q:101:ASP:N	1.68	1.02
20:T:75:MET:HE3	20:T:79:TYR:HE2	0.89	1.02
29:c:11:LEU:HD13	29:c:35:MET:HE2	1.39	1.02
31:e:113:ASN:HA	31:e:117:VAL:HG23	1.41	1.02
34:i:138:C:OP2	34:i:1768:C:H4'	1.58	1.02
2:B:47:THR:HG21	2:B:67:PHE:CZ	1.94	1.02
3:C:151:ARG:HH12	3:C:240:LEU:HD11	0.88	1.02
4:D:105:LEU:HD23	4:D:184:ILE:HD12	1.04	1.02
5:E:208:VAL:CG2	5:E:225:ILE:CD1	2.28	1.02
9:I:7:ASN:O	9:I:9:HIS:O	1.78	1.02
10:J:161:LEU:O	10:J:162:ARG:HB2	1.52	1.02
15:O:56:VAL:CG1	15:O:81:VAL:HG22	1.83	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:10:ARG:NE	16:P:11:THR:H	1.57	1.02
18:R:91:LEU:HB2	18:R:93:GLN:N	1.74	1.02
18:R:122:PRO:HB3	18:R:123:THR:HG21	1.40	1.02
33:g:162:ASN:ND2	33:g:163:PRO:CD	2.22	1.02
1:A:66:VAL:HG13	1:A:186:ARG:CD	1.90	1.02
2:B:105:LEU:HD11	2:B:213:ARG:CB	1.89	1.02
3:C:59:LYS:HG3	3:C:254:PHE:CE1	1.94	1.02
3:C:101:THR:HG23	3:C:103:ALA:O	1.59	1.02
3:C:234:SER:HA	22:V:23:ILE:HD12	1.38	1.02
4:D:218:LEU:O	4:D:218:LEU:HD23	1.59	1.02
5:E:248:ILE:C	10:J:72:PHE:HE1	1.67	1.02
6:F:42:LYS:HD3	6:F:42:LYS:H	0.88	1.02
6:F:63:LYS:HD3	6:F:71:ARG:NH1	1.67	1.02
6:F:201:LYS:CD	6:F:204:ARG:HH21	1.72	1.02
11:K:83:LEU:O	11:K:84:HIS:CG	2.12	1.02
13:M:64:LEU:CD1	32:f:104:LYS:HZ3	1.71	1.02
17:Q:114:GLN:HG3	17:Q:115:TYR:H	1.20	1.02
18:R:5:ARG:CB	18:R:10:LYS:NZ	2.22	1.02
20:T:84:ARG:HH21	20:T:84:ARG:HG3	1.22	1.02
33:g:191:HIS:CD2	33:g:195:LEU:CD2	2.42	1.02
1:A:66:VAL:CG2	1:A:186:ARG:HD3	1.90	1.02
1:A:97:THR:CG2	1:A:98:PRO:CD	2.37	1.02
4:D:21:LEU:HD11	4:D:48:ILE:CD1	1.90	1.02
6:F:167:LYS:CD	6:F:171:GLU:CG	2.37	1.02
11:K:4:PRO:HG2	11:K:7:ASN:HB2	1.37	1.02
13:M:12:MET:HE1	13:M:120:ALA:HB1	1.40	1.02
14:N:53:ILE:HD12	28:b:52:THR:HG21	1.37	1.02
19:S:12:ILE:O	19:S:12:ILE:HG22	1.60	1.02
25:Y:63:HIS:ND1	25:Y:64:PHE:HE1	1.58	1.02
31:e:127:LYS:C	31:e:127:LYS:HD2	1.82	1.02
35:l:30:TYR:CE2	35:l:107:GLN:HA	1.95	1.02
2:B:48:LEU:H	2:B:48:LEU:HD12	1.22	1.01
2:B:87:ILE:HG21	2:B:101:HIS:CD2	1.95	1.01
5:E:70:ILE:HG12	5:E:92:ILE:HD11	1.04	1.01
5:E:153:LEU:HD13	5:E:172:PHE:CE1	1.94	1.01
10:J:61:LEU:HD22	10:J:98:LEU:HD11	1.02	1.01
15:O:56:VAL:CG1	15:O:81:VAL:HG23	1.88	1.01
15:O:99:ALA:H	15:O:133:THR:HG22	0.85	1.01
16:P:5:GLU:N	16:P:10:ARG:HH11	1.56	1.01
16:P:108:LYS:HB3	16:P:110:GLU:OE1	1.60	1.01
19:S:39:ARG:HD3	20:T:38:LYS:CE	1.88	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:40:ASP:HB3	22:V:47:ASN:ND2	1.74	1.01
25:Y:20:ARG:HD3	25:Y:76:TYR:CZ	1.95	1.01
33:g:87:LEU:CD1	33:g:101:PHE:HB2	1.90	1.01
33:g:294:ASP:C	33:g:296:GLN:H	1.63	1.01
34:i:61:A:C2	34:i:326:A:C1'	2.27	1.01
1:A:9:GLN:HB3	1:A:10:MET:SD	2.00	1.01
1:A:11:LYS:HD3	1:A:13:GLU:HG3	1.42	1.01
4:D:212:GLU:CB	18:R:19:LYS:CD	2.37	1.01
5:E:49:ARG:C	5:E:49:ARG:CD	2.30	1.01
6:F:59:LYS:HD3	6:F:62:ARG:HD3	1.36	1.01
6:F:145:ARG:HG2	29:c:48:GLY:HA2	1.39	1.01
7:G:32:MET:SD	7:G:100:CYS:HA	1.99	1.01
14:N:27:LYS:CE	14:N:27:LYS:H	1.73	1.01
23:W:62:VAL:HB	28:b:8:LEU:HD21	1.07	1.01
25:Y:92:ALA:CA	25:Y:97:TYR:HB3	1.89	1.01
25:Y:99:LYS:CA	25:Y:99:LYS:CE	2.39	1.01
28:b:64:CYS:SG	28:b:73:LEU:HA	1.98	1.01
1:A:24:HIS:HD2	1:A:48:ILE:HG23	1.25	1.01
4:D:16:ILE:HG21	30:d:22:ARG:NH2	1.76	1.01
4:D:43:PRO:O	4:D:44:THR:HG23	1.58	1.01
4:D:176:LEU:H	4:D:176:LEU:CD1	1.72	1.01
4:D:212:GLU:CG	18:R:19:LYS:HD3	1.90	1.01
6:F:47:LYS:CG	17:Q:117:ARG:HH22	1.72	1.01
10:J:110:LEU:CD1	10:J:130:ILE:HD13	1.84	1.01
15:O:54:CYS:SG	15:O:84:ARG:HB3	2.01	1.01
20:T:31:PRO:CB	20:T:33:TRP:CZ2	2.42	1.01
26:Z:94:LYS:C	26:Z:94:LYS:HD3	1.84	1.01
27:a:23:CYS:CB	27:a:28:CYS:SG	2.49	1.01
1:A:145:ILE:HD12	1:A:159:ILE:HG21	1.36	1.01
1:A:205:ARG:HG2	1:A:206:ASP:N	1.72	1.01
2:B:105:LEU:HD12	2:B:110:MET:HE2	1.04	1.01
2:B:150:ILE:CD1	18:R:126:MET:HB2	1.89	1.01
4:D:212:GLU:CG	18:R:19:LYS:HD2	1.87	1.01
5:E:99:PHE:HE1	5:E:113:ARG:HG3	1.20	1.01
6:F:145:ARG:HG2	29:c:48:GLY:HA3	1.37	1.01
7:G:65:GLN:HA	7:G:100:CYS:SG	1.99	1.01
7:G:184:VAL:CG2	34:i:306:C:P	2.49	1.01
9:I:82:VAL:HG11	9:I:202:ILE:CD1	1.91	1.01
9:I:114:GLU:OE1	9:I:133:GLU:CD	1.93	1.01
10:J:38:ARG:HE	31:e:105:ARG:N	1.58	1.01
10:J:89:GLU:HA	10:J:92:MET:SD	1.95	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:7:GLU:CG	12:L:8:ARG:H	1.71	1.01
12:L:95:TYR:CA	12:L:102:PHE:HB3	1.89	1.01
13:M:12:MET:HG3	13:M:16:THR:CG2	1.90	1.01
14:N:132:LYS:HE3	14:N:132:LYS:HA	1.02	1.01
15:O:131:ASP:CB	27:a:67:LEU:HD21	1.89	1.01
16:P:62:LYS:HG3	16:P:65:LYS:HE2	1.40	1.01
17:Q:50:LYS:HA	17:Q:53:GLU:CD	1.85	1.01
18:R:5:ARG:CB	18:R:10:LYS:HZ3	1.72	1.01
18:R:33:ARG:NH2	33:g:83:TRP:CE3	2.29	1.01
20:T:40:ALA:HB3	20:T:43:LYS:HG2	1.01	1.01
28:b:82:LYS:O	28:b:83:GLN:CD	2.02	1.01
31:e:115:ARG:C	31:e:119:VAL:CG2	2.34	1.01
1:A:24:HIS:CD2	18:R:105:MET:HE3	1.95	1.01
1:A:34:MET:HE3	1:A:37:TYR:CD2	1.95	1.01
1:A:103:PHE:HE2	1:A:136:GLU:CD	1.68	1.01
1:A:127:PRO:HB2	1:A:153:PRO:HG2	1.38	1.01
1:A:127:PRO:HG2	1:A:153:PRO:HD2	1.42	1.01
2:B:137:LEU:HD22	2:B:215:VAL:HG22	1.04	1.01
3:C:155:TRP:CZ2	23:W:97:ARG:HD2	1.95	1.01
4:D:177:LEU:HD22	4:D:182:LEU:HD23	1.43	1.01
5:E:38:LEU:C	5:E:38:LEU:CD1	2.33	1.01
5:E:139:LEU:CD1	5:E:154:ILE:HG21	1.90	1.01
7:G:76:LEU:HD22	7:G:92:ARG:HG2	1.05	1.01
8:H:138:GLU:OE2	14:N:19:ARG:CB	2.09	1.01
10:J:17:ARG:CG	10:J:18:ARG:CD	2.29	1.01
15:O:79:GLN:NE2	29:c:5:ARG:HG2	1.73	1.01
17:Q:85:ARG:HH22	17:Q:117:ARG:HG2	1.19	1.01
24:X:139:GLU:O	24:X:141:PRO:HD3	1.60	1.01
26:Z:44:LEU:C	26:Z:44:LEU:CD1	2.30	1.01
32:f:97:LYS:HB2	32:f:97:LYS:NZ	1.73	1.01
1:A:24:HIS:CD2	18:R:105:MET:HE2	1.94	1.00
5:E:120:LYS:O	5:E:164:LEU:HB2	1.60	1.00
8:H:36:LEU:CD1	8:H:36:LEU:C	2.29	1.00
12:L:95:TYR:HA	12:L:102:PHE:CB	1.89	1.00
12:L:156:GLN:OE1	12:L:158:PHE:HE2	1.35	1.00
13:M:100:PRO:O	13:M:101:ARG:HD2	1.61	1.00
22:V:41:LYS:O	22:V:43:THR:N	1.94	1.00
25:Y:64:PHE:CD1	25:Y:64:PHE:N	2.29	1.00
28:b:10:PRO:HG2	28:b:15:GLU:OE2	1.60	1.00
33:g:201:SER:HB2	33:g:202:PRO:HD3	1.41	1.00
35:l:35:ILE:HB	35:l:113:PHE:H	1.21	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:118:GLU:OE1	3:C:50:LYS:CE	2.08	1.00
3:C:223:LYS:CE	34:i:1351:C:C1'	2.39	1.00
4:D:59:LEU:CD1	4:D:60:GLY:N	2.23	1.00
9:I:25:ARG:NH1	34:i:423:A:OP1	1.93	1.00
9:I:144:LYS:O	9:I:145:ILE:CG1	2.10	1.00
10:J:170:PRO:HB2	10:J:174:LYS:HE2	1.42	1.00
11:K:83:LEU:CD1	11:K:85:LEU:CD2	2.38	1.00
15:O:124:MET:O	27:a:56:VAL:CG1	2.09	1.00
16:P:127:LYS:HZ1	16:P:128:HIS:N	1.56	1.00
16:P:128:HIS:CE1	34:i:1516:C:O2	2.14	1.00
25:Y:35:VAL:HG12	25:Y:36:PRO:HD2	1.42	1.00
26:Z:52:LYS:O	26:Z:55:TYR:N	1.93	1.00
28:b:33:MET:HE3	28:b:79:PHE:CG	1.73	1.00
1:A:32:PHE:CE1	1:A:33:GLN:NE2	2.28	1.00
2:B:125:VAL:HG11	2:B:173:THR:HG22	1.43	1.00
3:C:195:PRO:CG	3:C:221:PHE:CZ	2.44	1.00
5:E:128:LYS:CD	5:E:130:PHE:CE1	2.44	1.00
5:E:129:ILE:HG13	5:E:139:LEU:HD22	1.34	1.00
6:F:42:LYS:CD	6:F:42:LYS:H	1.73	1.00
6:F:91:ARG:HH11	6:F:94:LYS:HB3	1.23	1.00
8:H:169:LYS:HB2	8:H:173:PHE:CE2	1.95	1.00
9:I:155:ASN:C	12:L:22:ARG:HD2	1.87	1.00
10:J:79:ARG:NH1	10:J:83:ARG:CZ	2.23	1.00
10:J:100:LEU:HG	10:J:101:LYS:N	1.73	1.00
11:K:62:PHE:CE1	11:K:67:PHE:CE2	2.50	1.00
11:K:83:LEU:CG	11:K:85:LEU:HD21	1.90	1.00
13:M:77:ILE:HG23	13:M:78:LYS:H	1.27	1.00
14:N:54:LEU:HB3	14:N:60:VAL:HG21	1.39	1.00
17:Q:9:SER:HB2	17:Q:26:LYS:HG3	1.35	1.00
17:Q:50:LYS:HZ1	17:Q:117:ARG:HD2	1.19	1.00
17:Q:100:VAL:HG12	17:Q:101:ASP:H	0.86	1.00
21:U:50:VAL:HG22	21:U:51:LYS:O	1.60	1.00
22:V:24:ILE:CD1	22:V:24:ILE:C	2.29	1.00
24:X:27:TYR:CD1	24:X:31:HIS:NE2	2.30	1.00
24:X:142:ARG:HH11	24:X:142:ARG:HB2	1.19	1.00
30:d:13:LYS:HE3	30:d:14:PHE:HE2	0.91	1.00
31:e:115:ARG:O	31:e:119:VAL:HG13	1.56	1.00
33:g:98:THR:O	33:g:99:ARG:HD2	1.60	1.00
4:D:76:ARG:HD3	11:K:66:HIS:HE1	1.25	1.00
5:E:248:ILE:C	10:J:72:PHE:CE1	2.39	1.00
9:I:206:LYS:HD2	9:I:207:GLY:H	1.24	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:127:ARG:HH12	10:J:145:PRO:HB2	1.23	1.00
11:K:2:LEU:O	11:K:3:MET:HB3	1.58	1.00
25:Y:36:PRO:HG3	25:Y:39:GLU:CD	1.86	1.00
35:l:43:THR:HG23	35:l:113:PHE:CZ	1.96	1.00
7:G:176:ILE:HG22	7:G:179:LEU:CB	1.91	1.00
8:H:83:LEU:HD13	8:H:92:VAL:CB	1.86	1.00
10:J:100:LEU:HD12	10:J:104:ASP:OD2	1.62	1.00
18:R:33:ARG:CB	33:g:150:TRP:CZ2	2.44	1.00
21:U:64:THR:HG22	21:U:79:ARG:CG	1.91	1.00
25:Y:18:LEU:CG	25:Y:20:ARG:NH1	2.25	1.00
30:d:13:LYS:HG3	30:d:14:PHE:HD2	1.27	1.00
3:C:101:THR:HG22	3:C:104:GLY:C	1.84	1.00
9:I:118:ALA:O	9:I:119:LEU:HD23	1.61	1.00
9:I:141:ARG:HD3	9:I:144:LYS:CB	1.92	1.00
10:J:92:MET:O	10:J:93:LYS:CE	2.10	1.00
14:N:21:SER:O	14:N:22:VAL:HG22	1.61	1.00
21:U:50:VAL:CG2	21:U:51:LYS:C	2.34	1.00
33:g:259:TRP:HE3	33:g:259:TRP:N	1.58	1.00
35:l:31:ILE:HD13	35:l:49:GLY:C	1.86	1.00
16:P:46:SER:O	16:P:49:LEU:HD22	1.61	1.00
16:P:53:GLN:HE21	16:P:80:LEU:HD13	1.26	1.00
20:T:103:VAL:O	20:T:107:LEU:HG	1.62	1.00
33:g:87:LEU:CD1	33:g:101:PHE:CB	2.40	1.00
34:i:1206:G:C8	34:i:1207:G:P	2.55	1.00
1:A:5:LEU:C	1:A:5:LEU:HD22	1.87	0.99
1:A:185:MET:HE1	22:V:39:VAL:HG12	1.00	0.99
2:B:20:LYS:C	2:B:21:VAL:HG13	1.87	0.99
9:I:19:LYS:HE2	9:I:20:PRO:HD2	1.39	0.99
9:I:79:ILE:HG22	9:I:103:LEU:O	1.63	0.99
12:L:10:TYR:HD2	12:L:12:LYS:NZ	1.54	0.99
18:R:13:ALA:CB	18:R:54:VAL:HG22	1.92	0.99
18:R:100:PRO:HB2	18:R:119:VAL:CG2	1.91	0.99
19:S:39:ARG:NE	20:T:38:LYS:CE	2.06	0.99
28:b:33:MET:HE2	28:b:35:VAL:CG2	1.90	0.99
34:i:1206:G:C4	34:i:1207:G:O4'	2.15	0.99
11:K:98:ARG:HG2	11:K:98:ARG:HH11	1.26	0.99
14:N:21:SER:O	14:N:22:VAL:HG13	1.61	0.99
16:P:44:ARG:NH2	16:P:84:ILE:N	2.09	0.99
16:P:111:MET:O	16:P:114:HIS:CD2	2.15	0.99
17:Q:93:VAL:HG13	17:Q:105:LYS:HD3	1.41	0.99
21:U:18:HIS:HE1	21:U:98:VAL:HG21	1.23	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:36:PRO:HG2	25:Y:39:GLU:CB	1.91	0.99
29:c:67:ARG:CG	29:c:68:LEU:H	1.73	0.99
2:B:55:THR:O	2:B:56:LYS:HD2	1.62	0.99
6:F:14:THR:HB	17:Q:56:LEU:HD13	1.43	0.99
7:G:188:LYS:HA	7:G:191:ARG:HD3	1.44	0.99
9:I:154:LYS:C	9:I:154:LYS:CD	2.30	0.99
13:M:70:ALA:HB3	13:M:71:GLU:OE2	1.61	0.99
15:O:54:CYS:SG	15:O:84:ARG:CB	2.51	0.99
16:P:46:SER:O	16:P:49:LEU:CD2	2.11	0.99
19:S:137:LYS:C	19:S:141:ARG:HH21	1.69	0.99
33:g:172:LYS:HE2	33:g:191:HIS:C	1.86	0.99
2:B:31:TYR:HD1	2:B:94:LYS:HA	1.27	0.99
2:B:87:ILE:CD1	2:B:101:HIS:HD2	1.74	0.99
19:S:46:ARG:CG	20:T:50:GLU:OE2	2.09	0.99
21:U:19:ARG:HG3	21:U:92:HIS:CE1	1.95	0.99
28:b:36:LYS:HG3	28:b:78:SER:OG	1.62	0.99
3:C:155:TRP:CZ2	23:W:97:ARG:CD	2.45	0.99
7:G:25:ARG:CG	7:G:28:TYR:CE2	2.45	0.99
34:i:1823:G:N2	34:i:1844:A:C2	2.29	0.99
18:R:20:TYR:CE2	18:R:38:ILE:HB	1.96	0.99
20:T:119:TRP:CD1	34:i:1556:A:C2	2.51	0.99
21:U:50:VAL:HG13	21:U:51:LYS:N	1.74	0.99
24:X:114:ASP:O	24:X:116:PRO:CD	2.10	0.99
25:Y:63:HIS:ND1	25:Y:64:PHE:CE1	2.30	0.99
35:l:104:LYS:HE2	35:l:104:LYS:HA	1.40	0.99
1:A:24:HIS:CD2	1:A:48:ILE:HG23	1.95	0.99
4:D:21:LEU:HD11	4:D:48:ILE:HD12	1.01	0.99
6:F:73:THR:CG2	6:F:93:VAL:HG21	1.91	0.99
7:G:142:ARG:HH11	7:G:142:ARG:HG3	1.26	0.99
10:J:138:ARG:HH11	10:J:156:HIS:CE1	1.78	0.99
11:K:28:HIS:HE1	30:d:8:TRP:CD1	1.81	0.99
12:L:146:THR:O	12:L:147:LYS:CB	2.04	0.99
16:P:84:ILE:O	16:P:86:LEU:HD23	1.59	0.99
16:P:127:LYS:C	16:P:127:LYS:CE	2.36	0.99
17:Q:93:VAL:HG13	17:Q:105:LYS:HE2	1.31	0.99
18:R:33:ARG:CB	33:g:150:TRP:CH2	2.45	0.99
24:X:29:LYS:CD	24:X:34:THR:OG1	2.11	0.99
33:g:194:TYR:CE2	33:g:212:LYS:HB2	1.96	0.99
2:B:136:HIS:CE1	2:B:138:PHE:CZ	2.50	0.99
3:C:195:PRO:CB	3:C:221:PHE:CZ	2.36	0.99
3:C:234:SER:CA	22:V:23:ILE:CD1	2.41	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:195:SER:C	4:D:197:LYS:CA	2.35	0.99
5:E:47:PHE:CE2	5:E:52:LEU:CD1	2.46	0.99
10:J:39:ASN:H	10:J:42:GLU:HG2	1.26	0.99
11:K:65:ARG:CB	11:K:65:ARG:HH11	1.75	0.99
16:P:123:TYR:OH	19:S:124:ARG:CZ	2.11	0.99
16:P:127:LYS:O	16:P:127:LYS:HE3	1.61	0.99
21:U:51:LYS:HB2	21:U:90:ASP:HB2	1.40	0.99
28:b:3:LEU:HD23	28:b:3:LEU:N	1.78	0.99
33:g:2:THR:O	33:g:3:GLU:HB3	1.61	0.99
1:A:57:LYS:CE	22:V:70:LEU:CD1	2.41	0.99
1:A:119:PRO:HG2	1:A:142:LEU:HD13	1.44	0.99
2:B:205:TYR:CG	2:B:206:PRO:HD2	1.98	0.99
6:F:18:LYS:HE3	17:Q:115:TYR:CD1	1.96	0.99
16:P:9:LYS:O	16:P:10:ARG:CG	2.11	0.99
16:P:83:MET:HE3	16:P:116:LEU:CD1	1.92	0.99
16:P:107:ILE:HA	16:P:111:MET:SD	2.01	0.99
21:U:50:VAL:CG2	21:U:52:GLY:HA2	1.91	0.99
29:c:21:THR:HG22	29:c:22:GLY:N	1.78	0.99
33:g:31:ILE:HG22	33:g:43:TRP:HB2	1.40	0.99
1:A:10:MET:SD	1:A:10:MET:N	2.30	0.99
2:B:150:ILE:HG13	18:R:124:VAL:CG1	1.93	0.99
2:B:179:ASN:OD1	2:B:183:GLU:OE1	1.80	0.99
4:D:67:ARG:HH11	4:D:67:ARG:HG3	1.28	0.99
4:D:132:LYS:N	4:D:191:PRO:CD	2.25	0.99
9:I:154:LYS:HE2	9:I:154:LYS:C	1.86	0.99
16:P:41:GLN:CD	16:P:84:ILE:CG2	2.20	0.99
16:P:52:LYS:H	16:P:54:HIS:CD2	1.81	0.99
17:Q:9:SER:HB3	17:Q:26:LYS:HG2	1.40	0.99
18:R:99:ASP:O	18:R:119:VAL:CG1	2.03	0.99
1:A:185:MET:HE1	22:V:39:VAL:CG1	1.92	0.98
9:I:139:LYS:CB	9:I:145:ILE:HD11	1.92	0.98
19:S:136:THR:OG1	34:i:1516:C:OP2	1.79	0.98
23:W:129:PHE:HD1	23:W:129:PHE:C	1.71	0.98
24:X:71:ARG:HE	24:X:82:THR:CG2	1.75	0.98
33:g:172:LYS:HE2	33:g:192:THR:CG2	1.93	0.98
2:B:68:GLU:OE2	2:B:83:LYS:HE2	1.64	0.98
17:Q:7:LEU:CD2	17:Q:8:GLN:OE1	2.12	0.98
19:S:6:PRO:HA	26:Z:50:PHE:CB	1.93	0.98
27:a:84:VAL:HB	34:i:1860:A:N6	1.76	0.98
33:g:2:THR:O	33:g:3:GLU:CB	2.08	0.98
1:A:154:LEU:CD1	22:V:63:GLY:C	2.35	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:43:PRO:C	4:D:44:THR:HG23	1.87	0.98
5:E:248:ILE:CD1	10:J:72:PHE:CD1	2.44	0.98
15:O:19:PRO:HG2	15:O:27:VAL:HG21	1.01	0.98
19:S:14:ARG:HH12	19:S:17:ASN:HA	0.85	0.98
25:Y:98:GLU:C	25:Y:98:GLU:CD	2.31	0.98
33:g:100:ARG:HH11	33:g:100:ARG:CG	1.74	0.98
1:A:66:VAL:CG1	1:A:186:ARG:HB3	1.92	0.98
1:A:105:PRO:HG2	34:i:1374:A:O4'	1.63	0.98
1:A:118:GLU:OE1	3:C:50:LYS:HE2	1.62	0.98
4:D:105:LEU:HD23	4:D:184:ILE:CD1	1.92	0.98
5:E:25:SER:CB	34:i:485:U:O2'	2.11	0.98
6:F:136:ARG:O	6:F:203:ASN:HB3	1.62	0.98
9:I:161:LEU:CD1	9:I:199:LEU:HD12	1.85	0.98
16:P:127:LYS:C	16:P:127:LYS:HE3	1.88	0.98
19:S:31:THR:HA	19:S:36:VAL:HG22	1.44	0.98
24:X:60:LYS:CE	24:X:116:PRO:HG3	1.92	0.98
25:Y:114:MET:CA	25:Y:124:ASN:ND2	2.25	0.98
26:Z:48:VAL:O	26:Z:83:LEU:CD1	2.12	0.98
28:b:12:PRO:O	28:b:16:LYS:HD3	1.64	0.98
33:g:212:LYS:HA	33:g:235:ILE:HG13	1.45	0.98
33:g:232:GLY:HA2	33:g:257:LYS:NZ	1.77	0.98
16:P:127:LYS:HZ1	16:P:127:LYS:C	1.71	0.98
19:S:8:LYS:HD3	19:S:9:PHE:HE1	0.84	0.98
25:Y:32:LYS:CG	25:Y:33:ALA:N	2.13	0.98
33:g:259:TRP:N	33:g:259:TRP:CE3	2.29	0.98
3:C:234:SER:C	22:V:23:ILE:CD1	2.37	0.98
15:O:79:GLN:HE21	29:c:5:ARG:CG	1.72	0.98
17:Q:42:ILE:HD13	17:Q:51:LEU:CG	1.93	0.98
34:i:837:G:C2'	34:i:838:C:H5'	1.93	0.98
3:C:55:VAL:CG2	3:C:82:PHE:CE2	2.46	0.98
5:E:61:VAL:O	5:E:65:CYS:SG	2.22	0.98
7:G:50:VAL:HG13	7:G:111:LEU:HB3	1.45	0.98
9:I:144:LYS:CG	34:i:189:G:OP1	2.10	0.98
11:K:27:VAL:HG13	11:K:43:LEU:HD21	1.43	0.98
12:L:22:ARG:NH1	12:L:22:ARG:HB3	1.79	0.98
16:P:123:TYR:CZ	19:S:124:ARG:NH1	2.11	0.98
16:P:127:LYS:HZ2	16:P:127:LYS:CB	1.75	0.98
23:W:11:LEU:HD12	23:W:74:VAL:HB	1.45	0.98
23:W:85:ASP:O	23:W:89:TRP:HD1	1.47	0.98
33:g:119:GLN:NE2	33:g:121:VAL:HG23	1.77	0.98
1:A:118:GLU:HB3	3:C:50:LYS:HZ1	0.82	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:77:ASP:O	2:B:79:VAL:HG22	1.64	0.98
4:D:193:ASP:HA	4:D:202:LYS:O	1.61	0.98
6:F:20:PHE:O	6:F:21:GLY:C	2.06	0.98
11:K:18:GLU:O	11:K:92:ALA:HB3	1.60	0.98
11:K:30:PRO:C	11:K:31:LYS:HG3	1.73	0.98
15:O:128:ARG:HG3	27:a:62:TYR:OH	1.62	0.98
20:T:76:THR:HB	20:T:95:GLY:O	1.62	0.98
29:c:15:THR:CG2	29:c:33:GLU:CG	2.42	0.98
29:c:67:ARG:HG2	29:c:68:LEU:H	0.87	0.98
32:f:108:VAL:HG21	32:f:114:ILE:HG22	1.42	0.98
34:i:1207:G:N3	34:i:1684:C:O2	1.97	0.98
1:A:112:ILE:HD11	34:i:1346:U:H4'	1.43	0.98
2:B:57:ILE:CD1	2:B:60:ASP:CG	2.33	0.98
4:D:197:LYS:CB	4:D:198:ILE:CG2	2.30	0.98
6:F:122:ARG:NE	6:F:193:LYS:NZ	2.10	0.98
7:G:76:LEU:CD2	7:G:92:ARG:CG	2.41	0.98
7:G:84:TYR:CE2	7:G:86:PRO:HG3	1.99	0.98
17:Q:9:SER:HB2	17:Q:26:LYS:HE3	1.01	0.98
20:T:31:PRO:HB3	20:T:33:TRP:CH2	1.97	0.98
33:g:149:GLU:OE2	33:g:150:TRP:N	1.97	0.98
2:B:160:GLN:NE2	2:B:205:TYR:HD1	1.58	0.98
4:D:48:ILE:CG2	4:D:86:LEU:HG	1.94	0.98
4:D:158:ILE:HD12	4:D:189:MET:HE1	1.41	0.98
8:H:93:VAL:HG22	8:H:94:PHE:H	1.28	0.98
17:Q:21:ALA:HB2	17:Q:72:VAL:HG22	1.45	0.98
32:f:135:HIS:CB	32:f:138:ARG:HG2	1.85	0.98
33:g:194:TYR:OH	33:g:212:LYS:HD2	1.62	0.98
35:l:35:ILE:O	35:l:113:PHE:CB	2.10	0.98
2:B:137:LEU:HD23	2:B:215:VAL:HG13	1.44	0.97
8:H:144:ILE:HD12	23:W:52:ILE:HD13	1.42	0.97
33:g:275:ILE:O	33:g:276:SER:HB3	1.61	0.97
34:i:138:C:OP2	34:i:1768:C:C3'	2.12	0.97
34:i:1206:G:C8	34:i:1207:G:OP2	2.16	0.97
6:F:20:PHE:O	6:F:22:LYS:CA	2.10	0.97
6:F:141:VAL:CB	29:c:47:LYS:NZ	2.17	0.97
11:K:34:GLU:O	11:K:35:LEU:CB	2.11	0.97
12:L:7:GLU:HG3	12:L:8:ARG:H	1.26	0.97
12:L:7:GLU:HG3	12:L:8:ARG:HG3	1.46	0.97
12:L:10:TYR:HE2	12:L:12:LYS:HE3	1.27	0.97
12:L:80:MET:HE1	12:L:121:GLN:HA	1.42	0.97
15:O:31:CYS:CB	15:O:95:ILE:HG12	1.92	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:8:LYS:CB	19:S:9:PHE:CD1	2.37	0.97
35:l:30:TYR:CZ	35:l:107:GLN:HA	2.00	0.97
2:B:19:LYS:HB2	2:B:19:LYS:HZ3	1.23	0.97
4:D:126:ILE:CD1	4:D:134:CYS:SG	2.52	0.97
6:F:73:THR:HG22	6:F:93:VAL:CG2	1.93	0.97
6:F:112:LEU:HD23	6:F:116:ILE:HD11	1.45	0.97
6:F:204:ARG:HH12	29:c:59:LEU:HB3	1.28	0.97
10:J:124:HIS:NE2	34:i:516:A:H5"	1.78	0.97
13:M:67:ALA:O	32:f:114:ILE:HD13	1.63	0.97
20:T:119:TRP:CD1	34:i:1556:A:H2	1.82	0.97
33:g:88:ARG:HD2	33:g:90:TRP:CZ2	1.99	0.97
4:D:108:LYS:HB3	4:D:113:LEU:HD22	1.41	0.97
6:F:91:ARG:HH11	6:F:94:LYS:HB2	1.07	0.97
8:H:157:HIS:C	8:H:158:LEU:HD23	1.89	0.97
11:K:62:PHE:CD1	11:K:67:PHE:CZ	2.51	0.97
14:N:22:VAL:CB	14:N:23:PRO:HA	1.95	0.97
23:W:118:ARG:HD3	34:i:730:C:H4'	1.00	0.97
33:g:282:GLU:HB3	33:g:283:PRO:CD	1.93	0.97
2:B:36:PRO:HB3	2:B:231:LEU:HD21	1.00	0.97
5:E:21:ASP:CG	5:E:24:THR:HG21	1.87	0.97
6:F:76:MET:HE2	6:F:169:ILE:HG21	1.43	0.97
8:H:83:LEU:HD11	8:H:92:VAL:CB	1.92	0.97
10:J:170:PRO:CB	10:J:174:LYS:HE2	1.95	0.97
17:Q:92:LEU:CG	17:Q:96:TYR:HE2	1.76	0.97
19:S:14:ARG:NH1	19:S:17:ASN:CA	2.25	0.97
22:V:11:LEU:HD12	22:V:12:TYR:HD2	0.93	0.97
24:X:60:LYS:HG3	24:X:116:PRO:HG3	1.44	0.97
25:Y:114:MET:HA	25:Y:124:ASN:CG	1.88	0.97
33:g:118:ARG:HA	33:g:118:ARG:HE	1.28	0.97
1:A:145:ILE:HD13	1:A:159:ILE:HG21	1.41	0.97
4:D:192:TRP:CE3	4:D:196:GLY:HA2	1.72	0.97
10:J:138:ARG:NH1	10:J:156:HIS:CG	2.31	0.97
12:L:80:MET:SD	12:L:120:VAL:HG12	2.04	0.97
16:P:51:ARG:N	16:P:51:ARG:HD2	1.77	0.97
16:P:118:GLU:O	19:S:119:ALA:CB	2.11	0.97
17:Q:58:LEU:HD13	17:Q:108:ILE:HG23	1.44	0.97
18:R:120:THR:O	18:R:121:GLN:HB2	1.61	0.97
22:V:19:ALA:HB3	22:V:59:ILE:CD1	1.95	0.97
23:W:62:VAL:CG2	28:b:8:LEU:HD21	1.84	0.97
25:Y:63:HIS:CB	25:Y:64:PHE:CE1	2.47	0.97
27:a:62:TYR:O	27:a:63:VAL:HB	1.15	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:f:140:TYR:CE1	32:f:146:LEU:O	2.18	0.97
1:A:112:ILE:HG21	34:i:1346:U:H1'	1.44	0.97
1:A:177:MET:HE1	1:A:180:ARG:HH22	1.21	0.97
6:F:25:THR:HG23	6:F:41:VAL:HG23	1.41	0.97
6:F:42:LYS:HE3	6:F:43:GLU:N	1.78	0.97
12:L:82:MET:CE	34:i:363:G:H4'	1.93	0.97
14:N:19:ARG:HH12	28:b:84:HIS:C	1.73	0.97
21:U:73:GLY:O	21:U:74:SER:C	2.07	0.97
24:X:67:ARG:C	24:X:68:LYS:HG3	1.86	0.97
25:Y:48:TYR:O	25:Y:50:THR:HG23	1.61	0.97
32:f:144:CYS:CB	32:f:147:THR:CG2	2.39	0.97
33:g:87:LEU:HD12	33:g:101:PHE:HB3	1.44	0.97
33:g:194:TYR:CZ	33:g:212:LYS:CD	2.41	0.97
8:H:163:GLN:OE1	8:H:189:PHE:HE2	1.38	0.97
9:I:5:ARG:HG2	9:I:5:ARG:HH11	1.28	0.97
13:M:13:ASP:O	13:M:16:THR:N	1.97	0.97
13:M:76:LEU:O	13:M:128:PHE:CZ	2.18	0.97
25:Y:36:PRO:HG2	25:Y:39:GLU:CD	1.83	0.97
28:b:64:CYS:HG	28:b:73:LEU:HD23	1.26	0.97
32:f:98:VAL:HG12	32:f:99:LYS:N	1.62	0.97
2:B:19:LYS:O	2:B:21:VAL:HG13	1.61	0.97
7:G:32:MET:HE1	7:G:100:CYS:HA	1.00	0.97
10:J:165:TYR:N	10:J:165:TYR:HD1	1.60	0.97
12:L:20:LYS:O	12:L:21:LYS:HB2	1.62	0.97
20:T:143:LYS:O	20:T:144:LYS:HB3	1.62	0.97
24:X:51:VAL:HG13	24:X:70:VAL:HG13	1.47	0.97
33:g:7:LEU:HD12	33:g:310:TRP:CD1	2.00	0.97
2:B:125:VAL:HG11	2:B:173:THR:CG2	1.95	0.97
7:G:176:ILE:HB	7:G:179:LEU:HD23	1.00	0.97
7:G:212:LEU:HA	7:G:215:LYS:CE	1.95	0.97
10:J:117:LEU:O	10:J:119:LEU:HD23	1.62	0.97
13:M:89:VAL:HG21	13:M:109:VAL:HG11	1.45	0.97
15:O:79:GLN:HG2	29:c:5:ARG:HG3	1.43	0.97
21:U:18:HIS:ND1	21:U:93:SER:O	1.98	0.97
22:V:18:SER:OG	22:V:72:LEU:CD1	2.13	0.97
34:i:138:C:OP2	34:i:1768:C:C4'	2.13	0.97
2:B:20:LYS:O	2:B:21:VAL:CG1	2.12	0.96
12:L:147:LYS:HG3	12:L:148:ALA:HA	1.23	0.96
13:M:12:MET:CG	13:M:16:THR:HG23	1.95	0.96
19:S:46:ARG:CZ	20:T:50:GLU:CG	2.43	0.96
19:S:85:ASN:OD1	19:S:97:GLN:HA	1.65	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:42:LYS:CD	18:R:101:ASP:CB	2.42	0.96
3:C:138:GLY:O	3:C:141:ILE:CG2	2.13	0.96
6:F:185:SER:CA	6:F:190:ILE:HG21	1.95	0.96
9:I:161:LEU:HD11	9:I:199:LEU:HD12	0.98	0.96
12:L:97:ARG:O	12:L:99:TYR:N	1.97	0.96
13:M:98:GLY:O	13:M:100:PRO:CD	2.13	0.96
25:Y:62:THR:HG22	25:Y:69:THR:HG22	1.46	0.96
1:A:186:ARG:HH11	1:A:186:ARG:CG	1.78	0.96
4:D:212:GLU:CB	18:R:19:LYS:HD2	1.95	0.96
5:E:122:LYS:CG	5:E:164:LEU:HD21	1.95	0.96
6:F:122:ARG:HE	6:F:193:LYS:HZ1	1.12	0.96
9:I:10:LYS:HG3	9:I:11:ARG:N	1.78	0.96
17:Q:8:GLN:HG3	17:Q:99:TYR:CE1	1.76	0.96
18:R:22:THR:HG22	18:R:73:LEU:CD1	1.95	0.96
20:T:75:MET:CE	20:T:79:TYR:HE2	1.77	0.96
24:X:29:LYS:CD	24:X:34:THR:HG21	1.94	0.96
26:Z:48:VAL:C	26:Z:83:LEU:CD1	2.38	0.96
28:b:33:MET:CA	28:b:81:ARG:O	2.12	0.96
8:H:122:LEU:HD13	8:H:123:THR:CA	1.95	0.96
8:H:144:ILE:O	23:W:51:GLU:HA	1.65	0.96
11:K:84:HIS:CE1	11:K:85:LEU:HA	2.01	0.96
14:N:55:ARG:NH1	28:b:47:PHE:CE2	2.33	0.96
16:P:41:GLN:HE22	16:P:45:LEU:HG	0.81	0.96
20:T:77:LYS:CA	20:T:94:ARG:HG2	1.96	0.96
33:g:57:ARG:HD2	33:g:94:THR:O	1.66	0.96
34:i:202:U:H4'	34:i:235:C:OP1	1.64	0.96
3:C:244:THR:CG2	3:C:246:PHE:CA	2.43	0.96
4:D:21:LEU:CD1	4:D:48:ILE:CD1	2.42	0.96
11:K:15:LEU:CD1	11:K:21:MET:HE2	1.94	0.96
23:W:7:LEU:HD11	23:W:33:VAL:HG11	1.46	0.96
26:Z:92:LEU:HD11	26:Z:109:TYR:CE1	2.00	0.96
33:g:42:MET:HG3	33:g:92:LEU:CD1	1.95	0.96
33:g:46:THR:O	33:g:47:ARG:HB3	1.17	0.96
2:B:57:ILE:HG23	2:B:57:ILE:O	1.62	0.96
6:F:14:THR:CB	17:Q:56:LEU:CB	2.42	0.96
12:L:7:GLU:HG3	12:L:8:ARG:N	1.79	0.96
16:P:59:ARG:HD3	16:P:76:VAL:HG13	1.47	0.96
17:Q:42:ILE:HG21	17:Q:51:LEU:HD21	1.46	0.96
25:Y:18:LEU:CG	25:Y:20:ARG:HH11	1.76	0.96
33:g:194:TYR:OH	33:g:212:LYS:CD	2.14	0.96
1:A:17:LYS:HE2	1:A:17:LYS:N	1.79	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:67:PHE:CD1	15:O:47:LEU:C	2.44	0.96
2:B:120:MET:HE3	2:B:142:PHE:CZ	2.01	0.96
3:C:142:LEU:CA	3:C:145:LEU:HD21	1.94	0.96
5:E:70:ILE:CG1	5:E:92:ILE:HD11	1.84	0.96
7:G:64:LYS:CD	7:G:67:VAL:HG13	1.94	0.96
8:H:147:LYS:HE2	8:H:153:LEU:HD12	1.46	0.96
10:J:30:LYS:CA	31:e:112:TYR:CE1	2.49	0.96
21:U:67:LYS:CE	21:U:78:ASP:OD1	2.13	0.96
31:e:118:ASN:CB	31:e:119:VAL:HG23	1.96	0.96
5:E:159:THR:HG23	5:E:227:VAL:HG23	1.25	0.96
9:I:194:GLU:HG2	12:L:12:LYS:HZ1	0.81	0.96
10:J:50:LEU:HD12	10:J:102:ILE:HD13	1.45	0.96
14:N:12:SER:O	14:N:13:GLN:HG3	1.65	0.96
14:N:137:PRO:O	14:N:138:ASN:CG	2.07	0.96
21:U:40:ILE:HD11	21:U:53:PRO:CB	1.94	0.96
23:W:38:LEU:HA	23:W:41:MET:HE3	1.47	0.96
24:X:52:LEU:CD2	24:X:71:ARG:HB3	1.95	0.96
3:C:149:PRO:HB2	3:C:233:TYR:CE2	2.00	0.96
6:F:36:GLN:CG	6:F:37:ASP:CG	2.38	0.96
6:F:93:VAL:O	6:F:97:PHE:HD1	1.41	0.96
9:I:136:ILE:HG22	9:I:139:LYS:HE3	1.48	0.96
10:J:124:HIS:HE2	34:i:516:A:P	1.89	0.96
11:K:62:PHE:HD1	11:K:67:PHE:CE2	1.77	0.96
19:S:47:LYS:HZ2	19:S:78:LYS:HB2	1.21	0.96
20:T:143:LYS:HD2	20:T:144:LYS:H	1.26	0.96
31:e:124:GLY:O	31:e:125:LYS:CG	2.14	0.96
33:g:140:TYR:CZ	33:g:182:CYS:HB2	1.98	0.96
5:E:166:THR:O	5:E:168:LYS:HD3	1.66	0.96
6:F:25:THR:HG22	6:F:42:LYS:HD2	0.97	0.96
10:J:61:LEU:HD13	10:J:94:LEU:HD13	1.48	0.96
19:S:26:ILE:HD11	19:S:59:LEU:HD21	1.46	0.96
4:D:70:THR:CG2	4:D:86:LEU:HD13	1.96	0.95
5:E:130:PHE:HB3	5:E:138:HIS:CE1	2.00	0.95
7:G:157:VAL:CG1	7:G:159:ARG:HG2	1.96	0.95
14:N:115:LEU:O	14:N:119:GLU:CG	2.13	0.95
17:Q:72:VAL:HG21	17:Q:84:ILE:CG2	1.96	0.95
18:R:121:GLN:HE21	18:R:121:GLN:C	1.74	0.95
20:T:84:ARG:HH21	20:T:84:ARG:CB	1.77	0.95
21:U:67:LYS:CG	21:U:78:ASP:OD2	2.13	0.95
24:X:142:ARG:CB	24:X:142:ARG:NH1	2.29	0.95
25:Y:99:LYS:N	25:Y:99:LYS:CE	2.29	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:24:C:H2'	34:i:25:A:H8	1.29	0.95
34:i:1057:U:O4	35:l:70:ASN:OD1	1.81	0.95
1:A:106:GLY:C	1:A:113:GLN:OE1	2.08	0.95
3:C:93:LYS:HD2	3:C:218:LEU:HD22	0.95	0.95
5:E:86:PHE:HZ	5:E:182:MET:CE	1.79	0.95
7:G:157:VAL:CG1	7:G:159:ARG:CG	2.44	0.95
7:G:162:LEU:HD12	7:G:162:LEU:O	1.66	0.95
11:K:83:LEU:HD12	11:K:85:LEU:HD21	1.45	0.95
17:Q:8:GLN:HG2	17:Q:99:TYR:CE1	1.84	0.95
19:S:33:ILE:HB	19:S:36:VAL:HG11	1.49	0.95
20:T:77:LYS:HA	20:T:94:ARG:HG2	1.47	0.95
32:f:98:VAL:HG12	32:f:99:LYS:H	0.80	0.95
32:f:103:LEU:O	32:f:103:LEU:HD23	1.65	0.95
33:g:248:LEU:O	33:g:259:TRP:CZ3	2.19	0.95
1:A:94:THR:HG21	1:A:182:VAL:HG21	1.45	0.95
1:A:176:TRP:HZ2	1:A:195:TRP:HE3	1.12	0.95
8:H:144:ILE:CG1	23:W:52:ILE:HG23	1.97	0.95
9:I:7:ASN:O	9:I:9:HIS:N	2.00	0.95
9:I:62:VAL:CG2	9:I:75:LYS:CE	2.45	0.95
10:J:37:LEU:CD2	10:J:42:GLU:HB2	1.95	0.95
14:N:55:ARG:HH12	28:b:47:PHE:HD2	1.02	0.95
22:V:9:VAL:HG12	22:V:10:ASP:N	1.76	0.95
22:V:18:SER:OG	22:V:72:LEU:HD11	1.66	0.95
26:Z:92:LEU:HD21	26:Z:109:TYR:CE1	2.02	0.95
29:c:5:ARG:CZ	29:c:5:ARG:N	2.29	0.95
31:e:127:LYS:HD3	31:e:128:GLY:N	1.81	0.95
33:g:165:ILE:HG23	33:g:179:LEU:HD21	1.47	0.95
1:A:34:MET:CE	1:A:37:TYR:CD2	2.49	0.95
4:D:59:LEU:HD12	4:D:60:GLY:H	1.27	0.95
7:G:32:MET:CE	7:G:100:CYS:C	2.38	0.95
7:G:67:VAL:HG21	7:G:99:GLY:HA2	1.45	0.95
7:G:121:ILE:CG2	7:G:122:PRO:HD3	1.91	0.95
10:J:127:ARG:HH11	10:J:127:ARG:HG3	0.79	0.95
24:X:74:LEU:HD11	24:X:81:ILE:HD12	1.47	0.95
25:Y:13:MET:HE3	25:Y:14:THR:H	1.24	0.95
25:Y:122:LYS:HD3	25:Y:123:ALA:N	1.79	0.95
26:Z:77:LEU:O	26:Z:78:LYS:HG2	1.66	0.95
27:a:10:ARG:HG3	27:a:33:ASP:O	1.66	0.95
32:f:144:CYS:HB3	32:f:147:THR:HG22	0.98	0.95
3:C:223:LYS:NZ	34:i:1351:C:O2'	1.93	0.95
7:G:183:ARG:NH1	34:i:307:G:H8	1.48	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:8:ILE:HG23	8:H:9:VAL:HG22	0.98	0.95
17:Q:105:LYS:HD2	17:Q:105:LYS:C	1.92	0.95
17:Q:135:PRO:CG	17:Q:141:TYR:HE1	1.78	0.95
31:e:125:LYS:O	31:e:126:LYS:HD2	1.65	0.95
9:I:141:ARG:O	9:I:143:LYS:HB3	1.65	0.95
10:J:28:GLU:OE1	10:J:40:LYS:CD	2.14	0.95
10:J:169:ARG:CB	10:J:170:PRO:HD2	1.96	0.95
11:K:3:MET:SD	11:K:8:ARG:NH2	2.34	0.95
16:P:49:LEU:CA	16:P:51:ARG:HG3	1.96	0.95
19:S:42:HIS:HD2	20:T:45:LEU:CD1	1.52	0.95
20:T:84:ARG:NH2	20:T:84:ARG:CB	2.29	0.95
23:W:42:MET:HE3	23:W:50:PHE:CD2	2.02	0.95
26:Z:112:ASN:O	26:Z:113:THR:CG2	2.13	0.95
31:e:118:ASN:N	31:e:119:VAL:CB	2.29	0.95
3:C:50:LYS:HD3	3:C:251:TYR:HE1	1.30	0.95
3:C:110:LYS:HE2	3:C:112:PHE:HZ	1.15	0.95
4:D:177:LEU:CD2	4:D:182:LEU:CD2	2.42	0.95
5:E:48:LEU:HD21	5:E:70:ILE:CD1	1.95	0.95
7:G:32:MET:HE2	7:G:63:MET:SD	2.06	0.95
7:G:142:ARG:HH11	7:G:142:ARG:CG	1.79	0.95
10:J:70:ARG:NH2	10:J:94:LEU:HD21	1.80	0.95
18:R:99:ASP:HA	18:R:119:VAL:HG12	1.49	0.95
22:V:64:GLU:O	22:V:66:ASP:N	1.99	0.95
29:c:15:THR:HG22	29:c:33:GLU:CG	1.97	0.95
1:A:76:VAL:HG21	1:A:90:PHE:HD2	1.31	0.95
4:D:55:THR:O	4:D:58:VAL:CG2	2.15	0.95
4:D:226:GLN:O	4:D:227:LYS:HG3	1.67	0.95
8:H:115:LYS:O	8:H:116:ARG:HB3	1.65	0.95
9:I:154:LYS:CG	9:I:155:ASN:N	2.30	0.95
10:J:37:LEU:CG	10:J:42:GLU:CB	2.44	0.95
10:J:115:PHE:CD1	10:J:122:SER:N	2.34	0.95
19:S:136:THR:O	34:i:1516:C:H2'	1.67	0.95
25:Y:7:ILE:CD1	25:Y:43:LYS:HG2	1.95	0.95
31:e:105:ARG:NH2	31:e:105:ARG:CB	2.30	0.95
33:g:219:TRP:CE3	33:g:226:HIS:HD2	1.83	0.95
33:g:277:THR:CG2	33:g:278:SER:N	2.30	0.95
1:A:186:ARG:HG2	1:A:186:ARG:NH1	1.67	0.95
2:B:57:ILE:O	2:B:60:ASP:N	1.99	0.95
3:C:197:LYS:HA	3:C:200:LEU:HD21	0.96	0.95
6:F:71:ARG:HH21	6:F:71:ARG:CG	1.80	0.95
9:I:194:GLU:CD	12:L:12:LYS:NZ	2.22	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:35:ARG:HH21	12:L:63:THR:HG21	1.26	0.95
12:L:149:ALA:CA	12:L:156:GLN:HE21	1.79	0.95
13:M:18:LEU:HD22	13:M:22:LEU:HG	1.49	0.95
15:O:44:VAL:HG21	15:O:93:LEU:HD13	1.45	0.95
16:P:41:GLN:NE2	16:P:84:ILE:CB	2.19	0.95
16:P:49:LEU:C	16:P:51:ARG:HD2	1.91	0.95
17:Q:42:ILE:HG21	17:Q:51:LEU:HD23	1.48	0.95
18:R:44:LYS:CG	18:R:47:ARG:CZ	2.44	0.95
24:X:115:ILE:HG22	24:X:115:ILE:O	1.65	0.95
25:Y:7:ILE:CD1	25:Y:43:LYS:CB	2.43	0.95
28:b:3:LEU:N	28:b:3:LEU:CD2	2.29	0.95
32:f:144:CYS:SG	32:f:147:THR:CG2	2.55	0.95
3:C:115:ILE:HD11	3:C:140:ILE:HG23	1.45	0.95
3:C:186:GLY:HA3	10:J:54:ARG:NH2	1.82	0.95
7:G:41:LEU:CD2	7:G:45:TRP:HZ3	1.36	0.95
8:H:10:LYS:HZ1	8:H:17:ASP:N	1.65	0.95
8:H:37:LYS:HE2	8:H:41:ARG:NH1	1.81	0.95
9:I:69:SER:HB2	12:L:19:ASN:HD21	0.87	0.95
10:J:16:PRO:HD2	10:J:44:TRP:CZ2	2.01	0.95
10:J:170:PRO:CG	10:J:175:ARG:HG2	1.93	0.95
11:K:3:MET:HE1	11:K:8:ARG:HH22	1.13	0.95
17:Q:102:GLU:OE1	33:g:55:PRO:HG2	1.66	0.95
17:Q:135:PRO:HD3	17:Q:141:TYR:CD1	2.02	0.95
20:T:28:LEU:HD22	20:T:28:LEU:C	1.90	0.95
20:T:63:HIS:O	20:T:67:ARG:HD2	1.67	0.95
20:T:77:LYS:HB2	20:T:94:ARG:CG	1.96	0.95
20:T:102:ARG:NH2	20:T:105:GLN:OE1	2.00	0.95
2:B:153:THR:HG23	2:B:154:SER:N	1.79	0.94
4:D:3:VAL:O	4:D:3:VAL:HG12	1.65	0.94
10:J:46:VAL:HG11	10:J:106:LEU:CD1	1.97	0.94
16:P:33:LEU:HD21	16:P:87:PRO:HD3	0.97	0.94
21:U:111:GLU:OE1	21:U:111:GLU:HA	1.65	0.94
25:Y:114:MET:HE1	25:Y:125:VAL:HG23	1.45	0.94
33:g:26:GLN:HB3	33:g:74:ASP:O	1.64	0.94
1:A:30:LEU:HD11	1:A:38:ILE:CD1	1.91	0.94
3:C:260:LYS:CD	3:C:261:THR:HG22	1.97	0.94
4:D:16:ILE:HD13	30:d:22:ARG:HH21	1.22	0.94
4:D:70:THR:HG22	4:D:86:LEU:CD1	1.97	0.94
5:E:19:MET:CE	34:i:842:G:C2'	2.45	0.94
8:H:57:ARG:HD2	8:H:89:GLY:O	1.67	0.94
10:J:127:ARG:NH1	10:J:145:PRO:HB2	1.81	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:165:TYR:N	10:J:165:TYR:CD1	2.27	0.94
14:N:22:VAL:HB	14:N:23:PRO:CA	1.97	0.94
17:Q:19:ALA:HB1	17:Q:80:GLN:HE21	1.31	0.94
19:S:8:LYS:O	26:Z:49:LEU:HD22	1.67	0.94
25:Y:12:PHE:CZ	25:Y:21:LYS:CB	2.49	0.94
34:i:1823:G:O2'	34:i:1843:G:O6	1.85	0.94
2:B:36:PRO:HB3	2:B:231:LEU:CD2	1.96	0.94
9:I:107:THR:OG1	9:I:108:PRO:HD3	1.66	0.94
12:L:17:PHE:CE1	12:L:18:GLN:HB2	2.01	0.94
16:P:33:LEU:HD23	16:P:87:PRO:CD	1.98	0.94
17:Q:9:SER:CB	17:Q:26:LYS:CE	2.43	0.94
18:R:100:PRO:O	18:R:103:LYS:N	1.90	0.94
21:U:41:ARG:O	21:U:45:GLU:HB2	1.65	0.94
24:X:105:PHE:HE2	24:X:119:ARG:HA	0.86	0.94
33:g:219:TRP:CZ3	33:g:226:HIS:CD2	2.55	0.94
34:i:127:C:N4	34:i:180:G:O2'	2.01	0.94
3:C:50:LYS:HD3	3:C:251:TYR:CE1	1.98	0.94
8:H:10:LYS:CE	8:H:17:ASP:N	2.28	0.94
10:J:37:LEU:CD1	10:J:42:GLU:CB	2.42	0.94
10:J:122:SER:OG	10:J:124:HIS:CB	2.15	0.94
14:N:99:ARG:HH21	14:N:115:LEU:HD21	1.26	0.94
16:P:114:HIS:NE2	19:S:113:ARG:NH1	2.13	0.94
23:W:3:ARG:NH2	23:W:9:ASP:OD2	2.01	0.94
23:W:104:LEU:HD11	23:W:106:THR:CG2	1.97	0.94
28:b:10:PRO:HD2	28:b:15:GLU:OE2	1.67	0.94
33:g:143:GLN:OE1	33:g:144:ASP:HB2	1.66	0.94
34:i:1206:G:N3	34:i:1207:G:O4'	1.99	0.94
1:A:177:MET:HE1	1:A:180:ARG:HH21	1.26	0.94
2:B:30:TRP:HE1	15:O:17:LEU:CD2	1.79	0.94
6:F:14:THR:HG23	17:Q:56:LEU:HD22	1.50	0.94
6:F:47:LYS:CG	17:Q:117:ARG:NH2	2.30	0.94
7:G:155:GLN:O	7:G:156:TYR:CD1	2.21	0.94
9:I:62:VAL:HG21	9:I:75:LYS:NZ	1.82	0.94
10:J:134:HIS:CE1	10:J:163:SER:CB	2.41	0.94
24:X:51:VAL:CG1	24:X:70:VAL:HG11	1.96	0.94
33:g:144:ASP:O	33:g:145:GLU:HG2	1.67	0.94
1:A:76:VAL:CG2	1:A:90:PHE:CD2	2.48	0.94
2:B:137:LEU:HD21	2:B:215:VAL:HG13	0.95	0.94
4:D:212:GLU:CD	4:D:212:GLU:H	1.71	0.94
9:I:139:LYS:O	9:I:140:LYS:HB3	1.67	0.94
9:I:154:LYS:CD	9:I:155:ASN:N	2.29	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:47:LEU:HD23	17:Q:81:ILE:CD1	1.95	0.94
25:Y:27:VAL:HG11	25:Y:35:VAL:HG21	1.47	0.94
1:A:21:ALA:HB1	1:A:173:LEU:HD12	1.49	0.94
3:C:67:TYR:HE1	22:V:27:LYS:HZ3	1.06	0.94
12:L:125:ILE:HB	12:L:146:THR:HG21	1.48	0.94
16:P:10:ARG:NH2	16:P:11:THR:CG2	2.30	0.94
25:Y:52:PRO:HD2	25:Y:53:ASP:H	1.33	0.94
27:a:51:ARG:NH1	29:c:62:GLU:OE2	1.99	0.94
31:e:97:GLU:OE1	31:e:98:LYS:N	2.01	0.94
31:e:118:ASN:H	31:e:119:VAL:HB	1.29	0.94
33:g:172:LYS:CG	33:g:191:HIS:O	2.15	0.94
2:B:209:ASP:OD1	2:B:211:PHE:CZ	2.21	0.94
3:C:55:VAL:CG1	3:C:82:PHE:HE2	1.77	0.94
3:C:223:LYS:HE2	34:i:1351:C:H1'	1.46	0.94
4:D:56:GLN:HA	4:D:59:LEU:HD23	1.50	0.94
4:D:212:GLU:HB3	18:R:19:LYS:HD2	1.45	0.94
5:E:36:HIS:HB2	5:E:41:CYS:SG	2.08	0.94
5:E:98:ASN:HD21	5:E:119:ALA:CB	1.81	0.94
7:G:64:LYS:CD	7:G:64:LYS:C	2.40	0.94
9:I:67:TRP:HZ2	9:I:158:ILE:HD11	1.32	0.94
10:J:32:ILE:HG21	31:e:108:ARG:HG2	1.46	0.94
10:J:127:ARG:NH1	10:J:145:PRO:CB	2.31	0.94
15:O:31:CYS:SG	15:O:93:LEU:HB3	2.07	0.94
16:P:4:VAL:HA	16:P:10:ARG:HD2	1.46	0.94
16:P:93:MET:SD	16:P:106:GLU:HB2	2.08	0.94
17:Q:16:LYS:HD2	17:Q:17:LYS:N	1.83	0.94
17:Q:76:GLY:O	17:Q:80:GLN:CG	2.16	0.94
18:R:13:ALA:CA	18:R:54:VAL:HG22	1.97	0.94
19:S:81:ASP:O	19:S:87:GLN:NE2	2.00	0.94
30:d:23:VAL:HG23	30:d:38:MET:HE1	1.00	0.94
32:f:106:TYR:CZ	32:f:131:PHE:CZ	2.54	0.94
35:l:36:GLN:HA	35:l:113:PHE:CB	1.98	0.94
3:C:223:LYS:CE	34:i:1351:C:H1'	1.97	0.94
3:C:244:THR:CG2	3:C:246:PHE:N	2.31	0.94
4:D:74:GLN:HE22	4:D:75:LYS:HE2	1.33	0.94
4:D:112:GLY:O	4:D:113:LEU:HG	1.68	0.94
5:E:153:LEU:HD23	7:G:216:ARG:NH2	1.82	0.94
6:F:204:ARG:CZ	29:c:60:GLU:OE2	2.14	0.94
16:P:53:GLN:CG	16:P:80:LEU:HD11	1.87	0.94
18:R:20:TYR:CE1	18:R:38:ILE:CG2	2.37	0.94
20:T:143:LYS:CD	20:T:144:LYS:N	2.31	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:103:SER:O	21:U:106:ILE:HG23	1.66	0.94
30:d:13:LYS:CE	30:d:14:PHE:CE2	2.50	0.94
33:g:248:LEU:O	33:g:259:TRP:CE3	2.20	0.94
1:A:183:LEU:HB2	1:A:189:ILE:HD11	1.51	0.94
3:C:241:TRP:CD2	23:W:68:ARG:HD3	2.02	0.94
7:G:33:ALA:H	7:G:52:ILE:HG23	1.30	0.94
10:J:37:LEU:CG	10:J:42:GLU:HB3	1.96	0.94
10:J:169:ARG:CB	10:J:170:PRO:CD	2.45	0.94
12:L:99:TYR:OH	24:X:14:ARG:CB	2.16	0.94
17:Q:34:VAL:HG23	17:Q:39:LEU:HD23	0.94	0.94
23:W:42:MET:CE	23:W:50:PHE:CD2	2.51	0.94
1:A:11:LYS:HG2	1:A:13:GLU:HG2	0.94	0.93
1:A:17:LYS:N	1:A:17:LYS:CE	2.31	0.93
1:A:58:LEU:CD2	1:A:178:LEU:HD21	1.94	0.93
3:C:63:LEU:HD13	3:C:67:TYR:OH	1.68	0.93
3:C:71:LEU:C	22:V:29:HIS:CE1	2.45	0.93
3:C:156:GLY:O	3:C:157:ASN:ND2	2.00	0.93
5:E:128:LYS:HD3	5:E:130:PHE:CD1	2.03	0.93
6:F:21:GLY:O	6:F:22:LYS:HG3	1.67	0.93
6:F:110:GLN:O	6:F:113:VAL:HG12	1.68	0.93
15:O:131:ASP:CB	27:a:67:LEU:CD2	2.46	0.93
19:S:132:ARG:CB	19:S:134:GLN:OE1	2.14	0.93
33:g:298:LEU:HD11	33:g:310:TRP:HE3	1.19	0.93
1:A:133:PRO:HD2	1:A:134:LEU:N	1.83	0.93
3:C:51:LEU:CD1	3:C:78:ILE:HD13	1.98	0.93
3:C:234:SER:C	22:V:23:ILE:HD11	1.93	0.93
8:H:15:LYS:CB	8:H:16:PRO:HD2	1.97	0.93
16:P:41:GLN:CG	16:P:84:ILE:CG1	2.15	0.93
17:Q:50:LYS:NZ	17:Q:85:ARG:HH22	1.58	0.93
19:S:94:LYS:HE3	19:S:95:TYR:O	1.66	0.93
25:Y:62:THR:HG22	25:Y:69:THR:HG21	1.49	0.93
1:A:34:MET:CE	1:A:37:TYR:CE2	2.51	0.93
1:A:104:THR:O	1:A:107:THR:CG2	2.14	0.93
3:C:126:MET:HE1	3:C:223:LYS:HD2	1.50	0.93
6:F:42:LYS:CD	6:F:42:LYS:N	2.28	0.93
7:G:5:ILE:HD12	7:G:16:ILE:HD12	1.50	0.93
7:G:162:LEU:HD23	7:G:172:LYS:HE2	1.46	0.93
9:I:110:ARG:NH2	9:I:124:LYS:HD3	1.83	0.93
10:J:48:PHE:HZ	10:J:52:LYS:NZ	1.57	0.93
11:K:15:LEU:HD13	11:K:21:MET:CE	1.96	0.93
17:Q:24:HIS:CD2	17:Q:69:ARG:HB2	2.03	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:169:VAL:HG21	3:C:228:ALA:O	1.68	0.93
10:J:17:ARG:C	10:J:18:ARG:HG2	1.88	0.93
10:J:124:HIS:NE2	34:i:516:A:OP1	2.02	0.93
12:L:77:VAL:HG11	12:L:80:MET:SD	2.07	0.93
12:L:96:ILE:O	12:L:100:ASN:HA	1.67	0.93
13:M:35:ILE:HD13	13:M:61:TYR:CZ	2.02	0.93
13:M:85:LEU:HA	13:M:88:TRP:HE3	1.24	0.93
13:M:124:ILE:HA	13:M:127:TYR:HD2	1.28	0.93
16:P:4:VAL:CA	16:P:10:ARG:CD	1.99	0.93
19:S:95:TYR:N	19:S:95:TYR:CD1	2.28	0.93
20:T:76:THR:CB	20:T:95:GLY:O	2.16	0.93
20:T:77:LYS:CB	20:T:94:ARG:HG2	1.98	0.93
24:X:99:GLU:O	24:X:100:VAL:CG1	2.16	0.93
31:e:120:VAL:HG22	31:e:121:PRO:O	1.68	0.93
32:f:108:VAL:HG22	32:f:114:ILE:HG22	0.96	0.93
33:g:40:ILE:HD11	33:g:80:SER:HB3	1.49	0.93
34:i:1207:G:C4	34:i:1684:C:N3	2.35	0.93
15:O:95:ILE:HD13	15:O:116:LEU:CD2	1.98	0.93
19:S:121:ARG:HG2	19:S:131:VAL:HG13	1.48	0.93
23:W:62:VAL:HG21	28:b:8:LEU:HD23	0.93	0.93
7:G:27:PHE:CZ	7:G:41:LEU:CD1	2.51	0.93
9:I:19:LYS:HE2	9:I:20:PRO:CD	1.98	0.93
18:R:84:TYR:O	18:R:85:VAL:HG23	1.68	0.93
34:i:848:G:H3'	34:i:849:C:H5"	1.49	0.93
2:B:139:CYS:HB2	2:B:168:MET:SD	2.08	0.93
3:C:234:SER:CA	22:V:23:ILE:HD11	1.97	0.93
8:H:145:ARG:HH11	8:H:155:LYS:HZ2	1.14	0.93
10:J:30:LYS:HA	31:e:112:TYR:HE1	1.22	0.93
14:N:115:LEU:O	14:N:119:GLU:HG2	1.68	0.93
15:O:44:VAL:HG21	15:O:93:LEU:CD1	1.99	0.93
15:O:52:THR:O	15:O:53:ILE:CG2	2.15	0.93
29:c:67:ARG:O	29:c:68:LEU:HD23	1.67	0.93
30:d:10:HIS:CG	30:d:11:PRO:HD2	2.04	0.93
33:g:7:LEU:HD11	33:g:310:TRP:NE1	1.73	0.93
33:g:12:LYS:HG2	33:g:13:GLY:H	1.26	0.93
1:A:39:TYR:CA	1:A:50:ASN:HD21	1.80	0.93
1:A:45:GLY:O	1:A:46:ILE:CG1	2.17	0.93
2:B:208:HIS:O	2:B:209:ASP:HB2	1.66	0.93
3:C:148:VAL:HB	3:C:149:PRO:HD2	1.51	0.93
4:D:212:GLU:CB	4:D:213:PRO:HD2	1.97	0.93
5:E:208:VAL:HG21	5:E:225:ILE:CD1	1.93	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:23:ILE:CD1	8:H:27:LEU:CD2	2.47	0.93
9:I:37:LYS:O	9:I:59:ARG:CA	2.17	0.93
10:J:10:ARG:NH1	10:J:10:ARG:CB	2.31	0.93
10:J:89:GLU:N	10:J:92:MET:HG3	1.83	0.93
14:N:55:ARG:NH2	28:b:51:GLN:HE22	1.65	0.93
15:O:31:CYS:HB2	15:O:95:ILE:HG12	1.51	0.93
16:P:84:ILE:O	16:P:86:LEU:HD21	1.68	0.93
33:g:278:SER:OG	33:g:279:SER:HA	1.68	0.93
34:i:848:G:H5"	34:i:849:C:OP2	1.69	0.93
34:i:1134:C:H5"	34:i:1135:C:OP2	1.69	0.93
3:C:244:THR:CG2	3:C:246:PHE:HA	1.99	0.93
4:D:210:ILE:HD12	18:R:15:VAL:HG11	0.96	0.93
4:D:226:GLN:NE2	4:D:226:GLN:CA	2.32	0.93
4:D:226:GLN:CA	4:D:226:GLN:HE21	1.80	0.93
5:E:248:ILE:HG13	10:J:72:PHE:CE1	1.99	0.93
7:G:157:VAL:HG13	7:G:158:VAL:N	1.64	0.93
10:J:17:ARG:HB3	10:J:18:ARG:CG	1.99	0.93
19:S:58:GLU:O	19:S:59:LEU:CD2	2.17	0.93
28:b:61:THR:HG23	28:b:62:VAL:O	1.69	0.93
1:A:140:VAL:O	1:A:140:VAL:HG12	1.69	0.93
6:F:144:LEU:HD23	29:c:49:PRO:HB2	1.49	0.93
7:G:184:VAL:CG2	34:i:306:C:OP2	2.17	0.93
14:N:55:ARG:NH2	28:b:51:GLN:CD	2.27	0.93
18:R:99:ASP:HA	18:R:119:VAL:HG13	1.49	0.93
19:S:16:LEU:O	19:S:17:ASN:ND2	2.01	0.93
25:Y:102:THR:HG21	25:Y:107:ARG:CD	1.98	0.93
32:f:103:LEU:CD2	32:f:105:TYR:O	2.16	0.93
2:B:126:ASP:OD1	2:B:136:HIS:CD2	2.21	0.92
6:F:42:LYS:O	6:F:44:LYS:HA	1.68	0.92
6:F:167:LYS:HD3	6:F:171:GLU:HG2	1.51	0.92
7:G:157:VAL:HG11	7:G:159:ARG:CB	1.99	0.92
9:I:141:ARG:HB3	9:I:144:LYS:HB2	1.48	0.92
12:L:113:LEU:HD11	12:L:120:VAL:CG2	1.98	0.92
15:O:128:ARG:HA	27:a:62:TYR:OH	1.68	0.92
16:P:41:GLN:HE21	16:P:84:ILE:HB	0.78	0.92
16:P:56:LEU:CD1	16:P:80:LEU:HD12	1.98	0.92
17:Q:19:ALA:CB	17:Q:74:GLY:O	2.17	0.92
17:Q:109:LYS:HG3	17:Q:113:ILE:HD11	1.48	0.92
25:Y:114:MET:O	25:Y:124:ASN:ND2	2.02	0.92
4:D:212:GLU:HB3	18:R:19:LYS:CD	1.96	0.92
5:E:98:ASN:HD21	5:E:119:ALA:HB2	1.34	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:21:TYR:CE2	9:I:22:HIS:HD2	1.85	0.92
9:I:141:ARG:CG	9:I:144:LYS:CB	2.37	0.92
11:K:83:LEU:O	11:K:84:HIS:ND1	2.02	0.92
13:M:13:ASP:O	13:M:16:THR:CB	2.16	0.92
19:S:137:LYS:O	19:S:141:ARG:NH2	1.96	0.92
28:b:10:PRO:CG	28:b:15:GLU:OE2	2.17	0.92
30:d:27:ARG:HB2	30:d:27:ARG:NH1	1.82	0.92
33:g:144:ASP:C	33:g:145:GLU:CG	2.30	0.92
3:C:99:LYS:HD2	3:C:100:GLN:N	1.84	0.92
3:C:248:LYS:NZ	3:C:253:GLU:OE1	2.02	0.92
4:D:177:LEU:HD23	4:D:182:LEU:HD21	1.51	0.92
7:G:164:LYS:O	7:G:165:GLU:C	2.12	0.92
8:H:145:ARG:CD	23:W:51:GLU:HG2	1.99	0.92
14:N:28:LEU:C	14:N:29:THR:HG23	1.94	0.92
14:N:125:LEU:CD1	14:N:129:TYR:CE2	2.53	0.92
18:R:22:THR:CG2	18:R:73:LEU:HD11	1.99	0.92
25:Y:21:LYS:N	25:Y:21:LYS:CD	2.30	0.92
4:D:51:LEU:HG	4:D:91:VAL:HG22	1.51	0.92
10:J:79:ARG:O	10:J:83:ARG:HG3	1.70	0.92
17:Q:85:ARG:NH1	17:Q:117:ARG:CG	2.26	0.92
23:W:104:LEU:CD1	23:W:106:THR:CG2	2.46	0.92
27:a:45:VAL:CG1	27:a:53:ILE:HD13	1.99	0.92
30:d:8:TRP:CZ3	34:i:1507:U:O2'	2.21	0.92
1:A:42:LYS:CD	18:R:101:ASP:HB2	2.00	0.92
7:G:25:ARG:CG	7:G:28:TYR:CD2	2.51	0.92
7:G:65:GLN:CA	7:G:100:CYS:SG	2.57	0.92
13:M:13:ASP:O	13:M:16:THR:HG22	0.96	0.92
13:M:28:HIS:CD2	13:M:115:GLY:CA	2.51	0.92
17:Q:47:LEU:CD2	17:Q:81:ILE:HD13	1.97	0.92
33:g:4:GLN:NE2	33:g:268:ASP:OD2	2.02	0.92
2:B:49:VAL:HG22	2:B:65:ARG:NH2	1.83	0.92
6:F:91:ARG:NE	6:F:91:ARG:CA	2.33	0.92
9:I:206:LYS:CD	9:I:207:GLY:H	1.82	0.92
10:J:48:PHE:HE1	10:J:52:LYS:HE3	1.24	0.92
10:J:89:GLU:N	10:J:92:MET:CG	2.32	0.92
15:O:56:VAL:HG11	15:O:81:VAL:HG23	1.48	0.92
25:Y:9:THR:OG1	25:Y:48:TYR:OH	1.80	0.92
28:b:63:LEU:HD23	28:b:63:LEU:O	1.68	0.92
33:g:172:LYS:NZ	33:g:192:THR:HG22	1.82	0.92
34:i:1207:G:N1	34:i:1684:C:C2	2.32	0.92
3:C:123:GLY:HA2	3:C:226:PHE:HZ	1.33	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:149:ALA:HB1	12:L:156:GLN:CG	1.76	0.92
13:M:67:ALA:HB1	32:f:114:ILE:CG2	1.98	0.92
24:X:27:TYR:CZ	24:X:31:HIS:CD2	2.57	0.92
2:B:19:LYS:NZ	2:B:19:LYS:CB	2.29	0.92
7:G:162:LEU:HG	7:G:170:ARG:HB2	1.52	0.92
14:N:132:LYS:CA	14:N:132:LYS:CE	2.28	0.92
15:O:44:VAL:CG2	15:O:93:LEU:HD13	2.00	0.92
17:Q:57:LEU:HD13	17:Q:115:TYR:CE2	2.02	0.92
25:Y:87:PRO:HB2	25:Y:89:HIS:CE1	2.03	0.92
25:Y:111:LYS:HZ3	25:Y:115:LYS:HZ1	1.15	0.92
28:b:4:ALA:O	28:b:5:LYS:HG3	1.68	0.92
3:C:126:MET:HE1	3:C:223:LYS:NZ	1.83	0.92
6:F:14:THR:HG23	17:Q:56:LEU:CD2	1.99	0.92
7:G:85:ARG:NE	25:Y:118:ARG:CZ	2.33	0.92
7:G:227:GLN:HA	7:G:230:LYS:HD2	1.49	0.92
13:M:116:LYS:O	13:M:117:GLU:CB	2.17	0.92
14:N:92:ILE:HG22	14:N:150:VAL:CG2	2.00	0.92
16:P:15:PHE:CE1	19:S:91:LYS:HD2	2.05	0.92
17:Q:85:ARG:HH22	17:Q:117:ARG:CG	1.82	0.92
20:T:76:THR:HG22	20:T:96:SER:O	1.68	0.92
32:f:97:LYS:NZ	32:f:97:LYS:CB	2.32	0.92
33:g:119:GLN:NE2	33:g:121:VAL:HG22	1.85	0.92
1:A:48:ILE:CD1	18:R:105:MET:SD	2.57	0.92
1:A:180:ARG:HH11	1:A:184:ARG:NH1	1.68	0.92
3:C:87:LEU:CD2	3:C:115:ILE:HG23	1.99	0.92
4:D:2:ALA:CB	4:D:3:VAL:HA	1.96	0.92
4:D:46:THR:OG1	4:D:79:PHE:HZ	1.30	0.92
7:G:162:LEU:HD23	7:G:172:LYS:CE	2.00	0.92
15:O:79:GLN:CD	29:c:5:ARG:CD	2.42	0.92
16:P:49:LEU:HA	16:P:51:ARG:CG	1.99	0.92
21:U:62:ARG:HH12	21:U:64:THR:HG21	1.00	0.92
23:W:101:PHE:HA	23:W:113:HIS:HE1	1.33	0.92
25:Y:92:ALA:CA	25:Y:97:TYR:O	2.17	0.92
35:l:30:TYR:CE1	35:l:107:GLN:CB	2.52	0.92
9:I:62:VAL:HB	9:I:75:LYS:HE2	1.49	0.91
12:L:147:LYS:HD2	12:L:148:ALA:C	1.96	0.91
15:O:52:THR:HG21	34:i:949:C:H4'	1.51	0.91
17:Q:78:VAL:CG1	17:Q:82:TYR:HE2	1.83	0.91
32:f:88:PRO:O	32:f:89:LYS:C	2.07	0.91
5:E:1:MET:HE1	34:i:422:G:C8	2.06	0.91
7:G:50:VAL:CG1	7:G:111:LEU:HB3	2.00	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:13:ALA:HA	18:R:54:VAL:CG2	2.00	0.91
22:V:32:ILE:HG22	22:V:33:PRO:HD2	1.52	0.91
23:W:62:VAL:CB	28:b:8:LEU:CD2	2.42	0.91
27:a:32:LYS:O	27:a:37:LYS:NZ	2.04	0.91
3:C:155:TRP:CZ3	23:W:97:ARG:NH1	2.20	0.91
4:D:112:GLY:N	4:D:113:LEU:CD1	2.33	0.91
7:G:64:LYS:HD2	7:G:64:LYS:O	1.69	0.91
10:J:110:LEU:HD13	10:J:130:ILE:HD11	0.92	0.91
10:J:171:GLY:O	10:J:173:VAL:N	2.03	0.91
16:P:44:ARG:HH21	16:P:84:ILE:CB	1.83	0.91
19:S:117:ILE:C	19:S:118:ARG:HG2	1.94	0.91
20:T:89:PRO:O	20:T:91:HIS:CD2	2.24	0.91
21:U:22:ILE:HG12	21:U:114:VAL:HG22	1.52	0.91
25:Y:54:VAL:HG22	25:Y:79:LEU:HD23	1.49	0.91
33:g:32:LEU:CB	33:g:71:ILE:HD11	1.99	0.91
33:g:282:GLU:HG3	33:g:283:PRO:N	1.85	0.91
34:i:24:C:H2'	34:i:25:A:C8	2.05	0.91
2:B:72:ALA:CA	2:B:79:VAL:HG23	1.99	0.91
3:C:241:TRP:CB	23:W:68:ARG:NH1	2.32	0.91
5:E:205:PHE:CE1	5:E:221:ARG:NH1	2.39	0.91
10:J:115:PHE:HD1	10:J:122:SER:H	0.97	0.91
16:P:59:ARG:CD	16:P:76:VAL:HG13	2.00	0.91
16:P:125:PRO:O	16:P:126:VAL:HG23	1.70	0.91
25:Y:44:LEU:HD11	25:Y:48:TYR:CD2	2.04	0.91
25:Y:44:LEU:HD11	25:Y:48:TYR:HE2	1.06	0.91
7:G:157:VAL:CG1	7:G:159:ARG:N	2.09	0.91
12:L:82:MET:HB2	12:L:85:THR:CG2	2.00	0.91
13:M:61:TYR:HE1	13:M:108:CYS:SG	1.93	0.91
14:N:46:THR:OG1	14:N:49:GLN:HG3	1.68	0.91
25:Y:10:ARG:CG	25:Y:24:VAL:HB	2.00	0.91
25:Y:29:HIS:HE1	25:Y:68:LYS:H	0.96	0.91
26:Z:69:THR:CB	26:Z:70:PRO:HD3	1.99	0.91
26:Z:74:SER:HA	26:Z:79:ILE:HG22	1.50	0.91
33:g:46:THR:CB	33:g:48:ASP:HB2	2.01	0.91
3:C:55:VAL:HG11	3:C:82:PHE:CE2	2.03	0.91
4:D:166:TYR:CD1	4:D:200:PRO:CB	2.52	0.91
10:J:37:LEU:CD2	10:J:42:GLU:CB	2.49	0.91
11:K:16:PHE:HD2	11:K:79:LEU:HB3	1.29	0.91
13:M:64:LEU:HD12	32:f:104:LYS:NZ	1.85	0.91
15:O:79:GLN:CD	29:c:5:ARG:HD3	1.95	0.91
17:Q:8:GLN:HB3	17:Q:99:TYR:CE1	2.01	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:104:LEU:HD11	23:W:106:THR:HG23	1.52	0.91
24:X:29:LYS:HD3	24:X:34:THR:HG21	1.51	0.91
24:X:74:LEU:CD1	24:X:81:ILE:HD12	2.00	0.91
24:X:98:ASP:O	24:X:99:GLU:HB2	1.70	0.91
24:X:114:ASP:C	24:X:116:PRO:HD3	1.94	0.91
2:B:72:ALA:HB2	2:B:79:VAL:O	1.70	0.91
5:E:139:LEU:HD13	5:E:154:ILE:HG21	1.49	0.91
5:E:153:LEU:HD13	5:E:172:PHE:HZ	1.32	0.91
6:F:91:ARG:HH12	6:F:94:LYS:HG3	1.33	0.91
8:H:6:ALA:HB1	8:H:10:LYS:HZ3	1.36	0.91
15:O:131:ASP:OD2	27:a:67:LEU:HD22	1.69	0.91
16:P:68:PRO:HB3	16:P:69:PRO:HD3	1.51	0.91
17:Q:50:LYS:NZ	17:Q:85:ARG:HH21	1.69	0.91
18:R:122:PRO:HB2	18:R:123:THR:OG1	1.69	0.91
19:S:36:VAL:HG22	19:S:36:VAL:O	1.71	0.91
22:V:32:ILE:HG22	22:V:33:PRO:CD	2.00	0.91
29:c:67:ARG:CG	29:c:68:LEU:N	2.30	0.91
33:g:282:GLU:CG	33:g:283:PRO:N	2.30	0.91
33:g:298:LEU:CD1	33:g:310:TRP:HE3	1.84	0.91
34:i:447:C:H4'	34:i:1795:A:O3'	1.70	0.91
3:C:173:CYS:SG	34:i:1351:C:O2	2.27	0.91
5:E:48:LEU:HD21	5:E:70:ILE:HD12	1.51	0.91
14:N:16:LEU:HD22	14:N:17:PRO:HD2	1.51	0.91
14:N:53:ILE:HD13	28:b:52:THR:HG21	1.49	0.91
26:Z:85:ARG:HB3	26:Z:85:ARG:CZ	2.01	0.91
33:g:143:GLN:CD	33:g:144:ASP:HB2	1.95	0.91
1:A:42:LYS:CD	18:R:101:ASP:HB3	2.01	0.91
1:A:52:LYS:NZ	1:A:52:LYS:HB3	1.86	0.91
2:B:21:VAL:HG23	2:B:21:VAL:O	1.70	0.91
3:C:55:VAL:CB	3:C:82:PHE:CE2	2.54	0.91
4:D:197:LYS:HB2	4:D:198:ILE:CB	1.99	0.91
8:H:145:ARG:HD2	23:W:51:GLU:CD	1.94	0.91
9:I:139:LYS:HB3	9:I:145:ILE:HD13	1.51	0.91
10:J:170:PRO:HA	10:J:174:LYS:HZ1	1.33	0.91
16:P:111:MET:O	16:P:114:HIS:HD2	1.54	0.91
18:R:99:ASP:O	18:R:119:VAL:HG21	1.71	0.91
21:U:97:ILE:HG23	21:U:101:ILE:HD11	1.50	0.91
25:Y:7:ILE:HD11	25:Y:43:LYS:CD	2.00	0.91
25:Y:20:ARG:HG3	25:Y:74:MET:HE3	0.93	0.91
33:g:194:TYR:CZ	33:g:212:LYS:HB2	2.04	0.91
33:g:274:VAL:HG23	33:g:274:VAL:O	1.68	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:205:ARG:CG	1:A:206:ASP:N	2.23	0.91
4:D:132:LYS:N	4:D:191:PRO:CG	2.33	0.91
13:M:78:LYS:C	13:M:79:VAL:HG23	1.94	0.91
14:N:19:ARG:NH1	28:b:84:HIS:OXT	2.04	0.91
16:P:70:MET:O	16:P:71:GLU:HB2	1.68	0.91
24:X:56:GLY:O	31:e:76:VAL:HG12	1.70	0.91
33:g:2:THR:O	33:g:2:THR:HG23	1.67	0.91
3:C:244:THR:HG23	3:C:246:PHE:H	1.20	0.90
9:I:142:SER:CA	9:I:143:LYS:HB2	1.98	0.90
10:J:17:ARG:HB3	10:J:18:ARG:HG2	1.49	0.90
10:J:130:ILE:HG12	10:J:135:ILE:CD1	1.99	0.90
18:R:91:LEU:HD13	18:R:92:ASP:CA	2.00	0.90
23:W:62:VAL:HG11	28:b:8:LEU:HG	1.52	0.90
5:E:130:PHE:CG	5:E:138:HIS:NE2	2.38	0.90
5:E:248:ILE:CB	10:J:72:PHE:CZ	2.48	0.90
12:L:125:ILE:HB	12:L:146:THR:CG2	2.01	0.90
35:l:35:ILE:CG2	35:l:113:PHE:HD1	1.79	0.90
3:C:63:LEU:HG	3:C:83:LEU:HD13	1.51	0.90
5:E:208:VAL:CG1	5:E:225:ILE:CD1	2.48	0.90
6:F:167:LYS:CD	6:F:171:GLU:HG3	1.99	0.90
10:J:92:MET:C	10:J:93:LYS:HE3	1.96	0.90
10:J:138:ARG:NH1	10:J:156:HIS:ND1	2.11	0.90
23:W:35:VAL:O	23:W:39:THR:HG23	1.70	0.90
23:W:129:PHE:C	23:W:129:PHE:CD1	2.45	0.90
3:C:60:ILE:O	3:C:82:PHE:CZ	2.22	0.90
4:D:76:ARG:NE	11:K:66:HIS:HE1	1.55	0.90
10:J:39:ASN:OD1	10:J:42:GLU:N	2.03	0.90
12:L:76:VAL:HG12	12:L:125:ILE:HD13	1.53	0.90
12:L:118:ARG:C	12:L:118:ARG:CD	2.31	0.90
13:M:67:ALA:CB	32:f:108:VAL:HG21	2.01	0.90
17:Q:24:HIS:NE2	17:Q:69:ARG:HB2	1.86	0.90
22:V:24:ILE:HD13	22:V:24:ILE:C	1.94	0.90
23:W:4:MET:SD	23:W:4:MET:N	2.44	0.90
23:W:77:PRO:HD3	24:X:5:ARG:O	1.71	0.90
34:i:1207:G:N2	34:i:1684:C:C2	2.38	0.90
34:i:1592:C:H4'	34:i:1598:G:C6	2.06	0.90
1:A:21:ALA:HB3	1:A:173:LEU:CD1	1.79	0.90
3:C:50:LYS:CE	3:C:251:TYR:HE1	1.83	0.90
3:C:55:VAL:HG22	3:C:82:PHE:CE2	2.06	0.90
3:C:60:ILE:O	3:C:82:PHE:HE1	1.44	0.90
7:G:66:GLY:HA2	34:i:1740:A:O2'	1.71	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:142:SER:HB2	9:I:143:LYS:HZ3	1.31	0.90
9:I:191:GLU:O	9:I:192:GLY:C	2.14	0.90
10:J:35:TYR:O	10:J:37:LEU:N	2.04	0.90
16:P:49:LEU:HD12	16:P:51:ARG:HE	0.75	0.90
19:S:59:LEU:HD13	19:S:59:LEU:N	1.85	0.90
21:U:62:ARG:NH1	21:U:64:THR:HG23	1.87	0.90
1:A:5:LEU:CB	22:V:41:LYS:CE	2.49	0.90
3:C:73:ILE:HD11	3:C:78:ILE:HB	1.53	0.90
5:E:62:LYS:HA	5:E:65:CYS:SG	2.11	0.90
6:F:91:ARG:CA	6:F:91:ARG:HE	1.85	0.90
11:K:84:HIS:ND1	11:K:85:LEU:HA	1.85	0.90
26:Z:99:LEU:HD21	26:Z:109:TYR:CE1	2.07	0.90
35:l:35:ILE:HG22	35:l:113:PHE:CE1	2.05	0.90
35:l:43:THR:HG23	35:l:113:PHE:CE1	2.05	0.90
1:A:186:ARG:C	1:A:186:ARG:NH1	2.30	0.90
5:E:208:VAL:CB	5:E:225:ILE:HD13	2.01	0.90
6:F:91:ARG:NH1	6:F:94:LYS:HB3	1.76	0.90
8:H:107:LYS:C	8:H:109:ARG:HA	1.97	0.90
9:I:157:LYS:HB3	12:L:22:ARG:HH12	1.37	0.90
11:K:84:HIS:ND1	11:K:84:HIS:C	2.28	0.90
17:Q:92:LEU:HD11	17:Q:96:TYR:CZ	2.07	0.90
18:R:121:GLN:C	18:R:121:GLN:NE2	2.30	0.90
20:T:111:LYS:CB	20:T:126:GLN:HE22	1.84	0.90
30:d:5:GLN:HG2	30:d:7:TYR:HE2	1.25	0.90
33:g:71:ILE:HG22	33:g:72:SER:N	1.87	0.90
2:B:57:ILE:CD1	2:B:60:ASP:OD2	2.19	0.90
5:E:145:ARG:HG2	5:E:145:ARG:HH11	1.37	0.90
7:G:41:LEU:HD22	7:G:45:TRP:HE3	1.33	0.90
8:H:101:LEU:HG	8:H:120:ARG:HG2	1.54	0.90
8:H:158:LEU:HD21	8:H:187:PHE:CE1	2.07	0.90
11:K:40:VAL:HG22	11:K:41:PRO:HD2	1.54	0.90
12:L:17:PHE:CE2	12:L:18:GLN:O	2.25	0.90
13:M:60:MET:HB3	32:f:104:LYS:HD2	1.52	0.90
20:T:119:TRP:HE3	34:i:1557:C:O2'	1.55	0.90
22:V:55:ILE:CD1	22:V:68:SER:OG	2.17	0.90
24:X:60:LYS:HE2	24:X:116:PRO:CG	2.02	0.90
25:Y:18:LEU:HB3	25:Y:20:ARG:HH11	0.74	0.90
31:e:75:LYS:O	31:e:76:VAL:HG22	1.70	0.90
33:g:284:PRO:O	33:g:302:TYR:CD1	2.24	0.90
1:A:5:LEU:HD22	1:A:5:LEU:O	1.70	0.90
6:F:122:ARG:CZ	6:F:193:LYS:HZ1	1.83	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:176:ILE:CG2	7:G:179:LEU:CB	2.49	0.90
9:I:154:LYS:HG3	9:I:155:ASN:N	1.80	0.90
15:O:19:PRO:HG3	15:O:27:VAL:CB	2.01	0.90
15:O:39:ASP:OD1	15:O:40:THR:N	2.05	0.90
16:P:33:LEU:HD23	16:P:87:PRO:HD2	1.51	0.90
16:P:107:ILE:HA	16:P:111:MET:HE1	1.51	0.90
17:Q:42:ILE:CD1	17:Q:51:LEU:CD1	2.49	0.90
23:W:30:CYS:SG	23:W:61:ILE:HD11	2.12	0.90
25:Y:114:MET:HE1	25:Y:125:VAL:CG2	2.01	0.90
26:Z:99:LEU:CD2	26:Z:109:TYR:HE1	1.77	0.90
35:l:43:THR:CG2	35:l:113:PHE:CE1	2.55	0.90
1:A:66:VAL:HG13	1:A:186:ARG:CG	2.01	0.90
2:B:87:ILE:HD13	2:B:101:HIS:HD2	0.80	0.90
3:C:49:THR:HG23	3:C:75:GLU:OE1	1.72	0.90
6:F:91:ARG:HH12	6:F:94:LYS:CB	1.79	0.90
17:Q:7:LEU:HD23	17:Q:8:GLN:OE1	1.69	0.90
19:S:30:ILE:HD11	19:S:45:LEU:HD21	1.54	0.90
20:T:23:LYS:CD	20:T:54:TYR:CE2	2.54	0.90
24:X:29:LYS:HD2	24:X:34:THR:CB	2.00	0.90
33:g:26:GLN:HB2	33:g:74:ASP:HA	1.52	0.90
34:i:181:A:H1'	34:i:182:C:C5	2.07	0.90
3:C:67:TYR:CE1	22:V:27:LYS:NZ	2.40	0.89
15:O:142:ARG:HH12	27:a:27:ALA:HB2	1.31	0.89
16:P:53:GLN:HE21	16:P:80:LEU:CD1	1.84	0.89
16:P:127:LYS:NZ	16:P:127:LYS:C	2.29	0.89
17:Q:72:VAL:HG21	17:Q:84:ILE:HG23	1.52	0.89
19:S:11:HIS:HD2	19:S:23:ARG:HH21	1.16	0.89
29:c:21:THR:CG2	29:c:22:GLY:H	1.81	0.89
2:B:72:ALA:HA	2:B:79:VAL:CG2	2.02	0.89
4:D:59:LEU:HD12	4:D:60:GLY:CA	2.02	0.89
11:K:11:ILE:HG23	11:K:49:MET:HE3	1.51	0.89
17:Q:135:PRO:CD	17:Q:141:TYR:CD1	2.54	0.89
18:R:33:ARG:HB3	33:g:150:TRP:HZ2	1.13	0.89
19:S:8:LYS:HE3	19:S:9:PHE:CE1	2.07	0.89
25:Y:92:ALA:HA	25:Y:97:TYR:HB3	1.54	0.89
28:b:61:THR:HG23	28:b:62:VAL:N	1.84	0.89
33:g:118:ARG:HH21	33:g:134:THR:HG23	1.37	0.89
34:i:520:U:C6	34:i:521:A:C8	2.60	0.89
34:i:1701:G:H22	34:i:1843:G:H22	0.93	0.89
1:A:141:ASN:HA	22:V:32:ILE:HG13	1.53	0.89
4:D:157:MET:HE1	4:D:187:LYS:HD3	0.90	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:83:LEU:HD13	11:K:85:LEU:CD2	2.03	0.89
12:L:149:ALA:HB1	12:L:156:GLN:HB3	0.89	0.89
14:N:142:GLU:CG	14:N:144:SER:OG	2.19	0.89
16:P:107:ILE:CA	16:P:111:MET:SD	2.60	0.89
21:U:25:THR:HG22	21:U:86:LYS:HG2	1.54	0.89
25:Y:37:LYS:O	25:Y:40:ILE:CG2	2.20	0.89
25:Y:44:LEU:CD1	25:Y:48:TYR:CE2	2.53	0.89
33:g:20:GLN:HE21	33:g:68:ASP:CB	1.84	0.89
2:B:175:GLU:HG2	2:B:193:ILE:CD1	2.03	0.89
3:C:223:LYS:HE2	34:i:1351:C:C1'	2.01	0.89
8:H:31:GLU:CD	8:H:41:ARG:CD	2.45	0.89
9:I:62:VAL:CG2	9:I:75:LYS:HE2	2.03	0.89
13:M:67:ALA:HB1	32:f:114:ILE:HG21	1.54	0.89
19:S:46:ARG:CZ	20:T:50:GLU:HG2	2.01	0.89
23:W:128:PHE:CE1	23:W:130:PHE:CD2	2.61	0.89
25:Y:12:PHE:HZ	25:Y:21:LYS:CB	1.85	0.89
26:Z:44:LEU:HD13	26:Z:45:ASN:N	1.87	0.89
28:b:2:PRO:HA	28:b:3:LEU:CD2	2.01	0.89
7:G:41:LEU:CD2	7:G:45:TRP:CE3	2.27	0.89
7:G:77:LEU:HD11	7:G:95:LYS:HB2	1.51	0.89
7:G:85:ARG:HD2	25:Y:118:ARG:HH22	1.35	0.89
8:H:143:ARG:NE	23:W:53:ILE:HG23	1.86	0.89
10:J:65:GLU:OE2	34:i:689:G:OP1	1.91	0.89
17:Q:49:TYR:O	17:Q:53:GLU:HG3	1.71	0.89
19:S:46:ARG:HH22	20:T:50:GLU:HB3	1.37	0.89
21:U:108:PRO:O	21:U:110:VAL:HG23	1.70	0.89
26:Z:92:LEU:HD23	26:Z:97:ILE:HG13	1.54	0.89
32:f:97:LYS:HB2	32:f:97:LYS:HZ3	1.32	0.89
34:i:1055:G:N1	34:i:1824:U:H5"	1.88	0.89
4:D:197:LYS:N	4:D:198:ILE:C	2.30	0.89
7:G:183:ARG:HH12	34:i:307:G:H8	1.05	0.89
9:I:153:LYS:O	9:I:154:LYS:CB	2.20	0.89
14:N:28:LEU:CD1	14:N:58:HIS:NE2	2.35	0.89
19:S:11:HIS:HD2	19:S:23:ARG:HH22	1.15	0.89
19:S:58:GLU:O	19:S:59:LEU:HD13	1.72	0.89
20:T:23:LYS:HD3	20:T:54:TYR:CE2	2.08	0.89
20:T:31:PRO:HB2	20:T:33:TRP:CE2	2.04	0.89
21:U:18:HIS:CE1	21:U:98:VAL:HG21	2.06	0.89
21:U:67:LYS:HE2	21:U:78:ASP:OD1	1.73	0.89
33:g:5:MET:CE	33:g:312:VAL:HG22	2.02	0.89
33:g:30:MET:HE2	33:g:42:MET:HE3	1.55	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:191:ARG:HG3	1:A:193:HIS:HB2	1.55	0.89
3:C:195:PRO:CD	3:C:221:PHE:CZ	2.55	0.89
3:C:241:TRP:HB3	23:W:68:ARG:HH11	1.30	0.89
3:C:241:TRP:CB	23:W:68:ARG:HH11	1.84	0.89
3:C:260:LYS:HD2	3:C:261:THR:CG2	2.03	0.89
7:G:98:ARG:HD3	7:G:98:ARG:C	1.93	0.89
7:G:183:ARG:NH2	34:i:308:C:H5	1.69	0.89
9:I:76:THR:HG22	9:I:77:ARG:N	1.88	0.89
10:J:38:ARG:NE	31:e:104:GLY:HA3	1.86	0.89
16:P:127:LYS:NZ	16:P:127:LYS:CB	2.30	0.89
26:Z:85:ARG:NH1	26:Z:85:ARG:CB	2.35	0.89
33:g:143:GLN:CD	33:g:144:ASP:N	2.30	0.89
34:i:1207:G:C2	34:i:1684:C:O2	2.26	0.89
35:l:35:ILE:C	35:l:113:PHE:CB	2.44	0.89
3:C:260:LYS:CG	3:C:261:THR:N	2.30	0.89
4:D:97:CYS:SG	4:D:99:ILE:HG12	2.13	0.89
10:J:119:LEU:N	10:J:119:LEU:CD2	2.30	0.89
10:J:127:ARG:HH12	10:J:145:PRO:CB	1.85	0.89
12:L:82:MET:CE	34:i:363:G:C4'	2.50	0.89
25:Y:34:THR:CG2	25:Y:35:VAL:N	2.33	0.89
33:g:286:CYS:SG	33:g:300:ALA:HB1	2.12	0.89
1:A:57:LYS:HE2	22:V:70:LEU:HD11	1.51	0.89
1:A:133:PRO:CD	1:A:134:LEU:H	1.86	0.89
2:B:33:VAL:HG12	2:B:44:ILE:HD12	1.53	0.89
3:C:93:LYS:HD3	3:C:218:LEU:HD21	0.90	0.89
4:D:18:LYS:HZ3	4:D:37:VAL:HG23	1.32	0.89
6:F:71:ARG:HH21	6:F:71:ARG:HG2	1.34	0.89
6:F:112:LEU:HA	6:F:177:LEU:HD11	1.55	0.89
8:H:93:VAL:HG22	8:H:94:PHE:N	1.84	0.89
8:H:121:THR:HG23	8:H:124:ALA:H	1.37	0.89
10:J:17:ARG:CB	10:J:18:ARG:CG	2.48	0.89
19:S:31:THR:HA	19:S:36:VAL:CG2	2.02	0.89
20:T:4:VAL:HA	20:T:8:ASP:OD2	1.72	0.89
28:b:33:MET:HE3	28:b:79:PHE:HB2	0.90	0.89
29:c:10:LYS:HD2	29:c:61:SER:HB3	1.54	0.89
3:C:55:VAL:CG1	3:C:82:PHE:CZ	2.37	0.89
3:C:148:VAL:HB	3:C:149:PRO:CD	2.02	0.89
4:D:94:ARG:HG2	4:D:95:GLY:N	1.84	0.89
4:D:221:THR:HB	4:D:222:PRO:CD	2.03	0.89
12:L:153:LYS:CG	14:N:131:THR:O	2.20	0.89
15:O:20:GLN:HG2	15:O:21:VAL:O	1.73	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:125:LYS:HZ2	27:a:57:SER:C	1.76	0.89
18:R:13:ALA:HA	18:R:54:VAL:HG22	1.51	0.89
25:Y:20:ARG:CD	25:Y:74:MET:CE	2.51	0.89
2:B:32:ASP:OD1	2:B:46:LYS:HD2	1.73	0.88
2:B:67:PHE:CE1	15:O:47:LEU:HB2	2.08	0.88
3:C:51:LEU:HD22	3:C:51:LEU:C	1.95	0.88
3:C:151:ARG:NH1	3:C:240:LEU:CD1	2.25	0.88
3:C:223:LYS:HZ2	34:i:1351:C:H2'	1.16	0.88
10:J:91:LYS:HA	10:J:96:TYR:CG	2.08	0.88
18:R:100:PRO:CG	18:R:119:VAL:HG22	2.02	0.88
19:S:103:LEU:HD12	19:S:104:ASP:N	1.87	0.88
28:b:10:PRO:CD	28:b:15:GLU:OE2	2.21	0.88
31:e:86:VAL:HA	31:e:89:GLN:HG2	1.55	0.88
32:f:135:HIS:O	32:f:138:ARG:O	1.90	0.88
33:g:219:TRP:CE3	33:g:226:HIS:CD2	2.61	0.88
3:C:64:GLU:OE1	22:V:11:LEU:HD13	1.73	0.88
4:D:16:ILE:CG2	30:d:22:ARG:HH22	1.86	0.88
6:F:18:LYS:HE3	17:Q:115:TYR:HD1	1.34	0.88
8:H:93:VAL:HG23	8:H:94:PHE:N	1.83	0.88
11:K:41:PRO:O	11:K:41:PRO:HD2	1.70	0.88
11:K:59:LYS:HD2	11:K:60:GLU:N	1.88	0.88
17:Q:115:TYR:CD2	17:Q:116:ASP:N	2.42	0.88
21:U:67:LYS:HE2	21:U:78:ASP:CG	1.98	0.88
24:X:95:GLU:CD	24:X:140:ARG:NH2	2.31	0.88
25:Y:29:HIS:ND1	25:Y:67:GLY:HA2	1.87	0.88
3:C:54:LEU:HD11	3:C:258:LEU:CD1	2.01	0.88
3:C:195:PRO:HD3	3:C:221:PHE:CZ	2.08	0.88
9:I:62:VAL:CB	9:I:75:LYS:HE2	2.02	0.88
18:R:11:LYS:O	18:R:15:VAL:HG23	1.72	0.88
18:R:44:LYS:HE3	18:R:47:ARG:HH22	0.72	0.88
19:S:8:LYS:CD	19:S:9:PHE:CE1	2.43	0.88
19:S:120:HIS:NE2	19:S:124:ARG:NH2	2.20	0.88
20:T:11:GLN:NE2	20:T:62:ARG:NH2	2.20	0.88
25:Y:78:SER:HB2	25:Y:81:TYR:CE2	2.07	0.88
34:i:1057:U:C4	35:l:64:LYS:NZ	2.41	0.88
2:B:49:VAL:HG22	2:B:65:ARG:HH22	1.36	0.88
3:C:241:TRP:CG	23:W:68:ARG:HD3	2.09	0.88
4:D:200:PRO:O	4:D:201:LYS:HG2	1.73	0.88
5:E:133:THR:O	5:E:134:LYS:HB2	1.74	0.88
8:H:43:LEU:HD13	8:H:72:PHE:CE1	2.07	0.88
8:H:158:LEU:HD21	8:H:187:PHE:HE1	1.36	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:90:GLY:C	10:J:96:TYR:CE2	2.50	0.88
17:Q:61:GLU:O	17:Q:63:PHE:N	2.07	0.88
20:T:77:LYS:HB2	20:T:94:ARG:HD3	0.90	0.88
21:U:64:THR:CG2	21:U:79:ARG:HG2	1.99	0.88
24:X:91:LEU:O	24:X:93:PHE:N	2.05	0.88
25:Y:20:ARG:HD2	25:Y:74:MET:CE	2.02	0.88
1:A:103:PHE:CE2	1:A:136:GLU:CD	2.50	0.88
3:C:192:ALA:C	3:C:195:PRO:HD2	1.99	0.88
6:F:201:LYS:HE3	6:F:204:ARG:NH2	1.88	0.88
13:M:115:GLY:O	13:M:116:LYS:HB2	1.73	0.88
19:S:39:ARG:HD3	20:T:38:LYS:HE2	1.54	0.88
22:V:71:ARG:NH1	28:b:3:LEU:O	2.06	0.88
25:Y:9:THR:HG1	25:Y:48:TYR:HH	1.07	0.88
25:Y:12:PHE:HZ	25:Y:21:LYS:HB3	1.33	0.88
25:Y:34:THR:C	25:Y:35:VAL:HG22	1.98	0.88
33:g:59:LEU:O	33:g:60:ARG:O	1.92	0.88
34:i:1751:G:H22	34:i:1769:U:H3	1.20	0.88
3:C:156:GLY:C	3:C:157:ASN:ND2	2.29	0.88
7:G:57:ASP:OD2	7:G:98:ARG:CG	2.21	0.88
8:H:14:GLU:OE1	8:H:16:PRO:HG2	1.74	0.88
13:M:12:MET:HE1	13:M:120:ALA:HB2	1.53	0.88
16:P:49:LEU:O	16:P:50:ARG:C	2.08	0.88
24:X:105:PHE:CG	24:X:112:VAL:HG23	2.09	0.88
5:E:124:CYS:SG	5:E:162:ILE:HD13	2.14	0.88
6:F:142:SER:OG	29:c:50:VAL:HG22	1.74	0.88
17:Q:112:LEU:CD2	17:Q:119:LEU:HD13	1.99	0.88
25:Y:122:LYS:HD3	25:Y:122:LYS:N	1.85	0.88
1:A:125:THR:HG22	1:A:175:TRP:HE1	1.39	0.88
4:D:70:THR:HA	4:D:86:LEU:HD13	1.56	0.88
7:G:4:ASN:HA	7:G:15:LEU:HD23	1.56	0.88
10:J:134:HIS:O	10:J:135:ILE:CG2	2.22	0.88
11:K:28:HIS:CE1	30:d:8:TRP:HE1	1.87	0.88
18:R:91:LEU:CD1	18:R:91:LEU:H	1.85	0.88
19:S:129:LEU:HD22	34:i:1516:C:H5'	1.53	0.88
21:U:24:LEU:HD23	21:U:112:VAL:HG22	1.55	0.88
26:Z:48:VAL:O	26:Z:48:VAL:HG12	1.72	0.88
32:f:106:TYR:OH	32:f:131:PHE:HZ	1.28	0.88
33:g:15:ASN:O	33:g:305:ASN:CG	2.17	0.88
33:g:118:ARG:HH22	33:g:134:THR:HG21	1.36	0.88
1:A:141:ASN:OD1	22:V:31:SER:O	1.92	0.88
2:B:135:LEU:CD2	2:B:217:MET:SD	2.62	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:43:LYS:HA	3:C:43:LYS:HE3	1.56	0.88
3:C:71:LEU:O	22:V:29:HIS:CE1	2.26	0.88
3:C:167:CYS:SG	23:W:95:PRO:CB	2.62	0.88
4:D:135:GLU:CB	4:D:153:VAL:HG22	2.03	0.88
6:F:73:THR:HG22	6:F:93:VAL:HG21	0.96	0.88
10:J:110:LEU:CD1	10:J:130:ILE:HD11	1.78	0.88
17:Q:21:ALA:CB	17:Q:72:VAL:HG22	2.03	0.88
24:X:5:ARG:HH21	24:X:5:ARG:CB	1.86	0.88
30:d:23:VAL:HG21	30:d:38:MET:HE2	1.54	0.88
1:A:36:GLN:OE1	1:A:36:GLN:HA	1.74	0.88
3:C:142:LEU:CA	3:C:145:LEU:HD23	2.04	0.88
7:G:36:VAL:HG12	7:G:37:ALA:H	1.36	0.88
8:H:29:GLU:OE2	8:H:86:LYS:CE	2.22	0.88
8:H:146:VAL:HG11	23:W:42:MET:SD	2.13	0.88
11:K:65:ARG:NH1	11:K:65:ARG:CB	2.31	0.88
12:L:157:LYS:O	12:L:158:PHE:CD2	2.25	0.88
18:R:91:LEU:H	18:R:92:ASP:HA	1.39	0.88
19:S:33:ILE:HB	19:S:36:VAL:CG1	2.03	0.88
23:W:85:ASP:O	23:W:89:TRP:CD1	2.26	0.88
25:Y:54:VAL:HG12	25:Y:76:TYR:N	1.89	0.88
1:A:42:LYS:HD2	18:R:101:ASP:HB2	1.55	0.87
4:D:123:LEU:CD2	4:D:154:ASP:HB3	2.03	0.87
4:D:221:THR:HB	4:D:222:PRO:HD2	1.54	0.87
7:G:213:LEU:HD12	7:G:214:ALA:N	1.89	0.87
11:K:71:LEU:HD23	11:K:76:ILE:HD11	1.55	0.87
14:N:24:THR:OG1	28:b:84:HIS:HE1	1.57	0.87
16:P:41:GLN:CG	16:P:84:ILE:HG23	2.03	0.87
23:W:90:GLN:HA	23:W:102:ILE:CD1	2.05	0.87
25:Y:7:ILE:HG13	25:Y:43:LYS:HD3	1.56	0.87
25:Y:32:LYS:HG2	25:Y:33:ALA:N	1.86	0.87
27:a:76:SER:O	27:a:80:HIS:HB2	1.74	0.87
32:f:106:TYR:CZ	32:f:131:PHE:HZ	1.92	0.87
33:g:140:TYR:CD2	33:g:182:CYS:SG	2.66	0.87
34:i:683:G:N2	34:i:733:G:C6	2.42	0.87
2:B:137:LEU:CD2	2:B:215:VAL:CG2	2.47	0.87
3:C:241:TRP:HB3	23:W:68:ARG:HH12	1.37	0.87
3:C:260:LYS:HG3	3:C:261:THR:N	1.89	0.87
4:D:218:LEU:HD12	4:D:220:THR:CG2	2.04	0.87
10:J:89:GLU:CA	10:J:92:MET:CB	2.37	0.87
10:J:90:GLY:C	10:J:96:TYR:CD2	2.52	0.87
17:Q:12:VAL:HG12	17:Q:13:PHE:N	1.89	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:f:102:VAL:CG1	32:f:103:LEU:N	2.29	0.87
5:E:70:ILE:CG1	5:E:92:ILE:HD12	1.88	0.87
6:F:103:LEU:CD2	6:F:178:ILE:CD1	2.22	0.87
10:J:138:ARG:NH1	10:J:156:HIS:CD2	2.43	0.87
16:P:41:GLN:HG2	16:P:84:ILE:HG12	0.89	0.87
16:P:123:TYR:CZ	19:S:120:HIS:CE1	2.62	0.87
24:X:105:PHE:CE2	24:X:118:VAL:O	2.27	0.87
28:b:12:PRO:HD2	28:b:13:GLU:N	1.86	0.87
35:l:31:ILE:HD12	35:l:50:ILE:HD13	1.57	0.87
4:D:132:LYS:CA	4:D:191:PRO:HG2	2.04	0.87
5:E:128:LYS:HD3	5:E:130:PHE:HE1	0.95	0.87
10:J:170:PRO:CA	10:J:174:LYS:NZ	2.38	0.87
11:K:14:LEU:HD22	11:K:35:LEU:CG	2.04	0.87
18:R:17:ILE:HG21	18:R:69:ILE:HD13	1.54	0.87
21:U:27:ARG:O	21:U:28:ASN:C	2.12	0.87
22:V:65:SER:O	22:V:69:ILE:HG12	1.74	0.87
25:Y:122:LYS:N	25:Y:122:LYS:CD	2.36	0.87
27:a:22:ARG:NE	27:a:28:CYS:O	2.07	0.87
31:e:118:ASN:HB3	31:e:119:VAL:HG23	1.53	0.87
1:A:11:LYS:CD	1:A:13:GLU:HG3	2.03	0.87
3:C:102:GLN:HG3	3:C:103:ALA:N	1.87	0.87
6:F:119:SER:O	6:F:193:LYS:HG3	1.75	0.87
9:I:140:LYS:HG3	9:I:141:ARG:N	1.83	0.87
10:J:32:ILE:O	10:J:35:TYR:O	1.92	0.87
10:J:39:ASN:OD1	10:J:42:GLU:CD	2.17	0.87
18:R:100:PRO:C	18:R:103:LYS:H	1.82	0.87
28:b:81:ARG:CA	28:b:82:LYS:HB2	2.04	0.87
3:C:260:LYS:CD	3:C:261:THR:H	1.88	0.87
4:D:70:THR:HA	4:D:86:LEU:CD1	2.05	0.87
4:D:132:LYS:HA	4:D:191:PRO:HG2	1.54	0.87
9:I:25:ARG:HD2	9:I:27:TYR:CD2	2.08	0.87
9:I:197:PHE:CE2	12:L:5:GLN:HG3	2.10	0.87
18:R:29:HIS:CE1	33:g:65:PHE:CE2	2.63	0.87
19:S:65:GLU:O	19:S:69:THR:HG23	1.75	0.87
33:g:175:LYS:HD3	33:g:177:TRP:CZ2	2.10	0.87
1:A:97:THR:HG22	1:A:98:PRO:CD	2.02	0.87
3:C:123:GLY:CA	3:C:226:PHE:HZ	1.87	0.87
4:D:158:ILE:CD1	4:D:189:MET:SD	2.62	0.87
11:K:36:ALA:C	11:K:38:LYS:N	2.30	0.87
13:M:26:LEU:HD11	13:M:89:VAL:C	1.99	0.87
16:P:108:LYS:NZ	19:S:118:ARG:HH12	1.72	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:43:GLU:HA	17:Q:45:ARG:N	1.89	0.87
20:T:119:TRP:HB3	34:i:1557:C:O2'	1.74	0.87
3:C:218:LEU:HD12	3:C:219:GLY:N	1.88	0.87
3:C:223:LYS:HZ2	34:i:1351:C:C2'	1.66	0.87
4:D:218:LEU:HB2	4:D:220:THR:HG21	1.53	0.87
14:N:12:SER:O	14:N:13:GLN:HG2	1.73	0.87
15:O:79:GLN:HE22	29:c:5:ARG:HD3	1.08	0.87
17:Q:112:LEU:O	17:Q:116:ASP:N	2.08	0.87
18:R:99:ASP:CA	18:R:119:VAL:HG12	2.02	0.87
21:U:36:CYS:SG	21:U:53:PRO:CB	2.62	0.87
22:V:32:ILE:CD1	22:V:60:ARG:HH12	1.88	0.87
25:Y:61:ARG:N	25:Y:61:ARG:CD	2.34	0.87
25:Y:122:LYS:CD	25:Y:123:ALA:H	1.87	0.87
30:d:23:VAL:HG21	30:d:38:MET:HE1	0.87	0.87
10:J:82:VAL:HG11	10:J:92:MET:CE	2.05	0.87
15:O:101:GLY:O	15:O:104:ARG:HB2	1.74	0.87
17:Q:111:ILE:O	17:Q:114:GLN:HG2	1.74	0.87
19:S:47:LYS:NZ	19:S:78:LYS:CB	2.38	0.87
24:X:107:ARG:O	24:X:110:HIS:ND1	2.05	0.87
30:d:27:ARG:CB	30:d:27:ARG:NH1	2.38	0.87
32:f:86:THR:O	32:f:87:THR:HB	1.74	0.87
32:f:108:VAL:CG2	32:f:114:ILE:CG2	2.42	0.87
32:f:116:ARG:HH11	32:f:116:ARG:HG3	1.39	0.87
4:D:196:GLY:N	4:D:197:LYS:CA	2.38	0.86
6:F:42:LYS:HB2	6:F:45:TYR:CA	2.04	0.86
10:J:37:LEU:O	31:e:105:ARG:HG3	1.74	0.86
10:J:102:ILE:HG22	10:J:106:LEU:HD13	1.56	0.86
12:L:10:TYR:HD2	12:L:12:LYS:HZ2	1.20	0.86
13:M:124:ILE:O	13:M:127:TYR:CD2	2.28	0.86
14:N:80:LEU:O	14:N:82:PRO:CD	2.23	0.86
16:P:84:ILE:HD11	16:P:115:TYR:CE1	2.10	0.86
17:Q:117:ARG:O	17:Q:118:THR:OG1	1.92	0.86
19:S:8:LYS:HA	26:Z:49:LEU:HD23	1.57	0.86
33:g:194:TYR:OH	33:g:235:ILE:CD1	2.23	0.86
1:A:125:THR:HA	1:A:147:LEU:HB2	1.55	0.86
4:D:123:LEU:HD21	4:D:154:ASP:CG	2.01	0.86
7:G:50:VAL:HG11	7:G:111:LEU:CG	2.04	0.86
7:G:227:GLN:HA	7:G:230:LYS:CD	2.05	0.86
14:N:16:LEU:HD21	14:N:62:GLN:CD	1.99	0.86
20:T:124:THR:HG23	20:T:126:GLN:N	1.89	0.86
24:X:67:ARG:C	24:X:68:LYS:CG	2.48	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:113:ASN:O	31:e:118:ASN:HB2	1.75	0.86
1:A:76:VAL:CG1	1:A:175:TRP:CH2	2.56	0.86
4:D:47:GLU:CD	4:D:85:GLU:OE2	2.18	0.86
4:D:55:THR:C	4:D:58:VAL:HG22	1.98	0.86
5:E:248:ILE:HD11	10:J:72:PHE:CB	2.03	0.86
10:J:125:HIS:ND1	34:i:516:A:O2'	1.89	0.86
15:O:20:GLN:CG	15:O:21:VAL:N	2.39	0.86
16:P:49:LEU:HD13	16:P:51:ARG:HE	1.34	0.86
18:R:100:PRO:HA	18:R:103:LYS:CB	2.03	0.86
21:U:27:ARG:HG3	21:U:83:ARG:O	1.74	0.86
21:U:50:VAL:CG1	21:U:51:LYS:H	1.86	0.86
22:V:64:GLU:OE2	28:b:3:LEU:HD21	1.74	0.86
24:X:108:LYS:HB3	24:X:110:HIS:NE2	1.89	0.86
28:b:32:PHE:O	28:b:81:ARG:O	1.94	0.86
28:b:73:LEU:HD12	28:b:79:PHE:CZ	2.09	0.86
3:C:67:TYR:HE1	22:V:27:LYS:NZ	1.71	0.86
3:C:79:ILE:HD11	3:C:147:ILE:CD1	2.04	0.86
4:D:18:LYS:HD2	4:D:18:LYS:O	1.74	0.86
4:D:21:LEU:O	4:D:25:LEU:HD23	1.76	0.86
4:D:76:ARG:NE	11:K:66:HIS:ND1	2.22	0.86
4:D:218:LEU:CB	4:D:220:THR:HG21	1.99	0.86
5:E:23:LEU:O	5:E:24:THR:CG2	2.24	0.86
6:F:53:ALA:O	17:Q:125:ARG:NH2	2.08	0.86
7:G:64:LYS:HG3	7:G:67:VAL:CG1	2.06	0.86
7:G:147:LEU:O	7:G:148:SER:OG	1.93	0.86
9:I:62:VAL:HG21	9:I:75:LYS:CE	2.06	0.86
10:J:15:THR:CG2	10:J:44:TRP:HZ3	1.80	0.86
16:P:51:ARG:HD2	16:P:51:ARG:H	1.38	0.86
17:Q:50:LYS:HZ1	17:Q:117:ARG:CD	1.88	0.86
18:R:37:GLU:OE1	18:R:38:ILE:HG23	1.75	0.86
24:X:138:LYS:C	24:X:139:GLU:CD	2.43	0.86
26:Z:70:PRO:HD2	26:Z:71:ALA:N	1.89	0.86
26:Z:103:HIS:CD2	26:Z:105:ALA:CB	2.57	0.86
1:A:136:GLU:CD	34:i:1374:A:H62	1.83	0.86
1:A:191:ARG:HG3	1:A:191:ARG:O	1.73	0.86
6:F:204:ARG:HD2	29:c:60:GLU:CD	2.00	0.86
7:G:57:ASP:HA	7:G:106:LEU:HA	1.55	0.86
12:L:102:PHE:N	12:L:102:PHE:CD1	2.39	0.86
18:R:44:LYS:HE2	18:R:47:ARG:NH2	1.86	0.86
21:U:104:ILE:O	21:U:105:SER:C	2.13	0.86
2:B:150:ILE:CG1	18:R:124:VAL:HG13	2.05	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:158:ILE:HD13	4:D:189:MET:HE2	1.47	0.86
4:D:212:GLU:CB	18:R:19:LYS:HD3	2.04	0.86
8:H:10:LYS:NZ	8:H:17:ASP:N	2.23	0.86
10:J:37:LEU:HD21	10:J:42:GLU:HB2	1.49	0.86
19:S:26:ILE:HD11	19:S:59:LEU:CD2	2.05	0.86
19:S:59:LEU:CD1	19:S:59:LEU:N	2.37	0.86
20:T:64:LEU:N	20:T:64:LEU:HD23	1.90	0.86
2:B:53:GLN:O	2:B:56:LYS:O	1.93	0.86
3:C:154:TYR:OH	3:C:162:PRO:CD	2.24	0.86
6:F:28:VAL:HG22	6:F:110:GLN:HG2	1.57	0.86
7:G:157:VAL:CG1	7:G:158:VAL:N	2.30	0.86
9:I:154:LYS:HE2	9:I:154:LYS:HA	1.58	0.86
11:K:40:VAL:HG13	11:K:41:PRO:N	1.86	0.86
15:O:105:THR:O	15:O:106:LYS:CG	2.24	0.86
17:Q:12:VAL:HG12	17:Q:13:PHE:H	1.40	0.86
19:S:16:LEU:C	19:S:17:ASN:CG	2.43	0.86
25:Y:120:THR:O	25:Y:122:LYS:HD2	1.74	0.86
33:g:100:ARG:HG3	33:g:100:ARG:NH1	1.89	0.86
33:g:140:TYR:CZ	33:g:182:CYS:SG	2.68	0.86
34:i:520:U:C5	34:i:521:A:C8	2.64	0.86
2:B:73:ASP:OD2	27:a:59:PHE:HZ	1.46	0.86
4:D:158:ILE:HD11	4:D:189:MET:HE1	0.86	0.86
5:E:36:HIS:CB	5:E:41:CYS:SG	2.63	0.86
6:F:39:ILE:CG2	6:F:68:ILE:HG21	2.05	0.86
6:F:71:ARG:NH2	6:F:71:ARG:HG2	1.90	0.86
7:G:41:LEU:HD21	7:G:45:TRP:HZ3	1.08	0.86
8:H:43:LEU:HD13	8:H:72:PHE:CD1	2.10	0.86
10:J:177:ASN:O	10:J:180:LYS:HG3	1.76	0.86
11:K:33:PRO:O	11:K:34:GLU:HB3	1.73	0.86
12:L:80:MET:CE	12:L:121:GLN:CA	2.51	0.86
15:O:125:LYS:HZ1	27:a:57:SER:C	1.81	0.86
17:Q:128:GLU:OE1	34:i:1644:U:H5'	1.74	0.86
19:S:54:LYS:N	19:S:54:LYS:HA	1.90	0.86
25:Y:45:ALA:HA	25:Y:55:ILE:HD12	1.58	0.86
25:Y:63:HIS:CB	25:Y:64:PHE:CD1	2.59	0.86
34:i:1206:G:N1	34:i:1207:G:C4	2.11	0.86
1:A:30:LEU:HG	1:A:31:ASP:O	1.75	0.86
6:F:25:THR:CG2	6:F:41:VAL:CG2	2.54	0.86
6:F:34:SER:HB3	29:c:55:VAL:HB	1.57	0.86
7:G:185:LEU:HA	7:G:188:LYS:HE3	1.54	0.86
9:I:85:ALA:HB1	12:L:8:ARG:NH1	1.89	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:38:ARG:HE	31:e:105:ARG:H	0.92	0.86
11:K:39:ASN:O	11:K:40:VAL:HG12	1.74	0.86
14:N:27:LYS:HD2	14:N:28:LEU:N	1.91	0.86
16:P:83:MET:CE	16:P:116:LEU:HD11	2.02	0.86
28:b:73:LEU:HD13	28:b:79:PHE:CE2	2.08	0.86
34:i:138:C:P	34:i:1768:C:H4'	2.15	0.86
1:A:57:LYS:HE2	22:V:70:LEU:CD1	2.04	0.86
3:C:82:PHE:C	3:C:83:LEU:HD12	2.00	0.86
3:C:142:LEU:HA	3:C:145:LEU:HD23	1.56	0.86
6:F:41:VAL:HG22	6:F:42:LYS:H	0.72	0.86
6:F:121:PRO:HA	6:F:193:LYS:HE3	1.58	0.86
12:L:82:MET:HE2	12:L:85:THR:HG21	1.58	0.86
14:N:54:LEU:O	14:N:58:HIS:O	1.93	0.86
17:Q:135:PRO:HD2	17:Q:141:TYR:CE1	2.11	0.86
20:T:18:LEU:CD1	20:T:134:ILE:HD13	2.05	0.86
23:W:90:GLN:CA	23:W:102:ILE:HD11	2.06	0.86
24:X:126:ALA:O	24:X:128:VAL:HB	1.75	0.86
25:Y:122:LYS:CD	25:Y:122:LYS:H	1.88	0.86
31:e:115:ARG:C	31:e:119:VAL:HG22	2.00	0.86
34:i:181:A:H1'	34:i:182:C:C6	2.10	0.86
35:l:31:ILE:CD1	35:l:49:GLY:O	2.24	0.86
1:A:109:THR:CB	34:i:1348:G:OP1	2.19	0.85
2:B:25:PHE:HD2	15:O:88:LEU:CD2	1.87	0.85
2:B:139:CYS:SG	2:B:212:VAL:HG12	2.16	0.85
3:C:128:CYS:SG	34:i:1353:A:H5"	2.16	0.85
8:H:144:ILE:CG1	23:W:52:ILE:CG2	2.53	0.85
9:I:141:ARG:CD	9:I:144:LYS:HB2	1.88	0.85
10:J:177:ASN:O	10:J:180:LYS:CB	2.23	0.85
13:M:13:ASP:CB	13:M:16:THR:CB	2.28	0.85
16:P:52:LYS:HA	16:P:54:HIS:CD2	2.09	0.85
21:U:56:MET:HE1	21:U:88:LEU:HG	1.57	0.85
23:W:93:LEU:CD2	23:W:128:PHE:CD2	2.57	0.85
25:Y:10:ARG:HE	25:Y:24:VAL:HG11	0.75	0.85
26:Z:69:THR:HB	26:Z:70:PRO:CD	2.05	0.85
5:E:11:ARG:NH1	5:E:20:LEU:HB3	1.90	0.85
9:I:139:LYS:HB2	9:I:145:ILE:HD11	1.56	0.85
13:M:12:MET:CG	13:M:16:THR:CG2	2.52	0.85
22:V:78:ILE:CD1	22:V:79:VAL:H	1.88	0.85
2:B:28:LYS:CE	15:O:51:GLU:OE2	2.24	0.85
2:B:149:GLN:HE21	2:B:151:ARG:HG2	1.41	0.85
6:F:63:LYS:CD	6:F:71:ARG:HH12	1.85	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:116:ILE:HD13	6:F:116:ILE:H	1.29	0.85
8:H:36:LEU:HD12	8:H:36:LEU:C	1.95	0.85
9:I:84:ASN:ND2	9:I:100:CYS:SG	2.48	0.85
12:L:151:THR:O	12:L:153:LYS:N	2.10	0.85
15:O:54:CYS:SG	15:O:84:ARG:HB2	2.17	0.85
18:R:91:LEU:HD12	18:R:92:ASP:HA	1.56	0.85
34:i:127:C:N3	34:i:180:G:C2'	2.39	0.85
3:C:102:GLN:CG	3:C:103:ALA:H	1.88	0.85
6:F:167:LYS:HD3	6:F:171:GLU:HB3	1.57	0.85
7:G:64:LYS:HG3	7:G:67:VAL:HG13	1.55	0.85
12:L:99:TYR:HH	24:X:14:ARG:HA	1.05	0.85
15:O:61:LYS:O	15:O:62:VAL:CG2	2.23	0.85
16:P:68:PRO:CB	16:P:69:PRO:CD	2.53	0.85
25:Y:119:GLY:O	25:Y:121:ALA:N	2.10	0.85
35:l:88:ASP:CB	35:l:90:ARG:HH22	1.87	0.85
3:C:244:THR:HG22	3:C:246:PHE:HD2	1.41	0.85
5:E:151:ASP:HB3	7:G:212:LEU:CD2	2.06	0.85
5:E:180:LEU:HD22	5:E:181:CYS:H	1.41	0.85
9:I:128:LYS:C	9:I:131:PRO:HD2	2.01	0.85
9:I:142:SER:CB	9:I:143:LYS:NZ	2.39	0.85
15:O:62:VAL:HG22	15:O:72:TYR:OH	1.75	0.85
16:P:52:LYS:N	16:P:54:HIS:CD2	2.43	0.85
17:Q:44:PRO:CG	17:Q:81:ILE:HD11	2.06	0.85
17:Q:105:LYS:HZ3	17:Q:109:LYS:HB2	1.41	0.85
17:Q:105:LYS:NZ	17:Q:109:LYS:HB2	1.90	0.85
20:T:11:GLN:HE22	20:T:62:ARG:NH2	1.74	0.85
20:T:31:PRO:C	20:T:33:TRP:H	1.82	0.85
22:V:1:MET:HE2	22:V:10:ASP:HB2	0.87	0.85
32:f:116:ARG:HG3	32:f:116:ARG:NH1	1.91	0.85
2:B:25:PHE:HE2	15:O:88:LEU:HD11	1.29	0.85
6:F:46:ALA:C	6:F:47:LYS:HD2	2.00	0.85
10:J:37:LEU:HD21	10:J:42:GLU:C	2.01	0.85
12:L:80:MET:CE	12:L:121:GLN:HA	2.06	0.85
13:M:28:HIS:CD2	13:M:113:ASP:OD2	2.29	0.85
15:O:55:ARG:O	15:O:56:VAL:CG1	2.23	0.85
17:Q:42:ILE:CG2	17:Q:51:LEU:CD2	2.54	0.85
20:T:85:ASN:O	20:T:88:MET:HE3	1.77	0.85
21:U:97:ILE:HG23	21:U:101:ILE:CD1	2.06	0.85
25:Y:55:ILE:CG1	25:Y:75:ILE:CD1	2.46	0.85
32:f:140:TYR:CZ	32:f:146:LEU:HA	2.11	0.85
34:i:24:C:O2'	34:i:25:A:H5'	1.76	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1825:A:C5'	34:i:1845:A:N1	2.36	0.85
1:A:145:ILE:HD13	1:A:159:ILE:CG2	2.07	0.85
4:D:97:CYS:SG	4:D:99:ILE:CG1	2.65	0.85
6:F:14:THR:HG23	17:Q:56:LEU:CB	2.00	0.85
8:H:147:LYS:HE2	8:H:153:LEU:CD1	2.06	0.85
11:K:71:LEU:HD21	11:K:76:ILE:CD1	1.93	0.85
13:M:117:GLU:O	13:M:118:SER:OG	1.93	0.85
18:R:32:LYS:HE2	18:R:33:ARG:HE	1.41	0.85
19:S:95:TYR:N	19:S:95:TYR:HD1	1.73	0.85
24:X:125:VAL:O	24:X:128:VAL:N	2.10	0.85
32:f:144:CYS:SG	32:f:147:THR:HG23	2.16	0.85
1:A:66:VAL:HG22	1:A:186:ARG:CD	2.02	0.85
1:A:180:ARG:HH11	1:A:184:ARG:CZ	1.90	0.85
4:D:76:ARG:HE	11:K:66:HIS:CE1	1.90	0.85
15:O:94:HIS:ND1	15:O:127:GLY:O	2.09	0.85
17:Q:9:SER:HB3	17:Q:26:LYS:CD	2.06	0.85
17:Q:16:LYS:NZ	34:i:1643:G:O6	2.09	0.85
17:Q:42:ILE:CD1	17:Q:51:LEU:HD11	2.07	0.85
19:S:94:LYS:CD	19:S:96:SER:OG	2.24	0.85
25:Y:120:THR:C	25:Y:122:LYS:HD2	2.02	0.85
29:c:11:LEU:HD13	29:c:35:MET:CE	2.06	0.85
29:c:67:ARG:C	29:c:68:LEU:CD2	2.50	0.85
30:d:13:LYS:CD	30:d:14:PHE:HD2	1.88	0.85
2:B:62:LEU:HD23	2:B:91:VAL:HG21	1.58	0.85
5:E:126:VAL:HG21	5:E:129:ILE:HD11	1.58	0.85
10:J:35:TYR:C	10:J:37:LEU:H	1.85	0.85
15:O:16:SER:HA	15:O:87:GLU:O	1.77	0.85
15:O:95:ILE:CD1	15:O:116:LEU:CD2	2.54	0.85
20:T:4:VAL:HG12	20:T:8:ASP:HB3	1.58	0.85
21:U:67:LYS:HE3	21:U:78:ASP:OD1	1.77	0.85
25:Y:7:ILE:HD12	25:Y:43:LYS:CB	2.05	0.85
34:i:1408:C:OP1	34:i:1408:C:H4'	1.76	0.85
34:i:1408:C:H2'	34:i:1409:G:C8	2.11	0.85
34:i:1683:C:N3	34:i:1684:C:C5	2.45	0.85
1:A:164:ASN:O	1:A:166:LYS:N	2.10	0.85
5:E:191:ARG:CZ	5:E:245:ARG:HD3	2.07	0.85
7:G:27:PHE:HE2	7:G:41:LEU:HD12	1.37	0.85
7:G:68:LEU:O	7:G:69:THR:OG1	1.95	0.85
16:P:33:LEU:HD22	16:P:87:PRO:HG3	1.58	0.85
18:R:92:ASP:O	18:R:93:GLN:HB3	1.73	0.85
19:S:9:PHE:CD1	19:S:9:PHE:N	2.37	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:74:LYS:HG3	22:V:75:SER:N	1.89	0.85
24:X:94:ILE:CG1	24:X:125:VAL:HG21	2.07	0.85
33:g:10:THR:HB	33:g:306:LEU:HD21	1.59	0.85
33:g:140:TYR:CD2	33:g:182:CYS:HB3	2.03	0.85
33:g:165:ILE:CG1	33:g:177:TRP:HB2	2.06	0.85
34:i:1207:G:C2	34:i:1684:C:N1	2.44	0.85
1:A:180:ARG:HD3	1:A:184:ARG:CZ	2.06	0.84
3:C:155:TRP:HH2	23:W:97:ARG:NH1	1.39	0.84
4:D:193:ASP:OD1	4:D:203:PRO:HA	1.76	0.84
6:F:91:ARG:HA	6:F:91:ARG:HE	1.03	0.84
8:H:9:VAL:C	8:H:11:PRO:CD	2.50	0.84
8:H:100:ILE:HG12	8:H:125:VAL:HG21	1.58	0.84
9:I:155:ASN:O	12:L:22:ARG:NE	2.10	0.84
10:J:46:VAL:CG1	10:J:102:ILE:HG23	2.07	0.84
10:J:48:PHE:HZ	10:J:52:LYS:HZ2	1.22	0.84
13:M:91:LEU:HD22	13:M:104:VAL:CG1	2.06	0.84
14:N:139:TRP:CZ3	14:N:140:LYS:C	2.55	0.84
19:S:138:THR:N	19:S:141:ARG:HH21	1.74	0.84
24:X:95:GLU:HG3	24:X:140:ARG:HH22	1.41	0.84
25:Y:29:HIS:HE1	25:Y:67:GLY:C	1.57	0.84
26:Z:85:ARG:CG	26:Z:85:ARG:HH11	1.90	0.84
8:H:29:GLU:OE2	8:H:86:LYS:HE3	1.77	0.84
9:I:161:LEU:HD13	9:I:199:LEU:HD11	1.55	0.84
10:J:65:GLU:O	10:J:66:LYS:HB2	1.75	0.84
11:K:16:PHE:HD2	11:K:79:LEU:CB	1.86	0.84
29:c:11:LEU:CD1	29:c:35:MET:HE2	2.07	0.84
30:d:12:ARG:HD2	30:d:17:GLY:O	1.77	0.84
32:f:120:GLU:CD	32:f:128:ALA:O	2.21	0.84
33:g:119:GLN:HE21	33:g:121:VAL:HG23	1.41	0.84
33:g:150:TRP:HB2	33:g:170:TRP:CD1	2.13	0.84
2:B:75:GLN:HA	2:B:75:GLN:NE2	1.90	0.84
4:D:141:LYS:HD2	4:D:179:GLN:CG	2.07	0.84
9:I:70:GLU:OE2	9:I:117:TYR:OH	1.95	0.84
10:J:88:ASP:C	10:J:92:MET:CG	2.48	0.84
11:K:6:LYS:O	11:K:9:ILE:HG22	1.77	0.84
13:M:64:LEU:CD1	32:f:104:LYS:NZ	2.40	0.84
20:T:63:HIS:O	20:T:67:ARG:CD	2.26	0.84
24:X:102:VAL:CG1	24:X:120:PHE:HB3	2.07	0.84
25:Y:33:ALA:CB	34:i:571:U:O2'	2.24	0.84
25:Y:114:MET:CA	25:Y:124:ASN:HD22	1.87	0.84
27:a:45:VAL:HG12	27:a:53:ILE:HD13	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:b:16:LYS:HD3	28:b:16:LYS:N	1.92	0.84
34:i:1057:U:C4	35:l:70:ASN:OD1	2.29	0.84
35:l:31:ILE:HA	35:l:49:GLY:HA3	1.57	0.84
4:D:197:LYS:CB	4:D:198:ILE:CB	2.55	0.84
7:G:52:ILE:HA	7:G:111:LEU:HD23	1.59	0.84
13:M:50:CYS:O	13:M:77:ILE:HG22	1.78	0.84
14:N:99:ARG:NH2	14:N:115:LEU:CD2	2.39	0.84
21:U:33:GLU:OE2	34:i:1443:G:O2'	1.95	0.84
25:Y:22:GLN:HB2	25:Y:74:MET:SD	2.15	0.84
32:f:97:LYS:CB	32:f:97:LYS:HZ3	1.88	0.84
32:f:102:VAL:HG12	32:f:103:LEU:CA	2.06	0.84
33:g:143:GLN:CD	33:g:144:ASP:HA	1.99	0.84
33:g:255:SER:HB2	33:g:270:LEU:O	1.77	0.84
4:D:126:ILE:HD12	4:D:134:CYS:CB	2.08	0.84
6:F:20:PHE:O	6:F:22:LYS:HA	1.78	0.84
6:F:46:ALA:C	6:F:47:LYS:CD	2.50	0.84
7:G:27:PHE:CE2	7:G:41:LEU:CD1	2.60	0.84
13:M:28:HIS:HD2	13:M:113:ASP:OD2	1.59	0.84
15:O:113:GLN:CG	27:a:46:GLU:CD	2.39	0.84
19:S:6:PRO:CA	26:Z:50:PHE:HB2	2.03	0.84
24:X:94:ILE:HD11	24:X:122:VAL:HG11	1.60	0.84
25:Y:93:ARG:HG2	25:Y:93:ARG:NH1	1.71	0.84
33:g:46:THR:HB	33:g:48:ASP:HB2	1.57	0.84
34:i:837:G:H2'	34:i:838:C:H5'	1.59	0.84
1:A:16:LEU:C	1:A:17:LYS:HE2	2.02	0.84
2:B:31:TYR:HE1	2:B:94:LYS:H	1.20	0.84
3:C:120:GLY:HA2	3:C:150:VAL:CG2	2.07	0.84
6:F:161:ALA:HB3	6:F:172:CYS:SG	2.18	0.84
7:G:63:MET:HE3	7:G:106:LEU:CD2	2.08	0.84
7:G:212:LEU:HA	7:G:215:LYS:CD	2.07	0.84
10:J:180:LYS:HG3	10:J:181:GLY:N	1.90	0.84
21:U:49:LYS:O	21:U:50:VAL:CG1	2.24	0.84
22:V:17:CYS:HG	22:V:56:CYS:HB3	1.04	0.84
25:Y:29:HIS:ND1	25:Y:67:GLY:CA	2.37	0.84
25:Y:50:THR:HG21	25:Y:75:ILE:HG21	1.60	0.84
26:Z:103:HIS:CD2	26:Z:105:ALA:N	2.45	0.84
33:g:46:THR:OG1	33:g:48:ASP:CB	2.26	0.84
34:i:181:A:C4'	34:i:182:C:C5'	2.45	0.84
34:i:431:C:H4'	34:i:1732:G:O2'	1.77	0.84
3:C:48:VAL:HG23	3:C:75:GLU:CD	2.03	0.84
4:D:212:GLU:O	4:D:213:PRO:O	1.94	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:21:ASP:OD1	5:E:24:THR:HG21	1.76	0.84
6:F:75:SER:O	6:F:78:MET:HG3	1.78	0.84
9:I:140:LYS:CG	9:I:141:ARG:N	2.37	0.84
10:J:180:LYS:CD	10:J:180:LYS:C	2.50	0.84
16:P:97:TYR:HB2	16:P:102:PHE:CE1	2.13	0.84
24:X:142:ARG:NH1	24:X:142:ARG:HG3	1.91	0.84
32:f:103:LEU:HD21	32:f:105:TYR:O	1.77	0.84
33:g:259:TRP:HE3	33:g:259:TRP:H	0.85	0.84
1:A:97:THR:HG23	1:A:98:PRO:CD	2.06	0.84
1:A:103:PHE:HZ	1:A:136:GLU:OE1	1.61	0.84
3:C:69:PHE:CZ	3:C:249:SER:HA	2.11	0.84
4:D:16:ILE:HD11	30:d:36:LEU:HG	1.59	0.84
5:E:159:THR:HG21	5:E:227:VAL:HG23	1.56	0.84
7:G:64:LYS:CG	7:G:67:VAL:CG1	2.55	0.84
10:J:138:ARG:O	10:J:138:ARG:HG2	1.77	0.84
12:L:147:LYS:HG3	12:L:148:ALA:N	1.92	0.84
15:O:52:THR:HG21	34:i:949:C:C4’	2.08	0.84
28:b:12:PRO:CD	28:b:13:GLU:H	1.91	0.84
28:b:54:VAL:O	28:b:63:LEU:HB3	1.77	0.84
1:A:32:PHE:CE1	1:A:33:GLN:CG	2.61	0.84
5:E:124:CYS:HB3	5:E:141:THR:HB	1.59	0.84
7:G:67:VAL:O	7:G:68:LEU:HB2	1.76	0.84
7:G:215:LYS:O	7:G:218:LYS:HG3	1.78	0.84
8:H:122:LEU:CD1	8:H:123:THR:HG23	2.08	0.84
10:J:87:LEU:HD11	10:J:91:LYS:CB	2.06	0.84
15:O:119:LEU:HD12	15:O:120:ALA:N	1.91	0.84
16:P:123:TYR:OH	19:S:124:ARG:HG2	1.78	0.84
17:Q:8:GLN:HB3	17:Q:99:TYR:CZ	2.13	0.84
18:R:5:ARG:C	18:R:10:LYS:HE2	2.02	0.84
19:S:55:ARG:HG3	26:Z:48:VAL:HG11	1.60	0.84
19:S:58:GLU:O	19:S:59:LEU:CG	2.25	0.84
19:S:139:THR:O	19:S:141:ARG:HG2	1.76	0.84
28:b:34:ASP:HB3	28:b:43:ILE:CG2	2.07	0.84
28:b:36:LYS:CE	28:b:43:ILE:HD11	2.07	0.84
32:f:146:LEU:HD12	32:f:147:THR:HA	1.59	0.84
33:g:191:HIS:HD2	33:g:195:LEU:HD11	1.40	0.84
1:A:23:THR:O	1:A:25:LEU:N	2.11	0.84
1:A:54:THR:OG1	1:A:162:PRO:HG2	1.77	0.84
2:B:94:LYS:CD	2:B:94:LYS:N	2.39	0.84
4:D:202:LYS:HB2	4:D:203:PRO:CD	2.08	0.84
6:F:122:ARG:CZ	6:F:193:LYS:NZ	2.40	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:66:GLY:CA	34:i:1740:A:O2'	2.26	0.84
8:H:9:VAL:C	8:H:11:PRO:HD3	2.02	0.84
12:L:82:MET:HE1	34:i:363:G:C5'	2.08	0.84
14:N:38:TYR:CE2	14:N:74:ILE:HG22	2.07	0.84
15:O:44:VAL:HG12	15:O:53:ILE:HD11	1.58	0.84
16:P:41:GLN:HA	16:P:84:ILE:CD1	2.07	0.84
35:l:30:TYR:CD1	35:l:107:GLN:CB	2.60	0.84
1:A:39:TYR:CB	1:A:50:ASN:ND2	2.40	0.83
7:G:63:MET:HE3	7:G:106:LEU:CD1	2.07	0.83
11:K:1:MET:HE3	34:i:1270:G:N2	1.92	0.83
14:N:38:TYR:HE2	14:N:74:ILE:HG23	1.43	0.83
18:R:5:ARG:N	18:R:10:LYS:HZ1	1.75	0.83
19:S:61:GLU:C	19:S:64:VAL:HG22	2.02	0.83
24:X:105:PHE:CD1	24:X:112:VAL:HG21	2.13	0.83
25:Y:20:ARG:CD	25:Y:74:MET:HE2	2.08	0.83
30:d:10:HIS:CD2	30:d:11:PRO:HD2	2.13	0.83
33:g:143:GLN:NE2	33:g:144:ASP:HA	1.92	0.83
2:B:153:THR:CG2	2:B:154:SER:H	1.91	0.83
3:C:70:SER:C	22:V:29:HIS:CE1	2.56	0.83
12:L:59:LYS:HD3	12:L:112:HIS:CD2	2.11	0.83
16:P:89:MET:HB3	16:P:107:ILE:CD1	2.07	0.83
17:Q:34:VAL:CG2	17:Q:39:LEU:HD21	2.06	0.83
17:Q:50:LYS:HZ2	17:Q:85:ARG:HH21	1.25	0.83
18:R:91:LEU:HB2	18:R:92:ASP:CA	2.08	0.83
19:S:8:LYS:O	26:Z:49:LEU:HD23	1.76	0.83
25:Y:59:GLY:O	25:Y:60:PHE:HB2	1.77	0.83
33:g:175:LYS:CD	33:g:177:TRP:CZ2	2.61	0.83
34:i:1701:G:N2	34:i:1843:G:C2	2.46	0.83
34:i:1750:C:H2'	34:i:1751:G:C8	2.12	0.83
3:C:229:ILE:HG13	3:C:230:SER:N	1.91	0.83
3:C:260:LYS:CD	3:C:261:THR:N	2.41	0.83
4:D:158:ILE:HD12	4:D:189:MET:CE	1.98	0.83
7:G:195:LYS:O	7:G:199:THR:HG23	1.78	0.83
11:K:60:GLU:OE2	11:K:67:PHE:CD1	2.21	0.83
12:L:82:MET:HE1	34:i:363:G:C4'	2.08	0.83
13:M:12:MET:CE	13:M:120:ALA:HB2	2.08	0.83
16:P:51:ARG:O	16:P:52:LYS:CB	2.22	0.83
17:Q:42:ILE:HD13	17:Q:51:LEU:HD21	0.85	0.83
18:R:99:ASP:CB	18:R:119:VAL:CG1	2.56	0.83
21:U:62:ARG:HH11	21:U:64:THR:CG2	1.92	0.83
33:g:31:ILE:CG2	33:g:43:TRP:HB2	2.07	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:11:LYS:HD3	1:A:13:GLU:CG	2.08	0.83
3:C:93:LYS:CE	3:C:218:LEU:CD2	2.48	0.83
4:D:212:GLU:HB2	4:D:213:PRO:CD	2.07	0.83
7:G:84:TYR:HE2	7:G:86:PRO:HG3	1.43	0.83
7:G:181:THR:OG1	7:G:182:PRO:CD	2.25	0.83
8:H:143:ARG:HD3	23:W:53:ILE:HG12	0.86	0.83
10:J:31:LEU:O	10:J:35:TYR:HB2	1.77	0.83
10:J:61:LEU:HD22	10:J:98:LEU:HD12	1.60	0.83
11:K:2:LEU:O	11:K:3:MET:HE3	1.78	0.83
11:K:27:VAL:CG1	11:K:43:LEU:HD21	2.02	0.83
11:K:27:VAL:HG13	11:K:43:LEU:HD23	1.52	0.83
13:M:124:ILE:CA	13:M:127:TYR:CD2	2.62	0.83
14:N:55:ARG:NH2	28:b:51:GLN:OE1	2.12	0.83
25:Y:78:SER:CB	25:Y:81:TYR:CE2	2.61	0.83
33:g:2:THR:HG23	33:g:3:GLU:HG2	1.57	0.83
3:C:156:GLY:HA2	23:W:98:GLN:HE22	1.43	0.83
16:P:53:GLN:HB3	16:P:56:LEU:HD12	1.61	0.83
19:S:39:ARG:CD	20:T:38:LYS:HE3	2.05	0.83
22:V:64:GLU:OE2	28:b:3:LEU:CD2	2.26	0.83
25:Y:54:VAL:CG1	25:Y:76:TYR:N	2.40	0.83
33:g:275:ILE:CD1	33:g:276:SER:H	1.89	0.83
34:i:1823:G:C2	34:i:1844:A:H2	1.97	0.83
1:A:109:THR:CB	34:i:1348:G:H5"	2.08	0.83
3:C:98:GLN:CB	3:C:106:ARG:O	2.27	0.83
3:C:244:THR:HG21	3:C:246:PHE:HA	1.59	0.83
6:F:91:ARG:HD2	17:Q:46:THR:HG21	1.60	0.83
11:K:74:GLU:OE1	11:K:74:GLU:HA	1.77	0.83
16:P:4:VAL:C	16:P:10:ARG:HD3	2.03	0.83
17:Q:58:LEU:HD22	17:Q:111:ILE:CD1	2.09	0.83
17:Q:72:VAL:CG2	17:Q:84:ILE:CG2	2.56	0.83
19:S:42:HIS:HD2	20:T:45:LEU:HD11	1.01	0.83
22:V:60:ARG:HG2	22:V:65:SER:HB3	1.58	0.83
24:X:74:LEU:HD11	24:X:81:ILE:CD1	2.08	0.83
25:Y:7:ILE:CD1	25:Y:43:LYS:CD	2.55	0.83
25:Y:54:VAL:HG12	25:Y:76:TYR:H	1.43	0.83
33:g:172:LYS:HE3	33:g:192:THR:HB	1.59	0.83
4:D:67:ARG:HH11	4:D:67:ARG:CG	1.92	0.83
4:D:198:ILE:HD12	4:D:198:ILE:O	1.77	0.83
5:E:198:ARG:O	5:E:198:ARG:HG2	1.75	0.83
6:F:42:LYS:CA	6:F:45:TYR:H	1.91	0.83
6:F:63:LYS:HD3	6:F:71:ARG:HH22	1.41	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:147:LYS:CE	8:H:153:LEU:HD12	2.08	0.83
9:I:154:LYS:C	9:I:154:LYS:HD3	2.01	0.83
10:J:15:THR:CG2	10:J:44:TRP:CE3	2.56	0.83
10:J:45:ARG:O	10:J:49:THR:HG23	1.78	0.83
11:K:84:HIS:ND1	11:K:85:LEU:N	2.26	0.83
18:R:5:ARG:CA	18:R:10:LYS:HZ1	1.92	0.83
23:W:129:PHE:O	23:W:129:PHE:CD1	2.30	0.83
25:Y:36:PRO:CG	25:Y:39:GLU:OE1	2.23	0.83
25:Y:54:VAL:CG1	25:Y:76:TYR:H	1.92	0.83
28:b:16:LYS:CA	28:b:23:ARG:HH21	1.88	0.83
33:g:48:ASP:O	33:g:49:GLU:CG	2.27	0.83
33:g:248:LEU:C	33:g:259:TRP:HZ3	1.85	0.83
2:B:130:THR:HG21	2:B:179:ASN:H	1.43	0.83
3:C:244:THR:HG22	3:C:244:THR:O	1.77	0.83
6:F:14:THR:CB	17:Q:56:LEU:CD1	2.55	0.83
9:I:103:LEU:HD23	9:I:172:LEU:HD13	1.59	0.83
10:J:138:ARG:HB2	10:J:156:HIS:HB3	1.61	0.83
11:K:96:ARG:CG	11:K:97:SER:H	1.91	0.83
19:S:26:ILE:HG22	19:S:45:LEU:HD11	1.60	0.83
2:B:72:ALA:HB3	15:O:128:ARG:HH22	1.42	0.83
3:C:192:ALA:O	3:C:195:PRO:HD2	1.79	0.83
8:H:145:ARG:HD2	23:W:51:GLU:OE1	1.78	0.83
11:K:26:ASP:OD2	11:K:29:MET:HG3	1.77	0.83
13:M:92:CYS:HB2	13:M:101:ARG:HG3	1.60	0.83
13:M:93:LYS:O	13:M:94:ILE:CG2	2.26	0.83
15:O:37:PHE:O	15:O:38:ASN:HB2	1.78	0.83
16:P:10:ARG:CZ	16:P:11:THR:HB	2.09	0.83
17:Q:113:ILE:HG13	17:Q:120:LEU:HD11	1.60	0.83
17:Q:114:GLN:CG	17:Q:115:TYR:H	1.91	0.83
20:T:39:LEU:HD12	20:T:99:VAL:HG21	1.61	0.83
24:X:69:CYS:SG	24:X:84:PHE:HA	2.19	0.83
26:Z:99:LEU:HD22	26:Z:102:LYS:CD	2.05	0.83
1:A:141:ASN:HD21	22:V:29:HIS:CB	1.92	0.83
2:B:105:LEU:HD21	2:B:213:ARG:HA	1.59	0.83
9:I:141:ARG:O	9:I:143:LYS:CE	2.27	0.83
16:P:51:ARG:H	16:P:51:ARG:CD	1.92	0.83
17:Q:25:CYS:SG	17:Q:91:ALA:CB	2.63	0.83
17:Q:114:GLN:HG3	17:Q:115:TYR:N	1.93	0.83
18:R:100:PRO:CB	18:R:119:VAL:HG21	2.06	0.83
19:S:34:LYS:CB	19:S:103:LEU:CD2	2.01	0.83
21:U:108:PRO:O	21:U:108:PRO:HG2	1.79	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1207:G:N2	34:i:1684:C:N1	2.27	0.83
1:A:42:LYS:HD2	18:R:101:ASP:CB	2.09	0.82
7:G:14:LYS:HZ1	7:G:123:GLY:CA	1.91	0.82
7:G:63:MET:HE2	7:G:106:LEU:HD11	1.61	0.82
9:I:136:ILE:CG2	9:I:139:LYS:CE	2.43	0.82
11:K:84:HIS:ND1	11:K:85:LEU:CA	2.42	0.82
16:P:4:VAL:O	16:P:4:VAL:HG12	1.76	0.82
17:Q:92:LEU:HD12	17:Q:96:TYR:CE2	2.13	0.82
21:U:18:HIS:CE1	21:U:98:VAL:CG2	2.60	0.82
22:V:19:ALA:HB3	22:V:59:ILE:HD13	1.59	0.82
22:V:55:ILE:CD1	22:V:65:SER:HA	2.08	0.82
26:Z:91:LEU:HD22	26:Z:96:LEU:HD12	1.59	0.82
28:b:33:MET:CE	28:b:79:PHE:CD1	2.62	0.82
2:B:153:THR:O	2:B:154:SER:OG	1.95	0.82
3:C:142:LEU:O	3:C:145:LEU:CD2	2.26	0.82
4:D:202:LYS:CB	4:D:203:PRO:CD	2.57	0.82
5:E:43:PRO:CG	5:E:46:ILE:HD12	2.09	0.82
5:E:129:ILE:HG13	5:E:139:LEU:HD23	1.44	0.82
7:G:29:GLU:HG2	7:G:29:GLU:O	1.78	0.82
15:O:17:LEU:HD23	15:O:18:GLY:N	1.94	0.82
17:Q:102:GLU:CD	33:g:55:PRO:HG2	2.04	0.82
24:X:126:ALA:C	24:X:128:VAL:HB	2.04	0.82
26:Z:62:VAL:CG1	26:Z:68:ILE:HD13	2.05	0.82
34:i:1207:G:N1	34:i:1684:C:C5	2.46	0.82
34:i:1406:C:H42	34:i:1432:C:H42	1.26	0.82
1:A:5:LEU:HD13	1:A:6:ASP:H	1.41	0.82
4:D:226:GLN:HA	4:D:226:GLN:HE21	1.34	0.82
5:E:86:PHE:CZ	5:E:182:MET:CE	2.62	0.82
24:X:105:PHE:CG	24:X:112:VAL:CG2	2.62	0.82
31:e:86:VAL:O	31:e:90:THR:HG23	1.79	0.82
32:f:103:LEU:HD23	32:f:105:TYR:N	1.94	0.82
35:l:35:ILE:HG13	35:l:112:GLY:HA2	1.59	0.82
4:D:56:GLN:HA	4:D:59:LEU:CD2	2.09	0.82
6:F:201:LYS:CE	6:F:204:ARG:NH2	2.39	0.82
8:H:40:LEU:HD21	8:H:43:LEU:HD12	0.84	0.82
12:L:97:ARG:O	12:L:98:LYS:C	2.22	0.82
15:O:56:VAL:HG11	15:O:81:VAL:CG2	2.04	0.82
16:P:118:GLU:O	19:S:119:ALA:CA	2.27	0.82
17:Q:116:ASP:O	17:Q:117:ARG:HB2	1.78	0.82
20:T:31:PRO:CG	20:T:102:ARG:HG3	2.09	0.82
21:U:67:LYS:HE2	21:U:78:ASP:OD2	1.78	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:24:HIS:HD2	18:R:105:MET:HE2	1.33	0.82
4:D:211:VAL:CG2	18:R:38:ILE:O	2.21	0.82
5:E:19:MET:HE2	34:i:842:G:C2'	2.07	0.82
6:F:179:ASN:O	6:F:182:LYS:O	1.97	0.82
7:G:32:MET:HE1	7:G:100:CYS:C	2.02	0.82
8:H:31:GLU:CD	8:H:41:ARG:HD2	2.03	0.82
8:H:145:ARG:HH11	8:H:155:LYS:NZ	1.77	0.82
8:H:191:GLU:C	8:H:192:PHE:CD1	2.57	0.82
12:L:125:ILE:O	12:L:146:THR:HG22	1.79	0.82
16:P:14:LYS:O	16:P:22:LEU:HD23	1.78	0.82
16:P:75:VAL:HG21	16:P:104:GLN:CD	2.04	0.82
17:Q:90:LYS:HD3	17:Q:120:LEU:HA	1.61	0.82
24:X:126:ALA:HB3	24:X:128:VAL:CG1	2.08	0.82
33:g:170:TRP:O	33:g:172:LYS:N	2.11	0.82
3:C:120:GLY:HA2	3:C:150:VAL:HG22	1.60	0.82
4:D:135:GLU:HB2	4:D:153:VAL:HG22	1.61	0.82
6:F:195:GLU:OE1	6:F:195:GLU:HA	1.77	0.82
8:H:144:ILE:CD1	23:W:52:ILE:CG2	2.47	0.82
12:L:40:ILE:HD11	12:L:68:ILE:CB	2.09	0.82
12:L:97:ARG:O	12:L:99:TYR:CA	2.26	0.82
13:M:71:GLU:O	13:M:72:HIS:O	1.98	0.82
15:O:79:GLN:HG2	29:c:5:ARG:CG	2.08	0.82
17:Q:7:LEU:HD23	17:Q:8:GLN:H	1.44	0.82
30:d:13:LYS:HE3	30:d:14:PHE:CD2	2.15	0.82
1:A:76:VAL:HG21	1:A:90:PHE:CE2	2.15	0.82
1:A:141:ASN:ND2	22:V:29:HIS:HB3	1.94	0.82
1:A:159:ILE:CG2	1:A:159:ILE:O	2.28	0.82
7:G:1:MET:HE1	7:G:106:LEU:O	1.80	0.82
8:H:15:LYS:CB	8:H:16:PRO:CD	2.54	0.82
9:I:206:LYS:CG	9:I:207:GLY:N	2.42	0.82
10:J:48:PHE:CE1	10:J:52:LYS:NZ	2.42	0.82
24:X:88:ASP:OD1	31:e:84:GLY:HA2	1.80	0.82
26:Z:99:LEU:HD13	26:Z:102:LYS:CD	2.09	0.82
28:b:83:GLN:O	28:b:84:HIS:O	1.97	0.82
31:e:113:ASN:HA	31:e:117:VAL:CG2	2.10	0.82
33:g:275:ILE:O	33:g:276:SER:CB	2.28	0.82
34:i:1825:A:C4	34:i:1845:A:H2'	2.14	0.82
2:B:48:LEU:O	15:O:51:GLU:OE1	1.97	0.82
3:C:58:MET:HE1	3:C:81:PHE:CZ	2.15	0.82
9:I:155:ASN:ND2	9:I:156:ALA:HA	1.95	0.82
10:J:15:THR:CB	10:J:44:TRP:CZ3	2.62	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:58:LEU:HD11	17:Q:108:ILE:HG23	1.60	0.82
18:R:103:LYS:O	18:R:107:LYS:HG3	1.80	0.82
25:Y:50:THR:O	25:Y:51:THR:OG1	1.97	0.82
28:b:63:LEU:O	28:b:63:LEU:CD2	2.28	0.82
1:A:2:SER:O	22:V:78:ILE:HD11	1.79	0.82
2:B:55:THR:O	2:B:56:LYS:CD	2.26	0.82
4:D:197:LYS:CB	4:D:198:ILE:HG13	2.03	0.82
5:E:126:VAL:CG2	5:E:129:ILE:HD11	2.10	0.82
7:G:147:LEU:HD21	7:G:156:TYR:CE2	2.15	0.82
9:I:21:TYR:CD2	9:I:22:HIS:CD2	2.66	0.82
11:K:97:SER:OG	11:K:98:ARG:N	2.10	0.82
17:Q:9:SER:CA	17:Q:26:LYS:HG3	2.10	0.82
17:Q:58:LEU:HD22	17:Q:111:ILE:HD12	1.61	0.82
25:Y:22:GLN:HB3	25:Y:74:MET:CE	2.09	0.82
32:f:103:LEU:O	32:f:105:TYR:N	2.12	0.82
34:i:184:G:O2'	34:i:185:C:H5'	1.78	0.82
34:i:370:G:C8	34:i:372:C:OP2	2.33	0.82
1:A:202:TYR:O	1:A:203:PHE:CG	2.33	0.82
4:D:12:VAL:HG13	30:d:36:LEU:HD11	1.56	0.82
4:D:16:ILE:HD13	30:d:22:ARG:HH22	1.43	0.82
5:E:130:PHE:CB	5:E:138:HIS:CE1	2.63	0.82
6:F:44:LYS:HE3	6:F:44:LYS:O	1.80	0.82
10:J:170:PRO:HG2	10:J:175:ARG:HG3	0.83	0.82
11:K:28:HIS:CE1	30:d:8:TRP:CD1	2.65	0.82
13:M:76:LEU:O	13:M:128:PHE:CE1	2.32	0.82
18:R:51:ALA:O	18:R:55:THR:HG23	1.80	0.82
18:R:91:LEU:CD1	18:R:91:LEU:N	2.29	0.82
18:R:110:ASP:O	18:R:111:PHE:HD2	1.62	0.82
19:S:10:GLN:HB3	19:S:13:LEU:HD21	1.62	0.82
22:V:40:ASP:HB2	22:V:47:ASN:ND2	1.94	0.82
22:V:79:VAL:CG1	22:V:82:ASN:OD1	2.28	0.82
23:W:7:LEU:HD11	23:W:33:VAL:CG1	2.10	0.82
32:f:95:ARG:HD3	32:f:96:LYS:H	1.45	0.82
35:l:32:HIS:N	35:l:48:GLN:O	2.13	0.82
1:A:60:LEU:C	1:A:60:LEU:HD13	2.04	0.81
1:A:112:ILE:HG13	34:i:1346:U:C4'	1.89	0.81
4:D:70:THR:HG22	4:D:86:LEU:HB2	1.62	0.81
7:G:57:ASP:OD2	7:G:98:ARG:HG3	1.80	0.81
7:G:147:LEU:O	7:G:151:ASP:OD2	1.98	0.81
8:H:15:LYS:HB3	8:H:16:PRO:HD2	1.60	0.81
8:H:23:ILE:HD11	8:H:27:LEU:HD21	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:34:VAL:HG23	17:Q:39:LEU:HD21	1.60	0.81
17:Q:44:PRO:O	17:Q:45:ARG:HG2	1.79	0.81
22:V:24:ILE:HD13	22:V:25:GLY:H	1.42	0.81
25:Y:55:ILE:HG22	25:Y:55:ILE:O	1.78	0.81
3:C:93:LYS:HE3	3:C:95:MET:HB3	1.61	0.81
3:C:122:VAL:HG13	3:C:202:ALA:HA	1.61	0.81
4:D:78:GLY:O	4:D:80:PRO:HD3	1.80	0.81
5:E:11:ARG:O	5:E:12:VAL:HG23	1.80	0.81
6:F:42:LYS:O	6:F:42:LYS:CE	2.28	0.81
7:G:38:ALA:HB1	7:G:45:TRP:O	1.78	0.81
7:G:195:LYS:HD3	34:i:126:G:H5'	1.60	0.81
10:J:134:HIS:ND1	10:J:163:SER:HB3	1.95	0.81
25:Y:29:HIS:HD1	25:Y:67:GLY:C	1.87	0.81
26:Z:94:LYS:NZ	26:Z:95:GLY:H	1.78	0.81
33:g:20:GLN:NE2	33:g:68:ASP:CG	2.27	0.81
1:A:43:SER:O	1:A:44:ASP:OD1	1.97	0.81
2:B:130:THR:CG2	2:B:179:ASN:H	1.93	0.81
2:B:151:ARG:HD2	2:B:153:THR:HG22	1.61	0.81
3:C:79:ILE:HG12	3:C:144:LYS:HB3	1.63	0.81
4:D:56:GLN:O	4:D:59:LEU:CG	2.25	0.81
4:D:132:LYS:HA	4:D:191:PRO:CG	2.10	0.81
4:D:193:ASP:OD1	4:D:203:PRO:CA	2.28	0.81
4:D:218:LEU:CB	4:D:220:THR:HG23	1.97	0.81
6:F:134:VAL:CG1	6:F:136:ARG:NH2	2.43	0.81
7:G:85:ARG:NE	25:Y:118:ARG:NE	2.28	0.81
8:H:83:LEU:CD2	8:H:92:VAL:CG1	2.57	0.81
10:J:10:ARG:CB	10:J:10:ARG:CZ	2.58	0.81
10:J:114:VAL:CG1	10:J:119:LEU:O	2.27	0.81
14:N:21:SER:C	14:N:22:VAL:HG13	2.04	0.81
14:N:25:TRP:CZ3	28:b:45:THR:HG21	2.15	0.81
16:P:44:ARG:NH2	16:P:84:ILE:HB	1.93	0.81
16:P:68:PRO:HB2	16:P:69:PRO:CD	2.09	0.81
17:Q:72:VAL:CG2	17:Q:84:ILE:HG22	2.10	0.81
17:Q:85:ARG:HH12	17:Q:117:ARG:CB	1.93	0.81
17:Q:138:ARG:HH11	34:i:1641:C:H5"	1.44	0.81
19:S:8:LYS:CE	19:S:9:PHE:CE1	2.63	0.81
21:U:61:LEU:HD21	30:d:34:TYR:CE1	2.13	0.81
22:V:32:ILE:CD1	22:V:60:ARG:NH1	2.42	0.81
23:W:20:ARG:HH12	34:i:1135:C:H1'	1.45	0.81
25:Y:34:THR:HG22	25:Y:35:VAL:H	1.40	0.81
25:Y:99:LYS:CE	25:Y:99:LYS:C	2.53	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:99:LYS:O	25:Y:99:LYS:CD	2.28	0.81
26:Z:96:LEU:O	26:Z:112:ASN:HB3	1.80	0.81
33:g:143:GLN:CD	33:g:144:ASP:CB	2.52	0.81
2:B:128:LYS:HG3	2:B:132:GLY:O	1.79	0.81
4:D:108:LYS:CB	4:D:113:LEU:HD22	2.10	0.81
5:E:175:PHE:HD2	5:E:175:PHE:O	1.63	0.81
6:F:19:LEU:HD22	6:F:24:SER:HA	1.60	0.81
6:F:145:ARG:HH11	29:c:49:PRO:HD3	1.45	0.81
7:G:187:HIS:O	7:G:191:ARG:HG2	1.81	0.81
11:K:84:HIS:HD2	13:M:27:ILE:HG13	1.43	0.81
14:N:16:LEU:HD11	14:N:62:GLN:NE2	1.95	0.81
16:P:46:SER:C	16:P:49:LEU:HB2	2.05	0.81
17:Q:39:LEU:O	17:Q:42:ILE:CD1	2.28	0.81
20:T:52:TRP:O	20:T:55:THR:HG22	1.80	0.81
21:U:18:HIS:CE1	21:U:93:SER:O	2.33	0.81
23:W:93:LEU:HD21	23:W:128:PHE:HD2	1.39	0.81
25:Y:18:LEU:HD13	25:Y:20:ARG:HH12	0.66	0.81
25:Y:29:HIS:CE1	25:Y:68:LYS:CA	2.62	0.81
34:i:127:C:N3	34:i:180:G:H2'	1.94	0.81
34:i:127:C:OP1	34:i:180:G:N2	2.14	0.81
1:A:131:HIS:O	1:A:135:THR:HG23	1.79	0.81
3:C:70:SER:O	22:V:29:HIS:CE1	2.33	0.81
3:C:195:PRO:CD	3:C:221:PHE:HZ	1.92	0.81
6:F:39:ILE:CG2	6:F:68:ILE:HD13	2.11	0.81
8:H:53:VAL:HG22	8:H:57:ARG:C	2.05	0.81
21:U:73:GLY:O	21:U:74:SER:O	1.99	0.81
2:B:26:SER:O	2:B:27:LYS:CG	2.28	0.81
2:B:72:ALA:HB3	15:O:128:ARG:NH2	1.95	0.81
4:D:158:ILE:HD11	4:D:189:MET:SD	2.19	0.81
6:F:142:SER:HB2	29:c:50:VAL:CG2	2.09	0.81
10:J:89:GLU:CB	10:J:92:MET:SD	2.68	0.81
10:J:170:PRO:HB2	10:J:174:LYS:HB3	1.62	0.81
16:P:41:GLN:HG3	16:P:84:ILE:HG23	1.57	0.81
21:U:19:ARG:HA	21:U:92:HIS:ND1	1.95	0.81
22:V:32:ILE:HD12	22:V:60:ARG:HH12	1.42	0.81
25:Y:17:LEU:HD12	25:Y:18:LEU:HG	1.61	0.81
25:Y:32:LYS:HG2	25:Y:33:ALA:H	1.42	0.81
26:Z:48:VAL:C	26:Z:83:LEU:HD12	2.04	0.81
26:Z:62:VAL:HA	26:Z:65:TYR:CE2	2.16	0.81
33:g:17:TRP:CE3	33:g:36:ARG:CZ	2.63	0.81
3:C:49:THR:HG23	3:C:75:GLU:CD	2.06	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:192:TRP:HE3	4:D:196:GLY:HA2	1.38	0.81
9:I:155:ASN:O	12:L:22:ARG:HD3	1.80	0.81
12:L:94:HIS:HB2	12:L:105:ARG:CD	2.10	0.81
12:L:101:ARG:HH12	24:X:5:ARG:HA	1.46	0.81
16:P:14:LYS:O	16:P:22:LEU:CD2	2.28	0.81
19:S:34:LYS:CG	19:S:103:LEU:HD21	2.11	0.81
24:X:29:LYS:HD3	24:X:34:THR:CG2	2.11	0.81
25:Y:7:ILE:CG1	25:Y:43:LYS:HD3	2.11	0.81
25:Y:114:MET:CE	25:Y:125:VAL:HG23	2.11	0.81
27:a:49:ALA:HB1	27:a:53:ILE:CD1	2.11	0.81
4:D:59:LEU:CD1	4:D:60:GLY:H	1.87	0.81
6:F:44:LYS:O	6:F:44:LYS:HD2	1.80	0.81
7:G:184:VAL:HG12	7:G:188:LYS:CE	2.09	0.81
9:I:128:LYS:HE2	9:I:133:GLU:OE1	1.81	0.81
10:J:89:GLU:O	10:J:92:MET:CB	2.28	0.81
10:J:134:HIS:CE1	10:J:164:PRO:HD3	2.15	0.81
13:M:71:GLU:CD	13:M:71:GLU:N	2.39	0.81
14:N:23:PRO:HD2	14:N:26:LEU:HD23	1.62	0.81
15:O:30:VAL:HG13	15:O:47:LEU:HD23	1.62	0.81
16:P:89:MET:C	16:P:107:ILE:HD11	2.06	0.81
22:V:67:ASP:O	22:V:70:LEU:N	2.14	0.81
24:X:105:PHE:CD1	24:X:112:VAL:CG2	2.64	0.81
25:Y:7:ILE:HD11	25:Y:43:LYS:CB	2.11	0.81
25:Y:46:LYS:HD2	25:Y:46:LYS:O	1.80	0.81
25:Y:99:LYS:CE	25:Y:99:LYS:O	2.29	0.81
29:c:11:LEU:HB3	29:c:35:MET:HE2	1.61	0.81
31:e:105:ARG:HB3	31:e:105:ARG:HH21	1.40	0.81
1:A:21:ALA:HB1	1:A:173:LEU:CD1	2.05	0.81
4:D:48:ILE:HG21	4:D:86:LEU:HG	1.63	0.81
4:D:97:CYS:O	4:D:98:ALA:C	2.23	0.81
7:G:162:LEU:CD2	7:G:172:LYS:NZ	2.44	0.81
13:M:33:ARG:HH11	13:M:33:ARG:HG3	1.45	0.81
15:O:129:ILE:HG21	27:a:44:ILE:HG21	1.60	0.81
19:S:39:ARG:CZ	20:T:38:LYS:CD	2.59	0.81
26:Z:69:THR:CB	26:Z:70:PRO:CD	2.58	0.81
27:a:107:ALA:HB1	27:a:108:PRO:CD	2.10	0.81
31:e:127:LYS:CD	31:e:128:GLY:N	2.44	0.81
32:f:102:VAL:HG12	32:f:103:LEU:H	1.43	0.81
34:i:1823:G:N2	34:i:1844:A:H2	1.72	0.81
2:B:57:ILE:O	2:B:57:ILE:CG2	2.29	0.81
2:B:72:ALA:HB1	2:B:77:ASP:OD2	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:138:ALA:HB2	6:F:200:ALA:O	1.81	0.81
8:H:23:ILE:CD1	8:H:27:LEU:HD21	2.10	0.81
9:I:118:ALA:HB2	9:I:149:TYR:CE1	2.15	0.81
9:I:136:ILE:C	9:I:139:LYS:HG3	2.04	0.81
10:J:88:ASP:O	10:J:92:MET:HG3	1.81	0.81
11:K:36:ALA:O	11:K:38:LYS:CG	2.29	0.81
13:M:31:LEU:HD11	13:M:109:VAL:HB	1.63	0.81
14:N:59:GLY:O	14:N:60:VAL:HG13	1.81	0.81
18:R:44:LYS:HG3	18:R:47:ARG:NH1	1.96	0.81
21:U:97:ILE:CG2	21:U:101:ILE:CD1	2.58	0.81
24:X:22:TRP:O	24:X:23:HIS:C	2.12	0.81
32:f:103:LEU:C	32:f:105:TYR:H	1.85	0.81
32:f:135:HIS:HB3	32:f:138:ARG:HG3	0.81	0.81
33:g:93:THR:HB	33:g:94:THR:HG23	1.63	0.81
33:g:140:TYR:CZ	33:g:182:CYS:HB3	1.90	0.81
34:i:447:C:H5'	34:i:1795:A:O2'	1.81	0.81
1:A:42:LYS:HD3	18:R:101:ASP:CB	2.11	0.80
1:A:127:PRO:HA	1:A:134:LEU:HD11	1.62	0.80
2:B:57:ILE:O	2:B:58:ALA:C	2.21	0.80
4:D:123:LEU:CD2	4:D:154:ASP:CB	2.54	0.80
4:D:195:SER:O	4:D:197:LYS:HA	1.80	0.80
6:F:44:LYS:O	6:F:44:LYS:CD	2.29	0.80
10:J:16:PRO:CD	10:J:44:TRP:CZ2	2.64	0.80
10:J:114:VAL:HG12	10:J:120:ALA:CB	2.07	0.80
13:M:13:ASP:HB2	13:M:16:THR:HB	0.81	0.80
16:P:41:GLN:NE2	16:P:84:ILE:CG2	2.43	0.80
18:R:33:ARG:NH1	33:g:125:ARG:HD2	1.96	0.80
18:R:99:ASP:CB	18:R:119:VAL:HG11	2.09	0.80
23:W:6:VAL:HG13	23:W:29:PRO:HD2	1.63	0.80
25:Y:32:LYS:HG3	25:Y:33:ALA:N	1.80	0.80
32:f:87:THR:CB	34:i:1503:G:H22	1.94	0.80
5:E:23:LEU:C	5:E:24:THR:HG23	2.05	0.80
10:J:37:LEU:HD11	10:J:42:GLU:HB3	0.81	0.80
12:L:103:GLU:OE1	24:X:11:ARG:CZ	2.29	0.80
12:L:158:PHE:CD2	12:L:158:PHE:N	2.29	0.80
14:N:12:SER:C	14:N:13:GLN:HG3	2.06	0.80
21:U:61:LEU:HD21	30:d:34:TYR:CZ	2.14	0.80
23:W:38:LEU:HD23	23:W:41:MET:HE1	1.61	0.80
24:X:90:CYS:O	24:X:91:LEU:C	2.24	0.80
24:X:126:ALA:O	24:X:128:VAL:CB	2.29	0.80
25:Y:99:LYS:HE3	25:Y:99:LYS:C	2.06	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:143:GLN:OE1	33:g:144:ASP:CB	2.29	0.80
34:i:927:C:O5'	34:i:927:C:H6	1.63	0.80
2:B:66:VAL:HG22	2:B:87:ILE:CB	2.10	0.80
3:C:142:LEU:C	3:C:145:LEU:HD23	2.07	0.80
4:D:97:CYS:O	4:D:97:CYS:SG	2.38	0.80
4:D:105:LEU:HD21	4:D:184:ILE:HD12	1.62	0.80
5:E:244:ILE:O	5:E:245:ARG:HB3	1.82	0.80
7:G:65:GLN:CD	34:i:1741:U:OP1	2.23	0.80
8:H:100:ILE:CG1	8:H:125:VAL:HG21	2.11	0.80
19:S:34:LYS:HB3	19:S:103:LEU:HD23	1.54	0.80
24:X:71:ARG:HE	24:X:82:THR:HG23	1.46	0.80
25:Y:101:LYS:O	25:Y:102:THR:CG2	2.29	0.80
25:Y:108:LYS:O	25:Y:111:LYS:HG3	1.82	0.80
25:Y:114:MET:HG2	25:Y:124:ASN:HB3	1.62	0.80
30:d:13:LYS:HG3	30:d:14:PHE:CD2	2.06	0.80
33:g:281:ALA:O	33:g:282:GLU:CB	2.29	0.80
3:C:84:GLY:CA	3:C:87:LEU:HB3	2.10	0.80
4:D:112:GLY:O	4:D:113:LEU:CG	2.28	0.80
14:N:80:LEU:C	14:N:82:PRO:HD3	2.05	0.80
17:Q:30:GLY:O	17:Q:31:LEU:CD1	2.29	0.80
19:S:136:THR:OG1	34:i:1516:C:P	2.40	0.80
23:W:36:ARG:O	23:W:39:THR:OG1	1.99	0.80
24:X:29:LYS:CD	24:X:34:THR:CG2	2.58	0.80
25:Y:9:THR:CB	25:Y:48:TYR:OH	2.29	0.80
25:Y:45:ALA:HA	25:Y:55:ILE:CD1	2.12	0.80
25:Y:99:LYS:O	25:Y:99:LYS:CG	2.30	0.80
28:b:63:LEU:O	28:b:63:LEU:CG	2.29	0.80
1:A:24:HIS:O	1:A:25:LEU:C	2.24	0.80
1:A:60:LEU:HD13	1:A:60:LEU:O	1.81	0.80
3:C:177:LEU:HD12	3:C:177:LEU:O	1.81	0.80
4:D:18:LYS:NZ	4:D:37:VAL:CG2	2.44	0.80
4:D:74:GLN:HE21	4:D:75:LYS:HD3	1.45	0.80
5:E:19:MET:HE1	34:i:842:G:H2'	1.59	0.80
5:E:126:VAL:CG1	5:E:158:ASP:O	2.25	0.80
6:F:116:ILE:N	6:F:116:ILE:CD1	2.39	0.80
8:H:122:LEU:CD1	8:H:123:THR:H	1.92	0.80
9:I:140:LYS:O	9:I:141:ARG:HG3	1.82	0.80
10:J:170:PRO:CB	10:J:174:LYS:CE	2.60	0.80
13:M:100:PRO:O	13:M:101:ARG:CD	2.30	0.80
19:S:23:ARG:HD3	26:Z:48:VAL:HB	1.62	0.80
19:S:54:LYS:C	19:S:54:LYS:HA	2.00	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:27:TYR:CE1	24:X:31:HIS:CE1	2.67	0.80
2:B:70:SER:HB2	15:O:128:ARG:HD3	1.60	0.80
4:D:47:GLU:OE2	4:D:85:GLU:OE2	1.99	0.80
5:E:49:ARG:HB3	5:E:55:ALA:HB3	1.62	0.80
6:F:145:ARG:HD3	29:c:49:PRO:HD3	1.63	0.80
7:G:155:GLN:O	7:G:156:TYR:HD1	1.64	0.80
10:J:109:ARG:O	10:J:110:LEU:O	1.98	0.80
11:K:65:ARG:HB3	11:K:65:ARG:CZ	2.12	0.80
12:L:78:THR:HG22	12:L:87:VAL:O	1.82	0.80
16:P:49:LEU:CD1	16:P:51:ARG:HH21	1.95	0.80
18:R:21:TYR:HB3	18:R:71:ILE:HG21	1.62	0.80
19:S:12:ILE:O	19:S:12:ILE:CG2	2.30	0.80
20:T:87:VAL:HG13	20:T:88:MET:HG3	1.61	0.80
22:V:78:ILE:HD13	22:V:79:VAL:N	1.95	0.80
24:X:52:LEU:HD12	24:X:53:GLU:CB	2.11	0.80
25:Y:3:ASP:O	25:Y:4:THR:OG1	1.98	0.80
25:Y:36:PRO:HG2	25:Y:39:GLU:HB2	1.64	0.80
26:Z:103:HIS:O	26:Z:106:GLN:N	2.12	0.80
31:e:113:ASN:OD1	31:e:117:VAL:HG21	1.81	0.80
33:g:140:TYR:OH	33:g:182:CYS:HB2	1.80	0.80
34:i:196:U:H3	34:i:200:U:H3	1.29	0.80
3:C:54:LEU:CD2	3:C:254:PHE:HB3	2.12	0.80
5:E:86:PHE:HZ	5:E:182:MET:HE3	1.45	0.80
10:J:130:ILE:CG1	10:J:135:ILE:HD13	2.10	0.80
10:J:172:ARG:NH2	34:i:552:U:C6	2.50	0.80
16:P:62:LYS:HG3	16:P:65:LYS:CE	2.11	0.80
19:S:94:LYS:CD	19:S:95:TYR:O	2.30	0.80
19:S:129:LEU:CD2	34:i:1516:C:H5'	2.11	0.80
20:T:31:PRO:HB3	20:T:33:TRP:CD2	2.17	0.80
20:T:90:SER:C	20:T:91:HIS:CD2	2.60	0.80
20:T:144:LYS:HB2	20:T:144:LYS:HZ2	1.47	0.80
23:W:101:PHE:HA	23:W:113:HIS:CE1	2.16	0.80
23:W:102:ILE:H	23:W:113:HIS:CE1	1.98	0.80
29:c:67:ARG:O	29:c:68:LEU:CD2	2.30	0.80
31:e:118:ASN:CA	31:e:119:VAL:HB	2.11	0.80
1:A:3:GLY:HA3	22:V:78:ILE:HG12	1.64	0.80
1:A:4:ALA:HB1	22:V:39:VAL:HG21	1.63	0.80
1:A:30:LEU:CD2	1:A:35:GLU:CG	2.51	0.80
3:C:234:SER:HA	22:V:23:ILE:HD11	1.57	0.80
4:D:112:GLY:O	4:D:113:LEU:CD1	2.29	0.80
4:D:195:SER:CA	4:D:197:LYS:O	2.30	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:128:LYS:CD	5:E:130:PHE:CD1	2.63	0.80
5:E:184:THR:C	5:E:189:LEU:HD13	2.06	0.80
5:E:208:VAL:HB	5:E:225:ILE:HD11	0.80	0.80
6:F:40:ALA:H	6:F:68:ILE:HG23	1.43	0.80
8:H:83:LEU:HD12	8:H:84:GLU:N	1.96	0.80
8:H:98:ARG:CZ	8:H:128:ALA:HB1	2.11	0.80
8:H:122:LEU:HD12	8:H:123:THR:HG23	1.63	0.80
9:I:139:LYS:HB2	9:I:145:ILE:CD1	2.08	0.80
12:L:149:ALA:HB2	12:L:156:GLN:HE21	1.00	0.80
13:M:31:LEU:HD12	13:M:33:ARG:HB3	1.64	0.80
13:M:61:TYR:CE1	13:M:108:CYS:SG	2.70	0.80
15:O:34:PHE:HZ	15:O:100:THR:HA	1.44	0.80
17:Q:38:PRO:O	17:Q:41:MET:HG2	1.82	0.80
20:T:99:VAL:O	20:T:103:VAL:HG23	1.82	0.80
31:e:97:GLU:OE1	31:e:97:GLU:CA	2.28	0.80
32:f:103:LEU:C	32:f:105:TYR:N	2.32	0.80
7:G:195:LYS:HE2	34:i:125:C:HO2'	1.42	0.80
8:H:12:ASN:CB	8:H:46:THR:OG1	2.29	0.80
13:M:124:ILE:HA	13:M:127:TYR:CE2	2.17	0.80
14:N:113:PHE:CE2	14:N:117:LEU:HD11	2.17	0.80
20:T:31:PRO:C	20:T:33:TRP:N	2.36	0.80
20:T:65:TYR:HA	20:T:123:LEU:HD13	1.64	0.80
32:f:103:LEU:CD2	32:f:105:TYR:HB2	2.10	0.80
33:g:48:ASP:OD2	33:g:49:GLU:CB	2.28	0.80
35:l:36:GLN:HA	35:l:113:PHE:CG	2.13	0.80
2:B:209:ASP:O	2:B:210:VAL:HG23	1.82	0.80
5:E:241:GLY:O	5:E:244:ILE:HG13	1.81	0.80
6:F:36:GLN:CG	6:F:37:ASP:OD2	2.30	0.80
7:G:179:LEU:C	7:G:179:LEU:HD12	2.07	0.80
8:H:65:PRO:CD	8:H:68:GLN:OE1	2.28	0.80
10:J:30:LYS:HA	31:e:112:TYR:CZ	2.15	0.80
17:Q:9:SER:CB	17:Q:26:LYS:CD	2.59	0.80
19:S:39:ARG:NH2	20:T:38:LYS:CD	2.45	0.80
19:S:94:LYS:CE	19:S:95:TYR:O	2.29	0.80
20:T:11:GLN:HE21	20:T:62:ARG:CZ	1.90	0.80
22:V:19:ALA:O	23:W:23:ARG:NH2	2.15	0.80
22:V:42:VAL:O	22:V:43:THR:CG2	2.30	0.80
26:Z:70:PRO:CD	26:Z:71:ALA:H	1.93	0.80
26:Z:77:LEU:O	26:Z:78:LYS:CG	2.31	0.80
32:f:85:TYR:O	32:f:86:THR:CG2	2.30	0.80
33:g:143:GLN:CG	33:g:144:ASP:N	2.32	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1057:U:C5	35:l:70:ASN:OD1	2.35	0.80
1:A:112:ILE:CG1	34:i:1346:U:H4'	2.12	0.79
2:B:21:VAL:O	2:B:21:VAL:CG2	2.30	0.79
3:C:55:VAL:HA	3:C:82:PHE:HZ	1.47	0.79
5:E:21:ASP:CG	5:E:24:THR:CG2	2.51	0.79
9:I:138:ASN:O	9:I:139:LYS:O	2.00	0.79
9:I:206:LYS:HG3	9:I:207:GLY:N	1.97	0.79
11:K:4:PRO:HG2	11:K:7:ASN:CB	2.11	0.79
14:N:38:TYR:CE2	14:N:74:ILE:HG23	2.13	0.79
16:P:128:HIS:CE1	34:i:1516:C:C1'	2.63	0.79
18:R:99:ASP:O	18:R:119:VAL:CB	2.29	0.79
19:S:55:ARG:HH11	26:Z:80:ARG:HE	1.26	0.79
21:U:48:LEU:C	21:U:49:LYS:HG3	2.05	0.79
31:e:92:LYS:HD3	31:e:92:LYS:N	1.95	0.79
33:g:12:LYS:HD2	33:g:13:GLY:HA3	1.57	0.79
34:i:1744:G:N7	34:i:1745:C:N4	2.30	0.79
35:l:30:TYR:HE1	35:l:107:GLN:HG2	1.01	0.79
1:A:57:LYS:HZ1	22:V:70:LEU:HD11	1.00	0.79
3:C:51:LEU:O	3:C:51:LEU:CD2	2.30	0.79
3:C:154:TYR:CE1	3:C:162:PRO:CG	2.64	0.79
6:F:44:LYS:O	6:F:44:LYS:CE	2.30	0.79
7:G:142:ARG:CD	7:G:147:LEU:CB	2.59	0.79
10:J:100:LEU:HG	10:J:101:LYS:H	1.44	0.79
12:L:76:VAL:HG12	12:L:125:ILE:HD12	1.64	0.79
12:L:97:ARG:C	12:L:99:TYR:N	2.33	0.79
17:Q:19:ALA:CB	17:Q:74:GLY:C	2.52	0.79
17:Q:58:LEU:HD23	17:Q:111:ILE:CD1	1.96	0.79
21:U:56:MET:HE1	21:U:88:LEU:CG	2.12	0.79
26:Z:44:LEU:CD1	26:Z:44:LEU:O	2.30	0.79
35:l:30:TYR:CZ	35:l:107:GLN:HG2	2.15	0.79
1:A:42:LYS:CG	18:R:101:ASP:HB3	2.11	0.79
2:B:94:LYS:N	2:B:94:LYS:HD2	1.95	0.79
3:C:244:THR:HG23	3:C:246:PHE:CA	2.10	0.79
5:E:129:ILE:HG12	5:E:139:LEU:HD22	1.08	0.79
5:E:145:ARG:HG2	5:E:145:ARG:NH1	1.95	0.79
8:H:14:GLU:OE1	8:H:16:PRO:CG	2.29	0.79
9:I:3:ILE:CG2	9:I:3:ILE:O	2.29	0.79
9:I:29:LEU:HG	9:I:30:GLY:H	1.46	0.79
9:I:206:LYS:HD2	9:I:207:GLY:N	1.97	0.79
10:J:180:LYS:CD	10:J:180:LYS:O	2.30	0.79
13:M:94:ILE:O	13:M:101:ARG:NH1	2.16	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:125:LYS:NZ	27:a:57:SER:O	2.14	0.79
17:Q:109:LYS:HG2	17:Q:113:ILE:HD12	1.62	0.79
20:T:23:LYS:CE	20:T:54:TYR:CD2	2.63	0.79
21:U:40:ILE:HD11	21:U:53:PRO:HG3	0.80	0.79
25:Y:36:PRO:CG	25:Y:39:GLU:HG3	2.10	0.79
25:Y:98:GLU:OE2	25:Y:99:LYS:N	2.15	0.79
29:c:5:ARG:N	29:c:5:ARG:NH1	2.30	0.79
2:B:61:GLY:O	2:B:65:ARG:NE	2.16	0.79
2:B:62:LEU:HD21	2:B:96:CYS:SG	2.23	0.79
3:C:255:THR:HG23	3:C:256:ASP:OD1	1.82	0.79
4:D:197:LYS:N	4:D:199:GLY:N	2.30	0.79
7:G:33:ALA:N	7:G:52:ILE:HG23	1.97	0.79
8:H:75:ILE:HG23	8:H:76:GLN:H	1.46	0.79
11:K:36:ALA:O	11:K:38:LYS:CD	2.29	0.79
16:P:39:ALA:HA	16:P:42:ARG:HE	1.42	0.79
16:P:49:LEU:C	16:P:50:ARG:HG3	2.06	0.79
19:S:87:GLN:O	19:S:88:LYS:C	2.21	0.79
20:T:114:GLU:OE2	20:T:122:LYS:HE3	1.81	0.79
27:a:49:ALA:HB1	27:a:53:ILE:HD11	1.64	0.79
28:b:81:ARG:CB	28:b:82:LYS:CB	2.45	0.79
35:l:35:ILE:HB	35:l:113:PHE:N	1.96	0.79
35:l:88:ASP:HB2	35:l:90:ARG:CZ	2.13	0.79
1:A:42:LYS:HG2	18:R:101:ASP:HB3	1.62	0.79
1:A:149:ASN:HB2	1:A:165:ASN:ND2	1.98	0.79
3:C:93:LYS:HD3	3:C:218:LEU:CD2	1.74	0.79
3:C:241:TRP:CG	23:W:68:ARG:HH11	2.00	0.79
4:D:70:THR:CB	4:D:86:LEU:HD13	2.12	0.79
5:E:120:LYS:O	5:E:164:LEU:CB	2.31	0.79
7:G:162:LEU:CG	7:G:170:ARG:HB2	2.12	0.79
9:I:197:PHE:HE2	12:L:5:GLN:HG3	1.47	0.79
10:J:124:HIS:HD2	34:i:516:A:H5”	0.98	0.79
11:K:39:ASN:O	11:K:40:VAL:CG1	2.29	0.79
13:M:28:HIS:O	13:M:29:ASP:HB2	1.82	0.79
15:O:64:ALA:O	15:O:66:ARG:N	2.15	0.79
16:P:5:GLU:O	16:P:6:GLN:CG	2.30	0.79
17:Q:19:ALA:HB2	17:Q:75:GLY:CA	2.13	0.79
17:Q:42:ILE:HD13	17:Q:51:LEU:CD1	2.12	0.79
17:Q:44:PRO:HG2	17:Q:81:ILE:CD1	2.10	0.79
27:a:107:ALA:HB1	27:a:108:PRO:HD3	1.63	0.79
33:g:258:ILE:HG13	33:g:267:VAL:HB	1.65	0.79
6:F:25:THR:CB	6:F:42:LYS:HG3	2.12	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:49:LEU:HD12	6:F:50:PRO:CD	2.11	0.79
6:F:112:LEU:HA	6:F:177:LEU:CD1	2.11	0.79
10:J:110:LEU:HD11	10:J:130:ILE:HG12	1.63	0.79
12:L:147:LYS:CG	12:L:148:ALA:N	2.29	0.79
15:O:20:GLN:CD	15:O:21:VAL:O	2.26	0.79
15:O:94:HIS:CG	15:O:127:GLY:O	2.35	0.79
16:P:52:LYS:HA	16:P:54:HIS:HD2	1.47	0.79
17:Q:92:LEU:HD11	17:Q:96:TYR:OH	1.81	0.79
24:X:40:PRO:CB	24:X:81:ILE:HD11	2.13	0.79
28:b:16:LYS:CD	28:b:16:LYS:N	2.44	0.79
1:A:14:ASP:HB3	1:A:18:PHE:HE2	1.46	0.79
2:B:146:CYS:O	2:B:147:ASN:C	2.21	0.79
3:C:154:TYR:HH	3:C:161:LYS:HA	1.45	0.79
4:D:198:ILE:CG1	4:D:198:ILE:O	2.30	0.79
5:E:130:PHE:CG	5:E:138:HIS:CE1	2.70	0.79
6:F:127:ARG:O	6:F:127:ARG:CD	2.31	0.79
8:H:14:GLU:OE1	8:H:16:PRO:CB	2.29	0.79
8:H:144:ILE:CD1	23:W:52:ILE:HD13	2.12	0.79
10:J:179:LYS:CG	10:J:182:GLN:OE1	2.30	0.79
14:N:125:LEU:HD11	14:N:129:TYR:OH	1.83	0.79
23:W:38:LEU:HA	23:W:41:MET:CE	2.12	0.79
24:X:27:TYR:CE2	24:X:31:HIS:CD2	2.71	0.79
33:g:194:TYR:CE2	33:g:212:LYS:CB	2.65	0.79
34:i:678:U:H1'	34:i:738:U:C4	2.18	0.79
7:G:157:VAL:HG11	7:G:159:ARG:HG3	1.62	0.79
9:I:104:ILE:O	9:I:105:ASP:CG	2.25	0.79
10:J:61:LEU:CD1	10:J:94:LEU:CD1	2.61	0.79
12:L:147:LYS:CD	12:L:148:ALA:N	2.44	0.79
16:P:4:VAL:CA	16:P:10:ARG:CG	2.60	0.79
16:P:15:PHE:CZ	19:S:91:LYS:HD2	2.18	0.79
16:P:77:LYS:O	16:P:78:THR:CG2	2.31	0.79
17:Q:85:ARG:NH1	17:Q:117:ARG:HB3	1.97	0.79
17:Q:127:CYS:HA	34:i:1643:G:H2'	1.65	0.79
18:R:91:LEU:CD1	18:R:92:ASP:CA	2.53	0.79
20:T:119:TRP:CD2	34:i:1557:C:H1'	2.18	0.79
21:U:108:PRO:O	21:U:108:PRO:CD	2.29	0.79
24:X:52:LEU:HD11	24:X:71:ARG:HB2	1.64	0.79
24:X:54:LYS:HD2	24:X:91:LEU:CD1	2.13	0.79
28:b:46:VAL:CG2	28:b:63:LEU:HD21	2.13	0.79
32:f:103:LEU:HD22	32:f:106:TYR:CD2	2.17	0.79
33:g:284:PRO:O	33:g:284:PRO:CG	2.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1751:G:O2'	34:i:1752:G:H5'	1.83	0.79
4:D:76:ARG:HD3	11:K:66:HIS:CE1	2.05	0.79
4:D:226:GLN:O	4:D:227:LYS:CG	2.30	0.79
5:E:130:PHE:CB	5:E:138:HIS:NE2	2.45	0.79
7:G:36:VAL:HG12	7:G:37:ALA:N	1.94	0.79
10:J:170:PRO:HA	10:J:174:LYS:HZ3	1.46	0.79
16:P:4:VAL:HA	16:P:10:ARG:CG	2.10	0.79
20:T:11:GLN:HE21	20:T:62:ARG:NH1	1.81	0.79
24:X:52:LEU:CD1	24:X:53:GLU:HG2	2.13	0.79
25:Y:7:ILE:HD11	25:Y:43:LYS:CG	2.11	0.79
25:Y:20:ARG:HG3	25:Y:74:MET:HE1	1.62	0.79
32:f:103:LEU:HD23	32:f:103:LEU:C	2.07	0.79
33:g:149:GLU:OE2	33:g:149:GLU:CA	2.30	0.79
1:A:143:PRO:HB3	22:V:34:MET:SD	2.22	0.79
4:D:214:LYS:CG	4:D:215:ASP:OD2	2.28	0.79
10:J:117:LEU:O	10:J:119:LEU:N	2.16	0.79
14:N:38:TYR:CD1	14:N:78:LYS:CD	2.65	0.79
18:R:122:PRO:CB	18:R:123:THR:OG1	2.30	0.79
19:S:36:VAL:O	19:S:36:VAL:CG2	2.30	0.79
23:W:7:LEU:HD23	23:W:34:ILE:CG1	2.13	0.79
28:b:26:GLN:HG3	28:b:27:SER:N	1.98	0.79
32:f:103:LEU:O	32:f:103:LEU:CD2	2.30	0.79
1:A:76:VAL:CG2	1:A:90:PHE:CE2	2.66	0.78
3:C:50:LYS:HD2	3:C:251:TYR:HD1	1.39	0.78
3:C:169:VAL:CG2	3:C:228:ALA:O	2.31	0.78
4:D:94:ARG:O	4:D:101:GLN:NE2	2.15	0.78
6:F:91:ARG:NH1	6:F:94:LYS:CG	2.37	0.78
7:G:27:PHE:HZ	7:G:41:LEU:CD1	1.92	0.78
12:L:82:MET:HE1	34:i:363:G:H4'	1.63	0.78
12:L:82:MET:HE1	34:i:363:G:H5'	1.63	0.78
14:N:21:SER:O	14:N:22:VAL:CG2	2.30	0.78
14:N:131:THR:C	14:N:132:LYS:HD2	2.08	0.78
20:T:76:THR:OG1	20:T:94:ARG:HB3	1.83	0.78
21:U:69:PRO:O	21:U:69:PRO:CD	2.30	0.78
23:W:11:LEU:C	23:W:14:ILE:HG12	2.07	0.78
25:Y:44:LEU:CD1	25:Y:48:TYR:CD2	2.66	0.78
5:E:100:ARG:CD	5:E:102:ILE:HD11	2.08	0.78
5:E:117:GLU:HG3	5:E:118:GLU:H	1.46	0.78
6:F:59:LYS:HD2	6:F:62:ARG:HH22	1.41	0.78
8:H:149:ASP:O	8:H:151:SER:N	2.16	0.78
9:I:157:LYS:CG	12:L:22:ARG:NH1	2.45	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:21:SER:O	14:N:22:VAL:CG1	2.30	0.78
16:P:5:GLU:N	16:P:10:ARG:NH1	2.30	0.78
17:Q:6:PRO:O	17:Q:6:PRO:HG2	1.81	0.78
17:Q:92:LEU:HG	17:Q:96:TYR:HE2	1.46	0.78
21:U:97:ILE:HG22	21:U:101:ILE:HD12	1.63	0.78
25:Y:37:LYS:O	25:Y:40:ILE:HG23	1.82	0.78
2:B:134:LEU:HD12	2:B:219:LYS:HB2	1.66	0.78
4:D:209:SER:OG	18:R:40:ILE:HB	1.83	0.78
5:E:182:MET:HE2	5:E:228:ILE:HG21	1.63	0.78
9:I:145:ILE:HA	9:I:148:LYS:HG3	1.64	0.78
12:L:1:MET:O	12:L:2:ALA:HB3	1.84	0.78
13:M:51:VAL:HA	13:M:77:ILE:CG2	2.13	0.78
15:O:75:MET:SD	15:O:118:ALA:HB2	2.22	0.78
17:Q:54:PRO:HG3	17:Q:88:ILE:HD12	1.66	0.78
17:Q:105:LYS:CD	17:Q:105:LYS:C	2.54	0.78
19:S:80:PRO:HB2	19:S:82:TRP:CD1	2.18	0.78
25:Y:55:ILE:CB	25:Y:75:ILE:HG12	2.12	0.78
33:g:143:GLN:NE2	33:g:144:ASP:N	2.30	0.78
33:g:277:THR:HG22	33:g:278:SER:N	1.98	0.78
34:i:239:U:H3	34:i:271:G:H1	1.28	0.78
1:A:186:ARG:CD	1:A:186:ARG:O	2.31	0.78
2:B:52:THR:HG22	2:B:58:ALA:CB	2.12	0.78
2:B:67:PHE:CD1	15:O:47:LEU:CB	2.66	0.78
2:B:90:ASP:CG	2:B:91:VAL:H	1.91	0.78
2:B:137:LEU:HB2	2:B:172:MET:CE	2.03	0.78
4:D:212:GLU:O	4:D:213:PRO:C	2.24	0.78
4:D:218:LEU:O	4:D:218:LEU:CD2	2.30	0.78
7:G:32:MET:CE	7:G:63:MET:SD	2.72	0.78
7:G:63:MET:CE	7:G:106:LEU:HD13	2.12	0.78
18:R:122:PRO:CA	18:R:123:THR:CB	2.58	0.78
19:S:8:LYS:CA	26:Z:49:LEU:HD23	2.13	0.78
24:X:67:ARG:HG2	24:X:115:ILE:HG12	1.66	0.78
33:g:144:ASP:O	33:g:145:GLU:CB	2.29	0.78
34:i:190:A:H2'	34:i:191:C:OP1	1.83	0.78
35:l:63:PHE:HZ	35:l:89:GLN:NE2	1.80	0.78
1:A:59:LEU:HD23	1:A:181:GLU:HG2	1.64	0.78
1:A:66:VAL:HG13	1:A:186:ARG:HD2	1.65	0.78
4:D:35:SER:OG	4:D:97:CYS:SG	2.34	0.78
4:D:195:SER:O	4:D:197:LYS:CG	2.30	0.78
8:H:28:LEU:HG	8:H:32:MET:HE3	1.64	0.78
13:M:67:ALA:HB1	32:f:108:VAL:HG21	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:24:THR:HB	28:b:84:HIS:NE2	1.95	0.78
15:O:79:GLN:CG	29:c:5:ARG:HG3	2.14	0.78
18:R:98:VAL:CG1	18:R:102:THR:OG1	2.32	0.78
20:T:119:TRP:CE3	34:i:1557:C:O2'	2.32	0.78
24:X:27:TYR:CE1	24:X:31:HIS:CD2	2.69	0.78
24:X:139:GLU:O	24:X:141:PRO:CD	2.30	0.78
33:g:109:LEU:HD12	33:g:151:VAL:O	1.83	0.78
33:g:298:LEU:HD21	33:g:310:TRP:HB2	1.66	0.78
34:i:61:A:C2	34:i:326:A:C4	2.71	0.78
34:i:1751:G:O2'	34:i:1752:G:C5'	2.32	0.78
5:E:229:GLY:HA2	5:E:235:TRP:CD1	2.18	0.78
7:G:16:ILE:HD13	7:G:45:TRP:HZ2	0.70	0.78
7:G:137:ARG:HD2	7:G:140:ARG:HE	1.48	0.78
7:G:164:LYS:O	7:G:166:GLY:N	2.16	0.78
8:H:166:VAL:CG2	8:H:173:PHE:CE2	2.67	0.78
9:I:140:LYS:CD	9:I:141:ARG:H	1.96	0.78
19:S:39:ARG:HD3	20:T:38:LYS:NZ	1.99	0.78
23:W:118:ARG:HD3	34:i:730:C:C5'	2.13	0.78
26:Z:48:VAL:C	26:Z:83:LEU:HD11	2.06	0.78
27:a:34:LYS:O	27:a:35:ALA:HB3	1.81	0.78
35:l:36:GLN:CA	35:l:113:PHE:CG	2.66	0.78
1:A:34:MET:HE1	1:A:37:TYR:HE2	1.42	0.78
2:B:105:LEU:O	2:B:106:THR:CG2	2.30	0.78
7:G:142:ARG:HH21	7:G:152:ASP:H	1.31	0.78
7:G:153:VAL:O	7:G:155:GLN:N	2.16	0.78
7:G:181:THR:CB	7:G:182:PRO:HD2	2.13	0.78
11:K:5:LYS:O	11:K:5:LYS:CG	2.31	0.78
11:K:45:VAL:O	11:K:49:MET:HG2	1.84	0.78
12:L:40:ILE:O	12:L:40:ILE:HD13	1.84	0.78
12:L:82:MET:HE2	34:i:363:G:H4'	1.64	0.78
18:R:115:SER:O	18:R:116:ASN:CG	2.27	0.78
20:T:91:HIS:CD2	20:T:91:HIS:N	2.51	0.78
21:U:50:VAL:HG22	21:U:52:GLY:N	1.97	0.78
2:B:81:PHE:O	2:B:82:ARG:HB2	1.84	0.78
4:D:217:ILE:O	4:D:218:LEU:HD22	1.82	0.78
6:F:61:PHE:CE2	29:c:51:ARG:HB2	2.16	0.78
13:M:60:MET:HB3	32:f:104:LYS:CD	2.14	0.78
16:P:52:LYS:HD3	16:P:52:LYS:C	2.06	0.78
19:S:94:LYS:CB	19:S:95:TYR:O	2.30	0.78
24:X:105:PHE:CE2	24:X:119:ARG:C	2.62	0.78
1:A:202:TYR:O	1:A:203:PHE:CD1	2.37	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:74:GLN:NE2	4:D:75:LYS:HE2	1.99	0.78
13:M:89:VAL:HG12	13:M:90:GLY:H	1.47	0.78
16:P:49:LEU:CD1	16:P:51:ARG:CZ	2.61	0.78
24:X:60:LYS:CG	24:X:116:PRO:CG	2.58	0.78
24:X:129:SER:OG	24:X:132:ALA:HB3	1.83	0.78
25:Y:36:PRO:HD2	25:Y:39:GLU:OE1	1.83	0.78
2:B:48:LEU:HD12	2:B:48:LEU:N	1.99	0.78
4:D:22:ASN:OD1	4:D:37:VAL:HG22	1.84	0.78
4:D:198:ILE:O	4:D:198:ILE:CD1	2.32	0.78
6:F:112:LEU:O	6:F:116:ILE:CD1	2.31	0.78
10:J:10:ARG:HB3	10:J:10:ARG:HH11	1.44	0.78
12:L:109:MET:SD	12:L:140:PHE:CD1	2.77	0.78
19:S:139:THR:O	19:S:141:ARG:N	2.17	0.78
22:V:24:ILE:O	22:V:24:ILE:CG2	2.30	0.78
23:W:14:ILE:HG13	23:W:15:ASN:N	1.98	0.78
25:Y:29:HIS:CD2	25:Y:34:THR:H	2.02	0.78
25:Y:114:MET:C	25:Y:124:ASN:ND2	2.41	0.78
26:Z:58:LEU:HD23	26:Z:77:LEU:HD11	1.66	0.78
34:i:837:G:O2'	34:i:838:C:H5'	1.84	0.78
1:A:58:LEU:HD23	1:A:178:LEU:HD21	1.58	0.77
3:C:197:LYS:O	3:C:200:LEU:CG	2.30	0.77
5:E:25:SER:HB3	34:i:485:U:HO2'	1.48	0.77
5:E:128:LYS:CD	5:E:130:PHE:HE1	1.84	0.77
5:E:139:LEU:HD11	5:E:154:ILE:HG21	1.64	0.77
5:E:180:LEU:HD13	5:E:228:ILE:CG1	2.15	0.77
7:G:50:VAL:CG1	7:G:111:LEU:CD2	2.61	0.77
7:G:64:LYS:C	7:G:64:LYS:HD3	2.09	0.77
7:G:188:LYS:HA	7:G:191:ARG:CD	2.13	0.77
11:K:65:ARG:HB3	11:K:65:ARG:HH11	1.28	0.77
12:L:7:GLU:CG	12:L:8:ARG:HG3	2.14	0.77
13:M:35:ILE:HB	13:M:61:TYR:CE2	2.18	0.77
14:N:62:GLN:CB	14:N:65:PHE:CD2	2.64	0.77
15:O:32:HIS:CE1	15:O:96:LYS:HD2	2.19	0.77
18:R:20:TYR:OH	18:R:38:ILE:HB	1.74	0.77
22:V:79:VAL:HG12	22:V:82:ASN:OD1	1.83	0.77
32:f:102:VAL:HG12	32:f:103:LEU:HB2	1.64	0.77
32:f:135:HIS:HB3	32:f:138:ARG:CB	2.13	0.77
33:g:40:ILE:CD1	33:g:80:SER:HB3	2.13	0.77
34:i:184:G:N1	34:i:211:U:C4	2.45	0.77
34:i:1823:G:N3	34:i:1844:A:C2	2.51	0.77
1:A:183:LEU:HB2	1:A:189:ILE:CD1	2.13	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:38:LEU:O	5:E:38:LEU:CD1	2.30	0.77
6:F:15:PRO:HD3	17:Q:56:LEU:HB3	1.66	0.77
6:F:44:LYS:C	6:F:45:TYR:CD1	2.62	0.77
6:F:127:ARG:O	6:F:127:ARG:CG	2.32	0.77
6:F:154:LEU:HD11	6:F:155:CYS:SG	2.24	0.77
7:G:5:ILE:HG22	7:G:124:LEU:HD21	1.65	0.77
9:I:82:VAL:HG11	9:I:202:ILE:HD11	1.64	0.77
15:O:62:VAL:CG2	15:O:72:TYR:OH	2.32	0.77
15:O:129:ILE:HG21	27:a:44:ILE:HG12	1.64	0.77
18:R:88:VAL:O	18:R:88:VAL:CG1	2.31	0.77
20:T:124:THR:HG23	20:T:126:GLN:H	1.47	0.77
28:b:73:LEU:HD13	28:b:79:PHE:CD2	2.18	0.77
31:e:114:ARG:O	31:e:119:VAL:HG22	1.83	0.77
32:f:140:TYR:OH	32:f:146:LEU:HB2	1.83	0.77
1:A:5:LEU:HB2	22:V:41:LYS:CE	2.14	0.77
1:A:190:SER:O	1:A:191:ARG:CG	2.30	0.77
3:C:43:LYS:HE3	3:C:43:LYS:CA	2.14	0.77
3:C:56:LYS:HD2	3:C:57:ASP:OD1	1.84	0.77
3:C:192:ALA:O	3:C:195:PRO:CD	2.31	0.77
4:D:162:ASP:CG	4:D:166:TYR:HE2	1.92	0.77
7:G:85:ARG:CZ	25:Y:118:ARG:NE	2.47	0.77
8:H:8:ILE:HG23	8:H:9:VAL:N	1.98	0.77
10:J:12:THR:O	10:J:48:PHE:CD2	2.37	0.77
10:J:138:ARG:NH1	10:J:156:HIS:NE2	2.31	0.77
11:K:41:PRO:CD	11:K:41:PRO:O	2.31	0.77
13:M:98:GLY:C	13:M:100:PRO:HD3	2.08	0.77
15:O:113:GLN:CD	27:a:46:GLU:CD	2.53	0.77
16:P:124:LYS:O	16:P:124:LYS:HG3	1.84	0.77
18:R:100:PRO:CB	18:R:119:VAL:CG2	2.62	0.77
24:X:35:ALA:HA	24:X:39:ASN:ND2	1.98	0.77
26:Z:48:VAL:HG21	26:Z:80:ARG:HD3	1.65	0.77
26:Z:92:LEU:HD21	26:Z:109:TYR:CD1	2.18	0.77
1:A:39:TYR:CA	1:A:50:ASN:ND2	2.47	0.77
1:A:118:GLU:HB2	3:C:50:LYS:NZ	1.98	0.77
2:B:113:MET:HE3	2:B:211:PHE:CZ	2.18	0.77
3:C:158:LYS:O	3:C:158:LYS:CE	2.30	0.77
4:D:70:THR:CA	4:D:86:LEU:HD13	2.15	0.77
7:G:217:MET:O	7:G:221:LYS:N	2.11	0.77
12:L:10:TYR:CE2	12:L:12:LYS:CE	2.67	0.77
21:U:46:LYS:NZ	21:U:97:ILE:HG12	1.99	0.77
28:b:63:LEU:O	28:b:63:LEU:HG	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:97:GLU:OE1	31:e:97:GLU:HA	1.84	0.77
32:f:109:ASP:O	32:f:110:GLU:C	2.27	0.77
33:g:143:GLN:O	33:g:146:SER:HB2	1.83	0.77
1:A:112:ILE:CG1	34:i:1346:U:C4'	2.62	0.77
2:B:105:LEU:CD1	2:B:213:ARG:HB2	2.09	0.77
2:B:137:LEU:CD2	2:B:215:VAL:CB	2.63	0.77
4:D:201:LYS:HA	4:D:201:LYS:CE	2.14	0.77
5:E:204:SER:O	5:E:205:PHE:HB2	1.83	0.77
6:F:45:TYR:N	6:F:45:TYR:CD1	2.42	0.77
6:F:141:VAL:HG11	29:c:47:LYS:HZ1	1.49	0.77
8:H:36:LEU:C	8:H:36:LEU:HD13	2.03	0.77
8:H:52:GLU:HG3	8:H:58:LYS:HB3	1.67	0.77
14:N:115:LEU:O	14:N:119:GLU:HG3	1.84	0.77
16:P:18:ARG:HD2	16:P:37:TYR:HB3	1.66	0.77
16:P:44:ARG:HD3	16:P:115:TYR:HE1	1.47	0.77
16:P:128:HIS:HE1	34:i:1516:C:C2	2.02	0.77
18:R:27:ASP:O	18:R:31:ASN:ND2	2.17	0.77
20:T:39:LEU:CD1	20:T:99:VAL:HG21	2.14	0.77
20:T:101:ARG:NH1	34:i:1560:C:C5	2.53	0.77
24:X:29:LYS:CE	24:X:34:THR:HG21	2.13	0.77
24:X:51:VAL:CG1	24:X:70:VAL:CG1	2.53	0.77
25:Y:120:THR:HB	25:Y:122:LYS:HE3	1.62	0.77
25:Y:120:THR:CG2	25:Y:122:LYS:HE2	2.14	0.77
33:g:194:TYR:OH	33:g:235:ILE:HD12	1.83	0.77
33:g:274:VAL:O	33:g:274:VAL:CG2	2.31	0.77
1:A:28:THR:O	1:A:47:TYR:HE2	1.67	0.77
1:A:198:MET:N	1:A:198:MET:SD	2.57	0.77
6:F:63:LYS:CD	6:F:71:ARG:NH2	2.35	0.77
8:H:147:LYS:CE	8:H:153:LEU:CD1	2.61	0.77
8:H:164:ASN:OD1	8:H:167:GLU:CD	2.26	0.77
11:K:4:PRO:HG3	11:K:7:ASN:ND2	1.99	0.77
12:L:80:MET:HE2	12:L:120:VAL:O	1.81	0.77
14:N:19:ARG:NH1	28:b:84:HIS:HB2	2.00	0.77
18:R:99:ASP:O	18:R:119:VAL:CG2	2.32	0.77
18:R:122:PRO:C	18:R:123:THR:OG1	2.27	0.77
19:S:34:LYS:CA	19:S:103:LEU:HD21	2.15	0.77
22:V:31:SER:C	22:V:32:ILE:HG13	2.08	0.77
23:W:38:LEU:HD23	23:W:41:MET:CE	2.14	0.77
24:X:133:LEU:CD2	24:X:139:GLU:O	2.33	0.77
25:Y:37:LYS:O	25:Y:40:ILE:HG22	1.83	0.77
25:Y:117:VAL:HG21	25:Y:124:ASN:OD1	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1517:A:C2	34:i:1518:C:C5	2.73	0.77
35:l:51:ALA:HB3	35:l:54:TYR:CE1	2.20	0.77
35:l:63:PHE:HZ	35:l:89:GLN:HE21	1.33	0.77
1:A:13:GLU:O	1:A:17:LYS:CE	2.29	0.77
1:A:39:TYR:HA	1:A:50:ASN:HD21	1.48	0.77
2:B:113:MET:HE1	2:B:211:PHE:HE2	0.69	0.77
2:B:148:ASN:O	18:R:124:VAL:CG2	2.33	0.77
5:E:100:ARG:CD	5:E:102:ILE:CD1	2.59	0.77
5:E:174:LYS:O	5:E:179:ASN:ND2	2.18	0.77
5:E:248:ILE:O	10:J:72:PHE:CE1	2.34	0.77
10:J:94:LEU:HD12	10:J:95:ASP:N	2.00	0.77
11:K:83:LEU:HB2	11:K:85:LEU:HD21	1.63	0.77
13:M:85:LEU:HD22	13:M:106:CYS:SG	2.25	0.77
16:P:10:ARG:HE	16:P:11:THR:N	1.81	0.77
16:P:125:PRO:O	16:P:126:VAL:CG2	2.32	0.77
17:Q:50:LYS:HZ3	17:Q:117:ARG:NH1	1.83	0.77
17:Q:98:LYS:C	33:g:57:ARG:NH2	2.43	0.77
20:T:119:TRP:CZ3	34:i:1557:C:O2	2.38	0.77
23:W:118:ARG:CG	34:i:730:C:H4'	2.14	0.77
25:Y:122:LYS:HD2	25:Y:122:LYS:H	1.48	0.77
26:Z:94:LYS:HD3	26:Z:95:GLY:N	1.99	0.77
28:b:41:TYR:CD2	28:b:41:TYR:N	2.49	0.77
33:g:71:ILE:CG2	33:g:72:SER:N	2.48	0.77
1:A:11:LYS:CD	1:A:13:GLU:CG	2.62	0.77
1:A:158:ASP:HB3	22:V:65:SER:CB	2.15	0.77
4:D:226:GLN:O	4:D:227:LYS:CB	2.31	0.77
7:G:98:ARG:HD3	7:G:99:GLY:H	1.49	0.77
9:I:112:TRP:HH2	9:I:117:TYR:OH	1.68	0.77
10:J:171:GLY:C	10:J:173:VAL:H	1.92	0.77
11:K:83:LEU:HB2	11:K:85:LEU:CD2	2.11	0.77
16:P:10:ARG:HE	16:P:11:THR:H	1.27	0.77
24:X:142:ARG:HB2	24:X:142:ARG:NH1	1.93	0.77
26:Z:48:VAL:CG2	26:Z:80:ARG:CD	2.54	0.77
28:b:33:MET:CE	28:b:79:PHE:HB2	1.86	0.77
33:g:17:TRP:H	33:g:36:ARG:HG3	1.50	0.77
33:g:49:GLU:O	33:g:50:THR:CG2	2.30	0.77
33:g:87:LEU:CD1	33:g:101:PHE:HB3	2.11	0.77
33:g:165:ILE:HG12	33:g:177:TRP:HB2	1.67	0.77
33:g:215:GLN:OE1	33:g:231:ASP:OD1	2.02	0.77
33:g:286:CYS:N	33:g:302:TYR:CE1	2.53	0.77
3:C:155:TRP:CZ2	23:W:97:ARG:HD3	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:197:LYS:H	4:D:199:GLY:N	1.82	0.77
6:F:32:ASP:HB2	6:F:117:ILE:HG21	1.67	0.77
8:H:36:LEU:O	8:H:36:LEU:CD1	2.29	0.77
9:I:25:ARG:NE	9:I:27:TYR:HE2	1.83	0.77
14:N:24:THR:OG1	28:b:84:HIS:CE1	2.34	0.77
17:Q:6:PRO:O	17:Q:6:PRO:CG	2.29	0.77
19:S:42:HIS:CG	20:T:45:LEU:CD1	2.46	0.77
20:T:18:LEU:HB2	20:T:134:ILE:CD1	2.14	0.77
21:U:56:MET:HE1	21:U:88:LEU:CD2	2.14	0.77
25:Y:84:LYS:O	25:Y:84:LYS:CD	2.31	0.77
4:D:200:PRO:O	4:D:201:LYS:CG	2.32	0.77
6:F:204:ARG:NE	29:c:60:GLU:OE2	2.17	0.77
7:G:157:VAL:HG13	7:G:158:VAL:C	2.10	0.77
8:H:122:LEU:CD1	8:H:123:THR:CG2	2.62	0.77
16:P:5:GLU:O	16:P:6:GLN:CB	2.33	0.77
16:P:52:LYS:O	16:P:52:LYS:CD	2.30	0.77
18:R:98:VAL:HG13	18:R:102:THR:OG1	1.83	0.77
26:Z:92:LEU:HD11	26:Z:99:LEU:HD21	1.66	0.77
34:i:445:A:O2'	34:i:1730:A:C2'	2.33	0.77
34:i:1206:G:C2	34:i:1207:G:O4'	2.36	0.77
1:A:27:GLY:O	1:A:47:TYR:HD2	1.69	0.76
3:C:50:LYS:HB2	3:C:258:LEU:HB3	1.67	0.76
4:D:18:LYS:HZ2	4:D:37:VAL:CG2	1.99	0.76
8:H:10:LYS:N	8:H:11:PRO:CD	2.47	0.76
10:J:29:LEU:CD2	31:e:112:TYR:HB2	2.15	0.76
10:J:39:ASN:O	10:J:42:GLU:HB2	1.84	0.76
10:J:39:ASN:N	10:J:42:GLU:HG2	2.00	0.76
13:M:14:VAL:C	13:M:16:THR:H	1.93	0.76
15:O:20:GLN:CG	15:O:21:VAL:O	2.33	0.76
15:O:56:VAL:HG13	15:O:81:VAL:CG2	2.14	0.76
16:P:50:ARG:N	16:P:51:ARG:HD2	1.99	0.76
16:P:108:LYS:N	16:P:111:MET:HE3	1.99	0.76
18:R:97:GLU:HA	18:R:116:ASN:HB2	1.67	0.76
31:e:117:VAL:C	31:e:119:VAL:HB	2.10	0.76
32:f:116:ARG:HH11	32:f:116:ARG:CG	1.98	0.76
33:g:5:MET:HE2	33:g:312:VAL:HG13	1.67	0.76
34:i:431:C:C4'	34:i:1732:G:O2'	2.33	0.76
2:B:63:LYS:C	2:B:63:LYS:HD3	2.11	0.76
2:B:149:GLN:NE2	2:B:151:ARG:HG2	2.00	0.76
4:D:45:ARG:HA	4:D:83:SER:OG	1.86	0.76
5:E:98:ASN:HD22	5:E:119:ALA:HB2	1.47	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:139:LEU:HG	5:E:150:PRO:HG3	1.67	0.76
8:H:83:LEU:HD22	8:H:92:VAL:CG1	2.05	0.76
8:H:145:ARG:CD	23:W:51:GLU:CG	2.61	0.76
9:I:97:VAL:HG22	9:I:100:CYS:SG	2.25	0.76
9:I:155:ASN:C	9:I:157:LYS:H	1.93	0.76
12:L:10:TYR:CD2	12:L:12:LYS:CE	2.66	0.76
16:P:41:GLN:CD	16:P:41:GLN:C	2.52	0.76
16:P:86:LEU:HD23	16:P:86:LEU:N	2.01	0.76
17:Q:78:VAL:CG1	17:Q:82:TYR:CE2	2.68	0.76
21:U:48:LEU:N	21:U:48:LEU:CD2	2.29	0.76
22:V:53:TYR:CE2	22:V:72:LEU:HB3	2.20	0.76
23:W:128:PHE:HE1	23:W:130:PHE:CD2	2.00	0.76
27:a:34:LYS:O	27:a:35:ALA:CB	2.32	0.76
28:b:81:ARG:CB	28:b:82:LYS:CA	2.64	0.76
32:f:103:LEU:HD21	32:f:105:TYR:HB2	1.66	0.76
34:i:60:A:C2	34:i:326:A:O3'	2.32	0.76
2:B:123:ALA:HB2	2:B:165:ARG:HG2	1.67	0.76
3:C:241:TRP:CD2	23:W:68:ARG:CD	2.69	0.76
5:E:49:ARG:HD3	5:E:50:ASN:N	2.00	0.76
5:E:99:PHE:CD1	5:E:113:ARG:HG3	2.19	0.76
9:I:85:ALA:CB	12:L:8:ARG:NH1	2.46	0.76
11:K:4:PRO:HB2	11:K:7:ASN:H	1.49	0.76
11:K:36:ALA:O	11:K:38:LYS:HG3	1.84	0.76
11:K:43:LEU:C	11:K:45:VAL:N	2.43	0.76
14:N:55:ARG:HH21	28:b:51:GLN:CD	1.91	0.76
15:O:26:ASN:HB3	15:O:91:THR:OG1	1.84	0.76
17:Q:105:LYS:CD	17:Q:105:LYS:O	2.30	0.76
17:Q:138:ARG:CG	34:i:1644:U:H4'	2.16	0.76
25:Y:34:THR:C	25:Y:35:VAL:CG2	2.53	0.76
34:i:1823:G:N3	34:i:1844:A:H2	1.81	0.76
1:A:112:ILE:HG21	34:i:1346:U:C1'	2.15	0.76
1:A:120:ARG:CG	3:C:251:TYR:HE2	1.98	0.76
2:B:57:ILE:O	2:B:59:SER:N	2.18	0.76
2:B:148:ASN:O	18:R:124:VAL:HG22	1.86	0.76
4:D:2:ALA:HB3	4:D:3:VAL:C	2.04	0.76
4:D:222:PRO:C	4:D:223:ILE:HD12	2.09	0.76
6:F:122:ARG:O	6:F:141:VAL:CG1	2.21	0.76
7:G:157:VAL:HG22	7:G:158:VAL:H	1.50	0.76
9:I:82:VAL:CG1	9:I:202:ILE:CD1	2.62	0.76
16:P:10:ARG:NE	16:P:11:THR:N	2.34	0.76
16:P:44:ARG:NE	16:P:84:ILE:CD1	2.14	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:24:ILE:C	22:V:24:ILE:HD12	2.11	0.76
23:W:93:LEU:HD21	23:W:128:PHE:CE2	2.20	0.76
25:Y:87:PRO:HG2	25:Y:90:ARG:HB2	1.68	0.76
28:b:48:SER:OG	28:b:49:HIS:HD2	1.68	0.76
28:b:62:VAL:HG22	28:b:63:LEU:H	1.49	0.76
30:d:7:TYR:O	30:d:8:TRP:CB	2.34	0.76
33:g:57:ARG:CZ	33:g:94:THR:O	2.32	0.76
3:C:115:ILE:HD13	3:C:144:LYS:HG3	1.67	0.76
5:E:126:VAL:CG2	5:E:156:MET:HA	2.15	0.76
8:H:8:ILE:HG23	8:H:9:VAL:H	1.49	0.76
9:I:29:LEU:HG	9:I:30:GLY:N	2.01	0.76
9:I:141:ARG:HB2	9:I:144:LYS:N	2.00	0.76
21:U:102:THR:O	21:U:104:ILE:O	2.04	0.76
26:Z:85:ARG:HH11	26:Z:85:ARG:HG2	1.50	0.76
31:e:105:ARG:CB	31:e:105:ARG:CZ	2.59	0.76
33:g:113:PHE:CE2	33:g:117:ASN:HA	2.21	0.76
33:g:170:TRP:C	33:g:172:LYS:H	1.93	0.76
4:D:218:LEU:CD1	4:D:220:THR:CG2	2.47	0.76
5:E:86:PHE:O	5:E:87:MET:HB2	1.86	0.76
10:J:46:VAL:HG11	10:J:106:LEU:HD11	1.67	0.76
13:M:77:ILE:HG23	13:M:78:LYS:N	1.97	0.76
17:Q:32:ILE:O	17:Q:39:LEU:HG	1.85	0.76
19:S:6:PRO:O	19:S:7:GLU:HB2	1.84	0.76
25:Y:32:LYS:HG2	25:Y:33:ALA:O	1.85	0.76
3:C:127:LYS:HD3	3:C:142:LEU:HD11	1.65	0.76
4:D:175:VAL:CG1	4:D:182:LEU:HB2	2.16	0.76
11:K:39:ASN:O	11:K:40:VAL:CB	2.32	0.76
13:M:14:VAL:O	13:M:15:ASN:OD1	2.04	0.76
16:P:69:PRO:HD2	16:P:70:MET:N	2.01	0.76
17:Q:85:ARG:O	17:Q:88:ILE:HG12	1.86	0.76
20:T:38:LYS:HD2	20:T:45:LEU:C	2.10	0.76
20:T:77:LYS:HD2	20:T:94:ARG:NH1	2.00	0.76
2:B:150:ILE:HD11	18:R:126:MET:CB	2.13	0.76
3:C:244:THR:CG2	3:C:244:THR:O	2.29	0.76
3:C:253:GLU:HG3	3:C:254:PHE:CD2	2.21	0.76
12:L:5:GLN:O	12:L:7:GLU:N	2.19	0.76
14:N:16:LEU:HD21	14:N:62:GLN:NE2	2.01	0.76
16:P:10:ARG:NE	16:P:11:THR:HB	2.01	0.76
21:U:44:LYS:O	21:U:47:ASN:HA	1.86	0.76
24:X:115:ILE:O	24:X:115:ILE:CG2	2.29	0.76
34:i:1191:A:H2'	34:i:1192:A:H8	1.50	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:37:TYR:OH	1:A:160:ALA:HB3	1.85	0.76
2:B:67:PHE:HE1	15:O:48:SER:N	1.84	0.76
2:B:83:LYS:NZ	15:O:130:GLU:CD	2.43	0.76
3:C:223:LYS:HE2	34:i:1351:C:C2	2.20	0.76
6:F:144:LEU:HD23	29:c:49:PRO:CB	2.16	0.76
7:G:58:LYS:O	7:G:59:GLN:HB2	1.85	0.76
7:G:181:THR:CB	7:G:182:PRO:CD	2.63	0.76
9:I:9:HIS:O	9:I:10:LYS:HG2	1.86	0.76
13:M:49:LEU:HD13	13:M:50:CYS:N	2.00	0.76
23:W:42:MET:HE1	23:W:50:PHE:CD2	2.20	0.76
24:X:95:GLU:CG	24:X:140:ARG:NH2	2.49	0.76
25:Y:62:THR:CG2	25:Y:69:THR:HG22	2.14	0.76
28:b:62:VAL:HG22	28:b:74:THR:HG21	1.68	0.76
30:d:36:LEU:HD21	30:d:52:PHE:CE2	2.21	0.76
33:g:143:GLN:O	33:g:146:SER:CB	2.33	0.76
34:i:1210:A:H61	34:i:1680:U:H3	1.32	0.76
2:B:30:TRP:HE1	15:O:17:LEU:HD21	1.49	0.76
3:C:115:ILE:HD12	3:C:143:ALA:HB3	1.68	0.76
7:G:142:ARG:NH2	7:G:152:ASP:H	1.84	0.76
7:G:183:ARG:NH1	34:i:307:G:N7	2.34	0.76
8:H:157:HIS:O	8:H:158:LEU:HD23	1.84	0.76
11:K:43:LEU:O	11:K:44:HIS:C	2.28	0.76
14:N:16:LEU:CD2	14:N:17:PRO:HD2	2.15	0.76
15:O:34:PHE:CZ	15:O:100:THR:HA	2.20	0.76
18:R:105:MET:O	18:R:109:LEU:HD12	1.84	0.76
19:S:34:LYS:C	19:S:103:LEU:HD23	2.10	0.76
21:U:108:PRO:O	21:U:108:PRO:CG	2.30	0.76
25:Y:44:LEU:CD1	25:Y:48:TYR:HE2	1.92	0.76
25:Y:93:ARG:HH11	25:Y:93:ARG:CG	1.87	0.76
27:a:66:LYS:HB2	27:a:68:TYR:CE2	2.21	0.76
33:g:144:ASP:O	33:g:145:GLU:CG	2.30	0.76
33:g:191:HIS:CD2	33:g:195:LEU:HD11	2.21	0.76
34:i:1054:A:C2	35:l:42:LYS:HD2	2.20	0.76
2:B:66:VAL:HG22	2:B:87:ILE:HG22	0.76	0.75
3:C:198:LEU:HD11	3:C:226:PHE:HD1	1.51	0.75
4:D:70:THR:HG22	4:D:86:LEU:CB	2.16	0.75
5:E:74:GLY:C	5:E:75:LYS:HG2	2.10	0.75
5:E:143:ASP:CG	5:E:145:ARG:HD2	2.11	0.75
8:H:169:LYS:CB	8:H:173:PHE:CE2	2.68	0.75
9:I:69:SER:HB3	12:L:19:ASN:CG	2.09	0.75
11:K:84:HIS:CD2	13:M:27:ILE:HD11	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:16:ILE:HG22	18:R:24:LEU:HD11	1.68	0.75
18:R:121:GLN:NE2	18:R:122:PRO:N	2.34	0.75
20:T:39:LEU:HD11	20:T:56:ARG:NH2	2.01	0.75
21:U:69:PRO:O	21:U:69:PRO:CG	2.29	0.75
24:X:76:LYS:O	24:X:77:ASN:OD1	2.04	0.75
33:g:48:ASP:CG	33:g:49:GLU:OE1	2.29	0.75
3:C:223:LYS:HZ1	34:i:1351:C:H2'	0.93	0.75
5:E:166:THR:OG1	5:E:168:LYS:HG3	1.86	0.75
6:F:14:THR:CG2	17:Q:56:LEU:HD13	2.16	0.75
6:F:187:SER:O	6:F:190:ILE:HG22	1.85	0.75
13:M:94:ILE:HG23	13:M:95:ASP:H	0.67	0.75
14:N:125:LEU:CD1	14:N:129:TYR:HE2	1.92	0.75
15:O:136:PRO:C	15:O:138:ASP:N	2.45	0.75
16:P:127:LYS:CE	16:P:127:LYS:O	2.30	0.75
18:R:20:TYR:CE2	18:R:38:ILE:HD13	2.22	0.75
25:Y:33:ALA:HB2	34:i:571:U:O2'	1.85	0.75
25:Y:54:VAL:HG13	25:Y:76:TYR:O	1.86	0.75
29:c:60:GLU:CD	29:c:60:GLU:H	1.92	0.75
31:e:115:ARG:C	31:e:119:VAL:HG21	2.10	0.75
33:g:162:ASN:CG	33:g:163:PRO:HD2	2.11	0.75
34:i:127:C:N3	34:i:180:G:O2'	2.00	0.75
34:i:1751:G:H2'	34:i:1752:G:H8	1.51	0.75
1:A:66:VAL:CG1	1:A:186:ARG:CB	2.63	0.75
2:B:71:LEU:CG	2:B:84:PHE:HE2	1.98	0.75
5:E:62:LYS:CD	5:E:80:ILE:CD1	2.45	0.75
5:E:185:GLY:N	5:E:189:LEU:HD13	2.01	0.75
6:F:76:MET:HE2	6:F:169:ILE:CG2	2.17	0.75
9:I:130:THR:HB	9:I:131:PRO:HD3	1.66	0.75
12:L:134:LEU:HD23	12:L:134:LEU:O	1.86	0.75
16:P:15:PHE:CE1	19:S:91:LYS:CD	2.70	0.75
16:P:107:ILE:CB	16:P:111:MET:SD	2.74	0.75
18:R:91:LEU:CB	18:R:92:ASP:CA	2.61	0.75
22:V:55:ILE:HD13	22:V:65:SER:CA	2.14	0.75
24:X:52:LEU:HD11	24:X:53:GLU:HG2	1.67	0.75
33:g:119:GLN:HE21	33:g:121:VAL:CG2	1.88	0.75
3:C:126:MET:HE1	3:C:223:LYS:HZ3	1.50	0.75
4:D:44:THR:O	4:D:45:ARG:HD3	1.87	0.75
6:F:122:ARG:NH2	6:F:193:LYS:HZ1	1.83	0.75
6:F:134:VAL:HG11	6:F:136:ARG:HH21	1.52	0.75
6:F:135:ARG:NH1	15:O:67:ASP:OD2	1.96	0.75
8:H:145:ARG:CD	23:W:51:GLU:CD	2.59	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:95:ARG:HA	11:K:95:ARG:HE	1.50	0.75
12:L:112:HIS:HB2	12:L:134:LEU:HD13	1.68	0.75
17:Q:12:VAL:CG1	17:Q:13:PHE:H	1.99	0.75
17:Q:50:LYS:HZ1	17:Q:85:ARG:HH22	0.76	0.75
19:S:11:HIS:CD2	19:S:23:ARG:HH22	1.96	0.75
19:S:94:LYS:HD3	19:S:96:SER:HG	1.48	0.75
19:S:138:THR:HA	19:S:141:ARG:HH22	1.43	0.75
24:X:60:LYS:CG	24:X:116:PRO:HG2	2.11	0.75
26:Z:103:HIS:NE2	26:Z:105:ALA:HB3	2.00	0.75
33:g:2:THR:HG23	33:g:3:GLU:CG	2.16	0.75
33:g:59:LEU:HD12	33:g:90:TRP:CE3	2.21	0.75
1:A:185:MET:SD	22:V:44:GLY:HA2	2.25	0.75
2:B:31:TYR:CD1	2:B:94:LYS:CA	2.68	0.75
2:B:131:ASP:CG	2:B:180:ASP:HB2	2.12	0.75
4:D:21:LEU:HD13	4:D:48:ILE:CD1	2.16	0.75
6:F:41:VAL:HG22	6:F:42:LYS:HD2	1.69	0.75
7:G:16:ILE:HG21	7:G:45:TRP:CZ2	2.22	0.75
9:I:165:GLN:OE1	9:I:172:LEU:HD23	1.87	0.75
9:I:202:ILE:O	9:I:206:LYS:HB3	1.86	0.75
12:L:113:LEU:CD1	12:L:120:VAL:HG21	2.13	0.75
15:O:79:GLN:CD	29:c:5:ARG:CG	2.60	0.75
19:S:11:HIS:CD2	19:S:23:ARG:HH21	1.95	0.75
19:S:120:HIS:CE1	19:S:124:ARG:HH21	2.01	0.75
26:Z:92:LEU:HD11	26:Z:109:TYR:CZ	2.20	0.75
33:g:48:ASP:O	33:g:49:GLU:HG3	1.87	0.75
34:i:184:G:H2'	34:i:185:C:C6	2.22	0.75
1:A:85:ARG:NH2	1:A:201:LEU:HD12	2.00	0.75
5:E:31:PRO:HG2	5:E:38:LEU:HD13	1.69	0.75
10:J:38:ARG:NE	31:e:105:ARG:H	1.77	0.75
14:N:13:GLN:OE1	28:b:21:LYS:CE	2.33	0.75
16:P:118:GLU:O	19:S:119:ALA:HA	1.86	0.75
24:X:1:MET:O	24:X:2:GLY:C	2.29	0.75
32:f:136:PHE:O	32:f:138:ARG:N	2.19	0.75
33:g:298:LEU:O	33:g:298:LEU:CD1	2.32	0.75
1:A:94:THR:HG21	1:A:182:VAL:CG2	2.17	0.75
1:A:141:ASN:O	22:V:32:ILE:HG21	1.85	0.75
2:B:105:LEU:CD1	2:B:110:MET:HE1	2.16	0.75
5:E:94:LYS:O	5:E:95:THR:HG23	1.87	0.75
7:G:85:ARG:HD3	25:Y:118:ARG:CZ	2.16	0.75
7:G:162:LEU:CD2	7:G:170:ARG:HB2	2.17	0.75
10:J:37:LEU:C	31:e:105:ARG:HG3	2.12	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:48:PHE:CZ	10:J:52:LYS:CE	2.66	0.75
15:O:100:THR:HG22	15:O:104:ARG:HG3	1.67	0.75
16:P:77:LYS:O	16:P:78:THR:HG23	1.86	0.75
18:R:1:MET:N	18:R:1:MET:O	2.14	0.75
18:R:20:TYR:CD2	18:R:38:ILE:HD13	2.22	0.75
28:b:61:THR:CG2	28:b:62:VAL:N	2.49	0.75
33:g:40:ILE:HD11	33:g:80:SER:CB	2.17	0.75
34:i:520:U:H2'	34:i:521:A:H5'	1.69	0.75
34:i:1701:G:H1'	34:i:1844:A:HO2'	1.48	0.75
3:C:168:LYS:HE3	23:W:95:PRO:HA	1.68	0.75
3:C:244:THR:CG2	3:C:246:PHE:CD2	2.65	0.75
9:I:141:ARG:HB2	9:I:144:LYS:CA	2.16	0.75
13:M:33:ARG:O	13:M:33:ARG:HD2	1.87	0.75
16:P:39:ALA:HA	16:P:42:ARG:CD	2.17	0.75
20:T:29:LYS:HE3	20:T:29:LYS:CA	2.10	0.75
20:T:75:MET:CE	20:T:79:TYR:CE2	2.61	0.75
26:Z:62:VAL:CG1	26:Z:68:ILE:CD1	2.61	0.75
26:Z:91:LEU:CD2	26:Z:96:LEU:HD12	2.16	0.75
27:a:28:CYS:SG	27:a:74:CYS:CB	2.74	0.75
33:g:46:THR:C	33:g:48:ASP:N	2.42	0.75
33:g:175:LYS:NZ	33:g:187:ASN:OD1	2.15	0.75
2:B:151:ARG:HD2	2:B:153:THR:CG2	2.17	0.75
3:C:126:MET:HE1	3:C:223:LYS:CD	2.17	0.75
4:D:70:THR:CG2	4:D:86:LEU:HB2	2.16	0.75
4:D:216:GLU:OE1	4:D:216:GLU:C	2.30	0.75
6:F:79:HIS:O	6:F:80:GLY:C	2.29	0.75
12:L:80:MET:HG3	12:L:86:ILE:HG22	1.68	0.75
15:O:19:PRO:HG3	15:O:27:VAL:HG21	0.75	0.75
15:O:113:GLN:OE1	27:a:45:VAL:O	2.05	0.75
17:Q:48:GLN:O	17:Q:51:LEU:HG	1.87	0.75
18:R:84:TYR:O	18:R:85:VAL:CG2	2.35	0.75
19:S:82:TRP:HA	19:S:87:GLN:HE22	1.52	0.75
21:U:19:ARG:O	21:U:116:ILE:O	2.04	0.75
21:U:108:PRO:O	21:U:109:GLY:C	2.30	0.75
22:V:40:ASP:O	22:V:42:VAL:HG23	1.87	0.75
25:Y:33:ALA:C	25:Y:34:THR:OG1	2.28	0.75
25:Y:102:THR:HG21	25:Y:107:ARG:CZ	2.12	0.75
25:Y:111:LYS:HZ3	25:Y:115:LYS:NZ	1.85	0.75
33:g:149:GLU:OE2	33:g:149:GLU:C	2.29	0.75
34:i:182:C:H2'	34:i:183:G:O4'	1.87	0.75
34:i:1429:C:O2'	34:i:1430:C:H5'	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:141:ASN:HD21	22:V:29:HIS:HB3	1.49	0.74
3:C:192:ALA:O	3:C:195:PRO:HG2	1.87	0.74
4:D:12:VAL:CG1	30:d:36:LEU:CG	2.65	0.74
6:F:20:PHE:C	6:F:22:LYS:N	2.40	0.74
8:H:32:MET:O	8:H:33:ASN:CG	2.30	0.74
12:L:17:PHE:CD1	12:L:18:GLN:N	2.54	0.74
13:M:12:MET:O	13:M:13:ASP:OD1	2.05	0.74
13:M:13:ASP:C	13:M:16:THR:CB	2.49	0.74
15:O:31:CYS:SG	15:O:93:LEU:CB	2.75	0.74
16:P:46:SER:O	16:P:49:LEU:CG	2.35	0.74
19:S:34:LYS:HB3	19:S:103:LEU:CG	2.11	0.74
19:S:111:LEU:CD2	19:S:125:HIS:CE1	2.71	0.74
21:U:66:ARG:NH2	21:U:75:LYS:HA	2.02	0.74
29:c:67:ARG:CA	29:c:68:LEU:HD23	2.16	0.74
33:g:17:TRP:N	33:g:36:ARG:HG3	2.03	0.74
33:g:282:GLU:O	33:g:283:PRO:C	2.29	0.74
33:g:298:LEU:CG	33:g:310:TRP:HB2	2.16	0.74
34:i:1750:C:H2'	34:i:1751:G:N7	2.01	0.74
3:C:241:TRP:CE2	23:W:68:ARG:CD	2.70	0.74
7:G:71:GLY:HA2	7:G:98:ARG:NH2	2.02	0.74
8:H:11:PRO:HG2	8:H:12:ASN:N	2.03	0.74
9:I:8:TRP:HZ3	9:I:20:PRO:HA	1.51	0.74
10:J:16:PRO:HD3	10:J:44:TRP:CE2	2.22	0.74
10:J:17:ARG:HG2	10:J:18:ARG:HD3	0.75	0.74
10:J:155:LYS:HE3	10:J:156:HIS:CE1	2.22	0.74
14:N:23:PRO:HD2	14:N:26:LEU:CD2	2.16	0.74
19:S:39:ARG:NH2	20:T:38:LYS:HG2	2.02	0.74
19:S:121:ARG:HG2	19:S:131:VAL:CG1	2.17	0.74
21:U:97:ILE:CG2	21:U:101:ILE:HD11	2.17	0.74
25:Y:7:ILE:HD12	25:Y:43:LYS:HB3	1.66	0.74
27:a:101:PHE:O	27:a:103:PRO:HD3	1.86	0.74
1:A:52:LYS:HB3	1:A:52:LYS:HZ1	1.49	0.74
1:A:154:LEU:HD12	22:V:63:GLY:CA	2.15	0.74
3:C:55:VAL:CB	3:C:82:PHE:HE2	1.92	0.74
4:D:123:LEU:HD11	4:D:154:ASP:HB2	1.69	0.74
4:D:158:ILE:HD13	4:D:189:MET:SD	2.23	0.74
4:D:200:PRO:O	4:D:201:LYS:CB	2.34	0.74
5:E:43:PRO:CD	5:E:46:ILE:HD12	2.16	0.74
7:G:32:MET:SD	7:G:100:CYS:O	2.46	0.74
15:O:16:SER:O	15:O:88:LEU:O	2.06	0.74
16:P:5:GLU:H	16:P:10:ARG:HH11	1.35	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:109:GLY:O	21:U:110:VAL:HG22	1.86	0.74
25:Y:29:HIS:HD1	25:Y:67:GLY:HA2	1.52	0.74
33:g:43:TRP:CZ3	33:g:55:PRO:HD3	2.22	0.74
33:g:181:ASN:O	33:g:181:ASN:OD1	2.03	0.74
33:g:248:LEU:C	33:g:259:TRP:CZ3	2.64	0.74
33:g:282:GLU:OE2	33:g:284:PRO:HD3	1.87	0.74
34:i:181:A:C8	34:i:182:C:N4	2.55	0.74
2:B:31:TYR:HD1	2:B:94:LYS:CA	1.99	0.74
3:C:181:ILE:HB	3:C:208:TYR:HB2	1.67	0.74
3:C:262:HIS:CG	3:C:263:THR:H	2.02	0.74
6:F:14:THR:OG1	17:Q:56:LEU:HB3	1.71	0.74
6:F:14:THR:HG23	6:F:15:PRO:CD	2.16	0.74
8:H:6:ALA:O	8:H:10:LYS:HG3	1.85	0.74
8:H:106:ARG:HD3	34:i:857:A:C6	2.21	0.74
10:J:89:GLU:HB3	10:J:92:MET:SD	2.26	0.74
11:K:83:LEU:O	11:K:84:HIS:CB	2.34	0.74
16:P:10:ARG:HE	16:P:11:THR:HB	1.52	0.74
18:R:13:ALA:HB1	18:R:54:VAL:HG22	1.67	0.74
20:T:87:VAL:HG21	34:i:1660:G:C2	2.23	0.74
29:c:10:LYS:HD3	29:c:34:PHE:HE1	1.52	0.74
32:f:111:ASN:C	32:f:111:ASN:OD1	2.30	0.74
33:g:168:CYS:HB3	33:g:198:VAL:HG21	1.69	0.74
1:A:125:THR:CG2	1:A:175:TRP:HE1	1.99	0.74
1:A:147:LEU:HD22	1:A:163:CYS:SG	2.27	0.74
3:C:244:THR:O	3:C:245:VAL:C	2.28	0.74
4:D:193:ASP:O	4:D:194:PRO:O	2.06	0.74
5:E:87:MET:HE1	5:E:236:ILE:HD13	1.68	0.74
9:I:76:THR:CG2	9:I:77:ARG:N	2.51	0.74
13:M:38:ALA:O	13:M:42:LEU:HD23	1.87	0.74
13:M:124:ILE:CA	13:M:127:TYR:HD2	1.97	0.74
16:P:107:ILE:HB	16:P:111:MET:SD	2.26	0.74
17:Q:112:LEU:CD1	17:Q:120:LEU:HD21	2.16	0.74
18:R:24:LEU:HD12	18:R:58:MET:HE3	1.68	0.74
20:T:143:LYS:CD	20:T:144:LYS:H	1.95	0.74
23:W:90:GLN:CA	23:W:102:ILE:CD1	2.64	0.74
28:b:2:PRO:C	28:b:3:LEU:CD2	2.59	0.74
31:e:80:LEU:O	31:e:83:VAL:HG23	1.88	0.74
32:f:151:ASN:OD1	32:f:151:ASN:O	2.04	0.74
33:g:48:ASP:O	33:g:49:GLU:CD	2.29	0.74
3:C:63:LEU:HB3	3:C:67:TYR:CZ	2.23	0.74
3:C:167:CYS:SG	3:C:168:LYS:N	2.58	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:188:ILE:HG22	4:D:190:LEU:HD22	1.68	0.74
8:H:80:VAL:HA	8:H:83:LEU:CD2	2.17	0.74
8:H:85:LYS:C	8:H:85:LYS:CD	2.51	0.74
8:H:135:PHE:HD2	8:H:136:PRO:HD3	1.51	0.74
10:J:37:LEU:HD23	10:J:43:VAL:HG23	1.70	0.74
13:M:67:ALA:HB2	32:f:108:VAL:HG21	1.67	0.74
17:Q:50:LYS:HZ3	17:Q:117:ARG:HH11	1.33	0.74
24:X:105:PHE:CD2	24:X:119:ARG:HA	2.21	0.74
25:Y:62:THR:HA	25:Y:69:THR:HG22	1.68	0.74
5:E:122:LYS:HG2	5:E:164:LEU:HD21	1.70	0.74
6:F:45:TYR:N	6:F:45:TYR:HD1	1.85	0.74
6:F:102:LEU:HD13	26:Z:110:THR:CG2	2.17	0.74
7:G:77:LEU:O	7:G:92:ARG:HG3	1.86	0.74
9:I:104:ILE:HG13	9:I:105:ASP:H	1.52	0.74
9:I:157:LYS:CB	12:L:22:ARG:CZ	2.42	0.74
10:J:169:ARG:HB3	10:J:175:ARG:HH11	1.53	0.74
12:L:17:PHE:CD1	12:L:18:GLN:HB2	2.21	0.74
15:O:41:PHE:CD1	15:O:57:THR:HG22	2.23	0.74
17:Q:135:PRO:HD2	17:Q:141:TYR:CD1	2.21	0.74
19:S:8:LYS:C	26:Z:49:LEU:CD2	2.61	0.74
19:S:33:ILE:O	19:S:36:VAL:HG13	1.85	0.74
20:T:75:MET:O	20:T:78:ILE:HG22	1.87	0.74
21:U:41:ARG:O	21:U:45:GLU:CB	2.36	0.74
24:X:56:GLY:O	31:e:76:VAL:CG1	2.35	0.74
24:X:125:VAL:C	24:X:128:VAL:H	1.94	0.74
25:Y:9:THR:HB	25:Y:23:MET:HG3	1.69	0.74
33:g:54:ILE:HG23	33:g:55:PRO:HD2	1.68	0.74
33:g:162:ASN:HD21	33:g:163:PRO:HD2	1.53	0.74
33:g:228:TYR:OH	33:g:261:LEU:HD12	1.87	0.74
7:G:183:ARG:CZ	34:i:307:G:N7	2.51	0.74
8:H:106:ARG:HD3	34:i:857:A:C5	2.22	0.74
14:N:53:ILE:HD13	28:b:52:THR:CG2	2.11	0.74
15:O:64:ALA:HB1	15:O:66:ARG:HE	1.53	0.74
16:P:49:LEU:CD1	16:P:51:ARG:NH2	2.51	0.74
16:P:128:HIS:HE1	34:i:1516:C:H1'	1.28	0.74
17:Q:19:ALA:HB2	17:Q:75:GLY:HA3	1.68	0.74
21:U:19:ARG:HG3	21:U:92:HIS:ND1	2.02	0.74
34:i:835:C:H2'	34:i:837:G:C4'	2.17	0.74
34:i:1276:G:H1	34:i:1313:U:H3	1.34	0.74
1:A:57:LYS:NZ	22:V:70:LEU:CG	2.50	0.74
1:A:174:MET:O	1:A:178:LEU:HG	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:104:ASP:OD1	2:B:105:LEU:N	2.21	0.74
3:C:234:SER:O	22:V:23:ILE:HD13	1.85	0.74
4:D:97:CYS:C	4:D:99:ILE:N	2.45	0.74
7:G:32:MET:O	7:G:33:ALA:HB3	1.86	0.74
7:G:187:HIS:HE2	34:i:306:C:H5	1.33	0.74
8:H:146:VAL:HB	23:W:42:MET:HE1	1.69	0.74
9:I:36:THR:HG21	9:I:179:PRO:HB2	1.68	0.74
10:J:114:VAL:CG1	10:J:120:ALA:HB2	2.13	0.74
10:J:131:ARG:HH11	10:J:143:ASN:HD21	1.36	0.74
12:L:80:MET:CE	12:L:120:VAL:HG12	2.18	0.74
12:L:95:TYR:HA	12:L:102:PHE:CG	2.22	0.74
15:O:19:PRO:HG3	15:O:27:VAL:CG1	2.17	0.74
19:S:42:HIS:CB	20:T:45:LEU:HD11	2.17	0.74
20:T:31:PRO:HB3	20:T:33:TRP:CZ3	2.22	0.74
21:U:47:ASN:CG	21:U:47:ASN:O	2.29	0.74
21:U:59:LYS:CB	21:U:84:ILE:HG22	2.12	0.74
25:Y:7:ILE:CD1	25:Y:43:LYS:HD3	2.17	0.74
25:Y:99:LYS:O	25:Y:99:LYS:HG2	1.86	0.74
2:B:113:MET:SD	2:B:211:PHE:CZ	2.79	0.74
3:C:142:LEU:C	3:C:145:LEU:CD2	2.59	0.74
4:D:53:THR:HG22	4:D:91:VAL:HG23	1.68	0.74
6:F:33:ILE:HD13	29:c:35:MET:HE3	1.68	0.74
9:I:182:CYS:SG	34:i:296:U:C5	2.81	0.74
10:J:37:LEU:CG	10:J:42:GLU:HB2	2.13	0.74
12:L:71:ARG:CD	12:L:73:LEU:CD2	2.41	0.74
12:L:151:THR:O	12:L:153:LYS:CD	2.33	0.74
14:N:24:THR:CG2	28:b:84:HIS:NE2	2.50	0.74
15:O:44:VAL:CG1	15:O:53:ILE:HD11	2.18	0.74
18:R:44:LYS:CG	18:R:47:ARG:NH2	2.51	0.74
20:T:111:LYS:HB2	20:T:126:GLN:NE2	2.03	0.74
21:U:50:VAL:CG2	21:U:52:GLY:CA	2.58	0.74
23:W:42:MET:HE3	23:W:50:PHE:HD2	1.47	0.74
23:W:53:ILE:CG2	28:b:25:VAL:CG2	2.66	0.74
25:Y:51:THR:HB	25:Y:52:PRO:CD	2.14	0.74
31:e:123:PHE:C	31:e:125:LYS:H	1.95	0.74
33:g:306:LEU:HD22	33:g:308:ARG:HG3	1.67	0.74
34:i:1055:G:N1	34:i:1824:U:OP1	2.20	0.74
2:B:49:VAL:HG22	2:B:65:ARG:CZ	2.18	0.73
3:C:51:LEU:C	3:C:51:LEU:CD2	2.61	0.73
5:E:151:ASP:HB3	7:G:212:LEU:HD21	1.68	0.73
6:F:204:ARG:HH12	29:c:59:LEU:CB	2.01	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:9:VAL:HG13	8:H:44:ASN:OD1	1.86	0.73
10:J:46:VAL:HG11	10:J:102:ILE:HG23	1.69	0.73
19:S:34:LYS:C	19:S:103:LEU:CD2	2.61	0.73
19:S:58:GLU:O	19:S:59:LEU:CD1	2.32	0.73
22:V:19:ALA:CB	22:V:59:ILE:HD13	2.17	0.73
31:e:127:LYS:C	31:e:127:LYS:HD3	2.11	0.73
33:g:12:LYS:HD2	33:g:13:GLY:N	2.03	0.73
1:A:45:GLY:O	1:A:46:ILE:CD1	2.36	0.73
4:D:40:ARG:CZ	21:U:107:GLU:OE2	2.36	0.73
5:E:87:MET:HE2	5:E:182:MET:HE1	1.68	0.73
9:I:157:LYS:HB2	12:L:22:ARG:HD3	0.82	0.73
14:N:92:ILE:O	14:N:96:VAL:HG23	1.88	0.73
16:P:49:LEU:C	16:P:51:ARG:N	2.45	0.73
16:P:53:GLN:HE21	16:P:80:LEU:HD22	1.52	0.73
16:P:127:LYS:NZ	16:P:128:HIS:N	2.33	0.73
17:Q:6:PRO:O	17:Q:6:PRO:CD	2.28	0.73
17:Q:39:LEU:O	17:Q:42:ILE:HD11	1.88	0.73
21:U:97:ILE:CG2	21:U:101:ILE:HD12	2.18	0.73
22:V:40:ASP:CB	22:V:47:ASN:HD21	1.98	0.73
23:W:6:VAL:HG12	23:W:34:ILE:HD11	1.68	0.73
23:W:11:LEU:CD1	23:W:74:VAL:HB	2.17	0.73
24:X:52:LEU:HG	24:X:71:ARG:O	1.88	0.73
24:X:126:ALA:C	24:X:128:VAL:N	2.40	0.73
25:Y:13:MET:HE3	25:Y:14:THR:CA	2.18	0.73
26:Z:103:HIS:O	26:Z:105:ALA:N	2.21	0.73
31:e:115:ARG:O	31:e:119:VAL:CG1	2.33	0.73
33:g:12:LYS:HD2	33:g:13:GLY:HA2	0.75	0.73
1:A:66:VAL:HG11	1:A:186:ARG:CB	2.17	0.73
1:A:110:ASN:CA	34:i:1347:G:O3'	2.34	0.73
1:A:158:ASP:HB3	22:V:65:SER:HB2	1.68	0.73
2:B:225:LEU:O	2:B:229:MET:HG2	1.87	0.73
3:C:154:TYR:CZ	3:C:162:PRO:HD3	2.23	0.73
3:C:156:GLY:HA2	23:W:98:GLN:NE2	2.03	0.73
5:E:229:GLY:CA	5:E:235:TRP:CD1	2.71	0.73
9:I:142:SER:CB	9:I:143:LYS:HZ2	2.01	0.73
10:J:124:HIS:NE2	34:i:516:A:C5'	2.44	0.73
12:L:6:THR:O	12:L:7:GLU:O	2.06	0.73
13:M:44:LYS:NZ	32:f:127:GLY:HA3	2.03	0.73
13:M:85:LEU:CA	13:M:88:TRP:CE3	2.67	0.73
14:N:54:LEU:CB	14:N:60:VAL:HG21	2.18	0.73
16:P:74:GLU:O	16:P:75:VAL:HB	1.86	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:110:GLU:H	16:P:110:GLU:CD	1.94	0.73
17:Q:108:ILE:HA	17:Q:111:ILE:HD12	1.70	0.73
17:Q:130:LYS:HD2	17:Q:135:PRO:O	1.88	0.73
20:T:30:VAL:O	20:T:31:PRO:C	2.29	0.73
20:T:124:THR:CG2	20:T:127:GLY:H	2.02	0.73
25:Y:111:LYS:NZ	25:Y:115:LYS:HZ1	1.86	0.73
33:g:76:GLN:NE2	33:g:76:GLN:HA	2.03	0.73
34:i:893:U:O2'	34:i:894:U:O4'	2.06	0.73
3:C:154:TYR:CZ	3:C:162:PRO:CD	2.71	0.73
4:D:74:GLN:HB2	4:D:84:VAL:CG1	2.19	0.73
5:E:92:ILE:CB	5:E:97:GLU:OE1	2.34	0.73
7:G:93:LYS:HD3	7:G:95:LYS:HD2	1.70	0.73
8:H:23:ILE:CD1	8:H:27:LEU:HD23	2.12	0.73
10:J:21:GLU:O	10:J:22:LYS:C	2.31	0.73
10:J:50:LEU:HD22	10:J:54:ARG:HG3	1.68	0.73
11:K:14:LEU:CD2	11:K:35:LEU:HD21	1.96	0.73
11:K:47:LYS:O	11:K:50:GLN:HG2	1.88	0.73
12:L:47:PRO:HG2	12:L:116:CYS:SG	2.27	0.73
16:P:69:PRO:HD2	16:P:70:MET:H	1.53	0.73
17:Q:92:LEU:HG	17:Q:96:TYR:CE2	2.23	0.73
30:d:7:TYR:O	30:d:8:TRP:HB2	1.85	0.73
31:e:80:LEU:O	31:e:82:ARG:N	2.21	0.73
33:g:306:LEU:HD23	33:g:307:VAL:N	2.04	0.73
1:A:180:ARG:NH1	1:A:184:ARG:NH1	2.36	0.73
4:D:2:ALA:C	4:D:4:GLN:H	1.94	0.73
4:D:10:LYS:CE	4:D:14:ASP:OD2	2.35	0.73
5:E:125:LYS:HB3	5:E:226:PHE:CE1	2.23	0.73
7:G:184:VAL:CG2	34:i:306:C:OP1	2.37	0.73
8:H:66:VAL:HG22	8:H:96:ALA:HB1	1.70	0.73
10:J:82:VAL:HG11	10:J:92:MET:HE2	1.70	0.73
10:J:87:LEU:HD11	10:J:91:LYS:HB2	1.70	0.73
11:K:98:ARG:HG2	11:K:98:ARG:NH1	1.92	0.73
12:L:147:LYS:HG3	12:L:148:ALA:CB	2.17	0.73
14:N:139:TRP:CE3	14:N:140:LYS:N	2.57	0.73
15:O:113:GLN:CD	27:a:46:GLU:OE2	2.32	0.73
22:V:31:SER:O	22:V:32:ILE:HG13	1.87	0.73
22:V:45:ARG:O	22:V:46:PHE:C	2.30	0.73
31:e:120:VAL:N	31:e:121:PRO:CD	2.36	0.73
32:f:103:LEU:O	32:f:104:LYS:C	2.29	0.73
33:g:201:SER:CB	33:g:202:PRO:CD	2.57	0.73
33:g:219:TRP:CH2	33:g:226:HIS:HD2	2.07	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:31:ILE:C	35:l:48:GLN:O	2.32	0.73
3:C:222:ALA:O	3:C:225:THR:HG22	1.89	0.73
4:D:16:ILE:CD1	30:d:22:ARG:NH2	2.42	0.73
5:E:180:LEU:HD22	5:E:181:CYS:N	2.04	0.73
5:E:180:LEU:HD13	5:E:228:ILE:HD11	1.70	0.73
7:G:63:MET:HA	7:G:98:ARG:O	1.88	0.73
7:G:180:VAL:C	7:G:181:THR:HG22	2.12	0.73
8:H:164:ASN:HA	8:H:167:GLU:HG3	1.71	0.73
10:J:30:LYS:CA	31:e:112:TYR:HE1	1.93	0.73
10:J:147:PHE:O	10:J:148:ILE:HB	1.87	0.73
10:J:172:ARG:NH2	34:i:552:U:C5	2.57	0.73
14:N:28:LEU:O	14:N:29:THR:HG22	1.88	0.73
15:O:30:VAL:HG23	15:O:32:HIS:CD2	2.22	0.73
15:O:97:LEU:HD11	15:O:112:ALA:HB1	1.70	0.73
16:P:49:LEU:C	16:P:51:ARG:CD	2.61	0.73
16:P:108:LYS:O	16:P:111:MET:CG	2.34	0.73
16:P:128:HIS:NE2	34:i:1516:C:H1'	2.04	0.73
17:Q:50:LYS:HA	17:Q:53:GLU:OE2	1.87	0.73
25:Y:9:THR:CB	25:Y:48:TYR:HH	2.01	0.73
26:Z:92:LEU:HD11	26:Z:109:TYR:HE1	1.52	0.73
32:f:102:VAL:HG12	32:f:103:LEU:CB	2.17	0.73
1:A:32:PHE:HE1	1:A:33:GLN:HE21	0.84	0.73
1:A:58:LEU:HD21	1:A:178:LEU:HD23	0.74	0.73
2:B:52:THR:HG22	2:B:58:ALA:HB3	1.71	0.73
7:G:162:LEU:HD23	7:G:172:LYS:NZ	2.03	0.73
7:G:183:ARG:CZ	34:i:307:G:C8	2.72	0.73
9:I:141:ARG:O	9:I:143:LYS:CB	2.36	0.73
10:J:28:GLU:OE1	10:J:40:LYS:NZ	2.20	0.73
15:O:106:LYS:NZ	27:a:69:VAL:HG13	2.03	0.73
19:S:8:LYS:C	26:Z:49:LEU:HD23	2.12	0.73
20:T:63:HIS:O	20:T:67:ARG:NE	2.22	0.73
21:U:62:ARG:HH12	21:U:64:THR:CG2	1.76	0.73
22:V:47:ASN:O	22:V:48:GLY:C	2.29	0.73
25:Y:18:LEU:HB2	25:Y:20:ARG:NH1	2.00	0.73
3:C:138:GLY:C	3:C:141:ILE:HG22	2.14	0.73
4:D:166:TYR:HD1	4:D:200:PRO:HB2	1.53	0.73
7:G:64:LYS:CD	7:G:64:LYS:O	2.33	0.73
8:H:9:VAL:HG12	8:H:44:ASN:CG	2.13	0.73
19:S:26:ILE:CD1	19:S:59:LEU:HD21	2.17	0.73
23:W:62:VAL:HB	28:b:8:LEU:CD2	2.03	0.73
26:Z:96:LEU:O	26:Z:112:ASN:CB	2.37	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:168:CYS:HB3	33:g:198:VAL:CG2	2.19	0.73
34:i:61:A:H2	34:i:326:A:C4	2.07	0.73
4:D:161:GLY:O	4:D:164:VAL:HG12	1.88	0.73
6:F:45:TYR:C	6:F:47:LYS:HE2	2.13	0.73
8:H:119:SER:O	8:H:120:ARG:NE	2.22	0.73
10:J:100:LEU:HD11	10:J:104:ASP:OD2	1.85	0.73
12:L:5:GLN:O	12:L:6:THR:C	2.31	0.73
13:M:35:ILE:HB	13:M:61:TYR:HE2	1.52	0.73
13:M:94:ILE:N	13:M:101:ARG:HD3	2.03	0.73
16:P:84:ILE:HG22	16:P:86:LEU:HD22	1.71	0.73
17:Q:98:LYS:HE3	17:Q:99:TYR:CZ	2.24	0.73
24:X:67:ARG:O	24:X:68:LYS:CG	2.32	0.73
29:c:15:THR:HG21	29:c:33:GLU:CG	2.16	0.73
1:A:193:HIS:ND1	1:A:194:PRO:CD	2.51	0.73
2:B:72:ALA:HA	2:B:79:VAL:HG23	1.61	0.73
3:C:149:PRO:CG	3:C:149:PRO:O	2.30	0.73
5:E:153:LEU:HD11	5:E:172:PHE:CZ	2.20	0.73
9:I:4:SER:O	9:I:6:ASP:N	2.22	0.73
10:J:100:LEU:CG	10:J:101:LYS:H	2.01	0.73
14:N:25:TRP:CD1	28:b:83:GLN:CB	2.72	0.73
14:N:92:ILE:HG22	14:N:150:VAL:HG21	1.69	0.73
16:P:108:LYS:HB3	16:P:110:GLU:CD	2.13	0.73
17:Q:12:VAL:HG11	17:Q:90:LYS:HB2	1.70	0.73
21:U:61:LEU:CD2	30:d:34:TYR:CE2	2.36	0.73
23:W:15:ASN:ND2	23:W:19:LYS:HE3	2.03	0.73
28:b:36:LYS:HE3	28:b:43:ILE:HD11	1.71	0.73
28:b:84:HIS:CD2	28:b:84:HIS:N	2.55	0.73
33:g:124:SER:HB3	33:g:126:ASP:OD1	1.89	0.73
33:g:177:TRP:CZ3	33:g:184:LEU:HB3	2.24	0.73
34:i:445:A:HO2'	34:i:1730:A:C2'	2.02	0.73
1:A:109:THR:OG1	34:i:1348:G:H5'	1.88	0.72
1:A:149:ASN:OD1	1:A:150:THR:N	2.20	0.72
2:B:19:LYS:HZ3	2:B:19:LYS:CB	1.98	0.72
5:E:248:ILE:HD12	10:J:72:PHE:CZ	2.22	0.72
8:H:10:LYS:CE	8:H:16:PRO:C	2.62	0.72
10:J:127:ARG:NH1	10:J:145:PRO:HB3	2.03	0.72
11:K:83:LEU:HB2	11:K:85:LEU:CG	2.18	0.72
17:Q:78:VAL:HG13	17:Q:82:TYR:HE2	1.55	0.72
21:U:51:LYS:CB	21:U:90:ASP:HB2	2.18	0.72
21:U:82:MET:HE2	30:d:51:GLY:HA3	1.69	0.72
26:Z:103:HIS:HD2	26:Z:105:ALA:N	1.87	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:115:ARG:N	31:e:119:VAL:HG21	2.02	0.72
33:g:2:THR:C	33:g:3:GLU:HG2	2.13	0.72
33:g:71:ILE:HG22	33:g:72:SER:O	1.89	0.72
34:i:1055:G:C4	34:i:1824:U:OP1	2.42	0.72
34:i:1596:A:H5'	34:i:1597:U:C5	2.24	0.72
1:A:145:ILE:CD1	1:A:159:ILE:CG2	2.55	0.72
2:B:67:PHE:CE1	15:O:47:LEU:CB	2.72	0.72
2:B:105:LEU:C	2:B:106:THR:HG23	2.14	0.72
2:B:126:ASP:OD1	2:B:136:HIS:CG	2.41	0.72
7:G:142:ARG:CD	7:G:147:LEU:HB2	2.07	0.72
7:G:164:LYS:C	7:G:166:GLY:N	2.44	0.72
9:I:54:LYS:HG2	9:I:181:GLN:O	1.89	0.72
10:J:100:LEU:CG	10:J:101:LYS:N	2.50	0.72
11:K:96:ARG:HG3	11:K:97:SER:N	2.00	0.72
14:N:27:LYS:H	14:N:27:LYS:CD	1.96	0.72
15:O:22:ALA:C	15:O:24:GLY:H	1.93	0.72
16:P:44:ARG:HH22	16:P:84:ILE:H	1.38	0.72
16:P:119:PHE:HA	19:S:119:ALA:HA	1.71	0.72
21:U:46:LYS:HZ1	21:U:97:ILE:HG12	1.52	0.72
25:Y:7:ILE:HD11	25:Y:43:LYS:HB3	1.71	0.72
33:g:64:HIS:CE1	33:g:65:PHE:CD2	2.77	0.72
33:g:286:CYS:CB	33:g:302:TYR:CE2	2.70	0.72
34:i:1207:G:O6	34:i:1684:C:C4	2.14	0.72
2:B:25:PHE:HE1	15:O:53:ILE:HG22	1.54	0.72
2:B:25:PHE:CE1	15:O:88:LEU:HD13	2.24	0.72
2:B:139:CYS:CB	2:B:168:MET:SD	2.77	0.72
5:E:18:TRP:CE3	5:E:46:ILE:HD11	2.24	0.72
5:E:175:PHE:C	5:E:175:PHE:CD2	2.67	0.72
6:F:49:LEU:CD1	6:F:50:PRO:HD2	2.16	0.72
6:F:86:LYS:O	6:F:89:THR:HG22	1.88	0.72
8:H:143:ARG:HA	23:W:52:ILE:O	1.89	0.72
9:I:4:SER:O	9:I:5:ARG:C	2.32	0.72
10:J:138:ARG:O	10:J:138:ARG:CG	2.36	0.72
12:L:5:GLN:NE2	12:L:10:TYR:CD1	2.52	0.72
15:O:119:LEU:O	15:O:122:SER:OG	2.07	0.72
17:Q:19:ALA:HB2	17:Q:75:GLY:N	2.03	0.72
19:S:111:LEU:HD21	19:S:125:HIS:CE1	2.24	0.72
20:T:30:VAL:O	20:T:32:GLU:N	2.22	0.72
25:Y:54:VAL:O	25:Y:75:ILE:CA	2.37	0.72
25:Y:56:PHE:CB	25:Y:58:PHE:HE2	2.02	0.72
33:g:98:THR:O	33:g:99:ARG:CD	2.38	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:143:PRO:CB	22:V:34:MET:SD	2.76	0.72
3:C:154:TYR:HE1	3:C:162:PRO:HG3	1.46	0.72
5:E:191:ARG:HD3	5:E:245:ARG:HB2	1.71	0.72
8:H:14:GLU:CD	8:H:16:PRO:HB2	2.13	0.72
8:H:71:SER:O	8:H:74:LYS:HB2	1.88	0.72
9:I:48:VAL:CG2	9:I:52:ASN:HB3	2.19	0.72
9:I:82:VAL:HG11	9:I:202:ILE:HD13	1.69	0.72
16:P:125:PRO:O	16:P:126:VAL:CB	2.38	0.72
19:S:42:HIS:CD2	20:T:45:LEU:HG	2.23	0.72
1:A:169:HIS:HB3	1:A:203:PHE:CZ	2.23	0.72
3:C:50:LYS:CD	3:C:251:TYR:CD1	2.38	0.72
3:C:54:LEU:HD21	3:C:254:PHE:HB3	1.71	0.72
3:C:123:GLY:C	3:C:226:PHE:CZ	2.67	0.72
5:E:98:ASN:HD21	5:E:119:ALA:CA	2.02	0.72
10:J:180:LYS:O	10:J:180:LYS:HD2	1.88	0.72
13:M:12:MET:C	13:M:13:ASP:OD1	2.33	0.72
15:O:99:ALA:N	15:O:133:THR:CG2	2.39	0.72
19:S:106:LYS:HD2	19:S:109:GLU:OE1	1.90	0.72
23:W:14:ILE:HG13	23:W:15:ASN:H	1.54	0.72
24:X:108:LYS:CB	24:X:110:HIS:CE1	2.72	0.72
25:Y:102:THR:HB	25:Y:104:ARG:N	2.05	0.72
33:g:172:LYS:CE	33:g:192:THR:CB	2.67	0.72
35:l:34:ARG:HA	35:l:111:HIS:O	1.90	0.72
4:D:192:TRP:CE3	4:D:196:GLY:CA	2.65	0.72
9:I:144:LYS:C	9:I:145:ILE:HG23	2.15	0.72
10:J:101:LYS:HG2	10:J:103:GLU:OE1	1.89	0.72
10:J:134:HIS:HE1	10:J:164:PRO:HD3	1.53	0.72
15:O:64:ALA:HB1	15:O:66:ARG:NE	2.04	0.72
18:R:88:VAL:O	18:R:88:VAL:HG13	1.89	0.72
21:U:50:VAL:CG2	21:U:52:GLY:N	2.51	0.72
24:X:60:LYS:CG	24:X:116:PRO:HG3	2.19	0.72
24:X:89:GLY:O	24:X:92:ASN:HB2	1.89	0.72
25:Y:56:PHE:CD2	25:Y:86:GLU:OE2	2.43	0.72
25:Y:92:ALA:HA	25:Y:97:TYR:CB	2.19	0.72
29:c:5:ARG:O	29:c:6:VAL:CG2	2.37	0.72
33:g:284:PRO:O	33:g:284:PRO:HG2	1.88	0.72
34:i:1736:U:O4	34:i:1787:A:C2	2.43	0.72
1:A:154:LEU:HD22	1:A:157:VAL:HG23	1.72	0.72
5:E:23:LEU:O	5:E:24:THR:OG1	2.08	0.72
7:G:24:LEU:O	7:G:26:THR:N	2.23	0.72
10:J:170:PRO:CA	10:J:174:LYS:HZ3	2.02	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:85:ARG:HH22	17:Q:117:ARG:CD	2.03	0.72
22:V:78:ILE:HG23	22:V:79:VAL:N	2.04	0.72
23:W:36:ARG:CD	23:W:110:ILE:HD12	2.13	0.72
23:W:90:GLN:HB2	23:W:94:LEU:HD12	1.71	0.72
25:Y:91:LEU:C	25:Y:97:TYR:HB3	2.14	0.72
28:b:5:LYS:HZ2	28:b:5:LYS:CB	2.02	0.72
33:g:2:THR:CG2	33:g:3:GLU:HG2	2.20	0.72
33:g:172:LYS:NZ	33:g:192:THR:CG2	2.53	0.72
34:i:1516:C:OP2	34:i:1516:C:H6	1.72	0.72
34:i:1741:U:O2'	34:i:1742:C:H5'	1.90	0.72
1:A:127:PRO:HG3	1:A:152:SER:HB3	1.72	0.72
2:B:30:TRP:NE1	15:O:17:LEU:HD21	2.05	0.72
2:B:72:ALA:N	2:B:79:VAL:HG23	2.03	0.72
3:C:131:GLU:O	3:C:134:THR:HG22	1.90	0.72
3:C:195:PRO:HG3	3:C:221:PHE:CZ	2.23	0.72
4:D:53:THR:CG2	4:D:91:VAL:HB	2.19	0.72
5:E:229:GLY:CA	5:E:235:TRP:HD1	2.03	0.72
6:F:142:SER:CB	29:c:50:VAL:HG22	2.19	0.72
10:J:162:ARG:O	10:J:162:ARG:HG2	1.88	0.72
14:N:6:ALA:HB1	14:N:7:PRO:HD3	1.71	0.72
15:O:72:TYR:HE1	15:O:76:LEU:HD11	1.54	0.72
17:Q:58:LEU:HD21	17:Q:111:ILE:HD12	1.70	0.72
21:U:56:MET:CE	21:U:88:LEU:HD23	2.18	0.72
23:W:22:LYS:O	23:W:65:LEU:HD11	1.89	0.72
25:Y:78:SER:HB3	25:Y:81:TYR:HD2	0.57	0.72
33:g:261:LEU:CA	33:g:264:LYS:HE3	2.18	0.72
33:g:298:LEU:CD1	33:g:310:TRP:CE3	2.63	0.72
34:i:181:A:O4'	34:i:182:C:H5'	1.90	0.72
1:A:28:THR:HG22	1:A:46:ILE:HD13	1.72	0.72
2:B:77:ASP:O	2:B:79:VAL:CG2	2.27	0.72
4:D:16:ILE:HG21	30:d:22:ARG:CZ	2.20	0.72
5:E:92:ILE:HG22	5:E:95:THR:OG1	1.89	0.72
6:F:14:THR:CG2	17:Q:56:LEU:CD1	2.56	0.72
6:F:166:ILE:H	6:F:166:ILE:HD12	1.54	0.72
9:I:106:SER:OG	9:I:171:LEU:HG	1.90	0.72
9:I:112:TRP:CZ3	9:I:117:TYR:HE2	2.08	0.72
10:J:15:THR:HG22	10:J:44:TRP:HE3	1.48	0.72
14:N:26:LEU:HD21	14:N:66:VAL:CG2	2.20	0.72
16:P:62:LYS:CG	16:P:65:LYS:HE2	2.18	0.72
16:P:121:ILE:HG22	19:S:120:HIS:HA	1.72	0.72
21:U:82:MET:HE2	30:d:51:GLY:CA	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:109:GLY:C	21:U:110:VAL:HG23	2.13	0.72
25:Y:102:THR:CB	25:Y:107:ARG:HE	2.02	0.72
29:c:11:LEU:CB	29:c:35:MET:HE2	2.20	0.72
33:g:2:THR:O	33:g:3:GLU:CG	2.37	0.72
33:g:118:ARG:HA	33:g:118:ARG:NE	2.03	0.72
1:A:39:TYR:CB	1:A:50:ASN:HD21	2.01	0.72
2:B:38:MET:CE	2:B:186:ASN:HD21	1.75	0.72
4:D:141:LYS:HD2	4:D:179:GLN:CD	2.15	0.72
8:H:10:LYS:HB3	8:H:20:GLU:OE1	1.90	0.72
8:H:157:HIS:NE2	8:H:188:GLU:OE1	2.23	0.72
10:J:66:LYS:CA	10:J:71:LEU:HD11	2.15	0.72
10:J:110:LEU:HB3	10:J:130:ILE:HD13	1.72	0.72
15:O:32:HIS:HE1	15:O:96:LYS:HD2	1.53	0.72
16:P:53:GLN:HE21	16:P:80:LEU:CD2	2.02	0.72
16:P:93:MET:SD	16:P:106:GLU:CB	2.77	0.72
18:R:17:ILE:HG22	18:R:69:ILE:CD1	2.04	0.72
19:S:52:LEU:HD12	19:S:53:THR:N	2.05	0.72
23:W:3:ARG:CZ	23:W:9:ASP:OD2	2.37	0.72
23:W:17:ALA:HB2	23:W:25:VAL:CG1	2.20	0.72
23:W:128:PHE:CZ	23:W:130:PHE:CE2	2.78	0.72
27:a:50:VAL:O	27:a:54:SER:N	2.22	0.72
30:d:30:LEU:HD23	30:d:38:MET:O	1.90	0.72
33:g:143:GLN:NE2	33:g:144:ASP:H	1.86	0.72
1:A:127:PRO:CG	1:A:152:SER:HB3	2.19	0.71
2:B:228:LEU:HD13	2:B:232:HIS:HD2	1.55	0.71
5:E:73:ASP:OD2	5:E:122:LYS:NZ	2.20	0.71
6:F:41:VAL:CG2	6:F:42:LYS:CD	2.64	0.71
8:H:32:MET:O	8:H:33:ASN:CB	2.38	0.71
10:J:84:ILE:HG13	10:J:86:VAL:HG23	1.72	0.71
10:J:178:ALA:O	10:J:182:GLN:CG	2.34	0.71
13:M:12:MET:CE	13:M:120:ALA:CB	2.61	0.71
13:M:86:GLY:CA	13:M:106:CYS:HB2	2.20	0.71
16:P:39:ALA:O	16:P:42:ARG:HG3	1.89	0.71
20:T:42:HIS:CE1	20:T:83:GLN:HB3	2.25	0.71
23:W:42:MET:CE	23:W:50:PHE:CE2	2.73	0.71
23:W:93:LEU:HG	23:W:93:LEU:O	1.88	0.71
23:W:101:PHE:HB2	23:W:129:PHE:CE1	2.25	0.71
23:W:128:PHE:CD1	23:W:129:PHE:N	2.58	0.71
24:X:142:ARG:CG	24:X:142:ARG:NH1	2.30	0.71
30:d:13:LYS:CD	30:d:14:PHE:CD2	2.67	0.71
3:C:241:TRP:CE2	23:W:68:ARG:HD3	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:176:LEU:O	4:D:177:LEU:HD13	1.90	0.71
5:E:124:CYS:HB2	5:E:162:ILE:HD11	1.71	0.71
6:F:35:LEU:HD12	6:F:117:ILE:HG23	1.72	0.71
11:K:62:PHE:HE1	11:K:67:PHE:CE2	2.07	0.71
14:N:5:HIS:CD2	14:N:121:ARG:HE	2.08	0.71
15:O:38:ASN:O	15:O:68:GLU:OE1	2.07	0.71
15:O:95:ILE:HD12	15:O:116:LEU:HD21	1.70	0.71
16:P:49:LEU:HA	16:P:51:ARG:CD	2.19	0.71
17:Q:85:ARG:NH1	17:Q:117:ARG:CB	2.51	0.71
18:R:100:PRO:HG2	18:R:119:VAL:CG2	2.16	0.71
32:f:85:TYR:O	32:f:86:THR:HG23	1.91	0.71
33:g:143:GLN:CG	33:g:144:ASP:HB2	2.19	0.71
33:g:280:LYS:O	33:g:281:ALA:C	2.33	0.71
34:i:927:C:O5'	34:i:927:C:C6	2.42	0.71
1:A:110:ASN:HA	34:i:1347:G:C5'	2.21	0.71
3:C:200:LEU:HD12	3:C:201:MET:SD	2.30	0.71
5:E:94:LYS:C	5:E:95:THR:HG23	2.15	0.71
7:G:184:VAL:HG23	34:i:306:C:OP1	1.90	0.71
8:H:31:GLU:OE2	8:H:41:ARG:NE	2.22	0.71
9:I:25:ARG:NE	9:I:27:TYR:CE2	2.57	0.71
10:J:37:LEU:HG	10:J:42:GLU:CB	2.20	0.71
10:J:164:PRO:HA	10:J:167:GLY:O	1.90	0.71
16:P:80:LEU:O	16:P:116:LEU:HD12	1.89	0.71
23:W:36:ARG:HD3	23:W:110:ILE:CD1	2.16	0.71
34:i:445:A:O2'	34:i:1730:A:O2'	2.05	0.71
34:i:683:G:N2	34:i:684:A:C2	2.58	0.71
1:A:42:LYS:NZ	18:R:102:THR:CG2	2.54	0.71
1:A:118:GLU:HB2	3:C:50:LYS:HZ3	1.55	0.71
4:D:59:LEU:HD12	4:D:60:GLY:C	2.14	0.71
4:D:212:GLU:HG3	18:R:19:LYS:HD2	1.72	0.71
5:E:36:HIS:O	5:E:41:CYS:SG	2.47	0.71
5:E:165:GLU:CA	5:E:165:GLU:OE2	2.29	0.71
6:F:204:ARG:NH1	29:c:59:LEU:HB3	2.04	0.71
7:G:85:ARG:CZ	25:Y:118:ARG:HE	2.03	0.71
8:H:148:LEU:O	8:H:148:LEU:HD23	1.89	0.71
10:J:84:ILE:HD12	10:J:86:VAL:HG21	1.70	0.71
10:J:138:ARG:HH12	10:J:156:HIS:CD2	2.05	0.71
11:K:38:LYS:O	11:K:39:ASN:HB2	1.90	0.71
11:K:83:LEU:CB	11:K:85:LEU:CG	2.68	0.71
15:O:16:SER:O	15:O:17:LEU:HB3	1.90	0.71
18:R:29:HIS:HE2	33:g:65:PHE:HZ	1.34	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:94:LYS:HD3	19:S:95:TYR:O	1.89	0.71
22:V:9:VAL:CG1	22:V:10:ASP:N	2.52	0.71
2:B:160:GLN:CD	2:B:205:TYR:CD1	2.67	0.71
3:C:84:GLY:HA2	3:C:87:LEU:CB	2.16	0.71
4:D:132:LYS:HB2	4:D:191:PRO:CD	2.20	0.71
7:G:227:GLN:O	7:G:230:LYS:HG3	1.90	0.71
9:I:70:GLU:HB3	9:I:72:CYS:SG	2.30	0.71
10:J:130:ILE:HG23	10:J:135:ILE:CD1	2.17	0.71
12:L:97:ARG:HG2	12:L:98:LYS:N	2.06	0.71
13:M:11:VAL:O	13:M:12:MET:CB	2.36	0.71
13:M:59:PRO:O	13:M:62:VAL:HG22	1.90	0.71
17:Q:112:LEU:HD13	17:Q:120:LEU:CD2	2.21	0.71
18:R:77:GLU:O	18:R:81:ARG:HG3	1.90	0.71
23:W:27:ILE:CG1	23:W:61:ILE:HB	2.19	0.71
31:e:119:VAL:CA	31:e:121:PRO:CD	2.66	0.71
33:g:116:ASP:O	33:g:117:ASN:HB2	1.89	0.71
34:i:194:C:H2'	34:i:195:C:C6	2.26	0.71
35:l:104:LYS:HB2	35:l:107:GLN:NE2	2.05	0.71
3:C:79:ILE:HD13	3:C:147:ILE:HD12	0.79	0.71
4:D:97:CYS:SG	4:D:99:ILE:HG13	2.29	0.71
5:E:2:ALA:O	5:E:3:ARG:HG2	1.90	0.71
6:F:18:LYS:HD2	17:Q:57:LEU:CD2	2.21	0.71
7:G:71:GLY:CA	7:G:98:ARG:NH2	2.54	0.71
8:H:140:VAL:O	14:N:18:TYR:CD2	2.43	0.71
8:H:146:VAL:HG23	23:W:50:PHE:CE1	2.21	0.71
9:I:148:LYS:O	9:I:152:ARG:HG3	1.90	0.71
11:K:36:ALA:C	11:K:38:LYS:H	1.95	0.71
12:L:40:ILE:CG2	12:L:44:PHE:HB2	2.21	0.71
16:P:44:ARG:HE	16:P:84:ILE:HD12	0.55	0.71
16:P:51:ARG:N	16:P:51:ARG:CD	2.50	0.71
17:Q:42:ILE:CG2	17:Q:51:LEU:HD21	2.20	0.71
20:T:42:HIS:CE1	20:T:93:SER:CA	2.74	0.71
20:T:77:LYS:CA	20:T:94:ARG:CG	2.68	0.71
23:W:3:ARG:C	23:W:4:MET:SD	2.74	0.71
24:X:54:LYS:HD2	24:X:91:LEU:HD12	1.72	0.71
35:l:38:ARG:HB3	35:l:42:LYS:HB3	1.71	0.71
1:A:111:GLN:HB3	3:C:48:VAL:HG11	1.73	0.71
1:A:123:VAL:HG22	1:A:145:ILE:HB	1.71	0.71
4:D:98:ALA:H	4:D:188:ILE:HD12	1.55	0.71
4:D:166:TYR:HD1	4:D:200:PRO:CB	2.02	0.71
7:G:184:VAL:HG23	34:i:306:C:P	2.30	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:15:PHE:HE2	16:P:110:GLU:HB3	1.55	0.71
22:V:18:SER:OG	22:V:72:LEU:HD13	1.90	0.71
25:Y:37:LYS:C	25:Y:40:ILE:HG22	2.15	0.71
33:g:277:THR:HG23	33:g:278:SER:N	2.02	0.71
34:i:181:A:C8	34:i:182:C:C5	2.78	0.71
34:i:1823:G:C2	34:i:1844:A:C2	2.77	0.71
2:B:195:LYS:HE2	2:B:195:LYS:HA	1.73	0.71
6:F:144:LEU:CD2	29:c:49:PRO:HB2	2.21	0.71
7:G:71:GLY:HA2	7:G:98:ARG:HH21	1.55	0.71
7:G:180:VAL:O	7:G:181:THR:CG2	2.30	0.71
8:H:65:PRO:C	8:H:67:PRO:HD2	2.16	0.71
8:H:122:LEU:HD12	8:H:123:THR:N	2.00	0.71
9:I:144:LYS:HG3	34:i:189:G:P	2.30	0.71
11:K:16:PHE:CE2	11:K:79:LEU:C	2.69	0.71
15:O:17:LEU:HG	15:O:18:GLY:H	1.55	0.71
16:P:41:GLN:CD	16:P:41:GLN:O	2.33	0.71
18:R:95:ILE:HA	18:R:114:LEU:HD13	1.73	0.71
18:R:101:ASP:O	18:R:105:MET:N	2.24	0.71
19:S:137:LYS:HG2	19:S:138:THR:CG2	2.17	0.71
20:T:30:VAL:O	20:T:30:VAL:CG2	2.30	0.71
20:T:77:LYS:HA	20:T:94:ARG:HA	1.71	0.71
20:T:110:LEU:O	20:T:111:LYS:HB2	1.90	0.71
23:W:20:ARG:HH22	34:i:1135:C:H1'	1.56	0.71
24:X:95:GLU:CD	24:X:140:ARG:HH22	1.96	0.71
29:c:46:VAL:HG11	29:c:50:VAL:CG2	2.21	0.71
33:g:76:GLN:HA	33:g:76:GLN:HE21	1.56	0.71
34:i:1057:U:N3	35:l:64:LYS:HE2	2.05	0.71
1:A:154:LEU:HD22	1:A:157:VAL:CG2	2.21	0.71
3:C:236:LEU:HD23	3:C:237:THR:O	1.90	0.71
5:E:11:ARG:O	5:E:12:VAL:CB	2.38	0.71
5:E:248:ILE:HD12	10:J:72:PHE:CD1	2.16	0.71
6:F:66:CYS:SG	6:F:67:PRO:HD2	2.31	0.71
24:X:2:GLY:O	24:X:3:LYS:CB	2.35	0.71
34:i:185:C:O2	34:i:210:G:O6	2.08	0.71
35:l:48:GLN:NE2	35:l:79:TYR:CZ	2.58	0.71
1:A:186:ARG:O	1:A:186:ARG:CZ	2.38	0.71
3:C:51:LEU:HD13	3:C:78:ILE:CD1	2.17	0.71
3:C:69:PHE:CZ	3:C:247:THR:OG1	1.93	0.71
3:C:123:GLY:HA2	3:C:226:PHE:CZ	2.24	0.71
4:D:162:ASP:CG	4:D:166:TYR:CE2	2.68	0.71
5:E:98:ASN:CG	5:E:119:ALA:HB2	2.15	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:112:HIS:NE2	5:E:237:SER:HB2	2.05	0.71
6:F:93:VAL:O	6:F:97:PHE:CE1	2.43	0.71
8:H:166:VAL:HG22	8:H:173:PHE:HE2	1.55	0.71
8:H:172:THR:O	8:H:176:VAL:HG23	1.91	0.71
10:J:114:VAL:HG13	10:J:119:LEU:O	1.90	0.71
14:N:55:ARG:HH22	28:b:51:GLN:NE2	1.88	0.71
15:O:30:VAL:HB	15:O:32:HIS:NE2	2.06	0.71
18:R:13:ALA:CB	18:R:54:VAL:CG2	2.68	0.71
18:R:90:ALA:CA	18:R:91:LEU:HD12	2.21	0.71
25:Y:18:LEU:HB3	25:Y:20:ARG:CZ	2.21	0.71
25:Y:54:VAL:O	25:Y:54:VAL:HG12	1.89	0.71
28:b:73:LEU:CD1	28:b:79:PHE:CD2	2.74	0.71
33:g:184:LEU:HD12	33:g:184:LEU:O	1.90	0.71
34:i:1055:G:H21	34:i:1824:U:H5'	1.56	0.71
1:A:158:ASP:HB3	22:V:65:SER:OG	1.91	0.70
2:B:83:LYS:HZ2	15:O:130:GLU:CD	1.96	0.70
3:C:238:PRO:HA	3:C:241:TRP:CD1	2.26	0.70
4:D:21:LEU:HD13	4:D:48:ILE:HD11	1.71	0.70
5:E:11:ARG:O	5:E:12:VAL:CG2	2.39	0.70
6:F:76:MET:CE	6:F:169:ILE:CG2	2.60	0.70
7:G:50:VAL:CG1	7:G:111:LEU:HD13	2.11	0.70
8:H:40:LEU:HD23	8:H:43:LEU:CG	2.21	0.70
10:J:87:LEU:HD11	10:J:91:LYS:HB3	1.72	0.70
15:O:52:THR:CG2	34:i:949:C:H4'	2.21	0.70
19:S:84:LEU:HD22	19:S:97:GLN:HB2	1.73	0.70
22:V:53:TYR:CZ	22:V:72:LEU:HB3	2.26	0.70
25:Y:29:HIS:NE2	25:Y:69:THR:HG23	2.06	0.70
1:A:32:PHE:CD1	1:A:33:GLN:HG2	2.26	0.70
1:A:118:GLU:CB	3:C:50:LYS:HZ3	1.90	0.70
2:B:209:ASP:O	2:B:210:VAL:CB	2.39	0.70
4:D:202:LYS:HB2	4:D:203:PRO:HD2	1.72	0.70
5:E:152:PRO:HG3	7:G:209:TYR:CE1	2.27	0.70
6:F:122:ARG:HE	6:F:193:LYS:NZ	1.75	0.70
7:G:78:SER:OG	7:G:81:HIS:CD2	2.44	0.70
9:I:142:SER:HB3	9:I:143:LYS:CG	2.20	0.70
10:J:138:ARG:CB	10:J:156:HIS:HB3	2.21	0.70
12:L:71:ARG:HD3	12:L:73:LEU:HD21	0.79	0.70
16:P:84:ILE:CD1	16:P:115:TYR:CE1	2.74	0.70
20:T:77:LYS:HG2	20:T:92:PHE:CZ	2.24	0.70
25:Y:93:ARG:O	25:Y:93:ARG:HD2	1.91	0.70
31:e:75:LYS:C	31:e:76:VAL:CG2	2.64	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:172:LYS:HE3	33:g:192:THR:CB	2.21	0.70
1:A:125:THR:HG22	1:A:175:TRP:NE1	2.05	0.70
4:D:211:VAL:HG23	18:R:38:ILE:CA	2.21	0.70
6:F:19:LEU:HD22	6:F:24:SER:CA	2.21	0.70
7:G:196:LYS:O	7:G:199:THR:OG1	2.08	0.70
16:P:19:GLY:N	19:S:92:ASP:HA	2.07	0.70
16:P:52:LYS:CA	16:P:54:HIS:CD2	2.74	0.70
17:Q:17:LYS:HE2	34:i:1643:G:C6	2.26	0.70
26:Z:65:TYR:HD2	26:Z:68:ILE:HG12	1.55	0.70
26:Z:102:LYS:HA	26:Z:107:VAL:HA	1.72	0.70
28:b:5:LYS:CB	28:b:5:LYS:NZ	2.53	0.70
34:i:522:C:C2'	34:i:523:A:H5'	2.20	0.70
34:i:1652:G:H1	34:i:1662:U:H3	1.39	0.70
1:A:180:ARG:CD	1:A:184:ARG:NH2	2.53	0.70
6:F:122:ARG:NH2	6:F:193:LYS:NZ	2.40	0.70
7:G:32:MET:SD	7:G:100:CYS:C	2.74	0.70
10:J:37:LEU:HD21	10:J:43:VAL:N	2.05	0.70
10:J:38:ARG:HG2	31:e:105:ARG:HB2	0.77	0.70
11:K:18:GLU:C	11:K:92:ALA:CB	2.64	0.70
15:O:55:ARG:C	15:O:56:VAL:HG12	2.16	0.70
15:O:125:LYS:HA	27:a:56:VAL:HG12	1.73	0.70
16:P:100:LYS:HD2	16:P:101:THR:HG23	1.72	0.70
17:Q:53:GLU:OE1	17:Q:85:ARG:NH2	2.24	0.70
31:e:120:VAL:O	31:e:121:PRO:HB2	1.90	0.70
34:i:184:G:C5	34:i:185:C:C4	2.80	0.70
1:A:110:ASN:ND2	34:i:1348:G:H5'	2.06	0.70
3:C:186:GLY:CA	10:J:54:ARG:NH2	2.54	0.70
4:D:192:TRP:C	4:D:196:GLY:H	1.90	0.70
4:D:226:GLN:HE21	4:D:226:GLN:C	1.99	0.70
9:I:144:LYS:O	9:I:145:ILE:HG23	1.91	0.70
9:I:191:GLU:O	9:I:192:GLY:O	2.09	0.70
10:J:37:LEU:CD2	10:J:43:VAL:HG23	2.22	0.70
12:L:82:MET:HB2	12:L:85:THR:HG23	1.73	0.70
13:M:131:LYS:O	13:M:132:LYS:HG3	1.90	0.70
16:P:121:ILE:HG22	19:S:120:HIS:CB	2.20	0.70
16:P:126:VAL:HG12	16:P:127:LYS:H	0.60	0.70
17:Q:50:LYS:HG3	17:Q:85:ARG:HH21	1.57	0.70
17:Q:109:LYS:CG	17:Q:113:ILE:CD1	2.48	0.70
20:T:116:ASP:HB3	20:T:120:GLY:O	1.91	0.70
23:W:11:LEU:O	23:W:14:ILE:HG13	1.89	0.70
24:X:66:ILE:HD13	31:e:79:SER:O	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:35:VAL:HG12	25:Y:36:PRO:CD	2.21	0.70
25:Y:114:MET:HE3	25:Y:125:VAL:N	2.06	0.70
33:g:275:ILE:CD1	33:g:276:SER:N	2.51	0.70
3:C:60:ILE:C	3:C:82:PHE:CE1	2.69	0.70
5:E:123:LEU:HD12	5:E:161:GLN:HA	1.72	0.70
6:F:14:THR:HG23	6:F:15:PRO:HD3	1.73	0.70
6:F:167:LYS:CE	6:F:171:GLU:HG3	2.21	0.70
9:I:82:VAL:CG1	9:I:202:ILE:HD13	2.21	0.70
9:I:105:ASP:O	9:I:169:GLY:O	2.09	0.70
13:M:12:MET:HE2	13:M:17:ALA:C	1.73	0.70
18:R:37:GLU:OE1	18:R:38:ILE:CG2	2.39	0.70
18:R:98:VAL:HG12	18:R:100:PRO:N	2.07	0.70
20:T:16:ARG:CG	20:T:16:ARG:HH11	2.03	0.70
21:U:47:ASN:HD22	21:U:47:ASN:N	1.88	0.70
23:W:78:ARG:CD	23:W:126:LEU:HD23	2.22	0.70
23:W:106:THR:OG1	23:W:111:MET:HE2	1.92	0.70
28:b:6:ASP:O	28:b:8:LEU:N	2.24	0.70
31:e:125:LYS:O	31:e:126:LYS:HB2	1.91	0.70
33:g:144:ASP:O	33:g:144:ASP:CG	2.29	0.70
33:g:176:VAL:CB	33:g:186:THR:HG22	2.18	0.70
34:i:841:G:H2'	34:i:842:G:C8	2.27	0.70
2:B:28:LYS:HD3	15:O:51:GLU:OE2	1.91	0.70
3:C:149:PRO:O	3:C:149:PRO:HG2	1.92	0.70
4:D:105:LEU:CD2	4:D:184:ILE:CD1	2.56	0.70
5:E:85:GLY:N	5:E:88:ASP:OD2	2.20	0.70
5:E:166:THR:OG1	5:E:168:LYS:CG	2.38	0.70
10:J:180:LYS:C	10:J:180:LYS:HD2	2.15	0.70
11:K:2:LEU:HD13	11:K:3:MET:CA	2.21	0.70
16:P:8:LYS:O	16:P:11:THR:CG2	2.37	0.70
16:P:124:LYS:O	16:P:125:PRO:C	2.35	0.70
19:S:58:GLU:CA	19:S:59:LEU:HD13	2.21	0.70
20:T:101:ARG:HG2	20:T:105:GLN:NE2	2.07	0.70
24:X:95:GLU:O	24:X:98:ASP:HB2	1.92	0.70
25:Y:29:HIS:HD1	25:Y:67:GLY:CA	2.02	0.70
25:Y:51:THR:CB	25:Y:52:PRO:HD3	2.18	0.70
33:g:93:THR:CB	33:g:94:THR:HG23	2.21	0.70
34:i:1503:G:H1'	34:i:1503:G:O5'	1.88	0.70
34:i:1513:C:OP2	34:i:1514:U:H2'	1.92	0.70
1:A:42:LYS:HD3	18:R:101:ASP:HB2	1.70	0.70
1:A:120:ARG:CG	3:C:251:TYR:CE2	2.74	0.70
2:B:79:VAL:HG23	2:B:79:VAL:O	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:217:ILE:O	4:D:218:LEU:CD2	2.39	0.70
5:E:195:ILE:HG22	5:E:196:THR:N	2.06	0.70
7:G:183:ARG:NH2	34:i:308:C:C5	2.58	0.70
8:H:193:GLN:H	8:H:193:GLN:CD	2.00	0.70
9:I:103:LEU:CD2	9:I:172:LEU:HD13	2.21	0.70
9:I:193:LYS:HG3	12:L:10:TYR:CE1	2.26	0.70
16:P:51:ARG:O	16:P:52:LYS:HB3	1.91	0.70
20:T:4:VAL:HG12	20:T:8:ASP:CB	2.20	0.70
24:X:138:LYS:C	24:X:139:GLU:OE2	2.35	0.70
26:Z:44:LEU:O	26:Z:44:LEU:HD12	1.91	0.70
28:b:12:PRO:HA	28:b:16:LYS:HE2	1.74	0.70
34:i:196:U:O2	34:i:199:G:N1	2.23	0.70
3:C:66:ILE:HG23	3:C:71:LEU:HB2	1.74	0.70
6:F:176:GLU:CD	6:F:187:SER:HG	2.00	0.70
7:G:212:LEU:CA	7:G:215:LYS:HE2	2.18	0.70
8:H:122:LEU:HD12	8:H:123:THR:H	1.56	0.70
8:H:149:ASP:O	8:H:149:ASP:CG	2.34	0.70
10:J:122:SER:HG	10:J:124:HIS:HB2	1.57	0.70
11:K:21:MET:SD	11:K:49:MET:SD	2.90	0.70
14:N:142:GLU:CD	14:N:144:SER:OG	2.34	0.70
16:P:48:GLY:O	16:P:50:ARG:HD2	1.91	0.70
18:R:115:SER:O	18:R:116:ASN:OD1	2.08	0.70
19:S:54:LYS:C	19:S:54:LYS:CB	2.61	0.70
