Full wwPDB X-ray Structure Validation Report ⓘ

Mar 15, 2026 – 01:42 PM UTC

PDB ID	:	4KZY / pdb_00004kzy
Title	:	Rabbit 40S ribosomal subunit in complex with eIF1 and eIF1A.
Authors	:	Lomakin, I.B.; Steitz, T.A.
Deposited on	:	2013-05-30
Resolution	:	7.01 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:

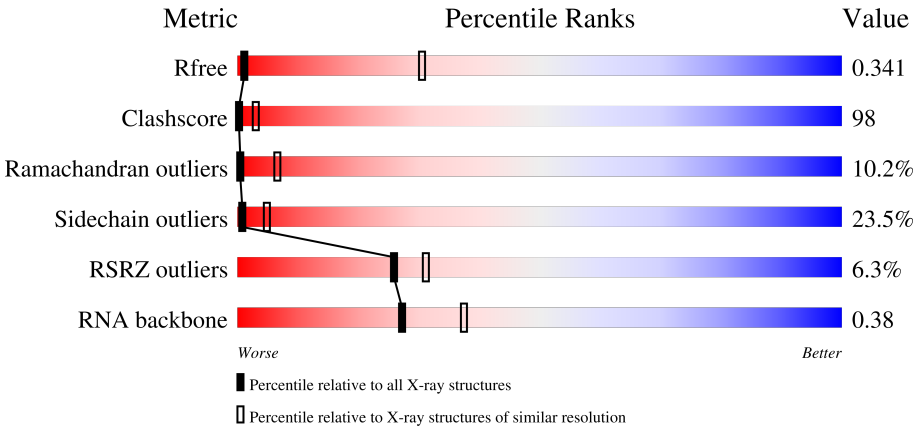
MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
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 7.01 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	1167 (10.00-4.00)
Clashscore	190562	1009 (10.00-4.04)
Ramachandran outliers	187476	1054 (10.00-4.00)
Sidechain outliers	187428	1017 (10.00-4.00)
RSRZ outliers	180081	1161 (10.00-4.00)
RNA backbone	3983	1056 (10.00-3.10)

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	6% 7% 38% 19% 6% 29%
2	B	264	5% 14% 43% 20% 5% 19%
3	C	278	% 14% 40% 22% 6% 19%
4	D	243	12% 18% 44% 25% 6% 7%

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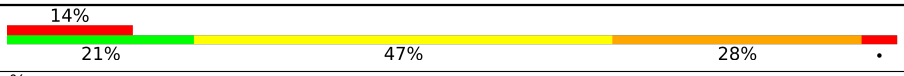
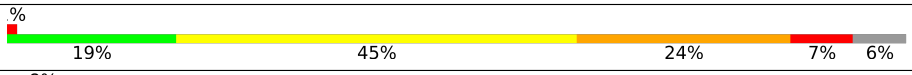
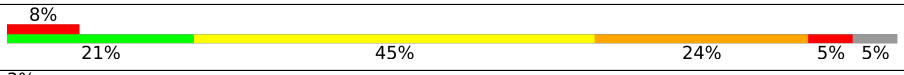
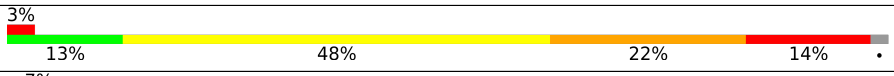
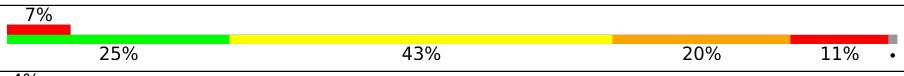
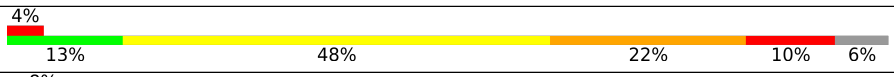
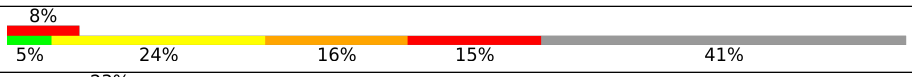
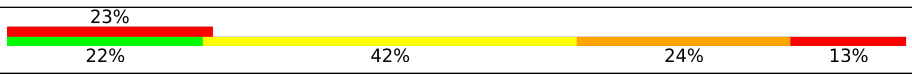
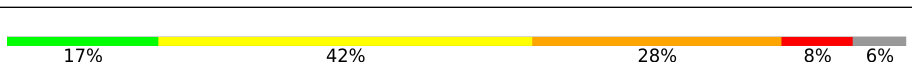
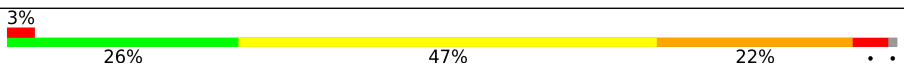
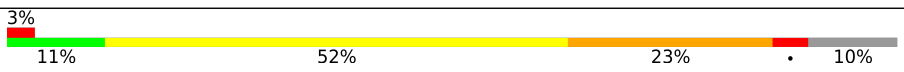
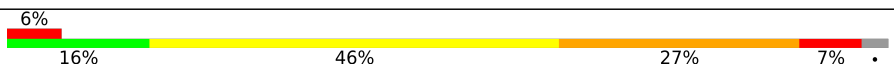
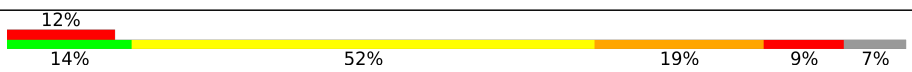
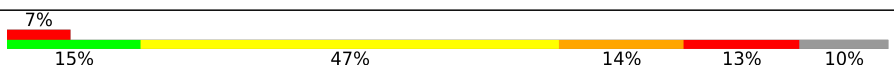
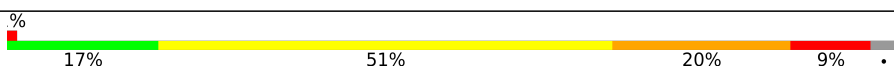
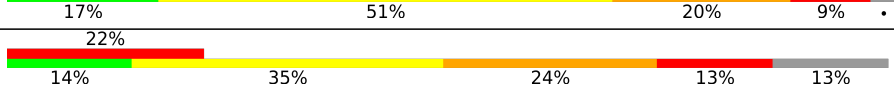
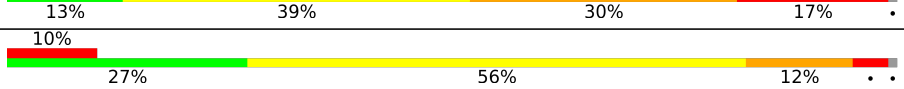
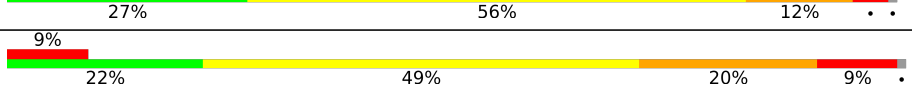
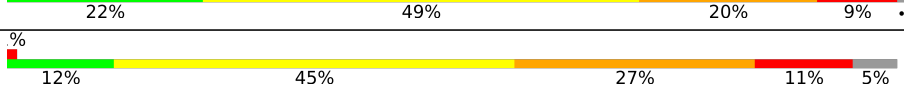
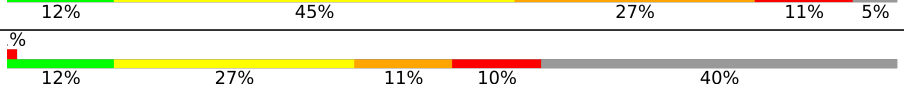
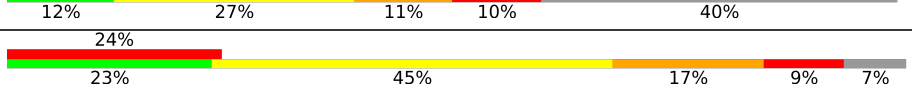
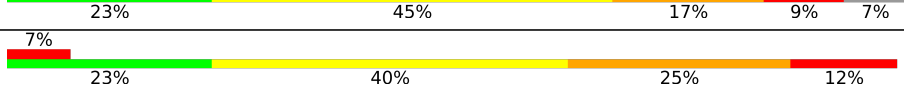
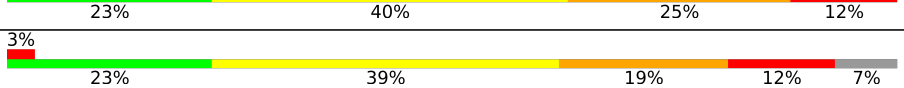
Mol	Chain	Length	Quality of chain
5	E	263	
6	F	204	
7	G	249	
8	H	194	
9	I	208	
10	J	194	
11	K	165	
12	L	158	
13	M	132	
14	N	151	
15	O	151	
16	P	145	
17	Q	146	
18	R	135	
19	S	152	
20	T	145	
21	U	119	
22	V	83	
23	W	130	
24	X	143	
25	Y	133	
26	Z	125	
27	a	115	
28	b	84	
29	c	69	

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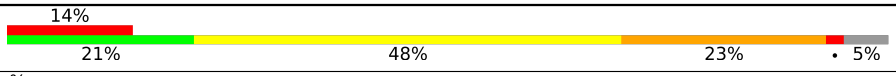
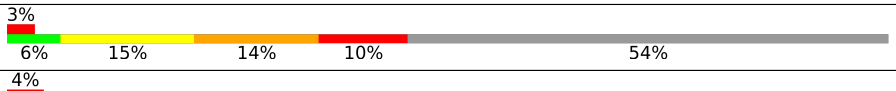
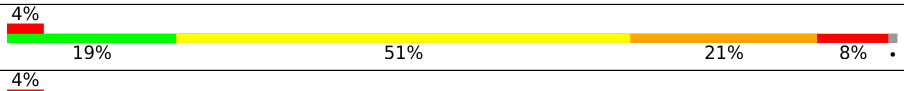
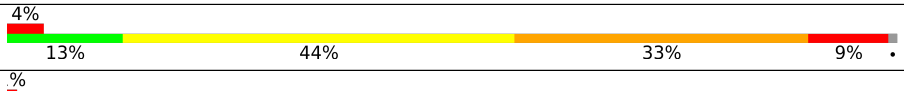
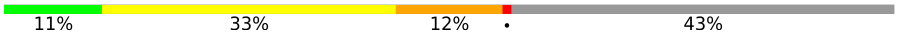
Mol	Chain	Length	Quality of chain
30	d	56	
31	e	133	
32	f	156	
33	g	317	
34	i	1863	
35	l	113	
36	n	144	

2 Entry composition

There are 36 unique types of molecules in this entry. The entry contains 78412 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
			951	594	169	179	9			

- 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
			468	290	102	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	1840	Total	C	N	O	P	0	0	0
			38071	16944	6695	12593	1839			

- Molecule 35 is a protein called human initiation factor eIF1.

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

- Molecule 36 is a protein called human initiation factor eIF1A.

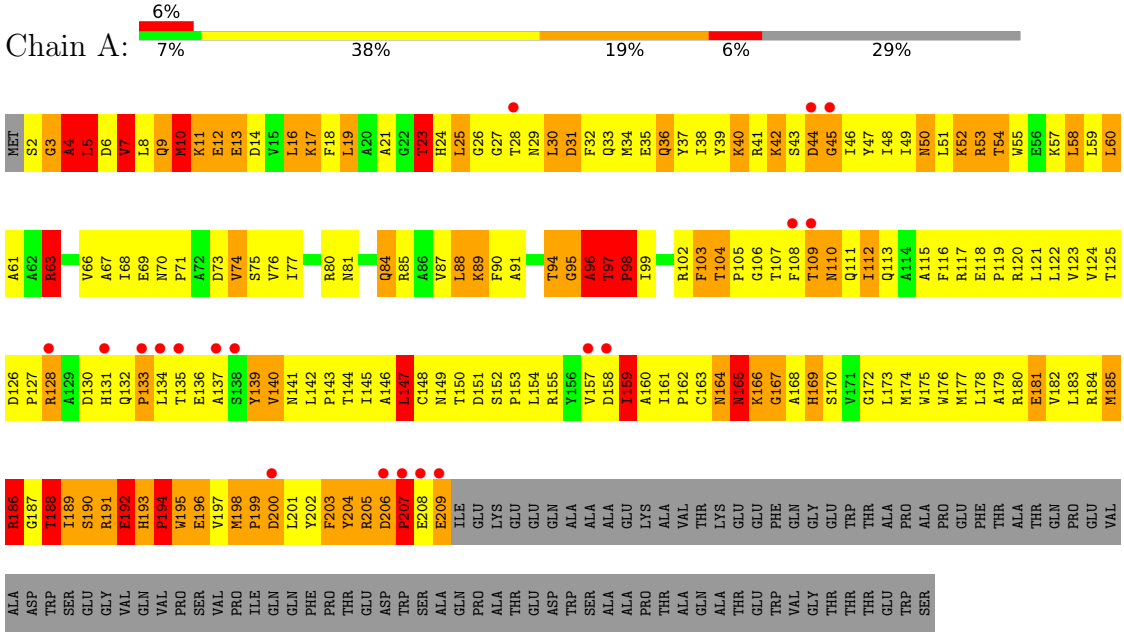
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	n	82	Total	C	N	O	S	0	0	0
			648	409	118	117	4			

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.

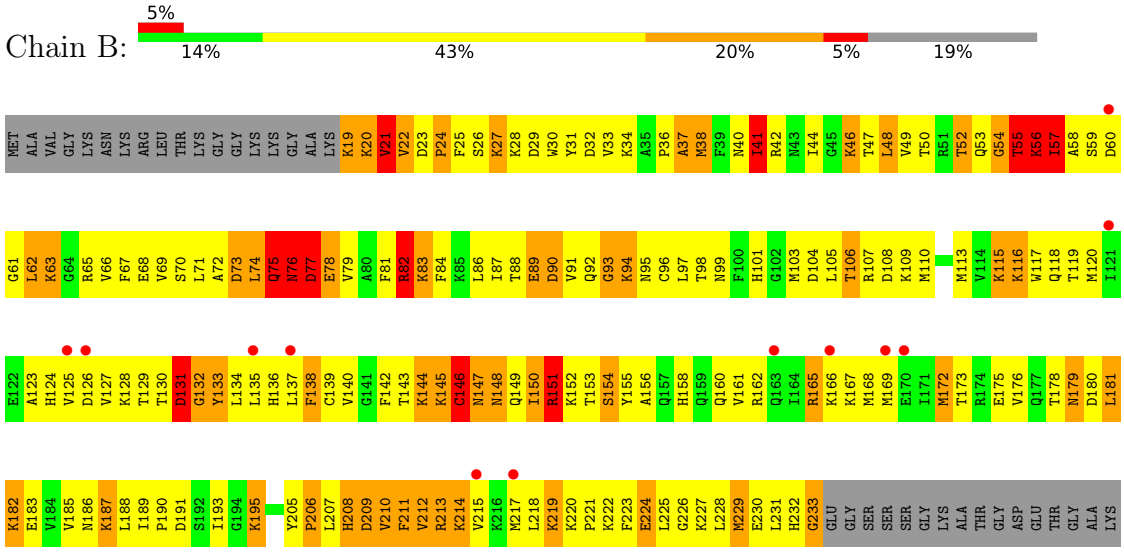
• Molecule 1: 40S Ribosomal Protein SA

Chain A:

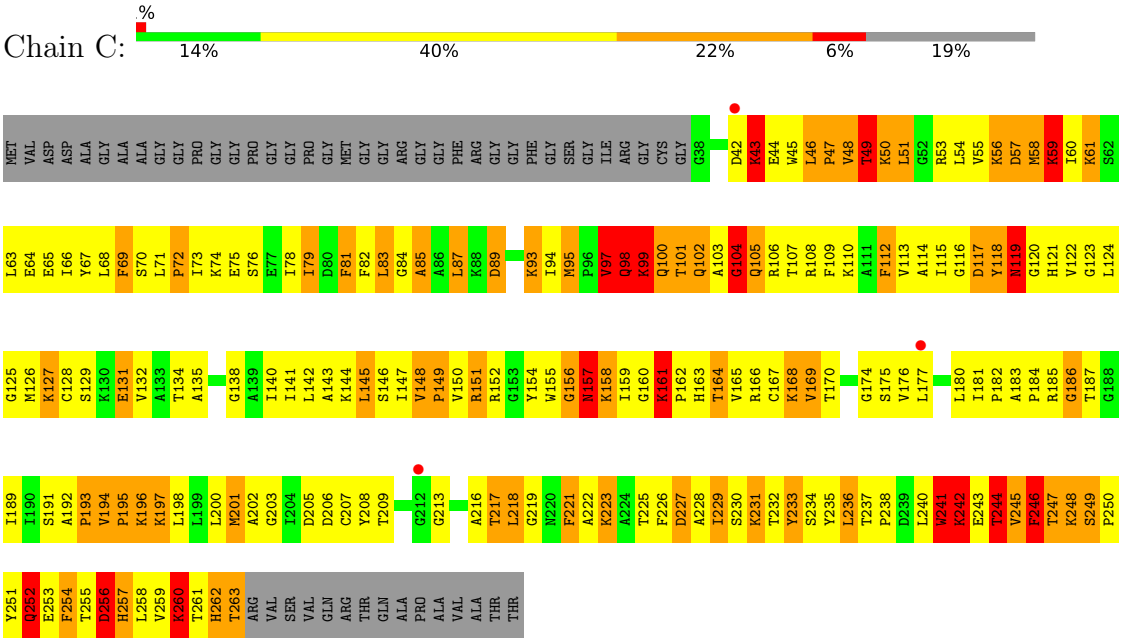


• Molecule 2: 40S Ribosomal Protein S3A

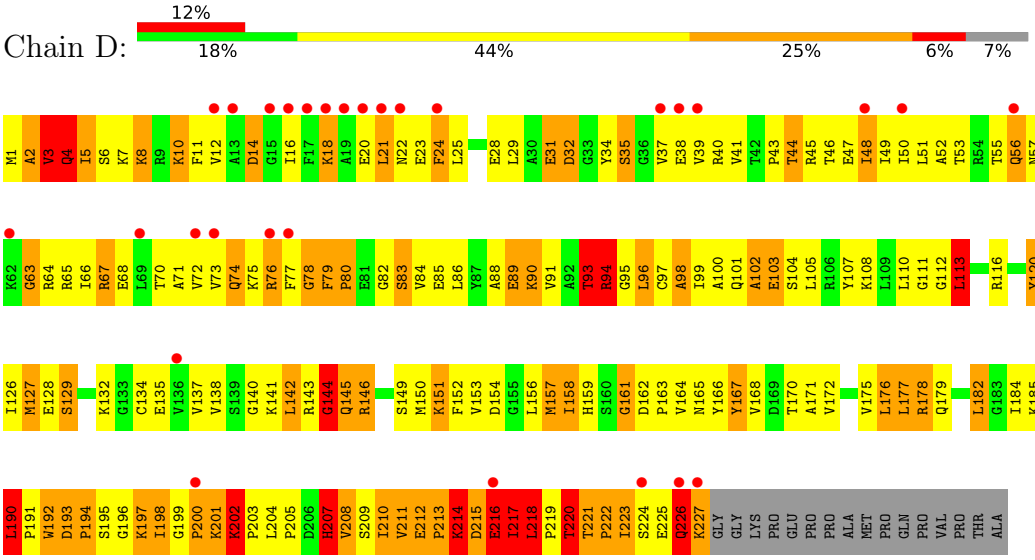
Chain B:



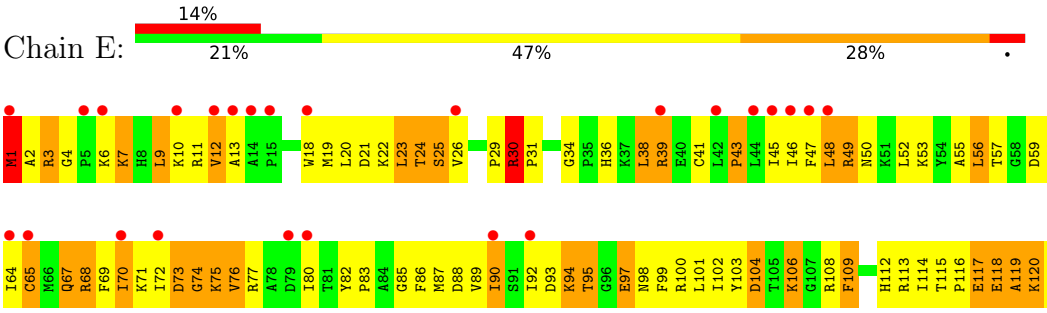
• Molecule 3: 40S Ribosomal Protein S2

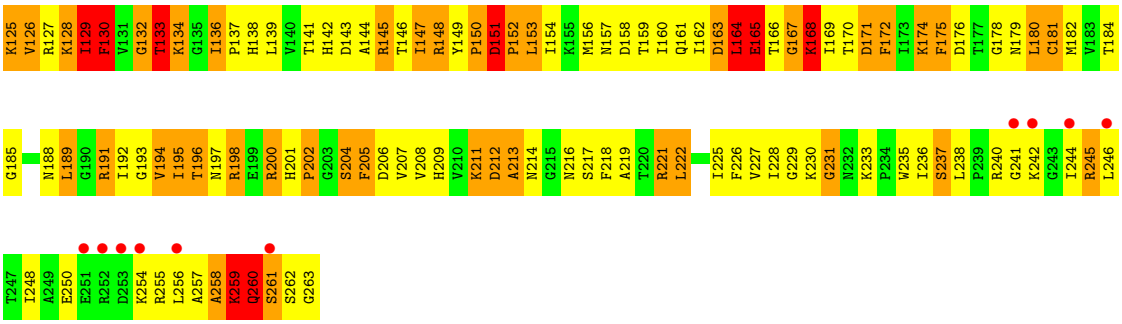


• Molecule 4: 40S Ribosomal Protein S3



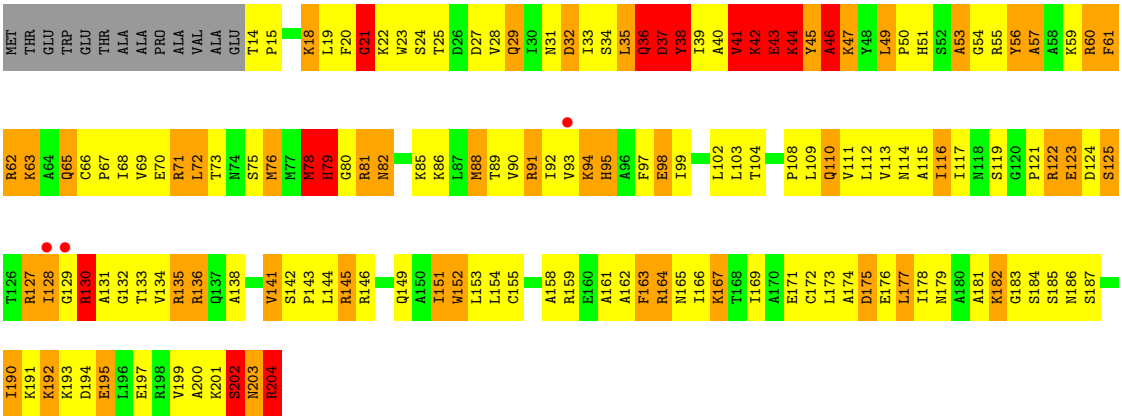
• Molecule 5: 40S Ribosomal Protein S4X





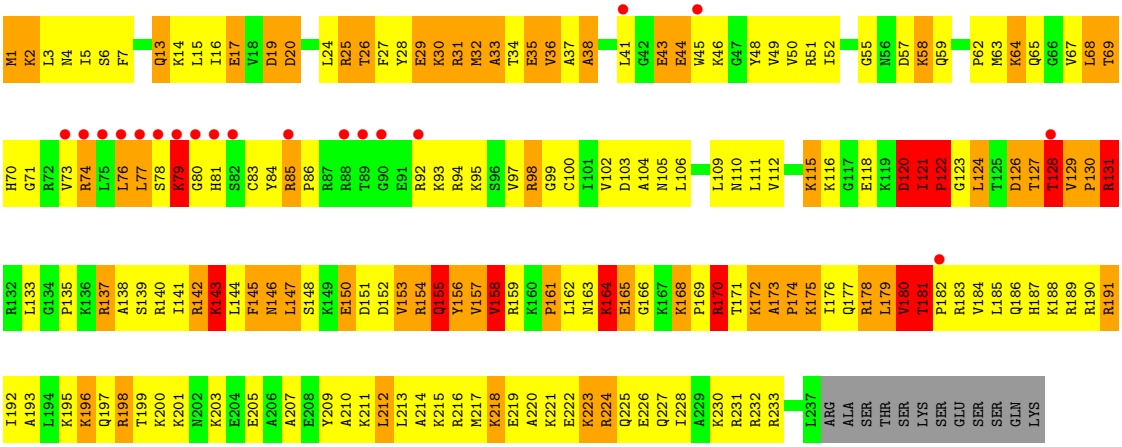
• Molecule 6: 40S Ribosomal Protein S5

Chain F:



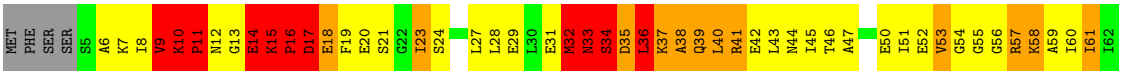
• Molecule 7: 40S Ribosomal Protein S6

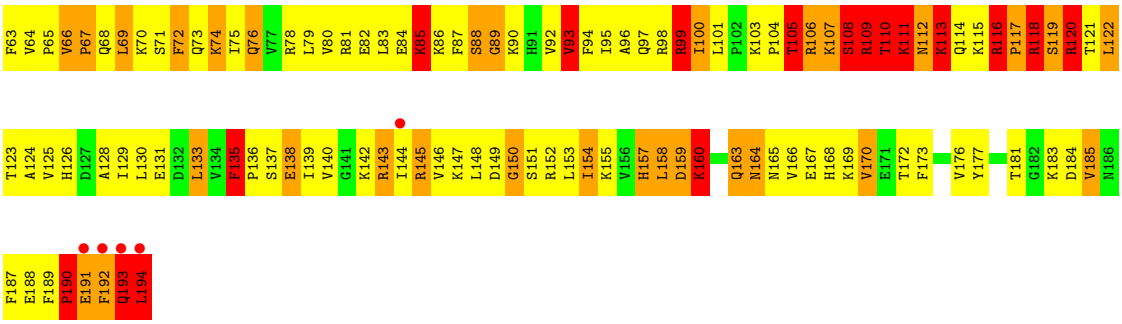
Chain G:

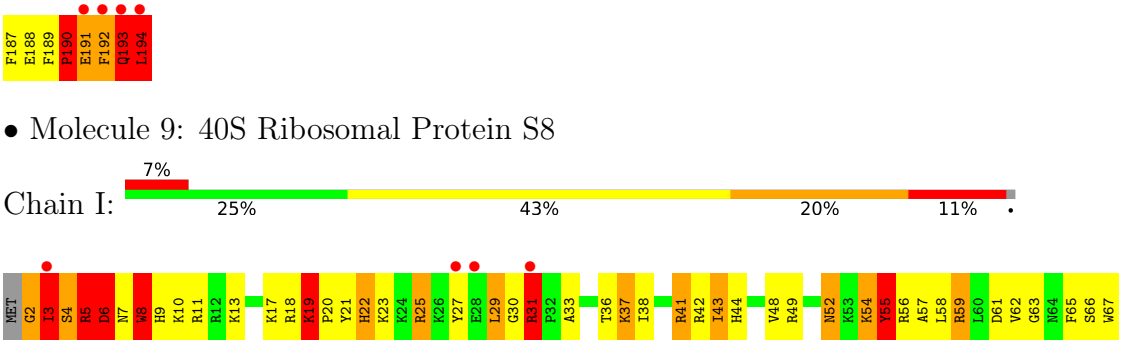


• Molecule 8: 40S Ribosomal Protein S7

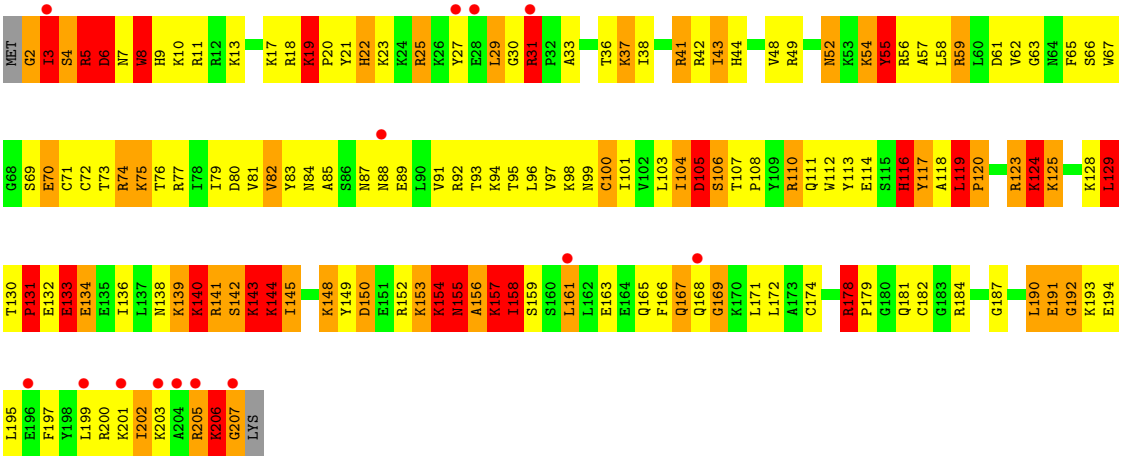
Chain H:



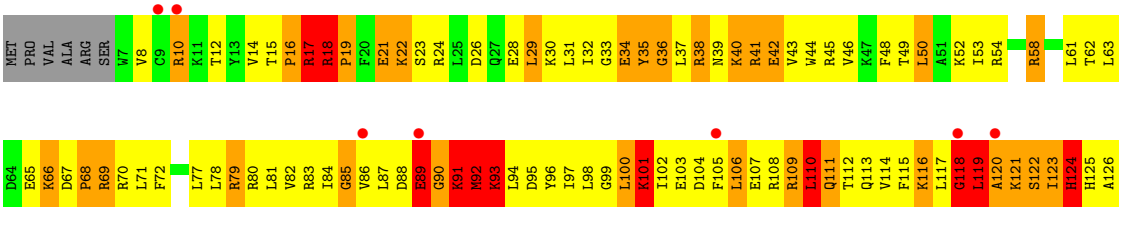




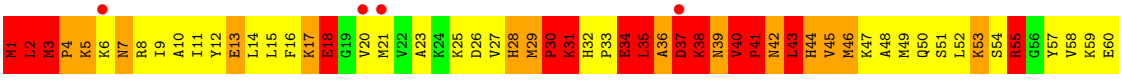
• Molecule 9: 40S Ribosomal Protein S8

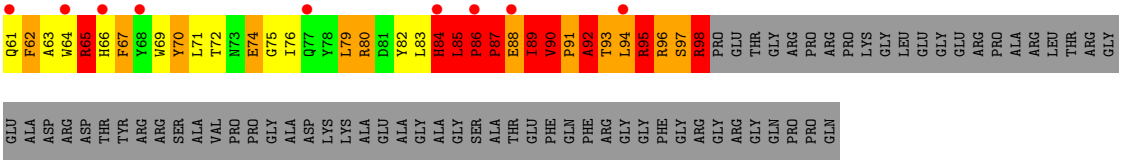


• Molecule 10: 40S Ribosomal Protein S9



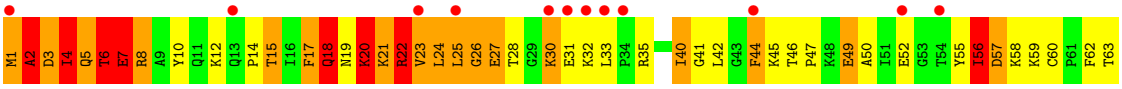
• Molecule 11: 40S Ribosomal Protein S10

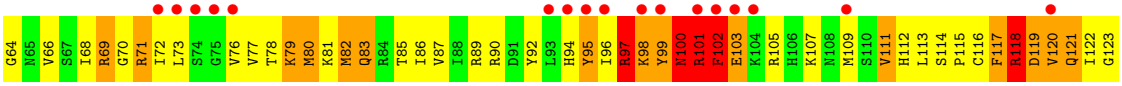


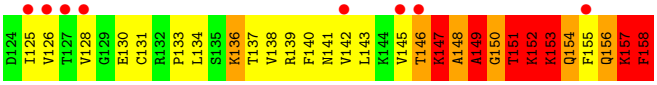


• Molecule 12: 40S Ribosomal Protein S11

Chain L:

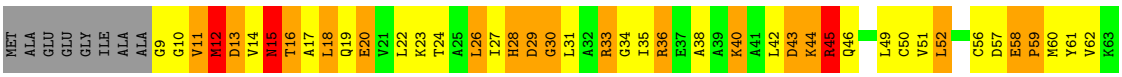






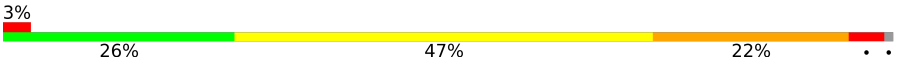
• Molecule 13: 40S Ribosomal Protein S12

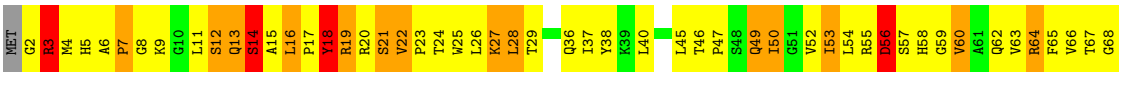
Chain M:



• Molecule 14: 40S Ribosomal Protein S13

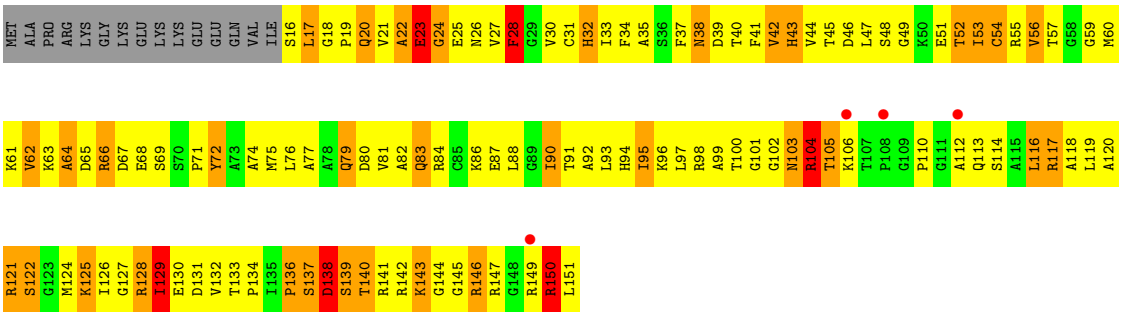
Chain N:





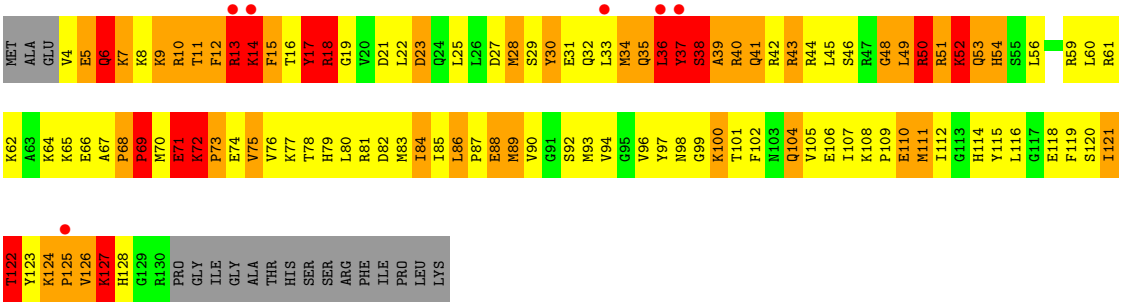
• Molecule 15: 40S Ribosomal Protein S14

Chain O:



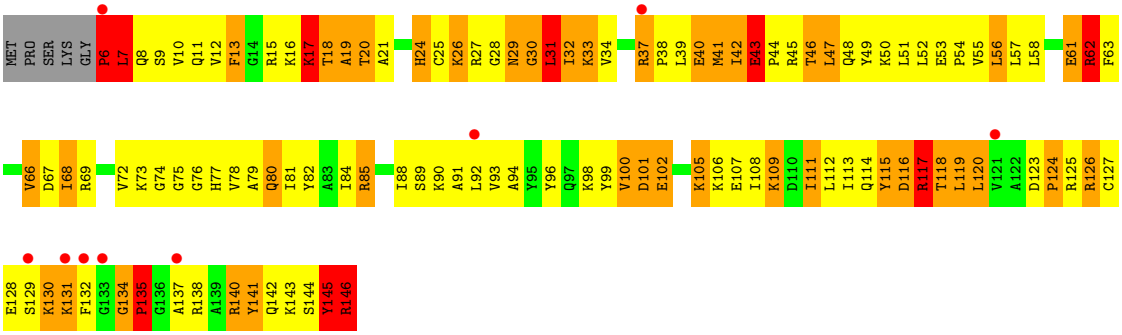
• Molecule 16: 40S Ribosomal Protein S15

Chain P:



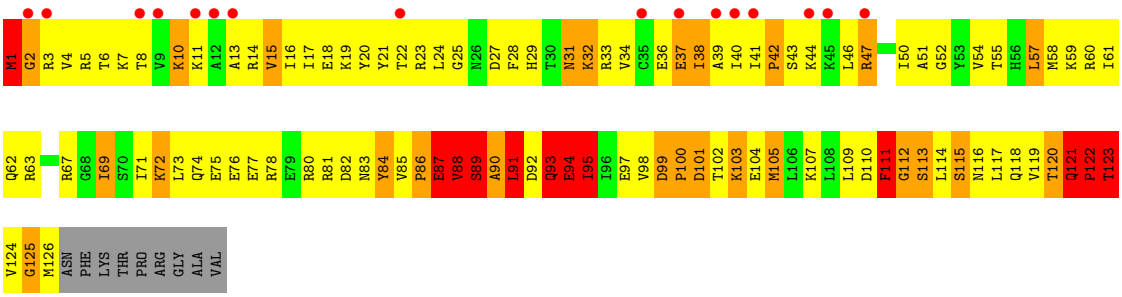
• Molecule 17: 40S Ribosomal Protein S16

Chain Q:



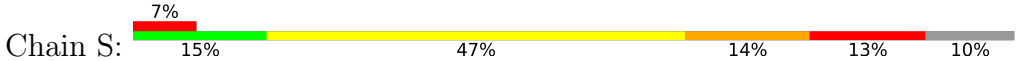
• Molecule 18: 40S Ribosomal Protein S17

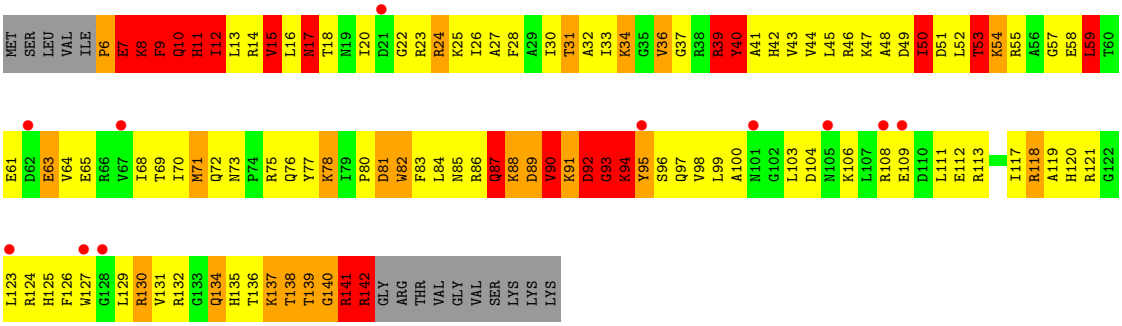
Chain R:



• Molecule 19: 40S Ribosomal Protein S18

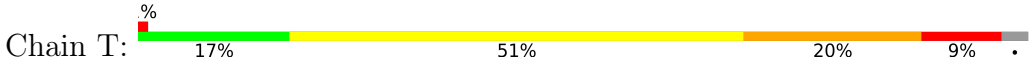
Chain S:

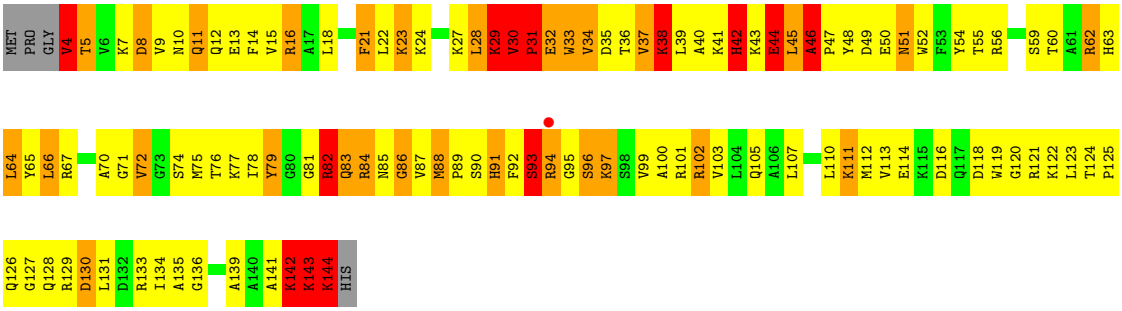




• Molecule 20: 40S Ribosomal Protein S19

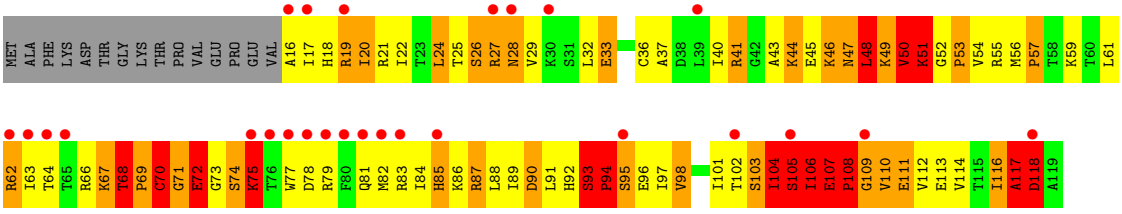
Chain T:





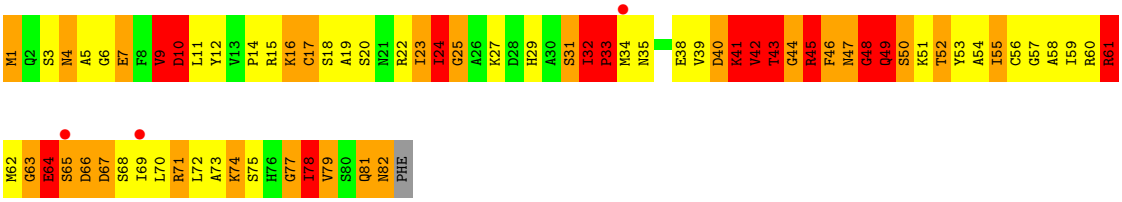
• Molecule 21: 40S Ribosomal Protein S20

Chain U:



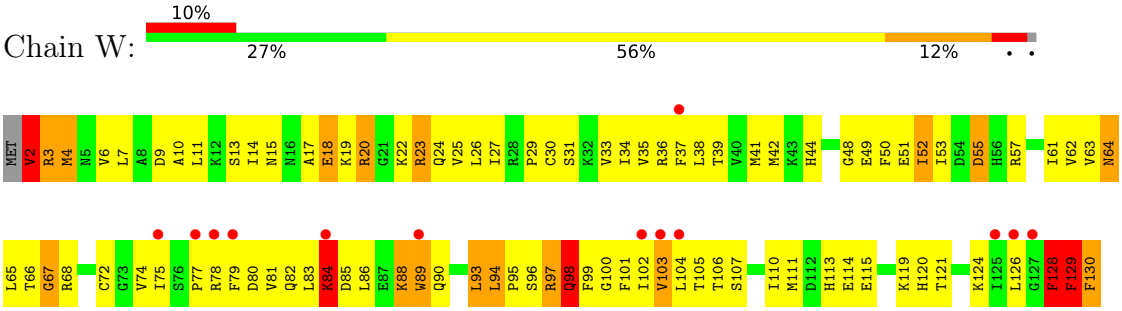
• Molecule 22: 40S Ribosomal Protein S21

Chain V:



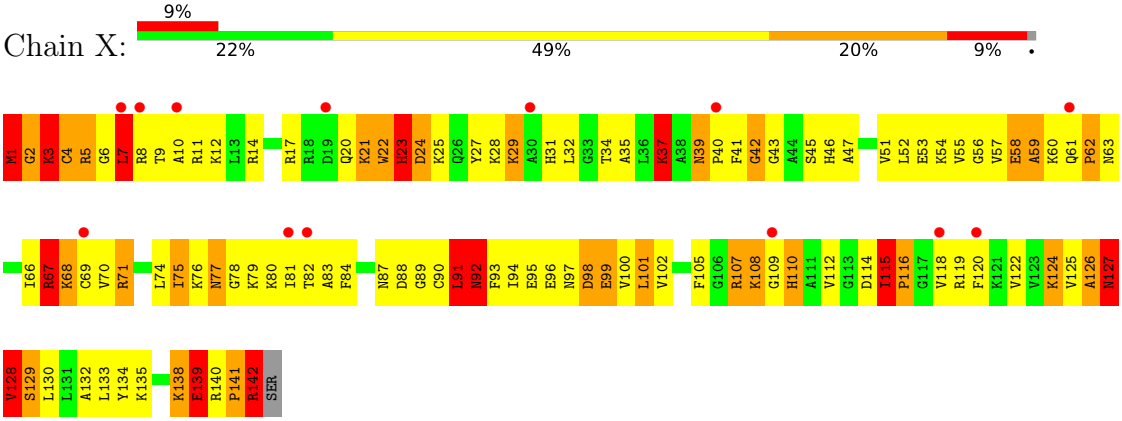
• Molecule 23: 40S Ribosomal Protein S15A

Chain W:



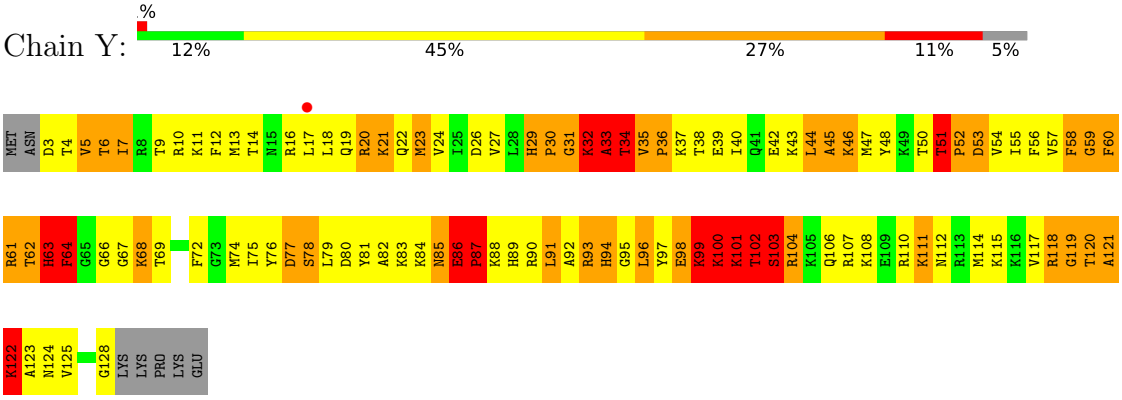
• Molecule 24: 40S Ribosomal Protein S23

Chain X:



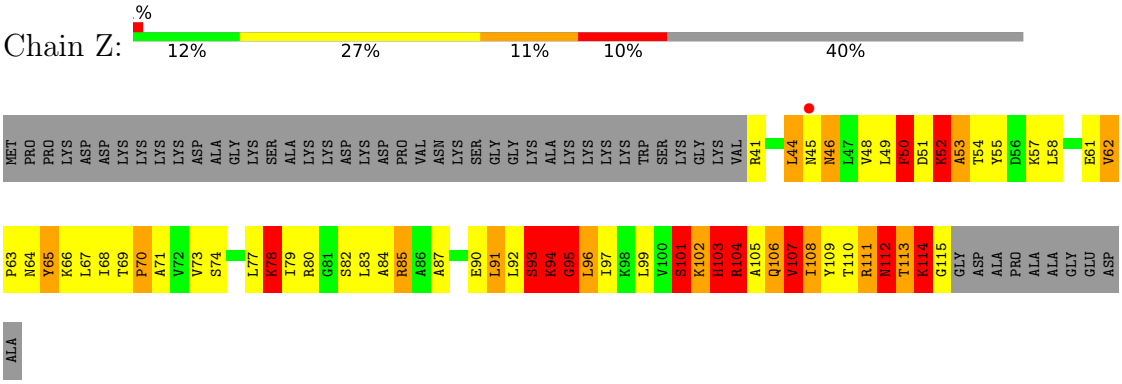
• Molecule 25: 40S Ribosomal Protein S24

Chain Y:

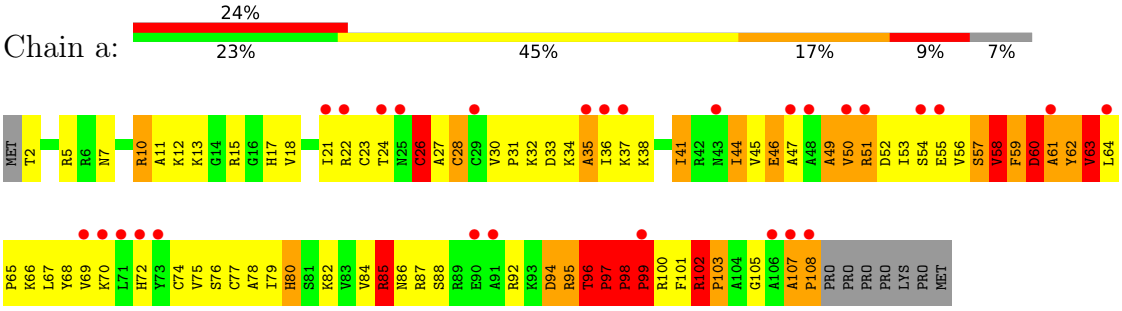


• Molecule 26: 40S Ribosomal Protein S25

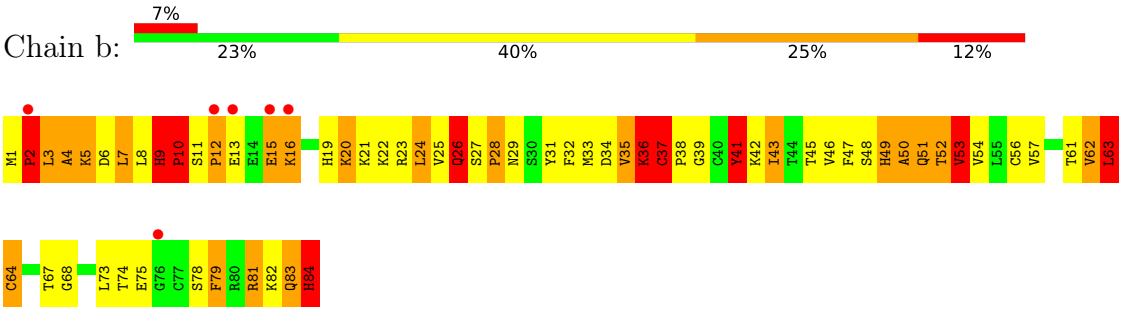
Chain Z:



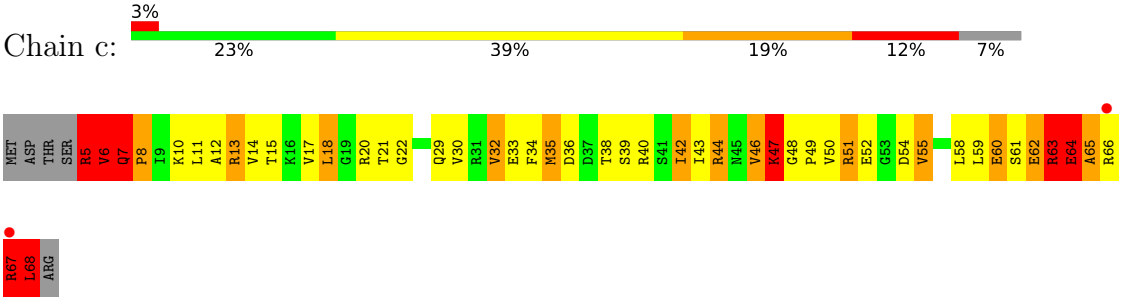
• Molecule 27: 40S Ribosomal Protein S26



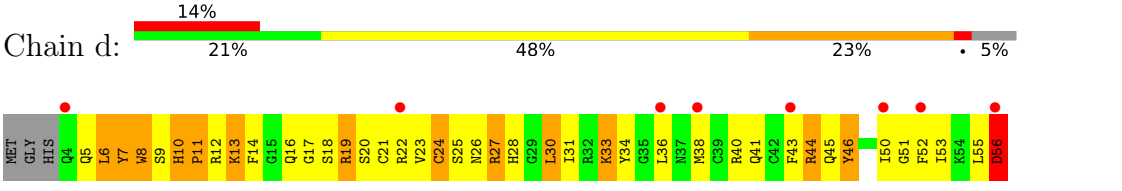
• Molecule 28: 40S Ribosomal Protein S27



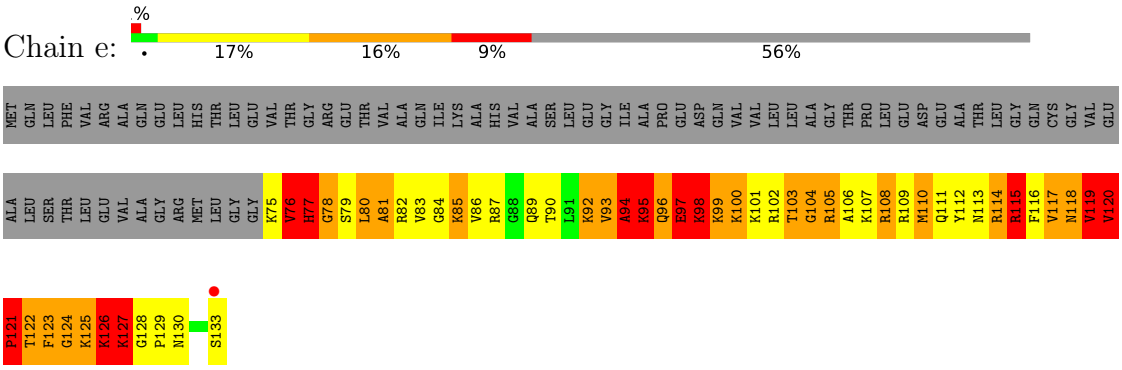
• Molecule 29: 40S Ribosomal Protein S28



• Molecule 30: 40S Ribosomal Protein S29

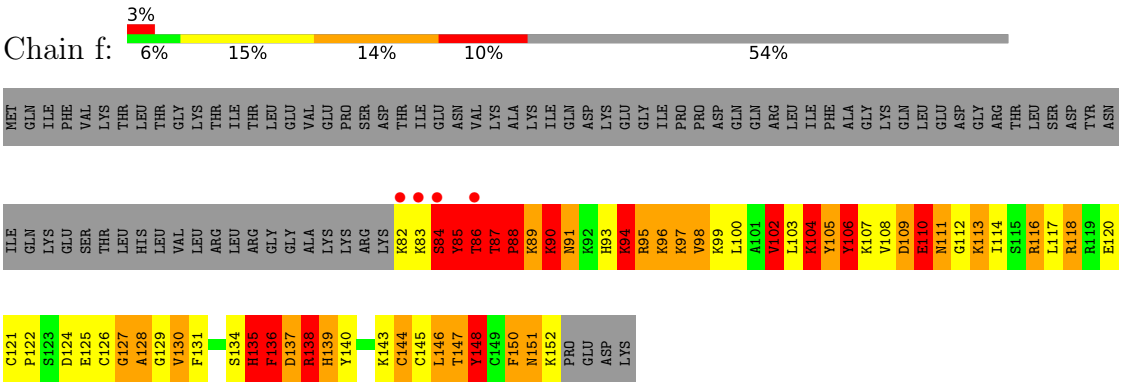


• Molecule 31: 40S Ribosomal Protein S30



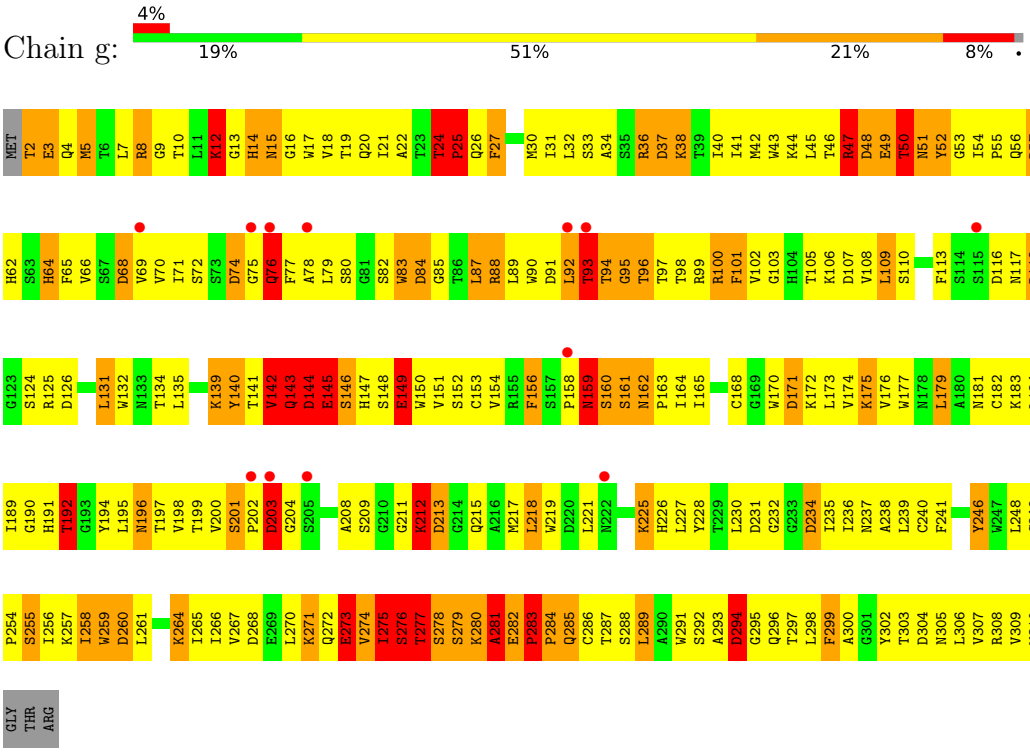
• Molecule 32: 40S Ribosomal Protein S27A

Chain f:



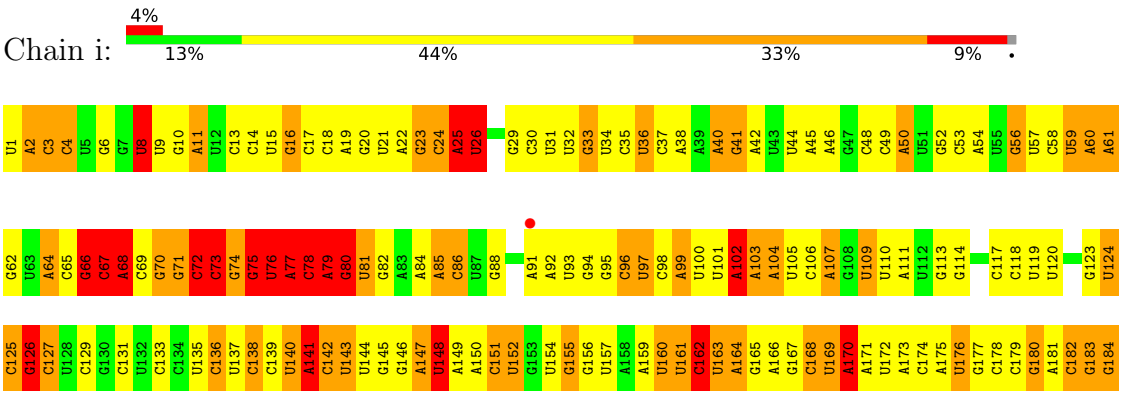
• Molecule 33: 40S Ribosomal Protein RACK1

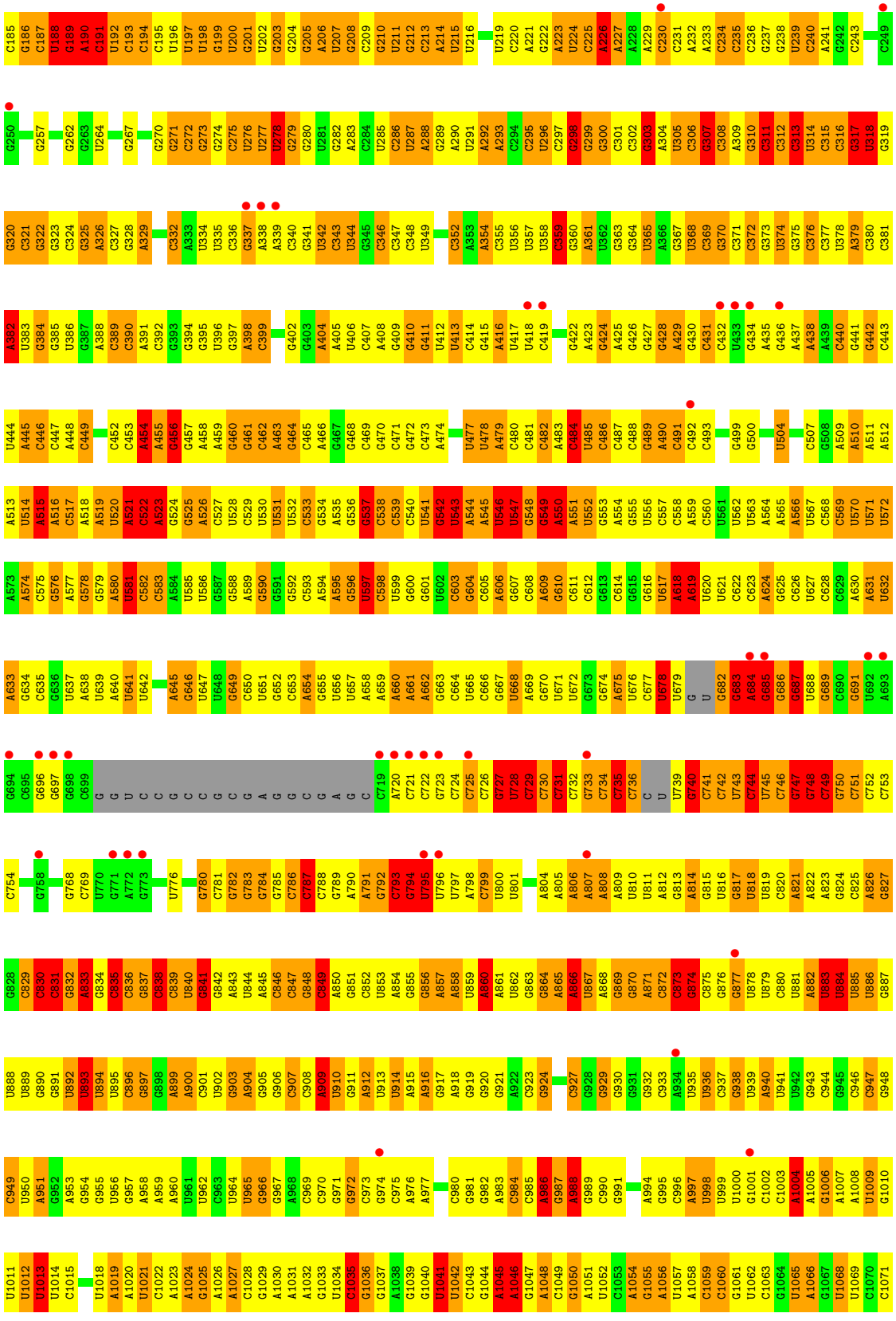
Chain g:

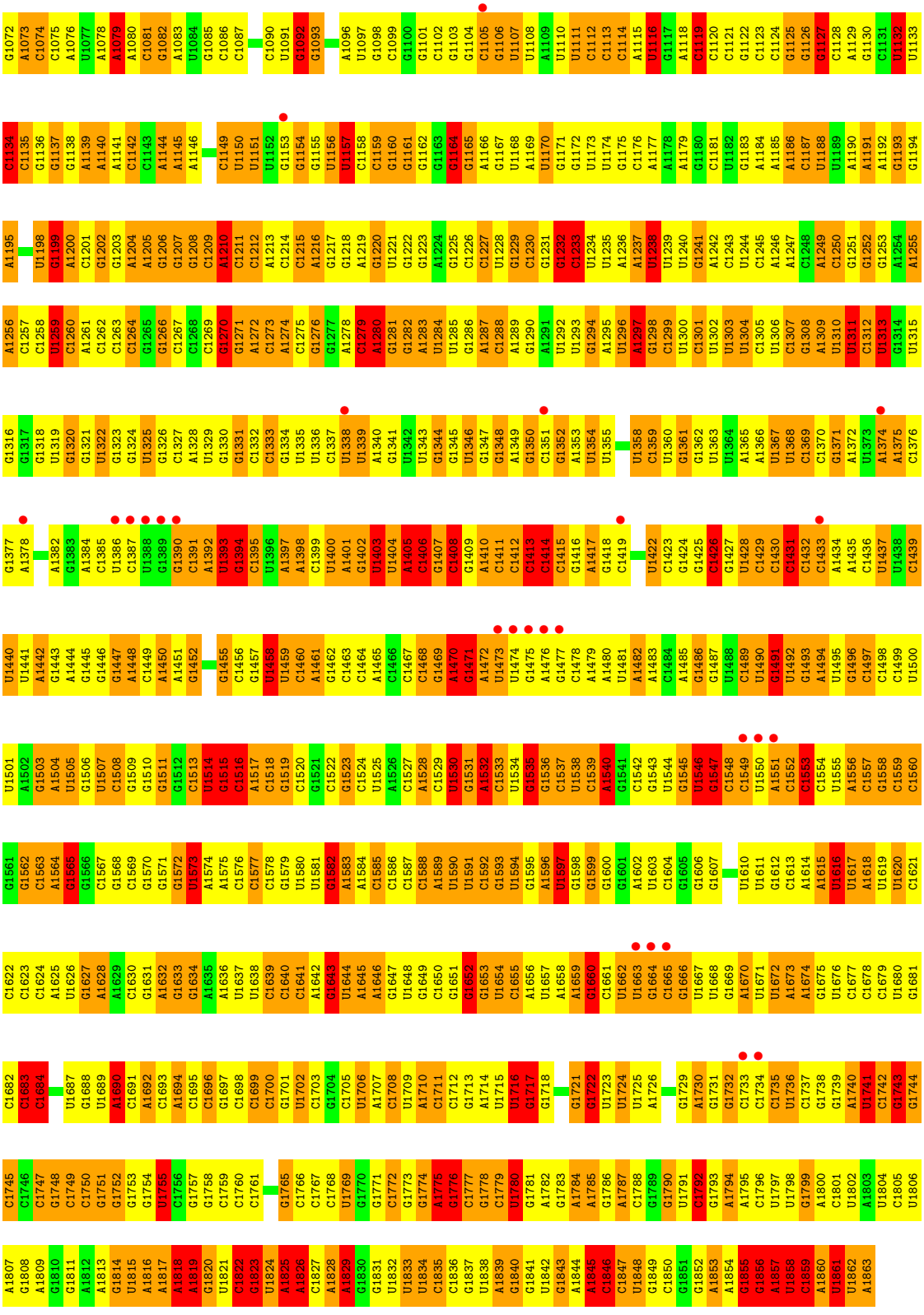


• Molecule 34: 18S Ribosomal RNA

Chain i:

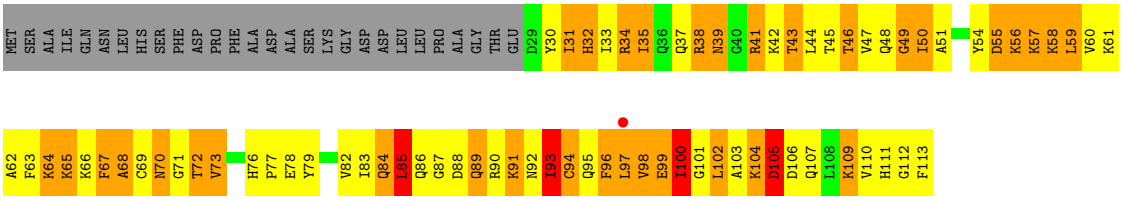






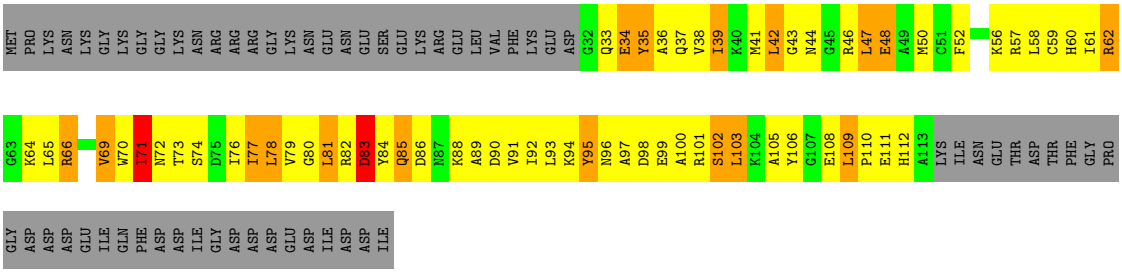
• Molecule 35: human initiation factor eIF1

Chain l:



• Molecule 36: human initiation factor eIF1A

Chain n: 11% 33% 12% • 43%



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 31 2 1	Depositor
Cell constants a, b, c, α, β, γ	296.90Å 296.90Å 478.31Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	113.24 – 7.01 113.24 – 7.01	Depositor EDS
% Data completeness (in resolution range)	98.0 (113.24-7.01) 98.2 (113.24-7.01)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.05 (at 6.73Å)	Xtriage
Refinement program	PHENIX 1.7.3_928	Depositor
R, R_{free}	0.366 , 0.348 0.350 , 0.341	Depositor DCC
R_{free} test set	1923 reflections (4.93%)	wwPDB-VP
Wilson B-factor (Å^2)	494.7	Xtriage
Anisotropy	0.354	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.24 , 55.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.36$, $< L^2 > = 0.20$	Xtriage
Estimated twinning fraction	0.094 for -h,-k,l	Xtriage
F_o,F_c correlation	0.89	EDS
Total number of atoms	78412	wwPDB-VP
Average B, all atoms (Å^2)	235.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.79% 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	1.06	14/1679 (0.8%)	1.61	47/2283 (2.1%)
2	B	0.94	10/1769 (0.6%)	1.64	47/2367 (2.0%)
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	7/2125 (0.3%)	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	1.47	20/1553 (1.3%)	2.04	60/2079 (2.9%)
9	I	1.58	20/1708 (1.2%)	1.98	53/2278 (2.3%)
10	J	1.86	26/1522 (1.7%)	2.13	74/2031 (3.6%)
11	K	1.73	18/851 (2.1%)	2.31	63/1147 (5.5%)
12	L	1.45	13/1319 (1.0%)	1.99	57/1761 (3.2%)
13	M	1.39	6/961 (0.6%)	1.79	27/1288 (2.1%)
14	N	1.01	8/1232 (0.6%)	1.27	15/1656 (0.9%)
15	O	0.90	7/1029 (0.7%)	1.55	26/1380 (1.9%)
16	P	1.03	8/1079 (0.7%)	1.84	52/1437 (3.6%)
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	54/1117 (4.8%)
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	1.48	16/1124 (1.4%)	1.98	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%)	1.88	30/810 (3.7%)
27	a	1.32	11/860 (1.3%)	2.25	30/1156 (2.6%)
28	b	1.26	7/673 (1.0%)	2.20	32/902 (3.5%)
29	c	1.06	4/508 (0.8%)	1.76	19/680 (2.8%)
30	d	0.98	2/455 (0.4%)	1.24	3/603 (0.5%)
31	e	2.08	11/472 (2.3%)	2.13	20/620 (3.2%)
32	f	1.21	3/593 (0.5%)	2.01	35/786 (4.5%)
33	g	1.29	12/2493 (0.5%)	1.86	81/3394 (2.4%)
34	i	1.91	1372/42474 (3.2%)	1.94	2133/66043 (3.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
35	l	1.71	15/700 (2.1%)	1.67	18/933 (1.9%)
36	n	0.52	0/657	0.64	0/881
All	All	1.65	1760/83496 (2.1%)	1.89	3512/121049 (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 (1760) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	D	5	ILE	C-N	37.68	1.82	1.33
31	e	95	LYS	C-N	30.59	1.76	1.33
10	J	85	GLY	C-N	-30.28	0.95	1.33
10	J	118	GLY	C-N	28.27	1.73	1.33
9	I	43	ILE	CA-C	-22.37	1.25	1.52
10	J	146	SER	C-N	22.17	1.61	1.33
9	I	43	ILE	C-N	22.12	1.67	1.33
19	S	141	ARG	C-N	19.35	1.60	1.33
23	W	2	VAL	C-N	19.34	1.59	1.33
19	S	40	TYR	CA-C	-18.71	1.29	1.52
34	i	1322	U	C2'-C1'	-18.32	1.25	1.53
35	l	99	GLU	CA-C	18.20	1.63	1.52
34	i	66	G	C2'-C1'	-17.99	1.26	1.53
7	G	131	ARG	C-N	17.66	1.59	1.33
34	i	1503	G	O4'-C1'	-17.54	1.15	1.42
18	R	1	MET	CA-C	-17.50	1.16	1.52
34	i	858	A	C2'-C1'	-17.45	1.27	1.53
18	R	1	MET	N-CA	17.26	1.79	1.46
34	i	652	G	C2'-C1'	-17.18	1.27	1.53
18	R	1	MET	C-N	-17.15	1.13	1.33
18	R	1	MET	CA-CB	17.11	1.87	1.53
19	S	54	LYS	CA-C	17.10	1.75	1.52
24	X	115	ILE	CA-C	-16.53	1.39	1.53
19	S	54	LYS	N-CA	16.52	1.67	1.46
19	S	40	TYR	C-N	-16.50	1.09	1.33
34	i	1307	C	C2'-C1'	-16.37	1.28	1.53
34	i	521	A	C2'-C1'	-16.26	1.28	1.53
34	i	1037	G	C2'-C1'	-16.09	1.29	1.53
34	i	1233	C	C2'-C1'	-15.95	1.29	1.53
34	i	145	G	C2'-C1'	-15.77	1.29	1.53
34	i	287	U	C2'-C1'	-15.64	1.29	1.53
18	R	89	SER	CA-C	15.62	1.73	1.52
3	C	93	LYS	C-N	-15.61	1.17	1.33
4	D	96	LEU	C-N	15.41	1.55	1.33
34	i	1279	C	O4'-C1'	15.11	1.64	1.41
27	a	97	PRO	C-N	15.10	1.51	1.33
34	i	1472	A	O4'-C1'	-15.01	1.19	1.41
34	i	299	G	C2'-C1'	-14.97	1.30	1.53
34	i	984	C	O4'-C1'	14.90	1.64	1.41
34	i	1393	U	C2'-C1'	-14.88	1.30	1.53
34	i	1327	C	C2'-C1'	-14.80	1.30	1.53
34	i	389	C	O4'-C1'	14.78	1.64	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	215	U	C2'-C1'	-14.62	1.31	1.53
34	i	1233	C	O4'-C1'	14.53	1.63	1.41
34	i	626	C	O4'-C1'	14.46	1.63	1.41
34	i	1467	C	O4'-C1'	14.42	1.63	1.41
34	i	343	C	C2'-C1'	-14.40	1.31	1.53
34	i	630	A	C2'-C1'	-14.37	1.31	1.53
10	J	164	PRO	C-N	14.34	1.53	1.33
34	i	612	C	C2'-C1'	-14.27	1.31	1.53
34	i	611	C	O4'-C1'	14.20	1.62	1.41
34	i	1407	G	C2'-C1'	-14.16	1.32	1.53
34	i	1733	C	O4'-C1'	14.14	1.62	1.41
34	i	1738	G	C2'-C1'	-14.12	1.32	1.53
4	D	4	GLN	C-N	-14.11	1.20	1.33
34	i	956	U	C2'-C1'	-14.11	1.32	1.53
34	i	1308	G	C2'-C1'	-14.09	1.31	1.53
34	i	1308	G	O4'-C1'	14.04	1.63	1.42
34	i	689	G	O4'-C1'	14.03	1.62	1.41
34	i	684	A	C2'-C1'	-14.03	1.32	1.53
34	i	604	G	O4'-C1'	14.02	1.62	1.42
34	i	1043	C	O4'-C1'	13.96	1.62	1.41
34	i	1855	G	C2'-C1'	-13.94	1.32	1.53
34	i	1496	G	C2'-C1'	-13.93	1.32	1.53
34	i	277	U	O4'-C1'	13.93	1.62	1.41
34	i	390	C	O4'-C1'	13.83	1.62	1.42
9	I	3	ILE	CA-CB	-13.80	1.37	1.54
34	i	446	C	O4'-C1'	13.68	1.62	1.41
34	i	1159	C	C2'-C1'	-13.68	1.32	1.53
34	i	1305	C	O4'-C1'	13.64	1.62	1.41
34	i	1227	C	C2'-C1'	-13.64	1.32	1.53
34	i	1012	U	O4'-C1'	13.63	1.62	1.42
20	T	4	VAL	C-N	13.62	1.52	1.33
34	i	286	C	O4'-C1'	13.56	1.61	1.41
34	i	1432	C	O4'-C1'	13.52	1.61	1.41
34	i	518	A	C2'-C1'	-13.50	1.33	1.53
34	i	225	C	O4'-C1'	13.49	1.62	1.42
34	i	1194	G	C2'-C1'	-13.48	1.33	1.53
34	i	594	A	O4'-C1'	13.47	1.61	1.41
34	i	1227	C	O4'-C1'	13.46	1.61	1.41
34	i	794	G	O4'-C1'	13.34	1.61	1.42
34	i	1524	C	O4'-C1'	13.32	1.61	1.41
34	i	741	C	O4'-C1'	13.32	1.61	1.41
34	i	730	C	O4'-C1'	13.31	1.61	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1766	C	O4'-C1'	13.29	1.61	1.41
34	i	1288	C	O4'-C1'	13.28	1.61	1.41
34	i	909	A	O4'-C1'	13.27	1.61	1.42
7	G	170	ARG	CA-C	-13.25	1.36	1.52
34	i	1222	G	C2'-C1'	-13.23	1.33	1.53
34	i	179	C	O4'-C1'	13.22	1.61	1.41
7	G	130	PRO	C-N	-13.20	1.16	1.33
24	X	128	VAL	CA-CB	-13.18	1.40	1.54
34	i	1237	A	O4'-C1'	13.18	1.61	1.41
34	i	859	U	C2'-C1'	-13.18	1.33	1.53
34	i	214	A	O4'-C1'	13.11	1.61	1.41
34	i	1774	G	C2'-C1'	-13.05	1.33	1.53
34	i	1393	U	O4'-C1'	13.03	1.61	1.42
34	i	443	C	C2'-C1'	-13.03	1.33	1.53
34	i	1226	C	C2'-C1'	-12.99	1.33	1.53
10	J	187	ALA	CA-C	12.98	1.68	1.53
34	i	1406	C	O4'-C1'	12.93	1.61	1.41
4	D	4	GLN	N-CA	-12.93	1.29	1.46
34	i	838	C	O4'-C1'	12.86	1.60	1.41
34	i	1307	C	O4'-C1'	12.86	1.60	1.41
34	i	538	C	O4'-C1'	12.85	1.60	1.41
34	i	1199	G	C2'-C1'	-12.84	1.34	1.53
24	X	24	ASP	CA-C	-12.83	1.34	1.52
34	i	1413	C	O4'-C1'	12.83	1.60	1.41
34	i	970	C	O4'-C1'	12.81	1.60	1.41
34	i	606	A	C2'-C1'	-12.73	1.34	1.53
34	i	1587	C	O4'-C1'	12.72	1.60	1.41
34	i	1214	C	C2'-C1'	-12.72	1.34	1.53
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	12.66	1.50	1.33
34	i	873	C	O4'-C1'	12.65	1.60	1.41
34	i	1144	A	O4'-C1'	-12.64	1.23	1.42
34	i	1010	G	C2'-C1'	-12.64	1.34	1.53
34	i	438	A	O4'-C1'	-12.62	1.23	1.42
34	i	1230	C	O4'-C1'	12.61	1.60	1.41
34	i	41	G	C2'-C1'	-12.58	1.34	1.53
34	i	1289	A	O4'-C1'	12.55	1.60	1.41
34	i	431	C	O4'-C1'	12.52	1.60	1.41
34	i	1699	C	O4'-C1'	12.50	1.60	1.41
7	G	131	ARG	N-CA	-12.43	1.30	1.46
34	i	1376	C	O4'-C1'	12.42	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	144	U	O4'-C1'	12.39	1.60	1.41
34	i	1214	C	O4'-C1'	12.36	1.60	1.41
34	i	838	C	C2'-C1'	-12.35	1.34	1.53
34	i	215	U	O4'-C1'	12.34	1.60	1.41
34	i	1732	G	C2'-C1'	-12.34	1.34	1.53
8	H	111	LYS	CA-C	-12.33	1.34	1.53
34	i	1348	G	C2'-C1'	-12.33	1.34	1.53
34	i	1044	G	C2'-C1'	-12.32	1.34	1.53
34	i	1738	G	O4'-C1'	12.27	1.60	1.41
34	i	1258	C	C2'-C1'	-12.26	1.34	1.53
34	i	1691	C	O4'-C1'	12.26	1.60	1.41
34	i	35	C	O4'-C1'	12.23	1.59	1.41
7	G	36	VAL	CA-CB	-12.22	1.37	1.55
34	i	1184	A	O4'-C1'	12.22	1.59	1.41
34	i	852	C	O4'-C1'	12.19	1.59	1.41
34	i	1520	C	O4'-C1'	12.14	1.59	1.41
34	i	929	G	C2'-C1'	-12.13	1.35	1.53
34	i	187	C	O4'-C1'	12.13	1.59	1.41
34	i	616	G	O4'-C1'	12.12	1.59	1.41
34	i	94	G	C2'-C1'	-12.12	1.35	1.53
34	i	435	A	C2'-C1'	-12.10	1.35	1.53
7	G	157	VAL	CA-CB	-12.09	1.40	1.54
27	a	97	PRO	CA-C	12.08	1.63	1.52
34	i	1736	U	O4'-C1'	12.07	1.59	1.41
34	i	1003	C	O4'-C1'	12.06	1.59	1.41
34	i	830	C	O4'-C1'	12.05	1.59	1.41
34	i	947	C	O4'-C1'	12.05	1.59	1.41
34	i	844	U	C2'-C1'	-12.03	1.35	1.53
34	i	168	C	O4'-C1'	11.99	1.59	1.41
34	i	92	A	C2'-C1'	-11.97	1.35	1.53
34	i	735	C	O4'-C1'	11.97	1.59	1.41
16	P	122	THR	CA-CB	11.93	1.72	1.53
34	i	1433	C	O4'-C1'	11.93	1.59	1.41
34	i	801	U	O4'-C1'	11.92	1.59	1.41
34	i	1325	U	C2'-C1'	-11.92	1.35	1.53
34	i	312	C	O4'-C1'	11.91	1.59	1.41
34	i	1002	C	O4'-C1'	11.88	1.59	1.41
34	i	1419	C	O4'-C1'	11.88	1.59	1.41
34	i	605	C	O4'-C1'	11.88	1.59	1.41
21	U	93	SER	C-N	11.86	1.61	1.33
34	i	734	C	O4'-C1'	11.86	1.59	1.41
34	i	564	A	O4'-C1'	11.85	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1411	C	O4'-C1'	11.81	1.59	1.41
34	i	1571	G	C2'-C1'	-11.81	1.35	1.53
34	i	1263	C	O4'-C1'	11.80	1.59	1.41
13	M	132	LYS	C-OXT	-11.79	0.99	1.23
34	i	604	G	C2'-C1'	-11.79	1.35	1.53
34	i	1666	G	C2'-C1'	-11.78	1.35	1.53
34	i	13	C	O4'-C1'	11.77	1.59	1.41
34	i	402	G	O4'-C1'	11.76	1.59	1.41
34	i	1617	U	O4'-C1'	11.75	1.59	1.42
34	i	1693	C	O4'-C1'	11.75	1.59	1.42
34	i	377	C	O4'-C1'	11.73	1.59	1.41
34	i	1666	G	O4'-C1'	11.73	1.59	1.41
34	i	340	C	O4'-C1'	11.73	1.59	1.41
10	J	188	GLY	C-O	-11.71	1.00	1.23
34	i	1563	C	C2'-C1'	-11.71	1.35	1.53
34	i	728	U	O4'-C1'	11.71	1.59	1.41
34	i	1805	C	O4'-C1'	11.70	1.59	1.41
34	i	446	C	C2'-C1'	-11.68	1.35	1.53
34	i	1436	C	O4'-C1'	11.66	1.59	1.41
31	e	133	SER	C-OXT	-11.65	1.00	1.23
34	i	1404	U	O4'-C1'	11.65	1.59	1.41
14	N	151	ALA	C-OXT	-11.64	1.00	1.23
23	W	130	PHE	C-O	-11.63	1.00	1.23
34	i	1400	U	O4'-C1'	11.63	1.59	1.42
20	T	144	LYS	C-O	-11.62	1.00	1.23
30	d	56	ASP	C-O	-11.61	1.00	1.23
9	I	207	GLY	C-O	-11.60	1.00	1.23
25	Y	128	GLY	C-O	-11.60	1.00	1.23
32	f	152	LYS	C-O	-11.59	1.00	1.23
13	M	132	LYS	C-O	-11.58	1.00	1.23
34	i	858	A	O4'-C1'	11.57	1.59	1.41
34	i	1847	C	C2'-C1'	-11.57	1.35	1.53
3	C	263	THR	C-O	-11.57	1.00	1.23
8	H	194	LEU	C-O	-11.56	1.00	1.23
28	b	84	HIS	C-OXT	-11.56	1.00	1.23
34	i	788	C	C2'-C1'	-11.56	1.36	1.53
34	i	54	A	O4'-C1'	11.55	1.58	1.41
34	i	1022	C	O4'-C1'	11.55	1.58	1.41
34	i	568	C	O4'-C1'	11.55	1.58	1.41
34	i	1847	C	O4'-C1'	11.55	1.58	1.41
30	d	56	ASP	C-OXT	-11.54	1.00	1.23
34	i	1267	C	O4'-C1'	11.54	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	N	151	ALA	C-O	-11.54	1.00	1.23
4	D	227	LYS	C-O	-11.53	1.00	1.23
34	i	1063	C	O4'-C1'	11.53	1.58	1.41
31	e	133	SER	C-O	-11.53	1.00	1.23
11	K	98	ARG	C-O	-11.53	1.00	1.23
34	i	1736	U	C2'-C1'	-11.53	1.36	1.53
8	H	109	ARG	CA-CB	-11.52	1.33	1.53
34	i	830	C	C2'-C1'	-11.52	1.36	1.53
5	E	263	GLY	C-OXT	-11.52	1.00	1.23
34	i	792	G	C2'-C1'	-11.52	1.36	1.53
34	i	1683	C	C2'-C1'	-11.52	1.36	1.53
26	Z	115	GLY	C-O	-11.52	1.00	1.23
6	F	204	ARG	C-O	-11.51	1.00	1.23
33	g	314	ILE	C-O	-11.51	1.00	1.23
12	L	158	PHE	C-O	-11.51	1.00	1.23
24	X	142	ARG	C-O	-11.51	1.00	1.23
2	B	233	GLY	C-O	-11.49	1.00	1.23
12	L	158	PHE	C-OXT	-11.48	1.00	1.23
34	i	143	U	C2'-C1'	-11.48	1.35	1.53
6	F	204	ARG	C-OXT	-11.48	1.00	1.23
34	i	179	C	C2'-C1'	-11.48	1.36	1.53
5	E	263	GLY	C-O	-11.47	1.00	1.23
23	W	130	PHE	C-OXT	-11.47	1.00	1.23
8	H	194	LEU	C-OXT	-11.46	1.00	1.23
10	J	91	LYS	C-O	-11.46	1.09	1.24
34	i	287	U	O4'-C1'	11.45	1.58	1.41
34	i	1015	C	O4'-C1'	11.45	1.58	1.41
29	c	68	LEU	C-O	-11.44	1.00	1.23
34	i	826	A	O4'-C1'	-11.44	1.24	1.41
1	A	209	GLU	C-O	-11.43	1.00	1.23
34	i	1688	G	C2'-C1'	-11.42	1.36	1.53
34	i	1777	C	O4'-C1'	11.40	1.59	1.42
28	b	84	HIS	C-O	-11.39	1.00	1.23
34	i	786	C	O4'-C1'	11.39	1.58	1.41
34	i	1232	G	O4'-C1'	-11.35	1.24	1.41
34	i	174	C	O4'-C1'	11.35	1.58	1.41
34	i	581	U	C2'-C1'	-11.35	1.36	1.53
34	i	565	A	O4'-C1'	11.33	1.58	1.41
34	i	541	U	C2'-C1'	-11.33	1.36	1.53
34	i	1452	G	C2'-C1'	-11.32	1.36	1.53
34	i	1542	C	O4'-C1'	11.32	1.58	1.41
34	i	1257	C	O4'-C1'	11.31	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1447	G	O4'-C1'	11.30	1.58	1.41
34	i	1660	G	C2'-C1'	-11.29	1.36	1.53
34	i	222	G	C2'-C1'	-11.26	1.36	1.53
34	i	877	G	C2'-C1'	-11.26	1.36	1.53
27	a	10	ARG	CD-NE	11.24	1.61	1.46
34	i	657	U	C2'-C1'	-11.22	1.36	1.53
34	i	1683	C	O4'-C1'	11.22	1.58	1.41
34	i	986	A	O4'-C1'	11.18	1.58	1.42
34	i	186	G	C2'-C1'	-11.17	1.36	1.53
34	i	1018	U	C2'-C1'	-11.16	1.36	1.53
34	i	1539	C	O4'-C1'	11.16	1.58	1.41
34	i	687	G	O4'-C1'	11.16	1.58	1.41
34	i	1171	G	C2'-C1'	-11.15	1.36	1.53
18	R	89	SER	C-N	11.13	1.48	1.33
34	i	1075	C	O4'-C1'	11.11	1.58	1.41
34	i	1563	C	O4'-C1'	11.09	1.58	1.41
34	i	62	G	C2'-C1'	-11.08	1.36	1.53
34	i	164	A	C2'-C1'	-11.08	1.36	1.53
34	i	1659	A	C2'-C1'	-11.08	1.36	1.53
34	i	734	C	C2'-C1'	-11.07	1.36	1.53
34	i	408	A	C2'-C1'	-11.07	1.36	1.53
34	i	539	C	O4'-C1'	11.01	1.58	1.41
34	i	1690	A	O4'-C1'	11.01	1.58	1.42
34	i	788	C	O4'-C1'	11.01	1.58	1.41
7	G	170	ARG	CA-CB	11.01	1.70	1.53
34	i	973	C	O4'-C1'	11.00	1.58	1.41
34	i	484	C	O4'-C1'	10.97	1.58	1.41
34	i	1012	U	C2'-C1'	-10.97	1.36	1.53
34	i	731	C	O4'-C1'	10.96	1.58	1.41
34	i	1451	A	O4'-C1'	10.96	1.58	1.41
34	i	1615	A	C2'-C1'	-10.94	1.36	1.53
34	i	193	C	O4'-C1'	10.94	1.58	1.41
34	i	1113	C	O4'-C1'	-10.93	1.25	1.41
34	i	986	A	C2'-C1'	-10.92	1.36	1.53
34	i	1856	G	O4'-C1'	10.91	1.58	1.42
34	i	1087	C	O4'-C1'	10.91	1.58	1.41
34	i	205	G	C2'-C1'	-10.89	1.37	1.53
34	i	324	C	O4'-C1'	10.88	1.57	1.41
34	i	1610	U	C2'-C1'	-10.88	1.37	1.53
34	i	225	C	C2'-C1'	-10.87	1.36	1.53
34	i	4	C	C2'-C1'	-10.86	1.37	1.53
34	i	1494	A	C2'-C1'	-10.83	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	S	88	LYS	CA-C	10.83	1.65	1.53
34	i	80	G	O4'-C1'	10.81	1.57	1.41
34	i	728	U	C2'-C1'	-10.81	1.37	1.53
34	i	985	C	O4'-C1'	10.79	1.58	1.42
34	i	48	C	O4'-C1'	10.78	1.57	1.41
34	i	188	U	C2'-C1'	-10.77	1.37	1.53
34	i	1656	A	C2'-C1'	-10.74	1.37	1.53
10	J	144	ILE	CA-CB	-10.74	1.40	1.54
34	i	1677	C	O4'-C1'	10.72	1.58	1.42
34	i	1142	C	C2'-C1'	-10.72	1.37	1.53
34	i	1259	U	O4'-C1'	10.72	1.57	1.41
34	i	64	A	O4'-C1'	-10.71	1.25	1.42
34	i	1711	C	O4'-C1'	10.69	1.57	1.41
34	i	746	C	O4'-C1'	10.69	1.57	1.41
34	i	81	U	C2'-C1'	-10.69	1.37	1.53
11	K	93	THR	CA-C	10.66	1.66	1.52
34	i	1216	A	C2'-C1'	-10.66	1.37	1.53
34	i	744	C	O4'-C1'	10.65	1.57	1.41
34	i	751	C	O4'-C1'	10.64	1.57	1.41
34	i	845	A	C2'-C1'	-10.64	1.37	1.53
34	i	650	C	O4'-C1'	10.60	1.57	1.41
34	i	482	C	O4'-C1'	10.59	1.57	1.42
34	i	431	C	C2'-C1'	-10.58	1.37	1.53
34	i	914	U	C2'-C1'	-10.57	1.37	1.53
34	i	1014	U	C2'-C1'	-10.56	1.37	1.53
34	i	1801	C	O4'-C1'	10.55	1.57	1.41
34	i	1828	A	C2'-C1'	-10.55	1.37	1.53
34	i	1262	C	O4'-C1'	10.52	1.57	1.41
34	i	1734	C	O4'-C1'	10.52	1.57	1.41
10	J	101	LYS	N-CA	10.52	1.58	1.46
34	i	62	G	O4'-C1'	10.52	1.57	1.41
34	i	1229	G	C2'-C1'	-10.51	1.37	1.53
34	i	1338	U	O4'-C1'	10.51	1.57	1.42
34	i	1263	C	C2'-C1'	-10.51	1.37	1.53
34	i	522	C	O4'-C1'	10.50	1.57	1.41
34	i	1548	C	O4'-C1'	-10.49	1.25	1.41
34	i	804	A	C2'-C1'	-10.47	1.37	1.53
34	i	1416	G	C2'-C1'	-10.46	1.37	1.53
34	i	1532	A	O4'-C1'	10.45	1.57	1.41
34	i	1322	U	O4'-C1'	10.45	1.57	1.42
34	i	1611	U	C2'-C1'	-10.45	1.37	1.53
34	i	1222	G	O4'-C1'	10.45	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	S	139	THR	CA-C	-10.44	1.48	1.53
22	V	64	GLU	CA-C	10.43	1.62	1.52
34	i	598	C	O4'-C1'	10.43	1.57	1.41
34	i	623	C	O4'-C1'	10.42	1.57	1.41
34	i	1755	U	C2'-C1'	-10.41	1.37	1.53
34	i	1428	U	O4'-C1'	10.40	1.57	1.41
34	i	465	C	O4'-C1'	10.36	1.57	1.41
34	i	1140	A	C2'-C1'	-10.35	1.37	1.53
34	i	583	C	O4'-C1'	10.35	1.57	1.41
34	i	302	C	O4'-C1'	10.34	1.57	1.41
34	i	1650	C	O4'-C1'	10.32	1.57	1.41
34	i	1801	C	C2'-C1'	-10.31	1.37	1.53
34	i	1060	C	O4'-C1'	10.29	1.57	1.41
34	i	1628	A	O4'-C1'	10.28	1.57	1.41
34	i	1587	C	C2'-C1'	-10.27	1.38	1.53
34	i	1793	G	C2'-C1'	-10.25	1.38	1.53
34	i	1602	A	C2'-C1'	-10.25	1.38	1.53
34	i	276	U	O4'-C1'	10.24	1.57	1.41
34	i	623	C	C2'-C1'	-10.22	1.38	1.53
34	i	18	C	O4'-C1'	10.21	1.56	1.41
34	i	612	C	O4'-C1'	10.21	1.56	1.41
35	l	100	ILE	CA-CB	10.21	1.68	1.54
34	i	1251	G	C2'-C1'	-10.20	1.38	1.53
34	i	1557	C	C2'-C1'	-10.20	1.38	1.53
34	i	569	C	O4'-C1'	10.19	1.56	1.41
34	i	299	G	O4'-C1'	10.19	1.57	1.42
34	i	1387	C	O4'-C1'	10.18	1.56	1.41
34	i	907	C	O4'-C1'	10.13	1.56	1.41
34	i	325	G	O4'-C1'	-10.11	1.26	1.41
34	i	553	G	O4'-C1'	10.12	1.57	1.42
34	i	1788	C	O4'-C1'	10.10	1.56	1.41
34	i	1537	C	O4'-C1'	10.09	1.56	1.41
34	i	1427	G	C2'-C1'	-10.08	1.38	1.53
34	i	915	A	C2'-C1'	-10.06	1.38	1.53
34	i	1765	G	C2'-C1'	-10.04	1.38	1.53
34	i	887	G	C2'-C1'	-10.04	1.38	1.53
34	i	606	A	O4'-C1'	10.04	1.56	1.41
34	i	622	C	O4'-C1'	10.02	1.56	1.41
9	I	134	GLU	CA-C	-10.02	1.40	1.52
34	i	745	U	O4'-C1'	10.02	1.56	1.41
34	i	852	C	C2'-C1'	-10.02	1.38	1.53
11	K	46	MET	CA-C	-10.02	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	884	U	C2'-C1'	-10.01	1.38	1.53
34	i	1181	C	O4'-C1'	10.00	1.56	1.41
24	X	126	ALA	CA-CB	-9.99	1.38	1.53
34	i	407	C	O4'-C1'	9.97	1.56	1.41
34	i	864	G	O4'-C1'	9.96	1.56	1.42
34	i	545	A	O4'-C1'	9.96	1.56	1.41
34	i	887	G	O4'-C1'	9.96	1.56	1.41
34	i	1698	C	O4'-C1'	9.96	1.56	1.41
34	i	1074	C	O4'-C1'	9.94	1.56	1.41
31	e	120	VAL	CA-CB	-9.93	1.47	1.53
34	i	1124	C	O4'-C1'	9.92	1.56	1.41
34	i	436	G	O4'-C1'	9.91	1.56	1.41
34	i	1114	C	O4'-C1'	-9.89	1.26	1.41
10	J	164	PRO	N-CA	-9.89	1.34	1.47
34	i	903	G	C2'-C1'	-9.89	1.38	1.53
34	i	1241	G	C2'-C1'	-9.89	1.38	1.53
7	G	36	VAL	CA-C	-9.86	1.42	1.52
34	i	900	A	O4'-C1'	9.86	1.56	1.41
34	i	1639	C	C2'-C1'	-9.85	1.38	1.53
34	i	521	A	O4'-C1'	9.84	1.56	1.41
34	i	538	C	C2'-C1'	-9.83	1.38	1.53
34	i	1732	G	O4'-C1'	9.82	1.56	1.41
34	i	548	G	C2'-C1'	-9.82	1.38	1.53
34	i	980	C	C2'-C1'	-9.81	1.38	1.53
34	i	754	C	O4'-C1'	9.80	1.56	1.41
34	i	1091	U	C2'-C1'	-9.80	1.38	1.53
34	i	1577	C	C2'-C1'	-9.78	1.38	1.53
34	i	414	C	O4'-C1'	9.77	1.56	1.41
34	i	1406	C	C2'-C1'	-9.76	1.38	1.53
34	i	1623	C	C2'-C1'	-9.75	1.38	1.53
34	i	1044	G	O4'-C1'	9.75	1.56	1.41
34	i	964	U	O4'-C1'	9.75	1.56	1.41
34	i	144	U	C2'-C1'	-9.74	1.38	1.53
34	i	510	A	C2'-C1'	-9.74	1.38	1.53
34	i	1792	C	O4'-C1'	9.73	1.56	1.41
10	J	163	SER	C-N	-9.73	1.21	1.33
34	i	1669	G	O4'-C1'	9.73	1.56	1.41
34	i	1074	C	C2'-C1'	-9.72	1.38	1.53
34	i	635	C	O4'-C1'	9.72	1.56	1.41
34	i	839	C	O4'-C1'	9.70	1.56	1.41
34	i	84	A	O4'-C1'	9.70	1.56	1.41
34	i	736	C	O4'-C1'	9.68	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1270	G	C2'-C1'	-9.68	1.38	1.53
34	i	1433	C	C2'-C1'	-9.67	1.38	1.53
34	i	1455	G	C2'-C1'	-9.67	1.38	1.53
34	i	1583	A	C2'-C1'	-9.66	1.38	1.53
34	i	479	A	O4'-C1'	9.66	1.56	1.41
34	i	1471	G	C2'-C1'	-9.66	1.38	1.53
34	i	582	C	O4'-C1'	-9.65	1.27	1.42
34	i	1128	C	C2'-C1'	-9.62	1.39	1.53
34	i	4	C	O4'-C1'	9.57	1.55	1.41
8	H	110	THR	CA-C	-9.55	1.40	1.52
34	i	1585	C	O4'-C1'	9.55	1.55	1.41
34	i	1600	G	C2'-C1'	-9.54	1.39	1.53
34	i	542	G	C2'-C1'	-9.53	1.39	1.53
34	i	871	A	O4'-C1'	9.52	1.55	1.41
34	i	1771	G	C2'-C1'	-9.52	1.39	1.53
34	i	462	C	O4'-C1'	9.51	1.55	1.41
12	L	151	THR	CA-C	9.49	1.64	1.52
7	G	131	ARG	C-O	-9.49	1.12	1.23
34	i	1226	C	O4'-C1'	9.48	1.55	1.41
34	i	274	G	C2'-C1'	-9.47	1.39	1.53
34	i	432	C	O4'-C1'	9.47	1.55	1.41
34	i	1122	G	C2'-C1'	-9.46	1.39	1.53
34	i	1160	G	C2'-C1'	-9.46	1.39	1.53
34	i	1546	U	C2'-C1'	-9.46	1.39	1.53
34	i	1369	C	O4'-C1'	9.45	1.55	1.41
34	i	1448	A	O4'-C1'	9.44	1.56	1.42
34	i	1048	A	O4'-C1'	9.44	1.55	1.41
34	i	1496	G	O4'-C1'	9.43	1.55	1.41
34	i	488	C	O4'-C1'	9.42	1.55	1.41
3	C	119	ASN	CA-C	-9.41	1.41	1.53
34	i	640	A	O4'-C1'	9.41	1.55	1.41
25	Y	86	GLU	C-N	9.41	1.55	1.33
34	i	1603	U	O4'-C1'	9.41	1.55	1.41
34	i	1515	G	C2'-C1'	-9.40	1.39	1.53
34	i	901	C	O4'-C1'	9.38	1.55	1.41
34	i	1159	C	O4'-C1'	9.38	1.55	1.41
34	i	1715	U	C2'-C1'	9.38	1.67	1.53
34	i	1390	G	C2'-C1'	-9.37	1.39	1.53
34	i	664	C	O4'-C1'	9.37	1.55	1.41
34	i	480	C	O4'-C1'	9.36	1.55	1.41
34	i	546	U	C2'-C1'	-9.36	1.39	1.53
34	i	1792	C	C2'-C1'	-9.34	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	X	23	HIS	N-CA	-9.34	1.34	1.46
34	i	282	G	C2'-C1'	-9.34	1.39	1.53
34	i	853	U	C2'-C1'	-9.33	1.39	1.53
34	i	1837	G	C2'-C1'	-9.33	1.39	1.53
34	i	308	C	O4'-C1'	9.32	1.55	1.41
34	i	1209	C	O4'-C1'	9.32	1.55	1.41
34	i	726	C	C2'-C1'	-9.32	1.39	1.53
34	i	1176	C	O4'-C1'	9.31	1.55	1.41
34	i	1578	C	O4'-C1'	9.31	1.55	1.41
34	i	1481	U	O4'-C1'	9.28	1.55	1.41
34	i	1632	A	C2'-C1'	9.28	1.67	1.53
9	I	125	LYS	CA-C	9.28	1.64	1.52
34	i	975	C	O4'-C1'	9.27	1.55	1.41
34	i	633	A	O4'-C1'	9.26	1.55	1.42
34	i	812	A	O4'-C1'	9.26	1.55	1.41
34	i	1708	C	O4'-C1'	9.26	1.55	1.41
1	A	200	ASP	CA-C	-9.24	1.40	1.52
34	i	529	C	O4'-C1'	9.23	1.55	1.41
34	i	352	C	O4'-C1'	9.23	1.55	1.41
34	i	1786	G	C2'-C1'	-9.19	1.39	1.53
34	i	868	A	O4'-C1'	-9.19	1.28	1.42
34	i	1258	C	O4'-C1'	9.17	1.55	1.41
3	C	47	PRO	N-CD	9.17	1.60	1.47
24	X	115	ILE	N-CA	-9.17	1.38	1.46
34	i	547	U	O4'-C1'	9.17	1.55	1.41
33	g	143	GLN	CA-C	-9.16	1.40	1.52
34	i	933	C	O4'-C1'	9.16	1.55	1.41
34	i	1079	A	C2'-C1'	-9.16	1.39	1.53
19	S	82	TRP	CA-CB	-9.16	1.37	1.53
7	G	131	ARG	CG-CD	9.15	1.79	1.52
34	i	646	G	C2'-C1'	-9.15	1.39	1.53
34	i	1755	U	O4'-C1'	9.14	1.55	1.41
34	i	155	G	C2'-C1'	-9.13	1.39	1.53
34	i	1165	G	C2'-C1'	-9.13	1.39	1.53
34	i	1376	C	C2'-C1'	-9.13	1.39	1.53
34	i	798	A	C2'-C1'	-9.12	1.39	1.53
34	i	1200	A	O4'-C1'	9.12	1.55	1.41
34	i	230	C	O4'-C1'	9.11	1.55	1.41
34	i	1778	G	O4'-C1'	9.11	1.55	1.41
10	J	17	ARG	CA-C	-9.10	1.40	1.52
34	i	416	A	O4'-C1'	9.10	1.55	1.41
34	i	907	C	C2'-C1'	-9.10	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1436	C	C2'-C1'	-9.10	1.39	1.53
34	i	638	A	C2'-C1'	-9.09	1.39	1.53
34	i	1300	U	C2'-C1'	-9.09	1.39	1.53
34	i	449	C	O4'-C1'	9.09	1.55	1.41
34	i	369	C	C2'-C1'	-9.08	1.39	1.53
34	i	1063	C	C2'-C1'	-9.08	1.39	1.53
19	S	10	GLN	CA-C	9.07	1.65	1.52
34	i	487	C	O4'-C1'	9.07	1.55	1.41
34	i	1003	C	C2'-C1'	-9.07	1.39	1.53
34	i	741	C	C2'-C1'	-9.07	1.39	1.53
34	i	34	U	C2'-C1'	-9.06	1.39	1.53
34	i	1262	C	C2'-C1'	-9.06	1.39	1.53
34	i	622	C	C2'-C1'	-9.05	1.39	1.53
31	e	100	LYS	CA-C	-9.05	1.41	1.52
34	i	1076	A	O4'-C1'	-9.04	1.28	1.42
34	i	981	G	C2'-C1'	-9.04	1.39	1.53
34	i	382	A	O4'-C1'	9.03	1.55	1.41
33	g	12	LYS	CA-C	-9.03	1.43	1.53
34	i	560	C	O4'-C1'	9.03	1.55	1.41
11	K	35	LEU	CA-C	-9.02	1.40	1.52
24	X	116	PRO	CA-C	9.02	1.65	1.52
34	i	1105	C	O4'-C1'	-9.02	1.28	1.41
34	i	729	C	O4'-C1'	9.01	1.55	1.41
34	i	748	G	C2'-C1'	-9.01	1.39	1.53
34	i	143	U	O4'-C1'	9.01	1.55	1.42
34	i	355	C	O4'-C1'	9.01	1.55	1.41
34	i	170	A	O4'-C1'	-8.99	1.28	1.41
34	i	1326	G	C2'-C1'	-8.98	1.39	1.53
34	i	611	C	C2'-C1'	-8.98	1.39	1.53
34	i	1128	C	O4'-C1'	8.98	1.55	1.41
34	i	1280	A	O4'-C1'	8.97	1.55	1.42
34	i	1002	C	C2'-C1'	-8.96	1.40	1.53
34	i	1700	C	O4'-C1'	8.95	1.55	1.41
34	i	1835	C	O4'-C1'	8.95	1.55	1.41
34	i	1573	U	O4'-C1'	-8.95	1.28	1.42
19	S	6	PRO	CA-C	8.94	1.71	1.52
34	i	1165	G	O4'-C1'	8.94	1.55	1.41
34	i	1398	A	O4'-C1'	8.93	1.55	1.41
34	i	1542	C	C2'-C1'	-8.93	1.40	1.53
34	i	869	G	C2'-C1'	-8.92	1.40	1.53
14	N	14	SER	CA-C	-8.91	1.41	1.53
34	i	1524	C	C2'-C1'	-8.91	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1116	U	C2'-C1'	-8.91	1.40	1.53
34	i	1783	G	O4'-C1'	8.89	1.54	1.41
34	i	142	C	O4'-C1'	-8.89	1.28	1.42
27	a	63	VAL	CA-C	8.88	1.64	1.52
34	i	1261	A	C2'-C1'	-8.88	1.39	1.53
35	l	100	ILE	CA-C	8.86	1.64	1.52
34	i	1579	G	C2'-C1'	-8.86	1.39	1.53
34	i	316	C	O4'-C1'	8.85	1.55	1.42
34	i	970	C	C2'-C1'	-8.85	1.40	1.53
34	i	1573	U	C2'-C1'	8.85	1.66	1.53
34	i	1827	C	O4'-C1'	8.84	1.54	1.41
34	i	1682	C	O4'-C1'	8.84	1.54	1.41
34	i	558	C	O4'-C1'	8.83	1.54	1.41
34	i	956	U	O4'-C1'	8.83	1.54	1.41
34	i	1737	C	C2'-C1'	-8.82	1.40	1.53
34	i	1312	C	C2'-C1'	-8.81	1.40	1.53
34	i	56	G	C2'-C1'	-8.81	1.40	1.53
34	i	1066	A	C2'-C1'	-8.81	1.40	1.53
34	i	209	C	O4'-C1'	8.79	1.54	1.41
34	i	1009	U	C2'-C1'	-8.79	1.40	1.53
34	i	1272	A	O4'-C1'	8.79	1.54	1.41
34	i	1576	C	O4'-C1'	8.78	1.55	1.42
34	i	977	A	O4'-C1'	8.76	1.54	1.41
34	i	1133	U	O4'-C1'	8.76	1.54	1.41
34	i	1377	G	O4'-C1'	-8.76	1.28	1.41
34	i	76	U	O4'-C1'	8.74	1.54	1.41
34	i	809	A	O4'-C1'	8.74	1.54	1.41
35	l	67	PHE	CA-C	-8.73	1.40	1.52
34	i	1114	C	C2'-C1'	8.72	1.66	1.53
34	i	1316	G	O4'-C1'	-8.72	1.28	1.41
11	K	89	ILE	N-CA	-8.72	1.35	1.46
34	i	1096	A	O4'-C1'	8.72	1.54	1.41
34	i	1312	C	O4'-C1'	8.71	1.54	1.41
34	i	67	C	C2'-C1'	8.70	1.66	1.53
34	i	825	C	O4'-C1'	8.70	1.54	1.42
34	i	1787	A	O4'-C1'	8.70	1.54	1.41
34	i	664	C	C2'-C1'	-8.70	1.40	1.53
9	I	6	ASP	N-CA	-8.69	1.35	1.46
34	i	149	A	O4'-C1'	8.68	1.54	1.41
35	l	100	ILE	N-CA	8.68	1.57	1.46
34	i	727	G	C2'-C1'	-8.66	1.40	1.53
34	i	241	A	O4'-C1'	8.66	1.54	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	667	G	C2'-C1'	-8.66	1.40	1.53
34	i	833	A	C2'-C1'	-8.65	1.40	1.53
34	i	1195	A	C2'-C1'	-8.65	1.40	1.53
32	f	136	PHE	CA-C	-8.65	1.41	1.52
34	i	1404	U	C2'-C1'	-8.64	1.40	1.53
12	L	152	LYS	C-N	8.63	1.45	1.33
34	i	1006	G	O4'-C1'	-8.63	1.28	1.41
34	i	1600	G	O4'-C1'	8.63	1.54	1.41
34	i	1559	C	O4'-C1'	8.62	1.54	1.41
34	i	670	G	C2'-C1'	-8.62	1.40	1.53
34	i	906	G	C2'-C1'	-8.61	1.40	1.53
34	i	313	C	O4'-C1'	8.60	1.54	1.42
34	i	1678	C	O4'-C1'	8.60	1.54	1.41
34	i	971	G	C2'-C1'	-8.60	1.40	1.53
34	i	946	C	O4'-C1'	8.60	1.54	1.41
34	i	639	U	C2'-C1'	-8.58	1.40	1.53
34	i	318	U	C2'-C1'	-8.57	1.40	1.53
34	i	486	C	O4'-C1'	8.57	1.54	1.41
34	i	111	A	O4'-C1'	-8.57	1.28	1.41
34	i	549	G	C2'-C1'	-8.57	1.40	1.53
34	i	396	U	C2'-C1'	-8.57	1.40	1.53
34	i	96	C	O4'-C1'	8.56	1.54	1.41
34	i	471	C	C2'-C1'	-8.55	1.40	1.53
34	i	668	U	C2'-C1'	-8.55	1.40	1.53
10	J	144	ILE	C-N	8.55	1.44	1.34
34	i	66	G	O4'-C1'	8.55	1.54	1.41
34	i	392	C	O4'-C1'	8.55	1.54	1.41
34	i	682	G	C2'-C1'	-8.55	1.40	1.53
6	F	43	GLU	CA-C	-8.55	1.41	1.52
20	T	93	SER	CA-C	-8.54	1.44	1.53
34	i	1296	U	O4'-C1'	-8.54	1.29	1.42
3	C	262	HIS	CA-C	-8.54	1.41	1.52
34	i	539	C	C2'-C1'	-8.52	1.40	1.53
34	i	1822	C	O4'-C1'	8.51	1.54	1.41
34	i	533	C	O4'-C1'	8.51	1.54	1.41
31	e	120	VAL	CA-C	-8.50	1.45	1.52
34	i	746	C	C2'-C1'	-8.50	1.40	1.53
34	i	589	A	C2'-C1'	-8.47	1.40	1.53
8	H	111	LYS	N-CA	8.46	1.58	1.46
34	i	1323	G	C2'-C1'	-8.46	1.40	1.53
34	i	48	C	C2'-C1'	-8.45	1.40	1.53
34	i	298	G	O4'-C1'	-8.45	1.28	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	851	G	C2'-C1'	-8.43	1.40	1.53
34	i	1359	C	O4'-C1'	8.43	1.54	1.42
34	i	507	C	O4'-C1'	8.41	1.54	1.41
25	Y	91	LEU	N-CA	-8.40	1.36	1.46
34	i	150	A	O4'-C1'	8.40	1.54	1.41
34	i	805	A	C2'-C1'	-8.39	1.40	1.53
34	i	976	A	C2'-C1'	-8.39	1.40	1.53
34	i	436	G	C2'-C1'	-8.38	1.40	1.53
34	i	448	A	O4'-C1'	8.37	1.54	1.41
34	i	1120	C	O4'-C1'	8.37	1.54	1.41
34	i	936	U	C2'-C1'	-8.36	1.40	1.53
34	i	1572	G	O4'-C1'	8.36	1.54	1.41
21	U	107	GLU	CA-C	8.35	1.63	1.52
34	i	947	C	C2'-C1'	-8.35	1.40	1.53
34	i	1112	C	O4'-C1'	-8.33	1.29	1.42
34	i	67	C	O4'-C1'	-8.33	1.29	1.41
34	i	559	A	C2'-C1'	-8.33	1.40	1.53
34	i	743	U	O4'-C1'	8.33	1.54	1.41
34	i	1464	C	O4'-C1'	8.33	1.54	1.41
34	i	419	C	O4'-C1'	8.32	1.54	1.41
34	i	1202	G	C2'-C1'	-8.32	1.40	1.53
8	H	36	LEU	CA-C	-8.32	1.41	1.52
8	H	14	GLU	CA-C	-8.31	1.42	1.52
34	i	1025	G	C2'-C1'	-8.31	1.40	1.53
34	i	311	C	O4'-C1'	8.30	1.54	1.41
34	i	657	U	O4'-C1'	8.30	1.54	1.41
13	M	116	LYS	N-CA	8.29	1.56	1.46
34	i	1260	C	C2'-C1'	-8.29	1.40	1.53
34	i	445	A	O4'-C1'	8.29	1.54	1.41
34	i	1015	C	C2'-C1'	-8.28	1.41	1.53
34	i	1251	G	O4'-C1'	8.28	1.54	1.41
34	i	457	G	O4'-C1'	8.27	1.54	1.41
3	C	161	LYS	CA-C	-8.27	1.42	1.52
34	i	335	U	C2'-C1'	-8.27	1.41	1.53
34	i	288	A	C2'-C1'	-8.27	1.41	1.53
34	i	500	G	C2'-C1'	-8.26	1.41	1.53
9	I	132	GLU	C-N	8.26	1.45	1.33
34	i	1101	G	C2'-C1'	-8.24	1.41	1.53
34	i	938	G	C2'-C1'	-8.23	1.41	1.53
34	i	1328	A	O4'-C1'	8.22	1.53	1.41
34	i	1220	G	C2'-C1'	-8.22	1.41	1.53
34	i	395	G	C2'-C1'	-8.22	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	927	C	O4'-C1'	8.22	1.53	1.41
3	C	193	PRO	N-CD	8.21	1.59	1.47
34	i	1775	A	C2'-C1'	-8.21	1.41	1.53
34	i	323	G	C2'-C1'	-8.21	1.41	1.53
34	i	1653	G	C2'-C1'	-8.20	1.41	1.53
34	i	452	C	C2'-C1'	-8.19	1.41	1.53
34	i	884	U	O4'-C1'	8.18	1.53	1.41
34	i	1301	C	O4'-C1'	8.18	1.53	1.41
26	Z	104	ARG	N-CA	-8.16	1.35	1.46
34	i	726	C	O4'-C1'	8.16	1.53	1.41
34	i	1339	U	O4'-C1'	8.16	1.53	1.41
34	i	944	C	O4'-C1'	8.16	1.53	1.41
34	i	1029	G	O4'-C1'	8.15	1.53	1.41
34	i	1337	C	O4'-C1'	8.15	1.54	1.42
7	G	180	VAL	CA-CB	-8.14	1.43	1.54
34	i	173	A	O4'-C1'	8.14	1.53	1.41
34	i	402	G	C2'-C1'	-8.13	1.41	1.53
34	i	1460	C	O4'-C1'	8.13	1.53	1.41
12	L	20	LYS	N-CA	-8.13	1.35	1.46
34	i	678	U	O4'-C1'	-8.13	1.29	1.42
34	i	347	C	C2'-C1'	-8.12	1.41	1.53
34	i	53	C	O4'-C1'	8.12	1.53	1.41
34	i	1729	G	O4'-C1'	8.12	1.53	1.41
9	I	133	GLU	C-N	8.11	1.44	1.33
34	i	77	A	C2'-C1'	8.11	1.65	1.53
34	i	614	C	O4'-C1'	8.10	1.53	1.41
34	i	980	C	O4'-C1'	8.10	1.53	1.41
8	H	118	ARG	CA-C	-8.10	1.40	1.52
34	i	1025	G	O4'-C1'	8.08	1.53	1.41
34	i	1289	A	C2'-C1'	-8.06	1.41	1.53
34	i	691	G	C2'-C1'	-8.05	1.41	1.53
34	i	1101	G	O4'-C1'	8.04	1.53	1.41
34	i	285	U	O4'-C1'	8.04	1.54	1.42
34	i	1120	C	C2'-C1'	-8.04	1.41	1.53
34	i	332	C	O4'-C1'	8.04	1.53	1.41
34	i	212	G	O4'-C1'	8.02	1.53	1.41
34	i	666	C	O4'-C1'	8.02	1.53	1.41
34	i	1568	G	C2'-C1'	-8.02	1.41	1.53
34	i	414	C	C2'-C1'	-8.01	1.41	1.53
3	C	98	GLN	N-CA	8.01	1.55	1.46
1	A	159	ILE	CA-CB	-8.00	1.43	1.54
34	i	939	U	O4'-C1'	8.00	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	483	A	C2'-C1'	-7.99	1.41	1.53
34	i	751	C	C2'-C1'	-7.99	1.41	1.53
34	i	171	A	O4'-C1'	-7.99	1.29	1.42
34	i	790	A	O4'-C1'	7.99	1.53	1.41
34	i	1403	U	C2'-C1'	-7.99	1.41	1.53
34	i	547	U	C2'-C1'	-7.98	1.41	1.53
11	K	35	LEU	N-CA	-7.98	1.35	1.46
34	i	481	C	O4'-C1'	7.98	1.53	1.41
34	i	1735	C	O4'-C1'	7.98	1.53	1.41
34	i	1813	A	C2'-C1'	-7.98	1.41	1.53
34	i	360	G	C2'-C1'	-7.97	1.41	1.53
18	R	89	SER	N-CA	7.96	1.56	1.46
34	i	1049	C	O4'-C1'	7.96	1.53	1.41
26	Z	103	HIS	C-N	-7.96	1.22	1.33
3	C	98	GLN	CA-C	7.96	1.62	1.52
34	i	1557	C	O4'-C1'	7.95	1.53	1.41
34	i	1527	C	C2'-C1'	-7.95	1.41	1.53
34	i	870	G	C2'-C1'	-7.94	1.41	1.53
34	i	286	C	C2'-C1'	-7.93	1.41	1.53
34	i	1050	G	C2'-C1'	-7.93	1.41	1.53
10	J	18	ARG	CA-C	-7.93	1.42	1.52
34	i	1565	G	O4'-C1'	-7.93	1.29	1.41
34	i	1622	C	O4'-C1'	7.93	1.53	1.41
34	i	618	A	O4'-C1'	-7.92	1.29	1.41
12	L	102	PHE	C-O	7.92	1.34	1.23
34	i	895	U	O4'-C1'	7.91	1.53	1.41
34	i	1259	U	C2'-C1'	-7.91	1.41	1.53
34	i	1547	G	C2'-C1'	7.91	1.65	1.53
34	i	1807	A	C2'-C1'	-7.91	1.41	1.53
34	i	804	A	O4'-C1'	7.91	1.53	1.41
34	i	1238	U	C2'-C1'	-7.90	1.41	1.53
34	i	1850	C	O4'-C1'	7.90	1.53	1.41
28	b	36	LYS	CA-C	7.90	1.62	1.52
34	i	327	C	C2'-C1'	-7.90	1.41	1.53
34	i	1208	G	C2'-C1'	-7.90	1.41	1.53
34	i	1341	G	O4'-C1'	7.88	1.53	1.41
34	i	507	C	C2'-C1'	-7.88	1.41	1.53
34	i	689	G	C1'-N9	-7.86	1.36	1.48
10	J	186	GLY	C-N	7.86	1.40	1.33
34	i	1834	U	C2'-C1'	-7.86	1.41	1.53
34	i	1684	C	C2'-C1'	-7.85	1.41	1.53
34	i	1716	U	C2'-C1'	7.85	1.65	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	653	C	O4'-C1'	7.85	1.53	1.41
34	i	839	C	C2'-C1'	-7.84	1.41	1.53
34	i	1729	G	C2'-C1'	-7.84	1.41	1.53
25	Y	33	ALA	CA-C	-7.84	1.43	1.52
35	l	97	LEU	CA-C	7.83	1.62	1.52
34	i	1780	U	O4'-C1'	7.83	1.53	1.41
11	K	31	LYS	N-CA	-7.82	1.36	1.46
34	i	69	C	O4'-C1'	7.82	1.53	1.41
34	i	685	G	C1'-N9	-7.81	1.36	1.48
34	i	683	G	O4'-C1'	7.80	1.53	1.41
34	i	1054	A	O4'-C1'	7.80	1.53	1.41
34	i	211	U	O4'-C1'	7.79	1.53	1.41
34	i	1624	C	C2'-C1'	-7.79	1.41	1.53
34	i	883	U	O4'-C1'	-7.79	1.30	1.42
34	i	1533	C	O4'-C1'	7.77	1.53	1.41
34	i	54	A	C2'-C1'	-7.76	1.41	1.53
34	i	916	A	C2'-C1'	-7.76	1.41	1.53
34	i	16	G	C2'-C1'	-7.75	1.41	1.53
12	L	152	LYS	CA-C	-7.75	1.42	1.52
34	i	373	G	O4'-C1'	7.75	1.53	1.41
34	i	510	A	O4'-C1'	7.75	1.53	1.41
34	i	1301	C	C2'-C1'	-7.74	1.41	1.53
34	i	1257	C	C2'-C1'	-7.73	1.41	1.53
34	i	1207	G	C2'-C1'	-7.73	1.41	1.53
34	i	106	C	O4'-C1'	7.72	1.53	1.41
24	X	115	ILE	C-O	-7.72	1.15	1.24
34	i	1481	U	C2'-C1'	-7.72	1.41	1.53
27	a	96	THR	C-N	7.72	1.42	1.33
34	i	1400	U	C2'-C1'	-7.71	1.41	1.53
34	i	1742	C	O3'-P	-7.71	1.49	1.61
34	i	1791	U	O4'-C1'	7.70	1.53	1.41
34	i	605	C	C2'-C1'	-7.70	1.41	1.53
34	i	380	C	O4'-C1'	7.70	1.53	1.41
34	i	385	G	C2'-C1'	-7.70	1.41	1.53
34	i	1142	C	O4'-C1'	7.69	1.53	1.41
11	K	89	ILE	CA-C	-7.69	1.43	1.52
34	i	178	C	O4'-C1'	7.69	1.53	1.41
22	V	67	ASP	N-CA	-7.69	1.37	1.46
34	i	1018	U	O4'-C1'	7.68	1.53	1.41
26	Z	104	ARG	CD-NE	-7.68	1.35	1.46
34	i	50	A	C2'-C1'	-7.67	1.41	1.53
34	i	79	A	C2'-C1'	7.67	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1411	C	C2'-C1'	-7.67	1.41	1.53
34	i	1478	C	O4'-C1'	7.66	1.53	1.41
34	i	853	U	O4'-C1'	7.66	1.53	1.41
34	i	875	C	C2'-C1'	-7.66	1.41	1.53
34	i	220	C	O4'-C1'	7.65	1.53	1.41
34	i	984	C	C2'-C1'	-7.64	1.41	1.53
34	i	194	C	O4'-C1'	7.64	1.53	1.41
7	G	131	ARG	CA-C	7.64	1.62	1.52
34	i	1230	C	C2'-C1'	-7.62	1.42	1.53
34	i	1813	A	O4'-C1'	7.62	1.53	1.41
27	a	98	PRO	CA-C	7.62	1.59	1.52
34	i	178	C	C2'-C1'	-7.61	1.42	1.53
34	i	1385	C	O4'-C1'	7.61	1.53	1.41
34	i	1578	C	C2'-C1'	-7.61	1.42	1.53
34	i	1682	C	C2'-C1'	-7.61	1.42	1.53
34	i	17	C	O4'-C1'	7.60	1.53	1.41
34	i	1104	G	O4'-C1'	-7.60	1.30	1.41
34	i	1829	A	O4'-C1'	7.59	1.53	1.42
2	B	155	TYR	CA-C	-7.58	1.42	1.53
34	i	1221	U	O4'-C1'	7.58	1.53	1.41
34	i	1370	C	O4'-C1'	7.58	1.53	1.41
34	i	1752	G	C2'-C1'	-7.57	1.42	1.53
34	i	1407	G	O4'-C1'	7.56	1.52	1.41
34	i	575	C	O4'-C1'	7.56	1.52	1.41
34	i	1212	C	O4'-C1'	7.56	1.52	1.41
34	i	936	U	O4'-C1'	7.55	1.52	1.41
34	i	97	U	O4'-C1'	7.55	1.52	1.41
34	i	1181	C	C2'-C1'	-7.55	1.42	1.53
34	i	26	U	O4'-C1'	7.55	1.52	1.41
34	i	437	A	C2'-C1'	7.55	1.64	1.53
34	i	1571	G	O4'-C1'	7.54	1.52	1.41
10	J	165	TYR	N-CA	-7.54	1.36	1.46
34	i	1185	A	O4'-C1'	7.53	1.52	1.41
34	i	84	A	C2'-C1'	-7.52	1.42	1.53
34	i	315	C	C2'-C1'	7.51	1.64	1.53
34	i	683	G	C2'-C1'	-7.51	1.42	1.53
34	i	120	U	C2'-C1'	-7.51	1.42	1.53
34	i	1375	A	C2'-C1'	-7.51	1.42	1.53
34	i	1440	U	O4'-C1'	7.50	1.52	1.41
7	G	36	VAL	N-CA	-7.50	1.37	1.46
18	R	121	GLN	CA-C	7.50	1.62	1.52
34	i	1410	A	C2'-C1'	-7.50	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	653	C	C2'-C1'	-7.50	1.42	1.53
34	i	563	U	C2'-C1'	-7.50	1.42	1.53
34	i	1465	A	O4'-C1'	7.50	1.52	1.41
11	K	40	VAL	CA-CB	-7.49	1.44	1.54
34	i	52	G	C2'-C1'	-7.49	1.42	1.53
34	i	1861	U	O4'-C1'	-7.48	1.30	1.42
34	i	1617	U	C2'-C1'	-7.48	1.41	1.53
34	i	649	G	O4'-C1'	-7.47	1.30	1.41
34	i	1779	C	C2'-C1'	7.47	1.64	1.53
21	U	68	THR	CA-C	7.47	1.62	1.53
10	J	101	LYS	CA-C	7.47	1.62	1.52
34	i	1139	A	C2'-C1'	-7.47	1.42	1.53
34	i	823	A	C2'-C1'	-7.46	1.42	1.53
34	i	352	C	C2'-C1'	-7.46	1.42	1.53
34	i	50	A	O4'-C1'	7.45	1.52	1.41
34	i	410	G	C2'-C1'	-7.45	1.42	1.53
34	i	824	G	O4'-C1'	-7.45	1.30	1.41
34	i	1434	A	O4'-C1'	7.45	1.52	1.41
2	B	41	ILE	N-CA	-7.45	1.36	1.46
34	i	41	G	O4'-C1'	7.45	1.53	1.42
34	i	1271	G	C2'-C1'	-7.45	1.42	1.53
34	i	1486	G	C2'-C1'	-7.44	1.42	1.53
34	i	1098	G	C2'-C1'	-7.44	1.42	1.53
34	i	189	G	O4'-C1'	7.44	1.52	1.41
34	i	1324	G	C2'-C1'	-7.44	1.42	1.53
34	i	1223	G	O4'-C1'	7.44	1.52	1.41
34	i	1504	A	C2'-C1'	7.44	1.64	1.53
34	i	844	U	O4'-C1'	7.43	1.52	1.41
34	i	1158	C	O4'-C1'	7.43	1.52	1.41
34	i	30	C	O4'-C1'	7.42	1.52	1.41
34	i	82	G	C2'-C1'	7.42	1.64	1.53
34	i	1611	U	O4'-C1'	7.41	1.52	1.41
34	i	540	C	O4'-C1'	7.41	1.52	1.41
34	i	235	C	O4'-C1'	7.41	1.52	1.41
19	S	87	GLN	C-N	-7.41	1.24	1.33
34	i	1560	C	O4'-C1'	7.40	1.52	1.41
34	i	1345	G	O4'-C1'	7.40	1.52	1.41
34	i	1456	C	O4'-C1'	7.40	1.52	1.41
11	K	40	VAL	CA-C	-7.39	1.45	1.52
34	i	428	G	C2'-C1'	7.38	1.64	1.53
34	i	1624	C	O4'-C1'	7.38	1.52	1.41
34	i	1651	G	C2'-C1'	-7.38	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	596	G	O4'-C1'	-7.38	1.30	1.42
34	i	1304	U	O4'-C1'	-7.38	1.30	1.42
13	M	116	LYS	CA-C	7.38	1.62	1.52
34	i	1825	A	O4'-C1'	7.37	1.52	1.41
34	i	443	C	O4'-C1'	7.37	1.52	1.41
34	i	1594	U	C2'-C1'	7.37	1.64	1.53
10	J	89	GLU	N-CA	7.36	1.55	1.46
34	i	1071	C	C2'-C1'	-7.36	1.42	1.53
34	i	311	C	C2'-C1'	-7.36	1.42	1.53
34	i	855	G	C2'-C1'	-7.36	1.42	1.53
34	i	1476	A	O4'-C1'	7.36	1.52	1.41
34	i	1740	A	C2'-C1'	7.35	1.64	1.53
34	i	753	C	O4'-C1'	7.35	1.52	1.41
34	i	902	U	O4'-C1'	7.34	1.52	1.41
34	i	1209	C	C2'-C1'	-7.34	1.42	1.53
34	i	1775	A	O4'-C1'	7.34	1.52	1.41
4	D	193	ASP	N-CA	-7.34	1.39	1.46
34	i	543	U	O4'-C1'	7.34	1.52	1.41
34	i	75	G	C2'-C1'	-7.33	1.42	1.53
34	i	604	G	C1'-N9	-7.33	1.35	1.47
34	i	670	G	O4'-C1'	7.33	1.52	1.41
34	i	236	C	O4'-C1'	7.33	1.52	1.41
34	i	588	G	C2'-C1'	-7.33	1.42	1.53
34	i	1309	A	C2'-C1'	-7.32	1.42	1.53
34	i	528	U	O4'-C1'	7.31	1.52	1.41
34	i	1527	C	O4'-C1'	7.31	1.52	1.41
6	F	108	PRO	N-CD	7.30	1.57	1.47
34	i	923	C	O4'-C1'	7.30	1.52	1.41
34	i	409	G	O4'-C1'	7.30	1.52	1.41
34	i	1766	C	C2'-C1'	-7.29	1.42	1.53
34	i	453	C	O4'-C1'	7.28	1.52	1.41
34	i	85	A	C2'-C1'	-7.28	1.42	1.53
34	i	1428	U	C2'-C1'	-7.28	1.42	1.53
14	N	137	PRO	N-CD	7.28	1.57	1.47
34	i	544	A	C2'-C1'	-7.27	1.42	1.53
34	i	1819	A	C2'-C1'	7.26	1.64	1.53
19	S	88	LYS	N-CA	-7.26	1.36	1.46
34	i	625	G	O4'-C1'	7.25	1.52	1.41
34	i	1264	C	O4'-C1'	7.25	1.52	1.41
34	i	1630	C	O4'-C1'	7.25	1.52	1.41
34	i	557	C	O4'-C1'	7.23	1.52	1.41
3	C	105	GLN	N-CA	7.23	1.55	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1661	C	O4'-C1'	7.22	1.52	1.41
34	i	1577	C	O4'-C1'	7.21	1.52	1.41
34	i	937	C	O4'-C1'	7.21	1.52	1.41
34	i	1325	U	O4'-C1'	7.21	1.52	1.41
34	i	1329	U	C2'-C1'	7.21	1.64	1.53
34	i	560	C	C2'-C1'	-7.21	1.42	1.53
34	i	1201	C	C2'-C1'	-7.20	1.42	1.53
34	i	193	C	C2'-C1'	-7.20	1.42	1.53
34	i	1055	G	C2'-C1'	-7.20	1.42	1.53
10	J	144	ILE	CA-C	-7.19	1.45	1.52
16	P	18	ARG	CA-CB	7.19	1.62	1.52
7	G	121	ILE	CA-C	-7.18	1.45	1.52
34	i	1467	C	C2'-C1'	-7.18	1.42	1.53
34	i	1807	A	O4'-C1'	7.18	1.52	1.41
34	i	1480	A	O4'-C1'	7.18	1.52	1.41
34	i	1536	G	C2'-C1'	-7.17	1.42	1.53
34	i	88	G	C2'-C1'	-7.17	1.42	1.53
34	i	159	A	O4'-C1'	7.17	1.52	1.41
34	i	1029	G	C2'-C1'	-7.17	1.42	1.53
34	i	875	C	O4'-C1'	7.17	1.52	1.41
34	i	932	G	C2'-C1'	-7.16	1.42	1.53
34	i	1437	U	C2'-C1'	7.16	1.63	1.53
34	i	1585	C	C2'-C1'	-7.16	1.42	1.53
34	i	1086	C	O4'-C1'	7.15	1.52	1.41
34	i	164	A	O4'-C1'	7.15	1.52	1.41
34	i	1079	A	O4'-C1'	7.15	1.52	1.41
34	i	1099	C	C2'-C1'	-7.15	1.42	1.53
34	i	564	A	C2'-C1'	-7.14	1.42	1.53
34	i	1031	A	C2'-C1'	-7.14	1.42	1.53
34	i	487	C	C2'-C1'	-7.14	1.42	1.53
34	i	1462	G	C2'-C1'	-7.13	1.42	1.53
34	i	1150	U	O4'-C1'	-7.13	1.31	1.42
34	i	1390	G	O4'-C1'	7.13	1.52	1.41
34	i	1785	A	O4'-C1'	7.13	1.52	1.41
34	i	593	C	O4'-C1'	7.13	1.52	1.42
34	i	908	C	O4'-C1'	7.13	1.52	1.42
34	i	1204	A	C2'-C1'	7.13	1.64	1.53
34	i	1028	C	O4'-C1'	7.12	1.52	1.41
26	Z	112	ASN	CA-C	7.12	1.61	1.52
34	i	829	C	C2'-C1'	-7.12	1.42	1.53
34	i	1669	G	C2'-C1'	-7.12	1.42	1.53
34	i	348	C	O4'-C1'	7.11	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	654	A	C2'-C1'	-7.11	1.42	1.53
34	i	1252	G	O4'-C1'	7.11	1.52	1.41
34	i	1784	A	C2'-C1'	-7.11	1.42	1.53
34	i	31	U	C2'-C1'	7.10	1.64	1.53
34	i	727	G	O4'-C1'	7.09	1.52	1.41
33	g	143	GLN	N-CA	-7.09	1.37	1.46
34	i	219	U	O4'-C1'	7.09	1.52	1.41
34	i	782	G	O4'-C1'	7.09	1.52	1.41
34	i	965	U	O4'-C1'	7.09	1.52	1.42
34	i	176	U	O4'-C1'	7.08	1.52	1.41
34	i	481	C	C2'-C1'	-7.08	1.42	1.53
34	i	1679	C	O4'-C1'	7.07	1.52	1.41
34	i	1201	C	O4'-C1'	7.07	1.52	1.41
34	i	1432	C	C2'-C1'	-7.06	1.42	1.53
34	i	1320	G	C2'-C1'	-7.06	1.42	1.53
34	i	317	G	O4'-C1'	-7.06	1.31	1.42
34	i	1140	A	O4'-C1'	7.05	1.52	1.41
34	i	1183	G	O4'-C1'	7.05	1.52	1.41
34	i	1367	U	O4'-C1'	7.05	1.52	1.42
10	J	164	PRO	CA-CB	-7.05	1.44	1.53
27	a	10	ARG	NE-CZ	7.04	1.40	1.33
34	i	511	A	C2'-C1'	-7.04	1.42	1.53
34	i	1211	C	C2'-C1'	7.04	1.63	1.53
34	i	1707	A	C2'-C1'	-7.04	1.42	1.53
18	R	87	GLU	CA-C	-7.02	1.43	1.52
11	K	80	ARG	CA-C	-7.02	1.43	1.52
19	S	6	PRO	C-N	7.02	1.43	1.33
34	i	1781	G	C2'-C1'	-7.02	1.42	1.53
25	Y	103	SER	C-N	7.02	1.43	1.33
15	O	103	ASN	CA-C	-7.02	1.42	1.52
34	i	675	A	C2'-C1'	-7.02	1.42	1.53
34	i	359	C	C2'-C1'	-7.01	1.42	1.53
34	i	1338	U	C2'-C1'	-7.00	1.42	1.53
34	i	13	C	C2'-C1'	-7.00	1.42	1.53
34	i	537	G	O4'-C1'	7.00	1.52	1.41
34	i	645	A	C2'-C1'	-6.99	1.42	1.53
34	i	1790	G	C2'-C1'	-6.99	1.42	1.53
34	i	1623	C	O4'-C1'	6.98	1.52	1.41
34	i	166	A	C2'-C1'	-6.97	1.42	1.53
34	i	234	C	C2'-C1'	6.96	1.63	1.53
10	J	187	ALA	N-CA	6.96	1.57	1.46
34	i	888	U	C2'-C1'	-6.96	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	J	100	LEU	N-CA	6.96	1.54	1.45
34	i	1861	U	C2'-C1'	6.96	1.63	1.53
34	i	369	C	O4'-C1'	6.95	1.52	1.41
13	M	52	LEU	CA-C	-6.95	1.49	1.53
34	i	1808	G	C2'-C1'	-6.95	1.43	1.53
34	i	1534	U	C2'-C1'	6.94	1.63	1.53
34	i	1818	A	O4'-C1'	-6.94	1.31	1.41
34	i	463	A	O4'-C1'	6.94	1.52	1.41
34	i	599	U	O4'-C1'	6.94	1.52	1.41
34	i	1309	A	O4'-C1'	6.94	1.52	1.42
34	i	1440	U	C2'-C1'	-6.93	1.43	1.53
34	i	1450	A	O4'-C1'	6.93	1.52	1.41
34	i	1548	C	C2'-C1'	6.93	1.63	1.53
34	i	336	C	O4'-C1'	6.92	1.52	1.41
34	i	988	A	O4'-C1'	6.91	1.52	1.41
15	O	129	ILE	CA-CB	-6.91	1.45	1.54
8	H	109	ARG	N-CA	-6.91	1.37	1.46
34	i	536	G	O4'-C1'	6.90	1.52	1.41
34	i	1402	G	C2'-C1'	-6.90	1.43	1.53
34	i	829	C	O4'-C1'	6.90	1.51	1.41
34	i	1107	U	O4'-C1'	6.90	1.51	1.41
34	i	1744	G	C2'-C1'	-6.89	1.43	1.53
11	K	93	THR	CA-CB	6.89	1.63	1.53
34	i	959	A	O4'-C1'	-6.89	1.31	1.41
34	i	624	A	O4'-C1'	6.89	1.51	1.41
34	i	1705	C	O4'-C1'	6.88	1.51	1.41
34	i	1794	A	O4'-C1'	6.87	1.51	1.41
34	i	739	U	O4'-C1'	6.87	1.52	1.42
34	i	1849	G	C2'-C1'	-6.87	1.43	1.53
34	i	1522	C	O4'-C1'	6.87	1.51	1.41
34	i	969	C	O4'-C1'	6.86	1.51	1.41
34	i	1604	C	O4'-C1'	6.86	1.51	1.41
34	i	1607	G	C2'-C1'	6.86	1.63	1.53
34	i	298	G	C2'-C1'	6.85	1.63	1.53
34	i	1126	G	O4'-C1'	-6.84	1.31	1.41
34	i	1503	G	C2'-C1'	-6.84	1.42	1.53
34	i	275	C	O4'-C1'	6.84	1.51	1.41
34	i	1177	A	C2'-C1'	-6.83	1.43	1.53
34	i	1365	A	C2'-C1'	-6.83	1.43	1.53
34	i	1713	G	C2'-C1'	-6.82	1.43	1.53
28	b	53	VAL	CA-CB	-6.82	1.46	1.54
34	i	1261	A	O4'-C1'	6.81	1.52	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1579	G	O4'-C1'	6.81	1.52	1.42
34	i	1327	C	O4'-C1'	6.80	1.52	1.42
34	i	440	C	C2'-C1'	6.80	1.63	1.53
31	e	77	HIS	C-N	6.80	1.43	1.33
34	i	1618	A	C2'-C1'	6.80	1.63	1.53
34	i	1824	U	O4'-C1'	6.80	1.52	1.42
34	i	863	G	O4'-C1'	6.79	1.51	1.41
34	i	1477	G	C2'-C1'	-6.79	1.43	1.53
34	i	1796	C	O4'-C1'	6.78	1.51	1.41
3	C	105	GLN	CA-C	6.78	1.62	1.53
34	i	447	C	O4'-C1'	6.77	1.51	1.41
34	i	399	C	O4'-C1'	6.77	1.51	1.41
34	i	650	C	C2'-C1'	-6.77	1.43	1.53
34	i	1385	C	C2'-C1'	-6.76	1.43	1.53
34	i	799	C	C2'-C1'	-6.76	1.43	1.53
34	i	1027	A	O4'-C1'	6.76	1.51	1.41
34	i	1321	G	O4'-C1'	6.76	1.51	1.41
34	i	190	A	O4'-C1'	6.76	1.51	1.41
34	i	49	C	C2'-C1'	-6.75	1.43	1.53
12	L	151	THR	CA-CB	6.75	1.62	1.53
24	X	77	ASN	CA-C	-6.74	1.42	1.52
34	i	1559	C	C2'-C1'	-6.74	1.43	1.53
34	i	563	U	O4'-C1'	6.74	1.51	1.41
34	i	827	G	C2'-C1'	-6.74	1.43	1.53
35	l	105	ASP	CA-C	6.74	1.61	1.52
34	i	1028	C	C2'-C1'	-6.73	1.43	1.53
34	i	1403	U	O4'-C1'	6.73	1.51	1.41
34	i	367	G	C2'-C1'	-6.73	1.43	1.53
34	i	630	A	O4'-C1'	6.72	1.51	1.41
34	i	1118	A	C2'-C1'	6.72	1.63	1.53
1	A	53	ARG	CA-CB	-6.72	1.42	1.53
2	B	21	VAL	CA-CB	-6.72	1.45	1.54
34	i	880	C	O4'-C1'	6.72	1.51	1.41
34	i	60	A	O4'-C1'	-6.72	1.31	1.41
34	i	42	A	C2'-C1'	-6.70	1.43	1.53
34	i	37	C	O4'-C1'	6.70	1.51	1.41
34	i	1040	G	C2'-C1'	-6.70	1.43	1.53
6	F	130	ARG	N-CA	6.69	1.56	1.46
34	i	405	A	C2'-C1'	6.69	1.63	1.53
34	i	1692	A	C2'-C1'	6.69	1.63	1.53
34	i	846	C	O4'-C1'	6.68	1.51	1.41
4	D	4	GLN	CA-C	-6.67	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	D	193	ASP	CA-C	-6.67	1.44	1.52
34	i	859	U	O4'-C1'	6.67	1.51	1.41
34	i	1382	A	O4'-C1'	6.67	1.51	1.41
34	i	492	C	O4'-C1'	6.66	1.51	1.42
34	i	49	C	O4'-C1'	6.66	1.51	1.41
34	i	1123	C	O4'-C1'	6.66	1.51	1.41
7	G	157	VAL	CA-C	-6.66	1.45	1.52
24	X	58	GLU	CA-C	6.66	1.61	1.53
34	i	1275	C	C2'-C1'	6.66	1.63	1.53
34	i	938	G	O4'-C1'	6.65	1.51	1.41
16	P	37	TYR	C-N	6.64	1.43	1.33
34	i	1299	C	O4'-C1'	-6.63	1.31	1.41
34	i	1638	U	O4'-C1'	6.63	1.51	1.41
9	I	54	LYS	C-N	-6.63	1.24	1.33
34	i	725	C	O4'-C1'	6.63	1.51	1.41
28	b	26	GLN	CA-C	-6.63	1.44	1.53
4	D	94	ARG	CA-C	-6.62	1.43	1.52
34	i	1045	A	O4'-C1'	-6.62	1.31	1.41
3	C	72	PRO	N-CD	6.62	1.57	1.47
34	i	1633	G	O4'-C1'	6.62	1.51	1.41
34	i	872	C	O4'-C1'	6.61	1.51	1.41
34	i	1647	G	C2'-C1'	-6.61	1.43	1.53
34	i	820	C	O4'-C1'	6.61	1.51	1.41
34	i	1384	A	O4'-C1'	6.61	1.51	1.41
34	i	1332	C	O4'-C1'	6.60	1.51	1.41
34	i	900	A	C2'-C1'	-6.60	1.43	1.53
10	J	100	LEU	CA-C	6.60	1.62	1.53
34	i	544	A	O4'-C1'	-6.59	1.31	1.41
34	i	1041	U	O4'-C1'	6.59	1.51	1.41
34	i	337	G	O4'-C1'	6.59	1.51	1.41
34	i	1071	C	O4'-C1'	6.59	1.51	1.41
24	X	24	ASP	N-CA	-6.59	1.37	1.46
34	i	452	C	O4'-C1'	6.58	1.51	1.41
34	i	1823	G	O4'-C1'	6.58	1.51	1.41
34	i	69	C	C2'-C1'	-6.58	1.43	1.53
34	i	1187	C	O4'-C1'	6.58	1.51	1.41
34	i	386	U	O4'-C1'	6.57	1.51	1.41
34	i	1225	G	C2'-C1'	-6.57	1.43	1.53
1	A	159	ILE	CA-C	-6.56	1.44	1.52
34	i	342	U	O4'-C1'	6.56	1.51	1.41
34	i	1343	U	O4'-C1'	6.56	1.51	1.41
34	i	1425	G	O3'-P	-6.56	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	442	G	O4'-C1'	6.55	1.51	1.41
34	i	972	G	C2'-C1'	-6.55	1.43	1.53
34	i	292	A	C2'-C1'	6.54	1.63	1.53
34	i	666	C	C2'-C1'	-6.53	1.43	1.53
34	i	428	G	O4'-C1'	-6.52	1.31	1.41
34	i	1646	A	C2'-C1'	6.52	1.63	1.53
34	i	518	A	O4'-C1'	6.52	1.51	1.41
34	i	1288	C	C2'-C1'	-6.52	1.43	1.53
34	i	204	G	C2'-C1'	6.51	1.63	1.53
34	i	1678	C	C2'-C1'	-6.51	1.43	1.53
1	A	194	PRO	CA-C	6.50	1.61	1.52
34	i	1137	G	O4'-C1'	-6.50	1.31	1.41
34	i	1245	C	O4'-C1'	6.50	1.51	1.41
34	i	1336	U	C2'-C1'	6.50	1.63	1.53
21	U	69	PRO	N-CA	-6.50	1.39	1.47
34	i	574	A	C2'-C1'	-6.49	1.43	1.53
34	i	1423	C	O4'-C1'	6.49	1.51	1.41
9	I	134	GLU	CA-CB	6.48	1.63	1.53
34	i	1799	G	O4'-C1'	6.48	1.51	1.41
34	i	1176	C	C2'-C1'	-6.47	1.43	1.53
34	i	343	C	O4'-C1'	6.47	1.51	1.41
34	i	818	U	O4'-C1'	6.47	1.51	1.41
34	i	1292	U	O4'-C1'	6.47	1.51	1.41
34	i	741	C	O3'-P	-6.44	1.51	1.61
34	i	170	A	C2'-C1'	-6.44	1.43	1.53
34	i	813	G	C2'-C1'	-6.43	1.43	1.53
34	i	1039	G	C2'-C1'	-6.43	1.43	1.53
19	S	39	ARG	C-N	6.43	1.42	1.33
34	i	1091	U	O4'-C1'	6.42	1.51	1.41
34	i	1568	G	O4'-C1'	6.42	1.51	1.41
34	i	223	A	O4'-C1'	6.41	1.51	1.41
9	I	134	GLU	N-CA	6.41	1.54	1.46
15	O	43	HIS	CA-C	6.41	1.61	1.52
34	i	86	C	O4'-C1'	6.41	1.51	1.41
34	i	1218	G	C2'-C1'	-6.40	1.43	1.53
33	g	277	THR	CA-C	-6.40	1.44	1.53
34	i	1138	G	O4'-C1'	-6.40	1.32	1.41
34	i	1313	U	O4'-C1'	6.40	1.51	1.41
12	L	20	LYS	CA-C	6.39	1.61	1.52
11	K	41	PRO	C-N	6.39	1.41	1.33
13	M	99	LYS	CA-C	6.39	1.57	1.53
7	G	131	ARG	CB-CG	6.39	1.71	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1706	U	C2'-C1'	-6.39	1.43	1.53
34	i	120	U	O4'-C1'	6.38	1.51	1.41
34	i	989	G	C2'-C1'	-6.38	1.43	1.53
34	i	1221	U	C2'-C1'	-6.38	1.43	1.53
1	A	193	HIS	N-CA	6.37	1.54	1.45
34	i	840	U	O4'-C1'	6.37	1.51	1.41
34	i	1186	A	O4'-C1'	6.37	1.51	1.41
34	i	1808	G	O4'-C1'	6.36	1.51	1.41
34	i	72	C	C2'-C1'	6.36	1.62	1.53
34	i	798	A	O4'-C1'	6.36	1.51	1.41
34	i	939	U	C2'-C1'	-6.36	1.43	1.53
12	L	2	ALA	CA-C	-6.35	1.44	1.52
34	i	441	G	C2'-C1'	-6.35	1.43	1.53
21	U	108	PRO	CA-C	-6.35	1.44	1.52
34	i	485	U	O4'-C1'	6.35	1.51	1.41
34	i	856	G	O4'-C1'	6.34	1.51	1.41
20	T	82	ARG	CD-NE	6.33	1.55	1.46
5	E	150	PRO	N-CD	6.33	1.56	1.47
34	i	1490	U	C2'-C1'	6.33	1.62	1.53
34	i	432	C	C2'-C1'	-6.33	1.43	1.53
34	i	1085	G	C2'-C1'	-6.32	1.43	1.53
34	i	845	A	O4'-C1'	6.32	1.51	1.41
34	i	324	C	C2'-C1'	-6.32	1.43	1.53
34	i	807	A	C2'-C1'	-6.32	1.43	1.53
17	Q	18	THR	CA-CB	6.32	1.64	1.53
34	i	85	A	O4'-C1'	6.31	1.51	1.41
34	i	1331	G	C2'-C1'	-6.31	1.43	1.53
34	i	1340	A	O4'-C1'	6.31	1.51	1.42
34	i	1672	U	C2'-C1'	6.30	1.62	1.53
34	i	347	C	O4'-C1'	6.30	1.51	1.41
3	C	46	LEU	CA-C	-6.30	1.47	1.52
34	i	303	G	C2'-C1'	6.30	1.62	1.53
6	F	81	ARG	C-N	-6.30	1.24	1.33
33	g	284	PRO	CA-C	-6.30	1.46	1.53
34	i	278	U	O4'-C1'	6.30	1.51	1.42
34	i	376	C	C2'-C1'	-6.30	1.44	1.53
34	i	537	G	C2'-C1'	-6.30	1.44	1.53
34	i	1798	U	O4'-C1'	6.30	1.51	1.41
34	i	1822	C	C2'-C1'	-6.30	1.44	1.53
11	K	84	HIS	CA-C	-6.29	1.45	1.52
34	i	327	C	O4'-C1'	6.29	1.51	1.41
34	i	211	U	O3'-P	-6.29	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	576	G	O4'-C1'	6.28	1.51	1.41
34	i	656	U	O4'-C1'	6.28	1.51	1.41
34	i	74	G	O4'-C1'	6.28	1.51	1.41
14	N	142	GLU	C-O	-6.28	1.16	1.24
34	i	33	G	C2'-C1'	-6.28	1.44	1.53
34	i	1151	U	O4'-C1'	6.28	1.51	1.42
34	i	1493	G	O4'-C1'	6.27	1.51	1.42
34	i	42	A	O4'-C1'	6.27	1.51	1.41
34	i	1532	A	C2'-C1'	6.27	1.62	1.53
34	i	107	A	C2'-C1'	6.26	1.62	1.53
34	i	216	U	O4'-C1'	6.26	1.51	1.41
34	i	688	U	C2'-C1'	-6.26	1.43	1.53
5	E	202	PRO	CA-C	-6.26	1.45	1.52
34	i	660	A	O4'-C1'	-6.26	1.32	1.41
19	S	91	LYS	C-N	6.26	1.42	1.33
34	i	1405	A	O4'-C1'	6.25	1.51	1.41
34	i	677	C	C2'-C1'	-6.25	1.43	1.53
34	i	990	C	C2'-C1'	-6.25	1.44	1.53
3	C	195	PRO	N-CD	6.25	1.56	1.47
33	g	203	ASP	CA-C	6.24	1.61	1.52
20	T	42	HIS	CB-CG	-6.24	1.41	1.50
34	i	165	G	C2'-C1'	6.23	1.62	1.53
34	i	1168	U	C2'-C1'	6.23	1.62	1.53
34	i	1363	U	O4'-C1'	6.23	1.50	1.41
34	i	1401	A	C2'-C1'	-6.22	1.44	1.53
34	i	1059	C	O4'-C1'	6.22	1.50	1.41
34	i	147	A	C2'-C1'	6.22	1.62	1.53
34	i	493	C	O4'-C1'	6.22	1.51	1.42
34	i	1138	G	C2'-C1'	6.22	1.62	1.53
34	i	514	U	O4'-C1'	6.22	1.50	1.41
34	i	632	U	O4'-C1'	6.20	1.50	1.41
34	i	213	C	O4'-C1'	6.20	1.50	1.41
34	i	168	C	C2'-C1'	-6.20	1.44	1.53
34	i	1260	C	O4'-C1'	6.20	1.51	1.42
34	i	360	G	O4'-C1'	6.19	1.51	1.42
34	i	361	A	O4'-C1'	6.19	1.50	1.41
34	i	1519	G	O4'-C1'	-6.19	1.32	1.41
34	i	1495	U	C2'-C1'	-6.19	1.44	1.53
34	i	1304	U	C2'-C1'	6.18	1.62	1.53
34	i	1569	C	C2'-C1'	-6.18	1.44	1.53
34	i	53	C	C2'-C1'	6.17	1.62	1.53
34	i	271	G	O3'-P	-6.17	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1068	U	C2'-C1'	6.17	1.62	1.53
34	i	1335	U	P-O5'	-6.15	1.50	1.59
34	i	361	A	C2'-C1'	-6.14	1.44	1.53
34	i	1267	C	C2'-C1'	-6.14	1.44	1.53
1	A	193	HIS	CA-C	6.13	1.60	1.53
34	i	876	G	O4'-C1'	-6.13	1.32	1.41
7	G	128	THR	CA-C	6.13	1.60	1.52
34	i	521	A	O3'-P	-6.13	1.51	1.61
34	i	148	U	C2'-C1'	6.13	1.62	1.53
34	i	652	G	O4'-C1'	6.12	1.51	1.42
34	i	941	U	C2'-C1'	-6.12	1.44	1.53
8	H	106	ARG	CA-C	-6.12	1.44	1.52
34	i	354	A	C2'-C1'	-6.11	1.44	1.53
34	i	1059	C	C2'-C1'	-6.11	1.44	1.53
19	S	50	ILE	N-CA	6.11	1.53	1.46
34	i	1292	U	C2'-C1'	-6.11	1.44	1.53
34	i	1414	C	C2'-C1'	-6.11	1.43	1.53
16	P	37	TYR	N-CA	-6.10	1.38	1.46
34	i	1149	C	O4'-C1'	-6.10	1.32	1.42
8	H	16	PRO	CA-C	-6.10	1.43	1.52
34	i	147	A	O4'-C1'	-6.10	1.32	1.42
34	i	1395	C	O4'-C1'	6.10	1.50	1.41
34	i	1699	C	C2'-C1'	-6.10	1.44	1.53
18	R	86	PRO	N-CD	6.09	1.56	1.47
34	i	943	G	C2'-C1'	-6.09	1.44	1.53
34	i	625	G	C2'-C1'	-6.08	1.44	1.53
34	i	1200	A	C2'-C1'	-6.08	1.44	1.53
34	i	783	G	O4'-C1'	6.08	1.50	1.41
34	i	187	C	C2'-C1'	-6.08	1.44	1.53
2	B	155	TYR	CB-CG	-6.07	1.38	1.51
34	i	1075	C	C2'-C1'	-6.07	1.44	1.53
34	i	1295	A	C2'-C1'	6.07	1.62	1.53
34	i	118	C	O4'-C1'	6.06	1.50	1.41
27	a	85	ARG	CA-C	6.06	1.59	1.52
34	i	465	C	C2'-C1'	-6.05	1.44	1.53
34	i	661	A	C2'-C1'	-6.05	1.44	1.53
34	i	601	G	O4'-C1'	6.05	1.50	1.41
21	U	104	ILE	CA-CB	6.04	1.62	1.54
34	i	1782	A	O4'-C1'	6.04	1.50	1.41
9	I	8	TRP	CD2-CE3	-6.04	1.30	1.40
15	O	129	ILE	CA-C	-6.04	1.45	1.52
34	i	1784	A	O4'-C1'	6.04	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	18	C	C2'-C1'	-6.03	1.44	1.53
34	i	1255	A	O4'-C1'	-6.03	1.32	1.41
34	i	1840	G	C2'-C1'	-6.03	1.44	1.53
34	i	462	C	C2'-C1'	-6.03	1.44	1.53
22	V	42	VAL	CA-CB	-6.02	1.46	1.54
12	L	18	GLN	N-CA	-6.01	1.38	1.46
34	i	823	A	O4'-C1'	6.01	1.50	1.41
34	i	1019	A	C2'-C1'	6.01	1.62	1.53
18	R	111	PHE	CA-C	6.01	1.59	1.52
19	S	91	LYS	N-CA	-6.01	1.39	1.46
34	i	916	A	O4'-C1'	6.01	1.50	1.42
34	i	81	U	O4'-C1'	6.00	1.50	1.41
34	i	899	A	O4'-C1'	-6.00	1.32	1.41
34	i	1583	A	O4'-C1'	6.00	1.50	1.41
34	i	1001	G	C2'-C1'	-6.00	1.44	1.53
34	i	1446	G	C2'-C1'	-5.99	1.44	1.53
35	l	68	ALA	CA-CB	-5.99	1.43	1.53
3	C	217	THR	CA-C	5.99	1.62	1.52
34	i	1857	A	C2'-C1'	5.99	1.62	1.53
34	i	1717	G	O4'-C1'	5.99	1.50	1.41
34	i	1250	C	O4'-C1'	5.98	1.50	1.41
34	i	86	C	C2'-C1'	-5.98	1.44	1.53
34	i	104	A	O4'-C1'	5.98	1.50	1.41
34	i	1046	A	C2'-C1'	-5.98	1.44	1.53
34	i	676	U	C2'-C1'	5.97	1.62	1.53
34	i	668	U	O4'-C1'	5.96	1.50	1.41
34	i	941	U	O4'-C1'	5.96	1.50	1.41
34	i	57	U	C2'-C1'	5.95	1.62	1.53
34	i	1487	G	C2'-C1'	-5.95	1.44	1.53
34	i	313	C	C2'-C1'	-5.95	1.44	1.53
34	i	832	G	C2'-C1'	5.95	1.62	1.53
34	i	955	G	C2'-C1'	-5.95	1.44	1.53
34	i	736	C	C2'-C1'	-5.94	1.44	1.53
34	i	918	A	C2'-C1'	5.94	1.62	1.53
34	i	1670	A	O4'-C1'	-5.94	1.32	1.41
34	i	103	A	O4'-C1'	-5.94	1.33	1.42
34	i	1723	U	O4'-C1'	5.94	1.50	1.41
34	i	434	G	O4'-C1'	-5.93	1.32	1.41
34	i	1039	G	O4'-C1'	5.93	1.50	1.41
19	S	6	PRO	N-CA	5.93	1.55	1.47
34	i	824	G	C2'-C1'	-5.93	1.44	1.53
34	i	811	U	O4'-C1'	5.93	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	628	C	O4'-C1'	5.93	1.50	1.41
34	i	1378	A	O4'-C1'	5.92	1.50	1.41
18	R	122	PRO	CA-C	5.92	1.60	1.52
34	i	903	G	O4'-C1'	5.92	1.50	1.41
34	i	338	A	C2'-C1'	-5.92	1.44	1.53
34	i	754	C	C2'-C1'	-5.92	1.44	1.53
2	B	77	ASP	N-CA	5.91	1.53	1.46
34	i	1061	G	C2'-C1'	-5.90	1.44	1.53
34	i	983	A	O4'-C1'	5.90	1.50	1.41
34	i	743	U	O3'-P	-5.90	1.52	1.61
34	i	1707	A	O4'-C1'	5.90	1.50	1.41
34	i	40	A	C2'-C1'	5.89	1.62	1.53
34	i	225	C	O3'-P	-5.89	1.52	1.61
9	I	184	ARG	CD-NE	5.89	1.54	1.46
27	a	60	ASP	CA-C	5.89	1.60	1.53
33	g	213	ASP	CA-C	-5.89	1.45	1.52
34	i	435	A	O4'-C1'	5.88	1.50	1.41
34	i	1051	A	O4'-C1'	5.88	1.50	1.41
34	i	1414	C	O4'-C1'	-5.88	1.33	1.42
1	A	188	THR	CA-C	-5.88	1.44	1.52
34	i	1537	C	C2'-C1'	-5.88	1.44	1.53
34	i	607	G	C2'-C1'	-5.88	1.44	1.53
35	l	104	LYS	CA-C	5.87	1.60	1.52
34	i	924	G	C2'-C1'	-5.87	1.44	1.53
34	i	26	U	C2'-C1'	-5.87	1.44	1.53
18	R	91	LEU	N-CA	-5.86	1.38	1.46
34	i	1102	C	C2'-C1'	5.86	1.62	1.53
34	i	470	G	O4'-C1'	5.86	1.50	1.41
33	g	50	THR	N-CA	-5.86	1.38	1.46
34	i	1558	G	C2'-C1'	-5.86	1.44	1.53
34	i	1447	G	C2'-C1'	-5.85	1.44	1.53
3	C	257	HIS	N-CA	-5.85	1.39	1.46
7	G	158	VAL	CA-CB	-5.85	1.46	1.54
34	i	618	A	C2'-C1'	5.85	1.62	1.53
7	G	169	PRO	C-N	5.84	1.41	1.33
34	i	1031	A	O4'-C1'	5.83	1.50	1.41
34	i	1800	A	C2'-C1'	-5.83	1.44	1.53
34	i	302	C	C2'-C1'	-5.83	1.44	1.53
34	i	896	C	O4'-C1'	5.83	1.50	1.41
34	i	152	U	C2'-C1'	-5.83	1.44	1.53
34	i	1394	G	C2'-C1'	-5.83	1.44	1.53
34	i	9	U	O4'-C1'	5.82	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	456	G	C4'-C3'	5.81	1.61	1.52
34	i	1452	G	O4'-C1'	5.81	1.50	1.41
34	i	996	C	O4'-C1'	5.81	1.50	1.41
34	i	1259	U	C5'-C4'	5.80	1.59	1.51
34	i	1525	U	O4'-C1'	5.80	1.50	1.41
34	i	171	A	C2'-C1'	5.80	1.61	1.53
18	R	3	ARG	CA-C	-5.80	1.44	1.53
34	i	1797	U	O4'-C1'	5.80	1.50	1.41
34	i	486	C	C2'-C1'	-5.80	1.44	1.53
34	i	1652	G	C2'-C1'	-5.79	1.44	1.53
34	i	1211	C	O4'-C1'	5.79	1.50	1.42
34	i	314	U	O4'-C1'	-5.79	1.32	1.41
8	H	110	THR	N-CA	-5.79	1.38	1.46
34	i	1592	C	C2'-C1'	-5.79	1.44	1.53
34	i	1733	C	C2'-C1'	-5.79	1.44	1.53
34	i	1621	C	O4'-C1'	5.78	1.50	1.41
34	i	1696	C	O4'-C1'	5.77	1.50	1.42
35	l	93	ILE	CA-CB	5.77	1.61	1.54
34	i	165	G	O4'-C1'	-5.76	1.33	1.41
34	i	1386	U	C2'-C1'	-5.76	1.44	1.53
34	i	1842	U	O4'-C1'	5.76	1.50	1.41
24	X	24	ASP	C-N	-5.76	1.26	1.33
34	i	1535	G	C2'-C1'	-5.76	1.44	1.53
21	U	69	PRO	CA-C	-5.76	1.47	1.52
34	i	786	C	C2'-C1'	-5.76	1.44	1.53
34	i	566	A	C2'-C1'	-5.75	1.44	1.53
34	i	1737	C	O4'-C1'	5.75	1.50	1.41
34	i	1279	C	C2'-C1'	-5.75	1.44	1.53
14	N	20	ARG	NE-CZ	5.75	1.39	1.33
35	l	68	ALA	N-CA	-5.75	1.38	1.46
20	T	42	HIS	CA-C	-5.74	1.44	1.52
34	i	37	C	C2'-C1'	-5.74	1.44	1.53
34	i	874	G	C2'-C1'	-5.74	1.44	1.53
34	i	1391	C	O4'-C1'	5.74	1.50	1.41
24	X	92	ASN	CA-C	-5.74	1.45	1.52
34	i	461	G	O4'-C1'	-5.74	1.33	1.42
34	i	953	A	C2'-C1'	-5.74	1.44	1.53
34	i	38	A	C2'-C1'	5.74	1.61	1.53
34	i	806	A	O4'-C1'	5.74	1.50	1.41
34	i	876	G	C2'-C1'	5.74	1.61	1.53
9	I	8	TRP	CA-CB	5.73	1.63	1.53
34	i	273	G	O4'-C1'	5.73	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	14	C	O4'-C1'	5.73	1.50	1.41
34	i	119	U	C2'-C1'	-5.73	1.44	1.53
3	C	46	LEU	N-CA	-5.73	1.37	1.45
34	i	189	G	C2'-C1'	-5.73	1.44	1.53
34	i	513	A	O4'-C1'	5.72	1.50	1.41
34	i	948	G	C2'-C1'	-5.71	1.44	1.53
34	i	172	U	O4'-C1'	5.71	1.50	1.42
34	i	3	C	C2'-C1'	5.71	1.61	1.53
19	S	53	THR	C-N	5.70	1.41	1.33
6	F	82	ASN	N-CA	-5.70	1.38	1.46
8	H	67	PRO	N-CD	5.70	1.55	1.47
34	i	338	A	O4'-C1'	5.70	1.50	1.41
19	S	95	TYR	N-CA	-5.69	1.39	1.46
34	i	227	A	O4'-C1'	5.69	1.50	1.41
34	i	1836	C	O4'-C1'	5.69	1.50	1.41
34	i	557	C	C2'-C1'	-5.69	1.44	1.53
34	i	1712	C	O4'-C1'	5.69	1.50	1.41
1	A	159	ILE	N-CA	-5.68	1.39	1.46
34	i	205	G	O4'-C1'	5.68	1.50	1.41
34	i	1480	A	C2'-C1'	-5.68	1.44	1.53
34	i	835	C	C2'-C1'	-5.67	1.44	1.53
34	i	1203	G	O4'-C1'	5.67	1.50	1.41
16	P	36	LEU	N-CA	-5.67	1.39	1.46
34	i	846	C	C2'-C1'	-5.66	1.44	1.53
34	i	1121	C	O4'-C1'	5.66	1.50	1.41
34	i	226	A	C2'-C1'	-5.66	1.44	1.53
19	S	9	PHE	CA-C	5.65	1.59	1.52
34	i	1741	U	O3'-P	5.65	1.69	1.61
34	i	200	U	C2'-C1'	-5.65	1.44	1.53
29	c	6	VAL	N-CA	5.65	1.52	1.46
34	i	1489	C	C2'-C1'	5.65	1.61	1.53
18	R	3	ARG	C-N	-5.64	1.25	1.33
34	i	799	C	O4'-C1'	5.64	1.50	1.41
34	i	1035	C	O4'-C1'	5.64	1.50	1.41
34	i	1615	A	O4'-C1'	-5.64	1.33	1.42
8	H	119	SER	CA-C	-5.63	1.47	1.53
34	i	930	G	C2'-C1'	-5.63	1.44	1.53
34	i	1061	G	O4'-C1'	5.63	1.50	1.41
34	i	29	G	C2'-C1'	-5.63	1.45	1.53
8	H	118	ARG	CA-CB	-5.63	1.43	1.53
9	I	184	ARG	CA-C	-5.62	1.45	1.52
34	i	1392	A	O4'-C1'	-5.62	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1392	A	C2'-C1'	5.62	1.61	1.53
29	c	7	GLN	CA-C	5.62	1.59	1.52
34	i	864	G	C2'-C1'	-5.62	1.44	1.53
34	i	1626	U	O4'-C1'	5.62	1.50	1.41
22	V	24	ILE	CA-CB	-5.62	1.47	1.54
34	i	377	C	C2'-C1'	-5.62	1.45	1.53
34	i	1850	C	C2'-C1'	-5.62	1.45	1.53
16	P	17	TYR	C-N	5.61	1.41	1.33
34	i	100	U	O4'-C1'	5.61	1.50	1.41
34	i	194	C	C2'-C1'	-5.61	1.45	1.53
7	G	131	ARG	NE-CZ	5.61	1.39	1.33
34	i	1610	U	O4'-C1'	5.60	1.50	1.41
31	e	94	ALA	CA-C	-5.60	1.46	1.52
34	i	449	C	C2'-C1'	-5.60	1.45	1.53
24	X	58	GLU	N-CA	5.59	1.53	1.46
26	Z	107	VAL	N-CA	-5.59	1.40	1.46
31	e	130	ASN	C-N	5.59	1.41	1.33
10	J	188	GLY	N-CA	5.59	1.54	1.45
34	i	1840	G	O4'-C1'	5.59	1.50	1.41
34	i	95	G	C2'-C1'	-5.58	1.45	1.53
34	i	1173	U	O4'-C1'	5.58	1.50	1.41
34	i	1444	A	C2'-C1'	-5.58	1.45	1.53
34	i	94	G	O4'-C1'	5.58	1.50	1.41
34	i	1278	A	O4'-C1'	5.58	1.50	1.41
34	i	471	C	O4'-C1'	5.57	1.50	1.41
18	R	42	PRO	N-CD	5.57	1.55	1.47
34	i	892	U	O4'-C1'	5.57	1.50	1.41
34	i	1465	A	C2'-C1'	-5.57	1.45	1.53
19	S	89	ASP	CA-C	-5.56	1.45	1.52
34	i	969	C	C5'-C4'	5.56	1.59	1.51
34	i	1499	C	O4'-C1'	5.56	1.50	1.41
34	i	750	G	C2'-C1'	-5.56	1.45	1.53
6	F	79	HIS	N-CA	-5.56	1.39	1.46
34	i	1006	G	C2'-C1'	5.56	1.61	1.53
34	i	1423	C	C2'-C1'	5.55	1.61	1.53
34	i	1044	G	C5'-C4'	5.55	1.59	1.51
34	i	1687	U	C2'-C1'	-5.55	1.45	1.53
34	i	355	C	C2'-C1'	-5.54	1.45	1.53
34	i	639	U	O4'-C1'	5.54	1.50	1.41
34	i	1654	U	O3'-P	-5.54	1.52	1.61
34	i	74	G	O5'-C5'	5.54	1.50	1.42
34	i	1463	C	O4'-C1'	5.54	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1664	G	C2'-C1'	-5.53	1.45	1.53
34	i	1051	A	C5'-C4'	5.53	1.59	1.51
34	i	1569	C	O4'-C1'	5.52	1.50	1.41
34	i	1634	G	O4'-C1'	5.52	1.50	1.41
34	i	368	U	C2'-C1'	-5.52	1.45	1.53
34	i	469	C	O4'-C1'	5.52	1.50	1.41
34	i	1835	C	C2'-C1'	-5.52	1.45	1.53
9	I	131	PRO	C-N	5.51	1.42	1.33
34	i	1839	A	C2'-C1'	-5.51	1.45	1.53
35	l	102	LEU	CA-C	5.51	1.59	1.52
34	i	160	U	O4'-C1'	5.51	1.50	1.42
34	i	1814	G	C2'-C1'	-5.50	1.45	1.53
7	G	36	VAL	CB-CG1	-5.50	1.34	1.52
34	i	637	U	O4'-C1'	5.50	1.49	1.41
34	i	954	G	O4'-C1'	-5.50	1.33	1.41
34	i	460	G	C2'-C1'	-5.49	1.45	1.53
18	R	88	VAL	C-N	-5.49	1.26	1.33
19	S	50	ILE	CA-C	5.49	1.59	1.52
34	i	1398	A	C2'-C1'	-5.49	1.45	1.53
34	i	1102	C	O4'-C1'	5.48	1.49	1.41
6	F	82	ASN	CA-C	-5.48	1.45	1.52
34	i	404	A	O4'-C1'	5.47	1.49	1.41
34	i	1345	G	C2'-C1'	-5.47	1.45	1.53
34	i	1243	C	O4'-C1'	5.46	1.50	1.42
34	i	567	U	O4'-C1'	5.46	1.49	1.41
34	i	370	G	O4'-C1'	-5.46	1.33	1.41
5	E	165	GLU	N-CA	-5.46	1.40	1.46
35	l	67	PHE	C-O	-5.46	1.17	1.23
28	b	53	VAL	N-CA	-5.45	1.39	1.46
34	i	1444	A	O4'-C1'	5.44	1.49	1.41
34	i	399	C	C2'-C1'	-5.44	1.45	1.53
34	i	1123	C	C2'-C1'	-5.44	1.45	1.53
34	i	1472	A	C2'-C1'	5.44	1.61	1.53
34	i	1018	U	O3'-P	-5.44	1.52	1.61
6	F	82	ASN	CA-CB	-5.43	1.44	1.53
34	i	1778	G	C2'-C1'	-5.43	1.45	1.53
34	i	1663	U	P-O5'	-5.43	1.51	1.59
11	K	79	LEU	C-N	5.42	1.41	1.33
34	i	1676	U	C2'-C1'	-5.42	1.45	1.53
34	i	1215	C	O4'-C1'	5.42	1.49	1.41
34	i	1334	G	O4'-C1'	5.42	1.49	1.41
34	i	1684	C	O4'-C1'	5.42	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	X	115	ILE	CA-CB	-5.42	1.47	1.54
34	i	202	U	C2'-C1'	-5.42	1.45	1.53
34	i	485	U	C2'-C1'	-5.42	1.45	1.53
34	i	1042	U	O4'-C1'	5.42	1.49	1.41
20	T	4	VAL	CA-C	5.41	1.64	1.52
34	i	388	A	O4'-C1'	5.41	1.50	1.42
7	G	43	GLU	CA-C	-5.40	1.45	1.52
34	i	408	A	O4'-C1'	5.40	1.49	1.41
34	i	488	C	C2'-C1'	-5.40	1.45	1.53
34	i	933	C	C2'-C1'	-5.40	1.45	1.53
34	i	1427	G	O4'-C1'	5.39	1.49	1.41
7	G	169	PRO	N-CD	5.39	1.55	1.47
34	i	264	U	O3'-P	-5.39	1.53	1.61
34	i	982	G	C2'-C1'	-5.39	1.45	1.53
34	i	404	A	C2'-C1'	5.39	1.61	1.53
33	g	281	ALA	CA-CB	-5.39	1.44	1.53
34	i	1096	A	C2'-C1'	-5.39	1.45	1.53
34	i	1402	G	O4'-C1'	5.39	1.49	1.41
8	H	109	ARG	CA-C	-5.38	1.45	1.52
34	i	867	U	O4'-C1'	-5.38	1.33	1.42
34	i	1008	A	C2'-C1'	-5.38	1.45	1.53
34	i	1085	G	O4'-C1'	5.38	1.49	1.41
34	i	1434	A	C2'-C1'	5.38	1.61	1.53
34	i	820	C	C2'-C1'	-5.38	1.45	1.53
34	i	1626	U	C2'-C1'	-5.38	1.45	1.53
34	i	1657	U	O4'-C1'	5.37	1.49	1.41
34	i	1415	C	O4'-C1'	5.37	1.49	1.41
34	i	1078	A	O4'-C1'	5.37	1.49	1.41
34	i	515	A	C2'-C1'	-5.37	1.45	1.53
34	i	1582	G	O4'-C1'	-5.35	1.33	1.42
34	i	1710	A	O4'-C1'	5.35	1.49	1.41
32	f	86	THR	N-CA	5.35	1.53	1.46
34	i	960	A	C2'-C1'	5.35	1.61	1.53
34	i	665	U	O4'-C1'	5.34	1.49	1.41
34	i	33	G	O4'-C1'	5.34	1.49	1.41
23	W	129	PHE	CA-C	-5.34	1.46	1.52
34	i	411	G	O3'-P	-5.34	1.53	1.61
35	l	67	PHE	CD2-CE2	-5.33	1.22	1.38
34	i	1311	U	C5'-C4'	5.33	1.59	1.51
34	i	1641	C	C4'-O4'	-5.33	1.37	1.45
3	C	119	ASN	N-CA	-5.32	1.40	1.46
2	B	133	TYR	N-CA	-5.32	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	686	G	C2'-C1'	-5.32	1.45	1.53
34	i	1093	G	O4'-C1'	-5.32	1.33	1.41
34	i	930	G	O4'-C1'	5.32	1.49	1.41
34	i	937	C	C2'-C1'	-5.32	1.45	1.53
34	i	6	G	C2'-C1'	-5.32	1.45	1.53
34	i	1740	A	O4'-C1'	-5.31	1.33	1.41
34	i	897	G	C2'-C1'	-5.31	1.45	1.53
34	i	1774	G	O4'-C1'	5.31	1.49	1.41
2	B	57	ILE	CA-C	5.31	1.59	1.52
34	i	1845	A	O4'-C1'	5.31	1.49	1.41
34	i	1054	A	C2'-C1'	-5.31	1.45	1.53
16	P	18	ARG	NE-CZ	5.30	1.38	1.33
34	i	335	U	O4'-C1'	5.30	1.49	1.41
34	i	1032	A	O4'-C1'	5.30	1.49	1.41
34	i	175	A	O4'-C1'	5.29	1.49	1.41
34	i	1424	G	C2'-C1'	5.29	1.61	1.53
34	i	1668	U	C2'-C1'	-5.29	1.45	1.53
34	i	1387	C	C2'-C1'	-5.29	1.45	1.53
34	i	1223	G	C2'-C1'	-5.28	1.45	1.53
34	i	621	U	C2'-C1'	-5.28	1.45	1.53
34	i	879	U	C5'-C4'	5.28	1.59	1.51
34	i	1482	A	P-O5'	-5.28	1.51	1.59
34	i	1037	G	O4'-C1'	5.28	1.49	1.41
3	C	119	ASN	C-O	-5.28	1.18	1.23
1	A	188	THR	CA-CB	-5.27	1.44	1.53
29	c	7	GLN	N-CA	5.26	1.51	1.46
34	i	1172	G	O4'-C1'	5.26	1.49	1.41
19	S	94	LYS	C-N	-5.25	1.26	1.33
34	i	1045	A	C2'-C1'	5.25	1.61	1.53
7	G	121	ILE	CA-CB	-5.25	1.47	1.54
11	K	36	ALA	CA-C	5.24	1.59	1.53
12	L	103	GLU	N-CA	-5.24	1.39	1.46
33	g	145	GLU	CA-C	-5.24	1.46	1.52
34	i	1460	C	C2'-C1'	-5.24	1.45	1.53
3	C	182	PRO	N-CD	5.24	1.55	1.47
34	i	418	U	C2'-C1'	5.24	1.60	1.53
34	i	516	A	C2'-C1'	-5.23	1.45	1.53
1	A	96	ALA	C-N	-5.23	1.23	1.33
16	P	49	LEU	N-CA	5.23	1.52	1.46
34	i	356	U	O4'-C1'	5.23	1.49	1.41
34	i	871	A	C2'-C1'	-5.23	1.45	1.53
34	i	632	U	C2'-C1'	-5.23	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	T	82	ARG	NE-CZ	5.22	1.38	1.33
10	J	188	GLY	CA-C	5.22	1.61	1.52
7	G	170	ARG	NE-CZ	5.21	1.38	1.33
27	a	58	VAL	CA-C	-5.21	1.46	1.52
9	I	55	TYR	CA-C	-5.21	1.46	1.52
19	S	91	LYS	CA-C	-5.21	1.46	1.52
34	i	1385	C	P-O5'	-5.21	1.51	1.59
34	i	1293	U	C2'-C1'	5.21	1.61	1.53
34	i	742	C	C2'-C1'	-5.20	1.45	1.53
34	i	1145	A	C2'-C1'	-5.20	1.45	1.53
34	i	596	G	C2'-C1'	-5.20	1.45	1.53
34	i	470	G	C2'-C1'	-5.20	1.45	1.53
5	E	171	ASP	CA-CB	-5.19	1.44	1.53
34	i	1817	A	O5'-C5'	-5.19	1.35	1.42
20	T	46	ALA	CA-C	-5.19	1.46	1.52
8	H	119	SER	C-N	-5.18	1.26	1.33
34	i	1256	A	O3'-P	-5.18	1.53	1.61
34	i	1591	U	O4'-C1'	5.18	1.49	1.41
9	I	6	ASP	CA-C	-5.18	1.46	1.52
34	i	1800	A	O4'-C1'	5.18	1.49	1.41
8	H	9	VAL	CA-C	5.17	1.60	1.52
34	i	396	U	O4'-C1'	5.17	1.49	1.41
34	i	860	A	C2'-C1'	-5.17	1.45	1.53
31	e	99	LYS	N-CA	5.17	1.52	1.46
1	A	53	ARG	N-CA	-5.17	1.40	1.46
34	i	1804	U	O4'-C1'	5.17	1.49	1.41
34	i	155	G	O4'-C1'	5.17	1.49	1.41
34	i	1144	A	C2'-C1'	5.17	1.60	1.53
34	i	1256	A	C2'-C1'	-5.17	1.45	1.53
34	i	35	C	C2'-C1'	-5.16	1.45	1.53
35	l	104	LYS	N-CA	5.16	1.52	1.46
34	i	1514	U	C2'-C1'	5.16	1.60	1.53
8	H	110	THR	C-N	5.16	1.40	1.33
28	b	36	LYS	N-CA	5.16	1.52	1.46
34	i	1040	G	O4'-C1'	5.16	1.49	1.41
34	i	1066	A	O4'-C1'	5.15	1.49	1.41
34	i	1283	A	C2'-C1'	5.15	1.61	1.53
27	a	108	PRO	N-CD	5.14	1.54	1.47
34	i	1175	G	C2'-C1'	-5.14	1.45	1.53
34	i	655	G	C2'-C1'	-5.14	1.45	1.53
34	i	1032	A	C5'-C4'	5.13	1.58	1.51
34	i	1033	G	C2'-C1'	-5.13	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1043	C	C2'-C1'	-5.13	1.45	1.53
34	i	1174	U	C2'-C1'	-5.13	1.45	1.53
34	i	1311	U	O4'-C1'	-5.13	1.33	1.41
14	N	132	LYS	CA-C	-5.13	1.46	1.52
34	i	1303	U	C2'-C1'	5.13	1.61	1.53
34	i	880	C	C2'-C1'	-5.13	1.45	1.53
10	J	89	GLU	CA-C	5.13	1.60	1.52
34	i	619	A	C2'-C1'	5.13	1.60	1.53
34	i	1355	U	C2'-C1'	5.12	1.61	1.53
15	O	129	ILE	C-O	-5.12	1.18	1.24
15	O	143	LYS	CA-C	-5.12	1.46	1.52
34	i	1132	U	O4'-C1'	5.12	1.49	1.41
34	i	410	G	O4'-C1'	-5.12	1.33	1.41
22	V	33	PRO	N-CD	5.12	1.54	1.47
1	A	63	ARG	N-CA	-5.12	1.40	1.46
34	i	1730	A	O4'-C1'	5.11	1.49	1.41
34	i	959	A	C2'-C1'	-5.11	1.45	1.53
34	i	990	C	O4'-C1'	5.11	1.49	1.41
34	i	151	C	P-O5'	-5.11	1.52	1.59
15	O	150	ARG	NE-CZ	5.11	1.38	1.33
34	i	231	C	C2'-C1'	-5.10	1.45	1.53
34	i	1809	A	O4'-C1'	5.10	1.49	1.41
34	i	735	C	C2'-C1'	-5.10	1.45	1.53
34	i	1528	A	C2'-C1'	-5.10	1.45	1.53
34	i	68	A	O4'-C1'	5.10	1.49	1.41
34	i	1021	U	C2'-C1'	5.09	1.60	1.53
34	i	464	G	C2'-C1'	-5.09	1.45	1.53
3	C	161	LYS	C-N	-5.08	1.27	1.33
34	i	1556	A	O4'-C1'	5.08	1.49	1.41
34	i	1232	G	C3'-C2'	5.08	1.60	1.52
3	C	99	LYS	CA-C	5.07	1.58	1.52
12	L	120	VAL	N-CA	-5.07	1.41	1.46
33	g	94	THR	N-CA	-5.07	1.39	1.46
20	T	46	ALA	C-N	-5.07	1.28	1.33
34	i	566	A	O4'-C1'	5.07	1.49	1.41
34	i	988	A	C2'-C1'	-5.07	1.45	1.53
34	i	438	A	C2'-C1'	5.07	1.60	1.53
34	i	489	G	C2'-C1'	-5.07	1.45	1.53
34	i	819	U	O4'-C1'	-5.07	1.34	1.41
5	E	133	THR	N-CA	5.06	1.52	1.46
34	i	688	U	C1'-N1	5.06	1.55	1.47
2	B	147	ASN	N-CA	-5.06	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1244	U	C2'-C1'	-5.06	1.45	1.53
34	i	1523	G	O4'-C1'	-5.06	1.34	1.41
7	G	131	ARG	CD-NE	5.05	1.53	1.46
31	e	95	LYS	CA-C	5.05	1.59	1.52
34	i	609	A	C2'-C1'	5.05	1.60	1.53
34	i	812	A	C2'-C1'	-5.05	1.45	1.53
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	1821	U	O4'-C1'	5.05	1.49	1.41
11	K	55	ARG	NE-CZ	5.05	1.38	1.33
2	B	221	PRO	N-CD	5.05	1.54	1.47
34	i	231	C	O4'-C1'	5.04	1.49	1.41
34	i	1125	G	C2'-C1'	-5.04	1.45	1.53
34	i	1419	C	C2'-C1'	-5.04	1.45	1.53
34	i	556	U	C2'-C1'	5.04	1.60	1.53
34	i	818	U	C2'-C1'	-5.04	1.45	1.53
34	i	1681	G	C2'-C1'	-5.04	1.45	1.53
11	K	80	ARG	NE-CZ	5.04	1.38	1.33
34	i	382	A	C2'-C1'	-5.04	1.45	1.53
34	i	1544	U	O4'-C1'	5.04	1.49	1.41
34	i	318	U	O4'-C1'	5.03	1.49	1.41
9	I	19	LYS	CA-C	-5.03	1.46	1.52
34	i	1072	G	C2'-C1'	-5.02	1.45	1.53
7	G	158	VAL	N-CA	-5.02	1.40	1.46
34	i	306	C	O4'-C1'	5.02	1.49	1.41
34	i	1439	C	O4'-C1'	5.02	1.49	1.41
34	i	1167	G	C5'-C4'	5.01	1.58	1.51
34	i	1073	A	O4'-C1'	5.01	1.49	1.41
34	i	1639	C	O4'-C1'	5.01	1.49	1.41
3	C	99	LYS	N-CA	5.01	1.52	1.45
34	i	1567	C	O4'-C1'	5.01	1.49	1.41
34	i	1734	C	C2'-C1'	-5.01	1.45	1.53
34	i	1647	G	O4'-C1'	5.00	1.49	1.41
34	i	320	G	C2'-C1'	-5.00	1.45	1.53
34	i	325	G	C2'-C1'	5.00	1.60	1.53
34	i	348	C	C2'-C1'	-5.00	1.45	1.53
34	i	1014	U	O4'-C1'	5.00	1.49	1.41
34	i	1284	U	C5'-C4'	5.00	1.58	1.51

All (3512) bond angle outliers are listed below:

