



Full wwPDB X-ray Structure Validation Report

Feb 28, 2014 – 04:19 PM GMT

PDB ID : 3CCJ
Title : Structure of Anisomycin resistant 50S Ribosomal Subunit: 23S rRNA mutation C2534U
Authors : Blaha, G.; Gurel, G.
Deposited on : 2008-02-26
Resolution : 2.70 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

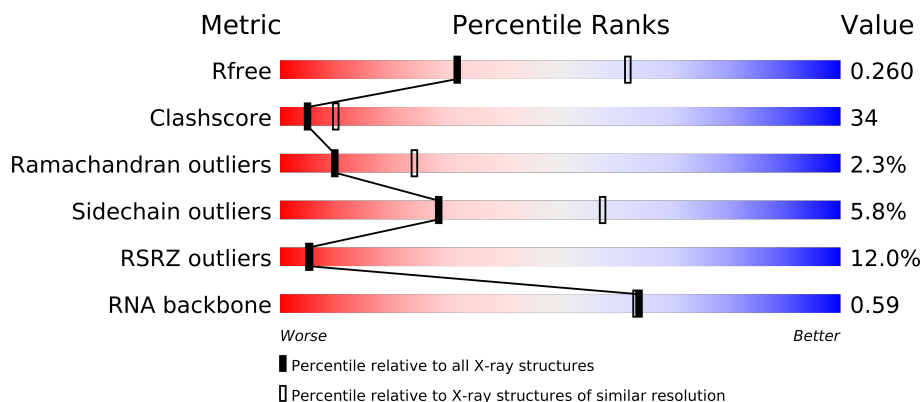
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.15 2013
Xtriage (Phenix) : dev-1323
EDS : stable22639
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable22683

1 Overall quality at a glance

The reported resolution of this entry is 2.70 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}	66092	1557 (2.70-2.70)
Clashscore	79885	1939 (2.70-2.70)
Ramachandran outliers	78287	1905 (2.70-2.70)
Sidechain outliers	78261	1905 (2.70-2.70)
RSRZ outliers	66119	1559 (2.70-2.70)
RNA backbone	1838	1042 (3.20-2.20)

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 on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	A	240	
2	B	338	
3	C	246	
4	D	177	
5	E	178	
6	F	120	
7	G	348	
8	H	177	
9	I	162	
10	J	145	
11	K	132	
12	L	165	

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Mol	Chain	Length	Quality of chain
13	M	196	
14	N	187	
15	O	116	
16	P	149	
17	Q	96	
18	R	155	
19	S	85	
20	T	120	
21	U	67	
22	V	71	
23	W	154	
24	X	92	
25	Y	241	
26	Z	116	
27	1	57	
28	2	50	
29	3	92	
30	0	2923	
31	9	122	

The following table lists non-polymeric compounds that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Geometry	Electron density
32	MG	0	8001	-	X
32	MG	0	8008	-	X
32	MG	0	8009	-	X
32	MG	0	8011	-	X
32	MG	0	8022	-	X
32	MG	0	8023	-	X
32	MG	0	8029	-	X
32	MG	0	8030	-	X
32	MG	0	8033	-	X
32	MG	0	8036	-	X
32	MG	0	8037	-	X
32	MG	0	8039	-	X
32	MG	0	8043	-	X
32	MG	0	8047	-	X
32	MG	0	8048	-	X
32	MG	0	8049	-	X
32	MG	0	8061	-	X
32	MG	0	8064	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
32	MG	0	8066	-	X
32	MG	0	8070	-	X
32	MG	0	8071	-	X
32	MG	0	8078	-	X
32	MG	0	8079	-	X
32	MG	0	8081	-	X
32	MG	0	8089	-	X
32	MG	9	8040	-	X
32	MG	9	8074	-	X
32	MG	Y	8077	-	X
33	K	0	8401	-	X
34	NA	0	8501	-	X
34	NA	0	8502	-	X
34	NA	0	8506	-	X
34	NA	0	8508	-	X
34	NA	0	8509	-	X
34	NA	0	8512	-	X
34	NA	0	8514	-	X
34	NA	0	8516	-	X
34	NA	0	8517	-	X
34	NA	0	8518	-	X
34	NA	0	8521	-	X
34	NA	0	8522	-	X
34	NA	0	8524	-	X
34	NA	0	8525	-	X
34	NA	0	8527	-	X
34	NA	0	8528	-	X
34	NA	0	8530	-	X
34	NA	0	8531	-	X
34	NA	0	8534	-	X
34	NA	0	8535	-	X
34	NA	0	8536	-	X
34	NA	0	8537	-	X
34	NA	0	8542	-	X
34	NA	0	8544	-	X
34	NA	0	8545	-	X
34	NA	0	8546	-	X
34	NA	0	8547	-	X
34	NA	0	8549	-	X
34	NA	0	8551	-	X
34	NA	0	8553	-	X
34	NA	0	8554	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
34	NA	0	8555	-	X
34	NA	0	8556	-	X
34	NA	0	8558	-	X
34	NA	0	8559	-	X
34	NA	0	8560	-	X
34	NA	0	8561	-	X
34	NA	0	8562	-	X
34	NA	0	8563	-	X
34	NA	0	8564	-	X
34	NA	0	8566	-	X
34	NA	0	8567	-	X
34	NA	0	8571	-	X
34	NA	0	8574	-	X
34	NA	B	8552	-	X
34	NA	L	8568	-	X
34	NA	Q	8540	-	X
34	NA	R	8575	-	X
35	CL	0	8805	-	X
35	CL	0	8813	-	X
35	CL	0	8815	-	X
35	CL	0	8822	-	X
35	CL	A	8809	-	X
35	CL	B	8819	-	X
35	CL	J	8816	-	X
35	CL	J	8821	-	X
35	CL	M	8818	-	X
35	CL	N	8807	-	X
35	CL	O	8808	-	X
35	CL	Q	8811	-	X
36	SR	0	8903	-	X
36	SR	0	8904	-	X
36	SR	0	8905	-	X
36	SR	0	8922	-	X
36	SR	0	8924	-	X
36	SR	0	8925	-	X
36	SR	0	8926	-	X
36	SR	0	8931	-	X
36	SR	0	8937	-	X
36	SR	0	8939	-	X
36	SR	0	8941	-	X
36	SR	0	8946	-	X
36	SR	0	8951	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
36	SR	0	8957	-	X
36	SR	0	8958	-	X
36	SR	0	8964	-	X
36	SR	0	8969	-	X
36	SR	0	8971	-	X
36	SR	0	8974	-	X
36	SR	0	8979	-	X
36	SR	0	8982	-	X
36	SR	0	8983	-	X
36	SR	0	8994	-	X
36	SR	0	8996	-	X
36	SR	0	8998	-	X
36	SR	0	9000	-	X
36	SR	0	9004	-	X
36	SR	0	9007	-	X
36	SR	9	8980	-	X
36	SR	B	8987	-	X
36	SR	J	8986	-	X
36	SR	R	8912	-	X
37	CD	3	8704	-	X

2 Entry composition

There are 38 unique types of molecules in this entry. The entry contains 99122 atoms, of which 0 are hydrogen and 0 are deuterium.

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 50S ribosomal protein L2P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	237	Total	C	N	O	S	0	0	0
			1753	1072	352	324	5			

- Molecule 2 is a protein called 50S ribosomal protein L3P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	337	Total	C	N	O	S	0	0	0
			2625	1616	493	511	5			

- Molecule 3 is a protein called 50S ribosomal protein L4P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	246	Total	C	N	O	S	0	0	0
			1860	1130	345	384	1			

- Molecule 4 is a protein called 50S ribosomal protein L5P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	140	Total	C	N	O	S	0	0	0
			1094	685	195	210	4			

- Molecule 5 is a protein called 50S ribosomal protein L6P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	172	Total	C	N	O	S	0	0	0
			1357	840	224	289	4			

- Molecule 6 is a protein called 50S ribosomal protein L7Ae.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	119	Total	C	N	O	S	0	0	0
			890	551	141	197	1			

- Molecule 7 is a protein called 50S ribosomal protein L10E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	29	Total	C	N	O	S	0	0	0
			240	149	39	51	1			

- Molecule 8 is a protein called 50S ribosomal protein L10e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	160	Total	C	N	O	S	0	0	0
			1282	798	240	238	6			

- Molecule 9 is a protein called 50S ribosomal protein L11P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	70	Total	C	N	O	S	0	0	0
			519	323	81	114	1			

- Molecule 10 is a protein called 50S ribosomal protein L13P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	142	Total	C	N	O	S	0	0	0
			1120	696	199	222	3			

- Molecule 11 is a protein called 50S ribosomal protein L14P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	132	Total	C	N	O	S	0	0	0
			994	609	189	192	4			

- Molecule 12 is a protein called 50S ribosomal protein L15P.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
12	L	145	Total	C	N	O	0	0	0
			1118	670	222	226			

- Molecule 13 is a protein called 50S ribosomal protein L15e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	M	194	Total	C	N	O	S	0	0	0
			1558	943	333	281	1			

- Molecule 14 is a protein called 50S ribosomal protein L18P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	N	186	Total	C	N	O	S	0	0	0
			1445	895	262	286	2			

- Molecule 15 is a protein called 50S ribosomal protein L18e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	O	115	Total	C	N	O		0	0	0
			865	529	161	175				

- Molecule 16 is a protein called 50S ribosomal protein L19e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	P	143	Total	C	N	O		0	0	0
			1136	683	229	224				

- Molecule 17 is a protein called 50S ribosomal protein L21e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	Q	95	Total	C	N	O		0	0	0
			735	450	141	144				

- Molecule 18 is a protein called 50S ribosomal protein L22P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	R	150	Total	C	N	O	S	0	0	0
			1149	713	209	223	4			

- Molecule 19 is a protein called 50S ribosomal protein L23P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	S	81	Total	C	N	O	S	0	0	0
			641	389	111	138	3			

- Molecule 20 is a protein called 50S ribosomal protein L24P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	T	119	Total	C	N	O		0	0	0
			950	568	180	202				

- Molecule 21 is a protein called 50S ribosomal protein L24e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	U	53	Total	C	N	O	S	0	0	0
			410	244	75	86	5			

- Molecule 22 is a protein called 50S ribosomal protein L29P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	V	65	Total	C	N	O	S	0	0	0
			499	304	94	100	1			

- Molecule 23 is a protein called 50S ribosomal protein L30P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	W	154	Total	C	N	O	S	0	0	0
			1196	737	209	244	6			

- Molecule 24 is a protein called 50S ribosomal protein L31e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	X	82	Total	C	N	O	S	0	0	0
			654	402	129	122	1			

- Molecule 25 is a protein called 50S ribosomal protein L32e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	Y	142	Total	C	N	O		0	0	0
			1130	686	228	216				

- Molecule 26 is a protein called 50S ribosomal protein L37Ae.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	Z	73	Total	C	N	O	S	0	0	0
			573	343	113	112	5			

- Molecule 27 is a protein called 50S ribosomal protein L37e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	1	56	Total	C	N	O	S	0	0	0
			431	258	86	83	4			

- Molecule 28 is a protein called 50S ribosomal protein L39e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	2	46	Total	C	N	O	S	0	0	0
			396	239	89	67	1			

- Molecule 29 is a protein called 50S ribosomal protein L44E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	3	92	Total	C	N	O	S	0	0	0
			755	458	153	137	7			

- Molecule 30 is a RNA chain called 23S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	0	2754	Total	C	N	O	P	0	0	0
			59020	26349	10872	19054	2745			

- Molecule 31 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	9	122	Total	C	N	O	P	0	0	0
			2599	1160	471	847	121			

- Molecule 32 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
32	0	85	Total	Mg	0	0
			85	85		
32	Y	2	Total	Mg	0	0
			2	2		
32	K	1	Total	Mg	0	0
			1	1		
32	A	2	Total	Mg	0	0
			2	2		
32	T	1	Total	Mg	0	0
			1	1		
32	9	2	Total	Mg	0	0
			2	2		

- Molecule 33 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
33	0	1	Total	K	0	0
			1	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
33	M	1	Total K 1 1	0	0

- Molecule 34 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
34	0	63	Total Na 63 63	0	0
34	J	1	Total Na 1 1	0	0
34	Q	1	Total Na 1 1	0	0
34	B	1	Total Na 1 1	0	0
34	C	1	Total Na 1 1	0	0
34	R	3	Total Na 3 3	0	0
34	9	2	Total Na 2 2	0	0
34	L	1	Total Na 1 1	0	0
34	S	1	Total Na 1 1	0	0
34	M	1	Total Na 1 1	0	0

- Molecule 35 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	0	8	Total Cl 8 8	0	0
35	J	4	Total Cl 4 4	0	0
35	Q	1	Total Cl 1 1	0	0
35	B	1	Total Cl 1 1	0	0
35	A	1	Total Cl 1 1	0	0
35	N	1	Total Cl 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
35	O	1	Total 1	Cl 1	0	0
35	R	1	Total 1	Cl 1	0	0
35	Y	1	Total 1	Cl 1	0	0
35	L	1	Total 1	Cl 1	0	0
35	3	1	Total 1	Cl 1	0	0
35	M	1	Total 1	Cl 1	0	0

- Molecule 36 is STRONTIUM ION (three-letter code: SR) (formula: Sr).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
36	0	93	Total 93	Sr 93	0	0
36	J	1	Total 1	Sr 1	0	0
36	1	2	Total 2	Sr 2	0	0
36	B	2	Total 2	Sr 2	0	0
36	3	2	Total 2	Sr 2	0	0
36	A	2	Total 2	Sr 2	0	0
36	2	1	Total 1	Sr 1	0	0
36	R	1	Total 1	Sr 1	0	0
36	9	2	Total 2	Sr 2	0	0
36	S	1	Total 1	Sr 1	0	0
36	F	1	Total 1	Sr 1	0	0

- Molecule 37 is CADMIUM ION (three-letter code: CD) (formula: Cd).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	O	1	Total Cd 1 1	0	0
37	Z	1	Total Cd 1 1	0	0
37	1	1	Total Cd 1 1	0	0
37	3	1	Total Cd 1 1	0	0
37	U	1	Total Cd 1 1	0	0

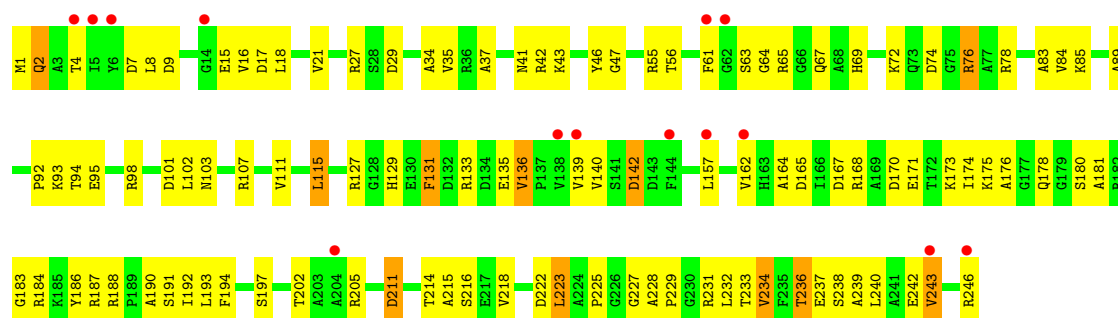
- Molecule 38 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
38	0	5813	Total O 5813 5813	0	0
38	9	144	Total O 144 144	0	0
38	A	122	Total O 122 122	0	0
38	B	158	Total O 158 158	0	0
38	C	176	Total O 176 176	0	0
38	D	51	Total O 51 51	0	0
38	E	51	Total O 51 51	0	0
38	F	27	Total O 27 27	0	0
38	G	15	Total O 15 15	0	0
38	H	73	Total O 73 73	0	0
38	I	3	Total O 3 3	0	0
38	J	55	Total O 55 55	0	0
38	K	61	Total O 61 61	0	0
38	L	99	Total O 99 99	0	0
38	M	148	Total O 148 148	0	0

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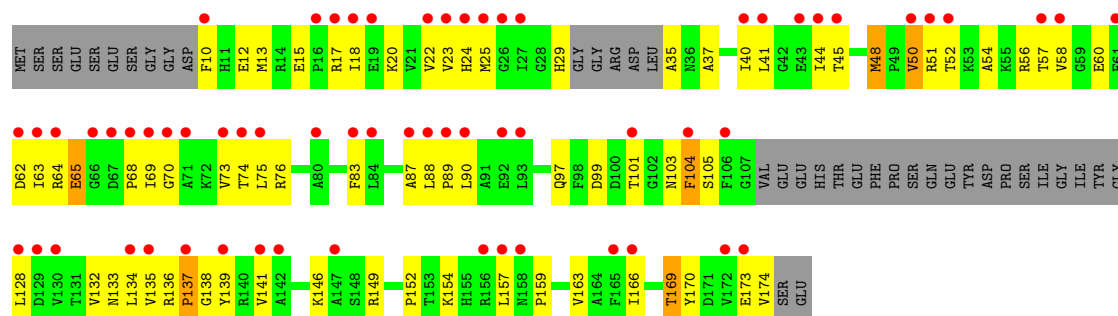
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
38	N	56	Total 56	O 56	0	0
38	O	42	Total 42	O 42	0	0
38	P	56	Total 56	O 56	0	0
38	Q	58	Total 58	O 58	0	0
38	R	78	Total 78	O 78	0	0
38	S	37	Total 37	O 37	0	0
38	T	41	Total 41	O 41	0	0
38	U	34	Total 34	O 34	0	0
38	V	10	Total 10	O 10	0	0
38	W	71	Total 71	O 71	0	0
38	X	28	Total 28	O 28	0	0
38	Y	102	Total 102	O 102	0	0
38	Z	33	Total 33	O 33	0	0
38	1	53	Total 53	O 53	0	0
38	2	48	Total 48	O 48	0	0
38	3	80	Total 80	O 80	0	0



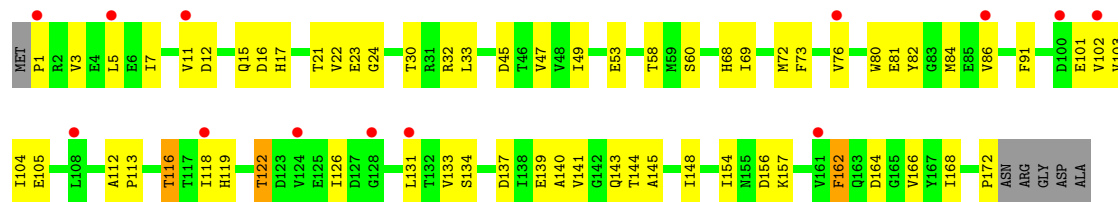
• Molecule 4: 50S ribosomal protein L5P

Chain D:



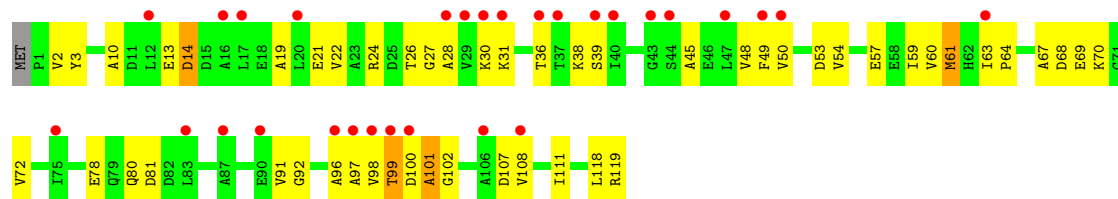
• Molecule 5: 50S ribosomal protein L6P

Chain E:



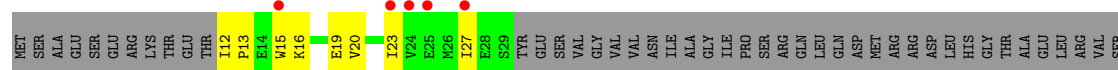
• Molecule 6: 50S ribosomal protein L7Ae

Chain F:



• Molecule 7: 50S ribosomal protein L10E

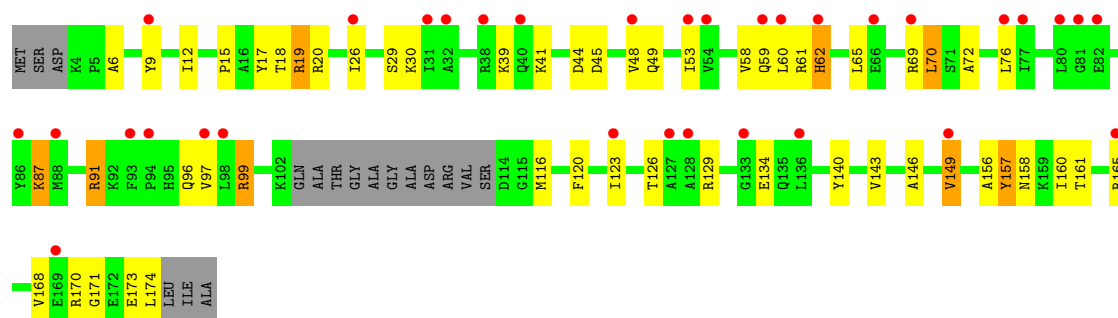
Chain G:





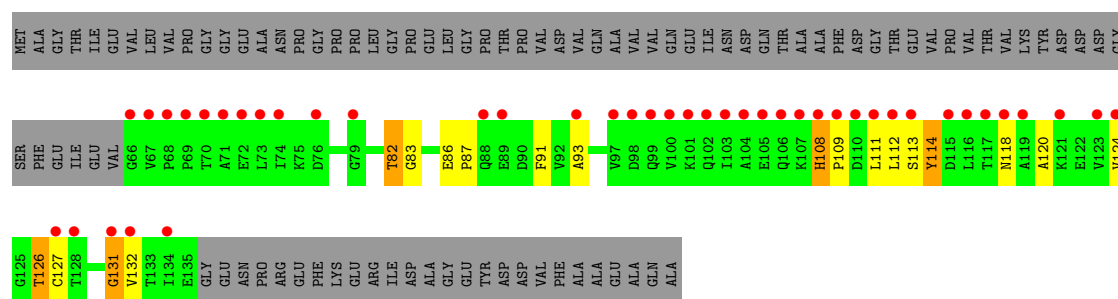
• Molecule 8: 50S ribosomal protein L10e

Chain H:



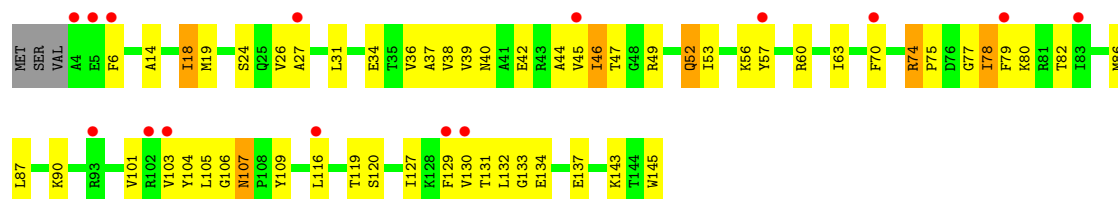
• Molecule 9: 50S ribosomal protein L11P

Chain I:



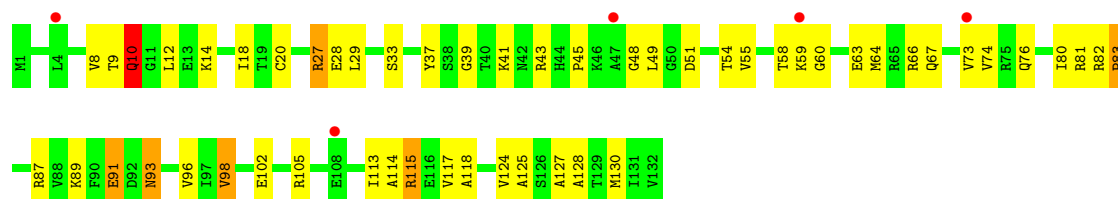
• Molecule 10: 50S ribosomal protein L13P

Chain J:



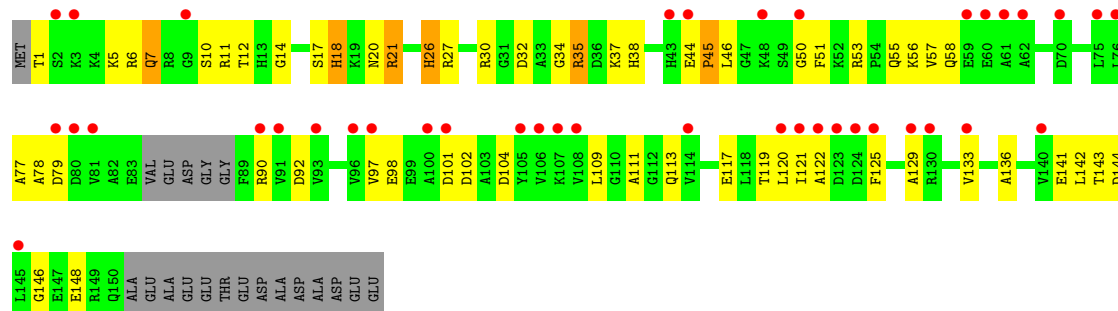
• Molecule 11: 50S ribosomal protein L14P

Chain K:



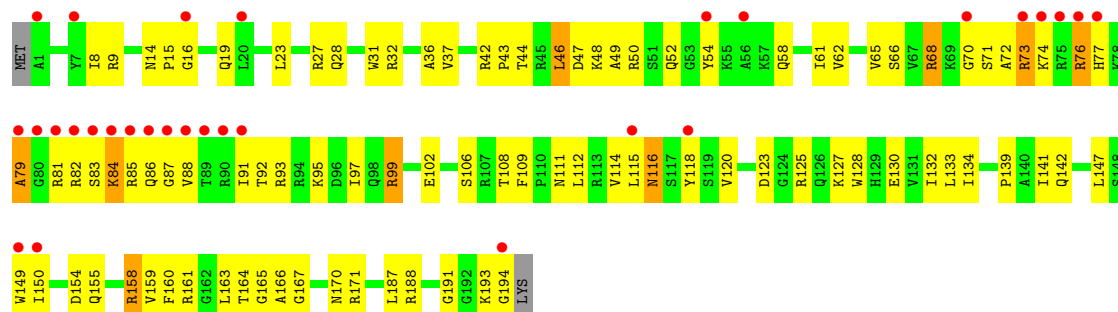
- Molecule 12: 50S ribosomal protein L15P

Chain L:



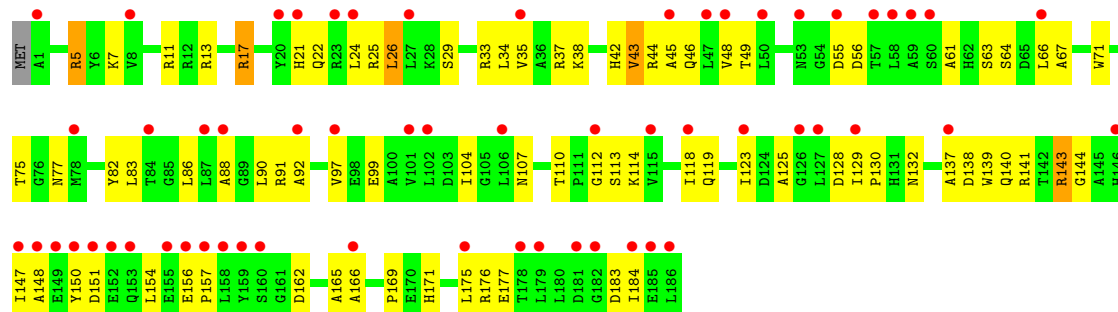
- Molecule 13: 50S ribosomal protein L15e

Chain M:



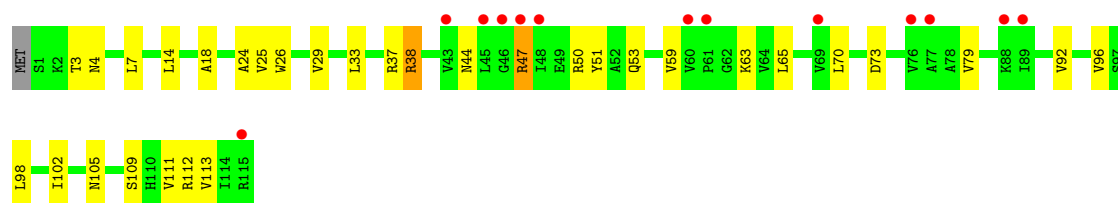
- Molecule 14: 50S ribosomal protein L18P

Chain N:



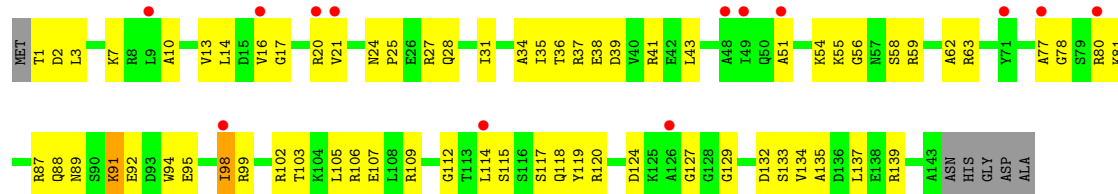
- Molecule 15: 50S ribosomal protein L18e

Chain O:



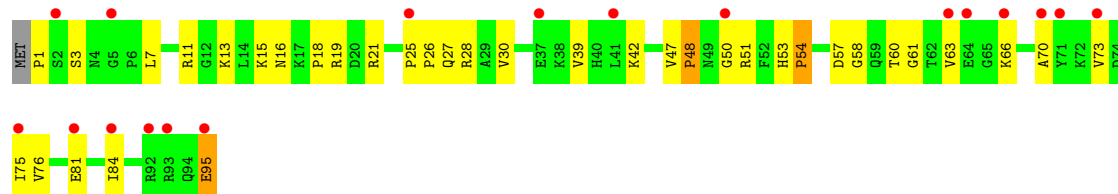
- Molecule 16: 50S ribosomal protein L19e

Chain P:



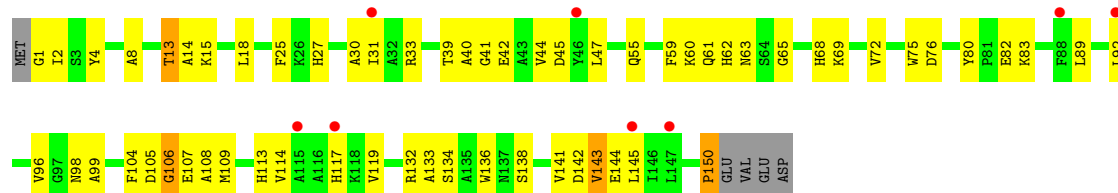
- Molecule 17: 50S ribosomal protein L21e

Chain Q:



- Molecule 18: 50S ribosomal protein L22P

Chain R:



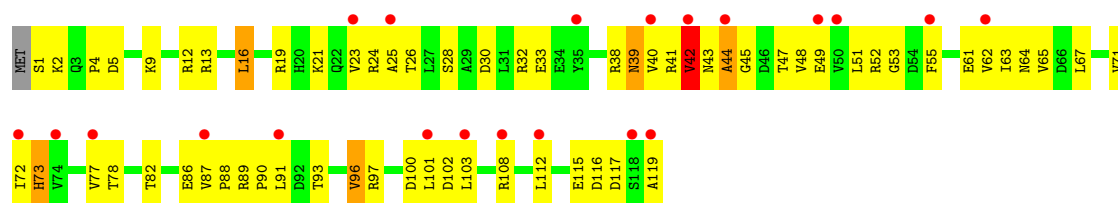
- Molecule 19: 50S ribosomal protein L23P

Chain S:



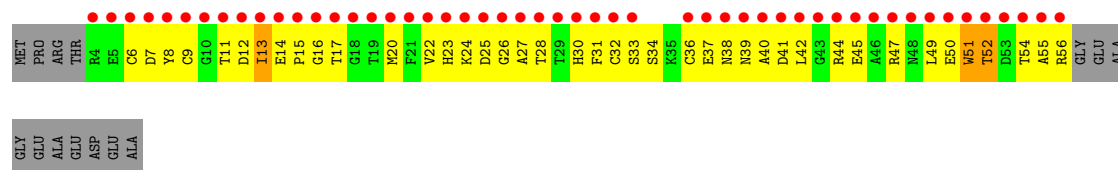
- Molecule 20: 50S ribosomal protein L24P

Chain T:



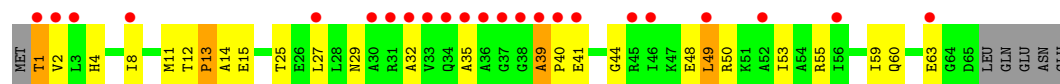
- Molecule 21: 50S ribosomal protein L24e

Chain U:



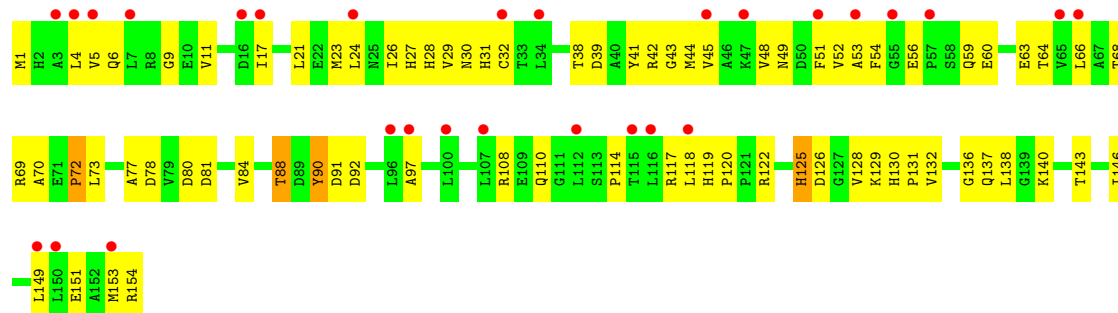
- Molecule 22: 50S ribosomal protein L29P

Chain V:



- Molecule 23: 50S ribosomal protein L30P

Chain W: 



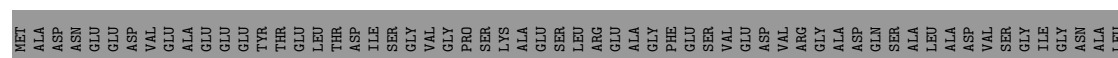
- Molecule 24: 50S ribosomal protein L31e

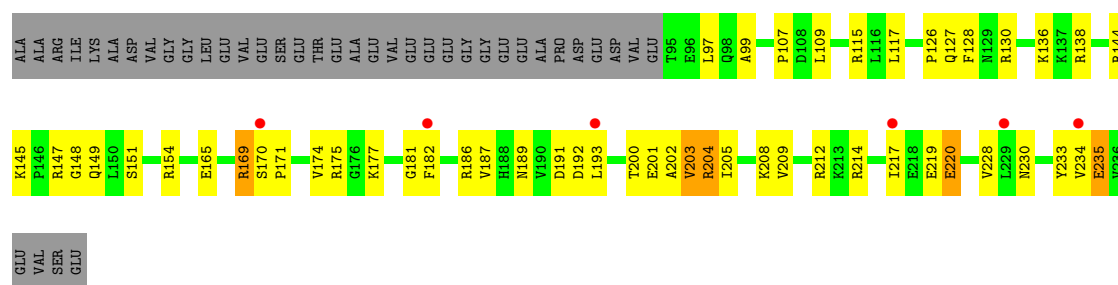
Chain X:



- Molecule 25: 50S ribosomal protein L32e

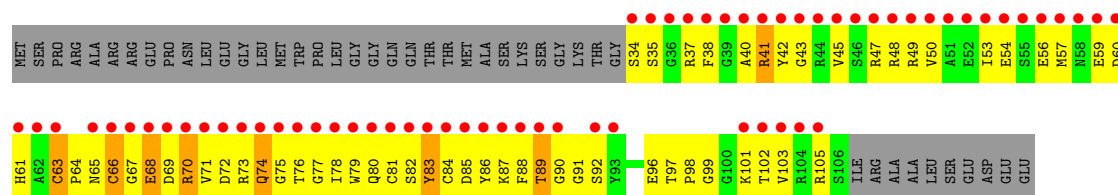
Chain Y:





- Molecule 26: 50S ribosomal protein L37Ae

Chain Z:



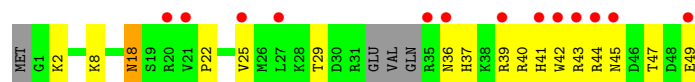
- Molecule 27: 50S ribosomal protein L37e

Chain 1:



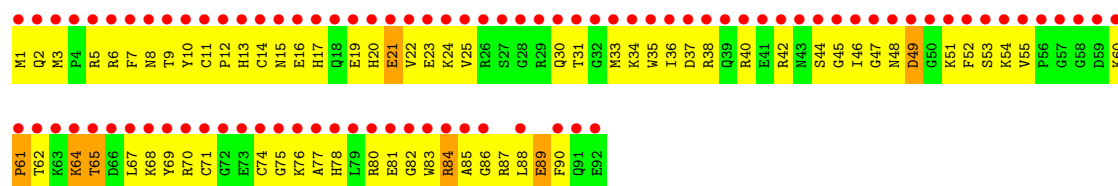
- Molecule 28: 50S ribosomal protein L39e

Chain 2: 



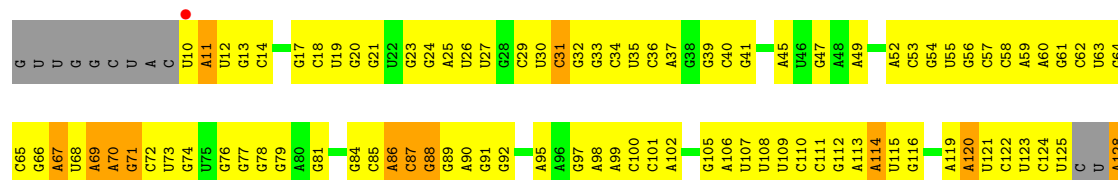
- Molecule 29: 50S ribosomal protein L44E

Chain 3:



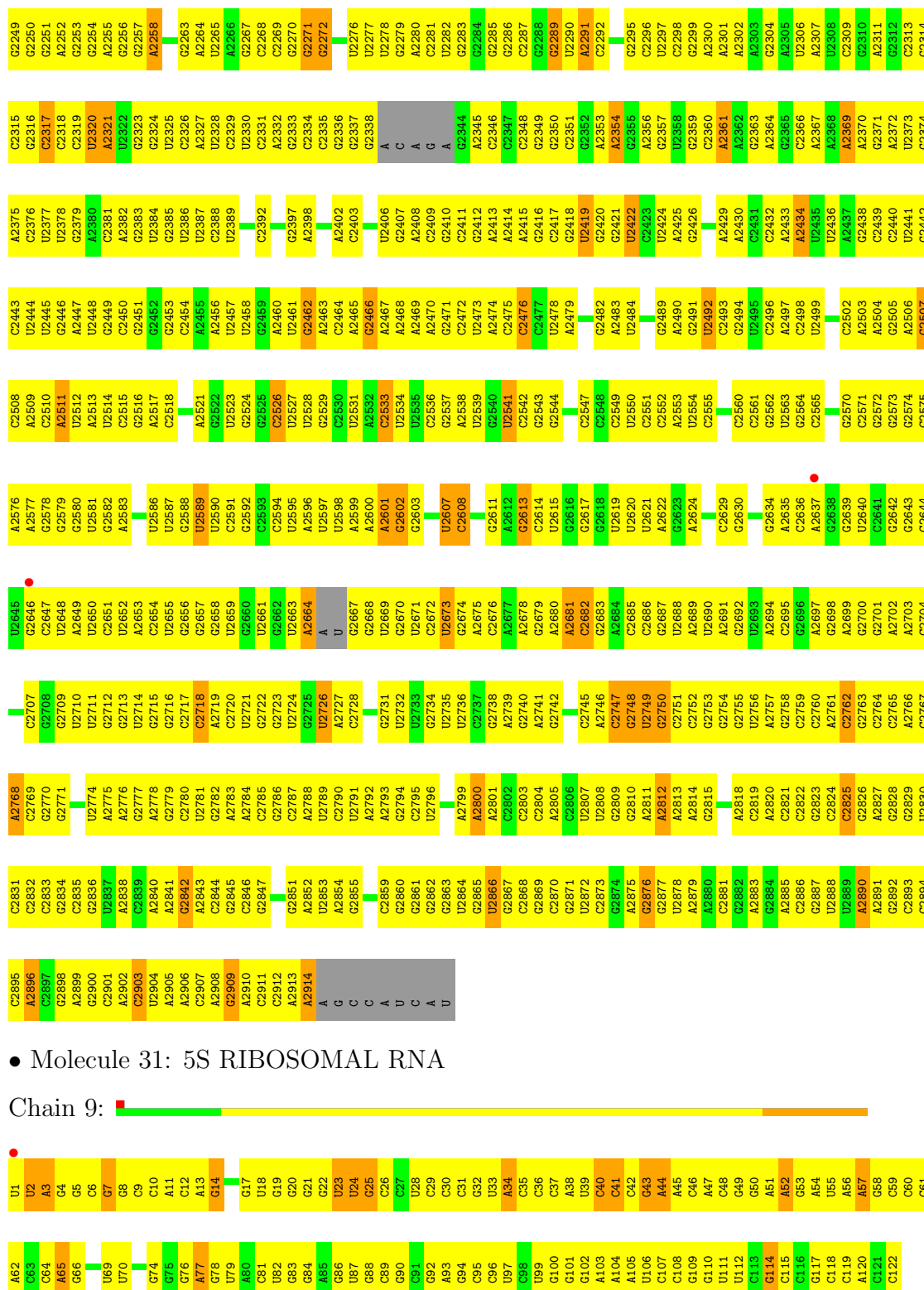
- Molecule 30: 23S RIBOSOMAL RNA

Chain 0:



G1131	G1054	A	G928	U855	A790	U714	G646	U582	A513	G446	G384	A317	C256	A129
A1132	G1055	G	G928	G856	A791	U	U647	C583	G814	A447	C385	U318	G257	C130
G1137	A1056	U	U932	A857	G792	G716	G648	U584	G814	G448	G386	A319	G258	A131
A1057	A1057	C	C933	U858	A793	C717		C585	U517	G449	G387	G320	G259	C195
G1059	A1058	G	C933	C859	U794	C718	G652	C586	A519	C450	G388	A321	C260	G196
U1139	G1059	G	C934	U860	G795	C719	U653	C587	A520	C451	G389	G322	A261	C197
C1060	C1060	C	G935	A861	A796	G720		G588	A521	C452	G390	C323	C136	C136
U1141	C1061	A	C936	U862	A797	G721	G656	U589	A522	A453	U391	G324	U263	C137
C1062	C1062	C	C937	U863	G798	G722	G657	A590	U522	U454	U392	U326	U264	U138
C1142	G1063	A	G938	U864	G799	G723	C658	A591		A455	G393	A327	U265	U139
C1146	U1066	C999	A939	A867	G800	G724	A659	G592	G525	U457	G394	U328	G266	G140
U1067	C1000	U1001	G940	G868	G802	C726	A660	C593	U526		U395	U328	G267	C141
A1067	C1001	G941	G941	G869	G803	G727	U662	C594	U527	C461	A397	A329	U268	A144
U1149	G1068	G1002	U942	U869	C803	G728	C663	U595	G528	A462	U398	G332	G269	A145
A1150	C1069	U1003	A943	G870	C804		U664	C596	G529	A463	C399	G333	U270	U146
G1151	A1070	C1004	G944	G871	G805	U731	A665	C597	G530	A464	C400	G334	A272	G147
A1152	A1005	U1005	U945	U872	G806	U732	A666	C598	G531	A466	C401	U335	G273	A148
C1153	G1072	A1006	C946	U873	A807	U733	C667	G600	U533	G467	U402	G336	G274	G149
A1073	A1073	A1007	U947	A875	A808	U734	C668	G601	C534	U470	C403	A337	G275	G150
G1074	G1074	C1008	G948	A876	G809	U735	C669	A602	G535	A471	G404	C338		A151
C1156	G1075	U1009	U949	G877	G810	C736	U670	A603	G536	A472	G405	C342	C279	A152
G1076	G1076	C1010	G950	G878	C811	A736	A671	G604	A537	C474	A407	C343	C280	C153
G1077	G1077	C1011	A951	C879	A812	A737	G672	C605	G538	G475	A408	C344	C281	C154
C1158	G1078	A1012	G952	C880	G813	G738			G539	A476	U409	G345	C282	C155
G1159	A1081	A1013	G953	C881	G814		U675	U611	A540	A477	A410	U346	U283	C156
C1160	A1082	A1014	U954	A882	U815	G744	C676	U612	C541	A478	A411	C347	G219	G157
A1161	C1083	C1015	A955	U883	G816	G745		C613	A542	C478	A412	C348	G220	A158
G1162	G1084	U1016	G956	G884	G817	A746	G681	U614	G543	C479	G413		G221	G159
C1163	C1085	U1017	A957	G885	A818	G747	A682	G615	G544	C480	G414		G222	A160
U1164	A1086	A1018	G958	U888	A819	C748	G683	U616	G545	U481	A415		G223	A161
G1165	G1087	C1019	C959	C889	G820	C749	G684	C617	C546	G482	G416		U224	C162
A1166	A1088	A1020	G960	C890	U821	A750	C685	G618	A549	C483	A417		G225	U163
G1167	C1088	C1021	A961	G891	C822	U751	A686	U619	C550	A484	C418		A226	G164
C1168	G1089	A1022	C962	G892	U823	G752	G687	A620	A551	G487	A419		C291	A165
U1169	U1090	C1023	G963	C893	G824	G753	A688	C621	A552	U488	U420		C292	A166
U1170	U1091	G1024	G964	C894	U825	G754		G622	A553	C491	C421		C293	A167
A1171	A1092	C1025	A965	C896	U826	G755	G691	U623	G553	U489	G422		C294	C168
G1172	A1093	U1026	U966	A897	A827		A692	U624		C490	G423		C295	A169
A1173	G1099	G1027	U967	G898	G830	A758	A693	U625	C556	U488	A424		G296	U170
G1175	U1000	U1028	G968	U902	U831	C759	A694	U626	C557	C492	U425		U297	A236
C1176	U1101	U1029	G969	G902	U832	G760	C695	G627	C558	U493	G426		C298	G237
U1102	C1102	U1030	U970	U903	G834	A761	C696	A628	U559		U300		U299	C238
C1103	C1103	G1031	G	U904	U835	G765	G697	A629	U560	G496	C427		U301	G174
U1109	U1109	A1032	U	C905	U836	A766	A698	A630	G561	A497	G428		C239	G175
G1110	G1110	C1033	G	C906	U840	A767	C699	A631	A562	A498	A429		U176	U176
A1114	U1115	G1038	C	A907	U841	G771	U701	A632	C563	G499	A430		A241	A177
U1115	G1039	C	C	A908	C842		G702	C633	G564	G500	G431		A242	U178
U1116	U1116	A1040	C	A912	A843		G703	G634	A565	G501	G432		A243	G179
A1117	A1117	U1041	C	U845	A844	A776	G704	A635	A566	A502	C433		C244	G180
U1118	U1118	U1042	U	A916	U846	U777	C705	G636	U567	G503	U434		C245	G181
G1119	U1119	C1043	C	U917	C847	C778	G706	C637	G574	G504			G246	G182
U1120	U1120	C1044	C	U918	C848	U779	G707	A638	G575	G505	A437		A247	A183
G1121	G1121	G1045	G	C920	U849	C783	A708	A639	A576	A507			A248	G184
A	A	A	A	G921	U850	A784	G709	G641	G576	A508	C440		G249	G185
G	G	G	G	A922	C851	U785	G710	G642	G577	A509	A441		C311	A186
A	A	A	A	A923	U852		G711	A643	G578	U510	A442		U312	A187
G1129	C1129	G1052	G	G924	C853	A788	G712	A644	G579	A511	C443		U313	C188
U1130	U1130	G1053	G	C925	G854	C789	U713	U645	G581	G512	C444		G314	A189
									G582		U445		G315	G190
									G583				A316	A191

C	U1996	A2060	U1996	G1932	A1865	C1792	G1730	A1661	U1599	U1539	U1473	G1398	G1332	G1263	C1196
U	A1997	C2061	A1997	G1933	A1866	C1793	G1731	C1662	G1600	G1540	C1474	A1399	U1333	U1264	G1197
A	G1998	U2062	G1998	A1934	G1867	G1794	C1732	G1663	G1601	G1541	C1475	A1401	C1334	U1265	U1198
G	C1999	U2063	C1999	C1935	G1868	G1795	A1732	A1664	C1602	G1542	A1476	G1401	C1335	U1266	A1199
C	G2000	U2064	G2000	C1936	U1871	A1796	C1733	G1665	A1603	G1543	C1477	U1336	U1337	C1267	A1200
G	C2001	C2065	G2001	U1937	U1872	G1798	A1734	G1666	G1604	U1544	U1478	A1407	G1337	C1268	C1201
G	C2002	C2066	C2002	G1938	C1872	C1798	C1735	A1667	G1605	C1545	G1479	U1408	U1338	C1269	A1202
G	U2003	A2067	U2003	U1939	G1873	G1799	C1736	U1668	A1606	G1546	A1480	G1409	U1339	U1270	A1203
C	U2004	C2068	U2004	C1940	U1874	G1800	A1737	G1669	A1607	A1547	A1481	C1342	U1271	U1204	C1204
C	G2005	U2069	G2005	A1941	A1875	A1801	C1738	A1670	G1608	U1548	A1482	U1412	C1272	U1205	U1205
A	C2006	G2070	C2006	A1942	A1876	G1802	G1739	A1671	C1609	C1549	A1483	G1343	C1273	U1206	U1206
C	U2007	C2071	A2007	C1943	U1878	C1803	U1740	G1672	G1610	A1550	G1484	A1419	A1274	A1207	A1207
C	G2008	G2072	U2008	G1944	U1879	A1804	U1741	U1673	G1611	C1551	G1485	C1420	U1345	C1208	C1208
C	G2009	C2073	G2009	G1945	U1880	G1805	A1742	C1674	A1612	G1552	A1486	C1421	U1346	C1209	C1209
A	A2010	A2074	A2010	G1946	U1883	G1806	G1743	C1675	C1613	C1553	A1487	U1422	U1278	G1210	G1210
G	C2011	G2075	A2011	G1947	U1884	U1807	G1744	G1676	G1614	C1554	A1488	C1423	U1279	G1211	G1211
A	G2012	U2076	U2012	G1948	A1886	G1809	G1745	A1677	A1615	G1555	A1489	A1424	A1280	C1212	C1212
C	G2013	G2013	G2013	G1949	A1887	C1810	G1745	A1678	A1616	C1556	A1490	A1425	C1281	C1213	C1213
C	G2014	A2081	G2014	G1950	U1887	U1818	U1748	A1679	G1617	G1557	A1492	C1426	U1282	G1214	G1214
A	A2015	C2082	A2015	G1951	C1888	U1819	C1754	A1680	G1618	C1558	A1493	A1427	G1354	A1215	A1215
A	A2016	A2083	A2016	U1889	C1889	U1814	C1750	G1681	G1619	A1559	A1494	C1428	A1287	G1216	G1216
A	U2017	C2087	U2017	A1890	G1891	A1815	G1752	A1682	C1620	U1561	A1495	U1432	U1288	G1217	U1217
G	A2018	A2088	A2018	G1891	G1891	U1816	G1753	A1683	G1621	U1562	A1496	U1433	C1289	U1218	U1218
G	U2019	G2090	U2019	G1894	U1894	U1817	A1755	A1685	G1622	C1563	A1497	A1434	G1292	A1222	A1222
A	A2022	G2093	A2022	U1898	G1898	U1818	A1756	C1686	A1624	C1564	A1498	U1435	U1293	G1223	G1223
A	G2023	C2094	G2023	G1899	G1899	G1828	U1757	C1687	U1625	C1565	A1499	U1436	U1294	G1224	G1224
A	U2024	U2095	U2024	A1900	A1900	A1829	U1758	A1688	A1626	C1566	A1501	A1437	A1295	U1295	U1295
A	C2025	C2096	C2025	G1901	C1901	C1830	U1759	A1689	G1627	G1567	A1502	G1438	A1296	A1296	A1296
C	U2027	A2096	U2027	G1902	G1902	U1831	A1760	A1691	G1628	G1568	U1503	G1439	A1297	C1228	C1228
U	C2028	C2097	U2028	U1903	U1903	U1832	U1761	A1692	G1629	U1569	A1504	U1440	C1365	C1229	C1229
U	A2029	C2098	U2029	A1904	U1904	C1834	U1762	A1693	A1630	C1570	U1505	G1441	C1366	A1230	A1230
A	U2030	A2099	U2030	G1905	C1905	U1835	C1763	A1694	G1631	G1571	U1506	A1442	A1369	G1299	G1299
C	C2031	G2000	C2031	U1906	U1906	U1836	C1764	G1697	A1632	A1572	C1507	G1443	C1301	U1234	U1234
A	U2032	A2101	U2032	U1907	G1907	U1837	C1765	U1698	G1633	A1573	G1444	G1445	U1302	A1236	A1236
A	G2033	G2102	G2033	A1908	A1908	U1838	U1766	A1699	U1635	C1574	G1446	U1447	U1303	U1237	U1237
C	U2034	A2103	U2034	A1909	A1909	A1840	U1767	A1701	G1636	C1575	G1447	U1448	C1304	C1238	C1238
C	C2035	C2104	C2035	G1910	G1910	A1841	C1768	U1702	A1637	U1577	C1513	A1449	A1375	G1239	G1239
C	U2036	C2105	U2036	C1911	C1911	A1842	C1769	G1706	U1638	C1578	C1514	G1450	G1376	G1240	G1240
C	C2037	U2107	C2037	A1912	A1912	U1846	U1770	G1707	U1639	C1579	A1515	C1451	C1377	G1241	G1241
U	A2038	C2106	A2038	G1913	G1913	U1847	U1771	G1708	A1640	A1580	U1516	G1452	G1378	A1242	A1242
G	C2039	U2107	C2039	C1914	U1914	G1848	C1772	G1709	A1641	A1581	C1517	G1453	G1379	C1243	C1243
A	C2040	G2110	C2040	U1915	U1915	U1849	G1773	G1710	C1642	C1582	A1518	U1454	G1380	U1244	U1244
U	G2041	G2111	G2041	C1916	C1916	G1849	G1774	A1717	G1643	C1583	U1519	U1455	A1387	C1245	C1245
U	U2042	C2112	U2042	G1917	G1917	U1850	A1775	G1718	C1644	U1584	C1520	C1456	U1383	A1246	A1246
A	G2044	C2113	G2044	U1918	U1918	U1851	G1782	G1719	U1645	C1585	C1521	C1457	G1384	A1247	A1247
A	U2045	U2115	U2045	A1919	A1919	A1852	U1779	G1720	U1646	G1586	A1522	U1458	G1385	U1248	U1248
C	C2047	U2116	C2047	C1920	C1920	C1854	G1780	A1717	G1647	U1587	U1524	A1458	G1386	U1249	U1249
A	C2048	U2117	C2048	A1921	A1921	C1854	G1781	G1717	G1648	G1588	U1525	U1461	G1387	C1250	C1250
G	G2049	A2118	G2049	A1922	A1922	C1855	G1782	G1718	C1649	G1589	A1526	C1462	U1388	G1251	G1251
G	U2050	C2119	U2050	G1923	G1923	C1856	U1783	G1719	U1650	A1590	A1527	U1463	G1389	A1252	A1252
U	C2051	U2120	C2051	A1924	A1924	C1857	U1784	C1721	U1651	A1591	A1528	C1464	G1390	C1253	C1253
A	U2052	G2121	U2052	C1988	G1925	A1858	U1785	G1722	G1655	C1592	A1529	U1465	G1391	C1254	C1254
C	G2053	C2122	G2053	A1926	A1926	U1859	G1786	U1723	G1656	C1593	A1530	G1468	A1392	G1326	G1326
C	A2054	C2243	A2054	U1927	U1927	U1860	C1787	G1724	G1657	C1594	U1531	C1469	G1327	A1255	A1255
C	G2055	C2244	G2055	C1928	C1928	G1861	U1788	U1725	A1657	G1595	U1532	C1470	A1328	A1259	A1259
C	U2056	C2245	U2056	G1929	G1929	C1862	U1789	G1726	A1658	U1596	G1535	C1471	G1329	G1260	G1260
C	C2057	U2128	C2057	A1930	A1930	G1863	U1790	G1727	G1660	A1597	C1538	A1472	A1330	A1261	A1261
G	U1996	U2129	U1996	G1932	A1865	C1792	G1730	A1661	U1599	U1539	U1473	G1398	G1332	G1263	C1196



4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	212.01Å 299.25Å 573.81Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.83 – 2.70 85.53 – 2.40	Depositor EDS
% Data completeness (in resolution range)	92.7 (49.83-2.70) 89.1 (85.53-2.40)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.00 (at 2.40Å)	Xtriage
Refinement program	CNS 1.0	Depositor
R, R_{free}	0.184 , 0.226 0.187 , 0.260	Depositor DCC
R_{free} test set	2448 reflections (0.99%)	DCC
Wilson B-factor (Å ²)	79.9	Xtriage
Anisotropy	0.112	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 95.4	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.47$, $\langle L^2 \rangle = 0.30$	Xtriage
Outliers	0 of 667044 reflections	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	99122	wwPDB-VP
Average B, all atoms (Å ²)	74.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.71% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: MG, OMG, CL, SR, NA, K, CD, OMU, UR3, 1MA, PSU

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.37	0/1786	0.66	0/2408
2	B	0.38	0/2690	0.67	0/3652
3	C	0.42	0/1885	0.65	0/2552
4	D	0.35	0/1111	0.58	0/1498
5	E	0.36	0/1382	0.61	0/1880
6	F	0.36	0/901	0.60	0/1224
7	G	0.40	0/241	0.53	0/324
8	H	0.36	0/1302	0.66	0/1743
9	I	0.33	0/526	0.54	0/716
10	J	0.42	0/1136	0.63	0/1530
11	K	0.40	0/1004	0.71	0/1351
12	L	0.35	0/1130	0.64	0/1509
13	M	0.41	0/1582	0.64	0/2116
14	N	0.33	0/1474	0.62	0/1999
15	O	0.37	0/874	0.64	0/1181
16	P	0.39	0/1147	0.56	0/1528
17	Q	0.37	0/749	0.67	0/1005
18	R	1.28	7/1172 (0.6%)	1.10	6/1578 (0.4%)
19	S	0.38	0/648	0.59	0/875
20	T	0.39	0/958	0.67	0/1289
21	U	0.46	0/417	0.64	0/562
22	V	0.35	0/502	0.56	0/675
23	W	0.41	0/1219	0.68	0/1655
24	X	0.39	0/664	0.62	0/895
25	Y	0.39	0/1146	0.64	0/1536
26	Z	0.42	0/584	0.63	0/781
27	1	0.47	0/438	0.63	0/578
28	2	0.38	0/401	0.61	0/529
29	3	0.43	0/771	0.67	0/1024
30	0	0.49	0/65957	0.70	6/102867 (0.0%)
31	9	0.37	0/2904	0.68	0/4526
All	All	0.48	7/98701 (0.0%)	0.69	12/147586 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
18	R	1	0
23	W	0	1
30	0	0	19
All	All	1	20

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	R	150	PRO	CB-CG	27.13	2.85	1.50
18	R	150	PRO	CA-C	-18.46	1.16	1.52
18	R	150	PRO	CG-CD	14.04	1.97	1.50
18	R	150	PRO	C-O	11.94	1.47	1.23
18	R	150	PRO	N-CA	11.49	1.66	1.47
18	R	150	PRO	N-CD	10.76	1.62	1.47
18	R	150	PRO	CA-CB	7.86	1.69	1.53

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	R	150	PRO	CB-CA-C	-22.46	55.84	112.00
18	R	150	PRO	N-CA-C	-19.38	61.71	112.10
18	R	150	PRO	CA-N-CD	12.12	128.68	111.70
18	R	150	PRO	N-CA-CB	11.03	116.54	103.30
18	R	150	PRO	CA-C-O	-8.33	100.20	120.20
30	0	128	A	N9-C1'-C2'	-6.07	105.32	112.00
18	R	150	PRO	CA-CB-CG	-6.06	92.49	104.00
30	0	1592	G	N9-C1'-C2'	5.81	121.56	114.00
30	0	1504	A	C1'-O4'-C4'	-5.70	105.34	109.90
30	0	755	G	O4'-C4'-C3'	-5.08	98.92	104.00
30	0	1504	A	N9-C1'-C2'	5.04	120.56	114.00
30	0	237	G	N9-C1'-C2'	-5.00	106.50	112.00

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
18	R	150	PRO	CA

All (20) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
30	0	1237	U	Sidechain
30	0	1371	U	Sidechain
30	0	1592	G	Sidechain
30	0	1635	U	Sidechain
30	0	1736	A	Sidechain
30	0	1828	G	Sidechain
30	0	1829	A	Sidechain
30	0	1839	A	Sidechain
30	0	1878	G	Sidechain
30	0	2289	G	Sidechain
30	0	2492	U	Sidechain
30	0	2673	U	Sidechain
30	0	2842	G	Sidechain
30	0	2866	U	Sidechain
30	0	493	U	Sidechain
30	0	788	A	Sidechain
30	0	862	U	Sidechain
30	0	882	A	Sidechain
30	0	938	G	Sidechain
23	W	90	TYR	Sidechain

5.2 Close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1753	0	1766	123	0
2	B	2625	0	2533	168	0
3	C	1860	0	1813	98	0
4	D	1094	0	1085	71	0
5	E	1357	0	1266	49	0
6	F	890	0	843	39	0
7	G	240	0	231	18	0
8	H	1282	0	1292	62	0
9	I	519	0	500	24	0
10	J	1120	0	1098	56	0
11	K	994	0	1027	54	0
12	L	1118	0	1076	54	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
13	M	1558	0	1573	120	0
14	N	1445	0	1401	74	0
15	O	865	0	873	47	0
16	P	1136	0	1123	64	0
17	Q	735	0	729	32	0
18	R	1149	0	1122	58	0
19	S	641	0	605	29	0
20	T	950	0	924	56	0
21	U	410	0	368	58	0
22	V	499	0	511	26	0
23	W	1196	0	1137	79	0
24	X	654	0	653	42	0
25	Y	1130	0	1133	69	0
26	Z	573	0	534	84	0
27	1	431	0	426	27	0
28	2	396	0	413	20	0
29	3	755	0	732	138	0
30	0	59020	0	29802	3476	0
31	9	2599	0	1325	195	0
32	0	85	0	0	0	0
32	9	2	0	0	0	0
32	A	2	0	0	0	0
32	K	1	0	0	0	0
32	T	1	0	0	0	0
32	Y	2	0	0	0	0
33	0	1	0	0	0	0
33	M	1	0	0	0	0
34	0	63	0	0	0	0
34	9	2	0	0	0	0
34	B	1	0	0	0	0
34	C	1	0	0	0	0
34	J	1	0	0	0	0
34	L	1	0	0	0	0
34	M	1	0	0	0	0
34	Q	1	0	0	0	0
34	R	3	0	0	0	0
34	S	1	0	0	0	0
35	0	8	0	0	6	0
35	3	1	0	0	4	0
35	A	1	0	0	0	0
35	B	1	0	0	1	0
35	J	4	0	0	4	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	L	1	0	0	0	0
35	M	1	0	0	2	0
35	N	1	0	0	2	0
35	O	1	0	0	1	0
35	Q	1	0	0	1	0
35	R	1	0	0	0	0
35	Y	1	0	0	1	0
36	0	93	0	0	0	0
36	1	2	0	0	0	0
36	2	1	0	0	0	0
36	3	2	0	0	0	0
36	9	2	0	0	0	0
36	A	2	0	0	0	0
36	B	2	0	0	0	0
36	F	1	0	0	0	0
36	J	1	0	0	0	0
36	R	1	0	0	0	0
36	S	1	0	0	0	0
37	1	1	0	0	0	0
37	3	1	0	0	0	0
37	O	1	0	0	0	0
37	U	1	0	0	0	0
37	Z	1	0	0	0	0
38	0	5813	0	0	458	0
38	1	53	0	0	3	0
38	2	48	0	0	0	0
38	3	80	0	0	12	0
38	9	144	0	0	18	0
38	A	122	0	0	13	0
38	B	158	0	0	21	0
38	C	176	0	0	16	0
38	D	51	0	0	7	0
38	E	51	0	0	3	0
38	F	27	0	0	2	0
38	G	15	0	0	1	0
38	H	73	0	0	2	0
38	I	3	0	0	0	0
38	J	55	0	0	4	0
38	K	61	0	0	5	0
38	L	99	0	0	11	0
38	M	148	0	0	15	0
38	N	56	0	0	7	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	O	42	0	0	3	0
38	P	56	0	0	4	0
38	Q	58	0	0	5	0
38	R	78	0	0	1	0
38	S	37	0	0	3	0
38	T	41	0	0	3	0
38	U	34	0	0	4	0
38	V	10	0	0	2	0
38	W	71	0	0	4	0
38	X	28	0	0	1	0
38	Y	102	0	0	8	0
38	Z	33	0	0	7	0
All	All	99122	0	59914	5051	0

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 34.