21:U:62:ARG:HH11	21:U:64:THR:HG21	1.53	0.70
22:V:32:ILE:HD12	22:V:60:ARG:HH11	1.55	0.70
24:X:40:PRO:HB3	24:X:81:ILE:CD1	2.15	0.70
24:X:128:VAL:HG11	24:X:133:LEU:HD21	1.72	0.70
31:e:113:ASN:HD22	34:i:542:G:P	2.15	0.70
33:g:17:TRP:CE3	33:g:36:ARG:NH2	2.60	0.70
33:g:24:THR:HG23	33:g:27:PHE:O	1.92	0.70
34:i:551:A:C2	34:i:552:U:N3	2.60	0.70
1:A:57:LYS:CE	22:V:70:LEU:HD21	2.22	0.70
1:A:186:ARG:HH11	1:A:186:ARG:C	1.99	0.70
2:B:124:HIS:CD2	2:B:136:HIS:CE1	2.80	0.70
4:D:132:LYS:HB2	4:D:191:PRO:HG3	0.70	0.70
4:D:198:ILE:HG13	4:D:198:ILE:O	1.90	0.70
10:J:35:TYR:C	10:J:37:LEU:N	2.41	0.70
12:L:112:HIS:CD2	12:L:134:LEU:HD11	2.27	0.70
14:N:27:LYS:H	14:N:27:LYS:HE2	1.54	0.70
16:P:70:MET:O	16:P:71:GLU:CB	2.39	0.70
18:R:5:ARG:HB2	18:R:10:LYS:HZ1	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:15:VAL:HG12	19:S:16:LEU:H	1.57	0.70
19:S:15:VAL:HG13	19:S:68:ILE:CD1	2.20	0.70
26:Z:48:VAL:O	26:Z:48:VAL:CG1	2.40	0.70
30:d:13:LYS:CE	30:d:14:PHE:CD2	2.75	0.70
33:g:212:LYS:HG3	33:g:235:ILE:HD12	1.74	0.70
34:i:1701:G:H21	34:i:1843:G:N2	1.86	0.70
3:C:122:VAL:CG1	3:C:202:ALA:HA	2.22	0.69
4:D:103:GLU:HA	4:D:103:GLU:OE2	1.91	0.69
6:F:41:VAL:CG2	6:F:42:LYS:HD2	2.22	0.69
6:F:53:ALA:HB1	17:Q:125:ARG:HH21	1.56	0.69
7:G:179:LEU:HD12	7:G:180:VAL:N	1.97	0.69
9:I:62:VAL:HG21	9:I:75:LYS:HZ3	1.55	0.69
10:J:26:ASP:CB	31:e:116:PHE:HZ	2.05	0.69
10:J:87:LEU:CD1	10:J:91:LYS:CB	2.69	0.69
10:J:110:LEU:HD13	10:J:130:ILE:CG1	2.04	0.69
12:L:99:TYR:C	12:L:100:ASN:OD1	2.35	0.69
16:P:13:ARG:C	16:P:14:LYS:HG2	2.16	0.69
16:P:31:GLU:O	16:P:35:GLN:HG3	1.92	0.69
16:P:49:LEU:HD13	16:P:51:ARG:HH21	1.56	0.69
18:R:102:THR:HA	18:R:105:MET:HB2	1.73	0.69
27:a:45:VAL:HG23	27:a:46:GLU:H	1.56	0.69
32:f:140:TYR:CZ	32:f:146:LEU:O	2.45	0.69
33:g:298:LEU:HD12	33:g:298:LEU:C	2.17	0.69
5:E:180:LEU:HD13	5:E:228:ILE:CD1	2.22	0.69
7:G:183:ARG:HH21	34:i:308:C:H5	1.40	0.69
8:H:145:ARG:CD	23:W:51:GLU:OE1	2.40	0.69
9:I:62:VAL:CG2	9:I:75:LYS:NZ	2.52	0.69
11:K:32:HIS:ND1	11:K:33:PRO:HD2	2.07	0.69
13:M:44:LYS:O	13:M:46:GLN:N	2.25	0.69
14:N:53:ILE:CD1	28:b:52:THR:HG22	2.21	0.69
15:O:30:VAL:CG2	15:O:32:HIS:NE2	2.55	0.69
16:P:121:ILE:HG22	19:S:120:HIS:HB2	1.74	0.69
25:Y:54:VAL:CG2	25:Y:79:LEU:CD2	2.71	0.69
25:Y:55:ILE:CD1	25:Y:75:ILE:CD1	2.70	0.69
26:Z:85:ARG:CZ	26:Z:85:ARG:CB	2.70	0.69
32:f:105:TYR:O	32:f:106:TYR:HD2	1.69	0.69
33:g:306:LEU:HD23	33:g:307:VAL:C	2.17	0.69
3:C:141:ILE:HG23	3:C:142:LEU:N	2.06	0.69
3:C:234:SER:C	22:V:23:ILE:HD13	2.18	0.69
8:H:190:PRO:HB2	8:H:191:GLU:CG	2.22	0.69
10:J:15:THR:HB	10:J:44:TRP:CZ3	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:87:LEU:CD1	10:J:91:LYS:HB3	2.22	0.69
10:J:125:HIS:CD2	10:J:129:LEU:CD1	2.70	0.69
10:J:179:LYS:HA	10:J:182:GLN:OE1	1.92	0.69
11:K:18:GLU:C	11:K:92:ALA:HB2	2.17	0.69
13:M:14:VAL:C	13:M:16:THR:N	2.49	0.69
13:M:67:ALA:HB1	32:f:114:ILE:HG22	1.74	0.69
18:R:29:HIS:HB3	33:g:83:TRP:CH2	2.27	0.69
18:R:91:LEU:CB	18:R:92:ASP:HA	2.17	0.69
19:S:58:GLU:O	19:S:59:LEU:CB	2.40	0.69
21:U:25:THR:CG2	21:U:86:LYS:HG2	2.21	0.69
22:V:67:ASP:O	22:V:68:SER:C	2.36	0.69
24:X:142:ARG:HH11	24:X:142:ARG:HG3	1.49	0.69
34:i:1816:A:H2'	34:i:1817:A:H8	1.56	0.69
1:A:110:ASN:N	34:i:1347:G:O3'	2.26	0.69
1:A:172:GLY:HA3	1:A:203:PHE:CD1	2.28	0.69
3:C:50:LYS:CE	3:C:251:TYR:CE1	2.67	0.69
4:D:197:LYS:HB3	4:D:198:ILE:HG23	0.77	0.69
5:E:18:TRP:CE3	5:E:46:ILE:CD1	2.75	0.69
6:F:141:VAL:CG2	6:F:146:ARG:HG2	2.22	0.69
7:G:57:ASP:OD2	7:G:98:ARG:HG2	1.91	0.69
8:H:16:PRO:O	8:H:20:GLU:CD	2.36	0.69
10:J:66:LYS:HA	10:J:71:LEU:CD1	2.19	0.69
14:N:114:ARG:HH21	14:N:114:ARG:HG2	1.57	0.69
18:R:1:MET:HB3	18:R:2:GLY:N	2.05	0.69
24:X:108:LYS:HB3	24:X:110:HIS:CE1	2.28	0.69
24:X:125:VAL:O	24:X:126:ALA:HB3	1.91	0.69
28:b:83:GLN:HA	28:b:83:GLN:HE21	1.56	0.69
33:g:149:GLU:OE2	33:g:149:GLU:HA	1.85	0.69
2:B:93:GLY:C	2:B:94:LYS:CD	2.65	0.69
4:D:123:LEU:HD21	4:D:154:ASP:HB2	1.71	0.69
6:F:28:VAL:HG13	6:F:110:GLN:CG	2.22	0.69
8:H:6:ALA:HB1	8:H:10:LYS:NZ	2.07	0.69
8:H:117:PRO:O	8:H:120:ARG:N	2.24	0.69
10:J:29:LEU:HD22	31:e:112:TYR:HB2	1.72	0.69
10:J:46:VAL:HG12	10:J:102:ILE:HG23	1.72	0.69
11:K:40:VAL:HG23	11:K:44:HIS:N	2.07	0.69
17:Q:112:LEU:O	17:Q:116:ASP:CA	2.40	0.69
18:R:44:LYS:HE3	18:R:47:ARG:CZ	2.23	0.69
20:T:11:GLN:NE2	20:T:62:ARG:NH1	2.37	0.69
22:V:40:ASP:O	22:V:40:ASP:CG	2.33	0.69
23:W:42:MET:HE2	23:W:49:GLU:HA	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:118:ARG:HD3	34:i:730:C:H5'	1.75	0.69
25:Y:114:MET:HA	25:Y:124:ASN:HD22	1.43	0.69
27:a:102:ARG:O	27:a:103:PRO:C	2.35	0.69
31:e:114:ARG:HA	31:e:118:ASN:HB2	1.72	0.69
34:i:1775:A:H2'	34:i:1776:G:C8	2.28	0.69
1:A:12:GLU:HB3	18:R:111:PHE:CE2	2.28	0.69
3:C:43:LYS:HA	3:C:43:LYS:CE	2.18	0.69
5:E:180:LEU:HD13	5:E:228:ILE:HG13	1.74	0.69
7:G:50:VAL:HG11	7:G:111:LEU:CD2	2.22	0.69
7:G:159:ARG:HH21	7:G:171:THR:HA	1.57	0.69
8:H:57:ARG:CD	8:H:89:GLY:O	2.40	0.69
11:K:64:TRP:C	11:K:65:ARG:CG	2.66	0.69
12:L:82:MET:HB2	12:L:85:THR:HG22	1.74	0.69
16:P:52:LYS:N	16:P:54:HIS:NE2	2.41	0.69
17:Q:12:VAL:CG1	17:Q:13:PHE:N	2.55	0.69
18:R:91:LEU:CG	18:R:92:ASP:HA	2.21	0.69
24:X:29:LYS:CD	24:X:34:THR:CB	2.69	0.69
24:X:99:GLU:C	24:X:100:VAL:HG13	2.18	0.69
25:Y:54:VAL:HG22	25:Y:79:LEU:CD2	2.23	0.69
5:E:55:ALA:C	5:E:56:LEU:HD23	2.18	0.69
5:E:62:LYS:HD3	5:E:80:ILE:HD11	0.79	0.69
5:E:126:VAL:HG22	5:E:157:ASN:H	1.57	0.69
6:F:99:ILE:HD13	6:F:171:GLU:OE1	1.93	0.69
6:F:123:GLU:HG3	29:c:59:LEU:HD11	1.74	0.69
8:H:12:ASN:HB3	8:H:46:THR:OG1	1.92	0.69
8:H:135:PHE:HB3	8:H:136:PRO:CD	2.23	0.69
8:H:169:LYS:HB2	8:H:173:PHE:HE2	1.51	0.69
10:J:91:LYS:O	10:J:93:LYS:N	2.25	0.69
10:J:133:ARG:HD3	10:J:141:VAL:HG11	1.74	0.69
10:J:140:GLN:NE2	25:Y:64:PHE:HE2	1.90	0.69
10:J:143:ASN:C	10:J:144:ILE:HG13	2.13	0.69
11:K:12:TYR:CD2	11:K:82:TYR:HD2	2.11	0.69
15:O:143:LYS:O	15:O:143:LYS:HG2	1.81	0.69
22:V:18:SER:HB3	22:V:54:ALA:O	1.93	0.69
24:X:32:LEU:O	24:X:37:LYS:HE3	1.91	0.69
34:i:190:A:C2'	34:i:191:C:OP1	2.40	0.69
34:i:197:U:C5	34:i:198:U:C4	2.80	0.69
2:B:150:ILE:CG1	18:R:124:VAL:CG1	2.67	0.69
5:E:67:GLN:O	5:E:68:ARG:HG3	1.91	0.69
5:E:74:GLY:O	5:E:75:LYS:HG2	1.93	0.69
5:E:129:ILE:CB	5:E:139:LEU:HD23	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:139:LEU:HD11	5:E:154:ILE:CG2	2.22	0.69
6:F:128:ILE:HD11	29:c:68:LEU:HB2	1.74	0.69
7:G:64:LYS:CE	7:G:67:VAL:HG13	2.22	0.69
7:G:161:PRO:O	7:G:161:PRO:HD2	1.93	0.69
8:H:12:ASN:HD22	8:H:46:THR:CB	2.06	0.69
8:H:106:ARG:CD	34:i:857:A:C5	2.75	0.69
8:H:191:GLU:OE1	8:H:193:GLN:OE1	2.10	0.69
9:I:206:LYS:CD	9:I:207:GLY:N	2.56	0.69
11:K:46:MET:HA	11:K:69:TRP:CH2	2.28	0.69
12:L:147:LYS:HD2	12:L:149:ALA:N	2.07	0.69
13:M:13:ASP:O	13:M:16:THR:CA	2.41	0.69
13:M:94:ILE:O	13:M:95:ASP:HB2	1.93	0.69
15:O:117:ARG:O	15:O:121:ARG:HB2	1.92	0.69
15:O:128:ARG:CA	27:a:62:TYR:OH	2.40	0.69
16:P:32:GLN:HA	16:P:35:GLN:OE1	1.92	0.69
16:P:98:ASN:O	16:P:122:THR:OG1	2.10	0.69
16:P:128:HIS:CD2	34:i:1517:A:O5'	2.46	0.69
18:R:21:TYR:CB	18:R:71:ILE:HG21	2.23	0.69
19:S:8:LYS:HD3	19:S:8:LYS:N	2.07	0.69
19:S:50:ILE:CG1	19:S:63:GLU:HG2	2.22	0.69
20:T:21:PHE:CD1	20:T:21:PHE:C	2.70	0.69
21:U:49:LYS:C	21:U:50:VAL:HG12	2.16	0.69
23:W:7:LEU:HD23	23:W:34:ILE:HG12	1.74	0.69
25:Y:97:TYR:HD1	25:Y:98:GLU:N	1.89	0.69
26:Z:92:LEU:HD11	26:Z:109:TYR:OH	1.93	0.69
26:Z:92:LEU:CD1	26:Z:99:LEU:HD21	2.22	0.69
30:d:13:LYS:CE	30:d:14:PHE:HE2	1.86	0.69
31:e:114:ARG:HA	31:e:118:ASN:CB	2.23	0.69
33:g:140:TYR:CD2	33:g:182:CYS:CB	2.68	0.69
33:g:165:ILE:CG2	33:g:179:LEU:HD21	2.21	0.69
33:g:298:LEU:HD11	33:g:310:TRP:HB2	1.75	0.69
35:l:88:ASP:CG	35:l:90:ARG:HH12	2.00	0.69
35:l:95:GLN:C	35:l:97:LEU:H	2.01	0.69
2:B:209:ASP:O	2:B:210:VAL:CG2	2.40	0.69
8:H:6:ALA:CB	8:H:10:LYS:HD3	2.22	0.69
10:J:61:LEU:HD13	10:J:94:LEU:HD11	1.70	0.69
14:N:16:LEU:HD22	14:N:17:PRO:CD	2.21	0.69
16:P:67:ALA:CB	16:P:73:PRO:HB3	2.23	0.69
17:Q:78:VAL:HG12	17:Q:82:TYR:CE2	2.28	0.69
18:R:95:ILE:H	18:R:114:LEU:HD13	1.58	0.69
20:T:77:LYS:CB	20:T:94:ARG:CG	2.61	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:15:ARG:O	22:V:24:ILE:HG22	1.93	0.69
25:Y:52:PRO:CD	25:Y:53:ASP:H	2.05	0.69
26:Z:73:VAL:HG12	26:Z:79:ILE:CG2	2.18	0.69
28:b:33:MET:CE	28:b:35:VAL:HG22	2.06	0.69
2:B:61:GLY:O	2:B:65:ARG:CZ	2.41	0.69
3:C:126:MET:CE	3:C:223:LYS:NZ	2.56	0.69
4:D:193:ASP:O	4:D:194:PRO:C	2.28	0.69
8:H:107:LYS:O	8:H:109:ARG:HA	1.94	0.69
10:J:66:LYS:NZ	34:i:688:U:C6	2.61	0.69
13:M:12:MET:HE1	13:M:17:ALA:O	1.93	0.69
15:O:19:PRO:CG	15:O:27:VAL:HG22	2.15	0.69
17:Q:8:GLN:CB	17:Q:99:TYR:CZ	2.72	0.69
18:R:93:GLN:HG2	18:R:94:GLU:O	1.92	0.69
19:S:15:VAL:HG13	19:S:68:ILE:HD11	1.73	0.69
20:T:77:LYS:CG	20:T:92:PHE:HZ	2.03	0.69
20:T:84:ARG:NH2	20:T:84:ARG:HG3	1.97	0.69
21:U:50:VAL:CG2	21:U:51:LYS:O	2.38	0.69
21:U:59:LYS:HB2	21:U:84:ILE:HG23	1.70	0.69
24:X:133:LEU:HD21	24:X:139:GLU:O	1.92	0.69
25:Y:55:ILE:HG12	25:Y:75:ILE:HG12	0.70	0.69
25:Y:57:VAL:HG12	25:Y:60:PHE:HE2	1.58	0.69
31:e:119:VAL:O	31:e:121:PRO:HG2	1.92	0.69
33:g:74:ASP:HB2	33:g:76:GLN:HG2	1.74	0.69
33:g:201:SER:HB2	33:g:202:PRO:HD2	1.73	0.69
33:g:294:ASP:C	33:g:296:GLN:N	2.35	0.69
34:i:1055:G:N3	34:i:1824:U:OP1	2.26	0.69
3:C:87:LEU:HD21	3:C:115:ILE:CG2	2.09	0.68
4:D:40:ARG:NH1	21:U:107:GLU:OE2	2.26	0.68
9:I:155:ASN:CA	12:L:22:ARG:HD2	2.22	0.68
10:J:32:ILE:HG21	31:e:108:ARG:CG	2.19	0.68
12:L:137:THR:OG1	34:i:363:G:OP1	2.10	0.68
14:N:76:LYS:C	14:N:76:LYS:HD2	2.18	0.68
18:R:90:ALA:HA	18:R:91:LEU:HD12	1.73	0.68
18:R:99:ASP:CB	18:R:119:VAL:HG12	2.22	0.68
19:S:87:GLN:O	19:S:88:LYS:O	2.10	0.68
21:U:40:ILE:HD11	21:U:53:PRO:HB3	1.74	0.68
22:V:59:ILE:CG2	22:V:64:GLU:HB2	2.23	0.68
23:W:30:CYS:HA	23:W:34:ILE:HD12	1.74	0.68
31:e:120:VAL:HG13	31:e:121:PRO:N	2.07	0.68
33:g:261:LEU:O	33:g:264:LYS:CD	2.40	0.68
3:C:69:PHE:CE1	3:C:249:SER:HA	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:76:SER:O	3:C:79:ILE:CG2	2.38	0.68
3:C:108:ARG:CD	34:i:1354:U:OP1	2.36	0.68
3:C:198:LEU:HD11	3:C:226:PHE:CD1	2.29	0.68
4:D:66:ILE:O	4:D:70:THR:HG23	1.93	0.68
5:E:139:LEU:CD1	5:E:154:ILE:CG2	2.69	0.68
6:F:40:ALA:N	6:F:68:ILE:HG23	2.08	0.68
10:J:37:LEU:C	31:e:105:ARG:CG	2.65	0.68
10:J:134:HIS:C	10:J:135:ILE:HG23	2.17	0.68
11:K:14:LEU:CD2	11:K:35:LEU:CD1	2.71	0.68
12:L:5:GLN:NE2	12:L:10:TYR:CE1	2.59	0.68
18:R:24:LEU:CD1	18:R:58:MET:HE3	2.22	0.68
18:R:84:TYR:C	18:R:85:VAL:HG23	2.18	0.68
19:S:39:ARG:HD3	20:T:38:LYS:HZ1	1.59	0.68
33:g:88:ARG:CD	33:g:90:TRP:CZ2	2.75	0.68
35:l:51:ALA:HB3	35:l:54:TYR:CZ	2.28	0.68
1:A:186:ARG:HD3	1:A:186:ARG:O	1.93	0.68
3:C:241:TRP:CE2	23:W:68:ARG:HD2	2.28	0.68
3:C:244:THR:HG22	3:C:246:PHE:CG	2.26	0.68
8:H:6:ALA:CB	8:H:10:LYS:HZ3	2.06	0.68
8:H:193:GLN:C	8:H:194:LEU:O	2.31	0.68
9:I:136:ILE:HG23	9:I:139:LYS:HE2	1.73	0.68
10:J:61:LEU:CD1	10:J:94:LEU:HD13	2.22	0.68
11:K:39:ASN:O	11:K:40:VAL:HB	1.92	0.68
13:M:12:MET:CE	13:M:17:ALA:O	2.40	0.68
13:M:19:GLN:HG2	13:M:88:TRP:CD1	2.27	0.68
13:M:67:ALA:HB1	32:f:108:VAL:CG2	2.22	0.68
20:T:119:TRP:CE3	34:i:1557:C:O2	2.45	0.68
25:Y:19:GLN:HG2	25:Y:81:TYR:HD1	1.53	0.68
29:c:65:ALA:C	29:c:66:ARG:CG	2.66	0.68
33:g:42:MET:CB	33:g:92:LEU:HD11	2.23	0.68
33:g:118:ARG:NH2	33:g:134:THR:CB	2.56	0.68
3:C:260:LYS:HD2	3:C:261:THR:N	2.08	0.68
5:E:148:ARG:NH2	34:i:124:U:OP1	2.26	0.68
5:E:175:PHE:O	5:E:175:PHE:CD2	2.45	0.68
6:F:141:VAL:CG2	29:c:47:LYS:HZ1	2.05	0.68
7:G:77:LEU:CD1	7:G:95:LYS:HD3	2.23	0.68
8:H:182:GLY:O	34:i:680:G:O2'	2.11	0.68
12:L:103:GLU:CD	24:X:11:ARG:CZ	2.66	0.68
14:N:46:THR:HG1	14:N:49:GLN:CG	2.06	0.68
14:N:142:GLU:HG2	14:N:144:SER:OG	1.94	0.68
17:Q:33:LYS:HG3	17:Q:69:ARG:HG2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:91:LEU:N	18:R:92:ASP:HA	2.01	0.68
19:S:7:GLU:CA	19:S:7:GLU:OE2	2.39	0.68
21:U:83:ARG:CZ	30:d:55:LEU:HD13	2.23	0.68
24:X:105:PHE:CZ	24:X:118:VAL:O	2.46	0.68
33:g:298:LEU:CD2	33:g:310:TRP:HB2	2.22	0.68
1:A:57:LYS:HZ3	22:V:70:LEU:CG	2.07	0.68
1:A:147:LEU:CD2	1:A:163:CYS:SG	2.82	0.68
4:D:112:GLY:C	4:D:113:LEU:CG	2.65	0.68
6:F:14:THR:OG1	17:Q:56:LEU:CD1	2.42	0.68
13:M:44:LYS:HZ3	32:f:127:GLY:HA3	1.58	0.68
19:S:51:ASP:OD2	19:S:53:THR:OG1	2.12	0.68
20:T:42:HIS:CE1	20:T:93:SER:CB	2.76	0.68
28:b:61:THR:CG2	28:b:62:VAL:O	2.40	0.68
29:c:5:ARG:N	29:c:5:ARG:NE	2.40	0.68
33:g:46:THR:OG1	33:g:48:ASP:HB2	1.91	0.68
33:g:175:LYS:HD3	33:g:177:TRP:CE2	2.28	0.68
34:i:1750:C:O2'	34:i:1751:G:OP1	2.08	0.68
1:A:102:ARG:HH22	34:i:1375:A:H4'	1.57	0.68
1:A:149:ASN:HB2	1:A:165:ASN:CG	2.18	0.68
5:E:163:ASP:O	5:E:164:LEU:HB2	1.91	0.68
7:G:14:LYS:HZ1	7:G:123:GLY:HA2	1.59	0.68
7:G:30:LYS:HD2	7:G:30:LYS:N	2.08	0.68
9:I:117:TYR:N	9:I:117:TYR:CD2	2.62	0.68
9:I:141:ARG:HG3	9:I:144:LYS:O	1.93	0.68
9:I:142:SER:HB2	9:I:143:LYS:HZ2	1.54	0.68
11:K:9:ILE:O	11:K:13:GLU:HG2	1.93	0.68
14:N:46:THR:O	14:N:50:ILE:HD12	1.93	0.68
18:R:67:ARG:HH11	34:i:1371:G:H5'	1.58	0.68
18:R:122:PRO:CB	18:R:123:THR:CB	2.71	0.68
31:e:113:ASN:O	31:e:118:ASN:N	2.27	0.68
33:g:259:TRP:HB3	33:g:266:ILE:HA	1.76	0.68
35:l:35:ILE:CB	35:l:113:PHE:HD1	2.06	0.68
2:B:61:GLY:O	2:B:65:ARG:NH2	2.27	0.68
5:E:73:ASP:CG	5:E:122:LYS:HZ2	2.00	0.68
6:F:141:VAL:CB	29:c:47:LYS:HE3	2.15	0.68
9:I:36:THR:O	9:I:95:THR:HG23	1.92	0.68
9:I:141:ARG:C	9:I:143:LYS:HB3	2.19	0.68
11:K:94:LEU:HD23	11:K:95:ARG:H	1.58	0.68
21:U:44:LYS:O	21:U:47:ASN:CA	2.41	0.68
21:U:50:VAL:O	21:U:51:LYS:CD	2.30	0.68
25:Y:13:MET:CE	25:Y:14:THR:C	2.66	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:101:LYS:C	25:Y:102:THR:OG1	2.29	0.68
28:b:61:THR:CG2	28:b:62:VAL:H	2.06	0.68
33:g:42:MET:SD	33:g:56:GLN:HB3	2.34	0.68
34:i:1055:G:C2	34:i:1824:U:C5'	2.45	0.68
34:i:1823:G:OP2	35:l:41:ARG:O	2.11	0.68
4:D:16:ILE:HG21	30:d:22:ARG:NH1	2.09	0.68
4:D:217:ILE:CG2	4:D:218:LEU:N	2.57	0.68
6:F:46:ALA:C	6:F:47:LYS:HD3	2.18	0.68
9:I:197:PHE:CE2	12:L:5:GLN:CG	2.76	0.68
10:J:102:ILE:CG2	10:J:106:LEU:HD13	2.23	0.68
10:J:177:ASN:HA	10:J:180:LYS:HB3	1.75	0.68
10:J:180:LYS:CG	10:J:181:GLY:N	2.56	0.68
11:K:18:GLU:O	11:K:92:ALA:HB2	1.89	0.68
12:L:118:ARG:O	12:L:119:ASP:HB2	1.93	0.68
12:L:148:ALA:C	12:L:150:GLY:H	2.01	0.68
14:N:26:LEU:HD21	14:N:66:VAL:HG21	1.75	0.68
15:O:41:PHE:CD1	15:O:57:THR:CG2	2.76	0.68
20:T:85:ASN:HB3	20:T:88:MET:HB2	1.76	0.68
21:U:82:MET:HE2	30:d:51:GLY:C	2.19	0.68
23:W:42:MET:HE3	23:W:50:PHE:CE2	2.28	0.68
25:Y:48:TYR:O	25:Y:50:THR:CG2	2.38	0.68
25:Y:57:VAL:C	25:Y:58:PHE:CD2	2.72	0.68
31:e:79:SER:OG	31:e:80:LEU:N	2.24	0.68
1:A:76:VAL:HG12	1:A:87:VAL:CG1	2.23	0.68
2:B:19:LYS:O	2:B:19:LYS:CG	2.42	0.68
2:B:77:ASP:HA	2:B:79:VAL:HG22	1.75	0.68
2:B:97:LEU:HB3	2:B:232:HIS:CD2	2.29	0.68
3:C:241:TRP:C	3:C:242:LYS:HG3	2.17	0.68
5:E:1:MET:CE	34:i:422:G:C8	2.77	0.68
5:E:19:MET:HE1	34:i:842:G:C2'	2.20	0.68
5:E:43:PRO:HG2	5:E:46:ILE:HD12	1.74	0.68
5:E:87:MET:O	5:E:122:LYS:HE3	1.94	0.68
10:J:38:ARG:HA	31:e:105:ARG:CG	2.23	0.68
11:K:40:VAL:CG2	11:K:41:PRO:O	2.38	0.68
14:N:50:ILE:O	14:N:54:LEU:HG	1.94	0.68
14:N:87:ASP:OD1	14:N:88:LEU:N	2.27	0.68
16:P:56:LEU:HD22	16:P:78:THR:HG22	1.76	0.68
17:Q:98:LYS:C	33:g:57:ARG:HH21	2.01	0.68
23:W:128:PHE:HD1	23:W:129:PHE:N	1.91	0.68
25:Y:22:GLN:HB3	25:Y:74:MET:HE1	1.74	0.68
27:a:87:ARG:HD2	34:i:1860:A:C6	2.29	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:c:34:PHE:O	29:c:34:PHE:CG	2.47	0.68
34:i:445:A:N3	34:i:1730:A:H2	1.91	0.68
35:l:31:ILE:HG23	35:l:49:GLY:CA	2.23	0.68
1:A:23:THR:O	1:A:24:HIS:C	2.36	0.68
1:A:76:VAL:CG1	1:A:87:VAL:HG12	2.24	0.68
7:G:38:ALA:CB	7:G:45:TRP:O	2.42	0.68
7:G:85:ARG:HD2	25:Y:118:ARG:HH21	1.53	0.68
8:H:35:ASP:OD1	8:H:36:LEU:N	2.27	0.68
9:I:154:LYS:HD3	9:I:155:ASN:CA	2.22	0.68
9:I:155:ASN:O	9:I:157:LYS:N	2.27	0.68
15:O:63:LYS:O	15:O:64:ALA:HB2	1.94	0.68
16:P:85:ILE:C	16:P:86:LEU:HD23	2.19	0.68
17:Q:43:GLU:HG2	17:Q:45:ARG:HB3	1.74	0.68
17:Q:112:LEU:CD1	17:Q:120:LEU:CD2	2.72	0.68
18:R:72:LYS:O	18:R:76:GLU:HG2	1.93	0.68
18:R:90:ALA:HA	18:R:91:LEU:CD1	2.24	0.68
19:S:106:LYS:CD	19:S:109:GLU:OE1	2.42	0.68
25:Y:52:PRO:HD2	25:Y:53:ASP:N	2.00	0.68
29:c:6:VAL:HG13	29:c:7:GLN:N	2.09	0.68
30:d:10:HIS:CG	30:d:11:PRO:CD	2.76	0.68
33:g:87:LEU:HB2	33:g:101:PHE:CD1	2.30	0.68
34:i:738:U:C6	34:i:739:U:C5	2.82	0.68
2:B:66:VAL:HG21	2:B:87:ILE:CG2	2.02	0.67
5:E:159:THR:OG1	5:E:227:VAL:HG23	1.93	0.67
7:G:162:LEU:CD2	7:G:172:LYS:HZ3	2.04	0.67
10:J:84:ILE:CD1	10:J:86:VAL:HG21	2.24	0.67
11:K:40:VAL:CG2	11:K:41:PRO:N	2.29	0.67
11:K:40:VAL:HG21	11:K:45:VAL:H	1.59	0.67
12:L:18:GLN:HE21	12:L:20:LYS:HD2	1.57	0.67
20:T:83:GLN:NE2	20:T:85:ASN:HA	2.10	0.67
20:T:112:MET:SD	20:T:127:GLY:HA2	2.34	0.67
20:T:143:LYS:CD	20:T:143:LYS:C	2.53	0.67
24:X:32:LEU:O	24:X:37:LYS:CE	2.42	0.67
33:g:228:TYR:CE2	33:g:230:LEU:HD11	2.29	0.67
33:g:246:TYR:N	33:g:246:TYR:HD1	1.91	0.67
33:g:248:LEU:O	33:g:259:TRP:HE3	1.75	0.67
34:i:181:A:C1'	34:i:182:C:C6	2.77	0.67
35:l:72:THR:OG1	35:l:73:VAL:N	2.26	0.67
1:A:5:LEU:C	1:A:5:LEU:CD2	2.61	0.67
1:A:143:PRO:HD3	22:V:32:ILE:HG21	1.76	0.67
2:B:205:TYR:CD2	2:B:206:PRO:CD	2.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:18:LYS:O	4:D:18:LYS:CD	2.42	0.67
4:D:43:PRO:O	4:D:44:THR:CG2	2.38	0.67
4:D:197:LYS:CB	4:D:198:ILE:HG12	2.11	0.67
4:D:211:VAL:O	18:R:38:ILE:O	2.12	0.67
4:D:215:ASP:O	4:D:216:GLU:HB2	1.93	0.67
6:F:25:THR:HG21	6:F:42:LYS:HG3	0.68	0.67
6:F:109:LEU:HD23	6:F:109:LEU:O	1.94	0.67
8:H:135:PHE:CD2	8:H:136:PRO:HD3	2.29	0.67
16:P:22:LEU:HA	16:P:25:LEU:HB2	1.76	0.67
16:P:114:HIS:CE1	19:S:113:ARG:HH22	2.11	0.67
17:Q:138:ARG:HG3	34:i:1644:U:H4'	1.74	0.67
18:R:21:TYR:CG	18:R:71:ILE:HD13	2.28	0.67
23:W:7:LEU:HD23	23:W:34:ILE:HG13	1.75	0.67
25:Y:21:LYS:HE2	25:Y:77:ASP:CG	2.17	0.67
25:Y:98:GLU:C	25:Y:98:GLU:OE2	2.35	0.67
35:l:63:PHE:CE2	35:l:85:LEU:HB3	2.29	0.67
2:B:103:MET:HE1	2:B:212:VAL:HG23	1.76	0.67
3:C:155:TRP:CH2	23:W:97:ARG:CZ	2.72	0.67
5:E:64:ILE:HG12	25:Y:17:LEU:HD13	1.77	0.67
6:F:28:VAL:CG2	6:F:110:GLN:HG2	2.24	0.67
8:H:52:GLU:HA	8:H:58:LYS:HA	1.76	0.67
8:H:64:VAL:HG13	8:H:68:GLN:OE1	1.94	0.67
8:H:122:LEU:CD1	8:H:122:LEU:C	2.34	0.67
19:S:94:LYS:HB3	19:S:95:TYR:C	2.19	0.67
20:T:85:ASN:ND2	20:T:91:HIS:CD2	2.63	0.67
31:e:75:LYS:C	31:e:76:VAL:HG22	2.19	0.67
33:g:219:TRP:CH2	33:g:226:HIS:CD2	2.82	0.67
33:g:238:ALA:HB3	33:g:289:LEU:CD2	2.24	0.67
1:A:191:ARG:CG	1:A:193:HIS:HB2	2.24	0.67
1:A:193:HIS:ND1	1:A:194:PRO:HD3	2.09	0.67
2:B:113:MET:HE3	2:B:209:ASP:CB	2.24	0.67
4:D:74:GLN:NE2	4:D:75:LYS:CE	2.57	0.67
4:D:216:GLU:O	4:D:217:ILE:HG13	1.94	0.67
6:F:36:GLN:CG	6:F:37:ASP:OD1	2.30	0.67
6:F:154:LEU:HD12	6:F:154:LEU:C	2.19	0.67
7:G:66:GLY:N	34:i:1740:A:O2'	2.27	0.67
7:G:75:LEU:HD22	34:i:1785:A:O3'	1.93	0.67
9:I:79:ILE:CG2	9:I:103:LEU:HB2	2.25	0.67
10:J:14:VAL:HG23	10:J:48:PHE:CD1	2.29	0.67
10:J:17:ARG:CG	10:J:17:ARG:O	2.29	0.67
14:N:53:ILE:HD12	28:b:52:THR:CG2	2.13	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:109:PRO:O	16:P:112:ILE:HG13	1.94	0.67
17:Q:50:LYS:CE	17:Q:117:ARG:HD2	2.25	0.67
20:T:31:PRO:CG	20:T:102:ARG:CG	2.73	0.67
23:W:7:LEU:HD12	23:W:78:ARG:HH21	1.60	0.67
23:W:18:GLU:HG2	23:W:65:LEU:HD13	1.76	0.67
26:Z:99:LEU:HD23	26:Z:109:TYR:CD1	2.27	0.67
34:i:489:G:N1	34:i:491:C:H1'	2.09	0.67
34:i:515:A:O3'	34:i:516:A:P	2.53	0.67
2:B:148:ASN:HD22	2:B:148:ASN:H	1.42	0.67
5:E:100:ARG:HD3	5:E:102:ILE:HD12	1.72	0.67
6:F:67:PRO:HG2	6:F:70:GLU:HB3	1.76	0.67
8:H:40:LEU:O	8:H:42:GLU:N	2.27	0.67
8:H:177:TYR:HE2	8:H:183:LYS:HB2	1.59	0.67
12:L:71:ARG:CG	12:L:73:LEU:HG	2.25	0.67
13:M:18:LEU:HD22	13:M:22:LEU:CG	2.22	0.67
13:M:67:ALA:CB	32:f:114:ILE:HG21	2.24	0.67
19:S:91:LYS:C	19:S:92:ASP:OD2	2.37	0.67
19:S:137:LYS:HA	34:i:1516:C:C5	2.29	0.67
26:Z:96:LEU:O	26:Z:112:ASN:ND2	2.27	0.67
31:e:118:ASN:CB	31:e:119:VAL:CG2	2.72	0.67
33:g:32:LEU:HB2	33:g:71:ILE:CD1	2.16	0.67
33:g:282:GLU:CG	33:g:283:PRO:HD3	2.07	0.67
34:i:141:A:H61	34:i:177:G:H21	1.43	0.67
34:i:522:C:H2'	34:i:523:A:H5'	1.75	0.67
2:B:31:TYR:CE1	2:B:94:LYS:HA	2.29	0.67
2:B:179:ASN:CB	2:B:183:GLU:OE1	2.43	0.67
3:C:48:VAL:HG23	3:C:75:GLU:CG	2.24	0.67
4:D:43:PRO:C	4:D:44:THR:CG2	2.59	0.67
5:E:259:LYS:O	5:E:260:GLN:CD	2.38	0.67
8:H:65:PRO:HG2	8:H:68:GLN:CD	2.19	0.67
8:H:121:THR:O	8:H:125:VAL:HG23	1.94	0.67
9:I:112:TRP:CH2	9:I:117:TYR:OH	2.46	0.67
11:K:96:ARG:CG	11:K:97:SER:N	2.57	0.67
14:N:26:LEU:HD12	14:N:27:LYS:HE3	1.76	0.67
15:O:84:ARG:HA	15:O:87:GLU:HB2	1.75	0.67
15:O:116:LEU:HD23	15:O:119:LEU:HD21	1.76	0.67
16:P:126:VAL:O	16:P:127:LYS:HB3	1.93	0.67
17:Q:113:ILE:HG13	17:Q:120:LEU:CD1	2.25	0.67
18:R:21:TYR:CD2	18:R:73:LEU:HD12	2.29	0.67
19:S:6:PRO:O	26:Z:49:LEU:HD11	1.94	0.67
22:V:59:ILE:HG23	22:V:64:GLU:HB2	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:74:LYS:HG3	22:V:75:SER:H	1.58	0.67
22:V:77:GLY:HA2	22:V:78:ILE:O	1.95	0.67
24:X:3:LYS:O	24:X:4:CYS:O	2.13	0.67
24:X:52:LEU:CG	24:X:71:ARG:HB3	2.24	0.67
31:e:123:PHE:O	31:e:125:LYS:N	2.27	0.67
33:g:194:TYR:OH	33:g:235:ILE:HD11	1.95	0.67
33:g:265:ILE:HG13	33:g:266:ILE:H	1.60	0.67
1:A:141:ASN:HD21	22:V:29:HIS:CA	2.07	0.67
2:B:72:ALA:CB	15:O:128:ARG:HH22	2.08	0.67
2:B:125:VAL:HG21	2:B:169:MET:HG3	1.76	0.67
3:C:50:LYS:O	3:C:258:LEU:HD22	1.94	0.67
3:C:161:LYS:HD2	3:C:162:PRO:HD2	1.77	0.67
4:D:216:GLU:O	4:D:217:ILE:CG1	2.43	0.67
5:E:102:ILE:HD13	5:E:236:ILE:HD12	1.75	0.67
5:E:192:ILE:CD1	5:E:238:LEU:HD22	2.25	0.67
5:E:194:VAL:HG22	5:E:211:LYS:O	1.95	0.67
8:H:145:ARG:NE	23:W:51:GLU:CD	2.52	0.67
9:I:5:ARG:HH11	9:I:5:ARG:CG	2.03	0.67
9:I:104:ILE:O	9:I:105:ASP:CB	2.42	0.67
9:I:108:PRO:O	9:I:111:GLN:HG2	1.95	0.67
10:J:38:ARG:HA	31:e:105:ARG:CB	2.25	0.67
11:K:36:ALA:O	11:K:38:LYS:N	2.28	0.67
12:L:82:MET:CE	12:L:85:THR:HG21	2.23	0.67
12:L:148:ALA:C	12:L:150:GLY:N	2.50	0.67
13:M:24:THR:O	13:M:27:ILE:HG22	1.94	0.67
16:P:30:TYR:O	16:P:34:MET:HG3	1.94	0.67
16:P:108:LYS:HZ2	19:S:118:ARG:HH12	1.43	0.67
17:Q:57:LEU:CD1	17:Q:115:TYR:CZ	2.60	0.67
17:Q:134:GLY:HA2	17:Q:141:TYR:CD1	2.30	0.67
19:S:26:ILE:HG22	19:S:45:LEU:CD1	2.24	0.67
20:T:42:HIS:CE1	20:T:93:SER:HB3	2.30	0.67
20:T:42:HIS:HE1	20:T:93:SER:CB	2.08	0.67
20:T:85:ASN:HB2	20:T:88:MET:O	1.95	0.67
20:T:94:ARG:NH1	20:T:94:ARG:HG3	2.10	0.67
26:Z:103:HIS:NE2	26:Z:105:ALA:CB	2.58	0.67
30:d:50:ILE:HG21	30:d:52:PHE:HE2	1.59	0.67
33:g:88:ARG:HD3	33:g:97:THR:OG1	1.95	0.67
34:i:1207:G:N2	34:i:1684:C:C1'	2.58	0.67
35:l:98:VAL:HA	35:l:105:ASP:OD1	1.94	0.67
2:B:115:LYS:O	2:B:118:GLN:HG3	1.95	0.67
4:D:3:VAL:O	4:D:3:VAL:CG1	2.37	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:45:ARG:HG3	4:D:83:SER:O	1.95	0.67
4:D:74:GLN:HE21	4:D:75:LYS:CD	2.08	0.67
4:D:226:GLN:O	4:D:227:LYS:HB2	1.94	0.67
5:E:260:GLN:OE1	5:E:260:GLN:N	2.28	0.67
6:F:103:LEU:HD22	6:F:178:ILE:CD1	2.23	0.67
6:F:113:VAL:HG13	6:F:114:ASN:N	2.09	0.67
8:H:140:VAL:O	14:N:18:TYR:CE2	2.47	0.67
10:J:170:PRO:CA	10:J:174:LYS:HZ1	2.06	0.67
11:K:2:LEU:O	11:K:3:MET:CB	2.40	0.67
11:K:83:LEU:HB2	11:K:85:LEU:HG	1.76	0.67
14:N:13:GLN:CB	14:N:14:SER:O	2.43	0.67
23:W:104:LEU:HD12	23:W:106:THR:HG23	1.76	0.67
25:Y:114:MET:HA	25:Y:124:ASN:CB	2.25	0.67
27:a:84:VAL:HB	34:i:1860:A:H62	1.57	0.67
32:f:126:CYS:O	32:f:128:ALA:N	2.28	0.67
1:A:84:GLN:O	1:A:88:LEU:HD23	1.93	0.67
1:A:176:TRP:HE3	1:A:177:MET:SD	2.16	0.67
1:A:183:LEU:CB	1:A:189:ILE:HD11	2.23	0.67
1:A:185:MET:O	1:A:187:GLY:N	2.28	0.67
6:F:167:LYS:CD	6:F:171:GLU:HB3	2.24	0.67
7:G:135:PRO:HG2	7:G:144:LEU:HD23	1.77	0.67
8:H:12:ASN:CG	8:H:46:THR:OG1	2.38	0.67
8:H:60:ILE:CG2	8:H:92:VAL:HG22	2.25	0.67
8:H:75:ILE:HG23	8:H:76:GLN:N	2.10	0.67
8:H:146:VAL:O	23:W:49:GLU:HB2	1.95	0.67
9:I:118:ALA:HB2	9:I:149:TYR:CZ	2.29	0.67
10:J:15:THR:HG21	10:J:44:TRP:HZ3	1.58	0.67
11:K:36:ALA:O	11:K:38:LYS:HD2	1.95	0.67
11:K:84:HIS:HD2	13:M:27:ILE:CG1	2.07	0.67
13:M:49:LEU:HD13	13:M:50:CYS:H	1.58	0.67
13:M:51:VAL:HA	13:M:77:ILE:HG22	1.76	0.67
19:S:39:ARG:NH2	20:T:38:LYS:CG	2.57	0.67
22:V:66:ASP:O	22:V:67:ASP:C	2.30	0.67
24:X:52:LEU:CD1	24:X:53:GLU:N	2.54	0.67
24:X:108:LYS:HB2	24:X:110:HIS:CE1	2.30	0.67
26:Z:48:VAL:HA	26:Z:83:LEU:HD12	1.75	0.67
32:f:95:ARG:HD3	32:f:96:LYS:N	2.10	0.67
33:g:12:LYS:CD	33:g:13:GLY:N	2.51	0.67
33:g:232:GLY:CA	33:g:257:LYS:NZ	2.56	0.67
33:g:246:TYR:N	33:g:246:TYR:CD1	2.63	0.67
34:i:1330:G:H1	34:i:1492:U:H3	1.43	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1721:G:H1	34:i:1802:U:H3	1.43	0.67
2:B:98:THR:O	2:B:232:HIS:CE1	2.48	0.67
3:C:49:THR:CG2	3:C:75:GLU:HG3	2.25	0.67
4:D:2:ALA:HB1	4:D:4:GLN:N	2.09	0.67
4:D:10:LYS:HE2	4:D:14:ASP:OD2	1.94	0.67
4:D:127:MET:HG2	4:D:154:ASP:OD2	1.94	0.67
5:E:102:ILE:CD1	5:E:236:ILE:HD12	2.24	0.67
5:E:250:GLU:O	5:E:254:LYS:HG2	1.95	0.67
7:G:138:ALA:HB2	7:G:179:LEU:HB2	1.77	0.67
7:G:157:VAL:HG13	7:G:158:VAL:CA	2.25	0.67
9:I:110:ARG:NH2	9:I:124:LYS:CD	2.58	0.67
9:I:182:CYS:SG	34:i:296:U:C4	2.88	0.67
10:J:110:LEU:HD11	10:J:135:ILE:HD12	1.77	0.67
16:P:128:HIS:HD2	34:i:1517:A:C5'	2.07	0.67
17:Q:19:ALA:CB	17:Q:80:GLN:HE21	2.06	0.67
18:R:92:ASP:O	18:R:93:GLN:CB	2.43	0.67
19:S:46:ARG:NE	20:T:50:GLU:CG	2.58	0.67
20:T:99:VAL:HG23	20:T:100:ALA:N	2.09	0.67
24:X:29:LYS:HE3	24:X:34:THR:HG21	1.75	0.67
25:Y:54:VAL:CG2	25:Y:79:LEU:HD23	2.23	0.67
27:a:41:ILE:HG23	27:a:68:TYR:CD1	2.29	0.67
28:b:73:LEU:CD1	28:b:79:PHE:CZ	2.71	0.67
1:A:109:THR:O	1:A:110:ASN:HB2	1.95	0.66
1:A:140:VAL:O	1:A:140:VAL:CG1	2.43	0.66
1:A:141:ASN:C	22:V:32:ILE:CD1	2.69	0.66
3:C:51:LEU:O	3:C:55:VAL:HG23	1.94	0.66
4:D:48:ILE:HG23	4:D:86:LEU:HG	1.75	0.66
4:D:157:MET:HE3	4:D:187:LYS:CD	2.22	0.66
9:I:7:ASN:C	9:I:9:HIS:H	2.02	0.66
9:I:191:GLU:N	9:I:195:LEU:HB2	2.10	0.66
10:J:38:ARG:NH2	31:e:104:GLY:H	1.88	0.66
11:K:87:PRO:C	11:K:89:ILE:H	2.03	0.66
13:M:79:VAL:HG12	13:M:80:ASP:N	2.09	0.66
14:N:12:SER:C	14:N:13:GLN:CG	2.65	0.66
14:N:13:GLN:HB2	14:N:14:SER:O	1.95	0.66
16:P:77:LYS:C	16:P:78:THR:HG23	2.20	0.66
20:T:124:THR:HG21	20:T:126:GLN:HB3	1.76	0.66
24:X:52:LEU:HD12	24:X:53:GLU:CA	2.24	0.66
26:Z:99:LEU:HD21	26:Z:109:TYR:HE1	1.46	0.66
34:i:125:C:H6	34:i:125:C:H5'	1.60	0.66
2:B:148:ASN:H	2:B:148:ASN:ND2	1.93	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:225:LEU:CB	2:B:229:MET:HE2	2.21	0.66
3:C:158:LYS:HE2	3:C:158:LYS:C	2.18	0.66
6:F:79:HIS:O	6:F:81:ARG:N	2.29	0.66
7:G:3:LEU:HD11	7:G:41:LEU:HD11	1.77	0.66
7:G:4:ASN:HA	7:G:15:LEU:CD2	2.24	0.66
9:I:149:TYR:HD1	9:I:152:ARG:HH12	1.34	0.66
12:L:10:TYR:CD2	12:L:12:LYS:HE3	2.27	0.66
12:L:49:GLU:HB2	12:L:116:CYS:SG	2.36	0.66
17:Q:109:LYS:HZ2	17:Q:113:ILE:HD11	1.60	0.66
24:X:90:CYS:HA	24:X:93:PHE:HD2	1.60	0.66
27:a:7:ASN:O	27:a:7:ASN:OD1	2.13	0.66
31:e:124:GLY:C	31:e:125:LYS:CG	2.53	0.66
33:g:5:MET:CE	33:g:312:VAL:CG1	2.54	0.66
1:A:133:PRO:CD	1:A:134:LEU:N	2.51	0.66
2:B:28:LYS:HE2	15:O:51:GLU:OE2	1.95	0.66
2:B:188:LEU:HD22	2:B:212:VAL:HG21	1.77	0.66
3:C:57:ASP:O	3:C:58:MET:HB2	1.94	0.66
3:C:155:TRP:CE2	23:W:97:ARG:CD	2.78	0.66
5:E:9:LEU:HB2	5:E:30:ARG:HB2	1.76	0.66
6:F:42:LYS:CG	6:F:42:LYS:O	2.28	0.66
7:G:131:ARG:CD	7:G:131:ARG:HG2	2.15	0.66
7:G:147:LEU:HD21	7:G:156:TYR:HE2	1.58	0.66
9:I:10:LYS:HG3	9:I:11:ARG:H	1.61	0.66
11:K:59:LYS:HD2	11:K:60:GLU:H	1.58	0.66
15:O:101:GLY:O	15:O:104:ARG:CB	2.43	0.66
19:S:47:LYS:HZ1	19:S:78:LYS:CB	2.04	0.66
19:S:81:ASP:OD2	19:S:95:TYR:CD2	2.48	0.66
19:S:82:TRP:CD1	34:i:1562:G:C4	2.83	0.66
19:S:111:LEU:HD22	19:S:125:HIS:ND1	2.09	0.66
22:V:40:ASP:CB	22:V:47:ASN:HD22	2.06	0.66
29:c:65:ALA:C	29:c:66:ARG:HG2	2.20	0.66
31:e:120:VAL:O	31:e:121:PRO:CB	2.40	0.66
33:g:203:ASP:OD1	33:g:203:ASP:N	2.28	0.66
34:i:521:A:C2	34:i:544:A:N7	2.64	0.66
34:i:1191:A:H2'	34:i:1192:A:C8	2.31	0.66
34:i:1517:A:C2	34:i:1518:C:C6	2.82	0.66
2:B:25:PHE:CG	15:O:88:LEU:HD22	2.31	0.66
2:B:73:ASP:OD2	27:a:59:PHE:CZ	2.36	0.66
3:C:87:LEU:HG	3:C:116:GLY:C	2.20	0.66
4:D:112:GLY:H	4:D:113:LEU:CD1	2.08	0.66
5:E:48:LEU:HD11	5:E:70:ILE:CD1	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:127:ARG:O	6:F:127:ARG:HG2	1.94	0.66
6:F:142:SER:CB	29:c:50:VAL:CG2	2.73	0.66
12:L:99:TYR:HD2	12:L:99:TYR:O	1.78	0.66
14:N:25:TRP:CD1	28:b:83:GLN:HB2	2.30	0.66
15:O:129:ILE:HG13	27:a:65:PRO:CD	2.25	0.66
16:P:10:ARG:NH2	16:P:11:THR:HG21	2.10	0.66
17:Q:8:GLN:CG	17:Q:99:TYR:HE1	1.60	0.66
17:Q:8:GLN:HG2	17:Q:99:TYR:HD1	1.53	0.66
17:Q:15:ARG:HH12	17:Q:20:THR:HG21	1.61	0.66
17:Q:57:LEU:HD11	17:Q:115:TYR:OH	1.93	0.66
20:T:11:GLN:CD	20:T:62:ARG:NE	2.53	0.66
20:T:119:TRP:HE3	34:i:1557:C:HO2'	0.75	0.66
21:U:117:ALA:C	21:U:118:ASP:O	2.28	0.66
23:W:37:PHE:HD2	23:W:41:MET:HE2	1.60	0.66
33:g:88:ARG:HG2	33:g:97:THR:HG21	1.77	0.66
34:i:192:U:H3	34:i:203:G:H1	1.41	0.66
34:i:1654:U:H3'	34:i:1655:C:O2	1.95	0.66
5:E:167:GLY:C	5:E:168:LYS:HG2	2.19	0.66
6:F:42:LYS:CB	6:F:46:ALA:H	2.09	0.66
7:G:63:MET:HE1	7:G:106:LEU:HD13	1.68	0.66
8:H:117:PRO:HG2	8:H:120:ARG:NE	2.11	0.66
10:J:90:GLY:C	10:J:91:LYS:O	2.24	0.66
10:J:171:GLY:O	10:J:174:LYS:N	2.28	0.66
10:J:171:GLY:C	10:J:173:VAL:N	2.48	0.66
16:P:98:ASN:OD1	16:P:120:SER:CB	2.43	0.66
18:R:42:PRO:HD2	18:R:43:SER:N	1.98	0.66
18:R:100:PRO:CG	18:R:119:VAL:CG2	2.73	0.66
19:S:39:ARG:HH22	20:T:38:LYS:HG2	1.60	0.66
29:c:47:LYS:HG2	29:c:48:GLY:N	2.10	0.66
34:i:198:U:H6	34:i:198:U:O5'	1.79	0.66
1:A:141:ASN:HA	22:V:32:ILE:CD1	2.25	0.66
2:B:76:ASN:ND2	2:B:76:ASN:O	2.29	0.66
5:E:86:PHE:CZ	5:E:182:MET:HE1	2.31	0.66
5:E:191:ARG:HD3	5:E:245:ARG:CB	2.25	0.66
5:E:248:ILE:CD1	10:J:72:PHE:CE2	2.45	0.66
5:E:259:LYS:C	5:E:260:GLN:OE1	2.39	0.66
6:F:42:LYS:O	6:F:42:LYS:NZ	2.29	0.66
7:G:32:MET:CE	7:G:100:CYS:O	2.43	0.66
7:G:211:LYS:C	7:G:215:LYS:HD3	2.21	0.66
7:G:212:LEU:HA	7:G:215:LYS:HD3	1.77	0.66
9:I:67:TRP:CZ2	9:I:158:ILE:HD11	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:33:PRO:O	11:K:34:GLU:CB	2.42	0.66
11:K:71:LEU:CG	11:K:76:ILE:HD13	2.25	0.66
11:K:84:HIS:CG	11:K:84:HIS:O	2.39	0.66
15:O:79:GLN:CG	29:c:5:ARG:CG	2.72	0.66
16:P:13:ARG:C	16:P:14:LYS:CG	2.68	0.66
17:Q:50:LYS:HA	17:Q:53:GLU:CG	2.26	0.66
20:T:83:GLN:HE22	20:T:85:ASN:HA	1.59	0.66
23:W:20:ARG:NH1	34:i:1135:C:H1'	2.11	0.66
24:X:52:LEU:CD1	24:X:53:GLU:CG	2.74	0.66
25:Y:10:ARG:NE	25:Y:24:VAL:CG1	2.40	0.66
32:f:85:TYR:O	32:f:86:THR:HG22	1.94	0.66
33:g:143:GLN:HG3	33:g:144:ASP:HB2	1.78	0.66
33:g:173:LEU:HD21	33:g:189:ILE:HG23	1.78	0.66
1:A:76:VAL:HG13	1:A:175:TRP:CZ3	2.25	0.66
2:B:49:VAL:HG22	2:B:65:ARG:NH1	2.11	0.66
4:D:16:ILE:HG21	30:d:22:ARG:HH12	1.60	0.66
5:E:159:THR:CG2	5:E:227:VAL:HG22	2.04	0.66
6:F:25:THR:HG21	6:F:42:LYS:CB	2.19	0.66
6:F:42:LYS:CB	6:F:46:ALA:N	2.58	0.66
7:G:16:ILE:HG21	7:G:45:TRP:CH2	2.30	0.66
9:I:5:ARG:HG2	9:I:5:ARG:NH1	2.06	0.66
10:J:29:LEU:HD22	31:e:112:TYR:CD1	2.31	0.66
10:J:48:PHE:HE1	10:J:52:LYS:CE	1.86	0.66
11:K:14:LEU:HD21	11:K:35:LEU:CD1	2.26	0.66
14:N:125:LEU:CD2	14:N:129:TYR:CZ	2.78	0.66
15:O:41:PHE:CE1	15:O:57:THR:HG21	2.31	0.66
15:O:53:ILE:HG13	15:O:53:ILE:O	1.94	0.66
16:P:100:LYS:HG2	34:i:1236:A:H61	1.61	0.66
17:Q:98:LYS:HE3	17:Q:99:TYR:CE2	2.30	0.66
17:Q:98:LYS:HA	33:g:57:ARG:HH21	1.61	0.66
20:T:85:ASN:HD21	20:T:91:HIS:CD2	2.14	0.66
25:Y:55:ILE:CG1	25:Y:75:ILE:CG1	2.15	0.66
32:f:103:LEU:HD22	32:f:106:TYR:CE2	2.31	0.66
33:g:100:ARG:CG	33:g:100:ARG:NH1	2.44	0.66
34:i:921:G:H1	34:i:1013:U:H3	1.42	0.66
34:i:1266:G:N2	34:i:1508:C:O2	2.29	0.66
34:i:1750:C:O2'	34:i:1751:G:H5'	1.96	0.66
2:B:31:TYR:HE1	2:B:94:LYS:N	1.93	0.66
2:B:63:LYS:O	2:B:63:LYS:HD3	1.94	0.66
2:B:87:ILE:HG21	2:B:101:HIS:CG	2.31	0.66
3:C:69:PHE:CZ	3:C:247:THR:CG2	2.79	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:192:ALA:O	3:C:195:PRO:CG	2.43	0.66
4:D:23:GLU:HG2	11:K:64:TRP:HE1	1.60	0.66
4:D:209:SER:HG	18:R:40:ILE:HB	1.60	0.66
5:E:21:ASP:OD2	5:E:24:THR:HG23	1.94	0.66
5:E:159:THR:CB	5:E:227:VAL:HG23	2.24	0.66
6:F:20:PHE:HB3	6:F:23:TRP:HB2	1.78	0.66
6:F:141:VAL:CG1	29:c:47:LYS:NZ	2.53	0.66
6:F:154:LEU:CD1	6:F:155:CYS:SG	2.83	0.66
14:N:92:ILE:CG2	14:N:150:VAL:CG2	2.72	0.66
16:P:41:GLN:NE2	16:P:45:LEU:CG	2.40	0.66
16:P:62:LYS:C	16:P:65:LYS:HG2	2.14	0.66
17:Q:34:VAL:HG21	17:Q:39:LEU:CD2	2.22	0.66
17:Q:39:LEU:O	17:Q:42:ILE:HD12	1.96	0.66
17:Q:140:ARG:HB3	34:i:1639:C:H4'	1.78	0.66
18:R:7:LYS:HB2	18:R:11:LYS:HE3	1.77	0.66
19:S:88:LYS:H	19:S:95:TYR:HD1	1.42	0.66
21:U:56:MET:HE1	21:U:88:LEU:HD23	1.77	0.66
25:Y:111:LYS:NZ	25:Y:115:LYS:NZ	2.43	0.66
28:b:81:ARG:HB2	28:b:82:LYS:HD3	1.77	0.66
34:i:903:G:C6	34:i:904:A:C6	2.84	0.66
5:E:86:PHE:CZ	5:E:87:MET:HE2	2.31	0.66
5:E:152:PRO:HD2	7:G:212:LEU:HD21	1.78	0.66
5:E:153:LEU:CD1	5:E:172:PHE:CE2	2.77	0.66
6:F:154:LEU:CD1	6:F:155:CYS:N	2.55	0.66
7:G:19:ASP:O	7:G:20:ASP:CB	2.43	0.66
8:H:6:ALA:CB	8:H:10:LYS:NZ	2.59	0.66
9:I:142:SER:CA	9:I:143:LYS:CB	2.71	0.66
10:J:82:VAL:CG1	10:J:92:MET:HE3	2.26	0.66
12:L:58:LYS:O	12:L:64:GLY:HA3	1.95	0.66
14:N:129:TYR:O	14:N:134:VAL:HG13	1.96	0.66
16:P:41:GLN:HA	16:P:84:ILE:HD11	1.78	0.66
17:Q:115:TYR:HD2	17:Q:116:ASP:H	1.44	0.66
19:S:39:ARG:CD	20:T:38:LYS:HE2	2.16	0.66
20:T:49:ASP:OD2	20:T:51:ASN:HB2	1.96	0.66
20:T:77:LYS:CD	20:T:92:PHE:CE2	2.77	0.66
23:W:17:ALA:CB	23:W:25:VAL:CG1	2.74	0.66
24:X:71:ARG:CG	24:X:82:THR:HG22	2.16	0.66
25:Y:87:PRO:O	25:Y:87:PRO:HD2	1.95	0.66
26:Z:94:LYS:C	26:Z:94:LYS:CD	2.63	0.66
27:a:21:ILE:HG22	27:a:22:ARG:N	2.10	0.66
31:e:125:LYS:C	31:e:126:LYS:CD	2.54	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:48:ASP:OD2	33:g:49:GLU:N	2.28	0.66
33:g:145:GLU:OE1	33:g:145:GLU:N	2.28	0.66
34:i:835:C:H2'	34:i:837:G:H5'	1.78	0.66
2:B:67:PHE:HE1	15:O:47:LEU:C	1.97	0.66
2:B:148:ASN:HB2	18:R:124:VAL:HG23	1.78	0.66
4:D:212:GLU:HG2	18:R:19:LYS:NZ	2.11	0.66
5:E:74:GLY:C	5:E:75:LYS:CG	2.69	0.66
5:E:130:PHE:CD2	5:E:138:HIS:CE1	2.84	0.66
5:E:258:ALA:O	5:E:259:LYS:CB	2.33	0.66
6:F:44:LYS:HD2	6:F:44:LYS:C	2.10	0.66
6:F:154:LEU:HD12	6:F:155:CYS:CA	2.25	0.66
10:J:38:ARG:HG2	31:e:105:ARG:CA	2.24	0.66
12:L:40:ILE:HG21	12:L:44:PHE:HB2	1.78	0.66
13:M:51:VAL:HB	13:M:77:ILE:HG21	1.78	0.66
16:P:22:LEU:HD12	16:P:23:ASP:N	2.11	0.66
19:S:7:GLU:OE2	19:S:7:GLU:N	2.29	0.66
19:S:58:GLU:OE2	26:Z:49:LEU:HD13	1.96	0.66
20:T:21:PHE:CD1	20:T:22:LEU:HD23	2.31	0.66
20:T:31:PRO:CB	20:T:33:TRP:CD2	2.77	0.66
24:X:5:ARG:NH2	34:i:1155:G:OP2	2.28	0.66
25:Y:3:ASP:C	25:Y:4:THR:HG1	1.98	0.66
25:Y:54:VAL:CG1	25:Y:76:TYR:C	2.67	0.66
25:Y:54:VAL:HG23	25:Y:79:LEU:HD21	1.78	0.66
26:Z:85:ARG:CB	26:Z:85:ARG:HH11	2.03	0.66
27:a:94:ASP:OD1	27:a:94:ASP:N	2.29	0.66
28:b:64:CYS:SG	28:b:73:LEU:CA	2.80	0.66
28:b:81:ARG:N	28:b:82:LYS:HB2	2.09	0.66
32:f:97:LYS:HB2	32:f:97:LYS:HZ2	1.59	0.66
33:g:173:LEU:HD22	33:g:189:ILE:HA	1.77	0.66
34:i:195:C:O5'	34:i:195:C:H6	1.78	0.66
34:i:1207:G:C5	34:i:1684:C:C4	2.70	0.66
35:l:36:GLN:CA	35:l:113:PHE:CB	2.74	0.66
3:C:146:SER:O	3:C:148:VAL:HG13	1.96	0.65
4:D:163:PRO:HA	4:D:166:TYR:HD2	1.60	0.65
4:D:196:GLY:O	4:D:199:GLY:CA	2.44	0.65
4:D:202:LYS:CB	4:D:203:PRO:HD3	2.25	0.65
6:F:176:GLU:CD	6:F:187:SER:OG	2.40	0.65
7:G:120:ASP:O	7:G:121:ILE:HD13	1.95	0.65
7:G:213:LEU:HD12	7:G:213:LEU:C	2.21	0.65
8:H:44:ASN:HB3	8:H:68:GLN:HE22	1.60	0.65
8:H:51:ILE:CD1	8:H:176:VAL:HA	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:122:LEU:HD11	8:H:123:THR:CG2	2.26	0.65
9:I:155:ASN:C	9:I:155:ASN:OD1	2.36	0.65
12:L:118:ARG:O	12:L:119:ASP:CB	2.44	0.65
12:L:147:LYS:HD3	12:L:147:LYS:O	1.94	0.65
14:N:18:TYR:O	14:N:19:ARG:C	2.39	0.65
16:P:10:ARG:HH21	16:P:11:THR:HG21	1.61	0.65
18:R:99:ASP:HB3	18:R:119:VAL:CG1	2.26	0.65
19:S:8:LYS:CE	19:S:9:PHE:HE1	2.06	0.65
25:Y:20:ARG:HH21	25:Y:74:MET:HE2	1.60	0.65
28:b:81:ARG:HB2	28:b:82:LYS:CD	2.26	0.65
30:d:13:LYS:HG2	30:d:14:PHE:CE2	2.31	0.65
32:f:139:HIS:HB3	32:f:150:PHE:O	1.96	0.65
32:f:144:CYS:SG	32:f:147:THR:HG22	2.32	0.65
33:g:282:GLU:OE2	33:g:283:PRO:N	2.30	0.65
1:A:159:ILE:HG22	1:A:159:ILE:O	1.96	0.65
2:B:49:VAL:CG2	2:B:65:ARG:HH12	2.09	0.65
2:B:107:ARG:CZ	15:O:133:THR:O	2.43	0.65
3:C:262:HIS:CG	3:C:263:THR:N	2.63	0.65
4:D:53:THR:HG21	4:D:91:VAL:HB	1.78	0.65
4:D:145:GLN:HG3	4:D:146:ARG:N	2.10	0.65
4:D:219:PRO:O	4:D:220:THR:O	2.13	0.65
5:E:258:ALA:O	5:E:259:LYS:HB2	1.96	0.65
7:G:32:MET:O	7:G:33:ALA:CB	2.44	0.65
7:G:163:ASN:O	7:G:164:LYS:HB3	1.94	0.65
7:G:227:GLN:O	7:G:231:ARG:HG3	1.96	0.65
10:J:114:VAL:HG12	10:J:119:LEU:O	1.96	0.65
10:J:118:GLY:O	10:J:120:ALA:N	2.29	0.65
10:J:130:ILE:HA	10:J:135:ILE:CD1	2.26	0.65
10:J:130:ILE:CG2	10:J:135:ILE:HD11	2.21	0.65
12:L:152:LYS:C	12:L:154:GLN:H	2.04	0.65
14:N:4:MET:HE2	14:N:124:ARG:HH22	1.61	0.65
14:N:76:LYS:HD2	14:N:77:SER:N	2.11	0.65
16:P:49:LEU:HD13	16:P:51:ARG:NH2	2.11	0.65
17:Q:116:ASP:CG	17:Q:117:ARG:H	2.04	0.65
19:S:6:PRO:O	19:S:7:GLU:CB	2.41	0.65
20:T:90:SER:C	20:T:91:HIS:HD2	2.04	0.65
21:U:71:GLY:O	21:U:72:GLU:C	2.37	0.65
24:X:60:LYS:HE2	24:X:116:PRO:CB	2.26	0.65
25:Y:20:ARG:CD	25:Y:74:MET:HE3	2.24	0.65
33:g:46:THR:C	33:g:48:ASP:H	2.01	0.65
33:g:79:LEU:CD2	33:g:89:LEU:HD13	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:87:LEU:HD23	33:g:108:VAL:HG11	1.79	0.65
33:g:175:LYS:HD2	33:g:177:TRP:CZ2	2.31	0.65
34:i:841:G:H3'	34:i:842:G:C8	2.31	0.65
34:i:1825:A:N3	34:i:1845:A:H2'	2.10	0.65
1:A:75:SER:HB2	1:A:122:LEU:HD23	1.77	0.65
1:A:141:ASN:O	22:V:32:ILE:CG2	2.44	0.65
1:A:193:HIS:CB	1:A:194:PRO:HD2	2.26	0.65
2:B:49:VAL:CG2	2:B:65:ARG:NH1	2.59	0.65
2:B:93:GLY:C	2:B:94:LYS:CG	2.69	0.65
2:B:147:ASN:O	2:B:149:GLN:N	2.29	0.65
4:D:59:LEU:CD1	4:D:60:GLY:O	2.44	0.65
9:I:144:LYS:HE2	34:i:189:G:C5'	2.25	0.65
15:O:62:VAL:HG21	15:O:72:TYR:CZ	2.30	0.65
15:O:119:LEU:CD1	15:O:126:ILE:HD11	2.26	0.65
18:R:98:VAL:HG12	18:R:99:ASP:N	2.10	0.65
19:S:46:ARG:NE	20:T:50:GLU:HG2	2.10	0.65
20:T:85:ASN:O	20:T:88:MET:CE	2.43	0.65
20:T:144:LYS:HB2	20:T:144:LYS:HZ3	1.56	0.65
27:a:22:ARG:NH2	27:a:27:ALA:O	2.27	0.65
2:B:70:SER:CB	15:O:128:ARG:HD3	2.26	0.65
4:D:157:MET:HE3	4:D:187:LYS:HD2	1.78	0.65
5:E:259:LYS:NZ	5:E:260:GLN:OE1	2.29	0.65
6:F:115:ALA:CB	6:F:177:LEU:HD22	2.26	0.65
7:G:64:LYS:HE2	7:G:67:VAL:CG1	2.27	0.65
7:G:162:LEU:HG	7:G:170:ARG:CB	2.25	0.65
8:H:29:GLU:CD	8:H:86:LYS:HE3	2.20	0.65
9:I:119:LEU:O	9:I:120:PRO:O	2.15	0.65
9:I:145:ILE:HA	9:I:148:LYS:HD3	1.77	0.65
10:J:34:GLU:HB2	10:J:35:TYR:HD2	1.61	0.65
14:N:16:LEU:CD2	14:N:17:PRO:CD	2.75	0.65
15:O:129:ILE:HD12	27:a:44:ILE:HG21	1.78	0.65
17:Q:72:VAL:HG23	17:Q:84:ILE:HG22	1.77	0.65
18:R:32:LYS:HE2	18:R:33:ARG:NE	2.11	0.65
24:X:108:LYS:HB3	24:X:110:HIS:HE2	1.60	0.65
28:b:33:MET:SD	28:b:73:LEU:HD11	2.36	0.65
29:c:34:PHE:O	29:c:34:PHE:CD2	2.49	0.65
33:g:240:CYS:HG	33:g:291:TRP:CD1	2.13	0.65
1:A:34:MET:CE	1:A:37:TYR:HE2	2.02	0.65
1:A:172:GLY:HA3	1:A:203:PHE:CE1	2.31	0.65
1:A:177:MET:CE	1:A:180:ARG:CZ	2.61	0.65
2:B:67:PHE:CD1	15:O:47:LEU:HB2	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:61:LYS:HA	3:C:82:PHE:HE1	1.62	0.65
3:C:87:LEU:HD23	3:C:87:LEU:C	2.21	0.65
3:C:123:GLY:CA	3:C:226:PHE:CZ	2.76	0.65
4:D:141:LYS:HD2	4:D:179:GLN:HG2	1.78	0.65
5:E:43:PRO:HD2	5:E:43:PRO:O	1.96	0.65
5:E:72:ILE:CD1	5:E:82:TYR:CD2	2.80	0.65
5:E:182:MET:CE	5:E:228:ILE:HG21	2.26	0.65
7:G:50:VAL:CG1	7:G:111:LEU:CB	2.73	0.65
8:H:192:PHE:O	8:H:193:GLN:C	2.40	0.65
10:J:125:HIS:HA	34:i:516:A:O2'	1.97	0.65
10:J:131:ARG:HH11	10:J:143:ASN:ND2	1.93	0.65
10:J:165:TYR:OH	34:i:551:A:H5'	1.97	0.65
22:V:9:VAL:HG12	22:V:10:ASP:H	1.60	0.65
35:l:35:ILE:CB	35:l:113:PHE:H	2.02	0.65
3:C:115:ILE:CD1	3:C:144:LYS:HG3	2.27	0.65
3:C:147:ILE:O	22:V:27:LYS:HE3	1.96	0.65
3:C:198:LEU:HD13	3:C:225:THR:HG23	1.77	0.65
3:C:245:VAL:O	3:C:246:PHE:HB2	1.96	0.65
4:D:132:LYS:CG	4:D:191:PRO:HG3	2.19	0.65
5:E:72:ILE:HD13	5:E:82:TYR:CE2	2.32	0.65
5:E:117:GLU:O	5:E:119:ALA:N	2.26	0.65
5:E:130:PHE:HB2	5:E:138:HIS:CD2	2.31	0.65
7:G:185:LEU:HB3	7:G:189:ARG:NH1	2.11	0.65
9:I:21:TYR:CE1	34:i:423:A:H5'	2.31	0.65
10:J:61:LEU:HD23	10:J:98:LEU:HD11	1.74	0.65
10:J:78:LEU:HD13	10:J:92:MET:O	1.96	0.65
10:J:124:HIS:O	10:J:125:HIS:C	2.38	0.65
10:J:137:VAL:HG22	10:J:157:ILE:HG12	1.79	0.65
11:K:2:LEU:CG	11:K:3:MET:H	2.07	0.65
13:M:20:GLU:OE1	13:M:20:GLU:HA	1.96	0.65
15:O:30:VAL:CG2	15:O:32:HIS:CD2	2.80	0.65
19:S:8:LYS:CA	26:Z:49:LEU:CD2	2.74	0.65
24:X:93:PHE:O	24:X:140:ARG:NH1	2.30	0.65
25:Y:48:TYR:C	25:Y:50:THR:HG23	2.21	0.65
25:Y:87:PRO:CB	25:Y:89:HIS:CE1	2.80	0.65
26:Z:99:LEU:CD1	26:Z:102:LYS:NZ	2.59	0.65
33:g:26:GLN:CB	33:g:74:ASP:HA	2.23	0.65
33:g:91:ASP:OD1	33:g:93:THR:OG1	2.12	0.65
34:i:239:U:O2'	34:i:240:C:H5'	1.97	0.65
1:A:7:VAL:HG22	22:V:43:THR:HG21	1.79	0.65
1:A:89:LYS:HB3	1:A:202:TYR:CZ	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:118:GLU:CD	3:C:50:LYS:HZ3	2.03	0.65
1:A:180:ARG:HD3	1:A:184:ARG:HH21	1.57	0.65
2:B:25:PHE:CG	15:O:88:LEU:HD13	2.32	0.65
2:B:32:ASP:OD1	2:B:46:LYS:CD	2.44	0.65
2:B:42:ARG:HH22	2:B:232:HIS:HA	1.60	0.65
2:B:110:MET:HE1	2:B:213:ARG:HD2	1.78	0.65
5:E:165:GLU:OE2	5:E:165:GLU:N	2.30	0.65
6:F:112:LEU:HD23	6:F:116:ILE:CD1	2.22	0.65
7:G:102:VAL:HG22	7:G:109:LEU:HD21	1.79	0.65
8:H:166:VAL:HG22	8:H:173:PHE:CE2	2.30	0.65
9:I:69:SER:HB2	12:L:19:ASN:HD22	1.53	0.65
10:J:16:PRO:O	10:J:17:ARG:C	2.33	0.65
10:J:158:ASP:OD1	10:J:159:PHE:N	2.27	0.65
13:M:70:ALA:CB	13:M:71:GLU:OE2	2.41	0.65
13:M:71:GLU:O	13:M:72:HIS:C	2.38	0.65
14:N:54:LEU:HB3	14:N:60:VAL:CG2	2.20	0.65
15:O:142:ARG:HH11	27:a:27:ALA:CB	2.07	0.65
16:P:49:LEU:CA	16:P:51:ARG:CG	2.68	0.65
16:P:98:ASN:HD21	16:P:120:SER:HB2	1.61	0.65
17:Q:54:PRO:CG	17:Q:88:ILE:CD1	2.70	0.65
19:S:39:ARG:CD	20:T:38:LYS:NZ	2.57	0.65
21:U:19:ARG:CG	21:U:92:HIS:CE1	2.76	0.65
22:V:41:LYS:C	22:V:43:THR:N	2.52	0.65
25:Y:99:LYS:O	25:Y:99:LYS:NZ	2.29	0.65
26:Z:70:PRO:CD	26:Z:71:ALA:N	2.55	0.65
34:i:490:A:O2'	34:i:491:C:H5'	1.97	0.65
1:A:98:PRO:O	1:A:99:ILE:HG13	1.97	0.65
9:I:194:GLU:HG2	12:L:10:TYR:CD2	2.32	0.65
16:P:98:ASN:ND2	16:P:120:SER:HB2	2.12	0.65
18:R:77:GLU:HG3	18:R:80:ARG:HH21	1.61	0.65
18:R:122:PRO:HB3	18:R:123:THR:HG23	1.56	0.65
20:T:28:LEU:C	20:T:28:LEU:CD2	2.61	0.65
23:W:26:LEU:O	23:W:26:LEU:CD1	2.39	0.65
27:a:58:VAL:CG1	27:a:59:PHE:N	2.22	0.65
33:g:8:ARG:NE	33:g:8:ARG:CA	2.30	0.65
2:B:209:ASP:O	2:B:210:VAL:HB	1.97	0.65
3:C:54:LEU:CD1	3:C:258:LEU:CD1	2.60	0.65
3:C:142:LEU:O	3:C:145:LEU:HD23	1.96	0.65
3:C:155:TRP:CH2	23:W:97:ARG:HD3	2.32	0.65
4:D:216:GLU:O	4:D:217:ILE:HD12	1.97	0.65
5:E:71:LYS:HE3	5:E:75:LYS:HA	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:176:ILE:CG2	7:G:179:LEU:HD22	1.95	0.65
9:I:157:LYS:O	9:I:158:ILE:O	2.14	0.65
10:J:50:LEU:CD1	10:J:102:ILE:HD13	2.22	0.65
11:K:3:MET:HG2	11:K:4:PRO:O	1.97	0.65
12:L:17:PHE:CD1	12:L:18:GLN:O	2.49	0.65
13:M:124:ILE:CA	13:M:127:TYR:CE2	2.80	0.65
14:N:13:GLN:CD	28:b:21:LYS:HE2	2.21	0.65
14:N:139:TRP:CE3	14:N:140:LYS:CA	2.80	0.65
15:O:19:PRO:CD	15:O:27:VAL:HG21	2.12	0.65
17:Q:47:LEU:HD23	17:Q:81:ILE:HD13	1.63	0.65
20:T:11:GLN:NE2	20:T:62:ARG:NE	2.44	0.65
20:T:31:PRO:CG	20:T:33:TRP:CZ2	2.79	0.65
23:W:42:MET:HE2	23:W:48:GLY:O	1.96	0.65
25:Y:62:THR:CB	25:Y:69:THR:HG22	2.27	0.65
27:a:58:VAL:O	27:a:59:PHE:O	2.15	0.65
28:b:1:MET:HA	28:b:1:MET:HE3	1.79	0.65
32:f:86:THR:OG1	32:f:87:THR:N	2.29	0.65
33:g:8:ARG:HA	33:g:8:ARG:HE	0.62	0.65
33:g:57:ARG:HD2	33:g:94:THR:C	2.22	0.65
33:g:143:GLN:HG3	33:g:144:ASP:CB	2.27	0.65
34:i:848:G:C3'	34:i:849:C:H5"	2.24	0.65
1:A:39:TYR:N	1:A:50:ASN:ND2	2.44	0.65
1:A:66:VAL:HG13	1:A:186:ARG:CB	2.27	0.65
2:B:28:LYS:CD	15:O:51:GLU:OE2	2.45	0.65
2:B:77:ASP:O	2:B:79:VAL:HG13	1.97	0.65
2:B:87:ILE:CG2	2:B:101:HIS:CD2	2.77	0.65
4:D:123:LEU:HD21	4:D:154:ASP:OD2	1.97	0.65
4:D:201:LYS:O	4:D:202:LYS:HB2	1.96	0.65
5:E:98:ASN:ND2	5:E:114:ILE:CD1	2.61	0.65
5:E:98:ASN:ND2	5:E:114:ILE:HG13	2.12	0.65
5:E:151:ASP:OD2	5:E:151:ASP:N	2.30	0.65
6:F:44:LYS:C	6:F:45:TYR:HD1	2.05	0.65
6:F:91:ARG:CD	17:Q:46:THR:HG21	2.26	0.65
7:G:142:ARG:HH21	7:G:152:ASP:N	1.95	0.65
10:J:29:LEU:HD22	31:e:112:TYR:CB	2.27	0.65
10:J:134:HIS:CE1	34:i:552:U:OP1	2.48	0.65
13:M:89:VAL:HG12	13:M:90:GLY:N	2.11	0.65
14:N:89:TYR:CE1	14:N:150:VAL:HG13	2.32	0.65
14:N:139:TRP:CZ3	14:N:141:TYR:N	2.64	0.65
15:O:37:PHE:O	15:O:38:ASN:CB	2.45	0.65
16:P:53:GLN:CB	16:P:56:LEU:HD12	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:98:ASN:OD1	16:P:120:SER:HB2	1.97	0.65
17:Q:144:SER:O	17:Q:145:TYR:HB2	1.96	0.65
21:U:103:SER:C	21:U:104:ILE:O	2.39	0.65
32:f:108:VAL:HG22	32:f:114:ILE:CB	2.26	0.65
34:i:127:C:OP1	34:i:180:G:C2	2.50	0.65
34:i:328:G:C6	34:i:329:A:C5	2.85	0.65
34:i:428:G:H8	34:i:1794:A:O2'	1.80	0.65
34:i:1361:G:H2'	34:i:1362:G:C8	2.32	0.65
34:i:1413:C:H3'	34:i:1413:C:H6	1.62	0.65
34:i:1546:U:O4	34:i:1574:A:C2	2.49	0.65
34:i:1751:G:H2'	34:i:1752:G:C8	2.31	0.65
1:A:119:PRO:O	1:A:142:LEU:CD2	2.45	0.64
1:A:186:ARG:O	1:A:186:ARG:NE	2.30	0.64
2:B:26:SER:C	2:B:27:LYS:HG3	2.23	0.64
2:B:116:LYS:O	2:B:117:TRP:HB2	1.95	0.64
2:B:150:ILE:HD12	18:R:126:MET:HB2	1.76	0.64
2:B:178:THR:O	2:B:179:ASN:HB2	1.95	0.64
3:C:164:THR:HG23	3:C:165:VAL:H	1.62	0.64
5:E:49:ARG:CB	5:E:55:ALA:HB3	2.27	0.64
9:I:139:LYS:HB3	9:I:145:ILE:HD11	1.57	0.64
10:J:37:LEU:HG	10:J:42:GLU:HB2	1.77	0.64
11:K:38:LYS:O	11:K:39:ASN:CB	2.45	0.64
12:L:71:ARG:HG2	12:L:73:LEU:HG	1.79	0.64
16:P:100:LYS:HG2	34:i:1236:A:N6	2.13	0.64
18:R:31:ASN:ND2	18:R:55:THR:HG22	2.11	0.64
18:R:71:ILE:O	18:R:75:GLU:HG3	1.97	0.64
24:X:4:CYS:SG	34:i:1157:U:OP2	2.55	0.64
24:X:52:LEU:HD21	24:X:71:ARG:HD3	1.79	0.64
24:X:139:GLU:CD	24:X:139:GLU:N	2.55	0.64
27:a:45:VAL:HG23	27:a:46:GLU:N	2.12	0.64
29:c:44:ARG:CZ	29:c:58:LEU:HD22	2.27	0.64
34:i:447:C:O4'	34:i:1795:A:H4'	1.97	0.64
34:i:848:G:H3'	34:i:849:C:C5'	2.24	0.64
1:A:196:GLU:HA	1:A:196:GLU:OE2	1.97	0.64
3:C:55:VAL:CG1	3:C:82:PHE:CD2	2.74	0.64
4:D:55:THR:CA	4:D:58:VAL:HG22	2.27	0.64
7:G:162:LEU:HD22	7:G:172:LYS:NZ	2.12	0.64
10:J:91:LYS:CA	10:J:96:TYR:CG	2.80	0.64
10:J:109:ARG:O	10:J:110:LEU:C	2.34	0.64
10:J:170:PRO:HD2	10:J:175:ARG:HH11	1.61	0.64
14:N:25:TRP:CD1	28:b:83:GLN:HB3	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:124:THR:HG22	20:T:127:GLY:H	1.61	0.64
21:U:67:LYS:O	21:U:68:THR:C	2.33	0.64
33:g:261:LEU:HD22	33:g:261:LEU:N	2.12	0.64
34:i:683:G:N2	34:i:733:G:O6	2.31	0.64
34:i:1055:G:C2	34:i:1824:U:P	2.90	0.64
2:B:105:LEU:HD11	2:B:213:ARG:CG	2.27	0.64
6:F:129:GLY:O	6:F:134:VAL:HG22	1.97	0.64
10:J:28:GLU:CD	10:J:40:LYS:HD2	2.20	0.64
10:J:177:ASN:O	10:J:180:LYS:HB3	1.97	0.64
11:K:60:GLU:OE1	11:K:67:PHE:HE1	1.68	0.64
13:M:13:ASP:C	13:M:16:THR:HB	2.13	0.64
15:O:43:HIS:CG	15:O:43:HIS:O	2.47	0.64
16:P:5:GLU:O	16:P:6:GLN:HB2	1.97	0.64
16:P:100:LYS:HG2	34:i:1236:A:N1	2.13	0.64
25:Y:63:HIS:ND1	25:Y:64:PHE:CD1	2.65	0.64
25:Y:114:MET:CE	25:Y:125:VAL:CG2	2.73	0.64
27:a:10:ARG:HB3	27:a:34:LYS:HA	1.80	0.64
28:b:5:LYS:HZ2	28:b:5:LYS:HB3	1.62	0.64
33:g:119:GLN:NE2	33:g:131:LEU:HG	2.12	0.64
33:g:144:ASP:O	33:g:145:GLU:HB2	1.97	0.64
34:i:738:U:C5	34:i:739:U:C4	2.84	0.64
1:A:40:LYS:HD3	1:A:41:ARG:H	1.62	0.64
3:C:223:LYS:CE	34:i:1351:C:O2	2.37	0.64
3:C:236:LEU:CD2	3:C:237:THR:O	2.45	0.64
4:D:215:ASP:O	4:D:216:GLU:CB	2.45	0.64
8:H:10:LYS:HE3	8:H:16:PRO:C	2.22	0.64
8:H:110:THR:CG2	8:H:110:THR:O	2.46	0.64
9:I:104:ILE:O	9:I:105:ASP:OD2	2.15	0.64
9:I:155:ASN:C	9:I:157:LYS:N	2.55	0.64
10:J:35:TYR:CE1	10:J:112:THR:HG21	2.33	0.64
11:K:50:GLN:O	11:K:53:LYS:HG2	1.98	0.64
12:L:113:LEU:HD11	12:L:120:VAL:CB	2.27	0.64
15:O:121:ARG:NH1	29:c:62:GLU:OE1	2.28	0.64
16:P:75:VAL:HG12	16:P:76:VAL:N	2.10	0.64
19:S:42:HIS:CE1	20:T:45:LEU:CD2	2.54	0.64
19:S:46:ARG:HH12	20:T:50:GLU:HA	1.62	0.64
23:W:90:GLN:N	23:W:102:ILE:CD1	2.60	0.64
34:i:199:G:C5	34:i:200:U:C5	2.85	0.64
34:i:489:G:C2	34:i:491:C:H1'	2.32	0.64
1:A:16:LEU:HB2	1:A:17:LYS:CE	2.28	0.64
1:A:42:LYS:HZ2	18:R:102:THR:CG2	2.08	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:180:ARG:NH1	1:A:184:ARG:HH12	1.95	0.64
3:C:54:LEU:HD22	3:C:254:PHE:HB3	1.79	0.64
4:D:53:THR:HG22	4:D:91:VAL:CG2	2.28	0.64
4:D:179:GLN:O	4:D:179:GLN:NE2	2.30	0.64
5:E:133:THR:O	5:E:134:LYS:CB	2.45	0.64
6:F:51:HIS:ND1	17:Q:82:TYR:OH	2.30	0.64
8:H:163:GLN:O	8:H:166:VAL:HG12	1.97	0.64
9:I:25:ARG:HD2	9:I:27:TYR:HE2	0.78	0.64
9:I:82:VAL:CG1	9:I:202:ILE:HD11	2.25	0.64
9:I:85:ALA:HB1	12:L:8:ARG:CD	2.26	0.64
9:I:167:GLN:HG3	9:I:168:GLN:N	2.12	0.64
9:I:206:LYS:CG	9:I:207:GLY:H	2.06	0.64
10:J:82:VAL:CG1	10:J:92:MET:CE	2.76	0.64
10:J:84:ILE:HD12	10:J:86:VAL:CG2	2.28	0.64
11:K:71:LEU:CD2	11:K:76:ILE:HD11	2.13	0.64
15:O:128:ARG:C	15:O:129:ILE:HG12	2.17	0.64
16:P:41:GLN:HB2	16:P:84:ILE:HG12	1.77	0.64
18:R:119:VAL:HG23	18:R:119:VAL:O	1.96	0.64
20:T:76:THR:C	20:T:95:GLY:H	1.98	0.64
24:X:52:LEU:HD11	24:X:71:ARG:CB	2.28	0.64
1:A:66:VAL:HG11	22:V:46:PHE:CB	2.28	0.64
1:A:176:TRP:CD1	1:A:199:PRO:HA	2.33	0.64
2:B:71:LEU:HB2	2:B:84:PHE:CE2	2.33	0.64
2:B:72:ALA:CA	2:B:79:VAL:CG2	2.69	0.64
3:C:58:MET:CE	3:C:81:PHE:HZ	2.10	0.64
3:C:154:TYR:OH	3:C:161:LYS:C	2.40	0.64
3:C:161:LYS:HD3	22:V:9:VAL:HG21	1.80	0.64
5:E:259:LYS:O	5:E:260:GLN:CG	2.45	0.64
5:E:259:LYS:HG2	5:E:260:GLN:OE1	1.96	0.64
6:F:102:LEU:HD13	26:Z:110:THR:HG22	1.78	0.64
8:H:117:PRO:HD2	8:H:120:ARG:HD2	1.80	0.64
8:H:143:ARG:HE	23:W:53:ILE:CG2	1.99	0.64
11:K:4:PRO:CG	11:K:7:ASN:ND2	2.60	0.64
13:M:12:MET:CE	13:M:17:ALA:C	2.41	0.64
13:M:18:LEU:CD2	13:M:22:LEU:HG	2.25	0.64
16:P:44:ARG:HD2	16:P:82:ASP:O	1.97	0.64
20:T:29:LYS:C	20:T:30:VAL:CG1	2.70	0.64
23:W:101:PHE:HD2	23:W:129:PHE:HE1	1.46	0.64
25:Y:20:ARG:C	25:Y:21:LYS:HD3	2.22	0.64
25:Y:54:VAL:HG13	25:Y:76:TYR:CA	2.27	0.64
27:a:51:ARG:HG3	27:a:52:ASP:N	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:b:12:PRO:HD2	28:b:13:GLU:HG3	1.78	0.64
29:c:11:LEU:HB3	29:c:35:MET:CE	2.27	0.64
33:g:5:MET:CE	33:g:312:VAL:CG2	2.71	0.64
33:g:172:LYS:HZ3	33:g:192:THR:HG22	1.61	0.64
33:g:212:LYS:HA	33:g:235:ILE:CG1	2.23	0.64
33:g:240:CYS:HG	33:g:291:TRP:HD1	1.46	0.64
1:A:32:PHE:CD1	1:A:33:GLN:NE2	2.64	0.64
3:C:51:LEU:HD23	3:C:60:ILE:HD12	1.79	0.64
7:G:145:PHE:HB3	7:G:147:LEU:HD13	1.77	0.64
9:I:144:LYS:O	9:I:145:ILE:CB	2.45	0.64
10:J:12:THR:C	10:J:48:PHE:CE2	2.76	0.64
10:J:84:ILE:CD1	10:J:86:VAL:CG2	2.75	0.64
11:K:3:MET:HG2	11:K:4:PRO:N	2.13	0.64
11:K:16:PHE:HE2	11:K:79:LEU:CA	2.09	0.64
14:N:40:LEU:HB3	14:N:45:LEU:HD12	1.79	0.64
15:O:30:VAL:CG2	15:O:45:THR:OG1	2.46	0.64
16:P:53:GLN:O	16:P:56:LEU:HB2	1.97	0.64
19:S:34:LYS:CA	19:S:103:LEU:CD2	2.73	0.64
21:U:106:ILE:O	21:U:106:ILE:HG12	1.98	0.64
26:Z:99:LEU:HD11	26:Z:102:LYS:NZ	2.13	0.64
26:Z:103:HIS:O	26:Z:104:ARG:C	2.35	0.64
31:e:114:ARG:CA	31:e:118:ASN:HB2	2.26	0.64
34:i:79:A:HO2'	34:i:80:G:H8	1.44	0.64
34:i:546:U:H2'	34:i:547:U:C5'	2.28	0.64
3:C:196:LYS:C	3:C:200:LEU:HD23	2.23	0.64
3:C:241:TRP:CD1	23:W:68:ARG:HD3	2.32	0.64
5:E:11:ARG:O	5:E:12:VAL:HB	1.96	0.64
6:F:14:THR:CB	17:Q:56:LEU:CG	2.74	0.64
6:F:19:LEU:CD2	6:F:24:SER:HA	2.28	0.64
7:G:142:ARG:CD	7:G:147:LEU:HB3	2.26	0.64
8:H:85:LYS:O	8:H:85:LYS:CD	2.34	0.64
8:H:87:PHE:O	8:H:88:SER:O	2.15	0.64
9:I:3:ILE:O	9:I:3:ILE:HG22	1.96	0.64
10:J:162:ARG:O	10:J:163:SER:C	2.41	0.64
13:M:35:ILE:HG23	13:M:36:ARG:N	2.13	0.64
13:M:85:LEU:HD13	13:M:106:CYS:SG	2.38	0.64
16:P:13:ARG:O	16:P:14:LYS:HG3	1.97	0.64
19:S:20:ILE:HD11	19:S:33:ILE:HD11	1.79	0.64
30:d:5:GLN:C	30:d:7:TYR:N	2.47	0.64
34:i:520:U:C5	34:i:521:A:N9	2.66	0.64
34:i:520:U:O4	34:i:545:A:N3	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1215:C:H2'	34:i:1216:A:C8	2.32	0.64
35:l:36:GLN:N	35:l:113:PHE:HB3	2.11	0.64
35:l:88:ASP:OD2	35:l:90:ARG:NH1	2.30	0.64
1:A:17:LYS:CE	1:A:17:LYS:H	2.08	0.64
1:A:193:HIS:ND1	1:A:194:PRO:HD2	2.12	0.64
1:A:205:ARG:O	1:A:206:ASP:HB2	1.97	0.64
2:B:25:PHE:CD2	15:O:88:LEU:HD21	2.30	0.64
3:C:117:ASP:CG	3:C:119:ASN:H	2.05	0.64
3:C:217:THR:O	3:C:219:GLY:N	2.31	0.64
5:E:126:VAL:HG21	5:E:129:ILE:CD1	2.27	0.64
6:F:36:GLN:C	6:F:37:ASP:CG	2.63	0.64
6:F:59:LYS:CD	6:F:62:ARG:HD3	2.23	0.64
7:G:50:VAL:HG11	7:G:111:LEU:HD22	1.73	0.64
11:K:53:LYS:HG3	11:K:54:SER:N	2.11	0.64
13:M:28:HIS:HD2	13:M:115:GLY:HA3	1.53	0.64
13:M:115:GLY:O	13:M:116:LYS:CB	2.45	0.64
14:N:6:ALA:HB1	14:N:7:PRO:CD	2.27	0.64
14:N:59:GLY:O	14:N:60:VAL:CG1	2.45	0.64
14:N:137:PRO:O	14:N:138:ASN:ND2	2.30	0.64
16:P:56:LEU:HD11	16:P:80:LEU:HD12	1.76	0.64
20:T:95:GLY:O	20:T:96:SER:O	2.14	0.64
21:U:33:GLU:OE1	21:U:55:ARG:NH2	2.30	0.64
21:U:47:ASN:O	21:U:47:ASN:ND2	2.29	0.64
26:Z:48:VAL:CA	26:Z:83:LEU:HD12	2.28	0.64
35:l:30:TYR:CZ	35:l:107:GLN:CA	2.78	0.64
2:B:30:TRP:HE1	15:O:17:LEU:HD22	1.59	0.64
2:B:75:GLN:NE2	2:B:75:GLN:CA	2.61	0.64
3:C:233:TYR:CE1	22:V:12:TYR:CZ	2.86	0.64
6:F:41:VAL:CG2	6:F:42:LYS:N	2.29	0.64
7:G:76:LEU:HD21	7:G:92:ARG:CG	2.19	0.64
8:H:64:VAL:HG13	8:H:65:PRO:HD2	1.78	0.64
8:H:83:LEU:HD12	8:H:83:LEU:C	2.23	0.64
8:H:138:GLU:OE2	14:N:19:ARG:CA	2.46	0.64
10:J:29:LEU:HD22	31:e:112:TYR:HD1	1.62	0.64
13:M:13:ASP:OD1	13:M:13:ASP:N	2.30	0.64
14:N:94:LYS:HG2	14:N:118:ILE:HD13	1.78	0.64
16:P:65:LYS:HG3	16:P:66:GLU:N	2.14	0.64
16:P:108:LYS:NZ	19:S:118:ARG:NH1	2.43	0.64
20:T:21:PHE:CE1	20:T:22:LEU:HD23	2.33	0.64
28:b:61:THR:HG23	28:b:62:VAL:H	1.59	0.64
33:g:51:ASN:HB2	33:g:53:GLY:O	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:193:HIS:HB3	1:A:194:PRO:HD2	1.80	0.63
2:B:31:TYR:CE2	2:B:62:LEU:HD22	2.32	0.63
2:B:181:LEU:O	2:B:185:VAL:HG23	1.97	0.63
3:C:255:THR:CG2	3:C:256:ASP:OD1	2.45	0.63
4:D:201:LYS:C	4:D:203:PRO:HD2	2.13	0.63
5:E:159:THR:HG21	5:E:227:VAL:CG2	2.21	0.63
6:F:186:ASN:O	6:F:191:LYS:NZ	2.31	0.63
7:G:187:HIS:NE2	34:i:306:C:H5	1.95	0.63
9:I:36:THR:HB	9:I:57:ALA:O	1.97	0.63
10:J:103:GLU:O	10:J:107:GLU:HG3	1.98	0.63
10:J:170:PRO:HB3	10:J:174:LYS:CE	2.27	0.63
12:L:112:HIS:HB2	12:L:134:LEU:CD1	2.28	0.63
16:P:39:ALA:CA	16:P:42:ARG:HE	2.09	0.63
16:P:127:LYS:HZ1	16:P:127:LYS:CA	2.10	0.63
21:U:50:VAL:HG23	21:U:89:ILE:HG23	1.79	0.63
22:V:40:ASP:HB3	22:V:47:ASN:HD21	1.60	0.63
25:Y:92:ALA:HA	25:Y:97:TYR:CA	2.27	0.63
25:Y:117:VAL:CG2	25:Y:124:ASN:OD1	2.46	0.63
25:Y:119:GLY:O	25:Y:120:THR:C	2.42	0.63
26:Z:99:LEU:HD11	26:Z:102:LYS:CE	2.23	0.63
28:b:11:SER:O	28:b:15:GLU:HG3	1.99	0.63
33:g:83:TRP:O	33:g:85:GLY:N	2.31	0.63
34:i:1280:A:OP1	34:i:1282:G:H5'	1.98	0.63
35:l:95:GLN:O	35:l:97:LEU:N	2.31	0.63
5:E:86:PHE:O	5:E:142:HIS:HE1	1.81	0.63
5:E:184:THR:C	5:E:189:LEU:CD1	2.70	0.63
8:H:143:ARG:NE	23:W:53:ILE:HG12	2.10	0.63
9:I:112:TRP:CZ3	9:I:117:TYR:CE2	2.86	0.63
9:I:140:LYS:O	9:I:144:LYS:O	2.14	0.63
9:I:145:ILE:CA	9:I:148:LYS:HG3	2.29	0.63
10:J:177:ASN:C	10:J:180:LYS:HB3	2.24	0.63
14:N:38:TYR:CE1	14:N:78:LYS:CG	2.82	0.63
15:O:20:GLN:NE2	15:O:21:VAL:O	2.31	0.63
16:P:83:MET:HB3	16:P:116:LEU:CD1	2.28	0.63
17:Q:28:GLY:HA3	17:Q:67:ASP:CG	2.23	0.63
17:Q:112:LEU:O	17:Q:116:ASP:HA	1.99	0.63
20:T:77:LYS:CD	20:T:92:PHE:HE2	2.11	0.63
25:Y:56:PHE:HB3	25:Y:58:PHE:HE2	1.63	0.63
34:i:1497:C:H2'	34:i:1498:C:O4'	1.98	0.63
2:B:93:GLY:C	2:B:94:LYS:HD3	2.23	0.63
3:C:58:MET:CE	3:C:81:PHE:CZ	2.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:59:LYS:CG	3:C:254:PHE:CE1	2.77	0.63
3:C:164:THR:HG23	3:C:165:VAL:N	2.12	0.63
3:C:196:LYS:O	3:C:200:LEU:HD23	1.97	0.63
3:C:237:THR:OG1	3:C:240:LEU:HD13	1.97	0.63
5:E:191:ARG:NE	5:E:245:ARG:HD3	2.13	0.63
6:F:39:ILE:HG23	6:F:68:ILE:HD13	1.79	0.63
7:G:80:GLY:O	7:G:81:HIS:CG	2.52	0.63
7:G:142:ARG:CG	7:G:142:ARG:NH1	2.47	0.63
7:G:187:HIS:CE1	34:i:306:C:H41	2.16	0.63
8:H:138:GLU:CD	14:N:19:ARG:HB3	2.21	0.63
8:H:163:GLN:HG2	8:H:164:ASN:N	2.12	0.63
9:I:8:TRP:CZ3	9:I:20:PRO:HA	2.32	0.63
9:I:112:TRP:CH2	9:I:117:TYR:CE2	2.86	0.63
12:L:22:ARG:CZ	12:L:22:ARG:HB3	2.27	0.63
14:N:21:SER:O	14:N:22:VAL:CB	2.46	0.63
16:P:10:ARG:HE	16:P:11:THR:CA	2.11	0.63
16:P:32:GLN:HA	16:P:35:GLN:CD	2.24	0.63
16:P:110:GLU:N	16:P:110:GLU:OE2	2.30	0.63
18:R:120:THR:O	18:R:121:GLN:CB	2.44	0.63
19:S:46:ARG:NH1	20:T:50:GLU:HG2	2.12	0.63
19:S:54:LYS:N	19:S:54:LYS:CB	2.57	0.63
19:S:54:LYS:HD3	19:S:58:GLU:OE1	1.98	0.63
20:T:111:LYS:O	20:T:124:THR:HG21	1.98	0.63
24:X:122:VAL:HG12	24:X:130:LEU:HD11	1.78	0.63
25:Y:111:LYS:HD2	25:Y:115:LYS:HE3	1.80	0.63
30:d:10:HIS:ND1	30:d:10:HIS:C	2.55	0.63
33:g:48:ASP:C	33:g:49:GLU:CD	2.66	0.63
33:g:153:CYS:HB3	33:g:168:CYS:SG	2.39	0.63
34:i:1823:G:H1'	34:i:1843:G:O6	1.99	0.63
35:l:35:ILE:CG1	35:l:112:GLY:HA2	2.28	0.63
4:D:29:LEU:CB	4:D:34:TYR:HB2	2.28	0.63
4:D:67:ARG:CG	4:D:67:ARG:NH1	2.56	0.63
5:E:25:SER:CB	34:i:485:U:H1'	2.28	0.63
5:E:115:THR:HB	5:E:116:PRO:HD2	1.81	0.63
6:F:42:LYS:HB2	6:F:45:TYR:H	0.82	0.63
6:F:42:LYS:HB2	6:F:46:ALA:H	1.64	0.63
7:G:66:GLY:HA3	34:i:1740:A:H1'	1.80	0.63
7:G:131:ARG:CD	7:G:131:ARG:HG3	2.15	0.63
7:G:210:ALA:O	7:G:213:LEU:HG	1.98	0.63
8:H:10:LYS:CB	8:H:20:GLU:OE1	2.46	0.63
9:I:154:LYS:O	9:I:154:LYS:NZ	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:40:VAL:CG2	11:K:41:PRO:HD3	2.24	0.63
13:M:78:LYS:O	13:M:79:VAL:CB	2.47	0.63
16:P:10:ARG:HE	16:P:11:THR:CB	2.11	0.63
19:S:47:LYS:CE	19:S:78:LYS:HB2	2.27	0.63
20:T:94:ARG:HG3	20:T:94:ARG:HH11	1.63	0.63
24:X:35:ALA:HA	24:X:39:ASN:HD22	1.60	0.63
25:Y:114:MET:HE2	25:Y:121:ALA:O	1.99	0.63
32:f:106:TYR:OH	32:f:131:PHE:HE2	1.75	0.63
2:B:67:PHE:CD1	15:O:47:LEU:O	2.51	0.63
4:D:59:LEU:HD12	4:D:60:GLY:O	1.99	0.63
4:D:70:THR:HG22	4:D:86:LEU:CG	2.29	0.63
5:E:62:LYS:HD2	5:E:80:ILE:CG1	2.28	0.63
6:F:36:GLN:HG3	6:F:37:ASP:OD2	1.96	0.63
7:G:64:LYS:HE2	7:G:67:VAL:HG13	1.79	0.63
7:G:183:ARG:HD2	34:i:307:G:OP2	1.98	0.63
9:I:5:ARG:HH21	34:i:372:C:N4	1.96	0.63
10:J:16:PRO:HD2	10:J:44:TRP:CH2	2.32	0.63
10:J:16:PRO:O	10:J:18:ARG:N	2.32	0.63
13:M:35:ILE:HD13	13:M:61:TYR:CE2	2.32	0.63
14:N:28:LEU:HD13	14:N:58:HIS:CE1	2.33	0.63
17:Q:42:ILE:CD1	17:Q:51:LEU:HD22	2.03	0.63
17:Q:85:ARG:HH22	17:Q:117:ARG:HD2	1.63	0.63
17:Q:138:ARG:HB2	34:i:1644:U:O3'	1.99	0.63
19:S:89:ASP:O	19:S:90:VAL:HB	1.98	0.63
25:Y:58:PHE:CE1	25:Y:72:PHE:CD2	2.87	0.63
28:b:64:CYS:HG	28:b:73:LEU:CD2	1.93	0.63
34:i:202:U:C4'	34:i:235:C:OP1	2.44	0.63
34:i:1468:C:N4	34:i:1471:G:C8	2.65	0.63
35:l:63:PHE:CZ	35:l:89:GLN:NE2	2.65	0.63
3:C:126:MET:CE	3:C:223:LYS:HD2	2.27	0.63
5:E:64:ILE:HG13	25:Y:18:LEU:HD21	1.80	0.63
5:E:98:ASN:ND2	5:E:114:ILE:HD11	2.13	0.63
6:F:36:GLN:O	6:F:37:ASP:CB	2.43	0.63
6:F:42:LYS:HE3	6:F:43:GLU:CA	2.27	0.63
6:F:110:GLN:O	6:F:113:VAL:CG1	2.44	0.63
6:F:112:LEU:O	6:F:116:ILE:HD11	1.97	0.63
6:F:145:ARG:CG	29:c:48:GLY:HA2	2.21	0.63
6:F:195:GLU:O	6:F:199:VAL:HG23	1.97	0.63
7:G:19:ASP:O	7:G:20:ASP:CG	2.42	0.63
7:G:25:ARG:O	7:G:27:PHE:N	2.31	0.63
7:G:217:MET:O	7:G:221:LYS:HB2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:80:ARG:HA	10:J:83:ARG:CD	2.28	0.63
11:K:57:TYR:CD1	11:K:75:GLY:HA2	2.33	0.63
16:P:111:MET:C	16:P:114:HIS:HD2	2.07	0.63
17:Q:42:ILE:HD11	17:Q:51:LEU:CD1	2.29	0.63
17:Q:50:LYS:NZ	17:Q:117:ARG:CD	2.48	0.63
19:S:58:GLU:HB2	19:S:59:LEU:HD13	1.80	0.63
20:T:87:VAL:HG21	34:i:1660:G:N1	2.13	0.63
30:d:45:GLN:C	30:d:46:TYR:HD2	2.06	0.63
33:g:201:SER:CB	33:g:202:PRO:HD3	2.12	0.63
34:i:654:A:H61	34:i:1159:C:H42	1.44	0.63
1:A:120:ARG:NH2	3:C:252:GLN:OE1	2.31	0.63
3:C:149:PRO:CD	3:C:149:PRO:O	2.45	0.63
4:D:63:GLY:O	4:D:67:ARG:NH1	2.31	0.63
6:F:28:VAL:HA	6:F:110:GLN:OE1	1.99	0.63
8:H:66:VAL:CG2	8:H:97:GLN:O	2.47	0.63
12:L:113:LEU:HD21	12:L:117:PHE:HB2	1.79	0.63
18:R:42:PRO:CD	18:R:43:SER:H	2.07	0.63
21:U:27:ARG:CG	21:U:83:ARG:O	2.45	0.63
25:Y:5:VAL:HG12	25:Y:6:THR:N	2.12	0.63
30:d:27:ARG:HH21	34:i:1259:U:H4'	1.64	0.63
32:f:130:VAL:HG11	32:f:143:LYS:HG2	1.80	0.63
32:f:140:TYR:OH	32:f:146:LEU:C	2.38	0.63
1:A:139:TYR:C	1:A:140:VAL:HG23	2.24	0.63
4:D:53:THR:HG22	4:D:91:VAL:H	1.64	0.63
4:D:74:GLN:HB2	4:D:84:VAL:HG12	1.80	0.63
4:D:135:GLU:HB3	4:D:153:VAL:HG22	1.81	0.63
5:E:64:ILE:HG12	25:Y:17:LEU:CD1	2.29	0.63
5:E:75:LYS:O	5:E:76:VAL:O	2.17	0.63
5:E:145:ARG:HH11	5:E:145:ARG:CG	2.10	0.63
5:E:260:GLN:OE1	5:E:260:GLN:CA	2.47	0.63
11:K:65:ARG:HH11	11:K:65:ARG:HB2	1.63	0.63
12:L:40:ILE:HG23	12:L:41:GLY:O	1.99	0.63
12:L:113:LEU:CD1	12:L:120:VAL:HG11	2.29	0.63
14:N:60:VAL:HG23	14:N:60:VAL:O	1.97	0.63
16:P:44:ARG:HH21	16:P:84:ILE:N	1.96	0.63
19:S:85:ASN:HD21	19:S:98:VAL:HB	1.64	0.63
19:S:89:ASP:O	19:S:90:VAL:CB	2.47	0.63
21:U:48:LEU:HD12	21:U:91:LEU:HD22	1.80	0.63
22:V:62:MET:HG3	22:V:62:MET:O	1.98	0.63
24:X:126:ALA:CA	24:X:128:VAL:HB	2.28	0.63
25:Y:114:MET:C	25:Y:124:ASN:HD22	2.06	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:51:ASP:O	26:Z:53:ALA:N	2.32	0.63
31:e:105:ARG:CB	31:e:105:ARG:HH21	2.04	0.63
31:e:115:ARG:CA	31:e:119:VAL:CG2	2.76	0.63
33:g:17:TRP:CZ3	33:g:36:ARG:NH2	2.67	0.63
33:g:273:GLU:HA	33:g:274:VAL:HG13	1.79	0.63
33:g:292:SER:HB2	33:g:297:THR:HB	1.80	0.63
2:B:228:LEU:CD1	2:B:232:HIS:HD2	2.12	0.63
4:D:207:HIS:O	4:D:208:VAL:HG23	1.97	0.63
5:E:36:HIS:C	5:E:41:CYS:SG	2.82	0.63
6:F:167:LYS:CD	6:F:171:GLU:HG2	2.20	0.63
8:H:14:GLU:CG	8:H:16:PRO:HB2	2.29	0.63
8:H:158:LEU:HD11	8:H:187:PHE:CE1	2.33	0.63
8:H:160:LYS:HB2	8:H:192:PHE:HZ	1.64	0.63
9:I:145:ILE:HA	9:I:148:LYS:CG	2.28	0.63
10:J:122:SER:HG	10:J:124:HIS:CB	2.11	0.63
10:J:135:ILE:O	10:J:135:ILE:HG13	1.99	0.63
11:K:64:TRP:C	11:K:65:ARG:HG2	2.24	0.63
14:N:27:LYS:HD2	14:N:28:LEU:H	1.64	0.63
15:O:98:ARG:HG3	15:O:133:THR:HA	1.81	0.63
15:O:131:ASP:OD2	27:a:67:LEU:CD2	2.45	0.63
18:R:93:GLN:O	18:R:94:GLU:C	2.40	0.63
19:S:85:ASN:HD21	19:S:98:VAL:H	1.46	0.63
19:S:121:ARG:CG	19:S:131:VAL:HG13	2.24	0.63
23:W:29:PRO:O	23:W:30:CYS:HB3	1.99	0.63
24:X:5:ARG:HH21	24:X:5:ARG:CG	2.12	0.63
24:X:41:PHE:HZ	24:X:102:VAL:HG12	1.63	0.63
26:Z:65:TYR:HD2	26:Z:68:ILE:CG1	2.11	0.63
28:b:62:VAL:CG2	28:b:74:THR:HG21	2.29	0.63
33:g:194:TYR:HE1	33:g:196:ASN:HD21	1.47	0.63
35:l:34:ARG:HH11	35:l:111:HIS:HB2	1.63	0.63
1:A:66:VAL:CG1	1:A:186:ARG:CD	2.71	0.62
1:A:157:VAL:O	22:V:66:ASP:CG	2.42	0.62
6:F:122:ARG:NE	6:F:193:LYS:HZ3	1.96	0.62
8:H:106:ARG:CD	34:i:857:A:C4	2.82	0.62
9:I:152:ARG:O	9:I:153:LYS:HB3	1.99	0.62
11:K:40:VAL:CG2	11:K:41:PRO:HD2	2.18	0.62
14:N:5:HIS:CD2	14:N:121:ARG:NE	2.66	0.62
15:O:125:LYS:CE	27:a:56:VAL:O	2.47	0.62
17:Q:12:VAL:HG11	17:Q:90:LYS:CB	2.28	0.62
19:S:80:PRO:CG	19:S:82:TRP:CE2	2.82	0.62
19:S:108:ARG:NH1	19:S:112:GLU:OE2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:53:ILE:HG21	28:b:25:VAL:HG23	1.81	0.62
25:Y:98:GLU:CD	25:Y:98:GLU:O	2.41	0.62
26:Z:103:HIS:HD2	26:Z:105:ALA:HB3	1.58	0.62
32:f:147:THR:HG23	32:f:147:THR:O	1.98	0.62
1:A:60:LEU:C	1:A:60:LEU:CD1	2.72	0.62
2:B:113:MET:HE3	2:B:211:PHE:HZ	1.61	0.62
3:C:259:VAL:HG12	3:C:259:VAL:O	1.97	0.62
6:F:91:ARG:HH21	17:Q:46:THR:CG2	2.12	0.62
6:F:134:VAL:CG1	6:F:136:ARG:HH21	2.09	0.62
7:G:31:ARG:O	7:G:34:THR:HG23	1.99	0.62
7:G:62:PRO:HG2	7:G:83:CYS:SG	2.38	0.62
7:G:135:PRO:CG	7:G:144:LEU:CD2	2.76	0.62
7:G:179:LEU:C	7:G:180:VAL:HG23	2.24	0.62
9:I:80:ASP:OD1	9:I:94:LYS:HG2	1.98	0.62
12:L:118:ARG:CG	12:L:119:ASP:N	2.62	0.62
15:O:31:CYS:HB2	15:O:95:ILE:CG1	2.27	0.62
16:P:39:ALA:CA	16:P:42:ARG:NE	2.56	0.62
16:P:121:ILE:HG22	19:S:120:HIS:CA	2.29	0.62
20:T:84:ARG:HB2	20:T:84:ARG:CZ	2.27	0.62
20:T:91:HIS:N	20:T:91:HIS:HD2	1.97	0.62
20:T:119:TRP:CB	34:i:1557:C:O2'	2.46	0.62
20:T:134:ILE:HG13	20:T:135:ALA:N	2.14	0.62
22:V:56:CYS:SG	22:V:59:ILE:HG13	2.38	0.62
25:Y:101:LYS:O	25:Y:102:THR:CB	2.43	0.62
33:g:248:LEU:O	33:g:259:TRP:HZ3	1.70	0.62
35:l:76:HIS:HB2	35:l:82:VAL:HG22	1.81	0.62
1:A:5:LEU:CD1	1:A:6:ASP:N	2.51	0.62
1:A:120:ARG:HG2	3:C:251:TYR:CE2	2.34	0.62
1:A:125:THR:CA	1:A:147:LEU:HB2	2.27	0.62
1:A:169:HIS:HD2	1:A:203:PHE:CE2	2.17	0.62
2:B:133:TYR:CD1	2:B:217:MET:HE1	2.34	0.62
3:C:155:TRP:CE2	23:W:97:ARG:HD3	2.34	0.62
4:D:222:PRO:O	4:D:223:ILE:HB	1.98	0.62
5:E:67:GLN:HG2	5:E:69:PHE:CE2	2.33	0.62
5:E:87:MET:O	5:E:122:LYS:CE	2.48	0.62
6:F:165:ASN:OD1	6:F:167:LYS:HB2	1.98	0.62
8:H:190:PRO:HB2	8:H:191:GLU:HG2	1.80	0.62
12:L:94:HIS:HB3	12:L:105:ARG:HD2	1.75	0.62
16:P:41:GLN:HE21	16:P:44:ARG:HH21	1.47	0.62
23:W:41:MET:HG2	23:W:129:PHE:HD2	1.63	0.62
23:W:65:LEU:HD12	23:W:65:LEU:O	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:99:LEU:CD1	26:Z:102:LYS:CD	2.72	0.62
27:a:85:ARG:O	27:a:85:ARG:HG2	1.98	0.62
28:b:16:LYS:HD3	28:b:16:LYS:H	1.64	0.62
33:g:46:THR:CB	33:g:48:ASP:H	2.12	0.62
33:g:59:LEU:HD12	33:g:90:TRP:CD2	2.34	0.62
1:A:125:THR:O	1:A:147:LEU:HD12	1.98	0.62
1:A:206:ASP:O	1:A:207:PRO:O	2.17	0.62
2:B:150:ILE:HG23	2:B:150:ILE:O	1.97	0.62
2:B:156:ALA:HB1	2:B:160:GLN:OE1	1.98	0.62
4:D:166:TYR:CE1	4:D:200:PRO:CB	2.83	0.62
6:F:122:ARG:C	6:F:141:VAL:HG13	2.18	0.62
7:G:50:VAL:CG1	7:G:111:LEU:CG	2.77	0.62
8:H:51:ILE:HD11	8:H:176:VAL:HA	1.81	0.62
10:J:110:LEU:O	10:J:112:THR:N	2.32	0.62
11:K:48:ALA:O	11:K:52:LEU:HD23	1.98	0.62
13:M:124:ILE:HG13	13:M:125:GLU:N	2.13	0.62
15:O:17:LEU:CD2	15:O:18:GLY:N	2.63	0.62
15:O:72:TYR:CE1	15:O:76:LEU:HD11	2.33	0.62
15:O:77:ALA:O	15:O:81:VAL:HG23	1.98	0.62
18:R:13:ALA:CA	18:R:54:VAL:CG2	2.69	0.62
21:U:69:PRO:O	21:U:69:PRO:HD2	1.98	0.62
25:Y:92:ALA:O	25:Y:97:TYR:O	2.15	0.62
28:b:83:GLN:C	28:b:84:HIS:O	2.38	0.62
31:e:120:VAL:CG2	31:e:121:PRO:O	2.44	0.62
34:i:181:A:C1'	34:i:182:C:C5	2.82	0.62
1:A:45:GLY:C	1:A:46:ILE:HG12	2.22	0.62
1:A:149:ASN:CB	1:A:165:ASN:HD21	2.12	0.62
2:B:38:MET:CE	2:B:186:ASN:ND2	2.52	0.62
2:B:87:ILE:CD1	2:B:220:LYS:HZ3	2.13	0.62
3:C:126:MET:HE1	3:C:223:LYS:CE	2.28	0.62
5:E:176:ASP:O	5:E:195:ILE:HD12	2.00	0.62
8:H:147:LYS:HE3	8:H:153:LEU:HD11	1.81	0.62
8:H:170:VAL:HA	8:H:173:PHE:HD2	1.65	0.62
10:J:35:TYR:CD1	10:J:112:THR:HG21	2.34	0.62
16:P:44:ARG:HD3	16:P:115:TYR:CE1	2.33	0.62
17:Q:76:GLY:H	17:Q:79:ALA:HB3	1.64	0.62
27:a:85:ARG:H	34:i:1860:A:H61	1.47	0.62
30:d:36:LEU:HD21	30:d:52:PHE:HE2	1.64	0.62
31:e:105:ARG:HH11	31:e:106:ALA:HB2	1.63	0.62
33:g:100:ARG:HH22	34:i:1395:C:H5'	1.65	0.62
34:i:1414:C:H42	34:i:1417:A:N6	1.96	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:11:LYS:CG	1:A:13:GLU:HG3	2.21	0.62
1:A:145:ILE:HA	1:A:159:ILE:HG21	1.77	0.62
2:B:151:ARG:CD	2:B:153:THR:HG22	2.27	0.62
6:F:193:LYS:HE2	6:F:197:GLU:CD	2.25	0.62
7:G:183:ARG:CD	34:i:307:G:OP2	2.46	0.62
10:J:16:PRO:C	10:J:18:ARG:N	2.52	0.62
13:M:45:ARG:H	13:M:45:ARG:HE	1.47	0.62
14:N:93:LYS:HG3	14:N:150:VAL:HG11	1.81	0.62
16:P:41:GLN:CD	16:P:84:ILE:CB	2.61	0.62
16:P:100:LYS:CG	34:i:1236:A:H61	2.12	0.62
20:T:130:ASP:OD2	20:T:131:LEU:CD2	2.48	0.62
26:Z:62:VAL:HG11	26:Z:91:LEU:CD1	2.30	0.62
26:Z:63:PRO:O	26:Z:111:ARG:NH1	2.33	0.62
31:e:86:VAL:HA	31:e:89:GLN:CG	2.27	0.62
33:g:37:ASP:O	33:g:38:LYS:HB2	1.99	0.62
33:g:74:ASP:OD2	33:g:74:ASP:N	2.32	0.62
34:i:186:G:H1'	34:i:210:G:C2	2.35	0.62
34:i:194:C:C2	34:i:195:C:C5	2.80	0.62
34:i:297:C:O2'	34:i:298:G:H5'	1.99	0.62
34:i:936:U:H3	34:i:998:U:H3	1.46	0.62
34:i:1517:A:H2	34:i:1518:C:C5	2.16	0.62
34:i:1531:G:H8	34:i:1531:G:O5'	1.83	0.62
4:D:200:PRO:O	4:D:201:LYS:HB2	1.98	0.62
6:F:78:MET:HB2	6:F:159:ARG:CZ	2.30	0.62
10:J:81:LEU:CD1	10:J:97:ILE:HD13	2.29	0.62
10:J:91:LYS:C	10:J:93:LYS:H	2.08	0.62
17:Q:15:ARG:NH1	17:Q:20:THR:CG2	2.63	0.62
17:Q:42:ILE:CG1	17:Q:51:LEU:HD21	2.28	0.62
18:R:87:GLU:O	18:R:88:VAL:HG12	2.00	0.62
19:S:8:LYS:CD	19:S:8:LYS:N	2.63	0.62
24:X:71:ARG:NE	24:X:82:THR:CG2	2.58	0.62
26:Z:103:HIS:HD2	26:Z:105:ALA:CA	2.13	0.62
33:g:4:GLN:C	33:g:5:MET:HE2	2.23	0.62
34:i:184:G:H8	34:i:184:G:O5'	1.81	0.62
5:E:49:ARG:NH2	5:E:50:ASN:HD21	1.97	0.62
5:E:86:PHE:CE2	5:E:87:MET:HG2	2.34	0.62
7:G:74:ARG:HD3	7:G:94:ARG:CD	2.22	0.62
7:G:155:GLN:C	7:G:156:TYR:CD1	2.78	0.62
8:H:110:THR:O	8:H:110:THR:HG23	1.99	0.62
9:I:33:ALA:HA	34:i:369:C:H5'	1.80	0.62
13:M:124:ILE:C	13:M:127:TYR:CD2	2.77	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:114:ARG:HG2	14:N:114:ARG:NH2	2.11	0.62
16:P:98:ASN:OD1	16:P:120:SER:OG	2.14	0.62
19:S:8:LYS:HB2	19:S:9:PHE:HD1	0.65	0.62
20:T:44:GLU:HG3	34:i:1533:C:H4'	1.81	0.62
24:X:90:CYS:HA	24:X:93:PHE:CD2	2.34	0.62
25:Y:22:GLN:CA	25:Y:74:MET:SD	2.88	0.62
33:g:285:GLN:C	33:g:302:TYR:CD1	2.77	0.62
2:B:57:ILE:HD12	2:B:60:ASP:OD2	1.98	0.62
3:C:154:TYR:CZ	3:C:162:PRO:N	2.68	0.62
3:C:250:PRO:O	3:C:254:PHE:HB2	1.99	0.62
5:E:93:ASP:O	5:E:95:THR:N	2.31	0.62
6:F:44:LYS:CA	6:F:45:TYR:HD1	2.12	0.62
6:F:112:LEU:CA	6:F:177:LEU:HD11	2.28	0.62
7:G:191:ARG:HH22	34:i:303:G:H8	1.48	0.62
8:H:64:VAL:HG22	8:H:72:PHE:HE2	1.65	0.62
8:H:83:LEU:HD13	8:H:92:VAL:HG21	0.62	0.62
10:J:130:ILE:HA	10:J:135:ILE:HD13	1.80	0.62
11:K:90:VAL:HG13	11:K:90:VAL:O	1.99	0.62
12:L:86:ILE:HG21	12:L:113:LEU:HD12	1.82	0.62
12:L:94:HIS:ND1	12:L:96:ILE:HD11	2.15	0.62
13:M:51:VAL:HG13	13:M:109:VAL:CG2	2.30	0.62
14:N:13:GLN:OE1	28:b:21:LYS:HG3	2.00	0.62
15:O:41:PHE:HD1	15:O:57:THR:HG22	1.63	0.62
16:P:15:PHE:CE2	16:P:110:GLU:HB3	2.34	0.62
16:P:108:LYS:H	16:P:111:MET:CE	2.03	0.62
17:Q:30:GLY:CA	17:Q:66:VAL:O	2.40	0.62
25:Y:27:VAL:HG11	25:Y:35:VAL:CG2	2.25	0.62
25:Y:76:TYR:CG	25:Y:82:ALA:HB2	2.35	0.62
33:g:265:ILE:HG13	33:g:266:ILE:N	2.13	0.62
34:i:181:A:C4	34:i:182:C:C2	2.88	0.62
34:i:199:G:C6	34:i:200:U:C4	2.87	0.62
35:l:88:ASP:HB2	35:l:90:ARG:NH1	2.15	0.62
2:B:30:TRP:NE1	15:O:17:LEU:CD2	2.57	0.62
2:B:62:LEU:HD23	2:B:91:VAL:CG2	2.28	0.62
2:B:67:PHE:CD1	15:O:47:LEU:HB3	2.34	0.62
3:C:255:THR:HG23	3:C:256:ASP:N	2.13	0.62
4:D:227:LYS:HE3	33:g:187:ASN:HD22	1.65	0.62
5:E:104:ASP:HB2	5:E:108:ARG:H	1.65	0.62
6:F:36:GLN:HG2	6:F:37:ASP:OD2	1.99	0.62
6:F:103:LEU:HG	6:F:103:LEU:O	2.00	0.62
9:I:190:LEU:HB2	9:I:195:LEU:HD13	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:69:PRO:CD	16:P:70:MET:H	2.11	0.62
19:S:46:ARG:NE	20:T:50:GLU:CD	2.58	0.62
20:T:119:TRP:CD1	34:i:1556:A:N1	2.67	0.62
22:V:33:PRO:O	22:V:34:MET:HG2	2.00	0.62
26:Z:80:ARG:CG	26:Z:82:SER:OG	2.40	0.62
32:f:146:LEU:HD12	32:f:147:THR:CA	2.29	0.62
33:g:162:ASN:CG	33:g:163:PRO:CD	2.71	0.62
34:i:522:C:O2'	34:i:523:A:H5'	2.00	0.62
34:i:1207:G:C5	34:i:1684:C:N4	2.65	0.62
35:l:30:TYR:CG	35:l:107:GLN:HB3	2.35	0.62
1:A:158:ASP:O	1:A:159:ILE:HB	2.00	0.61
2:B:67:PHE:HD1	15:O:47:LEU:HB3	1.64	0.61
3:C:151:ARG:CZ	3:C:240:LEU:HD11	2.29	0.61
4:D:192:TRP:N	4:D:192:TRP:CD1	2.68	0.61
6:F:76:MET:HB3	6:F:89:THR:OG1	2.00	0.61
8:H:135:PHE:HD2	8:H:136:PRO:CD	2.12	0.61
8:H:193:GLN:CD	8:H:193:GLN:N	2.57	0.61
10:J:12:THR:O	10:J:48:PHE:CE2	2.53	0.61
14:N:25:TRP:HD1	28:b:83:GLN:HB3	1.64	0.61
17:Q:102:GLU:OE1	33:g:55:PRO:HB2	1.96	0.61
23:W:30:CYS:HA	23:W:34:ILE:CD1	2.29	0.61
24:X:105:PHE:CG	24:X:112:VAL:HG21	2.32	0.61
30:d:5:GLN:HG2	30:d:7:TYR:CZ	2.35	0.61
33:g:65:PHE:HB2	33:g:83:TRP:CD1	2.35	0.61
33:g:79:LEU:HD21	33:g:89:LEU:HD13	1.82	0.61
33:g:113:PHE:CD1	33:g:120:ILE:HG12	2.35	0.61
1:A:24:HIS:HB3	1:A:51:LEU:HD21	1.82	0.61
1:A:76:VAL:CG1	1:A:175:TRP:CZ3	2.83	0.61
1:A:103:PHE:CZ	1:A:107:THR:OG1	2.53	0.61
1:A:127:PRO:CB	1:A:153:PRO:HG2	2.22	0.61
2:B:87:ILE:CD1	2:B:220:LYS:NZ	2.63	0.61
3:C:115:ILE:HD13	3:C:144:LYS:CG	2.29	0.61
3:C:128:CYS:SG	34:i:1353:A:C5'	2.87	0.61
5:E:48:LEU:HD11	5:E:70:ILE:HD11	1.82	0.61
6:F:21:GLY:C	6:F:22:LYS:HG3	2.25	0.61
6:F:59:LYS:HD3	6:F:62:ARG:CD	2.23	0.61
8:H:10:LYS:N	8:H:11:PRO:HD3	2.11	0.61
15:O:90:ILE:HG22	15:O:124:MET:HE2	1.82	0.61
16:P:69:PRO:CD	16:P:70:MET:N	2.61	0.61
18:R:100:PRO:HD2	18:R:119:VAL:HG13	1.82	0.61
20:T:40:ALA:HB3	20:T:43:LYS:CD	2.29	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:82:MET:CE	30:d:51:GLY:C	2.74	0.61
24:X:57:VAL:O	24:X:67:ARG:HB2	2.00	0.61
25:Y:102:THR:CG2	25:Y:107:ARG:CD	2.68	0.61
31:e:103:THR:O	31:e:104:GLY:C	2.42	0.61
33:g:4:GLN:HE21	33:g:268:ASP:CG	2.05	0.61
33:g:46:THR:OG1	33:g:48:ASP:HB3	2.00	0.61
33:g:144:ASP:C	33:g:146:SER:N	2.39	0.61
34:i:835:C:O2'	34:i:837:G:H4'	2.00	0.61
35:l:39:ASN:C	35:l:41:ARG:H	2.07	0.61
2:B:25:PHE:CD2	15:O:88:LEU:CG	2.84	0.61
4:D:47:GLU:HG2	4:D:85:GLU:HG3	1.78	0.61
4:D:74:GLN:HG3	4:D:79:PHE:O	2.00	0.61
5:E:87:MET:HG3	5:E:123:LEU:O	2.01	0.61
6:F:145:ARG:CD	29:c:49:PRO:HD2	2.25	0.61
7:G:62:PRO:CG	7:G:83:CYS:SG	2.89	0.61
9:I:144:LYS:O	9:I:145:ILE:CG2	2.49	0.61
16:P:7:LYS:O	16:P:9:LYS:N	2.31	0.61
16:P:41:GLN:HE22	16:P:45:LEU:CD1	2.12	0.61
17:Q:112:LEU:HD13	17:Q:120:LEU:HD21	1.80	0.61
19:S:46:ARG:NH1	20:T:50:GLU:HA	2.14	0.61
19:S:58:GLU:HB2	19:S:59:LEU:CD1	2.30	0.61
20:T:27:LYS:HG3	20:T:27:LYS:O	2.00	0.61
20:T:31:PRO:HB3	20:T:33:TRP:CE3	2.34	0.61
25:Y:34:THR:HG22	25:Y:35:VAL:CA	2.29	0.61
25:Y:57:VAL:CG1	25:Y:60:PHE:HE2	2.12	0.61
25:Y:58:PHE:CE1	25:Y:72:PHE:HD2	2.17	0.61
28:b:48:SER:OG	28:b:49:HIS:CD2	2.52	0.61
28:b:81:ARG:HB3	28:b:82:LYS:HA	1.81	0.61
32:f:108:VAL:CG1	32:f:113:LYS:O	2.40	0.61
34:i:924:G:H1	34:i:1009:U:H3	1.47	0.61
2:B:25:PHE:HD2	15:O:88:LEU:HD21	1.66	0.61
4:D:112:GLY:O	4:D:113:LEU:HD12	1.86	0.61
5:E:130:PHE:CB	5:E:138:HIS:CD2	2.84	0.61
14:N:55:ARG:HH22	28:b:51:GLN:CD	2.07	0.61
14:N:142:GLU:OE2	14:N:144:SER:OG	2.19	0.61
15:O:131:ASP:CG	27:a:67:LEU:CD2	2.73	0.61
17:Q:126:ARG:C	34:i:1643:G:H8	2.09	0.61
18:R:33:ARG:HH11	33:g:125:ARG:HD2	1.65	0.61
19:S:90:VAL:HG12	19:S:91:LYS:HG2	1.82	0.61
19:S:92:ASP:OD2	19:S:92:ASP:N	2.30	0.61
24:X:91:LEU:O	24:X:92:ASN:C	2.43	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:65:TYR:CD2	26:Z:68:ILE:HD11	2.35	0.61
26:Z:85:ARG:NH1	26:Z:85:ARG:CG	2.55	0.61
27:a:103:PRO:HA	27:a:107:ALA:HB2	1.82	0.61
28:b:12:PRO:O	28:b:16:LYS:CE	2.48	0.61
28:b:84:HIS:N	28:b:84:HIS:HD2	1.98	0.61
31:e:75:LYS:O	31:e:75:LYS:HG2	2.00	0.61
34:i:526:A:N6	34:i:538:C:O2	2.34	0.61
34:i:738:U:C5	34:i:739:U:C5	2.88	0.61
34:i:1442:A:O2'	34:i:1443:G:H5"	2.01	0.61
2:B:105:LEU:HD21	2:B:213:ARG:CA	2.28	0.61
2:B:188:LEU:CD2	2:B:212:VAL:HG21	2.31	0.61
3:C:148:VAL:CB	3:C:149:PRO:HD2	2.26	0.61
4:D:29:LEU:HB2	4:D:34:TYR:HB2	1.82	0.61
4:D:31:GLU:HA	4:D:107:TYR:OH	2.00	0.61
4:D:218:LEU:C	4:D:220:THR:HG23	2.24	0.61
5:E:70:ILE:CD1	5:E:92:ILE:HD11	2.29	0.61
5:E:94:LYS:O	5:E:95:THR:CG2	2.48	0.61
5:E:174:LYS:NZ	5:E:176:ASP:OD2	2.33	0.61
9:I:6:ASP:OD2	9:I:8:TRP:CD1	2.54	0.61
9:I:62:VAL:HG21	9:I:75:LYS:HE2	1.71	0.61
9:I:155:ASN:CG	9:I:156:ALA:N	2.57	0.61
10:J:10:ARG:CZ	10:J:10:ARG:HB2	2.29	0.61
10:J:122:SER:OG	10:J:124:HIS:HB3	1.98	0.61
11:K:14:LEU:HD21	11:K:35:LEU:HD13	1.81	0.61
16:P:114:HIS:HE1	19:S:113:ARG:HH22	1.47	0.61
17:Q:50:LYS:HZ3	17:Q:117:ARG:HD2	1.59	0.61
18:R:33:ARG:NH1	33:g:125:ARG:HH11	1.98	0.61
22:V:64:GLU:OE2	28:b:2:PRO:HA	2.00	0.61
25:Y:18:LEU:HD12	25:Y:20:ARG:NH1	2.08	0.61
26:Z:65:TYR:N	26:Z:65:TYR:CD1	2.67	0.61
34:i:71:G:H3'	34:i:72:C:H5"	1.82	0.61
34:i:192:U:O2'	34:i:193:C:H5'	2.00	0.61
1:A:14:ASP:OD2	1:A:55:TRP:CH2	2.53	0.61
1:A:42:LYS:NZ	18:R:102:THR:HG23	2.15	0.61
1:A:158:ASP:OD2	22:V:34:MET:HG3	2.01	0.61
1:A:186:ARG:H	22:V:46:PHE:H	1.48	0.61
3:C:124:LEU:HD13	3:C:125:GLY:N	2.16	0.61
7:G:227:GLN:CA	7:G:230:LYS:HD2	2.29	0.61
8:H:80:VAL:HA	8:H:83:LEU:HD21	1.81	0.61
8:H:122:LEU:HD11	8:H:123:THR:HG22	1.82	0.61
9:I:144:LYS:HE2	34:i:189:G:H5"	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:168:GLY:O	10:J:169:ARG:C	2.43	0.61
11:K:83:LEU:CB	11:K:85:LEU:HG	2.30	0.61
13:M:89:VAL:CG2	13:M:109:VAL:HG11	2.26	0.61
15:O:17:LEU:CG	15:O:18:GLY:H	2.12	0.61
15:O:20:GLN:HG2	15:O:21:VAL:C	2.25	0.61
16:P:108:LYS:CB	16:P:110:GLU:OE1	2.45	0.61
19:S:47:LYS:HZ2	19:S:78:LYS:CB	2.03	0.61
21:U:59:LYS:HE3	21:U:86:LYS:HE2	1.82	0.61
25:Y:10:ARG:HG2	25:Y:24:VAL:CB	2.20	0.61
25:Y:34:THR:CG2	25:Y:35:VAL:H	2.07	0.61
26:Z:80:ARG:HB3	26:Z:83:LEU:H	1.66	0.61
27:a:45:VAL:HB	27:a:53:ILE:CD1	2.30	0.61
33:g:298:LEU:CD1	33:g:310:TRP:HB2	2.29	0.61
34:i:454:A:H4'	34:i:455:A:OP2	2.00	0.61
34:i:520:U:C2'	34:i:521:A:H5'	2.30	0.61
35:l:30:TYR:CD1	35:l:107:GLN:CG	2.80	0.61
1:A:30:LEU:O	1:A:31:ASP:CB	2.48	0.61
1:A:149:ASN:HB2	1:A:165:ASN:HD21	1.66	0.61
3:C:256:ASP:OD1	3:C:256:ASP:N	2.33	0.61
4:D:38:GLU:OE1	4:D:40:ARG:NH2	2.28	0.61
5:E:43:PRO:HA	5:E:82:TYR:O	2.00	0.61
5:E:62:LYS:CA	5:E:65:CYS:SG	2.88	0.61
6:F:42:LYS:O	6:F:42:LYS:HG2	1.99	0.61
7:G:70:HIS:CB	7:G:103:ASP:OD2	2.42	0.61
7:G:177:GLN:HG2	7:G:178:ARG:H	1.66	0.61
10:J:17:ARG:HB3	10:J:18:ARG:HG3	1.79	0.61
10:J:37:LEU:HD21	10:J:42:GLU:CA	2.31	0.61
10:J:79:ARG:HD2	10:J:83:ARG:HD2	1.82	0.61
11:K:95:ARG:HD3	11:K:96:ARG:O	2.01	0.61
13:M:11:VAL:O	13:M:12:MET:HB3	1.99	0.61
15:O:125:LYS:HA	27:a:56:VAL:CG1	2.31	0.61
17:Q:88:ILE:HG13	17:Q:89:SER:N	2.14	0.61
18:R:28:PHE:HA	18:R:55:THR:HG21	1.82	0.61
24:X:71:ARG:HE	24:X:82:THR:HG22	1.62	0.61
26:Z:44:LEU:HD21	26:Z:46:ASN:OD1	2.00	0.61
27:a:50:VAL:HA	27:a:53:ILE:HB	1.83	0.61
31:e:118:ASN:CA	31:e:119:VAL:CB	2.77	0.61
33:g:179:LEU:HD23	33:g:179:LEU:N	2.13	0.61
35:l:44:LEU:HD22	35:l:84:GLN:CD	2.25	0.61
1:A:30:LEU:HD21	1:A:35:GLU:HG2	1.77	0.61
1:A:148:CYS:O	1:A:162:PRO:HA	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:104:ASP:CG	2:B:105:LEU:H	2.07	0.61
5:E:25:SER:HB2	34:i:485:U:H1'	1.81	0.61
5:E:128:LYS:HG3	5:E:130:PHE:HD1	1.65	0.61
6:F:36:GLN:HG2	6:F:37:ASP:CG	2.24	0.61
10:J:29:LEU:O	31:e:112:TYR:CD1	2.54	0.61
10:J:125:HIS:NE2	10:J:129:LEU:HD11	2.15	0.61
12:L:32:LYS:O	12:L:33:LEU:HD23	2.01	0.61
12:L:100:ASN:OD1	12:L:100:ASN:N	2.28	0.61
14:N:84:LEU:HD11	14:N:89:TYR:HB2	1.83	0.61
14:N:125:LEU:HD21	14:N:129:TYR:CZ	2.35	0.61
18:R:99:ASP:HB3	18:R:119:VAL:HG12	1.81	0.61
21:U:56:MET:CE	21:U:88:LEU:CD2	2.76	0.61
21:U:103:SER:O	21:U:106:ILE:HG21	1.96	0.61
22:V:9:VAL:HG12	22:V:10:ASP:CA	2.30	0.61
25:Y:7:ILE:HD11	25:Y:43:LYS:HD3	1.78	0.61
33:g:20:GLN:HB2	33:g:34:ALA:HB3	1.83	0.61
33:g:200:VAL:HG12	33:g:201:SER:O	2.00	0.61
35:l:39:ASN:H	35:l:42:LYS:HB3	1.64	0.61
1:A:84:GLN:O	1:A:88:LEU:CD2	2.49	0.61
3:C:63:LEU:CD1	3:C:67:TYR:OH	2.47	0.61
3:C:161:LYS:HD3	22:V:9:VAL:CG2	2.31	0.61
4:D:177:LEU:HD12	4:D:178:ARG:NH2	2.15	0.61
6:F:33:ILE:HD13	29:c:35:MET:CE	2.29	0.61
6:F:36:GLN:O	6:F:37:ASP:HB2	2.01	0.61
7:G:227:GLN:HG2	7:G:230:LYS:HZ3	1.64	0.61
8:H:37:LYS:NZ	8:H:41:ARG:HG3	2.16	0.61
8:H:169:LYS:HD2	8:H:173:PHE:HZ	1.66	0.61
9:I:76:THR:HG21	9:I:105:ASP:HB2	1.81	0.61
10:J:124:HIS:O	10:J:126:ALA:N	2.33	0.61
13:M:64:LEU:HG	32:f:104:LYS:HZ2	1.65	0.61
13:M:86:GLY:N	13:M:106:CYS:HB2	2.16	0.61
13:M:89:VAL:HG21	13:M:109:VAL:CG1	2.27	0.61
15:O:125:LYS:HZ1	27:a:58:VAL:N	1.98	0.61
16:P:21:ASP:O	16:P:25:LEU:N	2.29	0.61
16:P:125:PRO:O	16:P:126:VAL:HB	2.00	0.61
16:P:127:LYS:NZ	16:P:127:LYS:CA	2.63	0.61
17:Q:92:LEU:CG	17:Q:96:TYR:CE2	2.69	0.61
19:S:30:ILE:CD1	19:S:45:LEU:HD21	2.29	0.61
20:T:94:ARG:CG	20:T:94:ARG:HH11	2.14	0.61
24:X:138:LYS:CA	24:X:139:GLU:OE2	2.48	0.61
25:Y:19:GLN:HG2	25:Y:81:TYR:CG	2.32	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:103:HIS:HD2	26:Z:105:ALA:CB	2.14	0.61
31:e:93:VAL:HG12	31:e:94:ALA:O	2.01	0.61
31:e:118:ASN:HB2	31:e:119:VAL:HG23	1.81	0.61
3:C:248:LYS:HD2	3:C:253:GLU:HB3	1.82	0.61
4:D:55:THR:HA	4:D:58:VAL:HG22	1.83	0.61
5:E:124:CYS:SG	5:E:162:ILE:CD1	2.88	0.61
6:F:145:ARG:CG	29:c:48:GLY:HA3	2.23	0.61
9:I:48:VAL:HG23	9:I:52:ASN:HB3	1.82	0.61
9:I:85:ALA:C	12:L:8:ARG:NH1	2.59	0.61
10:J:77:LEU:O	10:J:81:LEU:HG	2.01	0.61
10:J:100:LEU:CD1	10:J:101:LYS:H	2.14	0.61
10:J:147:PHE:HE2	10:J:149:VAL:HA	1.64	0.61
12:L:101:ARG:O	24:X:10:ALA:HB1	1.96	0.61
16:P:59:ARG:HD3	16:P:76:VAL:CG1	2.27	0.61
17:Q:111:ILE:C	17:Q:114:GLN:HG2	2.25	0.61
25:Y:120:THR:CA	25:Y:122:LYS:HE2	2.29	0.61
29:c:5:ARG:CD	29:c:5:ARG:N	2.63	0.61
31:e:114:ARG:HA	31:e:118:ASN:ND2	2.15	0.61
34:i:1082:G:O2'	34:i:1083:A:H5'	2.01	0.61
35:l:104:LYS:HA	35:l:104:LYS:CE	2.11	0.61
1:A:14:ASP:O	1:A:18:PHE:HD2	1.84	0.60
3:C:177:LEU:HD12	3:C:177:LEU:C	2.25	0.60
5:E:122:LYS:HG3	5:E:164:LEU:HD21	1.81	0.60
7:G:176:ILE:CG2	7:G:179:LEU:CG	2.78	0.60
10:J:16:PRO:CD	10:J:44:TRP:CE2	2.83	0.60
10:J:170:PRO:HB3	10:J:174:LYS:HE2	1.83	0.60
14:N:94:LYS:HE3	14:N:118:ILE:HD11	1.81	0.60
15:O:23:GLU:O	15:O:23:GLU:CG	2.33	0.60
18:R:36:GLU:OE2	18:R:47:ARG:HD2	2.00	0.60
21:U:67:LYS:CE	21:U:78:ASP:CG	2.68	0.60
24:X:5:ARG:HH21	24:X:5:ARG:HB2	1.65	0.60
33:g:219:TRP:CD2	33:g:226:HIS:CD2	2.89	0.60
34:i:194:C:H2'	34:i:195:C:C5	2.36	0.60
34:i:1592:C:C4'	34:i:1598:G:O6	2.33	0.60
34:i:1683:C:C4	34:i:1684:C:H5	2.19	0.60
35:l:35:ILE:CG2	35:l:113:PHE:CE1	2.74	0.60
5:E:62:LYS:HD2	5:E:80:ILE:HG13	1.83	0.60
5:E:163:ASP:O	5:E:164:LEU:CB	2.49	0.60
7:G:63:MET:CE	7:G:106:LEU:CD2	2.78	0.60
8:H:35:ASP:C	8:H:37:LYS:H	2.09	0.60
9:I:112:TRP:HH2	9:I:117:TYR:HH	1.43	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:140:LYS:C	9:I:141:ARG:CG	2.73	0.60
10:J:87:LEU:CD1	10:J:91:LYS:HB2	2.29	0.60
11:K:2:LEU:HD13	11:K:3:MET:H	0.53	0.60
11:K:62:PHE:HE1	11:K:67:PHE:HE2	1.48	0.60
12:L:7:GLU:CG	12:L:8:ARG:N	2.41	0.60
12:L:118:ARG:HG2	12:L:119:ASP:H	1.66	0.60
15:O:52:THR:C	15:O:53:ILE:HG23	2.16	0.60
16:P:8:LYS:C	16:P:11:THR:HG22	2.24	0.60
20:T:40:ALA:CB	20:T:43:LYS:CG	2.58	0.60
23:W:20:ARG:HB3	23:W:22:LYS:HD3	1.82	0.60
28:b:1:MET:H2	28:b:2:PRO:HD3	1.65	0.60
29:c:46:VAL:HG11	29:c:50:VAL:HG23	1.81	0.60
32:f:90:LYS:O	32:f:91:ASN:O	2.20	0.60
33:g:46:THR:OG1	33:g:48:ASP:N	2.31	0.60
33:g:100:ARG:HH22	34:i:1395:C:C5'	2.14	0.60
33:g:119:GLN:HE22	33:g:131:LEU:HG	1.66	0.60
1:A:66:VAL:O	1:A:67:ALA:HB3	2.01	0.60
2:B:113:MET:CE	2:B:209:ASP:CB	2.79	0.60
2:B:117:TRP:HE3	2:B:153:THR:HB	1.65	0.60
3:C:148:VAL:HB	3:C:149:PRO:HD3	1.83	0.60
4:D:53:THR:O	4:D:90:LYS:HE2	2.01	0.60
4:D:216:GLU:O	4:D:217:ILE:CD1	2.49	0.60
6:F:53:ALA:C	17:Q:125:ARG:HH22	2.08	0.60
7:G:197:GLN:O	7:G:201:LYS:HG2	2.01	0.60
8:H:6:ALA:HA	8:H:10:LYS:HD3	0.72	0.60
8:H:50:GLU:OE2	8:H:58:LYS:CD	2.44	0.60
10:J:10:ARG:CB	10:J:10:ARG:HH11	2.06	0.60
10:J:81:LEU:HD12	10:J:97:ILE:HD11	1.83	0.60
10:J:92:MET:O	10:J:93:LYS:NZ	2.34	0.60
10:J:136:ARG:HG3	10:J:160:SER:HB3	1.82	0.60
12:L:35:ARG:HH21	12:L:63:THR:CG2	2.10	0.60
14:N:19:ARG:NH1	28:b:84:HIS:CB	2.64	0.60
14:N:62:GLN:HB2	14:N:65:PHE:CE2	2.32	0.60
17:Q:45:ARG:NH1	34:i:1588:C:H4'	2.16	0.60
17:Q:58:LEU:HD13	17:Q:108:ILE:CG2	2.26	0.60
19:S:26:ILE:O	19:S:30:ILE:HG13	2.01	0.60
23:W:55:ASP:HA	28:b:25:VAL:HG13	1.83	0.60
23:W:128:PHE:CD1	23:W:128:PHE:C	2.78	0.60
24:X:1:MET:O	24:X:3:LYS:HB2	2.02	0.60
27:a:31:PRO:O	27:a:34:LYS:O	2.19	0.60
30:d:5:GLN:CB	30:d:7:TYR:CD2	2.61	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:17:LYS:HE3	1:A:17:LYS:H	1.64	0.60
1:A:180:ARG:CD	1:A:184:ARG:CZ	2.78	0.60
4:D:47:GLU:CG	4:D:85:GLU:CG	2.71	0.60
4:D:166:TYR:CE1	4:D:200:PRO:HB3	2.36	0.60
5:E:23:LEU:O	5:E:24:THR:CB	2.49	0.60
5:E:122:LYS:CD	5:E:164:LEU:HD21	2.31	0.60
5:E:180:LEU:CD1	5:E:228:ILE:HD11	2.32	0.60
7:G:226:GLU:C	7:G:230:LYS:HZ2	2.00	0.60
8:H:117:PRO:C	8:H:119:SER:N	2.54	0.60
9:I:87:ASN:OD1	9:I:89:GLU:HG2	2.00	0.60
9:I:140:LYS:O	9:I:141:ARG:CG	2.49	0.60
11:K:1:MET:HG3	34:i:1270:G:H5"	1.84	0.60
11:K:89:ILE:O	11:K:90:VAL:HG12	2.02	0.60
12:L:59:LYS:HE2	12:L:134:LEU:HD21	1.83	0.60
12:L:80:MET:HE3	12:L:120:VAL:HG12	1.83	0.60
12:L:96:ILE:O	12:L:99:TYR:O	2.20	0.60
12:L:111:VAL:HG23	12:L:140:PHE:C	2.27	0.60
12:L:118:ARG:HG2	12:L:119:ASP:N	2.14	0.60
16:P:49:LEU:HD13	16:P:51:ARG:NE	1.97	0.60
17:Q:16:LYS:HE3	17:Q:17:LYS:HD2	1.84	0.60
18:R:90:ALA:C	18:R:91:LEU:HD12	2.26	0.60
19:S:88:LYS:N	19:S:94:LYS:O	2.35	0.60
20:T:45:LEU:HG	20:T:46:ALA:N	2.15	0.60
22:V:53:TYR:CG	22:V:72:LEU:HD13	2.36	0.60
28:b:33:MET:SD	28:b:79:PHE:CD1	2.94	0.60
32:f:102:VAL:O	32:f:104:LYS:N	2.34	0.60
33:g:51:ASN:N	33:g:51:ASN:OD1	2.33	0.60
34:i:1287:A:H2'	34:i:1298:G:C8	2.37	0.60
34:i:1749:C:O5'	34:i:1749:C:H6	1.83	0.60
1:A:14:ASP:HB3	1:A:18:PHE:CE2	2.34	0.60
2:B:225:LEU:O	2:B:229:MET:CG	2.48	0.60
3:C:69:PHE:CZ	3:C:247:THR:CB	2.83	0.60
5:E:56:LEU:HD23	5:E:56:LEU:N	2.16	0.60
7:G:192:ILE:HG13	7:G:193:ALA:N	2.17	0.60
8:H:23:ILE:HD13	8:H:23:ILE:O	2.02	0.60
8:H:31:GLU:CD	8:H:41:ARG:HD3	2.25	0.60
8:H:166:VAL:HG23	8:H:173:PHE:CZ	2.37	0.60
10:J:79:ARG:O	10:J:83:ARG:CG	2.47	0.60
11:K:84:HIS:CD2	13:M:27:ILE:CD1	2.84	0.60
17:Q:140:ARG:O	17:Q:141:TYR:O	2.19	0.60
21:U:62:ARG:HH11	21:U:79:ARG:HD3	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:46:LYS:O	25:Y:46:LYS:CD	2.50	0.60
25:Y:110:ARG:O	25:Y:114:MET:HG3	2.01	0.60
33:g:281:ALA:O	33:g:282:GLU:HB2	2.00	0.60
34:i:124:U:C2'	34:i:125:C:H5"	2.31	0.60
34:i:181:A:N7	34:i:182:C:C4	2.69	0.60
34:i:740:G:H2'	34:i:741:C:C6	2.36	0.60
34:i:830:C:C2	34:i:837:G:N2	2.69	0.60
35:l:36:GLN:HA	35:l:113:PHE:HB3	1.81	0.60
1:A:202:TYR:O	1:A:203:PHE:CB	2.49	0.60
3:C:79:ILE:HD11	3:C:147:ILE:HD11	1.83	0.60
4:D:71:ALA:O	4:D:75:LYS:HG2	2.01	0.60
4:D:98:ALA:N	4:D:188:ILE:HD12	2.17	0.60
6:F:123:GLU:CB	29:c:59:LEU:HD11	2.32	0.60
8:H:50:GLU:OE2	8:H:90:LYS:HE2	2.02	0.60
8:H:166:VAL:HG23	8:H:173:PHE:CE2	2.35	0.60
11:K:12:TYR:CD2	11:K:82:TYR:CD2	2.89	0.60
13:M:14:VAL:O	13:M:16:THR:N	2.35	0.60
13:M:76:LEU:HD22	13:M:77:ILE:H	1.66	0.60
17:Q:129:SER:O	17:Q:131:LYS:NZ	2.28	0.60
19:S:10:GLN:CB	19:S:13:LEU:HD21	2.32	0.60
20:T:11:GLN:CD	20:T:62:ARG:CZ	2.70	0.60
23:W:128:PHE:CD1	23:W:129:PHE:CA	2.84	0.60
27:a:10:ARG:CG	27:a:33:ASP:O	2.44	0.60
33:g:42:MET:HB2	33:g:92:LEU:HD11	1.84	0.60
34:i:1596:A:N6	34:i:1631:G:C2	2.70	0.60
1:A:58:LEU:HD21	1:A:178:LEU:CG	2.29	0.60
2:B:87:ILE:HD12	2:B:220:LYS:HZ3	1.66	0.60
3:C:58:MET:HE1	3:C:81:PHE:HZ	1.67	0.60
4:D:35:SER:HA	4:D:99:ILE:HD11	0.73	0.60
6:F:44:LYS:HB3	6:F:45:TYR:CD1	2.32	0.60
7:G:186:GLN:O	7:G:190:ARG:HG3	2.01	0.60
9:I:157:LYS:O	9:I:158:ILE:HG22	2.00	0.60
10:J:34:GLU:HB2	10:J:35:TYR:CD2	2.35	0.60
11:K:25:LYS:HD2	11:K:62:PHE:HE1	1.65	0.60
11:K:71:LEU:CG	11:K:76:ILE:CD1	2.80	0.60
16:P:128:HIS:HE1	34:i:1516:C:C1'	2.06	0.60
17:Q:58:LEU:HD21	17:Q:111:ILE:HB	1.83	0.60
18:R:44:LYS:HE2	18:R:47:ARG:HH22	1.45	0.60
23:W:53:ILE:HG21	28:b:25:VAL:CG2	2.32	0.60
25:Y:63:HIS:CG	25:Y:64:PHE:CD1	2.88	0.60
29:c:63:ARG:O	29:c:64:GLU:HB3	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:143:GLN:NE2	33:g:144:ASP:CA	2.56	0.60
35:l:66:LYS:HB3	35:l:67:PHE:CE1	2.37	0.60
1:A:119:PRO:HG3	1:A:122:LEU:HD21	1.84	0.60
2:B:87:ILE:CG2	2:B:101:HIS:CG	2.84	0.60
2:B:160:GLN:NE2	2:B:205:TYR:CE1	2.55	0.60
3:C:197:LYS:N	3:C:200:LEU:HD23	2.17	0.60
5:E:260:GLN:O	5:E:261:SER:OG	2.13	0.60
6:F:91:ARG:HH21	17:Q:46:THR:HG22	1.65	0.60
7:G:1:MET:SD	7:G:106:LEU:O	2.60	0.60
7:G:142:ARG:HE	7:G:147:LEU:HB3	1.67	0.60
9:I:112:TRP:CH2	9:I:117:TYR:HE2	2.19	0.60
10:J:10:ARG:HH11	10:J:10:ARG:CG	2.15	0.60
10:J:106:LEU:O	10:J:109:ARG:HG3	2.02	0.60
11:K:47:LYS:HD3	11:K:50:GLN:CD	2.26	0.60
12:L:101:ARG:HB2	24:X:10:ALA:N	2.17	0.60
13:M:91:LEU:CD2	13:M:104:VAL:HG13	2.21	0.60
16:P:123:TYR:CD2	19:S:120:HIS:CE1	2.55	0.60
17:Q:8:GLN:HA	17:Q:99:TYR:OH	2.01	0.60
17:Q:47:LEU:HD23	17:Q:81:ILE:HD12	1.63	0.60
17:Q:85:ARG:HD3	17:Q:119:LEU:HD21	1.81	0.60
19:S:50:ILE:HG12	19:S:63:GLU:HG2	1.83	0.60
20:T:119:TRP:CG	34:i:1557:C:H1'	2.36	0.60
23:W:118:ARG:HG2	34:i:730:C:H4'	1.82	0.60
25:Y:98:GLU:OE2	25:Y:99:LYS:HA	2.01	0.60
33:g:70:VAL:CG1	33:g:79:LEU:HB2	2.32	0.60
33:g:119:GLN:HE22	33:g:121:VAL:HG22	1.64	0.60
33:g:163:PRO:HB2	33:g:179:LEU:HB2	1.83	0.60
33:g:255:SER:HB3	33:g:271:LYS:HG3	1.82	0.60
34:i:1282:G:N2	34:i:1309:A:N7	2.49	0.60
1:A:127:PRO:HA	1:A:134:LEU:CD1	2.32	0.60
2:B:117:TRP:HE3	2:B:153:THR:CB	2.14	0.60
2:B:161:VAL:HG12	2:B:165:ARG:NH1	2.16	0.60
2:B:206:PRO:O	2:B:207:LEU:HB2	2.01	0.60
3:C:79:ILE:CD1	3:C:147:ILE:HD11	2.27	0.60
3:C:155:TRP:CH2	23:W:97:ARG:CD	2.84	0.60
3:C:155:TRP:CE2	23:W:97:ARG:HD2	2.37	0.60
4:D:196:GLY:O	4:D:199:GLY:HA3	2.02	0.60
5:E:86:PHE:CE1	5:E:182:MET:SD	2.95	0.60
5:E:100:ARG:CD	5:E:102:ILE:HD12	2.31	0.60
5:E:129:ILE:CG2	5:E:139:LEU:CD2	2.79	0.60
5:E:204:SER:O	5:E:205:PHE:CB	2.50	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:128:ILE:O	6:F:134:VAL:HG13	2.02	0.60
6:F:142:SER:HB2	29:c:50:VAL:HG23	1.84	0.60
6:F:201:LYS:CD	6:F:204:ARG:NH2	2.39	0.60
7:G:64:LYS:HG3	7:G:67:VAL:HG11	1.84	0.60
9:I:48:VAL:HG22	9:I:52:ASN:C	2.26	0.60
10:J:46:VAL:HG12	10:J:102:ILE:HD12	1.82	0.60
11:K:12:TYR:CZ	11:K:52:LEU:HD21	2.37	0.60
14:N:62:GLN:CB	14:N:65:PHE:CE2	2.82	0.60
14:N:128:TYR:O	14:N:132:LYS:HG2	2.02	0.60
15:O:19:PRO:HG3	15:O:27:VAL:HG11	1.82	0.60
17:Q:42:ILE:CG1	17:Q:51:LEU:CD2	2.79	0.60
17:Q:54:PRO:CG	17:Q:88:ILE:HD12	2.32	0.60
19:S:40:TYR:CA	19:S:83:PHE:HZ	2.13	0.60
20:T:119:TRP:CE3	34:i:1557:C:H1'	2.36	0.60
23:W:118:ARG:CD	34:i:730:C:C4'	2.58	0.60
26:Z:92:LEU:CD2	26:Z:97:ILE:HG13	2.30	0.60
28:b:12:PRO:CA	28:b:16:LYS:HE2	2.31	0.60
29:c:13:ARG:HG2	29:c:33:GLU:HB2	1.82	0.60
32:f:103:LEU:HD23	32:f:105:TYR:H	1.66	0.60
33:g:172:LYS:HE2	33:g:192:THR:CB	2.31	0.60
33:g:212:LYS:O	33:g:213:ASP:C	2.38	0.60
34:i:185:C:O2	34:i:211:U:N3	2.35	0.60
35:l:95:GLN:C	35:l:97:LEU:N	2.58	0.60
2:B:42:ARG:NH2	2:B:232:HIS:HA	2.17	0.60
3:C:42:ASP:OD1	3:C:43:LYS:N	2.35	0.60
5:E:154:ILE:HG21	5:E:160:ILE:HD11	1.83	0.60
6:F:65:GLN:NE2	6:F:65:GLN:HA	2.16	0.60
6:F:166:ILE:HD12	6:F:166:ILE:N	2.16	0.60
7:G:63:MET:CE	7:G:106:LEU:HD21	2.32	0.60
8:H:117:PRO:HD2	8:H:120:ARG:HB2	1.84	0.60
8:H:190:PRO:HG2	8:H:192:PHE:CZ	2.37	0.60
9:I:62:VAL:HB	9:I:75:LYS:CE	2.28	0.60
10:J:164:PRO:C	10:J:165:TYR:HD1	2.10	0.60
15:O:129:ILE:CG2	27:a:44:ILE:HG12	2.32	0.60
16:P:11:THR:O	16:P:12:PHE:CB	2.33	0.60
16:P:74:GLU:O	16:P:75:VAL:CB	2.50	0.60
17:Q:63:PHE:HD1	17:Q:68:ILE:HD11	1.65	0.60
17:Q:109:LYS:NZ	17:Q:113:ILE:HD11	2.17	0.60
23:W:62:VAL:HG11	28:b:8:LEU:CG	2.27	0.60
23:W:96:SER:OG	23:W:98:GLN:HG2	2.01	0.60
25:Y:9:THR:HG21	25:Y:48:TYR:HE2	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:b:81:ARG:HB2	28:b:82:LYS:CG	2.29	0.60
33:g:197:THR:HG21	33:g:238:ALA:HA	1.83	0.60
1:A:6:ASP:O	1:A:8:LEU:N	2.35	0.59
2:B:52:THR:HG22	2:B:58:ALA:HB2	1.82	0.59
2:B:76:ASN:O	2:B:76:ASN:CG	2.39	0.59
3:C:141:ILE:O	3:C:145:LEU:HD23	2.02	0.59
6:F:28:VAL:HG13	6:F:110:GLN:OE1	1.96	0.59
7:G:25:ARG:O	7:G:26:THR:C	2.45	0.59
8:H:6:ALA:HB3	8:H:15:LYS:HE2	1.84	0.59
8:H:158:LEU:HD23	8:H:158:LEU:N	2.17	0.59
11:K:40:VAL:HG23	11:K:41:PRO:CD	2.29	0.59
13:M:45:ARG:H	13:M:45:ARG:NE	2.00	0.59
14:N:76:LYS:C	14:N:76:LYS:CD	2.75	0.59
16:P:19:GLY:H	19:S:92:ASP:HA	1.64	0.59
17:Q:63:PHE:CD1	17:Q:68:ILE:HD11	2.37	0.59
19:S:27:ALA:O	19:S:31:THR:HG23	2.01	0.59
20:T:28:LEU:O	20:T:28:LEU:CD2	2.44	0.59
23:W:37:PHE:CE1	23:W:103:VAL:HG11	2.37	0.59
23:W:41:MET:HG2	23:W:129:PHE:CD2	2.36	0.59
24:X:74:LEU:CD1	24:X:81:ILE:CD1	2.71	0.59
25:Y:33:ALA:C	25:Y:34:THR:HG1	2.08	0.59
27:a:2:THR:HG22	34:i:1195:A:H5”	1.83	0.59
28:b:10:PRO:HD2	28:b:10:PRO:O	2.01	0.59
31:e:105:ARG:NH1	31:e:106:ALA:N	2.49	0.59
33:g:276:SER:O	33:g:277:THR:C	2.44	0.59
33:g:277:THR:HG23	33:g:278:SER:H	1.67	0.59
35:l:31:ILE:HG23	35:l:49:GLY:C	2.27	0.59
2:B:49:VAL:HG12	2:B:50:THR:N	2.16	0.59
2:B:92:GLN:O	2:B:95:ASN:HB2	2.02	0.59
2:B:137:LEU:HD23	2:B:215:VAL:HA	1.84	0.59
4:D:193:ASP:CA	4:D:202:LYS:O	2.37	0.59
4:D:218:LEU:HB2	4:D:220:THR:HG22	1.78	0.59
5:E:67:GLN:OE1	5:E:67:GLN:HA	2.02	0.59
5:E:100:ARG:HG2	5:E:102:ILE:HD12	1.84	0.59
5:E:166:THR:HB	5:E:168:LYS:NZ	2.17	0.59
7:G:85:ARG:HD3	25:Y:118:ARG:NH1	2.16	0.59
8:H:37:LYS:HZ3	8:H:38:ALA:HA	1.67	0.59
15:O:125:LYS:HZ1	27:a:58:VAL:HA	1.67	0.59
16:P:75:VAL:CG1	16:P:76:VAL:N	2.64	0.59
20:T:38:LYS:HD2	20:T:46:ALA:N	2.17	0.59
33:g:4:GLN:HG2	33:g:5:MET:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:143:GLN:O	33:g:146:SER:HB3	2.02	0.59
33:g:298:LEU:HD21	33:g:310:TRP:CB	2.31	0.59
34:i:522:C:H2'	34:i:523:A:H8	1.67	0.59
1:A:61:ALA:HB2	1:A:161:ILE:HD11	1.83	0.59
1:A:119:PRO:HG2	1:A:142:LEU:CD1	2.27	0.59
3:C:158:LYS:NZ	22:V:4:ASN:HA	2.16	0.59
3:C:223:LYS:HE3	34:i:1351:C:C1'	2.17	0.59
4:D:40:ARG:HD3	21:U:107:GLU:OE2	2.02	0.59
6:F:44:LYS:CB	6:F:45:TYR:CE1	2.69	0.59
6:F:61:PHE:O	6:F:63:LYS:N	2.36	0.59
7:G:7:PHE:HB2	7:G:124:LEU:HG	1.84	0.59
7:G:28:TYR:OH	7:G:104:ALA:HB2	2.01	0.59
8:H:145:ARG:NH1	8:H:155:LYS:HZ2	1.95	0.59
10:J:177:ASN:C	10:J:180:LYS:HG2	2.18	0.59
13:M:42:LEU:CD2	13:M:110:VAL:HG21	2.32	0.59
16:P:49:LEU:HA	16:P:51:ARG:NE	2.17	0.59
16:P:53:GLN:HE21	16:P:80:LEU:CG	2.14	0.59
20:T:23:LYS:HD3	20:T:54:TYR:CD1	2.33	0.59
20:T:31:PRO:HG2	20:T:102:ARG:CG	2.33	0.59
21:U:67:LYS:CE	21:U:78:ASP:OD2	2.49	0.59
21:U:69:PRO:O	21:U:69:PRO:HG2	2.02	0.59
22:V:40:ASP:OD2	22:V:45:ARG:HB2	2.02	0.59
23:W:88:LYS:HZ2	34:i:410:G:H5'	1.66	0.59
23:W:90:GLN:N	23:W:102:ILE:HD11	2.16	0.59
24:X:107:ARG:O	24:X:108:LYS:HB2	2.03	0.59
25:Y:12:PHE:HD1	25:Y:23:MET:HB3	1.67	0.59
25:Y:50:THR:OG1	25:Y:55:ILE:HD11	2.03	0.59
28:b:1:MET:N	28:b:2:PRO:HD3	2.16	0.59
30:d:5:GLN:O	30:d:7:TYR:O	2.21	0.59
32:f:109:ASP:O	32:f:110:GLU:O	2.19	0.59
33:g:64:HIS:HE1	33:g:65:PHE:CE2	2.19	0.59
33:g:64:HIS:HB3	33:g:84:ASP:N	2.18	0.59
33:g:131:LEU:HD23	33:g:132:TRP:N	2.18	0.59
34:i:1700:C:O2	34:i:1845:A:H1'	2.02	0.59
1:A:27:GLY:O	1:A:47:TYR:CD2	2.54	0.59
2:B:145:LYS:HA	2:B:149:GLN:OE1	2.02	0.59
3:C:120:GLY:CA	3:C:150:VAL:HG22	2.29	0.59
5:E:1:MET:SD	34:i:422:G:OP2	2.61	0.59
8:H:168:HIS:CE1	8:H:169:LYS:HG2	2.37	0.59
10:J:38:ARG:HG3	31:e:105:ARG:HB2	1.73	0.59
11:K:90:VAL:O	11:K:90:VAL:HG22	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:46:ASP:O	15:O:49:GLY:N	2.33	0.59
15:O:75:MET:CE	15:O:118:ALA:HB2	2.33	0.59
16:P:28:MET:HB3	16:P:32:GLN:OE1	2.01	0.59
16:P:53:GLN:NE2	16:P:80:LEU:HD22	2.16	0.59
18:R:1:MET:O	18:R:2:GLY:C	2.40	0.59
20:T:119:TRP:NE1	34:i:1556:A:N1	2.50	0.59
21:U:57:PRO:O	21:U:57:PRO:HD2	2.02	0.59
23:W:53:ILE:HG22	28:b:25:VAL:CG2	2.31	0.59
23:W:82:GLN:O	23:W:83:LEU:HB3	2.03	0.59
25:Y:55:ILE:HG13	25:Y:75:ILE:HG12	1.65	0.59
29:c:42:ILE:CG2	29:c:43:ILE:N	2.63	0.59
30:d:46:TYR:HD2	30:d:46:TYR:N	2.01	0.59
33:g:32:LEU:HD11	33:g:40:ILE:CG2	2.32	0.59
33:g:191:HIS:O	33:g:192:THR:HG22	2.00	0.59
1:A:21:ALA:HB2	1:A:173:LEU:HD11	0.61	0.59
2:B:117:TRP:CE3	2:B:153:THR:HB	2.37	0.59
3:C:71:LEU:O	22:V:29:HIS:HE1	1.83	0.59
3:C:101:THR:CG2	3:C:103:ALA:C	2.68	0.59
4:D:108:LYS:CA	4:D:113:LEU:HD22	2.33	0.59
4:D:222:PRO:C	4:D:223:ILE:CD1	2.74	0.59
6:F:136:ARG:O	6:F:203:ASN:CB	2.45	0.59
9:I:55:TYR:N	9:I:55:TYR:CD2	2.68	0.59
9:I:76:THR:CG2	9:I:105:ASP:HB2	2.33	0.59
9:I:141:ARG:O	9:I:142:SER:CB	2.50	0.59
16:P:107:ILE:HG13	16:P:107:ILE:O	2.03	0.59
19:S:40:TYR:HA	19:S:83:PHE:HZ	1.67	0.59
20:T:23:LYS:CE	20:T:54:TYR:CE2	2.85	0.59
25:Y:62:THR:CA	25:Y:69:THR:HG22	2.32	0.59
25:Y:98:GLU:O	25:Y:99:LYS:HB3	2.03	0.59
32:f:103:LEU:HD22	32:f:106:TYR:HD2	1.62	0.59
34:i:1407:G:H3'	34:i:1408:C:C5'	2.32	0.59
1:A:2:SER:OG	1:A:5:LEU:O	2.16	0.59
1:A:74:VAL:HG22	1:A:121:LEU:HB3	1.84	0.59
3:C:236:LEU:HD23	3:C:237:THR:N	2.17	0.59
4:D:32:ASP:OD1	4:D:57:ASN:HB2	2.03	0.59
4:D:67:ARG:NH1	11:K:95:ARG:HG3	2.17	0.59
5:E:49:ARG:NH2	5:E:50:ASN:ND2	2.51	0.59
7:G:59:GLN:H	34:i:157:U:H4'	1.67	0.59
7:G:63:MET:HE3	7:G:106:LEU:HD22	1.84	0.59
7:G:66:GLY:CA	34:i:1740:A:H1'	2.33	0.59
7:G:142:ARG:NE	7:G:147:LEU:HB3	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:144:ILE:HG13	23:W:52:ILE:HG23	1.83	0.59
11:K:1:MET:N	11:K:2:LEU:O	2.33	0.59
13:M:64:LEU:HD11	32:f:104:LYS:HA	1.85	0.59
14:N:23:PRO:O	14:N:24:THR:HB	2.02	0.59
14:N:119:GLU:O	14:N:123:HIS:CD2	2.56	0.59
15:O:56:VAL:HG13	15:O:81:VAL:HG23	1.78	0.59
18:R:14:ARG:O	18:R:18:GLU:HG3	2.03	0.59
19:S:8:LYS:HA	26:Z:49:LEU:CD2	2.30	0.59
21:U:108:PRO:O	21:U:108:PRO:HD2	2.00	0.59
22:V:20:SER:HA	23:W:23:ARG:HH22	1.67	0.59
22:V:53:TYR:OH	22:V:72:LEU:O	2.08	0.59
22:V:55:ILE:CG2	22:V:60:ARG:HG3	2.32	0.59
24:X:128:VAL:CG1	24:X:133:LEU:HD21	2.32	0.59
25:Y:88:LYS:HE3	25:Y:97:TYR:OH	2.03	0.59
28:b:33:MET:HE3	28:b:79:PHE:CD1	2.34	0.59
33:g:110:SER:HB2	33:g:153:CYS:HA	1.85	0.59
33:g:289:LEU:N	33:g:289:LEU:HD23	2.17	0.59
34:i:683:G:N2	34:i:733:G:N1	2.50	0.59
34:i:1523:G:H22	34:i:1660:G:H21	1.49	0.59
1:A:14:ASP:O	1:A:18:PHE:CD2	2.55	0.59
1:A:122:LEU:CD1	1:A:137:ALA:HB2	2.32	0.59
3:C:93:LYS:CD	3:C:218:LEU:HD22	1.83	0.59
3:C:93:LYS:CE	3:C:95:MET:HG2	2.32	0.59
4:D:5:ILE:O	4:D:6:SER:N	2.33	0.59
4:D:214:LYS:O	4:D:215:ASP:CG	2.46	0.59
7:G:14:LYS:HZ2	7:G:123:GLY:HA3	0.66	0.59
16:P:106:GLU:O	16:P:111:MET:HE1	2.03	0.59
16:P:123:TYR:CZ	19:S:120:HIS:NE2	2.66	0.59
23:W:3:ARG:NE	23:W:9:ASP:OD2	2.35	0.59
24:X:109:GLY:O	24:X:119:ARG:CD	2.42	0.59
24:X:125:VAL:C	24:X:127:ASN:N	2.54	0.59
25:Y:37:LYS:HA	25:Y:40:ILE:CG2	2.32	0.59
25:Y:56:PHE:CG	25:Y:86:GLU:OE2	2.56	0.59
25:Y:103:SER:O	25:Y:104:ARG:HB3	2.03	0.59
26:Z:52:LYS:O	26:Z:54:THR:N	2.35	0.59
32:f:88:PRO:O	32:f:90:LYS:N	2.36	0.59
33:g:70:VAL:HG12	33:g:79:LEU:HB2	1.85	0.59
33:g:194:TYR:HE2	33:g:212:LYS:CE	2.12	0.59
34:i:124:U:H2'	34:i:125:C:H5"	1.82	0.59
34:i:1287:A:H2'	34:i:1298:G:N7	2.17	0.59
35:l:48:GLN:NE2	35:l:79:TYR:CE1	2.71	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5:LEU:HD13	1:A:5:LEU:C	2.27	0.59
1:A:180:ARG:NH1	1:A:184:ARG:NH2	2.50	0.59
2:B:66:VAL:CB	2:B:87:ILE:HG22	2.25	0.59
3:C:110:LYS:NZ	34:i:1352:G:O2'	2.24	0.59
5:E:256:LEU:HD12	5:E:257:ALA:N	2.16	0.59
6:F:28:VAL:HG13	6:F:110:GLN:NE2	2.16	0.59
11:K:42:ASN:O	11:K:43:LEU:HD23	2.03	0.59
12:L:118:ARG:CD	12:L:119:ASP:N	2.66	0.59
13:M:71:GLU:C	13:M:72:HIS:O	2.42	0.59
13:M:95:ASP:HB2	13:M:101:ARG:NH1	2.16	0.59
14:N:28:LEU:CD1	14:N:58:HIS:CE1	2.85	0.59
16:P:13:ARG:O	16:P:14:LYS:CG	2.50	0.59
18:R:29:HIS:HB3	33:g:83:TRP:HH2	1.67	0.59
18:R:91:LEU:H	18:R:92:ASP:CA	2.15	0.59
20:T:119:TRP:CE3	34:i:1557:C:C2'	2.85	0.59
24:X:100:VAL:HG12	24:X:125:VAL:CG2	2.20	0.59
26:Z:51:ASP:O	26:Z:52:LYS:CB	2.49	0.59
34:i:1596:A:H5'	34:i:1597:U:H5	1.68	0.59
34:i:1745:C:O5'	34:i:1745:C:H6	1.86	0.59
1:A:14:ASP:CG	1:A:180:ARG:HH22	2.10	0.59
1:A:118:GLU:CD	3:C:50:LYS:NZ	2.61	0.59
4:D:202:LYS:HB2	4:D:203:PRO:HD3	1.82	0.59
5:E:67:GLN:O	5:E:68:ARG:CG	2.50	0.59
5:E:86:PHE:HE1	5:E:182:MET:SD	2.26	0.59
5:E:108:ARG:NH2	34:i:842:G:OP2	2.28	0.59
6:F:56:TYR:CE1	6:F:66:CYS:HB2	2.38	0.59
6:F:104:THR:HG22	6:F:104:THR:O	2.03	0.59
7:G:13:GLN:O	7:G:14:LYS:HG2	2.03	0.59
9:I:128:LYS:O	9:I:131:PRO:HD2	2.02	0.59
9:I:141:ARG:HD2	9:I:144:LYS:CB	1.99	0.59
9:I:141:ARG:HD3	9:I:144:LYS:CG	2.33	0.59
11:K:27:VAL:HG11	34:i:1270:G:N7	2.18	0.59
12:L:78:THR:HG23	12:L:79:LYS:N	2.17	0.59
14:N:25:TRP:HZ3	28:b:45:THR:HG21	1.64	0.59
16:P:49:LEU:N	16:P:51:ARG:HG3	2.17	0.59
16:P:56:LEU:CD1	16:P:80:LEU:CD1	2.79	0.59
20:T:77:LYS:HA	20:T:94:ARG:CG	2.26	0.59
23:W:23:ARG:HG2	23:W:23:ARG:HH11	1.66	0.59
24:X:95:GLU:CB	24:X:140:ARG:HH22	2.15	0.59
26:Z:64:ASN:O	26:Z:111:ARG:CZ	2.48	0.59
27:a:103:PRO:HB3	27:a:107:ALA:CB	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:d:21:CYS:SG	30:d:23:VAL:HB	2.43	0.59
32:f:103:LEU:HD23	32:f:105:TYR:CA	2.32	0.59
34:i:79:A:O2'	34:i:80:G:H8	1.85	0.59
34:i:835:C:H2'	34:i:837:G:C5'	2.33	0.59
34:i:1701:G:C1'	34:i:1844:A:HO2'	2.11	0.59
34:i:1750:C:C2'	34:i:1751:G:C8	2.86	0.59
34:i:1825:A:H5'	34:i:1845:A:H61	0.53	0.59
1:A:111:GLN:OE1	3:C:48:VAL:HB	2.02	0.59
2:B:31:TYR:CE1	2:B:94:LYS:N	2.69	0.59
3:C:43:LYS:HE3	3:C:43:LYS:C	2.28	0.59
3:C:154:TYR:CD2	3:C:158:LYS:HA	2.37	0.59
3:C:158:LYS:HZ3	22:V:4:ASN:HA	1.68	0.59
3:C:236:LEU:HD23	3:C:236:LEU:C	2.27	0.59
4:D:16:ILE:CG2	30:d:22:ARG:HH12	2.15	0.59
5:E:36:HIS:HB3	5:E:41:CYS:SG	2.42	0.59
5:E:86:PHE:CD2	5:E:87:MET:HG2	2.37	0.59
5:E:159:THR:HG21	5:E:227:VAL:O	2.02	0.59
7:G:24:LEU:O	7:G:25:ARG:C	2.45	0.59
7:G:135:PRO:HG2	7:G:144:LEU:CD2	2.32	0.59
8:H:46:THR:HG23	8:H:47:ALA:N	2.18	0.59
9:I:21:TYR:OH	34:i:422:G:O3'	2.20	0.59
10:J:38:ARG:NE	31:e:105:ARG:N	2.41	0.59
10:J:120:ALA:HA	10:J:125:HIS:HD2	1.68	0.59
11:K:84:HIS:CD2	13:M:27:ILE:CG1	2.85	0.59
14:N:139:TRP:CE3	14:N:140:LYS:C	2.81	0.59
21:U:86:LYS:C	21:U:87:ARG:HG2	2.28	0.59
23:W:96:SER:OG	23:W:99:PHE:CE2	2.56	0.59
24:X:87:ASN:HB2	24:X:90:CYS:SG	2.43	0.59
25:Y:21:LYS:HD3	25:Y:21:LYS:H	1.61	0.59
33:g:34:ALA:HB1	33:g:66:VAL:HG12	1.85	0.59
33:g:260:ASP:O	33:g:264:LYS:HA	2.01	0.59
34:i:445:A:O2'	34:i:1730:A:H2'	2.03	0.59
34:i:1683:C:N3	34:i:1684:C:H5	2.00	0.59
3:C:93:LYS:HE3	3:C:95:MET:CB	2.31	0.58
3:C:185:ARG:HA	3:C:206:ASP:OD2	2.03	0.58
6:F:25:THR:CG2	6:F:41:VAL:HG22	2.32	0.58
7:G:162:LEU:HD22	7:G:172:LYS:HZ1	1.68	0.58
8:H:43:LEU:HD21	8:H:71:SER:OG	2.03	0.58
8:H:143:ARG:NE	23:W:53:ILE:CG2	2.62	0.58
21:U:83:ARG:HB3	21:U:85:HIS:HE1	1.68	0.58
24:X:22:TRP:O	24:X:23:HIS:O	2.20	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:b:36:LYS:HG3	28:b:78:SER:HG	1.66	0.58
34:i:127:C:H42	34:i:181:A:P	2.26	0.58
34:i:181:A:N9	34:i:182:C:C5	2.71	0.58
1:A:57:LYS:HE2	22:V:70:LEU:CD2	2.32	0.58
1:A:183:LEU:CB	1:A:189:ILE:CD1	2.81	0.58
3:C:154:TYR:OH	3:C:161:LYS:N	2.34	0.58
6:F:42:LYS:HB2	6:F:44:LYS:C	2.20	0.58
6:F:158:ALA:HA	6:F:172:CYS:SG	2.43	0.58
8:H:37:LYS:CE	8:H:41:ARG:HH11	2.04	0.58
8:H:80:VAL:O	8:H:83:LEU:HG	2.03	0.58
9:I:129:LEU:O	9:I:134:GLU:HB2	2.03	0.58
10:J:10:ARG:HB3	10:J:10:ARG:CZ	2.24	0.58
11:K:3:MET:CE	11:K:8:ARG:HH21	1.79	0.58
11:K:39:ASN:C	11:K:40:VAL:HG12	2.28	0.58
17:Q:118:THR:O	17:Q:120:LEU:N	2.36	0.58
18:R:17:ILE:HG21	18:R:69:ILE:HD11	1.38	0.58
18:R:21:TYR:HD2	18:R:73:LEU:HD12	1.67	0.58
24:X:95:GLU:OE1	24:X:140:ARG:NH2	2.36	0.58
25:Y:9:THR:HG21	25:Y:48:TYR:CE2	2.37	0.58
34:i:1055:G:C6	34:i:1824:U:OP1	2.55	0.58
34:i:1751:G:N2	34:i:1769:U:H3	1.98	0.58
34:i:1842:U:OP1	35:l:61:LYS:NZ	2.36	0.58
3:C:243:GLU:O	3:C:244:THR:CB	2.48	0.58
4:D:126:ILE:CD1	4:D:134:CYS:CB	2.76	0.58
6:F:123:GLU:CD	29:c:59:LEU:CD1	2.58	0.58
7:G:43:GLU:O	7:G:44:GLU:C	2.46	0.58
9:I:105:ASP:O	9:I:106:SER:HB2	2.02	0.58
11:K:51:SER:HB2	34:i:1273:C:H5'	1.86	0.58
13:M:44:LYS:C	13:M:46:GLN:H	2.12	0.58
17:Q:105:LYS:NZ	17:Q:109:LYS:CB	2.66	0.58
21:U:59:LYS:CB	21:U:84:ILE:CG2	2.61	0.58
23:W:20:ARG:NH2	34:i:1135:C:H1'	2.18	0.58
25:Y:33:ALA:O	25:Y:34:THR:CB	2.49	0.58
25:Y:76:TYR:CB	25:Y:82:ALA:HB2	2.33	0.58
33:g:88:ARG:HD2	33:g:90:TRP:CE2	2.37	0.58
35:l:72:THR:N	35:l:84:GLN:O	2.36	0.58
2:B:53:GLN:HG2	2:B:56:LYS:HB2	1.85	0.58
2:B:108:ASP:OD1	2:B:109:LYS:N	2.36	0.58
2:B:133:TYR:CZ	2:B:181:LEU:HD12	2.38	0.58
2:B:136:HIS:ND1	2:B:138:PHE:CZ	2.72	0.58
5:E:150:PRO:C	5:E:151:ASP:OD2	2.47	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:194:ASP:O	6:F:194:ASP:OD1	2.21	0.58
9:I:154:LYS:O	12:L:22:ARG:HG3	2.03	0.58
12:L:17:PHE:HZ	12:L:19:ASN:OD1	1.86	0.58
12:L:71:ARG:HD2	12:L:73:LEU:HD11	1.84	0.58
13:M:79:VAL:CG1	13:M:80:ASP:N	2.66	0.58
15:O:98:ARG:HG3	15:O:133:THR:HG22	1.85	0.58
16:P:53:GLN:HG3	16:P:80:LEU:HD11	1.84	0.58
17:Q:18:THR:C	17:Q:75:GLY:CA	2.76	0.58
17:Q:138:ARG:HH12	34:i:1641:C:H3'	1.69	0.58
18:R:5:ARG:HB2	18:R:10:LYS:HZ3	0.76	0.58
19:S:111:LEU:HD22	19:S:125:HIS:CE1	2.37	0.58
20:T:87:VAL:CG2	34:i:1660:G:C2	2.86	0.58
22:V:55:ILE:CG2	22:V:60:ARG:CG	2.81	0.58
23:W:128:PHE:CE1	23:W:130:PHE:HE2	2.16	0.58
33:g:20:GLN:NE2	33:g:68:ASP:CB	2.61	0.58
33:g:191:HIS:NE2	33:g:195:LEU:HD21	2.11	0.58
33:g:240:CYS:SG	33:g:291:TRP:HD1	2.25	0.58
1:A:176:TRP:HZ2	1:A:195:TRP:CE3	1.94	0.58
1:A:195:TRP:CE2	1:A:197:VAL:HB	2.39	0.58
2:B:130:THR:CG2	2:B:179:ASN:N	2.66	0.58
6:F:51:HIS:CD2	6:F:86:LYS:HD3	2.38	0.58
7:G:137:ARG:HG3	7:G:140:ARG:HB3	1.85	0.58
7:G:145:PHE:CB	7:G:147:LEU:CD1	2.65	0.58
8:H:14:GLU:CD	8:H:16:PRO:CB	2.77	0.58
10:J:65:GLU:O	10:J:66:LYS:CB	2.51	0.58
11:K:65:ARG:CZ	30:d:25:SER:OG	2.46	0.58
11:K:83:LEU:HD12	11:K:85:LEU:CD2	2.23	0.58
12:L:86:ILE:HG13	12:L:111:VAL:HG13	1.84	0.58
12:L:97:ARG:O	12:L:99:TYR:C	2.47	0.58
15:O:30:VAL:HG23	15:O:32:HIS:HD2	1.68	0.58
17:Q:90:LYS:HD3	17:Q:120:LEU:CA	2.33	0.58
19:S:8:LYS:HB2	19:S:9:PHE:CE1	2.26	0.58
20:T:39:LEU:HD11	20:T:56:ARG:HH21	1.68	0.58
20:T:64:LEU:N	20:T:64:LEU:CD2	2.63	0.58
24:X:126:ALA:O	24:X:128:VAL:CG2	2.52	0.58
27:a:36:ILE:HD13	27:a:78:ALA:HB3	1.84	0.58
28:b:37:CYS:O	28:b:39:GLY:N	2.36	0.58
32:f:97:LYS:HE3	34:i:1284:U:C4	2.38	0.58
33:g:32:LEU:HD11	33:g:40:ILE:HG21	1.84	0.58
34:i:579:G:N3	34:i:581:U:C5	2.71	0.58
34:i:1816:A:H3'	34:i:1817:A:H2'	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2:SER:OG	1:A:3:GLY:N	2.37	0.58
1:A:125:THR:O	1:A:147:LEU:HB2	1.99	0.58
3:C:154:TYR:HH	3:C:162:PRO:HD3	1.66	0.58
5:E:229:GLY:HA3	5:E:235:TRP:CD1	2.39	0.58
6:F:32:ASP:HB2	6:F:117:ILE:CG2	2.33	0.58
6:F:204:ARG:NH1	29:c:59:LEU:CB	2.63	0.58
9:I:3:ILE:O	9:I:3:ILE:HG23	1.97	0.58
9:I:138:ASN:O	9:I:139:LYS:C	2.47	0.58
12:L:55:TYR:CD1	12:L:115:PRO:HG2	2.39	0.58
14:N:27:LYS:HD2	14:N:27:LYS:C	2.25	0.58
17:Q:50:LYS:HZ2	17:Q:85:ARG:NH2	1.82	0.58
17:Q:126:ARG:O	34:i:1643:G:H5'	2.03	0.58
20:T:85:ASN:H	20:T:85:ASN:HD22	1.49	0.58
25:Y:91:LEU:C	25:Y:97:TYR:CB	2.77	0.58
33:g:162:ASN:ND2	33:g:163:PRO:HD3	2.16	0.58
34:i:272:C:H6	34:i:272:C:H5"	1.68	0.58
34:i:546:U:H2'	34:i:547:U:H5"	1.86	0.58
1:A:106:GLY:HA3	1:A:113:GLN:HE22	1.67	0.58
3:C:50:LYS:HB2	3:C:258:LEU:CB	2.34	0.58
6:F:144:LEU:HD23	29:c:49:PRO:CG	2.33	0.58
7:G:27:PHE:HZ	7:G:41:LEU:HD13	1.68	0.58
9:I:29:LEU:HD21	9:I:31:ARG:HH12	1.69	0.58
10:J:84:ILE:O	10:J:108:ARG:CD	2.51	0.58
11:K:89:ILE:O	11:K:89:ILE:HD13	2.03	0.58
15:O:125:LYS:NZ	27:a:56:VAL:O	2.37	0.58
16:P:53:GLN:HG2	16:P:56:LEU:HD12	1.85	0.58
18:R:98:VAL:O	18:R:100:PRO:HD2	2.04	0.58
19:S:80:PRO:HG3	19:S:82:TRP:CE2	2.38	0.58
19:S:89:ASP:HB2	19:S:94:LYS:HB2	1.85	0.58
20:T:125:PRO:HB3	34:i:1412:C:H5"	1.86	0.58
22:V:19:ALA:CB	22:V:59:ILE:CD1	2.76	0.58
24:X:52:LEU:HD12	24:X:53:GLU:HB3	1.86	0.58
25:Y:55:ILE:HD11	25:Y:75:ILE:HD13	1.85	0.58
27:a:24:THR:HG23	27:a:72:HIS:O	2.04	0.58
32:f:144:CYS:CA	32:f:147:THR:HG22	2.31	0.58
33:g:172:LYS:HG2	33:g:191:HIS:O	2.03	0.58
33:g:173:LEU:HD22	33:g:189:ILE:HG12	1.86	0.58
34:i:64:A:H2	34:i:66:G:C8	2.22	0.58
34:i:1207:G:N2	34:i:1684:C:H1'	2.19	0.58
34:i:1236:A:C2	34:i:1264:C:H5'	2.39	0.58
35:l:36:GLN:CA	35:l:113:PHE:HB3	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:64:LYS:CG	35:l:71:GLY:H	2.17	0.58
2:B:144:LYS:O	2:B:144:LYS:HG3	2.03	0.58
5:E:62:LYS:CD	5:E:80:ILE:CG1	2.81	0.58
6:F:53:ALA:C	17:Q:125:ARG:NH2	2.61	0.58
7:G:32:MET:HA	7:G:52:ILE:HG23	1.86	0.58
7:G:191:ARG:O	7:G:195:LYS:HG3	2.04	0.58
8:H:154:ILE:HG22	8:H:185:VAL:CG2	2.34	0.58
8:H:188:GLU:HG2	8:H:189:PHE:H	1.69	0.58
8:H:190:PRO:CB	8:H:191:GLU:HG2	2.33	0.58
9:I:149:TYR:HA	9:I:152:ARG:NH1	2.19	0.58
10:J:66:LYS:HE3	34:i:688:U:C3'	1.96	0.58
10:J:84:ILE:CG1	10:J:86:VAL:HG23	2.32	0.58
17:Q:50:LYS:CA	17:Q:53:GLU:HG3	2.34	0.58
18:R:5:ARG:CA	18:R:10:LYS:NZ	2.59	0.58
19:S:15:VAL:CG1	19:S:68:ILE:HD11	2.33	0.58
20:T:111:LYS:O	20:T:124:THR:CG2	2.51	0.58
34:i:892:U:H2'	34:i:893:U:H5'	1.85	0.58
1:A:42:LYS:HZ2	18:R:102:THR:HG22	1.68	0.58
2:B:119:THR:HB	2:B:143:THR:HG23	1.84	0.58
3:C:55:VAL:HA	3:C:82:PHE:CZ	2.34	0.58
4:D:97:CYS:O	4:D:100:ALA:N	2.36	0.58
5:E:43:PRO:HG2	5:E:46:ILE:CD1	2.34	0.58
5:E:98:ASN:HD21	5:E:119:ALA:HA	1.68	0.58
5:E:117:GLU:HG3	5:E:118:GLU:N	2.18	0.58
5:E:152:PRO:HG3	7:G:209:TYR:CZ	2.39	0.58
7:G:3:LEU:CD1	7:G:41:LEU:HD11	2.33	0.58
7:G:185:LEU:O	7:G:189:ARG:HG3	2.04	0.58
9:I:145:ILE:HA	9:I:148:LYS:CD	2.33	0.58
10:J:84:ILE:O	10:J:108:ARG:HD3	2.03	0.58
15:O:34:PHE:CE1	15:O:99:ALA:C	2.81	0.58
16:P:41:GLN:NE2	16:P:45:LEU:CD1	2.67	0.58
17:Q:92:LEU:O	17:Q:96:TYR:CD2	2.56	0.58
17:Q:93:VAL:HG11	17:Q:105:LYS:HE2	0.58	0.58
17:Q:98:LYS:CA	33:g:57:ARG:HH21	2.17	0.58
20:T:4:VAL:HG11	20:T:139:ALA:HB2	1.84	0.58
20:T:76:THR:CG2	20:T:95:GLY:O	2.52	0.58
33:g:25:PRO:O	33:g:26:GLN:C	2.42	0.58
33:g:105:THR:OG1	33:g:126:ASP:HB3	2.02	0.58
4:D:212:GLU:HG2	18:R:19:LYS:CE	2.34	0.58
5:E:156:MET:O	5:E:157:ASN:HB2	2.03	0.58
6:F:175:ASP:C	6:F:175:ASP:OD1	2.47	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:32:MET:SD	7:G:100:CYS:SG	3.01	0.58
7:G:135:PRO:CG	7:G:144:LEU:HD23	2.33	0.58
7:G:174:PRO:O	7:G:175:LYS:HB2	2.03	0.58
8:H:154:ILE:CG2	8:H:154:ILE:O	2.51	0.58
9:I:85:ALA:HB1	12:L:8:ARG:HD2	1.85	0.58
14:N:16:LEU:N	28:b:26:GLN:HE22	2.02	0.58
18:R:99:ASP:CA	18:R:119:VAL:HG13	2.13	0.58
19:S:58:GLU:CB	19:S:59:LEU:HD13	2.34	0.58
24:X:126:ALA:CB	24:X:128:VAL:CB	2.57	0.58
25:Y:20:ARG:CG	25:Y:74:MET:HE1	2.25	0.58
26:Z:51:ASP:O	26:Z:52:LYS:HB2	2.02	0.58
27:a:21:ILE:CG2	27:a:22:ARG:N	2.67	0.58
31:e:115:ARG:CA	31:e:119:VAL:HG21	2.33	0.58
33:g:119:GLN:OE1	33:g:179:LEU:HD13	2.04	0.58
2:B:67:PHE:HE1	15:O:47:LEU:CA	2.16	0.57
2:B:125:VAL:CG2	2:B:169:MET:HG3	2.34	0.57
2:B:129:THR:OG1	2:B:133:TYR:HB2	2.03	0.57
2:B:226:GLY:O	2:B:230:GLU:HG3	2.04	0.57
4:D:59:LEU:CG	4:D:60:GLY:H	2.16	0.57
6:F:47:LYS:CB	17:Q:117:ARG:HH22	2.16	0.57
7:G:35:GLU:C	7:G:36:VAL:CG2	2.77	0.57
8:H:144:ILE:HD12	23:W:52:ILE:CD1	2.25	0.57
9:I:144:LYS:C	9:I:145:ILE:HG12	2.24	0.57
10:J:131:ARG:NH1	10:J:143:ASN:HD21	2.01	0.57
10:J:170:PRO:HG3	10:J:175:ARG:HG2	1.81	0.57
11:K:53:LYS:CA	11:K:58:VAL:HG13	2.34	0.57
11:K:62:PHE:CE1	11:K:67:PHE:HE2	2.18	0.57
14:N:16:LEU:CD1	14:N:62:GLN:HE22	2.03	0.57
17:Q:85:ARG:O	17:Q:88:ILE:CG1	2.50	0.57
19:S:80:PRO:CG	19:S:82:TRP:NE1	2.67	0.57
19:S:120:HIS:CD2	19:S:120:HIS:C	2.81	0.57
20:T:87:VAL:HG13	20:T:88:MET:N	2.18	0.57
24:X:67:ARG:CG	24:X:115:ILE:HG12	2.32	0.57
29:c:65:ALA:O	29:c:66:ARG:HG2	2.04	0.57
30:d:40:ARG:HG2	30:d:41:GLN:OE1	2.03	0.57
33:g:194:TYR:CE2	33:g:212:LYS:CG	2.86	0.57
33:g:276:SER:C	33:g:277:THR:O	2.41	0.57
33:g:306:LEU:HD23	33:g:306:LEU:C	2.29	0.57
34:i:885:U:H2'	34:i:886:U:H5"	1.86	0.57
34:i:1054:A:N1	34:i:1824:U:P	2.77	0.57
35:l:100:ILE:HG13	35:l:101:GLY:N	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:59:LEU:HD23	1:A:181:GLU:CG	2.33	0.57
2:B:28:LYS:NZ	15:O:51:GLU:OE2	2.37	0.57
2:B:67:PHE:CE1	15:O:47:LEU:CA	2.87	0.57
5:E:248:ILE:CA	10:J:72:PHE:CE1	2.86	0.57
7:G:185:LEU:HD23	7:G:188:LYS:HE3	1.86	0.57
9:I:142:SER:HB3	9:I:143:LYS:CD	2.34	0.57
10:J:37:LEU:CD2	10:J:42:GLU:HB3	2.25	0.57
10:J:81:LEU:CD1	10:J:97:ILE:CD1	2.81	0.57
10:J:134:HIS:HE2	34:i:552:U:P	2.26	0.57
10:J:170:PRO:CB	10:J:174:LYS:NZ	2.67	0.57
10:J:179:LYS:HA	10:J:182:GLN:CD	2.29	0.57
12:L:130:GLU:HG2	12:L:131:CYS:N	2.19	0.57
15:O:120:ALA:O	27:a:56:VAL:HG21	2.04	0.57
17:Q:116:ASP:O	17:Q:117:ARG:CB	2.50	0.57
19:S:73:ASN:HB3	19:S:76:GLN:OE1	2.04	0.57
25:Y:36:PRO:HD3	25:Y:39:GLU:OE1	1.98	0.57
25:Y:52:PRO:CD	25:Y:53:ASP:N	2.64	0.57
26:Z:92:LEU:CD1	26:Z:109:TYR:CE1	2.84	0.57
33:g:83:TRP:C	33:g:85:GLY:N	2.60	0.57
2:B:71:LEU:HD13	2:B:84:PHE:HE2	0.85	0.57
3:C:70:SER:C	22:V:29:HIS:HE1	2.07	0.57
3:C:223:LYS:HZ1	34:i:1351:C:C2'	1.78	0.57
4:D:170:THR:HG22	4:D:171:ALA:N	2.18	0.57
6:F:14:THR:HG23	6:F:15:PRO:HD2	1.85	0.57
6:F:42:LYS:HB2	6:F:46:ALA:N	2.19	0.57
7:G:28:TYR:C	7:G:30:LYS:H	2.13	0.57
8:H:60:ILE:HG21	8:H:92:VAL:HG22	1.86	0.57
10:J:110:LEU:HB3	10:J:130:ILE:CD1	2.33	0.57
11:K:13:GLU:HG3	11:K:14:LEU:N	2.19	0.57
11:K:61:GLN:O	11:K:67:PHE:HA	2.05	0.57
13:M:76:LEU:C	13:M:128:PHE:CZ	2.82	0.57
15:O:75:MET:SD	15:O:114:SER:O	2.63	0.57
18:R:20:TYR:CE2	18:R:38:ILE:CB	2.73	0.57
18:R:61:ILE:HG23	18:R:74:GLN:HE22	1.70	0.57
20:T:40:ALA:N	20:T:43:LYS:HG3	2.18	0.57
23:W:77:PRO:HD2	23:W:79:PHE:CZ	2.39	0.57
23:W:128:PHE:CZ	23:W:130:PHE:HE2	2.23	0.57
24:X:105:PHE:CD2	24:X:119:ARG:C	2.82	0.57
26:Z:94:LYS:CE	26:Z:95:GLY:H	2.16	0.57
31:e:105:ARG:CZ	31:e:106:ALA:N	2.68	0.57
34:i:196:U:C2	34:i:199:G:N1	2.71	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1207:G:N1	34:i:1684:C:C6	2.72	0.57
1:A:24:HIS:HB2	1:A:49:ILE:O	2.04	0.57
2:B:105:LEU:O	2:B:106:THR:CB	2.52	0.57
4:D:126:ILE:HD12	4:D:134:CYS:HB2	1.87	0.57
6:F:119:SER:O	6:F:121:PRO:HD3	2.04	0.57
7:G:170:ARG:HG2	34:i:71:G:O6	2.05	0.57
9:I:22:HIS:CD2	9:I:25:ARG:HH11	2.22	0.57
9:I:76:THR:CG2	9:I:77:ARG:H	2.18	0.57
10:J:15:THR:HB	10:J:44:TRP:CH2	2.39	0.57
11:K:95:ARG:HA	11:K:95:ARG:NE	2.18	0.57
14:N:142:GLU:HG2	14:N:145:THR:HG23	1.86	0.57
15:O:106:LYS:HZ2	27:a:69:VAL:HG13	1.69	0.57
16:P:5:GLU:HG2	16:P:9:LYS:HE2	1.85	0.57
22:V:74:LYS:HA	22:V:78:ILE:O	2.04	0.57
25:Y:35:VAL:CG1	25:Y:36:PRO:HD2	2.28	0.57
25:Y:92:ALA:C	25:Y:97:TYR:O	2.47	0.57
33:g:43:TRP:HZ3	33:g:55:PRO:HD3	1.70	0.57
34:i:181:A:C5	34:i:182:C:N3	2.72	0.57
1:A:127:PRO:HG2	1:A:153:PRO:CD	2.26	0.57
2:B:70:SER:HB3	15:O:128:ARG:NH1	2.19	0.57
3:C:98:GLN:HB3	3:C:107:THR:HA	1.85	0.57
3:C:101:THR:HG23	3:C:103:ALA:C	2.28	0.57
4:D:48:ILE:HG23	4:D:48:ILE:O	2.03	0.57
4:D:74:GLN:NE2	4:D:75:LYS:CD	2.66	0.57
6:F:15:PRO:HD3	17:Q:56:LEU:CB	2.34	0.57
6:F:141:VAL:CB	29:c:47:LYS:CE	2.56	0.57
9:I:48:VAL:HG11	9:I:54:LYS:HB2	1.86	0.57
9:I:62:VAL:HG23	9:I:75:LYS:CE	2.32	0.57
10:J:16:PRO:C	10:J:18:ARG:H	2.09	0.57
10:J:65:GLU:HA	10:J:70:ARG:HD3	1.87	0.57
10:J:89:GLU:O	10:J:91:LYS:O	2.23	0.57
11:K:1:MET:H2	11:K:2:LEU:C	2.12	0.57
12:L:147:LYS:HE2	12:L:156:GLN:HE22	1.70	0.57
14:N:46:THR:HG1	14:N:49:GLN:HG2	1.61	0.57
16:P:44:ARG:CD	16:P:82:ASP:O	2.52	0.57
16:P:127:LYS:HE3	16:P:128:HIS:CA	2.34	0.57
16:P:127:LYS:HE3	16:P:128:HIS:HA	1.86	0.57
20:T:40:ALA:O	20:T:43:LYS:HB2	2.05	0.57
21:U:47:ASN:HD22	21:U:47:ASN:H	1.50	0.57
34:i:674:G:H1	34:i:914:U:H3	1.53	0.57
34:i:1458:U:H2'	34:i:1460:C:C4	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1748:G:O6	34:i:1772:C:N4	2.37	0.57
34:i:1823:G:N2	34:i:1844:A:N3	2.42	0.57
1:A:202:TYR:C	1:A:203:PHE:CD1	2.82	0.57
2:B:25:PHE:CE1	15:O:53:ILE:HG22	2.38	0.57
3:C:192:ALA:HB3	3:C:195:PRO:CD	2.35	0.57
5:E:129:ILE:CB	5:E:139:LEU:CD2	2.73	0.57
7:G:159:ARG:HH22	7:G:161:PRO:CA	2.17	0.57
8:H:143:ARG:CD	23:W:53:ILE:CG1	2.50	0.57
9:I:142:SER:HB3	9:I:143:LYS:CE	2.34	0.57
10:J:17:ARG:CA	10:J:18:ARG:HG2	2.35	0.57
10:J:50:LEU:CD1	10:J:102:ILE:CD1	2.72	0.57
10:J:87:LEU:HD12	10:J:91:LYS:HD3	1.87	0.57
12:L:97:ARG:HG2	12:L:98:LYS:CA	2.34	0.57
16:P:67:ALA:HB2	16:P:73:PRO:CB	2.35	0.57
18:R:61:ILE:HG23	18:R:74:GLN:NE2	2.19	0.57
24:X:105:PHE:HB3	24:X:112:VAL:HG21	1.86	0.57
24:X:126:ALA:O	24:X:128:VAL:N	2.37	0.57
25:Y:103:SER:O	25:Y:104:ARG:CB	2.53	0.57
29:c:46:VAL:HG11	29:c:50:VAL:HG21	1.86	0.57
31:e:120:VAL:HG22	31:e:121:PRO:N	2.18	0.57
3:C:161:LYS:CD	3:C:162:PRO:HD2	2.34	0.57
4:D:194:PRO:O	4:D:197:LYS:O	2.23	0.57
7:G:159:ARG:HA	7:G:172:LYS:O	2.04	0.57
8:H:117:PRO:HD2	8:H:120:ARG:CD	2.35	0.57
8:H:144:ILE:O	23:W:51:GLU:CA	2.47	0.57
9:I:31:ARG:HG3	9:I:31:ARG:NH1	2.20	0.57
9:I:148:LYS:HE2	9:I:152:ARG:NH2	2.20	0.57
12:L:109:MET:SD	12:L:140:PHE:CE1	2.97	0.57
15:O:39:ASP:N	15:O:69:SER:HB3	2.20	0.57
16:P:49:LEU:HD12	16:P:50:ARG:N	2.20	0.57
16:P:49:LEU:HD11	16:P:51:ARG:HH21	1.70	0.57
17:Q:18:THR:O	17:Q:75:GLY:HA3	2.04	0.57
18:R:98:VAL:CG1	18:R:99:ASP:N	2.68	0.57
19:S:23:ARG:HD3	26:Z:48:VAL:CB	2.34	0.57
20:T:124:THR:CG2	20:T:126:GLN:HB3	2.35	0.57
21:U:67:LYS:CG	21:U:78:ASP:CG	2.78	0.57
25:Y:55:ILE:CD1	25:Y:75:ILE:HD13	2.35	0.57
25:Y:55:ILE:HA	25:Y:74:MET:O	2.04	0.57
30:d:11:PRO:HG2	34:i:1613:C:C4	2.39	0.57
30:d:46:TYR:N	30:d:46:TYR:CD2	2.72	0.57
31:e:115:ARG:CA	31:e:119:VAL:HG22	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:f:87:THR:OG1	34:i:1503:G:N2	2.37	0.57
33:g:2:THR:O	33:g:3:GLU:HG2	2.04	0.57
33:g:116:ASP:O	33:g:117:ASN:CB	2.53	0.57
33:g:282:GLU:OE2	33:g:282:GLU:C	2.48	0.57
34:i:197:U:H2'	34:i:198:U:H5'	1.87	0.57
34:i:1458:U:H2'	34:i:1460:C:C5	2.40	0.57
34:i:1553:C:O2'	34:i:1554:C:H5'	2.05	0.57
35:l:33:ILE:HD13	35:l:47:VAL:HA	1.87	0.57
3:C:161:LYS:HD3	22:V:9:VAL:HG11	1.85	0.57
6:F:141:VAL:CG2	29:c:47:LYS:NZ	2.64	0.57
7:G:188:LYS:O	7:G:191:ARG:HG3	2.05	0.57
11:K:64:TRP:O	11:K:65:ARG:HG3	2.04	0.57
13:M:61:TYR:OH	13:M:108:CYS:SG	2.61	0.57
15:O:17:LEU:CG	15:O:18:GLY:N	2.68	0.57
16:P:67:ALA:HB2	16:P:73:PRO:HB3	1.87	0.57
16:P:100:LYS:HG2	34:i:1236:A:C6	2.40	0.57
19:S:85:ASN:ND2	19:S:98:VAL:H	2.03	0.57
21:U:101:ILE:O	21:U:105:SER:OG	2.23	0.57
22:V:1:MET:CE	22:V:10:ASP:CB	2.55	0.57
24:X:90:CYS:O	24:X:91:LEU:O	2.22	0.57
26:Z:48:VAL:HG22	26:Z:80:ARG:HD2	1.79	0.57
31:e:118:ASN:HB2	31:e:119:VAL:CG2	2.35	0.57
33:g:76:GLN:HE21	33:g:76:GLN:CA	2.17	0.57
4:D:218:LEU:CG	4:D:218:LEU:O	2.53	0.57
6:F:44:LYS:CA	6:F:45:TYR:CD1	2.88	0.57
7:G:57:ASP:CG	7:G:98:ARG:HG3	2.29	0.57
7:G:177:GLN:O	7:G:178:ARG:HB2	2.03	0.57
8:H:57:ARG:HD2	8:H:89:GLY:C	2.29	0.57
8:H:106:ARG:CZ	34:i:857:A:C2	2.88	0.57
10:J:32:ILE:O	10:J:35:TYR:C	2.48	0.57
10:J:50:LEU:HD12	10:J:102:ILE:CG1	2.35	0.57
15:O:38:ASN:O	15:O:68:GLU:HB3	2.04	0.57
16:P:49:LEU:CA	16:P:51:ARG:CD	2.83	0.57
16:P:56:LEU:HD22	16:P:78:THR:CG2	2.34	0.57
16:P:107:ILE:CA	16:P:111:MET:CE	2.72	0.57
26:Z:73:VAL:CG1	26:Z:79:ILE:HG21	2.23	0.57
28:b:26:GLN:HG3	28:b:27:SER:CA	2.35	0.57
34:i:447:C:C4'	34:i:1795:A:O3'	2.49	0.57
34:i:892:U:C2'	34:i:893:U:H5'	2.35	0.57
1:A:102:ARG:O	1:A:104:THR:N	2.38	0.57
3:C:68:LEU:HD22	3:C:247:THR:HG21	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:195:PRO:HD3	3:C:221:PHE:CE2	2.40	0.57
8:H:145:ARG:CG	23:W:51:GLU:HG2	2.35	0.57
9:I:140:LYS:C	9:I:141:ARG:HG3	2.29	0.57
9:I:141:ARG:HD3	9:I:144:LYS:HB3	1.62	0.57
12:L:1:MET:O	12:L:2:ALA:CB	2.52	0.57
12:L:17:PHE:CD1	12:L:18:GLN:CB	2.88	0.57
15:O:44:VAL:HG22	15:O:93:LEU:HD13	1.85	0.57
16:P:98:ASN:CG	16:P:120:SER:HB2	2.29	0.57
17:Q:7:LEU:HD22	17:Q:27:ARG:HD2	1.87	0.57
17:Q:50:LYS:HA	17:Q:53:GLU:HG3	1.87	0.57
22:V:42:VAL:O	22:V:43:THR:CB	2.52	0.57
23:W:30:CYS:CA	23:W:34:ILE:HD12	2.35	0.57
24:X:52:LEU:HD12	24:X:53:GLU:CG	2.35	0.57
25:Y:117:VAL:HB	25:Y:124:ASN:HD21	1.69	0.57
28:b:6:ASP:OD2	28:b:9:HIS:HB2	2.05	0.57
33:g:258:ILE:HD11	33:g:267:VAL:HG12	1.87	0.57
34:i:40:A:H61	34:i:504:U:H3	1.53	0.57
34:i:527:C:O5'	34:i:527:C:H6	1.88	0.57
1:A:4:ALA:O	1:A:8:LEU:HD22	2.05	0.56
2:B:136:HIS:CE1	2:B:138:PHE:HZ	2.20	0.56
3:C:93:LYS:HE3	3:C:95:MET:HG2	1.86	0.56
3:C:99:LYS:HD2	3:C:99:LYS:C	2.29	0.56
3:C:183:ALA:HB2	3:C:208:TYR:CD2	2.40	0.56
4:D:23:GLU:CG	11:K:64:TRP:HE1	2.18	0.56
7:G:63:MET:HE3	7:G:106:LEU:HD21	1.86	0.56
8:H:118:ARG:C	8:H:120:ARG:H	2.11	0.56
9:I:154:LYS:O	12:L:22:ARG:CD	2.53	0.56
10:J:67:ASP:O	10:J:70:ARG:N	2.38	0.56
11:K:84:HIS:CD2	13:M:27:ILE:HG13	2.32	0.56
14:N:27:LYS:CD	14:N:27:LYS:N	2.62	0.56
14:N:58:HIS:CD2	14:N:59:GLY:H	2.23	0.56
15:O:44:VAL:HG21	15:O:93:LEU:HD11	1.85	0.56
17:Q:47:LEU:O	17:Q:49:TYR:N	2.38	0.56
17:Q:92:LEU:O	17:Q:96:TYR:HD2	1.87	0.56
18:R:42:PRO:CD	18:R:43:SER:N	2.67	0.56
20:T:5:THR:CG2	20:T:7:LYS:HB2	2.34	0.56
20:T:85:ASN:CB	20:T:88:MET:HB2	2.35	0.56
23:W:15:ASN:CG	23:W:19:LYS:HE3	2.29	0.56
25:Y:66:GLY:HA3	34:i:572:U:OP1	2.04	0.56
30:d:50:ILE:HG21	30:d:52:PHE:CE2	2.39	0.56
31:e:79:SER:C	31:e:80:LEU:HD23	2.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:125:LYS:O	31:e:126:LYS:CD	2.45	0.56
33:g:78:ALA:O	33:g:89:LEU:HD12	2.04	0.56
33:g:87:LEU:CD2	33:g:108:VAL:HG11	2.35	0.56
33:g:147:HIS:C	33:g:149:GLU:H	2.12	0.56
34:i:328:G:C5	34:i:329:A:N7	2.73	0.56
34:i:520:U:C5	34:i:521:A:C4	2.93	0.56
34:i:683:G:C2	34:i:733:G:O6	2.58	0.56
34:i:1238:U:C5	34:i:1515:G:C8	2.92	0.56
34:i:1408:C:C2'	34:i:1409:G:C8	2.84	0.56
1:A:57:LYS:HE2	22:V:70:LEU:HD21	1.86	0.56
1:A:115:ALA:O	1:A:117:ARG:HG2	2.05	0.56
2:B:120:MET:HB2	2:B:142:PHE:HE1	1.70	0.56
3:C:60:ILE:C	3:C:82:PHE:HE1	2.09	0.56
4:D:55:THR:HA	4:D:58:VAL:CG2	2.35	0.56
4:D:79:PHE:O	4:D:80:PRO:C	2.48	0.56
4:D:149:SER:O	4:D:150:MET:SD	2.63	0.56
7:G:162:LEU:O	7:G:162:LEU:CD1	2.49	0.56
8:H:109:ARG:O	8:H:110:THR:HB	2.04	0.56
8:H:149:ASP:C	8:H:151:SER:H	2.13	0.56
9:I:142:SER:CB	9:I:143:LYS:CB	2.29	0.56
10:J:165:TYR:HE2	34:i:550:A:HO2'	1.53	0.56
12:L:102:PHE:N	12:L:102:PHE:HD1	1.95	0.56
12:L:102:PHE:O	24:X:8:ARG:O	2.22	0.56
12:L:148:ALA:O	12:L:150:GLY:O	2.23	0.56
16:P:41:GLN:C	16:P:41:GLN:OE1	2.48	0.56
17:Q:18:THR:HB	17:Q:75:GLY:H	1.71	0.56
17:Q:47:LEU:CB	17:Q:81:ILE:HD13	2.34	0.56
17:Q:76:GLY:O	17:Q:80:GLN:HG2	2.00	0.56
18:R:90:ALA:C	18:R:91:LEU:HG	2.29	0.56
19:S:120:HIS:CD2	19:S:124:ARG:HG3	2.39	0.56
20:T:65:TYR:CE2	20:T:128:GLN:HG3	2.39	0.56
24:X:105:PHE:HE2	24:X:118:VAL:C	2.13	0.56
25:Y:54:VAL:CG2	25:Y:79:LEU:HD21	2.35	0.56
25:Y:99:LYS:C	25:Y:99:LYS:NZ	2.64	0.56
28:b:49:HIS:CD2	28:b:49:HIS:N	2.72	0.56
28:b:63:LEU:O	28:b:64:CYS:SG	2.63	0.56
33:g:173:LEU:CD2	33:g:189:ILE:HG12	2.35	0.56
34:i:68:A:H61	34:i:81:U:H3	1.53	0.56
1:A:119:PRO:O	1:A:142:LEU:HD22	2.04	0.56
1:A:141:ASN:O	22:V:32:ILE:CG1	2.41	0.56
2:B:44:ILE:HD11	2:B:86:LEU:HD13	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:123:LEU:HD11	4:D:154:ASP:CB	2.35	0.56
4:D:162:ASP:HB3	4:D:163:PRO:HD3	1.86	0.56
4:D:212:GLU:HG2	18:R:19:LYS:HZ3	1.71	0.56
5:E:129:ILE:CG2	5:E:139:LEU:HD23	2.35	0.56
5:E:153:LEU:CD2	7:G:216:ARG:NH2	2.65	0.56
6:F:42:LYS:C	6:F:42:LYS:HD3	2.09	0.56
6:F:57:ALA:O	34:i:1674:A:N1	2.39	0.56
6:F:110:GLN:C	6:F:113:VAL:HG12	2.28	0.56
6:F:195:GLU:OE1	6:F:195:GLU:CA	2.49	0.56
7:G:176:ILE:HG21	7:G:179:LEU:CB	2.28	0.56
8:H:9:VAL:CA	8:H:11:PRO:HD3	2.36	0.56
8:H:15:LYS:HB3	8:H:16:PRO:HD3	1.82	0.56
8:H:106:ARG:NE	34:i:857:A:C4	2.73	0.56
8:H:135:PHE:HB3	8:H:136:PRO:HD3	1.87	0.56
10:J:80:ARG:HA	10:J:83:ARG:HD3	1.86	0.56
10:J:110:LEU:HD12	10:J:130:ILE:HG12	1.55	0.56
10:J:136:ARG:HG3	10:J:160:SER:CB	2.36	0.56
11:K:1:MET:HB3	11:K:47:LYS:HB3	1.88	0.56
11:K:43:LEU:H	11:K:46:MET:CB	2.18	0.56
12:L:46:THR:HG23	12:L:46:THR:O	2.04	0.56
12:L:56:ILE:CG2	12:L:57:ASP:N	2.68	0.56
15:O:142:ARG:HH12	27:a:27:ALA:CB	2.03	0.56
16:P:41:GLN:HA	16:P:84:ILE:HD13	1.88	0.56
17:Q:15:ARG:NH1	17:Q:20:THR:HG21	2.19	0.56
17:Q:52:LEU:C	17:Q:54:PRO:HD2	2.30	0.56
19:S:34:LYS:CB	19:S:103:LEU:HD23	2.21	0.56
19:S:139:THR:O	19:S:140:GLY:C	2.49	0.56
20:T:85:ASN:HB3	20:T:88:MET:SD	2.46	0.56
22:V:18:SER:O	22:V:72:LEU:HD21	2.05	0.56
22:V:49:GLN:O	22:V:50:SER:O	2.23	0.56
24:X:41:PHE:HZ	24:X:102:VAL:CG1	2.19	0.56
24:X:105:PHE:HB3	24:X:112:VAL:CG2	2.36	0.56
25:Y:54:VAL:CG1	25:Y:76:TYR:CA	2.83	0.56
26:Z:92:LEU:CD1	26:Z:109:TYR:HE1	2.19	0.56
27:a:102:ARG:O	27:a:103:PRO:O	2.22	0.56
31:e:80:LEU:O	31:e:81:ALA:C	2.45	0.56
31:e:114:ARG:HA	31:e:118:ASN:CG	2.30	0.56
33:g:30:MET:CE	33:g:42:MET:HE3	2.32	0.56
33:g:76:GLN:O	33:g:77:PHE:HD1	1.88	0.56
33:g:172:LYS:O	33:g:173:LEU:HD23	2.05	0.56
33:g:282:GLU:CD	33:g:283:PRO:N	2.63	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:286:CYS:CB	33:g:302:TYR:CZ	2.76	0.56
34:i:866:A:H1'	34:i:912:A:C2	2.41	0.56
34:i:1716:U:H3'	34:i:1717:G:H5'	1.86	0.56
34:i:1748:G:C5	34:i:1749:C:N4	2.73	0.56
34:i:1749:C:C5	34:i:1750:C:N4	2.73	0.56
34:i:1750:C:H4'	34:i:1751:G:OP1	2.04	0.56
35:l:64:LYS:HG3	35:l:71:GLY:H	1.69	0.56
1:A:142:LEU:N	22:V:32:ILE:CD1	2.69	0.56
3:C:49:THR:HG23	3:C:75:GLU:CG	2.36	0.56
3:C:55:VAL:CB	3:C:82:PHE:CZ	2.84	0.56
3:C:69:PHE:CZ	3:C:247:THR:HG21	2.40	0.56
4:D:18:LYS:CD	4:D:18:LYS:C	2.78	0.56
6:F:93:VAL:C	6:F:97:PHE:CE1	2.82	0.56
8:H:192:PHE:O	8:H:193:GLN:O	2.23	0.56
9:I:9:HIS:O	9:I:10:LYS:CG	2.52	0.56
12:L:6:THR:HG23	12:L:7:GLU:N	2.19	0.56
13:M:77:ILE:HD12	13:M:79:VAL:HG23	1.88	0.56
13:M:100:PRO:O	13:M:101:ARG:NH1	2.39	0.56
14:N:67:THR:O	14:N:69:ASN:N	2.36	0.56
17:Q:19:ALA:CB	17:Q:75:GLY:HA3	2.33	0.56
17:Q:42:ILE:CG2	17:Q:51:LEU:HD23	2.30	0.56
20:T:77:LYS:CB	20:T:94:ARG:CD	2.48	0.56
25:Y:44:LEU:HG	25:Y:75:ILE:HD11	1.87	0.56
26:Z:105:ALA:C	26:Z:106:GLN:HG3	2.31	0.56
33:g:96:THR:HG23	33:g:96:THR:O	2.05	0.56
33:g:140:TYR:CE1	33:g:182:CYS:SG	2.98	0.56
34:i:310:G:H2'	34:i:311:C:O5'	2.05	0.56
35:l:35:ILE:HB	35:l:113:PHE:HD1	1.71	0.56
1:A:77:ILE:HG12	1:A:99:ILE:HB	1.87	0.56
1:A:108:PHE:CE2	1:A:122:LEU:HD11	2.41	0.56
1:A:159:ILE:O	1:A:159:ILE:HG23	2.04	0.56
2:B:57:ILE:C	2:B:59:SER:N	2.64	0.56
2:B:110:MET:CE	2:B:213:ARG:HD2	2.35	0.56
3:C:63:LEU:HB3	3:C:67:TYR:CE2	2.40	0.56
3:C:236:LEU:CD2	3:C:236:LEU:C	2.78	0.56
3:C:250:PRO:HA	3:C:253:GLU:HG2	1.88	0.56
4:D:53:THR:HG22	4:D:91:VAL:CB	2.36	0.56
4:D:116:ARG:O	4:D:120:TYR:HB2	2.04	0.56
4:D:141:LYS:HE3	4:D:179:GLN:NE2	2.21	0.56
4:D:153:VAL:HG12	4:D:154:ASP:N	2.20	0.56
6:F:134:VAL:HG12	6:F:136:ARG:NH2	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:109:ARG:CZ	8:H:111:LYS:HD2	2.35	0.56
8:H:142:LYS:C	8:H:143:ARG:HG2	2.30	0.56
9:I:136:ILE:O	9:I:139:LYS:CD	2.52	0.56
9:I:142:SER:HB3	9:I:143:LYS:HB2	0.62	0.56
12:L:40:ILE:HG13	12:L:68:ILE:HG13	1.88	0.56
13:M:98:GLY:C	13:M:100:PRO:CD	2.74	0.56
14:N:11:LEU:O	14:N:11:LEU:HD12	2.05	0.56
15:O:106:LYS:HZ3	27:a:69:VAL:HG13	1.68	0.56
16:P:18:ARG:C	19:S:93:GLY:HA3	2.30	0.56
18:R:62:GLN:HG3	18:R:62:GLN:O	2.06	0.56
21:U:50:VAL:HG22	21:U:51:LYS:N	2.19	0.56
22:V:43:THR:O	22:V:44:GLY:C	2.48	0.56
25:Y:120:THR:C	25:Y:122:LYS:CD	2.76	0.56
26:Z:99:LEU:CD1	26:Z:102:LYS:HD3	2.35	0.56
26:Z:105:ALA:O	26:Z:106:GLN:HG3	2.05	0.56
27:a:21:ILE:HD13	27:a:72:HIS:CE1	2.41	0.56
30:d:56:ASP:OXT	30:d:56:ASP:OD2	2.23	0.56
33:g:191:HIS:CD2	33:g:195:LEU:CD1	2.87	0.56
34:i:1236:A:H2'	34:i:1237:A:H5'	1.88	0.56
35:l:31:ILE:CD1	35:l:50:ILE:HD13	2.34	0.56
3:C:166:ARG:O	23:W:96:SER:HB3	2.04	0.56
3:C:197:LYS:C	3:C:200:LEU:HG	2.26	0.56
3:C:200:LEU:CD1	3:C:201:MET:SD	2.94	0.56
4:D:176:LEU:C	4:D:177:LEU:HD13	2.30	0.56
5:E:1:MET:HE1	34:i:422:G:H8	1.69	0.56
5:E:38:LEU:HD12	5:E:39:ARG:N	2.15	0.56
6:F:122:ARG:HH21	6:F:193:LYS:HZ1	1.51	0.56
7:G:19:ASP:O	7:G:20:ASP:HB2	2.05	0.56
7:G:67:VAL:O	7:G:68:LEU:CB	2.50	0.56
8:H:99:ARG:O	8:H:100:ILE:O	2.23	0.56
9:I:48:VAL:HG11	9:I:54:LYS:HE3	1.87	0.56
10:J:177:ASN:CA	10:J:180:LYS:HB3	2.35	0.56
14:N:114:ARG:HD3	14:N:117:LEU:HD12	1.86	0.56
19:S:120:HIS:CD2	19:S:124:ARG:CD	2.89	0.56
26:Z:99:LEU:HD21	26:Z:102:LYS:HD3	1.79	0.56
31:e:127:LYS:HD2	31:e:127:LYS:N	2.19	0.56
33:g:94:THR:OG1	33:g:95:GLY:N	2.38	0.56
33:g:119:GLN:HE22	33:g:121:VAL:CG2	2.14	0.56
3:C:43:LYS:HG3	3:C:44:GLU:H	1.71	0.56
3:C:60:ILE:O	3:C:82:PHE:HZ	1.87	0.56
3:C:99:LYS:NZ	3:C:100:GLN:O	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:223:LYS:HE3	34:i:1351:C:H1'	1.76	0.56
3:C:226:PHE:O	3:C:229:ILE:HG12	2.05	0.56
5:E:230:LYS:O	5:E:231:GLY:C	2.48	0.56
6:F:81:ARG:HE	6:F:82:ASN:HD21	1.52	0.56
6:F:152:TRP:O	6:F:153:LEU:C	2.45	0.56
6:F:159:ARG:NE	34:i:1530:U:O4	2.38	0.56
7:G:176:ILE:CG2	7:G:179:LEU:HB2	2.33	0.56
7:G:211:LYS:O	7:G:215:LYS:HD3	2.06	0.56
8:H:158:LEU:HG	8:H:187:PHE:HD1	1.70	0.56
10:J:66:LYS:NZ	34:i:688:U:H6	2.01	0.56
12:L:5:GLN:OE1	12:L:10:TYR:HA	2.06	0.56
13:M:85:LEU:O	13:M:89:VAL:HG23	2.05	0.56
16:P:9:LYS:O	16:P:10:ARG:CZ	2.54	0.56
16:P:90:VAL:HG11	16:P:109:PRO:HG3	1.88	0.56
19:S:30:ILE:HG22	19:S:36:VAL:HG21	1.88	0.56
22:V:39:VAL:O	22:V:41:LYS:N	2.34	0.56
28:b:50:ALA:O	28:b:52:THR:N	2.35	0.56
34:i:1523:G:N2	34:i:1660:G:H21	2.03	0.56
1:A:189:ILE:O	1:A:190:SER:OG	2.22	0.56
2:B:179:ASN:HB3	2:B:183:GLU:HB2	1.88	0.56
3:C:44:GLU:O	3:C:45:TRP:C	2.48	0.56
3:C:74:LYS:NZ	34:i:1348:G:P	2.77	0.56
4:D:10:LYS:NZ	21:U:111:GLU:HG2	2.21	0.56
4:D:93:THR:O	4:D:93:THR:HG23	2.05	0.56
5:E:72:ILE:CD1	5:E:82:TYR:CE2	2.88	0.56
6:F:18:LYS:NZ	6:F:18:LYS:CB	2.69	0.56
7:G:73:VAL:HG12	7:G:74:ARG:N	2.19	0.56
9:I:165:GLN:HE21	9:I:171:LEU:HD22	1.70	0.56
10:J:61:LEU:CD1	10:J:94:LEU:HD11	2.33	0.56
14:N:53:ILE:HD11	28:b:52:THR:HG22	1.86	0.56
14:N:125:LEU:CD1	14:N:129:TYR:CZ	2.89	0.56
15:O:30:VAL:CB	15:O:32:HIS:NE2	2.69	0.56
15:O:52:THR:CG2	34:i:949:C:C4'	2.81	0.56
16:P:44:ARG:CZ	16:P:84:ILE:HD12	2.24	0.56
23:W:88:LYS:NZ	34:i:410:G:H5'	2.21	0.56
28:b:61:THR:HG23	28:b:62:VAL:C	2.31	0.56
31:e:125:LYS:O	31:e:126:LYS:CB	2.53	0.56
1:A:7:VAL:HG22	1:A:8:LEU:HD12	1.88	0.56
3:C:97:VAL:HB	34:i:11:A:O2'	2.06	0.56
3:C:161:LYS:HD3	22:V:9:VAL:CG1	2.35	0.56
4:D:168:VAL:CG1	4:D:189:MET:SD	2.94	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:214:LYS:O	4:D:214:LYS:HE2	2.04	0.56
8:H:12:ASN:ND2	8:H:46:THR:CB	2.67	0.56
10:J:78:LEU:HD23	10:J:97:ILE:HD11	1.86	0.56
13:M:99:LYS:N	13:M:100:PRO:CD	2.68	0.56
16:P:17:TYR:H	16:P:25:LEU:HD11	1.71	0.56
16:P:56:LEU:HD12	16:P:80:LEU:HD12	1.87	0.56
17:Q:85:ARG:NH2	17:Q:117:ARG:CG	2.47	0.56
19:S:52:LEU:HD12	19:S:52:LEU:C	2.31	0.56
20:T:39:LEU:HD11	20:T:56:ARG:CZ	2.36	0.56
20:T:119:TRP:HB3	34:i:1557:C:C1'	2.35	0.56
24:X:125:VAL:O	24:X:128:VAL:CA	2.53	0.56
26:Z:77:LEU:O	26:Z:78:LYS:CD	2.53	0.56
30:d:50:ILE:CG2	30:d:52:PHE:CE2	2.89	0.56
33:g:69:VAL:HG22	33:g:70:VAL:H	1.69	0.56
33:g:149:GLU:HB2	33:g:171:ASP:HB3	1.87	0.56
34:i:431:C:H4'	34:i:1733:C:H5'	1.88	0.56
34:i:431:C:O4'	34:i:1732:G:O2'	2.23	0.56
34:i:1127:G:H5'	34:i:1127:G:H8	1.70	0.56
1:A:94:THR:CG2	1:A:182:VAL:CG2	2.84	0.56
1:A:205:ARG:NH1	18:R:82:ASP:HA	2.21	0.56
2:B:37:ALA:O	2:B:38:MET:C	2.42	0.56
3:C:163:HIS:O	3:C:205:ASP:HB2	2.06	0.56
3:C:218:LEU:HD12	3:C:219:GLY:CA	2.36	0.56
3:C:229:ILE:CG1	3:C:230:SER:N	2.64	0.56
4:D:70:THR:HA	4:D:86:LEU:HD11	1.87	0.56
5:E:205:PHE:CD1	5:E:221:ARG:CZ	2.89	0.56
6:F:15:PRO:HD3	17:Q:56:LEU:CA	2.36	0.56
6:F:204:ARG:OXT	29:c:63:ARG:NH1	2.33	0.56
7:G:120:ASP:N	7:G:120:ASP:OD1	2.38	0.56
7:G:187:HIS:HE1	34:i:306:C:H41	1.54	0.56
10:J:17:ARG:CD	10:J:18:ARG:HD3	2.35	0.56
11:K:8:ARG:O	11:K:12:TYR:HD1	1.88	0.56
11:K:53:LYS:HA	11:K:58:VAL:CG1	2.36	0.56
12:L:156:GLN:CD	12:L:158:PHE:HE2	2.12	0.56
13:M:33:ARG:HH11	13:M:33:ARG:CG	2.15	0.56
14:N:4:MET:CE	14:N:124:ARG:NH2	2.68	0.56
14:N:71:ILE:O	14:N:75:LEU:HD13	2.06	0.56
16:P:30:TYR:O	16:P:34:MET:CG	2.54	0.56
16:P:89:MET:O	16:P:107:ILE:HD11	2.05	0.56
16:P:121:ILE:CG2	19:S:123:LEU:CD1	2.64	0.56
19:S:135:HIS:CD2	34:i:1514:U:H1'	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:4:VAL:CG2	20:T:136:GLY:HA2	2.36	0.56
20:T:23:LYS:HE2	20:T:54:TYR:CE2	2.41	0.56
21:U:40:ILE:HD13	21:U:53:PRO:CG	2.07	0.56
23:W:93:LEU:O	23:W:93:LEU:CG	2.54	0.56
25:Y:20:ARG:HD3	25:Y:76:TYR:CE2	2.40	0.56
32:f:114:ILE:O	32:f:114:ILE:HG13	2.04	0.56
33:g:64:HIS:CE1	33:g:65:PHE:CE2	2.94	0.56
33:g:284:PRO:O	33:g:284:PRO:CD	2.52	0.56
34:i:1297:A:H2'	34:i:1298:G:H5"	1.86	0.56
1:A:109:THR:HB	34:i:1348:G:P	2.42	0.55
1:A:145:ILE:HG23	1:A:159:ILE:CG2	2.36	0.55
1:A:164:ASN:C	1:A:166:LYS:H	2.07	0.55
3:C:124:LEU:HD13	3:C:124:LEU:C	2.31	0.55
3:C:262:HIS:ND1	3:C:263:THR:N	2.54	0.55
5:E:126:VAL:CG2	5:E:129:ILE:CD1	2.84	0.55
5:E:159:THR:C	5:E:160:ILE:HG13	2.30	0.55
6:F:134:VAL:HG11	6:F:136:ARG:NH2	2.12	0.55
7:G:141:ILE:HG21	7:G:153:VAL:HG13	1.87	0.55
8:H:169:LYS:CB	8:H:173:PHE:CZ	2.90	0.55
9:I:19:LYS:HE2	9:I:20:PRO:HD3	1.83	0.55
9:I:85:ALA:C	12:L:8:ARG:HH11	2.15	0.55
9:I:98:LYS:HD3	9:I:178:ARG:NE	2.21	0.55
10:J:88:ASP:O	10:J:91:LYS:CB	2.41	0.55
10:J:170:PRO:HD2	10:J:175:ARG:HD2	1.88	0.55
11:K:12:TYR:OH	11:K:52:LEU:HD21	2.06	0.55
11:K:53:LYS:HA	11:K:58:VAL:HG13	1.88	0.55
13:M:59:PRO:HB2	13:M:62:VAL:HG22	1.89	0.55
14:N:139:TRP:HZ3	14:N:141:TYR:N	2.03	0.55
16:P:70:MET:HG3	16:P:71:GLU:OE2	2.07	0.55
17:Q:85:ARG:CD	17:Q:119:LEU:CD2	2.72	0.55
17:Q:124:PRO:CG	17:Q:125:ARG:N	2.69	0.55
19:S:37:GLY:H	34:i:1625:A:H5"	1.71	0.55
20:T:4:VAL:CB	20:T:8:ASP:HB2	2.36	0.55
20:T:23:LYS:CD	20:T:54:TYR:CG	2.62	0.55
26:Z:94:LYS:HA	26:Z:94:LYS:HE2	1.88	0.55
27:a:97:PRO:HB3	34:i:1862:U:H1'	1.87	0.55
28:b:12:PRO:CD	28:b:13:GLU:N	2.55	0.55
33:g:87:LEU:HB2	33:g:101:PHE:HB2	1.86	0.55
34:i:328:G:C6	34:i:329:A:C6	2.94	0.55
1:A:42:LYS:NZ	18:R:102:THR:HG22	2.21	0.55
2:B:29:ASP:C	2:B:29:ASP:OD1	2.49	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:154:TYR:CZ	3:C:161:LYS:C	2.84	0.55
4:D:141:LYS:CE	4:D:179:GLN:NE2	2.69	0.55
4:D:212:GLU:CD	4:D:212:GLU:N	2.48	0.55
5:E:230:LYS:O	5:E:233:LYS:N	2.36	0.55
6:F:122:ARG:HB2	6:F:123:GLU:OE1	2.06	0.55
6:F:124:ASP:CG	6:F:125:SER:H	2.13	0.55
7:G:50:VAL:HG11	7:G:111:LEU:CB	2.35	0.55
7:G:135:PRO:CG	7:G:144:LEU:HD22	2.36	0.55
7:G:148:SER:C	7:G:150:GLU:H	2.14	0.55
7:G:225:GLN:C	7:G:227:GLN:H	2.14	0.55
9:I:157:LYS:O	9:I:158:ILE:C	2.47	0.55
12:L:153:LYS:HA	14:N:131:THR:O	2.06	0.55
18:R:77:GLU:HG3	18:R:80:ARG:NH2	2.20	0.55
18:R:91:LEU:HB2	18:R:93:GLN:H	1.66	0.55
19:S:89:ASP:O	19:S:90:VAL:HG23	2.05	0.55
25:Y:101:LYS:C	25:Y:102:THR:HG1	2.15	0.55
28:b:5:LYS:NZ	28:b:5:LYS:HB3	2.20	0.55
33:g:16:GLY:H	33:g:37:ASP:HB3	1.72	0.55
33:g:36:ARG:O	33:g:38:LYS:N	2.38	0.55
33:g:285:GLN:C	33:g:302:TYR:CE1	2.84	0.55
34:i:491:C:O2	34:i:491:C:H2'	2.07	0.55
1:A:110:ASN:HA	34:i:1347:G:H5"	1.87	0.55
1:A:185:MET:CE	22:V:39:VAL:CG1	2.66	0.55
2:B:113:MET:CE	2:B:209:ASP:HB3	2.36	0.55
3:C:126:MET:HG3	34:i:1352:G:O3'	2.06	0.55
3:C:141:ILE:CG2	3:C:142:LEU:N	2.69	0.55
3:C:198:LEU:HD23	3:C:198:LEU:O	2.06	0.55
4:D:47:GLU:HG3	4:D:85:GLU:OE2	1.98	0.55
4:D:59:LEU:CG	4:D:60:GLY:N	2.69	0.55
4:D:211:VAL:CG2	18:R:39:ALA:N	2.69	0.55
6:F:130:ARG:HH11	6:F:135:ARG:HG3	1.71	0.55
6:F:182:LYS:NZ	6:F:182:LYS:CB	2.69	0.55
7:G:176:ILE:HG21	7:G:179:LEU:CG	2.32	0.55
8:H:8:ILE:CG2	8:H:9:VAL:H	2.19	0.55
9:I:25:ARG:HB3	9:I:27:TYR:CE2	2.41	0.55
9:I:154:LYS:CE	9:I:154:LYS:O	2.53	0.55
9:I:157:LYS:HB2	12:L:22:ARG:NE	2.20	0.55
10:J:125:HIS:HB2	34:i:517:C:H5'	1.87	0.55
12:L:149:ALA:O	12:L:150:GLY:O	2.24	0.55
16:P:22:LEU:HA	16:P:25:LEU:HD12	1.87	0.55
16:P:84:ILE:HG22	16:P:86:LEU:CD2	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:65:TYR:HE2	20:T:128:GLN:HG3	1.72	0.55
20:T:76:THR:CA	20:T:95:GLY:O	2.53	0.55
24:X:91:LEU:HD23	31:e:83:VAL:HG11	1.89	0.55
25:Y:37:LYS:CA	25:Y:40:ILE:HG22	2.36	0.55
26:Z:92:LEU:CD2	26:Z:109:TYR:CE1	2.85	0.55
32:f:100:LEU:C	32:f:102:VAL:H	2.14	0.55
33:g:173:LEU:CD2	33:g:189:ILE:HA	2.35	0.55
33:g:230:LEU:HD12	33:g:230:LEU:N	2.22	0.55
33:g:254:PRO:O	33:g:255:SER:HB3	2.07	0.55
33:g:258:ILE:HD11	33:g:267:VAL:CG1	2.35	0.55
33:g:284:PRO:HB2	33:g:304:ASP:N	2.21	0.55
34:i:1750:C:H6	34:i:1750:C:O5'	1.88	0.55
34:i:1817:A:C4'	34:i:1818:A:H1'	2.36	0.55
1:A:139:TYR:O	1:A:140:VAL:CG2	2.54	0.55
1:A:169:HIS:CD2	1:A:203:PHE:CE2	2.95	0.55
1:A:180:ARG:NH1	1:A:184:ARG:CZ	2.65	0.55
4:D:28:GLU:OE1	4:D:28:GLU:HA	2.07	0.55
5:E:123:LEU:CD1	5:E:161:GLN:HA	2.37	0.55
7:G:35:GLU:O	7:G:36:VAL:HG22	2.05	0.55
7:G:36:VAL:CG1	7:G:37:ALA:H	2.14	0.55
8:H:83:LEU:HD21	8:H:92:VAL:HG11	1.81	0.55
13:M:67:ALA:CA	32:f:114:ILE:HG21	2.37	0.55
17:Q:109:LYS:NZ	17:Q:113:ILE:CD1	2.69	0.55
20:T:33:TRP:CD1	20:T:34:VAL:H	2.25	0.55
22:V:40:ASP:HB2	22:V:47:ASN:HD21	1.61	0.55
22:V:55:ILE:HG22	22:V:60:ARG:HG3	1.87	0.55
25:Y:46:LYS:O	25:Y:46:LYS:CG	2.54	0.55
25:Y:120:THR:O	25:Y:122:LYS:N	2.37	0.55
31:e:116:PHE:N	31:e:119:VAL:HG21	2.22	0.55
31:e:123:PHE:C	31:e:125:LYS:N	2.62	0.55
34:i:1270:G:H5'	34:i:1270:G:N3	2.20	0.55
1:A:118:GLU:CD	3:C:50:LYS:HE2	2.30	0.55
1:A:122:LEU:HD12	1:A:137:ALA:HB2	1.88	0.55
2:B:63:LYS:C	2:B:63:LYS:CD	2.79	0.55
3:C:55:VAL:HG21	3:C:82:PHE:HE2	1.63	0.55
4:D:46:THR:CB	4:D:79:PHE:CZ	2.89	0.55
4:D:59:LEU:HD12	4:D:59:LEU:C	2.25	0.55
5:E:71:LYS:HG2	5:E:76:VAL:N	2.21	0.55
6:F:18:LYS:NZ	6:F:18:LYS:HB3	2.18	0.55
8:H:16:PRO:HA	8:H:17:ASP:CB	2.26	0.55
9:I:83:TYR:HB3	9:I:101:ILE:HB	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:41:PRO:CD	11:K:43:LEU:HG	2.36	0.55
13:M:76:LEU:C	13:M:128:PHE:HZ	2.15	0.55
16:P:49:LEU:HD12	16:P:50:ARG:H	1.71	0.55
20:T:29:LYS:C	20:T:30:VAL:HG13	2.29	0.55
20:T:64:LEU:HD23	20:T:64:LEU:H	1.69	0.55
20:T:75:MET:HA	20:T:78:ILE:HG22	1.89	0.55
25:Y:23:MET:HE3	25:Y:44:LEU:HD21	1.86	0.55
25:Y:120:THR:HG22	25:Y:122:LYS:HE2	1.88	0.55
29:c:18:LEU:HB3	29:c:29:GLN:CB	2.37	0.55
30:d:5:GLN:CD	30:d:7:TYR:HE2	2.14	0.55
1:A:5:LEU:HB2	22:V:41:LYS:NZ	2.22	0.55
1:A:71:PRO:HB2	1:A:95:GLY:HA3	1.88	0.55
2:B:53:GLN:C	2:B:55:THR:N	2.63	0.55
2:B:68:GLU:OE2	2:B:83:LYS:CE	2.45	0.55
2:B:105:LEU:HG	2:B:213:ARG:O	2.06	0.55
3:C:197:LYS:C	3:C:200:LEU:CD2	2.80	0.55
4:D:77:PHE:O	4:D:78:GLY:C	2.49	0.55
4:D:132:LYS:N	4:D:191:PRO:HG2	2.17	0.55
5:E:87:MET:CE	5:E:182:MET:HE1	2.35	0.55
5:E:181:CYS:SG	5:E:225:ILE:HG23	2.46	0.55
6:F:76:MET:HE1	6:F:169:ILE:CG2	2.22	0.55
7:G:67:VAL:CG2	7:G:100:CYS:H	2.20	0.55
13:M:56:CYS:SG	13:M:57:ASP:N	2.71	0.55
16:P:8:LYS:O	16:P:9:LYS:C	2.50	0.55
19:S:18:THR:OG1	19:S:33:ILE:HG12	2.06	0.55
19:S:26:ILE:CG1	19:S:59:LEU:HD21	2.36	0.55
20:T:16:ARG:CG	20:T:16:ARG:NH1	2.65	0.55
20:T:38:LYS:HD2	20:T:46:ALA:CA	2.37	0.55
23:W:20:ARG:HH22	34:i:1135:C:C1'	2.20	0.55
25:Y:13:MET:HE3	25:Y:14:THR:C	2.32	0.55
25:Y:63:HIS:HB2	25:Y:68:LYS:HD3	1.88	0.55
30:d:5:GLN:CA	30:d:7:TYR:CE2	2.90	0.55
32:f:97:LYS:HE3	34:i:1284:U:C5	2.41	0.55
33:g:266:ILE:HG23	33:g:266:ILE:O	2.05	0.55
34:i:1284:U:H3	34:i:1307:C:H42	1.55	0.55
3:C:196:LYS:HD2	3:C:200:LEU:CD2	2.37	0.55
4:D:58:VAL:HG23	4:D:59:LEU:N	2.21	0.55
4:D:76:ARG:CZ	11:K:66:HIS:NE2	2.69	0.55
5:E:136:ILE:N	5:E:136:ILE:CD1	2.69	0.55
9:I:21:TYR:O	9:I:22:HIS:O	2.25	0.55
10:J:34:GLU:CB	10:J:35:TYR:CD2	2.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:14:LEU:CG	11:K:35:LEU:HD21	2.36	0.55
15:O:142:ARG:HH11	27:a:27:ALA:HB1	1.69	0.55
16:P:18:ARG:CZ	19:S:90:VAL:HG23	2.37	0.55
19:S:16:LEU:C	19:S:17:ASN:OD1	2.50	0.55
24:X:27:TYR:CD2	24:X:31:HIS:CD2	2.95	0.55
24:X:28:LYS:CE	24:X:32:LEU:HD11	2.37	0.55
25:Y:19:GLN:CD	25:Y:85:ASN:HD21	2.13	0.55
33:g:188:HIS:HB3	33:g:219:TRP:CZ3	2.42	0.55
34:i:199:G:H8	34:i:199:G:O5'	1.90	0.55
34:i:1207:G:C4	34:i:1684:C:C2	2.81	0.55
3:C:149:PRO:CB	3:C:233:TYR:CD2	2.80	0.55
6:F:145:ARG:NH1	29:c:49:PRO:HD3	2.20	0.55
7:G:164:LYS:O	7:G:164:LYS:HG3	2.06	0.55
7:G:188:LYS:HA	7:G:191:ARG:CG	2.37	0.55
7:G:227:GLN:HA	7:G:230:LYS:NZ	2.21	0.55
8:H:6:ALA:HA	8:H:10:LYS:CG	2.34	0.55
8:H:50:GLU:OE2	8:H:90:LYS:CE	2.55	0.55
9:I:54:LYS:CG	9:I:181:GLN:O	2.54	0.55
13:M:13:ASP:HB2	13:M:16:THR:OG1	2.04	0.55
17:Q:45:ARG:HH11	34:i:1588:C:H4'	1.71	0.55
17:Q:53:GLU:O	17:Q:57:LEU:HG	2.07	0.55
19:S:55:ARG:CG	26:Z:48:VAL:HG11	2.33	0.55
21:U:83:ARG:CZ	30:d:55:LEU:CD1	2.84	0.55
33:g:36:ARG:C	33:g:38:LYS:H	2.14	0.55
33:g:57:ARG:NH1	33:g:94:THR:HA	2.21	0.55
34:i:272:C:H5"	34:i:272:C:C6	2.42	0.55
34:i:830:C:C2	34:i:837:G:C2	2.95	0.55
34:i:1024:A:H5"	34:i:1025:G:OP2	2.07	0.55
34:i:1054:A:N1	34:i:1824:U:OP1	2.40	0.55
34:i:1057:U:N3	35:l:64:LYS:CE	2.67	0.55
1:A:106:GLY:O	1:A:110:ASN:HB2	2.07	0.55
1:A:106:GLY:HA3	1:A:110:ASN:HD22	1.70	0.55
2:B:67:PHE:HD1	15:O:47:LEU:C	2.10	0.55
2:B:107:ARG:NH1	15:O:133:THR:O	2.40	0.55
2:B:124:HIS:HD2	2:B:136:HIS:CE1	2.20	0.55
3:C:198:LEU:HD13	3:C:225:THR:CG2	2.36	0.55
3:C:240:LEU:N	3:C:240:LEU:HD12	2.21	0.55
4:D:4:GLN:O	4:D:5:ILE:HG13	2.07	0.55
4:D:74:GLN:HE22	4:D:75:LYS:CE	2.10	0.55
4:D:79:PHE:CE1	4:D:83:SER:HB3	2.42	0.55
4:D:219:PRO:O	4:D:220:THR:C	2.50	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:69:PHE:CZ	25:Y:17:LEU:HA	2.42	0.55
5:E:129:ILE:HG23	5:E:139:LEU:HD23	1.88	0.55
5:E:153:LEU:CD1	5:E:172:PHE:HZ	1.94	0.55
7:G:135:PRO:CD	7:G:144:LEU:CD2	2.85	0.55
7:G:170:ARG:HD2	7:G:172:LYS:HG2	1.88	0.55
8:H:50:GLU:CD	8:H:58:LYS:HD3	2.28	0.55
10:J:143:ASN:O	10:J:143:ASN:CG	2.49	0.55
13:M:101:ARG:O	13:M:103:VAL:HG23	2.07	0.55
14:N:4:MET:CE	14:N:124:ARG:HH22	2.19	0.55
14:N:124:ARG:O	14:N:127:ARG:HG2	2.06	0.55
15:O:131:ASP:CG	27:a:67:LEU:HD21	2.32	0.55
16:P:53:GLN:CG	16:P:56:LEU:HD12	2.37	0.55
25:Y:50:THR:CG2	25:Y:75:ILE:HG21	2.36	0.55
25:Y:78:SER:O	25:Y:79:LEU:C	2.48	0.55
31:e:103:THR:O	31:e:104:GLY:O	2.25	0.55
33:g:2:THR:HG23	33:g:3:GLU:CD	2.31	0.55
33:g:281:ALA:O	33:g:282:GLU:HB3	2.03	0.55
34:i:151:C:H2'	34:i:152:U:C6	2.42	0.55
34:i:184:G:H2'	34:i:185:C:H6	1.71	0.55
1:A:125:THR:C	1:A:147:LEU:HB2	2.32	0.55
1:A:141:ASN:HA	22:V:32:ILE:HD11	1.89	0.55
2:B:138:PHE:CD2	2:B:138:PHE:N	2.74	0.55
4:D:77:PHE:O	4:D:79:PHE:N	2.40	0.55
7:G:64:LYS:CD	7:G:65:GLN:C	2.80	0.55
7:G:159:ARG:HH22	7:G:161:PRO:N	2.05	0.55
9:I:66:SER:HA	9:I:73:THR:HA	1.89	0.55
9:I:117:TYR:HE1	9:I:155:ASN:ND2	2.05	0.55
10:J:81:LEU:HD12	10:J:97:ILE:CD1	2.37	0.55
10:J:89:GLU:C	10:J:91:LYS:O	2.50	0.55
11:K:40:VAL:HG22	11:K:41:PRO:C	2.30	0.55
12:L:59:LYS:CE	12:L:134:LEU:HD21	2.37	0.55
13:M:86:GLY:C	13:M:91:LEU:HD11	2.31	0.55
14:N:22:VAL:HB	14:N:23:PRO:C	2.32	0.55
14:N:92:ILE:HG22	14:N:150:VAL:HG23	1.86	0.55
17:Q:10:VAL:HG12	17:Q:11:GLN:N	2.21	0.55
18:R:22:THR:CG2	18:R:73:LEU:CD1	2.72	0.55
19:S:36:VAL:HA	19:S:40:TYR:CD2	2.42	0.55
20:T:14:PHE:HZ	20:T:131:LEU:CD1	2.20	0.55
20:T:111:LYS:HB3	20:T:126:GLN:HE21	1.68	0.55
26:Z:44:LEU:HD11	26:Z:46:ASN:CG	2.32	0.55
26:Z:61:GLU:HB3	26:Z:65:TYR:OH	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:c:10:LYS:HD3	29:c:34:PHE:CE1	2.38	0.55
33:g:32:LEU:HD21	33:g:69:VAL:HG21	1.89	0.55
33:g:110:SER:CB	33:g:153:CYS:HA	2.37	0.55
1:A:186:ARG:NH1	1:A:186:ARG:O	2.39	0.54
3:C:154:TYR:CZ	3:C:161:LYS:CA	2.86	0.54
3:C:197:LYS:HG3	3:C:200:LEU:HD21	1.89	0.54
4:D:23:GLU:CB	11:K:64:TRP:HE1	2.20	0.54
5:E:100:ARG:CG	5:E:102:ILE:CD1	2.85	0.54
6:F:68:ILE:HG13	6:F:69:VAL:N	2.21	0.54
12:L:82:MET:HE2	12:L:85:THR:CG2	2.35	0.54
13:M:27:ILE:HG23	13:M:28:HIS:N	2.22	0.54
16:P:93:MET:SD	16:P:106:GLU:CA	2.96	0.54
20:T:40:ALA:CA	20:T:43:LYS:HG2	2.35	0.54
22:V:35:ASN:OD1	22:V:52:THR:HB	2.07	0.54
24:X:52:LEU:CD1	24:X:71:ARG:HB2	2.36	0.54
26:Z:92:LEU:HD21	26:Z:109:TYR:HE1	1.69	0.54
33:g:89:LEU:HB3	33:g:98:THR:OG1	2.07	0.54
33:g:140:TYR:HE2	33:g:182:CYS:CB	1.59	0.54
34:i:1059:C:C6	34:i:1060:C:C5	2.95	0.54
34:i:1564:A:C5	34:i:1565:G:H1'	2.42	0.54
1:A:34:MET:HE1	1:A:37:TYR:CD2	2.28	0.54
1:A:57:LYS:HZ3	22:V:70:LEU:HG	1.71	0.54
1:A:173:LEU:O	1:A:177:MET:HG2	2.07	0.54
2:B:153:THR:O	2:B:154:SER:CB	2.54	0.54
2:B:195:LYS:HE2	2:B:195:LYS:CA	2.37	0.54
7:G:35:GLU:C	7:G:36:VAL:HG23	2.33	0.54
7:G:122:PRO:HD2	7:G:123:GLY:N	2.22	0.54
8:H:11:PRO:HG2	8:H:12:ASN:H	1.71	0.54
9:I:191:GLU:CG	9:I:192:GLY:N	2.70	0.54
10:J:29:LEU:HB3	31:e:116:PHE:HE2	1.72	0.54
10:J:124:HIS:CD2	34:i:516:A:C4'	2.91	0.54
13:M:64:LEU:HG	32:f:104:LYS:NZ	2.23	0.54
14:N:2:GLY:O	14:N:3:ARG:CB	2.55	0.54
15:O:74:ALA:HB3	15:O:114:SER:OG	2.07	0.54
17:Q:50:LYS:HZ2	17:Q:53:GLU:CD	2.15	0.54
19:S:55:ARG:HG3	26:Z:48:VAL:CG1	2.34	0.54
20:T:9:VAL:CG1	20:T:13:GLU:HG3	2.37	0.54
20:T:38:LYS:O	20:T:39:LEU:HB3	2.08	0.54
23:W:93:LEU:CD2	23:W:128:PHE:HD2	2.10	0.54
23:W:128:PHE:HD1	23:W:129:PHE:CA	2.20	0.54
28:b:1:MET:N	28:b:2:PRO:CD	2.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:b:32:PHE:O	28:b:81:ARG:C	2.50	0.54
28:b:81:ARG:CB	28:b:82:LYS:HA	2.33	0.54
33:g:26:GLN:CB	33:g:74:ASP:O	2.47	0.54
1:A:30:LEU:HD13	1:A:38:ILE:HD13	1.68	0.54
2:B:205:TYR:CG	2:B:206:PRO:CD	2.82	0.54
5:E:46:ILE:O	5:E:50:ASN:HB2	2.07	0.54
5:E:143:ASP:OD2	5:E:145:ARG:HD2	2.07	0.54
6:F:143:PRO:HA	6:F:146:ARG:HG3	1.88	0.54
8:H:157:HIS:O	8:H:158:LEU:CD2	2.55	0.54
9:I:7:ASN:C	9:I:9:HIS:N	2.59	0.54
9:I:63:GLY:O	9:I:75:LYS:HG2	2.06	0.54
9:I:148:LYS:CE	9:I:152:ARG:NH2	2.71	0.54
11:K:1:MET:CE	34:i:1270:G:N2	2.69	0.54
14:N:87:ASP:CG	14:N:129:TYR:OH	2.45	0.54
14:N:116:ILE:CA	14:N:119:GLU:HG3	2.38	0.54
16:P:77:LYS:O	16:P:78:THR:HG22	2.06	0.54
17:Q:115:TYR:HE2	17:Q:119:LEU:HD11	1.72	0.54
18:R:33:ARG:HH11	33:g:125:ARG:CD	2.20	0.54
25:Y:37:LYS:HA	25:Y:40:ILE:HG22	1.89	0.54
27:a:26:CYS:SG	27:a:74:CYS:SG	3.05	0.54
28:b:36:LYS:CG	28:b:78:SER:OG	2.46	0.54
34:i:545:A:C6	34:i:546:U:C4	2.95	0.54
34:i:883:U:C5	34:i:884:U:C5	2.96	0.54
34:i:1546:U:C5	34:i:1572:G:C2	2.95	0.54
35:l:64:LYS:NZ	35:l:71:GLY:O	2.32	0.54
2:B:31:TYR:CE1	2:B:94:LYS:CA	2.90	0.54
2:B:98:THR:O	2:B:232:HIS:HE1	1.91	0.54
4:D:175:VAL:O	4:D:175:VAL:HG13	2.05	0.54
5:E:143:ASP:OD2	5:E:145:ARG:CD	2.55	0.54
6:F:133:THR:OG1	15:O:66:ARG:HD2	2.06	0.54
7:G:64:LYS:CD	7:G:65:GLN:O	2.56	0.54
8:H:37:LYS:O	8:H:38:ALA:HB3	2.07	0.54
9:I:150:ASP:OD2	9:I:150:ASP:C	2.50	0.54
12:L:17:PHE:CZ	12:L:19:ASN:OD1	2.61	0.54
12:L:101:ARG:NH1	24:X:5:ARG:HA	2.18	0.54
16:P:10:ARG:NH2	16:P:11:THR:CB	2.30	0.54
16:P:127:LYS:O	16:P:127:LYS:CG	2.54	0.54
19:S:142:ARG:HA	34:i:1518:C:OP1	2.06	0.54
20:T:14:PHE:CZ	20:T:131:LEU:HD12	2.42	0.54
20:T:111:LYS:CG	20:T:126:GLN:HE22	2.19	0.54
24:X:27:TYR:CD1	24:X:31:HIS:CD2	2.94	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:54:VAL:HG13	25:Y:76:TYR:N	2.18	0.54
25:Y:56:PHE:CD2	25:Y:86:GLU:CD	2.76	0.54
32:f:146:LEU:HD22	34:i:1288:C:H5'	1.89	0.54
33:g:41:ILE:HD13	33:g:58:ALA:HA	1.90	0.54
33:g:165:ILE:HG13	33:g:177:TRP:HB2	1.84	0.54
34:i:186:G:C4	34:i:210:G:C6	2.95	0.54
34:i:848:G:C3'	34:i:849:C:C5'	2.86	0.54
34:i:1055:G:H1	34:i:1824:U:H5"	1.68	0.54
34:i:1826:A:C5'	34:i:1847:C:OP1	2.55	0.54
1:A:110:ASN:C	34:i:1347:G:H4'	2.30	0.54
1:A:149:ASN:N	1:A:165:ASN:ND2	2.56	0.54
5:E:97:GLU:HB2	5:E:99:PHE:CE2	2.42	0.54
5:E:165:GLU:OE2	5:E:165:GLU:HA	2.06	0.54
6:F:18:LYS:O	6:F:46:ALA:HB1	2.08	0.54
7:G:177:GLN:CG	7:G:178:ARG:H	2.21	0.54
7:G:184:VAL:C	7:G:188:LYS:HE2	2.33	0.54
8:H:114:GLN:O	8:H:115:LYS:C	2.49	0.54
8:H:122:LEU:CD1	8:H:123:THR:CA	2.71	0.54
11:K:85:LEU:HD13	11:K:89:ILE:CG1	2.37	0.54
12:L:134:LEU:HD23	12:L:134:LEU:C	2.33	0.54
14:N:54:LEU:C	14:N:60:VAL:HG22	2.32	0.54
15:O:31:CYS:SG	15:O:95:ILE:CG1	2.95	0.54
15:O:72:TYR:C	15:O:72:TYR:CD1	2.86	0.54
19:S:54:LYS:HB3	19:S:55:ARG:H	1.72	0.54
19:S:81:ASP:OD2	19:S:95:TYR:HD2	1.88	0.54
20:T:77:LYS:O	20:T:92:PHE:HZ	1.91	0.54
21:U:25:THR:HG22	21:U:86:LYS:CG	2.34	0.54
21:U:54:VAL:O	21:U:56:MET:SD	2.65	0.54
23:W:101:PHE:CD2	23:W:129:PHE:HE1	2.26	0.54
24:X:105:PHE:CE2	24:X:118:VAL:C	2.86	0.54
25:Y:46:LYS:O	25:Y:47:MET:HG2	2.07	0.54
31:e:86:VAL:CA	31:e:89:GLN:HG2	2.34	0.54
32:f:146:LEU:HD12	32:f:146:LEU:C	2.33	0.54
33:g:100:ARG:NH1	33:g:100:ARG:CB	2.70	0.54
34:i:1270:G:N3	34:i:1270:G:C5'	2.70	0.54
1:A:113:GLN:HE22	34:i:1374:A:H2	1.55	0.54
1:A:205:ARG:HH12	18:R:82:ASP:HA	1.73	0.54
2:B:67:PHE:HD1	15:O:47:LEU:CB	2.19	0.54
3:C:197:LYS:CG	3:C:200:LEU:HD21	2.36	0.54
10:J:17:ARG:HG3	10:J:18:ARG:HG2	1.77	0.54
10:J:124:HIS:HD2	34:i:516:A:C5'	1.85	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:164:PRO:HB2	10:J:165:TYR:CD1	2.43	0.54
12:L:83:GLN:HG2	12:L:83:GLN:O	2.06	0.54
13:M:15:ASN:OD1	13:M:15:ASN:C	2.50	0.54
14:N:7:PRO:HD2	14:N:8:GLY:N	2.23	0.54
14:N:19:ARG:HH12	28:b:84:HIS:CB	2.19	0.54
14:N:64:ARG:O	14:N:67:THR:O	2.25	0.54
15:O:117:ARG:HH12	29:c:62:GLU:HB3	1.72	0.54
16:P:97:TYR:OH	16:P:100:LYS:HA	2.08	0.54
25:Y:10:ARG:CD	25:Y:24:VAL:HG11	2.33	0.54
28:b:19:HIS:HB3	28:b:22:LYS:HG3	1.90	0.54
33:g:76:GLN:NE2	33:g:76:GLN:CA	2.71	0.54
33:g:163:PRO:HB3	33:g:179:LEU:HD12	1.89	0.54
34:i:516:A:C2	34:i:550:A:C2	2.95	0.54
34:i:1414:C:H42	34:i:1417:A:H62	1.56	0.54
1:A:18:PHE:CZ	1:A:55:TRP:CZ3	2.96	0.54
1:A:32:PHE:CE1	1:A:33:GLN:CD	2.85	0.54
1:A:193:HIS:CB	1:A:194:PRO:CD	2.84	0.54
2:B:67:PHE:CZ	15:O:48:SER:HB3	2.43	0.54
2:B:160:GLN:HE22	2:B:205:TYR:HE1	1.49	0.54
3:C:50:LYS:HG3	3:C:258:LEU:HD13	1.89	0.54
4:D:76:ARG:CD	11:K:66:HIS:ND1	2.66	0.54
6:F:133:THR:O	6:F:135:ARG:HG2	2.08	0.54
7:G:55:GLY:HA2	7:G:110:ASN:ND2	2.23	0.54
7:G:64:LYS:HD2	7:G:67:VAL:HG13	1.88	0.54
8:H:100:ILE:HG13	8:H:125:VAL:HG21	1.87	0.54
8:H:166:VAL:CG2	8:H:173:PHE:HE2	2.13	0.54
9:I:201:LYS:NZ	12:L:8:ARG:HA	2.23	0.54
10:J:134:HIS:CE1	10:J:163:SER:HB3	2.34	0.54
11:K:1:MET:HE3	34:i:1270:G:C2	2.43	0.54
11:K:43:LEU:O	11:K:45:VAL:CA	2.51	0.54
11:K:43:LEU:H	11:K:46:MET:HB3	1.73	0.54
15:O:28:PHE:CE1	15:O:92:ALA:HB1	2.43	0.54
16:P:39:ALA:HA	16:P:42:ARG:CG	2.37	0.54
17:Q:34:VAL:HG21	17:Q:39:LEU:HD23	1.76	0.54
20:T:82:ARG:HH11	34:i:1585:C:H5"	1.72	0.54
21:U:69:PRO:CB	30:d:41:GLN:HG3	2.37	0.54
23:W:51:GLU:OE1	28:b:8:LEU:HD13	2.08	0.54
25:Y:5:VAL:O	25:Y:6:THR:CB	2.56	0.54
26:Z:103:HIS:CD2	26:Z:105:ALA:CA	2.90	0.54
33:g:198:VAL:HG12	33:g:199:THR:N	2.22	0.54
34:i:520:U:H5	34:i:521:A:C5	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:678:U:H1'	34:i:738:U:O4	2.07	0.54
34:i:1828:A:C2	34:i:1831:G:N1	2.76	0.54
1:A:33:GLN:OE1	28:b:2:PRO:HB3	2.08	0.54
1:A:141:ASN:HD21	22:V:29:HIS:HA	1.72	0.54
1:A:180:ARG:O	1:A:184:ARG:HG3	2.06	0.54
5:E:71:LYS:HG2	5:E:76:VAL:H	1.72	0.54
8:H:120:ARG:HH12	34:i:909:A:H2'	1.72	0.54
8:H:122:LEU:HD13	8:H:123:THR:HA	1.87	0.54
11:K:14:LEU:CD1	11:K:35:LEU:HD11	2.38	0.54
12:L:101:ARG:C	24:X:10:ALA:CB	2.59	0.54
14:N:38:TYR:CE1	14:N:78:LYS:NZ	2.76	0.54
17:Q:45:ARG:O	17:Q:46:THR:C	2.50	0.54
17:Q:138:ARG:HG2	34:i:1644:U:H4'	1.87	0.54
18:R:5:ARG:CB	18:R:10:LYS:HZ1	2.06	0.54
18:R:95:ILE:N	18:R:114:LEU:HD13	2.23	0.54
26:Z:46:ASN:HB3	26:Z:80:ARG:HA	1.90	0.54
28:b:6:ASP:O	28:b:7:LEU:C	2.51	0.54
28:b:81:ARG:CA	28:b:82:LYS:CB	2.79	0.54
29:c:6:VAL:CG1	29:c:7:GLN:N	2.70	0.54
34:i:1059:C:C5	34:i:1060:C:C5	2.96	0.54
34:i:1523:G:H22	34:i:1660:G:N2	2.05	0.54
34:i:1823:G:C2'	34:i:1843:G:O6	2.55	0.54
35:l:31:ILE:HG23	35:l:49:GLY:HA3	1.89	0.54
2:B:178:THR:O	2:B:179:ASN:CB	2.56	0.54
3:C:59:LYS:HD2	3:C:254:PHE:HE1	1.73	0.54
3:C:101:THR:HG22	3:C:103:ALA:O	1.93	0.54
6:F:15:PRO:HD3	17:Q:56:LEU:HA	1.88	0.54
6:F:42:LYS:O	6:F:44:LYS:C	2.50	0.54
15:O:31:CYS:SG	15:O:95:ILE:HG12	2.47	0.54
16:P:108:LYS:HZ1	19:S:118:ARG:NH1	2.06	0.54
18:R:87:GLU:O	18:R:88:VAL:CB	2.56	0.54
23:W:10:ALA:O	23:W:13:SER:OG	2.22	0.54
27:a:87:ARG:NH1	27:a:94:ASP:O	2.38	0.54
31:e:97:GLU:OE1	31:e:97:GLU:C	2.50	0.54
34:i:685:G:O6	34:i:731:C:N3	2.41	0.54
34:i:1409:G:C6	34:i:1410:A:C5	2.96	0.54
34:i:1496:G:H2'	34:i:1497:C:C6	2.42	0.54
1:A:48:ILE:HD13	18:R:105:MET:CG	2.36	0.54
2:B:49:VAL:HG22	2:B:65:ARG:HH12	1.72	0.54
3:C:154:TYR:CE1	3:C:162:PRO:CD	2.91	0.54
6:F:78:MET:HB2	6:F:159:ARG:NH2	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:98:ARG:C	7:G:98:ARG:CD	2.75	0.54
9:I:7:ASN:O	9:I:9:HIS:C	2.51	0.54
9:I:141:ARG:HB3	9:I:144:LYS:HG2	1.90	0.54
9:I:174:CYS:HB2	9:I:190:LEU:HD21	1.90	0.54
13:M:12:MET:CG	13:M:17:ALA:N	2.71	0.54
17:Q:7:LEU:CD2	17:Q:8:GLN:H	2.17	0.54
17:Q:98:LYS:CE	17:Q:99:TYR:CE2	2.91	0.54
17:Q:124:PRO:CD	17:Q:125:ARG:H	2.21	0.54
17:Q:144:SER:O	17:Q:145:TYR:CB	2.55	0.54
20:T:31:PRO:CD	20:T:102:ARG:HG3	2.38	0.54
20:T:39:LEU:HD21	20:T:56:ARG:HH21	1.72	0.54
20:T:143:LYS:O	20:T:144:LYS:CB	2.45	0.54
22:V:24:ILE:CD1	22:V:25:GLY:CA	2.85	0.54
26:Z:74:SER:CA	26:Z:79:ILE:HG22	2.33	0.54
34:i:522:C:H2'	34:i:523:A:C8	2.42	0.54
1:A:32:PHE:HA	1:A:35:GLU:OE1	2.08	0.53
1:A:179:ALA:HA	1:A:182:VAL:HG22	1.90	0.53
2:B:68:GLU:CD	2:B:83:LYS:HE2	2.32	0.53
3:C:55:VAL:HG22	3:C:82:PHE:CZ	2.42	0.53
3:C:89:ASP:HB3	3:C:115:ILE:CG1	2.39	0.53
6:F:141:VAL:HG11	29:c:47:LYS:NZ	2.19	0.53
7:G:76:LEU:HD13	7:G:92:ARG:HD2	1.90	0.53
8:H:60:ILE:HG23	8:H:60:ILE:O	2.06	0.53
9:I:5:ARG:HH11	34:i:374:U:H3	1.56	0.53
10:J:110:LEU:HD11	10:J:135:ILE:CD1	2.38	0.53
11:K:37:ASP:C	11:K:38:LYS:HD3	2.33	0.53
12:L:96:ILE:HD13	12:L:102:PHE:HA	1.89	0.53
17:Q:102:GLU:OE1	33:g:55:PRO:CD	2.55	0.53
19:S:22:GLY:O	19:S:57:GLY:N	2.35	0.53
19:S:121:ARG:CG	19:S:131:VAL:CG1	2.82	0.53
19:S:137:LYS:O	19:S:141:ARG:CZ	2.57	0.53
21:U:18:HIS:CE1	21:U:98:VAL:HG22	2.39	0.53
21:U:104:ILE:O	21:U:106:ILE:HG22	2.08	0.53
22:V:79:VAL:HG12	22:V:82:ASN:CG	2.33	0.53
32:f:148:TYR:N	32:f:148:TYR:CD1	2.72	0.53
33:g:227:LEU:HB3	33:g:228:TYR:HD1	1.73	0.53
34:i:296:U:H5"	34:i:297:C:C5	2.43	0.53
34:i:296:U:H5"	34:i:297:C:C6	2.43	0.53
34:i:328:G:C4	34:i:329:A:C8	2.95	0.53
34:i:1057:U:O4	35:l:64:LYS:HE3	1.96	0.53
1:A:132:GLN:N	1:A:133:PRO:HD3	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:29:LEU:O	4:D:32:ASP:HB2	2.08	0.53
4:D:35:SER:C	4:D:99:ILE:HD11	2.29	0.53
5:E:124:CYS:HB2	5:E:162:ILE:CD1	2.39	0.53
5:E:205:PHE:CE1	5:E:221:ARG:CZ	2.90	0.53
8:H:31:GLU:O	8:H:37:LYS:HB2	2.08	0.53
9:I:48:VAL:CG1	9:I:54:LYS:HE3	2.38	0.53
11:K:85:LEU:HD13	11:K:89:ILE:HD11	1.90	0.53
16:P:4:VAL:HG22	16:P:10:ARG:HD2	1.91	0.53
16:P:39:ALA:O	16:P:42:ARG:CG	2.56	0.53
16:P:49:LEU:HD13	16:P:51:ARG:CZ	2.32	0.53
18:R:42:PRO:HD3	18:R:46:LEU:HD23	1.89	0.53
20:T:85:ASN:ND2	20:T:91:HIS:HD2	2.06	0.53
24:X:88:ASP:OD2	31:e:87:ARG:HB2	2.08	0.53
25:Y:20:ARG:CD	25:Y:76:TYR:CZ	2.84	0.53
25:Y:82:ALA:O	25:Y:86:GLU:HB2	2.09	0.53
25:Y:99:LYS:O	25:Y:100:LYS:O	2.25	0.53
26:Z:65:TYR:HD2	26:Z:68:ILE:CD1	2.21	0.53
31:e:113:ASN:O	31:e:118:ASN:CB	2.53	0.53
32:f:135:HIS:ND1	32:f:138:ARG:HG2	2.22	0.53
33:g:26:GLN:HB3	33:g:74:ASP:C	2.33	0.53
33:g:51:ASN:O	33:g:53:GLY:O	2.25	0.53
33:g:71:ILE:CG2	33:g:72:SER:H	2.20	0.53
33:g:102:VAL:HG12	33:g:103:GLY:N	2.21	0.53
33:g:273:GLU:HG2	33:g:274:VAL:HG22	1.90	0.53
34:i:841:G:H3'	34:i:842:G:H8	1.72	0.53
1:A:149:ASN:H	1:A:165:ASN:HD21	1.57	0.53
2:B:125:VAL:CG1	2:B:173:THR:HG22	2.28	0.53
3:C:134:THR:HG23	3:C:135:ALA:N	2.23	0.53
4:D:39:VAL:O	4:D:39:VAL:HG13	2.07	0.53
4:D:162:ASP:OD1	4:D:162:ASP:O	2.27	0.53
5:E:153:LEU:CD1	5:E:172:PHE:CE1	2.72	0.53
5:E:154:ILE:CG2	5:E:160:ILE:HD11	2.39	0.53
6:F:192:LYS:O	6:F:192:LYS:HD2	2.08	0.53
9:I:6:ASP:OD2	9:I:8:TRP:CG	2.62	0.53
9:I:144:LYS:H	9:I:144:LYS:CD	2.22	0.53
10:J:138:ARG:HD3	10:J:156:HIS:ND1	2.22	0.53
11:K:3:MET:SD	11:K:8:ARG:CZ	2.91	0.53
13:M:77:ILE:HD12	13:M:78:LYS:O	2.09	0.53
19:S:26:ILE:CD1	19:S:59:LEU:CD2	2.81	0.53
19:S:141:ARG:CD	34:i:1518:C:C5	2.91	0.53
20:T:5:THR:HG23	20:T:7:LYS:HB2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:18:LEU:HB2	20:T:134:ILE:HD12	1.86	0.53
20:T:76:THR:OG1	20:T:94:ARG:HD2	2.08	0.53
21:U:53:PRO:HD2	21:U:53:PRO:O	2.08	0.53
22:V:19:ALA:O	23:W:23:ARG:CZ	2.57	0.53
23:W:17:ALA:HB2	23:W:25:VAL:HG11	1.89	0.53
23:W:42:MET:CE	23:W:50:PHE:HD2	2.10	0.53
25:Y:117:VAL:HB	25:Y:124:ASN:ND2	2.24	0.53
29:c:51:ARG:HG2	29:c:52:GLU:N	2.22	0.53
33:g:69:VAL:HG22	33:g:70:VAL:N	2.23	0.53
34:i:1430:C:H3'	34:i:1431:C:O4'	2.08	0.53
34:i:1747:C:H2'	34:i:1747:C:O2	2.09	0.53
35:l:32:HIS:O	35:l:48:GLN:N	2.35	0.53
1:A:149:ASN:CB	1:A:165:ASN:ND2	2.69	0.53
1:A:193:HIS:CG	1:A:194:PRO:HD2	2.42	0.53
2:B:87:ILE:CD1	2:B:101:HIS:CD2	2.62	0.53
2:B:232:HIS:O	2:B:233:GLY:O	2.27	0.53
4:D:178:ARG:O	34:i:1496:G:H4'	2.08	0.53
5:E:100:ARG:NH2	5:E:122:LYS:HA	2.23	0.53
5:E:206:ASP:O	5:E:222:LEU:N	2.41	0.53
6:F:79:HIS:O	6:F:82:ASN:N	2.41	0.53
6:F:95:HIS:NE2	26:Z:103:HIS:CB	2.71	0.53
6:F:113:VAL:CG1	6:F:114:ASN:N	2.72	0.53
6:F:204:ARG:HG3	29:c:63:ARG:NH1	2.23	0.53
7:G:153:VAL:HG12	7:G:154:ARG:N	2.23	0.53
7:G:162:LEU:HD12	7:G:162:LEU:C	2.34	0.53
9:I:158:ILE:C	12:L:22:ARG:NH2	2.67	0.53
10:J:37:LEU:HG	10:J:38:ARG:H	1.73	0.53
10:J:172:ARG:CZ	34:i:552:U:C5	2.91	0.53
11:K:47:LYS:CD	11:K:50:GLN:NE2	2.72	0.53
13:M:93:LYS:O	13:M:95:ASP:OD1	2.27	0.53
18:R:16:ILE:O	18:R:20:TYR:HB2	2.07	0.53
18:R:100:PRO:CA	18:R:103:LYS:HB2	2.09	0.53
19:S:15:VAL:HG12	19:S:16:LEU:N	2.20	0.53
19:S:34:LYS:HD3	19:S:34:LYS:N	2.22	0.53
20:T:77:LYS:O	20:T:92:PHE:CZ	2.61	0.53
22:V:42:VAL:C	22:V:43:THR:OG1	2.51	0.53
23:W:128:PHE:CD1	23:W:129:PHE:HA	2.43	0.53
24:X:91:LEU:O	24:X:94:ILE:N	2.31	0.53
28:b:4:ALA:C	28:b:5:LYS:HG3	2.31	0.53
31:e:119:VAL:N	31:e:121:PRO:HD2	2.22	0.53
32:f:148:TYR:N	32:f:148:TYR:HD1	2.05	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:64:HIS:CG	33:g:83:TRP:HB2	2.43	0.53
33:g:234:ASP:CB	33:g:254:PRO:HD2	2.38	0.53
34:i:675:A:C2	34:i:914:U:C2	2.96	0.53
34:i:1700:C:O2'	34:i:1845:A:H4'	2.08	0.53
35:l:110:VAL:HG22	35:l:112:GLY:H	1.73	0.53
1:A:76:VAL:HG12	1:A:87:VAL:HB	1.90	0.53
2:B:87:ILE:HD12	2:B:220:LYS:NZ	2.22	0.53
3:C:68:LEU:O	22:V:15:ARG:NE	2.39	0.53
5:E:180:LEU:CD1	5:E:228:ILE:HG13	2.39	0.53
5:E:259:LYS:CG	5:E:260:GLN:OE1	2.56	0.53
6:F:166:ILE:H	6:F:166:ILE:CD1	2.19	0.53
7:G:3:LEU:CD2	7:G:109:LEU:HB2	2.38	0.53
7:G:64:LYS:HE3	7:G:65:GLN:O	2.08	0.53
9:I:149:TYR:HD1	9:I:152:ARG:NH1	2.05	0.53
9:I:182:CYS:SG	34:i:296:U:O4	2.65	0.53
12:L:40:ILE:CD1	12:L:68:ILE:HB	2.22	0.53
12:L:152:LYS:C	12:L:154:GLN:N	2.67	0.53
12:L:157:LYS:O	12:L:158:PHE:CG	2.61	0.53
17:Q:24:HIS:NE2	17:Q:69:ARG:CB	2.68	0.53
17:Q:63:PHE:CD1	17:Q:68:ILE:CD1	2.91	0.53
17:Q:111:ILE:HA	17:Q:114:GLN:CD	2.33	0.53
17:Q:116:ASP:CG	17:Q:117:ARG:N	2.65	0.53
19:S:53:THR:C	19:S:54:LYS:CA	2.72	0.53
19:S:81:ASP:C	19:S:87:GLN:HE22	2.15	0.53
22:V:55:ILE:HG21	22:V:60:ARG:HG2	1.90	0.53
34:i:1596:A:H5'	34:i:1597:U:C6	2.42	0.53
1:A:105:PRO:HA	1:A:136:GLU:OE2	2.08	0.53
1:A:154:LEU:CD1	1:A:154:LEU:O	2.43	0.53
3:C:174:GLY:O	3:C:175:SER:CB	2.55	0.53
4:D:167:TYR:CE2	4:D:204:LEU:CD2	2.92	0.53
6:F:138:ALA:CB	6:F:204:ARG:HB3	2.39	0.53
6:F:144:LEU:HD23	29:c:49:PRO:HG2	1.91	0.53
7:G:58:LYS:HG2	7:G:105:ASN:O	2.09	0.53
9:I:144:LYS:HE2	34:i:189:G:H5'	1.90	0.53
10:J:147:PHE:CE2	10:J:149:VAL:HA	2.44	0.53
11:K:14:LEU:HD22	11:K:35:LEU:CD1	2.37	0.53
14:N:11:LEU:HD12	14:N:11:LEU:C	2.33	0.53
14:N:84:LEU:C	14:N:84:LEU:HD12	2.34	0.53
14:N:84:LEU:HB2	14:N:88:LEU:HD23	1.91	0.53
15:O:30:VAL:HG21	15:O:32:HIS:NE2	2.23	0.53
17:Q:51:LEU:C	17:Q:51:LEU:HD12	2.34	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:94:ILE:CD1	24:X:122:VAL:HG11	2.37	0.53
25:Y:118:ARG:O	25:Y:119:GLY:C	2.51	0.53
26:Z:58:LEU:CD2	26:Z:77:LEU:HD11	2.38	0.53
33:g:121:VAL:HG12	33:g:122:SER:N	2.24	0.53
34:i:606:A:H61	34:i:619:A:H61	1.55	0.53
34:i:1057:U:H5	35:l:70:ASN:OD1	1.90	0.53
35:l:31:ILE:CA	35:l:48:GLN:O	2.57	0.53
35:l:36:GLN:N	35:l:113:PHE:CG	2.76	0.53
35:l:89:GLN:O	35:l:93:ILE:HB	2.08	0.53
1:A:16:LEU:HD11	18:R:111:PHE:CZ	2.42	0.53
1:A:159:ILE:HD12	1:A:160:ALA:N	2.24	0.53
5:E:98:ASN:ND2	5:E:114:ILE:CG1	2.72	0.53
5:E:192:ILE:HD13	5:E:238:LEU:HD22	1.91	0.53
7:G:162:LEU:HD21	7:G:170:ARG:HB2	1.88	0.53
7:G:226:GLU:O	7:G:230:LYS:HG2	2.08	0.53
9:I:5:ARG:CG	9:I:5:ARG:NH1	2.65	0.53
9:I:117:TYR:H	9:I:117:TYR:HD2	1.57	0.53
9:I:144:LYS:CB	34:i:189:G:OP1	2.56	0.53
11:K:27:VAL:CB	11:K:43:LEU:CD2	2.82	0.53
12:L:31:GLU:HG2	12:L:32:LYS:N	2.23	0.53
14:N:17:PRO:HG2	34:i:1012:U:C6	2.43	0.53
14:N:55:ARG:HH21	28:b:51:GLN:NE2	1.92	0.53
16:P:15:PHE:HD2	16:P:110:GLU:OE2	1.91	0.53
19:S:11:HIS:O	19:S:12:ILE:HB	2.09	0.53
20:T:83:GLN:NE2	20:T:85:ASN:CA	2.72	0.53
21:U:79:ARG:HH12	34:i:1664:G:H4'	1.73	0.53
25:Y:5:VAL:O	25:Y:6:THR:OG1	2.19	0.53
25:Y:17:LEU:HD12	25:Y:17:LEU:C	2.34	0.53
27:a:95:ARG:O	34:i:1860:A:O2'	2.10	0.53
33:g:61:GLY:C	33:g:88:ARG:NH2	2.66	0.53
34:i:8:U:O2	34:i:1192:A:OP2	2.26	0.53
35:l:36:GLN:HA	35:l:113:PHE:HB2	1.86	0.53
1:A:66:VAL:HG11	22:V:46:PHE:HB3	1.90	0.53
2:B:120:MET:HB2	2:B:142:PHE:CE1	2.44	0.53
4:D:34:TYR:OH	4:D:37:VAL:HG13	2.08	0.53
4:D:45:ARG:CA	4:D:83:SER:OG	2.56	0.53
4:D:210:ILE:HD11	18:R:15:VAL:CG1	2.29	0.53
5:E:256:LEU:HD12	5:E:256:LEU:C	2.34	0.53
6:F:32:ASP:OD2	6:F:117:ILE:HG23	2.08	0.53
13:M:51:VAL:CG1	13:M:109:VAL:HG23	2.39	0.53
13:M:95:ASP:O	13:M:96:ARG:HG2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:28:PHE:HB3	15:O:47:LEU:HD11	1.89	0.53
15:O:125:LYS:HZ1	27:a:58:VAL:CA	2.21	0.53
18:R:29:HIS:CD2	33:g:65:PHE:CZ	2.91	0.53
19:S:88:LYS:N	19:S:95:TYR:CD1	2.72	0.53
20:T:14:PHE:HZ	20:T:131:LEU:HD12	1.74	0.53
24:X:126:ALA:O	24:X:128:VAL:HG23	2.08	0.53
25:Y:18:LEU:CB	25:Y:20:ARG:CZ	2.79	0.53
25:Y:54:VAL:HG13	25:Y:76:TYR:H	1.71	0.53
26:Z:66:LYS:O	26:Z:110:THR:HA	2.08	0.53
28:b:2:PRO:O	28:b:4:ALA:N	2.41	0.53
30:d:30:LEU:HD23	30:d:38:MET:C	2.33	0.53
33:g:142:VAL:HG11	33:g:177:TRP:CE3	2.44	0.53
34:i:455:A:H1'	34:i:456:G:OP2	2.09	0.53
34:i:1055:G:C5	34:i:1824:U:OP1	2.62	0.53
34:i:1492:U:H2'	34:i:1494:A:H8	1.74	0.53
2:B:19:LYS:O	2:B:19:LYS:HG3	2.09	0.53
2:B:140:VAL:O	2:B:210:VAL:HA	2.09	0.53
3:C:73:ILE:HG23	3:C:73:ILE:O	2.08	0.53
4:D:177:LEU:HD12	4:D:178:ARG:HH21	1.72	0.53
6:F:34:SER:HB3	29:c:55:VAL:CB	2.33	0.53
6:F:130:ARG:HB3	6:F:135:ARG:H	1.74	0.53
8:H:40:LEU:HD11	8:H:75:ILE:HD13	1.90	0.53
9:I:69:SER:HB3	12:L:19:ASN:OD1	2.08	0.53
9:I:155:ASN:ND2	9:I:156:ALA:CA	2.70	0.53
10:J:33:GLY:HA3	31:e:112:TYR:CD2	2.44	0.53
10:J:130:ILE:CG1	10:J:135:ILE:CD1	2.81	0.53
11:K:2:LEU:HD23	34:i:1311:U:H4'	1.91	0.53
12:L:156:GLN:OE1	12:L:158:PHE:CZ	2.58	0.53
14:N:13:GLN:C	14:N:14:SER:O	2.47	0.53
20:T:16:ARG:NH1	20:T:16:ARG:HG2	2.23	0.53
20:T:83:GLN:NE2	20:T:85:ASN:N	2.56	0.53
20:T:123:LEU:H	20:T:123:LEU:CD2	2.22	0.53
26:Z:99:LEU:CD2	26:Z:109:TYR:CZ	2.89	0.53
30:d:44:ARG:HH21	34:i:1333:C:H5'	1.73	0.53
3:C:55:VAL:HG13	3:C:82:PHE:CD2	2.21	0.53
3:C:72:PRO:HA	22:V:29:HIS:NE2	2.24	0.53
5:E:45:ILE:HG23	5:E:46:ILE:N	2.24	0.53
5:E:163:ASP:HB3	5:E:167:GLY:O	2.09	0.53
5:E:166:THR:OG1	5:E:168:LYS:HG2	2.07	0.53
6:F:38:TYR:CD2	6:F:38:TYR:N	2.75	0.53
7:G:32:MET:HE3	7:G:100:CYS:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:227:GLN:C	7:G:230:LYS:HG3	2.34	0.53
9:I:157:LYS:C	9:I:158:ILE:O	2.51	0.53
12:L:86:ILE:CG2	12:L:113:LEU:HD12	2.38	0.53
14:N:4:MET:SD	14:N:124:ARG:NH1	2.82	0.53
15:O:62:VAL:CG2	15:O:72:TYR:HH	2.22	0.53
16:P:4:VAL:O	16:P:4:VAL:CG1	2.50	0.53
16:P:51:ARG:O	16:P:52:LYS:HB2	2.07	0.53
16:P:128:HIS:HD2	34:i:1517:A:O5'	1.90	0.53
17:Q:143:LYS:HG2	17:Q:145:TYR:H	1.74	0.53
19:S:124:ARG:HB2	19:S:131:VAL:HG22	1.90	0.53
20:T:123:LEU:H	20:T:123:LEU:HD23	1.74	0.53
24:X:126:ALA:HB1	24:X:128:VAL:HB	1.83	0.53
27:a:85:ARG:N	34:i:1860:A:H61	2.07	0.53
34:i:1743:G:H1	34:i:1780:U:H3	1.56	0.53
1:A:76:VAL:HG13	1:A:175:TRP:CZ2	2.37	0.52
2:B:214:LYS:HG2	2:B:215:VAL:N	2.23	0.52
5:E:49:ARG:O	5:E:49:ARG:CD	2.42	0.52
5:E:71:LYS:O	5:E:90:ILE:HA	2.09	0.52
5:E:122:LYS:CG	5:E:164:LEU:CD2	2.80	0.52
8:H:9:VAL:C	8:H:11:PRO:HD2	2.32	0.52
8:H:61:ILE:HG12	8:H:95:ILE:HD12	1.91	0.52
12:L:86:ILE:CG1	12:L:111:VAL:HG13	2.39	0.52
13:M:31:LEU:HD11	13:M:109:VAL:CB	2.38	0.52
14:N:116:ILE:C	14:N:119:GLU:HG3	2.34	0.52
14:N:135:LEU:HD22	14:N:139:TRP:CD1	2.43	0.52
16:P:90:VAL:HA	16:P:107:ILE:HG13	1.91	0.52
20:T:72:VAL:O	20:T:76:THR:HG23	2.09	0.52
20:T:76:THR:C	20:T:95:GLY:N	2.64	0.52
24:X:62:PRO:HD2	24:X:63:ASN:N	2.23	0.52
26:Z:107:VAL:HB	26:Z:109:TYR:CE2	2.44	0.52
30:d:28:HIS:CD2	34:i:1322:U:O4	2.62	0.52
32:f:82:LYS:NZ	34:i:1505:U:C2	2.77	0.52
33:g:143:GLN:CG	33:g:144:ASP:CB	2.83	0.52
34:i:24:C:C2'	34:i:25:A:C8	2.86	0.52
1:A:16:LEU:CB	1:A:17:LYS:HE2	2.39	0.52
1:A:190:SER:O	1:A:191:ARG:CB	2.58	0.52
3:C:187:THR:OG1	3:C:206:ASP:HB3	2.09	0.52
4:D:199:GLY:O	4:D:201:LYS:N	2.37	0.52
6:F:167:LYS:HE3	6:F:171:GLU:HG3	1.89	0.52
6:F:204:ARG:HD3	29:c:60:GLU:OE2	1.96	0.52
8:H:149:ASP:C	8:H:151:SER:N	2.61	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:27:VAL:O	11:K:28:HIS:CG	2.63	0.52
12:L:80:MET:CG	12:L:86:ILE:HG22	2.36	0.52
12:L:149:ALA:C	12:L:150:GLY:O	2.44	0.52
17:Q:43:GLU:HG2	17:Q:45:ARG:CB	2.37	0.52
17:Q:112:LEU:CD2	17:Q:119:LEU:CD1	2.72	0.52
18:R:61:ILE:CG2	18:R:74:GLN:NE2	2.72	0.52
19:S:23:ARG:O	19:S:55:ARG:HD2	2.09	0.52
20:T:102:ARG:HH21	20:T:105:GLN:CD	2.09	0.52
22:V:64:GLU:O	22:V:65:SER:C	2.52	0.52
24:X:51:VAL:CG1	24:X:70:VAL:HG13	2.32	0.52
24:X:139:GLU:C	24:X:141:PRO:CD	2.66	0.52
34:i:679:U:H2'	34:i:680:G:O4'	2.10	0.52
34:i:1596:A:H4'	34:i:1597:U:C6	2.43	0.52
1:A:141:ASN:CA	22:V:32:ILE:HG13	2.19	0.52
3:C:250:PRO:O	3:C:254:PHE:HD2	1.93	0.52
5:E:260:GLN:O	5:E:261:SER:CB	2.58	0.52
7:G:170:ARG:HG2	34:i:71:G:C6	2.44	0.52
8:H:73:GLN:NE2	8:H:135:PHE:CE1	2.77	0.52
9:I:138:ASN:C	9:I:139:LYS:O	2.53	0.52
12:L:117:PHE:CD2	12:L:145:VAL:HG23	2.44	0.52
15:O:34:PHE:HE1	15:O:99:ALA:C	2.15	0.52
16:P:53:GLN:NE2	16:P:80:LEU:CD1	2.43	0.52
16:P:56:LEU:HD11	16:P:80:LEU:CD1	2.39	0.52
17:Q:84:ILE:HG13	17:Q:85:ARG:N	2.24	0.52
17:Q:130:LYS:HE3	34:i:1664:G:H5"	1.91	0.52
19:S:39:ARG:HH21	20:T:38:LYS:HZ2	0.55	0.52
20:T:62:ARG:HG3	20:T:63:HIS:N	2.24	0.52
20:T:123:LEU:HD23	20:T:123:LEU:N	2.24	0.52
23:W:55:ASP:CB	28:b:25:VAL:HG13	2.39	0.52
24:X:5:ARG:NH2	24:X:5:ARG:CG	2.72	0.52
25:Y:10:ARG:CD	25:Y:24:VAL:CG1	2.87	0.52
25:Y:54:VAL:CG1	25:Y:54:VAL:O	2.57	0.52
33:g:261:LEU:HD22	33:g:261:LEU:H	1.73	0.52
34:i:197:U:H2'	34:i:198:U:C5'	2.40	0.52
34:i:1358:U:H5"	34:i:1359:C:H5	1.74	0.52
2:B:137:LEU:HD12	2:B:176:VAL:HG21	1.91	0.52
2:B:175:GLU:HG2	2:B:193:ILE:HD12	1.86	0.52
3:C:126:MET:CE	3:C:223:LYS:HZ2	2.22	0.52
9:I:157:LYS:CB	12:L:22:ARG:NE	2.71	0.52
10:J:26:ASP:HB3	31:e:116:PHE:CZ	2.44	0.52
12:L:25:LEU:O	12:L:27:GLU:HA	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:40:ILE:HD13	12:L:40:ILE:C	2.33	0.52
13:M:72:HIS:O	13:M:73:GLN:HB3	2.10	0.52
13:M:103:VAL:O	13:M:103:VAL:HG12	2.09	0.52
17:Q:42:ILE:HD11	17:Q:51:LEU:HD13	1.91	0.52
17:Q:45:ARG:CG	17:Q:46:THR:N	2.72	0.52
19:S:71:MET:HG3	19:S:99:LEU:HD13	1.91	0.52
19:S:90:VAL:CG1	19:S:91:LYS:CE	2.87	0.52
19:S:103:LEU:HD12	19:S:103:LEU:C	2.33	0.52
20:T:31:PRO:HG2	20:T:102:ARG:HG3	1.90	0.52
20:T:39:LEU:O	20:T:39:LEU:HG	2.10	0.52
20:T:45:LEU:HD23	20:T:48:TYR:HE1	1.73	0.52
20:T:84:ARG:CB	20:T:84:ARG:CZ	2.82	0.52
23:W:81:VAL:HG22	23:W:89:TRP:NE1	2.24	0.52
28:b:9:HIS:O	28:b:10:PRO:O	2.28	0.52
33:g:228:TYR:HH	33:g:261:LEU:HD12	1.75	0.52
34:i:1547:G:N7	34:i:1573:U:C4	2.77	0.52
4:D:192:TRP:N	4:D:192:TRP:HD1	2.08	0.52
5:E:255:ARG:HH21	34:i:840:U:H2'	1.75	0.52
6:F:20:PHE:CD2	6:F:23:TRP:HD1	2.27	0.52
7:G:157:VAL:HG13	7:G:159:ARG:H	0.73	0.52
7:G:161:PRO:O	7:G:161:PRO:CD	2.57	0.52
7:G:191:ARG:NH1	7:G:191:ARG:HB3	2.25	0.52
8:H:64:VAL:CG1	8:H:65:PRO:HD2	2.39	0.52
9:I:37:LYS:H	9:I:59:ARG:H	1.57	0.52
9:I:191:GLU:CG	9:I:192:GLY:H	2.23	0.52
10:J:79:ARG:NH1	10:J:83:ARG:HD2	2.25	0.52
10:J:82:VAL:HG13	10:J:92:MET:HE3	1.91	0.52
10:J:117:LEU:O	10:J:119:LEU:CD2	2.49	0.52
10:J:125:HIS:NE2	10:J:129:LEU:HD21	2.25	0.52
11:K:1:MET:HB3	11:K:47:LYS:CB	2.39	0.52
13:M:85:LEU:HA	13:M:88:TRP:CZ3	2.39	0.52
17:Q:116:ASP:CG	17:Q:118:THR:H	2.18	0.52
17:Q:124:PRO:HD2	17:Q:125:ARG:H	1.75	0.52
20:T:38:LYS:O	20:T:39:LEU:CB	2.58	0.52
24:X:3:LYS:O	24:X:4:CYS:C	2.50	0.52
25:Y:54:VAL:O	25:Y:76:TYR:N	2.42	0.52
25:Y:88:LYS:HG3	25:Y:97:TYR:CZ	2.45	0.52
27:a:45:VAL:O	27:a:46:GLU:HG3	2.09	0.52
28:b:2:PRO:O	28:b:3:LEU:C	2.52	0.52
28:b:83:GLN:NE2	28:b:83:GLN:HA	2.23	0.52
33:g:9:GLY:O	33:g:309:VAL:HG22	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1361:G:H2'	34:i:1362:G:H8	1.72	0.52
1:A:80:ARG:NH1	1:A:165:ASN:O	2.33	0.52
1:A:110:ASN:ND2	34:i:1348:G:C5'	2.72	0.52
2:B:55:THR:C	2:B:56:LYS:HD2	2.31	0.52
3:C:192:ALA:N	3:C:195:PRO:HG2	2.25	0.52
7:G:135:PRO:CD	7:G:144:LEU:HD23	2.39	0.52
8:H:15:LYS:O	8:H:16:PRO:HB2	2.10	0.52
8:H:51:ILE:HD11	8:H:176:VAL:HG22	1.91	0.52
8:H:194:LEU:HB2	28:b:16:LYS:HG3	1.89	0.52
10:J:21:GLU:C	10:J:23:SER:N	2.58	0.52
13:M:92:CYS:CB	13:M:101:ARG:HG3	2.37	0.52
14:N:26:LEU:HD21	14:N:66:VAL:HG22	1.91	0.52
15:O:27:VAL:N	15:O:91:THR:OG1	2.43	0.52
15:O:43:HIS:NE2	15:O:45:THR:CG2	2.73	0.52
16:P:37:TYR:HA	19:S:88:LYS:CD	2.40	0.52
17:Q:130:LYS:HG2	34:i:1664:G:H5'	1.92	0.52
18:R:17:ILE:CG2	18:R:71:ILE:HD11	2.40	0.52
19:S:33:ILE:CB	19:S:36:VAL:CG1	2.80	0.52
20:T:129:ARG:HB2	34:i:1413:C:H4'	1.91	0.52
23:W:104:LEU:HD12	23:W:104:LEU:C	2.35	0.52
25:Y:50:THR:O	25:Y:51:THR:HG23	2.09	0.52
28:b:54:VAL:CG1	28:b:63:LEU:HD22	2.40	0.52
28:b:78:SER:O	28:b:79:PHE:HB3	2.08	0.52
34:i:1700:C:O2	34:i:1845:A:C1'	2.58	0.52
34:i:1700:C:O2	34:i:1845:A:C2'	2.57	0.52
1:A:145:ILE:HG23	1:A:159:ILE:HG21	1.92	0.52
3:C:109:PHE:CD2	3:C:132:VAL:CG2	2.93	0.52
3:C:142:LEU:O	3:C:145:LEU:HG	2.10	0.52
4:D:123:LEU:HD23	4:D:123:LEU:O	2.10	0.52
5:E:127:ARG:HH22	34:i:334:U:H5"	1.75	0.52
5:E:143:ASP:O	5:E:144:ALA:HB3	2.09	0.52
5:E:248:ILE:CG1	10:J:72:PHE:CG	2.52	0.52
7:G:35:GLU:O	7:G:36:VAL:CG2	2.58	0.52
8:H:83:LEU:HD21	8:H:92:VAL:CG1	2.38	0.52
8:H:99:ARG:HB2	34:i:909:A:C8	2.45	0.52
9:I:158:ILE:O	12:L:22:ARG:NH2	2.43	0.52
12:L:147:LYS:CE	12:L:156:GLN:HE22	2.23	0.52
12:L:147:LYS:HZ3	12:L:149:ALA:H	1.57	0.52
15:O:20:GLN:HG2	15:O:21:VAL:CA	2.38	0.52
16:P:83:MET:HB3	16:P:116:LEU:HD12	1.91	0.52