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	a	97	PRO	N-CA-C	32.70	150.59	110.70
34	i	1774	G	P-O3'-C3'	30.30	165.65	120.20
4	D	5	ILE	O-C-N	-29.01	97.73	122.97
8	H	109	ARG	NE-CZ-NH2	-28.47	93.58	119.20
27	a	97	PRO	CB-CA-C	-26.20	78.96	110.92
34	i	24	C	C1'-C2'-O2'	-25.88	72.98	111.80
10	J	146	SER	O-C-N	-24.45	86.51	121.72
28	b	36	LYS	N-CA-C	24.14	137.22	111.14
19	S	40	TYR	N-CA-C	23.34	136.05	111.07
21	U	93	SER	CA-C-N	-22.81	91.32	119.84
21	U	93	SER	C-N-CA	-22.81	91.32	119.84
34	i	1664	G	P-O5'-C5'	22.70	154.94	120.90
34	i	883	U	P-O3'-C3'	22.32	153.68	120.20
9	I	43	ILE	O-C-N	-22.07	98.72	123.00
34	i	1080	A	P-O3'-C3'	21.46	152.39	120.20
34	i	1817	A	P-O3'-C3'	21.43	152.35	120.20
3	C	93	LYS	CA-C-N	21.43	145.93	122.14
3	C	93	LYS	C-N-CA	21.43	145.93	122.14
2	B	41	ILE	CB-CA-C	21.30	135.02	111.59
34	i	521	A	P-O3'-C3'	21.02	151.74	120.20
34	i	1503	G	O4'-C1'-C2'	20.65	126.45	105.80
34	i	746	C	P-O3'-C3'	20.64	151.16	120.20
7	G	157	VAL	N-CA-C	20.37	135.86	109.58
4	D	193	ASP	N-CA-C	-20.26	85.19	112.75
8	H	109	ARG	NE-CZ-NH1	20.12	141.62	121.50
9	I	134	GLU	N-CA-CB	20.02	139.04	110.01
7	G	131	ARG	CB-CA-C	19.93	145.29	109.62
15	O	145	GLY	N-CA-C	19.82	130.78	111.95
34	i	749	C	P-O5'-C5'	19.69	150.44	120.90
10	J	146	SER	CA-C-N	19.61	150.30	120.89
10	J	146	SER	C-N-CA	19.61	150.30	120.89
26	Z	107	VAL	N-CA-CB	-19.58	87.64	110.55
34	i	295	C	C4'-C3'-O3'	-19.55	80.07	109.40
34	i	329	A	C4'-C3'-O3'	-19.46	83.81	113.00
9	I	43	ILE	CA-C-O	19.13	140.89	121.19
34	i	1627	G	P-O3'-C3'	19.09	148.84	120.20
7	G	131	ARG	CB-CG-CD	18.93	154.83	111.30
34	i	730	C	P-O3'-C3'	18.76	148.34	120.20
34	i	317	G	P-O3'-C3'	18.68	148.22	120.20
34	i	1470	A	P-O3'-C3'	18.64	148.15	120.20
34	i	1114	C	O4'-C1'-N1	18.61	136.41	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	Y	86	GLU	CA-C-O	-18.55	94.75	120.16
18	R	1	MET	N-CA-CB	18.21	141.46	110.50
34	i	1459	U	C4'-C3'-O3'	-18.18	82.13	109.40
34	i	66	G	P-O3'-C3'	18.11	147.37	120.20
19	S	9	PHE	N-CA-C	18.03	131.04	111.03
34	i	211	U	P-O3'-C3'	17.96	147.14	120.20
34	i	520	U	C4'-C3'-O3'	-17.95	86.07	113.00
27	a	97	PRO	CA-C-N	-17.94	101.90	120.38
27	a	97	PRO	C-N-CA	-17.94	101.90	120.38
34	i	126	G	C4'-C3'-O3'	-17.89	82.56	109.40
34	i	793	C	P-O3'-C3'	17.82	146.93	120.20
25	Y	86	GLU	N-CA-C	17.72	148.98	109.81
34	i	140	U	P-O3'-C3'	17.69	146.73	120.20
17	Q	31	LEU	N-CA-C	17.61	132.62	110.61
34	i	1643	G	C4'-C3'-O3'	17.50	135.65	109.40
34	i	836	C	P-O3'-C3'	17.43	146.35	120.20
16	P	37	TYR	N-CA-CB	-17.43	81.03	110.49
34	i	582	C	O4'-C1'-N1	17.37	134.25	108.20
24	X	128	VAL	N-CA-C	17.04	129.63	113.10
34	i	685	G	P-O3'-C3'	16.98	145.67	120.20
34	i	750	G	P-O3'-C3'	16.96	145.64	120.20
34	i	1226	C	N1-C1'-C2'	16.93	137.40	112.00
34	i	1516	C	P-O3'-C3'	16.90	145.55	120.20
24	X	23	HIS	O-C-N	-16.86	102.49	122.22
34	i	743	U	P-O3'-C3'	16.83	145.45	120.20
34	i	722	C	P-O3'-C3'	16.62	145.14	120.20
24	X	91	LEU	N-CA-C	-16.55	93.36	111.07
34	i	67	C	O4'-C1'-N1	16.50	133.25	108.50
34	i	1473	U	P-O3'-C3'	16.39	144.79	120.20
34	i	1151	U	N1-C1'-C2'	16.33	138.50	114.00
1	A	193	HIS	CA-C-N	16.32	140.25	119.84
1	A	193	HIS	C-N-CA	16.32	140.25	119.84
7	G	181	THR	CA-C-N	16.26	136.58	118.85
7	G	181	THR	C-N-CA	16.26	136.58	118.85
4	D	4	GLN	CG-CD-NE2	16.26	140.79	116.40
34	i	264	U	P-O3'-C3'	16.25	144.58	120.20
34	i	1391	C	P-O3'-C3'	16.22	144.53	120.20
34	i	1429	C	O3'-P-O5'	-16.19	79.71	104.00
4	D	193	ASP	CA-C-N	-16.19	99.61	119.84
4	D	193	ASP	C-N-CA	-16.19	99.61	119.84
34	i	72	C	O4'-C1'-N1	16.15	132.43	108.20
18	R	88	VAL	O-C-N	-16.08	102.47	122.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	837	G	C1'-C2'-O2'	-16.02	84.36	108.40
18	R	89	SER	N-CA-C	16.02	144.93	110.80
34	i	1414	C	C3'-C2'-C1'	-15.99	85.51	101.50
34	i	1281	G	C4'-C3'-O3'	15.90	133.25	109.40
34	i	1563	C	N1-C1'-C2'	15.80	135.69	112.00
34	i	1393	U	N1-C1'-C2'	15.76	137.63	114.00
9	I	3	ILE	N-CA-C	15.70	130.81	108.36
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
33	g	275	ILE	N-CA-C	15.65	130.49	107.80
34	i	1413	C	O4'-C1'-C2'	-15.65	91.95	107.60
4	D	5	ILE	CA-C-N	15.62	144.34	120.75
4	D	5	ILE	C-N-CA	15.62	144.34	120.75
34	i	1392	A	P-O3'-C3'	15.60	143.60	120.20
2	B	40	ASN	CA-C-N	-15.59	98.65	120.95
2	B	40	ASN	C-N-CA	-15.59	98.65	120.95
34	i	678	U	O4'-C1'-N1	15.58	131.57	108.20
34	i	424	G	C4'-C3'-O3'	-15.54	89.69	113.00
10	J	89	GLU	N-CA-C	15.53	137.00	111.37
4	D	82	GLY	CA-C-N	-15.43	98.39	120.29
4	D	82	GLY	C-N-CA	-15.43	98.39	120.29
34	i	319	G	P-O3'-C3'	15.38	143.26	120.20
34	i	1469	G	O3'-P-O5'	15.37	127.06	104.00
34	i	79	A	O4'-C1'-C2'	-15.31	90.49	105.80
34	i	1819	A	P-O3'-C3'	15.29	143.14	120.20
34	i	551	A	C4'-C3'-O3'	-15.26	90.11	113.00
7	G	170	ARG	CA-CB-CG	15.23	144.56	114.10
34	i	1012	U	N1-C1'-C2'	15.23	136.84	114.00
34	i	180	G	P-O3'-C3'	-15.17	97.44	120.20
9	I	134	GLU	CB-CA-C	-15.17	87.06	110.88
34	i	1548	C	O4'-C1'-N1	15.13	131.20	108.50
34	i	1233	C	N1-C1'-C2'	15.12	134.68	112.00
34	i	793	C	O4'-C1'-N1	15.05	130.78	108.20
34	i	1471	G	P-O3'-C3'	15.05	142.78	120.20
34	i	225	C	P-O3'-C3'	15.04	142.75	120.20
34	i	1549	C	O3'-P-O5'	-15.03	81.45	104.00
7	G	170	ARG	N-CA-CB	14.97	133.01	110.70
8	H	110	THR	CA-C-O	-14.93	99.16	120.51
24	X	115	ILE	N-CA-C	-14.90	91.09	107.77
26	Z	112	ASN	N-CA-C	14.83	127.16	111.14
34	i	1322	U	N1-C1'-C2'	14.83	136.25	114.00
23	W	100	GLY	N-CA-C	-14.72	94.67	112.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	697	G	P-O3'-C3'	14.70	142.25	120.20
17	Q	18	THR	N-CA-CB	14.69	134.35	110.69
3	C	105	GLN	N-CA-C	14.66	129.44	110.53
33	g	274	VAL	O-C-N	-14.66	107.94	123.03
19	S	141	ARG	O-C-N	-14.65	100.69	122.96
34	i	1299	C	O4'-C1'-N1	14.62	130.43	108.50
34	i	78	C	P-O3'-C3'	14.58	142.07	120.20
34	i	126	G	P-O3'-C3'	14.57	142.06	120.20
34	i	688	U	P-O3'-C3'	14.55	142.03	120.20
34	i	747	G	P-O3'-C3'	14.55	142.03	120.20
34	i	418	U	O4'-C1'-N1	14.52	129.99	108.20
31	e	95	LYS	O-C-N	-14.50	103.54	122.39
34	i	1113	C	O4'-C1'-N1	14.49	130.24	108.50
1	A	10	MET	N-CA-C	14.46	126.76	111.14
11	K	42	ASN	CA-C-O	-14.40	106.29	121.55
25	Y	103	SER	O-C-N	-14.40	99.96	123.00
18	R	2	GLY	O-C-N	-14.36	106.46	122.68
9	I	5	ARG	CA-C-N	14.33	141.11	120.90
9	I	5	ARG	C-N-CA	14.33	141.11	120.90
7	G	131	ARG	CA-CB-CG	14.29	142.67	114.10
8	H	109	ARG	CD-NE-CZ	14.28	144.39	124.40
5	E	259	LYS	N-CA-C	14.27	131.67	108.55
34	i	72	C	P-O3'-C3'	14.21	141.52	120.20
34	i	1133	U	P-O3'-C3'	14.11	141.37	120.20
34	i	1544	U	P-O3'-C3'	14.07	141.31	120.20
34	i	215	U	N1-C1'-C2'	14.04	133.06	112.00
34	i	299	G	N9-C1'-C2'	13.99	134.99	114.00
28	b	36	LYS	CA-C-N	13.98	155.91	121.80
28	b	36	LYS	C-N-CA	13.98	155.91	121.80
24	X	98	ASP	N-CA-C	13.98	126.59	111.36
3	C	93	LYS	O-C-N	-13.94	109.66	123.46
31	e	120	VAL	CB-CA-C	-13.90	99.62	114.35
34	i	180	G	C4'-C3'-O3'	13.85	130.17	109.40
34	i	727	G	P-O3'-C3'	13.85	140.97	120.20
24	X	37	LYS	N-CA-C	13.82	126.06	111.14
25	Y	64	PHE	CA-C-N	-13.80	107.02	123.44
25	Y	64	PHE	C-N-CA	-13.80	107.02	123.44
19	S	87	GLN	O-C-N	-13.78	105.70	122.65
34	i	1227	C	N1-C1'-C2'	13.76	132.64	112.00
12	L	153	LYS	O-C-N	-13.75	104.30	122.59
29	c	6	VAL	N-CA-C	13.74	127.26	107.75
34	i	257	G	P-O3'-C3'	13.72	140.78	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1458	U	C4'-C3'-O3'	13.66	129.90	109.40
8	H	118	ARG	NE-CZ-NH1	13.61	135.11	121.50
21	U	67	LYS	CA-C-N	-13.60	100.01	120.68
21	U	67	LYS	C-N-CA	-13.60	100.01	120.68
5	E	75	LYS	N-CA-C	13.59	130.92	108.49
34	i	524	G	P-O3'-C3'	13.56	140.54	120.20
34	i	189	G	P-O3'-C3'	13.55	140.53	120.20
34	i	1327	C	N1-C1'-C2'	13.50	134.25	114.00
2	B	63	LYS	N-CA-C	13.50	125.72	111.14
34	i	1105	C	O4'-C1'-N1	13.44	128.66	108.50
33	g	50	THR	CA-C-N	-13.38	103.33	123.14
33	g	50	THR	C-N-CA	-13.38	103.33	123.14
34	i	135	U	P-O3'-C3'	13.36	140.24	120.20
17	Q	134	GLY	CA-C-N	-13.34	105.64	120.04
17	Q	134	GLY	C-N-CA	-13.34	105.64	120.04
14	N	19	ARG	N-CA-C	-13.33	91.45	110.24
10	J	145	PRO	N-CA-C	-13.30	96.14	113.57
34	i	1018	U	N1-C1'-C2'	13.27	131.90	112.00
34	i	1311	U	O4'-C1'-N1	13.26	128.39	108.50
34	i	1503	G	C1'-C2'-O2'	13.25	131.68	111.80
28	b	79	PHE	N-CA-C	13.25	129.72	107.20
34	i	136	C	P-O3'-C3'	13.23	140.04	120.20
34	i	831	C	P-O5'-C5'	13.20	140.71	120.90
34	i	490	A	O3'-P-O5'	-13.19	84.22	104.00
12	L	28	THR	CA-C-N	13.18	131.76	121.61
12	L	28	THR	C-N-CA	13.18	131.76	121.61
34	i	222	G	P-O3'-C3'	13.18	139.97	120.20
34	i	1010	G	O4'-C1'-C2'	13.18	120.78	107.60
21	U	93	SER	O-C-N	13.15	136.45	121.32
10	J	138	ARG	N-CA-C	13.14	138.78	110.80
34	i	287	U	N1-C1'-C2'	13.13	131.69	112.00
6	F	36	GLN	N-CA-C	-13.09	90.67	110.30
34	i	239	U	P-O3'-C3'	13.05	139.78	120.20
34	i	1392	A	O4'-C1'-N9	13.05	128.07	108.50
19	S	91	LYS	CG-CD-CE	13.03	141.26	111.30
18	R	1	MET	CA-C-N	-13.03	97.61	120.79
18	R	1	MET	C-N-CA	-13.03	97.61	120.79
5	E	171	ASP	N-CA-C	13.02	138.54	110.80
34	i	848	G	C4'-C3'-O3'	-13.02	93.47	113.00
28	b	53	VAL	CA-C-N	-13.00	107.07	123.19
28	b	53	VAL	C-N-CA	-13.00	107.07	123.19
20	T	4	VAL	N-CA-C	12.97	147.32	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	P	51	ARG	N-CA-C	12.97	124.94	111.07
34	i	1081	C	P-O5'-C5'	-12.96	101.45	120.90
33	g	159	ASN	CA-C-N	-12.95	104.72	123.11
33	g	159	ASN	C-N-CA	-12.95	104.72	123.11
28	b	37	CYS	CA-C-N	12.91	135.98	119.84
28	b	37	CYS	C-N-CA	12.91	135.98	119.84
34	i	867	U	O4'-C1'-N1	12.90	127.55	108.20
24	X	126	ALA	N-CA-C	-12.89	97.14	112.86
34	i	1414	C	O4'-C1'-C2'	12.87	118.67	105.80
6	F	130	ARG	N-CA-C	12.87	129.04	111.54
34	i	830	C	N1-C1'-C2'	12.87	131.30	112.00
8	H	192	PHE	N-CA-C	12.86	126.68	110.61
33	g	145	GLU	N-CA-C	-12.80	87.19	113.31
34	i	340	C	O4'-C1'-C2'	-12.80	94.80	107.60
34	i	1408	C	O3'-P-O5'	-12.79	84.81	104.00
34	i	358	U	P-O3'-C3'	12.77	139.35	120.20
34	i	835	C	N1-C1'-C2'	12.75	133.12	114.00
13	M	10	GLY	N-CA-C	12.74	132.05	114.85
31	e	119	VAL	CA-C-N	12.66	128.21	120.24
31	e	119	VAL	C-N-CA	12.66	128.21	120.24
34	i	1257	C	N1-C1'-C2'	12.65	130.98	112.00
34	i	748	G	P-O3'-C3'	12.63	139.15	120.20
11	K	1	MET	N-CA-CB	-12.59	89.10	110.50
18	R	111	PHE	N-CA-C	12.58	130.42	108.02
10	J	101	LYS	N-CA-C	12.58	128.64	108.76
34	i	1859	C	C4'-C3'-O3'	12.55	128.23	109.40
7	G	173	ALA	CA-C-N	12.55	135.53	119.84
7	G	173	ALA	C-N-CA	12.55	135.53	119.84
12	L	98	LYS	N-CA-C	-12.53	95.71	111.75
31	e	118	ASN	N-CA-C	12.52	124.66	111.14
4	D	4	GLN	N-CA-CB	-12.51	89.34	110.49
34	i	522	C	O4'-C1'-C2'	-12.50	95.10	107.60
34	i	1307	C	N1-C1'-C2'	12.49	130.74	112.00
34	i	207	U	C4'-C3'-O3'	12.49	131.73	113.00
10	J	187	ALA	N-CA-C	12.47	124.27	108.19
30	d	6	LEU	N-CA-C	-12.47	97.37	111.71
34	i	1406	C	N1-C1'-C2'	12.46	130.69	112.00
11	K	55	ARG	CG-CD-NE	12.45	139.39	112.00
34	i	622	C	N1-C1'-C2'	12.44	130.66	112.00
15	O	129	ILE	CB-CA-C	-12.41	90.94	111.29
32	f	104	LYS	N-CA-C	-12.39	98.00	112.87
6	F	38	TYR	CA-C-N	-12.38	106.71	122.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	F	38	TYR	C-N-CA	-12.38	106.71	122.93
23	W	2	VAL	CA-C-N	-12.38	104.97	122.93
23	W	2	VAL	C-N-CA	-12.38	104.97	122.93
34	i	1150	U	O4'-C1'-N1	12.37	126.75	108.20
16	P	52	LYS	CA-C-N	-12.35	102.85	122.73
16	P	52	LYS	C-N-CA	-12.35	102.85	122.73
19	S	10	GLN	N-CA-C	12.34	126.13	111.82
34	i	141	A	P-O3'-C3'	12.33	138.69	120.20
33	g	159	ASN	N-CA-C	12.32	137.04	110.80
34	i	1564	A	O4'-C1'-N9	12.32	126.98	108.50
34	i	837	G	C2'-C3'-O3'	-12.31	95.24	113.70
3	C	242	LYS	N-CA-C	12.25	129.43	109.95
19	S	54	LYS	N-CA-C	12.25	136.89	110.80
34	i	165	G	O4'-C1'-N9	12.20	126.79	108.50
10	J	180	LYS	N-CA-C	12.17	127.61	113.01
34	i	1304	U	O4'-C1'-N1	12.16	126.44	108.20
34	i	138	C	P-O3'-C3'	12.13	138.39	120.20
34	i	728	U	P-O5'-C5'	12.10	139.05	120.90
34	i	1472	A	O4'-C1'-N9	12.07	126.60	108.50
34	i	1425	G	P-O3'-C3'	12.06	138.29	120.20
34	i	1044	G	N9-C1'-C2'	12.01	130.01	112.00
7	G	173	ALA	O-C-N	-12.00	109.86	121.38
20	T	42	HIS	CB-CG-CD2	-11.96	115.64	131.20
22	V	64	GLU	N-CA-C	11.96	128.83	112.93
34	i	295	C	P-O3'-C3'	11.95	138.13	120.20
7	G	170	ARG	CB-CG-CD	11.89	138.64	111.30
34	i	1532	A	O4'-C1'-C2'	-11.86	95.74	107.60
12	L	20	LYS	N-CA-CB	-11.85	90.47	110.49
34	i	4	C	N1-C1'-C2'	11.84	129.76	112.00
21	U	104	ILE	N-CA-C	-11.84	84.72	109.34
2	B	76	ASN	N-CA-C	11.83	128.09	111.52
28	b	53	VAL	N-CA-C	-11.83	93.80	109.30
34	i	544	A	O4'-C1'-N9	11.83	126.24	108.50
4	D	4	GLN	CG-CD-OE1	-11.83	97.15	120.80
34	i	396	U	P-O3'-C3'	11.82	137.93	120.20
34	i	1279	C	P-O3'-C3'	11.80	137.90	120.20
24	X	23	HIS	CA-C-N	11.78	139.99	121.26
24	X	23	HIS	C-N-CA	11.78	139.99	121.26
33	g	160	SER	N-CA-C	11.78	128.83	107.99
34	i	905	G	O3'-P-O5'	11.77	121.66	104.00
19	S	139	THR	N-CA-C	11.77	118.43	108.78
1	A	84	GLN	N-CA-C	11.76	123.84	111.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	X	127	ASN	N-CA-C	-11.76	98.51	112.86
34	i	524	G	O3'-P-O5'	-11.76	86.36	104.00
34	i	835	C	C3'-C2'-C1'	-11.76	89.74	101.50
34	i	314	U	O4'-C1'-N1	11.73	126.10	108.50
34	i	1235	U	P-O3'-C3'	-11.69	102.66	120.20
34	i	616	G	O4'-C1'-C2'	-11.69	95.91	107.60
34	i	1573	U	O4'-C1'-N1	11.68	125.72	108.20
34	i	1552	C	O4'-C1'-N1	11.67	125.70	108.20
34	i	1549	C	C2'-C3'-O3'	-11.65	96.23	113.70
34	i	179	C	N1-C1'-C2'	11.62	129.43	112.00
34	i	1360	U	O3'-P-O5'	11.62	121.43	104.00
18	R	1	MET	CA-C-O	11.58	140.49	120.80
34	i	734	C	P-O3'-C3'	11.57	137.56	120.20
34	i	736	C	N1-C1'-C2'	11.57	129.35	112.00
34	i	734	C	N1-C1'-C2'	11.55	129.33	112.00
34	i	1328	A	O4'-C1'-C2'	-11.54	96.06	107.60
6	F	131	ALA	N-CA-C	11.53	126.65	112.58
34	i	1816	A	C4'-C3'-O3'	-11.53	95.70	113.00
19	S	93	GLY	O-C-N	11.53	133.71	122.41
34	i	781	C	P-O3'-C3'	11.51	137.47	120.20
34	i	876	G	O4'-C1'-N9	11.49	125.74	108.50
34	i	1515	G	N9-C1'-C2'	11.49	129.24	112.00
34	i	1530	U	C4'-C3'-O3'	11.49	126.64	109.40
34	i	478	U	P-O3'-C3'	11.49	137.44	120.20
34	i	24	C	O3'-P-O5'	-11.48	86.77	104.00
20	T	93	SER	N-CA-CB	11.47	132.23	111.36
34	i	1492	U	P-O3'-C3'	11.46	137.40	120.20
34	i	1296	U	O4'-C1'-N1	11.46	125.39	108.20
19	S	88	LYS	CA-C-N	-11.46	99.66	121.54
19	S	88	LYS	C-N-CA	-11.46	99.66	121.54
34	i	1776	G	O4'-C1'-N9	11.46	125.69	108.50
34	i	907	C	P-O5'-C5'	11.44	138.06	120.90
7	G	180	VAL	CB-CA-C	-11.41	92.58	111.29
24	X	22	TRP	CA-C-N	-11.40	103.87	120.28
24	X	22	TRP	C-N-CA	-11.40	103.87	120.28
34	i	1361	G	C4'-C3'-O3'	-11.39	95.91	113.00
17	Q	18	THR	CA-CB-OG1	11.38	126.67	109.60
21	U	103	SER	CA-C-N	-11.37	101.50	121.97
21	U	103	SER	C-N-CA	-11.37	101.50	121.97
34	i	1261	A	N9-C1'-C2'	11.36	131.04	114.00
34	i	170	A	O4'-C1'-C2'	11.35	118.95	107.60
35	l	67	PHE	N-CA-C	-11.35	97.39	114.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	538	C	P-O3'-C3'	11.34	137.20	120.20
34	i	720	A	P-O3'-C3'	11.30	137.15	120.20
12	L	17	PHE	O-C-N	11.28	137.37	123.16
34	i	454	A	P-O3'-C3'	-11.28	103.28	120.20
34	i	847	C	O3'-P-O5'	-11.26	87.10	104.00
34	i	786	C	P-O3'-C3'	11.26	137.08	120.20
11	K	87	PRO	CA-C-N	11.22	142.97	121.54
11	K	87	PRO	C-N-CA	11.22	142.97	121.54
34	i	1390	G	P-O3'-C3'	11.22	137.03	120.20
34	i	1845	A	O4'-C1'-C2'	-11.21	96.39	107.60
10	J	165	TYR	CB-CA-C	11.20	128.23	109.75
34	i	298	G	O4'-C1'-N9	11.19	125.29	108.50
34	i	1562	G	O4'-C1'-N9	11.18	125.27	108.50
18	R	1	MET	N-CA-C	-11.18	79.71	111.00
34	i	133	C	P-O3'-C3'	11.17	136.95	120.20
18	R	86	PRO	CA-N-CD	-11.16	96.37	112.00
9	I	5	ARG	O-C-N	-11.16	109.48	122.20
3	C	157	ASN	N-CA-C	11.15	128.50	107.75
34	i	1468	C	C4'-C3'-O3'	11.15	129.72	113.00
34	i	53	C	O4'-C1'-C2'	-11.13	96.47	107.60
7	G	131	ARG	CA-C-N	-11.12	101.78	120.68
7	G	131	ARG	C-N-CA	-11.12	101.78	120.68
3	C	69	PHE	CA-CB-CG	-11.11	102.69	113.80
34	i	1412	C	P-O3'-C3'	11.10	136.84	120.20
34	i	109	U	C4'-C3'-O3'	-11.09	96.36	113.00
34	i	682	G	P-O3'-C3'	11.06	136.79	120.20
34	i	519	A	P-O3'-C3'	-11.03	103.66	120.20
8	H	118	ARG	NE-CZ-NH2	-11.00	109.30	119.20
34	i	1238	U	N1-C1'-C2'	11.00	130.50	114.00
27	a	10	ARG	NE-CZ-NH2	10.99	129.09	119.20
34	i	1496	G	N9-C1'-C2'	10.99	128.49	112.00
2	B	37	ALA	CA-C-N	-10.97	102.40	120.72
2	B	37	ALA	C-N-CA	-10.97	102.40	120.72
3	C	98	GLN	N-CA-C	10.97	124.61	108.60
34	i	1824	U	P-O3'-C3'	10.96	136.65	120.20
34	i	849	C	O3'-P-O5'	10.92	120.38	104.00
34	i	546	U	P-O5'-C5'	10.91	137.27	120.90
27	a	97	PRO	N-CA-CB	-10.88	92.52	103.08
21	U	68	THR	CB-CA-C	10.84	126.73	109.27
9	I	31	ARG	N-CA-C	10.84	117.97	108.22
19	S	53	THR	O-C-N	-10.81	108.21	122.59
22	V	67	ASP	CB-CA-C	10.81	127.98	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	730	C	O4'-C1'-C2'	-10.80	96.80	107.60
34	i	1738	G	N9-C1'-C2'	10.79	128.19	112.00
27	a	10	ARG	CB-CG-CD	10.79	136.11	111.30
34	i	794	G	P-O3'-C3'	10.78	136.37	120.20
11	K	42	ASN	N-CA-C	-10.78	95.69	110.35
6	F	38	TYR	N-CA-C	-10.77	99.60	113.17
34	i	570	U	C4'-C3'-O3'	10.76	129.14	113.00
34	i	1414	C	P-O5'-C5'	10.75	137.03	120.90
34	i	1441	U	C4'-C3'-O3'	-10.74	96.89	113.00
34	i	1184	A	O4'-C1'-C2'	-10.73	96.87	107.60
34	i	543	U	O4'-C1'-C2'	-10.70	96.90	107.60
34	i	436	G	N9-C1'-C2'	10.70	128.04	112.00
34	i	240	C	P-O3'-C3'	10.69	136.24	120.20
34	i	1819	A	O4'-C1'-N9	10.69	124.54	108.50
34	i	727	G	O3'-P-O5'	10.67	120.00	104.00
21	U	71	GLY	N-CA-C	10.66	138.45	113.18
34	i	1082	G	O3'-P-O5'	-10.66	88.01	104.00
10	J	118	GLY	O-C-N	-10.65	108.86	122.70
34	i	276	U	P-O3'-C3'	10.65	136.17	120.20
24	X	23	HIS	CB-CA-C	10.64	130.32	110.63
34	i	1741	U	C4'-C3'-O3'	10.63	128.94	113.00
34	i	1716	U	O4'-C1'-C2'	-10.62	96.98	107.60
12	L	147	LYS	N-CA-C	10.62	133.41	110.80
34	i	1856	G	O4'-C1'-C2'	-10.62	95.18	105.80
34	i	1112	C	O4'-C1'-N1	10.61	124.11	108.20
34	i	313	C	P-O3'-C3'	10.59	136.08	120.20
34	i	1134	C	C4'-C3'-O3'	-10.58	97.13	113.00
34	i	325	G	O4'-C1'-N9	10.57	124.35	108.50
34	i	1773	G	P-O3'-C3'	10.56	136.04	120.20
8	H	111	LYS	N-CA-C	-10.55	87.67	107.71
34	i	986	A	N9-C1'-C2'	10.55	129.82	114.00
27	a	96	THR	O-C-N	10.52	133.42	121.32
34	i	1297	A	C4'-C3'-O3'	10.52	128.78	113.00
34	i	858	A	N9-C1'-C2'	10.50	127.75	112.00
34	i	1505	U	C4'-C3'-O3'	-10.50	93.65	109.40
34	i	1135	C	C4'-C3'-O3'	-10.49	97.26	113.00
34	i	905	G	C4'-C3'-O3'	10.49	128.74	113.00
34	i	1862	U	P-O3'-C3'	10.47	135.91	120.20
21	U	106	ILE	N-CA-C	10.47	124.06	108.46
19	S	88	LYS	CB-CA-C	10.46	131.55	112.30
34	i	1272	A	O4'-C1'-C2'	-10.45	97.15	107.60
34	i	829	C	P-O3'-C3'	10.43	135.85	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	618	A	O4'-C1'-N9	10.42	124.13	108.50
34	i	794	G	O4'-C1'-C2'	-10.41	95.39	105.80
34	i	1741	U	P-O3'-C3'	10.41	135.81	120.20
34	i	1716	U	O4'-C1'-N1	10.39	124.09	108.50
34	i	578	G	O3'-P-O5'	-10.37	88.45	104.00
34	i	317	G	O4'-C1'-N9	10.32	123.68	108.20
34	i	1118	A	O4'-C1'-C2'	-10.32	97.28	107.60
34	i	1426	C	O4'-C1'-N1	10.32	123.98	108.50
34	i	1074	C	N1-C1'-C2'	10.31	127.47	112.00
34	i	524	G	C4'-C3'-O3'	10.29	128.44	113.00
18	R	94	GLU	N-CA-C	-10.29	96.86	110.24
34	i	1548	C	C3'-C2'-C1'	-10.29	91.01	101.30
34	i	1404	U	N1-C1'-C2'	10.29	127.43	112.00
34	i	191	C	C4'-C3'-O3'	10.28	128.42	113.00
34	i	24	C	P-O3'-C3'	10.28	135.61	120.20
34	i	768	G	P-O3'-C3'	10.25	135.58	120.20
9	I	132	GLU	CA-C-O	-10.24	108.65	121.55
34	i	742	C	P-O3'-C3'	10.24	135.55	120.20
34	i	1857	A	O4'-C1'-C2'	-10.23	95.57	105.80
34	i	168	C	N1-C1'-C2'	10.23	127.34	112.00
34	i	141	A	O4'-C1'-C2'	-10.21	95.59	105.80
29	c	60	GLU	N-CA-C	-10.20	95.85	110.24
34	i	1715	U	P-O3'-C3'	10.20	135.50	120.20
21	U	104	ILE	N-CA-CB	10.18	128.02	111.23
34	i	964	U	O4'-C1'-C2'	-10.17	97.43	107.60
27	a	80	HIS	N-CA-CB	-10.16	95.27	110.01
10	J	161	LEU	O-C-N	-10.16	109.08	122.59
18	R	42	PRO	CA-N-CD	-10.15	97.79	112.00
19	S	138	THR	CA-C-N	-10.15	112.08	123.04
19	S	138	THR	C-N-CA	-10.15	112.08	123.04
17	Q	18	THR	N-CA-C	-10.15	93.25	109.59
34	i	1434	A	O4'-C1'-C2'	-10.15	97.45	107.60
26	Z	107	VAL	N-CA-C	10.14	120.16	110.42
34	i	616	G	C3'-C2'-C1'	10.14	111.44	101.30
34	i	1358	U	O4'-C1'-N1	10.13	123.39	108.20
34	i	526	A	C4'-C3'-O3'	10.12	128.18	113.00
34	i	1828	A	N9-C1'-C2'	10.09	129.13	114.00
3	C	149	PRO	CA-C-O	-10.08	109.85	121.34
5	E	151	ASP	CB-CA-C	10.07	121.70	109.31
10	J	93	LYS	CA-C-N	10.07	140.78	121.54
10	J	93	LYS	C-N-CA	10.07	140.78	121.54
34	i	82	G	O4'-C1'-C2'	-10.05	97.55	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	883	U	P-O5'-C5'	10.05	135.98	120.90
34	i	142	C	O4'-C1'-N1	10.05	123.27	108.20
22	V	66	ASP	CA-C-N	-10.04	106.79	120.44
22	V	66	ASP	C-N-CA	-10.04	106.79	120.44
34	i	1258	C	N1-C1'-C2'	10.02	127.03	112.00
34	i	207	U	O3'-P-O5'	-10.01	88.99	104.00
24	X	58	GLU	N-CA-C	10.00	126.19	110.70
27	a	10	ARG	CD-NE-CZ	10.00	138.40	124.40
34	i	876	G	P-O3'-C3'	9.99	135.18	120.20
34	i	547	U	N1-C1'-C2'	9.98	126.97	112.00
15	O	102	GLY	CA-C-N	-9.97	106.08	122.54
15	O	102	GLY	C-N-CA	-9.97	106.08	122.54
34	i	1515	G	O3'-P-O5'	9.97	118.96	104.00
8	H	105	THR	CB-CA-C	9.97	126.63	110.29
34	i	594	A	P-O3'-C3'	9.96	135.14	120.20
34	i	73	C	O4'-C1'-C2'	-9.96	95.84	105.80
34	i	869	G	P-O3'-C3'	9.95	135.12	120.20
34	i	721	C	P-O3'-C3'	9.95	135.12	120.20
34	i	1859	C	C2'-C3'-O3'	-9.94	94.58	109.50
34	i	546	U	C4'-C3'-C2'	-9.94	92.66	102.60
34	i	66	G	C1'-O4'-C4'	-9.94	99.96	109.90
10	J	166	GLY	CA-C-N	-9.94	106.15	121.45
10	J	166	GLY	C-N-CA	-9.94	106.15	121.45
34	i	1305	C	O4'-C1'-C2'	-9.93	97.67	107.60
34	i	1715	U	O4'-C1'-C2'	-9.93	97.67	107.60
34	i	1194	G	O4'-C1'-C2'	9.92	117.52	107.60
34	i	1533	C	P-O3'-C3'	9.92	135.08	120.20
34	i	854	A	O4'-C1'-C2'	-9.92	97.68	107.60
4	D	52	ALA	CA-C-N	-9.88	103.69	122.06
4	D	52	ALA	C-N-CA	-9.88	103.69	122.06
11	K	1	MET	CB-CG-SD	9.87	142.32	112.70
34	i	1402	G	P-O3'-C3'	9.87	135.00	120.20
34	i	1211	C	O4'-C1'-C2'	-9.86	95.94	105.80
34	i	139	C	P-O3'-C3'	9.86	134.99	120.20
34	i	1024	A	C4'-C3'-O3'	-9.86	98.22	113.00
34	i	914	U	N1-C1'-C2'	9.85	126.78	112.00
34	i	1742	C	C2'-C3'-O3'	-9.84	98.94	113.70
1	A	193	HIS	N-CA-C	9.84	124.60	110.24
16	P	36	LEU	N-CA-C	-9.84	93.23	109.07
34	i	904	A	O3'-P-O5'	-9.84	89.24	104.00
26	Z	104	ARG	CD-NE-CZ	-9.84	110.63	124.40
34	i	1255	A	O4'-C1'-C2'	9.82	117.42	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1060	C	O4'-C1'-C2'	-9.81	97.79	107.60
34	i	1534	U	O4'-C1'-C2'	-9.81	97.79	107.60
10	J	100	LEU	N-CA-C	9.81	125.56	110.36
7	G	155	GLN	CA-C-N	-9.80	107.30	123.37
7	G	155	GLN	C-N-CA	-9.80	107.30	123.37
34	i	520	U	O4'-C4'-C3'	-9.80	94.20	104.00
34	i	1490	U	C2'-C3'-O3'	9.79	124.18	109.50
34	i	1068	U	O4'-C1'-C2'	-9.77	97.83	107.60
8	H	113	LYS	CA-C-O	-9.77	110.29	121.81
33	g	277	THR	N-CA-C	-9.76	97.74	110.33
12	L	102	PHE	N-CA-C	-9.75	94.44	109.85
34	i	954	G	O4'-C1'-N9	9.75	123.12	108.50
34	i	1855	G	O4'-C1'-C2'	9.74	115.54	105.80
34	i	684	A	O4'-C1'-C2'	9.73	117.33	107.60
7	G	122	PRO	CA-N-CD	-9.72	98.39	112.00
9	I	156	ALA	N-CA-C	-9.72	101.63	113.19
34	i	872	C	O4'-C1'-C2'	-9.71	97.89	107.60
34	i	1588	C	P-O3'-C3'	9.71	134.77	120.20
34	i	125	C	C4'-C3'-O3'	9.71	123.97	109.40
34	i	883	U	O4'-C1'-N1	9.70	122.75	108.20
34	i	1597	U	O3'-P-O5'	-9.69	89.46	104.00
10	J	161	LEU	CA-C-N	-9.69	103.04	121.54
10	J	161	LEU	C-N-CA	-9.69	103.04	121.54
34	i	1673	A	O4'-C1'-N9	9.67	123.01	108.50
34	i	1134	C	O3'-P-O5'	9.66	118.50	104.00
34	i	1743	G	P-O5'-C5'	9.66	135.39	120.90
34	i	735	C	O4'-C1'-C2'	-9.65	97.95	107.60
3	C	241	TRP	CA-C-N	-9.64	107.34	122.87
3	C	241	TRP	C-N-CA	-9.64	107.34	122.87
34	i	66	G	N9-C1'-C2'	9.64	126.46	112.00
27	a	63	VAL	CA-C-N	9.64	145.31	121.80
27	a	63	VAL	C-N-CA	9.64	145.31	121.80
9	I	191	GLU	N-CA-C	9.63	121.39	108.38
34	i	594	A	O4'-C1'-C2'	-9.63	97.97	107.60
10	J	164	PRO	CA-C-N	-9.63	109.43	122.72
10	J	164	PRO	C-N-CA	-9.63	109.43	122.72
34	i	570	U	P-O3'-C3'	-9.63	105.75	120.20
34	i	80	G	O4'-C1'-C2'	-9.63	97.97	107.60
3	C	156	GLY	CA-C-N	-9.61	109.50	122.85
3	C	156	GLY	C-N-CA	-9.61	109.50	122.85
34	i	71	G	C4'-C3'-O3'	9.60	123.80	109.40
34	i	911	G	O4'-C1'-N9	9.60	122.90	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	77	A	P-O3'-C3'	9.59	134.59	120.20
34	i	342	U	O4'-C1'-C2'	-9.59	98.01	107.60
34	i	526	A	P-O3'-C3'	-9.56	105.86	120.20
21	U	94	PRO	CA-N-CD	-9.55	98.62	112.00
34	i	899	A	O4'-C1'-N9	9.55	122.83	108.50
34	i	1405	A	P-O5'-C5'	9.55	135.22	120.90
34	i	1140	A	N9-C1'-C2'	9.54	126.32	112.00
34	i	1585	C	N1-C1'-C2'	9.54	126.31	112.00
34	i	162	C	C4'-C3'-O3'	9.54	127.31	113.00
34	i	542	G	P-O3'-C3'	9.53	134.50	120.20
34	i	1742	C	C4'-C3'-O3'	-9.54	98.70	113.00
34	i	696	G	P-O3'-C3'	9.53	134.50	120.20
34	i	1473	U	P-O5'-C5'	9.53	135.19	120.90
21	U	53	PRO	CA-N-CD	-9.53	98.66	112.00
34	i	542	G	P-O5'-C5'	9.52	135.19	120.90
34	i	728	U	N1-C1'-C2'	9.52	126.28	112.00
34	i	431	C	N1-C1'-C2'	9.52	126.28	112.00
27	a	58	VAL	CB-CA-C	-9.52	95.68	111.29
34	i	1546	U	O4'-C1'-C2'	9.51	117.11	107.60
34	i	1530	U	O3'-P-O5'	-9.51	89.74	104.00
32	f	87	THR	N-CA-C	-9.50	88.82	109.81
33	g	185	LYS	N-CA-C	9.50	121.40	111.14
34	i	1483	A	C4'-C3'-O3'	-9.50	98.76	113.00
34	i	1562	G	C3'-C2'-C1'	-9.47	91.83	101.30
20	T	51	ASN	CA-C-N	9.46	135.85	120.63
20	T	51	ASN	C-N-CA	9.46	135.85	120.63
34	i	947	C	P-O5'-C5'	9.45	135.08	120.90
33	g	12	LYS	CA-C-N	9.44	134.68	123.44
33	g	12	LYS	C-N-CA	9.44	134.68	123.44
34	i	484	C	O4'-C1'-C2'	-9.44	98.16	107.60
34	i	277	U	C3'-C2'-C1'	9.44	110.74	101.30
10	J	180	LYS	CA-C-N	9.42	139.87	121.41
10	J	180	LYS	C-N-CA	9.42	139.87	121.41
34	i	1430	C	P-O3'-C3'	9.41	134.31	120.20
35	l	100	ILE	N-CA-C	9.40	128.90	109.34
7	G	170	ARG	CB-CA-C	-9.40	93.63	110.36
21	U	70	CYS	CA-C-N	9.39	139.81	121.41
21	U	70	CYS	C-N-CA	9.39	139.81	121.41
12	L	153	LYS	CA-C-N	9.39	142.03	122.41
12	L	153	LYS	C-N-CA	9.39	142.03	122.41
34	i	408	A	N9-C1'-C2'	9.38	126.08	112.00
1	A	200	ASP	CB-CA-C	-9.38	91.03	110.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	689	G	O4'-C1'-C2'	-9.38	98.22	107.60
16	P	121	ILE	O-C-N	-9.37	113.11	122.67
25	Y	86	GLU	C-N-CD	-9.37	86.57	125.00
34	i	1494	A	C1'-O4'-C4'	-9.36	100.54	109.90
6	F	163	PHE	N-CA-C	9.36	121.08	111.07
12	L	152	LYS	CA-C-O	-9.35	107.14	120.51
34	i	1233	C	C1'-O4'-C4'	-9.34	100.56	109.90
34	i	1288	C	N1-C1'-C2'	9.33	126.00	112.00
34	i	1740	A	O4'-C1'-N9	9.33	122.50	108.50
34	i	225	C	C3'-C2'-C1'	9.33	110.83	101.50
6	F	45	TYR	CA-CB-CG	-9.32	97.13	113.90
34	i	927	C	O4'-C1'-C2'	-9.31	98.29	107.60
34	i	237	G	P-O3'-C3'	9.30	134.16	120.20
34	i	893	U	O3'-P-O5'	-9.30	90.06	104.00
34	i	1316	G	O4'-C1'-N9	9.29	122.43	108.50
34	i	1397	A	P-O3'-C3'	9.29	134.13	120.20
34	i	1660	G	O4'-C1'-C2'	9.28	115.08	105.80
19	S	139	THR	CB-CA-C	-9.28	103.71	117.07
34	i	1377	G	O4'-C1'-N9	9.28	122.42	108.50
34	i	1199	G	N9-C1'-C2'	9.28	125.91	112.00
34	i	428	G	O4'-C1'-N9	9.27	122.40	108.50
4	D	82	GLY	O-C-N	-9.25	111.08	122.46
2	B	147	ASN	CA-C-N	-9.25	103.88	121.54
2	B	147	ASN	C-N-CA	-9.25	103.88	121.54
34	i	1736	U	N1-C1'-C2'	9.25	125.87	112.00
27	a	102	ARG	C-N-CD	-9.24	87.12	125.00
34	i	1235	U	C4'-C3'-O3'	-9.24	99.14	113.00
2	B	41	ILE	N-CA-C	-9.24	99.98	110.05
19	S	9	PHE	CA-C-N	-9.24	106.27	120.31
19	S	9	PHE	C-N-CA	-9.24	106.27	120.31
34	i	35	C	O4'-C1'-C2'	-9.24	98.36	107.60
34	i	1659	A	P-O3'-C3'	9.23	134.05	120.20
34	i	446	C	N1-C1'-C2'	9.23	125.85	112.00
18	R	89	SER	O-C-N	-9.23	110.32	122.59
34	i	1403	U	N1-C1'-C2'	9.23	125.84	112.00
34	i	547	U	O4'-C1'-C2'	-9.23	98.37	107.60
34	i	1451	A	O4'-C1'-C2'	-9.22	98.38	107.60
25	Y	52	PRO	CA-N-CD	-9.22	99.10	112.00
34	i	915	A	P-O3'-C3'	9.22	134.03	120.20
34	i	1615	A	N9-C1'-C2'	9.21	127.82	114.00
34	i	868	A	P-O3'-C3'	9.21	134.02	120.20
34	i	1517	A	C2'-C3'-O3'	-9.21	99.88	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	C	254	PHE	CA-CB-CG	-9.20	104.60	113.80
33	g	149	GLU	N-CA-C	9.20	120.76	108.07
34	i	915	A	N9-C1'-C2'	9.20	127.80	114.00
34	i	1232	G	O4'-C1'-C2'	9.19	116.79	107.60
34	i	1538	U	P-O3'-C3'	9.19	133.98	120.20
34	i	414	C	N1-C1'-C2'	9.19	125.78	112.00
10	J	18	ARG	CA-C-N	-9.18	108.36	119.84
10	J	18	ARG	C-N-CA	-9.18	108.36	119.84
19	S	142	ARG	CB-CA-C	-9.18	92.66	110.10
34	i	1043	C	O4'-C1'-C2'	-9.18	98.42	107.60
34	i	1716	U	N1-C1'-C2'	-9.18	98.23	112.00
20	T	4	VAL	N-CA-CB	-9.17	95.91	111.50
3	C	104	GLY	N-CA-C	9.17	134.91	113.18
24	X	67	ARG	N-CA-C	9.17	121.04	111.14
34	i	278	U	P-O3'-C3'	9.17	133.95	120.20
9	I	184	ARG	N-CA-CB	9.17	126.08	110.68
34	i	929	G	C1'-O4'-C4'	-9.17	100.73	109.90
34	i	972	G	P-O5'-C5'	9.17	134.65	120.90
28	b	12	PRO	CA-N-CD	-9.16	99.17	112.00
34	i	1237	A	C3'-C2'-C1'	9.16	110.46	101.30
34	i	1024	A	P-O3'-C3'	-9.16	106.46	120.20
34	i	187	C	O4'-C1'-C2'	-9.15	98.45	107.60
34	i	807	A	P-O3'-C3'	9.15	133.93	120.20
34	i	743	U	O4'-C1'-C2'	-9.15	98.45	107.60
34	i	143	U	N1-C1'-C2'	9.15	127.73	114.00
34	i	1214	C	N1-C1'-C2'	9.15	125.73	112.00
16	P	18	ARG	N-CA-CB	9.15	121.97	110.45
34	i	735	C	N1-C1'-C2'	9.12	125.68	112.00
34	i	239	U	C4'-C3'-O3'	-9.12	99.32	113.00
34	i	1133	U	C2'-C3'-O3'	9.11	127.37	113.70
34	i	1399	C	O4'-C1'-N1	9.11	121.86	108.20
34	i	956	U	N1-C1'-C2'	9.11	125.66	112.00
34	i	947	C	C3'-C2'-C1'	9.11	110.41	101.30
29	c	7	GLN	N-CA-C	9.10	119.85	108.11
34	i	346	C	O4'-C1'-N1	9.10	122.16	108.50
34	i	454	A	O3'-P-O5'	9.10	117.66	104.00
34	i	1442	A	C4'-C3'-O3'	9.10	123.05	109.40
34	i	653	C	N1-C1'-C2'	9.10	125.65	112.00
34	i	1149	C	O4'-C1'-N1	9.08	121.82	108.20
34	i	656	U	O4'-C1'-C2'	-9.08	98.52	107.60
34	i	343	C	C5'-C4'-C3'	9.08	129.62	116.00
8	H	99	ARG	N-CA-C	9.07	121.24	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	857	A	N9-C1'-C2'	-9.06	98.41	112.00
34	i	1186	A	O4'-C1'-C2'	-9.06	98.54	107.60
34	i	1237	A	O4'-C1'-C2'	-9.05	98.55	107.60
34	i	1847	C	N1-C1'-C2'	9.04	125.56	112.00
19	S	95	TYR	N-CA-CB	-9.04	95.46	109.92
34	i	437	A	O4'-C1'-C2'	-9.04	96.76	105.80
14	N	56	ASP	N-CA-C	9.03	121.21	111.36
34	i	791	A	O4'-C1'-C2'	-9.03	98.57	107.60
34	i	277	U	O4'-C1'-C2'	-9.03	98.57	107.60
1	A	166	LYS	N-CA-C	-9.03	101.44	111.28
34	i	482	C	O4'-C1'-C2'	-9.02	96.78	105.80
34	i	873	C	O4'-C1'-C2'	-9.02	98.58	107.60
34	i	189	G	N9-C1'-C2'	9.02	125.53	112.00
24	X	39	ASN	N-CA-C	9.00	119.95	109.60
34	i	1159	C	N1-C1'-C2'	9.00	125.51	112.00
1	A	200	ASP	CA-CB-CG	-9.00	103.60	112.60
2	B	151	ARG	CA-C-N	-9.00	106.63	120.31
2	B	151	ARG	C-N-CA	-9.00	106.63	120.31
33	g	15	ASN	CA-C-N	-8.98	109.56	121.96
33	g	15	ASN	C-N-CA	-8.98	109.56	121.96
34	i	1045	A	O4'-C1'-N9	8.98	121.97	108.50
11	K	35	LEU	N-CA-C	-8.97	91.69	110.80
34	i	145	G	C1'-O4'-C4'	-8.97	100.93	109.90
32	f	122	PRO	CA-N-CD	-8.96	99.45	112.00
34	i	1607	G	N9-C1'-C2'	-8.96	98.55	112.00
34	i	1560	C	O4'-C1'-C2'	-8.94	98.66	107.60
34	i	1222	G	N9-C1'-C2'	8.94	125.41	112.00
33	g	50	THR	CB-CA-C	8.94	128.20	110.42
34	i	611	C	N1-C1'-C2'	8.94	125.40	112.00
34	i	1432	C	C3'-C2'-C1'	8.94	110.23	101.30
32	f	148	TYR	N-CA-C	8.93	129.82	110.80
32	f	148	TYR	CA-C-N	8.92	135.54	122.16
32	f	148	TYR	C-N-CA	8.92	135.54	122.16
24	X	62	PRO	CA-N-CD	-8.91	99.02	111.50
34	i	868	A	O4'-C1'-N9	8.91	121.57	108.20
16	P	36	LEU	CA-C-O	8.91	130.09	120.38
34	i	841	G	C4'-C3'-O3'	-8.90	99.65	113.00
34	i	1552	C	C2'-C3'-O3'	8.90	122.86	109.50
19	S	94	LYS	CA-C-N	8.90	133.90	120.82
19	S	94	LYS	C-N-CA	8.90	133.90	120.82
34	i	1552	C	P-O3'-C3'	8.90	133.55	120.20
34	i	170	A	C1'-O4'-C4'	-8.90	101.00	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	819	U	O4'-C1'-N1	8.90	121.84	108.50
34	i	545	A	O4'-C1'-C2'	-8.89	98.71	107.60
34	i	885	U	O4'-C1'-N1	8.88	121.82	108.50
34	i	141	A	C2'-C3'-O3'	8.87	122.80	109.50
34	i	1208	G	N9-C1'-C2'	8.87	125.30	112.00
14	N	14	SER	N-CA-C	-8.87	98.82	110.43
34	i	1670	A	N9-C1'-C2'	-8.86	98.71	112.00
34	i	1618	A	O4'-C1'-N9	8.85	121.78	108.50
34	i	728	U	P-O3'-C3'	8.85	133.47	120.20
28	b	10	PRO	CA-N-CD	-8.85	99.61	112.00
35	l	99	GLU	N-CA-C	8.85	123.08	108.48
34	i	1275	C	O4'-C1'-C2'	-8.84	98.76	107.60
5	E	130	PHE	N-CA-C	8.84	123.31	108.90
16	P	69	PRO	CA-N-CD	-8.84	99.62	112.00
34	i	1348	G	C1'-O4'-C4'	-8.84	101.06	109.90
34	i	1788	C	O4'-C1'-C2'	-8.82	98.78	107.60
10	J	89	GLU	CA-C-N	8.81	129.69	120.00
10	J	89	GLU	C-N-CA	8.81	129.69	120.00
34	i	1620	U	C4'-C3'-O3'	-8.81	99.78	113.00
34	i	523	A	C4'-C3'-O3'	-8.81	99.79	113.00
34	i	225	C	C2'-C3'-O3'	8.80	122.71	109.50
34	i	74	G	O4'-C1'-N9	8.80	121.70	108.50
34	i	826	A	O4'-C1'-N9	8.80	121.70	108.50
34	i	409	G	O4'-C1'-C2'	-8.80	98.80	107.60
21	U	69	PRO	N-CA-C	-8.79	96.69	110.50
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
22	V	47	ASN	N-CA-C	-8.79	93.92	108.34
34	i	817	G	C2'-C3'-O3'	8.79	122.69	109.50
27	a	98	PRO	N-CA-C	8.79	121.42	110.70
2	B	55	THR	N-CA-C	-8.78	103.66	112.97
9	I	133	GLU	O-C-N	-8.78	110.91	122.59
34	i	1002	C	N1-C1'-C2'	8.78	125.16	112.00
34	i	1783	G	O4'-C1'-C2'	-8.78	98.82	107.60
34	i	24	C	C4'-C3'-O3'	8.77	122.56	109.40
34	i	80	G	P-O5'-C5'	8.77	134.05	120.90
34	i	536	G	P-O3'-C3'	8.76	133.34	120.20
34	i	1426	C	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	903	G	N9-C1'-C2'	8.75	125.13	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1470	A	O4'-C1'-N9	8.74	121.61	108.50
34	i	171	A	O4'-C1'-N9	8.74	121.31	108.20
1	A	128	ARG	N-CA-C	8.73	120.57	111.14
31	e	122	THR	O-C-N	-8.73	111.83	123.10
34	i	275	C	O4'-C1'-C2'	-8.73	98.87	107.60
10	J	179	LYS	CA-C-N	8.73	138.47	121.18
10	J	179	LYS	C-N-CA	8.73	138.47	121.18
25	Y	86	GLU	CB-CA-C	-8.73	92.98	110.17
34	i	329	A	C2'-C3'-O3'	8.72	126.79	113.70
34	i	1297	A	C2'-C3'-O3'	-8.72	100.62	113.70
34	i	1497	C	O3'-P-O5'	-8.72	90.93	104.00
34	i	144	U	N1-C1'-C2'	8.71	125.06	112.00
34	i	824	G	O4'-C1'-C2'	8.71	116.31	107.60
34	i	93	U	O4'-C1'-C2'	-8.71	98.89	107.60
34	i	729	C	O4'-C1'-C2'	-8.70	98.90	107.60
34	i	1408	C	C2'-C3'-O3'	-8.70	100.65	113.70
5	E	164	LEU	CA-C-N	-8.70	108.80	120.63
5	E	164	LEU	C-N-CA	-8.70	108.80	120.63
33	g	142	VAL	O-C-N	8.70	133.44	122.57
34	i	161	U	O4'-C1'-C2'	-8.70	97.10	105.80
34	i	1576	C	O4'-C1'-C2'	-8.70	97.11	105.80
6	F	37	ASP	N-CA-C	8.69	129.31	110.80
30	d	9	SER	N-CA-C	8.69	123.61	108.75
34	i	1411	C	N1-C1'-C2'	8.69	125.04	112.00
34	i	795	U	N1-C1'-C2'	8.69	125.03	112.00
4	D	4	GLN	CA-C-O	8.68	132.92	120.51
34	i	474	A	P-O3'-C3'	8.68	133.22	120.20
34	i	725	C	O4'-C1'-C2'	-8.68	98.92	107.60
1	A	133	PRO	CA-N-CD	-8.68	99.86	112.00
14	N	81	ALA	C-N-CD	-8.67	89.44	125.00
34	i	1414	C	C1'-O4'-C4'	-8.67	101.03	109.70
5	E	43	PRO	CA-N-CD	-8.67	99.86	112.00
34	i	904	A	C4'-C3'-O3'	-8.67	100.00	113.00
31	e	77	HIS	CA-C-N	8.66	138.39	121.41
31	e	77	HIS	C-N-CA	8.66	138.39	121.41
34	i	1294	G	O4'-C1'-N9	8.66	121.49	108.50
34	i	1533	C	O4'-C1'-C2'	-8.66	98.94	107.60
8	H	109	ARG	O-C-N	8.65	134.10	122.59
34	i	927	C	C5'-C4'-C3'	-8.65	103.02	116.00
34	i	1550	U	C2'-C3'-O3'	-8.64	100.73	113.70
34	i	234	C	O4'-C1'-C2'	-8.64	97.16	105.80
34	i	1405	A	P-O3'-C3'	8.64	133.16	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	L	62	PHE	CA-CB-CG	-8.64	105.16	113.80
14	N	7	PRO	CA-N-CD	-8.63	99.92	112.00
34	i	1037	G	C1'-O4'-C4'	-8.63	101.27	109.90
16	P	17	TYR	CB-CA-C	8.63	127.59	110.42
34	i	1014	U	N1-C1'-C2'	8.62	124.93	112.00
19	S	6	PRO	N-CA-C	8.61	133.63	112.10
2	B	54	GLY	N-CA-C	-8.61	102.97	113.99
1	A	5	LEU	N-CA-C	8.61	120.28	111.07
34	i	227	A	O4'-C1'-C2'	-8.60	99.00	107.60
34	i	509	A	O4'-C1'-C2'	-8.60	99.00	107.60
34	i	540	C	O3'-P-O5'	-8.60	91.10	104.00
34	i	1742	C	P-O3'-C3'	8.60	133.09	120.20
3	C	217	THR	CA-C-N	8.59	137.96	121.54
3	C	217	THR	C-N-CA	8.59	137.96	121.54
5	E	30	ARG	CA-C-N	8.59	129.11	119.83
5	E	30	ARG	C-N-CA	8.59	129.11	119.83
34	i	1414	C	P-O3'-C3'	8.59	133.09	120.20
34	i	79	A	C4'-C3'-C2'	-8.59	94.01	102.60
34	i	1423	C	O4'-C1'-C2'	-8.59	99.01	107.60
10	J	91	LYS	O-C-N	-8.58	111.17	122.59
5	E	133	THR	N-CA-C	8.58	122.21	109.59
5	E	258	ALA	CA-C-N	-8.58	105.81	121.69
5	E	258	ALA	C-N-CA	-8.58	105.81	121.69
21	U	104	ILE	CA-C-N	-8.58	110.17	122.36
21	U	104	ILE	C-N-CA	-8.58	110.17	122.36
34	i	25	A	O4'-C1'-C2'	-8.57	97.23	105.80
34	i	310	G	C4'-C3'-O3'	8.57	125.86	113.00
34	i	125	C	O3'-P-O5'	8.57	116.85	104.00
11	K	89	ILE	CA-C-O	-8.57	110.07	120.78
18	R	3	ARG	N-CA-CB	8.56	127.94	110.64
10	J	17	ARG	N-CA-C	-8.55	101.87	111.71
34	i	521	A	C1'-O4'-C4'	-8.55	101.34	109.90
34	i	546	U	N1-C1'-C2'	8.55	124.82	112.00
8	H	191	GLU	O-C-N	-8.54	111.22	122.59
34	i	92	A	N9-C1'-C2'	8.54	126.82	114.00
34	i	1774	G	O3'-P-O5'	8.55	116.82	104.00
8	H	109	ARG	CA-CB-CG	-8.54	97.02	114.10
34	i	520	U	P-O5'-C5'	-8.54	108.09	120.90
34	i	1691	C	N1-C1'-C2'	8.54	124.81	112.00
34	i	1288	C	C3'-C2'-C1'	8.51	109.81	101.30
19	S	49	ASP	O-C-N	-8.51	112.37	122.58
34	i	97	U	N1-C1'-C2'	8.50	124.76	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1144	A	O4'-C1'-N9	8.50	120.95	108.20
12	L	150	GLY	N-CA-C	-8.49	98.03	112.30
25	Y	87	PRO	CA-N-CD	-8.49	100.11	112.00
32	f	88	PRO	O-C-N	-8.48	111.19	122.64
21	U	57	PRO	CA-N-CD	-8.47	100.14	112.00
34	i	739	U	O4'-C1'-C2'	-8.47	97.33	105.80
21	U	68	THR	CA-C-N	-8.45	109.83	120.23
21	U	68	THR	C-N-CA	-8.45	109.83	120.23
11	K	90	VAL	N-CA-C	8.45	127.13	108.88
34	i	376	C	N1-C1'-C2'	8.45	124.67	112.00
34	i	190	A	O4'-C1'-C2'	-8.45	99.15	107.60
34	i	313	C	C2'-C3'-O3'	8.45	122.17	109.50
34	i	73	C	O4'-C1'-N1	8.44	120.86	108.20
34	i	1659	A	N9-C1'-C2'	8.43	126.65	114.00
34	i	207	U	P-O3'-C3'	8.43	132.84	120.20
34	i	543	U	C4'-C3'-C2'	-8.42	94.18	102.60
34	i	626	C	P-O5'-C5'	8.42	133.53	120.90
34	i	1816	A	O3'-P-O5'	-8.42	91.37	104.00
34	i	1366	A	O4'-C1'-C2'	-8.41	99.19	107.60
34	i	1037	G	O4'-C1'-C2'	8.41	116.01	107.60
9	I	184	ARG	NE-CZ-NH1	-8.40	113.10	121.50
11	K	86	PRO	CA-C-N	8.40	130.34	119.84
11	K	86	PRO	C-N-CA	8.40	130.34	119.84
34	i	1079	A	C1'-O4'-C4'	-8.40	101.50	109.90
11	K	46	MET	N-CA-CB	8.39	122.18	110.01
34	i	286	C	O4'-C1'-C2'	-8.39	99.21	107.60
12	L	148	ALA	N-CA-C	8.38	122.59	110.10
34	i	1529	C	O4'-C1'-C2'	-8.38	97.42	105.80
15	O	43	HIS	N-CA-C	8.38	128.65	110.80
34	i	949	C	C4'-C3'-O3'	-8.38	100.43	113.00
33	g	161	SER	N-CA-C	8.38	123.59	113.12
12	L	18	GLN	CA-C-N	-8.37	108.68	121.40
12	L	18	GLN	C-N-CA	-8.37	108.68	121.40
34	i	74	G	C3'-C2'-C1'	8.37	109.67	101.30
34	i	391	A	O4'-C1'-C2'	-8.37	99.23	107.60
34	i	1655	C	C5'-C4'-C3'	-8.37	103.45	116.00
3	C	245	VAL	N-CA-C	-8.37	101.08	110.62
34	i	605	C	N1-C1'-C2'	8.37	124.55	112.00
34	i	1408	C	P-O3'-C3'	8.37	132.75	120.20
18	R	89	SER	CA-C-N	-8.36	103.56	121.45
18	R	89	SER	C-N-CA	-8.36	103.56	121.45
34	i	459	A	O4'-C1'-C2'	-8.36	99.24	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	70	G	O3'-P-O5'	-8.36	91.46	104.00
34	i	1786	G	O4'-C1'-C2'	8.36	115.96	107.60
34	i	190	A	O3'-P-O5'	8.35	116.53	104.00
34	i	272	C	O3'-P-O5'	8.35	116.52	104.00
33	g	234	ASP	CA-CB-CG	-8.34	104.26	112.60
10	J	91	LYS	N-CA-C	-8.34	93.03	110.80
34	i	1204	A	O4'-C1'-C2'	-8.34	99.26	107.60
34	i	685	G	O4'-C1'-C2'	-8.34	99.26	107.60
34	i	208	G	C4'-C3'-O3'	-8.33	100.50	113.00
19	S	94	LYS	CA-C-O	8.33	130.31	121.15
16	P	53	GLN	N-CA-C	-8.32	103.23	112.72
34	i	835	C	C1'-O4'-C4'	-8.32	101.38	109.70
2	B	77	ASP	N-CA-C	8.31	128.51	110.80
34	i	145	G	N9-C1'-C2'	8.31	124.47	112.00
34	i	1075	C	C3'-C2'-C1'	8.31	109.61	101.30
9	I	184	ARG	CB-CA-C	-8.31	94.50	109.71
34	i	1407	G	C1'-O4'-C4'	-8.31	101.59	109.90
26	Z	104	ARG	N-CA-CB	-8.31	96.45	110.49
34	i	205	G	N9-C1'-C2'	8.31	124.46	112.00
34	i	385	G	C1'-O4'-C4'	-8.31	101.59	109.90
34	i	1471	G	P-O5'-C5'	8.30	133.36	120.90
34	i	1369	C	O4'-C1'-C2'	-8.30	99.30	107.60
34	i	464	G	N9-C1'-C2'	8.30	124.44	112.00
34	i	1405	A	C5'-C4'-C3'	8.29	128.43	116.00
34	i	486	C	O4'-C1'-C2'	-8.28	99.32	107.60
34	i	1785	A	O4'-C1'-C2'	-8.28	99.32	107.60
34	i	1012	U	C3'-C2'-C1'	8.27	109.77	101.50
9	I	55	TYR	CA-CB-CG	-8.27	99.01	113.90
34	i	1537	C	O5'-C5'-C4'	8.27	123.90	111.50
26	Z	70	PRO	CA-N-CD	-8.26	100.43	112.00
34	i	1289	A	N9-C1'-C2'	8.26	124.39	112.00
18	R	87	GLU	CB-CA-C	-8.26	96.81	110.85
34	i	1632	A	P-O3'-C3'	8.26	132.59	120.20
20	T	30	VAL	N-CA-C	8.25	126.70	108.88
34	i	1312	C	N1-C1'-C2'	8.25	124.38	112.00
34	i	477	U	P-O3'-C3'	8.24	132.57	120.20
34	i	1467	C	N1-C1'-C2'	8.24	124.37	112.00
22	V	61	ARG	NE-CZ-NH2	-8.23	111.79	119.20
31	e	100	LYS	N-CA-C	-8.23	95.81	109.07
34	i	435	A	N9-C1'-C2'	8.23	124.34	112.00
34	i	1056	A	O4'-C1'-N9	8.22	120.53	108.20
34	i	1282	G	C4'-C3'-O3'	-8.22	97.07	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	V	10	ASP	CA-C-N	-8.22	109.51	122.08
22	V	10	ASP	C-N-CA	-8.22	109.51	122.08
34	i	1774	G	C1'-O4'-C4'	-8.21	101.69	109.90
34	i	150	A	O4'-C1'-C2'	-8.21	99.39	107.60
34	i	844	U	N1-C1'-C2'	8.21	124.31	112.00
34	i	1650	C	N1-C1'-C2'	8.21	124.31	112.00
34	i	837	G	O4'-C4'-C3'	-8.20	95.80	104.00
19	S	50	ILE	N-CA-C	8.20	120.42	108.53
34	i	64	A	O4'-C1'-N9	8.19	120.49	108.20
33	g	14	HIS	CA-C-N	-8.19	108.27	122.36
33	g	14	HIS	C-N-CA	-8.19	108.27	122.36
34	i	650	C	N1-C1'-C2'	8.19	124.28	112.00
7	G	161	PRO	CA-N-CD	-8.19	100.54	112.00
34	i	685	G	O3'-P-O5'	8.18	116.28	104.00
10	J	40	LYS	N-CA-C	-8.18	102.37	111.28
20	T	45	LEU	O-C-N	-8.18	113.70	123.10
34	i	1524	C	N1-C1'-C2'	8.18	124.27	112.00
34	i	1777	C	O4'-C1'-C2'	-8.18	97.62	105.80
34	i	79	A	O5'-C5'-C4'	8.17	123.96	111.70
34	i	1091	U	N1-C1'-C2'	8.17	124.26	112.00
5	E	165	GLU	N-CA-C	-8.17	101.97	111.03
9	I	129	LEU	CA-C-O	-8.17	112.25	120.82
18	R	89	SER	CA-C-O	-8.16	108.84	120.51
16	P	50	ARG	CA-C-N	8.16	131.05	120.44
16	P	50	ARG	C-N-CA	8.16	131.05	120.44
34	i	1299	C	C3'-C2'-C1'	-8.16	93.14	101.30
34	i	1255	A	C3'-C2'-C1'	-8.16	93.14	101.30
10	J	17	ARG	CB-CA-C	-8.15	95.55	110.63
34	i	1666	G	N9-C1'-C2'	8.15	124.22	112.00
34	i	1449	C	N1-C1'-C2'	8.14	124.22	112.00
34	i	909	A	O4'-C1'-C2'	-8.14	97.66	105.80
19	S	92	ASP	N-CA-C	8.14	128.13	110.80
34	i	626	C	O4'-C1'-C2'	-8.14	99.46	107.60
34	i	1416	G	C1'-O4'-C4'	-8.14	101.76	109.90
4	D	94	ARG	CB-CA-C	-8.13	95.37	110.01
19	S	10	GLN	CA-C-N	8.13	137.07	121.54
19	S	10	GLN	C-N-CA	8.13	137.07	121.54
10	J	162	ARG	N-CA-C	8.12	128.10	110.80
34	i	1006	G	O4'-C1'-N9	8.12	120.69	108.50
34	i	541	U	N1-C1'-C2'	8.12	124.17	112.00
34	i	96	C	N1-C1'-C2'	8.11	124.17	112.00
34	i	837	G	P-O5'-C5'	8.11	133.06	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	D	190	LEU	O-C-N	-8.11	113.57	121.19
34	i	620	U	O4'-C1'-N1	8.11	120.66	108.50
29	c	8	PRO	CA-C-N	-8.10	111.68	122.94
29	c	8	PRO	C-N-CA	-8.10	111.68	122.94
34	i	894	U	P-O3'-C3'	8.10	132.35	120.20
34	i	907	C	N1-C1'-C2'	8.09	124.14	112.00
34	i	612	C	N1-C1'-C2'	8.09	124.13	112.00
32	f	148	TYR	CA-CB-CG	-8.08	99.35	113.90
34	i	170	A	C3'-C2'-C1'	-8.08	93.22	101.30
34	i	1191	A	O4'-C4'-C3'	-8.08	95.92	104.00
10	J	166	GLY	N-CA-C	-8.07	104.18	115.32
34	i	635	C	O4'-C1'-C2'	-8.07	99.53	107.60
34	i	1003	C	N1-C1'-C2'	8.07	124.11	112.00
34	i	147	A	N9-C1'-C2'	-8.07	101.90	114.00
34	i	1674	A	P-O3'-C3'	8.07	132.30	120.20
11	K	90	VAL	CA-C-N	8.06	129.92	119.84
11	K	90	VAL	C-N-CA	8.06	129.92	119.84
34	i	619	A	O4'-C1'-C2'	-8.06	97.74	105.80
34	i	1010	G	C1'-O4'-C4'	-8.06	101.84	109.90
7	G	38	ALA	N-CA-C	8.05	119.84	111.14
34	i	733	G	O4'-C1'-C2'	-8.05	99.55	107.60
22	V	24	ILE	CB-CA-C	-8.05	100.93	110.91
34	i	1678	C	N1-C1'-C2'	8.04	124.06	112.00
34	i	840	U	O4'-C1'-C2'	-8.04	99.56	107.60
4	D	144	GLY	CA-C-N	8.03	131.04	120.28
4	D	144	GLY	C-N-CA	8.03	131.04	120.28
34	i	287	U	C1'-O4'-C4'	-8.03	101.87	109.90
34	i	1677	C	O4'-C1'-C2'	-8.03	97.77	105.80
8	H	39	GLN	CA-C-N	-8.02	109.53	120.44
8	H	39	GLN	C-N-CA	-8.02	109.53	120.44
34	i	296	U	P-O5'-C5'	8.02	132.93	120.90
12	L	151	THR	CA-C-N	8.02	136.85	121.54
12	L	151	THR	C-N-CA	8.02	136.85	121.54
5	E	151	ASP	CA-C-N	8.01	129.86	119.84
5	E	151	ASP	C-N-CA	8.01	129.86	119.84
29	c	32	VAL	N-CA-C	8.01	119.45	107.75
34	i	1413	C	C3'-C2'-C1'	8.01	109.31	101.30
6	F	46	ALA	CA-C-N	-8.01	106.24	121.54
6	F	46	ALA	C-N-CA	-8.01	106.24	121.54
34	i	174	C	O4'-C1'-C2'	-8.01	99.59	107.60
11	K	55	ARG	CB-CG-CD	8.00	129.70	111.30
1	A	109	THR	N-CA-C	-8.00	99.76	110.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	626	C	C3'-C2'-C1'	7.99	109.29	101.30
18	R	1	MET	CB-CA-C	7.99	125.28	110.10
34	i	741	C	O4'-C1'-C2'	-7.99	99.61	107.60
34	i	1415	C	O4'-C1'-C2'	-7.98	99.62	107.60
34	i	794	G	P-O5'-C5'	7.98	132.87	120.90
10	J	93	LYS	O-C-N	-7.97	112.82	123.19
16	P	71	GLU	CA-C-N	7.97	134.67	121.92
16	P	71	GLU	C-N-CA	7.97	134.67	121.92
34	i	1210	A	P-O3'-C3'	7.96	132.15	120.20
34	i	1425	G	O3'-P-O5'	-7.96	92.05	104.00
10	J	164	PRO	N-CA-CB	-7.95	94.81	103.39
19	S	93	GLY	CA-C-N	7.95	132.10	120.90
19	S	93	GLY	C-N-CA	7.95	132.10	120.90
4	D	159	HIS	N-CA-C	7.94	120.02	111.36
17	Q	7	LEU	N-CA-C	7.94	119.09	108.38
34	i	1776	G	C5'-C4'-C3'	7.94	127.91	116.00
13	M	116	LYS	N-CA-C	7.94	127.70	110.80
34	i	201	G	O4'-C1'-C2'	-7.93	99.67	107.60
34	i	838	C	C3'-C2'-C1'	7.93	109.23	101.30
34	i	299	G	O4'-C1'-C2'	7.93	113.73	105.80
34	i	1607	G	O4'-C1'-N9	7.92	120.39	108.50
29	c	18	LEU	N-CA-C	7.92	120.00	111.36
32	f	134	SER	O-C-N	7.92	132.43	122.93
34	i	1080	A	C2'-C3'-O3'	-7.92	101.82	113.70
5	E	103	TYR	N-CA-C	7.92	122.00	110.28
17	Q	146	ARG	NE-CZ-NH2	7.92	126.32	119.20
34	i	25	A	N9-C1'-C2'	-7.92	102.13	114.00
34	i	80	G	C3'-C2'-C1'	7.91	109.21	101.30
17	Q	46	THR	N-CA-C	-7.91	101.62	111.11
34	i	1408	C	C4'-C3'-O3'	7.90	124.85	113.00
3	C	217	THR	CB-CA-C	7.90	120.93	111.22
34	i	1459	U	P-O5'-C5'	7.89	132.74	120.90
34	i	60	A	O4'-C1'-N9	7.89	120.34	108.50
2	B	146	CYS	CA-C-N	-7.89	109.89	120.54
2	B	146	CYS	C-N-CA	-7.89	109.89	120.54
34	i	950	U	C4'-C3'-O3'	7.89	121.23	109.40
34	i	1531	G	C4'-C3'-O3'	-7.89	101.17	113.00
34	i	316	C	O4'-C1'-C2'	-7.89	97.91	105.80
34	i	1414	C	C1'-C2'-O2'	7.89	123.63	111.80
34	i	76	U	P-O5'-C5'	7.88	132.72	120.90
34	i	786	C	O4'-C1'-C2'	-7.88	99.72	107.60
10	J	144	ILE	CA-CB-CG1	-7.88	97.01	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1654	U	O3'-P-O5'	7.88	115.82	104.00
34	i	65	C	P-O3'-C3'	7.87	132.01	120.20
34	i	1263	C	N1-C1'-C2'	7.87	123.81	112.00
34	i	526	A	C2'-C3'-O3'	-7.87	101.90	113.70
32	f	88	PRO	CA-C-N	-7.87	109.80	121.05
32	f	88	PRO	C-N-CA	-7.87	109.80	121.05
34	i	1663	U	O4'-C1'-N1	7.87	120.30	108.50
34	i	1194	G	C1'-O4'-C4'	-7.86	102.04	109.90
34	i	1715	U	C1'-O4'-C4'	7.86	117.76	109.90
15	O	143	LYS	N-CA-C	7.86	121.91	110.28
34	i	1355	U	O4'-C1'-C2'	-7.86	99.74	107.60
34	i	424	G	O3'-P-O5'	-7.86	92.21	104.00
34	i	295	C	O3'-P-O5'	7.86	115.79	104.00
34	i	1559	C	N1-C1'-C2'	7.86	123.79	112.00
34	i	1028	C	N1-C1'-C2'	7.86	123.78	112.00
34	i	630	A	N9-C1'-C2'	7.85	123.78	112.00
34	i	224	U	N1-C1'-C2'	-7.85	102.23	114.00
34	i	973	C	O4'-C1'-C2'	-7.85	99.75	107.60
34	i	1743	G	O5'-C5'-C4'	7.84	123.27	111.50
12	L	157	LYS	N-CA-C	7.84	122.01	108.76
27	a	63	VAL	CB-CA-C	7.84	124.15	111.29
34	i	1543	G	O4'-C1'-N9	7.83	120.25	108.50
18	R	1	MET	O-C-N	7.83	135.53	123.00
34	i	189	G	C1'-O4'-C4'	-7.82	102.08	109.90
34	i	652	G	N9-C1'-C2'	7.82	125.73	114.00
34	i	1547	G	O4'-C1'-C2'	-7.81	99.79	107.60
21	U	70	CYS	O-C-N	-7.81	112.20	122.59
34	i	1717	G	P-O5'-C5'	7.81	132.62	120.90
3	C	157	ASN	CA-C-O	7.81	129.28	120.84
34	i	223	A	O4'-C1'-C2'	-7.81	99.79	107.60
33	g	47	ARG	N-CA-C	-7.80	94.19	110.80
3	C	112	PHE	CA-CB-CG	-7.80	106.00	113.80
16	P	49	LEU	CA-C-N	-7.80	106.65	121.54
16	P	49	LEU	C-N-CA	-7.80	106.65	121.54
34	i	606	A	N9-C1'-C2'	7.80	123.69	112.00
34	i	639	U	N1-C1'-C2'	7.79	123.69	112.00
26	Z	107	VAL	CA-C-N	7.78	135.98	121.97
26	Z	107	VAL	C-N-CA	7.78	135.98	121.97
34	i	749	C	P-O3'-C3'	7.78	131.87	120.20
34	i	1102	C	O4'-C1'-C2'	-7.78	99.82	107.60
34	i	1551	A	P-O3'-C3'	7.77	131.86	120.20
34	i	1771	G	C3'-C2'-C1'	-7.77	93.53	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	204	G	O4'-C1'-C2'	-7.77	99.83	107.60
32	f	88	PRO	N-CA-C	-7.76	96.48	112.47
34	i	102	A	P-O3'-C3'	7.76	131.85	120.20
34	i	1087	C	O4'-C1'-C2'	-7.76	99.84	107.60
32	f	124	ASP	CA-C-N	-7.75	110.34	122.67
32	f	124	ASP	C-N-CA	-7.75	110.34	122.67
34	i	1303	U	P-O3'-C3'	7.75	131.83	120.20
34	i	126	G	O3'-P-O5'	7.74	115.61	104.00
13	M	70	ALA	N-CA-C	7.74	119.35	111.07
34	i	1219	A	O4'-C1'-C2'	-7.74	99.86	107.60
3	C	217	THR	N-CA-C	7.74	123.24	112.72
34	i	70	G	C4'-C3'-O3'	-7.74	101.39	113.00
34	i	541	U	P-O5'-C5'	7.73	132.50	120.90
34	i	1696	C	O4'-C1'-C2'	-7.73	98.07	105.80
34	i	1779	C	O4'-C1'-C2'	-7.73	98.07	105.80
34	i	1144	A	O4'-C1'-C2'	7.72	113.52	105.80
11	K	41	PRO	N-CA-C	-7.72	96.56	112.47
34	i	3	C	O4'-C1'-C2'	-7.72	98.08	105.80
18	R	88	VAL	CA-C-N	-7.72	106.80	121.54
18	R	88	VAL	C-N-CA	-7.72	106.80	121.54
34	i	574	A	P-O5'-C5'	7.71	132.47	120.90
34	i	1698	C	O4'-C1'-C2'	-7.71	99.89	107.60
34	i	1298	G	C2'-C3'-O3'	-7.71	97.93	109.50
34	i	21	U	O4'-C1'-C2'	-7.71	99.89	107.60
34	i	865	A	P-O3'-C3'	7.71	131.77	120.20
34	i	1019	A	O4'-C1'-C2'	-7.71	99.89	107.60
34	i	857	A	O4'-C1'-N9	7.71	120.06	108.50
3	C	186	GLY	N-CA-C	-7.70	105.91	115.08
34	i	1741	U	C2'-C3'-O3'	-7.70	102.15	113.70
3	C	149	PRO	CB-CA-C	-7.70	101.53	111.46
34	i	1670	A	O4'-C1'-N9	7.70	120.05	108.50
33	g	192	THR	N-CA-C	7.70	120.73	110.88
34	i	830	C	C1'-O4'-C4'	-7.70	102.20	109.90
34	i	1343	U	O4'-C1'-C2'	-7.70	99.90	107.60
34	i	1325	U	N1-C1'-C2'	7.70	123.54	112.00
34	i	31	U	P-O3'-C3'	7.69	131.73	120.20
34	i	1022	C	O4'-C1'-C2'	-7.68	99.92	107.60
3	C	83	LEU	CA-C-N	-7.68	108.84	122.97
3	C	83	LEU	C-N-CA	-7.68	108.84	122.97
34	i	71	G	C2'-C3'-O3'	-7.67	98.00	109.50
17	Q	145	TYR	CA-C-N	7.66	135.49	121.70
17	Q	145	TYR	C-N-CA	7.66	135.49	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	980	C	N1-C1'-C2'	7.66	123.49	112.00
34	i	1557	C	N1-C1'-C2'	7.66	123.49	112.00
34	i	170	A	C5'-C4'-C3'	-7.65	104.52	116.00
34	i	748	G	C3'-C2'-C1'	-7.65	93.65	101.30
34	i	392	C	O4'-C1'-C2'	-7.64	99.95	107.60
34	i	548	G	C1'-C2'-O2'	7.64	119.87	108.40
34	i	81	U	N1-C1'-C2'	7.64	123.46	112.00
34	i	383	U	O4'-C1'-N1	7.64	119.66	108.20
6	F	131	ALA	CA-C-N	-7.64	106.43	121.41
6	F	131	ALA	C-N-CA	-7.64	106.43	121.41
34	i	521	A	O4'-C4'-C3'	-7.64	96.36	104.00
15	O	95	ILE	N-CA-C	7.64	120.09	108.71
34	i	581	U	O4'-C1'-N1	7.64	119.65	108.20
34	i	1643	G	P-O3'-C3'	7.64	131.66	120.20
5	E	170	THR	CA-C-N	7.63	136.12	121.54
5	E	170	THR	C-N-CA	7.63	136.12	121.54
22	V	81	GLN	O-C-N	-7.63	112.44	122.59
17	Q	43	GLU	CA-C-N	7.62	127.51	119.05
17	Q	43	GLU	C-N-CA	7.62	127.51	119.05
34	i	1251	G	C1'-O4'-C4'	-7.61	102.29	109.90
34	i	111	A	O4'-C1'-N9	7.61	119.92	108.50
34	i	1191	A	C2'-C3'-O3'	-7.61	102.28	113.70
34	i	1424	G	O4'-C1'-N9	7.61	119.91	108.50
27	a	60	ASP	N-CA-C	7.61	121.79	108.56
26	Z	112	ASN	N-CA-CB	-7.60	99.04	110.07
34	i	1503	G	C1'-O4'-C4'	-7.60	102.10	109.70
24	X	43	GLY	N-CA-C	-7.60	104.24	115.72
34	i	894	U	P-O5'-C5'	7.60	132.30	120.90
34	i	1288	C	P-O5'-C5'	-7.59	109.52	120.90
34	i	1755	U	P-O5'-C5'	7.59	132.28	120.90
33	g	25	PRO	CA-C-N	-7.58	110.58	120.44
33	g	25	PRO	C-N-CA	-7.58	110.58	120.44
34	i	371	C	C4'-C3'-O3'	-7.58	101.63	113.00
34	i	1594	U	O4'-C1'-N1	7.58	119.88	108.50
33	g	294	ASP	N-CA-CB	-7.58	100.55	111.54
11	K	38	LYS	N-CA-C	-7.58	94.66	110.80
34	i	1015	C	N1-C1'-C2'	7.58	123.37	112.00
31	e	122	THR	CA-C-N	-7.57	110.32	122.66
31	e	122	THR	C-N-CA	-7.57	110.32	122.66
30	d	24	CYS	N-CA-C	7.57	122.59	112.30
34	i	677	C	O4'-C1'-N1	7.57	119.55	108.20
33	g	24	THR	C-N-CD	-7.57	93.98	125.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	a	10	ARG	NH1-CZ-NH2	-7.56	109.47	119.30
34	i	929	G	O4'-C1'-C2'	7.56	115.16	107.60
34	i	1491	G	C2'-C3'-O3'	-7.56	102.36	113.70
3	C	85	ALA	N-CA-C	-7.56	98.84	110.10
34	i	214	A	C3'-C2'-C1'	7.55	108.86	101.30
3	C	118	TYR	CA-C-N	-7.55	112.08	122.95
3	C	118	TYR	C-N-CA	-7.55	112.08	122.95
11	K	84	HIS	CB-CA-C	-7.55	94.30	110.76
34	i	1414	C	O4'-C1'-N1	7.55	119.52	108.20
34	i	1450	A	O4'-C1'-C2'	-7.55	100.05	107.60
34	i	1116	U	N1-C1'-C2'	7.54	123.32	112.00
5	E	129	ILE	CA-C-N	7.54	133.63	122.99
5	E	129	ILE	C-N-CA	7.54	133.63	122.99
21	U	68	THR	N-CA-CB	-7.54	99.11	110.11
34	i	1501	U	O4'-C1'-C2'	-7.54	100.06	107.60
34	i	49	C	N1-C1'-C2'	7.53	123.30	112.00
34	i	743	U	O3'-P-O5'	-7.52	92.72	104.00
34	i	1412	C	O4'-C1'-N1	7.52	119.78	108.50
34	i	543	U	O4'-C1'-N1	7.52	119.78	108.50
34	i	1858	U	P-O5'-C5'	7.52	132.18	120.90
34	i	909	A	C3'-C2'-C1'	7.51	109.01	101.50
9	I	178	ARG	CG-CD-NE	-7.51	95.47	112.00
12	L	151	THR	CB-CA-C	7.51	127.13	110.76
34	i	970	C	N1-C1'-C2'	7.51	123.27	112.00
6	F	42	LYS	N-CA-C	7.51	119.83	109.54
34	i	1425	G	P-O5'-C5'	7.51	132.16	120.90
10	J	144	ILE	CB-CA-C	7.50	125.01	111.36
34	i	1690	A	O4'-C1'-C2'	-7.50	98.30	105.80
34	i	1773	G	O4'-C1'-N9	7.50	119.75	108.50
34	i	1504	A	N9-C1'-C2'	-7.49	102.76	114.00
34	i	640	A	C3'-C2'-C1'	7.49	108.79	101.30
2	B	41	ILE	CA-C-N	7.49	133.67	121.99
2	B	41	ILE	C-N-CA	7.49	133.67	121.99
34	i	793	C	C3'-C2'-C1'	7.49	108.99	101.50
34	i	1716	U	P-O3'-C3'	7.48	131.43	120.20
34	i	871	A	O4'-C1'-C2'	-7.48	100.12	107.60
34	i	1004	A	P-O3'-C3'	7.48	131.42	120.20
34	i	1411	C	O4'-C1'-C2'	-7.48	100.12	107.60
19	S	95	TYR	N-CA-C	7.48	119.96	110.24
34	i	1475	G	O4'-C1'-N9	7.48	119.72	108.50
34	i	1467	C	O4'-C1'-C2'	-7.48	100.12	107.60
5	E	130	PHE	CA-C-N	-7.47	113.14	122.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	E	130	PHE	C-N-CA	-7.47	113.14	122.48
7	G	85	ARG	CA-C-N	7.47	127.45	119.76
7	G	85	ARG	C-N-CA	7.47	127.45	119.76
34	i	1111	U	O4'-C1'-C2'	7.47	113.27	105.80
8	H	93	VAL	CA-C-N	-7.46	112.25	122.77
8	H	93	VAL	C-N-CA	-7.46	112.25	122.77
34	i	825	C	O4'-C1'-C2'	-7.46	98.34	105.80
8	H	108	SER	N-CA-CB	7.46	123.10	110.49
33	g	273	GLU	CA-C-N	7.46	134.11	122.70
33	g	273	GLU	C-N-CA	7.46	134.11	122.70
34	i	1249	A	P-O3'-C3'	7.46	131.38	120.20
34	i	286	C	N1-C1'-C2'	7.45	123.18	112.00
34	i	1861	U	O4'-C1'-N1	7.45	119.38	108.20
34	i	1705	C	O4'-C1'-C2'	-7.45	100.15	107.60
34	i	484	C	C3'-C2'-C1'	7.45	108.75	101.30
34	i	1349	A	O3'-P-O5'	-7.45	92.83	104.00
8	H	191	GLU	CA-C-N	-7.45	108.99	122.54
8	H	191	GLU	C-N-CA	-7.45	108.99	122.54
34	i	895	U	O4'-C1'-C2'	-7.45	100.16	107.60
34	i	958	A	O4'-C1'-C2'	-7.45	100.16	107.60
34	i	1646	A	O4'-C1'-C2'	-7.45	100.16	107.60
34	i	518	A	N9-C1'-C2'	7.44	123.17	112.00
9	I	29	LEU	CA-C-N	7.44	135.05	120.84
9	I	29	LEU	C-N-CA	7.44	135.05	120.84
34	i	79	A	C5'-C4'-O4'	7.44	120.26	109.10
13	M	10	GLY	CA-C-N	7.43	131.47	122.26
13	M	10	GLY	C-N-CA	7.43	131.47	122.26
34	i	1022	C	C3'-C2'-C1'	7.43	108.73	101.30
4	D	190	LEU	CA-C-N	-7.43	110.49	120.96
4	D	190	LEU	C-N-CA	-7.43	110.49	120.96
34	i	1344	G	O4'-C1'-N9	7.42	119.63	108.50
34	i	826	A	C3'-C2'-C1'	-7.41	93.89	101.30
34	i	912	A	O4'-C1'-N9	7.41	119.32	108.20
19	S	142	ARG	N-CA-CB	-7.41	97.91	110.50
34	i	730	C	O3'-P-O5'	7.41	115.11	104.00
34	i	38	A	N9-C1'-C2'	-7.41	102.89	114.00
34	i	192	U	O5'-C5'-C4'	-7.40	100.40	111.50
34	i	210	G	O4'-C1'-N9	7.40	119.60	108.50
34	i	1432	C	P-O3'-C3'	7.40	131.30	120.20
34	i	1042	U	O4'-C1'-C2'	-7.40	100.20	107.60
11	K	89	ILE	CA-CB-CG2	7.39	123.07	110.50
34	i	317	G	C2'-C3'-O3'	7.39	120.58	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	569	C	O4'-C1'-C2'	-7.38	100.22	107.60
34	i	1490	U	P-O3'-C3'	7.37	131.26	120.20
34	i	1637	U	O4'-C1'-N1	7.37	119.55	108.50
4	D	3	VAL	CA-C-N	7.37	135.61	121.54
4	D	3	VAL	C-N-CA	7.37	135.61	121.54
34	i	1515	G	C1'-C2'-O2'	7.37	119.45	108.40
34	i	597	U	N1-C1'-C2'	7.36	123.04	112.00
34	i	230	C	O4'-C1'-C2'	-7.36	100.24	107.60
34	i	235	C	O4'-C1'-C2'	-7.35	100.25	107.60
34	i	292	A	O4'-C1'-C2'	-7.35	100.25	107.60
9	I	43	ILE	N-CA-C	-7.35	97.91	108.42
34	i	67	C	C3'-C2'-C1'	-7.35	93.95	101.30
34	i	365	U	P-O5'-C5'	7.35	131.93	120.90
26	Z	104	ARG	N-CA-C	7.34	126.44	110.80
34	i	1106	G	O4'-C1'-C2'	-7.34	100.26	107.60
13	M	16	THR	N-CA-C	-7.33	103.59	112.54
34	i	1533	C	C4'-C3'-C2'	-7.33	95.27	102.60
21	U	117	ALA	O-C-N	7.33	132.34	122.59
34	i	1402	G	N9-C1'-C2'	7.33	122.99	112.00
13	M	99	LYS	C-N-CD	-7.32	94.98	125.00
34	i	997	A	O4'-C1'-C2'	-7.32	98.48	105.80
34	i	1818	A	O4'-C1'-N9	7.32	119.48	108.50
28	b	43	ILE	N-CA-C	7.32	118.60	107.77
16	P	36	LEU	CA-C-N	7.32	135.51	121.54
16	P	36	LEU	C-N-CA	7.32	135.51	121.54
34	i	374	U	N1-C1'-C2'	7.31	122.97	112.00
18	R	123	THR	CB-CA-C	-7.31	93.02	109.10
4	D	83	SER	N-CA-CB	7.31	120.97	110.16
34	i	398	A	O4'-C1'-C2'	-7.31	100.29	107.60
34	i	640	A	O4'-C1'-C2'	-7.31	100.29	107.60
34	i	1261	A	C3'-C2'-C1'	7.31	108.81	101.50
34	i	1293	U	O4'-C1'-N1	7.31	119.46	108.50
27	a	97	PRO	CA-CB-CG	7.30	118.38	104.50
34	i	583	C	C3'-C2'-C1'	7.30	108.61	101.30
10	J	92	MET	O-C-N	7.30	129.54	121.87
34	i	994	A	O4'-C1'-C2'	-7.30	100.30	107.60
22	V	67	ASP	N-CA-C	-7.30	103.26	111.14
34	i	15	U	O4'-C1'-C2'	-7.30	100.30	107.60
34	i	204	G	N9-C1'-C2'	-7.30	101.05	112.00
34	i	191	C	C2'-C3'-O3'	-7.30	102.75	113.70
34	i	1556	A	O4'-C1'-C2'	-7.29	100.31	107.60
26	Z	106	GLN	CA-C-N	7.29	129.75	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	Z	106	GLN	C-N-CA	7.29	129.75	120.56
34	i	1436	C	C3'-C2'-C1'	7.29	108.59	101.30
34	i	1382	A	O4'-C1'-C2'	-7.29	100.31	107.60
34	i	821	A	C4'-C3'-O3'	-7.28	102.07	113.00
17	Q	135	PRO	CB-CA-C	7.28	122.03	111.04
34	i	536	G	O4'-C1'-C2'	-7.28	100.32	107.60
34	i	790	A	O4'-C1'-C2'	-7.28	100.32	107.60
34	i	507	C	N1-C1'-C2'	7.28	122.92	112.00
3	C	241	TRP	O-C-N	-7.28	113.90	122.20
20	T	70	ALA	CA-C-N	7.28	127.93	121.82
20	T	70	ALA	C-N-CA	7.28	127.93	121.82
34	i	1472	A	N9-C1'-C2'	-7.28	101.08	112.00
34	i	1823	G	O4'-C1'-C2'	-7.28	100.33	107.60
18	R	25	GLY	O-C-N	7.27	131.00	123.29
20	T	42	HIS	CB-CA-C	-7.27	94.97	110.32
34	i	1350	G	C2'-C3'-O3'	7.27	124.61	113.70
34	i	1432	C	O4'-C1'-C2'	-7.27	100.33	107.60
34	i	1530	U	P-O3'-C3'	7.27	131.11	120.20
34	i	1468	C	C2'-C3'-O3'	-7.27	102.80	113.70
34	i	850	A	P-O5'-C5'	7.27	131.80	120.90
34	i	985	C	O4'-C1'-C2'	-7.27	98.53	105.80
4	D	207	HIS	N-CA-C	7.27	120.49	109.23
7	G	128	THR	N-CA-CB	-7.26	98.22	110.49
4	D	52	ALA	O-C-N	-7.26	114.55	123.33
34	i	404	A	O4'-C1'-C2'	-7.26	100.34	107.60
34	i	193	C	N1-C1'-C2'	7.25	122.88	112.00
34	i	649	G	O4'-C1'-N9	7.25	119.37	108.50
33	g	196	ASN	N-CA-C	7.25	119.26	111.36
12	L	56	ILE	N-CA-C	7.24	118.55	111.67
25	Y	31	GLY	N-CA-C	7.24	130.35	113.18
34	i	1393	U	O4'-C1'-N1	-7.24	97.34	108.20
34	i	101	U	O4'-C1'-C2'	-7.24	100.36	107.60
34	i	377	C	N1-C1'-C2'	7.24	122.86	112.00
34	i	343	C	N1-C1'-C2'	7.24	122.86	112.00
34	i	1024	A	C5'-C4'-C3'	-7.24	105.14	116.00
4	D	96	LEU	O-C-N	-7.23	113.45	122.35
11	K	4	PRO	CA-C-O	-7.23	111.90	122.31
24	X	138	LYS	O-C-N	-7.23	114.42	123.17
34	i	160	U	P-O3'-C3'	7.23	131.04	120.20
34	i	545	A	P-O3'-C3'	7.23	131.04	120.20
34	i	1455	G	C1'-O4'-C4'	-7.23	102.67	109.90
34	i	79	A	O3'-P-O5'	-7.22	93.17	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1161	G	N9-C1'-C2'	-7.22	103.17	114.00
34	i	332	C	O4'-C1'-C2'	-7.22	100.38	107.60
34	i	960	A	O4'-C1'-C2'	-7.21	100.39	107.60
34	i	1013	U	O4'-C1'-C2'	-7.21	100.39	107.60
34	i	1045	A	C4'-C3'-C2'	-7.21	95.39	102.60
34	i	1428	U	C3'-C2'-C1'	7.21	108.52	101.30
34	i	1112	C	O4'-C1'-C2'	7.21	113.01	105.80
8	H	118	ARG	CA-C-O	7.21	128.12	119.61
17	Q	18	THR	CA-C-N	7.21	135.31	121.54
17	Q	18	THR	C-N-CA	7.21	135.31	121.54
34	i	206	A	O3'-P-O5'	7.20	114.80	104.00
4	D	144	GLY	N-CA-C	7.20	124.10	111.14
34	i	564	A	C3'-C2'-C1'	7.20	108.50	101.30
16	P	18	ARG	CB-CG-CD	7.20	127.86	111.30
34	i	1251	G	N9-C1'-C2'	7.20	122.80	112.00
32	f	146	LEU	N-CA-C	-7.19	106.42	114.62
5	E	151	ASP	CA-C-O	7.19	127.66	119.61
17	Q	116	ASP	N-CA-C	7.19	118.64	108.00
12	L	149	ALA	N-CA-C	-7.19	103.61	112.38
17	Q	124	PRO	CB-CA-C	-7.18	101.77	112.55
33	g	237	ASN	CA-CB-CG	-7.18	105.42	112.60
34	i	745	U	O4'-C1'-C2'	-7.18	100.42	107.60
34	i	571	U	C4'-C3'-O3'	-7.18	102.23	113.00
15	O	43	HIS	CA-C-N	-7.18	110.14	121.62
15	O	43	HIS	C-N-CA	-7.18	110.14	121.62
34	i	1444	A	P-O3'-C3'	7.18	130.96	120.20
34	i	733	G	C1'-O4'-C4'	7.17	117.07	109.90
34	i	1515	G	C1'-O4'-C4'	-7.17	102.73	109.90
34	i	277	U	O4'-C1'-N1	-7.17	97.75	108.50
34	i	534	G	O4'-C1'-C2'	-7.17	100.43	107.60
7	G	121	ILE	N-CA-CB	7.17	121.24	111.21
34	i	296	U	P-O3'-C3'	-7.16	109.46	120.20
24	X	42	GLY	CA-C-N	-7.16	112.33	122.00
24	X	42	GLY	C-N-CA	-7.16	112.33	122.00
34	i	1158	C	O4'-C1'-C2'	-7.16	100.44	107.60
34	i	1778	G	N9-C1'-C2'	7.16	122.74	112.00
5	E	22	LYS	N-CA-C	7.16	119.16	111.36
34	i	1824	U	C3'-C2'-C1'	7.16	108.66	101.50
33	g	92	LEU	CA-C-N	7.15	130.57	120.28
33	g	92	LEU	C-N-CA	7.15	130.57	120.28
1	A	186	ARG	CA-C-N	7.14	135.41	121.41
1	A	186	ARG	C-N-CA	7.14	135.41	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	g	276	SER	N-CA-CB	-7.14	106.96	114.10
34	i	438	A	O4'-C1'-N9	7.14	118.92	108.20
10	J	34	GLU	O-C-N	7.14	130.57	122.22
4	D	167	TYR	N-CA-C	7.14	120.47	111.69
6	F	41	VAL	N-CA-C	-7.14	94.49	109.34
34	i	222	G	O4'-C1'-C2'	7.14	114.74	107.60
34	i	432	C	N1-C1'-C2'	7.13	122.70	112.00
34	i	780	G	O3'-P-O5'	-7.13	93.31	104.00
34	i	512	A	P-O5'-C5'	7.13	131.59	120.90
34	i	471	C	N1-C1'-C2'	7.12	122.69	112.00
34	i	1078	A	O4'-C1'-C2'	-7.12	100.48	107.60
34	i	1127	G	O4'-C1'-C2'	-7.12	100.48	107.60
34	i	1341	G	O4'-C1'-C2'	-7.12	100.48	107.60
34	i	824	G	C3'-C2'-C1'	-7.12	94.18	101.30
34	i	1229	G	O4'-C1'-C2'	7.12	114.72	107.60
34	i	1721	G	O4'-C1'-N9	7.12	119.18	108.50
7	G	180	VAL	N-CA-C	7.11	124.14	109.34
34	i	1754	G	O4'-C1'-N9	7.11	119.17	108.50
35	l	101	GLY	N-CA-C	7.11	126.45	115.72
27	a	98	PRO	CA-C-N	7.11	128.73	119.84
27	a	98	PRO	C-N-CA	7.11	128.73	119.84
35	l	85	LEU	N-CA-C	-7.11	99.40	110.42
1	A	68	ILE	CA-C-N	-7.10	110.78	120.44
1	A	68	ILE	C-N-CA	-7.10	110.78	120.44
34	i	480	C	O4'-C1'-C2'	-7.10	100.50	107.60
34	i	853	U	N1-C1'-C2'	7.10	122.65	112.00
11	K	89	ILE	CA-CB-CG1	-7.10	98.33	110.40
34	i	241	A	O4'-C1'-C2'	-7.10	98.70	105.80
34	i	1455	G	N9-C1'-C2'	7.10	122.65	112.00
34	i	1653	G	O4'-C1'-C2'	7.10	114.70	107.60
34	i	688	U	C2'-C3'-O3'	7.09	120.14	109.50
2	B	133	TYR	N-CA-CB	-7.09	98.42	109.69
34	i	1003	C	O4'-C1'-C2'	-7.09	100.51	107.60
7	G	79	LYS	N-CA-C	-7.09	100.71	110.35
34	i	966	G	C2'-C3'-O3'	7.09	120.13	109.50
2	B	75	GLN	CA-C-N	7.09	132.19	122.34
2	B	75	GLN	C-N-CA	7.09	132.19	122.34
34	i	123	G	C4'-C3'-O3'	-7.09	102.37	113.00
34	i	307	G	P-O5'-C5'	7.09	131.53	120.90
10	J	180	LYS	CB-CA-C	-7.08	95.72	110.17
34	i	234	C	C1'-O4'-C4'	7.08	116.78	109.70
34	i	1385	C	P-O5'-C5'	7.08	131.52	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	a	26	CYS	N-CA-C	-7.08	104.45	113.23
25	Y	96	LEU	N-CA-CB	7.08	122.45	110.49
34	i	983	A	P-O5'-C5'	-7.08	110.28	120.90
8	H	16	PRO	CA-C-N	7.07	135.05	121.54
8	H	16	PRO	C-N-CA	7.07	135.05	121.54
34	i	1126	G	N9-C1'-C2'	-7.07	101.39	112.00
27	a	98	PRO	C-N-CD	-7.07	96.02	125.00
11	K	45	VAL	O-C-N	-7.07	114.98	121.91
6	F	82	ASN	CA-CB-CG	-7.06	105.54	112.60
34	i	849	C	P-O3'-C3'	-7.06	109.61	120.20
34	i	1065	U	P-O3'-C3'	7.06	130.79	120.20
16	P	13	ARG	N-CA-C	-7.05	105.60	114.56
34	i	1632	A	N9-C1'-C2'	-7.05	103.42	114.00
34	i	1472	A	C1'-O4'-C4'	7.05	116.95	109.90
34	i	1546	U	C1'-O4'-C4'	-7.05	102.85	109.90
34	i	1539	C	O4'-C1'-C2'	-7.05	100.55	107.60
34	i	987	G	O4'-C1'-C2'	7.05	114.65	107.60
34	i	270	G	C4'-C3'-O3'	-7.04	102.43	113.00
8	H	111	LYS	N-CA-CB	7.04	127.51	110.32
34	i	308	C	O4'-C1'-C2'	-7.04	100.56	107.60
7	G	156	TYR	N-CA-C	7.04	121.08	107.71
34	i	368	U	C4'-C3'-C2'	-7.04	95.56	102.60
19	S	8	LYS	CA-C-N	7.03	130.20	120.63
19	S	8	LYS	C-N-CA	7.03	130.20	120.63
34	i	60	A	C3'-C2'-C1'	-7.03	94.27	101.30
34	i	1853	A	C4'-C3'-O3'	-7.03	102.45	113.00
34	i	1861	U	C3'-C2'-C1'	-7.03	94.47	101.50
11	K	3	MET	O-C-N	7.03	129.41	121.32
34	i	65	C	O4'-C1'-C2'	-7.03	100.57	107.60
34	i	1514	U	O4'-C1'-N1	7.03	118.74	108.20
31	e	95	LYS	CA-C-N	7.03	134.96	121.54
31	e	95	LYS	C-N-CA	7.03	134.96	121.54
34	i	478	U	O4'-C1'-N1	7.03	119.04	108.50
34	i	1616	U	O4'-C1'-N1	7.03	118.74	108.20
7	G	155	GLN	O-C-N	-7.02	110.29	121.53
34	i	389	C	O4'-C1'-C2'	-7.02	98.78	105.80
34	i	442	G	C3'-C2'-C1'	7.02	108.32	101.30
12	L	30	LYS	N-CA-C	7.02	119.01	111.36
34	i	823	A	N9-C1'-C2'	7.01	122.52	112.00
34	i	1775	A	P-O5'-C5'	7.01	131.42	120.90
15	O	20	GLN	N-CA-C	7.01	119.22	108.42
24	X	142	ARG	CA-C-O	-7.01	108.88	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	164	A	N9-C1'-C2'	7.01	122.52	112.00
34	i	1702	U	N1-C1'-C2'	7.01	122.51	112.00
34	i	1860	A	C4'-C3'-O3'	-7.01	102.49	113.00
9	I	125	LYS	N-CA-C	7.00	119.82	109.24
34	i	540	C	O4'-C1'-C2'	-7.00	100.60	107.60
34	i	1011	U	O4'-C1'-N1	7.00	119.00	108.50
34	i	783	G	O4'-C1'-C2'	-7.00	100.60	107.60
34	i	1348	G	O4'-C1'-C2'	7.00	114.60	107.60
34	i	599	U	O4'-C1'-C2'	-7.00	100.60	107.60
34	i	1068	U	C1'-O4'-C4'	7.00	116.90	109.90
34	i	103	A	O4'-C1'-C2'	7.00	112.80	105.80
34	i	1510	G	O4'-C1'-N9	6.99	118.99	108.50
34	i	222	G	C1'-O4'-C4'	-6.99	102.91	109.90
34	i	538	C	N1-C1'-C2'	6.99	122.48	112.00
8	H	16	PRO	O-C-N	-6.99	113.21	122.64
34	i	171	A	N9-C1'-C2'	-6.99	103.52	114.00
34	i	1272	A	C3'-C2'-C1'	6.99	108.28	101.30
34	i	208	G	P-O5'-C5'	6.98	131.37	120.90
33	g	314	ILE	CA-C-O	-6.98	108.94	120.80
34	i	22	A	O4'-C1'-C2'	-6.98	100.62	107.60
27	a	100	ARG	N-CA-C	6.98	122.21	112.93
34	i	298	G	C3'-C2'-C1'	-6.97	94.33	101.30
34	i	1523	G	C3'-C2'-C1'	-6.97	94.33	101.30
10	J	137	VAL	CA-C-N	6.97	134.85	121.54
10	J	137	VAL	C-N-CA	6.97	134.85	121.54
34	i	548	G	O4'-C1'-N9	6.97	118.95	108.50
34	i	315	C	O4'-C1'-C2'	-6.97	98.83	105.80
11	K	98	ARG	CA-C-O	-6.96	108.97	120.80
21	U	108	PRO	CB-CA-C	-6.96	101.86	110.98
34	i	162	C	C2'-C3'-O3'	-6.96	103.26	113.70
25	Y	62	THR	CA-C-N	-6.96	108.25	121.54
25	Y	62	THR	C-N-CA	-6.96	108.25	121.54
34	i	550	A	O5'-C5'-C4'	6.96	121.94	111.50
34	i	192	U	P-O5'-C5'	6.96	131.34	120.90
34	i	1645	A	O4'-C1'-C2'	-6.96	100.64	107.60
1	A	209	GLU	CA-C-O	-6.95	108.98	120.80
8	H	119	SER	N-CA-C	-6.95	101.01	110.68
11	K	3	MET	CA-C-N	6.95	127.90	120.11
11	K	3	MET	C-N-CA	6.95	127.90	120.11
34	i	282	G	N9-C1'-C2'	6.95	122.43	112.00
34	i	546	U	C1'-C2'-O2'	6.95	118.83	108.40
13	M	75	ASN	CA-CB-CG	-6.95	105.65	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1003	C	C3'-C2'-C1'	6.95	108.25	101.30
33	g	143	GLN	N-CA-C	-6.95	96.00	110.80
1	A	50	ASN	CA-C-N	-6.94	110.29	120.28
1	A	50	ASN	C-N-CA	-6.94	110.29	120.28
34	i	556	U	O4'-C1'-N1	6.94	118.91	108.50
34	i	1376	C	N1-C1'-C2'	6.94	122.41	112.00
34	i	342	U	C5'-C4'-C3'	-6.93	105.60	116.00
34	i	947	C	N1-C1'-C2'	6.93	122.40	112.00
9	I	4	SER	CB-CA-C	-6.93	101.66	111.85
10	J	145	PRO	CA-C-N	-6.93	109.76	122.31
10	J	145	PRO	C-N-CA	-6.93	109.76	122.31
34	i	147	A	O4'-C1'-N9	6.93	118.60	108.20
6	F	135	ARG	CB-CA-C	6.93	122.44	110.45
34	i	959	A	O4'-C1'-C2'	6.93	114.53	107.60
34	i	889	U	O4'-C1'-N1	6.93	118.89	108.50
33	g	159	ASN	O-C-N	-6.93	113.38	122.59
34	i	1071	C	N1-C1'-C2'	6.93	122.39	112.00
8	H	19	PHE	CA-CB-CG	-6.92	106.88	113.80
34	i	604	G	C3'-C2'-C1'	6.92	108.42	101.50
34	i	1693	C	O4'-C1'-C2'	-6.92	98.88	105.80
4	D	227	LYS	CA-C-O	-6.92	109.04	120.80
33	g	24	THR	CA-C-N	-6.92	111.19	119.84
33	g	24	THR	C-N-CA	-6.92	111.19	119.84
19	S	100	ALA	CB-CA-C	-6.92	108.61	116.63
34	i	1801	C	N1-C1'-C2'	6.92	122.37	112.00
34	i	905	G	P-O3'-C3'	-6.91	109.83	120.20
12	L	120	VAL	N-CA-C	-6.91	98.86	108.12
34	i	960	A	O4'-C1'-N9	6.91	118.86	108.50
34	i	1716	U	O3'-P-O5'	6.91	114.36	104.00
34	i	776	U	P-O3'-C3'	6.91	130.56	120.20
34	i	1656	A	N9-C1'-C2'	6.91	122.36	112.00
3	C	263	THR	CA-C-O	-6.91	109.06	120.80
34	i	1284	U	N1-C1'-C2'	6.91	122.36	112.00
34	i	1	U	O4'-C1'-N1	6.90	118.55	108.20
24	X	24	ASP	CB-CA-C	-6.90	100.47	110.06
34	i	883	U	C2'-C3'-O3'	6.90	119.85	109.50
34	i	156	G	P-O3'-C3'	-6.90	109.86	120.20
34	i	1449	C	O4'-C1'-N1	6.90	118.84	108.50
9	I	4	SER	N-CA-C	6.89	119.87	108.49
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	1769	U	O4'-C1'-N1	6.89	118.84	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1771	G	O4'-C1'-C2'	6.89	114.49	107.60
34	i	1267	C	O4'-C1'-C2'	-6.89	100.71	107.60
34	i	1469	G	P-O3'-C3'	6.89	130.53	120.20
28	b	52	THR	O-C-N	6.88	130.98	122.86
4	D	11	PHE	CA-CB-CG	-6.88	106.92	113.80
34	i	1658	A	O4'-C1'-C2'	-6.88	100.72	107.60
29	c	68	LEU	CA-C-O	-6.88	109.11	120.80
34	i	1503	G	O4'-C1'-N9	6.88	118.52	108.20
34	i	1202	G	N9-C1'-C2'	6.88	122.31	112.00
34	i	78	C	N1-C1'-C2'	-6.87	103.69	114.00
34	i	530	U	O4'-C1'-N1	6.87	118.81	108.50
34	i	627	U	O4'-C1'-N1	6.87	118.81	108.50
34	i	837	G	O4'-C1'-N9	6.87	118.81	108.50
4	D	93	THR	CA-C-N	6.87	134.81	122.38
4	D	93	THR	C-N-CA	6.87	134.81	122.38
10	J	85	GLY	CA-C-N	-6.87	110.67	120.42
10	J	85	GLY	C-N-CA	-6.87	110.67	120.42
34	i	610	G	O4'-C1'-C2'	-6.87	100.73	107.60
17	Q	17	LYS	O-C-N	-6.87	113.46	122.59
34	i	155	G	C5'-C4'-C3'	6.87	126.30	116.00
29	c	60	GLU	CA-C-N	-6.86	111.72	122.49
29	c	60	GLU	C-N-CA	-6.86	111.72	122.49
34	i	518	A	C1'-O4'-C4'	-6.86	103.04	109.90
24	X	91	LEU	CA-CB-CG	6.86	140.32	116.30
34	i	748	G	O4'-C1'-N9	6.86	118.79	108.50
13	M	99	LYS	N-CA-C	6.86	126.60	112.40
34	i	385	G	O4'-C1'-C2'	6.86	114.46	107.60
17	Q	31	LEU	CA-C-N	6.85	134.31	121.97
17	Q	31	LEU	C-N-CA	6.85	134.31	121.97
17	Q	77	HIS	N-CA-C	6.85	118.75	111.28
24	X	61	GLN	C-N-CD	6.85	135.67	120.60
34	i	882	A	O3'-P-O5'	6.85	114.28	104.00
19	S	40	TYR	CA-C-O	6.85	128.01	120.82
34	i	1449	C	C1'-C2'-O2'	6.84	118.67	108.40
34	i	830	C	C1'-C2'-O2'	6.84	118.66	108.40
34	i	1199	G	C1'-O4'-C4'	-6.84	103.06	109.90
34	i	523	A	C2'-C3'-O3'	6.84	123.96	113.70
34	i	455	A	C4'-C3'-O3'	6.83	119.65	109.40
8	H	104	PRO	CA-C-N	6.83	131.63	121.72
8	H	104	PRO	C-N-CA	6.83	131.63	121.72
34	i	276	U	C3'-C2'-C1'	6.83	108.13	101.30
5	E	129	ILE	O-C-N	6.83	130.06	123.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	835	C	O3'-P-O5'	-6.83	93.76	104.00
34	i	1229	G	C1'-O4'-C4'	-6.83	103.07	109.90
21	U	41	ARG	N-CA-C	6.82	118.51	111.14
32	f	152	LYS	CA-C-O	-6.82	109.20	120.80
34	i	62	G	N9-C1'-C2'	6.82	122.23	112.00
34	i	1775	A	P-O3'-C3'	6.82	130.43	120.20
26	Z	96	LEU	N-CA-C	-6.82	103.78	111.14
34	i	1841	G	O4'-C1'-N9	6.82	118.73	108.50
34	i	1256	A	N9-C1'-C2'	6.81	122.22	112.00
3	C	244	THR	N-CA-C	6.81	125.31	110.80
12	L	24	LEU	CA-C-N	6.81	134.55	121.54
12	L	24	LEU	C-N-CA	6.81	134.55	121.54
3	C	256	ASP	O-C-N	6.81	129.34	122.12
7	G	157	VAL	CA-C-O	6.81	128.51	121.23
34	i	859	U	C1'-O4'-C4'	-6.81	103.09	109.90
34	i	1346	U	O4'-C1'-C2'	-6.81	100.79	107.60
34	i	1482	A	O4'-C1'-N9	6.81	118.71	108.50
34	i	887	G	N9-C1'-C2'	6.81	122.21	112.00
1	A	16	LEU	N-CA-C	6.80	118.49	111.14
20	T	144	LYS	CA-C-O	-6.80	109.23	120.80
20	T	44	GLU	N-CA-C	6.80	118.77	111.36
34	i	419	C	O4'-C1'-C2'	-6.80	100.80	107.60
34	i	1207	G	N9-C1'-C2'	6.80	122.20	112.00
15	O	103	ASN	N-CA-CB	6.80	120.55	110.49
12	L	147	LYS	CA-C-N	6.79	130.40	120.82
12	L	147	LYS	C-N-CA	6.79	130.40	120.82
34	i	1249	A	O4'-C1'-N9	6.79	118.39	108.20
34	i	1774	G	N9-C1'-C2'	6.79	122.18	112.00
11	K	1	MET	N-CA-C	6.79	130.00	111.00
21	U	118	ASP	N-CA-C	-6.78	96.35	110.80
34	i	176	U	N1-C1'-C2'	6.78	122.17	112.00
34	i	1167	G	O4'-C1'-C2'	-6.78	99.02	105.80
34	i	1436	C	N1-C1'-C2'	6.78	122.18	112.00
34	i	1596	A	P-O3'-C3'	6.78	130.38	120.20
34	i	749	C	C5'-C4'-C3'	6.78	126.17	116.00
34	i	1233	C	C3'-C2'-C1'	6.78	108.08	101.30
34	i	1776	G	C3'-C2'-C1'	-6.78	94.52	101.30
34	i	1048	A	O4'-C1'-C2'	-6.78	100.82	107.60
34	i	683	G	O4'-C4'-C3'	-6.78	97.22	104.00
8	H	110	THR	CA-CB-CG2	6.78	122.02	110.50
34	i	299	G	C1'-O4'-C4'	-6.78	102.92	109.70
34	i	406	U	O4'-C1'-N1	6.77	118.66	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1151	U	P-O5'-C5'	6.77	131.06	120.90
34	i	1376	C	C3'-C2'-C1'	6.77	108.07	101.30
17	Q	17	LYS	CA-C-N	6.77	132.75	122.93
17	Q	17	LYS	C-N-CA	6.77	132.75	122.93
34	i	1594	U	P-O5'-C5'	6.77	131.06	120.90
34	i	321	C	O4'-C1'-C2'	-6.77	99.03	105.80
34	i	689	G	P-O3'-C3'	6.77	130.35	120.20
34	i	1634	G	O4'-C1'-C2'	-6.77	100.83	107.60
34	i	415	G	O4'-C1'-N9	6.76	118.65	108.50
3	C	83	LEU	O-C-N	-6.76	114.94	122.72
34	i	639	U	C1'-O4'-C4'	-6.76	103.14	109.90
15	O	143	LYS	CB-CA-C	-6.76	98.09	109.65
4	D	217	ILE	N-CA-C	6.76	115.94	107.70
16	P	49	LEU	O-C-N	-6.76	113.60	122.59
34	i	425	A	C4'-C3'-O3'	6.75	119.53	109.40
34	i	1784	A	N9-C1'-C2'	6.75	122.13	112.00
24	X	24	ASP	CA-C-N	-6.75	111.23	120.28
24	X	24	ASP	C-N-CA	-6.75	111.23	120.28
34	i	189	G	O5'-C5'-C4'	6.75	121.62	111.50
12	L	81	LYS	N-CA-C	6.74	118.70	111.36
6	F	152	TRP	N-CA-C	-6.73	103.63	110.97
34	i	548	G	C3'-C2'-C1'	-6.73	94.57	101.30
34	i	38	A	O4'-C1'-N9	6.72	118.28	108.20
34	i	139	C	O4'-C1'-C2'	-6.72	100.88	107.60
34	i	313	C	C3'-C2'-C1'	6.72	108.22	101.50
26	Z	101	SER	CA-C-O	-6.72	112.50	120.43
34	i	190	A	C5'-C4'-C3'	-6.72	105.92	116.00
34	i	951	A	P-O3'-C3'	6.72	130.28	120.20
13	M	73	GLN	N-CA-C	-6.72	103.05	110.91
33	g	15	ASN	N-CA-CB	6.71	119.52	110.59
21	U	109	GLY	CA-C-N	-6.71	109.89	121.97
21	U	109	GLY	C-N-CA	-6.71	109.89	121.97
34	i	1191	A	C4'-C3'-O3'	-6.71	102.93	113.00
34	i	1703	C	O4'-C1'-C2'	-6.71	100.89	107.60
34	i	1523	G	O4'-C1'-N9	6.71	118.56	108.50
34	i	1145	A	O4'-C1'-N9	6.70	118.26	108.20
34	i	1132	U	O4'-C1'-C2'	-6.70	100.90	107.60
34	i	1243	C	O4'-C1'-C2'	-6.69	99.11	105.80
34	i	1288	C	O4'-C1'-C2'	-6.69	100.91	107.60
34	i	1809	A	O4'-C1'-C2'	-6.69	100.91	107.60
34	i	456	G	O4'-C1'-N9	6.69	118.53	108.50
34	i	1565	G	O4'-C1'-N9	6.69	118.53	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	946	C	O4'-C1'-C2'	-6.68	100.92	107.60
8	H	164	ASN	CA-CB-CG	-6.68	105.92	112.60
34	i	549	G	N9-C1'-C2'	6.68	122.02	112.00
34	i	1384	A	O4'-C1'-C2'	-6.68	100.92	107.60
34	i	1232	G	C3'-C2'-C1'	-6.68	94.62	101.30
34	i	1655	C	P-O3'-C3'	-6.68	110.19	120.20
34	i	796	U	C5'-C4'-C3'	-6.67	105.99	116.00
34	i	1030	A	O4'-C1'-C2'	-6.67	100.93	107.60
34	i	1104	G	P-O3'-C3'	6.67	130.21	120.20
34	i	1325	U	C1'-O4'-C4'	-6.67	103.22	109.90
34	i	1081	C	C4'-C3'-O3'	6.67	119.41	109.40
34	i	389	C	C3'-C2'-C1'	6.67	108.17	101.50
34	i	424	G	C2'-C3'-O3'	6.67	123.70	113.70
34	i	1066	A	N9-C1'-C2'	6.67	122.00	112.00
34	i	176	U	O4'-C1'-C2'	-6.67	100.94	107.60
34	i	1313	U	O4'-C1'-C2'	-6.67	100.94	107.60
20	T	86	GLY	N-CA-C	-6.66	105.54	111.67
34	i	311	C	C3'-C2'-C1'	6.66	107.96	101.30
6	F	130	ARG	N-CA-CB	6.66	121.76	111.84
34	i	1044	G	C1'-O4'-C4'	-6.66	103.24	109.90
34	i	1280	A	O4'-C1'-C2'	-6.66	99.14	105.80
34	i	1322	U	C3'-C2'-C1'	6.66	108.16	101.50
34	i	1056	A	N9-C1'-C2'	6.66	123.98	114.00
33	g	162	ASN	N-CA-C	6.65	113.99	108.07
34	i	747	G	O4'-C1'-N9	6.65	118.48	108.50
12	L	4	ILE	N-CA-C	-6.65	95.51	109.34
34	i	1316	G	C3'-C2'-C1'	-6.65	94.65	101.30
34	i	1688	G	C1'-O4'-C4'	-6.65	103.25	109.90
34	i	279	G	P-O5'-C5'	6.65	130.87	120.90
34	i	290	A	O4'-C1'-C2'	-6.64	100.96	107.60
34	i	1181	C	N1-C1'-C2'	6.64	121.96	112.00
34	i	1226	C	C1'-O4'-C4'	-6.64	103.26	109.90
19	S	39	ARG	O-C-N	6.64	129.99	122.22
34	i	342	U	C3'-C2'-C1'	6.64	107.94	101.30
34	i	783	G	O3'-P-O5'	6.64	113.96	104.00
34	i	455	A	P-O3'-C3'	6.63	130.15	120.20
34	i	1208	G	C1'-O4'-C4'	-6.63	103.27	109.90
34	i	744	C	C3'-C2'-C1'	6.63	107.93	101.30
34	i	1129	A	O5'-C5'-C4'	-6.63	101.55	111.50
34	i	1240	U	O4'-C1'-N1	6.63	118.45	108.50
25	Y	103	SER	CA-C-N	6.63	134.20	121.54
25	Y	103	SER	C-N-CA	6.63	134.20	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	a	57	SER	O-C-N	-6.63	115.23	122.79
34	i	553	G	O4'-C1'-C2'	-6.63	99.17	105.80
34	i	75	G	O4'-C1'-N9	6.63	118.44	108.50
34	i	1014	U	C1'-O4'-C4'	-6.63	103.27	109.90
11	K	2	LEU	N-CA-C	6.63	129.55	111.00
34	i	1135	C	P-O5'-C5'	-6.62	110.96	120.90
34	i	1533	C	P-O5'-C5'	-6.62	110.96	120.90
22	V	42	VAL	CB-CA-C	-6.62	100.43	111.29
33	g	258	ILE	CA-C-N	-6.62	111.76	122.36
33	g	258	ILE	C-N-CA	-6.62	111.76	122.36
34	i	68	A	O4'-C1'-C2'	-6.62	100.98	107.60
34	i	103	A	C3'-C2'-C1'	-6.62	94.88	101.50
34	i	405	A	N9-C1'-C2'	-6.61	102.08	112.00
34	i	1395	C	C5'-C4'-C3'	-6.61	106.09	116.00
7	G	180	VAL	N-CA-CB	-6.60	100.33	111.23
8	H	54	GLY	N-CA-C	6.60	120.65	112.73
34	i	74	G	O4'-C1'-C2'	-6.60	101.00	107.60
34	i	209	C	P-O5'-C5'	6.60	130.80	120.90
5	E	132	GLY	CA-C-N	6.60	130.74	121.24
5	E	132	GLY	C-N-CA	6.60	130.74	121.24
34	i	1151	U	C5'-C4'-O4'	6.60	118.99	109.10
23	W	97	ARG	N-CA-C	-6.59	104.09	111.28
34	i	123	G	O4'-C1'-N9	6.59	118.39	108.50
34	i	821	A	P-O3'-C3'	-6.59	110.31	120.20
34	i	1326	G	O4'-C1'-C2'	6.59	112.39	105.80
34	i	1776	G	O5'-C5'-C4'	6.59	121.38	111.50
12	L	3	ASP	N-CA-C	-6.59	100.68	110.23
34	i	296	U	C4'-C3'-O3'	6.59	119.28	109.40
16	P	17	TYR	N-CA-CB	6.59	121.62	110.49
34	i	604	G	N9-C1'-C2'	6.59	123.88	114.00
34	i	1695	C	O4'-C1'-C2'	-6.58	99.22	105.80
33	g	212	LYS	CA-C-N	-6.58	111.46	120.28
33	g	212	LYS	C-N-CA	-6.58	111.46	120.28
35	l	73	VAL	N-CA-C	6.58	118.33	106.61
34	i	868	A	O4'-C1'-C2'	6.58	112.38	105.80
34	i	881	U	O4'-C1'-C2'	-6.58	101.02	107.60
34	i	435	A	C1'-O4'-C4'	-6.58	103.32	109.90
34	i	1550	U	C4'-C3'-O3'	-6.58	103.13	113.00
34	i	186	G	C1'-O4'-C4'	-6.58	103.32	109.90
34	i	1167	G	O4'-C1'-N9	6.57	118.06	108.20
34	i	1550	U	O4'-C4'-C3'	-6.57	97.43	104.00
34	i	64	A	N9-C1'-C2'	-6.57	104.15	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	J	124	HIS	N-CA-C	-6.56	96.82	110.80
34	i	352	C	N1-C1'-C2'	6.56	121.84	112.00
34	i	887	G	C1'-O4'-C4'	-6.56	103.34	109.90
34	i	598	C	C3'-C2'-C1'	6.56	107.86	101.30
34	i	835	C	P-O3'-C3'	6.56	130.04	120.20
21	U	48	LEU	N-CA-C	-6.56	104.21	111.82
34	i	104	A	O4'-C1'-C2'	-6.56	101.04	107.60
34	i	1627	G	C2'-C3'-O3'	6.55	119.33	109.50
32	f	125	GLU	CB-CA-C	6.55	121.57	111.02
34	i	58	C	N1-C1'-C2'	-6.55	104.17	114.00
34	i	792	G	P-O3'-C3'	6.55	130.03	120.20
12	L	101	ARG	N-CA-C	-6.55	98.71	108.99
34	i	563	U	N1-C1'-C2'	6.55	121.82	112.00
5	E	202	PRO	N-CA-C	-6.54	101.38	111.13
34	i	1433	C	N1-C1'-C2'	6.54	121.81	112.00
34	i	72	C	C1'-C2'-O2'	6.54	121.61	111.80
11	K	18	GLU	N-CA-C	6.54	118.49	111.36
34	i	390	C	O4'-C1'-C2'	-6.54	99.26	105.80
21	U	69	PRO	CB-CA-C	-6.54	104.44	111.56
34	i	1272	A	N9-C1'-C2'	-6.53	102.20	112.00
34	i	59	U	O4'-C1'-N1	6.53	118.30	108.50
34	i	147	A	C1'-O4'-C4'	6.53	116.23	109.70
34	i	1461	A	O4'-C1'-C2'	-6.53	101.07	107.60
34	i	1548	C	P-O3'-C3'	6.53	130.00	120.20
34	i	1846	C	N1-C1'-C2'	6.53	121.80	112.00
34	i	623	C	N1-C1'-C2'	6.53	121.79	112.00
13	M	58	GLU	CA-C-N	6.53	128.00	119.84
13	M	58	GLU	C-N-CA	6.53	128.00	119.84
34	i	312	C	O4'-C1'-C2'	-6.53	101.07	107.60
34	i	1307	C	C1'-O4'-C4'	-6.52	103.38	109.90
34	i	685	G	C5'-C4'-C3'	6.52	125.78	116.00
6	F	43	GLU	N-CA-C	-6.52	96.91	110.80
10	J	186	GLY	CA-C-N	6.52	134.07	122.08
10	J	186	GLY	C-N-CA	6.52	134.07	122.08
22	V	24	ILE	CA-C-N	-6.52	117.68	122.18
22	V	24	ILE	C-N-CA	-6.52	117.68	122.18
26	Z	52	LYS	N-CA-C	-6.52	96.91	110.80
33	g	76	GLN	N-CA-C	6.52	118.47	111.36
34	i	1361	G	P-O5'-C5'	6.52	130.68	120.90
34	i	325	G	N9-C1'-C2'	-6.52	102.22	112.00
34	i	147	A	O4'-C1'-C2'	-6.51	99.28	105.80
34	i	1168	U	O4'-C1'-N1	6.51	118.27	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1369	C	C3'-C2'-C1'	6.51	107.81	101.30
34	i	1416	G	N9-C1'-C2'	6.51	121.77	112.00
34	i	1711	C	O4'-C1'-C2'	-6.51	101.09	107.60
34	i	908	C	C3'-C2'-C1'	6.51	108.01	101.50
15	O	105	THR	N-CA-C	6.50	118.37	111.28
34	i	1794	A	O4'-C1'-C2'	-6.50	101.10	107.60
22	V	67	ASP	N-CA-CB	-6.50	100.65	110.07
34	i	1482	A	O5'-C5'-C4'	-6.50	101.75	111.50
34	i	142	C	O4'-C1'-C2'	6.49	112.29	105.80
9	I	6	ASP	N-CA-CB	-6.49	99.37	109.69
34	i	866	A	O4'-C1'-N9	6.49	117.93	108.20
34	i	1735	C	O4'-C1'-C2'	-6.49	101.11	107.60
34	i	192	U	C2'-C3'-O3'	-6.49	103.97	113.70
34	i	57	U	O4'-C1'-C2'	-6.48	101.12	107.60
34	i	1478	C	O4'-C1'-C2'	-6.48	101.12	107.60
34	i	1539	C	C3'-C2'-C1'	6.48	107.78	101.30
12	L	151	THR	N-CA-C	-6.48	100.09	113.31
34	i	1235	U	O3'-P-O5'	6.48	113.72	104.00
34	i	1104	G	O4'-C1'-N9	6.48	118.22	108.50
34	i	279	G	O4'-C1'-C2'	-6.48	101.12	107.60
34	i	359	C	O4'-C1'-N1	6.48	117.92	108.20
34	i	1805	C	O4'-C1'-C2'	-6.48	101.12	107.60
34	i	1442	A	P-O3'-C3'	6.48	129.91	120.20
7	G	121	ILE	O-C-N	6.47	128.48	121.10
34	i	678	U	C1'-C2'-O2'	6.47	121.51	111.80
34	i	1861	U	O4'-C1'-C2'	-6.47	99.33	105.80
34	i	1431	C	C5'-C4'-C3'	6.47	125.70	116.00
25	Y	34	THR	N-CA-C	6.47	124.58	110.80
27	a	99	PRO	CA-C-N	-6.47	111.80	122.79
27	a	99	PRO	C-N-CA	-6.47	111.80	122.79
28	b	15	GLU	N-CA-C	-6.47	103.74	111.69
34	i	1010	G	C3'-C2'-C1'	-6.47	94.83	101.30
34	i	816	U	O4'-C1'-N1	6.46	118.20	108.50
26	Z	94	LYS	N-CA-C	-6.46	98.19	108.73
34	i	581	U	O4'-C1'-C2'	6.46	112.26	105.80
34	i	325	G	C1'-C2'-O2'	6.46	118.09	108.40
6	F	27	ASP	CA-C-N	-6.46	115.18	123.19
6	F	27	ASP	C-N-CA	-6.46	115.18	123.19
1	A	97	THR	CA-C-N	6.45	127.91	119.84
1	A	97	THR	C-N-CA	6.45	127.91	119.84
31	e	121	PRO	CA-N-CD	-6.45	102.97	112.00
34	i	630	A	C1'-O4'-C4'	-6.45	103.45	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	740	G	O3'-P-O5'	-6.45	94.32	104.00
34	i	455	A	O3'-P-O5'	-6.45	94.33	104.00
34	i	1359	C	C3'-C2'-C1'	6.45	107.95	101.50
34	i	1714	A	C1'-O4'-C4'	6.45	116.35	109.90
34	i	1817	A	C2'-C3'-O3'	-6.45	99.83	109.50
25	Y	64	PHE	N-CA-CB	-6.45	99.75	110.39
34	i	54	A	N9-C1'-C2'	6.45	121.67	112.00
34	i	1470	A	O3'-P-O5'	6.45	113.67	104.00
28	b	36	LYS	O-C-N	-6.44	115.13	122.09
4	D	48	ILE	CA-C-N	-6.43	114.67	122.90
4	D	48	ILE	C-N-CA	-6.43	114.67	122.90
16	P	53	GLN	CB-CA-C	6.43	121.55	110.94
25	Y	122	LYS	N-CA-C	-6.43	104.27	111.28
34	i	1428	U	N1-C1'-C2'	6.43	121.64	112.00
34	i	881	U	O4'-C1'-N1	6.43	118.14	108.50
15	O	149	ARG	N-CA-C	-6.42	100.32	109.96
34	i	1537	C	C1'-O4'-C4'	-6.42	103.48	109.90
34	i	446	C	O4'-C1'-C2'	-6.42	101.18	107.60
8	H	135	PHE	CA-CB-CG	-6.42	107.38	113.80
34	i	785	G	O4'-C1'-N9	6.42	118.13	108.50
34	i	848	G	P-O3'-C3'	6.42	129.83	120.20
34	i	224	U	O4'-C1'-N1	6.42	117.82	108.20
34	i	853	U	P-O5'-C5'	-6.42	111.28	120.90
34	i	146	G	O4'-C1'-N9	6.41	117.82	108.20
34	i	520	U	O5'-C5'-C4'	6.41	121.11	111.50
34	i	60	A	O4'-C1'-C2'	6.41	114.01	107.60
34	i	960	A	C1'-O4'-C4'	6.41	116.31	109.90
18	R	121	GLN	N-CA-C	6.41	123.97	109.81
34	i	1618	A	C3'-C2'-C1'	-6.41	94.89	101.30
34	i	1527	C	N1-C1'-C2'	6.41	121.61	112.00
34	i	1655	C	C4'-C3'-O3'	-6.41	103.39	113.00
34	i	1023	A	O3'-P-O5'	6.40	113.61	104.00
11	K	43	LEU	CA-CB-CG	6.40	138.71	116.30
34	i	145	G	O4'-C1'-C2'	6.40	114.00	107.60
34	i	385	G	C3'-C2'-C1'	-6.40	94.90	101.30
34	i	295	C	C2'-C3'-O3'	6.39	119.09	109.50
34	i	1337	C	O4'-C1'-C2'	-6.39	99.41	105.80
17	Q	29	ASN	O-C-N	6.39	128.90	122.12
34	i	788	C	N1-C1'-C2'	6.39	121.59	112.00
34	i	1345	G	N9-C1'-C2'	6.39	121.58	112.00
34	i	1518	C	C4'-C3'-O3'	-6.39	103.42	113.00
34	i	1547	G	P-O5'-C5'	6.39	130.48	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1577	C	N1-C1'-C2'	6.39	121.58	112.00
34	i	1753	G	O4'-C1'-N9	6.38	118.08	108.50
34	i	368	U	N1-C1'-C2'	6.38	121.57	112.00
34	i	1371	G	O4'-C1'-C2'	-6.38	101.22	107.60
34	i	124	U	O3'-P-O5'	-6.38	94.43	104.00
6	F	46	ALA	O-C-N	-6.38	114.11	122.59
19	S	15	VAL	O-C-N	-6.38	115.98	123.00
9	I	104	ILE	N-CA-C	6.38	122.61	109.34
11	K	43	LEU	N-CA-C	-6.38	97.22	110.80
12	L	118	ARG	N-CA-C	6.38	119.00	108.99
34	i	544	A	C3'-C2'-C1'	-6.38	94.92	101.30
34	i	684	A	P-O5'-C5'	6.38	130.46	120.90
34	i	983	A	O4'-C1'-C2'	-6.38	101.22	107.60
34	i	180	G	O3'-P-O5'	6.38	113.56	104.00
8	H	34	SER	N-CA-C	-6.37	99.62	109.24
5	E	13	ALA	N-CA-C	-6.37	104.06	113.61
34	i	1215	C	C3'-C2'-C1'	6.37	107.67	101.30
34	i	1661	C	O4'-C1'-C2'	-6.37	101.23	107.60
34	i	20	G	O4'-C1'-N9	6.37	118.05	108.50
5	E	258	ALA	O-C-N	-6.37	114.44	122.27
34	i	730	C	N1-C1'-C2'	6.37	121.55	112.00
34	i	1563	C	C1'-C2'-O2'	6.37	117.95	108.40
34	i	977	A	C3'-C2'-C1'	6.36	107.66	101.30
23	W	94	LEU	CA-C-N	6.36	125.58	118.97
23	W	94	LEU	C-N-CA	6.36	125.58	118.97
34	i	1293	U	O4'-C1'-C2'	-6.36	101.24	107.60
33	g	213	ASP	N-CA-C	-6.36	104.35	111.28
34	i	225	C	N1-C1'-C2'	6.36	123.53	114.00
34	i	596	G	O4'-C1'-C2'	6.36	112.16	105.80
34	i	752	C	C4'-C3'-C2'	-6.36	96.24	102.60
34	i	1571	G	N9-C1'-C2'	6.36	121.53	112.00
3	C	216	ALA	O-C-N	-6.35	114.14	122.39
34	i	407	C	O4'-C1'-C2'	-6.35	101.25	107.60
34	i	546	U	C5'-C4'-C3'	6.35	125.53	116.00
34	i	1006	G	C3'-C2'-C1'	-6.35	94.95	101.30
34	i	1542	C	N1-C1'-C2'	6.35	121.52	112.00
29	c	46	VAL	N-CA-C	6.35	117.62	108.48
21	U	109	GLY	N-CA-C	-6.34	98.14	113.18
34	i	131	C	P-O3'-C3'	6.34	129.72	120.20
34	i	1097	U	O4'-C1'-N1	6.34	118.02	108.50
1	A	4	ALA	CA-C-N	6.34	128.69	120.44
1	A	4	ALA	C-N-CA	6.34	128.69	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	K	43	LEU	CA-C-N	-6.34	109.43	121.54
11	K	43	LEU	C-N-CA	-6.34	109.43	121.54
34	i	1250	C	O4'-C1'-C2'	-6.34	101.26	107.60
34	i	1632	A	C1'-O4'-C4'	6.34	116.04	109.70
34	i	750	G	N9-C1'-C2'	6.34	121.51	112.00
34	i	520	U	P-O3'-C3'	6.34	129.71	120.20
34	i	1800	A	N9-C1'-C2'	6.34	121.50	112.00
32	f	106	TYR	N-CA-C	-6.33	97.32	110.80
34	i	278	U	P-O5'-C5'	6.33	130.40	120.90
34	i	1269	C	P-O3'-C3'	-6.33	110.70	120.20
34	i	835	C	O4'-C1'-N1	6.33	117.69	108.20
34	i	959	A	P-O5'-C5'	-6.33	111.41	120.90
34	i	1198	U	N1-C1'-C2'	-6.33	102.51	112.00
10	J	40	LYS	CA-C-N	-6.33	111.80	120.28
10	J	40	LYS	C-N-CA	-6.33	111.80	120.28
34	i	1126	G	O4'-C1'-N9	6.33	117.99	108.50
14	N	14	SER	CB-CA-C	-6.33	96.55	109.65
34	i	236	C	O4'-C1'-C2'	-6.33	101.27	107.60
34	i	520	U	C2'-C3'-O3'	-6.33	104.21	113.70
2	B	56	LYS	CA-C-N	6.32	133.35	121.97
2	B	56	LYS	C-N-CA	6.32	133.35	121.97
10	J	179	LYS	O-C-N	6.32	130.25	122.34
35	l	35	ILE	N-CA-C	-6.32	100.31	109.29
34	i	446	C	C3'-C2'-C1'	6.32	107.62	101.30
34	i	1429	C	C2'-C3'-O3'	-6.32	104.22	113.70
23	W	98	GLN	N-CA-C	6.32	118.17	111.28
34	i	1028	C	O4'-C1'-C2'	-6.32	101.28	107.60
28	b	41	TYR	N-CA-CB	-6.32	102.50	110.90
16	P	37	TYR	CB-CA-C	6.32	122.99	110.42
34	i	793	C	P-O5'-C5'	6.31	130.37	120.90
14	N	137	PRO	CA-C-O	-6.31	114.14	121.34
34	i	359	C	N1-C1'-C2'	6.31	123.47	114.00
34	i	1542	C	O4'-C1'-C2'	-6.31	101.29	107.60
34	i	1615	A	C1'-O4'-C4'	-6.31	103.39	109.70
34	i	1262	C	N1-C1'-C2'	6.31	121.47	112.00
2	B	76	ASN	CA-C-O	-6.31	114.27	121.65
34	i	691	G	P-O3'-C3'	6.31	129.66	120.20
34	i	1414	C	O4'-C4'-C3'	-6.31	99.79	106.10
34	i	1630	C	O4'-C1'-C2'	-6.30	101.30	107.60
34	i	280	G	O4'-C1'-N9	6.30	117.95	108.50
34	i	1407	G	C1'-C2'-O2'	6.30	117.86	108.40
18	R	84	TYR	N-CA-C	6.30	118.92	110.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	596	G	O4'-C1'-N9	6.30	117.65	108.20
32	f	86	THR	N-CA-C	-6.29	97.39	110.80
34	i	787	C	N1-C1'-C2'	6.29	121.44	112.00
6	F	57	ALA	N-CA-C	6.29	118.14	111.28
14	N	142	GLU	CA-C-O	-6.29	113.56	120.36
11	K	42	ASN	CA-CB-CG	6.29	118.89	112.60
34	i	804	A	N9-C1'-C2'	6.29	121.43	112.00
34	i	966	G	P-O3'-C3'	6.28	129.62	120.20
34	i	986	A	C3'-C2'-C1'	6.28	107.78	101.50
34	i	1289	A	C3'-C2'-C1'	6.28	107.58	101.30
33	g	27	PHE	CA-CB-CG	-6.28	107.52	113.80
34	i	74	G	C4'-C3'-C2'	-6.28	96.33	102.60
34	i	677	C	O4'-C1'-C2'	6.27	112.07	105.80
28	b	35	VAL	CA-C-N	6.27	128.97	120.44
28	b	35	VAL	C-N-CA	6.27	128.97	120.44
34	i	981	G	O4'-C1'-C2'	6.27	112.07	105.80
34	i	1144	A	C1'-C2'-O2'	6.27	121.20	111.80
34	i	306	C	O4'-C1'-C2'	-6.27	101.33	107.60
34	i	1519	G	O4'-C4'-C3'	-6.27	97.73	104.00
34	i	1188	U	O4'-C1'-N1	6.26	117.90	108.50
29	c	47	LYS	N-CA-C	6.26	117.90	111.14
34	i	436	G	C3'-C2'-C1'	6.26	107.56	101.30
34	i	1786	G	C3'-C2'-C1'	-6.26	95.04	101.30
34	i	390	C	C1'-C2'-O2'	-6.26	102.41	111.80
34	i	1049	C	O4'-C1'-C2'	-6.26	101.34	107.60
16	P	35	GLN	CA-C-N	-6.26	114.37	123.00
16	P	35	GLN	C-N-CA	-6.26	114.37	123.00
34	i	277	U	N1-C1'-C2'	6.26	121.38	112.00
34	i	1786	G	C1'-O4'-C4'	-6.26	103.64	109.90
34	i	1156	U	O3'-P-O5'	6.25	113.38	104.00
21	U	27	ARG	CA-C-N	-6.25	111.81	121.56
21	U	27	ARG	C-N-CA	-6.25	111.81	121.56
34	i	1706	U	N1-C1'-C2'	6.25	121.38	112.00
17	Q	6	PRO	CB-CA-C	-6.25	98.23	110.10
25	Y	78	SER	CA-C-N	-6.25	110.57	120.63
25	Y	78	SER	C-N-CA	-6.25	110.57	120.63
34	i	856	G	N9-C1'-C2'	6.25	121.37	112.00
34	i	1127	G	C5'-C4'-C3'	-6.25	106.63	116.00
34	i	1587	C	N1-C1'-C2'	6.25	121.37	112.00
34	i	274	G	N9-C1'-C2'	6.25	121.37	112.00
34	i	545	A	O3'-P-O5'	6.25	113.37	104.00
34	i	1035	C	O4'-C1'-C2'	-6.25	101.36	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	343	C	C4'-C3'-C2'	6.24	108.84	102.60
25	Y	7	ILE	CA-C-N	6.24	131.80	123.00
25	Y	7	ILE	C-N-CA	6.24	131.80	123.00
34	i	520	U	O4'-C1'-N1	6.24	117.86	108.50
34	i	1220	G	N9-C1'-C2'	6.24	121.36	112.00
34	i	1646	A	N9-C1'-C2'	-6.24	102.64	112.00
34	i	164	A	C1'-O4'-C4'	-6.24	103.66	109.90
34	i	548	G	O3'-P-O5'	-6.24	94.64	104.00
34	i	1043	C	C3'-C2'-C1'	6.24	107.54	101.30
34	i	240	C	C4'-C3'-O3'	6.24	118.75	109.40
34	i	504	U	N1-C1'-C2'	6.24	121.35	112.00
34	i	1318	G	O4'-C1'-C2'	-6.24	101.36	107.60
34	i	1322	U	C1'-O4'-C4'	-6.24	103.47	109.70
34	i	594	A	C3'-C2'-C1'	6.23	107.53	101.30
34	i	1255	A	O4'-C1'-N9	6.23	117.85	108.50
34	i	1425	G	N9-C1'-C2'	-6.23	102.65	112.00
34	i	1447	G	C3'-C2'-C1'	6.23	107.53	101.30
34	i	1660	G	C1'-O4'-C4'	-6.23	103.47	109.70
34	i	168	C	O4'-C1'-C2'	-6.23	101.37	107.60
34	i	1149	C	O4'-C1'-C2'	6.23	112.03	105.80
34	i	1310	U	O4'-C1'-N1	6.23	117.84	108.50
34	i	817	G	O4'-C1'-N9	6.22	117.54	108.20
34	i	1390	G	N9-C1'-C2'	6.22	121.34	112.00
10	J	164	PRO	N-CD-CG	-6.22	93.86	103.20
34	i	180	G	C2'-C3'-O3'	-6.22	100.17	109.50
10	J	35	TYR	CA-C-N	6.22	133.60	121.41
10	J	35	TYR	C-N-CA	6.22	133.60	121.41
14	N	82	PRO	CA-C-O	6.22	131.92	120.60
34	i	608	C	O4'-C1'-C2'	-6.22	101.38	107.60
34	i	1065	U	P-O5'-C5'	-6.21	111.58	120.90
34	i	1407	G	N9-C1'-C2'	6.21	121.32	112.00
11	K	95	ARG	N-CA-C	6.21	124.03	110.80
34	i	461	G	O4'-C1'-N9	6.21	117.52	108.20
34	i	1406	C	C3'-C2'-C1'	6.21	107.51	101.30
34	i	426	G	O4'-C1'-N9	6.21	117.81	108.50
34	i	493	C	O4'-C1'-C2'	-6.21	99.59	105.80
34	i	531	U	O4'-C1'-N1	6.21	117.81	108.50
8	H	85	LYS	N-CA-C	6.20	117.84	111.14
34	i	315	C	P-O3'-C3'	6.20	129.50	120.20
34	i	1051	A	O4'-C1'-C2'	-6.20	101.40	107.60
34	i	1372	A	O4'-C1'-N9	6.20	117.80	108.50
29	c	55	VAL	N-CA-C	6.20	117.41	108.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	35	C	C3'-C2'-C1'	6.20	107.50	101.30
11	K	37	ASP	CA-C-N	6.20	133.37	121.54
11	K	37	ASP	C-N-CA	6.20	133.37	121.54
34	i	136	C	C5'-C4'-C3'	6.19	124.19	114.90
34	i	274	G	O4'-C1'-C2'	6.19	113.79	107.60
34	i	1271	G	O3'-P-O5'	-6.19	94.71	104.00
34	i	850	A	O5'-C5'-C4'	-6.19	102.22	111.50
34	i	1504	A	C1'-O4'-C4'	6.19	115.89	109.70
34	i	535	A	O4'-C1'-C2'	-6.19	101.41	107.60
34	i	984	C	O4'-C1'-C2'	-6.19	101.41	107.60
4	D	145	GLN	N-CA-C	-6.18	104.54	111.28
34	i	162	C	P-O3'-C3'	6.18	129.48	120.20
34	i	1550	U	O4'-C1'-N1	6.18	117.78	108.50
34	i	1514	U	O4'-C1'-C2'	-6.18	99.62	105.80
11	K	46	MET	CB-CA-C	-6.18	101.18	110.88
34	i	412	U	O4'-C1'-N1	6.18	117.77	108.50
32	f	144	CYS	N-CA-C	-6.18	97.64	110.80
24	X	24	ASP	N-CA-CB	6.17	119.41	109.28
33	g	212	LYS	N-CA-C	6.17	118.09	111.36
34	i	841	G	P-O3'-C3'	-6.17	110.94	120.20
34	i	1410	A	C4'-C3'-O3'	-6.17	103.74	113.00
34	i	1838	U	O4'-C1'-N1	6.17	117.76	108.50
34	i	1199	G	O4'-C1'-C2'	6.17	113.77	107.60
8	H	109	ARG	N-CA-C	6.17	123.94	110.80
9	I	116	HIS	N-CA-C	6.17	118.08	111.36
34	i	1231	G	O4'-C1'-N9	6.17	117.75	108.50
34	i	1771	G	C1'-O4'-C4'	-6.17	103.73	109.90
25	Y	36	PRO	CA-C-O	-6.16	114.41	121.56
33	g	95	GLY	N-CA-C	-6.16	102.07	110.20
34	i	368	U	C1'-O4'-C4'	-6.16	103.74	109.90
34	i	1297	A	O3'-P-O5'	-6.16	94.76	104.00
34	i	1766	C	O4'-C1'-C2'	-6.16	101.44	107.60
16	P	122	THR	N-CA-C	-6.16	103.30	111.24
34	i	1160	G	N9-C1'-C2'	6.16	121.24	112.00
4	D	142	LEU	O-C-N	-6.16	115.37	123.13
25	Y	94	HIS	CE1-NE2-CD2	-6.16	102.84	109.00
34	i	1858	U	O4'-C1'-C2'	-6.15	101.45	107.60
35	l	98	VAL	CA-C-N	6.15	129.03	121.64
35	l	98	VAL	C-N-CA	6.15	129.03	121.64
2	B	155	TYR	CB-CA-C	-6.15	97.07	109.68
34	i	1549	C	C4'-C3'-O3'	6.15	122.23	113.00
7	G	48	TYR	O-C-N	-6.15	115.47	122.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1118	A	C4'-C3'-C2'	-6.15	96.45	102.60
34	i	1274	A	P-O5'-C5'	6.15	130.12	120.90
34	i	746	C	N1-C1'-C2'	6.15	121.22	112.00
34	i	1532	A	C5'-C4'-C3'	-6.15	106.78	116.00
34	i	148	U	O4'-C1'-C2'	-6.15	101.45	107.60
21	U	27	ARG	O-C-N	-6.14	114.42	122.59
34	i	689	G	C3'-C2'-C1'	6.14	107.44	101.30
34	i	1086	C	O4'-C1'-C2'	-6.14	101.46	107.60
34	i	1437	U	O4'-C1'-N1	6.14	117.41	108.20
34	i	1570	G	C4'-C3'-C2'	-6.14	96.46	102.60
34	i	151	C	O5'-C5'-C4'	-6.14	102.30	111.50
4	D	210	ILE	O-C-N	6.13	129.84	123.03
34	i	1448	A	C3'-C2'-C1'	6.13	107.64	101.50
14	N	12	SER	N-CA-C	-6.13	99.20	108.46
34	i	1355	U	O4'-C1'-N1	6.13	117.69	108.50
34	i	1183	G	O4'-C1'-C2'	-6.12	101.47	107.60
34	i	1270	G	C3'-C2'-C1'	6.12	107.62	101.50
3	C	81	PHE	CA-CB-CG	-6.12	107.68	113.80
12	L	100	ASN	N-CA-C	6.12	120.71	107.49
2	B	212	VAL	N-CA-C	-6.12	99.48	108.54
13	M	101	ARG	CA-C-N	6.12	128.48	120.28
13	M	101	ARG	C-N-CA	6.12	128.48	120.28
21	U	105	SER	CA-C-O	-6.12	114.74	121.84
27	a	63	VAL	N-CA-C	6.12	122.07	109.34
34	i	276	U	O4'-C1'-C2'	-6.12	101.48	107.60
12	L	95	TYR	CA-C-N	-6.12	114.94	123.13
12	L	95	TYR	C-N-CA	-6.12	114.94	123.13
34	i	651	U	O4'-C1'-C2'	-6.11	101.49	107.60
34	i	884	U	P-O5'-C5'	6.11	130.07	120.90
24	X	23	HIS	N-CA-C	-6.11	104.68	111.71
34	i	625	G	C5'-C4'-C3'	6.11	125.17	116.00
33	g	93	THR	CB-CA-C	-6.11	99.33	110.63
34	i	227	A	C1'-O4'-C4'	6.11	116.01	109.90
34	i	1103	G	O4'-C1'-N9	6.11	117.66	108.50
12	L	150	GLY	O-C-N	6.11	128.88	122.59
5	E	109	PHE	N-CA-C	-6.11	101.27	110.24
34	i	358	U	O4'-C1'-N1	6.11	117.36	108.20
34	i	396	U	N1-C1'-C2'	6.10	121.16	112.00
34	i	514	U	O4'-C1'-C2'	-6.10	101.50	107.60
33	g	278	SER	N-CA-C	6.09	117.72	111.14
34	i	1289	A	O4'-C1'-C2'	-6.09	101.51	107.60
34	i	1370	C	N1-C1'-C2'	6.09	121.14	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	D	113	LEU	N-CA-C	-6.09	97.82	110.80
34	i	1282	G	O3'-P-O5'	-6.09	94.86	104.00
34	i	168	C	C3'-C2'-C1'	6.09	107.39	101.30
34	i	216	U	O4'-C1'-C2'	-6.09	101.51	107.60
34	i	441	G	P-O5'-C5'	6.09	130.03	120.90
34	i	1026	A	O4'-C1'-C2'	-6.09	101.51	107.60
34	i	1191	A	O3'-P-O5'	-6.09	94.87	104.00
34	i	1656	A	O5'-C5'-C4'	-6.09	102.37	111.50
4	D	167	TYR	CA-CB-CG	-6.08	102.95	113.90
34	i	1184	A	C3'-C2'-C1'	6.08	107.39	101.30
33	g	2	THR	CA-C-N	-6.08	109.92	121.54
33	g	2	THR	C-N-CA	-6.08	109.92	121.54
34	i	149	A	O4'-C1'-C2'	-6.08	101.52	107.60
34	i	1145	A	O4'-C1'-C2'	6.08	111.88	105.80
34	i	1671	U	O4'-C1'-N1	6.08	117.62	108.50
34	i	432	C	C3'-C2'-C1'	6.08	107.38	101.30
34	i	1515	G	C5'-C4'-C3'	6.08	125.11	116.00
14	N	82	PRO	N-CA-C	6.07	124.98	112.47
25	Y	99	LYS	N-CA-C	6.07	123.73	110.80
34	i	1447	G	O3'-P-O5'	-6.07	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
34	i	491	C	P-O3'-C3'	6.07	129.31	120.20
34	i	1781	G	C1'-C2'-O2'	6.07	117.50	108.40
34	i	741	C	C5'-C4'-C3'	6.07	125.10	116.00
34	i	1637	U	O4'-C1'-C2'	-6.07	101.53	107.60
34	i	733	G	N9-C1'-C2'	-6.06	102.91	112.00
34	i	839	C	O4'-C1'-C2'	-6.06	101.54	107.60
34	i	1023	A	C2'-C3'-O3'	-6.06	104.61	113.70
11	K	41	PRO	CA-N-CD	-6.06	103.52	112.00
34	i	998	U	O4'-C1'-C2'	-6.06	101.54	107.60
34	i	1589	A	C5'-C4'-C3'	6.06	125.09	116.00
3	C	262	HIS	CB-CA-C	-6.05	98.37	110.42
17	Q	145	TYR	CB-CA-C	-6.05	107.86	116.34
34	i	332	C	C3'-C2'-C1'	6.05	107.36	101.30
34	i	1418	G	O4'-C1'-N9	6.05	117.58	108.50
28	b	50	ALA	N-CA-C	6.05	121.52	114.62
34	i	1776	G	O4'-C4'-C3'	-6.05	97.95	104.00
4	D	102	ALA	O-C-N	-6.05	115.74	122.03
21	U	108	PRO	CA-N-CD	-6.05	103.53	112.00
23	W	55	ASP	N-CA-C	-6.05	102.38	110.55
27	a	49	ALA	N-CA-C	6.05	118.64	111.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	g	12	LYS	CB-CA-C	-6.05	100.19	114.16
34	i	735	C	O3'-P-O5'	-6.05	94.93	104.00
34	i	835	C	C1'-C2'-O2'	6.05	120.87	111.80
34	i	1518	C	P-O5'-C5'	-6.05	111.83	120.90
22	V	9	VAL	CA-C-N	6.04	133.09	121.54
22	V	9	VAL	C-N-CA	6.04	133.09	121.54
34	i	1390	G	C2'-C3'-O3'	6.04	122.77	113.70
34	i	1766	C	C3'-C2'-C1'	6.04	107.34	101.30
34	i	1517	A	P-O3'-C3'	-6.04	111.14	120.20
34	i	1520	C	O4'-C1'-C2'	-6.04	101.56	107.60
26	Z	107	VAL	CA-CB-CG2	6.04	120.67	110.40
34	i	443	C	N1-C1'-C2'	6.04	121.06	112.00
1	A	53	ARG	N-CA-CB	-6.04	101.25	110.12
34	i	1271	G	C5'-C4'-C3'	6.04	125.05	116.00
34	i	94	G	N9-C1'-C2'	6.03	121.05	112.00
17	Q	146	ARG	CA-CB-CG	6.03	126.16	114.10
34	i	107	A	O4'-C1'-C2'	-6.03	101.57	107.60
34	i	560	C	N1-C1'-C2'	6.03	121.04	112.00
34	i	1344	G	N9-C1'-C2'	-6.03	102.96	112.00
34	i	1773	G	O3'-P-O5'	6.03	113.05	104.00
34	i	1059	C	C3'-C2'-C1'	6.03	107.33	101.30
8	H	193	GLN	CA-C-N	6.03	132.54	121.70
8	H	193	GLN	C-N-CA	6.03	132.54	121.70
12	L	117	PHE	CA-CB-CG	-6.03	107.78	113.80
34	i	820	C	N1-C1'-C2'	6.03	121.04	112.00
34	i	1157	U	O4'-C1'-N1	6.03	117.54	108.50
34	i	1546	U	C1'-C2'-O2'	6.03	117.44	108.40
25	Y	45	ALA	N-CA-C	-6.02	104.04	111.33
34	i	1007	A	O4'-C1'-N9	6.02	117.53	108.50
6	F	81	ARG	O-C-N	-6.02	115.74	122.12
18	R	90	ALA	N-CA-C	6.02	118.29	110.53
34	i	365	U	O4'-C1'-N1	6.02	117.53	108.50
34	i	525	G	P-O3'-C3'	6.02	129.22	120.20
34	i	1361	G	O5'-C5'-C4'	-6.02	102.48	111.50
12	L	152	LYS	N-CA-C	-6.01	97.99	110.80
34	i	798	A	C1'-C2'-O2'	6.01	117.42	108.40
20	T	42	HIS	ND1-CE1-NE2	6.01	114.41	108.40
34	i	1060	C	C3'-C2'-C1'	6.01	107.31	101.30
34	i	1315	U	O4'-C1'-N1	6.01	117.51	108.50
34	i	1708	C	N1-C1'-C2'	6.01	121.01	112.00
18	R	25	GLY	CA-C-N	6.00	130.75	120.72
18	R	25	GLY	C-N-CA	6.00	130.75	120.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1319	U	O4'-C1'-N1	6.00	117.50	108.50
34	i	1617	U	C1'-C2'-O2'	-6.00	102.80	111.80
34	i	1425	G	C3'-C2'-O2'	6.00	119.70	110.70
34	i	76	U	N1-C1'-C2'	6.00	121.00	112.00
34	i	1209	C	N1-C1'-C2'	6.00	121.00	112.00
34	i	1413	C	C5'-C4'-C3'	6.00	124.99	116.00
34	i	796	U	O4'-C1'-N1	5.99	117.49	108.50
34	i	1044	G	P-O5'-C5'	5.99	129.89	120.90
35	l	104	LYS	N-CA-C	5.99	118.23	108.76
34	i	564	A	N9-C1'-C2'	5.99	120.99	112.00
34	i	672	U	O4'-C1'-N1	5.99	117.49	108.50
34	i	727	G	N9-C1'-C2'	5.99	120.98	112.00
34	i	34	U	C1'-O4'-C4'	-5.99	103.91	109.90
34	i	343	C	C4'-C3'-O3'	-5.99	104.02	113.00
34	i	1527	C	C3'-C2'-C1'	5.99	107.29	101.30
7	G	35	GLU	CA-C-N	-5.99	114.97	123.17
7	G	35	GLU	C-N-CA	-5.99	114.97	123.17
34	i	1826	A	P-O5'-C5'	5.99	129.88	120.90
10	J	164	PRO	CB-CA-C	5.98	121.55	112.21
21	U	103	SER	O-C-N	-5.98	114.61	122.39
34	i	1305	C	C3'-C2'-C1'	5.98	107.28	101.30
34	i	427	G	N9-C1'-C2'	5.98	120.97	112.00
3	C	57	ASP	CA-CB-CG	-5.98	106.62	112.60
34	i	1593	G	C2'-C3'-O3'	5.98	118.47	109.50
34	i	169	U	P-O3'-C3'	5.98	129.17	120.20
34	i	516	A	C5'-C4'-C3'	5.98	124.97	116.00
34	i	1671	U	P-O3'-C3'	-5.98	111.23	120.20
16	P	17	TYR	CA-C-O	-5.98	111.96	120.51
25	Y	11	LYS	N-CA-C	5.98	119.64	111.39
34	i	1516	C	O3'-P-O5'	5.98	112.96	104.00
10	J	89	GLU	CB-CA-C	-5.97	100.82	110.74
21	U	75	LYS	N-CA-C	-5.97	99.41	108.67
34	i	740	G	C3'-C2'-C1'	5.97	107.27	101.30
4	D	129	SER	N-CA-C	-5.97	104.84	111.71
34	i	836	C	O3'-P-O5'	-5.97	95.04	104.00
34	i	490	A	P-O3'-C3'	5.97	129.16	120.20
34	i	149	A	C3'-C2'-C1'	5.97	107.27	101.30
34	i	1111	U	P-O3'-C3'	5.97	129.16	120.20
20	T	4	VAL	O-C-N	-5.97	113.45	123.00
33	g	201	SER	CA-C-N	5.97	125.67	119.05
33	g	201	SER	C-N-CA	5.97	125.67	119.05
22	V	24	ILE	N-CA-C	-5.97	99.99	108.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	337	G	O4'-C1'-C2'	-5.97	101.63	107.60
34	i	798	A	C1'-O4'-C4'	-5.97	103.93	109.90
34	i	1090	C	O4'-C1'-C2'	-5.97	101.63	107.60
34	i	1200	A	O4'-C1'-C2'	-5.97	101.63	107.60
34	i	1833	U	O4'-C1'-N1	5.97	117.45	108.50
11	K	40	VAL	CB-CA-C	-5.96	100.51	111.36
34	i	31	U	O4'-C1'-N1	5.96	117.44	108.50
34	i	160	U	C2'-C3'-O3'	5.96	118.44	109.50
6	F	44	LYS	N-CA-C	5.96	123.50	110.80
34	i	529	C	O4'-C1'-C2'	-5.96	101.64	107.60
33	g	144	ASP	N-CA-C	5.96	123.49	110.80
34	i	1267	C	N1-C1'-C2'	5.96	120.94	112.00
34	i	14	C	O4'-C1'-C2'	-5.96	101.64	107.60
34	i	570	U	C2'-C3'-O3'	-5.96	104.77	113.70
34	i	1446	G	O4'-C1'-N9	5.96	117.43	108.50
35	l	94	CYS	N-CA-C	-5.96	104.86	111.71
33	g	276	SER	CA-C-O	5.96	124.06	119.18
34	i	462	C	N1-C1'-C2'	5.96	120.93	112.00
24	X	7	LEU	N-CA-C	-5.95	104.79	111.28
34	i	1718	G	O4'-C1'-N9	5.95	117.43	108.50
34	i	1819	A	C2'-C3'-O3'	5.95	122.63	113.70
16	P	23	ASP	N-CA-C	-5.95	103.76	111.02
34	i	976	A	C1'-O4'-C4'	-5.95	103.95	109.90
34	i	1447	G	O4'-C1'-C2'	-5.95	101.65	107.60
33	g	109	LEU	N-CA-C	5.95	117.84	111.36
34	i	368	U	O4'-C1'-N1	5.95	117.42	108.50
34	i	637	U	O4'-C1'-C2'	-5.95	101.65	107.60
34	i	1020	A	O4'-C1'-C2'	-5.95	101.65	107.60
34	i	440	C	O4'-C1'-C2'	-5.95	101.65	107.60
34	i	582	C	N1-C1'-C2'	-5.95	105.08	114.00
34	i	1782	A	O4'-C1'-C2'	-5.95	101.65	107.60
34	i	800	U	O4'-C1'-N1	5.95	117.42	108.50
34	i	235	C	N1-C1'-C2'	5.94	120.91	112.00
8	H	36	LEU	CA-CB-CG	-5.94	95.51	116.30
34	i	817	G	P-O3'-C3'	5.94	129.11	120.20
34	i	1301	C	N1-C1'-C2'	5.94	120.91	112.00
34	i	639	U	C1'-C2'-O2'	5.94	117.31	108.40
34	i	1000	U	O4'-C1'-N1	5.94	117.41	108.50
34	i	1037	G	N9-C1'-C2'	5.94	120.91	112.00
16	P	35	GLN	O-C-N	5.94	129.16	122.22
34	i	1105	C	O4'-C1'-C2'	5.93	113.53	107.60
34	i	1269	C	O3'-P-O5'	-5.93	95.10	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1489	C	N1-C1'-C2'	-5.93	105.10	114.00
34	i	53	C	C3'-C2'-C1'	5.93	107.23	101.30
34	i	413	U	O4'-C1'-N1	5.93	117.40	108.50
17	Q	134	GLY	O-C-N	-5.93	115.84	121.77
34	i	417	U	O4'-C1'-N1	5.93	117.40	108.50
34	i	786	C	N1-C1'-C2'	5.93	120.89	112.00
34	i	1348	G	N9-C1'-C2'	5.93	120.89	112.00
34	i	1514	U	N1-C1'-C2'	-5.93	105.11	114.00
33	g	92	LEU	O-C-N	5.93	128.40	122.12
34	i	1806	U	O4'-C1'-N1	5.93	117.39	108.50
34	i	1479	A	O4'-C1'-C2'	-5.92	101.68	107.60
16	P	121	ILE	CA-C-N	-5.92	111.29	120.88
16	P	121	ILE	C-N-CA	-5.92	111.29	120.88
21	U	27	ARG	N-CA-C	5.92	123.41	110.80
34	i	163	U	O4'-C4'-C3'	-5.92	98.08	104.00
34	i	1596	A	C2'-C3'-O3'	-5.92	104.82	113.70
3	C	233	TYR	CA-CB-CG	-5.92	103.25	113.90
11	K	62	PHE	CA-CB-CG	-5.92	107.88	113.80
33	g	284	PRO	N-CA-C	-5.91	95.41	113.27
34	i	227	A	C3'-C2'-C1'	5.91	107.21	101.30
34	i	1300	U	N1-C1'-C2'	5.91	120.87	112.00
34	i	1578	C	C3'-C2'-C1'	5.91	107.21	101.30
34	i	655	G	N9-C1'-C2'	5.91	120.86	112.00
34	i	110	U	C4'-C3'-O3'	-5.91	104.14	113.00
34	i	910	U	O4'-C1'-C2'	-5.91	101.69	107.60
34	i	1860	A	P-O3'-C3'	5.91	129.06	120.20
16	P	72	LYS	CA-C-N	-5.90	112.46	119.84
16	P	72	LYS	C-N-CA	-5.90	112.46	119.84
34	i	1433	C	C1'-O4'-C4'	-5.90	104.00	109.90
34	i	635	C	C3'-C2'-C1'	5.90	107.20	101.30
34	i	1331	G	N9-C1'-C2'	5.90	120.85	112.00
2	B	57	ILE	CA-C-N	-5.90	111.77	120.38
2	B	57	ILE	C-N-CA	-5.90	111.77	120.38
34	i	319	G	O3'-P-O5'	5.90	112.85	104.00
34	i	541	U	O4'-C1'-C2'	5.90	113.50	107.60
34	i	1113	C	C3'-C2'-C1'	-5.90	95.40	101.30
3	C	108	ARG	N-CA-C	5.90	117.75	108.96
34	i	1164	G	O4'-C1'-C2'	-5.90	101.70	107.60
32	f	85	TYR	CA-C-N	5.89	132.80	121.54
32	f	85	TYR	C-N-CA	5.89	132.80	121.54
34	i	224	U	P-O5'-C5'	5.89	129.74	120.90
34	i	558	C	O4'-C1'-C2'	-5.89	101.70	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1413	C	C1'-O4'-C4'	5.89	115.80	109.90
32	f	102	VAL	N-CA-C	5.89	121.59	109.34
34	i	617	U	O4'-C1'-C2'	-5.89	99.91	105.80
18	R	60	ARG	N-CA-C	5.89	117.78	111.36
33	g	139	LYS	N-CA-C	5.89	117.78	111.36
34	i	1634	G	C3'-C2'-C1'	5.89	107.19	101.30
8	H	111	LYS	CA-CB-CG	5.89	125.87	114.10
34	i	1052	U	P-O3'-C3'	-5.89	111.37	120.20
34	i	769	C	C4'-C3'-O3'	5.88	118.83	110.00
2	B	187	LYS	N-CA-C	5.88	117.77	111.36
34	i	1600	G	C1'-O4'-C4'	-5.88	104.02	109.90
34	i	178	C	N1-C1'-C2'	5.88	120.82	112.00
34	i	1544	U	N1-C1'-C2'	5.88	120.82	112.00
34	i	1742	C	O3'-P-O5'	-5.88	95.18	104.00
6	F	61	PHE	N-CA-C	5.88	117.77	111.36
34	i	997	A	C1'-O4'-C4'	5.88	115.58	109.70
34	i	378	U	N1-C1'-C2'	5.88	120.81	112.00
34	i	429	A	N9-C1'-C2'	-5.88	103.19	112.00
34	i	1206	G	O4'-C1'-N9	5.87	117.31	108.50
34	i	1355	U	C1'-O4'-C4'	5.87	115.77	109.90
1	A	53	ARG	N-CA-C	5.87	117.68	111.28
9	I	191	GLU	CB-CA-C	-5.87	99.81	111.91
34	i	1287	A	O4'-C1'-C2'	-5.87	101.73	107.60
1	A	53	ARG	CD-NE-CZ	-5.87	116.19	124.40
22	V	71	ARG	N-CA-C	-5.87	104.23	111.33
34	i	1691	C	O4'-C1'-C2'	-5.87	101.73	107.60
34	i	1737	C	N1-C1'-C2'	5.87	120.80	112.00
28	b	4	ALA	N-CA-C	5.86	117.17	107.20
10	J	110	LEU	CA-C-N	5.86	132.73	121.54
10	J	110	LEU	C-N-CA	5.86	132.73	121.54
1	A	159	ILE	CA-CB-CG1	-5.86	100.45	110.40
24	X	25	LYS	N-CA-C	5.86	117.66	111.28
34	i	1258	C	C1'-O4'-C4'	-5.86	104.04	109.90
34	i	1837	G	O4'-C1'-C2'	5.85	113.45	107.60
34	i	520	U	N1-C1'-C2'	-5.85	103.23	112.00
7	G	120	ASP	CA-C-N	-5.84	111.32	122.13
7	G	120	ASP	C-N-CA	-5.84	111.32	122.13
19	S	139	THR	CA-C-O	5.84	121.33	117.94
26	Z	95	GLY	N-CA-C	5.84	119.49	111.54
34	i	571	U	P-O3'-C3'	-5.84	111.43	120.20
34	i	1019	A	C1'-O4'-C4'	5.84	115.74	109.90
34	i	853	U	C1'-O4'-C4'	-5.84	104.06	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	J	123	ILE	CA-C-N	5.84	132.69	121.54
10	J	123	ILE	C-N-CA	5.84	132.69	121.54
34	i	1376	C	O4'-C1'-C2'	-5.84	101.76	107.60
18	R	115	SER	N-CA-C	5.84	117.66	108.96
34	i	489	G	P-O5'-C5'	-5.84	112.14	120.90
34	i	376	C	P-O5'-C5'	-5.84	112.15	120.90
34	i	1827	C	C3'-C2'-C1'	5.84	107.14	101.30
28	b	68	GLY	N-CA-C	-5.83	105.60	113.24
9	I	8	TRP	CG-CD2-CE3	-5.83	128.07	133.90
34	i	301	C	O4'-C1'-C2'	-5.83	101.77	107.60
15	O	138	ASP	N-CA-C	5.83	123.22	110.80
34	i	103	A	O4'-C1'-N9	5.83	116.94	108.20
1	A	168	ALA	CB-CA-C	-5.83	109.84	116.54
19	S	82	TRP	CB-CA-C	-5.83	98.02	110.32
34	i	633	A	O4'-C1'-C2'	-5.83	99.97	105.80
34	i	1417	A	O4'-C1'-C2'	-5.83	101.77	107.60
34	i	1740	A	C4'-C3'-C2'	-5.83	96.77	102.60
16	P	14	LYS	CB-CA-C	-5.82	109.87	116.63
34	i	207	U	N1-C1'-C2'	5.82	120.74	112.00
34	i	861	A	O4'-C1'-N9	5.82	117.24	108.50
34	i	1603	U	N1-C1'-C2'	5.82	120.73	112.00
4	D	24	PHE	CA-CB-CG	-5.82	107.98	113.80
34	i	275	C	C3'-C2'-C1'	5.82	107.12	101.30
34	i	949	C	O3'-P-O5'	-5.82	95.28	104.00
34	i	753	C	O4'-C1'-C2'	-5.82	101.78	107.60
34	i	1723	U	O4'-C1'-C2'	-5.82	101.78	107.60
26	Z	106	GLN	N-CA-C	5.81	117.52	107.93
34	i	1000	U	O4'-C1'-C2'	-5.81	101.79	107.60
34	i	1604	C	O4'-C1'-C2'	-5.81	101.79	107.60
34	i	431	C	C1'-O4'-C4'	-5.81	104.09	109.90
24	X	139	GLU	N-CA-C	5.81	119.67	109.80
16	P	122	THR	CB-CA-C	5.80	120.44	110.86
34	i	893	U	C4'-C3'-O3'	5.80	121.70	113.00
34	i	1726	A	O4'-C1'-C2'	-5.80	101.80	107.60
14	N	132	LYS	CA-C-O	5.80	126.80	119.95
20	T	41	LYS	N-CA-C	-5.80	105.04	111.71
34	i	369	C	C3'-C2'-C1'	5.80	107.10	101.30
34	i	614	C	C5'-C4'-C3'	-5.80	107.30	116.00
34	i	1090	C	N1-C1'-C2'	5.80	120.70	112.00
34	i	172	U	O4'-C1'-C2'	-5.80	100.00	105.80
34	i	1323	G	N9-C1'-C2'	5.80	120.70	112.00
2	B	74	LEU	N-CA-C	5.80	117.68	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	K	65	ARG	CA-C-N	-5.80	112.47	122.79
11	K	65	ARG	C-N-CA	-5.80	112.47	122.79
20	T	82	ARG	NH1-CZ-NH2	-5.80	111.76	119.30
21	U	68	THR	O-C-N	5.80	127.91	121.53
34	i	57	U	C1'-O4'-C4'	5.80	115.70	109.90
34	i	1679	C	O4'-C1'-C2'	-5.80	101.80	107.60
34	i	1455	G	O4'-C1'-C2'	5.79	113.39	107.60
34	i	1427	G	N9-C1'-C2'	5.79	120.69	112.00
5	E	74	GLY	CA-C-N	-5.79	115.27	123.03
5	E	74	GLY	C-N-CA	-5.79	115.27	123.03
23	W	84	LYS	CA-C-N	5.79	132.00	121.41
23	W	84	LYS	C-N-CA	5.79	132.00	121.41
34	i	1815	U	O4'-C1'-N1	5.79	117.19	108.50
7	G	147	LEU	N-CA-C	5.79	123.13	110.80
34	i	913	U	O4'-C1'-C2'	-5.79	101.81	107.60
13	M	119	GLN	CB-CA-C	-5.79	108.24	116.34
34	i	371	C	O3'-P-O5'	-5.79	95.32	104.00
26	Z	50	PHE	CB-CA-C	-5.78	100.12	109.72
34	i	790	A	C3'-C2'-C1'	5.78	107.08	101.30
16	P	37	TYR	CA-C-N	5.77	132.57	121.54
16	P	37	TYR	C-N-CA	5.77	132.57	121.54
19	S	40	TYR	CB-CG-CD1	5.77	129.46	120.80
34	i	1368	U	O4'-C1'-C2'	-5.77	101.83	107.60
19	S	82	TRP	N-CA-C	5.77	119.42	112.38
34	i	859	U	N1-C1'-C2'	5.77	120.66	112.00
9	I	134	GLU	CA-C-N	-5.77	112.75	120.54
9	I	134	GLU	C-N-CA	-5.77	112.75	120.54
8	H	106	ARG	CD-NE-CZ	5.77	132.48	124.40
19	S	6	PRO	CA-C-N	-5.77	110.52	121.54
19	S	6	PRO	C-N-CA	-5.77	110.52	121.54
34	i	2	A	P-O3'-C3'	5.77	128.85	120.20
11	K	86	PRO	CA-C-O	-5.77	112.20	120.56
34	i	1404	U	C1'-O4'-C4'	-5.77	104.13	109.90
34	i	749	C	O4'-C1'-N1	5.77	117.15	108.50
22	V	41	LYS	CB-CA-C	-5.76	109.39	117.23
34	i	1730	A	N9-C1'-C2'	5.76	120.64	112.00
15	O	42	VAL	O-C-N	5.76	129.08	123.03
34	i	465	C	C3'-C2'-C1'	5.76	107.06	101.30
34	i	531	U	O4'-C1'-C2'	-5.76	101.84	107.60
34	i	77	A	N9-C1'-C2'	-5.76	103.36	112.00
34	i	411	G	O4'-C1'-N9	5.76	117.14	108.50
19	S	49	ASP	CA-C-N	-5.76	115.67	123.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	S	49	ASP	C-N-CA	-5.76	115.67	123.10
34	i	276	U	P-O5'-C5'	-5.76	112.27	120.90
1	A	53	ARG	CB-CG-CD	-5.75	98.07	111.30
25	Y	59	GLY	N-CA-C	-5.75	102.67	111.24
34	i	419	C	N1-C1'-C2'	5.75	120.63	112.00
34	i	544	A	C1'-C2'-O2'	5.75	117.03	108.40
9	I	125	LYS	CA-C-N	5.75	126.21	119.94
9	I	125	LYS	C-N-CA	5.75	126.21	119.94
34	i	1328	A	C3'-C2'-C1'	5.75	107.05	101.30
22	V	46	PHE	N-CA-C	-5.75	102.03	110.42
34	i	525	G	O3'-P-O5'	-5.75	95.38	104.00
32	f	134	SER	CA-C-N	5.75	130.89	121.58
32	f	134	SER	C-N-CA	5.75	130.89	121.58
7	G	128	THR	CA-C-N	-5.75	111.50	122.13
7	G	128	THR	C-N-CA	-5.75	111.50	122.13
9	I	184	ARG	CB-CG-CD	5.75	124.51	111.30
16	P	16	THR	N-CA-C	-5.74	99.88	109.24
26	Z	101	SER	CA-C-N	5.74	132.51	121.54
26	Z	101	SER	C-N-CA	5.74	132.51	121.54
34	i	568	C	O4'-C1'-C2'	-5.74	101.86	107.60
34	i	1080	A	C4'-C3'-O3'	5.74	121.61	113.00
34	i	1014	U	C1'-C2'-O2'	5.74	117.01	108.40
34	i	1062	U	O4'-C1'-N1	5.74	117.11	108.50
34	i	689	G	N9-C1'-C2'	5.74	120.61	112.00
34	i	1437	U	O4'-C1'-C2'	-5.74	100.06	105.80
34	i	1666	G	C1'-O4'-C4'	-5.74	104.16	109.90
6	F	78	MET	O-C-N	5.74	130.29	123.24
34	i	312	C	C3'-C2'-C1'	5.74	107.03	101.30
34	i	1637	U	C1'-O4'-C4'	5.74	115.64	109.90
34	i	1693	C	C3'-C2'-C1'	5.74	107.23	101.50
2	B	146	CYS	O-C-N	-5.73	116.48	123.30
17	Q	134	GLY	C-N-CD	-5.73	101.49	125.00
10	J	165	TYR	O-C-N	-5.73	116.79	123.27
16	P	38	SER	CA-C-N	5.73	132.49	121.54
16	P	38	SER	C-N-CA	5.73	132.49	121.54
8	H	33	ASN	O-C-N	5.73	130.21	122.59
34	i	1542	C	C3'-C2'-C1'	5.73	107.03	101.30
18	R	1	MET	CA-CB-CG	5.73	125.56	114.10
34	i	948	G	O4'-C1'-N9	5.73	117.09	108.50
35	l	64	LYS	N-CA-C	-5.73	104.03	111.02
8	H	16	PRO	CA-N-CD	-5.73	103.98	112.00
34	i	510	A	C1'-O4'-C4'	-5.73	104.17	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1393	U	C5'-C4'-C3'	5.72	123.78	115.20
34	i	1656	A	C1'-O4'-C4'	-5.72	104.18	109.90
34	i	385	G	O4'-C1'-N9	5.72	117.08	108.50
34	i	1023	A	C4'-C3'-O3'	5.72	121.58	113.00
34	i	1500	U	O4'-C1'-N1	5.72	117.08	108.50
2	B	90	ASP	N-CA-C	5.72	116.95	108.60
34	i	741	C	C3'-C2'-C1'	5.72	107.02	101.30
34	i	913	U	O4'-C1'-N1	5.72	117.07	108.50
34	i	1711	C	N1-C1'-C2'	5.72	120.57	112.00
3	C	149	PRO	N-CA-CB	-5.71	98.23	103.31
15	O	122	SER	N-CA-C	-5.71	104.96	111.07
34	i	1112	C	C1'-C2'-O2'	5.71	120.36	111.80
9	I	8	TRP	CB-CG-CD1	5.71	135.46	126.90
31	e	115	ARG	N-CA-C	5.71	117.30	111.14
34	i	1452	G	N9-C1'-C2'	5.71	120.56	112.00
34	i	1535	G	P-O5'-C5'	-5.71	112.34	120.90
34	i	1309	A	O4'-C1'-C2'	-5.70	100.10	105.80
34	i	53	C	C1'-O4'-C4'	5.70	115.60	109.90
34	i	542	G	C3'-C2'-C1'	-5.70	95.60	101.30
34	i	1452	G	C1'-O4'-C4'	-5.70	104.20	109.90
2	B	21	VAL	N-CA-C	5.70	121.19	109.34
34	i	1111	U	O4'-C1'-N1	5.70	116.75	108.20
34	i	684	A	C1'-O4'-C4'	-5.70	104.20	109.90
34	i	1848	U	O4'-C1'-N1	5.70	117.04	108.50
26	Z	107	VAL	CB-CA-C	-5.69	104.68	111.97
9	I	88	ASN	CA-CB-CG	-5.69	106.91	112.60
34	i	1194	G	C3'-C2'-C1'	-5.69	95.61	101.30
6	F	21	GLY	N-CA-C	-5.69	99.70	113.18
26	Z	115	GLY	CA-C-O	-5.69	108.86	120.80
28	b	29	ASN	CB-CA-C	-5.69	101.57	111.35
9	I	3	ILE	CA-C-N	5.68	130.65	123.03
9	I	3	ILE	C-N-CA	5.68	130.65	123.03
34	i	109	U	C2'-C3'-O3'	5.68	122.23	113.70
34	i	977	A	O4'-C1'-C2'	-5.68	101.92	107.60
34	i	77	A	C5'-C4'-C3'	5.68	124.52	116.00
3	C	97	VAL	O-C-N	-5.68	115.47	122.57
9	I	207	GLY	CA-C-O	-5.68	108.87	120.80
10	J	123	ILE	N-CA-C	-5.68	105.61	113.00
21	U	107	GLU	N-CA-C	5.68	122.36	109.81
34	i	1386	U	N1-C1'-C2'	5.68	120.52	112.00
34	i	1648	U	O4'-C1'-N1	5.68	117.02	108.50
17	Q	145	TYR	N-CA-C	-5.68	99.60	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	C	229	ILE	CB-CA-C	-5.67	104.48	112.14
34	i	410	G	C1'-O4'-C4'	-5.67	104.23	109.90
34	i	1841	G	N9-C1'-C2'	-5.67	103.49	112.00
34	i	1717	G	C5'-C4'-C3'	-5.67	107.49	116.00
34	i	903	G	C1'-C2'-O2'	5.67	116.91	108.40
34	i	539	C	O4'-C1'-C2'	-5.67	101.93	107.60
34	i	1715	U	O4'-C1'-N1	5.67	117.00	108.50
9	I	155	ASN	CB-CA-C	-5.67	101.38	110.79
11	K	93	THR	CB-CA-C	5.67	118.88	109.53
34	i	1813	A	N9-C1'-C2'	5.66	120.50	112.00
34	i	1471	G	C4'-C3'-C2'	-5.66	96.94	102.60
34	i	1572	G	O4'-C1'-C2'	-5.66	101.94	107.60
29	c	5	ARG	N-CA-C	5.66	126.84	111.00
34	i	956	U	C1'-O4'-C4'	-5.66	104.24	109.90
34	i	1442	A	C2'-C3'-O3'	-5.66	101.02	109.50
34	i	1633	G	C3'-C2'-C1'	5.66	106.96	101.30
34	i	1638	U	C3'-C2'-C1'	5.66	106.96	101.30
34	i	789	G	C4'-C3'-C2'	-5.65	96.95	102.60
8	H	106	ARG	CA-CB-CG	-5.65	102.80	114.10
34	i	192	U	O3'-P-O5'	-5.65	95.52	104.00
34	i	795	U	P-O3'-C3'	5.65	128.68	120.20
34	i	407	C	C3'-C2'-C1'	5.65	106.95	101.30
34	i	918	A	O4'-C1'-N9	5.65	116.97	108.50
34	i	1139	A	N9-C1'-C2'	5.65	120.48	112.00
34	i	1537	C	N1-C1'-C2'	5.65	120.48	112.00
19	S	141	ARG	CA-C-N	-5.65	111.53	121.70
19	S	141	ARG	C-N-CA	-5.65	111.53	121.70
34	i	1128	C	N1-C1'-C2'	5.65	120.47	112.00
34	i	1622	C	C4'-C3'-O3'	-5.65	104.53	113.00
34	i	1055	G	P-O3'-C3'	5.65	128.67	120.20
1	A	194	PRO	CA-C-O	-5.64	110.33	120.60
9	I	129	LEU	CA-C-N	5.64	127.82	120.26
9	I	129	LEU	C-N-CA	5.64	127.82	120.26
34	i	1672	U	O4'-C1'-N1	5.64	116.97	108.50
15	O	151	LEU	N-CA-CB	5.64	120.09	110.50
34	i	867	U	C1'-C2'-O2'	5.64	120.27	111.80
34	i	1179	A	O4'-C1'-C2'	-5.64	101.96	107.60
29	c	5	ARG	CA-C-N	-5.64	115.79	122.11
29	c	5	ARG	C-N-CA	-5.64	115.79	122.11
34	i	1573	U	C1'-O4'-C4'	5.64	115.34	109.70
34	i	1251	G	P-O3'-C3'	-5.64	111.74	120.20
34	i	1772	C	O4'-C1'-N1	5.64	116.96	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	739	U	O4'-C1'-N1	5.64	116.65	108.20
3	C	59	LYS	CA-C-N	-5.63	116.20	123.19
3	C	59	LYS	C-N-CA	-5.63	116.20	123.19
34	i	1651	G	C1'-O4'-C4'	-5.63	104.27	109.90
34	i	1290	G	O4'-C1'-N9	5.63	116.95	108.50
34	i	1859	C	P-O3'-C3'	-5.63	111.75	120.20
25	Y	26	ASP	N-CA-C	-5.63	99.23	108.41
34	i	1154	G	O4'-C1'-N9	5.63	116.95	108.50
34	i	1193	G	O4'-C1'-N9	5.63	116.95	108.50
34	i	1482	A	O4'-C1'-C2'	-5.63	101.97	107.60
34	i	1611	U	N1-C1'-C2'	5.63	120.44	112.00
34	i	748	G	O3'-P-O5'	5.63	112.44	104.00
9	I	178	ARG	CD-NE-CZ	5.63	132.28	124.40
34	i	84	A	P-O5'-C5'	-5.63	112.46	120.90
23	W	88	LYS	N-CA-C	5.62	117.21	111.14
34	i	684	A	C3'-C2'-C1'	-5.62	95.68	101.30
34	i	209	C	O5'-C5'-C4'	-5.62	103.07	111.50
34	i	1063	C	N1-C1'-C2'	5.62	120.43	112.00
29	c	63	ARG	CA-C-N	-5.62	110.81	121.54
29	c	63	ARG	C-N-CA	-5.62	110.81	121.54
33	g	101	PHE	CA-CB-CG	-5.62	108.18	113.80
34	i	305	U	P-O3'-C3'	-5.62	111.77	120.20
34	i	306	C	P-O5'-C5'	-5.62	112.47	120.90
34	i	1233	C	C1'-C2'-O2'	5.62	116.82	108.40
34	i	1308	G	O4'-C1'-N9	-5.62	99.78	108.20
34	i	432	C	O4'-C1'-C2'	-5.61	101.99	107.60
34	i	1773	G	C3'-C2'-C1'	-5.61	95.69	101.30
16	P	28	MET	CA-C-O	5.61	128.53	120.51
34	i	1822	C	O4'-C1'-C2'	-5.61	101.99	107.60
34	i	1553	C	O3'-P-O5'	-5.61	95.58	104.00
34	i	1837	G	C1'-O4'-C4'	-5.61	104.29	109.90
12	L	157	LYS	CA-C-N	5.61	131.80	121.70
12	L	157	LYS	C-N-CA	5.61	131.80	121.70
34	i	1714	A	O4'-C1'-C2'	-5.61	101.99	107.60
10	J	188	GLY	CA-C-O	-5.61	109.02	120.80
34	i	341	G	C4'-C3'-C2'	-5.61	96.99	102.60
34	i	1738	G	C1'-O4'-C4'	-5.61	104.29	109.90
9	I	129	LEU	N-CA-C	-5.61	105.07	111.07
15	O	79	GLN	N-CA-C	5.61	117.19	111.14
34	i	1234	U	C4'-C3'-O3'	-5.61	104.59	113.00
34	i	1610	U	N1-C1'-C2'	5.61	120.41	112.00
34	i	1517	A	C5'-C4'-O4'	5.60	118.20	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1648	U	O4'-C1'-C2'	-5.60	102.00	107.60
34	i	314	U	C1'-C2'-O2'	5.60	116.80	108.40
3	C	148	VAL	CA-C-N	5.60	125.53	119.76
3	C	148	VAL	C-N-CA	5.60	125.53	119.76
34	i	98	C	N1-C1'-C2'	-5.60	105.60	114.00
20	T	8	ASP	CA-CB-CG	-5.60	107.00	112.60
34	i	1124	C	O4'-C1'-C2'	-5.60	102.00	107.60
18	R	122	PRO	N-CA-C	5.60	124.00	112.47
34	i	31	U	C1'-O4'-C4'	5.60	115.50	109.90
34	i	293	A	O3'-P-O5'	-5.59	95.61	104.00
34	i	61	A	O4'-C1'-N9	5.59	116.89	108.50
4	D	14	ASP	CA-CB-CG	-5.59	107.01	112.60
6	F	53	ALA	N-CA-C	-5.59	105.19	111.28
34	i	1857	A	C1'-O4'-C4'	5.59	115.29	109.70
34	i	862	U	O4'-C1'-N1	5.59	116.89	108.50
34	i	1118	A	C1'-O4'-C4'	5.59	115.49	109.90
34	i	1849	G	O4'-C1'-C2'	5.59	113.19	107.60
4	D	152	PHE	CA-CB-CG	-5.59	108.21	113.80
34	i	1068	U	P-O3'-C3'	5.59	128.58	120.20
34	i	684	A	O4'-C1'-N9	5.59	116.88	108.50
34	i	1739	G	C1'-O4'-C4'	5.59	115.29	109.70
33	g	83	TRP	N-CA-C	-5.58	105.19	111.28
34	i	846	C	N1-C1'-C2'	5.58	120.38	112.00
13	M	30	GLY	CA-C-N	-5.58	115.58	122.84
13	M	30	GLY	C-N-CA	-5.58	115.58	122.84
25	Y	128	GLY	CA-C-O	-5.58	109.08	120.80
34	i	1448	A	O4'-C1'-C2'	-5.58	100.22	105.80
34	i	1818	A	P-O3'-C3'	5.58	128.57	120.20
34	i	1845	A	P-O3'-C3'	5.58	128.57	120.20
34	i	1329	U	O4'-C1'-C2'	-5.58	102.02	107.60
2	B	146	CYS	N-CA-C	5.57	117.98	108.90
34	i	200	U	O4'-C1'-N1	5.57	116.86	108.50
34	i	895	U	P-O5'-C5'	5.57	129.26	120.90
34	i	975	C	O4'-C1'-C2'	-5.57	102.03	107.60
4	D	125	PHE	CA-CB-CG	-5.57	108.23	113.80
12	L	6	THR	CA-C-N	-5.57	110.90	121.54
12	L	6	THR	C-N-CA	-5.57	110.90	121.54
12	L	146	THR	O-C-N	-5.57	115.80	122.15
18	R	87	GLU	N-CA-C	-5.57	105.29	111.36
34	i	671	U	O4'-C1'-N1	5.57	116.86	108.50
34	i	1114	C	C1'-C2'-O2'	5.57	116.75	108.40
34	i	551	A	C2'-C3'-O3'	5.57	122.05	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1138	G	O4'-C1'-N9	5.57	116.85	108.50
34	i	1513	C	P-O3'-C3'	-5.57	111.85	120.20
34	i	537	G	O3'-P-O5'	-5.57	95.65	104.00
34	i	877	G	C1'-O4'-C4'	-5.57	104.33	109.90
34	i	79	A	O4'-C1'-N9	5.57	116.55	108.20
34	i	622	C	C3'-C2'-C1'	5.57	106.86	101.30
34	i	676	U	O4'-C1'-N1	5.57	116.85	108.50
34	i	991	G	O4'-C1'-N9	5.56	116.85	108.50
21	U	108	PRO	N-CA-C	-5.56	102.54	111.38
34	i	832	G	O4'-C1'-N9	5.56	116.84	108.50
2	B	21	VAL	CB-CA-C	-5.56	102.17	111.29
8	H	56	GLY	N-CA-C	5.56	126.35	113.18
17	Q	118	THR	N-CA-CB	-5.56	108.54	114.10
34	i	1442	A	O3'-P-O5'	-5.56	95.66	104.00
5	E	70	ILE	N-CA-C	5.56	115.86	107.75
34	i	405	A	O4'-C1'-N9	5.56	116.84	108.50
34	i	1021	U	O4'-C1'-C2'	-5.56	102.04	107.60
34	i	1648	U	P-O3'-C3'	5.56	128.54	120.20
34	i	1775	A	C3'-C2'-C1'	5.56	106.86	101.30
34	i	1645	A	P-O5'-C5'	-5.56	112.56	120.90
34	i	356	U	O4'-C1'-C2'	-5.55	102.05	107.60
34	i	373	G	C3'-C2'-C1'	5.55	106.86	101.30
34	i	457	G	O4'-C1'-C2'	-5.55	102.05	107.60
20	T	143	LYS	CA-CB-CG	-5.55	102.99	114.10
17	Q	30	GLY	CA-C-N	-5.55	112.44	122.54
17	Q	30	GLY	C-N-CA	-5.55	112.44	122.54
26	Z	78	LYS	N-CA-C	-5.55	98.98	110.80
2	B	233	GLY	CA-C-O	-5.55	109.14	120.80
8	H	7	LYS	CA-C-N	-5.55	111.98	121.97
8	H	7	LYS	C-N-CA	-5.55	111.98	121.97
9	I	105	ASP	CB-CA-C	5.55	121.46	110.42
35	l	111	HIS	N-CA-C	-5.55	99.34	108.49
2	B	132	GLY	N-CA-C	5.55	121.09	113.99
34	i	578	G	C4'-C3'-O3'	-5.55	101.08	109.40
34	i	1329	U	O4'-C1'-N1	5.55	116.82	108.50
28	b	67	THR	N-CA-C	5.54	115.34	108.19
34	i	878	U	O4'-C1'-N1	5.54	116.82	108.50
34	i	909	A	C1'-C2'-O2'	-5.54	103.48	111.80
9	I	157	LYS	N-CA-C	-5.54	105.14	111.07
33	g	294	ASP	CB-CA-C	5.54	119.83	111.18
29	c	64	GLU	N-CA-C	5.54	122.60	110.80
15	O	145	GLY	CA-C-O	5.54	125.82	122.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1700	C	O4'-C1'-C2'	-5.54	102.06	107.60
20	T	38	LYS	N-CA-C	5.54	117.39	111.36
34	i	827	G	C3'-C2'-C1'	-5.54	95.76	101.30
34	i	1190	A	O3'-P-O5'	-5.54	95.69	104.00
34	i	311	C	N1-C1'-C2'	5.54	120.30	112.00
34	i	1107	U	O4'-C1'-C2'	-5.54	102.06	107.60
34	i	1223	G	N9-C1'-C2'	5.54	120.30	112.00
34	i	631	A	O4'-C1'-N9	5.53	116.80	108.50
1	A	193	HIS	CA-C-O	-5.53	114.94	120.64
34	i	458	A	P-O5'-C5'	-5.53	112.60	120.90
34	i	1503	G	C3'-C2'-C1'	-5.53	95.97	101.50
22	V	45	ARG	N-CA-C	5.53	119.02	111.39
22	V	82	ASN	CB-CA-C	-5.53	99.60	110.10
34	i	742	C	C4'-C3'-C2'	-5.53	97.07	102.60
35	l	67	PHE	O-C-N	5.53	127.79	121.93
34	i	827	G	O4'-C1'-N9	5.52	116.79	108.50
34	i	1787	A	O4'-C1'-C2'	-5.52	102.08	107.60
3	C	46	LEU	N-CA-C	-5.52	99.82	109.48
34	i	159	A	O4'-C1'-C2'	-5.52	102.08	107.60
34	i	188	U	N1-C1'-C2'	5.52	120.28	112.00
34	i	1237	A	P-O3'-C3'	5.52	128.49	120.20
1	A	165	ASN	N-CA-C	5.52	122.56	110.80
34	i	1743	G	O4'-C1'-N9	5.52	116.78	108.50
2	B	75	GLN	O-C-N	5.52	129.40	122.23
19	S	139	THR	O-C-N	5.52	125.61	121.47
34	i	840	U	P-O3'-C3'	-5.52	111.93	120.20
35	l	91	LYS	CA-C-N	5.52	127.94	120.44
35	l	91	LYS	C-N-CA	5.52	127.94	120.44
34	i	25	A	O4'-C4'-C3'	-5.51	100.59	106.10
34	i	1650	C	O4'-C1'-C2'	-5.51	102.09	107.60
19	S	94	LYS	O-C-N	5.51	129.69	122.97
24	X	124	LYS	CA-C-N	5.51	130.51	122.69
24	X	124	LYS	C-N-CA	5.51	130.51	122.69
11	K	85	LEU	N-CA-C	5.50	117.83	109.41
34	i	592	G	O4'-C1'-N9	5.50	116.75	108.50
34	i	1137	G	P-O5'-C5'	5.50	129.16	120.90
34	i	1311	U	C3'-C2'-C1'	-5.50	95.80	101.30
34	i	1326	G	C1'-O4'-C4'	-5.50	104.20	109.70
34	i	1779	C	N1-C1'-C2'	-5.50	105.75	114.00
34	i	564	A	O4'-C1'-C2'	-5.50	102.10	107.60
34	i	589	A	N9-C1'-C2'	5.50	120.25	112.00
8	H	93	VAL	N-CA-C	5.50	120.78	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	10	G	P-O3'-C3'	-5.49	111.96	120.20
34	i	456	G	O4'-C1'-C2'	5.49	113.09	107.60
34	i	1299	C	C1'-C2'-O2'	5.49	116.64	108.40
21	U	72	GLU	N-CA-C	-5.49	102.17	110.24
32	f	138	ARG	CA-C-N	5.49	130.05	121.76
32	f	138	ARG	C-N-CA	5.49	130.05	121.76
34	i	437	A	C1'-O4'-C4'	5.49	115.19	109.70
5	E	170	THR	O-C-N	5.49	131.21	122.81
34	i	377	C	O4'-C1'-C2'	-5.49	102.11	107.60
20	T	51	ASN	CA-CB-CG	-5.49	107.11	112.60
3	C	252	GLN	N-CA-C	5.49	117.34	111.36
11	K	87	PRO	CA-C-O	-5.49	110.61	120.60
34	i	1742	C	C5'-C4'-C3'	5.49	124.23	116.00
34	i	57	U	O4'-C1'-N1	5.48	116.72	108.50
34	i	1114	C	C1'-O4'-C4'	5.48	115.38	109.90
33	g	213	ASP	CA-C-N	-5.48	113.59	122.30
33	g	213	ASP	C-N-CA	-5.48	113.59	122.30
34	i	808	A	O4'-C1'-C2'	-5.48	102.12	107.60
34	i	1486	G	O4'-C1'-C2'	5.48	113.08	107.60
34	i	1667	U	C1'-C2'-O2'	5.48	116.62	108.40
34	i	1315	U	O4'-C1'-C2'	-5.48	102.12	107.60
19	S	89	ASP	CB-CA-C	-5.47	99.53	110.42
27	a	80	HIS	N-CA-C	-5.47	105.22	111.07
34	i	23	G	C4'-C3'-O3'	-5.47	104.79	113.00
34	i	114	G	O4'-C4'-C3'	-5.47	100.63	106.10
34	i	1354	U	O4'-C1'-N1	5.47	116.71	108.50
34	i	1622	C	N1-C1'-C2'	5.47	120.21	112.00
34	i	1777	C	C3'-C2'-C1'	5.47	106.97	101.50
13	M	81	ASP	CA-C-N	5.47	127.61	120.28
13	M	81	ASP	C-N-CA	5.47	127.61	120.28
34	i	1847	C	C1'-O4'-C4'	-5.47	104.43	109.90
34	i	900	A	C1'-O4'-C4'	-5.47	104.43	109.90
34	i	966	G	O3'-P-O5'	-5.47	95.80	104.00
34	i	1171	G	C1'-O4'-C4'	-5.47	104.43	109.90
34	i	65	C	C1'-O4'-C4'	5.47	115.37	109.90
34	i	796	U	N1-C1'-C2'	5.47	120.20	112.00
34	i	856	G	O4'-C1'-C2'	-5.47	102.13	107.60
34	i	984	C	N1-C1'-C2'	5.47	120.20	112.00
34	i	1092	G	C2'-C3'-O3'	5.47	117.70	109.50
34	i	1692	A	N9-C1'-C2'	-5.47	105.80	114.00
34	i	1724	U	O4'-C1'-N1	5.47	116.70	108.50
34	i	283	A	C4'-C3'-O3'	-5.46	104.80	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	372	C	P-O3'-C3'	-5.46	112.00	120.20
34	i	1665	C	O4'-C1'-C2'	-5.46	102.14	107.60
34	i	1682	C	C3'-C2'-C1'	5.46	106.77	101.30
11	K	40	VAL	O-C-N	5.46	127.33	121.10
34	i	522	C	C4'-C3'-C2'	-5.46	97.14	102.60
34	i	1119	C	O4'-C1'-C2'	-5.46	102.14	107.60
34	i	1671	U	C1'-C2'-O2'	5.46	116.59	108.40
34	i	1699	C	N1-C1'-C2'	5.46	120.19	112.00
34	i	538	C	O4'-C1'-C2'	-5.46	102.14	107.60
34	i	1733	C	O4'-C1'-C2'	-5.46	102.14	107.60
34	i	210	G	N9-C1'-C2'	-5.46	103.81	112.00
34	i	318	U	C5'-C4'-C3'	5.46	124.19	116.00
6	F	35	LEU	O-C-N	5.46	129.48	122.39
34	i	1360	U	P-O3'-C3'	-5.46	112.02	120.20
34	i	1570	G	O4'-C1'-N9	5.46	116.68	108.50
34	i	1667	U	N1-C1'-C2'	5.46	120.18	112.00
6	F	56	TYR	CA-CB-CG	-5.45	104.08	113.90
34	i	186	G	N9-C1'-C2'	5.45	120.18	112.00
34	i	549	G	O3'-P-O5'	-5.45	95.82	104.00
34	i	1110	U	O4'-C1'-C2'	-5.45	100.35	105.80
34	i	1424	G	N9-C1'-C2'	-5.45	103.82	112.00
34	i	1642	A	C3'-C2'-C1'	-5.45	96.05	101.50
34	i	1643	G	O3'-P-O5'	-5.45	95.82	104.00
31	e	100	LYS	CA-C-N	-5.45	111.11	122.07
31	e	100	LYS	C-N-CA	-5.45	111.11	122.07
2	B	37	ALA	O-C-N	-5.45	115.56	122.27
31	e	95	LYS	N-CA-C	5.45	119.03	112.38
34	i	896	C	P-O5'-C5'	5.45	129.08	120.90
34	i	1021	U	O4'-C1'-N1	5.45	116.68	108.50
34	i	1546	U	C3'-C2'-C1'	-5.45	95.85	101.30
23	W	128	PHE	N-CA-C	5.45	116.56	108.60
34	i	1458	U	O3'-P-O5'	-5.45	95.83	104.00
34	i	209	C	O4'-C1'-C2'	-5.45	102.15	107.60
34	i	410	G	O4'-C1'-C2'	5.45	113.05	107.60
34	i	514	U	N1-C1'-C2'	5.45	120.17	112.00
34	i	984	C	C3'-C2'-C1'	5.45	106.75	101.30
34	i	1375	A	C5'-C4'-C3'	-5.45	107.83	116.00
34	i	1546	U	N1-C1'-C2'	5.45	120.17	112.00
34	i	794	G	N9-C1'-C2'	5.44	122.17	114.00
34	i	882	A	C3'-C2'-C1'	5.44	106.74	101.30
34	i	1765	G	N9-C1'-C2'	5.44	120.17	112.00
3	C	257	HIS	N-CA-C	-5.44	105.35	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	576	G	O4'-C1'-C2'	-5.44	102.16	107.60
34	i	657	U	N1-C1'-C2'	5.44	120.15	112.00
10	J	35	TYR	CA-CB-CG	-5.43	104.12	113.90
12	L	22	ARG	CA-C-N	5.43	131.75	121.97
12	L	22	ARG	C-N-CA	5.43	131.75	121.97
34	i	1732	G	N9-C1'-C2'	5.43	120.15	112.00
34	i	611	C	C3'-C2'-C1'	5.43	106.73	101.30
34	i	906	G	O4'-C1'-C2'	5.43	113.03	107.60
34	i	1536	G	O4'-C1'-N9	5.43	116.64	108.50
4	D	145	GLN	CA-C-O	5.43	126.30	120.55
19	S	81	ASP	CA-C-N	-5.43	111.91	120.60
19	S	81	ASP	C-N-CA	-5.43	111.91	120.60
34	i	1853	A	O3'-P-O5'	-5.43	95.86	104.00
6	F	60	ARG	N-CA-C	5.43	117.00	111.14
34	i	31	U	O4'-C1'-C2'	-5.43	102.17	107.60
34	i	154	U	O4'-C1'-N1	5.43	116.64	108.50
34	i	155	G	O5'-C5'-C4'	-5.43	103.36	111.50
34	i	577	A	P-O3'-C3'	-5.43	112.06	120.20
34	i	1361	G	O3'-P-O5'	-5.43	95.86	104.00
34	i	1669	G	N9-C1'-C2'	5.43	120.14	112.00
34	i	1863	A	O4'-C1'-C2'	-5.43	102.17	107.60
5	E	167	GLY	N-CA-C	-5.42	101.73	110.95
34	i	657	U	C1'-O4'-C4'	-5.42	104.47	109.90
34	i	849	C	C4'-C3'-O3'	5.42	121.14	113.00
34	i	899	A	C3'-C2'-C1'	-5.42	95.88	101.30
10	J	144	ILE	O-C-N	5.42	127.28	121.10
13	M	12	MET	CA-C-N	5.42	130.99	122.21
13	M	12	MET	C-N-CA	5.42	130.99	122.21
34	i	491	C	N1-C1'-C2'	5.42	120.13	112.00
34	i	612	C	C1'-O4'-C4'	-5.42	104.48	109.90
34	i	792	G	C3'-C2'-C1'	-5.42	95.88	101.30
9	I	134	GLU	CA-C-O	-5.42	115.13	120.82
34	i	999	U	O4'-C1'-C2'	-5.42	102.18	107.60
1	A	94	THR	N-CA-C	-5.42	103.54	110.53
21	U	93	SER	C-N-CD	5.42	147.21	125.00
34	i	105	U	O4'-C1'-C2'	-5.42	102.18	107.60
34	i	163	U	C4'-C3'-O3'	-5.42	104.88	113.00
34	i	1699	C	O4'-C1'-C2'	-5.42	102.18	107.60
34	i	1216	A	C1'-O4'-C4'	-5.42	104.48	109.90
11	K	35	LEU	CA-CB-CG	-5.41	97.35	116.30
34	i	443	C	C3'-C2'-C1'	5.41	106.71	101.30
34	i	625	G	N9-C1'-C2'	5.41	120.12	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	376	C	C5'-C4'-C3'	-5.41	107.88	116.00
34	i	1636	A	O4'-C1'-C2'	-5.41	102.19	107.60
1	A	189	ILE	N-CA-C	-5.41	106.53	111.67
13	M	11	VAL	CB-CA-C	-5.41	105.97	112.19
16	P	122	THR	N-CA-CB	5.41	118.02	110.07
34	i	662	A	O4'-C1'-N9	5.41	116.31	108.20
34	i	19	A	O4'-C1'-N9	5.41	116.61	108.50
34	i	1052	U	C4'-C3'-O3'	-5.41	104.89	113.00
17	Q	6	PRO	CA-C-N	-5.40	113.13	122.10
17	Q	6	PRO	C-N-CA	-5.40	113.13	122.10
34	i	448	A	O4'-C1'-C2'	-5.40	102.20	107.60
34	i	1305	C	N1-C1'-C2'	5.40	120.10	112.00
34	i	1555	U	O4'-C1'-N1	5.40	116.61	108.50
17	Q	66	VAL	N-CA-C	5.40	116.44	108.45
33	g	273	GLU	O-C-N	5.40	129.90	122.72
34	i	338	A	N9-C1'-C2'	5.40	120.10	112.00
34	i	1374	A	O4'-C1'-C2'	-5.40	100.40	105.80
34	i	830	C	P-O3'-C3'	5.40	128.30	120.20
7	G	131	ARG	CG-CD-NE	5.40	123.88	112.00
34	i	154	U	O4'-C1'-C2'	-5.40	102.20	107.60
34	i	438	A	C3'-C2'-C1'	-5.40	96.10	101.50
34	i	463	A	O4'-C1'-C2'	-5.39	102.21	107.60
34	i	1346	U	O4'-C1'-N1	5.39	116.59	108.50
1	A	195	TRP	N-CA-C	5.39	118.19	109.40
6	F	56	TYR	CA-C-N	5.39	127.51	120.28
6	F	56	TYR	C-N-CA	5.39	127.51	120.28
11	K	80	ARG	N-CA-C	-5.39	105.40	111.28
28	b	28	PRO	O-C-N	5.39	129.51	123.04
28	b	63	LEU	CA-C-N	5.39	131.84	121.54
28	b	63	LEU	C-N-CA	5.39	131.84	121.54
34	i	1590	U	N1-C1'-C2'	-5.39	103.91	112.00
34	i	340	C	C3'-C2'-C1'	5.39	106.69	101.30
34	i	1004	A	O3'-P-O5'	-5.39	95.91	104.00
20	T	37	VAL	N-CA-C	5.39	116.54	109.21
34	i	749	C	O4'-C1'-C2'	-5.39	102.21	107.60
34	i	729	C	C3'-C2'-C1'	5.39	106.69	101.30
34	i	93	U	O4'-C1'-N1	5.39	116.58	108.50
6	F	151	ILE	CA-C-N	-5.38	113.54	120.65
6	F	151	ILE	C-N-CA	-5.38	113.54	120.65
34	i	815	G	O4'-C1'-N9	5.38	116.58	108.50
18	R	91	LEU	N-CA-CB	-5.38	101.39	110.49
34	i	1733	C	N1-C1'-C2'	5.38	120.08	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	146	G	O4'-C1'-C2'	-5.38	100.42	105.80
11	K	7	ASN	CA-CB-CG	-5.38	107.22	112.60
34	i	72	C	P-O5'-C5'	5.38	128.97	120.90
34	i	299	G	P-O3'-C3'	5.38	128.26	120.20
34	i	1603	U	O4'-C1'-C2'	-5.38	102.22	107.60
34	i	1471	G	O4'-C1'-C2'	5.37	111.17	105.80
23	W	2	VAL	O-C-N	-5.37	114.41	123.00
34	i	682	G	O4'-C1'-N9	5.37	116.55	108.50
34	i	1105	C	C3'-C2'-C1'	-5.37	95.93	101.30
34	i	1204	A	N9-C1'-C2'	-5.37	103.95	112.00
34	i	1233	C	C4'-C3'-C2'	-5.37	97.23	102.60
34	i	1287	A	P-O3'-C3'	5.37	128.25	120.20
34	i	734	C	O4'-C1'-C2'	-5.37	102.23	107.60
34	i	1525	U	O4'-C1'-C2'	-5.37	102.23	107.60
34	i	1652	G	C1'-O4'-C4'	-5.37	104.53	109.90
34	i	204	G	O4'-C1'-N9	5.37	116.55	108.50
34	i	589	A	C1'-C2'-O2'	5.37	116.45	108.40
34	i	1456	C	O4'-C1'-C2'	-5.37	102.23	107.60
34	i	1336	U	O4'-C1'-C2'	-5.36	102.24	107.60
6	F	130	ARG	CB-CG-CD	5.36	123.63	111.30
34	i	1281	G	C2'-C3'-O3'	-5.36	101.46	109.50
34	i	147	A	C2'-C3'-O3'	5.36	117.54	109.50
13	M	15	ASN	CA-CB-CG	-5.36	107.24	112.60
34	i	1333	C	C2'-C3'-O3'	5.36	121.74	113.70
34	i	1295	A	O4'-C1'-N9	5.36	116.53	108.50
34	i	1399	C	O4'-C1'-C2'	5.36	111.16	105.80
34	i	1663	U	O5'-C5'-C4'	-5.36	103.47	111.50
34	i	1214	C	C3'-C2'-C1'	5.35	106.65	101.30
34	i	1457	G	O4'-C1'-C2'	-5.35	102.25	107.60
34	i	220	C	N1-C1'-C2'	5.35	120.02	112.00
34	i	1467	C	C3'-C2'-C1'	5.35	106.65	101.30
34	i	1615	A	O4'-C1'-N9	5.35	116.22	108.20
10	J	41	ARG	N-CA-C	-5.35	105.45	111.28
34	i	1222	G	C1'-O4'-C4'	-5.35	104.55	109.90
34	i	1584	A	O4'-C1'-N9	5.35	116.52	108.50
5	E	75	LYS	N-CA-CB	-5.35	103.05	111.23
25	Y	101	LYS	CA-C-N	-5.34	111.33	121.54
25	Y	101	LYS	C-N-CA	-5.34	111.33	121.54
34	i	906	G	C1'-O4'-C4'	-5.34	104.56	109.90
34	i	1479	A	O4'-C1'-N9	5.34	116.52	108.50
12	L	6	THR	O-C-N	-5.34	115.48	122.59
34	i	322	G	O4'-C1'-N9	5.34	116.51	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1170	U	O4'-C1'-N1	5.34	116.51	108.50
2	B	38	MET	N-CA-CB	5.34	119.25	110.39
3	C	49	THR	N-CA-C	5.34	118.18	109.59
34	i	1079	A	N9-C1'-C2'	5.34	120.01	112.00
8	H	13	GLY	O-C-N	-5.34	115.61	122.39
8	H	36	LEU	N-CA-C	-5.34	106.54	112.57
34	i	950	U	C2'-C3'-O3'	-5.34	101.49	109.50
34	i	1273	C	N1-C1'-C2'	5.33	120.00	112.00
14	N	18	TYR	O-C-N	5.33	127.58	122.03
32	f	135	HIS	N-CA-C	5.33	116.73	107.93
26	Z	104	ARG	NE-CZ-NH1	-5.33	116.17	121.50
34	i	163	U	O3'-P-O5'	-5.33	96.00	104.00
34	i	542	G	O4'-C1'-N9	5.33	116.50	108.50
34	i	1773	G	N9-C1'-C2'	-5.33	104.00	112.00
34	i	94	G	C1'-O4'-C4'	-5.33	104.57	109.90
34	i	1624	C	O4'-C4'-C3'	-5.33	98.67	104.00
1	A	63	ARG	N-CA-CB	5.33	117.95	110.12
19	S	88	LYS	N-CA-C	-5.33	104.36	111.02
34	i	1150	U	C4'-C3'-C2'	-5.33	97.28	102.60
34	i	1779	C	C1'-O4'-C4'	5.33	115.03	109.70
34	i	262	G	P-O3'-C3'	5.32	128.18	120.20
34	i	214	A	O3'-P-O5'	5.32	111.98	104.00
34	i	1413	C	O3'-P-O5'	5.32	111.98	104.00
34	i	1439	C	O4'-C1'-C2'	-5.32	102.28	107.60
34	i	1794	A	C3'-C2'-C1'	5.32	106.62	101.30
5	E	133	THR	CB-CA-C	-5.32	102.28	110.26
34	i	129	C	O3'-P-O5'	-5.32	96.02	104.00
34	i	445	A	O4'-C1'-C2'	-5.32	102.28	107.60
34	i	1459	U	O5'-C5'-C4'	-5.32	103.72	111.70
22	V	32	ILE	CA-C-N	-5.32	113.19	119.84
22	V	32	ILE	C-N-CA	-5.32	113.19	119.84
34	i	38	A	C5'-C4'-C3'	-5.32	107.23	115.20
34	i	359	C	O4'-C4'-C3'	-5.32	100.78	106.10
34	i	548	G	C1'-O4'-C4'	-5.31	104.59	109.90
34	i	144	U	C1'-O4'-C4'	-5.31	104.59	109.90
34	i	1370	C	O4'-C1'-C2'	-5.31	102.29	107.60
34	i	1811	G	O4'-C1'-N9	5.31	116.47	108.50
2	B	22	VAL	N-CA-C	5.31	120.38	109.34
21	U	90	ASP	N-CA-C	5.31	117.39	107.99
28	b	28	PRO	CA-C-N	5.31	132.20	122.54
28	b	28	PRO	C-N-CA	5.31	132.20	122.54
34	i	729	C	C4'-C3'-C2'	-5.31	97.29	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1627	G	C5'-C4'-C3'	5.31	123.16	115.20
6	F	130	ARG	CA-CB-CG	-5.31	103.48	114.10
20	T	42	HIS	CA-CB-CG	-5.31	108.49	113.80
34	i	468	G	P-O5'-C5'	5.31	128.86	120.90
34	i	747	G	O3'-P-O5'	5.31	111.96	104.00
34	i	862	U	C3'-C2'-C1'	-5.31	95.99	101.30
34	i	1288	C	O4'-C1'-N1	-5.31	100.54	108.50
34	i	190	A	P-O5'-C5'	-5.30	112.94	120.90
34	i	678	U	C4'-C3'-O3'	5.30	117.36	109.40
34	i	1104	G	C2'-C3'-O3'	5.30	121.66	113.70
34	i	1687	U	C1'-C2'-O2'	5.30	116.36	108.40
11	K	1	MET	CA-C-N	5.30	131.24	121.70
11	K	1	MET	C-N-CA	5.30	131.24	121.70
34	i	748	G	O4'-C4'-C3'	-5.30	98.70	104.00
34	i	971	G	O4'-C4'-C3'	-5.30	98.70	104.00
18	R	37	GLU	N-CA-C	5.30	117.14	111.36
34	i	552	U	O4'-C4'-C3'	5.30	109.30	104.00
11	K	62	PHE	N-CA-C	5.30	117.86	111.40
34	i	410	G	N9-C1'-C2'	5.30	119.95	112.00
18	R	3	ARG	NE-CZ-NH2	5.30	123.97	119.20
34	i	1426	C	P-O5'-C5'	-5.30	112.96	120.90
21	U	104	ILE	CA-CB-CG1	5.29	119.40	110.40
34	i	110	U	P-O3'-C3'	-5.29	112.26	120.20
8	H	32	MET	N-CA-C	-5.29	102.22	110.10
34	i	672	U	O5'-C5'-C4'	-5.29	103.56	111.50
34	i	746	C	C4'-C3'-C2'	-5.29	97.31	102.60
33	g	142	VAL	CA-C-N	5.29	131.65	121.54
33	g	142	VAL	C-N-CA	5.29	131.65	121.54
8	H	55	GLY	N-CA-C	-5.29	107.22	113.99
34	i	206	A	C4'-C3'-O3'	5.29	120.93	113.00
12	L	44	PHE	CA-CB-CG	-5.29	108.52	113.80
25	Y	77	ASP	CA-C-N	-5.29	115.54	122.99
25	Y	77	ASP	C-N-CA	-5.29	115.54	122.99
34	i	285	U	C3'-C2'-C1'	5.29	106.78	101.50
34	i	782	G	P-O5'-C5'	-5.29	112.97	120.90
34	i	1359	C	C4'-C3'-O3'	5.29	117.33	109.40
8	H	113	LYS	N-CA-C	-5.28	103.42	110.55
34	i	534	G	C1'-O4'-C4'	5.28	115.18	109.90
8	H	36	LEU	N-CA-CB	5.28	119.26	110.91
34	i	1288	C	C4'-C3'-O3'	-5.28	105.08	113.00
34	i	1562	G	P-O3'-C3'	-5.28	112.28	120.20
8	H	13	GLY	CA-C-N	-5.28	112.65	121.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	H	13	GLY	C-N-CA	-5.28	112.65	121.94
34	i	11	A	O3'-P-O5'	5.28	111.92	104.00
34	i	127	C	P-O3'-C3'	5.28	128.12	120.20
34	i	272	C	P-O5'-C5'	-5.28	112.98	120.90
34	i	806	A	C3'-C2'-C1'	5.28	106.58	101.30
34	i	1414	C	C2'-C3'-O3'	5.28	117.42	109.50
34	i	1071	C	C1'-O4'-C4'	-5.28	104.62	109.90
34	i	1741	U	C1'-C2'-O2'	5.28	116.32	108.40
34	i	517	C	O4'-C1'-N1	5.28	116.42	108.50
7	G	157	VAL	O-C-N	5.28	128.36	122.61
14	N	132	LYS	CA-CB-CG	-5.28	103.55	114.10
23	W	93	LEU	N-CA-C	5.27	120.37	112.94
34	i	537	G	N9-C1'-C2'	5.27	119.91	112.00
34	i	544	A	O4'-C1'-C2'	5.27	112.87	107.60
34	i	971	G	O4'-C1'-N9	5.27	116.40	108.50
34	i	1334	G	O4'-C1'-C2'	-5.27	102.33	107.60
34	i	1391	C	O4'-C1'-C2'	-5.27	102.33	107.60
34	i	1615	A	C1'-C2'-O2'	5.27	119.70	111.80
1	A	193	HIS	CB-CA-C	-5.27	101.21	109.11
34	i	67	C	C1'-C2'-O2'	5.27	116.30	108.40
34	i	1039	G	C3'-C2'-C1'	5.27	106.57	101.30
34	i	1672	U	N1-C1'-C2'	-5.27	104.10	112.00
34	i	279	G	N9-C1'-C2'	-5.26	104.11	112.00
34	i	461	G	N9-C1'-C2'	-5.26	106.11	114.00
34	i	479	A	P-O5'-C5'	5.26	128.79	120.90
34	i	920	G	O4'-C1'-C2'	-5.26	102.34	107.60
34	i	1693	C	P-O3'-C3'	5.26	128.09	120.20
28	b	26	GLN	N-CA-C	-5.26	103.54	110.43
34	i	36	U	O4'-C1'-C2'	-5.26	102.34	107.60
21	U	69	PRO	CA-C-O	-5.26	114.77	120.92
23	W	89	TRP	N-CA-C	5.26	117.43	111.02
34	i	406	U	O4'-C1'-C2'	-5.26	102.34	107.60
34	i	40	A	C1'-O4'-C4'	5.25	115.15	109.90
34	i	582	C	C1'-C2'-O2'	5.25	119.68	111.80
34	i	728	U	C1'-O4'-C4'	-5.25	104.65	109.90
34	i	792	G	O4'-C1'-N9	5.25	116.38	108.50
34	i	1339	U	C3'-C2'-C1'	5.25	106.55	101.30
25	Y	51	THR	C-N-CD	-5.25	103.47	125.00
34	i	206	A	C2'-C3'-O3'	-5.25	105.82	113.70
34	i	826	A	O4'-C1'-C2'	5.25	112.85	107.60
34	i	1270	G	C2'-C3'-O3'	5.25	117.38	109.50
34	i	1780	U	O4'-C1'-C2'	-5.25	102.35	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	541	U	C1'-C2'-O2'	5.25	116.27	108.40
21	U	51	LYS	N-CA-C	-5.25	99.63	110.80
34	i	871	A	N9-C1'-C2'	5.25	119.87	112.00
34	i	1151	U	O4'-C1'-N1	5.25	116.07	108.20
34	i	1552	C	O3'-P-O5'	5.25	111.87	104.00
34	i	789	G	O4'-C1'-N9	5.25	116.37	108.50
34	i	1540	A	P-O5'-C5'	-5.25	113.03	120.90
34	i	144	U	C1'-C2'-O2'	5.24	116.27	108.40
34	i	1530	U	C2'-C3'-O3'	-5.24	101.64	109.50
15	O	43	HIS	N-CA-CB	-5.24	101.63	110.49
34	i	230	C	N1-C1'-C2'	5.24	119.86	112.00
34	i	267	G	P-O3'-C3'	5.24	128.06	120.20
8	H	15	LYS	C-N-CD	-5.24	103.51	125.00
34	i	1283	A	O4'-C1'-C2'	-5.24	102.36	107.60
9	I	134	GLU	N-CA-C	-5.24	105.47	111.07
32	f	86	THR	N-CA-CB	5.24	119.34	110.49
34	i	812	A	O4'-C1'-C2'	-5.24	102.36	107.60
34	i	1226	C	C1'-C2'-O2'	5.24	116.26	108.40
34	i	38	A	C1'-O4'-C4'	5.24	114.94	109.70
34	i	64	A	O4'-C1'-C2'	5.24	111.04	105.80
34	i	1479	A	C4'-C3'-C2'	-5.24	97.36	102.60
34	i	1722	G	O4'-C1'-N9	5.23	116.35	108.50
11	K	17	LYS	N-CA-C	5.23	116.79	111.14
34	i	62	G	C1'-O4'-C4'	-5.23	104.67	109.90
34	i	746	C	C1'-O4'-C4'	-5.23	104.67	109.90
34	i	1695	C	N1-C1'-C2'	-5.23	106.15	114.00
34	i	809	A	O4'-C1'-C2'	-5.23	102.37	107.60
34	i	1015	C	C3'-C2'-C1'	5.23	106.53	101.30
17	Q	68	ILE	N-CA-C	5.23	115.38	107.75
19	S	9	PHE	CA-C-O	-5.23	115.52	120.90
34	i	1662	U	O4'-C1'-N1	5.23	116.34	108.50
13	M	99	LYS	CB-CA-C	-5.22	105.80	110.71
34	i	167	G	O4'-C1'-N9	5.22	116.34	108.50
34	i	1365	A	N9-C1'-C2'	5.22	119.83	112.00
34	i	1636	A	C3'-C2'-C1'	5.22	106.53	101.30
32	f	151	ASN	N-CA-C	5.22	116.70	107.61
34	i	568	C	C3'-C2'-C1'	5.22	106.52	101.30
34	i	276	U	N1-C1'-C2'	5.22	119.83	112.00
34	i	547	U	C1'-C2'-O2'	5.22	116.23	108.40
34	i	796	U	C4'-C3'-O3'	-5.22	105.17	113.00
28	b	53	VAL	CB-CA-C	-5.22	103.46	111.71
33	g	260	ASP	CA-CB-CG	-5.22	107.38	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	41	G	C1'-O4'-C4'	-5.22	104.48	109.70
34	i	1251	G	C1'-C2'-O2'	5.22	116.23	108.40
34	i	213	C	O4'-C1'-C2'	-5.22	102.38	107.60
34	i	349	U	O4'-C1'-N1	5.22	116.32	108.50
34	i	1249	A	C2'-C3'-O3'	5.22	117.33	109.50
34	i	1644	U	P-O3'-C3'	-5.22	112.37	120.20
34	i	1646	A	C1'-O4'-C4'	5.22	115.12	109.90
9	I	82	VAL	N-CA-C	5.21	117.11	111.58
34	i	1375	A	N9-C1'-C2'	5.21	119.82	112.00
34	i	1405	A	O5'-C5'-C4'	5.21	119.32	111.50
34	i	140	U	O4'-C1'-C2'	-5.21	102.39	107.60
34	i	1640	C	P-O3'-C3'	5.21	128.02	120.20
34	i	1414	C	C5'-C4'-C3'	5.21	123.02	115.20
22	V	41	LYS	N-CA-C	5.21	117.37	108.67
34	i	210	G	P-O3'-C3'	-5.21	112.39	120.20
34	i	904	A	C3'-C2'-O2'	5.21	118.52	110.70
34	i	1151	U	C3'-C2'-C1'	5.21	106.71	101.50
34	i	1559	C	P-O5'-C5'	5.21	128.72	120.90
32	f	88	PRO	CA-N-CD	-5.21	104.71	112.00
34	i	533	C	N1-C1'-C2'	5.21	119.81	112.00
34	i	829	C	O4'-C1'-C2'	-5.21	102.39	107.60
24	X	2	GLY	N-CA-C	-5.21	100.84	113.18
34	i	1019	A	N9-C1'-C2'	-5.21	104.19	112.00
34	i	590	G	O4'-C1'-N9	5.21	116.31	108.50
11	K	95	ARG	CA-C-N	5.20	131.48	121.54
11	K	95	ARG	C-N-CA	5.20	131.48	121.54
34	i	641	U	O4'-C1'-C2'	-5.20	102.40	107.60
4	D	161	GLY	CA-C-N	5.20	126.25	120.06
4	D	161	GLY	C-N-CA	5.20	126.25	120.06
34	i	82	G	C1'-O4'-C4'	5.20	115.10	109.90
34	i	1729	G	C3'-C2'-C1'	5.20	106.50	101.30
34	i	1	U	O4'-C4'-C3'	-5.20	100.90	106.10
34	i	117	C	O4'-C1'-C2'	-5.20	102.40	107.60
34	i	595	A	O5'-C5'-C4'	5.20	119.30	111.50
34	i	795	U	C4'-C3'-C2'	-5.20	97.40	102.60
5	E	204	SER	N-CA-C	5.20	116.31	108.46
12	L	123	GLY	N-CA-C	-5.20	107.71	113.79
19	S	75	ARG	N-CA-C	-5.20	105.62	111.28
22	V	23	ILE	CA-C-N	-5.20	115.67	122.37
22	V	23	ILE	C-N-CA	-5.20	115.67	122.37
34	i	585	U	O4'-C1'-N1	5.20	116.29	108.50
3	C	148	VAL	C-N-CD	-5.19	103.70	125.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	L	138	VAL	N-CA-C	5.19	115.82	107.98
34	i	358	U	C2'-C3'-O3'	5.19	117.29	109.50
34	i	443	C	C5'-C4'-C3'	-5.19	108.21	116.00
34	i	1118	A	N9-C1'-C2'	-5.19	104.21	112.00
34	i	1473	U	C2'-C3'-O3'	5.19	121.49	113.70
34	i	76	U	O4'-C1'-C2'	-5.19	102.41	107.60
34	i	1602	A	O4'-C1'-C2'	5.19	112.79	107.60
18	R	57	LEU	N-CA-C	5.19	116.62	111.07
20	T	71	GLY	N-CA-C	5.19	118.72	111.14
1	A	159	ILE	O-C-N	5.19	129.05	122.57
34	i	300	G	O4'-C1'-N9	5.18	116.28	108.50
34	i	549	G	O4'-C4'-C3'	-5.18	98.82	104.00
34	i	1332	C	O4'-C1'-C2'	-5.18	102.42	107.60
34	i	74	G	P-O3'-C3'	5.18	127.97	120.20
34	i	726	C	P-O3'-C3'	5.18	127.97	120.20
34	i	879	U	O4'-C1'-C2'	-5.18	102.42	107.60
34	i	1563	C	O3'-P-O5'	5.18	111.77	104.00
34	i	1024	A	O5'-C5'-C4'	-5.18	103.73	111.50
33	g	187	ASN	CA-CB-CG	-5.18	107.42	112.60
34	i	1496	G	C1'-O4'-C4'	-5.18	104.72	109.90
34	i	91	A	O4'-C1'-C2'	-5.18	102.42	107.60
26	Z	46	ASN	N-CA-C	5.17	117.33	108.90
26	Z	104	ARG	CB-CA-C	-5.17	100.12	110.42
34	i	1545	G	P-O3'-C3'	5.17	127.96	120.20
18	R	2	GLY	CA-C-N	5.17	131.81	123.33
18	R	2	GLY	C-N-CA	5.17	131.81	123.33
34	i	167	G	N9-C1'-C2'	-5.17	104.24	112.00
34	i	769	C	P-O3'-C3'	5.17	127.96	120.20
34	i	959	A	C3'-C2'-C1'	-5.17	96.13	101.30
34	i	1615	A	C2'-C3'-O3'	5.17	117.26	109.50
19	S	82	TRP	O-C-N	5.17	129.11	122.39
34	i	344	U	O4'-C1'-N1	5.17	116.26	108.50
34	i	1400	U	N1-C1'-C2'	5.17	121.76	114.00
35	l	94	CYS	CB-CA-C	-5.17	101.06	110.63
28	b	75	GLU	CB-CA-C	-5.17	110.20	117.23
33	g	299	PHE	CA-CB-CG	-5.17	108.63	113.80
34	i	26	U	P-O5'-C5'	5.17	128.65	120.90
34	i	728	U	O4'-C1'-C2'	-5.17	102.43	107.60
34	i	642	U	O4'-C1'-C2'	-5.17	102.44	107.60
20	T	4	VAL	CA-C-O	-5.16	112.02	120.80
34	i	384	G	C5'-C4'-C3'	-5.16	108.26	116.00
34	i	727	G	C5'-C4'-O4'	-5.16	102.05	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1246	A	O4'-C1'-C2'	-5.16	100.64	105.80
34	i	388	A	O4'-C4'-C3'	-5.16	100.94	106.10
34	i	903	G	C1'-O4'-C4'	-5.16	104.74	109.90
34	i	1120	C	N1-C1'-C2'	5.16	119.74	112.00
34	i	1285	U	O3'-P-O5'	-5.16	96.26	104.00
5	E	172	PHE	N-CA-C	5.16	116.68	108.79
16	P	36	LEU	CB-CA-C	5.16	118.64	109.72
16	P	37	TYR	CA-CB-CG	5.16	123.19	113.90
34	i	214	A	O4'-C1'-C2'	-5.16	102.44	107.60
34	i	924	G	N9-C1'-C2'	5.16	119.74	112.00
34	i	940	A	C3'-C2'-C1'	5.16	106.46	101.30
34	i	1241	G	P-O5'-C5'	5.16	128.64	120.90
34	i	1276	G	O4'-C1'-N9	5.16	116.24	108.50
34	i	1359	C	P-O5'-C5'	5.16	128.64	120.90
8	H	67	PRO	N-CA-C	-5.16	107.41	113.86
18	R	95	ILE	N-CA-C	5.16	120.07	109.34
2	B	152	LYS	CB-CA-C	5.16	120.57	110.67
15	O	28	PHE	N-CA-C	5.16	117.31	108.90
34	i	274	G	C1'-O4'-C4'	-5.16	104.74	109.90
34	i	1513	C	O4'-C4'-C3'	-5.16	98.84	104.00
34	i	1531	G	P-O5'-C5'	5.15	128.63	120.90
24	X	128	VAL	CB-CA-C	-5.15	105.26	110.93
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	1232	G	C3'-C2'-O2'	5.15	118.43	110.70
34	i	1207	G	C1'-C2'-O2'	5.15	116.13	108.40
34	i	1472	A	C1'-C2'-O2'	5.15	116.12	108.40
34	i	837	G	C3'-C2'-O2'	5.15	118.42	110.70
34	i	1352	G	C4'-C3'-O3'	-5.15	105.28	113.00
34	i	935	U	O4'-C1'-N1	5.15	116.22	108.50
1	A	167	GLY	N-CA-C	5.14	125.38	113.18
5	E	260	GLN	N-CA-C	-5.14	99.84	110.80
16	P	30	TYR	N-CA-C	-5.14	105.79	111.71
34	i	1551	A	O4'-C1'-N9	5.14	115.92	108.20
34	i	730	C	C3'-C2'-C1'	5.14	106.44	101.30
34	i	1606	G	O3'-P-O5'	-5.14	96.29	104.00
34	i	1390	G	C1'-O4'-C4'	-5.14	104.76	109.90
34	i	1415	C	C3'-C2'-C1'	5.14	106.44	101.30
34	i	1583	A	N9-C1'-C2'	5.14	119.71	112.00
34	i	110	U	P-O5'-C5'	-5.14	113.19	120.90
34	i	445	A	C3'-C2'-C1'	5.14	106.44	101.30
31	e	94	ALA	N-CA-C	-5.14	103.56	110.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	g	274	VAL	N-CA-CB	-5.14	104.39	111.99
34	i	1461	A	C1'-O4'-C4'	5.14	115.04	109.90
34	i	1656	A	C3'-C2'-C1'	-5.14	96.16	101.30
16	P	28	MET	N-CA-CB	5.13	119.17	110.49
34	i	1202	G	C1'-O4'-C4'	-5.13	104.77	109.90
34	i	1461	A	P-O5'-C5'	5.13	128.60	120.90
34	i	1734	C	N1-C1'-C2'	5.13	119.70	112.00
15	O	150	ARG	CB-CA-C	5.13	118.22	109.75
34	i	369	C	P-O3'-C3'	5.13	127.90	120.20
34	i	570	U	O3'-P-O5'	5.13	111.70	104.00
34	i	581	U	N1-C1'-C2'	5.13	121.70	114.00
34	i	410	G	C4'-C3'-C2'	-5.13	97.47	102.60
34	i	794	G	O5'-C5'-C4'	5.13	119.39	111.70
34	i	1673	A	C3'-C2'-C1'	-5.13	96.17	101.30
5	E	4	GLY	CA-C-N	5.13	125.37	119.83
5	E	4	GLY	C-N-CA	5.13	125.37	119.83
34	i	572	U	C4'-C3'-O3'	-5.13	105.31	113.00
34	i	1694	A	P-O3'-C3'	-5.13	112.51	120.20
34	i	1778	G	O4'-C1'-C2'	-5.13	102.47	107.60
4	D	193	ASP	C-N-CD	5.13	146.02	125.00
16	P	71	GLU	O-C-N	5.13	129.41	122.59
34	i	827	G	O4'-C1'-C2'	5.13	112.73	107.60
34	i	994	A	C1'-O4'-C4'	5.13	115.03	109.90
1	A	63	ARG	CA-C-O	-5.12	115.12	120.55
34	i	1108	U	P-O5'-C5'	-5.12	113.21	120.90
34	i	488	C	O4'-C1'-C2'	-5.12	102.48	107.60
10	J	89	GLU	N-CA-CB	-5.12	101.43	109.78
11	K	37	ASP	N-CA-C	-5.12	99.89	110.80
12	L	26	GLY	CA-C-N	5.12	130.92	121.70
12	L	26	GLY	C-N-CA	5.12	130.92	121.70
16	P	49	LEU	CA-C-O	-5.12	113.19	120.51
34	i	876	G	C3'-C2'-C1'	-5.12	96.18	101.30
34	i	1010	G	O4'-C1'-N9	5.12	116.18	108.50
34	i	1394	G	P-O3'-C3'	-5.12	112.52	120.20
34	i	1807	A	C1'-O4'-C4'	-5.12	104.78	109.90
10	J	99	GLY	N-CA-C	-5.12	106.89	115.80
34	i	79	A	C3'-C2'-O2'	-5.12	106.92	114.60
34	i	1072	G	O4'-C1'-N9	5.12	116.18	108.50
34	i	1266	G	O4'-C1'-C2'	-5.12	102.48	107.60
34	i	1555	U	C4'-C3'-C2'	-5.12	97.48	102.60
12	L	154	GLN	O-C-N	-5.12	118.45	123.26
34	i	321	C	O4'-C1'-N1	5.12	115.87	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	603	C	O4'-C1'-C2'	-5.12	100.69	105.80
34	i	1093	G	C5'-C4'-O4'	5.12	117.47	109.80
34	i	1594	U	C4'-C3'-O3'	-5.12	105.33	113.00
34	i	61	A	O4'-C1'-C2'	-5.11	102.49	107.60
34	i	736	C	O4'-C1'-C2'	-5.11	102.49	107.60
34	i	750	G	O3'-P-O5'	5.11	111.67	104.00
34	i	1227	C	C3'-C2'-C1'	5.11	106.41	101.30
34	i	1397	A	O4'-C1'-N9	5.11	116.17	108.50
34	i	210	G	O4'-C1'-C2'	-5.11	102.49	107.60
34	i	795	U	O4'-C1'-N1	5.11	116.17	108.50
34	i	1205	A	N9-C1'-C2'	-5.11	104.33	112.00
34	i	1246	A	N9-C1'-C2'	-5.11	106.33	114.00
3	C	194	VAL	CB-CA-C	-5.11	108.94	114.35
34	i	1520	C	N1-C1'-C2'	5.11	119.66	112.00
34	i	1534	U	C1'-O4'-C4'	5.11	115.01	109.90
1	A	68	ILE	O-C-N	-5.11	117.11	122.83
1	A	98	PRO	CB-CA-C	-5.11	103.14	111.56
3	C	227	ASP	CA-CB-CG	-5.10	107.50	112.60
26	Z	50	PHE	N-CA-C	5.10	117.63	110.23
34	i	625	G	P-O5'-C5'	-5.10	113.25	120.90
34	i	1523	G	O5'-C5'-C4'	-5.10	103.85	111.50
34	i	291	U	O4'-C1'-C2'	-5.10	102.50	107.60
34	i	1584	A	N9-C1'-C2'	-5.10	104.35	112.00
34	i	789	G	O3'-P-O5'	5.10	111.65	104.00
34	i	1168	U	O4'-C1'-C2'	-5.10	102.50	107.60
34	i	1405	A	C1'-O4'-C4'	5.10	115.00	109.90
1	A	3	GLY	O-C-N	5.10	129.33	122.70
34	i	1185	A	O4'-C1'-C2'	-5.10	102.50	107.60
34	i	1334	G	C4'-C3'-C2'	-5.10	97.50	102.60
34	i	1602	A	N9-C1'-C2'	5.10	119.65	112.00
34	i	1818	A	C1'-C2'-O2'	5.10	116.05	108.40
34	i	1833	U	O4'-C1'-C2'	-5.10	102.50	107.60
7	G	158	VAL	N-CA-CB	-5.10	102.82	111.23
13	M	9	GLY	CA-C-N	-5.10	115.44	122.63
13	M	9	GLY	C-N-CA	-5.10	115.44	122.63
11	K	86	PRO	N-CA-CB	5.09	108.02	103.08
34	i	402	G	N9-C1'-C2'	5.09	119.64	112.00
34	i	753	C	O4'-C4'-C3'	-5.09	98.91	104.00
34	i	1328	A	C4'-C3'-C2'	-5.09	97.51	102.60
34	i	1441	U	P-O3'-C3'	-5.09	112.56	120.20
34	i	1562	G	O4'-C4'-C3'	-5.09	98.91	104.00
34	i	541	U	C1'-O4'-C4'	-5.09	104.81	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	656	U	C4'-C3'-O3'	-5.09	105.36	113.00
34	i	796	U	O5'-C5'-C4'	-5.09	103.87	111.50
34	i	985	C	C1'-C2'-O2'	-5.09	104.17	111.80
34	i	1404	U	O3'-P-O5'	5.09	111.63	104.00
34	i	663	G	O4'-C1'-N9	5.09	116.13	108.50
34	i	1122	G	C1'-O4'-C4'	-5.09	104.81	109.90
16	P	105	VAL	N-CA-C	5.09	115.36	107.78
20	T	79	TYR	O-C-N	5.09	128.53	122.27
20	T	82	ARG	NE-CZ-NH2	5.09	123.78	119.20
34	i	835	C	C2'-C3'-O3'	5.09	117.13	109.50
34	i	854	A	C3'-C2'-C1'	5.09	106.39	101.30
34	i	1827	C	N1-C1'-C2'	5.09	119.63	112.00
34	i	14	C	P-O5'-C5'	-5.08	113.27	120.90
34	i	744	C	O4'-C1'-C2'	-5.08	102.52	107.60
34	i	1658	A	C3'-C2'-C1'	5.08	106.38	101.30
21	U	104	ILE	CB-CA-C	-5.08	102.95	111.29
32	f	138	ARG	N-CA-C	5.08	121.62	110.80
9	I	61	ASP	CA-C-N	-5.08	114.61	122.69
9	I	61	ASP	C-N-CA	-5.08	114.61	122.69
18	R	31	ASN	N-CA-C	-5.08	105.87	111.71
34	i	161	U	C2'-C3'-O3'	5.08	117.12	109.50
34	i	1407	G	P-O5'-C5'	5.08	128.52	120.90
34	i	1422	U	O4'-C1'-C2'	-5.08	102.52	107.60
34	i	1479	A	N9-C1'-C2'	-5.08	104.38	112.00
34	i	1663	U	C3'-C2'-O2'	5.08	118.32	110.70
5	E	23	LEU	CA-C-O	-5.08	115.68	121.82
34	i	1329	U	N1-C1'-C2'	-5.08	104.38	112.00
15	O	129	ILE	CA-C-N	-5.08	114.62	122.59
15	O	129	ILE	C-N-CA	-5.08	114.62	122.59
25	Y	94	HIS	ND1-CE1-NE2	5.08	113.47	108.40
34	i	77	A	C4'-C3'-C2'	-5.08	97.52	102.60
34	i	550	A	C3'-C2'-C1'	-5.08	96.22	101.30
34	i	829	C	N1-C1'-C2'	5.08	119.61	112.00
34	i	1798	U	O4'-C1'-N1	5.08	116.11	108.50
18	R	52	GLY	N-CA-C	5.07	118.39	112.50
34	i	623	C	C3'-C2'-C1'	5.07	106.37	101.30
34	i	750	G	O4'-C1'-C2'	5.07	112.67	107.60
34	i	1407	G	O4'-C1'-C2'	5.07	112.67	107.60
7	G	170	ARG	O-C-N	5.07	130.02	122.97
34	i	1663	U	C4'-C3'-C2'	-5.07	97.53	102.60
5	E	117	GLU	N-CA-C	-5.07	102.00	109.86
34	i	1269	C	C2'-C3'-O3'	-5.07	101.90	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	1648	U	N1-C1'-C2'	-5.07	104.40	112.00
18	R	113	SER	CA-C-N	5.07	130.19	120.97
18	R	113	SER	C-N-CA	5.07	130.19	120.97
34	i	1286	G	C4'-C3'-O3'	-5.07	105.40	113.00
34	i	1779	C	C2'-C3'-O3'	5.07	117.10	109.50
21	U	20	ILE	N-CA-C	5.06	116.00	108.46
21	U	28	ASN	CA-C-N	5.06	131.08	121.97
21	U	28	ASN	C-N-CA	5.06	131.08	121.97
33	g	192	THR	N-CA-CB	5.06	119.00	111.51
34	i	794	G	C3'-C2'-C1'	5.06	106.56	101.50
34	i	1435	A	O4'-C1'-N9	5.06	116.09	108.50
34	i	1796	C	N1-C1'-C2'	5.06	119.59	112.00
34	i	312	C	P-O3'-C3'	5.06	127.79	120.20
34	i	569	C	O3'-P-O5'	-5.06	96.41	104.00
18	R	4	VAL	N-CA-C	5.06	114.86	107.37
34	i	71	G	N9-C1'-C2'	-5.06	106.41	114.00
34	i	542	G	O3'-P-O5'	-5.06	96.41	104.00
34	i	665	U	O4'-C1'-N1	5.06	116.09	108.50
34	i	1036	G	O4'-C1'-N9	5.06	116.09	108.50
34	i	1819	A	C3'-C2'-C1'	-5.06	96.24	101.30
34	i	1779	C	P-O3'-C3'	5.06	127.78	120.20
16	P	38	SER	N-CA-C	5.05	121.56	110.80
34	i	752	C	O3'-P-O5'	5.05	111.58	104.00
34	i	1511	G	C4'-C3'-O3'	-5.05	105.42	113.00
34	i	1255	A	C1'-C2'-O2'	5.05	115.98	108.40
34	i	1337	C	C3'-C2'-C1'	5.05	106.55	101.50
2	B	62	LEU	N-CA-C	-5.05	106.46	113.18
34	i	360	G	O4'-C4'-C3'	-5.05	101.05	106.10
1	A	69	GLU	N-CA-C	5.05	116.59	111.14
34	i	528	U	N1-C1'-C2'	5.05	119.58	112.00
34	i	1490	U	O4'-C1'-N1	5.05	115.77	108.20
17	Q	116	ASP	CB-CA-C	-5.05	109.28	116.34
34	i	793	C	C4'-C3'-O3'	5.04	116.97	109.40
34	i	1322	U	O4'-C1'-C2'	5.04	110.84	105.80
2	B	167	LYS	N-CA-C	5.04	116.46	111.07
7	G	143	LYS	N-CA-C	5.04	116.86	111.36
34	i	533	C	O4'-C1'-C2'	-5.04	102.56	107.60
34	i	321	C	N1-C1'-C2'	-5.04	106.44	114.00
34	i	1186	A	C3'-C2'-C1'	5.04	106.34	101.30
18	R	23	ARG	N-CA-C	5.04	116.85	111.36
34	i	1582	G	O4'-C1'-N9	5.04	115.76	108.20
2	B	73	ASP	N-CA-C	-5.04	105.79	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	M	115	GLY	O-C-N	-5.03	116.16	122.70
15	O	102	GLY	O-C-N	-5.03	115.61	122.55
33	g	143	GLN	CB-CA-C	-5.03	100.40	110.42
34	i	346	C	O4'-C1'-C2'	5.03	112.63	107.60
34	i	810	U	O4'-C1'-N1	5.03	116.05	108.50
34	i	951	A	O4'-C1'-N9	5.03	115.75	108.20
34	i	1682	C	O4'-C1'-C2'	-5.03	102.57	107.60
34	i	205	G	C1'-O4'-C4'	-5.03	104.87	109.90
34	i	361	A	P-O5'-C5'	-5.03	113.35	120.90
34	i	1273	C	C5'-C4'-C3'	5.03	123.55	116.00
34	i	1564	A	O4'-C1'-C2'	-5.03	102.57	107.60
34	i	8	U	O4'-C1'-C2'	-5.03	100.77	105.80
34	i	71	G	O3'-P-O5'	5.03	111.54	104.00
34	i	1030	A	C1'-O4'-C4'	5.03	114.93	109.90
34	i	1285	U	P-O3'-C3'	5.03	127.74	120.20
25	Y	63	HIS	N-CA-C	5.03	121.51	110.80
9	I	169	GLY	N-CA-C	-5.03	107.88	115.32
34	i	549	G	C4'-C3'-O3'	-5.03	105.46	113.00
34	i	1367	U	O4'-C1'-C2'	-5.03	100.77	105.80
7	G	181	THR	CA-C-O	5.02	127.04	120.16
12	L	102	PHE	CB-CA-C	5.02	119.41	109.66
11	K	92	ALA	CA-C-N	5.02	129.52	122.09
11	K	92	ALA	C-N-CA	5.02	129.52	122.09
14	N	133	ARG	CB-CA-C	-5.02	100.43	110.42
17	Q	146	ARG	NE-CZ-NH1	-5.02	116.48	121.50
34	i	609	A	N9-C1'-C2'	-5.02	104.47	112.00
34	i	1463	C	O4'-C1'-C2'	-5.02	102.58	107.60
34	i	1594	U	O4'-C1'-C2'	-5.02	102.58	107.60
4	D	3	VAL	O-C-N	-5.02	114.97	123.00
11	K	1	MET	CB-CA-C	-5.02	100.56	110.10
34	i	142	C	C1'-C2'-O2'	5.02	119.33	111.80
34	i	687	G	N9-C1'-C2'	5.02	119.53	112.00
34	i	838	C	N1-C1'-C2'	5.02	119.53	112.00
34	i	1568	G	C4'-C3'-C2'	-5.02	97.58	102.60
32	f	90	LYS	CA-C-O	5.02	124.70	118.43
10	J	34	GLU	CA-C-N	5.01	130.96	123.24
10	J	34	GLU	C-N-CA	5.01	130.96	123.24
28	b	9	HIS	C-N-CD	-5.01	104.44	125.00
34	i	17	C	N1-C1'-C2'	5.01	119.52	112.00
34	i	1568	G	N9-C1'-C2'	5.01	119.52	112.00
34	i	824	G	C1'-O4'-C4'	-5.01	104.89	109.90
8	H	89	GLY	N-CA-C	-5.01	108.36	115.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	i	189	G	O4'-C1'-C2'	-5.01	102.59	107.60
34	i	207	U	C2'-C3'-O3'	-5.01	106.18	113.70
34	i	1623	C	C1'-O4'-C4'	-5.01	104.89	109.90
35	l	98	VAL	N-CA-C	-5.01	107.87	112.83
6	F	152	TRP	CB-CA-C	-5.01	103.25	110.96
34	i	381	C	O4'-C1'-N1	5.01	116.01	108.50
34	i	605	C	C1'-O4'-C4'	-5.01	104.89	109.90
34	i	1214	C	C1'-O4'-C4'	-5.01	104.89	109.90
34	i	1363	U	O4'-C1'-C2'	-5.01	102.59	107.60
34	i	1494	A	O4'-C1'-C2'	5.01	112.61	107.60
5	E	202	PRO	O-C-N	5.01	129.05	123.04
22	V	17	CYS	O-C-N	5.01	129.25	122.59
26	Z	104	ARG	CB-CG-CD	-5.01	99.78	111.30
31	e	102	ARG	N-CA-C	5.01	117.56	110.50
34	i	105	U	O4'-C1'-N1	5.01	116.01	108.50
34	i	243	C	P-O3'-C3'	5.01	127.71	120.20
34	i	1333	C	O4'-C1'-N1	5.00	116.01	108.50
4	D	32	ASP	CA-CB-CG	-5.00	107.60	112.60
19	S	142	ARG	CA-C-O	-5.00	112.29	120.80
33	g	213	ASP	N-CA-CB	5.00	117.47	110.12
34	i	78	C	O4'-C1'-C2'	-5.00	100.80	105.80
34	i	193	C	C3'-C2'-C1'	5.00	106.30	101.30
34	i	394	G	O4'-C1'-N9	5.00	116.01	108.50
34	i	879	U	O4'-C1'-N1	5.00	116.00	108.50
2	B	131	ASP	O-C-N	-5.00	116.96	122.86
34	i	1118	A	C3'-C2'-C1'	5.00	106.30	101.30
34	i	1167	G	C3'-C2'-C1'	-5.00	96.50	101.50