All (5051) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:R:150:PRO:CD	18:R:150:PRO:CG	1.97	1.43
30:0:871:G:C8	30:0:871:G:H5'	1.74	1.22
31:9:29:C:H2'	31:9:30:C:H5'	1.21	1.17
14:N:37:ARG:NH1	31:9:6:C:H5''	1.59	1.16
31:9:56:A:H2'	31:9:57:A:H5''	1.23	1.16
31:9:92:G:H2'	31:9:93:A:C8	1.81	1.16
30:0:1160:G:H5'	30:0:1161:A:C5'	1.76	1.15
26:Z:63:CYS:SG	26:Z:81:CYS:HB2	1.87	1.15
30:0:1523:G:H2'	30:0:1524:U:C6	1.80	1.15
30:0:735:C:H2'	30:0:736:A:O4'	1.49	1.12
14:N:67:ALA:HA	14:N:71:TRP:HB3	1.32	1.11
30:0:1165:G:H1'	30:0:1174:A:H1'	1.21	1.11
10:J:82:THR:HG23	30:0:1242:A:H5'	1.27	1.10
30:0:1666:C:O2'	30:0:1667:A:H5''	1.52	1.09
30:0:1205:U:H2'	30:0:1206:U:H5'	1.31	1.09
30:0:545:G:H8	30:0:545:G:H5'	1.12	1.08
30:0:1160:G:C5'	30:0:1161:A:H5'	1.83	1.08
30:0:1632:A:H2'	30:0:1633:C:H5'	1.34	1.08
18:R:150:PRO:CG	18:R:150:PRO:C	2.22	1.07
30:0:1375:A:H2'	30:0:1376:G:H5'	1.37	1.06
26:Z:60:ASP:HB3	26:Z:69:ASP:HB3	1.37	1.06
30:0:424:C:H2'	30:0:425:U:H6	1.20	1.05
30:0:1184:C:H1'	38:0:7367:HOH:O	1.57	1.05

