



Full wwPDB X-ray Structure Validation Report

Feb 28, 2014 – 04:19 PM GMT

PDB ID : 3CCR
Title : Structure of Anisomycin resistant 50S Ribosomal Subunit: 23S rRNA mutation A2488C. Density for anisomycin is visible but not included in the model.
Authors : Blaha, G.; Gurel, G.
Deposited on : 2008-02-26
Resolution : 3.00 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>

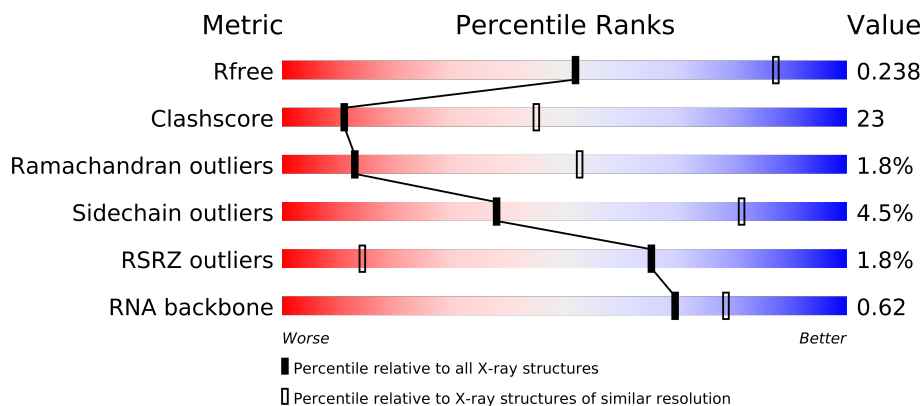
The following versions of software and data (see [references](#)) were used in the production of this report:

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 3.00 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	1216 (3.00-3.00)
Clashscore	79885	1594 (3.00-3.00)
Ramachandran outliers	78287	1537 (3.00-3.00)
Sidechain outliers	78261	1540 (3.00-3.00)
RSRZ outliers	66119	1217 (3.00-3.00)
RNA backbone	1838	1070 (3.50-2.50)

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	

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Mol	Chain	Length	Quality of chain
12	L	165	
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	8004	-	X
32	MG	0	8005	-	X
32	MG	0	8009	-	X
32	MG	0	8011	-	X
32	MG	0	8014	-	X
32	MG	0	8015	-	X
32	MG	0	8016	-	X
32	MG	0	8020	-	X
32	MG	0	8022	-	X
32	MG	0	8023	-	X
32	MG	0	8030	-	X
32	MG	0	8031	-	X
32	MG	0	8033	-	X
32	MG	0	8037	-	X
32	MG	0	8040	-	X
32	MG	0	8041	-	X
32	MG	0	8044	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
32	MG	0	8048	-	X
32	MG	0	8063	-	X
32	MG	0	8066	-	X
32	MG	0	8071	-	X
32	MG	0	8078	-	X
32	MG	0	8081	-	X
32	MG	0	8085	-	X
32	MG	A	8051	-	X
32	MG	K	8054	-	X
33	K	0	8401	-	X
34	NA	0	8505	-	X
34	NA	0	8506	-	X
34	NA	0	8508	-	X
34	NA	0	8509	-	X
34	NA	0	8513	-	X
34	NA	0	8518	-	X
34	NA	0	8519	-	X
34	NA	0	8520	-	X
34	NA	0	8521	-	X
34	NA	0	8522	-	X
34	NA	0	8524	-	X
34	NA	0	8525	-	X
34	NA	0	8526	-	X
34	NA	0	8528	-	X
34	NA	0	8529	-	X
34	NA	0	8530	-	X
34	NA	0	8534	-	X
34	NA	0	8535	-	X
34	NA	0	8537	-	X
34	NA	0	8541	-	X
34	NA	0	8545	-	X
34	NA	0	8546	-	X
34	NA	0	8547	-	X
34	NA	0	8550	-	X
34	NA	0	8552	-	X
34	NA	0	8553	-	X
34	NA	0	8554	-	X
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

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Mol	Type	Chain	Res	Geometry	Electron density
34	NA	0	8561	-	X
34	NA	0	8562	-	X
34	NA	0	8563	-	X
34	NA	0	8564	-	X
34	NA	0	8565	-	X
34	NA	0	8566	-	X
34	NA	0	8567	-	X
34	NA	0	8569	-	X
34	NA	0	8571	-	X
34	NA	0	8573	-	X
34	NA	0	8574	-	X
34	NA	9	8572	-	X
34	NA	R	8532	-	X
34	NA	R	8575	-	X
35	CL	0	8814	-	X
35	CL	0	8816	-	X
35	CL	0	8817	-	X
35	CL	0	8822	-	X
35	CL	A	8809	-	X
36	SR	0	8901	-	X
36	SR	0	8904	-	X
36	SR	0	8905	-	X
36	SR	0	8909	-	X
36	SR	0	8914	-	X
36	SR	0	8919	-	X
36	SR	0	8922	-	X
36	SR	0	8924	-	X
36	SR	0	8925	-	X
36	SR	0	8927	-	X
36	SR	0	8947	-	X
36	SR	0	8955	-	X
36	SR	0	8957	-	X
36	SR	0	8959	-	X
36	SR	0	8969	-	X
36	SR	0	8971	-	X
36	SR	0	8976	-	X
36	SR	0	8979	-	X
36	SR	0	8982	-	X
36	SR	0	8983	-	X
36	SR	0	8986	-	X
36	SR	0	8989	-	X
36	SR	0	8991	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
36	SR	0	8994	-	X
36	SR	0	8996	-	X
36	SR	0	8997	-	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
37	CD	3	8704	-	X

2 Entry composition

There are 38 unique types of molecules in this entry. The entry contains 99120 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
			59018	26348	10871	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	84	Total	Mg	0	0
			84	84		
32	Y	1	Total	Mg	0	0
			1	1		
32	K	1	Total	Mg	0	0
			1	1		
32	B	2	Total	Mg	0	0
			2	2		
32	A	1	Total	Mg	0	0
			1	1		
32	T	1	Total	Mg	0	0
			1	1		
32	2	1	Total	Mg	0	0
			1	1		
32	9	1	Total	Mg	0	0
			1	1		
32	3	1	Total	Mg	0	0
			1	1		

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
33	0	1	Total K 1 1	0	0
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	66	Total Na 66 66	0	0
34	J	1	Total Na 1 1	0	0
34	Q	1	Total Na 1 1	0	0
34	C	1	Total Na 1 1	0	0
34	R	2	Total Na 2 2	0	0
34	9	2	Total Na 2 2	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	9	Total Cl 9 9	0	0
35	J	3	Total Cl 3 3	0	0
35	K	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
35	O	1	Total Cl 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
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	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	3	Total 3	Sr 3	0	0
36	R	1	Total 1	Sr 1	0	0
36	9	3	Total 3	Sr 3	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 1	Cd 1	0	0
37	Z	1	Total 1	Cd 1	0	0
37	1	1	Total 1	Cd 1	0	0

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

- Molecule 38 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
38	0	5897	Total 5897	O 5897	0	0
38	9	154	Total 154	O 154	0	0
38	A	121	Total 121	O 121	0	0
38	B	145	Total 145	O 145	0	0
38	C	166	Total 166	O 166	0	0
38	D	46	Total 46	O 46	0	0
38	E	43	Total 43	O 43	0	0
38	F	31	Total 31	O 31	0	0
38	G	17	Total 17	O 17	0	0
38	H	72	Total 72	O 72	0	0
38	I	5	Total 5	O 5	0	0
38	J	52	Total 52	O 52	0	0
38	K	52	Total 52	O 52	0	0
38	L	81	Total 81	O 81	0	0
38	M	133	Total 133	O 133	0	0
38	N	56	Total 56	O 56	0	0
38	O	41	Total 41	O 41	0	0

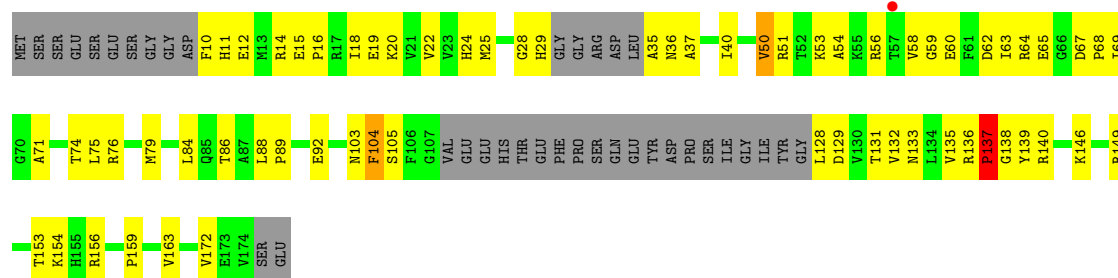
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
38	P	63	Total 63	O 63	0	0
38	Q	52	Total 52	O 52	0	0
38	R	75	Total 75	O 75	0	0
38	S	37	Total 37	O 37	0	0
38	T	40	Total 40	O 40	0	0
38	U	28	Total 28	O 28	0	0
38	V	15	Total 15	O 15	0	0
38	W	69	Total 69	O 69	0	0
38	X	22	Total 22	O 22	0	0
38	Y	100	Total 100	O 100	0	0
38	Z	28	Total 28	O 28	0	0
38	1	61	Total 61	O 61	0	0
38	2	45	Total 45	O 45	0	0
38	3	76	Total 76	O 76	0	0

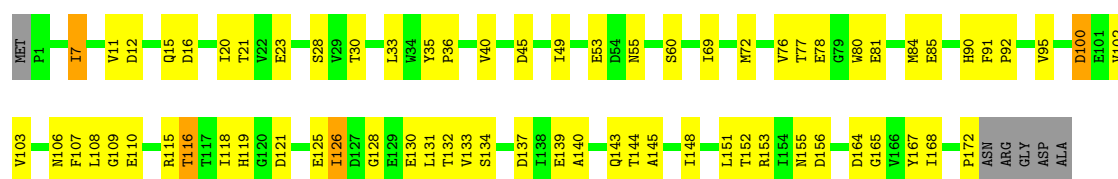
- Molecule 4: 50S ribosomal protein L5P

Chain D:



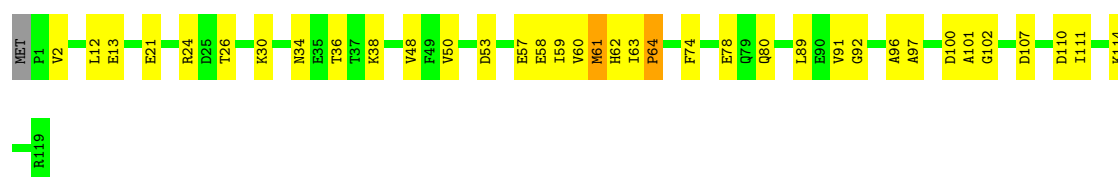
- Molecule 5: 50S ribosomal protein L6P

Chain E:



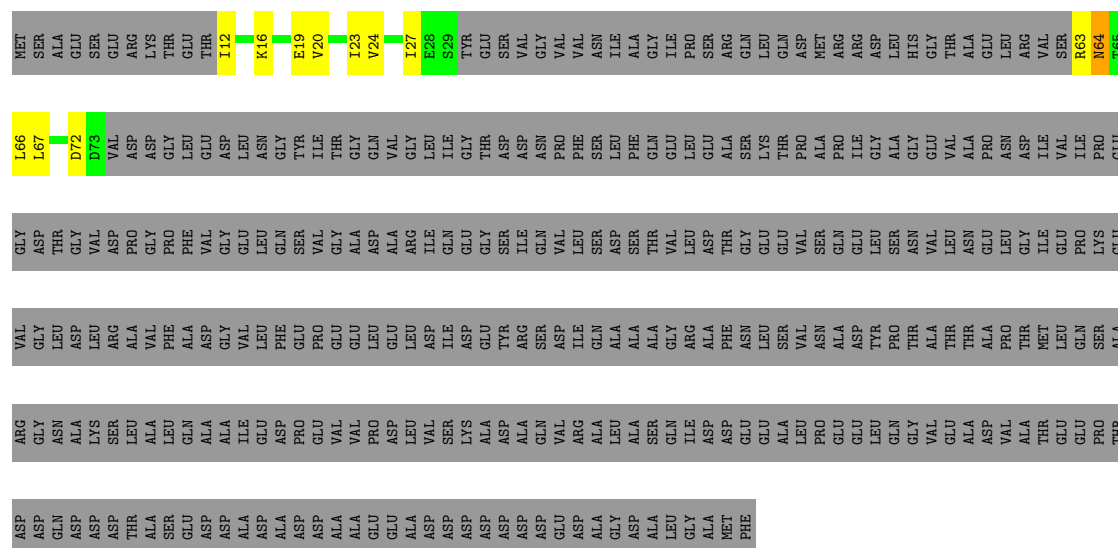
- Molecule 6: 50S ribosomal protein L7Ae

Chain F:



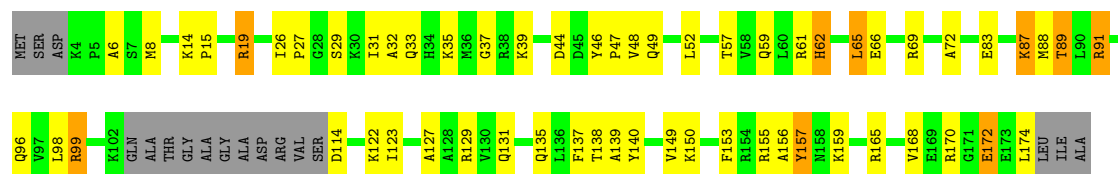
- Molecule 7: 50S ribosomal protein L10E

Chain G:



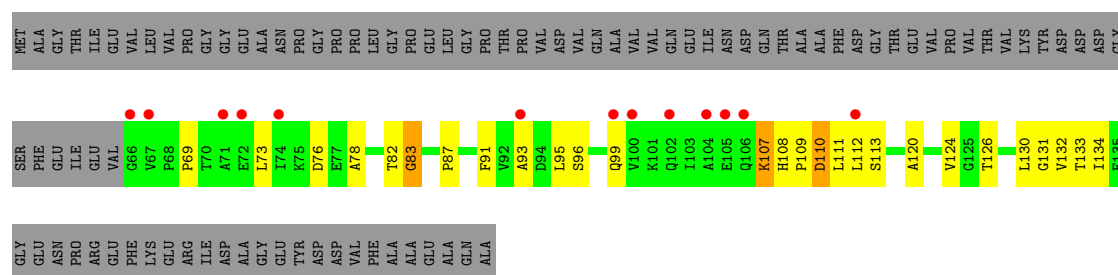
- Molecule 8: 50S ribosomal protein L10e

Chain H:



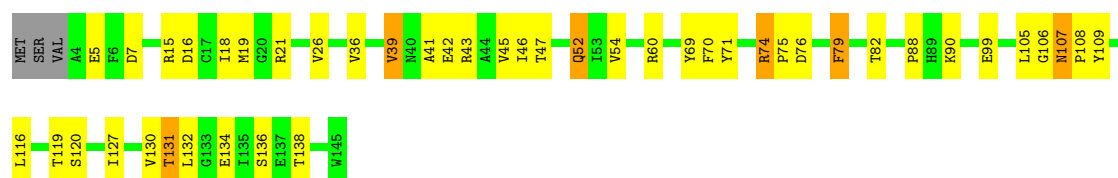
- Molecule 9: 50S ribosomal protein L11P

Chain I:



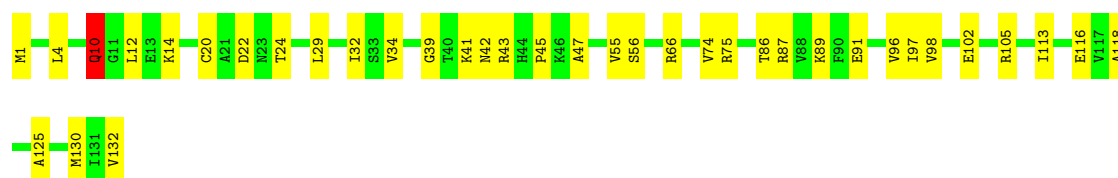
- Molecule 10: 50S ribosomal protein L13P

Chain J:



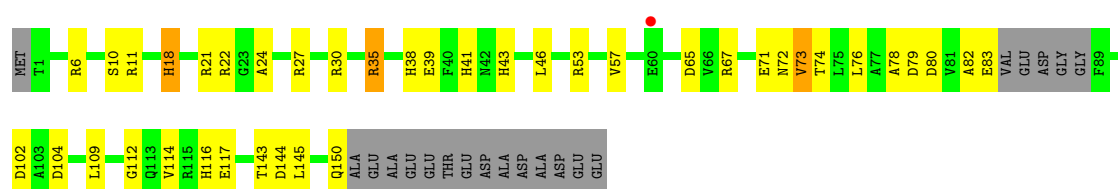
- Molecule 11: 50S ribosomal protein L14P

Chain K:



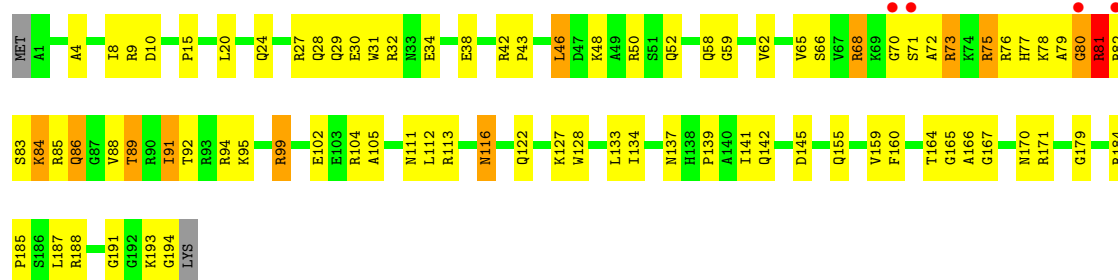
- Molecule 12: 50S ribosomal protein L15P

Chain L:



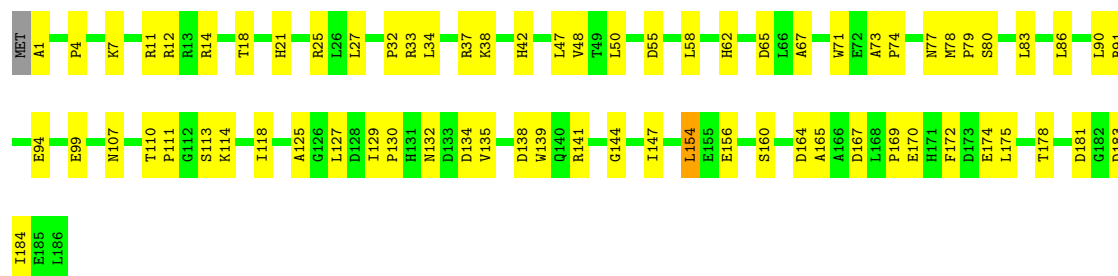
- Molecule 13: 50S ribosomal protein L15e

Chain M: 



- Molecule 14: 50S ribosomal protein L18P

Chain N: 



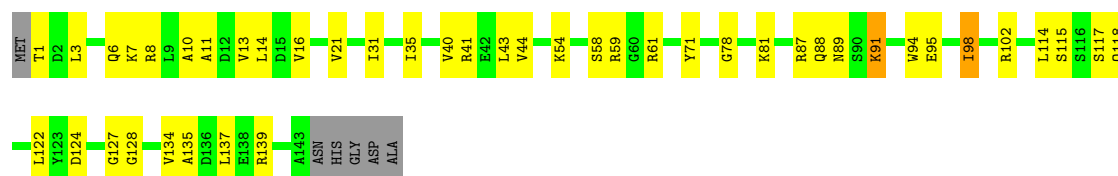
- Molecule 15: 50S ribosomal protein L18e

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: 





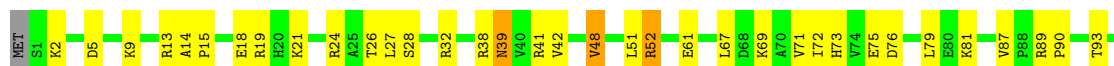
- Molecule 19: 50S ribosomal protein L23P

Chain S:



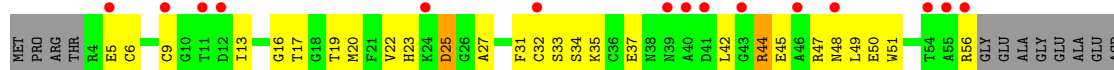
- Molecule 20: 50S ribosomal protein L24P

Chain T:



- Molecule 21: 50S ribosomal protein L24e

Chain U:



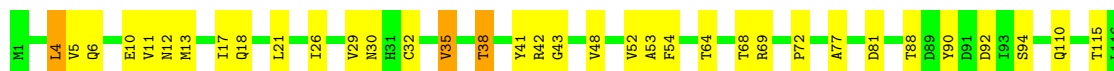
- Molecule 22: 50S ribosomal protein L29P

Chain V:



- Molecule 23: 50S ribosomal protein L30P

Chain W:



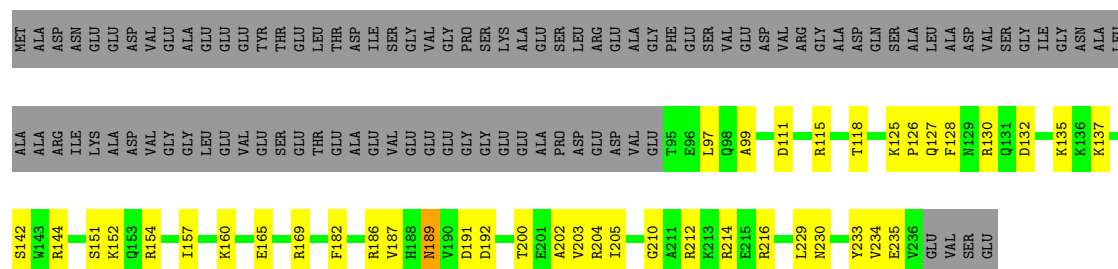
- Molecule 24: 50S ribosomal protein L31e

Chain X:



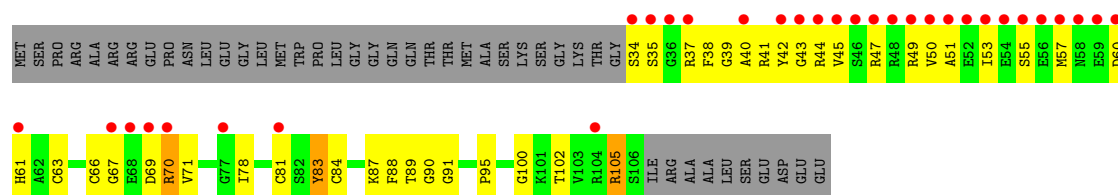
- Molecule 25: 50S ribosomal protein L32e

Chain Y:



- Molecule 26: 50S ribosomal protein L37Ae

Chain Z: 



- Molecule 27: 50S ribosomal protein L37e

Chain 1: 



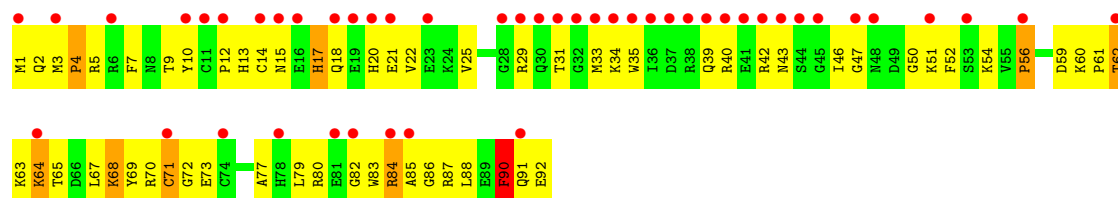
- Molecule 28: 50S ribosomal protein L39e

Chain 2:



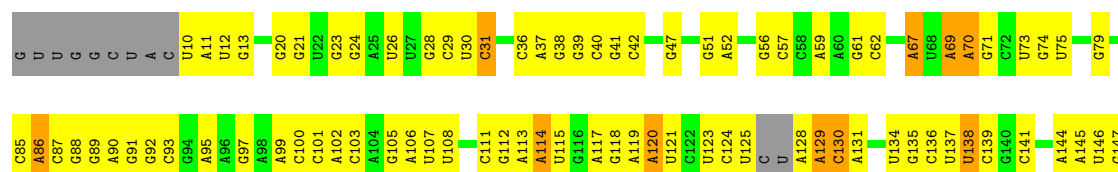
- Molecule 29: 50S ribosomal protein L44E

Chain 3:



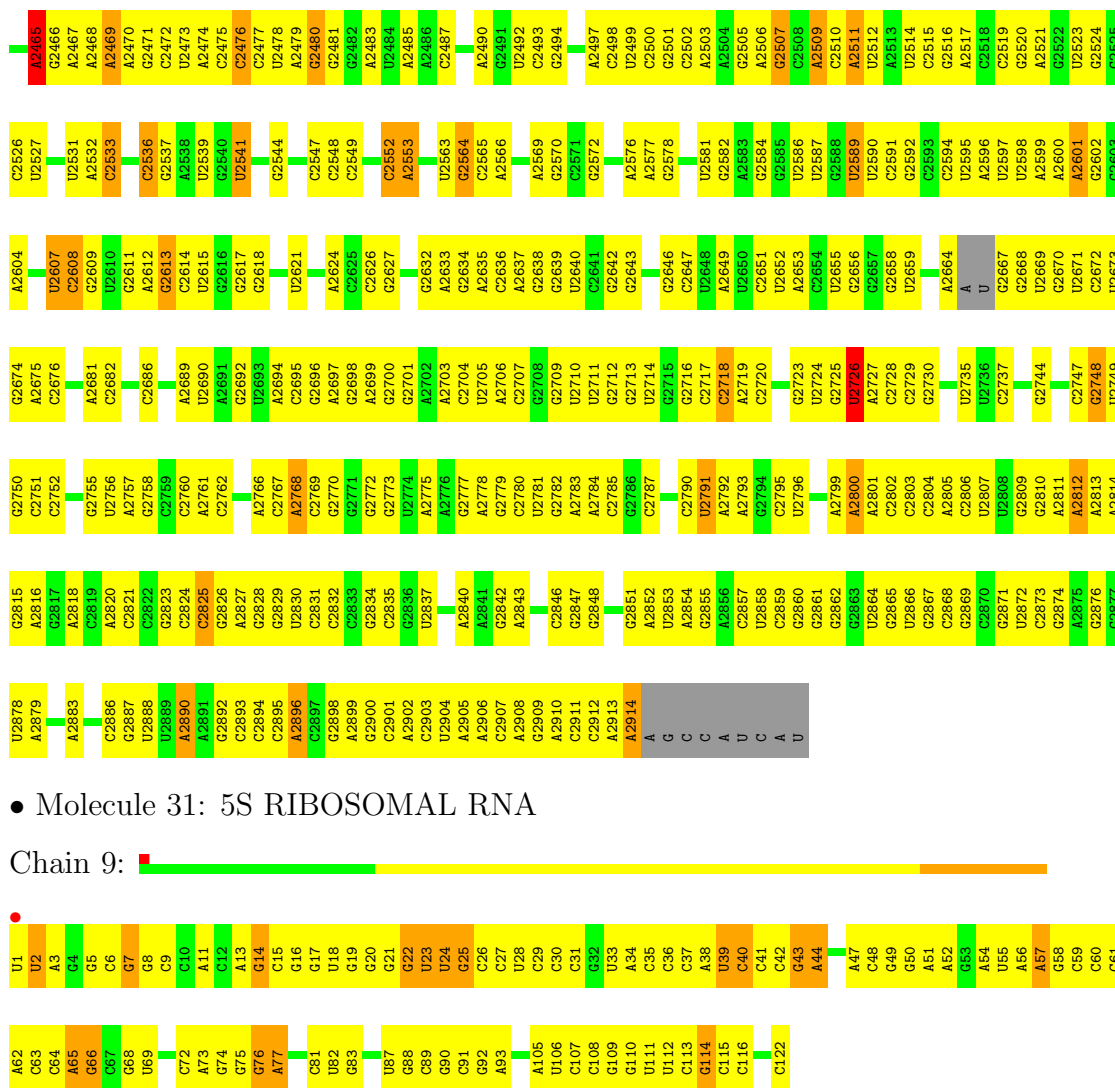
- Molecule 30: 23S RIBOSOMAL RNA

Chain 0: 



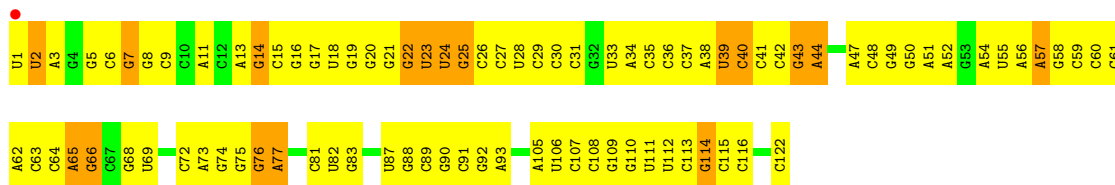
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G887	A894	C902	G903	U904	C905	U907	G908	A910	C911	G912	A913	U914	C915	G916	A917	C918	G919	A920	C921	G922	A923	C924	G925	A926	C927	G928	A929	C930	G931	A932	C933	G934	A935	U936	C937	G938	A939	C940	U941	A942	C943	U944	G945	A946	C947	U948	G949	A950	C951	U952	A953	C954	U955	A956	C957	U958	A959	C960	U961	A962	C963	U964	A965	C966	U967	A968	C969	U970	A971	C972	U973	A974	C975	U976	A977	C978	U979	A980	C981	U982	A983	C984	U985	A986	C987	U988	A989	C990	U991	A992	C993	U994	A995	C996	U997	A998	C999	U1000	U1001	A1002	C1003	U1004	A1005	C1006	U1007	A1008	C1009	U1010	A1011	C1012	U1013	A1014	C1015	U1016	A1017	C1018	U1019	A1020	C1021	U1022	A1023	C1024	U1025	A1026	C1027	U1028	A1029	C1030	U1031	A1032	U1033	C1034	U1035	A1036	C1037	U1038	A1039	C1040	U1041	A1042	C1043	U1044	A1045	C1046	U1047	A1048	C1049	U1050	A1051	C1052	U1053	A1054	C1055	U1056	A1057	C1058	U1059	A1060	C1061	U1062	A1063	U1064	C1065	U1066	A1067	C1068	U1069	A1070	C1071	U1072	A1073	C1074	U1075	A1076	C1077	U1078	A1079	C1080	U1081	A1082	C1083	U1084	A1085	C1086	U1087	A1088	C1089	U1090	A1091	C1092	U1093	A1094	C1095	U1096	A1097	C1098	U1099	A1100	C1101	U1102	A1103	C1104	U1105	A1106	C1107	U1108	A1109	C1110	U1111	A1112	U1113	C1114	U1115	A1116	C1117	U1118	A1119	C1120	U1121	A1122	C1123	U1124	A1125	C1126	U1127	A1128	C1129	U1130	A1131	C1132	U1133	A1134	C1135	U1136	A1137	C1138	U1139	A1140	C1141	U1142	A1143	C1144	U1145	A1146	C1147	U1148	A1149	C1150	U1151	A1152	C1153	U1154	A1155	C1156	U1157	A1158	C1159	U1160	A1161	C1162	U1163	A1164	C1165	U1166	A1167	C1168	U1169	A1170	C1171	U1172	A1173	C1174	U1175	A1176	C1177	U1178	A1179	C1180	U1181	A1182	C1183	U1184	A1185	C1186	U1187	A1188	C1189	U1190	A1191	C1192	U1193	A1194	C1195	U1196	A1197	C1198	U1199	A1200	C1201	U1202	A1203	C1204	U1205	A1206	C1207	U1208	A1209	C1210	U1211	A1212	C1213	U1214	A1215	C1216	U1217	A1218	C1219	U1220	A1221	C1222	U1223	A1224	C1225	U1226	A1227	C1228	U1229	A1230	C1231	U1232	A1233	C1234	U1235	A1236	C1237	U1238	A1239	C1240	U1241	A1242	C1243	U1244	A1245	C1246	U1247	A1248	C1249	U1250	A1251	C1252	U1253	A1254	C1255	U1256	A1257	C1258	U1259	A1260	C1261	U1262	A1263	C1264	U1265	A1266	C1267	U1268	A1269	C1270	U1271	A1272	C1273	U1274	A1275	C1276	U1277	A1278	C1279	U1280	A1281	C1282	U1283	A1284	C1285	U1286	A1287	C1288	U1289	A1290	C1291	U1292	A1293	C1294	U1295	A1296	C1297	U1298	A1299	C1300	U1301	A1302	C1303	U1304	A1305	C1306	U1307	A1308	C1309	U1310	A1311	C1312	U1313	A1314	C1315	U1316	A1317	C1318	U1319	A1320	C1321	U1322	A1323	C1324	U1325	A1326	C1327	U1328	A1329	C1330	U1331	A1332	C1333	U1334	A1335	C1336	U1337	A1338	C1339	U1340	A1341	C1342	U1343	A1344	C1345	U1346	A1347	C1348	U1349	A1350	C1351	U1352	A1353	C1354	U1355	A1356	C1357	U1358	A1359	C1360	U1361	A1362	C1363	U1364	A1365	C1366	U1367	A1368	C1369	U1370	A1371	C1372	U1373	A1374	C1375	U1376	A1377	C1378	U1379	A1380	C1381	U1382	A1383	C1384	U1385	A1386	C1387	U1388	A1389	C1390	U1391	A1392	C1393	U1394	A1395	C1396	U1397	A1398	C1399	U1400	A1401	C1402	U1403	A1404	C1405	U1406	A1407	C1408	U1409	A1410	C1411	U1412	A1413	C1414	U1415	A1416	C1417	U1418	A1419	C1420	U1421	A1422	C1423	U1424	A1425	C1426	U1427	A1428	C1429	U1430	A1431	C1432	U1433	A1434	C1435	U1436	A1437	C1438	U1439	A1440	C1441	U1442	A1443	C1444	U1445	A1446	C1447	U1448	A1449	C1450	U1451	A1452	C1453	U1454	A1455	C1456	U1457	A1458	C1459	U1460	A1461	C1462	U1463	A1464	C1465	U1466	A1467	C1468	U1469	A1470	C1471	U1472	A1473	C1474	U1475	A1476	C1477	U1478	A1479	C1480	U1481	A1482	C1483	U1484	A1485	C1486	U1487	A1488	C1489	U1490	A1491	C1492	U1493	A1494	C1495	U1496	A1497	C1498	U1499	A1500	C1501	U1502	A1503	C1504	U1505	A1506	C1507	U1508	A1509	C1510	U1511	A1512	C1513	U1514	A1515	C1516	U1517	A1518	C1519	U1520	A1521	C1522	U1523	A1524	C1525	U1526	A1527	C1528	U1529	A1529	C1530	U1531	A1532	C1533	U1534	A1535	C1536	U1537	A1538	C1539	U1540	A1541	C1542	U1543	A1544	C1545	U1546	A1547	C1548	U1549	A1550	C1551	U1552	A1553	C1554	U1555	A1556	C1557	U1558	A1559	C1560	U1561	A1562	C1563	U1564	A1565	C1566	U1567	A1568	C1569	U1570	A1571	C1572	U1573	A1574	C1575	U1576	A1577	C1578	U1579	A1580	C1581	U1582	A1583	C1584	U1585	A1586	C1587	U1588	A1589	C1590	U1591	A1592	C1593	U1594	A1595	C1596	U1597	A1598	C1599	U1600	A1601	C1602	U1603	A1604	C1605	U1606	A1607	C1608	U1609	A1610	C1611	U1612	A1613	C1614	U1615	A1616	C1617	U1618	A1619	C1620	U1621	A1622	C1623	U1624	A1625	C1626	U1627	A1628	C1629	U1630	A1631	C1632	U1633	A1634	C1635	U1636	A1637	C1638	U1639	A1640	C1641	U1642	A1643	C1644	U1645	A1646	C1647	U1648	A1649	C1650	U1651	A1652	C1653	U1654	A1655	C1656	U1657	A1658	C1659	U1660	A1661	C1662	U1663	A1664	C1665	U1666	A1667	C1668	U1669	A1670	C1671	U1672	A1673	C1674	U1675	A1676	C1677	U1678	A1679	C1680	U1681	A1682	C1683	U1684	A1685	C1686	U1687	A1688	C1689	U1690	A1691	C1692	U1693	A1694	C1695	U1696	A1697	C1698	U1699	A1700	C1701	U1702	A1703	C1704	U1705	A1706	C1707	U1708	A1709	C1710	U1711	A1712	C1713	U1714	A1715	C1716	U1717	A1718	C1719	U1720	A1721	C1722	U1723	A1724	C1725	U1726	A1727	C1728	U1729	A1730	C1731	U1732	A1733	C1734	U1735	A1736	C1737	U1738	A1739	C1740	U1741	A1742	C1743	U1744	A1745	C1746	U1747	A1748	C1749	U175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	U2330	G2256	G2136	C2066	C1933	A1859	C1787	G1708	G1558	A1626	U1408	G1337
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	C2338	A2266	A	U2003	U2003	G1867	G1799	G1718	U1635	A1496	G1417	G1344
	A	U2267	C	G2004	U2004	C1936	G1800	G1719	U1569	U	U1418	G1344
	C	C2269	C	A2005	G2005	U1871	A1801	G1720	U1500	A1419	U1350	U1350
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	A	A2271	G	C2077	C2006	G1873	G1803	G1723	C1643	A1573	U1503	A1352
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	G2348	U2276	C	G2083	U2012	G1879	U1879	A1732	A1654	A1428	A1360	C1360
	G2349	U2277	A	G2013	G1947	G1879	G1809	A1733	U1583	U1429	G1361	C1361
	C2350	C2281	G	C2087	G1948	C1880	C1810	A1734	C1584	C1512	U1362	U1362
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	C2357	A2291	C	C2093	C2021	C	A1885	G1816	G1685	U1519	A1437	A1367
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	A2361	G2293	G	A2095	C2026	C	C1889	G1743	A1590	G1438	A1368	U1368
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	G2369	A2301	C	A2103	C1965	A1829	C1753	G1752	A1598	A1527	U1446	A1379
G2440	A2369	C2302	U	C2104	U1966	U1903	C1830	A1754	U1599	A1528	U1447	U1447
	U2370	A2303	C	G2105	G2041	A1904	U1831	A1755	G1600	A1448	A1381	A1381
	C2371	C2304	A	C2106	U2042	U1967	G1832	G1756	C1679	G1449	G1382	G1382
	G2372	A2305	C	U2043	A1968	U1905	G1833	C1757	U1533	C1460	U1383	U1383
	U2373	C2306	G	G2107	C2043	C1906	U1834	U1758	G1681	A1451	C1384	C1384
	A2374	C2307	C	A2108	G2045	U1907	G1835	A1759	A1682	G1452	G1385	G1385
	G2375	A2311	G	U2109	C2045	G1971	G1603	G1760	G1605	C1537	G1453	U1453
	U2376	C2312	C	G2110	G2046	A1909	U1835	U1761	G1606	U1539	U1454	G1389
	C2377	G2313	G	G2111	C2047	A1910	C1762	A1684	A1607	G1540	A1390	A1390
	U2378	C2314	U	C2112	C2047	A1910	C1762	A1684	A1607	G1540	A1390	A1390
G2449	U2379	C2315	A	G2113	C2050	C1913	C1687	G1764	C1687	G1541	G1460	G1391
	A2380	C2316	C	C2114	U1977	C1914	C1687	G1764	C1687	G1541	G1460	G1391
	G2381	C2317	C	A2054	A1978	U1915	A1844	G1765	C1613	G1542	U1461	A1392
	A2382	C2318	C	G2115	G1979	C1916	A1845	U1766	G1614	G1543	C1462	A1393
	C2383	C2319	C	A2118	C2055	U1916	A1845	U1766	G1614	U1544	C1463	A1394
	U2384	C2320	G	C2119	A2055	G1917	G1848	C1769	A1615	U1545	C1464	C1395
	G2385	A2321	C	C2120	C2056	C1917	G1848	C1769	A1616	G1546	C1396	C1396
	U2386	C2322	C	G2121	U2057	A1918	G1849	U1770	G1617	U1547	C1469	C1397
	C2387	C2323	C	U2058	C2058	A1919	U1850	U1771	G1618	A1548	A1470	G1398
	A2388	C2324	U	C2059	G1986	C1920	G1851	C1772	A1701	A1471	C1472	A1399
G2450	U2389	C2325	C	G2128	C2059	A1921	G1854	G1773	G1702	C1620	C1470	C1400
	C2390	C2326	A	A2060	C1987	A1922	C1854	G1774	G1703	G1553	U1473	G1401
	U2391	C2327	C	C2061	A1922	C1923	C1855	A1775	C1704	C1554	C1474	C1401
	A2392	C2328	C	C2062	A1923	C1924	C1856	A1776	C1705	C1555	C1475	C1402
	G2393	C2329	C	C2063	A1924	C1925	C1857	A1777	G1706	G1556	A1476	U1403
	U2394	C2330	C	U2064	U1992	A1858	A1778	G1707	G1557	A1407	U1404	U1404
	A2395	C2331	G	C1933	A1859	C1787	C1788	G1708	G1558	U1408	U1405	U1405
	G2396	C2332	A	C2066	C1934	U1860	U1788	G1709	A1559	G1409	G1410	G1410
	C2397	C2333	C	U2067	G1995	C1861	G1789	A1710	U	G1484	G1410	G1410
	U2398	C2334	G	G2068	U1996	C1862	C1790	A1711	U1561	A1485	U1339	U1338