All (13) chirality outliers are listed below:

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'

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Mol	Chain	Res	Type	Atom
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
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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
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 (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1642	0	1640	645	0
2	B	1741	0	1809	550	1
3	C	1742	0	1830	611	0
4	D	1764	0	1858	619	0
5	E	2083	0	2189	543	0
6	F	1509	0	1558	552	0
7	G	1923	0	2085	556	10
8	H	1530	0	1624	502	0
9	I	1679	0	1762	487	4
10	J	1498	0	1599	641	0
11	K	827	0	853	368	18
12	L	1296	0	1370	420	0
13	M	951	0	972	282	0
14	N	1208	0	1294	326	0
15	O	1016	0	1036	369	0
16	P	1060	0	1120	513	1
17	Q	1124	0	1193	500	0
18	R	1019	0	1070	426	0
19	S	1139	0	1188	472	10
20	T	1112	0	1149	432	0
21	U	822	0	887	235	0
22	V	619	0	620	285	0
23	W	1034	0	1079	300	0
24	X	1106	0	1177	346	0
25	Y	1021	0	1083	510	0
26	Z	598	0	652	215	0
27	a	844	0	895	187	0
28	b	659	0	681	270	0
29	c	506	0	536	176	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
30	d	445	0	441	140	0
31	e	468	0	514	295	46
32	f	581	0	598	191	0
33	g	2436	0	2388	712	0
34	i	38071	0	19021	1412	110
35	l	691	0	702	279	1
36	n	648	0	654	267	0
All	All	78412	0	61127	13679	121

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 98.

All (13679) 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	1.75
17:Q:135:PRO:HD3	17:Q:141:TYR:CE1	1.16	1.68
3:C:50:LYS:HD2	3:C:251:TYR:CE1	1.20	1.67
19:S:42:HIS:CD2	20:T:45:LEU:HD11	1.21	1.67
28:b:64:CYS:SG	28:b:73:LEU:HD23	1.11	1.67
4:D:132:LYS:CB	4:D:191:PRO:HG3	1.23	1.66
3:C:197:LYS:HA	3:C:200:LEU:CD2	1.22	1.66
9:I:141:ARG:CB	9:I:144:LYS:HB2	1.24	1.65
16:P:53:GLN:HG2	16:P:80:LEU:CD1	1.23	1.65
25:Y:78:SER:HB3	25:Y:81:TYR:CD2	1.32	1.65
34:i:1186:A:C2	34:i:1709:U:H1'	1.26	1.65
16:P:41:GLN:CG	16:P:84:ILE:HG21	1.18	1.64
33:g:194:TYR:CE2	33:g:212:LYS:HD3	1.11	1.64
19:S:34:LYS:CB	19:S:103:LEU:HD21	1.17	1.64
11:K:21:MET:HE1	11:K:49:MET:SD	1.37	1.63
5:E:129:ILE:HG12	5:E:139:LEU:CD2	1.25	1.63
16:P:4:VAL:CA	16:P:10:ARG:HD3	1.19	1.63
11:K:16:PHE:CE2	11:K:79:LEU:HB2	1.24	1.63
20:T:77:LYS:HG3	20:T:92:PHE:CE2	1.13	1.63
3:C:93:LYS:HD2	3:C:218:LEU:CD2	1.27	1.63
2:B:66:VAL:CG2	2:B:87:ILE:HG22	1.23	1.62
21:U:40:ILE:CD1	21:U:53:PRO:HG3	1.19	1.62
8:H:40:LEU:CD2	8:H:43:LEU:HD12	1.14	1.62
28:b:33:MET:HE3	28:b:79:PHE:CB	1.25	1.62
14:N:24:THR:CB	28:b:84:HIS:HE1	1.07	1.62
8:H:83:LEU:HD13	8:H:92:VAL:CG2	1.25	1.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:27:VAL:CG1	11:K:43:LEU:HD22	1.28	1.61
16:P:123:TYR:CE2	19:S:120:HIS:CE1	1.85	1.61
36:n:62:ARG:CG	36:n:92:ILE:HA	1.21	1.60
1:A:58:LEU:CD2	1:A:178:LEU:HD23	1.28	1.60
4:D:12:VAL:CG1	30:d:36:LEU:HD11	1.24	1.59
16:P:41:GLN:HG2	16:P:84:ILE:CG1	1.29	1.59
10:J:124:HIS:CD2	34:i:516:A:H5"	1.31	1.59
33:g:118:ARG:HH21	33:g:134:THR:CG2	1.12	1.59
4:D:158:ILE:CD1	4:D:189:MET:HE1	1.31	1.59
1:A:30:LEU:HD13	1:A:38:ILE:CD1	1.32	1.59
7:G:41:LEU:HD22	7:G:45:TRP:CE3	1.37	1.59
25:Y:78:SER:CB	25:Y:81:TYR:HD2	1.15	1.58
7:G:131:ARG:CG	7:G:131:ARG:CD	1.79	1.58
35:l:50:ILE:HG21	35:l:59:LEU:CD1	1.27	1.58
3:C:55:VAL:HG13	3:C:82:PHE:CE2	1.34	1.58
6:F:14:THR:HG21	17:Q:56:LEU:CG	1.32	1.58
8:H:146:VAL:HG21	23:W:50:PHE:CZ	1.37	1.58
2:B:71:LEU:HD13	2:B:84:PHE:CE2	1.39	1.58
14:N:24:THR:HB	28:b:84:HIS:CE1	1.28	1.58
17:Q:93:VAL:CG1	17:Q:105:LYS:HE2	1.10	1.58
33:g:140:TYR:CE2	33:g:182:CYS:CB	1.74	1.58
24:X:27:TYR:CE1	24:X:31:HIS:NE2	1.70	1.57
11:K:14:LEU:HD22	11:K:35:LEU:CD2	1.22	1.57
16:P:33:LEU:CD2	16:P:87:PRO:HD3	1.20	1.57
6:F:25:THR:HG21	6:F:42:LYS:CG	1.21	1.57
21:U:61:LEU:CD2	30:d:34:TYR:CZ	1.77	1.57
22:V:11:LEU:CD1	22:V:12:TYR:HD2	1.13	1.57
30:d:23:VAL:CG2	30:d:38:MET:CE	1.81	1.57
32:f:135:HIS:HB3	32:f:138:ARG:CG	1.22	1.57
17:Q:9:SER:CB	17:Q:26:LYS:HG3	1.34	1.57
25:Y:55:ILE:HG12	25:Y:75:ILE:CG1	1.22	1.57
35:l:30:TYR:CE1	35:l:107:GLN:CA	1.76	1.56
1:A:21:ALA:CB	1:A:173:LEU:CD1	1.77	1.56
7:G:41:LEU:CD2	7:G:45:TRP:CZ3	1.80	1.56
14:N:24:THR:CB	28:b:84:HIS:CE1	1.80	1.56
2:B:113:MET:HE1	2:B:211:PHE:CE2	1.38	1.56
25:Y:29:HIS:CE1	25:Y:68:LYS:N	1.74	1.56
34:i:227:A:H4'	34:i:782:G:C4'	1.28	1.56
34:i:1823:G:C4	34:i:1844:A:H2	1.19	1.56
16:P:41:GLN:CG	16:P:84:ILE:CG2	1.79	1.55
34:i:1823:G:N3	34:i:1844:A:C2	1.73	1.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:69:SER:CB	12:L:19:ASN:HD21	1.17	1.55
5:E:70:ILE:HG12	5:E:92:ILE:CD1	1.12	1.55
17:Q:42:ILE:HD13	17:Q:51:LEU:CD2	1.16	1.55
34:i:227:A:C4'	34:i:782:G:H4'	1.13	1.55
34:i:1165:G:C4'	34:i:1815:U:H5'	1.20	1.55
3:C:93:LYS:CD	3:C:218:LEU:HD21	1.12	1.55
17:Q:9:SER:HB3	17:Q:26:LYS:CG	1.36	1.54
19:S:54:LYS:CA	19:S:54:LYS:C	1.75	1.54
9:I:142:SER:CB	9:I:143:LYS:HB2	1.34	1.54
33:g:12:LYS:HD2	33:g:13:GLY:CA	1.32	1.54
5:E:129:ILE:CG1	5:E:139:LEU:CD2	1.80	1.54
6:F:14:THR:CG2	17:Q:56:LEU:HD22	1.07	1.54
7:G:121:ILE:HG23	7:G:122:PRO:CD	1.38	1.54
5:E:248:ILE:CD1	10:J:72:PHE:CG	1.89	1.54
34:i:1165:G:H4'	34:i:1815:U:C5'	1.31	1.54
34:i:1823:G:H1'	34:i:1844:A:C2	1.39	1.54
5:E:248:ILE:HD12	10:J:72:PHE:CD2	1.02	1.54
21:U:61:LEU:HD22	30:d:34:TYR:CE2	1.42	1.54
1:A:30:LEU:CD1	1:A:38:ILE:HD11	1.06	1.53
4:D:12:VAL:HG11	30:d:36:LEU:CD1	1.08	1.53
4:D:158:ILE:CD1	4:D:189:MET:CE	1.81	1.53
10:J:17:ARG:HG2	10:J:18:ARG:CD	1.33	1.53
19:S:34:LYS:HB3	19:S:103:LEU:CD2	1.08	1.53
22:V:17:CYS:SG	22:V:56:CYS:HB3	1.44	1.53
25:Y:55:ILE:CG1	25:Y:75:ILE:HG12	1.35	1.53
31:e:81:ALA:HB3	36:n:82:ARG:CD	1.35	1.53
6:F:14:THR:HG21	17:Q:56:LEU:CD2	1.05	1.53
1:A:21:ALA:HB2	1:A:173:LEU:CD1	1.33	1.53
2:B:25:PHE:CE2	15:O:88:LEU:CD1	1.91	1.52
3:C:50:LYS:CD	3:C:251:TYR:CE1	1.89	1.52
9:I:25:ARG:HD2	9:I:27:TYR:CE2	1.42	1.52
17:Q:135:PRO:CD	17:Q:141:TYR:HE1	1.19	1.52
6:F:61:PHE:CZ	29:c:51:ARG:CB	1.91	1.52
25:Y:18:LEU:CB	25:Y:20:ARG:HH11	1.21	1.52
5:E:99:PHE:CE1	5:E:113:ARG:HG3	1.45	1.52
6:F:103:LEU:CD2	6:F:178:ILE:HD13	1.38	1.51
34:i:1843:G:N2	35:l:68:ALA:HB1	1.20	1.51
3:C:55:VAL:CG1	3:C:82:PHE:CE2	1.93	1.51
18:R:1:MET:CA	18:R:1:MET:CB	1.87	1.51
1:A:141:ASN:C	22:V:32:ILE:HG12	1.27	1.51
3:C:50:LYS:CD	3:C:251:TYR:HE1	1.19	1.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:93:LYS:CD	3:C:218:LEU:CD2	1.78	1.51
15:O:19:PRO:CG	15:O:27:VAL:CG2	1.86	1.51
21:U:61:LEU:HD22	30:d:34:TYR:CZ	0.99	1.51
4:D:76:ARG:NE	11:K:66:HIS:CE1	1.76	1.51
4:D:197:LYS:HB2	4:D:198:ILE:CG1	1.35	1.51
19:S:54:LYS:CA	19:S:54:LYS:N	1.67	1.50
31:e:80:LEU:CD1	36:n:83:ASP:HB2	1.03	1.50
18:R:99:ASP:C	18:R:119:VAL:HG11	1.08	1.50
18:R:99:ASP:CA	18:R:119:VAL:HG11	1.40	1.50
19:S:39:ARG:CZ	20:T:38:LYS:CE	1.83	1.50
16:P:33:LEU:CD2	16:P:87:PRO:CD	1.82	1.50
26:Z:99:LEU:HD13	26:Z:102:LYS:CE	1.35	1.50
28:b:33:MET:CE	28:b:79:PHE:CG	1.95	1.50
9:I:157:LYS:CB	12:L:22:ARG:NH1	1.71	1.50
34:i:1206:G:C2	34:i:1207:G:H1'	1.23	1.50
16:P:4:VAL:HA	16:P:10:ARG:CD	1.07	1.49
19:S:42:HIS:CD2	20:T:45:LEU:CD1	1.91	1.49
20:T:23:LYS:HD3	20:T:54:TYR:CD2	1.47	1.49
12:L:149:ALA:HB2	12:L:156:GLN:CD	1.37	1.49
34:i:61:A:N3	34:i:326:A:C8	1.81	1.49
34:i:61:A:C2	34:i:326:A:C8	2.00	1.49
3:C:50:LYS:HD2	3:C:251:TYR:CD1	1.43	1.49
8:H:144:ILE:HB	23:W:52:ILE:CG2	1.38	1.49
19:S:39:ARG:NE	20:T:38:LYS:HE3	1.27	1.49
22:V:11:LEU:CD1	22:V:12:TYR:CD2	1.95	1.49
19:S:58:GLU:C	19:S:59:LEU:HD13	1.35	1.49
6:F:42:LYS:HB2	6:F:45:TYR:N	1.21	1.48
33:g:140:TYR:CE2	33:g:182:CYS:HB3	0.97	1.48
6:F:63:LYS:HD3	6:F:71:ARG:CZ	1.41	1.48
16:P:79:HIS:CE1	16:P:102:PHE:HZ	1.32	1.48
26:Z:99:LEU:CD1	26:Z:102:LYS:HE2	1.43	1.48
31:e:119:VAL:C	31:e:121:PRO:HD2	1.35	1.48
3:C:155:TRP:CH2	23:W:97:ARG:NH1	1.73	1.47
12:L:149:ALA:CB	12:L:156:GLN:CG	1.89	1.47
2:B:148:ASN:CA	18:R:124:VAL:HG23	1.45	1.47
12:L:149:ALA:HB2	12:L:156:GLN:NE2	1.17	1.47
34:i:60:A:C2	34:i:326:A:C5'	1.97	1.47
7:G:41:LEU:HD22	7:G:45:TRP:CZ3	1.34	1.47
10:J:118:GLY:C	10:J:119:LEU:N	1.73	1.47
34:i:1206:G:C4	34:i:1207:G:O4'	1.65	1.47
11:K:3:MET:CE	11:K:8:ARG:NH2	1.74	1.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:80:LEU:CD1	36:n:83:ASP:CB	1.92	1.47
3:C:55:VAL:HG13	3:C:82:PHE:CZ	1.49	1.47
16:P:49:LEU:CD1	16:P:51:ARG:HE	1.25	1.47
31:e:82:ARG:HG3	36:n:82:ARG:NE	1.27	1.47
34:i:1823:G:C1'	34:i:1844:A:C2	1.92	1.47
4:D:211:VAL:HG23	18:R:38:ILE:C	1.38	1.46
34:i:1206:G:C8	34:i:1207:G:P	2.09	1.46
35:l:30:TYR:CE1	35:l:107:GLN:HA	0.95	1.46
2:B:150:ILE:CD1	18:R:126:MET:N	1.75	1.46
14:N:55:ARG:NH1	28:b:47:PHE:CD2	1.83	1.46
35:l:50:ILE:CD1	35:l:102:LEU:HD23	1.00	1.46
11:K:27:VAL:HG13	11:K:43:LEU:CD2	1.02	1.46
15:O:19:PRO:HG3	15:O:27:VAL:CG2	1.39	1.46
16:P:41:GLN:CD	16:P:84:ILE:HG21	1.38	1.46
17:Q:93:VAL:CG1	17:Q:105:LYS:CE	1.94	1.46
19:S:8:LYS:HB2	19:S:9:PHE:CD1	1.46	1.46
19:S:39:ARG:NH2	20:T:38:LYS:CE	1.76	1.46
25:Y:29:HIS:HE1	25:Y:68:LYS:N	1.03	1.46
5:E:248:ILE:CD1	10:J:72:PHE:CD2	1.89	1.46
9:I:142:SER:HB3	9:I:143:LYS:CB	1.44	1.46
16:P:123:TYR:CE2	19:S:120:HIS:HE1	1.24	1.46
33:g:172:LYS:CE	33:g:191:HIS:O	1.63	1.46
5:E:248:ILE:HG13	10:J:72:PHE:CD1	1.48	1.46
18:R:1:MET:CA	18:R:1:MET:N	1.79	1.46
23:W:14:ILE:CD1	23:W:72:CYS:SG	2.01	1.46
25:Y:102:THR:HG21	25:Y:107:ARG:NE	1.16	1.46
29:c:15:THR:CG2	29:c:33:GLU:HG2	1.45	1.46
10:J:66:LYS:CE	34:i:687:G:O2'	1.64	1.45
12:L:149:ALA:HB1	12:L:156:GLN:CB	1.46	1.45
28:b:33:MET:CE	28:b:79:PHE:CB	1.94	1.45
9:I:161:LEU:HD11	9:I:199:LEU:CD1	1.43	1.45
5:E:159:THR:HG23	5:E:227:VAL:CG2	1.43	1.45
31:e:80:LEU:HD12	36:n:83:ASP:CB	1.43	1.45
32:f:140:TYR:OH	32:f:146:LEU:CA	1.63	1.45
5:E:208:VAL:HB	5:E:225:ILE:CD1	1.46	1.45
17:Q:135:PRO:CD	17:Q:141:TYR:CE1	1.92	1.45
7:G:176:ILE:CB	7:G:179:LEU:HD23	1.47	1.44
16:P:33:LEU:HD22	16:P:87:PRO:CD	1.41	1.44
35:l:50:ILE:CD1	35:l:102:LEU:CD2	1.95	1.44
18:R:99:ASP:CA	18:R:119:VAL:CG1	1.92	1.44
7:G:16:ILE:HD13	7:G:45:TRP:CZ2	1.51	1.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:146:VAL:HG21	23:W:50:PHE:CE1	1.50	1.44
10:J:79:ARG:NH1	10:J:83:ARG:NH1	1.62	1.44
34:i:1207:G:C2	34:i:1684:C:C2	1.85	1.44
5:E:98:ASN:ND2	5:E:119:ALA:HB2	1.28	1.44
11:K:11:ILE:CG2	11:K:49:MET:CE	1.94	1.44
2:B:137:LEU:CD2	2:B:215:VAL:HG13	1.45	1.43
2:B:150:ILE:HG13	18:R:125:GLY:N	1.30	1.43
7:G:85:ARG:HD2	25:Y:118:ARG:NH2	1.25	1.43
28:b:33:MET:HE1	28:b:79:PHE:CG	1.52	1.43
34:i:1823:G:C2'	34:i:1844:A:N1	1.77	1.43
7:G:157:VAL:CG1	7:G:159:ARG:H	1.28	1.43
10:J:38:ARG:NH2	31:e:104:GLY:CA	1.77	1.43
31:e:82:ARG:N	36:n:82:ARG:HD2	1.19	1.43
1:A:58:LEU:HD21	1:A:178:LEU:CD2	1.47	1.43
10:J:89:GLU:HA	10:J:92:MET:CG	1.45	1.43
3:C:126:MET:SD	34:i:1352:G:H4'	1.56	1.43
10:J:170:PRO:HG2	10:J:175:ARG:CG	1.46	1.43
16:P:44:ARG:HE	16:P:84:ILE:CD1	1.28	1.43
25:Y:18:LEU:CD1	25:Y:20:ARG:HH12	1.31	1.43
34:i:1054:A:O2'	35:l:44:LEU:CD1	1.66	1.43
2:B:113:MET:CE	2:B:211:PHE:CE2	2.02	1.43
6:F:25:THR:CG2	6:F:42:LYS:HG3	1.46	1.43
10:J:110:LEU:CD1	10:J:130:ILE:CD1	1.96	1.43
32:f:108:VAL:CG2	32:f:114:ILE:HG22	1.46	1.43
6:F:61:PHE:CZ	29:c:51:ARG:HB3	1.49	1.42
16:P:41:GLN:CG	16:P:84:ILE:HG12	1.46	1.42
17:Q:8:GLN:CG	17:Q:99:TYR:CE1	2.01	1.42
19:S:120:HIS:NE2	19:S:124:ARG:NE	1.62	1.42
31:e:81:ALA:CA	36:n:82:ARG:HD3	1.35	1.42
1:A:57:LYS:NZ	22:V:70:LEU:HD11	1.34	1.42
5:E:153:LEU:HD13	5:E:172:PHE:CZ	1.52	1.42
31:e:81:ALA:CB	36:n:82:ARG:HD3	0.96	1.42
6:F:167:LYS:HD3	6:F:171:GLU:CG	1.47	1.42
12:L:80:MET:CE	12:L:120:VAL:C	1.93	1.42
15:O:19:PRO:CG	15:O:27:VAL:HG21	0.97	1.42
18:R:20:TYR:CE1	18:R:38:ILE:HG21	1.52	1.42
21:U:40:ILE:HD11	21:U:53:PRO:CG	1.47	1.42
30:d:13:LYS:CG	30:d:14:PHE:HD2	1.32	1.42
18:R:20:TYR:CZ	18:R:38:ILE:CG2	2.03	1.42
7:G:76:LEU:CD2	7:G:92:ARG:HG2	1.44	1.42
10:J:38:ARG:HH21	31:e:104:GLY:CA	1.27	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:176:TRP:CZ3	1:A:177:MET:SD	2.14	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	1.30	1.41
11:K:2:LEU:HD13	11:K:3:MET:N	1.32	1.41
18:R:20:TYR:OH	18:R:38:ILE:CG2	1.67	1.41
34:i:1186:A:N3	34:i:1709:U:C1'	1.82	1.41
4:D:195:SER:C	4:D:197:LYS:HA	1.41	1.41
8:H:122:LEU:HD13	8:H:123:THR:N	1.20	1.41
19:S:39:ARG:HH21	20:T:38:LYS:NZ	1.17	1.41
12:L:80:MET:CE	12:L:120:VAL:O	1.65	1.41
7:G:157:VAL:HG11	7:G:159:ARG:CG	1.51	1.40
11:K:60:GLU:CD	11:K:67:PHE:HD1	1.26	1.40
4:D:112:GLY:C	4:D:113:LEU:HD12	1.46	1.40
10:J:38:ARG:NH2	31:e:104:GLY:HA3	1.19	1.40
3:C:101:THR:CG2	3:C:103:ALA:O	1.69	1.40
10:J:89:GLU:HA	10:J:92:MET:CB	1.48	1.40
4:D:132:LYS:HB2	4:D:191:PRO:CG	1.52	1.40
10:J:37:LEU:CD1	10:J:42:GLU:HB3	1.51	1.40
5:E:208:VAL:CB	5:E:225:ILE:CD1	1.99	1.39
5:E:248:ILE:HD12	10:J:72:PHE:CE2	1.55	1.39
9:I:69:SER:HB2	12:L:19:ASN:ND2	1.32	1.39
10:J:90:GLY:O	10:J:96:TYR:CD2	1.73	1.39
31:e:118:ASN:N	31:e:119:VAL:HB	1.34	1.39
34:i:1823:G:C4	34:i:1844:A:C2	2.06	1.39
1:A:48:ILE:HG12	18:R:105:MET:CE	1.52	1.39
6:F:91:ARG:NH1	6:F:94:LYS:CB	1.85	1.39
10:J:177:ASN:O	10:J:180:LYS:CG	1.69	1.39
19:S:39:ARG:CZ	20:T:38:LYS:HE3	0.92	1.39
19:S:46:ARG:NH2	20:T:50:GLU:HB3	1.16	1.39
28:b:64:CYS:SG	28:b:73:LEU:CD2	2.08	1.39
34:i:1825:A:C2	34:i:1846:C:OP1	1.74	1.39
1:A:58:LEU:CD2	1:A:178:LEU:CD2	1.95	1.39
10:J:38:ARG:CZ	31:e:104:GLY:HA3	1.51	1.39
12:L:99:TYR:OH	24:X:14:ARG:CA	1.70	1.39
4:D:59:LEU:HD12	4:D:60:GLY:N	1.37	1.39
6:F:45:TYR:O	6:F:47:LYS:CE	1.71	1.39
21:U:50:VAL:HG22	21:U:51:LYS:C	1.43	1.39
6:F:45:TYR:O	6:F:47:LYS:CD	1.71	1.39
7:G:32:MET:SD	7:G:100:CYS:HB3	1.63	1.39
1:A:97:THR:CG2	1:A:98:PRO:HD2	1.52	1.38
2:B:113:MET:HE3	2:B:209:ASP:CG	1.45	1.38