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2397:G:H2'	30:0:2398:A:H8	1.20	1.04
30:0:871:G:H5'	30:0:871:G:H8	0.89	1.04
25:Y:187:VAL:HG23	25:Y:192:ASP:HB2	1.40	1.04
30:0:595:U:H3'	38:0:6403:HOH:O	1.57	1.04
30:0:735:C:H3'	30:0:736:A:H8	1.18	1.03
30:0:2533:C:H5'	30:0:2533:C:H6	1.24	1.03
13:M:159:VAL:HG12	35:M:8818:CL:CL	1.96	1.02
14:N:37:ARG:HH12	31:9:6:C:H5''	0.89	1.01
30:0:2534:U:H1'	38:0:3475:HOH:O	1.61	1.01
30:0:236:A:H4'	30:0:237:G:H5'	1.37	1.01
29:3:5:ARG:HG3	29:3:6:ARG:HG3	1.43	1.00
28:2:43:ARG:HH22	30:0:1684:A:H1'	1.21	1.00
13:M:171:ARG:HD3	30:0:156:C:H5''	1.43	1.00
30:0:2717:C:C2'	30:0:2718:C:H5''	1.90	1.00
4:D:25:MET:HE3	4:D:37:ALA:HB1	1.41	1.00
15:O:47:ARG:HG3	15:O:47:ARG:HH11	1.23	1.00
13:M:77:HIS:HE1	13:M:86:GLN:HG2	1.25	1.00
30:0:2502:C:H2'	30:0:2503:A:H5'	1.39	0.99
30:0:735:C:H3'	30:0:736:A:C8	1.98	0.99
13:M:79:ALA:HB3	13:M:81:ARG:HH12	1.28	0.98
29:3:11:CYS:SG	29:3:13:HIS:HD2	1.85	0.98
31:9:76:G:H3'	31:9:77:A:H5''	1.46	0.98
17:Q:27:GLN:HE21	31:9:8:G:H4'	1.27	0.98
30:0:871:G:C5'	30:0:871:G:H8	1.76	0.98
30:0:432:G:H3'	38:0:7100:HOH:O	1.63	0.98
25:Y:208:LYS:NZ	30:0:1343:C:H1'	1.80	0.97
30:0:1563:G:H4'	38:0:4202:HOH:O	1.62	0.97
31:9:56:A:C2'	31:9:57:A:H5''	1.95	0.97
30:0:545:G:C8	30:0:545:G:H5'	2.00	0.96
20:T:64:ASN:HB3	20:T:73:HIS:HB2	1.47	0.96
1:A:51:ARG:HH11	1:A:51:ARG:HB2	1.29	0.96
30:0:496:G:H3'	38:0:7569:HOH:O	1.62	0.96
29:3:13:HIS:HB2	29:3:74:CYS:SG	2.05	0.96
30:0:2420:G:O2'	30:0:2421:G:H5'	1.65	0.95
14:N:37:ARG:HD3	35:N:8807:CL:CL	2.03	0.95
30:0:541:C:H2'	30:0:542:A:H5''	1.46	0.95
30:0:1160:G:H5'	30:0:1161:A:H5'	0.99	0.95
30:0:282:C:O2'	30:0:283:U:H5'	1.64	0.95
25:Y:208:LYS:HZ2	30:0:1343:C:H1'	1.30	0.94
30:0:1528:A:H61	30:0:1663:G:H1'	1.32	0.94
30:0:1679:C:H5'	38:0:9328:HOH:O	1.67	0.94
30:0:1451:C:H5'	30:0:1505:U:C5	2.02	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:596:C:H2'	30:0:597:A:H8	1.32	0.94
38:Q:2875:HOH:O	30:0:2392:C:H4'	1.66	0.94
30:0:1166:A:P	30:0:1174:A:H4'	2.08	0.94
30:0:2502:C:C2'	30:0:2503:A:H5'	1.97	0.94
30:0:506:G:H22	30:0:509:A:C5'	1.81	0.94
31:9:97:U:H3'	38:9:5983:HOH:O	1.67	0.93
29:3:36:ILE:HD13	30:0:2432:C:H5''	1.50	0.93
31:9:92:G:H2'	31:9:93:A:H8	1.25	0.93
30:0:1205:U:H2'	30:0:1206:U:C5'	1.98	0.93
30:0:1626:A:H2'	30:0:1627:G:H5'	1.50	0.93
30:0:1523:G:H2'	30:0:1524:U:H6	1.32	0.93
30:0:1603:A:H5'	30:0:1605:G:O4'	1.68	0.93
30:0:2440:C:H4'	38:0:3795:HOH:O	1.68	0.92
30:0:1170:U:H1'	30:0:1172:G:N7	1.83	0.92
30:0:363:C:H1'	38:0:5232:HOH:O	1.69	0.92
30:0:1632:A:C2'	30:0:1633:C:H5'	2.00	0.92
12:L:111:ALA:HB2	30:0:698:A:H5''	1.51	0.92
30:0:2717:C:O2'	30:0:2718:C:H5''	1.69	0.91
30:0:2397:G:H2'	30:0:2398:A:C8	2.05	0.91
30:0:2751:C:H3'	38:0:7172:HOH:O	1.71	0.91
30:0:1181:A:H2'	30:0:1182:C:H5'	1.50	0.91
30:0:1736:A:H1'	38:0:7486:HOH:O	1.70	0.91
30:0:2241:C:H2'	30:0:2242:U:H6	1.36	0.90
30:0:1375:A:C2'	30:0:1376:G:H5'	2.01	0.90
30:0:2717:C:H2'	30:0:2718:C:H5''	1.48	0.90
13:M:77:HIS:HB2	13:M:81:ARG:HH21	1.35	0.90
31:9:14:G:H5'	31:9:14:G:H8	1.36	0.90
30:0:197:C:H5'	38:0:4888:HOH:O	1.71	0.90
30:0:1666:C:C2'	30:0:1667:A:H5''	2.02	0.90
30:0:1774:G:O2'	30:0:1775:A:H5'	1.72	0.89
30:0:2371:G:H5'	38:0:4962:HOH:O	1.70	0.89
30:0:2533:C:C6	30:0:2533:C:H5'	2.06	0.89
30:0:951:A:C2'	30:0:952:G:H5'	2.03	0.89
10:J:82:THR:CG2	30:0:1242:A:H5'	2.02	0.89
30:0:2248:C:H3'	38:0:5390:HOH:O	1.71	0.89
13:M:77:HIS:CE1	13:M:86:GLN:HG2	2.07	0.89
30:0:1626:A:H2'	30:0:1627:G:C5'	2.01	0.89
11:K:18:ILE:HG22	11:K:93:ASN:HD22	1.36	0.88
15:O:3:THR:HG22	30:0:656:G:H5'	1.54	0.88
30:0:1130:U:H2'	30:0:1131:G:O4'	1.73	0.88
30:0:2507:G:H2'	30:0:2510:C:H42	1.36	0.88
30:0:69:A:H5'	30:0:69:A:C8	2.09	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:O:3:THR:CG2	30:0:656:G:H5'	2.04	0.88
31:9:29:C:C2'	31:9:30:C:H5'	2.02	0.88
31:9:49:G:O2'	31:9:50:G:H5'	1.73	0.88
30:0:2415:A:H2'	30:0:2416:G:H5'	1.55	0.88
30:0:947:U:O2'	30:0:948:G:H5'	1.74	0.88
30:0:2329:C:O2'	30:0:2330:U:H5'	1.74	0.87
29:3:42:ARG:NH1	30:0:396:U:H5'	1.88	0.87
30:0:1834:C:H2'	30:0:1840:A:H62	1.38	0.87
30:0:541:C:C2'	30:0:542:A:H5''	2.04	0.87
4:D:58:VAL:HB	4:D:62:ASP:HB3	1.53	0.87
30:0:870:G:H2'	30:0:871:G:H5''	1.57	0.87
29:3:47:GLY:HA2	30:0:2121:G:H4'	1.57	0.87
11:K:39:GLY:HA2	38:0:5173:HOH:O	1.75	0.87
30:0:2442:G:H2'	38:0:9197:HOH:O	1.75	0.87
13:M:70:GLY:HA2	30:0:2263:G:H5''	1.57	0.86
30:0:924:G:H5''	38:0:3656:HOH:O	1.73	0.86
30:0:1483:C:O2'	30:0:1484:G:H5'	1.74	0.86
30:0:120:A:H3'	38:0:4004:HOH:O	1.74	0.86
22:V:39:ALA:H	22:V:40:PRO:HD2	1.41	0.86
30:0:2465:A:H3'	38:0:3625:HOH:O	1.74	0.86
30:0:1206:U:H2'	30:0:1207:A:O4'	1.75	0.86
30:0:559:U:H6	30:0:559:U:H5'	1.40	0.86
30:0:1372:A:H3'	38:0:7091:HOH:O	1.75	0.86
30:0:1118:A:H3'	30:0:1118:A:C8	2.10	0.86
30:0:292:G:H2'	30:0:358:G:N2	1.90	0.86
30:0:1942:A:H5'	38:0:7247:HOH:O	1.76	0.85
30:0:1201:C:H2'	30:0:1202:A:H5'	1.56	0.85
30:0:718:C:O2'	30:0:719:C:H5'	1.76	0.85
24:X:74:ALA:HB2	24:X:85:VAL:HG13	1.57	0.85
30:0:69:A:H5'	30:0:69:A:H8	1.40	0.85
30:0:877:G:H5'	30:0:878:G:OP1	1.76	0.85
30:0:1641:A:H2'	30:0:1642:A:C5'	2.05	0.85
30:0:1351:G:H3'	38:0:6328:HOH:O	1.74	0.85
3:C:1:MET:HG2	3:C:2:GLN:H	1.41	0.85
30:0:424:C:H2'	30:0:425:U:C6	2.09	0.85
30:0:1641:A:C2'	30:0:1642:A:H5'	2.06	0.85
30:0:2336:G:O2'	30:0:2337:G:H5'	1.76	0.85
30:0:2102:G:H2'	38:0:7667:HOH:O	1.75	0.85
18:R:18:LEU:HB2	18:R:143:VAL:HG13	1.59	0.85
14:N:141:ARG:HH21	31:9:48:C:H4'	1.42	0.85
30:0:2661:U:H3	30:0:2812:A:H62	1.19	0.85
4:D:154:LYS:HD2	4:D:154:LYS:H	1.42	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:671:A:O2'	30:0:672:G:H2'	1.77	0.84
30:0:1641:A:H2'	30:0:1642:A:H5'	1.59	0.84
30:0:391:U:H3'	38:0:4623:HOH:O	1.75	0.84
30:0:2506:A:HO2'	30:0:2507:G:H8	0.85	0.84
30:0:1762:C:H2'	30:0:1763:C:H6	1.41	0.84
30:0:2868:C:H1'	38:0:7024:HOH:O	1.76	0.84
30:0:1964:U:O2	30:0:1964:U:H2'	1.77	0.84
30:0:380:A:H2'	38:0:7130:HOH:O	1.78	0.84
1:A:47:HIS:HD2	30:0:1654:U:H2'	1.41	0.84
14:N:37:ARG:HH12	31:9:6:C:C5'	1.84	0.84
29:3:24:LYS:HE2	35:3:8804:CL:CL	2.14	0.84
30:0:664:U:H5'	38:0:3760:HOH:O	1.77	0.84
30:0:1797:A:H4'	30:0:1798:C:C5	2.13	0.84
30:0:24:G:N2	30:0:518:G:H1'	1.93	0.84
2:B:162:MET:HE2	2:B:310:ARG:HD3	1.58	0.84
30:0:1735:C:O2'	30:0:1736:A:H5'	1.77	0.84
30:0:652:G:H5''	38:0:3006:HOH:O	1.78	0.84
30:0:282:C:H1'	30:0:368:C:N4	1.93	0.84
30:0:2472:C:H3'	38:0:3589:HOH:O	1.77	0.83
3:C:127:ARG:NH2	3:C:225:PRO:HG2	1.92	0.83
13:M:70:GLY:HA2	30:0:2263:G:C5'	2.08	0.83
30:0:57:C:H42	30:0:89:G:H1	1.26	0.83
30:0:847:C:H1'	38:0:4278:HOH:O	1.76	0.83
30:0:1810:C:H4'	38:0:6580:HOH:O	1.78	0.83
30:0:1477:C:O2'	30:0:1478:U:H5'	1.78	0.83
30:0:396:U:H4'	38:0:4309:HOH:O	1.79	0.83
27:1:20:ARG:HH21	30:0:120:A:H5'	1.43	0.83
30:0:1834:C:H2'	30:0:1840:A:N6	1.93	0.83
30:0:1116:U:HO2'	30:0:1118:A:H2	0.90	0.83
30:0:1940:C:H1'	38:0:9376:HOH:O	1.78	0.83
29:3:65:THR:HG22	35:3:8804:CL:CL	2.15	0.83
30:0:2469:A:H1'	38:0:3226:HOH:O	1.78	0.83
15:O:51:TYR:HD1	30:0:721:A:H4'	1.43	0.83
30:0:2578:G:H5'	30:0:2578:G:H8	1.43	0.83
11:K:27:ARG:HD2	11:K:60:GLY:HA2	1.60	0.83
30:0:461:C:H2'	38:0:3977:HOH:O	1.78	0.83
30:0:2256:G:H2'	30:0:2257:G:H5'	1.61	0.83
30:0:1181:A:C2'	30:0:1182:C:H5'	2.09	0.83
13:M:164:THR:HG22	13:M:166:ALA:H	1.44	0.83
30:0:2769:C:C2'	30:0:2770:G:H5'	2.09	0.82
30:0:2768:A:H3'	30:0:2768:A:N3	1.94	0.82
30:0:2089:A:O2'	30:0:2090:G:H5'	1.79	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:T:71:VAL:HG11	20:T:90:PRO:HB3	1.60	0.82
30:0:1450:C:H3'	38:0:9443:HOH:O	1.77	0.82
30:0:2474:A:N7	30:0:2621:PSU:H4'	1.94	0.82
30:0:2508:C:H2'	38:0:6666:HOH:O	1.78	0.82
30:0:90:A:H2'	30:0:91:G:O4'	1.79	0.82
30:0:669:G:O2'	30:0:670:G:H5'	1.80	0.82
30:0:282:C:C2'	30:0:283:U:H5'	2.09	0.82
14:N:37:ARG:NH1	31:9:6:C:C5'	2.42	0.82
13:M:82:ARG:O	13:M:86:GLN:HG3	1.80	0.82
30:0:2506:A:O2'	30:0:2507:G:H8	1.63	0.82
30:0:1477:C:H5'	30:0:1868:G:H5'	1.59	0.82
28:2:41:HIS:HD2	28:2:44:ARG:H	1.27	0.82
30:0:1625:U:H4'	38:0:4622:HOH:O	1.80	0.82
30:0:1118:A:H3'	30:0:1118:A:H8	1.45	0.82
30:0:2871:G:H2'	30:0:2872:U:H6	1.45	0.81
29:3:25:VAL:HG22	29:3:68:LYS:HB2	1.60	0.81
30:0:2281:C:H2'	30:0:2282:U:H5'	1.60	0.81
11:K:76:GLN:HA	11:K:93:ASN:HB3	1.62	0.81
29:3:49:ASP:HB3	29:3:52:PHE:HB2	1.62	0.81
30:0:2468:A:H3'	38:0:5402:HOH:O	1.81	0.81
6:F:39:SER:HB3	6:F:45:ALA:HB2	1.62	0.81
30:0:1666:C:H2'	30:0:1667:A:C5'	2.10	0.81
30:0:2241:C:H2'	30:0:2242:U:C6	2.15	0.81
30:0:2894:C:O2'	30:0:2895:C:H5'	1.81	0.81
38:Y:8920:HOH:O	30:0:1330:A:H4'	1.81	0.81
30:0:1116:U:O2'	30:0:1118:A:H2	1.63	0.81
30:0:2769:C:O2'	30:0:2770:G:H5'	1.80	0.81
30:0:385:C:O5'	30:0:385:C:H6	1.64	0.81
29:3:48:ASN:ND2	30:0:169:A:H1'	1.96	0.81
30:0:2253:G:H2'	30:0:2254:G:H8	1.45	0.81
38:3:9016:HOH:O	30:0:2434:A:H4'	1.81	0.81
30:0:558:C:C2'	30:0:559:U:H5''	2.11	0.81
30:0:1474:C:H6	30:0:1474:C:H5'	1.46	0.81
35:Y:8820:CL:CL	38:0:3632:HOH:O	2.36	0.81
30:0:2065:C:O2'	30:0:2066:C:H5'	1.80	0.80
30:0:1151:G:H2'	38:0:4973:HOH:O	1.79	0.80
13:M:99:ARG:HE	13:M:170:ASN:HD22	1.29	0.80
30:0:2106:C:H2'	30:0:2107:U:C6	2.16	0.80
4:D:141:VAL:HG21	31:9:57:A:C8	2.15	0.80
30:0:2644:C:H4'	38:0:3380:HOH:O	1.81	0.80
30:0:2505:G:H2'	30:0:2506:A:H5'	1.61	0.80
35:0:8813:CL:CL	38:0:4640:HOH:O	2.37	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:129:HIS:CE1	3:C:231:ARG:HA	2.17	0.80
23:W:38:THR:HG22	23:W:39:ASP:H	1.46	0.80
22:V:1:THR:HG23	22:V:2:VAL:H	1.47	0.80
30:0:1855:G:H4'	30:0:1856:C:O5'	1.78	0.80
1:A:100:PRO:HG2	1:A:103:VAL:HG21	1.64	0.80
30:0:1132:A:N6	30:0:1229:C:H2'	1.97	0.80
30:0:368:C:H2'	30:0:369:G:H5'	1.62	0.80
30:0:2871:G:H2'	30:0:2872:U:C6	2.16	0.80
30:0:56:G:H3'	38:0:5388:HOH:O	1.81	0.80
25:Y:154:ARG:HH21	30:0:1293:U:H5'	1.47	0.80
14:N:144:GLY:O	14:N:147:ILE:HG22	1.81	0.80
15:O:51:TYR:CE1	30:0:721:A:H5''	2.16	0.80
1:A:51:ARG:NH1	1:A:51:ARG:HB2	1.95	0.80
21:U:56:ARG:HD2	30:0:2890:A:C8	2.17	0.80
30:0:2243:C:H5''	38:0:3730:HOH:O	1.82	0.79
30:0:1120:U:C6	30:0:1120:U:H5''	2.17	0.79
30:0:2009:G:H5'	38:0:9852:HOH:O	1.81	0.79
10:J:52:GLN:HE22	30:0:1119:G:H2'	1.46	0.79
30:0:213:G:N2	30:0:225:G:H2'	1.97	0.79
30:0:2735:U:H2'	30:0:2736:U:H6	1.45	0.79
30:0:1346:U:H2'	30:0:1347:U:H6	1.46	0.79
30:0:1596:U:H2'	30:0:1598:A:OP2	1.82	0.79
30:0:2533:C:C5'	30:0:2533:C:H6	1.96	0.79
15:O:51:TYR:CD1	30:0:721:A:H4'	2.18	0.79
30:0:449:A:H3'	38:0:5340:HOH:O	1.79	0.79
30:0:1209:C:H2'	30:0:1210:G:H8	1.44	0.79
8:H:158:ASN:ND2	30:0:2502:C:H4'	1.98	0.79
30:0:951:A:O2'	30:0:952:G:H5'	1.81	0.79
30:0:2785:C:H5'	38:0:7614:HOH:O	1.81	0.79
30:0:1666:C:H2'	30:0:1667:A:H5'	1.65	0.79
30:0:560:U:H2'	30:0:561:G:H8	1.48	0.79
31:9:29:C:H2'	31:9:30:C:C5'	2.09	0.79
30:0:506:G:H22	30:0:509:A:H5''	1.48	0.79
30:0:2315:C:H5''	38:0:3506:HOH:O	1.81	0.79
30:0:2717:C:H2'	30:0:2718:C:C5'	2.11	0.79
30:0:1741:U:O2'	30:0:2723:G:H4'	1.82	0.79
30:0:2005:G:OP2	30:0:2005:G:H3'	1.82	0.79
30:0:2750:G:H2'	30:0:2751:C:C6	2.19	0.78
11:K:14:LYS:HB2	11:K:45:PRO:HG2	1.65	0.78
4:D:141:VAL:HG21	31:9:57:A:H8	1.48	0.78
30:0:213:G:H22	30:0:225:G:H2'	1.47	0.78
30:0:2241:C:O2'	30:0:2242:U:H5'	1.83	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2908:A:H2'	30:0:2909:G:O4'	1.83	0.78
12:L:90:ARG:HA	12:L:119:THR:HB	1.65	0.78
30:0:1505:U:H4'	38:0:5132:HOH:O	1.83	0.78
30:0:2114:C:H3'	38:0:9705:HOH:O	1.82	0.78
30:0:1278:A:H4'	30:0:1279:U:N3	1.98	0.78
9:I:83:GLY:H	30:0:1168:C:H5''	1.48	0.78
30:0:1202:A:H2'	30:0:1203:G:O4'	1.82	0.78
30:0:1626:A:C2'	30:0:1627:G:H5'	2.12	0.78
30:0:1116:U:H3	30:0:1246:A:H62	1.30	0.78
17:Q:15:LYS:HD3	30:0:2364:A:H5''	1.66	0.78
30:0:541:C:H2'	30:0:542:A:C5'	2.13	0.78
30:0:1773:G:H4'	38:0:3502:HOH:O	1.84	0.78
30:0:107:U:H2'	30:0:108:U:H5'	1.66	0.78
25:Y:165:GLU:HB3	38:0:6614:HOH:O	1.83	0.78
29:3:3:MET:O	29:3:90:PHE:HA	1.84	0.78
30:0:2439:C:H2'	30:0:2440:C:H6	1.46	0.78
38:B:8996:HOH:O	30:0:2766:A:H5'	1.82	0.78
30:0:1664:A:OP1	30:0:1664:A:H8	1.67	0.78
16:P:77:ALA:HA	16:P:80:ARG:HG3	1.64	0.78
30:0:1423:C:O2'	30:0:1424:A:H5'	1.84	0.78
30:0:2507:G:H2'	30:0:2510:C:N4	1.99	0.78
11:K:10:GLN:NE2	11:K:10:GLN:H	1.81	0.78
14:N:17:ARG:HB3	14:N:17:ARG:HH11	1.46	0.78
30:0:200:C:H2'	38:0:3428:HOH:O	1.82	0.77
30:0:228:C:C2'	30:0:229:G:H5'	2.14	0.77
30:0:822:C:H1'	38:0:4074:HOH:O	1.82	0.77
30:0:2410:G:O2'	30:0:2411:C:H5'	1.84	0.77
30:0:2869:G:H5'	38:0:5440:HOH:O	1.84	0.77
30:0:1331:G:O2'	30:0:1332:C:H5'	1.84	0.77
30:0:2794:G:C2	30:0:2795:C:C6	2.73	0.77
30:0:2498:C:O2'	30:0:2499:U:H5'	1.84	0.77
24:X:43:VAL:HG12	24:X:44:ASP:H	1.48	0.77
30:0:2812:A:H1'	38:0:5719:HOH:O	1.84	0.77
13:M:139:PRO:HA	13:M:142:GLN:HB2	1.65	0.77
24:X:37:LEU:HD13	24:X:85:VAL:HG21	1.67	0.77
30:0:766:A:H2'	38:0:3818:HOH:O	1.85	0.77
9:I:87:PRO:HD2	30:0:1180:U:H1'	1.66	0.77
30:0:106:A:O2'	30:0:107:U:H5'	1.84	0.77
30:0:182:G:H5'	38:0:5110:HOH:O	1.85	0.77
30:0:625:U:H5''	30:0:1044:C:N4	2.00	0.77
30:0:1947:G:H2'	30:0:1948:G:H8	1.49	0.77
30:0:1119:G:H22	30:0:1246:A:H2	1.33	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1889:C:C4	30:0:1890:U:C5	2.73	0.76
2:B:36:PRO:HG3	2:B:169:GLY:HA3	1.66	0.76
30:0:154:C:H2'	30:0:155:C:H6	1.48	0.76
30:0:711:G:C2	30:0:718:C:C2	2.72	0.76
30:0:1787:C:O2'	30:0:1788:U:H5'	1.85	0.76
17:Q:27:GLN:HE21	31:9:8:G:C4'	1.99	0.76
30:0:561:G:H2'	30:0:562:A:H8	1.50	0.76
31:9:52:A:H2'	31:9:53:G:O4'	1.85	0.76
12:L:55:GLN:HA	12:L:58:GLN:HE21	1.49	0.76
30:0:557:C:O2'	30:0:558:C:H5'	1.86	0.76
30:0:1119:G:N2	30:0:1246:A:C2	2.51	0.76
1:A:47:HIS:CD2	30:0:1654:U:H2'	2.20	0.76
30:0:506:G:H22	30:0:509:A:H5'	1.48	0.76
1:A:199:HIS:CD2	1:A:201:PHE:H	2.03	0.76
5:E:133:VAL:HG12	5:E:141:VAL:HG13	1.66	0.76
3:C:115:LEU:HD13	3:C:223:LEU:HD21	1.68	0.76
30:0:2073:G:H2'	38:0:3803:HOH:O	1.83	0.76
30:0:2624:A:H1'	38:0:9771:HOH:O	1.84	0.76
31:9:57:A:H2'	31:9:58:G:H5'	1.68	0.76
12:L:53:ARG:HD2	30:0:2441:U:H4'	1.66	0.76
30:0:951:A:H2'	30:0:952:G:H5'	1.66	0.76
22:V:25:THR:HG22	22:V:29:ASN:HD21	1.50	0.76
8:H:59:GLN:HE22	8:H:96:GLN:HG2	1.49	0.76
30:0:1072:G:H5'	38:0:6511:HOH:O	1.85	0.76
30:0:1205:U:C2'	30:0:1206:U:H5'	2.15	0.76
30:0:2803:C:O2'	30:0:2804:C:H5'	1.86	0.76
30:0:2256:G:C2'	30:0:2257:G:H5'	2.16	0.76
14:N:141:ARG:NH2	31:9:48:C:H4'	2.00	0.76
30:0:2687:G:O2'	30:0:2688:U:H5'	1.86	0.76
8:H:123:ILE:HD12	8:H:123:ILE:H	1.51	0.76
30:0:1120:U:H6	30:0:1120:U:H5''	1.51	0.75
23:W:125:HIS:NE2	30:0:1097:A:H5''	2.00	0.75
30:0:1164:U:C2	30:0:1166:A:H4'	2.21	0.75
30:0:1666:C:C2'	30:0:1667:A:C5'	2.63	0.75
30:0:659:A:H5''	38:0:7001:HOH:O	1.87	0.75
30:0:1921:A:O2'	30:0:1922:A:H5'	1.87	0.75
29:3:62:THR:HG21	29:3:84:ARG:HB3	1.68	0.75
23:W:11:VAL:HG11	30:0:1086:A:C6	2.22	0.75
30:0:870:G:C2'	30:0:871:G:H5''	2.17	0.75
1:A:47:HIS:HD2	30:0:1654:U:C2'	1.99	0.75
13:M:95:LYS:HA	13:M:170:ASN:HD21	1.50	0.75
9:I:83:GLY:HA3	30:0:1168:C:H5'	1.68	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:120:A:H2'	30:0:120:A:N3	2.02	0.75
2:B:264:GLU:HG2	2:B:267:LYS:HE3	1.68	0.75
30:0:303:C:O2'	30:0:304:G:H5'	1.86	0.75
29:3:74:CYS:SG	29:3:76:LYS:HD2	2.27	0.75
30:0:2697:A:H2'	30:0:2698:G:O4'	1.87	0.75
8:H:120:PHE:CD1	30:0:2311:A:H5'	2.21	0.75
30:0:136:C:H2'	30:0:137:U:O4'	1.85	0.75
10:J:131:THR:HB	10:J:134:GLU:HG3	1.67	0.75
30:0:1521:C:H2'	30:0:1522:A:H8	1.52	0.75
3:C:129:HIS:HE1	3:C:231:ARG:HA	1.51	0.75
30:0:300:U:H2'	30:0:301:C:H6	1.52	0.75
2:B:238:ASN:HD22	2:B:240:GLY:H	1.32	0.75
31:9:54:A:O2'	31:9:55:U:H5'	1.87	0.74
29:3:12:PRO:HG3	30:0:2382:A:H4'	1.68	0.74
30:0:1175:G:H2'	30:0:1176:C:O4'	1.87	0.74
2:B:206:THR:HG21	30:0:2716:G:H5''	1.67	0.74
30:0:694:A:H1'	38:0:3795:HOH:O	1.86	0.74
8:H:19:ARG:HH12	30:0:1008:C:H5''	1.52	0.74
23:W:88:THR:HB	38:W:6679:HOH:O	1.85	0.74
30:0:1557:G:H2'	30:0:1558:C:H6	1.51	0.74
30:0:503:G:H2'	30:0:504:G:H8	1.51	0.74
30:0:228:C:H2'	30:0:229:G:H5'	1.69	0.74
11:K:8:VAL:HG13	11:K:80:ILE:HG22	1.68	0.74
30:0:2672:C:O2	30:0:2672:C:H2'	1.85	0.74
30:0:594:C:H2'	30:0:595:U:H6	1.53	0.74
31:9:14:G:C8	31:9:14:G:H5'	2.21	0.74
5:E:143:GLN:HE21	30:0:2780:C:H1'	1.51	0.74
30:0:2239:C:H2'	30:0:2240:U:H6	1.50	0.74
30:0:748:C:H3'	38:0:4014:HOH:O	1.86	0.74
30:0:2820:A:H2'	30:0:2821:C:C6	2.22	0.74
30:0:1201:C:H5'	38:0:5677:HOH:O	1.88	0.74
30:0:1741:U:H5'	30:0:1742:A:OP1	1.87	0.74
4:D:25:MET:SD	4:D:40:ILE:HD11	2.27	0.74
30:0:119:A:H2'	30:0:120:A:C5'	2.17	0.74
38:C:8665:HOH:O	30:0:656:G:H1'	1.87	0.74
17:Q:25:PRO:HB2	38:Q:4350:HOH:O	1.88	0.74
30:0:1206:U:H5'	30:0:1206:U:H6	1.50	0.74
23:W:88:THR:HG23	23:W:110:GLN:HB3	1.70	0.74
30:0:2827:A:H2'	30:0:2828:G:O4'	1.87	0.74
30:0:681:G:N3	30:0:681:G:H5'	2.02	0.74
23:W:44:MET:HE2	30:0:944:G:H21	1.52	0.74
2:B:88:GLU:HB3	2:B:97:LEU:HD12	1.70	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1973:A:H2'	30:0:1974:G:O4'	1.88	0.74
30:0:2426:G:H1'	38:0:6014:HOH:O	1.86	0.74
1:A:217:ARG:HH12	30:0:1853:C:H4'	1.50	0.74
30:0:1527:A:H1'	30:0:1528:A:C8	2.22	0.73
14:N:21:HIS:CE1	30:0:2369:A:H4'	2.22	0.73
6:F:91:VAL:HG12	6:F:92:GLY:H	1.53	0.73
30:0:2472:C:O2'	30:0:2634:G:H4'	1.87	0.73
24:X:26:ALA:HB2	24:X:63:ARG:HA	1.70	0.73
30:0:871:G:C8	30:0:871:G:C5'	2.59	0.73
30:0:558:C:H2'	30:0:559:U:H5''	1.70	0.73
30:0:2735:U:H2'	30:0:2736:U:C6	2.23	0.73
30:0:2587:OMU:H6	30:0:2587:OMU:O5'	1.88	0.73
30:0:2130:C:H1'	38:0:3910:HOH:O	1.89	0.73
29:3:11:CYS:SG	29:3:13:HIS:CD2	2.77	0.73
13:M:74:LYS:HG3	38:M:8885:HOH:O	1.88	0.73
30:0:1451:C:H5'	30:0:1505:U:H5	1.51	0.73
11:K:8:VAL:HG12	11:K:9:THR:H	1.54	0.73
30:0:1181:A:H2'	30:0:1182:C:C5'	2.18	0.73
30:0:1205:U:C2'	30:0:1206:U:C5'	2.66	0.73
30:0:287:C:H42	30:0:365:G:H1	1.37	0.73
13:M:99:ARG:HD2	13:M:167:GLY:HA2	1.68	0.73
30:0:418:C:H2'	30:0:419:A:C8	2.24	0.73
30:0:1255:A:H3'	38:0:7057:HOH:O	1.87	0.73
30:0:119:A:H2'	30:0:120:A:H5''	1.71	0.73
2:B:198:GLU:HA	38:B:9141:HOH:O	1.88	0.73
5:E:154:ILE:HD11	5:E:157:LYS:HB2	1.70	0.73
30:0:1366:C:H1'	38:0:9256:HOH:O	1.87	0.73
30:0:2106:C:H2'	30:0:2107:U:H6	1.52	0.73
30:0:1759:A:N3	30:0:1818:C:H2'	2.04	0.73
2:B:244:PRO:HG3	2:B:248:ARG:HH21	1.53	0.73
12:L:46:LEU:O	30:0:2430:A:H4'	1.88	0.73
26:Z:59:GLU:HB2	26:Z:61:HIS:CE1	2.24	0.73
30:0:2586:U:H3	30:0:2592:G:H22	1.37	0.73
25:Y:204:ARG:HH22	30:0:553:G:P	2.12	0.73
30:0:2667:G:H1'	30:0:2914:A:N3	2.04	0.73
1:A:207:GLN:HA	38:A:8983:HOH:O	1.89	0.73
30:0:116:G:H1'	30:0:129:A:N3	2.04	0.73
8:H:29:SER:HA	8:H:62:HIS:HD2	1.52	0.73
30:0:2040:C:O2'	30:0:2041:G:H5'	1.89	0.73
29:3:47:GLY:CA	30:0:2121:G:H4'	2.19	0.72
4:D:50:VAL:HG13	31:9:41:C:O4'	1.90	0.72
9:I:83:GLY:H	30:0:1168:C:C5'	2.01	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:267:G:H2'	30:0:268:U:O4'	1.89	0.72
30:0:1942:A:O2'	30:0:1943:C:H5'	1.89	0.72
30:0:2851:G:H2'	30:0:2902:A:H61	1.51	0.72
30:0:1016:U:H2'	30:0:1017:U:H6	1.52	0.72
30:0:596:C:H2'	30:0:597:A:C8	2.20	0.72
2:B:212:GLN:HB2	2:B:257:THR:HG21	1.70	0.72
30:0:711:G:N2	30:0:718:C:C2	2.58	0.72
27:1:38:GLY:HA3	38:1:6935:HOH:O	1.88	0.72
31:9:49:G:H5''	38:9:4707:HOH:O	1.88	0.72
16:P:80:ARG:HD3	16:P:87:ARG:HH11	1.55	0.72
27:1:2:GLY:O	27:1:6:PRO:HG2	1.89	0.72
30:0:1730:G:H5''	30:0:1731:C:H5	1.53	0.72
30:0:2647:C:H1'	38:0:6339:HOH:O	1.87	0.72
30:0:2297:U:O2'	30:0:2298:C:H5'	1.89	0.72
2:B:217:ARG:HG3	2:B:257:THR:HG22	1.72	0.72
30:0:1474:C:C6	30:0:1474:C:H5'	2.25	0.72
3:C:46:TYR:CE1	30:0:450:C:H4'	2.24	0.72
31:9:36:C:H2'	31:9:37:C:H5'	1.72	0.72
30:0:2576:A:H3'	38:0:9077:HOH:O	1.89	0.72
16:P:115:SER:H	16:P:118:GLN:HB2	1.55	0.72
13:M:27:ARG:HH12	13:M:44:THR:HG21	1.53	0.72
30:0:1667:A:H8	30:0:1667:A:H5'	1.54	0.71
30:0:1309:U:H3'	38:0:4114:HOH:O	1.90	0.71
30:0:708:A:H2'	30:0:709:G:O4'	1.90	0.71
30:0:2073:G:H5''	38:0:3803:HOH:O	1.88	0.71
16:P:13:VAL:HG21	16:P:41:ARG:HG2	1.72	0.71
30:0:2061:C:H2'	30:0:2062:A:H5'	1.72	0.71
30:0:2748:G:H2'	38:0:7440:HOH:O	1.89	0.71
26:Z:70:ARG:HG2	26:Z:83:TYR:N	2.05	0.71
13:M:70:GLY:HA2	30:0:2263:G:H4'	1.72	0.71
30:0:2769:C:H2'	30:0:2770:G:O4'	1.88	0.71
12:L:7:GLN:HE21	12:L:7:GLN:HA	1.55	0.71
29:3:68:LYS:HE3	30:0:2436:U:H5'	1.71	0.71
18:R:114:VAL:HB	18:R:145:LEU:HD12	1.70	0.71
31:9:108:C:H2'	31:9:109:G:C8	2.24	0.71
21:U:56:ARG:NE	30:0:2890:A:H1'	2.06	0.71
30:0:2004:U:H2'	30:0:2004:U:O2	1.91	0.71
30:0:192:A:H5'	38:0:7544:HOH:O	1.90	0.71
30:0:421:C:H4'	30:0:1919:A:C6	2.25	0.71
30:0:2479:A:H5''	38:0:4609:HOH:O	1.91	0.71
20:T:48:VAL:HG21	20:T:96:VAL:HG13	1.72	0.71
30:0:814:G:H4'	38:0:3121:HOH:O	1.90	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:236:THR:HA	38:C:8655:HOH:O	1.90	0.71
30:0:1165:G:H21	30:0:1173:A:C5'	2.04	0.71
30:0:24:G:H22	30:0:518:G:H1'	1.56	0.71
30:0:2256:G:H2'	30:0:2257:G:C5'	2.20	0.71
30:0:1278:A:H4'	30:0:1279:U:C4	2.26	0.71
8:H:59:GLN:NE2	8:H:129:ARG:HE	1.88	0.71
30:0:1972:U:H2'	30:0:1973:A:H5'	1.71	0.71
30:0:1574:C:H2'	30:0:1575:C:H6	1.54	0.71
23:W:88:THR:HG22	23:W:90:TYR:HD1	1.55	0.71
1:A:211:LYS:HB3	1:A:212:PRO:HD2	1.70	0.71
3:C:174:ILE:HD11	30:0:338:C:H4'	1.73	0.71
30:0:2717:C:C2'	30:0:2718:C:C5'	2.68	0.71
30:0:2505:G:C2'	30:0:2506:A:H5'	2.20	0.71
30:0:1118:A:H62	30:0:1244:U:H3	1.36	0.71
30:0:2103:A:H2'	30:0:2104:C:H5'	1.73	0.71
30:0:1477:C:H5'	30:0:1868:G:C5'	2.20	0.71
30:0:2890:A:N3	30:0:2890:A:H2'	2.06	0.71
30:0:300:U:C5	30:0:301:C:H5	2.09	0.71
30:0:2061:C:C2'	30:0:2062:A:H5'	2.20	0.71
2:B:84:LEU:HD23	2:B:142:LEU:HD23	1.73	0.71
31:9:119:C:H4'	38:9:2285:HOH:O	1.90	0.71
30:0:1342:C:H2'	30:0:1343:C:H5'	1.73	0.71
30:0:1043:C:H2'	38:0:3180:HOH:O	1.90	0.71
30:0:2536:C:H3'	38:0:9240:HOH:O	1.90	0.71
30:0:2239:C:H2'	30:0:2240:U:C6	2.26	0.70
23:W:44:MET:CE	30:0:944:G:H21	2.04	0.70
24:X:26:ALA:HB3	24:X:63:ARG:HG3	1.72	0.70
30:0:960:G:H1'	38:0:5895:HOH:O	1.89	0.70
30:0:1189:A:H3'	38:0:7580:HOH:O	1.90	0.70
30:0:1701:A:H4'	30:0:1702:U:H5''	1.72	0.70
30:0:2670:G:O2'	30:0:2671:U:H5'	1.91	0.70
25:Y:187:VAL:HG23	25:Y:192:ASP:CB	2.19	0.70
30:0:2689:A:H2'	30:0:2690:U:H5'	1.72	0.70
10:J:107:ASN:HD21	10:J:109:TYR:HB2	1.56	0.70
30:0:2250:G:H2'	30:0:2251:G:C8	2.26	0.70
1:A:179:MET:HG2	1:A:186:TRP:HB2	1.73	0.70
30:0:2482:G:H5''	38:0:4984:HOH:O	1.90	0.70
30:0:282:C:H1'	30:0:368:C:H41	1.54	0.70
30:0:1118:A:C3'	30:0:1118:A:C8	2.74	0.70
30:0:106:A:C2'	30:0:107:U:H5'	2.21	0.70
30:0:2747:C:H4'	30:0:2748:G:OP1	1.91	0.70
17:Q:53:HIS:N	35:Q:8811:CL:CL	2.61	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:893:C:H5''	38:0:7590:HOH:O	1.90	0.70
30:0:1167:G:H2'	30:0:1168:C:O4'	1.91	0.70
30:0:2812:A:H2	30:0:2814:A:H62	1.37	0.70
30:0:447:A:O2'	30:0:448:G:H5'	1.90	0.70
30:0:529:G:C5	30:0:530:C:C5	2.79	0.70
30:0:558:C:H2'	30:0:559:U:C5'	2.22	0.70
12:L:56:LYS:HE3	30:0:2443:C:H1'	1.74	0.70
24:X:43:VAL:HG11	24:X:82:GLU:HA	1.74	0.70
30:0:2659:U:H5''	38:0:4098:HOH:O	1.91	0.70
30:0:1641:A:O2'	30:0:1642:A:H5'	1.90	0.70
30:0:1805:G:O2'	30:0:1806:G:H5'	1.92	0.70
30:0:1835:U:H5	30:0:1840:A:N7	1.89	0.70
16:P:117:SER:HB3	30:0:1593:C:OP1	1.92	0.70
3:C:174:ILE:CD1	30:0:338:C:H4'	2.22	0.70
30:0:843:A:C2	30:0:846:A:C8	2.80	0.70
38:Y:8887:HOH:O	30:0:2060:A:H4'	1.92	0.70
2:B:223:ARG:HD3	35:B:8819:CL:CL	2.29	0.70
30:0:2906:A:H5'	30:0:2907:C:O4'	1.92	0.70
13:M:83:SER:HB2	29:3:47:GLY:HA3	1.72	0.70
30:0:243:A:H61	30:0:269:G:C1'	2.05	0.70
30:0:292:G:H1'	30:0:360:A:N6	2.06	0.70
30:0:2820:A:H2'	30:0:2821:C:H6	1.54	0.70
30:0:2748:G:H5'	38:0:7440:HOH:O	1.91	0.70
25:Y:169:ARG:HD2	30:0:1328:A:OP1	1.92	0.70
8:H:17:TYR:HE1	30:0:1006:A:H62	1.39	0.70
30:0:2752:C:O2'	30:0:2753:G:H5'	1.91	0.70
1:A:4:ILE:HG12	1:A:7:GLN:HG3	1.73	0.70
30:0:1051:C:H2'	30:0:1052:G:O4'	1.92	0.70
30:0:2301:A:H5''	30:0:2302:A:H5'	1.73	0.70
30:0:671:A:HO2'	30:0:672:G:H2'	1.56	0.70
30:0:2783:A:H3'	38:0:5184:HOH:O	1.90	0.70
8:H:26:ILE:HA	8:H:123:ILE:HG21	1.74	0.70
38:M:8871:HOH:O	30:0:2244:A:H1'	1.92	0.70
30:0:1447:U:H3'	30:0:1506:U:O2	1.92	0.70
30:0:960:G:H4'	38:0:7334:HOH:O	1.92	0.69
20:T:61:GLU:HG2	38:T:3851:HOH:O	1.90	0.69
13:M:52:GLN:NE2	13:M:118:TYR:HB3	2.07	0.69
30:0:1165:G:O3'	30:0:1174:A:H4'	1.92	0.69
29:3:51:LYS:HA	29:3:54:LYS:HE3	1.72	0.69
18:R:98:ASN:HD21	30:0:500:G:H21	1.41	0.69
1:A:95:PRO:HA	1:A:153:ARG:HA	1.74	0.69
31:9:24:U:H3'	31:9:25:G:C5'	2.22	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:F:49:PHE:HB2	6:F:96:ALA:HB3	1.74	0.69
16:P:28:GLN:HE22	30:0:1387:G:H1'	1.57	0.69
38:Q:5297:HOH:O	30:0:2402:A:H4'	1.91	0.69
30:0:685:C:O2	30:0:748:C:H4'	1.93	0.69
30:0:289:G:O2'	30:0:290:C:H5'	1.92	0.69
30:0:1931:A:H2'	30:0:1932:G:H5'	1.72	0.69
30:0:2578:G:C8	30:0:2578:G:H5'	2.26	0.69
30:0:1585:C:H2'	30:0:1586:G:H8	1.57	0.69
26:Z:64:PRO:HB2	26:Z:86:TYR:CE2	2.28	0.69
30:0:734:U:H2'	30:0:736:A:OP2	1.93	0.69
28:2:43:ARG:NH2	30:0:1684:A:H1'	2.03	0.69
30:0:1564:C:H5'	38:0:4202:HOH:O	1.93	0.69
30:0:302:A:C2'	30:0:303:C:H5'	2.22	0.69
26:Z:57:MET:SD	26:Z:73:ARG:HD2	2.31	0.69
30:0:2787:C:H5	38:0:4591:HOH:O	1.75	0.69
30:0:210:U:O2'	30:0:211:U:H5'	1.93	0.69
30:0:2712:G:H1'	38:0:5774:HOH:O	1.92	0.69
30:0:2887:G:H2'	30:0:2888:U:C6	2.27	0.69
30:0:2591:C:H2'	30:0:2592:G:O4'	1.93	0.69
31:9:108:C:H2'	31:9:109:G:H8	1.57	0.69
22:V:44:GLY:HA3	30:0:92:G:H4'	1.73	0.69
9:I:112:LEU:HD11	30:0:1162:G:H1'	1.75	0.69
30:0:1183:C:H2'	38:0:6169:HOH:O	1.91	0.69
9:I:82:THR:HG22	30:0:1168:C:H5''	1.73	0.69
30:0:2461:U:O2	30:0:2466:G:H1'	1.92	0.69
30:0:960:G:N3	30:0:960:G:H2'	2.07	0.69
21:U:45:GLU:HB3	38:U:4381:HOH:O	1.91	0.69
30:0:122:C:H5''	38:0:3570:HOH:O	1.91	0.69
3:C:139:VAL:HG13	38:C:8651:HOH:O	1.92	0.69
18:R:96:VAL:HG13	18:R:106:GLY:HA3	1.75	0.69
21:U:9:CYS:SG	21:U:11:THR:HG23	2.32	0.69
30:0:2064:U:H5'	30:0:2652:U:O3'	1.92	0.69
30:0:100:C:H2'	30:0:101:C:H6	1.58	0.69
30:0:10:U:C4	30:0:532:A:C8	2.81	0.69
30:0:1164:U:N3	30:0:1166:A:H4'	2.08	0.69
30:0:283:U:H5	30:0:284:C:N3	1.91	0.69
27:1:20:ARG:HG2	30:0:111:C:O2'	1.93	0.69
30:0:2114:C:O2'	30:0:2115:U:H5'	1.93	0.69
30:0:2781:U:C2'	30:0:2782:G:H5'	2.22	0.69
30:0:1965:C:H2'	30:0:1966:U:C6	2.28	0.69
30:0:279:C:O2'	30:0:280:C:H5'	1.93	0.69
30:0:970:U:H6	30:0:970:U:H3'	1.57	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:867:A:H5''	38:0:4374:HOH:O	1.92	0.68
30:0:2318:C:H2'	30:0:2319:C:H6	1.57	0.68
30:0:363:C:O2'	30:0:364:U:H5'	1.93	0.68
30:0:432:G:H2'	30:0:433:C:H6	1.58	0.68
30:0:1706:G:C5	30:0:1707:G:C6	2.81	0.68
30:0:1300:G:H1'	38:0:4640:HOH:O	1.90	0.68
13:M:161:ARG:HH11	30:0:183:A:H1'	1.56	0.68
30:0:2824:C:O3'	30:0:2825:C:H6	1.75	0.68
30:0:2852:A:C8	30:0:2902:A:C6	2.82	0.68
30:0:1464:C:H5''	38:0:5843:HOH:O	1.93	0.68
30:0:601:G:O2'	30:0:602:A:H5'	1.93	0.68
30:0:247:A:H2'	38:0:3901:HOH:O	1.93	0.68
24:X:73:ARG:HH12	24:X:88:GLU:HA	1.57	0.68
30:0:292:G:H2'	30:0:358:G:H21	1.57	0.68
22:V:25:THR:HG22	22:V:29:ASN:ND2	2.08	0.68
11:K:28:GLU:HB3	11:K:58:THR:HB	1.75	0.68
14:N:151:ASP:HB3	38:N:8822:HOH:O	1.94	0.68
30:0:1157:C:C2'	30:0:1158:G:H5'	2.23	0.68
26:Z:70:ARG:HG3	26:Z:82:SER:HB2	1.75	0.68
26:Z:42:TYR:HA	30:0:1829:A:H61	1.59	0.68
30:0:1566:C:H2'	30:0:1567:G:H8	1.59	0.68
30:0:169:A:H4'	38:0:9690:HOH:O	1.94	0.68
30:0:821:U:H3'	38:0:3750:HOH:O	1.92	0.68
30:0:2348:C:H2'	30:0:2349:G:H8	1.57	0.68
30:0:2781:U:O2'	30:0:2782:G:H5'	1.94	0.68
30:0:1398:G:H4'	38:0:6576:HOH:O	1.92	0.68
30:0:226:A:H1'	30:0:393:G:C5	2.28	0.68
26:Z:34:SER:HA	30:0:797:A:H4'	1.74	0.68
30:0:2533:C:O2'	30:0:2534:U:H5'	1.94	0.68
30:0:2421:G:H1'	38:0:3680:HOH:O	1.94	0.68
30:0:2281:C:C2'	30:0:2282:U:H5'	2.23	0.68
30:0:1585:C:N3	30:0:1611:G:C2	2.62	0.68
30:0:1421:C:H2'	30:0:1422:U:H6	1.58	0.68
30:0:308:U:C4	30:0:342:C:H1'	2.29	0.68
4:D:135:VAL:HG21	4:D:139:TYR:CD1	2.29	0.68
30:0:2564:G:H5''	30:0:2565:C:H5''	1.76	0.68
30:0:236:A:C4'	30:0:237:G:H5'	2.20	0.68
30:0:613:C:H2'	30:0:614:U:H6	1.59	0.68
21:U:56:ARG:HD2	30:0:2890:A:H8	1.59	0.68
30:0:1982:C:H2'	30:0:1983:C:O4'	1.93	0.68
38:3:9033:HOH:O	30:0:2382:A:H5'	1.94	0.68
30:0:1666:C:HO2'	30:0:1667:A:H5''	1.55	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:O:47:ARG:NH1	15:O:47:ARG:HG3	2.03	0.68
13:M:79:ALA:HB3	13:M:81:ARG:NH1	2.04	0.68
30:0:1970:G:H5''	38:0:6973:HOH:O	1.93	0.68
30:0:1363:G:H1'	38:0:9415:HOH:O	1.93	0.68
4:D:23:VAL:HG22	4:D:73:VAL:HB	1.74	0.68
9:I:127:CYS:HB3	9:I:132:VAL:HB	1.75	0.68
10:J:90:LYS:HB2	35:J:8802:CL:CL	2.31	0.68
2:B:244:PRO:HG3	2:B:248:ARG:NH2	2.08	0.67
30:0:2685:C:H1'	38:0:3426:HOH:O	1.94	0.67
30:0:1074:G:H4'	30:0:1260:G:C6	2.29	0.67
29:3:81:GLU:HG2	38:3:9067:HOH:O	1.93	0.67
18:R:150:PRO:O	18:R:150:PRO:CG	2.41	0.67
30:0:1829:A:H5''	38:0:3071:HOH:O	1.93	0.67
30:0:625:U:H5'	38:0:3172:HOH:O	1.93	0.67
3:C:115:LEU:HD21	3:C:243:VAL:HG22	1.75	0.67
30:0:2594:C:O2'	30:0:2595:U:H5'	1.94	0.67
30:0:702:G:O2'	30:0:703:G:H5'	1.94	0.67
30:0:1197:G:H1'	30:0:1203:G:H22	1.59	0.67
30:0:2750:G:H2'	30:0:2751:C:H6	1.58	0.67
2:B:162:MET:CE	2:B:310:ARG:HD3	2.23	0.67
30:0:1595:G:O2'	30:0:1596:U:H5'	1.94	0.67
1:A:42:VAL:HG21	1:A:74:VAL:CG1	2.24	0.67
30:0:1165:G:N2	30:0:1173:A:H5'	2.09	0.67
29:3:62:THR:CG2	29:3:84:ARG:HB3	2.25	0.67
10:J:52:GLN:NE2	30:0:1119:G:H2'	2.09	0.67
5:E:91:PHE:CE1	30:0:2694:A:H4'	2.30	0.67
30:0:753:U:H4'	38:0:6877:HOH:O	1.94	0.67
4:D:173:GLU:HG3	4:D:174:VAL:HG23	1.76	0.67
30:0:1969:A:H3'	30:0:1970:G:N2	2.10	0.67
30:0:1024:G:C5	30:0:1025:C:C5	2.83	0.67
1:A:11:ARG:HD3	38:A:8938:HOH:O	1.93	0.67
30:0:2531:U:H4'	38:0:9592:HOH:O	1.94	0.67
2:B:179:LEU:O	2:B:183:GLU:HG2	1.93	0.67
29:3:68:LYS:CE	30:0:2436:U:H5'	2.24	0.67
35:J:8801:CL:CL	38:J:4038:HOH:O	2.50	0.67
30:0:248:A:H5'	30:0:249:G:OP2	1.93	0.67
30:0:252:C:O2	30:0:252:C:H2'	1.95	0.67
30:0:39:G:C2	30:0:444:C:C2	2.83	0.67
31:9:2:U:OP2	31:9:3:A:H5'	1.95	0.67
30:0:1495:C:H1'	30:0:1573:A:H1'	1.77	0.67
30:0:1701:A:H5'	38:0:6206:HOH:O	1.95	0.67
8:H:59:GLN:HE21	8:H:129:ARG:HE	1.42	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1759:A:C2	30:0:1818:C:C2	2.82	0.67
30:0:1931:A:C2'	30:0:1932:G:H5'	2.25	0.67
21:U:31:PHE:CG	21:U:37:GLU:HG2	2.29	0.67
14:N:5:ARG:HH11	14:N:5:ARG:HB2	1.60	0.67
14:N:86:LEU:HD12	14:N:125:ALA:HB2	1.76	0.67
30:0:152:A:O2'	30:0:153:C:H5'	1.95	0.67
1:A:96:LEU:HD22	1:A:128:LEU:HD13	1.77	0.67
30:0:544:G:H2'	30:0:545:G:H5''	1.76	0.67
3:C:2:GLN:HA	3:C:18:LEU:H	1.60	0.67
11:K:37:TYR:HB3	38:0:7270:HOH:O	1.94	0.67
27:1:34:CYS:HB3	27:1:39:PHE:H	1.59	0.67
30:0:1391:G:N2	30:0:1434:A:H5''	2.10	0.67
30:0:1081:A:H5''	38:0:3140:HOH:O	1.93	0.67
30:0:2512:U:H4'	30:0:2514:U:O4	1.95	0.67
1:A:48:ASP:HB3	38:A:9024:HOH:O	1.94	0.67
29:3:35:TRP:HA	29:3:38:ARG:NH1	2.09	0.67
30:0:107:U:C2'	30:0:108:U:H5'	2.24	0.67
30:0:67:A:H2'	38:0:4106:HOH:O	1.95	0.67
30:0:228:C:H2'	30:0:229:G:C5'	2.25	0.67
4:D:88:LEU:HB2	4:D:89:PRO:HD3	1.76	0.67
30:0:559:U:H2'	30:0:560:U:H5'	1.77	0.66
25:Y:117:LEU:HB2	25:Y:174:VAL:HG21	1.77	0.66
30:0:1644:C:O2'	30:0:1645:U:H5'	1.94	0.66
30:0:544:G:C2'	30:0:545:G:H5''	2.26	0.66
30:0:1609:C:H2'	30:0:1610:G:H8	1.60	0.66
14:N:154:LEU:HD11	14:N:157:PRO:HA	1.76	0.66
30:0:154:C:C2	30:0:155:C:C5	2.83	0.66
10:J:49:ARG:HD3	30:0:1119:G:OP2	1.95	0.66
30:0:1706:G:C6	30:0:1707:G:C6	2.83	0.66
30:0:334:G:H2'	30:0:335:U:O4'	1.95	0.66
31:9:18:U:H2'	31:9:19:G:H8	1.60	0.66
30:0:1640:C:H5	38:0:6032:HOH:O	1.78	0.66
30:0:2354:A:C2	30:0:2367:A:C8	2.83	0.66
30:0:2313:C:H3'	38:0:5898:HOH:O	1.95	0.66
10:J:26:VAL:HG13	10:J:36:VAL:HG11	1.76	0.66
30:0:1878:G:H1'	38:0:6044:HOH:O	1.96	0.66
30:0:2846:C:H4'	38:0:5034:HOH:O	1.94	0.66
30:0:2134:G:N2	30:0:2242:U:C2	2.64	0.66
31:9:5:G:O2'	31:9:6:C:H5'	1.96	0.66
30:0:2133:U:H4'	30:0:2134:G:H5'	1.77	0.66
2:B:264:GLU:HG2	2:B:267:LYS:CE	2.26	0.66
30:0:1444:G:O2'	30:0:1445:G:H5'	1.96	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:174:VAL:HG23	25:Y:177:LYS:HD2	1.75	0.66
30:0:2026:C:O2'	30:0:2027:U:H5'	1.95	0.66
15:O:38:ARG:HD3	38:0:7633:HOH:O	1.95	0.66
30:0:128:A:H3'	30:0:128:A:C8	2.30	0.66
30:0:124:C:H5'	38:0:6332:HOH:O	1.94	0.66
31:9:36:C:H4'	38:9:1968:HOH:O	1.94	0.66
30:0:2875:A:C2	30:0:2883:A:C2	2.83	0.66
30:0:302:A:O2'	30:0:303:C:H5'	1.95	0.66
23:W:4:LEU:HD23	23:W:54:PHE:HB3	1.76	0.66
18:R:2:ILE:HG22	30:0:21:G:H4'	1.78	0.66
31:9:29:C:C5	31:9:30:C:C6	2.84	0.66
30:0:1362:U:O2'	30:0:1363:G:H5'	1.96	0.66
30:0:940:G:H2'	30:0:941:G:H5'	1.77	0.66
30:0:1809:G:H4'	38:0:6148:HOH:O	1.95	0.66
13:M:76:ARG:HA	38:M:8947:HOH:O	1.94	0.66
26:Z:43:GLY:HA2	30:0:1771:U:O2	1.95	0.66
30:0:2415:A:C2'	30:0:2416:G:H5'	2.24	0.66
20:T:9:LYS:HD2	38:0:3736:HOH:O	1.95	0.66
38:B:9002:HOH:O	30:0:2678:A:H1'	1.95	0.66
30:0:1711:A:H3'	38:0:6254:HOH:O	1.96	0.66
30:0:1185:U:H5'	38:0:7367:HOH:O	1.94	0.66
30:0:1935:C:H2'	30:0:1936:C:H6	1.59	0.66
30:0:128:A:H3'	30:0:128:A:H8	1.61	0.66
18:R:99:ALA:HB1	18:R:109:MET:HE1	1.77	0.66
30:0:582:U:H2'	30:0:583:C:C6	2.31	0.66
30:0:228:C:O2'	30:0:229:G:H5'	1.96	0.65
30:0:1730:G:H4'	30:0:1731:C:H6	1.59	0.65
30:0:1165:G:H21	30:0:1173:A:H5'	1.58	0.65
29:3:47:GLY:O	30:0:2121:G:H4'	1.96	0.65
31:9:96:C:H2'	31:9:97:U:H6	1.61	0.65
30:0:660:A:N6	30:0:746:A:O4'	2.29	0.65
15:O:25:VAL:HG12	30:0:709:G:O2'	1.96	0.65
30:0:1856:C:H5'	30:0:1858:A:O4'	1.95	0.65
30:0:77:G:O2'	30:0:78:G:H5'	1.95	0.65
31:9:20:G:H3'	38:9:2984:HOH:O	1.94	0.65
2:B:270:ILE:HG12	2:B:298:LYS:HB2	1.76	0.65
13:M:97:ILE:HD12	13:M:127:LYS:HD2	1.78	0.65
14:N:130:PRO:HA	38:N:8834:HOH:O	1.96	0.65
16:P:89:ASN:OD1	16:P:92:GLU:HG3	1.97	0.65
30:0:2539:U:H1'	38:0:7688:HOH:O	1.95	0.65
29:3:47:GLY:HA2	30:0:2121:G:C4'	2.26	0.65
30:0:559:U:H2'	30:0:560:U:C5'	2.27	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:821:U:H2'	30:0:822:C:H6	1.59	0.65
21:U:51:TRP:HA	21:U:56:ARG:HE	1.61	0.65
30:0:1325:G:C2	30:0:1326:C:C6	2.85	0.65
1:A:135:VAL:HG21	1:A:147:ARG:HB3	1.78	0.65
30:0:963:C:H2'	30:0:964:G:C8	2.31	0.65
21:U:52:THR:HG22	21:U:54:THR:H	1.61	0.65
28:2:43:ARG:HH22	30:0:1684:A:C1'	2.02	0.65
30:0:542:A:H5'	30:0:542:A:H8	1.61	0.65
30:0:272:A:H5'	30:0:273:G:OP2	1.95	0.65
13:M:68:ARG:HB2	38:0:6930:HOH:O	1.95	0.65
1:A:47:HIS:CD2	30:0:1654:U:C6	2.84	0.65
30:0:2872:U:H2'	30:0:2873:C:H6	1.60	0.65
30:0:1302:G:H5'	30:0:1331:G:H4'	1.79	0.65
30:0:1878:G:HO2'	30:0:1879:U:H6	1.44	0.65
13:M:66:SER:HB3	13:M:128:TRP:CD1	2.31	0.65
8:H:49:GLN:HE21	8:H:170:ARG:HE	1.43	0.65
30:0:352:A:O2'	30:0:353:G:H5'	1.95	0.65
30:0:2511:A:H2'	30:0:2512:U:O4'	1.97	0.65
30:0:1118:A:H8	30:0:1119:G:H5''	1.62	0.65
30:0:2474:A:C8	30:0:2621:PSU:H4'	2.31	0.65
30:0:2777:G:O2'	30:0:2778:A:H5'	1.96	0.65
5:E:81:GLU:O	5:E:172:PRO:HD3	1.97	0.65
10:J:105:LEU:HA	38:J:5907:HOH:O	1.95	0.65
25:Y:182:PHE:HD2	25:Y:200:THR:O	1.80	0.65
26:Z:47:ARG:HH21	30:0:1771:U:H1'	1.61	0.65
30:0:2804:C:H2'	30:0:2805:A:O4'	1.97	0.65
30:0:1016:U:C2	30:0:1017:U:C6	2.84	0.65
25:Y:219:GLU:HG3	25:Y:220:GLU:N	2.11	0.65
30:0:1412:U:O4	30:0:1681:G:H2'	1.97	0.65
30:0:255:A:H2'	30:0:256:C:H6	1.60	0.65
30:0:255:A:H2'	30:0:256:C:C6	2.32	0.65
30:0:2742:G:H5'	38:0:5759:HOH:O	1.97	0.65
30:0:1769:C:O2'	30:0:1770:U:H5'	1.97	0.65
30:0:969:G:N2	30:0:1000:C:C2	2.64	0.65
5:E:7:ILE:HG22	5:E:73:PHE:CZ	2.32	0.65
30:0:1157:C:O2'	30:0:1158:G:H5'	1.97	0.65
30:0:2795:C:O2'	30:0:2796:U:H5'	1.96	0.65
30:0:1279:U:O2	30:0:1279:U:H2'	1.95	0.65
30:0:1397:C:O2'	30:0:1398:G:H5'	1.97	0.65
30:0:146:U:O2'	30:0:147:G:H5'	1.97	0.65
11:K:20:CYS:HB2	11:K:29:LEU:HG	1.77	0.65
30:0:1201:C:H6	38:0:5689:HOH:O	1.78	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1342:C:C2'	30:0:1343:C:H5'	2.27	0.65
30:0:2867:G:H2'	30:0:2868:C:C6	2.32	0.65
30:0:1742:A:H61	30:0:2037:C:H42	1.44	0.65
30:0:2110:G:H4'	38:0:7608:HOH:O	1.96	0.65
2:B:201:ASP:HB2	2:B:312:ARG:HD2	1.77	0.65
15:O:73:ASP:HA	15:O:92:VAL:O	1.96	0.65
30:0:429:A:C8	38:0:3806:HOH:O	2.50	0.65
30:0:560:U:H2'	30:0:561:G:C8	2.29	0.65
31:9:96:C:H2'	31:9:97:U:C6	2.32	0.65
16:P:98:ILE:HD12	16:P:102:ARG:NE	2.12	0.65
30:0:574:G:O2'	30:0:575:A:H5'	1.96	0.65
30:0:2272:G:H5''	38:0:4183:HOH:O	1.97	0.65
30:0:549:A:C2	30:0:550:C:C2	2.85	0.65
13:M:84:LYS:HB2	30:0:170:U:OP1	1.98	0.64
30:0:1527:A:N6	30:0:1663:G:H2'	2.12	0.64
30:0:1118:A:C8	30:0:1119:G:H5''	2.32	0.64
31:9:45:A:C5	31:9:46:C:C5	2.86	0.64
30:0:1741:U:C4	30:0:2033:G:C8	2.85	0.64
16:P:114:LEU:HA	16:P:118:GLN:NE2	2.11	0.64
30:0:37:A:C2	30:0:446:G:C2	2.85	0.64
30:0:1778:A:H2'	30:0:1779:A:H5'	1.79	0.64
17:Q:13:LYS:HD3	38:0:4008:HOH:O	1.97	0.64
14:N:67:ALA:CA	14:N:71:TRP:HB3	2.21	0.64
30:0:1172:G:H1'	38:0:4927:HOH:O	1.96	0.64
30:0:2289:G:O2'	30:0:2290:U:H5'	1.98	0.64
13:M:52:GLN:HE22	13:M:118:TYR:HB3	1.62	0.64
30:0:1632:A:C3'	30:0:1633:C:H5'	2.27	0.64
30:0:559:U:C2'	30:0:560:U:H5'	2.27	0.64
30:0:294:C:H5	30:0:357:A:N6	1.94	0.64
20:T:1:SER:HB2	30:0:447:A:P	2.37	0.64
30:0:2402:A:O2'	30:0:2403:C:H5'	1.97	0.64
30:0:405:C:H3'	38:0:7424:HOH:O	1.95	0.64
30:0:2278:U:O2	30:0:2470:A:C8	2.50	0.64
30:0:1359:U:C5	30:0:2101:A:C8	2.85	0.64
30:0:1835:U:C5	30:0:1840:A:N7	2.65	0.64
30:0:2769:C:H2'	30:0:2770:G:C5'	2.27	0.64
21:U:39:ASN:ND2	21:U:44:ARG:HH11	1.96	0.64
31:9:28:U:O2	31:9:28:U:H2'	1.97	0.64
31:9:9:C:H2'	31:9:10:C:H5'	1.79	0.64
30:0:281:U:H2'	30:0:282:C:O4'	1.97	0.64
30:0:2326:C:H4'	30:0:2412:G:C4'	2.27	0.64
3:C:2:GLN:HB3	3:C:17:ASP:HA	1.80	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1398:G:O2'	30:0:1399:A:H5'	1.96	0.64
30:0:29:C:O2'	30:0:30:U:H5'	1.97	0.64
38:K:4440:HOH:O	30:0:2582:G:H4'	1.96	0.64
30:0:2268:C:H2'	30:0:2269:C:H6	1.63	0.64
30:0:1628:G:O2'	30:0:1629:G:H5'	1.98	0.64
30:0:1634:G:H2'	30:0:1635:U:C6	2.32	0.64
10:J:131:THR:HG22	10:J:133:GLY:H	1.63	0.64
30:0:100:C:C5	30:0:101:C:H5	2.15	0.64
5:E:91:PHE:HE1	30:0:2694:A:H4'	1.62	0.64
30:0:195:C:H2'	30:0:196:G:H5'	1.78	0.64
30:0:1750:C:H5''	38:0:3647:HOH:O	1.97	0.64
30:0:1928:C:H2'	30:0:1929:G:O4'	1.97	0.64
30:0:1159:G:H2'	30:0:1160:G:O4'	1.97	0.64
30:0:1479:G:H5''	38:0:3720:HOH:O	1.97	0.64
30:0:420:U:H2'	30:0:421:C:C6	2.33	0.64
30:0:1933:G:N2	30:0:1934:A:H1'	2.12	0.64
25:Y:170:SER:OG	25:Y:175:ARG:HG3	1.98	0.64
30:0:451:C:O2'	30:0:452:G:H5'	1.97	0.64
30:0:736:A:H2	30:0:2406:U:H1'	1.63	0.64
29:3:11:CYS:SG	29:3:20:HIS:NE2	2.71	0.64
27:1:1:THR:HB	38:0:7045:HOH:O	1.97	0.64
31:9:110:G:C5	31:9:111:U:C5	2.85	0.64
30:0:1520:G:O2'	30:0:1521:C:H5'	1.97	0.64
30:0:1568:G:O2'	30:0:1569:U:H5'	1.98	0.64
31:9:86:G:C2	31:9:88:G:C8	2.86	0.64
13:M:164:THR:HG22	13:M:166:ALA:N	2.13	0.64
21:U:56:ARG:HB2	30:0:2890:A:H8	1.61	0.64
30:0:1634:G:H3'	38:0:3870:HOH:O	1.96	0.64
30:0:1909:A:H2'	30:0:1910:A:C8	2.32	0.64
30:0:629:A:H4'	38:0:4483:HOH:O	1.96	0.64
30:0:1933:G:O2'	30:0:1934:A:H5'	1.98	0.64
22:V:44:GLY:HA3	30:0:92:G:C4'	2.28	0.64
31:9:18:U:H2'	31:9:19:G:C8	2.33	0.64
30:0:2491:G:H1'	38:0:6784:HOH:O	1.96	0.64
30:0:525:G:H5''	38:0:4554:HOH:O	1.98	0.64
30:0:594:C:C5	30:0:595:U:C5	2.86	0.63
30:0:2769:C:H2'	30:0:2770:G:H5'	1.80	0.63
31:9:64:C:C2'	31:9:65:A:H5'	2.28	0.63
27:1:46:ARG:HA	38:0:3013:HOH:O	1.98	0.63
26:Z:37:ARG:HB2	30:0:819:A:H4'	1.80	0.63
38:Y:8896:HOH:O	30:0:1357:A:H4'	1.98	0.63
30:0:1160:G:O2'	30:0:1190:G:H8	1.81	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1641:A:C2'	30:0:1642:A:C5'	2.73	0.63
4:D:154:LYS:HD2	4:D:154:LYS:N	2.11	0.63
8:H:59:GLN:NE2	8:H:96:GLN:HG2	2.13	0.63
30:0:717:C:O2'	30:0:718:C:H5'	1.97	0.63
1:A:1:GLY:HA2	30:0:2114:C:OP1	1.98	0.63
30:0:2830:U:O2'	30:0:2831:C:H5'	1.98	0.63
30:0:314:G:N2	30:0:317:A:C8	2.66	0.63
1:A:105:VAL:HG12	1:A:156:ILE:HA	1.81	0.63
13:M:84:LYS:HD3	13:M:85:ARG:HH11	1.64	0.63
31:9:89:C:O2'	31:9:90:G:H5'	1.97	0.63
2:B:274:GLU:HA	2:B:292:GLY:O	1.98	0.63
30:0:1224:G:H2'	30:0:1225:C:H6	1.61	0.63
21:U:23:HIS:HD2	21:U:27:ALA:HB3	1.64	0.63
30:0:802:G:H2'	30:0:803:C:C6	2.33	0.63
26:Z:47:ARG:NH2	30:0:1771:U:H1'	2.14	0.63
13:M:73:ARG:HG2	30:0:1469:C:H5''	1.79	0.63
7:G:16:LYS:HZ3	7:G:63:ARG:HH12	1.44	0.63
29:3:33:MET:HG2	30:0:1922:A:H2'	1.80	0.63
3:C:98:ARG:HD3	38:C:8549:HOH:O	1.98	0.63
13:M:72:ALA:HB3	38:M:8965:HOH:O	1.97	0.63
25:Y:149:GLN:HG2	38:Y:8856:HOH:O	1.98	0.63
14:N:112:GLY:HA2	14:N:137:ALA:HB2	1.79	0.63
3:C:218:VAL:HG23	3:C:222:ASP:OD1	1.99	0.63
30:0:1189:A:O2'	30:0:1208:C:H2'	1.97	0.63
30:0:1209:C:H2'	30:0:1210:G:C8	2.31	0.63
13:M:77:HIS:CD2	13:M:81:ARG:H	2.16	0.63
26:Z:47:ARG:HD3	38:Z:8720:HOH:O	1.99	0.63
30:0:10:U:H5''	30:0:531:G:C6	2.34	0.63
30:0:2564:G:H5''	30:0:2565:C:C5'	2.29	0.63
30:0:466:A:H61	30:0:475:G:H1'	1.64	0.63
30:0:2304:G:H5'	38:0:3355:HOH:O	1.98	0.63
4:D:103:ASN:ND2	4:D:133:ASN:HA	2.13	0.63
30:0:297:U:H2'	30:0:298:C:H6	1.63	0.63
30:0:908:A:C4'	38:0:4914:HOH:O	2.45	0.63
31:9:3:A:H2	31:9:21:G:N3	1.95	0.63
30:0:1585:C:H2'	30:0:1586:G:C8	2.32	0.63
23:W:4:LEU:HD22	23:W:52:VAL:HG21	1.80	0.63
27:1:10:LYS:HG3	38:1:2979:HOH:O	1.98	0.63
21:U:42:LEU:O	30:0:1810:C:H5'	1.99	0.63
30:0:109:U:O2	30:0:109:U:H2'	1.98	0.63
18:R:99:ALA:HB1	18:R:109:MET:CE	2.29	0.63
1:A:80:LEU:HD22	1:A:91:GLY:HA3	1.81	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2608:C:H2'	38:0:3556:HOH:O	1.98	0.63
17:Q:27:GLN:HE21	31:9:8:G:C5'	2.12	0.63
30:0:432:G:C2	30:0:433:C:C5	2.86	0.63
30:0:1449:G:H4'	38:0:9214:HOH:O	1.99	0.63
30:0:2255:A:O2'	30:0:2256:G:H5'	1.99	0.63
1:A:199:HIS:HD2	1:A:201:PHE:H	1.47	0.63
31:9:17:G:O2'	31:9:18:U:H5'	1.99	0.63
30:0:1552:G:C6	30:0:1634:G:C6	2.87	0.63
30:0:287:C:N4	30:0:365:G:H1	1.96	0.62
30:0:1819:G:H2'	30:0:1820:G:C5'	2.29	0.62
30:0:2613:G:O2'	30:0:2614:C:H5'	1.99	0.62
11:K:118:ALA:HA	11:K:125:ALA:HB2	1.80	0.62
26:Z:63:CYS:SG	26:Z:71:VAL:HG23	2.39	0.62
30:0:2502:C:H2'	30:0:2503:A:C5'	2.23	0.62
30:0:1504:A:H5''	38:0:4378:HOH:O	1.99	0.62
25:Y:174:VAL:CG2	25:Y:177:LYS:HD2	2.28	0.62
30:0:1224:G:H2'	30:0:1225:C:C6	2.33	0.62
14:N:24:LEU:HD13	17:Q:26:PRO:HB3	1.81	0.62
14:N:119:GLN:O	14:N:123:ILE:HG13	2.00	0.62
1:A:72:GLU:HG3	26:Z:90:GLY:HA2	1.81	0.62
30:0:236:A:H4'	30:0:237:G:OP1	1.99	0.62
30:0:57:C:N4	30:0:89:G:H1	1.97	0.62
30:0:1900:A:O2'	30:0:1901:G:H5'	1.99	0.62
30:0:275:G:C2	30:0:376:C:C2	2.87	0.62
2:B:214:PRO:HD2	38:0:9081:HOH:O	1.99	0.62
18:R:39:THR:HB	18:R:42:GLU:CG	2.30	0.62
30:0:2388:C:O2'	30:0:2389:U:H5'	1.99	0.62
30:0:727:G:H3'	30:0:728:C:H6	1.63	0.62
30:0:1156:C:O5'	30:0:1156:C:H6	1.83	0.62
30:0:1182:C:H1'	30:0:1192:A:H8	1.63	0.62
30:0:2071:C:O2'	30:0:2534:U:H4'	2.00	0.62
30:0:1051:C:H5''	38:0:5864:HOH:O	2.00	0.62
2:B:282:GLY:O	30:0:2898:G:H1'	1.99	0.62
30:0:2694:A:C8	30:0:2695:C:C5	2.87	0.62
35:0:8812:CL:CL	38:0:5079:HOH:O	2.53	0.62
20:T:19:ARG:HD3	20:T:67:LEU:O	2.00	0.62
30:0:424:C:C2	30:0:425:U:C5	2.87	0.62
30:0:694:A:H2'	30:0:695:C:H5'	1.81	0.62
1:A:42:VAL:O	1:A:76:VAL:HA	2.00	0.62
29:3:12:PRO:HD2	38:3:9035:HOH:O	1.98	0.62
30:0:1667:A:C2	30:0:1668:U:C2	2.88	0.62
13:M:68:ARG:HG3	30:0:1469:C:OP1	2.00	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:290:C:O2'	30:0:291:C:H5'	1.99	0.62
2:B:307:ARG:HG3	2:B:307:ARG:HH11	1.64	0.62
30:0:2246:U:H2'	30:0:2247:C:C6	2.34	0.62
30:0:2637:A:H4'	38:0:4882:HOH:O	1.99	0.62
30:0:1619:G:H2'	30:0:1620:C:C6	2.33	0.62
30:0:178:U:H2'	30:0:179:C:H6	1.63	0.62
30:0:737:A:H2'	30:0:738:G:C8	2.34	0.62
30:0:1666:C:O2	30:0:1667:A:C8	2.53	0.62
26:Z:43:GLY:O	26:Z:47:ARG:HG2	1.99	0.62
30:0:1477:C:C2'	30:0:1478:U:H5'	2.29	0.62
30:0:2064:U:H2'	30:0:2065:C:H6	1.64	0.62
30:0:1160:G:HO2'	30:0:1190:G:H8	1.47	0.62
3:C:129:HIS:CE1	3:C:232:LEU:H	2.18	0.62
11:K:76:GLN:HA	11:K:93:ASN:HA	1.82	0.62
30:0:107:U:H2'	30:0:108:U:C5'	2.29	0.62
30:0:2590:U:H2'	30:0:2591:C:H5'	1.80	0.62
30:0:2851:G:O2'	30:0:2852:A:H5'	1.98	0.62
26:Z:73:ARG:HG2	26:Z:74:GLN:H	1.64	0.62
30:0:1434:A:H2'	30:0:1436:C:C5	2.34	0.62
30:0:2313:C:H6	38:0:5898:HOH:O	1.82	0.62
18:R:39:THR:HB	18:R:42:GLU:HG3	1.81	0.62
30:0:1076:G:O2'	30:0:1077:G:H5'	1.99	0.62
20:T:32:ARG:HG2	20:T:38:ARG:HA	1.80	0.62
26:Z:70:ARG:HG2	26:Z:83:TYR:H	1.63	0.62
30:0:1309:U:C4	30:0:1310:U:C5	2.88	0.62
30:0:1528:A:N6	30:0:1663:G:H1'	2.11	0.62
13:M:70:GLY:HA2	30:0:2263:G:C4'	2.29	0.62
30:0:245:C:H2'	30:0:246:G:H5'	1.80	0.62
30:0:2639:G:O2'	30:0:2640:U:H5'	1.99	0.62
3:C:64:GLY:O	30:0:2100:A:H4'	1.99	0.62
30:0:2010:A:H2'	38:0:5883:HOH:O	1.99	0.62
30:0:1904:A:H2'	30:0:1905:U:O4'	2.00	0.62
30:0:1161:A:O5'	30:0:1161:A:H8	1.83	0.62
4:D:25:MET:HE1	4:D:41:LEU:HG	1.81	0.62
8:H:158:ASN:HD22	30:0:2502:C:H4'	1.62	0.62
2:B:212:GLN:HA	30:0:1733:A:H4'	1.82	0.62
30:0:1346:U:H1'	38:0:4405:HOH:O	2.00	0.62
27:1:54:ALA:HB2	30:0:892:G:H5''	1.82	0.62
31:9:3:A:N6	31:9:22:G:H1'	2.14	0.61
30:0:1165:G:H1'	30:0:1174:A:C1'	2.14	0.61
29:3:2:GLN:H	30:0:2320:U:H5'	1.64	0.61
30:0:542:A:O2'	30:0:543:G:H5'	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1511:U:O2'	30:0:1512:G:H5'	2.00	0.61
30:0:661:G:C6	30:0:662:U:C4	2.88	0.61
30:0:2032:U:H2'	30:0:2033:G:C5'	2.30	0.61
30:0:2251:G:C6	30:0:2252:A:C6	2.88	0.61
30:0:536:A:H3'	38:0:5002:HOH:O	2.00	0.61
30:0:2421:G:H3'	30:0:2422:U:C5'	2.31	0.61
30:0:293:A:O2'	30:0:294:C:H5'	2.00	0.61
30:0:1964:U:O2	30:0:1964:U:C2'	2.48	0.61
30:0:517:U:H2'	30:0:518:G:H5'	1.81	0.61
25:Y:126:PRO:HG2	25:Y:128:PHE:CE1	2.34	0.61
30:0:957:A:H8	30:0:957:A:O5'	1.83	0.61
13:M:43:PRO:HG3	13:M:62:VAL:HG21	1.83	0.61
30:0:1616:A:H5''	30:0:1617:C:OP1	2.00	0.61
30:0:2734:G:H4'	38:0:9571:HOH:O	1.99	0.61
23:W:151:GLU:O	23:W:154:ARG:HB2	1.99	0.61
30:0:853:C:H3'	38:0:4515:HOH:O	1.98	0.61
30:0:2635:A:O2'	30:0:2636:C:H5'	1.99	0.61
30:0:1346:U:O2'	30:0:1347:U:H5'	2.00	0.61
30:0:2314:G:C2'	30:0:2315:C:H5'	2.30	0.61
30:0:1921:A:C6	30:0:1922:A:C2	2.88	0.61
3:C:140:VAL:HB	38:C:8655:HOH:O	2.00	0.61
30:0:932:U:O2'	30:0:1296:A:H1'	2.00	0.61
30:0:807:A:O2'	30:0:808:A:H5'	2.00	0.61
6:F:13:GLU:OE2	6:F:78:GLU:HG2	2.00	0.61
30:0:1165:G:H3'	30:0:1166:A:C5'	2.31	0.61
30:0:958:G:H4'	31:9:105:A:H4'	1.81	0.61
30:0:243:A:H61	30:0:269:G:H1'	1.64	0.61
30:0:1483:C:C2'	30:0:1484:G:H5'	2.30	0.61
2:B:36:PRO:HB3	2:B:174:ARG:HA	1.81	0.61
30:0:2070:G:H2'	30:0:2072:G:OP1	2.01	0.61
30:0:1015:C:H2'	30:0:1016:U:H6	1.65	0.61
30:0:963:C:O2	30:0:1005:A:N1	2.33	0.61
30:0:869:G:H1'	38:0:3296:HOH:O	2.01	0.61
6:F:30:LYS:HB2	6:F:97:ALA:HB3	1.83	0.61
6:F:63:ILE:HB	6:F:64:PRO:HD3	1.82	0.61
1:A:51:ARG:HG3	38:A:9024:HOH:O	2.00	0.61
30:0:271:C:N4	30:0:378:A:C2	2.69	0.61
30:0:1623:C:C5	30:0:1624:A:C5	2.88	0.61
30:0:1774:G:C2'	30:0:1775:A:H5'	2.31	0.61
30:0:946:C:H2'	30:0:947:U:C6	2.35	0.61
24:X:47:ALA:HB1	24:X:82:GLU:CB	2.31	0.61
30:0:2707:C:H2'	30:0:2707:C:O2	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1931:A:H2'	30:0:1932:G:C5'	2.30	0.61
30:0:2787:C:H2'	30:0:2788:A:O4'	2.00	0.61
23:W:52:VAL:HG22	23:W:53:ALA:H	1.64	0.61
30:0:2110:G:C2	30:0:2478:U:C2	2.88	0.61
30:0:1613:C:H2'	30:0:1614:G:O4'	2.01	0.61
30:0:527:U:H2'	30:0:528:G:H8	1.66	0.61
30:0:1206:U:C6	30:0:1206:U:H3'	2.35	0.61
30:0:1670:A:O2'	30:0:1671:U:H5'	2.01	0.61
29:3:38:ARG:HD2	29:3:42:ARG:HH12	1.66	0.61
12:L:53:ARG:NH2	12:L:57:VAL:HG12	2.15	0.61
29:3:54:LYS:HB3	38:3:9017:HOH:O	1.99	0.61
2:B:267:LYS:HD3	38:B:8996:HOH:O	2.00	0.61
5:E:139:GLU:OE2	30:0:2781:U:H1'	2.01	0.61
2:B:142:LEU:HD21	2:B:178:ALA:HB1	1.83	0.61
30:0:60:A:C2	30:0:61:G:C8	2.89	0.61
30:0:2526:C:O2'	30:0:2527:U:H5'	2.01	0.61
30:0:723:G:H2'	30:0:724:G:H8	1.63	0.61
12:L:121:ILE:HA	12:L:141:GLU:O	2.01	0.61
30:0:283:U:H5''	30:0:284:C:OP2	2.01	0.61
30:0:1642:A:C8	30:0:1643:C:C5	2.88	0.61
30:0:2032:U:O2'	30:0:2033:G:H5''	2.00	0.61
24:X:73:ARG:NH2	24:X:88:GLU:HB2	2.15	0.61
30:0:1127:C:C5	30:0:1128:U:C4	2.88	0.61
30:0:2637:A:H5'	38:0:9278:HOH:O	1.99	0.61
30:0:2111:G:H1'	38:0:9053:HOH:O	2.00	0.61
30:0:1485:A:H3'	38:0:5253:HOH:O	1.99	0.61
38:H:196:HOH:O	30:0:965:A:H2'	2.00	0.61
30:0:2248:C:H2'	30:0:2249:G:H8	1.65	0.61
30:0:684:G:H2'	30:0:685:C:C6	2.36	0.61
30:0:304:G:H1'	30:0:347:A:N6	2.15	0.61
30:0:249:G:N2	30:0:250:C:C2	2.69	0.61
30:0:1790:C:H2'	30:0:1791:U:H6	1.65	0.61
16:P:134:VAL:O	16:P:137:LEU:HB3	2.00	0.61
30:0:1453:G:H2'	30:0:1454:U:O4'	2.01	0.61
30:0:1165:G:N2	30:0:1173:A:C5'	2.64	0.61
30:0:946:C:H2'	30:0:947:U:H6	1.65	0.61
30:0:2727:A:H2'	30:0:2728:C:H5'	1.83	0.61
13:M:95:LYS:HE3	30:0:157:G:H4'	1.82	0.61
30:0:1531:U:O2	30:0:1661:A:C2	2.54	0.61
26:Z:60:ASP:CB	26:Z:69:ASP:HB3	2.23	0.60
30:0:366:U:H2'	30:0:367:G:O4'	2.01	0.60
30:0:2291:A:C8	30:0:2309:C:H5'	2.36	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:64:G:O2'	30:0:65:C:H5'	2.00	0.60
7:G:64:ASN:N	7:G:64:ASN:HD22	1.98	0.60
30:0:2703:A:H2'	30:0:2704:C:H6	1.66	0.60
29:3:2:GLN:H	30:0:2320:U:C5'	2.14	0.60
30:0:2421:G:H3'	30:0:2422:U:H5''	1.82	0.60
16:P:115:SER:N	16:P:118:GLN:HB2	2.15	0.60
30:0:2563:U:O2'	30:0:2564:G:H8	1.84	0.60
21:U:31:PHE:CD2	21:U:37:GLU:HG2	2.36	0.60
23:W:48:VAL:HG12	23:W:52:VAL:HB	1.83	0.60
19:S:21:GLN:HE22	30:0:1508:C:H4'	1.66	0.60
30:0:1238:C:H5''	38:0:6777:HOH:O	1.99	0.60
13:M:28:GLN:O	13:M:32:ARG:HG3	2.00	0.60
13:M:46:LEU:HD22	13:M:50:ARG:HD2	1.82	0.60
4:D:159:PRO:O	4:D:163:VAL:HG23	2.01	0.60
31:9:55:U:H4'	31:9:56:A:C8	2.36	0.60
30:0:1603:A:H5''	30:0:1605:G:H5'	1.83	0.60
30:0:2820:A:H2'	30:0:2821:C:O4'	2.01	0.60
23:W:24:LEU:HD21	23:W:44:MET:SD	2.42	0.60
1:A:192:VAL:HG23	38:A:9014:HOH:O	2.01	0.60
9:I:113:SER:HA	30:0:1186:C:H5'	1.83	0.60
30:0:1209:C:O2'	30:0:1210:G:H5'	2.02	0.60
30:0:545:G:H8	30:0:545:G:C5'	2.00	0.60
30:0:597:A:C2	30:0:598:C:C4	2.89	0.60
26:Z:42:TYR:HD2	30:0:1829:A:H61	1.48	0.60
30:0:2089:A:C2'	30:0:2090:G:H5'	2.30	0.60
30:0:2757:A:H2'	30:0:2758:G:H5'	1.83	0.60
31:9:107:C:O2'	31:9:108:C:H5'	2.01	0.60
30:0:2694:A:C2	30:0:2702:A:C4	2.89	0.60
30:0:1819:G:H2'	30:0:1820:G:H5'	1.84	0.60
30:0:513:A:H1'	38:0:3639:HOH:O	2.00	0.60
6:F:2:VAL:HG22	6:F:57:GLU:OE1	2.01	0.60
16:P:35:ILE:HA	38:P:2641:HOH:O	2.00	0.60
30:0:1159:G:H1	30:0:1208:C:H42	1.50	0.60
30:0:1168:C:C5	30:0:1169:U:C5	2.89	0.60
30:0:1182:C:H1'	30:0:1192:A:C8	2.36	0.60
30:0:287:C:H2'	30:0:288:A:C8	2.37	0.60
11:K:76:GLN:HA	11:K:93:ASN:CB	2.31	0.60
25:Y:154:ARG:NH2	30:0:1293:U:H5'	2.16	0.60
21:U:56:ARG:HG3	21:U:56:ARG:HH11	1.66	0.60
30:0:1568:G:C4	30:0:1569:U:C6	2.89	0.60
30:0:2253:G:H2'	30:0:2254:G:C8	2.32	0.60
30:0:1964:U:H6	38:0:4522:HOH:O	1.83	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2895:C:H4'	38:0:5133:HOH:O	2.01	0.60
22:V:50:ARG:NH1	30:0:56:G:H5''	2.16	0.60
30:0:2900:G:O2'	30:0:2901:C:H5'	2.00	0.60
30:0:586:C:H5''	38:0:7189:HOH:O	2.02	0.60
30:0:255:A:C5	30:0:256:C:C4	2.89	0.60
30:0:1928:C:N3	30:0:1929:G:C8	2.70	0.60
30:0:810:G:C5	30:0:811:C:C5	2.89	0.60
18:R:82:GLU:HG3	18:R:83:LYS:N	2.16	0.60
30:0:316:A:N3	30:0:336:G:O2'	2.34	0.60
30:0:1377:C:C5	30:0:1693:A:C6	2.89	0.60
31:9:60:C:O2'	31:9:61:C:H5'	2.02	0.60
9:I:112:LEU:CD1	30:0:1162:G:H1'	2.32	0.60
30:0:1203:G:H5'	38:0:7165:HOH:O	2.01	0.60
30:0:1494:A:H4'	30:0:1494:A:OP1	2.01	0.60
30:0:2019:A:H1'	38:0:5660:HOH:O	2.00	0.60
5:E:137:ASP:OD1	5:E:139:GLU:HB2	2.01	0.60
30:0:10:U:C5	30:0:532:A:C8	2.89	0.60
24:X:73:ARG:HH22	24:X:88:GLU:HB2	1.65	0.60
2:B:154:VAL:CG1	2:B:156:LYS:HG2	2.31	0.60
6:F:27:GLY:H	6:F:102:GLY:HA3	1.66	0.60
30:0:1725:C:H4'	38:0:3409:HOH:O	2.00	0.60
30:0:1538:C:O2'	30:0:1539:U:H5'	2.02	0.60
38:D:217:HOH:O	31:9:54:A:H4'	2.00	0.60
25:Y:189:ASN:HD22	25:Y:191:ASP:H	1.47	0.60
30:0:300:U:C4	30:0:301:C:C5	2.89	0.60
30:0:1566:C:H2'	30:0:1567:G:C8	2.36	0.60
30:0:31:C:H4'	38:0:7326:HOH:O	2.01	0.60
30:0:1883:U:H5''	30:0:2013:G:OP2	2.02	0.60
29:3:24:LYS:HE3	29:3:90:PHE:HE1	1.67	0.60
30:0:365:G:C5	30:0:366:U:C5	2.90	0.60
17:Q:1:PRO:HA	30:0:2299:G:O6	2.00	0.60
29:3:40:ARG:HA	29:3:52:PHE:CE2	2.37	0.60
30:0:2757:A:C2'	30:0:2758:G:H5'	2.32	0.60
30:0:2781:U:H2'	30:0:2782:G:H5'	1.84	0.60
30:0:1421:C:H2'	30:0:1422:U:C6	2.36	0.60
30:0:451:C:C5	30:0:452:G:C5	2.90	0.60
31:9:94:G:O2'	31:9:95:C:H5'	2.02	0.60
29:3:48:ASN:CG	30:0:169:A:H1'	2.20	0.60
31:9:79:U:O2	31:9:79:U:H2'	2.02	0.60
30:0:283:U:C5	30:0:284:C:N3	2.69	0.60
15:O:65:LEU:HD13	30:0:746:A:C6	2.37	0.60
30:0:1424:A:N1	30:0:1441:G:C6	2.70	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1934:A:C8	30:0:1935:C:C5	2.90	0.60
10:J:56:LYS:HE2	10:J:60:ARG:HH21	1.66	0.60
30:0:2325:U:O2'	30:0:2411:C:H1'	2.01	0.59
30:0:718:C:C2'	30:0:719:C:H5'	2.32	0.59
29:3:51:LYS:HB3	30:0:219:G:O2'	2.02	0.59
30:0:1081:A:C6	30:0:1082:A:N1	2.69	0.59
11:K:8:VAL:HG12	11:K:9:THR:N	2.15	0.59
13:M:52:GLN:OE1	13:M:116:ASN:HB3	2.01	0.59
6:F:50:VAL:HG21	6:F:63:ILE:HG21	1.84	0.59
30:0:724:G:O2'	30:0:725:C:H5'	2.01	0.59
30:0:844:A:C6	30:0:882:A:C5	2.89	0.59
12:L:6:ARG:HD3	30:0:1299:G:O6	2.02	0.59
2:B:310:ARG:HD2	38:B:9130:HOH:O	2.02	0.59
25:Y:148:GLY:HA3	30:0:622:G:P	2.42	0.59
25:Y:151:SER:HB3	25:Y:154:ARG:HB3	1.84	0.59
30:0:1424:A:C2	30:0:1441:G:C6	2.90	0.59
30:0:1332:C:H2'	30:0:1333:U:H6	1.66	0.59
30:0:522:U:O2'	30:0:1366:C:H5'	2.02	0.59
26:Z:34:SER:HA	30:0:797:A:C4'	2.33	0.59
30:0:1083:C:H4'	38:0:7040:HOH:O	2.02	0.59
30:0:1883:U:H5'	30:0:2012:U:OP2	2.00	0.59
30:0:1925:G:O2'	30:0:1926:G:H5'	2.02	0.59
14:N:114:LYS:O	14:N:118:ILE:HG13	2.02	0.59
3:C:101:ASP:HB2	30:0:750:A:O3'	2.03	0.59
6:F:21:GLU:O	6:F:24:ARG:HG2	2.01	0.59
21:U:12:ASP:HB2	38:U:6067:HOH:O	2.02	0.59
30:0:1213:C:O2'	30:0:1214:G:H5'	2.03	0.59
30:0:1665:G:O2'	30:0:1666:C:H5'	2.02	0.59
13:M:77:HIS:HB2	13:M:81:ARG:NH2	2.14	0.59
3:C:225:PRO:O	30:0:1308:A:H4'	2.03	0.59
30:0:1626:A:C2'	30:0:1627:G:C5'	2.77	0.59
15:O:44:ASN:HB2	35:O:8808:CL:CL	2.38	0.59
30:0:625:U:H3'	38:0:3239:HOH:O	2.01	0.59
30:0:192:A:C4	30:0:194:A:H1'	2.38	0.59
30:0:891:G:O2'	30:0:892:G:H5'	2.01	0.59
30:0:101:C:H2'	30:0:102:A:H8	1.66	0.59
1:A:60:PHE:HD1	1:A:64:ASP:HB3	1.67	0.59
14:N:143:ARG:HH21	14:N:169:PRO:HB2	1.67	0.59
30:0:735:C:C3'	30:0:736:A:H8	2.03	0.59
30:0:529:G:H5''	30:0:546:C:O2'	2.03	0.59
30:0:1622:G:H2'	30:0:1623:C:H5'	1.83	0.59
26:Z:40:ALA:O	30:0:2018:A:H2	1.85	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:292:G:C2'	30:0:358:G:N2	2.63	0.59
30:0:1838:U:O2'	30:0:2644:C:H5'	2.03	0.59
21:U:49:LEU:HD13	21:U:51:TRP:CZ2	2.37	0.59
30:0:1044:C:H5''	38:0:9030:HOH:O	2.03	0.59
30:0:2830:U:C2'	30:0:2831:C:H5'	2.33	0.59
30:0:2297:U:H3'	38:0:7375:HOH:O	2.03	0.59
30:0:970:U:H3'	30:0:970:U:C6	2.37	0.59
31:9:64:C:O2'	31:9:65:A:H5'	2.02	0.59
21:U:23:HIS:CD2	21:U:27:ALA:HB3	2.37	0.59
30:0:62:C:H2'	30:0:63:U:C6	2.36	0.59
12:L:10:SER:O	12:L:11:ARG:HB3	2.02	0.59
30:0:2332:A:H3'	30:0:2333:G:H8	1.67	0.59
23:W:64:THR:O	23:W:68:THR:HG22	2.01	0.59
30:0:635:A:H2'	30:0:636:G:H5''	1.85	0.59
30:0:1270:U:O2'	30:0:1271:A:H5'	2.02	0.59
30:0:1971:G:H5'	38:0:7283:HOH:O	2.02	0.59
30:0:711:G:O2'	30:0:712:C:H5'	2.03	0.59
30:0:163:U:O3'	30:0:896:C:H4'	2.02	0.59
30:0:2668:G:H2'	30:0:2669:U:H6	1.67	0.59
30:0:2587:OMU:CM2	30:0:2589:U:C6	2.86	0.59
30:0:1323:G:H1	30:0:1334:C:H42	1.50	0.59
30:0:226:A:H2'	30:0:227:A:O4'	2.02	0.59
30:0:20:G:H2'	30:0:21:G:O5'	2.01	0.59
30:0:810:G:C6	30:0:811:C:C4	2.91	0.59
30:0:1206:U:C6	30:0:1206:U:H5'	2.35	0.59
30:0:559:U:C6	30:0:559:U:H5'	2.31	0.59
8:H:48:VAL:HA	8:H:170:ARG:O	2.03	0.59
30:0:1790:C:H4'	38:0:6543:HOH:O	2.02	0.59
8:H:6:ALA:HA	8:H:61:ARG:NH1	2.18	0.59
31:9:104:A:H3'	38:9:4108:HOH:O	2.02	0.59
30:0:2731:G:O2'	30:0:2732:U:H5'	2.02	0.59
30:0:1512:G:H2'	30:0:1513:C:H6	1.67	0.59
30:0:1575:C:O2'	30:0:1576:G:H5'	2.03	0.59
30:0:1771:U:O2'	30:0:1773:G:N7	2.36	0.59
30:0:1249:U:H2'	30:0:1250:C:C6	2.38	0.59
15:O:112:ARG:HG3	15:O:113:VAL:N	2.18	0.59
24:X:71:ARG:HB2	24:X:88:GLU:HG2	1.84	0.59
30:0:249:G:O2'	30:0:250:C:H5'	2.03	0.59
19:S:73:ASP:HB3	19:S:76:GLU:HB2	1.85	0.59
2:B:5:ARG:HH11	2:B:8:LYS:HE2	1.68	0.59
8:H:53:ILE:HA	8:H:134:GLU:O	2.03	0.59
31:9:3:A:C2	31:9:21:G:N3	2.71	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1156:C:C6	30:0:1156:C:H3'	2.37	0.59
17:Q:27:GLN:NE2	31:9:8:G:H4'	2.08	0.59
30:0:1309:U:O2'	30:0:1310:U:H5'	2.02	0.59
30:0:368:C:C2'	30:0:369:G:H5'	2.32	0.59
30:0:128:A:C8	30:0:128:A:C3'	2.84	0.59
30:0:844:A:C6	30:0:882:A:C6	2.90	0.59
13:M:93:ARG:HG2	38:0:3430:HOH:O	2.02	0.59
14:N:34:LEU:HD22	14:N:129:ILE:HD13	1.84	0.59
30:0:2714:U:H2'	30:0:2715:G:C8	2.37	0.59
30:0:1187:U:H2'	38:0:6812:HOH:O	2.02	0.58
25:Y:205:ILE:HD12	25:Y:214:ARG:NH1	2.18	0.58
29:3:80:ARG:NH2	30:0:2381:C:H4'	2.18	0.58
30:0:2721:U:H3	30:0:2763:G:H1'	1.68	0.58
30:0:1583:U:O2'	30:0:1584:C:H5'	2.03	0.58
30:0:2563:U:HO2'	30:0:2564:G:H8	1.49	0.58
30:0:937:C:O2'	30:0:938:G:H5'	2.03	0.58
27:1:15:THR:HB	27:1:28:HIS:CD2	2.37	0.58
1:A:22:ARG:HH22	1:A:181:ALA:HA	1.67	0.58
29:3:60:LYS:NZ	30:0:2462:G:N7	2.46	0.58
30:0:169:A:HO2'	30:0:170:U:H6	1.48	0.58
30:0:282:C:H2'	30:0:283:U:O4'	2.02	0.58
30:0:1346:U:H2'	30:0:1347:U:C6	2.32	0.58
30:0:1441:G:H1'	38:0:7665:HOH:O	2.01	0.58
6:F:49:PHE:HE1	6:F:98:VAL:HG23	1.68	0.58
9:I:93:ALA:O	9:I:132:VAL:HA	2.02	0.58
5:E:145:ALA:HB1	5:E:168:ILE:HD11	1.84	0.58
15:O:4:ASN:HB3	15:O:7:LEU:HB3	1.85	0.58
18:R:80:TYR:O	30:0:2050:G:H5''	2.03	0.58
30:0:2271:G:N3	30:0:2271:G:H2'	2.17	0.58
18:R:59:PHE:O	18:R:63:ASN:HB3	2.02	0.58
23:W:130:HIS:O	23:W:136:GLY:HA3	2.03	0.58
1:A:122:SER:O	1:A:124:VAL:HG13	2.03	0.58
1:A:3:ARG:HB2	1:A:8:ARG:HE	1.67	0.58
30:0:1523:G:C5	30:0:1524:U:C4	2.91	0.58
30:0:1170:U:H1'	30:0:1172:G:C8	2.39	0.58
30:0:2397:G:C5	30:0:2465:A:C6	2.91	0.58
30:0:2572:G:O2'	30:0:2573:G:H5'	2.03	0.58
30:0:24:G:C2	30:0:518:G:N3	2.71	0.58
30:0:210:U:H2'	30:0:211:U:O4'	2.03	0.58
30:0:1766:U:O2	30:0:1778:A:H5'	2.03	0.58
4:D:54:ALA:HB2	4:D:69:ILE:CD1	2.33	0.58
2:B:79:MET:HB2	2:B:188:HIS:HE1	1.68	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:170:U:H2'	30:0:171:C:H5'	1.85	0.58
30:0:433:C:C2	30:0:434:U:C6	2.91	0.58
30:0:1829:A:H2'	30:0:1830:C:H5'	1.84	0.58
30:0:1579:C:H4'	30:0:1580:A:OP1	2.02	0.58
29:3:78:HIS:HD2	29:3:80:ARG:HG3	1.67	0.58
24:X:43:VAL:HG22	24:X:76:ARG:NH1	2.18	0.58
30:0:2824:C:H5'	30:0:2914:A:N6	2.18	0.58
30:0:2691:A:OP1	30:0:2691:A:H8	1.85	0.58
20:T:4:PRO:HB3	30:0:333:G:H5''	1.86	0.58
30:0:124:C:H3'	38:0:7559:HOH:O	2.03	0.58
23:W:4:LEU:O	23:W:32:CYS:HA	2.04	0.58
20:T:40:VAL:HG11	20:T:101:LEU:HD21	1.83	0.58
23:W:80:ASP:O	23:W:84:VAL:HG23	2.03	0.58
12:L:77:ALA:HB3	38:L:8831:HOH:O	2.03	0.58
15:O:59:VAL:HG23	15:O:111:VAL:HG21	1.85	0.58
30:0:876:A:N7	30:0:878:G:H1'	2.18	0.58
30:0:1120:U:H5'	30:0:1121:G:OP2	2.04	0.58
2:B:144:THR:HG22	2:B:145:HIS:H	1.67	0.58
30:0:1100:G:N2	30:0:1101:U:C2	2.72	0.58
3:C:4:THR:HA	3:C:15:GLU:HB3	1.85	0.58
31:9:58:G:C8	31:9:59:C:C5	2.91	0.58
1:A:51:ARG:NH2	1:A:53:ALA:HB3	2.18	0.58
31:9:49:G:C2'	31:9:50:G:H5'	2.33	0.58
30:0:1481:G:H2'	30:0:1482:A:C8	2.38	0.58
30:0:1617:C:C5	30:0:1643:C:H4'	2.38	0.58
30:0:57:C:O2'	30:0:58:C:H5'	2.03	0.58
30:0:2282:U:H4'	30:0:2309:C:C5	2.39	0.58
13:M:95:LYS:CE	30:0:157:G:H4'	2.33	0.58
30:0:65:C:O2'	30:0:66:G:H5'	2.02	0.58
21:U:39:ASN:HD22	21:U:44:ARG:HD3	1.67	0.58
30:0:413:G:O2'	30:0:414:C:H5'	2.03	0.58
30:0:1587:U:C2'	30:0:1588:G:H5'	2.32	0.58
30:0:2581:U:H1'	38:0:4436:HOH:O	2.03	0.58
4:D:17:ARG:NH1	4:D:137:PRO:HA	2.18	0.58
30:0:1753:C:H6	30:0:1753:C:O5'	1.86	0.58
4:D:134:LEU:HD11	4:D:166:ILE:HD11	1.85	0.58
16:P:78:GLY:O	30:0:1813:U:H4'	2.04	0.58
30:0:499:G:O2'	30:0:500:G:H5'	2.04	0.58
38:A:8939:HOH:O	30:0:2270:G:H4'	2.04	0.58
4:D:57:THR:HG23	4:D:63:ILE:HA	1.85	0.58
6:F:31:LYS:HD2	38:0:4760:HOH:O	2.02	0.58
30:0:881:C:H5''	38:0:3619:HOH:O	2.01	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2655:U:C4	30:0:2656:G:N7	2.71	0.58
30:0:537:G:O4'	30:0:538:C:C5	2.57	0.58
31:9:114:G:H2'	31:9:115:C:H6	1.67	0.58
30:0:287:C:H2'	30:0:288:A:H8	1.68	0.58
29:3:44:SER:HA	29:3:49:ASP:OD2	2.04	0.58
14:N:48:VAL:CG1	14:N:55:ASP:HB3	2.33	0.58
30:0:2493:C:O2	30:0:2493:C:H2'	2.04	0.58
16:P:133:SER:HB3	30:0:1793:C:H5''	1.86	0.58
11:K:64:MET:HA	11:K:67:GLN:HE21	1.69	0.58
2:B:189:ALA:O	2:B:192:ASP:HB2	2.04	0.58
30:0:1281:C:H2'	30:0:1282:U:O4'	2.04	0.58
30:0:1188:A:N7	30:0:1189:A:C2	2.71	0.58
9:I:83:GLY:CA	30:0:1168:C:H5'	2.32	0.58
30:0:686:A:O2'	30:0:747:G:H4'	2.04	0.58
22:V:39:ALA:H	22:V:40:PRO:CD	2.14	0.58
30:0:2780:C:H2'	30:0:2781:U:C6	2.38	0.58
30:0:303:C:C2'	30:0:304:G:H5'	2.34	0.58
12:L:143:THR:HG22	12:L:144:ASP:H	1.67	0.58
30:0:149:G:O2'	30:0:150:G:H5'	2.04	0.58
10:J:27:ALA:HB1	10:J:87:LEU:HD21	1.85	0.58
11:K:114:ALA:HB3	11:K:117:VAL:HG23	1.84	0.58
4:D:13:MET:HB3	31:9:56:A:C4	2.39	0.58
30:0:1206:U:C6	30:0:1206:U:C3'	2.86	0.58
30:0:2328:U:N3	30:0:2329:C:C5	2.72	0.58
30:0:2769:C:C2'	30:0:2770:G:C5'	2.82	0.58
21:U:56:ARG:HD2	30:0:2890:A:C1'	2.33	0.58
30:0:2498:C:C2'	30:0:2499:U:H5'	2.33	0.58
30:0:1434:A:O2'	30:0:1435:U:H2'	2.04	0.58
30:0:2387:U:H2'	30:0:2388:C:C6	2.39	0.58
30:0:148:A:O2'	30:0:149:G:H5'	2.04	0.58
30:0:1167:G:H2'	30:0:1168:C:C6	2.39	0.57
30:0:23:G:H1'	30:0:520:A:N6	2.19	0.57
1:A:237:GLY:O	30:0:1939:U:H5''	2.03	0.57
30:0:229:G:O2'	30:0:230:C:H5'	2.03	0.57
30:0:116:G:H1'	30:0:129:A:C4	2.38	0.57
30:0:413:G:C6	30:0:428:G:C6	2.92	0.57
30:0:2402:A:H1'	38:0:4380:HOH:O	2.04	0.57
1:A:167:LYS:CE	26:Z:50:VAL:HG13	2.34	0.57
30:0:2695:C:N4	30:0:2701:G:N2	2.52	0.57
30:0:1253:C:H2'	30:0:1254:C:H6	1.68	0.57
30:0:1634:G:H2'	30:0:1635:U:H6	1.69	0.57
30:0:727:G:C2	30:0:728:C:H1'	2.39	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:F:26:THR:HB	6:F:102:GLY:HA3	1.86	0.57
4:D:52:THR:HG23	30:0:2346:C:O3'	2.04	0.57
20:T:49:GLU:OE2	20:T:97:ARG:HD2	2.05	0.57
30:0:907:A:C2	30:0:1299:G:C6	2.92	0.57
5:E:102:VAL:HG11	5:E:148:ILE:HD11	1.86	0.57
30:0:221:G:H5'	38:0:6463:HOH:O	2.03	0.57
30:0:1187:U:O2'	30:0:1189:A:H2	1.87	0.57
29:3:1:MET:HA	30:0:2319:C:H3'	1.86	0.57
30:0:2061:C:H2'	30:0:2062:A:C5'	2.34	0.57
30:0:1464:C:H4'	38:0:6125:HOH:O	2.04	0.57
30:0:2694:A:C6	30:0:2702:A:C8	2.92	0.57
30:0:962:C:H2'	30:0:963:C:H5'	1.86	0.57
12:L:133:VAL:HA	38:L:8886:HOH:O	2.03	0.57
30:0:1312:G:O2'	30:0:1313:A:H5'	2.05	0.57
30:0:745:G:H5''	30:0:746:A:OP1	2.04	0.57
30:0:1482:A:O2'	30:0:1483:C:H5'	2.05	0.57
30:0:2103:A:H2'	30:0:2104:C:C5'	2.34	0.57
20:T:71:VAL:HG11	20:T:90:PRO:CB	2.32	0.57
30:0:2829:G:N2	30:0:2912:C:C2	2.73	0.57
30:0:2689:A:C2'	30:0:2690:U:H5'	2.34	0.57
30:0:1587:U:O2'	30:0:1588:G:H5'	2.04	0.57
2:B:79:MET:HB2	2:B:188:HIS:CE1	2.39	0.57
3:C:133:ARG:NH2	3:C:135:GLU:HB2	2.19	0.57
16:P:88:GLN:HE21	30:0:1800:G:H1'	1.67	0.57
30:0:1014:A:H5''	31:9:101:G:O2'	2.04	0.57
25:Y:115:ARG:HH21	30:0:1266:U:H4'	1.70	0.57
19:S:25:GLN:HG2	19:S:65:VAL:HG13	1.87	0.57
29:3:47:GLY:HA2	30:0:2121:G:O2'	2.03	0.57
30:0:1768:C:H2'	30:0:1769:C:O4'	2.04	0.57
30:0:2777:G:H5'	38:0:9874:HOH:O	2.05	0.57
11:K:10:GLN:N	11:K:10:GLN:NE2	2.50	0.57
28:2:29:THR:HG22	30:0:86:A:O4'	2.04	0.57
8:H:61:ARG:HH11	8:H:61:ARG:HG3	1.70	0.57
3:C:34:ALA:HA	3:C:102:LEU:CD2	2.34	0.57
30:0:590:A:H2'	30:0:591:A:H5'	1.86	0.57
30:0:387:G:O2'	30:0:388:G:H5'	2.04	0.57
30:0:2843:A:H2'	30:0:2844:C:H5'	1.86	0.57
30:0:2326:C:H2'	30:0:2327:A:C8	2.38	0.57
30:0:2375:A:H2'	30:0:2376:C:C6	2.39	0.57
30:0:292:G:H8	30:0:292:G:O5'	1.87	0.57
30:0:2793:A:H1'	38:0:6249:HOH:O	2.04	0.57
30:0:1969:A:O2'	30:0:1970:G:H5'	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1930:A:H2'	30:0:1931:A:C8	2.39	0.57
30:0:1588:G:C6	30:0:1589:G:N1	2.73	0.57
30:0:1361:C:H2'	30:0:1362:U:H6	1.68	0.57
18:R:1:GLY:HA2	18:R:119:VAL:HG21	1.86	0.57
23:W:154:ARG:NH1	30:0:588:G:O6	2.37	0.57
11:K:74:VAL:HG11	11:K:113:ILE:HG12	1.85	0.57
30:0:2673:U:C4	30:0:2674:G:C6	2.92	0.57
26:Z:99:GLY:O	26:Z:103:VAL:HG23	2.05	0.57
30:0:1462:C:O2'	30:0:1463:U:H5'	2.04	0.57
29:3:23:GLU:HA	38:3:9000:HOH:O	2.04	0.57
30:0:1559:A:O2'	30:0:1561:U:H5	1.88	0.57
30:0:559:U:H6	30:0:559:U:C5'	2.14	0.57
30:0:716:G:N2	30:0:717:C:C2	2.73	0.57
30:0:877:G:C5'	30:0:878:G:OP1	2.51	0.57
18:R:18:LEU:HB2	18:R:143:VAL:CG1	2.34	0.57
31:9:42:C:H5'	31:9:43:G:OP2	2.03	0.57
30:0:64:G:H2'	30:0:65:C:O4'	2.05	0.57
30:0:1278:A:O2'	30:0:1279:U:H3'	2.04	0.57
16:P:37:ARG:HB2	38:0:4445:HOH:O	2.04	0.57
31:9:99:U:H2'	31:9:100:G:H8	1.70	0.57
30:0:619:U:H3'	38:0:3266:HOH:O	2.04	0.57
30:0:633:C:O2'	30:0:634:G:H5'	2.04	0.57
30:0:1206:U:C5'	30:0:1206:U:H6	2.16	0.57
29:3:83:TRP:HD1	29:3:85:ALA:HB2	1.69	0.57
30:0:2327:A:H61	30:0:2372:A:N6	2.02	0.57
30:0:1762:C:H2'	30:0:1763:C:C6	2.31	0.57
30:0:2256:G:O2'	30:0:2257:G:H5'	2.05	0.57
25:Y:115:ARG:NH2	30:0:1266:U:H4'	2.19	0.57
30:0:840:U:C2	30:0:2648:U:O4	2.58	0.57
4:D:105:SER:OG	30:0:2338:G:H1'	2.05	0.57
19:S:33:SER:O	19:S:37:VAL:HG23	2.04	0.57
30:0:878:G:H5'	38:0:9229:HOH:O	2.04	0.57
30:0:1398:G:H2'	30:0:1399:A:C8	2.40	0.57
30:0:101:C:H2'	30:0:102:A:C8	2.40	0.57
18:R:39:THR:HG23	18:R:107:GLU:O	2.05	0.57
28:2:36:ASN:HD22	28:2:39:ARG:HG2	1.70	0.57
30:0:383:A:H2'	30:0:384:G:O4'	2.05	0.57
17:Q:19:ARG:NH2	31:9:11:A:H3'	2.19	0.57
31:9:77:A:H1'	31:9:79:U:C6	2.40	0.57
2:B:234:ARG:HD3	30:0:1734:C:OP1	2.04	0.57
20:T:65:VAL:HG22	20:T:72:ILE:HG22	1.87	0.57
30:0:1982:C:H3'	30:0:1983:C:C6	2.40	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2268:C:H2'	30:0:2269:C:C6	2.40	0.57
30:0:2608:C:H3'	38:0:7708:HOH:O	2.04	0.57
20:T:28:SER:O	20:T:32:ARG:HG3	2.05	0.57
4:D:63:ILE:HG13	4:D:64:ARG:N	2.20	0.57
10:J:70:PHE:CD1	30:0:2676:C:H4'	2.40	0.57
14:N:66:LEU:HD11	14:N:83:LEU:HB3	1.87	0.57
30:0:1185:U:H2'	30:0:1186:C:H6	1.70	0.56
30:0:2429:A:H5'	38:0:9501:HOH:O	2.05	0.56
30:0:236:A:H4'	30:0:237:G:C5'	2.24	0.56
30:0:282:C:C2'	30:0:283:U:C5'	2.82	0.56
30:0:686:A:C5	30:0:687:C:C5	2.92	0.56
30:0:1325:G:N3	30:0:1326:C:C6	2.73	0.56
2:B:235:ARG:HA	38:B:9071:HOH:O	2.03	0.56
30:0:1503:U:O2'	30:0:1504:A:H5'	2.05	0.56
30:0:1878:G:O2'	30:0:1879:U:H6	1.88	0.56
1:A:230:SER:CB	30:0:1852:A:H4'	2.35	0.56
19:S:17:ASP:HB3	19:S:23:LYS:HB2	1.88	0.56
30:0:125:U:H4'	38:0:4400:HOH:O	2.04	0.56
30:0:1748:U:C5	30:0:1749:U:C5	2.93	0.56
30:0:792:G:H4'	38:0:3403:HOH:O	2.05	0.56
3:C:142:ASP:OD1	3:C:237:GLU:HB3	2.05	0.56
26:Z:63:CYS:SG	26:Z:81:CYS:CB	2.79	0.56
30:0:168:C:H6	30:0:168:C:O5'	1.88	0.56
30:0:2574:G:H2'	30:0:2575:C:H6	1.70	0.56
30:0:822:C:C2	30:0:823:U:C5	2.93	0.56
30:0:293:A:P	30:0:358:G:H22	2.27	0.56
38:K:992:HOH:O	30:0:2583:A:H5'	2.05	0.56
27:1:28:HIS:O	27:1:32:LYS:N	2.34	0.56
30:0:2570:G:H5''	38:0:4868:HOH:O	2.04	0.56
14:N:46:GLN:HE22	31:9:5:G:H21	1.52	0.56
30:0:1188:A:C5	30:0:1189:A:C2	2.93	0.56
30:0:2460:A:C2	30:0:2461:U:C2	2.93	0.56
30:0:2411:C:H2'	30:0:2412:G:C8	2.40	0.56
30:0:2348:C:H2'	30:0:2349:G:C8	2.39	0.56
29:3:69:TYR:O	29:3:77:ALA:HA	2.05	0.56
30:0:2908:A:H2'	30:0:2909:G:C1'	2.35	0.56
23:W:11:VAL:HG11	30:0:1086:A:N6	2.20	0.56
30:0:2899:A:C2	30:0:2900:G:C4	2.93	0.56
30:0:2799:A:H5'	30:0:2800:A:P	2.44	0.56
30:0:1419:U:H5'	30:0:1420:C:OP2	2.05	0.56
30:0:2678:A:O2'	30:0:2679:G:H5'	2.05	0.56
30:0:257:G:C2	30:0:258:G:C4	2.93	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:999:C:O2'	30:0:1000:C:H5'	2.04	0.56
30:0:1909:A:N1	30:0:2128:G:H1'	2.21	0.56
17:Q:26:PRO:O	17:Q:30:VAL:HG23	2.05	0.56
28:2:22:PRO:HG2	28:2:25:VAL:HG23	1.86	0.56
30:0:1748:U:C5	30:0:1749:U:C4	2.92	0.56
8:H:15:PRO:HG3	30:0:1053:G:OP1	2.05	0.56
13:M:115:LEU:HD23	13:M:150:ILE:HD12	1.87	0.56
3:C:170:ASP:HA	3:C:188:ARG:HH21	1.71	0.56
4:D:87:ALA:O	4:D:90:LEU:HB2	2.06	0.56
12:L:78:ALA:HB2	38:L:8866:HOH:O	2.05	0.56
30:0:1156:C:O2'	30:0:1157:C:H5'	2.06	0.56
30:0:1678:A:C5	30:0:1679:C:C5	2.93	0.56
30:0:2439:C:H2'	30:0:2440:C:C6	2.35	0.56
30:0:1829:A:C2'	30:0:1830:C:H5'	2.35	0.56
30:0:669:G:C5	30:0:670:G:C8	2.94	0.56
30:0:669:G:C6	30:0:670:G:N7	2.73	0.56
24:X:43:VAL:HG12	24:X:44:ASP:N	2.17	0.56
29:3:33:MET:HG2	30:0:1922:A:C2'	2.35	0.56
30:0:556:C:C2	30:0:602:A:C2	2.93	0.56
30:0:1024:G:C6	30:0:1025:C:C4	2.93	0.56
30:0:1024:G:C4	30:0:1025:C:C5	2.92	0.56
30:0:1903:U:H2'	30:0:1905:U:O4	2.05	0.56
30:0:1647:G:O2'	30:0:1648:G:H5'	2.04	0.56
30:0:1304:U:H3	30:0:1350:U:H3	1.52	0.56
14:N:44:ARG:NH1	31:9:4:G:H21	2.03	0.56
30:0:1603:A:H5''	30:0:1604:G:H3'	1.86	0.56
30:0:1103:C:C2	30:0:1241:G:N2	2.74	0.56
30:0:1568:G:C5	30:0:1569:U:C5	2.94	0.56
30:0:292:G:H1'	30:0:360:A:H61	1.70	0.56
30:0:380:A:H5'	30:0:430:A:N3	2.20	0.56
30:0:2473:U:O2'	30:0:2474:A:H5''	2.04	0.56
30:0:2756:U:H3	30:0:2896:A:H2	1.54	0.56
30:0:107:U:C5	30:0:108:U:C5	2.94	0.56
1:A:97:ALA:HB2	1:A:150:PRO:HB2	1.88	0.56
30:0:306:A:O2'	30:0:325:U:H1'	2.05	0.56
30:0:257:G:N2	30:0:258:G:C4	2.73	0.56
10:J:63:ILE:HG23	30:0:1235:G:C1'	2.36	0.56
30:0:2001:G:O2'	30:0:2002:C:H5'	2.06	0.56
30:0:545:G:C8	30:0:545:G:C5'	2.83	0.56
15:O:47:ARG:CG	15:O:47:ARG:HH11	2.08	0.56
13:M:83:SER:HB2	29:3:47:GLY:CA	2.35	0.56
30:0:613:C:H2'	30:0:614:U:C6	2.40	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:27:ARG:NH2	30:0:657:G:OP1	2.37	0.56
30:0:710:G:O2'	30:0:711:G:H5'	2.05	0.56
30:0:2872:U:H2'	30:0:2873:C:C6	2.40	0.56
30:0:922:A:N7	30:0:2281:C:H5'	2.21	0.56
30:0:106:A:H2'	30:0:107:U:H5'	1.88	0.56
30:0:1889:C:C5	30:0:1890:U:H5	2.23	0.56
30:0:1324:G:C6	30:0:1325:G:N7	2.74	0.56
30:0:1586:G:O2'	30:0:1587:U:H5'	2.06	0.56
30:0:940:G:C2'	30:0:941:G:H5'	2.36	0.56
30:0:1634:G:C5	30:0:1635:U:C4	2.93	0.56
30:0:1635:U:O2'	30:0:1636:G:H5'	2.05	0.56
18:R:68:HIS:O	30:0:2842:G:H5'	2.06	0.56
30:0:206:G:C6	30:0:437:A:C2	2.93	0.56
30:0:2541:U:H3'	38:0:9065:HOH:O	2.05	0.56
30:0:2279:G:H4'	38:0:7466:HOH:O	2.06	0.56
30:0:264:G:H1'	30:0:265:U:H5	1.69	0.56
30:0:483:C:C4	30:0:484:A:C6	2.94	0.56
26:Z:40:ALA:O	30:0:2018:A:C2	2.59	0.56
30:0:302:A:H2'	30:0:303:C:H5'	1.87	0.56
30:0:1324:G:H3'	38:0:6144:HOH:O	2.06	0.56
19:S:21:GLN:OE1	30:0:1508:C:H5'	2.06	0.56
30:0:1173:A:H4'	30:0:1174:A:C8	2.41	0.56
30:0:2464:C:H5''	30:0:2465:A:OP1	2.05	0.56
30:0:700:A:H5''	30:0:701:U:H5'	1.88	0.56
31:9:36:C:C2'	31:9:37:C:H5'	2.35	0.56
31:9:37:C:O2	31:9:47:A:H1'	2.05	0.56
30:0:2363:G:C6	30:0:2364:A:C5	2.94	0.56
30:0:2803:C:C2'	30:0:2804:C:H5'	2.36	0.56
30:0:1690:C:C5	30:0:1692:C:C4	2.94	0.56
30:0:297:U:H2'	30:0:298:C:C6	2.40	0.56
6:F:27:GLY:N	6:F:102:GLY:HA3	2.21	0.56
10:J:56:LYS:HE2	10:J:60:ARG:NH2	2.20	0.56
8:H:61:ARG:HG3	38:0:4925:HOH:O	2.06	0.56
30:0:1793:C:H2'	30:0:1794:G:C8	2.41	0.56
5:E:3:VAL:HG22	5:E:49:ILE:HB	1.88	0.56
30:0:1268:C:H2'	30:0:1269:G:C8	2.40	0.56
13:M:191:GLY:O	30:0:175:G:H3'	2.05	0.56
26:Z:84:CYS:SG	26:Z:86:TYR:HB2	2.45	0.56
30:0:594:C:C6	30:0:595:U:C5	2.94	0.56
30:0:191:A:H2'	30:0:237:G:O6	2.06	0.56
30:0:2377:U:C2	30:0:2378:U:H5	2.23	0.56
30:0:2326:C:H4'	30:0:2412:G:H4'	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:V:55:ARG:O	22:V:59:ILE:HG12	2.06	0.56
30:0:1166:A:H3'	38:0:4377:HOH:O	2.05	0.56
30:0:1517:C:O2	30:0:1670:A:C2	2.59	0.56
30:0:657:G:H2'	30:0:658:C:H6	1.70	0.56
30:0:1481:G:H2'	30:0:1482:A:H8	1.70	0.56
30:0:2661:U:H3	30:0:2812:A:N6	1.97	0.56
30:0:2267:G:O2'	30:0:2268:C:H5'	2.05	0.56
30:0:2128:G:C5	30:0:2129:U:C5	2.94	0.56
2:B:7:ARG:HG2	2:B:7:ARG:HH11	1.70	0.56
19:S:24:LEU:CD1	19:S:68:LEU:HD11	2.36	0.56
30:0:1202:A:H2'	30:0:1203:G:C8	2.40	0.55
30:0:1515:A:H2'	30:0:1516:U:C6	2.41	0.55
30:0:1571:G:H2'	30:0:1624:A:N6	2.21	0.55
3:C:27:ARG:HH22	30:0:657:G:P	2.29	0.55
30:0:1797:A:O3'	30:0:1798:C:C6	2.59	0.55
29:3:70:ARG:HG2	29:3:77:ALA:HB2	1.89	0.55
30:0:1819:G:C2'	30:0:1820:G:H5'	2.36	0.55
2:B:5:ARG:HD2	2:B:8:LYS:HE2	1.88	0.55
19:S:37:VAL:O	19:S:41:VAL:HG23	2.05	0.55
30:0:2840:A:N3	30:0:2840:A:H2'	2.21	0.55
30:0:1188:A:C6	30:0:1189:A:C6	2.94	0.55
29:3:83:TRP:CD1	29:3:85:ALA:HB2	2.41	0.55
4:D:41:LEU:HA	4:D:44:ILE:HG22	1.87	0.55
30:0:2505:G:H2'	30:0:2506:A:C5'	2.32	0.55
30:0:1559:A:H1'	30:0:1562:C:N4	2.21	0.55
30:0:694:A:N3	38:0:3795:HOH:O	2.33	0.55
15:O:37:ARG:HD2	30:0:656:G:OP2	2.06	0.55
30:0:1482:A:H1'	38:0:9425:HOH:O	2.07	0.55
31:9:45:A:N7	31:9:46:C:C5	2.74	0.55
11:K:27:ARG:CD	11:K:60:GLY:HA2	2.34	0.55
30:0:583:C:H2'	30:0:584:U:H6	1.71	0.55
30:0:844:A:N1	30:0:882:A:C5	2.74	0.55
14:N:61:ALA:HB3	14:N:88:ALA:HB2	1.87	0.55
31:9:70:U:H5	38:9:6867:HOH:O	1.90	0.55
30:0:1159:G:H1	30:0:1208:C:N4	2.04	0.55
9:I:111:LEU:HD23	30:0:1163:G:H4'	1.87	0.55
30:0:2407:G:O2'	30:0:2408:A:H5'	2.06	0.55
30:0:1521:C:H2'	30:0:1522:A:C8	2.36	0.55
30:0:542:A:H2'	30:0:543:G:O4'	2.06	0.55
30:0:282:C:HO2'	30:0:283:U:H5'	1.71	0.55
30:0:2372:A:H2'	30:0:2373:U:C6	2.41	0.55
30:0:1246:A:C4	30:0:1248:A:C8	2.94	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1477:C:C5'	30:0:1868:G:C5'	2.84	0.55
1:A:88:ILE:HD13	1:A:100:PRO:HD3	1.89	0.55
30:0:766:A:O2'	30:0:767:A:H5''	2.07	0.55
30:0:2851:G:H2'	30:0:2902:A:N6	2.21	0.55
31:9:110:G:C4	31:9:111:U:C6	2.94	0.55
30:0:298:C:N3	30:0:299:U:C5	2.74	0.55
30:0:1268:C:H2'	30:0:1269:G:H8	1.72	0.55
19:S:24:LEU:HD11	19:S:68:LEU:HD11	1.87	0.55
30:0:1177:A:N3	30:0:1177:A:H2'	2.21	0.55
30:0:1581:A:C5	30:0:1582:C:C5	2.94	0.55
30:0:2451:G:H8	38:0:5131:HOH:O	1.90	0.55
6:F:53:ASP:OD1	6:F:80:GLN:HB2	2.06	0.55
30:0:13:G:H2'	30:0:14:C:H6	1.72	0.55
23:W:132:VAL:HG21	23:W:140:LYS:O	2.06	0.55
30:0:1157:C:H2'	30:0:1158:G:H5'	1.87	0.55
30:0:1174:A:C6	30:0:1201:C:H4'	2.41	0.55
30:0:2471:G:C4	30:0:2472:C:C5	2.94	0.55
29:3:49:ASP:O	29:3:52:PHE:HD1	1.90	0.55
30:0:2804:C:N4	30:0:2805:A:C2	2.74	0.55
1:A:97:ALA:HA	1:A:131:HIS:NE2	2.21	0.55
4:D:135:VAL:HG22	4:D:136:ARG:H	1.71	0.55
30:0:1377:C:H5'	30:0:1377:C:C6	2.41	0.55
26:Z:54:GLU:HG3	38:0:7399:HOH:O	2.06	0.55
10:J:74:ARG:HB3	10:J:74:ARG:HH11	1.71	0.55
30:0:1166:A:N3	30:0:1166:A:H2'	2.21	0.55
29:3:48:ASN:ND2	30:0:169:A:O2'	2.39	0.55
30:0:52:A:H1'	30:0:121:U:O2	2.06	0.55
30:0:1856:C:H1'	38:0:5804:HOH:O	2.06	0.55
11:K:10:GLN:N	11:K:10:GLN:HE21	2.05	0.55
30:0:1928:C:O2'	30:0:1929:G:H5'	2.06	0.55
30:0:1275:C:N3	30:0:1281:C:N4	2.55	0.55
4:D:52:THR:HG21	30:0:2346:C:O2'	2.06	0.55
30:0:2541:U:O2	30:0:2619:UR3:H3U2	2.07	0.55
22:V:8:ILE:HG21	22:V:59:ILE:HG13	1.89	0.55
30:0:2891:A:C2	30:0:2892:G:C4	2.95	0.55
2:B:239:LEU:HD12	30:0:2093:G:OP1	2.06	0.55
31:9:57:A:H2'	31:9:58:G:C5'	2.36	0.55
30:0:1168:C:C4	30:0:1169:U:C5	2.94	0.55
31:9:76:G:C3'	31:9:77:A:H5''	2.28	0.55