18:R:21:TYR:HA	18:R:58:MET:HE1	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:46:ARG:CD	20:T:50:GLU:HG2	2.40	0.52
20:T:11:GLN:CD	34:i:1537:C:H5"	2.35	0.52
22:V:41:LYS:O	22:V:42:VAL:C	2.50	0.52
24:X:54:LYS:CD	24:X:91:LEU:HD12	2.38	0.52
25:Y:30:PRO:O	25:Y:67:GLY:HA3	2.09	0.52
25:Y:87:PRO:CG	25:Y:90:ARG:HB2	2.39	0.52
27:a:101:PHE:O	27:a:103:PRO:CD	2.56	0.52
28:b:6:ASP:C	28:b:8:LEU:N	2.67	0.52
32:f:146:LEU:HD12	32:f:147:THR:N	2.23	0.52
34:i:841:G:C3'	34:i:842:G:H8	2.22	0.52
34:i:1537:C:N4	34:i:1586:C:H42	2.07	0.52
35:l:39:ASN:HB2	35:l:42:LYS:HB2	1.92	0.52
2:B:57:ILE:CG1	2:B:60:ASP:OD1	2.52	0.52
3:C:93:LYS:HE3	3:C:95:MET:CG	2.40	0.52
3:C:155:TRP:H	3:C:163:HIS:CE1	2.27	0.52
5:E:86:PHE:HZ	5:E:182:MET:HE1	1.66	0.52
6:F:162:ALA:HB1	6:F:169:ILE:HD13	1.92	0.52
7:G:64:LYS:HD3	7:G:65:GLN:O	2.10	0.52
7:G:162:LEU:CD2	7:G:172:LYS:HE2	2.32	0.52
8:H:23:ILE:O	8:H:27:LEU:HD23	2.09	0.52
8:H:61:ILE:HD13	8:H:176:VAL:HG11	1.92	0.52
9:I:140:LYS:O	9:I:141:ARG:CB	2.56	0.52
9:I:141:ARG:HB3	9:I:144:LYS:CG	2.40	0.52
9:I:155:ASN:CG	9:I:156:ALA:HA	2.35	0.52
11:K:4:PRO:CG	11:K:7:ASN:CG	2.83	0.52
16:P:22:LEU:HD12	16:P:22:LEU:C	2.35	0.52
25:Y:54:VAL:HG13	25:Y:76:TYR:C	2.33	0.52
33:g:119:GLN:HG3	33:g:120:ILE:N	2.24	0.52
33:g:284:PRO:HB2	33:g:303:THR:N	2.24	0.52
33:g:298:LEU:HG	33:g:310:TRP:HB2	1.92	0.52
34:i:127:C:C2	34:i:180:G:H2'	2.44	0.52
34:i:738:U:C6	34:i:739:U:C6	2.98	0.52
1:A:24:HIS:HB3	1:A:51:LEU:CD2	2.40	0.52
2:B:81:PHE:O	2:B:82:ARG:CB	2.57	0.52
3:C:47:PRO:HA	3:C:75:GLU:OE2	2.10	0.52
3:C:185:ARG:O	10:J:54:ARG:NH2	2.43	0.52
4:D:4:GLN:C	4:D:5:ILE:HG13	2.35	0.52
4:D:97:CYS:C	4:D:99:ILE:H	2.12	0.52
4:D:177:LEU:HD22	4:D:182:LEU:CD2	2.25	0.52
4:D:217:ILE:HG23	4:D:218:LEU:N	2.24	0.52
5:E:11:ARG:C	5:E:12:VAL:HG23	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:100:ARG:HG2	5:E:102:ILE:CD1	2.40	0.52
6:F:134:VAL:HG12	6:F:136:ARG:CZ	2.39	0.52
7:G:227:GLN:HA	7:G:230:LYS:CG	2.40	0.52
10:J:83:ARG:CZ	10:J:150:ARG:HH21	2.22	0.52
10:J:102:ILE:HG22	10:J:106:LEU:CD1	2.35	0.52
11:K:11:ILE:CG2	11:K:49:MET:HE3	2.06	0.52
11:K:60:GLU:HG3	11:K:69:TRP:NE1	2.24	0.52
12:L:112:HIS:CG	12:L:134:LEU:HD11	2.44	0.52
13:M:33:ARG:HG3	13:M:33:ARG:NH1	2.21	0.52
17:Q:115:TYR:CD2	17:Q:115:TYR:C	2.88	0.52
23:W:65:LEU:HD12	23:W:65:LEU:C	2.35	0.52
25:Y:50:THR:C	25:Y:51:THR:HG23	2.35	0.52
26:Z:62:VAL:HG13	26:Z:68:ILE:HD11	1.83	0.52
27:a:49:ALA:CB	27:a:53:ILE:CD1	2.85	0.52
29:c:21:THR:CG2	29:c:22:GLY:N	2.51	0.52
31:e:79:SER:OG	31:e:81:ALA:N	2.39	0.52
31:e:113:ASN:ND2	34:i:542:G:P	2.79	0.52
31:e:114:ARG:C	31:e:118:ASN:HB2	2.35	0.52
33:g:64:HIS:CE1	33:g:65:PHE:HD2	2.24	0.52
34:i:181:A:O4'	34:i:182:C:C5'	2.56	0.52
34:i:181:A:C5	34:i:182:C:C2	2.98	0.52
34:i:1741:U:O2'	34:i:1742:C:C5'	2.57	0.52
35:l:94:CYS:O	35:l:98:VAL:HG23	2.10	0.52
1:A:6:ASP:O	1:A:7:VAL:C	2.53	0.52
2:B:209:ASP:C	2:B:210:VAL:HG23	2.34	0.52
3:C:50:LYS:HA	3:C:53:ARG:HD2	1.91	0.52
4:D:178:ARG:HE	4:D:178:ARG:H	1.58	0.52
8:H:64:VAL:HG21	8:H:72:PHE:CD2	2.45	0.52
8:H:135:PHE:CB	8:H:136:PRO:CD	2.88	0.52
9:I:31:ARG:HG3	9:I:31:ARG:HH11	1.75	0.52
10:J:83:ARG:NH2	10:J:150:ARG:NH2	2.57	0.52
10:J:169:ARG:HB3	10:J:170:PRO:HD3	1.84	0.52
11:K:16:PHE:CE2	11:K:80:ARG:N	2.78	0.52
12:L:147:LYS:HG3	12:L:148:ALA:HB2	1.91	0.52
13:M:52:LEU:O	13:M:85:LEU:HD12	2.10	0.52
13:M:67:ALA:C	32:f:114:ILE:HG21	2.35	0.52
13:M:102:LYS:O	13:M:103:VAL:C	2.52	0.52
14:N:15:ALA:C	28:b:26:GLN:NE2	2.67	0.52
14:N:19:ARG:HH11	28:b:84:HIS:HB2	1.75	0.52
14:N:22:VAL:CG2	14:N:23:PRO:HA	2.40	0.52
14:N:27:LYS:CE	14:N:27:LYS:N	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:131:ASP:CG	27:a:67:LEU:HD22	2.34	0.52
16:P:49:LEU:C	16:P:50:ARG:CG	2.75	0.52
17:Q:6:PRO:O	17:Q:6:PRO:HD2	2.09	0.52
17:Q:55:VAL:HG22	17:Q:63:PHE:CE2	2.45	0.52
19:S:54:LYS:HB3	19:S:55:ARG:N	2.25	0.52
23:W:120:HIS:O	23:W:120:HIS:CG	2.63	0.52
24:X:105:PHE:HE2	24:X:119:ARG:N	2.06	0.52
25:Y:44:LEU:CD1	25:Y:48:TYR:HD2	2.18	0.52
25:Y:114:MET:HE1	25:Y:125:VAL:HG22	1.87	0.52
26:Z:44:LEU:HD13	26:Z:45:ASN:CA	2.40	0.52
27:a:51:ARG:O	27:a:55:GLU:HG3	2.09	0.52
33:g:141:THR:O	33:g:143:GLN:N	2.43	0.52
34:i:404:A:H61	34:i:413:U:H3	1.58	0.52
1:A:110:ASN:ND2	34:i:1348:G:O4'	2.43	0.51
3:C:61:LYS:HA	3:C:82:PHE:CE1	2.44	0.51
5:E:122:LYS:HG2	5:E:164:LEU:CD2	2.40	0.51
6:F:39:ILE:HG21	6:F:113:VAL:HG23	1.92	0.51
8:H:10:LYS:HZ1	8:H:16:PRO:C	2.17	0.51
8:H:29:GLU:OE2	8:H:86:LYS:HE2	2.06	0.51
11:K:49:MET:HB2	11:K:69:TRP:CZ2	2.44	0.51
13:M:117:GLU:C	13:M:118:SER:HG	2.04	0.51
14:N:125:LEU:HD22	14:N:129:TYR:CE2	2.45	0.51
15:O:33:ILE:HG12	15:O:42:VAL:HG22	1.90	0.51
15:O:119:LEU:HD12	15:O:119:LEU:C	2.35	0.51
16:P:44:ARG:HG3	34:i:1615:A:OP1	2.10	0.51
18:R:44:LYS:CD	18:R:47:ARG:NH2	2.70	0.51
19:S:28:PHE:CZ	34:i:1598:G:C5	2.98	0.51
20:T:11:GLN:OE1	20:T:62:ARG:HD3	2.09	0.51
20:T:76:THR:HA	20:T:95:GLY:O	2.10	0.51
21:U:16:ALA:O	21:U:94:PRO:HG3	2.10	0.51
21:U:50:VAL:CG1	21:U:51:LYS:N	2.46	0.51
24:X:94:ILE:CD1	24:X:125:VAL:HG21	2.40	0.51
27:a:60:ASP:O	27:a:61:ALA:CB	2.58	0.51
30:d:30:LEU:CD2	30:d:38:MET:O	2.59	0.51
32:f:98:VAL:CG1	32:f:99:LYS:N	2.39	0.51
32:f:140:TYR:CZ	32:f:146:LEU:CA	2.79	0.51
33:g:232:GLY:CA	33:g:257:LYS:HZ1	2.21	0.51
34:i:1200:A:H61	34:i:1689:U:H3	1.58	0.51
34:i:1491:G:C2	34:i:1492:U:H1'	2.44	0.51
34:i:1497:C:O2'	34:i:1498:C:H5'	2.10	0.51
1:A:30:LEU:CD1	1:A:38:ILE:HD12	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:184:ARG:N	1:A:189:ILE:HD12	2.25	0.51
2:B:208:HIS:C	2:B:208:HIS:CD2	2.88	0.51
4:D:46:THR:O	4:D:85:GLU:N	2.39	0.51
5:E:94:LYS:C	5:E:95:THR:CG2	2.83	0.51
8:H:37:LYS:NZ	8:H:38:ALA:HA	2.24	0.51
10:J:26:ASP:CB	31:e:116:PHE:CZ	2.92	0.51
10:J:67:ASP:O	10:J:68:PRO:C	2.52	0.51
11:K:41:PRO:O	11:K:43:LEU:O	2.29	0.51
12:L:44:PHE:CD2	12:L:143:LEU:HD23	2.45	0.51
13:M:124:ILE:HB	13:M:127:TYR:HE2	1.75	0.51
14:N:134:VAL:HG22	14:N:135:LEU:HG	1.91	0.51
14:N:141:TYR:CD2	14:N:141:TYR:O	2.63	0.51
20:T:130:ASP:OD2	20:T:131:LEU:HD23	2.11	0.51
33:g:4:GLN:HG2	33:g:5:MET:N	2.24	0.51
33:g:113:PHE:HD1	33:g:120:ILE:HG12	1.76	0.51
33:g:184:LEU:HD12	33:g:184:LEU:C	2.35	0.51
33:g:218:LEU:HD23	33:g:230:LEU:CD1	2.40	0.51
33:g:249:CYS:SG	33:g:256:ILE:HG23	2.51	0.51
35:l:64:LYS:O	35:l:66:LYS:N	2.42	0.51
35:l:69:CYS:HB3	35:l:86:GLN:O	2.10	0.51
1:A:70:ASN:HB2	1:A:73:ASP:OD2	2.10	0.51
1:A:98:PRO:O	1:A:98:PRO:HG2	2.11	0.51
1:A:109:THR:CB	34:i:1348:G:C5'	2.80	0.51
1:A:158:ASP:CB	22:V:65:SER:OG	2.58	0.51
3:C:194:VAL:N	3:C:195:PRO:HD2	2.25	0.51
5:E:19:MET:HE3	34:i:842:G:H2'	1.78	0.51
6:F:138:ALA:CB	6:F:200:ALA:O	2.55	0.51
9:I:73:THR:O	9:I:74:ARG:HD2	2.09	0.51
10:J:50:LEU:HB2	10:J:102:ILE:CD1	2.40	0.51
10:J:94:LEU:HD12	10:J:94:LEU:C	2.34	0.51
12:L:17:PHE:CD2	12:L:18:GLN:O	2.63	0.51
12:L:49:GLU:OE1	12:L:49:GLU:HA	2.10	0.51
12:L:59:LYS:CD	12:L:112:HIS:NE2	2.72	0.51
14:N:47:PRO:HG3	14:N:75:LEU:HD22	1.93	0.51
15:O:63:LYS:O	15:O:64:ALA:CB	2.57	0.51
19:S:90:VAL:HG12	19:S:91:LYS:N	2.25	0.51
20:T:23:LYS:HD2	20:T:54:TYR:CE2	2.45	0.51
21:U:73:GLY:C	21:U:74:SER:O	2.51	0.51
22:V:41:LYS:C	22:V:43:THR:H	2.18	0.51
24:X:55:VAL:HG12	24:X:57:VAL:HG23	1.92	0.51
25:Y:12:PHE:CZ	25:Y:21:LYS:HB2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:b:64:CYS:HA	28:b:74:THR:HG23	1.93	0.51
33:g:177:TRP:CE3	33:g:184:LEU:HA	2.46	0.51
34:i:1458:U:H3'	34:i:1459:U:C5'	2.39	0.51
1:A:39:TYR:CD2	1:A:40:LYS:HB2	2.46	0.51
1:A:57:LYS:CE	22:V:70:LEU:CD2	2.89	0.51
2:B:36:PRO:CB	2:B:231:LEU:CD2	2.71	0.51
4:D:132:LYS:H	4:D:191:PRO:CD	1.88	0.51
4:D:157:MET:HE1	4:D:187:LYS:CG	2.38	0.51
5:E:123:LEU:HD21	5:E:235:TRP:HB2	1.92	0.51
6:F:151:ILE:O	6:F:154:LEU:HG	2.10	0.51
8:H:146:VAL:CG2	23:W:50:PHE:CD1	2.89	0.51
9:I:154:LYS:C	9:I:154:LYS:NZ	2.69	0.51
11:K:3:MET:SD	11:K:8:ARG:NE	2.84	0.51
13:M:61:TYR:HA	32:f:104:LYS:HZ1	1.75	0.51
13:M:94:ILE:H	13:M:101:ARG:HD3	1.73	0.51
14:N:25:TRP:CH2	28:b:45:THR:HG21	2.44	0.51
14:N:141:TYR:CD2	14:N:141:TYR:C	2.88	0.51
17:Q:12:VAL:HG21	17:Q:91:ALA:HA	1.92	0.51
18:R:13:ALA:HB1	18:R:57:LEU:HD12	1.92	0.51
19:S:85:ASN:HD21	19:S:98:VAL:N	2.09	0.51
20:T:75:MET:O	20:T:79:TYR:HD2	1.93	0.51
20:T:102:ARG:CD	20:T:105:GLN:OE1	2.58	0.51
25:Y:13:MET:HE2	25:Y:14:THR:C	2.20	0.51
32:f:97:LYS:HZ3	32:f:97:LYS:HB3	1.74	0.51
33:g:15:ASN:O	33:g:305:ASN:ND2	2.43	0.51
33:g:19:THR:O	33:g:288:SER:HB3	2.09	0.51
33:g:198:VAL:HG22	33:g:209:SER:CB	2.41	0.51
33:g:258:ILE:CG1	33:g:267:VAL:HB	2.37	0.51
34:i:1406:C:H2'	34:i:1407:G:C8	2.46	0.51
34:i:1823:G:H1'	34:i:1843:G:C6	2.45	0.51
1:A:102:ARG:NH2	34:i:1375:A:H4'	2.25	0.51
1:A:139:TYR:O	1:A:140:VAL:HG23	2.11	0.51
3:C:253:GLU:HG3	3:C:254:PHE:CE2	2.46	0.51
5:E:108:ARG:O	5:E:109:PHE:C	2.49	0.51
5:E:130:PHE:HB3	5:E:138:HIS:ND1	2.23	0.51
5:E:181:CYS:SG	5:E:225:ILE:CG2	2.99	0.51
6:F:72:LEU:O	6:F:72:LEU:HD23	2.10	0.51
8:H:12:ASN:HB3	8:H:46:THR:HG1	1.73	0.51
8:H:135:PHE:CD2	8:H:136:PRO:N	2.78	0.51
15:O:30:VAL:O	15:O:44:VAL:HA	2.10	0.51
15:O:90:ILE:HG22	15:O:124:MET:CE	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:41:GLN:NE2	16:P:41:GLN:O	2.43	0.51
18:R:13:ALA:HA	18:R:54:VAL:HG21	1.89	0.51
19:S:64:VAL:HG23	19:S:65:GLU:N	2.25	0.51
19:S:117:ILE:C	19:S:118:ARG:CG	2.66	0.51
22:V:73:ALA:O	22:V:77:GLY:N	2.44	0.51
32:f:146:LEU:HD22	34:i:1288:C:C5'	2.40	0.51
33:g:272:GLN:CD	33:g:272:GLN:H	2.18	0.51
34:i:25:A:O2'	34:i:26:U:C6	2.63	0.51
34:i:1596:A:C4'	34:i:1597:U:C5	2.94	0.51
34:i:1701:G:C2'	34:i:1844:A:O2'	2.58	0.51
34:i:1823:G:C1'	34:i:1843:G:O6	2.58	0.51
1:A:30:LEU:O	1:A:31:ASP:HB2	2.10	0.51
3:C:168:LYS:HE3	23:W:95:PRO:CA	2.38	0.51
3:C:196:LYS:HD2	3:C:200:LEU:HD23	1.93	0.51
4:D:51:LEU:HD12	4:D:89:GLU:O	2.11	0.51
4:D:113:LEU:HD12	4:D:113:LEU:N	2.15	0.51
5:E:29:PRO:O	5:E:30:ARG:HB3	2.10	0.51
5:E:130:PHE:O	5:E:137:PRO:HA	2.10	0.51
5:E:207:VAL:CG1	5:E:219:ALA:HB1	2.41	0.51
5:E:248:ILE:HD12	10:J:72:PHE:CE1	2.46	0.51
6:F:42:LYS:C	6:F:45:TYR:H	2.17	0.51
6:F:45:TYR:O	6:F:47:LYS:HE3	1.94	0.51
7:G:184:VAL:O	7:G:188:LYS:HE2	2.11	0.51
11:K:59:LYS:HD2	11:K:59:LYS:C	2.34	0.51
14:N:38:TYR:CZ	14:N:78:LYS:HG3	2.46	0.51
14:N:82:PRO:O	14:N:83:ASP:C	2.53	0.51
15:O:125:LYS:HE3	27:a:56:VAL:O	2.10	0.51
22:V:11:LEU:HD12	22:V:11:LEU:C	2.36	0.51
22:V:79:VAL:HG11	22:V:82:ASN:OD1	2.05	0.51
24:X:102:VAL:HG11	24:X:120:PHE:HB3	1.91	0.51
24:X:105:PHE:CB	24:X:112:VAL:CG2	2.89	0.51
24:X:122:VAL:CG1	24:X:130:LEU:HD11	2.39	0.51
25:Y:12:PHE:CD1	25:Y:23:MET:HB3	2.45	0.51
31:e:113:ASN:CB	34:i:542:G:OP1	2.59	0.51
33:g:164:ILE:HG23	33:g:176:VAL:HG13	1.92	0.51
34:i:64:A:C2	34:i:66:G:C8	2.98	0.51
2:B:99:ASN:HD22	2:B:228:LEU:HD23	1.76	0.51
3:C:115:ILE:HD11	3:C:140:ILE:CG2	2.30	0.51
5:E:72:ILE:HD12	5:E:82:TYR:CD2	2.45	0.51
6:F:162:ALA:CB	6:F:169:ILE:HD13	2.40	0.51
7:G:25:ARG:C	7:G:27:PHE:N	2.68	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:143:LYS:HA	7:G:143:LYS:CE	2.39	0.51
12:L:80:MET:HG3	12:L:86:ILE:CG2	2.39	0.51
12:L:101:ARG:HD2	24:X:6:GLY:O	2.10	0.51
12:L:101:ARG:CB	24:X:7:LEU:O	2.43	0.51
15:O:128:ARG:HG3	27:a:62:TYR:HH	1.70	0.51
16:P:18:ARG:NH1	19:S:88:LYS:HB3	2.26	0.51
18:R:20:TYR:CE2	18:R:38:ILE:CD1	2.92	0.51
18:R:33:ARG:HH21	33:g:83:TRP:HE3	1.55	0.51
19:S:46:ARG:NH1	20:T:50:GLU:CB	2.70	0.51
20:T:31:PRO:O	20:T:33:TRP:CA	2.54	0.51
20:T:77:LYS:HG2	20:T:92:PHE:HZ	1.65	0.51
20:T:85:ASN:ND2	20:T:90:SER:HA	2.24	0.51
24:X:52:LEU:CG	24:X:71:ARG:CB	2.88	0.51
24:X:138:LYS:N	24:X:139:GLU:OE2	2.44	0.51
25:Y:20:ARG:C	25:Y:21:LYS:CD	2.82	0.51
25:Y:61:ARG:CG	25:Y:61:ARG:NH2	2.38	0.51
25:Y:114:MET:HG2	25:Y:124:ASN:CB	2.37	0.51
27:a:88:SER:O	27:a:92:ARG:HG3	2.11	0.51
32:f:135:HIS:C	32:f:138:ARG:O	2.53	0.51
33:g:48:ASP:OD2	33:g:49:GLU:OE1	2.29	0.51
33:g:142:VAL:HG11	33:g:177:TRP:CZ3	2.46	0.51
34:i:454:A:C4'	34:i:455:A:OP2	2.57	0.51
34:i:1588:C:H2'	34:i:1589:A:C8	2.46	0.51
34:i:1817:A:H1'	34:i:1818:A:O5'	2.10	0.51
1:A:109:THR:HG1	34:i:1348:G:C5'	2.16	0.51
2:B:25:PHE:HD2	15:O:88:LEU:HD22	1.44	0.51
2:B:137:LEU:HD23	2:B:215:VAL:CB	2.39	0.51
2:B:145:LYS:HG3	2:B:149:GLN:HB3	1.92	0.51
3:C:93:LYS:HE2	3:C:218:LEU:HD21	1.83	0.51
3:C:184:PRO:O	3:C:187:THR:HG23	2.11	0.51
4:D:24:PHE:HD2	4:D:25:LEU:HD22	1.76	0.51
5:E:43:PRO:HD2	5:E:46:ILE:HB	1.92	0.51
5:E:67:GLN:O	5:E:68:ARG:CB	2.59	0.51
6:F:91:ARG:CD	17:Q:46:THR:CG2	2.89	0.51
7:G:75:LEU:HD13	34:i:1785:A:H4'	1.91	0.51
7:G:155:GLN:HG2	34:i:76:U:H4'	1.92	0.51
7:G:203:LYS:HE2	7:G:207:ALA:HB2	1.92	0.51
8:H:35:ASP:OD1	8:H:35:ASP:C	2.50	0.51
9:I:5:ARG:NH1	34:i:374:U:H3	2.08	0.51
9:I:101:ILE:HD12	9:I:190:LEU:HD11	1.92	0.51
9:I:141:ARG:CB	9:I:144:LYS:CG	2.87	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:148:LYS:HB2	9:I:152:ARG:NH2	2.26	0.51
11:K:16:PHE:CE2	11:K:79:LEU:CA	2.88	0.51
17:Q:50:LYS:CE	17:Q:85:ARG:NH2	2.73	0.51
17:Q:57:LEU:O	17:Q:111:ILE:HG21	2.11	0.51
18:R:122:PRO:HB2	18:R:123:THR:HG1	1.74	0.51
19:S:90:VAL:CG1	19:S:91:LYS:HE3	2.41	0.51
19:S:141:ARG:CD	34:i:1518:C:H5	2.23	0.51
20:T:4:VAL:HG21	20:T:135:ALA:O	2.11	0.51
20:T:31:PRO:HG3	20:T:102:ARG:CG	2.41	0.51
20:T:119:TRP:CG	34:i:1556:A:C2	2.99	0.51
21:U:88:LEU:C	21:U:88:LEU:HD12	2.35	0.51
21:U:108:PRO:O	21:U:110:VAL:CG2	2.53	0.51
24:X:67:ARG:HA	24:X:67:ARG:HE	1.75	0.51
24:X:69:CYS:HB3	24:X:83:ALA:O	2.11	0.51
25:Y:55:ILE:CD1	25:Y:75:ILE:HD11	2.41	0.51
27:a:37:LYS:HG2	27:a:72:HIS:CE1	2.46	0.51
33:g:64:HIS:O	33:g:82:SER:OG	2.28	0.51
33:g:76:GLN:O	33:g:77:PHE:CD1	2.64	0.51
33:g:176:VAL:HB	33:g:186:THR:CG2	2.25	0.51
34:i:71:G:H3'	34:i:72:C:C5'	2.41	0.51
34:i:1596:A:C5'	34:i:1597:U:C6	2.94	0.51
1:A:45:GLY:O	1:A:46:ILE:HD13	2.10	0.51
1:A:119:PRO:O	1:A:142:LEU:HD21	2.10	0.51
1:A:125:THR:O	1:A:147:LEU:CD1	2.59	0.51
2:B:25:PHE:CD1	15:O:88:LEU:HD13	2.45	0.51
2:B:30:TRP:CE3	15:O:19:PRO:HB3	2.46	0.51
2:B:47:THR:CG2	2:B:67:PHE:CZ	2.82	0.51
2:B:136:HIS:CE1	2:B:138:PHE:CE1	2.99	0.51
4:D:3:VAL:O	4:D:4:GLN:O	2.29	0.51
5:E:64:ILE:CG1	25:Y:17:LEU:HD13	2.41	0.51
5:E:87:MET:HE1	5:E:236:ILE:CD1	2.40	0.51
5:E:146:THR:C	5:E:147:ILE:HD13	2.35	0.51
6:F:43:GLU:O	6:F:44:LYS:HB2	2.10	0.51
7:G:33:ALA:H	7:G:52:ILE:CG2	2.14	0.51
7:G:93:LYS:HG2	7:G:95:LYS:HG3	1.92	0.51
8:H:40:LEU:O	8:H:41:ARG:C	2.54	0.51
8:H:65:PRO:HG2	8:H:68:GLN:NE2	2.25	0.51
9:I:25:ARG:CZ	34:i:423:A:OP1	2.57	0.51
9:I:43:ILE:HD12	34:i:297:C:N4	2.26	0.51
9:I:79:ILE:HG23	9:I:80:ASP:N	2.25	0.51
10:J:21:GLU:O	10:J:24:ARG:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:46:MET:HA	11:K:69:TRP:HH2	1.74	0.51
11:K:50:GLN:HG3	11:K:51:SER:N	2.25	0.51
17:Q:50:LYS:HZ1	17:Q:117:ARG:CG	2.24	0.51
18:R:99:ASP:C	18:R:119:VAL:HG13	2.19	0.51
22:V:24:ILE:CD1	22:V:25:GLY:C	2.84	0.51
25:Y:58:PHE:HE1	25:Y:72:PHE:CE2	2.28	0.51
29:c:67:ARG:O	29:c:68:LEU:CB	2.58	0.51
31:e:119:VAL:O	31:e:121:PRO:CG	2.57	0.51
33:g:5:MET:HE1	33:g:312:VAL:CG2	2.39	0.51
33:g:113:PHE:CE2	33:g:117:ASN:CA	2.93	0.51
33:g:156:PHE:C	33:g:156:PHE:CD2	2.88	0.51
33:g:234:ASP:CG	33:g:254:PRO:HG2	2.36	0.51
34:i:445:A:H4'	34:i:1731:G:H5'	1.93	0.51
34:i:841:G:C2'	34:i:842:G:C8	2.94	0.51
34:i:1755:U:H3	34:i:1765:G:H1	1.57	0.51
1:A:136:GLU:CD	34:i:1374:A:N6	2.56	0.51
3:C:183:ALA:CB	3:C:208:TYR:CE2	2.94	0.51
4:D:197:LYS:C	4:D:198:ILE:HG23	2.34	0.51
4:D:208:VAL:O	4:D:208:VAL:HG12	2.08	0.51
7:G:102:VAL:HG11	7:G:109:LEU:HD11	1.93	0.51
7:G:212:LEU:CA	7:G:215:LYS:HD3	2.41	0.51
11:K:16:PHE:HE2	11:K:79:LEU:HB2	0.74	0.51
12:L:12:LYS:C	12:L:56:ILE:HD11	2.36	0.51
12:L:17:PHE:CG	12:L:18:GLN:N	2.79	0.51
12:L:92:TYR:CE2	12:L:105:ARG:HB2	2.46	0.51
14:N:142:GLU:HG3	14:N:144:SER:OG	2.08	0.51
15:O:41:PHE:CD1	15:O:57:THR:HG21	2.46	0.51
16:P:49:LEU:H	16:P:51:ARG:HG3	1.76	0.51
17:Q:8:GLN:CG	17:Q:99:TYR:CD1	2.47	0.51
17:Q:137:ALA:HB3	34:i:1644:U:H5"	1.92	0.51
18:R:17:ILE:HD11	18:R:54:VAL:HG13	1.93	0.51
23:W:86:LEU:HD11	23:W:113:HIS:HB2	1.93	0.51
23:W:105:THR:HG23	23:W:105:THR:O	2.10	0.51
24:X:134:TYR:HE1	31:e:87:ARG:HD3	1.75	0.51
26:Z:104:ARG:C	26:Z:104:ARG:NH1	2.69	0.51
27:a:36:ILE:HD13	27:a:78:ALA:CB	2.41	0.51
29:c:42:ILE:HG23	29:c:43:ILE:N	2.25	0.51
30:d:20:SER:O	30:d:30:LEU:HD11	2.11	0.51
31:e:105:ARG:C	31:e:105:ARG:NE	2.69	0.51
34:i:1513:C:P	34:i:1514:U:H2'	2.51	0.51
34:i:1563:C:N4	34:i:1564:A:C6	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:42:LYS:HZ1	18:R:102:THR:CG2	2.22	0.50
1:A:157:VAL:HG23	1:A:157:VAL:O	2.12	0.50
2:B:83:LYS:HZ1	15:O:130:GLU:CD	2.18	0.50
5:E:248:ILE:CG1	10:J:72:PHE:CZ	2.89	0.50
7:G:41:LEU:HD21	7:G:45:TRP:CH2	2.36	0.50
8:H:158:LEU:HG	8:H:187:PHE:CD1	2.46	0.50
9:I:148:LYS:HE3	9:I:152:ARG:HH21	1.76	0.50
11:K:27:VAL:HA	11:K:43:LEU:CD2	2.42	0.50
11:K:53:LYS:CB	11:K:58:VAL:HG13	2.41	0.50
12:L:17:PHE:CD1	12:L:18:GLN:CA	2.94	0.50
12:L:59:LYS:HB2	12:L:112:HIS:CE1	2.46	0.50
13:M:12:MET:HG3	13:M:17:ALA:N	2.25	0.50
13:M:64:LEU:CG	32:f:104:LYS:NZ	2.74	0.50
13:M:83:LYS:HG3	13:M:103:VAL:HG12	1.94	0.50
15:O:61:LYS:C	15:O:62:VAL:HG23	2.27	0.50
15:O:62:VAL:CG2	15:O:72:TYR:CZ	2.92	0.50
17:Q:47:LEU:O	17:Q:48:GLN:C	2.54	0.50
19:S:33:ILE:HB	19:S:36:VAL:HG13	1.90	0.50
22:V:42:VAL:O	22:V:43:THR:OG1	2.29	0.50
24:X:52:LEU:HD12	24:X:52:LEU:C	2.34	0.50
25:Y:53:ASP:O	25:Y:79:LEU:CD2	2.59	0.50
32:f:140:TYR:HE1	32:f:146:LEU:O	1.89	0.50
33:g:48:ASP:O	33:g:49:GLU:OE2	2.29	0.50
33:g:142:VAL:CG1	33:g:177:TRP:CZ3	2.95	0.50
34:i:410:G:C5	34:i:411:G:H1'	2.46	0.50
34:i:431:C:C4'	34:i:1732:G:HO2'	2.24	0.50
34:i:1654:U:H3	34:i:1659:A:H2	1.58	0.50
34:i:1751:G:C2	34:i:1752:G:C5	2.99	0.50
1:A:177:MET:CE	1:A:180:ARG:HH21	1.95	0.50
4:D:21:LEU:HD22	4:D:25:LEU:HD21	1.94	0.50
7:G:67:VAL:CG2	7:G:99:GLY:HA2	2.32	0.50
7:G:142:ARG:HG3	7:G:142:ARG:NH1	2.08	0.50
7:G:145:PHE:C	7:G:147:LEU:HD12	2.36	0.50
8:H:158:LEU:O	8:H:190:PRO:HD3	2.10	0.50
8:H:191:GLU:CD	8:H:193:GLN:OE1	2.54	0.50
10:J:79:ARG:C	10:J:79:ARG:CD	2.83	0.50
10:J:124:HIS:C	10:J:126:ALA:N	2.66	0.50
12:L:2:ALA:O	12:L:3:ASP:C	2.54	0.50
13:M:124:ILE:O	13:M:127:TYR:CE2	2.63	0.50
15:O:44:VAL:HG11	15:O:93:LEU:CD2	2.41	0.50
16:P:10:ARG:O	16:P:11:THR:C	2.54	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:29:SER:OG	16:P:31:GLU:HB2	2.10	0.50
16:P:41:GLN:HG2	16:P:84:ILE:HG23	1.76	0.50
17:Q:126:ARG:C	34:i:1643:G:C8	2.89	0.50
19:S:136:THR:CB	34:i:1516:C:OP2	2.60	0.50
20:T:84:ARG:O	20:T:86:GLY:N	2.45	0.50
21:U:64:THR:HG22	21:U:79:ARG:CD	2.39	0.50
23:W:27:ILE:HG13	23:W:61:ILE:HB	1.93	0.50
25:Y:119:GLY:CA	34:i:85:A:H5'	2.41	0.50
26:Z:94:LYS:CD	26:Z:95:GLY:N	2.73	0.50
27:a:61:ALA:O	27:a:62:TYR:CB	2.58	0.50
32:f:103:LEU:CD2	32:f:105:TYR:C	2.84	0.50
33:g:54:ILE:CG2	33:g:55:PRO:HD2	2.41	0.50
1:A:18:PHE:CZ	1:A:55:TRP:CE3	3.00	0.50
1:A:122:LEU:HD12	1:A:137:ALA:CB	2.40	0.50
1:A:142:LEU:C	22:V:32:ILE:HD13	2.35	0.50
1:A:149:ASN:N	1:A:165:ASN:HD21	2.09	0.50
3:C:68:LEU:CD2	3:C:247:THR:HG21	2.40	0.50
3:C:69:PHE:CE1	3:C:249:SER:CA	2.94	0.50
4:D:212:GLU:CB	4:D:213:PRO:CD	2.76	0.50
5:E:21:ASP:OD1	5:E:24:THR:CG2	2.53	0.50
6:F:42:LYS:HB3	6:F:46:ALA:N	2.25	0.50
6:F:115:ALA:HB2	6:F:177:LEU:HD22	1.92	0.50
9:I:201:LYS:CE	12:L:8:ARG:HA	2.42	0.50
10:J:83:ARG:NH2	10:J:150:ARG:HH21	2.09	0.50
11:K:27:VAL:HG11	11:K:43:LEU:HD22	1.67	0.50
12:L:40:ILE:HG23	12:L:41:GLY:N	2.25	0.50
12:L:103:GLU:OE1	24:X:11:ARG:NE	2.45	0.50
12:L:147:LYS:NZ	12:L:156:GLN:NE2	2.59	0.50
17:Q:128:GLU:HG3	34:i:1643:G:H5'	1.93	0.50
19:S:40:TYR:O	19:S:44:VAL:HG23	2.11	0.50
20:T:4:VAL:CA	20:T:8:ASP:OD2	2.54	0.50
22:V:78:ILE:C	22:V:79:VAL:HG23	2.35	0.50
24:X:77:ASN:O	24:X:79:LYS:N	2.44	0.50
30:d:27:ARG:NH1	30:d:27:ARG:HB3	2.26	0.50
31:e:80:LEU:N	31:e:80:LEU:HD23	2.27	0.50
31:e:116:PHE:N	31:e:119:VAL:CG2	2.73	0.50
33:g:64:HIS:HB3	33:g:84:ASP:H	1.76	0.50
33:g:64:HIS:O	33:g:65:PHE:C	2.54	0.50
33:g:70:VAL:HG22	33:g:71:ILE:N	2.24	0.50
33:g:91:ASP:HB3	33:g:94:THR:OG1	2.11	0.50
34:i:423:A:N1	34:i:424:G:C6	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1469:G:H2'	34:i:1470:A:H5"	1.93	0.50
34:i:1547:G:C6	34:i:1573:U:C2	3.00	0.50
34:i:1702:U:O2'	35:l:68:ALA:CB	2.59	0.50
1:A:158:ASP:O	1:A:158:ASP:CG	2.54	0.50
5:E:192:ILE:HD11	5:E:238:LEU:HD22	1.92	0.50
7:G:66:GLY:HA2	34:i:1740:A:C1'	2.41	0.50
7:G:79:LYS:O	7:G:81:HIS:CD2	2.65	0.50
10:J:26:ASP:CG	31:e:116:PHE:HZ	2.20	0.50
10:J:42:GLU:OE1	10:J:42:GLU:HA	2.11	0.50
10:J:155:LYS:HE3	10:J:156:HIS:NE2	2.26	0.50
14:N:26:LEU:CD2	14:N:66:VAL:CG2	2.89	0.50
16:P:17:TYR:C	19:S:90:VAL:O	2.55	0.50
16:P:93:MET:SD	16:P:106:GLU:HA	2.51	0.50
16:P:123:TYR:OH	19:S:124:ARG:CG	2.57	0.50
18:R:100:PRO:CB	18:R:119:VAL:HG22	2.37	0.50
20:T:124:THR:HG23	20:T:127:GLY:H	1.74	0.50
22:V:39:VAL:C	22:V:41:LYS:H	2.18	0.50
23:W:90:GLN:CA	23:W:102:ILE:HD12	2.40	0.50
23:W:102:ILE:N	23:W:113:HIS:ND1	2.57	0.50
25:Y:23:MET:CE	25:Y:44:LEU:HD21	2.40	0.50
25:Y:29:HIS:HE1	25:Y:67:GLY:CA	2.06	0.50
25:Y:63:HIS:C	25:Y:64:PHE:CD1	2.89	0.50
25:Y:76:TYR:CD1	25:Y:82:ALA:HA	2.47	0.50
25:Y:106:GLN:O	25:Y:110:ARG:HG3	2.12	0.50
27:a:45:VAL:HB	27:a:53:ILE:HD12	1.94	0.50
28:b:64:CYS:SG	28:b:73:LEU:CG	2.97	0.50
33:g:276:SER:O	33:g:277:THR:O	2.29	0.50
34:i:1826:A:H5"	34:i:1847:C:OP1	2.11	0.50
2:B:53:GLN:CG	2:B:56:LYS:HB2	2.41	0.50
7:G:197:GLN:O	7:G:200:LYS:HG2	2.11	0.50
8:H:73:GLN:HE21	8:H:135:PHE:HE1	1.59	0.50
8:H:135:PHE:CD2	8:H:136:PRO:CD	2.91	0.50
9:I:155:ASN:CG	9:I:156:ALA:CA	2.85	0.50
11:K:25:LYS:HD2	11:K:62:PHE:CE1	2.46	0.50
12:L:10:TYR:HD2	12:L:12:LYS:CE	2.14	0.50
13:M:26:LEU:HD11	13:M:89:VAL:O	2.11	0.50
13:M:46:GLN:HB3	13:M:112:LYS:HG2	1.94	0.50
13:M:79:VAL:CG1	13:M:80:ASP:H	2.25	0.50
14:N:142:GLU:CD	14:N:144:SER:HG	2.08	0.50
16:P:127:LYS:HE3	16:P:128:HIS:N	2.24	0.50
18:R:31:ASN:ND2	18:R:55:THR:CG2	2.73	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:33:ARG:CB	33:g:150:TRP:HZ2	1.96	0.50
19:S:88:LYS:O	19:S:89:ASP:C	2.46	0.50
20:T:31:PRO:HG3	20:T:102:ARG:HG3	1.91	0.50
20:T:45:LEU:HG	20:T:46:ALA:H	1.76	0.50
23:W:17:ALA:HB2	23:W:25:VAL:HG12	1.92	0.50
29:c:67:ARG:O	29:c:68:LEU:HB3	2.12	0.50
33:g:32:LEU:CD2	33:g:69:VAL:HG21	2.42	0.50
34:i:126:G:O2'	34:i:127:C:H5	1.95	0.50
34:i:428:G:H8	34:i:1794:A:HO2'	1.57	0.50
34:i:1330:G:C5	34:i:1494:A:C2	2.99	0.50
34:i:1702:U:O2'	35:l:68:ALA:HB1	2.11	0.50
34:i:1826:A:H5'	34:i:1847:C:P	2.52	0.50
1:A:149:ASN:HB2	1:A:165:ASN:OD1	2.12	0.50
2:B:38:MET:HE1	2:B:186:ASN:ND2	2.26	0.50
3:C:243:GLU:HA	22:V:16:LYS:NZ	2.27	0.50
4:D:29:LEU:HB3	4:D:34:TYR:HB2	1.94	0.50
5:E:133:THR:O	5:E:133:THR:OG1	2.30	0.50
5:E:136:ILE:N	5:E:136:ILE:HD12	2.26	0.50
7:G:121:ILE:CG2	7:G:122:PRO:HD2	2.26	0.50
10:J:58:ARG:O	10:J:62:THR:HG23	2.10	0.50
10:J:63:LEU:O	10:J:70:ARG:NH1	2.44	0.50
10:J:78:LEU:HD11	10:J:93:LYS:HA	1.93	0.50
10:J:90:GLY:O	10:J:91:LYS:O	2.29	0.50
11:K:71:LEU:HG	11:K:76:ILE:CD1	2.42	0.50
12:L:118:ARG:NH1	12:L:119:ASP:OD2	2.43	0.50
13:M:51:VAL:HG13	13:M:109:VAL:HG22	1.93	0.50
13:M:77:ILE:CG2	13:M:78:LYS:H	2.06	0.50
14:N:5:HIS:HD2	14:N:121:ARG:NE	2.09	0.50
17:Q:17:LYS:CE	34:i:1643:G:C6	2.93	0.50
17:Q:51:LEU:HD12	17:Q:52:LEU:N	2.26	0.50
20:T:11:GLN:NE2	34:i:1537:C:H5"	2.27	0.50
22:V:12:TYR:CE1	22:V:14:PRO:HG3	2.46	0.50
24:X:52:LEU:HD12	24:X:53:GLU:HG2	1.91	0.50
25:Y:92:ALA:N	25:Y:97:TYR:CB	2.53	0.50
29:c:18:LEU:HB3	29:c:29:GLN:HB2	1.93	0.50
33:g:194:TYR:CZ	33:g:212:LYS:CB	2.85	0.50
34:i:185:C:H6	34:i:185:C:O5'	1.94	0.50
34:i:679:U:C6	34:i:738:U:N3	2.79	0.50
34:i:848:G:C5'	34:i:849:C:OP2	2.51	0.50
34:i:1227:C:H2'	34:i:1228:U:C6	2.47	0.50
34:i:1405:A:C2	34:i:1406:C:C4	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1410:A:C5	34:i:1411:C:C5	2.99	0.50
1:A:16:LEU:CB	1:A:17:LYS:CE	2.89	0.50
2:B:90:ASP:CG	2:B:91:VAL:N	2.62	0.50
3:C:48:VAL:HG23	3:C:75:GLU:OE2	2.11	0.50
3:C:54:LEU:N	3:C:258:LEU:HD22	2.27	0.50
3:C:221:PHE:C	3:C:221:PHE:CD2	2.90	0.50
4:D:10:LYS:HZ3	21:U:111:GLU:HG2	1.75	0.50
4:D:85:GLU:C	4:D:86:LEU:HD12	2.37	0.50
5:E:99:PHE:CZ	5:E:113:ARG:CG	2.93	0.50
5:E:121:TYR:HA	5:E:163:ASP:O	2.12	0.50
5:E:171:ASP:CG	5:E:172:PHE:HD2	2.20	0.50
8:H:154:ILE:CG2	8:H:185:VAL:CG2	2.89	0.50
9:I:194:GLU:CG	12:L:12:LYS:CE	2.88	0.50
11:K:2:LEU:CD1	11:K:3:MET:N	2.21	0.50
12:L:1:MET:O	12:L:2:ALA:O	2.29	0.50
12:L:59:LYS:CD	12:L:112:HIS:CD2	2.90	0.50
12:L:152:LYS:O	12:L:154:GLN:N	2.44	0.50
13:M:28:HIS:O	13:M:29:ASP:CB	2.52	0.50
14:N:19:ARG:NH2	28:b:84:HIS:OXT	2.44	0.50
18:R:91:LEU:CB	18:R:92:ASP:C	2.67	0.50
18:R:92:ASP:O	18:R:93:GLN:CD	2.55	0.50
19:S:14:ARG:NH1	19:S:17:ASN:C	2.70	0.50
24:X:51:VAL:HG21	24:X:94:ILE:CG2	2.41	0.50
25:Y:36:PRO:CG	25:Y:39:GLU:HB2	2.36	0.50
26:Z:103:HIS:CD2	26:Z:103:HIS:C	2.89	0.50
29:c:11:LEU:CG	29:c:35:MET:HE2	2.42	0.50
32:f:95:ARG:CD	32:f:96:LYS:H	2.19	0.50
33:g:15:ASN:O	33:g:305:ASN:OD1	2.30	0.50
33:g:49:GLU:O	33:g:50:THR:CB	2.57	0.50
34:i:312:C:H2'	34:i:313:C:C6	2.47	0.50
34:i:363:G:O2'	34:i:364:G:H5'	2.11	0.50
34:i:1742:C:H2'	34:i:1743:G:O4'	2.11	0.50
35:l:31:ILE:HA	35:l:48:GLN:O	2.12	0.50
35:l:102:LEU:O	35:l:103:ALA:O	2.30	0.50
1:A:29:ASN:O	1:A:151:ASP:HB3	2.12	0.50
1:A:48:ILE:CD1	18:R:105:MET:HG2	2.42	0.50
1:A:125:THR:C	1:A:147:LEU:CB	2.79	0.50
1:A:140:VAL:HG13	3:C:72:PRO:HG3	1.94	0.50
1:A:179:ALA:O	1:A:183:LEU:HG	2.12	0.50
2:B:149:GLN:HE21	2:B:151:ARG:CG	2.19	0.50
3:C:109:PHE:CD2	3:C:132:VAL:HG22	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:193:PRO:O	3:C:196:LYS:HG3	2.12	0.50
4:D:207:HIS:O	4:D:208:VAL:CG2	2.59	0.50
6:F:28:VAL:HG22	6:F:110:GLN:CG	2.37	0.50
7:G:196:LYS:HG3	34:i:126:G:O6	2.12	0.50
7:G:220:ALA:O	7:G:223:LYS:HB2	2.12	0.50
8:H:66:VAL:HG21	8:H:97:GLN:O	2.12	0.50
8:H:79:LEU:HD23	8:H:79:LEU:O	2.12	0.50
9:I:144:LYS:N	9:I:144:LYS:CD	2.75	0.50
10:J:127:ARG:HH11	10:J:145:PRO:HB3	1.76	0.50
11:K:60:GLU:HG2	11:K:69:TRP:CD1	2.47	0.50
12:L:149:ALA:CB	12:L:156:GLN:CD	2.26	0.50
15:O:55:ARG:O	15:O:81:VAL:HG22	2.12	0.50
15:O:126:ILE:HG12	27:a:56:VAL:CG1	2.42	0.50
16:P:10:ARG:O	16:P:11:THR:O	2.30	0.50
18:R:17:ILE:O	18:R:71:ILE:HD11	2.11	0.50
19:S:82:TRP:HB3	34:i:1562:G:C6	2.47	0.50
20:T:14:PHE:CZ	20:T:131:LEU:CD1	2.95	0.50
22:V:5:ALA:O	22:V:7:GLU:N	2.44	0.50
22:V:33:PRO:HB2	22:V:53:TYR:O	2.11	0.50
23:W:27:ILE:HD11	23:W:61:ILE:HD12	1.93	0.50
24:X:5:ARG:HH22	34:i:1155:G:P	2.35	0.50
27:a:17:HIS:O	27:a:18:VAL:HG13	2.12	0.50
28:b:32:PHE:C	28:b:81:ARG:O	2.54	0.50
31:e:114:ARG:O	31:e:118:ASN:HB3	2.12	0.50
33:g:46:THR:CB	33:g:48:ASP:CB	2.78	0.50
34:i:214:A:H61	34:i:295:C:H42	1.60	0.50
34:i:1744:G:C8	34:i:1745:C:N4	2.80	0.50
2:B:36:PRO:HA	2:B:231:LEU:HD23	1.92	0.50
2:B:93:GLY:CA	2:B:94:LYS:HD3	2.41	0.50
3:C:79:ILE:CD1	3:C:147:ILE:HD13	2.33	0.50
4:D:21:LEU:HD22	4:D:25:LEU:CD2	2.42	0.50
7:G:147:LEU:CD2	7:G:156:TYR:HE2	2.24	0.50
8:H:99:ARG:HB2	34:i:909:A:H8	1.75	0.50
10:J:143:ASN:C	10:J:145:PRO:HD3	2.27	0.50
15:O:125:LYS:HZ2	27:a:56:VAL:C	2.19	0.50
16:P:14:LYS:C	16:P:22:LEU:HD23	2.37	0.50
19:S:39:ARG:HH22	20:T:38:LYS:CG	2.22	0.50
19:S:80:PRO:CB	19:S:82:TRP:NE1	2.75	0.50
22:V:18:SER:OG	22:V:18:SER:O	2.29	0.50
25:Y:87:PRO:O	25:Y:87:PRO:CD	2.60	0.50
29:c:66:ARG:O	29:c:68:LEU:CD2	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:120:VAL:HG22	31:e:121:PRO:C	2.34	0.50
31:e:124:GLY:O	31:e:125:LYS:CB	2.60	0.50
33:g:36:ARG:C	33:g:38:LYS:N	2.69	0.50
34:i:181:A:C4'	34:i:182:C:O5'	2.56	0.50
34:i:221:A:C2	34:i:288:A:N6	2.79	0.50
2:B:36:PRO:CA	2:B:231:LEU:HD21	2.42	0.49
2:B:82:ARG:NH1	2:B:191:ASP:OD1	2.45	0.49
3:C:99:LYS:HD2	3:C:100:GLN:H	1.72	0.49
3:C:129:SER:HB2	3:C:134:THR:HG23	1.92	0.49
4:D:79:PHE:HE1	4:D:83:SER:HB3	1.78	0.49
4:D:135:GLU:HG2	4:D:187:LYS:HB3	1.93	0.49
4:D:197:LYS:N	4:D:198:ILE:HG13	2.27	0.49
5:E:212:ASP:OD2	5:E:214:ASN:HB2	2.12	0.49
6:F:44:LYS:CD	6:F:44:LYS:C	2.78	0.49
8:H:9:VAL:O	8:H:45:ILE:HG13	2.12	0.49
8:H:45:ILE:HG13	8:H:45:ILE:O	2.11	0.49
8:H:163:GLN:O	8:H:164:ASN:C	2.54	0.49
12:L:17:PHE:CE1	12:L:18:GLN:C	2.89	0.49
15:O:126:ILE:O	27:a:57:SER:HA	2.12	0.49
17:Q:140:ARG:CB	34:i:1639:C:H4'	2.42	0.49
19:S:51:ASP:CG	19:S:53:THR:OG1	2.55	0.49
24:X:17:ARG:HH22	34:i:649:G:H21	1.58	0.49
26:Z:44:LEU:HD13	26:Z:44:LEU:O	1.94	0.49
27:a:44:ILE:HB	27:a:65:PRO:HG2	1.93	0.49
29:c:44:ARG:NH1	29:c:60:GLU:O	2.45	0.49
30:d:26:ASN:HD21	34:i:1491:G:C2'	2.23	0.49
31:e:93:VAL:O	31:e:94:ALA:C	2.55	0.49
33:g:20:GLN:HG3	33:g:68:ASP:HA	0.79	0.49
33:g:48:ASP:OD1	33:g:49:GLU:OE1	2.30	0.49
33:g:143:GLN:HE21	33:g:144:ASP:H	1.60	0.49
33:g:144:ASP:O	33:g:144:ASP:OD2	2.30	0.49
33:g:154:VAL:HG23	33:g:154:VAL:O	2.11	0.49
35:l:95:GLN:OE1	35:l:95:GLN:HA	2.11	0.49
1:A:98:PRO:C	1:A:99:ILE:HG13	2.36	0.49
1:A:111:GLN:NE2	1:A:116:PHE:CZ	2.80	0.49
2:B:38:MET:HE1	2:B:186:ASN:HD21	1.70	0.49
2:B:71:LEU:CB	2:B:84:PHE:HE2	2.25	0.49
3:C:183:ALA:HB2	3:C:208:TYR:CE2	2.47	0.49
3:C:244:THR:CG2	3:C:246:PHE:CG	2.94	0.49
4:D:141:LYS:CD	4:D:179:GLN:CG	2.87	0.49
5:E:151:ASP:HB3	7:G:212:LEU:HD22	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:128:ILE:HD11	29:c:68:LEU:CB	2.40	0.49
7:G:162:LEU:CD2	7:G:170:ARG:HG3	2.42	0.49
7:G:163:ASN:O	7:G:164:LYS:CB	2.59	0.49
8:H:32:MET:O	8:H:33:ASN:HB2	2.09	0.49
10:J:87:LEU:HD12	10:J:88:ASP:H	1.77	0.49
10:J:91:LYS:HA	10:J:96:TYR:CD2	2.45	0.49
10:J:136:ARG:HG2	10:J:141:VAL:HA	1.94	0.49
10:J:147:PHE:O	10:J:148:ILE:CB	2.55	0.49
13:M:50:CYS:N	13:M:75:ASN:HD22	2.10	0.49
16:P:90:VAL:HA	16:P:107:ILE:CD1	2.42	0.49
17:Q:112:LEU:CB	17:Q:120:LEU:HD21	2.42	0.49
19:S:141:ARG:HB3	34:i:1518:C:OP2	2.12	0.49
20:T:85:ASN:HD21	20:T:91:HIS:HD2	1.57	0.49
25:Y:20:ARG:HD3	25:Y:76:TYR:CE1	2.44	0.49
26:Z:74:SER:HA	26:Z:79:ILE:CG2	2.34	0.49
29:c:12:ALA:HB1	29:c:32:VAL:HB	1.94	0.49
34:i:1596:A:H1'	34:i:1599:G:C6	2.47	0.49
1:A:39:TYR:HB3	1:A:48:ILE:O	2.12	0.49
1:A:58:LEU:HD23	1:A:58:LEU:O	2.12	0.49
1:A:120:ARG:CD	3:C:251:TYR:CE2	2.61	0.49
2:B:71:LEU:HD13	2:B:84:PHE:CZ	2.26	0.49
3:C:166:ARG:HG2	3:C:237:THR:HG21	1.95	0.49
3:C:198:LEU:HD23	3:C:198:LEU:C	2.37	0.49
4:D:1:MET:O	4:D:2:ALA:O	2.30	0.49
4:D:108:LYS:CA	4:D:113:LEU:CD2	2.91	0.49
4:D:126:ILE:HD12	4:D:134:CYS:HB3	1.93	0.49
5:E:136:ILE:HG13	5:E:149:TYR:CZ	2.46	0.49
7:G:137:ARG:HG3	7:G:140:ARG:CB	2.41	0.49
7:G:163:ASN:O	7:G:163:ASN:OD1	2.30	0.49
8:H:50:GLU:CD	8:H:58:LYS:HE2	2.37	0.49
8:H:169:LYS:O	8:H:172:THR:HG22	2.12	0.49
10:J:10:ARG:NH1	10:J:10:ARG:CG	2.74	0.49
10:J:118:GLY:C	10:J:120:ALA:H	2.20	0.49
10:J:164:PRO:HB3	10:J:170:PRO:O	2.11	0.49
12:L:40:ILE:CG1	12:L:68:ILE:HG13	2.41	0.49
13:M:36:ARG:HD3	34:i:1308:G:O6	2.12	0.49
15:O:92:ALA:HB2	15:O:125:LYS:HB2	1.95	0.49
17:Q:111:ILE:O	17:Q:114:GLN:CG	2.54	0.49
19:S:8:LYS:CA	19:S:9:PHE:HD1	2.23	0.49
19:S:51:ASP:CG	19:S:53:THR:HG1	2.20	0.49
19:S:72:GLN:O	19:S:72:GLN:HG2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:77:LYS:HE3	20:T:92:PHE:CE2	2.48	0.49
22:V:43:THR:O	22:V:44:GLY:O	2.29	0.49
30:d:5:GLN:O	30:d:6:LEU:C	2.56	0.49
30:d:24:CYS:O	30:d:25:SER:HB2	2.12	0.49
33:g:20:GLN:HE21	33:g:68:ASP:CA	2.25	0.49
33:g:100:ARG:HH11	33:g:100:ARG:CB	2.24	0.49
33:g:280:LYS:O	33:g:281:ALA:O	2.30	0.49
33:g:280:LYS:C	33:g:281:ALA:O	2.50	0.49
34:i:1683:C:C4	34:i:1684:C:C5	2.97	0.49
2:B:228:LEU:CD1	2:B:232:HIS:CD2	2.94	0.49
4:D:70:THR:N	4:D:86:LEU:HD22	2.27	0.49
5:E:129:ILE:CG2	5:E:139:LEU:HD21	2.42	0.49
5:E:185:GLY:CA	5:E:189:LEU:HD13	2.43	0.49
8:H:10:LYS:HZ1	8:H:17:ASP:CA	2.24	0.49
9:I:117:TYR:HE1	9:I:155:ASN:HD21	1.60	0.49
10:J:164:PRO:HB2	10:J:165:TYR:CE1	2.48	0.49
10:J:165:TYR:HE2	34:i:550:A:O2'	1.95	0.49
14:N:116:ILE:HA	14:N:119:GLU:HG3	1.93	0.49
15:O:128:ARG:CG	27:a:62:TYR:OH	2.49	0.49
16:P:83:MET:CE	16:P:116:LEU:CD1	2.78	0.49
16:P:127:LYS:CE	16:P:128:HIS:N	2.73	0.49
17:Q:18:THR:C	17:Q:75:GLY:HA3	2.37	0.49
18:R:101:ASP:HA	18:R:104:GLU:HB2	1.94	0.49
19:S:8:LYS:CA	19:S:9:PHE:CD1	2.95	0.49
19:S:28:PHE:CZ	34:i:1598:G:C4	3.01	0.49
19:S:129:LEU:HD22	34:i:1516:C:C5'	2.36	0.49
20:T:11:GLN:O	20:T:15:VAL:HG13	2.12	0.49
20:T:59:SER:O	20:T:62:ARG:HG2	2.12	0.49
20:T:101:ARG:CG	20:T:105:GLN:NE2	2.75	0.49
21:U:87:ARG:NH1	34:i:1443:G:OP1	2.37	0.49
25:Y:100:LYS:O	25:Y:100:LYS:CG	2.55	0.49
28:b:81:ARG:CB	28:b:82:LYS:HD3	2.42	0.49
31:e:92:LYS:HD3	31:e:92:LYS:H	1.74	0.49
31:e:105:ARG:NH1	31:e:106:ALA:HB2	2.26	0.49
35:l:99:GLU:O	35:l:100:ILE:O	2.30	0.49
1:A:39:TYR:HB2	1:A:50:ASN:HD21	1.58	0.49
1:A:42:LYS:HD3	18:R:101:ASP:HB3	1.79	0.49
1:A:44:ASP:OD1	1:A:44:ASP:N	2.43	0.49
1:A:98:PRO:O	1:A:99:ILE:CG1	2.60	0.49
1:A:125:THR:HA	1:A:147:LEU:CB	2.35	0.49
1:A:208:GLU:HG2	1:A:209:GLU:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:53:GLN:C	2:B:55:THR:H	2.18	0.49
2:B:131:ASP:N	2:B:131:ASP:OD1	2.38	0.49
2:B:148:ASN:ND2	2:B:148:ASN:N	2.61	0.49
3:C:55:VAL:HG11	3:C:82:PHE:CD2	2.45	0.49
3:C:197:LYS:CB	3:C:200:LEU:HD21	2.42	0.49
4:D:162:ASP:OD1	4:D:166:TYR:CE2	2.65	0.49
6:F:53:ALA:HB1	17:Q:125:ARG:NH2	2.25	0.49
8:H:87:PHE:CE2	8:H:90:LYS:NZ	2.73	0.49
8:H:147:LYS:HE3	8:H:153:LEU:CD1	2.39	0.49
9:I:148:LYS:HE2	9:I:152:ARG:HH22	1.76	0.49
11:K:62:PHE:CD1	11:K:67:PHE:CD2	2.96	0.49
12:L:69:ARG:O	12:L:130:GLU:HB3	2.12	0.49
12:L:99:TYR:OH	24:X:14:ARG:CG	2.61	0.49
12:L:113:LEU:HD11	12:L:120:VAL:HG11	1.93	0.49
25:Y:93:ARG:C	25:Y:93:ARG:CD	2.85	0.49
25:Y:98:GLU:O	25:Y:98:GLU:OE1	2.30	0.49
25:Y:120:THR:C	25:Y:122:LYS:H	2.19	0.49
27:a:41:ILE:CG2	27:a:68:TYR:CE1	2.95	0.49
29:c:60:GLU:CD	29:c:60:GLU:N	2.64	0.49
33:g:190:GLY:C	33:g:217:MET:HE1	2.38	0.49
33:g:191:HIS:NE2	33:g:195:LEU:CD2	2.72	0.49
33:g:251:ALA:HB1	33:g:286:CYS:O	2.12	0.49
34:i:184:G:C6	34:i:185:C:C4	3.00	0.49
35:l:64:LYS:C	35:l:66:LYS:H	2.19	0.49
1:A:139:TYR:C	1:A:140:VAL:CG2	2.85	0.49
2:B:53:GLN:O	2:B:54:GLY:C	2.55	0.49
4:D:12:VAL:HG11	30:d:36:LEU:HD11	0.50	0.49
6:F:14:THR:OG1	17:Q:56:LEU:CG	2.56	0.49
8:H:37:LYS:HZ3	8:H:41:ARG:HG3	1.77	0.49
12:L:72:ILE:N	12:L:72:ILE:HD12	2.26	0.49
13:M:51:VAL:HG13	13:M:109:VAL:HG23	1.94	0.49
13:M:82:ASN:HD22	13:M:107:SER:HA	1.77	0.49
16:P:10:ARG:NH2	16:P:11:THR:HG22	2.26	0.49
16:P:21:ASP:O	16:P:25:LEU:HG	2.12	0.49
18:R:5:ARG:HB2	18:R:10:LYS:CE	2.35	0.49
18:R:95:ILE:HA	18:R:114:LEU:HB3	1.95	0.49
19:S:88:LYS:N	19:S:95:TYR:HD1	2.10	0.49
20:T:33:TRP:CD1	20:T:37:VAL:HG21	2.48	0.49
23:W:20:ARG:HH12	34:i:1135:C:C1'	2.22	0.49
24:X:8:ARG:O	24:X:10:ALA:N	2.42	0.49
24:X:51:VAL:HG22	24:X:70:VAL:HG11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:71:ARG:NE	24:X:82:THR:HG23	2.23	0.49
24:X:126:ALA:O	24:X:127:ASN:C	2.54	0.49
32:f:102:VAL:CG1	32:f:103:LEU:HB2	2.39	0.49
32:f:103:LEU:CD2	32:f:105:TYR:CB	2.86	0.49
32:f:136:PHE:C	32:f:138:ARG:N	2.71	0.49
33:g:282:GLU:O	33:g:283:PRO:O	2.30	0.49
34:i:1216:A:C2	34:i:1641:C:N4	2.77	0.49
1:A:14:ASP:OD2	1:A:55:TRP:HH2	1.96	0.49
2:B:72:ALA:O	2:B:76:ASN:HA	2.13	0.49
2:B:148:ASN:C	18:R:124:VAL:CG2	2.86	0.49
3:C:142:LEU:O	3:C:145:LEU:HD21	2.11	0.49
3:C:142:LEU:C	3:C:145:LEU:HD21	2.33	0.49
4:D:46:THR:HB	4:D:84:VAL:HG23	1.94	0.49
5:E:191:ARG:NE	5:E:245:ARG:CD	2.76	0.49
7:G:65:GLN:HG2	34:i:1740:A:H2'	1.94	0.49
8:H:164:ASN:HA	8:H:167:GLU:CG	2.39	0.49
9:I:110:ARG:NH2	9:I:124:LYS:NZ	2.60	0.49
9:I:139:LYS:O	9:I:140:LYS:CB	2.46	0.49
9:I:143:LYS:O	9:I:144:LYS:C	2.55	0.49
9:I:152:ARG:O	9:I:153:LYS:CB	2.59	0.49
9:I:154:LYS:HD3	9:I:155:ASN:HA	1.94	0.49
9:I:197:PHE:CD2	12:L:5:GLN:CD	2.91	0.49
10:J:168:GLY:O	10:J:169:ARG:O	2.30	0.49
11:K:16:PHE:HE2	11:K:79:LEU:C	2.15	0.49
13:M:26:LEU:CD1	13:M:89:VAL:C	2.81	0.49
14:N:26:LEU:CD2	14:N:66:VAL:HG22	2.42	0.49
15:O:62:VAL:HG12	15:O:63:LYS:N	2.28	0.49
16:P:79:HIS:CD2	34:i:1294:G:H1'	2.48	0.49
17:Q:37:ARG:HB2	17:Q:38:PRO:HD2	1.95	0.49
18:R:34:VAL:HG12	18:R:38:ILE:HG12	1.94	0.49
19:S:47:LYS:HZ1	19:S:78:LYS:HB3	1.77	0.49
20:T:42:HIS:NE2	20:T:83:GLN:HB3	2.28	0.49
21:U:18:HIS:HE1	21:U:98:VAL:HG22	1.63	0.49
21:U:82:MET:HE1	30:d:50:ILE:HG22	1.95	0.49
22:V:68:SER:O	22:V:72:LEU:HG	2.13	0.49
23:W:26:LEU:HD12	23:W:26:LEU:C	2.33	0.49
33:g:118:ARG:HH21	33:g:134:THR:HG21	0.53	0.49
33:g:236:ILE:HG12	33:g:252:THR:HG22	1.93	0.49
34:i:185:C:C2	34:i:211:U:N3	2.81	0.49
34:i:295:C:H4'	34:i:296:U:OP1	2.11	0.49
34:i:1853:A:O2'	34:i:1854:A:H5'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:88:ASP:OD2	35:l:88:ASP:O	2.30	0.49
1:A:89:LYS:HB3	1:A:202:TYR:CE2	2.48	0.49
1:A:97:THR:HG22	1:A:98:PRO:N	2.27	0.49
2:B:105:LEU:HD11	2:B:213:ARG:HG3	1.93	0.49
4:D:141:LYS:HE3	4:D:179:GLN:HE21	1.77	0.49
5:E:124:CYS:HB3	5:E:141:THR:CB	2.36	0.49
5:E:129:ILE:CD1	5:E:139:LEU:HD22	2.32	0.49
7:G:127:THR:C	7:G:128:THR:OG1	2.52	0.49
10:J:37:LEU:HG	10:J:38:ARG:N	2.28	0.49
11:K:30:PRO:C	11:K:31:LYS:CG	2.54	0.49
12:L:71:ARG:CD	12:L:73:LEU:CG	2.91	0.49
12:L:113:LEU:HD12	12:L:120:VAL:HG11	1.93	0.49
13:M:19:GLN:NE2	13:M:88:TRP:CD1	2.81	0.49
14:N:18:TYR:C	14:N:19:ARG:O	2.49	0.49
18:R:5:ARG:O	18:R:10:LYS:NZ	2.46	0.49
18:R:5:ARG:C	18:R:10:LYS:CE	2.76	0.49
18:R:17:ILE:HG22	18:R:71:ILE:HD11	1.94	0.49
18:R:44:LYS:HG3	18:R:47:ARG:NE	2.19	0.49
19:S:136:THR:OG1	34:i:1515:G:H5"	2.13	0.49
21:U:48:LEU:C	21:U:49:LYS:CG	2.74	0.49
22:V:78:ILE:HG23	22:V:79:VAL:H	1.78	0.49
25:Y:68:LYS:O	25:Y:69:THR:CG2	2.61	0.49
26:Z:102:LYS:HA	26:Z:107:VAL:CA	2.40	0.49
33:g:4:GLN:NE2	33:g:268:ASP:CG	2.69	0.49
33:g:83:TRP:C	33:g:85:GLY:H	2.19	0.49
34:i:1206:G:O5'	34:i:1207:G:P	2.70	0.49
34:i:1468:C:H2'	34:i:1469:G:O4'	2.13	0.49
35:l:56:LYS:HG3	35:l:73:VAL:HG21	1.93	0.49
1:A:66:VAL:O	1:A:67:ALA:CB	2.60	0.49
2:B:49:VAL:HG23	2:B:65:ARG:HH12	1.76	0.49
3:C:94:ILE:O	3:C:94:ILE:HG22	2.13	0.49
4:D:22:ASN:OD1	4:D:34:TYR:OH	2.30	0.49
5:E:45:ILE:HG13	5:E:61:VAL:HG21	1.94	0.49
7:G:170:ARG:HD2	7:G:171:THR:O	2.13	0.49
8:H:126:HIS:NE2	8:H:181:THR:HG22	2.28	0.49
8:H:190:PRO:HG2	8:H:192:PHE:CE1	2.47	0.49
9:I:76:THR:HG22	9:I:77:ARG:H	1.72	0.49
9:I:139:LYS:CD	9:I:145:ILE:HD12	2.43	0.49
10:J:38:ARG:HA	31:e:105:ARG:HG2	1.93	0.49
10:J:84:ILE:HG13	10:J:86:VAL:CG2	2.41	0.49
12:L:99:TYR:HH	24:X:14:ARG:CA	1.91	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:58:GLU:O	13:M:58:GLU:HG3	2.13	0.49
13:M:76:LEU:CA	13:M:128:PHE:HZ	2.25	0.49
14:N:73:ARG:NH1	34:i:912:A:C4	2.81	0.49
20:T:4:VAL:HB	20:T:8:ASP:HB2	1.94	0.49
20:T:76:THR:HG22	20:T:95:GLY:O	2.13	0.49
22:V:53:TYR:CD2	22:V:72:LEU:HB3	2.47	0.49
23:W:15:ASN:HD21	23:W:19:LYS:HE3	1.77	0.49
23:W:89:TRP:C	23:W:102:ILE:HD11	2.38	0.49
23:W:101:PHE:HD2	23:W:129:PHE:CE1	2.28	0.49
24:X:27:TYR:CD2	24:X:31:HIS:HD2	2.31	0.49
24:X:96:GLU:O	24:X:97:ASN:HB2	2.12	0.49
31:e:118:ASN:H	31:e:119:VAL:CB	2.08	0.49
33:g:181:ASN:OD1	33:g:181:ASN:C	2.54	0.49
34:i:1597:U:O2'	34:i:1598:G:H5'	2.13	0.49
34:i:1641:C:C2	34:i:1673:A:C6	3.01	0.49
1:A:125:THR:CG2	1:A:175:TRP:NE1	2.73	0.49
1:A:154:LEU:CD1	22:V:63:GLY:CA	2.85	0.49
1:A:205:ARG:O	1:A:206:ASP:CB	2.61	0.49
4:D:123:LEU:CG	4:D:154:ASP:HB3	2.42	0.49
4:D:164:VAL:HG13	4:D:165:ASN:N	2.27	0.49
4:D:214:LYS:C	4:D:215:ASP:CG	2.80	0.49
5:E:11:ARG:CZ	5:E:20:LEU:HB3	2.42	0.49
6:F:42:LYS:CB	6:F:45:TYR:CA	2.81	0.49
7:G:142:ARG:NH2	7:G:152:ASP:N	2.54	0.49
8:H:37:LYS:O	8:H:38:ALA:CB	2.61	0.49
10:J:12:THR:C	10:J:48:PHE:CD2	2.90	0.49
10:J:29:LEU:HB3	31:e:116:PHE:CE2	2.48	0.49
10:J:124:HIS:NE2	34:i:516:A:O5'	2.45	0.49
10:J:125:HIS:CE1	10:J:129:LEU:HD21	2.48	0.49
13:M:93:LYS:H	13:M:101:ARG:CD	2.26	0.49
13:M:104:VAL:HG22	13:M:105:GLY:N	2.28	0.49
14:N:19:ARG:CZ	28:b:84:HIS:OXT	2.61	0.49
17:Q:88:ILE:HG13	17:Q:89:SER:H	1.78	0.49
17:Q:124:PRO:HG2	17:Q:125:ARG:N	2.28	0.49
19:S:55:ARG:NH1	26:Z:80:ARG:HE	2.03	0.49
22:V:53:TYR:HB3	22:V:72:LEU:HD13	1.95	0.49
22:V:77:GLY:HA2	22:V:78:ILE:C	2.38	0.49
25:Y:22:GLN:HA	25:Y:74:MET:SD	2.52	0.49
25:Y:54:VAL:HG13	25:Y:76:TYR:HB2	1.95	0.49
26:Z:91:LEU:HB3	26:Z:97:ILE:HG12	1.95	0.49
26:Z:94:LYS:NZ	26:Z:95:GLY:N	2.56	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:a:61:ALA:O	27:a:62:TYR:HB3	2.13	0.49
28:b:81:ARG:HB2	28:b:82:LYS:CA	2.26	0.49
32:f:87:THR:HG1	34:i:1503:G:N2	2.09	0.49
34:i:1054:A:N1	34:i:1824:U:OP2	2.46	0.49
34:i:1155:G:H2'	34:i:1156:U:O4'	2.12	0.49
1:A:24:HIS:CE1	18:R:105:MET:HG3	2.45	0.48
2:B:70:SER:HB3	15:O:128:ARG:HH11	1.77	0.48
3:C:59:LYS:HD2	3:C:254:PHE:CE1	2.48	0.48
3:C:154:TYR:OH	3:C:162:PRO:N	2.45	0.48
4:D:157:MET:SD	4:D:187:LYS:HD3	2.50	0.48
5:E:188:ASN:ND2	5:E:218:PHE:CD1	2.80	0.48
8:H:28:LEU:O	8:H:31:GLU:HB2	2.13	0.48
10:J:151:LEU:C	10:J:153:SER:H	2.20	0.48
14:N:38:TYR:CE2	14:N:78:LYS:HG3	2.47	0.48
14:N:125:LEU:HD11	14:N:129:TYR:CZ	2.48	0.48
15:O:143:LYS:CG	15:O:144:GLY:N	2.64	0.48
16:P:71:GLU:HB3	16:P:72:LYS:HG3	1.93	0.48
18:R:16:ILE:O	18:R:20:TYR:N	2.46	0.48
18:R:98:VAL:HG11	18:R:103:LYS:N	2.27	0.48
18:R:122:PRO:CA	18:R:123:THR:OG1	2.61	0.48
19:S:80:PRO:HG2	19:S:82:TRP:CE2	2.48	0.48
21:U:68:THR:HB	21:U:70:CYS:O	2.13	0.48
21:U:68:THR:CG2	21:U:70:CYS:O	2.61	0.48
24:X:70:VAL:HG12	24:X:71:ARG:N	2.27	0.48
24:X:128:VAL:O	24:X:129:SER:OG	2.24	0.48
25:Y:93:ARG:HD2	25:Y:93:ARG:C	2.38	0.48
25:Y:98:GLU:OE2	25:Y:99:LYS:CA	2.61	0.48
27:a:45:VAL:CG1	27:a:53:ILE:CD1	2.83	0.48
27:a:45:VAL:HG11	27:a:53:ILE:HD13	1.92	0.48
27:a:87:ARG:HD3	34:i:1859:C:OP1	2.12	0.48
31:e:105:ARG:NH1	31:e:106:ALA:H	2.10	0.48
32:f:108:VAL:HG22	32:f:114:ILE:HA	1.94	0.48
33:g:273:GLU:CA	33:g:274:VAL:HG13	2.43	0.48
1:A:109:THR:HG1	34:i:1348:G:H5'	1.76	0.48
2:B:137:LEU:HD21	2:B:215:VAL:HG11	1.78	0.48
2:B:137:LEU:HD23	2:B:215:VAL:CG1	2.18	0.48
3:C:129:SER:CB	3:C:134:THR:HG23	2.43	0.48
4:D:110:LEU:HD23	4:D:110:LEU:O	2.13	0.48
4:D:140:GLY:HA2	34:i:1330:G:H5'	1.96	0.48
5:E:21:ASP:OD2	5:E:24:THR:HG22	2.01	0.48
5:E:129:ILE:HG23	5:E:139:LEU:CD2	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:178:GLY:H	5:E:195:ILE:HB	1.78	0.48
7:G:154:ARG:HG2	7:G:155:GLN:N	2.28	0.48
8:H:65:PRO:C	8:H:67:PRO:CD	2.86	0.48
8:H:169:LYS:HD2	8:H:173:PHE:CZ	2.47	0.48
9:I:38:ILE:HD11	9:I:96:LEU:HD21	1.95	0.48
9:I:194:GLU:CD	12:L:12:LYS:CE	2.86	0.48
10:J:93:LYS:HE3	10:J:93:LYS:N	2.26	0.48
13:M:64:LEU:CD1	32:f:104:LYS:CE	2.90	0.48
14:N:114:ARG:HH21	14:N:114:ARG:CG	2.26	0.48
14:N:116:ILE:O	14:N:119:GLU:HG3	2.13	0.48
15:O:71:PRO:HB3	15:O:114:SER:HB3	1.93	0.48
16:P:18:ARG:HD2	16:P:37:TYR:CB	2.41	0.48
19:S:26:ILE:HD11	19:S:59:LEU:CG	2.42	0.48
19:S:73:ASN:C	19:S:76:GLN:OE1	2.57	0.48
20:T:84:ARG:C	20:T:86:GLY:N	2.67	0.48
20:T:119:TRP:HB3	34:i:1557:C:C2'	2.42	0.48
21:U:62:ARG:HD2	21:U:79:ARG:HD3	1.94	0.48
21:U:104:ILE:C	21:U:105:SER:OG	2.56	0.48
22:V:57:GLY:O	22:V:61:ARG:HG3	2.13	0.48
23:W:107:SER:HB3	34:i:856:G:H21	1.78	0.48
24:X:28:LYS:HE3	24:X:32:LEU:HD11	1.95	0.48
29:c:17:VAL:HG13	29:c:17:VAL:O	2.13	0.48
29:c:32:VAL:HG22	29:c:42:ILE:O	2.13	0.48
1:A:43:SER:C	1:A:44:ASP:CG	2.77	0.48
1:A:161:ILE:CG2	1:A:174:MET:CE	2.90	0.48
2:B:49:VAL:CG1	2:B:50:THR:N	2.77	0.48
4:D:168:VAL:HG13	4:D:189:MET:SD	2.53	0.48
4:D:196:GLY:O	4:D:199:GLY:HA2	2.11	0.48
4:D:220:THR:O	4:D:221:THR:O	2.30	0.48
4:D:226:GLN:C	4:D:227:LYS:HG3	2.38	0.48
5:E:43:PRO:CD	5:E:43:PRO:O	2.60	0.48
5:E:100:ARG:CG	5:E:102:ILE:HD12	2.42	0.48
5:E:126:VAL:HG21	5:E:156:MET:HA	1.91	0.48
6:F:63:LYS:CE	6:F:71:ARG:HH12	2.26	0.48
6:F:142:SER:HB2	29:c:46:VAL:HG11	1.94	0.48
6:F:192:LYS:O	6:F:192:LYS:CD	2.61	0.48
7:G:63:MET:HE3	7:G:106:LEU:HD13	1.83	0.48
7:G:66:GLY:HA2	34:i:1740:A:C2'	2.42	0.48
8:H:149:ASP:O	8:H:149:ASP:OD1	2.31	0.48
9:I:6:ASP:OD2	9:I:8:TRP:N	2.46	0.48
9:I:8:TRP:CE3	9:I:8:TRP:O	2.66	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:41:ARG:NH2	34:i:296:U:OP2	2.46	0.48
9:I:74:ARG:HD2	9:I:74:ARG:HA	1.48	0.48
9:I:193:LYS:HG3	12:L:10:TYR:HE1	1.77	0.48
10:J:78:LEU:HD13	10:J:92:MET:C	2.38	0.48
10:J:171:GLY:O	10:J:172:ARG:C	2.55	0.48
14:N:37:ILE:HD11	14:N:63:VAL:HG11	1.95	0.48
14:N:139:TRP:CE3	14:N:139:TRP:C	2.91	0.48
15:O:66:ARG:HG2	15:O:67:ASP:N	2.27	0.48
16:P:4:VAL:C	16:P:10:ARG:HH11	2.19	0.48
16:P:41:GLN:HE21	16:P:84:ILE:CG1	2.22	0.48
16:P:75:VAL:HG21	16:P:104:GLN:NE2	2.27	0.48
20:T:77:LYS:HG3	20:T:92:PHE:HE2	0.73	0.48
24:X:91:LEU:C	24:X:93:PHE:H	2.20	0.48
26:Z:58:LEU:HD23	26:Z:77:LEU:CD1	2.42	0.48
26:Z:96:LEU:C	26:Z:112:ASN:HD22	2.20	0.48
27:a:10:ARG:HD3	34:i:1860:A:OP1	2.12	0.48
27:a:21:ILE:CG2	27:a:22:ARG:H	2.27	0.48
29:c:20:ARG:HH12	34:i:1674:A:H5"	1.77	0.48
29:c:67:ARG:HA	29:c:68:LEU:HD23	1.91	0.48
33:g:172:LYS:HG3	33:g:192:THR:HA	1.94	0.48
33:g:258:ILE:HG13	33:g:258:ILE:O	2.14	0.48
34:i:831:C:C4	34:i:833:A:OP2	2.66	0.48
34:i:1350:G:H8	34:i:1350:G:H5"	1.77	0.48
34:i:1546:U:C4	34:i:1547:G:O6	2.66	0.48
2:B:87:ILE:HG23	2:B:101:HIS:HB2	1.94	0.48
2:B:93:GLY:C	2:B:94:LYS:HG2	2.38	0.48
3:C:49:THR:HG23	3:C:75:GLU:HG3	1.91	0.48
5:E:48:LEU:CD2	5:E:70:ILE:CD1	2.81	0.48
5:E:259:LYS:O	5:E:260:GLN:OE1	2.29	0.48
6:F:182:LYS:CB	6:F:182:LYS:HZ3	2.25	0.48
6:F:184:SER:O	6:F:185:SER:HB2	2.13	0.48
7:G:147:LEU:HD21	7:G:156:TYR:CD2	2.46	0.48
13:M:64:LEU:HD11	32:f:104:LYS:CE	2.43	0.48
13:M:67:ALA:CB	32:f:108:VAL:CG2	2.80	0.48
14:N:114:ARG:CD	14:N:117:LEU:HD12	2.42	0.48
15:O:121:ARG:HG2	27:a:52:ASP:OD2	2.13	0.48
16:P:127:LYS:O	16:P:127:LYS:HG3	2.12	0.48
17:Q:102:GLU:OE1	33:g:55:PRO:N	2.31	0.48
19:S:80:PRO:HG3	19:S:82:TRP:NE1	2.28	0.48
20:T:65:TYR:CD2	20:T:123:LEU:CD1	2.96	0.48
22:V:11:LEU:HD12	22:V:12:TYR:CG	2.38	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:66:GLY:CA	34:i:572:U:OP1	2.62	0.48
26:Z:94:LYS:HZ3	26:Z:95:GLY:H	1.54	0.48
27:a:5:ARG:NH2	34:i:1858:U:C5	2.82	0.48
33:g:30:MET:HE2	33:g:42:MET:CE	2.35	0.48
33:g:38:LYS:HA	33:g:66:VAL:HG23	1.94	0.48
33:g:48:ASP:C	33:g:49:GLU:CG	2.86	0.48
34:i:86:C:H1'	34:i:170:A:N1	2.29	0.48
34:i:835:C:H2'	34:i:837:G:O4'	2.13	0.48
34:i:1403:U:H2'	34:i:1404:U:C6	2.48	0.48
35:l:104:LYS:HB2	35:l:107:GLN:CD	2.38	0.48
1:A:158:ASP:CB	22:V:65:SER:HB2	2.43	0.48
1:A:184:ARG:HD3	1:A:192:GLU:HG2	1.96	0.48
2:B:53:GLN:O	2:B:55:THR:N	2.47	0.48
2:B:147:ASN:C	2:B:149:GLN:H	2.22	0.48
3:C:83:LEU:C	3:C:85:ALA:H	2.22	0.48
3:C:124:LEU:N	3:C:226:PHE:CZ	2.81	0.48
3:C:255:THR:CG2	3:C:256:ASP:N	2.76	0.48
4:D:76:ARG:CG	11:K:66:HIS:ND1	2.76	0.48
5:E:47:PHE:CE2	5:E:52:LEU:HD12	2.42	0.48
6:F:95:HIS:NE2	26:Z:103:HIS:HB3	2.28	0.48
7:G:27:PHE:HE2	7:G:41:LEU:CD1	2.12	0.48
8:H:36:LEU:HD13	8:H:36:LEU:HA	1.46	0.48
11:K:47:LYS:HD2	11:K:50:GLN:NE2	2.28	0.48
12:L:130:GLU:HG2	12:L:131:CYS:H	1.78	0.48
15:O:16:SER:O	15:O:17:LEU:CB	2.61	0.48
15:O:128:ARG:HA	27:a:62:TYR:CE1	2.42	0.48
16:P:127:LYS:O	16:P:127:LYS:CD	2.61	0.48
17:Q:41:MET:O	17:Q:43:GLU:HG3	2.13	0.48
17:Q:72:VAL:HG12	17:Q:80:GLN:NE2	2.29	0.48
20:T:78:ILE:HG23	20:T:79:TYR:N	2.27	0.48
20:T:99:VAL:CG2	20:T:100:ALA:N	2.76	0.48
25:Y:104:ARG:HA	25:Y:107:ARG:NH2	2.29	0.48
25:Y:111:LYS:HG3	25:Y:112:ASN:N	2.28	0.48
27:a:107:ALA:CB	27:a:108:PRO:CD	2.86	0.48
33:g:87:LEU:CB	33:g:101:PHE:HB2	2.43	0.48
34:i:685:G:C6	34:i:732:C:C2	3.01	0.48
34:i:821:A:H2'	34:i:822:A:C8	2.48	0.48
34:i:1596:A:C5'	34:i:1597:U:C5	2.94	0.48
35:l:88:ASP:CB	35:l:90:ARG:HH12	2.26	0.48
1:A:7:VAL:CG2	22:V:43:THR:HG21	2.44	0.48
3:C:259:VAL:O	3:C:260:LYS:O	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:59:LYS:HD2	6:F:62:ARG:HH21	0.66	0.48
7:G:32:MET:HE3	7:G:100:CYS:C	2.34	0.48
8:H:121:THR:HG22	8:H:124:ALA:CB	2.43	0.48
8:H:158:LEU:HD21	8:H:187:PHE:CD1	2.48	0.48
9:I:104:ILE:HG13	9:I:105:ASP:N	2.26	0.48
10:J:110:LEU:CD1	10:J:135:ILE:HD12	2.42	0.48
12:L:80:MET:HE3	12:L:120:VAL:CB	2.43	0.48
13:M:111:VAL:HG11	13:M:114:TYR:HB3	1.95	0.48
14:N:25:TRP:HB3	28:b:83:GLN:HG2	0.75	0.48
18:R:95:ILE:CA	18:R:114:LEU:HD13	2.42	0.48
19:S:90:VAL:HG12	19:S:91:LYS:CE	2.43	0.48
19:S:111:LEU:HD22	19:S:125:HIS:CG	2.48	0.48
20:T:40:ALA:O	20:T:43:LYS:CG	2.62	0.48
21:U:57:PRO:HA	34:i:1442:A:H5"	1.95	0.48
22:V:57:GLY:O	22:V:61:ARG:CG	2.62	0.48
23:W:115:GLU:HG2	23:W:119:LYS:HE3	1.95	0.48
30:d:50:ILE:CG2	30:d:52:PHE:HE2	2.25	0.48
33:g:197:THR:HG21	33:g:238:ALA:CA	2.44	0.48
33:g:306:LEU:HD23	33:g:307:VAL:O	2.14	0.48
34:i:184:G:C2'	34:i:185:C:H5'	2.42	0.48
34:i:1266:G:C2	34:i:1508:C:O2	2.66	0.48
1:A:30:LEU:HD13	1:A:38:ILE:HD11	0.49	0.48
1:A:33:GLN:HE22	28:b:2:PRO:HB3	1.78	0.48
3:C:142:LEU:O	3:C:145:LEU:CG	2.61	0.48
3:C:169:VAL:HG11	3:C:232:THR:HG22	1.94	0.48
3:C:218:LEU:HD12	3:C:218:LEU:C	2.38	0.48
4:D:214:LYS:HG3	4:D:215:ASP:CG	2.33	0.48
6:F:136:ARG:HD2	6:F:136:ARG:N	2.28	0.48
7:G:16:ILE:HD13	7:G:45:TRP:CE2	2.35	0.48
7:G:33:ALA:N	7:G:52:ILE:CG2	2.74	0.48
9:I:154:LYS:O	12:L:22:ARG:HD2	2.14	0.48
10:J:174:LYS:HE2	10:J:174:LYS:HB3	1.42	0.48
12:L:17:PHE:HE1	12:L:18:GLN:HB2	1.68	0.48
12:L:59:LYS:HD2	12:L:112:HIS:NE2	2.29	0.48
12:L:101:ARG:HB2	24:X:10:ALA:HB2	1.95	0.48
14:N:84:LEU:HD12	14:N:84:LEU:O	2.14	0.48
16:P:65:LYS:HG3	16:P:66:GLU:H	1.79	0.48
17:Q:45:ARG:HG2	17:Q:46:THR:H	1.79	0.48
17:Q:50:LYS:HG3	17:Q:85:ARG:NH2	2.26	0.48
17:Q:112:LEU:HD12	17:Q:120:LEU:CD2	2.42	0.48
22:V:11:LEU:HD12	22:V:12:TYR:N	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:12:TYR:HE1	22:V:14:PRO:HG3	1.79	0.48
24:X:52:LEU:HG	24:X:71:ARG:C	2.37	0.48
26:Z:65:TYR:CD2	26:Z:68:ILE:CD1	2.97	0.48
34:i:684:A:H61	34:i:732:C:H42	1.61	0.48
34:i:1127:G:H5'	34:i:1127:G:C8	2.48	0.48
34:i:1459:U:H5'	34:i:1460:C:C6	2.48	0.48
1:A:4:ALA:CB	22:V:39:VAL:HG21	2.39	0.48
1:A:91:ALA:HA	1:A:96:ALA:HB3	1.96	0.48
2:B:72:ALA:N	2:B:79:VAL:CG2	2.75	0.48
2:B:77:ASP:C	2:B:79:VAL:HG22	2.34	0.48
2:B:83:LYS:NZ	15:O:130:GLU:OE2	2.46	0.48
2:B:119:THR:HB	2:B:143:THR:CG2	2.42	0.48
3:C:54:LEU:CD2	3:C:254:PHE:CB	2.88	0.48
4:D:40:ARG:CD	21:U:107:GLU:OE2	2.62	0.48
4:D:207:HIS:C	4:D:208:VAL:HG23	2.39	0.48
4:D:223:ILE:HG22	4:D:224:SER:N	2.28	0.48
7:G:70:HIS:HB2	7:G:103:ASP:CG	2.34	0.48
7:G:227:GLN:HA	7:G:230:LYS:HZ3	1.79	0.48
8:H:160:LYS:CB	8:H:192:PHE:HZ	2.27	0.48
10:J:66:LYS:NZ	34:i:687:G:H3'	2.28	0.48
10:J:66:LYS:HE3	34:i:688:U:C2'	2.43	0.48
10:J:121:LYS:HA	10:J:121:LYS:HD3	1.65	0.48
11:K:27:VAL:HA	11:K:43:LEU:HD23	1.95	0.48
14:N:38:TYR:CD1	14:N:78:LYS:CG	2.95	0.48
14:N:52:VAL:HG13	28:b:51:GLN:OE1	2.13	0.48
17:Q:62:ARG:HD3	17:Q:62:ARG:HA	1.47	0.48
17:Q:85:ARG:C	17:Q:88:ILE:HG12	2.39	0.48
18:R:1:MET:HA	18:R:1:MET:CG	2.38	0.48
18:R:95:ILE:CG2	18:R:115:SER:O	2.62	0.48
19:S:7:GLU:O	26:Z:50:PHE:O	2.31	0.48
19:S:126:PHE:HD2	19:S:127:TRP:CD1	2.32	0.48
19:S:141:ARG:HD2	34:i:1518:C:C5	2.49	0.48
24:X:41:PHE:CZ	24:X:120:PHE:CD1	3.02	0.48
33:g:21:ILE:HG22	33:g:22:ALA:N	2.29	0.48
34:i:185:C:O2	34:i:211:U:C2	2.67	0.48
34:i:328:G:C5	34:i:329:A:C5	3.02	0.48
34:i:1206:G:N9	34:i:1207:G:P	2.73	0.48
34:i:1716:U:C3'	34:i:1717:G:H5'	2.43	0.48
1:A:18:PHE:CE2	1:A:55:TRP:CZ3	3.02	0.48
2:B:175:GLU:CG	2:B:193:ILE:CD1	2.84	0.48
3:C:48:VAL:CG2	3:C:75:GLU:OE2	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:54:LEU:H	3:C:258:LEU:HD22	1.79	0.48
3:C:175:SER:O	3:C:213:GLY:HA3	2.14	0.48
4:D:157:MET:CE	4:D:187:LYS:HD2	2.27	0.48
8:H:34:SER:O	8:H:35:ASP:OD1	2.32	0.48
8:H:126:HIS:HA	8:H:129:ILE:HD12	1.96	0.48
9:I:31:ARG:HH11	9:I:31:ARG:CG	2.26	0.48
9:I:154:LYS:O	12:L:22:ARG:CG	2.61	0.48
10:J:28:GLU:OE1	10:J:40:LYS:CE	2.61	0.48
12:L:5:GLN:NE2	12:L:10:TYR:HD1	2.10	0.48
12:L:14:PRO:HB2	12:L:15:THR:HG23	1.96	0.48
12:L:94:HIS:CB	12:L:105:ARG:CD	2.75	0.48
13:M:93:LYS:N	13:M:101:ARG:HD3	2.28	0.48
14:N:38:TYR:CG	14:N:78:LYS:HD2	2.43	0.48
15:O:44:VAL:HG11	15:O:93:LEU:HD21	1.94	0.48
16:P:37:TYR:CA	19:S:88:LYS:HD3	2.44	0.48
19:S:30:ILE:O	19:S:32:ALA:N	2.47	0.48
19:S:50:ILE:O	19:S:51:ASP:C	2.52	0.48
19:S:89:ASP:O	19:S:90:VAL:CG2	2.61	0.48
21:U:43:ALA:O	21:U:48:LEU:HG	2.13	0.48
24:X:126:ALA:CB	24:X:128:VAL:CG1	2.88	0.48
27:a:45:VAL:O	27:a:46:GLU:CB	2.61	0.48
32:f:105:TYR:C	32:f:106:TYR:CD2	2.87	0.48
32:f:144:CYS:O	32:f:146:LEU:N	2.47	0.48
34:i:986:A:C2	34:i:988:A:C6	3.01	0.48
2:B:87:ILE:HG23	2:B:101:HIS:CB	2.43	0.48
2:B:183:GLU:O	2:B:187:LYS:HB2	2.13	0.48
3:C:54:LEU:N	3:C:258:LEU:CD2	2.77	0.48
3:C:148:VAL:CB	3:C:149:PRO:HD3	2.43	0.48
5:E:132:GLY:N	5:E:136:ILE:O	2.47	0.48
5:E:241:GLY:O	5:E:244:ILE:CG1	2.58	0.48
6:F:71:ARG:HH21	6:F:71:ARG:HG3	1.72	0.48
6:F:112:LEU:HD23	6:F:112:LEU:C	2.39	0.48
6:F:138:ALA:HB3	6:F:204:ARG:HB3	1.96	0.48
8:H:29:GLU:HA	8:H:32:MET:SD	2.54	0.48
9:I:21:TYR:CZ	34:i:423:A:H5'	2.49	0.48
9:I:144:LYS:H	9:I:144:LYS:HD3	1.78	0.48
9:I:191:GLU:O	9:I:195:LEU:CB	2.62	0.48
12:L:57:ASP:OD1	12:L:59:LYS:HB2	2.14	0.48
12:L:125:ILE:HB	12:L:146:THR:HG22	1.92	0.48
15:O:129:ILE:HG21	27:a:44:ILE:CG2	2.38	0.48
16:P:10:ARG:CD	16:P:11:THR:H	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:55:ARG:HH12	26:Z:82:SER:CB	2.27	0.48
20:T:42:HIS:CD2	20:T:81:GLY:O	2.67	0.48
24:X:3:LYS:C	24:X:4:CYS:O	2.57	0.48
25:Y:55:ILE:CA	25:Y:75:ILE:HG12	2.44	0.48
25:Y:97:TYR:HD1	25:Y:98:GLU:H	1.58	0.48
26:Z:58:LEU:CD2	26:Z:77:LEU:CD1	2.91	0.48
33:g:168:CYS:HB3	33:g:198:VAL:HG23	1.93	0.48
34:i:1004:A:O2'	34:i:1005:A:H5'	2.14	0.48
35:l:39:ASN:C	35:l:41:ARG:N	2.72	0.48
35:l:63:PHE:CG	35:l:85:LEU:HD22	2.49	0.48
1:A:55:TRP:NE1	1:A:59:LEU:HD11	2.29	0.47
1:A:75:SER:HA	1:A:97:THR:O	2.14	0.47
1:A:127:PRO:HG2	1:A:152:SER:HB3	1.94	0.47
2:B:36:PRO:HA	2:B:231:LEU:CD2	2.44	0.47
3:C:128:CYS:CB	34:i:1353:A:H5"	2.43	0.47
4:D:112:GLY:H	4:D:113:LEU:HD12	1.66	0.47
4:D:196:GLY:C	4:D:199:GLY:CA	2.87	0.47
4:D:214:LYS:HG3	4:D:214:LYS:O	2.07	0.47
8:H:14:GLU:HG3	8:H:15:LYS:C	2.38	0.47
8:H:154:ILE:HG22	8:H:185:VAL:HG23	1.95	0.47
9:I:70:GLU:O	9:I:71:CYS:HB3	2.14	0.47
10:J:50:LEU:HD12	10:J:102:ILE:HD11	1.85	0.47
10:J:90:GLY:O	10:J:96:TYR:HD2	1.77	0.47
10:J:125:HIS:HD2	10:J:129:LEU:HD11	1.64	0.47
12:L:78:THR:CG2	12:L:79:LYS:N	2.77	0.47
13:M:46:GLN:HB3	13:M:112:LYS:CD	2.44	0.47
16:P:17:TYR:CE1	16:P:18:ARG:HB2	2.49	0.47
16:P:37:TYR:CB	19:S:88:LYS:HD3	2.44	0.47
16:P:62:LYS:HA	16:P:65:LYS:HE2	1.96	0.47
17:Q:130:LYS:HA	17:Q:137:ALA:HA	1.96	0.47
19:S:139:THR:HB	19:S:140:GLY:H	1.23	0.47
20:T:33:TRP:C	20:T:35:ASP:H	2.21	0.47
20:T:36:THR:HG23	20:T:37:VAL:N	2.29	0.47
23:W:55:ASP:HA	28:b:25:VAL:CG1	2.43	0.47
24:X:58:GLU:O	24:X:58:GLU:CG	2.62	0.47
25:Y:58:PHE:CD1	25:Y:72:PHE:HD2	2.31	0.47
29:c:20:ARG:HH12	34:i:1674:A:C5'	2.26	0.47
31:e:114:ARG:HG3	31:e:115:ARG:N	2.27	0.47
33:g:45:LEU:HD22	33:g:52:TYR:CD2	2.49	0.47
34:i:162:C:H2'	34:i:163:U:O4'	2.13	0.47
35:l:56:LYS:O	35:l:56:LYS:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:12:GLU:O	1:A:16:LEU:HG	2.14	0.47
2:B:48:LEU:N	2:B:48:LEU:CD1	2.71	0.47
3:C:196:LYS:HG3	3:C:197:LYS:N	2.28	0.47
3:C:244:THR:O	3:C:246:PHE:N	2.47	0.47
4:D:10:LYS:HE3	4:D:14:ASP:OD2	2.14	0.47
4:D:68:GLU:O	4:D:72:VAL:HG23	2.14	0.47
4:D:145:GLN:CG	4:D:146:ARG:N	2.77	0.47
4:D:192:TRP:HE3	4:D:196:GLY:CA	2.15	0.47
5:E:151:ASP:HB3	5:E:152:PRO:CD	2.43	0.47
5:E:180:LEU:CD1	5:E:228:ILE:CD1	2.91	0.47
5:E:200:ARG:HG2	5:E:206:ASP:OD2	2.14	0.47
7:G:64:LYS:HD2	7:G:100:CYS:SG	2.53	0.47
7:G:66:GLY:CA	34:i:1740:A:C1'	2.92	0.47
7:G:79:LYS:HD2	7:G:80:GLY:N	2.29	0.47
7:G:157:VAL:HG11	7:G:159:ARG:CA	2.43	0.47
7:G:207:ALA:O	7:G:211:LYS:HG3	2.13	0.47
8:H:120:ARG:NH1	34:i:909:A:C8	2.83	0.47
10:J:48:PHE:HZ	10:J:52:LYS:HZ1	1.37	0.47
14:N:14:SER:O	14:N:14:SER:OG	2.31	0.47
15:O:35:ALA:HB2	15:O:112:ALA:CB	2.23	0.47
17:Q:10:VAL:HG11	17:Q:94:ALA:HB1	1.96	0.47
17:Q:44:PRO:O	17:Q:45:ARG:CG	2.54	0.47
17:Q:63:PHE:HD1	17:Q:68:ILE:CD1	2.27	0.47
19:S:90:VAL:HG12	19:S:91:LYS:CG	2.43	0.47
20:T:40:ALA:O	20:T:43:LYS:CB	2.62	0.47
20:T:65:TYR:CD1	20:T:65:TYR:C	2.91	0.47
20:T:83:GLN:CD	20:T:83:GLN:C	2.81	0.47
22:V:11:LEU:HD11	22:V:12:TYR:HE2	1.62	0.47
23:W:23:ARG:HG2	23:W:23:ARG:NH1	2.29	0.47
24:X:124:LYS:HE2	24:X:124:LYS:HB3	1.65	0.47
25:Y:102:THR:HB	25:Y:104:ARG:H	1.79	0.47
26:Z:54:THR:O	26:Z:58:LEU:HG	2.14	0.47
29:c:7:GLN:OE1	29:c:7:GLN:O	2.32	0.47
33:g:4:GLN:CG	33:g:5:MET:H	2.27	0.47
34:i:546:U:C4	34:i:547:U:C5	3.02	0.47
35:l:31:ILE:HD12	35:l:50:ILE:CD1	2.36	0.47
35:l:66:LYS:HD3	35:l:67:PHE:CZ	2.50	0.47
2:B:25:PHE:HA	2:B:28:LYS:HD2	1.96	0.47
2:B:132:GLY:O	2:B:133:TYR:C	2.56	0.47
4:D:58:VAL:HG21	4:D:88:ALA:CB	2.44	0.47
4:D:221:THR:CB	4:D:222:PRO:CD	2.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:118:GLU:C	5:E:120:LYS:N	2.70	0.47
6:F:45:TYR:CA	6:F:47:LYS:HE2	2.44	0.47
14:N:91:LEU:HD21	34:i:921:G:C5'	2.44	0.47
19:S:81:ASP:HA	19:S:84:LEU:HD12	1.95	0.47
20:T:66:LEU:HB2	20:T:67:ARG:HE	1.79	0.47
20:T:87:VAL:CG1	20:T:88:MET:HG3	2.38	0.47
21:U:16:ALA:O	21:U:17:ILE:HG13	2.14	0.47
26:Z:103:HIS:C	26:Z:105:ALA:N	2.69	0.47
32:f:103:LEU:HD22	32:f:105:TYR:O	2.08	0.47
33:g:4:GLN:CG	33:g:268:ASP:OD2	2.62	0.47
33:g:215:GLN:CD	33:g:231:ASP:OD1	2.57	0.47
34:i:1048:A:H5"	35:l:57:LYS:CE	2.45	0.47
4:D:12:VAL:CG1	30:d:36:LEU:HG	2.44	0.47
4:D:123:LEU:CD2	4:D:154:ASP:OD2	2.61	0.47
5:E:152:PRO:HD2	7:G:212:LEU:CD2	2.42	0.47
6:F:98:GLU:O	6:F:102:LEU:HG	2.15	0.47
7:G:73:VAL:CG1	7:G:74:ARG:N	2.78	0.47
7:G:122:PRO:HD2	7:G:123:GLY:H	1.78	0.47
7:G:139:SER:O	7:G:143:LYS:HD2	2.14	0.47
8:H:8:ILE:CG2	8:H:9:VAL:N	2.67	0.47
8:H:64:VAL:CG2	8:H:72:PHE:CE2	2.97	0.47
8:H:148:LEU:HD23	8:H:148:LEU:C	2.38	0.47
9:I:113:TYR:O	9:I:117:TYR:HD2	1.96	0.47
9:I:140:LYS:CD	9:I:141:ARG:N	2.72	0.47
10:J:139:LYS:HD2	10:J:139:LYS:HA	1.52	0.47
12:L:1:MET:C	12:L:2:ALA:O	2.54	0.47
13:M:33:ARG:CG	13:M:33:ARG:NH1	2.74	0.47
13:M:44:LYS:HA	13:M:45:ARG:HH21	1.80	0.47
15:O:44:VAL:CG1	15:O:93:LEU:HD22	2.45	0.47
20:T:55:THR:HG23	20:T:56:ARG:N	2.30	0.47
23:W:53:ILE:HG22	28:b:25:VAL:HG22	1.97	0.47
25:Y:120:THR:HB	25:Y:122:LYS:CD	2.42	0.47
26:Z:44:LEU:HD11	26:Z:46:ASN:ND2	2.29	0.47
29:c:11:LEU:HB3	29:c:35:MET:SD	2.55	0.47
30:d:44:ARG:NH2	34:i:1333:C:H5'	2.29	0.47
34:i:520:U:O4	34:i:545:A:C2	2.68	0.47
34:i:1055:G:H4'	35:l:84:GLN:HE22	1.79	0.47
34:i:1191:A:O2'	34:i:1192:A:H5'	2.14	0.47
34:i:1347:G:H2'	34:i:1348:G:H8	1.79	0.47
34:i:1513:C:H5"	34:i:1514:U:H5"	1.95	0.47
1:A:106:GLY:HA3	1:A:113:GLN:NE2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:153:THR:CG2	2:B:154:SER:N	2.53	0.47
4:D:51:LEU:HD12	4:D:51:LEU:HA	1.79	0.47
4:D:74:GLN:NE2	4:D:75:LYS:HD3	2.21	0.47
4:D:132:LYS:HB3	4:D:189:MET:HG3	1.96	0.47
5:E:48:LEU:HD11	5:E:70:ILE:HD13	1.94	0.47
6:F:204:ARG:HD2	29:c:60:GLU:CG	2.44	0.47
9:I:76:THR:HG22	9:I:77:ARG:O	2.14	0.47
10:J:32:ILE:HD13	31:e:108:ARG:HG2	1.96	0.47
11:K:11:ILE:CD1	11:K:45:VAL:HG22	2.45	0.47
12:L:12:LYS:O	12:L:56:ILE:HD11	2.15	0.47
13:M:124:ILE:CB	13:M:127:TYR:HE2	2.27	0.47
14:N:16:LEU:N	28:b:26:GLN:NE2	2.62	0.47
15:O:136:PRO:HB3	34:i:940:A:H1'	1.95	0.47
16:P:44:ARG:CZ	16:P:82:ASP:O	2.62	0.47
18:R:21:TYR:CE2	18:R:73:LEU:HD12	2.49	0.47
19:S:52:LEU:O	19:S:54:LYS:N	2.47	0.47
20:T:33:TRP:CD1	20:T:34:VAL:N	2.82	0.47
21:U:44:LYS:HA	21:U:47:ASN:HA	1.96	0.47
22:V:69:ILE:O	22:V:73:ALA:N	2.45	0.47
25:Y:19:GLN:CG	25:Y:81:TYR:CD1	2.71	0.47
26:Z:99:LEU:HD13	26:Z:102:LYS:HE2	0.55	0.47
27:a:77:CYS:O	27:a:80:HIS:HB3	2.13	0.47
33:g:5:MET:HE1	33:g:312:VAL:HG11	1.85	0.47
33:g:49:GLU:O	33:g:50:THR:OG1	2.30	0.47
34:i:1347:G:H2'	34:i:1348:G:C8	2.49	0.47
34:i:1507:U:C4	34:i:1508:C:N4	2.83	0.47
35:l:93:ILE:HD12	35:l:93:ILE:HA	1.76	0.47
1:A:85:ARG:NE	1:A:201:LEU:O	2.47	0.47
3:C:185:ARG:HB3	10:J:98:LEU:O	2.14	0.47
3:C:241:TRP:CZ2	23:W:68:ARG:HD2	2.49	0.47
4:D:137:VAL:HG22	4:D:151:LYS:HG3	1.95	0.47
6:F:201:LYS:O	6:F:202:SER:O	2.32	0.47
7:G:80:GLY:C	7:G:81:HIS:CG	2.92	0.47
8:H:29:GLU:OE1	8:H:86:LYS:HE3	2.15	0.47
11:K:40:VAL:HG23	11:K:41:PRO:HD3	1.94	0.47
11:K:40:VAL:HG21	11:K:45:VAL:HG23	1.95	0.47
15:O:44:VAL:HG13	15:O:93:LEU:HD22	1.96	0.47
16:P:33:LEU:HD22	16:P:87:PRO:HD3	1.16	0.47
16:P:59:ARG:NE	16:P:76:VAL:HG13	2.29	0.47
20:T:5:THR:HG22	20:T:8:ASP:CG	2.39	0.47
24:X:129:SER:OG	24:X:132:ALA:CB	2.60	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:79:LEU:O	25:Y:83:LYS:HG3	2.15	0.47
28:b:36:LYS:CE	28:b:43:ILE:CD1	2.86	0.47
29:c:38:THR:C	29:c:40:ARG:H	2.21	0.47
30:d:18:SER:C	30:d:19:ARG:HG2	2.40	0.47
31:e:86:VAL:HG21	34:i:606:A:N3	2.29	0.47
31:e:115:ARG:O	31:e:119:VAL:HG22	2.15	0.47
33:g:47:ARG:O	33:g:48:ASP:C	2.57	0.47
34:i:1612:G:N1	34:i:1615:A:OP2	2.47	0.47
1:A:3:GLY:HA3	22:V:78:ILE:CG1	2.42	0.47
1:A:124:VAL:HG21	1:A:134:LEU:CD2	2.44	0.47
1:A:180:ARG:NH1	1:A:184:ARG:HH22	2.11	0.47
2:B:137:LEU:HD23	2:B:215:VAL:CA	2.44	0.47
4:D:123:LEU:HD23	4:D:123:LEU:C	2.39	0.47
4:D:166:TYR:CE1	4:D:200:PRO:HB2	2.41	0.47
4:D:202:LYS:HB3	4:D:203:PRO:HD3	1.95	0.47
5:E:49:ARG:HD2	5:E:50:ASN:CG	2.40	0.47
5:E:64:ILE:CG1	25:Y:18:LEU:HD21	2.44	0.47
5:E:166:THR:C	5:E:168:LYS:HG2	2.40	0.47
6:F:91:ARG:HD2	17:Q:46:THR:CG2	2.40	0.47
6:F:93:VAL:C	6:F:97:PHE:CD1	2.86	0.47
6:F:135:ARG:NH2	15:O:66:ARG:HG3	2.30	0.47
6:F:149:GLN:O	6:F:153:LEU:HG	2.15	0.47
7:G:143:LYS:N	7:G:143:LYS:HE3	2.30	0.47
8:H:170:VAL:HA	8:H:173:PHE:CD2	2.48	0.47
9:I:141:ARG:C	9:I:143:LYS:CB	2.86	0.47
10:J:29:LEU:C	31:e:112:TYR:CD1	2.92	0.47
10:J:91:LYS:O	10:J:92:MET:C	2.54	0.47
10:J:121:LYS:O	10:J:122:SER:HB2	2.14	0.47
11:K:43:LEU:N	11:K:46:MET:H	2.13	0.47
12:L:14:PRO:C	12:L:15:THR:HG23	2.40	0.47
12:L:18:GLN:NE2	12:L:20:LYS:HD2	2.26	0.47
12:L:31:GLU:OE1	12:L:31:GLU:N	2.42	0.47
14:N:94:LYS:CG	14:N:118:ILE:HD13	2.43	0.47
14:N:125:LEU:HD22	14:N:129:TYR:CZ	2.49	0.47
15:O:31:CYS:SG	15:O:95:ILE:HG13	2.55	0.47
15:O:37:PHE:CD1	15:O:110:PRO:HD3	2.49	0.47
15:O:137:SER:CB	34:i:938:G:H21	2.28	0.47
16:P:7:LYS:C	16:P:9:LYS:H	2.19	0.47
16:P:94:VAL:HG12	16:P:96:VAL:CG2	2.44	0.47
16:P:126:VAL:HG12	16:P:127:LYS:CA	2.33	0.47
17:Q:135:PRO:CG	17:Q:141:TYR:CE1	2.71	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:28:PHE:O	19:S:31:THR:OG1	2.29	0.47
19:S:138:THR:CA	19:S:141:ARG:CZ	2.65	0.47
20:T:38:LYS:HD2	20:T:46:ALA:HA	1.97	0.47
20:T:42:HIS:HE1	20:T:93:SER:HB3	1.74	0.47
20:T:84:ARG:C	20:T:86:GLY:H	2.21	0.47
23:W:2:VAL:HG23	23:W:3:ARG:N	2.29	0.47
23:W:128:PHE:HE1	23:W:130:PHE:CE2	2.08	0.47
24:X:134:TYR:CE1	31:e:87:ARG:HD3	2.50	0.47
25:Y:29:HIS:CE1	25:Y:67:GLY:N	2.82	0.47
26:Z:99:LEU:HD21	26:Z:109:TYR:CZ	2.48	0.47
26:Z:99:LEU:CG	26:Z:102:LYS:HD3	2.42	0.47
27:a:85:ARG:O	27:a:86:ASN:C	2.56	0.47
27:a:103:PRO:CB	27:a:107:ALA:CB	2.92	0.47
29:c:15:THR:HG21	29:c:33:GLU:OE2	2.15	0.47
31:e:119:VAL:C	31:e:121:PRO:CG	2.88	0.47
33:g:174:VAL:HB	33:g:188:HIS:HB2	1.96	0.47
34:i:199:G:C5	34:i:200:U:C4	3.02	0.47
34:i:199:G:H2'	34:i:200:U:H6	1.79	0.47
34:i:343:C:H2'	34:i:344:U:C6	2.49	0.47
34:i:1034:U:H2'	34:i:1035:C:H5'	1.97	0.47
34:i:1198:U:H3	34:i:1692:A:H61	1.62	0.47
34:i:1645:A:C2	34:i:1646:A:H1'	2.49	0.47
34:i:1749:C:C4	34:i:1750:C:N4	2.83	0.47
1:A:14:ASP:C	1:A:18:PHE:HD2	2.22	0.47
1:A:59:LEU:CD2	1:A:181:GLU:CG	2.93	0.47
2:B:105:LEU:O	2:B:106:THR:OG1	2.30	0.47
3:C:49:THR:HG21	3:C:75:GLU:HG3	1.97	0.47
3:C:54:LEU:HD22	3:C:254:PHE:CB	2.44	0.47
4:D:192:TRP:O	4:D:196:GLY:N	2.36	0.47
4:D:217:ILE:O	4:D:218:LEU:HB3	2.15	0.47
5:E:57:THR:HB	5:E:59:ASP:H	1.80	0.47
7:G:6:SER:OG	7:G:112:VAL:HG22	2.15	0.47
10:J:113:GLN:OE1	10:J:116:LYS:HD3	2.15	0.47
10:J:114:VAL:O	10:J:120:ALA:HB3	2.15	0.47
12:L:80:MET:HE1	12:L:121:GLN:C	2.35	0.47
13:M:67:ALA:CB	32:f:114:ILE:CG2	2.82	0.47
14:N:27:LYS:H	14:N:27:LYS:HE3	1.71	0.47
15:O:37:PHE:CE1	15:O:110:PRO:HD3	2.50	0.47
15:O:62:VAL:HG22	15:O:72:TYR:HH	1.77	0.47
17:Q:32:ILE:C	17:Q:39:LEU:HG	2.40	0.47
17:Q:138:ARG:NH1	34:i:1641:C:H5"	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:91:LEU:HD13	18:R:92:ASP:CB	2.44	0.47
22:V:38:GLU:OE1	22:V:49:GLN:HB3	2.15	0.47
24:X:5:ARG:HH21	24:X:5:ARG:HB3	1.77	0.47
25:Y:47:MET:HE3	34:i:833:A:C5	2.49	0.47
25:Y:119:GLY:HA2	34:i:85:A:C5'	2.45	0.47
28:b:6:ASP:C	28:b:8:LEU:H	2.23	0.47
32:f:139:HIS:CB	32:f:150:PHE:O	2.63	0.47
33:g:200:VAL:CG1	33:g:204:GLY:HA2	2.44	0.47
33:g:225:LYS:HD2	33:g:225:LYS:HA	1.44	0.47
33:g:284:PRO:CB	33:g:304:ASP:N	2.78	0.47
33:g:298:LEU:HD11	33:g:310:TRP:CD2	2.44	0.47
34:i:1826:A:C5'	34:i:1847:C:P	3.03	0.47
35:l:91:LYS:HD2	35:l:91:LYS:HA	1.46	0.47
1:A:26:GLY:N	1:A:47:TYR:O	2.46	0.47
1:A:147:LEU:HD23	1:A:147:LEU:HA	1.64	0.47
2:B:83:LYS:O	2:B:103:MET:HA	2.14	0.47
2:B:144:LYS:HB3	2:B:208:HIS:HB3	1.97	0.47
3:C:55:VAL:CA	3:C:82:PHE:CZ	2.96	0.47
4:D:23:GLU:HB3	11:K:64:TRP:HE1	1.80	0.47
4:D:212:GLU:HB3	18:R:19:LYS:CG	2.43	0.47
5:E:46:ILE:HA	5:E:50:ASN:HB2	1.97	0.47
5:E:248:ILE:CD1	10:J:72:PHE:CZ	2.90	0.47
6:F:36:GLN:O	6:F:36:GLN:HG2	2.14	0.47
6:F:185:SER:HA	6:F:190:ILE:HD12	1.96	0.47
7:G:143:LYS:HA	7:G:143:LYS:HE3	1.97	0.47
8:H:37:LYS:HZ3	8:H:38:ALA:CA	2.28	0.47
9:I:114:GLU:O	9:I:118:ALA:HA	2.15	0.47
9:I:129:LEU:O	9:I:134:GLU:CB	2.63	0.47
11:K:41:PRO:HD2	11:K:43:LEU:HG	1.97	0.47
12:L:112:HIS:CB	12:L:134:LEU:CD1	2.92	0.47
15:O:52:THR:HG21	34:i:949:C:O4'	2.14	0.47
16:P:65:LYS:HG3	16:P:66:GLU:HG3	1.96	0.47
17:Q:34:VAL:HG22	17:Q:39:LEU:HD21	1.93	0.47
18:R:87:GLU:O	18:R:88:VAL:CG1	2.62	0.47
18:R:103:LYS:HG3	18:R:107:LYS:HE3	1.97	0.47
19:S:58:GLU:O	19:S:59:LEU:HB2	2.15	0.47
24:X:58:GLU:O	24:X:59:ALA:C	2.58	0.47
33:g:172:LYS:HE3	33:g:192:THR:CG2	2.34	0.47
34:i:1459:U:H4'	34:i:1460:C:O5'	2.14	0.47
1:A:132:GLN:N	1:A:133:PRO:CD	2.78	0.47
1:A:191:ARG:CD	1:A:193:HIS:HB2	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:24:PRO:O	2:B:28:LYS:HG3	2.15	0.47
2:B:103:MET:O	2:B:214:LYS:HA	2.15	0.47
2:B:189:ILE:HB	2:B:190:PRO:HD3	1.96	0.47
2:B:210:VAL:C	2:B:211:PHE:CG	2.93	0.47
3:C:63:LEU:CB	3:C:67:TYR:CE2	2.98	0.47
3:C:122:VAL:CG1	3:C:202:ALA:CA	2.93	0.47
3:C:158:LYS:H	3:C:158:LYS:HG3	1.45	0.47
3:C:159:ILE:HG23	3:C:159:ILE:O	2.15	0.47
3:C:191:SER:OG	3:C:209:THR:HG21	2.15	0.47
4:D:23:GLU:HG2	11:K:64:TRP:NE1	2.28	0.47
4:D:182:LEU:HD22	4:D:182:LEU:N	2.30	0.47
4:D:217:ILE:HG22	4:D:218:LEU:N	2.30	0.47
5:E:152:PRO:HD3	7:G:209:TYR:HE1	1.80	0.47
5:E:212:ASP:C	5:E:214:ASN:H	2.23	0.47
6:F:15:PRO:CD	17:Q:56:LEU:HB3	2.41	0.47
8:H:9:VAL:O	8:H:45:ILE:O	2.33	0.47
8:H:37:LYS:HD2	8:H:41:ARG:HD3	1.97	0.47
9:I:130:THR:N	9:I:131:PRO:CD	2.78	0.47
11:K:4:PRO:HG2	11:K:7:ASN:CG	2.39	0.47
12:L:96:ILE:N	12:L:96:ILE:HD12	2.30	0.47
13:M:13:ASP:O	13:M:14:VAL:C	2.58	0.47
17:Q:42:ILE:HD12	17:Q:51:LEU:HD11	1.95	0.47
17:Q:100:VAL:CG1	17:Q:101:ASP:N	2.44	0.47
18:R:32:LYS:CE	18:R:33:ARG:HE	2.19	0.47
19:S:80:PRO:HG3	19:S:82:TRP:CZ2	2.50	0.47
20:T:45:LEU:HD23	20:T:48:TYR:CE1	2.49	0.47
23:W:94:LEU:HA	23:W:95:PRO:HD3	1.81	0.47
24:X:60:LYS:CD	24:X:116:PRO:HG3	2.44	0.47
25:Y:55:ILE:HG12	25:Y:75:ILE:HD11	1.80	0.47
26:Z:107:VAL:HG23	26:Z:108:ILE:H	1.80	0.47
33:g:297:THR:HG22	33:g:298:LEU:N	2.30	0.47
34:i:519:A:N1	34:i:545:A:C2	2.83	0.47
34:i:1283:A:C8	34:i:1284:U:C6	3.03	0.47
34:i:1700:C:O2'	34:i:1845:A:C4'	2.63	0.47
4:D:132:LYS:HB3	4:D:189:MET:O	2.16	0.46
4:D:197:LYS:H	4:D:198:ILE:HG13	1.80	0.46
5:E:25:SER:HB2	34:i:485:U:C1'	2.44	0.46
5:E:98:ASN:HD22	5:E:114:ILE:HG13	1.79	0.46
5:E:128:LYS:HB3	5:E:128:LYS:HE2	1.64	0.46
5:E:195:ILE:O	5:E:196:THR:CB	2.62	0.46
6:F:61:PHE:HZ	29:c:51:ARG:HB2	1.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:77:LEU:HD13	7:G:84:TYR:HB2	1.96	0.46
7:G:168:LYS:HD2	34:i:72:C:C5	2.50	0.46
7:G:210:ALA:HA	7:G:213:LEU:CD2	2.45	0.46
8:H:23:ILE:HD13	8:H:23:ILE:C	2.40	0.46
8:H:153:LEU:CD2	8:H:184:ASP:HB2	2.45	0.46
9:I:9:HIS:O	9:I:10:LYS:CB	2.62	0.46
9:I:21:TYR:CZ	9:I:22:HIS:HD2	2.32	0.46
9:I:97:VAL:O	9:I:100:CYS:HB2	2.15	0.46
9:I:197:PHE:CD2	12:L:5:GLN:CG	2.99	0.46
11:K:40:VAL:CG2	11:K:44:HIS:N	2.77	0.46
12:L:76:VAL:O	12:L:76:VAL:HG23	2.16	0.46
13:M:35:ILE:CG1	13:M:61:TYR:CE2	2.98	0.46
15:O:43:HIS:O	15:O:43:HIS:CD2	2.68	0.46
15:O:125:LYS:HE3	15:O:125:LYS:HB3	1.37	0.46
17:Q:42:ILE:CB	17:Q:51:LEU:HD21	2.44	0.46
17:Q:102:GLU:CG	33:g:55:PRO:HG2	2.44	0.46
19:S:10:GLN:NE2	19:S:57:GLY:O	2.44	0.46
19:S:90:VAL:HG12	19:S:91:LYS:CD	2.44	0.46
21:U:40:ILE:CD1	21:U:53:PRO:CD	2.88	0.46
22:V:9:VAL:HG12	22:V:10:ASP:HA	1.95	0.46
22:V:55:ILE:CD1	22:V:65:SER:CA	2.86	0.46
22:V:55:ILE:HG22	22:V:60:ARG:CG	2.44	0.46
25:Y:54:VAL:HG13	25:Y:76:TYR:CB	2.45	0.46
32:f:83:LYS:O	32:f:84:SER:O	2.32	0.46
32:f:103:LEU:CD2	32:f:105:TYR:CA	2.93	0.46
32:f:127:GLY:O	32:f:129:GLY:N	2.47	0.46
33:g:194:TYR:O	33:g:211:GLY:HA3	2.14	0.46
33:g:293:ALA:HB3	33:g:294:ASP:OD1	2.15	0.46
34:i:365:U:H3	34:i:379:A:H61	1.63	0.46
34:i:1665:C:H2'	34:i:1666:G:C8	2.50	0.46
34:i:1749:C:C5	34:i:1750:C:C4	3.04	0.46
1:A:112:ILE:CD1	34:i:1346:U:C4'	2.74	0.46
2:B:36:PRO:CA	2:B:231:LEU:CD2	2.94	0.46
4:D:142:LEU:C	4:D:144:GLY:H	2.23	0.46
4:D:151:LYS:HB2	4:D:151:LYS:HE2	1.59	0.46
4:D:193:ASP:HB3	4:D:194:PRO:HD3	1.98	0.46
4:D:218:LEU:CA	4:D:220:THR:HG23	2.44	0.46
4:D:222:PRO:O	4:D:223:ILE:CD1	2.63	0.46
6:F:20:PHE:HZ	6:F:50:PRO:HG3	1.80	0.46
6:F:141:VAL:HG22	6:F:146:ARG:HD3	1.96	0.46
6:F:161:ALA:HB3	6:F:172:CYS:HG	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:77:LEU:HD11	7:G:95:LYS:CB	2.35	0.46
7:G:85:ARG:NE	25:Y:118:ARG:NH2	2.57	0.46
7:G:185:LEU:HB3	7:G:189:ARG:HH12	1.80	0.46
8:H:118:ARG:O	8:H:121:THR:HG22	2.15	0.46
10:J:61:LEU:HD23	10:J:98:LEU:CD1	2.35	0.46
10:J:91:LYS:CA	10:J:96:TYR:CD2	2.99	0.46
10:J:179:LYS:CA	10:J:182:GLN:OE1	2.61	0.46
17:Q:10:VAL:CG1	17:Q:11:GLN:N	2.78	0.46
17:Q:16:LYS:CE	34:i:1643:G:O6	2.62	0.46
17:Q:128:GLU:HG3	34:i:1643:G:C5'	2.45	0.46
18:R:6:THR:O	18:R:10:LYS:HG2	2.15	0.46
21:U:83:ARG:NH2	30:d:55:LEU:HD13	2.30	0.46
23:W:104:LEU:HD13	23:W:106:THR:CG2	2.42	0.46
24:X:1:MET:SD	24:X:1:MET:N	2.80	0.46
24:X:3:LYS:HE2	24:X:3:LYS:HB3	1.59	0.46
24:X:52:LEU:CD1	24:X:53:GLU:CB	2.88	0.46
25:Y:29:HIS:CD2	25:Y:34:THR:N	2.78	0.46
25:Y:88:LYS:HE2	25:Y:99:LYS:HG3	1.97	0.46
26:Z:51:ASP:O	26:Z:52:LYS:C	2.53	0.46
27:a:84:VAL:HG12	34:i:1861:U:C5	2.49	0.46
31:e:97:GLU:O	31:e:98:LYS:HB2	2.16	0.46
32:f:82:LYS:NZ	34:i:1505:U:C6	2.83	0.46
32:f:103:LEU:HD21	32:f:105:TYR:CB	2.39	0.46
33:g:170:TRP:C	33:g:172:LYS:N	2.53	0.46
33:g:189:ILE:HG22	33:g:190:GLY:N	2.30	0.46
34:i:1232:G:H2'	34:i:1233:C:C6	2.50	0.46
34:i:1401:A:H61	34:i:1437:U:H3	1.62	0.46
1:A:8:LEU:HD12	1:A:192:GLU:OE1	2.15	0.46
1:A:66:VAL:HG13	1:A:186:ARG:HG3	1.94	0.46
1:A:110:ASN:CG	34:i:1348:G:H5'	2.41	0.46
2:B:54:GLY:C	2:B:56:LYS:H	2.23	0.46
2:B:71:LEU:C	2:B:79:VAL:HG21	2.40	0.46
3:C:196:LYS:C	3:C:196:LYS:CD	2.89	0.46
3:C:227:ASP:O	3:C:231:LYS:HG3	2.15	0.46
4:D:178:ARG:H	4:D:178:ARG:NE	2.13	0.46
5:E:123:LEU:HD12	5:E:123:LEU:HA	1.77	0.46
5:E:195:ILE:CG2	5:E:196:THR:N	2.73	0.46
9:I:69:SER:CB	12:L:19:ASN:CG	2.70	0.46
9:I:123:ARG:O	9:I:123:ARG:HD3	2.14	0.46
10:J:87:LEU:HD11	10:J:92:MET:H	1.81	0.46
10:J:169:ARG:HG2	10:J:175:ARG:NH1	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:15:PHE:CD2	16:P:110:GLU:OE2	2.69	0.46
16:P:17:TYR:CE2	16:P:25:LEU:CD2	2.98	0.46
18:R:21:TYR:HB2	18:R:71:ILE:HD13	0.64	0.46
23:W:55:ASP:HB3	28:b:25:VAL:HG13	1.96	0.46
25:Y:101:LYS:O	25:Y:102:THR:OG1	2.30	0.46
27:a:95:ARG:H	27:a:95:ARG:HG2	1.42	0.46
29:c:66:ARG:O	29:c:68:LEU:HD23	2.16	0.46
33:g:14:HIS:CE1	33:g:41:ILE:HG12	2.50	0.46
33:g:38:LYS:HB2	33:g:38:LYS:HE2	1.48	0.46
33:g:172:LYS:HE2	33:g:192:THR:CA	2.45	0.46
33:g:284:PRO:HB2	33:g:304:ASP:H	1.80	0.46
34:i:107:A:H61	34:i:344:U:H3	1.63	0.46
34:i:163:U:O2'	34:i:164:A:H5'	2.15	0.46
34:i:562:U:O5'	34:i:562:U:H6	1.98	0.46
34:i:1439:C:C5	34:i:1440:U:C5	3.03	0.46
34:i:1547:G:C8	34:i:1573:U:C4	3.03	0.46
1:A:6:ASP:C	1:A:8:LEU:N	2.73	0.46
1:A:76:VAL:HG12	1:A:87:VAL:CB	2.44	0.46
2:B:44:ILE:HG23	2:B:69:VAL:HG21	1.97	0.46
2:B:71:LEU:CB	2:B:84:PHE:CE2	2.98	0.46
2:B:228:LEU:CD2	2:B:232:HIS:CD2	2.98	0.46
3:C:244:THR:HG22	3:C:246:PHE:CB	2.44	0.46
5:E:229:GLY:HA3	5:E:235:TRP:HD1	1.79	0.46
5:E:255:ARG:HH21	34:i:840:U:C2'	2.29	0.46
6:F:61:PHE:O	6:F:62:ARG:C	2.57	0.46
7:G:28:TYR:C	7:G:30:LYS:N	2.74	0.46
7:G:68:LEU:HD22	7:G:68:LEU:N	2.30	0.46
7:G:71:GLY:O	7:G:98:ARG:NE	2.48	0.46
7:G:154:ARG:HH21	34:i:77:A:N6	2.13	0.46
8:H:139:ILE:HD12	8:H:139:ILE:N	2.30	0.46
8:H:190:PRO:HB2	8:H:191:GLU:HG3	1.96	0.46
10:J:40:LYS:O	10:J:41:ARG:C	2.53	0.46
11:K:83:LEU:HB3	11:K:85:LEU:CG	2.31	0.46
12:L:128:VAL:HG12	12:L:142:VAL:HA	1.98	0.46
14:N:7:PRO:CD	14:N:8:GLY:N	2.78	0.46
14:N:93:LYS:CG	14:N:150:VAL:HG11	2.46	0.46
15:O:117:ARG:HH22	29:c:62:GLU:CG	2.28	0.46
16:P:86:LEU:CD2	16:P:86:LEU:N	2.72	0.46
16:P:106:GLU:O	19:S:118:ARG:NH2	2.48	0.46
18:R:105:MET:C	18:R:109:LEU:HD12	2.39	0.46
19:S:117:ILE:O	19:S:117:ILE:HG22	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:33:TRP:O	20:T:34:VAL:HB	2.14	0.46
21:U:108:PRO:HG2	21:U:110:VAL:HG23	1.96	0.46
24:X:102:VAL:HG13	24:X:120:PHE:HB3	1.91	0.46
25:Y:27:VAL:CG1	25:Y:35:VAL:HG21	2.34	0.46
25:Y:33:ALA:O	25:Y:34:THR:OG1	2.29	0.46
26:Z:104:ARG:C	26:Z:104:ARG:HH11	2.23	0.46
28:b:10:PRO:CD	28:b:10:PRO:O	2.64	0.46
29:c:14:VAL:HG13	29:c:30:VAL:HG13	1.98	0.46
34:i:1751:G:C2'	34:i:1752:G:O5'	2.63	0.46
1:A:130:ASP:HB3	1:A:133:PRO:HG2	1.98	0.46
2:B:71:LEU:HA	2:B:74:LEU:HB2	1.97	0.46
4:D:38:GLU:CG	4:D:49:ILE:HB	2.45	0.46
5:E:25:SER:OG	5:E:26:VAL:N	2.48	0.46
5:E:117:GLU:C	5:E:119:ALA:N	2.73	0.46
5:E:167:GLY:C	5:E:168:LYS:CG	2.88	0.46
5:E:259:LYS:O	5:E:260:GLN:HG2	2.14	0.46
6:F:55:ARG:HG3	6:F:55:ARG:O	2.15	0.46
6:F:174:ALA:O	6:F:178:ILE:HG13	2.16	0.46
7:G:51:ARG:HG2	7:G:51:ARG:HH11	1.79	0.46
7:G:62:PRO:HB2	7:G:83:CYS:SG	2.56	0.46
7:G:64:LYS:HD2	7:G:65:GLN:C	2.40	0.46
7:G:80:GLY:O	7:G:81:HIS:ND1	2.47	0.46
7:G:142:ARG:NH1	7:G:142:ARG:HG2	2.30	0.46
10:J:165:TYR:CE1	34:i:551:A:H5'	2.50	0.46
11:K:18:GLU:O	11:K:92:ALA:HB1	2.04	0.46
12:L:114:SER:OG	12:L:115:PRO:HD2	2.16	0.46
13:M:12:MET:CG	13:M:16:THR:HG22	2.40	0.46
14:N:38:TYR:CE1	14:N:78:LYS:HG3	2.50	0.46
14:N:91:LEU:HD21	34:i:921:G:H5"	1.97	0.46
16:P:5:GLU:O	16:P:6:GLN:HG2	2.14	0.46
17:Q:41:MET:O	17:Q:43:GLU:N	2.48	0.46
19:S:73:ASN:O	19:S:76:GLN:OE1	2.34	0.46
19:S:80:PRO:HB2	19:S:82:TRP:NE1	2.31	0.46
21:U:47:ASN:C	21:U:48:LEU:HD23	2.34	0.46
21:U:69:PRO:HB3	30:d:41:GLN:HG3	1.98	0.46
25:Y:19:GLN:CB	25:Y:81:TYR:HB3	2.46	0.46
25:Y:43:LYS:O	25:Y:46:LYS:HG3	2.16	0.46
28:b:56:CYS:SG	28:b:57:VAL:N	2.89	0.46
31:e:126:LYS:HD2	31:e:126:LYS:N	2.21	0.46
33:g:163:PRO:HB2	33:g:179:LEU:HG	1.97	0.46
34:i:184:G:HO2'	34:i:185:C:H5'	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:526:A:H2'	34:i:527:C:H5'	1.96	0.46
34:i:1404:U:H2'	34:i:1405:A:O4'	2.15	0.46
35:l:106:ASP:C	35:l:108:LEU:H	2.23	0.46
1:A:81:ASN:HA	1:A:84:GLN:OE1	2.15	0.46
1:A:149:ASN:H	1:A:165:ASN:ND2	2.14	0.46
2:B:19:LYS:HB2	2:B:19:LYS:HZ2	1.72	0.46
4:D:142:LEU:O	4:D:144:GLY:N	2.48	0.46
5:E:25:SER:CB	34:i:485:U:C1'	2.94	0.46
7:G:44:GLU:H	7:G:44:GLU:HG3	1.51	0.46
7:G:64:LYS:C	7:G:64:LYS:HD2	2.18	0.46
8:H:40:LEU:HD23	8:H:43:LEU:HG	1.96	0.46
10:J:86:VAL:HG11	10:J:105:PHE:CE1	2.51	0.46
10:J:179:LYS:HA	10:J:182:GLN:CG	2.46	0.46
11:K:30:PRO:HA	11:K:41:PRO:HB3	1.97	0.46
11:K:40:VAL:HA	11:K:41:PRO:HD3	1.65	0.46
11:K:88:GLU:O	11:K:89:ILE:C	2.58	0.46
12:L:4:ILE:HB	12:L:5:GLN:H	1.56	0.46
12:L:59:LYS:HD3	12:L:134:LEU:HD21	1.98	0.46
13:M:19:GLN:CG	13:M:88:TRP:CD1	2.97	0.46
14:N:27:LYS:CD	14:N:28:LEU:H	2.29	0.46
14:N:62:GLN:CB	14:N:65:PHE:HD2	2.00	0.46
14:N:131:THR:O	14:N:132:LYS:HD2	2.16	0.46
15:O:82:ALA:O	15:O:86:LYS:HG2	2.16	0.46
15:O:119:LEU:HD11	15:O:126:ILE:HD11	1.97	0.46
16:P:41:GLN:CA	16:P:84:ILE:HG12	2.43	0.46
16:P:49:LEU:C	16:P:51:ARG:CA	2.82	0.46
17:Q:76:GLY:C	17:Q:80:GLN:HG3	2.34	0.46
19:S:40:TYR:CD1	19:S:44:VAL:CG2	2.98	0.46
21:U:50:VAL:HG22	21:U:51:LYS:CA	2.34	0.46
21:U:59:LYS:HD2	21:U:84:ILE:HG21	1.97	0.46
23:W:77:PRO:CD	24:X:5:ARG:O	2.54	0.46
24:X:67:ARG:NH2	24:X:114:ASP:OD2	2.49	0.46
24:X:77:ASN:C	24:X:79:LYS:N	2.73	0.46
29:c:10:LYS:CD	29:c:61:SER:HB3	2.37	0.46
33:g:42:MET:HB2	33:g:92:LEU:CD1	2.45	0.46
33:g:71:ILE:HG21	33:g:75:GLY:HA2	1.97	0.46
33:g:257:LYS:HG3	33:g:266:ILE:HD11	1.97	0.46
34:i:61:A:N3	34:i:326:A:C4	2.78	0.46
34:i:519:A:N1	34:i:545:A:N1	2.63	0.46
34:i:1081:C:N3	34:i:1855:G:O6	2.49	0.46
34:i:1700:C:O2	34:i:1845:A:O2'	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:70:ASN:O	1:A:73:ASP:OD1	2.33	0.46
1:A:120:ARG:HG2	1:A:120:ARG:HH11	1.80	0.46
2:B:67:PHE:HD1	15:O:47:LEU:O	1.95	0.46
2:B:93:GLY:O	2:B:94:LYS:HG2	2.15	0.46
3:C:241:TRP:HH2	23:W:44:HIS:O	1.98	0.46
4:D:158:ILE:O	4:D:158:ILE:HG12	2.15	0.46
5:E:72:ILE:HD13	5:E:82:TYR:CD2	2.49	0.46
5:E:98:ASN:HD21	5:E:114:ILE:HD11	1.81	0.46
6:F:47:LYS:HD3	6:F:47:LYS:N	2.29	0.46
6:F:128:ILE:O	6:F:129:GLY:C	2.55	0.46
7:G:181:THR:HA	7:G:182:PRO:HD3	1.23	0.46
8:H:116:ARG:HA	8:H:117:PRO:HD3	1.50	0.46
10:J:41:ARG:HA	10:J:44:TRP:HB2	1.98	0.46
12:L:99:TYR:N	12:L:99:TYR:CD2	2.80	0.46
12:L:136:LYS:HG2	12:L:137:THR:N	2.27	0.46
15:O:16:SER:CA	15:O:87:GLU:O	2.56	0.46
17:Q:19:ALA:CA	17:Q:74:GLY:C	2.89	0.46
17:Q:113:ILE:CG1	17:Q:120:LEU:CD1	2.93	0.46
19:S:40:TYR:CE1	19:S:44:VAL:HG21	2.51	0.46
19:S:50:ILE:O	19:S:52:LEU:N	2.49	0.46
21:U:47:ASN:ND2	21:U:47:ASN:H	2.14	0.46
22:V:3:SER:O	22:V:4:ASN:C	2.58	0.46
22:V:40:ASP:O	22:V:40:ASP:OD1	2.33	0.46
23:W:55:ASP:CA	28:b:25:VAL:HG13	2.46	0.46
24:X:125:VAL:O	24:X:128:VAL:CB	2.64	0.46
31:e:80:LEU:C	31:e:82:ARG:N	2.73	0.46
33:g:61:GLY:O	33:g:88:ARG:NH2	2.48	0.46
33:g:200:VAL:HG12	33:g:201:SER:N	2.30	0.46
34:i:184:G:C6	34:i:211:U:O4	2.69	0.46
34:i:874:G:H1	34:i:904:A:H2	1.61	0.46
1:A:207:PRO:HB2	1:A:208:GLU:H	1.33	0.46
3:C:121:HIS:O	3:C:122:VAL:HG13	2.16	0.46
3:C:218:LEU:CD1	3:C:219:GLY:N	2.72	0.46
5:E:57:THR:OG1	5:E:60:GLU:N	2.41	0.46
6:F:32:ASP:OD2	6:F:35:LEU:HD12	2.16	0.46
7:G:185:LEU:CA	7:G:188:LYS:HE3	2.37	0.46
13:M:34:GLY:HA3	34:i:1282:G:O6	2.15	0.46
13:M:67:ALA:O	32:f:114:ILE:HG21	2.16	0.46
14:N:16:LEU:HD23	14:N:17:PRO:CD	2.45	0.46
15:O:98:ARG:HD2	15:O:132:VAL:HG23	1.97	0.46
15:O:126:ILE:HG12	27:a:56:VAL:HG12	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:43:GLU:HA	17:Q:44:PRO:C	2.41	0.46
17:Q:49:TYR:C	17:Q:53:GLU:HG3	2.39	0.46
17:Q:138:ARG:O	34:i:1640:C:H4'	2.15	0.46
19:S:55:ARG:HB2	19:S:58:GLU:HG3	1.96	0.46
23:W:30:CYS:SG	23:W:31:SER:N	2.89	0.46
24:X:27:TYR:CZ	24:X:31:HIS:CE1	2.99	0.46
25:Y:50:THR:O	25:Y:51:THR:CB	2.63	0.46
28:b:26:GLN:HG3	28:b:27:SER:HA	1.98	0.46
28:b:62:VAL:HG22	28:b:63:LEU:N	2.23	0.46
33:g:202:PRO:CB	33:g:203:ASP:OD1	2.48	0.46
34:i:1048:A:H5"	35:l:57:LYS:HE2	1.98	0.46
34:i:1562:G:C6	34:i:1563:C:C4	3.03	0.46
1:A:42:LYS:HZ2	18:R:102:THR:HG23	1.76	0.46
1:A:141:ASN:CB	22:V:32:ILE:HG12	2.44	0.46
2:B:131:ASP:OD1	2:B:180:ASP:HA	2.15	0.46
4:D:56:GLN:C	4:D:59:LEU:HG	2.31	0.46
6:F:123:GLU:HB3	29:c:59:LEU:CD1	2.46	0.46
6:F:145:ARG:CG	29:c:48:GLY:CA	2.63	0.46
7:G:13:GLN:O	7:G:14:LYS:CG	2.64	0.46
7:G:162:LEU:HD21	7:G:170:ARG:HG3	1.96	0.46
10:J:93:LYS:HE3	10:J:93:LYS:CA	2.45	0.46
12:L:126:VAL:CG2	12:L:142:VAL:HG13	2.46	0.46
13:M:85:LEU:O	13:M:85:LEU:HD23	2.15	0.46
13:M:113:ASP:C	13:M:115:GLY:H	2.23	0.46
15:O:31:CYS:CB	15:O:95:ILE:CG1	2.80	0.46
15:O:72:TYR:CE1	15:O:76:LEU:CD1	2.98	0.46
16:P:9:LYS:O	16:P:10:ARG:NE	2.49	0.46
18:R:87:GLU:O	18:R:88:VAL:HB	2.15	0.46
19:S:15:VAL:CG1	19:S:68:ILE:CD1	2.91	0.46
19:S:82:TRP:CD1	34:i:1562:G:C5	3.04	0.46
19:S:88:LYS:O	19:S:89:ASP:O	2.34	0.46
20:T:31:PRO:HB2	20:T:33:TRP:NE1	2.28	0.46
20:T:77:LYS:HD2	20:T:94:ARG:HH11	1.78	0.46
21:U:44:LYS:O	21:U:45:GLU:C	2.58	0.46
21:U:116:ILE:O	21:U:117:ALA:HB2	2.16	0.46
22:V:55:ILE:CD1	22:V:65:SER:O	2.64	0.46
25:Y:68:LYS:C	25:Y:69:THR:HG23	2.41	0.46
28:b:62:VAL:O	28:b:63:LEU:CB	2.63	0.46
31:e:82:ARG:O	31:e:85:LYS:HB2	2.16	0.46
33:g:150:TRP:HB2	33:g:170:TRP:HD1	1.73	0.46
33:g:175:LYS:HE2	33:g:184:LEU:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:270:LEU:HD13	33:g:310:TRP:CD2	2.50	0.46
34:i:181:A:N7	34:i:182:C:N3	2.64	0.46
34:i:181:A:N9	34:i:182:C:C4	2.82	0.46
34:i:1508:C:H2'	34:i:1509:G:H8	1.80	0.46
2:B:29:ASP:OD1	2:B:29:ASP:O	2.34	0.46
3:C:164:THR:CG2	3:C:165:VAL:H	2.24	0.46
6:F:14:THR:OG1	17:Q:56:LEU:HD13	2.08	0.46
6:F:62:ARG:O	6:F:63:LYS:C	2.58	0.46
6:F:145:ARG:HA	6:F:145:ARG:HD2	1.39	0.46
6:F:204:ARG:HG3	29:c:63:ARG:HH11	1.79	0.46
7:G:145:PHE:O	7:G:147:LEU:HD12	2.16	0.46
7:G:214:ALA:O	7:G:217:MET:HG2	2.15	0.46
8:H:50:GLU:OE1	8:H:58:LYS:HE2	2.16	0.46
8:H:144:ILE:N	23:W:52:ILE:O	2.48	0.46
8:H:154:ILE:CG2	8:H:185:VAL:HG23	2.46	0.46
9:I:29:LEU:CG	9:I:30:GLY:H	2.22	0.46
10:J:100:LEU:HD12	10:J:101:LYS:H	1.80	0.46
10:J:165:TYR:CZ	34:i:551:A:H5'	2.50	0.46
12:L:42:LEU:HB2	12:L:44:PHE:CE2	2.50	0.46
16:P:17:TYR:CD2	16:P:25:LEU:CD2	2.99	0.46
17:Q:93:VAL:CG1	17:Q:105:LYS:HD3	2.29	0.46
21:U:61:LEU:HD13	30:d:34:TYR:CD2	2.51	0.46
21:U:77:TRP:CZ2	34:i:1663:U:H5'	2.51	0.46
23:W:96:SER:OG	23:W:99:PHE:CD2	2.69	0.46
24:X:105:PHE:CB	24:X:112:VAL:HG21	2.46	0.46
31:e:95:LYS:O	31:e:96:GLN:N	2.37	0.46
31:e:98:LYS:HB3	31:e:99:LYS:H	1.56	0.46
31:e:123:PHE:O	31:e:123:PHE:HD2	1.99	0.46
32:f:111:ASN:HA	32:f:112:GLY:HA2	1.78	0.46
32:f:117:LEU:O	32:f:118:ARG:HB2	2.16	0.46
33:g:33:SER:O	33:g:40:ILE:HG23	2.15	0.46
33:g:64:HIS:ND1	33:g:65:PHE:CD2	2.84	0.46
33:g:212:LYS:CA	33:g:235:ILE:HG13	2.31	0.46
35:l:70:ASN:CB	35:l:86:GLN:HB2	2.46	0.46
35:l:93:ILE:C	35:l:95:GLN:N	2.72	0.46
3:C:83:LEU:C	3:C:85:ALA:N	2.74	0.45
3:C:150:VAL:C	3:C:233:TYR:CE2	2.94	0.45
3:C:194:VAL:N	3:C:195:PRO:CD	2.79	0.45
4:D:34:TYR:O	4:D:99:ILE:HD12	2.16	0.45
7:G:5:ILE:HG22	7:G:124:LEU:CD2	2.43	0.45
7:G:65:GLN:C	7:G:100:CYS:SG	2.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:179:LEU:C	7:G:179:LEU:CD1	2.76	0.45
8:H:64:VAL:CG2	8:H:72:PHE:HE2	2.30	0.45
8:H:163:GLN:O	8:H:165:ASN:N	2.49	0.45
8:H:168:HIS:CE1	8:H:169:LYS:HE2	2.51	0.45
10:J:114:VAL:C	10:J:120:ALA:HB3	2.41	0.45
10:J:160:SER:O	10:J:162:ARG:N	2.49	0.45
11:K:64:TRP:O	11:K:65:ARG:CG	2.63	0.45
11:K:85:LEU:HD13	11:K:89:ILE:HG13	1.97	0.45
12:L:55:TYR:CD1	12:L:55:TYR:C	2.94	0.45
14:N:21:SER:C	14:N:22:VAL:CG1	2.75	0.45
14:N:137:PRO:O	14:N:138:ASN:CB	2.64	0.45
16:P:17:TYR:CD2	16:P:25:LEU:HD21	2.51	0.45
16:P:65:LYS:CG	16:P:66:GLU:N	2.79	0.45
17:Q:8:GLN:CA	17:Q:99:TYR:CZ	3.00	0.45
17:Q:45:ARG:O	17:Q:48:GLN:HB3	2.16	0.45
18:R:17:ILE:CG1	18:R:54:VAL:HG13	2.46	0.45
19:S:7:GLU:C	19:S:8:LYS:CD	2.89	0.45
24:X:40:PRO:CB	24:X:81:ILE:CD1	2.86	0.45
25:Y:51:THR:CB	25:Y:52:PRO:CD	2.82	0.45
32:f:108:VAL:HG22	32:f:114:ILE:CA	2.45	0.45
33:g:175:LYS:CE	33:g:184:LEU:HB2	2.46	0.45
34:i:317:G:H1'	34:i:318:U:C6	2.51	0.45
34:i:848:G:H3'	34:i:849:C:O4'	2.15	0.45
34:i:1081:C:C2	34:i:1083:A:O4'	2.69	0.45
34:i:1748:G:C5	34:i:1749:C:C4	3.04	0.45
35:l:34:ARG:HH11	35:l:111:HIS:CB	2.29	0.45
2:B:19:LYS:HB3	2:B:19:LYS:HE2	1.47	0.45
2:B:53:GLN:O	2:B:56:LYS:N	2.49	0.45
2:B:144:LYS:CG	2:B:206:PRO:HB3	2.47	0.45
3:C:65:GLU:O	3:C:69:PHE:HD2	1.99	0.45
3:C:118:TYR:O	3:C:203:GLY:HA3	2.15	0.45
3:C:145:LEU:HG	3:C:146:SER:N	2.31	0.45
4:D:110:LEU:HD23	4:D:110:LEU:C	2.41	0.45
5:E:99:PHE:HE1	5:E:113:ARG:CG	2.03	0.45
5:E:149:TYR:CD2	7:G:205:GLU:HB3	2.51	0.45
6:F:88:MET:O	6:F:92:ILE:HG13	2.16	0.45
8:H:50:GLU:CD	8:H:58:LYS:CE	2.88	0.45
8:H:109:ARG:HB3	8:H:110:THR:H	1.14	0.45
8:H:146:VAL:HG11	23:W:50:PHE:CE2	2.50	0.45
8:H:188:GLU:HG2	8:H:189:PHE:N	2.30	0.45
9:I:10:LYS:CG	9:I:11:ARG:H	2.27	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:37:LYS:NZ	9:I:93:THR:HB	2.32	0.45
9:I:38:ILE:HD11	9:I:81:VAL:HG23	1.97	0.45
9:I:144:LYS:CG	34:i:189:G:H5'	2.47	0.45
11:K:60:GLU:CG	11:K:69:TRP:NE1	2.79	0.45
12:L:113:LEU:HD23	12:L:113:LEU:C	2.42	0.45
15:O:147:ARG:HG2	15:O:147:ARG:O	2.17	0.45
17:Q:51:LEU:O	17:Q:54:PRO:HD2	2.16	0.45
19:S:40:TYR:CD1	19:S:97:GLN:NE2	2.84	0.45
21:U:104:ILE:HG21	21:U:104:ILE:HD13	1.71	0.45
23:W:27:ILE:HG12	23:W:61:ILE:HB	1.96	0.45
27:a:103:PRO:HB3	27:a:107:ALA:HB1	1.97	0.45
31:e:114:ARG:O	31:e:118:ASN:CB	2.64	0.45
33:g:164:ILE:CG2	33:g:176:VAL:HG13	2.46	0.45
34:i:96:C:H2'	34:i:97:U:C6	2.50	0.45
34:i:126:G:HO2'	34:i:127:C:H5	1.58	0.45
34:i:141:A:N6	34:i:177:G:H21	2.10	0.45
35:l:30:TYR:HE1	35:l:107:GLN:CG	1.86	0.45
2:B:189:ILE:HB	2:B:190:PRO:CD	2.47	0.45
2:B:228:LEU:HD21	2:B:232:HIS:NE2	2.32	0.45
5:E:89:VAL:O	5:E:90:ILE:HB	2.16	0.45
6:F:112:LEU:O	6:F:116:ILE:HG12	2.16	0.45
8:H:106:ARG:NE	34:i:857:A:N3	2.65	0.45
8:H:119:SER:O	8:H:120:ARG:CZ	2.63	0.45
8:H:160:LYS:HB2	8:H:192:PHE:CZ	2.47	0.45
9:I:141:ARG:HB3	9:I:144:LYS:CB	2.22	0.45
10:J:66:LYS:C	10:J:71:LEU:CD1	2.89	0.45
10:J:177:ASN:HA	10:J:180:LYS:CB	2.44	0.45
10:J:179:LYS:HA	10:J:182:GLN:HB2	1.98	0.45
12:L:7:GLU:HG2	12:L:8:ARG:H	1.74	0.45
12:L:60:CYS:HB3	12:L:63:THR:OG1	2.17	0.45
12:L:147:LYS:NZ	12:L:156:GLN:HE22	2.15	0.45
16:P:94:VAL:HG12	16:P:96:VAL:HG23	1.97	0.45
16:P:97:TYR:CD1	16:P:102:PHE:CE2	3.04	0.45
16:P:127:LYS:CE	16:P:128:HIS:CA	2.94	0.45
17:Q:58:LEU:CD1	17:Q:108:ILE:CG2	2.77	0.45
19:S:23:ARG:HD3	26:Z:48:VAL:CG2	2.46	0.45
19:S:85:ASN:HD21	19:S:98:VAL:CB	2.29	0.45
20:T:21:PHE:HD1	20:T:22:LEU:N	2.14	0.45
20:T:65:TYR:CD2	20:T:123:LEU:HD12	2.51	0.45
23:W:49:GLU:CD	23:W:64:ASN:HD22	2.24	0.45
24:X:21:LYS:HD2	24:X:27:TYR:CG	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:101:LEU:HD23	24:X:101:LEU:HA	1.81	0.45
25:Y:32:LYS:HG2	25:Y:33:ALA:C	2.40	0.45
31:e:103:THR:HG21	34:i:514:U:H3'	1.97	0.45
32:f:105:TYR:O	32:f:106:TYR:CG	2.60	0.45
34:i:569:C:H2'	34:i:570:U:O4'	2.16	0.45
34:i:1493:G:H4'	34:i:1494:A:H5'	1.98	0.45
35:l:43:THR:CG2	35:l:113:PHE:HE1	2.21	0.45
35:l:88:ASP:HB2	35:l:90:ARG:HH12	1.78	0.45
1:A:58:LEU:HA	1:A:161:ILE:HG12	1.98	0.45
3:C:241:TRP:CG	23:W:68:ARG:NH1	2.74	0.45
4:D:223:ILE:HD12	4:D:223:ILE:N	2.31	0.45
4:D:225:GLU:HG3	4:D:227:LYS:HE2	1.98	0.45
5:E:128:LYS:CG	5:E:130:PHE:HD1	2.28	0.45
5:E:152:PRO:HD3	7:G:209:TYR:CE1	2.51	0.45
5:E:213:ALA:O	5:E:214:ASN:OD1	2.33	0.45
7:G:75:LEU:CD2	34:i:1785:A:O3'	2.64	0.45
7:G:191:ARG:HG2	7:G:191:ARG:H	1.56	0.45
8:H:16:PRO:O	8:H:20:GLU:OE1	2.34	0.45
8:H:103:LYS:CD	34:i:678:U:H2'	2.47	0.45
9:I:119:LEU:N	9:I:120:PRO:CD	2.78	0.45
11:K:62:PHE:CZ	11:K:65:ARG:HA	2.51	0.45
11:K:80:ARG:HA	11:K:85:LEU:HD11	1.98	0.45
12:L:95:TYR:C	12:L:96:ILE:HD12	2.40	0.45
12:L:99:TYR:CZ	24:X:14:ARG:CA	2.71	0.45
14:N:16:LEU:HD23	14:N:16:LEU:HA	1.79	0.45
14:N:36:GLN:HG3	14:N:54:LEU:HD21	1.99	0.45
17:Q:74:GLY:HA2	34:i:1540:A:H4'	1.99	0.45
21:U:27:ARG:CZ	21:U:82:MET:CG	2.94	0.45
22:V:56:CYS:SG	22:V:59:ILE:CG1	3.04	0.45
24:X:28:LYS:HE2	24:X:32:LEU:CD1	2.47	0.45
25:Y:10:ARG:CG	25:Y:24:VAL:CB	2.85	0.45
28:b:54:VAL:HB	28:b:63:LEU:CD2	2.45	0.45
29:c:62:GLU:HB3	29:c:63:ARG:H	1.45	0.45
30:d:5:GLN:HA	30:d:7:TYR:CZ	2.51	0.45
32:f:147:THR:CG2	32:f:147:THR:O	2.65	0.45
33:g:32:LEU:CD1	33:g:40:ILE:CG2	2.95	0.45
34:i:126:G:N2	34:i:181:A:OP1	2.48	0.45
34:i:126:G:N2	34:i:180:G:O3'	2.49	0.45
34:i:215:U:O2'	34:i:296:U:N3	2.49	0.45
34:i:792:G:C3'	34:i:793:C:H5'	2.47	0.45
34:i:842:G:C8	34:i:842:G:O5'	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1065:U:H2'	34:i:1066:A:C8	2.51	0.45
34:i:1845:A:H3'	34:i:1846:C:C5'	2.47	0.45
1:A:18:PHE:CZ	1:A:55:TRP:HZ3	2.35	0.45
1:A:48:ILE:CD1	18:R:105:MET:CG	2.94	0.45
1:A:123:VAL:CG1	1:A:175:TRP:CH2	3.00	0.45
1:A:161:ILE:HG22	1:A:174:MET:HE2	1.98	0.45
1:A:204:TYR:C	1:A:204:TYR:CD2	2.95	0.45
2:B:144:LYS:HG2	2:B:206:PRO:HB3	1.98	0.45
2:B:228:LEU:HD22	2:B:232:HIS:CD2	2.51	0.45
5:E:106:LYS:HA	5:E:106:LYS:HD2	1.55	0.45
7:G:168:LYS:HD2	34:i:72:C:C4	2.51	0.45
7:G:173:ALA:HB3	34:i:77:A:H4'	1.99	0.45
8:H:84:GLU:O	8:H:88:SER:HA	2.17	0.45
9:I:36:THR:HG23	9:I:96:LEU:HB2	1.99	0.45
10:J:38:ARG:NE	31:e:104:GLY:CA	2.70	0.45
11:K:1:MET:HE2	11:K:2:LEU:HB3	1.98	0.45
11:K:94:LEU:O	11:K:95:ARG:HB2	2.15	0.45
12:L:113:LEU:HD11	12:L:120:VAL:CG1	2.47	0.45
13:M:77:ILE:O	13:M:78:LYS:HB2	2.17	0.45
13:M:102:LYS:HG3	13:M:103:VAL:H	1.81	0.45
13:M:102:LYS:HG3	13:M:103:VAL:N	2.31	0.45
15:O:83:GLN:NE2	15:O:87:GLU:OE2	2.50	0.45
17:Q:81:ILE:O	17:Q:84:ILE:HG12	2.16	0.45
19:S:8:LYS:HZ2	19:S:8:LYS:HG2	1.45	0.45
20:T:21:PHE:CD1	20:T:22:LEU:N	2.85	0.45
22:V:41:LYS:HA	22:V:41:LYS:HD2	1.39	0.45
23:W:49:GLU:OE1	23:W:64:ASN:ND2	2.49	0.45
24:X:45:SER:OG	24:X:46:HIS:HD2	2.00	0.45
24:X:89:GLY:HA2	31:e:83:VAL:HG12	1.97	0.45
28:b:31:TYR:CZ	28:b:81:ARG:NH1	2.85	0.45
30:d:34:TYR:HB2	30:d:36:LEU:HD13	1.99	0.45
31:e:107:LYS:O	31:e:111:GLN:HG3	2.17	0.45
33:g:140:TYR:HE2	33:g:182:CYS:HB3	0.65	0.45
33:g:194:TYR:CE1	33:g:196:ASN:ND2	2.84	0.45
33:g:275:ILE:HD12	33:g:275:ILE:C	2.15	0.45
34:i:125:C:H5'	34:i:125:C:C6	2.47	0.45
34:i:1429:C:HO2'	34:i:1430:C:H5'	1.81	0.45
34:i:1748:G:O6	34:i:1772:C:N3	2.49	0.45
1:A:102:ARG:HH21	1:A:105:PRO:HD2	1.82	0.45
2:B:72:ALA:CB	2:B:79:VAL:HG23	2.46	0.45
4:D:74:GLN:HB2	4:D:84:VAL:HG11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:2:LYS:HG3	7:G:17:GLU:HG2	1.99	0.45
7:G:25:ARG:O	7:G:28:TYR:N	2.26	0.45
7:G:195:LYS:CE	34:i:125:C:HO2'	2.21	0.45
9:I:191:GLU:O	9:I:195:LEU:HB3	2.16	0.45
11:K:4:PRO:CG	11:K:7:ASN:HB2	2.26	0.45
13:M:51:VAL:CG1	13:M:109:VAL:CG2	2.94	0.45
19:S:81:ASP:C	19:S:87:GLN:NE2	2.71	0.45
23:W:15:ASN:ND2	23:W:19:LYS:CE	2.77	0.45
24:X:107:ARG:HB3	24:X:110:HIS:O	2.17	0.45
25:Y:29:HIS:CE1	25:Y:67:GLY:HA2	2.30	0.45
30:d:27:ARG:NH2	34:i:1259:U:H4'	2.31	0.45
33:g:42:MET:SD	33:g:56:GLN:CB	3.04	0.45
33:g:156:PHE:CD2	33:g:156:PHE:O	2.70	0.45
34:i:484:C:N4	34:i:499:G:H21	2.14	0.45
35:l:88:ASP:C	35:l:90:ARG:H	2.25	0.45
1:A:158:ASP:O	1:A:159:ILE:CB	2.65	0.45
1:A:204:TYR:HD2	1:A:204:TYR:O	1.99	0.45
4:D:46:THR:OG1	4:D:79:PHE:CE2	2.58	0.45
4:D:217:ILE:HG22	4:D:218:LEU:HB3	1.98	0.45
5:E:151:ASP:HA	5:E:152:PRO:HD3	1.44	0.45
5:E:151:ASP:O	5:E:153:LEU:N	2.50	0.45
5:E:153:LEU:HD21	7:G:216:ARG:NH1	2.32	0.45
6:F:163:PHE:CD2	6:F:164:ARG:HG2	2.50	0.45
6:F:175:ASP:OD1	6:F:175:ASP:O	2.35	0.45
6:F:185:SER:OG	6:F:190:ILE:HD12	2.17	0.45
7:G:213:LEU:HD12	7:G:214:ALA:CA	2.47	0.45
8:H:59:ALA:HB2	8:H:172:THR:OG1	2.17	0.45
8:H:149:ASP:O	8:H:150:GLY:C	2.59	0.45
9:I:54:LYS:HD3	9:I:181:GLN:OE1	2.17	0.45
10:J:91:LYS:C	10:J:93:LYS:N	2.71	0.45
11:K:3:MET:HA	11:K:4:PRO:HD2	1.66	0.45
12:L:71:ARG:CG	12:L:73:LEU:CG	2.94	0.45
14:N:50:ILE:HG23	14:N:54:LEU:HD11	1.99	0.45
14:N:67:THR:C	14:N:69:ASN:H	2.24	0.45
16:P:75:VAL:HG22	16:P:93:MET:HB3	1.97	0.45
17:Q:105:LYS:HZ3	17:Q:109:LYS:CB	2.21	0.45
18:R:86:PRO:HB2	18:R:87:GLU:H	1.62	0.45
19:S:24:ARG:C	19:S:55:ARG:HD2	2.42	0.45
19:S:141:ARG:HD3	34:i:1518:C:H5	1.82	0.45
20:T:40:ALA:C	20:T:43:LYS:HG2	2.41	0.45
22:V:31:SER:C	22:V:32:ILE:CG1	2.86	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:7:LEU:HD21	23:W:33:VAL:HG12	1.99	0.45
23:W:25:VAL:O	23:W:62:VAL:HA	2.17	0.45
23:W:118:ARG:HG2	34:i:730:C:C4'	2.46	0.45
24:X:52:LEU:CD1	24:X:71:ARG:CB	2.95	0.45
30:d:33:LYS:HG3	34:i:1653:G:H5"	1.98	0.45
33:g:143:GLN:O	33:g:144:ASP:HB3	2.16	0.45
34:i:184:G:O6	34:i:211:U:O4	2.34	0.45
34:i:1140:A:C2	34:i:1195:A:H4'	2.51	0.45
34:i:1359:C:O5'	34:i:1359:C:H6	1.99	0.45
34:i:1413:C:H3'	34:i:1413:C:C6	2.47	0.45
1:A:66:VAL:HA	1:A:186:ARG:HD2	1.98	0.45
2:B:148:ASN:C	18:R:124:VAL:HG21	2.42	0.45
3:C:69:PHE:CE1	3:C:247:THR:CG2	2.99	0.45
3:C:126:MET:CE	3:C:223:LYS:HZ3	2.24	0.45
3:C:244:THR:HG22	3:C:246:PHE:CA	2.43	0.45
4:D:94:ARG:HE	4:D:94:ARG:HB3	1.40	0.45
4:D:226:GLN:HB3	4:D:227:LYS:H	1.59	0.45
7:G:67:VAL:HG22	7:G:100:CYS:SG	2.57	0.45
7:G:198:ARG:HH21	7:G:201:LYS:HG3	1.82	0.45
8:H:154:ILE:HG22	8:H:185:VAL:HG22	1.99	0.45
9:I:67:TRP:CD2	9:I:70:GLU:HG2	2.52	0.45
9:I:142:SER:CB	9:I:143:LYS:CE	2.93	0.45
11:K:53:LYS:CA	11:K:58:VAL:CG1	2.94	0.45
13:M:127:TYR:CD1	13:M:127:TYR:C	2.93	0.45
17:Q:16:LYS:HD2	17:Q:17:LYS:H	1.74	0.45
18:R:121:GLN:NE2	18:R:121:GLN:CA	2.76	0.45
19:S:46:ARG:HD2	20:T:50:GLU:HG2	1.99	0.45
19:S:48:ALA:HB2	19:S:70:ILE:HD12	1.98	0.45
23:W:24:GLN:HG3	28:b:7:LEU:HG	1.99	0.45
27:a:41:ILE:HG21	27:a:68:TYR:CE1	2.52	0.45
27:a:85:ARG:O	27:a:87:ARG:HG3	2.17	0.45
29:c:44:ARG:NE	29:c:58:LEU:HD22	2.31	0.45
30:d:44:ARG:HG2	30:d:44:ARG:NH1	2.31	0.45
33:g:32:LEU:CD2	33:g:69:VAL:CG2	2.95	0.45
33:g:147:HIS:C	33:g:149:GLU:N	2.71	0.45
33:g:175:LYS:HE2	33:g:184:LEU:CB	2.46	0.45
34:i:1199:G:H2'	34:i:1200:A:C8	2.52	0.45
1:A:14:ASP:OD1	1:A:180:ARG:NH2	2.48	0.45
1:A:36:GLN:NE2	1:A:53:ARG:HH12	2.15	0.45
3:C:110:LYS:HA	3:C:128:CYS:HA	1.99	0.45
3:C:244:THR:C	3:C:246:PHE:N	2.68	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:40:ARG:NE	21:U:107:GLU:OE2	2.49	0.45
4:D:108:LYS:HA	4:D:113:LEU:HD21	1.98	0.45
5:E:53:LYS:HD3	5:E:53:LYS:HA	1.80	0.45
6:F:38:TYR:N	6:F:38:TYR:HD2	2.15	0.45
6:F:151:ILE:HA	6:F:154:LEU:CD2	2.47	0.45
7:G:13:GLN:HA	7:G:124:LEU:HD11	1.99	0.45
7:G:233:ARG:O	7:G:236:SER:OG	2.30	0.45
8:H:14:GLU:CG	8:H:15:LYS:O	2.64	0.45
9:I:73:THR:O	9:I:74:ARG:CD	2.65	0.45
9:I:81:VAL:HG11	9:I:91:VAL:HA	1.99	0.45
9:I:118:ALA:CB	9:I:149:TYR:CE1	2.94	0.45
9:I:141:ARG:O	9:I:143:LYS:NZ	2.49	0.45
10:J:87:LEU:HG	10:J:88:ASP:N	2.31	0.45
10:J:124:HIS:O	10:J:127:ARG:N	2.49	0.45
10:J:148:ILE:HG22	10:J:148:ILE:O	2.17	0.45
10:J:180:LYS:O	10:J:180:LYS:HD3	2.11	0.45
12:L:125:ILE:C	12:L:146:THR:HG22	2.40	0.45
16:P:37:TYR:CA	19:S:88:LYS:CD	2.95	0.45
16:P:56:LEU:CD2	16:P:78:THR:HG22	2.44	0.45
20:T:9:VAL:HG12	20:T:10:ASN:N	2.32	0.45
20:T:97:LYS:HZ3	34:i:1564:A:P	2.40	0.45
21:U:33:GLU:CD	21:U:55:ARG:HH21	2.25	0.45
25:Y:32:LYS:CG	25:Y:33:ALA:O	2.61	0.45
25:Y:56:PHE:CE1	25:Y:94:HIS:HE1	2.34	0.45
26:Z:77:LEU:O	26:Z:78:LYS:HD3	2.17	0.45
29:c:15:THR:HG23	29:c:33:GLU:H	1.82	0.45
31:e:107:LYS:HG3	31:e:110:MET:HE2	1.99	0.45
31:e:114:ARG:C	31:e:114:ARG:CD	2.90	0.45
33:g:49:GLU:C	33:g:50:THR:OG1	2.57	0.45
34:i:370:G:H8	34:i:372:C:OP2	1.90	0.45
34:i:551:A:C6	34:i:552:U:O4	2.70	0.45
34:i:1045:A:C2	34:i:1066:A:C4	3.05	0.45
34:i:1141:A:C5	34:i:1142:C:H1'	2.51	0.45
34:i:1411:C:C3'	34:i:1412:C:H5'	2.46	0.45
34:i:1615:A:H1'	34:i:1619:U:OP2	2.17	0.45
35:l:35:ILE:CB	35:l:112:GLY:HA2	2.47	0.45
1:A:127:PRO:CG	1:A:153:PRO:HD2	2.30	0.45
3:C:120:GLY:C	3:C:150:VAL:HG22	2.42	0.45
4:D:18:LYS:HD2	4:D:18:LYS:C	2.38	0.45
4:D:132:LYS:CB	4:D:191:PRO:CD	2.90	0.45
4:D:132:LYS:HD3	4:D:191:PRO:CG	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:153:LEU:HD21	7:G:216:ARG:HH12	1.82	0.45
7:G:16:ILE:HG21	7:G:45:TRP:HZ2	1.79	0.45
8:H:118:ARG:C	8:H:120:ARG:N	2.75	0.45
9:I:118:ALA:CB	9:I:149:TYR:CD1	3.00	0.45
11:K:27:VAL:HG13	11:K:43:LEU:HD22	0.44	0.45
13:M:35:ILE:HG22	34:i:1282:G:N7	2.32	0.45
14:N:54:LEU:C	14:N:60:VAL:CG2	2.90	0.45
15:O:59:GLY:O	15:O:60:MET:C	2.59	0.45
16:P:15:PHE:CE1	19:S:91:LYS:HD3	2.49	0.45
18:R:5:ARG:C	18:R:10:LYS:HZ1	2.25	0.45
20:T:12:GLN:O	20:T:16:ARG:HB2	2.17	0.45
20:T:38:LYS:HE2	20:T:45:LEU:HA	1.98	0.45
23:W:30:CYS:SG	23:W:61:ILE:CD1	2.97	0.45
23:W:89:TRP:HB3	23:W:102:ILE:HD13	1.99	0.45
24:X:105:PHE:HE2	24:X:118:VAL:O	1.77	0.45
33:g:31:ILE:HG23	33:g:31:ILE:O	2.15	0.45
33:g:87:LEU:O	33:g:101:PHE:HD1	2.00	0.45
33:g:273:GLU:C	33:g:274:VAL:HG13	2.41	0.45
34:i:195:C:N3	34:i:201:G:N1	2.65	0.45
34:i:841:G:C3'	34:i:842:G:C8	2.98	0.45
34:i:1492:U:O2'	34:i:1494:A:O5'	2.25	0.45
35:l:64:LYS:HE3	35:l:71:GLY:N	2.32	0.45
3:C:144:LYS:O	3:C:147:ILE:HG13	2.17	0.44
3:C:157:ASN:O	3:C:159:ILE:N	2.50	0.44
4:D:86:LEU:HD12	4:D:86:LEU:N	2.32	0.44
4:D:227:LYS:CE	33:g:187:ASN:HD22	2.28	0.44
5:E:2:ALA:O	5:E:3:ARG:CG	2.62	0.44
5:E:9:LEU:HD12	5:E:30:ARG:HA	2.00	0.44
5:E:166:THR:O	5:E:168:LYS:CD	2.52	0.44
6:F:133:THR:HG21	6:F:135:ARG:NH1	2.33	0.44
7:G:58:LYS:O	7:G:59:GLN:CB	2.57	0.44
8:H:100:ILE:HG12	8:H:125:VAL:CG2	2.37	0.44
9:I:55:TYR:OH	34:i:296:U:H1'	2.16	0.44
11:K:14:LEU:HD11	11:K:35:LEU:HD11	1.99	0.44
11:K:55:ARG:NH1	34:i:1273:C:H5"	2.31	0.44
11:K:64:TRP:O	11:K:65:ARG:C	2.58	0.44
12:L:12:LYS:HE3	12:L:12:LYS:HB3	1.80	0.44
12:L:149:ALA:HB2	12:L:156:GLN:CB	2.16	0.44
14:N:17:PRO:HG3	28:b:28:PRO:HG3	1.98	0.44
14:N:94:LYS:HE3	14:N:118:ILE:CD1	2.46	0.44
15:O:64:ALA:CB	15:O:66:ARG:HE	2.28	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:15:VAL:HG11	19:S:68:ILE:HG12	1.99	0.44
19:S:92:ASP:C	19:S:94:LYS:H	2.24	0.44
20:T:31:PRO:O	20:T:33:TRP:CG	2.70	0.44
24:X:67:ARG:HA	24:X:67:ARG:NE	2.31	0.44
25:Y:56:PHE:HB3	25:Y:58:PHE:CE2	2.47	0.44
26:Z:51:ASP:HB2	26:Z:54:THR:HG23	1.98	0.44
28:b:2:PRO:C	28:b:3:LEU:CG	2.89	0.44
28:b:54:VAL:HB	28:b:63:LEU:HD22	1.99	0.44
32:f:106:TYR:CZ	32:f:131:PHE:CE2	2.98	0.44
33:g:172:LYS:O	33:g:172:LYS:HD3	2.16	0.44
33:g:238:ALA:CB	33:g:289:LEU:CD2	2.94	0.44
34:i:829:C:H2'	34:i:830:C:H6	1.82	0.44
34:i:1546:U:C5	34:i:1572:G:C6	3.06	0.44
34:i:1615:A:H4'	34:i:1616:U:C6	2.52	0.44
2:B:91:VAL:HG22	2:B:96:CYS:SG	2.57	0.44
2:B:151:ARG:HG3	2:B:153:THR:H	1.82	0.44
3:C:150:VAL:O	3:C:150:VAL:HG23	2.16	0.44
4:D:138:VAL:O	4:D:149:SER:HA	2.16	0.44
4:D:146:ARG:HD3	4:D:146:ARG:HA	1.63	0.44
5:E:102:ILE:HG23	5:E:182:MET:SD	2.57	0.44
6:F:44:LYS:CB	6:F:45:TYR:CD1	3.00	0.44
6:F:46:ALA:O	6:F:47:LYS:CD	2.39	0.44
6:F:110:GLN:HE21	6:F:110:GLN:CA	2.29	0.44
8:H:73:GLN:NE2	8:H:135:PHE:HE1	2.14	0.44
8:H:117:PRO:O	8:H:119:SER:C	2.59	0.44
10:J:110:LEU:CB	10:J:130:ILE:HD13	2.43	0.44
10:J:131:ARG:HA	10:J:143:ASN:OD1	2.18	0.44
14:N:125:LEU:CD2	14:N:129:TYR:CE2	3.00	0.44
15:O:71:PRO:O	15:O:74:ALA:HB3	2.17	0.44
15:O:147:ARG:HH22	34:i:1848:U:P	2.40	0.44
17:Q:58:LEU:CD2	17:Q:111:ILE:HB	2.48	0.44
17:Q:124:PRO:CD	17:Q:125:ARG:N	2.81	0.44
18:R:24:LEU:HD12	18:R:58:MET:CE	2.44	0.44
19:S:89:ASP:HB3	19:S:90:VAL:H	1.47	0.44
23:W:111:MET:HE1	23:W:121:THR:OG1	2.16	0.44
24:X:51:VAL:CG2	24:X:70:VAL:HG11	2.46	0.44
25:Y:29:HIS:CE1	25:Y:68:LYS:H	1.82	0.44
25:Y:86:GLU:O	25:Y:87:PRO:O	2.35	0.44
25:Y:101:LYS:HZ2	25:Y:101:LYS:HG2	1.44	0.44
27:a:75:VAL:HG12	27:a:79:ILE:HD12	1.99	0.44
28:b:6:ASP:OD1	28:b:6:ASP:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:d:42:CYS:O	30:d:45:GLN:N	2.49	0.44
34:i:547:U:C4	34:i:548:G:C5	3.05	0.44
34:i:984:C:O4'	34:i:984:C:C6	2.70	0.44
34:i:1236:A:C2	34:i:1264:C:C5'	3.00	0.44
34:i:1447:G:O2'	34:i:1470:A:N6	2.50	0.44
2:B:89:GLU:O	2:B:90:ASP:HB2	2.17	0.44
2:B:151:ARG:HD2	2:B:154:SER:H	1.82	0.44
2:B:182:LYS:HA	2:B:182:LYS:HD3	1.62	0.44
3:C:69:PHE:CZ	3:C:249:SER:CA	2.94	0.44
3:C:189:ILE:HG21	3:C:196:LYS:HA	1.99	0.44
4:D:16:ILE:CD1	30:d:22:ARG:HH22	2.20	0.44
7:G:168:LYS:HE3	34:i:71:G:C8	2.53	0.44
8:H:117:PRO:C	8:H:119:SER:H	2.20	0.44
8:H:154:ILE:CG2	8:H:185:VAL:HG22	2.48	0.44
10:J:35:TYR:CD2	10:J:35:TYR:N	2.85	0.44
10:J:67:ASP:O	10:J:69:ARG:N	2.50	0.44
12:L:97:ARG:HG2	12:L:98:LYS:HA	1.99	0.44
12:L:113:LEU:HD23	12:L:114:SER:O	2.18	0.44
17:Q:114:GLN:CG	17:Q:115:TYR:N	2.60	0.44
22:V:58:ALA:HA	22:V:61:ARG:CD	2.47	0.44
23:W:20:ARG:CZ	34:i:1135:C:H1'	2.47	0.44
24:X:52:LEU:O	24:X:96:GLU:CD	2.60	0.44
25:Y:47:MET:O	34:i:833:A:C2	2.70	0.44
25:Y:56:PHE:C	25:Y:58:PHE:CE2	2.95	0.44
26:Z:48:VAL:HG22	26:Z:80:ARG:HB2	1.99	0.44
33:g:249:CYS:SG	33:g:256:ILE:CG2	3.06	0.44
34:i:328:G:O6	34:i:329:A:C6	2.70	0.44
34:i:835:C:C2'	34:i:837:G:C4'	2.92	0.44
34:i:1046:A:C5	34:i:1065:U:C2	3.05	0.44
34:i:1409:G:H2'	34:i:1410:A:O4'	2.17	0.44
34:i:1411:C:H2'	34:i:1412:C:H5'	1.99	0.44
34:i:1749:C:C4	34:i:1750:C:C4	3.05	0.44
35:l:104:LYS:CB	35:l:107:GLN:HG3	2.47	0.44
1:A:103:PHE:O	1:A:104:THR:HB	2.17	0.44
1:A:161:ILE:HG21	1:A:174:MET:CE	2.47	0.44
2:B:33:VAL:HG12	2:B:44:ILE:CD1	2.36	0.44
2:B:151:ARG:HG3	2:B:153:THR:N	2.33	0.44
3:C:51:LEU:CD2	3:C:60:ILE:HD12	2.48	0.44
3:C:180:LEU:O	3:C:181:ILE:HD13	2.18	0.44
4:D:53:THR:CG2	4:D:91:VAL:CG2	2.95	0.44
4:D:192:TRP:O	4:D:193:ASP:C	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:70:ILE:HG13	5:E:92:ILE:HD12	1.86	0.44
5:E:152:PRO:HG3	7:G:209:TYR:OH	2.17	0.44
6:F:69:VAL:O	6:F:73:THR:HG23	2.17	0.44
7:G:84:TYR:CE2	7:G:86:PRO:CG	2.88	0.44
7:G:147:LEU:O	7:G:151:ASP:CG	2.59	0.44
8:H:8:ILE:O	8:H:11:PRO:HD3	2.16	0.44
8:H:36:LEU:HD23	8:H:78:ARG:HH11	1.82	0.44
9:I:157:LYS:CB	12:L:22:ARG:CD	2.54	0.44
11:K:83:LEU:O	11:K:84:HIS:HB3	2.14	0.44
11:K:89:ILE:CG2	11:K:90:VAL:H	2.31	0.44
13:M:35:ILE:CB	13:M:61:TYR:CE2	2.95	0.44
13:M:69:CYS:O	13:M:74:ILE:HD12	2.16	0.44
14:N:19:ARG:HH12	28:b:84:HIS:HB2	1.74	0.44
14:N:26:LEU:HA	14:N:27:LYS:HE3	1.99	0.44
14:N:49:GLN:HG2	14:N:49:GLN:H	1.59	0.44
15:O:79:GLN:CD	29:c:5:ARG:NE	2.74	0.44
15:O:105:THR:O	15:O:106:LYS:CB	2.64	0.44
15:O:131:ASP:OD1	15:O:133:THR:HG23	2.18	0.44
15:O:139:SER:OG	15:O:140:THR:N	2.50	0.44
16:P:49:LEU:HD12	16:P:51:ARG:CD	2.38	0.44
16:P:128:HIS:HB3	34:i:1517:A:C4	2.52	0.44
19:S:81:ASP:HA	19:S:84:LEU:CD1	2.46	0.44
20:T:74:SER:OG	34:i:1582:G:N2	2.50	0.44
23:W:104:LEU:CD1	23:W:106:THR:HG22	2.43	0.44
24:X:41:PHE:CE1	24:X:47:ALA:HB3	2.51	0.44
25:Y:119:GLY:HA2	34:i:85:A:H5'	1.99	0.44
26:Z:52:LYS:HB3	26:Z:53:ALA:H	1.49	0.44
27:a:45:VAL:O	27:a:46:GLU:HB2	2.18	0.44
29:c:14:VAL:HG23	29:c:54:ASP:O	2.18	0.44
33:g:131:LEU:HD23	33:g:132:TRP:H	1.81	0.44
33:g:236:ILE:HG21	33:g:239:LEU:HD21	1.98	0.44
34:i:987:G:C6	34:i:1130:G:H4'	2.53	0.44
34:i:1491:G:O2'	34:i:1492:U:H5'	2.18	0.44
34:i:1828:A:H3'	34:i:1829:A:H5"	2.00	0.44
1:A:5:LEU:HD13	1:A:6:ASP:CB	2.48	0.44
1:A:12:GLU:HB3	18:R:111:PHE:HE2	1.76	0.44
1:A:28:THR:CG2	1:A:46:ILE:HD13	2.45	0.44
1:A:76:VAL:HG13	1:A:175:TRP:HH2	1.62	0.44
1:A:188:THR:O	1:A:188:THR:OG1	2.29	0.44
2:B:19:LYS:O	2:B:21:VAL:HG11	2.05	0.44
2:B:72:ALA:CB	15:O:128:ARG:NH2	2.72	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:105:LEU:HD11	2:B:110:MET:HE1	1.99	0.44
2:B:123:ALA:HB3	2:B:168:MET:SD	2.58	0.44
4:D:16:ILE:HD11	30:d:36:LEU:CG	2.38	0.44
4:D:59:LEU:HD13	4:D:60:GLY:O	2.17	0.44
5:E:49:ARG:CD	5:E:50:ASN:N	2.72	0.44
5:E:205:PHE:CZ	5:E:221:ARG:NH1	2.86	0.44
6:F:20:PHE:HB3	6:F:23:TRP:CB	2.46	0.44
6:F:42:LYS:CD	6:F:42:LYS:O	2.48	0.44
6:F:112:LEU:HA	6:F:177:LEU:HD13	1.96	0.44
6:F:115:ALA:HB3	6:F:177:LEU:HD22	1.99	0.44
7:G:143:LYS:HE3	7:G:143:LYS:CA	2.48	0.44
7:G:147:LEU:O	7:G:148:SER:CB	2.65	0.44
7:G:161:PRO:HA	7:G:170:ARG:O	2.17	0.44
7:G:225:GLN:C	7:G:227:GLN:N	2.75	0.44
8:H:44:ASN:HB3	8:H:68:GLN:NE2	2.29	0.44
8:H:79:LEU:HD22	8:H:83:LEU:HD23	1.99	0.44
8:H:110:THR:HG23	34:i:795:U:H5'	2.00	0.44
8:H:121:THR:CG2	8:H:124:ALA:CB	2.96	0.44
8:H:158:LEU:CG	8:H:187:PHE:CD1	3.00	0.44
9:I:105:ASP:O	9:I:106:SER:CB	2.64	0.44
10:J:38:ARG:CZ	31:e:104:GLY:CA	2.46	0.44
10:J:100:LEU:HD11	10:J:104:ASP:CG	2.42	0.44
10:J:136:ARG:HH12	10:J:161:LEU:HD12	1.82	0.44
12:L:148:ALA:O	12:L:150:GLY:N	2.51	0.44
13:M:31:LEU:C	13:M:31:LEU:HD13	2.42	0.44
13:M:77:ILE:CD1	13:M:78:LYS:N	2.80	0.44
14:N:140:LYS:HG2	14:N:141:TYR:N	2.32	0.44
16:P:59:ARG:HG2	16:P:76:VAL:HG22	1.99	0.44
19:S:83:PHE:CG	19:S:83:PHE:O	2.70	0.44
21:U:67:LYS:CD	21:U:78:ASP:OD2	2.66	0.44
23:W:37:PHE:CZ	23:W:103:VAL:HG11	2.53	0.44
24:X:89:GLY:HA2	31:e:83:VAL:CG1	2.48	0.44
32:f:103:LEU:CD2	32:f:106:TYR:CD2	2.95	0.44
33:g:37:ASP:O	33:g:38:LYS:CB	2.65	0.44
33:g:176:VAL:CG2	33:g:186:THR:CG2	2.95	0.44
33:g:191:HIS:CE1	33:g:195:LEU:HD21	2.52	0.44
34:i:1701:G:H1'	34:i:1844:A:C2'	2.32	0.44
1:A:24:HIS:NE2	18:R:105:MET:CG	2.57	0.44
1:A:159:ILE:HD12	1:A:160:ALA:H	1.83	0.44
2:B:31:TYR:CD2	2:B:62:LEU:HD22	2.52	0.44
2:B:41:ILE:HD13	2:B:41:ILE:HG23	1.61	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:163:HIS:H	3:C:163:HIS:CD2	2.36	0.44
5:E:59:ASP:OD1	5:E:63:LYS:HE3	2.18	0.44
5:E:64:ILE:CD1	25:Y:17:LEU:CD1	2.95	0.44
6:F:32:ASP:CB	6:F:117:ILE:CG2	2.95	0.44
6:F:116:ILE:H	6:F:116:ILE:CD1	2.00	0.44
6:F:184:SER:C	6:F:186:ASN:H	2.26	0.44
7:G:13:GLN:C	7:G:14:LYS:HG2	2.43	0.44
7:G:219:GLU:H	7:G:219:GLU:HG3	1.65	0.44
8:H:109:ARG:NH2	8:H:111:LYS:HD2	2.33	0.44
8:H:154:ILE:HG22	8:H:154:ILE:O	2.17	0.44
8:H:160:LYS:CB	8:H:192:PHE:CZ	3.00	0.44
9:I:112:TRP:CH2	9:I:117:TYR:CZ	3.06	0.44
9:I:140:LYS:N	9:I:145:ILE:HD11	2.32	0.44
9:I:144:LYS:N	9:I:144:LYS:HD2	2.33	0.44
10:J:110:LEU:HB3	10:J:111:GLN:H	1.49	0.44
11:K:36:ALA:O	11:K:38:LYS:CA	2.66	0.44
11:K:52:LEU:O	11:K:55:ARG:HG3	2.17	0.44
11:K:85:LEU:HG	11:K:85:LEU:H	1.54	0.44
12:L:59:LYS:CD	12:L:134:LEU:HD21	2.47	0.44
12:L:71:ARG:HD2	12:L:73:LEU:HD21	1.77	0.44
13:M:12:MET:HG2	13:M:16:THR:HG22	1.99	0.44
14:N:82:PRO:O	14:N:84:LEU:N	2.51	0.44
15:O:20:GLN:HE21	15:O:22:ALA:HB2	1.82	0.44
15:O:147:ARG:HH21	15:O:150:ARG:NH2	2.15	0.44
16:P:14:LYS:HB2	16:P:15:PHE:H	1.33	0.44
16:P:37:TYR:HA	19:S:88:LYS:HD2	1.99	0.44
16:P:44:ARG:NE	16:P:82:ASP:O	2.51	0.44
16:P:49:LEU:O	16:P:50:ARG:CB	2.54	0.44
16:P:111:MET:O	16:P:112:ILE:C	2.60	0.44
17:Q:124:PRO:HG2	17:Q:125:ARG:HG3	2.00	0.44
17:Q:126:ARG:CG	17:Q:127:CYS:N	2.81	0.44
19:S:82:TRP:HA	19:S:87:GLN:NE2	2.28	0.44
20:T:15:VAL:HG23	20:T:16:ARG:N	2.31	0.44
20:T:21:PHE:HD1	20:T:22:LEU:HD23	1.79	0.44
22:V:32:ILE:CG2	22:V:33:PRO:CD	2.86	0.44
23:W:90:GLN:HB3	23:W:102:ILE:HD12	2.00	0.44
25:Y:59:GLY:O	34:i:562:U:H5"	2.18	0.44
25:Y:122:LYS:CD	25:Y:123:ALA:N	2.62	0.44
28:b:19:HIS:CE1	28:b:20:LYS:HG2	2.53	0.44
32:f:103:LEU:HD23	32:f:105:TYR:HB2	1.97	0.44
33:g:113:PHE:CE1	33:g:120:ILE:HG12	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:232:GLY:C	33:g:257:LYS:HZ1	2.25	0.44
33:g:293:ALA:HB3	33:g:294:ASP:CG	2.43	0.44
34:i:520:U:C5	34:i:521:A:C5	3.05	0.44
34:i:1413:C:C6	34:i:1413:C:C3'	3.00	0.44
34:i:1546:U:H2'	34:i:1547:G:C8	2.52	0.44
35:l:90:ARG:CZ	35:l:90:ARG:HB3	2.47	0.44
1:A:57:LYS:HZ3	22:V:70:LEU:CD2	2.30	0.44
1:A:57:LYS:HD3	1:A:159:ILE:HD11	1.98	0.44
2:B:124:HIS:CG	2:B:136:HIS:NE2	2.82	0.44
2:B:136:HIS:HB2	2:B:218:LEU:HD11	2.00	0.44
3:C:93:LYS:HG2	3:C:95:MET:H	1.83	0.44
4:D:188:ILE:HG22	4:D:190:LEU:CD2	2.42	0.44
5:E:92:ILE:CG2	5:E:95:THR:OG1	2.63	0.44
7:G:176:ILE:HG21	7:G:179:LEU:HB2	1.94	0.44
7:G:186:GLN:HA	7:G:189:ARG:NH2	2.33	0.44
8:H:87:PHE:O	8:H:88:SER:C	2.61	0.44
9:I:123:ARG:O	9:I:124:LYS:O	2.35	0.44
9:I:205:ARG:O	9:I:206:LYS:O	2.35	0.44
10:J:84:ILE:O	10:J:108:ARG:HD2	2.16	0.44
11:K:21:MET:SD	11:K:49:MET:CE	3.06	0.44
11:K:47:LYS:HA	11:K:50:GLN:HG2	2.00	0.44
11:K:84:HIS:CE1	11:K:85:LEU:CA	2.85	0.44
14:N:92:ILE:CG2	14:N:150:VAL:HG23	2.46	0.44
16:P:79:HIS:ND1	16:P:102:PHE:CZ	2.74	0.44
16:P:84:ILE:HD11	16:P:115:TYR:CZ	2.52	0.44
17:Q:40:GLU:OE1	17:Q:40:GLU:HA	2.17	0.44
17:Q:57:LEU:HD13	17:Q:115:TYR:CD2	2.49	0.44
19:S:42:HIS:CB	20:T:45:LEU:CD1	2.88	0.44
25:Y:78:SER:HB2	25:Y:81:TYR:HE2	1.75	0.44
25:Y:78:SER:C	25:Y:80:ASP:N	2.76	0.44
27:a:10:ARG:HH22	34:i:1861:U:P	2.40	0.44
32:f:108:VAL:HG21	32:f:114:ILE:CG2	2.29	0.44
33:g:18:VAL:O	33:g:287:THR:HG23	2.17	0.44
33:g:212:LYS:CG	33:g:235:ILE:HD12	2.44	0.44
34:i:1408:C:O2'	34:i:1409:G:O4'	2.27	0.44
1:A:58:LEU:CD2	1:A:58:LEU:O	2.66	0.44
2:B:175:GLU:CG	2:B:193:ILE:HD11	2.47	0.44
3:C:128:CYS:SG	34:i:1353:A:C4'	3.05	0.44
5:E:188:ASN:HD21	5:E:218:PHE:HB2	1.82	0.44
5:E:212:ASP:OD2	5:E:214:ASN:N	2.51	0.44
6:F:103:LEU:O	6:F:103:LEU:CG	2.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:112:LEU:HD23	6:F:112:LEU:O	2.18	0.44
7:G:27:PHE:C	7:G:30:LYS:HG2	2.43	0.44
7:G:59:GLN:N	34:i:157:U:H4'	2.32	0.44
7:G:85:ARG:NH1	25:Y:118:ARG:HH21	2.15	0.44
7:G:151:ASP:O	7:G:152:ASP:HB3	2.18	0.44
8:H:46:THR:CG2	8:H:63:PHE:CB	2.95	0.44
8:H:144:ILE:O	23:W:52:ILE:N	2.51	0.44
8:H:172:THR:HG23	8:H:173:PHE:N	2.32	0.44
9:I:5:ARG:NH1	34:i:374:U:N3	2.66	0.44
9:I:98:LYS:O	9:I:99:ASN:CB	2.66	0.44
10:J:132:GLN:O	10:J:133:ARG:HB2	2.17	0.44
12:L:153:LYS:CB	14:N:131:THR:O	2.66	0.44
13:M:49:LEU:HA	13:M:75:ASN:HB2	1.99	0.44
14:N:134:VAL:HG22	14:N:135:LEU:N	2.31	0.44
15:O:98:ARG:NH1	15:O:98:ARG:HG2	2.32	0.44
16:P:44:ARG:CD	34:i:1615:A:OP1	2.66	0.44
16:P:62:LYS:CA	16:P:65:LYS:HE2	2.48	0.44
16:P:123:TYR:OH	19:S:120:HIS:NE2	2.51	0.44
17:Q:130:LYS:HG2	34:i:1664:G:C5'	2.48	0.44
17:Q:145:TYR:HB3	17:Q:146:ARG:H	1.53	0.44
20:T:4:VAL:CG1	20:T:139:ALA:HB2	2.46	0.44
20:T:18:LEU:HD13	20:T:134:ILE:CD1	2.16	0.44
21:U:19:ARG:N	21:U:19:ARG:HD2	2.32	0.44
24:X:107:ARG:O	24:X:108:LYS:CB	2.66	0.44
25:Y:101:LYS:HB3	25:Y:102:THR:H	1.66	0.44
26:Z:104:ARG:CZ	34:i:1590:U:C5	3.01	0.44
27:a:45:VAL:O	27:a:46:GLU:CG	2.66	0.44
30:d:30:LEU:HD22	30:d:31:ILE:N	2.33	0.44
32:f:106:TYR:HH	32:f:131:PHE:HZ	0.55	0.44
33:g:45:LEU:HD13	33:g:52:TYR:HE2	1.83	0.44
33:g:143:GLN:HE21	33:g:143:GLN:HB2	1.33	0.44
34:i:148:U:C5	34:i:169:U:C4	3.05	0.44
34:i:361:A:N6	34:i:382:A:H61	2.16	0.44
34:i:522:C:H4'	34:i:523:A:OP1	2.18	0.44
34:i:1839:A:H2'	34:i:1840:G:C8	2.52	0.44
1:A:77:ILE:HD11	1:A:122:LEU:HD22	1.99	0.44
2:B:105:LEU:CD2	2:B:213:ARG:O	2.66	0.44
3:C:89:ASP:HB3	3:C:115:ILE:HG12	2.00	0.44
4:D:8:LYS:O	4:D:12:VAL:HG23	2.18	0.44
4:D:43:PRO:O	4:D:44:THR:CB	2.66	0.44
4:D:67:ARG:CZ	11:K:95:ARG:HD2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:90:ILE:HD11	5:E:101:LEU:HD11	1.99	0.44
5:E:181:CYS:O	5:E:192:ILE:HG23	2.18	0.44
8:H:106:ARG:CZ	34:i:857:A:N3	2.81	0.44
8:H:117:PRO:O	8:H:119:SER:N	2.50	0.44
9:I:149:TYR:CD1	9:I:152:ARG:NH1	2.68	0.44
10:J:101:LYS:N	10:J:101:LYS:HD2	2.31	0.44
14:N:38:TYR:CE1	14:N:78:LYS:CD	3.01	0.44
16:P:18:ARG:HB3	19:S:93:GLY:HA3	2.00	0.44
20:T:143:LYS:HD3	20:T:143:LYS:HA	1.21	0.44
21:U:106:ILE:O	21:U:107:GLU:CB	2.65	0.44
22:V:39:VAL:C	22:V:41:LYS:N	2.76	0.44
22:V:55:ILE:HG21	22:V:60:ARG:CG	2.47	0.44
24:X:29:LYS:HD3	24:X:29:LYS:HA	1.30	0.44
27:a:44:ILE:HD13	27:a:65:PRO:HG2	2.00	0.44
33:g:258:ILE:CD1	33:g:267:VAL:CG1	2.95	0.44
34:i:72:C:N3	34:i:73:C:C6	2.86	0.44
34:i:1160:G:H3'	34:i:1161:G:H21	1.83	0.44
1:A:49:ILE:CG2	1:A:50:ASN:N	2.81	0.43
1:A:127:PRO:HD3	1:A:147:LEU:O	2.18	0.43
1:A:136:GLU:OE2	34:i:1374:A:C6	2.66	0.43
3:C:243:GLU:HA	22:V:16:LYS:HZ3	1.82	0.43
4:D:134:CYS:O	4:D:153:VAL:HG13	2.18	0.43
4:D:137:VAL:HB	4:D:185:LYS:HB2	1.99	0.43
4:D:172:VAL:HG11	34:i:1331:G:H4'	2.00	0.43
4:D:212:GLU:CG	18:R:19:LYS:NZ	2.78	0.43
4:D:216:GLU:OE1	4:D:217:ILE:N	2.51	0.43
4:D:223:ILE:CG2	4:D:224:SER:N	2.80	0.43
5:E:18:TRP:CD2	5:E:46:ILE:CD1	3.01	0.43
5:E:141:THR:OG1	5:E:143:ASP:OD1	2.36	0.43
6:F:192:LYS:CD	6:F:192:LYS:C	2.90	0.43
7:G:145:PHE:O	7:G:146:ASN:O	2.36	0.43
8:H:11:PRO:CG	8:H:12:ASN:H	2.26	0.43
9:I:172:LEU:HD22	9:I:172:LEU:N	2.33	0.43
9:I:191:GLU:HG2	9:I:192:GLY:H	1.82	0.43
12:L:55:TYR:CG	12:L:115:PRO:HG2	2.53	0.43
12:L:82:MET:SD	12:L:85:THR:HG23	2.58	0.43
15:O:138:ASP:OD1	15:O:138:ASP:O	2.36	0.43
16:P:44:ARG:HD3	34:i:1615:A:OP1	2.18	0.43
16:P:126:VAL:HG13	34:i:1515:G:H21	1.83	0.43
17:Q:16:LYS:HD2	17:Q:16:LYS:C	2.41	0.43
18:R:100:PRO:C	18:R:103:LYS:N	2.60	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:118:ASP:O	20:T:119:TRP:HB2	2.18	0.43
21:U:44:LYS:C	21:U:47:ASN:HA	2.40	0.43
22:V:32:ILE:HD11	22:V:60:ARG:HH12	1.78	0.43
24:X:71:ARG:NE	24:X:82:THR:HG22	2.27	0.43
25:Y:44:LEU:O	25:Y:45:ALA:C	2.60	0.43
25:Y:58:PHE:HE1	25:Y:72:PHE:CD2	2.32	0.43
26:Z:101:SER:O	26:Z:107:VAL:C	2.60	0.43
32:f:136:PHE:O	32:f:138:ARG:CB	2.66	0.43
33:g:143:GLN:OE1	33:g:144:ASP:CA	2.56	0.43
33:g:239:LEU:CD2	33:g:250:ALA:HB2	2.48	0.43
34:i:207:U:C2'	34:i:208:G:O5'	2.65	0.43
34:i:683:G:C2	34:i:684:A:C2	3.06	0.43
34:i:1508:C:H2'	34:i:1509:G:C8	2.52	0.43
34:i:1709:U:H2'	34:i:1710:A:C8	2.53	0.43
1:A:169:HIS:ND1	1:A:169:HIS:N	2.66	0.43
2:B:131:ASP:CG	2:B:180:ASP:CB	2.88	0.43
2:B:156:ALA:CB	2:B:160:GLN:OE1	2.65	0.43
4:D:141:LYS:O	4:D:141:LYS:HG3	2.18	0.43
5:E:71:LYS:HE2	5:E:74:GLY:HA2	1.98	0.43
5:E:126:VAL:HG22	5:E:157:ASN:N	2.29	0.43
6:F:36:GLN:O	6:F:37:ASP:CG	2.61	0.43
6:F:49:LEU:HD21	17:Q:46:THR:O	2.18	0.43
8:H:38:ALA:H	8:H:41:ARG:HG2	1.82	0.43
8:H:43:LEU:HD13	8:H:72:PHE:HE1	1.72	0.43
8:H:103:LYS:O	8:H:103:LYS:HG3	2.18	0.43
8:H:126:HIS:CE1	8:H:181:THR:HG22	2.53	0.43
8:H:169:LYS:O	8:H:170:VAL:C	2.61	0.43
10:J:18:ARG:HA	10:J:19:PRO:HD3	1.48	0.43
10:J:124:HIS:HB3	10:J:125:HIS:H	1.15	0.43
11:K:8:ARG:HG2	11:K:12:TYR:CE1	2.53	0.43
12:L:23:VAL:HG22	12:L:24:LEU:H	1.84	0.43
12:L:80:MET:HE3	12:L:120:VAL:CG1	2.47	0.43
13:M:26:LEU:HD11	13:M:90:GLY:N	2.33	0.43
14:N:38:TYR:CZ	14:N:74:ILE:HG23	2.51	0.43
14:N:116:ILE:HA	14:N:119:GLU:CD	2.43	0.43
15:O:30:VAL:HG23	15:O:45:THR:OG1	2.16	0.43
15:O:129:ILE:HB	27:a:65:PRO:CG	2.28	0.43
16:P:75:VAL:CG1	16:P:76:VAL:H	2.31	0.43
16:P:128:HIS:CD2	34:i:1517:A:O4'	2.71	0.43
17:Q:16:LYS:CD	17:Q:17:LYS:N	2.68	0.43
17:Q:127:CYS:HA	34:i:1643:G:C2'	2.40	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:46:LYS:HG2	21:U:46:LYS:O	2.18	0.43
21:U:61:LEU:CG	30:d:34:TYR:CE2	3.01	0.43
23:W:24:GLN:HA	23:W:63:VAL:O	2.18	0.43
23:W:80:ASP:OD2	34:i:799:C:H4'	2.18	0.43
25:Y:29:HIS:O	25:Y:31:GLY:N	2.51	0.43
26:Z:53:ALA:O	26:Z:57:LYS:HG3	2.18	0.43
33:g:106:LYS:HB3	33:g:107:ASP:H	1.64	0.43
33:g:121:VAL:CG1	33:g:122:SER:N	2.80	0.43
34:i:1238:U:H4'	34:i:1239:U:H5"	2.01	0.43
34:i:1407:G:C6	34:i:1408:C:C2	3.06	0.43
34:i:1581:U:H3'	34:i:1582:G:C5'	2.49	0.43
34:i:1619:U:H3'	34:i:1620:U:H6	1.82	0.43
35:l:66:LYS:HZ2	35:l:66:LYS:HG2	1.62	0.43
35:l:70:ASN:O	35:l:86:GLN:N	2.50	0.43
2:B:23:ASP:HA	2:B:24:PRO:HD3	1.44	0.43
2:B:48:LEU:O	2:B:48:LEU:HD13	2.19	0.43
3:C:244:THR:O	3:C:246:PHE:HD2	2.01	0.43
3:C:260:LYS:HD2	3:C:261:THR:H	1.67	0.43
4:D:37:VAL:HG12	4:D:50:ILE:HD13	1.98	0.43
4:D:99:ILE:HG13	4:D:100:ALA:N	2.33	0.43
4:D:124:ARG:NH1	4:D:128:GLU:OE1	2.51	0.43
5:E:64:ILE:HD11	25:Y:18:LEU:HD11	1.99	0.43
6:F:91:ARG:NH1	6:F:94:LYS:HG3	2.11	0.43
8:H:10:LYS:HB2	8:H:10:LYS:HE2	1.71	0.43
8:H:46:THR:CG2	8:H:63:PHE:HB3	2.47	0.43
10:J:91:LYS:CA	10:J:96:TYR:CB	2.71	0.43
10:J:124:HIS:NE2	34:i:516:A:P	2.73	0.43
12:L:150:GLY:C	12:L:151:THR:OG1	2.61	0.43
13:M:76:LEU:HD23	13:M:76:LEU:HA	1.80	0.43
13:M:93:LYS:O	13:M:94:ILE:C	2.61	0.43
14:N:50:ILE:O	14:N:54:LEU:CG	2.64	0.43
14:N:125:LEU:HD22	14:N:125:LEU:O	2.19	0.43
15:O:17:LEU:CD2	15:O:18:GLY:H	2.27	0.43
15:O:147:ARG:HH21	15:O:150:ARG:HH21	1.65	0.43
16:P:49:LEU:C	16:P:51:ARG:HA	2.29	0.43
16:P:82:ASP:CG	34:i:1614:A:O2'	2.58	0.43
18:R:67:ARG:NH2	34:i:1460:C:H1'	2.33	0.43
18:R:100:PRO:CD	18:R:119:VAL:HG13	2.48	0.43
18:R:104:GLU:CD	18:R:107:LYS:HD2	2.44	0.43
19:S:15:VAL:CG1	19:S:16:LEU:N	2.82	0.43
19:S:71:MET:HE3	19:S:99:LEU:HD13	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:72:GLN:O	19:S:73:ASN:OD1	2.35	0.43
20:T:16:ARG:HH11	20:T:16:ARG:HG3	1.78	0.43
20:T:31:PRO:CB	20:T:33:TRP:CH2	2.84	0.43
20:T:87:VAL:CG1	20:T:88:MET:N	2.80	0.43
21:U:75:LYS:H	21:U:75:LYS:HG3	1.25	0.43
26:Z:105:ALA:O	26:Z:106:GLN:CG	2.65	0.43
27:a:24:THR:HG21	27:a:72:HIS:H	1.83	0.43
33:g:95:GLY:O	33:g:96:THR:HG22	2.18	0.43
34:i:520:U:C4	34:i:545:A:C2	3.07	0.43
34:i:537:G:H2'	34:i:538:C:C6	2.54	0.43
35:l:47:VAL:HG23	35:l:83:ILE:O	2.19	0.43
1:A:88:LEU:HD13	1:A:88:LEU:HA	1.79	0.43
1:A:111:GLN:HB3	3:C:48:VAL:CG1	2.46	0.43
2:B:99:ASN:ND2	2:B:228:LEU:HD23	2.32	0.43
3:C:58:MET:N	3:C:58:MET:SD	2.92	0.43
3:C:166:ARG:CG	3:C:237:THR:HG21	2.49	0.43
6:F:190:ILE:HG23	6:F:191:LYS:N	2.33	0.43
7:G:64:LYS:HD3	7:G:65:GLN:N	2.33	0.43
7:G:131:ARG:HD2	34:i:168:C:H4'	2.01	0.43
8:H:65:PRO:HB2	8:H:67:PRO:HD2	2.00	0.43
10:J:101:LYS:CG	10:J:103:GLU:OE1	2.61	0.43
11:K:1:MET:HG3	34:i:1270:G:C5'	2.48	0.43
11:K:43:LEU:O	11:K:46:MET:N	2.50	0.43
15:O:124:MET:O	27:a:56:VAL:HG11	2.09	0.43
15:O:146:ARG:HG3	15:O:146:ARG:NH1	2.34	0.43
16:P:44:ARG:HH21	16:P:84:ILE:CA	2.28	0.43
16:P:86:LEU:HG	16:P:89:MET:HE3	1.99	0.43
18:R:104:GLU:OE2	18:R:107:LYS:HD2	2.19	0.43
19:S:23:ARG:O	19:S:55:ARG:CD	2.66	0.43
21:U:49:LYS:HE2	21:U:49:LYS:HB2	1.57	0.43
24:X:28:LYS:HG2	24:X:32:LEU:HD12	2.00	0.43
24:X:67:ARG:O	24:X:84:PHE:HE1	2.02	0.43
25:Y:44:LEU:HD12	25:Y:48:TYR:CD2	2.50	0.43
25:Y:98:GLU:O	25:Y:99:LYS:CB	2.67	0.43
27:a:2:THR:CG2	34:i:1195:A:H5"	2.48	0.43
27:a:41:ILE:CG2	27:a:68:TYR:CD1	2.98	0.43
27:a:52:ASP:O	27:a:56:VAL:HG23	2.18	0.43
31:e:115:ARG:N	31:e:119:VAL:CG2	2.71	0.43
32:f:85:TYR:C	32:f:86:THR:CG2	2.89	0.43
33:g:280:LYS:HZ2	33:g:280:LYS:HG3	1.51	0.43
34:i:579:G:H2'	34:i:580:A:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:841:G:C2'	34:i:842:G:H8	2.32	0.43
34:i:883:U:C6	34:i:884:U:C6	3.06	0.43
34:i:1597:U:C2'	34:i:1598:G:H5'	2.48	0.43
3:C:89:ASP:HB3	3:C:115:ILE:HG13	1.99	0.43
3:C:109:PHE:CD2	3:C:132:VAL:HG23	2.53	0.43
4:D:6:SER:N	34:i:1573:U:C5	2.87	0.43
4:D:108:LYS:HA	4:D:113:LEU:CD2	2.48	0.43
4:D:112:GLY:N	4:D:113:LEU:HD11	2.28	0.43
4:D:153:VAL:CG1	4:D:154:ASP:N	2.80	0.43
5:E:192:ILE:HG22	5:E:193:GLY:N	2.33	0.43
6:F:45:TYR:O	6:F:47:LYS:HD2	1.96	0.43
6:F:94:LYS:HD2	6:F:94:LYS:O	2.18	0.43
7:G:32:MET:HE2	7:G:63:MET:HB3	1.99	0.43
9:I:21:TYR:OH	34:i:423:A:H5'	2.18	0.43
9:I:58:LEU:O	9:I:59:ARG:HB2	2.19	0.43
9:I:155:ASN:HA	12:L:22:ARG:HD2	1.97	0.43
11:K:66:HIS:O	11:K:67:PHE:HB2	2.18	0.43
11:K:89:ILE:HG23	11:K:90:VAL:H	1.83	0.43
16:P:77:LYS:C	16:P:78:THR:CG2	2.81	0.43
17:Q:9:SER:N	17:Q:99:TYR:OH	2.48	0.43
18:R:104:GLU:HA	18:R:107:LYS:HB2	2.00	0.43
19:S:7:GLU:OE2	19:S:7:GLU:HA	2.17	0.43
20:T:9:VAL:HG13	20:T:13:GLU:OE2	2.19	0.43
23:W:30:CYS:C	23:W:34:ILE:HD12	2.44	0.43
27:a:60:ASP:O	27:a:61:ALA:HB3	2.18	0.43
33:g:286:CYS:N	33:g:302:TYR:CD1	2.86	0.43
34:i:447:C:H4'	34:i:1796:C:P	2.59	0.43
34:i:668:U:C2	34:i:1024:A:C6	3.07	0.43
34:i:1404:U:H2'	34:i:1405:A:C8	2.53	0.43
34:i:1546:U:C5	34:i:1572:G:N1	2.87	0.43
34:i:1750:C:O5'	34:i:1750:C:C6	2.70	0.43
35:l:30:TYR:CD2	35:l:107:GLN:HA	2.50	0.43
1:A:57:LYS:HZ3	22:V:70:LEU:HD21	1.83	0.43
2:B:97:LEU:HD22	2:B:232:HIS:CG	2.54	0.43
2:B:172:MET:HE2	2:B:172:MET:HB3	1.66	0.43
7:G:192:ILE:HG13	7:G:193:ALA:H	1.84	0.43
8:H:107:LYS:HD2	34:i:794:G:C2	2.54	0.43
8:H:169:LYS:HB3	8:H:173:PHE:CZ	2.54	0.43
9:I:42:ARG:HB3	9:I:58:LEU:O	2.19	0.43
10:J:34:GLU:O	10:J:123:ILE:HD12	2.19	0.43
10:J:80:ARG:HH21	34:i:814:A:H3'	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:85:LEU:CB	11:K:86:PRO:HD2	2.47	0.43
12:L:149:ALA:CA	12:L:156:GLN:NE2	2.58	0.43
12:L:149:ALA:O	12:L:150:GLY:C	2.62	0.43
13:M:58:GLU:C	13:M:60:MET:H	2.26	0.43
13:M:71:GLU:N	13:M:71:GLU:OE1	2.52	0.43
14:N:54:LEU:O	14:N:60:VAL:HG22	2.18	0.43
14:N:56:ASP:OD1	28:b:52:THR:OG1	2.32	0.43
17:Q:9:SER:HA	17:Q:26:LYS:HG3	1.97	0.43
17:Q:28:GLY:H	17:Q:66:VAL:HA	1.82	0.43
18:R:13:ALA:HB2	18:R:54:VAL:CG2	2.49	0.43
19:S:25:LYS:HG3	19:S:54:LYS:O	2.19	0.43
20:T:56:ARG:CD	20:T:103:VAL:HG21	2.48	0.43
23:W:105:THR:O	23:W:105:THR:CG2	2.66	0.43
24:X:62:PRO:HD2	24:X:63:ASN:H	1.84	0.43
34:i:521:A:C2	34:i:543:U:O2	2.72	0.43
35:l:104:LYS:HB3	35:l:107:GLN:HG3	2.01	0.43
2:B:87:ILE:HG23	2:B:101:HIS:CG	2.53	0.43
3:C:68:LEU:O	22:V:15:ARG:NH2	2.52	0.43
3:C:74:LYS:HZ3	34:i:1348:G:P	2.39	0.43
4:D:84:VAL:HG22	4:D:85:GLU:N	2.33	0.43
5:E:258:ALA:HA	5:E:262:SER:OG	2.18	0.43
7:G:63:MET:HE2	7:G:106:LEU:HD21	2.00	0.43
7:G:74:ARG:CD	7:G:94:ARG:HD2	2.27	0.43
10:J:66:LYS:C	10:J:71:LEU:HD11	2.43	0.43
10:J:125:HIS:HD1	34:i:516:A:HO2'	0.45	0.43
11:K:85:LEU:HD13	11:K:89:ILE:CD1	2.48	0.43
12:L:10:TYR:CE2	12:L:12:LYS:HB3	2.54	0.43
12:L:77:VAL:CG1	12:L:80:MET:SD	2.96	0.43
14:N:21:SER:OG	14:N:22:VAL:N	2.49	0.43
14:N:130:LYS:HD3	14:N:139:TRP:HB3	2.01	0.43
15:O:31:CYS:HB3	15:O:95:ILE:HG12	1.92	0.43
15:O:92:ALA:C	15:O:93:LEU:HG	2.44	0.43
16:P:88:GLU:HG3	16:P:89:MET:N	2.27	0.43
17:Q:78:VAL:HG13	17:Q:82:TYR:CE2	2.43	0.43
17:Q:80:GLN:O	17:Q:81:ILE:C	2.62	0.43
17:Q:117:ARG:C	17:Q:118:THR:HG23	2.43	0.43
20:T:7:LYS:HE3	34:i:1426:C:O2'	2.19	0.43
20:T:75:MET:CA	20:T:78:ILE:HG22	2.49	0.43
24:X:1:MET:O	24:X:3:LYS:N	2.51	0.43
25:Y:18:LEU:HB3	25:Y:20:ARG:NE	2.33	0.43
25:Y:46:LYS:O	25:Y:47:MET:CG	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:a:11:ALA:O	27:a:33:ASP:HB2	2.17	0.43
27:a:102:ARG:HA	27:a:103:PRO:HD2	1.46	0.43
29:c:10:LYS:CD	29:c:61:SER:CB	2.66	0.43
29:c:18:LEU:HB3	29:c:29:GLN:HB3	2.00	0.43
33:g:171:ASP:O	33:g:172:LYS:HB3	2.19	0.43
34:i:23:G:H1	34:i:641:U:H3	1.67	0.43
34:i:102:A:H5'	34:i:104:A:C4	2.53	0.43
34:i:549:G:C5	34:i:550:A:C8	3.06	0.43
1:A:143:PRO:HD3	22:V:32:ILE:CG2	2.48	0.43
2:B:206:PRO:O	2:B:207:LEU:CB	2.67	0.43
3:C:180:LEU:HB3	3:C:207:CYS:SG	2.58	0.43
4:D:1:MET:O	4:D:2:ALA:C	2.62	0.43
4:D:58:VAL:O	4:D:65:ARG:HB2	2.19	0.43
4:D:98:ALA:CA	4:D:188:ILE:HD12	2.48	0.43
5:E:2:ALA:C	5:E:3:ARG:CG	2.92	0.43
5:E:34:GLY:HA3	5:E:83:PRO:HG2	2.00	0.43
5:E:118:GLU:HA	5:E:121:TYR:CE2	2.54	0.43
5:E:201:HIS:HB2	5:E:205:PHE:O	2.19	0.43
6:F:112:LEU:HD23	6:F:116:ILE:CG1	2.49	0.43
6:F:123:GLU:CB	29:c:59:LEU:CD1	2.97	0.43
6:F:141:VAL:HG22	6:F:146:ARG:HG2	1.99	0.43
6:F:141:VAL:HG21	29:c:47:LYS:NZ	2.32	0.43
6:F:154:LEU:HD12	6:F:155:CYS:SG	2.59	0.43
7:G:143:LYS:CE	7:G:143:LYS:CA	2.96	0.43
8:H:64:VAL:CG1	8:H:68:GLN:HB2	2.49	0.43
11:K:2:LEU:HA	11:K:2:LEU:HD22	1.20	0.43
12:L:42:LEU:HB2	12:L:44:PHE:CD2	2.54	0.43
14:N:23:PRO:O	14:N:24:THR:CB	2.66	0.43
14:N:56:ASP:HB2	28:b:52:THR:OG1	2.18	0.43
15:O:92:ALA:CB	15:O:125:LYS:HB2	2.48	0.43
15:O:147:ARG:HH21	15:O:150:ARG:CD	2.31	0.43
16:P:41:GLN:NE2	16:P:84:ILE:CG1	2.80	0.43
17:Q:16:LYS:O	17:Q:17:LYS:C	2.61	0.43
17:Q:17:LYS:HB3	17:Q:18:THR:H	1.70	0.43
17:Q:112:LEU:HD12	17:Q:120:LEU:HD21	1.94	0.43
18:R:98:VAL:HG12	18:R:102:THR:OG1	2.18	0.43
19:S:33:ILE:CG2	19:S:36:VAL:CG1	2.97	0.43
19:S:54:LYS:C	19:S:54:LYS:HB3	2.43	0.43
19:S:88:LYS:N	19:S:95:TYR:CE1	2.77	0.43
19:S:94:LYS:HZ2	19:S:94:LYS:HG2	1.42	0.43
19:S:111:LEU:CD2	19:S:125:HIS:ND1	2.75	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:44:LYS:C	21:U:46:LYS:N	2.74	0.43
25:Y:38:THR:O	25:Y:42:GLU:HG3	2.18	0.43
25:Y:44:LEU:HD12	25:Y:48:TYR:HD2	1.81	0.43
25:Y:102:THR:HB	25:Y:103:SER:C	2.43	0.43
26:Z:77:LEU:C	26:Z:78:LYS:HG2	2.39	0.43
27:a:49:ALA:CB	27:a:53:ILE:HD12	2.48	0.43
34:i:1209:C:C2'	34:i:1210:A:H5'	2.48	0.43
1:A:7:VAL:HG22	1:A:8:LEU:N	2.32	0.43
2:B:113:MET:SD	2:B:211:PHE:HE2	2.05	0.43
3:C:50:LYS:C	3:C:258:LEU:HD13	2.44	0.43
4:D:21:LEU:HD23	4:D:21:LEU:HA	1.77	0.43
4:D:201:LYS:CE	4:D:201:LYS:CA	2.92	0.43
5:E:11:ARG:NH1	5:E:21:ASP:OD1	2.51	0.43
5:E:125:LYS:CB	5:E:226:PHE:CE1	2.96	0.43
5:E:152:PRO:CG	7:G:209:TYR:CE1	3.01	0.43
5:E:171:ASP:CG	5:E:172:PHE:CD2	2.96	0.43
6:F:122:ARG:CB	6:F:123:GLU:OE1	2.66	0.43
7:G:16:ILE:HD12	7:G:45:TRP:CZ2	2.42	0.43
7:G:46:LYS:HG2	7:G:118:GLU:OE1	2.19	0.43
7:G:70:HIS:HA	7:G:98:ARG:HH12	1.83	0.43
8:H:194:LEU:H	8:H:194:LEU:HD12	1.84	0.43
9:I:81:VAL:CG1	9:I:91:VAL:HA	2.48	0.43
10:J:128:VAL:O	10:J:132:GLN:HG3	2.19	0.43
10:J:136:ARG:NE	10:J:160:SER:HB2	2.33	0.43
10:J:180:LYS:HG3	10:J:181:GLY:H	1.78	0.43
12:L:71:ARG:NH1	34:i:343:C:C4'	2.82	0.43
17:Q:7:LEU:O	17:Q:8:GLN:C	2.60	0.43
17:Q:84:ILE:O	17:Q:88:ILE:HG23	2.19	0.43
18:R:41:ILE:HG23	18:R:42:PRO:HD3	2.00	0.43
20:T:24:LYS:HA	20:T:24:LYS:HD2	1.71	0.43
20:T:111:LYS:HB2	20:T:126:GLN:CD	2.43	0.43
20:T:116:ASP:CB	20:T:120:GLY:O	2.65	0.43
20:T:124:THR:OG1	20:T:125:PRO:HD2	2.19	0.43
23:W:107:SER:HA	34:i:858:A:C5	2.54	0.43
24:X:27:TYR:CG	24:X:31:HIS:CD2	3.07	0.43
25:Y:52:PRO:C	25:Y:54:VAL:H	2.26	0.43
25:Y:114:MET:CE	25:Y:121:ALA:O	2.64	0.43
27:a:66:LYS:CB	27:a:68:TYR:CE2	3.00	0.43
32:f:117:LEU:O	32:f:118:ARG:CB	2.67	0.43
33:g:5:MET:CE	33:g:312:VAL:CB	2.96	0.43
33:g:34:ALA:HB1	33:g:66:VAL:CG1	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:299:PHE:CD1	33:g:309:VAL:HG12	2.54	0.43
34:i:791:A:H2'	34:i:792:G:C8	2.53	0.43
34:i:842:G:H8	34:i:842:G:O5'	2.02	0.43
35:l:51:ALA:CB	35:l:54:TYR:CZ	3.00	0.43
1:A:58:LEU:CD2	1:A:58:LEU:C	2.92	0.43
2:B:56:LYS:CE	2:B:56:LYS:HA	2.48	0.43
3:C:71:LEU:C	22:V:29:HIS:HE1	2.19	0.43
4:D:59:LEU:CD1	4:D:60:GLY:C	2.87	0.43
4:D:141:LYS:NZ	4:D:179:GLN:NE2	2.67	0.43
5:E:62:LYS:CD	5:E:80:ILE:HG13	2.49	0.43
5:E:146:THR:HG23	5:E:146:THR:O	2.18	0.43
5:E:174:LYS:HB2	5:E:174:LYS:HE3	1.86	0.43
6:F:38:TYR:HD1	6:F:144:LEU:HD13	1.84	0.43
6:F:63:LYS:HE2	34:i:1672:U:OP2	2.19	0.43
6:F:115:ALA:HB3	6:F:177:LEU:CD2	2.49	0.43
6:F:171:GLU:OE2	26:Z:67:LEU:HD23	2.18	0.43
7:G:79:LYS:HA	7:G:86:PRO:HG2	2.01	0.43
7:G:122:PRO:O	7:G:126:ASP:HB3	2.19	0.43
7:G:157:VAL:CG1	7:G:159:ARG:HG3	2.34	0.43
8:H:80:VAL:HA	8:H:83:LEU:HG	2.00	0.43
8:H:140:VAL:HG21	8:H:159:ASP:HA	2.01	0.43
8:H:158:LEU:CD2	8:H:187:PHE:CE1	2.93	0.43
9:I:33:ALA:HB2	34:i:368:U:O2'	2.19	0.43
9:I:42:ARG:C	9:I:43:ILE:HG13	2.44	0.43
9:I:145:ILE:C	9:I:148:LYS:HG3	2.43	0.43
10:J:100:LEU:HD11	10:J:104:ASP:CB	2.49	0.43
10:J:110:LEU:CD1	10:J:135:ILE:CD1	2.97	0.43
11:K:94:LEU:CG	11:K:95:ARG:N	2.82	0.43
13:M:35:ILE:HG23	13:M:36:ARG:H	1.83	0.43
13:M:40:LYS:NZ	32:f:129:GLY:C	2.77	0.43
13:M:40:LYS:HZ3	32:f:129:GLY:C	2.27	0.43
13:M:51:VAL:CB	13:M:77:ILE:HG21	2.46	0.43
14:N:15:ALA:HB1	28:b:26:GLN:NE2	2.34	0.43
15:O:117:ARG:HH22	29:c:62:GLU:HG2	1.84	0.43
16:P:17:TYR:CD1	16:P:18:ARG:HG3	2.54	0.43
19:S:82:TRP:CG	34:i:1562:G:C5	3.07	0.43
20:T:85:ASN:OD1	20:T:91:HIS:NE2	2.51	0.43
21:U:57:PRO:O	21:U:57:PRO:CD	2.66	0.43
25:Y:47:MET:CE	34:i:833:A:C5	3.02	0.43
26:Z:57:LYS:O	26:Z:61:GLU:HG3	2.19	0.43
27:a:49:ALA:O	27:a:50:VAL:C	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:80:LEU:C	31:e:82:ARG:H	2.27	0.43
32:f:94:LYS:HA	32:f:94:LYS:HD3	1.40	0.43
32:f:95:ARG:NE	32:f:95:ARG:HA	2.34	0.43
32:f:110:GLU:HB3	32:f:111:ASN:H	1.48	0.43
33:g:83:TRP:O	33:g:84:ASP:C	2.59	0.43
33:g:142:VAL:C	33:g:143:GLN:O	2.59	0.43
34:i:445:A:N3	34:i:1730:A:C2	2.80	0.43
34:i:1192:A:C2	34:i:1193:G:H1'	2.53	0.43
1:A:97:THR:HA	1:A:98:PRO:HD3	1.77	0.42
3:C:61:LYS:CA	3:C:82:PHE:HE1	2.30	0.42
3:C:127:LYS:CD	3:C:142:LEU:HD11	2.42	0.42
3:C:170:THR:O	3:C:231:LYS:HD3	2.19	0.42
3:C:192:ALA:HB3	3:C:195:PRO:CG	2.48	0.42
4:D:6:SER:OG	4:D:8:LYS:HG3	2.19	0.42
4:D:97:CYS:O	4:D:99:ILE:CA	2.60	0.42
6:F:18:LYS:HB3	6:F:18:LYS:HZ3	1.83	0.42
9:I:140:LYS:HD3	9:I:141:ARG:N	2.33	0.42
12:L:101:ARG:HH12	24:X:5:ARG:CA	2.26	0.42
13:M:31:LEU:CD1	13:M:33:ARG:HB3	2.42	0.42
13:M:35:ILE:CG2	13:M:36:ARG:N	2.80	0.42
14:N:38:TYR:CD2	14:N:78:LYS:HG3	2.53	0.42
14:N:107:LYS:HA	14:N:107:LYS:HD2	1.69	0.42
15:O:129:ILE:HG13	27:a:65:PRO:HD3	1.99	0.42
15:O:142:ARG:CZ	27:a:27:ALA:HB2	2.37	0.42
16:P:40:ARG:HD2	16:P:40:ARG:O	2.19	0.42
17:Q:38:PRO:C	17:Q:40:GLU:H	2.26	0.42
19:S:40:TYR:CE1	19:S:44:VAL:CG2	3.01	0.42
19:S:54:LYS:HD3	19:S:58:GLU:CD	2.43	0.42
20:T:28:LEU:HD23	20:T:28:LEU:HA	1.58	0.42
21:U:19:ARG:CG	21:U:92:HIS:HE1	2.31	0.42
23:W:11:LEU:CA	23:W:14:ILE:HG12	2.49	0.42
25:Y:13:MET:HE3	25:Y:13:MET:C	2.30	0.42
25:Y:14:THR:HG23	34:i:837:G:OP2	2.19	0.42
25:Y:33:ALA:O	25:Y:34:THR:HB	2.19	0.42
26:Z:62:VAL:HA	26:Z:65:TYR:CD2	2.52	0.42
26:Z:94:LYS:CE	26:Z:95:GLY:N	2.81	0.42
28:b:81:ARG:H	28:b:82:LYS:HB2	1.83	0.42
31:e:115:ARG:HE	31:e:115:ARG:HB2	1.70	0.42
32:f:136:PHE:O	32:f:137:ASP:HB2	2.19	0.42
32:f:143:LYS:HB2	34:i:1306:U:H4'	2.00	0.42
33:g:76:GLN:C	33:g:77:PHE:CD1	2.96	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:298:LEU:CD1	33:g:298:LEU:C	2.86	0.42
34:i:186:G:H1'	34:i:210:G:N1	2.34	0.42
34:i:423:A:C2	34:i:424:G:C5	3.07	0.42
34:i:727:G:H2'	34:i:728:U:H5'	2.01	0.42
34:i:1233:C:O4'	34:i:1233:C:C6	2.72	0.42
34:i:1639:C:H2'	34:i:1640:C:C6	2.54	0.42
34:i:1816:A:C2	34:i:1817:A:C6	3.06	0.42
35:l:100:ILE:HD11	35:l:103:ALA:H	1.84	0.42
1:A:123:VAL:HG12	1:A:175:TRP:CH2	2.54	0.42
1:A:186:ARG:NH1	1:A:187:GLY:N	2.67	0.42
2:B:37:ALA:HA	2:B:42:ARG:HE	1.83	0.42
3:C:59:LYS:HA	3:C:59:LYS:HD3	1.39	0.42
3:C:110:LYS:CE	3:C:112:PHE:CZ	2.63	0.42
4:D:53:THR:CG2	4:D:91:VAL:CB	2.89	0.42
4:D:217:ILE:O	4:D:218:LEU:CB	2.67	0.42
5:E:231:GLY:C	5:E:233:LYS:H	2.28	0.42
6:F:91:ARG:HD3	17:Q:46:THR:CG2	2.49	0.42
6:F:115:ALA:CB	6:F:177:LEU:CD2	2.96	0.42
6:F:121:PRO:CA	6:F:193:LYS:HE3	2.39	0.42
6:F:151:ILE:O	6:F:152:TRP:C	2.52	0.42
8:H:69:LEU:O	8:H:73:GLN:CG	2.66	0.42
9:I:161:LEU:HD22	9:I:161:LEU:HA	1.76	0.42
10:J:36:GLY:HA2	31:e:109:ARG:HH11	1.84	0.42
10:J:37:LEU:CD2	10:J:43:VAL:CG2	2.96	0.42
11:K:1:MET:HE3	34:i:1270:G:H21	1.80	0.42
11:K:10:ALA:HA	11:K:13:GLU:HG2	2.01	0.42
11:K:14:LEU:CB	11:K:35:LEU:HD21	2.49	0.42
11:K:51:SER:O	11:K:55:ARG:HG2	2.19	0.42
13:M:27:ILE:CG2	13:M:28:HIS:N	2.81	0.42
14:N:132:LYS:HE3	14:N:132:LYS:C	2.36	0.42
15:O:28:PHE:CE1	15:O:92:ALA:CB	3.02	0.42
17:Q:132:PHE:HB2	21:U:77:TRP:CD1	2.54	0.42
19:S:39:ARG:O	19:S:43:VAL:HG23	2.18	0.42
19:S:71:MET:HG3	19:S:99:LEU:CD1	2.48	0.42
23:W:96:SER:OG	23:W:98:GLN:CG	2.67	0.42
24:X:41:PHE:CZ	24:X:102:VAL:HG12	2.48	0.42
24:X:67:ARG:O	24:X:68:LYS:CB	2.66	0.42
24:X:95:GLU:HG3	24:X:140:ARG:NH2	2.20	0.42
24:X:128:VAL:HG12	24:X:133:LEU:HD11	2.01	0.42
25:Y:92:ALA:CA	25:Y:97:TYR:C	2.64	0.42
27:a:45:VAL:CG2	27:a:46:GLU:H	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:c:42:ILE:HG23	29:c:43:ILE:H	1.84	0.42
30:d:5:GLN:C	30:d:7:TYR:H	2.19	0.42
30:d:12:ARG:HD3	30:d:12:ARG:HA	1.75	0.42
32:f:87:THR:CA	34:i:1503:G:H22	2.32	0.42
33:g:31:ILE:HG23	33:g:43:TRP:CD1	2.54	0.42
34:i:792:G:H3'	34:i:793:C:H5'	2.01	0.42
34:i:1784:A:C2	34:i:1785:A:C4	3.07	0.42
35:l:103:ALA:O	35:l:104:LYS:HE2	2.20	0.42
1:A:76:VAL:HG12	1:A:87:VAL:HG12	1.86	0.42
1:A:90:PHE:HD1	1:A:179:ALA:HB2	1.83	0.42
3:C:82:PHE:C	3:C:83:LEU:CD1	2.85	0.42
3:C:134:THR:CG2	3:C:135:ALA:N	2.82	0.42
3:C:149:PRO:HD2	3:C:149:PRO:O	2.19	0.42
4:D:101:GLN:O	4:D:104:SER:HB2	2.19	0.42
4:D:162:ASP:OD2	4:D:166:TYR:CE2	2.72	0.42
5:E:67:GLN:C	5:E:68:ARG:CG	2.88	0.42
7:G:65:GLN:CD	34:i:1741:U:H5"	2.44	0.42
8:H:18:GLU:O	8:H:21:SER:HB2	2.18	0.42
8:H:31:GLU:O	8:H:37:LYS:CB	2.67	0.42
8:H:126:HIS:O	8:H:130:LEU:HD22	2.19	0.42
11:K:49:MET:CB	11:K:69:TRP:CE2	3.02	0.42
13:M:113:ASP:O	13:M:114:TYR:CG	2.73	0.42
15:O:92:ALA:O	15:O:93:LEU:HD23	2.19	0.42
15:O:106:LYS:HG3	27:a:69:VAL:HG11	2.01	0.42
17:Q:21:ALA:HB2	17:Q:72:VAL:CG2	2.32	0.42
17:Q:138:ARG:HH12	34:i:1641:C:C3'	2.31	0.42
18:R:17:ILE:O	18:R:71:ILE:CD1	2.66	0.42
19:S:46:ARG:NH1	20:T:50:GLU:CA	2.81	0.42
19:S:77:TYR:O	19:S:78:LYS:HB2	2.19	0.42
20:T:47:PRO:HG2	20:T:52:TRP:CD1	2.55	0.42
22:V:43:THR:HB	22:V:44:GLY:H	1.71	0.42
25:Y:7:ILE:HD11	25:Y:43:LYS:HD2	1.97	0.42
26:Z:104:ARG:HD3	34:i:1589:A:C8	2.54	0.42
30:d:50:ILE:HG22	30:d:52:PHE:CE2	2.54	0.42
34:i:181:A:C8	34:i:182:C:N3	2.85	0.42
34:i:278:U:C6	34:i:278:U:H5"	2.55	0.42
34:i:1206:G:H8	34:i:1207:G:P	2.31	0.42
1:A:66:VAL:CG1	1:A:186:ARG:HD3	2.47	0.42
1:A:111:GLN:HE22	1:A:116:PHE:HZ	1.68	0.42
3:C:240:LEU:CD1	3:C:240:LEU:N	2.83	0.42
5:E:92:ILE:CG2	5:E:97:GLU:OE1	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:73:THR:HG21	34:i:293:A:H1'	2.02	0.42
9:I:139:LYS:HD2	9:I:145:ILE:HD12	2.02	0.42
9:I:197:PHE:HE1	12:L:8:ARG:O	2.03	0.42
10:J:50:LEU:CG	10:J:102:ILE:HD13	2.49	0.42
11:K:1:MET:HG2	11:K:2:LEU:HB3	2.01	0.42
15:O:30:VAL:HG13	15:O:47:LEU:HA	2.00	0.42
16:P:17:TYR:CE2	16:P:25:LEU:HD21	2.54	0.42
16:P:121:ILE:CG2	19:S:120:HIS:HA	2.44	0.42
17:Q:9:SER:OG	17:Q:26:LYS:HE3	2.13	0.42
17:Q:42:ILE:CG1	17:Q:51:LEU:HD22	2.46	0.42
18:R:50:ILE:O	18:R:51:ALA:C	2.62	0.42
19:S:85:ASN:OD1	19:S:86:ARG:N	2.52	0.42
20:T:28:LEU:C	20:T:29:LYS:HG2	2.44	0.42
20:T:75:MET:C	20:T:78:ILE:HG22	2.43	0.42
20:T:77:LYS:CE	20:T:92:PHE:CE2	3.02	0.42
20:T:141:ALA:C	20:T:142:LYS:CG	2.87	0.42
24:X:70:VAL:CG1	24:X:71:ARG:N	2.82	0.42
32:f:108:VAL:HG13	32:f:113:LYS:C	2.37	0.42
33:g:48:ASP:CG	33:g:49:GLU:N	2.77	0.42
33:g:282:GLU:OE2	33:g:284:PRO:CD	2.61	0.42
34:i:342:U:H2'	34:i:343:C:O4'	2.19	0.42
34:i:837:G:H2'	34:i:838:C:C5'	2.41	0.42
34:i:1407:G:O6	34:i:1408:C:C4	2.73	0.42
1:A:66:VAL:CG2	1:A:186:ARG:CD	2.80	0.42
2:B:93:GLY:HA2	2:B:94:LYS:HD3	2.01	0.42
2:B:146:CYS:O	2:B:148:ASN:N	2.51	0.42
3:C:87:LEU:CD2	3:C:87:LEU:C	2.91	0.42
3:C:223:LYS:HZ2	34:i:1352:G:H5'	1.85	0.42
5:E:45:ILE:HD12	5:E:80:ILE:CG2	2.49	0.42
5:E:153:LEU:HD12	5:E:172:PHE:CZ	2.36	0.42
6:F:42:LYS:O	6:F:45:TYR:N	2.53	0.42
7:G:213:LEU:CD1	7:G:214:ALA:N	2.73	0.42
8:H:14:GLU:HG2	8:H:15:LYS:O	2.18	0.42
8:H:87:PHE:CD2	8:H:90:LYS:HD2	2.54	0.42
8:H:145:ARG:NH1	8:H:155:LYS:NZ	2.57	0.42
9:I:108:PRO:HA	9:I:111:GLN:HG2	2.00	0.42
9:I:191:GLU:HG2	9:I:192:GLY:N	2.34	0.42
10:J:50:LEU:CB	10:J:102:ILE:CD1	2.97	0.42
10:J:170:PRO:CD	10:J:175:ARG:CG	2.94	0.42
11:K:71:LEU:HG	11:K:76:ILE:HD13	2.01	0.42
12:L:82:MET:SD	12:L:85:THR:CG2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:18:LEU:HD21	13:M:22:LEU:HD21	2.01	0.42
13:M:31:LEU:HG	13:M:89:VAL:HG13	2.01	0.42
13:M:61:TYR:HH	13:M:108:CYS:CB	2.32	0.42
14:N:60:VAL:CG2	14:N:60:VAL:O	2.67	0.42
14:N:114:ARG:HD3	14:N:114:ARG:HA	1.44	0.42
15:O:31:CYS:SG	15:O:93:LEU:HB2	2.59	0.42
15:O:143:LYS:HG3	15:O:144:GLY:N	2.34	0.42
20:T:40:ALA:O	20:T:43:LYS:HG2	2.20	0.42
20:T:129:ARG:CB	34:i:1413:C:H4'	2.49	0.42
21:U:61:LEU:O	21:U:81:GLN:HA	2.19	0.42
24:X:91:LEU:CD2	31:e:83:VAL:HG21	2.49	0.42
28:b:31:TYR:CE1	28:b:81:ARG:NH1	2.88	0.42
30:d:11:PRO:HG2	34:i:1613:C:N4	2.34	0.42
30:d:56:ASP:OXT	30:d:56:ASP:CG	2.61	0.42
33:g:21:ILE:CG2	33:g:22:ALA:N	2.82	0.42
33:g:118:ARG:NE	33:g:118:ARG:CA	2.78	0.42
34:i:478:U:H5'	34:i:479:A:H5'	2.01	0.42
34:i:685:G:H1	34:i:732:C:H1'	1.84	0.42
34:i:742:C:C2	34:i:792:G:N2	2.87	0.42
34:i:903:G:O6	34:i:904:A:C6	2.71	0.42
1:A:16:LEU:HB2	1:A:17:LYS:NZ	2.35	0.42
1:A:75:SER:HB2	1:A:122:LEU:CD2	2.46	0.42
2:B:147:ASN:HD22	2:B:147:ASN:HA	1.58	0.42
4:D:25:LEU:HD22	4:D:25:LEU:N	2.34	0.42
6:F:124:ASP:O	6:F:200:ALA:CB	2.67	0.42
6:F:190:ILE:CG2	6:F:191:LYS:N	2.82	0.42
8:H:117:PRO:HD2	8:H:120:ARG:CB	2.49	0.42
8:H:172:THR:CG2	8:H:173:PHE:N	2.81	0.42
10:J:110:LEU:HD23	10:J:110:LEU:HA	1.83	0.42
10:J:134:HIS:HE1	34:i:552:U:OP1	2.00	0.42
10:J:169:ARG:HB3	10:J:175:ARG:NH1	2.26	0.42
11:K:1:MET:HG2	11:K:2:LEU:CB	2.49	0.42
11:K:16:PHE:CZ	11:K:76:ILE:O	2.73	0.42
11:K:94:LEU:CD2	11:K:95:ARG:H	2.31	0.42
12:L:10:TYR:CE2	12:L:12:LYS:NZ	2.79	0.42
12:L:18:GLN:HE21	12:L:18:GLN:HB3	1.44	0.42
14:N:53:ILE:O	14:N:57:SER:OG	2.33	0.42
14:N:139:TRP:C	14:N:139:TRP:HE3	2.27	0.42
15:O:98:ARG:HE	15:O:134:PRO:HD3	1.84	0.42
17:Q:123:ASP:HA	17:Q:124:PRO:HD3	1.87	0.42
19:S:41:ALA:O	19:S:45:LEU:HG	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:50:ILE:HG13	19:S:63:GLU:HG2	1.99	0.42
21:U:32:LEU:HD22	21:U:85:HIS:HB2	2.00	0.42
22:V:46:PHE:O	22:V:46:PHE:CG	2.72	0.42
23:W:17:ALA:CB	23:W:25:VAL:HG11	2.45	0.42
23:W:22:LYS:HZ1	28:b:1:MET:HE2	1.84	0.42
24:X:62:PRO:CD	24:X:63:ASN:N	2.83	0.42
25:Y:97:TYR:CD1	25:Y:98:GLU:N	2.79	0.42
32:f:146:LEU:HD22	34:i:1288:C:H4'	2.02	0.42
33:g:48:ASP:OD2	33:g:49:GLU:CA	2.67	0.42
33:g:98:THR:C	33:g:99:ARG:HD2	2.37	0.42
35:l:33:ILE:HD13	35:l:33:ILE:HA	1.86	0.42
1:A:5:LEU:CD1	1:A:6:ASP:CB	2.97	0.42
1:A:124:VAL:HG21	1:A:134:LEU:HD21	2.00	0.42
2:B:55:THR:O	2:B:56:LYS:CG	2.66	0.42
3:C:60:ILE:C	3:C:82:PHE:CZ	2.97	0.42
4:D:20:GLU:HG2	11:K:64:TRP:CE3	2.55	0.42
5:E:211:LYS:HE3	5:E:217:SER:OG	2.20	0.42
6:F:112:LEU:O	6:F:116:ILE:CG1	2.67	0.42
7:G:58:LYS:HG2	7:G:58:LYS:H	1.51	0.42
7:G:159:ARG:NH2	7:G:161:PRO:N	2.68	0.42
8:H:106:ARG:HD2	34:i:857:A:C5	2.55	0.42
8:H:121:THR:HG22	8:H:124:ALA:HB2	2.02	0.42
9:I:108:PRO:C	9:I:111:GLN:HG2	2.45	0.42
10:J:122:SER:CB	34:i:517:C:OP1	2.67	0.42
11:K:14:LEU:CD2	11:K:35:LEU:HD11	2.49	0.42
11:K:37:ASP:CA	11:K:38:LYS:HD3	2.50	0.42
15:O:34:PHE:CD2	15:O:98:ARG:NH1	2.87	0.42
15:O:38:ASN:O	15:O:39:ASP:HB2	2.19	0.42
15:O:116:LEU:HD23	15:O:116:LEU:HA	1.77	0.42
16:P:37:TYR:HA	19:S:88:LYS:HD3	2.01	0.42
16:P:41:GLN:NE2	16:P:84:ILE:HD13	2.34	0.42
17:Q:54:PRO:CG	17:Q:88:ILE:HD11	2.26	0.42
19:S:28:PHE:CE1	34:i:1598:G:C8	3.08	0.42
19:S:103:LEU:CD1	19:S:104:ASP:N	2.72	0.42
19:S:111:LEU:HD13	19:S:125:HIS:NE2	2.35	0.42
20:T:55:THR:CG2	20:T:56:ARG:N	2.82	0.42
20:T:141:ALA:O	20:T:142:LYS:CB	2.64	0.42
21:U:48:LEU:O	21:U:49:LYS:CG	2.66	0.42
23:W:15:ASN:O	23:W:19:LYS:HG3	2.20	0.42
23:W:24:GLN:N	23:W:24:GLN:OE1	2.53	0.42
27:a:66:LYS:HB2	27:a:68:TYR:CZ	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:c:34:PHE:O	29:c:36:ASP:N	2.48	0.42
33:g:30:MET:HG2	33:g:31:ILE:N	2.35	0.42
33:g:46:THR:HB	33:g:48:ASP:CB	2.39	0.42
34:i:368:U:C4	34:i:369:C:C4	3.08	0.42
34:i:1297:A:C2'	34:i:1298:G:H5"	2.50	0.42
34:i:1447:G:H1'	34:i:1470:A:N6	2.35	0.42
34:i:1531:G:H2'	34:i:1532:A:H8	1.84	0.42
35:l:34:ARG:NH1	35:l:111:HIS:CG	2.87	0.42
35:l:96:PHE:O	35:l:97:LEU:HD12	2.20	0.42
3:C:245:VAL:O	3:C:246:PHE:CB	2.65	0.42
4:D:48:ILE:CG2	4:D:86:LEU:CG	2.82	0.42
4:D:175:VAL:HG13	4:D:182:LEU:HB2	1.99	0.42
5:E:195:ILE:O	5:E:196:THR:OG1	2.36	0.42
6:F:45:TYR:O	6:F:46:ALA:C	2.62	0.42
6:F:86:LYS:O	6:F:90:VAL:HG23	2.19	0.42
6:F:134:VAL:HB	6:F:136:ARG:NH2	2.34	0.42
7:G:52:ILE:HA	7:G:111:LEU:CD2	2.42	0.42
7:G:170:ARG:CD	7:G:171:THR:O	2.67	0.42
8:H:133:LEU:HD23	8:H:133:LEU:HA	1.78	0.42
9:I:199:LEU:HD23	9:I:199:LEU:HA	1.86	0.42
11:K:4:PRO:HD2	11:K:44:HIS:CE1	2.54	0.42
11:K:31:LYS:HA	11:K:40:VAL:O	2.20	0.42
11:K:47:LYS:HD3	11:K:47:LYS:HA	1.92	0.42
11:K:84:HIS:NE2	13:M:27:ILE:HD11	2.34	0.42
14:N:36:GLN:O	14:N:40:LEU:HG	2.20	0.42
15:O:91:THR:C	15:O:124:MET:CE	2.92	0.42
16:P:92:SER:OG	16:P:93:MET:N	2.52	0.42
17:Q:43:GLU:HA	17:Q:45:ARG:H	1.81	0.42
19:S:120:HIS:CD2	19:S:124:ARG:CG	3.01	0.42
25:Y:99:LYS:O	25:Y:99:LYS:HD2	2.15	0.42
26:Z:52:LYS:C	26:Z:54:THR:N	2.77	0.42
27:a:37:LYS:HG2	27:a:72:HIS:ND1	2.35	0.42
27:a:75:VAL:HG12	27:a:79:ILE:CD1	2.50	0.42
31:e:113:ASN:HB2	34:i:542:G:OP1	2.19	0.42
32:f:146:LEU:HD22	34:i:1288:C:C4'	2.50	0.42
32:f:146:LEU:CD2	34:i:1288:C:H5'	2.49	0.42
33:g:240:CYS:SG	33:g:291:TRP:CD1	3.07	0.42
34:i:184:G:N1	34:i:211:U:O4	2.50	0.42
34:i:328:G:H2'	34:i:329:A:C8	2.54	0.42
34:i:1209:C:H2'	34:i:1210:A:H5'	2.01	0.42
34:i:1371:G:H8	34:i:1371:G:O5'	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:66:LYS:HG2	35:l:67:PHE:CE2	2.55	0.42
1:A:106:GLY:O	1:A:109:THR:O	2.38	0.42
2:B:30:TRP:CD1	15:O:17:LEU:HD21	2.55	0.42
2:B:60:ASP:C	2:B:62:LEU:H	2.27	0.42
2:B:71:LEU:C	2:B:79:VAL:CG2	2.93	0.42
2:B:87:ILE:O	2:B:87:ILE:HG13	2.19	0.42
2:B:137:LEU:HB3	2:B:172:MET:HE1	1.90	0.42
2:B:150:ILE:HB	18:R:124:VAL:HG13	2.01	0.42
4:D:123:LEU:CD2	4:D:123:LEU:C	2.93	0.42
5:E:7:LYS:HA	5:E:7:LYS:HD2	1.38	0.42
7:G:130:PRO:O	7:G:131:ARG:C	2.60	0.42
8:H:37:LYS:HG3	8:H:38:ALA:N	2.29	0.42
8:H:65:PRO:O	8:H:66:VAL:HB	2.20	0.42
9:I:93:THR:O	9:I:94:LYS:HB2	2.20	0.42
9:I:144:LYS:HD2	9:I:144:LYS:HA	1.86	0.42
10:J:131:ARG:NH1	10:J:143:ASN:ND2	2.63	0.42
11:K:12:TYR:CD2	11:K:79:LEU:HD22	2.55	0.42
14:N:99:ARG:O	14:N:103:GLU:HG2	2.20	0.42
15:O:129:ILE:N	27:a:62:TYR:OH	2.50	0.42
16:P:97:TYR:CZ	16:P:99:GLY:C	2.98	0.42
16:P:108:LYS:N	16:P:111:MET:CE	2.72	0.42
17:Q:9:SER:HB2	17:Q:26:LYS:CG	2.10	0.42
17:Q:117:ARG:O	17:Q:118:THR:CB	2.68	0.42
24:X:105:PHE:CD2	24:X:112:VAL:HG23	2.51	0.42
25:Y:87:PRO:HB2	25:Y:89:HIS:ND1	2.30	0.42
33:g:142:VAL:HG11	33:g:177:TRP:CD2	2.55	0.42
33:g:258:ILE:CD1	33:g:267:VAL:HB	2.50	0.42
34:i:1393:U:H4'	34:i:1394:G:C5'	2.50	0.42
34:i:1654:U:O2	34:i:1659:A:N1	2.53	0.42
34:i:1823:G:H1'	34:i:1843:G:H1	1.84	0.42
35:l:35:ILE:HB	35:l:112:GLY:HA2	2.02	0.42
1:A:49:ILE:HG22	1:A:50:ASN:N	2.35	0.42
1:A:57:LYS:HD2	1:A:160:ALA:O	2.20	0.42
1:A:102:ARG:O	1:A:103:PHE:C	2.63	0.42
2:B:55:THR:O	2:B:56:LYS:CB	2.66	0.42
2:B:67:PHE:HE1	15:O:47:LEU:CB	2.31	0.42
2:B:161:VAL:HG12	2:B:165:ARG:CZ	2.49	0.42
3:C:231:LYS:HE3	3:C:231:LYS:HB3	1.46	0.42
4:D:5:ILE:C	34:i:1573:U:C5	2.98	0.42
5:E:20:LEU:HD21	5:E:50:ASN:ND2	2.35	0.42
5:E:25:SER:OG	34:i:485:U:H1'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:16:PRO:O	8:H:20:GLU:OE2	2.37	0.42
8:H:23:ILE:HG23	8:H:24:SER:N	2.34	0.42
8:H:65:PRO:CG	8:H:68:GLN:CD	2.90	0.42
8:H:83:LEU:CD1	8:H:92:VAL:CG1	2.94	0.42
9:I:103:LEU:CD2	9:I:172:LEU:CD1	2.94	0.42
10:J:102:ILE:CG2	10:J:106:LEU:CD1	2.93	0.42
12:L:22:ARG:HB2	12:L:23:VAL:H	1.66	0.42
12:L:126:VAL:HG23	12:L:145:VAL:HA	2.01	0.42
13:M:76:LEU:N	13:M:128:PHE:CZ	2.88	0.42
13:M:104:VAL:CG2	13:M:105:GLY:N	2.82	0.42
14:N:56:ASP:OD1	28:b:52:THR:CG2	2.67	0.42
16:P:43:ARG:HA	16:P:43:ARG:HD3	1.38	0.42
17:Q:106:LYS:HD3	17:Q:106:LYS:HA	1.90	0.42
19:S:30:ILE:C	19:S:32:ALA:H	2.27	0.42
21:U:66:ARG:CZ	21:U:75:LYS:HA	2.49	0.42
21:U:97:ILE:O	21:U:101:ILE:HD12	2.20	0.42
23:W:11:LEU:HA	23:W:14:ILE:CD1	2.50	0.42
23:W:29:PRO:O	23:W:30:CYS:CB	2.65	0.42
23:W:37:PHE:CE1	23:W:103:VAL:CG1	3.03	0.42
23:W:98:GLN:HE21	23:W:98:GLN:HB3	1.63	0.42
24:X:52:LEU:HD12	24:X:53:GLU:H	1.70	0.42
24:X:75:ILE:HA	24:X:75:ILE:HD13	1.73	0.42
26:Z:84:ALA:O	26:Z:85:ARG:C	2.62	0.42
28:b:62:VAL:O	28:b:63:LEU:HB2	2.20	0.42
32:f:85:TYR:C	32:f:86:THR:HG23	2.43	0.42
33:g:26:GLN:HB2	33:g:74:ASP:CA	2.35	0.42
33:g:208:ALA:HA	33:g:217:MET:O	2.20	0.42
34:i:36:U:C2	34:i:510:A:C2	3.07	0.42
34:i:207:U:H2'	34:i:208:G:O5'	2.19	0.42
34:i:444:U:H2'	34:i:445:A:C8	2.54	0.42
35:l:48:GLN:CD	35:l:79:TYR:CD1	2.98	0.42
1:A:110:ASN:HA	34:i:1347:G:O3'	2.15	0.41
1:A:149:ASN:CG	1:A:150:THR:H	2.20	0.41
2:B:41:ILE:HD12	2:B:41:ILE:HG21	1.77	0.41
2:B:208:HIS:NE2	2:B:209:ASP:OD2	2.53	0.41
3:C:48:VAL:HG23	3:C:75:GLU:HG2	2.01	0.41
3:C:72:PRO:N	22:V:29:HIS:CE1	2.87	0.41
3:C:113:VAL:HG12	3:C:114:ALA:N	2.35	0.41
3:C:246:PHE:HB3	3:C:247:THR:H	1.63	0.41
4:D:145:GLN:HG3	4:D:146:ARG:H	1.84	0.41
4:D:166:TYR:HD1	4:D:200:PRO:CG	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:18:LYS:HB3	6:F:18:LYS:HE2	1.77	0.41
6:F:112:LEU:C	6:F:112:LEU:CD2	2.93	0.41
11:K:9:ILE:CG2	11:K:10:ALA:N	2.82	0.41
11:K:14:LEU:HD23	11:K:35:LEU:HD22	1.88	0.41
11:K:49:MET:HB3	11:K:69:TRP:CE2	2.55	0.41
11:K:52:LEU:HA	11:K:55:ARG:HD3	2.01	0.41
11:K:58:VAL:HG23	11:K:70:TYR:O	2.20	0.41
12:L:45:LYS:O	12:L:47:PRO:HD3	2.20	0.41
13:M:127:TYR:CG	13:M:128:PHE:N	2.87	0.41
15:O:32:HIS:O	15:O:43:HIS:HB3	2.20	0.41
15:O:103:ASN:O	15:O:104:ARG:O	2.39	0.41
16:P:100:LYS:HD2	16:P:101:THR:N	2.35	0.41
17:Q:131:LYS:O	17:Q:132:PHE:C	2.63	0.41
19:S:61:GLU:O	19:S:64:VAL:HG23	2.09	0.41
20:T:111:LYS:HB2	20:T:126:GLN:HE22	1.71	0.41
21:U:26:SER:HB2	21:U:110:VAL:HA	2.02	0.41
21:U:68:THR:HG22	21:U:69:PRO:HD2	2.01	0.41
22:V:64:GLU:O	22:V:67:ASP:N	2.53	0.41
23:W:51:GLU:CD	28:b:8:LEU:HD13	2.45	0.41
25:Y:18:LEU:C	25:Y:19:GLN:OE1	2.63	0.41
25:Y:54:VAL:HG12	25:Y:75:ILE:HG23	2.02	0.41
25:Y:64:PHE:N	25:Y:64:PHE:HD1	2.09	0.41
27:a:45:VAL:CB	27:a:53:ILE:CD1	2.97	0.41
27:a:49:ALA:HB1	27:a:53:ILE:HD12	2.00	0.41
28:b:36:LYS:NZ	28:b:43:ILE:HD11	2.34	0.41
33:g:5:MET:HE1	33:g:312:VAL:CB	2.43	0.41
33:g:241:PHE:O	33:g:291:TRP:CD1	2.73	0.41
33:g:289:LEU:CD2	33:g:289:LEU:N	2.82	0.41
34:i:603:C:C5	34:i:617:U:C4	3.08	0.41
34:i:738:U:H5	34:i:739:U:C4	2.37	0.41
1:A:5:LEU:HD13	1:A:6:ASP:CA	2.46	0.41
1:A:204:TYR:C	1:A:204:TYR:HD2	2.28	0.41
3:C:51:LEU:HD23	3:C:60:ILE:CD1	2.46	0.41
3:C:53:ARG:NH1	3:C:258:LEU:O	2.52	0.41
3:C:63:LEU:HD12	3:C:83:LEU:HD22	2.02	0.41
4:D:18:LYS:HZ2	4:D:37:VAL:HG22	1.79	0.41
4:D:164:VAL:CG1	4:D:165:ASN:N	2.83	0.41
4:D:209:SER:O	18:R:40:ILE:N	2.45	0.41
4:D:222:PRO:O	4:D:223:ILE:CB	2.65	0.41
5:E:43:PRO:HD3	5:E:46:ILE:HD12	2.00	0.41
5:E:45:ILE:HA	5:E:61:VAL:HG11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:153:LEU:H	5:E:153:LEU:HG	1.43	0.41
6:F:29:GLN:CD	6:F:29:GLN:N	2.78	0.41
6:F:115:ALA:HB3	6:F:116:ILE:HD13	2.02	0.41
6:F:154:LEU:C	6:F:154:LEU:CD1	2.88	0.41
7:G:28:TYR:O	7:G:29:GLU:HB3	2.20	0.41
7:G:64:LYS:HB3	7:G:97:VAL:HG11	2.02	0.41
7:G:122:PRO:CD	7:G:123:GLY:N	2.83	0.41
7:G:213:LEU:C	7:G:213:LEU:CD1	2.92	0.41
8:H:75:ILE:CG2	8:H:76:GLN:H	2.25	0.41
8:H:121:THR:CG2	8:H:124:ALA:HB2	2.50	0.41
9:I:139:LYS:CD	9:I:145:ILE:CD1	2.98	0.41
9:I:154:LYS:C	9:I:154:LYS:HZ3	2.26	0.41
13:M:22:LEU:HD12	13:M:88:TRP:HB3	2.01	0.41
13:M:71:GLU:OE1	13:M:71:GLU:CA	2.68	0.41
16:P:22:LEU:HA	16:P:25:LEU:CB	2.47	0.41
16:P:67:ALA:HB2	16:P:73:PRO:CG	2.50	0.41
17:Q:13:PHE:CE2	34:i:1393:U:N3	2.88	0.41
19:S:136:THR:OG1	34:i:1515:G:C5'	2.67	0.41
20:T:5:THR:HG21	20:T:7:LYS:HB2	2.01	0.41
20:T:47:PRO:CG	20:T:52:TRP:CD1	3.02	0.41
20:T:123:LEU:CD2	20:T:123:LEU:N	2.82	0.41
22:V:66:ASP:O	22:V:67:ASP:O	2.39	0.41
23:W:18:GLU:HG2	23:W:65:LEU:CD1	2.47	0.41
23:W:53:ILE:CG2	28:b:25:VAL:HG21	2.48	0.41
24:X:21:LYS:HB3	24:X:27:TYR:CE2	2.55	0.41
24:X:129:SER:O	24:X:133:LEU:HG	2.20	0.41
26:Z:111:ARG:HH11	26:Z:114:LYS:NZ	2.18	0.41
33:g:32:LEU:HD23	33:g:69:VAL:HG22	2.02	0.41
33:g:131:LEU:CD2	33:g:132:TRP:N	2.83	0.41
34:i:24:C:C2'	34:i:25:A:H5'	2.49	0.41
34:i:99:A:H61	34:i:423:A:H1'	1.85	0.41
34:i:185:C:O2	34:i:210:G:C6	2.73	0.41
34:i:1125:G:C6	34:i:1126:G:C6	3.08	0.41
3:C:151:ARG:HH12	3:C:240:LEU:HD13	1.68	0.41
3:C:154:TYR:CG	3:C:158:LYS:HB3	2.55	0.41
3:C:174:GLY:O	3:C:175:SER:OG	2.37	0.41
4:D:41:VAL:O	4:D:41:VAL:HG13	2.19	0.41
6:F:41:VAL:HG13	6:F:42:LYS:N	2.35	0.41
7:G:50:VAL:HG11	7:G:111:LEU:HB3	1.88	0.41
7:G:70:HIS:CD2	7:G:103:ASP:OD2	2.73	0.41
7:G:78:SER:OG	7:G:81:HIS:NE2	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:143:LYS:HE2	9:I:143:LYS:HB3	1.83	0.41
9:I:163:GLU:O	9:I:166:PHE:HB2	2.20	0.41
10:J:82:VAL:HG21	10:J:92:MET:HG2	2.02	0.41
10:J:136:ARG:NH1	10:J:161:LEU:HB2	2.36	0.41
12:L:20:LYS:CD	12:L:20:LYS:H	2.09	0.41
14:N:38:TYR:CZ	14:N:78:LYS:CG	3.02	0.41
16:P:36:LEU:HA	16:P:37:TYR:CG	2.56	0.41
16:P:60:LEU:HD13	16:P:89:MET:HG3	2.02	0.41
17:Q:8:GLN:HB3	17:Q:99:TYR:CD1	2.48	0.41
20:T:33:TRP:HB2	20:T:36:THR:HG22	2.02	0.41
20:T:37:VAL:HG12	20:T:39:LEU:N	2.35	0.41
20:T:60:THR:HG23	20:T:64:LEU:HD21	2.03	0.41
23:W:7:LEU:CD2	23:W:34:ILE:HG13	2.46	0.41
24:X:32:LEU:O	24:X:37:LYS:NZ	2.52	0.41
24:X:58:GLU:O	24:X:59:ALA:O	2.38	0.41
28:b:15:GLU:O	28:b:23:ARG:NE	2.44	0.41
33:g:32:LEU:HD23	33:g:69:VAL:CG2	2.50	0.41
33:g:176:VAL:HG21	33:g:221:LEU:CD1	2.50	0.41
33:g:218:LEU:HD23	33:g:230:LEU:HD13	2.01	0.41
33:g:261:LEU:HA	33:g:264:LYS:HE3	1.98	0.41
33:g:293:ALA:C	33:g:294:ASP:CG	2.81	0.41
34:i:603:C:C5	34:i:617:U:C2	3.09	0.41
34:i:1079:A:C2	34:i:1855:G:C4	3.08	0.41
34:i:1206:G:N1	34:i:1207:G:C5	2.65	0.41
34:i:1301:C:H2'	34:i:1302:U:C6	2.55	0.41
34:i:1536:G:C2'	34:i:1537:C:H5'	2.51	0.41
34:i:1700:C:H2'	34:i:1701:G:C8	2.56	0.41
34:i:1817:A:H4'	34:i:1818:A:H1'	2.02	0.41
35:l:35:ILE:C	35:l:113:PHE:CG	2.97	0.41
1:A:145:ILE:HD12	1:A:159:ILE:CG2	2.27	0.41
2:B:24:PRO:O	2:B:27:LYS:HB2	2.20	0.41
2:B:120:MET:CB	2:B:142:PHE:CE1	3.04	0.41
3:C:168:LYS:CG	23:W:95:PRO:HA	2.51	0.41
3:C:198:LEU:C	3:C:198:LEU:CD2	2.93	0.41
3:C:225:THR:HG23	3:C:226:PHE:N	2.35	0.41
4:D:98:ALA:HA	4:D:188:ILE:CD1	2.50	0.41
4:D:193:ASP:OD1	4:D:203:PRO:C	2.63	0.41
6:F:95:HIS:NE2	26:Z:103:HIS:HB2	2.35	0.41
7:G:85:ARG:CZ	25:Y:118:ARG:CZ	2.92	0.41
7:G:137:ARG:H	7:G:137:ARG:HG2	1.58	0.41
8:H:39:GLN:CG	8:H:40:LEU:N	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:80:VAL:HA	8:H:83:LEU:CG	2.51	0.41
9:I:55:TYR:CZ	34:i:296:U:H1'	2.56	0.41
10:J:34:GLU:C	10:J:35:TYR:CD2	2.99	0.41
10:J:79:ARG:CD	10:J:83:ARG:HD2	2.49	0.41
12:L:6:THR:O	12:L:7:GLU:C	2.53	0.41
13:M:68:LEU:HD23	13:M:68:LEU:HA	1.90	0.41
14:N:24:THR:C	14:N:26:LEU:N	2.77	0.41
14:N:129:TYR:HB2	14:N:135:LEU:HD12	2.02	0.41
16:P:81:ARG:HB3	34:i:1616:U:O2	2.21	0.41
18:R:110:ASP:O	18:R:111:PHE:CD2	2.54	0.41
20:T:39:LEU:HD11	20:T:99:VAL:HG21	2.00	0.41
20:T:102:ARG:HD3	20:T:105:GLN:OE1	2.21	0.41
24:X:23:HIS:O	24:X:24:ASP:C	2.61	0.41
25:Y:55:ILE:HA	25:Y:75:ILE:HG12	2.02	0.41
28:b:36:LYS:HE3	28:b:43:ILE:CD1	2.45	0.41
28:b:83:GLN:NE2	28:b:83:GLN:CA	2.83	0.41
29:c:44:ARG:NH1	29:c:58:LEU:HD22	2.35	0.41
33:g:102:VAL:O	33:g:132:TRP:HH2	2.03	0.41
34:i:181:A:N9	34:i:182:C:C6	2.89	0.41
34:i:537:G:H2'	34:i:538:C:C5	2.54	0.41
34:i:1119:C:O2	34:i:1119:C:H2'	2.19	0.41
34:i:1469:G:H21	34:i:1471:G:H2'	1.85	0.41
34:i:1749:C:N4	34:i:1750:C:H42	2.18	0.41
1:A:157:VAL:O	22:V:66:ASP:OD2	2.37	0.41
1:A:161:ILE:CG2	1:A:174:MET:HE2	2.51	0.41
3:C:69:PHE:CE1	3:C:247:THR:HG23	2.55	0.41
4:D:58:VAL:CG2	4:D:59:LEU:N	2.83	0.41
4:D:73:VAL:O	4:D:77:PHE:HD2	2.03	0.41
4:D:141:LYS:HZ2	4:D:179:GLN:NE2	2.19	0.41
5:E:86:PHE:CZ	5:E:182:MET:SD	3.13	0.41
5:E:123:LEU:HD21	5:E:235:TRP:CB	2.51	0.41
5:E:123:LEU:HD22	5:E:236:ILE:HG23	2.02	0.41
6:F:135:ARG:NH2	15:O:66:ARG:CG	2.83	0.41
7:G:68:LEU:N	7:G:68:LEU:CD2	2.84	0.41
8:H:14:GLU:HG3	8:H:15:LYS:N	2.32	0.41
8:H:83:LEU:HD12	8:H:84:GLU:CA	2.51	0.41
8:H:84:GLU:C	8:H:84:GLU:CD	2.88	0.41
9:I:55:TYR:CE2	34:i:296:U:O2	2.73	0.41
10:J:32:ILE:C	10:J:35:TYR:O	2.58	0.41
10:J:34:GLU:HB3	10:J:35:TYR:CE2	2.56	0.41
12:L:71:ARG:CG	12:L:73:LEU:CD2	2.98	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:84:LYS:HB3	13:M:88:TRP:CZ2	2.55	0.41
13:M:94:ILE:O	13:M:95:ASP:CB	2.62	0.41
14:N:116:ILE:HA	14:N:119:GLU:OE1	2.20	0.41
15:O:126:ILE:H	27:a:57:SER:HA	1.84	0.41
16:P:110:GLU:C	16:P:112:ILE:H	2.28	0.41
18:R:93:GLN:C	18:R:94:GLU:O	2.56	0.41
18:R:98:VAL:CG1	18:R:99:ASP:H	2.34	0.41
20:T:78:ILE:CG2	20:T:79:TYR:N	2.83	0.41
20:T:99:VAL:HG23	20:T:100:ALA:H	1.83	0.41
21:U:40:ILE:HD13	21:U:53:PRO:CD	2.51	0.41
23:W:107:SER:HA	34:i:858:A:C4	2.56	0.41
25:Y:62:THR:OG1	34:i:571:U:C4'	2.69	0.41
29:c:59:LEU:O	29:c:60:GLU:C	2.61	0.41
33:g:163:PRO:HB2	33:g:179:LEU:CG	2.50	0.41
33:g:294:ASP:OD1	33:g:294:ASP:N	2.43	0.41
33:g:298:LEU:HD11	33:g:310:TRP:CB	2.47	0.41
34:i:199:G:C4	34:i:200:U:C5	3.08	0.41
34:i:603:C:C5	34:i:617:U:N3	2.88	0.41
34:i:1283:A:N3	34:i:1311:U:C5	2.88	0.41
34:i:1513:C:OP1	34:i:1514:U:H3'	2.19	0.41
1:A:30:LEU:HD23	1:A:35:GLU:HG3	1.90	0.41
1:A:36:GLN:O	1:A:53:ARG:CZ	2.69	0.41
1:A:40:LYS:CD	1:A:41:ARG:H	2.33	0.41
1:A:124:VAL:CG1	1:A:130:ASP:HB2	2.50	0.41
2:B:110:MET:HE1	2:B:213:ARG:CD	2.47	0.41
2:B:130:THR:HG21	2:B:179:ASN:N	2.23	0.41
2:B:130:THR:HG23	2:B:179:ASN:N	2.36	0.41
2:B:140:VAL:CG1	2:B:211:PHE:HD2	2.34	0.41
3:C:98:GLN:NE2	34:i:11:A:H5'	2.35	0.41
5:E:143:ASP:OD1	5:E:145:ARG:HD2	2.21	0.41
5:E:169:ILE:O	5:E:169:ILE:HG13	2.21	0.41
5:E:197:ASN:O	5:E:209:HIS:N	2.48	0.41
6:F:71:ARG:NH2	6:F:71:ARG:CG	2.48	0.41
8:H:10:LYS:NZ	8:H:16:PRO:C	2.74	0.41
9:I:145:ILE:O	9:I:149:TYR:CD2	2.73	0.41
9:I:191:GLU:CA	9:I:195:LEU:HB2	2.50	0.41
10:J:180:LYS:HD2	10:J:181:GLY:N	2.35	0.41
12:L:40:ILE:CG2	12:L:41:GLY:N	2.83	0.41
12:L:133:PRO:O	34:i:374:U:H5'	2.21	0.41
13:M:51:VAL:CA	13:M:77:ILE:CG2	2.94	0.41
14:N:37:ILE:HD11	14:N:63:VAL:CG1	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:64:ARG:HH22	34:i:914:U:H5'	1.84	0.41
14:N:80:LEU:HD13	14:N:80:LEU:HA	1.94	0.41
14:N:130:LYS:HE2	14:N:130:LYS:HB2	1.78	0.41
17:Q:42:ILE:O	17:Q:43:GLU:C	2.63	0.41
17:Q:88:ILE:O	17:Q:91:ALA:HB3	2.21	0.41
18:R:112:GLY:O	18:R:113:SER:OG	2.32	0.41
20:T:64:LEU:HD12	20:T:113:VAL:HG11	2.03	0.41
22:V:33:PRO:CB	22:V:53:TYR:O	2.69	0.41
24:X:8:ARG:C	24:X:10:ALA:H	2.28	0.41
24:X:52:LEU:HG	24:X:71:ARG:CB	2.51	0.41
25:Y:29:HIS:O	25:Y:30:PRO:C	2.63	0.41
25:Y:120:THR:HG22	34:i:151:C:OP1	2.20	0.41
28:b:32:PHE:CE1	28:b:47:PHE:CD1	3.09	0.41
28:b:36:LYS:HE2	28:b:43:ILE:HG12	2.03	0.41
31:e:75:LYS:O	31:e:76:VAL:CG2	2.51	0.41
31:e:105:ARG:O	31:e:109:ARG:HG2	2.19	0.41
31:e:123:PHE:C	31:e:123:PHE:CD2	2.99	0.41
32:f:93:HIS:HB3	32:f:94:LYS:H	1.55	0.41
33:g:142:VAL:CG1	33:g:177:TRP:CH2	3.04	0.41
34:i:184:G:C5	34:i:185:C:N4	2.88	0.41
34:i:1411:C:C5	34:i:1412:C:N1	2.89	0.41
34:i:1546:U:O4'	34:i:1553:C:H1'	2.20	0.41
35:l:35:ILE:CB	35:l:113:PHE:CD1	2.92	0.41
1:A:106:GLY:CA	1:A:110:ASN:HD22	2.33	0.41
2:B:127:VAL:HG11	2:B:176:VAL:HB	2.02	0.41
4:D:79:PHE:CG	4:D:84:VAL:HB	2.55	0.41
4:D:212:GLU:HB2	18:R:19:LYS:HD3	1.96	0.41
5:E:122:LYS:HD2	5:E:164:LEU:HD21	2.01	0.41
5:E:192:ILE:HD13	5:E:238:LEU:CD2	2.51	0.41
5:E:248:ILE:HD11	10:J:72:PHE:HB3	1.97	0.41
6:F:124:ASP:CA	6:F:200:ALA:HB2	2.51	0.41
6:F:127:ARG:O	6:F:127:ARG:HD2	2.16	0.41
7:G:1:MET:HE2	7:G:1:MET:HB3	1.86	0.41
7:G:64:LYS:CE	7:G:65:GLN:O	2.69	0.41
9:I:158:ILE:HG23	9:I:159:SER:N	2.36	0.41
10:J:84:ILE:CG1	10:J:86:VAL:CG2	2.99	0.41
11:K:80:ARG:HA	11:K:85:LEU:CD1	2.50	0.41
12:L:50:ALA:N	12:L:116:CYS:SG	2.94	0.41
12:L:52:GLU:C	12:L:52:GLU:CD	2.88	0.41
13:M:101:ARG:NE	13:M:101:ARG:HA	2.36	0.41
17:Q:44:PRO:CB	17:Q:81:ILE:HD11	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:36:VAL:HA	19:S:40:TYR:HD2	1.84	0.41
21:U:94:PRO:HB2	21:U:95:SER:H	1.76	0.41
24:X:140:ARG:C	24:X:141:PRO:O	2.59	0.41
25:Y:104:ARG:HA	25:Y:107:ARG:CZ	2.51	0.41
26:Z:96:LEU:O	26:Z:112:ASN:CG	2.64	0.41
30:d:30:LEU:CD2	30:d:31:ILE:N	2.84	0.41
33:g:88:ARG:HG2	33:g:97:THR:CG2	2.49	0.41
33:g:131:LEU:CD2	33:g:131:LEU:C	2.94	0.41
1:A:152:SER:HB3	1:A:153:PRO:HD2	2.02	0.41
3:C:126:MET:HE3	34:i:1352:G:H5'	1.20	0.41
3:C:186:GLY:C	10:J:54:ARG:NH2	2.78	0.41
3:C:195:PRO:HG3	3:C:221:PHE:CE1	2.54	0.41
3:C:260:LYS:HD2	3:C:261:THR:CB	2.50	0.41
4:D:123:LEU:HA	4:D:126:ILE:HG12	2.02	0.41
6:F:111:VAL:HG13	6:F:181:ALA:HB2	2.03	0.41
8:H:58:LYS:O	8:H:90:LYS:HA	2.21	0.41
9:I:134:GLU:O	9:I:135:GLU:C	2.64	0.41
10:J:37:LEU:CD2	10:J:43:VAL:N	2.79	0.41
12:L:107:LYS:CD	34:i:344:U:OP2	2.69	0.41
12:L:134:LEU:C	12:L:134:LEU:CD2	2.93	0.41
14:N:94:LYS:CE	34:i:1006:G:OP1	2.68	0.41
15:O:84:ARG:HA	15:O:87:GLU:CB	2.47	0.41
16:P:41:GLN:OE1	16:P:45:LEU:HD12	2.21	0.41
16:P:78:THR:O	16:P:102:PHE:HE1	2.03	0.41
16:P:100:LYS:CD	16:P:101:THR:HG23	2.46	0.41
18:R:21:TYR:CG	18:R:71:ILE:CD1	2.98	0.41
18:R:124:VAL:CG1	18:R:125:GLY:N	2.80	0.41
19:S:82:TRP:CG	19:S:83:PHE:N	2.89	0.41
22:V:41:LYS:O	22:V:43:THR:CA	2.67	0.41
23:W:78:ARG:NE	23:W:126:LEU:HD23	2.35	0.41
24:X:76:LYS:HD3	34:i:473:C:OP1	2.21	0.41
27:a:23:CYS:HB2	27:a:28:CYS:HG	1.71	0.41
27:a:28:CYS:SG	27:a:74:CYS:SG	3.16	0.41
28:b:12:PRO:O	28:b:16:LYS:HE2	2.21	0.41
30:d:23:VAL:CG2	30:d:38:MET:HE2	2.18	0.41
31:e:76:VAL:O	31:e:77:HIS:C	2.62	0.41
31:e:113:ASN:CG	34:i:542:G:OP1	2.60	0.41
32:f:89:LYS:O	32:f:89:LYS:CG	2.30	0.41
34:i:181:A:H4'	34:i:182:C:OP1	2.16	0.41
34:i:491:C:O2	34:i:491:C:C2'	2.67	0.41
34:i:924:G:H2'	34:i:925:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1458:U:H3'	34:i:1459:U:H5'	2.02	0.41
34:i:1683:C:H2'	34:i:1684:C:H5'	2.01	0.41
35:l:63:PHE:CZ	35:l:85:LEU:HB3	2.56	0.41
1:A:33:GLN:NE2	28:b:2:PRO:HB3	2.36	0.41
1:A:158:ASP:CB	22:V:65:SER:CB	2.92	0.41
1:A:200:ASP:C	1:A:202:TYR:O	2.64	0.41
2:B:88:THR:HG23	2:B:96:CYS:HB3	2.03	0.41
2:B:119:THR:O	2:B:142:PHE:HA	2.21	0.41
2:B:145:LYS:CA	2:B:149:GLN:OE1	2.68	0.41
2:B:155:TYR:N	2:B:155:TYR:HD1	2.18	0.41
3:C:191:SER:HB3	3:C:195:PRO:HG2	2.03	0.41
4:D:47:GLU:HG2	4:D:85:GLU:HG2	1.90	0.41
4:D:65:ARG:HE	4:D:65:ARG:HB3	1.56	0.41
4:D:111:GLY:CA	4:D:113:LEU:HD11	2.51	0.41
4:D:175:VAL:HG12	4:D:182:LEU:HB2	2.01	0.41
5:E:59:ASP:O	5:E:63:LYS:HG3	2.20	0.41
5:E:126:VAL:HG13	5:E:158:ASP:C	2.29	0.41
5:E:185:GLY:HA2	5:E:189:LEU:HD13	2.03	0.41
5:E:260:GLN:OE1	5:E:260:GLN:HA	2.20	0.41
6:F:61:PHE:C	6:F:63:LYS:N	2.78	0.41
6:F:167:LYS:CG	6:F:171:GLU:HG2	2.50	0.41
7:G:27:PHE:CE1	7:G:111:LEU:HD11	2.56	0.41
7:G:121:ILE:CG1	7:G:122:PRO:HD3	2.51	0.41
7:G:145:PHE:CB	7:G:147:LEU:HD13	2.47	0.41
7:G:171:THR:HB	34:i:75:G:N2	2.36	0.41
8:H:6:ALA:HB2	8:H:10:LYS:NZ	2.36	0.41
8:H:169:LYS:HB2	8:H:173:PHE:CZ	2.47	0.41
9:I:62:VAL:HG23	9:I:75:LYS:HE3	2.01	0.41
9:I:110:ARG:HE	9:I:128:LYS:NZ	2.18	0.41
9:I:146:GLN:HA	9:I:149:TYR:HD2	1.86	0.41
9:I:165:GLN:CD	9:I:172:LEU:HD23	2.46	0.41
10:J:26:ASP:CA	31:e:116:PHE:HZ	2.34	0.41
10:J:53:ILE:HD13	10:J:105:PHE:CZ	2.55	0.41
10:J:84:ILE:CD1	10:J:86:VAL:HG23	2.49	0.41
10:J:170:PRO:C	10:J:174:LYS:HZ3	2.28	0.41
11:K:9:ILE:HG23	11:K:10:ALA:N	2.35	0.41
11:K:14:LEU:HB2	11:K:35:LEU:HD21	2.02	0.41
11:K:84:HIS:HD2	13:M:27:ILE:CD1	2.31	0.41
12:L:146:THR:CG2	12:L:147:LYS:N	2.81	0.41
13:M:43:ASP:O	13:M:44:LYS:HG3	2.21	0.41
13:M:86:GLY:HA2	13:M:106:CYS:HB2	2.00	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:124:ILE:O	13:M:128:PHE:HB2	2.21	0.41
14:N:4:MET:HE1	14:N:124:ARG:NH2	2.36	0.41
14:N:38:TYR:CD1	14:N:78:LYS:HG3	2.56	0.41
14:N:132:LYS:HB3	14:N:132:LYS:HE2	1.54	0.41
15:O:42:VAL:HG12	15:O:43:HIS:N	2.35	0.41
15:O:62:VAL:HG21	15:O:72:TYR:OH	2.11	0.41
15:O:94:HIS:NE2	15:O:127:GLY:HA3	2.36	0.41
15:O:136:PRO:O	15:O:138:ASP:CA	2.63	0.41
15:O:137:SER:HB2	34:i:938:G:H21	1.85	0.41
16:P:5:GLU:O	16:P:6:GLN:HG3	2.16	0.41
16:P:17:TYR:CE1	16:P:18:ARG:HG3	2.55	0.41
18:R:17:ILE:HG13	18:R:54:VAL:HG13	2.03	0.41
18:R:102:THR:CA	18:R:105:MET:HB2	2.46	0.41
18:R:103:LYS:HA	18:R:103:LYS:HD2	1.32	0.41
19:S:40:TYR:OH	19:S:99:LEU:HD21	2.21	0.41
19:S:85:ASN:CG	19:S:98:VAL:H	2.29	0.41
20:T:46:ALA:CB	20:T:47:PRO:CD	2.43	0.41
20:T:49:ASP:O	20:T:52:TRP:HD1	2.03	0.41
20:T:63:HIS:CE1	34:i:1582:G:N2	2.88	0.41
20:T:119:TRP:CH2	34:i:1557:C:O2	2.74	0.41
21:U:16:ALA:C	21:U:17:ILE:HG13	2.46	0.41
21:U:44:LYS:HB2	21:U:49:LYS:HA	2.02	0.41
21:U:48:LEU:O	21:U:49:LYS:CB	2.66	0.41
22:V:33:PRO:HB2	22:V:34:MET:H	1.74	0.41
23:W:55:ASP:C	23:W:57:ARG:H	2.29	0.41
24:X:95:GLU:HB2	24:X:140:ARG:HH22	1.84	0.41
24:X:129:SER:HG	24:X:132:ALA:HB3	1.83	0.41
25:Y:55:ILE:CG1	25:Y:75:ILE:HD13	2.41	0.41
25:Y:62:THR:OG1	34:i:571:U:H4'	2.21	0.41
26:Z:84:ALA:O	26:Z:87:ALA:N	2.54	0.41
26:Z:90:GLU:O	26:Z:93:SER:N	2.43	0.41
26:Z:91:LEU:HD21	26:Z:96:LEU:HD12	1.98	0.41
27:a:24:THR:CG2	27:a:72:HIS:H	2.34	0.41
27:a:45:VAL:C	27:a:46:GLU:HG3	2.46	0.41
27:a:95:ARG:CZ	34:i:987:G:C6	3.03	0.41
28:b:47:PHE:CD2	28:b:49:HIS:O	2.74	0.41
28:b:63:LEU:O	28:b:64:CYS:CB	2.69	0.41
29:c:15:THR:HG21	29:c:33:GLU:CD	2.45	0.41
29:c:63:ARG:O	29:c:64:GLU:CB	2.57	0.41
29:c:67:ARG:C	29:c:68:LEU:CG	2.89	0.41
31:e:103:THR:HG21	34:i:514:U:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:f:136:PHE:HD1	32:f:137:ASP:H	1.67	0.41
33:g:17:TRP:H	33:g:36:ARG:CG	2.29	0.41
34:i:109:U:H6	34:i:109:U:O5'	2.04	0.41
34:i:168:C:C5	34:i:169:U:C4	3.09	0.41
34:i:221:A:C2	34:i:289:G:C6	3.09	0.41
34:i:1057:U:N3	35:l:64:LYS:NZ	2.68	0.41
34:i:1115:A:H3'	34:i:1116:U:H5"	2.02	0.41
34:i:1590:U:C5	34:i:1591:U:C5	3.09	0.41
34:i:1644:U:O2	34:i:1670:A:C2	2.74	0.41
34:i:1750:C:O2'	34:i:1751:G:P	2.79	0.41
34:i:1817:A:C4'	34:i:1818:A:O4'	2.69	0.41
34:i:1856:G:H1'	34:i:1857:A:H2'	2.03	0.41
35:l:99:GLU:O	35:l:100:ILE:C	2.63	0.41
1:A:180:ARG:HD3	1:A:184:ARG:NE	2.36	0.41
1:A:191:ARG:HD3	1:A:193:HIS:CD2	2.56	0.41
2:B:79:VAL:O	2:B:79:VAL:CG2	2.62	0.41
2:B:150:ILE:CB	18:R:124:VAL:HG13	2.50	0.41
3:C:54:LEU:HB3	3:C:60:ILE:HG13	2.02	0.41
3:C:238:PRO:HA	3:C:241:TRP:NE1	2.35	0.41
4:D:77:PHE:C	4:D:79:PHE:N	2.78	0.41
5:E:31:PRO:CG	5:E:38:LEU:HD13	2.45	0.41
5:E:164:LEU:HD22	5:E:164:LEU:HA	1.77	0.41
6:F:20:PHE:CD2	6:F:23:TRP:CD1	3.07	0.41
7:G:32:MET:HA	7:G:52:ILE:CG2	2.51	0.41
7:G:148:SER:C	7:G:150:GLU:N	2.77	0.41
8:H:117:PRO:O	8:H:120:ARG:HB2	2.21	0.41
9:I:141:ARG:O	9:I:142:SER:HB3	2.19	0.41
10:J:115:PHE:CD1	10:J:122:SER:CA	3.04	0.41
12:L:56:ILE:HG22	12:L:57:ASP:N	2.35	0.41
12:L:151:THR:O	12:L:152:LYS:C	2.63	0.41
13:M:35:ILE:CD1	13:M:61:TYR:CE2	3.03	0.41
14:N:136:PRO:HD2	14:N:139:TRP:HD1	1.86	0.41
16:P:89:MET:HB3	16:P:107:ILE:HD11	1.96	0.41
16:P:97:TYR:OH	16:P:99:GLY:O	2.37	0.41
17:Q:85:ARG:HA	17:Q:88:ILE:HG12	2.03	0.41
17:Q:90:LYS:HD3	17:Q:120:LEU:C	2.46	0.41
18:R:24:LEU:HB2	18:R:58:MET:HE3	2.03	0.41
20:T:40:ALA:HB3	20:T:43:LYS:HE3	2.02	0.41
21:U:72:GLU:OE2	34:i:1242:A:H1'	2.21	0.41
23:W:118:ARG:HG2	34:i:730:C:O2'	2.21	0.41
24:X:20:GLN:O	24:X:21:LYS:C	2.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:120:VAL:H	31:e:120:VAL:HG12	1.38	0.41
33:g:102:VAL:CG1	33:g:103:GLY:N	2.83	0.41
33:g:163:PRO:HB2	33:g:179:LEU:CB	2.50	0.41
33:g:198:VAL:CG1	33:g:199:THR:N	2.83	0.41
34:i:548:G:C6	34:i:549:G:C6	3.09	0.41
34:i:679:U:C5	34:i:738:U:N3	2.88	0.41
34:i:1428:U:C4	34:i:1429:C:C4	3.09	0.41
34:i:1537:C:C5	34:i:1538:U:C5	3.08	0.41
1:A:193:HIS:CG	1:A:194:PRO:CD	3.03	0.40
3:C:167:CYS:SG	3:C:168:LYS:HG3	2.60	0.40
3:C:176:VAL:HG11	3:C:221:PHE:HA	2.03	0.40
3:C:223:LYS:NZ	34:i:1352:G:O4'	2.54	0.40
4:D:7:LYS:O	4:D:11:PHE:HD1	2.04	0.40
4:D:197:LYS:N	4:D:199:GLY:CA	2.84	0.40
5:E:18:TRP:CD2	5:E:46:ILE:HD13	2.56	0.40
6:F:112:LEU:CB	6:F:177:LEU:HD11	2.50	0.40
7:G:59:GLN:HA	34:i:157:U:O2'	2.21	0.40
7:G:162:LEU:CD2	7:G:170:ARG:CB	2.96	0.40
7:G:200:LYS:HG3	7:G:201:LYS:N	2.35	0.40
8:H:92:VAL:O	8:H:93:VAL:CB	2.68	0.40
8:H:107:LYS:C	8:H:109:ARG:CA	2.82	0.40
8:H:159:ASP:O	8:H:160:LYS:CB	2.69	0.40
9:I:19:LYS:HA	9:I:20:PRO:HD3	1.77	0.40
9:I:139:LYS:HD2	9:I:149:TYR:OH	2.21	0.40
9:I:157:LYS:HG2	12:L:22:ARG:NH1	2.34	0.40
12:L:56:ILE:O	12:L:57:ASP:C	2.64	0.40
12:L:70:GLY:O	12:L:72:ILE:HD12	2.20	0.40
12:L:73:LEU:HD22	12:L:90:ARG:NH2	2.36	0.40
19:S:137:LYS:HE3	34:i:1232:G:O6	2.21	0.40
20:T:11:GLN:CD	20:T:62:ARG:CD	2.93	0.40
20:T:83:GLN:HE22	20:T:85:ASN:CA	2.26	0.40
21:U:69:PRO:HA	30:d:41:GLN:HG3	2.04	0.40
26:Z:104:ARG:HA	26:Z:104:ARG:HD2	1.38	0.40
27:a:98:PRO:HA	27:a:99:PRO:HD3	1.65	0.40
31:e:119:VAL:O	31:e:119:VAL:HG12	2.19	0.40
33:g:62:HIS:ND1	33:g:84:ASP:OD2	2.44	0.40
33:g:218:LEU:HD23	33:g:230:LEU:HD11	2.03	0.40
34:i:728:U:H2'	34:i:729:C:C6	2.56	0.40
34:i:1740:A:C2	34:i:1741:U:C5	3.08	0.40
1:A:134:LEU:CD2	1:A:144:THR:HG21	2.51	0.40
2:B:72:ALA:CB	2:B:79:VAL:O	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:59:LYS:CD	3:C:254:PHE:CE1	3.04	0.40
3:C:127:LYS:HE3	3:C:128:CYS:H	1.85	0.40
5:E:34:GLY:HA3	5:E:83:PRO:CG	2.51	0.40
5:E:47:PHE:CD2	5:E:52:LEU:HD12	2.57	0.40
6:F:28:VAL:HG13	6:F:110:GLN:HG2	2.02	0.40
6:F:29:GLN:O	6:F:31:ASN:N	2.54	0.40
7:G:173:ALA:CB	34:i:77:A:H4'	2.51	0.40
7:G:176:ILE:CG1	7:G:179:LEU:CD2	2.98	0.40
7:G:191:ARG:NH2	34:i:303:G:C8	2.87	0.40
8:H:20:GLU:O	8:H:23:ILE:HG22	2.21	0.40
8:H:87:PHE:HD2	8:H:90:LYS:HD2	1.86	0.40
8:H:117:PRO:CD	8:H:120:ARG:HD2	2.48	0.40
8:H:146:VAL:HG23	23:W:50:PHE:CD1	2.52	0.40
10:J:50:LEU:HD12	10:J:102:ILE:HG12	2.02	0.40
10:J:50:LEU:CD2	10:J:54:ARG:HG3	2.45	0.40
10:J:136:ARG:HG2	10:J:141:VAL:CA	2.51	0.40
11:K:41:PRO:O	11:K:42:ASN:C	2.62	0.40
12:L:139:ARG:HG2	34:i:342:U:C5'	2.51	0.40
13:M:113:ASP:O	13:M:114:TYR:CD2	2.74	0.40
14:N:2:GLY:O	14:N:3:ARG:HB2	2.19	0.40
14:N:18:TYR:O	14:N:19:ARG:O	2.39	0.40
15:O:34:PHE:HE1	15:O:100:THR:N	2.19	0.40
15:O:39:ASP:C	15:O:40:THR:HG23	2.46	0.40
16:P:67:ALA:HB1	16:P:73:PRO:HB3	1.98	0.40
17:Q:58:LEU:HD21	17:Q:111:ILE:CD1	2.28	0.40
17:Q:93:VAL:HG13	17:Q:105:LYS:CG	2.42	0.40
20:T:40:ALA:HB3	20:T:43:LYS:CE	2.51	0.40
21:U:58:THR:OG1	21:U:85:HIS:CE1	2.75	0.40
21:U:68:THR:HB	21:U:70:CYS:C	2.45	0.40
21:U:104:ILE:C	21:U:105:SER:HG	2.26	0.40
24:X:88:ASP:OD2	31:e:87:ARG:CB	2.69	0.40
27:a:30:VAL:HG12	27:a:31:PRO:O	2.21	0.40
33:g:306:LEU:HD22	33:g:308:ARG:CG	2.43	0.40
34:i:1041:U:C5	34:i:1042:U:C5	3.09	0.40
1:A:18:PHE:HZ	1:A:55:TRP:CZ3	2.38	0.40
1:A:53:ARG:HH11	1:A:53:ARG:HD3	1.49	0.40
1:A:57:LYS:NZ	22:V:70:LEU:HD21	2.36	0.40
1:A:126:ASP:O	1:A:130:ASP:HB2	2.22	0.40
1:A:167:GLY:O	1:A:170:SER:OG	2.30	0.40
2:B:147:ASN:C	2:B:149:GLN:N	2.79	0.40
2:B:148:ASN:HD22	2:B:148:ASN:N	2.14	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:182:LYS:O	2:B:185:VAL:HB	2.21	0.40
2:B:232:HIS:C	2:B:233:GLY:O	2.59	0.40
3:C:168:LYS:HG3	23:W:95:PRO:HA	2.03	0.40
3:C:254:PHE:O	3:C:257:HIS:CB	2.70	0.40
4:D:29:LEU:CD2	4:D:65:ARG:NH2	2.83	0.40
4:D:29:LEU:HD23	4:D:29:LEU:HA	1.89	0.40
7:G:212:LEU:N	7:G:215:LYS:HD3	2.35	0.40
8:H:51:ILE:O	8:H:51:ILE:HG13	2.22	0.40
8:H:133:LEU:HD13	8:H:173:PHE:HA	2.02	0.40
8:H:148:LEU:C	8:H:148:LEU:CD2	2.94	0.40
8:H:159:ASP:O	8:H:190:PRO:HG3	2.21	0.40
9:I:48:VAL:HG11	9:I:54:LYS:CE	2.50	0.40
9:I:65:PHE:HA	9:I:187:GLY:O	2.21	0.40
9:I:118:ALA:HB2	9:I:149:TYR:CD1	2.55	0.40
10:J:21:GLU:C	10:J:23:SER:H	2.27	0.40
11:K:16:PHE:CD2	11:K:79:LEU:CD1	3.05	0.40
12:L:122:ILE:O	12:L:122:ILE:HG13	2.21	0.40
14:N:101:HIS:CE1	14:N:105:ASN:HD22	2.39	0.40
15:O:83:GLN:O	15:O:87:GLU:HB2	2.21	0.40
15:O:98:ARG:NE	15:O:134:PRO:HD3	2.37	0.40
15:O:121:ARG:O	15:O:122:SER:C	2.64	0.40
16:P:30:TYR:OH	16:P:51:ARG:NH1	2.54	0.40
20:T:87:VAL:HG12	20:T:88:MET:CE	2.52	0.40
21:U:37:ALA:O	21:U:41:ARG:HG3	2.20	0.40
22:V:33:PRO:HB3	22:V:54:ALA:HA	2.02	0.40
22:V:74:LYS:CA	22:V:79:VAL:HB	2.51	0.40
27:a:68:TYR:CD2	27:a:68:TYR:N	2.90	0.40
33:g:17:TRP:CD1	33:g:303:THR:O	2.74	0.40
34:i:678:U:C6	34:i:738:U:C5	3.09	0.40
34:i:1532:A:H61	34:i:1591:U:H3	1.70	0.40
34:i:1535:G:O6	34:i:1588:C:N3	2.54	0.40
34:i:1701:G:H21	34:i:1844:A:H1'	1.86	0.40
34:i:1823:G:H1'	34:i:1843:G:N1	2.36	0.40
1:A:12:GLU:HB3	18:R:111:PHE:CZ	2.57	0.40
1:A:36:GLN:O	1:A:53:ARG:NH1	2.54	0.40
1:A:154:LEU:CD1	22:V:63:GLY:HA2	2.52	0.40
2:B:54:GLY:C	2:B:56:LYS:N	2.80	0.40
2:B:175:GLU:OE1	2:B:187:LYS:NZ	2.47	0.40
3:C:151:ARG:NH2	22:V:1:MET:SD	2.94	0.40
3:C:233:TYR:CD1	22:V:12:TYR:CZ	3.09	0.40
5:E:47:PHE:CD2	5:E:52:LEU:CD1	3.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:20:PHE:CZ	6:F:50:PRO:HG3	2.56	0.40
6:F:36:GLN:C	6:F:37:ASP:OD1	2.64	0.40
7:G:49:VAL:CG2	7:G:115:LYS:HE2	2.51	0.40
8:H:117:PRO:O	8:H:118:ARG:C	2.60	0.40
8:H:145:ARG:HD3	8:H:155:LYS:NZ	2.36	0.40
9:I:29:LEU:HD21	9:I:31:ARG:NH1	2.34	0.40
13:M:18:LEU:CD2	13:M:18:LEU:C	2.94	0.40
13:M:117:GLU:O	13:M:118:SER:CB	2.69	0.40
16:P:121:ILE:HA	19:S:120:HIS:HB2	2.03	0.40
18:R:7:LYS:O	18:R:11:LYS:HG3	2.21	0.40
19:S:12:ILE:C	19:S:13:LEU:HD23	2.46	0.40
21:U:79:ARG:NH2	34:i:1663:U:O3'	2.54	0.40
21:U:95:SER:OG	21:U:96:GLU:N	2.55	0.40
23:W:49:GLU:H	23:W:64:ASN:HD22	1.69	0.40
24:X:138:LYS:CA	24:X:139:GLU:CD	2.93	0.40
25:Y:56:PHE:HB2	25:Y:58:PHE:HE2	1.81	0.40
25:Y:61:ARG:HD3	25:Y:70:THR:O	2.22	0.40
26:Z:62:VAL:HA	26:Z:65:TYR:CZ	2.54	0.40
28:b:15:GLU:HB2	28:b:16:LYS:HD3	2.03	0.40
29:c:32:VAL:HG23	29:c:32:VAL:O	2.22	0.40
31:e:113:ASN:OD1	31:e:117:VAL:CG2	2.63	0.40
33:g:87:LEU:CG	33:g:101:PHE:HB2	2.48	0.40
33:g:234:ASP:OD2	33:g:254:PRO:HG2	2.21	0.40
34:i:66:G:O2'	34:i:67:C:H5'	2.21	0.40
34:i:183:G:O3'	34:i:184:G:P	2.68	0.40
34:i:679:U:H5"	34:i:738:U:O4	2.22	0.40
34:i:797:U:H3	34:i:860:A:H61	1.69	0.40
34:i:1429:C:C2'	34:i:1430:C:O5'	2.69	0.40
1:A:141:ASN:CB	22:V:32:ILE:CG1	2.97	0.40
1:A:202:TYR:O	1:A:203:PHE:HB2	2.21	0.40
3:C:186:GLY:HA3	10:J:54:ARG:HH21	1.77	0.40
4:D:29:LEU:CD1	4:D:50:ILE:HG21	2.51	0.40
4:D:47:GLU:HA	4:D:85:GLU:HG2	2.04	0.40
4:D:76:ARG:HD2	4:D:76:ARG:O	2.21	0.40
5:E:21:ASP:CG	5:E:24:THR:HG23	2.39	0.40
5:E:85:GLY:HA2	5:E:109:PHE:CZ	2.57	0.40
6:F:40:ALA:H	6:F:68:ILE:CG2	2.25	0.40
6:F:47:LYS:HB3	17:Q:117:ARG:HH22	1.86	0.40
6:F:89:THR:HG23	6:F:90:VAL:N	2.35	0.40
6:F:103:LEU:CD2	6:F:178:ILE:HG21	2.51	0.40
8:H:34:SER:C	8:H:35:ASP:OD1	2.64	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:95:ILE:HG22	8:H:96:ALA:N	2.36	0.40
9:I:8:TRP:CD1	9:I:22:HIS:HE1	2.40	0.40
9:I:25:ARG:NE	9:I:27:TYR:OH	2.54	0.40
9:I:155:ASN:HD21	9:I:156:ALA:HA	1.82	0.40
9:I:191:GLU:O	9:I:195:LEU:N	2.43	0.40
10:J:65:GLU:CD	10:J:65:GLU:C	2.90	0.40
11:K:18:GLU:C	11:K:92:ALA:HB3	2.39	0.40
11:K:47:LYS:HE2	34:i:1270:G:O4'	2.22	0.40
12:L:66:VAL:HB	12:L:131:CYS:SG	2.62	0.40
13:M:22:LEU:O	13:M:26:LEU:HB2	2.22	0.40
13:M:85:LEU:HD21	13:M:109:VAL:HG22	2.03	0.40
19:S:52:LEU:HD12	19:S:53:THR:CA	2.51	0.40
19:S:139:THR:C	19:S:141:ARG:N	2.79	0.40
21:U:68:THR:CB	21:U:70:CYS:O	2.69	0.40
23:W:36:ARG:HE	23:W:110:ILE:HB	1.85	0.40
24:X:45:SER:C	24:X:46:HIS:CD2	2.99	0.40
24:X:55:VAL:HG12	24:X:57:VAL:CG2	2.52	0.40
25:Y:20:ARG:NH2	25:Y:74:MET:HE2	2.33	0.40
26:Z:62:VAL:HG11	26:Z:91:LEU:HD11	2.03	0.40
31:e:77:HIS:O	31:e:78:GLY:O	2.39	0.40
33:g:87:LEU:C	33:g:101:PHE:HD1	2.30	0.40
33:g:157:SER:OG	33:g:164:ILE:HB	2.22	0.40
34:i:328:G:H2'	34:i:329:A:H8	1.86	0.40
34:i:846:C:C5	34:i:847:C:C5	3.09	0.40
34:i:883:U:C6	34:i:884:U:C5	3.10	0.40
34:i:1024:A:C5'	34:i:1025:G:OP2	2.70	0.40
34:i:1216:A:N6	34:i:1217:G:C6	2.90	0.40
34:i:1229:G:C6	34:i:1230:C:C4	3.09	0.40
34:i:1751:G:O2'	34:i:1752:G:O5'	2.39	0.40