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:20:ARG:HG3	25:Y:74:MET:CE	1.53	1.38
25:Y:29:HIS:CE1	25:Y:67:GLY:C	1.99	1.38
8:H:31:GLU:OE2	8:H:41:ARG:CD	1.71	1.38
18:R:44:LYS:CE	18:R:47:ARG:HH22	1.34	1.38
31:e:95:LYS:C	31:e:96:GLN:N	1.76	1.38
2:B:150:ILE:CD1	18:R:126:MET:H	1.33	1.38
10:J:38:ARG:CG	31:e:105:ARG:HB2	1.51	1.38
16:P:44:ARG:NE	16:P:84:ILE:HD12	1.34	1.38
18:R:99:ASP:C	18:R:119:VAL:CG1	1.94	1.38
18:R:122:PRO:CA	18:R:123:THR:HG23	1.51	1.38
34:i:1165:G:C5'	34:i:1815:U:H5'	1.53	1.38
10:J:30:LYS:HA	31:e:112:TYR:CE1	1.59	1.38
19:S:138:THR:CA	19:S:141:ARG:NH2	1.86	1.38
27:a:23:CYS:HB2	27:a:28:CYS:SG	1.63	1.38
1:A:21:ALA:CB	1:A:173:LEU:HD12	1.42	1.38
16:P:79:HIS:HE1	16:P:102:PHE:CZ	1.40	1.38
7:G:25:ARG:HG2	7:G:28:TYR:CD2	1.60	1.37
30:d:23:VAL:CG2	30:d:38:MET:HE1	0.91	1.37
34:i:389:C:C1'	34:i:389:C:O4'	1.64	1.38
1:A:176:TRP:HZ3	1:A:177:MET:SD	1.46	1.37
11:K:2:LEU:CD1	11:K:3:MET:H	1.37	1.37
14:N:55:ARG:NH1	28:b:47:PHE:HD2	1.16	1.37
25:Y:36:PRO:HG2	25:Y:39:GLU:CG	1.52	1.37
10:J:66:LYS:NZ	34:i:687:G:C2'	1.87	1.37
10:J:110:LEU:HD13	10:J:130:ILE:CD1	1.48	1.37
19:S:42:HIS:NE2	20:T:45:LEU:CD2	1.84	1.37
20:T:77:LYS:CG	20:T:92:PHE:CE2	2.07	1.37
1:A:57:LYS:CE	22:V:70:LEU:HD11	1.55	1.37
2:B:148:ASN:C	18:R:124:VAL:CG2	1.94	1.37
10:J:48:PHE:CE1	10:J:52:LYS:HE3	1.57	1.37
18:R:99:ASP:HA	18:R:119:VAL:CG1	1.53	1.37
31:e:81:ALA:CA	36:n:82:ARG:CD	1.93	1.37
34:i:1206:G:C2	34:i:1207:G:C1'	1.97	1.37
8:H:143:ARG:CD	23:W:53:ILE:HG12	1.53	1.37
23:W:14:ILE:HD11	23:W:72:CYS:SG	1.64	1.37
9:I:155:ASN:O	12:L:22:ARG:CD	1.71	1.36
2:B:66:VAL:HG22	2:B:87:ILE:CG2	1.55	1.36
10:J:39:ASN:CG	10:J:42:GLU:OE2	1.67	1.36
10:J:90:GLY:O	10:J:96:TYR:CE2	1.77	1.36
19:S:46:ARG:HG2	20:T:50:GLU:OE2	1.19	1.36
1:A:76:VAL:HG21	1:A:90:PHE:CD2	1.60	1.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:113:MET:CE	2:B:211:PHE:HE2	1.34	1.36
5:E:248:ILE:HB	10:J:72:PHE:CZ	1.59	1.36
6:F:25:THR:CG2	6:F:42:LYS:HD2	1.55	1.36
6:F:59:LYS:HD2	6:F:62:ARG:NH2	1.03	1.36
10:J:61:LEU:HD22	10:J:98:LEU:CD1	1.56	1.36
11:K:16:PHE:CE2	11:K:79:LEU:CB	2.07	1.36
19:S:14:ARG:NH1	19:S:17:ASN:HA	1.37	1.36
31:e:114:ARG:O	31:e:119:VAL:CG2	1.73	1.36
35:l:50:ILE:HD12	35:l:102:LEU:CD2	1.50	1.36
11:K:83:LEU:HB3	11:K:85:LEU:CD2	1.56	1.36
25:Y:18:LEU:HD13	25:Y:20:ARG:NH1	1.41	1.36
4:D:5:ILE:C	4:D:6:SER:N	1.82	1.35
5:E:248:ILE:HD12	10:J:72:PHE:CG	1.49	1.35
7:G:32:MET:CE	7:G:100:CYS:HA	1.56	1.35
18:R:17:ILE:CG2	18:R:69:ILE:HD11	1.54	1.35
18:R:21:TYR:CB	18:R:71:ILE:HD13	1.53	1.35
7:G:157:VAL:HG13	7:G:159:ARG:N	1.39	1.35
6:F:59:LYS:CD	6:F:62:ARG:HH21	1.38	1.35
16:P:41:GLN:HG2	16:P:84:ILE:CB	1.54	1.35
34:i:1165:G:C5'	34:i:1815:U:C5'	2.05	1.35
5:E:128:LYS:HD3	5:E:130:PHE:CE1	1.60	1.35
17:Q:34:VAL:HG23	17:Q:39:LEU:CD2	1.56	1.35
5:E:19:MET:CE	34:i:842:G:H2'	1.57	1.35
33:g:191:HIS:CD2	33:g:195:LEU:HD21	1.59	1.35
35:l:47:VAL:CB	35:l:83:ILE:HB	1.57	1.35
6:F:63:LYS:HD3	6:F:71:ARG:NH2	1.39	1.34
6:F:122:ARG:O	6:F:141:VAL:HG13	1.26	1.34
33:g:5:MET:SD	33:g:312:VAL:CG2	2.15	1.34
33:g:194:TYR:CE2	33:g:212:LYS:CD	2.07	1.34
34:i:1186:A:C2'	34:i:1709:U:H4'	1.56	1.34
8:H:83:LEU:CD1	8:H:92:VAL:HG21	1.52	1.34
9:I:141:ARG:CG	9:I:144:LYS:HB2	1.57	1.34
12:L:147:LYS:CD	12:L:148:ALA:HA	1.55	1.34
13:M:13:ASP:O	13:M:16:THR:CG2	1.72	1.34
2:B:25:PHE:CE2	15:O:88:LEU:HD11	1.52	1.34
3:C:142:LEU:HA	3:C:145:LEU:CD2	1.56	1.34
10:J:39:ASN:ND2	10:J:42:GLU:OE2	1.57	1.34
16:P:9:LYS:O	16:P:10:ARG:HG3	1.19	1.34
16:P:49:LEU:HD12	16:P:51:ARG:NE	1.41	1.34
20:T:77:LYS:HB2	20:T:94:ARG:CD	1.57	1.34
24:X:105:PHE:CE2	24:X:119:ARG:HA	1.60	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:57:LYS:HZ1	22:V:70:LEU:CD1	1.40	1.34
6:F:204:ARG:CD	29:c:60:GLU:OE2	1.75	1.34
7:G:14:LYS:NZ	7:G:123:GLY:HA3	1.36	1.34
5:E:153:LEU:CD1	5:E:172:PHE:CZ	2.11	1.34
17:Q:42:ILE:CD1	17:Q:51:LEU:HD21	1.58	1.34
6:F:141:VAL:CB	29:c:47:LYS:HZ1	1.39	1.33
31:e:105:ARG:NH2	31:e:105:ARG:HB3	1.39	1.33
34:i:61:A:C2	34:i:326:A:H8	1.34	1.33
7:G:63:MET:CE	7:G:106:LEU:HD11	1.56	1.33
9:I:69:SER:CB	12:L:19:ASN:ND2	1.83	1.33
11:K:65:ARG:NH2	30:d:25:SER:OG	1.58	1.33
5:E:159:THR:CG2	5:E:227:VAL:HG23	1.58	1.33
6:F:204:ARG:NH1	29:c:60:GLU:OE2	1.57	1.33
19:S:42:HIS:CG	20:T:45:LEU:HD11	1.62	1.33
30:d:13:LYS:HE3	30:d:14:PHE:CE2	1.60	1.33
33:g:118:ARG:NH2	33:g:134:THR:HG21	1.02	1.33
34:i:226:A:C1'	34:i:783:G:OP1	1.76	1.33
1:A:205:ARG:HH22	18:R:82:ASP:CA	1.25	1.33
2:B:205:TYR:CD2	2:B:206:PRO:HD2	1.62	1.33
16:P:4:VAL:N	16:P:10:ARG:HG2	1.39	1.33
34:i:1843:G:H21	35:l:68:ALA:CB	1.42	1.33
10:J:15:THR:HG22	10:J:44:TRP:CE3	1.64	1.33
12:L:71:ARG:CD	12:L:73:LEU:HD21	1.57	1.33
20:T:77:LYS:HG3	20:T:92:PHE:CZ	1.64	1.33
23:W:62:VAL:HG21	28:b:8:LEU:CD2	1.59	1.33
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
17:Q:38:PRO:HG2	17:Q:41:MET:SD	1.69	1.32
25:Y:99:LYS:N	25:Y:99:LYS:HE3	1.45	1.32
33:g:12:LYS:CD	33:g:13:GLY:HA2	1.58	1.32
1:A:112:ILE:HG21	34:i:1346:U:C1'	1.45	1.32
10:J:66:LYS:HZ3	34:i:687:G:C1'	1.41	1.32
7:G:32:MET:SD	7:G:100:CYS:CB	2.17	1.32
19:S:42:HIS:CE1	20:T:45:LEU:HD21	1.62	1.32
22:V:55:ILE:HD11	22:V:68:SER:OG	1.27	1.32
25:Y:44:LEU:HD11	25:Y:48:TYR:CE2	1.63	1.32
7:G:1:MET:CE	7:G:106:LEU:O	1.77	1.31
21:U:62:ARG:NH1	21:U:64:THR:HG21	1.42	1.31
33:g:172:LYS:CE	33:g:192:THR:HG22	1.59	1.31
8:H:6:ALA:CA	8:H:10:LYS:HD3	1.58	1.31
12:L:80:MET:HE1	12:L:121:GLN:CA	1.60	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:114:ASP:O	24:X:116:PRO:HD3	1.16	1.31
33:g:87:LEU:HD12	33:g:101:PHE:CB	1.60	1.31
1:A:76:VAL:HG13	1:A:175:TRP:CH2	1.65	1.31
1:A:177:MET:HE1	1:A:180:ARG:NH2	1.00	1.31
18:R:5:ARG:HB2	18:R:10:LYS:NZ	1.39	1.31
25:Y:18:LEU:CD1	25:Y:20:ARG:NH1	1.90	1.31
34:i:1186:A:N3	34:i:1709:U:O2'	1.59	1.31
4:D:197:LYS:HB3	4:D:198:ILE:CG2	1.57	1.31
18:R:21:TYR:HB2	18:R:71:ILE:CD1	1.59	1.31
20:T:11:GLN:NE2	20:T:62:ARG:CZ	1.93	1.31
22:V:11:LEU:HD11	22:V:12:TYR:CD2	1.58	1.31
33:g:20:GLN:NE2	33:g:68:ASP:OD2	1.62	1.31
3:C:79:ILE:HD13	3:C:147:ILE:CD1	1.59	1.31
4:D:210:ILE:CD1	18:R:15:VAL:CG1	2.09	1.31
12:L:149:ALA:CB	12:L:156:GLN:HG2	1.55	1.31
14:N:24:THR:CG2	28:b:84:HIS:CE1	2.12	1.31
16:P:53:GLN:CG	16:P:80:LEU:CD1	2.08	1.31
11:K:21:MET:CE	11:K:49:MET:SD	2.17	1.30
12:L:147:LYS:CG	12:L:148:ALA:HA	1.61	1.30
16:P:79:HIS:CE1	16:P:102:PHE:CZ	2.18	1.30
28:b:33:MET:HE1	28:b:79:PHE:CD2	1.62	1.30
34:i:1207:G:N3	34:i:1684:C:C2	1.98	1.30
1:A:154:LEU:HD12	22:V:63:GLY:C	1.54	1.30
4:D:157:MET:CE	4:D:187:LYS:HD3	1.59	1.30
6:F:141:VAL:HB	29:c:47:LYS:CE	1.60	1.30
9:I:25:ARG:CD	9:I:27:TYR:HE2	1.43	1.30
11:K:83:LEU:CD1	11:K:85:LEU:HD21	1.60	1.30
24:X:2:GLY:O	24:X:3:LYS:HG3	1.23	1.30
25:Y:13:MET:HE3	25:Y:14:THR:N	1.45	1.30
35:l:30:TYR:HE1	35:l:107:GLN:CA	1.24	1.30
5:E:70:ILE:CG1	5:E:92:ILE:CD1	2.07	1.30
3:C:131:GLU:HG3	4:D:116:ARG:NH2	1.45	1.30
17:Q:50:LYS:HZ2	17:Q:85:ARG:NH2	1.28	1.30
24:X:51:VAL:HG13	24:X:70:VAL:CG1	1.60	1.30
1:A:16:LEU:HD21	18:R:111:PHE:CZ	1.66	1.30
2:B:87:ILE:HD13	2:B:101:HIS:CD2	1.66	1.30
3:C:167:CYS:SG	23:W:95:PRO:HB3	1.72	1.30
12:L:101:ARG:O	24:X:10:ALA:HB2	1.29	1.30
19:S:120:HIS:NE2	19:S:124:ARG:CZ	1.93	1.30
20:T:23:LYS:HD3	20:T:54:TYR:CG	1.65	1.30
32:f:144:CYS:CB	32:f:147:THR:HG22	1.60	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:83:LEU:CD1	8:H:92:VAL:CG2	2.06	1.29
18:R:99:ASP:O	18:R:119:VAL:HG11	1.30	1.29
25:Y:99:LYS:HE3	25:Y:99:LYS:CA	1.47	1.29
34:i:1166:A:OP2	34:i:1814:G:C4'	1.79	1.29
10:J:38:ARG:HG2	31:e:105:ARG:CB	1.62	1.29
10:J:88:ASP:C	10:J:92:MET:HG3	1.58	1.29
17:Q:93:VAL:HG11	17:Q:105:LYS:CE	1.52	1.29
18:R:20:TYR:CZ	18:R:38:ILE:HG21	1.62	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	1.96	1.29
31:e:81:ALA:CB	36:n:82:ARG:HH11	1.45	1.29
4:D:7:LYS:NZ	21:U:113:GLU:OE2	1.60	1.29
7:G:176:ILE:HG21	7:G:179:LEU:CD2	1.60	1.29
8:H:122:LEU:HD13	8:H:122:LEU:C	1.57	1.29
9:I:136:ILE:CG2	9:I:139:LYS:HE3	1.60	1.29
11:K:3:MET:HE1	11:K:8:ARG:NH2	0.97	1.29
4:D:123:LEU:HD21	4:D:154:ASP:CB	1.63	1.29
4:D:210:ILE:HD12	18:R:15:VAL:CG1	1.61	1.29
4:D:218:LEU:CG	4:D:220:THR:CG2	2.10	1.29
8:H:6:ALA:HA	8:H:10:LYS:CD	1.62	1.29
8:H:122:LEU:CD1	8:H:123:THR:N	1.94	1.29
9:I:37:LYS:O	9:I:59:ARG:HA	1.27	1.29
20:T:141:ALA:O	20:T:142:LYS:HG3	1.13	1.29
30:d:23:VAL:HG21	30:d:38:MET:CE	1.45	1.29
7:G:176:ILE:CG2	7:G:179:LEU:CD2	2.10	1.29
8:H:40:LEU:CD2	8:H:43:LEU:CD1	2.09	1.29
10:J:15:THR:HG22	10:J:44:TRP:CZ3	1.66	1.29
11:K:60:GLU:OE1	11:K:67:PHE:CD1	1.84	1.29
15:O:52:THR:O	15:O:53:ILE:HG23	1.28	1.29
15:O:113:GLN:CG	27:a:46:GLU:OE2	1.81	1.29
19:S:132:ARG:HB2	19:S:134:GLN:OE1	1.17	1.29
24:X:142:ARG:HH11	24:X:142:ARG:CB	1.44	1.29
32:f:106:TYR:OH	32:f:131:PHE:CZ	1.81	1.29
3:C:101:THR:HG22	3:C:104:GLY:O	1.13	1.28
34:i:1823:G:N9	34:i:1844:A:H2	1.32	1.28
10:J:134:HIS:ND1	10:J:163:SER:CB	1.96	1.28
34:i:1186:A:N3	34:i:1709:U:H1'	1.36	1.28
3:C:154:TYR:OH	3:C:161:LYS:CA	1.81	1.28
4:D:16:ILE:HD13	30:d:22:ARG:NH2	1.47	1.28
4:D:197:LYS:CB	4:D:198:ILE:HG23	1.63	1.28
6:F:14:THR:CG2	17:Q:56:LEU:HB3	1.64	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:89:GLU:C	10:J:92:MET:HB2	1.57	1.28
33:g:194:TYR:HE2	33:g:212:LYS:CD	1.42	1.28
3:C:241:TRP:HB3	23:W:68:ARG:NH1	1.48	1.28
9:I:116:HIS:O	9:I:152:ARG:NH1	1.67	1.28
11:K:43:LEU:O	11:K:45:VAL:N	1.65	1.28
26:Z:99:LEU:HD23	26:Z:109:TYR:CE1	1.68	1.28
33:g:7:LEU:CD1	33:g:310:TRP:HE1	1.47	1.28
1:A:24:HIS:NE2	18:R:105:MET:HE3	1.46	1.28
3:C:110:LYS:HE2	3:C:112:PHE:CZ	1.66	1.28
12:L:80:MET:HE1	12:L:121:GLN:N	1.46	1.28
25:Y:13:MET:HE2	25:Y:14:THR:O	1.28	1.28
36:n:62:ARG:NH1	36:n:92:ILE:HD12	1.46	1.28
1:A:177:MET:CE	1:A:180:ARG:NH2	1.95	1.27
4:D:105:LEU:CD2	4:D:184:ILE:HD12	1.63	1.27
8:H:138:GLU:OE2	14:N:19:ARG:HB3	1.29	1.27
13:M:13:ASP:HB2	13:M:16:THR:CB	1.58	1.27
15:O:142:ARG:NH1	27:a:27:ALA:HB2	1.47	1.27
1:A:176:TRP:CZ2	1:A:195:TRP:HE3	1.06	1.27
23:W:62:VAL:CB	28:b:8:LEU:HD21	1.60	1.27
30:d:13:LYS:CG	30:d:14:PHE:CD2	2.17	1.27
35:l:48:GLN:HG2	35:l:82:VAL:CG1	1.62	1.27
4:D:97:CYS:O	4:D:99:ILE:N	1.67	1.27
5:E:129:ILE:CG1	5:E:139:LEU:HD22	1.45	1.27
6:F:63:LYS:CD	6:F:71:ARG:NH1	1.98	1.27
7:G:176:ILE:CG2	7:G:179:LEU:HD23	1.65	1.27
10:J:38:ARG:HH21	31:e:104:GLY:N	1.28	1.27
18:R:44:LYS:HG3	18:R:47:ARG:CZ	1.63	1.27
20:T:31:PRO:O	20:T:33:TRP:N	1.63	1.27
25:Y:102:THR:CG2	25:Y:107:ARG:HE	1.46	1.27
31:e:80:LEU:N	36:n:82:ARG:CB	1.91	1.27
3:C:223:LYS:HE2	34:i:1351:C:O2	1.30	1.27
6:F:14:THR:CG2	17:Q:56:LEU:CD2	1.76	1.27
6:F:14:THR:OG1	17:Q:56:LEU:CB	1.83	1.27
17:Q:42:ILE:CD1	17:Q:51:LEU:CD2	2.10	1.27
18:R:91:LEU:CD1	18:R:92:ASP:HA	1.64	1.27
24:X:29:LYS:HD2	24:X:34:THR:OG1	1.31	1.27
25:Y:18:LEU:CB	25:Y:20:ARG:NH1	1.94	1.27
19:S:11:HIS:HD2	19:S:23:ARG:NH2	1.31	1.27
19:S:42:HIS:CD2	20:T:45:LEU:HD21	1.68	1.27
22:V:24:ILE:HD13	22:V:25:GLY:N	1.45	1.27
4:D:2:ALA:HB3	4:D:3:VAL:CA	1.65	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:1:MET:HE2	7:G:106:LEU:O	1.29	1.26
11:K:30:PRO:O	11:K:31:LYS:HG3	1.13	1.26
18:R:5:ARG:O	18:R:10:LYS:HE2	1.27	1.26
26:Z:112:ASN:O	26:Z:113:THR:HG23	1.23	1.26
4:D:46:THR:OG1	4:D:79:PHE:CZ	1.82	1.26
6:F:25:THR:CG2	6:F:42:LYS:CD	2.12	1.26
16:P:62:LYS:O	16:P:65:LYS:HG2	1.21	1.26
17:Q:25:CYS:SG	17:Q:91:ALA:HB1	1.74	1.26
19:S:117:ILE:O	19:S:118:ARG:HG2	1.12	1.26
33:g:282:GLU:HG3	33:g:283:PRO:CD	1.65	1.26
34:i:1186:A:N3	34:i:1709:U:C2'	1.95	1.26
4:D:35:SER:CA	4:D:99:ILE:HD11	1.63	1.26
6:F:14:THR:OG1	17:Q:56:LEU:HB2	1.35	1.26
10:J:17:ARG:CG	10:J:18:ARG:HD3	1.64	1.26
10:J:37:LEU:O	31:e:105:ARG:HG2	1.29	1.26
11:K:11:ILE:CG2	11:K:49:MET:HE1	1.60	1.26
16:P:49:LEU:O	16:P:51:ARG:HA	1.31	1.26
31:e:125:LYS:C	31:e:126:LYS:HD2	1.60	1.26
34:i:60:A:C2	34:i:326:A:H5"	1.58	1.26
34:i:783:G:O2'	34:i:896:C:H5'	1.36	1.26
34:i:984:C:C1'	34:i:984:C:O4'	1.64	1.26
9:I:161:LEU:CD1	9:I:199:LEU:CD1	2.12	1.26
19:S:8:LYS:HD3	19:S:9:PHE:CE1	1.69	1.26
1:A:176:TRP:CZ2	1:A:195:TRP:CE3	1.94	1.26
33:g:140:TYR:CZ	33:g:182:CYS:CB	2.18	1.26
3:C:138:GLY:O	3:C:141:ILE:HG22	1.32	1.25
5:E:49:ARG:C	5:E:49:ARG:HD3	1.41	1.25
6:F:42:LYS:CB	6:F:45:TYR:H	1.48	1.25
7:G:25:ARG:HG2	7:G:28:TYR:CE2	1.71	1.25
8:H:40:LEU:HD21	8:H:43:LEU:CD1	1.64	1.25
17:Q:57:LEU:HD11	17:Q:115:TYR:CZ	1.71	1.25
3:C:151:ARG:NH1	3:C:240:LEU:HD11	1.51	1.25
5:E:248:ILE:CG1	10:J:72:PHE:CD1	2.16	1.25
19:S:39:ARG:NH2	20:T:38:LYS:HE3	1.43	1.25
23:W:14:ILE:HD12	23:W:72:CYS:SG	1.67	1.25
35:l:45:THR:N	35:l:85:LEU:O	1.68	1.25
2:B:137:LEU:HD21	2:B:215:VAL:CG1	1.65	1.25
6:F:91:ARG:HH11	6:F:94:LYS:CB	1.41	1.25
9:I:157:LYS:HB2	12:L:22:ARG:CD	1.64	1.25
11:K:3:MET:HE1	11:K:8:ARG:CZ	1.66	1.25
12:L:147:LYS:HG3	12:L:148:ALA:CA	1.65	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:38:PRO:CG	17:Q:41:MET:SD	2.23	1.25
18:R:44:LYS:HE3	18:R:47:ARG:NH2	1.48	1.25
19:S:42:HIS:NE2	20:T:45:LEU:HD21	0.94	1.25
32:f:135:HIS:CB	32:f:138:ARG:CG	2.14	1.25
16:P:46:SER:O	16:P:49:LEU:HB2	1.11	1.25
21:U:59:LYS:HB2	21:U:84:ILE:CG2	1.67	1.25
34:i:744:C:C4'	34:i:747:G:H1	1.48	1.25
10:J:37:LEU:O	31:e:105:ARG:CG	1.83	1.25
11:K:83:LEU:CB	11:K:85:LEU:CD2	2.15	1.25
25:Y:78:SER:CB	25:Y:81:TYR:CD2	1.98	1.25
2:B:150:ILE:HG13	18:R:125:GLY:CA	1.65	1.25
9:I:144:LYS:O	9:I:145:ILE:HG12	1.30	1.25
18:R:44:LYS:CE	18:R:47:ARG:NH2	1.98	1.25
34:i:1823:G:C1'	34:i:1844:A:N1	1.90	1.25
3:C:79:ILE:CD1	3:C:147:ILE:HD12	1.66	1.24
3:C:244:THR:HG23	3:C:246:PHE:N	1.51	1.24
12:L:71:ARG:HD3	12:L:73:LEU:CD2	1.66	1.24
25:Y:55:ILE:HG12	25:Y:75:ILE:CD1	1.67	1.24
28:b:33:MET:HA	28:b:81:ARG:O	1.21	1.24
34:i:1186:A:C4	34:i:1709:U:O2'	1.89	1.24
36:n:62:ARG:HG3	36:n:92:ILE:CA	1.66	1.24
5:E:62:LYS:HD3	5:E:80:ILE:CD1	1.67	1.24
11:K:83:LEU:CB	11:K:85:LEU:HD21	1.66	1.24
16:P:126:VAL:CG1	16:P:127:LYS:H	1.47	1.24
17:Q:34:VAL:CG2	17:Q:39:LEU:HD23	1.65	1.24
17:Q:109:LYS:HG3	17:Q:113:ILE:CD1	1.66	1.24
19:S:42:HIS:CD2	20:T:45:LEU:CG	2.19	1.24
25:Y:10:ARG:NE	25:Y:24:VAL:HG11	1.50	1.24
28:b:81:ARG:HB2	28:b:82:LYS:CB	1.67	1.24
34:i:1186:A:H1'	34:i:1709:U:O2'	1.34	1.24
1:A:145:ILE:CD1	1:A:159:ILE:HG21	1.64	1.24
3:C:195:PRO:HB3	3:C:221:PHE:CZ	1.73	1.24
5:E:126:VAL:HG13	5:E:158:ASP:O	1.35	1.24
5:E:208:VAL:CG2	5:E:225:ILE:HD12	1.66	1.24
6:F:28:VAL:HG13	6:F:110:GLN:CD	1.60	1.24
9:I:141:ARG:CD	9:I:144:LYS:CB	2.15	1.24
10:J:17:ARG:CG	10:J:18:ARG:HG2	1.66	1.24
14:N:53:ILE:CD1	28:b:52:THR:HG21	1.68	1.24
1:A:30:LEU:CD1	1:A:38:ILE:CD1	1.96	1.24
2:B:25:PHE:CE2	15:O:88:LEU:HD13	1.62	1.24
14:N:46:THR:OG1	14:N:49:GLN:HG2	1.35	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:95:ILE:CD1	15:O:116:LEU:HD21	1.67	1.24
19:S:138:THR:HA	19:S:141:ARG:NH2	0.93	1.24
25:Y:22:GLN:HB3	25:Y:74:MET:SD	1.78	1.24
31:e:79:SER:C	36:n:84:TYR:CD2	2.14	1.24
34:i:1279:C:C1'	34:i:1279:C:O4'	1.64	1.24
9:I:194:GLU:HG2	12:L:12:LYS:NZ	1.53	1.24
10:J:66:LYS:NZ	34:i:687:G:C1'	1.99	1.24
11:K:60:GLU:CD	11:K:67:PHE:CD1	2.15	1.24
11:K:65:ARG:HB3	11:K:65:ARG:NH1	1.51	1.24
30:d:5:GLN:HB3	30:d:7:TYR:CD2	1.71	1.24
34:i:127:C:C4	34:i:180:G:O2'	1.85	1.24
3:C:69:PHE:HZ	3:C:247:THR:OG1	1.03	1.23
3:C:156:GLY:C	3:C:157:ASN:HD22	1.45	1.23
5:E:62:LYS:CD	5:E:80:ILE:HD11	1.68	1.23
6:F:145:ARG:HG2	29:c:48:GLY:CA	1.67	1.23
9:I:157:LYS:HB3	12:L:22:ARG:CZ	1.68	1.23
18:R:29:HIS:CE1	33:g:65:PHE:CZ	2.26	1.23
19:S:46:ARG:CZ	20:T:50:GLU:HB3	1.66	1.23
19:S:94:LYS:HD3	19:S:96:SER:OG	1.38	1.23
1:A:109:THR:OG1	34:i:1348:G:H5"	1.36	1.23
16:P:128:HIS:CE1	34:i:1516:C:H1'	1.72	1.23
17:Q:8:GLN:HG2	17:Q:99:TYR:CD1	1.73	1.23
10:J:61:LEU:CD2	10:J:98:LEU:HD11	1.68	1.23
17:Q:38:PRO:HD2	17:Q:41:MET:SD	1.76	1.23
17:Q:92:LEU:CD1	17:Q:96:TYR:HE2	1.50	1.23
18:R:1:MET:N	18:R:1:MET:C	1.95	1.23
22:V:1:MET:CE	22:V:10:ASP:HB2	1.68	1.23
25:Y:114:MET:HA	25:Y:124:ASN:ND2	1.54	1.23
30:d:13:LYS:HG2	30:d:14:PHE:CD2	1.73	1.23
2:B:105:LEU:HD12	2:B:110:MET:CE	1.66	1.23
7:G:32:MET:HE1	7:G:100:CYS:CA	1.69	1.23
9:I:161:LEU:CD1	9:I:199:LEU:HD11	1.67	1.23
10:J:28:GLU:OE1	10:J:40:LYS:HD2	1.32	1.23
11:K:71:LEU:CD2	11:K:76:ILE:HD13	1.67	1.23
12:L:118:ARG:HD2	12:L:118:ARG:C	1.57	1.23
13:M:78:LYS:O	13:M:79:VAL:HG23	1.06	1.23
16:P:10:ARG:HH21	16:P:11:THR:CB	1.51	1.23
17:Q:34:VAL:CG2	17:Q:39:LEU:CD2	2.15	1.23
25:Y:120:THR:HB	25:Y:122:LYS:CE	1.67	1.23
36:n:65:LEU:HD23	36:n:92:ILE:O	1.35	1.23
10:J:66:LYS:HE2	34:i:687:G:O2'	1.06	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:27:VAL:CG1	11:K:43:LEU:CD2	1.94	1.23
11:K:40:VAL:HG22	11:K:41:PRO:CD	1.69	1.23
14:N:25:TRP:HB3	28:b:83:GLN:CG	1.69	1.23
17:Q:93:VAL:HG13	17:Q:105:LYS:CD	1.69	1.23
23:W:62:VAL:CG2	28:b:8:LEU:CD2	2.16	1.23
25:Y:34:THR:O	25:Y:35:VAL:HG22	1.09	1.23
3:C:197:LYS:CA	3:C:200:LEU:CD2	2.15	1.22
5:E:47:PHE:CE2	5:E:52:LEU:HD11	1.74	1.22
7:G:195:LYS:HE2	34:i:125:C:O2'	1.38	1.22
25:Y:54:VAL:HG11	25:Y:76:TYR:O	1.35	1.22
33:g:261:LEU:O	33:g:264:LYS:HE3	1.14	1.22
2:B:57:ILE:CD1	2:B:60:ASP:OD1	1.87	1.22
13:M:13:ASP:CB	13:M:16:THR:HB	1.62	1.22
14:N:46:THR:OG1	14:N:49:GLN:CG	1.86	1.22
17:Q:98:LYS:O	33:g:57:ARG:NH2	1.72	1.22
23:W:18:GLU:OE2	23:W:67:GLY:HA2	1.37	1.22
24:X:60:LYS:HG3	24:X:116:PRO:CG	1.68	1.22
11:K:14:LEU:CD2	11:K:35:LEU:CD2	2.18	1.22
12:L:118:ARG:HD2	12:L:118:ARG:O	1.38	1.22
18:R:29:HIS:NE2	33:g:65:PHE:CZ	2.07	1.22
1:A:154:LEU:HD12	22:V:63:GLY:O	1.09	1.22
6:F:36:GLN:HG3	6:F:37:ASP:OD1	1.36	1.22
7:G:63:MET:CE	7:G:106:LEU:CD1	2.17	1.22
17:Q:85:ARG:HH12	17:Q:117:ARG:CG	1.53	1.22
19:S:61:GLU:O	19:S:64:VAL:HG22	1.33	1.22
31:e:80:LEU:HG	36:n:83:ASP:CA	1.55	1.22
2:B:150:ILE:CG1	18:R:124:VAL:HG13	1.69	1.22
4:D:201:LYS:O	4:D:203:PRO:HD2	1.08	1.22
4:D:211:VAL:HG23	18:R:38:ILE:O	1.37	1.22
9:I:141:ARG:CD	9:I:144:LYS:HB3	1.67	1.22
4:D:47:GLU:CG	4:D:85:GLU:OE2	1.85	1.21
8:H:53:VAL:CG2	8:H:57:ARG:O	1.86	1.21
9:I:141:ARG:CB	9:I:144:LYS:CB	2.18	1.21
11:K:71:LEU:CD2	11:K:76:ILE:CD1	2.16	1.21
33:g:7:LEU:CD1	33:g:310:TRP:NE1	2.02	1.21
34:i:1186:A:C2	34:i:1709:U:C1'	2.20	1.21
2:B:113:MET:CE	2:B:209:ASP:OD1	1.86	1.21
4:D:157:MET:HE1	4:D:187:LYS:CD	1.68	1.21
6:F:18:LYS:NZ	6:F:46:ALA:O	1.73	1.21
6:F:204:ARG:HD2	29:c:60:GLU:OE2	1.19	1.21
8:H:146:VAL:CG2	23:W:50:PHE:CE1	2.22	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:136:ILE:O	9:I:139:LYS:HG3	1.04	1.21
17:Q:50:LYS:NZ	17:Q:85:ARG:NH2	1.88	1.21
18:R:33:ARG:HB3	33:g:150:TRP:CZ2	1.74	1.21
32:f:135:HIS:CB	32:f:138:ARG:HG3	1.70	1.21
35:l:30:TYR:CE1	35:l:107:GLN:C	2.17	1.21
6:F:63:LYS:CD	6:F:71:ARG:CZ	2.19	1.21
6:F:141:VAL:HB	29:c:47:LYS:NZ	1.53	1.21
7:G:85:ARG:CD	25:Y:118:ARG:NH2	2.03	1.21
10:J:17:ARG:CB	10:J:18:ARG:HG2	1.71	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
4:D:35:SER:HA	4:D:99:ILE:CD1	1.69	1.21
6:F:76:MET:CE	6:F:169:ILE:HG21	1.68	1.21
11:K:16:PHE:CD2	11:K:79:LEU:CB	2.23	1.21
31:e:124:GLY:O	31:e:125:LYS:HG3	1.39	1.21
35:l:46:THR:C	35:l:83:ILE:O	1.81	1.21
3:C:195:PRO:CB	3:C:221:PHE:HZ	1.54	1.21
5:E:38:LEU:C	5:E:38:LEU:HD12	1.56	1.21
6:F:61:PHE:CE1	29:c:51:ARG:HB3	1.76	1.21
10:J:15:THR:CG2	10:J:44:TRP:CZ3	2.23	1.21
10:J:89:GLU:CA	10:J:92:MET:SD	2.28	1.21
14:N:24:THR:CG2	28:b:84:HIS:HE1	1.50	1.21
25:Y:22:GLN:CB	25:Y:74:MET:SD	2.29	1.21
36:n:62:ARG:CG	36:n:92:ILE:CA	2.17	1.21
2:B:148:ASN:HA	18:R:124:VAL:CG2	1.71	1.20
4:D:218:LEU:CG	4:D:220:THR:HG23	1.69	1.20
12:L:156:GLN:OE1	12:L:158:PHE:CE2	1.92	1.20
15:O:79:GLN:HB3	29:c:5:ARG:CB	1.62	1.20
18:R:105:MET:O	18:R:109:LEU:HG	1.40	1.20
24:X:27:TYR:CZ	24:X:31:HIS:NE2	2.09	1.20
35:l:30:TYR:CD1	35:l:107:GLN:O	1.92	1.20
34:i:227:A:C4'	34:i:782:G:C4'	1.97	1.20
5:E:21:ASP:OD2	5:E:24:THR:CG2	1.90	1.20
5:E:25:SER:HB3	34:i:485:U:O2'	1.41	1.20
5:E:212:ASP:OD1	5:E:216:ASN:HB2	1.41	1.20
14:N:99:ARG:NH2	14:N:115:LEU:HD21	1.56	1.20
21:U:50:VAL:O	21:U:51:LYS:HD2	1.39	1.20
25:Y:32:LYS:CG	25:Y:33:ALA:H	1.55	1.20
2:B:66:VAL:CG2	2:B:87:ILE:CG2	2.15	1.20
6:F:44:LYS:HB3	6:F:45:TYR:CE1	1.76	1.20
9:I:136:ILE:HG23	9:I:139:LYS:CE	1.70	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:126:VAL:HG12	16:P:127:LYS:N	1.34	1.20
25:Y:19:GLN:HG2	25:Y:81:TYR:CD1	1.75	1.20
25:Y:36:PRO:CG	25:Y:39:GLU:CD	2.15	1.20
33:g:194:TYR:CZ	33:g:212:LYS:HD3	1.75	1.20
1:A:11:LYS:CG	1:A:13:GLU:HG2	1.70	1.20
1:A:118:GLU:HB3	3:C:50:LYS:NZ	1.57	1.20
8:H:83:LEU:CD2	8:H:92:VAL:HG11	1.71	1.20
9:I:157:LYS:HB3	12:L:22:ARG:NH1	0.87	1.20
13:M:98:GLY:O	13:M:100:PRO:HD3	1.36	1.20
25:Y:18:LEU:HB3	25:Y:20:ARG:NH1	1.51	1.20
33:g:57:ARG:CD	33:g:94:THR:O	1.90	1.20
4:D:218:LEU:CD1	4:D:220:THR:HG21	1.71	1.19
10:J:177:ASN:O	10:J:180:LYS:HG2	1.22	1.19
12:L:80:MET:HE1	12:L:120:VAL:C	1.58	1.19
15:O:56:VAL:CG1	15:O:81:VAL:CG2	2.18	1.19
19:S:8:LYS:CB	19:S:9:PHE:HD1	1.53	1.19
24:X:126:ALA:CB	24:X:128:VAL:HB	1.71	1.19
26:Z:44:LEU:C	26:Z:44:LEU:HD13	1.65	1.19
26:Z:48:VAL:O	26:Z:83:LEU:HD11	1.36	1.19
1:A:48:ILE:CG1	18:R:105:MET:CE	2.19	1.19
8:H:93:VAL:CG2	8:H:94:PHE:H	1.43	1.19
12:L:147:LYS:HD2	12:L:148:ALA:CA	1.71	1.19
18:R:29:HIS:NE2	33:g:65:PHE:HZ	1.40	1.19
21:U:40:ILE:CD1	21:U:53:PRO:CG	2.13	1.19
24:X:51:VAL:HG13	24:X:70:VAL:HG11	1.22	1.19
25:Y:12:PHE:CZ	25:Y:21:LYS:HB3	1.75	1.19
26:Z:99:LEU:CD2	26:Z:109:TYR:CE1	2.26	1.19
1:A:16:LEU:CD2	18:R:111:PHE:CZ	2.23	1.19
3:C:79:ILE:CD1	3:C:147:ILE:CD1	2.19	1.19
4:D:218:LEU:HG	4:D:220:THR:CG2	1.69	1.19
10:J:17:ARG:HG2	10:J:18:ARG:CG	1.73	1.19
12:L:17:PHE:CZ	12:L:18:GLN:O	1.94	1.19
12:L:103:GLU:OE1	24:X:11:ARG:HB2	1.07	1.19
13:M:85:LEU:HA	13:M:88:TRP:CE3	1.77	1.19
25:Y:102:THR:CG2	25:Y:107:ARG:NE	2.04	1.19
29:c:10:LYS:HD2	29:c:61:SER:CB	1.70	1.19
31:e:82:ARG:N	36:n:82:ARG:CD	2.03	1.19
33:g:162:ASN:ND2	33:g:163:PRO:HD2	1.57	1.19
1:A:141:ASN:C	22:V:32:ILE:CG1	2.16	1.19
6:F:14:THR:CG2	17:Q:56:LEU:CB	2.21	1.19
16:P:41:GLN:NE2	16:P:84:ILE:HB	1.56	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:123:TYR:OH	19:S:124:ARG:NH1	1.76	1.19
17:Q:92:LEU:CD1	17:Q:96:TYR:CE2	2.25	1.19
31:e:80:LEU:N	36:n:82:ARG:HB2	1.04	1.19
31:e:81:ALA:C	36:n:82:ARG:HD2	1.67	1.19
34:i:1206:G:H3'	34:i:1207:G:P	1.83	1.19
34:i:1823:G:O2'	34:i:1844:A:N1	1.72	1.19
1:A:30:LEU:HD21	1:A:35:GLU:CG	1.73	1.19
6:F:61:PHE:CZ	29:c:51:ARG:HB2	1.59	1.19
7:G:32:MET:SD	7:G:100:CYS:CA	2.31	1.19
12:L:149:ALA:CB	12:L:156:GLN:NE2	2.05	1.19
13:M:78:LYS:O	13:M:79:VAL:CG2	1.91	1.19
23:W:62:VAL:CG2	28:b:8:LEU:HD23	1.73	1.19
25:Y:84:LYS:HD2	25:Y:84:LYS:O	1.43	1.19
31:e:81:ALA:CB	36:n:82:ARG:CD	1.91	1.19
33:g:261:LEU:O	33:g:264:LYS:CE	1.89	1.19
2:B:71:LEU:CD1	2:B:84:PHE:HE2	1.55	1.18
3:C:158:LYS:HE2	3:C:158:LYS:O	1.42	1.18
10:J:66:LYS:NZ	34:i:687:G:H1'	1.58	1.18
10:J:134:HIS:CE1	10:J:163:SER:HB2	1.77	1.18
14:N:22:VAL:HB	14:N:23:PRO:HA	1.21	1.18
17:Q:9:SER:CB	17:Q:26:LYS:HE3	1.72	1.18
29:c:67:ARG:C	29:c:68:LEU:HD23	1.66	1.18
7:G:27:PHE:CE2	7:G:41:LEU:HD12	1.79	1.18
12:L:149:ALA:HB2	12:L:156:GLN:CG	1.60	1.18
17:Q:47:LEU:CD2	17:Q:81:ILE:CD1	2.21	1.18
32:f:140:TYR:OH	32:f:146:LEU:HA	1.01	1.18
2:B:150:ILE:HD12	18:R:126:MET:N	1.37	1.18
5:E:159:THR:CG2	5:E:227:VAL:CG2	2.16	1.18
8:H:163:GLN:OE1	8:H:189:PHE:CE2	1.97	1.18
30:d:23:VAL:HG23	30:d:38:MET:CE	1.54	1.18
33:g:8:ARG:HE	33:g:8:ARG:CA	1.55	1.18
1:A:13:GLU:O	1:A:17:LYS:HE3	1.42	1.18
4:D:210:ILE:CD1	18:R:15:VAL:HG11	1.73	1.18
8:H:31:GLU:OE2	8:H:41:ARG:HD2	1.01	1.18
10:J:92:MET:O	10:J:93:LYS:HE3	1.40	1.18
12:L:149:ALA:CB	12:L:156:GLN:HE21	1.55	1.18
14:N:62:GLN:HB2	14:N:65:PHE:CD2	1.78	1.18
16:P:84:ILE:O	16:P:86:LEU:CD2	1.92	1.18
17:Q:38:PRO:CD	17:Q:41:MET:SD	2.32	1.18
19:S:42:HIS:CD2	20:T:45:LEU:CD2	2.25	1.18
28:b:81:ARG:CB	28:b:82:LYS:HB2	1.73	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:f:105:TYR:O	32:f:106:TYR:CD2	1.97	1.18
33:g:100:ARG:HG3	33:g:100:ARG:HH11	1.06	1.18
9:I:194:GLU:CD	12:L:12:LYS:HZ3	1.52	1.18
12:L:80:MET:HE3	12:L:120:VAL:C	1.59	1.18
14:N:25:TRP:CB	28:b:83:GLN:HG2	1.72	1.18
17:Q:58:LEU:CD2	17:Q:111:ILE:CD1	2.22	1.18
22:V:11:LEU:HD12	22:V:12:TYR:CD2	1.65	1.18
28:b:2:PRO:CA	28:b:3:LEU:HD23	1.73	1.18
31:e:114:ARG:O	31:e:119:VAL:HG23	1.33	1.18
32:f:144:CYS:HB3	32:f:147:THR:CG2	1.73	1.18
34:i:1206:G:H3'	34:i:1207:G:O5'	1.41	1.18
34:i:1700:C:H1'	34:i:1845:A:O3'	1.44	1.18
1:A:48:ILE:HD11	18:R:105:MET:SD	1.84	1.17
1:A:120:ARG:HD2	3:C:251:TYR:HE2	1.02	1.17
2:B:137:LEU:CD2	2:B:215:VAL:CG1	2.20	1.17
11:K:16:PHE:HE2	11:K:79:LEU:CB	1.51	1.17
16:P:52:LYS:O	16:P:52:LYS:HD3	1.44	1.17
17:Q:47:LEU:HD22	17:Q:81:ILE:CD1	1.72	1.17
19:S:8:LYS:O	26:Z:49:LEU:CD2	1.92	1.17
19:S:47:LYS:NZ	19:S:78:LYS:HB2	1.59	1.17
20:T:23:LYS:CD	20:T:54:TYR:CD2	2.26	1.17
34:i:1165:G:H4'	34:i:1815:U:C4'	1.71	1.17
1:A:21:ALA:CB	1:A:173:LEU:HD11	1.49	1.17
6:F:91:ARG:NH1	6:F:94:LYS:HB2	1.45	1.17
7:G:175:LYS:HE2	34:i:307:G:H5"	1.21	1.17
8:H:85:LYS:HD2	8:H:85:LYS:C	1.62	1.17
15:O:61:LYS:HE3	15:O:80:ASP:OD2	1.03	1.17
15:O:95:ILE:HD13	15:O:116:LEU:HD21	1.18	1.17
17:Q:47:LEU:CD2	17:Q:81:ILE:HD12	1.72	1.17
18:R:100:PRO:HB2	18:R:119:VAL:HG21	1.24	1.17
23:W:11:LEU:O	23:W:14:ILE:HG12	1.38	1.17
25:Y:92:ALA:N	25:Y:97:TYR:HB3	1.59	1.17
32:f:120:GLU:OE1	32:f:128:ALA:O	1.62	1.17
33:g:20:GLN:CG	33:g:68:ASP:HA	1.74	1.17
7:G:145:PHE:HB3	7:G:147:LEU:CD1	1.73	1.17
9:I:141:ARG:HB2	9:I:144:LYS:CB	1.75	1.17
10:J:10:ARG:NH1	10:J:10:ARG:HB3	1.57	1.17
11:K:18:GLU:O	11:K:92:ALA:CB	1.92	1.17
15:O:128:ARG:HA	27:a:62:TYR:CZ	1.80	1.17
16:P:46:SER:O	16:P:49:LEU:CB	1.91	1.17
19:S:47:LYS:HE3	19:S:77:TYR:O	0.99	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:120:THR:CB	25:Y:122:LYS:HE2	1.73	1.17
34:i:1592:C:H4'	34:i:1598:G:O6	1.40	1.17
3:C:54:LEU:CD1	3:C:258:LEU:HD11	1.69	1.17
4:D:132:LYS:CB	4:D:191:PRO:CG	2.16	1.17
7:G:180:VAL:O	7:G:181:THR:HG22	1.41	1.17
8:H:144:ILE:CB	23:W:52:ILE:CG2	2.22	1.17
11:K:83:LEU:HB3	11:K:85:LEU:HD23	1.20	1.17
14:N:80:LEU:O	14:N:82:PRO:HD3	1.43	1.17
35:l:50:ILE:CG2	35:l:59:LEU:HD12	1.73	1.17
1:A:104:THR:O	1:A:107:THR:HG23	1.38	1.17
1:A:154:LEU:CD1	22:V:63:GLY:O	1.91	1.17
4:D:55:THR:O	4:D:58:VAL:HG22	1.41	1.17
9:I:136:ILE:O	9:I:139:LYS:CG	1.92	1.17
10:J:138:ARG:NH1	10:J:156:HIS:CE1	2.13	1.17
12:L:101:ARG:C	24:X:10:ALA:HB2	1.70	1.17
22:V:11:LEU:HD11	22:V:12:TYR:CE2	1.80	1.17
25:Y:20:ARG:CG	25:Y:74:MET:CE	2.23	1.17
25:Y:63:HIS:CG	25:Y:64:PHE:CE1	2.31	1.17
25:Y:63:HIS:CG	25:Y:64:PHE:HE1	1.62	1.17
25:Y:92:ALA:HA	25:Y:97:TYR:O	1.45	1.17
25:Y:120:THR:HB	25:Y:122:LYS:HE2	1.20	1.17
30:d:5:GLN:HB3	30:d:7:TYR:CE2	1.78	1.17
33:g:144:ASP:C	33:g:145:GLU:HG2	1.64	1.17
4:D:226:GLN:NE2	4:D:226:GLN:HA	1.59	1.16
10:J:143:ASN:O	10:J:145:PRO:HD3	1.41	1.16
12:L:113:LEU:HD11	12:L:120:VAL:HG21	1.25	1.16
20:T:84:ARG:HB2	20:T:84:ARG:NH2	1.59	1.16
28:b:12:PRO:HD2	28:b:13:GLU:H	1.08	1.16
28:b:73:LEU:CD1	28:b:79:PHE:CE2	2.29	1.16
32:f:89:LYS:HG3	32:f:89:LYS:O	1.43	1.16
33:g:57:ARG:NE	33:g:94:THR:O	1.76	1.16
34:i:181:A:C4'	34:i:182:C:H5'	1.75	1.16
34:i:1207:G:N2	34:i:1684:C:C2	2.13	1.16
34:i:1825:A:N3	34:i:1846:C:OP1	1.77	1.16
2:B:148:ASN:C	18:R:124:VAL:HG22	1.64	1.16
2:B:150:ILE:HG12	18:R:124:VAL:CG1	1.75	1.16
3:C:195:PRO:CG	3:C:221:PHE:HZ	1.57	1.16
4:D:56:GLN:O	4:D:59:LEU:HG	1.41	1.16
8:H:53:VAL:HG22	8:H:57:ARG:O	0.98	1.16
9:I:116:HIS:O	9:I:152:ARG:CZ	1.93	1.16
19:S:138:THR:HA	19:S:141:ARG:CZ	1.75	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:77:LYS:CG	20:T:92:PHE:HE2	1.47	1.16
25:Y:7:ILE:HD12	25:Y:43:LYS:HG2	1.19	1.16
26:Z:62:VAL:HG13	26:Z:68:ILE:HD13	1.17	1.16
36:n:62:ARG:CZ	36:n:92:ILE:HD12	1.73	1.16
1:A:141:ASN:CA	22:V:32:ILE:HG12	1.75	1.16
4:D:47:GLU:HG2	4:D:85:GLU:CD	1.71	1.16
4:D:197:LYS:H	4:D:198:ILE:C	1.53	1.16
5:E:19:MET:HE2	34:i:842:G:H2'	1.26	1.16
10:J:66:LYS:HZ1	34:i:687:G:C2'	1.54	1.16
28:b:16:LYS:HA	28:b:23:ARG:NH2	1.59	1.16
34:i:1843:G:N2	35:l:68:ALA:CB	2.03	1.16
1:A:125:THR:O	1:A:147:LEU:HB3	1.41	1.16
4:D:21:LEU:CD1	4:D:48:ILE:HD12	1.74	1.16
4:D:76:ARG:CD	11:K:66:HIS:CE1	2.27	1.16
6:F:36:GLN:HG3	6:F:37:ASP:CG	1.71	1.16
10:J:110:LEU:CD1	10:J:130:ILE:CG1	2.22	1.16
18:R:122:PRO:HB3	18:R:123:THR:CG2	1.75	1.16
20:T:75:MET:HE3	20:T:79:TYR:CE2	1.79	1.16
25:Y:92:ALA:HA	25:Y:97:TYR:C	1.71	1.16
26:Z:85:ARG:NH1	26:Z:85:ARG:HB3	1.60	1.16
36:n:62:ARG:NH1	36:n:92:ILE:CD1	2.07	1.16
1:A:103:PHE:CE2	1:A:136:GLU:OE1	1.99	1.16
3:C:151:ARG:HH12	3:C:240:LEU:CD1	1.57	1.16
3:C:154:TYR:OH	3:C:161:LYS:HA	1.00	1.16
4:D:158:ILE:HD11	4:D:189:MET:CE	1.54	1.16
4:D:177:LEU:CD2	4:D:182:LEU:HD23	1.72	1.16
5:E:70:ILE:HG12	5:E:92:ILE:HD12	1.24	1.16
10:J:17:ARG:HG3	10:J:17:ARG:O	1.41	1.16
15:O:113:GLN:HG3	27:a:46:GLU:CD	1.71	1.16
16:P:10:ARG:HH21	16:P:11:THR:HB	1.06	1.16
16:P:41:GLN:HE22	16:P:45:LEU:CG	1.56	1.16
17:Q:42:ILE:HG21	17:Q:51:LEU:CD2	1.75	1.16
18:R:17:ILE:HG21	18:R:69:ILE:CD1	1.74	1.16
20:T:40:ALA:HB3	20:T:43:LYS:CG	1.73	1.16
21:U:109:GLY:O	21:U:110:VAL:HG23	1.45	1.16
26:Z:99:LEU:CD2	26:Z:102:LYS:HD3	1.73	1.16
33:g:298:LEU:HD12	33:g:298:LEU:O	1.46	1.16
5:E:248:ILE:HB	10:J:72:PHE:CE1	1.81	1.15
6:F:59:LYS:CD	6:F:62:ARG:NH2	1.98	1.15
6:F:63:LYS:HD2	6:F:71:ARG:NH1	1.59	1.15
8:H:143:ARG:HD3	23:W:53:ILE:CG1	1.75	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:62:PHE:HD1	11:K:67:PHE:CZ	1.65	1.15
15:O:113:GLN:HG3	27:a:46:GLU:OE2	1.01	1.15
19:S:39:ARG:NH2	20:T:38:LYS:HZ2	1.36	1.15
22:V:1:MET:HE2	22:V:10:ASP:CB	1.76	1.15
24:X:52:LEU:HD21	24:X:71:ARG:HB3	1.26	1.15
25:Y:20:ARG:CG	25:Y:74:MET:HE3	1.74	1.15
33:g:8:ARG:NE	33:g:8:ARG:HA	1.43	1.15
33:g:118:ARG:NH2	33:g:134:THR:CG2	1.83	1.15
3:C:54:LEU:HD11	3:C:258:LEU:HD11	1.19	1.15
4:D:126:ILE:HD11	4:D:134:CYS:SG	1.86	1.15
6:F:201:LYS:CE	6:F:204:ARG:HH21	1.58	1.15
7:G:98:ARG:HD3	7:G:99:GLY:N	1.61	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:105:THR:O	15:O:106:LYS:HG2	1.45	1.15
16:P:53:GLN:HG2	16:P:80:LEU:HD11	1.26	1.15
17:Q:50:LYS:NZ	17:Q:117:ARG:HD2	1.60	1.15
17:Q:128:GLU:CB	34:i:1644:U:OP1	1.93	1.15
2:B:20:LYS:O	2:B:21:VAL:HG12	1.43	1.15
6:F:25:THR:CG2	6:F:42:LYS:CG	2.06	1.15
6:F:42:LYS:C	6:F:44:LYS:N	1.88	1.15
7:G:232:ARG:HG2	34:i:780:G:OP1	1.43	1.15
11:K:5:LYS:HG3	11:K:5:LYS:O	1.44	1.15
11:K:16:PHE:CD2	11:K:79:LEU:HB2	1.80	1.15
11:K:23:ALA:O	11:K:66:HIS:O	1.64	1.15
13:M:93:LYS:O	13:M:94:ILE:HG22	1.42	1.15
15:O:61:LYS:O	15:O:62:VAL:HG23	1.41	1.15
19:S:139:THR:O	19:S:141:ARG:HG3	1.46	1.15
25:Y:7:ILE:HD12	25:Y:43:LYS:CG	1.76	1.15
33:g:20:GLN:HG3	33:g:68:ASP:CA	1.76	1.15
35:l:46:THR:CA	35:l:83:ILE:O	1.93	1.15
3:C:82:PHE:O	3:C:83:LEU:HD12	1.43	1.15
4:D:132:LYS:CA	4:D:191:PRO:CG	2.25	1.15
7:G:16:ILE:CD1	7:G:45:TRP:HZ2	1.60	1.15
8:H:93:VAL:HG23	8:H:94:PHE:H	1.11	1.15
11:K:40:VAL:HG22	11:K:41:PRO:N	1.59	1.15
12:L:157:LYS:C	12:L:158:PHE:CD2	2.25	1.15
13:M:94:ILE:HG23	13:M:95:ASP:N	1.45	1.15
14:N:87:ASP:OD2	14:N:129:TYR:OH	1.64	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)
21:U:67:LYS:HG2	21:U:78:ASP:OD2	1.45	1.15
25:Y:122:LYS:HD3	25:Y:123:ALA:H	1.05	1.15
34:i:1207:G:N2	34:i:1684:C:N1	1.95	1.15
34:i:1824:U:C6	34:i:1845:A:H2	1.63	1.15
35:l:50:ILE:CG2	35:l:59:LEU:CD1	2.23	1.15
2:B:26:SER:O	2:B:27:LYS:HG3	1.44	1.15
2:B:137:LEU:HD22	2:B:215:VAL:CG2	1.77	1.15
3:C:70:SER:O	22:V:29:HIS:ND1	1.78	1.15
3:C:244:THR:HG22	3:C:246:PHE:CD2	1.81	1.15
4:D:47:GLU:HG2	4:D:85:GLU:OE2	1.41	1.15
10:J:89:GLU:CA	10:J:92:MET:HB2	1.77	1.15
11:K:30:PRO:O	11:K:31:LYS:CG	1.94	1.15
24:X:71:ARG:HG2	24:X:82:THR:HG22	1.29	1.15
24:X:126:ALA:HB3	24:X:128:VAL:HB	1.15	1.15
30:d:5:GLN:CB	30:d:7:TYR:CE2	2.29	1.15
33:g:219:TRP:CZ3	33:g:226:HIS:HD2	1.63	1.15
6:F:39:ILE:HG23	6:F:68:ILE:HG21	1.20	1.14
10:J:169:ARG:HB3	10:J:170:PRO:CD	1.77	1.14
12:L:101:ARG:O	24:X:10:ALA:CB	1.92	1.14
14:N:13:GLN:OE1	28:b:21:LYS:HE2	1.46	1.14
14:N:28:LEU:O	14:N:29:THR:HG23	1.45	1.14
16:P:44:ARG:NH2	16:P:84:ILE:H	1.45	1.14
16:P:123:TYR:CD2	19:S:120:HIS:HE1	1.65	1.14
20:T:77:LYS:CB	20:T:94:ARG:HD3	1.75	1.14
34:i:181:A:H4'	34:i:182:C:C5'	1.76	1.14
1:A:5:LEU:HD13	1:A:6:ASP:N	1.59	1.14
2:B:25:PHE:CD2	15:O:88:LEU:HD22	1.83	1.14
4:D:210:ILE:CD1	18:R:15:VAL:HG12	1.74	1.14
4:D:218:LEU:CB	4:D:220:THR:CG2	2.25	1.14
5:E:98:ASN:ND2	5:E:119:ALA:CB	2.10	1.14
6:F:42:LYS:O	6:F:44:LYS:N	1.77	1.14
13:M:94:ILE:CG2	13:M:95:ASP:H	1.56	1.14
15:O:79:GLN:CB	29:c:5:ARG:HB3	1.67	1.14
20:T:46:ALA:HB1	20:T:47:PRO:CD	1.76	1.14
31:e:80:LEU:HG	36:n:83:ASP:N	1.63	1.14
33:g:152:SER:OG	33:g:168:CYS:SG	2.05	1.14
33:g:294:ASP:O	33:g:296:GLN:N	1.80	1.14
1:A:5:LEU:HB3	22:V:41:LYS:HE2	1.18	1.14
2:B:57:ILE:HD13	2:B:60:ASP:OD1	0.96	1.14
4:D:176:LEU:H	4:D:176:LEU:HD12	1.13	1.14
5:E:100:ARG:HD3	5:E:102:ILE:CD1	1.78	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:208:VAL:HG21	5:E:225:ILE:HD12	1.24	1.14
8:H:85:LYS:HD2	8:H:85:LYS:O	1.43	1.14
11:K:60:GLU:OE1	11:K:67:PHE:CE1	1.98	1.14
14:N:125:LEU:HD13	14:N:129:TYR:CE2	1.83	1.14
17:Q:50:LYS:HZ1	17:Q:117:ARG:CD	1.60	1.14
17:Q:58:LEU:HD23	17:Q:111:ILE:HD13	1.25	1.14
19:S:139:THR:O	19:S:141:ARG:CG	1.95	1.14
6:F:176:GLU:OE1	6:F:187:SER:OG	1.63	1.14
7:G:63:MET:HE1	7:G:106:LEU:CD1	1.73	1.14
9:I:58:LEU:HD11	34:i:1735:C:H5"	1.29	1.14
10:J:48:PHE:CZ	10:J:52:LYS:NZ	2.16	1.14
10:J:125:HIS:CD2	10:J:129:LEU:HD11	1.81	1.14
12:L:76:VAL:HG12	12:L:125:ILE:CD1	1.78	1.14
17:Q:85:ARG:NH1	17:Q:117:ARG:HG2	1.62	1.14
17:Q:109:LYS:CG	17:Q:113:ILE:HD12	1.76	1.14
21:U:109:GLY:O	21:U:110:VAL:CG2	1.95	1.14
32:f:102:VAL:HG12	32:f:103:LEU:N	1.52	1.14
34:i:181:A:C8	34:i:182:C:C4	2.36	1.14
36:n:42:LEU:HD11	36:n:58:LEU:HD12	1.30	1.14
1:A:103:PHE:CZ	1:A:136:GLU:OE1	2.00	1.14
6:F:34:SER:CB	29:c:55:VAL:HB	1.76	1.14
6:F:93:VAL:O	6:F:97:PHE:CD1	2.01	1.14
7:G:181:THR:OG1	7:G:182:PRO:HD2	1.48	1.14
8:H:65:PRO:HD2	8:H:68:GLN:OE1	1.42	1.14
11:K:62:PHE:CD1	11:K:67:PHE:CE2	2.36	1.14
12:L:153:LYS:HG3	14:N:131:THR:O	1.40	1.14
16:P:53:GLN:NE2	16:P:80:LEU:HD13	1.60	1.14
19:S:8:LYS:CD	19:S:9:PHE:HE1	1.60	1.14
33:g:5:MET:CE	33:g:312:VAL:HG13	1.78	1.14
33:g:191:HIS:CG	33:g:195:LEU:HD21	1.81	1.14
35:l:44:LEU:HD23	35:l:86:GLN:HG2	1.15	1.14
1:A:118:GLU:CB	3:C:50:LYS:HZ1	1.59	1.13
7:G:41:LEU:HD21	7:G:45:TRP:CZ3	1.62	1.13
7:G:85:ARG:CD	25:Y:118:ARG:CZ	2.25	1.13
10:J:61:LEU:HD13	10:J:94:LEU:CD1	1.76	1.13
10:J:170:PRO:CG	10:J:175:ARG:CG	2.26	1.13
16:P:33:LEU:HD22	16:P:87:PRO:CG	1.78	1.13
21:U:61:LEU:CD2	30:d:34:TYR:OH	1.96	1.13
24:X:99:GLU:O	24:X:100:VAL:HG13	1.45	1.13
25:Y:54:VAL:CG1	25:Y:76:TYR:O	1.95	1.13
33:g:119:GLN:NE2	33:g:121:VAL:CG2	2.10	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1823:G:O2'	34:i:1844:A:N6	1.81	1.13
2:B:25:PHE:CZ	15:O:88:LEU:HD13	1.83	1.13
4:D:212:GLU:CG	18:R:19:LYS:CD	2.25	1.13
6:F:47:LYS:HG3	17:Q:117:ARG:NH2	1.63	1.13
10:J:37:LEU:HD11	10:J:42:GLU:CB	1.77	1.13
10:J:91:LYS:HA	10:J:96:TYR:CB	1.78	1.13
21:U:36:CYS:SG	21:U:53:PRO:HB3	1.89	1.13
31:e:80:LEU:CG	36:n:83:ASP:HB2	1.77	1.13
32:f:108:VAL:HG22	32:f:114:ILE:CG2	1.77	1.13
4:D:70:THR:HG22	4:D:86:LEU:HD13	1.31	1.13
4:D:76:ARG:CZ	11:K:66:HIS:CE1	2.30	1.13
7:G:157:VAL:HG11	7:G:159:ARG:HG2	1.17	1.13
10:J:89:GLU:HA	10:J:92:MET:HB2	1.21	1.13
15:O:19:PRO:HG2	15:O:27:VAL:CG2	1.62	1.13
18:R:122:PRO:HA	18:R:123:THR:HG23	1.13	1.13
25:Y:93:ARG:HG2	25:Y:93:ARG:HH11	1.02	1.13
26:Z:48:VAL:CG2	26:Z:80:ARG:HD3	1.77	1.13
33:g:5:MET:HE1	33:g:312:VAL:CG1	1.78	1.13
1:A:32:PHE:CE1	1:A:33:GLN:HG2	1.83	1.13
2:B:150:ILE:HD11	18:R:126:MET:N	1.54	1.13
5:E:100:ARG:HD3	5:E:102:ILE:HD11	1.20	1.13
5:E:129:ILE:HG12	5:E:139:LEU:HD21	1.19	1.13
5:E:129:ILE:HG13	5:E:139:LEU:CD2	1.70	1.13
8:H:8:ILE:CG2	8:H:9:VAL:HG22	1.79	1.13
31:e:82:ARG:CG	36:n:82:ARG:HE	1.61	1.13
35:l:46:THR:HA	35:l:83:ILE:O	1.48	1.13
3:C:260:LYS:HD2	3:C:261:THR:HG22	1.18	1.13
4:D:195:SER:HA	4:D:197:LYS:O	1.49	1.13
7:G:14:LYS:NZ	7:G:123:GLY:CA	2.11	1.12
8:H:12:ASN:ND2	8:H:46:THR:OG1	1.81	1.13
9:I:157:LYS:CB	12:L:22:ARG:HD3	1.78	1.13
3:C:51:LEU:HD13	3:C:78:ILE:HD13	1.30	1.12
3:C:154:TYR:OH	3:C:162:PRO:HD3	1.49	1.12
4:D:158:ILE:HD13	4:D:189:MET:CE	1.73	1.12
13:M:12:MET:HE1	13:M:120:ALA:CB	1.78	1.12
17:Q:57:LEU:HD11	17:Q:115:TYR:CE2	1.83	1.12
18:R:100:PRO:HG2	18:R:119:VAL:HG22	1.28	1.12
19:S:46:ARG:NH2	20:T:50:GLU:CB	2.12	1.12
31:e:120:VAL:N	31:e:121:PRO:HD2	1.61	1.12
33:g:87:LEU:HD12	33:g:101:PHE:HB2	1.14	1.12
34:i:1186:A:H2'	34:i:1709:U:H4'	1.30	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:197:LYS:O	3:C:200:LEU:HG	1.48	1.12
17:Q:57:LEU:CD1	17:Q:115:TYR:CE2	2.31	1.12
17:Q:85:ARG:NH2	17:Q:117:ARG:HG2	1.63	1.12
17:Q:128:GLU:HB2	34:i:1644:U:OP1	0.96	1.12
18:R:1:MET:CB	18:R:1:MET:HA	1.68	1.12
19:S:47:LYS:CE	19:S:77:TYR:O	1.95	1.12
33:g:12:LYS:CD	33:g:13:GLY:CA	2.22	1.12
4:D:166:TYR:CD1	4:D:200:PRO:HB2	1.84	1.12
15:O:124:MET:O	27:a:56:VAL:HG13	1.46	1.12
23:W:36:ARG:HD3	23:W:110:ILE:HD12	1.28	1.12
33:g:20:GLN:HE21	33:g:68:ASP:CG	1.57	1.12
33:g:172:LYS:HE2	33:g:191:HIS:O	0.96	1.12
34:i:181:A:H4'	34:i:182:C:H5'	1.29	1.12
1:A:48:ILE:CD1	18:R:105:MET:SD	2.37	1.12
3:C:260:LYS:CG	3:C:261:THR:H	1.56	1.12
4:D:12:VAL:CG1	30:d:36:LEU:CD1	1.97	1.12
4:D:16:ILE:HG21	30:d:22:ARG:HH22	1.15	1.12
6:F:14:THR:HG22	17:Q:56:LEU:HD22	1.15	1.12
13:M:116:LYS:O	13:M:117:GLU:HB2	1.43	1.12
15:O:99:ALA:H	15:O:133:THR:CG2	1.60	1.12
18:R:29:HIS:CE1	33:g:65:PHE:HZ	1.64	1.12
18:R:91:LEU:H	18:R:91:LEU:HD12	1.10	1.12
24:X:105:PHE:HE2	24:X:119:ARG:CA	1.61	1.12
26:Z:62:VAL:HG13	26:Z:68:ILE:CD1	1.78	1.12
28:b:12:PRO:O	28:b:16:LYS:CD	1.96	1.12
33:g:48:ASP:OD2	33:g:49:GLU:HB2	1.46	1.12
34:i:1206:G:C5	34:i:1207:G:O4'	1.86	1.12
1:A:106:GLY:HA2	34:i:1348:G:H5'	1.12	1.12
1:A:186:ARG:HG2	1:A:186:ARG:HH11	1.01	1.12
3:C:60:ILE:O	3:C:82:PHE:CE1	2.03	1.12
4:D:132:LYS:CA	4:D:191:PRO:HG3	1.80	1.12
4:D:212:GLU:HG2	18:R:19:LYS:CD	1.80	1.12
5:E:153:LEU:HD23	7:G:216:ARG:HH22	1.08	1.12
5:E:248:ILE:HD11	10:J:72:PHE:CG	1.79	1.12
6:F:14:THR:HG23	17:Q:56:LEU:HB3	1.28	1.12
6:F:204:ARG:NH1	29:c:60:GLU:CD	2.08	1.12
7:G:32:MET:CE	7:G:100:CYS:CA	2.27	1.12
8:H:144:ILE:CD1	23:W:52:ILE:HG21	1.79	1.12
10:J:169:ARG:HB3	10:J:170:PRO:HD2	1.17	1.12
16:P:49:LEU:HA	16:P:51:ARG:HG3	1.29	1.12
28:b:12:PRO:O	28:b:16:LYS:HG2	1.49	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5:LEU:CB	22:V:41:LYS:HE2	1.79	1.11
1:A:120:ARG:HD2	3:C:251:TYR:CE2	1.84	1.11
1:A:133:PRO:HD2	1:A:134:LEU:H	1.03	1.11
3:C:234:SER:HA	22:V:23:ILE:CD1	1.78	1.11
4:D:195:SER:O	4:D:197:LYS:HG2	1.48	1.11
5:E:248:ILE:CB	10:J:72:PHE:CE1	2.33	1.11
6:F:49:LEU:HD12	6:F:50:PRO:HD2	1.29	1.11
8:H:83:LEU:CD1	8:H:92:VAL:CB	2.27	1.11
9:I:194:GLU:CG	12:L:12:LYS:NZ	2.13	1.11
10:J:114:VAL:HG12	10:J:120:ALA:HB2	1.23	1.11
12:L:4:ILE:HD12	12:L:4:ILE:N	1.60	1.11
12:L:147:LYS:C	12:L:147:LYS:HD3	1.73	1.11
15:O:136:PRO:O	15:O:138:ASP:N	1.81	1.11
16:P:41:GLN:NE2	16:P:45:LEU:HG	1.65	1.11
19:S:58:GLU:O	19:S:59:LEU:HD22	1.50	1.11
23:W:93:LEU:HD21	23:W:128:PHE:CD2	1.84	1.11
25:Y:34:THR:O	25:Y:35:VAL:CG2	1.97	1.11
28:b:2:PRO:HA	28:b:3:LEU:HD23	1.23	1.11
33:g:286:CYS:HB2	33:g:302:TYR:CZ	1.85	1.11
1:A:106:GLY:HA3	34:i:1347:G:O2'	1.50	1.11
3:C:101:THR:HG21	3:C:103:ALA:O	1.42	1.11
5:E:89:VAL:O	5:E:99:PHE:O	1.68	1.11
10:J:70:ARG:HH21	10:J:94:LEU:HD21	1.02	1.11
17:Q:109:LYS:HG3	17:Q:113:ILE:HD12	1.23	1.11
35:l:47:VAL:HB	35:l:83:ILE:CB	1.80	1.11
36:n:65:LEU:CG	36:n:93:LEU:HA	1.80	1.11
2:B:57:ILE:HD13	2:B:60:ASP:CG	1.65	1.11
2:B:105:LEU:CD1	2:B:110:MET:HE2	1.80	1.11
4:D:218:LEU:HD12	4:D:220:THR:HG21	1.19	1.11
7:G:184:VAL:HG12	7:G:188:LYS:HE2	1.33	1.11
9:I:154:LYS:HG3	9:I:155:ASN:H	1.16	1.11
10:J:170:PRO:CG	10:J:175:ARG:HG3	1.80	1.11
12:L:147:LYS:HD2	12:L:148:ALA:HA	1.12	1.11
17:Q:85:ARG:HD3	17:Q:119:LEU:HD23	1.24	1.11
17:Q:102:GLU:OE1	33:g:55:PRO:CG	1.98	1.11
20:T:31:PRO:HB3	20:T:33:TRP:CZ2	1.83	1.11
22:V:32:ILE:HD12	22:V:60:ARG:NH1	1.66	1.11
26:Z:69:THR:HB	26:Z:70:PRO:HD3	1.24	1.11
27:a:58:VAL:HG12	27:a:59:PHE:N	1.61	1.11
33:g:286:CYS:HB2	33:g:302:TYR:CE2	1.86	1.11
34:i:744:C:H4'	34:i:747:G:N1	1.45	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:30:TYR:CD1	35:l:107:GLN:HA	1.85	1.11
1:A:66:VAL:HG22	1:A:186:ARG:HD3	1.14	1.11
1:A:106:GLY:O	1:A:113:GLN:OE1	1.67	1.11
4:D:214:LYS:HG3	4:D:215:ASP:OD2	1.48	1.11
6:F:167:LYS:HD3	6:F:171:GLU:HG3	1.30	1.11
7:G:16:ILE:CD1	7:G:45:TRP:CZ2	2.33	1.11
10:J:38:ARG:NH2	31:e:104:GLY:N	1.90	1.11
16:P:11:THR:O	16:P:12:PHE:HB2	1.47	1.11
16:P:41:GLN:CB	16:P:84:ILE:HG12	1.80	1.11
17:Q:44:PRO:HG2	17:Q:81:ILE:HD11	1.27	1.11
24:X:60:LYS:HG3	24:X:116:PRO:HG2	1.26	1.11
24:X:67:ARG:O	24:X:68:LYS:HG3	1.50	1.11
34:i:1207:G:C4	34:i:1684:C:N3	1.97	1.11
1:A:30:LEU:CD2	1:A:35:GLU:HG3	1.80	1.11
1:A:118:GLU:CB	3:C:50:LYS:NZ	2.11	1.11
2:B:160:GLN:NE2	2:B:205:TYR:CD1	2.18	1.11
5:E:99:PHE:CE1	5:E:113:ARG:CG	2.34	1.11
6:F:42:LYS:O	6:F:44:LYS:CA	1.98	1.11
11:K:28:HIS:CE1	30:d:8:TRP:NE1	2.18	1.11
18:R:17:ILE:HG22	18:R:69:ILE:HD11	1.14	1.11
29:c:21:THR:HG22	29:c:22:GLY:H	0.95	1.11
33:g:32:LEU:HB2	33:g:71:ILE:HD11	1.26	1.11
33:g:172:LYS:CD	33:g:191:HIS:O	1.98	1.11
33:g:282:GLU:HG3	33:g:283:PRO:HD3	1.24	1.11
1:A:109:THR:OG1	34:i:1348:G:C5'	1.99	1.10
2:B:83:LYS:NZ	15:O:130:GLU:OE1	1.82	1.10
3:C:55:VAL:CG2	3:C:82:PHE:HE2	1.63	1.10
3:C:260:LYS:HG3	3:C:261:THR:H	1.09	1.10
6:F:116:ILE:HD13	6:F:116:ILE:N	1.64	1.10
7:G:142:ARG:HD3	7:G:147:LEU:HB2	1.15	1.10
16:P:10:ARG:NH2	16:P:11:THR:HB	1.66	1.10
18:R:1:MET:CB	18:R:2:GLY:N	2.13	1.10
18:R:122:PRO:CB	18:R:123:THR:CG2	2.29	1.10
22:V:17:CYS:SG	22:V:56:CYS:CB	2.37	1.10
28:b:2:PRO:C	28:b:3:LEU:HD23	1.76	1.10
33:g:298:LEU:HD11	33:g:310:TRP:CE3	1.85	1.10
5:E:208:VAL:HG11	5:E:225:ILE:HD13	1.27	1.10
6:F:41:VAL:HG22	6:F:42:LYS:CD	1.80	1.10
6:F:61:PHE:HZ	29:c:51:ARG:CB	1.37	1.10
8:H:8:ILE:HG23	8:H:9:VAL:CG2	1.80	1.10
8:H:143:ARG:HE	23:W:53:ILE:HG23	1.10	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:146:VAL:CG2	23:W:50:PHE:CZ	2.32	1.10
14:N:38:TYR:CD1	14:N:78:LYS:HD2	1.86	1.10
14:N:125:LEU:HD13	14:N:129:TYR:HE2	1.11	1.10
15:O:35:ALA:HB2	15:O:112:ALA:HB2	1.33	1.10
17:Q:85:ARG:CZ	17:Q:117:ARG:HG2	1.82	1.10
17:Q:92:LEU:HD11	17:Q:96:TYR:CE2	1.85	1.10
20:T:143:LYS:HD2	20:T:144:LYS:N	1.65	1.10
28:b:33:MET:HE2	28:b:35:VAL:HG22	1.12	1.10
2:B:135:LEU:HD21	2:B:217:MET:SD	1.91	1.10
4:D:218:LEU:HB2	4:D:220:THR:CG2	1.82	1.10
5:E:47:PHE:CZ	5:E:52:LEU:HD11	1.86	1.10
5:E:208:VAL:CB	5:E:225:ILE:HD11	1.68	1.10
7:G:41:LEU:CD2	7:G:45:TRP:HZ3	1.37	1.10
7:G:50:VAL:HG12	7:G:111:LEU:HD22	1.31	1.10
8:H:10:LYS:HE3	8:H:17:ASP:H	1.00	1.10
14:N:28:LEU:O	14:N:29:THR:CG2	1.99	1.10
15:O:56:VAL:HG12	15:O:81:VAL:HG22	1.31	1.10
18:R:91:LEU:HD12	18:R:91:LEU:N	1.66	1.10
21:U:50:VAL:HG13	21:U:51:LYS:H	0.99	1.10
26:Z:103:HIS:CD2	26:Z:105:ALA:HB3	1.86	1.10
31:e:81:ALA:C	36:n:82:ARG:CD	2.23	1.10
34:i:1206:G:H8	34:i:1207:G:P	1.58	1.10
34:i:1700:C:H1'	34:i:1846:C:P	1.91	1.10
35:l:30:TYR:CD1	35:l:107:GLN:CA	2.34	1.10
10:J:110:LEU:HD12	10:J:130:ILE:CD1	1.74	1.10
11:K:11:ILE:HG21	11:K:49:MET:CE	1.71	1.10
12:L:80:MET:HE3	12:L:120:VAL:O	1.27	1.10
16:P:107:ILE:HA	16:P:111:MET:CE	1.80	1.10
18:R:20:TYR:CZ	18:R:38:ILE:CB	2.33	1.10
18:R:122:PRO:CA	18:R:123:THR:CG2	2.29	1.10
19:S:58:GLU:C	19:S:59:LEU:CD1	2.22	1.10
19:S:124:ARG:HD3	19:S:130:ARG:O	1.52	1.10
19:S:138:THR:CA	19:S:141:ARG:HH21	1.53	1.10
20:T:18:LEU:HD13	20:T:134:ILE:HD13	1.22	1.10
25:Y:62:THR:HG22	25:Y:69:THR:CG2	1.80	1.10
33:g:282:GLU:CG	33:g:283:PRO:CD	2.29	1.10
3:C:102:GLN:HG3	3:C:103:ALA:H	1.04	1.10
4:D:47:GLU:HG2	4:D:85:GLU:CG	1.82	1.10
6:F:185:SER:HA	6:F:190:ILE:HG21	1.11	1.10
7:G:50:VAL:HG11	7:G:111:LEU:HD13	1.19	1.10
7:G:63:MET:HE1	7:G:106:LEU:HD11	1.16	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:69:SER:HB3	12:L:19:ASN:HD21	1.11	1.10
9:I:114:GLU:OE1	9:I:133:GLU:HG3	1.50	1.10
15:O:20:GLN:HG2	15:O:21:VAL:N	1.61	1.10
17:Q:85:ARG:HD3	17:Q:119:LEU:CD2	1.81	1.10
19:S:46:ARG:CZ	20:T:50:GLU:CB	2.30	1.10
21:U:59:LYS:HB2	21:U:84:ILE:HG22	1.21	1.10
24:X:139:GLU:C	24:X:141:PRO:HD3	1.76	1.10
25:Y:7:ILE:CD1	25:Y:43:LYS:CG	2.30	1.10
25:Y:10:ARG:HG2	25:Y:24:VAL:HB	1.31	1.10
26:Z:99:LEU:CD1	26:Z:102:LYS:CE	2.14	1.10
28:b:73:LEU:HD12	28:b:79:PHE:CE2	1.87	1.10
33:g:7:LEU:HD11	33:g:310:TRP:HE1	1.02	1.10
36:n:62:ARG:HG2	36:n:92:ILE:HA	1.29	1.10
2:B:25:PHE:CD2	15:O:88:LEU:CD2	2.34	1.09
3:C:142:LEU:HA	3:C:145:LEU:HD21	1.26	1.09
4:D:211:VAL:CG2	18:R:38:ILE:C	2.24	1.09
4:D:212:GLU:HB2	4:D:213:PRO:HD2	1.28	1.09
7:G:176:ILE:HG22	7:G:179:LEU:HB3	1.25	1.09
8:H:144:ILE:HD12	23:W:52:ILE:CG2	1.82	1.09
10:J:91:LYS:HA	10:J:96:TYR:HB2	1.29	1.09
10:J:179:LYS:HG2	10:J:182:GLN:OE1	1.50	1.09
16:P:53:GLN:CG	16:P:80:LEU:HD13	1.74	1.09
16:P:108:LYS:O	16:P:111:MET:HG3	1.51	1.09
21:U:103:SER:O	21:U:106:ILE:CG2	1.99	1.09
34:i:60:A:C6	34:i:326:A:H5'	1.84	1.09
36:n:78:LEU:HD23	36:n:93:LEU:CD2	1.80	1.09
2:B:113:MET:HE3	2:B:209:ASP:OD1	0.93	1.09
4:D:132:LYS:H	4:D:191:PRO:HD3	1.06	1.09
5:E:129:ILE:CG1	5:E:139:LEU:HD23	1.73	1.09
9:I:85:ALA:HB1	12:L:8:ARG:HH11	1.11	1.09
9:I:136:ILE:HG23	9:I:139:LYS:HE3	1.14	1.09
9:I:141:ARG:HD2	9:I:144:LYS:HB3	1.19	1.09
10:J:119:LEU:N	10:J:119:LEU:HD23	1.64	1.09
16:P:44:ARG:HH21	16:P:84:ILE:HB	1.10	1.09
16:P:121:ILE:CG2	19:S:123:LEU:HD12	1.80	1.09
17:Q:8:GLN:CB	17:Q:99:TYR:CE1	2.35	1.09
17:Q:54:PRO:HG3	17:Q:88:ILE:CD1	1.81	1.09
17:Q:105:LYS:O	17:Q:105:LYS:HD2	1.50	1.09
22:V:55:ILE:HD13	22:V:65:SER:HA	1.25	1.09
26:Z:48:VAL:HG22	26:Z:80:ARG:CD	1.82	1.09
1:A:48:ILE:CD1	18:R:105:MET:CE	2.29	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:185:MET:CE	22:V:39:VAL:HG12	1.82	1.09
2:B:36:PRO:CB	2:B:231:LEU:HD21	1.82	1.09
2:B:105:LEU:HD11	2:B:213:ARG:HB2	1.17	1.09
5:E:92:ILE:HB	5:E:97:GLU:OE1	1.52	1.09
6:F:76:MET:HE1	6:F:169:ILE:HG21	1.32	1.09
6:F:78:MET:O	6:F:79:HIS:HB2	1.44	1.09
7:G:176:ILE:HG21	7:G:179:LEU:HD22	1.12	1.09
9:I:25:ARG:CD	9:I:27:TYR:CE2	2.24	1.09
10:J:66:LYS:HZ1	34:i:687:G:H2'	1.03	1.09
10:J:115:PHE:HD1	10:J:122:SER:N	1.48	1.09
11:K:71:LEU:HD21	11:K:76:ILE:HD13	1.18	1.09
15:O:99:ALA:N	15:O:133:THR:HG22	1.68	1.09
16:P:126:VAL:CG1	16:P:127:LYS:N	2.06	1.09
17:Q:19:ALA:HB2	17:Q:74:GLY:O	1.50	1.09
17:Q:30:GLY:O	17:Q:31:LEU:HD12	1.52	1.09
22:V:11:LEU:HD12	22:V:12:TYR:HD2	0.94	1.09
25:Y:63:HIS:HB3	25:Y:64:PHE:CD1	1.86	1.09
30:d:27:ARG:HH11	30:d:27:ARG:CB	1.66	1.09
33:g:5:MET:HE1	33:g:312:VAL:HG13	1.25	1.09
33:g:232:GLY:HA2	33:g:257:LYS:HZ2	1.16	1.09
34:i:1819:A:H3'	36:n:44:ASN:CB	1.81	1.09
1:A:45:GLY:O	1:A:46:ILE:HG12	1.49	1.09
2:B:150:ILE:CG1	18:R:125:GLY:N	2.14	1.09
4:D:197:LYS:HB2	4:D:198:ILE:HG13	1.15	1.09
5:E:208:VAL:CG2	5:E:225:ILE:CD1	2.28	1.09
8:H:36:LEU:HD12	8:H:36:LEU:O	1.51	1.09
8:H:83:LEU:HD11	8:H:92:VAL:HB	1.16	1.09
9:I:141:ARG:HB2	9:I:144:LYS:HB2	1.09	1.09
9:I:141:ARG:O	9:I:143:LYS:HE2	1.50	1.09
10:J:89:GLU:CA	10:J:92:MET:CG	2.29	1.09
12:L:149:ALA:CB	12:L:156:GLN:CB	2.17	1.09
14:N:38:TYR:CE2	14:N:74:ILE:CG2	2.34	1.09
14:N:62:GLN:HB2	14:N:65:PHE:HD2	1.07	1.09
16:P:49:LEU:CD1	16:P:51:ARG:NE	2.03	1.09
21:U:64:THR:HG22	21:U:79:ARG:HG2	1.09	1.09
23:W:11:LEU:O	23:W:14:ILE:CG1	1.99	1.09
25:Y:51:THR:HB	25:Y:52:PRO:HD3	1.34	1.09
30:d:5:GLN:CG	30:d:7:TYR:CE2	2.36	1.09
33:g:284:PRO:O	33:g:302:TYR:HD1	1.35	1.09
35:l:50:ILE:HD11	35:l:102:LEU:HD23	1.15	1.09
1:A:58:LEU:HD23	1:A:178:LEU:CD2	1.74	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
4:D:2:ALA:CB	4:D:3:VAL:CA	2.29	1.09
4:D:197:LYS:CB	4:D:198:ILE:CG1	2.30	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
9:I:114:GLU:OE1	9:I:133:GLU:CG	2.00	1.09
9:I:154:LYS:HE2	9:I:154:LYS:CA	1.66	1.09
11:K:40:VAL:CG2	11:K:41:PRO:CD	2.30	1.09
11:K:71:LEU:HD23	11:K:76:ILE:CD1	1.81	1.09
12:L:147:LYS:CD	12:L:148:ALA:CA	2.29	1.09
12:L:157:LYS:C	12:L:158:PHE:HD2	1.56	1.09
13:M:124:ILE:HA	13:M:127:TYR:CD2	1.88	1.09
16:P:41:GLN:HG3	16:P:84:ILE:HG21	1.13	1.09
17:Q:102:GLU:OE1	33:g:55:PRO:CB	1.94	1.09
19:S:94:LYS:HD3	19:S:96:SER:HG	0.97	1.09
20:T:84:ARG:HH21	20:T:84:ARG:CG	1.66	1.09
21:U:61:LEU:HD23	30:d:34:TYR:OH	1.53	1.09
23:W:104:LEU:CD1	23:W:106:THR:HG23	1.83	1.09
26:Z:99:LEU:HD22	26:Z:102:LYS:HD3	1.19	1.09
33:g:275:ILE:HD12	33:g:276:SER:N	1.66	1.09
34:i:1824:U:C6	34:i:1845:A:C2	2.40	1.09
3:C:87:LEU:HD21	3:C:115:ILE:HG23	1.16	1.08
10:J:17:ARG:CG	10:J:18:ARG:CG	2.30	1.08
10:J:89:GLU:O	10:J:92:MET:HB2	1.51	1.08
11:K:11:ILE:HG22	11:K:49:MET:HE1	1.27	1.08
16:P:49:LEU:O	16:P:51:ARG:CA	1.99	1.08
18:R:33:ARG:HB2	33:g:150:TRP:CH2	1.88	1.08
20:T:111:LYS:HB3	20:T:126:GLN:NE2	1.67	1.08
24:X:2:GLY:O	24:X:3:LYS:CG	2.01	1.08
31:e:105:ARG:HB3	31:e:105:ARG:CZ	1.75	1.08
33:g:275:ILE:HD12	33:g:276:SER:H	1.06	1.08
35:l:50:ILE:HG21	35:l:59:LEU:HD11	1.15	1.08
36:n:78:LEU:HD23	36:n:93:LEU:HD21	1.34	1.08
1:A:21:ALA:HB3	1:A:173:LEU:HD12	1.20	1.08
9:I:139:LYS:HB3	9:I:145:ILE:CD1	1.82	1.08
12:L:146:THR:O	12:L:147:LYS:HB3	1.28	1.08
13:M:91:LEU:HD22	13:M:104:VAL:HG13	1.33	1.08
15:O:22:ALA:O	15:O:24:GLY:N	1.85	1.08
18:R:22:THR:HG22	18:R:73:LEU:HD11	1.30	1.08
24:X:52:LEU:HD12	24:X:53:GLU:N	1.68	1.08
35:l:45:THR:OG1	35:l:87:GLY:O	1.69	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:97:THR:HG23	1:A:98:PRO:HD2	1.21	1.08
1:A:176:TRP:CE3	1:A:177:MET:SD	2.46	1.08
4:D:201:LYS:HE2	4:D:201:LYS:HA	1.35	1.08
4:D:210:ILE:HD13	18:R:15:VAL:HG12	1.33	1.08
6:F:42:LYS:C	6:F:44:LYS:H	1.32	1.08
6:F:141:VAL:HB	29:c:47:LYS:HE3	1.26	1.08
6:F:167:LYS:HD3	6:F:171:GLU:CB	1.83	1.08
7:G:145:PHE:HB3	7:G:147:LEU:HD11	1.30	1.08
7:G:212:LEU:HA	7:G:215:LYS:HE2	1.34	1.08
8:H:9:VAL:HG12	8:H:44:ASN:OD1	1.53	1.08
14:N:24:THR:HG21	28:b:84:HIS:CE1	1.84	1.08
14:N:132:LYS:HA	14:N:132:LYS:CE	1.69	1.08
15:O:23:GLU:O	15:O:23:GLU:HG2	1.52	1.08
16:P:8:LYS:O	16:P:11:THR:HG22	1.54	1.08
18:R:105:MET:O	18:R:109:LEU:CG	2.00	1.08
20:T:141:ALA:O	20:T:142:LYS:CG	2.01	1.08
31:e:119:VAL:C	31:e:121:PRO:CD	2.24	1.08
34:i:1823:G:N9	34:i:1844:A:C2	2.11	1.08
34:i:1823:G:O2'	34:i:1844:A:C6	1.97	1.08
1:A:66:VAL:HG11	1:A:186:ARG:HB3	1.35	1.08
1:A:112:ILE:HG21	34:i:1346:U:H1'	1.35	1.08
1:A:141:ASN:HA	22:V:32:ILE:CG1	1.82	1.08
3:C:197:LYS:HA	3:C:200:LEU:HD23	1.10	1.08
6:F:14:THR:CG2	17:Q:56:LEU:CG	2.10	1.08
7:G:76:LEU:HD22	7:G:92:ARG:CG	1.84	1.08
7:G:142:ARG:HD3	7:G:147:LEU:CB	1.84	1.08
8:H:40:LEU:HD23	8:H:43:LEU:HD12	1.16	1.08
10:J:100:LEU:CD1	10:J:104:ASP:OD2	2.02	1.08
11:K:11:ILE:HG21	11:K:49:MET:HE2	1.23	1.08
11:K:14:LEU:HD22	11:K:35:LEU:HD21	1.17	1.08
16:P:62:LYS:O	16:P:65:LYS:CG	2.01	1.08
18:R:91:LEU:HB2	18:R:92:ASP:C	1.77	1.08
27:a:28:CYS:SG	27:a:74:CYS:HB3	1.92	1.08
1:A:141:ASN:CA	22:V:32:ILE:CG1	2.31	1.08
6:F:41:VAL:HG22	6:F:42:LYS:HD3	1.26	1.08
7:G:76:LEU:HD21	7:G:92:ARG:HG2	1.32	1.08
7:G:176:ILE:CB	7:G:179:LEU:CD2	2.29	1.08
8:H:144:ILE:HB	23:W:52:ILE:HG23	1.33	1.08
17:Q:74:GLY:O	17:Q:80:GLN:NE2	1.86	1.08
18:R:20:TYR:CZ	18:R:38:ILE:HB	1.89	1.08
18:R:100:PRO:HA	18:R:103:LYS:HB2	1.13	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:100:VAL:HG12	24:X:125:VAL:HG22	1.36	1.08
33:g:12:LYS:HG2	33:g:13:GLY:N	1.63	1.08
1:A:205:ARG:CG	1:A:206:ASP:H	1.65	1.07
3:C:126:MET:SD	34:i:1352:G:C4'	2.41	1.07
4:D:112:GLY:N	4:D:113:LEU:HD12	1.69	1.07
6:F:41:VAL:HG22	6:F:42:LYS:N	1.53	1.07
9:I:140:LYS:CG	9:I:141:ARG:H	1.64	1.07
9:I:140:LYS:HG3	9:I:141:ARG:H	1.16	1.07
10:J:130:ILE:HG23	10:J:135:ILE:HD11	1.35	1.07
11:K:14:LEU:HD22	11:K:35:LEU:HD22	1.09	1.07
23:W:26:LEU:HD12	23:W:26:LEU:O	1.53	1.07
24:X:40:PRO:HB3	24:X:81:ILE:HD11	1.31	1.07
24:X:60:LYS:HE2	24:X:116:PRO:HG3	1.29	1.07
33:g:49:GLU:O	33:g:50:THR:HG23	1.50	1.07
33:g:172:LYS:HE2	33:g:192:THR:HG22	1.15	1.07
33:g:282:GLU:HB3	33:g:283:PRO:HD2	1.08	1.07
34:i:1843:G:C2	35:l:68:ALA:HB1	1.89	1.07
1:A:30:LEU:HD11	1:A:38:ILE:HD11	1.35	1.07
2:B:66:VAL:HG21	2:B:87:ILE:HG22	1.35	1.07
2:B:137:LEU:CB	2:B:172:MET:HE1	1.83	1.07
3:C:51:LEU:O	3:C:51:LEU:HD22	1.54	1.07
3:C:154:TYR:CE1	3:C:162:PRO:HG3	1.89	1.07
3:C:195:PRO:CB	3:C:221:PHE:CZ	2.36	1.07
4:D:12:VAL:HG11	30:d:36:LEU:HD12	1.36	1.07
4:D:123:LEU:HD21	4:D:154:ASP:HB3	1.29	1.07
4:D:212:GLU:HG2	18:R:19:LYS:HD3	1.30	1.07
7:G:50:VAL:CG1	7:G:111:LEU:HD22	1.84	1.07
10:J:138:ARG:HH11	10:J:156:HIS:CG	1.72	1.07
12:L:101:ARG:HB3	24:X:7:LEU:O	1.55	1.07
12:L:149:ALA:CB	12:L:156:GLN:HB3	1.79	1.07
15:O:142:ARG:NH1	27:a:27:ALA:CB	2.17	1.07
20:T:31:PRO:CB	20:T:33:TRP:CE2	2.37	1.07
26:Z:70:PRO:HD2	26:Z:71:ALA:H	1.14	1.07
28:b:16:LYS:HA	28:b:23:ARG:HH21	0.96	1.07
29:c:15:THR:HG22	29:c:33:GLU:HG2	1.12	1.07
30:d:5:GLN:CG	30:d:7:TYR:HE2	1.66	1.07
31:e:114:ARG:C	31:e:119:VAL:CG2	2.27	1.07
31:e:124:GLY:C	31:e:125:LYS:HG3	1.71	1.07
32:f:135:HIS:HB3	32:f:138:ARG:HG2	1.30	1.07
33:g:282:GLU:CB	33:g:283:PRO:CD	2.30	1.07
1:A:125:THR:O	1:A:147:LEU:CB	2.02	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:141:ASN:O	22:V:32:ILE:HG12	1.51	1.07
2:B:124:HIS:HD2	2:B:136:HIS:NE2	1.51	1.07
8:H:37:LYS:HE2	8:H:41:ARG:HH11	1.16	1.07
9:I:58:LEU:CD1	34:i:1735:C:H5"	1.83	1.07
10:J:178:ALA:O	10:J:182:GLN:HG3	1.52	1.07
15:O:61:LYS:CE	15:O:80:ASP:OD2	2.00	1.07
17:Q:19:ALA:HB2	17:Q:74:GLY:C	1.78	1.07
21:U:40:ILE:HD13	21:U:53:PRO:HG3	1.27	1.07
25:Y:13:MET:CE	25:Y:14:THR:O	2.02	1.07
25:Y:63:HIS:HB3	25:Y:64:PHE:CE1	1.88	1.07
28:b:12:PRO:O	28:b:16:LYS:CG	2.01	1.07
30:d:5:GLN:HG2	30:d:7:TYR:CE2	1.88	1.07
2:B:71:LEU:CD1	2:B:84:PHE:CE2	2.32	1.07
3:C:234:SER:O	22:V:23:ILE:HD11	1.55	1.07
5:E:38:LEU:HD12	5:E:38:LEU:O	1.53	1.07
6:F:41:VAL:CG2	6:F:42:LYS:H	1.62	1.07
6:F:42:LYS:C	6:F:42:LYS:HE3	1.78	1.07
8:H:191:GLU:O	8:H:192:PHE:CG	2.08	1.07
9:I:194:GLU:CG	12:L:12:LYS:HZ1	1.65	1.07
10:J:39:ASN:OD1	10:J:42:GLU:OE2	1.73	1.07
14:N:28:LEU:HD11	14:N:58:HIS:NE2	1.69	1.07
15:O:131:ASP:HB2	27:a:67:LEU:HD21	1.12	1.07
18:R:122:PRO:CB	18:R:123:THR:HG23	1.83	1.07
26:Z:48:VAL:HG22	26:Z:80:ARG:HD3	1.27	1.07
30:d:27:ARG:HH11	30:d:27:ARG:HB2	0.97	1.07
31:e:78:GLY:N	36:n:88:LYS:O	1.86	1.07
33:g:261:LEU:C	33:g:264:LYS:HE3	1.79	1.07
1:A:39:TYR:HB2	1:A:50:ASN:ND2	1.70	1.07
2:B:63:LYS:O	2:B:88:THR:O	1.71	1.07
2:B:124:HIS:CD2	2:B:136:HIS:NE2	2.22	1.07
3:C:98:GLN:HB2	3:C:106:ARG:O	1.55	1.07
4:D:177:LEU:HD23	4:D:182:LEU:CD2	1.84	1.07
5:E:159:THR:HG23	5:E:227:VAL:HG22	1.31	1.07
6:F:14:THR:CB	17:Q:56:LEU:HD13	1.82	1.07
9:I:155:ASN:O	12:L:22:ARG:HD2	1.31	1.07
10:J:170:PRO:HA	10:J:174:LYS:NZ	1.70	1.07
12:L:103:GLU:OE1	24:X:11:ARG:CB	2.02	1.07
14:N:53:ILE:CD1	28:b:52:THR:CG2	2.32	1.07
14:N:132:LYS:CA	14:N:132:LYS:HE3	1.70	1.07
17:Q:93:VAL:HG13	17:Q:105:LYS:CE	1.70	1.07
18:R:33:ARG:HB2	33:g:150:TRP:HH2	1.16	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:94:ILE:HG12	24:X:125:VAL:HG21	1.32	1.07
25:Y:54:VAL:O	25:Y:75:ILE:HA	1.55	1.07
26:Z:73:VAL:HG12	26:Z:79:ILE:HG21	1.35	1.07
26:Z:103:HIS:CD2	26:Z:105:ALA:H	1.72	1.07
31:e:119:VAL:CA	31:e:121:PRO:HD2	1.83	1.07
33:g:7:LEU:HD12	33:g:310:TRP:NE1	1.68	1.07
1:A:97:THR:HG22	1:A:98:PRO:HD2	1.31	1.06
1:A:154:LEU:O	1:A:154:LEU:HD13	1.53	1.06
2:B:153:THR:HG23	2:B:154:SER:H	1.16	1.06
6:F:14:THR:CB	17:Q:56:LEU:HB3	1.83	1.06
11:K:28:HIS:HE1	30:d:8:TRP:NE1	1.51	1.06
13:M:64:LEU:HD12	32:f:104:LYS:HZ3	0.99	1.06
34:i:185:C:N3	34:i:211:U:C4	2.23	1.06
34:i:1816:A:H2'	34:i:1817:A:C8	1.90	1.06
3:C:197:LYS:CA	3:C:200:LEU:HD21	1.78	1.06
10:J:61:LEU:CD2	10:J:98:LEU:CD1	2.27	1.06
12:L:99:TYR:CZ	24:X:14:ARG:HA	1.90	1.06
16:P:53:GLN:CD	16:P:80:LEU:HD13	1.79	1.06
16:P:68:PRO:CB	16:P:69:PRO:HD3	1.84	1.06
16:P:121:ILE:HG21	19:S:123:LEU:HD12	1.11	1.06
17:Q:8:GLN:HG3	17:Q:99:TYR:HE1	0.97	1.06
19:S:39:ARG:CD	20:T:38:LYS:CE	2.33	1.06
19:S:137:LYS:HG2	19:S:138:THR:HG23	1.35	1.06
20:T:46:ALA:HB1	20:T:47:PRO:HD2	1.08	1.06
20:T:46:ALA:CB	20:T:47:PRO:HD2	1.85	1.06
34:i:227:A:C1'	34:i:782:G:O2'	2.02	1.06
1:A:205:ARG:HG2	1:A:206:ASP:H	0.93	1.06
2:B:19:LYS:HB2	2:B:19:LYS:NZ	1.69	1.06
2:B:107:ARG:NH2	15:O:133:THR:O	1.86	1.06
2:B:179:ASN:CG	2:B:183:GLU:OE1	1.98	1.06
3:C:93:LYS:CE	3:C:218:LEU:HD21	1.84	1.06
4:D:2:ALA:HB3	4:D:3:VAL:HA	1.09	1.06
4:D:213:PRO:O	4:D:214:LYS:HB3	1.50	1.06
6:F:25:THR:HG21	6:F:42:LYS:CD	1.78	1.06
7:G:67:VAL:HG23	7:G:68:LEU:O	1.54	1.06
9:I:153:LYS:O	9:I:154:LYS:HB3	1.40	1.06
12:L:95:TYR:HA	12:L:102:PHE:HB3	1.14	1.06
14:N:12:SER:O	14:N:13:GLN:CG	2.02	1.06
16:P:39:ALA:HA	16:P:42:ARG:NE	1.71	1.06
16:P:53:GLN:HG2	16:P:80:LEU:HD13	1.23	1.06
16:P:121:ILE:HG21	19:S:123:LEU:CD1	1.86	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:14:ARG:HH12	19:S:17:ASN:CA	1.68	1.06
21:U:48:LEU:N	21:U:48:LEU:HD23	1.65	1.06
21:U:61:LEU:CD2	30:d:34:TYR:CE1	2.38	1.06
24:X:105:PHE:CE2	24:X:119:ARG:CA	2.36	1.06
24:X:126:ALA:HB3	24:X:128:VAL:CB	1.84	1.06
25:Y:19:GLN:OE1	25:Y:85:ASN:ND2	1.88	1.06
25:Y:34:THR:HG22	25:Y:35:VAL:N	1.61	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:HD2	1.72	1.06
1:A:145:ILE:HD12	1:A:159:ILE:HG21	1.36	1.06
1:A:177:MET:HE1	1:A:180:ARG:CZ	1.85	1.06
2:B:25:PHE:CZ	15:O:88:LEU:CD1	2.36	1.06
3:C:84:GLY:HA2	3:C:87:LEU:HB3	1.30	1.06
4:D:157:MET:CE	4:D:187:LYS:CD	2.31	1.06
5:E:49:ARG:HD3	5:E:49:ARG:O	1.52	1.06
6:F:25:THR:HG22	6:F:42:LYS:CD	1.78	1.06
6:F:154:LEU:HD12	6:F:155:CYS:N	1.71	1.06
8:H:83:LEU:CD1	8:H:92:VAL:HB	1.86	1.06
8:H:191:GLU:O	8:H:192:PHE:CD1	2.09	1.06
10:J:21:GLU:O	10:J:23:SER:N	1.88	1.06
10:J:50:LEU:HD12	10:J:102:ILE:CD1	1.85	1.06
10:J:161:LEU:O	10:J:162:ARG:HB2	1.52	1.06
11:K:34:GLU:O	11:K:35:LEU:HB2	1.31	1.06
12:L:151:THR:O	12:L:153:LYS:HD3	1.53	1.06
15:O:35:ALA:CB	15:O:112:ALA:HB2	1.84	1.06
22:V:42:VAL:O	22:V:43:THR:HG23	1.54	1.06
25:Y:29:HIS:ND1	25:Y:67:GLY:C	2.13	1.06
25:Y:78:SER:HB2	25:Y:81:TYR:CD2	1.90	1.06
32:f:108:VAL:HG13	32:f:113:LYS:O	1.54	1.06
33:g:42:MET:CG	33:g:92:LEU:HD11	1.85	1.06
34:i:227:A:O4'	34:i:782:G:H4'	1.55	1.06
1:A:30:LEU:HD21	1:A:35:GLU:HG3	1.06	1.06
1:A:48:ILE:CG1	18:R:105:MET:HE1	1.83	1.06
2:B:137:LEU:HB2	2:B:172:MET:HE1	1.08	1.06
4:D:132:LYS:N	4:D:191:PRO:HD3	1.69	1.06
4:D:201:LYS:O	4:D:203:PRO:CD	2.04	1.06
4:D:218:LEU:CG	4:D:220:THR:HG21	1.79	1.06
5:E:23:LEU:O	5:E:24:THR:HG23	1.52	1.06
6:F:45:TYR:O	6:F:47:LYS:HD3	1.44	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:145:ARG:HD3	29:c:49:PRO:CD	1.86	1.06
8:H:93:VAL:CG2	8:H:94:PHE:N	2.13	1.06
8:H:145:ARG:HD2	23:W:51:GLU:HG2	1.30	1.06
8:H:164:ASN:OD1	8:H:167:GLU:OE2	1.74	1.06
12:L:99:TYR:OH	24:X:14:ARG:HA	0.90	1.06
12:L:146:THR:O	12:L:147:LYS:CB	2.04	1.06
19:S:6:PRO:HA	26:Z:50:PHE:HB2	1.11	1.06
19:S:39:ARG:NE	20:T:38:LYS:CE	2.06	1.06
20:T:40:ALA:CB	20:T:43:LYS:HG2	1.84	1.06
27:a:58:VAL:HG12	27:a:59:PHE:H	1.08	1.06
29:c:15:THR:HG21	29:c:33:GLU:HG2	1.38	1.06
31:e:114:ARG:C	31:e:119:VAL:HG21	1.81	1.06
1:A:11:LYS:HG2	1:A:13:GLU:CG	1.84	1.05
1:A:190:SER:O	1:A:191:ARG:HG2	1.56	1.05
2:B:25:PHE:CD2	15:O:88:LEU:HD13	1.91	1.05
2:B:67:PHE:CE1	15:O:48:SER:N	2.22	1.05
4:D:112:GLY:C	4:D:113:LEU:CD1	2.28	1.05
6:F:42:LYS:C	6:F:42:LYS:CE	2.29	1.05
6:F:122:ARG:NE	6:F:193:LYS:HZ1	1.51	1.05
7:G:50:VAL:HG11	7:G:111:LEU:CD1	1.84	1.05
7:G:121:ILE:CG2	7:G:122:PRO:CD	2.33	1.05
8:H:15:LYS:HB3	8:H:16:PRO:CD	1.84	1.05
9:I:85:ALA:CB	12:L:8:ARG:HH11	1.66	1.05
10:J:67:ASP:OD1	10:J:68:PRO:HD2	1.56	1.05
10:J:134:HIS:O	10:J:135:ILE:HG23	1.54	1.05
12:L:17:PHE:CE1	12:L:18:GLN:O	2.08	1.05
12:L:94:HIS:HB2	12:L:105:ARG:HD2	1.33	1.05
16:P:4:VAL:N	16:P:10:ARG:CG	2.19	1.05
16:P:49:LEU:O	16:P:51:ARG:N	1.89	1.05
17:Q:54:PRO:HG3	17:Q:88:ILE:HD11	1.37	1.05
25:Y:10:ARG:HE	25:Y:24:VAL:CG1	1.68	1.05
25:Y:36:PRO:CD	25:Y:39:GLU:OE1	2.04	1.05
32:f:98:VAL:CG1	32:f:99:LYS:H	1.69	1.05
1:A:127:PRO:HB2	1:A:153:PRO:HG2	1.37	1.05
1:A:145:ILE:HA	1:A:159:ILE:CG2	1.84	1.05
1:A:180:ARG:HD3	1:A:184:ARG:NH2	1.70	1.05
6:F:46:ALA:O	6:F:47:LYS:HD2	1.54	1.05
6:F:201:LYS:HE3	6:F:204:ARG:HH21	1.17	1.05
7:G:64:LYS:CG	7:G:67:VAL:HG13	1.87	1.05
7:G:74:ARG:HD3	7:G:94:ARG:HD2	1.36	1.05
8:H:10:LYS:CE	8:H:17:ASP:H	1.67	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:23:ILE:HD13	8:H:27:LEU:HD23	1.34	1.05
10:J:89:GLU:N	10:J:92:MET:SD	2.29	1.05
11:K:16:PHE:CD2	11:K:79:LEU:HB3	1.88	1.05
14:N:16:LEU:HD11	14:N:62:GLN:HE22	1.12	1.05
15:O:79:GLN:HB3	29:c:5:ARG:HB3	1.06	1.05
15:O:125:LYS:NZ	27:a:57:SER:C	2.14	1.05
18:R:20:TYR:OH	18:R:38:ILE:CB	2.02	1.05
19:S:11:HIS:CD2	19:S:23:ARG:NH2	2.24	1.05
25:Y:32:LYS:HG3	25:Y:33:ALA:H	1.11	1.05
34:i:1186:A:C1'	34:i:1709:U:O2'	2.05	1.05
1:A:112:ILE:CG2	34:i:1346:U:C1'	2.35	1.05
4:D:76:ARG:CD	11:K:66:HIS:HE1	1.63	1.05
4:D:176:LEU:HD12	4:D:176:LEU:N	1.68	1.05
11:K:15:LEU:HD13	11:K:21:MET:HE2	1.07	1.05
11:K:96:ARG:HG3	11:K:97:SER:H	1.21	1.05
17:Q:42:ILE:HD13	17:Q:51:LEU:HD22	1.33	1.05
19:S:120:HIS:CE1	19:S:124:ARG:NH2	2.25	1.05
22:V:24:ILE:CD1	22:V:25:GLY:N	2.18	1.05
25:Y:61:ARG:HH21	25:Y:61:ARG:CG	1.66	1.05
28:b:33:MET:HE3	28:b:79:PHE:CG	1.73	1.05
28:b:46:VAL:HG21	28:b:63:LEU:HD21	1.37	1.05
31:e:113:ASN:ND2	34:i:542:G:OP1	1.89	1.05
31:e:127:LYS:C	31:e:127:LYS:CD	2.30	1.05
33:g:42:MET:HG3	33:g:92:LEU:HD11	1.08	1.05
33:g:201:SER:HB2	33:g:202:PRO:CD	1.87	1.05
34:i:1165:G:C5'	34:i:1815:U:H5"	1.80	1.05
2:B:31:TYR:CD1	2:B:94:LYS:HA	1.90	1.05
4:D:18:LYS:NZ	4:D:37:VAL:HG23	1.71	1.05
6:F:34:SER:HB2	29:c:55:VAL:HB	1.36	1.05
6:F:42:LYS:HD3	6:F:42:LYS:N	1.39	1.05
9:I:139:LYS:CB	9:I:145:ILE:CD1	2.34	1.05
13:M:94:ILE:CG2	13:M:95:ASP:N	2.17	1.05
15:O:129:ILE:HB	27:a:65:PRO:HG3	1.39	1.05
16:P:10:ARG:HH21	16:P:11:THR:CG2	1.69	1.05
17:Q:9:SER:CB	17:Q:26:LYS:CG	2.08	1.05
18:R:122:PRO:HA	18:R:123:THR:CG2	1.86	1.05
19:S:120:HIS:CD2	19:S:124:ARG:NE	2.23	1.05
20:T:89:PRO:O	20:T:91:HIS:NE2	1.90	1.05
24:X:142:ARG:HH11	24:X:142:ARG:CG	1.64	1.05
25:Y:7:ILE:CD1	25:Y:43:LYS:HB3	1.86	1.05
28:b:33:MET:CE	28:b:79:PHE:HB3	1.84	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:82:ARG:CG	36:n:82:ARG:NE	2.17	1.05
34:i:1166:A:OP2	34:i:1814:G:H4'	0.88	1.05
35:l:47:VAL:HG23	35:l:83:ILE:HG22	1.38	1.05
1:A:11:LYS:CG	1:A:13:GLU:CG	2.35	1.05
3:C:76:SER:O	3:C:79:ILE:HG23	1.54	1.05
5:E:208:VAL:CG1	5:E:225:ILE:HD13	1.86	1.05
5:E:248:ILE:CG1	10:J:72:PHE:CE1	2.39	1.05
7:G:176:ILE:HB	7:G:179:LEU:CD2	1.86	1.05
11:K:14:LEU:CD2	11:K:35:LEU:HD22	1.80	1.05
16:P:108:LYS:H	16:P:111:MET:HE3	1.18	1.05
16:P:123:TYR:CE2	19:S:120:HIS:NE2	2.25	1.05
17:Q:9:SER:HB2	17:Q:26:LYS:CE	1.86	1.05
18:R:5:ARG:O	18:R:10:LYS:CE	2.05	1.05
19:S:16:LEU:O	19:S:17:ASN:CG	2.00	1.05
19:S:39:ARG:NH2	20:T:38:LYS:NZ	1.80	1.05
19:S:94:LYS:HB3	19:S:95:TYR:O	1.54	1.05
19:S:120:HIS:CD2	19:S:124:ARG:HE	1.73	1.05
22:V:78:ILE:HD13	22:V:79:VAL:H	1.14	1.05
25:Y:20:ARG:HD2	25:Y:74:MET:HE2	1.39	1.05
25:Y:61:ARG:HH21	25:Y:61:ARG:HG3	0.91	1.05
31:e:79:SER:O	36:n:84:TYR:CE2	2.08	1.05
2:B:19:LYS:O	2:B:21:VAL:CG1	2.05	1.04
2:B:209:ASP:OD1	2:B:211:PHE:HZ	1.37	1.04
3:C:142:LEU:CA	3:C:145:LEU:CD2	2.33	1.04
4:D:2:ALA:CB	4:D:3:VAL:C	2.29	1.04
5:E:21:ASP:OD2	5:E:24:THR:HG21	1.52	1.04
6:F:145:ARG:HD3	29:c:49:PRO:HD2	1.39	1.04
10:J:37:LEU:HD21	10:J:42:GLU:CB	1.87	1.04
12:L:10:TYR:CE2	12:L:12:LYS:HE3	1.92	1.04
12:L:40:ILE:HD11	12:L:68:ILE:HB	1.30	1.04
12:L:94:HIS:CB	12:L:105:ARG:HD2	1.86	1.04
16:P:41:GLN:HG2	16:P:84:ILE:CG2	1.57	1.04
20:T:111:LYS:CB	20:T:126:GLN:NE2	2.20	1.04
21:U:18:HIS:HE1	21:U:98:VAL:CG2	1.69	1.04
23:W:90:GLN:HA	23:W:102:ILE:HD11	1.37	1.04
24:X:128:VAL:HG13	24:X:128:VAL:O	1.51	1.04
25:Y:21:LYS:HE2	25:Y:77:ASP:OD1	1.57	1.04
34:i:227:A:C1'	34:i:782:G:HO2'	1.69	1.04
34:i:1165:G:C4'	34:i:1815:U:C5'	1.96	1.04
35:l:45:THR:HG22	35:l:85:LEU:HD12	1.07	1.04
1:A:43:SER:C	1:A:44:ASP:OD1	1.99	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:105:LEU:O	2:B:106:THR:HG23	1.57	1.04
4:D:197:LYS:HB2	4:D:198:ILE:HG12	1.30	1.04
6:F:47:LYS:HG3	17:Q:117:ARG:HH22	1.12	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	1.58	1.04
9:I:110:ARG:HH21	9:I:124:LYS:HD3	1.20	1.04
9:I:142:SER:HB2	9:I:143:LYS:NZ	1.72	1.04
10:J:127:ARG:HH11	10:J:127:ARG:CG	1.66	1.04
12:L:149:ALA:HB3	12:L:156:GLN:HG2	1.33	1.04
17:Q:58:LEU:CD2	17:Q:111:ILE:HD13	1.84	1.04
24:X:109:GLY:O	24:X:119:ARG:HD3	1.57	1.04
25:Y:60:PHE:C	25:Y:61:ARG:HD2	1.82	1.04
25:Y:61:ARG:HD2	25:Y:61:ARG:N	1.70	1.04
1:A:120:ARG:CD	3:C:251:TYR:HE2	1.68	1.04
3:C:149:PRO:HB2	3:C:233:TYR:CD2	1.93	1.04
4:D:2:ALA:HB1	4:D:3:VAL:C	1.82	1.04
4:D:158:ILE:CD1	4:D:189:MET:HE2	1.87	1.04
9:I:48:VAL:HG22	9:I:52:ASN:O	1.57	1.04
10:J:110:LEU:HD12	10:J:130:ILE:CG1	1.87	1.04
12:L:4:ILE:CD1	12:L:4:ILE:H	1.68	1.04
14:N:38:TYR:HE2	14:N:74:ILE:HG22	1.21	1.04
15:O:55:ARG:O	15:O:56:VAL:HG12	1.57	1.04
16:P:9:LYS:C	16:P:10:ARG:HG3	1.82	1.04
17:Q:112:LEU:HD22	17:Q:119:LEU:CD1	1.85	1.04
21:U:61:LEU:HD22	30:d:34:TYR:CE1	1.91	1.04
24:X:95:GLU:CG	24:X:140:ARG:HH22	1.69	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
33:g:202:PRO:HB2	33:g:203:ASP:OD1	1.58	1.04
2:B:105:LEU:CD1	2:B:110:MET:CE	2.36	1.04
2:B:113:MET:CE	2:B:211:PHE:CZ	2.39	1.04
2:B:113:MET:SD	2:B:211:PHE:CE2	2.49	1.04
6:F:45:TYR:O	6:F:47:LYS:HE2	1.56	1.04
6:F:123:GLU:CG	29:c:59:LEU:HD11	1.87	1.04
6:F:185:SER:HA	6:F:190:ILE:CG2	1.88	1.04
9:I:154:LYS:C	9:I:154:LYS:CE	2.29	1.04
11:K:40:VAL:HG22	11:K:41:PRO:O	1.56	1.04
12:L:158:PHE:HD2	12:L:158:PHE:N	1.56	1.04
17:Q:85:ARG:HH22	17:Q:117:ARG:HG2	1.19	1.04
20:T:31:PRO:HB3	20:T:33:TRP:CE2	1.91	1.04
20:T:76:THR:O	20:T:95:GLY:N	1.90	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:50:VAL:HG21	21:U:52:GLY:CA	1.87	1.04
22:V:17:CYS:HG	22:V:56:CYS:CB	1.70	1.04
25:Y:29:HIS:CE1	25:Y:67:GLY:CA	2.39	1.04
28:b:82:LYS:O	28:b:83:GLN:NE2	1.91	1.04
29:c:5:ARG:O	29:c:6:VAL:HG23	1.57	1.04
30:d:23:VAL:CB	30:d:38:MET:HE1	1.87	1.04
30:d:26:ASN:ND2	34:i:1491:G:O2'	1.90	1.04
32:f:140:TYR:OH	32:f:146:LEU:CB	2.05	1.04
34:i:1207:G:N3	34:i:1684:C:N3	1.79	1.04
35:l:71:GLY:HA2	35:l:85:LEU:HA	1.39	1.04
1:A:34:MET:HE1	1:A:37:TYR:CE2	1.92	1.04
3:C:59:LYS:HG3	3:C:254:PHE:CD1	1.92	1.04
7:G:70:HIS:HB2	7:G:103:ASP:OD2	1.56	1.04
8:H:145:ARG:HD2	23:W:51:GLU:CG	1.87	1.04
10:J:66:LYS:HA	10:J:71:LEU:HD11	1.37	1.04
10:J:88:ASP:O	10:J:91:LYS:HB2	1.56	1.04
10:J:131:ARG:HD2	10:J:143:ASN:OD1	1.56	1.04
14:N:127:ARG:O	14:N:131:THR:HG23	1.58	1.04
15:O:56:VAL:CG1	15:O:81:VAL:HG22	1.83	1.04
16:P:118:GLU:O	19:S:119:ALA:HB1	1.58	1.04
16:P:123:TYR:CZ	19:S:124:ARG:NH1	2.11	1.04
20:T:28:LEU:O	20:T:28:LEU:HD22	1.58	1.04
20:T:29:LYS:HA	20:T:29:LYS:HE3	1.38	1.04
29:c:67:ARG:HG2	29:c:68:LEU:H	0.87	1.04
31:e:80:LEU:CG	36:n:83:ASP:CA	2.36	1.04
31:e:127:LYS:C	31:e:127:LYS:HD2	1.82	1.04
33:g:46:THR:O	33:g:47:ARG:CB	2.05	1.04
33:g:176:VAL:HB	33:g:186:THR:HG22	1.35	1.04
1:A:32:PHE:HE1	1:A:33:GLN:NE2	1.56	1.03
1:A:177:MET:HE1	1:A:180:ARG:HH22	1.21	1.03
2:B:113:MET:CE	2:B:209:ASP:CG	2.29	1.03
8:H:83:LEU:HD22	8:H:92:VAL:HG11	1.09	1.03
8:H:144:ILE:HB	23:W:52:ILE:HG22	1.09	1.03
10:J:18:ARG:HB2	10:J:21:GLU:OE2	1.57	1.03
18:R:105:MET:O	18:R:109:LEU:CD1	2.05	1.03
22:V:40:ASP:CB	22:V:47:ASN:ND2	2.21	1.03
25:Y:101:LYS:O	25:Y:102:THR:HG23	1.56	1.03
29:c:59:LEU:HB2	29:c:60:GLU:OE1	1.56	1.03
34:i:61:A:C2	34:i:325:G:O2'	2.09	1.03
2:B:25:PHE:CD2	15:O:88:LEU:CD1	2.40	1.03
4:D:218:LEU:HG	4:D:220:THR:HG23	1.05	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:42:LYS:HD3	6:F:42:LYS:H	0.88	1.03
6:F:201:LYS:CD	6:F:204:ARG:HH21	1.71	1.03
6:F:201:LYS:HD2	6:F:204:ARG:NH2	1.73	1.03
7:G:121:ILE:HG23	7:G:122:PRO:HD3	1.09	1.03
8:H:146:VAL:CG1	23:W:42:MET:SD	2.46	1.03
8:H:146:VAL:HG12	23:W:42:MET:SD	1.98	1.03
9:I:21:TYR:CE2	9:I:22:HIS:CD2	2.47	1.03
10:J:110:LEU:HD12	10:J:130:ILE:HD13	1.36	1.03
10:J:122:SER:OG	10:J:124:HIS:HB2	1.57	1.03
14:N:55:ARG:NH2	28:b:51:GLN:NE2	2.06	1.03
15:O:131:ASP:HB2	27:a:67:LEU:CD2	1.87	1.03
16:P:127:LYS:HZ1	16:P:128:HIS:N	1.55	1.03
17:Q:100:VAL:HG12	17:Q:101:ASP:N	1.68	1.03
18:R:42:PRO:HD2	18:R:43:SER:H	1.22	1.03
19:S:61:GLU:O	19:S:64:VAL:CG2	2.05	1.03
20:T:84:ARG:HH21	20:T:84:ARG:HG3	1.22	1.03
21:U:50:VAL:HG21	21:U:52:GLY:HA2	1.05	1.03
24:X:107:ARG:O	24:X:110:HIS:CE1	2.12	1.03
31:e:113:ASN:HA	31:e:117:VAL:HG23	1.41	1.03
32:f:106:TYR:OH	32:f:131:PHE:CE2	2.03	1.03
34:i:185:C:C2	34:i:211:U:N3	2.26	1.03
2:B:20:LYS:C	2:B:21:VAL:CG1	2.29	1.03
5:E:49:ARG:C	5:E:49:ARG:CD	2.30	1.03
6:F:14:THR:HG21	17:Q:56:LEU:CD1	1.88	1.03
6:F:59:LYS:HD3	6:F:62:ARG:HD3	1.36	1.03
8:H:10:LYS:HE3	8:H:17:ASP:N	1.72	1.03
10:J:130:ILE:HG12	10:J:135:ILE:HD13	1.36	1.03
11:K:60:GLU:OE2	11:K:67:PHE:HD1	1.38	1.03
17:Q:76:GLY:O	17:Q:80:GLN:HG3	1.56	1.03
17:Q:112:LEU:HD22	17:Q:119:LEU:HD13	1.04	1.03
23:W:129:PHE:O	23:W:129:PHE:HD1	1.40	1.03
31:e:82:ARG:HG3	36:n:82:ARG:CZ	1.86	1.03
32:f:98:VAL:HG12	32:f:99:LYS:N	1.62	1.03
33:g:143:GLN:CD	33:g:144:ASP:CA	2.32	1.03
35:l:43:THR:O	35:l:86:GLN:OE1	1.76	1.03
36:n:65:LEU:CD2	36:n:92:ILE:O	2.06	1.03
1:A:205:ARG:HG2	1:A:206:ASP:N	1.71	1.03
2:B:47:THR:HG21	2:B:67:PHE:CZ	1.94	1.03
3:C:101:THR:CG2	3:C:104:GLY:O	2.06	1.03
4:D:196:GLY:N	4:D:197:LYS:HA	1.58	1.03
7:G:27:PHE:CZ	7:G:41:LEU:HD12	1.94	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:65:GLN:HA	7:G:100:CYS:SG	1.98	1.03
10:J:89:GLU:HA	10:J:92:MET:SD	1.95	1.03
11:K:3:MET:CE	11:K:8:ARG:CZ	2.30	1.03
11:K:4:PRO:HG2	11:K:7:ASN:HB2	1.37	1.03
17:Q:30:GLY:HA2	17:Q:66:VAL:O	1.55	1.03
19:S:117:ILE:O	19:S:118:ARG:CG	2.07	1.03
23:W:62:VAL:HB	28:b:8:LEU:HD21	1.06	1.03
26:Z:64:ASN:O	26:Z:111:ARG:NH2	1.89	1.03
28:b:34:ASP:HB3	28:b:43:ILE:HG21	1.37	1.03
1:A:185:MET:O	1:A:186:ARG:C	2.01	1.03
2:B:67:PHE:CE1	15:O:47:LEU:C	2.37	1.03
2:B:147:ASN:O	18:R:124:VAL:HG21	1.57	1.03
3:C:234:SER:O	22:V:23:ILE:CD1	2.06	1.03
6:F:167:LYS:CD	6:F:171:GLU:CG	2.37	1.03
9:I:154:LYS:HD3	9:I:155:ASN:N	1.72	1.03
14:N:54:LEU:HB3	14:N:60:VAL:HG21	1.39	1.03
17:Q:85:ARG:HH12	17:Q:117:ARG:HG2	1.18	1.03
21:U:49:LYS:O	21:U:50:VAL:HG12	1.56	1.03
23:W:128:PHE:CE1	23:W:130:PHE:CE2	2.45	1.03
24:X:142:ARG:HH11	24:X:142:ARG:HB2	1.18	1.03
25:Y:36:PRO:CG	25:Y:39:GLU:CG	2.36	1.03
27:a:58:VAL:CG1	27:a:59:PHE:H	1.56	1.03
28:b:81:ARG:HB2	28:b:82:LYS:HB2	1.04	1.03
29:c:67:ARG:HG2	29:c:68:LEU:N	1.43	1.03
31:e:115:ARG:O	31:e:119:VAL:HG13	1.56	1.03
1:A:145:ILE:HA	1:A:159:ILE:HG22	1.41	1.02
2:B:131:ASP:OD2	2:B:180:ASP:HB2	1.57	1.02
4:D:105:LEU:HD23	4:D:184:ILE:HD12	1.04	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
7:G:121:ILE:HG23	7:G:122:PRO:HD2	1.39	1.02
7:G:183:ARG:NH1	34:i:307:G:N7	2.06	1.02
8:H:40:LEU:HD23	8:H:43:LEU:CD1	1.81	1.02
13:M:12:MET:HG3	13:M:16:THR:HG23	1.10	1.02
15:O:131:ASP:CB	27:a:67:LEU:HD21	1.88	1.02
16:P:10:ARG:NE	16:P:11:THR:H	1.57	1.02
16:P:33:LEU:CD2	16:P:87:PRO:HD2	1.84	1.02
17:Q:100:VAL:CG1	17:Q:101:ASP:H	1.72	1.02
18:R:90:ALA:HB1	18:R:92:ASP:OD2	1.57	1.02
18:R:122:PRO:HB3	18:R:123:THR:HG21	1.40	1.02
20:T:77:LYS:CG	20:T:92:PHE:CZ	2.33	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:144:LYS:HB2	20:T:144:LYS:NZ	1.71	1.02
28:b:10:PRO:HG2	28:b:15:GLU:OE2	1.59	1.02
32:f:97:LYS:HB2	32:f:97:LYS:NZ	1.73	1.02
33:g:12:LYS:CG	33:g:13:GLY:N	2.17	1.02
34:i:1186:A:O2'	34:i:1709:U:H4'	1.58	1.02
2:B:105:LEU:HD12	2:B:110:MET:HE2	1.04	1.02
3:C:101:THR:HG23	3:C:103:ALA:O	1.59	1.02
6:F:145:ARG:HG2	29:c:48:GLY:HA3	1.37	1.02
8:H:144:ILE:CB	23:W:52:ILE:HG23	1.86	1.02
10:J:110:LEU:CD1	10:J:130:ILE:HD13	1.84	1.02
10:J:127:ARG:HH12	10:J:145:PRO:HB2	1.23	1.02
13:M:12:MET:HE1	13:M:120:ALA:HB1	1.39	1.02
16:P:53:GLN:HG2	16:P:80:LEU:HD12	1.38	1.02
16:P:127:LYS:HB2	16:P:127:LYS:NZ	1.64	1.02
17:Q:47:LEU:HD22	17:Q:81:ILE:HD12	1.26	1.02
22:V:40:ASP:HB3	22:V:47:ASN:ND2	1.74	1.02
25:Y:92:ALA:CA	25:Y:97:TYR:HB3	1.89	1.02
26:Z:80:ARG:HG2	26:Z:82:SER:OG	1.56	1.02
31:e:81:ALA:HB3	36:n:82:ARG:NH1	1.75	1.02
34:i:60:A:N7	34:i:325:G:H1'	1.74	1.02
34:i:227:A:H1'	34:i:782:G:O2'	1.59	1.02
4:D:18:LYS:HZ2	4:D:37:VAL:HG23	1.19	1.02
5:E:70:ILE:HG12	5:E:92:ILE:HD13	1.37	1.02
5:E:120:LYS:O	5:E:164:LEU:HB2	1.60	1.02
16:P:41:GLN:HG3	16:P:84:ILE:CG2	1.65	1.02
30:d:23:VAL:HG23	30:d:38:MET:SD	1.98	1.02
33:g:162:ASN:ND2	33:g:163:PRO:CD	2.22	1.02
2:B:137:LEU:HD22	2:B:215:VAL:HG22	1.04	1.02
3:C:155:TRP:CZ2	23:W:97:ARG:HD2	1.95	1.02
4:D:212:GLU:CB	18:R:19:LYS:CD	2.37	1.02
5:E:248:ILE:O	10:J:72:PHE:HE1	1.42	1.02
5:E:248:ILE:C	10:J:72:PHE:HE1	1.67	1.02
6:F:42:LYS:CD	6:F:42:LYS:C	2.29	1.02
6:F:44:LYS:HB3	6:F:45:TYR:HE1	1.09	1.02
6:F:91:ARG:HH12	6:F:94:LYS:CG	1.72	1.02
8:H:83:LEU:HD13	8:H:92:VAL:CB	1.86	1.02
11:K:11:ILE:HG23	11:K:49:MET:CE	1.84	1.02
15:O:99:ALA:H	15:O:133:THR:HG22	0.85	1.02
16:P:5:GLU:N	16:P:10:ARG:HH11	1.56	1.02
16:P:62:LYS:HG3	16:P:65:LYS:HE2	1.40	1.02
18:R:91:LEU:HB2	18:R:93:GLN:N	1.74	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:39:ARG:HD3	20:T:38:LYS:CE	1.88	1.02
25:Y:32:LYS:CG	25:Y:33:ALA:N	2.13	1.02
25:Y:63:HIS:ND1	25:Y:64:PHE:HE1	1.58	1.02
28:b:64:CYS:SG	28:b:73:LEU:HA	1.98	1.02
1:A:48:ILE:HG12	18:R:105:MET:HE2	1.02	1.02
3:C:151:ARG:HH12	3:C:240:LEU:HD11	0.88	1.02
4:D:21:LEU:HD11	4:D:48:ILE:CD1	1.90	1.02
5:E:128:LYS:HD3	5:E:130:PHE:HE1	0.95	1.02
6:F:103:LEU:CD2	6:F:178:ILE:CD1	2.23	1.02
8:H:16:PRO:HA	8:H:17:ASP:HB2	1.39	1.02
8:H:169:LYS:HB2	8:H:173:PHE:CE2	1.94	1.02
15:O:56:VAL:CG1	15:O:81:VAL:HG23	1.87	1.02
18:R:91:LEU:HD13	18:R:92:ASP:HA	1.38	1.02
20:T:75:MET:HE3	20:T:79:TYR:HE2	0.89	1.02
29:c:10:LYS:HD2	29:c:61:SER:HB2	1.39	1.02
33:g:191:HIS:CD2	33:g:195:LEU:CD2	2.43	1.02
33:g:294:ASP:C	33:g:296:GLN:H	1.63	1.02
34:i:1206:G:C3'	34:i:1207:G:O5'	2.08	1.02
1:A:85:ARG:HH21	1:A:201:LEU:HD12	1.21	1.01
1:A:118:GLU:OE1	3:C:50:LYS:NZ	1.91	1.01
1:A:188:THR:O	1:A:188:THR:HG23	1.57	1.01
5:E:153:LEU:HD13	5:E:172:PHE:CE1	1.94	1.01
9:I:7:ASN:O	9:I:9:HIS:O	1.78	1.01
9:I:154:LYS:C	9:I:154:LYS:CD	2.30	1.01
10:J:38:ARG:HE	31:e:105:ARG:N	1.58	1.01
10:J:61:LEU:HD22	10:J:98:LEU:HD11	1.02	1.01
13:M:64:LEU:CD1	32:f:104:LYS:HZ3	1.70	1.01
14:N:53:ILE:HD12	28:b:52:THR:HG21	1.37	1.01
16:P:82:ASP:OD2	34:i:1614:A:O2'	1.75	1.01
16:P:83:MET:HE3	16:P:116:LEU:HD11	1.07	1.01
16:P:108:LYS:HB3	16:P:110:GLU:OE1	1.60	1.01
16:P:128:HIS:HE1	34:i:1516:C:O2	1.42	1.01
17:Q:50:LYS:HA	17:Q:53:GLU:CD	1.85	1.01
19:S:12:ILE:O	19:S:12:ILE:HG22	1.60	1.01
20:T:30:VAL:HG23	20:T:30:VAL:O	1.54	1.01
28:b:82:LYS:O	28:b:83:GLN:CD	2.03	1.01
33:g:201:SER:HB2	33:g:202:PRO:HD3	1.41	1.01
34:i:226:A:H1'	34:i:783:G:OP1	0.86	1.01
34:i:1187:C:H4'	34:i:1708:C:O2'	1.60	1.01
1:A:34:MET:HE3	1:A:37:TYR:HD2	1.18	1.01
1:A:66:VAL:HG13	1:A:186:ARG:CD	1.91	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:145:ILE:HD13	1:A:159:ILE:HG21	1.40	1.01
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
4:D:218:LEU:O	4:D:218:LEU:HD23	1.59	1.01
7:G:32:MET:SD	7:G:100:CYS:HA	1.99	1.01
10:J:79:ARG:NH1	10:J:83:ARG:CZ	2.23	1.01
14:N:27:LYS:CE	14:N:27:LYS:H	1.73	1.01
17:Q:93:VAL:HG13	17:Q:105:LYS:HE2	1.31	1.01
21:U:18:HIS:HE1	21:U:98:VAL:HG21	1.23	1.01
25:Y:36:PRO:HG2	25:Y:39:GLU:HG3	1.36	1.01
26:Z:94:LYS:C	26:Z:94:LYS:HD3	1.84	1.01
31:e:80:LEU:H	36:n:82:ARG:C	1.68	1.01
33:g:259:TRP:HE3	33:g:259:TRP:N	1.58	1.01
35:l:48:GLN:CG	35:l:82:VAL:CG1	2.38	1.01
1:A:11:LYS:HD3	1:A:13:GLU:HG3	1.42	1.01
1:A:118:GLU:OE1	3:C:50:LYS:CE	2.08	1.01
3:C:195:PRO:CG	3:C:221:PHE:CZ	2.44	1.01
6:F:47:LYS:CG	17:Q:117:ARG:HH22	1.72	1.01
6:F:63:LYS:HD3	6:F:71:ARG:NH1	1.67	1.01
7:G:76:LEU:HD22	7:G:92:ARG:HG2	1.05	1.01
8:H:23:ILE:HD13	8:H:27:LEU:CD2	1.89	1.01
9:I:25:ARG:NH1	34:i:423:A:OP1	1.93	1.01
11:K:83:LEU:O	11:K:84:HIS:CG	2.12	1.01
29:c:11:LEU:HD13	29:c:35:MET:HE2	1.39	1.01
1:A:10:MET:SD	1:A:10:MET:N	2.30	1.01
1:A:34:MET:HE3	1:A:37:TYR:CD2	1.95	1.01
2:B:105:LEU:HD11	2:B:213:ARG:CB	1.89	1.01
8:H:144:ILE:HD12	23:W:52:ILE:HG21	1.05	1.01
9:I:82:VAL:HG11	9:I:202:ILE:CD1	1.91	1.01
10:J:100:LEU:HG	10:J:101:LYS:N	1.73	1.01
12:L:7:GLU:CG	12:L:8:ARG:H	1.71	1.01
12:L:95:TYR:HA	12:L:102:PHE:CB	1.89	1.01
18:R:5:ARG:CB	18:R:10:LYS:HZ3	1.72	1.01
25:Y:20:ARG:HD3	25:Y:76:TYR:CZ	1.95	1.01
34:i:60:A:C2	34:i:326:A:H5'	1.81	1.01
34:i:1054:A:O2'	35:l:44:LEU:HD11	0.84	1.01
1:A:9:GLN:HB3	1:A:10:MET:SD	2.00	1.01
1:A:66:VAL:CG2	1:A:186:ARG:HD3	1.90	1.01
3:C:59:LYS:HG3	3:C:254:PHE:CE1	1.94	1.01
4:D:16:ILE:HG21	30:d:22:ARG:NH2	1.76	1.01
4:D:212:GLU:CG	18:R:19:LYS:HD3	1.90	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:70:ILE:HG12	5:E:92:ILE:HD11	1.03	1.01
8:H:36:LEU:CD1	8:H:36:LEU:C	2.29	1.01
10:J:89:GLU:CA	10:J:92:MET:CB	2.36	1.01
12:L:147:LYS:CD	12:L:147:LYS:C	2.30	1.01
13:M:12:MET:HG3	13:M:16:THR:CG2	1.90	1.01
17:Q:114:GLN:HG3	17:Q:115:TYR:H	1.20	1.01
18:R:5:ARG:CB	18:R:10:LYS:NZ	2.22	1.01
18:R:33:ARG:NH2	33:g:83:TRP:CE3	2.29	1.01
31:e:81:ALA:CB	36:n:82:ARG:NH1	2.24	1.01
34:i:61:A:C6	34:i:326:A:OP2	2.10	1.01
34:i:1822:C:H1'	34:i:1843:G:H22	1.21	1.01
1:A:24:HIS:HD2	1:A:48:ILE:HG23	1.25	1.00
1:A:97:THR:CG2	1:A:98:PRO:CD	2.37	1.00
3:C:234:SER:HA	22:V:23:ILE:HD12	1.38	1.00
4:D:212:GLU:CG	18:R:19:LYS:HD2	1.88	1.00
11:K:83:LEU:CD1	11:K:85:LEU:CD2	2.38	1.00
15:O:54:CYS:SG	15:O:84:ARG:HB3	2.01	1.00
17:Q:93:VAL:HG13	17:Q:105:LYS:HD3	1.41	1.00
17:Q:100:VAL:HG12	17:Q:101:ASP:H	0.86	1.00
19:S:46:ARG:CG	20:T:50:GLU:OE2	2.09	1.00
26:Z:44:LEU:C	26:Z:44:LEU:CD1	2.30	1.00
27:a:23:CYS:CB	27:a:28:CYS:SG	2.48	1.00
36:n:61:ILE:HA	36:n:91:VAL:HB	1.43	1.00
1:A:24:HIS:CD2	1:A:48:ILE:HG23	1.95	1.00
3:C:131:GLU:HG3	4:D:116:ARG:HH22	1.21	1.00
4:D:176:LEU:H	4:D:176:LEU:CD1	1.72	1.00
5:E:128:LYS:CD	5:E:130:PHE:CE1	2.45	1.00
5:E:139:LEU:CD1	5:E:154:ILE:HG21	1.90	1.00
5:E:248:ILE:C	10:J:72:PHE:CE1	2.38	1.00
6:F:42:LYS:CD	6:F:42:LYS:H	1.73	1.00
6:F:145:ARG:HG2	29:c:48:GLY:HA2	1.38	1.00
7:G:121:ILE:CG2	7:G:122:PRO:HD3	1.91	1.00
11:K:2:LEU:O	11:K:3:MET:HB3	1.58	1.00
12:L:4:ILE:HD12	12:L:4:ILE:H	1.12	1.00
14:N:21:SER:O	14:N:22:VAL:HG22	1.61	1.00
14:N:132:LYS:HA	14:N:132:LYS:HE3	1.01	1.00
16:P:44:ARG:NH2	16:P:84:ILE:N	2.09	1.00
16:P:53:GLN:HE21	16:P:80:LEU:HD13	1.26	1.00
16:P:128:HIS:CE1	34:i:1516:C:O2	2.14	1.00
25:Y:36:PRO:HG2	25:Y:39:GLU:CB	1.91	1.00
27:a:62:TYR:O	27:a:63:VAL:CB	2.06	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:78:GLY:H	36:n:88:LYS:C	1.69	1.00
31:e:115:ARG:C	31:e:119:VAL:CG2	2.34	1.00
33:g:31:ILE:HG22	33:g:43:TRP:HB2	1.40	1.00
34:i:60:A:C5	34:i:326:A:H5'	1.95	1.00
34:i:1165:G:H5"	34:i:1815:U:C5'	1.89	1.00
36:n:71:ILE:HG22	36:n:77:ILE:HD13	1.43	1.00
1:A:186:ARG:HG2	1:A:186:ARG:NH1	1.67	1.00
2:B:225:LEU:HB3	2:B:229:MET:HE2	1.37	1.00
3:C:101:THR:HG22	3:C:104:GLY:C	1.84	1.00
4:D:76:ARG:HD3	11:K:66:HIS:HE1	1.25	1.00
13:M:70:ALA:HB3	13:M:71:GLU:OE2	1.61	1.00
13:M:100:PRO:O	13:M:101:ARG:HD2	1.61	1.00
16:P:111:MET:O	16:P:114:HIS:CD2	2.15	1.00
19:S:137:LYS:C	19:S:141:ARG:HH21	1.69	1.00
20:T:40:ALA:HB3	20:T:43:LYS:HG2	1.01	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
25:Y:99:LYS:CA	25:Y:99:LYS:CE	2.39	1.00
28:b:33:MET:HE2	28:b:35:VAL:CG2	1.90	1.00
2:B:19:LYS:O	2:B:21:VAL:HG13	1.61	1.00
2:B:125:VAL:HG11	2:B:173:THR:HG22	1.43	1.00
2:B:148:ASN:C	18:R:124:VAL:HG23	1.70	1.00
4:D:43:PRO:O	4:D:44:THR:HG23	1.58	1.00
4:D:192:TRP:CE3	4:D:196:GLY:HA2	1.72	1.00
7:G:142:ARG:HH11	7:G:142:ARG:HG3	1.26	1.00
9:I:144:LYS:O	9:I:145:ILE:CG1	2.09	1.00
11:K:83:LEU:CG	11:K:85:LEU:HD21	1.90	1.00
12:L:95:TYR:CA	12:L:102:PHE:HB3	1.89	1.00
16:P:127:LYS:HB2	16:P:127:LYS:HZ2	0.87	1.00
20:T:31:PRO:CB	20:T:33:TRP:CZ2	2.42	1.00
22:V:41:LYS:O	22:V:43:THR:N	1.94	1.00
24:X:56:GLY:HA3	36:n:84:TYR:CE1	1.96	1.00
26:Z:52:LYS:O	26:Z:55:TYR:N	1.94	1.00
33:g:87:LEU:CD1	33:g:101:PHE:HB2	1.89	1.00
33:g:275:ILE:O	33:g:276:SER:HB3	1.61	1.00
35:l:48:GLN:HG2	35:l:82:VAL:HG11	1.38	1.00
4:D:177:LEU:HD22	4:D:182:LEU:HD23	1.43	1.00
16:P:84:ILE:O	16:P:86:LEU:HD23	1.59	1.00
21:U:64:THR:HG22	21:U:79:ARG:CG	1.91	1.00
25:Y:13:MET:HE3	25:Y:14:THR:H	1.24	1.00
2:B:120:MET:HE3	2:B:142:PHE:HZ	1.24	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:59:LEU:CD1	4:D:60:GLY:N	2.23	1.00
11:K:62:PHE:HD1	11:K:67:PHE:CE2	1.76	1.00
12:L:147:LYS:CG	12:L:148:ALA:CA	2.29	1.00
18:R:13:ALA:CB	18:R:54:VAL:HG22	1.92	1.00
21:U:19:ARG:HG3	21:U:92:HIS:CE1	1.95	1.00
25:Y:18:LEU:CG	25:Y:20:ARG:NH1	2.25	1.00
29:c:67:ARG:CG	29:c:68:LEU:H	1.73	1.00
33:g:87:LEU:CD1	33:g:101:PHE:CB	2.40	1.00
33:g:98:THR:O	33:g:99:ARG:HD2	1.60	1.00
2:B:136:HIS:CE1	2:B:138:PHE:CZ	2.49	1.00
3:C:197:LYS:CA	3:C:200:LEU:HD23	1.81	1.00
8:H:163:GLN:OE1	8:H:189:PHE:HE2	1.38	1.00
10:J:39:ASN:H	10:J:42:GLU:HG2	1.26	1.00
20:T:103:VAL:O	20:T:107:LEU:HG	1.62	1.00
21:U:50:VAL:CG2	21:U:51:LYS:C	2.34	1.00
24:X:114:ASP:O	24:X:116:PRO:CD	2.10	1.00
33:g:172:LYS:HE2	33:g:191:HIS:C	1.86	1.00
33:g:259:TRP:N	33:g:259:TRP:CE3	2.29	1.00
2:B:55:THR:O	2:B:56:LYS:HD2	1.62	0.99
9:I:114:GLU:OE1	9:I:133:GLU:CD	1.93	0.99
18:R:33:ARG:CB	33:g:150:TRP:CZ2	2.44	0.99
31:e:79:SER:C	36:n:84:TYR:HD2	1.60	0.99
34:i:1843:G:H4'	35:l:65:LYS:CG	1.91	0.99
7:G:14:LYS:HZ2	7:G:123:GLY:CA	1.71	0.99
7:G:32:MET:HE1	7:G:100:CYS:HA	1.00	0.99
9:I:154:LYS:HE2	9:I:154:LYS:C	1.87	0.99
9:I:161:LEU:CD1	9:I:199:LEU:HD12	1.85	0.99
10:J:127:ARG:HG3	10:J:127:ARG:NH1	1.55	0.99
10:J:170:PRO:HB2	10:J:174:LYS:HE2	1.42	0.99
11:K:62:PHE:CE1	11:K:67:PHE:CE2	2.50	0.99
12:L:7:GLU:HG3	12:L:8:ARG:H	1.26	0.99
16:P:46:SER:O	16:P:49:LEU:HD22	1.61	0.99
17:Q:9:SER:HB3	17:Q:26:LYS:HG2	1.40	0.99
22:V:24:ILE:O	22:V:24:ILE:HG23	1.59	0.99
2:B:20:LYS:C	2:B:21:VAL:HG13	1.87	0.99
16:P:127:LYS:HZ2	16:P:127:LYS:CB	1.74	0.99
24:X:60:LYS:CE	24:X:116:PRO:HG3	1.92	0.99
25:Y:21:LYS:HD3	25:Y:21:LYS:N	1.74	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:19:PRO:HG2	15:O:27:VAL:HG21	1.01	0.99
17:Q:50:LYS:NZ	17:Q:85:ARG:HH22	1.58	0.99
24:X:71:ARG:HE	24:X:82:THR:CG2	1.75	0.99
28:b:3:LEU:HD23	28:b:3:LEU:N	1.78	0.99
1:A:57:LYS:CE	22:V:70:LEU:CD1	2.41	0.99
2:B:205:TYR:CG	2:B:206:PRO:HD2	1.98	0.99
6:F:20:PHE:O	6:F:21:GLY:C	2.06	0.99
9:I:79:ILE:HG22	9:I:103:LEU:O	1.62	0.99
9:I:206:LYS:HD2	9:I:207:GLY:H	1.24	0.99
10:J:117:LEU:O	10:J:119:LEU:HD23	1.62	0.99
14:N:21:SER:O	14:N:22:VAL:HG13	1.61	0.99
16:P:9:LYS:O	16:P:10:ARG:CG	2.11	0.99
18:R:20:TYR:CE2	18:R:38:ILE:HB	1.96	0.99
24:X:139:GLU:O	24:X:141:PRO:HD3	1.60	0.99
25:Y:35:VAL:HG12	25:Y:36:PRO:HD2	1.42	0.99
25:Y:64:PHE:CD1	25:Y:64:PHE:N	2.29	0.99
27:a:84:VAL:HB	34:i:1860:A:N6	1.76	0.99
33:g:194:TYR:CE2	33:g:212:LYS:HB2	1.96	0.99
34:i:1054:A:O4'	35:l:38:ARG:NH1	1.95	0.99
1:A:103:PHE:HE2	1:A:136:GLU:CD	1.68	0.99
8:H:138:GLU:OE2	14:N:19:ARG:CB	2.09	0.99
12:L:10:TYR:HE2	12:L:12:LYS:HE3	1.27	0.99
16:P:46:SER:O	16:P:49:LEU:CD2	2.11	0.99
19:S:136:THR:OG1	34:i:1516:C:OP2	1.79	0.99
29:c:21:THR:HG22	29:c:22:GLY:N	1.78	0.99
1:A:118:GLU:OE1	3:C:50:LYS:HE2	1.62	0.99
7:G:176:ILE:HG22	7:G:179:LEU:CB	1.91	0.99
9:I:139:LYS:CB	9:I:145:ILE:HD11	1.93	0.99
11:K:28:HIS:HE1	30:d:8:TRP:CD1	1.81	0.99
15:O:54:CYS:SG	15:O:84:ARG:CB	2.51	0.99
19:S:14:ARG:HH12	19:S:17:ASN:HA	0.84	0.99
36:n:62:ARG:CB	36:n:92:ILE:HA	1.92	0.99
1:A:24:HIS:NE2	18:R:105:MET:CE	2.24	0.99
1:A:127:PRO:HG2	1:A:153:PRO:HD2	1.42	0.99
8:H:144:ILE:HD12	23:W:52:ILE:HD13	1.42	0.99
9:I:155:ASN:C	12:L:22:ARG:HD2	1.87	0.99
12:L:147:LYS:HG3	12:L:148:ALA:HA	1.23	0.99
16:P:107:ILE:HA	16:P:111:MET:SD	2.01	0.99
16:P:127:LYS:O	16:P:127:LYS:HE3	1.61	0.99
18:R:100:PRO:HB2	18:R:119:VAL:CG2	1.91	0.99
20:T:119:TRP:CD1	34:i:1556:A:C2	2.51	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:50:VAL:HG13	21:U:51:LYS:N	1.74	0.99
21:U:50:VAL:CG2	21:U:52:GLY:HA2	1.91	0.99
24:X:27:TYR:CD1	24:X:31:HIS:NE2	2.30	0.99
25:Y:48:TYR:O	25:Y:50:THR:HG23	1.61	0.99
6:F:73:THR:CG2	6:F:93:VAL:HG21	1.92	0.99
16:P:123:TYR:OH	19:S:124:ARG:CZ	2.11	0.99
21:U:51:LYS:HB2	21:U:90:ASP:HB2	1.41	0.99
24:X:29:LYS:CD	24:X:34:THR:OG1	2.11	0.99
24:X:67:ARG:C	24:X:68:LYS:HG3	1.86	0.99
25:Y:98:GLU:C	25:Y:98:GLU:CD	2.31	0.99
1:A:185:MET:HE1	22:V:39:VAL:HG12	1.00	0.99
1:A:205:ARG:CG	1:A:206:ASP:N	2.23	0.99
5:E:70:ILE:CG1	5:E:92:ILE:HD11	1.84	0.99
15:O:31:CYS:CB	15:O:95:ILE:HG12	1.92	0.99
29:c:15:THR:CG2	29:c:33:GLU:CG	2.41	0.99
33:g:100:ARG:HH11	33:g:100:ARG:CG	1.74	0.99
1:A:205:ARG:NH2	18:R:82:ASP:CA	1.90	0.98
4:D:43:PRO:C	4:D:44:THR:HG23	1.88	0.98
4:D:132:LYS:N	4:D:191:PRO:CD	2.24	0.98
5:E:25:SER:CB	34:i:485:U:O2'	2.11	0.98
6:F:20:PHE:O	6:F:22:LYS:CA	2.10	0.98
7:G:50:VAL:HG13	7:G:111:LEU:HB3	1.45	0.98
7:G:216:ARG:O	7:G:220:ALA:N	1.95	0.98
10:J:92:MET:O	10:J:93:LYS:CE	2.10	0.98
15:O:128:ARG:HG3	27:a:62:TYR:OH	1.63	0.98
16:P:52:LYS:H	16:P:54:HIS:CD2	1.81	0.98
17:Q:7:LEU:CD2	17:Q:8:GLN:OE1	2.11	0.98
18:R:33:ARG:CB	33:g:150:TRP:CH2	2.45	0.98
1:A:185:MET:HE1	22:V:39:VAL:CG1	1.92	0.98
6:F:93:VAL:O	6:F:97:PHE:HD1	1.41	0.98
9:I:141:ARG:HD3	9:I:144:LYS:CB	1.92	0.98
16:P:127:LYS:C	16:P:127:LYS:CE	2.36	0.98
17:Q:9:SER:HB2	17:Q:26:LYS:HE3	1.01	0.98
19:S:8:LYS:HD3	19:S:9:PHE:HE1	0.84	0.98
25:Y:36:PRO:HG2	25:Y:39:GLU:CD	1.83	0.98
25:Y:114:MET:CA	25:Y:124:ASN:ND2	2.25	0.98
35:l:45:THR:CG2	35:l:85:LEU:HD12	1.92	0.98
1:A:5:LEU:C	1:A:5:LEU:HD22	1.87	0.98
1:A:32:PHE:CE1	1:A:33:GLN:NE2	2.28	0.98
3:C:55:VAL:CG2	3:C:82:PHE:CE2	2.46	0.98
4:D:21:LEU:HD11	4:D:48:ILE:HD12	1.01	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:91:ARG:HH11	6:F:94:LYS:HB2	1.06	0.98
10:J:124:HIS:NE2	34:i:516:A:H5"	1.78	0.98
11:K:18:GLU:O	11:K:92:ALA:HB3	1.60	0.98
12:L:10:TYR:HD2	12:L:12:LYS:NZ	1.54	0.98
12:L:20:LYS:O	12:L:21:LYS:HB2	1.62	0.98
15:O:124:MET:O	27:a:56:VAL:CG1	2.09	0.98
19:S:6:PRO:HA	26:Z:50:PHE:CB	1.93	0.98
20:T:76:THR:HB	20:T:95:GLY:O	1.61	0.98
33:g:2:THR:O	33:g:3:GLU:CB	2.08	0.98
33:g:140:TYR:CZ	33:g:182:CYS:HB2	1.98	0.98
34:i:1054:A:C2'	35:l:44:LEU:HD11	1.93	0.98
2:B:137:LEU:HD23	2:B:215:VAL:HG13	1.44	0.98
19:S:14:ARG:NH1	19:S:17:ASN:CA	2.25	0.98
26:Z:48:VAL:O	26:Z:83:LEU:CD1	2.12	0.98
32:f:135:HIS:CB	32:f:138:ARG:HG2	1.85	0.98
33:g:172:LYS:HE2	33:g:192:THR:CG2	1.93	0.98
34:i:24:C:H2'	34:i:25:A:H8	1.29	0.98
2:B:179:ASN:OD1	2:B:183:GLU:OE1	1.80	0.98
5:E:21:ASP:CG	5:E:24:THR:HG21	1.87	0.98
6:F:14:THR:HB	17:Q:56:LEU:HD13	1.43	0.98
10:J:30:LYS:HA	31:e:112:TYR:HE1	1.23	0.98
11:K:30:PRO:C	11:K:31:LYS:HG3	1.73	0.98
12:L:35:ARG:HH21	12:L:63:THR:HG21	1.26	0.98
25:Y:63:HIS:ND1	25:Y:64:PHE:CE1	2.30	0.98
32:f:108:VAL:HG21	32:f:114:ILE:HG22	1.43	0.98
34:i:1824:U:N1	34:i:1845:A:H2	1.50	0.98
34:i:1843:G:H4'	35:l:65:LYS:HG3	1.44	0.98
36:n:65:LEU:HG	36:n:93:LEU:CA	1.93	0.98
3:C:234:SER:CA	22:V:23:ILE:CD1	2.41	0.98
6:F:122:ARG:NE	6:F:193:LYS:NZ	2.10	0.98
8:H:93:VAL:HG22	8:H:94:PHE:H	1.28	0.98
9:I:141:ARG:CG	9:I:144:LYS:CB	2.37	0.98
10:J:138:ARG:HH11	10:J:156:HIS:CE1	1.79	0.98
10:J:165:TYR:N	10:J:165:TYR:HD1	1.60	0.98
16:P:83:MET:HE3	16:P:116:LEU:CD1	1.92	0.98
17:Q:21:ALA:HB2	17:Q:72:VAL:HG22	1.45	0.98
20:T:143:LYS:HD2	20:T:144:LYS:H	1.26	0.98
33:g:232:GLY:HA2	33:g:257:LYS:NZ	1.77	0.98
34:i:783:G:O2'	34:i:896:C:C5'	2.11	0.98
5:E:47:PHE:CE2	5:E:52:LEU:CD1	2.46	0.98
6:F:112:LEU:HD23	6:F:116:ILE:HD11	1.45	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:118:ALA:O	9:I:119:LEU:HD23	1.61	0.98
12:L:22:ARG:NH1	12:L:22:ARG:HB3	1.79	0.98
23:W:11:LEU:HD12	23:W:74:VAL:HB	1.45	0.98
33:g:46:THR:O	33:g:47:ARG:HB3	1.18	0.98
33:g:282:GLU:HB3	33:g:283:PRO:CD	1.92	0.98
36:n:65:LEU:HG	36:n:93:LEU:HA	1.00	0.98
2:B:57:ILE:HG23	2:B:57:ILE:O	1.62	0.98
4:D:105:LEU:HD23	4:D:184:ILE:CD1	1.92	0.98
4:D:193:ASP:HA	4:D:202:LYS:O	1.61	0.98
4:D:195:SER:C	4:D:197:LYS:CA	2.34	0.98
5:E:61:VAL:O	5:E:65:CYS:SG	2.22	0.98
6:F:42:LYS:HE3	6:F:43:GLU:N	1.78	0.98
9:I:19:LYS:HE2	9:I:20:PRO:HD2	1.39	0.98
20:T:31:PRO:HB3	20:T:33:TRP:CH2	1.97	0.98
23:W:85:ASP:O	23:W:89:TRP:HD1	1.47	0.98
34:i:837:G:C2'	34:i:838:C:H5'	1.93	0.98
2:B:68:GLU:OE2	2:B:83:LYS:HE2	1.64	0.98
5:E:153:LEU:HD23	7:G:216:ARG:NH2	1.77	0.98
6:F:204:ARG:HH12	29:c:59:LEU:HB3	1.28	0.98
7:G:41:LEU:CD2	7:G:45:TRP:CE3	2.27	0.98
7:G:84:TYR:CE2	7:G:86:PRO:HG3	1.99	0.98
10:J:138:ARG:NH1	10:J:156:HIS:CG	2.31	0.98
11:K:34:GLU:O	11:K:35:LEU:CB	2.11	0.98
12:L:156:GLN:OE1	12:L:158:PHE:HE2	1.35	0.98
33:g:87:LEU:HD12	33:g:101:PHE:HB3	1.44	0.98
6:F:18:LYS:HE3	17:Q:115:TYR:CD1	1.96	0.98
6:F:91:ARG:HH11	6:F:94:LYS:HB3	1.23	0.98
6:F:136:ARG:O	6:F:203:ASN:HB3	1.62	0.98
17:Q:42:ILE:HD13	17:Q:51:LEU:CG	1.93	0.98
30:d:13:LYS:HE3	30:d:14:PHE:HE2	0.91	0.98
34:i:1700:C:C1'	34:i:1845:A:O3'	2.11	0.98
1:A:66:VAL:CG1	1:A:186:ARG:HB3	1.92	0.97
2:B:87:ILE:CD1	2:B:101:HIS:HD2	1.74	0.97
5:E:38:LEU:C	5:E:38:LEU:CD1	2.33	0.97
13:M:13:ASP:O	13:M:16:THR:N	1.97	0.97
16:P:41:GLN:HE22	16:P:45:LEU:HG	0.81	0.97
20:T:119:TRP:CD1	34:i:1556:A:H2	1.82	0.97
34:i:60:A:C4	34:i:326:A:H5'	1.99	0.97
34:i:744:C:O2'	34:i:749:C:C4	2.16	0.97
35:l:47:VAL:N	35:l:83:ILE:O	1.97	0.97
1:A:17:LYS:HE2	1:A:17:LYS:N	1.79	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:36:PRO:HB3	2:B:231:LEU:HD21	1.00	0.97
4:D:108:LYS:HB3	4:D:113:LEU:HD22	1.41	0.97
10:J:161:LEU:O	10:J:162:ARG:CB	1.96	0.97
10:J:165:TYR:N	10:J:165:TYR:CD1	2.27	0.97
12:L:80:MET:SD	12:L:120:VAL:HG12	2.04	0.97
14:N:55:ARG:NH1	28:b:47:PHE:CE2	2.32	0.97
16:P:127:LYS:HZ1	16:P:127:LYS:C	1.72	0.97
16:P:127:LYS:HE3	16:P:127:LYS:C	1.89	0.97
19:S:31:THR:HA	19:S:36:VAL:HG22	1.44	0.97
34:i:744:C:O2'	34:i:749:C:N4	1.97	0.97
4:D:158:ILE:HD12	4:D:189:MET:HE1	1.41	0.97
7:G:176:ILE:HB	7:G:179:LEU:HD23	1.00	0.97
10:J:66:LYS:CE	34:i:687:G:C2'	2.37	0.97
13:M:89:VAL:HG21	13:M:109:VAL:HG11	1.46	0.97
14:N:137:PRO:O	14:N:138:ASN:CG	2.07	0.97
19:S:47:LYS:HZ2	19:S:78:LYS:HB2	1.13	0.97
30:d:13:LYS:HG3	30:d:14:PHE:HD2	1.27	0.97
33:g:2:THR:O	33:g:3:GLU:HB3	1.61	0.97
33:g:119:GLN:NE2	33:g:121:VAL:HG23	1.77	0.97
1:A:43:SER:OG	18:R:101:ASP:OD2	1.82	0.97
2:B:20:LYS:O	2:B:21:VAL:CG1	2.12	0.97
4:D:48:ILE:CG2	4:D:86:LEU:HG	1.94	0.97
7:G:64:LYS:CD	7:G:67:VAL:HG13	1.94	0.97
10:J:100:LEU:HD12	10:J:104:ASP:OD2	1.62	0.97
12:L:97:ARG:O	12:L:99:TYR:N	1.97	0.97
16:P:41:GLN:CG	16:P:84:ILE:CG1	2.15	0.97
20:T:143:LYS:O	20:T:144:LYS:HB3	1.62	0.97
33:g:194:TYR:OH	33:g:212:LYS:HD2	1.62	0.97
1:A:16:LEU:HD22	18:R:111:PHE:CE1	1.98	0.97
1:A:205:ARG:NH2	18:R:82:ASP:HA	1.32	0.97
4:D:21:LEU:CD1	4:D:48:ILE:CD1	2.42	0.97
4:D:46:THR:OG1	4:D:79:PHE:HZ	1.29	0.97
4:D:126:ILE:CD1	4:D:134:CYS:SG	2.52	0.97
33:g:88:ARG:HD2	33:g:90:TRP:CZ2	1.99	0.97
34:i:1165:G:H5'	34:i:1815:U:H5"	1.45	0.97
3:C:110:LYS:HE2	3:C:112:PHE:HZ	1.15	0.97
12:L:82:MET:CE	34:i:363:G:H4'	1.94	0.97
19:S:85:ASN:OD1	19:S:97:GLN:HA	1.65	0.97
22:V:18:SER:OG	22:V:72:LEU:CD1	2.13	0.97
28:b:64:CYS:HG	28:b:73:LEU:HD23	1.25	0.97
33:g:212:LYS:HA	33:g:235:ILE:HG13	1.44	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:35:ILE:HD11	35:l:89:GLN:N	1.80	0.97
6:F:36:GLN:CG	6:F:37:ASP:CG	2.38	0.97
13:M:12:MET:CG	13:M:16:THR:HG23	1.95	0.97
14:N:22:VAL:CB	14:N:23:PRO:HA	1.95	0.97
18:R:120:THR:O	18:R:121:GLN:HB2	1.61	0.97
21:U:18:HIS:ND1	21:U:93:SER:O	1.98	0.97
22:V:19:ALA:HB3	22:V:59:ILE:CD1	1.95	0.97
25:Y:63:HIS:CB	25:Y:64:PHE:CE1	2.47	0.97
34:i:1188:U:O2'	34:i:1816:A:H4'	1.65	0.97
2:B:31:TYR:HD1	2:B:94:LYS:HA	1.26	0.97
8:H:157:HIS:C	8:H:158:LEU:HD23	1.89	0.97
11:K:27:VAL:HG13	11:K:43:LEU:HD21	1.43	0.97
16:P:118:GLU:O	19:S:119:ALA:CB	2.11	0.97
21:U:40:ILE:HD11	21:U:53:PRO:CB	1.94	0.97
24:X:51:VAL:HG13	24:X:70:VAL:HG13	1.47	0.97
1:A:94:THR:HG21	1:A:182:VAL:HG21	1.45	0.97
3:C:50:LYS:HD3	3:C:251:TYR:CE1	1.97	0.97
3:C:115:ILE:HD11	3:C:140:ILE:HG23	1.45	0.97
6:F:122:ARG:HE	6:F:193:LYS:HZ1	1.10	0.97
12:L:80:MET:HE1	12:L:121:GLN:HA	1.42	0.97
14:N:19:ARG:HH12	28:b:84:HIS:C	1.73	0.97
17:Q:92:LEU:CG	17:Q:96:TYR:HE2	1.77	0.97
22:V:9:VAL:HG12	22:V:10:ASP:N	1.77	0.97
25:Y:18:LEU:CG	25:Y:20:ARG:HH11	1.76	0.97
28:b:33:MET:CA	28:b:81:ARG:O	2.12	0.97
33:g:7:LEU:HD12	33:g:310:TRP:CD1	2.00	0.97
35:l:50:ILE:HG21	35:l:59:LEU:HD12	0.98	0.97
3:C:234:SER:C	22:V:23:ILE:CD1	2.37	0.97
4:D:16:ILE:HD13	30:d:22:ARG:HH21	1.23	0.97
5:E:248:ILE:CD1	10:J:72:PHE:CD1	2.44	0.97
6:F:25:THR:HG23	6:F:41:VAL:HG23	1.41	0.97
8:H:83:LEU:HD11	8:H:92:VAL:CB	1.92	0.97
8:H:147:LYS:HE2	8:H:153:LEU:HD12	1.46	0.97
10:J:110:LEU:CD1	10:J:130:ILE:HD11	1.78	0.97
13:M:67:ALA:O	32:f:114:ILE:HD13	1.63	0.97
15:O:125:LYS:HZ1	27:a:57:SER:C	1.69	0.97
18:R:33:ARG:HB3	33:g:150:TRP:HZ2	1.13	0.97
25:Y:7:ILE:CD1	25:Y:43:LYS:HG2	1.94	0.97
7:G:188:LYS:HA	7:G:191:ARG:HD3	1.44	0.96
9:I:141:ARG:CD	9:I:144:LYS:HB2	1.88	0.96
11:K:65:ARG:CB	11:K:65:ARG:HH11	1.76	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:76:LEU:O	13:M:128:PHE:CZ	2.18	0.96
19:S:26:ILE:HD11	19:S:59:LEU:HD21	1.46	0.96
19:S:46:ARG:CZ	20:T:50:GLU:CG	2.44	0.96
20:T:75:MET:CE	20:T:79:TYR:HE2	1.77	0.96
33:g:149:GLU:OE2	33:g:150:TRP:N	1.97	0.96
34:i:744:C:H4'	34:i:747:G:H1	0.80	0.96
35:l:35:ILE:CD1	35:l:89:GLN:N	2.28	0.96
6:F:42:LYS:CD	6:F:42:LYS:N	2.28	0.96
11:K:98:ARG:HG2	11:K:98:ARG:HH11	1.26	0.96
23:W:129:PHE:HD1	23:W:129:PHE:C	1.71	0.96
28:b:12:PRO:O	28:b:16:LYS:HD3	1.64	0.96
33:g:118:ARG:HA	33:g:118:ARG:HE	1.28	0.96
1:A:48:ILE:CG1	18:R:105:MET:HE2	1.87	0.96
1:A:119:PRO:HG2	1:A:142:LEU:HD13	1.44	0.96
6:F:73:THR:HG22	6:F:93:VAL:CG2	1.93	0.96
6:F:185:SER:CA	6:F:190:ILE:HG21	1.95	0.96
8:H:10:LYS:HZ1	8:H:17:ASP:N	1.63	0.96
8:H:122:LEU:HD13	8:H:123:THR:CA	1.95	0.96
9:I:142:SER:HB2	9:I:143:LYS:HZ3	1.26	0.96
11:K:15:LEU:CD1	11:K:21:MET:HE2	1.94	0.96
24:X:29:LYS:CD	24:X:34:THR:HG21	1.94	0.96
24:X:52:LEU:CD2	24:X:71:ARG:HB3	1.94	0.96
25:Y:114:MET:HA	25:Y:124:ASN:CG	1.88	0.96
34:i:1843:G:O5'	35:l:65:LYS:HE3	1.64	0.96
1:A:106:GLY:C	1:A:113:GLN:OE1	2.08	0.96
4:D:67:ARG:HH11	4:D:67:ARG:HG3	1.28	0.96
5:E:130:PHE:HB3	5:E:138:HIS:CE1	2.00	0.96
8:H:8:ILE:HG23	8:H:9:VAL:HG22	0.98	0.96
9:I:136:ILE:HG22	9:I:139:LYS:HE3	1.48	0.96
10:J:170:PRO:CG	10:J:175:ARG:HG2	1.93	0.96
12:L:7:GLU:HG3	12:L:8:ARG:N	1.78	0.96
13:M:77:ILE:HG23	13:M:78:LYS:H	1.27	0.96
16:P:59:ARG:HD3	16:P:76:VAL:HG13	1.47	0.96
17:Q:8:GLN:HG2	17:Q:99:TYR:CE1	1.84	0.96
17:Q:58:LEU:HD13	17:Q:108:ILE:HG23	1.45	0.96
20:T:84:ARG:HH21	20:T:84:ARG:CB	1.77	0.96
25:Y:7:ILE:CD1	25:Y:43:LYS:CB	2.44	0.96
26:Z:48:VAL:C	26:Z:83:LEU:CD1	2.38	0.96
26:Z:92:LEU:HD11	26:Z:109:TYR:CE1	2.00	0.96
32:f:140:TYR:CE1	32:f:146:LEU:O	2.18	0.96
2:B:153:THR:HG23	2:B:154:SER:N	1.79	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:25:THR:HG22	6:F:42:LYS:HD2	0.97	0.96
6:F:141:VAL:CB	29:c:47:LYS:NZ	2.17	0.96
9:I:161:LEU:HD11	9:I:199:LEU:HD12	0.99	0.96
18:R:22:THR:HG22	18:R:73:LEU:CD1	1.95	0.96
21:U:67:LYS:CE	21:U:78:ASP:OD1	2.13	0.96
23:W:38:LEU:HA	23:W:41:MET:HE3	1.48	0.96
24:X:74:LEU:HD11	24:X:81:ILE:HD12	1.47	0.96
33:g:194:TYR:OH	33:g:212:LYS:CD	2.14	0.96
3:C:138:GLY:O	3:C:141:ILE:CG2	2.14	0.96
6:F:123:GLU:CD	29:c:59:LEU:HD11	1.78	0.96
8:H:37:LYS:HE2	8:H:41:ARG:NH1	1.81	0.96
10:J:134:HIS:CE1	10:J:163:SER:CB	2.41	0.96
16:P:51:ARG:N	16:P:51:ARG:HD2	1.77	0.96
16:P:114:HIS:NE2	19:S:113:ARG:NH1	2.13	0.96
20:T:77:LYS:CA	20:T:94:ARG:HG2	1.96	0.96
24:X:142:ARG:CB	24:X:142:ARG:NH1	2.28	0.96
34:i:1823:G:H1'	34:i:1844:A:N1	1.60	0.96
1:A:34:MET:CE	1:A:37:TYR:CD2	2.49	0.96
2:B:77:ASP:O	2:B:79:VAL:HG22	1.64	0.96
4:D:212:GLU:CB	18:R:19:LYS:HD2	1.96	0.96
12:L:7:GLU:HG3	12:L:8:ARG:HG3	1.46	0.96
25:Y:99:LYS:N	25:Y:99:LYS:CE	2.29	0.96
33:g:42:MET:HG3	33:g:92:LEU:CD1	1.95	0.96
34:i:1169:A:O2'	34:i:1711:C:H4'	1.65	0.96
1:A:177:MET:HE1	1:A:180:ARG:HH21	1.26	0.96
6:F:76:MET:HE2	6:F:169:ILE:HG21	1.43	0.96
7:G:212:LEU:HA	7:G:215:LYS:CE	1.95	0.96
10:J:70:ARG:NH2	10:J:94:LEU:HD21	1.80	0.96
11:K:83:LEU:HD12	11:K:85:LEU:HD21	1.46	0.96
15:O:44:VAL:HG21	15:O:93:LEU:HD13	1.45	0.96
21:U:111:GLU:OE1	21:U:111:GLU:HA	1.65	0.96
25:Y:61:ARG:HG3	25:Y:61:ARG:NH2	1.63	0.96
29:c:5:ARG:CZ	29:c:5:ARG:N	2.29	0.96
2:B:150:ILE:CG1	18:R:125:GLY:CA	2.44	0.96
7:G:32:MET:HE2	7:G:63:MET:SD	2.06	0.96
9:I:194:GLU:CD	12:L:12:LYS:NZ	2.22	0.96
10:J:17:ARG:CG	10:J:18:ARG:CD	2.29	0.96
10:J:170:PRO:CB	10:J:174:LYS:HE2	1.95	0.96
24:X:105:PHE:HE2	24:X:119:ARG:HA	0.86	0.96
31:e:125:LYS:O	31:e:126:LYS:HD2	1.65	0.96
1:A:186:ARG:HH11	1:A:186:ARG:CG	1.79	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:177:LEU:CD2	4:D:182:LEU:CD2	2.43	0.96
7:G:162:LEU:HD23	7:G:172:LYS:HE2	1.46	0.96
9:I:141:ARG:O	9:I:143:LYS:HB3	1.65	0.96
11:K:3:MET:HE1	11:K:8:ARG:HH22	1.14	0.96
14:N:12:SER:O	14:N:13:GLN:HG3	1.65	0.96
14:N:115:LEU:O	14:N:119:GLU:CG	2.13	0.96
20:T:77:LYS:HA	20:T:94:ARG:HG2	1.47	0.96
21:U:67:LYS:CG	21:U:78:ASP:OD2	2.13	0.96
31:e:79:SER:O	36:n:84:TYR:CD2	2.16	0.96
34:i:227:A:H4'	34:i:782:G:O4'	1.65	0.96
2:B:120:MET:HE3	2:B:142:PHE:CZ	2.01	0.95
7:G:162:LEU:HD12	7:G:162:LEU:O	1.65	0.95
9:I:144:LYS:HB3	34:i:189:G:OP1	1.66	0.95
13:M:98:GLY:O	13:M:100:PRO:CD	2.13	0.95
16:P:41:GLN:NE2	16:P:84:ILE:CB	2.19	0.95
33:g:248:LEU:O	33:g:259:TRP:CZ3	2.19	0.95
2:B:125:VAL:HG11	2:B:173:THR:CG2	1.95	0.95
5:E:48:LEU:HD21	5:E:70:ILE:CD1	1.96	0.95
5:E:248:ILE:HG13	10:J:72:PHE:CE1	1.99	0.95
6:F:141:VAL:CG1	29:c:47:LYS:HZ1	1.79	0.95
8:H:144:ILE:O	23:W:51:GLU:HA	1.65	0.95
16:P:53:GLN:CG	16:P:80:LEU:HD11	1.87	0.95
20:T:77:LYS:HB2	20:T:94:ARG:CG	1.96	0.95
25:Y:12:PHE:CZ	25:Y:21:LYS:CB	2.49	0.95
25:Y:62:THR:HG22	25:Y:69:THR:HG22	1.45	0.95
34:i:61:A:N3	34:i:326:A:N9	2.13	0.95
36:n:62:ARG:HG3	36:n:92:ILE:HA	0.96	0.95
2:B:67:PHE:CD1	15:O:47:LEU:C	2.44	0.95
2:B:208:HIS:O	2:B:209:ASP:HB2	1.66	0.95
3:C:93:LYS:HD2	3:C:218:LEU:HD22	0.96	0.95
7:G:157:VAL:CG1	7:G:159:ARG:N	2.09	0.95
10:J:30:LYS:CA	31:e:112:TYR:CE1	2.49	0.95
10:J:37:LEU:CD1	10:J:42:GLU:CB	2.42	0.95
16:P:4:VAL:HA	16:P:10:ARG:HD2	1.46	0.95
17:Q:8:GLN:HG3	17:Q:99:TYR:CE1	1.76	0.95
19:S:94:LYS:HE3	19:S:95:TYR:O	1.66	0.95
32:f:144:CYS:HB3	32:f:147:THR:HG22	0.98	0.95
33:g:219:TRP:CE3	33:g:226:HIS:HD2	1.83	0.95
2:B:30:TRP:HE1	15:O:17:LEU:CD2	1.79	0.95
3:C:149:PRO:HB2	3:C:233:TYR:CE2	2.00	0.95
6:F:71:ARG:HH21	6:F:71:ARG:CG	1.80	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:67:VAL:HG21	7:G:99:GLY:HA2	1.45	0.95
10:J:115:PHE:HD1	10:J:122:SER:H	0.97	0.95
16:P:4:VAL:CA	16:P:10:ARG:CD	1.99	0.95
17:Q:135:PRO:CG	17:Q:141:TYR:HE1	1.78	0.95
21:U:41:ARG:O	21:U:45:GLU:HB2	1.65	0.95
27:a:62:TYR:O	27:a:63:VAL:HB	1.15	0.95
29:c:15:THR:HG22	29:c:33:GLU:CG	1.97	0.95
31:e:127:LYS:HD3	31:e:128:GLY:N	1.82	0.95
32:f:103:LEU:O	32:f:103:LEU:HD23	1.65	0.95
1:A:58:LEU:CD2	1:A:178:LEU:HD21	1.94	0.95
2:B:150:ILE:HG12	18:R:124:VAL:HG13	0.96	0.95
2:B:150:ILE:HB	18:R:125:GLY:H	1.32	0.95
3:C:142:LEU:CA	3:C:145:LEU:HD21	1.94	0.95
3:C:186:GLY:HA3	10:J:54:ARG:NH2	1.81	0.95
10:J:124:HIS:HE2	34:i:516:A:P	1.89	0.95
10:J:127:ARG:HH11	10:J:127:ARG:HG3	0.79	0.95
12:L:17:PHE:CE1	12:L:18:GLN:HB2	2.01	0.95
25:Y:36:PRO:HG3	25:Y:39:GLU:CD	1.86	0.95
36:n:60:HIS:O	36:n:91:VAL:N	1.98	0.95
2:B:148:ASN:HA	18:R:124:VAL:HG23	0.99	0.95
4:D:70:THR:CG2	4:D:86:LEU:HD13	1.96	0.95
6:F:42:LYS:CB	6:F:45:TYR:N	2.14	0.95
9:I:62:VAL:CG2	9:I:75:LYS:CE	2.45	0.95
10:J:169:ARG:CB	10:J:170:PRO:HD2	1.96	0.95
17:Q:105:LYS:HD2	17:Q:105:LYS:C	1.92	0.95
31:e:124:GLY:O	31:e:125:LYS:CG	2.14	0.95
2:B:36:PRO:HB3	2:B:231:LEU:CD2	1.96	0.95
3:C:244:THR:CG2	3:C:246:PHE:CA	2.43	0.95
4:D:70:THR:HG22	4:D:86:LEU:CD1	1.97	0.95
7:G:76:LEU:CD2	7:G:92:ARG:CG	2.41	0.95
7:G:183:ARG:NH1	34:i:307:G:C5	2.35	0.95
9:I:5:ARG:HG2	9:I:5:ARG:HH11	1.28	0.95
10:J:32:ILE:HG21	31:e:108:ARG:HG2	1.46	0.95
10:J:37:LEU:CD2	10:J:42:GLU:HB2	1.95	0.95
10:J:115:PHE:CD1	10:J:122:SER:N	2.34	0.95
16:P:49:LEU:CA	16:P:51:ARG:HG3	1.96	0.95
16:P:127:LYS:NZ	16:P:127:LYS:CB	2.30	0.95
19:S:33:ILE:HB	19:S:36:VAL:HG11	1.49	0.95
24:X:51:VAL:CG1	24:X:70:VAL:HG11	1.96	0.95
25:Y:122:LYS:HD3	25:Y:123:ALA:N	1.79	0.95
1:A:176:TRP:HZ2	1:A:195:TRP:HE3	1.12	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:19:LYS:HB2	2:B:19:LYS:HZ3	1.26	0.95
7:G:142:ARG:HH11	7:G:142:ARG:CG	1.79	0.95
8:H:144:ILE:CG1	23:W:52:ILE:HG23	1.97	0.95
13:M:18:LEU:HD22	13:M:22:LEU:HG	1.49	0.95
17:Q:102:GLU:OE1	33:g:55:PRO:HG2	1.66	0.95
18:R:44:LYS:CG	18:R:47:ARG:CZ	2.44	0.95
18:R:121:GLN:HE21	18:R:121:GLN:C	1.74	0.95
31:e:118:ASN:N	31:e:119:VAL:CB	2.29	0.95
1:A:76:VAL:CG2	1:A:90:PHE:CD2	2.48	0.95
3:C:155:TRP:CZ3	23:W:97:ARG:NH1	2.20	0.95
5:E:122:LYS:CG	5:E:164:LEU:HD21	1.96	0.95
17:Q:9:SER:CB	17:Q:26:LYS:CE	2.43	0.95
19:S:8:LYS:O	26:Z:49:LEU:HD22	1.67	0.95
31:e:80:LEU:HD11	36:n:83:ASP:HB2	1.48	0.95
31:e:105:ARG:NH2	31:e:105:ARG:CB	2.30	0.95
32:f:144:CYS:CB	32:f:147:THR:CG2	2.39	0.95
3:C:260:LYS:CD	3:C:261:THR:HG22	1.97	0.95
5:E:86:PHE:HZ	5:E:182:MET:CE	1.79	0.95
10:J:46:VAL:HG11	10:J:106:LEU:CD1	1.96	0.95
18:R:100:PRO:O	18:R:103:LYS:N	1.90	0.95
19:S:8:LYS:CB	19:S:9:PHE:CD1	2.37	0.95
20:T:102:ARG:NH2	20:T:105:GLN:OE1	2.00	0.95
22:V:18:SER:OG	22:V:72:LEU:HD11	1.67	0.95
26:Z:77:LEU:O	26:Z:78:LYS:HG2	1.65	0.95
33:g:26:GLN:HB3	33:g:74:ASP:O	1.64	0.95
7:G:32:MET:CE	7:G:100:CYS:C	2.38	0.94
9:I:7:ASN:O	9:I:9:HIS:N	2.00	0.94
10:J:127:ARG:NH1	10:J:145:PRO:HB2	1.81	0.94
17:Q:72:VAL:HG21	17:Q:84:ILE:CG2	1.96	0.94
17:Q:135:PRO:HD3	17:Q:141:TYR:CD1	2.02	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
24:X:60:LYS:HG3	24:X:116:PRO:HG3	1.45	0.94
34:i:1206:G:C8	34:i:1207:G:O5'	2.21	0.94
4:D:55:THR:O	4:D:58:VAL:CG2	2.15	0.94
9:I:62:VAL:HG21	9:I:75:LYS:NZ	1.82	0.94
9:I:154:LYS:CD	9:I:155:ASN:N	2.29	0.94
10:J:17:ARG:C	10:J:18:ARG:HG2	1.88	0.94
12:L:149:ALA:HB1	12:L:156:GLN:CG	1.77	0.94
12:L:149:ALA:CA	12:L:156:GLN:HE21	1.79	0.94
16:P:41:GLN:CD	16:P:84:ILE:CG2	2.20	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:62:VAL:CG2	28:b:8:LEU:HD21	1.85	0.94
25:Y:27:VAL:HG11	25:Y:35:VAL:HG21	1.47	0.94
33:g:7:LEU:HD11	33:g:310:TRP:NE1	1.74	0.94
33:g:144:ASP:O	33:g:145:GLU:HG2	1.67	0.94
35:l:46:THR:HA	35:l:83:ILE:C	1.91	0.94
2:B:57:ILE:O	2:B:60:ASP:N	1.99	0.94
2:B:160:GLN:NE2	2:B:205:TYR:HD1	1.58	0.94
4:D:212:GLU:CD	4:D:212:GLU:H	1.71	0.94
7:G:157:VAL:CG1	7:G:159:ARG:CG	2.45	0.94
9:I:10:LYS:HG3	9:I:11:ARG:N	1.78	0.94
10:J:28:GLU:OE1	10:J:40:LYS:CD	2.13	0.94
17:Q:42:ILE:HG21	17:Q:51:LEU:HD23	1.47	0.94
17:Q:42:ILE:HG21	17:Q:51:LEU:HD21	1.46	0.94
17:Q:50:LYS:HZ1	17:Q:117:ARG:HD2	0.80	0.94
20:T:28:LEU:HD22	20:T:28:LEU:C	1.90	0.94
30:d:23:VAL:HG23	30:d:38:MET:HE1	0.99	0.94
33:g:277:THR:CG2	33:g:278:SER:N	2.30	0.94
3:C:197:LYS:HA	3:C:200:LEU:HD21	0.97	0.94
4:D:56:GLN:HA	4:D:59:LEU:HD23	1.50	0.94
4:D:226:GLN:O	4:D:227:LYS:HG3	1.67	0.94
5:E:19:MET:CE	34:i:842:G:C2'	2.45	0.94
6:F:14:THR:HG23	17:Q:56:LEU:HD22	1.50	0.94
6:F:204:ARG:CZ	29:c:60:GLU:OE2	2.14	0.94
7:G:157:VAL:CG1	7:G:159:ARG:HG2	1.96	0.94
9:I:107:THR:OG1	9:I:108:PRO:HD3	1.67	0.94
10:J:37:LEU:CG	10:J:42:GLU:CB	2.44	0.94
11:K:62:PHE:CD1	11:K:67:PHE:CZ	2.51	0.94
17:Q:76:GLY:O	17:Q:80:GLN:CG	2.16	0.94
20:T:63:HIS:O	20:T:67:ARG:HD2	1.68	0.94
26:Z:92:LEU:HD21	26:Z:109:TYR:CE1	2.01	0.94
31:e:80:LEU:CG	36:n:83:ASP:CB	2.38	0.94
31:e:118:ASN:CB	31:e:119:VAL:HG23	1.96	0.94
32:f:106:TYR:CZ	32:f:131:PHE:CZ	2.54	0.94
33:g:144:ASP:C	33:g:145:GLU:CG	2.30	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
11:K:84:HIS:CE1	11:K:85:LEU:HA	2.01	0.94
15:O:31:CYS:SG	15:O:93:LEU:HB3	2.07	0.94
16:P:49:LEU:C	16:P:51:ARG:HD2	1.91	0.94
17:Q:19:ALA:HB1	17:Q:80:GLN:HE21	1.31	0.94
17:Q:34:VAL:HG23	17:Q:39:LEU:HD23	0.95	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:137:LYS:O	19:S:141:ARG:NH2	1.96	0.94
20:T:84:ARG:NH2	20:T:84:ARG:CB	2.29	0.94
22:V:64:GLU:O	22:V:66:ASP:N	1.99	0.94
23:W:7:LEU:HD11	23:W:33:VAL:HG11	1.46	0.94
25:Y:114:MET:HE1	25:Y:125:VAL:HG23	1.45	0.94
33:g:143:GLN:OE1	33:g:144:ASP:HB2	1.66	0.94
33:g:165:ILE:HG23	33:g:179:LEU:HD21	1.47	0.94
33:g:194:TYR:CZ	33:g:212:LYS:CD	2.41	0.94
1:A:133:PRO:HD2	1:A:134:LEU:N	1.83	0.94
5:E:153:LEU:HD13	5:E:172:PHE:HZ	1.32	0.94
7:G:33:ALA:H	7:G:52:ILE:HG23	1.30	0.94
16:P:33:LEU:HD21	16:P:87:PRO:HD3	0.97	0.94
23:W:62:VAL:CB	28:b:8:LEU:CD2	2.42	0.94
35:l:48:GLN:CB	35:l:82:VAL:HG12	1.96	0.94
1:A:104:THR:O	1:A:107:THR:CG2	2.14	0.94
3:C:169:VAL:HG21	3:C:228:ALA:O	1.68	0.94
5:E:208:VAL:HG21	5:E:225:ILE:CD1	1.93	0.94
9:I:194:GLU:HG2	12:L:12:LYS:HZ1	0.79	0.94
10:J:122:SER:OG	10:J:124:HIS:CB	2.15	0.94
18:R:99:ASP:O	18:R:119:VAL:CG1	2.03	0.94
27:a:51:ARG:NH1	29:c:40:ARG:HH11	1.64	0.94
33:g:219:TRP:CZ3	33:g:226:HIS:CD2	2.55	0.94
35:l:33:ILE:HG13	35:l:93:ILE:HG21	1.47	0.94
1:A:17:LYS:N	1:A:17:LYS:CE	2.30	0.94
2:B:139:CYS:HB2	2:B:168:MET:SD	2.08	0.94
3:C:123:GLY:HA2	3:C:226:PHE:HZ	1.33	0.94
5:E:166:THR:O	5:E:168:LYS:HD3	1.66	0.94
6:F:110:GLN:O	6:F:113:VAL:HG12	1.68	0.94
8:H:115:LYS:O	8:H:116:ARG:HB3	1.65	0.94
9:I:154:LYS:CG	9:I:155:ASN:N	2.30	0.94
11:K:15:LEU:HD13	11:K:21:MET:CE	1.96	0.94
13:M:13:ASP:O	13:M:16:THR:HG22	0.96	0.94
13:M:35:ILE:HD13	13:M:61:TYR:CZ	2.03	0.94
14:N:115:LEU:O	14:N:119:GLU:HG2	1.68	0.94
16:P:33:LEU:HD23	16:P:87:PRO:CD	1.97	0.94
17:Q:47:LEU:HD23	17:Q:81:ILE:CD1	1.95	0.94
19:S:121:ARG:HG2	19:S:131:VAL:HG13	1.48	0.94
19:S:132:ARG:CB	19:S:134:GLN:OE1	2.14	0.94
20:T:143:LYS:CD	20:T:144:LYS:N	2.31	0.94
26:Z:112:ASN:O	26:Z:113:THR:CG2	2.13	0.94
27:a:10:ARG:HG3	27:a:33:ASP:O	1.66	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:97:GLU:OE1	31:e:98:LYS:N	2.01	0.94
33:g:12:LYS:HG2	33:g:13:GLY:H	1.25	0.94
3:C:234:SER:C	22:V:23:ILE:HD11	1.93	0.94
4:D:112:GLY:O	4:D:113:LEU:HG	1.68	0.94
5:E:36:HIS:HB2	5:E:41:CYS:SG	2.08	0.94
6:F:14:THR:CB	17:Q:56:LEU:CB	2.42	0.94
7:G:64:LYS:CD	7:G:64:LYS:C	2.40	0.94
8:H:57:ARG:HD2	8:H:89:GLY:O	1.67	0.94
9:I:21:TYR:CE2	9:I:22:HIS:HD2	1.84	0.94
17:Q:24:HIS:CD2	17:Q:69:ARG:HB2	2.03	0.94
19:S:81:ASP:O	19:S:87:GLN:NE2	2.00	0.94
32:f:98:VAL:HG12	32:f:99:LYS:H	0.80	0.94
33:g:248:LEU:O	33:g:259:TRP:CE3	2.20	0.94
2:B:137:LEU:HD21	2:B:215:VAL:HG13	0.95	0.94
3:C:50:LYS:HD3	3:C:251:TYR:HE1	1.30	0.94
3:C:63:LEU:HD13	3:C:67:TYR:OH	1.68	0.94
3:C:71:LEU:C	22:V:29:HIS:CE1	2.46	0.94
3:C:241:TRP:HB3	23:W:68:ARG:HH11	1.30	0.94
4:D:226:GLN:CA	4:D:226:GLN:HE21	1.80	0.94
5:E:99:PHE:HE1	5:E:113:ARG:HG3	1.20	0.94
7:G:27:PHE:CZ	7:G:41:LEU:CD1	2.51	0.94
8:H:10:LYS:CE	8:H:17:ASP:N	2.28	0.94
10:J:16:PRO:HD2	10:J:44:TRP:CZ2	2.02	0.94
12:L:99:TYR:OH	24:X:14:ARG:CB	2.16	0.94
15:O:52:THR:O	15:O:53:ILE:CG2	2.15	0.94
16:P:10:ARG:NH2	16:P:11:THR:CG2	2.30	0.94
16:P:41:GLN:HE21	16:P:84:ILE:HB	0.78	0.94
16:P:93:MET:SD	16:P:106:GLU:HB2	2.08	0.94
19:S:42:HIS:HD2	20:T:45:LEU:CD1	1.52	0.94
23:W:42:MET:CE	23:W:50:PHE:CD2	2.51	0.94
24:X:56:GLY:CA	36:n:84:TYR:CE1	2.50	0.94
24:X:99:GLU:O	24:X:100:VAL:CG1	2.16	0.94
25:Y:21:LYS:N	25:Y:21:LYS:CD	2.30	0.94
31:e:79:SER:C	36:n:84:TYR:CE2	2.45	0.94
32:f:144:CYS:SG	32:f:147:THR:CG2	2.55	0.94
33:g:172:LYS:CG	33:g:191:HIS:O	2.15	0.94
1:A:11:LYS:HG2	1:A:13:GLU:HG2	0.94	0.93
1:A:39:TYR:CA	1:A:50:ASN:HD21	1.80	0.93
2:B:209:ASP:OD1	2:B:211:PHE:CZ	2.21	0.93
3:C:51:LEU:CD1	3:C:78:ILE:HD13	1.98	0.93
6:F:21:GLY:O	6:F:22:LYS:HG3	1.67	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:155:GLN:O	7:G:156:TYR:CD1	2.21	0.93
9:I:62:VAL:HB	9:I:75:LYS:HE2	1.49	0.93
9:I:110:ARG:NH2	9:I:124:LYS:HD3	1.84	0.93
18:R:13:ALA:CA	18:R:54:VAL:HG22	1.97	0.93
23:W:42:MET:HE3	23:W:50:PHE:CD2	2.02	0.93
14:N:46:THR:OG1	14:N:49:GLN:HG3	1.68	0.93
28:b:4:ALA:O	28:b:5:LYS:HG3	1.68	0.93
31:e:118:ASN:H	31:e:119:VAL:HB	1.29	0.93
34:i:127:C:N4	34:i:180:G:O2'	2.01	0.93
35:l:30:TYR:CG	35:l:107:GLN:O	2.20	0.93
35:l:35:ILE:CD1	35:l:88:ASP:C	2.42	0.93
3:C:156:GLY:O	3:C:157:ASN:ND2	2.00	0.93
4:D:212:GLU:CB	4:D:213:PRO:HD2	1.97	0.93
6:F:47:LYS:CG	17:Q:117:ARG:NH2	2.30	0.93
7:G:175:LYS:CE	34:i:307:G:H5"	1.97	0.93
8:H:23:ILE:CD1	8:H:27:LEU:CD2	2.47	0.93
12:L:77:VAL:HG11	12:L:80:MET:SD	2.07	0.93
17:Q:16:LYS:HD2	17:Q:17:LYS:N	1.83	0.93
33:g:40:ILE:HD11	33:g:80:SER:HB3	1.49	0.93
34:i:430:G:H4'	34:i:1731:G:H21	1.33	0.93
35:l:46:THR:HA	35:l:84:GLN:HA	1.51	0.93
1:A:45:GLY:O	1:A:46:ILE:CG1	2.17	0.93
2:B:150:ILE:HD11	18:R:126:MET:CB	1.98	0.93
4:D:212:GLU:HB3	18:R:19:LYS:HD2	1.45	0.93
5:E:128:LYS:HD3	5:E:130:PHE:CD1	2.03	0.93
5:E:139:LEU:HD13	5:E:154:ILE:HG21	1.48	0.93
6:F:42:LYS:O	6:F:44:LYS:HA	1.68	0.93
6:F:144:LEU:HD23	29:c:49:PRO:HB2	1.49	0.93
9:I:19:LYS:HE2	9:I:20:PRO:CD	1.98	0.93
10:J:50:LEU:HD12	10:J:102:ILE:HD13	1.44	0.93
11:K:3:MET:SD	11:K:8:ARG:NH2	2.34	0.93
15:O:95:ILE:HD13	15:O:116:LEU:CD2	1.98	0.93
17:Q:57:LEU:HD13	17:Q:115:TYR:CE2	2.02	0.93
18:R:99:ASP:HA	18:R:119:VAL:HG13	1.49	0.93
21:U:64:THR:CG2	21:U:79:ARG:HG2	1.98	0.93
21:U:103:SER:O	21:U:106:ILE:HG23	1.66	0.93
28:b:10:PRO:HD2	28:b:15:GLU:OE2	1.67	0.93
3:C:234:SER:CA	22:V:23:ILE:HD11	1.97	0.93
3:C:241:TRP:CD2	23:W:68:ARG:HD3	2.02	0.93
3:C:244:THR:CG2	3:C:246:PHE:N	2.31	0.93
6:F:91:ARG:NH1	6:F:94:LYS:HB3	1.76	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:15:LYS:CB	8:H:16:PRO:HD2	1.97	0.93
10:J:17:ARG:HB3	10:J:18:ARG:CG	1.99	0.93
10:J:61:LEU:HD13	10:J:94:LEU:HD13	1.48	0.93
10:J:119:LEU:N	10:J:119:LEU:CD2	2.30	0.93
25:Y:20:ARG:HG3	25:Y:74:MET:HE3	0.93	0.93
30:d:8:TRP:CZ3	34:i:1507:U:O2'	2.22	0.93
33:g:57:ARG:HD2	33:g:94:THR:O	1.65	0.93
3:C:99:LYS:HD2	3:C:100:GLN:N	1.84	0.93
4:D:197:LYS:CB	4:D:198:ILE:CG2	2.30	0.93
10:J:66:LYS:HZ3	34:i:687:G:H1'	0.77	0.93
12:L:118:ARG:C	12:L:118:ARG:CD	2.31	0.93
14:N:53:ILE:HD13	28:b:52:THR:HG21	1.49	0.93
19:S:16:LEU:O	19:S:17:ASN:ND2	2.02	0.93
20:T:76:THR:CB	20:T:95:GLY:O	2.15	0.93
1:A:183:LEU:HB2	1:A:189:ILE:HD11	1.51	0.93
3:C:126:MET:HE1	3:C:223:LYS:HD2	1.49	0.93
10:J:89:GLU:N	10:J:92:MET:HG3	1.83	0.93
25:Y:62:THR:HG22	25:Y:69:THR:HG21	1.49	0.93
25:Y:114:MET:O	25:Y:124:ASN:ND2	2.02	0.93
1:A:34:MET:CE	1:A:37:TYR:CE2	2.51	0.93
5:E:248:ILE:CB	10:J:72:PHE:CZ	2.48	0.93
18:R:22:THR:CG2	18:R:73:LEU:HD11	1.99	0.93
18:R:84:TYR:O	18:R:85:VAL:HG23	1.69	0.93
32:f:108:VAL:HG22	32:f:114:ILE:HG22	0.96	0.93
34:i:1207:G:C2	34:i:1684:C:N1	2.34	0.93
1:A:106:GLY:HA2	34:i:1348:G:C5'	1.98	0.93
1:A:154:LEU:CD1	22:V:63:GLY:C	2.35	0.93
2:B:49:VAL:HG22	2:B:65:ARG:NH2	1.83	0.93
2:B:126:ASP:OD1	2:B:136:HIS:CD2	2.21	0.93
4:D:74:GLN:HE22	4:D:75:LYS:HE2	1.33	0.93
10:J:10:ARG:NH1	10:J:10:ARG:CB	2.31	0.93
12:L:96:ILE:O	12:L:100:ASN:HA	1.67	0.93
13:M:13:ASP:O	13:M:16:THR:CB	2.16	0.93
15:O:131:ASP:CB	27:a:67:LEU:CD2	2.45	0.93
16:P:84:ILE:O	16:P:86:LEU:HD21	1.68	0.93
24:X:27:TYR:CZ	24:X:31:HIS:CD2	2.57	0.93
34:i:430:G:H4'	34:i:1731:G:N2	1.84	0.93
35:l:30:TYR:CD1	35:l:107:GLN:C	2.39	0.93
4:D:212:GLU:HB3	18:R:19:LYS:CD	1.96	0.93
7:G:5:ILE:HD12	7:G:16:ILE:HD12	1.50	0.93
9:I:144:LYS:CB	34:i:189:G:OP1	2.16	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:144:LYS:HG3	34:i:189:G:OP1	1.69	0.93
10:J:48:PHE:HE1	10:J:52:LYS:HE3	1.24	0.93
15:O:52:THR:HG21	34:i:949:C:H4'	1.51	0.93
18:R:122:PRO:HB2	18:R:123:THR:OG1	1.69	0.93
19:S:136:THR:O	34:i:1516:C:H2'	1.67	0.93
23:W:104:LEU:CD1	23:W:106:THR:CG2	2.46	0.93
25:Y:92:ALA:CA	25:Y:97:TYR:O	2.17	0.93
30:d:10:HIS:CG	30:d:11:PRO:HD2	2.04	0.93
34:i:227:A:O5'	34:i:782:G:H5"	1.67	0.93
4:D:112:GLY:N	4:D:113:LEU:CD1	2.33	0.92
6:F:14:THR:HG23	17:Q:56:LEU:CD2	1.99	0.92
8:H:145:ARG:CD	23:W:51:GLU:HG2	1.99	0.92
11:K:83:LEU:O	11:K:84:HIS:ND1	2.02	0.92
16:P:70:MET:O	16:P:71:GLU:HB2	1.68	0.92
22:V:32:ILE:HG22	22:V:33:PRO:HD2	1.51	0.92
24:X:114:ASP:C	24:X:116:PRO:HD3	1.94	0.92
30:d:13:LYS:CE	30:d:14:PHE:CE2	2.50	0.92
33:g:172:LYS:NZ	33:g:192:THR:HG22	1.82	0.92
34:i:61:A:H2	34:i:326:A:C8	1.75	0.92
34:i:848:G:H5"	34:i:849:C:OP2	1.69	0.92
34:i:1823:G:H2'	34:i:1844:A:N1	1.84	0.92
35:l:47:VAL:CG2	35:l:83:ILE:CG2	2.46	0.92
1:A:16:LEU:CD2	18:R:111:PHE:CE1	2.53	0.92
1:A:48:ILE:CD1	18:R:105:MET:HE1	1.95	0.92
2:B:21:VAL:HG23	2:B:21:VAL:O	1.69	0.92
3:C:87:LEU:CD2	3:C:115:ILE:HG23	1.99	0.92
3:C:241:TRP:CB	23:W:68:ARG:NH1	2.32	0.92
4:D:3:VAL:O	4:D:3:VAL:HG12	1.65	0.92
5:E:70:ILE:CG1	5:E:92:ILE:HD12	1.88	0.92
7:G:14:LYS:HZ1	7:G:123:GLY:CA	1.81	0.92
7:G:157:VAL:HG11	7:G:159:ARG:CB	1.99	0.92
13:M:61:TYR:HE1	13:M:108:CYS:HG	1.15	0.92
13:M:85:LEU:HA	13:M:88:TRP:HE3	1.24	0.92
13:M:116:LYS:O	13:M:117:GLU:CB	2.17	0.92
14:N:22:VAL:HB	14:N:23:PRO:CA	1.97	0.92
14:N:99:ARG:HH21	14:N:115:LEU:HD21	1.26	0.92
17:Q:19:ALA:CB	17:Q:74:GLY:O	2.17	0.92
25:Y:52:PRO:HD2	25:Y:53:ASP:H	1.32	0.92
33:g:298:LEU:HD11	33:g:310:TRP:HE3	1.19	0.92
9:I:44:HIS:ND1	34:i:1735:C:OP1	2.01	0.92
14:N:55:ARG:NH2	28:b:51:GLN:CD	2.27	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:128:ARG:HA	27:a:62:TYR:OH	1.68	0.92
32:f:103:LEU:CD2	32:f:105:TYR:O	2.16	0.92
33:g:4:GLN:NE2	33:g:268:ASP:OD2	2.02	0.92
33:g:278:SER:OG	33:g:279:SER:HA	1.68	0.92
35:l:47:VAL:HG23	35:l:83:ILE:CG2	1.98	0.92
35:l:50:ILE:CG2	35:l:59:LEU:HD11	1.96	0.92
4:D:59:LEU:HD12	4:D:60:GLY:H	1.26	0.92
4:D:210:ILE:HD12	18:R:15:VAL:HG11	0.96	0.92
7:G:85:ARG:NE	25:Y:118:ARG:CZ	2.32	0.92
9:I:67:TRP:HZ2	9:I:158:ILE:HD11	1.32	0.92
10:J:127:ARG:NH1	10:J:145:PRO:CB	2.31	0.92
10:J:130:ILE:HG12	10:J:135:ILE:CD1	2.00	0.92
13:M:28:HIS:CD2	13:M:115:GLY:CA	2.51	0.92
13:M:67:ALA:HB1	32:f:114:ILE:CG2	1.98	0.92
14:N:125:LEU:CD1	14:N:129:TYR:CE2	2.53	0.92
15:O:121:ARG:CZ	29:c:62:GLU:OE1	2.12	0.92
17:Q:8:GLN:HB3	17:Q:99:TYR:CE1	2.01	0.92
23:W:62:VAL:HG21	28:b:8:LEU:HD23	0.93	0.92
23:W:101:PHE:HA	23:W:113:HIS:HE1	1.33	0.92
29:c:67:ARG:O	29:c:68:LEU:HD23	1.67	0.92
31:e:120:VAL:HG22	31:e:121:PRO:O	1.68	0.92
7:G:25:ARG:CG	7:G:28:TYR:CD2	2.51	0.92
12:L:82:MET:HB2	12:L:85:THR:CG2	2.00	0.92
14:N:28:LEU:C	14:N:29:THR:HG23	1.95	0.92
15:O:44:VAL:HG21	15:O:93:LEU:CD1	1.99	0.92
17:Q:47:LEU:CD2	17:Q:81:ILE:HD13	1.97	0.92
18:R:99:ASP:HA	18:R:119:VAL:HG12	1.49	0.92
19:S:117:ILE:C	19:S:118:ARG:HG2	1.94	0.92
31:e:80:LEU:N	36:n:84:TYR:CD2	2.36	0.92
34:i:1134:C:H5"	34:i:1135:C:OP2	1.69	0.92
1:A:140:VAL:O	1:A:140:VAL:HG12	1.70	0.92
3:C:60:ILE:O	3:C:82:PHE:CZ	2.22	0.92
3:C:244:THR:CG2	3:C:246:PHE:HA	1.98	0.92
7:G:50:VAL:CG1	7:G:111:LEU:HB3	2.00	0.92
9:I:142:SER:CA	9:I:143:LYS:HB2	1.97	0.92
10:J:138:ARG:NH1	10:J:156:HIS:ND1	2.11	0.92
16:P:15:PHE:CE1	19:S:91:LYS:HD2	2.05	0.92
25:Y:10:ARG:CG	25:Y:24:VAL:HB	1.99	0.92
28:b:10:PRO:CG	28:b:15:GLU:OE2	2.17	0.92
29:c:21:THR:CG2	29:c:22:GLY:H	1.81	0.92
34:i:1822:C:O2'	34:i:1843:G:N1	2.02	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:118:GLU:HB3	3:C:50:LYS:HZ1	0.78	0.92
3:C:63:LEU:HG	3:C:83:LEU:HD13	1.51	0.92
4:D:51:LEU:HG	4:D:91:VAL:HG22	1.51	0.92
9:I:37:LYS:O	9:I:59:ARG:CA	2.17	0.92
10:J:124:HIS:NE2	34:i:516:A:OP1	2.01	0.92
16:P:56:LEU:CD1	16:P:80:LEU:HD12	1.98	0.92
18:R:20:TYR:CE1	18:R:38:ILE:CG2	2.37	0.92
19:S:58:GLU:O	19:S:59:LEU:CD2	2.16	0.92
20:T:77:LYS:CB	20:T:94:ARG:HG2	1.98	0.92
25:Y:102:THR:HG21	25:Y:107:ARG:CD	1.98	0.92
26:Z:69:THR:CB	26:Z:70:PRO:HD3	1.99	0.92
30:d:27:ARG:HB2	30:d:27:ARG:NH1	1.82	0.92
1:A:21:ALA:HB1	1:A:173:LEU:HD12	1.49	0.92
3:C:55:VAL:HG11	3:C:82:PHE:CE2	2.03	0.92
3:C:148:VAL:HB	3:C:149:PRO:HD2	1.51	0.92
5:E:130:PHE:CG	5:E:138:HIS:NE2	2.38	0.92
6:F:91:ARG:NE	6:F:91:ARG:CA	2.33	0.92
9:I:139:LYS:HB3	9:I:145:ILE:HD13	1.51	0.92
10:J:171:GLY:O	10:J:173:VAL:N	2.03	0.92
15:O:31:CYS:HB2	15:O:95:ILE:HG12	1.51	0.92
16:P:49:LEU:HA	16:P:51:ARG:CG	1.99	0.92
31:e:81:ALA:HB1	36:n:82:ARG:HH11	1.32	0.92
8:H:145:ARG:HD2	23:W:51:GLU:CD	1.94	0.92
9:I:139:LYS:O	9:I:140:LYS:HB3	1.67	0.92
18:R:91:LEU:HD13	18:R:92:ASP:CA	2.00	0.92
25:Y:44:LEU:CD1	25:Y:48:TYR:CE2	2.53	0.92
28:b:63:LEU:HD23	28:b:63:LEU:O	1.69	0.92
34:i:24:C:H2'	34:i:25:A:C8	2.05	0.92
3:C:126:MET:HE1	3:C:223:LYS:NZ	1.83	0.92
6:F:167:LYS:HD3	6:F:171:GLU:HG2	1.52	0.92
7:G:41:LEU:HD22	7:G:45:TRP:HE3	1.33	0.92
17:Q:109:LYS:HG3	17:Q:113:ILE:HD11	1.48	0.92
25:Y:87:PRO:HB2	25:Y:89:HIS:CE1	2.03	0.92
26:Z:99:LEU:CD2	26:Z:109:TYR:HE1	1.76	0.92
28:b:61:THR:HG23	28:b:62:VAL:O	1.69	0.92
33:g:32:LEU:CB	33:g:71:ILE:HD11	1.99	0.92
33:g:119:GLN:NE2	33:g:121:VAL:HG22	1.85	0.92
35:l:35:ILE:HD13	35:l:88:ASP:HA	1.52	0.92
2:B:57:ILE:CD1	2:B:60:ASP:CG	2.33	0.91
4:D:35:SER:HG	4:D:97:CYS:HG	1.00	0.91
4:D:132:LYS:N	4:D:191:PRO:CG	2.33	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:10:TYR:HD2	12:L:12:LYS:HZ2	1.17	0.91
25:Y:44:LEU:HD11	25:Y:48:TYR:CD2	2.03	0.91
25:Y:44:LEU:HD11	25:Y:48:TYR:HE2	1.06	0.91
31:e:81:ALA:HB3	36:n:82:ARG:NE	1.85	0.91
33:g:282:GLU:CG	33:g:283:PRO:N	2.30	0.91
34:i:1690:A:H2	34:i:1699:C:H5'	1.34	0.91
35:l:55:ASP:HB2	35:l:58:LYS:HB2	1.51	0.91
2:B:72:ALA:CA	2:B:79:VAL:HG23	1.99	0.91
10:J:89:GLU:N	10:J:92:MET:CG	2.32	0.91
17:Q:7:LEU:HD23	17:Q:8:GLN:OE1	1.69	0.91
17:Q:85:ARG:HH22	17:Q:117:ARG:CG	1.82	0.91
20:T:89:PRO:O	20:T:91:HIS:CD2	2.24	0.91
25:Y:9:THR:OG1	25:Y:48:TYR:OH	1.80	0.91
27:a:45:VAL:CG1	27:a:53:ILE:HD13	1.99	0.91
2:B:87:ILE:HD13	2:B:101:HIS:HD2	0.80	0.91
3:C:244:THR:HG23	3:C:246:PHE:H	1.20	0.91
6:F:91:ARG:HH12	6:F:94:LYS:HG3	1.33	0.91
7:G:77:LEU:HD11	7:G:95:LYS:HB2	1.51	0.91
7:G:162:LEU:HG	7:G:170:ARG:HB2	1.53	0.91
10:J:48:PHE:HZ	10:J:52:LYS:NZ	1.57	0.91
18:R:13:ALA:HA	18:R:54:VAL:CG2	2.00	0.91
22:V:32:ILE:HG22	22:V:33:PRO:CD	2.00	0.91
23:W:77:PRO:HD3	24:X:5:ARG:O	1.71	0.91
31:e:78:GLY:HA2	36:n:89:ALA:HA	1.52	0.91
33:g:298:LEU:CD1	33:g:310:TRP:HE3	1.83	0.91
6:F:122:ARG:CZ	6:F:193:LYS:HZ1	1.83	0.91
9:I:140:LYS:HG3	9:I:141:ARG:N	1.83	0.91
11:K:40:VAL:HG13	11:K:41:PRO:N	1.86	0.91
12:L:113:LEU:HD11	12:L:120:VAL:CG2	1.99	0.91
14:N:55:ARG:NH2	28:b:51:GLN:HE22	1.65	0.91
15:O:131:ASP:OD2	27:a:67:LEU:HD22	1.70	0.91
21:U:22:ILE:HG12	21:U:114:VAL:HG22	1.52	0.91
24:X:115:ILE:HG22	24:X:115:ILE:O	1.65	0.91
35:l:48:GLN:HG2	35:l:82:VAL:CB	1.99	0.91
5:E:205:PHE:CE1	5:E:221:ARG:NH1	2.39	0.91
7:G:64:LYS:HD2	7:G:64:LYS:O	1.69	0.91
7:G:162:LEU:HD23	7:G:172:LYS:CE	2.01	0.91
12:L:125:ILE:HB	12:L:146:THR:HG21	1.48	0.91
23:W:35:VAL:O	23:W:39:THR:HG23	1.70	0.91
33:g:46:THR:CB	33:g:48:ASP:HB2	2.01	0.91
34:i:227:A:P	34:i:782:G:H5"	2.10	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:141:ARG:NH1	34:i:188:U:O2'	2.03	0.91
13:M:124:ILE:HA	13:M:127:TYR:HD2	1.28	0.91
16:P:33:LEU:HD23	16:P:87:PRO:HD2	1.51	0.91
16:P:49:LEU:HD12	16:P:51:ARG:HE	0.75	0.91
20:T:76:THR:HG22	20:T:96:SER:O	1.68	0.91
32:f:88:PRO:O	32:f:89:LYS:C	2.07	0.91
2:B:150:ILE:CB	18:R:125:GLY:H	1.83	0.91
3:C:60:ILE:O	3:C:82:PHE:HE1	1.44	0.91
5:E:1:MET:HE1	34:i:422:G:C8	2.06	0.91
10:J:79:ARG:O	10:J:83:ARG:HG3	1.70	0.91
13:M:64:LEU:HD12	32:f:104:LYS:NZ	1.85	0.91
13:M:78:LYS:C	13:M:79:VAL:HG23	1.94	0.91
21:U:97:ILE:HG23	21:U:101:ILE:HD11	1.50	0.91
24:X:56:GLY:O	31:e:76:VAL:HG12	1.70	0.91
34:i:227:A:C5'	34:i:782:G:H4'	2.00	0.91
34:i:848:G:H3'	34:i:849:C:H5"	1.49	0.91
34:i:1165:G:H5"	34:i:1815:U:H5'	1.48	0.91
3:C:248:LYS:NZ	3:C:253:GLU:OE1	2.02	0.91
4:D:197:LYS:HB2	4:D:198:ILE:CB	1.99	0.91
5:E:62:LYS:HA	5:E:65:CYS:SG	2.11	0.91
7:G:98:ARG:HD3	7:G:98:ARG:C	1.93	0.91
7:G:175:LYS:HE2	34:i:307:G:C5'	2.00	0.91
10:J:37:LEU:CD2	10:J:42:GLU:CB	2.49	0.91
15:O:56:VAL:HG11	15:O:81:VAL:HG23	1.48	0.91
16:P:59:ARG:CD	16:P:76:VAL:HG13	2.00	0.91
18:R:99:ASP:O	18:R:119:VAL:HG21	1.71	0.91
33:g:194:TYR:CZ	33:g:212:LYS:HB2	2.04	0.91
33:g:282:GLU:HG3	33:g:283:PRO:N	1.85	0.91
2:B:57:ILE:CD1	2:B:60:ASP:OD2	2.19	0.91
11:K:84:HIS:ND1	11:K:85:LEU:HA	1.85	0.91
15:O:19:PRO:HG3	15:O:27:VAL:CB	2.01	0.91
21:U:18:HIS:CE1	21:U:98:VAL:HG21	2.06	0.91
25:Y:7:ILE:HD11	25:Y:43:LYS:CD	2.00	0.91
28:b:61:THR:HG23	28:b:62:VAL:N	1.84	0.91
31:e:75:LYS:O	31:e:76:VAL:HG22	1.71	0.91
33:g:2:THR:O	33:g:2:THR:HG23	1.67	0.91
4:D:166:TYR:CD1	4:D:200:PRO:CB	2.52	0.91
5:E:208:VAL:CB	5:E:225:ILE:HD13	2.01	0.91
6:F:167:LYS:CD	6:F:171:GLU:HG3	1.99	0.91
12:L:147:LYS:HD2	12:L:148:ALA:C	1.95	0.91
13:M:61:TYR:HE1	13:M:108:CYS:SG	1.94	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:4:MET:SD	23:W:4:MET:N	2.44	0.91
24:X:98:ASP:O	24:X:99:GLU:HB2	1.70	0.91
31:e:78:GLY:N	36:n:88:LYS:C	2.28	0.91
1:A:66:VAL:HG13	1:A:186:ARG:CG	2.01	0.90
3:C:73:ILE:HD11	3:C:78:ILE:HB	1.53	0.90
8:H:145:ARG:HH11	8:H:155:LYS:HZ2	1.15	0.90
13:M:60:MET:HB3	32:f:104:LYS:HD2	1.52	0.90
13:M:67:ALA:CB	32:f:108:VAL:HG21	2.01	0.90
14:N:16:LEU:HD22	14:N:17:PRO:HD2	1.51	0.90
14:N:55:ARG:HH12	28:b:47:PHE:HD2	1.02	0.90
16:P:111:MET:O	16:P:114:HIS:HD2	1.54	0.90
20:T:23:LYS:CD	20:T:54:TYR:CE2	2.54	0.90
25:Y:54:VAL:HG22	25:Y:79:LEU:HD23	1.49	0.90
33:g:20:GLN:HE21	33:g:68:ASP:CB	1.84	0.90
33:g:143:GLN:CD	33:g:144:ASP:HB2	1.95	0.90
35:l:50:ILE:CG1	35:l:102:LEU:HD23	2.00	0.90
3:C:50:LYS:CE	3:C:251:TYR:HE1	1.83	0.90
16:P:107:ILE:HA	16:P:111:MET:HE1	1.51	0.90
23:W:104:LEU:HD11	23:W:106:THR:HG23	1.52	0.90
24:X:74:LEU:CD1	24:X:81:ILE:HD12	2.00	0.90
25:Y:37:LYS:O	25:Y:40:ILE:CG2	2.20	0.90
27:a:32:LYS:O	27:a:37:LYS:NZ	2.03	0.90
34:i:1206:G:C8	34:i:1207:G:OP2	2.23	0.90
2:B:72:ALA:HB2	2:B:79:VAL:O	1.70	0.90
3:C:55:VAL:CB	3:C:82:PHE:CE2	2.54	0.90
9:I:206:LYS:CD	9:I:207:GLY:H	1.83	0.90
10:J:110:LEU:HD13	10:J:130:ILE:HD11	0.92	0.90
14:N:142:GLU:CG	14:N:144:SER:OG	2.19	0.90
19:S:120:HIS:NE2	19:S:124:ARG:NH2	2.20	0.90
27:a:51:ARG:HH12	29:c:40:ARG:HH11	0.94	0.90
34:i:1820:G:C4'	36:n:43:GLY:HA3	2.00	0.90
1:A:57:LYS:HE2	22:V:70:LEU:HD11	1.51	0.90
1:A:76:VAL:HG21	1:A:90:PHE:HD2	1.31	0.90
1:A:180:ARG:HH11	1:A:184:ARG:NH1	1.68	0.90
2:B:25:PHE:HE2	15:O:88:LEU:HD11	1.29	0.90
5:E:48:LEU:HD21	5:E:70:ILE:HD12	1.51	0.90
9:I:141:ARG:HB3	9:I:144:LYS:HB2	1.49	0.90
10:J:39:ASN:OD1	10:J:42:GLU:N	2.03	0.90
12:L:125:ILE:HB	12:L:146:THR:CG2	2.01	0.90
15:O:44:VAL:CG2	15:O:93:LEU:HD13	2.00	0.90
32:f:97:LYS:NZ	32:f:97:LYS:CB	2.32	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:141:ASN:HA	22:V:32:ILE:HG13	1.53	0.90
10:J:92:MET:C	10:J:93:LYS:HE3	1.96	0.90
19:S:36:VAL:HG22	19:S:36:VAL:O	1.71	0.90
20:T:111:LYS:CB	20:T:126:GLN:HE22	1.84	0.90
25:Y:18:LEU:HB3	25:Y:20:ARG:HH11	0.74	0.90
29:c:67:ARG:CG	29:c:68:LEU:N	2.30	0.90
1:A:186:ARG:C	1:A:186:ARG:NH1	2.30	0.90
3:C:55:VAL:HG22	3:C:82:PHE:CE2	2.06	0.90
3:C:67:TYR:CE1	22:V:27:LYS:NZ	2.40	0.90
8:H:101:LEU:HG	8:H:120:ARG:HG2	1.54	0.90
8:H:107:LYS:C	8:H:109:ARG:HA	1.97	0.90
9:I:69:SER:HB2	12:L:19:ASN:HD21	0.87	0.90
10:J:35:TYR:O	10:J:37:LEU:N	2.04	0.90
11:K:11:ILE:HG23	11:K:49:MET:HE3	1.51	0.90
11:K:40:VAL:HG22	11:K:41:PRO:HD2	1.54	0.90
16:P:125:PRO:O	16:P:126:VAL:HG23	1.70	0.90
17:Q:78:VAL:CG1	17:Q:82:TYR:HE2	1.83	0.90
21:U:73:GLY:O	21:U:74:SER:C	2.07	0.90
22:V:55:ILE:CD1	22:V:68:SER:OG	2.17	0.90
24:X:29:LYS:HD3	24:X:34:THR:HG21	1.51	0.90
24:X:60:LYS:HE2	24:X:116:PRO:CG	2.02	0.90
26:Z:74:SER:HA	26:Z:79:ILE:HG22	1.50	0.90
31:e:82:ARG:H	36:n:82:ARG:CD	1.77	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
11:K:84:HIS:ND1	11:K:84:HIS:C	2.28	0.90
12:L:76:VAL:HG12	12:L:125:ILE:HD13	1.52	0.90
17:Q:49:TYR:O	17:Q:53:GLU:HG3	1.71	0.90
17:Q:72:VAL:HG21	17:Q:84:ILE:HG23	1.52	0.90
17:Q:92:LEU:HD11	17:Q:96:TYR:CZ	2.07	0.90
18:R:13:ALA:HA	18:R:54:VAL:HG22	1.51	0.90
19:S:59:LEU:HD13	19:S:59:LEU:N	1.85	0.90
25:Y:92:ALA:HA	25:Y:97:TYR:HB3	1.54	0.90
28:b:2:PRO:HA	28:b:3:LEU:CD2	2.01	0.90
31:e:80:LEU:CA	36:n:84:TYR:HE2	1.79	0.90
34:i:1206:G:C2'	34:i:1207:G:O5'	2.20	0.90
34:i:1206:G:N2	34:i:1207:G:H1'	1.86	0.90
1:A:5:LEU:CB	22:V:41:LYS:CE	2.49	0.90
1:A:52:LYS:NZ	1:A:52:LYS:HB3	1.86	0.90
7:G:164:LYS:O	7:G:165:GLU:C	2.12	0.90
8:H:43:LEU:HD13	8:H:72:PHE:CE1	2.07	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:143:ARG:NE	23:W:53:ILE:HG23	1.86	0.90
8:H:158:LEU:HD21	8:H:187:PHE:HE1	1.36	0.90
16:P:68:PRO:HB3	16:P:69:PRO:HD3	1.51	0.90
17:Q:42:ILE:CD1	17:Q:51:LEU:CD1	2.50	0.90
19:S:30:ILE:HD11	19:S:45:LEU:HD21	1.54	0.90
26:Z:44:LEU:HD13	26:Z:45:ASN:N	1.87	0.90
31:e:80:LEU:H	36:n:82:ARG:CA	1.84	0.90
34:i:744:C:H3'	34:i:787:C:C2	2.05	0.90
2:B:72:ALA:HA	2:B:79:VAL:CG2	2.02	0.90
3:C:260:LYS:CG	3:C:261:THR:N	2.30	0.90
4:D:177:LEU:HD23	4:D:182:LEU:HD21	1.51	0.90
13:M:67:ALA:HB1	32:f:114:ILE:HG21	1.54	0.90
15:O:113:GLN:CG	27:a:46:GLU:CD	2.39	0.90
16:P:44:ARG:HH21	16:P:84:ILE:CB	1.83	0.90
16:P:127:LYS:NZ	16:P:127:LYS:C	2.29	0.90
19:S:8:LYS:HE3	19:S:9:PHE:CE1	2.07	0.90
19:S:11:HIS:HD2	19:S:23:ARG:HH21	1.16	0.90
21:U:62:ARG:HH12	21:U:64:THR:HG21	1.00	0.90
21:U:108:PRO:O	21:U:110:VAL:HG23	1.70	0.90
25:Y:114:MET:HE1	25:Y:125:VAL:CG2	2.01	0.90
34:i:1206:G:O5'	34:i:1207:G:P	2.30	0.90
34:i:1751:G:H22	34:i:1769:U:H3	1.20	0.90
2:B:19:LYS:NZ	2:B:19:LYS:CB	2.30	0.90
4:D:94:ARG:HG2	4:D:95:GLY:N	1.84	0.90
6:F:91:ARG:CA	6:F:91:ARG:HE	1.85	0.90
7:G:157:VAL:HG13	7:G:158:VAL:N	1.64	0.90
23:W:30:CYS:SG	23:W:61:ILE:HD11	2.12	0.90
28:b:12:PRO:HD2	28:b:13:GLU:N	1.86	0.90
29:c:10:LYS:HD2	29:c:61:SER:HB3	1.53	0.90
33:g:286:CYS:SG	33:g:300:ALA:HB1	2.12	0.90
4:D:59:LEU:HD12	4:D:60:GLY:CA	2.02	0.89
6:F:71:ARG:HH21	6:F:71:ARG:HG2	1.34	0.89
7:G:176:ILE:CG2	7:G:179:LEU:CB	2.49	0.89
9:I:62:VAL:CB	9:I:75:LYS:HE2	2.02	0.89
11:K:40:VAL:CG2	11:K:41:PRO:N	2.29	0.89
16:P:49:LEU:HD13	16:P:51:ARG:HE	1.34	0.89
20:T:31:PRO:HB2	20:T:33:TRP:CE2	2.04	0.89
21:U:62:ARG:NH1	21:U:64:THR:HG23	1.87	0.89
25:Y:111:LYS:HZ3	25:Y:115:LYS:HZ1	1.19	0.89
26:Z:92:LEU:HD23	26:Z:97:ILE:HG13	1.54	0.89
11:K:83:LEU:HD13	11:K:85:LEU:CD2	2.02	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:17:PHE:CE2	12:L:18:GLN:O	2.25	0.89
19:S:58:GLU:O	19:S:59:LEU:HD13	1.72	0.89
33:g:143:GLN:CD	33:g:144:ASP:N	2.29	0.89
34:i:520:U:C6	34:i:521:A:C8	2.60	0.89
35:l:48:GLN:CG	35:l:82:VAL:HG11	2.01	0.89
2:B:137:LEU:CD2	2:B:215:VAL:CG2	2.47	0.89
5:E:145:ARG:HG2	5:E:145:ARG:HH11	1.37	0.89
6:F:73:THR:HG22	6:F:93:VAL:HG21	0.96	0.89
12:L:82:MET:CE	34:i:363:G:C4'	2.50	0.89
14:N:19:ARG:NH1	28:b:84:HIS:OXT	2.04	0.89
14:N:92:ILE:HG22	14:N:150:VAL:CG2	2.01	0.89
18:R:100:PRO:CG	18:R:119:VAL:HG22	2.02	0.89
19:S:11:HIS:HD2	19:S:23:ARG:HH22	1.15	0.89
24:X:91:LEU:O	24:X:93:PHE:N	2.05	0.89
25:Y:29:HIS:HE1	25:Y:68:LYS:H	0.96	0.89
26:Z:85:ARG:NH1	26:Z:85:ARG:CB	2.36	0.89
26:Z:85:ARG:HB3	26:Z:85:ARG:CZ	2.01	0.89
34:i:181:A:H1'	34:i:182:C:C5	2.07	0.89
3:C:195:PRO:CD	3:C:221:PHE:CZ	2.55	0.89
5:E:208:VAL:CG1	5:E:225:ILE:CD1	2.48	0.89
15:O:39:ASP:OD1	15:O:40:THR:N	2.05	0.89
17:Q:85:ARG:NH1	17:Q:117:ARG:CG	2.26	0.89
17:Q:135:PRO:CD	17:Q:141:TYR:CD1	2.54	0.89
25:Y:78:SER:HB2	25:Y:81:TYR:CE2	2.07	0.89
26:Z:99:LEU:HD21	26:Z:109:TYR:CE1	2.07	0.89
34:i:1592:C:H4'	34:i:1598:G:C6	2.06	0.89
1:A:30:LEU:HD11	1:A:38:ILE:CD1	1.91	0.89
2:B:175:GLU:HG2	2:B:193:ILE:CD1	2.03	0.89
6:F:63:LYS:CD	6:F:71:ARG:HH12	1.85	0.89
6:F:116:ILE:HD13	6:F:116:ILE:H	1.29	0.89
7:G:85:ARG:HD2	25:Y:118:ARG:HH22	1.35	0.89
11:K:65:ARG:NH1	11:K:65:ARG:CB	2.31	0.89
12:L:157:LYS:O	12:L:158:PHE:CD2	2.25	0.89
14:N:28:LEU:CD1	14:N:58:HIS:NE2	2.36	0.89
33:g:5:MET:CE	33:g:312:VAL:HG22	2.02	0.89
33:g:26:GLN:HB2	33:g:74:ASP:HA	1.52	0.89
35:l:47:VAL:CG2	35:l:83:ILE:HB	2.03	0.89
3:C:241:TRP:CB	23:W:68:ARG:HH11	1.84	0.89
4:D:197:LYS:N	4:D:198:ILE:C	2.30	0.89
7:G:157:VAL:CG1	7:G:158:VAL:N	2.30	0.89
11:K:16:PHE:HD2	11:K:79:LEU:HB3	1.30	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:107:ILE:CA	16:P:111:MET:SD	2.60	0.89
17:Q:24:HIS:NE2	17:Q:69:ARG:HB2	1.86	0.89
25:Y:122:LYS:HD3	25:Y:122:LYS:N	1.85	0.89
32:f:135:HIS:O	32:f:138:ARG:O	1.90	0.89
33:g:30:MET:HE2	33:g:42:MET:HE3	1.55	0.89
1:A:133:PRO:CD	1:A:134:LEU:H	1.86	0.89
3:C:148:VAL:HB	3:C:149:PRO:CD	2.03	0.89
8:H:31:GLU:CD	8:H:41:ARG:CD	2.45	0.89
8:H:158:LEU:HD21	8:H:187:PHE:CE1	2.07	0.89
10:J:90:GLY:C	10:J:96:TYR:CE2	2.50	0.89
20:T:4:VAL:HA	20:T:8:ASP:OD2	1.72	0.89
20:T:119:TRP:HE3	34:i:1557:C:O2'	1.55	0.89
24:X:29:LYS:HD2	24:X:34:THR:CB	2.01	0.89
25:Y:32:LYS:HG2	25:Y:33:ALA:N	1.86	0.89
28:b:3:LEU:N	28:b:3:LEU:CD2	2.29	0.89
1:A:106:GLY:CA	34:i:1348:G:H5'	2.03	0.89
3:C:126:MET:CG	34:i:1352:G:H4'	2.02	0.89
6:F:112:LEU:HA	6:F:177:LEU:HD11	1.55	0.89
7:G:57:ASP:OD2	7:G:98:ARG:CG	2.21	0.89
19:S:95:TYR:N	19:S:95:TYR:CD1	2.28	0.89
21:U:50:VAL:CG1	21:U:51:LYS:H	1.86	0.89
24:X:107:ARG:O	24:X:110:HIS:ND1	2.05	0.89
33:g:274:VAL:HG23	33:g:274:VAL:O	1.69	0.89
3:C:156:GLY:C	3:C:157:ASN:ND2	2.30	0.89
4:D:157:MET:HE1	4:D:187:LYS:HD3	0.90	0.89
7:G:177:GLN:NE2	34:i:306:C:H5'	1.87	0.89
9:I:191:GLU:O	9:I:192:GLY:C	2.14	0.89
11:K:65:ARG:HB3	11:K:65:ARG:HH11	1.29	0.89
11:K:71:LEU:HD23	11:K:76:ILE:HD11	1.54	0.89
12:L:153:LYS:CG	14:N:131:THR:O	2.20	0.89
14:N:132:LYS:CE	14:N:132:LYS:CA	2.28	0.89
18:R:44:LYS:HE3	18:R:47:ARG:HH22	0.72	0.89
18:R:121:GLN:C	18:R:121:GLN:NE2	2.30	0.89
20:T:11:GLN:NE2	20:T:62:ARG:NH2	2.20	0.89
20:T:23:LYS:HD3	20:T:54:TYR:CE2	2.08	0.89
23:W:85:ASP:O	23:W:89:TRP:CD1	2.26	0.89
25:Y:29:HIS:ND1	25:Y:67:GLY:HA2	1.87	0.89
31:e:80:LEU:H	36:n:82:ARG:CB	1.68	0.89
36:n:39:ILE:HD13	36:n:50:MET:HB3	1.53	0.89
3:C:151:ARG:NH1	3:C:240:LEU:CD1	2.25	0.89
3:C:260:LYS:HD2	3:C:261:THR:CG2	2.03	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:97:CYS:SG	4:D:99:ILE:HG12	2.13	0.89
12:L:149:ALA:HB1	12:L:156:GLN:HB3	0.89	0.89
16:P:53:GLN:HE21	16:P:80:LEU:CD1	1.85	0.89
19:S:33:ILE:HB	19:S:36:VAL:CG1	2.03	0.89
23:W:128:PHE:CE1	23:W:130:PHE:CD2	2.60	0.89
25:Y:61:ARG:N	25:Y:61:ARG:CD	2.34	0.89
28:b:10:PRO:CD	28:b:15:GLU:OE2	2.21	0.89
9:I:76:THR:HG22	9:I:77:ARG:N	1.87	0.88
9:I:154:LYS:HG3	9:I:155:ASN:N	1.80	0.88
14:N:12:SER:O	14:N:13:GLN:HG2	1.73	0.88
25:Y:20:ARG:HD2	25:Y:74:MET:CE	2.02	0.88
34:i:61:A:N3	34:i:326:A:H8	1.36	0.88
1:A:48:ILE:HG12	18:R:105:MET:HE1	1.47	0.88
2:B:73:ASP:OD2	27:a:59:PHE:HZ	1.46	0.88
18:R:44:LYS:HE2	18:R:47:ARG:NH2	1.86	0.88
34:i:226:A:O2'	34:i:783:G:P	2.31	0.88
4:D:16:ILE:CG2	30:d:22:ARG:HH22	1.86	0.88
4:D:55:THR:C	4:D:58:VAL:HG22	1.98	0.88
4:D:200:PRO:O	4:D:201:LYS:HG2	1.74	0.88
5:E:98:ASN:HD21	5:E:119:ALA:CB	1.81	0.88
7:G:65:GLN:CA	7:G:100:CYS:SG	2.57	0.88
8:H:121:THR:HG23	8:H:124:ALA:H	1.37	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:OD1	1.73	0.88
25:Y:34:THR:C	25:Y:35:VAL:HG22	1.98	0.88
1:A:191:ARG:HG3	1:A:193:HIS:HB2	1.55	0.88
2:B:67:PHE:CE1	15:O:47:LEU:HB2	2.08	0.88
3:C:49:THR:HG23	3:C:75:GLU:OE1	1.72	0.88
3:C:167:CYS:SG	23:W:95:PRO:CB	2.62	0.88
4:D:123:LEU:CD2	4:D:154:ASP:HB3	2.03	0.88
6:F:142:SER:OG	29:c:50:VAL:HG22	1.74	0.88
7:G:36:VAL:HG12	7:G:37:ALA:H	1.36	0.88
9:I:62:VAL:CG2	9:I:75:LYS:HE2	2.03	0.88
9:I:153:LYS:O	9:I:154:LYS:CB	2.20	0.88
10:J:15:THR:CG2	10:J:44:TRP:HZ3	1.80	0.88
11:K:60:GLU:OE2	11:K:67:PHE:CD1	2.21	0.88
16:P:41:GLN:HG2	16:P:84:ILE:HG12	0.89	0.88
18:R:91:LEU:CD1	18:R:91:LEU:H	1.85	0.88
19:S:31:THR:HA	19:S:36:VAL:CG2	2.02	0.88
21:U:24:LEU:HD23	21:U:112:VAL:HG22	1.54	0.88
21:U:67:LYS:HE2	21:U:78:ASP:CG	1.98	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:10:ARG:HE	25:Y:24:VAL:HG11	0.75	0.88
33:g:59:LEU:O	33:g:60:ARG:O	1.92	0.88
34:i:1823:G:C1'	34:i:1843:G:O6	2.22	0.88
3:C:51:LEU:HD22	3:C:51:LEU:C	1.95	0.88
4:D:70:THR:HA	4:D:86:LEU:HD13	1.56	0.88
8:H:29:GLU:OE2	8:H:86:LYS:CE	2.22	0.88
15:O:20:GLN:HG2	15:O:21:VAL:O	1.73	0.88
15:O:142:ARG:HH12	27:a:27:ALA:HB2	1.31	0.88
18:R:17:ILE:HG21	18:R:69:ILE:HD13	1.54	0.88
19:S:46:ARG:CZ	20:T:50:GLU:HG2	2.01	0.88
22:V:65:SER:O	22:V:69:ILE:HG12	1.74	0.88
3:C:54:LEU:HD11	3:C:258:LEU:CD1	2.01	0.88
3:C:93:LYS:HD3	3:C:218:LEU:HD21	0.90	0.88
10:J:32:ILE:O	10:J:35:TYR:O	1.91	0.88
10:J:37:LEU:O	31:e:105:ARG:HG3	1.73	0.88
10:J:91:LYS:HA	10:J:96:TYR:CG	2.08	0.88
11:K:59:LYS:HD2	11:K:60:GLU:N	1.88	0.88
18:R:11:LYS:O	18:R:15:VAL:HG23	1.72	0.88
19:S:34:LYS:CB	19:S:103:LEU:CD2	2.01	0.88
21:U:25:THR:HG22	21:U:86:LYS:HG2	1.54	0.88
22:V:71:ARG:NH1	28:b:3:LEU:O	2.07	0.88
24:X:95:GLU:CD	24:X:140:ARG:NH2	2.31	0.88
31:e:80:LEU:CA	36:n:84:TYR:CE2	2.57	0.88
31:e:86:VAL:HA	31:e:89:GLN:HG2	1.56	0.88
34:i:683:G:N2	34:i:733:G:C6	2.42	0.88
1:A:205:ARG:HH22	18:R:82:ASP:HA	0.75	0.88
6:F:201:LYS:HE3	6:F:204:ARG:NH2	1.88	0.88
7:G:64:LYS:HG3	7:G:67:VAL:HG13	1.55	0.88
8:H:14:GLU:OE1	8:H:16:PRO:HG2	1.74	0.88
18:R:91:LEU:HD12	18:R:92:ASP:HA	1.56	0.88
19:S:8:LYS:CD	19:S:9:PHE:CE1	2.42	0.88
19:S:39:ARG:HD3	20:T:38:LYS:HE2	1.54	0.88
31:e:80:LEU:HG	36:n:83:ASP:CB	2.02	0.88
32:f:86:THR:O	32:f:87:THR:HB	1.74	0.88
34:i:60:A:C5	34:i:325:G:H1'	2.03	0.88
1:A:141:ASN:OD1	22:V:31:SER:O	1.92	0.88
3:C:192:ALA:C	3:C:195:PRO:HD2	1.99	0.88
9:I:69:SER:HB3	12:L:19:ASN:ND2	1.66	0.88
10:J:38:ARG:NE	31:e:104:GLY:HA3	1.86	0.88
20:T:77:LYS:HB2	20:T:94:ARG:HD3	0.89	0.88
24:X:5:ARG:HH21	24:X:5:ARG:CB	1.86	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:f:108:VAL:CG2	32:f:114:ILE:CG2	2.42	0.88
34:i:1206:G:N3	34:i:1207:G:O4'	2.05	0.88
9:I:157:LYS:HB3	12:L:22:ARG:HH12	1.37	0.88
11:K:41:PRO:O	11:K:41:PRO:HD2	1.70	0.88
22:V:17:CYS:HG	22:V:56:CYS:HB3	1.06	0.88
3:C:64:GLU:OE1	22:V:11:LEU:HD13	1.73	0.88
4:D:135:GLU:CB	4:D:153:VAL:HG22	2.03	0.88
4:D:218:LEU:HD12	4:D:220:THR:CG2	2.04	0.88
16:P:123:TYR:CZ	19:S:120:HIS:CE1	2.62	0.88
23:W:62:VAL:HG11	28:b:8:LEU:HG	1.52	0.88
24:X:105:PHE:CE2	24:X:118:VAL:O	2.27	0.88
24:X:105:PHE:CG	24:X:112:VAL:HG23	2.09	0.88
33:g:140:TYR:CD2	33:g:182:CYS:SG	2.66	0.88
34:i:1700:C:O2'	34:i:1846:C:P	2.31	0.88
2:B:148:ASN:O	18:R:124:VAL:HG22	1.73	0.87
3:C:67:TYR:HE1	22:V:27:LYS:HZ3	0.92	0.87
3:C:123:GLY:CA	3:C:226:PHE:HZ	1.87	0.87
10:J:127:ARG:HH12	10:J:145:PRO:CB	1.85	0.87
11:K:14:LEU:HD22	11:K:35:LEU:CG	2.04	0.87
16:P:49:LEU:O	16:P:50:ARG:C	2.08	0.87
16:P:108:LYS:NZ	19:S:118:ARG:HH12	1.72	0.87
21:U:104:ILE:O	21:U:105:SER:C	2.13	0.87
22:V:64:GLU:OE2	28:b:3:LEU:HD21	1.74	0.87
25:Y:20:ARG:CD	25:Y:74:MET:CE	2.51	0.87
33:g:15:ASN:O	33:g:305:ASN:CG	2.17	0.87
33:g:71:ILE:HG22	33:g:72:SER:N	1.87	0.87
33:g:118:ARG:HH22	33:g:134:THR:HG21	1.36	0.87
34:i:1826:A:C4'	34:i:1835:C:OP2	2.16	0.87
2:B:32:ASP:OD1	2:B:46:LYS:HD2	1.73	0.87
5:E:133:THR:O	5:E:134:LYS:HB2	1.74	0.87
8:H:36:LEU:HD12	8:H:36:LEU:C	1.95	0.87
10:J:17:ARG:HB3	10:J:18:ARG:HG2	1.49	0.87
17:Q:21:ALA:CB	17:Q:72:VAL:HG22	2.03	0.87
17:Q:43:GLU:HA	17:Q:45:ARG:N	1.89	0.87
23:W:90:GLN:HA	23:W:102:ILE:CD1	2.04	0.87
25:Y:9:THR:HG1	25:Y:48:TYR:HH	1.10	0.87
25:Y:12:PHE:HZ	25:Y:21:LYS:HB3	1.33	0.87
26:Z:48:VAL:O	26:Z:48:VAL:HG12	1.72	0.87
28:b:33:MET:HE3	28:b:79:PHE:HB2	0.89	0.87
33:g:219:TRP:CE3	33:g:226:HIS:CD2	2.61	0.87
1:A:57:LYS:HE2	22:V:70:LEU:CD1	2.04	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:195:PRO:HD3	3:C:221:PHE:CZ	2.08	0.87
8:H:93:VAL:HG23	8:H:94:PHE:N	1.83	0.87
9:I:25:ARG:HD2	9:I:27:TYR:CD2	2.08	0.87
9:I:144:LYS:CG	34:i:189:G:H5'	2.03	0.87
12:L:80:MET:CE	12:L:121:GLN:CA	2.51	0.87
14:N:80:LEU:O	14:N:82:PRO:CD	2.23	0.87
17:Q:117:ARG:O	17:Q:118:THR:OG1	1.92	0.87
18:R:100:PRO:HA	18:R:103:LYS:CB	2.02	0.87
19:S:103:LEU:HD12	19:S:104:ASP:N	1.87	0.87
26:Z:103:HIS:CD2	26:Z:105:ALA:CB	2.57	0.87
34:i:227:A:O5'	34:i:782:G:C5'	2.21	0.87
3:C:102:GLN:HG3	3:C:103:ALA:N	1.87	0.87
4:D:221:THR:HB	4:D:222:PRO:CD	2.03	0.87
6:F:18:LYS:HE3	17:Q:115:TYR:HD1	1.34	0.87
6:F:53:ALA:O	17:Q:125:ARG:NH2	2.08	0.87
7:G:4:ASN:HA	7:G:15:LEU:HD23	1.56	0.87
9:I:42:ARG:NH1	34:i:1736:U:OP1	2.07	0.87
10:J:38:ARG:HE	31:e:105:ARG:H	0.92	0.87
10:J:177:ASN:O	10:J:180:LYS:CB	2.23	0.87
13:M:115:GLY:O	13:M:116:LYS:HB2	1.73	0.87
19:S:46:ARG:HH22	20:T:50:GLU:HB3	1.37	0.87
21:U:36:CYS:SG	21:U:53:PRO:CB	2.62	0.87
25:Y:122:LYS:CD	25:Y:123:ALA:H	1.87	0.87
3:C:142:LEU:HA	3:C:145:LEU:HD23	1.56	0.87
3:C:260:LYS:CD	3:C:261:THR:H	1.88	0.87
5:E:248:ILE:HD11	10:J:72:PHE:CB	2.03	0.87
8:H:146:VAL:HG11	23:W:42:MET:SD	2.13	0.87
10:J:39:ASN:OD1	10:J:42:GLU:CD	2.17	0.87
25:Y:29:HIS:ND1	25:Y:67:GLY:CA	2.37	0.87
28:b:73:LEU:HD12	28:b:79:PHE:CZ	2.09	0.87
34:i:227:A:H1'	34:i:782:G:HO2'	1.34	0.87
3:C:71:LEU:O	22:V:29:HIS:CE1	2.26	0.87
9:I:197:PHE:CE2	12:L:5:GLN:HG3	2.10	0.87
10:J:82:VAL:HG11	10:J:92:MET:CE	2.04	0.87
10:J:134:HIS:O	10:J:135:ILE:CG2	2.21	0.87
20:T:119:TRP:HB3	34:i:1557:C:O2'	1.74	0.87
31:e:81:ALA:HB3	36:n:82:ARG:CZ	2.04	0.87
34:i:1822:C:C2'	34:i:1843:G:H1	1.87	0.87
1:A:36:GLN:OE1	1:A:36:GLN:HA	1.74	0.87
2:B:33:VAL:HG12	2:B:44:ILE:HD12	1.53	0.87
3:C:43:LYS:HA	3:C:43:LYS:HE3	1.55	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:221:THR:HB	4:D:222:PRO:HD2	1.54	0.87
6:F:119:SER:O	6:F:193:LYS:HG3	1.75	0.87
7:G:27:PHE:HE2	7:G:41:LEU:HD12	1.37	0.87
10:J:138:ARG:NH1	10:J:156:HIS:CD2	2.43	0.87
13:M:26:LEU:HD11	13:M:89:VAL:C	1.99	0.87
16:P:41:GLN:CG	16:P:84:ILE:HG23	2.03	0.87
17:Q:12:VAL:HG12	17:Q:13:PHE:N	1.89	0.87
19:S:129:LEU:HD22	34:i:1516:C:H5'	1.53	0.87
24:X:108:LYS:HB3	24:X:110:HIS:NE2	1.89	0.87
34:i:60:A:C6	34:i:326:A:C5'	2.45	0.87
1:A:11:LYS:CD	1:A:13:GLU:HG3	2.03	0.87
1:A:21:ALA:HB3	1:A:173:LEU:CD1	1.78	0.87
1:A:76:VAL:CG1	1:A:175:TRP:CH2	2.56	0.87
1:A:97:THR:HG22	1:A:98:PRO:CD	2.02	0.87
1:A:125:THR:HA	1:A:147:LEU:HB2	1.55	0.87
2:B:135:LEU:CD2	2:B:217:MET:SD	2.62	0.87
3:C:241:TRP:CG	23:W:68:ARG:HD3	2.08	0.87
17:Q:112:LEU:CD2	17:Q:119:LEU:HD13	2.00	0.87
18:R:29:HIS:CE1	33:g:65:PHE:CE2	2.63	0.87
19:S:47:LYS:NZ	19:S:78:LYS:CB	2.38	0.87
19:S:65:GLU:O	19:S:69:THR:HG23	1.75	0.87
20:T:64:LEU:N	20:T:64:LEU:HD23	1.90	0.87
20:T:124:THR:HG23	20:T:126:GLN:N	1.89	0.87
21:U:27:ARG:HG3	21:U:83:ARG:O	1.74	0.87
24:X:58:GLU:OE1	36:n:60:HIS:CD2	2.28	0.87
27:a:76:SER:O	27:a:80:HIS:HB2	1.74	0.87
33:g:175:LYS:HD3	33:g:177:TRP:CZ2	2.10	0.87
33:g:194:TYR:OH	33:g:235:ILE:CD1	2.23	0.87
34:i:1186:A:N9	34:i:1709:U:O2'	2.08	0.87
34:i:1822:C:HO2'	34:i:1843:G:H1	1.19	0.87
34:i:1826:A:O3'	34:i:1834:U:O5'	1.91	0.87
35:l:45:THR:HG22	35:l:85:LEU:CD1	2.01	0.87
3:C:260:LYS:HG3	3:C:261:THR:N	1.89	0.87
4:D:70:THR:HA	4:D:86:LEU:CD1	2.04	0.87
5:E:124:CYS:SG	5:E:162:ILE:HD13	2.14	0.87
7:G:185:LEU:HA	7:G:188:LYS:HE3	1.55	0.87
8:H:43:LEU:HD13	8:H:72:PHE:CD1	2.10	0.87
10:J:170:PRO:HG2	10:J:175:ARG:HG2	1.53	0.87
10:J:170:PRO:CA	10:J:174:LYS:NZ	2.37	0.87
13:M:12:MET:HE1	13:M:120:ALA:HB2	1.54	0.87
17:Q:61:GLU:O	17:Q:63:PHE:N	2.07	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:119:TRP:HE3	34:i:1557:C:HO2'	0.90	0.87
25:Y:122:LYS:N	25:Y:122:LYS:CD	2.36	0.87
30:d:27:ARG:CB	30:d:27:ARG:NH1	2.38	0.87
31:e:118:ASN:HB3	31:e:119:VAL:HG23	1.53	0.87
1:A:30:LEU:HG	1:A:31:ASP:O	1.74	0.86
1:A:112:ILE:HG21	34:i:1346:U:O4'	1.61	0.86
2:B:150:ILE:HG13	18:R:125:GLY:H	1.36	0.86
3:C:218:LEU:HD12	3:C:219:GLY:N	1.88	0.86
4:D:158:ILE:CD1	4:D:189:MET:SD	2.62	0.86
4:D:196:GLY:N	4:D:197:LYS:CA	2.38	0.86
6:F:28:VAL:HG22	6:F:110:GLN:HG2	1.57	0.86
6:F:204:ARG:HD2	29:c:60:GLU:CD	2.00	0.86
11:K:33:PRO:O	11:K:34:GLU:HB3	1.72	0.86
11:K:36:ALA:C	11:K:38:LYS:N	2.30	0.86
14:N:16:LEU:HD21	14:N:62:GLN:CD	1.99	0.86
17:Q:12:VAL:HG12	17:Q:13:PHE:H	1.40	0.86
18:R:92:ASP:O	18:R:93:GLN:HB3	1.73	0.86
27:a:22:ARG:NE	27:a:28:CYS:O	2.07	0.86
34:i:181:A:C4'	34:i:182:C:C5'	2.45	0.86
3:C:67:TYR:HE1	22:V:27:LYS:NZ	1.71	0.86
3:C:82:PHE:C	3:C:83:LEU:HD12	2.00	0.86
8:H:6:ALA:HB1	8:H:10:LYS:HZ3	1.40	0.86
9:I:84:ASN:ND2	9:I:100:CYS:SG	2.48	0.86
16:P:84:ILE:HD11	16:P:115:TYR:CE1	2.10	0.86
21:U:56:MET:HE1	21:U:88:LEU:HG	1.57	0.86
24:X:138:LYS:C	24:X:139:GLU:CD	2.43	0.86
32:f:116:ARG:HH11	32:f:116:ARG:HG3	1.39	0.86
33:g:12:LYS:HD2	33:g:13:GLY:HA3	1.57	0.86
33:g:118:ARG:HH21	33:g:134:THR:HG23	1.37	0.86
33:g:191:HIS:HD2	33:g:195:LEU:HD11	1.40	0.86
4:D:123:LEU:HD21	4:D:154:ASP:CG	2.00	0.86
4:D:218:LEU:CB	4:D:220:THR:HG21	1.99	0.86
6:F:121:PRO:HA	6:F:193:LYS:HE3	1.57	0.86
8:H:10:LYS:NZ	8:H:17:ASP:N	2.22	0.86
9:I:85:ALA:HB1	12:L:8:ARG:NH1	1.89	0.86
15:O:62:VAL:HG22	15:O:72:TYR:OH	1.75	0.86
15:O:101:GLY:O	15:O:104:ARG:HB2	1.74	0.86
17:Q:111:ILE:O	17:Q:114:GLN:HG2	1.74	0.86
19:S:8:LYS:HA	26:Z:49:LEU:HD23	1.57	0.86
28:b:32:PHE:O	28:b:81:ARG:O	1.94	0.86
32:f:102:VAL:CG1	32:f:103:LEU:N	2.29	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:46:THR:HB	33:g:48:ASP:HB2	1.56	0.86
1:A:109:THR:HG1	34:i:1348:G:H5"	1.36	0.86
1:A:125:THR:HG22	1:A:175:TRP:HE1	1.39	0.86
2:B:53:GLN:O	2:B:56:LYS:O	1.93	0.86
6:F:34:SER:HB3	29:c:55:VAL:HB	1.57	0.86
10:J:102:ILE:HG22	10:J:106:LEU:HD13	1.56	0.86
10:J:177:ASN:O	10:J:180:LYS:HG3	1.76	0.86
11:K:39:ASN:O	11:K:40:VAL:HG12	1.74	0.86
14:N:24:THR:OG1	28:b:84:HIS:HE1	1.57	0.86
16:P:51:ARG:O	16:P:52:LYS:CB	2.22	0.86
17:Q:105:LYS:NZ	17:Q:109:LYS:HB2	1.90	0.86
18:R:37:GLU:OE1	18:R:38:ILE:HG23	1.75	0.86
25:Y:12:PHE:HZ	25:Y:21:LYS:CB	1.85	0.86
35:l:47:VAL:HB	35:l:83:ILE:HB	0.89	0.86
5:E:23:LEU:O	5:E:24:THR:CG2	2.24	0.86
10:J:90:GLY:C	10:J:96:TYR:CD2	2.52	0.86
13:M:124:ILE:O	13:M:127:TYR:CD2	2.28	0.86
15:O:20:GLN:CG	15:O:21:VAL:N	2.39	0.86
15:O:94:HIS:ND1	15:O:127:GLY:O	2.09	0.86
17:Q:16:LYS:NZ	34:i:1643:G:O6	2.08	0.86
25:Y:54:VAL:HG12	25:Y:76:TYR:N	1.89	0.86
28:b:81:ARG:CA	28:b:82:LYS:HB2	2.04	0.86
33:g:140:TYR:CZ	33:g:182:CYS:SG	2.68	0.86
35:l:45:THR:O	35:l:85:LEU:HG	1.72	0.86
2:B:49:VAL:HG22	2:B:65:ARG:HH22	1.36	0.86
3:C:223:LYS:CE	34:i:1351:C:O2	2.21	0.86
4:D:18:LYS:HD2	4:D:18:LYS:O	1.74	0.86
4:D:76:ARG:NE	11:K:66:HIS:ND1	2.22	0.86
5:E:98:ASN:HD21	5:E:119:ALA:HB2	1.34	0.86
7:G:50:VAL:HG11	7:G:111:LEU:CG	2.05	0.86
7:G:64:LYS:HG3	7:G:67:VAL:CG1	2.06	0.86
10:J:170:PRO:HA	10:J:174:LYS:HZ1	1.36	0.86
13:M:12:MET:CG	13:M:16:THR:CG2	2.52	0.86
15:O:56:VAL:HG11	15:O:81:VAL:CG2	2.04	0.86
17:Q:128:GLU:OE1	34:i:1644:U:H5'	1.74	0.86
18:R:91:LEU:CD1	18:R:92:ASP:CA	2.53	0.86
19:S:6:PRO:CA	26:Z:50:PHE:HB2	2.03	0.86
19:S:26:ILE:HD11	19:S:59:LEU:CD2	2.05	0.86
22:V:74:LYS:HG3	22:V:75:SER:N	1.89	0.86
30:d:5:GLN:HG2	30:d:7:TYR:HE2	1.25	0.86
31:e:113:ASN:O	31:e:118:ASN:HB2	1.75	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:21:LEU:O	4:D:25:LEU:HD23	1.76	0.86
4:D:218:LEU:HB2	4:D:220:THR:HG21	1.53	0.86
5:E:11:ARG:NH1	5:E:20:LEU:HB3	1.90	0.86
17:Q:42:ILE:CG2	17:Q:51:LEU:CD2	2.53	0.86
19:S:9:PHE:CD1	19:S:9:PHE:N	2.37	0.86
23:W:90:GLN:CA	23:W:102:ILE:HD11	2.06	0.86
36:n:62:ARG:HG2	36:n:92:ILE:HD13	1.58	0.86
6:F:42:LYS:HB2	6:F:45:TYR:CA	2.04	0.86
7:G:175:LYS:HZ1	34:i:307:G:H5'	1.39	0.86
7:G:213:LEU:HD12	7:G:214:ALA:N	1.89	0.86
8:H:143:ARG:HD3	23:W:53:ILE:HG12	0.86	0.86
10:J:37:LEU:HD21	10:J:42:GLU:C	2.01	0.86
12:L:82:MET:HE2	12:L:85:THR:HG21	1.58	0.86
13:M:28:HIS:CD2	13:M:113:ASP:OD2	2.29	0.86
18:R:91:LEU:H	18:R:92:ASP:HA	1.39	0.86
18:R:100:PRO:C	18:R:103:LYS:H	1.82	0.86
22:V:78:ILE:CD1	22:V:79:VAL:H	1.88	0.86
25:Y:7:ILE:HG13	25:Y:43:LYS:HD3	1.57	0.86
30:d:23:VAL:HG21	30:d:38:MET:HE1	0.87	0.86
1:A:57:LYS:NZ	22:V:70:LEU:CD1	2.11	0.86
5:E:36:HIS:CB	5:E:41:CYS:SG	2.63	0.86
6:F:25:THR:CG2	6:F:41:VAL:CG2	2.54	0.86
7:G:147:LEU:O	7:G:148:SER:OG	1.93	0.86
9:I:154:LYS:HE2	9:I:154:LYS:HA	1.58	0.86
9:I:161:LEU:HD13	9:I:199:LEU:HD11	1.55	0.86
22:V:32:ILE:CD1	22:V:60:ARG:HH12	1.88	0.86
25:Y:55:ILE:CG1	25:Y:75:ILE:CD1	2.46	0.86
34:i:520:U:C5	34:i:521:A:C8	2.64	0.86
2:B:149:GLN:HE21	2:B:151:ARG:HG2	1.41	0.86
4:D:47:GLU:CD	4:D:85:GLU:OE2	2.19	0.86
4:D:132:LYS:HA	4:D:191:PRO:HG2	1.54	0.86
10:J:48:PHE:HZ	10:J:52:LYS:HZ2	1.22	0.86
23:W:93:LEU:CD2	23:W:128:PHE:CD2	2.57	0.86
35:l:48:GLN:HB3	35:l:82:VAL:HG12	1.56	0.86
1:A:180:ARG:HD3	1:A:184:ARG:CZ	2.06	0.85
2:B:25:PHE:HD2	15:O:88:LEU:CD2	1.87	0.85
4:D:158:ILE:HD11	4:D:189:MET:HE1	0.86	0.85
4:D:158:ILE:HD13	4:D:189:MET:HE2	1.48	0.85
6:F:91:ARG:HA	6:F:91:ARG:HE	1.03	0.85
6:F:201:LYS:CE	6:F:204:ARG:NH2	2.39	0.85
9:I:140:LYS:CG	9:I:141:ARG:N	2.37	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:52:LYS:HA	16:P:54:HIS:CD2	2.10	0.85
25:Y:120:THR:O	25:Y:122:LYS:HD2	1.74	0.85
33:g:143:GLN:CD	33:g:144:ASP:HA	1.99	0.85
34:i:1700:C:O2'	34:i:1846:C:OP2	1.94	0.85
1:A:5:LEU:HD13	1:A:6:ASP:H	1.41	0.85
10:J:170:PRO:HA	10:J:174:LYS:HZ3	1.42	0.85
11:K:28:HIS:CE1	30:d:8:TRP:HE1	1.87	0.85
16:P:52:LYS:N	16:P:54:HIS:CD2	2.43	0.85
17:Q:58:LEU:HD23	17:Q:111:ILE:CD1	1.96	0.85
33:g:100:ARG:HG3	33:g:100:ARG:NH1	1.89	0.85
35:l:35:ILE:CD1	35:l:88:ASP:HA	2.06	0.85
35:l:44:LEU:HD23	35:l:86:GLN:CG	2.02	0.85
3:C:102:GLN:CG	3:C:103:ALA:H	1.88	0.85
3:C:241:TRP:HB3	23:W:68:ARG:HH12	1.38	0.85
6:F:167:LYS:HD3	6:F:171:GLU:HB3	1.57	0.85
8:H:9:VAL:C	8:H:11:PRO:HD3	2.02	0.85
9:I:128:LYS:C	9:I:131:PRO:HD2	2.01	0.85
10:J:37:LEU:HD21	10:J:42:GLU:HB2	1.49	0.85
14:N:54:LEU:O	14:N:58:HIS:O	1.93	0.85
17:Q:44:PRO:CG	17:Q:81:ILE:HD11	2.06	0.85
19:S:34:LYS:HB3	19:S:103:LEU:HD23	1.54	0.85
19:S:138:THR:N	19:S:141:ARG:HH21	1.73	0.85
24:X:102:VAL:CG1	24:X:120:PHE:HB3	2.07	0.85
24:X:142:ARG:NH1	24:X:142:ARG:HG3	1.91	0.85
34:i:127:C:N3	34:i:180:G:C2'	2.39	0.85
34:i:1207:G:N2	34:i:1684:C:C6	2.44	0.85
35:l:35:ILE:HD13	35:l:88:ASP:CA	2.06	0.85
2:B:150:ILE:HG13	18:R:125:GLY:C	2.00	0.85
4:D:18:LYS:HZ2	4:D:37:VAL:CG2	1.89	0.85
5:E:159:THR:HG21	5:E:227:VAL:HG23	1.55	0.85
6:F:39:ILE:CG2	6:F:68:ILE:HG21	2.05	0.85
9:I:62:VAL:HG21	9:I:75:LYS:CE	2.05	0.85
12:L:80:MET:CE	12:L:121:GLN:HA	2.06	0.85
18:R:32:LYS:HE2	18:R:33:ARG:HE	1.41	0.85
19:S:54:LYS:N	19:S:54:LYS:HA	1.90	0.85
20:T:31:PRO:C	20:T:33:TRP:H	1.82	0.85
24:X:126:ALA:O	24:X:128:VAL:HB	1.75	0.85
25:Y:114:MET:CA	25:Y:124:ASN:HD22	1.87	0.85
26:Z:69:THR:HB	26:Z:70:PRO:CD	2.05	0.85
29:c:67:ARG:C	29:c:68:LEU:CD2	2.50	0.85
31:e:80:LEU:HD11	36:n:83:ASP:CB	2.02	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1700:C:O2'	34:i:1845:A:O3'	1.94	0.85
3:C:154:TYR:OH	3:C:162:PRO:CD	2.24	0.85
5:E:129:ILE:HG13	5:E:139:LEU:HD23	1.44	0.85
5:E:180:LEU:HD22	5:E:181:CYS:H	1.41	0.85
7:G:57:ASP:HA	7:G:106:LEU:HA	1.55	0.85
7:G:68:LEU:O	7:G:69:THR:OG1	1.95	0.85
9:I:142:SER:CB	9:I:143:LYS:NZ	2.38	0.85
10:J:180:LYS:C	10:J:180:LYS:CD	2.50	0.85
26:Z:70:PRO:HD2	26:Z:71:ALA:N	1.90	0.85
27:a:45:VAL:HG12	27:a:53:ILE:HD13	1.58	0.85
30:d:13:LYS:CD	30:d:14:PHE:HD2	1.87	0.85
34:i:181:A:H1'	34:i:182:C:C6	2.10	0.85
34:i:1820:G:H4'	36:n:43:GLY:HA3	1.55	0.85
3:C:155:TRP:HH2	23:W:97:ARG:NH1	1.39	0.85
8:H:29:GLU:OE2	8:H:86:LYS:HE3	1.77	0.85
12:L:151:THR:O	12:L:153:LYS:N	2.10	0.85
13:M:117:GLU:O	13:M:118:SER:OG	1.94	0.85
15:O:119:LEU:HD12	15:O:120:ALA:N	1.91	0.85
16:P:51:ARG:HD2	16:P:51:ARG:H	1.38	0.85
17:Q:50:LYS:HZ1	17:Q:85:ARG:HH22	1.23	0.85
25:Y:33:ALA:CB	34:i:571:U:O2'	2.24	0.85
28:b:73:LEU:HD13	28:b:79:PHE:CE2	2.08	0.85
30:d:12:ARG:HD2	30:d:17:GLY:O	1.77	0.85
32:f:102:VAL:HG12	32:f:103:LEU:CA	2.06	0.85
32:f:106:TYR:CZ	32:f:131:PHE:HZ	1.92	0.85
34:i:1824:U:N1	34:i:1845:A:C2	2.40	0.85
8:H:144:ILE:CD1	23:W:52:ILE:CG2	2.47	0.85
17:Q:112:LEU:O	17:Q:116:ASP:N	2.08	0.85
21:U:27:ARG:O	21:U:28:ASN:C	2.12	0.85
25:Y:7:ILE:HD12	25:Y:43:LYS:CB	2.05	0.85
25:Y:119:GLY:O	25:Y:121:ALA:N	2.10	0.85
32:f:140:TYR:CZ	32:f:146:LEU:HA	2.11	0.85
34:i:1408:C:OP1	34:i:1408:C:H4'	1.76	0.85
1:A:164:ASN:O	1:A:166:LYS:N	2.10	0.85
2:B:139:CYS:SG	2:B:212:VAL:HG12	2.16	0.85
4:D:212:GLU:CB	18:R:19:LYS:HD3	2.04	0.85
5:E:126:VAL:HG21	5:E:129:ILE:HD11	1.58	0.85
14:N:27:LYS:HD2	14:N:28:LEU:N	1.91	0.85
20:T:18:LEU:CD1	20:T:134:ILE:HD13	2.05	0.85
25:Y:54:VAL:CG1	25:Y:76:TYR:N	2.40	0.85
33:g:10:THR:HB	33:g:306:LEU:HD21	1.59	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1823:G:O4'	34:i:1843:G:O6	1.94	0.85
2:B:28:LYS:CE	15:O:51:GLU:OE2	2.24	0.85
5:E:198:ARG:O	5:E:198:ARG:HG2	1.75	0.85
6:F:41:VAL:HG22	6:F:42:LYS:H	0.72	0.85
9:I:70:GLU:OE2	9:I:117:TYR:OH	1.95	0.85
13:M:64:LEU:CD1	32:f:104:LYS:NZ	2.40	0.85
13:M:91:LEU:HD22	13:M:104:VAL:CG1	2.06	0.85
14:N:139:TRP:CZ3	14:N:140:LYS:C	2.55	0.85
15:O:55:ARG:O	15:O:56:VAL:CG1	2.23	0.85
21:U:33:GLU:OE2	34:i:1443:G:O2'	1.95	0.85
24:X:67:ARG:C	24:X:68:LYS:CG	2.48	0.85
25:Y:45:ALA:HA	25:Y:55:ILE:HD12	1.58	0.85
25:Y:122:LYS:CD	25:Y:122:LYS:H	1.87	0.85
29:c:11:LEU:CD1	29:c:35:MET:HE2	2.07	0.85
2:B:62:LEU:HD23	2:B:91:VAL:HG21	1.58	0.85
4:D:97:CYS:SG	4:D:99:ILE:CG1	2.65	0.85
15:O:61:LYS:O	15:O:62:VAL:CG2	2.23	0.85
17:Q:42:ILE:CD1	17:Q:51:LEU:HD11	2.07	0.85
18:R:99:ASP:CA	18:R:119:VAL:HG12	2.02	0.85
19:S:59:LEU:CD1	19:S:59:LEU:N	2.37	0.85
34:i:61:A:N6	34:i:326:A:OP2	2.10	0.85
4:D:16:ILE:HD11	30:d:36:LEU:HG	1.58	0.84
4:D:193:ASP:OD1	4:D:203:PRO:HA	1.76	0.84
4:D:212:GLU:O	4:D:213:PRO:O	1.94	0.84
5:E:151:ASP:HB3	7:G:212:LEU:CD2	2.06	0.84
6:F:46:ALA:C	6:F:47:LYS:HD2	2.00	0.84
6:F:75:SER:O	6:F:78:MET:HG3	1.77	0.84
9:I:139:LYS:HB2	9:I:145:ILE:HD11	1.57	0.84
10:J:46:VAL:CG1	10:J:102:ILE:HG23	2.07	0.84
10:J:65:GLU:O	10:J:66:LYS:HB2	1.75	0.84
10:J:87:LEU:HD11	10:J:91:LYS:CB	2.06	0.84
15:O:16:SER:HA	15:O:87:GLU:O	1.77	0.84
22:V:1:MET:HE2	22:V:10:ASP:HB2	0.86	0.84
30:d:23:VAL:HG21	30:d:38:MET:HE2	1.54	0.84
32:f:103:LEU:HD21	32:f:105:TYR:O	1.77	0.84
32:f:144:CYS:SG	32:f:147:THR:HG23	2.16	0.84
1:A:103:PHE:CE2	1:A:136:GLU:CD	2.50	0.84
4:D:212:GLU:HB2	4:D:213:PRO:CD	2.07	0.84
11:K:6:LYS:O	11:K:9:ILE:HG22	1.77	0.84
16:P:33:LEU:HD22	16:P:87:PRO:HG3	1.58	0.84
20:T:4:VAL:HG12	20:T:8:ASP:HB3	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:49:LYS:O	21:U:50:VAL:CG1	2.24	0.84
21:U:97:ILE:HG23	21:U:101:ILE:CD1	2.07	0.84
26:Z:103:HIS:CD2	26:Z:105:ALA:N	2.45	0.84
31:e:115:ARG:C	31:e:119:VAL:HG22	2.01	0.84
33:g:255:SER:HB2	33:g:270:LEU:O	1.77	0.84
35:l:44:LEU:CD2	35:l:86:GLN:HG2	2.04	0.84
3:C:131:GLU:CG	4:D:116:ARG:NH2	2.36	0.84
10:J:180:LYS:HG3	10:J:181:GLY:N	1.90	0.84
13:M:28:HIS:HD2	13:M:113:ASP:OD2	1.59	0.84
13:M:50:CYS:O	13:M:77:ILE:HG22	1.78	0.84
15:O:54:CYS:SG	15:O:84:ARG:HB2	2.17	0.84
19:S:94:LYS:CD	19:S:96:SER:OG	2.24	0.84
20:T:85:ASN:O	20:T:88:MET:HE3	1.77	0.84
21:U:67:LYS:HE3	21:U:78:ASP:OD1	1.77	0.84
25:Y:22:GLN:HB2	25:Y:74:MET:SD	2.14	0.84
25:Y:34:THR:CG2	25:Y:35:VAL:N	2.33	0.84
26:Z:85:ARG:CG	26:Z:85:ARG:HH11	1.90	0.84
32:f:116:ARG:HG3	32:f:116:ARG:NH1	1.91	0.84
1:A:48:ILE:HD13	18:R:105:MET:SD	2.16	0.84
1:A:191:ARG:HG3	1:A:191:ARG:O	1.73	0.84
1:A:205:ARG:HH22	18:R:82:ASP:N	1.76	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
12:L:147:LYS:HG3	12:L:148:ALA:N	1.91	0.84
15:O:52:THR:HG21	34:i:949:C:C4'	2.08	0.84
19:S:61:GLU:C	19:S:64:VAL:HG22	2.02	0.84
28:b:16:LYS:HD3	28:b:16:LYS:N	1.92	0.84
29:c:11:LEU:HD13	29:c:35:MET:CE	2.06	0.84
7:G:41:LEU:HD21	7:G:45:TRP:HZ3	1.09	0.84
10:J:31:LEU:O	10:J:35:TYR:HB2	1.77	0.84
11:K:16:PHE:HD2	11:K:79:LEU:CB	1.86	0.84
19:S:58:GLU:O	19:S:59:LEU:CG	2.25	0.84
23:W:93:LEU:HD21	23:W:128:PHE:HD2	1.38	0.84
25:Y:63:HIS:CB	25:Y:64:PHE:CD1	2.59	0.84
25:Y:120:THR:C	25:Y:122:LYS:HD2	2.02	0.84
33:g:165:ILE:CG1	33:g:177:TRP:HB2	2.06	0.84
34:i:1700:C:C2'	34:i:1845:A:O3'	2.25	0.84
1:A:16:LEU:C	1:A:17:LYS:HE2	2.02	0.84
2:B:150:ILE:CD1	18:R:125:GLY:C	2.49	0.84
2:B:150:ILE:HG21	18:R:125:GLY:HA3	1.58	0.84
3:C:48:VAL:HG23	3:C:75:GLU:CD	2.03	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:69:PHE:CZ	3:C:249:SER:HA	2.12	0.84
3:C:229:ILE:HG13	3:C:230:SER:N	1.90	0.84
4:D:132:LYS:CA	4:D:191:PRO:HG2	2.04	0.84
6:F:122:ARG:CZ	6:F:193:LYS:NZ	2.40	0.84
7:G:64:LYS:CG	7:G:67:VAL:CG1	2.55	0.84
8:H:147:LYS:HE2	8:H:153:LEU:CD1	2.06	0.84
11:K:27:VAL:CG1	11:K:43:LEU:HD21	2.02	0.84
12:L:82:MET:HE1	34:i:363:G:C4'	2.08	0.84
16:P:97:TYR:HB2	16:P:102:PHE:CE1	2.13	0.84
17:Q:8:GLN:HB3	17:Q:99:TYR:CZ	2.12	0.84
18:R:5:ARG:N	18:R:10:LYS:HZ1	1.75	0.84
23:W:129:PHE:O	23:W:129:PHE:CD1	2.30	0.84
32:f:120:GLU:CD	32:f:128:ALA:O	2.21	0.84
34:i:744:C:O3'	34:i:787:C:O2	1.96	0.84
34:i:1750:C:H2'	34:i:1751:G:C8	2.12	0.84
2:B:31:TYR:HE1	2:B:94:LYS:H	1.20	0.84
4:D:126:ILE:HD12	4:D:134:CYS:CB	2.08	0.84
5:E:191:ARG:CZ	5:E:245:ARG:HD3	2.07	0.84
7:G:63:MET:HE3	7:G:106:LEU:CD1	2.07	0.84
8:H:145:ARG:HD2	23:W:51:GLU:OE1	1.78	0.84
12:L:59:LYS:HD3	12:L:112:HIS:CD2	2.12	0.84
15:O:95:ILE:CD1	15:O:116:LEU:CD2	2.54	0.84
17:Q:105:LYS:HZ3	17:Q:109:LYS:HB2	1.38	0.84
20:T:11:GLN:HE22	20:T:62:ARG:NH2	1.74	0.84
32:f:106:TYR:OH	32:f:131:PHE:HZ	1.28	0.84
33:g:46:THR:OG1	33:g:48:ASP:CB	2.26	0.84
2:B:72:ALA:HB3	15:O:128:ARG:HH22	1.42	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
15:O:105:THR:O	15:O:106:LYS:CG	2.24	0.84
16:P:4:VAL:O	16:P:4:VAL:HG12	1.76	0.84
16:P:83:MET:CE	16:P:116:LEU:HD11	2.02	0.84
18:R:5:ARG:C	18:R:10:LYS:HE2	2.03	0.84
25:Y:32:LYS:HG3	25:Y:33:ALA:N	1.80	0.84
28:b:34:ASP:HB3	28:b:43:ILE:CG2	2.07	0.84
30:d:10:HIS:CD2	30:d:11:PRO:HD2	2.13	0.84
34:i:183:G:C8	34:i:184:G:OP2	2.31	0.84
34:i:1186:A:H2	34:i:1709:U:H1'	1.02	0.84
2:B:94:LYS:CD	2:B:94:LYS:N	2.39	0.84
2:B:153:THR:O	2:B:154:SER:OG	1.95	0.84
4:D:76:ARG:HE	11:K:66:HIS:CE1	1.90	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:197:LYS:CB	4:D:198:ILE:CB	2.55	0.84
4:D:198:ILE:HD12	4:D:198:ILE:O	1.77	0.84
5:E:21:ASP:OD1	5:E:24:THR:HG21	1.76	0.84
7:G:27:PHE:CE2	7:G:41:LEU:CD1	2.60	0.84
7:G:195:LYS:HE2	34:i:125:C:HO2'	1.41	0.84
9:I:103:LEU:HD23	9:I:172:LEU:HD13	1.59	0.84
9:I:155:ASN:O	12:L:22:ARG:NE	2.10	0.84
14:N:99:ARG:NH2	14:N:115:LEU:CD2	2.39	0.84
19:S:16:LEU:C	19:S:17:ASN:CG	2.43	0.84
22:V:64:GLU:OE2	28:b:3:LEU:CD2	2.26	0.84
26:Z:62:VAL:CG1	26:Z:68:ILE:HD13	2.05	0.84
32:f:103:LEU:C	32:f:105:TYR:H	1.85	0.84
33:g:172:LYS:HE3	33:g:192:THR:HB	1.59	0.84
1:A:11:LYS:HD3	1:A:13:GLU:CG	2.08	0.84
3:C:79:ILE:HD11	3:C:147:ILE:CD1	2.04	0.84
4:D:202:LYS:HB2	4:D:203:PRO:CD	2.08	0.84
6:F:20:PHE:O	6:F:22:LYS:HA	1.78	0.84
6:F:71:ARG:NH2	6:F:71:ARG:HG2	1.90	0.84
12:L:102:PHE:N	12:L:102:PHE:CD1	2.40	0.84
16:P:41:GLN:HA	16:P:84:ILE:CD1	2.07	0.84
18:R:100:PRO:CB	18:R:119:VAL:HG21	2.06	0.84
28:b:54:VAL:O	28:b:63:LEU:HB3	1.77	0.84
32:f:146:LEU:HD12	32:f:147:THR:HA	1.60	0.84
33:g:170:TRP:O	33:g:172:LYS:N	2.11	0.84
34:i:1843:G:O5'	35:l:65:LYS:CE	2.25	0.84
1:A:48:ILE:HD13	18:R:105:MET:HE1	1.57	0.83
2:B:105:LEU:HD21	2:B:213:ARG:HA	1.59	0.83
3:C:142:LEU:CA	3:C:145:LEU:HD23	2.04	0.83
3:C:156:GLY:HA2	23:W:98:GLN:HE22	1.43	0.83
6:F:14:THR:CB	17:Q:56:LEU:CD1	2.55	0.83
6:F:63:LYS:HD3	6:F:71:ARG:HH22	1.41	0.83
11:K:26:ASP:OD2	11:K:29:MET:HG3	1.77	0.83
16:P:68:PRO:CB	16:P:69:PRO:CD	2.53	0.83
17:Q:114:GLN:HG3	17:Q:115:TYR:N	1.93	0.83
17:Q:135:PRO:HD2	17:Q:141:TYR:CE1	2.11	0.83
18:R:91:LEU:HB2	18:R:92:ASP:CA	2.08	0.83
34:i:184:G:O2'	34:i:185:C:H5'	1.78	0.83
34:i:1406:C:H42	34:i:1432:C:H42	1.26	0.83
34:i:1823:G:HO2'	34:i:1844:A:N6	1.65	0.83
1:A:23:THR:O	1:A:25:LEU:N	2.12	0.83
1:A:145:ILE:HD13	1:A:159:ILE:CG2	2.06	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:14:THR:HG23	17:Q:56:LEU:CB	2.00	0.83
8:H:9:VAL:C	8:H:11:PRO:CD	2.50	0.83
9:I:144:LYS:CG	34:i:189:G:OP1	2.25	0.83
10:J:66:LYS:NZ	34:i:687:G:H2'	1.69	0.83
17:Q:9:SER:HB3	17:Q:26:LYS:CD	2.06	0.83
17:Q:34:VAL:CG2	17:Q:39:LEU:HD21	2.06	0.83
17:Q:42:ILE:HD13	17:Q:51:LEU:HD21	0.86	0.83
19:S:55:ARG:HG3	26:Z:48:VAL:HG11	1.60	0.83
24:X:94:ILE:HD11	24:X:122:VAL:HG11	1.60	0.83
25:Y:7:ILE:CD1	25:Y:43:LYS:CD	2.55	0.83
25:Y:29:HIS:HE1	25:Y:67:GLY:C	1.58	0.83
25:Y:78:SER:CB	25:Y:81:TYR:CE2	2.61	0.83
33:g:119:GLN:HE21	33:g:121:VAL:HG23	1.41	0.83
1:A:180:ARG:HH11	1:A:184:ARG:CZ	1.90	0.83
2:B:148:ASN:CG	18:R:122:PRO:O	2.21	0.83
6:F:42:LYS:CA	6:F:45:TYR:H	1.91	0.83
7:G:63:MET:HE3	7:G:106:LEU:CD2	2.08	0.83
7:G:195:LYS:O	7:G:199:THR:HG23	1.78	0.83
11:K:84:HIS:ND1	11:K:85:LEU:N	2.25	0.83
11:K:96:ARG:CG	11:K:97:SER:H	1.91	0.83
17:Q:9:SER:HB2	17:Q:26:LYS:HG3	1.35	0.83
17:Q:113:ILE:HG13	17:Q:120:LEU:HD11	1.60	0.83
19:S:39:ARG:CD	20:T:38:LYS:HE3	2.05	0.83
25:Y:50:THR:HG21	25:Y:75:ILE:HG21	1.60	0.83
33:g:150:TRP:HB2	33:g:170:TRP:CD1	2.13	0.83
33:g:259:TRP:HE3	33:g:259:TRP:H	0.85	0.83
1:A:21:ALA:HB1	1:A:173:LEU:CD1	2.05	0.83
8:H:144:ILE:CG1	23:W:52:ILE:CG2	2.53	0.83
13:M:13:ASP:CB	13:M:16:THR:CB	2.28	0.83
14:N:38:TYR:CE2	14:N:74:ILE:HG22	2.06	0.83
16:P:41:GLN:HG3	16:P:84:ILE:HG23	1.57	0.83
16:P:53:GLN:HB3	16:P:56:LEU:HD12	1.61	0.83
18:R:5:ARG:CA	18:R:10:LYS:HZ1	1.92	0.83
20:T:63:HIS:O	20:T:67:ARG:CD	2.26	0.83
24:X:94:ILE:CG1	24:X:125:VAL:HG21	2.07	0.83
24:X:126:ALA:HB3	24:X:128:VAL:CG1	2.07	0.83
28:b:36:LYS:CE	28:b:43:ILE:HD11	2.07	0.83
34:i:60:A:N7	34:i:325:G:C1'	2.41	0.83
1:A:54:THR:OG1	1:A:162:PRO:HG2	1.77	0.83
3:C:93:LYS:CE	3:C:218:LEU:CD2	2.48	0.83
4:D:197:LYS:CB	4:D:198:ILE:HG13	2.02	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:220:ALA:HA	7:G:223:LYS:HE3	1.60	0.83
13:M:93:LYS:O	13:M:94:ILE:CG2	2.25	0.83
17:Q:58:LEU:HD22	17:Q:111:ILE:CD1	2.08	0.83
19:S:8:LYS:O	26:Z:49:LEU:HD23	1.76	0.83
20:T:11:GLN:HE21	20:T:62:ARG:CZ	1.90	0.83
22:V:60:ARG:HG2	22:V:65:SER:HB3	1.58	0.83
33:g:140:TYR:CD2	33:g:182:CYS:HB3	2.03	0.83
34:i:24:C:O2'	34:i:25:A:H5'	1.76	0.83
2:B:150:ILE:HD11	18:R:126:MET:CA	2.09	0.83
2:B:153:THR:CG2	2:B:154:SER:H	1.91	0.83
3:C:98:GLN:CB	3:C:106:ARG:O	2.27	0.83
5:E:19:MET:HE2	34:i:842:G:C2'	2.07	0.83
6:F:46:ALA:C	6:F:47:LYS:CD	2.50	0.83
7:G:52:ILE:HA	7:G:111:LEU:HD23	1.59	0.83
7:G:67:VAL:O	7:G:68:LEU:HB2	1.76	0.83
10:J:88:ASP:C	10:J:92:MET:CG	2.48	0.83
11:K:71:LEU:HD21	11:K:76:ILE:CD1	1.93	0.83
12:L:97:ARG:O	12:L:99:TYR:CA	2.27	0.83
17:Q:50:LYS:HZ2	17:Q:85:ARG:HH21	0.83	0.83
24:X:125:VAL:O	24:X:128:VAL:N	2.10	0.83
25:Y:20:ARG:CD	25:Y:74:MET:HE2	2.08	0.83
25:Y:93:ARG:HG2	25:Y:93:ARG:NH1	1.71	0.83
28:b:12:PRO:CD	28:b:13:GLU:H	1.91	0.83
33:g:31:ILE:CG2	33:g:43:TRP:HB2	2.07	0.83
33:g:48:ASP:O	33:g:49:GLU:CG	2.27	0.83
33:g:119:GLN:HE21	33:g:121:VAL:CG2	1.88	0.83
33:g:143:GLN:NE2	33:g:144:ASP:HA	1.92	0.83
34:i:185:C:N3	34:i:211:U:O4	2.11	0.83
34:i:1825:A:N3	34:i:1846:C:C5'	2.37	0.83
2:B:137:LEU:HB2	2:B:172:MET:CE	2.03	0.83
3:C:260:LYS:CD	3:C:261:THR:N	2.41	0.83
5:E:129:ILE:HG12	5:E:139:LEU:HD22	1.08	0.83
6:F:91:ARG:HD2	17:Q:46:THR:HG21	1.60	0.83
7:G:181:THR:OG1	7:G:182:PRO:CD	2.26	0.83
7:G:212:LEU:HA	7:G:215:LYS:CD	2.09	0.83
12:L:82:MET:HE1	34:i:363:G:C5'	2.08	0.83
16:P:89:MET:HB3	16:P:107:ILE:CD1	2.07	0.83
18:R:99:ASP:CB	18:R:119:VAL:CG1	2.56	0.83
21:U:67:LYS:HE2	21:U:78:ASP:OD2	1.78	0.83
22:V:19:ALA:HB3	22:V:59:ILE:HD13	1.59	0.83
24:X:95:GLU:HG3	24:X:140:ARG:HH22	1.41	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:50:THR:O	25:Y:51:THR:OG1	1.97	0.83
25:Y:54:VAL:HG12	25:Y:76:TYR:H	1.43	0.83
33:g:2:THR:HG23	33:g:3:GLU:HG2	1.58	0.83
33:g:175:LYS:CD	33:g:177:TRP:CZ2	2.61	0.83
34:i:1408:C:H2'	34:i:1409:G:C8	2.11	0.83
1:A:32:PHE:CE1	1:A:33:GLN:CG	2.61	0.83
1:A:141:ASN:HD21	22:V:29:HIS:CB	1.92	0.83
2:B:55:THR:O	2:B:56:LYS:CD	2.26	0.83
3:C:70:SER:C	22:V:29:HIS:CE1	2.57	0.83
8:H:40:LEU:HD21	8:H:43:LEU:HD12	0.84	0.83
8:H:100:ILE:HG12	8:H:125:VAL:HG21	1.58	0.83
11:K:14:LEU:CD2	11:K:35:LEU:HD21	1.96	0.83
12:L:40:ILE:HD11	12:L:68:ILE:CB	2.09	0.83
14:N:55:ARG:NH2	28:b:51:GLN:OE1	2.12	0.83
15:O:44:VAL:HG12	15:O:53:ILE:HD11	1.58	0.83
17:Q:58:LEU:HD11	17:Q:108:ILE:HG23	1.60	0.83
17:Q:138:ARG:HH11	34:i:1641:C:H5"	1.44	0.83
18:R:20:TYR:OH	18:R:38:ILE:HB	1.74	0.83
19:S:139:THR:O	19:S:141:ARG:HG2	1.76	0.83
24:X:105:PHE:CD1	24:X:112:VAL:HG21	2.13	0.83
25:Y:59:GLY:O	25:Y:60:PHE:HB2	1.77	0.83
26:Z:99:LEU:HD22	26:Z:102:LYS:CD	2.05	0.83
28:b:16:LYS:CA	28:b:23:ARG:HH21	1.88	0.83
3:C:244:THR:HG22	3:C:244:THR:O	1.77	0.83
4:D:211:VAL:CG2	18:R:38:ILE:O	2.21	0.83
16:P:4:VAL:C	16:P:10:ARG:HD3	2.03	0.83
16:P:51:ARG:H	16:P:51:ARG:CD	1.92	0.83
19:S:42:HIS:HD2	20:T:45:LEU:HD11	1.01	0.83
26:Z:91:LEU:HD22	26:Z:96:LEU:HD12	1.59	0.83
33:g:248:LEU:C	33:g:259:TRP:HZ3	1.85	0.83
33:g:275:ILE:CD1	33:g:276:SER:H	1.89	0.83
34:i:744:C:O2'	34:i:748:G:N2	2.09	0.83
6:F:195:GLU:OE1	6:F:195:GLU:HA	1.77	0.83
11:K:1:MET:HE3	34:i:1270:G:N2	1.92	0.83
13:M:12:MET:CE	13:M:120:ALA:HB2	2.09	0.83
16:P:75:VAL:HG21	16:P:104:GLN:CD	2.04	0.83
17:Q:7:LEU:HD23	17:Q:8:GLN:H	1.44	0.83
25:Y:32:LYS:HG2	25:Y:33:ALA:H	1.41	0.83
25:Y:54:VAL:CG1	25:Y:76:TYR:H	1.91	0.83
31:e:86:VAL:O	31:e:90:THR:HG23	1.79	0.83
34:i:837:G:H2'	34:i:838:C:H5'	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:33:ILE:HG13	35:l:93:ILE:CG2	2.08	0.83
1:A:131:HIS:O	1:A:135:THR:HG23	1.79	0.82
3:C:142:LEU:O	3:C:145:LEU:CD2	2.26	0.82
4:D:135:GLU:HB2	4:D:153:VAL:HG22	1.61	0.82
5:E:19:MET:HE1	34:i:842:G:H2'	1.59	0.82
10:J:138:ARG:HB2	10:J:156:HIS:HB3	1.61	0.82
11:K:2:LEU:O	11:K:3:MET:HE3	1.79	0.82
11:K:27:VAL:HG13	11:K:43:LEU:HD23	1.52	0.82
11:K:74:GLU:OE1	11:K:74:GLU:HA	1.77	0.82
11:K:84:HIS:ND1	11:K:85:LEU:CA	2.42	0.82
17:Q:114:GLN:CG	17:Q:115:TYR:H	1.91	0.82
17:Q:116:ASP:O	17:Q:117:ARG:HB2	1.78	0.82
3:C:55:VAL:CB	3:C:82:PHE:HE2	1.92	0.82
3:C:93:LYS:HE3	3:C:95:MET:HB3	1.60	0.82
3:C:122:VAL:HG13	3:C:202:ALA:HA	1.61	0.82
3:C:244:THR:HG21	3:C:246:PHE:HA	1.59	0.82
5:E:159:THR:HG23	5:E:227:VAL:HG23	1.25	0.82
6:F:19:LEU:HD22	6:F:24:SER:HA	1.60	0.82
7:G:63:MET:HE2	7:G:106:LEU:HD11	1.61	0.82
7:G:84:TYR:HE2	7:G:86:PRO:HG3	1.42	0.82
8:H:93:VAL:HG22	8:H:94:PHE:N	1.84	0.82
10:J:134:HIS:ND1	10:J:163:SER:HB3	1.94	0.82
16:P:10:ARG:CZ	16:P:11:THR:HB	2.09	0.82
17:Q:72:VAL:CG2	17:Q:84:ILE:CG2	2.56	0.82
25:Y:29:HIS:CE1	25:Y:68:LYS:CA	2.62	0.82
35:l:46:THR:CG2	35:l:84:GLN:HG3	2.08	0.82
35:l:46:THR:HG23	35:l:84:GLN:HG3	1.60	0.82
1:A:66:VAL:HG22	1:A:186:ARG:CD	2.03	0.82
1:A:145:ILE:CD1	1:A:159:ILE:CG2	2.55	0.82
2:B:48:LEU:O	15:O:51:GLU:OE1	1.97	0.82
2:B:128:LYS:HG3	2:B:132:GLY:O	1.79	0.82
8:H:145:ARG:HH11	8:H:155:LYS:NZ	1.77	0.82
9:I:141:ARG:O	9:I:143:LYS:CE	2.27	0.82
13:M:124:ILE:CA	13:M:127:TYR:CD2	2.62	0.82
30:d:13:LYS:HG3	30:d:14:PHE:CD2	2.06	0.82
31:e:113:ASN:HA	31:e:117:VAL:CG2	2.10	0.82
34:i:744:C:C3'	34:i:787:C:C2	2.63	0.82
1:A:39:TYR:CB	1:A:50:ASN:ND2	2.40	0.82
1:A:159:ILE:CG2	1:A:159:ILE:O	2.27	0.82
4:D:56:GLN:HA	4:D:59:LEU:CD2	2.09	0.82
4:D:193:ASP:OD1	4:D:203:PRO:CA	2.27	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:226:GLU:O	7:G:230:LYS:HG2	1.78	0.82
9:I:206:LYS:CG	9:I:207:GLY:N	2.42	0.82
10:J:15:THR:CB	10:J:44:TRP:CZ3	2.62	0.82
11:K:84:HIS:HD2	13:M:27:ILE:HG13	1.43	0.82
15:O:125:LYS:HZ2	27:a:57:SER:C	1.88	0.82
16:P:118:GLU:O	19:S:119:ALA:CA	2.27	0.82
17:Q:58:LEU:HD22	17:Q:111:ILE:HD12	1.61	0.82
20:T:39:LEU:HD12	20:T:99:VAL:HG21	1.61	0.82
21:U:18:HIS:CE1	21:U:98:VAL:CG2	2.60	0.82
24:X:69:CYS:SG	24:X:84:PHE:HA	2.19	0.82
24:X:74:LEU:HD11	24:X:81:ILE:CD1	2.08	0.82
35:l:59:LEU:HG	35:l:102:LEU:HD21	1.59	0.82
1:A:60:LEU:C	1:A:60:LEU:HD13	2.04	0.82
4:D:74:GLN:HE21	4:D:75:LYS:HD3	1.45	0.82
4:D:158:ILE:HD12	4:D:189:MET:CE	1.98	0.82
6:F:91:ARG:NH1	6:F:94:LYS:CG	2.37	0.82
6:F:116:ILE:N	6:F:116:ILE:CD1	2.39	0.82
7:G:32:MET:HE1	7:G:100:CYS:C	2.02	0.82
8:H:147:LYS:CE	8:H:153:LEU:HD12	2.08	0.82
10:J:170:PRO:HG2	10:J:175:ARG:HG3	0.83	0.82
12:L:147:LYS:CG	12:L:148:ALA:N	2.29	0.82
13:M:92:CYS:HB2	13:M:101:ARG:HG3	1.60	0.82
15:O:17:LEU:HD23	15:O:18:GLY:N	1.95	0.82
16:P:44:ARG:NH2	16:P:84:ILE:HB	1.93	0.82
16:P:123:TYR:OH	19:S:124:ARG:HG2	1.78	0.82
19:S:95:TYR:N	19:S:95:TYR:HD1	1.72	0.82
31:e:105:ARG:HB3	31:e:105:ARG:HH21	1.39	0.82
34:i:927:C:O5'	34:i:927:C:H6	1.63	0.82
1:A:76:VAL:HG21	1:A:90:PHE:CE2	2.15	0.82
2:B:151:ARG:HD2	2:B:153:THR:HG22	1.62	0.82
3:C:70:SER:O	22:V:29:HIS:CE1	2.33	0.82
4:D:12:VAL:HG13	30:d:36:LEU:HD11	1.56	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
7:G:85:ARG:NE	25:Y:118:ARG:NE	2.28	0.82
9:I:21:TYR:CD2	9:I:22:HIS:CD2	2.66	0.82
14:N:38:TYR:CE2	14:N:74:ILE:HG23	2.13	0.82
17:Q:19:ALA:CB	17:Q:74:GLY:C	2.52	0.82
17:Q:25:CYS:SG	17:Q:91:ALA:CB	2.63	0.82
19:S:26:ILE:HG22	19:S:45:LEU:HD11	1.60	0.82
21:U:18:HIS:CE1	21:U:93:SER:O	2.33	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:79:VAL:CG1	22:V:82:ASN:OD1	2.28	0.82
25:Y:17:LEU:HD12	25:Y:18:LEU:HG	1.61	0.82
25:Y:93:ARG:HH11	25:Y:93:ARG:CG	1.88	0.82
33:g:275:ILE:O	33:g:276:SER:CB	2.28	0.82
34:i:1206:G:C3'	34:i:1207:G:P	2.66	0.82
3:C:192:ALA:O	3:C:195:PRO:HD2	1.79	0.82
4:D:158:ILE:HD11	4:D:189:MET:SD	2.19	0.82
4:D:192:TRP:HE3	4:D:196:GLY:HA2	1.38	0.82
6:F:179:ASN:O	6:F:182:LYS:O	1.97	0.82
10:J:45:ARG:O	10:J:49:THR:HG23	1.78	0.82
10:J:48:PHE:CE1	10:J:52:LYS:NZ	2.42	0.82
10:J:114:VAL:HG12	10:J:120:ALA:CB	2.07	0.82
10:J:114:VAL:CG1	10:J:119:LEU:O	2.27	0.82
16:P:14:LYS:O	16:P:22:LEU:HD23	1.78	0.82
32:f:97:LYS:HB2	32:f:97:LYS:HZ3	1.43	0.82
34:i:1165:G:H5"	34:i:1815:U:OP1	1.78	0.82
4:D:56:GLN:O	4:D:59:LEU:CG	2.25	0.82
6:F:44:LYS:HE3	6:F:44:LYS:O	1.80	0.82
7:G:147:LEU:O	7:G:151:ASP:OD2	1.98	0.82
7:G:184:VAL:HG12	7:G:188:LYS:CE	2.09	0.82
7:G:195:LYS:HD3	34:i:126:G:H5'	1.60	0.82
8:H:122:LEU:CD1	8:H:123:THR:HG23	2.08	0.82
28:b:33:MET:CE	28:b:79:PHE:HB2	1.86	0.82
30:d:13:LYS:HE3	30:d:14:PHE:CD2	2.15	0.82
34:i:1822:C:H1'	34:i:1843:G:N2	1.94	0.82
1:A:2:SER:O	22:V:78:ILE:HD11	1.79	0.82
4:D:108:LYS:CB	4:D:113:LEU:HD22	2.10	0.82
5:E:126:VAL:CG2	5:E:129:ILE:HD11	2.09	0.82
5:E:175:PHE:HD2	5:E:175:PHE:O	1.63	0.82
6:F:145:ARG:HH11	29:c:49:PRO:HD3	1.44	0.82
7:G:27:PHE:HZ	7:G:41:LEU:CD1	1.92	0.82
9:I:144:LYS:HG3	34:i:189:G:C5'	2.10	0.82
10:J:10:ARG:CB	10:J:10:ARG:CZ	2.58	0.82
10:J:89:GLU:O	10:J:92:MET:CB	2.28	0.82
14:N:24:THR:HB	28:b:84:HIS:NE2	1.95	0.82
17:Q:92:LEU:HD12	17:Q:96:TYR:CE2	2.14	0.82
18:R:51:ALA:O	18:R:55:THR:HG23	1.80	0.82
21:U:108:PRO:O	21:U:108:PRO:HG2	1.79	0.82
34:i:127:C:N3	34:i:180:G:O2'	2.00	0.82
34:i:1826:A:H5'	34:i:1847:C:OP2	1.78	0.82
1:A:43:SER:O	1:A:44:ASP:OD1	1.97	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:97:THR:HG23	1:A:98:PRO:CD	2.06	0.82
4:D:132:LYS:HA	4:D:191:PRO:CG	2.10	0.82
5:E:124:CYS:HB3	5:E:141:THR:HB	1.59	0.82
7:G:29:GLU:HG2	7:G:29:GLU:O	1.78	0.82
7:G:147:LEU:HD21	7:G:156:TYR:CE2	2.15	0.82
9:I:118:ALA:HB2	9:I:149:TYR:CE1	2.15	0.82
9:I:155:ASN:O	12:L:22:ARG:HD3	1.80	0.82
9:I:155:ASN:ND2	9:I:156:ALA:HA	1.95	0.82
14:N:25:TRP:CZ3	28:b:45:THR:HG21	2.15	0.82
19:S:8:LYS:CE	19:S:9:PHE:CE1	2.63	0.82
23:W:20:ARG:HH12	34:i:1135:C:H1'	1.45	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
31:e:80:LEU:N	36:n:84:TYR:CE2	2.48	0.82
33:g:143:GLN:CD	33:g:144:ASP:CB	2.52	0.82
35:l:47:VAL:CG2	35:l:83:ILE:HG22	2.08	0.82
3:C:50:LYS:HD2	3:C:251:TYR:HD1	1.39	0.81
3:C:154:TYR:HH	3:C:161:LYS:HA	1.45	0.81
3:C:195:PRO:CD	3:C:221:PHE:HZ	1.92	0.81
6:F:42:LYS:O	6:F:42:LYS:CE	2.28	0.81
6:F:141:VAL:CG2	29:c:47:LYS:HZ1	1.93	0.81
7:G:38:ALA:HB1	7:G:45:TRP:O	1.78	0.81
15:O:37:PHE:O	15:O:38:ASN:HB2	1.78	0.81
18:R:110:ASP:O	18:R:111:PHE:HD2	1.62	0.81
24:X:105:PHE:CG	24:X:112:VAL:CG2	2.62	0.81
24:X:126:ALA:C	24:X:128:VAL:HB	2.04	0.81
28:b:16:LYS:CD	28:b:16:LYS:N	2.43	0.81
2:B:72:ALA:HB1	2:B:77:ASP:OD2	1.80	0.81
4:D:48:ILE:HG21	4:D:86:LEU:HG	1.62	0.81
4:D:78:GLY:O	4:D:80:PRO:HD3	1.79	0.81
4:D:195:SER:O	4:D:197:LYS:HA	1.80	0.81
6:F:142:SER:HB2	29:c:50:VAL:CG2	2.10	0.81
16:P:14:LYS:O	16:P:22:LEU:CD2	2.28	0.81
17:Q:44:PRO:O	17:Q:45:ARG:HG2	1.78	0.81
17:Q:72:VAL:CG2	17:Q:84:ILE:HG22	2.10	0.81
18:R:21:TYR:HB3	18:R:71:ILE:HG21	1.62	0.81
21:U:48:LEU:C	21:U:49:LYS:HG3	2.05	0.81
22:V:24:ILE:HD13	22:V:25:GLY:H	1.41	0.81
36:n:39:ILE:HD13	36:n:50:MET:CB	2.09	0.81
1:A:16:LEU:HD22	18:R:111:PHE:CZ	2.09	0.81
1:A:58:LEU:HD23	1:A:178:LEU:HD21	1.57	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:141:ASN:ND2	22:V:29:HIS:HB3	1.94	0.81
1:A:202:TYR:O	1:A:203:PHE:CG	2.33	0.81
2:B:130:THR:HG21	2:B:179:ASN:H	1.43	0.81
4:D:18:LYS:NZ	4:D:37:VAL:CG2	2.44	0.81
4:D:67:ARG:HH11	4:D:67:ARG:CG	1.92	0.81
4:D:70:THR:HG22	4:D:86:LEU:HB2	1.62	0.81
5:E:86:PHE:CZ	5:E:182:MET:CE	2.62	0.81
8:H:23:ILE:CD1	8:H:27:LEU:HD21	2.10	0.81
8:H:191:GLU:C	8:H:192:PHE:CD1	2.57	0.81
10:J:88:ASP:O	10:J:92:MET:HG3	1.81	0.81
11:K:97:SER:OG	11:K:98:ARG:N	2.10	0.81
12:L:99:TYR:HH	24:X:14:ARG:HA	1.00	0.81
12:L:149:ALA:HB2	12:L:156:GLN:HE21	1.00	0.81
13:M:33:ARG:HH11	13:M:33:ARG:HG3	1.46	0.81
13:M:71:GLU:O	13:M:72:HIS:O	1.98	0.81
13:M:76:LEU:O	13:M:128:PHE:CE1	2.32	0.81
14:N:21:SER:C	14:N:22:VAL:HG13	2.04	0.81
17:Q:90:LYS:HD3	17:Q:120:LEU:HA	1.61	0.81
21:U:61:LEU:HD21	30:d:34:TYR:CE1	2.13	0.81
22:V:32:ILE:HD12	22:V:60:ARG:HH12	1.43	0.81
23:W:129:PHE:C	23:W:129:PHE:CD1	2.45	0.81
24:X:105:PHE:CD1	24:X:112:VAL:CG2	2.64	0.81
25:Y:22:GLN:HB3	25:Y:74:MET:CE	2.09	0.81
25:Y:34:THR:HG22	25:Y:35:VAL:H	1.40	0.81
26:Z:94:LYS:NZ	26:Z:95:GLY:H	1.78	0.81
26:Z:96:LEU:O	26:Z:112:ASN:HB3	1.80	0.81
29:c:11:LEU:HB3	29:c:35:MET:HE2	1.61	0.81
33:g:143:GLN:CG	33:g:144:ASP:N	2.32	0.81
34:i:60:A:N7	34:i:325:G:O4'	2.13	0.81
34:i:370:G:C8	34:i:372:C:OP2	2.33	0.81
34:i:744:C:O3'	34:i:787:C:C2	2.33	0.81
3:C:58:MET:HE1	3:C:81:PHE:CZ	2.15	0.81
3:C:79:ILE:HG12	3:C:144:LYS:HB3	1.62	0.81
3:C:120:GLY:HA2	3:C:150:VAL:HG22	1.60	0.81
4:D:97:CYS:O	4:D:98:ALA:C	2.23	0.81
6:F:39:ILE:CG2	6:F:68:ILE:HD13	2.11	0.81
7:G:57:ASP:OD2	7:G:98:ARG:HG3	1.80	0.81
7:G:175:LYS:CE	34:i:307:G:C5'	2.57	0.81
10:J:170:PRO:HB2	10:J:174:LYS:HB3	1.62	0.81
12:L:125:ILE:O	12:L:146:THR:HG22	1.79	0.81
14:N:80:LEU:C	14:N:82:PRO:HD3	2.05	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:68:PRO:HB2	16:P:69:PRO:CD	2.09	0.81
26:Z:69:THR:CB	26:Z:70:PRO:CD	2.58	0.81
32:f:102:VAL:HG12	32:f:103:LEU:H	1.43	0.81
2:B:70:SER:HB2	15:O:128:ARG:HD3	1.61	0.81
4:D:218:LEU:CB	4:D:220:THR:HG23	1.97	0.81
5:E:11:ARG:O	5:E:12:VAL:HG23	1.80	0.81
5:E:128:LYS:CD	5:E:130:PHE:CD1	2.63	0.81
5:E:130:PHE:CB	5:E:138:HIS:CE1	2.63	0.81
10:J:138:ARG:O	10:J:138:ARG:HG2	1.77	0.81
16:P:46:SER:C	16:P:49:LEU:HB2	2.05	0.81
17:Q:102:GLU:CD	33:g:55:PRO:HG2	2.04	0.81
19:S:10:GLN:HB3	19:S:13:LEU:HD21	1.62	0.81
21:U:19:ARG:HA	21:U:92:HIS:ND1	1.95	0.81
21:U:46:LYS:HZ1	21:U:97:ILE:HG12	1.44	0.81
21:U:62:ARG:HH11	21:U:64:THR:CG2	1.92	0.81
21:U:73:GLY:O	21:U:74:SER:O	1.99	0.81
25:Y:18:LEU:HD13	25:Y:20:ARG:HH12	0.66	0.81
33:g:93:THR:HB	33:g:94:THR:HG23	1.63	0.81
34:i:1165:G:C4'	34:i:1815:U:C4'	2.48	0.81
34:i:1690:A:C2	34:i:1699:C:H5'	2.14	0.81
7:G:142:ARG:CD	7:G:147:LEU:HB2	2.07	0.81
8:H:83:LEU:CD2	8:H:92:VAL:CG1	2.57	0.81
9:I:17:LYS:NZ	34:i:1722:G:O2'	2.14	0.81
12:L:94:HIS:HB2	12:L:105:ARG:CD	2.10	0.81
13:M:31:LEU:HD11	13:M:109:VAL:HB	1.63	0.81
17:Q:85:ARG:HH12	17:Q:117:ARG:CB	1.93	0.81
19:S:34:LYS:CG	19:S:103:LEU:HD21	2.10	0.81
20:T:31:PRO:CG	20:T:102:ARG:HG3	2.10	0.81
21:U:97:ILE:CG2	21:U:101:ILE:CD1	2.58	0.81
25:Y:7:ILE:CG1	25:Y:43:LYS:HD3	2.11	0.81
25:Y:55:ILE:CG1	25:Y:75:ILE:CG1	2.15	0.81
25:Y:114:MET:HG2	25:Y:124:ASN:HB3	1.62	0.81
28:b:83:GLN:O	28:b:84:HIS:O	1.97	0.81
33:g:17:TRP:CE3	33:g:36:ARG:CZ	2.63	0.81
34:i:61:A:N3	34:i:326:A:C1'	2.23	0.81
34:i:127:C:OP1	34:i:180:G:N2	2.14	0.81
4:D:112:GLY:O	4:D:113:LEU:CG	2.28	0.81
5:E:23:LEU:C	5:E:24:THR:HG23	2.05	0.81
5:E:49:ARG:HB3	5:E:55:ALA:HB3	1.62	0.81
8:H:31:GLU:CD	8:H:41:ARG:HD2	2.02	0.81
9:I:128:LYS:HE2	9:I:133:GLU:OE1	1.81	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:4:PRO:HG2	11:K:7:ASN:CB	2.11	0.81
12:L:97:ARG:O	12:L:98:LYS:C	2.22	0.81
17:Q:9:SER:CB	17:Q:26:LYS:CD	2.59	0.81
22:V:55:ILE:CD1	22:V:65:SER:HA	2.08	0.81
22:V:67:ASP:O	22:V:70:LEU:N	2.14	0.81
23:W:102:ILE:H	23:W:113:HIS:CE1	1.98	0.81
24:X:22:TRP:O	24:X:23:HIS:C	2.12	0.81
24:X:71:ARG:HE	24:X:82:THR:HG23	1.46	0.81
25:Y:36:PRO:CG	25:Y:39:GLU:OE1	2.24	0.81
26:Z:48:VAL:C	26:Z:83:LEU:HD12	2.04	0.81
28:b:63:LEU:O	28:b:63:LEU:CD2	2.28	0.81
32:f:95:ARG:HD3	32:f:96:LYS:H	1.45	0.81
32:f:103:LEU:O	32:f:105:TYR:N	2.12	0.81
2:B:26:SER:O	2:B:27:LYS:CG	2.28	0.81
2:B:150:ILE:CG1	18:R:124:VAL:CG1	2.47	0.81
4:D:226:GLN:HA	4:D:226:GLN:HE21	1.34	0.81
5:E:241:GLY:O	5:E:244:ILE:HG13	1.81	0.81
7:G:142:ARG:CD	7:G:147:LEU:CB	2.59	0.81
7:G:227:GLN:HA	7:G:230:LYS:HZ3	1.45	0.81
11:K:28:HIS:CE1	30:d:8:TRP:CD1	2.65	0.81
12:L:103:GLU:OE1	24:X:11:ARG:CZ	2.29	0.81
15:O:34:PHE:HZ	15:O:100:THR:HA	1.45	0.81
16:P:62:LYS:HG3	16:P:65:LYS:CE	2.11	0.81
20:T:52:TRP:O	20:T:55:THR:HG22	1.80	0.81
20:T:87:VAL:HG13	20:T:88:MET:HG3	1.61	0.81
23:W:7:LEU:HD11	23:W:33:VAL:CG1	2.10	0.81
24:X:29:LYS:HD3	24:X:34:THR:CG2	2.11	0.81
34:i:78:C:O2'	34:i:308:C:OP1	1.98	0.81
3:C:244:THR:HG22	3:C:246:PHE:HD2	1.41	0.81
6:F:59:LYS:HD2	6:F:62:ARG:HH22	1.41	0.81
7:G:224:ARG:O	7:G:228:ILE:HG13	1.80	0.81
8:H:23:ILE:HD11	8:H:27:LEU:HD21	1.62	0.81
12:L:71:ARG:CD	12:L:73:LEU:CD2	2.41	0.81
17:Q:9:SER:CA	17:Q:26:LYS:HG3	2.10	0.81
17:Q:34:VAL:HG23	17:Q:39:LEU:HD21	1.60	0.81
17:Q:39:LEU:O	17:Q:42:ILE:CD1	2.28	0.81
19:S:39:ARG:CZ	20:T:38:LYS:CD	2.59	0.81
26:Z:62:VAL:HA	26:Z:65:TYR:CE2	2.16	0.81
27:a:49:ALA:HB1	27:a:53:ILE:CD1	2.11	0.81
28:b:63:LEU:O	28:b:63:LEU:CG	2.29	0.81
1:A:60:LEU:HD13	1:A:60:LEU:O	1.81	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:57:ILE:O	2:B:57:ILE:CG2	2.30	0.81
2:B:57:ILE:O	2:B:58:ALA:C	2.21	0.81
3:C:154:TYR:HE1	3:C:162:PRO:HG3	1.46	0.81
4:D:59:LEU:CD1	4:D:60:GLY:H	1.87	0.81
10:J:89:GLU:CB	10:J:92:MET:SD	2.68	0.81
14:N:16:LEU:HD11	14:N:62:GLN:NE2	1.95	0.81
18:R:99:ASP:CB	18:R:119:VAL:HG11	2.09	0.81
20:T:119:TRP:CE3	34:i:1557:C:O2'	2.31	0.81
24:X:142:ARG:CG	24:X:142:ARG:NH1	2.30	0.81
31:e:127:LYS:CD	31:e:128:GLY:N	2.44	0.81
33:g:140:TYR:OH	33:g:182:CYS:HB2	1.80	0.81
1:A:57:LYS:HZ1	22:V:70:LEU:CG	1.94	0.80
2:B:146:CYS:O	2:B:147:ASN:C	2.21	0.80
4:D:16:ILE:HD13	30:d:22:ARG:HH22	1.43	0.80
6:F:44:LYS:O	6:F:44:LYS:CD	2.29	0.80
6:F:134:VAL:CG1	6:F:136:ARG:NH2	2.44	0.80
8:H:65:PRO:CD	8:H:68:GLN:OE1	2.28	0.80
9:I:138:ASN:O	9:I:139:LYS:O	2.00	0.80
10:J:130:ILE:CG1	10:J:135:ILE:HD13	2.10	0.80
18:R:103:LYS:O	18:R:107:LYS:HG3	1.80	0.80
19:S:23:ARG:HD3	26:Z:48:VAL:HB	1.62	0.80
25:Y:46:LYS:HD2	25:Y:46:LYS:O	1.81	0.80
32:f:103:LEU:HD23	32:f:105:TYR:N	1.94	0.80
32:f:103:LEU:CD2	32:f:105:TYR:HB2	2.10	0.80
2:B:66:VAL:HG22	2:B:87:ILE:CB	2.10	0.80
6:F:40:ALA:H	6:F:68:ILE:HG23	1.43	0.80
6:F:201:LYS:CD	6:F:204:ARG:NH2	2.39	0.80
8:H:12:ASN:CB	8:H:46:THR:OG1	2.29	0.80
10:J:109:ARG:O	10:J:110:LEU:O	1.98	0.80
10:J:134:HIS:CE1	10:J:164:PRO:HD3	2.15	0.80
12:L:82:MET:HE1	34:i:363:G:H5'	1.63	0.80
18:R:33:ARG:NH1	33:g:125:ARG:HD2	1.96	0.80
19:S:55:ARG:HH11	26:Z:80:ARG:HE	1.26	0.80
25:Y:99:LYS:O	25:Y:99:LYS:CD	2.28	0.80
26:Z:103:HIS:O	26:Z:106:GLN:N	2.13	0.80
31:e:118:ASN:CA	31:e:119:VAL:HB	2.10	0.80
1:A:127:PRO:HA	1:A:134:LEU:HD11	1.62	0.80
2:B:72:ALA:HB3	15:O:128:ARG:NH2	1.95	0.80
6:F:44:LYS:O	6:F:44:LYS:HD2	1.80	0.80
6:F:61:PHE:CE2	29:c:51:ARG:HB2	2.16	0.80
8:H:14:GLU:OE1	8:H:16:PRO:CG	2.30	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:101:ARG:HH12	24:X:5:ARG:HA	1.46	0.80
15:O:125:LYS:NZ	27:a:57:SER:O	2.14	0.80
19:S:34:LYS:HB3	19:S:103:LEU:CG	2.11	0.80
23:W:6:VAL:HG13	23:W:29:PRO:HD2	1.63	0.80
23:W:38:LEU:HD23	23:W:41:MET:HE1	1.61	0.80
24:X:60:LYS:CG	24:X:116:PRO:HG2	2.11	0.80
25:Y:3:ASP:O	25:Y:4:THR:OG1	1.98	0.80
27:a:107:ALA:HB1	27:a:108:PRO:HD3	1.63	0.80
31:e:80:LEU:N	36:n:84:TYR:HD2	1.77	0.80
34:i:127:C:N3	34:i:180:G:H2'	1.94	0.80
34:i:1823:G:N3	34:i:1844:A:N3	2.28	0.80
3:C:55:VAL:CG1	3:C:82:PHE:CZ	2.37	0.80
11:K:36:ALA:O	11:K:38:LYS:CG	2.29	0.80
19:S:94:LYS:CE	19:S:95:TYR:O	2.29	0.80
29:c:67:ARG:O	29:c:68:LEU:CD2	2.30	0.80
36:n:97:ALA:O	36:n:100:ALA:N	2.13	0.80
1:A:106:GLY:CA	34:i:1347:G:O2'	2.30	0.80
2:B:130:THR:CG2	2:B:179:ASN:H	1.93	0.80
3:C:142:LEU:C	3:C:145:LEU:HD23	2.06	0.80
10:J:179:LYS:CG	10:J:182:GLN:OE1	2.30	0.80
12:L:78:THR:HG22	12:L:87:VAL:O	1.82	0.80
12:L:80:MET:HE2	12:L:120:VAL:O	1.81	0.80
16:P:41:GLN:NE2	16:P:84:ILE:CG2	2.43	0.80
17:Q:30:GLY:O	17:Q:31:LEU:CD1	2.29	0.80
20:T:23:LYS:CE	20:T:54:TYR:CD2	2.64	0.80
22:V:78:ILE:HD13	22:V:79:VAL:N	1.95	0.80
25:Y:7:ILE:HD11	25:Y:43:LYS:CB	2.11	0.80
25:Y:99:LYS:CE	25:Y:99:LYS:C	2.54	0.80
25:Y:108:LYS:O	25:Y:111:LYS:HG3	1.81	0.80
31:e:92:LYS:HD3	31:e:92:LYS:N	1.95	0.80
31:e:113:ASN:OD1	31:e:117:VAL:HG21	1.81	0.80
33:g:143:GLN:OE1	33:g:144:ASP:CB	2.29	0.80
33:g:281:ALA:O	33:g:282:GLU:CB	2.30	0.80
34:i:227:A:C5'	34:i:782:G:C5'	2.59	0.80
1:A:103:PHE:HZ	1:A:136:GLU:OE1	1.61	0.80
2:B:94:LYS:N	2:B:94:LYS:HD2	1.95	0.80
5:E:128:LYS:CD	5:E:130:PHE:HE1	1.84	0.80
9:I:140:LYS:O	9:I:141:ARG:HG3	1.82	0.80
14:N:12:SER:C	14:N:13:GLN:HG3	2.06	0.80
16:P:4:VAL:HA	16:P:10:ARG:CG	2.09	0.80
20:T:90:SER:C	20:T:91:HIS:CD2	2.60	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:40:ILE:HD11	21:U:53:PRO:HG3	0.81	0.80
22:V:40:ASP:HB2	22:V:47:ASN:ND2	1.94	0.80
24:X:29:LYS:CD	24:X:34:THR:CG2	2.58	0.80
25:Y:99:LYS:HE3	25:Y:99:LYS:C	2.07	0.80
32:f:85:TYR:O	32:f:86:THR:CG2	2.30	0.80
32:f:135:HIS:HB3	32:f:138:ARG:HG3	0.81	0.80
34:i:1186:A:O2'	34:i:1709:U:C4'	2.29	0.80
34:i:1700:C:C1'	34:i:1846:C:P	2.70	0.80
1:A:14:ASP:HB3	1:A:18:PHE:HE2	1.46	0.80
3:C:244:THR:HG23	3:C:246:PHE:CA	2.10	0.80
5:E:38:LEU:O	5:E:38:LEU:CD1	2.30	0.80
5:E:100:ARG:CD	5:E:102:ILE:HD11	2.08	0.80
5:E:182:MET:HE2	5:E:228:ILE:HG21	1.63	0.80
8:H:14:GLU:OE1	8:H:16:PRO:CB	2.29	0.80
10:J:172:ARG:NH2	34:i:552:U:C6	2.50	0.80
13:M:61:TYR:CE1	13:M:108:CYS:SG	2.70	0.80
13:M:100:PRO:O	13:M:101:ARG:CD	2.30	0.80
13:M:124:ILE:HA	13:M:127:TYR:CE2	2.17	0.80
20:T:31:PRO:HB3	20:T:33:TRP:CD2	2.17	0.80
21:U:61:LEU:CD2	30:d:34:TYR:CE2	2.36	0.80
22:V:24:ILE:O	22:V:24:ILE:CG2	2.30	0.80
25:Y:55:ILE:HG22	25:Y:55:ILE:O	1.78	0.80
25:Y:55:ILE:CB	25:Y:75:ILE:HG12	2.12	0.80
25:Y:114:MET:CE	25:Y:125:VAL:HG23	2.11	0.80
27:a:107:ALA:HB1	27:a:108:PRO:CD	2.10	0.80
31:e:82:ARG:HD3	36:n:82:ARG:HH21	1.45	0.80
34:i:196:U:H3	34:i:200:U:H3	1.29	0.80
4:D:47:GLU:OE2	4:D:85:GLU:OE2	2.00	0.80
5:E:130:PHE:CG	5:E:138:HIS:CE1	2.70	0.80
6:F:112:LEU:HA	6:F:177:LEU:CD1	2.11	0.80
7:G:36:VAL:HG12	7:G:37:ALA:N	1.95	0.80
9:I:206:LYS:HG3	9:I:207:GLY:N	1.97	0.80
13:M:31:LEU:HD12	13:M:33:ARG:HB3	1.64	0.80
14:N:23:PRO:HD2	14:N:26:LEU:HD23	1.62	0.80
14:N:59:GLY:O	14:N:60:VAL:HG13	1.80	0.80
17:Q:85:ARG:NH1	17:Q:117:ARG:HB3	1.97	0.80
20:T:114:GLU:OE2	20:T:122:LYS:HE3	1.81	0.80
22:V:19:ALA:O	23:W:23:ARG:NH2	2.15	0.80
24:X:126:ALA:O	24:X:128:VAL:CB	2.29	0.80
25:Y:20:ARG:HG3	25:Y:74:MET:HE1	1.62	0.80
6:F:145:ARG:HD3	29:c:49:PRO:HD3	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:162:LEU:CD2	7:G:172:LYS:NZ	2.44	0.80
7:G:179:LEU:C	7:G:179:LEU:HD12	2.07	0.80
8:H:100:ILE:CG1	8:H:125:VAL:HG21	2.12	0.80
9:I:154:LYS:C	9:I:154:LYS:HD3	2.01	0.80
11:K:36:ALA:O	11:K:38:LYS:CD	2.29	0.80
11:K:83:LEU:HB2	11:K:85:LEU:HD21	1.63	0.80
15:O:129:ILE:HG21	27:a:44:ILE:HG21	1.60	0.80
17:Q:44:PRO:HG2	17:Q:81:ILE:CD1	2.10	0.80
18:R:99:ASP:O	18:R:119:VAL:CB	2.29	0.80
19:S:12:ILE:O	19:S:12:ILE:CG2	2.30	0.80
19:S:39:ARG:NH2	20:T:38:LYS:CD	2.45	0.80
19:S:54:LYS:C	19:S:54:LYS:HA	2.00	0.80
19:S:94:LYS:CD	19:S:95:TYR:O	2.30	0.80
20:T:65:TYR:HA	20:T:123:LEU:HD13	1.64	0.80
21:U:62:ARG:HH12	21:U:64:THR:CG2	1.76	0.80
25:Y:99:LYS:CE	25:Y:99:LYS:O	2.29	0.80
25:Y:101:LYS:O	25:Y:102:THR:CG2	2.29	0.80
32:f:103:LEU:O	32:f:103:LEU:CD2	2.29	0.80
33:g:194:TYR:CE2	33:g:212:LYS:CB	2.65	0.80
3:C:154:TYR:CE1	3:C:162:PRO:CG	2.64	0.80
10:J:100:LEU:HG	10:J:101:LYS:H	1.44	0.80
16:P:89:MET:C	16:P:107:ILE:HD11	2.06	0.80
25:Y:9:THR:CB	25:Y:48:TYR:OH	2.29	0.80
32:f:87:THR:CB	34:i:1503:G:H22	1.94	0.80
32:f:103:LEU:C	32:f:105:TYR:N	2.32	0.80
35:l:45:THR:O	35:l:85:LEU:CG	2.27	0.80
3:C:54:LEU:CD2	3:C:254:PHE:HB3	2.12	0.79
3:C:255:THR:HG23	3:C:256:ASP:OD1	1.82	0.79
4:D:97:CYS:O	4:D:97:CYS:SG	2.38	0.79
5:E:129:ILE:HG13	5:E:139:LEU:HD22	1.34	0.79
5:E:184:THR:C	5:E:189:LEU:HD13	2.06	0.79
8:H:98:ARG:CZ	8:H:128:ALA:HB1	2.11	0.79
9:I:139:LYS:HB2	9:I:145:ILE:CD1	2.08	0.79
10:J:16:PRO:CD	10:J:44:TRP:CZ2	2.65	0.79
11:K:39:ASN:O	11:K:40:VAL:CG1	2.29	0.79
16:P:128:HIS:CE1	34:i:1516:C:C1'	2.63	0.79
17:Q:38:PRO:O	17:Q:41:MET:HG2	1.82	0.79
22:V:32:ILE:CD1	22:V:60:ARG:NH1	2.42	0.79
23:W:36:ARG:O	23:W:39:THR:OG1	1.99	0.79
23:W:101:PHE:HA	23:W:113:HIS:CE1	2.16	0.79
26:Z:77:LEU:O	26:Z:78:LYS:CG	2.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:84:GLY:CA	3:C:87:LEU:HB3	2.10	0.79
4:D:197:LYS:N	4:D:199:GLY:N	2.30	0.79
7:G:155:GLN:O	7:G:156:TYR:HD1	1.64	0.79
7:G:187:HIS:O	7:G:191:ARG:HG2	1.81	0.79
8:H:83:LEU:HD12	8:H:84:GLU:N	1.96	0.79
9:I:82:VAL:HG11	9:I:202:ILE:HD11	1.64	0.79
10:J:170:PRO:CB	10:J:174:LYS:CE	2.60	0.79
17:Q:19:ALA:HB2	17:Q:75:GLY:CA	2.13	0.79
18:R:1:MET:N	18:R:1:MET:O	2.15	0.79
19:S:36:VAL:O	19:S:36:VAL:CG2	2.30	0.79
20:T:99:VAL:O	20:T:103:VAL:HG23	1.82	0.79
23:W:128:PHE:HE1	23:W:130:PHE:CD2	2.00	0.79
25:Y:37:LYS:O	25:Y:40:ILE:HG23	1.82	0.79
28:b:33:MET:CE	28:b:79:PHE:CD1	2.62	0.79
28:b:81:ARG:CB	28:b:82:LYS:CB	2.45	0.79
29:c:5:ARG:N	29:c:5:ARG:NH1	2.30	0.79
3:C:49:THR:HG23	3:C:75:GLU:CD	2.06	0.79
4:D:70:THR:CB	4:D:86:LEU:HD13	2.12	0.79
6:F:49:LEU:HD12	6:F:50:PRO:CD	2.11	0.79
7:G:63:MET:CE	7:G:106:LEU:HD13	2.12	0.79
9:I:29:LEU:HG	9:I:30:GLY:H	1.45	0.79
9:I:206:LYS:HD2	9:I:207:GLY:N	1.97	0.79
19:S:136:THR:OG1	34:i:1516:C:P	2.39	0.79
20:T:91:HIS:CD2	20:T:91:HIS:N	2.50	0.79
21:U:56:MET:HE1	21:U:88:LEU:CG	2.12	0.79
24:X:52:LEU:HD12	24:X:53:GLU:CB	2.11	0.79
25:Y:45:ALA:HA	25:Y:55:ILE:CD1	2.12	0.79
31:e:82:ARG:CG	36:n:82:ARG:NH2	2.45	0.79
34:i:1744:G:N7	34:i:1745:C:N4	2.30	0.79
2:B:77:ASP:O	2:B:79:VAL:CG2	2.27	0.79
3:C:234:SER:HA	22:V:23:ILE:HD11	1.57	0.79
4:D:105:LEU:HD21	4:D:184:ILE:HD12	1.62	0.79
4:D:112:GLY:O	4:D:113:LEU:CD1	2.29	0.79
4:D:198:ILE:CG1	4:D:198:ILE:O	2.30	0.79
12:L:82:MET:HE1	34:i:363:G:H4'	1.63	0.79
20:T:11:GLN:HE21	20:T:62:ARG:NH1	1.81	0.79
24:X:142:ARG:HB2	24:X:142:ARG:NH1	1.92	0.79
26:Z:44:LEU:CD1	26:Z:44:LEU:O	2.30	0.79
31:e:97:GLU:OE1	31:e:97:GLU:CA	2.28	0.79
32:f:103:LEU:HD22	32:f:106:TYR:CD2	2.17	0.79
34:i:1165:G:C4'	34:i:1815:U:H4'	2.13	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1186:A:C2	34:i:1709:U:O2	2.36	0.79
35:l:50:ILE:HD12	35:l:102:LEU:CG	2.12	0.79
1:A:4:ALA:HB1	22:V:39:VAL:HG21	1.63	0.79
3:C:51:LEU:O	3:C:51:LEU:CD2	2.30	0.79
3:C:177:LEU:HD12	3:C:177:LEU:O	1.81	0.79
4:D:143:ARG:NH1	34:i:597:U:C6	2.50	0.79
6:F:36:GLN:CG	6:F:37:ASP:OD2	2.30	0.79
9:I:136:ILE:CG2	9:I:139:LYS:CE	2.43	0.79
13:M:71:GLU:CD	13:M:71:GLU:N	2.39	0.79
13:M:89:VAL:HG12	13:M:90:GLY:H	1.47	0.79
14:N:21:SER:O	14:N:22:VAL:CG2	2.30	0.79
15:O:64:ALA:O	15:O:66:ARG:N	2.15	0.79
16:P:39:ALA:HA	16:P:42:ARG:HE	1.43	0.79
18:R:42:PRO:HD2	18:R:43:SER:N	1.97	0.79
19:S:129:LEU:CD2	34:i:1516:C:H5'	2.11	0.79
24:X:27:TYR:CE2	24:X:31:HIS:CD2	2.70	0.79
25:Y:29:HIS:HD1	25:Y:67:GLY:C	1.87	0.79
25:Y:36:PRO:HG2	25:Y:39:GLU:HB2	1.64	0.79
25:Y:44:LEU:CD1	25:Y:48:TYR:CD2	2.66	0.79
25:Y:99:LYS:O	25:Y:99:LYS:CG	2.29	0.79
34:i:1825:A:N3	34:i:1846:C:H5"	1.97	0.79
2:B:21:VAL:O	2:B:21:VAL:CG2	2.30	0.79
4:D:214:LYS:CG	4:D:215:ASP:OD2	2.28	0.79
5:E:120:LYS:O	5:E:164:LEU:CB	2.31	0.79
16:P:49:LEU:C	16:P:50:ARG:HG3	2.06	0.79
17:Q:92:LEU:HD11	17:Q:96:TYR:OH	1.81	0.79
17:Q:109:LYS:HG2	17:Q:113:ILE:HD12	1.62	0.79
19:S:80:PRO:HB2	19:S:82:TRP:CD1	2.18	0.79
19:S:87:GLN:O	19:S:88:LYS:C	2.21	0.79
26:Z:70:PRO:CD	26:Z:71:ALA:H	1.94	0.79
33:g:48:ASP:OD2	33:g:49:GLU:CB	2.29	0.79
35:l:58:LYS:O	35:l:59:LEU:C	2.25	0.79
4:D:209:SER:OG	18:R:40:ILE:HB	1.83	0.79
9:I:104:ILE:O	9:I:105:ASP:CG	2.25	0.79
9:I:136:ILE:C	9:I:139:LYS:HG3	2.04	0.79
10:J:30:LYS:HA	31:e:112:TYR:CZ	2.15	0.79
15:O:75:MET:SD	15:O:118:ALA:HB2	2.22	0.79
15:O:94:HIS:CG	15:O:127:GLY:O	2.35	0.79
18:R:44:LYS:HG3	18:R:47:ARG:NH1	1.96	0.79
21:U:108:PRO:O	21:U:108:PRO:CD	2.29	0.79
22:V:42:VAL:O	22:V:43:THR:CG2	2.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:11:LEU:C	23:W:14:ILE:HG12	2.07	0.79
24:X:54:LYS:HD2	24:X:91:LEU:CD1	2.13	0.79
33:g:144:ASP:O	33:g:145:GLU:CG	2.30	0.79
3:C:192:ALA:O	3:C:195:PRO:CD	2.31	0.79
4:D:218:LEU:O	4:D:218:LEU:CD2	2.30	0.79
4:D:226:GLN:O	4:D:227:LYS:CG	2.30	0.79
5:E:21:ASP:CG	5:E:24:THR:CG2	2.51	0.79
5:E:208:VAL:HB	5:E:225:ILE:HD11	0.80	0.79
6:F:25:THR:CB	6:F:42:LYS:HG3	2.11	0.79
7:G:162:LEU:CG	7:G:170:ARG:HB2	2.12	0.79
8:H:144:ILE:CD1	23:W:52:ILE:HD13	2.12	0.79
15:O:20:GLN:CD	15:O:21:VAL:O	2.26	0.79
15:O:30:VAL:HG13	15:O:47:LEU:HD23	1.63	0.79
16:P:44:ARG:HD3	16:P:115:TYR:HE1	1.47	0.79
21:U:69:PRO:O	21:U:69:PRO:CD	2.30	0.79
21:U:108:PRO:O	21:U:108:PRO:CG	2.30	0.79
23:W:7:LEU:HD23	23:W:34:ILE:CG1	2.13	0.79
24:X:27:TYR:CE1	24:X:31:HIS:CE1	2.67	0.79
27:a:49:ALA:HB1	27:a:53:ILE:HD11	1.64	0.79
33:g:258:ILE:HG13	33:g:267:VAL:HB	1.65	0.79
34:i:784:G:O5’	34:i:897:G:OP1	2.00	0.79
34:i:1824:U:H4’	34:i:1845:A:H61	1.47	0.79
1:A:3:GLY:HA3	22:V:78:ILE:HG12	1.64	0.79
1:A:76:VAL:CG2	1:A:90:PHE:CE2	2.65	0.79
1:A:186:ARG:CD	1:A:186:ARG:O	2.31	0.79
2:B:105:LEU:O	2:B:106:THR:CG2	2.30	0.79
3:C:55:VAL:HA	3:C:82:PHE:HZ	1.48	0.79
3:C:244:THR:CG2	3:C:244:THR:O	2.29	0.79
10:J:61:LEU:HD22	10:J:98:LEU:HD12	1.60	0.79
10:J:180:LYS:CD	10:J:180:LYS:O	2.30	0.79
16:P:49:LEU:CD1	16:P:51:ARG:HH21	1.95	0.79
32:f:135:HIS:HB3	32:f:138:ARG:CB	2.13	0.79
34:i:226:A:H1’	34:i:783:G:P	2.20	0.79
1:A:48:ILE:HD13	18:R:105:MET:CE	2.09	0.79
1:A:59:LEU:HD23	1:A:181:GLU:HG2	1.64	0.79
1:A:118:GLU:HB2	3:C:50:LYS:NZ	1.98	0.79
3:C:241:TRP:CG	23:W:68:ARG:HH11	2.00	0.79
4:D:94:ARG:O	4:D:101:GLN:NE2	2.16	0.79
5:E:130:PHE:CB	5:E:138:HIS:NE2	2.45	0.79
5:E:139:LEU:HD11	5:E:154:ILE:HG21	1.64	0.79
7:G:33:ALA:N	7:G:52:ILE:HG23	1.97	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:75:ILE:HG23	8:H:76:GLN:H	1.46	0.79
14:N:21:SER:O	14:N:22:VAL:CG1	2.30	0.79
14:N:38:TYR:CD1	14:N:78:LYS:CD	2.65	0.79
16:P:5:GLU:O	16:P:6:GLN:CG	2.30	0.79
25:Y:120:THR:HB	25:Y:122:LYS:HE3	1.62	0.79
35:l:30:TYR:OH	35:l:106:ASP:O	1.99	0.79
1:A:149:ASN:HB2	1:A:165:ASN:ND2	1.98	0.78
2:B:62:LEU:HD21	2:B:96:CYS:SG	2.23	0.78
2:B:113:MET:HE3	2:B:211:PHE:CZ	2.18	0.78
3:C:197:LYS:O	3:C:200:LEU:CG	2.30	0.78
4:D:212:GLU:O	4:D:213:PRO:C	2.25	0.78
5:E:126:VAL:CG1	5:E:158:ASP:O	2.25	0.78
6:F:44:LYS:O	6:F:44:LYS:CE	2.30	0.78
6:F:138:ALA:HB2	6:F:200:ALA:O	1.82	0.78
7:G:181:THR:HG1	7:G:182:PRO:HD2	1.46	0.78
11:K:65:ARG:HB3	11:K:65:ARG:CZ	2.12	0.78
14:N:113:PHE:CE2	14:N:117:LEU:HD11	2.17	0.78
15:O:129:ILE:HG21	27:a:44:ILE:HG12	1.64	0.78
17:Q:42:ILE:HD13	17:Q:51:LEU:CD1	2.12	0.78
17:Q:54:PRO:HG3	17:Q:88:ILE:HD12	1.65	0.78
17:Q:127:CYS:HA	34:i:1643:G:H2'	1.65	0.78
21:U:50:VAL:HG22	21:U:52:GLY:N	1.97	0.78
25:Y:98:GLU:OE2	25:Y:99:LYS:N	2.15	0.78
1:A:143:PRO:HB3	22:V:34:MET:SD	2.22	0.78
7:G:153:VAL:O	7:G:155:GLN:N	2.16	0.78
7:G:164:LYS:O	7:G:166:GLY:N	2.16	0.78
7:G:188:LYS:HA	7:G:191:ARG:CD	2.13	0.78
14:N:131:THR:C	14:N:132:LYS:HD2	2.08	0.78
15:O:62:VAL:CG2	15:O:72:TYR:OH	2.32	0.78
16:P:52:LYS:HA	16:P:54:HIS:HD2	1.47	0.78
17:Q:92:LEU:HG	17:Q:96:TYR:HE2	1.46	0.78
18:R:122:PRO:CB	18:R:123:THR:OG1	2.30	0.78
20:T:119:TRP:CD2	34:i:1557:C:H1'	2.18	0.78
23:W:38:LEU:HA	23:W:41:MET:CE	2.12	0.78
24:X:52:LEU:CD1	24:X:53:GLU:HG2	2.13	0.78
25:Y:51:THR:HB	25:Y:52:PRO:CD	2.14	0.78
28:b:73:LEU:HD13	28:b:79:PHE:CD2	2.18	0.78
33:g:143:GLN:NE2	33:g:144:ASP:N	2.30	0.78
33:g:144:ASP:O	33:g:145:GLU:CB	2.29	0.78
2:B:30:TRP:HE1	15:O:17:LEU:HD21	1.49	0.78
2:B:67:PHE:CD1	15:O:47:LEU:CB	2.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:148:ASN:CA	18:R:124:VAL:CG2	2.22	0.78
2:B:209:ASP:O	2:B:210:VAL:HG23	1.82	0.78
3:C:93:LYS:HD3	3:C:218:LEU:CD2	1.75	0.78
3:C:127:LYS:HD3	3:C:142:LEU:HD11	1.65	0.78
4:D:217:ILE:O	4:D:218:LEU:HD22	1.82	0.78
7:G:142:ARG:HH21	7:G:152:ASP:H	1.31	0.78
7:G:157:VAL:HG11	7:G:159:ARG:HG3	1.62	0.78
8:H:149:ASP:O	8:H:151:SER:N	2.16	0.78
10:J:10:ARG:HB3	10:J:10:ARG:HH11	1.43	0.78
10:J:61:LEU:CD1	10:J:94:LEU:CD1	2.61	0.78
11:K:4:PRO:HB2	11:K:7:ASN:H	1.49	0.78
16:P:15:PHE:CZ	19:S:91:LYS:HD2	2.18	0.78
20:T:76:THR:OG1	20:T:94:ARG:HB3	1.84	0.78
24:X:90:CYS:O	24:X:91:LEU:C	2.24	0.78
24:X:129:SER:OG	24:X:132:ALA:HB3	1.83	0.78
24:X:139:GLU:O	24:X:141:PRO:CD	2.30	0.78
36:n:78:LEU:CD2	36:n:93:LEU:HD21	2.13	0.78
6:F:127:ARG:O	6:F:127:ARG:CD	2.31	0.78
9:I:3:ILE:CG2	9:I:3:ILE:O	2.29	0.78
9:I:145:ILE:HA	9:I:148:LYS:HG3	1.64	0.78
16:P:5:GLU:N	16:P:10:ARG:NH1	2.30	0.78
18:R:98:VAL:HG13	18:R:102:THR:OG1	1.83	0.78
18:R:122:PRO:CA	18:R:123:THR:CB	2.58	0.78
20:T:31:PRO:C	20:T:33:TRP:N	2.36	0.78
25:Y:34:THR:C	25:Y:35:VAL:CG2	2.53	0.78
26:Z:94:LYS:HD3	26:Z:95:GLY:N	1.99	0.78
27:a:26:CYS:HG	27:a:77:CYS:HG	1.04	0.78
34:i:1826:A:H4'	34:i:1835:C:OP2	1.83	0.78
36:n:62:ARG:CB	36:n:91:VAL:O	2.30	0.78
2:B:81:PHE:O	2:B:82:ARG:HB2	1.84	0.78
2:B:105:LEU:CD1	2:B:213:ARG:HB2	2.09	0.78
3:C:169:VAL:CG2	3:C:228:ALA:O	2.31	0.78
4:D:74:GLN:NE2	4:D:75:LYS:HE2	1.99	0.78
4:D:195:SER:CA	4:D:197:LYS:O	2.30	0.78
9:I:157:LYS:CB	12:L:22:ARG:CZ	2.42	0.78
13:M:28:HIS:O	13:M:29:ASP:HB2	1.82	0.78
13:M:51:VAL:HA	13:M:77:ILE:CG2	2.13	0.78
13:M:94:ILE:O	13:M:101:ARG:NH1	2.16	0.78
17:Q:6:PRO:O	17:Q:6:PRO:CD	2.28	0.78
17:Q:6:PRO:O	17:Q:6:PRO:HG2	1.81	0.78
24:X:67:ARG:HG2	24:X:115:ILE:HG12	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:b:26:GLN:HG3	28:b:27:SER:N	1.98	0.78
32:f:103:LEU:HD23	32:f:103:LEU:C	2.07	0.78
1:A:190:SER:O	1:A:191:ARG:CG	2.30	0.78
2:B:52:THR:HG22	2:B:58:ALA:CB	2.12	0.78
2:B:61:GLY:O	2:B:65:ARG:NE	2.16	0.78
5:E:98:ASN:HD22	5:E:119:ALA:HB2	1.47	0.78
5:E:244:ILE:O	5:E:245:ARG:HB3	1.82	0.78
6:F:44:LYS:C	6:F:45:TYR:CD1	2.62	0.78
6:F:112:LEU:O	6:F:116:ILE:CD1	2.31	0.78
7:G:32:MET:CE	7:G:63:MET:SD	2.72	0.78
7:G:137:ARG:HD2	7:G:140:ARG:HE	1.48	0.78
8:H:28:LEU:HG	8:H:32:MET:HE3	1.64	0.78
8:H:122:LEU:HD12	8:H:123:THR:HG23	1.63	0.78
9:I:157:LYS:CG	12:L:22:ARG:NH1	2.45	0.78
16:P:77:LYS:O	16:P:78:THR:CG2	2.31	0.78
18:R:98:VAL:CG1	18:R:102:THR:OG1	2.32	0.78
19:S:39:ARG:HD3	20:T:38:LYS:NZ	1.99	0.78
19:S:139:THR:O	19:S:141:ARG:N	2.17	0.78
34:i:239:U:H3	34:i:271:G:H1	1.29	0.78
34:i:1751:G:O2'	34:i:1752:G:H5'	1.83	0.78
34:i:1751:G:O2'	34:i:1752:G:C5'	2.32	0.78
1:A:183:LEU:HB2	1:A:189:ILE:CD1	2.13	0.78
4:D:35:SER:OG	4:D:97:CYS:SG	2.34	0.78
4:D:218:LEU:CD1	4:D:220:THR:CG2	2.47	0.78
6:F:20:PHE:C	6:F:22:LYS:N	2.39	0.78
7:G:5:ILE:HG22	7:G:124:LEU:HD21	1.66	0.78
7:G:50:VAL:CG1	7:G:111:LEU:CD2	2.61	0.78
12:L:147:LYS:CD	12:L:148:ALA:N	2.44	0.78
13:M:98:GLY:C	13:M:100:PRO:HD3	2.08	0.78
14:N:24:THR:OG1	28:b:84:HIS:CE1	2.33	0.78
14:N:125:LEU:HD11	14:N:129:TYR:OH	1.83	0.78
18:R:88:VAL:O	18:R:88:VAL:CG1	2.31	0.78
18:R:91:LEU:CB	18:R:92:ASP:CA	2.61	0.78
20:T:124:THR:HG23	20:T:126:GLN:H	1.47	0.78
33:g:298:LEU:HD21	33:g:310:TRP:HB2	1.66	0.78
36:n:59:CYS:HA	36:n:89:ALA:O	1.84	0.78
2:B:90:ASP:CG	2:B:91:VAL:H	1.92	0.78
5:E:86:PHE:HZ	5:E:182:MET:HE3	1.45	0.78
5:E:117:GLU:HG3	5:E:118:GLU:H	1.46	0.78
10:J:48:PHE:CZ	10:J:52:LYS:CE	2.66	0.78
18:R:99:ASP:O	18:R:119:VAL:CG2	2.32	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:62:THR:CG2	25:Y:69:THR:HG22	2.13	0.78
26:Z:58:LEU:HD23	26:Z:77:LEU:HD11	1.66	0.78
33:g:40:ILE:CD1	33:g:80:SER:HB3	2.13	0.78
34:i:745:U:O4	34:i:792:G:H4'	1.83	0.78
4:D:123:LEU:CD2	4:D:154:ASP:CB	2.54	0.78
4:D:195:SER:O	4:D:197:LYS:CG	2.30	0.78
4:D:197:LYS:H	4:D:199:GLY:N	1.82	0.78
6:F:154:LEU:HD11	6:F:155:CYS:SG	2.24	0.78
8:H:36:LEU:O	8:H:36:LEU:CD1	2.29	0.78
10:J:124:HIS:HD2	34:i:516:A:H5"	0.98	0.78
11:K:45:VAL:O	11:K:49:MET:HG2	1.84	0.78
12:L:158:PHE:CD2	12:L:158:PHE:N	2.29	0.78
16:P:18:ARG:HD2	16:P:37:TYR:HB3	1.66	0.78
19:S:8:LYS:CA	26:Z:49:LEU:HD23	2.13	0.78
26:Z:48:VAL:C	26:Z:83:LEU:HD11	2.06	0.78
31:e:97:GLU:OE1	31:e:97:GLU:HA	1.84	0.78
31:e:105:ARG:CB	31:e:105:ARG:CZ	2.59	0.78
34:i:190:A:H2'	34:i:191:C:OP1	1.84	0.78
35:l:48:GLN:HG2	35:l:82:VAL:HB	1.65	0.78
36:n:79:VAL:HG12	36:n:91:VAL:HA	1.66	0.78
1:A:24:HIS:O	1:A:25:LEU:C	2.24	0.78
4:D:192:TRP:C	4:D:196:GLY:H	1.90	0.78
5:E:100:ARG:CD	5:E:102:ILE:CD1	2.59	0.78
6:F:15:PRO:HD3	17:Q:56:LEU:HB3	1.67	0.78
8:H:8:ILE:HG23	8:H:9:VAL:H	1.49	0.78
9:I:197:PHE:HE2	12:L:5:GLN:HG3	1.47	0.78
10:J:117:LEU:O	10:J:119:LEU:N	2.15	0.78
10:J:171:GLY:C	10:J:173:VAL:H	1.92	0.78
12:L:76:VAL:HG12	12:L:125:ILE:HD12	1.64	0.78
13:M:60:MET:HB3	32:f:104:LYS:CD	2.14	0.78
14:N:27:LYS:H	14:N:27:LYS:CD	1.96	0.78
16:P:128:HIS:HE1	34:i:1516:C:C2	2.02	0.78
17:Q:105:LYS:CD	17:Q:105:LYS:O	2.30	0.78
18:R:115:SER:O	18:R:116:ASN:CG	2.27	0.78
24:X:29:LYS:CE	24:X:34:THR:HG21	2.13	0.78
24:X:52:LEU:HD11	24:X:71:ARG:HB2	1.64	0.78
27:a:34:LYS:O	27:a:35:ALA:HB3	1.81	0.78
34:i:60:A:C5	34:i:325:G:C1'	2.66	0.78
35:l:93:ILE:HG13	35:l:97:LEU:HD13	1.66	0.78
2:B:134:LEU:HD12	2:B:219:LYS:HB2	1.66	0.77
3:C:149:PRO:CG	3:C:149:PRO:O	2.30	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:204:SER:O	5:E:205:PHE:HB2	1.83	0.77
8:H:122:LEU:CD1	8:H:123:THR:CG2	2.62	0.77
8:H:166:VAL:CG2	8:H:173:PHE:CE2	2.67	0.77
9:I:82:VAL:CG1	9:I:202:ILE:CD1	2.62	0.77
9:I:85:ALA:CB	12:L:8:ARG:NH1	2.46	0.77
10:J:12:THR:O	10:J:48:PHE:CD2	2.37	0.77
12:L:7:GLU:CG	12:L:8:ARG:HG3	2.14	0.77
13:M:67:ALA:HB1	32:f:108:VAL:HG21	1.64	0.77
16:P:10:ARG:HE	16:P:11:THR:N	1.81	0.77
16:P:44:ARG:NE	16:P:84:ILE:CD1	2.14	0.77
24:X:51:VAL:CG1	24:X:70:VAL:CG1	2.53	0.77
24:X:115:ILE:O	24:X:115:ILE:CG2	2.29	0.77
25:Y:29:HIS:CD2	25:Y:34:THR:H	2.02	0.77
25:Y:114:MET:C	25:Y:124:ASN:ND2	2.41	0.77
28:b:63:LEU:O	28:b:63:LEU:HG	1.84	0.77
31:e:82:ARG:CG	36:n:82:ARG:CZ	2.57	0.77
33:g:175:LYS:NZ	33:g:187:ASN:OD1	2.15	0.77
36:n:62:ARG:HG3	36:n:92:ILE:CG2	2.14	0.77
1:A:5:LEU:HB2	22:V:41:LYS:CE	2.14	0.77
2:B:72:ALA:HA	2:B:79:VAL:HG23	1.61	0.77
3:C:56:LYS:HD2	3:C:57:ASP:OD1	1.85	0.77
4:D:162:ASP:CG	4:D:166:TYR:HE2	1.92	0.77
4:D:198:ILE:O	4:D:198:ILE:CD1	2.32	0.77
8:H:147:LYS:CE	8:H:153:LEU:CD1	2.61	0.77
11:K:60:GLU:OE1	11:K:67:PHE:HE1	1.68	0.77
16:P:49:LEU:CD1	16:P:51:ARG:CZ	2.61	0.77
18:R:100:PRO:CB	18:R:119:VAL:CG2	2.62	0.77
18:R:122:PRO:C	18:R:123:THR:OG1	2.27	0.77
19:S:11:HIS:CD2	19:S:23:ARG:HH21	1.95	0.77
19:S:42:HIS:CG	20:T:45:LEU:CD1	2.45	0.77
19:S:94:LYS:CB	19:S:95:TYR:O	2.30	0.77
19:S:136:THR:HG1	34:i:1516:C:P	2.07	0.77
21:U:56:MET:HE1	21:U:88:LEU:CD2	2.14	0.77
21:U:97:ILE:HG22	21:U:101:ILE:HD12	1.63	0.77
22:V:31:SER:C	22:V:32:ILE:HG13	2.08	0.77
23:W:14:ILE:HG13	23:W:15:ASN:N	1.98	0.77
25:Y:18:LEU:HB2	25:Y:20:ARG:NH1	2.00	0.77
32:f:102:VAL:HG12	32:f:103:LEU:HB2	1.64	0.77
33:g:143:GLN:O	33:g:146:SER:HB2	1.84	0.77
1:A:202:TYR:O	1:A:203:PHE:CD1	2.37	0.77
4:D:22:ASN:OD1	4:D:37:VAL:HG22	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:226:GLN:O	4:D:227:LYS:CB	2.31	0.77
5:E:180:LEU:HD13	5:E:228:ILE:CG1	2.15	0.77
6:F:204:ARG:NE	29:c:60:GLU:OE2	2.17	0.77
7:G:58:LYS:O	7:G:59:GLN:HB2	1.84	0.77
9:I:140:LYS:CD	9:I:141:ARG:H	1.96	0.77
10:J:35:TYR:C	10:J:37:LEU:H	1.85	0.77
13:M:13:ASP:HB2	13:M:16:THR:HB	0.81	0.77
13:M:35:ILE:HB	13:M:61:TYR:CE2	2.19	0.77
15:O:56:VAL:HG13	15:O:81:VAL:CG2	2.14	0.77
16:P:124:LYS:O	16:P:124:LYS:HG3	1.84	0.77
22:V:79:VAL:HG12	22:V:82:ASN:OD1	1.83	0.77
26:Z:62:VAL:CG1	26:Z:68:ILE:CD1	2.61	0.77
28:b:33:MET:CE	28:b:35:VAL:HG22	2.06	0.77
1:A:28:THR:O	1:A:47:TYR:HE2	1.67	0.77
1:A:34:MET:HE1	1:A:37:TYR:HE2	1.42	0.77
1:A:66:VAL:HG13	1:A:186:ARG:HD2	1.65	0.77
2:B:137:LEU:CD2	2:B:215:VAL:CB	2.63	0.77
4:D:70:THR:CA	4:D:86:LEU:HD13	2.14	0.77
5:E:145:ARG:HG2	5:E:145:ARG:NH1	1.95	0.77
7:G:180:VAL:O	7:G:181:THR:CG2	2.30	0.77
8:H:36:LEU:C	8:H:36:LEU:HD13	2.03	0.77
16:P:5:GLU:O	16:P:6:GLN:CB	2.33	0.77
32:f:97:LYS:HB2	32:f:97:LYS:HZ2	1.47	0.77
32:f:103:LEU:HD21	32:f:105:TYR:HB2	1.66	0.77
33:g:194:TYR:OH	33:g:235:ILE:HD12	1.83	0.77
35:l:50:ILE:HD11	35:l:102:LEU:CD2	1.86	0.77
1:A:39:TYR:CA	1:A:50:ASN:ND2	2.47	0.77
1:A:198:MET:N	1:A:198:MET:SD	2.57	0.77
7:G:175:LYS:NZ	34:i:307:G:C5'	2.48	0.77
8:H:10:LYS:N	8:H:11:PRO:CD	2.47	0.77
10:J:110:LEU:HD11	10:J:130:ILE:HG12	1.63	0.77
11:K:39:ASN:O	11:K:40:VAL:CB	2.32	0.77
11:K:83:LEU:HB2	11:K:85:LEU:CD2	2.12	0.77
12:L:1:MET:O	12:L:2:ALA:HB3	1.84	0.77
12:L:10:TYR:CD2	12:L:12:LYS:CE	2.66	0.77
12:L:109:MET:SD	12:L:140:PHE:CD1	2.77	0.77
16:P:52:LYS:O	16:P:52:LYS:CD	2.30	0.77
24:X:35:ALA:HA	24:X:39:ASN:ND2	1.98	0.77
25:Y:7:ILE:HD11	25:Y:43:LYS:CG	2.11	0.77
25:Y:44:LEU:CD1	25:Y:48:TYR:HE2	1.93	0.77
26:Z:92:LEU:HD21	26:Z:109:TYR:CD1	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:71:ILE:CG2	33:g:72:SER:N	2.48	0.77
33:g:109:LEU:HD12	33:g:151:VAL:O	1.83	0.77
34:i:1206:G:C4	34:i:1207:G:C1'	2.62	0.77
3:C:155:TRP:CZ2	23:W:97:ARG:HD3	2.18	0.77
6:F:127:ARG:O	6:F:127:ARG:CG	2.32	0.77
7:G:157:VAL:HG22	7:G:158:VAL:H	1.50	0.77
11:K:4:PRO:HG3	11:K:7:ASN:ND2	1.99	0.77
14:N:19:ARG:NH1	28:b:84:HIS:HB2	2.00	0.77
19:S:120:HIS:CE1	19:S:124:ARG:HH21	2.00	0.77
24:X:105:PHE:CE2	24:X:119:ARG:C	2.62	0.77
27:a:34:LYS:O	27:a:35:ALA:CB	2.32	0.77
31:e:82:ARG:CD	36:n:82:ARG:HH21	1.98	0.77
31:e:115:ARG:C	31:e:119:VAL:HG21	2.10	0.77
32:f:140:TYR:OH	32:f:146:LEU:HB2	1.83	0.77
33:g:215:GLN:OE1	33:g:231:ASP:OD1	2.02	0.77
34:i:1517:A:C2	34:i:1518:C:C5	2.73	0.77
1:A:158:ASP:HB3	22:V:65:SER:CB	2.15	0.77
2:B:38:MET:CE	2:B:186:ASN:HD21	1.75	0.77
3:C:43:LYS:HE3	3:C:43:LYS:CA	2.14	0.77
3:C:262:HIS:CG	3:C:263:THR:H	2.02	0.77
6:F:122:ARG:O	6:F:141:VAL:CG1	2.21	0.77
6:F:122:ARG:HE	6:F:193:LYS:NZ	1.75	0.77
8:H:52:GLU:HG3	8:H:58:LYS:HB3	1.67	0.77
12:L:71:ARG:HD3	12:L:73:LEU:HD21	0.79	0.77
14:N:115:LEU:O	14:N:119:GLU:HG3	1.84	0.77
16:P:125:PRO:O	16:P:126:VAL:CG2	2.32	0.77
20:T:101:ARG:NH1	34:i:1560:C:C5	2.53	0.77
23:W:36:ARG:CD	23:W:110:ILE:HD12	2.14	0.77
26:Z:85:ARG:HH11	26:Z:85:ARG:HG2	1.50	0.77
32:f:109:ASP:O	32:f:110:GLU:C	2.27	0.77
34:i:1191:A:H2'	34:i:1192:A:H8	1.50	0.77
36:n:42:LEU:HD12	36:n:46:ARG:HB3	1.65	0.77
7:G:1:MET:HE1	7:G:106:LEU:O	1.80	0.77
7:G:85:ARG:CZ	25:Y:118:ARG:NE	2.47	0.77
13:M:85:LEU:HD22	13:M:106:CYS:SG	2.25	0.77
16:P:52:LYS:HD3	16:P:52:LYS:C	2.06	0.77
21:U:46:LYS:NZ	21:U:97:ILE:HG12	1.99	0.77
23:W:38:LEU:HD23	23:W:41:MET:CE	2.14	0.77
33:g:49:GLU:O	33:g:50:THR:CG2	2.30	0.77
33:g:149:GLU:OE2	33:g:149:GLU:HA	1.85	0.77
33:g:149:GLU:OE2	33:g:149:GLU:CA	2.30	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:n:100:ALA:HA	36:n:103:LEU:HG	1.66	0.77
2:B:150:ILE:HD11	18:R:126:MET:HB2	1.67	0.77
5:E:229:GLY:HA2	5:E:235:TRP:CD1	2.18	0.77
7:G:181:THR:CB	7:G:182:PRO:HD2	2.13	0.77
8:H:8:ILE:HG23	8:H:9:VAL:N	1.98	0.77
9:I:9:HIS:O	9:I:10:LYS:HG2	1.85	0.77
10:J:39:ASN:O	10:J:42:GLU:HB2	1.84	0.77
17:Q:105:LYS:CD	17:Q:105:LYS:C	2.54	0.77
20:T:18:LEU:HB2	20:T:134:ILE:CD1	2.14	0.77
20:T:38:LYS:HD2	20:T:45:LEU:C	2.10	0.77
22:V:53:TYR:CE2	22:V:72:LEU:HB3	2.20	0.77
25:Y:32:LYS:HG2	25:Y:33:ALA:O	1.85	0.77
33:g:274:VAL:O	33:g:274:VAL:CG2	2.31	0.77
34:i:837:G:O2'	34:i:838:C:H5'	1.83	0.77
10:J:37:LEU:HD11	10:J:42:GLU:HB3	0.81	0.77
10:J:94:LEU:HD12	10:J:95:ASP:N	2.00	0.77
10:J:138:ARG:NH1	10:J:156:HIS:NE2	2.31	0.77
13:M:77:ILE:HG23	13:M:78:LYS:N	1.97	0.77
15:O:113:GLN:CD	27:a:46:GLU:CD	2.53	0.77
16:P:108:LYS:N	16:P:111:MET:HE3	1.99	0.77
20:T:119:TRP:CZ3	34:i:1557:C:O2	2.38	0.77
26:Z:48:VAL:HG21	26:Z:80:ARG:HD3	1.64	0.77
33:g:165:ILE:HG12	33:g:177:TRP:HB2	1.67	0.77
34:i:185:C:C2	34:i:211:U:C4	2.72	0.77
2:B:57:ILE:O	2:B:59:SER:N	2.18	0.76
2:B:148:ASN:CB	18:R:122:PRO:O	2.33	0.76
4:D:222:PRO:C	4:D:223:ILE:HD12	2.09	0.76
5:E:62:LYS:CD	5:E:80:ILE:CD1	2.45	0.76
5:E:74:GLY:C	5:E:75:LYS:HG2	2.10	0.76
5:E:174:LYS:O	5:E:179:ASN:ND2	2.18	0.76
9:I:112:TRP:HH2	9:I:117:TYR:OH	1.68	0.76
10:J:46:VAL:HG11	10:J:106:LEU:HD11	1.66	0.76
12:L:10:TYR:CE2	12:L:12:LYS:CE	2.67	0.76
13:M:13:ASP:C	13:M:16:THR:CB	2.49	0.76
15:O:32:HIS:CE1	15:O:96:LYS:HD2	2.19	0.76
28:b:81:ARG:CB	28:b:82:LYS:CA	2.63	0.76
31:e:82:ARG:CG	36:n:82:ARG:HH21	1.98	0.76
33:g:5:MET:HE2	33:g:312:VAL:HG13	1.67	0.76
33:g:87:LEU:CD1	33:g:101:PHE:HB3	2.11	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:70:THR:HG22	4:D:86:LEU:CB	2.16	0.76
4:D:76:ARG:HD3	11:K:66:HIS:CE1	2.05	0.76
4:D:200:PRO:O	4:D:201:LYS:CG	2.33	0.76
6:F:32:ASP:HB2	6:F:117:ILE:HG21	1.67	0.76
7:G:16:ILE:HD13	7:G:45:TRP:HZ2	0.70	0.76
8:H:53:VAL:HG22	8:H:57:ARG:C	2.05	0.76
9:I:69:SER:HB3	12:L:19:ASN:CG	2.09	0.76
11:K:43:LEU:C	11:K:45:VAL:N	2.43	0.76
16:P:41:GLN:CD	16:P:41:GLN:C	2.52	0.76
17:Q:138:ARG:CG	34:i:1644:U:H4'	2.16	0.76
23:W:42:MET:HE3	23:W:50:PHE:HD2	1.47	0.76
28:b:41:TYR:CD2	28:b:41:TYR:N	2.49	0.76
31:e:117:VAL:C	31:e:119:VAL:HB	2.10	0.76
33:g:286:CYS:N	33:g:302:TYR:CE1	2.53	0.76
1:A:27:GLY:O	1:A:47:TYR:HD2	1.69	0.76
2:B:71:LEU:CG	2:B:84:PHE:HE2	1.99	0.76
2:B:149:GLN:NE2	2:B:151:ARG:HG2	2.00	0.76
3:C:50:LYS:CD	3:C:251:TYR:CD1	2.38	0.76
5:E:126:VAL:CG2	5:E:156:MET:HA	2.16	0.76
6:F:45:TYR:N	6:F:45:TYR:CD1	2.42	0.76
8:H:164:ASN:OD1	8:H:167:GLU:CD	2.26	0.76
9:I:25:ARG:NE	9:I:27:TYR:HE2	1.83	0.76
9:I:144:LYS:HG3	34:i:189:G:H5'	1.65	0.76
10:J:170:PRO:CA	10:J:174:LYS:HZ3	1.97	0.76
11:K:36:ALA:O	11:K:38:LYS:HG3	1.84	0.76
15:O:26:ASN:HB3	15:O:91:THR:OG1	1.84	0.76
16:P:50:ARG:N	16:P:51:ARG:HD2	1.99	0.76
20:T:39:LEU:CD1	20:T:99:VAL:HG21	2.14	0.76
25:Y:52:PRO:HD2	25:Y:53:ASP:N	2.00	0.76
25:Y:122:LYS:HD2	25:Y:122:LYS:H	1.48	0.76
28:b:2:PRO:C	28:b:3:LEU:CD2	2.58	0.76
1:A:39:TYR:HA	1:A:50:ASN:HD21	1.48	0.76
1:A:85:ARG:NH2	1:A:201:LEU:HD12	2.00	0.76
4:D:158:ILE:HD13	4:D:189:MET:SD	2.24	0.76
6:F:63:LYS:CD	6:F:71:ARG:NH2	2.35	0.76
7:G:64:LYS:CD	7:G:64:LYS:O	2.33	0.76
7:G:64:LYS:C	7:G:64:LYS:HD3	2.09	0.76
9:I:130:THR:HB	9:I:131:PRO:HD3	1.67	0.76
9:I:141:ARG:HB2	9:I:144:LYS:N	2.00	0.76
9:I:144:LYS:HG2	34:i:189:G:H5'	1.66	0.76
13:M:14:VAL:O	13:M:15:ASN:OD1	2.04	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:16:LEU:CD2	14:N:17:PRO:HD2	2.15	0.76
16:P:10:ARG:NE	16:P:11:THR:N	2.34	0.76
18:R:27:ASP:O	18:R:31:ASN:ND2	2.18	0.76
18:R:97:GLU:HA	18:R:116:ASN:HB2	1.67	0.76
25:Y:33:ALA:HB2	34:i:571:U:O2'	1.85	0.76
25:Y:117:VAL:HG21	25:Y:124:ASN:OD1	1.85	0.76
26:Z:92:LEU:HD11	26:Z:99:LEU:HD21	1.66	0.76
28:b:62:VAL:HG22	28:b:63:LEU:H	1.49	0.76
29:c:60:GLU:CD	29:c:60:GLU:H	1.92	0.76
35:l:44:LEU:HD13	35:l:84:GLN:NE2	2.00	0.76
35:l:50:ILE:CG1	35:l:102:LEU:CD2	2.59	0.76
2:B:63:LYS:C	2:B:63:LYS:HD3	2.10	0.76
3:C:198:LEU:HD11	3:C:226:PHE:HD1	1.50	0.76
9:I:97:VAL:HG22	9:I:100:CYS:SG	2.25	0.76
11:K:41:PRO:CD	11:K:41:PRO:O	2.31	0.76
14:N:16:LEU:HD21	14:N:62:GLN:NE2	2.01	0.76
15:O:23:GLU:O	15:O:23:GLU:CG	2.33	0.76
15:O:34:PHE:CZ	15:O:100:THR:HA	2.20	0.76
15:O:100:THR:HG22	15:O:104:ARG:HG3	1.67	0.76
17:Q:78:VAL:CG1	17:Q:82:TYR:CE2	2.68	0.76
20:T:77:LYS:HD2	20:T:94:ARG:NH1	2.00	0.76
21:U:102:THR:O	21:U:104:ILE:O	2.03	0.76
25:Y:37:LYS:O	25:Y:40:ILE:HG22	1.83	0.76
26:Z:103:HIS:NE2	26:Z:105:ALA:HB3	2.00	0.76
30:d:13:LYS:CD	30:d:14:PHE:CD2	2.67	0.76
33:g:284:PRO:O	33:g:284:PRO:CG	2.30	0.76
35:l:46:THR:HA	35:l:84:GLN:CA	2.14	0.76
1:A:37:TYR:OH	1:A:160:ALA:HB3	1.85	0.76
3:C:50:LYS:HB2	3:C:258:LEU:HB3	1.67	0.76
4:D:175:VAL:CG1	4:D:182:LEU:HB2	2.16	0.76
10:J:29:LEU:CD2	31:e:112:TYR:HB2	2.15	0.76
12:L:40:ILE:O	12:L:40:ILE:HD13	1.84	0.76
12:L:82:MET:HE2	34:i:363:G:H4'	1.65	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	2.34	0.76
16:P:10:ARG:NE	16:P:11:THR:HB	2.01	0.76
23:W:90:GLN:CA	23:W:102:ILE:CD1	2.64	0.76
27:a:51:ARG:HH12	29:c:40:ARG:NH1	1.78	0.76
30:d:7:TYR:O	30:d:8:TRP:CB	2.33	0.76
33:g:57:ARG:CZ	33:g:94:THR:O	2.33	0.76
33:g:143:GLN:O	33:g:146:SER:CB	2.33	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:170:TRP:C	33:g:172:LYS:H	1.93	0.76
34:i:227:A:H4'	34:i:782:G:C5'	2.13	0.76
34:i:1207:G:N3	34:i:1684:C:O2	2.19	0.76
36:n:62:ARG:CA	36:n:91:VAL:O	2.34	0.76
5:E:139:LEU:HG	5:E:150:PRO:HG3	1.67	0.76
17:Q:32:ILE:O	17:Q:39:LEU:HG	1.85	0.76
17:Q:98:LYS:C	33:g:57:ARG:NH2	2.43	0.76
19:S:6:PRO:O	19:S:7:GLU:HB2	1.84	0.76
20:T:75:MET:CE	20:T:79:TYR:CE2	2.61	0.76
30:d:36:LEU:HD21	30:d:52:PHE:CE2	2.21	0.76
32:f:116:ARG:HH11	32:f:116:ARG:CG	1.98	0.76
36:n:69:VAL:HG22	36:n:94:LYS:HD3	1.66	0.76
1:A:11:LYS:CD	1:A:13:GLU:CG	2.62	0.76
4:D:2:ALA:HB3	4:D:3:VAL:C	2.04	0.76
7:G:157:VAL:HG13	7:G:158:VAL:C	2.10	0.76
10:J:48:PHE:HE1	10:J:52:LYS:CE	1.86	0.76
11:K:84:HIS:CD2	13:M:27:ILE:HD11	2.21	0.76
25:Y:29:HIS:HD1	25:Y:67:GLY:HA2	1.51	0.76
25:Y:36:PRO:HD2	25:Y:39:GLU:OE1	1.83	0.76
33:g:17:TRP:H	33:g:36:ARG:HG3	1.50	0.76
35:l:47:VAL:CG2	35:l:83:ILE:CB	2.63	0.76
5:E:87:MET:HE1	5:E:236:ILE:HD13	1.68	0.76
9:I:141:ARG:HB2	9:I:144:LYS:CA	2.16	0.76
11:K:43:LEU:O	11:K:44:HIS:C	2.28	0.76
14:N:62:GLN:CB	14:N:65:PHE:CD2	2.65	0.76
17:Q:12:VAL:CG1	17:Q:13:PHE:H	1.99	0.76
19:S:34:LYS:C	19:S:103:LEU:HD23	2.10	0.76
20:T:30:VAL:O	20:T:31:PRO:C	2.29	0.76
24:X:76:LYS:O	24:X:77:ASN:OD1	2.04	0.76
24:X:133:LEU:CD2	24:X:139:GLU:O	2.33	0.76
1:A:66:VAL:CG1	1:A:186:ARG:CB	2.63	0.76
6:F:14:THR:CG2	17:Q:56:LEU:HD13	2.16	0.76
6:F:41:VAL:HG22	6:F:42:LYS:HD2	1.69	0.76
8:H:106:ARG:HD3	34:i:857:A:C6	2.21	0.76
8:H:122:LEU:CD1	8:H:123:THR:H	1.92	0.76
8:H:145:ARG:CD	23:W:51:GLU:CG	2.60	0.76
8:H:157:HIS:O	8:H:158:LEU:HD23	1.84	0.76
9:I:29:LEU:HG	9:I:30:GLY:N	2.01	0.76
10:J:125:HIS:ND1	34:i:516:A:O2'	1.89	0.76
16:P:10:ARG:HE	16:P:11:THR:H	1.27	0.76
17:Q:85:ARG:O	17:Q:88:ILE:HG12	1.86	0.76