30:0:1559:A:O2'	30:0:1561:U:C5	2.59	0.55
30:0:1736:A:H8	30:0:1736:A:O5'	1.90	0.55
26:Z:41:ARG:HD2	30:0:1830:C:O2	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1835:U:H3'	38:0:5521:HOH:O	2.05	0.55
30:0:1894:C:C5	30:0:1940:C:C5	2.94	0.55
30:0:2064:U:H4'	30:0:2653:A:OP1	2.07	0.55
30:0:2607:U:H5'	38:0:5345:HOH:O	2.06	0.55
8:H:9:TYR:O	8:H:59:GLN:HB2	2.07	0.55
10:J:107:ASN:ND2	10:J:109:TYR:H	2.05	0.55
30:0:577:G:N2	30:0:580:A:OP2	2.40	0.55
30:0:2346:C:O5'	30:0:2346:C:C6	2.60	0.55
30:0:534:C:O2'	30:0:535:G:H5'	2.07	0.55
6:F:107:ASP:O	6:F:111:ILE:HG13	2.06	0.55
11:K:130:MET:SD	21:U:26:GLY:HA3	2.46	0.55
1:A:6:GLY:HA3	38:0:4582:HOH:O	2.07	0.55
30:0:1212:C:H2'	30:0:1213:C:O4'	2.06	0.55
1:A:51:ARG:CB	1:A:51:ARG:HH11	2.13	0.55
14:N:147:ILE:HD12	38:9:4707:HOH:O	2.05	0.55
22:V:39:ALA:N	22:V:40:PRO:HD2	2.16	0.55
30:0:1441:G:O2'	30:0:1442:A:H5'	2.06	0.55
1:A:217:ARG:HH11	1:A:229:ALA:HB3	1.71	0.55
30:0:1759:A:C2	30:0:1818:C:N3	2.75	0.55
30:0:2576:A:H4'	30:0:2799:A:N1	2.21	0.55
2:B:223:ARG:HG3	2:B:232:TRP:O	2.07	0.55
30:0:1398:G:H2'	30:0:1399:A:H8	1.71	0.55
30:0:279:C:C2'	30:0:280:C:H5'	2.36	0.55
30:0:1245:C:H3'	30:0:1245:C:H6	1.72	0.55
25:Y:99:ALA:HB2	25:Y:233:TYR:CZ	2.41	0.55
17:Q:61:GLY:HA3	17:Q:73:VAL:CG1	2.36	0.55
30:0:441:A:H8	30:0:441:A:O5'	1.90	0.55
30:0:2514:U:OP1	30:0:2572:G:H1'	2.06	0.55
30:0:2573:G:O2'	30:0:2574:G:H5'	2.06	0.55
31:9:13:A:O2'	31:9:14:G:H5''	2.07	0.55
30:0:1311:G:C5	30:0:1344:G:C6	2.95	0.55
30:0:558:C:O2'	30:0:559:U:H5''	2.07	0.55
30:0:1576:G:C6	30:0:1577:U:C4	2.95	0.55
30:0:1626:A:O2'	30:0:1627:G:H5'	2.05	0.55
30:0:421:C:H4'	30:0:1919:A:N6	2.22	0.55
30:0:1503:U:H2'	30:0:1504:A:O4'	2.07	0.55
6:F:96:ALA:HA	38:F:3111:HOH:O	2.05	0.55
30:0:970:U:C3'	30:0:970:U:C6	2.90	0.55
30:0:941:G:C5	30:0:942:U:C4	2.95	0.55
12:L:92:ASP:HA	12:L:121:ILE:HB	1.87	0.55
30:0:1454:U:H5''	30:0:1455:C:OP2	2.06	0.55
14:N:48:VAL:HG11	14:N:55:ASP:HB3	1.88	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:149:G:C2'	30:0:150:G:H5'	2.37	0.55
13:M:147:LEU:O	13:M:150:ILE:HG22	2.07	0.55
30:0:2840:A:H3'	38:0:7548:HOH:O	2.06	0.55
26:Z:75:GLY:HA3	38:Z:8716:HOH:O	2.06	0.55
2:B:123:ALA:O	2:B:126:GLU:HB2	2.07	0.55
5:E:101:GLU:HB2	5:E:116:THR:O	2.07	0.55
1:A:191:GLY:HA2	1:A:194:MET:HE3	1.88	0.55
30:0:1165:G:H3'	30:0:1166:A:H5'	1.89	0.55
30:0:2318:C:H2'	30:0:2319:C:C6	2.41	0.55
30:0:561:G:H2'	30:0:562:A:C8	2.39	0.55
30:0:1622:G:C2'	30:0:1623:C:H5'	2.37	0.55
2:B:234:ARG:HG3	30:0:1735:C:OP2	2.07	0.55
30:0:2367:A:C5'	38:0:5062:HOH:O	2.55	0.55
30:0:661:G:C4	30:0:686:A:C2	2.94	0.55
30:0:716:G:C6	30:0:717:C:N4	2.75	0.55
30:0:2867:G:H2'	30:0:2868:C:H6	1.72	0.55
13:M:9:ARG:HD2	30:0:380:A:OP2	2.06	0.55
30:0:56:G:N3	30:0:70:A:C2	2.75	0.55
30:0:2799:A:H5'	30:0:2800:A:OP2	2.07	0.55
30:0:325:U:O2	30:0:326:G:C8	2.60	0.55
30:0:731:U:H2'	30:0:732:C:C6	2.41	0.55
30:0:1476:A:O5'	30:0:1476:A:H8	1.89	0.55
30:0:1038:G:O2'	30:0:1039:G:H5'	2.07	0.55
30:0:2710:U:O2'	30:0:2711:U:H5'	2.06	0.55
29:3:9:THR:HG23	29:3:20:HIS:ND1	2.22	0.55
30:0:1562:C:O2	30:0:1562:C:H2'	2.06	0.55
30:0:2019:A:H5'	38:0:4502:HOH:O	2.06	0.55
26:Z:41:ARG:HG2	38:0:7344:HOH:O	2.07	0.55
15:O:51:TYR:CD1	30:0:721:A:H5''	2.42	0.55
16:P:1:THR:O	30:0:1396:C:H1'	2.07	0.55
30:0:10:U:C4	30:0:532:A:H8	2.25	0.55
30:0:62:C:H2'	30:0:63:U:H6	1.72	0.55
18:R:132:ARG:HG2	18:R:133:ALA:N	2.21	0.55
30:0:858:U:H2'	30:0:859:C:H6	1.72	0.55
30:0:1252:A:H1'	38:0:5158:HOH:O	2.06	0.55
23:W:120:PRO:HG3	30:0:1262:C:H1'	1.88	0.55
1:A:54:PRO:HG2	1:A:160:ALA:HB3	1.88	0.55
30:0:1186:C:N4	30:0:1187:U:C4	2.75	0.54
30:0:2327:A:N6	30:0:2372:A:N6	2.55	0.54
30:0:2757:A:H2'	30:0:2758:G:C5'	2.37	0.54
13:M:161:ARG:NH1	30:0:183:A:H1'	2.22	0.54
30:0:1589:G:H5''	38:0:6772:HOH:O	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:T:16:LEU:HB2	30:0:100:C:H4'	1.89	0.54
30:0:624:U:C2	30:0:632:A:C2	2.96	0.54
38:M:8875:HOH:O	30:0:381:G:H5''	2.06	0.54
30:0:2433:A:O5'	30:0:2433:A:H8	1.90	0.54
30:0:1198:U:C6	30:0:1200:A:OP2	2.60	0.54
25:Y:187:VAL:HG13	25:Y:205:ILE:HA	1.90	0.54
3:C:1:MET:HG2	3:C:2:GLN:N	2.17	0.54
16:P:80:ARG:CD	16:P:87:ARG:HH11	2.20	0.54
1:A:167:LYS:HD2	26:Z:53:ILE:HG21	1.88	0.54
1:A:42:VAL:HG23	1:A:78:ASP:O	2.07	0.54
6:F:50:VAL:CG2	6:F:63:ILE:HG21	2.37	0.54
3:C:135:GLU:O	3:C:136:VAL:HB	2.07	0.54
2:B:45:LYS:HD2	2:B:301:VAL:HG12	1.89	0.54
30:0:2836:G:H5''	38:0:5114:HOH:O	2.07	0.54
30:0:2745:C:H5''	38:0:6211:HOH:O	2.06	0.54
31:9:58:G:H3'	31:9:59:C:C5	2.42	0.54
30:0:736:A:C2	30:0:2406:U:H1'	2.42	0.54
29:3:47:GLY:C	30:0:2121:G:H4'	2.27	0.54
30:0:2420:G:C2'	30:0:2421:G:H5'	2.36	0.54
30:0:378:A:H1'	38:0:3483:HOH:O	2.07	0.54
30:0:1244:U:H4'	30:0:1246:A:O4'	2.08	0.54
25:Y:154:ARG:HH22	30:0:1071:G:H4'	1.71	0.54
30:0:2890:A:N3	30:0:2890:A:C2'	2.70	0.54
21:U:51:TRP:HA	21:U:56:ARG:NE	2.22	0.54
30:0:1889:C:H2'	30:0:1890:U:H6	1.70	0.54
18:R:4:TYR:CZ	18:R:15:LYS:HB3	2.42	0.54
1:A:167:LYS:HE2	26:Z:50:VAL:HG13	1.89	0.54
30:0:2278:U:H5'	38:0:9472:HOH:O	2.06	0.54
30:0:2247:C:H6	30:0:2247:C:O5'	1.91	0.54
26:Z:77:GLY:HA2	26:Z:92:SER:HA	1.88	0.54
30:0:1012:A:H8	30:0:1012:A:O5'	1.91	0.54
24:X:23:HIS:HE1	30:0:2044:G:OP1	1.90	0.54
30:0:95:A:C8	30:0:97:G:N1	2.75	0.54
13:M:187:LEU:CD2	13:M:194:GLY:HA3	2.38	0.54
30:0:1997:A:N6	30:0:1998:G:C6	2.76	0.54
19:S:7:HIS:CD2	19:S:27:ALA:HB3	2.42	0.54
30:0:1202:A:C8	30:0:1203:G:C8	2.95	0.54
30:0:2317:C:C5	30:0:2318:C:C4	2.96	0.54
30:0:2397:G:C5	30:0:2465:A:N6	2.75	0.54
30:0:2367:A:H5''	38:0:5062:HOH:O	2.07	0.54
30:0:660:A:H4'	30:0:661:G:O5'	2.08	0.54
30:0:1016:U:H2'	30:0:1017:U:C6	2.40	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1502:A:H2'	38:0:9624:HOH:O	2.08	0.54
30:0:312:U:O2'	30:0:313:U:H5'	2.07	0.54
31:9:65:A:N6	31:9:112:U:C6	2.75	0.54
1:A:230:SER:HB2	30:0:1852:A:H4'	1.89	0.54
30:0:1764:C:O2'	30:0:1765:G:H5'	2.08	0.54
31:9:9:C:OP2	31:9:10:C:H5	1.91	0.54
2:B:41:PHE:CD1	2:B:79:MET:HE2	2.42	0.54
31:9:99:U:H2'	31:9:100:G:C8	2.42	0.54
1:A:110:SER:O	1:A:152:CYS:SG	2.59	0.54
29:3:45:GLY:HA3	38:3:9027:HOH:O	2.06	0.54
16:P:129:GLY:HA2	38:P:641:HOH:O	2.06	0.54
30:0:1384:C:H2'	30:0:1385:G:H8	1.73	0.54
18:R:105:ASP:HB3	18:R:108:ALA:HB3	1.89	0.54
30:0:1185:U:C2	30:0:1186:C:C6	2.95	0.54
29:3:14:CYS:SG	29:3:74:CYS:HB2	2.48	0.54
29:3:3:MET:SD	29:3:83:TRP:HZ2	2.31	0.54
28:2:42:TRP:HZ2	30:0:1438:G:H1'	1.72	0.54
13:M:171:ARG:NH2	30:0:189:A:OP1	2.41	0.54
30:0:614:U:H2'	30:0:615:G:H8	1.72	0.54
12:L:57:VAL:HG21	30:0:2443:C:H5'	1.90	0.54
30:0:951:A:H2'	30:0:952:G:C5'	2.37	0.54
30:0:2426:G:H5'	38:0:9237:HOH:O	2.08	0.54
30:0:68:U:H1'	38:0:6239:HOH:O	2.06	0.54
17:Q:28:ARG:HG2	38:Q:4350:HOH:O	2.05	0.54
1:A:186:TRP:CG	1:A:187:PRO:HA	2.43	0.54
30:0:100:C:C5	30:0:101:C:C5	2.95	0.54
30:0:31:C:H2'	38:0:7589:HOH:O	2.06	0.54
30:0:2117:U:OP2	30:0:2271:G:N2	2.38	0.54
29:3:31:THR:O	30:0:1923:G:H4'	2.07	0.54
30:0:1380:U:H3'	38:0:9693:HOH:O	2.07	0.54
30:0:17:G:O2'	30:0:18:C:H5'	2.08	0.54
6:F:54:VAL:HG13	30:0:263:U:C4	2.43	0.54
30:0:1210:G:C4	30:0:1211:G:C8	2.96	0.54
30:0:105:G:O2'	30:0:106:A:H5'	2.07	0.54
16:P:10:ALA:HA	16:P:13:VAL:HG12	1.89	0.54
30:0:308:U:H5'	30:0:309:C:OP1	2.07	0.54
30:0:325:U:O2'	30:0:326:G:H5'	2.07	0.54
30:0:585:C:H2'	30:0:586:C:C6	2.43	0.54
1:A:135:VAL:HG11	1:A:147:ARG:NH2	2.22	0.54
30:0:807:A:H2'	30:0:808:A:O4'	2.07	0.54
30:0:1453:G:C2	30:0:1675:C:C2	2.95	0.54
30:0:1377:C:H5'	30:0:1377:C:H6	1.73	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:834:G:H4'	30:0:835:U:OP2	2.08	0.54
30:0:1886:A:H4'	38:0:9329:HOH:O	2.07	0.54
30:0:1559:A:N3	30:0:1563:G:O6	2.40	0.54
30:0:1561:U:C5	30:0:1562:C:H5	2.26	0.54
30:0:274:G:N2	30:0:377:C:C2	2.76	0.54
30:0:1494:A:C4	30:0:1495:C:C5	2.96	0.54
30:0:1496:A:H5'	30:0:1572:A:H1'	1.89	0.54
30:0:1871:U:O4'	30:0:1873:G:C8	2.60	0.54
30:0:2852:A:C8	30:0:2902:A:N6	2.76	0.54
30:0:1730:G:H5''	30:0:1731:C:C5	2.37	0.54
1:A:212:PRO:HB2	38:0:4330:HOH:O	2.08	0.54
30:0:98:A:C2'	30:0:99:A:H5'	2.37	0.54
30:0:2713:G:C2'	30:0:2714:U:H5'	2.38	0.54
30:0:1383:U:C4	30:0:1384:C:N4	2.76	0.54
2:B:297:VAL:HB	38:B:9083:HOH:O	2.06	0.54
13:M:158:ARG:HH11	13:M:158:ARG:HG3	1.73	0.54
30:0:492:C:O2'	30:0:493:U:H5'	2.08	0.54
1:A:9:ARG:HG2	1:A:16:PHE:CD2	2.42	0.54
30:0:2327:A:C5	30:0:2328:U:C5	2.96	0.54
30:0:2712:G:H5'	38:0:5173:HOH:O	2.07	0.54
30:0:2314:G:H2'	30:0:2315:C:H5'	1.89	0.54
30:0:2576:A:H4'	30:0:2799:A:C2	2.43	0.54
30:0:100:C:C6	30:0:101:C:H5	2.26	0.54
30:0:1361:C:H2'	30:0:1362:U:C6	2.43	0.54
30:0:1024:G:C4	30:0:1025:C:C6	2.96	0.54
14:N:86:LEU:O	14:N:90:LEU:HG	2.08	0.54
25:Y:219:GLU:HG3	25:Y:220:GLU:H	1.72	0.54
30:0:2269:C:O2'	30:0:2270:G:H5'	2.07	0.54
30:0:1859:A:N7	30:0:1860:U:C5	2.75	0.54
30:0:2497:A:C2	30:0:2524:G:C4	2.95	0.54
30:0:1315:G:H3'	30:0:1316:G:H5'	1.90	0.54
8:H:146:ALA:O	8:H:149:VAL:HG12	2.07	0.54
14:N:113:SER:HB3	38:9:5851:HOH:O	2.08	0.54
30:0:1192:A:H3'	30:0:1193:A:H5'	1.89	0.54
29:3:2:GLN:HG2	30:0:2320:U:O5'	2.08	0.54
31:9:114:G:C4	31:9:115:C:C5	2.95	0.54
14:N:26:LEU:HD13	30:0:2415:A:N3	2.23	0.54
30:0:1641:A:H2'	30:0:1642:A:O4'	2.08	0.54
30:0:67:A:N1	30:0:109:U:H1'	2.23	0.54
30:0:1557:G:O2'	30:0:1558:C:H5'	2.08	0.54
30:0:1503:U:C2'	30:0:1504:A:H5'	2.38	0.54
16:P:2:ASP:OD1	30:0:1396:C:H4'	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1878:G:C1'	38:0:6044:HOH:O	2.54	0.54
20:T:9:LYS:HE3	20:T:13:ARG:NH1	2.22	0.54
2:B:312:ARG:HD3	2:B:315:VAL:HG13	1.89	0.54
30:0:908:A:H4'	38:0:4914:HOH:O	2.08	0.54
30:0:1649:G:O2'	30:0:1650:C:H5'	2.08	0.54
2:B:70:PRO:HG3	30:0:2719:A:C2	2.43	0.54
30:0:239:C:H2'	30:0:240:C:O5'	2.07	0.54
30:0:1063:G:H5''	38:0:9858:HOH:O	2.08	0.54
31:9:30:C:O2	31:9:51:A:H2	1.91	0.54
31:9:59:C:O5'	31:9:59:C:H6	1.91	0.54
30:0:1185:U:H2'	30:0:1186:C:C6	2.43	0.54
30:0:1187:U:C2	30:0:1189:A:OP2	2.61	0.54
30:0:2506:A:H1'	38:0:3726:HOH:O	2.07	0.54
30:0:652:G:C2	30:0:653:U:H1'	2.42	0.54
16:P:91:LYS:O	16:P:95:GLU:HG3	2.08	0.54
2:B:243:ASN:HB2	30:0:2607:U:OP2	2.08	0.54
30:0:2818:A:H2'	30:0:2819:C:H6	1.72	0.54
30:0:1730:G:H4'	30:0:1731:C:C6	2.42	0.54
30:0:2447:A:C5	30:0:2448:U:C5	2.96	0.54
30:0:2278:U:O2	30:0:2470:A:H3'	2.08	0.54
30:0:2246:U:O2'	30:0:2247:C:H5'	2.08	0.54
7:G:64:ASN:HD22	7:G:64:ASN:H	1.55	0.54
30:0:903:U:C5'	38:0:4328:HOH:O	2.56	0.54
27:1:28:HIS:HB3	27:1:31:LYS:HB2	1.90	0.54
2:B:145:HIS:CD2	2:B:146:THR:O	2.61	0.54
14:N:113:SER:HB2	38:N:8850:HOH:O	2.08	0.54
30:0:551:A:C6	30:0:552:A:N1	2.75	0.54
30:0:49:A:H61	30:0:112:G:C2'	2.22	0.54
30:0:889:C:H2'	30:0:890:C:C6	2.43	0.54
4:D:152:PRO:HD2	31:9:57:A:O2'	2.08	0.53
30:0:1195:G:N1	30:0:1196:C:C4	2.76	0.53
30:0:1200:A:H3'	38:0:5689:HOH:O	2.09	0.53
30:0:2716:G:O2'	30:0:2717:C:H5'	2.08	0.53
27:1:18:LYS:HG2	30:0:121:U:O4	2.08	0.53
30:0:790:A:H2'	30:0:791:A:H5'	1.89	0.53
30:0:1928:C:C4	30:0:1929:G:N7	2.76	0.53
24:X:10:VAL:HG12	24:X:11:THR:N	2.23	0.53
30:0:1427:A:H61	30:0:1440:U:C1'	2.21	0.53
3:C:242:GLU:HB2	38:C:8577:HOH:O	2.08	0.53
38:D:198:HOH:O	31:9:59:C:H5'	2.09	0.53
30:0:2562:G:H4'	38:0:4188:HOH:O	2.07	0.53
30:0:282:C:H2'	30:0:283:U:C4'	2.39	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:506:G:N2	30:0:509:A:H5''	2.22	0.53
30:0:2326:C:H2'	30:0:2327:A:H8	1.73	0.53
30:0:2327:A:N6	30:0:2372:A:H61	2.06	0.53
30:0:1921:A:H2'	30:0:1922:A:O4'	2.08	0.53
30:0:1937:U:O2'	30:0:1938:G:H5'	2.08	0.53
30:0:444:C:H2'	30:0:445:U:C6	2.43	0.53
30:0:146:U:C2'	30:0:147:G:H5'	2.38	0.53
30:0:1548:U:O2'	30:0:1549:C:H5'	2.08	0.53
30:0:527:U:H2'	30:0:528:G:C8	2.42	0.53
30:0:2681:A:H4'	30:0:2682:C:OP1	2.08	0.53
10:J:27:ALA:HB1	10:J:87:LEU:CD2	2.38	0.53
24:X:12:ILE:HG21	24:X:33:ILE:HA	1.91	0.53
30:0:1183:C:N4	30:0:1184:C:H41	2.05	0.53
30:0:1518:A:H61	30:0:1667:A:N6	2.07	0.53
30:0:1574:C:H2'	30:0:1575:C:C6	2.41	0.53
30:0:2414:A:H2'	30:0:2415:A:C8	2.43	0.53
38:J:1727:HOH:O	30:0:2065:C:H4'	2.08	0.53
30:0:1294:A:H2'	30:0:1295:G:O4'	2.09	0.53
30:0:1682:A:H5''	38:0:9460:HOH:O	2.08	0.53
30:0:404:G:OP1	30:0:2131:G:H1'	2.09	0.53
30:0:1540:G:O2'	30:0:1541:G:H5'	2.08	0.53
13:M:187:LEU:HD21	13:M:194:GLY:HA3	1.91	0.53
11:K:63:GLU:HG2	38:K:6344:HOH:O	2.08	0.53
23:W:66:LEU:O	23:W:70:ALA:HB3	2.09	0.53
12:L:18:HIS:HD2	30:0:902:G:N7	2.05	0.53
29:3:62:THR:HG22	30:0:2317:C:OP2	2.07	0.53
13:M:159:VAL:CG1	35:M:8818:CL:CL	2.85	0.53
30:0:2650:U:O2'	30:0:2651:C:H5'	2.08	0.53
30:0:2314:G:O2'	30:0:2315:C:H5'	2.09	0.53
30:0:1096:U:H1'	38:0:3468:HOH:O	2.08	0.53
30:0:1387:G:H2'	30:0:1388:U:H6	1.73	0.53
30:0:10:U:H5''	30:0:531:G:O6	2.09	0.53
30:0:940:G:N3	30:0:1032:A:C2	2.77	0.53
30:0:2457:U:H2'	30:0:2458:U:H6	1.72	0.53
30:0:1063:G:H8	38:0:9858:HOH:O	1.92	0.53
2:B:54:VAL:HB	38:B:9093:HOH:O	2.07	0.53
10:J:39:VAL:HG13	10:J:106:GLY:O	2.09	0.53
1:A:70:ALA:HB1	26:Z:89:THR:CG2	2.39	0.53
30:0:1216:G:N2	30:0:1217:G:H1'	2.23	0.53
8:H:143:VAL:HG11	8:H:173:GLU:HB3	1.91	0.53
30:0:2511:A:H3'	30:0:2512:U:C6	2.44	0.53
30:0:2336:G:C2'	30:0:2337:G:H5'	2.38	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:U:42:LEU:HD22	30:0:1810:C:H1'	1.90	0.53
29:3:49:ASP:CB	29:3:52:PHE:HB2	2.36	0.53
30:0:2296:C:H2'	30:0:2297:U:C6	2.43	0.53
30:0:1502:A:H3'	38:0:9624:HOH:O	2.07	0.53
30:0:256:C:H2'	30:0:257:G:O4'	2.09	0.53
30:0:1634:G:C3'	38:0:3870:HOH:O	2.56	0.53
12:L:120:LEU:HD12	12:L:133:VAL:HG21	1.91	0.53
1:A:127:GLN:HB3	1:A:139:LYS:HB3	1.91	0.53
30:0:1156:C:C3'	30:0:1156:C:C6	2.91	0.53
26:Z:70:ARG:HA	38:Z:8731:HOH:O	2.07	0.53
29:3:13:HIS:CD2	29:3:76:LYS:HB2	2.44	0.53
30:0:1667:A:O2'	30:0:1668:U:H5'	2.09	0.53
30:0:1561:U:H2'	30:0:1562:C:O5'	2.09	0.53
30:0:2326:C:H4'	30:0:2412:G:O4'	2.09	0.53
15:O:25:VAL:HG23	15:O:26:TRP:N	2.23	0.53
24:X:85:VAL:HG12	24:X:86:GLU:N	2.24	0.53
7:G:12:ILE:HG21	30:0:1150:A:N7	2.23	0.53
30:0:2911:C:O2'	30:0:2912:C:H5'	2.09	0.53
5:E:154:ILE:HD11	5:E:157:LYS:HE2	1.90	0.53
30:0:1485:A:H1'	38:0:9173:HOH:O	2.07	0.53
6:F:59:ILE:CD1	30:0:263:U:C2	2.91	0.53
8:H:41:LYS:HE2	8:H:45:ASP:HB3	1.91	0.53
30:0:212:A:O4'	30:0:214:U:C6	2.61	0.53
30:0:2657:G:H1'	38:0:9492:HOH:O	2.08	0.53
13:M:81:ARG:HG3	30:0:161:A:OP1	2.08	0.53
30:0:364:U:H2'	30:0:365:G:O4'	2.08	0.53
30:0:1496:A:H2'	30:0:1497:G:O4'	2.08	0.53
30:0:2781:U:H2'	30:0:2782:G:C5'	2.38	0.53
30:0:1889:C:C5	30:0:1890:U:C5	2.96	0.53
3:C:236:THR:HG22	3:C:239:ALA:H	1.74	0.53
30:0:1434:A:H4'	30:0:1435:U:H5	1.74	0.53
30:0:2387:U:H2'	30:0:2388:C:H6	1.73	0.53
18:R:60:LYS:HB2	38:R:8947:HOH:O	2.08	0.53
2:B:202:VAL:HG11	2:B:301:VAL:HG22	1.90	0.53
30:0:1314:U:H5''	30:0:1316:G:O4'	2.09	0.53
20:T:47:THR:HB	20:T:100:ASP:HB3	1.89	0.53
38:A:8979:HOH:O	26:Z:91:GLY:HA3	2.08	0.53
30:0:1400:C:C2'	30:0:1401:G:H5'	2.39	0.53
3:C:84:VAL:HG12	3:C:85:LYS:HG2	1.90	0.53
30:0:1369:A:H5'	38:0:7739:HOH:O	2.09	0.53
29:3:51:LYS:HB2	38:3:9030:HOH:O	2.08	0.53
21:U:56:ARG:CZ	30:0:2890:A:H1'	2.39	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:K:9:THR:HG23	38:0:3270:HOH:O	2.09	0.53
30:0:1323:G:N2	30:0:1334:C:N3	2.50	0.53
30:0:2859:C:H42	30:0:2898:G:H1	1.57	0.53
30:0:2902:A:H2'	30:0:2902:A:N3	2.23	0.53
13:M:27:ARG:HH12	13:M:44:THR:CG2	2.21	0.53
30:0:256:C:C2'	30:0:257:G:H5'	2.39	0.53
31:9:110:G:C6	31:9:111:U:C5	2.97	0.53
18:R:39:THR:HG22	18:R:41:GLY:H	1.73	0.53
31:9:61:C:H2'	31:9:62:A:H8	1.74	0.53
5:E:166:VAL:HG12	38:E:3134:HOH:O	2.08	0.53
2:B:51:VAL:CG2	2:B:327:VAL:HG13	2.39	0.53
3:C:103:ASN:HB3	38:0:9119:HOH:O	2.08	0.53
17:Q:95:GLU:HA	30:0:949:U:H4'	1.90	0.53
11:K:33:SER:HB2	11:K:54:THR:HB	1.90	0.53
30:0:1066:U:H2'	30:0:1067:A:C8	2.44	0.53
38:C:8545:HOH:O	30:0:457:U:H4'	2.08	0.53
22:V:12:THR:HG22	22:V:15:GLU:HG3	1.91	0.53
30:0:1205:U:O2'	30:0:1206:U:H5''	2.08	0.53
30:0:265:U:C2	30:0:266:G:C8	2.97	0.53
30:0:559:U:H2'	30:0:560:U:O4'	2.09	0.53
31:9:38:A:H2'	31:9:39:U:C6	2.43	0.53
30:0:2735:U:C2	30:0:2736:U:C5	2.97	0.53
30:0:105:G:H1'	38:0:5120:HOH:O	2.08	0.53
30:0:106:A:H2'	30:0:107:U:C5'	2.38	0.53
30:0:1423:C:C2'	30:0:1424:A:H5'	2.38	0.53
30:0:420:U:H2'	30:0:421:C:H6	1.72	0.53
1:A:167:LYS:HE3	26:Z:50:VAL:HA	1.91	0.53
30:0:314:G:C2	30:0:317:A:C8	2.96	0.53
30:0:590:A:C2'	30:0:591:A:H5'	2.39	0.53
14:N:63:SER:HB2	14:N:75:THR:HB	1.91	0.53
13:M:193:LYS:HB3	30:0:392:U:C5'	2.39	0.53
30:0:488:U:H2'	38:0:3983:HOH:O	2.09	0.53
30:0:1141:U:O2'	30:0:1142:C:H5'	2.09	0.53
30:0:1191:A:H3'	30:0:1192:A:H5''	1.89	0.53
30:0:1202:A:C8	30:0:1203:G:N7	2.77	0.53
30:0:1518:A:N6	30:0:1667:A:H61	2.07	0.53
29:3:64:LYS:HA	29:3:84:ARG:HA	1.90	0.53
27:1:20:ARG:HA	30:0:121:U:C5	2.43	0.53
30:0:1119:G:C5	30:0:1243:C:C4	2.97	0.53
30:0:2770:G:H2'	30:0:2771:G:O4'	2.08	0.53
8:H:59:GLN:HE21	8:H:129:ARG:HG2	1.73	0.53
30:0:1009:U:H5	38:0:6019:HOH:O	1.92	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2589:U:H2'	30:0:2590:U:C6	2.44	0.53
31:9:24:U:H3'	31:9:25:G:H5'	1.91	0.53
30:0:2402:A:C2'	30:0:2403:C:H5'	2.39	0.53
30:0:334:G:C5	30:0:335:U:C5	2.96	0.53
30:0:255:A:C5	30:0:256:C:C5	2.97	0.53
30:0:535:G:C5	30:0:2063:U:C4	2.97	0.53
30:0:2433:A:H2	30:0:2458:U:H3	1.57	0.53
5:E:1:PRO:HD2	5:E:53:GLU:O	2.09	0.53
2:B:254:GLN:HB3	38:0:3539:HOH:O	2.08	0.53
31:9:83:G:C2	31:9:84:G:C8	2.97	0.53
30:0:1197:G:H1'	30:0:1203:G:N2	2.24	0.52
29:3:60:LYS:HG3	29:3:61:PRO:HD2	1.90	0.52
30:0:191:A:N6	30:0:236:A:C2	2.77	0.52
30:0:2377:U:N3	30:0:2378:U:H5	2.06	0.52
30:0:1774:G:H2'	30:0:1775:A:C5'	2.39	0.52
30:0:661:G:C5	30:0:686:A:C2	2.97	0.52
14:N:22:GLN:O	14:N:26:LEU:HB2	2.08	0.52
15:O:24:ALA:HB3	30:0:710:G:OP1	2.08	0.52
4:D:76:ARG:CZ	31:9:44:A:H1'	2.40	0.52
30:0:2651:C:H2'	30:0:2652:U:O4'	2.08	0.52
30:0:2792:A:N3	30:0:2792:A:H2'	2.23	0.52
30:0:1556:G:O2'	30:0:1557:G:H5'	2.09	0.52
30:0:1585:C:H3'	30:0:1585:C:H6	1.74	0.52
2:B:76:THR:H	2:B:294:TYR:HA	1.74	0.52
30:0:1393:A:C2	30:0:1726:G:H4'	2.44	0.52
30:0:537:G:C6	30:0:620:A:C8	2.97	0.52
3:C:103:ASN:ND2	30:0:663:C:H5''	2.24	0.52
30:0:1917:G:C5	30:0:1918:U:C5	2.97	0.52
30:0:2878:U:H2'	30:0:2879:A:O4'	2.08	0.52
30:0:2292:C:C2	30:0:2463:A:H4'	2.44	0.52
30:0:1523:G:C4	30:0:1524:U:C5	2.98	0.52
30:0:154:C:H2'	30:0:155:C:C6	2.38	0.52
30:0:2377:U:C2	30:0:2378:U:C5	2.97	0.52
30:0:1679:C:H2'	30:0:1679:C:O2	2.08	0.52
30:0:256:C:H2'	30:0:257:G:H5'	1.89	0.52
30:0:473:A:O2'	30:0:890:C:H5'	2.10	0.52
30:0:2292:C:O2	30:0:2463:A:H4'	2.09	0.52
29:3:17:HIS:CG	30:0:2409:C:H4'	2.43	0.52
30:0:1303:C:O2	30:0:1353:C:H1'	2.09	0.52
23:W:129:LYS:HE3	30:0:1099:G:OP1	2.08	0.52
30:0:1343:C:H2'	30:0:1344:G:O5'	2.09	0.52
3:C:127:ARG:CZ	3:C:225:PRO:HG2	2.39	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:3:34:LYS:HB2	29:3:37:ASP:HB2	1.92	0.52
30:0:1769:C:C2'	30:0:1770:U:H5'	2.40	0.52
30:0:1150:A:H8	38:0:4681:HOH:O	1.93	0.52
30:0:70:A:N3	30:0:70:A:H2'	2.23	0.52
30:0:2646:G:C5	30:0:2647:C:C5	2.98	0.52
30:0:579:G:H2'	30:0:580:A:C8	2.45	0.52
30:0:1682:A:O2'	30:0:1683:G:H5''	2.08	0.52
30:0:536:A:C2	30:0:2075:G:N3	2.78	0.52
30:0:903:U:H5'	38:0:4328:HOH:O	2.08	0.52
23:W:117:ARG:HH22	30:0:1264:U:P	2.32	0.52
5:E:80:TRP:O	5:E:134:SER:HA	2.09	0.52
30:0:1157:C:H2'	30:0:1158:G:C5'	2.39	0.52
30:0:1168:C:C2'	30:0:1169:U:H5'	2.39	0.52
15:O:50:ARG:HD2	15:O:51:TYR:CE2	2.45	0.52
15:O:59:VAL:HG23	15:O:111:VAL:CG2	2.40	0.52
30:0:2727:A:N1	30:0:2756:U:C2	2.77	0.52
30:0:1279:U:C2'	30:0:1279:U:O2	2.58	0.52
30:0:182:G:O2'	30:0:183:A:H5'	2.10	0.52
24:X:73:ARG:NH1	24:X:88:GLU:HA	2.22	0.52
4:D:54:ALA:HB2	4:D:69:ILE:HD11	1.90	0.52
1:A:191:GLY:HA2	1:A:194:MET:CE	2.39	0.52
30:0:462:A:N6	30:0:477:A:C2	2.78	0.52
8:H:72:ALA:HB2	8:H:156:ALA:HB2	1.91	0.52
4:D:45:THR:HB	4:D:75:LEU:HD21	1.91	0.52
30:0:1337:G:C5	30:0:1338:U:C5	2.98	0.52
3:C:42:ARG:NH1	30:0:675:U:O2'	2.43	0.52
30:0:905:C:H3'	38:0:5139:HOH:O	2.10	0.52
30:0:1375:A:H2'	30:0:1376:G:C5'	2.26	0.52
15:O:25:VAL:HG23	15:O:26:TRP:H	1.75	0.52
29:3:67:LEU:HB2	29:3:69:TYR:CE1	2.45	0.52
29:3:49:ASP:H	29:3:53:SER:HG	1.58	0.52
30:0:1150:A:H3'	30:0:1151:G:C5'	2.39	0.52
30:0:2250:G:C6	30:0:2251:G:C6	2.98	0.52
30:0:324:G:C2	30:0:325:U:C5	2.98	0.52
30:0:257:G:N2	30:0:258:G:N3	2.58	0.52
30:0:1634:G:C2'	38:0:3870:HOH:O	2.57	0.52
30:0:1909:A:H4'	38:0:3505:HOH:O	2.08	0.52
30:0:1531:U:C2	30:0:1661:A:C2	2.98	0.52
30:0:1541:G:O2'	30:0:1542:G:H5'	2.09	0.52
2:B:72:THR:HB	38:B:9083:HOH:O	2.10	0.52
13:M:61:ILE:HD12	13:M:61:ILE:N	2.25	0.52
30:0:407:A:H2'	30:0:408:A:C8	2.45	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:R:76:ASP:OD2	30:0:2087:C:H1'	2.10	0.52
30:0:692:A:H2'	30:0:693:A:O4'	2.10	0.52
30:0:912:A:C4	30:0:1294:A:C2	2.98	0.52
21:U:56:ARG:NH1	30:0:2890:A:C8	2.78	0.52
30:0:2027:U:O2'	30:0:2028:U:H5'	2.10	0.52
30:0:536:A:H2	30:0:2075:G:N3	2.07	0.52
12:L:6:ARG:NH1	30:0:1299:G:N7	2.57	0.52
30:0:187:A:C5	30:0:188:C:C5	2.97	0.52
30:0:2054:A:N3	30:0:2054:A:H2'	2.25	0.52
6:F:118:LEU:O	6:F:119:ARG:HB3	2.10	0.52
30:0:2579:G:O2'	30:0:2580:G:H5'	2.10	0.52
30:0:594:C:C4	30:0:595:U:C5	2.98	0.52
30:0:682:A:H2'	30:0:683:G:O4'	2.09	0.52
30:0:1642:A:N7	30:0:1643:C:C4	2.78	0.52
21:U:44:ARG:HB3	21:U:49:LEU:HD11	1.92	0.52
30:0:2723:G:O2'	30:0:2724:U:H5'	2.09	0.52
30:0:301:C:H2'	30:0:301:C:O2	2.09	0.52
30:0:312:U:C2	30:0:320:G:N2	2.77	0.52
1:A:70:ALA:HB1	26:Z:89:THR:HG21	1.91	0.52
2:B:109:LEU:HD11	2:B:113:LEU:HD12	1.92	0.52
12:L:17:SER:HB3	12:L:20:ASN:OD1	2.10	0.52
1:A:36:ASP:HA	1:A:83:GLY:HA3	1.90	0.52
10:J:86:MET:HE2	30:0:1241:G:N3	2.25	0.52
30:0:597:A:H2'	30:0:598:C:C6	2.45	0.52
30:0:2416:G:H2'	30:0:2417:C:C6	2.45	0.52
30:0:790:A:H2'	30:0:791:A:C5'	2.40	0.52
20:T:71:VAL:HG13	20:T:91:LEU:O	2.09	0.52
30:0:2727:A:C6	30:0:2756:U:C4	2.98	0.52
23:W:125:HIS:HE1	38:W:3071:HOH:O	1.92	0.52
6:F:50:VAL:HG13	6:F:60:VAL:HG11	1.91	0.52
19:S:73:ASP:O	19:S:77:VAL:HG23	2.09	0.52
30:0:2345:A:H3'	30:0:2346:C:C5	2.44	0.52
22:V:11:MET:HB3	22:V:15:GLU:HB2	1.91	0.52
2:B:280:VAL:HG12	2:B:281:ASP:N	2.25	0.52
30:0:285:A:H2'	30:0:286:U:O4'	2.10	0.52
5:E:21:THR:HA	5:E:30:THR:HA	1.92	0.52
30:0:2549:C:O2'	30:0:2550:U:H5'	2.10	0.52
29:3:13:HIS:CB	29:3:74:CYS:SG	2.91	0.52
13:M:83:SER:CB	29:3:47:GLY:HA3	2.39	0.52
30:0:287:C:H3'	30:0:287:C:H6	1.73	0.52
30:0:2237:G:H1'	30:0:2238:A:C8	2.45	0.52
30:0:517:U:C2'	30:0:518:G:H5'	2.40	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:J:127:ILE:HG22	35:J:8801:CL:CL	2.47	0.52
11:K:43:ARG:O	30:0:2583:A:H4'	2.10	0.52
30:0:2011:A:H4'	30:0:2012:U:O5'	2.10	0.52
30:0:1649:G:H5'	38:0:9906:HOH:O	2.09	0.52
1:A:54:PRO:HD3	26:Z:77:GLY:HA3	1.91	0.52
30:0:1400:C:H2'	30:0:1401:G:H5'	1.92	0.52
31:9:31:C:O2'	31:9:32:G:H5'	2.09	0.52
30:0:788:A:H4'	38:0:6882:HOH:O	2.09	0.52
8:H:168:VAL:HG13	38:H:216:HOH:O	2.10	0.52
2:B:258:GLY:H	2:B:260:HIS:CE1	2.28	0.52
2:B:260:HIS:HE1	38:B:9063:HOH:O	1.93	0.52
30:0:1189:A:H1'	30:0:1209:C:O4'	2.10	0.52
13:M:87:GLY:HA3	13:M:91:ILE:HD12	1.92	0.52
31:9:105:A:H2'	31:9:106:U:H5'	1.92	0.52
30:0:700:A:C5'	30:0:701:U:H5'	2.40	0.52
30:0:1706:G:C6	30:0:1707:G:N1	2.78	0.52
30:0:2032:U:C2'	30:0:2033:G:C5'	2.88	0.52
30:0:2363:G:C6	30:0:2364:A:N7	2.78	0.52
30:0:418:C:H2'	30:0:419:A:H8	1.74	0.52
1:A:42:VAL:HG21	1:A:74:VAL:HG12	1.90	0.52
30:0:1764:C:H2'	30:0:1765:G:O4'	2.10	0.52
30:0:2128:G:H2'	30:0:2129:U:O4'	2.10	0.52
30:0:1904:A:C2	30:0:1905:U:H1'	2.45	0.52
30:0:643:A:H2	30:0:902:G:N3	2.08	0.52
30:0:564:G:N2	30:0:593:A:OP2	2.43	0.52
2:B:320:GLN:NE2	2:B:321:PRO:HD2	2.25	0.52
38:B:8993:HOH:O	30:0:2547:C:H1'	2.10	0.52
26:Z:45:VAL:HA	26:Z:48:ARG:HB3	1.92	0.52
30:0:2754:G:H2'	30:0:2755:G:O4'	2.09	0.52
3:C:175:LYS:HE3	38:0:6736:HOH:O	2.09	0.52
30:0:1183:C:C2	30:0:1184:C:C5	2.98	0.51
30:0:1165:G:C1'	30:0:1174:A:H1'	2.15	0.51
30:0:958:G:H2'	30:0:959:C:C6	2.45	0.51
30:0:1244:U:H6	38:0:4793:HOH:O	1.93	0.51
29:3:68:LYS:HE2	29:3:70:ARG:NH1	2.25	0.51
30:0:1424:A:C2	30:0:1441:G:C2	2.98	0.51
30:0:1947:G:C5	30:0:1948:G:N7	2.78	0.51
30:0:962:C:H2'	30:0:963:C:C5'	2.40	0.51
6:F:28:ALA:HB3	6:F:99:THR:O	2.10	0.51
10:J:56:LYS:O	10:J:60:ARG:HG3	2.09	0.51
30:0:110:C:H1'	38:0:6615:HOH:O	2.10	0.51
26:Z:96:GLU:OE1	26:Z:101:LYS:HG2	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:801:U:O5'	30:0:801:U:H6	1.93	0.51
25:Y:203:VAL:HG12	25:Y:228:VAL:HA	1.92	0.51
18:R:150:PRO:CB	18:R:150:PRO:CG	2.85	0.51
2:B:207:LYS:HG3	30:0:2717:C:OP1	2.10	0.51
30:0:1312:G:C6	30:0:1343:C:N3	2.79	0.51
30:0:2421:G:H4'	38:0:4740:HOH:O	2.09	0.51
30:0:1545:C:H2'	30:0:1546:G:O4'	2.09	0.51
30:0:2255:A:C2	30:0:2256:G:C4	2.98	0.51
30:0:2765:C:H2'	30:0:2766:A:C8	2.45	0.51
30:0:2073:G:OP2	30:0:2490:A:H5'	2.10	0.51
30:0:116:G:C1'	30:0:129:A:C4	2.93	0.51
30:0:2747:C:H3'	38:0:3844:HOH:O	2.09	0.51
30:0:2752:C:C2'	30:0:2753:G:H5'	2.40	0.51
13:M:120:VAL:HG11	13:M:130:GLU:HG3	1.90	0.51
30:0:152:A:H1'	30:0:440:C:O2'	2.10	0.51
27:1:37:CYS:SG	27:1:39:PHE:HB2	2.51	0.51
8:H:44:ASP:HA	8:H:170:ARG:HH12	1.76	0.51
30:0:1779:A:H2'	30:0:1780:G:H5'	1.92	0.51
30:0:1619:G:H2'	30:0:1620:C:O4'	2.09	0.51
30:0:1531:U:C2	30:0:1661:A:N1	2.78	0.51
12:L:11:ARG:HG2	12:L:12:THR:HG23	1.93	0.51
30:0:2658:G:H4'	30:0:2842:G:C8	2.45	0.51
24:X:29:ALA:CB	24:X:66:THR:HG21	2.41	0.51
26:Z:97:THR:O	26:Z:101:LYS:HG3	2.09	0.51
30:0:1754:A:H2'	30:0:1755:A:O4'	2.10	0.51
31:9:35:C:H5''	38:9:4078:HOH:O	2.10	0.51
29:3:30:GLN:HB3	38:3:9055:HOH:O	2.09	0.51
15:O:96:VAL:HA	38:O:4258:HOH:O	2.10	0.51
30:0:2383:G:C6	30:0:2384:U:N3	2.78	0.51
30:0:369:G:O2'	30:0:370:G:H5'	2.10	0.51
30:0:2102:G:N2	30:0:2104:C:C2	2.78	0.51
30:0:57:C:C2'	30:0:58:C:H5'	2.39	0.51
30:0:1096:U:O2	30:0:1261:A:C2	2.64	0.51
30:0:300:U:C6	30:0:301:C:H5	2.27	0.51
1:A:95:PRO:HG2	1:A:98:GLU:HG2	1.91	0.51
30:0:1388:U:H2'	30:0:1389:G:O4'	2.10	0.51
24:X:71:ARG:CB	24:X:88:GLU:HG2	2.40	0.51
4:D:135:VAL:HG22	4:D:136:ARG:N	2.24	0.51
30:0:353:G:H2'	30:0:354:A:C8	2.45	0.51
12:L:121:ILE:HG12	12:L:141:GLU:HB2	1.91	0.51
30:0:1791:U:O2'	30:0:1792:C:H5'	2.10	0.51
3:C:4:THR:HA	3:C:15:GLU:CB	2.41	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1540:G:C6	30:0:1646:G:C5	2.98	0.51
30:0:1268:C:O2'	30:0:1269:G:H5'	2.10	0.51
30:0:1915:U:H2'	30:0:1916:C:C6	2.46	0.51
30:0:2097:G:N2	30:0:2098:C:H1'	2.25	0.51
30:0:1637:A:C2	30:0:1638:U:C2	2.98	0.51
30:0:87:C:O2'	30:0:88:G:H5''	2.11	0.51
30:0:1947:G:N2	30:0:1966:U:C2	2.78	0.51
30:0:300:U:C4	30:0:301:C:H5	2.28	0.51
30:0:35:U:O2'	30:0:36:C:H5'	2.10	0.51
30:0:1583:U:C2'	30:0:1584:C:H5'	2.40	0.51
30:0:77:G:C2'	30:0:78:G:H5'	2.39	0.51
30:0:623:U:O2'	30:0:624:U:H5'	2.10	0.51
29:3:60:LYS:HD2	29:3:61:PRO:HD2	1.92	0.51
29:3:24:LYS:HE3	29:3:90:PHE:CE1	2.46	0.51
26:Z:41:ARG:HB3	38:0:5660:HOH:O	2.11	0.51
30:0:1130:U:H5'	38:0:7572:HOH:O	2.11	0.51
28:2:49:GLU:OE1	30:0:120:A:H2	1.92	0.51
30:0:1592:G:C5	30:0:1593:C:C4	2.99	0.51
30:0:2032:U:C2'	30:0:2033:G:H5''	2.41	0.51
1:A:86:ALA:HB3	1:A:94:LEU:HB3	1.92	0.51
16:P:27:ARG:O	16:P:31:ILE:HG13	2.10	0.51
30:0:1584:C:O2	30:0:1612:A:C2	2.64	0.51
30:0:1982:C:H3'	30:0:1983:C:H6	1.75	0.51
30:0:1059:G:C8	30:0:2491:G:H4'	2.46	0.51
30:0:1304:U:H2'	30:0:1305:C:C6	2.44	0.51
14:N:42:HIS:HA	14:N:75:THR:O	2.11	0.51
30:0:188:C:O2	30:0:188:C:H2'	2.10	0.51
2:B:215:VAL:HA	2:B:220:VAL:HG22	1.93	0.51
7:G:13:PRO:HB2	7:G:15:TRP:CD1	2.45	0.51
30:0:1160:G:H2'	38:0:5570:HOH:O	2.10	0.51
30:0:1524:U:O5'	30:0:1524:U:H6	1.93	0.51
30:0:2407:G:C2	30:0:2408:A:C4	2.99	0.51
30:0:1168:C:H2'	30:0:1169:U:H5'	1.92	0.51
30:0:161:A:H2'	30:0:162:C:C6	2.46	0.51
30:0:170:U:C5	30:0:171:C:C6	2.99	0.51
30:0:509:A:C6	30:0:511:A:N6	2.79	0.51
30:0:2375:A:H2'	30:0:2376:C:H6	1.75	0.51
30:0:707:C:C2	30:0:708:A:C8	2.98	0.51
30:0:1132:A:H61	30:0:1229:C:H2'	1.72	0.51
21:U:56:ARG:CD	30:0:2890:A:C8	2.89	0.51
30:0:1745:G:H22	30:0:2033:G:H5'	1.75	0.51
30:0:422:G:C6	30:0:2446:G:C6	2.99	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:83:ALA:HA	30:0:1361:C:H1'	1.92	0.51
30:0:20:G:C2'	30:0:21:G:O5'	2.58	0.51
30:0:939:A:C2	30:0:1027:G:N3	2.79	0.51
30:0:1819:G:H2'	30:0:1820:G:H4'	1.93	0.51
30:0:723:G:H2'	30:0:724:G:C8	2.45	0.51
2:B:41:PHE:CE1	2:B:79:MET:HG3	2.45	0.51
2:B:48:MET:HB2	30:0:2719:A:OP1	2.10	0.51
30:0:2642:G:H4'	38:0:9613:HOH:O	2.09	0.51
30:0:1211:G:H2'	30:0:1212:C:C6	2.46	0.51
30:0:1195:G:N2	30:0:1205:U:C2	2.78	0.51
29:3:1:MET:HA	30:0:2320:U:C5'	2.41	0.51
29:3:6:ARG:HG2	29:3:21:GLU:HG2	1.91	0.51
29:3:60:LYS:CG	29:3:61:PRO:HD2	2.40	0.51
31:9:88:G:C2	31:9:89:C:C5	2.99	0.51
30:0:1701:A:H1'	30:0:1710:A:N7	2.26	0.51
31:9:39:U:H3	31:9:42:C:H5''	1.76	0.51
30:0:1149:U:C5'	30:0:1151:G:H5'	2.41	0.51
17:Q:11:ARG:HG3	30:0:2363:G:O2'	2.11	0.51
30:0:18:C:H2'	30:0:19:U:H6	1.76	0.51
1:A:118:PHE:HB3	1:A:140:LEU:HD22	1.92	0.51
16:P:7:LYS:HD2	16:P:21:VAL:HG13	1.93	0.51
30:0:483:C:N4	30:0:506:G:O2'	2.44	0.51
14:N:25:ARG:HG2	30:0:2416:G:O2'	2.11	0.51
30:0:2644:C:H5	38:0:7010:HOH:O	1.93	0.51
30:0:68:U:C4	30:0:107:U:H4'	2.46	0.51
29:3:33:MET:CG	30:0:1922:A:H2'	2.41	0.51
30:0:302:A:H2'	30:0:303:C:C5'	2.41	0.51
3:C:205:ARG:NH2	30:0:347:A:O2'	2.44	0.51
30:0:2061:C:O2'	30:0:2062:A:H5'	2.11	0.51
30:0:1042:U:O2'	30:0:1043:C:H5'	2.10	0.51
30:0:960:G:N3	30:0:960:G:C2'	2.72	0.51
23:W:131:PRO:O	23:W:136:GLY:N	2.41	0.51
30:0:2842:G:H2'	30:0:2843:A:C5'	2.39	0.51
30:0:174:A:O4'	30:0:176:U:C6	2.63	0.51
31:9:12:C:H5'	31:9:70:U:O4'	2.09	0.51
30:0:642:G:N2	38:0:9079:HOH:O	2.42	0.51
2:B:329:TYR:CE2	21:U:15:PRO:HG2	2.45	0.51
30:0:2276:U:H2'	30:0:2277:U:C6	2.46	0.51
30:0:1514:C:O2'	30:0:1515:A:H5'	2.10	0.51
30:0:2505:G:O2'	30:0:2506:A:H5'	2.10	0.51
3:C:176:ALA:HB2	30:0:1343:C:C5	2.46	0.51
30:0:57:C:N3	30:0:89:G:N2	2.55	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:2:41:HIS:CD2	28:2:44:ARG:H	2.18	0.51
16:P:99:ARG:HE	30:0:1597:A:H5'	1.76	0.51
1:A:199:HIS:CE1	1:A:225:VAL:HG11	2.46	0.51
30:0:1391:G:H2'	30:0:1392:A:H5'	1.92	0.51
30:0:1377:C:H1'	38:0:3734:HOH:O	2.11	0.51
20:T:82:THR:HG21	30:0:488:U:O2'	2.11	0.51
30:0:2356:A:H2'	30:0:2357:G:O4'	2.10	0.51
14:N:37:ARG:CD	35:N:8807:CL:CL	2.90	0.51
38:D:189:HOH:O	31:9:58:G:H1'	2.11	0.51
29:3:1:MET:HE3	30:0:2320:U:C5	2.46	0.51
30:0:546:C:O5'	30:0:546:C:H6	1.94	0.51
30:0:1835:U:H6	38:0:5521:HOH:O	1.93	0.51
7:G:16:LYS:NZ	7:G:63:ARG:HH12	2.07	0.51
30:0:347:A:O2'	30:0:348:C:H5'	2.10	0.51
30:0:2831:C:H2'	30:0:2832:C:O4'	2.11	0.51
30:0:2852:A:O4'	30:0:2853:U:H5	1.94	0.51
18:R:92:LEU:HD23	18:R:145:LEU:HD21	1.93	0.51
30:0:727:G:H3'	30:0:728:C:C6	2.46	0.51
6:F:36:THR:HG23	6:F:97:ALA:HB2	1.93	0.51
30:0:1926:G:C4	30:0:1927:A:C8	2.99	0.51
8:H:53:ILE:HB	8:H:165:ARG:HB2	1.93	0.51
30:0:2050:G:O2'	30:0:2051:G:H5'	2.11	0.51
4:D:17:ARG:CZ	4:D:137:PRO:HA	2.41	0.51
30:0:1859:A:C5	30:0:1860:U:C5	2.98	0.51
12:L:26:HIS:HB2	38:L:8811:HOH:O	2.09	0.51
30:0:604:G:H4'	30:0:605:C:O5'	2.09	0.51
12:L:117:GLU:HA	38:L:8857:HOH:O	2.11	0.51
31:9:92:G:C6	31:9:93:A:N6	2.79	0.50
30:0:1188:A:C8	30:0:1189:A:C2	2.99	0.50
30:0:1666:C:C2	30:0:1667:A:C8	2.98	0.50
30:0:790:A:H1'	30:0:1710:A:H2'	1.93	0.50
21:U:56:ARG:CD	30:0:2890:A:H1'	2.41	0.50
30:0:98:A:H2'	30:0:99:A:H5'	1.93	0.50
30:0:1878:G:O2'	30:0:1879:U:P	2.69	0.50
23:W:4:LEU:HD23	23:W:54:PHE:CB	2.41	0.50
30:0:722:G:H2'	30:0:723:G:H5'	1.93	0.50
30:0:2842:G:C2'	30:0:2843:A:H5'	2.41	0.50
30:0:1245:C:H3'	30:0:1245:C:C6	2.46	0.50
26:Z:102:THR:HG23	26:Z:105:ARG:HD3	1.92	0.50
16:P:16:VAL:HG12	16:P:20:ARG:HB2	1.93	0.50
11:K:105:ARG:HH11	11:K:105:ARG:HG3	1.75	0.50
30:0:2038:A:O2'	30:0:2039:A:H5'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:2:2:LYS:HG3	30:0:1486:A:C5	2.46	0.50
38:L:8903:HOH:O	25:Y:147:ARG:HG3	2.10	0.50
30:0:2622:A:H1'	38:0:4060:HOH:O	2.11	0.50
30:0:616:U:C4	30:0:617:C:C4	2.99	0.50
30:0:2015:A:H2'	30:0:2016:U:H6	1.76	0.50
29:3:60:LYS:CD	29:3:61:PRO:HD2	2.41	0.50
30:0:1573:A:N7	30:0:1574:C:C2	2.79	0.50
30:0:2088:C:H2'	30:0:2089:A:H8	1.77	0.50
30:0:2859:C:N4	30:0:2898:G:H1	2.09	0.50
30:0:1908:G:H1'	30:0:1931:A:N6	2.25	0.50
30:0:99:A:H2'	30:0:100:C:H5'	1.92	0.50
21:U:22:VAL:HA	21:U:27:ALA:O	2.11	0.50
28:2:36:ASN:HD22	28:2:39:ARG:CG	2.24	0.50
2:B:320:GLN:HE21	2:B:321:PRO:HD2	1.76	0.50
30:0:2642:G:C6	30:0:2643:G:C6	2.99	0.50
10:J:45:VAL:HG23	10:J:130:VAL:O	2.11	0.50
20:T:87:VAL:HB	20:T:88:PRO:HD2	1.93	0.50
6:F:68:ASP:C	6:F:70:LYS:H	2.15	0.50
30:0:812:A:H2'	30:0:813:C:C6	2.47	0.50
30:0:59:A:C5'	38:0:4297:HOH:O	2.59	0.50
30:0:1438:G:C4	30:0:1684:A:C2	3.00	0.50
30:0:1572:A:H3'	38:0:4076:HOH:O	2.11	0.50
30:0:2239:C:C2	30:0:2240:U:C5	3.00	0.50
30:0:1131:G:C6	30:0:1230:A:C4	3.00	0.50
13:M:68:ARG:HD3	13:M:68:ARG:O	2.11	0.50
30:0:711:G:C2	30:0:718:C:N3	2.78	0.50
30:0:1543:G:N1	30:0:1641:A:OP2	2.26	0.50
30:0:2871:G:C6	30:0:2887:G:C6	2.99	0.50
30:0:2105:C:H2'	30:0:2106:C:C6	2.47	0.50
2:B:288:GLY:HA2	30:0:2898:G:H4'	1.94	0.50
1:A:211:LYS:NZ	38:A:9041:HOH:O	2.39	0.50
30:0:323:C:O2'	30:0:324:G:H5'	2.12	0.50
4:D:135:VAL:HG21	4:D:139:TYR:CG	2.45	0.50
30:0:2741:A:H2'	30:0:2742:G:O4'	2.10	0.50
30:0:1550:A:C2	30:0:1636:G:C4	3.00	0.50
30:0:632:A:C4	30:0:633:C:C5	2.99	0.50
1:A:125:ASN:CB	1:A:158:VAL:HG12	2.41	0.50
12:L:142:LEU:HD11	12:L:146:GLY:HA3	1.93	0.50
1:A:40:GLY:O	1:A:79:GLU:HG3	2.10	0.50
30:0:2466:G:H5'	38:0:3625:HOH:O	2.10	0.50
31:9:114:G:H2'	31:9:115:C:C6	2.45	0.50
30:0:2300:A:C2	30:0:2306:U:C5	3.00	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2248:C:N3	30:0:2254:G:C2	2.80	0.50
24:X:43:VAL:HG22	24:X:76:ARG:HH12	1.77	0.50
30:0:2747:C:C3'	38:0:3844:HOH:O	2.59	0.50
30:0:1387:G:C2	30:0:1396:C:C2	3.00	0.50
30:0:1586:G:C5	30:0:1587:U:C5	2.99	0.50
30:0:324:G:C2	30:0:325:U:C6	3.00	0.50
30:0:962:C:C2'	30:0:963:C:H5'	2.42	0.50
8:H:49:GLN:HG3	8:H:140:TYR:CE2	2.47	0.50
24:X:70:ILE:O	24:X:70:ILE:HG23	2.12	0.50
25:Y:127:GLN:HA	38:Y:8915:HOH:O	2.11	0.50
30:0:1488:U:H3'	38:0:6122:HOH:O	2.10	0.50
27:1:4:GLY:O	27:1:8:GLN:HG2	2.11	0.50
12:L:27:ARG:HH21	12:L:30:ARG:HG2	1.76	0.50
5:E:118:ILE:HG23	5:E:144:THR:HG21	1.94	0.50
31:9:58:G:N7	31:9:59:C:C4	2.79	0.50
30:0:735:C:C2	30:0:736:A:H1'	2.47	0.50
30:0:1631:A:C6	30:0:1632:A:N1	2.80	0.50
38:M:8832:HOH:O	29:3:46:ILE:HB	2.10	0.50
30:0:1774:G:C2'	30:0:1775:A:C5'	2.90	0.50
30:0:2248:C:C2	30:0:2254:G:C2	3.00	0.50
10:J:47:THR:HB	38:0:4793:HOH:O	2.11	0.50
30:0:719:C:H2'	30:0:720:G:O5'	2.11	0.50
30:0:2771:G:N3	30:0:2771:G:H2'	2.26	0.50
30:0:1742:A:H61	30:0:2037:C:N4	2.08	0.50
20:T:48:VAL:HG23	20:T:97:ARG:C	2.31	0.50
30:0:1933:G:C2'	30:0:1934:A:H5'	2.41	0.50
30:0:334:G:C4	30:0:335:U:C6	2.99	0.50
23:W:52:VAL:HG22	23:W:53:ALA:N	2.27	0.50
2:B:304:PRO:HD2	2:B:307:ARG:NE	2.27	0.50
9:I:114:TYR:CD1	9:I:114:TYR:N	2.78	0.50
2:B:305:ASP:O	2:B:306:LYS:HB2	2.11	0.50
10:J:104:TYR:HA	38:J:2238:HOH:O	2.12	0.50
30:0:784:A:H2'	30:0:785:U:O4'	2.11	0.50
11:K:91:GLU:OE2	21:U:24:LYS:HB2	2.11	0.50
30:0:1183:C:N3	30:0:1184:C:N4	2.59	0.50
26:Z:61:HIS:HB2	26:Z:71:VAL:HB	1.92	0.50
31:9:13:A:O4'	31:9:114:G:C8	2.65	0.50
30:0:271:C:C2	30:0:273:G:O4'	2.65	0.50
30:0:2432:C:O5'	30:0:2432:C:H6	1.94	0.50
30:0:1762:C:N3	30:0:1783:A:C2	2.79	0.50
30:0:66:G:C2	30:0:109:U:C4	2.99	0.50
21:U:56:ARG:HG3	21:U:56:ARG:NH1	2.27	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2489:G:H1'	38:0:7179:HOH:O	2.11	0.50
30:0:1323:G:C2	30:0:1324:G:N7	2.80	0.50
29:3:55:VAL:HG13	38:3:9004:HOH:O	2.12	0.50
31:9:114:G:C5	31:9:115:C:C5	2.99	0.50
30:0:1544:U:H2'	30:0:1545:C:C6	2.47	0.50
30:0:790:A:C2'	30:0:791:A:H5'	2.41	0.50
30:0:2471:G:H2'	30:0:2472:C:H6	1.75	0.50
30:0:2064:U:H2'	30:0:2065:C:C6	2.47	0.50
7:G:19:GLU:O	7:G:23:ILE:HG13	2.12	0.50
21:U:39:ASN:ND2	21:U:51:TRP:HZ2	2.09	0.50
5:E:69:ILE:HA	5:E:72:MET:CE	2.42	0.50
30:0:1948:G:C2	30:0:1949:G:C4	3.00	0.50
30:0:1096:U:C2	30:0:1261:A:C2	3.00	0.50
30:0:1008:C:O2'	30:0:1009:U:H5'	2.12	0.50
30:0:415:A:C2	30:0:426:G:C2	2.99	0.50
30:0:45:A:N6	30:0:147:G:C4	2.80	0.50
30:0:387:G:C2'	30:0:388:G:H5'	2.41	0.50
25:Y:212:ARG:HB2	30:0:1315:G:C4	2.46	0.50
12:L:27:ARG:NH2	12:L:30:ARG:HG2	2.27	0.50
31:9:117:G:H2'	31:9:118:C:H6	1.76	0.50
30:0:287:C:N3	30:0:365:G:N2	2.52	0.50
30:0:269:G:C2	30:0:270:U:O4	2.65	0.50
30:0:272:A:C5'	30:0:273:G:OP2	2.59	0.50
1:A:233:THR:HB	30:0:1942:A:H5''	1.93	0.50
4:D:154:LYS:CD	4:D:154:LYS:H	2.21	0.50
30:0:669:G:C4	30:0:670:G:C8	2.99	0.50
29:3:51:LYS:HD2	30:0:219:G:H4'	1.92	0.50
30:0:2721:U:O2'	30:0:2722:G:H5'	2.11	0.50
23:W:38:THR:HG22	23:W:39:ASP:N	2.22	0.50
23:W:24:LEU:O	23:W:26:ILE:HG22	2.11	0.50
25:Y:204:ARG:HA	25:Y:230:ASN:OD1	2.11	0.50
25:Y:169:ARG:HD3	30:0:1328:A:C8	2.46	0.50
30:0:317:A:H4'	38:0:3752:HOH:O	2.10	0.50
30:0:937:C:C2'	30:0:938:G:H5'	2.42	0.50
23:W:119:HIS:HD2	23:W:120:PRO:O	1.95	0.50
30:0:1067:A:H3'	38:0:4262:HOH:O	2.11	0.50
30:0:2878:U:H5''	38:0:4138:HOH:O	2.12	0.50
13:M:163:LEU:HD21	30:0:188:C:H5''	1.93	0.50
2:B:280:VAL:HA	38:B:9031:HOH:O	2.11	0.50
21:U:7:ASP:HB2	21:U:30:HIS:H	1.77	0.50
12:L:37:LYS:NZ	38:L:8812:HOH:O	2.44	0.50
25:Y:186:ARG:HD2	38:0:4161:HOH:O	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:136:LYS:HB2	38:0:9314:HOH:O	2.12	0.50
30:0:544:G:H2'	30:0:545:G:C5'	2.42	0.50
30:0:559:U:O2'	30:0:560:U:H5'	2.12	0.50
30:0:820:G:H5'	30:0:821:U:H5'	1.93	0.50
30:0:685:C:O2'	30:0:748:C:H5''	2.11	0.50
30:0:1481:G:O2'	30:0:1482:A:H5'	2.12	0.50
30:0:2768:A:C3'	30:0:2768:A:N3	2.72	0.50
30:0:347:A:C2'	30:0:348:C:H5'	2.41	0.50
30:0:2851:G:C5	30:0:2902:A:C2	3.00	0.50
30:0:1386:G:O2'	30:0:1387:G:H5'	2.12	0.50
30:0:77:G:H2'	30:0:78:G:C5'	2.42	0.50
30:0:1023:C:H2'	30:0:1024:G:H8	1.77	0.50
30:0:256:C:H2'	30:0:257:G:C5'	2.41	0.50
18:R:60:LYS:HG2	18:R:75:TRP:CD1	2.47	0.50
30:0:1337:G:C6	30:0:1338:U:C4	2.99	0.50
26:Z:98:PRO:HA	26:Z:101:LYS:HD2	1.93	0.50
30:0:2277:U:H5	38:0:4871:HOH:O	1.95	0.50
30:0:2855:G:C2	30:0:2904:U:C2	2.99	0.50
30:0:2774:U:O2'	30:0:2775:A:H5'	2.12	0.50
30:0:1102:C:H1'	30:0:1109:U:C4	2.47	0.50
13:M:149:TRP:HZ3	13:M:155:GLN:OE1	1.95	0.50
2:B:236:ILE:HG23	38:B:9080:HOH:O	2.11	0.50
2:B:10:SER:O	2:B:16:ARG:NH1	2.44	0.50
14:N:35:VAL:O	14:N:45:ALA:HA	2.11	0.49
30:0:2511:A:H2'	30:0:2512:U:C6	2.47	0.49
30:0:2517:A:H2'	30:0:2518:C:O4'	2.12	0.49
30:0:370:G:O2'	30:0:371:U:H5'	2.12	0.49
30:0:669:G:C2'	30:0:670:G:H5'	2.42	0.49
29:3:22:VAL:HG12	29:3:67:LEU:HD22	1.94	0.49
30:0:65:C:H2'	30:0:66:G:C8	2.46	0.49
21:U:56:ARG:HB2	30:0:2890:A:C8	2.45	0.49
30:0:1424:A:C2	30:0:1441:G:N1	2.80	0.49
30:0:2869:G:H2'	30:0:2870:C:C6	2.47	0.49
2:B:36:PRO:HA	2:B:167:GLY:O	2.12	0.49
30:0:415:A:N3	30:0:426:G:C2	2.80	0.49
30:0:481:U:C4	30:0:487:G:O6	2.65	0.49
30:0:2541:U:H2'	30:0:2542:C:H6	1.77	0.49
30:0:1373:G:C6	30:0:1374:C:C4	2.99	0.49
15:O:105:ASN:HD21	15:O:109:SER:H	1.59	0.49
30:0:1718:G:O2'	30:0:1719:G:H5'	2.11	0.49
20:T:23:VAL:O	20:T:42:VAL:HG23	2.12	0.49
30:0:1170:U:H2'	30:0:1172:G:OP2	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2503:A:H2'	30:0:2511:A:C6	2.46	0.49
30:0:1678:A:C4	30:0:1679:C:C6	3.00	0.49
30:0:561:G:N3	30:0:562:A:C8	2.81	0.49
30:0:1119:G:N2	30:0:1246:A:H2	2.03	0.49
30:0:707:C:N3	30:0:708:A:C8	2.80	0.49
12:L:14:GLY:O	30:0:1295:G:H5''	2.12	0.49
30:0:1592:G:C2	30:0:1593:C:C2	3.00	0.49
30:0:1947:G:C8	30:0:1947:G:H3'	2.47	0.49
23:W:6:GLN:HB2	23:W:26:ILE:HD11	1.94	0.49
30:0:194:A:N7	30:0:427:C:H5'	2.27	0.49
30:0:1681:G:H4'	30:0:1682:A:N3	2.26	0.49
31:9:9:C:OP2	31:9:10:C:C5	2.65	0.49
31:9:61:C:H2'	31:9:62:A:C8	2.46	0.49
23:W:118:LEU:HD12	23:W:153:MET:HE3	1.93	0.49
19:S:77:VAL:O	19:S:80:ARG:HG2	2.11	0.49
30:0:1038:G:C2'	30:0:1039:G:H5'	2.42	0.49
21:U:7:ASP:HB2	21:U:30:HIS:N	2.27	0.49
30:0:202:U:C2'	30:0:203:G:H5'	2.42	0.49
30:0:1992:U:O2	30:0:1994:A:H8	1.95	0.49
30:0:1603:A:C5'	30:0:1605:G:H5'	2.41	0.49
29:3:87:ARG:HG2	29:3:88:LEU:H	1.76	0.49
30:0:1617:C:C4	30:0:1643:C:H4'	2.46	0.49
29:3:33:MET:HG2	30:0:1922:A:O2'	2.11	0.49
1:A:192:VAL:O	1:A:207:GLN:HG2	2.12	0.49
30:0:2444:U:C4	30:0:2445:U:C5	3.00	0.49
16:P:3:LEU:HD12	30:0:1397:C:H5'	1.95	0.49
30:0:1589:G:C5'	38:0:6772:HOH:O	2.60	0.49
30:0:1611:G:H2'	30:0:1612:A:H8	1.77	0.49
31:9:19:G:C2	31:9:20:G:C8	3.00	0.49
30:0:2845:G:C6	30:0:2846:C:C4	3.00	0.49
30:0:802:G:H2'	30:0:803:C:H6	1.76	0.49
2:B:44:TYR:OH	2:B:148:PRO:HG3	2.12	0.49
11:K:74:VAL:HG21	11:K:96:VAL:HG23	1.94	0.49
30:0:1013:A:C2	30:0:1014:A:H1'	2.46	0.49
30:0:566:A:H2'	30:0:567:U:O4'	2.12	0.49
20:T:41:ARG:HG2	20:T:41:ARG:HH11	1.77	0.49
11:K:66:ARG:NH2	30:0:1994:A:OP1	2.40	0.49
2:B:55:ASN:HB3	2:B:63:GLU:HA	1.93	0.49
24:X:18:ARG:HG2	24:X:25:ARG:NH2	2.27	0.49
8:H:91:ARG:O	30:0:1003:U:H4'	2.11	0.49
30:0:2035:C:O2'	30:0:2036:C:H5'	2.12	0.49
30:0:295:C:O2'	30:0:296:G:H5'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:259:G:N2	30:0:260:C:H1'	2.27	0.49
30:0:1166:A:C6	30:0:1181:A:C2	3.00	0.49
30:0:243:A:N6	30:0:269:G:H1'	2.27	0.49
30:0:242:A:N6	30:0:269:G:H1'	2.27	0.49
30:0:1574:C:C6	30:0:1575:C:H5	2.30	0.49
2:B:212:GLN:HB2	2:B:257:THR:CG2	2.41	0.49
30:0:1594:C:O2'	30:0:1595:G:H5'	2.12	0.49
23:W:88:THR:C	23:W:90:TYR:H	2.15	0.49
30:0:1420:C:H2'	30:0:1420:C:O2	2.10	0.49
8:H:39:LYS:HD2	30:0:968:G:O2'	2.13	0.49
11:K:29:LEU:HB3	11:K:55:VAL:HG21	1.94	0.49
30:0:1128:U:H1'	38:0:6010:HOH:O	2.13	0.49
2:B:43:GLY:HA3	2:B:76:THR:HG22	1.93	0.49
30:0:727:G:N2	30:0:728:C:H1'	2.27	0.49
30:0:177:A:C8	30:0:178:U:C5	3.01	0.49
2:B:256:GLN:HB2	30:0:2656:G:O2'	2.13	0.49
30:0:221:G:H2'	30:0:222:A:C8	2.48	0.49
30:0:2842:G:H2'	30:0:2843:A:H5'	1.95	0.49
8:H:76:LEU:HD21	8:H:149:VAL:HA	1.93	0.49
30:0:295:C:C2'	30:0:296:G:H5'	2.43	0.49
30:0:923:A:H2'	38:0:5612:HOH:O	2.11	0.49
14:N:104:ILE:HD12	14:N:107:ASN:O	2.11	0.49
14:N:171:HIS:CE1	38:N:8855:HOH:O	2.65	0.49
30:0:2295:G:N3	30:0:2361:A:H2	2.10	0.49
31:9:29:C:C5	31:9:30:C:C5	3.00	0.49
31:9:57:A:C2'	31:9:58:G:H5'	2.41	0.49
30:0:1180:U:O2'	30:0:1181:A:H5'	2.13	0.49
30:0:1194:A:O2'	30:0:1195:G:H5'	2.12	0.49
30:0:2533:C:H2'	30:0:2534:U:O5'	2.13	0.49
30:0:614:U:H2'	30:0:615:G:C8	2.46	0.49
30:0:1734:C:H6	30:0:1734:C:O5'	1.95	0.49
30:0:2135:A:O4'	30:0:2243:C:N4	2.46	0.49
30:0:660:A:C8	30:0:746:A:C6	3.01	0.49
30:0:746:A:H4'	30:0:747:G:OP1	2.11	0.49
30:0:1593:C:H2'	30:0:1594:C:H6	1.75	0.49
8:H:12:ILE:HG23	8:H:129:ARG:CZ	2.43	0.49
30:0:116:G:H1'	30:0:129:A:C2	2.47	0.49
30:0:1024:G:H2'	30:0:1025:C:H6	1.78	0.49
30:0:581:G:O2'	30:0:582:U:H5'	2.13	0.49
30:0:2731:G:H2'	30:0:2732:U:O4'	2.13	0.49
2:B:41:PHE:HA	2:B:79:MET:HE1	1.93	0.49
2:B:41:PHE:CZ	2:B:79:MET:HG3	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1540:G:C4	30:0:1541:G:C8	3.01	0.49
30:0:1427:A:H61	30:0:1440:U:H1'	1.76	0.49
30:0:1427:A:O2'	30:0:1428:C:H5'	2.13	0.49
12:L:21:ARG:HA	12:L:26:HIS:HD2	1.76	0.49
13:M:111:ASN:HB2	38:M:8854:HOH:O	2.11	0.49
31:9:30:C:O2	31:9:51:A:C2	2.65	0.49
30:0:735:C:C4	30:0:736:A:C4	3.00	0.49
30:0:2336:G:HO2'	30:0:2337:G:H5'	1.77	0.49
30:0:1346:U:C2	30:0:1347:U:C6	3.01	0.49
30:0:2794:G:C6	30:0:2795:C:C5	3.01	0.49
30:0:2791:U:C4	30:0:2794:G:O6	2.65	0.49
20:T:9:LYS:HE3	20:T:13:ARG:CZ	2.43	0.49
30:0:1859:A:H8	30:0:1859:A:O5'	1.95	0.49
29:3:17:HIS:HB2	30:0:2409:C:H4'	1.94	0.49
30:0:375:G:N1	30:0:411:A:C2	2.81	0.49
30:0:2807:U:O2'	30:0:2808:U:H5'	2.12	0.49
14:N:148:ALA:C	14:N:150:TYR:H	2.16	0.49
18:R:40:ALA:O	18:R:44:VAL:HG23	2.13	0.49
30:0:626:U:O4	30:0:627:G:C6	2.66	0.49
30:0:1523:G:C4	30:0:1524:U:C4	3.01	0.49
30:0:1164:U:O2	30:0:1166:A:H4'	2.12	0.49
13:M:77:HIS:CB	13:M:81:ARG:HH21	2.18	0.49
30:0:377:C:H6	30:0:377:C:O5'	1.96	0.49
30:0:597:A:H2'	30:0:598:C:H6	1.78	0.49
30:0:1942:A:HO2'	30:0:1943:C:H5'	1.77	0.49
10:J:107:ASN:ND2	10:J:109:TYR:HB2	2.27	0.49
30:0:45:A:C2	30:0:113:A:C6	3.01	0.49
30:0:1252:A:C1'	38:0:5158:HOH:O	2.61	0.49
30:0:1315:G:H4'	30:0:1316:G:OP2	2.13	0.49
2:B:13:PHE:O	2:B:16:ARG:HD2	2.12	0.49
30:0:863:G:C6	30:0:864:U:C4	3.01	0.49
13:M:92:THR:HB	30:0:401:C:O2'	2.12	0.49
17:Q:3:SER:HB3	38:0:6444:HOH:O	2.12	0.49
30:0:883:U:C6	30:0:888:U:H5'	2.47	0.49
30:0:1183:C:N3	30:0:1184:C:C5	2.81	0.49
26:Z:70:ARG:HH11	26:Z:83:TYR:HB2	1.78	0.49
30:0:1165:G:H21	30:0:1173:A:H5''	1.75	0.49
25:Y:189:ASN:ND2	25:Y:191:ASP:H	2.09	0.49
30:0:287:C:H3'	30:0:287:C:C6	2.48	0.49
30:0:238:C:H4'	30:0:287:C:OP1	2.13	0.49
30:0:529:G:C6	30:0:530:C:C4	3.01	0.49
31:9:89:C:C2'	31:9:90:G:H5'	2.43	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1623:C:C5	30:0:1624:A:C4	3.00	0.49
30:0:2416:G:O2'	30:0:2417:C:H5'	2.12	0.49
30:0:2728:C:H5	38:0:6481:HOH:O	1.94	0.49
30:0:1096:U:O2'	30:0:1097:A:H5'	2.12	0.49
30:0:2829:G:O2'	30:0:2830:U:H5'	2.13	0.49
18:R:117:HIS:HD2	30:0:20:G:H21	1.59	0.49
30:0:525:G:H2'	30:0:526:U:O4'	2.12	0.49
2:B:5:ARG:NH1	2:B:8:LYS:HE2	2.27	0.49
12:L:21:ARG:HG2	38:L:8827:HOH:O	2.12	0.49
30:0:917:U:H5	38:0:4490:HOH:O	1.95	0.49
30:0:640:G:C4	30:0:641:G:C8	3.00	0.49
30:0:514:G:H2'	30:0:514:G:OP1	2.13	0.49
2:B:74:ILE:HD13	2:B:309:VAL:HG21	1.94	0.49
13:M:36:ALA:O	13:M:65:VAL:HA	2.12	0.49
30:0:736:A:H3'	38:0:7109:HOH:O	2.12	0.49
25:Y:189:ASN:HA	25:Y:217:ILE:HD11	1.95	0.49
3:C:190:ALA:HB3	30:0:1309:U:OP1	2.13	0.49
30:0:1575:C:C2'	30:0:1576:G:H5'	2.42	0.49
30:0:2327:A:H2'	30:0:2328:U:H6	1.78	0.49
30:0:1477:C:H2'	30:0:1478:U:O4'	2.12	0.49
11:K:27:ARG:NH1	11:K:27:ARG:HG2	2.28	0.49
30:0:181:G:H1'	38:0:3246:HOH:O	2.13	0.49
12:L:55:GLN:HA	12:L:58:GLN:HG3	1.95	0.49
30:0:2607:U:H4'	38:0:9444:HOH:O	2.13	0.49
30:0:2028:U:O2'	30:0:2029:C:H5'	2.12	0.49
30:0:29:C:C2'	30:0:30:U:H5'	2.42	0.49
20:T:21:LYS:HA	20:T:24:ARG:HG3	1.95	0.49
30:0:1217:G:C2	30:0:1218:U:C2	3.01	0.49
1:A:109:GLU:HG2	1:A:116:GLY:H	1.78	0.49
16:P:103:THR:HG23	16:P:106:ARG:HH12	1.78	0.49
31:9:29:C:O5'	31:9:29:C:H6	1.94	0.49
30:0:1477:C:C5'	30:0:1868:G:H5''	2.43	0.49
30:0:1346:U:C2	30:0:1347:U:C5	3.00	0.49
5:E:68:HIS:O	5:E:72:MET:HG3	2.13	0.49
30:0:180:G:C2'	30:0:181:G:H5'	2.43	0.49
30:0:1758:U:H2'	30:0:1759:A:O4'	2.13	0.49
30:0:2726:U:O4'	30:0:2749:U:C2	2.66	0.49
30:0:1730:G:N3	30:0:1730:G:H2'	2.28	0.49
18:R:4:TYR:CE1	18:R:15:LYS:HD3	2.48	0.49
1:A:179:MET:HG2	1:A:186:TRP:CB	2.41	0.49
2:B:223:ARG:NE	2:B:232:TRP:HB3	2.28	0.49
3:C:76:ARG:NH2	30:0:1363:G:OP1	2.46	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:39:G:N2	30:0:444:C:C2	2.81	0.49
30:0:152:A:C2	30:0:153:C:C2	3.01	0.49
30:0:1851:G:O2'	30:0:1852:A:H5'	2.13	0.49
6:F:54:VAL:HA	30:0:263:U:O4	2.12	0.49
30:0:1146:C:O2'	30:0:1147:C:H5'	2.13	0.49
10:J:45:VAL:HG21	10:J:129:PHE:CD1	2.47	0.49
8:H:87:LYS:HB2	8:H:87:LYS:NZ	2.28	0.49
3:C:107:ARG:O	3:C:111:VAL:HG23	2.12	0.49
30:0:1060:C:H5''	38:0:9805:HOH:O	2.13	0.49
30:0:423:A:H2'	30:0:424:C:O4'	2.13	0.48
2:B:262:ARG:HG3	30:0:2716:G:H5'	1.95	0.48
30:0:1744:G:H2'	30:0:1745:G:H5'	1.95	0.48
13:M:47:ASP:CG	13:M:48:LYS:H	2.16	0.48
11:K:28:GLU:HB3	11:K:59:LYS:H	1.78	0.48
30:0:352:A:C2	30:0:353:G:C4	3.01	0.48
20:T:32:ARG:NH1	20:T:38:ARG:NH1	2.61	0.48
10:J:56:LYS:HD2	35:J:8816:CL:CL	2.50	0.48
30:0:2713:G:O2'	30:0:2714:U:H5'	2.13	0.48
4:D:52:THR:HB	4:D:70:GLY:CA	2.44	0.48
30:0:2710:U:O5'	30:0:2710:U:H6	1.95	0.48
30:0:1394:C:H5'	38:0:4258:HOH:O	2.12	0.48
30:0:699:C:O2'	30:0:744:G:H1'	2.13	0.48
18:R:69:LYS:HB2	18:R:72:VAL:HG23	1.95	0.48
21:U:20:MET:HG3	21:U:28:THR:HG23	1.95	0.48
31:9:59:C:O5'	31:9:59:C:C6	2.67	0.48
26:Z:63:CYS:HA	26:Z:71:VAL:HG23	1.95	0.48
30:0:2378:U:H4'	38:0:4535:HOH:O	2.14	0.48
30:0:693:A:H2'	30:0:694:A:C8	2.48	0.48
30:0:694:A:H2'	30:0:695:C:C5'	2.41	0.48
30:0:120:A:C2'	30:0:120:A:N3	2.75	0.48
4:D:58:VAL:HG12	4:D:60:GLU:HG2	1.96	0.48
15:O:112:ARG:HA	38:0:3167:HOH:O	2.13	0.48
30:0:1894:C:C5	30:0:1940:C:C4	3.01	0.48
29:3:69:TYR:CE1	29:3:80:ARG:HB2	2.48	0.48
30:0:421:C:H2'	30:0:422:G:C8	2.49	0.48
30:0:1610:G:C2	30:0:1611:G:C4	3.00	0.48
1:A:132:ASP:C	1:A:134:ASN:H	2.15	0.48
30:0:255:A:C4	30:0:256:C:C5	3.01	0.48
30:0:853:C:H2'	30:0:854:G:O4'	2.12	0.48
19:S:28:VAL:HG11	19:S:37:VAL:HG13	1.94	0.48
30:0:1245:C:C3'	30:0:1245:C:C6	2.96	0.48
30:0:2023:G:H1'	38:0:9149:HOH:O	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:916:A:C2	30:0:928:G:C4	3.02	0.48
30:0:1656:A:H2'	30:0:1657:A:C8	2.47	0.48
23:W:128:VAL:O	23:W:138:LEU:HD11	2.13	0.48
30:0:1458:A:H4'	38:0:9663:HOH:O	2.14	0.48
30:0:1187:U:HO2'	30:0:1188:A:H8	1.59	0.48
30:0:1190:G:C5	38:0:7580:HOH:O	2.67	0.48
26:Z:81:CYS:SG	26:Z:83:TYR:HB3	2.52	0.48
29:3:2:GLN:NE2	29:3:89:GLU:HB2	2.28	0.48
30:0:1623:C:N4	30:0:1624:A:C6	2.81	0.48
30:0:1626:A:H2'	30:0:1627:G:O5'	2.13	0.48
30:0:696:C:O2'	30:0:697:G:H5'	2.13	0.48
15:O:51:TYR:CD1	30:0:721:A:C5'	2.96	0.48
24:X:72:VAL:HG22	24:X:85:VAL:HG12	1.95	0.48
30:0:668:C:O2'	30:0:669:G:H5'	2.12	0.48
7:G:20:VAL:HA	7:G:23:ILE:HD12	1.93	0.48
30:0:1973:A:H5'	30:0:1973:A:H8	1.79	0.48
30:0:1739:G:O2'	30:0:1740:U:H5'	2.14	0.48
30:0:2445:U:H2'	30:0:2446:G:C8	2.49	0.48
31:9:24:U:H5'	31:9:25:G:H5'	1.94	0.48
26:Z:34:SER:CA	30:0:797:A:H4'	2.40	0.48
3:C:56:THR:HG21	3:C:78:ARG:HB3	1.96	0.48
1:A:76:VAL:HG21	26:Z:87:LYS:HB3	1.95	0.48
23:W:4:LEU:HD11	23:W:45:VAL:HG12	1.94	0.48
30:0:1456:C:H2'	30:0:1457:U:C6	2.48	0.48
23:W:5:VAL:HG11	23:W:153:MET:CE	2.43	0.48
30:0:1794:G:N2	30:0:1796:A:H3'	2.28	0.48
30:0:2619:UR3:H2'	30:0:2620:U:H2'	1.95	0.48
30:0:12:U:H2'	30:0:13:G:H5'	1.93	0.48
30:0:2055:A:H4'	38:0:7348:HOH:O	2.13	0.48
5:E:32:ARG:O	5:E:33:LEU:HD23	2.13	0.48
19:S:40:ALA:O	19:S:44:GLN:HB2	2.13	0.48
23:W:81:ASP:OD1	23:W:92:ASP:HB2	2.14	0.48
2:B:217:ARG:CG	2:B:257:THR:HG22	2.41	0.48
30:0:2017:U:O2'	30:0:2018:A:C8	2.58	0.48
30:0:2374:G:H2'	30:0:2375:A:C8	2.48	0.48
14:N:141:ARG:NH2	31:9:36:C:C2	2.81	0.48
30:0:2471:G:N3	30:0:2472:C:C6	2.82	0.48
30:0:1468:G:O2'	30:0:1865:A:H1'	2.13	0.48
30:0:2794:G:N3	38:0:5810:HOH:O	2.45	0.48
30:0:2672:C:O2	30:0:2672:C:C2'	2.52	0.48
19:S:9:HIS:HE1	30:0:1445:G:OP1	1.96	0.48
23:W:41:TYR:OH	30:0:1024:G:H4'	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2596:A:H2	35:0:8812:CL:CL	2.33	0.48
30:0:1432:U:H2'	30:0:1432:U:O2	2.13	0.48
2:B:190:MET:HG3	2:B:194:PHE:HD1	1.79	0.48
30:0:59:A:H5'	38:0:4297:HOH:O	2.11	0.48
30:0:1993:C:C4	30:0:1994:A:C6	3.02	0.48
30:0:933:C:H5''	38:0:3370:HOH:O	2.13	0.48
30:0:2240:U:O2'	30:0:2241:C:H5'	2.14	0.48
30:0:2253:G:O2'	30:0:2254:G:H5'	2.13	0.48
30:0:54:G:N2	30:0:55:U:H1'	2.29	0.48
12:L:113:GLN:HE22	30:0:700:A:H3'	1.78	0.48
30:0:1545:C:C2	30:0:1641:A:N7	2.81	0.48
30:0:2255:A:C2	30:0:2256:G:N9	2.81	0.48
20:T:25:ALA:HB2	20:T:93:THR:HB	1.96	0.48
30:0:2766:A:O2'	30:0:2767:C:H5'	2.13	0.48
30:0:2793:A:H2'	30:0:2794:G:H5'	1.96	0.48
30:0:107:U:C5	30:0:108:U:C4	3.02	0.48
30:0:2818:A:H2'	30:0:2819:C:C6	2.48	0.48
16:P:114:LEU:HD22	16:P:118:GLN:HB3	1.96	0.48
25:Y:200:THR:HG22	25:Y:201:GLU:HG3	1.94	0.48
30:0:177:A:N7	30:0:178:U:C4	2.82	0.48
18:R:63:ASN:ND2	18:R:75:TRP:HZ2	2.11	0.48
30:0:1400:C:O2'	30:0:1401:G:H5'	2.13	0.48
30:0:2025:G:H1'	38:0:6278:HOH:O	2.13	0.48
1:A:55:VAL:HG23	1:A:68:ILE:O	2.14	0.48
30:0:2047:C:H5'	38:0:9817:HOH:O	2.12	0.48
38:C:8616:HOH:O	30:0:676:C:H4'	2.13	0.48
30:0:139:C:O4'	30:0:140:G:C2	2.66	0.48
27:1:11:LYS:HG2	30:0:777:U:O2'	2.14	0.48
30:0:1160:G:O2'	30:0:1190:G:C8	2.65	0.48
30:0:395:A:H3'	30:0:397:A:N7	2.29	0.48
31:9:49:G:H2'	31:9:50:G:O4'	2.12	0.48
30:0:791:A:H4'	30:0:1709:G:H4'	1.96	0.48
30:0:2761:A:C4	30:0:2763:G:C8	3.02	0.48
30:0:1149:U:C5	30:0:1215:A:C5	3.02	0.48
30:0:65:C:H2'	30:0:66:G:H8	1.78	0.48
21:U:39:ASN:HD21	21:U:51:TRP:HZ2	1.62	0.48
24:X:47:ALA:HB1	24:X:82:GLU:HB2	1.96	0.48
30:0:2831:C:C2'	30:0:2832:C:H5'	2.43	0.48
30:0:1082:A:C2'	30:0:1083:C:OP1	2.62	0.48
16:P:89:ASN:HA	38:P:1926:HOH:O	2.14	0.48
13:M:50:ARG:HB2	38:M:8925:HOH:O	2.13	0.48
30:0:222:A:O5'	30:0:222:A:H8	1.97	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:97:GLN:O	4:D:97:GLN:HG2	2.14	0.48
30:0:1114:A:O2'	30:0:1115:U:H5'	2.13	0.48
1:A:144:GLU:HA	38:A:8955:HOH:O	2.14	0.48
30:0:1872:C:H5'	38:0:9434:HOH:O	2.12	0.48
30:0:1842:A:C4	30:0:1979:G:C6	3.00	0.48
30:0:1170:U:C1'	30:0:1172:G:N7	2.67	0.48
30:0:2509:A:H2'	30:0:2510:C:O4'	2.14	0.48
30:0:1309:U:C4	30:0:1310:U:C4	3.01	0.48
30:0:2419:U:H5''	30:0:2420:G:H5'	1.96	0.48
30:0:1246:A:C5	30:0:1248:A:C5	3.01	0.48
30:0:1783:A:C5	30:0:1784:U:C4	3.02	0.48
7:G:12:ILE:HG21	30:0:1150:A:C8	2.49	0.48
30:0:64:G:C4	30:0:70:A:C8	3.02	0.48
30:0:816:G:C6	30:0:817:G:N1	2.82	0.48
30:0:1332:C:C2	30:0:1333:U:C6	3.01	0.48
30:0:1739:G:C4	30:0:2041:G:N2	2.82	0.48
30:0:2852:A:C5	30:0:2902:A:C5	3.02	0.48
30:0:1504:A:C5'	38:0:4378:HOH:O	2.60	0.48
30:0:1933:G:N2	30:0:1934:A:C1'	2.77	0.48
1:A:135:VAL:HG11	1:A:147:ARG:HH21	1.78	0.48
11:K:125:ALA:C	11:K:127:ALA:H	2.17	0.48
30:0:1857:A:N1	30:0:2247:C:O4'	2.47	0.48
20:T:112:LEU:HG	20:T:119:ALA:HB3	1.95	0.48
18:R:47:LEU:HB2	18:R:89:LEU:HD21	1.95	0.48
31:9:56:A:C3'	31:9:57:A:H5''	2.44	0.48
30:0:1174:A:H5'	30:0:1176:C:OP2	2.13	0.48
30:0:1179:C:O5'	30:0:1179:C:H6	1.96	0.48
30:0:1668:U:H2'	30:0:1669:G:C8	2.49	0.48
31:9:77:A:C1'	31:9:79:U:C6	2.96	0.48
31:9:114:G:C6	31:9:115:C:C4	3.01	0.48
30:0:1310:U:C2'	30:0:1311:G:O5'	2.61	0.48
30:0:558:C:H2'	30:0:559:U:H5'	1.94	0.48
3:C:16:VAL:HG12	3:C:17:ASP:N	2.28	0.48
30:0:652:G:C5	30:0:754:G:C6	3.02	0.48
13:M:102:GLU:OE1	13:M:164:THR:HG21	2.14	0.48
30:0:2113:G:N2	30:0:2473:U:C2	2.82	0.48
30:0:2722:G:N2	30:0:2760:C:O2	2.45	0.48
30:0:2686:C:O2	30:0:2709:G:C2	2.66	0.48
3:C:236:THR:HG22	3:C:239:ALA:N	2.28	0.48
1:A:94:LEU:HD12	1:A:98:GLU:CB	2.44	0.48
30:0:310:U:N3	30:0:322:G:C2	2.82	0.48
30:0:333:G:O2'	30:0:334:G:H5'	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:297:U:H6	30:0:297:U:O5'	1.96	0.48
30:0:827:A:H5'	38:0:4093:HOH:O	2.14	0.48
30:0:2681:A:N6	30:0:2714:U:H4'	2.29	0.48
11:K:113:ILE:HD12	11:K:128:ALA:HB2	1.95	0.48
3:C:102:LEU:HA	38:C:8514:HOH:O	2.14	0.48
30:0:1305:C:H1'	38:0:6838:HOH:O	2.13	0.48
30:0:2866:U:C2	30:0:2891:A:C8	3.01	0.48
26:Z:45:VAL:HG13	26:Z:49:ARG:NE	2.29	0.48
1:A:125:ASN:HB3	1:A:158:VAL:HG12	1.96	0.48
30:0:202:U:H2'	30:0:203:G:H5'	1.96	0.48
30:0:261:A:O5'	30:0:261:A:H8	1.96	0.48
17:Q:39:VAL:O	17:Q:60:THR:HA	2.12	0.48
22:V:13:PRO:HA	38:V:874:HOH:O	2.14	0.48
23:W:56:GLU:O	23:W:143:THR:HG23	2.13	0.48
30:0:1980:U:O2'	30:0:1981:A:H5'	2.14	0.48
31:9:22:G:N2	31:9:26:C:H42	2.12	0.48
30:0:1163:G:N2	30:0:1184:C:N3	2.62	0.48
30:0:1211:G:N2	30:0:1212:C:C2	2.81	0.48
30:0:2533:C:C6	30:0:2533:C:C5'	2.81	0.48
30:0:168:C:O2'	30:0:169:A:H5'	2.13	0.48
1:A:47:HIS:HD2	30:0:1654:U:O2'	1.97	0.48
30:0:2871:G:C5	30:0:2872:U:C4	3.02	0.48
30:0:2783:A:N1	30:0:2792:A:C8	2.82	0.48
30:0:2790:C:HO2'	30:0:2791:U:H6	1.61	0.48
30:0:147:G:N3	30:0:147:G:H2'	2.29	0.48
30:0:2614:C:O2'	30:0:2615:U:H5'	2.13	0.48
6:F:30:LYS:HE2	6:F:99:THR:HG21	1.95	0.48
30:0:2714:U:H2'	30:0:2715:G:H8	1.78	0.48
22:V:4:HIS:O	22:V:8:ILE:HG13	2.13	0.48
30:0:441:A:H1'	30:0:442:A:N7	2.29	0.48
5:E:21:THR:HG23	5:E:30:THR:OG1	2.14	0.48
30:0:454:U:H5'	38:0:5906:HOH:O	2.13	0.48
30:0:1698:U:H6	30:0:1698:U:O5'	1.97	0.48
14:N:132:ASN:HD22	30:0:2413:A:H4'	1.79	0.48
10:J:80:LYS:HE3	10:J:101:VAL:O	2.13	0.48
30:0:1029:U:O2'	30:0:1273:C:OP1	2.26	0.48
30:0:1183:C:H42	30:0:1184:C:H41	1.62	0.48
30:0:1603:A:H5'	30:0:1605:G:C4'	2.44	0.48
2:B:206:THR:CG2	30:0:2716:G:H5''	2.39	0.48
31:9:77:A:H1'	31:9:79:U:C5	2.49	0.48
30:0:1562:C:N3	30:0:1563:G:C6	2.82	0.48
30:0:694:A:C2'	30:0:695:C:H5'	2.44	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2770:G:C4	30:0:2771:G:C8	3.01	0.48
30:0:669:G:H2'	30:0:670:G:O4'	2.13	0.48
30:0:2871:G:C4	30:0:2872:U:C5	3.02	0.48
11:K:87:ARG:NH1	38:K:4066:HOH:O	2.46	0.48
30:0:1149:U:O5'	30:0:1151:G:H5'	2.14	0.48
30:0:56:G:C4	30:0:70:A:C2	3.02	0.48
23:W:125:HIS:HB2	23:W:137:GLN:HG2	1.96	0.48
30:0:1323:G:H1	30:0:1334:C:N4	2.11	0.48
30:0:1015:C:H2'	30:0:1016:U:C6	2.46	0.48
8:H:17:TYR:HD2	8:H:97:VAL:HB	1.77	0.48
30:0:549:A:O2'	30:0:550:C:H5'	2.14	0.48
30:0:451:C:C5	30:0:452:G:C6	3.02	0.48
30:0:2637:A:H4'	38:0:4332:HOH:O	2.14	0.48
30:0:2011:A:H5'	30:0:2013:G:H1'	1.96	0.48
30:0:223:G:C2	30:0:224:U:C6	3.02	0.48
30:0:2643:G:N2	38:0:9156:HOH:O	2.47	0.48
30:0:2048:C:P	38:0:9234:HOH:O	2.72	0.48
30:0:1228:C:H5	38:0:3440:HOH:O	1.97	0.48
5:E:105:GLU:HG2	5:E:113:PRO:HB3	1.96	0.48
6:F:61:MET:HG2	13:M:19:GLN:OE1	2.13	0.48
23:W:91:ASP:HB2	38:W:5425:HOH:O	2.12	0.48
30:0:425:U:H2'	30:0:425:U:O2	2.13	0.47
30:0:2321:A:C2	30:0:2323:G:C5	3.02	0.47
29:3:34:LYS:O	29:3:38:ARG:HG2	2.13	0.47
10:J:18:ILE:HD13	30:0:1244:U:OP1	2.14	0.47
31:9:39:U:H1'	31:9:44:A:H61	1.79	0.47
31:9:47:A:C2	31:9:48:C:C2	3.02	0.47
21:U:50:GLU:O	21:U:56:ARG:HG2	2.14	0.47
30:0:1592:G:O2'	30:0:1593:C:O5'	2.31	0.47
30:0:228:C:C2'	30:0:229:G:C5'	2.87	0.47
30:0:181:G:C6	30:0:182:G:C5	3.02	0.47
27:1:5:THR:HG23	30:0:1688:G:O2'	2.14	0.47
18:R:113:HIS:O	18:R:145:LEU:HA	2.14	0.47
30:0:731:U:H2'	30:0:732:C:H6	1.78	0.47
23:W:29:VAL:O	23:W:30:ASN:HB2	2.14	0.47
7:G:67:LEU:O	7:G:71:LEU:HG	2.14	0.47
30:0:2030:A:P	38:0:3847:HOH:O	2.72	0.47
23:W:59:GLN:HE22	23:W:97:ALA:CB	2.27	0.47
31:9:81:C:C2'	31:9:82:U:H5'	2.44	0.47
29:3:83:TRP:O	29:3:85:ALA:N	2.48	0.47
31:9:76:G:N2	31:9:106:U:H3	2.11	0.47
30:0:2329:C:HO2'	30:0:2330:U:H5'	1.75	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:52:A:C2	30:0:53:C:C2	3.02	0.47
30:0:215:A:H61	30:0:225:G:H1'	1.79	0.47
30:0:2363:G:C5	30:0:2364:A:C8	3.02	0.47
30:0:181:G:N1	30:0:182:G:C5	2.82	0.47
21:U:33:SER:O	21:U:37:GLU:HG3	2.14	0.47
30:0:1878:G:O2'	30:0:1879:U:C6	2.59	0.47
30:0:940:G:H2'	30:0:941:G:C5'	2.42	0.47
30:0:1683:G:H5'	38:0:9801:HOH:O	2.14	0.47
12:L:143:THR:HG22	12:L:144:ASP:N	2.29	0.47
3:C:34:ALA:HA	3:C:102:LEU:HD21	1.96	0.47
30:0:1998:G:C6	30:0:1999:C:N4	2.82	0.47
30:0:73:U:O2'	30:0:74:G:H5'	2.14	0.47
30:0:776:A:H1'	30:0:779:U:O4	2.13	0.47
24:X:61:ARG:HB2	24:X:65:ASN:HB2	1.96	0.47
1:A:213:LYS:HB2	38:0:9047:HOH:O	2.14	0.47
3:C:246:ARG:NE	38:C:8627:HOH:O	2.47	0.47
26:Z:56:GLU:HA	26:Z:59:GLU:OE2	2.13	0.47
13:M:159:VAL:HG13	13:M:160:PHE:N	2.29	0.47
29:3:38:ARG:HB2	29:3:42:ARG:NH1	2.29	0.47
30:0:1052:G:O2'	30:0:2300:A:OP2	2.29	0.47
30:0:662:U:H1'	30:0:748:C:H1'	1.97	0.47
15:O:113:VAL:O	30:0:721:A:H1'	2.14	0.47
30:0:1701:A:H4'	30:0:1702:U:C5'	2.42	0.47
30:0:2103:A:C2'	30:0:2104:C:H5'	2.41	0.47
30:0:2826:G:C6	30:0:2913:A:C6	3.02	0.47
30:0:2830:U:H2'	30:0:2831:C:C5'	2.45	0.47
30:0:1041:U:C2'	30:0:1042:U:H5'	2.44	0.47
17:Q:50:GLY:N	38:Q:5297:HOH:O	2.44	0.47
1:A:76:VAL:CG2	26:Z:87:LYS:HB3	2.45	0.47
30:0:1883:U:C2'	30:0:1884:G:H5'	2.43	0.47
8:H:6:ALA:HB3	30:0:2521:A:OP2	2.13	0.47
3:C:170:ASP:HA	3:C:188:ARG:NH2	2.29	0.47
30:0:1093:G:C2	30:0:1264:U:O2	2.67	0.47
2:B:333:GLU:OE1	21:U:14:GLU:HG2	2.14	0.47
5:E:162:PHE:CD1	5:E:162:PHE:N	2.82	0.47
29:3:65:THR:OG1	29:3:82:GLY:HA3	2.14	0.47
29:3:65:THR:CG2	35:3:8804:CL:CL	2.96	0.47
4:D:25:MET:CE	4:D:41:LEU:HG	2.43	0.47
30:0:1561:U:C4	30:0:1562:C:C5	3.02	0.47
30:0:281:U:H5	38:0:7494:HOH:O	1.97	0.47
30:0:52:A:O2'	30:0:53:C:H5'	2.13	0.47
30:0:69:A:C5'	30:0:69:A:C8	2.92	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:162:MET:HG3	2:B:310:ARG:CZ	2.45	0.47
30:0:1477:C:C2'	30:0:1478:U:C5'	2.93	0.47
30:0:2686:C:O2'	30:0:2687:G:H5'	2.14	0.47
30:0:1587:U:H2'	30:0:1588:G:H5'	1.96	0.47
1:A:132:ASP:HB3	1:A:135:VAL:H	1.78	0.47
30:0:2842:G:H2'	30:0:2843:A:O4'	2.15	0.47
30:0:1999:C:H2'	30:0:2000:G:H8	1.78	0.47
10:J:39:VAL:HG12	10:J:40:ASN:HD22	1.78	0.47
2:B:195:ARG:HG2	2:B:323:LEU:CD2	2.44	0.47
2:B:336:GLN:O	30:0:2862:G:H4'	2.14	0.47
30:0:2864:U:C2'	30:0:2865:G:H5'	2.45	0.47
30:0:216:A:O2'	30:0:217:C:H5'	2.15	0.47
17:Q:48:PRO:O	17:Q:51:ARG:HD2	2.15	0.47
30:0:867:A:H2	30:0:880:C:O2	1.97	0.47
9:I:83:GLY:N	30:0:1168:C:H5'	2.29	0.47
30:0:1528:A:H61	30:0:1663:G:C1'	2.16	0.47
30:0:2830:U:H2'	30:0:2831:C:H5'	1.95	0.47
4:D:22:VAL:HA	4:D:73:VAL:O	2.14	0.47
30:0:1644:C:C2'	30:0:1645:U:H5'	2.44	0.47
30:0:2527:U:H2'	30:0:2528:U:O4'	2.15	0.47
30:0:2333:G:C6	30:0:2334:C:C4	3.03	0.47
31:9:117:G:H2'	31:9:118:C:C6	2.49	0.47
30:0:2057:U:O5'	30:0:2057:U:H6	1.96	0.47
30:0:2476:C:H2'	30:0:2476:C:O2	2.13	0.47
30:0:647:U:H2'	30:0:648:G:C8	2.50	0.47
30:0:1139:U:O2'	30:0:1140:C:H5'	2.14	0.47
12:L:44:GLU:HA	12:L:45:PRO:HD2	1.71	0.47
30:0:2822:C:H2'	30:0:2823:G:O4'	2.14	0.47
30:0:1201:C:C2'	30:0:1202:A:H5'	2.37	0.47
30:0:2319:C:H2'	30:0:2319:C:O2	2.14	0.47
29:3:87:ARG:HG2	29:3:88:LEU:N	2.30	0.47
13:M:76:ARG:NH2	13:M:77:HIS:NE2	2.63	0.47
3:C:27:ARG:HB2	38:C:8519:HOH:O	2.14	0.47
30:0:1248:A:H2'	30:0:1249:U:C6	2.49	0.47
30:0:1707:G:N2	30:0:1709:G:H3'	2.30	0.47
30:0:667:C:H2'	30:0:668:C:H6	1.79	0.47
30:0:1345:A:C6	30:0:1346:U:O4	2.67	0.47
30:0:2032:U:H2'	30:0:2033:G:H5''	1.95	0.47
30:0:2831:C:O2	30:0:2910:A:C2	2.67	0.47
30:0:1972:U:H2'	30:0:1973:A:C5'	2.43	0.47
25:Y:169:ARG:NH1	30:0:1327:G:O3'	2.46	0.47
30:0:1611:G:N2	30:0:1612:A:C5	2.83	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:R:104:PHE:HB3	18:R:109:MET:HE1	1.96	0.47
30:0:2332:A:H3'	30:0:2333:G:C8	2.48	0.47
5:E:84:MET:HG2	5:E:168:ILE:HA	1.97	0.47
2:B:58:PRO:HA	2:B:63:GLU:CD	2.34	0.47
30:0:1055:G:N2	30:0:1057:A:H3'	2.29	0.47
23:W:9:GLY:HA3	38:0:9333:HOH:O	2.13	0.47
12:L:50:GLY:C	30:0:2453:G:H4'	2.34	0.47
30:0:2384:U:H5''	38:0:3473:HOH:O	2.14	0.47
30:0:1174:A:H5'	30:0:1176:C:P	2.54	0.47
29:3:64:LYS:HE3	29:3:84:ARG:NH1	2.30	0.47
30:0:594:C:H2'	30:0:595:U:C6	2.41	0.47
30:0:370:G:N1	30:0:371:U:C4	2.82	0.47
30:0:1815:A:H4'	30:0:2751:C:O4'	2.15	0.47
30:0:2134:G:H2'	30:0:2135:A:H8	1.79	0.47
30:0:2238:A:C2	30:0:2239:C:C4	3.03	0.47
30:0:2353:A:H4'	30:0:2354:A:O5'	2.13	0.47
30:0:2373:U:H1'	38:0:4722:HOH:O	2.14	0.47
30:0:1050:G:C6	30:0:1051:C:C4	3.03	0.47
30:0:661:G:C6	30:0:686:A:N1	2.83	0.47
30:0:2416:G:H2'	30:0:2417:C:H6	1.80	0.47
30:0:1116:U:C2'	30:0:1118:A:H2	2.28	0.47
30:0:711:G:C2	30:0:718:C:O2	2.67	0.47
15:O:29:VAL:HG21	15:O:59:VAL:HG11	1.96	0.47
13:M:9:ARG:HG3	38:0:3171:HOH:O	2.15	0.47
2:B:267:LYS:HA	38:B:8996:HOH:O	2.13	0.47
30:0:385:C:O5'	30:0:385:C:C6	2.55	0.47
30:0:1474:C:H6	30:0:1474:C:C5'	2.20	0.47
30:0:1743:G:H2'	30:0:1744:G:O4'	2.15	0.47
30:0:106:A:N1	30:0:107:U:C2	2.83	0.47
30:0:1889:C:O2'	30:0:1890:U:H5'	2.15	0.47
30:0:2824:C:O3'	30:0:2825:C:C6	2.64	0.47
30:0:2041:G:HO2'	30:0:2726:U:H5	1.62	0.47
30:0:2445:U:H2'	30:0:2446:G:H8	1.79	0.47
2:B:98:THR:CG2	2:B:99:GLU:N	2.77	0.47
30:0:37:A:C2	30:0:446:G:N3	2.83	0.47
23:W:4:LEU:CD2	23:W:54:PHE:HB3	2.43	0.47
30:0:255:A:C6	30:0:256:C:C4	3.03	0.47
31:9:10:C:H2'	38:9:7164:HOH:O	2.14	0.47
20:T:38:ARG:NH1	38:0:6594:HOH:O	2.46	0.47
4:D:52:THR:HB	4:D:70:GLY:N	2.29	0.47
3:C:170:ASP:O	3:C:171:GLU:HG3	2.15	0.47
30:0:2002:C:H2'	30:0:2003:U:H5'	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1486:A:H3'	38:0:4435:HOH:O	2.14	0.47
23:W:59:GLN:O	23:W:63:GLU:HG3	2.15	0.47
30:0:1204:C:H2'	38:0:4403:HOH:O	2.15	0.47
30:0:849:C:H2'	30:0:850:U:O4'	2.14	0.47
30:0:327:A:H3'	38:0:4015:HOH:O	2.15	0.47
16:P:39:ASP:O	16:P:43:LEU:HG	2.14	0.47
8:H:18:THR:HB	38:0:4795:HOH:O	2.14	0.47
30:0:305:A:C2	30:0:329:A:C4	3.02	0.47
30:0:1188:A:N6	30:0:1189:A:N6	2.63	0.47
9:I:83:GLY:N	30:0:1168:C:C5'	2.74	0.47
10:J:24:SER:HA	10:J:86:MET:SD	2.54	0.47
29:3:48:ASN:HB3	30:0:170:U:H5'	1.97	0.47
30:0:2573:G:C2	30:0:2574:G:C8	3.03	0.47
30:0:719:C:N3	30:0:720:G:H1'	2.30	0.47
30:0:2863:G:C2	30:0:2894:C:O2	2.68	0.47
16:P:94:TRP:CZ2	16:P:98:ILE:HG13	2.50	0.47
30:0:1974:G:C5	30:0:1975:C:C5	3.02	0.47
3:C:184:ARG:NH2	30:0:450:C:OP1	2.35	0.47
30:0:1900:A:C2	30:0:1938:G:C4	3.02	0.47
30:0:10:U:C5	30:0:532:A:N7	2.83	0.47
30:0:939:A:H5''	38:0:5361:HOH:O	2.13	0.47
30:0:1549:C:O2'	30:0:1550:A:H5'	2.14	0.47
30:0:810:G:C4	30:0:811:C:C6	3.02	0.47
30:0:603:A:H4'	30:0:604:G:O5'	2.15	0.47
30:0:463:A:N1	30:0:476:A:H5''	2.30	0.47
14:N:176:ARG:HG3	14:N:176:ARG:HH11	1.80	0.47
10:J:42:GLU:HG3	10:J:145:TRP:CD1	2.50	0.47
12:L:34:GLY:HA3	12:L:38:HIS:CE1	2.50	0.47
30:0:1199:A:N6	30:0:1200:A:C6	2.83	0.47
9:I:82:THR:HG22	9:I:83:GLY:H	1.80	0.47
29:3:1:MET:HE2	29:3:88:LEU:HD11	1.97	0.47
30:0:235:C:O2'	30:0:236:A:H2'	2.15	0.47
4:D:25:MET:HE3	4:D:37:ALA:CB	2.30	0.47
13:M:81:ARG:HB3	13:M:85:ARG:HB2	1.97	0.47
31:9:105:A:C2'	31:9:106:U:H5'	2.45	0.47
30:0:1571:G:H1'	30:0:1627:G:N2	2.30	0.47
30:0:2328:U:C2	30:0:2329:C:C6	3.02	0.47
30:0:951:A:C2'	30:0:952:G:C5'	2.86	0.47
30:0:53:C:H2'	30:0:54:G:O4'	2.15	0.47
4:D:58:VAL:CG1	4:D:60:GLU:HG2	2.45	0.47
30:0:1118:A:H8	30:0:1119:G:C5'	2.28	0.47
31:9:43:G:N2	31:9:46:C:N3	2.54	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:P:95:GLU:HG2	30:0:1597:A:O4'	2.15	0.47
15:O:63:LYS:NZ	30:0:659:A:N7	2.47	0.47
30:0:2297:U:C2	30:0:2298:C:C6	3.03	0.47
2:B:98:THR:HG22	2:B:99:GLU:N	2.29	0.47
30:0:1444:G:O2'	30:0:1502:A:N1	2.38	0.47
30:0:307:G:H3'	30:0:342:C:OP2	2.15	0.47
6:F:48:VAL:HG12	6:F:97:ALA:CB	2.45	0.47
16:P:88:GLN:NE2	30:0:1800:G:H1'	2.30	0.47
30:0:2673:U:C5	30:0:2674:G:C6	3.03	0.47
24:X:12:ILE:HB	24:X:70:ILE:CG2	2.44	0.47
30:0:627:G:H1'	38:0:4390:HOH:O	2.14	0.47
30:0:645:U:O2	30:0:761:A:H2	1.98	0.47
27:1:22:CYS:HA	38:1:2086:HOH:O	2.15	0.47
30:0:793:A:C5	30:0:794:U:C5	3.03	0.47
30:0:920:C:H4'	30:0:921:G:C2	2.50	0.47
30:0:1069:C:H2'	30:0:1070:A:O4'	2.14	0.47
11:K:82:ARG:NH2	11:K:115:ARG:HG2	2.30	0.47
11:K:89:LYS:HA	38:K:7064:HOH:O	2.15	0.47
30:0:594:C:C6	30:0:595:U:H5	2.33	0.47
13:M:86:GLN:NE2	38:M:8888:HOH:O	2.48	0.47
30:0:396:U:O2'	30:0:397:A:P	2.73	0.47
30:0:686:A:N7	30:0:687:C:C5	2.82	0.47
30:0:54:G:C4	30:0:55:U:C5	3.03	0.47
30:0:88:G:C6	30:0:89:G:C6	3.03	0.47
5:E:122:THR:CG2	5:E:133:VAL:HG13	2.45	0.47
2:B:83:ALA:HB3	2:B:143:ILE:HB	1.96	0.47
18:R:114:VAL:HB	18:R:145:LEU:CD1	2.43	0.47
30:0:1392:A:C6	30:0:1395:C:C2	3.03	0.47
4:D:52:THR:CG2	30:0:2346:C:H4'	2.44	0.47
30:0:1987:C:O2'	30:0:1988:C:H5'	2.14	0.47
30:0:2523:U:O5'	30:0:2523:U:H6	1.98	0.47
30:0:800:G:H2'	30:0:801:U:C6	2.50	0.47
30:0:278:A:N6	30:0:372:A:N6	2.63	0.47
13:M:106:SER:HB2	13:M:114:VAL:HG23	1.97	0.47
2:B:119:HIS:CD2	2:B:121:PRO:HG3	2.50	0.47
3:C:214:THR:HG23	38:C:8638:HOH:O	2.15	0.47
38:S:8972:HOH:O	30:0:1507:C:H4'	2.15	0.47
29:3:15:ASN:O	30:0:2408:A:H4'	2.15	0.46
30:0:2716:G:C5	30:0:2717:C:C5	3.03	0.46
30:0:1511:U:O2	30:0:1573:A:H2	1.98	0.46
30:0:820:G:O2'	30:0:856:G:H4'	2.14	0.46
21:U:38:ASN:HA	21:U:41:ASP:OD2	2.14	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1477:C:H2'	30:0:1478:U:C5'	2.44	0.46
30:0:2780:C:C4	30:0:2781:U:C4	3.03	0.46
30:0:2826:G:C6	30:0:2913:A:N6	2.83	0.46
17:Q:25:PRO:HD2	17:Q:28:ARG:HH21	1.80	0.46
30:0:2689:A:H2'	30:0:2690:U:C5'	2.43	0.46
30:0:1639:U:H2'	30:0:1640:C:O5'	2.15	0.46
30:0:123:U:O2'	30:0:124:C:H5'	2.14	0.46
19:S:17:ASP:O	19:S:21:GLN:HB2	2.14	0.46
13:M:28:GLN:HA	13:M:31:TRP:HB2	1.97	0.46
30:0:2015:A:C5	30:0:2016:U:C5	3.03	0.46
13:M:155:GLN:HA	13:M:155:GLN:NE2	2.30	0.46
15:O:33:LEU:HD21	15:O:79:VAL:HG21	1.96	0.46
24:X:30:MET:HE1	24:X:58:ALA:HB3	1.96	0.46
30:0:1183:C:C2	30:0:1184:C:H5	2.33	0.46
26:Z:63:CYS:SG	26:Z:71:VAL:CG2	3.03	0.46
30:0:1194:A:O5'	30:0:1194:A:H8	1.97	0.46
29:3:61:PRO:HG3	30:0:2316:G:O2'	2.15	0.46
29:3:64:LYS:HA	29:3:83:TRP:O	2.14	0.46
29:3:46:ILE:HG13	30:0:390:G:OP1	2.14	0.46
30:0:1483:C:HO2'	30:0:1484:G:H5'	1.77	0.46
30:0:292:G:C3'	30:0:358:G:H22	2.27	0.46
30:0:1579:C:N4	30:0:1618:G:N1	2.63	0.46
30:0:2634:G:N2	30:0:2635:A:C4	2.83	0.46
30:0:2871:G:C6	30:0:2872:U:C4	3.03	0.46
30:0:2792:A:C2	30:0:2793:A:C8	3.03	0.46
30:0:229:G:C2'	30:0:230:C:H5'	2.44	0.46
30:0:2828:G:H8	30:0:2828:G:O5'	1.99	0.46
30:0:2912:C:C2'	30:0:2913:A:H5'	2.45	0.46
30:0:1739:G:C4	30:0:2041:G:C2	3.03	0.46
30:0:1041:U:H2'	30:0:1042:U:H5'	1.97	0.46
30:0:252:C:C2'	30:0:252:C:O2	2.60	0.46
30:0:1640:C:C5	38:0:6032:HOH:O	2.55	0.46
30:0:2496:C:H1'	30:0:2527:U:N3	2.29	0.46
12:L:11:ARG:NH1	30:0:903:U:OP2	2.47	0.46
4:D:87:ALA:HA	4:D:90:LEU:HD12	1.97	0.46
30:0:2775:A:C6	30:0:2776:A:C6	3.04	0.46
30:0:400:C:O2'	30:0:401:C:H5'	2.14	0.46
30:0:861:A:H4'	30:0:1697:G:H4'	1.97	0.46
30:0:861:A:H8	30:0:861:A:O5'	1.98	0.46
6:F:38:LYS:HE3	30:0:244:C:OP2	2.15	0.46
29:3:71:CYS:HB3	29:3:75:GLY:N	2.30	0.46
26:Z:40:ALA:HA	30:0:1773:G:C8	2.50	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:38:PHE:HD1	26:Z:47:ARG:HB3	1.80	0.46
30:0:686:A:H1'	30:0:747:G:O2'	2.16	0.46
30:0:1894:C:C2	30:0:1939:U:C4	3.03	0.46
30:0:2072:G:H3'	30:0:2073:G:C5'	2.46	0.46
4:D:48:MET:SD	31:9:41:C:H5''	2.54	0.46
30:0:76:G:O2'	30:0:77:G:H5'	2.15	0.46
21:U:23:HIS:HB3	38:U:151:HOH:O	2.14	0.46
31:9:60:C:H2'	31:9:61:C:O5'	2.15	0.46
30:0:1432:U:C5	30:0:1725:C:O4'	2.69	0.46
13:M:115:LEU:HB3	13:M:132:ILE:HG22	1.97	0.46
30:0:1648:G:C2	30:0:1649:G:C8	3.03	0.46
30:0:920:C:H5'	30:0:921:G:C4	2.50	0.46
30:0:134:U:C2	30:0:145:A:C2	3.04	0.46
4:D:104:PHE:HE2	4:D:132:VAL:HB	1.81	0.46
31:9:1:U:O3'	31:9:3:A:H5''	2.16	0.46
30:0:1161:A:H1'	38:0:3946:HOH:O	2.15	0.46
30:0:1205:U:C2'	30:0:1206:U:H5''	2.45	0.46
30:0:161:A:H3'	38:0:9337:HOH:O	2.14	0.46
30:0:1562:C:C4	30:0:1563:G:C6	3.03	0.46
30:0:695:C:H2'	30:0:696:C:C6	2.50	0.46
26:Z:35:SER:HB3	26:Z:38:PHE:CD1	2.50	0.46
11:K:76:GLN:HA	11:K:93:ASN:CA	2.44	0.46
30:0:658:C:O2'	30:0:662:U:OP1	2.30	0.46
15:O:24:ALA:HB3	30:0:710:G:P	2.56	0.46
31:9:37:C:H2'	31:9:38:A:O4'	2.15	0.46
30:0:1741:U:HO2'	30:0:2723:G:H4'	1.76	0.46
30:0:1324:G:C4	30:0:1325:G:C8	3.03	0.46
30:0:1421:C:C2	30:0:1444:G:N2	2.83	0.46
30:0:1022:A:C6	30:0:1023:C:C4	3.04	0.46
30:0:2095:A:OP1	30:0:2096:A:H4'	2.15	0.46
30:0:1765:G:N1	30:0:1766:U:C4	2.84	0.46
11:K:41:LYS:HA	30:0:2582:G:O3'	2.14	0.46
28:2:25:VAL:HG21	30:0:60:A:N6	2.30	0.46
30:0:2528:U:C2	30:0:2529:G:C8	3.03	0.46
30:0:2836:G:H2'	38:0:5114:HOH:O	2.14	0.46
30:0:1400:C:H2'	30:0:1401:G:C5'	2.45	0.46
30:0:1154:A:H2'	30:0:1155:G:C8	2.50	0.46
30:0:1211:G:H2'	30:0:1212:C:H6	1.81	0.46
26:Z:63:CYS:HA	26:Z:71:VAL:CG2	2.46	0.46
29:3:1:MET:CE	30:0:2320:U:H5	2.28	0.46
30:0:2561:C:O2'	30:0:2562:G:H5'	2.16	0.46
30:0:1311:G:C2	30:0:1312:G:C8	3.02	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:U:36:CYS:O	21:U:39:ASN:HB2	2.16	0.46
16:P:91:LYS:NZ	30:0:817:G:OP2	2.49	0.46
8:H:96:GLN:NE2	8:H:129:ARG:NH2	2.64	0.46
30:0:1779:A:C2'	30:0:1780:G:H5'	2.45	0.46
8:H:6:ALA:HA	8:H:61:ARG:HH12	1.79	0.46
2:B:79:MET:HE3	38:B:9106:HOH:O	2.14	0.46
30:0:1749:U:C2	30:0:1751:G:OP2	2.68	0.46
23:W:119:HIS:CG	23:W:120:PRO:HD2	2.51	0.46
30:0:1887:U:N3	30:0:1888:C:C5	2.84	0.46
30:0:1152:A:C2	30:0:1216:G:N3	2.84	0.46
30:0:1719:G:H2'	30:0:1720:C:O4'	2.16	0.46
9:I:124:VAL:C	9:I:126:THR:H	2.19	0.46
30:0:144:A:H8	38:0:3164:HOH:O	1.98	0.46
30:0:735:C:C5	30:0:736:A:C5	3.03	0.46
30:0:735:C:C6	30:0:736:A:C8	3.03	0.46
30:0:1200:A:H2'	38:0:5689:HOH:O	2.14	0.46
29:3:5:ARG:NH1	29:3:90:PHE:HB3	2.30	0.46
25:Y:205:ILE:HG22	25:Y:209:VAL:HG21	1.96	0.46
30:0:2505:G:H3'	38:0:5576:HOH:O	2.16	0.46
30:0:1451:C:H2'	30:0:1452:G:H8	1.80	0.46
30:0:561:G:C6	30:0:597:A:N6	2.83	0.46
29:3:38:ARG:NH1	30:0:396:U:OP2	2.48	0.46
30:0:2133:U:H4'	30:0:2134:G:C5'	2.45	0.46
30:0:2630:G:N2	30:0:2634:G:C4	2.84	0.46
30:0:2256:G:C2'	30:0:2257:G:C5'	2.88	0.46
18:R:65:GLY:N	30:0:2088:C:OP1	2.32	0.46
30:0:1595:G:N3	30:0:1600:G:C2	2.84	0.46
30:0:2783:A:H2'	30:0:2784:A:C8	2.51	0.46
30:0:1804:A:H2'	30:0:1805:G:C8	2.50	0.46
23:W:11:VAL:HB	38:0:9588:HOH:O	2.15	0.46
8:H:120:PHE:CD1	30:0:2311:A:C5'	2.94	0.46
30:0:1421:C:C2	30:0:1444:G:C2	3.04	0.46
30:0:251:C:H2'	30:0:252:C:H6	1.80	0.46
30:0:2846:C:H2'	30:0:2847:G:H8	1.79	0.46
30:0:466:A:H2'	30:0:467:G:O4'	2.16	0.46
30:0:2731:G:C2'	30:0:2732:U:H5'	2.46	0.46
22:V:8:ILE:CG2	22:V:59:ILE:HG13	2.46	0.46
30:0:1002:G:H2'	30:0:1003:U:O5'	2.15	0.46
30:0:33:G:C2	30:0:34:C:C2	3.04	0.46
30:0:705:C:OP2	30:0:705:C:H6	1.99	0.46
23:W:108:ARG:HG3	23:W:114:PRO:HG3	1.96	0.46
1:A:45:ILE:CG2	26:Z:78:ILE:HG23	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:3:14:CYS:HB3	29:3:16:GLU:HG2	1.97	0.46
30:0:1518:A:N6	30:0:1667:A:N6	2.64	0.46
30:0:2506:A:O2'	30:0:2507:G:O5'	2.34	0.46
30:0:272:A:N1	30:0:369:G:H5''	2.31	0.46
30:0:2438:G:H2'	30:0:2439:C:O4'	2.16	0.46
30:0:2873:C:O2	30:0:2873:C:H2'	2.15	0.46
30:0:1787:C:H2'	30:0:1788:U:H6	1.81	0.46
30:0:2543:G:H2'	30:0:2544:G:O4'	2.16	0.46
30:0:2587:OMU:CM2	30:0:2589:U:C5	2.99	0.46
30:0:2588:OMG:H3'	30:0:2589:U:H5''	1.98	0.46
4:D:20:LYS:HG2	4:D:133:ASN:HB3	1.98	0.46
30:0:2838:A:H1'	30:0:2844:C:O2	2.15	0.46
30:0:2541:U:H2'	30:0:2542:C:C6	2.51	0.46
22:V:59:ILE:HG22	22:V:63:GLU:HG2	1.98	0.46
13:M:193:LYS:HB3	30:0:392:U:H5''	1.97	0.46
30:0:1914:C:O2'	30:0:1915:U:H5'	2.14	0.46
30:0:1981:A:H3'	38:0:6549:HOH:O	2.15	0.46
30:0:2494:G:N7	38:0:9521:HOH:O	2.46	0.46
14:N:49:THR:HG22	14:N:56:ASP:O	2.16	0.46
30:0:1472:C:H6	30:0:1472:C:O5'	1.98	0.46
18:R:8:ALA:HB1	18:R:13:THR:HG21	1.97	0.46
3:C:37:ALA:O	3:C:41:ASN:ND2	2.48	0.46
30:0:1360:C:H4'	38:0:9187:HOH:O	2.15	0.46
3:C:21:VAL:HG13	38:C:8594:HOH:O	2.16	0.46
29:3:3:MET:SD	29:3:83:TRP:CZ2	3.08	0.46
30:0:154:C:N3	30:0:155:C:C5	2.83	0.46
1:A:47:HIS:CD2	30:0:1654:U:C2'	2.88	0.46
30:0:2871:G:C5	30:0:2872:U:C5	3.04	0.46
30:0:2758:G:H2'	30:0:2759:C:H6	1.81	0.46
5:E:137:ASP:HA	38:E:4098:HOH:O	2.15	0.46
11:K:8:VAL:CG1	11:K:9:THR:H	2.27	0.46
30:0:2668:G:O2'	30:0:2828:G:H4'	2.15	0.46
20:T:2:LYS:O	30:0:332:G:H4'	2.15	0.46
30:0:1904:A:C8	30:0:1905:U:C5	3.03	0.46
2:B:145:HIS:HD2	2:B:159:PRO:HB3	1.81	0.46
30:0:1463:U:H6	30:0:1463:U:O5'	1.99	0.46
30:0:1540:G:C5	30:0:1541:G:N7	2.83	0.46
23:W:29:VAL:O	30:0:1262:C:H4'	2.16	0.46
14:N:13:ARG:HG2	38:0:3438:HOH:O	2.15	0.46
3:C:191:SER:OG	3:C:192:ILE:N	2.49	0.46
1:A:195:ASN:HB3	38:A:8935:HOH:O	2.15	0.46
9:I:118:ASN:HB3	30:0:1185:U:H5''	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1735:C:HO2'	30:0:1736:A:H5'	1.80	0.46
7:G:20:VAL:HG21	30:0:1150:A:C2	2.51	0.46
30:0:2778:A:H2'	30:0:2779:G:O4'	2.16	0.46
12:L:55:GLN:HA	12:L:58:GLN:NE2	2.26	0.46
30:0:553:G:O4'	30:0:1325:G:H5'	2.16	0.46
30:0:2646:G:C4	30:0:2647:C:C5	3.04	0.46
30:0:2250:G:C5	30:0:2251:G:C6	3.04	0.46