All (168) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:125:LYS:NZ	35:l:56:LYS:N[4_555]	0.47	1.73
31:e:123:PHE:CE1	34:i:1758:G:C3'[3_564]	0.56	1.64
7:G:155:GLN:NE2	11:K:98:ARG:N[2_665]	0.61	1.59
19:S:108:ARG:NE	34:i:724:C:OP1[5_664]	0.68	1.52
34:i:136:C:C5'	34:i:533:C:N3[2_665]	0.71	1.49
19:S:108:ARG:CD	34:i:724:C:O5'[5_664]	0.74	1.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:136:C:C4'	34:i:533:C:N1[2_665]	0.77	1.43
19:S:108:ARG:CZ	34:i:724:C:OP1[5_664]	0.80	1.40
9:I:127:ALA:CB	35:l:52:ASP:O[4_555]	0.84	1.36
34:i:136:C:C5'	34:i:533:C:C2[2_665]	0.84	1.36
34:i:136:C:O5'	34:i:533:C:N3[2_665]	0.91	1.29
34:i:136:C:C4'	34:i:533:C:C2[2_665]	0.91	1.29
31:e:125:LYS:NZ	34:i:1761:C:O5'[3_564]	0.92	1.28
19:S:108:ARG:CG	34:i:724:C:C5'[5_664]	0.95	1.25
9:I:125:LYS:NZ	35:l:55:ASP:C[4_555]	0.97	1.23
31:e:125:LYS:N	34:i:1760:C:OP2[3_564]	0.97	1.23
9:I:200:ARG:NH2	34:i:1036:G:OP2[4_555]	0.98	1.22
34:i:137:U:OP2	34:i:532:U:O2[2_665]	0.99	1.21
7:G:155:GLN:CD	11:K:98:ARG:CB[2_665]	1.08	1.12
2:B:55:THR:CG2	34:i:271:G:OP1[4_555]	1.09	1.11
19:S:108:ARG:NE	34:i:724:C:P[5_664]	1.09	1.11
19:S:112:GLU:CD	34:i:725:C:OP1[5_664]	1.09	1.11
34:i:136:C:C3'	34:i:533:C:C1'[2_665]	1.09	1.11
19:S:108:ARG:CD	34:i:724:C:C5'[5_664]	1.11	1.09
7:G:155:GLN:CG	11:K:98:ARG:CA[2_665]	1.12	1.08
7:G:155:GLN:CD	11:K:98:ARG:CA[2_665]	1.14	1.06
31:e:123:PHE:CG	34:i:1759:C:O5'[3_564]	1.17	1.03
7:G:155:GLN:CB	11:K:98:ARG:CG[2_665]	1.18	1.02
7:G:156:TYR:CZ	11:K:98:ARG:NH2[2_665]	1.19	1.01
7:G:154:ARG:NH2	11:K:96:ARG:NH2[2_665]	1.21	0.99
9:I:125:LYS:CE	35:l:56:LYS:N[4_555]	1.23	0.97
7:G:155:GLN:CG	11:K:98:ARG:CB[2_665]	1.26	0.94
31:e:125:LYS:NZ	34:i:1761:C:C5'[3_564]	1.26	0.94
7:G:155:GLN:C	11:K:98:ARG:NH1[2_665]	1.27	0.93
34:i:136:C:C3'	34:i:533:C:N1[2_665]	1.27	0.93
34:i:137:U:OP1	34:i:532:U:N3[2_665]	1.27	0.93
31:e:123:PHE:CZ	34:i:1758:G:C3'[3_564]	1.28	0.92
7:G:155:GLN:OE1	11:K:98:ARG:CB[2_665]	1.29	0.91
9:I:200:ARG:CZ	34:i:1036:G:OP2[4_555]	1.31	0.89
3:C:40:ALA:O	34:i:1764:G:C5'[3_564]	1.35	0.85
7:G:155:GLN:O	11:K:98:ARG:NH1[2_665]	1.36	0.84
9:I:125:LYS:CE	35:l:56:LYS:CA[4_555]	1.37	0.83
31:e:125:LYS:C	34:i:1760:C:OP1[3_564]	1.38	0.82
19:S:112:GLU:OE2	34:i:725:C:P[5_664]	1.40	0.80
31:e:125:LYS:CE	34:i:1761:C:O5'[3_564]	1.40	0.80
19:S:112:GLU:CG	34:i:725:C:OP1[5_664]	1.41	0.79
31:e:125:LYS:CA	34:i:1760:C:P[3_564]	1.41	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:200:ARG:NH2	34:i:1036:G:P[4_555]	1.42	0.78
19:S:112:GLU:OE2	34:i:725:C:OP1[5_664]	1.43	0.77
7:G:156:TYR:CE1	11:K:98:ARG:NH2[2_665]	1.44	0.76
34:i:136:C:C3'	34:i:533:C:O4'[2_665]	1.44	0.76
31:e:123:PHE:CE1	34:i:1758:G:O3'[3_564]	1.46	0.74
31:e:123:PHE:CD1	34:i:1759:C:P[3_564]	1.46	0.74
4:D:124:ARG:NE	34:i:1763:C:OP1[3_564]	1.48	0.72
7:G:156:TYR:CE1	11:K:98:ARG:CZ[2_665]	1.48	0.72
34:i:136:C:C4'	34:i:533:C:O2[2_665]	1.49	0.71
7:G:155:GLN:CD	11:K:98:ARG:N[2_665]	1.50	0.70
31:e:125:LYS:CB	34:i:1761:C:OP2[3_564]	1.51	0.69
34:i:136:C:C4'	34:i:533:C:C1'[2_665]	1.52	0.68
3:C:40:ALA:C	34:i:1764:G:C4'[3_564]	1.53	0.67
7:G:155:GLN:NE2	11:K:98:ARG:CA[2_665]	1.54	0.66
31:e:123:PHE:CB	34:i:1759:C:O5'[3_564]	1.55	0.65
3:C:40:ALA:O	34:i:1764:G:C4'[3_564]	1.56	0.64
34:i:137:U:P	34:i:532:U:O2[2_665]	1.56	0.64
19:S:112:GLU:OE2	34:i:725:C:OP2[5_664]	1.58	0.62
34:i:137:U:OP2	34:i:532:U:C2[2_665]	1.58	0.62
34:i:137:U:OP1	34:i:532:U:C2[2_665]	1.58	0.62
31:e:123:PHE:CD1	34:i:1759:C:O5'[3_564]	1.59	0.61
34:i:136:C:C5'	34:i:533:C:C4[2_665]	1.59	0.61
31:e:125:LYS:CA	34:i:1760:C:OP2[3_564]	1.61	0.59
31:e:125:LYS:CA	34:i:1760:C:OP1[3_564]	1.61	0.59
7:G:155:GLN:NE2	11:K:97:SER:C[2_665]	1.62	0.58
19:S:108:ARG:NH2	34:i:724:C:OP1[5_664]	1.62	0.58
19:S:108:ARG:CD	34:i:724:C:P[5_664]	1.62	0.58
9:I:123:ARG:O	35:l:57:LYS:NZ[4_555]	1.63	0.57
9:I:125:LYS:NZ	35:l:56:LYS:CA[4_555]	1.63	0.57
34:i:136:C:OP2	34:i:533:C:O2[2_665]	1.63	0.57
4:D:124:ARG:NH2	34:i:1763:C:C5'[3_564]	1.64	0.56
9:I:200:ARG:NE	34:i:1036:G:OP2[4_555]	1.67	0.53
7:G:156:TYR:CE2	11:K:98:ARG:NH2[2_665]	1.68	0.52
9:I:200:ARG:CZ	34:i:1036:G:P[4_555]	1.69	0.51
3:C:39:LYS:CG	34:i:1765:G:O4'[3_564]	1.71	0.49
31:e:123:PHE:CD1	34:i:1759:C:OP2[3_564]	1.71	0.49
34:i:136:C:O5'	34:i:533:C:C2[2_665]	1.71	0.49
9:I:123:ARG:NE	34:i:1048:A:O3'[4_555]	1.72	0.48
34:i:136:C:C5'	34:i:533:C:N1[2_665]	1.72	0.48
31:e:125:LYS:CD	34:i:1761:C:OP2[3_564]	1.73	0.47
34:i:137:U:P	34:i:532:U:C2[2_665]	1.74	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:136:C:O5'	34:i:533:C:C4[2_665]	1.75	0.45
4:D:45:ARG:NH2	34:i:75:G:OP2[3_564]	1.76	0.44
7:G:155:GLN:CB	11:K:98:ARG:CB[2_665]	1.76	0.44
31:e:123:PHE:CD1	34:i:1758:G:O3'[3_564]	1.76	0.44
4:D:124:ARG:NH2	34:i:1763:C:O5'[3_564]	1.78	0.42
9:I:125:LYS:CE	35:l:56:LYS:CB[4_555]	1.78	0.42
9:I:200:ARG:NH2	34:i:1036:G:O5'[4_555]	1.78	0.42
31:e:123:PHE:O	34:i:1760:C:OP2[3_564]	1.78	0.42
31:e:126:LYS:CD	34:i:1760:C:OP1[3_564]	1.78	0.42
4:D:45:ARG:CZ	34:i:75:G:OP2[3_564]	1.79	0.41
9:I:131:PRO:CG	35:l:53:ASP:CB[4_555]	1.80	0.40
7:G:154:ARG:CD	11:K:98:ARG:O[2_665]	1.81	0.39
9:I:127:ALA:CB	35:l:52:ASP:C[4_555]	1.81	0.39
9:I:125:LYS:NZ	35:l:55:ASP:O[4_555]	1.82	0.38
7:G:155:GLN:CG	11:K:98:ARG:CG[2_665]	1.83	0.37
31:e:125:LYS:CG	34:i:1761:C:OP2[3_564]	1.83	0.37
31:e:123:PHE:CD1	34:i:1758:G:C3'[3_564]	1.84	0.36
19:S:108:ARG:NE	34:i:724:C:O5'[5_664]	1.87	0.33
11:K:96:ARG:NH2	34:i:77:A:N6[3_564]	1.88	0.32
2:B:55:THR:CB	34:i:271:G:OP1[4_555]	1.89	0.31
7:G:154:ARG:CD	11:K:98:ARG:C[2_665]	1.90	0.30
31:e:126:LYS:NZ	34:i:1759:C:O3'[3_564]	1.90	0.30
9:I:200:ARG:NE	34:i:1036:G:OP1[4_555]	1.92	0.28
31:e:123:PHE:CE1	34:i:1758:G:C4'[3_564]	1.92	0.28
34:i:136:C:C3'	34:i:533:C:C6[2_665]	1.94	0.26
4:D:45:ARG:NE	34:i:75:G:OP2[3_564]	1.95	0.25
7:G:156:TYR:CD1	11:K:98:ARG:CZ[2_665]	1.95	0.25
9:I:123:ARG:CD	34:i:1048:A:O3'[4_555]	1.95	0.25
34:i:136:C:C5'	34:i:533:C:O2[2_665]	1.95	0.25
7:G:156:TYR:CE1	11:K:98:ARG:NE[2_665]	1.96	0.24
9:I:131:PRO:CB	35:l:53:ASP:CG[4_555]	1.98	0.22
31:e:125:LYS:CA	34:i:1760:C:O5'[3_564]	1.98	0.22
3:C:40:ALA:CA	34:i:1764:G:C4'[3_564]	1.99	0.21
31:e:125:LYS:O	34:i:1760:C:OP1[3_564]	1.99	0.21
9:I:127:ALA:CA	35:l:52:ASP:O[4_555]	2.00	0.20
7:G:155:GLN:CA	11:K:98:ARG:NH1[2_665]	2.01	0.19
9:I:125:LYS:CD	35:l:56:LYS:CB[4_555]	2.01	0.19
19:S:108:ARG:CB	34:i:724:C:C5'[5_664]	2.01	0.19
7:G:156:TYR:CD1	11:K:98:ARG:NH2[2_665]	2.02	0.18
9:I:123:ARG:NE	34:i:1049:C:P[4_555]	2.02	0.18
34:i:135:U:OP2	34:i:532:U:O4[2_665]	2.02	0.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:154:ARG:NH2	11:K:96:ARG:CZ[2_665]	2.03	0.17
7:G:155:GLN:CG	11:K:98:ARG:C[2_665]	2.03	0.17
9:I:200:ARG:NE	34:i:1036:G:P[4_555]	2.04	0.16
19:S:108:ARG:CG	34:i:724:C:C4'[5_664]	2.04	0.16
19:S:108:ARG:NH1	34:i:724:C:OP1[5_664]	2.04	0.16
9:I:125:LYS:CE	35:l:56:LYS:C[4_555]	2.06	0.14
34:i:136:C:O3'	34:i:533:C:O4'[2_665]	2.06	0.14
7:G:155:GLN:OE1	11:K:98:ARG:CG[2_665]	2.07	0.13
7:G:155:GLN:CD	11:K:98:ARG:CG[2_665]	2.07	0.13
34:i:137:U:OP2	34:i:532:U:N1[2_665]	2.07	0.13
31:e:125:LYS:CB	34:i:1760:C:O5'[3_564]	2.08	0.12
34:i:137:U:OP2	34:i:532:U:C1'[2_665]	2.08	0.12
2:B:55:THR:OG1	34:i:271:G:OP1[4_555]	2.09	0.11
4:D:45:ARG:NH2	34:i:74:G:O3'[3_564]	2.09	0.11
9:I:131:PRO:CG	35:l:53:ASP:CG[4_555]	2.09	0.11
19:S:108:ARG:CD	34:i:724:C:OP1[5_664]	2.09	0.11
19:S:108:ARG:CZ	34:i:724:C:P[5_664]	2.10	0.10
31:e:125:LYS:N	34:i:1760:C:P[3_564]	2.10	0.10
31:e:126:LYS:N	34:i:1760:C:OP1[3_564]	2.10	0.10
7:G:156:TYR:CD1	11:K:98:ARG:NH1[2_665]	2.11	0.09
9:I:127:ALA:CA	35:l:52:ASP:OD2[4_555]	2.11	0.09
34:i:136:C:C4'	34:i:533:C:C6[2_665]	2.11	0.09
3:C:39:LYS:CG	34:i:1765:G:C4'[3_564]	2.12	0.08
19:S:108:ARG:CG	34:i:724:C:O5'[5_664]	2.12	0.08
19:S:108:ARG:NE	34:i:723:G:O3'[5_664]	2.12	0.08
9:I:123:ARG:NE	34:i:1049:C:OP1[4_555]	2.13	0.07
34:i:137:U:OP1	34:i:532:U:C4[2_665]	2.13	0.07
4:D:124:ARG:CZ	34:i:1763:C:OP1[3_564]	2.15	0.05
19:S:112:GLU:OE1	34:i:725:C:OP1[5_664]	2.15	0.05
7:G:156:TYR:CZ	11:K:98:ARG:CZ[2_665]	2.16	0.04
31:e:125:LYS:CD	34:i:1761:C:O5'[3_564]	2.16	0.04
7:G:156:TYR:CD2	11:K:98:ARG:NH2[2_665]	2.17	0.03
34:i:136:C:P	34:i:533:C:N3[2_665]	2.17	0.03
4:D:45:ARG:CZ	34:i:75:G:P[3_564]	2.18	0.02
9:I:131:PRO:CG	35:l:53:ASP:OD1[4_555]	2.18	0.02
9:I:131:PRO:CB	35:l:53:ASP:OD1[4_555]	2.18	0.02
19:S:112:GLU:CD	34:i:725:C:P[5_664]	2.18	0.02
31:e:123:PHE:CD2	34:i:1759:C:O5'[3_564]	2.18	0.02
7:G:155:GLN:CB	11:K:98:ARG:NH1[2_665]	2.19	0.01