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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	0.76
21:U:44:LYS:O	21:U:47:ASN:HA	1.86	0.76
24:X:60:LYS:CG	24:X:116:PRO:CG	2.58	0.76
25:Y:120:THR:CG2	25:Y:122:LYS:HE2	2.14	0.76
28:b:48:SER:OG	28:b:49:HIS:HD2	1.68	0.76
33:g:191:HIS:CD2	33:g:195:LEU:HD11	2.21	0.76
33:g:277:THR:HG22	33:g:278:SER:N	1.98	0.76
34:i:1186:A:H2	34:i:1709:U:O2	1.67	0.76
4:D:21:LEU:HD13	4:D:48:ILE:CD1	2.16	0.75
4:D:70:THR:CG2	4:D:86:LEU:HB2	2.16	0.75
5:E:166:THR:OG1	5:E:168:LYS:HG3	1.86	0.75
5:E:185:GLY:N	5:E:189:LEU:HD13	2.01	0.75
6:F:144:LEU:HD23	29:c:49:PRO:CB	2.16	0.75
8:H:23:ILE:CD1	8:H:27:LEU:HD23	2.12	0.75
10:J:39:ASN:N	10:J:42:GLU:HG2	2.00	0.75
12:L:112:HIS:HB2	12:L:134:LEU:HD13	1.68	0.75
16:P:77:LYS:O	16:P:78:THR:HG23	1.86	0.75
16:P:127:LYS:O	16:P:127:LYS:CE	2.30	0.75
18:R:121:GLN:NE2	18:R:122:PRO:N	2.34	0.75
19:S:39:ARG:NH2	20:T:38:LYS:HG2	2.02	0.75
20:T:39:LEU:HD11	20:T:56:ARG:NH2	2.01	0.75
25:Y:87:PRO:HG2	25:Y:90:ARG:HB2	1.68	0.75
27:a:66:LYS:HB2	27:a:68:TYR:CE2	2.22	0.75
33:g:113:PHE:CE2	33:g:117:ASN:HA	2.21	0.75
1:A:13:GLU:O	1:A:17:LYS:CE	2.29	0.75
8:H:169:LYS:CB	8:H:173:PHE:CE2	2.67	0.75
10:J:66:LYS:NZ	34:i:687:G:O2'	2.06	0.75
12:L:134:LEU:HD23	12:L:134:LEU:O	1.87	0.75
25:Y:9:THR:CB	25:Y:48:TYR:HH	1.99	0.75
25:Y:84:LYS:O	25:Y:84:LYS:CD	2.31	0.75
31:e:75:LYS:HE2	34:i:1706:U:O2'	1.85	0.75
33:g:59:LEU:HD12	33:g:90:TRP:CE3	2.21	0.75
34:i:1210:A:H61	34:i:1680:U:H3	1.32	0.75
3:C:181:ILE:HB	3:C:208:TYR:HB2	1.67	0.75
7:G:142:ARG:NH2	7:G:152:ASP:H	1.84	0.75
8:H:6:ALA:O	8:H:10:LYS:HG3	1.85	0.75
10:J:66:LYS:CA	10:J:71:LEU:HD11	2.15	0.75
13:M:49:LEU:HD13	13:M:50:CYS:N	2.00	0.75
23:W:93:LEU:HD21	23:W:128:PHE:CE2	2.20	0.75
25:Y:36:PRO:CG	25:Y:39:GLU:HG3	2.10	0.75
26:Z:92:LEU:HD11	26:Z:109:TYR:HE1	1.52	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:b:46:VAL:CG2	28:b:63:LEU:HD21	2.13	0.75
31:e:120:VAL:N	31:e:121:PRO:CD	2.36	0.75
33:g:48:ASP:O	33:g:49:GLU:HG3	1.86	0.75
33:g:201:SER:CB	33:g:202:PRO:CD	2.57	0.75
1:A:120:ARG:CG	3:C:251:TYR:HE2	1.98	0.75
2:B:83:LYS:NZ	15:O:130:GLU:CD	2.43	0.75
4:D:43:PRO:C	4:D:44:THR:CG2	2.60	0.75
6:F:76:MET:HE2	6:F:169:ILE:CG2	2.17	0.75
11:K:83:LEU:O	11:K:84:HIS:CB	2.34	0.75
12:L:5:GLN:O	12:L:7:GLU:N	2.19	0.75
16:P:15:PHE:CE1	19:S:91:LYS:CD	2.70	0.75
18:R:20:TYR:CE2	18:R:38:ILE:HD13	2.22	0.75
26:Z:91:LEU:CD2	26:Z:96:LEU:HD12	2.16	0.75
27:a:101:PHE:O	27:a:103:PRO:HD3	1.86	0.75
33:g:48:ASP:CG	33:g:49:GLU:OE1	2.30	0.75
33:g:298:LEU:O	33:g:298:LEU:CD1	2.31	0.75
34:i:1750:C:H2'	34:i:1751:G:N7	2.01	0.75
1:A:141:ASN:O	22:V:32:ILE:HG21	1.86	0.75
2:B:131:ASP:CG	2:B:180:ASP:HB2	2.12	0.75
3:C:126:MET:HE1	3:C:223:LYS:CD	2.17	0.75
3:C:167:CYS:SG	3:C:168:LYS:N	2.58	0.75
4:D:12:VAL:CG1	30:d:36:LEU:CG	2.65	0.75
16:P:107:ILE:CB	16:P:111:MET:SD	2.74	0.75
18:R:20:TYR:CD2	18:R:38:ILE:HD13	2.22	0.75
18:R:24:LEU:HD12	18:R:58:MET:HE3	1.68	0.75
30:d:13:LYS:CE	30:d:14:PHE:HE2	1.86	0.75
1:A:66:VAL:HG11	1:A:186:ARG:CB	2.17	0.75
1:A:94:THR:HG21	1:A:182:VAL:CG2	2.17	0.75
1:A:154:LEU:HD12	22:V:63:GLY:CA	2.16	0.75
3:C:115:ILE:HD12	3:C:143:ALA:HB3	1.68	0.75
3:C:158:LYS:O	3:C:158:LYS:CE	2.30	0.75
5:E:99:PHE:CD1	5:E:113:ARG:HG3	2.19	0.75
5:E:143:ASP:CG	5:E:145:ARG:HD2	2.11	0.75
7:G:16:ILE:HG21	7:G:45:TRP:CZ2	2.22	0.75
7:G:77:LEU:O	7:G:92:ARG:HG3	1.86	0.75
11:K:95:ARG:HA	11:K:95:ARG:HE	1.49	0.75
21:U:50:VAL:O	21:U:51:LYS:CD	2.30	0.75
22:V:24:ILE:C	22:V:24:ILE:HD12	2.11	0.75
23:W:11:LEU:CD1	23:W:74:VAL:HB	2.17	0.75
25:Y:102:THR:HG21	25:Y:107:ARG:CZ	2.12	0.75
32:f:136:PHE:O	32:f:138:ARG:N	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:40:ILE:HD11	33:g:80:SER:CB	2.17	0.75
34:i:1165:G:H4'	34:i:1815:U:H5'	0.78	0.75
1:A:185:MET:SD	22:V:44:GLY:HA2	2.26	0.75
3:C:69:PHE:CZ	3:C:247:THR:OG1	1.93	0.75
3:C:79:ILE:HD13	3:C:147:ILE:HD12	0.79	0.75
6:F:187:SER:O	6:F:190:ILE:HG22	1.85	0.75
13:M:124:ILE:CA	13:M:127:TYR:HD2	1.97	0.75
15:O:113:GLN:OE1	27:a:45:VAL:O	2.05	0.75
16:P:127:LYS:NZ	16:P:128:HIS:N	2.33	0.75
22:V:45:ARG:O	22:V:46:PHE:C	2.30	0.75
33:g:162:ASN:CG	33:g:163:PRO:HD2	2.11	0.75
34:i:835:C:H2'	34:i:837:G:C4'	2.17	0.75
34:i:1166:A:P	34:i:1814:G:H4'	2.22	0.75
2:B:66:VAL:HG22	2:B:87:ILE:HG22	0.76	0.75
3:C:87:LEU:HD21	3:C:115:ILE:CG2	2.09	0.75
3:C:192:ALA:O	3:C:195:PRO:HG2	1.86	0.75
4:D:45:ARG:HA	4:D:83:SER:OG	1.86	0.75
6:F:45:TYR:N	6:F:45:TYR:HD1	1.85	0.75
9:I:104:ILE:HG13	9:I:105:ASP:H	1.52	0.75
10:J:100:LEU:CG	10:J:101:LYS:N	2.50	0.75
13:M:94:ILE:HG23	13:M:95:ASP:H	0.67	0.75
14:N:23:PRO:HD2	14:N:26:LEU:CD2	2.17	0.75
18:R:105:MET:O	18:R:109:LEU:HD12	1.84	0.75
19:S:111:LEU:CD2	19:S:125:HIS:CE1	2.70	0.75
21:U:66:ARG:NH2	21:U:75:LYS:HA	2.02	0.75
22:V:19:ALA:CB	22:V:59:ILE:HD13	2.17	0.75
22:V:47:ASN:O	22:V:48:GLY:C	2.29	0.75
25:Y:33:ALA:C	25:Y:34:THR:OG1	2.28	0.75
32:f:151:ASN:OD1	32:f:151:ASN:O	2.04	0.75
33:g:149:GLU:OE2	33:g:149:GLU:C	2.29	0.75
33:g:282:GLU:OE2	33:g:284:PRO:HD3	1.87	0.75
33:g:298:LEU:CG	33:g:310:TRP:HB2	2.16	0.75
34:i:1429:C:O2'	34:i:1430:C:H5'	1.87	0.75
35:l:35:ILE:CD1	35:l:88:ASP:CA	2.63	0.75
36:n:35:TYR:N	36:n:35:TYR:HD1	1.85	0.75
36:n:60:HIS:O	36:n:90:ASP:OD1	2.05	0.75
2:B:83:LYS:HZ2	15:O:130:GLU:CD	1.92	0.75
2:B:105:LEU:CD1	2:B:110:MET:HE1	2.15	0.75
3:C:253:GLU:HG3	3:C:254:PHE:CD2	2.21	0.75
4:D:53:THR:HG22	4:D:91:VAL:HG23	1.68	0.75
5:E:94:LYS:O	5:E:95:THR:HG23	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:5:LYS:O	11:K:5:LYS:CG	2.31	0.75
12:L:97:ARG:C	12:L:99:TYR:N	2.33	0.75
13:M:33:ARG:O	13:M:33:ARG:HD2	1.87	0.75
13:M:67:ALA:HB2	32:f:108:VAL:HG21	1.67	0.75
16:P:107:ILE:HB	16:P:111:MET:SD	2.26	0.75
16:P:110:GLU:H	16:P:110:GLU:CD	1.94	0.75
19:S:26:ILE:CD1	19:S:59:LEU:HD21	2.17	0.75
21:U:19:ARG:O	21:U:116:ILE:O	2.04	0.75
22:V:40:ASP:CB	22:V:47:ASN:HD21	1.98	0.75
24:X:52:LEU:HD11	24:X:53:GLU:HG2	1.67	0.75
28:b:62:VAL:HG22	28:b:74:THR:HG21	1.68	0.75
34:i:520:U:H2'	34:i:521:A:H5'	1.69	0.75
3:C:142:LEU:C	3:C:145:LEU:CD2	2.59	0.74
4:D:44:THR:O	4:D:45:ARG:HD3	1.87	0.74
5:E:31:PRO:HG2	5:E:38:LEU:HD13	1.69	0.74
5:E:248:ILE:HD12	10:J:72:PHE:CD1	2.16	0.74
6:F:79:HIS:O	6:F:80:GLY:C	2.29	0.74
8:H:135:PHE:HD2	8:H:136:PRO:HD3	1.51	0.74
8:H:145:ARG:CD	23:W:51:GLU:CD	2.59	0.74
9:I:8:TRP:HZ3	9:I:20:PRO:HA	1.51	0.74
10:J:114:VAL:CG1	10:J:120:ALA:HB2	2.13	0.74
12:L:17:PHE:CD1	12:L:18:GLN:N	2.54	0.74
16:P:10:ARG:HE	16:P:11:THR:HB	1.52	0.74
18:R:84:TYR:O	18:R:85:VAL:CG2	2.35	0.74
20:T:75:MET:O	20:T:78:ILE:HG22	1.87	0.74
21:U:109:GLY:O	21:U:110:VAL:HG22	1.86	0.74
24:X:125:VAL:C	24:X:128:VAL:H	1.94	0.74
26:Z:92:LEU:HD11	26:Z:109:TYR:CZ	2.20	0.74
32:f:111:ASN:C	32:f:111:ASN:OD1	2.30	0.74
34:i:182:C:H2'	34:i:183:G:O4'	1.87	0.74
1:A:147:LEU:HD22	1:A:163:CYS:SG	2.27	0.74
2:B:31:TYR:CD1	2:B:94:LYS:CA	2.68	0.74
4:D:193:ASP:O	4:D:194:PRO:O	2.05	0.74
6:F:134:VAL:HG11	6:F:136:ARG:HH21	1.52	0.74
7:G:164:LYS:C	7:G:166:GLY:N	2.44	0.74
8:H:9:VAL:HG13	8:H:44:ASN:OD1	1.86	0.74
10:J:66:LYS:NZ	34:i:687:G:N3	2.35	0.74
10:J:89:GLU:HB3	10:J:92:MET:SD	2.26	0.74
12:L:147:LYS:HG3	12:L:148:ALA:CB	2.16	0.74
14:N:125:LEU:CD1	14:N:129:TYR:HE2	1.92	0.74
16:P:86:LEU:HD23	16:P:86:LEU:N	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:118:GLU:O	19:S:119:ALA:HA	1.86	0.74
17:Q:6:PRO:O	17:Q:6:PRO:CG	2.29	0.74
17:Q:112:LEU:CD1	17:Q:120:LEU:HD21	2.17	0.74
19:S:8:LYS:C	26:Z:49:LEU:CD2	2.60	0.74
19:S:33:ILE:O	19:S:36:VAL:HG13	1.85	0.74
19:S:94:LYS:CD	19:S:96:SER:HG	1.90	0.74
24:X:105:PHE:CD2	24:X:119:ARG:HA	2.21	0.74
24:X:126:ALA:C	24:X:128:VAL:N	2.40	0.74
28:b:5:LYS:HZ2	28:b:5:LYS:CB	2.00	0.74
33:g:2:THR:HG23	33:g:3:GLU:CG	2.16	0.74
34:i:184:G:H2'	34:i:185:C:C6	2.22	0.74
4:D:143:ARG:NH1	34:i:597:U:C5	2.55	0.74
5:E:43:PRO:CD	5:E:46:ILE:HD12	2.16	0.74
5:E:49:ARG:HD3	5:E:50:ASN:N	2.00	0.74
5:E:86:PHE:O	5:E:87:MET:HB2	1.86	0.74
7:G:32:MET:SD	7:G:100:CYS:O	2.46	0.74
7:G:162:LEU:CD2	7:G:170:ARG:HB2	2.17	0.74
10:J:30:LYS:CA	31:e:112:TYR:HE1	1.93	0.74
10:J:138:ARG:HH12	10:J:156:HIS:CD2	2.05	0.74
13:M:12:MET:O	13:M:13:ASP:OD1	2.06	0.74
16:P:39:ALA:HA	16:P:42:ARG:CD	2.17	0.74
20:T:31:PRO:HB3	20:T:33:TRP:CZ3	2.22	0.74
28:b:61:THR:CG2	28:b:62:VAL:N	2.49	0.74
34:i:1751:G:H2'	34:i:1752:G:H8	1.52	0.74
1:A:32:PHE:HE1	1:A:33:GLN:HE21	0.84	0.74
1:A:174:MET:O	1:A:178:LEU:HG	1.86	0.74
2:B:104:ASP:OD1	2:B:105:LEU:N	2.21	0.74
2:B:150:ILE:HD12	18:R:126:MET:H	0.59	0.74
6:F:14:THR:HG23	6:F:15:PRO:CD	2.17	0.74
10:J:38:ARG:NE	31:e:105:ARG:H	1.77	0.74
12:L:17:PHE:CD1	12:L:18:GLN:HB2	2.21	0.74
16:P:49:LEU:CD1	16:P:51:ARG:NH2	2.51	0.74
17:Q:48:GLN:O	17:Q:51:LEU:HG	1.87	0.74
20:T:87:VAL:HG21	34:i:1660:G:C2	2.23	0.74
23:W:6:VAL:HG12	23:W:34:ILE:HD11	1.68	0.74
25:Y:62:THR:HA	25:Y:69:THR:HG22	1.68	0.74
25:Y:99:LYS:O	25:Y:99:LYS:HG2	1.86	0.74
26:Z:48:VAL:CG2	26:Z:80:ARG:CD	2.54	0.74
26:Z:103:HIS:O	26:Z:105:ALA:N	2.20	0.74
29:c:67:ARG:CA	29:c:68:LEU:HD23	2.16	0.74
33:g:168:CYS:HB3	33:g:198:VAL:HG21	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:181:ASN:O	33:g:181:ASN:OD1	2.03	0.74
33:g:282:GLU:O	33:g:283:PRO:C	2.29	0.74
34:i:1276:G:H1	34:i:1313:U:H3	1.34	0.74
3:C:55:VAL:CG1	3:C:82:PHE:HE2	1.77	0.74
3:C:241:TRP:CE2	23:W:68:ARG:CD	2.70	0.74
3:C:244:THR:CG2	3:C:246:PHE:CD2	2.65	0.74
4:D:123:LEU:HD11	4:D:154:ASP:HB2	1.69	0.74
6:F:14:THR:OG1	17:Q:56:LEU:HB3	1.71	0.74
6:F:201:LYS:HD2	6:F:204:ARG:HH21	1.36	0.74
8:H:11:PRO:HG2	8:H:12:ASN:N	2.02	0.74
8:H:80:VAL:HA	8:H:83:LEU:CD2	2.17	0.74
15:O:136:PRO:C	15:O:138:ASP:N	2.44	0.74
16:P:69:PRO:HD2	16:P:70:MET:N	2.01	0.74
19:S:82:TRP:HA	19:S:87:GLN:HE22	1.52	0.74
21:U:97:ILE:CG2	21:U:101:ILE:HD11	2.17	0.74
22:V:40:ASP:O	22:V:42:VAL:HG23	1.87	0.74
34:i:227:A:C5'	34:i:782:G:H5'	2.17	0.74
34:i:1843:G:H4'	35:l:65:LYS:CD	2.17	0.74
6:F:102:LEU:HD13	26:Z:110:THR:CG2	2.17	0.74
7:G:175:LYS:HZ1	34:i:307:G:C5'	1.99	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
9:I:202:ILE:O	9:I:206:LYS:HB3	1.86	0.74
10:J:87:LEU:HD11	10:J:91:LYS:HB2	1.70	0.74
15:O:41:PHE:CD1	15:O:57:THR:HG22	2.23	0.74
16:P:49:LEU:C	16:P:51:ARG:N	2.45	0.74
17:Q:19:ALA:HB2	17:Q:75:GLY:HA3	1.67	0.74
21:U:48:LEU:N	21:U:48:LEU:CD2	2.29	0.74
21:U:69:PRO:O	21:U:69:PRO:CG	2.29	0.74
23:W:42:MET:HE1	23:W:50:PHE:CD2	2.20	0.74
33:g:48:ASP:O	33:g:49:GLU:CD	2.29	0.74
34:i:445:A:HO2'	34:i:1730:A:HO2'	0.80	0.74
1:A:125:THR:CG2	1:A:175:TRP:HE1	2.00	0.74
2:B:113:MET:SD	2:B:211:PHE:CZ	2.79	0.74
4:D:10:LYS:CE	4:D:14:ASP:OD2	2.36	0.74
4:D:166:TYR:HD1	4:D:200:PRO:HB2	1.53	0.74
4:D:216:GLU:OE1	4:D:216:GLU:C	2.30	0.74
7:G:181:THR:CB	7:G:182:PRO:CD	2.63	0.74
10:J:17:ARG:HG2	10:J:18:ARG:HD3	0.75	0.74
10:J:37:LEU:C	31:e:105:ARG:HG3	2.12	0.74
10:J:169:ARG:HB3	10:J:175:ARG:HH11	1.53	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:92:ILE:O	14:N:96:VAL:HG23	1.87	0.74
16:P:5:GLU:H	16:P:10:ARG:HH11	1.34	0.74
20:T:144:LYS:HB2	20:T:144:LYS:HZ2	1.53	0.74
21:U:19:ARG:HG3	21:U:92:HIS:ND1	2.01	0.74
25:Y:7:ILE:CD1	25:Y:43:LYS:HD3	2.17	0.74
33:g:12:LYS:HD2	33:g:13:GLY:HA2	0.75	0.74
36:n:35:TYR:N	36:n:35:TYR:CD1	2.56	0.74
1:A:58:LEU:HD21	1:A:178:LEU:HD23	0.74	0.74
1:A:143:PRO:CB	22:V:34:MET:SD	2.76	0.74
3:C:63:LEU:HB3	3:C:67:TYR:CZ	2.23	0.74
4:D:97:CYS:C	4:D:99:ILE:N	2.45	0.74
5:E:165:GLU:CA	5:E:165:GLU:OE2	2.29	0.74
7:G:85:ARG:HD3	25:Y:118:ARG:CZ	2.16	0.74
9:I:76:THR:CG2	9:I:77:ARG:N	2.51	0.74
9:I:165:GLN:OE1	9:I:172:LEU:HD23	1.87	0.74
10:J:155:LYS:HE3	10:J:156:HIS:CE1	2.22	0.74
12:L:151:THR:O	12:L:153:LYS:CD	2.33	0.74
15:O:19:PRO:HG3	15:O:27:VAL:HG21	0.75	0.74
18:R:44:LYS:CG	18:R:47:ARG:NH2	2.51	0.74
19:S:42:HIS:CB	20:T:45:LEU:HD11	2.17	0.74
24:X:56:GLY:O	31:e:76:VAL:CG1	2.35	0.74
30:d:7:TYR:O	30:d:8:TRP:HB2	1.85	0.74
33:g:12:LYS:HD2	33:g:13:GLY:N	2.03	0.74
33:g:306:LEU:HD22	33:g:308:ARG:HG3	1.67	0.74
3:C:168:LYS:HE3	23:W:95:PRO:HA	1.69	0.74
3:C:234:SER:O	22:V:23:ILE:HD13	1.86	0.74
4:D:16:ILE:CD1	30:d:22:ARG:NH2	2.42	0.74
6:F:122:ARG:NH2	6:F:193:LYS:HZ1	1.84	0.74
8:H:106:ARG:HD3	34:i:857:A:C5	2.22	0.74
10:J:15:THR:HG22	10:J:44:TRP:HE3	1.48	0.74
10:J:16:PRO:HD3	10:J:44:TRP:CE2	2.23	0.74
10:J:50:LEU:HD22	10:J:54:ARG:HG3	1.68	0.74
13:M:35:ILE:HB	13:M:61:TYR:HE2	1.52	0.74
13:M:38:ALA:O	13:M:42:LEU:HD23	1.87	0.74
14:N:55:ARG:HH21	28:b:51:GLN:CD	1.91	0.74
16:P:53:GLN:HE21	16:P:80:LEU:HD22	1.52	0.74
33:g:162:ASN:HD21	33:g:163:PRO:HD2	1.53	0.74
1:A:158:ASP:HB3	22:V:65:SER:HB2	1.68	0.74
2:B:67:PHE:HE1	15:O:48:SER:N	1.84	0.74
3:C:154:TYR:CZ	3:C:162:PRO:HD3	2.23	0.74
4:D:112:GLY:O	4:D:113:LEU:HD12	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:122:LYS:HG2	5:E:164:LEU:HD21	1.70	0.74
5:E:151:ASP:HB3	7:G:212:LEU:HD21	1.68	0.74
10:J:90:GLY:C	10:J:91:LYS:O	2.24	0.74
10:J:134:HIS:HE1	10:J:164:PRO:HD3	1.53	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
16:P:128:HIS:NE2	34:i:1516:C:H1'	2.03	0.74
22:V:31:SER:O	22:V:32:ILE:HG13	1.87	0.74
23:W:11:LEU:O	23:W:14:ILE:HG13	1.88	0.74
24:X:1:MET:O	24:X:2:GLY:C	2.29	0.74
25:Y:54:VAL:HG13	25:Y:76:TYR:O	1.87	0.74
29:c:10:LYS:HD3	29:c:34:PHE:HE1	1.52	0.74
33:g:43:TRP:CZ3	33:g:55:PRO:HD3	2.22	0.74
33:g:168:CYS:HB3	33:g:198:VAL:CG2	2.18	0.74
33:g:228:TYR:OH	33:g:261:LEU:HD12	1.87	0.74
2:B:148:ASN:O	18:R:124:VAL:CG2	2.31	0.73
3:C:115:ILE:HD13	3:C:144:LYS:HG3	1.67	0.73
3:C:154:TYR:CZ	3:C:162:PRO:CD	2.71	0.73
3:C:156:GLY:HA2	23:W:98:GLN:NE2	2.03	0.73
4:D:40:ARG:CZ	21:U:107:GLU:OE2	2.36	0.73
4:D:188:ILE:HG22	4:D:190:LEU:HD22	1.68	0.73
5:E:87:MET:HE2	5:E:182:MET:HE1	1.69	0.73
6:F:204:ARG:HH12	29:c:59:LEU:CB	2.01	0.73
9:I:141:ARG:O	9:I:143:LYS:CB	2.36	0.73
12:L:47:PRO:HG2	12:L:116:CYS:SG	2.27	0.73
12:L:80:MET:CE	12:L:120:VAL:HG12	2.18	0.73
15:O:19:PRO:CG	15:O:27:VAL:HG22	2.15	0.73
15:O:44:VAL:CG1	15:O:53:ILE:HD11	2.18	0.73
16:P:74:GLU:O	16:P:75:VAL:HB	1.86	0.73
17:Q:92:LEU:HG	17:Q:96:TYR:CE2	2.23	0.73
19:S:138:THR:HA	19:S:141:ARG:HH22	1.43	0.73
21:U:97:ILE:CG2	21:U:101:ILE:HD12	2.18	0.73
24:X:52:LEU:HG	24:X:71:ARG:O	1.88	0.73
25:Y:13:MET:HE3	25:Y:14:THR:CA	2.18	0.73
33:g:76:GLN:NE2	33:g:76:GLN:HA	2.03	0.73
34:i:181:A:C8	34:i:182:C:N4	2.55	0.73
34:i:1169:A:O2'	34:i:1711:C:C4'	2.36	0.73
34:i:1822:C:O2'	35:l:69:CYS:HA	1.87	0.73
1:A:141:ASN:HD21	22:V:29:HIS:HB3	1.49	0.73
2:B:31:TYR:HD1	2:B:94:LYS:CA	1.99	0.73
2:B:151:ARG:HD2	2:B:153:THR:CG2	2.17	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:63:MET:HA	7:G:98:ARG:O	1.88	0.73
8:H:9:VAL:HG12	8:H:44:ASN:CG	2.13	0.73
10:J:37:LEU:CG	10:J:42:GLU:HB2	2.13	0.73
10:J:37:LEU:HD23	10:J:43:VAL:HG23	1.70	0.73
10:J:131:ARG:HH11	10:J:143:ASN:HD21	1.36	0.73
11:K:98:ARG:HG2	11:K:98:ARG:NH1	1.91	0.73
12:L:5:GLN:O	12:L:6:THR:C	2.31	0.73
12:L:113:LEU:CD1	12:L:120:VAL:HG21	2.13	0.73
13:M:11:VAL:O	13:M:12:MET:CB	2.36	0.73
14:N:54:LEU:CB	14:N:60:VAL:HG21	2.18	0.73
15:O:97:LEU:HD11	15:O:112:ALA:HB1	1.70	0.73
17:Q:12:VAL:HG11	17:Q:90:LYS:HB2	1.70	0.73
17:Q:47:LEU:HD23	17:Q:81:ILE:HD13	1.64	0.73
21:U:47:ASN:CG	21:U:47:ASN:O	2.29	0.73
21:U:59:LYS:CB	21:U:84:ILE:HG22	2.12	0.73
31:e:80:LEU:N	36:n:82:ARG:CA	2.46	0.73
33:g:54:ILE:HG23	33:g:55:PRO:HD2	1.68	0.73
33:g:248:LEU:C	33:g:259:TRP:CZ3	2.64	0.73
2:B:225:LEU:O	2:B:229:MET:HG2	1.87	0.73
3:C:244:THR:O	3:C:245:VAL:C	2.28	0.73
7:G:180:VAL:C	7:G:181:THR:HG22	2.13	0.73
13:M:94:ILE:N	13:M:101:ARG:HD3	2.02	0.73
16:P:46:SER:O	16:P:49:LEU:CG	2.35	0.73
19:S:34:LYS:C	19:S:103:LEU:CD2	2.62	0.73
21:U:108:PRO:O	21:U:109:GLY:C	2.30	0.73
24:X:40:PRO:CB	24:X:81:ILE:HD11	2.13	0.73
27:a:51:ARG:NH1	29:c:40:ARG:NH1	2.35	0.73
31:e:80:LEU:O	31:e:83:VAL:HG23	1.87	0.73
1:A:149:ASN:OD1	1:A:150:THR:N	2.20	0.73
4:D:200:PRO:O	4:D:201:LYS:CB	2.34	0.73
5:E:125:LYS:HB3	5:E:226:PHE:CE1	2.23	0.73
5:E:153:LEU:HD11	5:E:172:PHE:CZ	2.20	0.73
7:G:71:GLY:HA2	7:G:98:ARG:NH2	2.03	0.73
8:H:66:VAL:HG22	8:H:96:ALA:HB1	1.71	0.73
10:J:100:LEU:HD11	10:J:104:ASP:OD2	1.85	0.73
12:L:6:THR:O	12:L:7:GLU:O	2.06	0.73
14:N:24:THR:CG2	28:b:84:HIS:NE2	2.50	0.73
20:T:124:THR:CG2	20:T:127:GLY:H	2.02	0.73
31:e:115:ARG:N	31:e:119:VAL:HG21	2.02	0.73
32:f:102:VAL:HG12	32:f:103:LEU:CB	2.16	0.73
34:i:227:A:P	34:i:782:G:C5'	2.76	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:229:GLY:CA	5:E:235:TRP:CD1	2.71	0.73
6:F:33:ILE:HD13	29:c:35:MET:HE3	1.68	0.73
9:I:82:VAL:HG11	9:I:202:ILE:HD13	1.69	0.73
9:I:182:CYS:SG	34:i:296:U:C5	2.81	0.73
10:J:46:VAL:HG11	10:J:102:ILE:HG23	1.68	0.73
10:J:138:ARG:O	10:J:138:ARG:CG	2.36	0.73
11:K:96:ARG:HG3	11:K:97:SER:N	2.00	0.73
13:M:44:LYS:NZ	32:f:127:GLY:HA3	2.03	0.73
15:O:30:VAL:HG23	15:O:32:HIS:CD2	2.23	0.73
16:P:108:LYS:HB3	16:P:110:GLU:CD	2.13	0.73
17:Q:19:ALA:HB2	17:Q:75:GLY:N	2.03	0.73
17:Q:39:LEU:O	17:Q:42:ILE:HD11	1.88	0.73
17:Q:98:LYS:HE3	17:Q:99:TYR:CZ	2.24	0.73
18:R:13:ALA:HB1	18:R:54:VAL:HG22	1.67	0.73
21:U:41:ARG:O	21:U:45:GLU:CB	2.36	0.73
21:U:51:LYS:CB	21:U:90:ASP:HB2	2.18	0.73
23:W:53:ILE:CG2	28:b:25:VAL:CG2	2.66	0.73
23:W:93:LEU:HG	23:W:93:LEU:O	1.88	0.73
31:e:114:ARG:O	31:e:119:VAL:HG22	1.83	0.73
34:i:227:A:O2'	34:i:782:G:H1'	1.88	0.73
35:l:50:ILE:HD12	35:l:102:LEU:HD23	0.73	0.73
3:C:51:LEU:C	3:C:51:LEU:CD2	2.61	0.73
4:D:161:GLY:O	4:D:164:VAL:HG12	1.88	0.73
7:G:14:LYS:HZ1	7:G:123:GLY:HA2	1.52	0.73
7:G:98:ARG:HD3	7:G:99:GLY:H	1.50	0.73
9:I:62:VAL:HG21	9:I:75:LYS:HZ3	1.51	0.73
10:J:28:GLU:OE1	10:J:40:LYS:NZ	2.20	0.73
12:L:5:GLN:NE2	12:L:10:TYR:CD1	2.52	0.73
15:O:113:GLN:CD	27:a:46:GLU:OE2	2.31	0.73
17:Q:108:ILE:HA	17:Q:111:ILE:HD12	1.70	0.73
20:T:144:LYS:HB2	20:T:144:LYS:HZ3	1.51	0.73
28:b:36:LYS:HE3	28:b:43:ILE:HD11	1.71	0.73
31:e:123:PHE:C	31:e:125:LYS:H	1.95	0.73
32:f:103:LEU:O	32:f:104:LYS:C	2.29	0.73
34:i:1054:A:C4'	35:l:38:ARG:HH12	2.01	0.73
35:l:47:VAL:H	35:l:83:ILE:N	1.86	0.73
2:B:67:PHE:CE1	15:O:47:LEU:CB	2.72	0.73
2:B:113:MET:HE1	2:B:211:PHE:HE2	0.68	0.73
4:D:74:GLN:HB2	4:D:84:VAL:CG1	2.19	0.73
6:F:86:LYS:O	6:F:89:THR:HG22	1.88	0.73
7:G:32:MET:O	7:G:33:ALA:HB3	1.86	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:10:LYS:CE	8:H:16:PRO:C	2.61	0.73
15:O:16:SER:O	15:O:88:LEU:O	2.05	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	2.21	0.73
21:U:82:MET:HE2	30:d:51:GLY:HA3	1.69	0.73
33:g:177:TRP:CZ3	33:g:184:LEU:HB3	2.24	0.73
1:A:45:GLY:O	1:A:46:ILE:CD1	2.37	0.73
2:B:25:PHE:CE1	15:O:88:LEU:HD13	2.24	0.73
5:E:98:ASN:HD21	5:E:119:ALA:CA	2.02	0.73
10:J:82:VAL:HG11	10:J:92:MET:HE2	1.70	0.73
10:J:84:ILE:HD12	10:J:86:VAL:HG21	1.70	0.73
11:K:47:LYS:O	11:K:50:GLN:HG2	1.88	0.73
12:L:80:MET:HG3	12:L:86:ILE:HG22	1.68	0.73
14:N:25:TRP:CD1	28:b:83:GLN:CB	2.72	0.73
15:O:31:CYS:SG	15:O:93:LEU:CB	2.75	0.73
20:T:28:LEU:C	20:T:28:LEU:CD2	2.61	0.73
33:g:17:TRP:N	33:g:36:ARG:HG3	2.03	0.73
34:i:227:A:OP1	34:i:782:G:C5'	2.37	0.73
34:i:744:C:C3'	34:i:787:C:O2	2.37	0.73
1:A:118:GLU:CB	3:C:50:LYS:HZ3	1.96	0.73
2:B:150:ILE:CG1	18:R:125:GLY:H	1.85	0.73
4:D:166:TYR:HD1	4:D:200:PRO:CB	2.02	0.73
7:G:50:VAL:CG1	7:G:111:LEU:HD13	2.11	0.73
10:J:21:GLU:O	10:J:22:LYS:C	2.31	0.73
10:J:101:LYS:HG2	10:J:103:GLU:OE1	1.89	0.73
14:N:139:TRP:CE3	14:N:140:LYS:N	2.57	0.73
15:O:38:ASN:O	15:O:68:GLU:OE1	2.07	0.73
19:S:121:ARG:HG2	19:S:131:VAL:CG1	2.17	0.73
21:U:56:MET:CE	21:U:88:LEU:HD23	2.18	0.73
21:U:59:LYS:HB2	21:U:84:ILE:HG23	1.70	0.73
24:X:27:TYR:CE1	24:X:31:HIS:CD2	2.70	0.73
29:c:15:THR:HG21	29:c:33:GLU:CG	2.16	0.73
32:f:97:LYS:CB	32:f:97:LYS:HZ3	1.98	0.73
34:i:226:A:C2'	34:i:783:G:OP1	2.36	0.73
34:i:744:C:O3'	34:i:787:C:N3	2.21	0.73
2:B:149:GLN:O	18:R:124:VAL:HG22	1.88	0.73
4:D:2:ALA:C	4:D:4:GLN:H	1.94	0.73
5:E:124:CYS:HB2	5:E:162:ILE:HD11	1.71	0.73
5:E:175:PHE:C	5:E:175:PHE:CD2	2.67	0.73
8:H:32:MET:O	8:H:33:ASN:CG	2.30	0.73
8:H:164:ASN:HA	8:H:167:GLU:HG3	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:141:ARG:NH1	34:i:188:U:O3'	2.21	0.73
10:J:100:LEU:CG	10:J:101:LYS:H	2.01	0.73
14:N:27:LYS:H	14:N:27:LYS:HE2	1.54	0.73
16:P:84:ILE:HG22	16:P:86:LEU:HD22	1.71	0.73
27:a:28:CYS:SG	27:a:74:CYS:CB	2.74	0.73
33:g:64:HIS:CE1	33:g:65:PHE:CD2	2.77	0.73
2:B:52:THR:HG22	2:B:58:ALA:HB3	1.71	0.72
5:E:191:ARG:HD3	5:E:245:ARG:HB2	1.71	0.72
6:F:45:TYR:C	6:F:47:LYS:HE2	2.13	0.72
7:G:14:LYS:HZ2	7:G:123:GLY:HA3	0.75	0.72
7:G:93:LYS:HD3	7:G:95:LYS:HD2	1.71	0.72
7:G:184:VAL:HG22	34:i:306:C:OP2	1.89	0.72
9:I:4:SER:O	9:I:5:ARG:C	2.32	0.72
13:M:85:LEU:CA	13:M:88:TRP:CE3	2.67	0.72
22:V:78:ILE:HG23	22:V:79:VAL:N	2.04	0.72
34:i:60:A:C5	34:i:325:G:C4'	2.72	0.72
1:A:193:HIS:ND1	1:A:194:PRO:CD	2.51	0.72
2:B:25:PHE:HE1	15:O:53:ILE:HG22	1.54	0.72
2:B:126:ASP:OD1	2:B:136:HIS:CG	2.41	0.72
3:C:123:GLY:C	3:C:226:PHE:CZ	2.67	0.72
5:E:180:LEU:HD13	5:E:228:ILE:HD11	1.70	0.72
15:O:64:ALA:HB1	15:O:66:ARG:NE	2.04	0.72
16:P:44:ARG:HH22	16:P:84:ILE:H	1.38	0.72
16:P:49:LEU:C	16:P:51:ARG:CD	2.62	0.72
16:P:125:PRO:O	16:P:126:VAL:CB	2.38	0.72
23:W:17:ALA:HB2	23:W:25:VAL:CG1	2.19	0.72
25:Y:9:THR:HB	25:Y:23:MET:HG3	1.69	0.72
33:g:2:THR:C	33:g:3:GLU:HG2	2.13	0.72
33:g:172:LYS:CE	33:g:192:THR:CB	2.67	0.72
34:i:1206:G:N3	34:i:1207:G:C1'	2.51	0.72
34:i:1736:U:O4	34:i:1787:A:C2	2.42	0.72
1:A:30:LEU:CD2	1:A:35:GLU:CG	2.51	0.72
2:B:139:CYS:CB	2:B:168:MET:SD	2.76	0.72
3:C:138:GLY:C	3:C:141:ILE:HG22	2.14	0.72
5:E:73:ASP:OD2	5:E:122:LYS:NZ	2.20	0.72
8:H:119:SER:O	8:H:120:ARG:NE	2.22	0.72
9:I:4:SER:O	9:I:6:ASP:N	2.22	0.72
16:P:62:LYS:CG	16:P:65:LYS:HE2	2.18	0.72
20:T:30:VAL:O	20:T:32:GLU:N	2.22	0.72
21:U:117:ALA:C	21:U:118:ASP:O	2.28	0.72
33:g:46:THR:C	33:g:48:ASP:N	2.42	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:143:GLN:NE2	33:g:144:ASP:H	1.86	0.72
34:i:185:C:N3	34:i:211:U:N3	2.35	0.72
36:n:65:LEU:CG	36:n:92:ILE:O	2.35	0.72
1:A:57:LYS:NZ	22:V:70:LEU:CG	2.50	0.72
2:B:49:VAL:HG22	2:B:65:ARG:CZ	2.18	0.72
5:E:92:ILE:HG22	5:E:95:THR:OG1	1.89	0.72
6:F:142:SER:CB	29:c:50:VAL:HG22	2.19	0.72
8:H:143:ARG:HA	23:W:52:ILE:O	1.89	0.72
9:I:54:LYS:HG2	9:I:181:GLN:O	1.89	0.72
9:I:70:GLU:HB3	9:I:72:CYS:SG	2.30	0.72
10:J:124:HIS:NE2	34:i:516:A:C5'	2.44	0.72
14:N:13:GLN:OE1	28:b:21:LYS:CE	2.33	0.72
17:Q:85:ARG:NH1	17:Q:117:ARG:CB	2.51	0.72
17:Q:135:PRO:HD2	17:Q:141:TYR:CD1	2.21	0.72
18:R:44:LYS:HE2	18:R:47:ARG:HH22	1.45	0.72
19:S:111:LEU:HD21	19:S:125:HIS:CE1	2.24	0.72
20:T:111:LYS:HB2	20:T:126:GLN:NE2	2.03	0.72
24:X:56:GLY:CA	36:n:84:TYR:HE1	2.03	0.72
26:Z:96:LEU:O	26:Z:112:ASN:CB	2.37	0.72
27:a:50:VAL:O	27:a:54:SER:N	2.22	0.72
31:e:80:LEU:CD1	36:n:83:ASP:CA	2.65	0.72
31:e:80:LEU:O	31:e:82:ARG:N	2.22	0.72
33:g:261:LEU:CA	33:g:264:LYS:HE3	2.18	0.72
8:H:169:LYS:HB2	8:H:173:PHE:HE2	1.51	0.72
10:J:164:PRO:HA	10:J:167:GLY:O	1.90	0.72
15:O:72:TYR:HE1	15:O:76:LEU:HD11	1.54	0.72
15:O:106:LYS:NZ	27:a:69:VAL:HG13	2.03	0.72
17:Q:8:GLN:CB	17:Q:99:TYR:CZ	2.72	0.72
17:Q:130:LYS:HD2	17:Q:135:PRO:O	1.88	0.72
18:R:17:ILE:HG22	18:R:69:ILE:CD1	2.04	0.72
19:S:94:LYS:HD3	19:S:95:TYR:O	1.89	0.72
20:T:143:LYS:CD	20:T:144:LYS:H	1.94	0.72
24:X:67:ARG:O	24:X:68:LYS:CG	2.33	0.72
24:X:89:GLY:O	24:X:92:ASN:HB2	1.89	0.72
31:e:79:SER:C	36:n:82:ARG:HB2	2.10	0.72
31:e:81:ALA:HB3	36:n:82:ARG:HD3	0.80	0.72
33:g:124:SER:HB3	33:g:126:ASP:OD1	1.89	0.72
33:g:298:LEU:CD1	33:g:310:TRP:CE3	2.63	0.72
34:i:1596:A:H5'	34:i:1597:U:C5	2.24	0.72
3:C:222:ALA:O	3:C:225:THR:HG22	1.89	0.72
4:D:16:ILE:HG21	30:d:22:ARG:CZ	2.20	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:180:LEU:HD22	5:E:181:CYS:N	2.04	0.72
6:F:41:VAL:CG2	6:F:42:LYS:CD	2.64	0.72
8:H:71:SER:O	8:H:74:LYS:HB2	1.88	0.72
9:I:155:ASN:C	9:I:157:LYS:H	1.93	0.72
10:J:127:ARG:NH1	10:J:145:PRO:HB3	2.03	0.72
10:J:172:ARG:NH2	34:i:552:U:C5	2.57	0.72
13:M:12:MET:C	13:M:13:ASP:OD1	2.33	0.72
16:P:69:PRO:HD2	16:P:70:MET:H	1.53	0.72
18:R:29:HIS:HE2	33:g:65:PHE:HZ	1.34	0.72
18:R:88:VAL:O	18:R:88:VAL:HG13	1.89	0.72
20:T:30:VAL:O	20:T:30:VAL:CG2	2.30	0.72
25:Y:56:PHE:CB	25:Y:58:PHE:HE2	2.02	0.72
25:Y:78:SER:HB3	25:Y:81:TYR:HD2	0.57	0.72
25:Y:111:LYS:NZ	25:Y:115:LYS:HZ1	1.88	0.72
29:c:5:ARG:O	29:c:6:VAL:CG2	2.37	0.72
33:g:116:ASP:O	33:g:117:ASN:HB2	1.89	0.72
33:g:219:TRP:CH2	33:g:226:HIS:HD2	2.07	0.72
33:g:306:LEU:HD23	33:g:307:VAL:N	2.04	0.72
34:i:181:A:O4'	34:i:182:C:H5'	1.90	0.72
34:i:1700:C:H1'	34:i:1846:C:OP1	1.89	0.72
2:B:72:ALA:N	2:B:79:VAL:HG23	2.03	0.72
3:C:236:LEU:HD23	3:C:237:THR:O	1.90	0.72
5:E:18:TRP:CE3	5:E:46:ILE:HD11	2.24	0.72
5:E:23:LEU:O	5:E:24:THR:OG1	2.08	0.72
5:E:36:HIS:O	5:E:41:CYS:SG	2.47	0.72
5:E:166:THR:OG1	5:E:168:LYS:CG	2.38	0.72
6:F:93:VAL:O	6:F:97:PHE:CE1	2.42	0.72
9:I:112:TRP:CZ3	9:I:117:TYR:HE2	2.08	0.72
10:J:87:LEU:HD11	10:J:91:LYS:HB3	1.72	0.72
10:J:180:LYS:O	10:J:180:LYS:HD2	1.88	0.72
11:K:36:ALA:C	11:K:38:LYS:H	1.94	0.72
16:P:68:PRO:HB2	16:P:69:PRO:HD3	1.70	0.72
16:P:119:PHE:HA	19:S:119:ALA:HA	1.71	0.72
16:P:128:HIS:HE1	34:i:1516:C:H1'	1.28	0.72
23:W:15:ASN:ND2	23:W:19:LYS:HE3	2.03	0.72
29:c:11:LEU:CB	29:c:35:MET:HE2	2.20	0.72
33:g:118:ARG:HA	33:g:118:ARG:NE	2.03	0.72
34:i:1741:U:O2'	34:i:1742:C:H5'	1.90	0.72
1:A:127:PRO:CG	1:A:152:SER:HB3	2.19	0.72
2:B:160:GLN:CD	2:B:205:TYR:CD1	2.67	0.72
2:B:228:LEU:HD13	2:B:232:HIS:HD2	1.55	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:53:THR:CG2	4:D:91:VAL:HB	2.19	0.72
5:E:92:ILE:CB	5:E:97:GLU:OE1	2.34	0.72
7:G:24:LEU:O	7:G:26:THR:N	2.23	0.72
10:J:38:ARG:NH2	31:e:104:GLY:H	1.88	0.72
11:K:83:LEU:HB2	11:K:85:LEU:CG	2.18	0.72
13:M:86:GLY:CA	13:M:106:CYS:HB2	2.20	0.72
16:P:121:ILE:HG22	19:S:120:HIS:HA	1.72	0.72
23:W:22:LYS:O	23:W:65:LEU:HD11	1.89	0.72
25:Y:102:THR:CB	25:Y:107:ARG:HE	2.02	0.72
33:g:277:THR:HG23	33:g:278:SER:N	2.02	0.72
34:i:683:G:N2	34:i:684:A:C2	2.58	0.72
34:i:1701:G:C1'	34:i:1845:A:H4'	2.19	0.72
34:i:1823:G:H1'	34:i:1843:G:O6	1.88	0.72
1:A:102:ARG:HH22	34:i:1375:A:H4'	1.54	0.72
1:A:125:THR:HG22	1:A:175:TRP:NE1	2.05	0.72
1:A:169:HIS:HB3	1:A:203:PHE:CZ	2.23	0.72
1:A:180:ARG:NH1	1:A:184:ARG:NH1	2.37	0.72
2:B:79:VAL:HG23	2:B:79:VAL:O	1.90	0.72
6:F:49:LEU:CD1	6:F:50:PRO:HD2	2.16	0.72
7:G:65:GLN:NE2	34:i:1741:U:OP1	2.23	0.72
7:G:162:LEU:HD23	7:G:172:LYS:NZ	2.03	0.72
9:I:48:VAL:CG2	9:I:52:ASN:HB3	2.19	0.72
9:I:157:LYS:HB2	12:L:22:ARG:HD3	0.82	0.72
10:J:66:LYS:HA	10:J:71:LEU:CD1	2.19	0.72
14:N:5:HIS:CD2	14:N:121:ARG:HE	2.08	0.72
17:Q:50:LYS:HA	17:Q:53:GLU:OE2	1.87	0.72
17:Q:78:VAL:HG13	17:Q:82:TYR:HE2	1.55	0.72
20:T:42:HIS:CE1	20:T:83:GLN:HB3	2.25	0.72
23:W:101:PHE:HB2	23:W:129:PHE:CE1	2.25	0.72
25:Y:101:LYS:C	25:Y:102:THR:OG1	2.30	0.72
33:g:2:THR:CG2	33:g:3:GLU:HG2	2.20	0.72
35:l:30:TYR:CE1	35:l:107:GLN:O	2.32	0.72
35:l:35:ILE:CD1	35:l:89:GLN:H	2.01	0.72
1:A:113:GLN:NE2	34:i:1347:G:O2'	2.23	0.72
5:E:229:GLY:CA	5:E:235:TRP:HD1	2.03	0.72
8:H:146:VAL:HG23	23:W:50:PHE:CE1	2.21	0.72
9:I:144:LYS:C	9:I:145:ILE:HG23	2.15	0.72
10:J:147:PHE:O	10:J:148:ILE:HB	1.87	0.72
14:N:92:ILE:HG22	14:N:150:VAL:HG21	1.69	0.72
16:P:4:VAL:N	16:P:10:ARG:CD	2.52	0.72
17:Q:58:LEU:HD21	17:Q:111:ILE:HD12	1.70	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
19:S:52:LEU:HD12	19:S:53:THR:N	2.05	0.72
19:S:106:LYS:HD2	19:S:109:GLU:OE1	1.90	0.72
20:T:77:LYS:HG2	20:T:92:PHE:CZ	2.24	0.72
21:U:109:GLY:C	21:U:110:VAL:HG23	2.13	0.72
23:W:90:GLN:HB2	23:W:94:LEU:HD12	1.71	0.72
25:Y:56:PHE:CD2	25:Y:86:GLU:OE2	2.43	0.72
25:Y:102:THR:HB	25:Y:104:ARG:N	2.04	0.72
31:e:78:GLY:CA	36:n:88:LYS:O	2.38	0.72
33:g:294:ASP:C	33:g:296:GLN:N	2.35	0.72
1:A:154:LEU:HD22	1:A:157:VAL:HG23	1.72	0.71
4:D:202:LYS:HB2	4:D:203:PRO:HD2	1.72	0.71
6:F:166:ILE:H	6:F:166:ILE:HD12	1.54	0.71
7:G:196:LYS:O	7:G:199:THR:OG1	2.08	0.71
8:H:14:GLU:CD	8:H:16:PRO:HB2	2.13	0.71
9:I:2:GLY:HA2	34:i:1792:C:O2'	1.90	0.71
9:I:142:SER:HB3	9:I:143:LYS:CG	2.20	0.71
10:J:38:ARG:HG2	31:e:105:ARG:HB2	0.77	0.71
16:P:48:GLY:O	16:P:50:ARG:HD2	1.90	0.71
16:P:80:LEU:O	16:P:116:LEU:HD12	1.89	0.71
24:X:108:LYS:CB	24:X:110:HIS:CE1	2.72	0.71
33:g:20:GLN:NE2	33:g:68:ASP:CG	2.27	0.71
35:l:35:ILE:HD13	35:l:89:GLN:N	2.03	0.71
4:D:21:LEU:HD13	4:D:48:ILE:HD11	1.71	0.71
6:F:35:LEU:HD12	6:F:117:ILE:HG23	1.72	0.71
10:J:110:LEU:HB3	10:J:130:ILE:HD13	1.72	0.71
11:K:83:LEU:CB	11:K:85:LEU:CG	2.68	0.71
13:M:131:LYS:O	13:M:132:LYS:HG3	1.90	0.71
15:O:32:HIS:HE1	15:O:96:LYS:HD2	1.53	0.71
15:O:143:LYS:O	15:O:143:LYS:HG2	1.82	0.71
19:S:11:HIS:CD2	19:S:23:ARG:HH22	1.96	0.71
20:T:16:ARG:CG	20:T:16:ARG:HH11	2.03	0.71
20:T:42:HIS:CE1	20:T:93:SER:CA	2.73	0.71
21:U:50:VAL:CG2	21:U:52:GLY:N	2.51	0.71
23:W:3:ARG:C	23:W:4:MET:SD	2.74	0.71
23:W:3:ARG:CZ	23:W:9:ASP:OD2	2.37	0.71
24:X:125:VAL:O	24:X:126:ALA:HB3	1.90	0.71
33:g:2:THR:O	33:g:3:GLU:CG	2.37	0.71
33:g:284:PRO:O	33:g:284:PRO:HG2	1.88	0.71
34:i:927:C:O5'	34:i:927:C:C6	2.42	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:141:LYS:HD2	4:D:179:GLN:CD	2.15	0.71
5:E:94:LYS:C	5:E:95:THR:HG23	2.15	0.71
5:E:248:ILE:HD12	10:J:72:PHE:CZ	2.22	0.71
5:E:258:ALA:O	5:E:259:LYS:CB	2.33	0.71
6:F:42:LYS:CG	6:F:42:LYS:O	2.28	0.71
8:H:10:LYS:HB3	8:H:20:GLU:OE1	1.90	0.71
13:M:59:PRO:O	13:M:62:VAL:HG22	1.90	0.71
15:O:17:LEU:HG	15:O:18:GLY:H	1.55	0.71
16:P:53:GLN:HE21	16:P:80:LEU:CD2	2.02	0.71
20:T:77:LYS:HA	20:T:94:ARG:HA	1.70	0.71
21:U:82:MET:HE2	30:d:51:GLY:CA	2.19	0.71
23:W:27:ILE:CG1	23:W:61:ILE:HB	2.19	0.71
24:X:60:LYS:CG	24:X:116:PRO:HG3	2.19	0.71
25:Y:91:LEU:C	25:Y:97:TYR:HB3	2.14	0.71
29:c:46:VAL:HG11	29:c:50:VAL:CG2	2.20	0.71
31:e:115:ARG:O	31:e:119:VAL:CG1	2.34	0.71
32:f:85:TYR:O	32:f:86:THR:HG23	1.90	0.71
33:g:71:ILE:HG22	33:g:72:SER:O	1.90	0.71
34:i:1843:G:C2	35:l:68:ALA:C	2.68	0.71
1:A:76:VAL:HG13	1:A:175:TRP:CZ3	2.26	0.71
3:C:200:LEU:HD12	3:C:201:MET:SD	2.30	0.71
4:D:105:LEU:CD2	4:D:184:ILE:CD1	2.56	0.71
8:H:85:LYS:C	8:H:85:LYS:CD	2.51	0.71
9:I:106:SER:OG	9:I:171:LEU:HG	1.90	0.71
9:I:148:LYS:O	9:I:152:ARG:HG3	1.90	0.71
10:J:125:HIS:CD2	10:J:129:LEU:CD1	2.70	0.71
10:J:138:ARG:CB	10:J:156:HIS:HB3	2.21	0.71
14:N:26:LEU:HD21	14:N:66:VAL:CG2	2.20	0.71
16:P:108:LYS:O	16:P:111:MET:CG	2.34	0.71
19:S:54:LYS:C	19:S:54:LYS:CB	2.61	0.71
25:Y:18:LEU:HB3	25:Y:20:ARG:CZ	2.21	0.71
25:Y:93:ARG:O	25:Y:93:ARG:HD2	1.90	0.71
33:g:143:GLN:CG	33:g:144:ASP:HB2	2.19	0.71
34:i:194:C:H2'	34:i:195:C:C6	2.26	0.71
2:B:105:LEU:C	2:B:106:THR:HG23	2.14	0.71
4:D:176:LEU:O	4:D:177:LEU:HD13	1.90	0.71
7:G:175:LYS:NZ	34:i:306:C:O3'	2.23	0.71
9:I:82:VAL:CG1	9:I:202:ILE:HD13	2.21	0.71
9:I:139:LYS:HB3	9:I:145:ILE:HD11	1.57	0.71
10:J:37:LEU:HD21	10:J:43:VAL:N	2.05	0.71
14:N:53:ILE:HD13	28:b:52:THR:CG2	2.11	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:49:LEU:HA	16:P:51:ARG:CD	2.20	0.71
26:Z:103:HIS:HD2	26:Z:105:ALA:N	1.87	0.71
28:b:84:HIS:CD2	28:b:84:HIS:N	2.54	0.71
34:i:60:A:N3	34:i:326:A:H5'	2.05	0.71
34:i:1206:G:N9	34:i:1207:G:O5'	2.22	0.71
35:l:48:GLN:HG2	35:l:82:VAL:HG12	1.67	0.71
1:A:48:ILE:CG2	18:R:105:MET:HE1	2.21	0.71
2:B:209:ASP:O	2:B:210:VAL:CB	2.39	0.71
3:C:238:PRO:HA	3:C:241:TRP:CD1	2.26	0.71
4:D:97:CYS:SG	4:D:99:ILE:HG13	2.30	0.71
6:F:18:LYS:HD2	17:Q:57:LEU:CD2	2.21	0.71
6:F:66:CYS:SG	6:F:67:PRO:HD2	2.31	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:140:VAL:O	14:N:18:TYR:CD2	2.43	0.71
8:H:166:VAL:HG22	8:H:173:PHE:HE2	1.55	0.71
10:J:162:ARG:O	10:J:162:ARG:HG2	1.88	0.71
11:K:38:LYS:O	11:K:39:ASN:HB2	1.90	0.71
17:Q:112:LEU:HD13	17:Q:120:LEU:CD2	2.21	0.71
22:V:53:TYR:CZ	22:V:72:LEU:HB3	2.26	0.71
34:i:61:A:N1	34:i:326:A:OP2	2.23	0.71
34:i:522:C:C2'	34:i:523:A:H5'	2.20	0.71
35:l:55:ASP:C	35:l:57:LYS:H	1.98	0.71
35:l:67:PHE:CZ	35:l:96:PHE:HB2	2.25	0.71
5:E:248:ILE:CG1	10:J:72:PHE:CG	2.52	0.71
6:F:144:LEU:CD2	29:c:49:PRO:HB2	2.21	0.71
7:G:212:LEU:CA	7:G:215:LYS:HE2	2.17	0.71
8:H:122:LEU:HD12	8:H:123:THR:N	2.00	0.71
9:I:25:ARG:NE	9:I:27:TYR:CE2	2.57	0.71
10:J:61:LEU:HD13	10:J:94:LEU:HD11	1.70	0.71
13:M:12:MET:CE	13:M:17:ALA:C	2.41	0.71
14:N:6:ALA:HB1	14:N:7:PRO:HD3	1.71	0.71
15:O:64:ALA:HB1	15:O:66:ARG:HE	1.53	0.71
16:P:41:GLN:CD	16:P:41:GLN:O	2.33	0.71
16:P:93:MET:SD	16:P:106:GLU:CB	2.77	0.71
25:Y:92:ALA:HA	25:Y:97:TYR:CB	2.19	0.71
26:Z:102:LYS:HA	26:Z:107:VAL:HA	1.72	0.71
30:d:30:LEU:HD23	30:d:38:MET:O	1.90	0.71
1:A:111:GLN:HB3	3:C:48:VAL:HG11	1.73	0.71
4:D:59:LEU:HD12	4:D:60:GLY:C	2.14	0.71
4:D:132:LYS:CG	4:D:191:PRO:HG3	2.19	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:11:ARG:O	5:E:12:VAL:CG2	2.39	0.71
8:H:32:MET:O	8:H:33:ASN:CB	2.38	0.71
10:J:29:LEU:HD22	31:e:112:TYR:HB2	1.72	0.71
11:K:40:VAL:CG2	11:K:41:PRO:O	2.38	0.71
12:L:97:ARG:HG2	12:L:98:LYS:N	2.06	0.71
13:M:12:MET:CE	13:M:120:ALA:CB	2.61	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
18:R:95:ILE:HA	18:R:114:LEU:HD13	1.73	0.71
21:U:50:VAL:CG2	21:U:52:GLY:CA	2.58	0.71
22:V:18:SER:OG	22:V:72:LEU:HD13	1.90	0.71
23:W:20:ARG:HH22	34:i:1135:C:H1'	1.56	0.71
23:W:128:PHE:CZ	23:W:130:PHE:CE2	2.78	0.71
31:e:75:LYS:C	31:e:76:VAL:CG2	2.64	0.71
32:f:105:TYR:O	32:f:106:TYR:HD2	1.69	0.71
33:g:144:ASP:O	33:g:144:ASP:CG	2.29	0.71
33:g:184:LEU:HD12	33:g:184:LEU:O	1.90	0.71
34:i:181:A:C8	34:i:182:C:C5	2.78	0.71
34:i:1816:A:H2'	34:i:1817:A:H8	1.56	0.71
2:B:30:TRP:NE1	15:O:17:LEU:HD21	2.05	0.71
2:B:147:ASN:O	18:R:124:VAL:CG2	2.37	0.71
5:E:248:ILE:O	10:J:72:PHE:CE1	2.34	0.71
8:H:148:LEU:O	8:H:148:LEU:HD23	1.89	0.71
9:I:191:GLU:O	9:I:192:GLY:O	2.08	0.71
10:J:16:PRO:O	10:J:17:ARG:C	2.33	0.71
12:L:40:ILE:CG2	12:L:44:PHE:HB2	2.21	0.71
15:O:16:SER:O	15:O:17:LEU:HB3	1.90	0.71
16:P:4:VAL:CA	16:P:10:ARG:CG	2.60	0.71
16:P:44:ARG:HE	16:P:84:ILE:HD12	0.55	0.71
16:P:121:ILE:HG22	19:S:120:HIS:CB	2.20	0.71
20:T:77:LYS:CA	20:T:94:ARG:CG	2.68	0.71
22:V:55:ILE:HD13	22:V:65:SER:CA	2.14	0.71
25:Y:54:VAL:O	25:Y:54:VAL:HG12	1.89	0.71
28:b:6:ASP:O	28:b:8:LEU:N	2.24	0.71
33:g:165:ILE:CG2	33:g:179:LEU:HD21	2.21	0.71
1:A:28:THR:HG22	1:A:46:ILE:HD13	1.72	0.71
3:C:131:GLU:O	3:C:134:THR:HG22	1.90	0.71
3:C:141:ILE:HG23	3:C:142:LEU:N	2.06	0.71
4:D:217:ILE:O	4:D:218:LEU:CD2	2.39	0.71
5:E:11:ARG:O	5:E:12:VAL:CB	2.38	0.71
6:F:41:VAL:CG2	6:F:42:LYS:N	2.29	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:71:GLY:CA	7:G:98:ARG:NH2	2.54	0.71
8:H:157:HIS:NE2	8:H:188:GLU:OE1	2.23	0.71
9:I:62:VAL:HG21	9:I:75:LYS:HE2	1.70	0.71
10:J:84:ILE:HG13	10:J:86:VAL:HG23	1.72	0.71
15:O:125:LYS:HA	27:a:56:VAL:HG12	1.73	0.71
16:P:39:ALA:O	16:P:42:ARG:HG3	1.90	0.71
16:P:84:ILE:CD1	16:P:115:TYR:CE1	2.74	0.71
17:Q:42:ILE:CG2	17:Q:51:LEU:HD21	2.19	0.71
18:R:100:PRO:HG2	18:R:119:VAL:CG2	2.16	0.71
19:S:42:HIS:CD2	20:T:45:LEU:HG	2.23	0.71
19:S:84:LEU:HD22	19:S:97:GLN:HB2	1.73	0.71
25:Y:3:ASP:C	25:Y:4:THR:HG1	1.98	0.71
31:e:114:ARG:HA	31:e:118:ASN:HB2	1.72	0.71
33:g:172:LYS:HE3	33:g:192:THR:CB	2.21	0.71
33:g:201:SER:CB	33:g:202:PRO:HD3	2.12	0.71
35:l:35:ILE:HG21	35:l:88:ASP:HA	1.71	0.71
1:A:133:PRO:CD	1:A:134:LEU:N	2.51	0.70
1:A:186:ARG:O	1:A:186:ARG:CZ	2.38	0.70
2:B:150:ILE:CD1	18:R:126:MET:CA	2.66	0.70
4:D:162:ASP:CG	4:D:166:TYR:CE2	2.69	0.70
5:E:2:ALA:O	5:E:3:ARG:HG2	1.90	0.70
8:H:65:PRO:C	8:H:67:PRO:HD2	2.16	0.70
9:I:62:VAL:CG2	9:I:75:LYS:NZ	2.53	0.70
9:I:193:LYS:HG3	12:L:10:TYR:CE1	2.26	0.70
10:J:46:VAL:HG12	10:J:102:ILE:HG23	1.72	0.70
10:J:180:LYS:C	10:J:180:LYS:HD2	2.14	0.70
14:N:28:LEU:O	14:N:29:THR:HG22	1.87	0.70
15:O:22:ALA:C	15:O:24:GLY:H	1.93	0.70
18:R:101:ASP:O	18:R:105:MET:N	2.24	0.70
19:S:58:GLU:CA	19:S:59:LEU:HD13	2.21	0.70
23:W:128:PHE:CD1	23:W:129:PHE:N	2.58	0.70
25:Y:7:ILE:HD11	25:Y:43:LYS:HB3	1.71	0.70
25:Y:37:LYS:C	25:Y:40:ILE:HG22	2.15	0.70
25:Y:48:TYR:O	25:Y:50:THR:CG2	2.38	0.70
31:e:82:ARG:H	36:n:82:ARG:HD2	0.88	0.70
33:g:176:VAL:CB	33:g:186:THR:HG22	2.18	0.70
34:i:1822:C:C1'	35:l:68:ALA:O	2.39	0.70
3:C:51:LEU:HD13	3:C:78:ILE:CD1	2.17	0.70
3:C:149:PRO:O	3:C:149:PRO:HG2	1.92	0.70
5:E:152:PRO:HG3	7:G:209:TYR:CE1	2.27	0.70
7:G:217:MET:O	7:G:221:LYS:HB3	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:70:MET:O	16:P:71:GLU:CB	2.39	0.70
18:R:37:GLU:OE1	18:R:38:ILE:CG2	2.39	0.70
25:Y:29:HIS:NE2	25:Y:69:THR:HG23	2.06	0.70
28:b:73:LEU:CD1	28:b:79:PHE:CD2	2.74	0.70
1:A:112:ILE:CG2	34:i:1346:U:H1'	2.14	0.70
1:A:154:LEU:HD22	1:A:157:VAL:CG2	2.21	0.70
5:E:112:HIS:NE2	5:E:237:SER:HB2	2.05	0.70
6:F:19:LEU:HD22	6:F:24:SER:CA	2.21	0.70
6:F:122:ARG:NH2	6:F:193:LYS:NZ	2.39	0.70
7:G:177:GLN:HE21	34:i:306:C:H5'	1.56	0.70
8:H:31:GLU:OE2	8:H:41:ARG:NE	2.22	0.70
10:J:35:TYR:C	10:J:37:LEU:N	2.41	0.70
11:K:62:PHE:HE1	11:K:67:PHE:CE2	2.07	0.70
15:O:30:VAL:HB	15:O:32:HIS:NE2	2.06	0.70
15:O:119:LEU:O	15:O:122:SER:OG	2.07	0.70
19:S:15:VAL:HG13	19:S:68:ILE:CD1	2.20	0.70
20:T:84:ARG:NH2	20:T:84:ARG:HG3	1.97	0.70
34:i:1206:G:H2'	34:i:1207:G:H4'	1.71	0.70
1:A:39:TYR:CB	1:A:50:ASN:HD21	2.01	0.70
1:A:120:ARG:CG	3:C:251:TYR:CE2	2.75	0.70
4:D:98:ALA:H	4:D:188:ILE:HD12	1.55	0.70
5:E:98:ASN:CG	5:E:119:ALA:HB2	2.15	0.70
8:H:117:PRO:O	8:H:120:ARG:N	2.24	0.70
16:P:124:LYS:O	16:P:125:PRO:C	2.35	0.70
19:S:58:GLU:O	19:S:59:LEU:CD1	2.32	0.70
19:S:137:LYS:HG2	19:S:138:THR:CG2	2.17	0.70
23:W:42:MET:CE	23:W:50:PHE:CE2	2.73	0.70
33:g:98:THR:O	33:g:99:ARG:CD	2.38	0.70
34:i:1652:G:H1	34:i:1662:U:H3	1.39	0.70
1:A:32:PHE:CD1	1:A:33:GLN:HG2	2.26	0.70
1:A:127:PRO:HG3	1:A:152:SER:HB3	1.72	0.70
2:B:195:LYS:HE2	2:B:195:LYS:HA	1.73	0.70
3:C:60:ILE:C	3:C:82:PHE:CE1	2.69	0.70
3:C:195:PRO:HG3	3:C:221:PHE:CZ	2.23	0.70
4:D:192:TRP:CE3	4:D:196:GLY:CA	2.65	0.70
4:D:211:VAL:HG23	18:R:38:ILE:CA	2.21	0.70
6:F:14:THR:HG23	6:F:15:PRO:HD3	1.73	0.70
7:G:32:MET:SD	7:G:100:CYS:C	2.74	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
20:T:116:ASP:HB3	20:T:120:GLY:O	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:25:THR:CG2	21:U:86:LYS:HG2	2.22	0.70
24:X:66:ILE:HD13	31:e:79:SER:O	1.92	0.70
31:e:125:LYS:O	31:e:126:LYS:HB2	1.91	0.70
33:g:17:TRP:CE3	33:g:36:ARG:NH2	2.60	0.70
34:i:79:A:HO2'	34:i:80:G:H8	1.38	0.70
34:i:184:G:C5	34:i:185:C:C4	2.80	0.70
34:i:1825:A:C5'	34:i:1847:C:H5'	2.16	0.70
3:C:131:GLU:HG3	4:D:116:ARG:CZ	2.21	0.70
6:F:167:LYS:CE	6:F:171:GLU:HG3	2.21	0.70
7:G:78:SER:OG	7:G:81:HIS:CD2	2.44	0.70
8:H:172:THR:O	8:H:176:VAL:HG23	1.91	0.70
10:J:87:LEU:CD1	10:J:91:LYS:CB	2.69	0.70
12:L:147:LYS:HD2	12:L:149:ALA:N	2.07	0.70
14:N:53:ILE:CD1	28:b:52:THR:HG22	2.21	0.70
14:N:55:ARG:HH22	28:b:51:GLN:NE2	1.88	0.70
15:O:128:ARG:CA	27:a:62:TYR:OH	2.40	0.70
16:P:51:ARG:O	16:P:52:LYS:HB3	1.91	0.70
17:Q:42:ILE:CD1	17:Q:51:LEU:HD22	2.03	0.70
17:Q:53:GLU:OE1	17:Q:85:ARG:NH2	2.24	0.70
17:Q:112:LEU:O	17:Q:116:ASP:CA	2.40	0.70
18:R:5:ARG:HB2	18:R:10:LYS:HZ1	1.55	0.70
23:W:106:THR:OG1	23:W:111:MET:HE2	1.92	0.70
24:X:54:LYS:HD2	24:X:91:LEU:HD12	1.72	0.70
26:Z:92:LEU:CD1	26:Z:99:LEU:HD21	2.22	0.70
31:e:120:VAL:O	31:e:121:PRO:HB2	1.90	0.70
34:i:1516:C:OP2	34:i:1516:C:H6	1.72	0.70
2:B:28:LYS:HD3	15:O:51:GLU:OE2	1.91	0.70
2:B:93:GLY:C	2:B:94:LYS:CD	2.65	0.70
2:B:124:HIS:CD2	2:B:136:HIS:CE1	2.80	0.70
3:C:122:VAL:CG1	3:C:202:ALA:HA	2.22	0.70
4:D:198:ILE:HG13	4:D:198:ILE:O	1.90	0.70
5:E:195:ILE:HG22	5:E:196:THR:N	2.05	0.70
10:J:26:ASP:CB	31:e:116:PHE:HZ	2.05	0.70
10:J:32:ILE:HG21	31:e:108:ARG:CG	2.19	0.70
10:J:37:LEU:HG	10:J:42:GLU:CB	2.20	0.70
11:K:21:MET:SD	11:K:49:MET:SD	2.90	0.70
20:T:11:GLN:NE2	20:T:62:ARG:NH1	2.36	0.70
25:Y:114:MET:HE3	25:Y:125:VAL:N	2.06	0.70
33:g:280:LYS:O	33:g:281:ALA:C	2.33	0.70
7:G:159:ARG:HH21	7:G:171:THR:HA	1.57	0.70
8:H:40:LEU:HD23	8:H:43:LEU:CG	2.21	0.70