30:0:1583:U:H2'	30:0:1584:C:O4'	2.16	0.46
13:M:127:LYS:HD3	38:M:8876:HOH:O	2.16	0.46
4:D:99:ASP:HB3	4:D:103:ASN:HB2	1.98	0.46
8:H:15:PRO:HB3	38:0:6399:HOH:O	2.15	0.46
30:0:2450:C:H2'	30:0:2451:G:O5'	2.15	0.46
5:E:101:GLU:HG3	5:E:101:GLU:O	2.16	0.46
22:V:60:GLN:HG2	38:V:874:HOH:O	2.16	0.46
30:0:1139:U:H2'	30:0:1140:C:H6	1.80	0.46
2:B:269:LEU:HD22	2:B:295:THR:HG21	1.98	0.46
16:P:120:ARG:HD2	16:P:120:ARG:HA	1.59	0.46
1:A:235:ARG:HB2	38:A:9000:HOH:O	2.15	0.46
14:N:138:ASP:O	14:N:140:GLN:N	2.49	0.46
30:0:1425:G:C6	30:0:1426:C:N4	2.84	0.46
30:0:2533:C:C6	30:0:2533:C:C4'	2.99	0.46
30:0:191:A:OP1	30:0:191:A:H4'	2.16	0.46
30:0:2560:C:O2	30:0:2560:C:H2'	2.16	0.46
30:0:432:G:N3	30:0:433:C:C5	2.84	0.46
30:0:433:C:O2'	30:0:434:U:H5'	2.15	0.46
13:M:165:GLY:HA3	30:0:432:G:OP1	2.16	0.46
30:0:2330:U:H4'	30:0:2331:C:OP1	2.16	0.46
30:0:2369:A:C4	30:0:2371:G:N7	2.84	0.46
30:0:293:A:C5	30:0:360:A:C2	3.03	0.46
25:Y:148:GLY:HA3	30:0:622:G:OP1	2.16	0.46
30:0:2825:C:H4'	30:0:2826:G:O4'	2.15	0.46
30:0:892:G:C6	30:0:893:C:C4	3.04	0.46
8:H:17:TYR:HE1	30:0:1006:A:N6	2.10	0.46
30:0:1387:G:C5	30:0:1388:U:C5	3.04	0.46
30:0:1586:G:C2'	30:0:1587:U:H5'	2.46	0.46
30:0:574:G:C2'	30:0:575:A:H5'	2.46	0.46
30:0:1359:U:C5	30:0:2101:A:N7	2.84	0.46
30:0:1581:A:C4	30:0:1582:C:C6	3.03	0.46
30:0:239:C:C2'	30:0:240:C:O5'	2.64	0.46
16:P:16:VAL:CG1	16:P:20:ARG:HB2	2.45	0.46
9:I:114:TYR:N	9:I:114:TYR:HD1	2.14	0.46
13:M:58:GLN:NE2	30:0:259:G:H21	2.14	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:25:A:O2'	30:0:640:G:H5'	2.16	0.46
23:W:73:LEU:HA	23:W:73:LEU:HD12	1.80	0.46
5:E:5:LEU:HB2	5:E:47:VAL:HB	1.96	0.46
16:P:135:ALA:O	16:P:139:ARG:HG3	2.16	0.46
30:0:1773:G:C2'	30:0:1774:G:H5'	2.45	0.45
30:0:292:G:H3'	30:0:358:G:H22	1.81	0.45
29:3:7:PHE:HZ	29:3:80:ARG:HH12	1.64	0.45
30:0:2759:C:O2	30:0:2760:C:H1'	2.16	0.45
30:0:1970:G:H4'	38:0:7283:HOH:O	2.16	0.45
16:P:41:ARG:HH22	30:0:1500:U:P	2.39	0.45
25:Y:177:LYS:HD3	25:Y:181:GLY:O	2.16	0.45
30:0:2582:G:C5	30:0:2601:A:C5	3.05	0.45
30:0:629:A:H2'	30:0:630:A:O4'	2.16	0.45
30:0:1819:G:H2'	30:0:1820:G:C4'	2.45	0.45
25:Y:126:PRO:HG2	25:Y:128:PHE:CZ	2.51	0.45
30:0:2731:G:H8	30:0:2731:G:O5'	1.99	0.45
2:B:229:ARG:NH2	30:0:1753:C:O2	2.39	0.45
30:0:593:A:H1'	38:0:3786:HOH:O	2.14	0.45
30:0:2048:C:H3'	38:0:9234:HOH:O	2.16	0.45
30:0:2366:C:O5'	30:0:2366:C:H6	2.00	0.45
30:0:2285:G:H2'	30:0:2286:G:H8	1.81	0.45
21:U:13:ILE:HG23	38:U:3194:HOH:O	2.16	0.45
2:B:177:HIS:O	2:B:181:ILE:HG13	2.16	0.45
26:Z:70:ARG:HB3	26:Z:82:SER:H	1.81	0.45
30:0:2406:U:C4	30:0:2407:G:N7	2.84	0.45
30:0:1196:C:H2'	30:0:1197:G:H5'	1.98	0.45
30:0:2318:C:O5'	30:0:2318:C:H6	2.00	0.45
26:Z:41:ARG:NH2	30:0:820:G:OP1	2.49	0.45
30:0:952:G:H8	38:0:6547:HOH:O	1.99	0.45
15:O:50:ARG:HG3	30:0:701:U:OP2	2.16	0.45
30:0:1889:C:C2	30:0:1890:U:C6	3.04	0.45
8:H:30:LYS:H	8:H:62:HIS:CD2	2.34	0.45
30:0:1898:G:H2'	30:0:1899:C:C6	2.51	0.45
30:0:2691:A:N1	30:0:2702:A:H5''	2.31	0.45
30:0:445:U:O2'	30:0:446:G:H5'	2.16	0.45
10:J:26:VAL:HG13	10:J:36:VAL:CG1	2.45	0.45
31:9:28:U:C2'	31:9:28:U:O2	2.64	0.45
30:0:1634:G:C6	30:0:1635:U:C4	3.04	0.45
30:0:1910:A:O2'	30:0:1911:C:H5'	2.16	0.45
30:0:722:G:C2'	30:0:723:G:H5'	2.46	0.45
6:F:108:VAL:HA	6:F:111:ILE:HD12	1.98	0.45
2:B:279:THR:HG22	2:B:280:VAL:N	2.31	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:463:A:H5''	38:0:3793:HOH:O	2.17	0.45
18:R:13:THR:HG23	18:R:14:ALA:N	2.30	0.45
2:B:62:ARG:HA	2:B:65:MET:CE	2.46	0.45
30:0:1676:G:C6	30:0:1677:U:N3	2.84	0.45
6:F:10:ALA:O	6:F:14:ASP:HB2	2.16	0.45
4:D:51:ARG:NH1	4:D:68:PRO:HB3	2.31	0.45
14:N:64:SER:HB2	38:9:6669:HOH:O	2.16	0.45
14:N:38:LYS:HA	14:N:43:VAL:HG22	1.98	0.45
30:0:1512:G:C5	30:0:1513:C:C5	3.04	0.45
30:0:1942:A:H2'	30:0:1943:C:O5'	2.17	0.45
7:G:16:LYS:O	7:G:20:VAL:HG23	2.16	0.45
30:0:2779:G:N2	30:0:2796:U:C2	2.84	0.45
30:0:1891:G:H1'	30:0:1972:U:O2	2.17	0.45
30:0:1759:A:C2	30:0:1818:C:C4	3.05	0.45
13:M:23:LEU:HD13	13:M:27:ARG:HH21	1.81	0.45
27:1:21:ARG:HD2	27:1:37:CYS:SG	2.56	0.45
18:R:104:PHE:CB	18:R:109:MET:HE1	2.46	0.45
38:B:8989:HOH:O	30:0:2614:C:H4'	2.15	0.45
4:D:54:ALA:HB2	4:D:69:ILE:HD12	1.97	0.45
30:0:2892:G:C6	30:0:2893:C:N3	2.85	0.45
30:0:565:A:N1	30:0:1093:G:H1'	2.32	0.45
31:9:7:G:C5'	38:9:5071:HOH:O	2.65	0.45
3:C:233:THR:HG22	3:C:234:VAL:N	2.30	0.45
30:0:1801:A:C2	30:0:1802:G:C4	3.04	0.45
30:0:1188:A:N6	30:0:1189:A:C6	2.84	0.45
1:A:75:GLY:HA3	26:Z:86:TYR:CZ	2.51	0.45
25:Y:208:LYS:HD2	38:0:4269:HOH:O	2.17	0.45
30:0:708:A:H61	30:0:720:G:C2'	2.28	0.45
30:0:716:G:N1	30:0:717:C:C4	2.85	0.45
30:0:2635:A:C2'	30:0:2636:C:H5'	2.45	0.45
21:U:42:LEU:HB3	30:0:1810:C:O4'	2.16	0.45
30:0:1737:A:N6	30:0:1738:C:C4	2.84	0.45
3:C:93:LYS:HB3	3:C:95:GLU:OE2	2.16	0.45
30:0:2563:U:O2'	30:0:2564:G:C8	2.68	0.45
30:0:39:G:H2'	30:0:40:C:O4'	2.16	0.45
30:0:940:G:C6	30:0:941:G:C5	3.04	0.45
30:0:957:A:O5'	30:0:957:A:C8	2.67	0.45
30:0:1476:A:C2'	30:0:1867:G:O2'	2.64	0.45
30:0:1337:G:H2'	30:0:1338:U:H6	1.80	0.45
30:0:1287:A:C6	30:0:1288:U:C4	3.03	0.45
5:E:22:VAL:HG12	5:E:76:VAL:HG21	1.99	0.45
1:A:172:ALA:HB2	30:0:1846:U:O2'	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:9:5:G:C2'	31:9:6:C:H5'	2.46	0.45
31:9:55:U:H4'	31:9:56:A:H8	1.80	0.45
30:0:1606:A:N3	30:0:1606:A:H2'	2.30	0.45
9:I:86:GLU:HG2	30:0:1180:U:H4'	1.98	0.45
30:0:1342:C:H2'	30:0:1343:C:C5'	2.45	0.45
30:0:1343:C:C2'	30:0:1344:G:O5'	2.64	0.45
30:0:598:C:C2	30:0:599:G:C8	3.04	0.45
30:0:1641:A:H2'	30:0:1642:A:C4'	2.46	0.45
4:D:76:ARG:NH1	31:9:42:C:O2	2.50	0.45
30:0:815:U:O2'	30:0:1598:A:H4'	2.17	0.45
30:0:2780:C:C4	30:0:2781:U:O4	2.70	0.45
23:W:6:GLN:CB	23:W:26:ILE:HD11	2.46	0.45
30:0:1015:C:O5'	30:0:1015:C:H6	1.99	0.45
30:0:2788:A:C6	30:0:2789:U:N3	2.85	0.45
30:0:324:G:N1	30:0:325:U:C5	2.85	0.45
30:0:1076:G:C2	30:0:1084:C:C2	3.04	0.45
30:0:2450:C:C2'	30:0:2451:G:O5'	2.64	0.45
16:P:103:THR:HG23	16:P:106:ARG:NH1	2.31	0.45
8:H:18:THR:O	8:H:20:ARG:N	2.49	0.45
30:0:861:A:C4'	30:0:1697:G:H4'	2.47	0.45
1:A:195:ASN:HB3	1:A:197:VAL:HG12	1.99	0.45
19:S:55:GLN:OE1	30:0:1446:U:H2'	2.16	0.45
30:0:1189:A:C3'	38:0:7580:HOH:O	2.55	0.45
29:3:11:CYS:HB2	29:3:20:HIS:CE1	2.51	0.45
30:0:1167:G:N2	30:0:1180:U:C2	2.85	0.45
30:0:1241:G:H2'	30:0:1242:A:O4'	2.17	0.45
30:0:1630:A:N6	30:0:1631:A:N1	2.65	0.45
29:3:60:LYS:HD3	30:0:2461:U:OP2	2.16	0.45
30:0:661:G:C5	30:0:662:U:C4	3.04	0.45
30:0:2538:A:H3'	38:0:9174:HOH:O	2.17	0.45
31:9:44:A:N6	31:9:45:A:C6	2.85	0.45
30:0:533:U:H2'	30:0:2814:A:C6	2.52	0.45
1:A:88:ILE:HG22	1:A:88:ILE:O	2.17	0.45
8:H:29:SER:HA	8:H:62:HIS:CD2	2.42	0.45
30:0:556:C:O2	30:0:602:A:C2	2.69	0.45
30:0:251:C:C5	30:0:252:C:H5	2.34	0.45
30:0:254:C:O2	30:0:254:C:H2'	2.17	0.45
30:0:1359:U:C5	30:0:2101:A:H8	2.32	0.45
30:0:805:G:N2	30:0:807:A:H3'	2.31	0.45
30:0:844:A:H2'	38:0:9567:HOH:O	2.16	0.45
30:0:907:A:C2	30:0:1299:G:C5	3.05	0.45
12:L:129:ALA:O	12:L:133:VAL:HG23	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:2:8:LYS:NZ	30:0:1677:U:OP2	2.47	0.45
30:0:1757:U:H5	38:0:3207:HOH:O	1.99	0.45
30:0:955:A:H2'	30:0:956:G:H5'	1.97	0.45
27:1:9:GLY:HA2	30:0:1687:C:O2	2.16	0.45
30:0:1213:C:C2'	30:0:1214:G:H5'	2.46	0.45
30:0:1164:U:H3	30:0:1166:A:H4'	1.78	0.45
30:0:1178:G:H2'	30:0:1179:C:C6	2.51	0.45
30:0:236:A:N3	30:0:237:G:H1'	2.31	0.45
3:C:162:VAL:CG2	3:C:232:LEU:HD21	2.47	0.45
30:0:1051:C:H1'	38:0:3918:HOH:O	2.17	0.45
30:0:293:A:C8	30:0:359:U:O4	2.69	0.45
12:L:113:GLN:NE2	30:0:700:A:H3'	2.32	0.45
7:G:63:ARG:NH1	30:0:1151:G:OP1	2.50	0.45
30:0:1871:U:C6	30:0:1873:G:C4	3.04	0.45
30:0:1966:U:H6	30:0:1966:U:O5'	1.99	0.45
30:0:2686:C:C2	30:0:2709:G:C2	3.05	0.45
30:0:304:G:H1'	30:0:347:A:H61	1.82	0.45
30:0:2898:G:H2'	30:0:2899:A:H8	1.82	0.45
30:0:1016:U:C2	30:0:1017:U:C5	3.04	0.45
2:B:232:TRP:CD1	2:B:235:ARG:HD2	2.51	0.45
30:0:1934:A:N7	30:0:1935:C:C5	2.85	0.45
30:0:2692:G:N2	30:0:2701:G:C4	2.84	0.45
30:0:1082:A:H2'	30:0:1083:C:OP1	2.16	0.45
18:R:2:ILE:HG22	30:0:21:G:C4'	2.46	0.45
30:0:1849:G:C5	30:0:1850:U:C5	3.05	0.45
4:D:101:THR:O	4:D:157:LEU:HB3	2.17	0.45
30:0:1274:A:C6	30:0:1275:C:C4	3.05	0.45
30:0:2891:A:N3	30:0:2891:A:H2'	2.30	0.45
30:0:2497:A:C2	30:0:2524:G:C2	3.04	0.45
14:N:7:LYS:HE3	17:Q:21:ARG:O	2.16	0.45
30:0:1945:G:H2'	30:0:1946:C:H6	1.82	0.45
30:0:402:U:H2'	30:0:403:C:C6	2.51	0.45
20:T:30:ASP:O	20:T:33:GLU:HB3	2.17	0.45
26:Z:71:VAL:HG22	26:Z:88:PHE:CE2	2.51	0.45
29:3:5:ARG:HD3	29:3:21:GLU:OE2	2.17	0.45
13:M:83:SER:HA	38:M:8888:HOH:O	2.17	0.45
30:0:558:C:C2'	30:0:559:U:C5'	2.84	0.45
14:N:29:SER:HB3	30:0:2415:A:O2'	2.16	0.45
31:9:36:C:H2'	31:9:37:C:C5'	2.43	0.45
30:0:2650:U:H6	30:0:2650:U:O5'	1.98	0.45
30:0:1969:A:N7	30:0:1970:G:C6	2.85	0.45
14:N:154:LEU:C	14:N:156:GLU:H	2.20	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2740:G:O2'	30:0:2741:A:H5'	2.16	0.45
23:W:149:LEU:HG	23:W:153:MET:HE1	1.99	0.45
30:0:2681:A:C6	30:0:2714:U:H4'	2.51	0.45
30:0:13:G:C4	30:0:14:C:C5	3.04	0.45
30:0:139:C:H6	30:0:139:C:O5'	1.99	0.45
30:0:1056:U:H2'	30:0:1057:A:O4'	2.16	0.45
30:0:1057:A:H1'	30:0:2492:U:O2'	2.17	0.45
8:H:58:VAL:HG21	8:H:60:LEU:HD21	1.99	0.45
30:0:2505:G:C2'	30:0:2506:A:C5'	2.92	0.45
30:0:557:C:H42	30:0:600:G:H1	1.65	0.45
30:0:2372:A:H2'	30:0:2373:U:H6	1.80	0.45
30:0:2299:G:N1	30:0:2300:A:N6	2.65	0.45
30:0:952:G:N3	30:0:2302:A:H2'	2.32	0.45
30:0:1762:C:C2	30:0:1783:A:C2	3.04	0.45
7:G:23:ILE:O	7:G:27:ILE:HG13	2.17	0.45
35:0:8813:CL:CL	38:0:4929:HOH:O	2.58	0.45
30:0:1592:G:O2'	30:0:1593:C:O4'	2.31	0.45
30:0:2794:G:N3	30:0:2795:C:C6	2.84	0.45
30:0:1947:G:C4	30:0:1948:G:N7	2.85	0.45
30:0:2854:A:C6	30:0:2905:A:C6	3.05	0.45
30:0:414:C:H2'	30:0:415:A:O4'	2.17	0.45
30:0:311:C:N3	30:0:321:A:C2	2.85	0.45
30:0:943:A:N6	30:0:1025:C:O2	2.48	0.45
30:0:248:A:H3'	30:0:248:A:N3	2.32	0.45
10:J:75:PRO:HG2	10:J:105:LEU:HD21	1.99	0.45
30:0:2269:C:C2'	30:0:2270:G:H5'	2.47	0.45
2:B:145:HIS:HD2	2:B:146:THR:O	2.00	0.45
25:Y:235:GLU:CD	25:Y:235:GLU:H	2.21	0.45
16:P:55:LYS:HG3	16:P:56:GLY:N	2.31	0.45
1:A:23:TYR:HH	1:A:182:ARG:HA	1.82	0.45
30:0:1201:C:C5	38:0:6157:HOH:O	2.56	0.45
17:Q:27:GLN:NE2	31:9:8:G:C5'	2.77	0.45
30:0:1511:U:H2'	30:0:1512:G:O4'	2.17	0.45
30:0:1829:A:H2	30:0:2018:A:N1	2.15	0.45
30:0:945:U:H2'	30:0:946:C:C6	2.52	0.45
30:0:707:C:OP2	30:0:720:G:N1	2.38	0.45
30:0:716:G:C2	30:0:717:C:C2	3.04	0.45
30:0:2634:G:H5''	38:0:3991:HOH:O	2.16	0.45
30:0:2634:G:O2'	30:0:2635:A:H5'	2.17	0.45
30:0:2291:A:N9	30:0:2309:C:H5'	2.31	0.45
25:Y:148:GLY:O	25:Y:154:ARG:HD3	2.17	0.45
30:0:2315:C:H4'	30:0:2425:A:C6	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2070:G:H4'	38:0:4310:HOH:O	2.17	0.45
30:0:1086:A:H4'	30:0:1259:A:C2	2.52	0.45
23:W:44:MET:HE2	30:0:944:G:N2	2.28	0.45
30:0:2799:A:N7	30:0:2801:A:C6	2.84	0.45
30:0:152:A:H2'	30:0:153:C:C6	2.52	0.45
11:K:20:CYS:HB2	11:K:29:LEU:CG	2.43	0.45
30:0:195:C:C2'	30:0:196:G:H5'	2.46	0.45
30:0:1915:U:H2'	30:0:1916:C:H6	1.82	0.45
19:S:42:GLU:C	19:S:44:GLN:H	2.20	0.45
3:C:197:SER:HA	38:C:8638:HOH:O	2.16	0.45
3:C:61:PHE:CD1	3:C:65:ARG:HD2	2.52	0.45
30:0:2264:A:H4'	38:0:5143:HOH:O	2.14	0.45
30:0:482:G:H4'	30:0:508:A:N1	2.32	0.45
2:B:24:PRO:HG2	2:B:204:GLY:HA2	1.98	0.45
24:X:80:GLU:HB3	38:X:5564:HOH:O	2.17	0.45
31:9:5:G:C2	31:9:119:C:O2	2.70	0.44
30:0:1195:G:C6	30:0:1196:C:C5	3.05	0.44
30:0:1199:A:C6	30:0:1200:A:C6	3.05	0.44
30:0:2502:C:N3	30:0:2518:C:N4	2.65	0.44
30:0:1576:G:H2'	30:0:1577:U:O4'	2.17	0.44
30:0:2746:A:N6	30:0:2750:G:C8	2.85	0.44
30:0:69:A:C5'	30:0:69:A:H8	2.21	0.44
30:0:2416:G:H2'	30:0:2417:C:O4'	2.17	0.44
31:9:36:C:C5	31:9:37:C:C4	3.05	0.44
20:T:72:ILE:HD13	20:T:93:THR:HG22	1.99	0.44
30:0:2761:A:H1'	30:0:2762:C:H2'	1.99	0.44
23:W:38:THR:O	23:W:42:ARG:HB2	2.16	0.44
1:A:100:PRO:HG2	1:A:103:VAL:CG2	2.41	0.44
30:0:816:G:C6	30:0:817:G:C6	3.05	0.44
30:0:1424:A:C2	30:0:1441:G:C5	3.05	0.44
2:B:84:LEU:O	2:B:99:GLU:HA	2.16	0.44
30:0:580:A:N1	30:0:1253:C:O2'	2.50	0.44
30:0:583:C:C2	30:0:584:U:C5	3.05	0.44
30:0:2096:A:C8	30:0:2539:U:C2	3.05	0.44
30:0:1675:C:H1'	38:0:4712:HOH:O	2.16	0.44
23:W:68:THR:HG23	23:W:69:ARG:H	1.82	0.44
2:B:41:PHE:HB3	2:B:190:MET:HE2	1.98	0.44
30:0:1658:A:H2'	30:0:1659:A:C8	2.52	0.44
30:0:2523:U:O2'	30:0:2524:G:H5'	2.17	0.44
30:0:1915:U:O5'	30:0:1915:U:H6	1.99	0.44
30:0:1553:C:H2'	30:0:1554:C:H6	1.81	0.44
30:0:665:A:H2'	30:0:666:A:O4'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1673:U:H5''	38:0:3233:HOH:O	2.16	0.44
13:M:74:LYS:HG2	38:M:8947:HOH:O	2.17	0.44
17:Q:27:GLN:HB2	38:9:466:HOH:O	2.17	0.44
30:0:287:C:C3'	30:0:287:C:C6	3.00	0.44
12:L:53:ARG:CD	30:0:2441:U:H4'	2.42	0.44
30:0:2328:U:C4	30:0:2329:C:C5	3.06	0.44
30:0:707:C:N3	30:0:708:A:N7	2.64	0.44
30:0:2102:G:N2	30:0:2103:A:N1	2.64	0.44
28:2:40:ARG:HD2	28:2:47:THR:HG22	1.99	0.44
30:0:2896:A:H2'	30:0:2896:A:N3	2.32	0.44
25:Y:144:ARG:NE	38:Y:8920:HOH:O	2.46	0.44
30:0:1787:C:H4'	30:0:2883:A:O4'	2.16	0.44
30:0:1015:C:C2	30:0:1016:U:C5	3.05	0.44
2:B:223:ARG:HG3	2:B:232:TRP:C	2.37	0.44
30:0:1447:U:C3'	30:0:1506:U:O2	2.64	0.44
1:A:101:GLU:OE2	1:A:131:HIS:HB2	2.17	0.44
30:0:1609:C:H2'	30:0:1610:G:C8	2.45	0.44
30:0:324:G:C6	30:0:325:U:C5	3.05	0.44
10:J:36:VAL:HG12	10:J:37:ALA:N	2.31	0.44
30:0:940:G:O2'	30:0:1032:A:N1	2.44	0.44
30:0:1253:C:H2'	30:0:1254:C:C6	2.51	0.44
30:0:1790:C:H2'	30:0:1791:U:C6	2.49	0.44
30:0:632:A:H2'	30:0:633:C:H6	1.83	0.44
23:W:122:ARG:NH2	38:0:5240:HOH:O	2.50	0.44
30:0:565:A:H4'	38:0:3932:HOH:O	2.17	0.44
2:B:77:PRO:HA	2:B:293:PRO:HB2	1.99	0.44
2:B:6:PRO:HD3	38:0:9962:HOH:O	2.17	0.44
14:N:77:ASN:N	14:N:77:ASN:OD1	2.50	0.44
19:S:12:GLU:HB3	38:S:8988:HOH:O	2.16	0.44
30:0:2385:G:H2'	30:0:2386:U:H6	1.82	0.44
14:N:71:TRP:HZ2	38:N:8830:HOH:O	2.01	0.44
30:0:1181:A:O2'	30:0:1182:C:H5'	2.17	0.44
30:0:1205:U:H2'	30:0:1206:U:H5''	1.95	0.44
30:0:2507:G:H5'	38:0:3726:HOH:O	2.17	0.44
30:0:1309:U:C2	30:0:1310:U:C6	3.05	0.44
30:0:1564:C:H1'	30:0:2738:G:N2	2.33	0.44
30:0:2367:A:C4	30:0:2369:A:N6	2.85	0.44
30:0:1782:G:O2'	30:0:1783:A:H5'	2.16	0.44
30:0:2908:A:H8	30:0:2908:A:O5'	2.00	0.44
30:0:1688:G:C6	30:0:1692:C:C5	3.05	0.44
30:0:2251:G:C6	30:0:2252:A:C5	3.05	0.44
30:0:1934:A:N7	30:0:1935:C:C4	2.86	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:V:44:GLY:O	22:V:48:GLU:HG2	2.16	0.44
30:0:99:A:N7	30:0:100:C:C2	2.84	0.44
30:0:10:U:O4	30:0:532:A:OP2	2.36	0.44
30:0:1639:U:C2'	30:0:1640:C:O5'	2.66	0.44
30:0:1538:C:C2'	30:0:1539:U:H5'	2.47	0.44
2:B:18:ARG:HE	2:B:256:GLN:HE21	1.64	0.44
30:0:1337:G:C4	30:0:1338:U:C5	3.05	0.44
30:0:1945:G:C5	30:0:1946:C:C5	3.05	0.44
30:0:1167:G:N2	30:0:1179:C:O2	2.51	0.44
30:0:1179:C:H2'	38:0:3219:HOH:O	2.17	0.44
13:M:76:ARG:HG2	38:M:8825:HOH:O	2.16	0.44
13:M:74:LYS:HD3	13:M:87:GLY:O	2.17	0.44
30:0:1576:G:C5	30:0:1577:U:C4	3.06	0.44
30:0:1773:G:N2	30:0:1774:G:C8	2.85	0.44
30:0:2300:A:H4'	30:0:2301:A:N3	2.33	0.44
30:0:716:G:C6	30:0:717:C:C4	3.05	0.44
30:0:23:G:C6	30:0:24:G:C6	3.06	0.44
30:0:2065:C:C2'	30:0:2066:C:H5'	2.46	0.44
30:0:64:G:N3	30:0:70:A:C8	2.86	0.44
3:C:76:ARG:HH21	30:0:1363:G:P	2.41	0.44
30:0:1024:G:C5	30:0:1025:C:C4	3.05	0.44
18:R:1:GLY:HA2	18:R:119:VAL:CG2	2.48	0.44
30:0:1084:C:O5'	30:0:1084:C:H6	2.01	0.44
30:0:1998:G:C6	30:0:1999:C:C4	3.05	0.44
16:P:124:ASP:O	30:0:801:U:H4'	2.17	0.44
30:0:1755:A:H2'	30:0:1756:G:O4'	2.16	0.44
5:E:119:HIS:O	5:E:140:ALA:HB1	2.18	0.44
13:M:111:ASN:N	13:M:111:ASN:OD1	2.51	0.44
30:0:2286:G:H2'	30:0:2287:C:O4'	2.18	0.44
30:0:644:G:N3	30:0:644:G:H5'	2.33	0.44
16:P:127:GLY:HA3	38:P:584:HOH:O	2.18	0.44
17:Q:66:LYS:HB2	17:Q:70:ALA:O	2.17	0.44
30:0:1182:C:C1'	30:0:1192:A:C8	2.98	0.44
30:0:1572:A:OP2	30:0:1624:A:N6	2.46	0.44
30:0:652:G:C5'	38:0:3006:HOH:O	2.52	0.44
21:U:39:ASN:HD22	21:U:44:ARG:CD	2.30	0.44
30:0:799:C:H1'	30:0:1599:U:H5''	1.99	0.44
30:0:2723:G:H2'	30:0:2724:U:C6	2.53	0.44
30:0:1969:A:H3'	30:0:1970:G:C2	2.52	0.44
8:H:59:GLN:HE21	8:H:129:ARG:CG	2.30	0.44
30:0:1759:A:N3	30:0:1818:C:C2	2.86	0.44
30:0:2040:C:C2'	30:0:2041:G:H5'	2.46	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:P:37:ARG:HG3	30:0:1501:A:OP2	2.17	0.44
30:0:421:C:H2'	30:0:422:G:H8	1.82	0.44
30:0:321:A:O2'	30:0:322:G:H5'	2.18	0.44
31:9:64:C:H2'	31:9:65:A:H5'	1.98	0.44
18:R:1:GLY:O	30:0:21:G:H5'	2.17	0.44
30:0:968:G:O2'	30:0:969:G:H5'	2.18	0.44
11:K:29:LEU:HB3	11:K:55:VAL:CG2	2.48	0.44
3:C:181:ALA:HB2	30:0:30:U:OP2	2.17	0.44
30:0:2596:A:C2	35:0:8812:CL:CL	3.07	0.44
30:0:1911:C:H2'	30:0:1912:A:O4'	2.18	0.44
30:0:629:A:C2	30:0:2074:A:C2	3.06	0.44
2:B:144:THR:HG22	2:B:145:HIS:N	2.31	0.44
20:T:101:LEU:HD13	20:T:112:LEU:HD11	1.99	0.44
4:D:52:THR:HB	4:D:70:GLY:H	1.83	0.44
26:Z:54:GLU:HG2	38:Z:8715:HOH:O	2.17	0.44
30:0:2497:A:C2	30:0:2524:G:N3	2.85	0.44
30:0:1488:U:H4'	30:0:1489:G:OP1	2.18	0.44
30:0:955:A:C2'	30:0:956:G:H5'	2.47	0.44
25:Y:97:LEU:HA	25:Y:235:GLU:HA	2.00	0.44
16:P:107:GLU:C	16:P:109:ARG:H	2.21	0.44
8:H:157:TYR:CD1	8:H:157:TYR:C	2.90	0.44
30:0:1515:A:C2	30:0:1672:G:C2	3.06	0.44
13:M:85:ARG:N	13:M:85:ARG:HD2	2.33	0.44
30:0:2377:U:N3	30:0:2378:U:C5	2.84	0.44
30:0:529:G:H1'	30:0:611:U:O2'	2.18	0.44
30:0:947:U:C2'	30:0:948:G:H5'	2.47	0.44
30:0:291:C:H2'	30:0:292:G:H5'	1.99	0.44
30:0:711:G:C2'	30:0:712:C:H5'	2.48	0.44
3:C:2:GLN:HA	3:C:17:ASP:HA	1.98	0.44
30:0:2102:G:O4'	30:0:2538:A:C5	2.70	0.44
11:K:27:ARG:HG2	11:K:27:ARG:HH11	1.83	0.44
30:0:2289:G:O2'	30:0:2291:A:N6	2.50	0.44
7:G:16:LYS:HE2	7:G:63:ARG:HH12	1.82	0.44
21:U:56:ARG:HD2	30:0:2890:A:H1'	1.97	0.44
30:0:2852:A:O4'	30:0:2902:A:N6	2.51	0.44
30:0:2448:U:O2'	30:0:2449:G:H5'	2.18	0.44
30:0:100:C:C4	30:0:101:C:C5	3.06	0.44
30:0:2700:G:C5	30:0:2701:G:C5	3.06	0.44
30:0:810:G:H2'	30:0:811:C:H6	1.83	0.44
30:0:1883:U:O2'	30:0:1884:G:H5'	2.17	0.44
30:0:933:C:H4'	30:0:1297:U:H4'	2.00	0.44
30:0:1138:G:C6	30:0:1139:U:N3	2.86	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:56:ASP:HB3	2:B:322:ARG:HG2	2.00	0.44
30:0:961:A:C6	30:0:1010:C:C5	3.05	0.44
18:R:30:ALA:HA	18:R:33:ARG:HH11	1.83	0.44
13:M:8:ILE:HD13	38:M:8920:HOH:O	2.17	0.44
13:M:109:PHE:HB3	13:M:112:LEU:HD12	2.00	0.44
9:I:112:LEU:HD11	30:0:1162:G:C1'	2.45	0.44
26:Z:83:TYR:OH	30:0:1604:G:C4	2.70	0.44
30:0:734:U:H1'	30:0:737:A:H62	1.82	0.44
30:0:1202:A:N7	30:0:1203:G:C5	2.86	0.44
2:B:300:SER:CB	30:0:2716:G:H21	2.31	0.44
30:0:165:A:H61	30:0:168:C:H3'	1.83	0.44
30:0:1559:A:HO2'	30:0:1561:U:H5	1.63	0.44
30:0:282:C:O2'	30:0:283:U:C5'	2.50	0.44
30:0:1576:G:C5	30:0:1577:U:C5	3.06	0.44
27:1:20:ARG:HA	30:0:121:U:C6	2.53	0.44
31:9:36:C:C4	31:9:37:C:C2	3.05	0.44
11:K:87:ARG:HG3	30:0:2721:U:H4'	1.99	0.44
30:0:2727:A:C2'	30:0:2728:C:H5'	2.46	0.44
30:0:1328:A:N7	30:0:1329:G:C5	2.85	0.44
30:0:1081:A:C5	30:0:1082:A:C6	3.06	0.44
4:D:134:LEU:HB2	4:D:157:LEU:HD23	1.99	0.44
11:K:74:VAL:CG1	11:K:113:ILE:HG12	2.47	0.44
10:J:63:ILE:HG23	30:0:1235:G:O4'	2.18	0.44
19:S:6:LYS:O	19:S:7:HIS:HB3	2.18	0.44
8:H:173:GLU:O	8:H:174:LEU:HB2	2.18	0.44
30:0:862:U:O2'	30:0:863:G:H5'	2.18	0.44
29:3:71:CYS:HB3	29:3:75:GLY:H	1.82	0.44
30:0:2285:G:H2'	30:0:2286:G:C8	2.53	0.44
5:E:11:VAL:HG12	5:E:12:ASP:N	2.33	0.44
30:0:2350:G:H2'	30:0:2351:C:H6	1.82	0.44
11:K:49:LEU:HA	11:K:73:VAL:CG1	2.48	0.44
31:9:54:A:C2'	31:9:55:U:H5'	2.48	0.44
26:Z:61:HIS:HB3	38:Z:8707:HOH:O	2.18	0.44
30:0:736:A:C2'	30:0:737:A:H5'	2.48	0.44
30:0:2507:G:H22	30:0:2512:U:H5'	1.82	0.44
30:0:876:A:C6	30:0:878:G:C8	3.06	0.44
30:0:23:G:C6	30:0:24:G:N1	2.86	0.44
30:0:795:G:N3	30:0:817:G:C2	2.86	0.44
5:E:69:ILE:HA	5:E:72:MET:HE2	2.00	0.44
30:0:2032:U:H2'	30:0:2033:G:H5'	2.00	0.44
30:0:1738:C:O2'	30:0:1739:G:H5'	2.18	0.44
1:A:7:GLN:O	30:0:1862:C:H5'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1932:G:C4	30:0:1933:G:C8	3.06	0.44
30:0:1764:C:H2'	30:0:1765:G:C5'	2.48	0.44
30:0:1929:G:H3'	30:0:1929:G:N3	2.33	0.44
30:0:908:A:H1'	38:0:7745:HOH:O	2.17	0.44
10:J:70:PHE:CE1	30:0:2676:C:H4'	2.53	0.44
30:0:1749:U:O2	30:0:1751:G:C8	2.71	0.44
10:J:39:VAL:HG12	10:J:40:ASN:ND2	2.33	0.44
5:E:86:VAL:HA	5:E:166:VAL:HA	1.99	0.44
2:B:280:VAL:HG13	2:B:333:GLU:O	2.18	0.44
30:0:400:C:H2'	30:0:401:C:C6	2.53	0.44
30:0:2454:C:H6	30:0:2454:C:O5'	2.00	0.44
30:0:463:A:H3'	38:0:6340:HOH:O	2.17	0.44
2:B:119:HIS:C	2:B:121:PRO:HD3	2.38	0.44
30:0:861:A:H4'	30:0:1697:G:C4'	2.48	0.44
25:Y:234:VAL:HG12	25:Y:235:GLU:N	2.32	0.44
30:0:2119:C:H2'	30:0:2120:U:O4'	2.18	0.44
30:0:830:G:C2'	30:0:831:U:H5'	2.48	0.44
14:N:92:ALA:O	14:N:97:VAL:HB	2.18	0.44
16:P:54:LYS:HB2	30:0:1717:A:H5''	2.00	0.44
30:0:871:G:H4'	38:0:4374:HOH:O	2.17	0.44
30:0:1159:G:H21	30:0:1189:A:H8	1.66	0.44
30:0:1214:G:H4'	38:0:4703:HOH:O	2.18	0.44
26:Z:68:GLU:C	26:Z:70:ARG:H	2.21	0.44
30:0:1517:C:C2	30:0:1670:A:C2	3.05	0.44
30:0:1561:U:C2'	30:0:1562:C:O5'	2.66	0.44
30:0:612:U:H2'	30:0:613:C:C6	2.53	0.44
30:0:370:G:C2	30:0:371:U:C5	3.06	0.44
30:0:1769:C:H2'	30:0:1770:U:C5'	2.48	0.44
30:0:2335:C:H2'	30:0:2336:G:C8	2.52	0.44
31:9:33:U:C2	31:9:43:G:N7	2.86	0.44
7:G:16:LYS:CE	7:G:63:ARG:HH12	2.31	0.44
25:Y:154:ARG:HH21	30:0:1293:U:C5'	2.22	0.44
30:0:2723:G:H2'	30:0:2724:U:H6	1.82	0.44
30:0:1947:G:C5	30:0:1970:G:C8	3.06	0.44
30:0:2748:G:OP1	30:0:2749:U:H5''	2.17	0.44
30:0:2851:G:N2	30:0:2905:A:N6	2.65	0.44
27:1:1:THR:HG22	27:1:2:GLY:N	2.33	0.44
30:0:1585:C:C2	30:0:1611:G:N2	2.85	0.44
30:0:81:G:N3	30:0:98:A:C2	2.86	0.44
25:Y:109:LEU:HA	38:Y:8878:HOH:O	2.18	0.44
30:0:2681:A:H2'	38:0:5519:HOH:O	2.16	0.44
25:Y:171:PRO:HG3	30:0:1267:C:O2'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:129:LYS:HE3	31:9:87:U:H2'	2.00	0.44
30:0:1992:U:C2	30:0:1994:A:OP2	2.71	0.44
20:T:26:THR:HA	20:T:39:ASN:HB3	2.00	0.44
18:R:27:HIS:O	18:R:31:ILE:HG13	2.18	0.44
2:B:199:TYR:HA	2:B:268:ARG:HA	1.99	0.44
30:0:1187:U:O2'	30:0:1188:A:C8	2.71	0.43
30:0:1210:G:C2	30:0:1211:G:C8	3.06	0.43
30:0:1103:C:N3	30:0:1241:G:N2	2.65	0.43
30:0:169:A:C6	30:0:2469:A:C6	3.06	0.43
30:0:268:U:O4	30:0:269:G:N1	2.51	0.43
30:0:876:A:N7	38:0:4295:HOH:O	2.36	0.43
30:0:1544:U:H5'	30:0:1618:G:O3'	2.18	0.43
30:0:2336:G:H1'	38:0:6218:HOH:O	2.18	0.43
30:0:2291:A:N3	30:0:2291:A:H2'	2.32	0.43
30:0:1713:G:N2	30:0:2735:U:H4'	2.32	0.43
30:0:1744:G:C2'	30:0:1745:G:H5'	2.49	0.43
30:0:2707:C:C2'	30:0:2707:C:O2	2.63	0.43
30:0:2671:U:N3	30:0:2672:C:C6	2.86	0.43
1:A:217:ARG:NH1	1:A:229:ALA:HB3	2.31	0.43
30:0:2853:U:H2'	30:0:2854:A:C8	2.53	0.43
30:0:2004:U:O2	30:0:2004:U:C2'	2.59	0.43
31:9:23:U:H2'	31:9:24:U:OP2	2.18	0.43
30:0:1020:A:H2'	30:0:1021:G:C8	2.53	0.43
30:0:1552:G:N1	30:0:1634:G:C5	2.86	0.43
30:0:807:A:H2'	30:0:808:A:C8	2.53	0.43
30:0:1377:C:C6	30:0:1693:A:N1	2.86	0.43
31:9:95:C:N4	38:9:6156:HOH:O	2.50	0.43
30:0:79:G:N2	30:0:97:G:H1'	2.33	0.43
30:0:862:U:H5'	38:0:7180:HOH:O	2.18	0.43
16:P:36:THR:O	16:P:39:ASP:HB2	2.18	0.43
9:I:120:ALA:O	9:I:124:VAL:HG23	2.18	0.43
14:N:82:TYR:C	14:N:82:TYR:CD2	2.91	0.43
30:0:1061:C:C4	30:0:1062:U:C5	3.06	0.43
3:C:55:ARG:HB2	38:0:9141:HOH:O	2.17	0.43
14:N:99:GLU:HB3	14:N:128:ASP:HB2	2.00	0.43
2:B:137:LEU:HD21	2:B:140:LEU:HD21	1.99	0.43
2:B:141:ARG:HD2	2:B:163:GLU:OE2	2.18	0.43
5:E:103:VAL:HG12	5:E:104:ILE:N	2.32	0.43
25:Y:138:ARG:HB3	30:0:638:C:OP1	2.18	0.43
30:0:1169:U:C4	30:0:1170:U:C2	3.06	0.43
30:0:1175:G:H4'	38:0:6771:HOH:O	2.18	0.43
30:0:2317:C:C5	30:0:2318:C:N4	2.85	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:83:SER:O	29:3:46:ILE:HG22	2.18	0.43
30:0:1492:A:C6	30:0:1493:A:C6	3.06	0.43
30:0:2374:G:C6	30:0:2375:A:C6	3.05	0.43
3:C:16:VAL:HG12	3:C:17:ASP:H	1.83	0.43
30:0:23:G:H8	30:0:23:G:O5'	2.00	0.43
30:0:2114:C:H2'	30:0:2115:U:H6	1.83	0.43
30:0:1592:G:C2	30:0:1593:C:N3	2.86	0.43
30:0:816:G:C5	30:0:817:G:C6	3.07	0.43
30:0:68:U:O4	30:0:107:U:H4'	2.18	0.43
30:0:1332:C:C4	30:0:1333:U:C5	3.06	0.43
30:0:1947:G:C8	30:0:1947:G:C3'	3.02	0.43
30:0:419:A:H1'	30:0:1921:A:C2	2.53	0.43
2:B:85:ARG:NH1	2:B:143:ILE:HD11	2.33	0.43
30:0:681:G:N3	30:0:681:G:H2'	2.33	0.43
30:0:1901:G:O2'	30:0:1902:G:H5'	2.18	0.43
30:0:1588:G:C6	30:0:1589:G:C6	3.06	0.43
30:0:146:U:C4	30:0:147:G:C6	3.07	0.43
30:0:1925:G:N2	30:0:1926:G:H1'	2.33	0.43
30:0:149:G:H2'	30:0:150:G:H5'	2.00	0.43
30:0:1476:A:H2'	30:0:1867:G:O2'	2.18	0.43
30:0:2456:A:O2'	30:0:2457:U:H5'	2.18	0.43
30:0:1886:A:C5	30:0:1887:U:C5	3.06	0.43
30:0:1886:A:C5	30:0:1887:U:C6	3.06	0.43
30:0:564:G:H2'	30:0:565:A:OP2	2.18	0.43
2:B:320:GLN:HA	2:B:321:PRO:HD3	1.86	0.43
30:0:647:U:H2'	30:0:648:G:O4'	2.17	0.43
4:D:104:PHE:CE2	4:D:132:VAL:HB	2.52	0.43
5:E:11:VAL:HA	5:E:23:GLU:O	2.17	0.43
30:0:830:G:N2	30:0:2022:A:C2	2.86	0.43
30:0:1689:A:OP2	30:0:1689:A:H8	2.01	0.43
30:0:2555:C:O5'	30:0:2555:C:H6	2.02	0.43
2:B:247:VAL:HB	30:0:2654:C:H1'	1.99	0.43
30:0:1087:G:H4'	30:0:1088:A:OP1	2.17	0.43
30:0:1209:C:C2	30:0:1210:G:C8	3.06	0.43
30:0:2121:G:H5''	38:0:6487:HOH:O	2.17	0.43
31:9:79:U:C2'	31:9:79:U:O2	2.66	0.43
30:0:283:U:O2'	30:0:368:C:C6	2.70	0.43
30:0:54:G:C4	30:0:55:U:C6	3.06	0.43
30:0:712:C:C5	30:0:714:U:C5	3.07	0.43
31:9:33:U:H2'	38:9:3797:HOH:O	2.17	0.43
30:0:669:G:C5	30:0:670:G:N7	2.87	0.43
30:0:1345:A:C4	30:0:1346:U:C5	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1279:U:H5'	30:0:1280:A:OP2	2.19	0.43
30:0:2587:OMU:HM22	30:0:2589:U:C6	2.53	0.43
20:T:48:VAL:HG21	20:T:96:VAL:CG1	2.45	0.43
20:T:2:LYS:HG2	30:0:447:A:OP1	2.18	0.43
30:0:210:U:H2'	30:0:211:U:H6	1.83	0.43
30:0:1646:G:C2	30:0:1647:G:C8	3.06	0.43
30:0:13:G:H2'	30:0:14:C:C6	2.52	0.43
2:B:239:LEU:HD12	30:0:2093:G:P	2.58	0.43
28:2:2:LYS:HG3	30:0:1486:A:C4	2.54	0.43
17:Q:47:VAL:HA	17:Q:48:PRO:HD3	1.78	0.43
30:0:343:C:O2'	30:0:344:C:H5'	2.18	0.43
14:N:38:LYS:HE3	14:N:38:LYS:HB2	1.86	0.43
30:0:1018:A:C6	30:0:1019:C:C4	3.07	0.43
30:0:755:G:H5''	38:0:4855:HOH:O	2.18	0.43
10:J:53:ILE:O	10:J:57:TYR:HD1	2.00	0.43
30:0:1319:G:H1'	38:0:4649:HOH:O	2.18	0.43
30:0:1166:A:OP2	30:0:1174:A:H4'	2.17	0.43
38:M:8824:HOH:O	29:3:48:ASN:HB2	2.18	0.43
30:0:2511:A:H3'	30:0:2512:U:H6	1.81	0.43
30:0:562:A:C2	30:0:563:C:C2	3.05	0.43
30:0:2750:G:C5	30:0:2751:C:C4	3.06	0.43
17:Q:58:GLY:HA2	30:0:951:A:O4'	2.17	0.43
13:M:70:GLY:CA	30:0:2263:G:H4'	2.46	0.43
28:2:41:HIS:O	28:2:45:ASN:HB2	2.18	0.43
30:0:2895:C:O2'	30:0:2896:A:H5''	2.18	0.43
30:0:1595:G:C2	30:0:1600:G:C2	3.06	0.43
5:E:82:TYR:CD1	5:E:141:VAL:HG12	2.53	0.43
30:0:2854:A:N1	30:0:2905:A:C5	2.86	0.43
30:0:1688:G:C6	30:0:1692:C:C6	3.06	0.43
30:0:1502:A:C3'	38:0:9624:HOH:O	2.64	0.43
30:0:1032:A:N3	30:0:1032:A:H2'	2.33	0.43
30:0:1711:A:C6	30:0:1712:A:N7	2.86	0.43
30:0:584:U:N3	30:0:585:C:C5	2.86	0.43
30:0:114:A:H5''	38:0:9745:HOH:O	2.17	0.43
1:A:89:ALA:HB3	1:A:92:ASN:ND2	2.33	0.43
30:0:1270:U:H2'	30:0:1271:A:C8	2.53	0.43
18:R:60:LYS:HA	18:R:75:TRP:NE1	2.33	0.43
30:0:222:A:C4	30:0:223:G:H1'	2.53	0.43
3:C:135:GLU:HB3	38:C:8572:HOH:O	2.18	0.43
30:0:2711:U:H4'	38:0:6212:HOH:O	2.18	0.43
24:X:22:ASN:OD1	24:X:25:ARG:HD2	2.18	0.43
3:C:35:VAL:HG11	3:C:227:GLY:N	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:842:C:H5'	38:0:6855:HOH:O	2.19	0.43
30:0:2834:G:H2'	30:0:2835:C:O5'	2.17	0.43
20:T:44:ALA:HA	20:T:62:VAL:O	2.18	0.43
30:0:1590:A:C5	30:0:1606:A:N7	2.86	0.43
30:0:2407:G:N2	30:0:2408:A:N3	2.67	0.43
30:0:1666:C:C2	30:0:1667:A:N7	2.85	0.43
30:0:236:A:H1'	30:0:237:G:O4'	2.18	0.43
2:B:302:PRO:HA	30:0:2717:C:H5'	2.01	0.43
30:0:2504:A:H2'	30:0:2505:G:O4'	2.18	0.43
30:0:2507:G:O6	30:0:2511:A:H4'	2.19	0.43
29:3:42:ARG:HH11	30:0:396:U:H5'	1.78	0.43
30:0:1498:G:O2'	30:0:1499:U:H5'	2.18	0.43
30:0:1768:C:C5	30:0:1769:C:C5	3.06	0.43
30:0:2248:C:C2	30:0:2254:G:N2	2.86	0.43
30:0:657:G:H2'	30:0:658:C:C6	2.53	0.43
30:0:660:A:N7	30:0:746:A:C5	2.87	0.43
31:9:49:G:C2'	31:9:50:G:C5'	2.96	0.43
30:0:1478:U:H2'	30:0:1479:G:C8	2.53	0.43
29:3:40:ARG:HG3	29:3:52:PHE:HD2	1.84	0.43
30:0:2784:A:H8	30:0:2784:A:O5'	2.02	0.43
30:0:1331:G:HO2'	30:0:1332:C:H5'	1.82	0.43
30:0:1610:G:N1	30:0:1611:G:C5	2.87	0.43
30:0:77:G:H2'	30:0:78:G:H5'	2.00	0.43
14:N:151:ASP:OD1	14:N:166:ALA:HA	2.19	0.43
30:0:309:C:H42	30:0:322:G:H1	1.66	0.43
30:0:577:G:C2	30:0:581:G:C5	3.06	0.43
2:B:294:TYR:HE2	38:B:9132:HOH:O	2.00	0.43
30:0:1455:C:O2'	30:0:1456:C:H5'	2.19	0.43
20:T:41:ARG:HG2	20:T:41:ARG:NH1	2.33	0.43
23:W:60:GLU:O	23:W:63:GLU:HB2	2.18	0.43
30:0:2385:G:C4	30:0:2386:U:C5	3.07	0.43
2:B:1:PRO:O	2:B:2:GLN:HB2	2.19	0.43
15:O:14:LEU:CD2	15:O:102:ILE:HD11	2.48	0.43
20:T:77:VAL:HG12	20:T:89:ARG:HB3	2.01	0.43
4:D:65:GLU:HA	38:D:213:HOH:O	2.18	0.43
3:C:157:LEU:HD11	3:C:194:PHE:HZ	1.84	0.43
30:0:1615:A:H4'	38:0:5813:HOH:O	2.18	0.43
30:0:1185:U:H3'	38:0:5640:HOH:O	2.17	0.43
30:0:241:A:C2	30:0:378:A:H4'	2.54	0.43
2:B:209:LYS:HB2	2:B:257:THR:O	2.19	0.43
30:0:2135:A:C2	30:0:2241:C:C2	3.07	0.43
30:0:745:G:H4'	30:0:746:A:OP1	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:54:G:C5	30:0:55:U:C5	3.07	0.43
15:O:25:VAL:CG1	30:0:709:G:O2'	2.66	0.43
31:9:39:U:C2'	31:9:40:C:OP1	2.67	0.43
30:0:1595:G:HO2'	30:0:1596:U:H5'	1.83	0.43
30:0:180:G:H2'	30:0:181:G:H5'	1.99	0.43
30:0:2073:G:C6	30:0:2607:U:C2	3.07	0.43
30:0:2687:G:C2'	30:0:2688:U:H5'	2.49	0.43
30:0:2726:U:H5''	30:0:2749:U:H3	1.83	0.43
30:0:1936:C:C2	30:0:1937:U:C5	3.06	0.43
23:W:23:MET:O	30:0:1025:C:H5'	2.18	0.43
30:0:250:C:O2'	30:0:251:C:H5'	2.19	0.43
14:N:154:LEU:CD1	14:N:157:PRO:HA	2.47	0.43
21:U:52:THR:CG2	21:U:54:THR:H	2.29	0.43
30:0:968:G:H2'	30:0:969:G:O4'	2.18	0.43
20:T:32:ARG:NH1	20:T:38:ARG:HH12	2.16	0.43
30:0:567:U:H5''	38:0:5240:HOH:O	2.18	0.43
30:0:1999:C:O2'	30:0:2000:G:H5'	2.19	0.43
2:B:279:THR:OG1	2:B:290:VAL:O	2.34	0.43
4:D:146:LYS:NZ	14:N:107:ASN:HD21	2.17	0.43
30:0:1831:U:O2	30:0:1831:U:H2'	2.18	0.43
23:W:27:HIS:HB2	23:W:28:HIS:HD2	1.84	0.43
30:0:2552:C:C6	30:0:2577:A:N7	2.87	0.43
24:X:60:ALA:HA	38:0:7363:HOH:O	2.17	0.43
27:1:16:HIS:HD2	30:0:470:U:O2'	2.02	0.43
26:Z:71:VAL:HG22	26:Z:88:PHE:HE2	1.84	0.43
30:0:541:C:C2'	30:0:542:A:C5'	2.84	0.43
30:0:1449:G:N3	30:0:1493:A:C2	2.87	0.43
30:0:1513:C:H2'	30:0:1513:C:O2	2.17	0.43
15:O:112:ARG:HH11	30:0:709:G:N2	2.16	0.43
30:0:2538:A:C3'	38:0:9174:HOH:O	2.66	0.43
30:0:2471:G:C2	30:0:2472:C:C6	3.06	0.43
30:0:2887:G:H2'	30:0:2888:U:O4'	2.19	0.43
11:K:81:ARG:HB2	11:K:87:ARG:NH1	2.33	0.43
30:0:2667:G:O2'	30:0:2668:G:H5'	2.19	0.43
16:P:37:ARG:NE	30:0:1500:U:C5	2.87	0.43
1:A:99:ILE:O	1:A:131:HIS:HE1	2.02	0.43
30:0:1020:A:O2'	30:0:1021:G:H5'	2.18	0.43
30:0:1021:G:H2'	30:0:1022:A:H8	1.82	0.43
25:Y:109:LEU:HD11	25:Y:181:GLY:HA3	2.00	0.43
30:0:2679:G:H2'	30:0:2680:A:H3'	1.99	0.43
30:0:1059:G:C6	30:0:1127:C:C2	3.07	0.43
30:0:298:C:C4	30:0:299:U:C5	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:732:C:H2'	30:0:733:U:C6	2.54	0.43
30:0:392:U:O2	30:0:398:U:C2	2.72	0.43
30:0:26:U:H2'	30:0:27:U:C6	2.53	0.43
30:0:344:C:H2'	30:0:345:G:O4'	2.19	0.43
3:C:214:THR:HG22	3:C:216:SER:OG	2.18	0.43
30:0:1087:G:C8	35:0:8822:CL:CL	3.09	0.43
4:D:12:GLU:O	4:D:15:GLU:HG2	2.18	0.43
30:0:2903:C:O5'	30:0:2903:C:H6	2.02	0.43
1:A:85:SER:HA	38:A:9033:HOH:O	2.17	0.43
30:0:204:A:H2'	30:0:205:U:H5'	2.00	0.43
3:C:165:ASP:O	3:C:168:ARG:HB3	2.18	0.43
31:9:59:C:H1'	38:9:2772:HOH:O	2.17	0.43
29:3:1:MET:HA	30:0:2320:U:P	2.59	0.43
14:N:11:ARG:HD3	31:9:114:G:O6	2.19	0.43
30:0:433:C:H1'	38:0:3008:HOH:O	2.18	0.43
30:0:1308:A:H2'	30:0:1309:U:H6	1.83	0.43
22:V:39:ALA:C	22:V:41:GLU:H	2.21	0.43
30:0:1706:G:H3'	30:0:1707:G:C8	2.54	0.43
31:9:45:A:C8	31:9:46:C:C5	3.07	0.43
30:0:24:G:C4	30:0:518:G:N2	2.86	0.43
13:M:95:LYS:HA	13:M:170:ASN:ND2	2.26	0.43
5:E:68:HIS:CE1	38:E:5919:HOH:O	2.71	0.43
30:0:2869:G:H2'	30:0:2870:C:O4'	2.19	0.43
30:0:2687:G:H1	30:0:2707:C:H42	1.67	0.43
30:0:2702:A:H2'	30:0:2702:A:N3	2.34	0.43
21:U:34:SER:HA	21:U:37:GLU:HB2	2.00	0.43
30:0:429:A:H8	38:0:3806:HOH:O	1.97	0.43
30:0:1549:C:C2'	30:0:1550:A:H5'	2.48	0.43
30:0:1928:C:C2	30:0:1929:G:C8	3.07	0.43
2:B:278:PRO:HD3	2:B:294:TYR:CZ	2.54	0.43
30:0:2038:A:C2	30:0:2039:A:N7	2.87	0.43
30:0:2855:G:C2	30:0:2904:U:O2	2.72	0.43
30:0:2775:A:H2'	30:0:2776:A:C8	2.53	0.43
20:T:26:THR:HB	30:0:343:C:OP1	2.19	0.43
30:0:1673:U:C5'	38:0:3233:HOH:O	2.66	0.43
6:F:19:ALA:O	6:F:22:VAL:HG22	2.18	0.43
31:9:4:G:C6	31:9:120:A:C2	3.06	0.43
30:0:1668:U:H2'	30:0:1669:G:H8	1.84	0.43
30:0:594:C:C4	30:0:595:U:C4	3.06	0.43
30:0:2506:A:C4	38:0:5977:HOH:O	2.69	0.43
30:0:282:C:H2'	30:0:283:U:C5'	2.49	0.43
30:0:1679:C:N4	38:0:6168:HOH:O	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:559:U:C6	30:0:559:U:C3'	3.01	0.43
30:0:2237:G:H1'	30:0:2238:A:N7	2.34	0.43
13:M:70:GLY:CA	13:M:73:ARG:HH12	2.32	0.43
15:O:51:TYR:CD1	30:0:721:A:C4'	2.96	0.43
25:Y:154:ARG:NH1	25:Y:154:ARG:HG2	2.34	0.43
30:0:795:G:H1'	30:0:817:G:N2	2.34	0.43
30:0:2803:C:H2'	30:0:2804:C:C5'	2.49	0.43
30:0:2672:C:C2	30:0:2818:A:C2	3.07	0.43
30:0:2854:A:C2	30:0:2905:A:C4	3.06	0.43
30:0:2297:U:C2'	30:0:2298:C:H5'	2.48	0.43
13:M:48:LYS:HE3	13:M:52:GLN:HE21	1.83	0.43
2:B:156:LYS:HE3	30:0:2846:C:H5''	2.01	0.43
30:0:2582:G:C2	30:0:2583:A:C8	3.07	0.43
30:0:2128:G:H1	30:0:2265:U:H3	1.67	0.43
1:A:59:GLU:HA	1:A:64:ASP:O	2.19	0.43
2:B:79:MET:HB3	2:B:145:HIS:O	2.18	0.43
31:9:11:A:C2	31:9:69:U:O4'	2.72	0.43
30:0:441:A:O5'	30:0:441:A:C8	2.70	0.43
30:0:1476:A:HO2'	30:0:1867:G:C2'	2.31	0.43
30:0:1216:G:C2	30:0:1217:G:N9	2.87	0.43
26:Z:72:ASP:HA	38:Z:8728:HOH:O	2.18	0.43
30:0:169:A:O2'	30:0:170:U:H6	2.01	0.43
30:0:1571:G:H2'	30:0:1624:A:H61	1.83	0.43
27:1:18:LYS:HE2	30:0:121:U:O4	2.19	0.43
30:0:54:G:N3	30:0:55:U:C6	2.86	0.43
22:V:39:ALA:N	22:V:40:PRO:CD	2.78	0.43
31:9:39:U:H2'	31:9:40:C:OP1	2.18	0.43
30:0:2629:C:C2	30:0:2635:A:C2	3.07	0.43
30:0:2757:A:O2'	30:0:2758:G:H5'	2.19	0.43
30:0:1151:G:H1'	30:0:1215:A:N6	2.34	0.43
30:0:2784:A:C5	30:0:2785:C:C5	3.07	0.43
5:E:60:SER:OG	30:0:2784:A:H1'	2.19	0.43
30:0:301:C:C2'	30:0:301:C:O2	2.67	0.43
1:A:94:LEU:HD12	1:A:98:GLU:HB3	1.99	0.43
30:0:320:G:C6	30:0:321:A:C6	3.07	0.43
30:0:810:G:C4	30:0:811:C:C5	3.07	0.43
30:0:149:G:H2'	30:0:150:G:C5'	2.49	0.43
30:0:834:G:C4'	30:0:835:U:OP2	2.67	0.43
24:X:56:GLU:HG2	30:0:1400:C:H4'	2.01	0.43
16:P:16:VAL:HG12	16:P:17:GLY:N	2.34	0.43
13:M:155:GLN:HA	13:M:155:GLN:HE21	1.83	0.43
30:0:2295:G:N3	30:0:2361:A:C2	2.87	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:101:TRP:H	2:B:119:HIS:CD2	2.37	0.43
30:0:2602:G:H2'	30:0:2603:G:C8	2.54	0.43
18:R:62:HIS:HB3	30:0:1370:G:O5'	2.18	0.43
19:S:57:THR:C	19:S:59:ASP:H	2.22	0.43
14:N:37:ARG:NH1	31:9:6:C:OP1	2.53	0.42
30:0:1209:C:O2'	30:0:1210:G:C5'	2.67	0.42
30:0:1176:C:H6	30:0:1176:C:O5'	2.02	0.42
30:0:1522:A:C2	30:0:1665:G:C6	3.06	0.42
30:0:1568:G:H2'	30:0:1569:U:O4'	2.18	0.42
30:0:2503:A:H2	30:0:2517:A:N7	2.16	0.42
30:0:820:G:C5'	30:0:821:U:H5'	2.49	0.42
30:0:2253:G:C4	30:0:2254:G:C8	3.06	0.42
30:0:23:G:H1'	30:0:520:A:H61	1.84	0.42
30:0:2763:G:C2	30:0:2764:C:C2	3.06	0.42
30:0:1855:G:H4'	30:0:1856:C:C5'	2.49	0.42
5:E:137:ASP:O	5:E:141:VAL:HG23	2.19	0.42
8:H:120:PHE:CE1	30:0:2311:A:H5'	2.54	0.42
8:H:19:ARG:NH2	30:0:1008:C:OP1	2.51	0.42
30:0:1972:U:C2'	30:0:1973:A:H5'	2.45	0.42
19:S:11:THR:HG22	30:0:1444:G:H5''	2.00	0.42
19:S:11:THR:H	19:S:14:ALA:HB3	1.84	0.42
20:T:51:LEU:O	20:T:52:ARG:HD3	2.19	0.42
27:1:26:SER:O	27:1:34:CYS:HA	2.19	0.42
5:E:7:ILE:HG12	5:E:45:ASP:O	2.19	0.42
30:0:160:A:C4	30:0:177:A:C2	3.07	0.42
30:0:245:C:C2'	30:0:246:G:H5'	2.47	0.42
30:0:852:U:O2'	30:0:853:C:H5'	2.18	0.42
13:M:46:LEU:O	13:M:50:ARG:HG3	2.19	0.42
12:L:1:THR:HB	12:L:6:ARG:NH1	2.34	0.42
30:0:2279:G:H2'	30:0:2280:A:O4'	2.19	0.42
30:0:2097:G:C2	30:0:2098:C:C6	3.07	0.42
12:L:26:HIS:O	30:0:925:C:H5'	2.19	0.42
5:E:119:HIS:HB2	5:E:144:THR:OG1	2.19	0.42
30:0:2864:U:C5	30:0:2865:G:C6	3.07	0.42
30:0:1154:A:H2'	30:0:1155:G:H8	1.84	0.42
2:B:75:GLU:C	2:B:77:PRO:HD3	2.39	0.42
5:E:15:GLN:HG2	5:E:16:ASP:N	2.34	0.42
4:D:35:ALA:N	38:D:202:HOH:O	2.51	0.42
13:M:134:ILE:HG23	13:M:141:ILE:HD13	2.00	0.42
22:V:27:LEU:HB2	22:V:49:LEU:HD22	2.01	0.42
23:W:17:ILE:HG21	23:W:51:PHE:CE1	2.54	0.42
31:9:78:G:N2	31:9:102:G:H2'	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:9:1:U:H5''	31:9:3:A:OP1	2.19	0.42
30:0:2382:A:H2'	30:0:2383:G:O4'	2.19	0.42
30:0:1310:U:H2'	30:0:1311:G:O5'	2.18	0.42
25:Y:208:LYS:HZ1	30:0:1343:C:H1'	1.78	0.42
30:0:2323:G:H5''	38:0:4740:HOH:O	2.19	0.42
30:0:377:C:O2'	30:0:378:A:H5'	2.19	0.42
13:M:70:GLY:HA3	13:M:73:ARG:NH2	2.34	0.42
30:0:1483:C:C2'	30:0:1484:G:C5'	2.96	0.42
24:X:85:VAL:HG12	24:X:86:GLU:H	1.83	0.42
30:0:2793:A:C2'	30:0:2794:G:H5'	2.48	0.42
30:0:1741:U:C4	30:0:2033:G:N7	2.87	0.42
30:0:1332:C:H6	30:0:1332:C:O5'	2.01	0.42
8:H:123:ILE:CD1	8:H:123:ILE:H	2.25	0.42
30:0:1973:A:C2'	30:0:1974:G:O5'	2.67	0.42
30:0:2587:OMU:H2'	30:0:2589:U:H5''	2.01	0.42
30:0:1365:C:O2'	30:0:1366:C:H5'	2.19	0.42
30:0:2900:G:H2'	30:0:2901:C:O4'	2.19	0.42
3:C:46:TYR:CE2	3:C:98:ARG:NH1	2.87	0.42
10:J:6:PHE:HB3	10:J:109:TYR:OH	2.19	0.42
30:0:317:A:H5'	38:0:3704:HOH:O	2.18	0.42
1:A:76:VAL:HG23	26:Z:87:LYS:O	2.19	0.42
30:0:39:G:C2	30:0:444:C:N3	2.86	0.42
30:0:113:A:P	38:0:9745:HOH:O	2.76	0.42
30:0:1281:C:C5	30:0:1282:U:C5	3.08	0.42
11:K:74:VAL:HG21	11:K:96:VAL:CG2	2.48	0.42
30:0:1462:C:H2'	30:0:1463:U:C6	2.55	0.42
30:0:1540:G:C5	30:0:1541:G:C8	3.08	0.42
30:0:2038:A:C2	30:0:2039:A:C5	3.07	0.42
25:Y:145:LYS:O	25:Y:147:ARG:HG2	2.19	0.42
30:0:1991:A:H2'	30:0:1992:U:C6	2.54	0.42
30:0:640:G:H1'	38:0:9035:HOH:O	2.19	0.42
30:0:1727:G:H1	30:0:2048:C:H42	1.67	0.42
29:3:8:ASN:HA	29:3:19:GLU:HA	2.00	0.42
10:J:116:LEU:HB2	10:J:119:THR:HG21	2.01	0.42
30:0:474:C:H1'	38:0:9542:HOH:O	2.18	0.42
30:0:1265:G:H1'	38:0:4953:HOH:O	2.18	0.42
19:S:49:VAL:HG13	19:S:66:VAL:HG13	2.01	0.42
29:3:60:LYS:C	29:3:62:THR:H	2.22	0.42
29:3:24:LYS:HG2	35:3:8804:CL:CL	2.56	0.42
30:0:191:A:N1	30:0:236:A:O2'	2.43	0.42
30:0:2738:G:O2'	30:0:2739:A:H5'	2.19	0.42
30:0:241:A:OP2	30:0:269:G:N2	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:272:A:C2	30:0:369:G:H5''	2.54	0.42
12:L:51:PHE:HE1	12:L:53:ARG:HG3	1.85	0.42
30:0:291:C:C2'	30:0:292:G:H5'	2.49	0.42
24:X:51:ASP:HB3	24:X:85:VAL:O	2.18	0.42
30:0:1873:G:H3'	38:0:5163:HOH:O	2.19	0.42
30:0:1592:G:HO2'	30:0:1593:C:C4'	2.32	0.42
30:0:1948:G:C6	30:0:1949:G:C6	3.07	0.42
30:0:1323:G:C2	30:0:1324:G:C8	3.08	0.42
18:R:4:TYR:HA	18:R:144:GLU:OE2	2.19	0.42
1:A:95:PRO:HD3	1:A:153:ARG:HG2	2.00	0.42
30:0:2269:C:H2'	30:0:2270:G:C5'	2.49	0.42
30:0:1084:C:H2'	30:0:1085:C:H6	1.84	0.42
30:0:869:G:OP2	30:0:869:G:C8	2.73	0.42
23:W:5:VAL:HG11	23:W:153:MET:HE1	2.01	0.42
24:X:69:LYS:O	24:X:70:ILE:HB	2.19	0.42
28:2:37:HIS:CE1	30:0:462:A:C8	3.08	0.42
10:J:77:GLY:O	10:J:80:LYS:N	2.53	0.42
30:0:2453:G:O2'	30:0:2454:C:H5'	2.19	0.42
30:0:2881:C:O5'	30:0:2881:C:H6	2.01	0.42
2:B:175:LEU:C	2:B:175:LEU:HD23	2.39	0.42
30:0:713:U:H6	30:0:713:U:O5'	2.01	0.42
30:0:2663:U:C4	30:0:2664:A:C6	3.07	0.42
29:3:11:CYS:HA	29:3:12:PRO:HD2	1.90	0.42
30:0:1165:G:N2	30:0:1173:A:H5''	2.32	0.42
30:0:1206:U:C6	30:0:1206:U:C4'	3.02	0.42
25:Y:189:ASN:N	25:Y:192:ASP:OD2	2.53	0.42
4:D:25:MET:HG2	4:D:128:LEU:HA	2.00	0.42
26:Z:35:SER:HB3	26:Z:38:PHE:CE1	2.54	0.42
13:M:73:ARG:HG3	30:0:1864:C:O2'	2.19	0.42
13:M:70:GLY:N	13:M:73:ARG:HH12	2.17	0.42
30:0:2471:G:C2	30:0:2472:C:C5	3.07	0.42
1:A:204:GLY:N	30:0:2634:G:OP2	2.52	0.42
30:0:2113:G:C6	30:0:2114:C:C4	3.08	0.42
29:3:69:TYR:CD1	29:3:78:HIS:O	2.72	0.42
7:G:16:LYS:NZ	30:0:1151:G:OP1	2.49	0.42
23:W:88:THR:HG23	23:W:110:GLN:HE21	1.84	0.42
30:0:2669:U:C2	30:0:2670:G:C8	3.07	0.42
2:B:85:ARG:NH2	30:0:2671:U:O2	2.52	0.42
30:0:1334:C:O2'	30:0:1335:C:H5'	2.19	0.42
30:0:129:A:O2'	30:0:131:A:OP1	2.37	0.42
30:0:500:G:H2'	30:0:501:G:H8	1.84	0.42
18:R:98:ASN:HD21	30:0:500:G:N2	2.12	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:100:C:C6	30:0:101:C:C5	3.06	0.42
30:0:2694:A:H3'	30:0:2695:C:H6	1.83	0.42
2:B:298:LYS:HD3	38:B:9105:HOH:O	2.18	0.42
30:0:2278:U:C5'	38:0:9472:HOH:O	2.65	0.42
30:0:451:C:C5	30:0:452:G:N7	2.88	0.42
3:C:193:LEU:HA	3:C:211:ASP:O	2.19	0.42
30:0:1904:A:H3'	30:0:1905:U:H6	1.84	0.42
6:F:48:VAL:HG12	6:F:97:ALA:HB2	2.01	0.42
31:9:60:C:H6	31:9:60:C:O5'	2.02	0.42
30:0:844:A:C2	30:0:882:A:C4	3.07	0.42
8:H:53:ILE:HD12	8:H:165:ARG:HD2	2.01	0.42
30:0:623:U:H2'	30:0:624:U:H6	1.84	0.42
30:0:2866:U:O2	30:0:2891:A:C8	2.72	0.42
31:9:34:A:H2'	31:9:35:C:O4'	2.19	0.42
30:0:25:A:C2'	30:0:26:U:H5'	2.50	0.42
5:E:24:GLY:N	5:E:76:VAL:HB	2.34	0.42
25:Y:138:ARG:HB3	30:0:638:C:P	2.59	0.42
30:0:2833:C:O2'	30:0:2834:G:H5'	2.19	0.42
15:O:98:LEU:O	15:O:102:ILE:HG13	2.20	0.42
2:B:106:HIS:CE1	2:B:147:VAL:HG13	2.54	0.42
11:K:98:VAL:HG22	11:K:102:GLU:C	2.40	0.42
30:0:1523:G:H2'	30:0:1524:U:C5	2.43	0.42
29:3:10:TYR:HD1	30:0:2408:A:HO2'	1.61	0.42
29:3:46:ILE:HA	38:0:7804:HOH:O	2.19	0.42
30:0:2321:A:C5	30:0:2323:G:C8	3.08	0.42
30:0:2323:G:N2	38:0:6034:HOH:O	2.51	0.42
31:9:88:G:C2	31:9:96:C:O2	2.72	0.42
30:0:1495:C:C1'	30:0:1573:A:H1'	2.48	0.42
30:0:2414:A:C2	30:0:2415:A:C6	3.07	0.42
31:9:44:A:H2'	31:9:45:A:O4'	2.19	0.42
30:0:2471:G:C5	30:0:2472:C:C5	3.08	0.42
21:U:56:ARG:CB	30:0:2890:A:H8	2.30	0.42
30:0:1278:A:O5'	30:0:1278:A:H8	2.01	0.42
30:0:2898:G:O2'	30:0:2899:A:H5'	2.18	0.42
13:M:118:TYR:CZ	13:M:130:GLU:HB2	2.54	0.42
13:M:120:VAL:CG1	13:M:130:GLU:HG3	2.49	0.42
30:0:499:G:H2'	30:0:500:G:O4'	2.19	0.42
1:A:94:LEU:HG	1:A:99:ILE:CD1	2.50	0.42
30:0:939:A:N1	30:0:1027:G:O2'	2.39	0.42
30:0:1765:G:C6	30:0:1766:U:C4	3.07	0.42
30:0:1750:C:C5'	38:0:3647:HOH:O	2.62	0.42
30:0:2128:G:C4	30:0:2129:U:C6	3.07	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:60:A:N3	30:0:61:G:C8	2.88	0.42
30:0:85:C:H3'	30:0:86:A:H2'	2.02	0.42
30:0:965:A:C2	30:0:1004:C:C2	3.08	0.42
30:0:1266:U:H2'	30:0:1267:C:C6	2.54	0.42
10:J:74:ARG:CB	10:J:74:ARG:HH11	2.32	0.42
30:0:1152:A:H2	30:0:1216:G:N3	2.18	0.42
5:E:131:LEU:HD12	5:E:166:VAL:HG11	2.02	0.42
18:R:69:LYS:NZ	30:0:2049:C:OP1	2.50	0.42
30:0:2048:C:C5'	38:0:9234:HOH:O	2.67	0.42
5:E:112:ALA:HA	5:E:113:PRO:HD3	1.87	0.42
30:0:2861:G:C6	30:0:2862:G:N7	2.88	0.42
13:M:106:SER:HB2	13:M:114:VAL:CG2	2.49	0.42
30:0:1723:G:H2'	38:0:9626:HOH:O	2.19	0.42
30:0:2383:G:N2	30:0:2406:U:C2	2.87	0.42
12:L:109:LEU:HD11	30:0:697:G:C2	2.54	0.42
30:0:1768:C:C5	30:0:1769:C:C4	3.07	0.42
30:0:656:G:H2'	30:0:657:G:H8	1.85	0.42
30:0:1942:A:C2'	30:0:1943:C:O5'	2.68	0.42
21:U:42:LEU:HD22	30:0:1810:C:C1'	2.49	0.42
30:0:667:C:C2	30:0:668:C:C5	3.08	0.42
30:0:1713:G:N2	30:0:2735:U:H5'	2.35	0.42
24:X:47:ALA:HB1	24:X:82:GLU:HB3	2.02	0.42
3:C:93:LYS:O	3:C:98:ARG:NH2	2.52	0.42
30:0:500:G:C4	30:0:501:G:C8	3.08	0.42
26:Z:57:MET:HG3	26:Z:79:TRP:CH2	2.55	0.42
30:0:796:A:C2	30:0:797:A:C4	3.08	0.42
19:S:11:THR:HA	38:S:8963:HOH:O	2.19	0.42
30:0:1023:C:H2'	30:0:1024:G:C8	2.55	0.42
8:H:49:GLN:NE2	8:H:170:ARG:HE	2.14	0.42
30:0:810:G:H2'	30:0:811:C:O4'	2.20	0.42
30:0:2117:U:O2	30:0:2117:U:H2'	2.19	0.42
24:X:49:ARG:HH21	30:0:1385:G:H4'	1.84	0.42
2:B:17:LYS:HB2	30:0:2657:G:OP1	2.19	0.42
1:A:169:PHE:HB2	30:0:1847:A:H4'	2.02	0.42
3:C:67:GLN:NE2	3:C:72:LYS:NZ	2.68	0.42
30:0:2809:G:H2'	30:0:2810:G:O4'	2.19	0.42
25:Y:130:ARG:HD2	38:Y:8855:HOH:O	2.20	0.42
2:B:265:LEU:HD21	2:B:316:ARG:HD3	2.01	0.42
30:0:1667:A:H5'	30:0:1667:A:C8	2.42	0.42
30:0:2317:C:C4	30:0:2318:C:C4	3.08	0.42
30:0:1679:C:O2	30:0:1679:C:C2'	2.67	0.42
30:0:2243:C:O2'	30:0:2258:A:N6	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2415:A:C3'	30:0:2416:G:H5'	2.48	0.42
30:0:710:G:C2'	30:0:711:G:H5'	2.50	0.42
30:0:1545:C:N3	30:0:1641:A:N7	2.68	0.42
30:0:1579:C:H1'	30:0:1580:A:C8	2.54	0.42
18:R:18:LEU:HD23	18:R:18:LEU:HA	1.86	0.42
30:0:2757:A:C4	30:0:2896:A:C2	3.07	0.42
30:0:2764:C:O2'	30:0:2765:C:H5'	2.18	0.42
30:0:2734:G:O2'	30:0:2735:U:H5'	2.20	0.42
30:0:1332:C:O2'	30:0:1333:U:H5'	2.20	0.42
30:0:180:G:O2'	30:0:181:G:H5'	2.19	0.42
30:0:2831:C:C2	30:0:2910:A:C2	3.07	0.42
13:M:47:ASP:CG	13:M:48:LYS:N	2.73	0.42
30:0:2786:G:O2'	30:0:2787:C:H5'	2.19	0.42
30:0:322:G:C2	30:0:323:C:C2	3.07	0.42
2:B:154:VAL:HG12	2:B:156:LYS:HG2	2.02	0.42
30:0:2637:A:C4'	38:0:4332:HOH:O	2.66	0.42
30:0:2010:A:C2'	38:0:5883:HOH:O	2.62	0.42
30:0:536:A:C6	30:0:2076:U:H5'	2.54	0.42
19:S:23:LYS:HE2	38:0:4624:HOH:O	2.19	0.42
30:0:175:G:O2'	30:0:176:U:OP2	2.37	0.42
1:A:35:GLY:O	1:A:36:ASP:HB3	2.20	0.42
30:0:1394:C:H5	38:0:7433:HOH:O	2.02	0.42
1:A:27:LEU:HD21	1:A:55:VAL:HG21	2.02	0.42
10:J:80:LYS:NZ	30:0:2815:G:N7	2.67	0.42
30:0:758:A:H2'	30:0:759:C:O4'	2.20	0.42
2:B:101:TRP:HB2	2:B:119:HIS:CD2	2.55	0.42
30:0:1945:G:C4	30:0:1946:C:C6	3.08	0.42
15:O:14:LEU:HG	15:O:102:ILE:HD11	2.02	0.42
20:T:102:ASP:O	20:T:103:LEU:HD23	2.19	0.42
2:B:211:THR:HG21	38:0:7356:HOH:O	2.18	0.42
2:B:216:LYS:HE2	38:B:9030:HOH:O	2.20	0.42
30:0:2082:G:H2'	30:0:2083:A:C8	2.55	0.42
18:R:25:PHE:HA	18:R:141:VAL:HG21	2.01	0.42
31:9:4:G:C5	31:9:120:A:C2	3.08	0.42
4:D:152:PRO:HG2	31:9:58:G:OP1	2.20	0.42
30:0:1202:A:C8	30:0:1203:G:C5	3.08	0.42
30:0:1669:G:O2'	30:0:1670:A:H5'	2.19	0.42
29:3:1:MET:CA	30:0:2319:C:H3'	2.50	0.42
29:3:1:MET:HE3	30:0:2320:U:H5	1.81	0.42
29:3:60:LYS:O	29:3:62:THR:N	2.52	0.42
30:0:1562:C:N4	38:0:5793:HOH:O	2.51	0.42
30:0:2321:A:H2	30:0:2378:U:C4	2.37	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:57:VAL:HG11	30:0:2442:G:OP1	2.20	0.42
30:0:2372:A:H2'	30:0:2373:U:O4'	2.20	0.42
30:0:2249:G:C6	30:0:2253:G:O6	2.73	0.42
30:0:683:G:O2'	30:0:684:G:H5'	2.19	0.42
30:0:2336:G:C6	30:0:2349:G:C6	3.08	0.42
30:0:533:U:C5	30:0:2812:A:H2	2.37	0.42
30:0:2780:C:H2'	30:0:2781:U:H6	1.83	0.42
30:0:1805:G:C2'	30:0:1806:G:H5'	2.50	0.42
30:0:1325:G:H2'	30:0:1326:C:H6	1.85	0.42
27:1:5:THR:N	27:1:6:PRO:HD2	2.34	0.42
30:0:426:G:O2'	30:0:427:C:H5'	2.20	0.42
20:T:61:GLU:O	20:T:63:ILE:HG12	2.20	0.42
30:0:1930:A:O2'	30:0:1931:A:H5'	2.19	0.42
30:0:210:U:H2'	30:0:211:U:C6	2.55	0.42
30:0:40:C:N4	30:0:41:G:O6	2.53	0.42
30:0:2527:U:O2'	30:0:2528:U:H5'	2.19	0.42
8:H:161:THR:HG23	30:0:2521:A:OP1	2.19	0.42
30:0:2345:A:H3'	30:0:2346:C:H5	1.84	0.42
12:L:136:ALA:HB3	38:L:8886:HOH:O	2.20	0.42
30:0:214:U:H5'	38:0:6061:HOH:O	2.20	0.42
22:V:12:THR:HG23	22:V:14:ALA:H	1.84	0.42
30:0:462:A:N6	30:0:477:A:H2	2.16	0.42
30:0:188:C:H1'	38:0:9585:HOH:O	2.20	0.42
16:P:16:VAL:HG13	16:P:20:ARG:NH1	2.34	0.42
30:0:777:U:OP2	30:0:777:U:H4'	2.19	0.42
31:9:7:G:H5''	38:9:5071:HOH:O	2.20	0.42
30:0:2675:A:H1'	30:0:2813:A:C2	2.54	0.42
12:L:5:LYS:HA	12:L:5:LYS:HD2	1.85	0.42
18:R:136:TRP:CE2	30:0:2053:G:H4'	2.54	0.42
23:W:31:HIS:HB3	38:W:5420:HOH:O	2.19	0.42
30:0:1028:U:H5'	30:0:1031:G:O4'	2.19	0.42
30:0:510:U:H4'	38:0:5151:HOH:O	2.20	0.42
21:U:17:THR:HG23	30:0:2720:C:O3'	2.20	0.42
31:9:22:G:C6	31:9:55:U:C2	3.08	0.42
30:0:1186:C:H2'	30:0:1187:U:H5'	2.02	0.42
30:0:735:C:C2	30:0:736:A:C1'	3.02	0.42
30:0:236:A:C4'	30:0:237:G:OP1	2.65	0.42
30:0:266:G:O2'	30:0:267:G:H5'	2.20	0.42
30:0:1493:A:C2'	30:0:1494:A:H5''	2.50	0.42
1:A:171:LYS:HB2	30:0:820:G:N7	2.34	0.42
30:0:686:A:C5	30:0:687:C:C6	3.08	0.42
30:0:55:U:O2'	30:0:69:A:H2'	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:700:A:O5'	30:0:701:U:H5'	2.20	0.42
30:0:1641:A:C8	30:0:1702:U:O4	2.73	0.42
2:B:97:LEU:HD21	2:B:127:GLN:HG2	2.02	0.42
30:0:1324:G:C5	30:0:1325:G:N7	2.88	0.42
4:D:48:MET:HE2	31:9:41:C:H5'	2.02	0.42
16:P:41:ARG:NH2	30:0:1500:U:OP2	2.52	0.42
30:0:151:A:H2'	30:0:152:A:O4'	2.20	0.42
30:0:968:G:C2	30:0:1001:U:O2	2.72	0.42
30:0:1765:G:H1'	30:0:1780:G:N2	2.34	0.42
30:0:1849:G:C6	30:0:1850:U:C5	3.08	0.42
30:0:13:G:C2	30:0:14:C:C5	3.07	0.42
26:Z:77:GLY:CA	26:Z:92:SER:HA	2.49	0.42
6:F:54:VAL:HG13	30:0:263:U:C5	2.55	0.42
30:0:788:A:H2'	30:0:789:C:C6	2.55	0.42
2:B:195:ARG:HG2	2:B:323:LEU:HD22	2.00	0.42
8:H:157:TYR:HA	8:H:160:ILE:HG12	2.01	0.42
30:0:1407:A:O2'	30:0:1408:U:H3'	2.20	0.42
1:A:173:GLY:O	1:A:176:HIS:HB3	2.20	0.42
30:0:870:G:C3'	30:0:871:G:H5''	2.50	0.42
30:0:736:A:O2'	30:0:737:A:H5'	2.19	0.42
30:0:2561:C:H42	30:0:2572:G:H1	1.66	0.42
30:0:1572:A:C2	30:0:1573:A:C4	3.08	0.42
30:0:1771:U:H4'	30:0:1772:C:OP2	2.20	0.42
30:0:822:C:N3	30:0:823:U:C5	2.87	0.42
30:0:708:A:H2'	30:0:709:G:C8	2.54	0.42
30:0:719:C:C2'	30:0:720:G:O5'	2.68	0.42
30:0:824:G:N2	30:0:826:U:C5	2.87	0.42
30:0:2508:C:H3'	38:0:4505:HOH:O	2.20	0.42
30:0:2721:U:O2	30:0:2763:G:H4'	2.19	0.42
30:0:194:A:OP2	30:0:426:G:N2	2.49	0.42
30:0:577:G:C2	30:0:581:G:C6	3.08	0.42
30:0:1552:G:C6	30:0:1634:G:C5	3.08	0.42
31:9:110:G:N2	31:9:111:U:H1'	2.35	0.42
20:T:40:VAL:CG2	20:T:108:ARG:HH21	2.32	0.42
30:0:221:G:C6	30:0:222:A:C6	3.08	0.42
4:D:83:PHE:CE2	4:D:87:ALA:HB2	2.55	0.42
2:B:280:VAL:CG1	2:B:281:ASP:N	2.82	0.42
30:0:967:U:C2	30:0:1002:G:C4	3.08	0.42
30:0:454:U:C2	38:0:9035:HOH:O	2.57	0.42
30:0:1058:A:O4'	30:0:2492:U:H4'	2.20	0.42
30:0:2286:G:H2'	30:0:2287:C:H6	1.85	0.42
16:P:109:ARG:HD3	16:P:119:TYR:CD1	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:P:81:LYS:O	30:0:1761:U:H5'	2.19	0.42
30:0:2067:A:C4	30:0:2068:G:C8	3.08	0.42
13:M:49:ALA:C	13:M:54:TYR:HB3	2.40	0.42
6:F:67:ALA:HB1	6:F:72:VAL:O	2.20	0.42
38:N:8817:HOH:O	31:9:51:A:H2'	2.20	0.41
30:0:1246:A:C4	30:0:1248:A:N7	2.88	0.41
31:9:37:C:N3	31:9:43:G:C6	2.88	0.41
2:B:162:MET:CE	2:B:308:LEU:HD21	2.50	0.41
5:E:139:GLU:OE2	30:0:2781:U:C1'	2.65	0.41
5:E:68:HIS:CE1	30:0:2782:G:H4'	2.55	0.41
30:0:2073:G:C6	30:0:2489:G:H4'	2.55	0.41
8:H:12:ILE:HG23	8:H:129:ARG:NE	2.35	0.41
16:P:3:LEU:HD22	16:P:31:ILE:HG22	2.02	0.41
30:0:2694:A:N6	30:0:2701:G:H1'	2.35	0.41
30:0:852:U:H5	38:0:7598:HOH:O	2.02	0.41
1:A:122:SER:O	1:A:124:VAL:N	2.53	0.41
11:K:113:ILE:HG22	11:K:114:ALA:N	2.35	0.41
30:0:1305:C:P	38:0:9049:HOH:O	2.78	0.41
30:0:2002:C:H2'	30:0:2003:U:C5'	2.50	0.41
23:W:119:HIS:CG	38:0:5240:HOH:O	2.73	0.41
23:W:119:HIS:CD2	23:W:120:PRO:O	2.73	0.41
2:B:202:VAL:HG11	2:B:301:VAL:CG2	2.50	0.41
2:B:69:VAL:HA	2:B:70:PRO:HD3	1.80	0.41
30:0:1142:C:C2	30:0:1222:A:C2	3.08	0.41
10:J:45:VAL:HG22	10:J:46:ILE:N	2.34	0.41
8:H:99:ARG:NH1	30:0:1055:G:OP2	2.53	0.41
30:0:1475:G:O2'	30:0:1866:A:N1	2.42	0.41
18:R:30:ALA:HA	18:R:33:ARG:NH1	2.35	0.41
22:V:49:LEU:O	22:V:53:ILE:HG13	2.20	0.41
30:0:489:A:C6	30:0:490:C:C2	3.08	0.41
30:0:1033:C:H2'	30:0:1034:G:O4'	2.20	0.41
6:F:101:ALA:HA	38:F:5413:HOH:O	2.20	0.41
2:B:275:GLY:O	2:B:291:ASP:HA	2.20	0.41
30:0:1569:U:O2'	30:0:1633:C:H4'	2.20	0.41
13:M:188:ARG:HD3	30:0:155:C:OP2	2.20	0.41
30:0:168:C:C2'	30:0:169:A:H5'	2.50	0.41
30:0:2512:U:C4'	30:0:2514:U:O4	2.67	0.41
30:0:529:G:C6	30:0:530:C:C5	3.08	0.41
30:0:685:C:O2'	30:0:748:C:OP1	2.34	0.41
31:9:36:C:H5	31:9:37:C:C4	2.38	0.41
30:0:1478:U:H2'	30:0:1479:G:H8	1.82	0.41
30:0:2255:A:C2'	30:0:2256:G:H5'	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2768:A:H2'	30:0:2769:C:C6	2.56	0.41
30:0:1597:A:C4	30:0:1598:A:C8	3.09	0.41
30:0:2686:C:H2'	30:0:2687:G:C8	2.54	0.41
30:0:2852:A:N7	30:0:2902:A:C6	2.88	0.41
25:Y:169:ARG:HH11	30:0:1328:A:P	2.43	0.41
30:0:226:A:H1'	30:0:393:G:C6	2.54	0.41
30:0:1023:C:H4'	38:0:6013:HOH:O	2.20	0.41
30:0:940:G:C5	30:0:1027:G:C2	3.08	0.41
30:0:962:C:C5	30:0:963:C:C5	3.08	0.41
30:0:178:U:H1'	30:0:771:G:O2'	2.20	0.41
13:M:42:ARG:HA	13:M:43:PRO:HD3	1.89	0.41
30:0:84:G:C6	30:0:85:C:C4	3.08	0.41
30:0:1377:C:C5	30:0:1693:A:N6	2.87	0.41
3:C:133:ARG:HD2	38:C:8611:HOH:O	2.21	0.41
29:3:17:HIS:CB	30:0:2409:C:H4'	2.49	0.41
30:0:1337:G:H2'	30:0:1338:U:C6	2.55	0.41
30:0:25:A:H2'	30:0:26:U:C5'	2.50	0.41
21:U:47:ARG:O	21:U:55:ALA:HB2	2.20	0.41
17:Q:76:VAL:HA	17:Q:81:GLU:HA	2.01	0.41
30:0:1667:A:H2'	30:0:1668:U:O4'	2.20	0.41
25:Y:189:ASN:HD21	25:Y:191:ASP:HB2	1.85	0.41
21:U:38:ASN:O	21:U:42:LEU:HG	2.20	0.41
30:0:814:G:H2'	30:0:815:U:H6	1.84	0.41
30:0:1504:A:O2'	30:0:1506:U:OP2	2.38	0.41
30:0:2700:G:C6	30:0:2701:G:C4	3.08	0.41
31:9:17:G:C2	31:9:64:C:N3	2.88	0.41
30:0:404:G:C5	30:0:405:C:C5	3.07	0.41
30:0:1634:G:C4	30:0:1635:U:C5	3.08	0.41
11:K:124:VAL:O	11:K:127:ALA:HB3	2.20	0.41
18:R:39:THR:HG22	18:R:41:GLY:N	2.35	0.41
28:2:22:PRO:HG2	28:2:25:VAL:CG2	2.51	0.41
23:W:69:ARG:HG3	23:W:118:LEU:HA	2.02	0.41
8:H:61:ARG:NH1	8:H:61:ARG:HG3	2.34	0.41
4:D:18:ILE:HG12	4:D:134:LEU:CD2	2.50	0.41
30:0:222:A:C5	30:0:223:G:H1'	2.55	0.41
2:B:254:GLN:HG3	38:0:9701:HOH:O	2.20	0.41
30:0:564:G:C2'	30:0:565:A:OP2	2.68	0.41
30:0:646:G:H2'	30:0:647:U:C6	2.55	0.41
8:H:116:MET:HB3	30:0:2283:G:C5	2.56	0.41
31:9:102:G:O2'	31:9:103:A:O4'	2.35	0.41
30:0:783:C:O5'	30:0:783:C:H6	2.03	0.41
3:C:69:HIS:O	30:0:765:G:H4'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:I:91:PHE:CD2	9:I:131:GLY:HA2	2.56	0.41
29:3:86:GLY:HA2	38:3:9031:HOH:O	2.19	0.41
30:0:1159:G:C8	30:0:1160:G:C8	3.09	0.41
26:Z:66:CYS:O	26:Z:68:GLU:N	2.53	0.41
26:Z:70:ARG:HG2	26:Z:70:ARG:HH11	1.85	0.41
30:0:1206:U:H2'	30:0:1207:A:C1'	2.48	0.41
30:0:154:C:C2	30:0:155:C:C6	3.08	0.41
13:M:188:ARG:HB2	30:0:156:C:OP2	2.21	0.41
30:0:2716:G:H2'	30:0:2717:C:H6	1.84	0.41
3:C:127:ARG:HD3	3:C:129:HIS:HE1	1.85	0.41
30:0:530:C:H4'	30:0:612:U:H4'	2.02	0.41
30:0:1505:U:H6	30:0:1505:U:H2'	1.70	0.41
13:M:68:ARG:CZ	13:M:73:ARG:NH1	2.83	0.41
30:0:291:C:H2'	30:0:292:G:C5'	2.50	0.41
24:X:72:VAL:HG22	24:X:85:VAL:CG1	2.51	0.41
30:0:1641:A:H8	30:0:1702:U:O4	2.02	0.41
29:3:51:LYS:C	29:3:53:SER:H	2.24	0.41
30:0:2793:A:C5	30:0:2794:G:C8	3.09	0.41
30:0:2869:G:C6	30:0:2870:C:C4	3.08	0.41
23:W:110:GLN:HA	23:W:110:GLN:NE2	2.35	0.41
3:C:95:GLU:H	3:C:95:GLU:CD	2.23	0.41
18:R:114:VAL:HA	18:R:144:GLU:O	2.20	0.41
30:0:1933:G:C2	30:0:1934:A:N9	2.88	0.41
4:D:22:VAL:HG22	4:D:74:THR:HG22	2.02	0.41
30:0:2699:A:H2'	30:0:2700:G:O4'	2.20	0.41
30:0:577:G:N2	30:0:581:G:C5	2.89	0.41
25:Y:107:PRO:HB3	25:Y:182:PHE:CD2	2.56	0.41
25:Y:107:PRO:HB3	25:Y:182:PHE:CE2	2.56	0.41
15:O:70:LEU:O	15:O:92:VAL:HG21	2.20	0.41
30:0:178:U:H2'	30:0:179:C:C6	2.50	0.41
23:W:154:ARG:HD2	38:0:6479:HOH:O	2.19	0.41
3:C:133:ARG:CZ	3:C:135:GLU:HB2	2.51	0.41
30:0:633:C:C2	38:0:9317:HOH:O	2.72	0.41
10:J:70:PHE:HD1	30:0:2676:C:H4'	1.86	0.41
1:A:194:MET:SD	30:0:875:A:C2	3.14	0.41
30:0:2861:G:C5	30:0:2862:G:C8	3.08	0.41
30:0:305:A:C5	30:0:329:A:C2	3.08	0.41
4:D:51:ARG:HH11	4:D:68:PRO:HB3	1.84	0.41
30:0:2119:C:O2'	30:0:2120:U:H5'	2.19	0.41
30:0:1407:A:H4'	38:0:4676:HOH:O	2.21	0.41
21:U:8:TYR:CE1	21:U:40:ALA:HB2	2.56	0.41
30:0:851:C:H4'	38:0:5526:HOH:O	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:228:ALA:HA	3:C:229:PRO:HD3	1.79	0.41
30:0:2484:U:H4'	38:0:9461:HOH:O	2.19	0.41
30:0:1562:C:N3	30:0:1563:G:C5	2.88	0.41
30:0:542:A:H5'	30:0:542:A:C8	2.50	0.41
29:3:34:LYS:N	29:3:34:LYS:HD2	2.35	0.41
26:Z:41:ARG:HD3	38:Z:8709:HOH:O	2.20	0.41
30:0:2326:C:O2	30:0:2375:A:C2	2.73	0.41
30:0:745:G:C4'	30:0:746:A:OP1	2.69	0.41
30:0:52:A:C4'	30:0:121:U:H3	2.34	0.41
30:0:824:G:H2'	30:0:826:U:OP1	2.19	0.41
14:N:110:THR:CG2	31:9:37:C:H4'	2.51	0.41
30:0:1150:A:H3'	30:0:1151:G:H5'	2.02	0.41
30:0:215:A:N6	30:0:225:G:H1'	2.35	0.41
16:P:98:ILE:HD12	16:P:102:ARG:CZ	2.49	0.41
30:0:2425:A:H2'	38:0:9237:HOH:O	2.19	0.41
30:0:106:A:C2'	30:0:107:U:C5'	2.92	0.41
30:0:1664:A:OP1	30:0:1664:A:C8	2.60	0.41
30:0:1891:G:H1'	30:0:1972:U:C2	2.55	0.41
30:0:2543:G:O3'	30:0:2590:U:H5'	2.21	0.41
30:0:1739:G:C2'	30:0:1740:U:H5'	2.50	0.41
30:0:2852:A:C2	30:0:2901:C:C4	3.08	0.41
30:0:752:G:H2'	30:0:753:U:O4'	2.21	0.41
30:0:1547:A:C2	30:0:1639:U:O2	2.73	0.41
25:Y:107:PRO:HD3	25:Y:182:PHE:CE1	2.56	0.41
30:0:2599:A:C6	30:0:2600:A:C6	3.08	0.41
30:0:1549:C:H3'	30:0:1549:C:C6	2.56	0.41
16:P:105:LEU:HD21	16:P:137:LEU:HD21	2.02	0.41
30:0:635:A:H2	38:0:9223:HOH:O	2.02	0.41
30:0:1427:A:N6	30:0:1440:U:H1'	2.35	0.41
18:R:134:SER:HB2	30:0:2055:A:H5'	2.00	0.41
1:A:23:TYR:OH	1:A:182:ARG:HA	2.21	0.41
30:0:2350:G:O2'	30:0:2351:C:H5'	2.20	0.41
30:0:1061:C:H1'	30:0:2283:G:O6	2.20	0.41
30:0:510:U:H6	38:0:7340:HOH:O	2.03	0.41
10:J:19:MET:HG3	10:J:79:PHE:CE1	2.55	0.41
30:0:2885:A:H2'	30:0:2886:C:O4'	2.20	0.41
30:0:410:A:O4'	30:0:412:C:C2	2.73	0.41
3:C:164:ALA:HA	3:C:167:ASP:OD1	2.20	0.41
14:N:33:ARG:NH2	31:9:6:C:O2'	2.51	0.41
30:0:1161:A:O5'	30:0:1161:A:C8	2.70	0.41
30:0:1165:G:H4'	30:0:1174:A:O2'	2.20	0.41
30:0:165:A:N7	30:0:167:A:OP1	2.53	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:483:C:N4	30:0:484:A:C6	2.88	0.41
30:0:395:A:H5'	30:0:396:U:H5''	2.01	0.41
29:3:35:TRP:CE3	29:3:36:ILE:HG12	2.55	0.41
30:0:1449:G:H2'	30:0:1449:G:N3	2.36	0.41
30:0:1512:G:C4	30:0:1513:C:C6	3.09	0.41
30:0:1773:G:H2'	30:0:1774:G:H5'	2.01	0.41
30:0:52:A:C6	30:0:53:C:C4	3.08	0.41
15:O:18:ALA:HB2	38:O:3062:HOH:O	2.19	0.41
15:O:25:VAL:O	15:O:29:VAL:HG23	2.21	0.41
24:X:74:ALA:HB1	24:X:85:VAL:HG22	2.02	0.41
30:0:1708:C:H2'	30:0:1709:G:O4'	2.20	0.41
30:0:2088:C:H1'	30:0:2841:A:C2	2.56	0.41
28:2:40:ARG:HG2	28:2:41:HIS:N	2.36	0.41
30:0:2064:U:O2'	30:0:2065:C:H5'	2.21	0.41
30:0:2106:C:H1'	38:0:9577:HOH:O	2.20	0.41
1:A:103:VAL:HA	1:A:104:PRO:HD3	1.76	0.41
30:0:347:A:H2'	30:0:348:C:O4'	2.20	0.41
30:0:2670:G:C2'	30:0:2671:U:H5'	2.49	0.41
30:0:2900:G:C2'	30:0:2901:C:H5'	2.51	0.41
1:A:149:ASP:HA	1:A:150:PRO:HD2	1.86	0.41
30:0:1907:U:O2	30:0:1933:G:C2	2.73	0.41
30:0:40:C:H6	30:0:40:C:O5'	2.04	0.41
30:0:151:A:C2	30:0:152:A:C4	3.09	0.41
23:W:21:LEU:HD21	23:W:48:VAL:HG11	2.02	0.41
23:W:69:ARG:HA	23:W:69:ARG:HD3	1.76	0.41
24:X:29:ALA:O	24:X:33:ILE:HG13	2.20	0.41
30:0:626:U:C4	30:0:627:G:C6	3.09	0.41
10:J:77:GLY:O	10:J:78:ILE:C	2.58	0.41
14:N:13:ARG:HD2	14:N:13:ARG:HA	1.87	0.41
30:0:2123:A:H3'	30:0:2124:G:H8	1.85	0.41
12:L:148:GLU:HG3	38:L:8856:HOH:O	2.19	0.41
4:D:138:GLY:N	38:D:225:HOH:O	2.54	0.41
30:0:1631:A:C5	30:0:1632:A:C6	3.09	0.41
30:0:165:A:C6	30:0:168:C:C5	3.09	0.41
31:9:77:A:C4	31:9:79:U:C4	3.09	0.41
14:N:11:ARG:NH1	31:9:8:G:O6	2.54	0.41
30:0:2321:A:C2	30:0:2378:U:N3	2.88	0.41
30:0:396:U:O2'	30:0:397:A:O5'	2.37	0.41
30:0:2410:G:C2'	30:0:2411:C:H5'	2.50	0.41
30:0:2300:A:N3	30:0:2306:U:C4	2.88	0.41
30:0:1483:C:H2'	30:0:1484:G:C5'	2.50	0.41
31:9:44:A:C6	31:9:45:A:C5	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:385:C:C3'	30:0:385:C:C6	3.03	0.41
30:0:1971:G:C5'	38:0:7283:HOH:O	2.64	0.41
23:W:44:MET:CE	30:0:944:G:N2	2.80	0.41
30:0:2588:OMG:H2'	30:0:2589:U:H4'	2.02	0.41
30:0:1898:G:O2'	30:0:1899:C:H5'	2.20	0.41
30:0:1611:G:C2	30:0:1612:A:N7	2.89	0.41
20:T:52:ARG:NH2	30:0:308:U:H2'	2.36	0.41
30:0:1644:C:H2'	30:0:1645:U:O4'	2.21	0.41
13:M:97:ILE:CD1	13:M:127:LYS:HD2	2.49	0.41
30:0:353:G:C6	30:0:354:A:C6	3.09	0.41
25:Y:182:PHE:CG	25:Y:202:ALA:HB2	2.55	0.41
30:0:2639:G:H2'	30:0:2640:U:O5'	2.21	0.41
6:F:28:ALA:C	6:F:99:THR:HG23	2.41	0.41
20:T:43:ASN:C	20:T:45:GLY:H	2.23	0.41
30:0:1281:C:C5	30:0:1282:U:C4	3.08	0.41
3:C:142:ASP:OD2	3:C:238:SER:HB2	2.21	0.41
6:F:59:ILE:HD13	30:0:263:U:O4'	2.21	0.41
15:O:105:ASN:ND2	15:O:109:SER:H	2.19	0.41
20:T:41:ARG:NH1	20:T:42:VAL:O	2.53	0.41
4:D:146:LYS:HD3	14:N:107:ASN:HD21	1.86	0.41
30:0:640:G:O2'	30:0:641:G:H5'	2.21	0.41
30:0:2860:G:C6	30:0:2861:G:C5	3.08	0.41
30:0:2834:G:C2'	30:0:2835:C:O5'	2.68	0.41
4:D:169:THR:HG22	4:D:170:TYR:CD1	2.55	0.41
16:P:24:ASN:HA	16:P:25:PRO:HD3	1.90	0.41
30:0:2876:G:H2'	30:0:2877:G:C8	2.56	0.41
30:0:935:G:O2'	30:0:936:C:H5'	2.21	0.41
14:N:91:ARG:HD2	38:N:8813:HOH:O	2.20	0.41
22:V:32:ALA:O	22:V:35:ALA:HB3	2.20	0.41
14:N:44:ARG:CG	14:N:45:ALA:N	2.84	0.41
14:N:35:VAL:HB	14:N:46:GLN:HB2	2.03	0.41
25:Y:205:ILE:HG13	25:Y:205:ILE:H	1.72	0.41
4:D:40:ILE:HG23	38:D:203:HOH:O	2.19	0.41
30:0:2432:C:O5'	30:0:2432:C:C6	2.73	0.41
30:0:1570:C:H2'	30:0:1571:G:H5'	2.03	0.41
15:O:44:ASN:OD1	15:O:65:LEU:HB2	2.21	0.41
30:0:533:U:C5	30:0:2812:A:C2	3.09	0.41
30:0:1279:U:C5'	30:0:1280:A:OP2	2.68	0.41
30:0:450:C:H1'	38:0:4341:HOH:O	2.19	0.41
10:J:34:GLU:O	10:J:36:VAL:HG23	2.21	0.41
30:0:969:G:C2	30:0:1000:C:N3	2.89	0.41
30:0:1552:G:C2	30:0:1634:G:C4	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1357:A:H1'	38:0:4127:HOH:O	2.19	0.41
1:A:81:GLN:O	1:A:92:ASN:HB3	2.21	0.41
1:A:80:LEU:HA	1:A:92:ASN:OD1	2.21	0.41
30:0:1004:C:H4'	38:0:7615:HOH:O	2.20	0.41
30:0:1646:G:N3	30:0:1647:G:C8	2.88	0.41
30:0:2292:C:C2	30:0:2463:A:C4'	3.04	0.41
24:X:30:MET:CE	24:X:58:ALA:HB3	2.50	0.41
30:0:955:A:H2'	30:0:956:G:C5'	2.51	0.41
2:B:293:PRO:HD2	38:B:9050:HOH:O	2.21	0.41
30:0:2551:C:O2'	30:0:2552:C:H5'	2.21	0.41
30:0:2617:G:H2'	30:0:2617:G:N3	2.35	0.41
30:0:11:A:N3	30:0:11:A:H2'	2.36	0.41
3:C:7:ASP:C	3:C:9:ASP:H	2.24	0.41
30:0:2324:G:H4'	30:0:2418:G:O2'	2.21	0.41
30:0:72:C:H5'	38:0:5822:HOH:O	2.21	0.41
30:0:1680:C:H5'	38:0:7195:HOH:O	2.19	0.41
30:0:2597:U:H2'	30:0:2598:U:H5'	2.02	0.41
23:W:72:PRO:HG2	23:W:77:ALA:HB3	2.02	0.41
17:Q:75:ILE:HG12	17:Q:84:ILE:CD1	2.51	0.41
30:0:455:A:H2'	30:0:456:G:O4'	2.20	0.41
30:0:361:C:H2'	30:0:362:G:O4'	2.21	0.41
14:N:71:TRP:HB2	14:N:175:LEU:HD22	2.02	0.41
30:0:1175:G:N3	30:0:1193:A:C6	2.88	0.41
30:0:1199:A:N6	30:0:1200:A:N6	2.68	0.41
30:0:1561:U:C5	30:0:1562:C:C5	3.07	0.41
30:0:509:A:C6	30:0:511:A:C6	3.09	0.41
30:0:2135:A:C2	30:0:2241:C:O2	2.74	0.41
30:0:2327:A:H2'	30:0:2328:U:C6	2.56	0.41
30:0:119:A:C2'	30:0:120:A:C5'	2.96	0.41
30:0:2683:G:C4	30:0:2712:G:N2	2.89	0.41
30:0:1248:A:H2'	30:0:1249:U:H6	1.84	0.41
30:0:1118:A:N6	30:0:1244:U:H3	2.11	0.41
30:0:292:G:N1	30:0:358:G:H1'	2.35	0.41
30:0:790:A:H2'	30:0:791:A:O4'	2.20	0.41
20:T:71:VAL:HG12	20:T:72:ILE:N	2.36	0.41
30:0:2474:A:H4'	30:0:2475:C:H3'	2.03	0.41
29:3:52:PHE:HB3	38:3:9036:HOH:O	2.21	0.41
30:0:2727:A:C6	30:0:2756:U:N3	2.88	0.41
30:0:2761:A:N3	30:0:2762:C:O2'	2.52	0.41
30:0:157:G:C6	30:0:158:A:N7	2.89	0.41
25:Y:154:ARG:NH2	30:0:1071:G:H4'	2.36	0.41
30:0:1594:C:C2	30:0:1601:G:N2	2.89	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1713:G:H1'	38:0:5026:HOH:O	2.21	0.41
3:C:43:LYS:HG2	30:0:449:A:C8	2.56	0.41
30:0:1787:C:H2'	30:0:1788:U:C6	2.56	0.41
30:0:1806:G:H1'	30:0:2875:A:N3	2.36	0.41
30:0:303:C:H2'	30:0:304:G:C5'	2.51	0.41
10:J:133:GLY:O	10:J:137:GLU:HG3	2.21	0.41
30:0:300:U:H2'	30:0:301:C:C6	2.43	0.41
1:A:193:ALA:HB2	38:A:9014:HOH:O	2.21	0.41
30:0:1730:G:C5'	30:0:1731:C:C5	3.03	0.41
30:0:420:U:H5'	30:0:1920:C:C2	2.56	0.41
30:0:2444:U:C5	30:0:2445:U:C5	3.09	0.41
30:0:1503:U:H2'	30:0:1504:A:C5'	2.51	0.41
30:0:1608:G:O2'	30:0:1609:C:H5'	2.20	0.41
26:Z:53:ILE:O	26:Z:57:MET:HB2	2.20	0.41
30:0:393:G:H5''	38:0:9856:HOH:O	2.21	0.41
19:S:11:THR:O	19:S:15:MET:HG2	2.21	0.41
3:C:76:ARG:HB3	3:C:78:ARG:NH1	2.35	0.41
30:0:939:A:C5'	38:0:5361:HOH:O	2.68	0.41
30:0:254:C:C2	30:0:255:A:C8	3.09	0.41
3:C:63:SER:HB3	30:0:2101:A:H5'	2.03	0.41
2:B:292:GLY:O	2:B:294:TYR:HD2	2.03	0.41
25:Y:149:GLN:HG3	38:0:3330:HOH:O	2.20	0.41
30:0:275:G:N2	30:0:376:C:C2	2.88	0.41
30:0:481:U:C5	30:0:487:G:O6	2.74	0.41
30:0:1925:G:C2	30:0:1926:G:C8	3.09	0.41
17:Q:19:ARG:HH22	31:9:11:A:H3'	1.82	0.41
30:0:2866:U:H5''	38:0:6354:HOH:O	2.20	0.41
30:0:567:U:C5'	38:0:5240:HOH:O	2.69	0.41
26:Z:77:GLY:N	26:Z:92:SER:HA	2.36	0.41
30:0:1252:A:H4'	38:0:9925:HOH:O	2.21	0.41
1:A:70:ALA:HA	1:A:71:PRO:HD3	1.71	0.41
12:L:117:GLU:HG2	38:L:8870:HOH:O	2.20	0.41
30:0:1486:A:H2'	38:0:4435:HOH:O	2.20	0.41
30:0:2055:A:C4'	38:0:7348:HOH:O	2.68	0.41
11:K:49:LEU:HD23	11:K:49:LEU:C	2.41	0.41
30:0:1378:G:H4'	38:0:9224:HOH:O	2.20	0.41
2:B:224:LYS:HA	2:B:224:LYS:HD3	1.83	0.41
9:I:108:HIS:HB2	9:I:109:PRO:HD3	2.03	0.41
3:C:173:LYS:O	3:C:186:TYR:HA	2.20	0.41
1:A:29:HIS:CE1	1:A:107:ASN:HD22	2.39	0.41
8:H:70:LEU:HD12	8:H:70:LEU:HA	1.93	0.41
17:Q:42:LYS:HA	17:Q:42:LYS:HD2	1.92	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:97:VAL:HG12	12:L:98:GLU:O	2.21	0.41
30:0:1158:G:C6	30:0:1159:G:C5	3.08	0.41
29:3:2:GLN:N	30:0:2320:U:H5'	2.35	0.41
13:M:84:LYS:HD3	13:M:85:ARG:NH1	2.34	0.41
30:0:1562:C:C2'	30:0:1562:C:O2	2.67	0.41
30:0:1497:G:C2	30:0:1498:G:C4	3.09	0.41
7:G:63:ARG:N	38:G:2569:HOH:O	2.54	0.41
30:0:816:G:H8	30:0:816:G:O5'	2.04	0.41
24:X:26:ALA:CB	24:X:63:ARG:HA	2.46	0.41
30:0:92:G:H5'	38:0:7329:HOH:O	2.21	0.41
30:0:1419:U:H3'	30:0:1419:U:O2	2.21	0.41
21:U:34:SER:HA	21:U:37:GLU:CG	2.51	0.41
30:0:47:G:H1'	30:0:114:A:N1	2.35	0.41
30:0:2528:U:H2'	30:0:2529:G:O4'	2.21	0.41
30:0:1792:C:O5'	30:0:1792:C:H6	2.03	0.41
2:B:256:GLN:HG2	38:B:9140:HOH:O	2.19	0.41
30:0:1063:G:O5'	30:0:2307:A:H1'	2.21	0.41
13:M:71:SER:HB3	30:0:2264:A:OP1	2.21	0.41
30:0:1292:G:O5'	30:0:1292:G:H8	2.04	0.41
20:T:78:THR:HB	20:T:86:GLU:HG3	2.03	0.41
13:M:14:ASN:C	13:M:16:GLY:H	2.24	0.41
31:9:3:A:C8	31:9:26:C:N3	2.90	0.40
30:0:1195:G:C2	30:0:1205:U:N3	2.89	0.40
30:0:2502:C:O2'	30:0:2503:A:H5'	2.20	0.40
30:0:559:U:C6	30:0:559:U:C4'	3.04	0.40
26:Z:41:ARG:O	26:Z:47:ARG:NH1	2.53	0.40
23:W:43:GLY:HA3	30:0:945:U:O2'	2.21	0.40
30:0:1249:U:H2'	30:0:1250:C:H6	1.85	0.40
30:0:707:C:C4	30:0:708:A:N7	2.89	0.40
30:0:2255:A:N1	30:0:2256:G:C4	2.88	0.40
30:0:2768:A:H2'	30:0:2769:C:O4'	2.20	0.40
30:0:669:G:C6	30:0:670:G:C5	3.09	0.40
30:0:2759:C:H2'	30:0:2760:C:O4'	2.22	0.40
30:0:2766:A:C5	30:0:2767:C:C5	3.09	0.40
30:0:1597:A:C5	30:0:1598:A:C8	3.10	0.40
1:A:199:HIS:CD2	1:A:201:PHE:HB2	2.56	0.40
30:0:36:C:C2	30:0:447:A:C2	3.09	0.40
30:0:1503:U:C4	30:0:1504:A:C5	3.09	0.40
30:0:1587:U:H2'	30:0:1588:G:C5'	2.51	0.40
30:0:101:C:O2	30:0:102:A:C8	2.74	0.40
30:0:226:A:H1'	30:0:393:G:N7	2.35	0.40
30:0:582:U:H2'	30:0:583:C:H6	1.84	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2600:A:H2'	30:0:2601:A:O4'	2.22	0.40
30:0:1628:G:C2'	30:0:1629:G:H5'	2.51	0.40
16:P:63:ARG:NE	30:0:1549:C:OP1	2.54	0.40
3:C:193:LEU:HD13	3:C:222:ASP:HB2	2.02	0.40
30:0:2713:G:H2'	30:0:2714:U:H5'	2.02	0.40
2:B:146:THR:O	2:B:148:PRO:HD3	2.21	0.40
30:0:1461:U:O2'	30:0:1462:C:H5'	2.21	0.40
30:0:731:U:O2'	30:0:732:C:H5'	2.21	0.40
30:0:1384:C:O5'	30:0:1384:C:H6	2.04	0.40
30:0:834:G:H3'	30:0:835:U:H4'	2.03	0.40
30:0:2015:A:O2'	30:0:2016:U:H5'	2.21	0.40
8:H:91:ARG:HB2	30:0:1003:U:OP1	2.21	0.40
23:W:59:GLN:HE22	23:W:97:ALA:HB3	1.86	0.40
30:0:361:C:H2'	30:0:362:G:C8	2.56	0.40
3:C:178:GLN:C	3:C:180:SER:N	2.74	0.40
10:J:31:LEU:HD23	10:J:31:LEU:HA	1.87	0.40
3:C:131:PHE:N	3:C:131:PHE:CD2	2.89	0.40
30:0:130:C:H3'	30:0:141:C:H5	1.85	0.40
17:Q:7:LEU:HD12	30:0:2424:U:H1'	2.03	0.40
20:T:12:ARG:NH1	38:T:3035:HOH:O	2.54	0.40
30:0:2319:C:C2'	30:0:2319:C:O2	2.69	0.40
31:9:114:G:C6	31:9:115:C:N4	2.89	0.40
30:0:1624:A:H4'	30:0:1626:A:H5''	2.04	0.40
30:0:691:G:N2	30:0:694:A:OP2	2.45	0.40
30:0:2769:C:C5	30:0:2770:G:N7	2.89	0.40
30:0:2769:C:H2'	30:0:2770:G:C4'	2.51	0.40
30:0:2089:A:H2'	30:0:2090:G:C5'	2.52	0.40
30:0:2721:U:H5	38:0:9305:HOH:O	2.04	0.40
30:0:2896:A:C2'	30:0:2896:A:N3	2.84	0.40
16:P:102:ARG:CZ	30:0:1596:U:C5	3.04	0.40
30:0:1601:G:H2'	30:0:1602:C:C6	2.57	0.40
30:0:2588:OMG:HM21	38:0:5634:HOH:O	2.22	0.40
16:P:31:ILE:O	16:P:34:ALA:HB3	2.21	0.40
30:0:1585:C:N3	30:0:1611:G:N2	2.68	0.40
30:0:1419:U:H2'	30:0:1685:A:C2	2.56	0.40
30:0:2582:G:C8	30:0:2601:A:C4	3.09	0.40
30:0:2582:G:H22	30:0:2596:A:H2	1.69	0.40
30:0:316:A:C4	30:0:337:A:C2	3.10	0.40
30:0:2333:G:C2	30:0:2334:C:C2	3.10	0.40
30:0:1726:G:C6	30:0:2050:G:O6	2.75	0.40
30:0:590:A:H2'	30:0:591:A:C5'	2.50	0.40
30:0:2541:U:H5'	30:0:2611:G:O6	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2554:U:O4'	30:0:2577:A:N6	2.53	0.40
10:J:14:ALA:O	10:J:44:ALA:HA	2.21	0.40
10:J:38:VAL:HB	10:J:103:VAL:HG22	2.03	0.40
16:P:59:ARG:O	16:P:62:ALA:HB3	2.20	0.40
3:C:202:THR:HG21	30:0:328:U:O2	2.22	0.40
13:M:37:VAL:HG21	13:M:108:THR:OG1	2.21	0.40
30:0:453:A:C4	30:0:479:G:C8	3.09	0.40
29:3:11:CYS:C	29:3:13:HIS:H	2.21	0.40
30:0:1166:A:H5''	30:0:1167:G:OP2	2.20	0.40
30:0:1168:C:H1'	38:0:7314:HOH:O	2.22	0.40
30:0:1515:A:H2'	30:0:1516:U:O4'	2.21	0.40
30:0:2515:C:C2'	30:0:2516:G:H5'	2.51	0.40
30:0:2377:U:H6	30:0:2377:U:O5'	2.03	0.40
30:0:1623:C:C4	30:0:1624:A:C6	3.10	0.40
30:0:2367:A:H5'	38:0:5062:HOH:O	2.18	0.40
13:M:73:ARG:HB2	30:0:1470:A:OP1	2.21	0.40
30:0:1119:G:N2	30:0:1246:A:N1	2.68	0.40
30:0:2766:A:H2'	30:0:2767:C:H6	1.86	0.40
30:0:1742:A:N6	30:0:2037:C:H42	2.14	0.40
30:0:1096:U:H2'	30:0:1097:A:O5'	2.21	0.40
30:0:302:A:C2'	30:0:303:C:C5'	2.96	0.40
30:0:1972:U:C2'	30:0:1973:A:C5'	2.99	0.40
31:9:74:G:N2	31:9:108:C:H1'	2.36	0.40
30:0:1386:G:C2	30:0:1397:C:N3	2.89	0.40
20:T:52:ARG:O	30:0:317:A:OP1	2.38	0.40
30:0:702:G:C2	30:0:703:G:C8	3.09	0.40
2:B:154:VAL:HA	2:B:155:PRO:HD3	1.82	0.40
1:A:87:GLU:HB3	1:A:92:ASN:ND2	2.36	0.40
30:0:1432:U:C6	30:0:1725:C:H1'	2.56	0.40
20:T:24:ARG:NH2	20:T:40:VAL:HA	2.36	0.40
16:P:88:GLN:HE21	30:0:1800:G:C1'	2.34	0.40
2:B:281:ASP:HB2	2:B:334:SER:HB2	2.01	0.40
30:0:1002:G:C2'	30:0:1003:U:O5'	2.70	0.40
30:0:139:C:H4'	30:0:140:G:O5'	2.21	0.40
30:0:2081:A:C6	30:0:2082:G:C5	3.09	0.40
2:B:52:VAL:O	2:B:53:LEU:HD12	2.22	0.40
30:0:2359:G:C5	30:0:2360:C:C4	3.10	0.40
2:B:29:TRP:CH2	2:B:164:THR:HA	2.55	0.40
2:B:68:THR:HG21	21:U:16:GLY:HA3	2.03	0.40
31:9:58:G:H3'	31:9:59:C:C6	2.57	0.40
1:A:75:GLY:HA2	26:Z:88:PHE:HA	2.03	0.40
30:0:2383:G:C6	30:0:2384:U:C4	3.10	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2533:C:C2'	30:0:2534:U:O5'	2.69	0.40
30:0:2716:G:C4	30:0:2717:C:C6	3.09	0.40
30:0:1526:A:H4'	30:0:1527:A:O4'	2.20	0.40
30:0:1116:U:C2	30:0:1246:A:N6	2.90	0.40
30:0:1119:G:C6	30:0:1243:C:C4	3.10	0.40
15:O:59:VAL:CG2	15:O:111:VAL:HG21	2.50	0.40
15:O:26:TRP:N	38:O:3062:HOH:O	2.54	0.40
30:0:878:G:C5'	38:0:9229:HOH:O	2.67	0.40
30:0:2863:G:H1'	38:0:3258:HOH:O	2.21	0.40
30:0:1592:G:C6	30:0:1593:C:N4	2.89	0.40
30:0:2669:U:N3	30:0:2670:G:N7	2.69	0.40
30:0:2831:C:H2'	30:0:2832:C:H5'	2.03	0.40
30:0:2912:C:H2'	30:0:2913:A:H5'	2.04	0.40
30:0:2591:C:H2'	30:0:2592:G:C5'	2.51	0.40
16:P:38:GLU:HA	16:P:41:ARG:HH11	1.87	0.40
3:C:183:GLY:HA2	20:T:4:PRO:HD3	2.03	0.40
2:B:146:THR:C	2:B:148:PRO:HD3	2.41	0.40
30:0:2570:G:H2'	30:0:2571:C:H6	1.86	0.40
30:0:18:C:H2'	30:0:19:U:C6	2.56	0.40
30:0:462:A:H3'	38:0:4838:HOH:O	2.21	0.40
30:0:1801:A:C2	30:0:1802:G:N9	2.90	0.40
30:0:209:G:O2'	30:0:665:A:H1'	2.22	0.40
2:B:56:ASP:HB2	2:B:322:ARG:HE	1.86	0.40
10:J:19:MET:HG3	10:J:79:PHE:CD1	2.57	0.40
20:T:55:PHE:HB2	38:T:6384:HOH:O	2.22	0.40
30:0:2370:A:O5'	30:0:2370:A:H8	2.03	0.40
30:0:71:G:H1'	38:0:5249:HOH:O	2.21	0.40
16:P:14:LEU:HD13	16:P:51:ALA:HB2	2.02	0.40
11:K:48:GLY:O	11:K:51:ASP:HB2	2.21	0.40
12:L:122:ALA:H	12:L:125:PHE:HZ	1.70	0.40
30:0:1162:G:O2'	30:0:1163:G:H5'	2.20	0.40
30:0:1211:G:C2	30:0:1212:C:C2	3.09	0.40
26:Z:80:GLN:CG	26:Z:81:CYS:N	2.85	0.40
2:B:262:ARG:HG3	30:0:2716:G:C5'	2.52	0.40
2:B:300:SER:HB3	38:0:4626:HOH:O	2.22	0.40
13:M:76:ARG:O	13:M:77:HIS:C	2.60	0.40
30:0:1561:U:C6	30:0:1562:C:H5	2.39	0.40
30:0:1733:A:C2	30:0:1734:C:H1'	2.57	0.40
30:0:2299:G:C6	30:0:2300:A:C6	3.09	0.40
30:0:662:U:O2'	30:0:748:C:O2	2.33	0.40
30:0:1117:A:C2	30:0:1244:U:C2	3.09	0.40
15:O:112:ARG:HD2	38:0:9670:HOH:O	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:2:GLN:HA	3:C:18:LEU:N	2.33	0.40
31:9:36:C:N4	31:9:37:C:C2	2.89	0.40
30:0:2634:G:C2	30:0:2635:A:C5	3.09	0.40
29:3:40:ARG:HG3	29:3:52:PHE:CD2	2.56	0.40
30:0:1293:U:O2'	30:0:1294:A:H5'	2.22	0.40
30:0:1598:A:C2	30:0:1599:U:C2	3.09	0.40
30:0:2363:G:C5	30:0:2364:A:N7	2.90	0.40
1:A:199:HIS:HD2	1:A:201:PHE:HB2	1.85	0.40
30:0:2851:G:C2'	30:0:2852:A:H5'	2.52	0.40
30:0:499:G:C2'	30:0:500:G:H5'	2.51	0.40
30:0:1585:C:C6	30:0:1585:C:C3'	3.05	0.40
19:S:15:MET:O	19:S:18:MET:HB3	2.21	0.40
30:0:1362:U:C2	30:0:1363:G:C8	3.09	0.40
30:0:487:G:C4	30:0:513:A:N1	2.90	0.40
30:0:31:C:O2'	30:0:32:G:H5'	2.22	0.40
30:0:1849:G:H1'	30:0:2011:A:N1	2.37	0.40
23:W:68:THR:HG23	23:W:69:ARG:N	2.36	0.40
20:T:43:ASN:ND2	20:T:108:ARG:CZ	2.85	0.40
30:0:632:A:C5	30:0:633:C:C5	3.10	0.40
30:0:732:C:H2'	30:0:733:U:H6	1.86	0.40
30:0:1997:A:C6	30:0:1998:G:C5	3.09	0.40
19:S:6:LYS:HB2	19:S:27:ALA:O	2.21	0.40
3:C:84:VAL:O	3:C:85:LYS:HB2	2.22	0.40
30:0:1916:C:C2	30:0:1924:A:C2	3.08	0.40
30:0:1719:G:N3	38:0:3705:HOH:O	2.37	0.40
22:V:27:LEU:HA	22:V:49:LEU:HD13	2.04	0.40
21:U:6:CYS:HB2	21:U:32:CYS:HB3	2.04	0.40
30:0:199:A:H2'	30:0:201:G:C8	2.57	0.40
2:B:22:GLU:HA	2:B:205:VAL:HG21	2.04	0.40
3:C:47:GLY:HA2	3:C:92:PRO:O	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	235/240 (98%)	198 (84%)	28 (12%)	9 (4%)	5	10
2	B	335/338 (99%)	287 (86%)	42 (12%)	6 (2%)	13	31
3	C	244/246 (99%)	211 (86%)	29 (12%)	4 (2%)	14	35
4	D	134/177 (76%)	109 (81%)	22 (16%)	3 (2%)	10	25
5	E	170/178 (96%)	152 (89%)	16 (9%)	2 (1%)	19	45
6	F	117/120 (98%)	102 (87%)	11 (9%)	4 (3%)	6	12
7	G	25/348 (7%)	23 (92%)	2 (8%)	0	100	100
8	H	156/177 (88%)	139 (89%)	14 (9%)	3 (2%)	12	29
9	I	68/162 (42%)	56 (82%)	10 (15%)	2 (3%)	7	16
10	J	140/145 (97%)	125 (89%)	12 (9%)	3 (2%)	11	27
11	K	130/132 (98%)	107 (82%)	21 (16%)	2 (2%)	15	38
12	L	141/165 (86%)	112 (79%)	25 (18%)	4 (3%)	8	18
13	M	192/196 (98%)	165 (86%)	22 (12%)	5 (3%)	8	20
14	N	184/187 (98%)	156 (85%)	23 (12%)	5 (3%)	8	19
15	O	113/116 (97%)	109 (96%)	4 (4%)	0	100	100
16	P	141/149 (95%)	125 (89%)	13 (9%)	3 (2%)	11	27
17	Q	93/96 (97%)	82 (88%)	7 (8%)	4 (4%)	4	8
18	R	148/155 (96%)	132 (89%)	15 (10%)	1 (1%)	30	62
19	S	79/85 (93%)	67 (85%)	11 (14%)	1 (1%)	18	43
20	T	117/120 (98%)	95 (81%)	18 (15%)	4 (3%)	6	12
21	U	51/67 (76%)	46 (90%)	3 (6%)	2 (4%)	5	10
22	V	63/71 (89%)	57 (90%)	5 (8%)	1 (2%)	14	35
23	W	152/154 (99%)	129 (85%)	21 (14%)	2 (1%)	18	43
24	X	80/92 (87%)	68 (85%)	8 (10%)	4 (5%)	3	6
25	Y	140/241 (58%)	131 (94%)	8 (6%)	1 (1%)	30	62
26	Z	71/116 (61%)	52 (73%)	13 (18%)	6 (8%)	1	1
27	1	54/57 (95%)	48 (89%)	5 (9%)	1 (2%)	12	29
28	2	42/50 (84%)	37 (88%)	4 (10%)	1 (2%)	9	22
29	3	90/92 (98%)	73 (81%)	14 (16%)	3 (3%)	6	13
All	All	3705/4472 (83%)	3193 (86%)	426 (12%)	86 (2%)	10	24