- Molecule 31: 5S RIBOSOMAL RNA

Chain 9:



4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	212.41 Å 299.52 Å 574.90 Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.81 – 3.00 85.66 – 2.40	Depositor EDS
% Data completeness (in resolution range)	77.8 (49.81-3.00) 77.4 (85.66-2.40)	Depositor EDS
R_{merge}	0.14	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.00 (at 2.40 Å)	Xtriage
Refinement program	CNS 1.0	Depositor
R, R_{free}	0.180 , 0.247 0.179 , 0.238	Depositor DCC
R_{free} test set	2791 reflections (1.00%)	DCC
Wilson B-factor (Å ²)	52.9	Xtriage
Anisotropy	0.446	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.30 , 45.1	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 667115 reflections	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	99120	wwPDB-VP
Average B, all atoms (Å ²)	60.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.09% 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	0.34	0/1786	0.65	0/2408
2	B	0.34	0/2690	0.64	0/3652
3	C	0.38	0/1885	0.65	0/2552
4	D	0.32	0/1111	0.56	0/1498
5	E	0.34	0/1382	0.59	0/1880
6	F	0.34	0/901	0.58	0/1224
7	G	0.33	0/241	0.48	0/324
8	H	0.34	0/1302	0.65	0/1743
9	I	0.31	0/526	0.51	0/716
10	J	0.38	0/1136	0.62	0/1530
11	K	0.36	0/1004	0.67	0/1351
12	L	0.33	0/1130	0.62	0/1509
13	M	0.38	0/1582	0.63	0/2116
14	N	0.32	0/1474	0.63	0/1999
15	O	0.37	0/874	0.60	0/1181
16	P	0.34	0/1147	0.53	0/1528
17	Q	0.33	0/749	0.69	0/1005
18	R	0.37	0/1172	0.63	0/1578
19	S	0.38	0/648	0.60	0/875
20	T	0.34	0/958	0.66	1/1289 (0.1%)
21	U	0.45	0/417	0.67	0/562
22	V	0.32	0/502	0.55	0/675
23	W	0.36	0/1219	0.64	0/1655
24	X	0.35	0/664	0.61	0/895
25	Y	0.36	0/1146	0.62	0/1536
26	Z	0.45	0/584	0.63	0/781
27	1	0.43	0/438	0.57	0/578
28	2	0.35	0/401	0.60	0/529
29	3	0.48	0/771	0.66	0/1024
30	0	0.41	0/65954	0.68	4/102862 (0.0%)
31	9	0.35	0/2904	0.68	0/4526
All	All	0.39	0/98698	0.67	5/147581 (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
23	W	0	1
30	0	0	18
31	9	0	1
All	All	0	20

There are no bond length outliers.

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	0	1819	G	C5'-C4'-C3'	5.99	125.59	116.00
30	0	871	G	C5'-C4'-O4'	-5.85	102.08	109.10
30	0	1504	A	C1'-O4'-C4'	-5.36	105.62	109.90
20	T	52	ARG	N-CA-C	5.08	124.73	111.00
30	0	2726	U	N1-C1'-C2'	5.01	120.52	114.00

There are no chirality outliers.

All (20) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
30	0	1266	U	Sidechain
30	0	1430	G	Sidechain
30	0	2076	U	Sidechain
30	0	2078	U	Sidechain
30	0	214	U	Sidechain
30	0	2412	G	Sidechain
30	0	2465	A	Sidechain
30	0	2552	C	Sidechain
30	0	2607	U	Sidechain
30	0	2726	U	Sidechain
30	0	324	G	Sidechain
30	0	393	G	Sidechain
30	0	435	A	Sidechain
30	0	436	A	Sidechain
30	0	462	A	Sidechain
30	0	518	G	Sidechain
30	0	664	U	Sidechain
30	0	868	G	Sidechain

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Mol	Chain	Res	Type	Group
31	9	76	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	97	0
2	B	2625	0	2532	127	0
3	C	1860	0	1813	70	0
4	D	1094	0	1085	50	0
5	E	1357	0	1266	55	0
6	F	890	0	843	27	0
7	G	240	0	231	11	0
8	H	1282	0	1292	55	0
9	I	519	0	500	26	0
10	J	1120	0	1098	44	0
11	K	994	0	1027	39	0
12	L	1118	0	1076	29	0
13	M	1558	0	1573	98	0
14	N	1445	0	1401	59	0
15	O	865	0	873	32	0
16	P	1136	0	1123	44	0
17	Q	735	0	729	21	0
18	R	1149	0	1122	37	0
19	S	641	0	605	16	0
20	T	950	0	924	33	0
21	U	410	0	368	38	0
22	V	499	0	511	19	0
23	W	1196	0	1137	52	0
24	X	654	0	653	24	0
25	Y	1130	0	1133	44	0
26	Z	573	0	535	64	0
27	1	431	0	426	20	0
28	2	396	0	413	21	0
29	3	755	0	732	90	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
30	0	59018	0	29810	2239	0
31	9	2599	0	1325	161	0
32	0	84	0	0	0	0
32	2	1	0	0	0	0
32	3	1	0	0	0	0
32	9	1	0	0	0	0
32	A	1	0	0	0	0
32	B	2	0	0	0	0
32	K	1	0	0	0	0
32	T	1	0	0	0	0
32	Y	1	0	0	0	0
33	0	1	0	0	0	0
33	M	1	0	0	0	0
34	0	66	0	0	0	0
34	9	2	0	0	0	0
34	C	1	0	0	0	0
34	J	1	0	0	0	0
34	M	1	0	0	0	0
34	Q	1	0	0	0	0
34	R	2	0	0	0	0
34	S	1	0	0	0	0
35	0	9	0	0	2	0
35	3	1	0	0	3	0
35	A	1	0	0	1	0
35	B	1	0	0	2	0
35	J	3	0	0	2	0
35	K	1	0	0	0	0
35	L	1	0	0	1	0
35	M	1	0	0	2	0
35	N	1	0	0	0	0
35	O	1	0	0	0	0
35	R	1	0	0	0	0
35	Y	1	0	0	0	0
36	0	93	0	0	0	0
36	1	2	0	0	0	0
36	3	2	0	0	0	0
36	9	3	0	0	0	0
36	A	3	0	0	0	0
36	B	2	0	0	0	0
36	F	1	0	0	0	0
36	R	1	0	0	0	0
36	S	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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	5897	0	0	323	0
38	1	61	0	0	3	0
38	2	45	0	0	1	0
38	3	76	0	0	7	0
38	9	154	0	0	11	0
38	A	121	0	0	3	0
38	B	145	0	0	20	0
38	C	166	0	0	13	0
38	D	46	0	0	7	0
38	E	43	0	0	4	0
38	F	31	0	0	1	0
38	G	17	0	0	0	0
38	H	72	0	0	10	0
38	I	5	0	0	2	0
38	J	52	0	0	4	0
38	K	52	0	0	3	0
38	L	81	0	0	4	0
38	M	133	0	0	12	0
38	N	56	0	0	6	0
38	O	41	0	0	2	0
38	P	63	0	0	5	0
38	Q	52	0	0	1	0
38	R	75	0	0	2	0
38	S	37	0	0	0	0
38	T	40	0	0	3	0
38	U	28	0	0	5	0
38	V	15	0	0	1	0
38	W	69	0	0	7	0
38	X	22	0	0	4	0
38	Y	100	0	0	5	0
38	Z	28	0	0	5	0
All	All	99120	0	59922	3377	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 23.

All (3377) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:871:G:C8	30:0:871:G:H5'	1.74	1.22
30:0:1160:G:H5'	30:0:1161:A:C5'	1.70	1.20
30:0:1160:G:C5'	30:0:1161:A:H5'	1.73	1.18
30:0:1278:A:H4'	30:0:1279:U:C4	1.81	1.16
13:M:171:ARG:HD3	30:0:156:C:H5''	1.15	1.13
14:N:37:ARG:NH1	31:9:6:C:H5''	1.65	1.12
30:0:1559:A:H1'	38:0:5836:HOH:O	1.48	1.11
10:J:82:THR:HG23	30:0:1242:A:H5'	1.30	1.10
30:0:236:A:H4'	30:0:237:G:H5'	1.26	1.09
14:N:37:ARG:HH12	31:9:6:C:H5''	1.04	1.08
30:0:1205:U:H2'	30:0:1206:U:C5'	1.83	1.07
30:0:1205:U:H2'	30:0:1206:U:H5'	1.32	1.06
2:B:264:GLU:HG2	2:B:267:LYS:HE2	1.35	1.06
30:0:545:G:H8	30:0:545:G:H5'	1.18	1.05
29:3:88:LEU:HD22	35:3:8804:CL:CL	1.95	1.03
30:0:871:G:H5'	30:0:871:G:H8	0.89	1.02
31:9:54:A:O2'	31:9:55:U:H5'	1.58	1.02
30:0:2506:A:HO2'	30:0:2507:G:H8	1.04	1.01
30:0:1118:A:H3'	30:0:1118:A:H8	1.24	1.01
31:9:14:G:H5'	31:9:14:G:H8	1.25	1.01
22:V:50:ARG:HH12	30:0:56:G:H5''	1.25	1.01
30:0:960:G:H4'	38:0:7414:HOH:O	1.61	0.99
30:0:558:C:C2'	30:0:559:U:H5''	1.92	0.99
30:0:2372:A:H2'	30:0:2373:U:H6	1.28	0.99
29:3:68:LYS:HD3	29:3:70:ARG:HH21	1.28	0.99
30:0:1603:A:H5'	30:0:1605:G:O4'	1.61	0.98
30:0:1834:C:H2'	30:0:1840:A:N6	1.78	0.98
31:9:76:G:H3'	31:9:77:A:H5''	1.44	0.98
29:3:47:GLY:HA2	30:0:2121:G:H4'	1.43	0.98
30:0:1666:C:O2'	30:0:1667:A:H5''	1.62	0.98
18:R:8:ALA:HB1	18:R:13:THR:HG21	1.46	0.97
30:0:694:A:H2'	30:0:695:C:H5'	1.44	0.97
30:0:877:G:H5'	30:0:878:G:OP1	1.65	0.97
2:B:238:ASN:HD22	2:B:240:GLY:H	1.09	0.97
21:U:51:TRP:HD1	30:0:2865:G:HO2'	1.07	0.96
30:0:2717:C:C2'	30:0:2718:C:H5''	1.95	0.96
30:0:1118:A:H3'	30:0:1118:A:C8	1.99	0.96
30:0:1305:C:H5'	38:0:9833:HOH:O	1.66	0.96
30:0:1209:C:H2'	30:0:1210:G:H8	1.31	0.95
31:9:29:C:H2'	31:9:30:C:H5'	1.49	0.95
30:0:2717:C:O2'	30:0:2718:C:H5''	1.65	0.95
30:0:363:C:H1'	38:0:5247:HOH:O	1.67	0.95
30:0:545:G:C8	30:0:545:G:H5'	2.01	0.95