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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	0.70
10:J:133:ARG:HD3	10:J:141:VAL:HG11	1.74	0.70
11:K:16:PHE:CE2	11:K:79:LEU:C	2.69	0.70
13:M:12:MET:CE	13:M:17:ALA:O	2.40	0.70
14:N:142:GLU:CD	14:N:144:SER:OG	2.34	0.70
15:O:95:ILE:HD12	15:O:116:LEU:HD21	1.71	0.70
15:O:99:ALA:N	15:O:133:THR:CG2	2.39	0.70
16:P:19:GLY:N	19:S:92:ASP:HA	2.07	0.70
17:Q:12:VAL:CG1	17:Q:13:PHE:N	2.55	0.70
17:Q:17:LYS:HE2	34:i:1643:G:C6	2.26	0.70
19:S:58:GLU:O	19:S:59:LEU:CB	2.40	0.70
23:W:14:ILE:HG13	23:W:15:ASN:H	1.54	0.70
23:W:128:PHE:HE1	23:W:130:PHE:CE2	2.08	0.70
24:X:29:LYS:CD	24:X:34:THR:CB	2.69	0.70
24:X:40:PRO:HB3	24:X:81:ILE:CD1	2.15	0.70
26:Z:44:LEU:O	26:Z:44:LEU:HD12	1.91	0.70
1:A:180:ARG:CD	1:A:184:ARG:NH2	2.53	0.70
2:B:149:GLN:N	18:R:124:VAL:CG2	2.54	0.70
2:B:150:ILE:CG1	18:R:125:GLY:C	2.64	0.70
3:C:186:GLY:CA	10:J:54:ARG:NH2	2.54	0.70
3:C:244:THR:HG22	3:C:246:PHE:CG	2.26	0.70
5:E:163:ASP:O	5:E:164:LEU:HB2	1.91	0.70
6:F:41:VAL:CG2	6:F:42:LYS:HD2	2.22	0.70
7:G:57:ASP:OD2	7:G:98:ARG:HG2	1.91	0.70
7:G:71:GLY:HA2	7:G:98:ARG:HH21	1.55	0.70
8:H:122:LEU:HD12	8:H:123:THR:H	1.56	0.70
10:J:114:VAL:HG13	10:J:119:LEU:O	1.90	0.70
18:R:98:VAL:HG12	18:R:100:PRO:N	2.07	0.70
18:R:102:THR:HA	18:R:105:MET:HB2	1.73	0.70
21:U:47:ASN:HD22	21:U:47:ASN:N	1.88	0.70
27:a:45:VAL:HG23	27:a:46:GLU:H	1.56	0.70
33:g:76:GLN:HA	33:g:76:GLN:HE21	1.56	0.70
33:g:298:LEU:HD12	33:g:298:LEU:C	2.17	0.70
34:i:893:U:O2'	34:i:894:U:O4'	2.06	0.70
1:A:57:LYS:CE	22:V:70:LEU:HD21	2.21	0.70
3:C:54:LEU:HD21	3:C:254:PHE:HB3	1.71	0.70
8:H:57:ARG:CD	8:H:89:GLY:O	2.40	0.70
9:I:144:LYS:O	9:I:145:ILE:HG23	1.92	0.70
10:J:37:LEU:CD2	10:J:43:VAL:HG23	2.22	0.70
11:K:18:GLU:C	11:K:92:ALA:HB2	2.17	0.70
13:M:12:MET:HE1	13:M:17:ALA:O	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:18:LEU:HD22	13:M:22:LEU:CG	2.22	0.70
15:O:52:THR:CG2	34:i:949:C:H4'	2.21	0.70
16:P:52:LYS:CA	16:P:54:HIS:CD2	2.74	0.70
16:P:100:LYS:HD2	16:P:101:THR:HG23	1.72	0.70
18:R:1:MET:HB3	18:R:2:GLY:N	2.05	0.70
18:R:77:GLU:O	18:R:81:ARG:HG3	1.90	0.70
24:X:95:GLU:CD	24:X:140:ARG:HH22	1.95	0.70
24:X:138:LYS:C	24:X:139:GLU:OE2	2.35	0.70
25:Y:55:ILE:CD1	25:Y:75:ILE:CD1	2.70	0.70
28:b:73:LEU:CD1	28:b:79:PHE:CZ	2.71	0.70
33:g:24:THR:HG23	33:g:27:PHE:O	1.92	0.70
34:i:197:U:C5	34:i:198:U:C4	2.80	0.70
34:i:429:A:C4'	34:i:1794:A:H4'	2.22	0.70
34:i:841:G:H2'	34:i:842:G:C8	2.27	0.70
34:i:1513:C:OP2	34:i:1514:U:H2'	1.92	0.70
36:n:35:TYR:HD1	36:n:35:TYR:H	1.40	0.70
4:D:132:LYS:HB2	4:D:191:PRO:HG3	0.70	0.69
6:F:112:LEU:HD23	6:F:116:ILE:CD1	2.22	0.69
7:G:50:VAL:HG11	7:G:111:LEU:CD2	2.22	0.69
7:G:175:LYS:NZ	34:i:307:G:H5'	2.06	0.69
9:I:103:LEU:CD2	9:I:172:LEU:HD13	2.21	0.69
16:P:13:ARG:C	16:P:14:LYS:HG2	2.16	0.69
20:T:21:PHE:CD1	20:T:21:PHE:C	2.70	0.69
26:Z:73:VAL:HG12	26:Z:79:ILE:CG2	2.18	0.69
31:e:120:VAL:HG13	31:e:121:PRO:N	2.07	0.69
33:g:32:LEU:HB2	33:g:71:ILE:CD1	2.16	0.69
33:g:93:THR:CB	33:g:94:THR:HG23	2.21	0.69
4:D:103:GLU:HA	4:D:103:GLU:OE2	1.92	0.69
7:G:63:MET:HE1	7:G:106:LEU:HD13	1.68	0.69
8:H:190:PRO:HB2	8:H:191:GLU:CG	2.22	0.69
10:J:110:LEU:HD13	10:J:130:ILE:CG1	2.04	0.69
10:J:179:LYS:HA	10:J:182:GLN:OE1	1.92	0.69
11:K:32:HIS:ND1	11:K:33:PRO:HD2	2.07	0.69
12:L:99:TYR:C	12:L:100:ASN:OD1	2.35	0.69
16:P:15:PHE:HE2	16:P:110:GLU:HB3	1.55	0.69
17:Q:50:LYS:HG3	17:Q:85:ARG:HH21	1.57	0.69
24:X:2:GLY:O	24:X:3:LYS:CB	2.35	0.69
24:X:32:LEU:O	24:X:37:LYS:HE3	1.92	0.69
28:b:12:PRO:HA	28:b:16:LYS:HE2	1.74	0.69
32:f:140:TYR:CZ	32:f:146:LEU:O	2.45	0.69
33:g:212:LYS:HG3	33:g:235:ILE:HD12	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:123:VAL:HG22	1:A:145:ILE:HB	1.72	0.69
1:A:158:ASP:HB3	22:V:65:SER:OG	1.91	0.69
4:D:226:GLN:HE21	4:D:226:GLN:C	1.98	0.69
5:E:18:TRP:CE3	5:E:46:ILE:CD1	2.76	0.69
5:E:55:ALA:C	5:E:56:LEU:HD23	2.18	0.69
5:E:123:LEU:HD12	5:E:161:GLN:HA	1.72	0.69
5:E:126:VAL:HG22	5:E:157:ASN:H	1.56	0.69
9:I:149:TYR:HD1	9:I:152:ARG:HH12	1.35	0.69
9:I:155:ASN:CA	12:L:22:ARG:HD2	2.22	0.69
10:J:134:HIS:C	10:J:135:ILE:HG23	2.17	0.69
15:O:128:ARG:C	15:O:129:ILE:HG12	2.17	0.69
18:R:24:LEU:CD1	18:R:58:MET:HE3	2.22	0.69
24:X:105:PHE:CZ	24:X:118:VAL:O	2.46	0.69
25:Y:54:VAL:CG2	25:Y:79:LEU:CD2	2.71	0.69
28:b:61:THR:CG2	28:b:62:VAL:H	2.06	0.69
30:d:13:LYS:CE	30:d:14:PHE:CD2	2.75	0.69
34:i:1826:A:H1'	34:i:1835:C:OP1	1.92	0.69
3:C:126:MET:HE1	3:C:223:LYS:HZ3	1.57	0.69
4:D:197:LYS:HB3	4:D:198:ILE:HG23	0.77	0.69
5:E:180:LEU:HD13	5:E:228:ILE:CD1	2.22	0.69
6:F:141:VAL:CG2	6:F:146:ARG:HG2	2.22	0.69
8:H:135:PHE:HB3	8:H:136:PRO:CD	2.23	0.69
11:K:40:VAL:HG23	11:K:44:HIS:N	2.07	0.69
16:P:108:LYS:H	16:P:111:MET:CE	2.03	0.69
16:P:128:HIS:CD2	34:i:1517:A:O5'	2.46	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:34:LYS:CA	19:S:103:LEU:HD21	2.15	0.69
20:T:4:VAL:HG12	20:T:8:ASP:CB	2.21	0.69
20:T:101:ARG:HG2	20:T:105:GLN:NE2	2.07	0.69
20:T:110:LEU:O	20:T:111:LYS:HB2	1.90	0.69
21:U:49:LYS:C	21:U:50:VAL:HG12	2.16	0.69
22:V:18:SER:HB3	22:V:54:ALA:O	1.93	0.69
24:X:108:LYS:HB3	24:X:110:HIS:CE1	2.27	0.69
25:Y:54:VAL:O	25:Y:75:ILE:CA	2.37	0.69
28:b:83:GLN:HA	28:b:83:GLN:HE21	1.56	0.69
33:g:88:ARG:CD	33:g:90:TRP:CZ2	2.75	0.69
6:F:53:ALA:HB1	17:Q:125:ARG:HH21	1.56	0.69
8:H:6:ALA:CB	8:H:10:LYS:HD3	2.22	0.69
15:O:30:VAL:CG2	15:O:32:HIS:NE2	2.55	0.69
18:R:5:ARG:CB	18:R:10:LYS:HZ1	2.05	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:91:LEU:CG	18:R:92:ASP:HA	2.21	0.69
18:R:115:SER:O	18:R:116:ASN:OD1	2.08	0.69
19:S:39:ARG:HD3	20:T:38:LYS:HZ1	1.58	0.69
26:Z:85:ARG:CZ	26:Z:85:ARG:CB	2.70	0.69
33:g:261:LEU:O	33:g:264:LYS:CD	2.40	0.69
34:i:1775:A:H2'	34:i:1776:G:C8	2.28	0.69
3:C:50:LYS:CE	3:C:251:TYR:CE1	2.67	0.69
5:E:67:GLN:O	5:E:68:ARG:HG3	1.91	0.69
7:G:64:LYS:CE	7:G:67:VAL:HG13	2.22	0.69
9:I:105:ASP:O	9:I:169:GLY:O	2.09	0.69
10:J:140:GLN:NE2	25:Y:64:PHE:HE2	1.90	0.69
11:K:46:MET:HA	11:K:69:TRP:CH2	2.28	0.69
12:L:112:HIS:CD2	12:L:134:LEU:HD11	2.27	0.69
13:M:67:ALA:HB1	32:f:114:ILE:HG22	1.74	0.69
14:N:54:LEU:HB3	14:N:60:VAL:CG2	2.19	0.69
14:N:114:ARG:HH21	14:N:114:ARG:HG2	1.57	0.69
15:O:125:LYS:HZ1	27:a:58:VAL:N	1.88	0.69
16:P:32:GLN:HA	16:P:35:GLN:OE1	1.92	0.69
18:R:44:LYS:HE3	18:R:47:ARG:CZ	2.23	0.69
19:S:15:VAL:HG13	19:S:68:ILE:HD11	1.73	0.69
21:U:40:ILE:HD11	21:U:53:PRO:HB3	1.74	0.69
21:U:50:VAL:CG2	21:U:51:LYS:O	2.38	0.69
24:X:95:GLU:O	24:X:98:ASP:HB2	1.92	0.69
25:Y:55:ILE:HG12	25:Y:75:ILE:HG12	0.69	0.69
33:g:306:LEU:HD23	33:g:307:VAL:C	2.17	0.69
1:A:172:GLY:HA3	1:A:203:PHE:CD1	2.28	0.69
3:C:66:ILE:HG23	3:C:71:LEU:HB2	1.74	0.69
4:D:66:ILE:O	4:D:70:THR:HG23	1.92	0.69
5:E:62:LYS:HD3	5:E:80:ILE:HD11	0.79	0.69
8:H:15:LYS:CB	8:H:16:PRO:CD	2.54	0.69
8:H:16:PRO:O	8:H:20:GLU:CD	2.36	0.69
8:H:106:ARG:CD	34:i:857:A:C5	2.75	0.69
9:I:136:ILE:HG23	9:I:139:LYS:HE2	1.73	0.69
10:J:38:ARG:HA	31:e:105:ARG:CG	2.23	0.69
11:K:2:LEU:HD13	11:K:3:MET:CA	2.21	0.69
12:L:82:MET:HB2	12:L:85:THR:HG23	1.73	0.69
16:P:49:LEU:HD13	16:P:51:ARG:HH21	1.56	0.69
16:P:52:LYS:N	16:P:54:HIS:NE2	2.41	0.69
18:R:21:TYR:CB	18:R:71:ILE:HG21	2.23	0.69
26:Z:65:TYR:HD2	26:Z:68:ILE:HG12	1.55	0.69
31:e:82:ARG:HG3	36:n:82:ARG:NH2	2.06	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:286:CYS:CB	33:g:302:TYR:CE2	2.70	0.69
34:i:196:U:O2	34:i:199:G:N1	2.23	0.69
34:i:551:A:C2	34:i:552:U:N3	2.60	0.69
1:A:186:ARG:HD3	1:A:186:ARG:O	1.93	0.69
2:B:67:PHE:HE1	15:O:47:LEU:C	1.97	0.69
3:C:69:PHE:CE1	3:C:249:SER:HA	2.28	0.69
3:C:76:SER:O	3:C:79:ILE:CG2	2.38	0.69
5:E:85:GLY:N	5:E:88:ASP:OD2	2.21	0.69
5:E:175:PHE:O	5:E:175:PHE:CD2	2.45	0.69
6:F:40:ALA:N	6:F:68:ILE:HG23	2.08	0.69
6:F:46:ALA:C	6:F:47:LYS:HD3	2.18	0.69
6:F:128:ILE:HD11	29:c:68:LEU:HB2	1.74	0.69
7:G:30:LYS:HD2	7:G:30:LYS:N	2.08	0.69
7:G:161:PRO:O	7:G:161:PRO:HD2	1.93	0.69
8:H:145:ARG:CD	23:W:51:GLU:OE1	2.40	0.69
13:M:44:LYS:O	13:M:46:GLN:N	2.25	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
18:R:67:ARG:HH11	34:i:1371:G:H5'	1.57	0.69
22:V:40:ASP:O	22:V:40:ASP:CG	2.33	0.69
22:V:67:ASP:O	22:V:68:SER:C	2.35	0.69
23:W:42:MET:HE2	23:W:49:GLU:HA	1.74	0.69
24:X:100:VAL:HG12	24:X:125:VAL:CG2	2.20	0.69
25:Y:54:VAL:HG22	25:Y:79:LEU:CD2	2.23	0.69
26:Z:94:LYS:C	26:Z:94:LYS:CD	2.63	0.69
29:c:5:ARG:N	29:c:5:ARG:NE	2.40	0.69
33:g:248:LEU:O	33:g:259:TRP:HE3	1.75	0.69
33:g:275:ILE:CD1	33:g:276:SER:N	2.51	0.69
34:i:185:C:C2	34:i:211:U:C2	2.79	0.69
34:i:1187:C:H4'	34:i:1708:C:HO2'	1.55	0.69
34:i:1750:C:O2'	34:i:1751:G:OP1	2.08	0.69
35:l:44:LEU:HA	35:l:86:GLN:HA	1.75	0.69
35:l:48:GLN:CG	35:l:82:VAL:HG12	2.14	0.69
36:n:62:ARG:HG2	36:n:91:VAL:O	1.93	0.69
1:A:186:ARG:HH11	1:A:186:ARG:C	1.99	0.69
8:H:191:GLU:OE1	8:H:193:GLN:OE1	2.10	0.69
10:J:15:THR:HB	10:J:44:TRP:CZ3	2.27	0.69
16:P:121:ILE:HG22	19:S:120:HIS:HB2	1.75	0.69
17:Q:78:VAL:HG12	17:Q:82:TYR:CE2	2.28	0.69
18:R:93:GLN:HG2	18:R:94:GLU:O	1.92	0.69
18:R:122:PRO:CB	18:R:123:THR:CB	2.71	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:50:ILE:CG1	19:S:63:GLU:HG2	2.22	0.69
20:T:119:TRP:CE3	34:i:1557:C:O2	2.45	0.69
22:V:15:ARG:O	22:V:24:ILE:HG22	1.93	0.69
22:V:32:ILE:HD12	22:V:60:ARG:HH11	1.55	0.69
23:W:30:CYS:HA	23:W:34:ILE:HD12	1.75	0.69
31:e:127:LYS:C	31:e:127:LYS:HD3	2.11	0.69
33:g:42:MET:CB	33:g:92:LEU:HD11	2.23	0.69
34:i:783:G:C2'	34:i:896:C:C5'	2.69	0.69
34:i:1206:G:H3'	34:i:1207:G:OP1	1.92	0.69
1:A:16:LEU:HD21	18:R:111:PHE:CE2	2.27	0.69
2:B:61:GLY:O	2:B:65:ARG:CZ	2.41	0.69
2:B:77:ASP:HA	2:B:79:VAL:HG22	1.74	0.69
2:B:209:ASP:O	2:B:210:VAL:CG2	2.40	0.69
4:D:193:ASP:CA	4:D:202:LYS:O	2.37	0.69
4:D:201:LYS:HA	4:D:201:LYS:CE	2.13	0.69
6:F:99:ILE:HD13	6:F:171:GLU:OE1	1.93	0.69
7:G:77:LEU:CD1	7:G:95:LYS:HD3	2.23	0.69
8:H:193:GLN:H	8:H:193:GLN:CD	2.00	0.69
10:J:143:ASN:C	10:J:144:ILE:HG13	2.13	0.69
16:P:31:GLU:O	16:P:35:GLN:HG3	1.92	0.69
17:Q:138:ARG:HG3	34:i:1644:U:H4'	1.74	0.69
23:W:7:LEU:HD23	23:W:34:ILE:HG13	1.75	0.69
25:Y:22:GLN:HB3	25:Y:74:MET:HE1	1.74	0.69
25:Y:97:TYR:HD1	25:Y:98:GLU:N	1.89	0.69
29:c:65:ALA:C	29:c:66:ARG:CG	2.66	0.69
1:A:76:VAL:CG1	1:A:87:VAL:HG12	2.23	0.68
3:C:155:TRP:CH2	23:W:97:ARG:CZ	2.71	0.68
9:I:36:THR:O	9:I:95:THR:HG23	1.92	0.68
13:M:19:GLN:HG2	13:M:88:TRP:CD1	2.27	0.68
18:R:21:TYR:CG	18:R:71:ILE:HD13	2.28	0.68
18:R:95:ILE:H	18:R:114:LEU:HD13	1.58	0.68
20:T:42:HIS:CE1	20:T:93:SER:CB	2.76	0.68
25:Y:21:LYS:HE2	25:Y:77:ASP:CG	2.17	0.68
25:Y:98:GLU:C	25:Y:98:GLU:OE2	2.35	0.68
25:Y:111:LYS:HZ3	25:Y:115:LYS:NZ	1.90	0.68
33:g:246:TYR:N	33:g:246:TYR:HD1	1.91	0.68
33:g:298:LEU:HD11	33:g:310:TRP:HB2	1.74	0.68
34:i:1055:G:N3	35:l:70:ASN:ND2	2.42	0.68
34:i:1186:A:H2	34:i:1709:U:C2	2.10	0.68
1:A:149:ASN:HB2	1:A:165:ASN:CG	2.18	0.68
2:B:30:TRP:NE1	15:O:17:LEU:CD2	2.56	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:40:ARG:NH1	21:U:107:GLU:OE2	2.26	0.68
5:E:139:LEU:CD1	5:E:154:ILE:CG2	2.69	0.68
6:F:28:VAL:HG13	6:F:110:GLN:CG	2.22	0.68
8:H:6:ALA:HB1	8:H:10:LYS:NZ	2.07	0.68
9:I:117:TYR:N	9:I:117:TYR:CD2	2.62	0.68
9:I:154:LYS:HD3	9:I:155:ASN:CA	2.22	0.68
19:S:87:GLN:O	19:S:88:LYS:O	2.10	0.68
21:U:83:ARG:CZ	30:d:55:LEU:HD13	2.23	0.68
23:W:42:MET:HE3	23:W:50:PHE:CE2	2.27	0.68
23:W:78:ARG:CD	23:W:126:LEU:HD23	2.22	0.68
24:X:128:VAL:HG11	24:X:133:LEU:HD21	1.73	0.68
25:Y:57:VAL:HG12	25:Y:60:PHE:HE2	1.59	0.68
26:Z:99:LEU:HD23	26:Z:109:TYR:CD1	2.27	0.68
34:i:1843:G:O5'	35:l:65:LYS:HD2	1.93	0.68
35:l:30:TYR:CD1	35:l:107:GLN:CB	2.76	0.68
4:D:123:LEU:HD21	4:D:154:ASP:HB2	1.72	0.68
7:G:131:ARG:CD	7:G:131:ARG:HG2	2.15	0.68
7:G:157:VAL:HG13	7:G:159:ARG:H	0.73	0.68
7:G:222:GLU:HG2	7:G:225:GLN:OE1	1.92	0.68
8:H:83:LEU:HD22	8:H:92:VAL:CG1	2.05	0.68
8:H:121:THR:O	8:H:125:VAL:HG23	1.93	0.68
10:J:91:LYS:O	10:J:93:LYS:N	2.25	0.68
11:K:14:LEU:CD2	11:K:35:LEU:CD1	2.71	0.68
13:M:67:ALA:HB1	32:f:108:VAL:CG2	2.22	0.68
14:N:87:ASP:OD1	14:N:88:LEU:N	2.27	0.68
15:O:41:PHE:CD1	15:O:57:THR:CG2	2.76	0.68
16:P:8:LYS:O	16:P:11:THR:CG2	2.37	0.68
16:P:114:HIS:CE1	19:S:113:ARG:HH22	2.11	0.68
26:Z:48:VAL:O	26:Z:48:VAL:CG1	2.40	0.68
27:a:84:VAL:HB	34:i:1860:A:H62	1.57	0.68
28:b:61:THR:HG23	28:b:62:VAL:H	1.58	0.68
31:e:80:LEU:HA	36:n:84:TYR:HE2	1.57	0.68
33:g:42:MET:SD	33:g:56:GLN:HB3	2.34	0.68
36:n:62:ARG:HG3	36:n:92:ILE:CB	2.23	0.68
1:A:147:LEU:CD2	1:A:163:CYS:SG	2.82	0.68
3:C:131:GLU:CG	4:D:116:ARG:HH22	2.02	0.68
4:D:132:LYS:HB2	4:D:191:PRO:CD	2.20	0.68
6:F:14:THR:OG1	17:Q:56:LEU:CD1	2.42	0.68
8:H:193:GLN:C	8:H:194:LEU:O	2.32	0.68
9:I:197:PHE:CE2	12:L:5:GLN:CG	2.76	0.68
10:J:38:ARG:HG2	31:e:105:ARG:CA	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:19:PRO:CD	15:O:27:VAL:HG21	2.12	0.68
16:P:98:ASN:O	16:P:122:THR:OG1	2.10	0.68
20:T:85:ASN:HB3	20:T:88:MET:HB2	1.76	0.68
24:X:99:GLU:C	24:X:100:VAL:HG13	2.18	0.68
25:Y:13:MET:CE	25:Y:14:THR:C	2.66	0.68
25:Y:52:PRO:CD	25:Y:53:ASP:H	2.04	0.68
33:g:74:ASP:HB2	33:g:76:GLN:HG2	1.75	0.68
34:i:446:C:O2'	34:i:1795:A:O2'	2.11	0.68
34:i:1503:G:H1'	34:i:1503:G:O5'	1.88	0.68
5:E:139:LEU:HD11	5:E:154:ILE:CG2	2.22	0.68
6:F:154:LEU:CD1	6:F:155:CYS:N	2.55	0.68
8:H:35:ASP:OD1	8:H:36:LEU:N	2.27	0.68
9:I:5:ARG:HH11	9:I:5:ARG:CG	2.04	0.68
9:I:69:SER:HB2	12:L:19:ASN:HD22	1.52	0.68
11:K:12:TYR:CD2	11:K:82:TYR:HD2	2.11	0.68
11:K:94:LEU:HD23	11:K:95:ARG:H	1.59	0.68
12:L:82:MET:CE	12:L:85:THR:HG21	2.23	0.68
13:M:14:VAL:C	13:M:16:THR:N	2.49	0.68
13:M:24:THR:O	13:M:27:ILE:HG22	1.93	0.68
16:P:56:LEU:HD22	16:P:78:THR:HG22	1.76	0.68
16:P:67:ALA:CB	16:P:73:PRO:HB3	2.23	0.68
19:S:6:PRO:O	19:S:7:GLU:CB	2.41	0.68
20:T:77:LYS:CB	20:T:94:ARG:CG	2.61	0.68
23:W:128:PHE:HD1	23:W:129:PHE:N	1.91	0.68
26:Z:92:LEU:HD11	26:Z:109:TYR:OH	1.93	0.68
27:a:102:ARG:O	27:a:103:PRO:C	2.35	0.68
33:g:172:LYS:HZ3	33:g:192:THR:HG22	1.59	0.68
1:A:34:MET:CE	1:A:37:TYR:HE2	2.01	0.68
1:A:52:LYS:HB3	1:A:52:LYS:HZ1	1.57	0.68
2:B:97:LEU:HB3	2:B:232:HIS:CD2	2.29	0.68
3:C:260:LYS:HD2	3:C:261:THR:N	2.08	0.68
4:D:16:ILE:HG21	30:d:22:ARG:NH1	2.09	0.68
5:E:129:ILE:CB	5:E:139:LEU:HD23	2.22	0.68
7:G:147:LEU:HD21	7:G:156:TYR:HE2	1.58	0.68
7:G:179:LEU:HD12	7:G:180:VAL:N	1.97	0.68
8:H:135:PHE:CD2	8:H:136:PRO:HD3	2.29	0.68
8:H:149:ASP:O	8:H:149:ASP:CG	2.34	0.68
9:I:141:ARG:HG3	9:I:144:LYS:O	1.93	0.68
9:I:144:LYS:HG3	34:i:189:G:P	2.34	0.68
10:J:178:ALA:O	10:J:182:GLN:CG	2.34	0.68
11:K:39:ASN:O	11:K:40:VAL:HB	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:64:TRP:C	11:K:65:ARG:CG	2.66	0.68
11:K:84:HIS:CG	11:K:84:HIS:O	2.39	0.68
14:N:76:LYS:C	14:N:76:LYS:HD2	2.18	0.68
15:O:63:LYS:O	15:O:64:ALA:HB2	1.94	0.68
17:Q:43:GLU:HG2	17:Q:45:ARG:HB3	1.74	0.68
19:S:8:LYS:HD3	19:S:8:LYS:N	2.07	0.68
23:W:36:ARG:HD3	23:W:110:ILE:CD1	2.16	0.68
28:b:5:LYS:CB	28:b:5:LYS:NZ	2.53	0.68
28:b:64:CYS:SG	28:b:73:LEU:CA	2.80	0.68
31:e:80:LEU:H	36:n:83:ASP:N	1.91	0.68
31:e:119:VAL:O	31:e:121:PRO:HG2	1.92	0.68
33:g:46:THR:OG1	33:g:48:ASP:HB2	1.91	0.68
33:g:259:TRP:HB3	33:g:266:ILE:HA	1.76	0.68
34:i:489:G:N1	34:i:491:C:H1'	2.09	0.68
34:i:1700:C:HO2'	34:i:1846:C:P	2.12	0.68
35:l:43:THR:O	35:l:86:GLN:CD	2.36	0.68
35:l:72:THR:OG1	35:l:73:VAL:N	2.26	0.68
36:n:62:ARG:HG3	36:n:92:ILE:HG23	1.75	0.68
1:A:23:THR:O	1:A:24:HIS:C	2.36	0.68
1:A:141:ASN:HD21	22:V:29:HIS:CA	2.07	0.68
5:E:74:GLY:O	5:E:75:LYS:HG2	1.93	0.68
5:E:100:ARG:HD3	5:E:102:ILE:HD12	1.71	0.68
5:E:148:ARG:NH2	34:i:124:U:OP1	2.26	0.68
5:E:167:GLY:C	5:E:168:LYS:HG2	2.19	0.68
6:F:109:LEU:HD23	6:F:109:LEU:O	1.94	0.68
17:Q:33:LYS:HG3	17:Q:69:ARG:HG2	1.75	0.68
18:R:72:LYS:O	18:R:76:GLU:HG2	1.93	0.68
18:R:91:LEU:N	18:R:92:ASP:HA	2.01	0.68
19:S:39:ARG:NH2	20:T:38:LYS:CG	2.56	0.68
20:T:77:LYS:CG	20:T:92:PHE:HZ	2.03	0.68
24:X:133:LEU:HD21	24:X:139:GLU:O	1.92	0.68
31:e:75:LYS:C	31:e:76:VAL:HG22	2.19	0.68
31:e:80:LEU:C	36:n:82:ARG:HD2	2.17	0.68
3:C:241:TRP:CE2	23:W:68:ARG:HD2	2.28	0.68
4:D:127:MET:HG2	4:D:154:ASP:OD2	1.94	0.68
6:F:14:THR:CG2	17:Q:56:LEU:CD1	2.56	0.68
8:H:12:ASN:HB3	8:H:46:THR:OG1	1.92	0.68
8:H:145:ARG:NE	23:W:51:GLU:CD	2.52	0.68
11:K:9:ILE:O	11:K:13:GLU:HG2	1.94	0.68
12:L:118:ARG:O	12:L:119:ASP:HB2	1.92	0.68
13:M:13:ASP:O	13:M:16:THR:CA	2.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:79:VAL:HG12	13:M:80:ASP:N	2.09	0.68
15:O:52:THR:C	15:O:53:ILE:HG23	2.16	0.68
16:P:126:VAL:O	16:P:127:LYS:HB3	1.93	0.68
21:U:82:MET:HE2	30:d:51:GLY:C	2.19	0.68
23:W:18:GLU:HG2	23:W:65:LEU:HD13	1.76	0.68
30:d:50:ILE:HG21	30:d:52:PHE:HE2	1.59	0.68
31:e:114:ARG:HA	31:e:118:ASN:CB	2.23	0.68
1:A:127:PRO:CB	1:A:153:PRO:HG2	2.22	0.68
3:C:51:LEU:O	3:C:55:VAL:HG23	1.94	0.68
3:C:198:LEU:HD11	3:C:226:PHE:CD1	2.28	0.68
4:D:112:GLY:C	4:D:113:LEU:CG	2.65	0.68
5:E:180:LEU:HD13	5:E:228:ILE:HG13	1.74	0.68
9:I:67:TRP:CZ2	9:I:158:ILE:HD11	2.23	0.68
13:M:67:ALA:CB	32:f:114:ILE:HG21	2.24	0.68
14:N:26:LEU:HD21	14:N:66:VAL:HG21	1.75	0.68
17:Q:8:GLN:CG	17:Q:99:TYR:HE1	1.60	0.68
18:R:90:ALA:HA	18:R:91:LEU:HD12	1.73	0.68
19:S:6:PRO:O	26:Z:49:LEU:HD11	1.94	0.68
19:S:15:VAL:HG12	19:S:16:LEU:H	1.57	0.68
22:V:41:LYS:C	22:V:43:THR:N	2.52	0.68
24:X:32:LEU:O	24:X:37:LYS:CE	2.42	0.68
28:b:61:THR:CG2	28:b:62:VAL:O	2.40	0.68
33:g:201:SER:HB2	33:g:202:PRO:HD2	1.74	0.68
34:i:744:C:C4'	34:i:747:G:N1	2.20	0.68
1:A:143:PRO:HD3	22:V:32:ILE:HG21	1.76	0.68
2:B:19:LYS:HZ3	2:B:19:LYS:CB	2.01	0.68
3:C:48:VAL:HG23	3:C:75:GLU:CG	2.24	0.68
5:E:87:MET:O	5:E:122:LYS:HE3	1.94	0.68
8:H:107:LYS:O	8:H:109:ARG:HA	1.93	0.68
8:H:177:TYR:HE2	8:H:183:LYS:HB2	1.59	0.68
10:J:84:ILE:CD1	10:J:86:VAL:HG21	2.24	0.68
12:L:103:GLU:CD	24:X:11:ARG:CZ	2.66	0.68
14:N:16:LEU:HD22	14:N:17:PRO:CD	2.21	0.68
14:N:46:THR:O	14:N:50:ILE:HD12	1.93	0.68
19:S:26:ILE:HG22	19:S:45:LEU:CD1	2.24	0.68
22:V:59:ILE:CG2	22:V:64:GLU:HB2	2.23	0.68
26:Z:94:LYS:HZ3	26:Z:95:GLY:H	1.41	0.68
29:c:34:PHE:O	29:c:34:PHE:CG	2.47	0.68
31:e:113:ASN:O	31:e:118:ASN:N	2.27	0.68
34:i:60:A:N3	34:i:326:A:C5'	2.54	0.68
34:i:181:A:C1'	34:i:182:C:C6	2.77	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:VAL:HG12	1:A:87:VAL:CG1	2.23	0.67
2:B:148:ASN:HD22	2:B:148:ASN:H	1.42	0.67
3:C:126:MET:CE	3:C:223:LYS:NZ	2.56	0.67
4:D:43:PRO:O	4:D:44:THR:CG2	2.38	0.67
4:D:212:GLU:HG3	18:R:19:LYS:HD2	1.72	0.67
5:E:102:ILE:HD13	5:E:236:ILE:HD12	1.75	0.67
6:F:25:THR:HG21	6:F:42:LYS:CB	2.19	0.67
6:F:103:LEU:HD22	6:F:178:ILE:CD1	2.23	0.67
6:F:145:ARG:CG	29:c:48:GLY:HA2	2.21	0.67
6:F:154:LEU:HD12	6:F:154:LEU:C	2.19	0.67
7:G:135:PRO:HG2	7:G:144:LEU:HD23	1.76	0.67
8:H:85:LYS:O	8:H:85:LYS:CD	2.34	0.67
10:J:50:LEU:CD1	10:J:102:ILE:HD13	2.22	0.67
10:J:122:SER:HG	10:J:124:HIS:HB2	1.57	0.67
12:L:148:ALA:C	12:L:150:GLY:N	2.50	0.67
16:P:85:ILE:C	16:P:86:LEU:HD23	2.19	0.67
19:S:7:GLU:CA	19:S:7:GLU:OE2	2.39	0.67
19:S:47:LYS:HZ2	19:S:78:LYS:CB	1.96	0.67
19:S:51:ASP:OD2	19:S:53:THR:OG1	2.11	0.67
19:S:106:LYS:CD	19:S:109:GLU:OE1	2.42	0.67
20:T:83:GLN:NE2	20:T:85:ASN:HA	2.10	0.67
21:U:44:LYS:O	21:U:47:ASN:CA	2.42	0.67
24:X:29:LYS:HE3	24:X:34:THR:HG21	1.75	0.67
24:X:71:ARG:CG	24:X:82:THR:HG22	2.16	0.67
25:Y:57:VAL:C	25:Y:58:PHE:CD2	2.72	0.67
33:g:175:LYS:HD3	33:g:177:TRP:CE2	2.28	0.67
33:g:219:TRP:CH2	33:g:226:HIS:CD2	2.82	0.67
33:g:298:LEU:CD2	33:g:310:TRP:HB2	2.23	0.67
34:i:1820:G:C1'	36:n:42:LEU:O	2.42	0.67
36:n:78:LEU:HD23	36:n:93:LEU:CG	2.23	0.67
4:D:18:LYS:O	4:D:18:LYS:CD	2.41	0.67
4:D:74:GLN:NE2	4:D:75:LYS:CE	2.57	0.67
7:G:162:LEU:CD2	7:G:172:LYS:HZ3	2.05	0.67
8:H:52:GLU:HA	8:H:58:LYS:HA	1.76	0.67
9:I:79:ILE:CG2	9:I:103:LEU:HB2	2.24	0.67
10:J:130:ILE:CG2	10:J:135:ILE:HD11	2.21	0.67
11:K:40:VAL:HG21	11:K:45:VAL:H	1.59	0.67
11:K:59:LYS:HD2	11:K:60:GLU:H	1.57	0.67
20:T:85:ASN:ND2	20:T:91:HIS:CD2	2.63	0.67
20:T:124:THR:HG21	20:T:126:GLN:HB3	1.76	0.67
22:V:40:ASP:CB	22:V:47:ASN:HD22	2.06	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:d:10:HIS:CG	30:d:11:PRO:CD	2.76	0.67
33:g:232:GLY:CA	33:g:257:LYS:NZ	2.56	0.67
2:B:19:LYS:O	2:B:19:LYS:CG	2.42	0.67
2:B:61:GLY:O	2:B:65:ARG:NH2	2.26	0.67
3:C:158:LYS:HE2	3:C:158:LYS:C	2.18	0.67
5:E:159:THR:OG1	5:E:227:VAL:HG23	1.93	0.67
8:H:64:VAL:HG13	8:H:68:GLN:OE1	1.94	0.67
9:I:155:ASN:O	9:I:157:LYS:N	2.27	0.67
10:J:14:VAL:HG23	10:J:48:PHE:CD1	2.29	0.67
10:J:102:ILE:CG2	10:J:106:LEU:HD13	2.23	0.67
11:K:2:LEU:O	11:K:3:MET:CB	2.40	0.67
12:L:18:GLN:HE21	12:L:20:LYS:HD2	1.58	0.67
13:M:12:MET:HE2	13:M:17:ALA:C	1.73	0.67
16:P:30:TYR:O	16:P:34:MET:HG3	1.94	0.67
17:Q:50:LYS:NZ	17:Q:85:ARG:HH21	1.69	0.67
19:S:94:LYS:HB3	19:S:95:TYR:C	2.19	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:80:LEU:H	36:n:82:ARG:HB2	1.16	0.67
33:g:46:THR:C	33:g:48:ASP:H	2.00	0.67
33:g:228:TYR:CE2	33:g:230:LEU:HD11	2.29	0.67
34:i:141:A:H61	34:i:177:G:H21	1.43	0.67
34:i:359:C:N4	34:i:1725:U:OP1	2.27	0.67
34:i:1701:G:C4	34:i:1845:A:O4'	2.47	0.67
35:l:95:GLN:C	35:l:97:LEU:H	2.01	0.67
1:A:113:GLN:HE21	34:i:1347:G:H1'	1.60	0.67
2:B:30:TRP:HE1	15:O:17:LEU:HD22	1.59	0.67
4:D:211:VAL:O	18:R:38:ILE:O	2.12	0.67
5:E:43:PRO:HG2	5:E:46:ILE:HD12	1.74	0.67
6:F:28:VAL:CG2	6:F:110:GLN:HG2	2.24	0.67
6:F:67:PRO:HG2	6:F:70:GLU:HB3	1.76	0.67
6:F:113:VAL:HG13	6:F:114:ASN:N	2.09	0.67
10:J:61:LEU:CD1	10:J:94:LEU:HD13	2.22	0.67
10:J:130:ILE:HG23	10:J:135:ILE:CD1	2.17	0.67
13:M:51:VAL:HA	13:M:77:ILE:HG22	1.76	0.67
15:O:101:GLY:O	15:O:104:ARG:CB	2.43	0.67
16:P:109:PRO:O	16:P:112:ILE:HG13	1.94	0.67
17:Q:8:GLN:CG	17:Q:99:TYR:CD1	2.47	0.67
17:Q:112:LEU:CD1	17:Q:120:LEU:CD2	2.73	0.67
20:T:31:PRO:CG	20:T:102:ARG:CG	2.73	0.67
27:a:41:ILE:HG23	27:a:68:TYR:CD1	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:265:ILE:HG13	33:g:266:ILE:H	1.59	0.67
34:i:515:A:O3'	34:i:516:A:P	2.53	0.67
34:i:1186:A:H2'	34:i:1709:U:C4'	2.17	0.67
36:n:71:ILE:CG2	36:n:77:ILE:HD13	2.22	0.67
2:B:103:MET:HE1	2:B:212:VAL:HG23	1.76	0.67
2:B:179:ASN:CB	2:B:183:GLU:OE1	2.43	0.67
5:E:194:VAL:HG22	5:E:211:LYS:O	1.95	0.67
10:J:17:ARG:CG	10:J:17:ARG:O	2.29	0.67
11:K:87:PRO:C	11:K:89:ILE:H	2.03	0.67
14:N:53:ILE:HD12	28:b:52:THR:CG2	2.13	0.67
19:S:81:ASP:OD2	19:S:95:TYR:CD2	2.48	0.67
24:X:5:ARG:NH2	34:i:1155:G:OP2	2.28	0.67
27:a:87:ARG:HD2	34:i:1860:A:C6	2.29	0.67
31:e:123:PHE:O	31:e:125:LYS:N	2.27	0.67
33:g:87:LEU:HB2	33:g:101:PHE:CD1	2.30	0.67
34:i:1330:G:H1	34:i:1492:U:H3	1.43	0.67
36:n:41:MET:C	36:n:42:LEU:HD23	2.19	0.67
1:A:185:MET:O	1:A:187:GLY:N	2.28	0.67
1:A:193:HIS:ND1	1:A:194:PRO:HD3	2.09	0.67
2:B:107:ARG:CZ	15:O:133:THR:O	2.43	0.67
3:C:161:LYS:HD2	3:C:162:PRO:HD2	1.77	0.67
3:C:241:TRP:C	3:C:242:LYS:HG3	2.17	0.67
4:D:45:ARG:HG3	4:D:83:SER:O	1.95	0.67
5:E:1:MET:CE	34:i:422:G:C8	2.77	0.67
6:F:25:THR:HG21	6:F:42:LYS:HG3	0.67	0.67
6:F:76:MET:CE	6:F:169:ILE:CG2	2.61	0.67
8:H:44:ASN:HB3	8:H:68:GLN:HE22	1.60	0.67
8:H:146:VAL:O	23:W:49:GLU:HB2	1.95	0.67
10:J:66:LYS:HZ1	34:i:687:G:C1'	1.90	0.67
12:L:147:LYS:HD3	12:L:147:LYS:O	1.94	0.67
14:N:46:THR:HG1	14:N:49:GLN:CG	2.07	0.67
16:P:128:HIS:HD2	34:i:1517:A:C5'	2.07	0.67
18:R:90:ALA:HA	18:R:91:LEU:CD1	2.24	0.67
22:V:77:GLY:HA2	22:V:78:ILE:O	1.95	0.67
25:Y:29:HIS:HD1	25:Y:67:GLY:CA	2.02	0.67
35:l:47:VAL:HG21	35:l:83:ILE:CG2	2.24	0.67
36:n:61:ILE:CA	36:n:91:VAL:HB	2.23	0.67
3:C:192:ALA:O	3:C:195:PRO:CG	2.43	0.67
5:E:64:ILE:HG12	25:Y:17:LEU:HD13	1.77	0.67
6:F:141:VAL:CG1	29:c:47:LYS:NZ	2.53	0.67
7:G:145:PHE:CB	7:G:147:LEU:CD1	2.65	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:40:LEU:O	8:H:42:GLU:N	2.27	0.67
12:L:58:LYS:O	12:L:64:GLY:HA3	1.95	0.67
14:N:25:TRP:CD1	28:b:83:GLN:HB2	2.30	0.67
14:N:26:LEU:HD12	14:N:27:LYS:HE3	1.76	0.67
14:N:142:GLU:HG2	14:N:144:SER:OG	1.93	0.67
15:O:84:ARG:HA	15:O:87:GLU:HB2	1.75	0.67
18:R:21:TYR:CD2	18:R:73:LEU:HD12	2.30	0.67
23:W:104:LEU:HD12	23:W:106:THR:HG23	1.75	0.67
25:Y:114:MET:HA	25:Y:124:ASN:CB	2.25	0.67
34:i:192:U:H3	34:i:203:G:H1	1.41	0.67
1:A:84:GLN:O	1:A:88:LEU:HD23	1.93	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
4:D:74:GLN:HE21	4:D:75:LYS:CD	2.08	0.67
4:D:157:MET:HE3	4:D:187:LYS:CD	2.22	0.67
4:D:193:ASP:O	4:D:194:PRO:C	2.28	0.67
5:E:250:GLU:O	5:E:254:LYS:HG2	1.95	0.67
7:G:157:VAL:HG13	7:G:158:VAL:CA	2.25	0.67
8:H:12:ASN:CG	8:H:46:THR:OG1	2.38	0.67
9:I:182:CYS:SG	34:i:296:U:C4	2.88	0.67
12:L:82:MET:HB2	12:L:85:THR:HG22	1.74	0.67
12:L:148:ALA:C	12:L:150:GLY:H	2.01	0.67
15:O:53:ILE:HG13	15:O:53:ILE:O	1.95	0.67
16:P:49:LEU:HD13	16:P:51:ARG:NE	1.97	0.67
17:Q:113:ILE:HG13	17:Q:120:LEU:CD1	2.24	0.67
18:R:84:TYR:C	18:R:85:VAL:HG23	2.18	0.67
19:S:111:LEU:HD22	19:S:125:HIS:ND1	2.09	0.67
20:T:99:VAL:HG23	20:T:100:ALA:N	2.09	0.67
24:X:52:LEU:HD12	24:X:53:GLU:CA	2.24	0.67
29:c:6:VAL:HG13	29:c:7:GLN:N	2.09	0.67
33:g:48:ASP:OD2	33:g:49:GLU:N	2.28	0.67
34:i:125:C:H6	34:i:125:C:H5'	1.60	0.67
34:i:1517:A:C2	34:i:1518:C:C6	2.82	0.67
35:l:47:VAL:HG22	35:l:85:LEU:HD11	1.77	0.67
3:C:43:LYS:HA	3:C:43:LYS:CE	2.17	0.67
3:C:49:THR:CG2	3:C:75:GLU:HG3	2.25	0.67
3:C:123:GLY:HA2	3:C:226:PHE:CZ	2.24	0.67
3:C:262:HIS:CG	3:C:263:THR:N	2.63	0.67
4:D:2:ALA:HB1	4:D:4:GLN:N	2.09	0.67
4:D:215:ASP:O	4:D:216:GLU:HB2	1.93	0.67
6:F:79:HIS:O	6:F:81:ARG:N	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:38:ALA:CB	7:G:45:TRP:O	2.42	0.67
9:I:104:ILE:O	9:I:105:ASP:CB	2.42	0.67
9:I:141:ARG:C	9:I:143:LYS:HB3	2.19	0.67
11:K:36:ALA:O	11:K:38:LYS:N	2.28	0.67
11:K:84:HIS:HD2	13:M:27:ILE:CG1	2.07	0.67
16:P:33:LEU:HD22	16:P:87:PRO:HD3	1.16	0.67
17:Q:34:VAL:HG21	17:Q:39:LEU:CD2	2.22	0.67
17:Q:57:LEU:CD1	17:Q:115:TYR:CZ	2.60	0.67
17:Q:98:LYS:C	33:g:57:ARG:HH21	2.01	0.67
18:R:99:ASP:CB	18:R:119:VAL:HG12	2.22	0.67
19:S:39:ARG:CD	20:T:38:LYS:NZ	2.57	0.67
19:S:42:HIS:CE1	20:T:45:LEU:CD2	2.54	0.67
20:T:85:ASN:HB2	20:T:88:MET:O	1.95	0.67
20:T:112:MET:SD	20:T:127:GLY:HA2	2.34	0.67
23:W:7:LEU:HD23	23:W:34:ILE:HG12	1.74	0.67
24:X:3:LYS:O	24:X:4:CYS:O	2.13	0.67
25:Y:20:ARG:HH21	25:Y:74:MET:HE2	1.60	0.67
26:Z:103:HIS:NE2	26:Z:105:ALA:CB	2.58	0.67
32:f:95:ARG:HD3	32:f:96:LYS:N	2.10	0.67
33:g:91:ASP:OD1	33:g:93:THR:OG1	2.12	0.67
33:g:118:ARG:NH2	33:g:134:THR:CB	2.56	0.67
34:i:190:A:C2'	34:i:191:C:OP1	2.40	0.67
34:i:522:C:H2'	34:i:523:A:H5'	1.75	0.67
1:A:109:THR:O	1:A:110:ASN:HB2	1.95	0.67
2:B:73:ASP:OD2	27:a:59:PHE:CZ	2.36	0.67
2:B:115:LYS:O	2:B:118:GLN:HG3	1.95	0.67
2:B:205:TYR:CD2	2:B:206:PRO:CD	2.58	0.67
5:E:260:GLN:OE1	5:E:260:GLN:N	2.28	0.67
6:F:154:LEU:CD1	6:F:155:CYS:SG	2.83	0.67
6:F:167:LYS:CD	6:F:171:GLU:HB3	2.24	0.67
7:G:19:ASP:O	7:G:20:ASP:CB	2.43	0.67
7:G:120:ASP:O	7:G:121:ILE:HD13	1.95	0.67
9:I:7:ASN:C	9:I:9:HIS:H	2.03	0.67
9:I:118:ALA:HB2	9:I:149:TYR:CZ	2.28	0.67
12:L:71:ARG:CG	12:L:73:LEU:HG	2.24	0.67
14:N:13:GLN:CB	14:N:14:SER:O	2.43	0.67
17:Q:57:LEU:HD11	17:Q:115:TYR:OH	1.93	0.67
19:S:91:LYS:C	19:S:92:ASP:OD2	2.37	0.67
20:T:77:LYS:CD	20:T:92:PHE:CE2	2.77	0.67
24:X:108:LYS:HB2	24:X:110:HIS:CE1	2.30	0.67
33:g:88:ARG:HD3	33:g:97:THR:OG1	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:63:PHE:CE2	35:l:85:LEU:HB3	2.30	0.67
4:D:226:GLN:O	4:D:227:LYS:HB2	1.94	0.66
5:E:159:THR:CB	5:E:227:VAL:HG23	2.24	0.66
8:H:65:PRO:HG2	8:H:68:GLN:CD	2.19	0.66
8:H:140:VAL:O	14:N:18:TYR:CE2	2.47	0.66
10:J:15:THR:CG2	10:J:44:TRP:CE3	2.56	0.66
10:J:110:LEU:HD11	10:J:135:ILE:HD12	1.77	0.66
12:L:94:HIS:HB3	12:L:105:ARG:HD2	1.75	0.66
14:N:13:GLN:HB2	14:N:14:SER:O	1.95	0.66
17:Q:19:ALA:CB	17:Q:80:GLN:HE21	2.06	0.66
20:T:21:PHE:CD1	20:T:22:LEU:HD23	2.30	0.66
20:T:83:GLN:HE22	20:T:85:ASN:HA	1.59	0.66
29:c:65:ALA:C	29:c:66:ARG:HG2	2.20	0.66
33:g:238:ALA:HB3	33:g:289:LEU:CD2	2.24	0.66
34:i:848:G:H3'	34:i:849:C:C5'	2.24	0.66
1:A:183:LEU:CB	1:A:189:ILE:HD11	2.23	0.66
2:B:31:TYR:CE1	2:B:94:LYS:HA	2.29	0.66
3:C:155:TRP:CE2	23:W:97:ARG:CD	2.78	0.66
5:E:19:MET:HE1	34:i:842:G:C2'	2.20	0.66
5:E:86:PHE:CZ	5:E:87:MET:HE2	2.31	0.66
5:E:259:LYS:O	5:E:260:GLN:CD	2.38	0.66
6:F:127:ARG:O	6:F:127:ARG:HG2	1.94	0.66
8:H:75:ILE:HG23	8:H:76:GLN:N	2.10	0.66
9:I:58:LEU:HD13	34:i:1735:C:H5"	1.74	0.66
9:I:191:GLU:N	9:I:195:LEU:HB2	2.11	0.66
11:K:71:LEU:CG	11:K:76:ILE:HD13	2.25	0.66
12:L:99:TYR:HD2	12:L:99:TYR:O	1.78	0.66
13:M:49:LEU:HD13	13:M:50:CYS:H	1.58	0.66
14:N:50:ILE:O	14:N:54:LEU:HG	1.94	0.66
15:O:116:LEU:HD23	15:O:119:LEU:HD21	1.76	0.66
16:P:22:LEU:HA	16:P:25:LEU:HB2	1.76	0.66
18:R:92:ASP:O	18:R:93:GLN:CB	2.43	0.66
20:T:94:ARG:NH1	20:T:94:ARG:HG3	2.10	0.66
22:V:59:ILE:HG23	22:V:64:GLU:HB2	1.75	0.66
34:i:1054:A:O2'	35:l:44:LEU:HD13	1.90	0.66
36:n:110:PRO:C	36:n:112:HIS:H	2.02	0.66
1:A:141:ASN:C	22:V:32:ILE:CD1	2.68	0.66
2:B:188:LEU:HD22	2:B:212:VAL:HG21	1.77	0.66
3:C:87:LEU:HG	3:C:116:GLY:C	2.20	0.66
4:D:209:SER:HG	18:R:40:ILE:HB	1.61	0.66
4:D:216:GLU:O	4:D:217:ILE:CG1	2.43	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:217:ILE:CG2	4:D:218:LEU:N	2.57	0.66
5:E:48:LEU:HD11	5:E:70:ILE:CD1	2.26	0.66
5:E:102:ILE:CD1	5:E:236:ILE:HD12	2.24	0.66
7:G:16:ILE:HG21	7:G:45:TRP:CH2	2.30	0.66
7:G:162:LEU:HG	7:G:170:ARG:CB	2.25	0.66
9:I:142:SER:CB	9:I:143:LYS:HZ2	2.06	0.66
10:J:15:THR:HG21	10:J:44:TRP:HZ3	1.58	0.66
16:P:126:VAL:HG12	16:P:127:LYS:H	0.60	0.66
25:Y:10:ARG:NE	25:Y:24:VAL:CG1	2.40	0.66
34:i:1186:A:C2'	34:i:1709:U:C4'	2.53	0.66
34:i:1191:A:H2'	34:i:1192:A:C8	2.31	0.66
2:B:48:LEU:HD12	2:B:48:LEU:N	1.98	0.66
3:C:84:GLY:HA2	3:C:87:LEU:CB	2.16	0.66
4:D:3:VAL:O	4:D:3:VAL:CG1	2.37	0.66
5:E:9:LEU:HB2	5:E:30:ARG:HB2	1.76	0.66
7:G:131:ARG:CD	7:G:131:ARG:HG3	2.15	0.66
9:I:10:LYS:HG3	9:I:11:ARG:H	1.60	0.66
9:I:108:PRO:O	9:I:111:GLN:HG2	1.95	0.66
10:J:124:HIS:O	10:J:125:HIS:C	2.38	0.66
10:J:131:ARG:HH11	10:J:143:ASN:ND2	1.93	0.66
16:P:77:LYS:C	16:P:78:THR:HG23	2.20	0.66
17:Q:50:LYS:HA	17:Q:53:GLU:CG	2.26	0.66
17:Q:50:LYS:CE	17:Q:117:ARG:HD2	2.25	0.66
17:Q:134:GLY:HA2	17:Q:141:TYR:CD1	2.30	0.66
19:S:82:TRP:CD1	34:i:1562:G:C4	2.83	0.66
20:T:42:HIS:CE1	20:T:93:SER:HB3	2.30	0.66
24:X:52:LEU:CG	24:X:71:ARG:HB3	2.24	0.66
27:a:7:ASN:O	27:a:7:ASN:OD1	2.13	0.66
32:f:126:CYS:O	32:f:128:ALA:N	2.28	0.66
33:g:203:ASP:OD1	33:g:203:ASP:N	2.28	0.66
34:i:1206:G:C2	34:i:1207:G:O4'	2.36	0.66
4:D:23:GLU:HG2	11:K:64:TRP:HE1	1.59	0.66
4:D:202:LYS:CB	4:D:203:PRO:HD3	2.25	0.66
4:D:216:GLU:O	4:D:217:ILE:HG13	1.94	0.66
5:E:130:PHE:CD2	5:E:138:HIS:CE1	2.84	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
6:F:145:ARG:CG	29:c:48:GLY:HA3	2.23	0.66
8:H:60:ILE:CG2	8:H:92:VAL:HG22	2.25	0.66
11:K:14:LEU:HD21	11:K:35:LEU:CD1	2.26	0.66
11:K:18:GLU:O	11:K:92:ALA:HB2	1.89	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:100:ASN:OD1	12:L:100:ASN:N	2.28	0.66
13:M:28:HIS:HD2	13:M:115:GLY:HA3	1.53	0.66
16:P:13:ARG:C	16:P:14:LYS:CG	2.68	0.66
16:P:22:LEU:HD12	16:P:23:ASP:N	2.10	0.66
17:Q:98:LYS:HE3	17:Q:99:TYR:CE2	2.30	0.66
20:T:85:ASN:O	20:T:88:MET:CE	2.44	0.66
24:X:52:LEU:CD1	24:X:53:GLU:CG	2.74	0.66
26:Z:48:VAL:HA	26:Z:83:LEU:HD12	1.76	0.66
26:Z:99:LEU:HD11	26:Z:102:LYS:CE	2.23	0.66
31:e:81:ALA:HB1	36:n:82:ARG:NH1	2.03	0.66
32:f:85:TYR:O	32:f:86:THR:HG22	1.94	0.66
33:g:172:LYS:NZ	33:g:192:THR:CG2	2.53	0.66
33:g:173:LEU:HD21	33:g:189:ILE:HG23	1.78	0.66
33:g:246:TYR:N	33:g:246:TYR:CD1	2.63	0.66
34:i:198:U:H6	34:i:198:U:O5'	1.79	0.66
1:A:140:VAL:O	1:A:140:VAL:CG1	2.43	0.66
3:C:123:GLY:CA	3:C:226:PHE:CZ	2.76	0.66
3:C:245:VAL:O	3:C:246:PHE:HB2	1.96	0.66
4:D:163:PRO:HA	4:D:166:TYR:HD2	1.60	0.66
6:F:42:LYS:CB	6:F:46:ALA:N	2.59	0.66
6:F:141:VAL:CB	29:c:47:LYS:HE3	2.16	0.66
7:G:4:ASN:HA	7:G:15:LEU:CD2	2.24	0.66
7:G:50:VAL:HG11	7:G:111:LEU:HD22	1.73	0.66
8:H:12:ASN:HD22	8:H:46:THR:CB	2.06	0.66
9:I:85:ALA:HB1	12:L:8:ARG:CD	2.26	0.66
10:J:38:ARG:HA	31:e:105:ARG:CB	2.24	0.66
10:J:171:GLY:O	10:J:174:LYS:N	2.29	0.66
14:N:125:LEU:CD2	14:N:129:TYR:CZ	2.78	0.66
17:Q:129:SER:O	17:Q:131:LYS:NZ	2.28	0.66
19:S:46:ARG:NE	20:T:50:GLU:CG	2.58	0.66
23:W:20:ARG:NH1	34:i:1135:C:H1'	2.11	0.66
34:i:226:A:O2'	34:i:782:G:O3'	2.14	0.66
34:i:1721:G:H1	34:i:1802:U:H3	1.43	0.66
1:A:172:GLY:HA3	1:A:203:PHE:CE1	2.31	0.66
1:A:191:ARG:CG	1:A:193:HIS:HB2	2.24	0.66
2:B:25:PHE:CG	15:O:88:LEU:HD22	2.30	0.66
4:D:53:THR:HG21	4:D:91:VAL:HB	1.78	0.66
4:D:219:PRO:O	4:D:220:THR:O	2.12	0.66
7:G:32:MET:CE	7:G:100:CYS:O	2.43	0.66
7:G:138:ALA:HB2	7:G:179:LEU:HB2	1.77	0.66
9:I:112:TRP:CH2	9:I:117:TYR:OH	2.46	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:36:ALA:O	11:K:38:LYS:HD2	1.95	0.66
14:N:92:ILE:CG2	14:N:150:VAL:CG2	2.72	0.66
15:O:62:VAL:HG21	15:O:72:TYR:CZ	2.30	0.66
16:P:100:LYS:HG2	34:i:1236:A:H61	1.61	0.66
20:T:11:GLN:CD	20:T:62:ARG:NE	2.53	0.66
20:T:31:PRO:CB	20:T:33:TRP:CD2	2.77	0.66
20:T:42:HIS:HE1	20:T:93:SER:CB	2.08	0.66
20:T:49:ASP:OD2	20:T:51:ASN:HB2	1.96	0.66
23:W:37:PHE:HD2	23:W:41:MET:HE2	1.60	0.66
25:Y:54:VAL:CG2	25:Y:79:LEU:HD23	2.23	0.66
25:Y:114:MET:HA	25:Y:124:ASN:HD22	1.43	0.66
31:e:81:ALA:CB	36:n:82:ARG:CG	2.73	0.66
32:f:103:LEU:HD22	32:f:106:TYR:CE2	2.31	0.66
35:l:35:ILE:HD13	35:l:89:GLN:H	1.59	0.66
2:B:31:TYR:HE1	2:B:94:LYS:N	1.93	0.66
2:B:87:ILE:HG21	2:B:101:HIS:CG	2.31	0.66
2:B:113:MET:HE3	2:B:209:ASP:CB	2.24	0.66
3:C:87:LEU:HD23	3:C:87:LEU:C	2.21	0.66
3:C:198:LEU:HD13	3:C:225:THR:HG23	1.77	0.66
5:E:153:LEU:CD1	5:E:172:PHE:CE2	2.77	0.66
6:F:14:THR:CB	17:Q:56:LEU:CG	2.73	0.66
6:F:142:SER:CB	29:c:50:VAL:CG2	2.73	0.66
7:G:74:ARG:HD3	7:G:94:ARG:CD	2.22	0.66
8:H:51:ILE:CD1	8:H:176:VAL:HA	2.26	0.66
9:I:142:SER:HB2	9:I:143:LYS:HZ2	1.60	0.66
10:J:134:HIS:CE1	34:i:552:U:OP1	2.48	0.66
10:J:177:ASN:HA	10:J:180:LYS:HB3	1.76	0.66
14:N:4:MET:HE2	14:N:124:ARG:HH22	1.61	0.66
17:Q:39:LEU:O	17:Q:42:ILE:HD12	1.96	0.66
23:W:7:LEU:HD12	23:W:78:ARG:HH21	1.60	0.66
23:W:17:ALA:CB	23:W:25:VAL:CG1	2.74	0.66
24:X:56:GLY:HA3	36:n:84:TYR:CD1	2.31	0.66
25:Y:111:LYS:NZ	25:Y:115:LYS:NZ	2.43	0.66
26:Z:85:ARG:CB	26:Z:85:ARG:HH11	2.03	0.66
27:a:22:ARG:NH2	27:a:27:ALA:O	2.28	0.66
28:b:81:ARG:HB2	28:b:82:LYS:HD3	1.77	0.66
34:i:195:C:O5'	34:i:195:C:H6	1.78	0.66
34:i:521:A:C2	34:i:544:A:N7	2.64	0.66
34:i:835:C:H2'	34:i:837:G:H5'	1.78	0.66
34:i:921:G:H1	34:i:1013:U:H3	1.43	0.66
34:i:1654:U:H3'	34:i:1655:C:O2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:17:LYS:CE	1:A:17:LYS:H	2.08	0.66
2:B:63:LYS:O	2:B:63:LYS:HD3	1.95	0.66
2:B:87:ILE:CG2	2:B:101:HIS:CD2	2.77	0.66
4:D:16:ILE:HG21	30:d:22:ARG:HH12	1.60	0.66
4:D:212:GLU:HG2	18:R:19:LYS:NZ	2.11	0.66
5:E:117:GLU:O	5:E:119:ALA:N	2.26	0.66
5:E:129:ILE:CB	5:E:139:LEU:CD2	2.73	0.66
5:E:152:PRO:HD2	7:G:212:LEU:HD21	1.78	0.66
10:J:29:LEU:HD22	31:e:112:TYR:CD1	2.31	0.66
10:J:82:VAL:CG1	10:J:92:MET:HE3	2.26	0.66
10:J:171:GLY:C	10:J:173:VAL:N	2.48	0.66
15:O:129:ILE:HG13	27:a:65:PRO:CD	2.26	0.66
17:Q:115:TYR:HD2	17:Q:116:ASP:H	1.44	0.66
25:Y:54:VAL:CG1	25:Y:76:TYR:C	2.68	0.66
25:Y:87:PRO:O	25:Y:87:PRO:HD2	1.95	0.66
32:f:106:TYR:OH	32:f:131:PHE:HE2	1.76	0.66
32:f:139:HIS:HB3	32:f:150:PHE:O	1.96	0.66
35:l:46:THR:HG23	35:l:84:GLN:CG	2.25	0.66
1:A:141:ASN:HA	22:V:32:ILE:CD1	2.25	0.66
2:B:28:LYS:HE2	15:O:51:GLU:OE2	1.95	0.66
3:C:234:SER:C	22:V:23:ILE:HD13	2.18	0.66
4:D:145:GLN:HG3	4:D:146:ARG:N	2.10	0.66
4:D:197:LYS:CB	4:D:198:ILE:HG12	2.11	0.66
5:E:11:ARG:O	5:E:12:VAL:HB	1.96	0.66
6:F:42:LYS:CB	6:F:46:ALA:H	2.09	0.66
7:G:163:ASN:O	7:G:164:LYS:HB3	1.94	0.66
10:J:78:LEU:HD13	10:J:92:MET:O	1.96	0.66
11:K:40:VAL:CG2	11:K:41:PRO:HD3	2.24	0.66
11:K:83:LEU:HB2	11:K:85:LEU:HG	1.76	0.66
14:N:129:TYR:O	14:N:134:VAL:HG13	1.96	0.66
15:O:41:PHE:CE1	15:O:57:THR:HG21	2.31	0.66
16:P:62:LYS:C	16:P:65:LYS:HG2	2.14	0.66
16:P:98:ASN:HD21	16:P:120:SER:HB2	1.61	0.66
17:Q:72:VAL:HG23	17:Q:84:ILE:HG22	1.77	0.66
19:S:58:GLU:OE2	26:Z:49:LEU:HD13	1.96	0.66
21:U:56:MET:HE1	21:U:88:LEU:HD23	1.77	0.66
25:Y:21:LYS:HD3	25:Y:21:LYS:H	1.61	0.66
33:g:87:LEU:HD23	33:g:108:VAL:HG11	1.78	0.66
33:g:191:HIS:NE2	33:g:195:LEU:HD21	2.11	0.66
36:n:38:VAL:CG2	36:n:77:ILE:HD11	2.25	0.66
36:n:62:ARG:NE	36:n:92:ILE:HG23	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:75:SER:HB2	1:A:122:LEU:HD23	1.77	0.65
1:A:112:ILE:CG2	34:i:1346:U:O4'	2.43	0.65
2:B:116:LYS:O	2:B:117:TRP:HB2	1.95	0.65
3:C:147:ILE:O	22:V:27:LYS:HE3	1.96	0.65
4:D:48:ILE:HG23	4:D:86:LEU:HG	1.75	0.65
5:E:191:ARG:HD3	5:E:245:ARG:CB	2.25	0.65
6:F:44:LYS:HD2	6:F:44:LYS:C	2.10	0.65
6:F:154:LEU:HD12	6:F:155:CYS:CA	2.25	0.65
10:J:118:GLY:O	10:J:120:ALA:N	2.29	0.65
16:P:98:ASN:OD1	16:P:120:SER:CB	2.43	0.65
16:P:98:ASN:OD1	16:P:120:SER:OG	2.14	0.65
17:Q:30:GLY:CA	17:Q:66:VAL:O	2.40	0.65
20:T:124:THR:HG22	20:T:127:GLY:H	1.61	0.65
25:Y:99:LYS:O	25:Y:99:LYS:NZ	2.29	0.65
25:Y:114:MET:CE	25:Y:125:VAL:CG2	2.73	0.65
26:Z:99:LEU:CD1	26:Z:102:LYS:NZ	2.59	0.65
31:e:81:ALA:HB3	36:n:82:ARG:CG	2.21	0.65
33:g:145:GLU:OE1	33:g:145:GLU:N	2.28	0.65
33:g:194:TYR:OH	33:g:235:ILE:HD11	1.95	0.65
35:l:46:THR:CA	35:l:84:GLN:HA	2.25	0.65
1:A:193:HIS:CB	1:A:194:PRO:HD2	2.26	0.65
2:B:25:PHE:CD2	15:O:88:LEU:HD21	2.30	0.65
2:B:49:VAL:HG22	2:B:65:ARG:NH1	2.11	0.65
2:B:67:PHE:CD1	15:O:47:LEU:HB2	2.30	0.65
2:B:110:MET:HE1	2:B:213:ARG:HD2	1.78	0.65
3:C:50:LYS:O	3:C:258:LEU:HD22	1.94	0.65
3:C:57:ASP:O	3:C:58:MET:HB2	1.94	0.65
5:E:192:ILE:CD1	5:E:238:LEU:HD22	2.25	0.65
6:F:115:ALA:CB	6:F:177:LEU:HD22	2.26	0.65
10:J:130:ILE:HA	10:J:135:ILE:CD1	2.26	0.65
11:K:3:MET:HG2	11:K:4:PRO:O	1.97	0.65
12:L:40:ILE:HG21	12:L:44:PHE:HB2	1.78	0.65
16:P:41:GLN:HA	16:P:84:ILE:HD11	1.78	0.65
17:Q:140:ARG:HB3	34:i:1639:C:H4'	1.78	0.65
18:R:7:LYS:HB2	18:R:11:LYS:HE3	1.77	0.65
18:R:77:GLU:HG3	18:R:80:ARG:HH21	1.61	0.65
18:R:100:PRO:CG	18:R:119:VAL:CG2	2.73	0.65
19:S:46:ARG:NE	20:T:50:GLU:HG2	2.10	0.65
22:V:74:LYS:HG3	22:V:75:SER:H	1.58	0.65
25:Y:62:THR:CB	25:Y:69:THR:HG22	2.27	0.65
33:g:12:LYS:CD	33:g:13:GLY:N	2.51	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:143:GLN:HG3	33:g:144:ASP:HB2	1.78	0.65
33:g:173:LEU:HD22	33:g:189:ILE:HA	1.76	0.65
33:g:175:LYS:HD2	33:g:177:TRP:CZ2	2.30	0.65
34:i:1266:G:N2	34:i:1508:C:O2	2.29	0.65
34:i:1826:A:HO3'	34:i:1834:U:C5'	2.08	0.65
34:i:1843:G:O5'	35:l:65:LYS:CD	2.44	0.65
2:B:147:ASN:O	2:B:149:GLN:N	2.29	0.65
3:C:55:VAL:CG1	3:C:82:PHE:CD2	2.74	0.65
3:C:61:LYS:HA	3:C:82:PHE:HE1	1.61	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:74:GLY:C	5:E:75:LYS:CG	2.70	0.65
5:E:98:ASN:ND2	5:E:114:ILE:HG13	2.12	0.65
6:F:20:PHE:HB3	6:F:23:TRP:HB2	1.79	0.65
6:F:91:ARG:CD	17:Q:46:THR:HG21	2.26	0.65
6:F:176:GLU:CD	6:F:187:SER:OG	2.40	0.65
7:G:211:LYS:C	7:G:215:LYS:HD3	2.21	0.65
9:I:21:TYR:CE1	34:i:423:A:H5'	2.32	0.65
12:L:49:GLU:HB2	12:L:116:CYS:SG	2.36	0.65
14:N:16:LEU:CD2	14:N:17:PRO:CD	2.74	0.65
14:N:76:LYS:HD2	14:N:77:SER:N	2.10	0.65
17:Q:8:GLN:HG2	17:Q:99:TYR:HD1	1.53	0.65
19:S:7:GLU:OE2	19:S:7:GLU:N	2.29	0.65
24:X:52:LEU:HD21	24:X:71:ARG:HD3	1.78	0.65
28:b:81:ARG:N	28:b:82:LYS:HB2	2.09	0.65
33:g:79:LEU:CD2	33:g:89:LEU:HD13	2.27	0.65
33:g:119:GLN:NE2	33:g:131:LEU:HG	2.12	0.65
36:n:99:GLU:O	36:n:103:LEU:HD23	1.96	0.65
1:A:39:TYR:N	1:A:50:ASN:ND2	2.44	0.65
1:A:159:ILE:HG22	1:A:159:ILE:O	1.95	0.65
2:B:178:THR:O	2:B:179:ASN:HB2	1.95	0.65
4:D:196:GLY:O	4:D:199:GLY:CA	2.44	0.65
5:E:259:LYS:NZ	5:E:260:GLN:OE1	2.29	0.65
6:F:123:GLU:HG3	29:c:59:LEU:HD11	1.74	0.65
7:G:32:MET:O	7:G:33:ALA:CB	2.44	0.65
9:I:145:ILE:HA	9:I:148:LYS:HD3	1.77	0.65
10:J:165:TYR:OH	34:i:551:A:H5'	1.97	0.65
15:O:119:LEU:CD1	15:O:126:ILE:HD11	2.26	0.65
16:P:49:LEU:HD13	16:P:51:ARG:NH2	2.11	0.65
18:R:32:LYS:HE2	18:R:33:ARG:NE	2.12	0.65
18:R:91:LEU:CD1	18:R:91:LEU:N	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:39:ARG:CD	20:T:38:LYS:HE2	2.15	0.65
33:g:88:ARG:HG2	33:g:97:THR:HG21	1.77	0.65
34:i:903:G:C6	34:i:904:A:C6	2.84	0.65
34:i:1820:G:H1'	36:n:42:LEU:O	1.96	0.65
35:l:31:ILE:HD12	35:l:50:ILE:HD13	1.79	0.65
1:A:89:LYS:HB3	1:A:202:TYR:CZ	2.31	0.65
2:B:98:THR:O	2:B:232:HIS:CE1	2.48	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:59:LEU:CD1	4:D:60:GLY:O	2.44	0.65
5:E:86:PHE:CZ	5:E:182:MET:HE1	2.31	0.65
6:F:102:LEU:HD13	26:Z:110:THR:HG22	1.78	0.65
6:F:141:VAL:HG11	29:c:47:LYS:HZ1	1.60	0.65
8:H:6:ALA:CB	8:H:10:LYS:NZ	2.59	0.65
10:J:34:GLU:HB2	10:J:35:TYR:HD2	1.61	0.65
10:J:37:LEU:C	31:e:105:ARG:CG	2.65	0.65
11:K:2:LEU:CG	11:K:3:MET:H	2.07	0.65
12:L:118:ARG:O	12:L:119:ASP:CB	2.43	0.65
13:M:20:GLU:OE1	13:M:20:GLU:HA	1.96	0.65
13:M:71:GLU:O	13:M:72:HIS:C	2.38	0.65
13:M:89:VAL:HG12	13:M:90:GLY:N	2.11	0.65
16:P:10:ARG:HH21	16:P:11:THR:HG21	1.61	0.65
20:T:77:LYS:HA	20:T:94:ARG:CG	2.26	0.65
22:V:66:ASP:O	22:V:67:ASP:C	2.30	0.65
24:X:60:LYS:HE2	24:X:116:PRO:CB	2.26	0.65
24:X:93:PHE:O	24:X:140:ARG:NH1	2.30	0.65
28:b:12:PRO:HD2	28:b:13:GLU:HG3	1.78	0.65
29:c:44:ARG:CZ	29:c:58:LEU:HD22	2.27	0.65
31:e:120:VAL:O	31:e:121:PRO:CB	2.40	0.65
34:i:185:C:C4	34:i:211:U:O4	2.49	0.65
34:i:239:U:O2'	34:i:240:C:H5'	1.97	0.65
36:n:79:VAL:HA	36:n:90:ASP:O	1.97	0.65
2:B:28:LYS:CD	15:O:51:GLU:OE2	2.45	0.65
2:B:49:VAL:CG2	2:B:65:ARG:NH1	2.59	0.65
2:B:49:VAL:CG2	2:B:65:ARG:HH12	2.09	0.65
2:B:66:VAL:HG21	2:B:87:ILE:CG2	2.02	0.65
2:B:70:SER:CB	15:O:128:ARG:HD3	2.27	0.65
2:B:77:ASP:O	2:B:79:VAL:HG13	1.97	0.65
2:B:93:GLY:C	2:B:94:LYS:CG	2.69	0.65
2:B:113:MET:HE3	2:B:211:PHE:HZ	1.61	0.65
2:B:148:ASN:H	2:B:148:ASN:ND2	1.93	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:51:LEU:HD23	3:C:60:ILE:HD12	1.79	0.65
4:D:123:LEU:HD21	4:D:154:ASP:OD2	1.97	0.65
5:E:71:LYS:HE3	5:E:75:LYS:HA	1.78	0.65
5:E:130:PHE:HB2	5:E:138:HIS:CD2	2.31	0.65
8:H:117:PRO:HG2	8:H:120:ARG:NE	2.11	0.65
8:H:143:ARG:HE	23:W:53:ILE:CG2	1.99	0.65
8:H:143:ARG:NE	23:W:53:ILE:HG12	2.10	0.65
9:I:119:LEU:O	9:I:120:PRO:O	2.15	0.65
11:K:53:LYS:HG3	11:K:54:SER:N	2.11	0.65
12:L:102:PHE:N	12:L:102:PHE:HD1	1.95	0.65
16:P:98:ASN:OD1	16:P:120:SER:HB2	1.97	0.65
17:Q:15:ARG:HH12	17:Q:20:THR:HG21	1.61	0.65
17:Q:116:ASP:CG	17:Q:117:ARG:H	2.04	0.65
19:S:34:LYS:CA	19:S:103:LEU:CD2	2.73	0.65
20:T:90:SER:C	20:T:91:HIS:HD2	2.04	0.65
21:U:67:LYS:O	21:U:68:THR:C	2.34	0.65
23:W:42:MET:HE2	23:W:48:GLY:O	1.96	0.65
24:X:90:CYS:HA	24:X:93:PHE:HD2	1.61	0.65
26:Z:99:LEU:HD21	26:Z:109:TYR:HE1	1.47	0.65
27:a:94:ASP:OD1	27:a:94:ASP:N	2.29	0.65
28:b:1:MET:HA	28:b:1:MET:HE3	1.79	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
29:c:47:LYS:HG2	29:c:48:GLY:N	2.11	0.65
31:e:113:ASN:HD22	34:i:542:G:P	2.15	0.65
33:g:57:ARG:HD2	33:g:94:THR:C	2.22	0.65
34:i:127:C:OP1	34:i:180:G:C2	2.50	0.65
36:n:62:ARG:N	36:n:91:VAL:O	2.30	0.65
3:C:69:PHE:CZ	3:C:247:THR:CG2	2.79	0.65
4:D:112:GLY:H	4:D:113:LEU:CD1	2.08	0.65
7:G:142:ARG:CD	7:G:147:LEU:HB3	2.26	0.65
8:H:29:GLU:CD	8:H:86:LYS:HE3	2.20	0.65
10:J:109:ARG:O	10:J:110:LEU:C	2.34	0.65
10:J:114:VAL:HG12	10:J:119:LEU:O	1.96	0.65
11:K:4:PRO:CG	11:K:7:ASN:ND2	2.60	0.65
13:M:13:ASP:C	13:M:16:THR:HB	2.13	0.65
13:M:51:VAL:HB	13:M:77:ILE:HG21	1.78	0.65
18:R:98:VAL:HG12	18:R:99:ASP:N	2.10	0.65
18:R:122:PRO:HB3	18:R:123:THR:HG23	1.56	0.65
19:S:39:ARG:HH22	20:T:38:LYS:HG2	1.60	0.65
19:S:54:LYS:N	19:S:54:LYS:CB	2.57	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:19:ARG:CG	21:U:92:HIS:CE1	2.76	0.65
25:Y:48:TYR:C	25:Y:50:THR:HG23	2.21	0.65
25:Y:54:VAL:HG23	25:Y:79:LEU:HD21	1.78	0.65
1:A:186:ARG:O	1:A:186:ARG:NE	2.30	0.65
2:B:25:PHE:CG	15:O:88:LEU:HD13	2.32	0.65
3:C:255:THR:CG2	3:C:256:ASP:OD1	2.45	0.65
4:D:157:MET:HE3	4:D:187:LYS:HD2	1.78	0.65
4:D:216:GLU:O	4:D:217:ILE:HD12	1.97	0.65
5:E:165:GLU:OE2	5:E:165:GLU:N	2.30	0.65
8:H:163:GLN:O	8:H:166:VAL:HG12	1.97	0.65
10:J:61:LEU:HD23	10:J:98:LEU:HD11	1.74	0.65
10:J:66:LYS:HZ3	34:i:687:G:C2'	1.78	0.65
11:K:71:LEU:CD2	11:K:76:ILE:HD11	2.13	0.65
16:P:5:GLU:O	16:P:6:GLN:HB2	1.97	0.65
33:g:143:GLN:NE2	33:g:144:ASP:CA	2.56	0.65
1:A:196:GLU:HA	1:A:196:GLU:OE2	1.97	0.65
2:B:76:ASN:ND2	2:B:76:ASN:O	2.29	0.65
2:B:149:GLN:O	18:R:124:VAL:CG2	2.45	0.65
2:B:150:ILE:HG23	2:B:150:ILE:O	1.97	0.65
3:C:117:ASP:CG	3:C:119:ASN:H	2.05	0.65
3:C:146:SER:O	3:C:148:VAL:HG13	1.97	0.65
4:D:10:LYS:HE2	4:D:14:ASP:OD2	1.94	0.65
4:D:179:GLN:O	4:D:179:GLN:NE2	2.30	0.65
5:E:259:LYS:O	5:E:260:GLN:CG	2.45	0.65
6:F:28:VAL:HG13	6:F:110:GLN:OE1	1.97	0.65
9:I:167:GLN:HG3	9:I:168:GLN:N	2.12	0.65
10:J:29:LEU:HD22	31:e:112:TYR:CB	2.27	0.65
10:J:137:VAL:HG22	10:J:157:ILE:HG12	1.79	0.65
10:J:158:ASP:OD1	10:J:159:PHE:N	2.27	0.65
10:J:170:PRO:HD2	10:J:175:ARG:HH11	1.61	0.65
11:K:16:PHE:HE2	11:K:79:LEU:CA	2.09	0.65
11:K:38:LYS:O	11:K:39:ASN:CB	2.45	0.65
12:L:71:ARG:HG2	12:L:73:LEU:HG	1.79	0.65
13:M:70:ALA:CB	13:M:71:GLU:OE2	2.41	0.65
13:M:124:ILE:CA	13:M:127:TYR:CE2	2.80	0.65
16:P:10:ARG:NH2	16:P:11:THR:HG21	2.10	0.65
17:Q:98:LYS:HA	33:g:57:ARG:HH21	1.61	0.65
18:R:99:ASP:HB3	18:R:119:VAL:CG1	2.26	0.65
20:T:85:ASN:HD21	20:T:91:HIS:CD2	2.14	0.65
21:U:71:GLY:O	21:U:72:GLU:C	2.37	0.65
33:g:26:GLN:CB	33:g:74:ASP:HA	2.23	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:282:GLU:CG	33:g:283:PRO:HD3	2.07	0.65
34:i:428:G:O2'	34:i:1794:A:O3'	2.13	0.65
34:i:490:A:O2'	34:i:491:C:H5'	1.97	0.65
35:l:47:VAL:H	35:l:83:ILE:H	1.44	0.65
36:n:62:ARG:HB2	36:n:92:ILE:CA	2.27	0.65
1:A:45:GLY:C	1:A:46:ILE:HG12	2.22	0.65
2:B:26:SER:C	2:B:27:LYS:HG3	2.22	0.65
2:B:42:ARG:HH22	2:B:232:HIS:HA	1.60	0.65
3:C:54:LEU:HD22	3:C:254:PHE:HB3	1.79	0.65
3:C:164:THR:HG23	3:C:165:VAL:N	2.12	0.65
4:D:55:THR:CA	4:D:58:VAL:HG22	2.27	0.65
5:E:182:MET:CE	5:E:228:ILE:HG21	2.26	0.65
6:F:42:LYS:HE3	6:F:43:GLU:CA	2.27	0.65
7:G:3:LEU:HD11	7:G:41:LEU:HD11	1.76	0.65
7:G:64:LYS:HE2	7:G:67:VAL:CG1	2.26	0.65
7:G:162:LEU:HD22	7:G:172:LYS:NZ	2.12	0.65
7:G:212:LEU:HA	7:G:215:LYS:HD3	1.78	0.65
8:H:122:LEU:HD11	8:H:123:THR:CG2	2.26	0.65
14:N:94:LYS:HG2	14:N:118:ILE:HD13	1.78	0.65
19:S:46:ARG:HH12	20:T:50:GLU:HA	1.62	0.65
19:S:88:LYS:H	19:S:95:TYR:HD1	1.42	0.65
20:T:31:PRO:CG	20:T:33:TRP:CZ2	2.79	0.65
24:X:139:GLU:CD	24:X:139:GLU:N	2.55	0.65
28:b:81:ARG:HB2	28:b:82:LYS:CD	2.26	0.65
32:f:86:THR:OG1	32:f:87:THR:N	2.29	0.65
33:g:143:GLN:HG3	33:g:144:ASP:CB	2.27	0.65
34:i:841:G:H3'	34:i:842:G:C8	2.31	0.65
34:i:1750:C:O2'	34:i:1751:G:H5'	1.96	0.65
35:l:35:ILE:HD13	35:l:87:GLY:O	1.97	0.65
1:A:141:ASN:O	22:V:32:ILE:CG2	2.44	0.64
2:B:32:ASP:OD1	2:B:46:LYS:CD	2.45	0.64
4:D:201:LYS:O	4:D:202:LYS:HB2	1.96	0.64
5:E:72:ILE:CD1	5:E:82:TYR:CD2	2.80	0.64
5:E:98:ASN:ND2	5:E:114:ILE:CD1	2.61	0.64
10:J:12:THR:C	10:J:48:PHE:CE2	2.75	0.64
10:J:91:LYS:CA	10:J:96:TYR:CG	2.80	0.64
12:L:10:TYR:CD2	12:L:12:LYS:HE3	2.28	0.64
14:N:89:TYR:CE1	14:N:150:VAL:HG13	2.32	0.64
14:N:139:TRP:CZ3	14:N:141:TYR:N	2.65	0.64
15:O:43:HIS:CG	15:O:43:HIS:O	2.47	0.64
16:P:75:VAL:HG12	16:P:76:VAL:N	2.10	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:54:PRO:CG	17:Q:88:ILE:CD1	2.70	0.64
19:S:8:LYS:CA	26:Z:49:LEU:CD2	2.74	0.64
20:T:76:THR:C	20:T:95:GLY:H	1.98	0.64
27:a:21:ILE:HG22	27:a:22:ARG:N	2.10	0.64
30:d:10:HIS:ND1	30:d:10:HIS:C	2.55	0.64
31:e:119:VAL:CA	31:e:121:PRO:CD	2.66	0.64
31:e:125:LYS:C	31:e:126:LYS:CD	2.54	0.64
33:g:261:LEU:HD22	33:g:261:LEU:N	2.12	0.64
34:i:1361:G:H2'	34:i:1362:G:C8	2.32	0.64
36:n:33:GLN:NE2	36:n:81:LEU:O	2.29	0.64
1:A:176:TRP:HE3	1:A:177:MET:SD	2.16	0.64
2:B:31:TYR:CE2	2:B:62:LEU:HD22	2.32	0.64
2:B:150:ILE:CD1	18:R:126:MET:HB2	2.26	0.64
3:C:241:TRP:CD1	23:W:68:ARG:HD3	2.32	0.64
7:G:213:LEU:HD12	7:G:213:LEU:C	2.21	0.64
10:J:84:ILE:CD1	10:J:86:VAL:CG2	2.75	0.64
12:L:17:PHE:CD1	12:L:18:GLN:O	2.49	0.64
15:O:30:VAL:CG2	15:O:32:HIS:CD2	2.80	0.64
15:O:37:PHE:O	15:O:38:ASN:CB	2.46	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:52:LEU:HD11	24:X:71:ARG:CB	2.27	0.64
1:A:7:VAL:HG22	22:V:43:THR:HG21	1.79	0.64
1:A:113:GLN:NE2	34:i:1347:G:H1'	2.13	0.64
5:E:133:THR:O	5:E:134:LYS:CB	2.46	0.64
7:G:102:VAL:HG22	7:G:109:LEU:HD21	1.79	0.64
7:G:185:LEU:HB3	7:G:189:ARG:NH1	2.11	0.64
9:I:141:ARG:HD2	9:I:144:LYS:CB	1.99	0.64
9:I:194:GLU:HG2	12:L:10:TYR:CD2	2.32	0.64
10:J:125:HIS:HA	34:i:516:A:O2'	1.97	0.64
11:K:50:GLN:O	11:K:53:LYS:HG2	1.98	0.64
13:M:44:LYS:HZ3	32:f:127:GLY:HA3	1.62	0.64
14:N:139:TRP:CE3	14:N:140:LYS:CA	2.80	0.64
16:P:56:LEU:HD11	16:P:80:LEU:HD12	1.76	0.64
25:Y:54:VAL:HG13	25:Y:76:TYR:CA	2.27	0.64
25:Y:101:LYS:O	25:Y:102:THR:CB	2.44	0.64
26:Z:103:HIS:O	26:Z:104:ARG:C	2.35	0.64
33:g:5:MET:CE	33:g:312:VAL:CG2	2.71	0.64
3:C:237:THR:OG1	3:C:240:LEU:HD13	1.97	0.64
6:F:51:HIS:ND1	17:Q:82:TYR:OH	2.30	0.64
7:G:65:GLN:CD	34:i:1741:U:OP1	2.41	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:64:VAL:HG13	8:H:65:PRO:HD2	1.78	0.64
10:J:84:ILE:HD12	10:J:86:VAL:CG2	2.28	0.64
11:K:33:PRO:O	11:K:34:GLU:CB	2.42	0.64
11:K:65:ARG:HH11	11:K:65:ARG:HB2	1.63	0.64
13:M:85:LEU:HD13	13:M:106:CYS:SG	2.37	0.64
15:O:129:ILE:HD12	27:a:44:ILE:HG21	1.78	0.64
16:P:100:LYS:HG2	34:i:1236:A:N1	2.13	0.64
20:T:29:LYS:C	20:T:30:VAL:CG1	2.70	0.64
23:W:90:GLN:N	23:W:102:ILE:CD1	2.60	0.64
33:g:282:GLU:OE2	33:g:283:PRO:N	2.30	0.64
34:i:328:G:C6	34:i:329:A:C5	2.85	0.64
2:B:105:LEU:HD11	2:B:213:ARG:CG	2.27	0.64
2:B:209:ASP:O	2:B:210:VAL:HB	1.97	0.64
3:C:164:THR:HG23	3:C:165:VAL:H	1.63	0.64
3:C:196:LYS:O	3:C:200:LEU:HD23	1.97	0.64
4:D:53:THR:HG22	4:D:91:VAL:CG2	2.27	0.64
4:D:63:GLY:O	4:D:67:ARG:NH1	2.31	0.64
5:E:248:ILE:CD1	10:J:72:PHE:CE2	2.45	0.64
7:G:232:ARG:CG	34:i:780:G:OP1	2.34	0.64
8:H:166:VAL:HG22	8:H:173:PHE:CE2	2.30	0.64
9:I:36:THR:HB	9:I:57:ALA:O	1.98	0.64
9:I:110:ARG:NH2	9:I:124:LYS:CD	2.58	0.64
10:J:28:GLU:CD	10:J:40:LYS:HD2	2.20	0.64
13:M:18:LEU:CD2	13:M:22:LEU:HG	2.25	0.64
15:O:30:VAL:CG2	15:O:45:THR:OG1	2.46	0.64
16:P:13:ARG:O	16:P:14:LYS:HG3	1.97	0.64
16:P:53:GLN:CB	16:P:56:LEU:HD12	2.26	0.64
16:P:100:LYS:HG2	34:i:1236:A:N6	2.13	0.64
18:R:119:VAL:HG23	18:R:119:VAL:O	1.96	0.64
20:T:11:GLN:NE2	20:T:62:ARG:NE	2.45	0.64
20:T:87:VAL:HG21	34:i:1660:G:N1	2.13	0.64
21:U:67:LYS:CE	21:U:78:ASP:CG	2.68	0.64
24:X:108:LYS:HB3	24:X:110:HIS:HE2	1.60	0.64
28:b:36:LYS:HG3	28:b:78:SER:HG	1.62	0.64
31:e:118:ASN:CB	31:e:119:VAL:CG2	2.73	0.64
34:i:848:G:C3'	34:i:849:C:H5"	2.24	0.64
34:i:1413:C:H3'	34:i:1413:C:H6	1.63	0.64
34:i:1546:U:O4	34:i:1574:A:C2	2.49	0.64
34:i:1824:U:H4'	34:i:1845:A:N6	2.11	0.64
1:A:40:LYS:HD3	1:A:41:ARG:H	1.62	0.64
2:B:75:GLN:NE2	2:B:75:GLN:CA	2.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:151:ARG:CD	2:B:153:THR:HG22	2.27	0.64
2:B:156:ALA:HB1	2:B:160:GLN:OE1	1.98	0.64
3:C:115:ILE:CD1	3:C:144:LYS:HG3	2.27	0.64
3:C:196:LYS:C	3:C:200:LEU:HD23	2.23	0.64
5:E:62:LYS:HD2	5:E:80:ILE:CG1	2.28	0.64
5:E:258:ALA:O	5:E:259:LYS:HB2	1.96	0.64
6:F:19:LEU:CD2	6:F:24:SER:HA	2.28	0.64
6:F:129:GLY:O	6:F:134:VAL:HG22	1.97	0.64
8:H:83:LEU:HD12	8:H:83:LEU:C	2.23	0.64
9:I:157:LYS:O	9:I:158:ILE:O	2.14	0.64
10:J:35:TYR:CE1	10:J:112:THR:HG21	2.33	0.64
10:J:177:ASN:O	10:J:180:LYS:HB3	1.96	0.64
12:L:22:ARG:CZ	12:L:22:ARG:HB3	2.27	0.64
14:N:25:TRP:CD1	28:b:83:GLN:HB3	2.32	0.64
16:P:44:ARG:HD2	16:P:82:ASP:O	1.97	0.64
16:P:53:GLN:O	16:P:56:LEU:HB2	1.97	0.64
16:P:108:LYS:NZ	19:S:118:ARG:NH1	2.43	0.64
17:Q:144:SER:O	17:Q:145:TYR:HB2	1.96	0.64
20:T:95:GLY:O	20:T:96:SER:O	2.14	0.64
20:T:111:LYS:O	20:T:124:THR:HG21	1.98	0.64
25:Y:20:ARG:C	25:Y:21:LYS:HD3	2.22	0.64
26:Z:70:PRO:CD	26:Z:71:ALA:N	2.56	0.64
26:Z:99:LEU:HD11	26:Z:102:LYS:NZ	2.13	0.64
27:a:45:VAL:HG23	27:a:46:GLU:N	2.11	0.64
34:i:744:C:C2'	34:i:749:C:N4	2.60	0.64
34:i:1414:C:H42	34:i:1417:A:N6	1.96	0.64
35:l:45:THR:HB	35:l:85:LEU:HB2	1.78	0.64
35:l:47:VAL:HG23	35:l:83:ILE:CB	2.26	0.64
1:A:119:PRO:O	1:A:142:LEU:CD2	2.45	0.64
3:C:126:MET:CE	3:C:223:LYS:HD2	2.27	0.64
3:C:217:THR:O	3:C:219:GLY:N	2.31	0.64
6:F:36:GLN:C	6:F:37:ASP:CG	2.63	0.64
7:G:64:LYS:HE2	7:G:67:VAL:HG13	1.79	0.64
9:I:112:TRP:HH2	9:I:117:TYR:HH	1.38	0.64
9:I:154:LYS:O	9:I:154:LYS:NZ	2.30	0.64
11:K:48:ALA:O	11:K:52:LEU:HD23	1.98	0.64
14:N:13:GLN:CD	28:b:21:LYS:HE2	2.21	0.64
16:P:98:ASN:ND2	16:P:120:SER:HB2	2.12	0.64
21:U:33:GLU:OE1	21:U:55:ARG:NH2	2.29	0.64
21:U:50:VAL:HG23	21:U:89:ILE:HG23	1.79	0.64
23:W:101:PHE:HD2	23:W:129:PHE:HE1	1.46	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:c:11:LEU:HB3	29:c:35:MET:CE	2.26	0.64
31:e:114:ARG:CA	31:e:118:ASN:HB2	2.26	0.64
32:f:108:VAL:HG22	32:f:114:ILE:CB	2.26	0.64
33:g:5:MET:CE	33:g:312:VAL:CG1	2.54	0.64
33:g:212:LYS:HA	33:g:235:ILE:CG1	2.23	0.64
1:A:66:VAL:CG1	1:A:186:ARG:CD	2.71	0.64
1:A:98:PRO:O	1:A:99:ILE:HG13	1.97	0.64
1:A:180:ARG:HD3	1:A:184:ARG:HH21	1.57	0.64
2:B:93:GLY:C	2:B:94:LYS:HD3	2.23	0.64
4:D:222:PRO:O	4:D:223:ILE:HB	1.97	0.64
5:E:72:ILE:HD13	5:E:82:TYR:CE2	2.32	0.64
5:E:184:THR:C	5:E:189:LEU:CD1	2.70	0.64
7:G:142:ARG:HH21	7:G:152:ASP:N	1.95	0.64
8:H:10:LYS:CB	8:H:20:GLU:OE1	2.46	0.64
8:H:192:PHE:O	8:H:193:GLN:C	2.40	0.64
10:J:29:LEU:HD22	31:e:112:TYR:HD1	1.62	0.64
15:O:20:GLN:NE2	15:O:21:VAL:O	2.31	0.64
16:P:83:MET:HB3	16:P:116:LEU:CD1	2.28	0.64
21:U:47:ASN:O	21:U:47:ASN:ND2	2.30	0.64
25:Y:63:HIS:ND1	25:Y:64:PHE:CD1	2.65	0.64
33:g:144:ASP:C	33:g:146:SER:N	2.39	0.64
34:i:199:G:C5	34:i:200:U:C5	2.85	0.64
5:E:126:VAL:HG21	5:E:129:ILE:CD1	2.27	0.64
5:E:259:LYS:HG2	5:E:260:GLN:OE1	1.96	0.64
6:F:44:LYS:C	6:F:45:TYR:HD1	2.05	0.64
7:G:50:VAL:CG1	7:G:111:LEU:CB	2.74	0.64
9:I:8:TRP:CZ3	9:I:20:PRO:HA	2.32	0.64
9:I:104:ILE:O	9:I:105:ASP:OD2	2.14	0.64
9:I:145:ILE:HA	9:I:148:LYS:CG	2.28	0.64
12:L:113:LEU:HD21	12:L:117:PHE:HB2	1.79	0.64
12:L:152:LYS:C	12:L:154:GLN:H	2.04	0.64
14:N:25:TRP:HD1	28:b:83:GLN:HB3	1.63	0.64
16:P:44:ARG:CZ	16:P:84:ILE:HD12	2.24	0.64
16:P:65:LYS:HG3	16:P:66:GLU:N	2.13	0.64
25:Y:19:GLN:HG2	25:Y:81:TYR:HD1	1.53	0.64
25:Y:35:VAL:HG12	25:Y:36:PRO:CD	2.21	0.64
25:Y:56:PHE:HB3	25:Y:58:PHE:HE2	1.63	0.64
27:a:58:VAL:O	27:a:59:PHE:O	2.15	0.64
34:i:226:A:C2	34:i:783:G:H5'	2.33	0.64
34:i:520:U:O4	34:i:545:A:N3	2.31	0.64
2:B:71:LEU:HB2	2:B:84:PHE:CE2	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:215:ASP:O	4:D:216:GLU:CB	2.45	0.64
6:F:167:LYS:CD	6:F:171:GLU:HG2	2.20	0.64
8:H:110:THR:CG2	8:H:110:THR:O	2.46	0.64
8:H:158:LEU:HD11	8:H:187:PHE:CE1	2.33	0.64
9:I:5:ARG:HH21	34:i:372:C:N4	1.96	0.64
13:M:13:ASP:OD1	13:M:13:ASP:N	2.30	0.64
19:S:47:LYS:CE	19:S:78:LYS:HB2	2.27	0.64
24:X:52:LEU:CD1	24:X:53:GLU:N	2.54	0.64
26:Z:48:VAL:CA	26:Z:83:LEU:HD12	2.28	0.64
31:e:81:ALA:C	36:n:82:ARG:HD3	2.03	0.64
34:i:226:A:C2'	34:i:783:G:P	2.86	0.64
34:i:489:G:C2	34:i:491:C:H1'	2.32	0.64
34:i:654:A:H61	34:i:1159:C:H42	1.44	0.64
34:i:1215:C:H2'	34:i:1216:A:C8	2.33	0.64
34:i:1819:A:H2'	36:n:44:ASN:HA	1.80	0.64
1:A:193:HIS:HB3	1:A:194:PRO:HD2	1.80	0.63
2:B:38:MET:CE	2:B:186:ASN:ND2	2.52	0.63
4:D:74:GLN:HE22	4:D:75:LYS:CE	2.10	0.63
5:E:25:SER:CB	34:i:485:U:H1'	2.28	0.63
5:E:159:THR:CG2	5:E:227:VAL:HG22	2.04	0.63
9:I:3:ILE:O	9:I:3:ILE:HG22	1.97	0.63
9:I:33:ALA:HA	34:i:369:C:H5'	1.80	0.63
10:J:16:PRO:HD2	10:J:44:TRP:CH2	2.32	0.63
13:M:56:CYS:SG	13:M:57:ASP:N	2.71	0.63
14:N:59:GLY:O	14:N:60:VAL:CG1	2.45	0.63
16:P:41:GLN:HB2	16:P:84:ILE:HG12	1.77	0.63
16:P:69:PRO:CD	16:P:70:MET:N	2.61	0.63
18:R:99:ASP:CA	18:R:119:VAL:HG13	2.13	0.63
19:S:8:LYS:HB2	19:S:9:PHE:HD1	0.65	0.63
19:S:54:LYS:HD3	19:S:58:GLU:OE1	1.97	0.63
20:T:94:ARG:HG3	20:T:94:ARG:HH11	1.63	0.63
24:X:4:CYS:SG	34:i:1157:U:OP2	2.55	0.63
25:Y:20:ARG:CD	25:Y:74:MET:HE3	2.24	0.63
28:b:5:LYS:HZ2	28:b:5:LYS:HB3	1.61	0.63
32:f:140:TYR:OH	32:f:146:LEU:C	2.38	0.63
33:g:144:ASP:O	33:g:145:GLU:HB2	1.97	0.63
34:i:520:U:C5	34:i:521:A:N9	2.66	0.63
34:i:683:G:N2	34:i:733:G:O6	2.31	0.63
34:i:748:G:N2	34:i:787:C:O2	2.31	0.63
1:A:16:LEU:HB2	1:A:17:LYS:CE	2.28	0.63
1:A:176:TRP:CD1	1:A:199:PRO:HA	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:149:PRO:CD	3:C:149:PRO:O	2.45	0.63
3:C:236:LEU:CD2	3:C:237:THR:O	2.45	0.63
4:D:207:HIS:O	4:D:208:VAL:HG23	1.98	0.63
6:F:36:GLN:O	6:F:37:ASP:CB	2.43	0.63
6:F:44:LYS:CB	6:F:45:TYR:CE1	2.69	0.63
6:F:59:LYS:CD	6:F:62:ARG:HD3	2.23	0.63
6:F:122:ARG:C	6:F:141:VAL:HG13	2.18	0.63
6:F:165:ASN:OD1	6:F:167:LYS:HB2	1.98	0.63
7:G:145:PHE:HB3	7:G:147:LEU:HD13	1.77	0.63
8:H:87:PHE:O	8:H:88:SER:O	2.14	0.63
9:I:112:TRP:CZ3	9:I:117:TYR:CE2	2.86	0.63
13:M:35:ILE:HG23	13:M:36:ARG:N	2.13	0.63
14:N:38:TYR:CE1	14:N:78:LYS:CG	2.81	0.63
20:T:21:PHE:CE1	20:T:22:LEU:HD23	2.33	0.63
20:T:143:LYS:CD	20:T:143:LYS:C	2.53	0.63
21:U:48:LEU:HD12	21:U:91:LEU:HD22	1.79	0.63
27:a:10:ARG:CG	27:a:33:ASP:O	2.44	0.63
30:d:45:GLN:C	30:d:46:TYR:HD2	2.06	0.63
31:e:82:ARG:HG3	36:n:82:ARG:HE	0.71	0.63
34:i:1751:G:H2'	34:i:1752:G:C8	2.32	0.63
36:n:103:LEU:HD22	36:n:106:TYR:CD2	2.33	0.63
1:A:110:ASN:C	34:i:1347:G:C5'	2.64	0.63
6:F:42:LYS:HB2	6:F:45:TYR:H	0.82	0.63
8:H:163:GLN:HG2	8:H:164:ASN:N	2.12	0.63
9:I:112:TRP:CH2	9:I:117:TYR:CE2	2.86	0.63
10:J:103:GLU:O	10:J:107:GLU:HG3	1.98	0.63
13:M:35:ILE:HD13	13:M:61:TYR:CE2	2.32	0.63
14:N:6:ALA:HB1	14:N:7:PRO:CD	2.27	0.63
14:N:18:TYR:O	14:N:19:ARG:C	2.39	0.63
15:O:72:TYR:CE1	15:O:76:LEU:HD11	2.33	0.63
15:O:125:LYS:CE	27:a:56:VAL:O	2.47	0.63
16:P:10:ARG:HE	16:P:11:THR:CA	2.11	0.63
17:Q:28:GLY:HA3	17:Q:67:ASP:CG	2.24	0.63
17:Q:112:LEU:O	17:Q:116:ASP:HA	1.99	0.63
17:Q:138:ARG:HB2	34:i:1644:U:O3'	1.99	0.63
19:S:58:GLU:HB2	19:S:59:LEU:HD13	1.80	0.63
19:S:80:PRO:CG	19:S:82:TRP:CE2	2.82	0.63
25:Y:114:MET:C	25:Y:124:ASN:HD22	2.06	0.63
28:b:11:SER:O	28:b:15:GLU:HG3	1.98	0.63
32:f:130:VAL:HG11	32:f:143:LYS:HG2	1.80	0.63
34:i:1517:A:H2	34:i:1518:C:C5	2.16	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:233:TYR:CE1	22:V:12:TYR:CZ	2.86	0.63
4:D:47:GLU:CG	4:D:85:GLU:CG	2.71	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:210:ALA:O	7:G:213:LEU:HG	1.98	0.63
8:H:117:PRO:HD2	8:H:120:ARG:HD2	1.79	0.63
9:I:5:ARG:HG2	9:I:5:ARG:NH1	2.06	0.63
9:I:80:ASP:OD1	9:I:94:LYS:HG2	1.98	0.63
11:K:57:TYR:CD1	11:K:75:GLY:HA2	2.33	0.63
12:L:101:ARG:O	24:X:10:ALA:HB1	1.96	0.63
14:N:137:PRO:O	14:N:138:ASN:ND2	2.31	0.63
15:O:77:ALA:O	15:O:81:VAL:HG23	1.98	0.63
19:S:121:ARG:CG	19:S:131:VAL:HG13	2.25	0.63
24:X:41:PHE:HZ	24:X:102:VAL:HG12	1.63	0.63
28:b:64:CYS:HG	28:b:73:LEU:CD2	1.91	0.63
32:f:106:TYR:HH	32:f:131:PHE:HZ	0.65	0.63
33:g:51:ASN:HB2	33:g:53:GLY:O	1.98	0.63
33:g:83:TRP:O	33:g:85:GLY:N	2.31	0.63
33:g:273:GLU:HA	33:g:274:VAL:HG13	1.79	0.63
34:i:1280:A:OP1	34:i:1282:G:H5'	1.98	0.63
1:A:180:ARG:NH1	1:A:184:ARG:HH12	1.95	0.63
3:C:58:MET:CE	3:C:81:PHE:HZ	2.10	0.63
3:C:120:GLY:CA	3:C:150:VAL:HG22	2.29	0.63
3:C:259:VAL:HG12	3:C:259:VAL:O	1.97	0.63
4:D:70:THR:HG22	4:D:86:LEU:CG	2.29	0.63
4:D:201:LYS:C	4:D:203:PRO:HD2	2.13	0.63
5:E:75:LYS:O	5:E:76:VAL:O	2.16	0.63
5:E:115:THR:HB	5:E:116:PRO:HD2	1.81	0.63
7:G:62:PRO:HG2	7:G:83:CYS:SG	2.38	0.63
7:G:142:ARG:CG	7:G:142:ARG:NH1	2.47	0.63
10:J:130:ILE:HA	10:J:135:ILE:HD13	1.80	0.63
15:O:41:PHE:HD1	15:O:57:THR:HG22	1.63	0.63
20:T:40:ALA:CB	20:T:43:LYS:CG	2.58	0.63
20:T:84:ARG:HB2	20:T:84:ARG:CZ	2.27	0.63
24:X:35:ALA:HA	24:X:39:ASN:HD22	1.60	0.63
25:Y:58:PHE:CE1	25:Y:72:PHE:CD2	2.87	0.63
25:Y:114:MET:HE2	25:Y:121:ALA:O	1.99	0.63
27:a:51:ARG:HG3	27:a:52:ASP:N	2.12	0.63
30:d:27:ARG:HH21	34:i:1259:U:H4'	1.64	0.63
31:e:75:LYS:CE	34:i:1706:U:O2'	2.46	0.63
31:e:81:ALA:HB3	36:n:82:ARG:HH11	1.20	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:17:TRP:CZ3	33:g:36:ARG:NH2	2.67	0.63
33:g:285:GLN:C	33:g:302:TYR:CD1	2.77	0.63
35:l:95:GLN:O	35:l:97:LEU:N	2.31	0.63
1:A:125:THR:O	1:A:147:LEU:HD12	1.98	0.63
1:A:176:TRP:HZ2	1:A:195:TRP:CE3	1.94	0.63
3:C:161:LYS:HD3	22:V:9:VAL:HG21	1.80	0.63
5:E:67:GLN:HG2	5:E:69:PHE:CE2	2.33	0.63
6:F:110:GLN:O	6:F:113:VAL:CG1	2.44	0.63
8:H:138:GLU:OE2	14:N:19:ARG:CA	2.46	0.63
8:H:190:PRO:HB2	8:H:191:GLU:HG2	1.79	0.63
9:I:82:VAL:CG1	9:I:202:ILE:HD11	2.25	0.63
9:I:144:LYS:O	9:I:145:ILE:CB	2.45	0.63
13:M:124:ILE:HG13	13:M:125:GLU:N	2.13	0.63
14:N:28:LEU:HD13	14:N:58:HIS:CE1	2.33	0.63
14:N:40:LEU:HB3	14:N:45:LEU:HD12	1.79	0.63
15:O:142:ARG:HH11	27:a:27:ALA:CB	2.07	0.63
19:S:20:ILE:HD11	19:S:33:ILE:HD11	1.79	0.63
25:Y:92:ALA:HA	25:Y:97:TYR:CA	2.27	0.63
25:Y:92:ALA:O	25:Y:97:TYR:O	2.15	0.63
31:e:115:ARG:CA	31:e:119:VAL:CG2	2.76	0.63
33:g:4:GLN:HE21	33:g:268:ASP:CG	2.05	0.63
33:g:153:CYS:HB3	33:g:168:CYS:SG	2.39	0.63
33:g:162:ASN:CG	33:g:163:PRO:CD	2.71	0.63
34:i:1820:G:O2'	36:n:42:LEU:O	2.13	0.63
35:l:76:HIS:HB2	35:l:82:VAL:HG22	1.81	0.63
1:A:5:LEU:CD1	1:A:6:ASP:N	2.51	0.63
1:A:66:VAL:HG13	1:A:186:ARG:CB	2.27	0.63
1:A:120:ARG:NH2	3:C:252:GLN:OE1	2.31	0.63
1:A:139:TYR:C	1:A:140:VAL:HG23	2.24	0.63
2:B:149:GLN:C	18:R:124:VAL:HG22	2.24	0.63
4:D:29:LEU:CB	4:D:34:TYR:HB2	2.28	0.63
4:D:59:LEU:HD12	4:D:60:GLY:O	1.99	0.63
5:E:145:ARG:HH11	5:E:145:ARG:CG	2.10	0.63
6:F:39:ILE:HG23	6:F:68:ILE:HD13	1.79	0.63
6:F:59:LYS:HD3	6:F:62:ARG:CD	2.23	0.63
6:F:112:LEU:O	6:F:116:ILE:HD11	1.97	0.63
7:G:31:ARG:O	7:G:34:THR:HG23	1.99	0.63
7:G:76:LEU:HD21	7:G:92:ARG:CG	2.19	0.63
8:H:10:LYS:N	8:H:11:PRO:HD3	2.11	0.63
9:I:140:LYS:O	9:I:144:LYS:O	2.14	0.63
10:J:16:PRO:C	10:J:18:ARG:N	2.52	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:113:LEU:HD11	12:L:120:VAL:CB	2.27	0.63
14:N:60:VAL:HG23	14:N:60:VAL:O	1.98	0.63
15:O:31:CYS:HB2	15:O:95:ILE:CG1	2.27	0.63
16:P:39:ALA:CA	16:P:42:ARG:HE	2.09	0.63
16:P:111:MET:C	16:P:114:HIS:HD2	2.06	0.63
17:Q:85:ARG:HH22	17:Q:117:ARG:HD2	1.63	0.63
19:S:47:LYS:HZ1	19:S:78:LYS:CB	2.11	0.63
24:X:90:CYS:HA	24:X:93:PHE:CD2	2.34	0.63
25:Y:117:VAL:CG2	25:Y:124:ASN:OD1	2.46	0.63
26:Z:73:VAL:CG1	26:Z:79:ILE:HG21	2.23	0.63
31:e:79:SER:N	36:n:81:LEU:HA	2.14	0.63
33:g:194:TYR:HE1	33:g:196:ASN:HD21	1.47	0.63
34:i:936:U:H3	34:i:998:U:H3	1.46	0.63
34:i:1497:C:H2'	34:i:1498:C:O4'	1.99	0.63
34:i:1822:C:H1'	35:l:68:ALA:O	1.98	0.63
1:A:32:PHE:CD1	1:A:33:GLN:NE2	2.64	0.63
4:D:135:GLU:HB3	4:D:153:VAL:HG22	1.81	0.63
5:E:98:ASN:ND2	5:E:114:ILE:HD11	2.13	0.63
5:E:260:GLN:OE1	5:E:260:GLN:CA	2.47	0.63
6:F:28:VAL:HA	6:F:110:GLN:OE1	1.99	0.63
7:G:135:PRO:CG	7:G:144:LEU:CD2	2.76	0.63
7:G:179:LEU:C	7:G:180:VAL:HG23	2.24	0.63
10:J:37:LEU:CD2	10:J:42:GLU:HB3	2.25	0.63
10:J:177:ASN:C	10:J:180:LYS:HB3	2.24	0.63
13:M:78:LYS:O	13:M:79:VAL:CB	2.47	0.63
16:P:44:ARG:HH21	16:P:84:ILE:N	1.96	0.63
17:Q:42:ILE:HD11	17:Q:51:LEU:CD1	2.29	0.63
19:S:89:ASP:O	19:S:90:VAL:CB	2.47	0.63
22:V:9:VAL:HG12	22:V:10:ASP:H	1.60	0.63
23:W:30:CYS:HA	23:W:34:ILE:CD1	2.29	0.63
23:W:41:MET:HG2	23:W:129:PHE:HD2	1.63	0.63
25:Y:5:VAL:HG12	25:Y:6:THR:N	2.12	0.63
31:e:105:ARG:CB	31:e:105:ARG:HH21	2.04	0.63
33:g:48:ASP:C	33:g:49:GLU:CD	2.66	0.63
34:i:1843:G:C2	35:l:68:ALA:CB	2.69	0.63
1:A:157:VAL:O	22:V:66:ASP:CG	2.42	0.63
1:A:169:HIS:HD2	1:A:203:PHE:CE2	2.17	0.63
2:B:67:PHE:CD1	15:O:47:LEU:O	2.51	0.63
3:C:148:VAL:CB	3:C:149:PRO:CD	2.67	0.63
3:C:255:THR:HG23	3:C:256:ASP:N	2.14	0.63
5:E:64:ILE:HG13	25:Y:18:LEU:HD21	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:86:PHE:O	5:E:142:HIS:HE1	1.81	0.63
6:F:36:GLN:HG3	6:F:37:ASP:OD2	1.96	0.63
6:F:44:LYS:CA	6:F:45:TYR:HD1	2.12	0.63
7:G:65:GLN:HG2	34:i:1740:A:O2'	1.99	0.63
8:H:51:ILE:HD11	8:H:176:VAL:HA	1.81	0.63
8:H:160:LYS:HB2	8:H:192:PHE:HZ	1.64	0.63
10:J:82:VAL:CG1	10:J:92:MET:CE	2.76	0.63
12:L:40:ILE:HG23	12:L:41:GLY:O	1.99	0.63
12:L:112:HIS:HB2	12:L:134:LEU:CD1	2.28	0.63
14:N:21:SER:O	14:N:22:VAL:CB	2.46	0.63
14:N:93:LYS:HG3	14:N:150:VAL:HG11	1.81	0.63
16:P:33:LEU:HD21	16:P:87:PRO:CD	1.90	0.63
16:P:69:PRO:CD	16:P:70:MET:H	2.11	0.63
19:S:46:ARG:NH1	20:T:50:GLU:HG2	2.12	0.63
22:V:56:CYS:SG	22:V:59:ILE:HG13	2.39	0.63
25:Y:98:GLU:CD	25:Y:98:GLU:O	2.41	0.63
25:Y:111:LYS:HD2	25:Y:115:LYS:HE3	1.80	0.63
27:a:10:ARG:HB3	27:a:34:LYS:HA	1.79	0.63
27:a:85:ARG:O	27:a:85:ARG:HG2	1.98	0.63
33:g:46:THR:CB	33:g:48:ASP:H	2.11	0.63
33:g:59:LEU:HD12	33:g:90:TRP:CD2	2.34	0.63
34:i:1165:G:H5"	34:i:1815:U:P	2.37	0.63
1:A:66:VAL:HG11	22:V:46:PHE:CB	2.28	0.62
1:A:205:ARG:O	1:A:206:ASP:HB2	1.97	0.62
3:C:58:MET:CE	3:C:81:PHE:CZ	2.81	0.62
3:C:93:LYS:CD	3:C:218:LEU:HD22	1.84	0.62
5:E:191:ARG:NE	5:E:245:ARG:HD3	2.13	0.62
10:J:170:PRO:HB3	10:J:174:LYS:CE	2.28	0.62
11:K:3:MET:CE	11:K:8:ARG:HH21	1.79	0.62
13:M:11:VAL:O	13:M:12:MET:HB3	1.99	0.62
13:M:117:GLU:C	13:M:118:SER:HG	2.04	0.62
16:P:41:GLN:HE21	16:P:44:ARG:HH21	1.47	0.62
16:P:100:LYS:CG	34:i:1236:A:H61	2.12	0.62
16:P:110:GLU:N	16:P:110:GLU:OE2	2.30	0.62
21:U:106:ILE:O	21:U:106:ILE:HG12	1.98	0.62
25:Y:57:VAL:CG1	25:Y:60:PHE:HE2	2.12	0.62
25:Y:87:PRO:CB	25:Y:89:HIS:CE1	2.80	0.62
28:b:83:GLN:C	28:b:84:HIS:O	2.38	0.62
30:d:36:LEU:HD21	30:d:52:PHE:HE2	1.64	0.62
33:g:2:THR:C	33:g:3:GLU:CG	2.71	0.62
34:i:184:G:H8	34:i:184:G:O5'	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:430:G:C4'	34:i:1731:G:H21	2.10	0.62
2:B:181:LEU:O	2:B:185:VAL:HG23	1.97	0.62
3:C:126:MET:HE1	3:C:223:LYS:CE	2.28	0.62
7:G:80:GLY:O	7:G:81:HIS:CG	2.52	0.62
7:G:227:GLN:HA	7:G:230:LYS:NZ	2.13	0.62
8:H:10:LYS:HE3	8:H:16:PRO:C	2.22	0.62
8:H:110:THR:O	8:H:110:THR:HG23	1.99	0.62
14:N:62:GLN:HB2	14:N:65:PHE:CE2	2.32	0.62
16:P:10:ARG:HE	16:P:11:THR:CB	2.11	0.62
17:Q:42:ILE:CG1	17:Q:51:LEU:HD21	2.28	0.62
18:R:13:ALA:CA	18:R:54:VAL:CG2	2.69	0.62
28:b:48:SER:OG	28:b:49:HIS:CD2	2.52	0.62
32:f:108:VAL:CG1	32:f:113:LYS:O	2.40	0.62
33:g:46:THR:OG1	33:g:48:ASP:N	2.31	0.62
2:B:133:TYR:CD1	2:B:217:MET:HE1	2.34	0.62
3:C:154:TYR:OH	3:C:161:LYS:C	2.40	0.62
6:F:193:LYS:HE2	6:F:197:GLU:CD	2.25	0.62
8:H:106:ARG:CD	34:i:857:A:C4	2.82	0.62
9:I:142:SER:CB	9:I:143:LYS:CB	2.29	0.62
9:I:155:ASN:C	9:I:155:ASN:OD1	2.36	0.62
10:J:80:ARG:HA	10:J:83:ARG:CD	2.28	0.62
11:K:3:MET:HG2	11:K:4:PRO:N	2.13	0.62
13:M:124:ILE:C	13:M:127:TYR:CD2	2.77	0.62
16:P:15:PHE:CE2	16:P:110:GLU:HB3	2.34	0.62
18:R:5:ARG:CA	18:R:10:LYS:NZ	2.59	0.62
19:S:46:ARG:NE	20:T:50:GLU:CD	2.58	0.62
19:S:47:LYS:HZ1	19:S:78:LYS:HB2	1.63	0.62
20:T:119:TRP:CB	34:i:1557:C:O2'	2.46	0.62
21:U:69:PRO:O	21:U:69:PRO:HD2	1.98	0.62
24:X:5:ARG:HH21	24:X:5:ARG:CG	2.12	0.62
24:X:109:GLY:O	24:X:119:ARG:CD	2.42	0.62
24:X:122:VAL:HG12	24:X:130:LEU:HD11	1.79	0.62
25:Y:119:GLY:O	25:Y:120:THR:C	2.42	0.62
26:Z:51:ASP:O	26:Z:53:ALA:N	2.32	0.62
28:b:16:LYS:HD3	28:b:16:LYS:H	1.64	0.62
33:g:179:LEU:HD23	33:g:179:LEU:N	2.14	0.62
34:i:546:U:H2'	34:i:547:U:C5'	2.28	0.62
1:A:14:ASP:OD2	1:A:55:TRP:CH2	2.53	0.62
4:D:53:THR:HG22	4:D:91:VAL:H	1.64	0.62
4:D:192:TRP:N	4:D:192:TRP:CD1	2.68	0.62
6:F:42:LYS:HB2	6:F:46:ALA:H	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:78:MET:HB2	6:F:159:ARG:CZ	2.30	0.62
6:F:112:LEU:CA	6:F:177:LEU:HD11	2.28	0.62
8:H:14:GLU:CG	8:H:16:PRO:HB2	2.29	0.62
8:H:193:GLN:CD	8:H:193:GLN:N	2.56	0.62
9:I:206:LYS:CG	9:I:207:GLY:H	2.07	0.62
10:J:37:LEU:HG	10:J:42:GLU:HB2	1.78	0.62
10:J:87:LEU:CD1	10:J:91:LYS:HB2	2.29	0.62
11:K:64:TRP:C	11:K:65:ARG:HG2	2.24	0.62
12:L:86:ILE:HG21	12:L:113:LEU:HD12	1.82	0.62
14:N:5:HIS:CD2	14:N:121:ARG:NE	2.66	0.62
16:P:11:THR:O	16:P:12:PHE:CB	2.33	0.62
16:P:121:ILE:HG22	19:S:120:HIS:CA	2.29	0.62
19:S:8:LYS:CD	19:S:8:LYS:N	2.63	0.62
19:S:46:ARG:NH1	20:T:50:GLU:HA	2.15	0.62
20:T:44:GLU:HG3	34:i:1533:C:H4'	1.81	0.62
23:W:26:LEU:O	23:W:26:LEU:CD1	2.39	0.62
33:g:4:GLN:C	33:g:5:MET:HE2	2.24	0.62
1:A:118:GLU:HB2	3:C:50:LYS:HZ3	1.58	0.62
2:B:67:PHE:HD1	15:O:47:LEU:HB3	1.64	0.62
2:B:149:GLN:N	18:R:124:VAL:HG22	2.12	0.62
4:D:74:GLN:HB2	4:D:84:VAL:HG12	1.80	0.62
4:D:166:TYR:CE1	4:D:200:PRO:CB	2.83	0.62
5:E:122:LYS:HG3	5:E:164:LEU:HD21	1.82	0.62
5:E:176:ASP:O	5:E:195:ILE:HD12	2.00	0.62
10:J:122:SER:OG	10:J:124:HIS:HB3	1.98	0.62
10:J:165:TYR:HE2	34:i:550:A:HO2'	1.47	0.62
12:L:113:LEU:CD1	12:L:120:VAL:HG11	2.29	0.62
13:M:115:GLY:O	13:M:116:LYS:CB	2.45	0.62
14:N:27:LYS:HD2	14:N:28:LEU:H	1.64	0.62
14:N:62:GLN:CB	14:N:65:PHE:CE2	2.82	0.62
15:O:17:LEU:CD2	15:O:18:GLY:N	2.63	0.62
16:P:127:LYS:HZ1	16:P:127:LYS:CA	2.11	0.62
17:Q:109:LYS:CG	17:Q:113:ILE:CD1	2.47	0.62
24:X:74:LEU:CD1	24:X:81:ILE:CD1	2.71	0.62
25:Y:55:ILE:HG13	25:Y:75:ILE:HG12	1.65	0.62
25:Y:102:THR:CG2	25:Y:107:ARG:CD	2.68	0.62
26:Z:65:TYR:HD2	26:Z:68:ILE:CG1	2.11	0.62
26:Z:99:LEU:CD1	26:Z:102:LYS:CD	2.72	0.62
27:a:45:VAL:HB	27:a:53:ILE:CD1	2.29	0.62
30:d:5:GLN:C	30:d:7:TYR:N	2.47	0.62
34:i:297:C:O2'	34:i:298:G:H5'	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:n:42:LEU:HD23	36:n:42:LEU:N	2.15	0.62
1:A:149:ASN:CB	1:A:165:ASN:HD21	2.12	0.62
1:A:158:ASP:O	1:A:159:ILE:HB	2.00	0.62
2:B:67:PHE:CD1	15:O:47:LEU:HB3	2.34	0.62
3:C:154:TYR:CZ	3:C:162:PRO:N	2.68	0.62
5:E:86:PHE:CE2	5:E:87:MET:HG2	2.34	0.62
5:E:87:MET:O	5:E:122:LYS:CE	2.47	0.62
8:H:64:VAL:HG22	8:H:72:PHE:HE2	1.65	0.62
10:J:12:THR:O	10:J:48:PHE:CE2	2.53	0.62
10:J:16:PRO:O	10:J:18:ARG:N	2.32	0.62
10:J:110:LEU:O	10:J:112:THR:N	2.32	0.62
11:K:90:VAL:HG13	11:K:90:VAL:O	1.99	0.62
12:L:94:HIS:ND1	12:L:96:ILE:HD11	2.15	0.62
13:M:45:ARG:H	13:M:45:ARG:HE	1.48	0.62
15:O:98:ARG:HG3	15:O:133:THR:HA	1.81	0.62
18:R:87:GLU:O	18:R:88:VAL:HG12	2.00	0.62
20:T:40:ALA:HB3	20:T:43:LYS:CD	2.29	0.62
24:X:58:GLU:OE2	36:n:60:HIS:NE2	2.33	0.62
25:Y:18:LEU:HD12	25:Y:20:ARG:NH1	2.08	0.62
26:Z:85:ARG:NH1	26:Z:85:ARG:CG	2.55	0.62
28:b:62:VAL:CG2	28:b:74:THR:HG21	2.29	0.62
32:f:146:LEU:HD12	32:f:147:THR:CA	2.29	0.62
33:g:113:PHE:CD1	33:g:120:ILE:HG12	2.35	0.62
33:g:292:SER:HB2	33:g:297:THR:HB	1.80	0.62
1:A:30:LEU:HD21	1:A:35:GLU:HG2	1.77	0.62
1:A:30:LEU:O	1:A:31:ASP:CB	2.48	0.62
1:A:60:LEU:C	1:A:60:LEU:CD1	2.71	0.62
3:C:155:TRP:CE2	23:W:97:ARG:HD3	2.33	0.62
4:D:74:GLN:HG3	4:D:79:PHE:O	2.00	0.62
5:E:49:ARG:NH2	5:E:50:ASN:HD21	1.97	0.62
5:E:64:ILE:HG12	25:Y:17:LEU:CD1	2.29	0.62
7:G:25:ARG:O	7:G:27:PHE:N	2.31	0.62
7:G:176:ILE:CG2	7:G:179:LEU:CG	2.78	0.62
8:H:66:VAL:CG2	8:H:97:GLN:O	2.47	0.62
8:H:80:VAL:HA	8:H:83:LEU:HD21	1.81	0.62
9:I:76:THR:HG21	9:I:105:ASP:HB2	1.81	0.62
9:I:155:ASN:CG	9:I:156:ALA:N	2.57	0.62
15:O:17:LEU:CG	15:O:18:GLY:H	2.12	0.62
16:P:32:GLN:HA	16:P:35:GLN:CD	2.24	0.62
17:Q:12:VAL:HG11	17:Q:90:LYS:CB	2.28	0.62
18:R:120:THR:O	18:R:121:GLN:CB	2.44	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:85:ASN:HD21	19:S:98:VAL:HB	1.64	0.62
19:S:85:ASN:HD21	19:S:98:VAL:H	1.47	0.62
25:Y:34:THR:CG2	25:Y:35:VAL:H	2.07	0.62
31:e:118:ASN:HB2	31:e:119:VAL:HG23	1.81	0.62
31:e:120:VAL:CG2	31:e:121:PRO:O	2.44	0.62
33:g:100:ARG:HH22	34:i:1395:C:H5'	1.65	0.62
33:g:265:ILE:HG13	33:g:266:ILE:N	2.13	0.62
33:g:298:LEU:CD1	33:g:310:TRP:HB2	2.29	0.62
34:i:199:G:C6	34:i:200:U:C4	2.87	0.62
34:i:1843:G:C1'	35:l:65:LYS:HA	2.29	0.62
35:l:47:VAL:CB	35:l:83:ILE:CB	2.52	0.62
35:l:47:VAL:HG23	35:l:83:ILE:O	1.99	0.62
1:A:193:HIS:ND1	1:A:194:PRO:HD2	2.12	0.62
2:B:72:ALA:CA	2:B:79:VAL:CG2	2.69	0.62
2:B:104:ASP:CG	2:B:105:LEU:H	2.07	0.62
2:B:105:LEU:HD21	2:B:213:ARG:CA	2.28	0.62
5:E:36:HIS:C	5:E:41:CYS:SG	2.82	0.62
6:F:134:VAL:CG1	6:F:136:ARG:HH21	2.09	0.62
10:J:162:ARG:O	10:J:163:SER:C	2.41	0.62
11:K:14:LEU:HD21	11:K:35:LEU:HD13	1.81	0.62
16:P:7:LYS:O	16:P:9:LYS:N	2.31	0.62
16:P:41:GLN:CD	16:P:84:ILE:CB	2.61	0.62
17:Q:15:ARG:NH1	17:Q:20:THR:CG2	2.63	0.62
18:R:93:GLN:O	18:R:94:GLU:C	2.40	0.62
19:S:92:ASP:OD2	19:S:92:ASP:N	2.30	0.62
20:T:27:LYS:HG3	20:T:27:LYS:O	2.00	0.62
25:Y:27:VAL:HG11	25:Y:35:VAL:CG2	2.25	0.62
26:Z:65:TYR:N	26:Z:65:TYR:CD1	2.67	0.62
31:e:86:VAL:HA	31:e:89:GLN:CG	2.28	0.62
31:e:105:ARG:HH11	31:e:106:ALA:HB2	1.63	0.62
33:g:65:PHE:HB2	33:g:83:TRP:CD1	2.35	0.62
34:i:227:A:O2'	34:i:782:G:O2'	2.17	0.62
34:i:1531:G:H8	34:i:1531:G:O5'	1.83	0.62
36:n:84:TYR:C	36:n:86:ASP:H	2.07	0.62
1:A:42:LYS:HD2	18:R:101:ASP:HB3	1.80	0.62
1:A:125:THR:CA	1:A:147:LEU:HB2	2.27	0.62
1:A:186:ARG:H	22:V:46:PHE:H	1.48	0.62
2:B:87:ILE:CD1	2:B:220:LYS:NZ	2.63	0.62
2:B:228:LEU:CD1	2:B:232:HIS:HD2	2.12	0.62
4:D:218:LEU:C	4:D:220:THR:HG23	2.24	0.62
5:E:104:ASP:HB2	5:E:108:ARG:H	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:191:ARG:HH22	34:i:303:G:H8	1.48	0.62
8:H:170:VAL:HA	8:H:173:PHE:HD2	1.65	0.62
9:I:59:ARG:HH21	34:i:1736:U:H5"	1.64	0.62
9:I:145:ILE:CA	9:I:148:LYS:HG3	2.29	0.62
10:J:81:LEU:CD1	10:J:97:ILE:HD13	2.29	0.62
10:J:124:HIS:O	10:J:126:ALA:N	2.33	0.62
15:O:90:ILE:HG22	15:O:124:MET:HE2	1.82	0.62
15:O:131:ASP:CG	27:a:67:LEU:CD2	2.73	0.62
16:P:39:ALA:CA	16:P:42:ARG:NE	2.56	0.62
17:Q:102:GLU:OE1	33:g:55:PRO:HB2	1.96	0.62
18:R:17:ILE:HG21	18:R:69:ILE:HD11	1.38	0.62
18:R:99:ASP:HB3	18:R:119:VAL:HG12	1.81	0.62
20:T:31:PRO:HB3	20:T:33:TRP:CE3	2.34	0.62
20:T:130:ASP:OD2	20:T:131:LEU:CD2	2.48	0.62
24:X:126:ALA:CA	24:X:128:VAL:HB	2.28	0.62
33:g:79:LEU:HD21	33:g:89:LEU:HD13	1.82	0.62
34:i:181:A:C4	34:i:182:C:C2	2.88	0.62
36:n:42:LEU:HD21	36:n:48:GLU:HB2	1.80	0.62
36:n:102:SER:O	36:n:105:ALA:HB3	2.00	0.62
1:A:206:ASP:O	1:A:207:PRO:O	2.17	0.62
3:C:250:PRO:O	3:C:254:PHE:HB2	1.99	0.62
4:D:227:LYS:HE3	33:g:187:ASN:HD22	1.65	0.62
6:F:36:GLN:HG2	6:F:37:ASP:CG	2.24	0.62
9:I:2:GLY:CA	34:i:1792:C:O2'	2.47	0.62
9:I:152:ARG:O	9:I:153:LYS:HB3	1.99	0.62
10:J:17:ARG:HB3	10:J:18:ARG:HG3	1.79	0.62
13:M:51:VAL:HG13	13:M:109:VAL:CG2	2.30	0.62
17:Q:76:GLY:H	17:Q:79:ALA:HB3	1.64	0.62
20:T:119:TRP:CD1	34:i:1556:A:N1	2.68	0.62
23:W:65:LEU:HD12	23:W:65:LEU:O	1.98	0.62
30:d:5:GLN:HG2	30:d:7:TYR:CZ	2.35	0.62
34:i:71:G:H3'	34:i:72:C:H5"	1.82	0.62
34:i:1206:G:O5'	34:i:1207:G:OP1	2.16	0.62
35:l:39:ASN:H	35:l:42:LYS:HB3	1.64	0.62
35:l:50:ILE:HG13	35:l:102:LEU:CD2	2.30	0.62
2:B:62:LEU:HD23	2:B:91:VAL:CG2	2.28	0.61
3:C:59:LYS:CG	3:C:254:PHE:CE1	2.77	0.61
5:E:163:ASP:O	5:E:164:LEU:CB	2.48	0.61
6:F:21:GLY:C	6:F:22:LYS:HG3	2.25	0.61
7:G:50:VAL:CG1	7:G:111:LEU:CG	2.78	0.61
7:G:62:PRO:CG	7:G:83:CYS:SG	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:6:ALA:CB	8:H:10:LYS:HZ3	2.11	0.61
10:J:91:LYS:C	10:J:93:LYS:H	2.08	0.61
14:N:125:LEU:HD21	14:N:129:TYR:CZ	2.35	0.61
18:R:33:ARG:HH11	33:g:125:ARG:HD2	1.65	0.61
20:T:91:HIS:N	20:T:91:HIS:HD2	1.96	0.61
21:U:59:LYS:CB	21:U:84:ILE:CG2	2.61	0.61
22:V:33:PRO:O	22:V:34:MET:HG2	2.00	0.61
26:Z:63:PRO:O	26:Z:111:ARG:NH1	2.33	0.61
29:c:5:ARG:N	29:c:5:ARG:CD	2.63	0.61
33:g:51:ASN:N	33:g:51:ASN:OD1	2.33	0.61
36:n:85:GLN:HA	36:n:85:GLN:OE1	1.99	0.61
3:C:70:SER:C	22:V:29:HIS:HE1	2.07	0.61
6:F:42:LYS:O	6:F:42:LYS:HG2	1.99	0.61
6:F:76:MET:HB3	6:F:89:THR:OG1	2.00	0.61
8:H:117:PRO:C	8:H:119:SER:N	2.53	0.61
10:J:35:TYR:CD1	10:J:112:THR:HG21	2.34	0.61
17:Q:88:ILE:HG13	17:Q:89:SER:N	2.14	0.61
17:Q:112:LEU:HD13	17:Q:120:LEU:HD21	1.80	0.61
18:R:91:LEU:CB	18:R:92:ASP:C	2.66	0.61
19:S:89:ASP:O	19:S:90:VAL:HB	1.98	0.61
19:S:90:VAL:HG12	19:S:91:LYS:HG2	1.83	0.61
22:V:62:MET:HG3	22:V:62:MET:O	1.98	0.61
25:Y:120:THR:CA	25:Y:122:LYS:HE2	2.29	0.61
26:Z:103:HIS:HD2	26:Z:105:ALA:HB3	1.58	0.61
28:b:81:ARG:HB2	28:b:82:LYS:CA	2.26	0.61
31:e:75:LYS:O	31:e:75:LYS:HG2	2.00	0.61
32:f:147:THR:HG23	32:f:147:THR:O	1.98	0.61
34:i:1843:G:H1'	35:l:65:LYS:HA	1.83	0.61
35:l:55:ASP:O	35:l:57:LYS:N	2.33	0.61
1:A:14:ASP:HB3	1:A:18:PHE:CE2	2.34	0.61
1:A:148:CYS:O	1:A:162:PRO:HA	2.00	0.61
5:E:49:ARG:CB	5:E:55:ALA:HB3	2.28	0.61
5:E:130:PHE:CB	5:E:138:HIS:CD2	2.84	0.61
6:F:36:GLN:HG2	6:F:37:ASP:OD2	1.99	0.61
8:H:83:LEU:HD13	8:H:92:VAL:HG21	0.62	0.61
8:H:147:LYS:HE3	8:H:153:LEU:HD11	1.81	0.61
9:I:55:TYR:CD2	9:I:55:TYR:N	2.68	0.61
10:J:170:PRO:HG3	10:J:175:ARG:HG2	1.81	0.61
14:N:94:LYS:HE3	14:N:118:ILE:HD11	1.81	0.61
15:O:125:LYS:HA	27:a:56:VAL:CG1	2.31	0.61
17:Q:47:LEU:HD23	17:Q:81:ILE:HD12	1.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:33:ARG:NH1	33:g:125:ARG:HH11	1.98	0.61
21:U:27:ARG:CG	21:U:83:ARG:O	2.46	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
25:Y:10:ARG:HG2	25:Y:24:VAL:CB	2.20	0.61
25:Y:22:GLN:CA	25:Y:74:MET:SD	2.88	0.61
27:a:85:ARG:H	34:i:1860:A:H61	1.47	0.61
31:e:103:THR:O	31:e:104:GLY:C	2.42	0.61
31:e:114:ARG:HA	31:e:118:ASN:ND2	2.15	0.61
33:g:200:VAL:HG12	33:g:201:SER:O	2.00	0.61
34:i:1592:C:C4'	34:i:1598:G:O6	2.33	0.61
35:l:39:ASN:C	35:l:41:ARG:H	2.07	0.61
1:A:120:ARG:HG2	3:C:251:TYR:CE2	2.35	0.61
4:D:38:GLU:OE1	4:D:40:ARG:NH2	2.28	0.61
4:D:200:PRO:O	4:D:201:LYS:HB2	1.98	0.61
6:F:103:LEU:HG	6:F:103:LEU:O	2.00	0.61
8:H:6:ALA:HA	8:H:10:LYS:HD3	0.72	0.61
8:H:31:GLU:CD	8:H:41:ARG:HD3	2.25	0.61
8:H:122:LEU:HD11	8:H:123:THR:HG22	1.82	0.61
8:H:138:GLU:CD	14:N:19:ARG:HB3	2.22	0.61
9:I:6:ASP:OD2	9:I:8:TRP:CD1	2.54	0.61
9:I:87:ASN:OD1	9:I:89:GLU:HG2	2.00	0.61
9:I:140:LYS:C	9:I:141:ARG:CG	2.73	0.61
10:J:10:ARG:CZ	10:J:10:ARG:HB2	2.29	0.61
10:J:135:ILE:O	10:J:135:ILE:HG13	1.99	0.61
11:K:25:LYS:HD2	11:K:62:PHE:HE1	1.65	0.61
12:L:118:ARG:HG2	12:L:119:ASP:N	2.14	0.61
14:N:114:ARG:HG2	14:N:114:ARG:NH2	2.11	0.61
17:Q:105:LYS:HZ3	17:Q:109:LYS:CB	2.13	0.61
18:R:100:PRO:HD2	18:R:119:VAL:HG13	1.82	0.61
23:W:29:PRO:O	23:W:30:CYS:HB3	1.99	0.61
23:W:128:PHE:CE1	23:W:130:PHE:HE2	2.16	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
26:Z:62:VAL:HG11	26:Z:91:LEU:CD1	2.30	0.61
34:i:526:A:N6	34:i:538:C:O2	2.34	0.61
34:i:1442:A:O2'	34:i:1443:G:H5"	2.01	0.61
34:i:1749:C:O5'	34:i:1749:C:H6	1.84	0.61
36:n:62:ARG:HH11	36:n:92:ILE:CD1	2.07	0.61
1:A:110:ASN:OD1	34:i:1348:G:OP2	2.00	0.61
2:B:25:PHE:CD2	15:O:88:LEU:CG	2.84	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:225:LEU:O	2:B:229:MET:CG	2.48	0.61
3:C:69:PHE:CZ	3:C:247:THR:CB	2.83	0.61
3:C:256:ASP:OD1	3:C:256:ASP:N	2.33	0.61
4:D:29:LEU:HB2	4:D:34:TYR:HB2	1.82	0.61
8:H:37:LYS:NZ	8:H:41:ARG:HG3	2.16	0.61
8:H:166:VAL:HG23	8:H:173:PHE:CE2	2.35	0.61
9:I:144:LYS:O	9:I:145:ILE:CG2	2.49	0.61
10:J:125:HIS:NE2	10:J:129:LEU:HD11	2.15	0.61
11:K:2:LEU:HD13	11:K:3:MET:H	0.53	0.61
15:O:46:ASP:O	15:O:49:GLY:N	2.33	0.61
17:Q:111:ILE:C	17:Q:114:GLN:HG2	2.25	0.61
20:T:45:LEU:HG	20:T:46:ALA:N	2.16	0.61
24:X:5:ARG:HH21	24:X:5:ARG:HB2	1.65	0.61
25:Y:58:PHE:CE1	25:Y:72:PHE:HD2	2.17	0.61
26:Z:65:TYR:CD2	26:Z:68:ILE:HD11	2.35	0.61
27:a:103:PRO:HA	27:a:107:ALA:HB2	1.83	0.61
2:B:225:LEU:CB	2:B:229:MET:HE2	2.21	0.61
3:C:101:THR:CG2	3:C:103:ALA:C	2.68	0.61
3:C:115:ILE:HD13	3:C:144:LYS:CG	2.29	0.61
3:C:124:LEU:HD13	3:C:125:GLY:N	2.16	0.61
4:D:177:LEU:HD12	4:D:178:ARG:NH2	2.15	0.61
5:E:43:PRO:HA	5:E:82:TYR:O	2.00	0.61
5:E:94:LYS:O	5:E:95:THR:CG2	2.48	0.61
7:G:177:GLN:HG2	7:G:178:ARG:H	1.66	0.61
10:J:34:GLU:HB2	10:J:35:TYR:CD2	2.35	0.61
16:P:8:LYS:C	16:P:11:THR:HG22	2.24	0.61
16:P:128:HIS:HE1	34:i:1516:C:C1’	2.06	0.61
24:X:95:GLU:CG	24:X:140:ARG:NH2	2.48	0.61
25:Y:19:GLN:HG2	25:Y:81:TYR:CG	2.32	0.61
28:b:81:ARG:HB3	28:b:82:LYS:HA	1.81	0.61
34:i:61:A:C2	34:i:326:A:O5’	2.38	0.61
1:A:17:LYS:HE3	1:A:17:LYS:H	1.64	0.61
2:B:76:ASN:O	2:B:76:ASN:CG	2.39	0.61
2:B:113:MET:SD	2:B:211:PHE:HE2	2.05	0.61
2:B:117:TRP:HE3	2:B:153:THR:HB	1.65	0.61
2:B:188:LEU:CD2	2:B:212:VAL:HG21	2.31	0.61
3:C:161:LYS:HD3	22:V:9:VAL:CG2	2.31	0.61
5:E:48:LEU:HD11	5:E:70:ILE:HD11	1.82	0.61
5:E:73:ASP:CG	5:E:122:LYS:HZ2	2.09	0.61
6:F:91:ARG:HH21	17:Q:46:THR:CG2	2.12	0.61
7:G:155:GLN:C	7:G:156:TYR:CD1	2.78	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:135:PHE:HD2	8:H:136:PRO:CD	2.12	0.61
9:I:48:VAL:HG23	9:I:52:ASN:HB3	1.81	0.61
10:J:16:PRO:CD	10:J:44:TRP:CE2	2.83	0.61
15:O:19:PRO:HG3	15:O:27:VAL:HG11	1.81	0.61
15:O:20:GLN:HG2	15:O:21:VAL:C	2.25	0.61
15:O:131:ASP:OD2	27:a:67:LEU:CD2	2.46	0.61
16:P:41:GLN:HE22	16:P:45:LEU:CD1	2.12	0.61
16:P:44:ARG:HD3	16:P:115:TYR:CE1	2.33	0.61
19:S:108:ARG:NH1	19:S:112:GLU:OE2	2.32	0.61
20:T:11:GLN:CD	20:T:62:ARG:CZ	2.70	0.61
20:T:134:ILE:HG13	20:T:135:ALA:N	2.14	0.61
21:U:103:SER:C	21:U:104:ILE:O	2.39	0.61
21:U:108:PRO:O	21:U:108:PRO:HD2	2.00	0.61
23:W:96:SER:OG	23:W:98:GLN:HG2	2.01	0.61
24:X:57:VAL:O	24:X:67:ARG:HB2	2.01	0.61
26:Z:80:ARG:HB3	26:Z:83:LEU:H	1.66	0.61
26:Z:103:HIS:HD2	26:Z:105:ALA:CA	2.13	0.61
27:a:58:VAL:CG1	27:a:59:PHE:N	2.22	0.61
28:b:12:PRO:O	28:b:16:LYS:CE	2.48	0.61
33:g:46:THR:OG1	33:g:48:ASP:HB3	2.00	0.61
34:i:924:G:H1	34:i:1009:U:H3	1.47	0.61
1:A:24:HIS:HB3	1:A:51:LEU:HD21	1.81	0.61
3:C:151:ARG:CZ	3:C:240:LEU:HD11	2.29	0.61
5:E:70:ILE:CD1	5:E:92:ILE:HD11	2.29	0.61
5:E:87:MET:HG3	5:E:123:LEU:O	2.01	0.61
5:E:108:ARG:NH2	34:i:842:G:OP2	2.28	0.61
5:E:129:ILE:CG2	5:E:139:LEU:CD2	2.79	0.61
5:E:174:LYS:NZ	5:E:176:ASP:OD2	2.33	0.61
6:F:33:ILE:HD13	29:c:35:MET:CE	2.29	0.61
6:F:44:LYS:HB3	6:F:45:TYR:CD1	2.32	0.61
9:I:157:LYS:O	9:I:158:ILE:HG22	2.00	0.61
10:J:88:ASP:O	10:J:91:LYS:CB	2.42	0.61
11:K:83:LEU:CB	11:K:85:LEU:HG	2.30	0.61
14:N:13:GLN:OE1	28:b:21:LYS:HG3	2.00	0.61
16:P:127:LYS:NZ	16:P:127:LYS:CA	2.63	0.61
17:Q:85:ARG:HD3	17:Q:119:LEU:HD21	1.81	0.61
21:U:59:LYS:HE3	21:U:86:LYS:HE2	1.82	0.61
22:V:40:ASP:HB3	22:V:47:ASN:HD21	1.60	0.61
22:V:64:GLU:OE2	28:b:2:PRO:HA	2.00	0.61
23:W:53:ILE:HG21	28:b:25:VAL:HG23	1.81	0.61
25:Y:76:TYR:CG	25:Y:82:ALA:HB2	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:a:31:PRO:O	27:a:34:LYS:O	2.19	0.61
32:f:103:LEU:HD22	32:f:106:TYR:HD2	1.62	0.61
32:f:144:CYS:SG	32:f:147:THR:HG22	2.32	0.61
34:i:194:C:H2'	34:i:195:C:C5	2.36	0.61
34:i:520:U:C2'	34:i:521:A:H5'	2.30	0.61
34:i:522:C:O2'	34:i:523:A:H5'	2.00	0.61
34:i:1206:G:N7	34:i:1207:G:OP2	2.33	0.61
3:C:79:ILE:CD1	3:C:147:ILE:HD11	2.27	0.61
3:C:93:LYS:HE3	3:C:95:MET:CB	2.30	0.61
4:D:31:GLU:HA	4:D:107:TYR:OH	2.00	0.61
5:E:62:LYS:CA	5:E:65:CYS:SG	2.88	0.61
5:E:128:LYS:HG3	5:E:130:PHE:HD1	1.65	0.61
6:F:133:THR:HG21	15:O:66:ARG:HH11	1.65	0.61
6:F:186:ASN:O	6:F:191:LYS:NZ	2.31	0.61
7:G:85:ARG:HD2	25:Y:118:ARG:HH21	1.53	0.61
7:G:186:GLN:O	7:G:190:ARG:HG3	2.01	0.61
10:J:21:GLU:C	10:J:23:SER:N	2.58	0.61
10:J:147:PHE:HE2	10:J:149:VAL:HA	1.64	0.61
10:J:168:GLY:O	10:J:169:ARG:C	2.43	0.61
12:L:32:LYS:O	12:L:33:LEU:HD23	2.01	0.61
18:R:20:TYR:CE2	18:R:38:ILE:CB	2.73	0.61
18:R:33:ARG:CB	33:g:150:TRP:HZ2	1.96	0.61
18:R:90:ALA:C	18:R:91:LEU:HD12	2.25	0.61
22:V:53:TYR:CG	22:V:72:LEU:HD13	2.36	0.61
23:W:128:PHE:CD1	23:W:129:PHE:CA	2.84	0.61
31:e:93:VAL:HG12	31:e:94:ALA:O	2.01	0.61
1:A:158:ASP:OD2	22:V:34:MET:HG3	2.01	0.61
2:B:161:VAL:HG12	2:B:165:ARG:NH1	2.16	0.61
3:C:79:ILE:HD11	3:C:147:ILE:HD11	1.83	0.61
3:C:155:TRP:CH2	23:W:97:ARG:CD	2.83	0.61
4:D:47:GLU:HG2	4:D:85:GLU:HG3	1.78	0.61
4:D:55:THR:HA	4:D:58:VAL:HG22	1.83	0.61
4:D:166:TYR:CE1	4:D:200:PRO:HB3	2.36	0.61
5:E:62:LYS:HD2	5:E:80:ILE:HG13	1.83	0.61
5:E:93:ASP:O	5:E:95:THR:N	2.31	0.61
7:G:28:TYR:OH	7:G:104:ALA:HB2	2.01	0.61
9:I:48:VAL:HG22	9:I:52:ASN:C	2.26	0.61
10:J:10:ARG:CB	10:J:10:ARG:HH11	2.06	0.61
10:J:29:LEU:O	31:e:112:TYR:CD1	2.54	0.61
16:P:123:TYR:CZ	19:S:120:HIS:NE2	2.66	0.61
17:Q:92:LEU:CG	17:Q:96:TYR:CE2	2.69	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:58:GLU:HB2	19:S:59:LEU:CD1	2.30	0.61
21:U:82:MET:CE	30:d:51:GLY:C	2.74	0.61
23:W:88:LYS:HZ2	34:i:410:G:H5'	1.64	0.61
25:Y:7:ILE:HD12	25:Y:43:LYS:HB3	1.66	0.61
25:Y:102:THR:HG21	25:Y:107:ARG:HE	0.92	0.61
28:b:84:HIS:N	28:b:84:HIS:HD2	1.98	0.61
29:c:42:ILE:CG2	29:c:43:ILE:N	2.64	0.61
32:f:102:VAL:O	32:f:104:LYS:N	2.34	0.61
34:i:124:U:C2'	34:i:125:C:H5"	2.31	0.61
34:i:192:U:O2'	34:i:193:C:H5'	2.00	0.61
34:i:454:A:H4'	34:i:455:A:OP2	2.00	0.61
34:i:835:C:O2'	34:i:837:G:H4'	2.00	0.61
35:l:47:VAL:N	35:l:83:ILE:C	2.58	0.61
1:A:84:GLN:O	1:A:88:LEU:CD2	2.49	0.60
1:A:202:TYR:O	1:A:203:PHE:CB	2.49	0.60
2:B:25:PHE:HD2	15:O:88:LEU:HD21	1.66	0.60
3:C:158:LYS:NZ	22:V:4:ASN:HA	2.16	0.60
3:C:248:LYS:HD2	3:C:253:GLU:HB3	1.82	0.60
5:E:122:LYS:CD	5:E:164:LEU:HD21	2.31	0.60
6:F:134:VAL:HG11	6:F:136:ARG:NH2	2.12	0.60
9:I:190:LEU:HB2	9:I:195:LEU:HD13	1.83	0.60
10:J:92:MET:O	10:J:93:LYS:NZ	2.34	0.60
11:K:84:HIS:CD2	13:M:27:ILE:CD1	2.84	0.60
11:K:95:ARG:HD3	11:K:96:ARG:O	2.01	0.60
13:M:76:LEU:HD22	13:M:77:ILE:H	1.66	0.60
17:Q:54:PRO:CG	17:Q:88:ILE:HD12	2.31	0.60
17:Q:63:PHE:HD1	17:Q:68:ILE:HD11	1.65	0.60
17:Q:126:ARG:C	34:i:1643:G:H8	2.08	0.60
17:Q:140:ARG:O	17:Q:141:TYR:O	2.19	0.60
18:R:1:MET:O	18:R:2:GLY:C	2.40	0.60
19:S:26:ILE:O	19:S:30:ILE:HG13	2.01	0.60
20:T:119:TRP:CE3	34:i:1557:C:H1'	2.36	0.60
24:X:125:VAL:C	24:X:127:ASN:N	2.54	0.60
26:Z:64:ASN:O	26:Z:111:ARG:CZ	2.48	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:20:GLN:HB2	33:g:34:ALA:HB3	1.83	0.60
33:g:37:ASP:O	33:g:38:LYS:HB2	1.99	0.60
33:g:119:GLN:HE22	33:g:131:LEU:HG	1.66	0.60
36:n:58:LEU:HD22	36:n:58:LEU:N	2.16	0.60
36:n:62:ARG:CB	36:n:92:ILE:CA	2.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:177:LEU:HD12	3:C:177:LEU:C	2.25	0.60
9:I:140:LYS:O	9:I:141:ARG:CG	2.49	0.60
10:J:81:LEU:HD12	10:J:97:ILE:HD11	1.83	0.60
12:L:96:ILE:O	12:L:99:TYR:O	2.20	0.60
13:M:64:LEU:HG	32:f:104:LYS:HZ2	1.65	0.60
14:N:27:LYS:CD	14:N:27:LYS:N	2.62	0.60
18:R:28:PHE:HA	18:R:55:THR:HG21	1.82	0.60
28:b:12:PRO:CA	28:b:16:LYS:HE2	2.31	0.60
33:g:281:ALA:O	33:g:282:GLU:HB2	2.00	0.60
34:i:830:C:C2	34:i:837:G:N2	2.69	0.60
34:i:1170:U:H5"	34:i:1711:C:O3'	2.01	0.60
34:i:1468:C:N4	34:i:1471:G:C8	2.65	0.60
36:n:61:ILE:HG12	36:n:66:ARG:HB3	1.83	0.60
1:A:61:ALA:HB2	1:A:161:ILE:HD11	1.83	0.60
1:A:76:VAL:CG1	1:A:175:TRP:CZ3	2.84	0.60
5:E:25:SER:HB2	34:i:485:U:H1'	1.81	0.60
5:E:260:GLN:O	5:E:261:SER:OG	2.13	0.60
6:F:145:ARG:CD	29:c:49:PRO:HD2	2.24	0.60
7:G:177:GLN:NE2	34:i:305:U:O2'	2.35	0.60
8:H:169:LYS:HD2	8:H:173:PHE:HZ	1.66	0.60
9:I:85:ALA:C	12:L:8:ARG:NH1	2.59	0.60
10:J:136:ARG:HG3	10:J:160:SER:HB3	1.82	0.60
11:K:12:TYR:CD2	11:K:82:TYR:CD2	2.89	0.60
12:L:5:GLN:NE2	12:L:10:TYR:CE1	2.59	0.60
12:L:118:ARG:CG	12:L:119:ASP:N	2.62	0.60
13:M:89:VAL:CG2	13:M:109:VAL:HG11	2.26	0.60
16:P:114:HIS:HE1	19:S:113:ARG:HH22	1.47	0.60
20:T:85:ASN:H	20:T:85:ASN:HD22	1.49	0.60
20:T:119:TRP:CG	34:i:1557:C:H1'	2.36	0.60
20:T:144:LYS:NZ	20:T:144:LYS:CB	2.54	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
25:Y:36:PRO:HD3	25:Y:39:GLU:OE1	1.98	0.60
33:g:42:MET:HB2	33:g:92:LEU:HD11	1.83	0.60
34:i:740:G:H2'	34:i:741:C:C6	2.37	0.60
34:i:783:G:HO2'	34:i:896:C:H5'	1.61	0.60
34:i:1287:A:H2'	34:i:1298:G:C8	2.36	0.60
34:i:1408:C:C2'	34:i:1409:G:C8	2.85	0.60
35:l:50:ILE:HG13	35:l:102:LEU:HD21	1.82	0.60
36:n:78:LEU:CD2	36:n:93:LEU:CD2	2.70	0.60
36:n:103:LEU:HD22	36:n:106:TYR:CE2	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:66:VAL:O	1:A:67:ALA:HB3	2.01	0.60
1:A:103:PHE:CZ	1:A:107:THR:OG1	2.53	0.60
1:A:127:PRO:HA	1:A:134:LEU:CD1	2.32	0.60
5:E:151:ASP:OD2	5:E:151:ASP:N	2.30	0.60
7:G:63:MET:CE	7:G:106:LEU:CD2	2.78	0.60
10:J:38:ARG:NE	31:e:105:ARG:N	2.41	0.60
10:J:106:LEU:O	10:J:109:ARG:HG3	2.02	0.60
13:M:86:GLY:N	13:M:106:CYS:HB2	2.16	0.60
14:N:84:LEU:HD11	14:N:89:TYR:HB2	1.83	0.60
14:N:142:GLU:OE2	14:N:144:SER:OG	2.19	0.60
17:Q:16:LYS:HE3	17:Q:17:LYS:HD2	1.84	0.60
19:S:30:ILE:CD1	19:S:45:LEU:HD21	2.29	0.60
24:X:105:PHE:HE2	24:X:118:VAL:O	1.77	0.60
25:Y:34:THR:HG22	25:Y:35:VAL:CA	2.29	0.60
26:Z:80:ARG:CG	26:Z:82:SER:OG	2.40	0.60
32:f:109:ASP:O	32:f:110:GLU:O	2.19	0.60
33:g:191:HIS:O	33:g:192:THR:HG22	2.00	0.60
34:i:181:A:C1'	34:i:182:C:C5	2.82	0.60
34:i:194:C:C2	34:i:195:C:C5	2.81	0.60
34:i:1683:C:N3	34:i:1684:C:C5	2.69	0.60
35:l:95:GLN:C	35:l:97:LEU:N	2.58	0.60
36:n:60:HIS:HB2	36:n:90:ASP:OD2	2.01	0.60
1:A:14:ASP:O	1:A:18:PHE:HD2	1.84	0.60
2:B:206:PRO:O	2:B:207:LEU:HB2	2.00	0.60
4:D:222:PRO:C	4:D:223:ILE:CD1	2.74	0.60
5:E:124:CYS:SG	5:E:162:ILE:CD1	2.88	0.60
5:E:154:ILE:HG21	5:E:160:ILE:HD11	1.83	0.60
5:E:180:LEU:CD1	5:E:228:ILE:HD11	2.32	0.60
10:J:46:VAL:HG12	10:J:102:ILE:HD12	1.82	0.60
10:J:100:LEU:CD1	10:J:101:LYS:H	2.14	0.60
10:J:170:PRO:HB3	10:J:174:LYS:HE2	1.84	0.60
13:M:91:LEU:CD2	13:M:104:VAL:HG13	2.21	0.60
14:N:55:ARG:HH21	28:b:51:GLN:NE2	1.92	0.60
17:Q:42:ILE:CG1	17:Q:51:LEU:CD2	2.79	0.60
19:S:27:ALA:O	19:S:31:THR:HG23	2.01	0.60
22:V:9:VAL:HG12	22:V:10:ASP:CA	2.31	0.60
24:X:91:LEU:O	24:X:92:ASN:C	2.43	0.60
33:g:4:GLN:HG2	33:g:5:MET:H	1.67	0.60
33:g:276:SER:O	33:g:277:THR:C	2.44	0.60
36:n:62:ARG:CG	36:n:91:VAL:O	2.49	0.60
1:A:145:ILE:HA	1:A:159:ILE:HG21	1.78	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:149:ASN:HB2	1:A:165:ASN:HD21	1.66	0.60
2:B:49:VAL:HG12	2:B:50:THR:N	2.16	0.60
2:B:119:THR:HB	2:B:143:THR:HG23	1.83	0.60
2:B:150:ILE:CG2	18:R:125:GLY:HA3	2.29	0.60
4:D:98:ALA:N	4:D:188:ILE:HD12	2.17	0.60
5:E:23:LEU:O	5:E:24:THR:CB	2.49	0.60
5:E:166:THR:HB	5:E:168:LYS:NZ	2.17	0.60
6:F:53:ALA:C	17:Q:125:ARG:HH22	2.08	0.60
7:G:142:ARG:HE	7:G:147:LEU:HB3	1.67	0.60
7:G:162:LEU:HD22	7:G:172:LYS:HZ1	1.67	0.60
11:K:12:TYR:CZ	11:K:52:LEU:HD21	2.37	0.60
11:K:71:LEU:CG	11:K:76:ILE:CD1	2.80	0.60
19:S:50:ILE:HG12	19:S:63:GLU:HG2	1.83	0.60
20:T:94:ARG:CG	20:T:94:ARG:HH11	2.14	0.60
23:W:20:ARG:HB3	23:W:22:LYS:HD3	1.82	0.60
24:X:138:LYS:CA	24:X:139:GLU:OE2	2.49	0.60
25:Y:52:PRO:CD	25:Y:53:ASP:N	2.64	0.60
28:b:1:MET:N	28:b:2:PRO:HD3	2.16	0.60
31:e:118:ASN:CA	31:e:119:VAL:CB	2.77	0.60
33:g:219:TRP:CD2	33:g:226:HIS:CD2	2.89	0.60
33:g:255:SER:HB3	33:g:271:LYS:HG3	1.82	0.60
2:B:117:TRP:HE3	2:B:153:THR:CB	2.14	0.60
3:C:141:ILE:O	3:C:145:LEU:HD23	2.02	0.60
3:C:155:TRP:CE2	23:W:97:ARG:HD2	2.37	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
5:E:21:ASP:OD2	5:E:24:THR:HG23	1.94	0.60
5:E:100:ARG:HG2	5:E:102:ILE:HD12	1.84	0.60
5:E:153:LEU:CD1	5:E:172:PHE:HZ	1.94	0.60
6:F:46:ALA:O	6:F:47:LYS:CD	2.39	0.60
6:F:91:ARG:HH21	17:Q:46:THR:HG22	1.65	0.60
8:H:50:GLU:OE2	8:H:90:LYS:HE2	2.02	0.60
10:J:10:ARG:HH11	10:J:10:ARG:CG	2.15	0.60
10:J:77:LEU:O	10:J:81:LEU:HG	2.02	0.60
11:K:1:MET:HG3	34:i:1270:G:H5"	1.84	0.60
11:K:62:PHE:HE1	11:K:67:PHE:HE2	1.48	0.60
13:M:89:VAL:HG21	13:M:109:VAL:CG1	2.27	0.60
16:P:21:ASP:O	16:P:25:LEU:N	2.29	0.60
16:P:74:GLU:O	16:P:75:VAL:CB	2.50	0.60
16:P:125:PRO:O	16:P:126:VAL:HB	2.00	0.60
17:Q:45:ARG:NH1	34:i:1588:C:H4'	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:111:LEU:HD22	19:S:125:HIS:CE1	2.37	0.60
20:T:28:LEU:O	20:T:28:LEU:CD2	2.44	0.60
24:X:105:PHE:CG	24:X:112:VAL:HG21	2.32	0.60
25:Y:46:LYS:O	25:Y:46:LYS:CD	2.50	0.60
27:a:50:VAL:HA	27:a:53:ILE:HB	1.82	0.60
29:c:13:ARG:HG2	29:c:33:GLU:HB2	1.82	0.60
34:i:1082:G:O2'	34:i:1083:A:H5'	2.01	0.60
34:i:1822:C:H2'	34:i:1843:G:H1	1.63	0.60
36:n:62:ARG:HG2	36:n:92:ILE:CD1	2.28	0.60
1:A:119:PRO:HG3	1:A:122:LEU:HD21	1.84	0.60
2:B:25:PHE:HD2	15:O:88:LEU:HD22	1.44	0.60
2:B:113:MET:CE	2:B:209:ASP:CB	2.79	0.60
4:D:16:ILE:CG2	30:d:22:ARG:HH12	2.15	0.60
5:E:86:PHE:CE1	5:E:182:MET:SD	2.95	0.60
5:E:159:THR:HG21	5:E:227:VAL:O	2.02	0.60
7:G:1:MET:SD	7:G:106:LEU:O	2.60	0.60
8:H:166:VAL:HG23	8:H:173:PHE:CZ	2.37	0.60
9:I:112:TRP:CH2	9:I:117:TYR:HE2	2.19	0.60
10:J:37:LEU:HD21	10:J:42:GLU:CA	2.31	0.60
12:L:101:ARG:HB2	24:X:10:ALA:N	2.17	0.60
12:L:118:ARG:HG2	12:L:119:ASP:H	1.66	0.60
16:P:108:LYS:HZ1	19:S:118:ARG:NH1	2.00	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:OD2	2.49	0.60
23:W:37:PHE:CE1	23:W:103:VAL:HG11	2.37	0.60
24:X:67:ARG:CG	24:X:115:ILE:HG12	2.32	0.60
28:b:33:MET:HE3	28:b:79:PHE:CD1	2.34	0.60
29:c:63:ARG:O	29:c:64:GLU:HB3	2.01	0.60
34:i:1282:G:N2	34:i:1309:A:N7	2.49	0.60
2:B:87:ILE:CG2	2:B:101:HIS:CG	2.84	0.60
3:C:42:ASP:OD1	3:C:43:LYS:N	2.35	0.60
3:C:93:LYS:CE	3:C:95:MET:HG2	2.32	0.60
4:D:71:ALA:O	4:D:75:LYS:HG2	2.02	0.60
6:F:122:ARG:NE	6:F:193:LYS:HZ3	1.99	0.60
7:G:63:MET:CE	7:G:106:LEU:HD21	2.32	0.60
10:J:16:PRO:C	10:J:18:ARG:H	2.09	0.60
10:J:79:ARG:HD2	10:J:83:ARG:HD2	1.82	0.60
14:N:19:ARG:NH1	28:b:84:HIS:CB	2.64	0.60
14:N:25:TRP:HZ3	28:b:45:THR:HG21	1.64	0.60
15:O:129:ILE:CG2	27:a:44:ILE:HG12	2.32	0.60
16:P:19:GLY:H	19:S:92:ASP:HA	1.64	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:8:GLN:HA	17:Q:99:TYR:OH	2.01	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
28:b:10:PRO:HD2	28:b:10:PRO:O	2.01	0.60
28:b:33:MET:SD	28:b:79:PHE:CD1	2.94	0.60
31:e:105:ARG:NH1	31:e:106:ALA:N	2.49	0.60
33:g:100:ARG:HH22	34:i:1395:C:C5'	2.14	0.60
34:i:1683:C:N3	34:i:1684:C:H5	1.99	0.60
34:i:1843:G:H21	35:l:68:ALA:HB1	0.60	0.60
34:i:1843:G:C2	35:l:68:ALA:CA	2.85	0.60
35:l:66:LYS:HB3	35:l:67:PHE:CE1	2.36	0.60
2:B:137:LEU:HD23	2:B:215:VAL:HA	1.84	0.60
4:D:40:ARG:HD3	21:U:107:GLU:OE2	2.02	0.60
5:E:256:LEU:HD12	5:E:257:ALA:N	2.16	0.60
6:F:36:GLN:O	6:F:37:ASP:HB2	2.00	0.60
6:F:166:ILE:HD12	6:F:166:ILE:N	2.16	0.60
7:G:63:MET:HE3	7:G:106:LEU:HD22	1.84	0.60
12:L:111:VAL:HG23	12:L:140:PHE:C	2.27	0.60
13:M:45:ARG:H	13:M:45:ARG:NE	2.00	0.60
14:N:23:PRO:O	14:N:24:THR:HB	2.02	0.60
16:P:59:ARG:HD3	16:P:76:VAL:CG1	2.27	0.60
17:Q:58:LEU:HD21	17:Q:111:ILE:HB	1.83	0.60
25:Y:37:LYS:HA	25:Y:40:ILE:CG2	2.32	0.60
33:g:64:HIS:HE1	33:g:65:PHE:CE2	2.19	0.60
33:g:212:LYS:O	33:g:213:ASP:C	2.37	0.60
34:i:227:A:O2'	34:i:782:G:C1'	2.49	0.60
34:i:1596:A:N6	34:i:1631:G:C2	2.70	0.60
1:A:111:GLN:OE1	3:C:48:VAL:HB	2.02	0.59
1:A:122:LEU:CD1	1:A:137:ALA:HB2	2.32	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
4:D:196:GLY:O	4:D:199:GLY:HA3	2.01	0.59
7:G:7:PHE:HB2	7:G:124:LEU:HG	1.84	0.59
7:G:135:PRO:HG2	7:G:144:LEU:CD2	2.32	0.59
8:H:144:ILE:HD12	23:W:52:ILE:CD1	2.25	0.59
9:I:128:LYS:O	9:I:131:PRO:HD2	2.02	0.59
9:I:141:ARG:O	9:I:142:SER:CB	2.50	0.59
10:J:177:ASN:C	10:J:180:LYS:HG2	2.19	0.59
11:K:47:LYS:HD3	11:K:50:GLN:CD	2.26	0.59
16:P:75:VAL:CG1	16:P:76:VAL:N	2.64	0.59
24:X:1:MET:O	24:X:3:LYS:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:128:VAL:CG1	24:X:133:LEU:HD21	2.32	0.59
25:Y:63:HIS:CG	25:Y:64:PHE:CD1	2.88	0.59
33:g:197:THR:HG21	33:g:238:ALA:HA	1.83	0.59
34:i:1596:A:H5'	34:i:1597:U:H5	1.67	0.59
1:A:74:VAL:HG22	1:A:121:LEU:HB3	1.84	0.59
5:E:1:MET:SD	34:i:422:G:OP2	2.61	0.59
5:E:153:LEU:CD2	7:G:216:ARG:NH2	2.59	0.59
6:F:25:THR:CG2	6:F:41:VAL:HG22	2.32	0.59
6:F:128:ILE:O	6:F:134:VAL:HG13	2.02	0.59
8:H:6:ALA:HB3	8:H:15:LYS:HE2	1.84	0.59
12:L:80:MET:HE3	12:L:120:VAL:HG12	1.83	0.59
17:Q:63:PHE:CD1	17:Q:68:ILE:HD11	2.37	0.59
20:T:23:LYS:CE	20:T:54:TYR:CE2	2.85	0.59
24:X:95:GLU:OE1	24:X:140:ARG:NH2	2.35	0.59
25:Y:9:THR:HG21	25:Y:48:TYR:HE2	1.67	0.59
25:Y:98:GLU:OE2	25:Y:99:LYS:HA	2.01	0.59
25:Y:103:SER:O	25:Y:104:ARG:HB3	2.02	0.59
25:Y:110:ARG:O	25:Y:114:MET:HG3	2.01	0.59
28:b:1:MET:H2	28:b:2:PRO:HD3	1.66	0.59
31:e:80:LEU:HD12	36:n:83:ASP:HB2	0.60	0.59
33:g:25:PRO:O	33:g:26:GLN:C	2.42	0.59
33:g:70:VAL:CG1	33:g:79:LEU:HB2	2.32	0.59
33:g:131:LEU:HD23	33:g:132:TRP:N	2.18	0.59
33:g:277:THR:HG23	33:g:278:SER:H	1.67	0.59
34:i:226:A:C2	34:i:783:G:C5'	2.85	0.59
34:i:226:A:N3	34:i:783:G:C5'	2.65	0.59
35:l:48:GLN:CB	35:l:82:VAL:CG1	2.72	0.59
36:n:103:LEU:HD22	36:n:106:TYR:CG	2.36	0.59
1:A:14:ASP:O	1:A:18:PHE:CD2	2.56	0.59
5:E:204:SER:O	5:E:205:PHE:CB	2.50	0.59
7:G:13:GLN:O	7:G:14:LYS:HG2	2.02	0.59
7:G:59:GLN:H	34:i:157:U:H4'	1.67	0.59
7:G:85:ARG:HD3	25:Y:118:ARG:NH1	2.16	0.59
8:H:23:ILE:HD13	8:H:23:ILE:O	2.02	0.59
8:H:143:ARG:NE	23:W:53:ILE:CG2	2.62	0.59
8:H:190:PRO:HG2	8:H:192:PHE:CZ	2.37	0.59
13:M:14:VAL:O	13:M:16:THR:N	2.35	0.59
13:M:95:ASP:HB2	13:M:101:ARG:NH1	2.17	0.59
14:N:27:LYS:HD2	14:N:27:LYS:C	2.25	0.59
14:N:76:LYS:C	14:N:76:LYS:CD	2.75	0.59
14:N:119:GLU:O	14:N:123:HIS:CD2	2.55	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:128:TYR:O	14:N:132:LYS:HG2	2.02	0.59
16:P:41:GLN:NE2	16:P:45:LEU:CG	2.40	0.59
16:P:53:GLN:NE2	16:P:80:LEU:HD22	2.16	0.59
19:S:88:LYS:N	19:S:94:LYS:O	2.35	0.59
20:T:119:TRP:CE3	34:i:1557:C:C2'	2.85	0.59
20:T:119:TRP:NE1	34:i:1556:A:N1	2.50	0.59
21:U:48:LEU:C	21:U:49:LYS:CG	2.74	0.59
26:Z:92:LEU:CD2	26:Z:97:ILE:HG13	2.30	0.59
27:a:2:THR:HG22	34:i:1195:A:H5"	1.83	0.59
30:d:13:LYS:HG2	30:d:14:PHE:CE2	2.31	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:1750:C:C2'	34:i:1751:G:C8	2.86	0.59
7:G:64:LYS:HG3	7:G:67:VAL:HG11	1.84	0.59
8:H:117:PRO:HD2	8:H:120:ARG:HB2	1.84	0.59
9:I:62:VAL:HG23	9:I:75:LYS:CE	2.32	0.59
11:K:89:ILE:O	11:K:90:VAL:HG12	2.02	0.59
13:M:42:LEU:CD2	13:M:110:VAL:HG21	2.32	0.59
18:R:5:ARG:HB2	18:R:10:LYS:HZ3	0.75	0.59
19:S:40:TYR:CA	19:S:83:PHE:HZ	2.14	0.59
21:U:57:PRO:O	21:U:57:PRO:HD2	2.02	0.59
22:V:20:SER:HA	23:W:23:ARG:HH22	1.68	0.59
23:W:41:MET:HG2	23:W:129:PHE:CD2	2.36	0.59
25:Y:9:THR:HG21	25:Y:48:TYR:CE2	2.37	0.59
26:Z:52:LYS:O	26:Z:54:THR:N	2.35	0.59
28:b:12:PRO:CD	28:b:13:GLU:N	2.55	0.59
33:g:32:LEU:HD11	33:g:40:ILE:CG2	2.32	0.59
33:g:119:GLN:HE22	33:g:121:VAL:HG22	1.64	0.59
33:g:172:LYS:HE2	33:g:192:THR:CB	2.31	0.59
33:g:194:TYR:CE2	33:g:212:LYS:CG	2.86	0.59
33:g:240:CYS:SG	33:g:291:TRP:HD1	2.25	0.59
34:i:181:A:N7	34:i:182:C:C4	2.69	0.59
34:i:227:A:C2'	34:i:782:G:O2'	2.50	0.59
34:i:1287:A:H2'	34:i:1298:G:N7	2.17	0.59
2:B:42:ARG:NH2	2:B:232:HIS:HA	2.17	0.59
2:B:52:THR:HG22	2:B:58:ALA:HB2	1.83	0.59
2:B:92:GLN:O	2:B:95:ASN:HB2	2.02	0.59
3:C:148:VAL:HB	3:C:149:PRO:HD3	1.84	0.59
3:C:197:LYS:N	3:C:200:LEU:HD23	2.17	0.59
4:D:32:ASP:OD1	4:D:57:ASN:HB2	2.03	0.59
4:D:67:ARG:CG	4:D:67:ARG:NH1	2.57	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:67:GLN:OE1	5:E:67:GLN:HA	2.03	0.59
6:F:61:PHE:O	6:F:63:LYS:N	2.35	0.59
7:G:227:GLN:CA	7:G:230:LYS:HZ3	2.15	0.59
10:J:164:PRO:C	10:J:165:TYR:HD1	2.10	0.59
16:P:28:MET:HB3	16:P:32:GLN:OE1	2.01	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
22:V:55:ILE:CG2	22:V:60:ARG:HG3	2.32	0.59
23:W:53:ILE:HG22	28:b:25:VAL:CG2	2.31	0.59
33:g:32:LEU:HD11	33:g:40:ILE:HG21	1.84	0.59
33:g:163:PRO:HB2	33:g:179:LEU:HB2	1.83	0.59
33:g:289:LEU:N	33:g:289:LEU:HD23	2.18	0.59
34:i:522:C:H2'	34:i:523:A:H8	1.68	0.59
34:i:1816:A:H3'	34:i:1817:A:H2'	1.84	0.59
4:D:108:LYS:CA	4:D:113:LEU:HD22	2.33	0.59
6:F:56:TYR:CE1	6:F:66:CYS:HB2	2.38	0.59
6:F:142:SER:HB2	29:c:50:VAL:HG23	1.84	0.59
8:H:168:HIS:CE1	8:H:169:LYS:HG2	2.38	0.59
9:I:21:TYR:OH	34:i:422:G:O3'	2.21	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
13:M:64:LEU:HD11	32:f:104:LYS:HA	1.85	0.59
15:O:106:LYS:HZ2	27:a:69:VAL:HG13	1.66	0.59
16:P:107:ILE:HG13	16:P:107:ILE:O	2.03	0.59
22:V:55:ILE:CG2	22:V:60:ARG:CG	2.80	0.59
23:W:3:ARG:NE	23:W:9:ASP:OD2	2.35	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:62:THR:CA	25:Y:69:THR:HG22	2.32	0.59
33:g:143:GLN:O	33:g:146:SER:HB3	2.03	0.59
33:g:165:ILE:HG13	33:g:177:TRP:HB2	1.85	0.59
34:i:181:A:N9	34:i:182:C:C5	2.71	0.59
34:i:1745:C:O5'	34:i:1745:C:H6	1.86	0.59
1:A:57:LYS:HE2	22:V:70:LEU:CD2	2.31	0.59
1:A:164:ASN:C	1:A:166:LYS:H	2.07	0.59
2:B:31:TYR:CE1	2:B:94:LYS:N	2.69	0.59
2:B:133:TYR:CZ	2:B:181:LEU:HD12	2.38	0.59
3:C:223:LYS:HE3	34:i:1351:C:O2'	2.01	0.59
3:C:236:LEU:HD23	3:C:237:THR:N	2.17	0.59
4:D:218:LEU:HB2	4:D:220:THR:HG22	1.78	0.59
9:I:7:ASN:C	9:I:9:HIS:N	2.59	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:141:ARG:HD3	9:I:144:LYS:CG	2.33	0.59
12:L:71:ARG:HD2	12:L:73:LEU:HD11	1.84	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	2.43	0.59
16:P:13:ARG:O	16:P:14:LYS:CG	2.50	0.59
17:Q:18:THR:C	17:Q:75:GLY:CA	2.75	0.59
20:T:29:LYS:CA	20:T:29:LYS:CE	2.79	0.59
24:X:126:ALA:CB	24:X:128:VAL:CB	2.57	0.59
28:b:81:ARG:HB2	28:b:82:LYS:CG	2.29	0.59
30:d:5:GLN:CB	30:d:7:TYR:CD2	2.61	0.59
30:d:5:GLN:O	30:d:7:TYR:O	2.21	0.59
33:g:8:ARG:HE	33:g:8:ARG:HA	0.62	0.59
33:g:74:ASP:OD2	33:g:74:ASP:N	2.33	0.59
33:g:110:SER:HB2	33:g:153:CYS:HA	1.85	0.59
33:g:240:CYS:HG	33:g:291:TRP:CD1	2.20	0.59
34:i:79:A:O2'	34:i:80:G:H8	1.85	0.59
35:l:45:THR:CA	35:l:85:LEU:O	2.49	0.59
35:l:72:THR:N	35:l:84:GLN:O	2.36	0.59
6:F:42:LYS:C	6:F:42:LYS:HD3	2.09	0.59
7:G:175:LYS:CE	34:i:307:G:H5'	2.32	0.59
8:H:46:THR:HG23	8:H:47:ALA:N	2.18	0.59
9:I:105:ASP:O	9:I:106:SER:HB2	2.02	0.59
12:L:59:LYS:HE2	12:L:134:LEU:HD21	1.83	0.59
14:N:28:LEU:CD1	14:N:58:HIS:CE1	2.85	0.59
14:N:46:THR:HG1	14:N:49:GLN:HG2	1.61	0.59
14:N:87:ASP:CG	14:N:129:TYR:OH	2.45	0.59
17:Q:58:LEU:HD13	17:Q:108:ILE:CG2	2.26	0.59
18:R:21:TYR:HD2	18:R:73:LEU:HD12	1.67	0.59
19:S:89:ASP:HB2	19:S:94:LYS:HB2	1.85	0.59
22:V:9:VAL:CG1	22:V:10:ASP:N	2.52	0.59
25:Y:50:THR:OG1	25:Y:55:ILE:HD11	2.02	0.59
25:Y:88:LYS:HE3	25:Y:97:TYR:OH	2.03	0.59
27:a:103:PRO:HB3	27:a:107:ALA:CB	2.32	0.59
32:f:103:LEU:HD23	32:f:105:TYR:H	1.66	0.59
33:g:70:VAL:HG12	33:g:79:LEU:HB2	1.85	0.59
34:i:227:A:OP1	34:i:782:G:H5'	2.01	0.59
3:C:236:LEU:HD23	3:C:236:LEU:C	2.28	0.59
4:D:67:ARG:NH1	11:K:95:ARG:HG3	2.17	0.59
5:E:86:PHE:CD2	5:E:87:MET:HG2	2.38	0.59
6:F:123:GLU:CB	29:c:59:LEU:HD11	2.32	0.59
7:G:142:ARG:NE	7:G:147:LEU:HB3	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:197:GLN:O	7:G:201:LYS:HG2	2.01	0.59
8:H:37:LYS:HZ3	8:H:41:ARG:HG3	1.68	0.59
9:I:129:LEU:O	9:I:134:GLU:HB2	2.03	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
17:Q:90:LYS:HD3	17:Q:120:LEU:CA	2.33	0.59
22:V:40:ASP:OD2	22:V:45:ARG:HB2	2.02	0.59
26:Z:48:VAL:HG22	26:Z:80:ARG:HD2	1.79	0.59
27:a:36:ILE:HD13	27:a:78:ALA:HB3	1.84	0.59
30:d:21:CYS:SG	30:d:23:VAL:HB	2.43	0.59
31:e:115:ARG:CA	31:e:119:VAL:HG21	2.33	0.59
34:i:1206:G:H2'	34:i:1207:G:C4'	2.31	0.59
1:A:6:ASP:O	1:A:8:LEU:N	2.35	0.59
1:A:102:ARG:NH2	34:i:1375:A:H4'	2.17	0.59
3:C:185:ARG:HA	3:C:206:ASP:OD2	2.02	0.59
4:D:214:LYS:O	4:D:215:ASP:CG	2.46	0.59
6:F:104:THR:HG22	6:F:104:THR:O	2.03	0.59
7:G:174:PRO:O	7:G:175:LYS:HB2	2.02	0.59
11:K:51:SER:HB2	34:i:1273:C:H5'	1.85	0.59
12:L:86:ILE:HG13	12:L:111:VAL:HG13	1.84	0.59
18:R:14:ARG:O	18:R:18:GLU:HG3	2.03	0.59
21:U:62:ARG:HH11	21:U:79:ARG:HD3	1.67	0.59
23:W:23:ARG:HG2	23:W:23:ARG:HH11	1.66	0.59
23:W:53:ILE:HG21	28:b:25:VAL:CG2	2.32	0.59
24:X:22:TRP:O	24:X:23:HIS:O	2.20	0.59
24:X:87:ASN:HB2	24:X:90:CYS:SG	2.43	0.59
32:f:103:LEU:HD23	32:f:105:TYR:CA	2.32	0.59
33:g:34:ALA:HB1	33:g:66:VAL:HG12	1.85	0.59
34:i:683:G:N2	34:i:733:G:N1	2.50	0.59
34:i:1407:G:H3'	34:i:1408:C:C5'	2.32	0.59
35:l:55:ASP:C	35:l:57:LYS:N	2.61	0.59
1:A:180:ARG:CD	1:A:184:ARG:CZ	2.78	0.58
2:B:57:ILE:HD12	2:B:60:ASP:OD2	1.98	0.58
2:B:71:LEU:HD13	2:B:84:PHE:HE2	0.85	0.58
3:C:101:THR:HG23	3:C:103:ALA:C	2.28	0.58
4:D:202:LYS:HB2	4:D:203:PRO:HD3	1.82	0.58
5:E:38:LEU:HD12	5:E:39:ARG:N	2.15	0.58
5:E:49:ARG:NH2	5:E:50:ASN:ND2	2.51	0.58
6:F:195:GLU:OE1	6:F:195:GLU:CA	2.49	0.58
7:G:27:PHE:HZ	7:G:41:LEU:HD13	1.68	0.58
7:G:32:MET:SD	7:G:100:CYS:SG	3.01	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:192:ILE:HG13	7:G:193:ALA:N	2.17	0.58
7:G:227:GLN:O	7:G:230:LYS:HG3	2.03	0.58
9:I:85:ALA:HB1	12:L:8:ARG:HD2	1.85	0.58
11:K:42:ASN:O	11:K:43:LEU:HD23	2.02	0.58
13:M:61:TYR:OH	13:M:108:CYS:SG	2.61	0.58
16:P:49:LEU:N	16:P:51:ARG:HG3	2.18	0.58
17:Q:92:LEU:O	17:Q:96:TYR:CD2	2.56	0.58
20:T:23:LYS:HD3	20:T:54:TYR:CD1	2.33	0.58
20:T:31:PRO:HG2	20:T:102:ARG:CG	2.33	0.58
20:T:38:LYS:HD2	20:T:46:ALA:N	2.17	0.58
23:W:82:GLN:O	23:W:83:LEU:HB3	2.02	0.58
25:Y:56:PHE:CG	25:Y:86:GLU:OE2	2.56	0.58
30:d:46:TYR:HD2	30:d:46:TYR:N	2.01	0.58
33:g:298:LEU:HD21	33:g:310:TRP:CB	2.31	0.58
34:i:1824:U:C4'	34:i:1845:A:H61	2.14	0.58
1:A:80:ARG:NH1	1:A:165:ASN:O	2.32	0.58
1:A:119:PRO:HG2	1:A:142:LEU:CD1	2.27	0.58
2:B:117:TRP:CE3	2:B:153:THR:HB	2.38	0.58
3:C:154:TYR:CD2	3:C:158:LYS:HA	2.37	0.58
5:E:67:GLN:O	5:E:68:ARG:CG	2.50	0.58
6:F:144:LEU:HD23	29:c:49:PRO:CG	2.33	0.58
10:J:50:LEU:CD1	10:J:102:ILE:CD1	2.72	0.58
10:J:84:ILE:O	10:J:108:ARG:CD	2.51	0.58
11:K:90:VAL:O	11:K:90:VAL:HG22	2.02	0.58
13:M:44:LYS:C	13:M:46:GLN:H	2.12	0.58
14:N:55:ARG:HH22	28:b:51:GLN:CD	2.07	0.58
15:O:34:PHE:CE1	15:O:99:ALA:C	2.81	0.58
15:O:98:ARG:HG3	15:O:133:THR:HG22	1.85	0.58
20:T:87:VAL:CG2	34:i:1660:G:C2	2.86	0.58
25:Y:98:GLU:O	25:Y:99:LYS:HB3	2.03	0.58
30:d:40:ARG:HG2	30:d:41:GLN:OE1	2.03	0.58
32:f:88:PRO:O	32:f:90:LYS:N	2.36	0.58
33:g:88:ARG:HD2	33:g:90:TRP:CE2	2.37	0.58
34:i:1055:G:H4'	35:l:72:THR:CG2	2.33	0.58
34:i:1843:G:H4'	35:l:65:LYS:CE	2.33	0.58
2:B:129:THR:OG1	2:B:133:TYR:HB2	2.03	0.58
4:D:97:CYS:O	4:D:100:ALA:N	2.36	0.58
5:E:56:LEU:HD23	5:E:56:LEU:N	2.16	0.58
5:E:150:PRO:C	5:E:151:ASP:OD2	2.46	0.58
6:F:32:ASP:HB2	6:F:117:ILE:CG2	2.33	0.58
6:F:158:ALA:HA	6:F:172:CYS:SG	2.43	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:158:LEU:HD23	8:H:158:LEU:N	2.17	0.58
9:I:145:ILE:HA	9:I:148:LYS:CD	2.33	0.58
11:K:39:ASN:C	11:K:40:VAL:HG12	2.28	0.58
15:O:30:VAL:HG23	15:O:32:HIS:HD2	1.68	0.58
16:P:108:LYS:HZ2	19:S:118:ARG:HH12	1.49	0.58
17:Q:118:THR:O	17:Q:120:LEU:N	2.36	0.58
17:Q:138:ARG:HH12	34:i:1641:C:H3'	1.69	0.58
19:S:80:PRO:HG3	19:S:82:TRP:CE2	2.38	0.58
21:U:86:LYS:C	21:U:87:ARG:HG2	2.28	0.58
24:X:95:GLU:CB	24:X:140:ARG:HH22	2.14	0.58
24:X:126:ALA:O	24:X:128:VAL:CG2	2.51	0.58
25:Y:33:ALA:O	25:Y:34:THR:CB	2.49	0.58
33:g:260:ASP:O	33:g:264:LYS:HA	2.01	0.58
34:i:127:C:H42	34:i:181:A:P	2.26	0.58
34:i:579:G:N3	34:i:581:U:C5	2.72	0.58
35:l:47:VAL:HG21	35:l:83:ILE:HG21	1.86	0.58
35:l:51:ALA:HB3	35:l:54:TYR:CE1	2.39	0.58
1:A:14:ASP:CG	1:A:180:ARG:HH22	2.10	0.58
1:A:24:HIS:HB2	1:A:49:ILE:O	2.04	0.58
1:A:27:GLY:O	1:A:47:TYR:CD2	2.54	0.58
2:B:37:ALA:O	2:B:38:MET:C	2.42	0.58
2:B:136:HIS:ND1	2:B:138:PHE:CZ	2.72	0.58
2:B:145:LYS:HA	2:B:149:GLN:OE1	2.02	0.58
3:C:55:VAL:CB	3:C:82:PHE:CZ	2.84	0.58
3:C:126:MET:CE	3:C:223:LYS:HZ2	2.15	0.58
7:G:3:LEU:CD1	7:G:41:LEU:HD11	2.33	0.58
7:G:70:HIS:CB	7:G:103:ASP:OD2	2.42	0.58
8:H:188:GLU:HG2	8:H:189:PHE:H	1.69	0.58
10:J:110:LEU:HB3	10:J:130:ILE:CD1	2.33	0.58
11:K:89:ILE:O	11:K:89:ILE:HD13	2.03	0.58
17:Q:126:ARG:O	34:i:1643:G:H5'	2.03	0.58
20:T:4:VAL:HG11	20:T:139:ALA:HB2	1.84	0.58
20:T:77:LYS:CD	20:T:92:PHE:HE2	2.11	0.58
20:T:84:ARG:CB	20:T:84:ARG:CZ	2.82	0.58
23:W:62:VAL:HB	28:b:8:LEU:CD2	2.03	0.58
23:W:96:SER:OG	23:W:99:PHE:CE2	2.56	0.58
24:X:90:CYS:O	24:X:91:LEU:O	2.22	0.58
26:Z:51:ASP:O	26:Z:52:LYS:CB	2.49	0.58
28:b:37:CYS:O	28:b:39:GLY:N	2.37	0.58
32:f:97:LYS:HE3	34:i:1284:U:C4	2.38	0.58
34:i:227:A:H5'	34:i:782:G:H5'	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:835:C:H2'	34:i:837:G:C5'	2.33	0.58
1:A:118:GLU:CD	3:C:50:LYS:NZ	2.61	0.58
2:B:108:ASP:OD1	2:B:109:LYS:N	2.36	0.58
3:C:43:LYS:HE3	3:C:43:LYS:C	2.28	0.58
3:C:148:VAL:CB	3:C:149:PRO:HD2	2.26	0.58
3:C:154:TYR:CZ	3:C:161:LYS:CA	2.86	0.58
5:E:86:PHE:HE1	5:E:182:MET:SD	2.26	0.58
5:E:100:ARG:CD	5:E:102:ILE:HD12	2.30	0.58
6:F:194:ASP:O	6:F:194:ASP:OD1	2.21	0.58
8:H:143:ARG:CD	23:W:53:ILE:CG1	2.50	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
10:J:84:ILE:CG1	10:J:86:VAL:HG23	2.32	0.58
18:R:91:LEU:H	18:R:92:ASP:CA	2.15	0.58
20:T:29:LYS:HE3	20:T:29:LYS:CA	2.10	0.58
25:Y:55:ILE:HD11	25:Y:75:ILE:HD13	1.86	0.58
33:g:172:LYS:HG2	33:g:191:HIS:O	2.03	0.58
34:i:64:A:H2	34:i:66:G:C8	2.22	0.58
34:i:1820:G:O4'	36:n:43:GLY:HA3	2.04	0.58
3:C:50:LYS:HB2	3:C:258:LEU:CB	2.34	0.58
3:C:71:LEU:O	22:V:29:HIS:HE1	1.83	0.58
4:D:170:THR:HG22	4:D:171:ALA:N	2.18	0.58
4:D:212:GLU:HG2	18:R:19:LYS:CE	2.34	0.58
5:E:229:GLY:HA3	5:E:235:TRP:CD1	2.39	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:185:LEU:O	7:G:189:ARG:HG3	2.04	0.58
7:G:220:ALA:HB1	7:G:223:LYS:HZ2	1.68	0.58
8:H:118:ARG:C	8:H:120:ARG:H	2.11	0.58
9:I:76:THR:CG2	9:I:105:ASP:HB2	2.33	0.58
9:I:149:TYR:HA	9:I:152:ARG:NH1	2.19	0.58
11:K:83:LEU:HB3	11:K:85:LEU:CG	2.31	0.58
11:K:96:ARG:CG	11:K:97:SER:N	2.57	0.58
12:L:17:PHE:HZ	12:L:19:ASN:OD1	1.86	0.58
12:L:55:TYR:CD1	12:L:115:PRO:HG2	2.38	0.58
13:M:33:ARG:HH11	13:M:33:ARG:CG	2.15	0.58
13:M:79:VAL:CG1	13:M:80:ASP:N	2.66	0.58
14:N:16:LEU:N	28:b:26:GLN:HE22	2.02	0.58
16:P:49:LEU:CA	16:P:51:ARG:CG	2.68	0.58
16:P:53:GLN:HG2	16:P:56:LEU:HD12	1.85	0.58
17:Q:98:LYS:CA	33:g:57:ARG:HH21	2.16	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:15:VAL:CG1	19:S:68:ILE:HD11	2.34	0.58
20:T:111:LYS:O	20:T:124:THR:CG2	2.51	0.58
26:Z:103:HIS:HD2	26:Z:105:ALA:CB	2.14	0.58
31:e:80:LEU:CD1	36:n:83:ASP:C	2.51	0.58
33:g:276:SER:C	33:g:277:THR:O	2.41	0.58
34:i:24:C:C2'	34:i:25:A:C8	2.86	0.58
34:i:196:U:C2	34:i:199:G:N1	2.71	0.58
34:i:1207:G:N2	34:i:1684:C:C1'	2.66	0.58
36:n:71:ILE:HG22	36:n:77:ILE:CD1	2.25	0.58
1:A:59:LEU:HD23	1:A:181:GLU:CG	2.33	0.58
2:B:70:SER:HB3	15:O:128:ARG:NH1	2.19	0.58
7:G:35:GLU:C	7:G:36:VAL:CG2	2.77	0.58
8:H:154:ILE:CG2	8:H:154:ILE:O	2.51	0.58
8:H:190:PRO:CB	8:H:191:GLU:HG2	2.33	0.58
14:N:139:TRP:CE3	14:N:140:LYS:C	2.81	0.58
18:R:98:VAL:O	18:R:100:PRO:HD2	2.04	0.58
19:S:40:TYR:HA	19:S:83:PHE:HZ	1.68	0.58
23:W:20:ARG:NH2	34:i:1135:C:H1'	2.18	0.58
27:a:95:ARG:O	34:i:1860:A:O2'	2.10	0.58
34:i:1701:G:H1'	34:i:1845:A:O5'	2.04	0.58
34:i:1843:G:N3	35:l:68:ALA:HB1	2.17	0.58
35:l:46:THR:HA	35:l:84:GLN:N	2.19	0.58
36:n:57:ARG:HH12	36:n:81:LEU:HD13	1.68	0.58
1:A:16:LEU:HD21	18:R:111:PHE:HZ	1.55	0.58
3:C:93:LYS:HE3	3:C:95:MET:HG2	1.86	0.58
5:E:98:ASN:HD21	5:E:119:ALA:HA	1.68	0.58
7:G:24:LEU:O	7:G:25:ARG:C	2.45	0.58
7:G:57:ASP:CG	7:G:98:ARG:HG3	2.29	0.58
8:H:43:LEU:HD21	8:H:71:SER:OG	2.03	0.58
8:H:154:ILE:HG22	8:H:185:VAL:CG2	2.34	0.58
13:M:98:GLY:C	13:M:100:PRO:CD	2.74	0.58
15:O:75:MET:CE	15:O:118:ALA:HB2	2.33	0.58
16:P:41:GLN:NE2	16:P:45:LEU:CD1	2.67	0.58
16:P:106:GLU:O	16:P:111:MET:HE1	2.02	0.58
20:T:125:PRO:HB3	34:i:1412:C:H5"	1.86	0.58
24:X:142:ARG:HH11	24:X:142:ARG:HG3	1.49	0.58
25:Y:12:PHE:HD1	25:Y:23:MET:HB3	1.67	0.58
26:Z:51:ASP:O	26:Z:52:LYS:HB2	2.02	0.58
33:g:20:GLN:NE2	33:g:68:ASP:CB	2.61	0.58
33:g:286:CYS:CB	33:g:302:TYR:CZ	2.76	0.58
34:i:181:A:C5	34:i:182:C:N3	2.72	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1055:G:H4'	35:l:72:THR:HG21	1.86	0.58
34:i:1236:A:C2	34:i:1264:C:H5'	2.39	0.58
34:i:1523:G:H22	34:i:1660:G:H21	1.50	0.58
1:A:57:LYS:HE2	22:V:70:LEU:HD21	1.85	0.58
2:B:67:PHE:HE1	15:O:47:LEU:CA	2.16	0.58
3:C:161:LYS:HD3	22:V:9:VAL:HG11	1.85	0.58
4:D:74:GLN:NE2	4:D:75:LYS:CD	2.67	0.58
7:G:32:MET:HA	7:G:52:ILE:HG23	1.86	0.58
9:I:142:SER:HB3	9:I:143:LYS:CD	2.33	0.58
10:J:79:ARG:O	10:J:83:ARG:CG	2.47	0.58
10:J:81:LEU:CD1	10:J:97:ILE:CD1	2.81	0.58
10:J:179:LYS:HA	10:J:182:GLN:CD	2.29	0.58
16:P:127:LYS:HE3	16:P:128:HIS:HA	1.85	0.58
27:a:21:ILE:CG2	27:a:22:ARG:N	2.66	0.58
29:c:65:ALA:O	29:c:66:ARG:HG2	2.04	0.58
31:e:125:LYS:O	31:e:126:LYS:CD	2.45	0.58
33:g:64:HIS:HB3	33:g:84:ASP:N	2.18	0.58
34:i:429:A:O4'	34:i:1794:A:H4'	2.04	0.58
34:i:783:G:C2'	34:i:896:C:H5"	2.33	0.58
34:i:885:U:H2'	34:i:886:U:H5"	1.86	0.58
36:n:109:LEU:HD23	36:n:109:LEU:N	2.19	0.58
1:A:106:GLY:HA3	1:A:113:GLN:HE22	1.68	0.58
1:A:118:GLU:CD	3:C:50:LYS:HZ3	2.10	0.58
3:C:55:VAL:HA	3:C:82:PHE:CZ	2.34	0.58
3:C:158:LYS:HZ3	22:V:4:ASN:HA	1.68	0.58
3:C:243:GLU:O	3:C:244:THR:CB	2.48	0.58
6:F:47:LYS:CB	17:Q:117:ARG:HH22	2.16	0.58
6:F:204:ARG:NH1	29:c:59:LEU:CB	2.63	0.58
7:G:25:ARG:O	7:G:26:THR:C	2.46	0.58
7:G:63:MET:HE3	7:G:106:LEU:HD21	1.86	0.58
8:H:37:LYS:HZ3	8:H:38:ALA:HA	1.69	0.58
9:I:154:LYS:O	12:L:22:ARG:HG3	2.03	0.58
10:J:17:ARG:CB	10:J:18:ARG:CG	2.48	0.58
10:J:131:ARG:NH1	10:J:143:ASN:HD21	2.01	0.58
12:L:109:MET:SD	12:L:140:PHE:CE1	2.97	0.58
15:O:44:VAL:HG22	15:O:93:LEU:HD13	1.84	0.58
16:P:127:LYS:HE3	16:P:128:HIS:CA	2.34	0.58
17:Q:18:THR:O	17:Q:75:GLY:HA3	2.04	0.58
17:Q:50:LYS:CA	17:Q:53:GLU:HG3	2.34	0.58
17:Q:93:VAL:HG11	17:Q:105:LYS:HE2	0.58	0.58
21:U:83:ARG:HB3	21:U:85:HIS:HE1	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:306:LEU:HD23	33:g:306:LEU:C	2.29	0.58
34:i:1186:A:H1'	34:i:1709:U:C2'	2.29	0.58
2:B:67:PHE:CE1	15:O:47:LEU:CA	2.87	0.57
3:C:98:GLN:HB3	3:C:107:THR:HA	1.85	0.57
5:E:36:HIS:HB3	5:E:41:CYS:SG	2.42	0.57
6:F:28:VAL:HG13	6:F:110:GLN:NE2	2.16	0.57
8:H:35:ASP:C	8:H:37:LYS:H	2.09	0.57
8:H:50:GLU:CD	8:H:58:LYS:HD3	2.29	0.57
9:I:48:VAL:HG11	9:I:54:LYS:HB2	1.86	0.57
13:M:76:LEU:C	13:M:128:PHE:CZ	2.82	0.57
20:T:76:THR:CG2	20:T:95:GLY:O	2.52	0.57
25:Y:7:ILE:HD11	25:Y:43:LYS:HD3	1.78	0.57
26:Z:94:LYS:CE	26:Z:95:GLY:H	2.16	0.57
32:f:87:THR:OG1	34:i:1503:G:N2	2.37	0.57
33:g:143:GLN:CG	33:g:144:ASP:CB	2.83	0.57
34:i:674:G:H1	34:i:914:U:H3	1.52	0.57
34:i:1825:A:C5'	34:i:1847:C:C5'	2.82	0.57
35:l:64:LYS:HG3	35:l:71:GLY:H	1.68	0.57
1:A:185:MET:CE	22:V:39:VAL:CG1	2.66	0.57
2:B:68:GLU:OE2	2:B:83:LYS:CE	2.45	0.57
2:B:125:VAL:CG2	2:B:169:MET:HG3	2.35	0.57
2:B:160:GLN:NE2	2:B:205:TYR:CE1	2.55	0.57
4:D:214:LYS:O	4:D:214:LYS:HE2	2.04	0.57
5:E:117:GLU:HG3	5:E:118:GLU:N	2.18	0.57
5:E:152:PRO:HG3	7:G:209:TYR:CZ	2.38	0.57
6:F:42:LYS:HB2	6:F:46:ALA:N	2.19	0.57
6:F:136:ARG:O	6:F:203:ASN:CB	2.45	0.57
7:G:135:PRO:CG	7:G:144:LEU:HD23	2.33	0.57
10:J:170:PRO:CB	10:J:174:LYS:NZ	2.67	0.57
11:K:40:VAL:HG23	11:K:41:PRO:CD	2.28	0.57
14:N:114:ARG:HD3	14:N:117:LEU:HD12	1.85	0.57
19:S:80:PRO:CG	19:S:82:TRP:NE1	2.67	0.57
20:T:40:ALA:N	20:T:43:LYS:HG3	2.18	0.57
20:T:77:LYS:CB	20:T:94:ARG:CD	2.48	0.57
25:Y:55:ILE:HA	25:Y:74:MET:O	2.04	0.57
25:Y:76:TYR:CB	25:Y:82:ALA:HB2	2.33	0.57
25:Y:92:ALA:N	25:Y:97:TYR:CB	2.52	0.57
31:e:105:ARG:CZ	31:e:106:ALA:N	2.68	0.57
33:g:105:THR:OG1	33:g:126:ASP:HB3	2.02	0.57
33:g:119:GLN:OE1	33:g:179:LEU:HD13	2.04	0.57
33:g:173:LEU:HD22	33:g:189:ILE:HG12	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1750:C:H4'	34:i:1751:G:OP1	2.04	0.57
35:l:54:TYR:CD2	35:l:102:LEU:HG	2.39	0.57
2:B:28:LYS:NZ	15:O:51:GLU:OE2	2.37	0.57
4:D:212:GLU:HG2	18:R:19:LYS:HZ3	1.69	0.57
6:F:15:PRO:HD3	17:Q:56:LEU:CB	2.34	0.57
6:F:53:ALA:C	17:Q:125:ARG:NH2	2.61	0.57
6:F:110:GLN:C	6:F:113:VAL:HG12	2.28	0.57
7:G:159:ARG:HA	7:G:172:LYS:O	2.04	0.57
7:G:159:ARG:HH22	7:G:161:PRO:CA	2.17	0.57
7:G:185:LEU:HD23	7:G:188:LYS:HE3	1.86	0.57
8:H:144:ILE:O	23:W:51:GLU:CA	2.47	0.57
11:K:53:LYS:CA	11:K:58:VAL:HG13	2.34	0.57
14:N:27:LYS:CE	14:N:27:LYS:N	2.57	0.57
15:O:17:LEU:CG	15:O:18:GLY:N	2.68	0.57
16:P:44:ARG:CD	16:P:82:ASP:O	2.52	0.57
17:Q:85:ARG:O	17:Q:88:ILE:CG1	2.51	0.57
17:Q:92:LEU:O	17:Q:96:TYR:HD2	1.87	0.57
20:T:40:ALA:O	20:T:43:LYS:HB2	2.05	0.57
22:V:74:LYS:HA	22:V:78:ILE:O	2.04	0.57
23:W:15:ASN:CG	23:W:19:LYS:HE3	2.29	0.57
25:Y:117:VAL:HB	25:Y:124:ASN:HD21	1.69	0.57
30:d:11:PRO:HG2	34:i:1613:C:C4	2.39	0.57
33:g:76:GLN:HE21	33:g:76:GLN:CA	2.17	0.57
34:i:892:U:H2'	34:i:893:U:H5'	1.84	0.57
34:i:1165:G:O4'	34:i:1815:U:H4'	2.03	0.57
1:A:159:ILE:O	1:A:159:ILE:HG23	2.04	0.57
2:B:44:ILE:HD11	2:B:86:LEU:HD13	1.86	0.57
2:B:105:LEU:O	2:B:106:THR:CB	2.52	0.57
3:C:55:VAL:HG21	3:C:82:PHE:HE2	1.63	0.57
3:C:161:LYS:CD	3:C:162:PRO:HD2	2.34	0.57
4:D:48:ILE:HG23	4:D:48:ILE:O	2.03	0.57
5:E:43:PRO:HG2	5:E:46:ILE:CD1	2.34	0.57
5:E:248:ILE:CA	10:J:72:PHE:CE1	2.86	0.57
6:F:14:THR:HG23	6:F:15:PRO:HD2	1.85	0.57
7:G:170:ARG:HG2	34:i:71:G:O6	2.05	0.57
9:I:76:THR:CG2	9:I:77:ARG:H	2.17	0.57
9:I:140:LYS:C	9:I:141:ARG:HG3	2.29	0.57
10:J:67:ASP:O	10:J:70:ARG:N	2.38	0.57
16:P:98:ASN:CG	16:P:120:SER:HB2	2.29	0.57
17:Q:76:GLY:O	17:Q:80:GLN:HG2	2.00	0.57
19:S:120:HIS:CD2	19:S:120:HIS:C	2.81	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:120:HIS:CD2	19:S:124:ARG:HG3	2.39	0.57
19:S:121:ARG:CG	19:S:131:VAL:CG1	2.82	0.57
24:X:52:LEU:HD12	24:X:53:GLU:HB3	1.86	0.57
25:Y:120:THR:C	25:Y:122:LYS:CD	2.76	0.57
31:e:80:LEU:O	31:e:81:ALA:C	2.45	0.57
34:i:197:U:H2'	34:i:198:U:H5'	1.86	0.57
34:i:546:U:H2'	34:i:547:U:H5"	1.86	0.57
34:i:1458:U:H2'	34:i:1460:C:C4	2.39	0.57
2:B:87:ILE:CD1	2:B:101:HIS:CD2	2.62	0.57
3:C:54:LEU:CD1	3:C:258:LEU:CD1	2.60	0.57
3:C:154:TYR:OH	3:C:161:LYS:N	2.34	0.57
4:D:59:LEU:CG	4:D:60:GLY:H	2.16	0.57
4:D:149:SER:O	4:D:150:MET:SD	2.62	0.57
4:D:177:LEU:HD22	4:D:182:LEU:CD2	2.25	0.57
5:E:156:MET:O	5:E:157:ASN:HB2	2.03	0.57
7:G:176:ILE:HG21	7:G:179:LEU:CB	2.28	0.57
8:H:14:GLU:CD	8:H:16:PRO:CB	2.77	0.57
8:H:80:VAL:O	8:H:83:LEU:HG	2.03	0.57
9:I:29:LEU:HD21	9:I:31:ARG:HH12	1.69	0.57
10:J:87:LEU:HD12	10:J:91:LYS:HD3	1.87	0.57
12:L:6:THR:HG23	12:L:7:GLU:N	2.19	0.57
12:L:17:PHE:CD1	12:L:18:GLN:CB	2.88	0.57
12:L:46:THR:HG23	12:L:46:THR:O	2.04	0.57
12:L:97:ARG:HG2	12:L:98:LYS:CA	2.34	0.57
17:Q:116:ASP:O	17:Q:117:ARG:CB	2.50	0.57
19:S:8:LYS:HB2	19:S:9:PHE:CE1	2.27	0.57
24:X:105:PHE:HE2	24:X:118:VAL:C	2.13	0.57
27:a:24:THR:HG23	27:a:72:HIS:O	2.04	0.57
31:e:115:ARG:CA	31:e:119:VAL:HG22	2.35	0.57
34:i:892:U:C2'	34:i:893:U:H5'	2.35	0.57
34:i:1716:U:H3'	34:i:1717:G:H5'	1.87	0.57
35:l:64:LYS:CG	35:l:71:GLY:H	2.17	0.57
2:B:53:GLN:HG2	2:B:56:LYS:HB2	1.85	0.57
2:B:67:PHE:HD1	15:O:47:LEU:C	2.10	0.57
2:B:226:GLY:O	2:B:230:GLU:HG3	2.04	0.57
5:E:62:LYS:CD	5:E:80:ILE:CG1	2.81	0.57
8:H:106:ARG:CZ	34:i:857:A:C2	2.88	0.57
8:H:145:ARG:CG	23:W:51:GLU:HG2	2.34	0.57
9:I:9:HIS:O	9:I:10:LYS:CG	2.52	0.57
10:J:66:LYS:CE	34:i:687:G:H2'	2.20	0.57
11:K:1:MET:H2	11:K:2:LEU:C	2.12	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:84:HIS:CD2	13:M:27:ILE:HG13	2.33	0.57
15:O:52:THR:CG2	34:i:949:C:C4'	2.81	0.57
15:O:120:ALA:O	27:a:56:VAL:HG21	2.05	0.57
16:P:67:ALA:HB2	16:P:73:PRO:CB	2.35	0.57
19:S:58:GLU:CB	19:S:59:LEU:HD13	2.34	0.57
24:X:58:GLU:OE1	36:n:60:HIS:CG	2.58	0.57
24:X:126:ALA:O	24:X:128:VAL:N	2.37	0.57
25:Y:91:LEU:C	25:Y:97:TYR:CB	2.77	0.57
28:b:81:ARG:CB	28:b:82:LYS:HA	2.33	0.57
29:c:46:VAL:HG11	29:c:50:VAL:HG21	1.86	0.57
33:g:43:TRP:HZ3	33:g:55:PRO:HD3	1.70	0.57
1:A:177:MET:CE	1:A:180:ARG:CZ	2.61	0.57
1:A:202:TYR:C	1:A:203:PHE:CD1	2.82	0.57
2:B:71:LEU:HD13	2:B:84:PHE:CZ	2.26	0.57
3:C:43:LYS:HG3	3:C:44:GLU:H	1.70	0.57
3:C:229:ILE:CG1	3:C:230:SER:N	2.64	0.57
3:C:236:LEU:CD2	3:C:236:LEU:C	2.78	0.57
4:D:23:GLU:CG	11:K:64:TRP:HE1	2.18	0.57
4:D:79:PHE:O	4:D:80:PRO:C	2.48	0.57
5:E:230:LYS:O	5:E:233:LYS:N	2.36	0.57
6:F:34:SER:HB3	29:c:55:VAL:CB	2.33	0.57
6:F:175:ASP:C	6:F:175:ASP:OD1	2.47	0.57
8:H:99:ARG:O	8:H:100:ILE:O	2.23	0.57
9:I:22:HIS:CD2	9:I:25:ARG:HH11	2.22	0.57
10:J:61:LEU:CD1	10:J:94:LEU:HD11	2.33	0.57
10:J:65:GLU:HA	10:J:70:ARG:HD3	1.87	0.57
11:K:95:ARG:HA	11:K:95:ARG:NE	2.17	0.57
12:L:130:GLU:HG2	12:L:131:CYS:N	2.19	0.57
12:L:147:LYS:HE2	12:L:156:GLN:HE22	1.70	0.57
14:N:67:THR:O	14:N:69:ASN:N	2.36	0.57
15:O:39:ASP:N	15:O:69:SER:HB3	2.20	0.57
16:P:5:GLU:HG2	16:P:9:LYS:HE2	1.85	0.57
16:P:100:LYS:HG2	34:i:1236:A:C6	2.40	0.57
17:Q:15:ARG:NH1	17:Q:20:THR:HG21	2.19	0.57
20:T:87:VAL:HG13	20:T:88:MET:N	2.18	0.57
23:W:10:ALA:O	23:W:13:SER:OG	2.22	0.57
24:X:58:GLU:CD	36:n:60:HIS:CD2	2.81	0.57
24:X:71:ARG:NE	24:X:82:THR:CG2	2.58	0.57
25:Y:5:VAL:O	25:Y:6:THR:OG1	2.19	0.57
25:Y:20:ARG:CG	25:Y:74:MET:HE1	2.24	0.57
25:Y:29:HIS:CE1	25:Y:68:LYS:H	1.82	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:92:ALA:C	25:Y:97:TYR:O	2.47	0.57
28:b:5:LYS:NZ	28:b:5:LYS:HB3	2.20	0.57
33:g:69:VAL:HG22	33:g:70:VAL:H	1.68	0.57
33:g:248:LEU:O	33:g:259:TRP:HZ3	1.70	0.57
35:l:30:TYR:HD1	35:l:107:GLN:HB3	1.69	0.57
1:A:21:ALA:HB2	1:A:173:LEU:HD11	0.61	0.57
6:F:119:SER:O	6:F:121:PRO:HD3	2.04	0.57
7:G:191:ARG:O	7:G:195:LYS:HG3	2.04	0.57
8:H:60:ILE:HG21	8:H:92:VAL:HG22	1.87	0.57
10:J:50:LEU:HD12	10:J:102:ILE:CG1	2.35	0.57
10:J:78:LEU:HD23	10:J:97:ILE:HD11	1.87	0.57
10:J:84:ILE:O	10:J:108:ARG:HD3	2.03	0.57
10:J:89:GLU:O	10:J:91:LYS:O	2.23	0.57
11:K:65:ARG:CZ	30:d:25:SER:OG	2.46	0.57
12:L:102:PHE:O	24:X:8:ARG:O	2.22	0.57
15:O:75:MET:SD	15:O:114:SER:O	2.63	0.57
15:O:125:LYS:NZ	27:a:56:VAL:O	2.37	0.57
16:P:41:GLN:C	16:P:41:GLN:OE1	2.48	0.57
16:P:56:LEU:CD1	16:P:80:LEU:CD1	2.79	0.57
16:P:56:LEU:HD22	16:P:78:THR:CG2	2.34	0.57
18:R:98:VAL:CG1	18:R:99:ASP:N	2.68	0.57
19:S:85:ASN:ND2	19:S:98:VAL:H	2.03	0.57
22:V:18:SER:O	22:V:72:LEU:HD21	2.05	0.57
23:W:30:CYS:CA	23:W:34:ILE:HD12	2.35	0.57
28:b:49:HIS:CD2	28:b:49:HIS:N	2.72	0.57
32:f:144:CYS:CA	32:f:147:THR:HG22	2.31	0.57
33:g:258:ILE:HD11	33:g:267:VAL:HG12	1.87	0.57
34:i:1238:U:C5	34:i:1515:G:C8	2.92	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
35:l:55:ASP:N	35:l:55:ASP:OD1	2.37	0.57
36:n:102:SER:O	36:n:105:ALA:N	2.35	0.57
1:A:125:THR:O	1:A:147:LEU:HB2	1.99	0.57
1:A:195:TRP:CE2	1:A:197:VAL:HB	2.39	0.57
2:B:110:MET:CE	2:B:213:ARG:HD2	2.35	0.57
6:F:18:LYS:NZ	6:F:18:LYS:HB3	2.18	0.57
6:F:81:ARG:HE	6:F:82:ASN:HD21	1.52	0.57
6:F:93:VAL:C	6:F:97:PHE:CE1	2.82	0.57
7:G:227:GLN:HA	7:G:230:LYS:HG2	1.87	0.57
7:G:227:GLN:O	7:G:231:ARG:HG3	2.05	0.57
8:H:144:ILE:HG13	23:W:52:ILE:HG23	1.83	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:136:ILE:O	9:I:139:LYS:CD	2.52	0.57
10:J:32:ILE:O	10:J:35:TYR:C	2.48	0.57
10:J:134:HIS:HE2	34:i:552:U:P	2.27	0.57
14:N:142:GLU:HG2	14:N:145:THR:HG23	1.86	0.57
15:O:38:ASN:O	15:O:68:GLU:HB3	2.04	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
16:P:123:TYR:CD2	19:S:120:HIS:CE1	2.55	0.57
20:T:5:THR:CG2	20:T:7:LYS:HB2	2.34	0.57
20:T:65:TYR:CE2	20:T:128:GLN:HG3	2.40	0.57
21:U:67:LYS:CG	21:U:78:ASP:CG	2.78	0.57
21:U:101:ILE:O	21:U:105:SER:OG	2.23	0.57
24:X:52:LEU:HD12	24:X:53:GLU:CG	2.35	0.57
25:Y:10:ARG:CD	25:Y:24:VAL:HG11	2.33	0.57
25:Y:54:VAL:CG2	25:Y:79:LEU:HD21	2.35	0.57
33:g:173:LEU:CD2	33:g:189:ILE:HG12	2.35	0.57
33:g:282:GLU:OE2	33:g:282:GLU:C	2.48	0.57
34:i:68:A:H61	34:i:81:U:H3	1.53	0.57
34:i:272:C:H6	34:i:272:C:H5"	1.68	0.57
34:i:520:U:C5	34:i:521:A:C4	2.93	0.57
34:i:1458:U:H2'	34:i:1460:C:C5	2.40	0.57
36:n:62:ARG:HG2	36:n:92:ILE:CA	2.13	0.57
5:E:72:ILE:CD1	5:E:82:TYR:CE2	2.88	0.57
6:F:44:LYS:CA	6:F:45:TYR:CD1	2.88	0.57
8:H:109:ARG:CZ	8:H:111:LYS:HD2	2.35	0.57
9:I:142:SER:HB3	9:I:143:LYS:CE	2.34	0.57
9:I:148:LYS:HE2	9:I:152:ARG:NH2	2.20	0.57
10:J:134:HIS:CE1	10:J:163:SER:HB3	2.33	0.57
11:K:3:MET:SD	11:K:8:ARG:CZ	2.91	0.57
11:K:43:LEU:H	11:K:46:MET:CB	2.18	0.57
11:K:61:GLN:O	11:K:67:PHE:HA	2.05	0.57
11:K:64:TRP:O	11:K:65:ARG:HG3	2.04	0.57
12:L:97:ARG:O	12:L:99:TYR:C	2.47	0.57
14:N:58:HIS:CD2	14:N:59:GLY:H	2.23	0.57
16:P:67:ALA:HB2	16:P:73:PRO:HB3	1.87	0.57
17:Q:47:LEU:CB	17:Q:81:ILE:HD13	2.34	0.57
19:S:8:LYS:HA	26:Z:49:LEU:CD2	2.30	0.57
19:S:73:ASN:HB3	19:S:76:GLN:OE1	2.04	0.57
23:W:77:PRO:HD2	23:W:79:PHE:CZ	2.39	0.57
25:Y:103:SER:O	25:Y:104:ARG:CB	2.53	0.57
30:d:50:ILE:HG21	30:d:52:PHE:CE2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:80:LEU:N	36:n:82:ARG:C	2.52	0.57
33:g:76:GLN:O	33:g:77:PHE:HD1	1.88	0.57
34:i:310:G:H2'	34:i:311:C:O5'	2.05	0.57
34:i:1826:A:C1'	34:i:1835:C:OP1	2.53	0.57
35:l:31:ILE:HA	35:l:49:GLY:HA3	1.86	0.57
36:n:79:VAL:HG12	36:n:91:VAL:CA	2.35	0.57
1:A:4:ALA:O	1:A:8:LEU:HD22	2.05	0.56
1:A:118:GLU:CD	3:C:50:LYS:HE2	2.29	0.56
1:A:183:LEU:CB	1:A:189:ILE:CD1	2.81	0.56
2:B:87:ILE:CD1	2:B:220:LYS:HZ3	2.18	0.56
2:B:120:MET:HB2	2:B:142:PHE:HE1	1.70	0.56
2:B:131:ASP:N	2:B:131:ASP:OD1	2.38	0.56
3:C:99:LYS:HD2	3:C:99:LYS:C	2.29	0.56
3:C:192:ALA:HB3	3:C:195:PRO:CD	2.35	0.56
4:D:47:GLU:HG3	4:D:85:GLU:OE2	1.98	0.56
4:D:212:GLU:CD	4:D:212:GLU:N	2.48	0.56
7:G:162:LEU:O	7:G:162:LEU:CD1	2.49	0.56
8:H:50:GLU:OE2	8:H:58:LYS:CD	2.44	0.56
8:H:57:ARG:HD2	8:H:89:GLY:C	2.29	0.56
10:J:17:ARG:HG3	10:J:18:ARG:HG2	1.77	0.56
10:J:143:ASN:C	10:J:145:PRO:HD3	2.27	0.56
14:N:139:TRP:HZ3	14:N:141:TYR:N	2.03	0.56
15:O:142:ARG:HH11	27:a:27:ALA:HB1	1.69	0.56
17:Q:47:LEU:O	17:Q:49:TYR:N	2.38	0.56
20:T:39:LEU:HD11	20:T:56:ARG:HH21	1.68	0.56
20:T:124:THR:CG2	20:T:126:GLN:HB3	2.35	0.56
33:g:140:TYR:CE1	33:g:182:CYS:SG	2.98	0.56
33:g:284:PRO:HB2	33:g:304:ASP:N	2.21	0.56
34:i:1748:G:C5	34:i:1749:C:N4	2.73	0.56
34:i:1843:G:OP1	35:l:61:LYS:NZ	2.34	0.56
35:l:104:LYS:HE2	35:l:104:LYS:HA	1.86	0.56
36:n:77:ILE:HG22	36:n:78:LEU:H	1.69	0.56
4:D:55:THR:HA	4:D:58:VAL:CG2	2.35	0.56
7:G:120:ASP:N	7:G:120:ASP:OD1	2.38	0.56
7:G:142:ARG:HG3	7:G:142:ARG:NH1	2.08	0.56
7:G:176:ILE:CG2	7:G:179:LEU:HD22	1.95	0.56
8:H:11:PRO:HG2	8:H:12:ASN:H	1.71	0.56
8:H:15:LYS:HB3	8:H:16:PRO:HD3	1.82	0.56
9:I:154:LYS:O	12:L:22:ARG:CD	2.53	0.56
10:J:15:THR:HB	10:J:44:TRP:CH2	2.39	0.56
16:P:18:ARG:C	19:S:93:GLY:HA3	2.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:19:ALA:CB	17:Q:75:GLY:HA3	2.33	0.56
18:R:61:ILE:HG23	18:R:74:GLN:HE22	1.70	0.56
20:T:119:TRP:HB3	34:i:1557:C:C1'	2.35	0.56
22:V:42:VAL:O	22:V:43:THR:CB	2.52	0.56
25:Y:66:GLY:HA3	34:i:572:U:OP1	2.04	0.56
33:g:87:LEU:CD2	33:g:108:VAL:HG11	2.36	0.56
33:g:119:GLN:HE22	33:g:121:VAL:CG2	2.14	0.56
34:i:1749:C:C5	34:i:1750:C:N4	2.73	0.56
34:i:1819:A:C2'	36:n:44:ASN:HA	2.33	0.56
1:A:102:ARG:O	1:A:104:THR:N	2.38	0.56
1:A:115:ALA:O	1:A:117:ARG:HG2	2.05	0.56
1:A:142:LEU:N	22:V:32:ILE:CD1	2.69	0.56
2:B:125:VAL:CG1	2:B:173:THR:HG22	2.28	0.56
2:B:130:THR:CG2	2:B:179:ASN:N	2.67	0.56
2:B:144:LYS:O	2:B:144:LYS:HG3	2.03	0.56
3:C:49:THR:HG23	3:C:75:GLU:CG	2.36	0.56
3:C:60:ILE:C	3:C:82:PHE:HE1	2.09	0.56
3:C:250:PRO:HA	3:C:253:GLU:HG2	1.87	0.56
4:D:5:ILE:O	4:D:6:SER:N	2.33	0.56
4:D:123:LEU:HD11	4:D:154:ASP:CB	2.35	0.56
4:D:141:LYS:HE3	4:D:179:GLN:NE2	2.20	0.56
4:D:176:LEU:C	4:D:177:LEU:HD13	2.30	0.56
5:E:159:THR:C	5:E:160:ILE:HG13	2.30	0.56
5:E:230:LYS:O	5:E:231:GLY:C	2.48	0.56
6:F:57:ALA:O	34:i:1674:A:N1	2.39	0.56
6:F:134:VAL:HG12	6:F:136:ARG:NH2	2.19	0.56
6:F:152:TRP:O	6:F:153:LEU:C	2.45	0.56
6:F:182:LYS:NZ	6:F:182:LYS:CB	2.69	0.56
6:F:204:ARG:OXT	29:c:63:ARG:NH1	2.33	0.56
7:G:73:VAL:HG12	7:G:74:ARG:N	2.19	0.56
7:G:176:ILE:CG2	7:G:179:LEU:HB2	2.33	0.56
8:H:117:PRO:HD2	8:H:120:ARG:CD	2.35	0.56
11:K:1:MET:HB3	11:K:47:LYS:HB3	1.88	0.56
11:K:8:ARG:O	11:K:12:TYR:HD1	1.88	0.56
12:L:35:ARG:HH21	12:L:63:THR:CG2	2.10	0.56
12:L:56:ILE:CG2	12:L:57:ASP:N	2.68	0.56
12:L:101:ARG:NH1	24:X:5:ARG:HA	2.18	0.56
12:L:148:ALA:O	12:L:150:GLY:O	2.23	0.56
13:M:85:LEU:O	13:M:89:VAL:HG23	2.05	0.56
14:N:53:ILE:HD11	28:b:52:THR:HG22	1.86	0.56
17:Q:7:LEU:HD22	17:Q:27:ARG:HD2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:62:GLN:HG3	18:R:62:GLN:O	2.06	0.56
20:T:18:LEU:HB2	20:T:134:ILE:HD12	1.87	0.56
20:T:85:ASN:HB3	20:T:88:MET:SD	2.45	0.56
24:X:105:PHE:HB3	24:X:112:VAL:CG2	2.36	0.56
24:X:105:PHE:HB3	24:X:112:VAL:HG21	1.86	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
26:Z:92:LEU:CD1	26:Z:109:TYR:HE1	2.19	0.56
28:b:6:ASP:OD2	28:b:9:HIS:HB2	2.05	0.56
30:d:56:ASP:OXT	30:d:56:ASP:OD2	2.23	0.56
31:e:118:ASN:HB2	31:e:119:VAL:CG2	2.35	0.56
31:e:124:GLY:C	31:e:125:LYS:CG	2.54	0.56
33:g:94:THR:OG1	33:g:95:GLY:N	2.38	0.56
33:g:147:HIS:C	33:g:149:GLU:H	2.12	0.56
33:g:282:GLU:CD	33:g:283:PRO:N	2.63	0.56
34:i:40:A:H61	34:i:504:U:H3	1.53	0.56
34:i:683:G:C2	34:i:733:G:O6	2.58	0.56
34:i:786:C:OP1	34:i:873:C:O4'	2.23	0.56
34:i:1701:G:H1'	34:i:1845:A:H4'	1.87	0.56
35:l:88:ASP:HB2	35:l:90:ARG:HH22	1.69	0.56
35:l:95:GLN:O	35:l:99:GLU:HG3	2.05	0.56
1:A:5:LEU:HD13	1:A:5:LEU:C	2.26	0.56
3:C:69:PHE:CZ	3:C:247:THR:HG21	2.40	0.56
3:C:166:ARG:O	23:W:96:SER:HB3	2.04	0.56
5:E:126:VAL:CG2	5:E:129:ILE:CD1	2.83	0.56
7:G:135:PRO:CG	7:G:144:LEU:HD22	2.36	0.56
7:G:141:ILE:HG21	7:G:153:VAL:HG13	1.87	0.56
9:I:19:LYS:HE2	9:I:20:PRO:HD3	1.84	0.56
14:N:4:MET:CE	14:N:124:ARG:NH2	2.68	0.56
17:Q:18:THR:HB	17:Q:75:GLY:H	1.70	0.56
17:Q:52:LEU:C	17:Q:54:PRO:HD2	2.29	0.56
21:U:47:ASN:HD22	21:U:47:ASN:H	1.50	0.56
24:X:105:PHE:CD2	24:X:119:ARG:C	2.83	0.56
25:Y:44:LEU:HG	25:Y:75:ILE:HD11	1.87	0.56
31:e:80:LEU:HD11	36:n:83:ASP:C	2.08	0.56
31:e:120:VAL:HG22	31:e:121:PRO:N	2.18	0.56
32:f:114:ILE:O	32:f:114:ILE:HG13	2.04	0.56
34:i:328:G:C5	34:i:329:A:N7	2.73	0.56
34:i:744:C:O2'	34:i:749:C:C5	2.59	0.56
34:i:866:A:H1'	34:i:912:A:C2	2.41	0.56
34:i:1236:A:H2'	34:i:1237:A:H5'	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:108:PHE:CE2	1:A:122:LEU:HD11	2.41	0.56
1:A:119:PRO:O	1:A:142:LEU:HD22	2.04	0.56
2:B:57:ILE:CG1	2:B:60:ASP:OD1	2.52	0.56
2:B:150:ILE:CB	18:R:125:GLY:N	2.57	0.56
3:C:183:ALA:HB2	3:C:208:TYR:CD2	2.40	0.56
4:D:35:SER:HA	4:D:99:ILE:HD11	0.73	0.56
4:D:126:ILE:CD1	4:D:134:CYS:CB	2.75	0.56
4:D:153:VAL:HG12	4:D:154:ASP:N	2.21	0.56
6:F:122:ARG:HB2	6:F:123:GLU:OE1	2.06	0.56
6:F:123:GLU:CD	29:c:59:LEU:CD1	2.58	0.56
7:G:177:GLN:O	7:G:178:ARG:HB2	2.03	0.56
8:H:109:ARG:O	8:H:110:THR:HB	2.04	0.56
10:J:136:ARG:HG3	10:J:160:SER:CB	2.36	0.56
18:R:29:HIS:HB3	33:g:83:TRP:HH2	1.67	0.56
19:S:42:HIS:HD2	20:T:45:LEU:CG	1.91	0.56
20:T:4:VAL:CG2	20:T:136:GLY:HA2	2.35	0.56
25:Y:55:ILE:CD1	25:Y:75:ILE:HD13	2.35	0.56
28:b:50:ALA:O	28:b:52:THR:N	2.35	0.56
28:b:61:THR:HG23	28:b:62:VAL:C	2.31	0.56
30:d:46:TYR:N	30:d:46:TYR:CD2	2.72	0.56
33:g:78:ALA:O	33:g:89:LEU:HD12	2.04	0.56
33:g:162:ASN:ND2	33:g:163:PRO:HD3	2.16	0.56
33:g:172:LYS:O	33:g:173:LEU:HD23	2.05	0.56
33:g:285:GLN:C	33:g:302:TYR:CE1	2.84	0.56
34:i:328:G:C6	34:i:329:A:C6	2.94	0.56
34:i:783:G:C3'	34:i:784:G:H5"	2.35	0.56
34:i:1523:G:N2	34:i:1660:G:H21	2.03	0.56
34:i:1750:C:H6	34:i:1750:C:O5'	1.88	0.56
34:i:1843:G:P	35:l:65:LYS:HD2	2.46	0.56
4:D:10:LYS:NZ	21:U:111:GLU:HG2	2.20	0.56
4:D:53:THR:HG22	4:D:91:VAL:CB	2.36	0.56
4:D:162:ASP:HB3	4:D:163:PRO:HD3	1.86	0.56
4:D:194:PRO:O	4:D:197:LYS:O	2.23	0.56
4:D:218:LEU:CG	4:D:218:LEU:O	2.53	0.56
7:G:188:LYS:O	7:G:191:ARG:HG3	2.05	0.56
8:H:9:VAL:CA	8:H:11:PRO:HD3	2.35	0.56
8:H:149:ASP:C	8:H:151:SER:N	2.61	0.56
12:L:5:GLN:OE1	12:L:10:TYR:HA	2.06	0.56
13:M:100:PRO:O	13:M:101:ARG:NH1	2.39	0.56
16:P:126:VAL:HG12	16:P:127:LYS:CA	2.33	0.56
18:R:42:PRO:CD	18:R:43:SER:N	2.67	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:10:GLN:CB	19:S:13:LEU:HD21	2.32	0.56
19:S:120:HIS:CD2	19:S:124:ARG:CD	2.89	0.56
19:S:139:THR:O	19:S:140:GLY:C	2.49	0.56
21:U:69:PRO:O	21:U:69:PRO:HG2	2.02	0.56
22:V:43:THR:O	22:V:44:GLY:C	2.49	0.56
24:X:41:PHE:HZ	24:X:102:VAL:CG1	2.19	0.56
33:g:2:THR:O	33:g:3:GLU:HG2	2.04	0.56
33:g:36:ARG:O	33:g:38:LYS:N	2.38	0.56
34:i:744:C:OP1	34:i:746:C:N4	2.39	0.56
34:i:1748:G:O6	34:i:1772:C:N4	2.37	0.56
36:n:80:GLY:C	36:n:81:LEU:HG	2.30	0.56
1:A:77:ILE:HG12	1:A:99:ILE:HB	1.87	0.56
3:C:161:LYS:HD3	22:V:9:VAL:CG1	2.35	0.56
3:C:163:HIS:O	3:C:205:ASP:HB2	2.06	0.56
3:C:195:PRO:HD3	3:C:221:PHE:CE2	2.40	0.56
4:D:93:THR:O	4:D:93:THR:HG23	2.05	0.56
4:D:116:ARG:O	4:D:120:TYR:HB2	2.04	0.56
6:F:141:VAL:HG11	29:c:47:LYS:NZ	2.19	0.56
7:G:217:MET:C	7:G:221:LYS:HB3	2.31	0.56
8:H:8:ILE:CG2	8:H:9:VAL:H	2.19	0.56
8:H:106:ARG:NE	34:i:857:A:C4	2.73	0.56
8:H:149:ASP:C	8:H:151:SER:H	2.14	0.56
9:I:25:ARG:HB3	9:I:27:TYR:CE2	2.41	0.56
9:I:142:SER:HB3	9:I:143:LYS:HB2	0.62	0.56
9:I:154:LYS:CE	9:I:154:LYS:O	2.53	0.56
12:L:153:LYS:HA	14:N:131:THR:O	2.06	0.56
14:N:16:LEU:CD1	14:N:62:GLN:HE22	2.03	0.56
16:P:41:GLN:HA	16:P:84:ILE:HD13	1.88	0.56
16:P:90:VAL:HG11	16:P:109:PRO:HG3	1.87	0.56
17:Q:42:ILE:CG2	17:Q:51:LEU:HD23	2.30	0.56
18:R:61:ILE:HG23	18:R:74:GLN:NE2	2.19	0.56
19:S:33:ILE:CB	19:S:36:VAL:CG1	2.80	0.56
19:S:37:GLY:H	34:i:1625:A:H5"	1.71	0.56
20:T:76:THR:CA	20:T:95:GLY:O	2.53	0.56
26:Z:92:LEU:CD2	26:Z:109:TYR:CE1	2.84	0.56
26:Z:99:LEU:CD1	26:Z:102:LYS:HD3	2.35	0.56
30:d:50:ILE:CG2	30:d:52:PHE:CE2	2.89	0.56
34:i:1186:A:C1'	34:i:1709:U:H4'	2.34	0.56
34:i:1297:A:H2'	34:i:1298:G:H5"	1.86	0.56
34:i:1843:G:C4'	35:l:65:LYS:HG3	2.28	0.56
1:A:71:PRO:HB2	1:A:95:GLY:HA3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:87:ILE:HD12	2:B:220:LYS:HZ3	1.70	0.56
2:B:105:LEU:HG	2:B:213:ARG:O	2.06	0.56
3:C:44:GLU:O	3:C:45:TRP:C	2.48	0.56
3:C:226:PHE:O	3:C:229:ILE:HG12	2.05	0.56
7:G:211:LYS:O	7:G:215:LYS:HD3	2.05	0.56
7:G:220:ALA:CA	7:G:223:LYS:HE3	2.35	0.56
8:H:192:PHE:O	8:H:193:GLN:O	2.23	0.56
9:I:165:GLN:HE21	9:I:171:LEU:HD22	1.70	0.56
10:J:177:ASN:CA	10:J:180:LYS:HB3	2.35	0.56
11:K:53:LYS:HA	11:K:58:VAL:CG1	2.35	0.56
17:Q:50:LYS:HA	17:Q:53:GLU:HG3	1.88	0.56
19:S:30:ILE:HG22	19:S:36:VAL:HG21	1.88	0.56
20:T:4:VAL:CB	20:T:8:ASP:HB2	2.36	0.56
22:V:49:GLN:O	22:V:50:SER:O	2.23	0.56
22:V:55:ILE:HG22	22:V:60:ARG:HG3	1.87	0.56
25:Y:23:MET:HE3	25:Y:44:LEU:HD21	1.87	0.56
27:a:102:ARG:O	27:a:103:PRO:O	2.23	0.56
28:b:26:GLN:HG3	28:b:27:SER:CA	2.35	0.56
33:g:149:GLU:HB2	33:g:171:ASP:HB3	1.87	0.56
33:g:191:HIS:CD2	33:g:195:LEU:CD1	2.87	0.56
34:i:1127:G:H5'	34:i:1127:G:H8	1.70	0.56
36:n:103:LEU:HA	36:n:106:TYR:CG	2.40	0.56
1:A:122:LEU:HD12	1:A:137:ALA:HB2	1.88	0.56
1:A:139:TYR:O	1:A:140:VAL:CG2	2.54	0.56
2:B:29:ASP:C	2:B:29:ASP:OD1	2.49	0.56
2:B:57:ILE:C	2:B:59:SER:N	2.64	0.56
3:C:97:VAL:HB	34:i:11:A:O2'	2.06	0.56
5:E:71:LYS:HG2	5:E:76:VAL:N	2.21	0.56
6:F:65:GLN:NE2	6:F:65:GLN:HA	2.16	0.56
6:F:141:VAL:CB	29:c:47:LYS:CE	2.56	0.56
7:G:19:ASP:O	7:G:20:ASP:HB2	2.05	0.56
7:G:28:TYR:C	7:G:30:LYS:H	2.13	0.56
7:G:43:GLU:O	7:G:44:GLU:C	2.46	0.56
9:I:62:VAL:HB	9:I:75:LYS:CE	2.28	0.56
10:J:80:ARG:HA	10:J:83:ARG:HD3	1.86	0.56
12:L:20:LYS:O	12:L:21:LYS:CB	2.45	0.56
12:L:40:ILE:HG13	12:L:68:ILE:HG13	1.88	0.56
14:N:11:LEU:O	14:N:11:LEU:HD12	2.05	0.56
15:O:56:VAL:HG13	15:O:81:VAL:HG23	1.78	0.56
16:P:9:LYS:O	16:P:10:ARG:CZ	2.54	0.56
16:P:49:LEU:CA	16:P:51:ARG:CD	2.83	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:56:LEU:HD12	16:P:80:LEU:HD12	1.87	0.56
17:Q:10:VAL:HG12	17:Q:11:GLN:N	2.21	0.56
18:R:90:ALA:C	18:R:91:LEU:HG	2.29	0.56
18:R:100:PRO:CA	18:R:103:LYS:HB2	2.08	0.56
19:S:52:LEU:HD12	19:S:52:LEU:C	2.31	0.56
25:Y:63:HIS:HB2	25:Y:68:LYS:HD3	1.88	0.56
25:Y:99:LYS:C	25:Y:99:LYS:NZ	2.64	0.56
28:b:36:LYS:CG	28:b:78:SER:OG	2.46	0.56
31:e:114:ARG:HA	31:e:118:ASN:CG	2.30	0.56
32:f:97:LYS:HE3	34:i:1284:U:C5	2.41	0.56
33:g:140:TYR:CD2	33:g:182:CYS:CB	2.68	0.56
34:i:1702:U:H1'	34:i:1844:A:H4'	1.88	0.56
34:i:1751:G:N2	34:i:1769:U:H3	1.98	0.56
34:i:1826:A:H2'	34:i:1834:U:H5"	1.87	0.56
35:l:48:GLN:CD	35:l:82:VAL:HG11	2.31	0.56
36:n:103:LEU:HD22	36:n:106:TYR:CD1	2.40	0.56
1:A:145:ILE:HG23	1:A:159:ILE:CG2	2.36	0.56
1:A:180:ARG:NH1	1:A:184:ARG:CZ	2.65	0.56
2:B:25:PHE:CE1	15:O:53:ILE:HG22	2.38	0.56
3:C:63:LEU:HB3	3:C:67:TYR:CE2	2.40	0.56
3:C:240:LEU:N	3:C:240:LEU:HD12	2.21	0.56
4:D:58:VAL:HG23	4:D:59:LEU:N	2.20	0.56
4:D:59:LEU:CG	4:D:60:GLY:N	2.69	0.56
4:D:168:VAL:CG1	4:D:189:MET:SD	2.93	0.56
6:F:15:PRO:HD3	17:Q:56:LEU:CA	2.36	0.56
6:F:124:ASP:CG	6:F:125:SER:H	2.13	0.56
8:H:169:LYS:CB	8:H:173:PHE:CZ	2.89	0.56
10:J:34:GLU:CB	10:J:35:TYR:CD2	2.89	0.56
11:K:14:LEU:CG	11:K:35:LEU:HD21	2.36	0.56
15:O:125:LYS:HZ1	27:a:58:VAL:HA	1.71	0.56
16:P:17:TYR:H	16:P:25:LEU:HD11	1.71	0.56
16:P:49:LEU:HD12	16:P:50:ARG:H	1.71	0.56
21:U:50:VAL:HG22	21:U:51:LYS:N	2.19	0.56
25:Y:54:VAL:HG13	25:Y:76:TYR:N	2.18	0.56
28:b:63:LEU:O	28:b:64:CYS:SG	2.63	0.56
32:f:100:LEU:C	32:f:102:VAL:H	2.14	0.56
33:g:57:ARG:NH1	33:g:94:THR:HA	2.21	0.56
33:g:173:LEU:CD2	33:g:189:ILE:HA	2.35	0.56
33:g:258:ILE:HD11	33:g:267:VAL:CG1	2.35	0.56
33:g:266:ILE:HG23	33:g:266:ILE:O	2.05	0.56
34:i:226:A:C2'	34:i:782:G:O3'	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5:LEU:HB2	22:V:41:LYS:NZ	2.22	0.55
1:A:189:ILE:O	1:A:190:SER:OG	2.22	0.55
4:D:211:VAL:CG2	18:R:39:ALA:N	2.69	0.55
5:E:87:MET:CE	5:E:182:MET:HE1	2.35	0.55
7:G:170:ARG:HD2	7:G:172:LYS:HG2	1.88	0.55
7:G:214:ALA:O	7:G:217:MET:HG2	2.06	0.55
9:I:31:ARG:HG3	9:I:31:ARG:NH1	2.20	0.55
9:I:148:LYS:CE	34:i:188:U:OP1	2.54	0.55
10:J:125:HIS:HB2	34:i:517:C:H5'	1.87	0.55
11:K:41:PRO:CD	11:K:43:LEU:HG	2.36	0.55
13:M:77:ILE:HD12	13:M:79:VAL:HG23	1.88	0.55
16:P:22:LEU:HA	16:P:25:LEU:HD12	1.87	0.55
17:Q:124:PRO:CG	17:Q:125:ARG:N	2.69	0.55
19:S:89:ASP:O	19:S:90:VAL:HG23	2.06	0.55
20:T:29:LYS:C	20:T:30:VAL:HG13	2.29	0.55
20:T:85:ASN:CB	20:T:88:MET:HB2	2.35	0.55
26:Z:94:LYS:HA	26:Z:94:LYS:HE2	1.88	0.55
27:a:21:ILE:HD13	27:a:72:HIS:CE1	2.41	0.55
31:e:125:LYS:O	31:e:126:LYS:CB	2.53	0.55
33:g:96:THR:HG23	33:g:96:THR:O	2.05	0.55
34:i:527:C:O5'	34:i:527:C:H6	1.88	0.55
1:A:44:ASP:OD1	18:R:101:ASP:OD2	2.23	0.55
2:B:113:MET:CE	2:B:209:ASP:HB3	2.36	0.55
2:B:160:GLN:HE22	2:B:205:TYR:HE1	1.49	0.55
4:D:141:LYS:CE	4:D:179:GLN:NE2	2.69	0.55
5:E:181:CYS:SG	5:E:225:ILE:HG23	2.46	0.55
11:K:40:VAL:CG2	11:K:41:PRO:HD2	2.18	0.55
13:M:99:LYS:N	13:M:100:PRO:CD	2.68	0.55
14:N:124:ARG:O	14:N:127:ARG:HG2	2.06	0.55
14:N:125:LEU:CD1	14:N:129:TYR:CZ	2.89	0.55
15:O:117:ARG:HH11	29:c:63:ARG:H	1.54	0.55
18:R:77:GLU:HG3	18:R:80:ARG:NH2	2.20	0.55
21:U:40:ILE:HD13	21:U:53:PRO:CG	2.07	0.55
27:a:97:PRO:HB3	34:i:1862:U:H1'	1.87	0.55
31:e:116:PHE:N	31:e:119:VAL:HG21	2.21	0.55
33:g:230:LEU:HD12	33:g:230:LEU:N	2.21	0.55
36:n:70:TRP:O	36:n:71:ILE:C	2.49	0.55
1:A:7:VAL:HG22	1:A:8:LEU:HD12	1.88	0.55
1:A:94:THR:CG2	1:A:182:VAL:CG2	2.84	0.55
3:C:196:LYS:HD2	3:C:200:LEU:CD2	2.37	0.55
3:C:218:LEU:HD12	3:C:219:GLY:CA	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:18:LYS:CD	4:D:18:LYS:C	2.78	0.55
4:D:70:THR:HA	4:D:86:LEU:HD11	1.87	0.55
5:E:123:LEU:CD1	5:E:161:GLN:HA	2.37	0.55
5:E:136:ILE:N	5:E:136:ILE:CD1	2.69	0.55
6:F:159:ARG:NE	34:i:1530:U:O4	2.38	0.55
7:G:35:GLU:O	7:G:36:VAL:HG22	2.05	0.55
8:H:6:ALA:HA	8:H:10:LYS:CG	2.34	0.55
8:H:100:ILE:HG13	8:H:125:VAL:HG21	1.87	0.55
10:J:38:ARG:HG3	31:e:105:ARG:HB2	1.72	0.55
10:J:143:ASN:O	10:J:143:ASN:CG	2.49	0.55
11:K:53:LYS:HA	11:K:58:VAL:HG13	1.88	0.55
17:Q:34:VAL:HG21	17:Q:39:LEU:HD23	1.76	0.55
17:Q:112:LEU:CD2	17:Q:119:LEU:CD1	2.72	0.55
24:X:27:TYR:CD2	24:X:31:HIS:CD2	2.95	0.55
24:X:91:LEU:HD23	31:e:83:VAL:HG11	1.88	0.55
24:X:139:GLU:C	24:X:141:PRO:CD	2.66	0.55
1:A:186:ARG:NH1	1:A:186:ARG:O	2.39	0.55
3:C:262:HIS:ND1	3:C:263:THR:N	2.55	0.55
5:E:129:ILE:CG2	5:E:139:LEU:HD23	2.35	0.55
6:F:18:LYS:NZ	6:F:18:LYS:CB	2.69	0.55
6:F:176:GLU:CD	6:F:187:SER:HG	2.08	0.55
8:H:12:ASN:ND2	8:H:46:THR:CB	2.67	0.55
9:I:48:VAL:HG11	9:I:54:LYS:HE3	1.87	0.55
9:I:66:SER:HA	9:I:73:THR:HA	1.89	0.55
9:I:85:ALA:C	12:L:8:ARG:HH11	2.15	0.55
11:K:13:GLU:HG3	11:K:14:LEU:N	2.19	0.55
15:O:30:VAL:CB	15:O:32:HIS:NE2	2.69	0.55
16:P:70:MET:HG3	16:P:71:GLU:OE2	2.07	0.55
16:P:89:MET:O	16:P:107:ILE:HD11	2.05	0.55
17:Q:109:LYS:NZ	17:Q:113:ILE:CD1	2.69	0.55
19:S:135:HIS:CD2	34:i:1514:U:H1'	2.40	0.55
20:T:23:LYS:HE2	20:T:54:TYR:CE2	2.41	0.55
20:T:65:TYR:HE2	20:T:128:GLN:HG3	1.72	0.55
26:Z:105:ALA:C	26:Z:106:GLN:HG3	2.31	0.55
26:Z:105:ALA:O	26:Z:106:GLN:HG3	2.05	0.55
29:c:18:LEU:HB3	29:c:29:GLN:CB	2.37	0.55
33:g:64:HIS:CE1	33:g:65:PHE:HD2	2.24	0.55
34:i:126:G:HO2'	34:i:127:C:H5	1.53	0.55
34:i:1270:G:H5'	34:i:1270:G:N3	2.20	0.55
35:l:69:CYS:HB3	35:l:86:GLN:O	2.07	0.55
3:C:68:LEU:HD22	3:C:247:THR:HG21	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:28:GLU:OE1	4:D:28:GLU:HA	2.07	0.55
5:E:205:PHE:CD1	5:E:221:ARG:CZ	2.89	0.55
8:H:135:PHE:HB3	8:H:136:PRO:HD3	1.87	0.55
8:H:142:LYS:C	8:H:143:ARG:HG2	2.30	0.55
9:I:54:LYS:CG	9:I:181:GLN:O	2.54	0.55
9:I:83:TYR:HB3	9:I:101:ILE:HB	1.88	0.55
9:I:98:LYS:HD3	9:I:178:ARG:NE	2.22	0.55
9:I:191:GLU:CG	9:I:192:GLY:N	2.70	0.55
13:M:59:PRO:HB2	13:M:62:VAL:HG22	1.89	0.55
16:P:84:ILE:HG22	16:P:86:LEU:CD2	2.36	0.55
18:R:22:THR:CG2	18:R:73:LEU:CD1	2.72	0.55
19:S:81:ASP:OD2	19:S:95:TYR:HD2	1.88	0.55
20:T:40:ALA:CA	20:T:43:LYS:HG2	2.35	0.55
22:V:39:VAL:O	22:V:41:LYS:N	2.34	0.55
24:X:3:LYS:O	24:X:4:CYS:C	2.50	0.55
25:Y:120:THR:O	25:Y:122:LYS:N	2.37	0.55
29:c:21:THR:CG2	29:c:22:GLY:N	2.51	0.55
30:d:5:GLN:CD	30:d:7:TYR:HE2	2.14	0.55
33:g:188:HIS:HB3	33:g:219:TRP:CZ3	2.42	0.55
34:i:1843:G:C4’	35:l:65:LYS:HE3	2.37	0.55
36:n:103:LEU:HD22	36:n:106:TYR:CZ	2.41	0.55
1:A:127:PRO:HG2	1:A:153:PRO:CD	2.27	0.55
2:B:153:THR:O	2:B:154:SER:CB	2.54	0.55
3:C:124:LEU:HD13	3:C:124:LEU:C	2.31	0.55
3:C:198:LEU:HD13	3:C:225:THR:CG2	2.37	0.55
5:E:100:ARG:CG	5:E:102:ILE:CD1	2.85	0.55
6:F:130:ARG:HH11	6:F:135:ARG:HG3	1.72	0.55
8:H:50:GLU:OE2	8:H:90:LYS:CE	2.55	0.55
8:H:60:ILE:HG23	8:H:60:ILE:O	2.06	0.55
9:I:157:LYS:HB2	12:L:22:ARG:NE	2.19	0.55
10:J:81:LEU:HD12	10:J:97:ILE:CD1	2.37	0.55
11:K:12:TYR:OH	11:K:52:LEU:HD21	2.06	0.55
12:L:149:ALA:O	12:L:150:GLY:O	2.24	0.55
13:M:67:ALA:CA	32:f:114:ILE:HG21	2.37	0.55
13:M:76:LEU:C	13:M:128:PHE:HZ	2.15	0.55
13:M:86:GLY:C	13:M:91:LEU:HD11	2.31	0.55
14:N:22:VAL:CB	14:N:23:PRO:CA	2.64	0.55
14:N:92:ILE:HG22	14:N:150:VAL:HG23	1.86	0.55
16:P:49:LEU:HD13	16:P:51:ARG:CZ	2.33	0.55
20:T:39:LEU:HD21	20:T:56:ARG:HH21	1.72	0.55
23:W:88:LYS:NZ	34:i:410:G:H5’	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:28:LYS:CE	24:X:32:LEU:HD11	2.37	0.55
25:Y:20:ARG:HD3	25:Y:76:TYR:CE2	2.40	0.55
25:Y:51:THR:CB	25:Y:52:PRO:CD	2.82	0.55
30:d:5:GLN:CA	30:d:7:TYR:CE2	2.90	0.55
31:e:82:ARG:N	36:n:82:ARG:NE	2.53	0.55
33:g:87:LEU:HB2	33:g:101:PHE:HB2	1.86	0.55
33:g:102:VAL:HG12	33:g:103:GLY:N	2.21	0.55
33:g:110:SER:CB	33:g:153:CYS:HA	2.37	0.55
34:i:151:C:H2'	34:i:152:U:C6	2.42	0.55
1:A:24:HIS:CD2	18:R:105:MET:CE	2.90	0.55
1:A:154:LEU:CD1	1:A:154:LEU:O	2.43	0.55
3:C:101:THR:HG22	3:C:103:ALA:O	1.93	0.55
3:C:154:TYR:CZ	3:C:161:LYS:C	2.84	0.55
3:C:200:LEU:CD1	3:C:201:MET:SD	2.94	0.55
7:G:220:ALA:HA	7:G:223:LYS:CE	2.35	0.55
8:H:114:GLN:O	8:H:115:LYS:C	2.49	0.55
14:N:4:MET:CE	14:N:124:ARG:HH22	2.19	0.55
16:P:10:ARG:NH2	16:P:11:THR:CB	2.30	0.55
16:P:30:TYR:O	16:P:34:MET:CG	2.54	0.55
20:T:33:TRP:CD1	20:T:34:VAL:H	2.25	0.55
26:Z:44:LEU:HD11	26:Z:46:ASN:CG	2.32	0.55
26:Z:92:LEU:CD1	26:Z:109:TYR:CE1	2.84	0.55
26:Z:99:LEU:HD21	26:Z:102:LYS:HD3	1.79	0.55
34:i:199:G:H8	34:i:199:G:O5'	1.90	0.55
34:i:1701:G:H1'	34:i:1845:A:C4'	2.35	0.55
35:l:35:ILE:HD12	35:l:88:ASP:HA	1.88	0.55
1:A:141:ASN:HD21	22:V:29:HIS:HA	1.72	0.55
10:J:170:PRO:HD2	10:J:175:ARG:HD2	1.88	0.55
12:L:149:ALA:CB	12:L:156:GLN:CD	2.26	0.55
15:O:56:VAL:HG12	15:O:81:VAL:CG2	2.03	0.55
15:O:74:ALA:HB3	15:O:114:SER:OG	2.07	0.55
15:O:125:LYS:HZ1	27:a:58:VAL:CA	2.20	0.55
16:P:108:LYS:CB	16:P:110:GLU:OE1	2.45	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
17:Q:85:ARG:CD	17:Q:119:LEU:CD2	2.72	0.55
20:T:16:ARG:CG	20:T:16:ARG:NH1	2.65	0.55
23:W:20:ARG:HH22	34:i:1135:C:C1'	2.20	0.55
23:W:128:PHE:HD1	23:W:129:PHE:CA	2.20	0.55
34:i:1817:A:C4'	34:i:1818:A:H1'	2.37	0.55
35:l:33:ILE:HD11	35:l:93:ILE:HG12	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:35:ILE:HD13	35:l:88:ASP:C	2.21	0.55
35:l:50:ILE:CB	35:l:59:LEU:HD11	2.36	0.55
36:n:47:LEU:HD21	36:n:91:VAL:HG21	1.87	0.55
1:A:132:GLN:N	1:A:133:PRO:HD3	2.22	0.55
2:B:107:ARG:NH1	15:O:133:THR:O	2.40	0.55
3:C:99:LYS:NZ	3:C:100:GLN:O	2.38	0.55
3:C:141:ILE:CG2	3:C:142:LEU:N	2.69	0.55
4:D:77:PHE:O	4:D:78:GLY:C	2.49	0.55
4:D:79:PHE:CE1	4:D:83:SER:HB3	2.42	0.55
5:E:1:MET:HE1	34:i:422:G:H8	1.69	0.55
5:E:108:ARG:O	5:E:109:PHE:C	2.49	0.55
5:E:129:ILE:HG23	5:E:139:LEU:HD23	1.87	0.55
7:G:67:VAL:CG2	7:G:100:CYS:H	2.20	0.55
7:G:135:PRO:CD	7:G:144:LEU:CD2	2.85	0.55
9:I:21:TYR:O	9:I:22:HIS:O	2.25	0.55
9:I:63:GLY:O	9:I:75:LYS:HG2	2.06	0.55
9:I:117:TYR:HE1	9:I:155:ASN:ND2	2.05	0.55
12:L:99:TYR:HH	24:X:14:ARG:CA	1.86	0.55
12:L:156:GLN:CD	12:L:158:PHE:HE2	2.12	0.55
13:M:101:ARG:O	13:M:103:VAL:HG23	2.07	0.55
14:N:54:LEU:C	14:N:60:VAL:HG22	2.32	0.55
16:P:8:LYS:O	16:P:9:LYS:C	2.50	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
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:9:VAL:CG1	20:T:13:GLU:HG3	2.37	0.55
20:T:75:MET:HA	20:T:78:ILE:HG22	1.89	0.55
23:W:93:LEU:O	23:W:93:LEU:CG	2.54	0.55
24:X:27:TYR:CD1	24:X:31:HIS:CD2	2.94	0.55
27:a:26:CYS:SG	27:a:74:CYS:SG	3.05	0.55
33:g:32:LEU:HD21	33:g:69:VAL:HG21	1.89	0.55
33:g:83:TRP:C	33:g:85:GLY:N	2.60	0.55
34:i:272:C:H5"	34:i:272:C:C6	2.42	0.55
34:i:745:U:O4	34:i:792:G:C4'	2.54	0.55
34:i:1284:U:H3	34:i:1307:C:H42	1.55	0.55
35:l:64:LYS:NZ	35:l:71:GLY:O	2.31	0.55
1:A:58:LEU:HD21	1:A:178:LEU:CG	2.29	0.55
1:A:141:ASN:O	22:V:32:ILE:CG1	2.41	0.55
1:A:169:HIS:CD2	1:A:203:PHE:CE2	2.94	0.55
1:A:193:HIS:CB	1:A:194:PRO:CD	2.84	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:138:PHE:CD2	2:B:138:PHE:N	2.74	0.55
2:B:179:ASN:HB3	2:B:183:GLU:HB2	1.88	0.55
3:C:198:LEU:HD23	3:C:198:LEU:O	2.06	0.55
4:D:76:ARG:CZ	11:K:66:HIS:NE2	2.69	0.55
5:E:69:PHE:CZ	25:Y:17:LEU:HA	2.42	0.55
6:F:15:PRO:HD3	17:Q:56:LEU:HA	1.88	0.55
7:G:159:ARG:HH22	7:G:161:PRO:N	2.05	0.55
8:H:158:LEU:HG	8:H:187:PHE:HD1	1.71	0.55
19:S:23:ARG:HD3	26:Z:48:VAL:CB	2.34	0.55
19:S:36:VAL:HA	19:S:40:TYR:CD2	2.43	0.55
19:S:117:ILE:C	19:S:118:ARG:CG	2.66	0.55
19:S:142:ARG:HA	34:i:1518:C:OP1	2.06	0.55
22:V:40:ASP:HB2	22:V:47:ASN:HD21	1.61	0.55
25:Y:36:PRO:CG	25:Y:39:GLU:HB2	2.36	0.55
25:Y:46:LYS:O	25:Y:47:MET:HG2	2.07	0.55
25:Y:120:THR:HG22	25:Y:122:LYS:HE2	1.88	0.55
26:Z:61:GLU:HB3	26:Z:65:TYR:OH	2.07	0.55
31:e:113:ASN:O	31:e:118:ASN:CB	2.53	0.55
33:g:89:LEU:HB3	33:g:98:THR:OG1	2.07	0.55
34:i:1024:A:H5"	34:i:1025:G:OP2	2.07	0.55
34:i:1206:G:H2'	34:i:1207:G:O5'	2.04	0.55
4:D:4:GLN:O	4:D:5:ILE:HG13	2.07	0.54
5:E:205:PHE:CE1	5:E:221:ARG:CZ	2.90	0.54
6:F:42:LYS:O	6:F:44:LYS:C	2.50	0.54
6:F:68:ILE:HG13	6:F:69:VAL:N	2.22	0.54
7:G:64:LYS:CD	7:G:65:GLN:C	2.81	0.54
7:G:67:VAL:O	7:G:68:LEU:CB	2.50	0.54
15:O:31:CYS:SG	15:O:95:ILE:CG1	2.95	0.54
16:P:53:GLN:CG	16:P:56:LEU:HD12	2.37	0.54
19:S:55:ARG:CG	26:Z:48:VAL:HG11	2.33	0.54
20:T:14:PHE:CZ	20:T:131:LEU:HD12	2.42	0.54
21:U:18:HIS:CE1	21:U:98:VAL:HG22	2.39	0.54
21:U:83:ARG:CZ	30:d:55:LEU:CD1	2.84	0.54
24:X:58:GLU:OE2	36:n:60:HIS:CD2	2.59	0.54
24:X:105:PHE:CE2	24:X:118:VAL:C	2.86	0.54
25:Y:18:LEU:CB	25:Y:20:ARG:CZ	2.79	0.54
31:e:103:THR:O	31:e:104:GLY:O	2.25	0.54
33:g:281:ALA:O	33:g:282:GLU:HB3	2.03	0.54
34:i:491:C:O2	34:i:491:C:H2'	2.06	0.54
34:i:1564:A:C5	34:i:1565:G:H1'	2.43	0.54
35:l:47:VAL:C	35:l:83:ILE:H	2.14	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:n:69:VAL:HG21	36:n:94:LYS:HB2	1.88	0.54
36:n:82:ARG:O	36:n:84:TYR:N	2.39	0.54
1:A:30:LEU:CD1	1:A:38:ILE:HD12	2.24	0.54
1:A:106:GLY:O	1:A:110:ASN:HB2	2.07	0.54
1:A:141:ASN:HA	22:V:32:ILE:HD11	1.89	0.54
4:D:175:VAL:O	4:D:175:VAL:HG13	2.05	0.54
7:G:98:ARG:C	7:G:98:ARG:CD	2.76	0.54
7:G:148:SER:C	7:G:150:GLU:H	2.14	0.54
11:K:40:VAL:HG22	11:K:41:PRO:C	2.30	0.54
12:L:149:ALA:C	12:L:150:GLY:O	2.44	0.54
14:N:64:ARG:O	14:N:67:THR:O	2.25	0.54
14:N:71:ILE:O	14:N:75:LEU:HD13	2.06	0.54
17:Q:115:TYR:HE2	17:Q:119:LEU:HD11	1.72	0.54
20:T:14:PHE:HZ	20:T:131:LEU:CD1	2.21	0.54
21:U:79:ARG:HH12	34:i:1664:G:H4'	1.73	0.54
23:W:17:ALA:HB2	23:W:25:VAL:HG11	1.89	0.54
23:W:101:PHE:CD2	23:W:129:PHE:HE1	2.26	0.54
25:Y:54:VAL:CG1	25:Y:76:TYR:CA	2.84	0.54
33:g:16:GLY:H	33:g:37:ASP:HB3	1.71	0.54
33:g:26:GLN:CB	33:g:74:ASP:O	2.48	0.54
33:g:163:PRO:HB3	33:g:179:LEU:HD12	1.89	0.54
34:i:60:A:C5	34:i:325:G:O4'	2.59	0.54
34:i:545:A:C6	34:i:546:U:C4	2.95	0.54
34:i:1059:C:C6	34:i:1060:C:C5	2.95	0.54
34:i:1206:G:C1'	34:i:1207:G:O5'	2.55	0.54
34:i:1270:G:N3	34:i:1270:G:C5'	2.70	0.54
35:l:30:TYR:HD2	35:l:109:LYS:HG2	1.72	0.54
2:B:136:HIS:CE1	2:B:138:PHE:HZ	2.20	0.54
3:C:55:VAL:HG13	3:C:82:PHE:CD2	2.21	0.54
3:C:59:LYS:HD2	3:C:254:PHE:HE1	1.73	0.54
3:C:197:LYS:CG	3:C:200:LEU:HD21	2.36	0.54
4:D:77:PHE:O	4:D:79:PHE:N	2.40	0.54
4:D:199:GLY:O	4:D:201:LYS:N	2.37	0.54
4:D:219:PRO:O	4:D:220:THR:C	2.50	0.54
5:E:97:GLU:HB2	5:E:99:PHE:CE2	2.43	0.54
7:G:35:GLU:C	7:G:36:VAL:HG23	2.32	0.54
7:G:122:PRO:HD2	7:G:123:GLY:N	2.22	0.54
7:G:227:GLN:HA	7:G:230:LYS:CG	2.38	0.54
10:J:124:HIS:HD2	34:i:516:A:C5'	1.85	0.54
11:K:43:LEU:O	11:K:45:VAL:CA	2.51	0.54
12:L:86:ILE:CG2	12:L:113:LEU:HD12	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:54:LYS:HB3	19:S:55:ARG:H	1.72	0.54
25:Y:46:LYS:O	25:Y:46:LYS:CG	2.55	0.54
25:Y:101:LYS:C	25:Y:102:THR:HG1	2.14	0.54
33:g:8:ARG:CA	33:g:8:ARG:NE	2.30	0.54
33:g:100:ARG:CG	33:g:100:ARG:NH1	2.44	0.54
33:g:284:PRO:O	33:g:284:PRO:CD	2.52	0.54
34:i:883:U:C5	34:i:884:U:C5	2.96	0.54
35:l:30:TYR:CD1	35:l:107:GLN:HB3	2.42	0.54
36:n:38:VAL:HG21	36:n:72:ASN:O	2.06	0.54
1:A:125:THR:C	1:A:147:LEU:CB	2.79	0.54
1:A:180:ARG:O	1:A:184:ARG:HG3	2.06	0.54
5:E:122:LYS:CG	5:E:164:LEU:CD2	2.80	0.54
5:E:143:ASP:OD2	5:E:145:ARG:CD	2.55	0.54
6:F:166:ILE:H	6:F:166:ILE:CD1	2.19	0.54
7:G:36:VAL:CG1	7:G:37:ALA:H	2.14	0.54
7:G:176:ILE:HG21	7:G:179:LEU:CG	2.32	0.54
7:G:177:GLN:CG	7:G:178:ARG:H	2.21	0.54
8:H:83:LEU:HD21	8:H:92:VAL:HG11	1.81	0.54
8:H:87:PHE:CE2	8:H:90:LYS:NZ	2.73	0.54
10:J:29:LEU:HB3	31:e:116:PHE:HE2	1.72	0.54
10:J:110:LEU:HD12	10:J:130:ILE:HG12	1.54	0.54
10:J:124:HIS:CD2	34:i:516:A:C4'	2.90	0.54
10:J:147:PHE:O	10:J:148:ILE:CB	2.55	0.54
12:L:83:GLN:HG2	12:L:83:GLN:O	2.06	0.54
13:M:64:LEU:HG	32:f:104:LYS:NZ	2.23	0.54
14:N:116:ILE:CA	14:N:119:GLU:HG3	2.37	0.54
16:P:77:LYS:O	16:P:78:THR:HG22	2.06	0.54
17:Q:102:GLU:OE1	33:g:55:PRO:CD	2.55	0.54
19:S:81:ASP:C	19:S:87:GLN:HE22	2.15	0.54
19:S:88:LYS:N	19:S:95:TYR:CD1	2.72	0.54
20:T:39:LEU:HD11	20:T:56:ARG:CZ	2.36	0.54
20:T:82:ARG:HH11	34:i:1585:C:H5"	1.72	0.54
23:W:51:GLU:OE1	28:b:8:LEU:HD13	2.08	0.54
25:Y:19:GLN:CD	25:Y:85:ASN:HD21	2.13	0.54
25:Y:37:LYS:CA	25:Y:40:ILE:HG22	2.36	0.54
33:g:2:THR:HG23	33:g:3:GLU:CD	2.31	0.54
34:i:830:C:C2	34:i:837:G:C2	2.96	0.54
1:A:125:THR:C	1:A:147:LEU:HB2	2.32	0.54
1:A:173:LEU:O	1:A:177:MET:HG2	2.07	0.54
1:A:193:HIS:CG	1:A:194:PRO:HD2	2.42	0.54
2:B:68:GLU:CD	2:B:83:LYS:HE2	2.32	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:90:ASP:CG	2:B:91:VAL:N	2.62	0.54
2:B:150:ILE:CG1	18:R:125:GLY:HA3	2.36	0.54
3:C:197:LYS:C	3:C:200:LEU:HG	2.26	0.54
4:D:23:GLU:CB	11:K:64:TRP:HE1	2.20	0.54
4:D:212:GLU:CB	4:D:213:PRO:CD	2.76	0.54
5:E:46:ILE:O	5:E:50:ASN:HB2	2.07	0.54
5:E:71:LYS:HG2	5:E:76:VAL:H	1.72	0.54
7:G:184:VAL:C	7:G:188:LYS:HE2	2.33	0.54
8:H:10:LYS:HZ1	8:H:17:ASP:CA	2.20	0.54
9:I:148:LYS:CE	9:I:152:ARG:NH2	2.71	0.54
9:I:148:LYS:NZ	34:i:188:U:OP1	2.38	0.54
9:I:182:CYS:SG	34:i:296:U:O4	2.65	0.54
10:J:138:ARG:HD3	10:J:156:HIS:ND1	2.22	0.54
12:L:96:ILE:HD13	12:L:102:PHE:HA	1.89	0.54
14:N:2:GLY:O	14:N:3:ARG:CB	2.55	0.54
14:N:7:PRO:HD2	14:N:8:GLY:N	2.23	0.54
20:T:38:LYS:HD2	20:T:46:ALA:CA	2.37	0.54
22:V:35:ASN:OD1	22:V:52:THR:HB	2.07	0.54
31:e:80:LEU:HD12	36:n:83:ASP:CG	2.27	0.54
32:f:146:LEU:HD12	32:f:146:LEU:C	2.33	0.54
32:f:146:LEU:HD22	34:i:1288:C:H5'	1.90	0.54
33:g:254:PRO:O	33:g:255:SER:HB3	2.06	0.54
34:i:1059:C:C5	34:i:1060:C:C5	2.96	0.54
34:i:1170:U:C5'	34:i:1711:C:O3'	2.56	0.54
1:A:2:SER:OG	1:A:5:LEU:O	2.16	0.54
6:F:18:LYS:O	6:F:46:ALA:HB1	2.08	0.54
6:F:122:ARG:HH21	6:F:193:LYS:HZ1	1.54	0.54
7:G:64:LYS:CD	7:G:65:GLN:O	2.56	0.54
8:H:120:ARG:HH12	34:i:909:A:H2'	1.72	0.54
9:I:157:LYS:O	9:I:158:ILE:C	2.47	0.54
10:J:89:GLU:C	10:J:91:LYS:O	2.50	0.54
10:J:122:SER:HG	10:J:124:HIS:CB	2.12	0.54
12:L:59:LYS:CE	12:L:134:LEU:HD21	2.38	0.54
14:N:135:LEU:HD22	14:N:139:TRP:CD1	2.43	0.54
15:O:62:VAL:CG2	15:O:72:TYR:CZ	2.91	0.54
15:O:125:LYS:HZ2	27:a:56:VAL:C	2.16	0.54
16:P:93:MET:SD	16:P:106:GLU:CA	2.96	0.54
17:Q:100:VAL:CG1	17:Q:101:ASP:N	2.43	0.54
20:T:83:GLN:NE2	20:T:85:ASN:N	2.55	0.54
27:a:107:ALA:CB	27:a:108:PRO:CD	2.86	0.54
31:e:97:GLU:OE1	31:e:97:GLU:C	2.50	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:f:135:HIS:ND1	32:f:138:ARG:HG2	2.23	0.54
34:i:328:G:C4	34:i:329:A:C8	2.95	0.54
34:i:522:C:H2'	34:i:523:A:C8	2.42	0.54
34:i:841:G:H3'	34:i:842:G:H8	1.72	0.54
35:l:50:ILE:HG23	35:l:54:TYR:HD2	1.72	0.54
36:n:110:PRO:HB2	36:n:112:HIS:CE1	2.42	0.54
2:B:87:ILE:HD12	2:B:220:LYS:NZ	2.22	0.54
2:B:178:THR:O	2:B:179:ASN:CB	2.56	0.54
3:C:63:LEU:CD1	3:C:67:TYR:OH	2.47	0.54
3:C:68:LEU:O	22:V:15:ARG:NE	2.39	0.54
7:G:162:LEU:HD21	7:G:170:ARG:HB2	1.88	0.54
7:G:188:LYS:HA	7:G:191:ARG:CG	2.37	0.54
9:I:201:LYS:NZ	12:L:8:ARG:HA	2.23	0.54
12:L:134:LEU:HD23	12:L:134:LEU:C	2.33	0.54
14:N:22:VAL:HB	14:N:23:PRO:C	2.32	0.54
15:O:72:TYR:C	15:O:72:TYR:CD1	2.86	0.54
17:Q:124:PRO:CD	17:Q:125:ARG:H	2.21	0.54
18:R:33:ARG:HH21	33:g:83:TRP:HE3	1.56	0.54
21:U:54:VAL:O	21:U:56:MET:SD	2.66	0.54
21:U:69:PRO:CB	30:d:41:GLN:HG3	2.37	0.54
25:Y:56:PHE:CD2	25:Y:86:GLU:CD	2.76	0.54
25:Y:114:MET:HG2	25:Y:124:ASN:CB	2.37	0.54
27:a:87:ARG:NH1	27:a:94:ASP:O	2.38	0.54
33:g:36:ARG:C	33:g:38:LYS:H	2.15	0.54
33:g:41:ILE:HD13	33:g:58:ALA:HA	1.90	0.54
34:i:516:A:C2	34:i:550:A:C2	2.95	0.54
34:i:685:G:O6	34:i:731:C:N3	2.41	0.54
34:i:848:G:C3'	34:i:849:C:C5'	2.85	0.54
35:l:32:HIS:N	35:l:48:GLN:O	2.40	0.54
35:l:48:GLN:HB3	35:l:82:VAL:CG1	2.35	0.54
36:n:71:ILE:HA	36:n:94:LYS:HD2	1.90	0.54
1:A:11:LYS:CG	1:A:13:GLU:HG3	2.21	0.54
2:B:67:PHE:CZ	15:O:48:SER:HB3	2.43	0.54
2:B:98:THR:O	2:B:232:HIS:HE1	1.91	0.54
3:C:154:TYR:HH	3:C:162:PRO:HD3	1.67	0.54
5:E:143:ASP:OD2	5:E:145:ARG:HD2	2.08	0.54
6:F:76:MET:HE1	6:F:169:ILE:CG2	2.22	0.54
9:I:141:ARG:HD3	9:I:144:LYS:HB3	1.62	0.54
9:I:155:ASN:ND2	9:I:156:ALA:CA	2.70	0.54
9:I:157:LYS:C	9:I:158:ILE:O	2.51	0.54
11:K:43:LEU:H	11:K:46:MET:HB3	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:82:MET:HE2	12:L:85:THR:CG2	2.35	0.54
12:L:101:ARG:C	24:X:10:ALA:CB	2.59	0.54
15:O:22:ALA:C	15:O:24:GLY:N	2.56	0.54
16:P:39:ALA:HA	16:P:42:ARG:CG	2.37	0.54
19:S:34:LYS:CB	19:S:103:LEU:HD23	2.20	0.54
20:T:31:PRO:O	20:T:33:TRP:CA	2.54	0.54
20:T:76:THR:OG1	20:T:94:ARG:HD2	2.08	0.54
21:U:87:ARG:NH1	34:i:1443:G:OP1	2.37	0.54
22:V:24:ILE:CD1	22:V:25:GLY:CA	2.86	0.54
25:Y:5:VAL:O	25:Y:6:THR:CB	2.56	0.54
26:Z:65:TYR:HD2	26:Z:68:ILE:CD1	2.21	0.54
31:e:119:VAL:N	31:e:121:PRO:HD2	2.22	0.54
33:g:100:ARG:NH1	33:g:100:ARG:CB	2.71	0.54
34:i:296:U:H5"	34:i:297:C:C5	2.43	0.54
34:i:1206:G:P	34:i:1207:G:OP1	2.66	0.54
34:i:1702:U:C1'	34:i:1844:A:H4'	2.37	0.54
36:n:79:VAL:CA	36:n:90:ASP:O	2.56	0.54
1:A:34:MET:HE1	1:A:37:TYR:CD2	2.28	0.54
3:C:58:MET:HE1	3:C:81:PHE:HZ	1.67	0.54
9:I:5:ARG:HH11	34:i:374:U:H3	1.56	0.54
9:I:69:SER:HB3	12:L:19:ASN:OD1	2.08	0.54
9:I:150:ASP:OD2	9:I:150:ASP:C	2.50	0.54
11:K:85:LEU:HD13	11:K:89:ILE:CG1	2.36	0.54
12:L:17:PHE:CZ	12:L:19:ASN:OD1	2.61	0.54
12:L:157:LYS:O	12:L:158:PHE:CG	2.61	0.54
13:M:13:ASP:HB2	13:M:16:THR:OG1	2.04	0.54
13:M:15:ASN:OD1	13:M:15:ASN:C	2.50	0.54
15:O:28:PHE:CE1	15:O:92:ALA:HB1	2.43	0.54
16:P:127:LYS:O	16:P:127:LYS:CG	2.55	0.54
18:R:42:PRO:CD	18:R:43:SER:H	2.07	0.54
19:S:34:LYS:HD3	19:S:34:LYS:N	2.22	0.54
19:S:55:ARG:HG3	26:Z:48:VAL:CG1	2.34	0.54
20:T:102:ARG:HH21	20:T:105:GLN:CD	2.09	0.54
20:T:111:LYS:CG	20:T:126:GLN:HE22	2.20	0.54
24:X:88:ASP:OD2	31:e:87:ARG:HB2	2.08	0.54
33:g:194:TYR:CZ	33:g:212:LYS:CB	2.85	0.54
34:i:520:U:H5	34:i:521:A:C5	2.26	0.54
34:i:675:A:C2	34:i:914:U:C2	2.96	0.54
34:i:1496:G:H2'	34:i:1497:C:C6	2.42	0.54
34:i:1843:G:N2	35:l:68:ALA:C	2.66	0.54
35:l:45:THR:HG21	35:l:89:GLN:HB3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:n:78:LEU:C	36:n:78:LEU:HD12	2.33	0.54
36:n:103:LEU:HD23	36:n:103:LEU:N	2.23	0.54
1:A:18:PHE:CZ	1:A:55:TRP:CZ3	2.96	0.54
1:A:32:PHE:HA	1:A:35:GLU:OE1	2.07	0.54
1:A:33:GLN:OE1	28:b:2:PRO:HB3	2.08	0.54
1:A:149:ASN:N	1:A:165:ASN:ND2	2.56	0.54
1:A:179:ALA:HA	1:A:182:VAL:HG22	1.90	0.54
2:B:124:HIS:HD2	2:B:136:HIS:CE1	2.20	0.54
2:B:175:GLU:HG2	2:B:193:ILE:HD12	1.87	0.54
5:E:130:PHE:HB3	5:E:138:HIS:ND1	2.23	0.54
5:E:166:THR:OG1	5:E:168:LYS:HG2	2.07	0.54
7:G:218:LYS:O	7:G:222:GLU:HB2	2.08	0.54
8:H:9:VAL:C	8:H:11:PRO:HD2	2.32	0.54
10:J:110:LEU:HD11	10:J:135:ILE:CD1	2.38	0.54
10:J:169:ARG:HB3	10:J:170:PRO:HD3	1.85	0.54
10:J:172:ARG:CZ	34:i:552:U:C5	2.91	0.54
12:L:101:ARG:CB	24:X:7:LEU:O	2.43	0.54
14:N:11:LEU:HD12	14:N:11:LEU:C	2.33	0.54
14:N:19:ARG:HH12	28:b:84:HIS:CB	2.19	0.54
15:O:31:CYS:SG	15:O:95:ILE:HG12	2.47	0.54
15:O:34:PHE:HE1	15:O:99:ALA:C	2.15	0.54
16:P:39:ALA:O	16:P:42:ARG:CG	2.56	0.54
16:P:97:TYR:OH	16:P:100:LYS:HA	2.08	0.54
17:Q:116:ASP:CG	17:Q:117:ARG:N	2.65	0.54
20:T:31:PRO:CD	20:T:102:ARG:HG3	2.38	0.54
20:T:77:LYS:HG2	20:T:92:PHE:HZ	1.65	0.54
23:W:128:PHE:CZ	23:W:130:PHE:HE2	2.23	0.54
26:Z:92:LEU:HD21	26:Z:109:TYR:HE1	1.69	0.54
33:g:64:HIS:CE1	33:g:65:PHE:CE2	2.94	0.54
34:i:1409:G:C6	34:i:1410:A:C5	2.96	0.54
34:i:1430:C:H3'	34:i:1431:C:O4'	2.08	0.54
34:i:1523:G:H22	34:i:1660:G:N2	2.05	0.54
3:C:89:ASP:HB3	3:C:115:ILE:CG1	2.38	0.53
6:F:38:TYR:CD2	6:F:38:TYR:N	2.75	0.53
6:F:79:HIS:O	6:F:82:ASN:N	2.41	0.53
6:F:133:THR:O	6:F:135:ARG:HG2	2.08	0.53
6:F:143:PRO:HA	6:F:146:ARG:HG3	1.88	0.53
7:G:3:LEU:CD2	7:G:109:LEU:HB2	2.38	0.53
8:H:122:LEU:CD1	8:H:123:THR:CA	2.71	0.53
11:K:1:MET:HE3	34:i:1270:G:C2	2.43	0.53
11:K:14:LEU:CD1	11:K:35:LEU:HD11	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:85:LEU:HD13	11:K:89:ILE:HD11	1.90	0.53
13:M:93:LYS:O	13:M:95:ASP:OD1	2.26	0.53
15:O:117:ARG:NH1	29:c:63:ARG:H	2.06	0.53
20:T:38:LYS:O	20:T:39:LEU:HB3	2.07	0.53
23:W:93:LEU:CD2	23:W:128:PHE:HD2	2.10	0.53
24:X:51:VAL:CG1	24:X:70:VAL:HG13	2.32	0.53
25:Y:82:ALA:O	25:Y:86:GLU:HB2	2.08	0.53
25:Y:99:LYS:O	25:Y:100:LYS:O	2.25	0.53
26:Z:46:ASN:HB3	26:Z:80:ARG:HA	1.90	0.53
28:b:19:HIS:HB3	28:b:22:LYS:HG3	1.90	0.53
33:g:51:ASN:O	33:g:53:GLY:O	2.25	0.53
34:i:8:U:O2	34:i:1192:A:OP2	2.26	0.53
34:i:61:A:N1	34:i:325:G:O2'	2.40	0.53
34:i:1546:U:C5	34:i:1572:G:C2	2.96	0.53
3:C:134:THR:HG23	3:C:135:ALA:N	2.23	0.53
5:E:98:ASN:ND2	5:E:114:ILE:CG1	2.72	0.53
7:G:50:VAL:HG11	7:G:111:LEU:CB	2.35	0.53
7:G:64:LYS:HE3	7:G:65:GLN:O	2.08	0.53
11:K:14:LEU:HD22	11:K:35:LEU:CD1	2.37	0.53
14:N:4:MET:SD	14:N:124:ARG:NH1	2.82	0.53
17:Q:7:LEU:CD2	17:Q:8:GLN:H	2.17	0.53
18:R:95:ILE:N	18:R:114:LEU:HD13	2.23	0.53
19:S:26:ILE:CD1	19:S:59:LEU:CD2	2.81	0.53
20:T:23:LYS:CD	20:T:54:TYR:CG	2.62	0.53
24:X:126:ALA:O	24:X:128:VAL:HG23	2.07	0.53
26:Z:103:HIS:CD2	26:Z:105:ALA:CA	2.90	0.53
28:b:2:PRO:O	28:b:4:ALA:N	2.41	0.53
29:c:10:LYS:HD3	29:c:34:PHE:CE1	2.38	0.53
33:g:198:VAL:HG12	33:g:199:THR:N	2.22	0.53
33:g:234:ASP:CB	33:g:254:PRO:HD2	2.38	0.53
34:i:606:A:H61	34:i:619:A:H61	1.55	0.53
34:i:1206:G:C4	34:i:1207:G:C4'	2.85	0.53
34:i:1743:G:H1	34:i:1780:U:H3	1.56	0.53
1:A:2:SER:OG	1:A:3:GLY:N	2.37	0.53
2:B:232:HIS:O	2:B:233:GLY:O	2.27	0.53
3:C:73:ILE:HG23	3:C:73:ILE:O	2.08	0.53
3:C:197:LYS:C	3:C:200:LEU:CD2	2.80	0.53
4:D:34:TYR:OH	4:D:37:VAL:HG13	2.08	0.53
4:D:39:VAL:O	4:D:39:VAL:HG13	2.07	0.53
6:F:144:LEU:HD23	29:c:49:PRO:HG2	1.91	0.53
8:H:194:LEU:HB2	28:b:16:LYS:HG3	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:6:ASP:OD2	9:I:8:TRP:CG	2.62	0.53
9:I:117:TYR:H	9:I:117:TYR:HD2	1.57	0.53
9:I:174:CYS:HB2	9:I:190:LEU:HD21	1.90	0.53
10:J:10:ARG:HB3	10:J:10:ARG:CZ	2.24	0.53
17:Q:45:ARG:O	17:Q:46:THR:C	2.49	0.53
17:Q:63:PHE:CD1	17:Q:68:ILE:CD1	2.91	0.53
17:Q:109:LYS:HZ2	17:Q:113:ILE:HD11	1.74	0.53
20:T:5:THR:HG23	20:T:7:LYS:HB2	1.91	0.53
20:T:77:LYS:O	20:T:92:PHE:CZ	2.61	0.53
25:Y:20:ARG:CD	25:Y:76:TYR:CZ	2.84	0.53
28:b:1:MET:N	28:b:2:PRO:CD	2.71	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	2.22	0.53
34:i:848:G:C5'	34:i:849:C:OP2	2.51	0.53
34:i:1828:A:C2	34:i:1831:G:N1	2.76	0.53
1:A:32:PHE:CE1	1:A:33:GLN:CD	2.85	0.53
1:A:52:LYS:HB3	1:A:52:LYS:HZ2	1.72	0.53
2:B:19:LYS:O	2:B:19:LYS:HG3	2.09	0.53
3:C:154:TYR:CE1	3:C:162:PRO:CD	2.92	0.53
3:C:174:GLY:O	3:C:175:SER:CB	2.55	0.53
5:E:19:MET:HE3	34:i:842:G:H2'	1.78	0.53
5:E:124:CYS:HB3	5:E:141:THR:CB	2.36	0.53
6:F:78:MET:HB2	6:F:159:ARG:NH2	2.22	0.53
7:G:76:LEU:HD13	7:G:92:ARG:HD2	1.90	0.53
7:G:153:VAL:HG12	7:G:154:ARG:N	2.23	0.53
10:J:164:PRO:HB2	10:J:165:TYR:CD1	2.43	0.53
11:K:1:MET:CE	34:i:1270:G:N2	2.69	0.53
18:R:16:ILE:O	18:R:20:TYR:HB2	2.07	0.53
19:S:141:ARG:CD	34:i:1518:C:C5	2.91	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
25:Y:37:LYS:HA	25:Y:40:ILE:HG22	1.89	0.53
28:b:32:PHE:O	28:b:81:ARG:C	2.50	0.53
30:d:30:LEU:HD23	30:d:38:MET:C	2.33	0.53
33:g:227:LEU:HB3	33:g:228:TYR:HD1	1.73	0.53
33:g:261:LEU:HD22	33:g:261:LEU:H	1.73	0.53
34:i:185:C:O2	34:i:211:U:C2	2.62	0.53
36:n:103:LEU:HD22	36:n:106:TYR:CE1	2.44	0.53
1:A:102:ARG:HH22	34:i:1375:A:C4'	2.19	0.53
1:A:149:ASN:H	1:A:165:ASN:HD21	1.57	0.53
3:C:197:LYS:HG3	3:C:200:LEU:HD21	1.88	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:162:ASP:OD1	4:D:162:ASP:O	2.27	0.53
5:E:70:ILE:HG13	5:E:92:ILE:HD12	1.86	0.53
6:F:133:THR:HG21	15:O:66:ARG:NH1	2.24	0.53
7:G:58:LYS:HG2	7:G:105:ASN:O	2.09	0.53
8:H:37:LYS:O	8:H:38:ALA:HB3	2.08	0.53
9:I:141:ARG:HB3	9:I:144:LYS:HG2	1.90	0.53
9:I:144:LYS:C	9:I:145:ILE:HG12	2.24	0.53
9:I:157:LYS:CB	12:L:22:ARG:CD	2.54	0.53
11:K:47:LYS:CD	11:K:50:GLN:NE2	2.72	0.53
14:N:17:PRO:HG2	34:i:1012:U:C6	2.43	0.53
15:O:30:VAL:HG21	15:O:32:HIS:NE2	2.23	0.53
17:Q:144:SER:O	17:Q:145:TYR:CB	2.55	0.53
18:R:33:ARG:HH11	33:g:125:ARG:CD	2.20	0.53
18:R:42:PRO:HD3	18:R:46:LEU:HD23	1.90	0.53
20:T:77:LYS:O	20:T:92:PHE:HZ	1.91	0.53
21:U:53:PRO:HD2	21:U:53:PRO:O	2.09	0.53
25:Y:54:VAL:CG1	25:Y:54:VAL:O	2.57	0.53
28:b:2:PRO:O	28:b:3:LEU:C	2.52	0.53
31:e:120:VAL:HG22	31:e:121:PRO:C	2.33	0.53
33:g:273:GLU:HG2	33:g:274:VAL:HG22	1.90	0.53
34:i:296:U:H5"	34:i:297:C:C6	2.43	0.53
34:i:1492:U:O2'	34:i:1494:A:O5'	2.25	0.53
34:i:1596:A:H5'	34:i:1597:U:C6	2.42	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	2.36	0.53
1:A:110:ASN:ND2	34:i:1348:G:C5'	2.72	0.53
2:B:137:LEU:HD21	2:B:215:VAL:HG11	1.78	0.53
2:B:205:TYR:CG	2:B:206:PRO:CD	2.82	0.53
3:C:55:VAL:HG22	3:C:82:PHE:CZ	2.42	0.53
5:E:100:ARG:NH2	5:E:122:LYS:HA	2.23	0.53
6:F:45:TYR:O	6:F:47:LYS:HE3	1.93	0.53
6:F:134:VAL:HG12	6:F:136:ARG:CZ	2.39	0.53
6:F:192:LYS:O	6:F:192:LYS:HD2	2.08	0.53
7:G:164:LYS:O	7:G:164:LYS:HG3	2.06	0.53
7:G:170:ARG:HG2	34:i:71:G:C6	2.44	0.53
11:K:16:PHE:CE2	11:K:79:LEU:CA	2.89	0.53
13:M:51:VAL:CG1	13:M:109:VAL:HG23	2.39	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:106:LYS:HZ3	27:a:69:VAL:HG13	1.71	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:8:LYS:CE	19:S:9:PHE:HE1	2.05	0.53
19:S:22:GLY:O	19:S:57:GLY:N	2.35	0.53
19:S:124:ARG:HB2	19:S:131:VAL:HG22	1.90	0.53
22:V:19:ALA:O	23:W:23:ARG:CZ	2.57	0.53
25:Y:17:LEU:HD12	25:Y:17:LEU:C	2.34	0.53
25:Y:50:THR:O	25:Y:51:THR:HG23	2.09	0.53
26:Z:66:LYS:O	26:Z:110:THR:HA	2.08	0.53
28:b:6:ASP:O	28:b:7:LEU:C	2.51	0.53
28:b:81:ARG:CA	28:b:82:LYS:CB	2.79	0.53
1:A:66:VAL:HG11	22:V:46:PHE:HB3	1.90	0.53
1:A:205:ARG:NH1	18:R:82:ASP:C	2.60	0.53
4:D:167:TYR:CE2	4:D:204:LEU:CD2	2.92	0.53
6:F:95:HIS:NE2	26:Z:103:HIS:CB	2.71	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
9:I:158:ILE:C	12:L:22:ARG:NH2	2.67	0.53
10:J:33:GLY:HA3	31:e:112:TYR:CD2	2.44	0.53
10:J:37:LEU:HG	10:J:38:ARG:H	1.73	0.53
12:L:147:LYS:HG3	12:L:148:ALA:HB2	1.90	0.53
13:M:67:ALA:CB	32:f:108:VAL:CG2	2.80	0.53
13:M:77:ILE:HD12	13:M:78:LYS:O	2.09	0.53
14:N:38:TYR:CE1	14:N:78:LYS:NZ	2.76	0.53
17:Q:98:LYS:CE	17:Q:99:TYR:CE2	2.91	0.53
20:T:123:LEU:HD23	20:T:123:LEU:N	2.24	0.53
22:V:1:MET:CE	22:V:10:ASP:CB	2.55	0.53
22:V:41:LYS:O	22:V:42:VAL:C	2.50	0.53
22:V:55:ILE:HG21	22:V:60:ARG:HG2	1.90	0.53
23:W:128:PHE:CD1	23:W:129:PHE:HA	2.43	0.53
27:a:45:VAL:O	27:a:46:GLU:HG3	2.09	0.53
32:f:148:TYR:N	32:f:148:TYR:CD1	2.72	0.53
34:i:783:G:H3'	34:i:784:G:H5"	1.91	0.53
34:i:1547:G:N7	34:i:1573:U:C4	2.77	0.53
34:i:1843:G:N2	35:l:68:ALA:CA	2.70	0.53
2:B:137:LEU:HD12	2:B:176:VAL:HG21	1.91	0.53
4:D:178:ARG:O	34:i:1496:G:H4'	2.08	0.53
5:E:154:ILE:CG2	5:E:160:ILE:HD11	2.39	0.53
5:E:259:LYS:CG	5:E:260:GLN:OE1	2.56	0.53
6:F:130:ARG:HB3	6:F:135:ARG:H	1.74	0.53
6:F:138:ALA:CB	6:F:204:ARG:HB3	2.39	0.53
7:G:32:MET:HE3	7:G:100:CYS:O	2.08	0.53
7:G:183:ARG:NH1	34:i:307:G:C6	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:37:ASP:C	11:K:38:LYS:HD3	2.33	0.53
12:L:147:LYS:HZ3	12:L:149:ALA:H	1.57	0.53
16:P:15:PHE:HD2	16:P:110:GLU:OE2	1.91	0.53
17:Q:43:GLU:HG2	17:Q:45:ARG:CB	2.37	0.53
17:Q:51:LEU:C	17:Q:51:LEU:HD12	2.34	0.53
18:R:61:ILE:CG2	18:R:74:GLN:NE2	2.72	0.53
26:Z:58:LEU:CD2	26:Z:77:LEU:HD11	2.38	0.53
27:a:101:PHE:O	27:a:103:PRO:CD	2.56	0.53
32:f:146:LEU:HD12	32:f:147:THR:N	2.23	0.53
33:g:61:GLY:C	33:g:88:ARG:NH2	2.66	0.53
33:g:64:HIS:CG	33:g:83:TRP:HB2	2.43	0.53
33:g:116:ASP:O	33:g:117:ASN:CB	2.53	0.53
33:g:140:TYR:HE2	33:g:182:CYS:CB	1.59	0.53
33:g:142:VAL:HG11	33:g:177:TRP:CE3	2.44	0.53
33:g:284:PRO:HB2	33:g:303:THR:N	2.24	0.53
34:i:1361:G:H2'	34:i:1362:G:H8	1.72	0.53
35:l:110:VAL:HG22	35:l:112:GLY:H	1.73	0.53
36:n:78:LEU:HD12	36:n:79:VAL:N	2.23	0.53
1:A:159:ILE:HD12	1:A:160:ALA:N	2.24	0.53
2:B:120:MET:HB2	2:B:142:PHE:CE1	2.44	0.53
4:D:177:LEU:HD12	4:D:178:ARG:HH21	1.72	0.53
5:E:212:ASP:OD1	5:E:216:ASN:CB	2.35	0.53
6:F:32:ASP:OD2	6:F:117:ILE:HG23	2.08	0.53
7:G:55:GLY:HA2	7:G:110:ASN:ND2	2.23	0.53
8:H:23:ILE:O	8:H:27:LEU:HD23	2.09	0.53
8:H:40:LEU:HD11	8:H:75:ILE:HD13	1.90	0.53
10:J:26:ASP:HB3	31:e:116:PHE:CZ	2.44	0.53
13:M:31:LEU:HD11	13:M:109:VAL:CB	2.38	0.53
14:N:116:ILE:C	14:N:119:GLU:HG3	2.34	0.53
16:P:4:VAL:HG22	16:P:10:ARG:HD2	1.91	0.53
20:T:18:LEU:HD13	20:T:134:ILE:CD1	2.16	0.53
25:Y:88:LYS:HG3	25:Y:97:TYR:CZ	2.44	0.53
25:Y:117:VAL:HB	25:Y:124:ASN:ND2	2.24	0.53
26:Z:107:VAL:HB	26:Z:109:TYR:CE2	2.44	0.53
32:f:82:LYS:NZ	34:i:1505:U:C2	2.77	0.53
34:i:127:C:C2	34:i:180:G:H2'	2.44	0.53
34:i:455:A:H1'	34:i:456:G:OP2	2.09	0.53
35:l:30:TYR:HD1	35:l:107:GLN:CB	2.20	0.53
1:A:145:ILE:HG23	1:A:159:ILE:HG21	1.91	0.53
2:B:195:LYS:HE2	2:B:195:LYS:CA	2.37	0.53
3:C:50:LYS:HG3	3:C:258:LEU:HD13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:36:GLN:CG	6:F:37:ASP:OD1	2.30	0.53
6:F:204:ARG:HG3	29:c:63:ARG:NH1	2.23	0.53
8:H:32:MET:O	8:H:33:ASN:HB2	2.09	0.53
10:J:21:GLU:O	10:J:24:ARG:N	2.42	0.53
10:J:67:ASP:O	10:J:68:PRO:C	2.52	0.53
13:M:12:MET:CG	13:M:17:ALA:N	2.71	0.53
13:M:27:ILE:HG23	13:M:28:HIS:N	2.22	0.53
15:O:142:ARG:HH12	27:a:27:ALA:CB	2.03	0.53
16:P:22:LEU:HD12	16:P:22:LEU:C	2.34	0.53
16:P:41:GLN:CG	16:P:84:ILE:CB	2.31	0.53
17:Q:111:ILE:HA	17:Q:114:GLN:CD	2.34	0.53
20:T:16:ARG:NH1	20:T:16:ARG:HG2	2.23	0.53
20:T:64:LEU:N	20:T:64:LEU:CD2	2.63	0.53
20:T:72:VAL:O	20:T:76:THR:HG23	2.09	0.53
20:T:83:GLN:NE2	20:T:85:ASN:CA	2.72	0.53
21:U:108:PRO:O	21:U:110:VAL:CG2	2.53	0.53
25:Y:30:PRO:O	25:Y:67:GLY:HA3	2.10	0.53
28:b:78:SER:O	28:b:79:PHE:HB3	2.08	0.53
29:c:67:ARG:HA	29:c:68:LEU:HD23	1.91	0.53
30:d:28:HIS:CD2	34:i:1322:U:O4	2.62	0.53
33:g:71:ILE:CG2	33:g:72:SER:H	2.20	0.53
34:i:1492:U:H2'	34:i:1494:A:H8	1.74	0.53
34:i:1596:A:H4'	34:i:1597:U:C6	2.43	0.53
2:B:214:LYS:HG2	2:B:215:VAL:N	2.23	0.52
4:D:35:SER:C	4:D:99:ILE:HD11	2.29	0.52
6:F:141:VAL:CG2	29:c:47:LYS:NZ	2.64	0.52
8:H:37:LYS:CE	8:H:41:ARG:HH11	2.04	0.52
8:H:73:GLN:NE2	8:H:135:PHE:CE1	2.77	0.52
9:I:73:THR:O	9:I:74:ARG:HD2	2.09	0.52
12:L:80:MET:CG	12:L:86:ILE:HG22	2.36	0.52
14:N:134:VAL:HG22	14:N:135:LEU:HG	1.91	0.52
15:O:20:GLN:HG2	15:O:21:VAL:CA	2.38	0.52
20:T:62:ARG:HG3	20:T:63:HIS:N	2.24	0.52
22:V:64:GLU:O	22:V:65:SER:C	2.52	0.52
24:X:52:LEU:HD12	24:X:53:GLU:HG2	1.91	0.52
25:Y:10:ARG:CD	25:Y:24:VAL:CG1	2.87	0.52
26:Z:74:SER:CA	26:Z:79:ILE:HG22	2.33	0.52
26:Z:90:GLU:O	26:Z:93:SER:OG	2.17	0.52
28:b:83:GLN:NE2	28:b:83:GLN:HA	2.23	0.52
1:A:19:LEU:HD11	18:R:109:LEU:HD13	1.91	0.52
1:A:39:TYR:HB2	1:A:50:ASN:HD21	1.59	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:110:ASN:N	34:i:1348:G:P	2.82	0.52
2:B:137:LEU:HD23	2:B:215:VAL:CG1	2.18	0.52
3:C:187:THR:OG1	3:C:206:ASP:HB3	2.09	0.52
5:E:100:ARG:HG2	5:E:102:ILE:CD1	2.40	0.52
5:E:256:LEU:HD12	5:E:256:LEU:C	2.34	0.52
8:H:164:ASN:HA	8:H:167:GLU:CG	2.39	0.52
9:I:37:LYS:H	9:I:59:ARG:H	1.57	0.52
10:J:82:VAL:HG13	10:J:92:MET:HE3	1.91	0.52
10:J:125:HIS:NE2	10:J:129:LEU:HD21	2.25	0.52
11:K:2:LEU:HD23	34:i:1311:U:H4'	1.91	0.52
12:L:31:GLU:HG2	12:L:32:LYS:N	2.23	0.52
12:L:147:LYS:CE	12:L:156:GLN:HE22	2.23	0.52
15:O:61:LYS:C	15:O:62:VAL:HG23	2.28	0.52
15:O:76:LEU:HD23	29:c:5:ARG:HD3	1.90	0.52
15:O:131:ASP:CG	27:a:67:LEU:HD22	2.34	0.52
17:Q:85:ARG:NH2	17:Q:117:ARG:CG	2.47	0.52
17:Q:105:LYS:NZ	17:Q:109:LYS:CB	2.66	0.52
17:Q:138:ARG:HG2	34:i:1644:U:H4'	1.87	0.52
19:S:11:HIS:O	19:S:12:ILE:HB	2.09	0.52
21:U:73:GLY:C	21:U:74:SER:O	2.50	0.52
25:Y:35:VAL:CG1	25:Y:36:PRO:HD2	2.28	0.52
26:Z:62:VAL:HG13	26:Z:68:ILE:HD11	1.83	0.52
28:b:54:VAL:CG1	28:b:63:LEU:HD22	2.40	0.52
31:e:119:VAL:O	31:e:121:PRO:CG	2.57	0.52
33:g:218:LEU:HD23	33:g:230:LEU:CD1	2.39	0.52
33:g:272:GLN:CD	33:g:272:GLN:H	2.17	0.52
2:B:140:VAL:O	2:B:210:VAL:HA	2.09	0.52
4:D:76:ARG:CD	11:K:66:HIS:ND1	2.66	0.52
4:D:217:ILE:HG23	4:D:218:LEU:N	2.24	0.52
5:E:159:THR:HG21	5:E:227:VAL:CG2	2.21	0.52
5:E:192:ILE:HD13	5:E:238:LEU:HD22	1.91	0.52
6:F:20:PHE:CD2	6:F:23:TRP:HD1	2.28	0.52
6:F:113:VAL:CG1	6:F:114:ASN:N	2.72	0.52
7:G:64:LYS:HD2	7:G:67:VAL:HG13	1.88	0.52
7:G:93:LYS:HG2	7:G:95:LYS:HG3	1.92	0.52
7:G:191:ARG:NH1	7:G:191:ARG:HB3	2.24	0.52
8:H:99:ARG:HB2	34:i:909:A:C8	2.44	0.52
10:J:79:ARG:NH1	10:J:83:ARG:HD2	2.25	0.52
12:L:59:LYS:CD	12:L:112:HIS:NE2	2.72	0.52
12:L:152:LYS:C	12:L:154:GLN:N	2.67	0.52
15:O:27:VAL:N	15:O:91:THR:OG1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:33:ILE:HG12	15:O:42:VAL:HG22	1.90	0.52
18:R:87:GLU:O	18:R:88:VAL:CB	2.56	0.52
19:S:90:VAL:CG1	19:S:91:LYS:CE	2.87	0.52
20:T:31:PRO:HG2	20:T:102:ARG:HG3	1.90	0.52
24:X:62:PRO:HD2	24:X:63:ASN:N	2.23	0.52
34:i:429:A:H1'	34:i:1794:A:O2'	2.09	0.52
34:i:1188:U:O2'	34:i:1816:A:C4'	2.51	0.52
34:i:1216:A:C2	34:i:1641:C:N4	2.77	0.52
34:i:1824:U:C4'	34:i:1845:A:N6	2.71	0.52
35:l:30:TYR:CZ	35:l:107:GLN:C	2.82	0.52
35:l:47:VAL:H	35:l:83:ILE:CA	2.21	0.52
1:A:119:PRO:O	1:A:142:LEU:HD21	2.10	0.52
2:B:49:VAL:HG22	2:B:65:ARG:HH12	1.72	0.52
3:C:115:ILE:HD11	3:C:140:ILE:CG2	2.30	0.52
5:E:72:ILE:HD12	5:E:82:TYR:CD2	2.45	0.52
6:F:167:LYS:HE3	6:F:171:GLU:HG3	1.89	0.52
12:L:117:PHE:CD2	12:L:145:VAL:HG23	2.45	0.52
17:Q:45:ARG:CG	17:Q:46:THR:N	2.72	0.52
17:Q:84:ILE:HG13	17:Q:85:ARG:N	2.24	0.52
17:Q:143:LYS:HG2	17:Q:145:TYR:H	1.74	0.52
19:S:137:LYS:O	19:S:141:ARG:CZ	2.57	0.52
20:T:123:LEU:H	20:T:123:LEU:CD2	2.22	0.52
23:W:104:LEU:HD12	23:W:104:LEU:C	2.35	0.52
25:Y:13:MET:HE3	25:Y:14:THR:C	2.32	0.52
25:Y:54:VAL:O	25:Y:76:TYR:N	2.42	0.52
30:d:44:ARG:HH21	34:i:1333:C:H5'	1.73	0.52
31:e:86:VAL:CA	31:e:89:GLN:HG2	2.34	0.52
32:f:95:ARG:CD	32:f:96:LYS:H	2.19	0.52
33:g:30:MET:HE2	33:g:42:MET:CE	2.35	0.52
35:l:63:PHE:HZ	35:l:89:GLN:HG2	1.74	0.52
1:A:76:VAL:HG12	1:A:87:VAL:HB	1.91	0.52
2:B:31:TYR:CE1	2:B:94:LYS:CA	2.90	0.52
2:B:148:ASN:CB	18:R:124:VAL:HG23	2.30	0.52
3:C:72:PRO:HA	22:V:29:HIS:NE2	2.25	0.52
5:E:45:ILE:HG23	5:E:46:ILE:N	2.24	0.52
7:G:143:LYS:HA	7:G:143:LYS:CE	2.39	0.52
9:I:76:THR:HG22	9:I:77:ARG:H	1.71	0.52
9:I:149:TYR:HD1	9:I:152:ARG:NH1	2.05	0.52
9:I:155:ASN:CG	9:I:156:ALA:HA	2.35	0.52
10:J:102:ILE:HG22	10:J:106:LEU:CD1	2.36	0.52
12:L:112:HIS:CG	12:L:134:LEU:HD11	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:67:ALA:C	32:f:114:ILE:HG21	2.35	0.52
13:M:95:ASP:O	13:M:96:ARG:HG2	2.09	0.52
15:O:28:PHE:HB3	15:O:47:LEU:HD11	1.89	0.52
15:O:43:HIS:NE2	15:O:45:THR:CG2	2.73	0.52
15:O:44:VAL:HG21	15:O:93:LEU:HD11	1.85	0.52
16:P:37:TYR:HA	19:S:88:LYS:CD	2.40	0.52
16:P:56:LEU:HD11	16:P:80:LEU:CD1	2.39	0.52
17:Q:130:LYS:HE3	34:i:1664:G:H5"	1.91	0.52
18:R:17:ILE:CG2	18:R:71:ILE:HD11	2.40	0.52
19:S:54:LYS:HB3	19:S:55:ARG:N	2.25	0.52
19:S:103:LEU:HD12	19:S:103:LEU:C	2.33	0.52
20:T:14:PHE:HZ	20:T:131:LEU:HD12	1.74	0.52
22:V:11:LEU:HD12	22:V:12:TYR:CG	2.38	0.52
24:X:54:LYS:CD	24:X:91:LEU:HD12	2.38	0.52
24:X:94:ILE:CD1	24:X:125:VAL:HG21	2.40	0.52
24:X:105:PHE:HE2	24:X:119:ARG:N	2.06	0.52
33:g:9:GLY:O	33:g:309:VAL:HG22	2.10	0.52
33:g:19:THR:O	33:g:288:SER:HB3	2.09	0.52
35:l:30:TYR:HE1	35:l:107:GLN:N	1.99	0.52
35:l:54:TYR:N	35:l:54:TYR:CD1	2.73	0.52
35:l:103:ALA:O	35:l:104:LYS:HG2	2.09	0.52
1:A:16:LEU:CB	1:A:17:LYS:HE2	2.39	0.52
1:A:24:HIS:HB3	1:A:51:LEU:CD2	2.40	0.52
2:B:150:ILE:HD11	18:R:125:GLY:C	2.28	0.52
4:D:45:ARG:CA	4:D:83:SER:OG	2.56	0.52
4:D:126:ILE:HD12	4:D:134:CYS:HB2	1.87	0.52
5:E:71:LYS:O	5:E:90:ILE:HA	2.09	0.52
5:E:163:ASP:HB3	5:E:167:GLY:O	2.09	0.52
7:G:35:GLU:O	7:G:36:VAL:CG2	2.58	0.52
9:I:144:LYS:H	9:I:144:LYS:CD	2.22	0.52
11:K:1:MET:HB3	11:K:47:LYS:CB	2.40	0.52
11:K:1:MET:N	11:K:2:LEU:O	2.33	0.52
11:K:16:PHE:HE2	11:K:79:LEU:C	2.16	0.52
11:K:27:VAL:O	11:K:28:HIS:CG	2.63	0.52
11:K:60:GLU:HG3	11:K:69:TRP:NE1	2.24	0.52
12:L:101:ARG:HD2	24:X:6:GLY:O	2.10	0.52
13:M:12:MET:CG	13:M:16:THR:HG22	2.40	0.52
14:N:15:ALA:C	28:b:26:GLN:NE2	2.67	0.52
17:Q:17:LYS:CE	34:i:1643:G:C6	2.93	0.52
18:R:29:HIS:CD2	33:g:65:PHE:CZ	2.91	0.52
20:T:11:GLN:CD	34:i:1537:C:H5"	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:11:GLN:OE1	20:T:62:ARG:HD3	2.09	0.52
20:T:38:LYS:O	20:T:39:LEU:CB	2.58	0.52
22:V:42:VAL:C	22:V:43:THR:OG1	2.51	0.52
23:W:55:ASP:CB	28:b:25:VAL:HG13	2.39	0.52
25:Y:78:SER:O	25:Y:79:LEU:C	2.48	0.52
31:e:113:ASN:ND2	34:i:542:G:P	2.80	0.52
33:g:4:GLN:HG2	33:g:5:MET:N	2.24	0.52
33:g:212:LYS:CA	33:g:235:ILE:HG13	2.31	0.52
34:i:841:G:C3'	34:i:842:G:H8	2.23	0.52
34:i:1819:A:C3'	36:n:44:ASN:CB	2.72	0.52
1:A:141:ASN:CA	22:V:32:ILE:HG13	2.19	0.52
2:B:149:GLN:HE21	2:B:151:ARG:CG	2.19	0.52
3:C:185:ARG:O	10:J:54:ARG:NH2	2.43	0.52
4:D:123:LEU:HD23	4:D:123:LEU:O	2.10	0.52
4:D:208:VAL:O	4:D:208:VAL:HG12	2.08	0.52
5:E:94:LYS:C	5:E:95:THR:CG2	2.83	0.52
5:E:124:CYS:HB2	5:E:162:ILE:CD1	2.39	0.52
5:E:143:ASP:O	5:E:144:ALA:HB3	2.09	0.52
6:F:39:ILE:HG21	6:F:113:VAL:HG23	1.92	0.52
6:F:204:ARG:HD3	29:c:60:GLU:OE2	1.95	0.52
12:L:86:ILE:CG1	12:L:111:VAL:HG13	2.39	0.52
16:P:51:ARG:O	16:P:52:LYS:HB2	2.07	0.52
16:P:83:MET:HB3	16:P:116:LEU:HD12	1.91	0.52
17:Q:42:ILE:HD11	17:Q:51:LEU:HD13	1.91	0.52
19:S:23:ARG:O	19:S:55:ARG:HD2	2.10	0.52
19:S:71:MET:HG3	19:S:99:LEU:HD13	1.91	0.52
22:V:41:LYS:C	22:V:43:THR:H	2.18	0.52
22:V:79:VAL:HG11	22:V:82:ASN:OD1	2.06	0.52
24:X:52:LEU:CD1	24:X:71:ARG:HB2	2.36	0.52
24:X:122:VAL:CG1	24:X:130:LEU:HD11	2.40	0.52
25:Y:87:PRO:CG	25:Y:90:ARG:HB2	2.39	0.52
25:Y:118:ARG:O	25:Y:119:GLY:C	2.51	0.52
26:Z:102:LYS:HA	26:Z:107:VAL:CA	2.40	0.52
33:g:70:VAL:HG22	33:g:71:ILE:N	2.24	0.52
33:g:249:CYS:SG	33:g:256:ILE:HG23	2.50	0.52
34:i:744:C:C3'	34:i:787:C:N3	2.72	0.52
34:i:1458:U:H3'	34:i:1459:U:C5'	2.39	0.52
35:l:64:LYS:O	35:l:66:LYS:N	2.42	0.52
1:A:76:VAL:HG13	1:A:175:TRP:CZ2	2.37	0.52
1:A:110:ASN:ND2	34:i:1348:G:O5'	2.43	0.52
1:A:149:ASN:CB	1:A:165:ASN:ND2	2.69	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:154:LEU:CD1	22:V:63:GLY:CA	2.85	0.52
2:B:149:GLN:O	18:R:124:VAL:HG13	2.10	0.52
3:C:47:PRO:HA	3:C:75:GLU:OE2	2.09	0.52
3:C:49:THR:HG23	3:C:75:GLU:HG3	1.91	0.52
5:E:255:ARG:HH21	34:i:840:U:H2'	1.75	0.52
7:G:162:LEU:CD2	7:G:172:LYS:HE2	2.32	0.52
8:H:61:ILE:HD13	8:H:176:VAL:HG11	1.92	0.52
9:I:158:ILE:O	12:L:22:ARG:NH2	2.43	0.52
10:J:83:ARG:CZ	10:J:150:ARG:HH21	2.22	0.52
11:K:4:PRO:CG	11:K:7:ASN:CG	2.83	0.52
12:L:25:LEU:O	12:L:27:GLU:HA	2.10	0.52
12:L:40:ILE:HD13	12:L:40:ILE:C	2.33	0.52
13:M:72:HIS:O	13:M:73:GLN:HB3	2.09	0.52
16:P:90:VAL:HA	16:P:107:ILE:HG13	1.91	0.52
17:Q:130:LYS:HG2	34:i:1664:G:H5'	1.92	0.52
18:R:21:TYR:HA	18:R:58:MET:HE1	1.92	0.52
19:S:46:ARG:NH1	20:T:50:GLU:CB	2.71	0.52
20:T:76:THR:HA	20:T:95:GLY:O	2.10	0.52
20:T:123:LEU:HD23	20:T:123:LEU:H	1.75	0.52
33:g:141:THR:O	33:g:143:GLN:N	2.43	0.52
33:g:176:VAL:HB	33:g:186:THR:CG2	2.25	0.52
34:i:181:A:C4'	34:i:182:C:O5'	2.57	0.52
34:i:1358:U:H5"	34:i:1359:C:H5	1.75	0.52
34:i:1491:G:C2	34:i:1492:U:H1'	2.44	0.52
34:i:1497:C:O2'	34:i:1498:C:H5'	2.10	0.52
36:n:60:HIS:HB2	36:n:90:ASP:CG	2.35	0.52
1:A:158:ASP:CB	22:V:65:SER:OG	2.58	0.52
3:C:50:LYS:HA	3:C:53:ARG:HD2	1.91	0.52
3:C:149:PRO:CB	3:C:233:TYR:CD2	2.80	0.52
3:C:223:LYS:NZ	34:i:1352:G:O4'	2.43	0.52
4:D:210:ILE:HD11	18:R:15:VAL:CG1	2.29	0.52
6:F:42:LYS:C	6:F:45:TYR:H	2.17	0.52
7:G:135:PRO:CD	7:G:144:LEU:HD23	2.38	0.52
7:G:161:PRO:O	7:G:161:PRO:CD	2.57	0.52
8:H:37:LYS:NZ	8:H:38:ALA:HA	2.24	0.52
8:H:61:ILE:HG12	8:H:95:ILE:HD12	1.91	0.52
8:H:65:PRO:HG2	8:H:68:GLN:NE2	2.25	0.52
9:I:5:ARG:NH1	34:i:374:U:H3	2.08	0.52
9:I:142:SER:CA	9:I:143:LYS:CB	2.71	0.52
10:J:83:ARG:NH2	10:J:150:ARG:NH2	2.57	0.52
10:J:124:HIS:C	10:J:126:ALA:N	2.66	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:49:MET:HB2	11:K:69:TRP:CZ2	2.44	0.52
11:K:59:LYS:HD2	11:K:59:LYS:C	2.34	0.52
13:M:92:CYS:CB	13:M:101:ARG:HG3	2.37	0.52
15:O:125:LYS:HE3	27:a:56:VAL:O	2.10	0.52
15:O:143:LYS:CG	15:O:144:GLY:N	2.64	0.52
17:Q:116:ASP:CG	17:Q:118:THR:H	2.17	0.52
18:R:91:LEU:HB2	18:R:93:GLN:H	1.66	0.52
19:S:15:VAL:HG12	19:S:16:LEU:N	2.19	0.52
19:S:90:VAL:HG12	19:S:91:LYS:N	2.25	0.52
21:U:16:ALA:O	21:U:94:PRO:HG3	2.10	0.52
24:X:55:VAL:HG12	24:X:57:VAL:HG23	1.92	0.52
28:b:6:ASP:C	28:b:8:LEU:N	2.67	0.52
28:b:64:CYS:HA	28:b:74:THR:HG23	1.92	0.52
31:e:114:ARG:C	31:e:118:ASN:HB2	2.35	0.52
31:e:123:PHE:C	31:e:125:LYS:N	2.62	0.52
31:e:127:LYS:HD2	31:e:127:LYS:N	2.19	0.52
34:i:197:U:H2'	34:i:198:U:C5'	2.39	0.52
34:i:370:G:H8	34:i:372:C:OP2	1.90	0.52
34:i:1741:U:O2'	34:i:1742:C:C5'	2.57	0.52
3:C:155:TRP:H	3:C:163:HIS:CE1	2.28	0.52
3:C:194:VAL:N	3:C:195:PRO:HD2	2.25	0.52
4:D:178:ARG:HE	4:D:178:ARG:H	1.59	0.52
5:E:260:GLN:O	5:E:261:SER:CB	2.57	0.52
6:F:151:ILE:O	6:F:154:LEU:HG	2.10	0.52
7:G:64:LYS:HD3	7:G:65:GLN:O	2.10	0.52
7:G:127:THR:C	7:G:128:THR:OG1	2.52	0.52
9:I:31:ARG:HG3	9:I:31:ARG:HH11	1.75	0.52
9:I:139:LYS:O	9:I:140:LYS:CB	2.46	0.52
10:J:65:GLU:O	10:J:66:LYS:CB	2.51	0.52
11:K:46:MET:HA	11:K:69:TRP:HH2	1.74	0.52
13:M:103:VAL:O	13:M:103:VAL:HG12	2.09	0.52
14:N:125:LEU:HD22	14:N:129:TYR:CE2	2.45	0.52
15:O:30:VAL:O	15:O:44:VAL:HA	2.10	0.52
15:O:35:ALA:HB2	15:O:112:ALA:CB	2.23	0.52
15:O:63:LYS:O	15:O:64:ALA:CB	2.57	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	1.74	0.52
20:T:129:ARG:HB2	34:i:1413:C:H4'	1.91	0.52
25:Y:58:PHE:HE1	25:Y:72:PHE:CE2	2.28	0.52
28:b:9:HIS:O	28:b:10:PRO:O	2.28	0.52
31:e:92:LYS:HD3	31:e:92:LYS:H	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:30:MET:CE	33:g:42:MET:HE3	2.32	0.52
33:g:113:PHE:HD1	33:g:120:ILE:HG12	1.75	0.52
34:i:1414:C:H42	34:i:1417:A:H62	1.56	0.52
36:n:78:LEU:HD23	36:n:93:LEU:HG	1.91	0.52
2:B:81:PHE:O	2:B:82:ARG:CB	2.57	0.51
3:C:131:GLU:CG	4:D:116:ARG:CZ	2.85	0.51
5:E:153:LEU:CD1	5:E:172:PHE:CE1	2.72	0.51
6:F:162:ALA:HB1	6:F:169:ILE:HD13	1.92	0.51
7:G:155:GLN:HG2	34:i:76:U:H4'	1.92	0.51
7:G:220:ALA:O	7:G:223:LYS:HE3	2.10	0.51
8:H:135:PHE:CB	8:H:136:PRO:CD	2.88	0.51
9:I:191:GLU:CG	9:I:192:GLY:H	2.23	0.51
10:J:79:ARG:C	10:J:79:ARG:CD	2.83	0.51
11:K:16:PHE:CE2	11:K:80:ARG:N	2.78	0.51
11:K:83:LEU:HD12	11:K:85:LEU:CD2	2.24	0.51
12:L:44:PHE:CD2	12:L:143:LEU:HD23	2.45	0.51
14:N:25:TRP:CH2	28:b:45:THR:HG21	2.44	0.51
16:P:44:ARG:HG3	34:i:1615:A:OP1	2.10	0.51
17:Q:6:PRO:O	17:Q:6:PRO:HD2	2.10	0.51
17:Q:55:VAL:HG22	17:Q:63:PHE:CE2	2.46	0.51
18:R:20:TYR:CE2	18:R:38:ILE:CD1	2.92	0.51
19:S:39:ARG:HH21	20:T:38:LYS:HZ2	0.55	0.51
20:T:23:LYS:HD2	20:T:54:TYR:CE2	2.45	0.51
20:T:75:MET:O	20:T:79:TYR:HD2	1.94	0.51
23:W:81:VAL:HG22	23:W:89:TRP:NE1	2.24	0.51
23:W:120:HIS:O	23:W:120:HIS:CG	2.63	0.51
25:Y:20:ARG:C	25:Y:21:LYS:CD	2.82	0.51
25:Y:33:ALA:C	25:Y:34:THR:HG1	2.11	0.51
25:Y:50:THR:CG2	25:Y:75:ILE:HG21	2.36	0.51
27:a:51:ARG:O	27:a:55:GLU:HG3	2.09	0.51
28:b:4:ALA:C	28:b:5:LYS:HG3	2.32	0.51
33:g:15:ASN:O	33:g:305:ASN:ND2	2.43	0.51
33:g:184:LEU:HD12	33:g:184:LEU:C	2.35	0.51
34:i:181:A:C5	34:i:182:C:C2	2.99	0.51
34:i:1055:G:C5'	35:l:72:THR:HG21	2.40	0.51
34:i:1186:A:O2'	34:i:1709:U:C5'	2.57	0.51
34:i:1200:A:H61	34:i:1689:U:H3	1.58	0.51
34:i:1537:C:N4	34:i:1586:C:H42	2.07	0.51
35:l:39:ASN:HB2	35:l:42:LYS:HB2	1.92	0.51
35:l:94:CYS:O	35:l:98:VAL:HG23	2.10	0.51
3:C:142:LEU:O	3:C:145:LEU:HG	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:250:PRO:O	3:C:254:PHE:HD2	1.93	0.51
4:D:4:GLN:C	4:D:5:ILE:HG13	2.35	0.51
4:D:46:THR:CB	4:D:79:PHE:CZ	2.89	0.51
4:D:143:ARG:H	34:i:618:A:N6	2.08	0.51
5:E:146:THR:C	5:E:147:ILE:HD13	2.35	0.51
7:G:220:ALA:HB1	7:G:223:LYS:NZ	2.24	0.51
9:I:141:ARG:CB	9:I:144:LYS:CG	2.87	0.51
10:J:94:LEU:HD12	10:J:94:LEU:C	2.34	0.51
13:M:85:LEU:HA	13:M:88:TRP:CZ3	2.39	0.51
13:M:102:LYS:O	13:M:103:VAL:C	2.52	0.51
14:N:141:TYR:CD2	14:N:141:TYR:O	2.63	0.51
15:O:119:LEU:HD12	15:O:119:LEU:C	2.35	0.51
18:R:100:PRO:CB	18:R:119:VAL:HG22	2.37	0.51
19:S:28:PHE:CZ	34:i:1598:G:C5	2.98	0.51
20:T:102:ARG:CD	20:T:105:GLN:OE1	2.57	0.51
21:U:88:LEU:C	21:U:88:LEU:HD12	2.35	0.51
22:V:11:LEU:HD12	22:V:11:LEU:C	2.35	0.51
24:X:67:ARG:HA	24:X:67:ARG:HE	1.75	0.51
32:f:140:TYR:CZ	32:f:146:LEU:CA	2.79	0.51
34:i:64:A:C2	34:i:66:G:C8	2.98	0.51
34:i:1817:A:H1'	34:i:1818:A:O5'	2.10	0.51
35:l:31:ILE:HD13	35:l:49:GLY:C	2.35	0.51
35:l:47:VAL:H	35:l:83:ILE:C	2.18	0.51
1:A:98:PRO:O	1:A:98:PRO:HG2	2.11	0.51
2:B:47:THR:CG2	2:B:67:PHE:CZ	2.81	0.51
3:C:109:PHE:CD2	3:C:132:VAL:CG2	2.93	0.51
4:D:97:CYS:C	4:D:99:ILE:H	2.12	0.51
5:E:206:ASP:O	5:E:222:LEU:N	2.41	0.51
7:G:63:MET:HE3	7:G:106:LEU:HD13	1.83	0.51
7:G:217:MET:O	7:G:221:LYS:N	2.44	0.51
9:I:141:ARG:HB3	9:I:144:LYS:CG	2.40	0.51
12:L:156:GLN:OE1	12:L:158:PHE:CZ	2.58	0.51
13:M:52:LEU:O	13:M:85:LEU:HD12	2.10	0.51
15:O:90:ILE:HG22	15:O:124:MET:CE	2.41	0.51
18:R:13:ALA:HB1	18:R:57:LEU:HD12	1.92	0.51
19:S:141:ARG:CD	34:i:1518:C:H5	2.23	0.51
20:T:85:ASN:ND2	20:T:91:HIS:HD2	2.06	0.51
25:Y:54:VAL:HG13	25:Y:76:TYR:C	2.33	0.51
26:Z:74:SER:HA	26:Z:79:ILE:CG2	2.34	0.51
29:c:67:ARG:O	29:c:68:LEU:CB	2.58	0.51
32:f:103:LEU:CD2	32:f:105:TYR:C	2.83	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:49:GLU:O	33:g:50:THR:CB	2.57	0.51
33:g:121:VAL:HG12	33:g:122:SER:N	2.24	0.51
34:i:410:G:C5	34:i:411:G:H1'	2.46	0.51
34:i:841:G:C2'	34:i:842:G:C8	2.94	0.51
34:i:1406:C:H2'	34:i:1407:G:C8	2.46	0.51
35:l:48:GLN:NE2	35:l:79:TYR:CE2	2.78	0.51
1:A:109:THR:C	34:i:1348:G:P	2.93	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:181:CYS:SG	5:E:225:ILE:CG2	2.99	0.51
6:F:145:ARG:NH1	29:c:49:PRO:HD3	2.20	0.51
8:H:157:HIS:O	8:H:158:LEU:CD2	2.55	0.51
9:I:154:LYS:C	9:I:154:LYS:NZ	2.68	0.51
10:J:78:LEU:HD11	10:J:93:LYS:HA	1.93	0.51
11:K:16:PHE:HE2	11:K:79:LEU:HB2	0.74	0.51
11:K:27:VAL:CB	11:K:43:LEU:CD2	2.82	0.51
14:N:21:SER:C	14:N:22:VAL:CG1	2.75	0.51
16:P:18:ARG:NH1	19:S:88:LYS:HB3	2.26	0.51
16:P:41:GLN:NE2	16:P:41:GLN:O	2.43	0.51
16:P:49:LEU:C	16:P:51:ARG:CA	2.82	0.51
17:Q:115:TYR:CD2	17:Q:115:TYR:C	2.88	0.51
19:S:40:TYR:O	19:S:44:VAL:HG23	2.11	0.51
20:T:85:ASN:ND2	20:T:90:SER:HA	2.24	0.51
23:W:65:LEU:HD12	23:W:65:LEU:C	2.35	0.51
24:X:134:TYR:HE1	31:e:87:ARG:HD3	1.75	0.51
25:Y:114:MET:HE1	25:Y:125:VAL:HG22	1.87	0.51
32:f:135:HIS:C	32:f:138:ARG:O	2.53	0.51
33:g:258:ILE:CG1	33:g:267:VAL:HB	2.37	0.51
34:i:404:A:H61	34:i:413:U:H3	1.58	0.51
1:A:6:ASP:O	1:A:7:VAL:C	2.53	0.51
1:A:184:ARG:N	1:A:189:ILE:HD12	2.25	0.51
2:B:55:THR:C	2:B:56:LYS:HD2	2.31	0.51
2:B:145:LYS:HG3	2:B:149:GLN:HB3	1.93	0.51
2:B:150:ILE:HG13	18:R:124:VAL:CG1	2.37	0.51
3:C:48:VAL:HG23	3:C:75:GLU:OE2	2.11	0.51
3:C:93:LYS:HE3	3:C:95:MET:CG	2.40	0.51
3:C:192:ALA:N	3:C:195:PRO:HG2	2.25	0.51
3:C:253:GLU:HG3	3:C:254:PHE:CE2	2.46	0.51
4:D:51:LEU:HD12	4:D:89:GLU:O	2.11	0.51
5:E:64:ILE:CG1	25:Y:17:LEU:HD13	2.41	0.51
5:E:130:PHE:O	5:E:137:PRO:HA	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:72:LEU:O	6:F:72:LEU:HD23	2.11	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
8:H:64:VAL:HG21	8:H:72:PHE:CD2	2.46	0.51
8:H:83:LEU:HD21	8:H:92:VAL:CG1	2.38	0.51
8:H:146:VAL:CG2	23:W:50:PHE:CD1	2.89	0.51
8:H:191:GLU:CD	8:H:193:GLN:OE1	2.54	0.51
10:J:58:ARG:O	10:J:62:THR:HG23	2.10	0.51
10:J:90:GLY:O	10:J:91:LYS:O	2.29	0.51
12:L:17:PHE:CG	12:L:18:GLN:N	2.79	0.51
12:L:71:ARG:HD2	12:L:73:LEU:HD21	1.77	0.51
14:N:26:LEU:HD21	14:N:66:VAL:HG22	1.91	0.51
17:Q:50:LYS:CE	17:Q:85:ARG:NH2	2.72	0.51
19:S:33:ILE:HB	19:S:36:VAL:HG13	1.90	0.51
20:T:4:VAL:CA	20:T:8:ASP:OD2	2.54	0.51
24:X:69:CYS:HB3	24:X:83:ALA:O	2.11	0.51
25:Y:53:ASP:O	25:Y:79:LEU:CD2	2.59	0.51
26:Z:44:LEU:HD13	26:Z:45:ASN:CA	2.40	0.51
28:b:32:PHE:C	28:b:81:ARG:O	2.54	0.51
33:g:156:PHE:C	33:g:156:PHE:CD2	2.88	0.51
33:g:177:TRP:CE3	33:g:184:LEU:HA	2.46	0.51
34:i:25:A:O2'	34:i:26:U:C6	2.63	0.51
35:l:59:LEU:HA	35:l:100:ILE:HD11	1.92	0.51
35:l:63:PHE:HB2	35:l:96:PHE:CE2	2.46	0.51
36:n:103:LEU:CD2	36:n:106:TYR:CE2	2.93	0.51
2:B:63:LYS:C	2:B:63:LYS:CD	2.79	0.51
3:C:128:CYS:SG	34:i:1353:A:H5"	2.51	0.51
5:E:139:LEU:HD13	5:E:154:ILE:CG2	2.33	0.51
5:E:207:VAL:CG1	5:E:219:ALA:HB1	2.41	0.51
6:F:141:VAL:HG21	29:c:47:LYS:HZ1	1.75	0.51
8:H:40:LEU:O	8:H:41:ARG:C	2.54	0.51
10:J:50:LEU:HB2	10:J:102:ILE:CD1	2.40	0.51
11:K:3:MET:SD	11:K:8:ARG:NE	2.84	0.51
12:L:17:PHE:CD2	12:L:18:GLN:O	2.63	0.51
13:M:124:ILE:HB	13:M:127:TYR:HE2	1.76	0.51
14:N:22:VAL:CG2	14:N:23:PRO:HA	2.40	0.51
15:O:44:VAL:HG11	15:O:93:LEU:CD2	2.41	0.51
17:Q:12:VAL:HG21	17:Q:91:ALA:HA	1.92	0.51
17:Q:128:GLU:HG3	34:i:1643:G:H5'	1.93	0.51
17:Q:137:ALA:HB3	34:i:1644:U:H5"	1.92	0.51
19:S:46:ARG:CD	20:T:50:GLU:HG2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:62:ARG:HH11	21:U:64:THR:HG21	1.53	0.51
23:W:27:ILE:HG13	23:W:61:ILE:HB	1.93	0.51
23:W:101:PHE:HD2	23:W:129:PHE:CE1	2.28	0.51
25:Y:44:LEU:CD1	25:Y:48:TYR:HD2	2.18	0.51
31:e:116:PHE:N	31:e:119:VAL:CG2	2.73	0.51
32:f:146:LEU:HD22	34:i:1288:C:C5'	2.40	0.51
33:g:64:HIS:O	33:g:82:SER:OG	2.29	0.51
34:i:1410:A:C5	34:i:1411:C:C5	2.99	0.51
34:i:1596:A:C4'	34:i:1597:U:C5	2.94	0.51
35:l:35:ILE:HD11	35:l:88:ASP:C	2.21	0.51
36:n:110:PRO:C	36:n:112:HIS:N	2.69	0.51
1:A:142:LEU:C	22:V:32:ILE:HD13	2.35	0.51
2:B:209:ASP:C	2:B:210:VAL:HG23	2.34	0.51
3:C:126:MET:HE3	34:i:1352:G:H5'	1.91	0.51
4:D:157:MET:HE1	4:D:187:LYS:CG	2.38	0.51
5:E:11:ARG:C	5:E:12:VAL:HG23	2.35	0.51
5:E:122:LYS:HG2	5:E:164:LEU:CD2	2.40	0.51
5:E:127:ARG:HH22	34:i:334:U:H5"	1.75	0.51
8:H:12:ASN:HB3	8:H:46:THR:HG1	1.74	0.51
9:I:138:ASN:C	9:I:139:LYS:O	2.53	0.51
10:J:83:ARG:NH2	10:J:150:ARG:HH21	2.09	0.51
10:J:91:LYS:HA	10:J:96:TYR:CD2	2.45	0.51
11:K:41:PRO:O	11:K:43:LEU:O	2.29	0.51
13:M:61:TYR:HA	32:f:104:LYS:HZ1	1.76	0.51
16:P:53:GLN:NE2	16:P:80:LEU:CD1	2.43	0.51
19:S:53:THR:C	19:S:54:LYS:CA	2.72	0.51
19:S:85:ASN:HD21	19:S:98:VAL:N	2.09	0.51
20:T:46:ALA:CB	20:T:47:PRO:CD	2.43	0.51
24:X:91:LEU:O	24:X:94:ILE:N	2.31	0.51
24:X:138:LYS:N	24:X:139:GLU:OE2	2.44	0.51
25:Y:23:MET:CE	25:Y:44:LEU:HD21	2.40	0.51
25:Y:50:THR:C	25:Y:51:THR:HG23	2.35	0.51
26:Z:104:ARG:C	26:Z:104:ARG:NH1	2.69	0.51
33:g:76:GLN:O	33:g:77:PHE:CD1	2.64	0.51
34:i:71:G:H3'	34:i:72:C:C5'	2.41	0.51
34:i:744:C:H3'	34:i:787:C:N3	2.26	0.51
35:l:48:GLN:NE2	35:l:79:TYR:CD2	2.79	0.51
1:A:139:TYR:O	1:A:140:VAL:HG23	2.11	0.51
1:A:190:SER:O	1:A:191:ARG:CB	2.58	0.51
5:E:123:LEU:HD21	5:E:235:TRP:HB2	1.93	0.51
9:I:79:ILE:HG23	9:I:80:ASP:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:12:MET:HG3	13:M:17:ALA:N	2.25	0.51
13:M:94:ILE:H	13:M:101:ARG:HD3	1.73	0.51
17:Q:127:CYS:HA	34:i:1643:G:C2'	2.40	0.51
20:T:130:ASP:OD2	20:T:131:LEU:HD23	2.11	0.51
22:V:33:PRO:HB2	22:V:53:TYR:O	2.11	0.51
22:V:73:ALA:O	22:V:77:GLY:N	2.44	0.51
26:Z:103:HIS:CD2	26:Z:103:HIS:C	2.89	0.51
27:a:60:ASP:O	27:a:61:ALA:CB	2.58	0.51
27:a:61:ALA:O	27:a:62:TYR:CB	2.58	0.51
27:a:85:ARG:N	34:i:1860:A:H61	2.07	0.51
27:a:88:SER:O	27:a:92:ARG:HG3	2.11	0.51
28:b:36:LYS:CE	28:b:43:ILE:CD1	2.86	0.51
32:f:103:LEU:CD2	32:f:105:TYR:CB	2.86	0.51
33:g:298:LEU:HG	33:g:310:TRP:HB2	1.92	0.51
34:i:1825:A:H5'	34:i:1847:C:H5'	1.90	0.51
36:n:39:ILE:HD13	36:n:50:MET:HB2	1.92	0.51
3:C:196:LYS:HD2	3:C:200:LEU:HD23	1.93	0.51
4:D:24:PHE:HD2	4:D:25:LEU:HD22	1.76	0.51
4:D:46:THR:O	4:D:85:GLU:N	2.39	0.51
6:F:91:ARG:CD	17:Q:46:THR:CG2	2.89	0.51
6:F:138:ALA:CB	6:F:200:ALA:O	2.55	0.51
7:G:145:PHE:C	7:G:147:LEU:HD12	2.36	0.51
7:G:197:GLN:O	7:G:200:LYS:HG2	2.11	0.51
9:I:148:LYS:HE3	9:I:152:ARG:HH21	1.76	0.51
10:J:63:LEU:O	10:J:70:ARG:NH1	2.44	0.51
11:K:53:LYS:CB	11:K:58:VAL:HG13	2.41	0.51
13:M:83:LYS:HG3	13:M:103:VAL:HG12	1.93	0.51
13:M:124:ILE:O	13:M:127:TYR:CE2	2.63	0.51
14:N:47:PRO:HG3	14:N:75:LEU:HD22	1.93	0.51
18:R:13:ALA:HA	18:R:54:VAL:HG21	1.89	0.51
19:S:90:VAL:CG1	19:S:91:LYS:HE3	2.41	0.51
19:S:136:THR:CB	34:i:1516:C:OP2	2.59	0.51
20:T:4:VAL:HG21	20:T:135:ALA:O	2.11	0.51
22:V:24:ILE:CD1	22:V:25:GLY:C	2.84	0.51
25:Y:12:PHE:CD1	25:Y:23:MET:HB3	2.45	0.51
27:a:45:VAL:CG1	27:a:53:ILE:CD1	2.83	0.51
33:g:20:GLN:HE21	33:g:68:ASP:CA	2.24	0.51
33:g:54:ILE:CG2	33:g:55:PRO:HD2	2.41	0.51
33:g:83:TRP:C	33:g:85:GLY:H	2.19	0.51
34:i:184:G:H2'	34:i:185:C:H6	1.71	0.51
34:i:1742:C:H2'	34:i:1743:G:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1755:U:H3	34:i:1765:G:H1	1.57	0.51
34:i:1823:G:C2'	34:i:1844:A:C2	2.59	0.51
36:n:85:GLN:O	36:n:86:ASP:HB3	2.10	0.51
1:A:122:LEU:HD12	1:A:137:ALA:CB	2.40	0.51
2:B:148:ASN:HB3	18:R:122:PRO:O	2.10	0.51
5:E:248:ILE:HD12	10:J:72:PHE:CE1	2.46	0.51
7:G:50:VAL:HG11	7:G:111:LEU:HB3	1.88	0.51
8:H:10:LYS:HZ1	8:H:16:PRO:C	2.19	0.51
8:H:45:ILE:O	8:H:45:ILE:HG13	2.11	0.51
8:H:64:VAL:CG1	8:H:65:PRO:HD2	2.39	0.51
11:K:50:GLN:HG3	11:K:51:SER:N	2.25	0.51
12:L:59:LYS:HB2	12:L:112:HIS:CE1	2.46	0.51
16:P:10:ARG:O	16:P:11:THR:C	2.54	0.51
18:R:44:LYS:CD	18:R:47:ARG:NH2	2.70	0.51
23:W:86:LEU:HD11	23:W:113:HIS:HB2	1.93	0.51
25:Y:55:ILE:CD1	25:Y:75:ILE:HD11	2.41	0.51
25:Y:119:GLY:CA	34:i:85:A:H5'	2.41	0.51
33:g:154:VAL:HG23	33:g:154:VAL:O	2.11	0.51
34:i:1513:C:P	34:i:1514:U:H2'	2.52	0.51
34:i:1563:C:N4	34:i:1564:A:C6	2.79	0.51
34:i:1588:C:H2'	34:i:1589:A:C8	2.46	0.51
34:i:1596:A:C5'	34:i:1597:U:C6	2.94	0.51
36:n:103:LEU:HD13	36:n:106:TYR:CD2	2.46	0.51
1:A:110:ASN:C	34:i:1347:G:H5"	2.11	0.50
1:A:158:ASP:O	1:A:158:ASP:CG	2.54	0.50
2:B:36:PRO:HA	2:B:231:LEU:HD23	1.92	0.50
2:B:228:LEU:CD1	2:B:232:HIS:CD2	2.94	0.50
4:D:132:LYS:N	4:D:191:PRO:HG2	2.17	0.50
8:H:35:ASP:OD1	8:H:35:ASP:C	2.50	0.50
10:J:130:ILE:CG1	10:J:135:ILE:CD1	2.81	0.50
12:L:40:ILE:HG23	12:L:41:GLY:N	2.25	0.50
13:M:64:LEU:CG	32:f:104:LYS:NZ	2.74	0.50
14:N:26:LEU:CD2	14:N:66:VAL:CG2	2.89	0.50
14:N:82:PRO:O	14:N:83:ASP:C	2.53	0.50
14:N:141:TYR:CD2	14:N:141:TYR:C	2.88	0.50
17:Q:57:LEU:O	17:Q:111:ILE:HG21	2.11	0.50
17:Q:111:ILE:O	17:Q:114:GLN:CG	2.55	0.50
19:S:64:VAL:HG23	19:S:65:GLU:N	2.25	0.50
22:V:42:VAL:O	22:V:43:THR:OG1	2.30	0.50
27:a:49:ALA:CB	27:a:53:ILE:CD1	2.85	0.50
33:g:198:VAL:HG22	33:g:209:SER:CB	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:423:A:N1	34:i:424:G:C6	2.79	0.50
1:A:39:TYR:CD2	1:A:40:LYS:HB2	2.46	0.50
1:A:45:GLY:O	1:A:46:ILE:HD13	2.10	0.50
2:B:25:PHE:CD1	15:O:88:LEU:HD13	2.45	0.50
3:C:60:ILE:O	3:C:82:PHE:HZ	1.86	0.50
3:C:68:LEU:CD2	3:C:247:THR:HG21	2.40	0.50
3:C:184:PRO:O	3:C:187:THR:HG23	2.11	0.50
6:F:115:ALA:HB2	6:F:177:LEU:HD22	1.91	0.50
8:H:135:PHE:CD2	8:H:136:PRO:CD	2.91	0.50
8:H:135:PHE:CD2	8:H:136:PRO:N	2.78	0.50
8:H:158:LEU:O	8:H:190:PRO:HD3	2.09	0.50
9:I:7:ASN:O	9:I:9:HIS:C	2.51	0.50
9:I:148:LYS:HE2	9:I:152:ARG:HH22	1.76	0.50
13:M:51:VAL:HG13	13:M:109:VAL:HG22	1.93	0.50
17:Q:124:PRO:HD2	17:Q:125:ARG:H	1.75	0.50
21:U:64:THR:HG22	21:U:79:ARG:CD	2.39	0.50
23:W:90:GLN:CA	23:W:102:ILE:HD12	2.40	0.50
25:Y:20:ARG:HD3	25:Y:76:TYR:CE1	2.44	0.50
27:a:17:HIS:O	27:a:18:VAL:HG13	2.12	0.50
30:d:20:SER:O	30:d:30:LEU:HD11	2.11	0.50
31:e:118:ASN:H	31:e:119:VAL:CB	2.08	0.50
33:g:48:ASP:OD2	33:g:49:GLU:OE1	2.29	0.50
33:g:64:HIS:O	33:g:65:PHE:C	2.54	0.50
33:g:164:ILE:HG23	33:g:176:VAL:HG13	1.92	0.50
34:i:1547:G:C6	34:i:1573:U:C2	3.00	0.50
1:A:70:ASN:HB2	1:A:73:ASP:OD2	2.10	0.50
1:A:98:PRO:C	1:A:99:ILE:HG13	2.36	0.50
2:B:53:GLN:C	2:B:55:THR:H	2.18	0.50
3:C:61:LYS:HA	3:C:82:PHE:CE1	2.43	0.50
3:C:99:LYS:HD2	3:C:100:GLN:H	1.72	0.50
4:D:192:TRP:N	4:D:192:TRP:HD1	2.08	0.50
5:E:180:LEU:CD1	5:E:228:ILE:HG13	2.39	0.50
6:F:128:ILE:HD11	29:c:68:LEU:CB	2.40	0.50
7:G:184:VAL:CG2	34:i:306:C:OP2	2.58	0.50
7:G:196:LYS:HG3	34:i:126:G:O6	2.12	0.50
8:H:15:LYS:O	8:H:16:PRO:HB2	2.10	0.50
10:J:164:PRO:HB3	10:J:170:PRO:O	2.12	0.50
12:L:103:GLU:OE1	24:X:11:ARG:NE	2.45	0.50
14:N:116:ILE:HA	14:N:119:GLU:HG3	1.92	0.50
16:P:4:VAL:O	16:P:4:VAL:CG1	2.49	0.50
16:P:29:SER:OG	16:P:31:GLU:HB2	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:41:GLN:HG2	16:P:84:ILE:HG23	1.77	0.50
16:P:49:LEU:O	16:P:50:ARG:CB	2.54	0.50
17:Q:18:THR:C	17:Q:75:GLY:HA3	2.37	0.50
17:Q:47:LEU:O	17:Q:48:GLN:C	2.54	0.50
17:Q:126:ARG:C	34:i:1643:G:C8	2.89	0.50
18:R:31:ASN:ND2	18:R:55:THR:CG2	2.73	0.50
18:R:92:ASP:O	18:R:93:GLN:CD	2.55	0.50
19:S:58:GLU:C	19:S:59:LEU:CG	2.77	0.50
19:S:72:GLN:O	19:S:72:GLN:HG2	2.11	0.50
19:S:88:LYS:O	19:S:89:ASP:C	2.46	0.50
24:X:17:ARG:HH22	34:i:649:G:H21	1.58	0.50
26:Z:103:HIS:C	26:Z:105:ALA:N	2.69	0.50
30:d:30:LEU:CD2	30:d:38:MET:O	2.59	0.50
33:g:142:VAL:HG11	33:g:177:TRP:CZ3	2.46	0.50
33:g:142:VAL:CG1	33:g:177:TRP:CZ3	2.95	0.50
33:g:181:ASN:OD1	33:g:181:ASN:C	2.54	0.50
34:i:363:G:O2'	34:i:364:G:H5'	2.11	0.50
34:i:1330:G:C5	34:i:1494:A:C2	2.99	0.50
1:A:149:ASN:HB2	1:A:165:ASN:OD1	2.12	0.50
1:A:179:ALA:O	1:A:183:LEU:HG	2.12	0.50
3:C:129:SER:HB2	3:C:134:THR:HG23	1.92	0.50
4:D:21:LEU:HD22	4:D:25:LEU:HD21	1.93	0.50
4:D:59:LEU:HD12	4:D:59:LEU:C	2.25	0.50
5:E:49:ARG:O	5:E:49:ARG:CD	2.42	0.50
6:F:42:LYS:HB3	6:F:46:ALA:N	2.25	0.50
7:G:203:LYS:HE2	7:G:207:ALA:HB2	1.93	0.50
9:I:101:ILE:HD12	9:I:190:LEU:HD11	1.92	0.50
10:J:117:LEU:O	10:J:119:LEU:CD2	2.49	0.50
12:L:2:ALA:O	12:L:3:ASP:C	2.54	0.50
12:L:59:LYS:CD	12:L:112:HIS:CD2	2.90	0.50
14:N:38:TYR:CZ	14:N:78:LYS:HG3	2.46	0.50
16:P:17:TYR:C	19:S:90:VAL:O	2.55	0.50
16:P:79:HIS:ND1	16:P:102:PHE:CZ	2.74	0.50
20:T:119:TRP:CG	34:i:1556:A:C2	2.99	0.50
22:V:5:ALA:O	22:V:7:GLU:N	2.44	0.50
23:W:105:THR:HG23	23:W:105:THR:O	2.10	0.50
26:Z:44:LEU:HD13	26:Z:44:LEU:O	1.95	0.50
27:a:37:LYS:HG2	27:a:72:HIS:CE1	2.45	0.50
29:c:12:ALA:HB1	29:c:32:VAL:HB	1.93	0.50
29:c:66:ARG:O	29:c:68:LEU:CD2	2.60	0.50
31:e:113:ASN:CB	34:i:542:G:OP1	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:124:GLY:O	31:e:125:LYS:CB	2.60	0.50
33:g:32:LEU:CD2	33:g:69:VAL:HG21	2.42	0.50
33:g:64:HIS:HB3	33:g:84:ASP:H	1.76	0.50
34:i:295:C:H4'	34:i:296:U:OP1	2.11	0.50
34:i:312:C:H2'	34:i:313:C:C6	2.47	0.50
1:A:18:PHE:CZ	1:A:55:TRP:CE3	3.00	0.50
1:A:125:THR:O	1:A:147:LEU:CD1	2.59	0.50
1:A:125:THR:HA	1:A:147:LEU:CB	2.35	0.50
2:B:93:GLY:CA	2:B:94:LYS:HD3	2.41	0.50
5:E:11:ARG:CZ	5:E:20:LEU:HB3	2.42	0.50
7:G:102:VAL:HG11	7:G:109:LEU:HD11	1.93	0.50
9:I:43:ILE:HD12	34:i:297:C:N4	2.26	0.50
9:I:155:ASN:CG	9:I:156:ALA:CA	2.85	0.50
9:I:194:GLU:CG	12:L:12:LYS:CE	2.88	0.50
9:I:201:LYS:CE	12:L:8:ARG:HA	2.42	0.50
10:J:42:GLU:OE1	10:J:42:GLU:HA	2.11	0.50
11:K:27:VAL:HA	11:K:43:LEU:CD2	2.41	0.50
12:L:17:PHE:CD1	12:L:18:GLN:CA	2.94	0.50
12:L:113:LEU:HD11	12:L:120:VAL:HG11	1.93	0.50
14:N:5:HIS:HD2	14:N:121:ARG:NE	2.09	0.50
15:O:41:PHE:CD1	15:O:57:THR:HG21	2.45	0.50
16:P:49:LEU:H	16:P:51:ARG:HG3	1.76	0.50
16:P:93:MET:SD	16:P:106:GLU:HA	2.52	0.50
18:R:17:ILE:O	18:R:71:ILE:HD11	2.11	0.50
20:T:14:PHE:CZ	20:T:131:LEU:CD1	2.95	0.50
24:X:52:LEU:CG	24:X:71:ARG:CB	2.88	0.50
24:X:128:VAL:O	24:X:129:SER:OG	2.23	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	2.46	0.50
29:c:6:VAL:CG1	29:c:7:GLN:N	2.70	0.50
29:c:42:ILE:HG23	29:c:43:ILE:N	2.26	0.50
30:d:26:ASN:HD21	34:i:1491:G:C2'	2.23	0.50
31:e:105:ARG:C	31:e:105:ARG:NE	2.69	0.50
33:g:48:ASP:O	33:g:49:GLU:OE2	2.29	0.50
33:g:113:PHE:CE2	33:g:117:ASN:CA	2.93	0.50
33:g:234:ASP:CG	33:g:254:PRO:HG2	2.36	0.50
34:i:226:A:N3	34:i:783:G:H5'	2.27	0.50
34:i:226:A:N3	34:i:783:G:H5"	2.26	0.50
34:i:1405:A:C2	34:i:1406:C:C4	2.99	0.50
34:i:1469:G:H2'	34:i:1470:A:H5"	1.93	0.50
34:i:1823:G:H1'	34:i:1843:G:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:31:ILE:HD11	35:l:103:ALA:HB2	1.93	0.50
1:A:30:LEU:O	1:A:31:ASP:HB2	2.11	0.50
1:A:76:VAL:HG12	1:A:87:VAL:HG12	1.86	0.50
2:B:53:GLN:C	2:B:55:THR:N	2.63	0.50
3:C:109:PHE:CD2	3:C:132:VAL:HG22	2.47	0.50
3:C:183:ALA:CB	3:C:208:TYR:CE2	2.94	0.50
5:E:100:ARG:CG	5:E:102:ILE:HD12	2.42	0.50
5:E:171:ASP:CG	5:E:172:PHE:HD2	2.20	0.50
6:F:43:GLU:O	6:F:44:LYS:HB2	2.10	0.50
7:G:79:LYS:O	7:G:81:HIS:CD2	2.65	0.50
7:G:163:ASN:O	7:G:164:LYS:CB	2.59	0.50
8:H:29:GLU:OE2	8:H:86:LYS:HE2	2.06	0.50
8:H:51:ILE:HD11	8:H:176:VAL:HG22	1.91	0.50
8:H:122:LEU:HD13	8:H:123:THR:HA	1.87	0.50
9:I:25:ARG:HD2	9:I:27:TYR:HE2	0.78	0.50
9:I:140:LYS:O	9:I:141:ARG:CB	2.57	0.50
10:J:171:GLY:O	10:J:172:ARG:C	2.55	0.50
12:L:1:MET:O	12:L:2:ALA:O	2.29	0.50
14:N:19:ARG:NH2	28:b:84:HIS:OXT	2.44	0.50
17:Q:51:LEU:HD12	17:Q:52:LEU:N	2.26	0.50
18:R:17:ILE:HD11	18:R:54:VAL:HG13	1.93	0.50
20:T:11:GLN:NE2	34:i:1537:C:H5”	2.27	0.50
20:T:31:PRO:HG3	20:T:102:ARG:CG	2.41	0.50
20:T:45:LEU:HG	20:T:46:ALA:H	1.76	0.50
20:T:84:ARG:O	20:T:86:GLY:N	2.45	0.50
22:V:53:TYR:OH	22:V:72:LEU:O	2.08	0.50
24:X:105:PHE:CB	24:X:112:VAL:CG2	2.89	0.50
30:d:27:ARG:NH1	30:d:27:ARG:HB3	2.26	0.50
33:g:46:THR:CB	33:g:48:ASP:CB	2.78	0.50
33:g:276:SER:O	33:g:277:THR:O	2.29	0.50
34:i:454:A:C4’	34:i:455:A:OP2	2.57	0.50
36:n:48:GLU:OE2	36:n:58:LEU:HD11	2.11	0.50
1:A:111:GLN:NE2	1:A:116:PHE:CZ	2.79	0.50
2:B:71:LEU:CB	2:B:84:PHE:HE2	2.25	0.50
2:B:82:ARG:NH1	2:B:191:ASP:OD1	2.45	0.50
3:C:54:LEU:N	3:C:258:LEU:HD22	2.27	0.50
4:D:29:LEU:HB3	4:D:34:TYR:HB2	1.94	0.50
5:E:43:PRO:HD2	5:E:46:ILE:HB	1.92	0.50
7:G:162:LEU:HD12	7:G:162:LEU:C	2.34	0.50
8:H:99:ARG:HB2	34:i:909:A:H8	1.75	0.50
8:H:154:ILE:CG2	8:H:185:VAL:CG2	2.89	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:25:LYS:HD2	11:K:62:PHE:CE1	2.46	0.50
11:K:60:GLU:HG2	11:K:69:TRP:CD1	2.46	0.50
12:L:113:LEU:HD12	12:L:120:VAL:HG11	1.93	0.50
16:P:90:VAL:HA	16:P:107:ILE:CD1	2.42	0.50
18:R:44:LYS:HG3	18:R:47:ARG:NE	2.19	0.50
22:V:12:TYR:CE1	22:V:14:PRO:HG3	2.46	0.50
22:V:39:VAL:C	22:V:41:LYS:H	2.18	0.50
22:V:78:ILE:C	22:V:79:VAL:HG23	2.36	0.50
25:Y:22:GLN:HA	25:Y:74:MET:SD	2.52	0.50
27:a:87:ARG:HD3	34:i:1859:C:OP1	2.12	0.50
29:c:18:LEU:HB3	29:c:29:GLN:HB2	1.93	0.50
34:i:185:C:H6	34:i:185:C:O5'	1.94	0.50
34:i:1596:A:C5'	34:i:1597:U:C5	2.94	0.50
34:i:1596:A:H1'	34:i:1599:G:C6	2.47	0.50
35:l:47:VAL:O	35:l:83:ILE:N	2.43	0.50
36:n:62:ARG:HB2	36:n:91:VAL:O	2.08	0.50
1:A:98:PRO:O	1:A:99:ILE:CG1	2.60	0.50
1:A:140:VAL:HG13	3:C:72:PRO:HG3	1.94	0.50
2:B:30:TRP:CE3	15:O:19:PRO:HB3	2.46	0.50
3:C:69:PHE:CE1	3:C:249:SER:CA	2.94	0.50
3:C:197:LYS:CB	3:C:200:LEU:HD21	2.42	0.50
3:C:221:PHE:CD2	3:C:221:PHE:C	2.90	0.50
4:D:21:LEU:HD22	4:D:25:LEU:CD2	2.42	0.50
5:E:87:MET:HE1	5:E:236:ILE:CD1	2.40	0.50
5:E:129:ILE:CG2	5:E:139:LEU:HD21	2.42	0.50
5:E:136:ILE:HG13	5:E:149:TYR:CZ	2.46	0.50
5:E:259:LYS:O	5:E:260:GLN:OE1	2.30	0.50
7:G:137:ARG:HG3	7:G:140:ARG:CB	2.41	0.50
8:H:169:LYS:O	8:H:172:THR:HG22	2.12	0.50
9:I:148:LYS:HB2	9:I:152:ARG:NH2	2.26	0.50
10:J:169:ARG:HB3	10:J:175:ARG:NH1	2.26	0.50
12:L:49:GLU:OE1	12:L:49:GLU:HA	2.11	0.50
12:L:92:TYR:CE2	12:L:105:ARG:HB2	2.46	0.50
13:M:36:ARG:HD3	34:i:1308:G:O6	2.12	0.50
17:Q:135:PRO:CG	17:Q:141:TYR:CE1	2.71	0.50
19:S:82:TRP:HB3	34:i:1562:G:C6	2.47	0.50
22:V:43:THR:O	22:V:44:GLY:O	2.29	0.50
23:W:17:ALA:HB2	23:W:25:VAL:HG12	1.92	0.50
24:X:5:ARG:NH2	24:X:5:ARG:CG	2.72	0.50
24:X:77:ASN:O	24:X:79:LYS:N	2.44	0.50
26:Z:96:LEU:C	26:Z:112:ASN:HD22	2.19	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:259:TRP:N	33:g:259:TRP:CD2	2.74	0.50
34:i:60:A:C5	34:i:325:G:H4'	2.47	0.50
34:i:1227:C:H2'	34:i:1228:U:C6	2.46	0.50
3:C:55:VAL:HG11	3:C:82:PHE:CD2	2.45	0.50
3:C:93:LYS:HE2	3:C:218:LEU:HD21	1.83	0.50
4:D:141:LYS:HE3	4:D:179:GLN:HE21	1.76	0.50
4:D:141:LYS:CD	4:D:179:GLN:CG	2.87	0.50
4:D:164:VAL:HG13	4:D:165:ASN:N	2.27	0.50
7:G:163:ASN:O	7:G:163:ASN:OD1	2.30	0.50
8:H:79:LEU:HD23	8:H:79:LEU:O	2.12	0.50
8:H:163:GLN:O	8:H:164:ASN:C	2.54	0.50
9:I:25:ARG:CZ	34:i:423:A:OP1	2.57	0.50
9:I:144:LYS:N	9:I:144:LYS:CD	2.75	0.50
9:I:152:ARG:O	9:I:153:LYS:CB	2.59	0.50
10:J:155:LYS:HE3	10:J:156:HIS:NE2	2.26	0.50
12:L:12:LYS:C	12:L:56:ILE:HD11	2.36	0.50
12:L:69:ARG:O	12:L:130:GLU:HB3	2.12	0.50
12:L:72:ILE:N	12:L:72:ILE:HD12	2.26	0.50
12:L:152:LYS:O	12:L:154:GLN:N	2.44	0.50
16:P:21:ASP:O	16:P:25:LEU:HG	2.12	0.50
19:S:80:PRO:CB	19:S:82:TRP:NE1	2.75	0.50
21:U:18:HIS:HE1	21:U:98:VAL:HG22	1.63	0.50
25:Y:120:THR:C	25:Y:122:LYS:H	2.19	0.50
27:a:36:ILE:HD13	27:a:78:ALA:CB	2.41	0.50
27:a:44:ILE:HB	27:a:65:PRO:HG2	1.93	0.50
29:c:67:ARG:O	29:c:68:LEU:HB3	2.12	0.50
33:g:91:ASP:HB3	33:g:94:THR:OG1	2.12	0.50
34:i:221:A:C2	34:i:288:A:N6	2.79	0.50
36:n:62:ARG:HB2	36:n:92:ILE:C	2.37	0.50
36:n:97:ALA:O	36:n:98:ASP:C	2.54	0.50
1:A:5:LEU:C	1:A:5:LEU:CD2	2.61	0.49
1:A:16:LEU:CB	1:A:17:LYS:CE	2.89	0.49
1:A:66:VAL:O	1:A:67:ALA:CB	2.60	0.49
1:A:180:ARG:HH11	1:A:184:ARG:NH2	2.09	0.49
4:D:135:GLU:HG2	4:D:187:LYS:HB3	1.93	0.49
4:D:162:ASP:OD1	4:D:166:TYR:CE2	2.65	0.49
5:E:67:GLN:O	5:E:68:ARG:CB	2.59	0.49
6:F:53:ALA:HB1	17:Q:125:ARG:NH2	2.25	0.49
6:F:95:HIS:NE2	26:Z:103:HIS:HB3	2.27	0.49
7:G:147:LEU:CD2	7:G:156:TYR:HE2	2.24	0.49
7:G:162:LEU:CD2	7:G:170:ARG:HG3	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:9:VAL:O	8:H:45:ILE:HG13	2.12	0.49
8:H:50:GLU:CD	8:H:58:LYS:HE2	2.36	0.49
10:J:180:LYS:O	10:J:180:LYS:HD3	2.11	0.49
13:M:46:GLN:HB3	13:M:112:LYS:HG2	1.94	0.49
13:M:51:VAL:HG13	13:M:109:VAL:HG23	1.94	0.49
13:M:76:LEU:CA	13:M:128:PHE:HZ	2.25	0.49
15:O:126:ILE:HG12	27:a:56:VAL:CG1	2.42	0.49
16:P:10:ARG:O	16:P:11:THR:O	2.30	0.49
19:S:39:ARG:HH22	20:T:38:LYS:CG	2.21	0.49
19:S:51:ASP:CG	19:S:53:THR:OG1	2.55	0.49
20:T:111:LYS:HB3	20:T:126:GLN:HE21	1.69	0.49
23:W:102:ILE:N	23:W:113:HIS:ND1	2.57	0.49
24:X:5:ARG:HH22	34:i:1155:G:P	2.35	0.49
25:Y:98:GLU:OE2	25:Y:99:LYS:CA	2.60	0.49
33:g:5:MET:HE1	33:g:312:VAL:CG2	2.39	0.49
34:i:184:G:C6	34:i:185:C:C4	3.00	0.49
34:i:1843:G:H4'	35:l:65:LYS:HE3	1.92	0.49
34:i:1843:G:C5'	35:l:65:LYS:HE3	2.42	0.49
36:n:35:TYR:CE2	36:n:52:PHE:CD1	3.00	0.49
1:A:157:VAL:HG23	1:A:157:VAL:O	2.11	0.49
3:C:193:PRO:O	3:C:196:LYS:HG3	2.12	0.49
3:C:244:THR:CG2	3:C:246:PHE:CG	2.94	0.49
4:D:46:THR:HB	4:D:84:VAL:HG23	1.93	0.49
4:D:70:THR:N	4:D:86:LEU:HD22	2.27	0.49
4:D:85:GLU:C	4:D:86:LEU:HD12	2.37	0.49
4:D:108:LYS:CA	4:D:113:LEU:CD2	2.91	0.49
4:D:197:LYS:N	4:D:198:ILE:HG13	2.27	0.49
4:D:197:LYS:C	4:D:198:ILE:HG23	2.35	0.49
5:E:29:PRO:O	5:E:30:ARG:HB3	2.10	0.49
5:E:136:ILE:N	5:E:136:ILE:HD12	2.26	0.49
8:H:66:VAL:HG21	8:H:97:GLN:O	2.12	0.49
8:H:190:PRO:HG2	8:H:192:PHE:CE1	2.47	0.49
10:J:17:ARG:CD	10:J:18:ARG:HD3	2.35	0.49
10:J:50:LEU:HD12	10:J:102:ILE:HD11	1.85	0.49
11:K:11:ILE:CG2	11:K:49:MET:HE3	2.06	0.49
12:L:31:GLU:OE1	12:L:31:GLU:N	2.42	0.49
12:L:147:LYS:NZ	12:L:156:GLN:NE2	2.59	0.49
13:M:82:ASN:HD22	13:M:107:SER:HA	1.77	0.49
19:S:88:LYS:N	19:S:95:TYR:HD1	2.10	0.49
20:T:4:VAL:HB	20:T:8:ASP:HB2	1.94	0.49
24:X:27:TYR:CD2	24:X:31:HIS:HD2	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:b:81:ARG:CB	28:b:82:LYS:HD3	2.42	0.49
33:g:15:ASN:O	33:g:305:ASN:OD1	2.30	0.49
33:g:144:ASP:O	33:g:144:ASP:OD2	2.30	0.49
33:g:251:ALA:HB1	33:g:286:CYS:O	2.12	0.49
34:i:214:A:H61	34:i:295:C:H42	1.60	0.49
36:n:103:LEU:CD2	36:n:106:TYR:CZ	2.95	0.49
2:B:53:GLN:CG	2:B:56:LYS:HB2	2.41	0.49
2:B:70:SER:HB3	15:O:128:ARG:HH11	1.77	0.49
3:C:168:LYS:HE3	23:W:95:PRO:CA	2.38	0.49
4:D:1:MET:O	4:D:2:ALA:O	2.30	0.49
5:E:121:TYR:HA	5:E:163:ASP:O	2.11	0.49
5:E:185:GLY:CA	5:E:189:LEU:HD13	2.43	0.49
5:E:212:ASP:OD2	5:E:214:ASN:HB2	2.12	0.49
7:G:184:VAL:O	7:G:188:LYS:HE2	2.11	0.49
9:I:117:TYR:HE1	9:I:155:ASN:HD21	1.60	0.49
10:J:147:PHE:CE2	10:J:149:VAL:HA	2.44	0.49
12:L:80:MET:HG3	12:L:86:ILE:CG2	2.39	0.49
13:M:26:LEU:HD11	13:M:89:VAL:O	2.11	0.49
13:M:26:LEU:CD1	13:M:89:VAL:C	2.81	0.49
14:N:25:TRP:HB3	28:b:83:GLN:HG2	0.75	0.49
17:Q:44:PRO:O	17:Q:45:ARG:CG	2.54	0.49
19:S:50:ILE:O	19:S:51:ASP:C	2.52	0.49
20:T:124:THR:HG23	20:T:127:GLY:H	1.74	0.49
22:V:68:SER:O	22:V:72:LEU:HG	2.13	0.49
23:W:27:ILE:HD11	23:W:61:ILE:HD12	1.93	0.49
24:X:51:VAL:HG22	24:X:70:VAL:HG11	1.94	0.49
24:X:51:VAL:HG21	24:X:94:ILE:CG2	2.41	0.49
24:X:52:LEU:HD12	24:X:52:LEU:C	2.34	0.49
27:a:41:ILE:CG2	27:a:68:TYR:CE1	2.95	0.49
27:a:45:VAL:HB	27:a:53:ILE:HD12	1.94	0.49
29:c:11:LEU:CG	29:c:35:MET:HE2	2.42	0.49
29:c:44:ARG:NH1	29:c:60:GLU:O	2.45	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
31:e:105:ARG:NH1	31:e:106:ALA:HB2	2.26	0.49
33:g:36:ARG:C	33:g:38:LYS:N	2.69	0.49
33:g:48:ASP:OD1	33:g:49:GLU:OE1	2.30	0.49
34:i:1751:G:C2	34:i:1752:G:C5	2.99	0.49
34:i:1825:A:N3	34:i:1846:C:P	2.80	0.49
35:l:95:GLN:OE1	35:l:95:GLN:HA	2.10	0.49
1:A:29:ASN:O	1:A:151:ASP:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:38:MET:HE1	2:B:186:ASN:ND2	2.26	0.49
3:C:166:ARG:HG2	3:C:237:THR:HG21	1.95	0.49
3:C:243:GLU:HA	22:V:16:LYS:NZ	2.27	0.49
4:D:126:ILE:HD12	4:D:134:CYS:HB3	1.93	0.49
5:E:129:ILE:HG23	5:E:139:LEU:CD2	2.42	0.49
5:E:192:ILE:HD11	5:E:238:LEU:HD22	1.93	0.49
7:G:189:ARG:HD2	34:i:321:C:OP2	2.12	0.49
7:G:212:LEU:CA	7:G:215:LYS:HD3	2.43	0.49
10:J:165:TYR:HE2	34:i:550:A:O2'	1.96	0.49
12:L:99:TYR:OH	24:X:14:ARG:CG	2.61	0.49
14:N:137:PRO:C	14:N:138:ASN:CG	2.80	0.49
17:Q:112:LEU:CB	17:Q:120:LEU:HD21	2.42	0.49
18:R:17:ILE:HG22	18:R:71:ILE:HD11	1.94	0.49
22:V:78:ILE:HG23	22:V:79:VAL:H	1.77	0.49
25:Y:98:GLU:O	25:Y:98:GLU:OE1	2.30	0.49
27:a:61:ALA:O	27:a:62:TYR:HB3	2.13	0.49
33:g:236:ILE:HG12	33:g:252:THR:HG22	1.93	0.49
2:B:36:PRO:CA	2:B:231:LEU:HD21	2.42	0.49
2:B:77:ASP:C	2:B:79:VAL:HG22	2.34	0.49
3:C:183:ALA:HB2	3:C:208:TYR:CE2	2.48	0.49
4:D:12:VAL:HG11	30:d:36:LEU:HD11	0.50	0.49
4:D:76:ARG:NE	11:K:66:HIS:HE1	1.55	0.49
4:D:123:LEU:CG	4:D:154:ASP:HB3	2.42	0.49
4:D:157:MET:SD	4:D:187:LYS:HD3	2.50	0.49
6:F:93:VAL:C	6:F:97:PHE:CD1	2.86	0.49
8:H:37:LYS:O	8:H:38:ALA:CB	2.61	0.49
8:H:73:GLN:HE21	8:H:135:PHE:HE1	1.59	0.49
8:H:121:THR:HG22	8:H:124:ALA:CB	2.43	0.49
8:H:158:LEU:HG	8:H:187:PHE:CD1	2.46	0.49
9:I:141:ARG:CZ	34:i:188:U:O2'	2.61	0.49
10:J:84:ILE:HG13	10:J:86:VAL:CG2	2.42	0.49
11:K:71:LEU:HG	11:K:76:ILE:CD1	2.42	0.49
12:L:17:PHE:CE1	12:L:18:GLN:C	2.89	0.49
13:M:33:ARG:CG	13:M:33:ARG:NH1	2.74	0.49
13:M:79:VAL:CG1	13:M:80:ASP:H	2.25	0.49
15:O:129:ILE:HG21	27:a:44:ILE:CG2	2.38	0.49
16:P:71:GLU:HB3	16:P:72:LYS:HG3	1.93	0.49
16:P:127:LYS:HE3	16:P:128:HIS:N	2.25	0.49
18:R:101:ASP:HA	18:R:104:GLU:HB2	1.94	0.49
19:S:28:PHE:CZ	34:i:1598:G:C4	3.01	0.49
20:T:59:SER:O	20:T:62:ARG:HG2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:119:TRP:HB3	34:i:1557:C:C2'	2.42	0.49
24:X:91:LEU:C	24:X:93:PHE:H	2.20	0.49
29:c:20:ARG:HH12	34:i:1674:A:H5"	1.77	0.49
30:d:10:HIS:C	30:d:10:HIS:HD1	2.21	0.49
32:f:108:VAL:HG22	32:f:114:ILE:HA	1.94	0.49
33:g:280:LYS:C	33:g:281:ALA:O	2.50	0.49
33:g:282:GLU:O	33:g:283:PRO:O	2.30	0.49
34:i:1164:G:O2'	34:i:1816:A:OP1	2.23	0.49
34:i:1459:U:H5'	34:i:1460:C:C6	2.48	0.49
34:i:1597:U:O2'	34:i:1598:G:H5'	2.13	0.49
36:n:47:LEU:HD21	36:n:91:VAL:CG2	2.42	0.49
1:A:30:LEU:HD13	1:A:38:ILE:HD13	1.68	0.49
1:A:97:THR:HG22	1:A:98:PRO:N	2.28	0.49
1:A:109:THR:C	34:i:1347:G:O3'	2.52	0.49
1:A:139:TYR:C	1:A:140:VAL:CG2	2.85	0.49
2:B:87:ILE:HG23	2:B:101:HIS:HB2	1.94	0.49
2:B:119:THR:HB	2:B:143:THR:CG2	2.42	0.49
2:B:137:LEU:HD23	2:B:215:VAL:CB	2.39	0.49
2:B:175:GLU:CG	2:B:193:ILE:CD1	2.84	0.49
3:C:192:ALA:C	3:C:195:PRO:CD	2.80	0.49
4:D:18:LYS:HD2	4:D:18:LYS:C	2.38	0.49
5:E:99:PHE:CZ	5:E:113:ARG:CG	2.93	0.49
10:J:37:LEU:HG	10:J:38:ARG:N	2.28	0.49
13:M:50:CYS:N	13:M:75:ASN:HD22	2.10	0.49
13:M:58:GLU:O	13:M:58:GLU:HG3	2.13	0.49
14:N:18:TYR:C	14:N:19:ARG:O	2.48	0.49
14:N:37:ILE:HD11	14:N:63:VAL:HG11	1.95	0.49
15:O:66:ARG:HG2	15:O:67:ASP:N	2.27	0.49
15:O:92:ALA:HB2	15:O:125:LYS:HB2	1.95	0.49
16:P:14:LYS:C	16:P:22:LEU:HD23	2.37	0.49
18:R:95:ILE:HA	18:R:114:LEU:HB3	1.95	0.49
19:S:14:ARG:NH1	19:S:17:ASN:C	2.70	0.49
19:S:80:PRO:HG3	19:S:82:TRP:NE1	2.28	0.49
19:S:141:ARG:HB3	34:i:1518:C:OP2	2.13	0.49
20:T:42:HIS:NE2	20:T:83:GLN:HB3	2.28	0.49
20:T:77:LYS:HE3	20:T:92:PHE:CE2	2.48	0.49
31:e:93:VAL:O	31:e:94:ALA:C	2.55	0.49
33:g:168:CYS:HB3	33:g:198:VAL:HG23	1.93	0.49
33:g:191:HIS:NE2	33:g:195:LEU:CD2	2.72	0.49
35:l:57:LYS:O	35:l:61:LYS:CB	2.60	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:99:ASN:HD22	2:B:228:LEU:HD23	1.76	0.49
2:B:105:LEU:HD11	2:B:213:ARG:HG3	1.93	0.49
2:B:208:HIS:CD2	2:B:208:HIS:C	2.88	0.49
3:C:129:SER:CB	3:C:134:THR:HG23	2.43	0.49
3:C:196:LYS:HG3	3:C:197:LYS:N	2.28	0.49
5:E:188:ASN:ND2	5:E:218:PHE:CD1	2.80	0.49
7:G:170:ARG:HD2	7:G:171:THR:O	2.13	0.49
8:H:16:PRO:HA	8:H:17:ASP:CB	2.26	0.49
9:I:197:PHE:CD2	12:L:5:GLN:CD	2.91	0.49
10:J:26:ASP:CG	31:e:116:PHE:HZ	2.20	0.49
10:J:87:LEU:HD12	10:J:88:ASP:H	1.77	0.49
10:J:124:HIS:NE2	34:i:516:A:O5'	2.46	0.49
10:J:164:PRO:HB2	10:J:165:TYR:CE1	2.48	0.49
11:K:62:PHE:CD1	11:K:67:PHE:CD2	2.96	0.49
20:T:11:GLN:O	20:T:15:VAL:HG13	2.12	0.49
24:X:96:GLU:O	24:X:97:ASN:HB2	2.12	0.49
25:Y:93:ARG:HD2	25:Y:93:ARG:C	2.38	0.49
25:Y:106:GLN:O	25:Y:110:ARG:HG3	2.12	0.49
29:c:17:VAL:HG13	29:c:17:VAL:O	2.13	0.49
29:c:60:GLU:CD	29:c:60:GLU:N	2.64	0.49
31:e:114:ARG:O	31:e:118:ASN:HB3	2.12	0.49
34:i:1350:G:H8	34:i:1350:G:H5"	1.77	0.49
34:i:1468:C:H2'	34:i:1469:G:O4'	2.13	0.49
34:i:1744:G:C8	34:i:1745:C:N4	2.80	0.49
2:B:93:GLY:C	2:B:94:LYS:HG2	2.38	0.49
4:D:110:LEU:HD23	4:D:110:LEU:O	2.13	0.49
5:E:48:LEU:CD2	5:E:70:ILE:CD1	2.81	0.49
6:F:142:SER:HB2	29:c:46:VAL:HG11	1.94	0.49
8:H:126:HIS:NE2	8:H:181:THR:HG22	2.28	0.49
9:I:110:ARG:NH2	9:I:124:LYS:NZ	2.60	0.49
10:J:38:ARG:HA	31:e:105:ARG:HG2	1.93	0.49
10:J:168:GLY:O	10:J:169:ARG:O	2.30	0.49
13:M:28:HIS:O	13:M:29:ASP:CB	2.52	0.49
14:N:26:LEU:CD2	14:N:66:VAL:HG22	2.42	0.49
14:N:73:ARG:NH1	34:i:912:A:C4	2.81	0.49
14:N:125:LEU:HD11	14:N:129:TYR:CZ	2.48	0.49
15:O:55:ARG:O	15:O:81:VAL:HG22	2.12	0.49
19:S:80:PRO:HG2	19:S:82:TRP:CE2	2.48	0.49
19:S:136:THR:OG1	34:i:1515:G:H5"	2.13	0.49
21:U:82:MET:HE1	30:d:50:ILE:HG22	1.95	0.49
25:Y:93:ARG:C	25:Y:93:ARG:CD	2.85	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:100:LYS:O	25:Y:100:LYS:CG	2.55	0.49
26:Z:91:LEU:HB3	26:Z:97:ILE:HG12	1.95	0.49
32:f:148:TYR:N	32:f:148:TYR:HD1	2.05	0.49
33:g:280:LYS:O	33:g:281:ALA:O	2.30	0.49
34:i:226:A:H2'	34:i:782:G:O3'	2.12	0.49
36:n:70:TRP:O	36:n:71:ILE:O	2.30	0.49
2:B:72:ALA:N	2:B:79:VAL:CG2	2.75	0.49
3:C:54:LEU:CD2	3:C:254:PHE:CB	2.88	0.49
3:C:169:VAL:HG11	3:C:232:THR:HG22	1.95	0.49
4:D:168:VAL:HG13	4:D:189:MET:SD	2.53	0.49
4:D:214:LYS:HG3	4:D:214:LYS:O	2.06	0.49
5:E:43:PRO:CD	5:E:43:PRO:O	2.60	0.49
5:E:129:ILE:CD1	5:E:139:LEU:HD22	2.32	0.49
6:F:204:ARG:OXT	15:O:72:TYR:HB2	2.13	0.49
7:G:33:ALA:H	7:G:52:ILE:CG2	2.14	0.49
9:I:58:LEU:HD11	34:i:1735:C:C5'	2.20	0.49
11:K:27:VAL:HG11	11:K:43:LEU:HD22	1.67	0.49
12:L:40:ILE:CG1	12:L:68:ILE:HG13	2.41	0.49
12:L:125:ILE:HB	12:L:146:THR:HG22	1.92	0.49
14:N:38:TYR:CD1	14:N:78:LYS:CG	2.95	0.49
15:O:71:PRO:HB3	15:O:114:SER:HB3	1.94	0.49
15:O:126:ILE:O	27:a:57:SER:HA	2.12	0.49
16:P:10:ARG:CD	16:P:11:THR:H	2.25	0.49
16:P:79:HIS:CD2	34:i:1294:G:H1'	2.48	0.49
20:T:84:ARG:C	20:T:86:GLY:N	2.67	0.49
24:X:71:ARG:NE	24:X:82:THR:HG23	2.23	0.49
25:Y:29:HIS:HE1	25:Y:67:GLY:CA	2.06	0.49
1:A:145:ILE:HD12	1:A:159:ILE:CG2	2.27	0.49
3:C:259:VAL:O	3:C:260:LYS:O	2.30	0.49
4:D:22:ASN:OD1	4:D:34:TYR:OH	2.30	0.49
4:D:220:THR:O	4:D:221:THR:O	2.30	0.49
5:E:151:ASP:HB3	5:E:152:PRO:CD	2.43	0.49
8:H:14:GLU:HG3	8:H:15:LYS:C	2.38	0.49
9:I:154:LYS:O	12:L:22:ARG:CG	2.61	0.49
10:J:12:THR:C	10:J:48:PHE:CD2	2.90	0.49
10:J:26:ASP:CB	31:e:116:PHE:CZ	2.92	0.49
10:J:66:LYS:NZ	34:i:687:G:C4	2.80	0.49
12:L:118:ARG:NH1	12:L:119:ASP:OD2	2.43	0.49
12:L:130:GLU:HG2	12:L:131:CYS:H	1.78	0.49
13:M:64:LEU:CD1	32:f:104:LYS:CE	2.90	0.49
13:M:64:LEU:HD11	32:f:104:LYS:CE	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:114:ARG:CD	14:N:117:LEU:HD12	2.42	0.49
17:Q:112:LEU:HD12	17:Q:120:LEU:CD2	2.42	0.49
17:Q:140:ARG:CB	34:i:1639:C:H4'	2.42	0.49
18:R:16:ILE:O	18:R:20:TYR:N	2.46	0.49
19:S:73:ASN:C	19:S:76:GLN:OE1	2.56	0.49
20:T:33:TRP:CD1	20:T:37:VAL:HG21	2.48	0.49
20:T:76:THR:HG22	20:T:95:GLY:O	2.13	0.49
23:W:26:LEU:HD12	23:W:26:LEU:C	2.33	0.49
24:X:56:GLY:CA	36:n:84:TYR:CD1	2.94	0.49
28:b:62:VAL:HG22	28:b:63:LEU:N	2.23	0.49
31:e:105:ARG:NH1	31:e:106:ALA:H	2.10	0.49
32:f:102:VAL:CG1	32:f:103:LEU:HB2	2.39	0.49
33:g:119:GLN:HG3	33:g:120:ILE:N	2.24	0.49
33:g:190:GLY:C	33:g:217:MET:HE1	2.38	0.49
34:i:1641:C:C2	34:i:1673:A:C6	3.01	0.49
36:n:99:GLU:O	36:n:102:SER:N	2.44	0.49
1:A:43:SER:C	1:A:44:ASP:CG	2.77	0.48
1:A:57:LYS:CE	22:V:70:LEU:CD2	2.89	0.48
1:A:91:ALA:HA	1:A:96:ALA:HB3	1.95	0.48
2:B:36:PRO:CB	2:B:231:LEU:CD2	2.71	0.48
5:E:241:GLY:O	5:E:244:ILE:CG1	2.58	0.48
6:F:14:THR:OG1	17:Q:56:LEU:CG	2.56	0.48
6:F:71:ARG:HH21	6:F:71:ARG:HG3	1.72	0.48
7:G:122:PRO:HD2	7:G:123:GLY:H	1.78	0.48
7:G:147:LEU:HD21	7:G:156:TYR:CD2	2.46	0.48
8:H:160:LYS:HB2	8:H:192:PHE:CZ	2.47	0.48
9:I:38:ILE:HD11	9:I:96:LEU:HD21	1.95	0.48
9:I:139:LYS:CD	9:I:145:ILE:HD12	2.43	0.48
10:J:110:LEU:CD1	10:J:135:ILE:HD12	2.42	0.48
12:L:71:ARG:CD	12:L:73:LEU:CG	2.91	0.48
13:M:19:GLN:NE2	13:M:88:TRP:CD1	2.81	0.48
15:O:16:SER:CA	15:O:87:GLU:O	2.56	0.48
17:Q:37:ARG:HB2	17:Q:38:PRO:HD2	1.95	0.48
22:V:18:SER:OG	22:V:18:SER:O	2.29	0.48
22:V:77:GLY:HA2	22:V:78:ILE:C	2.38	0.48
24:X:102:VAL:HG11	24:X:120:PHE:HB3	1.91	0.48
25:Y:68:LYS:O	25:Y:69:THR:CG2	2.61	0.48
26:Z:65:TYR:CD2	26:Z:68:ILE:CD1	2.96	0.48
27:a:77:CYS:O	27:a:80:HIS:HB3	2.13	0.48
31:e:114:ARG:HG3	31:e:115:ARG:N	2.27	0.48
32:f:98:VAL:CG1	32:f:99:LYS:N	2.39	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:118:ARG:HH21	33:g:134:THR:HG21	0.53	0.48
34:i:1266:G:C2	34:i:1508:C:O2	2.66	0.48
34:i:1853:A:O2'	34:i:1854:A:H5'	2.13	0.48
3:C:94:ILE:O	3:C:94:ILE:HG22	2.13	0.48
3:C:198:LEU:HD23	3:C:198:LEU:C	2.37	0.48
4:D:140:GLY:HA2	34:i:1330:G:H5'	1.96	0.48
7:G:41:LEU:HD21	7:G:45:TRP:CH2	2.36	0.48
9:I:8:TRP:CE3	9:I:8:TRP:O	2.66	0.48
10:J:125:HIS:HD2	10:J:129:LEU:HD11	1.65	0.48
10:J:136:ARG:HG2	10:J:141:VAL:HA	1.94	0.48
12:L:17:PHE:HE1	12:L:18:GLN:HB2	1.68	0.48
14:N:27:LYS:H	14:N:27:LYS:HE3	1.71	0.48
14:N:38:TYR:CE2	14:N:78:LYS:HG3	2.48	0.48
14:N:52:VAL:HG13	28:b:51:GLN:OE1	2.13	0.48
14:N:139:TRP:CE3	14:N:139:TRP:C	2.91	0.48
15:O:62:VAL:HG12	15:O:63:LYS:N	2.28	0.48
17:Q:88:ILE:HG13	17:Q:89:SER:H	1.78	0.48
18:R:5:ARG:O	18:R:10:LYS:NZ	2.46	0.48
18:R:5:ARG:C	18:R:10:LYS:CE	2.76	0.48
18:R:95:ILE:CA	18:R:114:LEU:HD13	2.42	0.48
19:S:55:ARG:NH1	26:Z:80:ARG:HE	2.03	0.48
20:T:99:VAL:CG2	20:T:100:ALA:N	2.76	0.48
21:U:62:ARG:HD2	21:U:79:ARG:HD3	1.94	0.48
21:U:68:THR:CG2	21:U:70:CYS:O	2.61	0.48
22:V:53:TYR:CD2	22:V:72:LEU:HB3	2.47	0.48
22:V:53:TYR:HB3	22:V:72:LEU:HD13	1.95	0.48
25:Y:29:HIS:CD2	25:Y:34:THR:N	2.78	0.48
26:Z:99:LEU:CD2	26:Z:109:TYR:CZ	2.89	0.48
34:i:184:G:C2'	34:i:185:C:H5'	2.42	0.48
34:i:1155:G:H2'	34:i:1156:U:O4'	2.13	0.48
1:A:39:TYR:HB3	1:A:48:ILE:O	2.13	0.48
4:D:214:LYS:C	4:D:215:ASP:CG	2.80	0.48
5:E:152:PRO:HD2	7:G:212:LEU:CD2	2.42	0.48
5:E:178:GLY:H	5:E:195:ILE:HB	1.78	0.48
5:E:180:LEU:CD1	5:E:228:ILE:CD1	2.91	0.48
5:E:191:ARG:NE	5:E:245:ARG:CD	2.76	0.48
8:H:158:LEU:HD21	8:H:187:PHE:CD1	2.48	0.48
8:H:170:VAL:HA	8:H:173:PHE:CD2	2.48	0.48
12:L:5:GLN:NE2	12:L:10:TYR:HD1	2.10	0.48
14:N:114:ARG:HH21	14:N:114:ARG:CG	2.26	0.48
14:N:142:GLU:HG3	14:N:144:SER:OG	2.07	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:121:ARG:HG2	27:a:52:ASP:OD2	2.13	0.48
16:P:77:LYS:C	16:P:78:THR:CG2	2.81	0.48
16:P:127:LYS:O	16:P:127:LYS:HG3	2.12	0.48
18:R:34:VAL:HG12	18:R:38:ILE:HG12	1.94	0.48
18:R:98:VAL:HG11	18:R:103:LYS:N	2.28	0.48
19:S:28:PHE:O	19:S:31:THR:OG1	2.29	0.48
24:X:52:LEU:HG	24:X:71:ARG:C	2.37	0.48
25:Y:54:VAL:HG13	25:Y:76:TYR:HB2	1.95	0.48
27:a:45:VAL:O	27:a:46:GLU:CB	2.61	0.48
33:g:232:GLY:CA	33:g:257:LYS:HZ1	2.26	0.48
34:i:162:C:H2'	34:i:163:U:O4'	2.13	0.48
34:i:1403:U:H2'	34:i:1404:U:C6	2.48	0.48
35:l:47:VAL:N	35:l:83:ILE:H	2.11	0.48
36:n:81:LEU:HD13	36:n:86:ASP:OD1	2.13	0.48
1:A:89:LYS:HB3	1:A:202:TYR:CE2	2.48	0.48
1:A:158:ASP:CB	22:V:65:SER:HB2	2.42	0.48
1:A:161:ILE:CG2	1:A:174:MET:CE	2.90	0.48
1:A:184:ARG:HD3	1:A:192:GLU:HG2	1.96	0.48
2:B:49:VAL:CG1	2:B:50:THR:N	2.77	0.48
3:C:55:VAL:CA	3:C:82:PHE:HZ	2.24	0.48
5:E:45:ILE:HG13	5:E:61:VAL:HG21	1.94	0.48
6:F:91:ARG:NH1	6:F:94:LYS:HG3	2.11	0.48
8:H:147:LYS:CE	8:H:153:LEU:HD11	2.36	0.48
9:I:31:ARG:HH11	9:I:31:ARG:CG	2.26	0.48
9:I:143:LYS:O	9:I:144:LYS:C	2.55	0.48
10:J:118:GLY:C	10:J:120:ALA:H	2.20	0.48
12:L:80:MET:HE3	12:L:120:VAL:CB	2.43	0.48
12:L:101:ARG:HB2	24:X:10:ALA:HB2	1.95	0.48
17:Q:24:HIS:NE2	17:Q:69:ARG:CB	2.68	0.48
17:Q:45:ARG:HG2	17:Q:46:THR:H	1.78	0.48
18:R:99:ASP:C	18:R:119:VAL:HG13	2.20	0.48
19:S:8:LYS:CA	19:S:9:PHE:CD1	2.95	0.48
20:T:64:LEU:HD23	20:T:64:LEU:H	1.70	0.48
22:V:57:GLY:O	22:V:61:ARG:CG	2.62	0.48
23:W:15:ASN:HD21	23:W:19:LYS:HE3	1.77	0.48
23:W:107:SER:HB3	34:i:856:G:H21	1.78	0.48
24:X:58:GLU:CD	36:n:60:HIS:NE2	2.71	0.48
25:Y:66:GLY:CA	34:i:572:U:OP1	2.62	0.48
34:i:181:A:O4'	34:i:182:C:C5'	2.56	0.48
34:i:1408:C:O2'	34:i:1409:G:O4'	2.28	0.48
34:i:1822:C:O2'	34:i:1843:G:C6	2.55	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1822:C:O4'	35:l:68:ALA:O	2.31	0.48
34:i:1826:A:HO3'	34:i:1834:U:P	2.28	0.48
1:A:58:LEU:HD23	1:A:58:LEU:O	2.12	0.48
2:B:67:PHE:HD1	15:O:47:LEU:CB	2.19	0.48
2:B:72:ALA:O	2:B:76:ASN:HA	2.13	0.48
2:B:83:LYS:NZ	15:O:130:GLU:OE2	2.46	0.48
3:C:154:TYR:OH	3:C:162:PRO:N	2.45	0.48
3:C:255:THR:CG2	3:C:256:ASP:N	2.76	0.48
4:D:10:LYS:HZ3	21:U:111:GLU:HG2	1.76	0.48
4:D:76:ARG:CG	11:K:66:HIS:ND1	2.77	0.48
4:D:112:GLY:H	4:D:113:LEU:HD12	1.65	0.48
6:F:18:LYS:HB3	6:F:18:LYS:HZ3	1.78	0.48
6:F:42:LYS:HB2	6:F:44:LYS:C	2.20	0.48
7:G:64:LYS:C	7:G:64:LYS:HD2	2.18	0.48
7:G:64:LYS:HD2	7:G:100:CYS:SG	2.53	0.48
8:H:29:GLU:HA	8:H:32:MET:SD	2.54	0.48
9:I:6:ASP:OD2	9:I:8:TRP:N	2.46	0.48
9:I:140:LYS:CD	9:I:141:ARG:N	2.72	0.48
10:J:125:HIS:CE1	10:J:129:LEU:HD21	2.48	0.48
11:K:47:LYS:HD2	11:K:50:GLN:NE2	2.28	0.48
13:M:124:ILE:CB	13:M:127:TYR:HE2	2.27	0.48
15:O:136:PRO:HB3	34:i:940:A:H1'	1.95	0.48
19:S:90:VAL:HG12	19:S:91:LYS:CE	2.43	0.48
20:T:40:ALA:O	20:T:43:LYS:CB	2.62	0.48
22:V:57:GLY:O	22:V:61:ARG:HG3	2.13	0.48
23:W:89:TRP:C	23:W:102:ILE:HD11	2.37	0.48
24:X:70:VAL:HG12	24:X:71:ARG:N	2.27	0.48
25:Y:87:PRO:O	25:Y:87:PRO:CD	2.60	0.48
26:Z:58:LEU:HD23	26:Z:77:LEU:CD1	2.42	0.48
33:g:5:MET:HE1	33:g:312:VAL:HG11	1.85	0.48
33:g:273:GLU:CA	33:g:274:VAL:HG13	2.44	0.48
33:g:306:LEU:HD23	33:g:307:VAL:O	2.14	0.48
34:i:126:G:O2'	34:i:127:C:H5	1.95	0.48
34:i:685:G:C6	34:i:732:C:C2	3.01	0.48
34:i:986:A:C2	34:i:988:A:C6	3.01	0.48
34:i:1055:G:H5"	35:l:72:THR:HG21	1.94	0.48
34:i:1546:U:C4	34:i:1547:G:O6	2.66	0.48
34:i:1825:A:C4	34:i:1846:C:OP1	2.60	0.48
35:l:64:LYS:C	35:l:66:LYS:H	2.19	0.48
36:n:65:LEU:HG	36:n:92:ILE:O	2.11	0.48
36:n:71:ILE:N	36:n:71:ILE:HD12	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:30:LEU:HD13	1:A:38:ILE:HD11	0.49	0.48
1:A:120:ARG:CD	3:C:251:TYR:CE2	2.61	0.48
1:A:127:PRO:HG2	1:A:152:SER:HB3	1.94	0.48
2:B:132:GLY:O	2:B:133:TYR:C	2.56	0.48
2:B:147:ASN:C	2:B:149:GLN:H	2.22	0.48
2:B:182:LYS:HD3	2:B:182:LYS:HA	1.62	0.48
3:C:55:VAL:CA	3:C:82:PHE:CZ	2.96	0.48
4:D:223:ILE:HG22	4:D:224:SER:N	2.28	0.48
6:F:63:LYS:CE	6:F:71:ARG:HH12	2.26	0.48
6:F:136:ARG:HD2	6:F:136:ARG:N	2.28	0.48
14:N:13:GLN:C	14:N:14:SER:O	2.47	0.48
15:O:44:VAL:HG11	15:O:93:LEU:HD21	1.94	0.48
16:P:65:LYS:HG3	16:P:66:GLU:H	1.79	0.48
17:Q:124:PRO:HG2	17:Q:125:ARG:N	2.28	0.48
19:S:26:ILE:HD11	19:S:59:LEU:CG	2.42	0.48
19:S:30:ILE:O	19:S:32:ALA:N	2.47	0.48
20:T:40:ALA:O	20:T:43:LYS:CG	2.62	0.48
20:T:101:ARG:CG	20:T:105:GLN:NE2	2.75	0.48
24:X:52:LEU:CD1	24:X:53:GLU:CB	2.88	0.48
24:X:71:ARG:NE	24:X:82:THR:HG22	2.27	0.48
25:Y:97:TYR:HD1	25:Y:98:GLU:H	1.58	0.48
34:i:835:C:H2'	34:i:837:G:O4'	2.13	0.48
34:i:1127:G:H5'	34:i:1127:G:C8	2.48	0.48
34:i:1654:U:H3	34:i:1659:A:H2	1.58	0.48
36:n:106:TYR:HB3	36:n:108:GLU:HG3	1.95	0.48
6:F:59:LYS:HD2	6:F:62:ARG:HH21	0.66	0.48
8:H:28:LEU:O	8:H:31:GLU:HB2	2.13	0.48
8:H:34:SER:O	8:H:35:ASP:OD1	2.32	0.48
8:H:154:ILE:HG22	8:H:185:VAL:HG23	1.95	0.48
9:I:21:TYR:CZ	34:i:423:A:H5'	2.49	0.48
9:I:70:GLU:O	9:I:71:CYS:HB3	2.14	0.48
9:I:144:LYS:H	9:I:144:LYS:HD3	1.77	0.48
10:J:28:GLU:OE1	10:J:40:LYS:CE	2.61	0.48
10:J:93:LYS:HE3	10:J:93:LYS:N	2.26	0.48
11:K:27:VAL:HA	11:K:43:LEU:HD23	1.95	0.48
12:L:99:TYR:N	12:L:99:TYR:CD2	2.80	0.48
16:P:75:VAL:HG21	16:P:104:GLN:NE2	2.27	0.48
17:Q:42:ILE:CB	17:Q:51:LEU:HD21	2.44	0.48
17:Q:72:VAL:HG12	17:Q:80:GLN:NE2	2.29	0.48
17:Q:93:VAL:HG13	17:Q:105:LYS:CG	2.42	0.48
18:R:5:ARG:HB2	18:R:10:LYS:CE	2.35	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:21:TYR:CE2	18:R:73:LEU:HD12	2.48	0.48
18:R:95:ILE:CG2	18:R:115:SER:O	2.62	0.48
19:S:52:LEU:O	19:S:54:LYS:N	2.46	0.48
19:S:90:VAL:HG12	19:S:91:LYS:CG	2.43	0.48
20:T:78:ILE:HG23	20:T:79:TYR:N	2.27	0.48
21:U:57:PRO:HA	34:i:1442:A:H5"	1.95	0.48
21:U:68:THR:HB	21:U:70:CYS:O	2.13	0.48
23:W:77:PRO:CD	24:X:5:ARG:O	2.54	0.48
24:X:41:PHE:CZ	24:X:120:PHE:CD1	3.02	0.48
24:X:126:ALA:HB1	24:X:128:VAL:HB	1.83	0.48
25:Y:56:PHE:HB3	25:Y:58:PHE:CE2	2.47	0.48
25:Y:111:LYS:HG3	25:Y:112:ASN:N	2.29	0.48
32:f:136:PHE:C	32:f:138:ARG:N	2.71	0.48
33:g:38:LYS:HB2	33:g:38:LYS:HE2	1.47	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
33:g:197:THR:HG21	33:g:238:ALA:CA	2.44	0.48
34:i:429:A:H4'	34:i:1794:A:C4'	2.44	0.48
1:A:85:ARG:NE	1:A:201:LEU:O	2.47	0.48
1:A:149:ASN:N	1:A:165:ASN:HD21	2.10	0.48
1:A:180:ARG:NH1	1:A:184:ARG:HH22	2.11	0.48
4:D:146:ARG:HA	4:D:146:ARG:HD3	1.63	0.48
7:G:80:GLY:C	7:G:81:HIS:CG	2.92	0.48
7:G:154:ARG:HG2	7:G:155:GLN:N	2.28	0.48
9:I:41:ARG:NH2	34:i:296:U:OP2	2.47	0.48
10:J:110:LEU:HB3	10:J:111:GLN:H	1.49	0.48
10:J:127:ARG:HH11	10:J:145:PRO:HB3	1.76	0.48
14:N:19:ARG:CZ	28:b:84:HIS:OXT	2.61	0.48
18:R:122:PRO:CA	18:R:123:THR:OG1	2.61	0.48
19:S:89:ASP:O	19:S:90:VAL:CG2	2.61	0.48
19:S:111:LEU:CD2	19:S:125:HIS:ND1	2.75	0.48
20:T:65:TYR:CD1	20:T:65:TYR:C	2.91	0.48
20:T:65:TYR:CD2	20:T:123:LEU:CD1	2.97	0.48
21:U:104:ILE:C	21:U:105:SER:OG	2.56	0.48
22:V:55:ILE:HG22	22:V:60:ARG:CG	2.44	0.48
23:W:23:ARG:HG2	23:W:23:ARG:NH1	2.29	0.48
23:W:55:ASP:HA	28:b:25:VAL:CG1	2.43	0.48
24:X:8:ARG:O	24:X:10:ALA:N	2.42	0.48
29:c:32:VAL:HG22	29:c:42:ILE:O	2.13	0.48
33:g:26:GLN:HB3	33:g:74:ASP:C	2.33	0.48
33:g:212:LYS:CG	33:g:235:ILE:HD12	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:546:U:C4	34:i:547:U:C5	3.02	0.48
34:i:821:A:H2'	34:i:822:A:C8	2.48	0.48
1:A:14:ASP:OD2	1:A:55:TRP:HH2	1.96	0.48
2:B:49:VAL:HG23	2:B:65:ARG:HH12	1.76	0.48
3:C:48:VAL:CG2	3:C:75:GLU:OE2	2.61	0.48
3:C:54:LEU:HD22	3:C:254:PHE:CB	2.44	0.48
3:C:54:LEU:N	3:C:258:LEU:CD2	2.77	0.48
3:C:124:LEU:N	3:C:226:PHE:CZ	2.81	0.48
4:D:192:TRP:HE3	4:D:196:GLY:CA	2.15	0.48
5:E:132:GLY:N	5:E:136:ILE:O	2.47	0.48
6:F:44:LYS:CD	6:F:44:LYS:C	2.78	0.48
6:F:145:ARG:CG	29:c:48:GLY:CA	2.63	0.48
9:I:193:LYS:HG3	12:L:10:TYR:HE1	1.77	0.48
9:I:194:GLU:CD	12:L:12:LYS:CE	2.86	0.48
10:J:78:LEU:HD13	10:J:92:MET:C	2.38	0.48
11:K:40:VAL:HG23	11:K:41:PRO:HD3	1.94	0.48
11:K:40:VAL:HA	11:K:41:PRO:HD3	1.65	0.48
11:K:83:LEU:O	11:K:84:HIS:HB3	2.14	0.48
15:O:37:PHE:CD1	15:O:110:PRO:HD3	2.49	0.48
15:O:125:LYS:HE3	15:O:125:LYS:HB3	1.37	0.48
16:P:62:LYS:HA	16:P:65:LYS:HE2	1.96	0.48
16:P:121:ILE:CG2	19:S:123:LEU:CD1	2.64	0.48
18:R:91:LEU:HD13	18:R:92:ASP:CB	2.44	0.48
19:S:7:GLU:O	26:Z:50:PHE:O	2.31	0.48
19:S:141:ARG:HD2	34:i:1518:C:C5	2.49	0.48
20:T:87:VAL:CG1	20:T:88:MET:HG3	2.37	0.48
25:Y:58:PHE:CD1	25:Y:72:PHE:HD2	2.31	0.48
27:a:10:ARG:HD3	34:i:1860:A:OP1	2.12	0.48
30:d:44:ARG:NH2	34:i:1333:C:H5'	2.29	0.48
31:e:75:LYS:HD3	36:n:46:ARG:HH22	1.79	0.48
33:g:76:GLN:NE2	33:g:76:GLN:CA	2.70	0.48
34:i:86:C:H1'	34:i:170:A:N1	2.29	0.48
34:i:199:G:H2'	34:i:200:U:H6	1.79	0.48
34:i:831:C:C4	34:i:833:A:OP2	2.66	0.48
36:n:38:VAL:HG21	36:n:77:ILE:HD11	1.93	0.48
2:B:36:PRO:HA	2:B:231:LEU:CD2	2.43	0.48
2:B:53:GLN:O	2:B:54:GLY:C	2.55	0.48
2:B:67:PHE:HD1	15:O:47:LEU:O	1.95	0.48
2:B:183:GLU:O	2:B:187:LYS:HB2	2.14	0.48
3:C:142:LEU:O	3:C:145:LEU:HD21	2.11	0.48
4:D:207:HIS:O	4:D:208:VAL:CG2	2.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:192:LYS:O	6:F:192:LYS:CD	2.61	0.48
8:H:166:VAL:CG2	8:H:173:PHE:HE2	2.14	0.48
10:J:121:LYS:O	10:J:122:SER:HB2	2.14	0.48
12:L:78:THR:CG2	12:L:79:LYS:N	2.77	0.48
14:N:116:ILE:O	14:N:119:GLU:HG3	2.13	0.48
14:N:125:LEU:HD22	14:N:129:TYR:CZ	2.49	0.48
17:Q:16:LYS:CD	17:Q:17:LYS:N	2.68	0.48
17:Q:85:ARG:C	17:Q:88:ILE:HG12	2.39	0.48
19:S:111:LEU:HD22	19:S:125:HIS:CG	2.48	0.48
22:V:9:VAL:HG12	22:V:10:ASP:HA	1.95	0.48
22:V:11:LEU:HD12	22:V:12:TYR:N	2.29	0.48
29:c:20:ARG:HH12	34:i:1674:A:C5'	2.26	0.48
33:g:172:LYS:HG3	33:g:192:THR:HA	1.95	0.48
34:i:1347:G:H2'	34:i:1348:G:C8	2.49	0.48
34:i:1825:A:O4'	34:i:1846:C:O2'	2.20	0.48
36:n:76:ILE:HG22	36:n:95:TYR:HD2	1.79	0.48
1:A:4:ALA:CB	22:V:39:VAL:HG21	2.39	0.47
1:A:18:PHE:CE2	1:A:55:TRP:CZ3	3.02	0.47
1:A:33:GLN:HE22	28:b:2:PRO:HB3	1.78	0.47
1:A:102:ARG:NH2	34:i:1375:A:O2'	2.47	0.47
1:A:110:ASN:ND2	34:i:1348:G:H5'	2.28	0.47
2:B:48:LEU:N	2:B:48:LEU:CD1	2.71	0.47
2:B:53:GLN:O	2:B:55:THR:N	2.47	0.47
2:B:87:ILE:HG23	2:B:101:HIS:CB	2.44	0.47
3:C:54:LEU:H	3:C:258:LEU:HD22	1.79	0.47
4:D:79:PHE:HE1	4:D:83:SER:HB3	1.78	0.47
4:D:145:GLN:CG	4:D:146:ARG:N	2.77	0.47
5:E:106:LYS:HD2	5:E:106:LYS:HA	1.55	0.47
7:G:80:GLY:O	7:G:81:HIS:ND1	2.47	0.47
7:G:139:SER:O	7:G:143:LYS:HD2	2.14	0.47
8:H:149:ASP:O	8:H:149:ASP:OD1	2.31	0.47
8:H:160:LYS:CB	8:H:192:PHE:HZ	2.27	0.47
9:I:5:ARG:CG	9:I:5:ARG:NH1	2.65	0.47
9:I:155:ASN:HA	12:L:22:ARG:HD2	1.96	0.47
10:J:38:ARG:NE	31:e:104:GLY:CA	2.70	0.47
12:L:59:LYS:HD2	12:L:112:HIS:NE2	2.29	0.47
12:L:136:LYS:HG2	12:L:137:THR:N	2.27	0.47
13:M:46:GLN:HB3	13:M:112:LYS:CD	2.44	0.47
15:O:31:CYS:CB	15:O:95:ILE:CG1	2.80	0.47
15:O:131:ASP:CG	27:a:67:LEU:HD21	2.32	0.47
16:P:5:GLU:O	16:P:6:GLN:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:37:TYR:CA	19:S:88:LYS:HD3	2.44	0.47
19:S:51:ASP:CG	19:S:53:THR:HG1	2.21	0.47
19:S:55:ARG:HH12	26:Z:82:SER:CB	2.27	0.47
20:T:77:LYS:HG3	20:T:92:PHE:HE2	0.72	0.47
22:V:12:TYR:HE1	22:V:14:PRO:HG3	1.79	0.47
24:X:3:LYS:C	24:X:4:CYS:O	2.57	0.47
25:Y:37:LYS:C	25:Y:40:ILE:CG2	2.84	0.47
25:Y:104:ARG:HA	25:Y:107:ARG:NH2	2.29	0.47
25:Y:119:GLY:HA2	34:i:85:A:C5'	2.45	0.47
26:Z:54:THR:O	26:Z:58:LEU:HG	2.14	0.47
26:Z:99:LEU:CG	26:Z:102:LYS:HD3	2.42	0.47
27:a:5:ARG:NH2	34:i:1858:U:C5	2.82	0.47
27:a:85:ARG:O	27:a:86:ASN:C	2.56	0.47
28:b:64:CYS:SG	28:b:73:LEU:CG	2.97	0.47
29:c:7:GLN:OE1	29:c:7:GLN:O	2.32	0.47
29:c:15:THR:HG21	29:c:33:GLU:OE2	2.14	0.47
32:f:127:GLY:O	32:f:129:GLY:N	2.47	0.47
33:g:87:LEU:CB	33:g:101:PHE:HB2	2.43	0.47
33:g:147:HIS:C	33:g:149:GLU:N	2.71	0.47
33:g:172:LYS:HE3	33:g:192:THR:CG2	2.34	0.47
34:i:1645:A:C2	34:i:1646:A:H1'	2.49	0.47
35:l:37:GLN:HB2	35:l:43:THR:HG23	1.96	0.47
35:l:66:LYS:HD3	35:l:96:PHE:CD1	2.49	0.47
35:l:91:LYS:HD2	35:l:91:LYS:HA	1.54	0.47
36:n:97:ALA:O	36:n:100:ALA:CB	2.62	0.47
2:B:83:LYS:O	2:B:103:MET:HA	2.14	0.47
3:C:223:LYS:NZ	34:i:1351:C:H2'	2.29	0.47
3:C:241:TRP:CZ2	23:W:68:ARG:HD2	2.49	0.47
5:E:118:GLU:C	5:E:120:LYS:N	2.70	0.47
6:F:61:PHE:O	6:F:62:ARG:C	2.57	0.47
8:H:64:VAL:CG2	8:H:72:PHE:CE2	2.97	0.47
8:H:120:ARG:NH1	34:i:909:A:C8	2.83	0.47
8:H:126:HIS:HA	8:H:129:ILE:HD12	1.96	0.47
10:J:29:LEU:C	31:e:112:TYR:CD1	2.92	0.47
10:J:40:LYS:O	10:J:41:ARG:C	2.53	0.47
13:M:104:VAL:HG22	13:M:105:GLY:N	2.28	0.47
14:N:91:LEU:HD21	34:i:921:G:C5'	2.44	0.47
16:P:94:VAL:HG12	16:P:96:VAL:CG2	2.44	0.47
17:Q:10:VAL:HG11	17:Q:94:ALA:HB1	1.96	0.47
18:R:1:MET:HA	18:R:1:MET:CG	2.38	0.47
19:S:81:ASP:HA	19:S:84:LEU:HD12	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:36:THR:HG23	20:T:37:VAL:N	2.29	0.47
20:T:42:HIS:CD2	20:T:81:GLY:O	2.67	0.47
21:U:43:ALA:O	21:U:48:LEU:HG	2.13	0.47
24:X:126:ALA:O	24:X:127:ASN:C	2.54	0.47
24:X:129:SER:OG	24:X:132:ALA:CB	2.60	0.47
32:f:105:TYR:C	32:f:106:TYR:CD2	2.87	0.47
32:f:144:CYS:O	32:f:146:LEU:N	2.47	0.47
33:g:4:GLN:CG	33:g:268:ASP:OD2	2.62	0.47
33:g:45:LEU:HD22	33:g:52:TYR:CD2	2.49	0.47
34:i:328:G:C5	34:i:329:A:C5	3.02	0.47
34:i:1186:A:H2	34:i:1709:U:C1'	1.91	0.47
34:i:1347:G:H2'	34:i:1348:G:H8	1.79	0.47
34:i:1459:U:H4'	34:i:1460:C:O5'	2.15	0.47
34:i:1513:C:H5"	34:i:1514:U:H5"	1.95	0.47
36:n:62:ARG:CB	36:n:92:ILE:O	2.62	0.47
36:n:77:ILE:CG2	36:n:93:LEU:O	2.62	0.47
1:A:26:GLY:N	1:A:47:TYR:O	2.47	0.47
1:A:55:TRP:NE1	1:A:59:LEU:HD11	2.28	0.47
2:B:23:ASP:HA	2:B:24:PRO:HD3	1.44	0.47
2:B:149:GLN:O	18:R:124:VAL:CG1	2.62	0.47
3:C:83:LEU:C	3:C:85:ALA:H	2.22	0.47
3:C:126:MET:HE1	3:C:223:LYS:HZ2	1.71	0.47
4:D:74:GLN:NE2	4:D:75:LYS:HD3	2.21	0.47
4:D:123:LEU:CD2	4:D:154:ASP:OD2	2.61	0.47
4:D:142:LEU:C	4:D:144:GLY:H	2.22	0.47
4:D:196:GLY:O	4:D:199:GLY:HA2	2.12	0.47
5:E:126:VAL:HG21	5:E:156:MET:HA	1.91	0.47
6:F:45:TYR:CA	6:F:47:LYS:HE2	2.44	0.47
6:F:184:SER:O	6:F:185:SER:HB2	2.13	0.47
7:G:157:VAL:HG11	7:G:159:ARG:CA	2.43	0.47
7:G:195:LYS:CE	34:i:125:C:HO2'	2.19	0.47
10:J:18:ARG:HA	10:J:19:PRO:HD3	1.48	0.47
10:J:151:LEU:C	10:J:153:SER:H	2.20	0.47
12:L:14:PRO:HB2	12:L:15:THR:HG23	1.96	0.47
12:L:112:HIS:CB	12:L:134:LEU:CD1	2.92	0.47
13:M:40:LYS:HZ3	32:f:129:GLY:C	2.23	0.47
13:M:93:LYS:H	13:M:101:ARG:CD	2.26	0.47
13:M:111:VAL:HG11	13:M:114:TYR:HB3	1.95	0.47
14:N:14:SER:O	14:N:14:SER:OG	2.31	0.47
14:N:38:TYR:CG	14:N:78:LYS:HD2	2.43	0.47
14:N:94:LYS:CG	14:N:118:ILE:HD13	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:44:ARG:CZ	16:P:82:ASP:O	2.62	0.47
16:P:59:ARG:NE	16:P:76:VAL:HG13	2.29	0.47
17:Q:130:LYS:HA	17:Q:137:ALA:HA	1.95	0.47
20:T:66:LEU:HB2	20:T:67:ARG:HE	1.80	0.47
20:T:85:ASN:HD21	20:T:91:HIS:HD2	1.56	0.47
21:U:16:ALA:O	21:U:17:ILE:HG13	2.14	0.47
25:Y:79:LEU:O	25:Y:83:LYS:HG3	2.15	0.47
25:Y:99:LYS:CE	25:Y:99:LYS:H	2.25	0.47
26:Z:58:LEU:CD2	26:Z:77:LEU:CD1	2.91	0.47
29:c:38:THR:C	29:c:40:ARG:H	2.22	0.47
33:g:4:GLN:CG	33:g:5:MET:H	2.28	0.47
33:g:49:GLU:O	33:g:50:THR:OG1	2.30	0.47
33:g:200:VAL:CG1	33:g:204:GLY:HA2	2.44	0.47
33:g:215:GLN:CD	33:g:231:ASP:OD1	2.57	0.47
34:i:429:A:C4'	34:i:1794:A:C4'	2.92	0.47
34:i:1034:U:H2'	34:i:1035:C:H5'	1.96	0.47
34:i:1716:U:C3'	34:i:1717:G:H5'	2.44	0.47
34:i:1749:C:C4	34:i:1750:C:N4	2.83	0.47
34:i:1843:G:O3'	35:l:65:LYS:HE3	2.14	0.47
35:l:63:PHE:CG	35:l:85:LEU:HD22	2.49	0.47
2:B:25:PHE:HA	2:B:28:LYS:HD2	1.96	0.47
4:D:132:LYS:HB3	4:D:189:MET:HG3	1.96	0.47
4:D:214:LYS:HG3	4:D:215:ASP:CG	2.33	0.47
5:E:21:ASP:OD1	5:E:24:THR:CG2	2.54	0.47
5:E:48:LEU:HD11	5:E:70:ILE:HD13	1.93	0.47
7:G:33:ALA:N	7:G:52:ILE:CG2	2.74	0.47
7:G:77:LEU:HD13	7:G:84:TYR:HB2	1.96	0.47
9:I:123:ARG:O	9:I:123:ARG:HD3	2.14	0.47
9:I:154:LYS:O	12:L:22:ARG:HD2	2.14	0.47
12:L:10:TYR:HD2	12:L:12:LYS:CE	2.14	0.47
13:M:93:LYS:N	13:M:101:ARG:HD3	2.28	0.47
16:P:37:TYR:CB	19:S:88:LYS:HD3	2.44	0.47
16:P:41:GLN:CA	16:P:84:ILE:HG12	2.43	0.47
20:T:83:GLN:CD	20:T:83:GLN:C	2.81	0.47
21:U:49:LYS:C	21:U:50:VAL:CG1	2.84	0.47
23:W:2:VAL:HG23	23:W:3:ARG:N	2.29	0.47
23:W:115:GLU:HG2	23:W:119:LYS:HE3	1.95	0.47
25:Y:29:HIS:CE1	25:Y:67:GLY:N	2.82	0.47
29:c:11:LEU:HB3	29:c:35:MET:SD	2.55	0.47
33:g:100:ARG:HH11	33:g:100:ARG:CB	2.24	0.47
34:i:226:A:C2	34:i:783:G:H5"	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:684:A:H61	34:i:732:C:H42	1.61	0.47
34:i:1191:A:O2'	34:i:1192:A:H5'	2.14	0.47
36:n:80:GLY:O	36:n:81:LEU:HD23	2.14	0.47
1:A:106:GLY:HA3	1:A:113:GLN:NE2	2.29	0.47
2:B:105:LEU:O	2:B:106:THR:OG1	2.30	0.47
6:F:112:LEU:HD23	6:F:112:LEU:C	2.40	0.47
6:F:149:GLN:O	6:F:153:LEU:HG	2.15	0.47
6:F:204:ARG:HD2	29:c:60:GLU:CG	2.44	0.47
7:G:195:LYS:CE	34:i:125:C:O2'	2.33	0.47
9:I:157:LYS:CB	12:L:22:ARG:NE	2.71	0.47
9:I:191:GLU:O	9:I:195:LEU:CB	2.62	0.47
11:K:11:ILE:CD1	11:K:45:VAL:HG22	2.45	0.47
16:P:65:LYS:HG3	16:P:66:GLU:HG3	1.96	0.47
17:Q:92:LEU:HD11	17:Q:96:TYR:HH	1.78	0.47
19:S:8:LYS:CA	19:S:9:PHE:HD1	2.23	0.47
19:S:80:PRO:HG3	19:S:82:TRP:CZ2	2.50	0.47
19:S:126:PHE:HD2	19:S:127:TRP:CD1	2.32	0.47
20:T:33:TRP:C	20:T:35:ASP:H	2.21	0.47
23:W:53:ILE:HG22	28:b:25:VAL:HG22	1.96	0.47
26:Z:104:ARG:C	26:Z:104:ARG:HH11	2.23	0.47
27:a:21:ILE:CG2	27:a:22:ARG:H	2.26	0.47
27:a:103:PRO:CB	27:a:107:ALA:CB	2.92	0.47
35:l:66:LYS:HD3	35:l:96:PHE:HD1	1.79	0.47
1:A:44:ASP:OD1	1:A:44:ASP:N	2.43	0.47
3:C:218:LEU:HD12	3:C:218:LEU:C	2.39	0.47
4:D:58:VAL:HG21	4:D:88:ALA:CB	2.44	0.47
4:D:68:GLU:O	4:D:72:VAL:HG23	2.14	0.47
4:D:182:LEU:HD22	4:D:182:LEU:N	2.30	0.47
4:D:207:HIS:C	4:D:208:VAL:HG23	2.39	0.47
4:D:218:LEU:CA	4:D:220:THR:HG23	2.44	0.47
5:E:57:THR:HB	5:E:59:ASP:H	1.79	0.47
7:G:143:LYS:N	7:G:143:LYS:HE3	2.30	0.47
7:G:185:LEU:HB3	7:G:189:ARG:HH12	1.80	0.47
7:G:207:ALA:O	7:G:211:LYS:HG3	2.13	0.47
8:H:100:ILE:HG12	8:H:125:VAL:CG2	2.37	0.47
9:I:119:LEU:N	9:I:120:PRO:CD	2.78	0.47
11:K:41:PRO:HD2	11:K:43:LEU:HG	1.97	0.47
12:L:12:LYS:O	12:L:56:ILE:HD11	2.15	0.47
12:L:57:ASP:OD1	12:L:59:LYS:HB2	2.14	0.47
15:O:44:VAL:CG1	15:O:93:LEU:HD22	2.44	0.47
16:P:41:GLN:HE21	16:P:84:ILE:CG1	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:44:ARG:HH21	16:P:84:ILE:CA	2.28	0.47
17:Q:41:MET:O	17:Q:43:GLU:HG3	2.13	0.47
17:Q:138:ARG:NH1	34:i:1641:C:H5"	2.22	0.47
21:U:40:ILE:CD1	21:U:53:PRO:CD	2.88	0.47
21:U:44:LYS:HA	21:U:47:ASN:HA	1.96	0.47
24:X:28:LYS:HE3	24:X:32:LEU:HD11	1.95	0.47
26:Z:44:LEU:HD11	26:Z:46:ASN:ND2	2.28	0.47
33:g:258:ILE:HG13	33:g:258:ILE:O	2.14	0.47
34:i:61:A:H2	34:i:326:A:H8	1.11	0.47
34:i:1843:G:N3	35:l:68:ALA:HA	2.30	0.47
1:A:6:ASP:C	1:A:8:LEU:N	2.73	0.47
1:A:12:GLU:O	1:A:16:LEU:HG	2.14	0.47
1:A:14:ASP:OD1	1:A:180:ARG:NH2	2.48	0.47
1:A:75:SER:HA	1:A:97:THR:O	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
2:B:44:ILE:HG23	2:B:69:VAL:HG21	1.97	0.47
2:B:137:LEU:HD23	2:B:215:VAL:CA	2.44	0.47
2:B:223:PHE:HB3	2:B:224:GLU:H	1.39	0.47
3:C:142:LEU:O	3:C:145:LEU:CG	2.62	0.47
3:C:244:THR:O	3:C:246:PHE:N	2.47	0.47
4:D:12:VAL:CG1	30:d:36:LEU:HG	2.44	0.47
4:D:23:GLU:HB3	11:K:64:TRP:HE1	1.79	0.47
4:D:40:ARG:CD	21:U:107:GLU:OE2	2.62	0.47
4:D:137:VAL:HG22	4:D:151:LYS:HG3	1.95	0.47
4:D:196:GLY:C	4:D:199:GLY:CA	2.87	0.47
4:D:212:GLU:HB3	18:R:19:LYS:CG	2.43	0.47
4:D:217:ILE:O	4:D:218:LEU:HB3	2.15	0.47
4:D:222:PRO:O	4:D:223:ILE:CD1	2.63	0.47
5:E:166:THR:C	5:E:168:LYS:HG2	2.40	0.47
5:E:195:ILE:O	5:E:196:THR:CB	2.63	0.47
5:E:200:ARG:HG2	5:E:206:ASP:OD2	2.14	0.47
6:F:91:ARG:HD2	17:Q:46:THR:CG2	2.40	0.47
6:F:98:GLU:O	6:F:102:LEU:HG	2.14	0.47
6:F:201:LYS:O	6:F:202:SER:O	2.32	0.47
6:F:204:ARG:HG3	29:c:63:ARG:HH11	1.79	0.47
7:G:70:HIS:HB2	7:G:103:ASP:CG	2.35	0.47
7:G:73:VAL:CG1	7:G:74:ARG:N	2.77	0.47
7:G:77:LEU:HD11	7:G:95:LYS:CB	2.35	0.47
8:H:23:ILE:HD13	8:H:23:ILE:C	2.40	0.47
8:H:145:ARG:NH1	8:H:155:LYS:HZ2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:148:LEU:HD23	8:H:148:LEU:C	2.39	0.47
9:I:76:THR:HG22	9:I:77:ARG:O	2.14	0.47
9:I:113:TYR:O	9:I:117:TYR:HD2	1.96	0.47
10:J:29:LEU:HB3	31:e:116:PHE:CE2	2.48	0.47
10:J:32:ILE:HD13	31:e:108:ARG:HG2	1.96	0.47
11:K:30:PRO:C	11:K:31:LYS:CG	2.54	0.47
15:O:37:PHE:CE1	15:O:110:PRO:HD3	2.50	0.47
15:O:44:VAL:HG13	15:O:93:LEU:HD22	1.96	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:17:TYR:CE1	16:P:18:ARG:HB2	2.49	0.47
16:P:127:LYS:O	16:P:127:LYS:CD	2.62	0.47
17:Q:16:LYS:CE	34:i:1643:G:O6	2.62	0.47
17:Q:32:ILE:C	17:Q:39:LEU:HG	2.40	0.47
18:R:105:MET:C	18:R:109:LEU:HD12	2.39	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
21:U:50:VAL:HG22	21:U:51:LYS:CA	2.35	0.47
21:U:108:PRO:HG2	21:U:110:VAL:HG23	1.96	0.47
22:V:64:GLU:C	22:V:66:ASP:N	2.72	0.47
24:X:134:TYR:CE1	31:e:87:ARG:HD3	2.49	0.47
25:Y:54:VAL:HG13	25:Y:76:TYR:CB	2.45	0.47
25:Y:55:ILE:CA	25:Y:75:ILE:HG12	2.44	0.47
25:Y:101:LYS:HZ2	25:Y:101:LYS:HG2	1.45	0.47
26:Z:107:VAL:HG23	26:Z:108:ILE:H	1.80	0.47
28:b:6:ASP:C	28:b:8:LEU:H	2.23	0.47
30:d:18:SER:C	30:d:19:ARG:HG2	2.40	0.47
31:e:126:LYS:HD2	31:e:126:LYS:N	2.21	0.47
32:f:103:LEU:CD2	32:f:105:TYR:CA	2.93	0.47
32:f:103:LEU:HD21	32:f:105:TYR:CB	2.38	0.47
32:f:108:VAL:HG22	32:f:114:ILE:CA	2.45	0.47
33:g:20:GLN:HG3	33:g:68:ASP:HA	0.79	0.47
33:g:174:VAL:HB	33:g:188:HIS:HB2	1.96	0.47
34:i:185:C:N4	34:i:211:U:O4	2.48	0.47
34:i:520:U:O4	34:i:545:A:C2	2.68	0.47
34:i:562:U:O5'	34:i:562:U:H6	1.98	0.47
34:i:848:G:H3'	34:i:849:C:O4'	2.15	0.47
34:i:1198:U:H3	34:i:1692:A:H61	1.62	0.47
34:i:1283:A:C8	34:i:1284:U:C6	3.03	0.47
34:i:1507:U:C4	34:i:1508:C:N4	2.83	0.47
34:i:1612:G:N1	34:i:1615:A:OP2	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:n:69:VAL:CG2	36:n:94:LYS:HD3	2.41	0.47
2:B:71:LEU:C	2:B:79:VAL:HG21	2.40	0.47
3:C:79:ILE:CD1	3:C:147:ILE:HD13	2.34	0.47
3:C:118:TYR:O	3:C:203:GLY:HA3	2.15	0.47
4:D:202:LYS:HB3	4:D:203:PRO:HD3	1.95	0.47
5:E:46:ILE:HA	5:E:50:ASN:HB2	1.97	0.47
6:F:20:PHE:HZ	6:F:50:PRO:HG3	1.80	0.47
6:F:42:LYS:CB	6:F:45:TYR:CA	2.81	0.47
6:F:138:ALA:HB3	6:F:204:ARG:HB3	1.97	0.47
7:G:51:ARG:HG2	7:G:51:ARG:HH11	1.80	0.47
8:H:144:ILE:N	23:W:52:ILE:O	2.48	0.47
8:H:169:LYS:HD2	8:H:173:PHE:CZ	2.48	0.47
10:J:139:LYS:HD2	10:J:139:LYS:HA	1.52	0.47
11:K:40:VAL:HG21	11:K:45:VAL:HG23	1.95	0.47
11:K:88:GLU:O	11:K:89:ILE:C	2.58	0.47
12:L:80:MET:HE1	12:L:121:GLN:C	2.35	0.47
15:O:43:HIS:O	15:O:43:HIS:CD2	2.68	0.47
15:O:124:MET:O	27:a:56:VAL:HG11	2.09	0.47
15:O:128:ARG:CG	27:a:62:TYR:OH	2.49	0.47
20:T:42:HIS:HE1	20:T:93:SER:HB3	1.74	0.47
24:X:58:GLU:O	24:X:58:GLU:CG	2.62	0.47
25:Y:55:ILE:HG12	25:Y:75:ILE:HD11	1.81	0.47
25:Y:84:LYS:HD2	25:Y:84:LYS:C	2.27	0.47
26:Z:94:LYS:CD	26:Z:95:GLY:N	2.73	0.47
31:e:86:VAL:HG21	34:i:606:A:N3	2.30	0.47
33:g:284:PRO:HB2	33:g:304:ASP:H	1.80	0.47
33:g:284:PRO:CB	33:g:304:ASP:N	2.78	0.47
34:i:343:C:H2'	34:i:344:U:C6	2.49	0.47
34:i:1232:G:H2'	34:i:1233:C:C6	2.49	0.47
34:i:1547:G:C8	34:i:1573:U:C4	3.03	0.47
34:i:1701:G:N3	34:i:1845:A:O4'	2.47	0.47
34:i:1822:C:O2	34:i:1843:G:N2	2.48	0.47
1:A:14:ASP:C	1:A:18:PHE:HD2	2.22	0.47
1:A:76:VAL:HG12	1:A:87:VAL:CB	2.44	0.47
1:A:124:VAL:HG21	1:A:134:LEU:CD2	2.44	0.47
2:B:83:LYS:HZ1	15:O:130:GLU:CD	2.23	0.47
2:B:93:GLY:O	2:B:94:LYS:HG2	2.15	0.47
3:C:49:THR:HG21	3:C:75:GLU:HG3	1.97	0.47
4:D:76:ARG:CZ	11:K:66:HIS:HE1	2.07	0.47
4:D:123:LEU:HD23	4:D:123:LEU:C	2.39	0.47
5:E:49:ARG:HD2	5:E:50:ASN:CG	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:61:PHE:CE1	29:c:51:ARG:CB	2.59	0.47
8:H:50:GLU:CD	8:H:58:LYS:CE	2.88	0.47
8:H:109:ARG:HB3	8:H:110:THR:H	1.14	0.47
9:I:38:ILE:HD11	9:I:81:VAL:HG23	1.97	0.47
9:I:42:ARG:HH11	34:i:1736:U:P	2.32	0.47
13:M:44:LYS:HA	13:M:45:ARG:HH21	1.80	0.47
16:P:49:LEU:C	16:P:50:ARG:CG	2.75	0.47
17:Q:16:LYS:HD2	17:Q:17:LYS:H	1.74	0.47
17:Q:42:ILE:HD12	17:Q:51:LEU:HD11	1.95	0.47
18:R:21:TYR:HB2	18:R:71:ILE:HD13	0.64	0.47
19:S:86:ARG:NH1	19:S:89:ASP:OD2	2.33	0.47
19:S:90:VAL:HG12	19:S:91:LYS:CD	2.44	0.47
20:T:16:ARG:HH11	20:T:16:ARG:HG3	1.77	0.47
20:T:31:PRO:HB2	20:T:33:TRP:NE1	2.29	0.47
20:T:84:ARG:C	20:T:86:GLY:H	2.22	0.47
22:V:3:SER:O	22:V:4:ASN:C	2.58	0.47
24:X:58:GLU:O	24:X:59:ALA:C	2.58	0.47
25:Y:47:MET:HE3	34:i:833:A:C5	2.50	0.47
31:e:103:THR:HG21	34:i:514:U:H3'	1.97	0.47
33:g:47:ARG:O	33:g:48:ASP:C	2.57	0.47
33:g:240:CYS:HG	33:g:291:TRP:HD1	1.54	0.47
34:i:365:U:H3	34:i:379:A:H61	1.63	0.47
34:i:429:A:C1'	34:i:1794:A:O2'	2.62	0.47
34:i:835:C:C2'	34:i:837:G:C4'	2.92	0.47
34:i:1665:C:H2'	34:i:1666:G:C8	2.50	0.47
35:l:39:ASN:C	35:l:41:ARG:N	2.72	0.47
3:C:185:ARG:HB3	10:J:98:LEU:O	2.14	0.47
3:C:196:LYS:C	3:C:196:LYS:CD	2.88	0.47
3:C:241:TRP:HH2	23:W:44:HIS:O	1.98	0.47
3:C:244:THR:HG22	3:C:246:PHE:CB	2.44	0.47
3:C:244:THR:HG22	3:C:246:PHE:CA	2.43	0.47
4:D:23:GLU:HG2	11:K:64:TRP:NE1	2.28	0.47
4:D:178:ARG:H	4:D:178:ARG:NE	2.13	0.47
5:E:25:SER:HB2	34:i:485:U:C1'	2.44	0.47
5:E:64:ILE:CG1	25:Y:18:LEU:HD21	2.44	0.47
5:E:125:LYS:CB	5:E:226:PHE:CE1	2.96	0.47
5:E:152:PRO:HD3	7:G:209:TYR:HE1	1.80	0.47
5:E:259:LYS:O	5:E:260:GLN:HG2	2.14	0.47
6:F:14:THR:OG1	17:Q:56:LEU:HD13	2.07	0.47
6:F:141:VAL:HG22	6:F:146:ARG:HD3	1.97	0.47
7:G:6:SER:OG	7:G:112:VAL:HG22	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:210:ALA:HA	7:G:213:LEU:CD2	2.45	0.47
8:H:190:PRO:HB2	8:H:191:GLU:HG3	1.96	0.47
9:I:114:GLU:O	9:I:118:ALA:HA	2.15	0.47
10:J:93:LYS:HE3	10:J:93:LYS:CA	2.45	0.47
10:J:114:VAL:O	10:J:120:ALA:HB3	2.15	0.47
12:L:1:MET:C	12:L:2:ALA:O	2.54	0.47
13:M:35:ILE:CG1	13:M:61:TYR:CE2	2.98	0.47
14:N:7:PRO:CD	14:N:8:GLY:N	2.78	0.47
14:N:24:THR:CB	28:b:84:HIS:NE2	2.59	0.47
17:Q:10:VAL:CG1	17:Q:11:GLN:N	2.78	0.47
17:Q:34:VAL:HG22	17:Q:39:LEU:HD21	1.93	0.47
18:R:103:LYS:HG3	18:R:107:LYS:HE3	1.97	0.47
20:T:55:THR:HG23	20:T:56:ARG:N	2.30	0.47
21:U:104:ILE:HD13	21:U:104:ILE:HG21	1.71	0.47
25:Y:43:LYS:O	25:Y:46:LYS:HG3	2.16	0.47
26:Z:99:LEU:HD21	26:Z:109:TYR:CZ	2.49	0.47
27:a:84:VAL:HG12	34:i:1861:U:C5	2.49	0.47
28:b:10:PRO:CD	28:b:10:PRO:O	2.63	0.47
29:c:66:ARG:O	29:c:68:LEU:HD23	2.15	0.47
33:g:21:ILE:HG22	33:g:22:ALA:N	2.29	0.47
2:B:24:PRO:O	2:B:28:LYS:HG3	2.15	0.46
2:B:228:LEU:CD2	2:B:232:HIS:CD2	2.98	0.46
3:C:59:LYS:HD2	3:C:254:PHE:CE1	2.48	0.46
3:C:63:LEU:CB	3:C:67:TYR:CE2	2.98	0.46
3:C:175:SER:O	3:C:213:GLY:HA3	2.14	0.46
5:E:47:PHE:CE2	5:E:52:LEU:HD12	2.42	0.46
6:F:62:ARG:O	6:F:63:LYS:C	2.58	0.46
6:F:128:ILE:O	6:F:129:GLY:C	2.55	0.46
7:G:162:LEU:HD23	7:G:172:LYS:HZ3	1.74	0.46
8:H:29:GLU:OE1	8:H:86:LYS:HE3	2.15	0.46
8:H:37:LYS:HD2	8:H:41:ARG:HD3	1.97	0.46
8:H:50:GLU:OE1	8:H:58:LYS:HE2	2.15	0.46
9:I:191:GLU:O	9:I:195:LEU:HB3	2.16	0.46
12:L:14:PRO:C	12:L:15:THR:HG23	2.40	0.46
12:L:95:TYR:C	12:L:96:ILE:HD12	2.40	0.46
13:M:113:ASP:C	13:M:115:GLY:H	2.23	0.46
14:N:56:ASP:OD1	28:b:52:THR:OG1	2.32	0.46
14:N:84:LEU:HD12	14:N:84:LEU:O	2.14	0.46
17:Q:102:GLU:CG	33:g:55:PRO:HG2	2.44	0.46
17:Q:128:GLU:HG3	34:i:1643:G:C5'	2.45	0.46
18:R:87:GLU:O	18:R:88:VAL:CG1	2.62	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:117:ILE:O	19:S:117:ILE:HG22	2.15	0.46
20:T:33:TRP:CD1	20:T:34:VAL:N	2.82	0.46
20:T:33:TRP:O	20:T:34:VAL:HB	2.14	0.46
20:T:45:LEU:HD23	20:T:48:TYR:CE1	2.49	0.46
21:U:77:TRP:CZ2	34:i:1663:U:H5'	2.50	0.46
24:X:94:ILE:CD1	24:X:122:VAL:HG11	2.37	0.46
28:b:62:VAL:O	28:b:63:LEU:CB	2.63	0.46
32:f:83:LYS:O	32:f:84:SER:O	2.32	0.46
33:g:14:HIS:CE1	33:g:41:ILE:HG12	2.50	0.46
33:g:33:SER:O	33:g:40:ILE:HG23	2.15	0.46
33:g:71:ILE:HG21	33:g:75:GLY:HA2	1.97	0.46
34:i:163:U:O2'	34:i:164:A:H5'	2.15	0.46
34:i:526:A:H2'	34:i:527:C:H5'	1.96	0.46
34:i:874:G:H1	34:i:904:A:H2	1.61	0.46
34:i:1439:C:C5	34:i:1440:U:C5	3.03	0.46
35:l:66:LYS:HD3	35:l:67:PHE:CZ	2.50	0.46
35:l:93:ILE:O	35:l:97:LEU:HB2	2.15	0.46
36:n:84:TYR:C	36:n:86:ASP:N	2.73	0.46
2:B:150:ILE:HG13	18:R:124:VAL:HG13	1.83	0.46
3:C:159:ILE:O	3:C:159:ILE:HG23	2.15	0.46
3:C:227:ASP:O	3:C:231:LYS:HG3	2.16	0.46
4:D:113:LEU:HD12	4:D:113:LEU:N	2.16	0.46
4:D:193:ASP:HB3	4:D:194:PRO:HD3	1.98	0.46
5:E:212:ASP:C	5:E:214:ASN:H	2.22	0.46
6:F:36:GLN:O	6:F:36:GLN:HG2	2.14	0.46
7:G:79:LYS:HD2	7:G:80:GLY:N	2.30	0.46
7:G:142:ARG:NH2	7:G:152:ASP:N	2.54	0.46
8:H:139:ILE:HD12	8:H:139:ILE:N	2.30	0.46
9:I:141:ARG:C	9:I:143:LYS:CB	2.86	0.46
9:I:155:ASN:C	9:I:157:LYS:N	2.56	0.46
9:I:206:LYS:CD	9:I:207:GLY:N	2.56	0.46
10:J:91:LYS:CA	10:J:96:TYR:CD2	2.99	0.46
10:J:113:GLN:OE1	10:J:116:LYS:HD3	2.15	0.46
10:J:165:TYR:CE1	34:i:551:A:H5'	2.50	0.46
10:J:180:LYS:CG	10:J:181:GLY:N	2.56	0.46
11:K:43:LEU:N	11:K:46:MET:H	2.13	0.46
14:N:16:LEU:N	28:b:26:GLN:NE2	2.62	0.46
14:N:91:LEU:HD21	34:i:921:G:H5"	1.97	0.46
16:P:10:ARG:NH2	16:P:11:THR:HG22	2.26	0.46
16:P:17:TYR:CE2	16:P:25:LEU:CD2	2.98	0.46
16:P:53:GLN:HG3	16:P:80:LEU:HD11	1.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:55:ARG:HB2	19:S:58:GLU:HG3	1.97	0.46
21:U:44:LYS:O	21:U:45:GLU:C	2.58	0.46
21:U:59:LYS:HD2	21:U:84:ILE:HG21	1.97	0.46
22:V:69:ILE:O	22:V:73:ALA:N	2.45	0.46
23:W:27:ILE:HG12	23:W:61:ILE:HB	1.96	0.46
26:Z:51:ASP:O	26:Z:52:LYS:C	2.53	0.46
31:e:119:VAL:C	31:e:121:PRO:CG	2.88	0.46
33:g:42:MET:HB2	33:g:92:LEU:CD1	2.45	0.46
33:g:189:ILE:HG22	33:g:190:GLY:N	2.30	0.46
34:i:1004:A:O2'	34:i:1005:A:H5'	2.14	0.46
34:i:1751:G:C2'	34:i:1752:G:O5'	2.64	0.46
36:n:62:ARG:CG	36:n:92:ILE:HG23	2.45	0.46
36:n:103:LEU:N	36:n:103:LEU:CD2	2.79	0.46
1:A:120:ARG:HG2	1:A:120:ARG:HH11	1.80	0.46
1:A:130:ASP:HB3	1:A:133:PRO:HG2	1.97	0.46
3:C:243:GLU:HA	22:V:16:LYS:HZ3	1.79	0.46
5:E:21:ASP:CG	5:E:24:THR:HG23	2.39	0.46
5:E:126:VAL:HG22	5:E:157:ASN:N	2.29	0.46
6:F:185:SER:HA	6:F:190:ILE:HD12	1.96	0.46
7:G:154:ARG:HH21	34:i:77:A:N6	2.13	0.46
7:G:162:LEU:HD21	7:G:170:ARG:HG3	1.97	0.46
8:H:9:VAL:O	8:H:45:ILE:O	2.33	0.46
11:K:4:PRO:HG2	11:K:7:ASN:CG	2.39	0.46
12:L:42:LEU:HB2	12:L:44:PHE:CE2	2.50	0.46
15:O:16:SER:O	15:O:17:LEU:CB	2.61	0.46
15:O:31:CYS:SG	15:O:95:ILE:HG13	2.55	0.46
15:O:82:ALA:O	15:O:86:LYS:HG2	2.15	0.46
15:O:128:ARG:HA	27:a:62:TYR:CE1	2.43	0.46
19:S:40:TYR:CE1	19:S:44:VAL:HG21	2.51	0.46
19:S:58:GLU:O	19:S:59:LEU:HB2	2.15	0.46
19:S:80:PRO:HB2	19:S:82:TRP:NE1	2.31	0.46
20:T:5:THR:HG22	20:T:8:ASP:CG	2.39	0.46
21:U:83:ARG:NH2	30:d:55:LEU:HD13	2.30	0.46
24:X:77:ASN:C	24:X:79:LYS:N	2.73	0.46
25:Y:102:THR:HB	25:Y:104:ARG:H	1.78	0.46
31:e:77:HIS:C	36:n:88:LYS:O	2.57	0.46
33:g:200:VAL:HG12	33:g:201:SER:N	2.30	0.46
33:g:257:LYS:HG3	33:g:266:ILE:HD11	1.97	0.46
34:i:841:G:C3'	34:i:842:G:C8	2.98	0.46
35:l:46:THR:HG22	35:l:84:GLN:HG3	1.94	0.46
1:A:8:LEU:HD12	1:A:192:GLU:OE1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:132:LYS:HB3	4:D:189:MET:O	2.15	0.46
4:D:197:LYS:H	4:D:198:ILE:HG13	1.81	0.46
5:E:255:ARG:HH21	34:i:840:U:C2'	2.28	0.46
6:F:55:ARG:HG3	6:F:55:ARG:O	2.15	0.46
6:F:88:MET:O	6:F:92:ILE:HG13	2.15	0.46
7:G:13:GLN:O	7:G:14:LYS:CG	2.63	0.46
7:G:62:PRO:HB2	7:G:83:CYS:SG	2.56	0.46
7:G:168:LYS:HD2	34:i:72:C:C5	2.50	0.46
8:H:153:LEU:CD2	8:H:184:ASP:HB2	2.46	0.46
9:I:42:ARG:NH1	34:i:1736:U:P	2.88	0.46
9:I:154:LYS:HD3	9:I:155:ASN:HA	1.94	0.46
10:J:169:ARG:HG2	10:J:175:ARG:NH1	2.30	0.46
13:M:33:ARG:HG3	13:M:33:ARG:NH1	2.21	0.46
13:M:77:ILE:CG2	13:M:78:LYS:H	2.06	0.46
14:N:19:ARG:HH11	28:b:84:HIS:HB2	1.76	0.46
16:P:106:GLU:O	19:S:118:ARG:NH2	2.49	0.46
17:Q:9:SER:HB2	17:Q:26:LYS:CG	2.10	0.46
17:Q:81:ILE:O	17:Q:84:ILE:HG12	2.15	0.46
17:Q:138:ARG:O	34:i:1640:C:H4'	2.16	0.46
18:R:6:THR:O	18:R:10:LYS:HG2	2.15	0.46
19:S:73:ASN:O	19:S:76:GLN:OE1	2.34	0.46
31:e:82:ARG:HG2	36:n:82:ARG:NH2	2.26	0.46
33:g:194:TYR:O	33:g:211:GLY:HA3	2.15	0.46
33:g:293:ALA:HB3	33:g:294:ASP:OD1	2.15	0.46
34:i:181:A:N7	34:i:182:C:N3	2.64	0.46
34:i:429:A:H1'	34:i:1794:A:H1'	1.96	0.46
34:i:519:A:N1	34:i:545:A:N1	2.63	0.46
34:i:1508:C:H2'	34:i:1509:G:H8	1.80	0.46
35:l:50:ILE:HG13	35:l:59:LEU:HD11	1.97	0.46
1:A:59:LEU:CD2	1:A:181:GLU:CG	2.93	0.46
1:A:81:ASN:HA	1:A:84:GLN:OE1	2.15	0.46
1:A:188:THR:O	1:A:188:THR:CG2	2.28	0.46
4:D:94:ARG:HE	4:D:94:ARG:HB3	1.40	0.46
4:D:142:LEU:O	4:D:144:GLY:N	2.48	0.46
4:D:158:ILE:O	4:D:158:ILE:HG12	2.15	0.46
5:E:213:ALA:O	5:E:214:ASN:OD1	2.33	0.46
7:G:143:LYS:HA	7:G:143:LYS:HE3	1.97	0.46
9:I:9:HIS:O	9:I:10:LYS:CB	2.62	0.46
9:I:142:SER:CB	9:I:143:LYS:CE	2.93	0.46
10:J:179:LYS:HA	10:J:182:GLN:CG	2.45	0.46
12:L:128:VAL:HG12	12:L:142:VAL:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:93:LYS:CG	14:N:150:VAL:HG11	2.46	0.46
15:O:126:ILE:HG12	27:a:56:VAL:HG12	1.98	0.46
17:Q:85:ARG:CZ	17:Q:117:ARG:CG	2.73	0.46
19:S:40:TYR:CD1	19:S:44:VAL:CG2	2.99	0.46
20:T:76:THR:C	20:T:95:GLY:N	2.64	0.46
21:U:61:LEU:HD13	30:d:34:TYR:CD2	2.51	0.46
23:W:96:SER:OG	23:W:99:PHE:CD2	2.69	0.46
24:X:5:ARG:HH21	24:X:5:ARG:HB3	1.77	0.46
25:Y:19:GLN:CB	25:Y:81:TYR:HB3	2.46	0.46
25:Y:88:LYS:HE2	25:Y:99:LYS:HG3	1.97	0.46
26:Z:52:LYS:HB3	26:Z:53:ALA:H	1.49	0.46
28:b:54:VAL:HB	28:b:63:LEU:CD2	2.45	0.46
31:e:115:ARG:O	31:e:119:VAL:HG22	2.14	0.46
32:f:89:LYS:HE2	32:f:89:LYS:HB2	1.44	0.46
33:g:172:LYS:HE2	33:g:192:THR:CA	2.45	0.46
34:i:428:G:O2'	34:i:1795:A:P	2.73	0.46
34:i:1065:U:H2'	34:i:1066:A:C8	2.51	0.46
36:n:57:ARG:NH1	36:n:86:ASP:OD1	2.48	0.46
36:n:62:ARG:NH1	36:n:92:ILE:HD11	2.19	0.46
1:A:57:LYS:NZ	22:V:70:LEU:HG	2.30	0.46
2:B:36:PRO:CA	2:B:231:LEU:CD2	2.94	0.46
3:C:242:LYS:HE2	3:C:242:LYS:HB2	1.73	0.46
4:D:38:GLU:CG	4:D:49:ILE:HB	2.45	0.46
5:E:2:ALA:O	5:E:3:ARG:CG	2.62	0.46
8:H:65:PRO:C	8:H:67:PRO:CD	2.86	0.46
10:J:87:LEU:HD11	10:J:92:MET:H	1.81	0.46
10:J:100:LEU:HD12	10:J:101:LYS:H	1.80	0.46
11:K:40:VAL:CG2	11:K:44:HIS:N	2.77	0.46
12:L:149:ALA:HB2	12:L:156:GLN:CB	2.16	0.46
13:M:35:ILE:CB	13:M:61:TYR:CE2	2.95	0.46
14:N:16:LEU:HD23	14:N:17:PRO:CD	2.44	0.46
16:P:75:VAL:HG22	16:P:93:MET:HB3	1.97	0.46
16:P:83:MET:CE	16:P:116:LEU:CD1	2.78	0.46
17:Q:41:MET:O	17:Q:43:GLU:N	2.48	0.46
17:Q:62:ARG:HA	17:Q:62:ARG:HD3	1.47	0.46
17:Q:113:ILE:CG1	17:Q:120:LEU:CD1	2.92	0.46
18:R:87:GLU:O	18:R:88:VAL:HB	2.15	0.46
19:S:82:TRP:CD1	34:i:1562:G:C5	3.04	0.46
20:T:21:PHE:HD1	20:T:22:LEU:N	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:69:PRO:HB3	30:d:41:GLN:HG3	1.98	0.46
23:W:55:ASP:HB3	28:b:25:VAL:HG13	1.97	0.46
25:Y:68:LYS:C	25:Y:69:THR:HG23	2.41	0.46
33:g:61:GLY:O	33:g:88:ARG:NH2	2.48	0.46
33:g:175:LYS:HE2	33:g:184:LEU:HB2	1.97	0.46
34:i:1081:C:N3	34:i:1855:G:O6	2.48	0.46
34:i:1401:A:H61	34:i:1437:U:H3	1.62	0.46
34:i:1749:C:C5	34:i:1750:C:C4	3.04	0.46
1:A:58:LEU:HA	1:A:161:ILE:HG12	1.98	0.46
2:B:54:GLY:C	2:B:56:LYS:H	2.22	0.46
2:B:134:LEU:HD12	2:B:219:LYS:CB	2.43	0.46
4:D:56:GLN:C	4:D:59:LEU:HG	2.32	0.46
5:E:53:LYS:HD3	5:E:53:LYS:HA	1.80	0.46
5:E:166:THR:O	5:E:168:LYS:CD	2.52	0.46
7:G:71:GLY:O	7:G:98:ARG:NE	2.48	0.46
8:H:119:SER:O	8:H:120:ARG:CZ	2.63	0.46
10:J:41:ARG:HA	10:J:44:TRP:HB2	1.98	0.46
10:J:91:LYS:C	10:J:93:LYS:N	2.71	0.46
10:J:124:HIS:HB3	10:J:125:HIS:H	1.15	0.46
13:M:51:VAL:CG1	13:M:109:VAL:CG2	2.93	0.46
13:M:67:ALA:O	32:f:114:ILE:HG21	2.16	0.46
17:Q:19:ALA:CA	17:Q:74:GLY:C	2.89	0.46
19:S:50:ILE:O	19:S:52:LEU:N	2.49	0.46
21:U:25:THR:HG22	21:U:86:LYS:CG	2.34	0.46
21:U:27:ARG:CZ	21:U:82:MET:CG	2.94	0.46
23:W:24:GLN:HG3	28:b:7:LEU:HG	1.98	0.46
24:X:60:LYS:CD	24:X:116:PRO:HG3	2.44	0.46
26:Z:99:LEU:HD13	26:Z:102:LYS:HE2	0.55	0.46
28:b:26:GLN:HG3	28:b:27:SER:HA	1.98	0.46
29:c:14:VAL:HG13	29:c:30:VAL:HG13	1.98	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:139:HIS:CB	32:f:150:PHE:O	2.63	0.46
33:g:4:GLN:NE2	33:g:268:ASP:CG	2.69	0.46
33:g:163:PRO:HB2	33:g:179:LEU:HG	1.97	0.46
34:i:126:G:N2	34:i:181:A:OP1	2.48	0.46
34:i:199:G:C5	34:i:200:U:C4	3.02	0.46
34:i:519:A:N1	34:i:545:A:C2	2.83	0.46
34:i:1186:A:H1'	34:i:1709:U:C3'	2.46	0.46
34:i:1404:U:H2'	34:i:1405:A:O4'	2.15	0.46
35:l:63:PHE:CZ	35:l:89:GLN:HG2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:7:VAL:CG2	22:V:43:THR:HG21	2.44	0.46
3:C:191:SER:OG	3:C:209:THR:HG21	2.15	0.46
3:C:244:THR:C	3:C:246:PHE:N	2.68	0.46
4:D:217:ILE:HG22	4:D:218:LEU:N	2.30	0.46
5:E:167:GLY:C	5:E:168:LYS:CG	2.88	0.46
6:F:127:ARG:O	6:F:127:ARG:HD3	2.16	0.46
7:G:16:ILE:HD13	7:G:45:TRP:CE2	2.34	0.46
8:H:16:PRO:O	8:H:20:GLU:OE1	2.34	0.46
9:I:97:VAL:O	9:I:100:CYS:HB2	2.15	0.46
10:J:170:PRO:CA	10:J:174:LYS:HZ1	2.10	0.46
11:K:30:PRO:HA	11:K:41:PRO:HB3	1.97	0.46
11:K:94:LEU:O	11:K:95:ARG:HB2	2.15	0.46
13:M:102:LYS:HG3	13:M:103:VAL:H	1.81	0.46
16:P:17:TYR:CD2	16:P:25:LEU:HD21	2.51	0.46
16:P:107:ILE:CA	16:P:111:MET:CE	2.72	0.46
17:Q:43:GLU:HA	17:Q:44:PRO:C	2.41	0.46
17:Q:45:ARG:O	17:Q:48:GLN:HB3	2.16	0.46
18:R:32:LYS:CE	18:R:33:ARG:HE	2.19	0.46
19:S:81:ASP:C	19:S:87:GLN:NE2	2.71	0.46
21:U:47:ASN:ND2	21:U:47:ASN:H	2.14	0.46
23:W:30:CYS:SG	23:W:31:SER:N	2.89	0.46
25:Y:19:GLN:CG	25:Y:81:TYR:CD1	2.71	0.46
25:Y:32:LYS:HG2	25:Y:33:ALA:C	2.40	0.46
32:f:103:LEU:HD22	32:f:105:TYR:O	2.08	0.46
32:f:117:LEU:O	32:f:118:ARG:HB2	2.16	0.46
33:g:140:TYR:HE2	33:g:182:CYS:HB3	0.65	0.46
34:i:107:A:H61	34:i:344:U:H3	1.63	0.46
2:B:228:LEU:HD22	2:B:232:HIS:CD2	2.51	0.46
3:C:121:HIS:O	3:C:122:VAL:HG13	2.16	0.46
3:C:148:VAL:CB	3:C:149:PRO:HD3	2.43	0.46
4:D:209:SER:O	18:R:40:ILE:N	2.45	0.46
6:F:163:PHE:CD2	6:F:164:ARG:HG2	2.50	0.46
6:F:174:ALA:O	6:F:178:ILE:HG13	2.16	0.46
7:G:28:TYR:C	7:G:30:LYS:N	2.74	0.46
8:H:146:VAL:HG11	23:W:50:PHE:CE2	2.50	0.46
9:I:29:LEU:CG	9:I:30:GLY:H	2.22	0.46
9:I:130:THR:N	9:I:131:PRO:CD	2.78	0.46
10:J:66:LYS:C	10:J:71:LEU:CD1	2.89	0.46
10:J:67:ASP:O	10:J:69:ARG:N	2.49	0.46
12:L:59:LYS:HD3	12:L:134:LEU:HD21	1.98	0.46
12:L:113:LEU:HD23	12:L:113:LEU:C	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:85:LEU:O	13:M:85:LEU:HD23	2.16	0.46
14:N:131:THR:O	14:N:132:LYS:HD2	2.16	0.46
16:P:17:TYR:CD2	16:P:25:LEU:CD2	2.99	0.46
16:P:65:LYS:CG	16:P:66:GLU:N	2.79	0.46
16:P:67:ALA:HB1	16:P:73:PRO:HB3	1.98	0.46
17:Q:74:GLY:HA2	34:i:1540:A:H4'	1.98	0.46
17:Q:76:GLY:C	17:Q:80:GLN:HG3	2.34	0.46
18:R:17:ILE:CG1	18:R:54:VAL:HG13	2.46	0.46
18:R:112:GLY:O	18:R:113:SER:OG	2.32	0.46
19:S:88:LYS:O	19:S:89:ASP:O	2.34	0.46
21:U:116:ILE:O	21:U:117:ALA:HB2	2.16	0.46
24:X:3:LYS:HB3	24:X:3:LYS:HE2	1.59	0.46
24:X:21:LYS:HD2	24:X:27:TYR:CG	2.51	0.46
24:X:51:VAL:CG2	24:X:70:VAL:HG11	2.46	0.46
24:X:67:ARG:NH2	24:X:114:ASP:OD2	2.49	0.46
26:Z:90:GLU:O	26:Z:93:SER:N	2.43	0.46
31:e:82:ARG:O	31:e:85:LYS:HB2	2.16	0.46
31:e:114:ARG:O	31:e:118:ASN:CB	2.64	0.46
34:i:317:G:H1'	34:i:318:U:C6	2.51	0.46
34:i:1748:G:C5	34:i:1749:C:C4	3.04	0.46
35:l:30:TYR:CD2	35:l:109:LYS:HB2	2.50	0.46
36:n:57:ARG:NH1	36:n:81:LEU:HD13	2.31	0.46
1:A:70:ASN:O	1:A:73:ASP:OD1	2.33	0.46
2:B:53:GLN:O	2:B:56:LYS:N	2.49	0.46
2:B:72:ALA:CB	2:B:79:VAL:HG23	2.46	0.46
2:B:103:MET:O	2:B:214:LYS:HA	2.15	0.46
2:B:144:LYS:HB3	2:B:208:HIS:HB3	1.97	0.46
2:B:189:ILE:HB	2:B:190:PRO:HD3	1.96	0.46
3:C:150:VAL:C	3:C:233:TYR:CE2	2.94	0.46
3:C:158:LYS:H	3:C:158:LYS:HG3	1.45	0.46
3:C:194:VAL:N	3:C:195:PRO:CD	2.79	0.46
4:D:16:ILE:HD11	30:d:36:LEU:CG	2.38	0.46
4:D:34:TYR:O	4:D:99:ILE:HD12	2.16	0.46
4:D:221:THR:CB	4:D:222:PRO:CD	2.77	0.46
5:E:25:SER:CB	34:i:485:U:C1'	2.94	0.46
7:G:121:ILE:CG2	7:G:122:PRO:HD2	2.26	0.46
9:I:129:LEU:O	9:I:134:GLU:CB	2.63	0.46
9:I:197:PHE:CD2	12:L:5:GLN:CG	2.99	0.46
10:J:87:LEU:HG	10:J:88:ASP:N	2.31	0.46
10:J:91:LYS:O	10:J:92:MET:C	2.54	0.46
12:L:1:MET:O	12:L:2:ALA:CB	2.52	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:12:LYS:HE3	12:L:12:LYS:HB3	1.80	0.46
12:L:55:TYR:CD1	12:L:55:TYR:C	2.94	0.46
12:L:126:VAL:CG2	12:L:142:VAL:HG13	2.46	0.46
13:M:78:LYS:C	13:M:79:VAL:CG2	2.67	0.46
16:P:9:LYS:O	16:P:10:ARG:NE	2.49	0.46
17:Q:9:SER:OG	17:Q:26:LYS:HE3	2.13	0.46
17:Q:112:LEU:HD12	17:Q:120:LEU:HD21	1.94	0.46
19:S:7:GLU:C	19:S:8:LYS:CD	2.89	0.46
24:X:102:VAL:HG13	24:X:120:PHE:HB3	1.91	0.46
24:X:125:VAL:O	24:X:128:VAL:CB	2.64	0.46
28:b:31:TYR:CZ	28:b:81:ARG:NH1	2.84	0.46
33:g:118:ARG:NE	33:g:118:ARG:CA	2.77	0.46
33:g:164:ILE:CG2	33:g:176:VAL:HG13	2.46	0.46
33:g:172:LYS:O	33:g:172:LYS:HD3	2.16	0.46
33:g:175:LYS:CE	33:g:184:LEU:HB2	2.46	0.46
34:i:1562:G:C6	34:i:1563:C:C4	3.03	0.46
34:i:1701:G:N9	34:i:1845:A:H4'	2.30	0.46
1:A:36:GLN:NE2	1:A:53:ARG:HH12	2.14	0.45
2:B:71:LEU:CB	2:B:84:PHE:CE2	2.99	0.45
7:G:64:LYS:HD2	7:G:65:GLN:C	2.40	0.45
7:G:68:LEU:HD22	7:G:68:LEU:N	2.30	0.45
8:H:11:PRO:CG	8:H:12:ASN:H	2.26	0.45
8:H:118:ARG:O	8:H:121:THR:HG22	2.15	0.45
9:I:74:ARG:HD2	9:I:74:ARG:HA	1.48	0.45
10:J:144:ILE:C	10:J:146:SER:N	2.72	0.45
11:K:2:LEU:HA	11:K:2:LEU:HD22	1.20	0.45
12:L:18:GLN:NE2	12:L:20:LYS:HD2	2.27	0.45
12:L:76:VAL:HG23	12:L:76:VAL:O	2.16	0.45
12:L:96:ILE:HD12	12:L:96:ILE:N	2.30	0.45
12:L:149:ALA:HA	12:L:156:GLN:HE21	1.76	0.45
13:M:13:ASP:CB	13:M:16:THR:OG1	2.64	0.45
13:M:127:TYR:CD1	13:M:127:TYR:C	2.93	0.45
14:N:94:LYS:HE3	14:N:118:ILE:CD1	2.46	0.45
16:P:94:VAL:HG12	16:P:96:VAL:HG23	1.97	0.45
16:P:127:LYS:CE	16:P:128:HIS:CA	2.95	0.45
22:V:55:ILE:CD1	22:V:65:SER:O	2.64	0.45
24:X:89:GLY:HA2	31:e:83:VAL:HG12	1.97	0.45
26:Z:62:VAL:HA	26:Z:65:TYR:CD2	2.52	0.45
27:a:103:PRO:HB3	27:a:107:ALA:HB1	1.97	0.45
29:c:15:THR:HG23	29:c:33:GLU:H	1.82	0.45
30:d:5:GLN:HA	30:d:7:TYR:CZ	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:f:103:LEU:CD2	32:f:106:TYR:CD2	2.95	0.45
34:i:126:G:N2	34:i:180:G:O3'	2.49	0.45
34:i:141:A:N6	34:i:177:G:H21	2.10	0.45
34:i:1140:A:C2	34:i:1195:A:H4'	2.51	0.45
34:i:1411:C:C3'	34:i:1412:C:H5'	2.46	0.45
34:i:1701:G:H1'	34:i:1844:A:O3'	2.16	0.45
36:n:60:HIS:H	36:n:90:ASP:HA	1.81	0.45
36:n:77:ILE:HG22	36:n:78:LEU:N	2.30	0.45
1:A:123:VAL:CG1	1:A:175:TRP:CH2	3.00	0.45
5:E:98:ASN:HD21	5:E:114:ILE:HD11	1.81	0.45
6:F:15:PRO:CD	17:Q:56:LEU:HB3	2.41	0.45
6:F:42:LYS:CD	6:F:42:LYS:O	2.48	0.45
6:F:47:LYS:HD3	6:F:47:LYS:N	2.29	0.45
7:G:218:LYS:H	7:G:218:LYS:HG3	1.52	0.45
7:G:224:ARG:H	7:G:224:ARG:HG2	1.59	0.45
8:H:10:LYS:NZ	8:H:16:PRO:C	2.74	0.45
8:H:154:ILE:CG2	8:H:185:VAL:HG23	2.45	0.45
8:H:154:ILE:HG22	8:H:185:VAL:HG22	1.99	0.45
8:H:163:GLN:O	8:H:165:ASN:N	2.49	0.45
9:I:36:THR:HG23	9:I:96:LEU:HB2	1.98	0.45
10:J:90:GLY:O	10:J:96:TYR:HD2	1.76	0.45
10:J:110:LEU:HD23	10:J:110:LEU:HA	1.83	0.45
10:J:179:LYS:HA	10:J:182:GLN:HB2	1.99	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:71:ARG:CG	12:L:73:LEU:CG	2.94	0.45
12:L:147:LYS:NZ	12:L:156:GLN:HE22	2.15	0.45
15:O:105:THR:O	15:O:106:LYS:CB	2.64	0.45
18:R:88:VAL:O	18:R:88:VAL:HG12	2.15	0.45
19:S:42:HIS:CB	20:T:45:LEU:CD1	2.88	0.45
21:U:46:LYS:HZ1	21:U:97:ILE:CG1	2.24	0.45
22:V:38:GLU:OE1	22:V:49:GLN:HB3	2.15	0.45
23:W:7:LEU:HD21	23:W:33:VAL:HG12	1.99	0.45
23:W:104:LEU:CD1	23:W:106:THR:HG22	2.43	0.45
25:Y:93:ARG:NH1	25:Y:93:ARG:CG	2.53	0.45
28:b:81:ARG:HB3	28:b:82:LYS:CA	2.42	0.45
31:e:80:LEU:C	31:e:82:ARG:N	2.73	0.45
33:g:32:LEU:CD1	33:g:40:ILE:CG2	2.95	0.45
33:g:64:HIS:ND1	33:g:65:PHE:CD2	2.84	0.45
36:n:80:GLY:N	36:n:90:ASP:O	2.45	0.45
1:A:118:GLU:CD	3:C:50:LYS:CE	2.86	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:205:ARG:O	1:A:206:ASP:CB	2.61	0.45
2:B:71:LEU:HA	2:B:74:LEU:HB2	1.97	0.45
3:C:69:PHE:CE1	3:C:247:THR:CG2	2.99	0.45
4:D:222:PRO:O	4:D:223:ILE:CB	2.65	0.45
4:D:225:GLU:HG3	4:D:227:LYS:HE2	1.98	0.45
5:E:152:PRO:HD3	7:G:209:TYR:CE1	2.51	0.45
6:F:32:ASP:OD2	6:F:35:LEU:HD12	2.16	0.45
7:G:13:GLN:HA	7:G:124:LEU:HD11	1.99	0.45
7:G:198:ARG:HH21	7:G:201:LYS:HG3	1.82	0.45
8:H:14:GLU:CG	8:H:15:LYS:O	2.64	0.45
8:H:103:LYS:CD	34:i:678:U:H2'	2.46	0.45
8:H:168:HIS:CE1	8:H:169:LYS:HE2	2.51	0.45
9:I:3:ILE:CD1	34:i:1792:C:H4'	2.47	0.45
11:K:53:LYS:CA	11:K:58:VAL:CG1	2.94	0.45
13:M:34:GLY:HA3	34:i:1282:G:O6	2.15	0.45
14:N:38:TYR:CE1	14:N:78:LYS:HG3	2.50	0.45
15:O:98:ARG:HD2	15:O:132:VAL:HG23	1.97	0.45
15:O:147:ARG:HG2	15:O:147:ARG:O	2.17	0.45
16:P:56:LEU:CD2	16:P:78:THR:HG22	2.44	0.45
16:P:86:LEU:CD2	16:P:86:LEU:N	2.72	0.45
17:Q:49:TYR:C	17:Q:53:GLU:HG3	2.40	0.45
17:Q:50:LYS:NZ	17:Q:117:ARG:HH11	2.14	0.45
19:S:15:VAL:CG1	19:S:68:ILE:CD1	2.91	0.45
19:S:141:ARG:HD3	34:i:1518:C:H5	1.82	0.45
22:V:19:ALA:CB	22:V:59:ILE:CD1	2.76	0.45
23:W:55:ASP:CA	28:b:25:VAL:HG13	2.46	0.45
23:W:111:MET:HE1	23:W:121:THR:OG1	2.17	0.45
24:X:126:ALA:CB	24:X:128:VAL:CG1	2.88	0.45
27:a:10:ARG:HH22	34:i:1861:U:P	2.40	0.45
30:d:33:LYS:HG3	34:i:1653:G:H5"	1.98	0.45
30:d:34:TYR:HB2	30:d:36:LEU:HD13	1.99	0.45
33:g:150:TRP:HB2	33:g:170:TRP:HD1	1.73	0.45
33:g:175:LYS:HE2	33:g:184:LEU:CB	2.46	0.45
33:g:298:LEU:HD11	33:g:310:TRP:CD2	2.44	0.45
34:i:569:C:H2'	34:i:570:U:O4'	2.16	0.45
34:i:1822:C:H4'	35:l:69:CYS:CB	2.47	0.45
35:l:67:PHE:HZ	35:l:96:PHE:CD1	2.34	0.45
36:n:96:ASN:HB2	36:n:99:GLU:CD	2.41	0.45
1:A:66:VAL:HA	1:A:186:ARG:HD2	1.98	0.45
1:A:127:PRO:CG	1:A:153:PRO:HD2	2.30	0.45
1:A:161:ILE:HG22	1:A:174:MET:HE2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:65:GLU:O	3:C:69:PHE:HD2	1.99	0.45
3:C:145:LEU:HG	3:C:146:SER:N	2.31	0.45
3:C:241:TRP:CG	23:W:68:ARG:NH1	2.73	0.45
4:D:166:TYR:CE1	4:D:200:PRO:HB2	2.41	0.45
6:F:123:GLU:HB3	29:c:59:LEU:CD1	2.46	0.45
7:G:27:PHE:HE2	7:G:41:LEU:CD1	2.12	0.45
7:G:221:LYS:O	7:G:221:LYS:HG2	2.17	0.45
10:J:86:VAL:HG11	10:J:105:PHE:CE1	2.51	0.45
10:J:114:VAL:C	10:J:120:ALA:HB3	2.41	0.45
10:J:124:HIS:O	10:J:127:ARG:N	2.49	0.45
11:K:62:PHE:CZ	11:K:65:ARG:HA	2.52	0.45
13:M:102:LYS:HG3	13:M:103:VAL:N	2.31	0.45
14:N:36:GLN:HG3	14:N:54:LEU:HD21	1.99	0.45
14:N:50:ILE:HG23	14:N:54:LEU:HD11	1.98	0.45
15:O:17:LEU:CD2	15:O:18:GLY:H	2.27	0.45
15:O:119:LEU:HD11	15:O:126:ILE:HD11	1.97	0.45
19:S:124:ARG:CD	19:S:130:ARG:O	2.43	0.45
20:T:12:GLN:O	20:T:16:ARG:HB2	2.17	0.45
21:U:104:ILE:C	21:U:105:SER:HG	2.25	0.45
23:W:49:GLU:CD	23:W:64:ASN:HD22	2.24	0.45
24:X:1:MET:SD	24:X:1:MET:N	2.80	0.45
24:X:28:LYS:HE2	24:X:32:LEU:CD1	2.47	0.45
24:X:105:PHE:CB	24:X:112:VAL:HG21	2.46	0.45
31:e:114:ARG:C	31:e:114:ARG:CD	2.90	0.45
34:i:96:C:H2'	34:i:97:U:C6	2.50	0.45
34:i:1081:C:C2	34:i:1083:A:O4'	2.69	0.45
34:i:1359:C:O5'	34:i:1359:C:H6	1.99	0.45
34:i:1843:G:N3	35:l:68:ALA:CA	2.80	0.45
35:l:30:TYR:CD2	35:l:109:LYS:HG2	2.50	0.45
1:A:28:THR:CG2	1:A:46:ILE:HD13	2.45	0.45
3:C:260:LYS:HD2	3:C:261:THR:H	1.67	0.45
4:D:223:ILE:HD12	4:D:223:ILE:N	2.31	0.45
5:E:153:LEU:HD21	7:G:216:ARG:NH1	2.32	0.45
6:F:38:TYR:N	6:F:38:TYR:HD2	2.15	0.45
6:F:122:ARG:HH21	6:F:193:LYS:NZ	2.11	0.45
7:G:161:PRO:HA	7:G:170:ARG:O	2.17	0.45
8:H:84:GLU:O	8:H:88:SER:HA	2.16	0.45
8:H:117:PRO:O	8:H:119:SER:C	2.59	0.45
9:I:67:TRP:CD2	9:I:70:GLU:HG2	2.52	0.45
10:J:148:ILE:HG22	10:J:148:ILE:O	2.17	0.45
15:O:72:TYR:CE1	15:O:76:LEU:CD1	2.98	0.45