All (86) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	123	GLY
4	D	65	GLU
4	D	137	PRO
6	F	61	MET
6	F	101	ALA
8	H	19	ARG
12	L	21	ARG
13	M	79	ALA
14	N	139	TRP
14	N	184	ILE
20	T	16	LEU
24	X	70	ILE
29	3	64	LYS
1	A	170	VAL
2	B	225	GLY
10	J	143	LYS
12	L	45	PRO
14	N	162	ASP
19	S	30	ASP
23	W	72	PRO
26	Z	85	ASP
26	Z	89	THR
28	2	18	ASN
29	3	84	ARG
1	A	24	LYS
1	A	33	GLU
2	B	183	GLU
3	C	215	ALA
6	F	69	GLU
11	K	10	GLN
11	K	83	PRO
12	L	32	ASP
14	N	165	ALA
14	N	183	ASP
17	Q	63	VAL
20	T	44	ALA
20	T	53	GLY
21	U	51	TRP
24	X	23	HIS
25	Y	193	LEU
26	Z	67	GLY
26	Z	83	TYR
27	1	54	ALA

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Mol	Chain	Res	Type
29	3	61	PRO
1	A	35	GLY
1	A	37	VAL
1	A	150	PRO
2	B	2	GLN
3	C	8	LEU
3	C	89	ALA
4	D	56	ARG
6	F	100	ASP
12	L	35	ARG
16	P	112	GLY
17	Q	48	PRO
24	X	52	PRO
24	X	78	GLU
26	Z	65	ASN
26	Z	76	THR
1	A	119	ALA
2	B	158	LYS
2	B	171	VAL
5	E	17	HIS
8	H	70	LEU
13	M	73	ARG
13	M	154	ASP
16	P	58	SER
22	V	39	ALA
23	W	49	ASN
3	C	136	VAL
5	E	122	THR
8	H	171	GLY
9	I	108	HIS
9	I	131	GLY
10	J	78	ILE
13	M	15	PRO
13	M	88	VAL
16	P	132	ASP
20	T	42	VAL
1	A	74	VAL
21	U	13	ILE
2	B	185	GLY
17	Q	18	PRO
17	Q	54	PRO
10	J	18	ILE