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:O:3:THR:HG22	30:0:656:G:H5'	1.46	0.95
38:M:8869:HOH:O	30:0:381:G:H5''	1.67	0.95
26:Z:44:ARG:HH21	30:0:1771:U:H5'	1.31	0.95
30:0:2420:G:O2'	30:0:2421:G:H5'	1.64	0.94
31:9:59:C:H2'	31:9:60:C:H6	1.33	0.94
30:0:1118:A:H62	30:0:1244:U:H3	1.14	0.93
30:0:871:G:C5'	30:0:871:G:H8	1.81	0.93
30:0:2321:A:H2	30:0:2378:U:H3	1.12	0.93
3:C:127:ARG:NH2	3:C:225:PRO:HG2	1.82	0.93
30:0:2748:G:H2'	38:0:7523:HOH:O	1.68	0.93
30:0:559:U:H6	30:0:559:U:H5'	1.34	0.92
31:9:54:A:C2'	31:9:55:U:H5'	1.99	0.92
30:0:1116:U:H3	30:0:1246:A:H62	1.17	0.92
30:0:2586:U:H3	30:0:2592:G:H22	1.18	0.91
30:0:2710:U:H1'	38:0:7601:HOH:O	1.69	0.91
30:0:2649:A:H3'	38:0:9829:HOH:O	1.70	0.91
30:0:1856:C:H1'	38:0:5846:HOH:O	1.70	0.91
30:0:1835:U:H5	30:0:1840:A:N7	1.68	0.91
30:0:1170:U:H2'	30:0:1172:G:OP2	1.71	0.91
30:0:1595:G:O2'	30:0:1596:U:H5'	1.71	0.91
30:0:2769:C:C2'	30:0:2770:G:H5'	2.01	0.90
8:H:49:GLN:HE21	8:H:140:TYR:HE2	1.18	0.90
30:0:870:G:H2'	30:0:871:G:H5''	1.51	0.90
13:M:58:GLN:HE22	30:0:259:G:H21	1.13	0.90
10:J:52:GLN:HE22	30:0:1119:G:H2'	1.37	0.90
30:0:963:C:H2'	30:0:964:G:C8	2.05	0.90
23:W:4:LEU:HD13	23:W:52:VAL:HG21	1.51	0.90
30:0:615:G:H1'	38:0:5221:HOH:O	1.72	0.90
30:0:1835:U:H2'	38:0:3618:HOH:O	1.72	0.90
30:0:625:U:H5''	30:0:1044:C:N4	1.87	0.89
30:0:969:G:H1	30:0:999:C:N4	1.71	0.89
30:0:1701:A:H4'	30:0:1702:U:H5''	1.55	0.89
16:P:115:SER:H	16:P:118:GLN:HE21	0.89	0.89
10:J:52:GLN:NE2	30:0:1119:G:H2'	1.88	0.88
13:M:73:ARG:NH2	30:0:2263:G:H5''	1.87	0.88
1:A:199:HIS:HD2	1:A:201:PHE:H	1.21	0.88
28:2:43:ARG:HH22	30:0:1684:A:H1'	1.37	0.87
30:0:542:A:H5'	30:0:542:A:H8	1.39	0.87
30:0:2502:C:H2'	30:0:2503:A:H5'	1.57	0.87
30:0:814:G:H4'	38:0:3128:HOH:O	1.73	0.87
30:0:1666:C:H2'	30:0:1667:A:H5'	1.55	0.87
30:0:2005:G:OP2	30:0:2005:G:H3'	1.75	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:187:VAL:HG23	25:Y:192:ASP:HB2	1.57	0.87
31:9:56:A:H2'	31:9:57:A:H5''	1.57	0.86
30:0:506:G:H22	30:0:509:A:C5'	1.87	0.86
30:0:2637:A:H4'	38:0:6039:HOH:O	1.75	0.86
30:0:506:G:H22	30:0:509:A:H5''	1.40	0.86
30:0:2908:A:H2'	30:0:2909:G:O4'	1.75	0.86
30:0:2248:C:H3'	38:0:5403:HOH:O	1.76	0.86
30:0:2372:A:H2'	30:0:2373:U:C6	2.09	0.86
13:M:71:SER:HB2	13:M:92:THR:HG22	1.56	0.86
11:K:10:GLN:HE21	11:K:10:GLN:H	1.18	0.86
30:0:969:G:H1	30:0:999:C:H42	1.24	0.86
30:0:553:G:H3'	38:0:4066:HOH:O	1.76	0.86
16:P:115:SER:H	16:P:118:GLN:NE2	1.73	0.86
6:F:63:ILE:HB	6:F:64:PRO:HD3	1.57	0.86
30:0:1183:C:H2'	38:0:6223:HOH:O	1.75	0.85
30:0:558:C:H2'	30:0:559:U:H5''	1.57	0.85
13:M:99:ARG:HE	13:M:170:ASN:HD22	1.19	0.85
30:0:2419:U:H5''	30:0:2420:G:H5'	1.57	0.85
29:3:20:HIS:CD2	29:3:69:TYR:HB3	2.12	0.85
30:0:2505:G:O2'	30:0:2506:A:H5'	1.76	0.85
30:0:2421:G:H1'	38:0:7004:HOH:O	1.75	0.85
30:0:308:U:H5'	30:0:309:C:OP1	1.75	0.85
30:0:1474:C:H6	30:0:1474:C:H5'	1.40	0.85
30:0:200:C:H2'	38:0:3433:HOH:O	1.75	0.84
30:0:2345:A:H3'	30:0:2346:C:H6	1.43	0.84
30:0:1474:C:C6	30:0:1474:C:H5'	2.13	0.84
30:0:870:G:C2'	30:0:871:G:H5''	2.07	0.84
31:9:13:A:O2'	31:9:14:G:H5''	1.77	0.84
11:K:39:GLY:HA2	38:0:5187:HOH:O	1.75	0.84
30:0:1080:C:H4'	30:0:1081:A:OP1	1.76	0.84
23:W:137:GLN:HE21	23:W:141:HIS:HE1	1.23	0.83
16:P:115:SER:N	16:P:118:GLN:HE21	1.74	0.83
31:9:73:A:H2'	31:9:74:G:H8	1.43	0.83
30:0:2717:C:H2'	30:0:2718:C:H5''	1.59	0.83
30:0:12:U:H2'	30:0:13:G:H5'	1.57	0.83
30:0:558:C:H2'	30:0:559:U:C5'	2.08	0.83
31:9:92:G:H2'	31:9:93:A:C8	2.14	0.83
30:0:2570:G:H5''	38:0:4880:HOH:O	1.78	0.83
13:M:68:ARG:NH2	13:M:73:ARG:HD3	1.94	0.83
31:9:14:G:C8	31:9:14:G:H5'	2.14	0.83
30:0:2896:A:H5''	38:0:6075:HOH:O	1.77	0.83
30:0:271:C:H41	30:0:378:A:H2	1.22	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1644:C:H2'	30:0:1645:U:H6	1.44	0.82
30:0:810:G:H2'	30:0:811:C:C6	2.13	0.82
30:0:2437:A:H2'	30:0:2438:G:C8	2.14	0.82
22:V:12:THR:HG22	22:V:15:GLU:HG3	1.60	0.82
30:0:236:A:C4'	30:0:237:G:H5'	2.09	0.82
30:0:1205:U:C2'	30:0:1206:U:C5'	2.57	0.82
30:0:1206:U:H5'	30:0:1206:U:H6	1.43	0.82
4:D:25:MET:SD	4:D:40:ILE:HD11	2.19	0.82
15:O:3:THR:CG2	30:0:656:G:H5'	2.09	0.82
3:C:236:THR:HG22	3:C:239:ALA:H	1.44	0.82
30:0:2502:C:C2'	30:0:2503:A:H5'	2.10	0.82
30:0:2345:A:H3'	30:0:2346:C:C6	2.15	0.82
30:0:2426:G:H1'	38:0:6068:HOH:O	1.79	0.82
30:0:1116:U:O2'	30:0:1118:A:H2	1.62	0.81
13:M:134:ILE:HG23	13:M:141:ILE:HD13	1.62	0.81
30:0:1191:A:H2'	30:0:1193:A:H5'	1.62	0.81
30:0:1278:A:H4'	30:0:1279:U:C5	2.15	0.81
30:0:614:U:O2'	30:0:615:G:H5'	1.80	0.81
30:0:2604:A:H5'	38:0:5760:HOH:O	1.79	0.81
30:0:185:G:H4'	30:0:186:A:OP1	1.78	0.81
26:Z:42:TYR:HA	30:0:1829:A:H61	1.45	0.81
30:0:282:C:O2'	30:0:283:U:H5'	1.79	0.81
14:N:67:ALA:HA	14:N:71:TRP:HB3	1.62	0.81
18:R:39:THR:HG22	18:R:42:GLU:H	1.44	0.80
13:M:171:ARG:CD	30:0:156:C:H5''	2.06	0.80
31:9:56:A:C2'	31:9:57:A:H5''	2.11	0.80
30:0:1632:A:H2'	30:0:1633:C:H5'	1.61	0.80
29:3:2:GLN:O	30:0:2320:U:H2'	1.80	0.80
6:F:91:VAL:HG12	6:F:92:GLY:H	1.47	0.80
30:0:1119:G:N2	30:0:1246:A:C2	2.48	0.80
31:9:59:C:H2'	31:9:60:C:C6	2.16	0.80
30:0:2467:A:H3'	38:0:5416:HOH:O	1.82	0.80
30:0:558:C:O2'	30:0:559:U:H5''	1.81	0.80
30:0:1185:U:H2'	30:0:1186:C:H6	1.46	0.80
22:V:50:ARG:NH1	30:0:56:G:H5''	1.95	0.80
11:K:14:LYS:HB2	11:K:45:PRO:HG2	1.63	0.80
31:9:29:C:C2'	31:9:30:C:H5'	2.12	0.79
1:A:167:LYS:HE2	26:Z:50:VAL:HG13	1.63	0.79
19:S:55:GLN:NE2	30:0:1446:U:H2'	1.97	0.79
30:0:1116:U:HO2'	30:0:1118:A:H2	0.80	0.79
30:0:1603:A:H5''	30:0:1605:G:H5'	1.65	0.79
28:2:41:HIS:H	28:2:45:ASN:HD22	1.31	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:U:56:ARG:HD2	30:0:2890:A:N9	1.97	0.79
13:M:58:GLN:NE2	30:0:259:G:H21	1.81	0.79
30:0:2506:A:O2'	30:0:2507:G:H8	1.66	0.79
1:A:199:HIS:CD2	1:A:201:PHE:H	2.00	0.79
13:M:159:VAL:HG12	35:M:8818:CL:CL	2.20	0.79
30:0:2717:C:H2'	30:0:2718:C:C5'	2.13	0.79
31:9:73:A:H2'	31:9:74:G:C8	2.17	0.79
30:0:282:C:H1'	30:0:368:C:H41	1.46	0.79
30:0:282:C:H1'	30:0:368:C:N4	1.98	0.79
30:0:2604:A:H4'	38:0:7586:HOH:O	1.83	0.79
30:0:2783:A:H3'	38:0:5197:HOH:O	1.82	0.78
30:0:2769:C:O2'	30:0:2770:G:H5'	1.84	0.78
30:0:1829:A:H2'	30:0:1830:C:H5'	1.65	0.78
30:0:2533:C:H5'	30:0:2533:C:H6	1.47	0.78
31:9:55:U:H5''	38:9:9146:HOH:O	1.82	0.78
30:0:2906:A:H5'	30:0:2907:C:O4'	1.83	0.78
30:0:541:C:C2'	30:0:542:A:H5''	2.13	0.78
30:0:853:C:H3'	38:0:4528:HOH:O	1.83	0.78
13:M:70:GLY:HA3	13:M:73:ARG:NH2	1.99	0.78
10:J:74:ARG:HB3	10:J:74:ARG:HH11	1.48	0.78
30:0:2416:G:H2'	30:0:2417:C:H6	1.49	0.78
2:B:221:GLN:HE22	11:K:42:ASN:HD22	1.32	0.78
30:0:2237:G:H1'	38:0:4824:HOH:O	1.83	0.78
31:9:56:A:C3'	31:9:57:A:H5''	2.12	0.78
30:0:297:U:H2'	30:0:298:C:H6	1.49	0.78
30:0:1189:A:H1'	30:0:1209:C:O4'	1.84	0.77
13:M:171:ARG:HD3	30:0:156:C:C5'	2.07	0.77
30:0:1617:C:C4	30:0:1643:C:H4'	2.19	0.77
30:0:1426:C:H2'	38:0:9600:HOH:O	1.83	0.77
30:0:1741:U:H5'	30:0:1742:A:OP1	1.83	0.77
30:0:1942:A:H5'	38:0:7329:HOH:O	1.84	0.77
30:0:2440:C:H5''	38:0:3808:HOH:O	1.83	0.77
30:0:603:A:H1'	30:0:605:C:C2	2.19	0.77
30:0:1118:A:C3'	30:0:1118:A:C8	2.66	0.77
30:0:2769:C:H2'	30:0:2770:G:O4'	1.82	0.77
4:D:105:SER:OG	30:0:2338:G:H1'	1.83	0.77
10:J:70:PHE:CE1	30:0:2676:C:H4'	2.19	0.77
30:0:2578:G:H5'	30:0:2578:G:H8	1.49	0.77
8:H:91:ARG:O	30:0:1003:U:H4'	1.84	0.77
29:3:64:LYS:HA	29:3:84:ARG:HA	1.67	0.76
11:K:10:GLN:NE2	11:K:10:GLN:H	1.83	0.76
30:0:2335:C:H2'	30:0:2336:G:C8	2.20	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2469:A:H1'	38:0:3231:HOH:O	1.85	0.76
30:0:247:A:H2'	38:0:3913:HOH:O	1.85	0.76
30:0:1205:U:H2'	30:0:1206:U:H5''	1.66	0.76
30:0:1834:C:H2'	30:0:1840:A:H62	1.48	0.76
20:T:71:VAL:HG11	20:T:90:PRO:HB3	1.65	0.76
30:0:1249:U:H2'	30:0:1250:C:H6	1.51	0.76
30:0:960:G:N3	30:0:960:G:H3'	2.00	0.76
30:0:1170:U:H1'	30:0:1172:G:N7	2.00	0.76
30:0:136:C:H2'	30:0:137:U:O4'	1.86	0.76
31:9:36:C:H4'	38:9:9029:HOH:O	1.85	0.76
30:0:1634:G:H3'	38:0:3885:HOH:O	1.85	0.76
30:0:146:U:O2'	30:0:147:G:H5'	1.86	0.76
30:0:541:C:H2'	30:0:542:A:C5'	2.15	0.75
31:9:75:G:H1	31:9:106:U:H3	1.33	0.75
13:M:88:VAL:HG21	30:0:2122:C:O2'	1.86	0.75
26:Z:63:CYS:SG	26:Z:81:CYS:HB2	2.26	0.75
30:0:564:G:H1'	38:0:6290:HOH:O	1.85	0.75
2:B:18:ARG:HE	2:B:256:GLN:HE21	1.31	0.75
30:0:2083:A:H3'	38:0:7559:HOH:O	1.86	0.75
30:0:1434:A:HO2'	30:0:1435:U:H6	1.32	0.75
30:0:1189:A:H3'	38:0:7661:HOH:O	1.86	0.75
30:0:297:U:H2'	30:0:298:C:C6	2.21	0.75
30:0:1524:U:OP1	30:0:1524:U:H4'	1.87	0.75
30:0:281:U:O2'	30:0:282:C:H5'	1.85	0.75
30:0:1184:C:H1'	38:0:7447:HOH:O	1.86	0.75
30:0:40:C:H4'	38:0:6986:HOH:O	1.86	0.75
30:0:1377:C:H6	30:0:1377:C:H5'	1.52	0.74
30:0:69:A:H5'	30:0:69:A:C8	2.22	0.74
30:0:718:C:H2'	30:0:718:C:O2	1.87	0.74
8:H:44:ASP:HA	8:H:170:ARG:HH12	1.50	0.74
30:0:1279:U:O2	30:0:1279:U:H2'	1.85	0.74
30:0:279:C:O2'	30:0:280:C:H5'	1.87	0.74
30:0:1787:C:O2'	30:0:1788:U:H5'	1.87	0.74
30:0:635:A:H2'	30:0:636:G:H5''	1.68	0.74
1:A:223:ARG:NH2	30:0:2271:G:H5'	2.02	0.74
30:0:1972:U:H2'	30:0:1973:A:C5'	2.18	0.74
30:0:848:C:H5'	38:0:7257:HOH:O	1.87	0.74
10:J:26:VAL:HG13	10:J:36:VAL:HG11	1.69	0.74
30:0:1589:G:N2	30:0:1605:G:H1'	2.02	0.74
30:0:1165:G:O3'	30:0:1174:A:H4'	1.88	0.74
30:0:694:A:C2'	30:0:695:C:H5'	2.18	0.74
30:0:2831:C:C2'	30:0:2832:C:H5'	2.18	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:47:HIS:CD2	30:0:1654:U:H2'	2.22	0.74
30:0:629:A:H4'	38:0:4498:HOH:O	1.88	0.74
30:0:1185:U:H5'	38:0:7447:HOH:O	1.88	0.73
21:U:44:ARG:HD3	21:U:49:LEU:HD11	1.70	0.73
30:0:2703:A:H2'	30:0:2704:C:H6	1.52	0.73
30:0:2100:A:H5'	38:0:7373:HOH:O	1.88	0.73
29:3:68:LYS:CD	29:3:70:ARG:HH21	2.01	0.73
30:0:2011:A:H5''	38:0:4388:HOH:O	1.87	0.73
30:0:1603:A:C5'	30:0:1605:G:H5'	2.19	0.73
30:0:254:C:H2'	30:0:254:C:O2	1.88	0.73
31:9:1:U:H4'	31:9:3:A:OP1	1.88	0.73
30:0:1855:G:H4'	30:0:1856:C:O5'	1.88	0.73
30:0:2769:C:H2'	30:0:2770:G:H5'	1.69	0.73
2:B:18:ARG:HE	2:B:256:GLN:NE2	1.86	0.73
30:0:137:U:H2'	30:0:139:C:C5	2.23	0.73
2:B:201:ASP:HB2	2:B:312:ARG:HD2	1.70	0.73
31:9:3:A:N6	31:9:22:G:H1'	2.03	0.73
30:0:2505:G:C2'	30:0:2506:A:H5'	2.19	0.73
30:0:1589:G:H22	30:0:1605:G:H1'	1.53	0.73
30:0:1835:U:C5	30:0:1840:A:N7	2.53	0.73
30:0:69:A:H5'	30:0:69:A:H8	1.54	0.73
30:0:871:G:C8	30:0:871:G:C5'	2.63	0.73
10:J:47:THR:HG21	30:0:1244:U:H2'	1.69	0.73
30:0:2472:C:O2'	30:0:2634:G:H4'	1.89	0.73
30:0:2064:U:H5'	30:0:2652:U:O3'	1.89	0.73
38:B:9106:HOH:O	30:0:2672:C:H1'	1.87	0.72
30:0:2635:A:O2'	30:0:2636:C:H5'	1.88	0.72
30:0:1666:C:H2'	30:0:1667:A:C5'	2.19	0.72
30:0:283:U:H5	30:0:284:C:N3	1.87	0.72
1:A:109:GLU:HG2	1:A:116:GLY:H	1.53	0.72
30:0:1625:U:H6	30:0:1625:U:H3'	1.54	0.72
13:M:99:ARG:HD2	13:M:167:GLY:HA2	1.71	0.72
30:0:1733:A:C6	30:0:1734:C:C2	2.77	0.72
13:M:79:ALA:HB1	38:0:4442:HOH:O	1.89	0.72
1:A:48:ASP:HB3	38:A:9085:HOH:O	1.90	0.72
13:M:76:ARG:HB2	13:M:88:VAL:HG13	1.72	0.72
4:D:58:VAL:HB	4:D:62:ASP:HB3	1.72	0.72
30:0:2467:A:H1'	38:0:9049:HOH:O	1.89	0.72
30:0:1372:A:H3'	38:0:7172:HOH:O	1.88	0.72
18:R:132:ARG:NH2	30:0:2055:A:H4'	2.05	0.72
30:0:2898:G:O2'	30:0:2899:A:H5'	1.89	0.72
30:0:2831:C:O2'	30:0:2832:C:H5'	1.88	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1316:G:H5''	38:0:5285:HOH:O	1.88	0.72
30:0:272:A:H5'	30:0:273:G:OP2	1.90	0.72
30:0:1178:G:H2'	30:0:1179:C:C6	2.25	0.72
30:0:1713:G:H1'	38:0:5039:HOH:O	1.89	0.72
30:0:2297:U:H1'	38:0:5144:HOH:O	1.88	0.72
30:0:2253:G:H2'	30:0:2254:G:H8	1.55	0.72
30:0:595:U:O2'	30:0:596:C:H5'	1.90	0.71
31:9:26:C:O2'	31:9:27:C:H5'	1.91	0.71
30:0:603:A:H5''	30:0:604:G:OP1	1.89	0.71
30:0:958:G:H2'	30:0:959:C:C6	2.24	0.71
30:0:1979:G:H3'	38:0:3283:HOH:O	1.88	0.71
30:0:1477:C:H5'	30:0:1868:G:H5'	1.72	0.71
18:R:2:ILE:HG22	30:0:21:G:H4'	1.71	0.71
30:0:2321:A:H2	30:0:2378:U:N3	1.88	0.71
25:Y:187:VAL:HG23	25:Y:192:ASP:CB	2.21	0.71
27:1:25:LYS:HD2	28:2:49:GLU:H	1.55	0.71
23:W:125:HIS:CE1	30:0:1097:A:H5''	2.25	0.71
30:0:1801:A:H3'	38:0:7596:HOH:O	1.90	0.71
30:0:2769:C:H2'	30:0:2770:G:C5'	2.20	0.71
30:0:1197:G:H1'	30:0:1203:G:N2	2.06	0.71
30:0:1398:G:H2'	30:0:1399:A:C8	2.25	0.71
5:E:143:GLN:NE2	30:0:2779:G:H21	1.89	0.71
30:0:2780:C:H2'	30:0:2781:U:C6	2.26	0.71
14:N:33:ARG:HH21	14:N:48:VAL:HG11	1.55	0.71
30:0:920:C:H4'	30:0:921:G:C2	2.26	0.71
26:Z:84:CYS:HB3	30:0:1604:G:H22	1.56	0.71
31:9:55:U:H4'	31:9:56:A:C8	2.25	0.71
21:U:56:ARG:HG3	21:U:56:ARG:HH11	1.56	0.71
30:0:1666:C:C2'	30:0:1667:A:C5'	2.69	0.71
3:C:139:VAL:HG13	38:C:8645:HOH:O	1.91	0.70
30:0:1185:U:H2'	30:0:1186:C:C6	2.25	0.70
30:0:2321:A:C2	30:0:2378:U:N3	2.55	0.70
30:0:2524:G:H21	30:0:2526:C:N4	1.88	0.70
30:0:1118:A:N6	30:0:1244:U:H3	1.89	0.70
30:0:2416:G:H2'	30:0:2417:C:C6	2.26	0.70
3:C:78:ARG:HH11	3:C:78:ARG:HG3	1.56	0.70
30:0:2717:C:C2'	30:0:2718:C:C5'	2.68	0.70
30:0:1972:U:H2'	30:0:1973:A:H5'	1.73	0.70
22:V:57:LYS:HA	22:V:60:GLN:HE21	1.57	0.70
30:0:2312:G:H2'	30:0:2313:C:H5'	1.72	0.70
30:0:2565:C:H4'	38:0:4806:HOH:O	1.91	0.70
26:Z:43:GLY:O	26:Z:47:ARG:HG2	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1596:U:H2'	30:0:1598:A:OP2	1.90	0.70
14:N:4:PRO:HB2	30:0:1010:C:H4'	1.73	0.70
30:0:1829:A:C2'	30:0:1830:C:H5'	2.21	0.70
13:M:164:THR:HG22	13:M:166:ALA:H	1.57	0.70
30:0:2539:U:H1'	38:0:7770:HOH:O	1.90	0.70
1:A:223:ARG:HH12	30:0:2270:G:H4'	1.55	0.70
38:C:8565:HOH:O	20:T:2:LYS:HE3	1.92	0.70
14:N:11:ARG:HD3	31:9:114:G:O6	1.90	0.70
29:3:40:ARG:HA	29:3:52:PHE:CE1	2.26	0.70
30:0:1226:G:H2'	30:0:1227:C:H6	1.57	0.70
31:9:59:C:O5'	31:9:59:C:H6	1.74	0.69
30:0:1589:G:H5'	38:0:6843:HOH:O	1.91	0.69
30:0:2415:A:H2'	30:0:2416:G:H5'	1.74	0.69
30:0:522:U:O2'	30:0:1366:C:H5'	1.92	0.69
30:0:1181:A:C2'	30:0:1182:C:H5'	2.22	0.69
10:J:70:PHE:CD1	30:0:2676:C:H4'	2.27	0.69
30:0:714:U:H4'	38:0:5705:HOH:O	1.93	0.69
7:G:64:ASN:N	7:G:64:ASN:HD22	1.90	0.69
1:A:135:VAL:HG11	1:A:147:ARG:NH2	2.07	0.69
30:0:2404:G:H5''	38:0:5177:HOH:O	1.91	0.69
8:H:168:VAL:HG13	38:H:218:HOH:O	1.91	0.69
30:0:2667:G:H1'	30:0:2914:A:N3	2.08	0.69
29:3:20:HIS:HD2	29:3:69:TYR:HB3	1.56	0.69
26:Z:37:ARG:HB3	38:0:4665:HOH:O	1.91	0.69
14:N:37:ARG:NH1	31:9:6:C:C5'	2.50	0.69
30:0:1205:U:C2'	30:0:1206:U:H5''	2.23	0.69
30:0:545:G:C5'	30:0:545:G:H8	1.99	0.69
30:0:735:C:H2'	30:0:736:A:O4'	1.93	0.69
3:C:76:ARG:HB3	3:C:76:ARG:HH11	1.57	0.69
2:B:258:GLY:H	2:B:260:HIS:CE1	2.10	0.69
30:0:1741:U:O2'	30:0:2723:G:H4'	1.91	0.69
15:O:32:ARG:HE	15:O:35:LYS:HD2	1.58	0.69
30:0:2705:U:H2'	30:0:2706:A:C8	2.28	0.69
30:0:2827:A:H2'	30:0:2828:G:O4'	1.92	0.69
18:R:128:ARG:NH2	30:0:2054:A:N3	2.41	0.69
13:M:81:ARG:HD2	13:M:85:ARG:HG3	1.74	0.69
30:0:596:C:H2'	30:0:597:A:H8	1.58	0.69
30:0:1632:A:C2'	30:0:1633:C:H5'	2.22	0.68
21:U:56:ARG:HB2	30:0:2890:A:C8	2.27	0.68
30:0:2795:C:O2'	30:0:2796:U:H5'	1.93	0.68
18:R:138:SER:HB3	30:0:2053:G:OP1	1.94	0.68
11:K:74:VAL:HG21	11:K:96:VAL:HG23	1.75	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:P:117:SER:HB3	30:0:1593:C:OP1	1.92	0.68
30:0:1702:U:H5'	38:0:3414:HOH:O	1.92	0.68
26:Z:47:ARG:NH2	30:0:1771:U:H1'	2.08	0.68
30:0:2635:A:C2'	30:0:2636:C:H5'	2.23	0.68
30:0:2111:G:H1'	38:0:9052:HOH:O	1.94	0.68
23:W:137:GLN:HE21	23:W:141:HIS:CE1	2.10	0.68
2:B:264:GLU:HG2	2:B:267:LYS:CE	2.19	0.68
30:0:2637:A:H5'	38:0:4897:HOH:O	1.94	0.68
30:0:333:G:O2'	30:0:334:G:H5'	1.94	0.68
23:W:125:HIS:NE2	30:0:1097:A:H5''	2.09	0.68
30:0:1197:G:H1'	30:0:1203:G:C2	2.28	0.68
29:3:50:GLY:HA3	30:0:170:U:H1'	1.75	0.68
30:0:585:C:H5''	38:0:4840:HOH:O	1.94	0.68
30:0:1209:C:H2'	30:0:1210:G:C8	2.23	0.68
2:B:267:LYS:HD3	38:B:8996:HOH:O	1.93	0.68
26:Z:42:TYR:CA	30:0:1829:A:H61	2.07	0.68
30:0:685:C:O2	30:0:748:C:H4'	1.94	0.68
10:J:18:ILE:HD13	30:0:1244:U:OP1	1.94	0.68
10:J:74:ARG:CB	10:J:74:ARG:HH11	2.07	0.68
30:0:1151:G:H2'	38:0:5713:HOH:O	1.92	0.68
2:B:206:THR:HG21	30:0:2716:G:H5''	1.76	0.68
30:0:2840:A:H3'	38:0:7629:HOH:O	1.94	0.68
29:3:90:PHE:HD1	29:3:90:PHE:H	1.42	0.67
30:0:1625:U:C6	30:0:1625:U:H3'	2.29	0.67
3:C:76:ARG:NH1	3:C:76:ARG:HB3	2.09	0.67
18:R:98:ASN:HD21	30:0:500:G:H21	1.40	0.67
10:J:39:VAL:HG22	10:J:106:GLY:O	1.94	0.67
13:M:95:LYS:HE2	30:0:157:G:H4'	1.76	0.67
30:0:1118:A:C8	30:0:1119:G:H5''	2.29	0.67
13:M:70:GLY:HA2	30:0:2263:G:H4'	1.76	0.67
21:U:42:LEU:HD22	30:0:1810:C:H1'	1.76	0.67
30:0:1813:U:H2'	38:0:6701:HOH:O	1.94	0.67
30:0:541:C:H2'	30:0:542:A:H5''	1.74	0.67
8:H:57:THR:HG23	8:H:131:GLN:HA	1.76	0.67
30:0:1528:A:H2'	30:0:1529:G:O4'	1.95	0.67
30:0:2524:G:H5''	38:0:4698:HOH:O	1.94	0.67
30:0:1787:C:H4'	30:0:2883:A:O4'	1.94	0.67
13:M:91:ILE:HG23	38:0:7530:HOH:O	1.94	0.67
13:M:73:ARG:HH22	30:0:2263:G:H5''	1.58	0.67
28:2:28:LYS:HE2	30:0:86:A:H1'	1.77	0.67
30:0:2894:C:O2'	30:0:2895:C:H5'	1.95	0.67
21:U:19:THR:HG22	21:U:20:MET:H	1.59	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:9:76:G:C3'	31:9:77:A:H5''	2.23	0.67
30:0:370:G:O2'	30:0:371:U:H5'	1.93	0.67
30:0:119:A:H2'	30:0:120:A:H5''	1.77	0.67
30:0:2780:C:H2'	30:0:2781:U:H6	1.59	0.67
30:0:2829:G:N2	30:0:2912:C:C2	2.63	0.67
12:L:46:LEU:O	30:0:2430:A:H4'	1.95	0.67
30:0:1641:A:H2'	30:0:1642:A:H5'	1.77	0.67
30:0:810:G:H2'	30:0:811:C:H6	1.56	0.67
4:D:154:LYS:HD2	4:D:154:LYS:H	1.60	0.67
5:E:91:PHE:HE1	30:0:2694:A:H4'	1.58	0.67
11:K:20:CYS:HB2	11:K:29:LEU:HG	1.77	0.67
10:J:75:PRO:HG2	10:J:105:LEU:HD21	1.77	0.67
29:3:60:LYS:HG3	29:3:61:PRO:HD2	1.77	0.67
30:0:256:C:H2'	30:0:257:G:O4'	1.95	0.67
16:P:59:ARG:HD3	38:0:6249:HOH:O	1.95	0.66
1:A:135:VAL:HG21	1:A:147:ARG:HB3	1.77	0.66
30:0:596:C:H2'	30:0:597:A:C8	2.29	0.66
30:0:2785:C:H5'	38:0:7694:HOH:O	1.95	0.66
14:N:33:ARG:NH2	14:N:48:VAL:HG11	2.10	0.66
29:3:68:LYS:HD3	29:3:70:ARG:NH2	2.07	0.66
30:0:468:U:H3'	38:0:7549:HOH:O	1.93	0.66
15:O:14:LEU:HD23	15:O:102:ILE:HD11	1.77	0.66
30:0:869:G:H1'	38:0:3302:HOH:O	1.95	0.66
30:0:1041:U:H2'	30:0:1042:U:H5'	1.78	0.66
13:M:48:LYS:HE3	13:M:52:GLN:HE21	1.60	0.66
30:0:1120:U:H5'	30:0:1121:G:OP2	1.95	0.66
11:K:12:LEU:HB2	11:K:47:ALA:HB3	1.77	0.66
30:0:1205:U:C2'	30:0:1206:U:H5'	2.18	0.66
30:0:1942:A:H3'	38:0:7329:HOH:O	1.95	0.66
30:0:2329:C:O2'	30:0:2330:U:H5'	1.95	0.66
30:0:123:U:H5'	38:0:6635:HOH:O	1.96	0.66
14:N:113:SER:HB2	38:N:8852:HOH:O	1.94	0.66
30:0:1167:G:H2'	30:0:1168:C:C6	2.31	0.66
28:2:43:ARG:NH2	30:0:1684:A:H1'	2.10	0.66
30:0:318:U:H5'	30:0:339:A:C2	2.31	0.66
30:0:2032:U:H2'	30:0:2033:G:C5'	2.26	0.66
31:9:7:G:H5'	38:9:9102:HOH:O	1.95	0.66
30:0:2760:C:H5''	38:0:5294:HOH:O	1.95	0.66
2:B:27:ASN:H	2:B:27:ASN:HD22	1.44	0.66
30:0:1063:G:H5''	38:0:9856:HOH:O	1.94	0.66
30:0:704:C:H2'	30:0:705:C:H6	1.60	0.66
30:0:559:U:C6	30:0:559:U:H5'	2.23	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2533:C:C6	30:0:2533:C:H5'	2.31	0.66
30:0:921:G:H4'	30:0:924:G:N1	2.11	0.66
3:C:184:ARG:NH2	30:0:450:C:OP1	2.29	0.66
30:0:1603:A:H5'	30:0:1605:G:C4'	2.26	0.65
30:0:1249:U:H2'	30:0:1250:C:C6	2.30	0.65
30:0:449:A:H3'	38:0:6214:HOH:O	1.95	0.65
30:0:559:U:H6	30:0:559:U:C5'	2.09	0.65
26:Z:44:ARG:NH2	30:0:1771:U:H5'	2.09	0.65
14:N:80:SER:HB2	38:N:8833:HOH:O	1.95	0.65
30:0:2851:G:H2'	30:0:2902:A:H61	1.60	0.65
20:T:9:LYS:HE3	20:T:13:ARG:NH1	2.12	0.65
12:L:143:THR:HG22	12:L:144:ASP:H	1.61	0.65
2:B:179:LEU:O	2:B:183:GLU:HG2	1.96	0.65
30:0:368:C:H2'	30:0:369:G:H5'	1.77	0.65
31:9:29:C:C5	31:9:30:C:C6	2.84	0.65
26:Z:78:ILE:HG21	26:Z:87:LYS:HE2	1.78	0.65
38:D:7597:HOH:O	31:9:56:A:H2	1.79	0.65
30:0:2707:C:H2'	30:0:2707:C:O2	1.96	0.65
21:U:56:ARG:HD2	30:0:2890:A:C1'	2.25	0.65
16:P:88:GLN:NE2	30:0:1800:G:H1'	2.10	0.65
1:A:122:SER:HB2	1:A:164:ARG:NH1	2.11	0.65
9:I:110:ASP:O	30:0:1163:G:H5'	1.95	0.65
30:0:1666:C:C2'	30:0:1667:A:H5''	2.27	0.65
30:0:696:C:H4'	38:0:7263:HOH:O	1.96	0.65
5:E:91:PHE:CE1	30:0:2694:A:H4'	2.32	0.65
30:0:2597:U:H2'	30:0:2598:U:H5'	1.77	0.65
30:0:213:G:N2	30:0:225:G:H2'	2.11	0.65
30:0:1132:A:N6	30:0:1229:C:H2'	2.12	0.65
30:0:416:G:H5''	38:0:7402:HOH:O	1.96	0.65
30:0:1061:C:H3'	38:0:5051:HOH:O	1.97	0.65
25:Y:115:ARG:HH21	30:0:1266:U:H4'	1.60	0.65
30:0:1385:G:H1'	38:0:4024:HOH:O	1.97	0.65
2:B:238:ASN:HD22	2:B:240:GLY:N	1.90	0.65
38:O:1484:HOH:O	30:0:710:G:H1'	1.97	0.65
30:0:42:C:H1'	38:0:4645:HOH:O	1.97	0.65
30:0:290:C:O2'	30:0:291:C:H5'	1.96	0.65
30:0:812:A:H2'	30:0:813:C:C6	2.31	0.65
16:P:81:LYS:O	30:0:1761:U:H5'	1.97	0.65
30:0:2119:C:O2'	30:0:2120:U:H5'	1.97	0.65
30:0:696:C:O2'	30:0:697:G:H5'	1.97	0.64
31:9:61:C:H2'	31:9:62:A:H8	1.62	0.64
30:0:2892:G:C6	30:0:2893:C:C4	2.85	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1586:G:O2'	30:0:1587:U:H5'	1.97	0.64
30:0:1377:C:H5'	30:0:1377:C:C6	2.33	0.64
30:0:1735:C:O2'	30:0:1736:A:H5'	1.97	0.64
30:0:1862:C:H1'	38:0:7203:HOH:O	1.96	0.64
30:0:1422:U:H2'	30:0:1423:C:C6	2.32	0.64
38:B:8996:HOH:O	30:0:2766:A:H5'	1.97	0.64
30:0:441:A:H1'	30:0:442:A:N7	2.13	0.64
1:A:47:HIS:HD2	30:0:1654:U:H2'	1.61	0.64
21:U:56:ARG:HD2	30:0:2890:A:C8	2.33	0.64
30:0:1972:U:C2'	30:0:1973:A:H5''	2.27	0.64
30:0:1819:G:H5'	38:0:4680:HOH:O	1.96	0.64
30:0:671:A:O2'	30:0:672:G:H2'	1.97	0.64
2:B:36:PRO:HA	2:B:168:GLY:HA3	1.78	0.64
30:0:693:A:H2'	30:0:694:A:C8	2.33	0.64
30:0:281:U:H2'	30:0:282:C:O4'	1.98	0.64
2:B:312:ARG:HD3	2:B:315:VAL:HG13	1.80	0.64
27:1:9:GLY:HA2	30:0:1687:C:O2	1.98	0.64
30:0:2768:A:O2'	30:0:2769:C:H5'	1.97	0.64
5:E:143:GLN:HE22	30:0:2779:G:H21	1.44	0.64
26:Z:70:ARG:HH11	26:Z:83:TYR:HD1	1.46	0.64
30:0:1706:G:H1'	30:0:1712:A:H61	1.61	0.64
23:W:6:GLN:HB2	23:W:26:ILE:HD11	1.79	0.64
5:E:20:ILE:HD11	5:E:40:VAL:HG11	1.79	0.64
27:1:21:ARG:HD2	27:1:37:CYS:SG	2.38	0.64
3:C:78:ARG:HG3	3:C:78:ARG:NH1	2.13	0.64
30:0:1181:A:H2'	30:0:1182:C:H5'	1.80	0.64
30:0:1973:A:H2'	30:0:1974:G:O4'	1.96	0.64
30:0:2088:C:H2'	30:0:2089:A:H8	1.62	0.64
25:Y:169:ARG:HD2	30:0:1328:A:OP1	1.98	0.64
25:Y:154:ARG:HH22	30:0:1071:G:H4'	1.63	0.64
14:N:86:LEU:HD12	14:N:125:ALA:HB2	1.78	0.64
3:C:16:VAL:HG12	3:C:17:ASP:H	1.62	0.64
30:0:459:A:H5''	38:0:9055:HOH:O	1.96	0.64
30:0:1748:U:C5	30:0:1749:U:C5	2.85	0.63
11:K:66:ARG:HH22	30:0:1994:A:P	2.21	0.63
8:H:27:PRO:HD3	8:H:123:ILE:HG22	1.79	0.63
21:U:23:HIS:HD2	21:U:27:ALA:HB3	1.63	0.63
30:0:541:C:H2'	30:0:542:A:H5'	1.77	0.63
3:C:236:THR:HG21	38:C:8571:HOH:O	1.97	0.63
3:C:132:ASP:O	3:C:133:ARG:HG3	1.98	0.63
18:R:40:ALA:O	18:R:44:VAL:HG23	1.99	0.63
30:0:2867:G:H2'	30:0:2868:C:C6	2.33	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:K:98:VAL:CG1	11:K:102:GLU:HA	2.28	0.63
31:9:17:G:O2'	31:9:18:U:H5'	1.97	0.63
30:0:1116:U:O2'	30:0:1118:A:C2	2.40	0.63
30:0:541:C:O2'	30:0:542:A:H5''	1.97	0.63
17:Q:26:PRO:O	17:Q:30:VAL:HG23	1.97	0.63
8:H:19:ARG:HH12	30:0:1008:C:H5''	1.63	0.63
30:0:2727:A:H2'	30:0:2728:C:H5'	1.80	0.63
30:0:1835:U:H3'	38:0:5539:HOH:O	1.97	0.63
30:0:2032:U:O2'	30:0:2033:G:H5''	1.98	0.63
13:M:164:THR:HG22	13:M:166:ALA:N	2.13	0.63
13:M:66:SER:HB3	13:M:128:TRP:CD1	2.33	0.63
30:0:506:G:H22	30:0:509:A:H5'	1.63	0.63
23:W:88:THR:HG22	23:W:110:GLN:HB3	1.81	0.63
30:0:2659:U:H5''	38:0:4112:HOH:O	1.98	0.63
29:3:65:THR:O	29:3:82:GLY:HA3	1.99	0.63
31:9:91:C:H2'	31:9:92:G:O4'	1.99	0.63
26:Z:38:PHE:HB3	26:Z:42:TYR:CD1	2.33	0.63
1:A:211:LYS:HB3	1:A:212:PRO:HD2	1.79	0.63
30:0:90:A:H2'	30:0:91:G:O4'	1.98	0.63
30:0:1985:U:H1'	38:0:4497:HOH:O	1.98	0.63
14:N:37:ARG:HH12	31:9:6:C:C5'	1.95	0.63