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 X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	206/295 (70%)	156 (76%)	23 (11%)	27 (13%)	0 4
2	B	213/264 (81%)	173 (81%)	25 (12%)	15 (7%)	1 11
3	C	224/278 (81%)	200 (89%)	13 (6%)	11 (5%)	1 16
4	D	225/243 (93%)	180 (80%)	23 (10%)	22 (10%)	0 7
5	E	261/263 (99%)	209 (80%)	28 (11%)	24 (9%)	0 8
6	F	189/204 (93%)	162 (86%)	15 (8%)	12 (6%)	1 13
7	G	235/249 (94%)	201 (86%)	19 (8%)	15 (6%)	1 12
8	H	188/194 (97%)	146 (78%)	11 (6%)	31 (16%)	0 2
9	I	204/208 (98%)	169 (83%)	12 (6%)	23 (11%)	0 5
10	J	180/194 (93%)	138 (77%)	18 (10%)	24 (13%)	0 4
11	K	96/165 (58%)	67 (70%)	11 (12%)	18 (19%)	0 2
12	L	156/158 (99%)	132 (85%)	10 (6%)	14 (9%)	0 8
13	M	122/132 (92%)	85 (70%)	16 (13%)	21 (17%)	0 2
14	N	148/151 (98%)	124 (84%)	18 (12%)	6 (4%)	2 18
15	O	134/151 (89%)	101 (75%)	14 (10%)	19 (14%)	0 3
16	P	125/145 (86%)	92 (74%)	16 (13%)	17 (14%)	0 4
17	Q	139/146 (95%)	109 (78%)	20 (14%)	10 (7%)	1 11
18	R	124/135 (92%)	96 (77%)	13 (10%)	15 (12%)	0 4
19	S	135/152 (89%)	106 (78%)	20 (15%)	9 (7%)	1 12
20	T	139/145 (96%)	119 (86%)	10 (7%)	10 (7%)	1 11
21	U	102/119 (86%)	76 (74%)	10 (10%)	16 (16%)	0 3
22	V	80/83 (96%)	55 (69%)	11 (14%)	14 (18%)	0 2
23	W	127/130 (98%)	110 (87%)	15 (12%)	2 (2%)	7 38
24	X	140/143 (98%)	121 (86%)	11 (8%)	8 (6%)	1 14
25	Y	124/133 (93%)	91 (73%)	15 (12%)	18 (14%)	0 3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
26	Z	73/125 (58%)	52 (71%)	12 (16%)	9 (12%)	0 4
27	a	105/115 (91%)	72 (69%)	14 (13%)	19 (18%)	0 2
28	b	82/84 (98%)	57 (70%)	14 (17%)	11 (13%)	0 4
29	c	62/69 (90%)	44 (71%)	13 (21%)	5 (8%)	1 9
30	d	51/56 (91%)	46 (90%)	3 (6%)	2 (4%)	2 19
31	e	57/133 (43%)	37 (65%)	7 (12%)	13 (23%)	0 1
32	f	69/156 (44%)	38 (55%)	13 (19%)	18 (26%)	0 1
33	g	311/317 (98%)	271 (87%)	23 (7%)	17 (6%)	1 15
35	l	83/113 (74%)	49 (59%)	24 (29%)	10 (12%)	0 4
All	All	4909/5648 (87%)	3884 (79%)	520 (11%)	505 (10%)	0 6