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Mol	Chain	Res	Type
18	R	106	GLY

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	179/182 (98%)	172 (96%)	7 (4%)	43	76
2	B	282/283 (100%)	261 (93%)	21 (7%)	20	43
3	C	193/193 (100%)	178 (92%)	15 (8%)	18	40
4	D	117/148 (79%)	109 (93%)	8 (7%)	22	48
5	E	152/156 (97%)	146 (96%)	6 (4%)	43	76
6	F	93/94 (99%)	89 (96%)	4 (4%)	40	72
7	G	27/282 (10%)	25 (93%)	2 (7%)	20	43
8	H	134/145 (92%)	125 (93%)	9 (7%)	23	49
9	I	58/130 (45%)	55 (95%)	3 (5%)	32	63
10	J	118/121 (98%)	112 (95%)	6 (5%)	33	64
11	K	106/106 (100%)	98 (92%)	8 (8%)	19	43
12	L	113/127 (89%)	105 (93%)	8 (7%)	21	46
13	M	158/160 (99%)	148 (94%)	10 (6%)	25	53
14	N	149/150 (99%)	143 (96%)	6 (4%)	42	75
15	O	93/94 (99%)	90 (97%)	3 (3%)	51	82
16	P	113/117 (97%)	111 (98%)	2 (2%)	71	93
17	Q	79/80 (99%)	75 (95%)	4 (5%)	33	64
18	R	117/122 (96%)	110 (94%)	7 (6%)	27	56
19	S	71/74 (96%)	67 (94%)	4 (6%)	30	59
20	T	105/106 (99%)	97 (92%)	8 (8%)	19	41
21	U	44/53 (83%)	42 (96%)	2 (4%)	38	70
22	V	51/57 (90%)	48 (94%)	3 (6%)	28	56
23	W	130/130 (100%)	124 (95%)	6 (5%)	37	70
24	X	66/74 (89%)	57 (86%)	9 (14%)	5	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
25	Y	120/196 (61%)	115 (96%)	5 (4%)	40	73
26	Z	60/94 (64%)	54 (90%)	6 (10%)	11	25
27	1	46/47 (98%)	45 (98%)	1 (2%)	64	90
28	2	42/46 (91%)	41 (98%)	1 (2%)	61	89
29	3	79/79 (100%)	75 (95%)	4 (5%)	33	64
All	All	3095/3646 (85%)	2917 (94%)	178 (6%)	28	57

All (178) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	51	ARG
1	A	78	ASP
1	A	122	SER
1	A	131	HIS
1	A	179	MET
1	A	182	ARG
1	A	217	ARG
2	B	7	ARG
2	B	11	LEU
2	B	16	ARG
2	B	27	ASN
2	B	71	VAL
2	B	114	ASP
2	B	115	VAL
2	B	132	HIS
2	B	139	ASP
2	B	162	MET
2	B	180	ASP
2	B	192	ASP
2	B	193	ILE
2	B	211	THR
2	B	234	ARG
2	B	254	GLN
2	B	277	GLU
2	B	301	VAL
2	B	309	VAL
2	B	312	ARG
2	B	319	ASP
3	C	2	GLN
3	C	29	ASP

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Mol	Chain	Res	Type
3	C	74	ASP
3	C	76	ARG
3	C	94	THR
3	C	115	LEU
3	C	131	PHE
3	C	142	ASP
3	C	187	ARG
3	C	211	ASP
3	C	223	LEU
3	C	234	VAL
3	C	236	THR
3	C	240	LEU
3	C	243	VAL
4	D	10	PHE
4	D	24	HIS
4	D	29	HIS
4	D	48	MET
4	D	50	VAL
4	D	104	PHE
4	D	149	ARG
4	D	169	THR
5	E	58	THR
5	E	116	THR
5	E	126	ILE
5	E	156	ASP
5	E	162	PHE
5	E	164	ASP
6	F	3	TYR
6	F	14	ASP
6	F	81	ASP
6	F	99	THR
7	G	64	ASN
7	G	73	ASP
8	H	62	HIS
8	H	65	LEU
8	H	69	ARG
8	H	87	LYS
8	H	91	ARG
8	H	99	ARG
8	H	126	THR
8	H	149	VAL
8	H	157	TYR