30:0:1644:C:H2'	30:0:1645:U:C6	2.31	0.63
30:0:2824:C:H5''	30:0:2825:C:H5'	1.80	0.63
30:0:1149:U:H5''	30:0:1151:G:O4'	1.98	0.63
30:0:2675:A:H1'	30:0:2813:A:C2	2.34	0.63
14:N:164:ASP:OD1	14:N:167:ASP:HA	1.98	0.63
30:0:2291:A:H8	38:0:6453:HOH:O	1.81	0.63
30:0:2766:A:O2'	30:0:2767:C:H5'	1.99	0.63
29:3:2:GLN:HB3	29:3:91:GLN:CD	2.19	0.63
29:3:59:ASP:HB3	29:3:63:LYS:NZ	2.13	0.63
2:B:280:VAL:HG13	2:B:333:GLU:O	1.99	0.63
22:V:42:ASN:HB3	38:V:7247:HOH:O	1.98	0.63
4:D:131:THR:HG21	30:0:2348:C:H1'	1.79	0.63
30:0:2250:G:H2'	30:0:2251:G:O4'	1.99	0.63
30:0:279:C:C2'	30:0:280:C:H5'	2.29	0.63
28:2:41:HIS:HB3	28:2:44:ARG:HB2	1.80	0.63
30:0:2782:G:H3'	38:0:5004:HOH:O	1.98	0.63
5:E:60:SER:OG	30:0:2784:A:H1'	1.98	0.63
11:K:74:VAL:CG1	11:K:113:ILE:HG12	2.29	0.63
30:0:956:G:C8	38:0:9387:HOH:O	2.50	0.63
30:0:630:A:H5''	38:0:4722:HOH:O	1.99	0.63
26:Z:41:ARG:HD2	30:0:1830:C:O2	1.98	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2349:G:H2'	30:0:2350:G:H8	1.62	0.62
30:0:1165:G:H21	30:0:1173:A:C5'	2.12	0.62
20:T:72:ILE:HD13	20:T:93:THR:HG22	1.81	0.62
27:1:2:GLY:O	27:1:6:PRO:HG2	1.99	0.62
12:L:57:VAL:HG21	30:0:2443:C:H5'	1.80	0.62
26:Z:34:SER:HB2	38:0:7481:HOH:O	1.99	0.62
30:0:1921:A:O2'	30:0:1922:A:H5'	1.98	0.62
29:3:54:LYS:HE2	30:0:2468:A:N7	2.14	0.62
30:0:1527:A:H1'	30:0:1528:A:C8	2.34	0.62
21:U:49:LEU:HD12	38:U:3805:HOH:O	1.99	0.62
30:0:1889:C:H2'	30:0:1890:U:O4'	2.00	0.62
30:0:1878:G:H1'	38:0:6097:HOH:O	2.00	0.62
4:D:54:ALA:HB2	4:D:69:ILE:HD12	1.80	0.62
14:N:160:SER:HB3	31:9:51:A:H5'	1.82	0.62
30:0:1351:G:H5'	38:0:3619:HOH:O	1.99	0.62
30:0:1477:C:H5'	30:0:1868:G:C5'	2.29	0.62
5:E:153:ARG:HH12	30:0:2778:A:H1'	1.65	0.62
30:0:229:G:O2'	30:0:230:C:H5'	2.00	0.62
30:0:790:A:H1'	30:0:1710:A:O2'	1.99	0.62
8:H:15:PRO:HG3	30:0:1053:G:OP1	2.00	0.62
20:T:61:GLU:HG2	38:T:3851:HOH:O	1.99	0.62
29:3:68:LYS:NZ	30:0:2436:U:H5'	2.14	0.62
30:0:1226:G:H5'	38:0:4509:HOH:O	1.98	0.62
3:C:246:ARG:NH2	30:0:677:C:H4'	2.14	0.62
30:0:2510:C:H5'	30:0:2511:A:OP2	1.99	0.62
30:0:920:C:H4'	30:0:921:G:N2	2.14	0.62
26:Z:53:ILE:O	26:Z:57:MET:HB2	2.00	0.62
15:O:51:TYR:CE2	30:0:721:A:H5'	2.35	0.62
28:2:22:PRO:HG2	28:2:25:VAL:HG23	1.82	0.62
22:V:39:ALA:H	22:V:40:PRO:HD2	1.65	0.62
30:0:630:A:H5'	38:0:9372:HOH:O	1.98	0.62
30:0:1752:G:H2'	38:0:7531:HOH:O	2.00	0.62
30:0:303:C:O2'	30:0:304:G:H5'	2.00	0.62
17:Q:14:LEU:HD21	17:Q:43:ILE:HD12	1.82	0.62
30:0:1279:U:C2'	30:0:1279:U:O2	2.48	0.61
30:0:236:A:H4'	30:0:237:G:C5'	2.17	0.61
3:C:129:HIS:CE1	3:C:231:ARG:HA	2.35	0.61
31:9:91:C:H1'	38:9:9149:HOH:O	1.98	0.61
30:0:2439:C:H5'	38:0:5449:HOH:O	1.99	0.61
30:0:2251:G:H2'	30:0:2252:A:C8	2.35	0.61
30:0:2300:A:H4'	30:0:2301:A:O5'	2.00	0.61
30:0:1131:G:H1'	38:0:3907:HOH:O	1.99	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2775:A:C6	30:0:2799:A:C8	2.88	0.61
23:W:64:THR:O	23:W:68:THR:HG22	2.00	0.61
9:I:130:LEU:CD2	30:0:1167:G:H4'	2.29	0.61
30:0:1477:C:O2'	30:0:1478:U:H5'	1.99	0.61
30:0:825:U:H5''	30:0:826:U:OP1	2.00	0.61
22:V:55:ARG:O	22:V:59:ILE:HG12	2.01	0.61
30:0:2576:A:H2'	38:0:7732:HOH:O	2.00	0.61
30:0:2314:G:C2'	30:0:2315:C:H5'	2.30	0.61
25:Y:186:ARG:HG2	25:Y:186:ARG:HH11	1.65	0.61
23:W:52:VAL:HG22	23:W:53:ALA:H	1.63	0.61
30:0:1711:A:O2'	30:0:1712:A:H5'	2.00	0.61
30:0:2912:C:O5'	30:0:2912:C:H6	1.83	0.61
2:B:262:ARG:HG3	30:0:2716:G:H5'	1.83	0.61
13:M:75:ARG:NH2	13:M:78:LYS:HE2	2.16	0.61
30:0:301:C:O2'	30:0:302:A:H5'	2.00	0.61
7:G:12:ILE:HG23	38:0:5418:HOH:O	1.98	0.61
24:X:71:ARG:HD2	38:X:7542:HOH:O	1.99	0.61
30:0:1118:A:H8	30:0:1119:G:H5''	1.64	0.61
30:0:39:G:N2	30:0:444:C:C2	2.68	0.61
2:B:320:GLN:HE21	2:B:321:PRO:HD2	1.65	0.61
9:I:91:PHE:HD2	9:I:131:GLY:HA2	1.66	0.61
2:B:336:GLN:O	30:0:2862:G:H4'	2.00	0.61
1:A:20:SER:HB3	30:0:1872:C:H5	1.65	0.61
12:L:67:ARG:HB2	12:L:112:GLY:HA3	1.83	0.61
9:I:130:LEU:HD21	30:0:1167:G:H4'	1.81	0.61
30:0:2526:C:H3'	30:0:2526:C:H6	1.65	0.61
30:0:705:C:H2'	30:0:705:C:O2	1.99	0.61
23:W:13:MET:HE1	23:W:18:GLN:HA	1.81	0.61
31:9:20:G:H3'	38:9:9057:HOH:O	2.00	0.61
30:0:877:G:C5'	30:0:878:G:OP1	2.46	0.61
22:V:12:THR:HG22	22:V:15:GLU:CG	2.31	0.61
30:0:228:C:H2'	30:0:229:G:H5'	1.80	0.61
30:0:1774:G:O2'	30:0:1775:A:H5'	2.01	0.61
30:0:1856:C:H5'	30:0:1858:A:O4'	2.01	0.61
30:0:282:C:O2	30:0:282:C:H2'	2.00	0.61
30:0:1676:G:O2'	30:0:1677:U:H5'	2.01	0.61
30:0:2834:G:C2	30:0:2835:C:H1'	2.35	0.61
23:W:145:GLY:HA3	38:W:6373:HOH:O	2.00	0.61
30:0:283:U:C5	30:0:284:C:C4	2.88	0.61
30:0:1398:G:H2'	30:0:1399:A:H8	1.64	0.61
31:9:39:U:HO2'	31:9:42:C:H5	1.48	0.61
30:0:807:A:H2'	30:0:808:A:C8	2.36	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:558:C:H2'	30:0:559:U:H5'	1.81	0.61
30:0:1701:A:H4'	30:0:1702:U:C5'	2.30	0.61
11:K:10:GLN:N	11:K:10:GLN:HE21	1.96	0.61
8:H:174:LEU:HD21	30:0:1220:U:H4'	1.82	0.61
10:J:47:THR:HB	38:0:4807:HOH:O	2.01	0.60
1:A:140:LEU:HB3	1:A:141:PRO:HD2	1.83	0.60
38:3:9025:HOH:O	30:0:2468:A:H5'	2.00	0.60
30:0:1878:G:HO2'	30:0:1879:U:H6	1.42	0.60
30:0:31:C:H4'	38:0:7408:HOH:O	2.00	0.60
30:0:1175:G:H1'	30:0:1193:A:C2'	2.31	0.60
29:3:9:THR:HG23	29:3:20:HIS:ND1	2.15	0.60
2:B:320:GLN:HE21	2:B:321:PRO:CD	2.14	0.60
3:C:27:ARG:NH2	30:0:657:G:OP1	2.34	0.60
30:0:1697:G:H4'	38:0:9347:HOH:O	2.02	0.60
30:0:2281:C:H2'	30:0:2282:U:H5'	1.82	0.60
2:B:102:THR:HG23	2:B:182:VAL:HG12	1.81	0.60
30:0:282:C:O2'	30:0:283:U:C5'	2.49	0.60
30:0:2312:G:C2'	30:0:2313:C:H5'	2.30	0.60
11:K:74:VAL:HG12	11:K:75:ARG:HG3	1.83	0.60
30:0:2872:U:H2'	30:0:2873:C:O4'	2.02	0.60
30:0:2071:C:H5'	38:0:9540:HOH:O	2.00	0.60
30:0:38:G:O2'	30:0:39:G:H5'	2.02	0.60
30:0:1201:C:H5''	38:0:6211:HOH:O	2.00	0.60
26:Z:84:CYS:HB3	30:0:1604:G:N2	2.15	0.60
25:Y:126:PRO:HG2	25:Y:128:PHE:CE1	2.36	0.60
30:0:1495:C:H1'	30:0:1573:A:H1'	1.83	0.60
30:0:407:A:H3'	38:0:4438:HOH:O	2.01	0.60
30:0:1205:U:O2'	30:0:1206:U:H5''	2.01	0.60
30:0:2420:G:C2'	30:0:2421:G:H5'	2.30	0.60
20:T:48:VAL:HG22	20:T:97:ARG:O	2.01	0.60
30:0:1972:U:C2'	30:0:1973:A:C5'	2.80	0.60
30:0:1398:G:O2'	30:0:1399:A:H5'	2.02	0.60
11:K:74:VAL:HG13	11:K:113:ILE:HG12	1.82	0.60
2:B:72:THR:HB	38:B:9076:HOH:O	2.02	0.60
30:0:947:U:H2'	30:0:948:G:C8	2.36	0.60
30:0:1407:A:O2'	30:0:1408:U:H3'	2.01	0.60
30:0:51:G:H1'	38:0:9033:HOH:O	2.01	0.60
31:9:18:U:H2'	31:9:19:G:C8	2.37	0.60
30:0:146:U:C2'	30:0:147:G:H5'	2.31	0.60
13:M:102:GLU:OE1	13:M:164:THR:HG21	2.01	0.60
30:0:2893:C:O2'	30:0:2894:C:H5'	2.01	0.60
16:P:41:ARG:HH22	30:0:1500:U:P	2.24	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:9:23:U:O2'	31:9:24:U:H4'	2.01	0.60
7:G:16:LYS:HE2	7:G:63:ARG:HH12	1.67	0.60
15:O:14:LEU:CD2	15:O:102:ILE:HD11	2.32	0.60
18:R:135:ALA:HB1	18:R:137:ASN:HD21	1.67	0.60
8:H:72:ALA:HB2	8:H:156:ALA:HB2	1.81	0.60
29:3:31:THR:OG1	29:3:34:LYS:HD3	2.01	0.60
30:0:2353:A:H4'	30:0:2354:A:O5'	2.01	0.60
31:9:3:A:C6	31:9:22:G:H1'	2.36	0.60
31:9:26:C:H2'	31:9:27:C:C6	2.36	0.60
31:9:29:C:H2'	31:9:30:C:C5'	2.28	0.60
35:B:8819:CL:CL	38:B:8997:HOH:O	2.54	0.60
30:0:1844:C:H6	30:0:1844:C:O5'	1.84	0.60
30:0:2608:C:H3'	38:0:7790:HOH:O	2.02	0.60
13:M:188:ARG:HD3	30:0:155:C:OP2	2.02	0.60
10:J:82:THR:CG2	30:0:1242:A:H5'	2.20	0.60
30:0:307:G:H3'	38:0:6667:HOH:O	2.01	0.60
2:B:79:MET:HB2	2:B:188:HIS:CE1	2.36	0.60
18:R:46:TYR:O	18:R:50:VAL:HG23	2.00	0.60
30:0:567:U:H5''	38:0:5254:HOH:O	2.02	0.60
6:F:58:GLU:CD	13:M:27:ARG:HH22	2.05	0.60
29:3:43:ASN:HB2	29:3:52:PHE:CE1	2.36	0.60
30:0:947:U:H2'	30:0:948:G:H8	1.65	0.60
30:0:74:G:H2'	30:0:75:U:C6	2.37	0.60
2:B:235:ARG:HD3	30:0:2091:G:H5''	1.83	0.59
30:0:1878:G:O2'	30:0:1879:U:C6	2.50	0.59
30:0:324:G:O2'	30:0:325:U:H5'	2.02	0.59
30:0:319:A:H4'	30:0:338:C:C4	2.37	0.59
31:9:63:C:O2'	31:9:64:C:H5'	2.01	0.59
16:P:91:LYS:O	16:P:95:GLU:HG3	2.02	0.59
13:M:82:ARG:HH22	13:M:85:ARG:HH21	1.49	0.59
27:1:20:ARG:HG2	30:0:111:C:O2'	2.01	0.59
31:9:65:A:N6	31:9:112:U:C6	2.71	0.59
30:0:2686:C:C2	30:0:2709:G:N2	2.70	0.59
30:0:1590:A:H1'	30:0:1606:A:C2	2.36	0.59
11:K:130:MET:SD	21:U:25:ASP:O	2.60	0.59
30:0:2718:C:H6	30:0:2718:C:H5'	1.67	0.59
3:C:236:THR:HA	38:C:8648:HOH:O	2.01	0.59
5:E:145:ALA:HB1	5:E:168:ILE:HD11	1.85	0.59
1:A:94:LEU:HG	1:A:99:ILE:HD11	1.84	0.59
30:0:2820:A:H2'	30:0:2821:C:C6	2.36	0.59
30:0:2403:C:H5'	38:0:6001:HOH:O	2.01	0.59
2:B:156:LYS:HB3	30:0:2846:C:H4'	1.84	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:N:86:LEU:O	14:N:90:LEU:HG	2.02	0.59
30:0:2867:G:H2'	30:0:2868:C:H6	1.67	0.59
30:0:653:U:H2'	30:0:654:A:C8	2.37	0.59
30:0:834:G:H4'	30:0:835:U:OP2	2.02	0.59
2:B:101:TRP:HB2	2:B:119:HIS:CD2	2.38	0.59
12:L:79:ASP:HB3	38:L:8859:HOH:O	2.03	0.59
30:0:2831:C:H2'	30:0:2832:C:H5'	1.82	0.59
30:0:1585:C:H2'	30:0:1586:G:C8	2.37	0.59
30:0:652:G:C2	30:0:653:U:H1'	2.37	0.59
2:B:62:ARG:HG2	2:B:65:MET:HE3	1.85	0.59
30:0:2874:G:H3'	38:0:9586:HOH:O	2.02	0.59
30:0:2809:G:H2'	30:0:2810:G:C8	2.37	0.59
1:A:179:MET:HG2	1:A:186:TRP:CB	2.32	0.59
1:A:33:GLU:H	1:A:33:GLU:CD	2.06	0.59
6:F:13:GLU:OE2	6:F:78:GLU:HG2	2.01	0.59
4:D:58:VAL:HG12	4:D:60:GLU:HG2	1.83	0.59
38:B:8993:HOH:O	30:0:2549:C:H1'	2.03	0.59
8:H:37:GLY:HA3	8:H:87:LYS:HA	1.85	0.59
30:0:1702:U:H5''	38:0:7201:HOH:O	2.01	0.59
30:0:2846:C:H4'	38:0:5047:HOH:O	2.03	0.59
30:0:812:A:H2'	30:0:813:C:H6	1.68	0.59
30:0:1380:U:C4	30:0:2748:G:C4	2.91	0.59
30:0:542:A:H5'	30:0:542:A:C8	2.29	0.59
8:H:155:ARG:NH1	30:0:2503:A:H5''	2.18	0.59
2:B:215:VAL:HB	38:B:9089:HOH:O	2.02	0.59
30:0:2065:C:O2'	30:0:2066:C:H5'	2.02	0.59
30:0:590:A:H2'	30:0:591:A:H5'	1.83	0.59
31:9:54:A:C2	31:9:55:U:C2	2.91	0.59
18:R:39:THR:HG23	18:R:107:GLU:O	2.03	0.59
11:K:41:LYS:HA	30:0:2582:G:O3'	2.03	0.59
30:0:1972:U:H2'	30:0:1973:A:H5''	1.83	0.59
30:0:921:G:H4'	30:0:924:G:C6	2.37	0.59
30:0:499:G:O2'	30:0:500:G:H5'	2.02	0.59
30:0:702:G:O2'	30:0:703:G:H5'	2.02	0.59
16:P:7:LYS:HD3	16:P:21:VAL:HG22	1.85	0.59
30:0:1563:G:H4'	38:0:4215:HOH:O	2.01	0.59
30:0:1566:C:O2'	30:0:1567:G:H5'	2.03	0.59
2:B:145:HIS:HD2	2:B:146:THR:O	1.85	0.59
4:D:159:PRO:O	4:D:163:VAL:HG23	2.02	0.59
24:X:37:LEU:HD13	24:X:85:VAL:HG21	1.84	0.59
30:0:281:U:C2'	30:0:282:C:H5'	2.33	0.59
30:0:255:A:H2'	30:0:256:C:H6	1.67	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:137:ASN:ND2	30:0:145:A:H4'	2.18	0.59
6:F:30:LYS:HB2	6:F:97:ALA:HB3	1.84	0.59
10:J:69:TYR:CE1	30:0:2081:A:H4'	2.38	0.59
10:J:88:PRO:HD3	30:0:1104:C:H4'	1.85	0.59
30:0:2563:U:H2'	30:0:2565:C:O5'	2.02	0.58
30:0:2826:G:C6	30:0:2913:A:C6	2.90	0.58
26:Z:40:ALA:HA	30:0:1773:G:C8	2.38	0.58
30:0:925:C:H3'	38:0:3826:HOH:O	2.02	0.58
30:0:1568:G:O2'	30:0:1569:U:H5'	2.03	0.58
30:0:2724:U:H2'	30:0:2725:G:O4'	2.03	0.58
29:3:47:GLY:HA2	30:0:2121:G:C4'	2.25	0.58
30:0:2825:C:H4'	30:0:2826:G:O5'	2.03	0.58
25:Y:169:ARG:HD3	30:0:1328:A:C8	2.38	0.58
2:B:297:VAL:HB	38:B:9076:HOH:O	2.03	0.58
30:0:1245:C:O5'	30:0:1245:C:H6	1.85	0.58
8:H:98:LEU:HD11	8:H:127:ALA:HB2	1.85	0.58
2:B:243:ASN:HB3	38:0:6624:HOH:O	2.02	0.58
30:0:28:G:H1'	38:0:4650:HOH:O	2.03	0.58
30:0:1158:G:O2'	30:0:1159:G:H5'	2.03	0.58
9:I:83:GLY:H	30:0:1168:C:H5''	1.68	0.58
30:0:1187:U:H2'	38:0:6880:HOH:O	2.01	0.58
30:0:2467:A:H5''	38:0:4285:HOH:O	2.03	0.58
26:Z:34:SER:HA	30:0:797:A:H4'	1.83	0.58
4:D:28:GLY:HA2	4:D:69:ILE:HG23	1.85	0.58
30:0:951:A:C2'	30:0:952:G:H5'	2.33	0.58
12:L:145:LEU:HB2	38:L:8836:HOH:O	2.03	0.58
13:M:28:GLN:HA	13:M:31:TRP:HB2	1.85	0.58
30:0:1290:G:H4'	38:0:7465:HOH:O	2.02	0.58
3:C:79:ARG:O	3:C:87:ARG:HG2	2.04	0.58
30:0:1186:C:H42	30:0:1190:G:H22	1.48	0.58
20:T:52:ARG:HD2	30:0:317:A:H5''	1.85	0.58
30:0:2590:U:H2'	30:0:2591:C:H5'	1.85	0.58
30:0:293:A:C4	30:0:360:A:C2	2.91	0.58
30:0:204:A:H2'	30:0:205:U:H5'	1.85	0.58
30:0:2784:A:H8	30:0:2784:A:O5'	1.87	0.58
30:0:1711:A:C2'	30:0:1712:A:H5'	2.33	0.58
3:C:182:ARG:HH12	30:0:450:C:H3'	1.67	0.58
25:Y:234:VAL:HG12	25:Y:235:GLU:H	1.66	0.58
12:L:18:HIS:HD2	30:0:902:G:N7	2.01	0.58
30:0:1520:G:C6	30:0:1521:C:C4	2.92	0.58
26:Z:70:ARG:HB2	26:Z:81:CYS:SG	2.44	0.58
10:J:127:ILE:HG22	35:J:8801:CL:CL	2.40	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:368:C:C2'	30:0:369:G:H5'	2.34	0.58
30:0:271:C:N4	30:0:378:A:C2	2.66	0.58
30:0:1503:U:C2'	30:0:1504:A:H5'	2.34	0.58
31:9:39:U:H1'	31:9:44:A:N6	2.19	0.58
5:E:100:ASP:HB3	38:E:2789:HOH:O	2.02	0.58
2:B:162:MET:HG3	2:B:310:ARG:HD3	1.84	0.58
30:0:164:G:H3'	38:0:3636:HOH:O	2.03	0.58
2:B:267:LYS:HA	38:B:8996:HOH:O	2.04	0.58
31:9:54:A:C2	31:9:55:U:N3	2.72	0.58
30:0:2505:G:H2'	30:0:2506:A:H5'	1.86	0.58
26:Z:42:TYR:HA	30:0:1829:A:N6	2.16	0.58
30:0:1662:C:H2'	30:0:1663:G:O4'	2.03	0.58
30:0:951:A:O2'	30:0:952:G:H5'	2.03	0.58
30:0:2073:G:OP2	30:0:2490:A:H5'	2.03	0.58
30:0:2493:C:O2	30:0:2493:C:H2'	2.02	0.58
30:0:2624:A:H1'	38:0:9769:HOH:O	2.04	0.58
30:0:482:G:H4'	30:0:508:A:N1	2.19	0.58
17:Q:11:ARG:NH2	30:0:2363:G:H5''	2.19	0.58
30:0:544:G:H2'	30:0:545:G:H5''	1.85	0.58
30:0:2511:A:H2'	30:0:2512:U:O4'	2.03	0.58
30:0:625:U:H3'	38:0:3244:HOH:O	2.03	0.58
30:0:1634:G:H2'	30:0:1635:U:C6	2.38	0.58
30:0:1973:A:H5'	30:0:1973:A:H8	1.69	0.58
30:0:1585:C:H2'	30:0:1586:G:H8	1.68	0.58
30:0:2581:U:H1'	38:0:4452:HOH:O	2.03	0.58
22:V:1:THR:HG23	22:V:2:VAL:H	1.69	0.58
30:0:412:C:O2'	30:0:413:G:H5'	2.02	0.58
8:H:172:GLU:HB2	38:H:248:HOH:O	2.04	0.58
30:0:1160:G:H5'	30:0:1161:A:H5'	0.78	0.58
30:0:1041:U:C2'	30:0:1042:U:H5'	2.34	0.58
30:0:51:G:O2'	30:0:52:A:H5'	2.03	0.58
30:0:2812:A:N7	38:0:7497:HOH:O	2.32	0.58
30:0:1300:G:H1'	38:0:4652:HOH:O	2.03	0.58
30:0:12:U:C2'	30:0:13:G:H5'	2.32	0.57
3:C:236:THR:CG2	3:C:239:ALA:H	2.16	0.57
11:K:20:CYS:SG	11:K:22:ASP:OD1	2.62	0.57
4:D:76:ARG:CZ	31:9:44:A:H1'	2.34	0.57
30:0:1057:A:H1'	30:0:2492:U:O2'	2.03	0.57
1:A:75:GLY:HA2	26:Z:88:PHE:HA	1.86	0.57
2:B:125:GLU:O	2:B:129:ARG:HG3	2.03	0.57
15:O:10:LEU:HD13	15:O:99:GLU:HG3	1.84	0.57
30:0:2748:G:H5'	38:0:7523:HOH:O	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:820:G:H5'	30:0:821:U:H5'	1.86	0.57
10:J:70:PHE:HE1	30:0:2676:C:H4'	1.68	0.57
30:0:2705:U:H2'	30:0:2706:A:H8	1.68	0.57
20:T:111:ARG:HB3	20:T:119:ALA:HB2	1.85	0.57
30:0:1166:A:H61	30:0:1180:U:H3	1.51	0.57
30:0:821:U:H3'	38:0:3764:HOH:O	2.03	0.57
14:N:48:VAL:HG13	14:N:55:ASP:HB3	1.86	0.57
30:0:1216:G:H2'	30:0:1217:G:O4'	2.03	0.57
1:A:53:ALA:HB2	1:A:122:SER:OG	2.05	0.57
30:0:590:A:C2'	30:0:591:A:H5'	2.33	0.57
26:Z:90:GLY:HA3	26:Z:95:PRO:O	2.04	0.57
30:0:1342:C:C2'	30:0:1343:C:H5'	2.34	0.57
30:0:1256:C:H6	38:0:7140:HOH:O	1.87	0.57
30:0:2712:G:H5'	38:0:5187:HOH:O	2.02	0.57
30:0:283:U:H5	30:0:284:C:C4	2.22	0.57
3:C:236:THR:HG22	3:C:239:ALA:N	2.15	0.57
30:0:1503:U:O2'	30:0:1504:A:H5'	2.04	0.57
30:0:916:A:C2	30:0:928:G:C4	2.93	0.57
20:T:18:GLU:O	20:T:21:LYS:HG2	2.03	0.57
30:0:694:A:H2'	30:0:695:C:C5'	2.27	0.57
11:K:14:LYS:CB	11:K:45:PRO:HG2	2.35	0.57
30:0:1552:G:H2'	30:0:1553:C:C6	2.40	0.57
30:0:1883:U:C2'	30:0:1884:G:H5'	2.34	0.57
29:3:51:LYS:HG3	29:3:52:PHE:CD2	2.40	0.57
30:0:1555:G:H4'	30:0:1630:A:H2	1.69	0.57
30:0:727:G:H3'	30:0:728:C:H6	1.68	0.57
30:0:544:G:C2'	30:0:545:G:H5''	2.35	0.57
30:0:2335:C:H2'	30:0:2336:G:H8	1.67	0.57
30:0:2828:G:H8	30:0:2828:G:O5'	1.87	0.57
30:0:1819:G:H2'	30:0:1820:G:H4'	1.85	0.57
30:0:1754:A:H5''	38:0:9757:HOH:O	2.04	0.57
3:C:8:LEU:HD11	3:C:143:ASP:O	2.04	0.57
30:0:2240:U:O2'	30:0:2241:C:H5'	2.04	0.57
30:0:2078:U:O2'	30:0:2079:G:H5'	2.05	0.57
5:E:125:GLU:HB2	5:E:132:THR:HG23	1.86	0.57
30:0:1189:A:H1'	30:0:1209:C:C1'	2.35	0.57
3:C:127:ARG:HD3	3:C:129:HIS:HE1	1.70	0.57
21:U:56:ARG:HG3	21:U:56:ARG:NH1	2.19	0.57
30:0:1577:U:O2'	30:0:1578:C:H5'	2.05	0.57
24:X:43:VAL:HG22	24:X:76:ARG:NH1	2.20	0.57
30:0:2001:G:O2'	30:0:2002:C:H5'	2.04	0.57
15:O:19:ARG:NH1	30:0:1276:U:H3'	2.19	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:138:U:OP2	30:0:139:C:C5	2.58	0.57
30:0:371:U:O2'	30:0:372:A:H5'	2.05	0.57
30:0:2010:A:H2'	38:0:5933:HOH:O	2.03	0.57
14:N:160:SER:CB	31:9:51:A:H5'	2.34	0.57
5:E:153:ARG:NH1	30:0:2778:A:H1'	2.19	0.57
21:U:13:ILE:HG12	21:U:32:CYS:HB3	1.86	0.57
21:U:33:SER:O	21:U:37:GLU:HG3	2.04	0.57
25:Y:216:ARG:HD2	38:Y:8871:HOH:O	2.03	0.57
2:B:214:PRO:HD2	38:B:8989:HOH:O	2.05	0.57
1:A:153:ARG:HD3	38:A:9011:HOH:O	2.04	0.57
30:0:403:C:H3'	38:0:6286:HOH:O	2.05	0.57
30:0:1718:G:O2'	30:0:1719:G:H5'	2.04	0.57
26:Z:45:VAL:HG13	26:Z:49:ARG:HE	1.70	0.57
18:R:68:HIS:O	30:0:2842:G:H5'	2.05	0.57
30:0:1182:C:H1'	30:0:1192:A:H8	1.69	0.57
13:M:68:ARG:HD3	13:M:68:ARG:O	2.05	0.57
20:T:24:ARG:HH21	20:T:39:ASN:HD22	1.53	0.57
1:A:190:ARG:HD2	30:0:1884:G:O6	2.03	0.57
31:9:23:U:H2'	31:9:24:U:H4'	1.87	0.57
2:B:41:PHE:CZ	2:B:79:MET:HG3	2.40	0.57
31:9:64:C:C2'	31:9:65:A:H5'	2.35	0.57
30:0:2407:G:O2'	30:0:2408:A:H5'	2.05	0.57
30:0:1971:G:H5'	38:0:7053:HOH:O	2.05	0.57
24:X:30:MET:HE1	24:X:55:ASN:HA	1.86	0.57
30:0:2769:C:C2'	30:0:2770:G:C5'	2.78	0.56
30:0:1079:A:OP2	30:0:1080:C:N4	2.36	0.56
30:0:2251:G:H2'	30:0:2252:A:H8	1.70	0.56
30:0:407:A:H2'	30:0:408:A:C8	2.40	0.56
10:J:116:LEU:HB2	10:J:119:THR:HG21	1.87	0.56
30:0:312:U:O2'	30:0:313:U:H5'	2.05	0.56
30:0:10:U:C4	30:0:532:A:C8	2.94	0.56
31:9:54:A:HO2'	31:9:55:U:H5'	1.67	0.56
30:0:1173:A:H4'	30:0:1174:A:C8	2.40	0.56
13:M:82:ARG:HD2	30:0:170:U:OP2	2.05	0.56
30:0:2110:G:O2'	30:0:2111:G:H5'	2.05	0.56
30:0:2700:G:H3'	38:0:3575:HOH:O	2.05	0.56
30:0:2698:G:H2'	30:0:2699:A:O4'	2.05	0.56
30:0:1020:A:H2'	30:0:1021:G:C8	2.40	0.56
11:K:32:ILE:HD11	11:K:56:SER:HB2	1.86	0.56
30:0:2265:U:H2'	30:0:2266:A:C8	2.40	0.56
30:0:1183:C:N4	30:0:1184:C:H41	2.03	0.56
30:0:695:C:O2'	30:0:696:C:H5'	2.04	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:280:C:H2'	30:0:281:U:O4'	2.06	0.56
30:0:1616:A:H5''	30:0:1617:C:OP1	2.05	0.56
28:2:40:ARG:HG3	28:2:45:ASN:HB2	1.85	0.56
14:N:141:ARG:NH2	31:9:48:C:H4'	2.21	0.56
30:0:2011:A:H5'	30:0:2013:G:H1'	1.87	0.56
14:N:48:VAL:CG1	14:N:55:ASP:HB3	2.35	0.56
11:K:98:VAL:HG13	11:K:102:GLU:HA	1.85	0.56
30:0:947:U:O2'	30:0:948:G:H5'	2.05	0.56
29:3:34:LYS:HB3	38:3:9001:HOH:O	2.05	0.56
30:0:1948:G:O2'	30:0:1949:G:H5'	2.05	0.56
23:W:38:THR:O	23:W:42:ARG:HB2	2.04	0.56
30:0:1928:C:H2'	30:0:1929:G:O4'	2.05	0.56
13:M:171:ARG:NH2	30:0:189:A:OP1	2.38	0.56
8:H:49:GLN:NE2	8:H:140:TYR:HE2	1.95	0.56
15:O:24:ALA:HB3	30:0:710:G:OP1	2.05	0.56
2:B:17:LYS:O	2:B:260:HIS:HD2	1.88	0.56
30:0:1735:C:H2'	30:0:1736:A:C8	2.40	0.56
30:0:2659:U:H3'	38:0:4379:HOH:O	2.05	0.56
31:9:33:U:H2'	38:9:9068:HOH:O	2.04	0.56
17:Q:45:PRO:O	30:0:2365:G:H4'	2.06	0.56
30:0:162:C:H2'	30:0:163:U:H5'	1.87	0.56
13:M:68:ARG:HG3	30:0:1469:C:OP1	2.05	0.56
30:0:2349:G:H2'	30:0:2350:G:C8	2.38	0.56
30:0:2064:U:H4'	30:0:2653:A:OP1	2.05	0.56
30:0:2289:G:O2'	30:0:2290:U:H5'	2.06	0.56
30:0:26:U:H5	38:0:3099:HOH:O	1.89	0.56
30:0:1904:A:H2'	30:0:1905:U:O4'	2.05	0.56
29:3:65:THR:HG23	35:3:8804:CL:CL	2.43	0.56
30:0:2502:C:H2'	30:0:2503:A:C5'	2.34	0.56
30:0:1434:A:O2'	30:0:1435:U:H2'	2.05	0.56
2:B:223:ARG:HD3	35:B:8819:CL:CL	2.43	0.56
30:0:1042:U:O2'	30:0:1043:C:H5'	2.05	0.56
30:0:113:A:OP2	30:0:114:A:H2'	2.06	0.56
30:0:473:A:O2'	30:0:474:C:H5'	2.06	0.56
30:0:799:C:O2'	30:0:800:G:H5'	2.05	0.56
31:9:54:A:H2'	31:9:55:U:H5'	1.82	0.56
30:0:138:U:OP2	30:0:139:C:H5	1.88	0.56
26:Z:34:SER:HA	30:0:797:A:C4'	2.36	0.56
29:3:18:GLN:HB3	38:3:9013:HOH:O	2.06	0.56
30:0:2595:U:O2'	30:0:2596:A:H5'	2.05	0.56
30:0:1127:C:C5	30:0:1128:U:C4	2.94	0.56
25:Y:165:GLU:HB3	38:0:6689:HOH:O	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:27:ARG:NH2	12:L:30:ARG:HD3	2.21	0.56
16:P:127:GLY:HA3	38:P:152:HOH:O	2.05	0.56
2:B:199:TYR:HE2	2:B:268:ARG:HB2	1.71	0.56
30:0:2514:U:OP1	30:0:2572:G:H1'	2.04	0.56
13:M:24:GLN:HE22	13:M:27:ARG:HH11	1.53	0.56
21:U:56:ARG:HD2	30:0:2890:A:H1'	1.87	0.56
21:U:44:ARG:HD3	21:U:49:LEU:CD1	2.35	0.56
30:0:1292:G:HO2'	30:0:1293:U:H6	1.52	0.56
30:0:2241:C:O2'	30:0:2242:U:H5'	2.05	0.56
30:0:473:A:O2'	30:0:890:C:H5'	2.05	0.56
13:M:94:ARG:HD2	30:0:158:A:OP2	2.06	0.56
27:1:28:HIS:HE1	30:0:776:A:OP1	1.88	0.56
3:C:4:THR:HA	3:C:15:GLU:HB3	1.88	0.56
1:A:27:LEU:HD21	1:A:55:VAL:HG21	1.88	0.56
31:9:18:U:H2'	31:9:19:G:H8	1.71	0.56
30:0:1679:C:H5'	38:0:9332:HOH:O	2.06	0.56
30:0:1788:U:C2	30:0:1805:G:N2	2.73	0.56
30:0:2673:U:C4	30:0:2674:G:C6	2.94	0.56
15:O:47:ARG:HG3	15:O:47:ARG:HH11	1.71	0.56
30:0:1181:A:H2'	30:0:1182:C:O4'	2.06	0.56
30:0:2578:G:C8	30:0:2578:G:H5'	2.36	0.56
30:0:2911:C:H2'	30:0:2912:C:C6	2.42	0.56
21:U:23:HIS:CD2	21:U:27:ALA:HB3	2.40	0.56
31:9:49:G:H2'	31:9:50:G:O4'	2.06	0.56
30:0:2314:G:H2'	30:0:2315:C:H5'	1.87	0.56
3:C:174:ILE:HD11	30:0:338:C:H4'	1.89	0.56
30:0:1020:A:H2'	30:0:1021:G:H8	1.71	0.56
30:0:660:A:H4'	30:0:661:G:O5'	2.06	0.56
25:Y:142:SER:HB2	38:Y:8902:HOH:O	2.05	0.56
12:L:41:HIS:HD2	30:0:926:A:O2'	1.89	0.56
2:B:68:THR:HG21	21:U:16:GLY:HA3	1.87	0.56
30:0:1116:U:H3	30:0:1246:A:N6	1.96	0.55
30:0:558:C:C2'	30:0:559:U:C5'	2.68	0.55
1:A:47:HIS:HD2	30:0:1654:U:C2'	2.18	0.55
30:0:1878:G:C1'	38:0:6097:HOH:O	2.53	0.55
30:0:339:A:H2'	38:0:4203:HOH:O	2.06	0.55
30:0:2325:U:O2'	30:0:2411:C:H1'	2.06	0.55
30:0:2271:G:N3	30:0:2271:G:H2'	2.20	0.55
30:0:2852:A:H5''	38:0:5199:HOH:O	2.05	0.55
29:3:33:MET:HG2	30:0:1922:A:H2'	1.88	0.55
25:Y:99:ALA:HB2	25:Y:233:TYR:CZ	2.42	0.55
30:0:858:U:H2'	30:0:859:C:H6	1.71	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:684:G:H5''	38:0:4053:HOH:O	2.06	0.55
5:E:49:ILE:HD11	5:E:69:ILE:HD12	1.88	0.55
30:0:1613:C:H2'	30:0:1614:G:O4'	2.06	0.55
30:0:1183:C:H41	30:0:1192:A:H5'	1.72	0.55
30:0:1172:G:H1'	38:0:4940:HOH:O	2.05	0.55
23:W:52:VAL:HG22	23:W:53:ALA:N	2.20	0.55
30:0:1165:G:H21	30:0:1173:A:H5''	1.72	0.55
30:0:735:C:C6	30:0:736:A:C8	2.94	0.55
30:0:2113:G:C6	30:0:2114:C:C4	2.94	0.55
30:0:1512:G:O2'	30:0:1513:C:H5'	2.05	0.55
3:C:115:LEU:HD21	3:C:243:VAL:HG13	1.86	0.55
26:Z:44:ARG:HB2	30:0:1886:A:O2'	2.05	0.55
25:Y:210:GLY:HA2	38:0:5285:HOH:O	2.06	0.55
30:0:920:C:H5'	30:0:921:G:C4	2.41	0.55
30:0:2668:G:H2'	30:0:2669:U:C6	2.42	0.55
30:0:913:A:O5'	30:0:913:A:H8	1.90	0.55
3:C:1:MET:HG2	3:C:2:GLN:H	1.72	0.55
30:0:1625:U:C6	30:0:1625:U:C3'	2.85	0.55
29:3:59:ASP:HB3	29:3:63:LYS:HZ3	1.72	0.55
30:0:2250:G:N2	30:0:2251:G:H1'	2.21	0.55
7:G:16:LYS:HE2	7:G:63:ARG:NH1	2.21	0.55
24:X:76:ARG:HH11	24:X:76:ARG:HG3	1.72	0.55
2:B:229:ARG:NH2	30:0:1753:C:O2	2.39	0.55
30:0:310:U:H2'	30:0:311:C:C6	2.41	0.55
3:C:21:VAL:HG13	38:C:8594:HOH:O	2.05	0.55
30:0:1562:C:N4	38:0:5836:HOH:O	2.38	0.55
29:3:47:GLY:CA	30:0:2121:G:H4'	2.29	0.55
26:Z:63:CYS:SG	26:Z:81:CYS:CB	2.94	0.55
30:0:956:G:H3'	38:0:9387:HOH:O	2.06	0.55
30:0:1909:A:H2'	30:0:1910:A:C8	2.42	0.55
3:C:149:LYS:HB2	3:C:152:GLU:HG3	1.89	0.55
10:J:19:MET:HE1	10:J:132:LEU:HD21	1.87	0.55
38:Y:8879:HOH:O	30:0:1355:A:H5''	2.06	0.55
3:C:162:VAL:HG22	3:C:232:LEU:HD21	1.87	0.55
30:0:545:G:C5'	30:0:545:G:C8	2.81	0.55
30:0:822:C:C2	30:0:823:U:C5	2.94	0.55
30:0:212:A:O4'	30:0:214:U:C6	2.59	0.55
30:0:1736:A:H1'	38:0:7566:HOH:O	2.07	0.55
2:B:36:PRO:HA	2:B:168:GLY:CA	2.36	0.55
30:0:835:U:H3'	38:0:9381:HOH:O	2.06	0.55
30:0:571:C:O5'	30:0:571:C:H6	1.90	0.55
30:0:1691:A:H5''	38:0:3140:HOH:O	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:119:HIS:HD2	23:W:120:PRO:O	1.89	0.55