All (505) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	9	GLN
1	A	31	ASP
1	A	45	GLY
1	A	103	PHE
1	A	164	ASN
1	A	165	ASN
1	A	188	THR
1	A	192	GLU
1	A	203	PHE
1	A	207	PRO
2	B	27	LYS
2	B	77	ASP
2	B	78	GLU
2	B	106	THR
2	B	154	SER
2	B	179	ASN
2	B	206	PRO
2	B	210	VAL
3	C	102	GLN
3	C	104	GLY
3	C	117	ASP
3	C	218	LEU
3	C	260	LYS
4	D	2	ALA
4	D	4	GLN

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Mol	Chain	Res	Type
4	D	93	THR
4	D	98	ALA
4	D	202	LYS
4	D	205	PRO
4	D	213	PRO
4	D	214	LYS
4	D	216	GLU
4	D	220	THR
4	D	221	THR
4	D	222	PRO
4	D	223	ILE
4	D	226	GLN
5	E	12	VAL
5	E	24	THR
5	E	76	VAL
5	E	95	THR
5	E	163	ASP
5	E	196	THR
5	E	260	GLN
5	E	261	SER
6	F	43	GLU
6	F	44	LYS
6	F	202	SER
6	F	203	ASN
7	G	20	ASP
7	G	154	ARG
7	G	164	LYS
7	G	174	PRO
7	G	175	LYS
7	G	180	VAL
7	G	181	THR
8	H	15	LYS
8	H	16	PRO
8	H	33	ASN
8	H	35	ASP
8	H	66	VAL
8	H	88	SER
8	H	108	SER
8	H	109	ARG
8	H	110	THR
8	H	116	ARG
8	H	135	PHE