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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	0.45
16:P:97:TYR:CD1	16:P:102:PHE:CE2	3.04	0.45
17:Q:51:LEU:O	17:Q:54:PRO:HD2	2.16	0.45
18:R:5:ARG:C	18:R:10:LYS:HZ1	2.25	0.45
19:S:23:ARG:HD3	26:Z:48:VAL:CG2	2.46	0.45
19:S:24:ARG:C	19:S:55:ARG:HD2	2.42	0.45
20:T:77:LYS:HD2	20:T:94:ARG:HH11	1.78	0.45
22:V:40:ASP:O	22:V:40:ASP:OD1	2.34	0.45
25:Y:13:MET:HE3	25:Y:13:MET:C	2.30	0.45
25:Y:44:LEU:O	25:Y:45:ALA:C	2.60	0.45
26:Z:94:LYS:NZ	26:Z:95:GLY:N	2.56	0.45
29:c:44:ARG:NE	29:c:58:LEU:HD22	2.31	0.45
32:f:108:VAL:HG21	32:f:114:ILE:CG2	2.29	0.45
32:f:147:THR:CG2	32:f:147:THR:O	2.65	0.45
34:i:792:G:C3'	34:i:793:C:H5'	2.47	0.45
34:i:1186:A:H1'	34:i:1709:U:O3'	2.16	0.45
34:i:1819:A:H2'	36:n:44:ASN:CA	2.45	0.45
34:i:1845:A:H3'	34:i:1846:C:C5'	2.47	0.45
35:l:51:ALA:HB3	35:l:54:TYR:CZ	2.51	0.45
1:A:9:GLN:CB	1:A:10:MET:SD	2.90	0.45
1:A:57:LYS:HD3	1:A:159:ILE:HD11	1.98	0.45
1:A:186:ARG:HG3	22:V:46:PHE:CZ	2.49	0.45
2:B:90:ASP:OD2	2:B:91:VAL:N	2.48	0.45
2:B:131:ASP:OD1	2:B:180:ASP:HA	2.15	0.45
2:B:210:VAL:C	2:B:211:PHE:CG	2.93	0.45
2:B:228:LEU:HD21	2:B:232:HIS:NE2	2.31	0.45
4:D:112:GLY:N	4:D:113:LEU:HD11	2.28	0.45
4:D:192:TRP:O	4:D:193:ASP:C	2.51	0.45
5:E:117:GLU:C	5:E:119:ALA:N	2.73	0.45
5:E:123:LEU:HD12	5:E:123:LEU:HA	1.77	0.45
6:F:112:LEU:O	6:F:116:ILE:HG12	2.16	0.45
6:F:175:ASP:OD1	6:F:175:ASP:O	2.35	0.45
7:G:168:LYS:HD2	34:i:72:C:C4	2.51	0.45
8:H:106:ARG:NE	34:i:857:A:N3	2.65	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
11:K:4:PRO:CG	11:K:7:ASN:HB2	2.26	0.45
12:L:60:CYS:HB3	12:L:63:THR:OG1	2.16	0.45
13:M:67:ALA:CB	32:f:114:ILE:CG2	2.81	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	2.58	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:147:ARG:HH21	15:O:150:ARG:NH2	2.15	0.45
19:S:48:ALA:HB2	19:S:70:ILE:HD12	1.98	0.45
20:T:38:LYS:HE2	20:T:45:LEU:HA	1.98	0.45
20:T:65:TYR:CD2	20:T:123:LEU:HD12	2.51	0.45
23:W:20:ARG:HH12	34:i:1135:C:C1'	2.22	0.45
23:W:36:ARG:C	23:W:39:THR:HG1	2.17	0.45
24:X:67:ARG:HA	24:X:67:ARG:NE	2.30	0.45
25:Y:50:THR:O	25:Y:51:THR:CB	2.63	0.45
26:Z:51:ASP:HB2	26:Z:54:THR:HG23	1.98	0.45
31:e:95:LYS:O	31:e:96:GLN:N	2.37	0.45
33:g:113:PHE:CE1	33:g:120:ILE:HG12	2.52	0.45
33:g:297:THR:HG22	33:g:298:LEU:N	2.30	0.45
34:i:484:C:N4	34:i:499:G:H21	2.14	0.45
34:i:842:G:C8	34:i:842:G:O5'	2.70	0.45
34:i:1141:A:C5	34:i:1142:C:H1'	2.51	0.45
34:i:1206:G:H2'	34:i:1207:G:C5'	2.46	0.45
34:i:1493:G:H4'	34:i:1494:A:H5'	1.98	0.45
34:i:1823:G:H4'	35:l:70:ASN:HD22	1.81	0.45
34:i:1843:G:N3	35:l:68:ALA:CB	2.79	0.45
35:l:47:VAL:CG2	35:l:85:LEU:HD11	2.45	0.45
35:l:70:ASN:O	35:l:86:GLN:N	2.49	0.45
1:A:149:ASN:H	1:A:165:ASN:ND2	2.14	0.45
1:A:204:TYR:C	1:A:204:TYR:CD2	2.95	0.45
2:B:19:LYS:HB2	2:B:19:LYS:HZ2	1.70	0.45
2:B:189:ILE:HB	2:B:190:PRO:CD	2.47	0.45
3:C:150:VAL:O	3:C:150:VAL:HG23	2.15	0.45
3:C:189:ILE:HG21	3:C:196:LYS:HA	1.99	0.45
4:D:108:LYS:HA	4:D:113:LEU:HD21	1.98	0.45
4:D:110:LEU:HD23	4:D:110:LEU:C	2.41	0.45
5:E:57:THR:OG1	5:E:60:GLU:N	2.41	0.45
7:G:173:ALA:HB3	34:i:77:A:H4'	1.99	0.45
7:G:176:ILE:HG21	7:G:179:LEU:HB2	1.94	0.45
8:H:8:ILE:O	8:H:11:PRO:HD3	2.16	0.45
8:H:33:ASN:HB3	8:H:34:SER:H	1.44	0.45
8:H:40:LEU:HD23	8:H:43:LEU:HG	1.96	0.45
8:H:172:THR:HG23	8:H:173:PHE:N	2.32	0.45
8:H:188:GLU:HG2	8:H:189:PHE:N	2.30	0.45
9:I:37:LYS:NZ	9:I:93:THR:HB	2.32	0.45
9:I:73:THR:O	9:I:74:ARG:CD	2.65	0.45
10:J:177:ASN:HA	10:J:180:LYS:CB	2.44	0.45
14:N:17:PRO:HG3	28:b:28:PRO:HG3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:72:LYS:H	18:R:72:LYS:HG2	1.58	0.45
18:R:121:GLN:NE2	18:R:121:GLN:CA	2.76	0.45
19:S:15:VAL:HG11	19:S:68:ILE:HG12	1.99	0.45
19:S:85:ASN:HD21	19:S:98:VAL:CB	2.29	0.45
19:S:129:LEU:HD22	34:i:1516:C:C5'	2.36	0.45
20:T:31:PRO:HG3	20:T:102:ARG:HG3	1.91	0.45
28:b:56:CYS:SG	28:b:57:VAL:N	2.89	0.45
30:d:27:ARG:NH2	34:i:1259:U:H4'	2.31	0.45
30:d:44:ARG:HG2	30:d:44:ARG:NH1	2.31	0.45
33:g:18:VAL:O	33:g:287:THR:HG23	2.17	0.45
33:g:143:GLN:OE1	33:g:144:ASP:CA	2.56	0.45
35:l:45:THR:O	35:l:85:LEU:CD1	2.64	0.45
36:n:110:PRO:O	36:n:112:HIS:N	2.50	0.45
3:C:110:LYS:HA	3:C:128:CYS:HA	1.99	0.45
4:D:59:LEU:CD1	4:D:60:GLY:C	2.87	0.45
4:D:59:LEU:HD13	4:D:60:GLY:O	2.17	0.45
4:D:86:LEU:HD12	4:D:86:LEU:N	2.32	0.45
4:D:132:LYS:HD3	4:D:191:PRO:CG	2.46	0.45
4:D:226:GLN:C	4:D:227:LYS:HG3	2.38	0.45
5:E:149:TYR:CD2	7:G:205:GLU:HB3	2.51	0.45
7:G:2:LYS:HG3	7:G:17:GLU:HG2	1.99	0.45
7:G:147:LEU:O	7:G:151:ASP:CG	2.60	0.45
7:G:213:LEU:HD12	7:G:214:ALA:CA	2.47	0.45
7:G:213:LEU:CD1	7:G:214:ALA:N	2.73	0.45
10:J:101:LYS:N	10:J:101:LYS:HD2	2.31	0.45
14:N:26:LEU:HA	14:N:27:LYS:HE3	1.99	0.45
14:N:132:LYS:HE3	14:N:132:LYS:C	2.36	0.45
14:N:134:VAL:HG22	14:N:135:LEU:N	2.31	0.45
16:P:37:TYR:HA	19:S:88:LYS:HD2	1.98	0.45
20:T:9:VAL:HG12	20:T:10:ASN:N	2.32	0.45
22:V:58:ALA:HA	22:V:61:ARG:CD	2.47	0.45
23:W:15:ASN:ND2	23:W:19:LYS:CE	2.77	0.45
23:W:22:LYS:HZ1	28:b:1:MET:HE2	1.82	0.45
23:W:25:VAL:O	23:W:62:VAL:HA	2.16	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
25:Y:108:LYS:O	25:Y:111:LYS:CG	2.61	0.45
27:a:75:VAL:HG12	27:a:79:ILE:HD12	1.99	0.45
30:d:12:ARG:HD3	30:d:12:ARG:HA	1.75	0.45
31:e:97:GLU:O	31:e:98:LYS:HB2	2.16	0.45
33:g:156:PHE:CD2	33:g:156:PHE:O	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:194:TYR:CE1	33:g:196:ASN:ND2	2.84	0.45
33:g:270:LEU:HD13	33:g:310:TRP:CD2	2.51	0.45
34:i:215:U:O2'	34:i:296:U:N3	2.49	0.45
34:i:1615:A:H1'	34:i:1619:U:OP2	2.17	0.45
34:i:1748:G:O6	34:i:1772:C:N3	2.50	0.45
1:A:42:LYS:HD3	18:R:105:MET:HG2	1.98	0.45
2:B:29:ASP:OD1	2:B:29:ASP:O	2.34	0.45
2:B:89:GLU:O	2:B:90:ASP:HB2	2.17	0.45
3:C:83:LEU:C	3:C:85:ALA:N	2.74	0.45
3:C:120:GLY:C	3:C:150:VAL:HG22	2.42	0.45
4:D:40:ARG:NE	21:U:107:GLU:OE2	2.49	0.45
4:D:53:THR:CG2	4:D:91:VAL:CG2	2.95	0.45
6:F:69:VAL:O	6:F:73:THR:HG23	2.16	0.45
6:F:185:SER:OG	6:F:190:ILE:HD12	2.17	0.45
9:I:141:ARG:O	9:I:143:LYS:NZ	2.49	0.45
13:M:35:ILE:HG22	34:i:1282:G:N7	2.32	0.45
15:O:20:GLN:HE21	15:O:22:ALA:HB2	1.82	0.45
15:O:64:ALA:CB	15:O:66:ARG:HE	2.28	0.45
19:S:92:ASP:C	19:S:94:LYS:H	2.23	0.45
20:T:97:LYS:HZ3	34:i:1564:A:P	2.40	0.45
21:U:47:ASN:C	21:U:48:LEU:HD23	2.34	0.45
22:V:11:LEU:HD11	22:V:12:TYR:HE2	1.62	0.45
22:V:45:ARG:HA	22:V:45:ARG:HD2	1.66	0.45
22:V:56:CYS:SG	22:V:59:ILE:CG1	3.04	0.45
24:X:41:PHE:CE1	24:X:47:ALA:HB3	2.51	0.45
25:Y:55:ILE:CG1	25:Y:75:ILE:HD13	2.41	0.45
25:Y:56:PHE:C	25:Y:58:PHE:CE2	2.95	0.45
31:e:107:LYS:HG3	31:e:110:MET:HE2	1.99	0.45
33:g:249:CYS:SG	33:g:256:ILE:CG2	3.05	0.45
33:g:282:GLU:OE2	33:g:284:PRO:CD	2.61	0.45
34:i:1045:A:C2	34:i:1066:A:C4	3.05	0.45
34:i:1054:A:C1'	35:l:38:ARG:NH1	2.80	0.45
34:i:1199:G:H2'	34:i:1200:A:C8	2.52	0.45
34:i:1409:G:H2'	34:i:1410:A:O4'	2.17	0.45
34:i:1491:G:O2'	34:i:1492:U:H5'	2.17	0.45
1:A:75:SER:HB2	1:A:122:LEU:CD2	2.46	0.45
1:A:110:ASN:H	3:C:74:LYS:HZ2	1.64	0.45
1:A:147:LEU:HD23	1:A:147:LEU:HA	1.64	0.45
2:B:144:LYS:HG2	2:B:206:PRO:HB3	1.99	0.45
2:B:151:ARG:HG3	2:B:153:THR:H	1.82	0.45
6:F:110:GLN:HE21	6:F:110:GLN:CA	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:65:GLN:C	7:G:100:CYS:SG	2.99	0.45
7:G:85:ARG:NH1	25:Y:118:ARG:HH21	2.15	0.45
8:H:154:ILE:CG2	8:H:185:VAL:HG22	2.47	0.45
8:H:154:ILE:O	8:H:154:ILE:HG22	2.17	0.45
9:I:118:ALA:CB	9:I:149:TYR:CD1	3.00	0.45
10:J:136:ARG:HH12	10:J:161:LEU:HD12	1.81	0.45
10:J:165:TYR:CZ	34:i:551:A:H5'	2.51	0.45
11:K:60:GLU:CG	11:K:69:TRP:NE1	2.79	0.45
11:K:80:ARG:HA	11:K:85:LEU:HD11	1.98	0.45
15:O:52:THR:HG21	34:i:949:C:O4'	2.15	0.45
16:P:37:TYR:CA	19:S:88:LYS:CD	2.95	0.45
17:Q:8:GLN:CA	17:Q:99:TYR:CZ	3.00	0.45
19:S:81:ASP:HA	19:S:84:LEU:CD1	2.47	0.45
20:T:21:PHE:CD1	20:T:22:LEU:N	2.85	0.45
21:U:33:GLU:CD	21:U:55:ARG:HH21	2.24	0.45
22:V:55:ILE:HG21	22:V:60:ARG:CG	2.46	0.45
25:Y:44:LEU:HD12	25:Y:48:TYR:CD2	2.50	0.45
29:c:10:LYS:CD	29:c:61:SER:HB3	2.36	0.45
31:e:95:LYS:HA	31:e:95:LYS:HD2	1.46	0.45
33:g:143:GLN:O	33:g:144:ASP:HB3	2.16	0.45
33:g:176:VAL:CG2	33:g:186:THR:CG2	2.95	0.45
33:g:238:ALA:CB	33:g:289:LEU:CD2	2.94	0.45
34:i:328:G:O6	34:i:329:A:C6	2.70	0.45
34:i:748:G:N2	34:i:749:C:H41	2.14	0.45
34:i:1236:A:C2	34:i:1264:C:C5'	3.00	0.45
34:i:1413:C:C3'	34:i:1413:C:C6	3.00	0.45
35:l:50:ILE:CG1	35:l:102:LEU:HD21	2.40	0.45
36:n:65:LEU:CD2	36:n:93:LEU:HA	2.43	0.45
36:n:84:TYR:O	36:n:86:ASP:N	2.50	0.45
1:A:3:GLY:HA3	22:V:78:ILE:CG1	2.42	0.44
1:A:18:PHE:CZ	1:A:55:TRP:HZ3	2.35	0.44
1:A:204:TYR:HD2	1:A:204:TYR:O	1.99	0.44
2:B:99:ASN:ND2	2:B:228:LEU:HD23	2.32	0.44
2:B:144:LYS:CG	2:B:206:PRO:HB3	2.47	0.44
5:E:128:LYS:CG	5:E:130:PHE:HD1	2.28	0.44
6:F:28:VAL:HG22	6:F:110:GLN:CG	2.38	0.44
7:G:5:ILE:CD1	7:G:16:ILE:HD12	2.36	0.44
7:G:168:LYS:HE3	34:i:71:G:C8	2.52	0.44
7:G:191:ARG:HG2	7:G:191:ARG:H	1.56	0.44
8:H:117:PRO:HG2	8:H:120:ARG:HE	1.82	0.44
10:J:131:ARG:HA	10:J:143:ASN:OD1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:170:PRO:C	10:J:174:LYS:HZ3	2.25	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
12:L:113:LEU:HD11	12:L:120:VAL:CG1	2.47	0.44
13:M:12:MET:HG2	13:M:16:THR:HG22	1.98	0.44
13:M:77:ILE:O	13:M:78:LYS:HB2	2.17	0.44
14:N:125:LEU:CD2	14:N:129:TYR:CE2	3.00	0.44
14:N:137:PRO:O	14:N:138:ASN:CB	2.65	0.44
15:O:98:ARG:NH1	15:O:98:ARG:HG2	2.32	0.44
15:O:147:ARG:HH22	34:i:1848:U:P	2.40	0.44
16:P:15:PHE:CE1	19:S:91:LYS:HD3	2.49	0.44
17:Q:124:PRO:CD	17:Q:125:ARG:N	2.81	0.44
20:T:31:PRO:O	20:T:33:TRP:CG	2.70	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
24:X:124:LYS:HB3	24:X:124:LYS:HE2	1.65	0.44
25:Y:86:GLU:O	25:Y:87:PRO:O	2.35	0.44
25:Y:87:PRO:HB2	25:Y:89:HIS:ND1	2.30	0.44
27:a:95:ARG:H	27:a:95:ARG:HG2	1.41	0.44
31:e:75:LYS:O	31:e:76:VAL:CG2	2.51	0.44
31:e:107:LYS:O	31:e:111:GLN:HG3	2.17	0.44
33:g:32:LEU:CD2	33:g:69:VAL:CG2	2.95	0.44
34:i:551:A:C6	34:i:552:U:O4	2.70	0.44
34:i:1546:U:C5	34:i:1572:G:C6	3.06	0.44
2:B:31:TYR:CD2	2:B:62:LEU:HD22	2.52	0.44
2:B:77:ASP:O	2:B:79:VAL:CG1	2.51	0.44
3:C:180:LEU:O	3:C:181:ILE:HD13	2.18	0.44
4:D:138:VAL:O	4:D:149:SER:HA	2.16	0.44
4:D:217:ILE:HG22	4:D:218:LEU:HB3	1.98	0.44
5:E:59:ASP:OD1	5:E:63:LYS:HE3	2.18	0.44
5:E:89:VAL:O	5:E:90:ILE:HB	2.16	0.44
5:E:151:ASP:O	5:E:153:LEU:N	2.50	0.44
6:F:141:VAL:HG21	29:c:47:LYS:NZ	2.31	0.44
7:G:32:MET:HE2	7:G:63:MET:HB3	1.99	0.44
7:G:145:PHE:O	7:G:147:LEU:HD12	2.17	0.44
8:H:37:LYS:HZ3	8:H:41:ARG:CG	2.30	0.44
8:H:117:PRO:O	8:H:119:SER:N	2.50	0.44
8:H:158:LEU:CG	8:H:187:PHE:CD1	3.00	0.44
9:I:55:TYR:OH	34:i:296:U:H1'	2.16	0.44
10:J:160:SER:O	10:J:162:ARG:N	2.49	0.44
11:K:1:MET:HE2	11:K:2:LEU:HB3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:89:ILE:CG2	11:K:90:VAL:H	2.30	0.44
13:M:35:ILE:CG2	13:M:36:ARG:N	2.80	0.44
13:M:69:CYS:O	13:M:74:ILE:HD12	2.16	0.44
15:O:30:VAL:HG23	15:O:45:THR:OG1	2.15	0.44
15:O:147:ARG:HH21	15:O:150:ARG:HH21	1.64	0.44
16:P:128:HIS:HB3	34:i:1517:A:C4	2.52	0.44
17:Q:58:LEU:CD2	17:Q:111:ILE:HB	2.48	0.44
19:S:10:GLN:NE2	19:S:57:GLY:O	2.44	0.44
19:S:61:GLU:O	19:S:64:VAL:HG23	2.10	0.44
20:T:24:LYS:HA	20:T:24:LYS:HD2	1.71	0.44
20:T:40:ALA:C	20:T:43:LYS:HG2	2.41	0.44
24:X:52:LEU:CD1	24:X:71:ARG:CB	2.95	0.44
24:X:95:GLU:HG3	24:X:140:ARG:NH2	2.20	0.44
26:Z:48:VAL:HG22	26:Z:80:ARG:HB2	1.99	0.44
26:Z:77:LEU:O	26:Z:78:LYS:HD3	2.16	0.44
28:b:19:HIS:CE1	28:b:20:LYS:HG2	2.53	0.44
33:g:83:TRP:O	33:g:84:ASP:C	2.59	0.44
33:g:225:LYS:HA	33:g:225:LYS:HD2	1.44	0.44
34:i:207:U:C2'	34:i:208:G:O5'	2.66	0.44
34:i:1546:U:H2'	34:i:1547:G:C8	2.52	0.44
36:n:42:LEU:HD11	36:n:58:LEU:CD1	2.23	0.44
1:A:16:LEU:CD2	18:R:111:PHE:HZ	2.12	0.44
1:A:103:PHE:O	1:A:104:THR:HB	2.17	0.44
1:A:158:ASP:O	1:A:159:ILE:CB	2.65	0.44
3:C:89:ASP:HB3	3:C:115:ILE:HG13	1.99	0.44
4:D:188:ILE:HG22	4:D:190:LEU:CD2	2.41	0.44
5:E:98:ASN:HD22	5:E:114:ILE:HG13	1.79	0.44
5:E:128:LYS:CD	5:E:130:PHE:HD1	2.26	0.44
5:E:152:PRO:HG3	7:G:209:TYR:OH	2.17	0.44
5:E:164:LEU:HD22	5:E:164:LEU:HA	1.76	0.44
6:F:133:THR:HG21	6:F:135:ARG:NH1	2.33	0.44
8:H:46:THR:CG2	8:H:63:PHE:CB	2.95	0.44
8:H:59:ALA:HB2	8:H:172:THR:OG1	2.17	0.44
8:H:87:PHE:O	8:H:88:SER:C	2.61	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	2.95	0.44
11:K:64:TRP:O	11:K:65:ARG:C	2.58	0.44
12:L:59:LYS:CD	12:L:134:LEU:HD21	2.47	0.44
12:L:148:ALA:O	12:L:150:GLY:N	2.51	0.44
14:N:130:LYS:HE2	14:N:130:LYS:HB2	1.78	0.44
15:O:83:GLN:NE2	15:O:87:GLU:OE2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:126:VAL:HG13	34:i:1515:G:H21	1.83	0.44
17:Q:54:PRO:CG	17:Q:88:ILE:HD11	2.25	0.44
19:S:139:THR:HB	19:S:140:GLY:H	1.23	0.44
21:U:44:LYS:C	21:U:47:ASN:HA	2.40	0.44
23:W:89:TRP:HB3	23:W:102:ILE:HD13	1.99	0.44
23:W:104:LEU:HD13	23:W:106:THR:CG2	2.42	0.44
24:X:107:ARG:HB3	24:X:110:HIS:O	2.17	0.44
25:Y:58:PHE:HE1	25:Y:72:PHE:CD2	2.32	0.44
25:Y:78:SER:C	25:Y:80:ASP:N	2.75	0.44
27:a:41:ILE:HG21	27:a:68:TYR:CE1	2.52	0.44
29:c:34:PHE:O	29:c:36:ASP:N	2.48	0.44
32:f:105:TYR:O	32:f:106:TYR:CG	2.60	0.44
33:g:31:ILE:HG23	33:g:31:ILE:O	2.15	0.44
33:g:236:ILE:HG21	33:g:239:LEU:HD21	1.98	0.44
34:i:195:C:N3	34:i:201:G:N1	2.65	0.44
34:i:547:U:C4	34:i:548:G:C5	3.05	0.44
34:i:1046:A:C5	34:i:1065:U:C2	3.06	0.44
35:l:57:LYS:O	35:l:61:LYS:HB3	2.16	0.44
35:l:66:LYS:HZ2	35:l:66:LYS:HG2	1.63	0.44
35:l:98:VAL:HG13	35:l:105:ASP:OD1	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
3:C:122:VAL:CG1	3:C:202:ALA:CA	2.93	0.44
4:D:153:VAL:CG1	4:D:154:ASP:N	2.80	0.44
5:E:9:LEU:HD12	5:E:30:ARG:HA	2.00	0.44
6:F:20:PHE:HB3	6:F:23:TRP:CB	2.46	0.44
6:F:103:LEU:O	6:F:103:LEU:CG	2.64	0.44
6:F:115:ALA:HB3	6:F:177:LEU:HD22	1.99	0.44
6:F:184:SER:C	6:F:186:ASN:H	2.26	0.44
8:H:38:ALA:H	8:H:41:ARG:HG2	1.82	0.44
8:H:160:LYS:CB	8:H:192:PHE:CZ	3.00	0.44
9:I:21:TYR:OH	34:i:423:A:H5'	2.17	0.44
9:I:81:VAL:HG11	9:I:91:VAL:HA	1.99	0.44
9:I:205:ARG:O	9:I:206:LYS:O	2.35	0.44
10:J:179:LYS:CA	10:J:182:GLN:OE1	2.61	0.44
11:K:8:ARG:HG2	11:K:12:TYR:CE1	2.53	0.44
11:K:27:VAL:HG13	11:K:43:LEU:HD22	0.44	0.44
11:K:47:LYS:HA	11:K:50:GLN:HG2	2.00	0.44
11:K:52:LEU:O	11:K:55:ARG:HG3	2.17	0.44
12:L:40:ILE:CD1	12:L:68:ILE:HB	2.22	0.44
12:L:97:ARG:HG2	12:L:98:LYS:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:113:LEU:HD23	12:L:114:SER:O	2.18	0.44
12:L:114:SER:OG	12:L:115:PRO:HD2	2.16	0.44
12:L:125:ILE:C	12:L:146:THR:HG22	2.40	0.44
14:N:53:ILE:O	14:N:57:SER:OG	2.33	0.44
15:O:30:VAL:HG13	15:O:47:LEU:HA	2.00	0.44
16:P:44:ARG:NE	16:P:82:ASP:O	2.51	0.44
16:P:59:ARG:HG2	16:P:76:VAL:HG22	1.99	0.44
17:Q:145:TYR:HB3	17:Q:146:ARG:H	1.53	0.44
19:S:46:ARG:HD2	20:T:50:GLU:HG2	2.00	0.44
20:T:28:LEU:HD23	20:T:28:LEU:HA	1.58	0.44
24:X:40:PRO:CB	24:X:81:ILE:CD1	2.86	0.44
26:Z:94:LYS:CE	26:Z:95:GLY:N	2.81	0.44
27:a:28:CYS:SG	27:a:74:CYS:SG	3.16	0.44
27:a:85:ARG:O	27:a:87:ARG:HG3	2.17	0.44
33:g:191:HIS:CE1	33:g:195:LEU:HD21	2.52	0.44
34:i:1054:A:O4'	35:l:38:ARG:CZ	2.64	0.44
35:l:64:LYS:HE3	35:l:71:GLY:N	2.32	0.44
35:l:98:VAL:HA	35:l:105:ASP:OD1	2.18	0.44
1:A:76:VAL:HG13	1:A:175:TRP:HH2	1.62	0.44
2:B:151:ARG:HD2	2:B:154:SER:H	1.82	0.44
4:D:37:VAL:HG12	4:D:50:ILE:HD13	1.98	0.44
4:D:216:GLU:OE1	4:D:217:ILE:N	2.51	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:151:ILE:HA	6:F:154:LEU:CD2	2.47	0.44
7:G:67:VAL:HG22	7:G:100:CYS:SG	2.57	0.44
8:H:36:LEU:HD23	8:H:78:ARG:HH11	1.81	0.44
8:H:46:THR:CG2	8:H:63:PHE:HB3	2.47	0.44
8:H:79:LEU:HD22	8:H:83:LEU:HD23	1.99	0.44
8:H:109:ARG:NH2	8:H:111:LYS:HD2	2.33	0.44
9:I:191:GLU:HG2	9:I:192:GLY:H	1.82	0.44
11:K:43:LEU:O	11:K:46:MET:N	2.51	0.44
13:M:31:LEU:C	13:M:31:LEU:HD13	2.42	0.44
14:N:38:TYR:CZ	14:N:74:ILE:HG23	2.51	0.44
14:N:82:PRO:O	14:N:84:LEU:N	2.51	0.44
16:P:62:LYS:CA	16:P:65:LYS:HE2	2.48	0.44
16:P:84:ILE:HD11	16:P:115:TYR:CZ	2.52	0.44
17:Q:130:LYS:HG2	34:i:1664:G:C5'	2.48	0.44
18:R:124:VAL:CG1	18:R:125:GLY:N	2.80	0.44
19:S:40:TYR:CD1	19:S:97:GLN:NE2	2.84	0.44
20:T:74:SER:OG	34:i:1582:G:N2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:19:ARG:N	21:U:19:ARG:HD2	2.32	0.44
25:Y:56:PHE:CE1	25:Y:94:HIS:HE1	2.34	0.44
26:Z:105:ALA:O	26:Z:106:GLN:CG	2.65	0.44
27:a:49:ALA:CB	27:a:53:ILE:HD12	2.48	0.44
29:c:14:VAL:HG23	29:c:54:ASP:O	2.18	0.44
32:f:85:TYR:C	32:f:86:THR:HG23	2.43	0.44
32:f:97:LYS:HZ3	32:f:97:LYS:HB3	1.80	0.44
32:f:104:LYS:HA	32:f:104:LYS:HD3	1.40	0.44
33:g:273:GLU:C	33:g:274:VAL:HG13	2.41	0.44
34:i:185:C:C2'	34:i:210:G:H1	2.31	0.44
34:i:744:C:H2'	34:i:749:C:N4	2.32	0.44
34:i:829:C:H2'	34:i:830:C:H6	1.83	0.44
34:i:1054:A:C5	35:l:42:LYS:HD2	2.53	0.44
34:i:1413:C:H3'	34:i:1413:C:C6	2.47	0.44
34:i:1447:G:O2'	34:i:1470:A:N6	2.50	0.44
35:l:33:ILE:HD13	35:l:33:ILE:HA	1.86	0.44
36:n:100:ALA:O	36:n:103:LEU:HB2	2.18	0.44
2:B:79:VAL:O	2:B:79:VAL:CG2	2.62	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	2.47	0.44
4:D:84:VAL:HG22	4:D:85:GLU:N	2.33	0.44
4:D:132:LYS:H	4:D:191:PRO:CD	1.88	0.44
4:D:172:VAL:HG11	34:i:1331:G:H4'	2.00	0.44
4:D:212:GLU:CG	18:R:19:LYS:NZ	2.78	0.44
4:D:227:LYS:CE	33:g:187:ASN:HD22	2.28	0.44
5:E:72:ILE:HD13	5:E:82:TYR:CD2	2.49	0.44
6:F:36:GLN:O	6:F:37:ASP:CG	2.61	0.44
7:G:180:VAL:C	7:G:181:THR:CG2	2.85	0.44
9:I:103:LEU:CD2	9:I:172:LEU:CD1	2.94	0.44
10:J:101:LYS:CG	10:J:103:GLU:OE1	2.61	0.44
10:J:134:HIS:HE1	34:i:552:U:OP1	2.01	0.44
14:N:67:THR:C	14:N:69:ASN:H	2.24	0.44
15:O:71:PRO:O	15:O:74:ALA:HB3	2.17	0.44
16:P:18:ARG:HB3	19:S:93:GLY:HA3	2.00	0.44
17:Q:40:GLU:OE1	17:Q:40:GLU:HA	2.18	0.44
17:Q:93:VAL:CG1	17:Q:105:LYS:HD3	2.29	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
24:X:89:GLY:HA2	31:e:83:VAL:CG1	2.48	0.44
24:X:107:ARG:O	24:X:108:LYS:CB	2.66	0.44
24:X:125:VAL:O	24:X:126:ALA:CB	2.61	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:54:VAL:HG13	25:Y:76:TYR:H	1.71	0.44
33:g:293:ALA:HB3	33:g:294:ASP:CG	2.43	0.44
33:g:298:LEU:CD1	33:g:298:LEU:C	2.86	0.44
34:i:72:C:N3	34:i:73:C:C6	2.86	0.44
34:i:431:C:H5'	34:i:1732:G:H1'	2.00	0.44
34:i:520:U:C5	34:i:521:A:C5	3.05	0.44
34:i:1411:C:H2'	34:i:1412:C:H5'	1.99	0.44
34:i:1839:A:H2'	34:i:1840:G:C8	2.52	0.44
1:A:169:HIS:ND1	1:A:169:HIS:N	2.66	0.44
2:B:91:VAL:HG22	2:B:96:CYS:SG	2.57	0.44
2:B:123:ALA:HB3	2:B:168:MET:SD	2.58	0.44
3:C:157:ASN:O	3:C:159:ILE:N	2.50	0.44
4:D:43:PRO:O	4:D:44:THR:CB	2.65	0.44
4:D:124:ARG:NH1	4:D:128:GLU:OE1	2.51	0.44
5:E:153:LEU:HD21	7:G:216:ARG:HH12	1.83	0.44
7:G:13:GLN:C	7:G:14:LYS:HG2	2.43	0.44
10:J:35:TYR:CD2	10:J:35:TYR:N	2.85	0.44
11:K:55:ARG:H	11:K:55:ARG:HG2	1.52	0.44
13:M:58:GLU:C	13:M:60:MET:H	2.26	0.44
13:M:93:LYS:O	13:M:94:ILE:C	2.61	0.44
15:O:138:ASP:OD1	15:O:138:ASP:O	2.36	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
19:S:83:PHE:O	19:S:83:PHE:CG	2.70	0.44
21:U:106:ILE:O	21:U:107:GLU:CB	2.65	0.44
23:W:42:MET:CE	23:W:50:PHE:HD2	2.10	0.44
23:W:90:GLN:HB3	23:W:102:ILE:HD12	2.00	0.44
24:X:56:GLY:N	36:n:84:TYR:CE1	2.86	0.44
25:Y:29:HIS:O	25:Y:31:GLY:N	2.51	0.44
25:Y:47:MET:O	34:i:833:A:C2	2.70	0.44
28:b:2:PRO:C	28:b:3:LEU:CG	2.89	0.44
32:f:82:LYS:NZ	34:i:1505:U:C6	2.83	0.44
33:g:45:LEU:HD13	33:g:52:TYR:HE2	1.83	0.44
33:g:49:GLU:C	33:g:50:THR:OG1	2.57	0.44
33:g:143:GLN:HE21	33:g:144:ASP:H	1.60	0.44
34:i:1404:U:H2'	34:i:1405:A:C8	2.52	0.44
34:i:1615:A:H4'	34:i:1616:U:C6	2.52	0.44
3:C:89:ASP:HB3	3:C:115:ILE:HG12	1.99	0.44
4:D:108:LYS:HA	4:D:113:LEU:CD2	2.48	0.44
5:E:67:GLN:C	5:E:68:ARG:CG	2.88	0.44
5:E:102:ILE:HG23	5:E:182:MET:SD	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:141:THR:OG1	5:E:143:ASP:OD1	2.35	0.44
5:E:152:PRO:CG	7:G:209:TYR:CE1	3.01	0.44
5:E:248:ILE:CG1	10:J:72:PHE:CZ	2.89	0.44
6:F:190:ILE:HG23	6:F:191:LYS:N	2.33	0.44
6:F:192:LYS:CD	6:F:192:LYS:C	2.90	0.44
8:H:65:PRO:HB2	8:H:67:PRO:HD2	2.00	0.44
9:I:118:ALA:CB	9:I:149:TYR:CE1	2.94	0.44
10:J:37:LEU:CD2	10:J:43:VAL:N	2.79	0.44
11:K:89:ILE:HG23	11:K:90:VAL:H	1.83	0.44
14:N:19:ARG:NH1	28:b:84:HIS:C	2.57	0.44
14:N:23:PRO:O	14:N:24:THR:CB	2.66	0.44
14:N:140:LYS:HG2	14:N:141:TYR:N	2.32	0.44
15:O:139:SER:OG	15:O:140:THR:N	2.50	0.44
17:Q:8:GLN:HB3	17:Q:99:TYR:CD1	2.48	0.44
17:Q:21:ALA:HB2	17:Q:72:VAL:CG2	2.32	0.44
17:Q:126:ARG:CG	17:Q:127:CYS:N	2.81	0.44
20:T:56:ARG:CD	20:T:103:VAL:HG21	2.48	0.44
23:W:37:PHE:CZ	23:W:103:VAL:HG11	2.53	0.44
25:Y:32:LYS:CG	25:Y:33:ALA:O	2.61	0.44
25:Y:59:GLY:O	34:i:562:U:H5"	2.18	0.44
25:Y:102:THR:HB	25:Y:103:SER:C	2.43	0.44
28:b:54:VAL:HB	28:b:63:LEU:HD22	2.00	0.44
33:g:239:LEU:CD2	33:g:250:ALA:HB2	2.48	0.44
34:i:361:A:N6	34:i:382:A:H61	2.16	0.44
34:i:984:C:O4'	34:i:984:C:C6	2.70	0.44
34:i:1597:U:C2'	34:i:1598:G:H5'	2.48	0.44
34:i:1690:A:H2	34:i:1699:C:C5'	2.17	0.44
34:i:1700:C:C1'	34:i:1846:C:OP1	2.62	0.44
34:i:1828:A:H3'	34:i:1829:A:H5"	2.00	0.44
35:l:46:THR:CA	35:l:83:ILE:C	2.66	0.44
1:A:5:LEU:HD13	1:A:6:ASP:CB	2.48	0.44
1:A:49:ILE:CG2	1:A:50:ASN:N	2.80	0.44
2:B:105:LEU:HD11	2:B:110:MET:HE1	1.98	0.44
2:B:105:LEU:CD2	2:B:213:ARG:O	2.66	0.44
2:B:137:LEU:HB3	2:B:172:MET:HE1	1.90	0.44
3:C:59:LYS:HD3	3:C:59:LYS:HA	1.39	0.44
3:C:144:LYS:O	3:C:147:ILE:HG13	2.17	0.44
3:C:163:HIS:H	3:C:163:HIS:CD2	2.36	0.44
3:C:245:VAL:O	3:C:246:PHE:CB	2.65	0.44
4:D:192:TRP:O	4:D:196:GLY:N	2.36	0.44
5:E:258:ALA:HA	5:E:262:SER:OG	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:49:LEU:HD21	17:Q:46:THR:O	2.18	0.44
6:F:94:LYS:HD2	6:F:94:LYS:O	2.18	0.44
8:H:107:LYS:HD2	34:i:794:G:C2	2.53	0.44
10:J:100:LEU:HD11	10:J:104:ASP:CG	2.42	0.44
10:J:125:HIS:CG	34:i:516:A:O2'	2.69	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	2.00	0.44
13:M:77:ILE:CD1	13:M:78:LYS:N	2.80	0.44
14:N:116:ILE:HA	14:N:119:GLU:CD	2.43	0.44
16:P:5:GLU:O	16:P:6:GLN:HG3	2.16	0.44
16:P:44:ARG:HD3	34:i:1615:A:OP1	2.18	0.44
17:Q:50:LYS:HG3	17:Q:85:ARG:NH2	2.26	0.44
18:R:21:TYR:CG	18:R:71:ILE:CD1	2.98	0.44
18:R:67:ARG:NH2	34:i:1460:C:H1'	2.33	0.44
20:T:143:LYS:HD3	20:T:143:LYS:HA	1.21	0.44
21:U:44:LYS:C	21:U:46:LYS:N	2.74	0.44
23:W:24:GLN:HA	23:W:63:VAL:O	2.18	0.44
26:Z:65:TYR:CD2	26:Z:68:ILE:HG12	2.44	0.44
26:Z:101:SER:O	26:Z:107:VAL:C	2.60	0.44
27:a:44:ILE:HD13	27:a:65:PRO:HG2	2.00	0.44
32:f:136:PHE:O	32:f:138:ARG:CB	2.66	0.44
33:g:258:ILE:CD1	33:g:267:VAL:CG1	2.95	0.44
34:i:148:U:C5	34:i:169:U:C4	3.06	0.44
34:i:791:A:H2'	34:i:792:G:C8	2.53	0.44
35:l:45:THR:OG1	35:l:89:GLN:HB2	2.18	0.44
2:B:175:GLU:CG	2:B:193:ILE:HD11	2.46	0.43
3:C:51:LEU:HD23	3:C:60:ILE:CD1	2.46	0.43
3:C:231:LYS:HE3	3:C:231:LYS:HB3	1.46	0.43
3:C:244:THR:O	3:C:246:PHE:HD2	2.01	0.43
4:D:8:LYS:O	4:D:12:VAL:HG23	2.18	0.43
4:D:67:ARG:CZ	11:K:95:ARG:HD2	2.48	0.43
5:E:49:ARG:CD	5:E:50:ASN:N	2.72	0.43
5:E:90:ILE:HD11	5:E:101:LEU:HD11	1.99	0.43
5:E:165:GLU:OE2	5:E:165:GLU:HA	2.06	0.43
6:F:112:LEU:O	6:F:116:ILE:HD13	2.18	0.43
7:G:143:LYS:HE3	7:G:143:LYS:CA	2.48	0.43
7:G:145:PHE:O	7:G:146:ASN:O	2.36	0.43
8:H:14:GLU:HG2	8:H:15:LYS:O	2.18	0.43
8:H:169:LYS:HB2	8:H:173:PHE:CZ	2.47	0.43
9:I:81:VAL:CG1	9:I:91:VAL:HA	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:123:ARG:O	9:I:124:LYS:O	2.35	0.43
9:I:144:LYS:N	9:I:144:LYS:HD2	2.33	0.43
11:K:85:LEU:CB	11:K:86:PRO:HD2	2.47	0.43
12:L:150:GLY:C	12:L:151:THR:OG1	2.61	0.43
13:M:26:LEU:HD11	13:M:90:GLY:N	2.33	0.43
14:N:38:TYR:CE1	14:N:78:LYS:CD	3.01	0.43
16:P:44:ARG:CD	34:i:1615:A:OP1	2.66	0.43
16:P:128:HIS:CD2	34:i:1517:A:O4'	2.71	0.43
17:Q:16:LYS:HD2	17:Q:16:LYS:C	2.41	0.43
20:T:9:VAL:HG13	20:T:13:GLU:OE2	2.18	0.43
20:T:87:VAL:CG1	20:T:88:MET:N	2.80	0.43
21:U:67:LYS:CD	21:U:78:ASP:OD2	2.66	0.43
22:V:39:VAL:C	22:V:41:LYS:N	2.76	0.43
25:Y:18:LEU:HB3	25:Y:20:ARG:NE	2.33	0.43
32:f:143:LYS:HB2	34:i:1306:U:H4'	1.99	0.43
33:g:106:LYS:HB3	33:g:107:ASP:H	1.64	0.43
33:g:131:LEU:HD23	33:g:132:TRP:H	1.81	0.43
34:i:1508:C:H2'	34:i:1509:G:C8	2.52	0.43
2:B:37:ALA:HA	2:B:42:ARG:HE	1.83	0.43
3:C:180:LEU:HB3	3:C:207:CYS:SG	2.58	0.43
4:D:223:ILE:CG2	4:D:224:SER:N	2.80	0.43
5:E:11:ARG:NH1	5:E:21:ASP:OD1	2.51	0.43
5:E:99:PHE:HE1	5:E:113:ARG:CG	2.02	0.43
5:E:153:LEU:HD23	7:G:216:ARG:CZ	2.44	0.43
5:E:248:ILE:CD1	10:J:72:PHE:CZ	2.90	0.43
6:F:18:LYS:HB3	6:F:18:LYS:HE2	1.77	0.43
6:F:141:VAL:HG22	6:F:146:ARG:HG2	1.98	0.43
7:G:151:ASP:O	7:G:152:ASP:HB3	2.18	0.43
7:G:179:LEU:C	7:G:179:LEU:CD1	2.76	0.43
8:H:57:ARG:HD3	8:H:57:ARG:HA	1.69	0.43
10:J:84:ILE:O	10:J:108:ARG:HD2	2.16	0.43
11:K:21:MET:SD	11:K:49:MET:CE	3.06	0.43
11:K:71:LEU:HD23	11:K:76:ILE:HD12	1.89	0.43
14:N:38:TYR:CD2	14:N:78:LYS:HG3	2.53	0.43
16:P:43:ARG:HA	16:P:43:ARG:HD3	1.38	0.43
17:Q:16:LYS:O	17:Q:17:LYS:C	2.61	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
19:S:120:HIS:CD2	19:S:124:ARG:CG	3.01	0.43
20:T:141:ALA:C	20:T:142:LYS:CG	2.87	0.43
22:V:32:ILE:CG2	22:V:33:PRO:CD	2.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:80:ASP:OD2	34:i:799:C:H4'	2.18	0.43
33:g:121:VAL:CG1	33:g:122:SER:N	2.80	0.43
34:i:520:U:C4	34:i:545:A:C2	3.07	0.43
34:i:883:U:C6	34:i:884:U:C6	3.07	0.43
34:i:1581:U:H3'	34:i:1582:G:C5'	2.48	0.43
34:i:1826:A:O3'	34:i:1834:U:H3'	2.18	0.43
36:n:110:PRO:CB	36:n:112:HIS:CE1	3.01	0.43
2:B:41:ILE:HD13	2:B:41:ILE:HG23	1.61	0.43
4:D:98:ALA:CA	4:D:188:ILE:HD12	2.48	0.43
5:E:143:ASP:CG	5:E:145:ARG:CD	2.88	0.43
5:E:188:ASN:HD21	5:E:218:PHE:HB2	1.82	0.43
6:F:112:LEU:HD23	6:F:112:LEU:O	2.18	0.43
7:G:58:LYS:O	7:G:59:GLN:CB	2.57	0.43
7:G:64:LYS:HD3	7:G:65:GLN:N	2.33	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:106:ARG:CZ	34:i:857:A:N3	2.81	0.43
8:H:126:HIS:CE1	8:H:181:THR:HG22	2.54	0.43
9:I:42:ARG:HB3	9:I:58:LEU:O	2.19	0.43
9:I:140:LYS:N	9:I:145:ILE:HD11	2.32	0.43
10:J:39:ASN:CG	10:J:42:GLU:CD	2.64	0.43
10:J:102:ILE:CG2	10:J:106:LEU:CD1	2.93	0.43
11:K:85:LEU:HG	11:K:85:LEU:H	1.54	0.43
14:N:132:LYS:HB3	14:N:132:LYS:HE2	1.54	0.43
15:O:92:ALA:CB	15:O:125:LYS:HB2	2.47	0.43
15:O:98:ARG:HE	15:O:134:PRO:HD3	1.84	0.43
16:P:4:VAL:C	16:P:10:ARG:HH11	2.19	0.43
16:P:108:LYS:N	16:P:111:MET:CE	2.72	0.43
17:Q:7:LEU:O	17:Q:8:GLN:C	2.60	0.43
18:R:41:ILE:HG23	18:R:42:PRO:HD3	2.00	0.43
19:S:39:ARG:HD2	19:S:39:ARG:HA	1.40	0.43
19:S:88:LYS:N	19:S:95:TYR:CE1	2.77	0.43
20:T:4:VAL:CG1	20:T:139:ALA:HB2	2.46	0.43
20:T:118:ASP:O	20:T:119:TRP:HB2	2.18	0.43
21:U:19:ARG:CG	21:U:92:HIS:HE1	2.31	0.43
21:U:61:LEU:CG	30:d:34:TYR:CE2	3.01	0.43
23:W:11:LEU:CA	23:W:14:ILE:HG12	2.49	0.43
23:W:107:SER:HA	34:i:858:A:C5	2.54	0.43
26:Z:53:ALA:O	26:Z:57:LYS:HG3	2.18	0.43
27:a:11:ALA:O	27:a:33:ASP:HB2	2.17	0.43
27:a:45:VAL:O	27:a:46:GLU:HB2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:b:83:GLN:O	28:b:84:HIS:C	2.59	0.43
33:g:87:LEU:O	33:g:101:PHE:HD1	2.00	0.43
34:i:549:G:C5	34:i:550:A:C8	3.06	0.43
34:i:903:G:O6	34:i:904:A:C6	2.71	0.43
34:i:987:G:C6	34:i:1130:G:H4'	2.53	0.43
34:i:1054:A:C1'	35:l:44:LEU:HD11	2.47	0.43
34:i:1407:G:C6	34:i:1408:C:C2	3.06	0.43
35:l:33:ILE:CD1	35:l:93:ILE:HG12	2.47	0.43
35:l:44:LEU:CD2	35:l:86:GLN:NE2	2.80	0.43
35:l:48:GLN:CA	35:l:82:VAL:HG12	2.48	0.43
35:l:62:ALA:HB3	35:l:96:PHE:HZ	1.82	0.43
1:A:52:LYS:NZ	1:A:52:LYS:CB	2.61	0.43
1:A:159:ILE:HD12	1:A:160:ALA:H	1.83	0.43
1:A:191:ARG:O	1:A:191:ARG:CG	2.51	0.43
2:B:48:LEU:O	2:B:48:LEU:HD13	2.18	0.43
3:C:229:ILE:HG13	3:C:230:SER:H	1.77	0.43
5:E:18:TRP:CD2	5:E:46:ILE:CD1	3.01	0.43
5:E:64:ILE:HD11	25:Y:18:LEU:HD11	1.99	0.43
6:F:121:PRO:CA	6:F:193:LYS:HE3	2.39	0.43
6:F:132:GLY:HA3	34:i:957:G:O2'	2.17	0.43
7:G:27:PHE:C	7:G:30:LYS:HG2	2.43	0.43
7:G:63:MET:HE2	7:G:106:LEU:HD21	2.00	0.43
7:G:70:HIS:HA	7:G:98:ARG:HH12	1.83	0.43
8:H:64:VAL:CG1	8:H:68:GLN:HB2	2.49	0.43
9:I:3:ILE:HD12	34:i:1792:C:H4'	2.00	0.43
9:I:140:LYS:HD3	9:I:141:ARG:N	2.33	0.43
10:J:136:ARG:NE	10:J:160:SER:HB2	2.33	0.43
12:L:4:ILE:HB	12:L:5:GLN:H	1.56	0.43
12:L:21:LYS:HD3	12:L:21:LYS:HA	1.74	0.43
12:L:55:TYR:CG	12:L:115:PRO:HG2	2.53	0.43
12:L:99:TYR:CZ	24:X:14:ARG:CA	2.72	0.43
14:N:54:LEU:O	14:N:60:VAL:HG22	2.18	0.43
14:N:125:LEU:HD22	14:N:125:LEU:O	2.19	0.43
15:O:92:ALA:C	15:O:93:LEU:HG	2.44	0.43
15:O:147:ARG:HH21	15:O:150:ARG:CD	2.31	0.43
16:P:75:VAL:CG1	16:P:76:VAL:H	2.31	0.43
17:Q:57:LEU:HD13	17:Q:115:TYR:CD2	2.50	0.43
18:R:104:GLU:HA	18:R:107:LYS:HB2	2.00	0.43
23:W:105:THR:O	23:W:105:THR:CG2	2.66	0.43
24:X:23:HIS:O	24:X:24:ASP:C	2.61	0.43
25:Y:119:GLY:HA2	34:i:85:A:H5'	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:125:C:H5'	34:i:125:C:C6	2.47	0.43
36:n:38:VAL:CG2	36:n:77:ILE:CD1	2.94	0.43
36:n:110:PRO:CG	36:n:112:HIS:CE1	3.01	0.43
1:A:154:LEU:HD13	1:A:154:LEU:C	2.36	0.43
2:B:87:ILE:HG23	2:B:101:HIS:CG	2.53	0.43
2:B:232:HIS:C	2:B:233:GLY:O	2.59	0.43
3:C:58:MET:N	3:C:58:MET:SD	2.92	0.43
3:C:69:PHE:CZ	3:C:249:SER:CA	2.94	0.43
4:D:6:SER:N	34:i:1573:U:C5	2.87	0.43
5:E:192:ILE:HG22	5:E:193:GLY:N	2.33	0.43
5:E:212:ASP:OD2	5:E:214:ASN:N	2.51	0.43
6:F:112:LEU:HD23	6:F:116:ILE:CG1	2.49	0.43
7:G:212:LEU:O	7:G:216:ARG:HG2	2.19	0.43
9:I:5:ARG:NH1	34:i:374:U:N3	2.66	0.43
10:J:66:LYS:C	10:J:71:LEU:HD11	2.43	0.43
10:J:110:LEU:CD1	10:J:135:ILE:CD1	2.97	0.43
11:K:3:MET:HA	11:K:4:PRO:HD2	1.66	0.43
12:L:146:THR:HG23	12:L:147:LYS:N	2.33	0.43
14:N:92:ILE:CG2	14:N:150:VAL:HG23	2.46	0.43
15:O:84:ARG:HA	15:O:87:GLU:CB	2.47	0.43
15:O:131:ASP:OD1	15:O:133:THR:HG23	2.18	0.43
16:P:82:ASP:CG	34:i:1614:A:O2'	2.58	0.43
17:Q:109:LYS:HZ1	17:Q:113:ILE:CD1	2.31	0.43
18:R:17:ILE:O	18:R:71:ILE:CD1	2.66	0.43
18:R:104:GLU:CD	18:R:107:LYS:HD2	2.44	0.43
19:S:25:LYS:HG3	19:S:54:LYS:O	2.19	0.43
19:S:40:TYR:CE1	19:S:44:VAL:CG2	3.01	0.43
19:S:72:GLN:O	19:S:73:ASN:OD1	2.35	0.43
24:X:101:LEU:HD23	24:X:101:LEU:HA	1.82	0.43
25:Y:61:ARG:CG	25:Y:61:ARG:NH2	2.38	0.43
25:Y:114:MET:CE	25:Y:121:ALA:O	2.64	0.43
27:a:60:ASP:O	27:a:61:ALA:HB3	2.18	0.43
29:c:18:LEU:HB3	29:c:29:GLN:HB3	2.00	0.43
32:f:87:THR:CA	34:i:1503:G:H22	2.32	0.43
33:g:95:GLY:O	33:g:96:THR:HG22	2.18	0.43
34:i:102:A:H5'	34:i:104:A:C4	2.53	0.43
35:l:56:LYS:O	35:l:56:LYS:HG2	2.17	0.43
1:A:11:LYS:HG3	1:A:13:GLU:CG	2.41	0.43
1:A:58:LEU:CD2	1:A:58:LEU:C	2.92	0.43
1:A:58:LEU:CD2	1:A:58:LEU:O	2.66	0.43
2:B:172:MET:HE2	2:B:172:MET:HB3	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:1:MET:O	4:D:2:ALA:C	2.62	0.43
5:E:146:THR:O	5:E:146:THR:HG23	2.17	0.43
6:F:63:LYS:HE2	34:i:1672:U:OP2	2.19	0.43
6:F:112:LEU:HA	6:F:177:LEU:HD13	1.96	0.43
6:F:122:ARG:CB	6:F:123:GLU:OE1	2.66	0.43
7:G:148:SER:C	7:G:150:GLU:N	2.77	0.43
7:G:186:GLN:HA	7:G:189:ARG:NH2	2.33	0.43
7:G:222:GLU:HG2	7:G:225:GLN:CD	2.44	0.43
8:H:18:GLU:O	8:H:21:SER:HB2	2.18	0.43
8:H:69:LEU:O	8:H:73:GLN:CG	2.66	0.43
8:H:80:VAL:HA	8:H:83:LEU:HG	2.00	0.43
8:H:103:LYS:O	8:H:103:LYS:HG3	2.18	0.43
8:H:116:ARG:HA	8:H:117:PRO:HD3	1.50	0.43
8:H:169:LYS:HB3	8:H:173:PHE:CZ	2.54	0.43
9:I:141:ARG:HH11	34:i:189:G:P	2.41	0.43
9:I:172:LEU:HD22	9:I:172:LEU:N	2.34	0.43
10:J:39:ASN:H	10:J:42:GLU:CG	2.14	0.43
10:J:80:ARG:HH21	34:i:814:A:H3'	1.82	0.43
11:K:36:ALA:O	11:K:38:LYS:CA	2.66	0.43
11:K:66:HIS:O	11:K:67:PHE:HB2	2.18	0.43
12:L:20:LYS:CD	12:L:20:LYS:H	2.09	0.43
14:N:21:SER:OG	14:N:22:VAL:N	2.49	0.43
14:N:114:ARG:HD3	14:N:114:ARG:HA	1.45	0.43
16:P:123:TYR:OH	19:S:120:HIS:NE2	2.51	0.43
17:Q:50:LYS:HZ3	17:Q:117:ARG:NH1	2.17	0.43
19:S:85:ASN:OD1	19:S:86:ARG:N	2.51	0.43
20:T:21:PHE:HD1	20:T:22:LEU:HD23	1.79	0.43
20:T:111:LYS:HB2	20:T:126:GLN:CD	2.43	0.43
24:X:105:PHE:CD2	24:X:112:VAL:HG23	2.51	0.43
25:Y:14:THR:HG23	34:i:837:G:OP2	2.18	0.43
25:Y:98:GLU:O	25:Y:99:LYS:CB	2.67	0.43
27:a:52:ASP:O	27:a:56:VAL:HG23	2.18	0.43
32:f:103:LEU:HD23	32:f:105:TYR:HB2	1.97	0.43
33:g:34:ALA:HB1	33:g:66:VAL:CG1	2.47	0.43
33:g:76:GLN:C	33:g:77:PHE:CD1	2.96	0.43
33:g:171:ASP:O	33:g:172:LYS:HB3	2.19	0.43
34:i:727:G:H2'	34:i:728:U:H5'	2.01	0.43
34:i:1816:A:C2	34:i:1817:A:C6	3.06	0.43
35:l:50:ILE:HG23	35:l:54:TYR:CD2	2.52	0.43
35:l:63:PHE:HA	35:l:96:PHE:CE1	2.53	0.43
36:n:77:ILE:HG22	36:n:93:LEU:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:141:ASN:CB	22:V:32:ILE:HG12	2.44	0.43
2:B:55:THR:O	2:B:56:LYS:CG	2.66	0.43
2:B:146:CYS:O	2:B:148:ASN:N	2.51	0.43
2:B:148:ASN:ND2	2:B:148:ASN:N	2.61	0.43
2:B:156:ALA:CB	2:B:160:GLN:OE1	2.65	0.43
3:C:50:LYS:C	3:C:258:LEU:HD13	2.44	0.43
4:D:58:VAL:O	4:D:65:ARG:HB2	2.19	0.43
5:E:45:ILE:HD12	5:E:80:ILE:CG2	2.49	0.43
5:E:181:CYS:O	5:E:192:ILE:HG23	2.18	0.43
6:F:145:ARG:HA	6:F:145:ARG:HD2	1.39	0.43
8:H:116:ARG:HG2	8:H:117:PRO:N	2.32	0.43
8:H:172:THR:CG2	8:H:173:PHE:N	2.81	0.43
9:I:112:TRP:CH2	9:I:117:TYR:CZ	3.06	0.43
10:J:100:LEU:HD11	10:J:104:ASP:CB	2.49	0.43
11:K:14:LEU:HD23	11:K:35:LEU:HD22	1.88	0.43
12:L:23:VAL:HG22	12:L:24:LEU:H	1.84	0.43
13:M:13:ASP:O	13:M:14:VAL:C	2.58	0.43
16:P:34:MET:HG3	16:P:34:MET:H	1.52	0.43
17:Q:138:ARG:HH12	34:i:1641:C:C3'	2.31	0.43
19:S:71:MET:HE3	19:S:99:LEU:HD13	2.00	0.43
20:T:75:MET:CA	20:T:78:ILE:HG22	2.49	0.43
21:U:46:LYS:HG2	21:U:46:LYS:O	2.18	0.43
22:V:46:PHE:O	22:V:46:PHE:CG	2.72	0.43
24:X:1:MET:O	24:X:3:LYS:N	2.51	0.43
25:Y:52:PRO:C	25:Y:54:VAL:H	2.26	0.43
26:Z:104:ARG:CZ	34:i:1590:U:C5	3.01	0.43
27:a:41:ILE:CG2	27:a:68:TYR:CD1	2.98	0.43
27:a:49:ALA:O	27:a:50:VAL:C	2.61	0.43
30:d:30:LEU:HD22	30:d:31:ILE:N	2.33	0.43
33:g:42:MET:HG3	33:g:92:LEU:CG	2.49	0.43
33:g:299:PHE:CD1	33:g:309:VAL:HG12	2.54	0.43
34:i:521:A:C2	34:i:543:U:O2	2.72	0.43
34:i:1160:G:H3'	34:i:1161:G:H21	1.83	0.43
34:i:1619:U:H3'	34:i:1620:U:H6	1.83	0.43
34:i:1709:U:H2'	34:i:1710:A:C8	2.54	0.43
34:i:1749:C:C4	34:i:1750:C:C4	3.05	0.43
35:l:92:ASN:O	35:l:96:PHE:N	2.47	0.43
36:n:41:MET:HE3	36:n:71:ILE:HD13	2.00	0.43
1:A:77:ILE:HD11	1:A:122:LEU:HD22	2.00	0.43
1:A:90:PHE:HD1	1:A:179:ALA:HB2	1.83	0.43
1:A:102:ARG:HH21	1:A:105:PRO:HD2	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:127:PRO:HD3	1:A:147:LEU:O	2.18	0.43
3:C:61:LYS:CA	3:C:82:PHE:HE1	2.30	0.43
3:C:134:THR:CG2	3:C:135:ALA:N	2.82	0.43
4:D:141:LYS:NZ	4:D:179:GLN:NE2	2.67	0.43
5:E:7:LYS:HA	5:E:7:LYS:HD2	1.37	0.43
5:E:71:LYS:HE2	5:E:74:GLY:HA2	1.97	0.43
7:G:32:MET:HE3	7:G:100:CYS:C	2.34	0.43
7:G:131:ARG:HD2	34:i:168:C:H4'	2.01	0.43
9:I:10:LYS:CG	9:I:11:ARG:H	2.26	0.43
9:I:58:LEU:O	9:I:59:ARG:HB2	2.19	0.43
9:I:104:ILE:HG13	9:I:105:ASP:N	2.26	0.43
10:J:174:LYS:HE2	10:J:174:LYS:HB3	1.42	0.43
14:N:50:ILE:O	14:N:54:LEU:CG	2.64	0.43
15:O:129:ILE:HG13	27:a:65:PRO:HD3	1.99	0.43
17:Q:41:MET:HG2	17:Q:41:MET:H	1.57	0.43
18:R:13:ALA:HB2	18:R:54:VAL:CG2	2.49	0.43
19:S:15:VAL:CG1	19:S:16:LEU:N	2.82	0.43
19:S:47:LYS:HZ1	19:S:78:LYS:HB3	1.83	0.43
20:T:7:LYS:HE3	34:i:1426:C:O2'	2.19	0.43
23:W:30:CYS:C	23:W:34:ILE:HD12	2.44	0.43
24:X:27:TYR:CG	24:X:31:HIS:CD2	3.07	0.43
24:X:67:ARG:O	24:X:84:PHE:HE1	2.02	0.43
27:a:45:VAL:O	27:a:46:GLU:CG	2.66	0.43
34:i:537:G:H2'	34:i:538:C:C6	2.54	0.43
34:i:842:G:H8	34:i:842:G:O5'	2.02	0.43
34:i:1238:U:H4'	34:i:1239:U:H5"	2.01	0.43
34:i:1546:U:C5	34:i:1572:G:N1	2.87	0.43
1:A:186:ARG:NH1	1:A:187:GLY:N	2.67	0.43
2:B:19:LYS:O	2:B:21:VAL:HG11	2.06	0.43
2:B:97:LEU:HD22	2:B:232:HIS:CG	2.54	0.43
2:B:136:HIS:HB2	2:B:218:LEU:HD11	2.00	0.43
3:C:142:LEU:C	3:C:145:LEU:HD21	2.33	0.43
3:C:166:ARG:CG	3:C:237:THR:HG21	2.49	0.43
4:D:137:VAL:HB	4:D:185:LYS:HB2	1.99	0.43
5:E:21:ASP:OD2	5:E:24:THR:HG22	2.01	0.43
5:E:92:ILE:CG2	5:E:97:GLU:OE1	2.67	0.43
5:E:151:ASP:HB3	7:G:212:LEU:HD22	1.94	0.43
6:F:115:ALA:CB	6:F:177:LEU:CD2	2.96	0.43
6:F:115:ALA:HB3	6:F:177:LEU:CD2	2.49	0.43
8:H:194:LEU:H	8:H:194:LEU:HD12	1.83	0.43
10:J:34:GLU:O	10:J:123:ILE:HD12	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:27:ILE:CG2	13:M:28:HIS:N	2.81	0.43
13:M:71:GLU:N	13:M:71:GLU:OE1	2.52	0.43
13:M:104:VAL:CG2	13:M:105:GLY:N	2.82	0.43
15:O:28:PHE:CE1	15:O:92:ALA:CB	3.02	0.43
15:O:129:ILE:N	27:a:62:TYR:OH	2.50	0.43
16:P:37:TYR:HA	19:S:88:LYS:HD3	2.01	0.43
16:P:88:GLU:HG3	16:P:89:MET:N	2.27	0.43
17:Q:28:GLY:H	17:Q:66:VAL:HA	1.82	0.43
17:Q:42:ILE:CG1	17:Q:51:LEU:HD22	2.46	0.43
18:R:100:PRO:CD	18:R:119:VAL:HG13	2.48	0.43
20:T:85:ASN:OD1	20:T:91:HIS:NE2	2.51	0.43
20:T:124:THR:OG1	20:T:125:PRO:HD2	2.19	0.43
22:V:31:SER:C	22:V:32:ILE:CG1	2.86	0.43
24:X:67:ARG:O	24:X:68:LYS:CB	2.67	0.43
25:Y:33:ALA:O	25:Y:34:THR:HB	2.18	0.43
25:Y:38:THR:O	25:Y:42:GLU:HG3	2.18	0.43
25:Y:101:LYS:O	25:Y:102:THR:OG1	2.30	0.43
33:g:140:TYR:CG	33:g:182:CYS:SG	2.98	0.43
33:g:232:GLY:C	33:g:257:LYS:HZ1	2.26	0.43
33:g:275:ILE:HD12	33:g:275:ILE:C	2.15	0.43
33:g:294:ASP:OD1	33:g:294:ASP:N	2.43	0.43
34:i:841:G:C2'	34:i:842:G:H8	2.32	0.43
34:i:1371:G:H8	34:i:1371:G:O5'	2.02	0.43
36:n:47:LEU:HD22	36:n:71:ILE:HG12	1.99	0.43
36:n:100:ALA:HA	36:n:103:LEU:CG	2.44	0.43
7:G:192:ILE:HG13	7:G:193:ALA:H	1.84	0.43
8:H:75:ILE:CG2	8:H:76:GLN:H	2.25	0.43
8:H:83:LEU:CD1	8:H:92:VAL:CG1	2.94	0.43
8:H:117:PRO:C	8:H:119:SER:H	2.19	0.43
9:I:98:LYS:O	9:I:99:ASN:CB	2.66	0.43
9:I:105:ASP:O	9:I:106:SER:CB	2.64	0.43
10:J:170:PRO:CD	10:J:175:ARG:CG	2.94	0.43
11:K:1:MET:HG3	34:i:1270:G:C5'	2.48	0.43
11:K:10:ALA:HA	11:K:13:GLU:HG2	2.01	0.43
12:L:71:ARG:NH1	34:i:343:C:C4'	2.82	0.43
12:L:82:MET:SD	12:L:85:THR:HG23	2.59	0.43
13:M:40:LYS:NZ	32:f:129:GLY:C	2.77	0.43
14:N:15:ALA:C	28:b:26:GLN:HE22	2.27	0.43
15:O:38:ASN:O	15:O:39:ASP:HB2	2.19	0.43
15:O:39:ASP:CG	15:O:40:THR:N	2.76	0.43
16:P:17:TYR:CD1	16:P:18:ARG:HG3	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:40:ARG:HD2	16:P:40:ARG:O	2.19	0.43
16:P:92:SER:OG	16:P:93:MET:N	2.52	0.43
16:P:127:LYS:CE	16:P:128:HIS:N	2.73	0.43
17:Q:9:SER:HA	17:Q:26:LYS:HG3	1.97	0.43
17:Q:38:PRO:C	17:Q:40:GLU:H	2.26	0.43
17:Q:84:ILE:O	17:Q:88:ILE:HG23	2.19	0.43
18:R:98:VAL:HG12	18:R:102:THR:OG1	2.18	0.43
19:S:7:GLU:OE2	19:S:7:GLU:HA	2.17	0.43
19:S:39:ARG:O	19:S:43:VAL:HG23	2.18	0.43
19:S:50:ILE:HG13	19:S:63:GLU:HG2	2.00	0.43
22:V:48:GLY:HA3	22:V:49:GLN:HA	1.84	0.43
24:X:32:LEU:O	24:X:37:LYS:NZ	2.52	0.43
25:Y:46:LYS:O	25:Y:47:MET:CG	2.67	0.43
25:Y:78:SER:HB2	25:Y:81:TYR:HE2	1.75	0.43
26:Z:77:LEU:C	26:Z:78:LYS:HG2	2.38	0.43
27:a:45:VAL:HG11	27:a:53:ILE:HD13	1.92	0.43
34:i:61:A:N6	34:i:326:A:P	2.77	0.43
34:i:423:A:C2	34:i:424:G:C5	3.07	0.43
35:l:96:PHE:O	35:l:97:LEU:HD12	2.19	0.43
1:A:7:VAL:HG22	1:A:8:LEU:N	2.33	0.42
1:A:49:ILE:HG22	1:A:50:ASN:N	2.34	0.42
1:A:89:LYS:HA	1:A:89:LYS:HD2	1.66	0.42
1:A:143:PRO:HD3	22:V:32:ILE:CG2	2.48	0.42
2:B:60:ASP:C	2:B:62:LEU:H	2.28	0.42
2:B:188:LEU:HD22	2:B:212:VAL:CG2	2.49	0.42
4:D:10:LYS:HE3	4:D:14:ASP:OD2	2.14	0.42
4:D:217:ILE:O	4:D:218:LEU:CB	2.67	0.42
5:E:151:ASP:HA	5:E:152:PRO:HD3	1.44	0.42
6:F:91:ARG:HD3	17:Q:46:THR:CG2	2.49	0.42
6:F:171:GLU:OE2	26:Z:67:LEU:HD23	2.19	0.42
7:G:176:ILE:HG22	7:G:179:LEU:HD23	1.83	0.42
8:H:43:LEU:HD13	8:H:72:PHE:HE1	1.72	0.42
8:H:121:THR:HG22	8:H:124:ALA:HB2	2.02	0.42
11:K:85:LEU:HD13	11:K:89:ILE:CD1	2.48	0.42
13:M:35:ILE:HG23	13:M:36:ARG:H	1.83	0.42
14:N:16:LEU:HD23	14:N:16:LEU:HA	1.79	0.42
16:P:49:LEU:C	16:P:51:ARG:HA	2.29	0.42
18:R:5:ARG:H	18:R:10:LYS:HZ1	1.60	0.42
19:S:71:MET:HG3	19:S:99:LEU:CD1	2.48	0.42
24:X:28:LYS:HG2	24:X:32:LEU:HD12	2.00	0.42
24:X:41:PHE:CZ	24:X:102:VAL:HG12	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:91:LEU:CD2	31:e:83:VAL:HG21	2.49	0.42
25:Y:47:MET:CE	34:i:833:A:C5	3.02	0.42
27:a:24:THR:HG21	27:a:72:HIS:H	1.83	0.42
31:e:80:LEU:C	31:e:82:ARG:H	2.27	0.42
31:e:120:VAL:H	31:e:120:VAL:HG12	1.38	0.42
32:f:136:PHE:O	32:f:137:ASP:HB2	2.19	0.42
33:g:21:ILE:CG2	33:g:22:ALA:N	2.82	0.42
34:i:668:U:C2	34:i:1024:A:C6	3.07	0.42
34:i:683:G:C2	34:i:684:A:C2	3.06	0.42
35:l:30:TYR:CE1	35:l:107:GLN:CB	2.84	0.42
1:A:5:LEU:CD1	1:A:6:ASP:CB	2.97	0.42
1:A:167:GLY:O	1:A:170:SER:OG	2.30	0.42
3:C:252:GLN:HE21	3:C:252:GLN:HB3	1.51	0.42
4:D:99:ILE:HG13	4:D:100:ALA:N	2.33	0.42
6:F:182:LYS:CB	6:F:182:LYS:HZ3	2.32	0.42
7:G:78:SER:OG	7:G:81:HIS:HD2	2.01	0.42
7:G:143:LYS:CE	7:G:143:LYS:CA	2.96	0.42
8:H:140:VAL:HG21	8:H:159:ASP:HA	2.00	0.42
8:H:169:LYS:O	8:H:170:VAL:C	2.61	0.42
9:I:141:ARG:HB3	9:I:144:LYS:CB	2.22	0.42
10:J:50:LEU:CG	10:J:102:ILE:HD13	2.49	0.42
11:K:4:PRO:HD2	11:K:44:HIS:CE1	2.54	0.42
12:L:149:ALA:O	12:L:150:GLY:C	2.62	0.42
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
14:N:15:ALA:HB1	28:b:26:GLN:NE2	2.34	0.42
14:N:130:LYS:HD3	14:N:139:TRP:HB3	2.01	0.42
17:Q:132:PHE:HB2	21:U:77:TRP:CD1	2.54	0.42
20:T:77:LYS:CE	20:T:92:PHE:CE2	3.03	0.42
20:T:116:ASP:CB	20:T:120:GLY:O	2.65	0.42
21:U:57:PRO:O	21:U:57:PRO:CD	2.66	0.42
22:V:41:LYS:HA	22:V:41:LYS:HD2	1.39	0.42
26:Z:104:ARG:HD3	34:i:1589:A:C8	2.55	0.42
26:Z:104:ARG:HB3	26:Z:105:ALA:H	1.63	0.42
27:a:23:CYS:HB2	27:a:28:CYS:HG	1.69	0.42
30:d:11:PRO:HG2	34:i:1613:C:N4	2.34	0.42
32:f:146:LEU:HD22	34:i:1288:C:H4'	2.01	0.42
33:g:26:GLN:HB2	33:g:74:ASP:CA	2.35	0.42
33:g:31:ILE:HG23	33:g:43:TRP:CD1	2.54	0.42
34:i:181:A:C8	34:i:182:C:N3	2.84	0.42
34:i:444:U:H2'	34:i:445:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:491:C:O2	34:i:491:C:C2'	2.67	0.42
34:i:579:G:H2'	34:i:580:A:OP2	2.19	0.42
34:i:1209:C:C2'	34:i:1210:A:H5'	2.48	0.42
34:i:1784:A:C2	34:i:1785:A:C4	3.07	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	1.67	0.42
1:A:123:VAL:HG12	1:A:175:TRP:CH2	2.54	0.42
1:A:124:VAL:HG21	1:A:134:LEU:HD21	2.01	0.42
3:C:63:LEU:HD12	3:C:83:LEU:HD22	2.01	0.42
4:D:6:SER:OG	4:D:8:LYS:HG3	2.19	0.42
4:D:101:GLN:O	4:D:104:SER:HB2	2.19	0.42
4:D:134:CYS:O	4:D:153:VAL:HG13	2.18	0.42
5:E:2:ALA:C	5:E:3:ARG:CG	2.92	0.42
5:E:25:SER:OG	5:E:26:VAL:N	2.48	0.42
5:E:25:SER:OG	34:i:485:U:H1'	2.20	0.42
5:E:122:LYS:HD2	5:E:164:LEU:HD21	2.01	0.42
5:E:126:VAL:HG13	5:E:158:ASP:C	2.29	0.42
6:F:20:PHE:CD2	6:F:23:TRP:CD1	3.07	0.42
7:G:79:LYS:HA	7:G:86:PRO:HG2	2.01	0.42
7:G:170:ARG:CD	7:G:171:THR:O	2.67	0.42
7:G:175:LYS:NZ	34:i:307:G:P	2.92	0.42
7:G:185:LEU:CA	7:G:188:LYS:HE3	2.37	0.42
8:H:107:LYS:C	8:H:109:ARG:CA	2.82	0.42
9:I:33:ALA:HB2	34:i:368:U:O2'	2.18	0.42
9:I:139:LYS:HD2	9:I:145:ILE:HD12	2.02	0.42
10:J:128:VAL:O	10:J:132:GLN:HG3	2.19	0.42
11:K:41:PRO:O	11:K:42:ASN:C	2.62	0.42
11:K:94:LEU:CD2	11:K:95:ARG:H	2.31	0.42
13:M:51:VAL:CB	13:M:77:ILE:HG21	2.46	0.42
15:O:91:THR:C	15:O:124:MET:CE	2.92	0.42
15:O:146:ARG:NH1	15:O:146:ARG:HG3	2.34	0.42
16:P:86:LEU:HG	16:P:89:MET:HE3	2.00	0.42
17:Q:78:VAL:HG13	17:Q:82:TYR:CE2	2.43	0.42
19:S:28:PHE:CE1	34:i:1598:G:C8	3.08	0.42
19:S:41:ALA:O	19:S:45:LEU:HG	2.19	0.42
19:S:54:LYS:HD3	19:S:58:GLU:CD	2.43	0.42
19:S:77:TYR:O	19:S:78:LYS:HB2	2.19	0.42
19:S:82:TRP:CG	34:i:1562:G:C5	3.07	0.42
19:S:136:THR:OG1	34:i:1515:G:C5'	2.67	0.42
20:T:47:PRO:HG2	20:T:52:TRP:CD1	2.55	0.42
24:X:21:LYS:HB3	24:X:27:TYR:CE2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:62:PRO:HD2	24:X:63:ASN:H	1.84	0.42
25:Y:44:LEU:HD12	25:Y:48:TYR:HD2	1.81	0.42
25:Y:122:LYS:CD	25:Y:123:ALA:N	2.62	0.42
30:d:56:ASP:OXT	30:d:56:ASP:CG	2.61	0.42
34:i:24:C:HO2'	34:i:25:A:H5'	1.79	0.42
34:i:181:A:H4'	34:i:182:C:OP1	2.16	0.42
34:i:1639:C:H2'	34:i:1640:C:C6	2.54	0.42
34:i:1745:C:O5'	34:i:1745:C:C6	2.71	0.42
35:l:51:ALA:N	35:l:54:TYR:CE2	2.87	0.42
2:B:124:HIS:CG	2:B:136:HIS:NE2	2.83	0.42
2:B:148:ASN:OD1	18:R:122:PRO:O	2.37	0.42
2:B:206:PRO:O	2:B:207:LEU:CB	2.67	0.42
3:C:68:LEU:O	22:V:15:ARG:NH2	2.52	0.42
3:C:109:PHE:CD2	3:C:132:VAL:HG23	2.54	0.42
3:C:192:ALA:HB3	3:C:195:PRO:CG	2.49	0.42
4:D:58:VAL:CG2	4:D:59:LEU:N	2.83	0.42
4:D:162:ASP:OD2	4:D:166:TYR:CE2	2.72	0.42
5:E:34:GLY:HA3	5:E:83:PRO:HG2	2.00	0.42
6:F:45:TYR:O	6:F:47:LYS:HD2	1.96	0.42
8:H:51:ILE:HD12	8:H:176:VAL:HA	2.01	0.42
9:I:191:GLU:HG2	9:I:192:GLY:N	2.34	0.42
10:J:37:LEU:CD2	10:J:43:VAL:CG2	2.96	0.42
10:J:110:LEU:CB	10:J:130:ILE:HD13	2.43	0.42
11:K:1:MET:HG2	11:K:2:LEU:HB3	2.01	0.42
12:L:10:TYR:CE2	12:L:12:LYS:HB3	2.54	0.42
12:L:80:MET:HE3	12:L:120:VAL:CG1	2.47	0.42
13:M:76:LEU:N	13:M:128:PHE:CZ	2.88	0.42
14:N:36:GLN:O	14:N:40:LEU:HG	2.20	0.42
14:N:56:ASP:HB2	28:b:52:THR:OG1	2.18	0.42
16:P:121:ILE:CG2	19:S:120:HIS:HA	2.44	0.42
19:S:33:ILE:CG2	19:S:36:VAL:CG1	2.97	0.42
20:T:75:MET:C	20:T:78:ILE:HG22	2.43	0.42
24:X:20:GLN:O	24:X:21:LYS:C	2.62	0.42
25:Y:12:PHE:CZ	25:Y:21:LYS:HB2	2.44	0.42
25:Y:97:TYR:CD1	25:Y:98:GLU:N	2.79	0.42
26:Z:57:LYS:O	26:Z:61:GLU:HG3	2.19	0.42
31:e:113:ASN:HB2	34:i:542:G:OP1	2.19	0.42
34:i:278:U:C6	34:i:278:U:H5"	2.55	0.42
34:i:522:C:H4'	34:i:523:A:OP1	2.18	0.42
34:i:742:C:C2	34:i:792:G:N2	2.87	0.42
34:i:1192:A:C2	34:i:1193:G:H1'	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1297:A:C2'	34:i:1298:G:H5"	2.50	0.42
34:i:1407:G:O6	34:i:1408:C:C4	2.73	0.42
36:n:103:LEU:O	36:n:106:TYR:HB2	2.20	0.42
36:n:112:HIS:O	36:n:112:HIS:CD2	2.73	0.42
2:B:87:ILE:CD1	2:B:220:LYS:HZ1	2.32	0.42
3:C:93:LYS:HG2	3:C:95:MET:H	1.83	0.42
3:C:240:LEU:CD1	3:C:240:LEU:N	2.82	0.42
4:D:97:CYS:O	4:D:99:ILE:CA	2.60	0.42
5:E:133:THR:O	5:E:133:THR:OG1	2.30	0.42
5:E:201:HIS:HB2	5:E:205:PHE:O	2.19	0.42
6:F:42:LYS:O	6:F:45:TYR:N	2.53	0.42
6:F:151:ILE:O	6:F:152:TRP:C	2.53	0.42
8:H:44:ASN:HB3	8:H:68:GLN:NE2	2.29	0.42
9:I:93:THR:O	9:I:94:LYS:HB2	2.20	0.42
9:I:108:PRO:HA	9:I:111:GLN:HG2	2.00	0.42
9:I:141:ARG:NH1	34:i:188:U:C2'	2.82	0.42
10:J:36:GLY:HA2	31:e:109:ARG:HH11	1.84	0.42
11:K:14:LEU:CD2	11:K:35:LEU:HD11	2.49	0.42
12:L:42:LEU:HB2	12:L:44:PHE:CD2	2.54	0.42
13:M:113:ASP:O	13:M:114:TYR:CG	2.73	0.42
14:N:64:ARG:HH22	34:i:914:U:H5'	1.84	0.42
15:O:64:ALA:C	15:O:66:ARG:N	2.76	0.42
16:P:123:TYR:OH	19:S:124:ARG:CG	2.57	0.42
17:Q:49:TYR:O	17:Q:53:GLU:N	2.50	0.42
17:Q:117:ARG:C	17:Q:118:THR:HG23	2.43	0.42
20:T:28:LEU:C	20:T:29:LYS:HG2	2.44	0.42
20:T:99:VAL:HG23	20:T:100:ALA:H	1.83	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
24:X:39:ASN:HA	24:X:40:PRO:HD3	1.96	0.42
24:X:126:ALA:C	24:X:128:VAL:CB	2.84	0.42
27:a:37:LYS:HG2	27:a:72:HIS:ND1	2.35	0.42
27:a:45:VAL:CB	27:a:53:ILE:CD1	2.97	0.42
33:g:5:MET:CE	33:g:312:VAL:CB	2.96	0.42
33:g:98:THR:C	33:g:99:ARG:HD2	2.37	0.42
33:g:198:VAL:CG1	33:g:199:THR:N	2.82	0.42
33:g:208:ALA:HA	33:g:217:MET:O	2.19	0.42
34:i:23:G:H1	34:i:641:U:H3	1.67	0.42
34:i:478:U:H5'	34:i:479:A:H5'	2.02	0.42
34:i:1209:C:H2'	34:i:1210:A:H5'	2.01	0.42
34:i:1393:U:H4'	34:i:1394:G:C5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:30:LEU:CD2	1:A:35:GLU:HG2	2.41	0.42
3:C:241:TRP:C	3:C:242:LYS:CG	2.89	0.42
5:E:31:PRO:CG	5:E:38:LEU:HD13	2.45	0.42
6:F:116:ILE:H	6:F:116:ILE:CD1	2.00	0.42
6:F:134:VAL:HB	6:F:136:ARG:NH2	2.34	0.42
7:G:46:LYS:HG2	7:G:118:GLU:OE1	2.19	0.42
7:G:85:ARG:CZ	25:Y:118:ARG:CZ	2.92	0.42
8:H:73:GLN:NE2	8:H:135:PHE:HE1	2.14	0.42
8:H:87:PHE:CD2	8:H:90:LYS:HD2	2.54	0.42
9:I:191:GLU:O	9:I:195:LEU:N	2.42	0.42
9:I:197:PHE:HE1	12:L:8:ARG:O	2.03	0.42
11:K:27:VAL:HG12	11:K:43:LEU:HD21	1.96	0.42
11:K:31:LYS:HA	11:K:40:VAL:O	2.20	0.42
11:K:49:MET:CB	11:K:69:TRP:CE2	3.02	0.42
15:O:92:ALA:O	15:O:93:LEU:HD23	2.20	0.42
17:Q:13:PHE:CE2	34:i:1393:U:N3	2.88	0.42
19:S:30:ILE:C	19:S:32:ALA:H	2.27	0.42
20:T:5:THR:HG21	20:T:7:LYS:HB2	2.00	0.42
20:T:40:ALA:O	20:T:43:LYS:HG2	2.20	0.42
21:U:49:LYS:HE2	21:U:49:LYS:HB2	1.57	0.42
25:Y:92:ALA:CA	25:Y:97:TYR:C	2.64	0.42
27:a:66:LYS:CB	27:a:68:TYR:CE2	3.00	0.42
31:e:80:LEU:HD21	36:n:84:TYR:CA	2.43	0.42
32:f:117:LEU:O	32:f:118:ARG:CB	2.67	0.42
33:g:32:LEU:HD23	33:g:69:VAL:HG22	2.02	0.42
33:g:119:GLN:HE21	33:g:121:VAL:HG22	1.67	0.42
33:g:142:VAL:C	33:g:143:GLN:O	2.59	0.42
34:i:1749:C:N4	34:i:1750:C:H42	2.18	0.42
1:A:16:LEU:HB2	1:A:17:LYS:NZ	2.35	0.42
1:A:106:GLY:O	1:A:109:THR:O	2.38	0.42
2:B:24:PRO:O	2:B:27:LYS:HB2	2.20	0.42
2:B:30:TRP:CD1	15:O:17:LEU:HD21	2.55	0.42
4:D:25:LEU:HD22	4:D:25:LEU:N	2.34	0.42
4:D:145:GLN:HG3	4:D:146:ARG:H	1.84	0.42
4:D:192:TRP:C	4:D:194:PRO:N	2.61	0.42
5:E:128:LYS:HB3	5:E:128:LYS:HE2	1.64	0.42
8:H:126:HIS:O	8:H:130:LEU:HD22	2.19	0.42
9:I:73:THR:HG21	34:i:293:A:H1'	2.02	0.42
10:J:32:ILE:C	10:J:35:TYR:O	2.59	0.42
10:J:131:ARG:NH1	10:J:143:ASN:ND2	2.63	0.42
11:K:14:LEU:CB	11:K:35:LEU:HD21	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:52:LEU:HA	11:K:55:ARG:HD3	2.01	0.42
13:M:76:LEU:HD23	13:M:76:LEU:HA	1.79	0.42
15:O:31:CYS:HB3	15:O:95:ILE:HG12	1.91	0.42
16:P:17:TYR:CE2	16:P:25:LEU:HD21	2.54	0.42
16:P:49:LEU:HD12	16:P:51:ARG:CD	2.39	0.42
16:P:100:LYS:CD	16:P:101:THR:HG23	2.46	0.42
19:S:89:ASP:HB3	19:S:90:VAL:H	1.47	0.42
20:T:83:GLN:HE22	20:T:85:ASN:CA	2.27	0.42
20:T:123:LEU:N	20:T:123:LEU:CD2	2.82	0.42
21:U:32:LEU:HD22	21:U:85:HIS:HB2	2.00	0.42
21:U:48:LEU:O	21:U:49:LYS:CG	2.67	0.42
22:V:64:GLU:O	22:V:67:ASP:N	2.53	0.42
23:W:15:ASN:O	23:W:19:LYS:HG3	2.20	0.42
24:X:58:GLU:OE1	36:n:60:HIS:NE2	2.52	0.42
27:a:45:VAL:CG2	27:a:46:GLU:H	2.27	0.42
28:b:36:LYS:NZ	28:b:43:ILE:HD11	2.34	0.42
31:e:119:VAL:O	31:e:119:VAL:HG12	2.19	0.42
32:f:85:TYR:C	32:f:86:THR:CG2	2.89	0.42
32:f:94:LYS:HD3	32:f:94:LYS:HA	1.40	0.42
32:f:95:ARG:NE	32:f:95:ARG:HA	2.34	0.42
35:l:44:LEU:HD21	35:l:86:GLN:NE2	2.34	0.42
1:A:141:ASN:ND2	22:V:29:HIS:CA	2.78	0.42
2:B:104:ASP:CG	2:B:105:LEU:N	2.71	0.42
3:C:167:CYS:SG	3:C:168:LYS:HG3	2.60	0.42
3:C:244:THR:CG2	3:C:246:PHE:CB	2.98	0.42
5:E:86:PHE:CZ	5:E:182:MET:SD	3.13	0.42
5:E:171:ASP:CG	5:E:172:PHE:CD2	2.96	0.42
6:F:44:LYS:CB	6:F:45:TYR:CD1	3.00	0.42
7:G:59:GLN:N	34:i:157:U:H4'	2.32	0.42
7:G:217:MET:CA	7:G:221:LYS:HB3	2.50	0.42
8:H:145:ARG:NH1	8:H:155:LYS:NZ	2.57	0.42
9:I:62:VAL:HG23	9:I:75:LYS:HE3	2.02	0.42
11:K:1:MET:HG2	11:K:2:LEU:CB	2.49	0.42
11:K:12:TYR:CD2	11:K:79:LEU:HD22	2.55	0.42
11:K:84:HIS:NE2	13:M:27:ILE:HD11	2.34	0.42
12:L:71:ARG:CG	12:L:73:LEU:CD2	2.98	0.42
12:L:94:HIS:CB	12:L:105:ARG:CD	2.75	0.42
13:M:61:TYR:HH	13:M:108:CYS:CB	2.32	0.42
14:N:38:TYR:CZ	14:N:78:LYS:CG	3.02	0.42
15:O:126:ILE:H	27:a:57:SER:HA	1.84	0.42
15:O:129:ILE:HD12	27:a:44:ILE:CG2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:41:GLN:NE2	16:P:84:ILE:HD13	2.34	0.42
17:Q:42:ILE:O	17:Q:43:GLU:C	2.63	0.42
18:R:50:ILE:O	18:R:51:ALA:C	2.62	0.42
23:W:37:PHE:CE1	23:W:103:VAL:CG1	3.03	0.42
24:X:62:PRO:CD	24:X:63:ASN:N	2.83	0.42
24:X:70:VAL:CG1	24:X:71:ARG:N	2.82	0.42
24:X:75:ILE:HD13	24:X:75:ILE:HA	1.74	0.42
25:Y:10:ARG:CG	25:Y:24:VAL:CB	2.85	0.42
25:Y:18:LEU:C	25:Y:19:GLN:OE1	2.63	0.42
28:b:31:TYR:CE1	28:b:81:ARG:NH1	2.87	0.42
29:c:42:ILE:HG23	29:c:43:ILE:H	1.84	0.42
33:g:30:MET:HG2	33:g:31:ILE:N	2.35	0.42
33:g:286:CYS:N	33:g:302:TYR:CD1	2.86	0.42
34:i:207:U:H2'	34:i:208:G:O5'	2.19	0.42
34:i:368:U:C4	34:i:369:C:C4	3.08	0.42
34:i:1079:A:C2	34:i:1855:G:C4	3.08	0.42
34:i:1301:C:H2'	34:i:1302:U:C6	2.55	0.42
34:i:1447:G:H1'	34:i:1470:A:N6	2.35	0.42
35:l:87:GLY:HA3	35:l:89:GLN:NE2	2.35	0.42
36:n:65:LEU:O	36:n:69:VAL:HB	2.18	0.42
1:A:57:LYS:HD2	1:A:160:ALA:O	2.20	0.42
2:B:145:LYS:CA	2:B:149:GLN:OE1	2.68	0.42
5:E:118:GLU:HA	5:E:121:TYR:CE2	2.54	0.42
5:E:197:ASN:O	5:E:209:HIS:N	2.48	0.42
5:E:231:GLY:C	5:E:233:LYS:H	2.28	0.42
6:F:124:ASP:O	6:F:200:ALA:CB	2.67	0.42
7:G:177:GLN:O	7:G:178:ARG:CB	2.68	0.42
8:H:31:GLU:O	8:H:37:LYS:CB	2.67	0.42
8:H:37:LYS:HG3	8:H:38:ALA:N	2.29	0.42
9:I:55:TYR:CE2	34:i:296:U:O2	2.73	0.42
10:J:50:LEU:CB	10:J:102:ILE:CD1	2.97	0.42
11:K:51:SER:O	11:K:55:ARG:HG2	2.19	0.42
11:K:58:VAL:HG23	11:K:70:TYR:O	2.20	0.42
12:L:40:ILE:CG2	12:L:41:GLY:N	2.83	0.42
12:L:100:ASN:C	12:L:101:ARG:HG2	2.43	0.42
17:Q:131:LYS:O	17:Q:132:PHE:C	2.63	0.42
18:R:103:LYS:HA	18:R:103:LYS:HD2	1.33	0.42
19:S:46:ARG:CD	20:T:50:GLU:OE2	2.68	0.42
22:V:40:ASP:O	22:V:42:VAL:CG2	2.63	0.42
24:X:128:VAL:HG12	24:X:133:LEU:HD11	2.00	0.42
26:Z:91:LEU:HD21	26:Z:96:LEU:HD12	1.98	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:a:66:LYS:HB2	27:a:68:TYR:CZ	2.54	0.42
32:f:136:PHE:HD1	32:f:137:ASP:H	1.67	0.42
33:g:131:LEU:CD2	33:g:132:TRP:N	2.83	0.42
33:g:241:PHE:O	33:g:291:TRP:CD1	2.73	0.42
33:g:298:LEU:HD11	33:g:310:TRP:CB	2.47	0.42
34:i:36:U:C2	34:i:510:A:C2	3.07	0.42
34:i:181:A:N9	34:i:182:C:C4	2.82	0.42
34:i:342:U:H2'	34:i:343:C:O4'	2.20	0.42
34:i:685:G:H1	34:i:732:C:H1'	1.84	0.42
34:i:786:C:OP1	34:i:873:C:C4'	2.68	0.42
34:i:1169:A:O3'	34:i:1711:C:O2'	2.38	0.42
36:n:38:VAL:CB	36:n:72:ASN:O	2.68	0.42
36:n:103:LEU:HB3	36:n:109:LEU:CD1	2.50	0.42
1:A:48:ILE:CB	18:R:105:MET:HE1	2.46	0.42
1:A:149:ASN:CG	1:A:150:THR:H	2.20	0.42
1:A:205:ARG:NH2	18:R:82:ASP:N	2.51	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:110:MET:HE1	2:B:213:ARG:CD	2.47	0.42
3:C:69:PHE:CE1	3:C:247:THR:HG23	2.55	0.42
4:D:20:GLU:HG2	11:K:64:TRP:CE3	2.55	0.42
4:D:74:GLN:HB2	4:D:84:VAL:HG11	1.98	0.42
4:D:79:PHE:CG	4:D:84:VAL:HB	2.55	0.42
4:D:164:VAL:CG1	4:D:165:ASN:N	2.83	0.42
6:F:86:LYS:O	6:F:90:VAL:HG23	2.19	0.42
7:G:181:THR:HA	7:G:182:PRO:HD3	1.23	0.42
8:H:16:PRO:O	8:H:20:GLU:OE2	2.37	0.42
8:H:72:PHE:HD1	8:H:72:PHE:HA	1.69	0.42
8:H:84:GLU:C	8:H:84:GLU:CD	2.88	0.42
8:H:146:VAL:HG23	23:W:50:PHE:CD1	2.52	0.42
9:I:141:ARG:O	9:I:142:SER:HB3	2.19	0.42
9:I:149:TYR:CD1	9:I:152:ARG:NH1	2.68	0.42
11:K:71:LEU:HG	11:K:76:ILE:HD13	2.01	0.42
12:L:22:ARG:HB2	12:L:23:VAL:H	1.66	0.42
14:N:2:GLY:O	14:N:3:ARG:HB2	2.19	0.42
14:N:115:LEU:C	14:N:119:GLU:CG	2.91	0.42
15:O:106:LYS:HG3	27:a:69:VAL:HG11	2.01	0.42
17:Q:43:GLU:HA	17:Q:45:ARG:H	1.81	0.42
17:Q:80:GLN:O	17:Q:81:ILE:C	2.62	0.42
17:Q:117:ARG:O	17:Q:118:THR:CB	2.68	0.42
17:Q:123:ASP:HA	17:Q:124:PRO:HD3	1.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:90:ALA:C	18:R:91:LEU:CD1	2.91	0.42
18:R:100:PRO:C	18:R:103:LYS:N	2.60	0.42
19:S:111:LEU:HD13	19:S:125:HIS:NE2	2.35	0.42
22:V:16:LYS:O	22:V:17:CYS:C	2.63	0.42
22:V:74:LYS:HA	22:V:79:VAL:HB	2.02	0.42
23:W:30:CYS:SG	23:W:61:ILE:CD1	2.97	0.42
24:X:91:LEU:C	24:X:93:PHE:N	2.60	0.42
24:X:140:ARG:C	24:X:141:PRO:O	2.59	0.42
25:Y:120:THR:HG22	34:i:151:C:OP1	2.20	0.42
26:Z:52:LYS:C	26:Z:54:THR:N	2.77	0.42
27:a:75:VAL:HG12	27:a:79:ILE:CD1	2.50	0.42
27:a:102:ARG:HA	27:a:103:PRO:HD2	1.46	0.42
29:c:44:ARG:NH1	29:c:58:LEU:HD22	2.34	0.42
32:f:146:LEU:CD2	34:i:1288:C:H5'	2.49	0.42
33:g:119:GLN:OE1	33:g:179:LEU:CD1	2.68	0.42
33:g:293:ALA:C	33:g:294:ASP:CG	2.81	0.42
34:i:227:A:HO2'	34:i:782:G:H1'	1.83	0.42
34:i:328:G:H2'	34:i:329:A:C8	2.55	0.42
34:i:1513:C:OP1	34:i:1514:U:H3'	2.19	0.42
35:l:66:LYS:HG2	35:l:67:PHE:CE2	2.55	0.42
36:n:103:LEU:O	36:n:106:TYR:N	2.53	0.42
2:B:181:LEU:HD23	2:B:181:LEU:HA	1.83	0.41
3:C:127:LYS:HD2	3:C:127:LYS:HA	1.34	0.41
3:C:151:ARG:HH12	3:C:240:LEU:HD13	1.67	0.41
4:D:5:ILE:C	34:i:1573:U:C5	2.98	0.41
4:D:21:LEU:HD23	4:D:21:LEU:HA	1.77	0.41
4:D:73:VAL:O	4:D:77:PHE:HD2	2.03	0.41
4:D:123:LEU:CD2	4:D:123:LEU:C	2.93	0.41
5:E:59:ASP:O	5:E:63:LYS:HG3	2.20	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
7:G:159:ARG:NH2	7:G:161:PRO:N	2.68	0.41
7:G:191:ARG:NH2	34:i:303:G:C8	2.87	0.41
8:H:14:GLU:HG3	8:H:15:LYS:N	2.32	0.41
8:H:65:PRO:O	8:H:66:VAL:HB	2.20	0.41
9:I:145:ILE:C	9:I:148:LYS:HG3	2.43	0.41
10:J:82:VAL:HG21	10:J:92:MET:HG2	2.02	0.41
10:J:122:SER:CB	34:i:517:C:OP1	2.67	0.41
10:J:136:ARG:NH1	10:J:161:LEU:HB2	2.35	0.41
11:K:16:PHE:CZ	11:K:76:ILE:O	2.73	0.41
11:K:37:ASP:CA	11:K:38:LYS:HD3	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:94:LEU:CG	11:K:95:ARG:N	2.82	0.41
11:K:97:SER:HG	11:K:98:ARG:H	1.57	0.41
12:L:10:TYR:CE2	12:L:12:LYS:NZ	2.79	0.41
13:M:127:TYR:CG	13:M:128:PHE:N	2.88	0.41
14:N:56:ASP:OD1	28:b:52:THR:CG2	2.67	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	2.38	0.41
16:P:100:LYS:HD2	16:P:101:THR:N	2.34	0.41
20:T:55:THR:CG2	20:T:56:ARG:N	2.82	0.41
20:T:60:THR:HG23	20:T:64:LEU:HD21	2.03	0.41
20:T:129:ARG:CB	34:i:1413:C:H4'	2.50	0.41
20:T:141:ALA:O	20:T:142:LYS:CB	2.64	0.41
20:T:141:ALA:C	20:T:142:LYS:HG3	2.19	0.41
21:U:40:ILE:HD13	21:U:53:PRO:CD	2.50	0.41
21:U:50:VAL:CG1	21:U:51:LYS:N	2.46	0.41
23:W:51:GLU:CD	28:b:8:LEU:HD13	2.45	0.41
24:X:138:LYS:CA	24:X:139:GLU:CD	2.93	0.41
25:Y:29:HIS:CE1	25:Y:67:GLY:HA2	2.30	0.41
26:Z:84:ALA:O	26:Z:85:ARG:C	2.63	0.41
30:d:50:ILE:HG22	30:d:52:PHE:CE2	2.54	0.41
32:f:146:LEU:HD22	34:i:1288:C:C4'	2.50	0.41
33:g:32:LEU:HD23	33:g:69:VAL:CG2	2.50	0.41
33:g:42:MET:SD	33:g:56:GLN:CB	3.04	0.41
33:g:48:ASP:CG	33:g:49:GLU:N	2.77	0.41
33:g:102:VAL:O	33:g:132:TRP:HH2	2.03	0.41
33:g:142:VAL:HG11	33:g:177:TRP:CD2	2.55	0.41
34:i:61:A:H2	34:i:325:G:O2'	1.89	0.41
34:i:1186:A:O2'	34:i:1709:U:H5"	2.19	0.41
34:i:1216:A:H2	34:i:1641:C:H42	1.62	0.41
36:n:103:LEU:CB	36:n:109:LEU:HD11	2.50	0.41
1:A:102:ARG:O	1:A:103:PHE:C	2.63	0.41
2:B:131:ASP:CG	2:B:180:ASP:CB	2.88	0.41
3:C:82:PHE:C	3:C:83:LEU:CD1	2.85	0.41
3:C:127:LYS:HE3	3:C:128:CYS:H	1.85	0.41
5:E:123:LEU:HD22	5:E:236:ILE:HG23	2.02	0.41
6:F:29:GLN:CD	6:F:29:GLN:N	2.78	0.41
6:F:41:VAL:HG13	6:F:42:LYS:N	2.35	0.41
6:F:112:LEU:C	6:F:112:LEU:CD2	2.94	0.41
7:G:147:LEU:O	7:G:148:SER:CB	2.66	0.41
7:G:214:ALA:O	7:G:217:MET:CG	2.68	0.41
8:H:144:ILE:O	23:W:52:ILE:N	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:42:ARG:C	9:I:43:ILE:HG13	2.44	0.41
9:I:110:ARG:HE	9:I:128:LYS:NZ	2.18	0.41
10:J:83:ARG:HG3	10:J:83:ARG:H	1.58	0.41
11:K:49:MET:HB3	11:K:69:TRP:CE2	2.55	0.41
13:M:71:GLU:OE1	13:M:71:GLU:CA	2.68	0.41
13:M:86:GLY:HA2	13:M:106:CYS:HB2	2.00	0.41
14:N:19:ARG:HH12	28:b:84:HIS:HB2	1.74	0.41
14:N:49:GLN:HG2	14:N:49:GLN:H	1.59	0.41
14:N:116:ILE:HA	14:N:119:GLU:OE1	2.20	0.41
14:N:139:TRP:C	14:N:139:TRP:HE3	2.27	0.41
16:P:97:TYR:OH	16:P:99:GLY:O	2.37	0.41
20:T:37:VAL:HG12	20:T:39:LEU:N	2.35	0.41
20:T:63:HIS:CE1	34:i:1582:G:N2	2.88	0.41
21:U:26:SER:HB2	21:U:110:VAL:HA	2.02	0.41
22:V:33:PRO:CB	22:V:53:TYR:O	2.68	0.41
23:W:20:ARG:HA	23:W:20:ARG:HD3	1.39	0.41
25:Y:29:HIS:O	25:Y:30:PRO:C	2.63	0.41
25:Y:54:VAL:HG12	25:Y:75:ILE:HG23	2.02	0.41
26:Z:111:ARG:HH11	26:Z:114:LYS:NZ	2.18	0.41
28:b:82:LYS:C	28:b:83:GLN:NE2	2.72	0.41
29:c:15:THR:HG21	29:c:33:GLU:CD	2.45	0.41
33:g:48:ASP:OD2	33:g:49:GLU:CA	2.67	0.41
33:g:131:LEU:CD2	33:g:131:LEU:C	2.94	0.41
33:g:258:ILE:CD1	33:g:267:VAL:HB	2.50	0.41
34:i:24:C:C2'	34:i:25:A:H5'	2.49	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:1654:U:O2	34:i:1659:A:N1	2.53	0.41
34:i:1826:A:O3'	34:i:1835:C:OP2	2.23	0.41
34:i:1843:G:O2'	35:l:65:LYS:HG3	2.20	0.41
35:l:44:LEU:HD13	35:l:84:GLN:HE22	1.83	0.41
1:A:124:VAL:CG1	1:A:130:ASP:HB2	2.50	0.41
1:A:158:ASP:CB	22:V:65:SER:CB	2.92	0.41
2:B:147:ASN:HD22	2:B:147:ASN:HA	1.58	0.41
2:B:206:PRO:HB2	2:B:207:LEU:H	1.69	0.41
3:C:87:LEU:CD2	3:C:87:LEU:C	2.91	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	2.51	0.41
5:E:118:GLU:C	5:E:120:LYS:H	2.28	0.41
5:E:211:LYS:HE3	5:E:217:SER:OG	2.20	0.41
6:F:38:TYR:HD1	6:F:144:LEU:HD13	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:89:THR:HG23	6:F:90:VAL:N	2.35	0.41
6:F:112:LEU:O	6:F:116:ILE:CG1	2.67	0.41
6:F:154:LEU:HD12	6:F:155:CYS:SG	2.58	0.41
6:F:190:ILE:CG2	6:F:191:LYS:N	2.82	0.41
8:H:23:ILE:HG23	8:H:24:SER:N	2.34	0.41
9:I:55:TYR:CZ	34:i:296:U:H1'	2.55	0.41
9:I:161:LEU:HD22	9:I:161:LEU:HA	1.76	0.41
9:I:163:GLU:O	9:I:166:PHE:HB2	2.20	0.41
10:J:34:GLU:HB3	10:J:35:TYR:CE2	2.55	0.41
10:J:180:LYS:HD2	10:J:181:GLY:N	2.35	0.41
11:K:9:ILE:CG2	11:K:10:ALA:N	2.82	0.41
12:L:82:MET:SD	12:L:85:THR:CG2	3.08	0.41
12:L:134:LEU:C	12:L:134:LEU:CD2	2.93	0.41
14:N:60:VAL:CG2	14:N:60:VAL:O	2.67	0.41
16:P:18:ARG:HD2	16:P:37:TYR:CB	2.41	0.41
16:P:78:THR:O	16:P:102:PHE:HE1	2.03	0.41
17:Q:88:ILE:O	17:Q:91:ALA:HB3	2.21	0.41
19:S:40:TYR:OH	19:S:99:LEU:HD21	2.21	0.41
20:T:78:ILE:CG2	20:T:79:TYR:N	2.83	0.41
21:U:68:THR:HG22	21:U:69:PRO:HD2	2.01	0.41
23:W:7:LEU:CD2	23:W:34:ILE:HG13	2.46	0.41
24:X:129:SER:O	24:X:133:LEU:HG	2.20	0.41
31:e:76:VAL:O	31:e:77:HIS:C	2.62	0.41
32:f:108:VAL:HG13	32:f:113:LYS:C	2.37	0.41
32:f:111:ASN:HA	32:f:112:GLY:HA2	1.78	0.41
33:g:289:LEU:CD2	33:g:289:LEU:N	2.82	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:C2	3.09	0.41
34:i:792:G:H3'	34:i:793:C:H5'	2.01	0.41
34:i:841:G:H2'	34:i:842:G:H8	1.79	0.41
34:i:1119:C:O2	34:i:1119:C:H2'	2.19	0.41
34:i:1125:G:C6	34:i:1126:G:C6	3.08	0.41
34:i:1537:C:C5	34:i:1538:U:C5	3.08	0.41
34:i:1546:U:O4'	34:i:1553:C:H1'	2.20	0.41
34:i:1822:C:O2'	35:l:69:CYS:CA	2.61	0.41
1:A:202:TYR:O	1:A:203:PHE:HB2	2.21	0.41
2:B:93:GLY:HA2	2:B:94:LYS:HD3	2.01	0.41
3:C:98:GLN:NE2	34:i:11:A:H5'	2.35	0.41
3:C:198:LEU:C	3:C:198:LEU:CD2	2.93	0.41
3:C:260:LYS:HD2	3:C:261:THR:CB	2.50	0.41
5:E:86:PHE:CZ	5:E:182:MET:HE3	2.37	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:64:LYS:HB3	7:G:97:VAL:HG11	2.03	0.41
7:G:68:LEU:N	7:G:68:LEU:CD2	2.84	0.41
7:G:200:LYS:HG3	7:G:201:LYS:N	2.35	0.41
10:J:34:GLU:C	10:J:35:TYR:CD2	2.98	0.41
10:J:61:LEU:HD23	10:J:98:LEU:CD1	2.35	0.41
10:J:132:GLN:O	34:i:552:U:H4'	2.21	0.41
12:L:52:GLU:C	12:L:52:GLU:CD	2.88	0.41
12:L:151:THR:O	12:L:152:LYS:C	2.63	0.41
13:M:22:LEU:HD12	13:M:88:TRP:HB3	2.02	0.41
13:M:35:ILE:CB	13:M:61:TYR:HE2	2.28	0.41
14:N:99:ARG:O	14:N:103:GLU:HG2	2.20	0.41
15:O:143:LYS:HG3	15:O:144:GLY:N	2.34	0.41
17:Q:58:LEU:HD21	17:Q:111:ILE:CD1	2.28	0.41
17:Q:102:GLU:OE1	33:g:55:PRO:N	2.31	0.41
20:T:33:TRP:HB2	20:T:36:THR:HG22	2.02	0.41
23:W:17:ALA:CB	23:W:25:VAL:HG11	2.45	0.41
23:W:24:GLN:N	23:W:24:GLN:OE1	2.53	0.41
23:W:96:SER:OG	23:W:98:GLN:CG	2.67	0.41
25:Y:55:ILE:HA	25:Y:75:ILE:HG12	2.02	0.41
28:b:36:LYS:HE2	28:b:43:ILE:HG12	2.02	0.41
28:b:83:GLN:NE2	28:b:83:GLN:CA	2.83	0.41
30:d:23:VAL:CG2	30:d:38:MET:HE2	2.18	0.41
31:e:78:GLY:C	36:n:81:LEU:HA	2.45	0.41
31:e:119:VAL:HA	31:e:121:PRO:CD	2.49	0.41
34:i:99:A:H61	34:i:423:A:H1'	1.85	0.41
34:i:138:C:P	34:i:1768:C:H4'	2.60	0.41
34:i:181:A:N9	34:i:182:C:C6	2.88	0.41
34:i:537:G:H2'	34:i:538:C:C5	2.54	0.41
34:i:1700:C:H2'	34:i:1701:G:C8	2.56	0.41
1:A:205:ARG:HG3	1:A:206:ASP:N	2.27	0.41
2:B:120:MET:CB	2:B:142:PHE:CE1	3.04	0.41
3:C:176:VAL:HG11	3:C:221:PHE:HA	2.03	0.41
3:C:177:LEU:O	3:C:177:LEU:CD1	2.62	0.41
4:D:16:ILE:CD1	30:d:22:ARG:HH22	2.20	0.41
4:D:41:VAL:O	4:D:41:VAL:HG13	2.19	0.41
4:D:175:VAL:HG12	4:D:182:LEU:HB2	2.00	0.41
4:D:193:ASP:OD1	4:D:203:PRO:C	2.62	0.41
6:F:45:TYR:O	6:F:46:ALA:C	2.63	0.41
6:F:61:PHE:HZ	29:c:51:ARG:HB2	1.15	0.41
6:F:111:VAL:HG13	6:F:181:ALA:HB2	2.03	0.41
6:F:115:ALA:HB3	6:F:116:ILE:HD13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:84:TYR:CE2	7:G:86:PRO:CG	2.88	0.41
7:G:142:ARG:NH1	7:G:142:ARG:HG2	2.30	0.41
8:H:39:GLN:CG	8:H:40:LEU:N	2.84	0.41
8:H:159:ASP:O	8:H:190:PRO:HG3	2.21	0.41
9:I:108:PRO:C	9:I:111:GLN:HG2	2.44	0.41
11:K:2:LEU:CD1	11:K:3:MET:N	2.21	0.41
12:L:46:THR:HA	12:L:47:PRO:HD2	1.91	0.41
14:N:16:LEU:HA	14:N:17:PRO:HD3	1.88	0.41
15:O:42:VAL:HG12	15:O:43:HIS:N	2.35	0.41
15:O:121:ARG:O	15:O:122:SER:C	2.64	0.41
16:P:97:TYR:CZ	16:P:99:GLY:C	2.98	0.41
20:T:11:GLN:CD	20:T:62:ARG:CD	2.93	0.41
21:U:66:ARG:CZ	21:U:75:LYS:HA	2.49	0.41
22:V:33:PRO:HB2	22:V:34:MET:H	1.73	0.41
25:Y:62:THR:OG1	34:i:571:U:C4'	2.69	0.41
26:Z:96:LEU:O	26:Z:112:ASN:CG	2.64	0.41
27:a:96:THR:HA	27:a:97:PRO:HD2	1.85	0.41
28:b:63:LEU:O	28:b:64:CYS:CB	2.69	0.41
33:g:163:PRO:HB2	33:g:179:LEU:CG	2.50	0.41
33:g:170:TRP:C	33:g:172:LYS:N	2.53	0.41
33:g:218:LEU:HD23	33:g:230:LEU:HD13	2.00	0.41
34:i:784:G:OP2	34:i:896:C:O2'	2.37	0.41
35:l:45:THR:O	35:l:85:LEU:HD12	2.21	0.41
1:A:30:LEU:HD11	1:A:38:ILE:HD12	1.90	0.41
1:A:111:GLN:HB3	3:C:48:VAL:CG1	2.46	0.41
1:A:141:ASN:CB	22:V:32:ILE:CG1	2.97	0.41
1:A:200:ASP:C	1:A:202:TYR:O	2.64	0.41
2:B:55:THR:O	2:B:56:LYS:CB	2.66	0.41
2:B:148:ASN:HB3	18:R:123:THR:N	2.36	0.41
2:B:208:HIS:NE2	2:B:209:ASP:OD2	2.53	0.41
3:C:170:THR:O	3:C:231:LYS:HD3	2.20	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	2.03	0.41
6:F:47:LYS:HB3	17:Q:117:ARG:HH22	1.86	0.41
7:G:171:THR:HB	34:i:75:G:N2	2.36	0.41
9:I:143:LYS:HE2	9:I:143:LYS:HB3	1.83	0.41
11:K:80:ARG:HA	11:K:85:LEU:CD1	2.50	0.41
12:L:70:GLY:O	12:L:72:ILE:HD12	2.20	0.41
12:L:126:VAL:HG23	12:L:145:VAL:HA	2.02	0.41
12:L:139:ARG:HG2	34:i:342:U:C5'	2.51	0.41
13:M:84:LYS:HB3	13:M:88:TRP:CZ2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:15:PHE:HD1	16:P:15:PHE:HA	1.63	0.41
16:P:60:LEU:HD13	16:P:89:MET:HG3	2.02	0.41
16:P:67:ALA:HB2	16:P:73:PRO:CG	2.50	0.41
16:P:81:ARG:HB3	34:i:1616:U:O2	2.21	0.41
17:Q:114:GLN:CG	17:Q:115:TYR:N	2.61	0.41
18:R:17:ILE:HG13	18:R:54:VAL:HG13	2.03	0.41
20:T:64:LEU:HD12	20:T:113:VAL:HG11	2.03	0.41
22:V:66:ASP:O	22:V:67:ASP:O	2.39	0.41
23:W:78:ARG:NE	23:W:126:LEU:HD23	2.35	0.41
24:X:58:GLU:O	24:X:59:ALA:O	2.38	0.41
25:Y:37:LYS:HA	25:Y:40:ILE:HG21	2.03	0.41
27:a:30:VAL:HG12	27:a:31:PRO:O	2.21	0.41
30:d:30:LEU:CD2	30:d:31:ILE:N	2.84	0.41
33:g:142:VAL:CG1	33:g:177:TRP:CH2	3.04	0.41
33:g:176:VAL:HG21	33:g:221:LEU:CD1	2.51	0.41
34:i:682:G:H2'	34:i:683:G:C8	2.56	0.41
34:i:1536:G:C2'	34:i:1537:C:H5'	2.51	0.41
34:i:1817:A:H4'	34:i:1818:A:H1'	2.02	0.41
36:n:62:ARG:CG	36:n:92:ILE:CD1	2.98	0.41
2:B:127:VAL:HG11	2:B:176:VAL:HB	2.02	0.41
4:D:77:PHE:C	4:D:79:PHE:N	2.78	0.41
5:E:92:ILE:CG2	5:E:95:THR:OG1	2.63	0.41
7:G:16:ILE:HG21	7:G:45:TRP:HZ2	1.79	0.41
7:G:49:VAL:CG2	7:G:115:LYS:HE2	2.51	0.41
7:G:211:LYS:O	7:G:215:LYS:HB3	2.21	0.41
8:H:83:LEU:HD12	8:H:84:GLU:CA	2.51	0.41
8:H:121:THR:CG2	8:H:124:ALA:HB2	2.50	0.41
9:I:158:ILE:HG23	9:I:159:SER:N	2.36	0.41
10:J:115:PHE:CD1	10:J:122:SER:CA	3.04	0.41
13:M:31:LEU:CD1	13:M:33:ARG:HB3	2.42	0.41
14:N:4:MET:HE1	14:N:124:ARG:NH2	2.36	0.41
15:O:31:CYS:HB2	15:O:95:ILE:HA	2.03	0.41
16:P:36:LEU:HA	16:P:37:TYR:CG	2.56	0.41
17:Q:58:LEU:CD1	17:Q:108:ILE:CG2	2.77	0.41
17:Q:90:LYS:HD3	17:Q:120:LEU:C	2.46	0.41
18:R:7:LYS:O	18:R:11:LYS:HG3	2.21	0.41
18:R:98:VAL:CG1	18:R:99:ASP:H	2.34	0.41
18:R:102:THR:CA	18:R:105:MET:HB2	2.46	0.41
19:S:134:GLN:H	19:S:134:GLN:HG2	1.59	0.41
21:U:61:LEU:O	21:U:81:GLN:HA	2.19	0.41
25:Y:50:THR:C	25:Y:51:THR:HG1	2.10	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:a:2:THR:CG2	34:i:1195:A:H5"	2.47	0.41
28:b:23:ARG:O	28:b:24:LEU:C	2.64	0.41
33:g:4:GLN:CG	33:g:5:MET:N	2.83	0.41
33:g:102:VAL:CG1	33:g:103:GLY:N	2.83	0.41
33:g:261:LEU:HA	33:g:264:LYS:HE3	1.98	0.41
34:i:126:G:O2'	34:i:127:C:C5	2.70	0.41
34:i:1644:U:O2	34:i:1670:A:C2	2.74	0.41
34:i:1750:C:O5'	34:i:1750:C:C6	2.70	0.41
34:i:1817:A:H4'	34:i:1818:A:C4'	2.51	0.41
34:i:1826:A:C2'	34:i:1835:C:OP1	2.41	0.41
35:l:67:PHE:CZ	35:l:96:PHE:CD1	3.09	0.41
36:n:73:THR:HG22	36:n:73:THR:O	2.21	0.41
1:A:152:SER:HB3	1:A:153:PRO:HD2	2.01	0.41
1:A:157:VAL:O	22:V:66:ASP:OD2	2.38	0.41
2:B:119:THR:O	2:B:142:PHE:HA	2.21	0.41
2:B:161:VAL:HG12	2:B:165:ARG:CZ	2.49	0.41
3:C:72:PRO:N	22:V:29:HIS:CE1	2.87	0.41
4:D:212:GLU:HB2	18:R:19:LYS:HD3	1.96	0.41
5:E:195:ILE:O	5:E:196:THR:OG1	2.36	0.41
5:E:248:ILE:HD11	10:J:72:PHE:CD2	2.15	0.41
5:E:259:LYS:CG	5:E:260:GLN:N	2.79	0.41
6:F:167:LYS:CG	6:F:171:GLU:HG2	2.50	0.41
7:G:115:LYS:HE2	7:G:115:LYS:HB2	1.66	0.41
9:I:118:ALA:HB2	9:I:149:TYR:CD1	2.55	0.41
10:J:171:GLY:O	10:J:175:ARG:N	2.50	0.41
11:K:1:MET:HE3	34:i:1270:G:H21	1.79	0.41
11:K:18:GLU:C	11:K:92:ALA:HB3	2.38	0.41
12:L:45:LYS:O	12:L:47:PRO:HD3	2.20	0.41
12:L:56:ILE:HG22	12:L:57:ASP:N	2.35	0.41
13:M:101:ARG:NE	13:M:101:ARG:HA	2.36	0.41
13:M:124:ILE:O	13:M:128:PHE:HB2	2.21	0.41
16:P:17:TYR:CE1	16:P:18:ARG:HG3	2.56	0.41
16:P:89:MET:HB3	16:P:107:ILE:HD11	1.95	0.41
19:S:61:GLU:CA	19:S:64:VAL:HG22	2.51	0.41
20:T:47:PRO:CG	20:T:52:TRP:CD1	3.02	0.41
23:W:20:ARG:NH2	34:i:1135:C:C6	2.82	0.41
23:W:36:ARG:HE	23:W:110:ILE:HB	1.85	0.41
24:X:8:ARG:C	24:X:10:ALA:H	2.28	0.41
25:Y:62:THR:OG1	34:i:571:U:H4'	2.21	0.41
27:a:95:ARG:CZ	34:i:987:G:C6	3.03	0.41
28:b:52:THR:O	28:b:53:VAL:C	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:c:62:GLU:HB3	29:c:63:ARG:H	1.45	0.41
31:e:103:THR:HG21	34:i:514:U:C6	2.56	0.41
33:g:62:HIS:ND1	33:g:84:ASP:OD2	2.44	0.41
33:g:163:PRO:HB2	33:g:179:LEU:CB	2.51	0.41
33:g:202:PRO:CB	33:g:203:ASP:OD1	2.48	0.41
33:g:271:LYS:HB2	33:g:271:LYS:HE2	1.81	0.41
34:i:1411:C:C5	34:i:1412:C:N1	2.89	0.41
34:i:1740:A:C2	34:i:1741:U:C5	3.09	0.41
34:i:1817:A:C4'	34:i:1818:A:O4'	2.69	0.41
34:i:1825:A:C4'	34:i:1846:C:O2'	2.69	0.41
35:l:33:ILE:CG1	35:l:93:ILE:HG21	2.33	0.41
1:A:48:ILE:HG21	18:R:105:MET:HE1	2.00	0.41
1:A:134:LEU:CD2	1:A:144:THR:HG21	2.51	0.41
2:B:56:LYS:CE	2:B:56:LYS:HA	2.48	0.41
3:C:48:VAL:HG23	3:C:75:GLU:HG2	2.01	0.41
3:C:59:LYS:CD	3:C:254:PHE:CE1	3.04	0.41
3:C:67:TYR:CD1	22:V:27:LYS:NZ	2.81	0.41
3:C:113:VAL:HG12	3:C:114:ALA:N	2.34	0.41
3:C:127:LYS:HD2	34:i:1353:A:OP1	2.21	0.41
3:C:151:ARG:NH2	22:V:1:MET:SD	2.94	0.41
3:C:168:LYS:CG	23:W:95:PRO:HA	2.51	0.41
5:E:20:LEU:HD21	5:E:50:ASN:ND2	2.35	0.41
5:E:153:LEU:CD2	7:G:216:ARG:HH12	2.34	0.41
5:E:185:GLY:HA2	5:E:189:LEU:HD13	2.03	0.41
7:G:25:ARG:O	7:G:28:TYR:N	2.26	0.41
7:G:64:LYS:HE2	7:G:67:VAL:HG12	2.02	0.41
7:G:212:LEU:O	7:G:216:ARG:CG	2.69	0.41
8:H:6:ALA:HB2	8:H:10:LYS:NZ	2.36	0.41
8:H:34:SER:C	8:H:35:ASP:OD1	2.64	0.41
8:H:80:VAL:HA	8:H:83:LEU:CG	2.50	0.41
8:H:115:LYS:O	8:H:116:ARG:CB	2.50	0.41
8:H:133:LEU:HD13	8:H:173:PHE:HA	2.02	0.41
9:I:145:ILE:O	9:I:149:TYR:CD2	2.73	0.41
10:J:121:LYS:HA	10:J:121:LYS:HD3	1.65	0.41
10:J:136:ARG:HG2	10:J:141:VAL:CA	2.51	0.41
11:K:14:LEU:HB2	11:K:35:LEU:HD21	2.02	0.41
12:L:73:LEU:HD22	12:L:90:ARG:NH2	2.36	0.41
13:M:43:ASP:O	13:M:44:LYS:HG3	2.20	0.41
14:N:3:ARG:H	34:i:919:G:H5"	1.86	0.41
14:N:38:TYR:CD1	14:N:78:LYS:HG3	2.56	0.41
14:N:38:TYR:HE1	14:N:78:LYS:NZ	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:34:PHE:CD2	15:O:98:ARG:NH1	2.87	0.41
15:O:79:GLN:HB2	29:c:5:ARG:HG3	1.03	0.41
15:O:83:GLN:O	15:O:87:GLU:HB2	2.21	0.41
16:P:121:ILE:HA	19:S:120:HIS:HB2	2.03	0.41
17:Q:44:PRO:CB	17:Q:81:ILE:HD11	2.50	0.41
17:Q:85:ARG:HA	17:Q:88:ILE:HG12	2.03	0.41
19:S:46:ARG:NH1	20:T:50:GLU:CA	2.82	0.41
19:S:139:THR:C	19:S:141:ARG:N	2.79	0.41
20:T:40:ALA:HB3	20:T:43:LYS:HE3	2.02	0.41
20:T:40:ALA:HB3	20:T:43:LYS:CE	2.51	0.41
20:T:49:ASP:O	20:T:52:TRP:HD1	2.03	0.41
21:U:63:ILE:HG21	30:d:43:PHE:CE2	2.56	0.41
21:U:72:GLU:OE2	34:i:1242:A:H1'	2.21	0.41
22:V:24:ILE:HD13	22:V:24:ILE:C	1.95	0.41
23:W:53:ILE:CG2	28:b:25:VAL:HG21	2.48	0.41
24:X:76:LYS:HD3	34:i:473:C:OP1	2.21	0.41
24:X:95:GLU:HB2	24:X:140:ARG:HH22	1.84	0.41
25:Y:21:LYS:N	25:Y:21:LYS:HD2	2.30	0.41
25:Y:35:VAL:HG12	25:Y:39:GLU:OE1	2.20	0.41
28:b:15:GLU:O	28:b:23:ARG:NE	2.44	0.41
28:b:32:PHE:CE1	28:b:47:PHE:CD1	3.09	0.41
28:b:62:VAL:O	28:b:63:LEU:HB2	2.20	0.41
31:e:105:ARG:HH11	31:e:106:ALA:CB	2.31	0.41
31:e:105:ARG:O	31:e:109:ARG:HG2	2.20	0.41
31:e:123:PHE:C	31:e:123:PHE:CD2	2.99	0.41
32:f:140:TYR:HE1	32:f:146:LEU:O	1.90	0.41
33:g:218:LEU:HD23	33:g:230:LEU:HD11	2.03	0.41
33:g:234:ASP:HB2	33:g:254:PRO:HD2	2.02	0.41
33:g:234:ASP:OD2	33:g:254:PRO:HG2	2.21	0.41
33:g:240:CYS:SG	33:g:291:TRP:CD1	3.07	0.41
34:i:66:G:O2'	34:i:67:C:H5'	2.21	0.41
34:i:186:G:O2'	34:i:292:A:OP1	2.39	0.41
34:i:548:G:C6	34:i:549:G:C6	3.09	0.41
34:i:603:C:C5	34:i:617:U:C4	3.08	0.41
34:i:1115:A:H3'	34:i:1116:U:H5"	2.02	0.41
34:i:1531:G:H2'	34:i:1532:A:H8	1.85	0.41
34:i:1750:C:O2'	34:i:1751:G:P	2.79	0.41
35:l:30:TYR:CZ	35:l:106:ASP:O	2.74	0.41
35:l:33:ILE:HG13	35:l:93:ILE:HG23	1.99	0.41
35:l:44:LEU:CD2	35:l:86:GLN:CG	2.83	0.41
35:l:50:ILE:CG1	35:l:59:LEU:HD11	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:n:35:TYR:O	36:n:36:ALA:HB2	2.20	0.41
36:n:37:GLN:HB2	36:n:52:PHE:CE1	2.56	0.41
36:n:71:ILE:O	36:n:71:ILE:CD1	2.68	0.41
1:A:161:ILE:CG2	1:A:174:MET:HE2	2.51	0.41
2:B:139:CYS:HB3	2:B:168:MET:SD	2.59	0.41
2:B:182:LYS:O	2:B:185:VAL:HB	2.21	0.41
3:C:218:LEU:CD1	3:C:219:GLY:N	2.72	0.41
4:D:29:LEU:CD1	4:D:50:ILE:HG21	2.51	0.41
4:D:29:LEU:CD2	4:D:65:ARG:NH2	2.83	0.41
4:D:123:LEU:CD1	4:D:154:ASP:HB2	2.46	0.41
5:E:18:TRP:CD2	5:E:46:ILE:HD13	2.56	0.41
5:E:34:GLY:HA3	5:E:83:PRO:CG	2.51	0.41
5:E:123:LEU:HD21	5:E:235:TRP:CB	2.51	0.41
7:G:122:PRO:CD	7:G:123:GLY:N	2.83	0.41
8:H:58:LYS:O	8:H:90:LYS:HA	2.21	0.41
11:K:18:GLU:O	11:K:92:ALA:HB1	2.04	0.41
13:M:113:ASP:O	13:M:114:TYR:CD2	2.74	0.41
14:N:24:THR:C	14:N:26:LEU:N	2.77	0.41
14:N:94:LYS:CE	34:i:1006:G:OP1	2.68	0.41
16:P:41:GLN:OE1	16:P:45:LEU:HD12	2.21	0.41
16:P:49:LEU:HA	16:P:51:ARG:HE	1.84	0.41
16:P:110:GLU:C	16:P:112:ILE:H	2.28	0.41
16:P:111:MET:O	16:P:114:HIS:CG	2.70	0.41
17:Q:37:ARG:HB2	17:Q:41:MET:HG3	2.03	0.41
21:U:37:ALA:O	21:U:41:ARG:HG3	2.20	0.41
21:U:82:MET:CE	30:d:51:GLY:CA	2.95	0.41
22:V:5:ALA:C	22:V:7:GLU:H	2.29	0.41
23:W:107:SER:HA	34:i:858:A:C4	2.56	0.41
25:Y:101:LYS:HB3	25:Y:102:THR:H	1.66	0.41
32:f:140:TYR:CZ	32:f:146:LEU:C	2.98	0.41
33:g:17:TRP:CD1	33:g:303:THR:O	2.74	0.41
34:i:221:A:C2	34:i:289:G:C6	3.09	0.41
34:i:1469:G:H21	34:i:1471:G:H2'	1.85	0.41
1:A:191:ARG:HD3	1:A:193:HIS:CD2	2.56	0.40
1:A:193:HIS:CG	1:A:194:PRO:CD	3.03	0.40
2:B:66:VAL:HG22	2:B:87:ILE:CA	2.51	0.40
2:B:140:VAL:CG1	2:B:211:PHE:HD2	2.34	0.40
2:B:151:ARG:HD2	2:B:153:THR:HG23	2.00	0.40
3:C:45:TRP:CD1	3:C:46:LEU:N	2.89	0.40
3:C:60:ILE:C	3:C:82:PHE:CZ	2.97	0.40
3:C:93:LYS:CE	3:C:218:LEU:HD23	2.44	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:127:LYS:CD	3:C:142:LEU:HD11	2.42	0.40
4:D:47:GLU:HA	4:D:85:GLU:HG2	2.03	0.40
4:D:111:GLY:CA	4:D:113:LEU:HD11	2.51	0.40
4:D:123:LEU:HA	4:D:126:ILE:HG12	2.01	0.40
4:D:151:LYS:NZ	34:i:1482:A:OP2	2.54	0.40
5:E:85:GLY:HA2	5:E:109:PHE:CZ	2.56	0.40
5:E:153:LEU:H	5:E:153:LEU:HG	1.42	0.40
5:E:169:ILE:O	5:E:169:ILE:HG13	2.21	0.40
5:E:192:ILE:HD13	5:E:238:LEU:CD2	2.51	0.40
6:F:29:GLN:O	6:F:31:ASN:N	2.54	0.40
6:F:95:HIS:NE2	26:Z:103:HIS:HB2	2.35	0.40
6:F:103:LEU:CD2	6:F:178:ILE:HG21	2.51	0.40
6:F:123:GLU:CB	29:c:59:LEU:CD1	2.97	0.40
8:H:145:ARG:HD3	8:H:155:LYS:NZ	2.36	0.40
9:I:65:PHE:HA	9:I:187:GLY:O	2.21	0.40
9:I:139:LYS:CD	9:I:145:ILE:CD1	2.98	0.40
9:I:141:ARG:HH12	34:i:188:U:C2'	2.31	0.40
9:I:154:LYS:C	9:I:154:LYS:HZ3	2.25	0.40
9:I:157:LYS:O	9:I:158:ILE:CG2	2.69	0.40
10:J:26:ASP:CA	31:e:116:PHE:HZ	2.34	0.40
10:J:38:ARG:HH22	31:e:104:GLY:H	1.67	0.40
10:J:50:LEU:HD12	10:J:102:ILE:HG12	2.02	0.40
12:L:107:LYS:CD	34:i:344:U:OP2	2.69	0.40
12:L:133:PRO:O	34:i:374:U:H5'	2.21	0.40
13:M:18:LEU:CD2	13:M:18:LEU:C	2.94	0.40
14:N:38:TYR:HE1	14:N:78:LYS:HZ3	1.61	0.40
16:P:22:LEU:HA	16:P:25:LEU:CB	2.47	0.40
16:P:28:MET:SD	16:P:32:GLN:OE1	2.78	0.40
18:R:22:THR:HG22	18:R:73:LEU:HD12	1.92	0.40
18:R:24:LEU:HB2	18:R:58:MET:HE3	2.03	0.40
19:S:39:ARG:CZ	20:T:38:LYS:HD3	2.49	0.40
19:S:88:LYS:H	19:S:95:TYR:HE1	1.62	0.40
21:U:26:SER:OG	21:U:27:ARG:N	2.49	0.40
21:U:44:LYS:HB2	21:U:49:LYS:HA	2.02	0.40
21:U:48:LEU:HG	21:U:48:LEU:H	1.39	0.40
21:U:68:THR:HB	21:U:70:CYS:C	2.45	0.40
22:V:74:LYS:CA	22:V:79:VAL:HB	2.51	0.40
23:W:78:ARG:HD3	23:W:126:LEU:HD23	2.00	0.40
24:X:28:LYS:HE2	24:X:32:LEU:HD11	2.02	0.40
24:X:88:ASP:OD2	31:e:87:ARG:CB	2.69	0.40
25:Y:104:ARG:HA	25:Y:107:ARG:CZ	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:c:32:VAL:O	29:c:32:VAL:HG23	2.22	0.40
31:e:78:GLY:O	36:n:84:TYR:HB2	2.21	0.40
33:g:261:LEU:O	33:g:264:LYS:HD2	2.18	0.40
34:i:109:U:H6	34:i:109:U:O5'	2.04	0.40
34:i:184:G:C5	34:i:185:C:N4	2.88	0.40
34:i:429:A:H1'	34:i:1794:A:C1'	2.50	0.40
34:i:728:U:H2'	34:i:729:C:C6	2.56	0.40
34:i:1428:U:C4	34:i:1429:C:C4	3.09	0.40
35:l:88:ASP:HB2	35:l:90:ARG:NH2	2.35	0.40
36:n:112:HIS:O	36:n:112:HIS:CG	2.73	0.40
1:A:57:LYS:CD	22:V:70:LEU:HD21	2.51	0.40
3:C:53:ARG:NH1	3:C:258:LEU:O	2.52	0.40
3:C:154:TYR:CG	3:C:158:LYS:HB3	2.56	0.40
3:C:191:SER:HB3	3:C:195:PRO:HG2	2.03	0.40
4:D:48:ILE:CG2	4:D:86:LEU:CG	2.82	0.40
5:E:143:ASP:OD1	5:E:145:ARG:HD2	2.21	0.40
6:F:20:PHE:CZ	6:F:50:PRO:HG3	2.56	0.40
8:H:6:ALA:CA	8:H:10:LYS:CD	2.51	0.40
8:H:65:PRO:CG	8:H:68:GLN:CD	2.90	0.40
8:H:117:PRO:O	8:H:120:ARG:HB2	2.21	0.40
8:H:148:LEU:C	8:H:148:LEU:CD2	2.94	0.40
8:H:152:ARG:O	8:H:153:LEU:HD23	2.21	0.40
9:I:29:LEU:HD21	9:I:31:ARG:NH1	2.34	0.40
9:I:48:VAL:HG11	9:I:54:LYS:CE	2.50	0.40
9:I:191:GLU:CA	9:I:195:LEU:HB2	2.50	0.40
10:J:66:LYS:HE3	34:i:687:G:O2'	1.96	0.40
14:N:136:PRO:HD2	14:N:139:TRP:HD1	1.86	0.40
15:O:137:SER:HB2	34:i:938:G:H21	1.85	0.40
17:Q:106:LYS:HD3	17:Q:106:LYS:HA	1.90	0.40
19:S:12:ILE:C	19:S:13:LEU:HD23	2.46	0.40
19:S:36:VAL:HA	19:S:40:TYR:HD2	1.84	0.40
19:S:137:LYS:HE3	34:i:1232:G:O6	2.22	0.40
20:T:87:VAL:HG12	20:T:88:MET:CE	2.52	0.40
22:V:40:ASP:HB2	22:V:47:ASN:HD22	1.77	0.40
23:W:18:GLU:HG2	23:W:65:LEU:CD1	2.47	0.40
23:W:55:ASP:C	23:W:57:ARG:H	2.29	0.40
24:X:55:VAL:HG12	24:X:57:VAL:CG2	2.52	0.40
24:X:60:LYS:HE2	24:X:116:PRO:HB3	2.01	0.40
27:a:98:PRO:HA	27:a:99:PRO:HD3	1.65	0.40
28:b:15:GLU:HB2	28:b:16:LYS:HD3	2.04	0.40
33:g:5:MET:HE1	33:g:312:VAL:CB	2.43	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:168:C:C5	34:i:169:U:C4	3.09	0.40
34:i:685:G:N1	34:i:732:C:H1'	2.36	0.40
34:i:1429:C:C2'	34:i:1430:C:O5'	2.69	0.40
34:i:1749:C:O5'	34:i:1749:C:C6	2.70	0.40
34:i:1856:G:H1'	34:i:1857:A:H2'	2.03	0.40
35:l:47:VAL:N	35:l:83:ILE:CA	2.83	0.40
36:n:39:ILE:O	36:n:73:THR:HG23	2.21	0.40
36:n:62:ARG:CB	36:n:92:ILE:C	2.94	0.40
36:n:103:LEU:C	36:n:106:TYR:H	2.29	0.40
1:A:57:LYS:NZ	22:V:70:LEU:HD21	2.36	0.40
1:A:186:ARG:HH11	1:A:186:ARG:CA	2.33	0.40
3:C:54:LEU:HB3	3:C:60:ILE:HG13	2.02	0.40
3:C:73:ILE:HD11	3:C:78:ILE:CB	2.37	0.40
3:C:174:GLY:O	3:C:175:SER:OG	2.37	0.40
3:C:246:PHE:HB3	3:C:247:THR:H	1.63	0.40
3:C:254:PHE:O	3:C:257:HIS:CB	2.70	0.40
4:D:197:LYS:CA	4:D:198:ILE:HG23	2.41	0.40
4:D:211:VAL:N	18:R:38:ILE:O	2.55	0.40
5:E:153:LEU:CD2	7:G:216:ARG:NH1	2.85	0.40
6:F:37:ASP:OD1	6:F:37:ASP:N	2.53	0.40
6:F:127:ARG:O	6:F:127:ARG:HD2	2.16	0.40
7:G:129:VAL:HG13	7:G:130:PRO:HD2	2.03	0.40
7:G:173:ALA:CB	34:i:77:A:H4'	2.51	0.40
8:H:109:ARG:O	8:H:110:THR:CB	2.68	0.40
8:H:145:ARG:HD3	8:H:155:LYS:HZ2	1.86	0.40
10:J:130:ILE:CA	10:J:135:ILE:HD13	2.48	0.40
11:K:16:PHE:CD2	11:K:79:LEU:CD1	3.05	0.40
11:K:90:VAL:HA	11:K:91:PRO:HD2	1.82	0.40
12:L:50:ALA:N	12:L:116:CYS:SG	2.94	0.40
12:L:66:VAL:HB	12:L:131:CYS:SG	2.62	0.40
12:L:77:VAL:CG1	12:L:80:MET:SD	2.96	0.40
12:L:122:ILE:O	12:L:122:ILE:HG13	2.21	0.40
14:N:58:HIS:CD2	14:N:59:GLY:N	2.89	0.40
15:O:94:HIS:NE2	15:O:127:GLY:HA3	2.37	0.40
16:P:44:ARG:CD	16:P:115:TYR:HE1	2.27	0.40
20:T:29:LYS:HE2	20:T:29:LYS:HB3	1.83	0.40
21:U:16:ALA:C	21:U:17:ILE:HG13	2.46	0.40
22:V:18:SER:N	22:V:54:ALA:O	2.50	0.40
27:a:45:VAL:C	27:a:46:GLU:HG3	2.46	0.40
28:b:36:LYS:HE3	28:b:43:ILE:CD1	2.45	0.40
33:g:17:TRP:CD2	33:g:36:ARG:CZ	3.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:g:88:ARG:HG2	33:g:97:THR:CG2	2.49	0.40
33:g:228:TYR:HH	33:g:261:LEU:HD12	1.85	0.40
34:i:384:G:H5"	34:i:384:G:C8	2.57	0.40
34:i:1200:A:N6	34:i:1689:U:H3	2.18	0.40
34:i:1532:A:H61	34:i:1591:U:H3	1.69	0.40
34:i:1590:U:C5	34:i:1591:U:C5	3.09	0.40
35:l:31:ILE:CG1	35:l:103:ALA:HB2	2.52	0.40
35:l:112:GLY:C	35:l:113:PHE:N	2.79	0.40
1:A:145:ILE:HG23	1:A:159:ILE:HG23	2.03	0.40
1:A:204:TYR:C	1:A:204:TYR:HD2	2.29	0.40
3:C:48:VAL:CG2	3:C:75:GLU:HG2	2.52	0.40
3:C:50:LYS:HG2	3:C:51:LEU:N	2.36	0.40
3:C:238:PRO:HA	3:C:241:TRP:NE1	2.35	0.40
5:E:259:LYS:HG2	5:E:259:LYS:HZ2	1.60	0.40
6:F:28:VAL:HG13	6:F:110:GLN:HG2	2.03	0.40
7:G:121:ILE:CG1	7:G:122:PRO:HD3	2.51	0.40
8:H:159:ASP:O	8:H:160:LYS:CB	2.69	0.40
9:I:25:ARG:NE	9:I:27:TYR:OH	2.54	0.40
10:J:53:ILE:HD13	10:J:105:PHE:CZ	2.56	0.40
10:J:82:VAL:CG2	10:J:92:MET:HG2	2.51	0.40
10:J:84:ILE:CD1	10:J:86:VAL:HG23	2.49	0.40
11:K:35:LEU:HB3	11:K:36:ALA:H	1.07	0.40
11:K:47:LYS:HD3	11:K:47:LYS:HA	1.92	0.40
11:K:72:THR:O	11:K:76:ILE:HG12	2.22	0.40
12:L:17:PHE:CG	12:L:18:GLN:O	2.75	0.40
12:L:56:ILE:O	12:L:57:ASP:C	2.64	0.40
13:M:68:LEU:HD23	13:M:68:LEU:HA	1.90	0.40
13:M:85:LEU:HD21	13:M:109:VAL:HG22	2.03	0.40
14:N:94:LYS:HE2	34:i:1006:G:OP1	2.21	0.40
15:O:97:LEU:CD1	15:O:112:ALA:HB1	2.45	0.40
16:P:30:TYR:OH	16:P:51:ARG:NH1	2.54	0.40
17:Q:145:TYR:HD1	17:Q:145:TYR:HA	1.42	0.40
19:S:33:ILE:CB	19:S:36:VAL:HG11	2.36	0.40
19:S:82:TRP:CZ2	34:i:1562:G:H1'	2.56	0.40
19:S:82:TRP:CG	19:S:83:PHE:N	2.89	0.40
21:U:117:ALA:O	21:U:118:ASP:O	2.39	0.40
22:V:33:PRO:HB3	22:V:54:ALA:HA	2.02	0.40
27:a:103:PRO:CA	27:a:107:ALA:HB2	2.50	0.40
33:g:46:THR:HB	33:g:48:ASP:CB	2.38	0.40
34:i:797:U:H3	34:i:860:A:H61	1.69	0.40
34:i:1041:U:C5	34:i:1042:U:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:1229:G:C6	34:i:1230:C:C4	3.09	0.40
34:i:1535:G:O6	34:i:1588:C:N3	2.54	0.40
34:i:1843:G:N2	35:l:68:ALA:O	2.55	0.40
35:l:62:ALA:HB3	35:l:100:ILE:HD13	2.03	0.40
1:A:34:MET:SD	1:A:37:TYR:HE2	2.44	0.40
1:A:36:GLN:O	1:A:53:ARG:CZ	2.69	0.40
1:A:36:GLN:O	1:A:53:ARG:NH1	2.54	0.40
1:A:126:ASP:O	1:A:130:ASP:HB2	2.22	0.40
2:B:88:THR:HG23	2:B:96:CYS:HB3	2.03	0.40
2:B:147:ASN:C	2:B:149:GLN:N	2.79	0.40
4:D:4:GLN:O	4:D:5:ILE:CG1	2.69	0.40
4:D:53:THR:CG2	4:D:91:VAL:CB	2.89	0.40
4:D:102:ALA:O	4:D:103:GLU:C	2.64	0.40
6:F:112:LEU:CB	6:F:177:LEU:HD11	2.50	0.40
6:F:204:ARG:NH1	29:c:60:GLU:OE1	2.51	0.40
8:H:92:VAL:O	8:H:93:VAL:HB	2.22	0.40
9:I:144:LYS:HE2	34:i:189:G:H5"	2.03	0.40
9:I:157:LYS:O	9:I:158:ILE:CB	2.68	0.40
9:I:157:LYS:HG2	12:L:22:ARG:NH1	2.34	0.40
10:J:79:ARG:CD	10:J:83:ARG:HD2	2.49	0.40
12:L:6:THR:O	12:L:7:GLU:C	2.53	0.40
12:L:141:ASN:O	12:L:143:LEU:CD1	2.70	0.40
13:M:64:LEU:HD23	13:M:64:LEU:HA	1.91	0.40
13:M:78:LYS:HD2	13:M:79:VAL:H	1.87	0.40
17:Q:45:ARG:HG2	17:Q:46:THR:N	2.36	0.40
19:S:30:ILE:C	19:S:32:ALA:N	2.79	0.40
20:T:31:PRO:CG	20:T:102:ARG:HG2	2.51	0.40
20:T:83:GLN:HE21	20:T:85:ASN:ND2	2.20	0.40
20:T:85:ASN:ND2	20:T:85:ASN:H	2.18	0.40
21:U:69:PRO:HA	30:d:41:GLN:HG3	2.04	0.40
21:U:79:ARG:NH2	34:i:1664:G:O5'	2.55	0.40
21:U:95:SER:OG	21:U:96:GLU:N	2.55	0.40
26:Z:84:ALA:O	26:Z:87:ALA:N	2.54	0.40
28:b:12:PRO:O	28:b:16:LYS:HE2	2.21	0.40
28:b:47:PHE:CD2	28:b:49:HIS:O	2.74	0.40
31:e:79:SER:CA	36:n:81:LEU:HA	2.48	0.40
31:e:119:VAL:CG1	31:e:119:VAL:O	2.70	0.40
33:g:143:GLN:HE21	33:g:143:GLN:HB2	1.33	0.40
34:i:846:C:C5	34:i:847:C:C5	3.09	0.40
34:i:1092:G:H1	34:i:1132:U:H3	1.69	0.40
34:i:1860:A:H2'	34:i:1861:U:C6	2.56	0.40