29:3:90:PHE:CD1	29:3:90:PHE:N	2.75	0.55
30:0:696:C:HO2'	30:0:697:G:H5'	1.71	0.55
31:9:59:C:C2	31:9:60:C:C5	2.94	0.55
30:0:401:C:H2'	30:0:402:U:H6	1.72	0.55
30:0:2868:C:H1'	38:0:7107:HOH:O	2.07	0.55
2:B:102:THR:HG21	2:B:182:VAL:O	2.07	0.55
13:M:111:ASN:HB2	38:M:8852:HOH:O	2.07	0.55
4:D:140:ARG:HG3	4:D:140:ARG:HH11	1.72	0.55
30:0:2274:A:H2'	30:0:2275:G:C8	2.42	0.55
30:0:1156:C:O2'	30:0:1157:C:H5'	2.07	0.55
30:0:1166:A:C6	30:0:1181:A:C2	2.95	0.55
30:0:1175:G:H2'	30:0:1176:C:C6	2.42	0.55
13:M:70:GLY:CA	30:0:2263:G:H4'	2.37	0.55
28:2:43:ARG:HH22	30:0:1684:A:C1'	2.16	0.55
30:0:1200:A:N1	30:0:1201:C:C2	2.75	0.55
30:0:291:C:H2'	30:0:292:G:O4'	2.07	0.55
5:E:132:THR:HB	38:E:2227:HOH:O	2.06	0.55
30:0:130:C:O2'	30:0:131:A:N7	2.39	0.55
19:S:37:VAL:O	19:S:41:VAL:HG23	2.05	0.55
30:0:2790:C:HO2'	30:0:2791:U:H6	1.55	0.55
30:0:2689:A:C2'	30:0:2690:U:H5'	2.37	0.55
30:0:1849:G:H1'	30:0:2011:A:N1	2.22	0.55
30:0:1905:U:H2'	30:0:1906:C:H6	1.72	0.55
5:E:118:ILE:HG23	5:E:144:THR:HG21	1.89	0.55
30:0:2584:G:H4'	38:0:7102:HOH:O	2.07	0.55
5:E:53:GLU:HB3	5:E:55:ASN:ND2	2.21	0.55
30:0:777:U:OP2	30:0:777:U:H4'	2.07	0.55
30:0:820:G:H5'	30:0:821:U:C5'	2.37	0.54
30:0:2782:G:N2	30:0:2783:A:N6	2.55	0.54
30:0:1377:C:H6	30:0:1377:C:C5'	2.20	0.54
14:N:110:THR:HB	14:N:113:SER:OG	2.07	0.54
1:A:76:VAL:HG23	26:Z:87:LYS:HB3	1.88	0.54
3:C:132:ASP:HB2	3:C:161:ASP:HB3	1.89	0.54
30:0:1903:U:O2'	30:0:1904:A:N7	2.40	0.54
3:C:2:GLN:HB3	38:C:8581:HOH:O	2.07	0.54
30:0:1909:A:N1	30:0:2128:G:H1'	2.22	0.54
30:0:690:G:H4'	30:0:741:C:O2	2.06	0.54
30:0:941:G:C5	30:0:942:U:C4	2.95	0.54
30:0:960:G:H8	38:0:5945:HOH:O	1.89	0.54
30:0:363:C:O2'	30:0:364:U:H5'	2.07	0.54
31:9:58:G:N7	31:9:59:C:C4	2.75	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:814:G:H2'	30:0:815:U:O4'	2.07	0.54
2:B:232:TRP:CZ3	30:0:2614:C:H5''	2.41	0.54
30:0:1593:C:H1'	38:0:6083:HOH:O	2.06	0.54
29:3:12:PRO:HG2	29:3:13:HIS:HD2	1.71	0.54
5:E:108:LEU:HD11	5:E:164:ASP:HB2	1.88	0.54
4:D:146:LYS:NZ	14:N:107:ASN:HD21	2.05	0.54
30:0:1175:G:H4'	38:0:6842:HOH:O	2.07	0.54
30:0:2032:U:C2'	30:0:2033:G:C5'	2.86	0.54
30:0:2032:U:C2'	30:0:2033:G:H5''	2.38	0.54
30:0:2524:G:H21	30:0:2526:C:H41	1.55	0.54
2:B:41:PHE:CE1	2:B:79:MET:HG3	2.43	0.54
27:1:28:HIS:HD2	27:1:30:LYS:H	1.53	0.54
14:N:114:LYS:O	14:N:118:ILE:HG13	2.07	0.54
30:0:2869:G:H5'	38:0:5457:HOH:O	2.07	0.54
30:0:1015:C:H4'	38:0:6566:HOH:O	2.06	0.54
14:N:130:PRO:HA	38:N:8837:HOH:O	2.06	0.54
2:B:140:LEU:HA	38:B:9051:HOH:O	2.05	0.54
9:I:78:ALA:HB2	9:I:95:LEU:HD21	1.89	0.54
31:9:27:C:H2'	31:9:28:U:O4'	2.08	0.54
13:M:59:GLY:HA3	13:M:141:ILE:HD12	1.90	0.54
30:0:1447:U:OP1	30:0:1506:U:N3	2.39	0.54
30:0:2281:C:C2'	30:0:2282:U:H5'	2.38	0.54
30:0:1876:C:H4'	30:0:1877:G:OP2	2.08	0.54
6:F:2:VAL:HG22	6:F:57:GLU:OE1	2.08	0.54
5:E:85:GLU:HG2	5:E:130:GLU:HG2	1.89	0.54
9:I:87:PRO:HD2	30:0:1180:U:H1'	1.89	0.54
15:O:19:ARG:HH22	30:0:1278:A:P	2.31	0.54
13:M:99:ARG:HE	13:M:170:ASN:ND2	1.96	0.54
31:9:36:C:C5	31:9:37:C:C5	2.96	0.54
1:A:223:ARG:NH1	30:0:2270:G:H4'	2.22	0.54
1:A:192:VAL:CG1	1:A:207:GLN:HB3	2.38	0.54
30:0:2477:C:O2'	30:0:2478:U:H5'	2.07	0.54
12:L:143:THR:HG22	12:L:144:ASP:N	2.22	0.54
9:I:91:PHE:CD2	9:I:131:GLY:HA2	2.42	0.54
30:0:1139:U:H2'	30:0:1140:C:H6	1.72	0.54
30:0:236:A:H4'	30:0:237:G:OP1	2.08	0.54
1:A:195:ASN:ND2	30:0:877:G:C8	2.76	0.54
30:0:2321:A:C4	30:0:2323:G:C8	2.95	0.54
30:0:963:C:O2	30:0:1005:A:N1	2.40	0.54
30:0:2831:C:H3'	38:0:7197:HOH:O	2.07	0.54
30:0:710:G:O2'	30:0:711:G:H5'	2.08	0.54
29:3:60:LYS:HB3	29:3:62:THR:O	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:67:ARG:O	12:L:71:GLU:HG3	2.08	0.54
30:0:1697:G:H5'	38:0:5475:HOH:O	2.08	0.54
30:0:2081:A:H2'	30:0:2082:G:O4'	2.08	0.54
30:0:312:U:C2	30:0:320:G:N2	2.76	0.54
30:0:2107:U:O2'	30:0:2108:A:H5'	2.07	0.54
17:Q:19:ARG:HH21	31:9:11:A:P	2.30	0.54
30:0:960:G:N3	30:0:960:G:C3'	2.71	0.54
30:0:1617:C:C5	30:0:1643:C:H4'	2.42	0.54
30:0:2892:G:C5	30:0:2893:C:C5	2.95	0.54
30:0:2078:U:H2'	30:0:2079:G:C8	2.42	0.54
30:0:661:G:C5	30:0:686:A:C2	2.96	0.54
30:0:461:C:N3	30:0:479:G:H5'	2.22	0.54
30:0:706:G:HO2'	30:0:707:C:H6	1.53	0.54
30:0:623:U:O2'	30:0:624:U:H5'	2.08	0.54
16:P:35:ILE:HD13	38:P:171:HOH:O	2.08	0.54
30:0:1175:G:H1'	30:0:1193:A:H2'	1.89	0.54
31:9:30:C:O2	31:9:30:C:H2'	2.08	0.54
30:0:2256:G:O2'	30:0:2257:G:H5'	2.08	0.54
30:0:1676:G:H1'	38:0:9441:HOH:O	2.08	0.54
2:B:62:ARG:HA	2:B:65:MET:HE3	1.88	0.54
30:0:2670:G:O2'	30:0:2671:U:H5'	2.08	0.54
18:R:99:ALA:HB1	18:R:109:MET:CE	2.37	0.54
30:0:2045:G:H5''	38:0:7204:HOH:O	2.06	0.54
30:0:1850:U:H2'	30:0:1851:G:H8	1.73	0.54
5:E:116:THR:HG22	5:E:151:LEU:HD22	1.90	0.54
4:D:135:VAL:HG21	4:D:139:TYR:CD1	2.43	0.54
27:1:16:HIS:HD2	30:0:470:U:O2'	1.91	0.54
15:O:19:ARG:HH11	30:0:1276:U:H3'	1.73	0.54
30:0:2908:A:H8	30:0:2908:A:O5'	1.91	0.54
30:0:1625:U:H5''	38:0:5995:HOH:O	2.07	0.54
13:M:164:THR:CG2	13:M:165:GLY:N	2.70	0.54
30:0:334:G:C4	30:0:335:U:C6	2.96	0.54
30:0:2787:C:H5	38:0:4605:HOH:O	1.90	0.54
30:0:2487:C:H5	38:0:4858:HOH:O	1.91	0.54
30:0:541:C:C2'	30:0:542:A:C5'	2.78	0.54
30:0:2831:C:H2'	30:0:2832:C:C5'	2.38	0.54
30:0:853:C:H2'	30:0:854:G:O4'	2.08	0.54
31:9:23:U:C2'	31:9:24:U:H4'	2.38	0.54
28:2:13:LYS:O	28:2:17:GLN:HG3	2.07	0.54
2:B:238:ASN:ND2	2:B:240:GLY:H	1.92	0.53
30:0:2599:A:H5''	38:0:3367:HOH:O	2.08	0.53
30:0:338:C:H5''	38:0:3793:HOH:O	2.07	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:179:MET:HG2	1:A:186:TRP:HB2	1.91	0.53
25:Y:97:LEU:HA	25:Y:234:VAL:O	2.08	0.53
30:0:2106:C:H2'	30:0:2107:U:C6	2.43	0.53
30:0:30:U:H5''	38:0:5777:HOH:O	2.08	0.53
14:N:132:ASN:HD22	30:0:2413:A:H4'	1.72	0.53
8:H:99:ARG:NH1	30:0:1055:G:OP2	2.41	0.53
30:0:1525:G:H5'	30:0:1526:A:OP2	2.08	0.53
30:0:354:A:H2'	30:0:355:C:H6	1.73	0.53
30:0:1453:G:H2'	30:0:1454:U:O4'	2.07	0.53
9:I:111:LEU:HD23	30:0:1163:G:H4'	1.90	0.53
30:0:2563:U:O2'	30:0:2564:G:H3'	2.08	0.53
30:0:2321:A:C5	30:0:2323:G:C8	2.96	0.53
30:0:2769:C:H2'	30:0:2770:G:C4'	2.37	0.53
16:P:7:LYS:HD3	16:P:21:VAL:CG2	2.38	0.53
30:0:2553:A:N3	30:0:2553:A:H2'	2.23	0.53
15:O:105:ASN:HD21	15:O:109:SER:H	1.56	0.53
30:0:2379:G:N3	30:0:2418:G:H2'	2.22	0.53
30:0:1268:C:H2'	30:0:1269:G:H8	1.73	0.53
31:9:73:A:H61	31:9:108:C:H42	1.57	0.53
2:B:212:GLN:HA	30:0:1733:A:H4'	1.89	0.53
30:0:1226:G:C4	30:0:1227:C:C5	2.96	0.53
1:A:33:GLU:O	1:A:34:ASP:HB2	2.08	0.53
23:W:35:VAL:HG23	23:W:41:TYR:CD2	2.43	0.53
18:R:25:PHE:HB3	38:R:8914:HOH:O	2.07	0.53
30:0:1311:G:C2	30:0:1312:G:C8	2.97	0.53
30:0:421:C:H2'	30:0:422:G:H8	1.74	0.53
30:0:2465:A:H5'	38:0:6910:HOH:O	2.07	0.53
30:0:2703:A:H2'	30:0:2704:C:C6	2.40	0.53
31:9:114:G:H2'	31:9:115:C:C6	2.43	0.53
30:0:869:G:OP2	30:0:869:G:C8	2.62	0.53
1:A:20:SER:HB3	30:0:1872:C:C5	2.44	0.53
30:0:1754:A:H2'	30:0:1755:A:O4'	2.09	0.53
30:0:491:C:O2'	30:0:492:C:H5'	2.09	0.53
12:L:11:ARG:O	30:0:903:U:C2	2.61	0.53
23:W:5:VAL:HG22	23:W:32:CYS:HB2	1.91	0.53
8:H:49:GLN:HG3	8:H:140:TYR:CE2	2.43	0.53
30:0:2831:C:C2	30:0:2910:A:C2	2.96	0.53
30:0:1741:U:C4	30:0:2033:G:C8	2.96	0.53
30:0:718:C:C2'	30:0:718:C:O2	2.55	0.53
30:0:597:A:O2'	30:0:598:C:H5'	2.08	0.53
30:0:2895:C:H2'	38:0:9579:HOH:O	2.08	0.53
30:0:213:G:H22	30:0:225:G:H2'	1.72	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2119:C:C2'	30:0:2120:U:H5'	2.38	0.53
30:0:549:A:C2	30:0:550:C:C2	2.97	0.53
30:0:1271:A:H2'	30:0:1272:C:C6	2.43	0.53
30:0:1762:C:O2'	30:0:1763:C:H5'	2.08	0.53
16:P:71:TYR:CE2	30:0:1790:C:H5	2.26	0.53
30:0:1278:A:C4'	30:0:1279:U:C4	2.74	0.53
29:3:68:LYS:HZ1	30:0:2436:U:H5'	1.73	0.53
31:9:58:G:C8	31:9:59:C:C5	2.97	0.53
30:0:2321:A:H2'	30:0:2321:A:N3	2.24	0.53
21:U:56:ARG:CD	30:0:2890:A:H1'	2.38	0.53
30:0:2078:U:H2'	30:0:2079:G:H8	1.74	0.53
30:0:466:A:H2'	30:0:467:G:O4'	2.08	0.53
30:0:2501:G:H1	30:0:2519:C:H42	1.56	0.53
30:0:535:G:C5	30:0:2063:U:C4	2.96	0.53
11:K:89:LYS:HA	38:K:7064:HOH:O	2.08	0.53
8:H:69:ARG:HD3	38:H:239:HOH:O	2.08	0.53
30:0:2321:A:H4'	30:0:2322:U:OP1	2.08	0.53
30:0:1806:G:C5	30:0:1807:U:C5	2.97	0.53
30:0:1972:U:O2'	30:0:1973:A:H5''	2.09	0.53
30:0:1706:G:C6	30:0:1707:G:C6	2.97	0.53
14:N:11:ARG:HG3	14:N:14:ARG:NH1	2.23	0.53
30:0:1819:G:H5'	38:0:5785:HOH:O	2.07	0.53
29:3:31:THR:O	30:0:1923:G:H4'	2.09	0.53
30:0:195:C:H2'	30:0:196:G:H5'	1.91	0.53
2:B:305:ASP:O	2:B:306:LYS:HB2	2.09	0.53
30:0:561:G:N3	30:0:562:A:C8	2.77	0.53
30:0:398:U:H2'	30:0:399:C:C6	2.44	0.53
30:0:1167:G:H2'	30:0:1168:C:H6	1.71	0.53
30:0:191:A:H61	30:0:435:A:N6	2.06	0.53
30:0:2864:U:C2'	30:0:2865:G:H5'	2.38	0.53
1:A:199:HIS:HD2	1:A:201:PHE:N	2.00	0.53
11:K:41:LYS:O	11:K:42:ASN:HB2	2.09	0.53
30:0:69:A:H2'	30:0:70:A:OP2	2.09	0.53
30:0:2613:G:O2'	30:0:2614:C:H5'	2.09	0.53
30:0:735:C:C5	30:0:736:A:C5	2.97	0.53
10:J:39:VAL:HG22	10:J:107:ASN:HA	1.91	0.53
1:A:164:ARG:HB3	1:A:164:ARG:HH11	1.73	0.53
25:Y:154:ARG:NH2	30:0:1071:G:H4'	2.23	0.53
30:0:2250:G:C2	30:0:2251:G:H1'	2.44	0.53
13:M:179:GLY:O	30:0:399:C:H5'	2.08	0.53
23:W:154:ARG:NH1	30:0:588:G:O6	2.40	0.53
22:V:44:GLY:O	22:V:48:GLU:HG2	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1769:C:O2'	30:0:1770:U:H5'	2.09	0.53
2:B:141:ARG:HD2	2:B:163:GLU:OE2	2.08	0.53
14:N:154:LEU:C	14:N:156:GLU:H	2.11	0.53
30:0:424:C:H2'	30:0:425:U:C6	2.44	0.53
13:M:187:LEU:CD2	13:M:194:GLY:HA3	2.38	0.53
30:0:1158:G:C2'	30:0:1159:G:H5'	2.39	0.53
16:P:115:SER:OG	16:P:118:GLN:HG3	2.08	0.53
30:0:2336:G:H2'	38:0:6275:HOH:O	2.09	0.53
30:0:334:G:H2'	30:0:335:U:O4'	2.08	0.53
30:0:1922:A:N1	30:0:2449:G:O2'	2.38	0.53
2:B:62:ARG:HA	2:B:65:MET:CE	2.38	0.53
30:0:1913:C:H2'	30:0:1914:C:H6	1.73	0.53
8:H:6:ALA:HA	8:H:61:ARG:HH12	1.74	0.53
30:0:1968:A:H2'	30:0:1969:A:C8	2.44	0.53
10:J:41:ALA:HB3	38:J:8863:HOH:O	2.09	0.53
30:0:1844:C:O2'	30:0:1845:A:H5'	2.08	0.53
30:0:74:G:H1	30:0:103:C:H42	1.55	0.53
14:N:38:LYS:HE2	14:N:107:ASN:ND2	2.24	0.53
9:I:108:HIS:H	9:I:109:PRO:HD2	1.74	0.53
30:0:2642:G:H2'	30:0:2643:G:O4'	2.09	0.53
30:0:1188:A:C6	30:0:1189:A:C6	2.97	0.52
31:9:20:G:O2'	31:9:21:G:H5'	2.09	0.52
30:0:1244:U:H4'	30:0:1246:A:O4'	2.09	0.52
31:9:58:G:C6	31:9:59:C:C2	2.97	0.52
30:0:2037:C:H3'	38:0:6684:HOH:O	2.09	0.52
31:9:37:C:O2	31:9:47:A:H1'	2.09	0.52
1:A:45:ILE:HG22	26:Z:78:ILE:HG12	1.89	0.52
8:H:26:ILE:HA	8:H:123:ILE:HG21	1.91	0.52
30:0:1014:A:H2'	30:0:1015:C:H5'	1.90	0.52
8:H:159:LYS:HG2	30:0:2519:C:O2	2.09	0.52
1:A:105:VAL:HG13	1:A:155:THR:O	2.09	0.52
30:0:488:U:H2'	38:0:3993:HOH:O	2.08	0.52
30:0:216:A:O2'	30:0:217:C:H5'	2.09	0.52
30:0:1451:C:H5'	30:0:1505:U:C5	2.44	0.52
30:0:2719:A:H2'	30:0:2720:C:H5'	1.90	0.52
23:W:4:LEU:HD22	23:W:54:PHE:HB3	1.90	0.52
30:0:675:U:H2'	30:0:676:C:H5'	1.90	0.52
30:0:1164:U:H5	38:0:6024:HOH:O	1.91	0.52
15:O:25:VAL:HG13	30:0:709:G:O3'	2.10	0.52
31:9:1:U:C4'	31:9:3:A:OP1	2.58	0.52
13:M:73:ARG:HH21	30:0:2263:G:H5''	1.70	0.52
30:0:1684:A:O2'	30:0:1685:A:H5''	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:24:GLN:NE2	13:M:27:ARG:HH11	2.07	0.52
30:0:271:C:C2	30:0:273:G:O4'	2.61	0.52
30:0:2901:C:H6	30:0:2901:C:O5'	1.93	0.52
3:C:43:LYS:HG2	30:0:449:A:N7	2.24	0.52
19:S:33:SER:O	19:S:37:VAL:HG23	2.10	0.52
30:0:622:G:O2'	30:0:623:U:H5'	2.10	0.52
30:0:1557:G:O2'	30:0:1558:C:H5'	2.09	0.52
30:0:125:U:H2'	38:0:3760:HOH:O	2.10	0.52
30:0:1515:A:H2'	30:0:1516:U:C6	2.44	0.52
5:E:126:ILE:HA	5:E:131:LEU:HD23	1.91	0.52
30:0:2320:U:H4'	30:0:2321:A:O4'	2.09	0.52
20:T:26:THR:HG23	20:T:97:ARG:HG3	1.90	0.52
30:0:2783:A:O2'	30:0:2784:A:H5'	2.09	0.52
30:0:249:G:N2	30:0:250:C:C2	2.77	0.52
30:0:40:C:H6	30:0:40:C:O5'	1.93	0.52
28:2:49:GLU:HB2	38:2:131:HOH:O	2.08	0.52
11:K:66:ARG:HH12	30:0:1992:U:H3'	1.75	0.52
31:9:38:A:C2	31:9:39:U:C4	2.97	0.52
30:0:2407:G:H2'	30:0:2408:A:O4'	2.09	0.52
30:0:1664:A:OP1	30:0:1664:A:H8	1.92	0.52
30:0:1865:A:H2'	30:0:1866:A:C8	2.44	0.52
30:0:24:G:N2	30:0:518:G:H1'	2.24	0.52
23:W:130:HIS:NE2	31:9:88:G:OP1	2.42	0.52
30:0:1359:U:O5'	30:0:1360:C:H5''	2.10	0.52
30:0:204:A:C2'	30:0:205:U:H5'	2.39	0.52
29:3:68:LYS:HG2	29:3:77:ALA:HB3	1.91	0.52
14:N:55:ASP:OD2	31:9:7:G:H4'	2.09	0.52
13:M:81:ARG:HB3	13:M:86:GLN:HG2	1.91	0.52
30:0:1590:A:C2	30:0:1606:A:H1'	2.44	0.52
30:0:916:A:C2	30:0:928:G:N3	2.78	0.52
2:B:226:LYS:HG2	2:B:230:GLN:NE2	2.25	0.52
6:F:53:ASP:OD1	6:F:80:GLN:HB2	2.10	0.52
30:0:1180:U:O2'	30:0:1181:A:H5'	2.10	0.52
30:0:1641:A:C2'	30:0:1642:A:H5'	2.40	0.52
18:R:132:ARG:HH22	30:0:2055:A:H4'	1.74	0.52
31:9:49:G:O2'	31:9:50:G:H5'	2.08	0.52
5:E:153:ARG:HH12	30:0:2778:A:C1'	2.22	0.52
30:0:1139:U:H2'	30:0:1140:C:C6	2.45	0.52
30:0:1649:G:H1'	38:0:5498:HOH:O	2.09	0.52
4:D:18:ILE:HD13	4:D:84:LEU:HD12	1.91	0.52
20:T:106:GLU:HG3	38:T:4913:HOH:O	2.09	0.52
1:A:66:ARG:HH11	1:A:66:ARG:HB2	1.74	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:R:111:ILE:HG23	18:R:145:LEU:HD11	1.90	0.52
30:0:1087:G:O2'	35:0:8822:CL:CL	2.55	0.52
30:0:1886:A:H4'	38:0:9333:HOH:O	2.09	0.52
31:9:58:G:C5	31:9:59:C:C2	2.98	0.52
28:2:18:ASN:HD21	28:2:40:ARG:HB3	1.74	0.52
30:0:1890:U:H4'	30:0:2010:A:C6	2.44	0.52
2:B:223:ARG:HG3	2:B:232:TRP:O	2.10	0.52
30:0:2526:C:C6	30:0:2526:C:C3'	2.93	0.52
30:0:228:C:C2'	30:0:229:G:H5'	2.40	0.52
30:0:1930:A:H2'	30:0:1931:A:C8	2.44	0.52
30:0:2041:G:O2'	30:0:2042:U:H5'	2.10	0.52
30:0:1052:G:H2'	30:0:1052:G:N3	2.24	0.52
25:Y:132:ASP:OD2	30:0:621:C:H5'	2.10	0.52
38:I:1549:HOH:O	30:0:1180:U:H1'	2.10	0.52
30:0:506:G:N2	30:0:509:A:H5''	2.18	0.52
30:0:2637:A:C5'	38:0:4897:HOH:O	2.55	0.52
30:0:2651:C:H2'	30:0:2652:U:O4'	2.10	0.52
30:0:595:U:H3'	38:0:6474:HOH:O	2.09	0.52
30:0:734:U:O2'	30:0:736:A:N7	2.33	0.52
30:0:800:G:H2'	30:0:801:U:C6	2.45	0.52
27:1:11:LYS:HG2	30:0:777:U:O2'	2.10	0.52
18:R:18:LEU:HB2	18:R:143:VAL:HG13	1.91	0.52
31:9:34:A:H2'	31:9:35:C:O4'	2.10	0.52
30:0:1183:C:C4	30:0:1184:C:N4	2.78	0.52
30:0:1522:A:C2'	30:0:1523:G:H5'	2.40	0.52
30:0:615:G:H2'	30:0:616:U:C6	2.44	0.52
30:0:793:A:C5	30:0:794:U:C5	2.98	0.52
6:F:91:VAL:HG12	6:F:92:GLY:N	2.20	0.52
30:0:2672:C:H2'	30:0:2673:U:H6	1.74	0.52
7:G:63:ARG:O	7:G:67:LEU:HG	2.10	0.52
2:B:243:ASN:HB2	30:0:2607:U:OP2	2.10	0.52
30:0:599:G:H2'	30:0:600:G:H8	1.74	0.52
12:L:73:VAL:HG23	12:L:74:THR:H	1.75	0.52
29:3:4:PRO:HA	29:3:91:GLN:O	2.09	0.52
13:M:73:ARG:HD2	13:M:73:ARG:N	2.25	0.52
30:0:308:U:C4	30:0:342:C:H1'	2.45	0.52
30:0:818:A:C6	30:0:819:A:N1	2.78	0.52
30:0:1504:A:H5'	38:0:4396:HOH:O	2.10	0.52
30:0:1422:U:H2'	30:0:1423:C:H6	1.72	0.52
30:0:2088:C:H2'	30:0:2089:A:C8	2.44	0.52
30:0:1154:A:H2'	30:0:1155:G:C8	2.44	0.52
30:0:1175:G:N7	30:0:1176:C:C4	2.78	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1191:A:C2'	30:0:1193:A:H5'	2.38	0.51
30:0:818:A:C6	30:0:819:A:C2	2.98	0.51
24:X:49:ARG:HD3	24:X:84:ILE:HG12	1.92	0.51
30:0:2872:U:H2'	30:0:2873:C:H6	1.76	0.51
30:0:1743:G:H2'	30:0:1744:G:O4'	2.10	0.51
30:0:1309:U:O2'	30:0:1310:U:H5'	2.10	0.51
13:M:43:PRO:HG3	13:M:62:VAL:HG21	1.91	0.51
12:L:78:ALA:HB3	38:L:8860:HOH:O	2.11	0.51
20:T:52:ARG:HH12	30:0:308:U:H2'	1.75	0.51
26:Z:38:PHE:HB3	26:Z:42:TYR:CE1	2.46	0.51
30:0:1395:C:H2'	30:0:1396:C:C6	2.46	0.51
30:0:2900:G:H2'	30:0:2901:C:O4'	2.10	0.51
14:N:7:LYS:HE3	17:Q:21:ARG:O	2.09	0.51
30:0:395:A:H2'	30:0:397:A:H62	1.74	0.51
30:0:2498:C:O2'	30:0:2499:U:H5'	2.10	0.51
2:B:144:THR:HB	38:B:9096:HOH:O	2.10	0.51
17:Q:87:THR:HB	38:Q:1295:HOH:O	2.10	0.51
30:0:1667:A:H8	30:0:1667:A:H5'	1.75	0.51
30:0:20:G:H5''	30:0:510:U:O4	2.09	0.51
30:0:1992:U:H2'	30:0:1994:A:OP2	2.10	0.51
25:Y:205:ILE:HB	25:Y:230:ASN:HD21	1.75	0.51
30:0:2544:G:H5'	38:0:3418:HOH:O	2.10	0.51
30:0:1641:A:H2'	30:0:1642:A:C5'	2.40	0.51
30:0:2032:U:H2'	30:0:2033:G:H5''	1.92	0.51
30:0:2614:C:O2'	30:0:2615:U:H5'	2.10	0.51
29:3:54:LYS:HE2	30:0:2468:A:C8	2.45	0.51
9:I:120:ALA:O	9:I:124:VAL:HG23	2.09	0.51
30:0:1160:G:H2'	38:0:5597:HOH:O	2.11	0.51
30:0:1167:G:H2'	30:0:1168:C:O4'	2.11	0.51
31:9:56:A:H3'	31:9:57:A:H5''	1.89	0.51
30:0:1395:C:H2'	30:0:1396:C:H6	1.76	0.51
15:O:65:LEU:HD13	30:0:746:A:C6	2.45	0.51
1:A:175:LYS:HE2	35:A:8809:CL:CL	2.48	0.51
10:J:21:ARG:HH21	30:0:1244:U:H5''	1.76	0.51
31:9:58:G:H3'	31:9:59:C:C5	2.45	0.51
3:C:127:ARG:HD3	3:C:129:HIS:CE1	2.45	0.51
30:0:2846:C:H3'	38:0:7070:HOH:O	2.11	0.51
30:0:254:C:C2'	30:0:254:C:O2	2.57	0.51
30:0:2700:G:O2'	30:0:2701:G:H5'	2.09	0.51
30:0:702:G:C2	30:0:703:G:C8	2.98	0.51
30:0:2851:G:H2'	30:0:2902:A:N6	2.26	0.51
30:0:660:A:N6	30:0:746:A:O4'	2.43	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:Q:7:LEU:HD12	30:0:2424:U:H1'	1.93	0.51
11:K:91:GLU:HG3	38:U:151:HOH:O	2.11	0.51
5:E:137:ASP:OD1	5:E:139:GLU:HB2	2.11	0.51
30:0:2032:U:H2'	30:0:2033:G:H5'	1.93	0.51
30:0:37:A:H2'	30:0:38:G:C8	2.46	0.51
24:X:56:GLU:HG2	30:0:1400:C:H4'	1.92	0.51
29:3:40:ARG:HA	29:3:52:PHE:HE1	1.73	0.51
2:B:234:ARG:HG3	30:0:1735:C:OP2	2.11	0.51
30:0:1947:G:N2	30:0:1966:U:C2	2.79	0.51
30:0:1019:C:O2'	30:0:1020:A:H5'	2.11	0.51
29:3:83:TRP:NE1	30:0:2380:A:H2	2.09	0.51
30:0:2719:A:C2'	30:0:2720:C:H5'	2.41	0.51
8:H:114:ASP:HA	38:H:204:HOH:O	2.11	0.51
30:0:128:A:O2'	30:0:129:A:H5'	2.10	0.51
17:Q:94:GLN:O	17:Q:95:GLU:HB2	2.11	0.51
30:0:633:C:O2'	30:0:634:G:H5'	2.10	0.51
15:O:37:ARG:HD2	30:0:656:G:OP2	2.11	0.51
20:T:32:ARG:NH1	20:T:38:ARG:NH1	2.58	0.51
30:0:822:C:N3	30:0:823:U:C5	2.79	0.51
6:F:91:VAL:HG11	30:0:262:A:OP2	2.10	0.51
30:0:2689:A:H2'	30:0:2690:U:H5'	1.92	0.51
7:G:64:ASN:HD22	7:G:64:ASN:H	1.58	0.51
26:Z:78:ILE:HD12	38:Z:8715:HOH:O	2.11	0.51
26:Z:53:ILE:HG23	38:Z:8719:HOH:O	2.10	0.51
6:F:36:THR:HG23	6:F:97:ALA:HB2	1.93	0.51
13:M:28:GLN:O	13:M:32:ARG:HG3	2.10	0.51
30:0:727:G:H3'	30:0:728:C:C6	2.45	0.51
3:C:149:LYS:HE3	38:0:4023:HOH:O	2.10	0.51
30:0:2047:C:H5'	38:0:9814:HOH:O	2.10	0.51
30:0:210:U:O2'	30:0:211:U:H5'	2.11	0.51
3:C:219:ASN:O	3:C:222:ASP:HB2	2.11	0.51
30:0:1236:A:O2'	30:0:1237:U:H5'	2.11	0.51
30:0:2456:A:O2'	30:0:2457:U:H5'	2.10	0.51
30:0:2712:G:C5'	38:0:5187:HOH:O	2.58	0.51
30:0:1890:U:H1'	30:0:2013:G:N2	2.26	0.51
11:K:66:ARG:NH2	30:0:1994:A:OP1	2.44	0.51
30:0:2589:U:H2'	30:0:2590:U:C6	2.46	0.51
16:P:128:GLY:HA3	30:0:801:U:O4'	2.11	0.51
8:H:61:ARG:HH11	8:H:61:ARG:HG3	1.75	0.51
25:Y:127:GLN:HA	38:Y:8909:HOH:O	2.11	0.51
30:0:523:C:H2'	30:0:524:A:C8	2.46	0.51
24:X:61:ARG:O	30:0:2744:G:H5''	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1186:C:N4	30:0:1187:U:C4	2.79	0.51
29:3:22:VAL:HG12	29:3:90:PHE:CE2	2.46	0.51
16:P:118:GLN:O	16:P:122:LEU:HG	2.11	0.51
30:0:39:G:C2	30:0:444:C:C2	2.99	0.51
30:0:2526:C:O2'	30:0:2527:U:H5'	2.10	0.51
30:0:255:A:H2'	30:0:256:C:C6	2.46	0.51
30:0:1819:G:H2'	30:0:1820:G:C5'	2.41	0.51
2:B:80:ARG:HB2	2:B:145:HIS:CE1	2.45	0.51
30:0:1568:G:H2'	30:0:1569:U:O4'	2.10	0.51
30:0:617:C:H2'	30:0:618:G:O4'	2.11	0.51
8:H:31:ILE:HD11	8:H:65:LEU:HB3	1.93	0.51
9:I:83:GLY:HA3	30:0:1168:C:H5'	1.93	0.50
30:0:553:G:O4'	30:0:1325:G:H5'	2.10	0.50
30:0:1642:A:C8	30:0:1643:C:C5	2.99	0.50
22:V:12:THR:HG23	22:V:14:ALA:H	1.76	0.50
30:0:1805:G:O2'	30:0:1806:G:H5'	2.11	0.50
30:0:1226:G:C5	30:0:1227:C:C5	2.99	0.50
11:K:97:ILE:HG22	11:K:98:VAL:N	2.25	0.50
7:G:20:VAL:O	7:G:24:VAL:HG23	2.11	0.50
30:0:2587:OMU:H2'	30:0:2589:U:H5''	1.93	0.50
30:0:1511:U:O2'	30:0:1512:G:H5'	2.11	0.50
30:0:560:U:H2'	30:0:561:G:H8	1.75	0.50
26:Z:102:THR:HG23	26:Z:105:ARG:HD2	1.93	0.50
2:B:71:VAL:HG21	2:B:296:LEU:HB3	1.92	0.50
30:0:1796:A:H8	30:0:1796:A:O5'	1.94	0.50
30:0:1441:G:O2'	30:0:1442:A:H5'	2.11	0.50
30:0:1167:G:N2	30:0:1180:U:C2	2.79	0.50
3:C:127:ARG:HH21	3:C:225:PRO:HG2	1.71	0.50
30:0:2847:G:O2'	30:0:2848:G:H5'	2.11	0.50
30:0:2672:C:C2	30:0:2673:U:C6	3.00	0.50
25:Y:210:GLY:N	30:0:1313:A:H5''	2.27	0.50
30:0:2087:C:O2'	30:0:2088:C:H5'	2.11	0.50
30:0:134:U:O2	30:0:145:A:C2	2.63	0.50
3:C:193:LEU:HA	3:C:211:ASP:O	2.10	0.50
3:C:236:THR:HG22	3:C:239:ALA:CB	2.41	0.50
30:0:2899:A:O2'	30:0:2900:G:H5'	2.12	0.50
30:0:1216:G:N2	30:0:1217:G:H1'	2.26	0.50
30:0:1735:C:H2'	30:0:1736:A:H8	1.75	0.50
27:1:16:HIS:CD2	30:0:470:U:O2'	2.64	0.50
30:0:1087:G:H4'	30:0:1088:A:OP1	2.12	0.50
30:0:523:C:H2'	30:0:524:A:H8	1.76	0.50
30:0:1461:U:H2'	30:0:1462:C:C6	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:876:A:N3	30:0:876:A:H2'	2.26	0.50
29:3:29:ARG:HA	38:3:9012:HOH:O	2.11	0.50
5:E:7:ILE:HG13	5:E:11:VAL:HB	1.93	0.50
2:B:248:ARG:O	2:B:251:VAL:HG22	2.11	0.50
21:U:35:LYS:HA	30:0:2755:G:OP1	2.11	0.50
30:0:1181:A:H2'	30:0:1182:C:C5'	2.41	0.50
30:0:2564:G:OP2	30:0:2565:C:H5''	2.11	0.50
30:0:1522:A:H2'	30:0:1523:G:H5'	1.92	0.50
30:0:1474:C:H6	30:0:1474:C:C5'	2.17	0.50
30:0:40:C:H2'	30:0:41:G:C8	2.46	0.50
30:0:2635:A:HO2'	30:0:2636:C:H5'	1.76	0.50
10:J:107:ASN:C	10:J:107:ASN:HD22	2.15	0.50
29:3:10:TYR:CE1	30:0:2408:A:H1'	2.46	0.50
29:3:10:TYR:HB2	29:3:17:HIS:HE1	1.76	0.50
30:0:1463:U:H2'	30:0:1464:C:C6	2.47	0.50
12:L:65:ASP:HA	12:L:109:LEU:O	2.11	0.50
30:0:1811:A:C2	30:0:2752:C:H1'	2.46	0.50
30:0:1187:U:O2'	30:0:1189:A:H2	1.94	0.50
13:M:71:SER:HB2	13:M:92:THR:CG2	2.35	0.50
2:B:235:ARG:HH11	30:0:2092:G:P	2.33	0.50
30:0:1149:U:C5	30:0:1215:A:C5	3.00	0.50
7:G:16:LYS:O	7:G:20:VAL:HG23	2.11	0.50
30:0:73:U:H2'	30:0:74:G:C8	2.46	0.50
30:0:1015:C:O5'	30:0:1015:C:H6	1.94	0.50
17:Q:95:GLU:HA	30:0:949:U:H4'	1.94	0.50
30:0:105:G:O2'	30:0:106:A:H5'	2.11	0.50
14:N:37:ARG:NH1	31:9:6:C:OP1	2.44	0.50
30:0:2506:A:C1'	38:0:6031:HOH:O	2.58	0.50
16:P:114:LEU:HD22	16:P:118:GLN:HB3	1.93	0.50
30:0:372:A:C2	30:0:373:G:C4	2.99	0.50
30:0:819:A:C4	30:0:821:U:C5	3.00	0.50
30:0:119:A:H2'	30:0:120:A:C5'	2.42	0.50
30:0:2295:G:N3	30:0:2361:A:C2	2.80	0.50
30:0:556:C:O2'	30:0:557:C:H5'	2.11	0.50
30:0:738:G:O5'	30:0:738:G:H8	1.95	0.50
30:0:2344:G:N3	30:0:2344:G:H2'	2.26	0.50
8:H:59:GLN:NE2	8:H:129:ARG:HE	2.10	0.50
30:0:929:A:H5''	38:0:7060:HOH:O	2.11	0.50
38:B:8995:HOH:O	30:0:2093:G:H5''	2.11	0.50
16:P:135:ALA:O	16:P:139:ARG:HG3	2.11	0.50
30:0:451:C:O2'	30:0:452:G:H5'	2.12	0.50
29:3:3:MET:O	29:3:90:PHE:HA	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1666:C:H42	30:0:1667:A:N6	2.10	0.50
31:9:75:G:N2	31:9:106:U:O2	2.36	0.50
31:9:92:G:H2'	31:9:93:A:H8	1.73	0.50
26:Z:42:TYR:N	30:0:1829:A:H61	2.10	0.50
30:0:2415:A:C2'	30:0:2416:G:H5'	2.40	0.50
30:0:69:A:C5'	30:0:69:A:H8	2.24	0.50
30:0:716:G:C6	30:0:717:C:N4	2.80	0.50
30:0:2823:G:O2'	30:0:2824:C:H5'	2.12	0.50
30:0:10:U:O4	30:0:532:A:H8	1.95	0.50
1:A:132:ASP:CG	1:A:133:ARG:H	2.15	0.50
1:A:178:LYS:HA	30:0:1653:A:H5'	1.94	0.50
30:0:2803:C:H2'	30:0:2804:C:H6	1.77	0.50
30:0:79:G:N2	30:0:97:G:H1'	2.26	0.50
30:0:1705:C:O2	30:0:2735:U:H5''	2.11	0.50
30:0:282:C:O2'	30:0:283:U:C4'	2.60	0.50
22:V:56:ILE:O	22:V:60:GLN:HG3	2.12	0.50
13:M:77:HIS:CE1	13:M:86:GLN:HG2	2.47	0.50
13:M:82:ARG:HH22	13:M:85:ARG:NH2	2.08	0.50
30:0:1878:G:C4'	38:0:6097:HOH:O	2.60	0.50
31:9:23:U:H2'	31:9:23:U:O2	2.12	0.50
30:0:74:G:H1	30:0:103:C:N4	2.10	0.50
29:3:10:TYR:HB2	29:3:17:HIS:CE1	2.47	0.50
14:N:38:LYS:HE2	14:N:107:ASN:HD21	1.75	0.50
1:A:100:PRO:HG2	1:A:103:VAL:HG21	1.94	0.50
30:0:764:C:H2'	30:0:765:G:O4'	2.12	0.50
30:0:59:A:C5'	38:0:4313:HOH:O	2.60	0.50
3:C:22:PHE:HA	3:C:116:ALA:HA	1.94	0.50
29:3:3:MET:SD	29:3:88:LEU:HD23	2.52	0.50
1:A:141:PRO:HG2	30:0:1855:G:O6	2.12	0.50