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Mol	Chain	Res	Type
8	H	137	SER
8	H	138	GLU
8	H	160	LYS
8	H	190	PRO
9	I	8	TRP
9	I	120	PRO
9	I	124	LYS
9	I	131	PRO
9	I	133	GLU
9	I	139	LYS
9	I	140	LYS
9	I	142	SER
9	I	143	LYS
9	I	145	ILE
9	I	153	LYS
9	I	154	LYS
9	I	158	ILE
9	I	206	LYS
10	J	19	PRO
10	J	22	LYS
10	J	36	GLY
10	J	110	LEU
10	J	111	GLN
10	J	118	GLY
10	J	119	LEU
10	J	122	SER
10	J	138	ARG
10	J	161	LEU
10	J	163	SER
10	J	169	ARG
10	J	170	PRO
10	J	172	ARG
11	K	2	LEU
11	K	3	MET
11	K	30	PRO
11	K	35	LEU
11	K	39	ASN
11	K	40	VAL
11	K	41	PRO
11	K	44	HIS
11	K	63	ALA
11	K	88	GLU

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Mol	Chain	Res	Type
11	K	89	ILE
12	L	5	GLN
12	L	6	THR
12	L	7	GLU
12	L	20	LYS
12	L	23	VAL
12	L	147	LYS
12	L	152	LYS
12	L	153	LYS
13	M	12	MET
13	M	15	ASN
13	M	44	LYS
13	M	72	HIS
13	M	77	ILE
13	M	78	LYS
13	M	79	VAL
13	M	81	ASP
13	M	89	VAL
13	M	96	ARG
13	M	100	PRO
13	M	116	LYS
13	M	117	GLU
14	N	22	VAL
15	O	23	GLU
15	O	52	THR
15	O	53	ILE
15	O	64	ALA
15	O	104	ARG
15	O	137	SER
15	O	138	ASP
15	O	139	SER
15	O	140	THR
16	P	6	GLN
16	P	11	THR
16	P	12	PHE
16	P	37	TYR
16	P	38	SER
16	P	68	PRO
16	P	69	PRO
16	P	71	GLU
16	P	73	PRO
16	P	75	VAL