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Mol	Chain	Res	Type
9	I	82	THR
9	I	114	TYR
9	I	126	THR
10	J	46	ILE
10	J	52	GLN
10	J	74	ARG
10	J	107	ASN
10	J	120	SER
10	J	132	LEU
11	K	10	GLN
11	K	12	LEU
11	K	27	ARG
11	K	83	PRO
11	K	91	GLU
11	K	93	ASN
11	K	98	VAL
11	K	115	ARG
12	L	7	GLN
12	L	18	HIS
12	L	26	HIS
12	L	35	ARG
12	L	79	ASP
12	L	101	ASP
12	L	102	ASP
12	L	104	ASP
13	M	46	LEU
13	M	68	ARG
13	M	76	ARG
13	M	84	LYS
13	M	99	ARG
13	M	116	ASN
13	M	123	ASP
13	M	125	ARG
13	M	133	LEU
13	M	158	ARG
14	N	5	ARG
14	N	17	ARG
14	N	26	LEU
14	N	43	VAL
14	N	143	ARG
14	N	177	GLU
15	O	38	ARG

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Mol	Chain	Res	Type
15	O	47	ARG
15	O	53	GLN
16	P	91	LYS
16	P	98	ILE
17	Q	16	ASN
17	Q	54	PRO
17	Q	57	ASP
17	Q	95	GLU
18	R	13	THR
18	R	45	ASP
18	R	55	GLN
18	R	61	GLN
18	R	138	SER
18	R	142	ASP
18	R	143	VAL
19	S	7	HIS
19	S	17	ASP
19	S	44	GLN
19	S	57	THR
20	T	5	ASP
20	T	39	ASN
20	T	42	VAL
20	T	73	HIS
20	T	96	VAL
20	T	115	GLU
20	T	116	ASP
20	T	117	ASP
21	U	25	ASP
21	U	52	THR
22	V	1	THR
22	V	13	PRO
22	V	49	LEU
23	W	1	MET
23	W	78	ASP
23	W	88	THR
23	W	125	HIS
23	W	126	ASP
23	W	146	ILE
24	X	8	ARG
24	X	15	ARG
24	X	27	ASP
24	X	49	ARG

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Mol	Chain	Res	Type
24	X	51	ASP
24	X	52	PRO
24	X	72	VAL
24	X	79	GLU
24	X	88	GLU
25	Y	169	ARG
25	Y	203	VAL
25	Y	204	ARG
25	Y	220	GLU
25	Y	235	GLU
26	Z	41	ARG
26	Z	63	CYS
26	Z	66	CYS
26	Z	68	GLU
26	Z	70	ARG
26	Z	74	GLN
27	1	21	ARG
28	2	18	ASN
29	3	21	GLU
29	3	49	ASP
29	3	65	THR
29	3	89	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (80) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	29	HIS
1	A	47	HIS
1	A	176	HIS
1	A	199	HIS
2	B	27	ASN
2	B	145	HIS
2	B	188	HIS
2	B	238	ASN
2	B	260	HIS
2	B	286	ASN
2	B	320	GLN
3	C	2	GLN
3	C	67	GLN
3	C	73	GLN
3	C	129	HIS
3	C	151	GLN

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Mol	Chain	Res	Type
4	D	47	GLN
4	D	103	ASN
4	D	133	ASN
5	E	74	HIS
5	E	143	GLN
7	G	64	ASN
8	H	34	HIS
8	H	49	GLN
8	H	59	GLN
8	H	62	HIS
10	J	52	GLN
10	J	107	ASN
10	J	142	ASN
11	K	10	GLN
11	K	44	HIS
11	K	67	GLN
11	K	93	ASN
12	L	7	GLN
12	L	18	HIS
12	L	41	HIS
12	L	58	GLN
13	M	24	GLN
13	M	58	GLN
13	M	86	GLN
13	M	170	ASN
14	N	21	HIS
14	N	53	ASN
14	N	93	GLN
14	N	107	ASN
14	N	132	ASN
16	P	88	GLN
16	P	118	GLN
17	Q	16	ASN
17	Q	27	GLN
17	Q	40	HIS
18	R	94	ASN
18	R	98	ASN
18	R	123	GLN
19	S	7	HIS
19	S	9	HIS
19	S	25	GLN
19	S	44	GLN

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Mol	Chain	Res	Type
20	T	39	ASN
21	U	23	HIS
21	U	30	HIS
21	U	39	ASN
22	V	29	ASN
22	V	34	GLN
22	V	60	GLN
23	W	2	HIS
23	W	28	HIS
23	W	110	GLN
23	W	119	HIS
24	X	23	HIS
25	Y	189	ASN
26	Z	61	HIS
27	1	16	HIS
28	2	36	ASN
28	2	41	HIS
29	3	2	GLN
29	3	13	HIS
29	3	39	GLN
29	3	48	ASN
29	3	78	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
30	0	2745/2923 (93%)	263 (9%)	14 (0%)
31	9	121/122 (99%)	18 (14%)	1 (0%)
All	All	2866/3045 (94%)	281 (9%)	15 (0%)

All (281) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
30	0	11	A
30	0	31	C
30	0	67	A
30	0	69	A
30	0	70	A
30	0	71	G
30	0	86	A
30	0	87	C

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Mol	Chain	Res	Type
30	0	88	G
30	0	114	A
30	0	115	U
30	0	120	A
30	0	130	C
30	0	131	A
30	0	141	C
30	0	151	A
30	0	166	A
30	0	169	A
30	0	185	G
30	0	186	A
30	0	191	A
30	0	192	A
30	0	198	A
30	0	200	C
30	0	204	A
30	0	219	G
30	0	237	G
30	0	271	C
30	0	272	A
30	0	273	G
30	0	283	U
30	0	284	C
30	0	308	U
30	0	309	C
30	0	318	U
30	0	336	G
30	0	337	A
30	0	358	G
30	0	368	C
30	0	381	G
30	0	397	A
30	0	417	G
30	0	418	C
30	0	461	C
30	0	487	G
30	0	497	A
30	0	510	U
30	0	511	A
30	0	514	G
30	0	537	G

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Mol	Chain	Res	Type
30	0	538	C
30	0	539	G
30	0	542	A
30	0	545	G
30	0	553	G
30	0	559	U
30	0	581	G
30	0	588	G
30	0	604	G
30	0	605	C
30	0	620	A
30	0	632	A
30	0	644	G
30	0	660	A
30	0	688	A
30	0	698	A
30	0	699	C
30	0	701	U
30	0	705	C
30	0	746	A
30	0	759	C
30	0	776	A
30	0	777	U
30	0	809	G
30	0	821	U
30	0	835	U
30	0	840	U
30	0	857	A
30	0	868	G
30	0	869	G
30	0	871	G
30	0	872	U
30	0	875	A
30	0	877	G
30	0	878	G
30	0	882	A
30	0	884	C
30	0	885	G
30	0	898	G
30	0	905	C
30	0	921	G
30	0	923	A

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Mol	Chain	Res	Type
30	0	953	G
30	0	960	G
30	0	1006	A
30	0	1008	C
30	0	1029	U
30	0	1044	C
30	0	1045	G
30	0	1059	G
30	0	1060	C
30	0	1072	G
30	0	1081	A
30	0	1083	C
30	0	1088	A
30	0	1109	U
30	0	1110	G
30	0	1119	G
30	0	1121	G
30	0	1130	U
30	0	1137	G
30	0	1151	G
30	0	1161	A
30	0	1164	U
30	0	1165	G
30	0	1166	A
30	0	1174	A
30	0	1175	G
30	0	1185	U
30	0	1192	A
30	0	1193	A
30	0	1202	A
30	0	1206	U
30	0	1207	A
30	0	1216	G
30	0	1234	U
30	0	1238	C
30	0	1239	G
30	0	1279	U
30	0	1280	A
30	0	1287	A
30	0	1289	C
30	0	1331	G
30	0	1342	C

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Mol	Chain	Res	Type
30	0	1351	G
30	0	1353	C
30	0	1354	G
30	0	1360	C
30	0	1377	C
30	0	1378	G
30	0	1380	U
30	0	1407	A
30	0	1409	G
30	0	1474	C
30	0	1488	U
30	0	1505	U
30	0	1506	U
30	0	1524	U
30	0	1525	G
30	0	1526	A
30	0	1528	A
30	0	1535	G
30	0	1559	A
30	0	1562	C
30	0	1592	G
30	0	1617	C
30	0	1625	U
30	0	1626	A
30	0	1627	G
30	0	1634	G
30	0	1656	A
30	0	1667	A
30	0	1682	A
30	0	1684	A
30	0	1685	A
30	0	1692	C
30	0	1701	A
30	0	1722	U
30	0	1723	G
30	0	1725	C
30	0	1730	G
30	0	1731	C
30	0	1732	A
30	0	1752	G
30	0	1778	A
30	0	1779	A

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Mol	Chain	Res	Type
30	0	1798	C
30	0	1819	G
30	0	1820	G
30	0	1829	A
30	0	1856	C
30	0	1875	A
30	0	1879	U
30	0	1885	A
30	0	1919	A
30	0	1968	A
30	0	1971	G
30	0	1973	A
30	0	1978	A
30	0	1979	G
30	0	1996	U
30	0	2004	U
30	0	2006	C
30	0	2007	A
30	0	2008	U
30	0	2012	U
30	0	2013	G
30	0	2033	G
30	0	2034	U
30	0	2064	U
30	0	2072	G
30	0	2073	G
30	0	2074	A
30	0	2096	A
30	0	2101	A
30	0	2102	G
30	0	2103	A
30	0	2110	G
30	0	2134	G
30	0	2243	C
30	0	2258	A
30	0	2271	G
30	0	2272	G
30	0	2291	A
30	0	2317	C
30	0	2320	U
30	0	2321	A
30	0	2354	A

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Mol	Chain	Res	Type
30	0	2361	A
30	0	2369	A
30	0	2379	G
30	0	2419	U
30	0	2422	U
30	0	2434	A
30	0	2462	G
30	0	2466	G
30	0	2467	A
30	0	2476	C
30	0	2483	A
30	0	2507	G
30	0	2511	A
30	0	2513	A
30	0	2533	C
30	0	2537	G
30	0	2541	U
30	0	2553	A
30	0	2589	U
30	0	2601	A
30	0	2602	G
30	0	2607	U
30	0	2608	C
30	0	2613	G
30	0	2649	A
30	0	2664	A
30	0	2681	A
30	0	2682	C
30	0	2726	U
30	0	2747	C
30	0	2748	G
30	0	2749	U
30	0	2750	G
30	0	2762	C
30	0	2768	A
30	0	2800	A
30	0	2811	A
30	0	2812	A
30	0	2825	C
30	0	2876	G
30	0	2890	A
30	0	2896	A

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Mol	Chain	Res	Type
30	0	2903	C
30	0	2909	G
30	0	2914	A
31	9	2	U
31	9	3	A
31	9	7	G
31	9	14	G
31	9	23	U
31	9	24	U
31	9	25	G
31	9	34	A
31	9	40	C
31	9	41	C
31	9	43	G
31	9	44	A
31	9	52	A
31	9	57	A
31	9	66	G
31	9	77	A
31	9	114	G
31	9	122	C

All (15) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
30	0	69	A
30	0	129	A
30	0	604	G
30	0	644	G
30	0	834	G
30	0	871	G
30	0	1237	U
30	0	1352	A
30	0	1377	C
30	0	1504	A
30	0	2011	A
30	0	2466	G
30	0	2526	C
30	0	2718	C
31	9	65	A

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

5 non-standard protein/DNA/RNA residues are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z > 2$	Counts	RMSZ	# $ Z > 2$
30	OMU	0	2587	30	20,22,23	0.64	0	24,31,34	0.68	0
30	OMG	0	2588	30	24,26,27	0.82	1 (4%)	32,38,41	5.09	3 (9%)
30	UR3	0	2619	30	20,22,23	0.88	1 (5%)	23,32,35	0.82	0
30	PSU	0	2621	30	19,21,22	1.20	3 (15%)	23,30,33	1.04	1 (4%)
30	1MA	0	628	30,34	23,25,26	0.80	0	32,37,40	1.01	1 (3%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
30	OMU	0	2587	30	-	0/8/27/28	0/2/2/2
30	OMG	0	2588	30	-	0/10/27/28	0/1/3/3
30	UR3	0	2619	30	-	0/6/25/26	0/2/2/2
30	PSU	0	2621	30	-	0/8/25/26	0/2/2/2
30	1MA	0	628	30,34	-	0/8/25/26	0/1/3/3

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	0	2621	PSU	C2-N1	2.67	1.42	1.37
30	0	2621	PSU	C6-N1	2.49	1.34	1.32
30	0	2619	UR3	P-OP1	2.39	1.49	1.46
30	0	2621	PSU	P-OP1	2.12	1.49	1.46
30	0	2588	OMG	P-OP1	2.07	1.49	1.46

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	0	2588	OMG	C6-C5-N7	-28.18	130.34	134.14
30	0	2588	OMG	C6-N1-C2	3.25	125.19	119.51
30	0	628	1MA	C2-N3-C4	-3.17	110.82	116.23
30	0	2588	OMG	C2-N3-C4	-2.30	111.86	115.09
30	0	2621	PSU	C5-C4-N3	-2.21	114.84	118.86

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 305 ligands modelled in this entry, 305 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

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, 95th 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	237/240 (98%)	0.52	31 (13%) 4 4	36, 78, 117, 135	0
2	B	337/338 (99%)	0.24	23 (6%) 17 19	36, 72, 106, 116	0
3	C	246/246 (100%)	0.11	14 (5%) 23 25	31, 60, 87, 97	0
4	D	140/177 (79%)	2.24	63 (45%) 1 0	91, 126, 152, 162	0
5	E	172/178 (96%)	0.38	13 (7%) 14 14	62, 89, 116, 123	0
6	F	119/120 (99%)	1.10	29 (24%) 1 1	68, 96, 130, 142	0
7	G	29/348 (8%)	1.66	12 (41%) 1 0	104, 117, 126, 127	0
8	H	160/177 (90%)	0.98	33 (20%) 1 2	57, 81, 125, 130	0
9	I	70/162 (43%)	3.30	44 (62%) 0 0	149, 172, 188, 190	0
10	J	142/145 (97%)	0.46	15 (10%) 7 7	48, 67, 90, 114	0
11	K	132/132 (100%)	0.12	5 (3%) 38 43	38, 69, 98, 107	0
12	L	145/165 (87%)	1.29	40 (27%) 1 1	50, 96, 141, 147	0
13	M	194/196 (98%)	0.99	30 (15%) 3 3	41, 61, 109, 119	0
14	N	186/187 (99%)	1.36	59 (31%) 1 1	72, 94, 145, 152	0
15	O	115/116 (99%)	0.42	13 (11%) 6 6	57, 72, 93, 98	0
16	P	143/149 (95%)	0.38	13 (9%) 9 9	52, 74, 92, 103	0
17	Q	95/96 (98%)	0.91	18 (18%) 2 2	55, 71, 88, 103	0
18	R	150/155 (96%)	0.11	8 (5%) 25 28	45, 61, 87, 109	0
19	S	81/85 (95%)	0.56	11 (13%) 4 4	61, 80, 103, 113	0
20	T	119/120 (99%)	0.86	21 (17%) 2 2	51, 74, 105, 132	0
21	U	53/67 (79%)	6.49	51 (96%) 0 0	119, 128, 137, 138	0
22	V	65/71 (91%)	1.50	23 (35%) 1 1	68, 97, 141, 146	0
23	W	154/154 (100%)	0.82	28 (18%) 2 2	49, 66, 88, 103	0
24	X	82/92 (89%)	1.22	20 (24%) 1 1	57, 81, 104, 121	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	Y	142/241 (58%)	0.12	6 (4%) 35 39	39, 59, 87, 116	0
26	Z	73/116 (62%)	9.76	63 (86%) 0 0	109, 128, 137, 141	0
27	1	56/57 (98%)	0.11	1 (1%) 65 71	34, 47, 56, 60	0
28	2	46/50 (92%)	1.00	13 (28%) 1 1	43, 84, 116, 122	0
29	3	92/92 (100%)	9.09	90 (97%) 0 0	112, 132, 141, 144	0
30	0	2754/2923 (94%)	-0.37	14 (0%) 88 92	31, 64, 118, 195	0
31	9	122/122 (100%)	-0.54	1 (0%) 83 87	53, 94, 121, 167	0
All	All	6651/7517 (88%)	0.52	805 (12%) 5 5	31, 72, 133, 195	0

All (805) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
29	3	41	GLU	30.8
26	Z	45	VAL	30.4
26	Z	35	SER	30.0
29	3	45	GLY	29.2
26	Z	50	VAL	28.3
29	3	35	TRP	26.0
26	Z	34	SER	25.9
26	Z	55	SER	25.0
26	Z	58	ASN	25.0
29	3	34	LYS	23.3
29	3	38	ARG	23.0
26	Z	56	GLU	21.1
26	Z	46	SER	20.9
26	Z	44	ARG	19.8
26	Z	59	GLU	18.6
26	Z	43	GLY	18.3
26	Z	38	PHE	18.0
29	3	36	ILE	17.3
26	Z	53	ILE	17.1
29	3	42	ARG	16.8
29	3	40	ARG	15.9
26	Z	49	ARG	15.5
29	3	39	GLN	15.5
29	3	44	SER	15.2
26	Z	69	ASP	15.2
29	3	11	CYS	15.1
29	3	37	ASP	14.8
29	3	62	THR	14.8

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Mol	Chain	Res	Type	RSRZ
29	3	82	GLY	14.1
26	Z	61	HIS	14.0
26	Z	42	TYR	13.9
26	Z	47	ARG	13.4
29	3	33	MET	13.3
29	3	31	THR	13.2
26	Z	54	GLU	13.2
29	3	47	GLY	13.2
29	3	53	SER	13.0
26	Z	36	GLY	13.0
13	M	80	GLY	13.0
26	Z	57	MET	12.8
26	Z	77	GLY	12.6
29	3	14	CYS	12.5
29	3	48	ASN	12.5
29	3	22	VAL	12.5
29	3	49	ASP	12.5
21	U	54	THR	12.4
21	U	9	CYS	12.4
29	3	71	CYS	12.3
29	3	32	GLY	12.3
26	Z	48	ARG	12.1
12	L	106	VAL	12.0
29	3	30	GLN	11.9
26	Z	51	ALA	11.8
26	Z	62	ALA	11.8
26	Z	78	ILE	11.7
26	Z	68	GLU	11.6
13	M	73	ARG	11.5
26	Z	71	VAL	11.4
21	U	52	THR	11.2
29	3	13	HIS	11.2
13	M	90	ARG	11.1
29	3	83	TRP	11.0
21	U	40	ALA	10.9
9	I	117	THR	10.6
29	3	57	GLY	10.5
9	I	74	ILE	10.2
29	3	61	PRO	10.2
26	Z	39	GLY	10.2
21	U	39	ASN	10.1
21	U	46	ALA	9.9

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Mol	Chain	Res	Type	RSRZ
26	Z	60	ASP	9.9
4	D	63	ILE	9.8
29	3	43	ASN	9.8
26	Z	79	TRP	9.7
24	X	10	VAL	9.7
21	U	28	THR	9.7
12	L	60	GLU	9.7
26	Z	70	ARG	9.7
29	3	50	GLY	9.6
29	3	52	PHE	9.5
21	U	48	ASN	9.4
29	3	10	TYR	9.4
21	U	10	GLY	9.3
21	U	53	ASP	9.2
29	3	51	LYS	9.2
21	U	31	PHE	9.1
26	Z	63	CYS	9.0
21	U	41	ASP	9.0
13	M	81	ARG	9.0
9	I	112	LEU	9.0
26	Z	37	ARG	9.0
29	3	19	GLU	8.9
29	3	75	GLY	8.8
29	3	15	ASN	8.8
26	Z	81	CYS	8.7
29	3	59	ASP	8.7
21	U	8	TYR	8.7
26	Z	66	CYS	8.6
4	D	18	ILE	8.4
9	I	108	HIS	8.2
9	I	104	ALA	8.2
29	3	20	HIS	8.2
29	3	74	CYS	8.1
21	U	5	GLU	8.1
22	V	39	ALA	8.1
21	U	13	ILE	8.1
9	I	97	VAL	8.1
26	Z	82	SER	8.0
29	3	64	LYS	8.0
29	3	63	LYS	7.9
29	3	78	HIS	7.9
9	I	111	LEU	7.9

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Mol	Chain	Res	Type	RSRZ
13	M	89	THR	7.9
29	3	84	ARG	7.9
26	Z	89	THR	7.7
4	D	69	ILE	7.7
21	U	23	HIS	7.6
21	U	43	GLY	7.6
4	D	128	LEU	7.6
21	U	30	HIS	7.5
29	3	46	ILE	7.5
19	S	81	ILE	7.5
1	A	58	VAL	7.5
21	U	29	THR	7.5
29	3	12	PRO	7.4
29	3	56	PRO	7.4
9	I	66	GLY	7.4
29	3	25	VAL	7.3
21	U	55	ALA	7.3
26	Z	41	ARG	7.3
20	T	112	LEU	7.3
21	U	6	CYS	7.3
20	T	42	VAL	7.2
29	3	18	GLN	7.2
29	3	60	LYS	7.1
9	I	103	ILE	7.1
23	W	4	LEU	7.1
4	D	70	GLY	7.1
26	Z	67	GLY	7.1
29	3	69	TYR	7.0
4	D	27	ILE	7.0
4	D	25	MET	7.0
29	3	68	LYS	7.0
29	3	1	MET	7.0
4	D	44	ILE	6.9
21	U	44	ARG	6.9
19	S	2	TRP	6.9
12	L	105	TYR	6.9
29	3	81	GLU	6.9
29	3	27	SER	6.8
26	Z	52	GLU	6.8
9	I	70	THR	6.8
4	D	75	LEU	6.8
9	I	100	VAL	6.8

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Mol	Chain	Res	Type	RSRZ
21	U	15	PRO	6.7
29	3	72	GLY	6.7
29	3	23	GLU	6.6
29	3	29	ARG	6.6
21	U	25	ASP	6.6
29	3	85	ALA	6.6
22	V	38	GLY	6.5
29	3	28	GLY	6.5
14	N	58	LEU	6.5
29	3	16	GLU	6.4
26	Z	40	ALA	6.4
29	3	76	LYS	6.4
29	3	80	ARG	6.4
6	F	98	VAL	6.4
21	U	42	LEU	6.4
26	Z	86	TYR	6.3
26	Z	76	THR	6.3
21	U	36	CYS	6.3
17	Q	75	ILE	6.3
4	D	166	ILE	6.3
21	U	47	ARG	6.3
24	X	71	ARG	6.3
9	I	106	GLN	6.2
21	U	4	ARG	6.2
26	Z	88	PHE	6.2
29	3	17	HIS	6.2
23	W	5	VAL	6.2
24	X	72	VAL	6.2
29	3	3	MET	6.2
12	L	48	LYS	6.1
9	I	101	LYS	6.1
15	O	89	ILE	6.1
13	M	86	GLN	6.1
29	3	21	GLU	6.1
29	3	91	GLN	6.0
6	F	17	LEU	6.0
29	3	65	THR	5.9
21	U	19	THR	5.9
6	F	39	SER	5.8
21	U	20	MET	5.8
8	H	133	GLY	5.8
21	U	11	THR	5.8

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Mol	Chain	Res	Type	RSRZ
14	N	179	LEU	5.7
14	N	47	LEU	5.7
20	T	119	ALA	5.7
30	0	735	C	5.7
9	I	109	PRO	5.7
21	U	45	GLU	5.6
13	M	70	GLY	5.6
4	D	61	PHE	5.6
29	3	67	LEU	5.6
4	D	135	VAL	5.6
26	Z	80	GLN	5.6
21	U	51	TRP	5.5
21	U	7	ASP	5.5
13	M	79	ALA	5.5
4	D	88	LEU	5.5
4	D	40	ILE	5.5
4	D	64	ARG	5.5
31	9	1	U	5.5
1	A	99	ILE	5.4
20	T	50	VAL	5.4
1	A	60	PHE	5.3
21	U	24	LYS	5.3
4	D	45	THR	5.3
26	Z	72	ASP	5.3
9	I	98	ASP	5.3
21	U	56	ARG	5.3
29	3	4	PRO	5.3
26	Z	93	TYR	5.3
9	I	116	LEU	5.2
16	P	16	VAL	5.2
4	D	106	PHE	5.2
29	3	5	ARG	5.2
4	D	57	THR	5.2
14	N	48	VAL	5.2
4	D	23	VAL	5.2
26	Z	83	TYR	5.1
29	3	77	ALA	5.1
17	Q	71	TYR	5.1
29	3	55	VAL	5.1
23	W	34	LEU	5.1
9	I	132	VAL	5.1
14	N	50	LEU	5.1

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Mol	Chain	Res	Type	RSRZ
26	Z	104	ARG	5.1
21	U	22	VAL	5.1
8	H	76	LEU	5.1
8	H	31	ILE	5.0
26	Z	103	VAL	5.0
4	D	157	LEU	5.0
9	I	67	VAL	5.0
21	U	12	ASP	5.0
21	U	38	ASN	5.0
4	D	130	VAL	5.0
26	Z	90	GLY	5.0
29	3	54	LYS	5.0
4	D	87	ALA	4.9
23	W	149	LEU	4.9
4	D	26	GLY	4.9
5	E	128	GLY	4.8
1	A	65	ARG	4.8
28	2	36	ASN	4.8
9	I	73	LEU	4.8
6	F	75	ILE	4.8
29	3	8	ASN	4.7
11	K	4	LEU	4.7
4	D	172	VAL	4.7
13	M	76	ARG	4.7
6	F	44	SER	4.7
22	V	32	ALA	4.7
29	3	90	PHE	4.7
14	N	35	VAL	4.7
16	P	49	ILE	4.7
14	N	158	LEU	4.7
24	X	41	PHE	4.7
14	N	84	THR	4.7
21	U	14	GLU	4.6
9	I	105	GLU	4.6
19	S	20	PHE	4.6
12	L	100	ALA	4.6
6	F	99	THR	4.5
13	M	82	ARG	4.5
23	W	96	LEU	4.5
1	A	66	ARG	4.5
6	F	97	ALA	4.5
17	Q	64	GLU	4.5

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Mol	Chain	Res	Type	RSRZ
29	3	58	GLY	4.5
24	X	85	VAL	4.5
26	Z	74	GLN	4.5
4	D	66	GLY	4.4
22	V	36	ALA	4.4
21	U	26	GLY	4.4
12	L	122	ALA	4.4
5	E	118	ILE	4.4
13	M	150	ILE	4.4
14	N	147	ILE	4.4
9	I	118	ASN	4.4
26	Z	92	SER	4.4
4	D	67	ASP	4.4
21	U	32	CYS	4.4
13	M	87	GLY	4.4
29	3	6	ARG	4.4
9	I	110	ASP	4.3
9	I	119	ALA	4.3
12	L	96	VAL	4.3
29	3	2	GLN	4.3
28	2	49	GLU	4.3
24	X	9	VAL	4.3
6	F	49	PHE	4.3
8	H	77	ILE	4.3
4	D	93	LEU	4.3
6	F	40	ILE	4.3
1	A	24	LYS	4.3
12	L	124	ASP	4.2
8	H	32	ALA	4.2
4	D	16	PRO	4.2
4	D	165	PHE	4.2
14	N	53	ASN	4.2
14	N	92	ALA	4.2
22	V	30	ALA	4.2
12	L	107	LYS	4.2
22	V	40	PRO	4.2
2	B	181	ILE	4.2
7	G	27	ILE	4.2
4	D	50	VAL	4.2
23	W	65	VAL	4.2
18	R	88	PHE	4.2
8	H	98	LEU	4.2

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Mol	Chain	Res	Type	RSRZ
22	V	46	ILE	4.2
13	M	118	TYR	4.2
21	U	37	GLU	4.2
23	W	7	LEU	4.2
21	U	49	LEU	4.1
24	X	12	ILE	4.1
17	Q	63	VAL	4.1
17	Q	93	ARG	4.1
22	V	37	GLY	4.1
1	A	88	ILE	4.1
22	V	41	GLU	4.1
9	I	102	GLN	4.1
9	I	72	GLU	4.1
13	M	77	HIS	4.1
9	I	88	GLN	4.1
30	O	1199	A	4.1
12	L	123	ASP	4.1
23	W	51	PHE	4.1
4	D	134	LEU	4.1
14	N	127	LEU	4.1
14	N	175	LEU	4.1
7	G	23	ILE	4.0
23	W	32	CYS	4.0
26	Z	85	ASP	4.0
14	N	155	GLU	4.0
24	X	74	ALA	4.0
6	F	83	LEU	4.0
20	T	35	TYR	4.0
14	N	150	TYR	4.0
14	N	87	LEU	4.0
9	I	113	SER	4.0
9	I	71	ALA	4.0
26	Z	84	CYS	3.9
12	L	62	ALA	3.9
1	A	23	TYR	3.9
13	M	74	LYS	3.9
29	3	24	LYS	3.9
16	P	20	ARG	3.9
14	N	185	GLU	3.9
20	T	72	ILE	3.9
25	Y	193	LEU	3.9
14	N	181	ASP	3.9

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Mol	Chain	Res	Type	RSRZ
21	U	27	ALA	3.9
16	P	9	LEU	3.9
8	H	53	ILE	3.9
6	F	16	ALA	3.9
29	3	9	THR	3.9
26	Z	65	ASN	3.9
5	E	1	PRO	3.8
8	H	54	VAL	3.8
22	V	56	ILE	3.8
4	D	84	LEU	3.8
12	L	3	LYS	3.8
14	N	166	ALA	3.8
22	V	31	ARG	3.8
4	D	83	PHE	3.8
10	J	27	ALA	3.8
22	V	1	THR	3.7
24	X	11	THR	3.7
14	N	149	GLU	3.7
1	A	37	VAL	3.7
9	I	127	CYS	3.7
28	2	20	ARG	3.7
14	N	129	ILE	3.7
14	N	184	ILE	3.7
29	3	88	LEU	3.7
12	L	120	LEU	3.6
20	T	23	VAL	3.6
20	T	62	VAL	3.6
20	T	101	LEU	3.6
4	D	104	PHE	3.6
8	H	169	GLU	3.6
12	L	61	ALA	3.6
4	D	141	VAL	3.6
3	C	61	PHE	3.6
12	L	140	VAL	3.6
16	P	114	LEU	3.6
23	W	45	VAL	3.6
1	A	213	LYS	3.6
24	X	37	LEU	3.6
1	A	38	ILE	3.6
15	O	61	PRO	3.6
3	C	5	ILE	3.5
4	D	43	GLU	3.5

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Mol	Chain	Res	Type	RSRZ
23	W	55	GLY	3.5
24	X	77	PHE	3.5
23	W	17	ILE	3.5
1	A	89	ALA	3.5
12	L	59	GLU	3.5
29	3	86	GLY	3.5
8	H	9	TYR	3.5
15	O	76	VAL	3.5
12	L	108	VAL	3.5
23	W	66	LEU	3.5
30	0	1198	U	3.5
14	N	156	GLU	3.5
10	J	79	PHE	3.5
13	M	83	SER	3.4
8	H	94	PRO	3.4
30	0	2637	A	3.4
8	H	97	VAL	3.4
14	N	115	VAL	3.4
1	A	83	GLY	3.4
2	B	128	ILE	3.4
15	O	45	LEU	3.4
7	G	69	ARG	3.4
12	L	81	VAL	3.4
12	L	91	VAL	3.4
19	S	28	VAL	3.4
20	T	40	VAL	3.4
28	2	42	TRP	3.4
17	Q	92	ARG	3.4
1	A	82	VAL	3.4
7	G	71	LEU	3.4
22	V	27	LEU	3.4
23	W	100	LEU	3.4
2	B	202	VAL	3.4
4	D	73	VAL	3.4
8	H	82	GLU	3.4
23	W	150	LEU	3.4
29	3	70	ARG	3.4
4	D	62	ASP	3.4
12	L	125	PHE	3.3
9	I	93	ALA	3.3
4	D	10	PHE	3.3
24	X	80	GLU	3.3

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Mol	Chain	Res	Type	RSRZ
13	M	88	VAL	3.3
23	W	53	ALA	3.3
14	N	102	LEU	3.3
24	X	7	GLU	3.3
20	T	118	SER	3.3
14	N	152	GLU	3.3
21	U	33	SER	3.3
8	H	86	TYR	3.3
12	L	130	ARG	3.3
4	D	24	HIS	3.3
28	2	39	ARG	3.3
4	D	142	ALA	3.3
14	N	160	SER	3.3
22	V	33	VAL	3.2
6	F	28	ALA	3.2
4	D	52	THR	3.2
24	X	81	GLY	3.2
4	D	90	LEU	3.2
1	A	93	THR	3.2
17	Q	25	PRO	3.2
8	H	26	ILE	3.2
2	B	148	PRO	3.2
12	L	75	LEU	3.2
14	N	112	GLY	3.2
6	F	37	THR	3.2
20	T	103	LEU	3.2
23	W	116	LEU	3.2
14	N	123	ILE	3.1
3	C	138	VAL	3.1
4	D	129	ASP	3.1
13	M	115	LEU	3.1
14	N	59	ALA	3.1
16	P	80	ARG	3.1
3	C	144	PHE	3.1
30	0	1163	G	3.1
2	B	204	GLY	3.1
6	F	43	GLY	3.1
21	U	18	GLY	3.1
4	D	19	GLU	3.1
5	E	100	ASP	3.1
3	C	157	LEU	3.1
21	U	16	GLY	3.1

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Mol	Chain	Res	Type	RSRZ
2	B	270	ILE	3.1
13	M	7	TYR	3.1
20	T	55	PHE	3.1
5	E	86	VAL	3.1
22	V	2	VAL	3.1
8	H	38	ARG	3.1
1	A	94	LEU	3.1
5	E	5	LEU	3.0
22	V	49	LEU	3.0
5	E	124	VAL	3.0
14	N	24	LEU	3.0
20	T	74	VAL	3.0
25	Y	170	SER	3.0
29	3	26	ARG	3.0
4	D	71	ALA	3.0
5	E	108	LEU	3.0
8	H	149	VAL	3.0
7	G	72	ASP	3.0
1	A	27	LEU	3.0
23	W	118	LEU	3.0
2	B	62	ARG	3.0
8	H	59	GLN	3.0
12	L	76	LEU	3.0
1	A	57	ALA	3.0
9	I	115	ASP	3.0
8	H	69	ARG	3.0
6	F	63	ILE	3.0
14	N	60	SER	3.0
1	A	36	ASP	3.0
1	A	145	MET	2.9
9	I	68	PRO	2.9
9	I	107	LYS	2.9
24	X	69	LYS	2.9
13	M	85	ARG	2.9
30	0	282	C	2.9
5	E	102	VAL	2.9
10	J	5	GLU	2.9
18	R	46	TYR	2.9
9	I	128	THR	2.9
16	P	126	ALA	2.9
4	D	17	ARG	2.9
6	F	12	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
5	E	161	VAL	2.9
14	N	97	VAL	2.9
16	P	77	ALA	2.9
15	O	48	ILE	2.9
17	Q	95	GLU	2.9
21	U	21	PHE	2.9
4	D	139	TYR	2.9
2	B	311	PHE	2.9
4	D	58	VAL	2.9
2	B	178	ALA	2.9
9	I	134	ILE	2.9
12	L	80	ASP	2.9
12	L	101	ASP	2.9
2	B	278	PRO	2.9
3	C	246	ARG	2.9
28	2	44	ARG	2.9
14	N	148	ALA	2.9
1	A	80	LEU	2.8
8	H	165	ARG	2.8
12	L	114	VAL	2.8
14	N	146	HIS	2.8
22	V	52	ALA	2.8
29	3	73	GLU	2.8
3	C	243	VAL	2.8
12	L	93	VAL	2.8
23	W	115	THR	2.8
13	M	54	TYR	2.8
4	D	101	THR	2.8
4	D	41	LEU	2.8
13	M	75	ARG	2.8
14	N	45	ALA	2.8
9	I	99	GLN	2.8
23	W	24	LEU	2.8
26	Z	87	LYS	2.8
28	2	25	VAL	2.8
9	I	123	VAL	2.8
14	N	8	VAL	2.8
13	M	194	GLY	2.7
25	Y	229	LEU	2.7
21	U	50	GLU	2.7
1	A	42	VAL	2.7
1	A	77	GLY	2.7

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Mol	Chain	Res	Type	RSRZ
4	D	92	GLU	2.7
2	B	146	THR	2.7
21	U	17	THR	2.7
14	N	88	ALA	2.7
15	O	77	ALA	2.7
13	M	149	TRP	2.7
6	F	36	THR	2.7
28	2	21	VAL	2.7
17	Q	66	LYS	2.7
2	B	269	LEU	2.7
10	J	6	PHE	2.7
2	B	45	LYS	2.7
11	K	47	ALA	2.7
7	G	66	LEU	2.7
23	W	3	ALA	2.7
12	L	2	SER	2.7
29	3	92	GLU	2.7
8	H	80	LEU	2.7
14	N	23	ARG	2.7
14	N	78	MET	2.7
26	Z	73	ARG	2.6
15	O	69	VAL	2.6
1	A	30	ARG	2.6
1	A	128	LEU	2.6
8	H	60	LEU	2.6
10	J	70	PHE	2.6
11	K	73	VAL	2.6
20	T	77	VAL	2.6
10	J	4	ALA	2.6
3	C	6	TYR	2.6
12	L	70	ASP	2.6
14	N	66	LEU	2.6
22	V	34	GLN	2.6
3	C	4	THR	2.6
14	N	1	ALA	2.6
6	F	47	LEU	2.6
14	N	182	GLY	2.6
28	2	35	ARG	2.6
14	N	178	THR	2.6
2	B	301	VAL	2.6
7	G	24	VAL	2.6
10	J	103	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
4	D	89	PRO	2.6
23	W	57	PRO	2.6
7	G	65	THR	2.6
10	J	83	ILE	2.6
24	X	33	ILE	2.6
3	C	139	VAL	2.6
4	D	22	VAL	2.6
5	E	11	VAL	2.6
14	N	186	LEU	2.6
9	I	131	GLY	2.6
7	G	63	ARG	2.6
10	J	102	ARG	2.6
20	T	108	ARG	2.6
10	J	129	PHE	2.6
8	H	48	VAL	2.6
30	O	497	A	2.6
12	L	145	LEU	2.5
4	D	74	THR	2.5
1	A	103	VAL	2.5
6	F	30	LYS	2.5
6	F	96	ALA	2.5
11	K	59	LYS	2.5
19	S	31	ARG	2.5
8	H	93	PHE	2.5
8	H	123	ILE	2.5
1	A	84	VAL	2.5
26	Z	105	ARG	2.5
7	G	67	LEU	2.5
23	W	47	LYS	2.5
14	N	101	VAL	2.5
23	W	107	LEU	2.5
2	B	26	PHE	2.5
28	2	41	HIS	2.5
14	N	137	ALA	2.5
18	R	115	ALA	2.5
17	Q	81	GLU	2.5
19	S	1	SER	2.5
30	O	164	G	2.5
2	B	188	HIS	2.5
14	N	20	TYR	2.5
17	Q	73	VAL	2.5
20	T	87	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
22	V	35	ALA	2.5
23	W	153	MET	2.5
12	L	50	GLY	2.5
25	Y	182	PHE	2.5
7	G	25	GLU	2.5
10	J	57	TYR	2.5
5	E	76	VAL	2.5
30	0	2646	G	2.4
30	0	10	U	2.4
4	D	51	ARG	2.4
12	L	90	ARG	2.4
10	J	116	LEU	2.4
8	H	81	GLY	2.4
2	B	74	ILE	2.4
8	H	88	MET	2.4
20	T	91	LEU	2.4
14	N	157	PRO	2.4
1	A	68	ILE	2.4
2	B	140	LEU	2.4
22	V	63	GLU	2.4
4	D	158	ASN	2.4
24	X	14	LEU	2.4
14	N	151	ASP	2.4
20	T	49	GLU	2.4
9	I	121	LYS	2.4
18	R	147	LEU	2.4
6	F	87	ALA	2.4
23	W	97	ALA	2.4
6	F	106	ALA	2.3
4	D	173	GLU	2.3
14	N	159	TYR	2.3
13	M	1	ALA	2.3
14	N	21	HIS	2.3
16	P	71	TYR	2.3
2	B	142	LEU	2.3
13	M	84	LYS	2.3
26	Z	101	LYS	2.3
15	O	115	ARG	2.3
11	K	108	GLU	2.3
3	C	14	GLY	2.3
3	C	62	GLY	2.3
4	D	147	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
6	F	50	VAL	2.3
10	J	45	VAL	2.3
30	O	1195	G	2.3
2	B	30	PRO	2.3
17	Q	5	GLY	2.3
26	Z	75	GLY	2.3
26	Z	102	THR	2.3
15	O	60	VAL	2.3
23	W	16	ASP	2.3
14	N	27	LEU	2.3
22	V	3	LEU	2.3
4	D	156	ARG	2.3
14	N	153	GLN	2.3
24	X	65	ASN	2.3
29	3	66	ASP	2.3
29	3	7	PHE	2.3
12	L	9	GLY	2.3
6	F	20	LEU	2.3
19	S	68	LEU	2.3
4	D	68	PRO	2.2
24	X	88	GLU	2.2
12	L	44	GLU	2.2
3	C	162	VAL	2.2
19	S	37	VAL	2.2
20	T	25	ALA	2.2
12	L	121	ILE	2.2
2	B	87	TYR	2.2
6	F	31	LYS	2.2
9	I	124	VAL	2.2
15	O	43	VAL	2.2
16	P	21	VAL	2.2
2	B	57	GLU	2.2
15	O	46	GLY	2.2
9	I	76	ASP	2.2
17	Q	41	LEU	2.2
1	A	135	VAL	2.2
8	H	127	ALA	2.2
28	2	45	ASN	2.2
6	F	90	GLU	2.2
8	H	66	GLU	2.2
8	H	40	GLN	2.2
29	3	79	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
30	0	960	G	2.2
13	M	56	ALA	2.2
24	X	8	ARG	2.2
28	2	43	ARG	2.2
6	F	29	VAL	2.2
12	L	97	VAL	2.2
27	1	19	CYS	2.2
30	0	1202	A	2.1
14	N	126	GLY	2.1
17	Q	70	ALA	2.1
20	T	44	ALA	2.1
14	N	118	ILE	2.1
16	P	98	ILE	2.1
18	R	31	ILE	2.1
15	O	47	ARG	2.1
12	L	79	ASP	2.1
5	E	131	LEU	2.1
18	R	145	LEU	2.1
28	2	27	LEU	2.1
7	G	15	TRP	2.1
8	H	62	HIS	2.1
12	L	129	ALA	2.1
19	S	66	VAL	2.1
19	S	77	VAL	2.1
25	Y	234	VAL	2.1
10	J	93	ARG	2.1
18	R	92	LEU	2.1
1	A	222	GLY	2.1
9	I	79	GLY	2.1
13	M	16	GLY	2.1
16	P	48	ALA	2.1
10	J	130	VAL	2.1
17	Q	84	ILE	2.1
19	S	5	ILE	2.1
22	V	45	ARG	2.1
4	D	80	ALA	2.1
8	H	128	ALA	2.1
12	L	133	VAL	2.1
17	Q	2	SER	2.1
13	M	91	ILE	2.1
22	V	8	ILE	2.1
8	H	136	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
14	N	106	LEU	2.1
23	W	112	LEU	2.1
13	M	20	LEU	2.1
4	D	137	PRO	2.1
9	I	69	PRO	2.1
17	Q	37	GLU	2.1
15	O	88	LYS	2.0
3	C	204	ALA	2.0
12	L	43	HIS	2.0
18	R	117	HIS	2.0
14	N	57	THR	2.0
25	Y	217	ILE	2.0
1	A	53	ALA	2.0
6	F	100	ASP	2.0
2	B	121	PRO	2.0
17	Q	50	GLY	2.0
30	0	1203	G	2.0
9	I	89	GLU	2.0
14	N	55	ASP	2.0
16	P	51	ALA	2.0
6	F	108	VAL	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
30	OMU	0	2587	21/22	0.12	0.10	51,52,54,56	0
30	1MA	0	628	23/24	0.15	-0.51	37,44,45,46	0
30	PSU	0	2621	20/21	0.17	-0.63	49,51,60,60	0
30	UR3	0	2619	21/22	0.14	-0.86	56,57,60,60	0
30	OMG	0	2588	24/25	0.14	-1.01	48,51,54,55	0

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
33	K	0	8401	1/1	0.60	93.40	145,145,145,145	0
36	SR	0	9007	1/1	1.13	75.13	200,200,200,200	0
34	NA	0	8574	1/1	1.40	75.07	92,92,92,92	0
36	SR	0	8982	1/1	0.89	68.93	200,200,200,200	0
34	NA	0	8562	1/1	1.25	56.62	83,83,83,83	0
35	CL	0	8822	1/1	0.89	51.63	140,140,140,140	0
34	NA	0	8559	1/1	0.68	46.00	96,96,96,96	0
32	MG	0	8037	1/1	0.33	42.11	92,92,92,92	0
35	CL	B	8819	1/1	1.21	42.07	83,83,83,83	0
36	SR	0	8974	1/1	0.45	36.15	196,196,196,196	0
34	NA	0	8525	1/1	0.54	35.67	113,113,113,113	0
34	NA	0	8547	1/1	0.49	34.80	115,115,115,115	0
36	SR	0	8957	1/1	1.43	32.80	200,200,200,200	0
36	SR	0	8979	1/1	0.44	31.31	200,200,200,200	0
34	NA	0	8544	1/1	0.56	30.85	76,76,76,76	0
34	NA	0	8554	1/1	0.76	27.23	124,124,124,124	0
34	NA	0	8545	1/1	0.55	25.81	74,74,74,74	0
34	NA	0	8518	1/1	0.79	24.10	91,91,91,91	0
36	SR	0	9004	1/1	1.39	23.34	200,200,200,200	0
32	MG	0	8030	1/1	0.92	23.00	75,75,75,75	0
34	NA	0	8536	1/1	0.18	22.75	64,64,64,64	0
32	MG	0	8049	1/1	0.37	22.33	82,82,82,82	0
36	SR	0	8964	1/1	0.27	19.68	176,176,176,176	0
35	CL	0	8815	1/1	0.41	19.48	130,130,130,130	0
35	CL	J	8816	1/1	2.00	18.71	99,99,99,99	0
34	NA	0	8571	1/1	0.36	18.64	99,99,99,99	0
32	MG	0	8089	1/1	0.36	17.94	56,56,56,56	0
34	NA	0	8524	1/1	0.54	17.35	53,53,53,53	0
34	NA	0	8558	1/1	0.39	16.88	82,82,82,82	0
34	NA	0	8509	1/1	0.43	15.94	84,84,84,84	0
36	SR	0	8922	1/1	0.28	14.56	181,181,181,181	0
34	NA	R	8575	1/1	0.40	14.27	97,97,97,97	0
34	NA	B	8552	1/1	0.59	13.97	70,70,70,70	0
32	MG	0	8047	1/1	0.69	13.94	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
36	SR	0	8998	1/1	0.52	12.72	200,200,200,200	0
36	SR	0	8996	1/1	0.39	12.22	200,200,200,200	0
34	NA	0	8549	1/1	0.25	12.17	96,96,96,96	0
32	MG	0	8078	1/1	0.49	12.03	72,72,72,72	0
32	MG	0	8081	1/1	0.29	11.85	116,116,116,116	0
36	SR	0	8969	1/1	1.81	11.25	200,200,200,200	0
34	NA	0	8564	1/1	0.28	10.73	87,87,87,87	0
36	SR	0	8926	1/1	0.25	10.64	131,131,131,131	0
34	NA	0	8567	1/1	0.44	10.53	83,83,83,83	0
32	MG	0	8066	1/1	0.30	10.19	71,71,71,71	0
34	NA	0	8563	1/1	0.44	9.94	66,66,66,66	0
32	MG	Y	8077	1/1	0.34	9.89	58,58,58,58	0
35	CL	0	8805	1/1	0.31	9.73	105,105,105,105	0
32	MG	0	8079	1/1	0.28	9.37	57,57,57,57	0
34	NA	0	8522	1/1	0.33	9.34	130,130,130,130	0
34	NA	L	8568	1/1	0.50	9.02	59,59,59,59	0
34	NA	0	8542	1/1	0.38	9.02	79,79,79,79	0
34	NA	0	8528	1/1	0.37	8.87	113,113,113,113	0
32	MG	0	8039	1/1	0.44	8.83	94,94,94,94	0
36	SR	0	8924	1/1	0.21	8.49	131,131,131,131	0
36	SR	0	8971	1/1	0.21	8.46	200,200,200,200	0
36	SR	0	8905	1/1	0.28	7.83	68,68,68,68	0
34	NA	0	8546	1/1	0.79	7.81	108,108,108,108	0
36	SR	0	8941	1/1	0.23	7.50	141,141,141,141	0
34	NA	0	8506	1/1	0.30	7.34	91,91,91,91	0
34	NA	0	8566	1/1	0.35	7.03	86,86,86,86	0
34	NA	0	8561	1/1	0.28	6.93	53,53,53,53	0
32	MG	0	8048	1/1	0.31	6.81	26,26,26,26	0
32	MG	0	8008	1/1	0.20	6.34	26,26,26,26	0
34	NA	0	8527	1/1	0.36	5.97	92,92,92,92	0
34	NA	0	8501	1/1	0.23	5.87	53,53,53,53	0
36	SR	0	8925	1/1	0.16	5.73	98,98,98,98	0
36	SR	B	8987	1/1	0.78	5.63	200,200,200,200	0
34	NA	0	8516	1/1	0.21	5.60	27,27,27,27	0
36	SR	0	8951	1/1	0.18	5.52	183,183,183,183	0
32	MG	0	8023	1/1	0.20	5.52	38,38,38,38	0
34	NA	0	8517	1/1	0.21	5.43	69,69,69,69	0
36	SR	0	8946	1/1	0.26	5.31	144,144,144,144	0
32	MG	0	8033	1/1	0.16	5.26	69,69,69,69	0
36	SR	0	8994	1/1	0.36	5.20	200,200,200,200	0
36	SR	0	8903	1/1	0.22	5.13	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
35	CL	0	8813	1/1	0.20	5.11	64,64,64,64	0
34	NA	0	8514	1/1	0.39	5.10	74,74,74,74	0
34	NA	0	8553	1/1	0.27	5.04	81,81,81,81	0
34	NA	0	8502	1/1	0.26	5.00	66,66,66,66	0
34	NA	0	8508	1/1	0.21	4.93	118,118,118,118	0
32	MG	0	8036	1/1	0.15	4.87	62,62,62,62	0
34	NA	0	8534	1/1	0.39	4.82	53,53,53,53	0
32	MG	0	8070	1/1	0.17	4.75	39,39,39,39	0
35	CL	O	8808	1/1	0.69	4.62	114,114,114,114	0
36	SR	9	8980	1/1	0.17	4.48	191,191,191,191	0
35	CL	N	8807	1/1	0.60	4.38	99,99,99,99	0
32	MG	0	8022	1/1	0.18	4.32	25,25,25,25	0
32	MG	9	8074	1/1	0.21	4.29	97,97,97,97	0
32	MG	9	8040	1/1	0.20	4.10	101,101,101,101	0
35	CL	A	8809	1/1	0.37	4.09	116,116,116,116	0
36	SR	R	8912	1/1	0.24	3.89	107,107,107,107	0
36	SR	0	8983	1/1	0.25	3.80	200,200,200,200	0
32	MG	0	8009	1/1	0.23	3.79	24,24,24,24	0
34	NA	0	8537	1/1	0.26	3.75	46,46,46,46	0
34	NA	0	8551	1/1	0.22	3.68	75,75,75,75	0
36	SR	0	9000	1/1	0.19	3.58	200,200,200,200	0
32	MG	0	8043	1/1	0.22	3.52	62,62,62,62	0
34	NA	0	8512	1/1	0.23	3.43	40,40,40,40	0
34	NA	0	8556	1/1	0.43	3.38	94,94,94,94	0
34	NA	0	8535	1/1	0.15	3.14	58,58,58,58	0
32	MG	0	8064	1/1	0.23	3.08	51,51,51,51	0
36	SR	0	8939	1/1	0.16	3.08	155,155,155,155	0
36	SR	0	8958	1/1	0.17	3.02	126,126,126,126	0
32	MG	0	8029	1/1	0.20	2.96	62,62,62,62	0
32	MG	0	8071	1/1	0.18	2.87	78,78,78,78	0
36	SR	0	8931	1/1	0.13	2.84	120,120,120,120	0
36	SR	J	8986	1/1	0.17	2.79	200,200,200,200	0
34	NA	0	8530	1/1	0.25	2.68	53,53,53,53	0
35	CL	Q	8811	1/1	0.40	2.55	124,124,124,124	0
34	NA	0	8531	1/1	0.16	2.48	54,54,54,54	0
34	NA	0	8555	1/1	0.23	2.27	80,80,80,80	0
34	NA	Q	8540	1/1	0.38	2.23	74,74,74,74	0
35	CL	J	8821	1/1	0.25	2.19	99,99,99,99	0
32	MG	0	8061	1/1	0.30	2.18	47,47,47,47	0
32	MG	0	8011	1/1	0.23	2.16	33,33,33,33	0
36	SR	0	8904	1/1	0.23	2.08	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
32	MG	0	8001	1/1	0.19	2.04	42,42,42,42	0
35	CL	M	8818	1/1	0.33	2.03	58,58,58,58	0
34	NA	0	8521	1/1	0.24	2.02	40,40,40,40	0
36	SR	0	8937	1/1	0.26	2.01	126,126,126,126	0
36	SR	0	8970	1/1	0.13	1.99	158,158,158,158	0
32	MG	0	8038	1/1	0.21	1.98	94,94,94,94	0
32	MG	0	8067	1/1	0.27	1.86	47,47,47,47	0
32	MG	0	8082	1/1	0.25	1.82	62,62,62,62	0
32	MG	0	8012	1/1	0.20	1.81	26,26,26,26	0
36	SR	0	8965	1/1	0.20	1.75	160,160,160,160	0
35	CL	0	8814	1/1	0.33	1.74	51,51,51,51	0
32	MG	0	8083	1/1	0.19	1.71	58,58,58,58	0
32	MG	0	8005	1/1	0.23	1.57	24,24,24,24	0
34	NA	0	8548	1/1	0.15	1.47	44,44,44,44	0
32	MG	0	8003	1/1	0.18	1.37	27,27,27,27	0
35	CL	J	8801	1/1	0.32	1.29	85,85,85,85	0
36	SR	0	8914	1/1	0.22	1.29	133,133,133,133	0
32	MG	0	8076	1/1	0.17	1.28	76,76,76,76	0
32	MG	0	8020	1/1	0.15	1.26	50,50,50,50	0
34	NA	0	8529	1/1	0.15	1.24	61,61,61,61	0
36	SR	0	8956	1/1	0.21	1.13	200,200,200,200	0
32	MG	0	8093	1/1	0.19	1.09	48,48,48,48	0
32	MG	A	8051	1/1	0.35	1.09	95,95,95,95	0
32	MG	0	8035	1/1	0.14	1.07	76,76,76,76	0
32	MG	0	8084	1/1	0.14	0.98	37,37,37,37	0
34	NA	0	8523	1/1	0.17	0.94	51,51,51,51	0
36	SR	0	8968	1/1	0.18	0.92	175,175,175,175	0
32	MG	Y	8086	1/1	0.19	0.80	52,52,52,52	0
36	SR	S	8961	1/1	0.12	0.79	130,130,130,130	0
34	NA	R	8532	1/1	0.18	0.77	68,68,68,68	0
32	MG	K	8054	1/1	0.15	0.75	42,42,42,42	0
36	SR	0	8935	1/1	0.14	0.73	101,101,101,101	0
36	SR	0	8907	1/1	0.15	0.73	60,60,60,60	0
36	SR	0	8915	1/1	0.14	0.63	123,123,123,123	0
36	SR	0	8963	1/1	0.14	0.60	117,117,117,117	0
34	NA	0	8504	1/1	0.17	0.58	41,41,41,41	0
34	NA	0	8560	1/1	0.67	0.52	80,80,80,80	0
34	NA	9	8543	1/1	0.24	0.48	51,51,51,51	0
36	SR	0	8985	1/1	0.12	0.37	168,168,168,168	0
32	MG	0	8088	1/1	0.15	0.31	53,53,53,53	0
36	SR	A	8929	1/1	0.20	0.25	139,139,139,139	0
36	SR	0	8906	1/1	0.16	0.21	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
36	SR	F	9005	1/1	0.17	0.21	170,170,170,170	0
34	NA	0	8526	1/1	0.11	0.18	67,67,67,67	0
36	SR	0	8928	1/1	0.12	0.10	156,156,156,156	0
36	SR	0	8933	1/1	0.16	0.06	126,126,126,126	0
36	SR	0	9001	1/1	0.12	-0.01	200,200,200,200	0
34	NA	0	8513	1/1	0.18	-0.05	67,67,67,67	0
32	MG	0	8063	1/1	0.15	-0.09	60,60,60,60	0
34	NA	0	8557	1/1	0.10	-0.12	70,70,70,70	0
34	NA	0	8507	1/1	0.16	-0.18	38,38,38,38	0
33	K	M	8402	1/1	0.22	-0.22	96,96,96,96	0
35	CL	Y	8820	1/1	0.16	-0.23	58,58,58,58	0
34	NA	0	8541	1/1	0.18	-0.26	60,60,60,60	0
32	MG	0	8062	1/1	0.18	-0.27	66,66,66,66	0
32	MG	0	8002	1/1	0.15	-0.33	31,31,31,31	0
34	NA	9	8572	1/1	0.09	-0.35	71,71,71,71	0
35	CL	0	8803	1/1	0.13	-0.36	82,82,82,82	0
36	SR	0	8972	1/1	0.14	-0.39	138,138,138,138	0
35	CL	0	8817	1/1	0.14	-0.43	84,84,84,84	0
32	MG	0	8080	1/1	0.17	-0.45	65,65,65,65	0
36	SR	0	8901	1/1	0.14	-0.48	73,73,73,73	0
32	MG	0	8027	1/1	0.12	-0.51	44,44,44,44	0
32	MG	0	8015	1/1	0.13	-0.52	30,30,30,30	0
36	SR	0	8954	1/1	0.13	-0.52	115,115,115,115	0
36	SR	0	8976	1/1	0.17	-0.54	195,195,195,195	0
34	NA	0	8570	1/1	0.11	-0.55	57,57,57,57	0
34	NA	0	8573	1/1	0.17	-0.58	89,89,89,89	0
36	SR	0	9002	1/1	0.09	-0.62	200,200,200,200	0
32	MG	0	8026	1/1	0.10	-0.64	37,37,37,37	0
37	CD	Z	8703	1/1	0.48	-0.66	188,188,188,188	0
36	SR	0	8991	1/1	0.10	-0.67	188,188,188,188	0
34	NA	M	8539	1/1	0.14	-0.69	38,38,38,38	0
32	MG	0	8069	1/1	0.16	-0.70	73,73,73,73	0
32	MG	0	8090	1/1	0.10	-0.76	57,57,57,57	0
36	SR	3	8999	1/1	0.45	-0.76	200,200,200,200	0
32	MG	0	8053	1/1	0.10	-0.78	88,88,88,88	0
32	MG	0	8028	1/1	0.12	-0.81	13,13,13,13	0
32	MG	0	8041	1/1	0.15	-0.83	25,25,25,25	0
36	SR	A	8930	1/1	0.12	-0.85	131,131,131,131	0
34	NA	0	8569	1/1	0.15	-0.86	71,71,71,71	0
36	SR	0	8977	1/1	0.13	-0.86	200,200,200,200	0
34	NA	0	8519	1/1	0.16	-0.87	51,51,51,51	0
32	MG	0	8010	1/1	0.14	-0.90	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
36	SR	0	8992	1/1	0.11	-0.94	141,141,141,141	0
36	SR	0	8936	1/1	0.13	-0.96	114,114,114,114	0
32	MG	0	8019	1/1	0.16	-1.03	19,19,19,19	0
36	SR	0	8990	1/1	0.14	-1.07	113,113,113,113	0
36	SR	0	8943	1/1	0.11	-1.07	89,89,89,89	0
32	MG	T	8057	1/1	0.09	-1.08	80,80,80,80	0
34	NA	J	8538	1/1	0.14	-1.11	84,84,84,84	0
32	MG	0	8016	1/1	0.14	-1.15	41,41,41,41	0
34	NA	R	8533	1/1	0.10	-1.16	94,94,94,94	0
37	CD	U	8701	1/1	0.43	-1.16	180,180,180,180	0
36	SR	2	8947	1/1	0.14	-1.16	195,195,195,195	0
32	MG	0	8058	1/1	0.06	-1.17	7,7,7,7	0
32	MG	0	8056	1/1	0.14	-1.19	47,47,47,47	0
36	SR	0	8953	1/1	0.27	-1.20	179,179,179,179	0
37	CD	3	8704	1/1	0.62	-1.31	183,183,183,183	0
37	CD	1	8702	1/1	0.10	-1.32	78,78,78,78	0
35	CL	J	8802	1/1	0.12	-1.34	86,86,86,86	0
36	SR	3	8932	1/1	0.18	-1.35	148,148,148,148	0
34	NA	0	8515	1/1	0.11	-1.35	35,35,35,35	0
36	SR	0	8967	1/1	0.09	-1.37	163,163,163,163	0
34	NA	C	8503	1/1	0.11	-1.38	36,36,36,36	0
36	SR	0	8918	1/1	0.11	-1.46	88,88,88,88	0
36	SR	0	8981	1/1	0.12	-1.48	198,198,198,198	0
35	CL	L	8810	1/1	0.13	-1.50	91,91,91,91	0
32	MG	0	8052	1/1	0.11	-1.71	63,63,63,63	0
35	CL	0	8812	1/1	0.07	-1.75	70,70,70,70	0
34	NA	0	8565	1/1	0.08	-1.76	85,85,85,85	0
36	SR	0	8909	1/1	0.11	-1.83	100,100,100,100	0
32	MG	0	8085	1/1	0.10	-2.01	67,67,67,67	0
36	SR	0	8911	1/1	0.09	-2.05	100,100,100,100	0
36	SR	0	8993	1/1	0.06	-2.05	200,200,200,200	0
36	SR	0	8908	1/1	0.09	-2.06	99,99,99,99	0
34	NA	0	8505	1/1	0.14	-2.09	37,37,37,37	0
36	SR	0	8988	1/1	0.06	-2.14	200,200,200,200	0
36	SR	0	8959	1/1	0.06	-2.17	190,190,190,190	0
36	SR	0	8921	1/1	0.07	-2.22	88,88,88,88	0
32	MG	0	8065	1/1	0.11	-2.29	66,66,66,66	0
32	MG	0	8060	1/1	0.03	-2.30	58,58,58,58	0
32	MG	A	8050	1/1	0.08	-2.30	69,69,69,69	0
32	MG	0	8044	1/1	0.07	-2.34	59,59,59,59	0
36	SR	1	8952	1/1	0.13	-2.38	92,92,92,92	0
32	MG	0	8014	1/1	0.08	-2.45	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
36	SR	0	8938	1/1	0.05	-2.52	200,200,200,200	0
34	NA	0	8511	1/1	0.09	-2.59	53,53,53,53	0
36	SR	0	8960	1/1	0.06	-2.59	156,156,156,156	0
35	CL	R	8806	1/1	0.14	-2.60	66,66,66,66	0
36	SR	0	8948	1/1	0.09	-2.65	110,110,110,110	0
32	MG	0	8055	1/1	0.09	-2.67	60,60,60,60	0
35	CL	3	8804	1/1	0.08	-2.75	98,98,98,98	0
32	MG	0	8034	1/1	0.06	-2.84	50,50,50,50	0
36	SR	0	8984	1/1	0.05	-2.86	124,124,124,124	0
36	SR	0	8975	1/1	0.06	-2.89	189,189,189,189	0
36	SR	0	8940	1/1	0.07	-2.99	93,93,93,93	0
36	SR	9	9003	1/1	0.05	-3.00	200,200,200,200	0
36	SR	0	8944	1/1	0.08	-3.01	168,168,168,168	0
34	NA	S	8510	1/1	0.04	-3.06	41,41,41,41	0
32	MG	0	8013	1/1	0.06	-3.10	19,19,19,19	0
36	SR	1	8913	1/1	0.06	-3.11	108,108,108,108	0
32	MG	0	8031	1/1	0.07	-3.11	68,68,68,68	0
36	SR	0	8934	1/1	0.08	-3.22	138,138,138,138	0
34	NA	0	8520	1/1	0.07	-3.24	44,44,44,44	0
32	MG	0	8072	1/1	0.11	-3.27	45,45,45,45	0
36	SR	0	8902	1/1	0.10	-3.29	72,72,72,72	0
32	MG	0	8004	1/1	0.10	-3.31	19,19,19,19	0
32	MG	0	8021	1/1	0.07	-3.49	31,31,31,31	0
32	MG	0	8032	1/1	0.05	-3.53	47,47,47,47	0
32	MG	0	8075	1/1	0.07	-3.56	50,50,50,50	0
32	MG	0	8045	1/1	0.07	-3.63	28,28,28,28	0
36	SR	0	8910	1/1	0.11	-3.65	118,118,118,118	0
36	SR	0	8942	1/1	0.04	-3.68	123,123,123,123	0
36	SR	0	8978	1/1	0.07	-3.69	132,132,132,132	0
32	MG	0	8059	1/1	0.07	-3.81	55,55,55,55	0
32	MG	0	8025	1/1	0.04	-3.82	23,23,23,23	0
36	SR	0	8989	1/1	0.12	-3.92	174,174,174,174	0
37	CD	O	8705	1/1	0.04	-4.03	105,105,105,105	0
32	MG	0	8073	1/1	0.08	-4.12	89,89,89,89	0
36	SR	0	8949	1/1	0.09	-4.13	128,128,128,128	0
36	SR	0	8916	1/1	0.03	-4.17	110,110,110,110	0
36	SR	0	8945	1/1	0.05	-4.36	119,119,119,119	0
36	SR	0	8955	1/1	0.10	-4.47	200,200,200,200	0
32	MG	0	8087	1/1	0.07	-4.58	22,22,22,22	0
36	SR	0	8995	1/1	0.11	-4.62	123,123,123,123	0
32	MG	0	8006	1/1	0.09	-4.77	44,44,44,44	0
34	NA	0	8550	1/1	0.12	-4.86	129,129,129,129	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
32	MG	0	8018	1/1	0.07	-4.88	34,34,34,34	0
32	MG	0	8068	1/1	0.06	-4.92	44,44,44,44	0
32	MG	0	8024	1/1	0.03	-5.07	39,39,39,39	0
36	SR	0	8923	1/1	0.08	-5.09	108,108,108,108	0
32	MG	0	8042	1/1	0.05	-5.15	75,75,75,75	0
36	SR	B	8950	1/1	0.13	-5.23	123,123,123,123	0
32	MG	0	8007	1/1	0.09	-5.27	21,21,21,21	0
36	SR	0	8920	1/1	0.05	-5.37	145,145,145,145	0
36	SR	0	8966	1/1	0.05	-5.90	101,101,101,101	0
32	MG	0	8017	1/1	0.10	-6.01	28,28,28,28	0
32	MG	0	8046	1/1	0.06	-6.16	44,44,44,44	0
36	SR	0	8917	1/1	0.08	-6.65	111,111,111,111	0
36	SR	0	8962	1/1	0.05	-7.07	168,168,168,168	0
36	SR	0	8919	1/1	0.11	-7.60	185,185,185,185	0
36	SR	0	8927	1/1	0.09	-8.04	171,171,171,171	0
36	SR	0	9008	1/1	0.10	-8.75	94,94,94,94	0
32	MG	0	8092	1/1	0.05	-	53,53,53,53	0
36	SR	0	8997	1/1	0.83	-	200,200,200,200	0
36	SR	0	8973	1/1	0.16	-	142,142,142,142	0
36	SR	0	9006	1/1	0.32	-	200,200,200,200	0
32	MG	0	8091	1/1	0.16	-	67,67,67,67	0

6.5 Other polymers ⓘ

There are no such residues in this entry.