30:0:814:G:H2'	30:0:815:U:H6	1.77	0.50
20:T:71:VAL:HG11	20:T:90:PRO:CB	2.38	0.50
2:B:18:ARG:HG3	2:B:256:GLN:HG3	1.93	0.50
30:0:2253:G:O2'	30:0:2254:G:H5'	2.11	0.50
23:W:6:GLN:CB	23:W:26:ILE:HD11	2.40	0.50
31:9:42:C:H5'	31:9:43:G:OP2	2.12	0.50
12:L:24:ALA:HB2	12:L:30:ARG:HE	1.76	0.50
30:0:2465:A:H3'	38:0:3637:HOH:O	2.12	0.50
30:0:561:G:C2	30:0:562:A:C8	3.00	0.50
23:W:130:HIS:O	23:W:136:GLY:HA3	2.12	0.50
3:C:101:ASP:HB2	30:0:750:A:O3'	2.12	0.50
13:M:145:ASP:HB2	38:M:8865:HOH:O	2.11	0.50
24:X:26:ALA:HB2	24:X:63:ARG:HA	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:9:28:U:O2	31:9:57:A:N6	2.44	0.49
13:M:159:VAL:CG1	35:M:8818:CL:CL	2.95	0.49
30:0:1165:G:H21	30:0:1173:A:H5'	1.74	0.49
4:D:58:VAL:CG1	4:D:60:GLU:HG2	2.41	0.49
30:0:952:G:N3	30:0:2302:A:H2'	2.26	0.49
31:9:39:U:H1'	31:9:44:A:H61	1.77	0.49
30:0:47:G:N3	30:0:114:A:C2	2.80	0.49
30:0:1268:C:H2'	30:0:1269:G:C8	2.46	0.49
30:0:2854:A:C6	30:0:2905:A:C6	3.00	0.49
2:B:66:GLU:OE1	2:B:328:ARG:HD2	2.12	0.49
30:0:1933:G:O2'	30:0:1934:A:H5'	2.12	0.49
30:0:1393:A:H2'	30:0:1394:C:C6	2.47	0.49
30:0:1601:G:H1'	38:0:9891:HOH:O	2.11	0.49
16:P:87:ARG:HG2	38:0:5919:HOH:O	2.10	0.49
31:9:55:U:H4'	31:9:56:A:H8	1.71	0.49
30:0:1226:G:H2'	30:0:1227:C:C6	2.44	0.49
30:0:1662:C:H6	30:0:1662:C:O5'	1.94	0.49
29:3:60:LYS:C	29:3:62:THR:H	2.15	0.49
30:0:589:U:H2'	30:0:590:A:H8	1.76	0.49
30:0:134:U:C2	30:0:145:A:C2	2.99	0.49
30:0:1902:G:N2	30:0:1936:C:C2	2.80	0.49
8:H:32:ALA:HB3	8:H:69:ARG:HH12	1.77	0.49
18:R:18:LEU:O	18:R:142:ASP:HA	2.12	0.49
4:D:35:ALA:HB2	38:D:5576:HOH:O	2.11	0.49
30:0:873:G:N2	38:0:9173:HOH:O	2.43	0.49
16:P:98:ILE:HD12	16:P:102:ARG:NE	2.27	0.49
30:0:1194:A:C2	30:0:1206:U:H1'	2.47	0.49
30:0:400:C:H2'	30:0:401:C:C6	2.47	0.49
30:0:2846:C:H2'	30:0:2847:G:H8	1.77	0.49
30:0:1787:C:C4'	30:0:2883:A:O4'	2.59	0.49
30:0:1800:G:H2'	30:0:1801:A:H8	1.77	0.49
30:0:316:A:N3	30:0:336:G:O2'	2.41	0.49
30:0:2291:A:N3	30:0:2291:A:H2'	2.28	0.49
25:Y:212:ARG:HB2	30:0:1315:G:C4	2.47	0.49
11:K:34:VAL:HB	38:K:7169:HOH:O	2.12	0.49
30:0:2617:G:C2	30:0:2618:G:C8	3.00	0.49
10:J:131:THR:HG22	10:J:134:GLU:H	1.77	0.49
30:0:1206:U:C5'	30:0:1206:U:H6	2.21	0.49
30:0:816:G:H5'	30:0:1598:A:H4'	1.94	0.49
30:0:814:G:H2'	30:0:815:U:C6	2.47	0.49
1:A:47:HIS:CD2	30:0:1654:U:C2'	2.92	0.49
25:Y:115:ARG:NH2	30:0:1266:U:H4'	2.27	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:215:VAL:O	2:B:219:GLY:HA2	2.13	0.49
26:Z:60:ASP:HB3	26:Z:69:ASP:HB3	1.92	0.49
30:0:1255:A:H1'	38:0:7741:HOH:O	2.11	0.49
30:0:2133:U:H4'	30:0:2134:G:H5'	1.93	0.49
30:0:1947:G:N2	30:0:1966:U:N3	2.60	0.49
29:3:79:LEU:CD1	30:0:2456:A:H2	2.25	0.49
29:3:79:LEU:HD22	38:0:7515:HOH:O	2.13	0.49
2:B:44:TYR:OH	2:B:148:PRO:HG3	2.11	0.49
30:0:1381:A:N3	30:0:1382:G:H1'	2.28	0.49
9:I:93:ALA:HB3	9:I:132:VAL:HG22	1.95	0.49
17:Q:66:LYS:HB2	17:Q:70:ALA:O	2.13	0.49
30:0:2632:G:H2'	30:0:2633:A:C8	2.46	0.49
30:0:2632:G:C6	30:0:2633:A:N6	2.81	0.49
30:0:1339:G:C6	30:0:1340:G:N1	2.81	0.49
30:0:36:C:C2	30:0:447:A:C2	3.00	0.49
6:F:110:ASP:O	6:F:114:LYS:HG3	2.12	0.49
30:0:1559:A:HO2'	30:0:1561:U:H5	1.60	0.49
30:0:1787:C:O4'	30:0:2883:A:H1'	2.11	0.49
30:0:1733:A:C5	30:0:1734:C:C2	3.00	0.49
30:0:1878:G:O2'	30:0:1879:U:H6	1.90	0.49
2:B:304:PRO:HD2	2:B:307:ARG:HE	1.78	0.49
30:0:1555:G:H4'	30:0:1630:A:C2	2.47	0.49
30:0:2118:A:H5'	38:0:3996:HOH:O	2.13	0.49
30:0:1370:G:H5''	38:0:5497:HOH:O	2.12	0.49
14:N:58:LEU:HD12	14:N:58:LEU:N	2.27	0.49
30:0:494:C:H1'	30:0:498:A:N6	2.27	0.49
30:0:2366:C:O5'	30:0:2366:C:H6	1.95	0.49
30:0:1189:A:O2'	30:0:1208:C:H2'	2.12	0.49
14:N:37:ARG:HH11	14:N:37:ARG:HG3	1.77	0.49
30:0:1682:A:O2'	30:0:1683:G:H5''	2.12	0.49
30:0:2335:C:C2	30:0:2350:G:C2	3.01	0.49
30:0:1174:A:C5	30:0:1201:C:H4'	2.47	0.49
8:H:27:PRO:HD3	8:H:123:ILE:CG2	2.43	0.49
30:0:29:C:O2'	30:0:30:U:H5'	2.12	0.49
30:0:1517:C:O2	30:0:1670:A:C2	2.66	0.49
20:T:107:LYS:HD2	30:0:97:G:C2	2.47	0.49
10:J:130:VAL:HG12	10:J:131:THR:H	1.78	0.49
30:0:1871:U:O4'	30:0:1873:G:C8	2.66	0.49
30:0:1626:A:O2'	30:0:1627:G:H5'	2.13	0.49
18:R:71:LYS:HE2	30:0:2831:C:O3'	2.13	0.49
30:0:1226:G:N3	30:0:1227:C:C6	2.81	0.49
30:0:2478:U:H2'	30:0:2479:A:C8	2.48	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:316:A:H1'	30:0:336:G:N3	2.27	0.49
29:3:33:MET:HG2	30:0:1922:A:C2'	2.42	0.49
2:B:307:ARG:HD2	38:B:9123:HOH:O	2.12	0.49
29:3:12:PRO:HB3	30:0:2382:A:O2'	2.12	0.49
30:0:549:A:C6	30:0:550:C:C4	3.00	0.49
6:F:110:ASP:O	6:F:114:LYS:N	2.44	0.49
21:U:9:CYS:HB2	38:U:6796:HOH:O	2.11	0.49
30:0:285:A:H2'	30:0:286:U:O4'	2.13	0.49
30:0:862:U:H2'	30:0:863:G:H8	1.77	0.49
30:0:889:C:H4'	38:0:6368:HOH:O	2.13	0.49
30:0:1183:C:N4	30:0:1184:C:N4	2.60	0.49
26:Z:47:ARG:HH22	30:0:1771:U:H1'	1.77	0.49
30:0:2326:C:H4'	30:0:2412:G:H4'	1.94	0.49
1:A:109:GLU:HG2	1:A:116:GLY:N	2.25	0.49
30:0:1706:G:C5	30:0:1707:G:C6	3.00	0.49
30:0:2826:G:H1'	30:0:2914:A:N6	2.28	0.49
30:0:1760:G:H5'	30:0:1818:C:O2'	2.12	0.49
30:0:1583:U:O2'	30:0:1584:C:H5'	2.13	0.49
30:0:1921:A:C6	30:0:1922:A:C2	3.00	0.49
31:9:110:G:N2	31:9:111:U:H1'	2.28	0.49
2:B:162:MET:CE	2:B:308:LEU:HD21	2.42	0.49
30:0:447:A:O2'	30:0:448:G:H5'	2.13	0.49
2:B:98:THR:HG22	2:B:99:GLU:N	2.28	0.49
3:C:233:THR:HG22	3:C:234:VAL:N	2.26	0.49
8:H:29:SER:HA	8:H:62:HIS:HD2	1.77	0.49
30:0:1116:U:C2	30:0:1246:A:N6	2.81	0.49
31:9:105:A:H2'	31:9:106:U:O4'	2.12	0.49
14:N:25:ARG:HB3	30:0:2415:A:C2	2.47	0.49
30:0:717:C:H2'	30:0:718:C:H6	1.78	0.49
30:0:2269:C:H2'	30:0:2270:G:O4'	2.12	0.49
25:Y:235:GLU:CD	25:Y:235:GLU:H	2.16	0.49
30:0:1343:C:H2'	30:0:1344:G:O5'	2.12	0.49
30:0:731:U:O2'	30:0:732:C:H5'	2.13	0.49
30:0:1453:G:C2	30:0:1675:C:C2	3.00	0.49
1:A:36:ASP:HB2	1:A:85:SER:H	1.77	0.49
30:0:2103:A:N3	30:0:2103:A:H2'	2.28	0.49
29:3:1:MET:HG2	29:3:87:ARG:O	2.11	0.49
30:0:1119:G:H22	30:0:1246:A:H2	1.46	0.49
31:9:60:C:O2'	31:9:61:C:H5'	2.13	0.49
30:0:271:C:N4	30:0:378:A:H2	2.01	0.49
20:T:69:LYS:O	20:T:71:VAL:HG23	2.13	0.49
30:0:2497:A:C2	30:0:2524:G:C2	3.01	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:1:21:ARG:HD2	27:1:39:PHE:HB2	1.95	0.49
30:0:1351:G:H1'	38:0:4648:HOH:O	2.13	0.49
30:0:2536:C:H6	38:0:4998:HOH:O	1.95	0.49
31:9:8:G:C6	31:9:9:C:C4	3.00	0.49
30:0:1607:A:C4	30:0:1608:G:C8	3.01	0.49
30:0:1615:A:H5'	38:0:4169:HOH:O	2.12	0.49
14:N:178:THR:O	14:N:181:ASP:HB3	2.13	0.49
30:0:191:A:H2'	30:0:237:G:O6	2.12	0.48
29:3:88:LEU:HB3	29:3:90:PHE:CE1	2.48	0.48
6:F:63:ILE:HB	6:F:64:PRO:CD	2.37	0.48
30:0:1644:C:C2	30:0:1645:U:C5	3.01	0.48
30:0:2297:U:H2'	30:0:2298:C:H6	1.78	0.48
13:M:52:GLN:OE1	13:M:116:ASN:HB3	2.13	0.48
30:0:1063:G:H4'	30:0:2307:A:H1'	1.95	0.48
30:0:1586:G:C2'	30:0:1587:U:H5'	2.43	0.48
30:0:419:A:H1'	30:0:1921:A:C2	2.48	0.48
3:C:173:LYS:HE3	30:0:1311:G:O6	2.12	0.48
30:0:788:A:H4'	38:0:7005:HOH:O	2.12	0.48
30:0:1240:G:H1'	38:0:9360:HOH:O	2.12	0.48
30:0:2639:G:C5	30:0:2640:U:C5	3.01	0.48
25:Y:137:LYS:HD2	38:0:7590:HOH:O	2.11	0.48
4:D:92:GLU:HB2	38:D:3862:HOH:O	2.13	0.48
31:9:19:G:C2	31:9:20:G:C8	3.00	0.48
31:9:2:U:H4'	38:9:9107:HOH:O	2.13	0.48
30:0:2864:U:O2'	30:0:2865:G:H5'	2.14	0.48
20:T:28:SER:O	20:T:32:ARG:HG3	2.14	0.48
13:M:134:ILE:CG2	13:M:141:ILE:HD13	2.36	0.48
21:U:19:THR:HG22	21:U:20:MET:N	2.28	0.48
11:K:98:VAL:HG11	11:K:102:GLU:HA	1.94	0.48
4:D:22:VAL:HG22	4:D:74:THR:HG22	1.95	0.48
5:E:11:VAL:HG12	5:E:12:ASP:N	2.28	0.48
30:0:106:A:C6	30:0:107:U:C4	3.00	0.48
30:0:1916:C:O2'	30:0:1917:G:H5'	2.14	0.48
30:0:1765:G:O2'	30:0:1766:U:H5'	2.12	0.48
30:0:2713:G:O2'	30:0:2714:U:H5'	2.12	0.48
30:0:1066:U:H2'	30:0:1067:A:C8	2.48	0.48
30:0:2646:G:C4	30:0:2647:C:C5	3.02	0.48
31:9:3:A:H2	31:9:21:G:N3	2.12	0.48
30:0:1883:U:H2'	30:0:1884:G:H5'	1.94	0.48
30:0:2898:G:H1'	38:0:7555:HOH:O	2.13	0.48
30:0:595:U:O4'	35:0:8817:CL:CL	2.69	0.48
30:0:2526:C:C6	30:0:2526:C:H3'	2.47	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2827:A:C2	30:0:2914:A:C2	3.01	0.48
30:0:334:G:C5	30:0:335:U:C5	3.00	0.48
16:P:124:ASP:O	30:0:801:U:H4'	2.13	0.48
30:0:1832:G:C2	30:0:1833:U:C6	3.00	0.48
8:H:52:LEU:HD13	8:H:153:PHE:HB3	1.95	0.48
30:0:681:G:N3	30:0:681:G:H5'	2.28	0.48
30:0:2480:G:O2'	30:0:2481:G:H5'	2.13	0.48
8:H:35:LYS:HE3	30:0:968:G:H1'	1.95	0.48
26:Z:42:TYR:H	30:0:1829:A:H61	1.61	0.48
30:0:1632:A:C3'	30:0:1633:C:H5'	2.43	0.48
30:0:120:A:H2'	30:0:120:A:N3	2.29	0.48
30:0:2700:G:H2'	30:0:2701:G:C5'	2.43	0.48
30:0:1015:C:H2'	30:0:1016:U:C6	2.48	0.48
30:0:1557:G:H2'	30:0:1558:C:H6	1.78	0.48
2:B:152:PRO:HD2	38:B:9102:HOH:O	2.12	0.48
13:M:84:LYS:HA	29:3:46:ILE:O	2.12	0.48
16:P:31:ILE:HG12	16:P:43:LEU:HD13	1.96	0.48
29:3:64:LYS:HE2	38:0:7638:HOH:O	2.12	0.48
30:0:2505:G:C2'	30:0:2506:A:C5'	2.91	0.48
20:T:27:LEU:HB2	20:T:32:ARG:HG2	1.95	0.48
11:K:43:ARG:NH1	30:0:2712:G:OP1	2.46	0.48
4:D:37:ALA:O	4:D:40:ILE:HG12	2.13	0.48
30:0:1634:G:H2'	30:0:1635:U:H6	1.76	0.48
30:0:1434:A:O2'	30:0:1435:U:H6	1.92	0.48
30:0:2672:C:H2'	30:0:2673:U:O4'	2.14	0.48
18:R:132:ARG:HG2	18:R:133:ALA:N	2.27	0.48
30:0:2255:A:C2	30:0:2256:G:C4	3.02	0.48
30:0:677:C:H2'	30:0:678:G:H8	1.77	0.48
30:0:2772:G:O2'	30:0:2773:G:H5'	2.13	0.48
30:0:707:C:C2	30:0:708:A:C8	3.02	0.48
30:0:2755:G:H1'	38:0:4651:HOH:O	2.13	0.48
30:0:2854:A:H2'	30:0:2855:G:H8	1.78	0.48
30:0:2860:G:H2'	30:0:2861:G:C8	2.48	0.48
12:L:117:GLU:HG3	12:L:117:GLU:O	2.13	0.48
14:N:78:MET:HB2	14:N:79:PRO:HD3	1.95	0.48
30:0:1496:A:H5'	30:0:1572:A:H1'	1.94	0.48
30:0:222:A:H2'	30:0:223:G:O4'	2.13	0.48
30:0:100:C:C4	30:0:101:C:C5	3.01	0.48
19:S:6:LYS:HB2	19:S:27:ALA:O	2.13	0.48
30:0:1182:C:C1'	30:0:1192:A:H8	2.26	0.48
30:0:1207:A:OP2	30:0:1208:C:H5	1.96	0.48
30:0:200:C:H6	38:0:3433:HOH:O	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:E:139:GLU:OE2	30:0:2781:U:H1'	2.13	0.48
29:3:43:ASN:HB2	29:3:52:PHE:CD1	2.48	0.48
30:0:2598:U:O2	30:0:2600:A:C8	2.66	0.48
2:B:36:PRO:HG3	2:B:169:GLY:H	1.77	0.48
30:0:2133:U:H4'	30:0:2134:G:C5'	2.44	0.48
30:0:1970:G:H1'	38:0:3662:HOH:O	2.13	0.48
30:0:1970:G:H4'	30:0:1971:G:C5'	2.43	0.48
30:0:2617:G:H4'	38:0:4487:HOH:O	2.13	0.48
10:J:60:ARG:HD3	10:J:71:TYR:CE1	2.47	0.48
15:O:88:LYS:HB3	38:O:7061:HOH:O	2.13	0.48
4:D:51:ARG:HH11	4:D:68:PRO:HB3	1.78	0.48
30:0:611:U:H2'	30:0:612:U:C6	2.48	0.48
30:0:1520:G:H2'	30:0:1521:C:C6	2.49	0.48
30:0:2569:A:O5'	30:0:2569:A:H8	1.96	0.48
27:1:25:LYS:CD	28:2:49:GLU:H	2.25	0.48
18:R:138:SER:HB2	38:0:5570:HOH:O	2.14	0.48
30:0:705:C:C2'	30:0:705:C:O2	2.62	0.48
30:0:2707:C:C2'	30:0:2707:C:O2	2.59	0.48
23:W:26:ILE:HB	38:W:5420:HOH:O	2.14	0.48
30:0:1878:G:C2	30:0:1879:U:C2	3.02	0.48
30:0:31:C:H2'	38:0:7668:HOH:O	2.13	0.48
30:0:627:G:H2'	30:0:2071:C:C4	2.49	0.48
30:0:1908:G:N1	30:0:1930:A:OP2	2.46	0.48
16:P:94:TRP:CZ2	16:P:98:ILE:HG13	2.49	0.48
17:Q:28:ARG:HG2	38:9:9083:HOH:O	2.12	0.48
13:M:139:PRO:HA	13:M:142:GLN:HB2	1.95	0.48
30:0:1224:G:H2'	30:0:1225:C:C6	2.48	0.48
5:E:80:TRP:O	5:E:134:SER:HA	2.12	0.48
6:F:107:ASP:O	6:F:111:ILE:HG13	2.13	0.48
30:0:2717:C:H2'	30:0:2718:C:H5'	1.93	0.48
29:3:40:ARG:C	29:3:42:ARG:H	2.16	0.48
30:0:1063:G:H8	38:0:9856:HOH:O	1.96	0.48
30:0:808:A:C5	30:0:809:G:H1'	2.48	0.48
30:0:2354:A:C2	30:0:2367:A:C8	3.02	0.48
30:0:858:U:H2'	30:0:859:C:C6	2.47	0.48
30:0:99:A:C8	30:0:100:C:C6	3.02	0.48
16:P:11:ALA:HB1	16:P:16:VAL:O	2.14	0.48
30:0:1023:C:O2'	30:0:1024:G:H5'	2.14	0.48
27:1:1:THR:HB	38:1:2852:HOH:O	2.12	0.48
29:3:25:VAL:HA	38:3:9036:HOH:O	2.12	0.48
28:2:10:ARG:NH2	30:0:121:U:OP2	2.44	0.48
1:A:162:GLY:N	26:Z:91:GLY:HA2	2.29	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:I:133:THR:HG22	9:I:134:ILE:N	2.28	0.48
23:W:117:ARG:HH22	30:0:1264:U:P	2.36	0.48
30:0:1029:U:O2'	30:0:1273:C:OP1	2.27	0.48
30:0:1204:C:H2'	30:0:1205:U:O4'	2.14	0.48
30:0:2505:G:H2'	30:0:2506:A:C5'	2.43	0.48
30:0:69:A:C2'	30:0:70:A:OP2	2.62	0.48
30:0:1177:A:N3	30:0:1177:A:H2'	2.28	0.48
30:0:2254:G:C2	30:0:2255:A:C8	3.01	0.48
30:0:920:C:C4'	30:0:921:G:C2	2.95	0.48
30:0:2777:G:O2'	30:0:2778:A:H5'	2.13	0.48
31:9:39:U:C2'	31:9:40:C:OP1	2.62	0.48
30:0:2281:C:H5	38:0:3756:HOH:O	1.97	0.48
30:0:2587:OMU:H5	38:0:7464:HOH:O	2.13	0.48
30:0:763:C:O2'	30:0:764:C:H5'	2.14	0.48
4:D:51:ARG:NH1	4:D:68:PRO:HB3	2.28	0.48
8:H:157:TYR:C	8:H:157:TYR:HD1	2.18	0.48
30:0:842:C:H4'	38:0:3427:HOH:O	2.13	0.48
1:A:71:PRO:HG2	1:A:91:GLY:HA2	1.95	0.48
30:0:432:G:H5''	38:0:6860:HOH:O	2.12	0.48
30:0:1186:C:C4	30:0:1187:U:C4	3.02	0.48
6:F:58:GLU:HA	6:F:61:MET:SD	2.54	0.48
14:N:4:PRO:HG3	31:9:69:U:OP1	2.13	0.48
29:3:51:LYS:HG3	29:3:52:PHE:HD2	1.76	0.48
11:K:1:MET:N	30:0:2686:C:O2'	2.38	0.48
29:3:83:TRP:HB2	38:0:5759:HOH:O	2.14	0.48
2:B:226:LYS:HG2	2:B:230:GLN:HE21	1.78	0.48
30:0:1626:A:H2'	30:0:1627:G:O4'	2.14	0.48
30:0:202:U:C4	30:0:203:G:C6	3.01	0.48
1:A:161:GLY:HA3	38:Z:8705:HOH:O	2.13	0.48
1:A:217:ARG:HG2	1:A:229:ALA:HB2	1.95	0.48
13:M:9:ARG:HD2	30:0:380:A:OP2	2.14	0.48
30:0:870:G:H2'	30:0:871:G:C5'	2.34	0.47
30:0:1188:A:C5	30:0:1189:A:C2	3.02	0.47
30:0:625:U:H5''	30:0:1044:C:H42	1.71	0.47
30:0:2830:U:H2'	30:0:2831:C:H6	1.79	0.47
30:0:2848:G:O4'	30:0:2906:A:C2	2.66	0.47
29:3:50:GLY:CA	30:0:170:U:H1'	2.43	0.47
30:0:2598:U:O2	30:0:2600:A:H8	1.96	0.47
3:C:162:VAL:HG13	3:C:162:VAL:O	2.13	0.47
9:I:69:PRO:HA	30:0:1164:U:OP1	2.14	0.47
18:R:15:LYS:HE3	38:R:8976:HOH:O	2.14	0.47
30:0:1745:G:H5'	38:0:4312:HOH:O	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1471:A:H2'	30:0:1472:C:C6	2.48	0.47
30:0:2458:U:H3'	38:0:3241:HOH:O	2.13	0.47
30:0:1337:G:C5	30:0:1338:U:C5	3.02	0.47
30:0:1337:G:C6	30:0:1338:U:C4	3.01	0.47
30:0:151:A:H2'	30:0:152:A:O4'	2.14	0.47
30:0:2474:A:N7	30:0:2621:PSU:H4'	2.29	0.47
30:0:2474:A:H5'	30:0:2476:C:O5'	2.14	0.47
30:0:968:G:O2'	30:0:969:G:H5'	2.14	0.47
30:0:373:G:O2'	30:0:374:U:H5'	2.14	0.47
1:A:27:LEU:HD21	1:A:55:VAL:CG2	2.44	0.47
30:0:2855:G:C2	30:0:2904:U:N3	2.82	0.47
2:B:84:LEU:O	2:B:99:GLU:HA	2.14	0.47
30:0:2385:G:H2'	30:0:2386:U:C6	2.49	0.47
21:U:50:GLU:OE1	30:0:2866:U:H2'	2.13	0.47
30:0:2087:C:H2'	30:0:2088:C:H6	1.80	0.47
26:Z:40:ALA:HA	30:0:1773:G:H8	1.79	0.47
30:0:834:G:H3'	30:0:835:U:H4'	1.97	0.47
30:0:361:C:H2'	30:0:362:G:O4'	2.13	0.47
25:Y:234:VAL:HG12	25:Y:235:GLU:N	2.28	0.47
30:0:1947:G:OP1	30:0:1971:G:N7	2.47	0.47
11:K:132:VAL:HG11	21:U:22:VAL:HG22	1.96	0.47
30:0:1275:C:H2'	30:0:1276:U:H5'	1.96	0.47
22:V:12:THR:CG2	22:V:15:GLU:HG3	2.40	0.47
21:U:56:ARG:HB2	30:0:2890:A:N7	2.29	0.47
30:0:1389:G:N2	30:0:1391:G:H3'	2.29	0.47
2:B:201:ASP:CB	2:B:312:ARG:HD2	2.42	0.47
30:0:407:A:H5'	38:0:6000:HOH:O	2.14	0.47
2:B:74:ILE:HD13	2:B:309:VAL:HG21	1.95	0.47
24:X:85:VAL:HG12	24:X:86:GLU:N	2.29	0.47
30:0:2724:U:H6	30:0:2724:U:O5'	1.96	0.47
2:B:162:MET:HE1	2:B:308:LEU:HD21	1.96	0.47
30:0:2379:G:H4'	30:0:2380:A:O5'	2.13	0.47
30:0:2719:A:H2'	30:0:2720:C:C5'	2.44	0.47
30:0:681:G:N3	30:0:681:G:H2'	2.30	0.47
1:A:70:ALA:HB1	26:Z:89:THR:HG21	1.97	0.47
30:0:2857:C:H1'	38:0:5328:HOH:O	2.15	0.47
8:H:88:MET:HA	8:H:139:ALA:HA	1.96	0.47
30:0:965:A:H5'	30:0:966:U:OP2	2.14	0.47
30:0:699:C:C2	30:0:744:G:C2	3.03	0.47
30:0:1619:G:H2'	30:0:1620:C:C6	2.49	0.47
30:0:1210:G:N2	30:0:1211:G:H1'	2.29	0.47
29:3:88:LEU:CD2	35:3:8804:CL:CL	2.86	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:558:C:HO2'	30:0:559:U:H5''	1.78	0.47
29:3:68:LYS:HG2	29:3:77:ALA:CB	2.44	0.47
31:9:73:A:H61	31:9:108:C:N4	2.13	0.47
30:0:371:U:C4	30:0:372:A:N7	2.83	0.47
30:0:820:G:O2'	30:0:856:G:H4'	2.14	0.47
30:0:1503:U:H2'	30:0:1504:A:C5'	2.45	0.47
28:2:15:ASP:O	28:2:18:ASN:HB2	2.15	0.47
30:0:2781:U:C2'	30:0:2782:G:H5'	2.45	0.47
30:0:1733:A:N7	30:0:1734:C:C4	2.82	0.47
30:0:1477:C:H4'	30:0:1868:G:OP1	2.15	0.47
30:0:1226:G:C4	30:0:1227:C:C6	3.02	0.47
31:9:39:U:H3	31:9:42:C:H5''	1.79	0.47
17:Q:11:ARG:HD3	38:0:6238:HOH:O	2.13	0.47
30:0:2265:U:H2'	30:0:2266:A:H8	1.80	0.47
8:H:59:GLN:HE22	8:H:96:GLN:HG2	1.79	0.47
30:0:699:C:C6	30:0:744:G:N3	2.82	0.47
30:0:287:C:H6	30:0:287:C:O5'	1.97	0.47
11:K:118:ALA:HA	11:K:125:ALA:HB2	1.96	0.47
31:9:5:G:C2'	31:9:6:C:H5'	2.45	0.47
30:0:1667:A:H5'	30:0:1667:A:C8	2.50	0.47
30:0:625:U:C5'	30:0:1044:C:N4	2.71	0.47
13:M:68:ARG:HD2	30:0:1469:C:OP2	2.15	0.47
29:3:9:THR:HG23	29:3:20:HIS:CE1	2.49	0.47
30:0:2375:A:H2'	30:0:2376:C:C6	2.50	0.47
20:T:71:VAL:CG1	20:T:90:PRO:HB3	2.40	0.47
7:G:64:ASN:ND2	7:G:64:ASN:N	2.62	0.47
1:A:135:VAL:HA	1:A:150:PRO:HD3	1.96	0.47
30:0:1760:G:C5	30:0:1761:U:C4	3.03	0.47
30:0:2597:U:C2'	30:0:2598:U:H5'	2.45	0.47
2:B:234:ARG:NH2	30:0:2039:A:OP2	2.47	0.47
11:K:97:ILE:HG22	11:K:98:VAL:H	1.79	0.47
26:Z:34:SER:CA	30:0:797:A:H4'	2.44	0.47
30:0:731:U:H2'	30:0:732:C:C6	2.50	0.47
30:0:724:G:O2'	30:0:725:C:H5'	2.15	0.47
30:0:1181:A:N1	30:0:1192:A:O2'	2.45	0.47
30:0:1210:G:O2'	30:0:1211:G:H5'	2.14	0.47
30:0:2509:A:H2'	30:0:2510:C:O4'	2.14	0.47
30:0:1858:A:H2'	30:0:1859:A:C8	2.50	0.47
23:W:21:LEU:HD21	23:W:48:VAL:HG11	1.96	0.47
20:T:51:LEU:HD11	20:T:97:ARG:HB2	1.97	0.47
14:N:71:TRP:HZ2	38:N:8833:HOH:O	1.97	0.47
30:0:2781:U:H2'	30:0:2782:G:H5'	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:711:G:O2'	30:0:712:C:H5'	2.15	0.47
10:J:39:VAL:CG2	10:J:107:ASN:HA	2.44	0.47
25:Y:151:SER:HB3	25:Y:154:ARG:HB3	1.97	0.47
8:H:123:ILE:HD12	8:H:123:ILE:N	2.30	0.47
30:0:2727:A:C2'	30:0:2728:C:H5'	2.45	0.47
30:0:790:A:H1'	30:0:1710:A:H2'	1.97	0.47
16:P:13:VAL:HG13	16:P:14:LEU:N	2.29	0.47
1:A:94:LEU:HG	1:A:99:ILE:CD1	2.44	0.47
8:H:6:ALA:HB3	30:0:2521:A:OP2	2.14	0.47
30:0:2860:G:H2'	30:0:2861:G:H8	1.80	0.47
30:0:432:G:H2'	30:0:433:C:H6	1.80	0.47
15:O:42:GLU:HB2	38:0:3736:HOH:O	2.15	0.47
20:T:41:ARG:NH1	20:T:42:VAL:O	2.47	0.47
30:0:2858:U:H2'	30:0:2859:C:C6	2.49	0.47
3:C:180:SER:HB2	38:C:8643:HOH:O	2.14	0.47
4:D:59:GLY:HA3	38:D:4886:HOH:O	2.14	0.47
13:M:15:PRO:HA	13:M:20:LEU:HD23	1.95	0.47
30:0:1333:U:H2'	30:0:1334:C:H6	1.80	0.47
30:0:1988:C:H2'	30:0:1989:G:O4'	2.15	0.47
23:W:77:ALA:HB3	38:W:5763:HOH:O	2.14	0.47
2:B:171:VAL:O	2:B:175:LEU:HB2	2.15	0.47
30:0:2837:U:H2'	38:0:6824:HOH:O	2.15	0.47
23:W:129:LYS:HE3	31:9:87:U:H2'	1.97	0.47
30:0:1168:C:H2'	30:0:1169:U:H5'	1.96	0.47
31:9:22:G:N7	31:9:55:U:C6	2.82	0.47
30:0:1446:U:H4'	30:0:1447:U:OP2	2.14	0.47
23:W:128:VAL:HG22	30:0:1098:A:OP1	2.15	0.47
30:0:2460:A:C2	30:0:2461:U:C2	3.02	0.47
30:0:835:U:H5''	38:0:9381:HOH:O	2.14	0.47
30:0:800:G:H8	30:0:800:G:O5'	1.98	0.47
1:A:105:VAL:CG1	1:A:154:ALA:HB1	2.44	0.47
3:C:28:SER:HB2	38:C:8659:HOH:O	2.14	0.47
14:N:27:LEU:HD22	14:N:50:LEU:HD13	1.97	0.47
30:0:2059:U:H1'	38:0:4439:HOH:O	2.14	0.47
30:0:1857:A:N6	30:0:2247:C:H1'	2.30	0.47
16:P:3:LEU:HA	16:P:6:GLN:OE1	2.14	0.47
22:V:64:GLY:O	22:V:65:ASP:HB2	2.15	0.47
1:A:171:LYS:HB2	30:0:820:G:C5	2.50	0.47
16:P:1:THR:O	30:0:1396:C:H1'	2.15	0.47
30:0:1889:C:O2'	30:0:1890:U:H5'	2.15	0.47
2:B:212:GLN:HB2	2:B:257:THR:OG1	2.15	0.47
30:0:292:G:H2'	30:0:358:G:N2	2.30	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2490:A:H5''	38:0:7023:HOH:O	2.15	0.47
22:V:1:THR:HG23	22:V:2:VAL:N	2.29	0.47
30:0:561:G:H2'	30:0:562:A:H8	1.79	0.47
30:0:2858:U:H2'	30:0:2859:C:H6	1.80	0.47
23:W:72:PRO:HG2	38:W:5763:HOH:O	2.15	0.47
30:0:2878:U:H2'	30:0:2879:A:O4'	2.14	0.47
6:F:21:GLU:O	6:F:24:ARG:HG2	2.15	0.47
18:R:69:LYS:HB2	18:R:72:VAL:HG23	1.97	0.47
30:0:249:G:O2'	30:0:250:C:H5'	2.15	0.47
30:0:1806:G:C4	30:0:1807:U:C6	3.03	0.47
23:W:125:HIS:CE1	30:0:1097:A:C5'	2.95	0.47
30:0:2301:A:H5''	30:0:2302:A:H5'	1.96	0.47
16:P:41:ARG:NH2	30:0:1500:U:OP2	2.47	0.47
30:0:1056:U:H2'	30:0:1057:A:O4'	2.14	0.47
30:0:1928:C:O2'	30:0:1929:G:H5'	2.15	0.47
13:M:193:LYS:HB3	30:0:392:U:C5'	2.45	0.47
17:Q:34:ASP:O	17:Q:37:GLU:HB2	2.15	0.47
14:N:170:GLU:O	14:N:174:GLU:HG3	2.14	0.47
30:0:1159:G:H1	30:0:1208:C:H42	1.63	0.46
31:9:54:A:C2'	31:9:55:U:C5'	2.85	0.46
30:0:137:U:OP1	30:0:259:G:O2'	2.33	0.46
30:0:1942:A:O2'	30:0:1943:C:H5'	2.15	0.46
30:0:40:C:H5'	38:0:3836:HOH:O	2.14	0.46
30:0:1177:A:N1	30:0:1178:G:C4	2.82	0.46
30:0:1760:G:C6	30:0:1761:U:C4	3.03	0.46
4:D:22:VAL:HG21	30:0:2348:C:C5'	2.45	0.46
30:0:806:A:H2'	30:0:807:A:O4'	2.15	0.46
16:P:13:VAL:HG13	16:P:14:LEU:H	1.80	0.46
30:0:589:U:H2'	30:0:590:A:C8	2.50	0.46
24:X:30:MET:HG2	30:0:1384:C:H5'	1.96	0.46
30:0:2379:G:H4'	30:0:2380:A:C5'	2.45	0.46
30:0:737:A:H2'	30:0:738:G:C8	2.49	0.46
19:S:6:LYS:HE3	19:S:29:ASP:HA	1.97	0.46
30:0:2019:A:H2'	30:0:2020:C:C6	2.49	0.46
30:0:1854:C:H2'	30:0:1875:A:H61	1.80	0.46
13:M:184:ARG:HG3	13:M:185:PRO:HA	1.97	0.46
30:0:2388:C:O2'	30:0:2389:U:H5'	2.14	0.46
26:Z:70:ARG:NH1	26:Z:83:TYR:HD1	2.11	0.46
30:0:61:G:C6	30:0:86:A:N6	2.83	0.46
30:0:2461:U:O2	30:0:2466:G:H1'	2.14	0.46
30:0:703:G:C6	30:0:704:C:N4	2.83	0.46
30:0:154:C:O2'	30:0:155:C:H5'	2.14	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:162:MET:CE	2:B:310:ARG:HD3	2.45	0.46
29:3:79:LEU:HD12	30:0:2456:A:C2	2.50	0.46
30:0:1925:G:O2'	30:0:1926:G:H5'	2.15	0.46
21:U:47:ARG:HG3	38:U:4381:HOH:O	2.15	0.46
30:0:11:A:N3	30:0:11:A:H2'	2.30	0.46
10:J:42:GLU:HG2	10:J:43:ARG:N	2.30	0.46
30:0:1409:G:C2	30:0:1410:G:C8	3.03	0.46
27:1:10:LYS:HG3	38:1:2979:HOH:O	2.14	0.46
30:0:400:C:H2'	30:0:401:C:H6	1.80	0.46
13:M:92:THR:HB	30:0:401:C:O2'	2.15	0.46
29:3:67:LEU:HD13	29:3:69:TYR:HE1	1.81	0.46
30:0:604:G:H4'	30:0:605:C:O5'	2.15	0.46
30:0:1398:G:H4'	38:0:6650:HOH:O	2.15	0.46
30:0:214:U:H5'	38:0:6117:HOH:O	2.15	0.46
30:0:2658:G:C2	30:0:2659:U:C6	3.03	0.46
12:L:38:HIS:O	30:0:926:A:H1'	2.15	0.46
30:0:1016:U:H1'	38:0:3652:HOH:O	2.15	0.46
30:0:1790:C:H2'	30:0:1791:U:H6	1.80	0.46
1:A:88:ILE:HD13	1:A:100:PRO:HD3	1.97	0.46
30:0:432:G:C2	30:0:433:C:C5	3.02	0.46
30:0:1825:U:O2'	30:0:1826:C:H5'	2.15	0.46
38:W:7804:HOH:O	30:0:1286:A:H5''	2.15	0.46
30:0:168:C:H6	30:0:168:C:O5'	1.98	0.46
30:0:2871:G:C6	30:0:2887:G:N1	2.83	0.46
30:0:2259:C:C2	30:0:2260:A:C8	3.04	0.46
30:0:1415:G:O2'	30:0:1416:G:H5'	2.15	0.46
2:B:5:ARG:HD2	2:B:8:LYS:NZ	2.31	0.46
29:3:64:LYS:HD3	29:3:82:GLY:O	2.14	0.46
31:9:3:A:H2'	38:9:9044:HOH:O	2.14	0.46
30:0:1603:A:C5'	30:0:1605:G:C5'	2.91	0.46
4:D:138:GLY:HA2	31:9:29:C:O3'	2.15	0.46
30:0:247:A:C2	30:0:265:U:C2	3.03	0.46
30:0:440:C:C4	30:0:441:A:C6	3.04	0.46
30:0:1806:G:H2'	30:0:1807:U:H6	1.78	0.46
30:0:959:C:H1'	30:0:961:A:C6	2.50	0.46
30:0:10:U:C4	30:0:532:A:N7	2.84	0.46
30:0:732:C:O2'	30:0:733:U:H5'	2.14	0.46
30:0:2520:G:O2'	30:0:2521:A:H5'	2.16	0.46
30:0:128:A:O2'	30:0:129:A:C5'	2.64	0.46
1:A:36:ASP:CB	1:A:85:SER:HB2	2.45	0.46
30:0:100:C:H2'	30:0:101:C:H6	1.81	0.46
30:0:1484:G:H2'	38:0:9110:HOH:O	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:72:LYS:HG2	3:C:77:ALA:HA	1.96	0.46
27:1:42:SER:HB3	30:0:1473:U:C1'	2.45	0.46
10:J:90:LYS:HB2	35:J:8802:CL:CL	2.53	0.46
23:W:81:ASP:OD1	23:W:92:ASP:HB2	2.16	0.46
30:0:364:U:H2'	30:0:365:G:O4'	2.15	0.46
30:0:815:U:H5	38:0:7423:HOH:O	1.98	0.46
30:0:2004:U:H4'	38:0:5274:HOH:O	2.14	0.46
1:A:212:PRO:HB2	38:0:4344:HOH:O	2.16	0.46
30:0:1477:C:C5'	30:0:1868:G:C5'	2.94	0.46
30:0:2911:C:O2'	30:0:2912:C:H5'	2.15	0.46
30:0:2355:G:N3	30:0:2355:G:H2'	2.31	0.46
30:0:1590:A:C2	30:0:1606:A:C1'	2.99	0.46
2:B:199:TYR:CE2	2:B:268:ARG:HB2	2.49	0.46
30:0:780:A:H2'	30:0:781:C:C6	2.50	0.46