All (121) 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)
11:K:97:SER:O	34:i:76:U:OP1[3_454]	0.42	1.78
31:e:125:LYS:CD	34:i:1761:C:P[3_454]	0.61	1.59
34:i:137:U:OP2	34:i:532:U:N3[2_565]	0.64	1.56
31:e:125:LYS:CE	34:i:1761:C:O5'[3_454]	0.72	1.48
31:e:125:LYS:CG	34:i:1761:C:OP2[3_454]	0.77	1.43
34:i:136:C:C3'	34:i:533:C:C2[2_565]	0.80	1.40
34:i:532:U:O4'	34:i:1767:C:O2'[3_454]	0.88	1.32
31:e:125:LYS:CE	34:i:1761:C:C5'[3_454]	0.89	1.31
31:e:123:PHE:C	34:i:1760:C:OP2[3_454]	1.03	1.17
34:i:136:C:C4'	34:i:533:C:N3[2_565]	1.03	1.17
11:K:97:SER:C	34:i:76:U:OP1[3_454]	1.04	1.16
31:e:123:PHE:CG	34:i:1759:C:C5'[3_454]	1.06	1.14
34:i:531:U:O2'	34:i:1767:C:C3'[3_454]	1.14	1.06
34:i:531:U:C2'	34:i:1767:C:O3'[3_454]	1.15	1.05
31:e:123:PHE:CD1	34:i:1759:C:O5'[3_454]	1.18	1.02
34:i:137:U:OP2	34:i:532:U:C2[2_565]	1.18	1.02
9:I:200:ARG:NH2	34:i:1036:G:OP2[6_555]	1.19	1.01
34:i:531:U:O2'	34:i:1767:C:C4'[3_454]	1.23	0.97
7:G:155:GLN:NE2	11:K:98:ARG:O[2_565]	1.25	0.95
31:e:123:PHE:CB	34:i:1759:C:C4'[3_454]	1.25	0.95
34:i:136:C:C3'	34:i:533:C:N3[2_565]	1.26	0.94
31:e:125:LYS:NZ	34:i:1761:C:C5'[3_454]	1.27	0.93
31:e:125:LYS:CG	34:i:1761:C:P[3_454]	1.27	0.93
34:i:137:U:OP1	34:i:532:U:O4[2_565]	1.28	0.92
34:i:531:U:O2	34:i:1768:C:OP1[3_454]	1.28	0.92
31:e:123:PHE:CB	34:i:1759:C:C5'[3_454]	1.29	0.91
31:e:125:LYS:CD	34:i:1761:C:O5'[3_454]	1.30	0.90
7:G:155:GLN:CG	11:K:98:ARG:C[2_565]	1.38	0.82
31:e:125:LYS:CB	34:i:1761:C:OP2[3_454]	1.39	0.81
11:K:96:ARG:CD	34:i:76:U:C6[3_454]	1.40	0.80
7:G:155:GLN:CD	11:K:98:ARG:O[2_565]	1.42	0.78
19:S:104:ASP:OD2	34:i:724:C:O5'[4_565]	1.42	0.78
31:e:125:LYS:CD	34:i:1761:C:OP1[3_454]	1.42	0.78
11:K:97:SER:O	34:i:76:U:P[3_454]	1.45	0.75
31:e:123:PHE:O	34:i:1760:C:OP2[3_454]	1.45	0.75
34:i:531:U:O2	34:i:1768:C:P[3_454]	1.45	0.75
19:S:104:ASP:OD2	34:i:724:C:C5'[4_565]	1.46	0.74
19:S:104:ASP:OD1	34:i:724:C:C5'[4_565]	1.48	0.72
31:e:123:PHE:CE1	34:i:1758:G:O3'[3_454]	1.49	0.71
31:e:123:PHE:CG	34:i:1759:C:O5'[3_454]	1.49	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:126:LYS:N	34:i:1760:C:OP1[3_454]	1.49	0.71
34:i:531:U:O2	34:i:1768:C:O5'[3_454]	1.49	0.71
31:e:124:GLY:N	34:i:1760:C:OP2[3_454]	1.50	0.70
34:i:137:U:P	34:i:532:U:N3[2_565]	1.50	0.70
31:e:123:PHE:CE1	34:i:1758:G:C3'[3_454]	1.53	0.67
31:e:125:LYS:CA	34:i:1760:C:O5'[3_454]	1.54	0.66
34:i:136:C:C4'	34:i:533:C:C2[2_565]	1.54	0.66
19:S:108:ARG:CG	34:i:725:C:OP1[4_565]	1.55	0.65
31:e:124:GLY:O	34:i:1761:C:OP2[3_454]	1.55	0.65
31:e:125:LYS:CA	34:i:1760:C:C5'[3_454]	1.56	0.64
34:i:531:U:O2'	34:i:1767:C:O3'[3_454]	1.56	0.64
19:S:104:ASP:OD2	34:i:724:C:P[4_565]	1.58	0.62
34:i:531:U:C2	34:i:1768:C:OP1[3_454]	1.59	0.61
7:G:155:GLN:CG	11:K:98:ARG:O[2_565]	1.61	0.59
31:e:123:PHE:CD1	34:i:1759:C:C5'[3_454]	1.62	0.58
34:i:136:C:C3'	34:i:533:C:N1[2_565]	1.62	0.58
19:S:104:ASP:CG	34:i:724:C:C5'[4_565]	1.63	0.57
31:e:125:LYS:N	34:i:1760:C:O5'[3_454]	1.63	0.57
7:G:154:ARG:NE	11:K:96:ARG:NH2[2_565]	1.66	0.54
34:i:531:U:C1'	34:i:1767:C:O3'[3_454]	1.66	0.54
31:e:125:LYS:N	34:i:1760:C:P[3_454]	1.67	0.53
31:e:125:LYS:CD	34:i:1761:C:OP2[3_454]	1.67	0.53
34:i:531:U:O2'	34:i:1767:C:C5'[3_454]	1.67	0.53
7:G:156:TYR:CD1	11:K:98:ARG:NH2[2_565]	1.70	0.50
7:G:156:TYR:CE1	11:K:98:ARG:NH2[2_565]	1.71	0.49
34:i:136:C:C3'	34:i:533:C:O2[2_565]	1.71	0.49
7:G:155:GLN:CD	11:K:98:ARG:C[2_565]	1.72	0.48
19:S:108:ARG:CB	34:i:725:C:OP1[4_565]	1.72	0.48
31:e:123:PHE:CD1	34:i:1758:G:O3'[3_454]	1.72	0.48
34:i:532:U:C1'	34:i:1767:C:O2'[3_454]	1.72	0.48
19:S:108:ARG:CD	34:i:725:C:OP1[4_565]	1.73	0.47
19:S:104:ASP:OD2	34:i:724:C:OP1[4_565]	1.75	0.45
31:e:123:PHE:CB	34:i:1759:C:O5'[3_454]	1.75	0.45
34:i:137:U:OP2	34:i:532:U:O2[2_565]	1.76	0.44
34:i:531:U:O2	34:i:1768:C:C5'[3_454]	1.76	0.44
34:i:531:U:C2'	34:i:1767:C:C3'[3_454]	1.77	0.43
34:i:136:C:C5'	34:i:533:C:N3[2_565]	1.79	0.41
31:e:125:LYS:CE	34:i:1761:C:P[3_454]	1.80	0.40
16:P:8:LYS:NZ	34:i:735:C:OP1[4_565]	1.82	0.38
31:e:123:PHE:CD1	34:i:1759:C:P[3_454]	1.82	0.38
34:i:136:C:C4'	34:i:533:C:O2[2_565]	1.83	0.37

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:125:LYS:N	34:i:1760:C:OP2[3_454]	1.84	0.36
34:i:531:U:O3'	34:i:1767:C:C4'[3_454]	1.85	0.35
34:i:526:A:OP1	34:i:1757:G:OP1[3_454]	1.86	0.34
34:i:137:U:OP1	34:i:532:U:C4[2_565]	1.87	0.33
34:i:531:U:C2'	34:i:1767:C:C4'[3_454]	1.88	0.32
31:e:125:LYS:C	34:i:1760:C:OP1[3_454]	1.92	0.28
9:I:200:ARG:NH2	34:i:1036:G:P[6_555]	1.93	0.27
34:i:532:U:O4'	34:i:1767:C:C2'[3_454]	1.94	0.26
2:B:55:THR:CG2	34:i:271:G:OP1[6_555]	1.96	0.24
31:e:125:LYS:CG	34:i:1761:C:O5'[3_454]	1.97	0.23
34:i:531:U:N1	34:i:1768:C:OP1[3_454]	1.99	0.21
34:i:137:U:OP2	34:i:532:U:C4[2_565]	2.00	0.20
31:e:125:LYS:CB	34:i:1761:C:P[3_454]	2.01	0.19
11:K:96:ARG:NH1	34:i:76:U:C2[3_454]	2.02	0.18
11:K:98:ARG:N	34:i:76:U:OP1[3_454]	2.02	0.18
31:e:125:LYS:CB	34:i:1760:C:O3'[3_454]	2.04	0.16
9:I:125:LYS:NZ	35:l:55:ASP:CA[6_555]	2.06	0.14
31:e:123:PHE:O	34:i:1760:C:P[3_454]	2.06	0.14
31:e:125:LYS:CG	34:i:1760:C:O3'[3_454]	2.06	0.14
34:i:136:C:O3'	34:i:533:C:C2[2_565]	2.08	0.12
7:G:155:GLN:NE2	11:K:98:ARG:C[2_565]	2.09	0.11
9:I:200:ARG:CZ	34:i:1036:G:OP2[6_555]	2.09	0.11
11:K:96:ARG:CD	34:i:76:U:C5[3_454]	2.10	0.10
34:i:136:C:C3'	34:i:533:C:C4[2_565]	2.10	0.10
19:S:104:ASP:OD2	34:i:723:G:O3'[4_565]	2.11	0.09
31:e:125:LYS:CB	34:i:1760:C:C5'[3_454]	2.11	0.09
34:i:531:U:C1'	34:i:1768:C:OP1[3_454]	2.11	0.09
31:e:125:LYS:N	34:i:1760:C:OP1[3_454]	2.13	0.07
31:e:125:LYS:CD	34:i:1760:C:O3'[3_454]	2.14	0.06
31:e:125:LYS:CA	34:i:1760:C:OP1[3_454]	2.14	0.06
34:i:137:U:P	34:i:532:U:C4[2_565]	2.14	0.06
11:K:96:ARG:CD	34:i:76:U:N1[3_454]	2.16	0.04
7:G:154:ARG:CD	11:K:96:ARG:NH2[2_565]	2.17	0.03
31:e:123:PHE:CD2	34:i:1759:C:C5'[3_454]	2.17	0.03
31:e:123:PHE:CA	34:i:1760:C:OP2[3_454]	2.17	0.03
31:e:124:GLY:C	34:i:1761:C:OP2[3_454]	2.18	0.02
31:e:125:LYS:CA	34:i:1760:C:P[3_454]	2.18	0.02
34:i:137:U:OP1	34:i:532:U:N3[2_565]	2.18	0.02
34:i:531:U:C2	34:i:1768:C:C5'[3_454]	2.18	0.02
34:i:531:U:O2'	34:i:1767:C:O5'[3_454]	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%)	174 (82%)	24 (11%)	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%)	210 (80%)	27 (10%)	24 (9%)	0 8
6	F	189/204 (93%)	162 (86%)	15 (8%)	12 (6%)	1 13
7	G	235/249 (94%)	202 (86%)	18 (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%)	13 (6%)	22 (11%)	0 6
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 3
17	Q	139/146 (95%)	109 (78%)	20 (14%)	10 (7%)	1 11
18	R	124/135 (92%)	96 (77%)	14 (11%)	14 (11%)	0 5
19	S	135/152 (89%)	107 (79%)	19 (14%)	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 2
22	V	80/83 (96%)	55 (69%)	11 (14%)	14 (18%)	0 2
23	W	127/130 (98%)	111 (87%)	14 (11%)	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 14
35	l	82/113 (73%)	49 (60%)	22 (27%)	11 (13%)	0 4
36	n	80/144 (56%)	61 (76%)	15 (19%)	4 (5%)	1 16
All	All	4988/5792 (86%)	3950 (79%)	530 (11%)	508 (10%)	0 6

All (508) 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

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Mol	Chain	Res	Type
4	D	2	ALA
4	D	4	GLN
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	54	GLY
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

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Mol	Chain	Res	Type
8	H	110	THR
8	H	116	ARG
8	H	135	PHE
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

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Mol	Chain	Res	Type
11	K	44	HIS
11	K	63	ALA
11	K	88	GLU
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

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Mol	Chain	Res	Type
16	P	71	GLU
16	P	73	PRO
16	P	75	VAL
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

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Mol	Chain	Res	Type
24	X	3	LYS
24	X	4	CYS
25	Y	6	THR
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

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Mol	Chain	Res	Type
32	f	102	VAL
32	f	106	TYR
32	f	110	GLU
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
36	n	71	ILE
36	n	83	ASP
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	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

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Mol	Chain	Res	Type
8	H	41	ARG
8	H	76	GLN
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

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Mol	Chain	Res	Type
25	Y	99	LYS
25	Y	119	GLY
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
35	l	50	ILE
35	l	56	LYS
35	l	59	LEU
36	n	111	GLU
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

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Mol	Chain	Res	Type
10	J	91	LYS
11	K	28	HIS
11	K	87	PRO
13	M	91	LEU
14	N	28	LEU
15	O	32	HIS
16	P	17	TYR
16	P	39	ALA
18	R	86	PRO
18	R	122	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	39	ASN
35	l	65	LYS
36	n	34	GLU
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

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Mol	Chain	Res	Type
6	F	37	ASP
7	G	33	ALA
7	G	122	PRO
10	J	151	LEU
10	J	162	ARG
11	K	95	ARG
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
19	S	12	ILE
20	T	46	ALA
21	U	50	VAL
21	U	116	ILE
22	V	79	VAL
24	X	9	THR
24	X	129	SER
25	Y	102	THR
25	Y	121	ALA
26	Z	111	ARG
26	Z	114	LYS
27	a	62	TYR
28	b	24	LEU
29	c	63	ARG
32	f	145	CYS
33	g	37	ASP
35	l	105	ASP
1	A	23	THR
3	C	164	THR
4	D	80	PRO
5	E	73	ASP
5	E	90	ILE
5	E	134	LYS
5	E	213	ALA
9	I	52	ASN
9	I	59	ARG
11	K	38	LYS
11	K	67	PHE
12	L	2	ALA

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Mol	Chain	Res	Type
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
19	S	7	GLU
21	U	26	SER
21	U	117	ALA
23	W	67	GLY
24	X	78	GLY
24	X	99	GLU
25	Y	51	THR
26	Z	62	VAL
26	Z	78	LYS
27	a	105	GLY
28	b	10	PRO
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	110	ASN
6	F	46	ALA
6	F	183	GLY
7	G	68	LEU
7	G	165	GLU
8	H	170	VAL
10	J	68	PRO
10	J	116	LYS
14	N	60	VAL
15	O	24	GLY
15	O	136	PRO
22	V	9	VAL
32	f	87	THR
4	D	63	GLY
9	I	119	LEU
21	U	104	ILE

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Mol	Chain	Res	Type
22	V	77	GLY
2	B	24	PRO
5	E	152	PRO
8	H	10	LYS
35	l	49	GLY
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
8	H	93	VAL
13	M	30	GLY
28	b	9	HIS
2	B	21	VAL
4	D	200	PRO
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

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
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%)	136 (77%)	41 (23%)	1 5
10	J	157/168 (94%)	128 (82%)	29 (18%)	1 8
11	K	89/136 (65%)	63 (71%)	26 (29%)	0 2
12	L	142/142 (100%)	106 (75%)	36 (25%)	0 3
13	M	102/108 (94%)	79 (78%)	23 (22%)	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 12
29	c	57/62 (92%)	43 (75%)	14 (25%)	1 4
30	d	47/49 (96%)	35 (74%)	12 (26%)	0 3
31	e	48/106 (45%)	26 (54%)	22 (46%)	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%)	55 (74%)	19 (26%)	0 3
36	n	66/123 (54%)	43 (65%)	23 (35%)	0 1
All	All	4348/4929 (88%)	3327 (76%)	1021 (24%)	1 5

All (1021) 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
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

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Mol	Chain	Res	Type
2	B	56	LYS
2	B	57	ILE
2	B	75	GLN
2	B	78	GLU
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

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Mol	Chain	Res	Type
3	C	79	ILE
3	C	87	LEU
3	C	89	ASP
3	C	95	MET
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

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Mol	Chain	Res	Type
4	D	44	THR
4	D	56	GLN
4	D	64	ARG
4	D	67	ARG
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

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Mol	Chain	Res	Type
5	E	6	LYS
5	E	7	LYS
5	E	9	LEU
5	E	10	LYS
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

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Mol	Chain	Res	Type
5	E	211	LYS
5	E	212	ASP
5	E	221	ARG
5	E	222	LEU
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

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Mol	Chain	Res	Type
6	F	128	ILE
6	F	130	ARG
6	F	136	ARG
6	F	141	VAL
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

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Mol	Chain	Res	Type
7	G	131	ARG
7	G	133	LEU
7	G	137	ARG
7	G	142	ARG
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	223	LYS
7	G	224	ARG
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

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Mol	Chain	Res	Type
8	H	74	LYS
8	H	81	ARG
8	H	82	GLU
8	H	85	LYS
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

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Mol	Chain	Res	Type
9	I	74	ARG
9	I	75	LYS
9	I	92	ARG
9	I	100	CYS
9	I	110	ARG
9	I	116	HIS
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

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Mol	Chain	Res	Type
10	J	101	LYS
10	J	109	ARG
10	J	110	LEU
10	J	119	LEU
10	J	121	LYS
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

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Mol	Chain	Res	Type
12	L	7	GLU
12	L	8	ARG
12	L	15	THR
12	L	18	GLN
12	L	20	LYS
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

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Mol	Chain	Res	Type
13	M	36	ARG
13	M	40	LYS
13	M	43	ASP
13	M	45	ARG
13	M	71	GLU
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

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Mol	Chain	Res	Type
14	N	140	LYS
14	N	141	TYR
14	N	142	GLU
15	O	23	GLU
15	O	25	GLU
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

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Mol	Chain	Res	Type
16	P	88	GLU
16	P	89	MET
16	P	100	LYS
16	P	104	GLN
16	P	110	GLU
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

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Mol	Chain	Res	Type
17	Q	146	ARG
18	R	1	MET
18	R	8	THR
18	R	10	LYS
18	R	32	LYS
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

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Mol	Chain	Res	Type
19	S	78	LYS
19	S	87	GLN
19	S	90	VAL
19	S	92	ASP
19	S	94	LYS
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

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Mol	Chain	Res	Type
21	U	24	LEU
21	U	33	GLU
21	U	44	LYS
21	U	47	ASN
21	U	48	LEU
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

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Mol	Chain	Res	Type
23	W	20	ARG
23	W	23	ARG
23	W	52	ILE
23	W	64	ASN
23	W	75	ILE
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

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Mol	Chain	Res	Type
25	Y	35	VAL
25	Y	44	LEU
25	Y	46	LYS
25	Y	58	PHE
25	Y	61	ARG
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

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Mol	Chain	Res	Type
27	a	85	ARG
27	a	94	ASP
27	a	95	ARG
28	b	3	LEU
28	b	5	LYS
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

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Mol	Chain	Res	Type
31	e	80	LEU
31	e	85	LYS
31	e	92	LYS
31	e	95	LYS
31	e	97	GLU
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

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Mol	Chain	Res	Type
32	f	150	PHE
33	g	5	MET
33	g	8	ARG
33	g	12	LYS
33	g	24	THR
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

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Mol	Chain	Res	Type
33	g	225	LYS
33	g	246	TYR
33	g	259	TRP
33	g	264	LYS
33	g	271	LYS
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	31	ILE
35	l	32	HIS
35	l	34	ARG
35	l	38	ARG
35	l	43	THR
35	l	46	THR
35	l	55	ASP
35	l	57	LYS
35	l	58	LYS
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	93	ILE
35	l	100	ILE
35	l	109	LYS
36	n	34	GLU
36	n	35	TYR
36	n	39	ILE
36	n	42	LEU
36	n	47	LEU
36	n	48	GLU
36	n	56	LYS
36	n	62	ARG
36	n	64	LYS
36	n	66	ARG
36	n	69	VAL

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Mol	Chain	Res	Type
36	n	71	ILE
36	n	74	SER
36	n	77	ILE
36	n	78	LEU
36	n	81	LEU
36	n	83	ASP
36	n	85	GLN
36	n	95	TYR
36	n	101	ARG
36	n	102	SER
36	n	103	LEU
36	n	109	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (118) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	50	ASN
1	A	141	ASN
2	B	53	GLN
2	B	75	GLN
2	B	76	ASN
2	B	101	HIS
2	B	124	HIS
2	B	147	ASN
2	B	148	ASN
2	B	179	ASN
2	B	202	GLN
2	B	232	HIS
3	C	100	GLN
3	C	157	ASN
4	D	74	GLN
4	D	174	HIS
4	D	179	GLN
4	D	226	GLN
5	E	8	HIS
5	E	17	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

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Mol	Chain	Res	Type
6	F	65	GLN
6	F	83	ASN
6	F	137	GLN
6	F	186	ASN
7	G	56	ASN
7	G	65	GLN
7	G	81	HIS
7	G	177	GLN
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	84	ASN
9	I	99	ASN
9	I	165	GLN
11	K	28	HIS
11	K	39	ASN
11	K	50	GLN
11	K	66	HIS
12	L	18	GLN
12	L	19	ASN
12	L	83	GLN
12	L	121	GLN
12	L	156	GLN
13	M	19	GLN
13	M	28	HIS
13	M	75	ASN
13	M	82	ASN
14	N	5	HIS
14	N	62	GLN
14	N	105	ASN
14	N	123	HIS
15	O	20	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

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Mol	Chain	Res	Type
17	Q	80	GLN
18	R	74	GLN
18	R	121	GLN
19	S	11	HIS
19	S	42	HIS
19	S	87	GLN
19	S	135	HIS
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
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	143	GLN
33	g	162	ASN

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Mol	Chain	Res	Type
33	g	196	ASN
33	g	226	HIS
35	l	32	HIS
35	l	36	GLN
35	l	70	ASN
35	l	89	GLN
36	n	87	ASN
36	n	112	HIS

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
34	i	1735/1863 (93%)	505 (29%)	0

All (505) 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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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	658	A
34	i	659	A
34	i	660	A
34	i	661	A
34	i	662	A
34	i	669	A
34	i	678	U
34	i	679	U
34	i	683	G
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

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Mol	Chain	Res	Type
34	i	729	C
34	i	730	C
34	i	731	C
34	i	734	C
34	i	735	C
34	i	736	C
34	i	740	G
34	i	743	U
34	i	744	C
34	i	747	G
34	i	748	G
34	i	749	C
34	i	750	G
34	i	751	C
34	i	784	G
34	i	787	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
34	i	849	C
34	i	860	A
34	i	864	G
34	i	865	A

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Mol	Chain	Res	Type
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	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
34	i	1013	U
34	i	1019	A
34	i	1021	U
34	i	1027	A
34	i	1035	C

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Mol	Chain	Res	Type
34	i	1041	U
34	i	1045	A
34	i	1046	A
34	i	1047	G
34	i	1048	A
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
34	i	1154	G
34	i	1157	U
34	i	1162	G
34	i	1164	G

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Mol	Chain	Res	Type
34	i	1199	G
34	i	1202	G
34	i	1204	A
34	i	1205	A
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
34	i	1311	U
34	i	1312	C
34	i	1313	U
34	i	1320	G
34	i	1325	U

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Mol	Chain	Res	Type
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
34	i	1472	A
34	i	1473	U
34	i	1474	U
34	i	1485	A
34	i	1486	G

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Mol	Chain	Res	Type
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
34	i	1595	G
34	i	1597	U
34	i	1599	G
34	i	1616	U
34	i	1617	U

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Mol	Chain	Res	Type
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	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
34	i	1780	U
34	i	1790	G
34	i	1792	C
34	i	1799	G
34	i	1818	A
34	i	1819	A

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Mol	Chain	Res	Type
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

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

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	13
10	J	3
4	D	2
35	l	1
31	e	1
9	I	1
21	U	1
3	C	1
7	G	1
18	R	1
19	S	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	i	787:C	O3'	788:C	P	14.28
1	i	744:C	O3'	745:U	P	13.18
1	i	326:A	O3'	327:C	P	7.96
1	i	309:A	O3'	310:G	P	7.21
1	i	1826:A	O3'	1827:C	P	6.13
1	i	209:C	O3'	210:G	P	5.61
1	i	1698:C	O3'	1699:C	P	4.65
1	i	1206:G	O3'	1207:G	P	3.66
1	i	304:A	O3'	305:U	P	3.31
1	i	183:G	O3'	184:G	P	2.94
1	i	550:A	O3'	551:A	P	2.80
1	l	112:GLY	C	113:PHE	N	2.79
1	i	515:A	O3'	516:A	P	2.53
1	i	1683:C	O3'	1684:C	P	2.26
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	D	4:GLN	C	5:ILE	N	1.20
1	C	93:LYS	C	94:ILE	N	1.17
1	G	130:PRO	C	131:ARG	N	1.16
1	R	1:MET	C	2:GLY	N	1.13
1	S	40:TYR	C	41:ALA	N	1.09

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
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%)	0.19	19 (9%) 15 22	209, 304, 369, 385	0
2	B	215/264 (81%)	-0.03	12 (5%) 30 34	170, 238, 290, 301	0
3	C	226/278 (81%)	-0.41	3 (1%) 75 64	113, 192, 306, 337	0
4	D	227/243 (93%)	0.43	30 (13%) 7 15	186, 248, 328, 357	0
5	E	263/263 (100%)	0.29	36 (13%) 6 15	98, 185, 238, 251	0
6	F	191/204 (93%)	-0.46	3 (1%) 70 59	228, 288, 316, 326	0
7	G	237/249 (95%)	0.00	19 (8%) 18 25	126, 225, 339, 361	0
8	H	190/194 (97%)	-0.57	5 (2%) 57 49	177, 322, 371, 383	0
9	I	206/208 (99%)	0.01	14 (6%) 23 29	80, 224, 300, 314	0
10	J	182/194 (93%)	-0.07	7 (3%) 44 42	119, 186, 238, 281	0
11	K	98/165 (59%)	0.46	13 (13%) 7 15	256, 329, 366, 374	0
12	L	158/158 (100%)	0.94	37 (23%) 2 9	89, 163, 283, 295	0
13	M	124/132 (93%)	-0.76	0 100 100	295, 428, 439, 441	0
14	N	150/151 (99%)	-0.32	4 (2%) 56 48	111, 167, 276, 299	0
15	O	136/151 (90%)	-0.25	4 (2%) 53 47	119, 235, 306, 339	0
16	P	127/145 (87%)	-0.12	6 (4%) 36 37	274, 351, 387, 394	0
17	Q	141/146 (96%)	0.08	9 (6%) 25 30	198, 304, 333, 340	0
18	R	126/135 (93%)	0.27	16 (12%) 8 16	208, 271, 378, 382	0
19	S	137/152 (90%)	0.07	11 (8%) 18 25	253, 328, 349, 358	0
20	T	141/145 (97%)	-0.50	1 (0%) 84 74	273, 331, 358, 363	0
21	U	104/119 (87%)	1.15	26 (25%) 2 8	197, 304, 340, 357	0
22	V	82/83 (98%)	-0.41	3 (3%) 45 43	196, 246, 356, 365	0
23	W	129/130 (99%)	0.44	13 (10%) 12 20	116, 169, 214, 229	0
24	X	142/143 (99%)	0.18	13 (9%) 14 22	74, 101, 124, 133	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
25	Y	126/133 (94%)	-0.61	1 (0%) 82 72	134, 185, 219, 236	0
26	Z	75/125 (60%)	-0.43	1 (1%) 75 64	295, 323, 347, 353	0
27	a	107/115 (93%)	1.23	28 (26%) 1 8	115, 166, 278, 294	0
28	b	84/84 (100%)	0.11	6 (7%) 22 28	186, 244, 315, 338	0
29	c	64/69 (92%)	-0.26	2 (3%) 51 46	210, 264, 310, 316	0
30	d	53/56 (94%)	0.37	8 (15%) 5 14	215, 248, 337, 357	0
31	e	59/133 (44%)	-0.13	1 (1%) 69 59	112, 169, 214, 226	0
32	f	71/156 (45%)	-0.32	4 (5%) 30 34	243, 417, 429, 432	0
33	g	313/317 (98%)	-0.17	12 (3%) 44 42	282, 330, 361, 377	0
34	i	1840/1863 (98%)	-0.24	66 (3%) 46 43	70, 205, 399, 456	0
35	l	85/113 (75%)	-0.52	1 (1%) 76 65	270, 272, 274, 274	0
36	n	82/144 (56%)	-0.19	0 100 100	257, 260, 262, 263	0
All	All	6899/7655 (90%)	-0.07	434 (6%) 26 31	70, 246, 379, 456	0

All (434) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
4	D	39	VAL	12.4
2	B	166	LYS	12.2
5	E	70	ILE	11.9
7	G	79	LYS	11.6
12	L	74	SER	10.9
7	G	89	THR	10.9
34	i	1549	C	10.4
23	W	89	TRP	10.1
21	U	63	ILE	9.8
17	Q	132	PHE	9.7
21	U	30	LYS	9.3
4	D	48	ILE	9.2
27	a	72	HIS	9.0
5	E	39	ARG	8.9
4	D	16	ILE	8.5
34	i	418	U	8.3
21	U	28	ASN	8.2
5	E	44	LEU	8.2
4	D	21	LEU	8.0
7	G	78	SER	7.9
27	a	25	ASN	7.7

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Mol	Chain	Res	Type	RSRZ
23	W	125	ILE	7.6
27	a	71	LEU	7.4
2	B	126	ASP	7.3
4	D	73	VAL	7.3
8	H	193	GLN	7.2
27	a	70	LYS	7.2
12	L	96	ILE	7.2
17	Q	129	SER	7.1
34	i	1387	C	7.0
34	i	1389	G	6.8
29	c	67	ARG	6.8
21	U	80	PHE	6.8
1	A	135	THR	6.8
24	X	7	LEU	6.7
28	b	13	GLU	6.7
34	i	1476	A	6.6
34	i	1388	U	6.5
12	L	120	VAL	6.4
15	O	106	LYS	6.4
21	U	83	ARG	6.4
8	H	194	LEU	6.4
27	a	108	PRO	6.2
32	f	83	LYS	6.2
18	R	40	ILE	6.1
7	G	80	GLY	6.1
21	U	81	GLN	6.1
12	L	98	LYS	6.0
5	E	80	ILE	5.8
27	a	24	THR	5.8
1	A	128	ARG	5.8
5	E	12	VAL	5.8
34	i	1001	G	5.6
23	W	79	PHE	5.5
12	L	126	VAL	5.5
23	W	104	LEU	5.5
34	i	1338	U	5.5
12	L	125	ILE	5.5
34	i	1153	G	5.5
2	B	215	VAL	5.4
12	L	142	VAL	5.4
28	b	12	PRO	5.4
34	i	1477	G	5.2

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Mol	Chain	Res	Type	RSRZ
4	D	37	VAL	5.2
23	W	126	LEU	5.1
23	W	75	ILE	5.1
5	E	90	ILE	5.1
27	a	73	TYR	5.1
4	D	69	LEU	5.0
27	a	36	ILE	4.9
34	i	721	C	4.9
12	L	1	MET	4.9
7	G	81	HIS	4.9
1	A	131	HIS	4.9
21	U	79	ARG	4.9
12	L	102	PHE	4.8
19	S	67	VAL	4.8
12	L	103	GLU	4.7
17	Q	131	LYS	4.7
34	i	433	U	4.7
4	D	76	ARG	4.6
5	E	47	PHE	4.6
8	H	191	GLU	4.6
32	f	84	SER	4.5
27	a	29	CYS	4.5
34	i	1475	G	4.5
5	E	72	ILE	4.4
23	W	37	PHE	4.4
4	D	12	VAL	4.4
1	A	134	LEU	4.4
27	a	69	VAL	4.4
30	d	50	ILE	4.3
34	i	720	A	4.3
18	R	39	ALA	4.3
29	c	66	ARG	4.3
15	O	108	PRO	4.3
4	D	72	VAL	4.3
4	D	136	VAL	4.3
34	i	1386	U	4.2
34	i	1351	C	4.2
9	I	199	LEU	4.2
4	D	18	LYS	4.2
7	G	90	GLY	4.2
23	W	103	VAL	4.2
34	i	934	A	4.2

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Mol	Chain	Res	Type	RSRZ
9	I	205	ARG	4.2
27	a	35	ALA	4.2
34	i	1550	U	4.1
34	i	432	C	4.1
30	d	36	LEU	4.1
18	R	44	LYS	4.1
5	E	18	TRP	4.1
4	D	20	GLU	4.0
24	X	118	VAL	4.0
2	B	137	LEU	4.0
30	d	43	PHE	4.0
34	i	250	G	4.0
27	a	21	ILE	4.0
7	G	77	LEU	4.0
2	B	169	MET	4.0
21	U	64	THR	4.0
7	G	76	LEU	3.9
34	i	796	U	3.8
21	U	75	LYS	3.8
5	E	13	ALA	3.8
32	f	82	LYS	3.8
23	W	127	GLY	3.7
7	G	45	TRP	3.7
34	i	722	C	3.7
6	F	129	GLY	3.7
23	W	102	ILE	3.7
34	i	1733	C	3.7
12	L	128	VAL	3.6
34	i	694	G	3.6
34	i	1390	G	3.6
16	P	36	LEU	3.6
21	U	62	ARG	3.6
21	U	78	ASP	3.6
12	L	146	THR	3.6
27	a	37	LYS	3.6
5	E	1	MET	3.6
5	E	79	ASP	3.6
10	J	105	PHE	3.6
12	L	99	TYR	3.6
21	U	77	TRP	3.6
21	U	82	MET	3.6
27	a	48	ALA	3.6

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Mol	Chain	Res	Type	RSRZ
1	A	158	ASP	3.6
19	S	127	TRP	3.6
34	i	773	G	3.5
4	D	19	ALA	3.5
9	I	204	ALA	3.5
18	R	11	LYS	3.5
12	L	127	THR	3.5
21	U	118	ASP	3.5
14	N	146	ALA	3.5
4	D	216	GLU	3.4
34	i	1105	C	3.4
34	i	693	A	3.4
34	i	697	G	3.4
28	b	2	PRO	3.4
9	I	207	GLY	3.4
4	D	17	PHE	3.4
4	D	24	PHE	3.4
12	L	32	LYS	3.4
6	F	93	VAL	3.4
12	L	76	VAL	3.4
12	L	75	GLY	3.4
5	E	46	ILE	3.3
12	L	73	LEU	3.3
18	R	47	ARG	3.3
7	G	88	ARG	3.3
34	i	1474	U	3.3
23	W	84	LYS	3.3
11	K	21	MET	3.3
7	G	92	ARG	3.3
12	L	101	ARG	3.3
34	i	1734	C	3.3
2	B	135	LEU	3.2
1	A	207	PRO	3.2
11	K	66	HIS	3.2
1	A	208	GLU	3.2
14	N	88	LEU	3.2
34	i	434	G	3.2
34	i	723	G	3.2
1	A	108	PHE	3.2
5	E	42	LEU	3.2
1	A	133	PRO	3.1
22	V	65	SER	3.1

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Mol	Chain	Res	Type	RSRZ
30	d	52	PHE	3.1
21	U	76	THR	3.1
4	D	200	PRO	3.1
17	Q	6	PRO	3.1
34	i	698	G	3.1
19	S	123	LEU	3.1
15	O	149	ARG	3.1
24	X	69	CYS	3.1
5	E	241	GLY	3.1
5	E	64	ILE	3.1
27	a	90	GLU	3.1
20	T	94	ARG	3.0
11	K	88	GLU	3.0
34	i	338	A	3.0
9	I	27	TYR	3.0
24	X	109	GLY	3.0
4	D	61	GLU	3.0
4	D	56	GLN	3.0
14	N	145	THR	3.0
27	a	54	SER	3.0
34	i	772	A	3.0
12	L	33	LEU	2.9
27	a	99	PRO	2.9
11	K	37	ASP	2.9
23	W	78	ARG	2.9
1	A	206	ASP	2.9
5	E	92	ILE	2.9
1	A	45	GLY	2.9
34	i	91	A	2.9
27	a	91	ALA	2.9
18	R	3	ARG	2.9
24	X	81	ILE	2.9
12	L	93	LEU	2.9
19	S	95	TYR	2.8
7	G	41	LEU	2.8
9	I	168	GLN	2.8
17	Q	137	ALA	2.8
5	E	254	LYS	2.8
28	b	16	LYS	2.8
27	a	22	ARG	2.8
4	D	226	GLN	2.8
33	g	203	ASP	2.8

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Mol	Chain	Res	Type	RSRZ
17	Q	92	LEU	2.8
1	A	109	THR	2.8
11	K	64	TRP	2.8
1	A	137	ALA	2.8
5	E	48	LEU	2.8
19	S	101	ASN	2.8
26	Z	45	ASN	2.8
34	i	1663	U	2.8
32	f	86	THR	2.7
30	d	56	ASP	2.7
11	K	84	HIS	2.7
12	L	94	HIS	2.7
27	a	47	ALA	2.7
27	a	106	ALA	2.7
2	B	217	MET	2.7
19	S	21	ASP	2.7
24	X	40	PRO	2.7
28	b	15	GLU	2.7
34	i	419	C	2.7
12	L	25	LEU	2.6
12	L	104	LYS	2.6
19	S	109	GLU	2.6
17	Q	133	GLY	2.6
12	L	23	VAL	2.6
21	U	39	LEU	2.6
2	B	163	GLN	2.6
19	S	105	ASN	2.6
34	i	249	C	2.6
22	V	34	MET	2.6
31	e	133	SER	2.6
33	g	115	SER	2.6
19	S	128	GLY	2.6
1	A	157	VAL	2.6
12	L	145	VAL	2.6
24	X	120	PHE	2.6
9	I	28	GLU	2.6
34	i	339	A	2.6
5	E	253	ASP	2.6
9	I	201	LYS	2.6
33	g	76	GLN	2.6
4	D	22	ASN	2.6
34	i	974	G	2.6

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Mol	Chain	Res	Type	RSRZ
4	D	77	PHE	2.5
16	P	37	TYR	2.5
4	D	227	LYS	2.5
9	I	203	LYS	2.5
1	A	138	SER	2.5
16	P	13	ARG	2.5
12	L	54	THR	2.5
21	U	65	THR	2.5
21	U	19	ARG	2.5
2	B	121	ILE	2.5
34	i	685	G	2.5
34	i	1473	U	2.5
24	X	61	GLN	2.5
11	K	68	TYR	2.5
8	H	192	PHE	2.5
12	L	155	PHE	2.5
11	K	94	LEU	2.5
27	a	61	ALA	2.5
33	g	93	THR	2.5
1	A	200	ASP	2.5
5	E	6	LYS	2.5
10	J	9	CYS	2.4
3	C	177	LEU	2.4
1	A	209	GLU	2.4
12	L	95	TYR	2.4
5	E	15	PRO	2.4
7	G	73	VAL	2.4
10	J	86	VAL	2.4
18	R	41	ILE	2.4
34	i	807	A	2.4
10	J	10	ARG	2.4
34	i	1419	C	2.4
33	g	222	ASN	2.4
34	i	1664	G	2.4
7	G	85	ARG	2.4
33	g	75	GLY	2.4
18	R	2	GLY	2.4
18	R	35	CYS	2.4
5	E	14	ALA	2.4
30	d	38	MET	2.4
34	i	436	G	2.4
5	E	246	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
21	U	105	SER	2.4
9	I	88	ASN	2.4
23	W	77	PRO	2.4
33	g	205	SER	2.4
34	i	230	C	2.4
34	i	1378	A	2.4
3	C	212	GLY	2.3
11	K	77	GLN	2.3
34	i	725	C	2.3
2	B	60	ASP	2.3
27	a	43	ASN	2.3
2	B	170	GLU	2.3
12	L	44	PHE	2.3
25	Y	17	LEU	2.3
21	U	17	ILE	2.3
5	E	10	LYS	2.3
5	E	26	VAL	2.3
27	a	50	VAL	2.3
4	D	15	GLY	2.3
5	E	65	CYS	2.3
24	X	30	ALA	2.3
33	g	78	ALA	2.3
18	R	37	GLU	2.3
34	i	1665	C	2.3
33	g	202	PRO	2.3
18	R	12	ALA	2.3
21	U	16	ALA	2.3
24	X	82	THR	2.3
21	U	95	SER	2.3
7	G	182	PRO	2.3
21	U	109	GLY	2.3
1	A	44	ASP	2.3
3	C	42	ASP	2.3
33	g	92	LEU	2.3
12	L	52	GLU	2.3
5	E	45	ILE	2.3
11	K	86	PRO	2.3
5	E	62	LYS	2.3
21	U	27	ARG	2.3
4	D	38	GLU	2.2
10	J	89	GLU	2.2
34	i	1433	C	2.2

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Mol	Chain	Res	Type	RSRZ
34	i	1374	A	2.2
27	a	51	ARG	2.2
4	D	50	ILE	2.2
7	G	75	LEU	2.2
27	a	107	ALA	2.2
9	I	161	LEU	2.2
34	i	337	G	2.2
11	K	20	VAL	2.2
5	E	261	SER	2.2
6	F	128	ILE	2.2
5	E	242	LYS	2.2
12	L	31	GLU	2.2
27	a	64	LEU	2.2
34	i	1551	A	2.2
19	S	108	ARG	2.2
34	i	696	G	2.2
34	i	771	G	2.2
4	D	13	ALA	2.2
12	L	34	PRO	2.2
15	O	112	ALA	2.2
24	X	10	ALA	2.2
1	A	28	THR	2.2
7	G	128	THR	2.2
18	R	22	THR	2.2
22	V	69	ILE	2.2
30	d	4	GLN	2.2
10	J	118	GLY	2.2
16	P	125	PRO	2.2
34	i	719	C	2.2
12	L	109	MET	2.2
34	i	684	A	2.2
11	K	6	LYS	2.1
21	U	85	HIS	2.1
2	B	125	VAL	2.1
5	E	251	GLU	2.1
9	I	196	GLU	2.1
9	I	3	ILE	2.1
18	R	45	LYS	2.1
12	L	13	GLN	2.1
28	b	76	GLY	2.1
35	l	97	LEU	2.1
34	i	758	G	2.1

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Mol	Chain	Res	Type	RSRZ
34	i	795	U	2.1
7	G	82	SER	2.1
24	X	19	ASP	2.1
34	i	877	G	2.1
30	d	22	ARG	2.1
34	i	492	C	2.1
34	i	692	U	2.1
33	g	158	PRO	2.1
17	Q	121	VAL	2.1
33	g	69	VAL	2.1
5	E	256	LEU	2.1
12	L	30	LYS	2.1
18	R	8	THR	2.1
21	U	102	THR	2.1
11	K	61	GLN	2.1
4	D	62	LYS	2.1
16	P	14	LYS	2.1
5	E	244	ILE	2.1
27	a	55	GLU	2.1
34	i	733	G	2.0
12	L	72	ILE	2.0
18	R	13	ALA	2.0
5	E	5	PRO	2.0
4	D	224	SER	2.0
14	N	144	SER	2.0
24	X	8	ARG	2.0
10	J	120	ALA	2.0
19	S	62	ASP	2.0
18	R	9	VAL	2.0
16	P	33	LEU	2.0
8	H	144	ILE	2.0
5	E	252	ARG	2.0
7	G	74	ARG	2.0
9	I	31	ARG	2.0
17	Q	37	ARG	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.