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Mol	Chain	Res	Type
16	P	125	PRO
16	P	126	VAL
16	P	127	LYS
17	Q	19	ALA
17	Q	61	GLU
17	Q	62	ARG
17	Q	117	ARG
17	Q	119	LEU
17	Q	141	TYR
18	R	88	VAL
18	R	89	SER
18	R	100	PRO
18	R	101	ASP
18	R	121	GLN
18	R	123	THR
19	S	11	HIS
19	S	53	THR
19	S	59	LEU
19	S	90	VAL
20	T	5	THR
20	T	31	PRO
20	T	32	GLU
20	T	33	TRP
20	T	34	VAL
20	T	96	SER
20	T	143	LYS
21	U	51	LYS
21	U	94	PRO
21	U	95	SER
21	U	107	GLU
21	U	118	ASP
22	V	4	ASN
22	V	10	ASP
22	V	42	VAL
22	V	43	THR
22	V	44	GLY
22	V	50	SER
22	V	65	SER
22	V	78	ILE
24	X	3	LYS
24	X	4	CYS
25	Y	6	THR

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Mol	Chain	Res	Type
25	Y	30	PRO
25	Y	34	THR
25	Y	86	GLU
25	Y	87	PRO
25	Y	100	LYS
25	Y	104	ARG
25	Y	120	THR
26	Z	93	SER
26	Z	104	ARG
26	Z	108	ILE
26	Z	113	THR
27	a	28	CYS
27	a	46	GLU
27	a	47	ALA
27	a	58	VAL
27	a	59	PHE
27	a	61	ALA
27	a	63	VAL
27	a	64	LEU
27	a	98	PRO
27	a	99	PRO
27	a	103	PRO
28	b	62	VAL
28	b	63	LEU
28	b	64	CYS
29	c	8	PRO
29	c	67	ARG
30	d	8	TRP
31	e	76	VAL
31	e	78	GLY
31	e	81	ALA
31	e	98	LYS
31	e	119	VAL
31	e	121	PRO
31	e	126	LYS
32	f	84	SER
32	f	85	TYR
32	f	86	THR
32	f	91	ASN
32	f	102	VAL
32	f	106	TYR
32	f	110	GLU

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Mol	Chain	Res	Type
32	f	128	ALA
33	g	3	GLU
33	g	48	ASP
33	g	52	TYR
33	g	96	THR
33	g	282	GLU
33	g	283	PRO
35	l	34	ARG
35	l	96	PHE
35	l	100	ILE
35	l	103	ALA
1	A	7	VAL
1	A	96	ALA
1	A	112	ILE
1	A	140	VAL
1	A	159	ILE
1	A	186	ARG
1	A	190	SER
1	A	191	ARG
2	B	93	GLY
2	B	209	ASP
3	C	43	LYS
3	C	246	PHE
4	D	78	GLY
4	D	194	PRO
4	D	201	LYS
4	D	208	VAL
5	E	104	ASP
5	E	164	LEU
6	F	21	GLY
6	F	32	ASP
6	F	41	VAL
6	F	54	GLY
6	F	79	HIS
7	G	26	THR
7	G	146	ASN
7	G	153	VAL
8	H	11	PRO
8	H	17	ASP
8	H	38	ALA
8	H	41	ARG
8	H	76	GLN

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Mol	Chain	Res	Type
8	H	100	ILE
8	H	112	ASN
8	H	120	ARG
8	H	159	ASP
8	H	193	GLN
9	I	22	HIS
9	I	192	GLY
10	J	106	LEU
10	J	120	ALA
10	J	124	HIS
10	J	135	ILE
10	J	148	ILE
11	K	34	GLU
11	K	91	PRO
12	L	4	ILE
12	L	21	LYS
12	L	22	ARG
12	L	57	ASP
13	M	45	ARG
14	N	68	GLY
15	O	54	CYS
15	O	56	VAL
16	P	54	HIS
17	Q	32	ILE
17	Q	100	VAL
18	R	93	GLN
18	R	112	GLY
18	R	125	GLY
19	S	17	ASN
19	S	31	THR
19	S	140	GLY
20	T	142	LYS
21	U	74	SER
21	U	98	VAL
22	V	6	GLY
22	V	33	PRO
22	V	48	GLY
23	W	66	THR
24	X	59	ALA
25	Y	95	GLY
25	Y	99	LYS
25	Y	119	GLY

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Mol	Chain	Res	Type
26	Z	53	ALA
27	a	35	ALA
28	b	2	PRO
28	b	38	PRO
28	b	81	ARG
31	e	77	HIS
31	e	104	GLY
31	e	124	GLY
32	f	98	VAL
32	f	127	GLY
32	f	148	TYR
33	g	49	GLU
33	g	60	ARG
33	g	144	ASP
33	g	159	ASN
33	g	171	ASP
33	g	281	ALA
33	g	295	GLY
1	A	11	LYS
1	A	30	LEU
1	A	194	PRO
1	A	205	ARG
2	B	56	LYS
2	B	82	ARG
4	D	218	LEU
5	E	25	SER
5	E	168	LYS
5	E	194	VAL
5	E	205	PHE
7	G	69	THR
8	H	18	GLU
8	H	117	PRO
8	H	150	GLY
9	I	105	ASP
9	I	106	SER
9	I	144	LYS
10	J	91	LYS
11	K	28	HIS
11	K	87	PRO
13	M	91	LEU
14	N	28	LEU
15	O	32	HIS

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Mol	Chain	Res	Type
16	P	17	TYR
16	P	39	ALA
18	R	86	PRO
20	T	29	LYS
21	U	70	CYS
21	U	93	SER
21	U	110	VAL
24	X	92	ASN
25	Y	5	VAL
25	Y	53	ASP
25	Y	60	PHE
25	Y	63	HIS
27	a	13	LYS
27	a	97	PRO
27	a	102	ARG
27	a	107	ALA
28	b	7	LEU
29	c	65	ALA
31	e	127	LYS
31	e	129	PRO
32	f	137	ASP
32	f	138	ARG
33	g	84	ASP
33	g	255	SER
33	g	285	GLN
35	l	31	ILE
35	l	39	ASN
35	l	65	LYS
1	A	104	THR
2	B	224	GLU
3	C	244	THR
3	C	249	SER
5	E	30	ARG
5	E	119	ALA
5	E	189	LEU
6	F	37	ASP
7	G	33	ALA
7	G	122	PRO
10	J	151	LEU
10	J	162	ARG
11	K	67	PHE
11	K	95	ARG

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Mol	Chain	Res	Type
12	L	119	ASP
13	M	29	ASP
13	M	113	ASP
15	O	17	LEU
15	O	83	GLN
16	P	50	ARG
18	R	95	ILE
18	R	122	PRO
19	S	12	ILE
20	T	46	ALA
21	U	50	VAL
22	V	79	VAL
24	X	9	THR
24	X	129	SER
25	Y	102	THR
26	Z	111	ARG
26	Z	114	LYS
27	a	62	TYR
28	b	10	PRO
28	b	24	LEU
29	c	63	ARG
32	f	145	CYS
33	g	37	ASP
35	l	59	LEU
3	C	164	THR
4	D	80	PRO
5	E	90	ILE
5	E	134	LYS
5	E	213	ALA
9	I	52	ASN
9	I	59	ARG
11	K	38	LYS
12	L	2	ALA
13	M	59	PRO
13	M	94	ILE
13	M	95	ASP
14	N	3	ARG
14	N	138	ASN
15	O	22	ALA
15	O	38	ASN
17	Q	43	GLU
18	R	99	ASP

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Mol	Chain	Res	Type
19	S	7	GLU
21	U	26	SER
21	U	116	ILE
21	U	117	ALA
23	W	67	GLY
24	X	78	GLY
24	X	99	GLU
25	Y	51	THR
25	Y	121	ALA
26	Z	62	VAL
26	Z	78	LYS
27	a	105	GLY
29	c	39	SER
31	e	97	GLU
32	f	93	HIS
32	f	94	LYS
32	f	147	THR
35	l	41	ARG
1	A	23	THR
1	A	110	ASN
5	E	73	ASP
6	F	46	ALA
6	F	183	GLY
7	G	68	LEU
7	G	165	GLU
8	H	170	VAL
9	I	12	ARG
10	J	68	PRO
10	J	116	LYS
14	N	60	VAL
15	O	24	GLY
15	O	136	PRO
18	R	116	ASN
22	V	9	VAL
32	f	87	THR
4	D	63	GLY
9	I	119	LEU
21	U	104	ILE
22	V	77	GLY
2	B	24	PRO
5	E	152	PRO
8	H	10	LYS

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Mol	Chain	Res	Type
1	A	95	GLY
1	A	98	PRO
3	C	161	LYS
5	E	195	ILE
5	E	231	GLY
15	O	62	VAL
17	Q	42	ILE
27	a	96	THR
28	b	37	CYS
30	d	11	PRO
4	D	200	PRO
8	H	93	VAL
13	M	30	GLY
28	b	9	HIS
2	B	21	VAL
18	R	15	VAL
21	U	29	VAL
35	l	77	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	174/244 (71%)	141 (81%)	33 (19%)	1 8
2	B	196/231 (85%)	153 (78%)	43 (22%)	1 6
3	C	187/215 (87%)	142 (76%)	45 (24%)	1 4
4	D	190/202 (94%)	144 (76%)	46 (24%)	1 4
5	E	225/225 (100%)	170 (76%)	55 (24%)	1 4
6	F	161/170 (95%)	114 (71%)	47 (29%)	0 2
7	G	207/218 (95%)	157 (76%)	50 (24%)	1 4
8	H	170/174 (98%)	124 (73%)	46 (27%)	0 3
9	I	177/179 (99%)	137 (77%)	40 (23%)	1 6
10	J	157/168 (94%)	128 (82%)	29 (18%)	1 8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
11	K	89/136 (65%)	63 (71%)	26 (29%)	0 2
12	L	142/142 (100%)	106 (75%)	36 (25%)	0 3
13	M	101/108 (94%)	78 (77%)	23 (23%)	1 6
14	N	130/131 (99%)	100 (77%)	30 (23%)	1 5
15	O	106/119 (89%)	88 (83%)	18 (17%)	2 10
16	P	116/130 (89%)	86 (74%)	30 (26%)	0 3
17	Q	117/121 (97%)	83 (71%)	34 (29%)	0 2
18	R	114/121 (94%)	87 (76%)	27 (24%)	1 4
19	S	119/132 (90%)	95 (80%)	24 (20%)	1 7
20	T	113/116 (97%)	84 (74%)	29 (26%)	0 3
21	U	94/107 (88%)	72 (77%)	22 (23%)	1 5
22	V	67/68 (98%)	47 (70%)	20 (30%)	0 2
23	W	112/113 (99%)	97 (87%)	15 (13%)	4 14
24	X	114/115 (99%)	90 (79%)	24 (21%)	1 6
25	Y	108/115 (94%)	85 (79%)	23 (21%)	1 6
26	Z	66/103 (64%)	53 (80%)	13 (20%)	1 7
27	a	91/99 (92%)	76 (84%)	15 (16%)	2 10
28	b	76/76 (100%)	64 (84%)	12 (16%)	2 11
29	c	57/62 (92%)	43 (75%)	14 (25%)	1 4
30	d	47/49 (96%)	35 (74%)	12 (26%)	0 3
31	e	49/106 (46%)	27 (55%)	22 (45%)	0 0
32	f	64/140 (46%)	42 (66%)	22 (34%)	0 1
33	g	272/275 (99%)	219 (80%)	53 (20%)	1 7
35	l	74/96 (77%)	53 (72%)	21 (28%)	0 2
All	All	4282/4806 (89%)	3283 (77%)	999 (23%)	1 5

All (999) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	5	LEU
1	A	7	VAL
1	A	10	MET
1	A	12	GLU
1	A	13	GLU

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Mol	Chain	Res	Type
1	A	17	LYS
1	A	19	LEU
1	A	25	LEU
1	A	36	GLN
1	A	40	LYS
1	A	42	LYS
1	A	44	ASP
1	A	52	LYS
1	A	54	THR
1	A	58	LEU
1	A	60	LEU
1	A	63	ARG
1	A	74	VAL
1	A	88	LEU
1	A	89	LYS
1	A	128	ARG
1	A	139	TYR
1	A	147	LEU
1	A	155	ARG
1	A	159	ILE
1	A	169	HIS
1	A	181	GLU
1	A	186	ARG
1	A	188	THR
1	A	196	GLU
1	A	198	MET
1	A	204	TYR
1	A	207	PRO
2	B	19	LYS
2	B	20	LYS
2	B	21	VAL
2	B	22	VAL
2	B	34	LYS
2	B	41	ILE
2	B	46	LYS
2	B	48	LEU
2	B	52	THR
2	B	55	THR
2	B	56	LYS
2	B	57	ILE
2	B	75	GLN
2	B	78	GLU

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Mol	Chain	Res	Type
2	B	82	ARG
2	B	83	LYS
2	B	89	GLU
2	B	94	LYS
2	B	115	LYS
2	B	116	LYS
2	B	131	ASP
2	B	138	PHE
2	B	144	LYS
2	B	145	LYS
2	B	148	ASN
2	B	150	ILE
2	B	151	ARG
2	B	158	HIS
2	B	162	ARG
2	B	165	ARG
2	B	166	LYS
2	B	172	MET
2	B	181	LEU
2	B	182	LYS
2	B	195	LYS
2	B	208	HIS
2	B	211	PHE
2	B	213	ARG
2	B	214	LYS
2	B	219	LYS
2	B	222	LYS
2	B	227	LYS
2	B	229	MET
3	C	43	LYS
3	C	48	VAL
3	C	49	THR
3	C	50	LYS
3	C	51	LEU
3	C	56	LYS
3	C	58	MET
3	C	59	LYS
3	C	61	LYS
3	C	79	ILE
3	C	87	LEU
3	C	89	ASP
3	C	95	MET

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Mol	Chain	Res	Type
3	C	98	GLN
3	C	99	LYS
3	C	100	GLN
3	C	101	THR
3	C	105	GLN
3	C	119	ASN
3	C	127	LYS
3	C	131	GLU
3	C	145	LEU
3	C	151	ARG
3	C	152	ARG
3	C	157	ASN
3	C	158	LYS
3	C	161	LYS
3	C	168	LYS
3	C	169	VAL
3	C	196	LYS
3	C	197	LYS
3	C	201	MET
3	C	221	PHE
3	C	223	LYS
3	C	231	LYS
3	C	235	TYR
3	C	236	LEU
3	C	242	LYS
3	C	244	THR
3	C	246	PHE
3	C	247	THR
3	C	248	LYS
3	C	252	GLN
3	C	256	ASP
3	C	260	LYS
4	D	8	LYS
4	D	10	LYS
4	D	18	LYS
4	D	21	LEU
4	D	31	GLU
4	D	35	SER
4	D	44	THR
4	D	56	GLN
4	D	64	ARG
4	D	67	ARG

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Mol	Chain	Res	Type
4	D	74	GLN
4	D	76	ARG
4	D	79	PHE
4	D	89	GLU
4	D	90	LYS
4	D	94	ARG
4	D	103	GLU
4	D	113	LEU
4	D	120	TYR
4	D	127	MET
4	D	129	SER
4	D	146	ARG
4	D	151	LYS
4	D	156	LEU
4	D	157	MET
4	D	158	ILE
4	D	176	LEU
4	D	177	LEU
4	D	178	ARG
4	D	182	LEU
4	D	187	LYS
4	D	190	LEU
4	D	192	TRP
4	D	197	LYS
4	D	198	ILE
4	D	202	LYS
4	D	207	HIS
4	D	211	VAL
4	D	212	GLU
4	D	214	LYS
4	D	215	ASP
4	D	216	GLU
4	D	217	ILE
4	D	218	LEU
4	D	220	THR
4	D	226	GLN
5	E	1	MET
5	E	3	ARG
5	E	6	LYS
5	E	7	LYS
5	E	9	LEU
5	E	10	LYS

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Mol	Chain	Res	Type
5	E	38	LEU
5	E	39	ARG
5	E	48	LEU
5	E	49	ARG
5	E	56	LEU
5	E	65	CYS
5	E	67	GLN
5	E	68	ARG
5	E	77	ARG
5	E	94	LYS
5	E	97	GLU
5	E	106	LYS
5	E	118	GLU
5	E	120	LYS
5	E	122	LYS
5	E	123	LEU
5	E	125	LYS
5	E	126	VAL
5	E	128	LYS
5	E	130	PHE
5	E	133	THR
5	E	136	ILE
5	E	145	ARG
5	E	147	ILE
5	E	148	ARG
5	E	151	ASP
5	E	153	LEU
5	E	164	LEU
5	E	165	GLU
5	E	168	LYS
5	E	174	LYS
5	E	175	PHE
5	E	180	LEU
5	E	181	CYS
5	E	191	ARG
5	E	198	ARG
5	E	200	ARG
5	E	202	PRO
5	E	211	LYS
5	E	212	ASP
5	E	221	ARG
5	E	222	LEU

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Mol	Chain	Res	Type
5	E	237	SER
5	E	240	ARG
5	E	242	LYS
5	E	245	ARG
5	E	246	LEU
5	E	259	LYS
5	E	260	GLN
6	F	18	LYS
6	F	29	GLN
6	F	36	GLN
6	F	37	ASP
6	F	38	TYR
6	F	41	VAL
6	F	42	LYS
6	F	43	GLU
6	F	44	LYS
6	F	47	LYS
6	F	49	LEU
6	F	60	ARG
6	F	62	ARG
6	F	63	LYS
6	F	65	GLN
6	F	71	ARG
6	F	72	LEU
6	F	76	MET
6	F	78	MET
6	F	85	LYS
6	F	88	MET
6	F	91	ARG
6	F	94	LYS
6	F	95	HIS
6	F	98	GLU
6	F	110	GLN
6	F	116	ILE
6	F	122	ARG
6	F	123	GLU
6	F	125	SER
6	F	127	ARG
6	F	128	ILE
6	F	130	ARG
6	F	136	ARG
6	F	141	VAL

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Mol	Chain	Res	Type
6	F	145	ARG
6	F	164	ARG
6	F	167	LYS
6	F	173	LEU
6	F	175	ASP
6	F	177	LEU
6	F	182	LYS
6	F	190	ILE
6	F	192	LYS
6	F	195	GLU
6	F	202	SER
6	F	204	ARG
7	G	1	MET
7	G	2	LYS
7	G	13	GLN
7	G	17	GLU
7	G	19	ASP
7	G	25	ARG
7	G	29	GLU
7	G	30	LYS
7	G	31	ARG
7	G	32	MET
7	G	44	GLU
7	G	58	LYS
7	G	64	LYS
7	G	74	ARG
7	G	76	LEU
7	G	77	LEU
7	G	79	LYS
7	G	98	ARG
7	G	115	LYS
7	G	116	LYS
7	G	120	ASP
7	G	121	ILE
7	G	124	LEU
7	G	126	ASP
7	G	127	THR
7	G	128	THR
7	G	131	ARG
7	G	133	LEU
7	G	137	ARG
7	G	142	ARG

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Mol	Chain	Res	Type
7	G	143	LYS
7	G	145	PHE
7	G	150	GLU
7	G	158	VAL
7	G	164	LYS
7	G	168	LYS
7	G	170	ARG
7	G	172	LYS
7	G	178	ARG
7	G	179	LEU
7	G	180	VAL
7	G	191	ARG
7	G	196	LYS
7	G	198	ARG
7	G	212	LEU
7	G	218	LYS
7	G	219	GLU
7	G	224	ARG
7	G	230	LYS
7	G	233	ARG
8	H	9	VAL
8	H	10	LYS
8	H	11	PRO
8	H	14	GLU
8	H	15	LYS
8	H	16	PRO
8	H	23	ILE
8	H	32	MET
8	H	34	SER
8	H	36	LEU
8	H	37	LYS
8	H	40	LEU
8	H	57	ARG
8	H	58	LYS
8	H	61	ILE
8	H	69	LEU
8	H	70	LYS
8	H	72	PHE
8	H	74	LYS
8	H	81	ARG
8	H	82	GLU
8	H	85	LYS

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Mol	Chain	Res	Type
8	H	93	VAL
8	H	99	ARG
8	H	105	THR
8	H	107	LYS
8	H	109	ARG
8	H	111	LYS
8	H	112	ASN
8	H	113	LYS
8	H	116	ARG
8	H	118	ARG
8	H	120	ARG
8	H	122	LEU
8	H	131	GLU
8	H	133	LEU
8	H	143	ARG
8	H	145	ARG
8	H	154	ILE
8	H	157	HIS
8	H	158	LEU
8	H	160	LYS
8	H	163	GLN
8	H	185	VAL
8	H	193	GLN
8	H	194	LEU
9	I	3	ILE
9	I	5	ARG
9	I	6	ASP
9	I	13	LYS
9	I	18	ARG
9	I	19	LYS
9	I	23	LYS
9	I	25	ARG
9	I	31	ARG
9	I	37	LYS
9	I	41	ARG
9	I	49	ARG
9	I	56	ARG
9	I	70	GLU
9	I	74	ARG
9	I	75	LYS
9	I	92	ARG
9	I	100	CYS

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Mol	Chain	Res	Type
9	I	110	ARG
9	I	117	TYR
9	I	119	LEU
9	I	124	LYS
9	I	129	LEU
9	I	140	LYS
9	I	141	ARG
9	I	143	LYS
9	I	144	LYS
9	I	148	LYS
9	I	150	ASP
9	I	154	LYS
9	I	155	ASN
9	I	157	LYS
9	I	158	ILE
9	I	161	LEU
9	I	167	GLN
9	I	178	ARG
9	I	202	ILE
9	I	203	LYS
9	I	205	ARG
9	I	206	LYS
10	J	8	VAL
10	J	10	ARG
10	J	17	ARG
10	J	18	ARG
10	J	21	GLU
10	J	29	LEU
10	J	38	ARG
10	J	42	GLU
10	J	50	LEU
10	J	58	ARG
10	J	66	LYS
10	J	69	ARG
10	J	79	ARG
10	J	89	GLU
10	J	93	LYS
10	J	101	LYS
10	J	109	ARG
10	J	110	LEU
10	J	119	LEU
10	J	121	LYS

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Mol	Chain	Res	Type
10	J	127	ARG
10	J	139	LYS
10	J	143	ASN
10	J	162	ARG
10	J	165	TYR
10	J	172	ARG
10	J	174	LYS
10	J	176	LYS
10	J	180	LYS
11	K	1	MET
11	K	2	LEU
11	K	3	MET
11	K	5	LYS
11	K	13	GLU
11	K	17	LYS
11	K	18	GLU
11	K	20	VAL
11	K	31	LYS
11	K	34	GLU
11	K	35	LEU
11	K	37	ASP
11	K	38	LYS
11	K	43	LEU
11	K	53	LYS
11	K	55	ARG
11	K	65	ARG
11	K	74	GLU
11	K	84	HIS
11	K	85	LEU
11	K	89	ILE
11	K	93	THR
11	K	94	LEU
11	K	95	ARG
11	K	96	ARG
11	K	98	ARG
12	L	1	MET
12	L	4	ILE
12	L	7	GLU
12	L	8	ARG
12	L	15	THR
12	L	18	GLN
12	L	20	LYS

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Mol	Chain	Res	Type
12	L	22	ARG
12	L	25	LEU
12	L	30	LYS
12	L	40	ILE
12	L	49	GLU
12	L	56	ILE
12	L	69	ARG
12	L	71	ARG
12	L	79	LYS
12	L	80	MET
12	L	82	MET
12	L	83	GLN
12	L	89	ARG
12	L	97	ARG
12	L	99	TYR
12	L	100	ASN
12	L	101	ARG
12	L	102	PHE
12	L	111	VAL
12	L	118	ARG
12	L	121	GLN
12	L	136	LYS
12	L	147	LYS
12	L	151	THR
12	L	153	LYS
12	L	155	PHE
12	L	156	GLN
12	L	157	LYS
12	L	158	PHE
13	M	12	MET
13	M	13	ASP
13	M	18	LEU
13	M	20	GLU
13	M	23	LYS
13	M	26	LEU
13	M	28	HIS
13	M	33	ARG
13	M	36	ARG
13	M	40	LYS
13	M	43	ASP
13	M	45	ARG
13	M	71	GLU

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Mol	Chain	Res	Type
13	M	76	LEU
13	M	77	ILE
13	M	78	LYS
13	M	83	LYS
13	M	85	LEU
13	M	91	LEU
13	M	94	ILE
13	M	101	ARG
13	M	102	LYS
13	M	117	GLU
14	N	3	ARG
14	N	9	LYS
14	N	16	LEU
14	N	21	SER
14	N	27	LYS
14	N	49	GLN
14	N	50	ILE
14	N	53	ILE
14	N	56	ASP
14	N	64	ARG
14	N	70	LYS
14	N	73	ARG
14	N	76	LYS
14	N	78	LYS
14	N	80	LEU
14	N	93	LYS
14	N	94	LYS
14	N	104	ARG
14	N	107	LYS
14	N	112	LYS
14	N	114	ARG
14	N	119	GLU
14	N	121	ARG
14	N	125	LEU
14	N	130	LYS
14	N	133	ARG
14	N	134	VAL
14	N	140	LYS
14	N	141	TYR
14	N	142	GLU
15	O	23	GLU
15	O	25	GLU

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Mol	Chain	Res	Type
15	O	28	PHE
15	O	65	ASP
15	O	66	ARG
15	O	72	TYR
15	O	90	ILE
15	O	104	ARG
15	O	116	LEU
15	O	117	ARG
15	O	121	ARG
15	O	125	LYS
15	O	128	ARG
15	O	129	ILE
15	O	138	ASP
15	O	141	ARG
15	O	146	ARG
15	O	150	ARG
16	P	5	GLU
16	P	6	GLN
16	P	7	LYS
16	P	9	LYS
16	P	10	ARG
16	P	13	ARG
16	P	14	LYS
16	P	15	PHE
16	P	17	TYR
16	P	34	MET
16	P	40	ARG
16	P	41	GLN
16	P	43	ARG
16	P	50	ARG
16	P	52	LYS
16	P	61	ARG
16	P	64	LYS
16	P	71	GLU
16	P	72	LYS
16	P	84	ILE
16	P	86	LEU
16	P	88	GLU
16	P	89	MET
16	P	100	LYS
16	P	104	GLN
16	P	110	GLU

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Mol	Chain	Res	Type
16	P	111	MET
16	P	122	THR
16	P	124	LYS
16	P	127	LYS
17	Q	6	PRO
17	Q	7	LEU
17	Q	13	PHE
17	Q	17	LYS
17	Q	20	THR
17	Q	24	HIS
17	Q	26	LYS
17	Q	29	ASN
17	Q	33	LYS
17	Q	37	ARG
17	Q	40	GLU
17	Q	41	MET
17	Q	56	LEU
17	Q	62	ARG
17	Q	73	LYS
17	Q	80	GLN
17	Q	85	ARG
17	Q	101	ASP
17	Q	102	GLU
17	Q	105	LYS
17	Q	107	GLU
17	Q	109	LYS
17	Q	111	ILE
17	Q	115	TYR
17	Q	117	ARG
17	Q	120	LEU
17	Q	126	ARG
17	Q	130	LYS
17	Q	131	LYS
17	Q	135	PRO
17	Q	140	ARG
17	Q	142	GLN
17	Q	145	TYR
17	Q	146	ARG
18	R	1	MET
18	R	8	THR
18	R	10	LYS
18	R	32	LYS

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Mol	Chain	Res	Type
18	R	38	ILE
18	R	47	ARG
18	R	59	LYS
18	R	63	ARG
18	R	69	ILE
18	R	72	LYS
18	R	78	ARG
18	R	83	ASN
18	R	87	GLU
18	R	88	VAL
18	R	89	SER
18	R	91	LEU
18	R	93	GLN
18	R	94	GLU
18	R	95	ILE
18	R	103	LYS
18	R	105	MET
18	R	111	PHE
18	R	117	LEU
18	R	118	GLN
18	R	120	THR
18	R	121	GLN
18	R	123	THR
19	S	7	GLU
19	S	8	LYS
19	S	9	PHE
19	S	11	HIS
19	S	12	ILE
19	S	17	ASN
19	S	24	ARG
19	S	34	LYS
19	S	36	VAL
19	S	39	ARG
19	S	50	ILE
19	S	59	LEU
19	S	63	GLU
19	S	71	MET
19	S	78	LYS
19	S	87	GLN
19	S	90	VAL
19	S	92	ASP
19	S	94	LYS

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Mol	Chain	Res	Type
19	S	118	ARG
19	S	130	ARG
19	S	134	GLN
19	S	137	LYS
19	S	142	ARG
20	T	11	GLN
20	T	16	ARG
20	T	21	PHE
20	T	23	LYS
20	T	28	LEU
20	T	29	LYS
20	T	30	VAL
20	T	31	PRO
20	T	38	LYS
20	T	44	GLU
20	T	62	ARG
20	T	64	LEU
20	T	66	LEU
20	T	72	VAL
20	T	82	ARG
20	T	83	GLN
20	T	84	ARG
20	T	88	MET
20	T	91	HIS
20	T	93	SER
20	T	94	ARG
20	T	97	LYS
20	T	102	ARG
20	T	111	LYS
20	T	121	ARG
20	T	130	ASP
20	T	133	ARG
20	T	143	LYS
20	T	144	LYS
21	U	19	ARG
21	U	20	ILE
21	U	21	ARG
21	U	24	LEU
21	U	33	GLU
21	U	44	LYS
21	U	47	ASN
21	U	48	LEU

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Mol	Chain	Res	Type
21	U	49	LYS
21	U	51	LYS
21	U	62	ARG
21	U	68	THR
21	U	72	GLU
21	U	75	LYS
21	U	85	HIS
21	U	87	ARG
21	U	104	ILE
21	U	105	SER
21	U	106	ILE
21	U	107	GLU
21	U	108	PRO
21	U	111	GLU
22	V	1	MET
22	V	7	GLU
22	V	16	LYS
22	V	22	ARG
22	V	24	ILE
22	V	31	SER
22	V	32	ILE
22	V	40	ASP
22	V	41	LYS
22	V	42	VAL
22	V	43	THR
22	V	45	ARG
22	V	49	GLN
22	V	51	LYS
22	V	52	THR
22	V	55	ILE
22	V	61	ARG
22	V	64	GLU
22	V	74	LYS
22	V	78	ILE
23	W	3	ARG
23	W	4	MET
23	W	18	GLU
23	W	20	ARG
23	W	23	ARG
23	W	52	ILE
23	W	64	ASN
23	W	75	ILE

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Mol	Chain	Res	Type
23	W	84	LYS
23	W	98	GLN
23	W	103	VAL
23	W	114	GLU
23	W	124	LYS
23	W	128	PHE
23	W	129	PHE
24	X	1	MET
24	X	3	LYS
24	X	5	ARG
24	X	7	LEU
24	X	12	LYS
24	X	21	LYS
24	X	29	LYS
24	X	37	LYS
24	X	67	ARG
24	X	68	LYS
24	X	71	ARG
24	X	75	ILE
24	X	80	LYS
24	X	91	LEU
24	X	101	LEU
24	X	107	ARG
24	X	108	LYS
24	X	110	HIS
24	X	115	ILE
24	X	128	VAL
24	X	135	LYS
24	X	139	GLU
24	X	141	PRO
24	X	142	ARG
25	Y	16	ARG
25	Y	20	ARG
25	Y	21	LYS
25	Y	23	MET
25	Y	29	HIS
25	Y	32	LYS
25	Y	35	VAL
25	Y	44	LEU
25	Y	46	LYS
25	Y	58	PHE
25	Y	61	ARG

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Mol	Chain	Res	Type
25	Y	64	PHE
25	Y	68	LYS
25	Y	93	ARG
25	Y	96	LEU
25	Y	98	GLU
25	Y	99	LYS
25	Y	100	LYS
25	Y	101	LYS
25	Y	102	THR
25	Y	111	LYS
25	Y	118	ARG
25	Y	122	LYS
26	Z	44	LEU
26	Z	50	PHE
26	Z	52	LYS
26	Z	65	TYR
26	Z	85	ARG
26	Z	91	LEU
26	Z	94	LYS
26	Z	102	LYS
26	Z	103	HIS
26	Z	104	ARG
26	Z	107	VAL
26	Z	112	ASN
26	Z	114	LYS
27	a	12	LYS
27	a	15	ARG
27	a	26	CYS
27	a	38	LYS
27	a	41	ILE
27	a	44	ILE
27	a	50	VAL
27	a	51	ARG
27	a	60	ASP
27	a	63	VAL
27	a	70	LYS
27	a	82	LYS
27	a	85	ARG
27	a	94	ASP
27	a	95	ARG
28	b	3	LEU
28	b	5	LYS

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Mol	Chain	Res	Type
28	b	16	LYS
28	b	20	LYS
28	b	26	GLN
28	b	41	TYR
28	b	42	LYS
28	b	49	HIS
28	b	51	GLN
28	b	53	VAL
28	b	83	GLN
28	b	84	HIS
29	c	5	ARG
29	c	6	VAL
29	c	7	GLN
29	c	13	ARG
29	c	35	MET
29	c	42	ILE
29	c	44	ARG
29	c	47	LYS
29	c	51	ARG
29	c	62	GLU
29	c	63	ARG
29	c	64	GLU
29	c	67	ARG
29	c	68	LEU
30	d	7	TYR
30	d	10	HIS
30	d	13	LYS
30	d	16	GLN
30	d	19	ARG
30	d	27	ARG
30	d	30	LEU
30	d	33	LYS
30	d	44	ARG
30	d	46	TYR
30	d	53	ILE
30	d	56	ASP
31	e	76	VAL
31	e	80	LEU
31	e	85	LYS
31	e	92	LYS
31	e	95	LYS
31	e	97	GLU

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Mol	Chain	Res	Type
31	e	98	LYS
31	e	100	LYS
31	e	101	LYS
31	e	103	THR
31	e	105	ARG
31	e	108	ARG
31	e	110	MET
31	e	114	ARG
31	e	115	ARG
31	e	117	VAL
31	e	120	VAL
31	e	122	THR
31	e	123	PHE
31	e	125	LYS
31	e	126	LYS
31	e	127	LYS
32	f	86	THR
32	f	88	PRO
32	f	89	LYS
32	f	90	LYS
32	f	94	LYS
32	f	95	ARG
32	f	96	LYS
32	f	97	LYS
32	f	104	LYS
32	f	107	LYS
32	f	109	ASP
32	f	110	GLU
32	f	111	ASN
32	f	113	LYS
32	f	116	ARG
32	f	118	ARG
32	f	121	CYS
32	f	130	VAL
32	f	135	HIS
32	f	136	PHE
32	f	139	HIS
32	f	150	PHE
33	g	5	MET
33	g	8	ARG
33	g	12	LYS
33	g	24	THR

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Mol	Chain	Res	Type
33	g	25	PRO
33	g	36	ARG
33	g	38	LYS
33	g	44	LYS
33	g	47	ARG
33	g	50	THR
33	g	51	ASN
33	g	57	ARG
33	g	60	ARG
33	g	64	HIS
33	g	68	ASP
33	g	74	ASP
33	g	76	GLN
33	g	87	LEU
33	g	88	ARG
33	g	93	THR
33	g	100	ARG
33	g	118	ARG
33	g	119	GLN
33	g	131	LEU
33	g	135	LEU
33	g	139	LYS
33	g	140	TYR
33	g	143	GLN
33	g	145	GLU
33	g	146	SER
33	g	149	GLU
33	g	156	PHE
33	g	161	SER
33	g	175	LYS
33	g	179	LEU
33	g	183	LYS
33	g	185	LYS
33	g	192	THR
33	g	203	ASP
33	g	212	LYS
33	g	218	LEU
33	g	225	LYS
33	g	246	TYR
33	g	259	TRP
33	g	264	LYS
33	g	271	LYS

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Mol	Chain	Res	Type
33	g	275	ILE
33	g	276	SER
33	g	277	THR
33	g	279	SER
33	g	280	LYS
33	g	289	LEU
33	g	294	ASP
35	l	29	ASP
35	l	31	ILE
35	l	32	HIS
35	l	34	ARG
35	l	43	THR
35	l	46	THR
35	l	50	ILE
35	l	55	ASP
35	l	60	VAL
35	l	70	ASN
35	l	72	THR
35	l	78	GLU
35	l	84	GLN
35	l	85	LEU
35	l	89	GLN
35	l	90	ARG
35	l	91	LYS
35	l	93	ILE
35	l	99	GLU
35	l	104	LYS
35	l	109	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (113) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	24	HIS
1	A	50	ASN
1	A	141	ASN
2	B	53	GLN
2	B	75	GLN
2	B	101	HIS
2	B	124	HIS
2	B	147	ASN
2	B	148	ASN
2	B	179	ASN

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Mol	Chain	Res	Type
2	B	202	GLN
2	B	232	HIS
3	C	100	GLN
3	C	157	ASN
4	D	74	GLN
4	D	179	GLN
4	D	226	GLN
5	E	8	HIS
5	E	50	ASN
5	E	98	ASN
5	E	142	HIS
5	E	188	ASN
5	E	209	HIS
6	F	29	GLN
6	F	65	GLN
6	F	83	ASN
6	F	137	GLN
6	F	186	ASN
7	G	56	ASN
7	G	81	HIS
7	G	187	HIS
8	H	12	ASN
8	H	73	GLN
8	H	163	GLN
8	H	168	HIS
9	I	9	HIS
9	I	22	HIS
9	I	64	ASN
9	I	84	ASN
9	I	99	ASN
9	I	165	GLN
11	K	28	HIS
11	K	39	ASN
11	K	50	GLN
12	L	18	GLN
12	L	19	ASN
12	L	121	GLN
12	L	156	GLN
13	M	19	GLN
13	M	28	HIS
13	M	75	ASN
13	M	82	ASN

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Mol	Chain	Res	Type
14	N	5	HIS
14	N	62	GLN
14	N	90	HIS
14	N	105	ASN
14	N	123	HIS
15	O	20	GLN
15	O	79	GLN
16	P	41	GLN
16	P	53	GLN
16	P	79	HIS
16	P	103	ASN
16	P	114	HIS
16	P	128	HIS
17	Q	80	GLN
18	R	74	GLN
18	R	121	GLN
19	S	11	HIS
19	S	42	HIS
19	S	87	GLN
20	T	11	GLN
20	T	12	GLN
20	T	42	HIS
20	T	63	HIS
20	T	83	GLN
20	T	85	ASN
20	T	126	GLN
20	T	128	GLN
21	U	18	HIS
21	U	47	ASN
22	V	47	ASN
22	V	76	HIS
23	W	5	ASN
23	W	15	ASN
23	W	44	HIS
23	W	64	ASN
23	W	98	GLN
24	X	39	ASN
24	X	46	HIS
25	Y	29	HIS
25	Y	94	HIS
26	Z	103	HIS
28	b	49	HIS

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Mol	Chain	Res	Type
28	b	83	GLN
28	b	84	HIS
30	d	26	ASN
30	d	28	HIS
30	d	45	GLN
32	f	151	ASN
33	g	20	GLN
33	g	64	HIS
33	g	76	GLN
33	g	119	GLN
33	g	133	ASN
33	g	143	GLN
33	g	162	ASN
33	g	196	ASN
33	g	226	HIS
35	l	48	GLN
35	l	84	GLN
35	l	89	GLN
35	l	107	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
34	i	1722/1863 (92%)	500 (29%)	0

All (500) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
34	i	2	A
34	i	3	C
34	i	4	C
34	i	8	U
34	i	16	G
34	i	25	A
34	i	26	U
34	i	32	U
34	i	33	G
34	i	41	G
34	i	44	U
34	i	45	A
34	i	46	A

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Mol	Chain	Res	Type
34	i	50	A
34	i	56	G
34	i	59	U
34	i	66	G
34	i	67	C
34	i	68	A
34	i	70	G
34	i	72	C
34	i	73	C
34	i	74	G
34	i	75	G
34	i	76	U
34	i	77	A
34	i	78	C
34	i	79	A
34	i	80	G
34	i	99	A
34	i	102	A
34	i	103	A
34	i	113	G
34	i	126	G
34	i	140	U
34	i	141	A
34	i	142	C
34	i	143	U
34	i	147	A
34	i	148	U
34	i	155	G
34	i	160	U
34	i	161	U
34	i	162	C
34	i	170	A
34	i	176	U
34	i	182	C
34	i	183	G
34	i	184	G
34	i	187	C
34	i	188	U
34	i	189	G
34	i	190	A
34	i	191	C
34	i	197	U

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Mol	Chain	Res	Type
34	i	198	U
34	i	199	G
34	i	203	G
34	i	205	G
34	i	206	A
34	i	212	G
34	i	213	C
34	i	223	A
34	i	224	U
34	i	225	C
34	i	226	A
34	i	229	A
34	i	230	C
34	i	232	A
34	i	233	A
34	i	234	C
34	i	235	C
34	i	238	G
34	i	273	G
34	i	275	C
34	i	276	U
34	i	277	U
34	i	278	U
34	i	279	G
34	i	286	C
34	i	287	U
34	i	298	G
34	i	299	G
34	i	300	G
34	i	303	G
34	i	304	A
34	i	307	G
34	i	309	A
34	i	311	C
34	i	313	C
34	i	314	U
34	i	315	C
34	i	316	C
34	i	317	G
34	i	318	U
34	i	320	G
34	i	322	G

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Mol	Chain	Res	Type
34	i	326	A
34	i	332	C
34	i	337	G
34	i	339	A
34	i	346	C
34	i	352	C
34	i	354	A
34	i	357	U
34	i	359	C
34	i	375	G
34	i	376	C
34	i	379	A
34	i	382	A
34	i	390	C
34	i	397	G
34	i	398	A
34	i	399	C
34	i	416	A
34	i	438	A
34	i	440	C
34	i	442	G
34	i	449	C
34	i	454	A
34	i	456	G
34	i	460	G
34	i	461	G
34	i	462	C
34	i	463	A
34	i	464	G
34	i	466	A
34	i	472	G
34	i	477	U
34	i	482	C
34	i	484	C
34	i	486	C
34	i	515	A
34	i	521	A
34	i	522	C
34	i	523	A
34	i	525	G
34	i	537	G
34	i	539	C

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Mol	Chain	Res	Type
34	i	541	U
34	i	542	G
34	i	543	U
34	i	546	U
34	i	547	U
34	i	549	G
34	i	550	A
34	i	554	A
34	i	555	G
34	i	566	A
34	i	574	A
34	i	576	G
34	i	578	G
34	i	580	A
34	i	581	U
34	i	582	C
34	i	583	C
34	i	586	U
34	i	590	G
34	i	595	A
34	i	596	G
34	i	597	U
34	i	598	C
34	i	600	G
34	i	604	G
34	i	609	A
34	i	610	G
34	i	618	A
34	i	619	A
34	i	624	A
34	i	631	A
34	i	632	U
34	i	633	A
34	i	634	G
34	i	645	A
34	i	646	G
34	i	653	C
34	i	658	A
34	i	659	A
34	i	660	A
34	i	661	A
34	i	662	A

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Mol	Chain	Res	Type
34	i	669	A
34	i	678	U
34	i	679	U
34	i	684	A
34	i	685	G
34	i	686	G
34	i	687	G
34	i	689	G
34	i	691	G
34	i	727	G
34	i	728	U
34	i	729	C
34	i	730	C
34	i	731	C
34	i	734	C
34	i	735	C
34	i	739	U
34	i	740	G
34	i	743	U
34	i	744	C
34	i	793	C
34	i	794	G
34	i	795	U
34	i	806	A
34	i	807	A
34	i	808	A
34	i	814	A
34	i	817	G
34	i	818	U
34	i	826	A
34	i	827	G
34	i	830	C
34	i	831	C
34	i	832	G
34	i	833	A
34	i	834	G
34	i	835	C
34	i	836	C
34	i	838	C
34	i	839	C
34	i	841	G
34	i	843	A

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Mol	Chain	Res	Type
34	i	849	C
34	i	860	A
34	i	864	G
34	i	865	A
34	i	866	A
34	i	867	U
34	i	869	G
34	i	870	G
34	i	871	A
34	i	872	C
34	i	873	C
34	i	874	G
34	i	877	G
34	i	882	A
34	i	883	U
34	i	884	U
34	i	885	U
34	i	886	U
34	i	890	G
34	i	891	G
34	i	893	U
34	i	899	A
34	i	900	A
34	i	907	C
34	i	909	A
34	i	910	U
34	i	916	A
34	i	917	G
34	i	929	G
34	i	947	C
34	i	951	A
34	i	962	U
34	i	965	U
34	i	966	G
34	i	967	G
34	i	972	G
34	i	974	G
34	i	986	A
34	i	988	A
34	i	995	G
34	i	997	A
34	i	1004	A

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Mol	Chain	Res	Type
34	i	1013	U
34	i	1019	A
34	i	1021	U
34	i	1027	A
34	i	1035	C
34	i	1041	U
34	i	1045	A
34	i	1046	A
34	i	1047	G
34	i	1050	G
34	i	1056	A
34	i	1057	U
34	i	1058	A
34	i	1068	U
34	i	1069	U
34	i	1073	A
34	i	1074	C
34	i	1079	A
34	i	1092	G
34	i	1093	G
34	i	1105	C
34	i	1106	G
34	i	1107	U
34	i	1111	U
34	i	1112	C
34	i	1113	C
34	i	1114	C
34	i	1116	U
34	i	1119	C
34	i	1127	G
34	i	1132	U
34	i	1134	C
34	i	1136	G
34	i	1137	G
34	i	1139	A
34	i	1144	A
34	i	1145	A
34	i	1146	A
34	i	1149	C
34	i	1150	U
34	i	1151	U
34	i	1153	G

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Mol	Chain	Res	Type
34	i	1154	G
34	i	1157	U
34	i	1162	G
34	i	1164	G
34	i	1199	G
34	i	1202	G
34	i	1204	A
34	i	1205	A
34	i	1207	G
34	i	1208	G
34	i	1210	A
34	i	1211	C
34	i	1212	C
34	i	1213	A
34	i	1217	G
34	i	1220	G
34	i	1232	G
34	i	1233	C
34	i	1238	U
34	i	1241	G
34	i	1247	A
34	i	1249	A
34	i	1250	C
34	i	1252	G
34	i	1253	G
34	i	1255	A
34	i	1256	A
34	i	1259	U
34	i	1260	C
34	i	1270	G
34	i	1271	G
34	i	1272	A
34	i	1274	A
34	i	1279	C
34	i	1280	A
34	i	1281	G
34	i	1296	U
34	i	1297	A
34	i	1299	C
34	i	1303	U
34	i	1304	U
34	i	1310	U

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Mol	Chain	Res	Type
34	i	1311	U
34	i	1312	C
34	i	1313	U
34	i	1320	G
34	i	1325	U
34	i	1338	U
34	i	1339	U
34	i	1344	G
34	i	1354	U
34	i	1367	U
34	i	1368	U
34	i	1369	C
34	i	1374	A
34	i	1390	G
34	i	1391	C
34	i	1392	A
34	i	1393	U
34	i	1394	G
34	i	1397	A
34	i	1398	A
34	i	1400	U
34	i	1402	G
34	i	1403	U
34	i	1405	A
34	i	1406	C
34	i	1408	C
34	i	1413	C
34	i	1414	C
34	i	1415	C
34	i	1422	U
34	i	1426	C
34	i	1431	C
34	i	1433	C
34	i	1445	G
34	i	1448	A
34	i	1450	A
34	i	1452	G
34	i	1455	G
34	i	1458	U
34	i	1461	A
34	i	1470	A
34	i	1471	G

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Mol	Chain	Res	Type
34	i	1472	A
34	i	1473	U
34	i	1474	U
34	i	1485	A
34	i	1486	G
34	i	1489	C
34	i	1490	U
34	i	1491	G
34	i	1504	A
34	i	1506	G
34	i	1507	U
34	i	1508	C
34	i	1511	G
34	i	1514	U
34	i	1515	G
34	i	1516	C
34	i	1519	G
34	i	1528	A
34	i	1530	U
34	i	1532	A
34	i	1535	G
34	i	1539	C
34	i	1540	A
34	i	1545	G
34	i	1546	U
34	i	1547	G
34	i	1548	C
34	i	1549	C
34	i	1551	A
34	i	1552	C
34	i	1553	C
34	i	1558	G
34	i	1559	C
34	i	1565	G
34	i	1573	U
34	i	1575	A
34	i	1577	C
34	i	1580	U
34	i	1582	G
34	i	1583	A
34	i	1593	G
34	i	1594	U

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Mol	Chain	Res	Type
34	i	1595	G
34	i	1597	U
34	i	1599	G
34	i	1616	U
34	i	1617	U
34	i	1618	A
34	i	1627	G
34	i	1628	A
34	i	1632	A
34	i	1633	G
34	i	1634	G
34	i	1643	G
34	i	1649	G
34	i	1652	G
34	i	1660	G
34	i	1675	G
34	i	1683	C
34	i	1684	C
34	i	1690	A
34	i	1694	A
34	i	1696	C
34	i	1697	G
34	i	1716	U
34	i	1717	G
34	i	1722	G
34	i	1724	U
34	i	1740	A
34	i	1741	U
34	i	1743	G
34	i	1745	C
34	i	1747	C
34	i	1748	G
34	i	1749	C
34	i	1750	C
34	i	1751	G
34	i	1755	U
34	i	1774	G
34	i	1775	A
34	i	1776	G
34	i	1777	C
34	i	1778	G
34	i	1779	C

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Mol	Chain	Res	Type
34	i	1780	U
34	i	1790	G
34	i	1792	C
34	i	1799	G
34	i	1818	A
34	i	1819	A
34	i	1820	G
34	i	1822	C
34	i	1823	G
34	i	1825	A
34	i	1826	A
34	i	1829	A
34	i	1832	U
34	i	1833	U
34	i	1843	G
34	i	1845	A
34	i	1846	C
34	i	1852	G
34	i	1855	G
34	i	1856	G
34	i	1857	A
34	i	1858	U
34	i	1859	C
34	i	1861	U
34	i	1863	A

There are no RNA pucker outliers to report.

5.4 Non-standard residues in protein, DNA, RNA chains (i)

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
34	i	11
10	J	3
4	D	2
19	S	2
31	e	1
9	I	1
21	U	1
3	C	1
7	G	1
18	R	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	i	326:A	O3'	327:C	P	8.42
1	i	309:A	O3'	310:G	P	7.21
1	i	304:A	O3'	305:U	P	5.77
1	i	209:C	O3'	210:G	P	5.60
1	i	1826:A	O3'	1827:C	P	5.04
1	i	1698:C	O3'	1699:C	P	3.15
1	i	550:A	O3'	551:A	P	2.80
1	i	183:G	O3'	184:G	P	2.68
1	i	1206:G	O3'	1207:G	P	2.61
1	i	515:A	O3'	516:A	P	2.53
1	i	1683:C	O3'	1684:C	P	2.10
1	D	5:ILE	C	6:SER	N	1.82
1	e	95:LYS	C	96:GLN	N	1.76
1	J	118:GLY	C	119:LEU	N	1.73
1	I	43:ILE	C	44:HIS	N	1.67
1	J	146:SER	C	147:PHE	N	1.61
1	U	93:SER	C	94:PRO	N	1.61
1	S	141:ARG	C	142:ARG	N	1.60
1	D	4:GLN	C	5:ILE	N	1.20
1	C	93:LYS	C	94:ILE	N	1.18
1	G	130:PRO	C	131:ARG	N	1.16

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	R	1:MET	C	2:GLY	N	1.13
1	S	40:TYR	C	41:ALA	N	1.10
1	J	85:GLY	C	86:VAL	N	0.95

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	208/295 (70%)	-0.29	8 (3%) 44 42	173, 263, 322, 332	0
2	B	215/264 (81%)	-0.16	9 (4%) 40 40	128, 196, 242, 252	0
3	C	226/278 (81%)	-0.40	11 (4%) 35 36	82, 160, 268, 295	0
4	D	227/243 (93%)	-0.29	6 (2%) 57 49	167, 217, 294, 337	0
5	E	263/263 (100%)	0.64	36 (13%) 6 15	117, 216, 286, 299	0
6	F	191/204 (93%)	-0.37	5 (2%) 57 49	191, 263, 305, 317	0
7	G	237/249 (95%)	-0.22	10 (4%) 40 40	164, 242, 325, 343	0
8	H	190/194 (97%)	-0.47	3 (1%) 70 59	187, 326, 368, 385	0
9	I	206/208 (99%)	0.13	16 (7%) 19 25	89, 239, 276, 287	0
10	J	182/194 (93%)	0.01	13 (7%) 22 28	89, 166, 231, 276	0
11	K	98/165 (59%)	0.27	5 (5%) 33 35	222, 291, 316, 323	0
12	L	158/158 (100%)	0.23	21 (13%) 7 15	77, 176, 261, 270	0
13	M	124/132 (93%)	-0.65	0 100 100	298, 378, 406, 431	0
14	N	150/151 (99%)	-0.15	6 (4%) 42 41	87, 150, 275, 297	0
15	O	136/151 (90%)	-0.09	6 (4%) 39 39	92, 194, 256, 272	0
16	P	127/145 (87%)	-0.04	6 (4%) 36 37	234, 305, 340, 361	0
17	Q	141/146 (96%)	0.31	17 (12%) 8 17	166, 287, 321, 331	0
18	R	126/135 (93%)	-0.30	0 100 100	174, 225, 322, 329	0
19	S	137/152 (90%)	0.14	6 (4%) 39 39	217, 311, 344, 357	0
20	T	141/145 (97%)	-0.26	1 (0%) 84 74	238, 311, 341, 349	0
21	U	104/119 (87%)	0.00	9 (8%) 16 23	167, 266, 306, 317	0
22	V	82/83 (98%)	-0.59	0 100 100	164, 218, 318, 328	0
23	W	129/130 (99%)	0.44	16 (12%) 8 16	107, 159, 204, 218	0
24	X	142/143 (99%)	0.54	20 (14%) 6 15	50, 90, 134, 155	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
25	Y	126/133 (94%)	-0.34	3 (2%) 59 52	156, 205, 243, 261	0
26	Z	75/125 (60%)	-0.36	1 (1%) 75 64	292, 320, 350, 360	0
27	a	107/115 (93%)	0.31	12 (11%) 10 18	87, 129, 234, 249	0
28	b	84/84 (100%)	0.56	8 (9%) 14 21	164, 223, 303, 334	0
29	c	64/69 (92%)	-0.62	0 100 100	175, 224, 274, 287	0
30	d	53/56 (94%)	0.38	7 (13%) 7 15	183, 212, 290, 295	0
31	e	59/133 (44%)	-0.34	1 (1%) 69 59	103, 158, 182, 189	0
32	f	71/156 (45%)	-0.69	0 100 100	213, 332, 401, 415	0
33	g	313/317 (98%)	-0.30	1 (0%) 90 82	235, 304, 346, 364	0
34	i	1797/1863 (96%)	-0.38	40 (2%) 62 53	49, 184, 371, 475	0
35	l	85/113 (75%)	-0.67	0 100 100	223, 235, 250, 253	0
All	All	6774/7511 (90%)	-0.17	303 (4%) 38 38	49, 228, 347, 475	0

All (303) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
5	E	80	ILE	21.4
5	E	70	ILE	16.5
5	E	44	LEU	15.0
12	L	23	VAL	12.0
34	i	230	C	9.8
34	i	229	A	9.5
5	E	45	ILE	8.8
2	B	60	ASP	8.7
30	d	4	GLN	8.6
5	E	90	ILE	8.3
4	D	150	MET	8.1
12	L	96	ILE	7.9
12	L	28	THR	7.5
9	I	199	LEU	7.5
5	E	62	LYS	7.4
34	i	397	G	7.3
20	T	61	ALA	7.0
5	E	48	LEU	6.9
5	E	78	ALA	6.8
5	E	65	CYS	6.7
5	E	79	ASP	6.6
24	X	82	THR	6.6

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Mol	Chain	Res	Type	RSRZ
17	Q	88	ILE	6.5
25	Y	17	LEU	6.4
34	i	1696	C	6.4
10	J	105	PHE	6.3
9	I	19	LYS	6.2
3	C	96	PRO	6.2
23	W	125	ILE	6.1
16	P	125	PRO	6.1
9	I	17	LYS	6.0
24	X	118	VAL	6.0
12	L	29	GLY	6.0
23	W	126	LEU	5.9
5	E	64	ILE	5.9
5	E	47	PHE	5.9
23	W	79	PHE	5.8
17	Q	132	PHE	5.7
21	U	63	ILE	5.7
27	a	90	GLU	5.7
23	W	75	ILE	5.6
5	E	61	VAL	5.5
5	E	43	PRO	5.4
34	i	1388	U	5.4
8	H	112	ASN	5.4
5	E	46	ILE	5.3
6	F	133	THR	5.2
3	C	109	PHE	5.2
24	X	115	ILE	5.2
12	L	30	LYS	5.1
8	H	193	GLN	5.1
9	I	207	GLY	5.1
19	S	123	LEU	5.0
10	J	106	LEU	5.0
10	J	143	ASN	5.0
12	L	22	ARG	5.0
19	S	127	TRP	4.9
9	I	172	LEU	4.9
4	D	119	CYS	4.8
2	B	56	LYS	4.8
23	W	89	TRP	4.7
5	E	58	GLY	4.7
12	L	25	LEU	4.7
34	i	231	C	4.7

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Mol	Chain	Res	Type	RSRZ
5	E	92	ILE	4.7
27	a	91	ALA	4.7
23	W	104	LEU	4.6
14	N	7	PRO	4.6
24	X	117	GLY	4.6
24	X	109	GLY	4.6
34	i	698	G	4.5
9	I	154	LYS	4.4
2	B	57	ILE	4.4
4	D	136	VAL	4.4
5	E	56	LEU	4.4
9	I	203	LYS	4.4
7	G	153	VAL	4.4
9	I	202	ILE	4.4
12	L	125	ILE	4.4
23	W	127	GLY	4.4
34	i	697	G	4.4
23	W	120	HIS	4.3
10	J	81	LEU	4.3
34	i	1389	G	4.3
6	F	55	ARG	4.3
3	C	103	ALA	4.2
9	I	206	LYS	4.1
34	i	418	U	4.1
4	D	152	PHE	4.1
5	E	72	ILE	4.1
1	A	128	ARG	4.0
7	G	192	ILE	4.0
7	G	80	GLY	4.0
27	a	94	ASP	3.9
1	A	135	THR	3.9
3	C	102	GLN	3.9
12	L	24	LEU	3.9
12	L	146	THR	3.8
17	Q	121	VAL	3.8
15	O	103	ASN	3.8
34	i	130	G	3.8
1	A	131	HIS	3.8
17	Q	92	LEU	3.8
17	Q	129	SER	3.8
30	d	43	PHE	3.7
9	I	168	GLN	3.7

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Mol	Chain	Res	Type	RSRZ
30	d	5	GLN	3.7
17	Q	123	ASP	3.7
34	i	1387	C	3.7
3	C	105	GLN	3.7
24	X	14	ARG	3.7
10	J	97	ILE	3.7
24	X	83	ALA	3.6
12	L	99	TYR	3.6
27	a	29	CYS	3.6
21	U	81	GLN	3.6
34	i	795	U	3.6
5	E	6	LYS	3.6
24	X	69	CYS	3.6
15	O	105	THR	3.6
24	X	81	ILE	3.5
27	a	89	ARG	3.5
28	b	24	LEU	3.5
16	P	114	HIS	3.5
6	F	132	GLY	3.5
24	X	120	PHE	3.5
19	S	21	ASP	3.4
17	Q	118	THR	3.4
5	E	18	TRP	3.4
27	a	93	LYS	3.4
21	U	39	LEU	3.4
17	Q	54	PRO	3.4
16	P	121	ILE	3.4
21	U	75	LYS	3.4
34	i	129	C	3.4
27	a	35	ALA	3.3
30	d	52	PHE	3.3
9	I	161	LEU	3.3
34	i	1858	U	3.3
7	G	45	TRP	3.3
24	X	116	PRO	3.2
12	L	27	GLU	3.2
28	b	29	ASN	3.2
5	E	241	GLY	3.2
34	i	640	A	3.1
12	L	21	LYS	3.1
11	K	44	HIS	3.1
3	C	132	VAL	3.1

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Mol	Chain	Res	Type	RSRZ
28	b	30	SER	3.1
34	i	250	G	3.1
24	X	122	VAL	3.0
12	L	31	GLU	3.0
25	Y	118	ARG	3.0
34	i	1012	U	3.0
5	E	84	ALA	3.0
24	X	35	ALA	3.0
17	Q	55	VAL	3.0
7	G	78	SER	2.9
4	D	138	VAL	2.9
30	d	6	LEU	2.9
34	i	796	U	2.9
3	C	131	GLU	2.9
34	i	101	U	2.9
15	O	107	THR	2.9
30	d	56	ASP	2.9
6	F	65	GLN	2.9
14	N	13	GLN	2.9
7	G	188	LYS	2.9
4	D	115	VAL	2.8
34	i	394	G	2.8
24	X	102	VAL	2.8
34	i	327	C	2.8
5	E	42	LEU	2.8
10	J	77	LEU	2.8
3	C	107	THR	2.8
23	W	66	THR	2.8
5	E	2	ALA	2.8
9	I	20	PRO	2.8
12	L	98	LYS	2.8
9	I	82	VAL	2.7
16	P	113	GLY	2.7
34	i	1759	C	2.7
12	L	126	VAL	2.7
27	a	72	HIS	2.7
3	C	101	THR	2.7
1	A	158	ASP	2.7
15	O	102	GLY	2.7
12	L	76	VAL	2.7
10	J	47	LYS	2.6
17	Q	6	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
16	P	103	ASN	2.6
9	I	53	LYS	2.6
5	E	50	ASN	2.6
5	E	12	VAL	2.6
11	K	94	LEU	2.6
21	U	60	THR	2.6
14	N	17	PRO	2.6
10	J	51	ALA	2.6
34	i	892	U	2.6
12	L	103	GLU	2.5
5	E	242	LYS	2.5
17	Q	131	LYS	2.5
28	b	78	SER	2.5
23	W	121	THR	2.5
28	b	76	GLY	2.5
12	L	94	HIS	2.5
2	B	199	LYS	2.5
10	J	37	LEU	2.5
10	J	86	VAL	2.5
9	I	103	LEU	2.4
30	d	36	LEU	2.4
24	X	40	PRO	2.4
34	i	393	G	2.4
28	b	77	CYS	2.4
34	i	232	A	2.4
5	E	82	TYR	2.4
23	W	45	GLY	2.4
25	Y	18	LEU	2.4
26	Z	45	ASN	2.4
34	i	720	A	2.4
24	X	112	VAL	2.4
34	i	1469	G	2.4
17	Q	124	PRO	2.3
9	I	165	GLN	2.3
5	E	81	THR	2.3
14	N	14	SER	2.3
23	W	78	ARG	2.3
28	b	37	CYS	2.3
1	A	200	ASP	2.3
15	O	31	CYS	2.3
24	X	141	PRO	2.3
11	K	49	MET	2.3

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Mol	Chain	Res	Type	RSRZ
15	O	104	ARG	2.3
2	B	192	SER	2.3
24	X	110	HIS	2.3
8	H	38	ALA	2.3
17	Q	122	ALA	2.3
5	E	203	GLY	2.2
12	L	74	SER	2.2
11	K	43	LEU	2.2
34	i	664	C	2.2
34	i	696	G	2.2
10	J	22	LYS	2.2
21	U	74	SER	2.2
23	W	68	ARG	2.2
31	e	102	ARG	2.2
5	E	246	LEU	2.2
5	E	105	THR	2.2
21	U	79	ARG	2.2
27	a	108	PRO	2.2
33	g	78	ALA	2.2
3	C	94	ILE	2.2
24	X	84	PHE	2.2
27	a	19	GLN	2.2
1	A	155	ARG	2.2
17	Q	68	ILE	2.2
3	C	106	ARG	2.2
7	G	191	ARG	2.2
14	N	110	ASP	2.2
5	E	69	PHE	2.2
2	B	195	LYS	2.2
5	E	101	LEU	2.2
2	B	59	SER	2.2
17	Q	70	VAL	2.2
6	F	129	GLY	2.1
19	S	122	GLY	2.1
34	i	945	G	2.1
27	a	36	ILE	2.1
14	N	66	VAL	2.1
19	S	65	GLU	2.1
1	A	159	ILE	2.1
7	G	3	LEU	2.1
10	J	31	LEU	2.1
16	P	52	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
17	Q	116	ASP	2.1
1	A	45	GLY	2.1
34	i	1011	U	2.1
5	E	60	GLU	2.1
17	Q	89	SER	2.1
23	W	10	ALA	2.1
34	i	1203	G	2.1
34	i	1390	G	2.1
11	K	21	MET	2.1
19	S	71	MET	2.1
21	U	83	ARG	2.1
7	G	163	ASN	2.1
10	J	43	VAL	2.1
28	b	23	ARG	2.0
34	i	1	U	2.1
24	X	108	LYS	2.0
34	i	1244	U	2.0
2	B	166	LYS	2.0
34	i	179	C	2.0
12	L	75	GLY	2.0
34	i	1636	A	2.0
34	i	893	U	2.0
27	a	48	ALA	2.0
34	i	1010	G	2.0
7	G	152	ASP	2.0
23	W	103	VAL	2.0
23	W	64	ASN	2.0
2	B	48	LEU	2.0
21	U	61	LEU	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (i)

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

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

There are no ligands in this entry.

6.5 Other polymers (i)

There are no such residues in this entry.