30:0:1626:A:H2'	30:0:1627:G:C5'	2.45	0.46
30:0:2356:A:H2'	30:0:2357:G:O4'	2.16	0.46
9:I:87:PRO:HD3	38:0:7103:HOH:O	2.14	0.46
30:0:1524:U:H5''	30:0:1524:U:H6	1.81	0.46
30:0:307:G:N2	30:0:309:C:C2	2.84	0.46
30:0:39:G:O6	30:0:441:A:C2	2.68	0.46
30:0:1215:A:O3'	30:0:1216:G:H4'	2.16	0.46
23:W:68:THR:HG23	23:W:69:ARG:H	1.81	0.46
1:A:94:LEU:HD12	1:A:98:GLU:HB2	1.96	0.46
2:B:304:PRO:HD2	2:B:307:ARG:NE	2.31	0.46
8:H:6:ALA:HA	8:H:61:ARG:NH1	2.30	0.46
30:0:396:U:O2'	30:0:397:A:P	2.73	0.46
10:J:130:VAL:HG12	10:J:131:THR:N	2.31	0.46
4:D:64:ARG:HB3	4:D:67:ASP:OD2	2.15	0.46
14:N:147:ILE:HD12	38:9:9091:HOH:O	2.15	0.46
30:0:2626:C:H2'	30:0:2627:G:C8	2.51	0.46
18:R:48:GLU:HA	18:R:51:ILE:HD12	1.98	0.46
30:0:1187:U:C2	30:0:1189:A:OP2	2.68	0.46
30:0:1829:A:H2'	30:0:1830:C:C5'	2.41	0.46
6:F:89:LEU:HD21	30:0:262:A:C6	2.51	0.46
30:0:1200:A:H3'	38:0:5722:HOH:O	2.15	0.46
30:0:2100:A:C5'	38:0:7373:HOH:O	2.57	0.46
30:0:2471:G:C5	30:0:2472:C:C5	3.03	0.46
30:0:2828:G:O5'	30:0:2828:G:C8	2.68	0.46
30:0:662:U:H1'	30:0:748:C:H1'	1.98	0.46
15:O:51:TYR:CD2	30:0:721:A:H5''	2.51	0.46
30:0:2314:G:O2'	30:0:2315:C:H5'	2.15	0.46
30:0:1773:G:H2'	30:0:1774:G:H5'	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:X:43:VAL:HG12	24:X:47:ALA:HB3	1.98	0.46
30:0:421:C:H2'	30:0:422:G:C8	2.50	0.46
30:0:2397:G:N2	38:0:6910:HOH:O	2.49	0.46
30:0:497:A:H5''	38:0:3588:HOH:O	2.16	0.46
30:0:1427:A:O2'	30:0:1428:C:H5'	2.16	0.46
9:I:112:LEU:CD1	30:0:1162:G:H1'	2.45	0.46
30:0:2017:U:O2'	30:0:2018:A:C8	2.53	0.46
14:N:42:HIS:HB3	14:N:62:HIS:HE1	1.80	0.46
30:0:1187:U:O2'	30:0:1188:A:C8	2.69	0.46
30:0:1209:C:C2	30:0:1210:G:C8	3.03	0.46
30:0:969:G:N1	30:0:999:C:N4	2.53	0.46
30:0:282:C:HO2'	30:0:368:C:N4	2.13	0.46
30:0:2326:C:H4'	30:0:2412:G:C4'	2.46	0.46
30:0:920:C:H5''	30:0:921:G:O5'	2.16	0.46
30:0:2912:C:C6	30:0:2912:C:O5'	2.66	0.46
30:0:334:G:H2'	30:0:335:U:H6	1.81	0.46
18:R:135:ALA:HB1	18:R:137:ASN:ND2	2.29	0.46
30:0:567:U:C5'	38:0:5254:HOH:O	2.62	0.46
9:I:124:VAL:C	9:I:126:THR:H	2.18	0.46
30:0:1497:G:H4'	30:0:1627:G:O2'	2.16	0.46
30:0:2612:A:H4'	38:0:3676:HOH:O	2.15	0.46
30:0:2401:A:H2'	30:0:2402:A:C8	2.51	0.46
30:0:277:U:O2'	30:0:278:A:H5'	2.16	0.46
30:0:1157:C:H2'	30:0:1158:G:H8	1.80	0.46
20:T:48:VAL:HG23	20:T:98:VAL:HA	1.97	0.46
31:9:47:A:C2	31:9:48:C:C2	3.03	0.46
30:0:735:C:C5	30:0:736:A:C4	3.03	0.46
30:0:2038:A:C2	30:0:2039:A:C5	3.04	0.46
19:S:12:GLU:OE1	30:0:1444:G:H4'	2.15	0.46
26:Z:34:SER:CB	30:0:797:A:H4'	2.46	0.46
31:9:15:C:N4	31:9:16:G:C6	2.84	0.46
15:O:38:ARG:HD3	30:0:654:A:OP2	2.16	0.46
30:0:2241:C:H2'	30:0:2242:U:C6	2.50	0.46
30:0:1790:C:H2'	30:0:1791:U:C6	2.51	0.46
30:0:562:A:H2'	30:0:563:C:O4'	2.15	0.46
30:0:488:U:C2'	38:0:3993:HOH:O	2.64	0.46
30:0:2456:A:H1'	38:0:6579:HOH:O	2.16	0.46
10:J:131:THR:HG22	10:J:134:GLU:HG3	1.97	0.46
14:N:34:LEU:HD22	14:N:129:ILE:HD13	1.98	0.46
23:W:29:VAL:O	23:W:30:ASN:HB2	2.16	0.46
30:0:1058:A:H2'	30:0:1060:C:H5''	1.97	0.46
30:0:897:A:H2'	30:0:899:C:C5	2.50	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1812:G:H4'	30:0:1814:G:O4'	2.15	0.46
30:0:1119:G:N2	30:0:1246:A:H2	2.04	0.46
30:0:2831:C:C2	30:0:2910:A:N1	2.84	0.46
29:3:20:HIS:CE1	29:3:71:CYS:SG	3.09	0.46
30:0:1504:A:C5'	38:0:4396:HOH:O	2.63	0.46
30:0:2011:A:H5'	30:0:2013:G:C1'	2.46	0.46
30:0:1707:G:H1'	30:0:1711:A:N6	2.31	0.46
13:M:164:THR:HG22	13:M:165:GLY:N	2.30	0.46
30:0:2694:A:H3'	30:0:2695:C:H6	1.81	0.46
30:0:212:A:H5'	30:0:214:U:H1'	1.98	0.46
30:0:1902:G:H2'	30:0:1903:U:O4'	2.16	0.46
13:M:94:ARG:NH2	30:0:175:G:O6	2.49	0.46
30:0:1512:G:H4'	38:0:4618:HOH:O	2.15	0.46
25:Y:214:ARG:HH12	25:Y:230:ASN:ND2	2.13	0.46
30:0:1236:A:C2'	30:0:1237:U:H5'	2.46	0.46
30:0:1809:G:H2'	30:0:1811:A:OP2	2.16	0.46
30:0:2860:G:H1'	38:0:6785:HOH:O	2.15	0.46
30:0:938:G:C4	30:0:1031:G:N2	2.84	0.46
20:T:79:LEU:HG	20:T:89:ARG:HB2	1.98	0.46
24:X:21:PRO:HD3	38:X:6179:HOH:O	2.16	0.46
30:0:56:G:H1'	38:0:5300:HOH:O	2.16	0.45
13:M:133:LEU:O	13:M:134:ILE:HD13	2.16	0.45
30:0:1217:G:C2	30:0:1218:U:C2	3.04	0.45
30:0:1516:U:H2'	30:0:1517:C:O4'	2.17	0.45
30:0:1864:C:H2'	30:0:1865:A:O4'	2.16	0.45
4:D:63:ILE:HG13	4:D:64:ARG:N	2.32	0.45
30:0:1490:G:H4'	30:0:1533:A:OP1	2.16	0.45
3:C:35:VAL:HG21	3:C:227:GLY:HA2	1.98	0.45
17:Q:64:GLU:HG3	17:Q:74:ASP:CG	2.36	0.45
5:E:103:VAL:HG22	5:E:115:ARG:HB3	1.96	0.45
9:I:83:GLY:H	30:0:1168:C:C5'	2.28	0.45
30:0:369:G:O2'	30:0:370:G:H5'	2.16	0.45
30:0:1503:U:H2'	30:0:1504:A:H5'	1.98	0.45
30:0:1400:C:C2'	30:0:1401:G:H5'	2.46	0.45
15:O:32:ARG:HH21	15:O:35:LYS:NZ	2.14	0.45
30:0:1444:G:C6	30:0:1445:G:C5	3.05	0.45
2:B:320:GLN:HA	2:B:321:PRO:HD3	1.83	0.45
31:9:39:U:N3	31:9:42:C:H5''	2.31	0.45
4:D:76:ARG:HD2	31:9:42:C:O2	2.16	0.45
1:A:94:LEU:N	1:A:94:LEU:HD23	2.31	0.45
1:A:186:TRP:CG	1:A:187:PRO:HA	2.50	0.45
30:0:2812:A:C2	30:0:2814:A:N7	2.85	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2134:G:N2	30:0:2242:U:C2	2.85	0.45
30:0:1908:G:H1'	30:0:1931:A:N6	2.31	0.45
30:0:1831:U:H2'	30:0:1832:G:H5'	1.98	0.45
8:H:157:TYR:CD1	8:H:157:TYR:C	2.89	0.45
11:K:132:VAL:HG21	21:U:22:VAL:HG13	1.97	0.45
30:0:743:G:O2'	30:0:744:G:H5'	2.16	0.45
30:0:1987:C:O2'	30:0:1988:C:H5'	2.16	0.45
30:0:1018:A:H8	30:0:1018:A:O5'	1.99	0.45
30:0:940:G:C5	30:0:1027:G:C2	3.04	0.45
1:A:35:GLY:O	1:A:37:VAL:HG22	2.17	0.45
30:0:1074:G:H4'	30:0:1260:G:C6	2.52	0.45
30:0:2577:A:H8	38:0:9606:HOH:O	1.99	0.45
30:0:1362:U:O2'	30:0:1363:G:H5'	2.17	0.45
9:I:113:SER:HA	30:0:1186:C:H5'	1.98	0.45
30:0:191:A:N6	30:0:435:A:H62	2.14	0.45
30:0:1116:U:N3	30:0:1246:A:N6	2.60	0.45
30:0:1603:A:H5'	30:0:1605:G:C5'	2.46	0.45
31:9:59:C:O5'	31:9:59:C:C6	2.63	0.45
30:0:400:C:O2'	30:0:401:C:H5'	2.17	0.45
30:0:793:A:H2'	30:0:794:U:H6	1.81	0.45
30:0:595:U:H2'	30:0:596:C:C6	2.52	0.45
30:0:1213:C:O2'	30:0:1214:G:H5'	2.17	0.45
30:0:1759:A:N3	30:0:1818:C:H2'	2.31	0.45
1:A:51:ARG:O	1:A:52:SER:HB2	2.16	0.45
30:0:154:C:H2'	30:0:155:C:H6	1.82	0.45
30:0:360:A:H2'	30:0:361:C:O4'	2.16	0.45
29:3:12:PRO:HG2	29:3:13:HIS:CD2	2.49	0.45
30:0:1948:G:H2'	30:0:1949:G:O4'	2.16	0.45
30:0:1670:A:H2'	30:0:1671:U:O4'	2.16	0.45
30:0:99:A:C8	30:0:100:C:C5	3.05	0.45
8:H:46:TYR:HA	8:H:47:PRO:HD3	1.81	0.45
20:T:114:SER:OG	20:T:117:ASP:HB2	2.16	0.45
30:0:2293:G:C6	30:0:2294:C:C5	3.04	0.45
30:0:2757:A:H2'	30:0:2758:G:O4'	2.16	0.45
31:9:29:C:C5	31:9:30:C:C5	3.04	0.45
30:0:2005:G:P	30:0:2005:G:H3'	2.55	0.45
30:0:2438:G:H2'	30:0:2439:C:C6	2.51	0.45
26:Z:70:ARG:O	26:Z:81:CYS:SG	2.74	0.45
30:0:1178:G:C6	30:0:1179:C:N4	2.84	0.45
30:0:2092:G:H2'	30:0:2613:G:OP1	2.17	0.45
30:0:734:U:H2'	30:0:736:A:OP2	2.16	0.45
30:0:1819:G:H2'	30:0:1820:G:C4'	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:912:A:C4	30:0:1294:A:C2	3.04	0.45
30:0:790:A:H1'	30:0:1710:A:C2'	2.46	0.45
30:0:304:G:O5'	30:0:304:G:H8	2.00	0.45
30:0:1970:G:N3	30:0:1970:G:H2'	2.31	0.45
30:0:1964:U:O2	30:0:1964:U:H2'	2.15	0.45
30:0:876:A:N3	30:0:876:A:C2'	2.79	0.45
14:N:144:GLY:O	14:N:147:ILE:HG23	2.15	0.45
18:R:96:VAL:HG13	18:R:106:GLY:HA3	1.98	0.45
25:Y:144:ARG:CZ	38:Y:8916:HOH:O	2.65	0.45
13:M:122:GLN:HB2	13:M:127:LYS:HG2	1.98	0.45
17:Q:15:LYS:HG3	30:0:2364:A:O3'	2.16	0.45
13:M:30:GLU:HG2	38:M:8864:HOH:O	2.17	0.45
2:B:254:GLN:HG2	2:B:255:GLY:N	2.30	0.45
30:0:1524:U:H5''	30:0:1524:U:C6	2.51	0.45
30:0:2718:C:C6	30:0:2718:C:H5'	2.50	0.45
28:2:40:ARG:HG3	28:2:45:ASN:CB	2.45	0.45
29:3:59:ASP:OD1	30:0:2460:A:H5''	2.16	0.45
30:0:2728:C:O5'	30:0:2728:C:H6	1.99	0.45
2:B:162:MET:HE2	2:B:310:ARG:HD3	1.97	0.45
23:W:5:VAL:HG11	23:W:153:MET:HE1	1.99	0.45
18:R:18:LEU:HB2	18:R:143:VAL:CG1	2.46	0.45
30:0:940:G:N3	30:0:1032:A:C2	2.84	0.45
5:E:152:THR:HG21	5:E:165:GLY:HA2	1.99	0.45
30:0:2697:A:H2'	30:0:2697:A:N3	2.32	0.45
30:0:420:U:O4'	30:0:1920:C:C4	2.70	0.45
38:C:8558:HOH:O	30:0:751:U:H5'	2.16	0.45
30:0:1940:C:H1'	38:0:9382:HOH:O	2.17	0.45
30:0:659:A:H5''	38:0:7082:HOH:O	2.17	0.45
12:L:72:ASN:O	12:L:76:LEU:HG	2.17	0.45
30:0:1547:A:H2'	30:0:1548:U:C6	2.52	0.45
9:I:82:THR:HG22	30:0:1168:C:H5''	1.97	0.45
30:0:960:G:N3	30:0:960:G:C2'	2.79	0.45
30:0:1523:G:C6	30:0:1524:U:C4	3.05	0.45
31:9:61:C:H2'	31:9:62:A:C8	2.46	0.45
30:0:1434:A:H4'	30:0:1435:U:H5	1.82	0.45
30:0:1883:U:H5''	30:0:2013:G:OP2	2.17	0.45
1:A:204:GLY:N	30:0:2634:G:OP2	2.49	0.45
14:N:33:ARG:HG3	38:N:8841:HOH:O	2.17	0.45
30:0:1149:U:C5	30:0:1215:A:N7	2.84	0.45
30:0:1151:G:N2	30:0:1214:G:C4	2.85	0.45
12:L:57:VAL:O	12:L:57:VAL:HG12	2.17	0.45
30:0:418:C:H2'	30:0:419:A:C8	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:790:A:H8	38:0:6078:HOH:O	1.98	0.45
30:0:1406:A:H4'	30:0:1407:A:H5''	1.98	0.45
13:M:34:GLU:HB3	13:M:38:GLU:HG3	1.99	0.45
15:O:27:GLY:O	15:O:31:GLU:HG3	2.17	0.45
1:A:11:ARG:HD3	38:0:9222:HOH:O	2.16	0.45
6:F:34:ASN:HA	13:M:4:ALA:HB2	1.98	0.45
30:0:2475:C:H5'	38:0:3664:HOH:O	2.16	0.45
1:A:189:VAL:HA	30:0:1845:A:OP1	2.16	0.45
2:B:119:HIS:O	2:B:121:PRO:HD3	2.16	0.45
27:1:16:HIS:HE1	30:0:775:G:OP1	1.99	0.45
30:0:2385:G:H2'	30:0:2386:U:H6	1.81	0.45
30:0:2515:C:H2'	30:0:2516:G:O4'	2.16	0.45
29:3:35:TRP:HZ3	30:0:2432:C:OP1	2.00	0.45
30:0:92:G:H2'	30:0:93:C:H6	1.82	0.45
31:9:30:C:C2'	31:9:30:C:O2	2.65	0.45
30:0:342:C:N4	30:0:343:C:H41	2.15	0.45
30:0:343:C:O2'	30:0:344:C:H5'	2.17	0.45
31:9:72:C:O2'	31:9:73:A:H5'	2.15	0.45
30:0:1405:U:H4'	30:0:1406:A:H5''	1.98	0.45
2:B:43:GLY:O	2:B:308:LEU:HD12	2.16	0.45
30:0:2361:A:H2'	30:0:2362:A:C8	2.51	0.45
30:0:916:A:C6	30:0:917:U:C4	3.05	0.45
30:0:1902:G:O2'	30:0:1903:U:H5'	2.16	0.45
10:J:43:ARG:HD3	38:J:8858:HOH:O	2.17	0.45
30:0:2887:G:H2'	30:0:2888:U:O4'	2.17	0.45
6:F:96:ALA:HA	38:F:3111:HOH:O	2.15	0.45
4:D:50:VAL:O	4:D:71:ALA:HA	2.17	0.45
30:0:387:G:C2'	30:0:388:G:H5'	2.46	0.45
26:Z:35:SER:HB3	26:Z:47:ARG:HB2	1.98	0.45
30:0:281:U:H5	38:0:7575:HOH:O	1.99	0.45
30:0:228:C:H2'	30:0:229:G:C5'	2.46	0.45
2:B:307:ARG:HG3	2:B:307:ARG:HH11	1.82	0.45
30:0:1576:G:C2	30:0:1577:U:C2	3.05	0.45
21:U:6:CYS:SG	21:U:31:PHE:HA	2.56	0.45
30:0:2842:G:H2'	30:0:2843:A:H5'	1.98	0.45
2:B:86:ALA:HA	38:B:9051:HOH:O	2.16	0.45
30:0:1850:U:H2'	30:0:1851:G:C8	2.52	0.45
30:0:1626:A:C2'	30:0:1627:G:H5'	2.46	0.45
30:0:862:U:H2'	30:0:863:G:C8	2.52	0.45
5:E:102:VAL:HG11	5:E:148:ILE:HG12	1.98	0.45
30:0:957:A:H8	30:0:957:A:O5'	2.00	0.45
3:C:95:GLU:HG3	38:C:8669:HOH:O	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:E:121:ASP:HB2	38:E:5899:HOH:O	2.16	0.45
30:0:2511:A:H2'	30:0:2512:U:H6	1.82	0.45
30:0:969:G:N2	30:0:1000:C:C2	2.85	0.45
30:0:1543:G:N1	30:0:1641:A:OP2	2.36	0.45
30:0:958:G:H2'	30:0:959:C:H6	1.75	0.45
30:0:1477:C:C5'	30:0:1868:G:H5''	2.47	0.45
30:0:1801:A:C2	30:0:1802:G:C4	3.04	0.45
30:0:2311:A:O2'	30:0:2312:G:H5'	2.17	0.45
13:M:86:GLN:NE2	38:M:8882:HOH:O	2.50	0.45
30:0:1041:U:H2'	30:0:1042:U:C5'	2.46	0.45
31:9:33:U:C6	31:9:43:G:C8	3.05	0.45
3:C:88:SER:O	3:C:91:PRO:HD3	2.17	0.45
30:0:1181:A:O2'	30:0:1182:C:H5'	2.17	0.44
31:9:3:A:OP2	31:9:25:G:N2	2.50	0.44
30:0:1524:U:C5'	30:0:1524:U:H6	2.29	0.44
26:Z:47:ARG:O	26:Z:51:ALA:HB2	2.16	0.44
23:W:48:VAL:HG12	23:W:52:VAL:HB	1.98	0.44
30:0:339:A:C6	30:0:342:C:N3	2.85	0.44
31:9:107:C:O2'	31:9:108:C:H5'	2.17	0.44
30:0:283:U:H5''	30:0:284:C:OP2	2.17	0.44
30:0:1392:A:C6	30:0:1395:C:C2	3.05	0.44
30:0:2826:G:O6	30:0:2913:A:N6	2.50	0.44
10:J:107:ASN:HD21	10:J:109:TYR:HB2	1.82	0.44
16:P:81:LYS:HE3	30:0:1813:U:O2'	2.18	0.44
1:A:164:ARG:NH1	1:A:164:ARG:HB3	2.31	0.44
30:0:1584:C:O2'	30:0:1585:C:H5'	2.17	0.44
30:0:1748:U:C5	30:0:1749:U:C4	3.06	0.44
5:E:153:ARG:NH1	30:0:2778:A:C1'	2.81	0.44
18:R:34:GLU:HG2	18:R:46:TYR:OH	2.17	0.44
30:0:163:U:O3'	30:0:896:C:H4'	2.16	0.44
30:0:2293:G:C6	30:0:2294:C:C4	3.05	0.44
30:0:581:G:H5'	38:0:7663:HOH:O	2.17	0.44
8:H:83:GLU:HA	38:H:243:HOH:O	2.18	0.44
30:0:198:A:C2	30:0:2444:U:H1'	2.53	0.44
4:D:128:LEU:HD23	4:D:129:ASP:N	2.32	0.44
30:0:1246:A:O2'	30:0:1247:A:H3'	2.17	0.44
14:N:1:ALA:HB2	31:9:14:G:O2'	2.18	0.44
13:M:76:ARG:HG3	38:M:8827:HOH:O	2.17	0.44
3:C:129:HIS:HD2	3:C:165:ASP:OD2	2.01	0.44
30:0:1434:A:H2'	30:0:1436:C:C5	2.52	0.44
30:0:440:C:O5'	30:0:440:C:H6	2.00	0.44
30:0:711:G:C2'	30:0:712:C:H5'	2.47	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:R:98:ASN:ND2	30:0:500:G:H21	2.12	0.44
23:W:10:GLU:O	23:W:13:MET:HB3	2.18	0.44
12:L:41:HIS:CD2	30:0:926:A:O2'	2.69	0.44
30:0:1362:U:H2'	30:0:1363:G:C8	2.52	0.44
10:J:15:ARG:HG2	10:J:16:ASP:OD1	2.17	0.44
2:B:51:VAL:HG13	2:B:53:LEU:HD13	1.98	0.44
20:T:81:LYS:HD2	20:T:87:VAL:HG11	1.98	0.44
3:C:60:SER:HA	38:C:8575:HOH:O	2.17	0.44
9:I:130:LEU:HD21	30:0:1167:G:C4'	2.46	0.44
30:0:877:G:N7	30:0:885:G:C5	2.85	0.44
30:0:1701:A:H5''	30:0:1702:U:H3'	1.99	0.44
30:0:1680:C:H2'	30:0:1681:G:O4'	2.17	0.44
13:M:71:SER:OG	13:M:72:ALA:N	2.51	0.44
30:0:372:A:O2'	30:0:373:G:H5'	2.17	0.44
22:V:12:THR:CG2	22:V:15:GLU:H	2.30	0.44
30:0:2276:U:H2'	30:0:2277:U:C6	2.52	0.44
30:0:1391:G:N2	30:0:1434:A:H5''	2.32	0.44
30:0:1202:A:C2'	30:0:1203:G:H5'	2.48	0.44
30:0:1132:A:H2'	30:0:1133:A:C8	2.52	0.44
29:3:10:TYR:CD1	30:0:2408:A:H1'	2.52	0.44
30:0:1649:G:H1'	38:0:5049:HOH:O	2.17	0.44
30:0:729:C:C2	30:0:743:G:C2	3.05	0.44
30:0:1069:C:H2'	30:0:1070:A:O4'	2.18	0.44
18:R:59:PHE:O	18:R:63:ASN:HB3	2.18	0.44
11:K:86:THR:HG22	11:K:87:ARG:N	2.32	0.44
30:0:57:C:H42	30:0:89:G:H1	1.64	0.44
29:3:5:ARG:HD2	29:3:21:GLU:HG2	1.98	0.44
30:0:2507:G:H2'	30:0:2510:C:H42	1.81	0.44
30:0:2509:A:OP2	30:0:2510:C:H5	2.00	0.44
30:0:625:U:H5'	38:0:3177:HOH:O	2.16	0.44
30:0:2911:C:H2'	30:0:2912:C:H6	1.82	0.44
19:S:11:THR:H	19:S:14:ALA:HB3	1.81	0.44
5:E:20:ILE:O	5:E:30:THR:HA	2.17	0.44
30:0:2775:A:N6	30:0:2799:A:C8	2.86	0.44
26:Z:69:ASP:O	26:Z:71:VAL:N	2.45	0.44
30:0:1556:G:O2'	30:0:1557:G:H5'	2.17	0.44
30:0:1415:G:C2'	30:0:1416:G:H5'	2.47	0.44
12:L:22:ARG:HG2	38:0:3223:HOH:O	2.15	0.44
2:B:244:PRO:HB3	30:0:1234:U:N3	2.32	0.44
25:Y:182:PHE:HD2	25:Y:200:THR:O	2.00	0.44
25:Y:189:ASN:HD22	25:Y:189:ASN:C	2.21	0.44
8:H:14:LYS:HG3	38:H:183:HOH:O	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:153:THR:O	4:D:156:ARG:HB2	2.16	0.44
30:0:2345:A:C3'	30:0:2346:C:H6	2.23	0.44
30:0:1043:C:H2'	38:0:3185:HOH:O	2.18	0.44
23:W:5:VAL:HG11	23:W:153:MET:CE	2.48	0.44
18:R:80:TYR:O	30:0:2050:G:H5''	2.16	0.44
9:I:87:PRO:HG2	30:0:1181:A:O4'	2.18	0.44
30:0:1519:U:O2'	30:0:1520:G:H5'	2.16	0.44
30:0:2377:U:O2'	30:0:2378:U:H5'	2.17	0.44
30:0:2005:G:OP2	30:0:2006:C:C5'	2.66	0.44
20:T:97:ARG:NH2	30:0:309:C:OP1	2.51	0.44
30:0:821:U:H2'	30:0:822:C:H6	1.81	0.44
30:0:2781:U:H2'	30:0:2782:G:C5'	2.48	0.44
1:A:233:THR:HB	30:0:1942:A:H5''	1.99	0.44
30:0:1706:G:C6	30:0:1707:G:N1	2.86	0.44
30:0:1711:A:H2'	30:0:1712:A:H5'	1.99	0.44
13:M:66:SER:HB3	13:M:128:TRP:NE1	2.32	0.44
30:0:2834:G:H2'	30:0:2835:C:O5'	2.17	0.44
30:0:2872:U:C2	30:0:2873:C:C6	3.05	0.44
27:1:20:ARG:HB2	38:1:513:HOH:O	2.18	0.44
30:0:1330:A:H2	38:0:4652:HOH:O	2.00	0.44
25:Y:99:ALA:HB2	25:Y:233:TYR:CE2	2.52	0.44
5:E:69:ILE:HA	5:E:72:MET:CE	2.48	0.44
30:0:1016:U:O2'	30:0:2303:A:N7	2.40	0.44
30:0:1762:C:H2'	30:0:1763:C:H6	1.82	0.44
17:Q:40:HIS:HE1	30:0:949:U:O2'	2.01	0.44
30:0:2457:U:H1'	38:0:7515:HOH:O	2.17	0.44
30:0:2854:A:C6	30:0:2905:A:N1	2.86	0.44
23:W:129:LYS:CD	31:9:87:U:H2'	2.47	0.44
30:0:2552:C:C6	30:0:2577:A:N7	2.85	0.44
8:H:8:MET:CE	30:0:2494:G:H4'	2.48	0.44
3:C:6:TYR:N	3:C:6:TYR:CD1	2.86	0.44
30:0:569:A:H5''	30:0:587:A:N1	2.32	0.44
30:0:1112:G:H1	30:0:1251:C:H42	1.65	0.44
38:T:2151:HOH:O	30:0:317:A:H5'	2.17	0.44
19:S:55:GLN:CD	30:0:1446:U:H2'	2.37	0.44
1:A:192:VAL:HG23	30:0:1882:C:OP1	2.17	0.44
4:D:62:ASP:HA	38:D:4233:HOH:O	2.18	0.44
30:0:2250:G:N1	30:0:2251:G:N3	2.66	0.44
30:0:1309:U:C2'	30:0:1310:U:H5'	2.48	0.44
30:0:929:A:H8	30:0:929:A:O5'	2.01	0.44
2:B:5:ARG:NH1	30:0:2547:C:OP2	2.51	0.44
30:0:1427:A:C2'	30:0:1428:C:H5'	2.47	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:U:45:GLU:HB2	21:U:48:ASN:ND2	2.32	0.44
30:0:2541:U:H5'	30:0:2611:G:O6	2.18	0.44
2:B:241:PRO:HB3	30:0:2609:G:N3	2.33	0.44
4:D:86:THR:O	4:D:89:PRO:HD2	2.18	0.44
30:0:2566:A:C2	30:0:2696:G:O4'	2.71	0.44
25:Y:204:ARG:NH2	30:0:1324:G:N2	2.65	0.44
31:9:26:C:H2'	31:9:27:C:H6	1.79	0.44
8:H:87:LYS:HG3	8:H:140:TYR:HD1	1.83	0.44
30:0:821:U:O2'	30:0:822:C:H5'	2.18	0.44
30:0:1202:A:H2'	30:0:1203:G:H5'	2.00	0.44
13:M:80:GLY:O	13:M:81:ARG:HB2	2.18	0.44
30:0:157:G:H3'	38:0:3945:HOH:O	2.18	0.44
30:0:703:G:C6	30:0:704:C:C4	3.06	0.44
31:9:31:C:C2	31:9:50:G:C2	3.05	0.44
30:0:304:G:H1'	30:0:347:A:N6	2.32	0.44
16:P:13:VAL:HG11	16:P:40:VAL:CG1	2.48	0.44
30:0:1789:G:H2'	30:0:1790:C:O5'	2.17	0.44
8:H:66:GLU:HA	38:H:239:HOH:O	2.17	0.44
8:H:59:GLN:HE21	8:H:129:ARG:HE	1.65	0.44
1:A:103:VAL:HA	1:A:104:PRO:HD3	1.89	0.44
30:0:1986:G:C6	30:0:1987:C:N4	2.86	0.44
2:B:195:ARG:HE	2:B:323:LEU:HD13	1.83	0.44
14:N:47:LEU:HA	14:N:47:LEU:HD13	1.86	0.44
20:T:19:ARG:HD3	20:T:67:LEU:O	2.18	0.44
30:0:582:U:H2'	30:0:583:C:C6	2.53	0.44
30:0:2061:C:H2'	30:0:2062:A:H5'	1.99	0.44
30:0:1950:G:H2'	30:0:1951:G:C8	2.53	0.44
1:A:194:MET:SD	30:0:875:A:C2	3.11	0.44
30:0:868:G:C4	30:0:887:G:C8	3.06	0.44
31:9:81:C:C2'	31:9:82:U:H5'	2.48	0.44
30:0:2104:C:O2	30:0:2485:A:N1	2.50	0.44
30:0:1522:A:H2'	30:0:1523:G:C5'	2.48	0.44
8:H:39:LYS:O	30:0:969:G:H4'	2.18	0.44
16:P:88:GLN:HB3	38:P:185:HOH:O	2.16	0.44
5:E:90:HIS:CE1	30:0:2694:A:H5''	2.53	0.44
10:J:75:PRO:HD3	10:J:136:SER:OG	2.18	0.44
17:Q:25:PRO:HA	17:Q:26:PRO:HD3	1.78	0.44
2:B:279:THR:HG22	2:B:280:VAL:N	2.33	0.44
30:0:2250:G:C2	30:0:2251:G:C4	3.06	0.44
30:0:727:G:C2	30:0:728:C:C2	3.06	0.44
29:3:10:TYR:CE2	30:0:2382:A:H1'	2.53	0.44
30:0:2431:C:H2'	30:0:2432:C:C6	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:54:VAL:HB	38:B:9083:HOH:O	2.17	0.44
30:0:1937:U:O2'	30:0:1938:G:H5'	2.18	0.44
30:0:483:C:H2'	30:0:484:A:O4'	2.18	0.44
30:0:2729:C:O2'	30:0:2730:G:H5'	2.18	0.44
1:A:182:ARG:HB3	38:0:5133:HOH:O	2.18	0.44
16:P:54:LYS:HB2	30:0:1717:A:H5''	1.98	0.44
30:0:1166:A:C6	30:0:1167:G:C5	3.06	0.43
30:0:1167:G:O2'	30:0:1168:C:H5'	2.18	0.43
30:0:1185:U:C5'	38:0:7447:HOH:O	2.59	0.43
31:9:74:G:O2'	31:9:75:G:H5'	2.18	0.43
30:0:1544:U:H2'	30:0:1545:C:H6	1.82	0.43
30:0:1642:A:N7	30:0:1643:C:C4	2.86	0.43
30:0:39:G:O2'	30:0:40:C:H5'	2.18	0.43
30:0:2090:G:H2'	30:0:2091:G:C8	2.53	0.43
30:0:1592:G:O2'	30:0:1593:C:O4'	2.36	0.43
30:0:2851:G:O2'	30:0:2852:A:H5'	2.17	0.43
30:0:1421:C:O2'	30:0:1422:U:H5'	2.18	0.43
30:0:324:G:C6	30:0:325:U:C5	3.06	0.43
3:C:174:ILE:CD1	30:0:338:C:H4'	2.48	0.43
30:0:293:A:C5	30:0:360:A:C2	3.06	0.43
26:Z:45:VAL:O	26:Z:49:ARG:HG3	2.18	0.43
30:0:175:G:O2'	30:0:176:U:OP2	2.36	0.43
23:W:119:HIS:HE1	38:0:9568:HOH:O	2.00	0.43
30:0:634:G:O2'	30:0:1358:A:OP1	2.31	0.43
25:Y:182:PHE:CG	25:Y:202:ALA:HB2	2.53	0.43
30:0:838:C:H4'	38:0:9187:HOH:O	2.18	0.43
30:0:2435:U:H4'	38:0:9269:HOH:O	2.17	0.43
14:N:12:ARG:HD3	14:N:18:THR:OG1	2.18	0.43
4:D:103:ASN:ND2	4:D:133:ASN:HA	2.33	0.43
30:0:533:U:H3'	38:0:3742:HOH:O	2.18	0.43
13:M:104:ARG:HG3	38:M:8866:HOH:O	2.18	0.43
31:9:2:U:OP2	31:9:3:A:H5'	2.18	0.43
30:0:692:A:N6	30:0:693:A:C2	2.86	0.43
3:C:193:LEU:HD12	3:C:211:ASP:O	2.18	0.43
30:0:1706:G:H1'	30:0:1712:A:N6	2.30	0.43
23:W:115:THR:HG23	38:W:5420:HOH:O	2.18	0.43
30:0:1130:U:C2'	30:0:1131:G:H5'	2.48	0.43
23:W:13:MET:HE2	23:W:17:ILE:HG22	2.00	0.43
24:X:39:LYS:HE2	30:0:2834:G:OP1	2.17	0.43
23:W:142:ASP:HB3	23:W:145:GLY:H	1.83	0.43
1:A:94:LEU:HD12	1:A:98:GLU:CB	2.48	0.43
2:B:202:VAL:HA	2:B:310:ARG:O	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:61:HIS:O	26:Z:69:ASP:HA	2.17	0.43
2:B:84:LEU:HD23	2:B:142:LEU:HD23	2.00	0.43
30:0:1916:C:C2	30:0:1924:A:C2	3.06	0.43
30:0:2871:G:C4	30:0:2887:G:N2	2.86	0.43
13:M:65:VAL:HG21	13:M:105:ALA:HB2	2.00	0.43
30:0:827:A:H2'	30:0:828:G:O4'	2.18	0.43
30:0:2135:A:O4'	30:0:2243:C:N4	2.51	0.43
4:D:10:PHE:CG	4:D:11:HIS:N	2.86	0.43
30:0:117:A:H2'	30:0:118:G:C8	2.53	0.43
1:A:215:ILE:HG22	1:A:227:ASP:O	2.18	0.43
30:0:1210:G:C2	30:0:1211:G:C8	3.06	0.43
30:0:820:G:N3	30:0:820:G:H3'	2.33	0.43
30:0:2793:A:N6	38:0:5853:HOH:O	2.50	0.43
30:0:2847:G:C2'	30:0:2848:G:H5'	2.48	0.43
30:0:2277:U:H1'	30:0:2469:A:N3	2.33	0.43
25:Y:154:ARG:HH21	30:0:1293:U:H5'	1.83	0.43
30:0:1949:G:N2	30:0:1964:U:C2	2.87	0.43
30:0:2594:C:O2'	30:0:2595:U:H5'	2.19	0.43
30:0:2112:A:H2'	30:0:2113:G:C8	2.53	0.43
30:0:1363:G:H2'	30:0:1364:G:C8	2.54	0.43
30:0:385:C:O5'	30:0:385:C:H6	2.02	0.43
1:A:38:ILE:HB	1:A:82:VAL:O	2.18	0.43
30:0:665:A:C6	30:0:666:A:C6	3.06	0.43
30:0:2429:A:C4'	38:0:7716:HOH:O	2.66	0.43
30:0:219:G:O5'	30:0:220:C:H5''	2.18	0.43
4:D:75:LEU:HD22	4:D:79:MET:HB3	2.00	0.43
3:C:47:GLY:HA2	3:C:92:PRO:HB2	2.00	0.43
20:T:14:ALA:HA	20:T:15:PRO:HD3	1.90	0.43
30:0:1298:U:H2'	30:0:1299:G:C8	2.53	0.43
3:C:44:GLN:HA	38:C:8605:HOH:O	2.18	0.43
30:0:1815:A:H4'	30:0:2751:C:O4'	2.19	0.43
30:0:1816:C:H2'	30:0:1817:U:O4'	2.17	0.43
30:0:41:G:H8	30:0:41:G:O5'	2.00	0.43
31:9:115:C:C4	31:9:116:C:C5	3.06	0.43
5:E:91:PHE:HA	5:E:92:PRO:HD3	1.89	0.43
30:0:1878:G:O2'	30:0:1879:U:OP2	2.36	0.43
5:E:126:ILE:HA	5:E:131:LEU:CD2	2.47	0.43
30:0:36:C:H1'	38:0:3051:HOH:O	2.17	0.43
30:0:152:A:O2'	30:0:153:C:H5'	2.18	0.43
3:C:6:TYR:HD1	3:C:6:TYR:N	2.17	0.43
14:N:139:TRP:CE3	14:N:139:TRP:HA	2.53	0.43
30:0:234:A:H4'	30:0:437:A:O4'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1980:U:O2	30:0:2008:U:H4'	2.18	0.43
11:K:4:LEU:HD22	11:K:116:GLU:HB3	2.00	0.43
30:0:1537:C:H2'	30:0:1538:C:H6	1.83	0.43
5:E:84:MET:SD	38:E:3134:HOH:O	2.61	0.43
30:0:1520:G:C2	30:0:1521:C:C2	3.07	0.43
30:0:2748:G:H1'	38:0:7881:HOH:O	2.18	0.43
30:0:2768:A:H3'	30:0:2768:A:N3	2.33	0.43
30:0:1503:U:H2'	30:0:1504:A:O4'	2.19	0.43
3:C:39:GLN:O	3:C:43:LYS:HD3	2.18	0.43
23:W:6:GLN:HB2	23:W:26:ILE:CD1	2.48	0.43
31:9:39:U:O2'	31:9:42:C:H5	2.01	0.43
30:0:2354:A:H5'	30:0:2355:G:N7	2.33	0.43
30:0:2361:A:H5'	38:0:9191:HOH:O	2.19	0.43
30:0:1024:G:C6	30:0:1025:C:C4	3.07	0.43
30:0:2429:A:H4'	38:0:7716:HOH:O	2.16	0.43
30:0:2451:G:N3	30:0:2451:G:H2'	2.32	0.43
30:0:148:A:O2'	30:0:149:G:H5'	2.19	0.43
16:P:8:ARG:HG3	38:P:188:HOH:O	2.17	0.43
30:0:772:G:H2'	30:0:773:A:O4'	2.18	0.43
9:I:73:LEU:HD12	9:I:107:LYS:NZ	2.33	0.43
30:0:2070:G:H2'	30:0:2072:G:OP1	2.18	0.43
30:0:2531:U:H2'	30:0:2532:A:O4'	2.19	0.43
30:0:2445:U:H2'	30:0:2446:G:C8	2.54	0.43
2:B:154:VAL:HA	2:B:155:PRO:HD3	1.88	0.43
30:0:1167:G:C2	30:0:1168:C:C2	3.06	0.43
30:0:1275:C:C2'	30:0:1276:U:H5'	2.49	0.43
31:9:5:G:O2'	31:9:6:C:H5'	2.18	0.43
30:0:1175:G:N3	30:0:1193:A:C6	2.86	0.43
29:3:67:LEU:CD1	29:3:69:TYR:HE1	2.31	0.43
31:9:108:C:H2'	31:9:109:G:H8	1.82	0.43
30:0:2569:A:H2'	30:0:2570:G:O5'	2.19	0.43
10:J:70:PHE:HE1	30:0:2676:C:C4'	2.32	0.43
30:0:629:A:C2	30:0:2074:A:C2	3.07	0.43
13:M:164:THR:HB	38:M:8820:HOH:O	2.17	0.43
30:0:2668:G:H2'	30:0:2669:U:H6	1.81	0.43
30:0:2692:G:N2	30:0:2701:G:C8	2.87	0.43
29:3:59:ASP:HB3	29:3:63:LYS:HZ1	1.83	0.43
30:0:1421:C:C2	30:0:1444:G:N2	2.87	0.43
30:0:1985:U:C2	30:0:1996:U:O4'	2.72	0.43
31:9:65:A:C4	31:9:113:C:C4	3.07	0.43
17:Q:11:ARG:NH2	30:0:2363:G:C5'	2.81	0.43
5:E:107:PHE:CE2	5:E:108:LEU:HD13	2.54	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1284:G:O2'	30:0:1285:U:H5'	2.18	0.43
14:N:77:ASN:OD1	14:N:79:PRO:HD2	2.18	0.43
1:A:71:PRO:O	1:A:160:ALA:HB2	2.18	0.43
30:0:2886:C:O2'	30:0:2887:G:H5'	2.18	0.43
4:D:128:LEU:HB2	38:D:6007:HOH:O	2.18	0.43
30:0:2429:A:N6	38:0:3326:HOH:O	2.51	0.43
26:Z:55:SER:HA	38:0:7562:HOH:O	2.19	0.43
4:D:104:PHE:CE2	4:D:132:VAL:HB	2.54	0.43
6:F:60:VAL:O	6:F:62:HIS:N	2.52	0.43
14:N:32:PRO:HD2	14:N:99:GLU:O	2.18	0.43
30:0:2507:G:H22	30:0:2512:U:H5''	1.84	0.43
30:0:1519:U:H1'	38:0:3898:HOH:O	2.18	0.43
30:0:1665:G:C2	30:0:1666:C:C6	3.07	0.43
30:0:877:G:H3'	38:0:3106:HOH:O	2.19	0.43
13:M:70:GLY:HA3	13:M:73:ARG:HH21	1.77	0.43
30:0:273:G:H2'	30:0:274:G:O4'	2.18	0.43
30:0:284:C:OP2	30:0:284:C:H6	2.01	0.43
26:Z:41:ARG:HD2	30:0:820:G:H22	1.83	0.43
30:0:1552:G:C6	30:0:1634:G:C6	3.07	0.43
30:0:1178:G:C5	30:0:1179:C:C4	3.07	0.43
30:0:85:C:H3'	30:0:86:A:H2'	2.01	0.43
2:B:27:ASN:HD21	30:0:2807:U:P	2.41	0.43
30:0:102:A:C6	30:0:103:C:C4	3.06	0.43
31:9:111:U:O2'	31:9:112:U:H5'	2.19	0.43
30:0:624:U:O4	30:0:628:1MA:H8	2.01	0.43
30:0:2803:C:H2'	30:0:2804:C:C6	2.54	0.43
30:0:1705:C:O2	30:0:2735:U:C5'	2.65	0.43
30:0:2855:G:C2	30:0:2904:U:C2	3.06	0.43
30:0:2473:U:H2'	30:0:2476:C:H5	1.84	0.43
30:0:1333:U:H2'	30:0:1334:C:C6	2.53	0.43
13:M:29:GLN:OE1	30:0:2244:A:H5''	2.18	0.43
14:N:91:ARG:O	14:N:94:GLU:HB2	2.19	0.43
30:0:1602:C:H5'	38:0:6467:HOH:O	2.18	0.43
30:0:1159:G:C6	30:0:1160:G:C4	3.07	0.43
29:3:22:VAL:HG12	29:3:90:PHE:HE2	1.83	0.43
30:0:2510:C:H42	30:0:2564:G:H22	1.66	0.43
30:0:816:G:C6	30:0:817:G:N1	2.87	0.43
1:A:167:LYS:CE	26:Z:50:VAL:HG13	2.42	0.43
30:0:2780:C:C4	30:0:2781:U:C4	3.06	0.43
30:0:1788:U:C2	30:0:1805:G:C2	3.07	0.43
30:0:2094:G:C2	30:0:2652:U:O2	2.71	0.43
30:0:1202:A:H2'	30:0:1203:G:O4'	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2727:A:C6	30:0:2756:U:N3	2.87	0.43
30:0:2812:A:H2	30:0:2814:A:H62	1.63	0.43
30:0:1255:A:H2'	30:0:1256:C:O5'	2.18	0.43
21:U:6:CYS:HB2	21:U:13:ILE:CG1	2.49	0.43
30:0:79:G:H22	30:0:97:G:H1'	1.82	0.43
30:0:432:G:C2	30:0:433:C:C6	3.07	0.43
25:Y:144:ARG:HB3	38:0:4369:HOH:O	2.18	0.43
16:P:58:SER:HB3	38:0:5593:HOH:O	2.18	0.43
14:N:65:ASP:HB3	38:N:8820:HOH:O	2.19	0.43
30:0:1703:G:C2	30:0:1716:A:C4	3.06	0.43
30:0:191:A:H61	30:0:435:A:H62	1.67	0.43
31:9:11:A:H2	31:9:68:G:N3	2.17	0.43
30:0:1667:A:H2'	30:0:1668:U:O4'	2.19	0.43
18:R:39:THR:HB	18:R:42:GLU:CD	2.39	0.43
30:0:1882:C:H2'	30:0:1883:U:C6	2.53	0.43
30:0:1712:A:H2'	30:0:1713:G:O4'	2.19	0.43
30:0:1399:A:H2'	30:0:1400:C:C6	2.54	0.43
30:0:2328:U:C4	30:0:2329:C:C5	3.07	0.43
29:3:54:LYS:HE3	38:0:3005:HOH:O	2.18	0.43
31:9:39:U:H2'	31:9:40:C:OP1	2.18	0.43
30:0:1697:G:H1'	38:0:7261:HOH:O	2.19	0.43
30:0:2080:G:H2'	30:0:2081:A:C8	2.54	0.43
25:Y:235:GLU:CD	25:Y:235:GLU:N	2.72	0.43
29:3:17:HIS:ND1	30:0:2408:A:O2'	2.48	0.43
2:B:305:ASP:O	2:B:306:LYS:CB	2.66	0.43
1:A:105:VAL:HG11	1:A:154:ALA:HB1	2.00	0.43
5:E:95:VAL:O	5:E:126:ILE:HD12	2.18	0.43
18:R:18:LEU:HD12	18:R:143:VAL:CG1	2.49	0.43
5:E:7:ILE:HG23	5:E:45:ASP:O	2.19	0.43
30:0:2332:A:H3'	30:0:2333:G:H8	1.84	0.43
16:P:134:VAL:O	16:P:137:LEU:HB3	2.19	0.43
10:J:99:GLU:HA	38:J:8871:HOH:O	2.19	0.43
30:0:1192:A:H4'	38:0:4383:HOH:O	2.18	0.43
30:0:435:A:O2'	30:0:436:A:H5'	2.19	0.43
31:9:11:A:H4'	31:9:13:A:C8	2.54	0.43
30:0:816:G:O5'	30:0:816:G:H8	2.02	0.43
6:F:58:GLU:HB3	13:M:8:ILE:HG23	2.01	0.43
20:T:28:SER:HA	20:T:97:ARG:HD3	1.99	0.43
30:0:2896:A:N3	30:0:2896:A:H2'	2.34	0.43
30:0:793:A:C2	30:0:822:C:C2	3.06	0.43
30:0:1504:A:H4'	30:0:1506:U:C5	2.53	0.43
30:0:2779:G:N7	30:0:2790:C:C2	2.86	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:67:A:H5''	30:0:69:A:C8	2.54	0.43
13:M:48:LYS:HE3	13:M:52:GLN:NE2	2.28	0.43
30:0:1342:C:H2'	30:0:1343:C:H5'	1.99	0.43
30:0:1383:U:H2'	30:0:1384:C:C6	2.54	0.43
30:0:1933:G:C2'	30:0:1934:A:H5'	2.48	0.43
30:0:2476:C:H2'	30:0:2476:C:O2	2.19	0.43
30:0:699:C:C2	30:0:744:G:N2	2.87	0.43
30:0:2293:G:C5	30:0:2294:C:C5	3.07	0.43
12:L:6:ARG:HD3	30:0:1299:G:O6	2.18	0.43
4:D:12:GLU:O	4:D:15:GLU:HG2	2.18	0.43
30:0:1600:G:H8	30:0:1600:G:OP2	2.02	0.43
30:0:393:G:C2	30:0:394:G:C4	3.06	0.43
1:A:72:GLU:HG2	26:Z:100:GLY:HA3	2.01	0.43
30:0:135:G:C2	30:0:144:A:N3	2.86	0.43
30:0:2095:A:OP1	30:0:2096:A:H4'	2.19	0.43
19:S:57:THR:C	19:S:59:ASP:H	2.21	0.43
30:0:877:G:N7	30:0:885:G:C6	2.87	0.42
30:0:248:A:H5'	30:0:249:G:OP2	2.19	0.42
1:A:23:TYR:HB2	30:0:1872:C:C5	2.54	0.42
31:9:110:G:C6	31:9:111:U:C5	3.07	0.42
31:9:16:G:C2	31:9:66:G:O6	2.72	0.42
13:M:42:ARG:HA	13:M:43:PRO:HD3	1.86	0.42
4:D:67:ASP:HA	4:D:68:PRO:HD3	1.92	0.42
30:0:729:C:C2	30:0:743:G:N2	2.87	0.42
30:0:577:G:C2	30:0:581:G:C6	3.07	0.42
21:U:34:SER:HB3	38:0:3126:HOH:O	2.17	0.42
30:0:1287:A:H8	38:0:7887:HOH:O	2.02	0.42
30:0:349:U:O5'	30:0:349:U:H6	2.02	0.42
15:O:57:THR:O	15:O:111:VAL:HG23	2.19	0.42
1:A:81:GLN:H	1:A:92:ASN:ND2	2.17	0.42
30:0:970:U:H2'	38:0:6308:HOH:O	2.18	0.42
19:S:42:GLU:O	19:S:46:ASP:HA	2.19	0.42
3:C:156:LEU:O	3:C:160:LEU:HG	2.19	0.42
5:E:81:GLU:O	5:E:172:PRO:HD3	2.19	0.42
30:0:1183:C:N3	30:0:1184:C:N4	2.67	0.42
30:0:1184:C:O2'	30:0:1185:U:OP2	2.32	0.42
30:0:2512:U:H4'	30:0:2514:U:O4	2.19	0.42
4:D:137:PRO:O	31:9:30:C:OP1	2.37	0.42
30:0:1981:A:C6	30:0:2005:G:H4'	2.54	0.42
30:0:2005:G:OP2	30:0:2006:C:H5''	2.19	0.42
13:M:112:LEU:HB3	13:M:133:LEU:HB3	2.02	0.42
30:0:2853:U:C4	30:0:2906:A:N6	2.87	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:2600:A:H2'	30:0:2601:A:O4'	2.19	0.42
24:X:49:ARG:NH1	30:0:1385:G:O3'	2.51	0.42
30:0:1568:G:C2'	30:0:1569:U:H5'	2.49	0.42
30:0:726:C:C2	30:0:727:G:C8	3.07	0.42
24:X:43:VAL:HG12	24:X:44:ASP:N	2.34	0.42
30:0:1970:G:H4'	30:0:1971:G:O5'	2.19	0.42
30:0:95:A:H5''	30:0:97:G:O4'	2.19	0.42
27:1:44:LYS:HG2	30:0:148:A:H5''	2.01	0.42
30:0:2531:U:H4'	38:0:9596:HOH:O	2.17	0.42
30:0:188:C:O5'	30:0:188:C:H6	2.02	0.42
23:W:11:VAL:O	23:W:12:ASN:HB2	2.19	0.42
3:C:24:THR:HG23	3:C:25:PRO:HD2	2.02	0.42
30:0:2248:C:O2'	30:0:2249:G:H5'	2.19	0.42
30:0:314:G:N2	30:0:317:A:C8	2.87	0.42
30:0:1474:C:O2'	30:0:1475:G:H5'	2.18	0.42
30:0:2374:G:H2'	30:0:2375:A:C8	2.53	0.42
3:C:46:TYR:CE1	30:0:450:C:H4'	2.54	0.42
5:E:21:THR:HG23	5:E:30:THR:OG1	2.19	0.42
26:Z:34:SER:HB3	30:0:797:A:H4'	2.00	0.42
4:D:76:ARG:NE	31:9:44:A:O4'	2.52	0.42
30:0:111:C:H2'	30:0:112:G:O4'	2.19	0.42
30:0:1115:U:H5''	30:0:1140:C:O2'	2.20	0.42
30:0:354:A:H2'	30:0:355:C:C6	2.52	0.42
8:H:65:LEU:HA	8:H:65:LEU:HD12	1.80	0.42
30:0:107:U:H2'	30:0:108:U:H5'	2.01	0.42
3:C:151:GLN:HA	3:C:151:GLN:HE21	1.84	0.42
30:0:830:G:O2'	30:0:831:U:H5'	2.19	0.42
30:0:752:G:H2'	30:0:753:U:O4'	2.19	0.42
3:C:194:PHE:HB2	3:C:212:VAL:HG12	2.00	0.42
30:0:1195:G:N2	30:0:1205:U:C2	2.87	0.42
31:9:57:A:N3	31:9:57:A:H5'	2.34	0.42
30:0:877:G:C6	30:0:885:G:C4	3.08	0.42
30:0:2502:C:O2'	30:0:2503:A:H5'	2.19	0.42
20:T:24:ARG:HH21	20:T:39:ASN:ND2	2.17	0.42
30:0:282:C:O2'	30:0:368:C:N4	2.52	0.42
31:9:36:C:C5	31:9:37:C:C4	3.08	0.42
30:0:2893:C:C2'	30:0:2894:C:H5'	2.49	0.42
28:2:22:PRO:HG2	28:2:25:VAL:CG2	2.49	0.42
31:9:65:A:C2'	31:9:66:G:OP2	2.68	0.42
30:0:652:G:H2'	30:0:653:U:O4'	2.20	0.42
30:0:2362:A:H2'	30:0:2363:G:C8	2.54	0.42
12:L:38:HIS:CD2	12:L:39:GLU:HG3	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:E:72:MET:O	5:E:76:VAL:HG22	2.19	0.42
30:0:1789:G:C2'	30:0:1790:C:O5'	2.67	0.42
19:S:57:THR:HG22	19:S:58:MET:N	2.34	0.42
26:Z:66:CYS:SG	26:Z:67:GLY:N	2.93	0.42
2:B:57:GLU:HA	2:B:58:PRO:HD2	1.85	0.42
5:E:35:TYR:CD2	5:E:36:PRO:HD2	2.55	0.42
5:E:106:ASN:ND2	5:E:109:GLY:HA2	2.34	0.42
30:0:2655:U:C4	30:0:2656:G:N7	2.87	0.42
29:3:80:ARG:HH22	30:0:2381:C:H4'	1.84	0.42
30:0:1350:U:H5''	38:0:5090:HOH:O	2.20	0.42
2:B:60:SER:HA	2:B:61:PRO:HD3	1.90	0.42
31:9:22:G:C6	31:9:55:U:C2	3.07	0.42
3:C:211:ASP:HB2	3:C:231:ARG:HH12	1.85	0.42
30:0:138:U:P	30:0:139:C:H5	2.42	0.42
30:0:2346:C:O2	30:0:2346:C:H2'	2.18	0.42
26:Z:38:PHE:HB3	26:Z:42:TYR:HD1	1.82	0.42
8:H:91:ARG:NH2	8:H:135:GLN:NE2	2.68	0.42
30:0:265:U:C2	30:0:266:G:C8	3.07	0.42
1:A:223:ARG:HH12	30:0:2270:G:C4'	2.27	0.42
30:0:1848:G:O2'	30:0:1849:G:H5'	2.19	0.42
30:0:2470:A:H2'	30:0:2471:G:O5'	2.19	0.42
16:P:10:ALA:HA	16:P:13:VAL:HG12	2.02	0.42
2:B:162:MET:HG3	2:B:310:ARG:NH1	2.35	0.42
2:B:307:ARG:HG2	2:B:308:LEU:N	2.34	0.42
30:0:1342:C:O2'	30:0:1343:C:H5'	2.18	0.42
30:0:1754:A:O5'	30:0:1754:A:H8	2.02	0.42
29:3:10:TYR:CD2	30:0:2382:A:H1'	2.55	0.42
30:0:161:A:H2'	30:0:162:C:C6	2.53	0.42
30:0:776:A:C2	30:0:780:A:C6	3.08	0.42
30:0:690:G:H1'	30:0:731:U:O2'	2.20	0.42
15:O:105:ASN:HD21	15:O:109:SER:N	2.18	0.42
12:L:10:SER:O	12:L:11:ARG:HB3	2.19	0.42
4:D:88:LEU:HB2	4:D:89:PRO:HD3	2.00	0.42
1:A:81:GLN:HB2	1:A:92:ASN:ND2	2.35	0.42
30:0:1757:U:H5	38:0:3214:HOH:O	2.02	0.42
24:X:12:ILE:HB	24:X:70:ILE:CG2	2.49	0.42
30:0:1998:G:O2'	30:0:2026:C:H1'	2.20	0.42
30:0:165:A:H2'	30:0:166:A:OP1	2.19	0.42
2:B:177:HIS:O	2:B:181:ILE:HG13	2.19	0.42
30:0:1603:A:H5'	30:0:1605:G:H5'	1.99	0.42
30:0:1680:C:H5'	30:0:1685:A:N6	2.34	0.42
31:9:108:C:H2'	31:9:109:G:C8	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1643:C:O2'	30:0:1644:C:H5'	2.19	0.42
30:0:1391:G:H2'	30:0:1392:A:H5'	2.01	0.42
30:0:1709:G:C6	30:0:1711:A:C5	3.07	0.42
30:0:1097:A:H2'	30:0:1098:A:C8	2.54	0.42
8:H:48:VAL:HG13	38:H:218:HOH:O	2.18	0.42
30:0:685:C:O2'	30:0:748:C:H5''	2.19	0.42
27:1:37:CYS:SG	27:1:39:PHE:HB2	2.59	0.42
29:3:33:MET:CG	30:0:1922:A:H2'	2.50	0.42
24:X:71:ARG:HD3	38:X:2171:HOH:O	2.20	0.42
30:0:1573:A:C8	30:0:1574:C:C6	3.08	0.42
30:0:2842:G:C2'	30:0:2843:A:H5'	2.50	0.42
13:M:191:GLY:O	30:0:175:G:H3'	2.19	0.42
30:0:453:A:C4	30:0:479:G:N7	2.87	0.42
2:B:48:MET:O	30:0:2719:A:H5'	2.20	0.42
30:0:2499:U:H2'	30:0:2500:C:O4'	2.20	0.42
30:0:221:G:H2'	30:0:222:A:C8	2.55	0.42
9:I:133:THR:HG22	9:I:134:ILE:H	1.83	0.42
13:M:185:PRO:HD3	38:0:9800:HOH:O	2.19	0.42
30:0:1047:U:O5'	30:0:1047:U:H6	2.03	0.42
30:0:2805:A:C8	30:0:2806:C:C5	3.07	0.42
1:A:10:GLY:HA2	30:0:1861:C:O2	2.20	0.42
30:0:1367:A:H2'	30:0:1368:U:O4'	2.20	0.42
30:0:1523:G:C6	30:0:1524:U:O4	2.73	0.42
30:0:2864:U:H2'	30:0:2865:G:H5'	2.02	0.42
13:M:70:GLY:HA3	13:M:73:ARG:CZ	2.50	0.42
13:M:159:VAL:HG13	13:M:160:PHE:N	2.35	0.42
2:B:223:ARG:HG3	2:B:232:TRP:C	2.40	0.42
30:0:590:A:H2'	30:0:591:A:C5'	2.48	0.42
30:0:2492:U:C4	30:0:2493:C:C4	3.07	0.42
30:0:2812:A:H2	30:0:2814:A:N7	2.17	0.42
30:0:1255:A:C2'	30:0:1256:C:O5'	2.68	0.42
10:J:116:LEU:HB2	10:J:119:THR:CG2	2.49	0.42
8:H:59:GLN:HE21	8:H:129:ARG:HG2	1.85	0.42
10:J:131:THR:O	10:J:134:GLU:HB2	2.19	0.42
30:0:1060:C:H5'	30:0:1060:C:H6	1.85	0.42
30:0:583:C:H2'	30:0:584:U:H6	1.85	0.42
30:0:462:A:N6	30:0:477:A:C2	2.88	0.42
30:0:1965:C:H6	30:0:1965:C:O5'	2.02	0.42
20:T:75:GLU:O	20:T:76:ASP:HB2	2.19	0.42
30:0:669:G:C4	30:0:670:G:C8	3.07	0.42
30:0:795:G:H2'	38:0:9823:HOH:O	2.20	0.42
1:A:26:ASP:HB2	38:0:7291:HOH:O	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:N:169:PRO:O	14:N:172:PHE:HB3	2.20	0.42
30:0:1241:G:H2'	30:0:1242:A:O4'	2.19	0.42
30:0:877:G:C2	30:0:885:G:O4'	2.73	0.42
26:Z:37:ARG:HG3	26:Z:38:PHE:CD2	2.54	0.42
30:0:711:G:N2	30:0:718:C:N1	2.67	0.42
30:0:2256:G:H2'	30:0:2257:G:C5'	2.50	0.42
30:0:802:G:N2	30:0:812:A:C4	2.88	0.42
38:C:8619:HOH:O	30:0:338:C:H5'	2.19	0.42
30:0:451:C:C2'	30:0:452:G:H5'	2.50	0.42
1:A:160:ALA:CB	26:Z:89:THR:HB	2.49	0.42
23:W:92:ASP:OD2	23:W:94:SER:HB2	2.20	0.42
13:M:30:GLU:O	13:M:34:GLU:HG3	2.19	0.42
30:0:1537:C:O2'	30:0:1538:C:H5'	2.18	0.42
4:D:104:PHE:N	4:D:104:PHE:CD2	2.88	0.42
24:X:25:ARG:HD2	38:X:5356:HOH:O	2.19	0.42
30:0:1541:G:O2'	30:0:1542:G:H5'	2.18	0.42
30:0:1187:U:O2	30:0:1189:A:H5''	2.20	0.42
30:0:1183:C:H1'	30:0:1192:A:N6	2.35	0.42
30:0:1840:A:H4'	30:0:1841:C:O5'	2.20	0.42
2:B:316:ARG:HB2	30:0:2768:A:C8	2.55	0.42
31:9:74:G:C2	31:9:75:G:C8	3.08	0.42
31:9:92:G:C6	31:9:93:A:N6	2.88	0.42
30:0:2523:U:O2'	30:0:2524:G:H5'	2.19	0.42
30:0:1819:G:H2'	30:0:1820:G:H5'	2.01	0.42
30:0:2355:G:N3	30:0:2355:G:C2'	2.83	0.42
30:0:325:U:H3'	38:0:5512:HOH:O	2.19	0.42
3:C:87:ARG:NH2	30:0:894:A:C2	2.88	0.42
30:0:473:A:C2'	30:0:474:C:H5'	2.49	0.42
2:B:8:LYS:HB3	2:B:218:TRP:O	2.19	0.42
30:0:387:G:O2'	30:0:388:G:H5'	2.20	0.42
30:0:485:A:N3	30:0:487:G:H5''	2.34	0.42
30:0:1413:A:H2'	30:0:1414:A:O4'	2.20	0.42
1:A:169:PHE:O	1:A:170:VAL:HB	2.20	0.42
30:0:2909:G:N2	30:0:2910:A:C5	2.88	0.42
28:2:41:HIS:CE1	30:0:1439:C:H5''	2.54	0.42
30:0:67:A:H3'	30:0:67:A:OP2	2.20	0.42
31:9:114:G:C6	31:9:115:C:N4	2.88	0.42
30:0:2700:G:C2'	30:0:2701:G:H5'	2.49	0.42
23:W:10:GLU:HB3	38:W:1223:HOH:O	2.20	0.42
16:P:40:VAL:O	16:P:44:VAL:HG23	2.20	0.42
30:0:293:A:C2	30:0:294:C:C6	3.08	0.42
26:Z:61:HIS:CG	26:Z:95:PRO:HG3	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1015:C:H2'	30:0:1016:U:H6	1.82	0.42
29:3:83:TRP:O	29:3:85:ALA:N	2.53	0.42
30:0:59:A:H5''	38:0:4313:HOH:O	2.18	0.42
17:Q:27:GLN:HB3	38:9:9083:HOH:O	2.20	0.42
30:0:868:G:H2'	38:0:3039:HOH:O	2.18	0.42
24:X:70:ILE:O	24:X:70:ILE:HG23	2.18	0.42
29:3:14:CYS:SG	38:3:9063:HOH:O	2.62	0.42
8:H:149:VAL:HG13	8:H:150:LYS:N	2.35	0.42
11:K:105:ARG:HD2	38:K:3385:HOH:O	2.19	0.42
5:E:77:THR:OG1	5:E:78:GLU:N	2.50	0.42
38:I:3512:HOH:O	30:0:1163:G:N2	2.53	0.41
30:0:1182:C:H4'	30:0:1192:A:N7	2.35	0.41
30:0:1210:G:C2	30:0:1211:G:N9	2.88	0.41
30:0:1588:G:C6	30:0:1589:G:C6	3.08	0.41
13:M:89:THR:HA	38:M:8950:HOH:O	2.19	0.41
30:0:314:G:C2	30:0:317:A:C8	3.08	0.41
30:0:371:U:H2'	30:0:372:A:H8	1.85	0.41
21:U:56:ARG:NH1	30:0:2890:A:C2	2.88	0.41
30:0:1006:A:N3	30:0:2298:C:O2'	2.45	0.41
28:2:48:ASP:O	28:2:49:GLU:HB2	2.20	0.41
30:0:2478:U:H2'	30:0:2479:A:H8	1.85	0.41
30:0:335:U:C2'	30:0:336:G:OP1	2.68	0.41
29:3:62:THR:CG2	29:3:63:LYS:N	2.83	0.41
22:V:39:ALA:C	22:V:41:GLU:H	2.23	0.41
30:0:2799:A:H5'	30:0:2800:A:P	2.59	0.41
30:0:628:1MA:H4'	38:0:3136:HOH:O	2.19	0.41
30:0:1789:G:N2	30:0:1790:C:H1'	2.35	0.41
12:L:73:VAL:HG21	12:L:116:HIS:CE1	2.54	0.41
30:0:2433:A:H2'	30:0:2434:A:C8	2.54	0.41
30:0:1624:A:O4'	30:0:1626:A:C8	2.73	0.41
30:0:887:G:H2'	30:0:888:U:C6	2.54	0.41
30:0:1919:A:H4'	38:0:4820:HOH:O	2.19	0.41
15:O:39:THR:HB	38:0:4589:HOH:O	2.19	0.41
2:B:224:LYS:HA	2:B:224:LYS:HD3	1.83	0.41
2:B:203:ALA:HA	2:B:263:THR:HA	2.02	0.41
15:O:68:GLY:HA3	30:0:745:G:O6	2.20	0.41
12:L:53:ARG:N	35:L:8810:CL:CL	2.66	0.41
12:L:35:ARG:HB2	12:L:43:HIS:CD2	2.55	0.41
30:0:1163:G:C2	30:0:1184:C:N3	2.87	0.41
29:3:5:ARG:HA	29:3:22:VAL:HG23	2.02	0.41
31:9:56:A:C3'	31:9:57:A:C5'	2.93	0.41
30:0:1519:U:H6	30:0:1519:U:O5'	2.04	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:199:HIS:CD2	1:A:200:PRO:HD2	2.55	0.41
30:0:2004:U:H2'	30:0:2004:U:O2	2.20	0.41
30:0:272:A:N1	30:0:369:G:H5''	2.34	0.41
30:0:1178:G:H2'	30:0:1179:C:H6	1.79	0.41
30:0:2912:C:C2'	30:0:2913:A:H5'	2.50	0.41
26:Z:78:ILE:HB	38:Z:8715:HOH:O	2.19	0.41
1:A:51:ARG:NH2	1:A:53:ALA:HB3	2.35	0.41
31:9:50:G:C6	31:9:51:A:C6	3.08	0.41
23:W:13:MET:CE	23:W:17:ILE:HG22	2.50	0.41
4:D:76:ARG:CZ	31:9:44:A:C1'	2.98	0.41
30:0:102:A:C6	30:0:103:C:N4	2.88	0.41
30:0:412:C:C2'	30:0:413:G:H5'	2.50	0.41
10:J:19:MET:HE2	10:J:79:PHE:HA	2.02	0.41
18:R:99:ALA:HB1	18:R:109:MET:HE2	2.01	0.41
16:P:94:TRP:CH2	16:P:98:ILE:HG13	2.55	0.41
30:0:2020:C:O2'	30:0:2021:C:H5'	2.20	0.41
30:0:1915:U:O2	30:0:1925:G:C2	2.73	0.41
30:0:2061:C:C2'	30:0:2062:A:H5'	2.51	0.41
11:K:4:LEU:HD23	11:K:4:LEU:HA	1.84	0.41
22:V:23:LEU:HD22	22:V:49:LEU:HD23	2.01	0.41
30:0:201:G:H1'	38:0:4539:HOH:O	2.19	0.41
30:0:495:A:O4'	30:0:1390:A:H1'	2.20	0.41
27:1:31:LYS:O	27:1:33:VAL:HG23	2.20	0.41
30:0:1507:C:H4'	38:0:3595:HOH:O	2.20	0.41
9:I:96:SER:H	9:I:99:GLN:CD	2.22	0.41
30:0:1449:G:H4'	38:0:9213:HOH:O	2.20	0.41
30:0:446:G:H3'	38:0:9539:HOH:O	2.20	0.41
30:0:236:A:H8	30:0:236:A:OP1	2.03	0.41
30:0:1079:A:N1	30:0:2068:G:O2'	2.43	0.41
30:0:2782:G:O6	30:0:2790:C:H5''	2.19	0.41
30:0:38:G:C2'	30:0:39:G:H5'	2.50	0.41
30:0:1804:A:H2'	30:0:1805:G:C8	2.55	0.41
30:0:2256:G:C2'	30:0:2257:G:H5'	2.51	0.41
30:0:2795:C:O2'	30:0:2796:U:C5'	2.65	0.41
30:0:1212:C:C5	30:0:1213:C:C5	3.09	0.41
26:Z:34:SER:HA	30:0:797:A:C5'	2.50	0.41
30:0:1878:G:O2'	30:0:1879:U:P	2.78	0.41
30:0:2799:A:N6	30:0:2801:A:C2	2.89	0.41
24:X:54:ILE:HD11	24:X:85:VAL:HG12	2.03	0.41
21:U:31:PHE:CG	21:U:37:GLU:HG2	2.55	0.41
5:E:69:ILE:HA	5:E:72:MET:HE3	2.02	0.41
4:D:84:LEU:HD23	4:D:84:LEU:HA	1.92	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:H:59:GLN:NE2	8:H:96:GLN:HG2	2.35	0.41
30:0:2474:A:C8	30:0:2621:PSU:H4'	2.55	0.41
30:0:1826:C:O2'	30:0:1827:G:H5'	2.21	0.41
30:0:1554:C:O2'	30:0:1631:A:H1'	2.19	0.41
12:L:150:GLN:HB3	38:L:8869:HOH:O	2.19	0.41
2:B:75:GLU:C	2:B:77:PRO:HD3	2.40	0.41
2:B:211:THR:HG21	38:0:7438:HOH:O	2.20	0.41
25:Y:157:ILE:HD13	38:0:4836:HOH:O	2.20	0.41
38:H:216:HOH:O	30:0:2517:A:H2	1.99	0.41
30:0:1419:U:H5'	30:0:1420:C:OP2	2.21	0.41
30:0:1303:C:O2	30:0:1353:C:H1'	2.20	0.41
31:9:58:G:C8	31:9:59:C:C4	3.08	0.41
30:0:2710:U:H2'	30:0:2711:U:C6	2.55	0.41
30:0:281:U:C2'	30:0:282:C:C5'	2.98	0.41
30:0:2723:G:H1'	38:0:4812:HOH:O	2.19	0.41
30:0:1942:A:C1'	38:0:9045:HOH:O	2.69	0.41
30:0:1819:G:C2'	30:0:1820:G:H5'	2.50	0.41
26:Z:34:SER:HA	30:0:797:A:H5'	2.02	0.41
31:9:110:G:C6	31:9:111:U:C4	3.08	0.41
30:0:1928:C:C2'	30:0:1929:G:H5'	2.50	0.41
5:E:107:PHE:O	5:E:110:GLU:HG3	2.20	0.41
30:0:1769:C:C2'	30:0:1770:U:H5'	2.51	0.41
30:0:517:U:H2'	30:0:518:G:H5'	2.02	0.41
30:0:107:U:C2'	30:0:108:U:H5'	2.50	0.41
30:0:1607:A:C5	30:0:1608:G:C8	3.09	0.41
30:0:1757:U:H6	30:0:1757:U:O5'	2.04	0.41
30:0:1997:A:H2	30:0:2026:C:O2'	2.04	0.41
30:0:552:A:H5'	38:0:5878:HOH:O	2.19	0.41
15:O:26:TRP:HA	15:O:26:TRP:CE3	2.55	0.41
30:0:1894:C:N4	30:0:1939:U:H2'	2.34	0.41
2:B:69:VAL:HA	2:B:70:PRO:HD3	1.77	0.41
24:X:23:HIS:HE1	30:0:2044:G:OP1	2.03	0.41
19:S:17:ASP:HB3	19:S:23:LYS:HB2	2.01	0.41
30:0:2815:G:H4'	30:0:2816:A:OP2	2.20	0.41
30:0:2511:A:H2'	30:0:2512:U:C6	2.56	0.41
30:0:343:C:H1'	38:0:5552:HOH:O	2.19	0.41
1:A:212:PRO:HA	30:0:1943:C:O4'	2.20	0.41
30:0:1882:C:H2'	30:0:1883:U:H6	1.86	0.41
30:0:2470:A:C2'	30:0:2471:G:O5'	2.68	0.41
30:0:594:C:C4	30:0:595:U:C4	3.08	0.41
3:C:5:ILE:HG12	3:C:139:VAL:CG1	2.50	0.41
30:0:1063:G:O5'	30:0:2307:A:H1'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:222:LYS:HG3	30:0:2038:A:H5''	2.01	0.41
30:0:1423:C:O2'	30:0:1424:A:H5'	2.20	0.41
11:K:66:ARG:NH1	30:0:1992:U:H3'	2.35	0.41
2:B:320:GLN:HE21	2:B:321:PRO:HD3	1.84	0.41
21:U:5:GLU:HG2	21:U:6:CYS:N	2.36	0.41
30:0:10:U:O4	30:0:532:A:OP2	2.38	0.41
25:Y:130:ARG:HB2	25:Y:142:SER:O	2.20	0.41
14:N:132:ASN:O	14:N:135:VAL:HG12	2.21	0.41
30:0:1271:A:H2'	30:0:1272:C:H6	1.84	0.41
10:J:76:ASP:HA	38:J:8863:HOH:O	2.20	0.41
30:0:2854:A:N6	30:0:2905:A:N6	2.69	0.41
25:Y:189:ASN:HD22	25:Y:191:ASP:N	2.19	0.41
30:0:910:C:H2'	30:0:911:G:O4'	2.21	0.41
25:Y:152:LYS:CB	25:Y:160:LYS:HG3	2.51	0.41
7:G:23:ILE:O	7:G:27:ILE:HG13	2.20	0.41
8:H:165:ARG:HD2	38:H:241:HOH:O	2.21	0.41
30:0:1898:G:H2'	30:0:1899:C:C6	2.55	0.41
10:J:54:VAL:HG11	10:J:138:THR:HG21	2.02	0.41
6:F:26:THR:HB	6:F:102:GLY:HA3	2.02	0.41
19:S:51:GLN:HE21	19:S:53:ASN:HD21	1.67	0.41
30:0:1278:A:O2'	30:0:1279:U:C2	2.65	0.41
30:0:1666:C:C2'	30:0:1667:A:H5'	2.32	0.41
31:9:60:C:O2	31:9:60:C:H2'	2.19	0.41
30:0:1679:C:O2	30:0:1685:A:C2	2.73	0.41
30:0:307:G:C2	30:0:309:C:C4	3.08	0.41
30:0:2255:A:H2'	30:0:2256:G:O4'	2.20	0.41
30:0:2692:G:N2	30:0:2701:G:C5	2.88	0.41
23:W:122:ARG:NH2	38:0:5254:HOH:O	2.52	0.41
1:A:70:ALA:HA	1:A:71:PRO:HD3	1.82	0.41
2:B:241:PRO:HD2	38:B:9125:HOH:O	2.20	0.41
30:0:165:A:C2'	30:0:166:A:OP1	2.67	0.41
30:0:1540:G:C4	30:0:1541:G:C8	3.09	0.41
30:0:2057:U:O5'	30:0:2057:U:H6	2.03	0.41
18:R:9:ASP:HA	18:R:10:PRO:HD2	1.90	0.41
19:S:52:VAL:HG22	19:S:66:VAL:HG13	2.03	0.41
30:0:870:G:C3'	30:0:871:G:H5''	2.51	0.41
30:0:1191:A:O5'	30:0:1191:A:C8	2.74	0.41
29:3:91:GLN:O	29:3:92:GLU:HB2	2.21	0.41
30:0:1544:U:O2'	30:0:1545:C:H5'	2.20	0.41
30:0:2325:U:C2	30:0:2326:C:C6	3.09	0.41
26:Z:70:ARG:HB2	26:Z:81:CYS:HG	1.86	0.41
30:0:69:A:C3'	30:0:69:A:C8	3.04	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:631:A:C6	30:0:2074:A:H5'	2.56	0.41
30:0:1196:C:H2'	30:0:1197:G:H5'	2.02	0.41
30:0:2668:G:N2	30:0:2669:U:C2	2.88	0.41
30:0:2668:G:O4'	30:0:2827:A:C2	2.73	0.41
21:U:42:LEU:HB3	30:0:1810:C:O4'	2.21	0.41
30:0:213:G:O2'	30:0:214:U:OP2	2.39	0.41
30:0:812:A:H1'	38:0:3946:HOH:O	2.20	0.41
30:0:677:C:H6	30:0:677:C:O5'	2.03	0.41
30:0:862:U:O2'	30:0:863:G:H5'	2.20	0.41
30:0:393:G:C6	30:0:394:G:C6	3.09	0.41
30:0:1012:A:H8	30:0:1012:A:O5'	2.04	0.41
8:H:89:THR:O	8:H:137:PHE:HD2	2.04	0.41
30:0:1798:C:OP2	30:0:1799:G:H5''	2.20	0.41
30:0:1438:G:N3	30:0:1438:G:H2'	2.35	0.41
21:U:17:THR:HG21	38:U:2221:HOH:O	2.21	0.41
30:0:2383:G:C6	30:0:2384:U:C4	3.08	0.41
30:0:268:U:O4	30:0:269:G:N1	2.54	0.41
30:0:1209:C:O2'	30:0:1210:G:H5'	2.20	0.41
30:0:189:A:H2	30:0:205:U:O2	2.04	0.41
1:A:199:HIS:HE1	30:0:1881:A:OP1	2.04	0.41
30:0:241:A:C2	30:0:378:A:H4'	2.55	0.41
30:0:2324:G:H2'	30:0:2325:U:C6	2.56	0.41
8:H:91:ARG:NH1	8:H:138:THR:OG1	2.53	0.41
30:0:1803:C:H2'	30:0:1804:A:C8	2.56	0.41
30:0:1173:A:H2'	30:0:1177:A:H62	1.85	0.41
1:A:47:HIS:HD2	30:0:1654:U:O2'	2.03	0.41
10:J:107:ASN:HA	10:J:108:PRO:HD2	1.98	0.41
30:0:2700:G:H2'	30:0:2701:G:O5'	2.21	0.41
30:0:2039:A:H2'	30:0:2040:C:C6	2.56	0.41
30:0:1774:G:C2'	30:0:1775:A:H5'	2.51	0.41
30:0:1913:C:H2'	30:0:1914:C:C6	2.54	0.41
2:B:195:ARG:HG2	2:B:323:LEU:HD22	2.03	0.41
31:9:82:U:H2'	31:9:83:G:C8	2.56	0.41
4:D:20:LYS:HG2	4:D:133:ASN:HB3	2.02	0.41
1:A:232:ARG:CZ	30:0:1939:U:H4'	2.50	0.41
30:0:1977:U:OP1	30:0:1977:U:H3'	2.20	0.41
18:R:114:VAL:HG13	18:R:114:VAL:O	2.20	0.41
23:W:43:GLY:HA3	30:0:945:U:O2'	2.20	0.41
14:N:83:LEU:HD13	14:N:175:LEU:HD23	2.03	0.41
16:P:89:ASN:HA	38:P:165:HOH:O	2.20	0.41
30:0:383:A:H2'	30:0:384:G:O4'	2.21	0.41
30:0:1621:G:H2'	30:0:1622:G:H8	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:0:1168:C:C2'	30:0:1169:U:H5'	2.51	0.41
30:0:1207:A:H5'	30:0:1208:C:OP2	2.21	0.41
30:0:1193:A:C2	30:0:1194:A:N6	2.89	0.41
31:9:29:C:C6	31:9:30:C:C6	3.08	0.41
26:Z:47:ARG:HD2	38:Z:8718:HOH:O	2.20	0.41
30:0:1596:U:O2'	30:0:1598:A:N7	2.46	0.41
6:F:61:MET:O	6:F:64:PRO:HD2	2.21	0.41
30:0:279:C:H2'	30:0:280:C:H5'	2.01	0.41
30:0:1543:G:H2'	30:0:1544:U:C5	2.56	0.41
1:A:171:LYS:HB2	30:0:820:G:C6	2.55	0.41
21:U:56:ARG:NH1	30:0:2890:A:C4	2.89	0.41
30:0:265:U:C4	30:0:266:G:N7	2.89	0.41
30:0:1553:C:H6	30:0:1553:C:O5'	2.04	0.41
30:0:1973:A:C8	30:0:1973:A:H5'	2.53	0.41
30:0:20:G:H2'	30:0:21:G:O5'	2.21	0.41
30:0:1226:G:C2	30:0:1227:C:C6	3.08	0.41
30:0:61:G:C2	30:0:62:C:C2	3.09	0.41
30:0:2695:C:N4	30:0:2701:G:N2	2.69	0.41
30:0:2599:A:C6	30:0:2600:A:N1	2.89	0.41
30:0:1476:A:H1'	30:0:1867:G:O2'	2.21	0.41
5:E:20:ILE:HD12	5:E:33:LEU:HD12	2.03	0.41
30:0:1748:U:C6	30:0:1749:U:C5	3.09	0.41
30:0:2801:A:C4	30:0:2802:C:C5	3.08	0.41
30:0:51:G:C2	30:0:111:C:C2	3.08	0.41
2:B:74:ILE:HG13	38:B:9076:HOH:O	2.20	0.41
5:E:145:ALA:HB1	5:E:168:ILE:CD1	2.49	0.41
30:0:1089:G:H1'	30:0:1290:G:N2	2.36	0.41
23:W:120:PRO:HG2	30:0:1095:U:O2	2.20	0.41
30:0:1339:G:C5	30:0:1340:G:C6	3.09	0.41
30:0:2366:C:P	38:0:6939:HOH:O	2.79	0.41
30:0:1024:G:C5	30:0:1025:C:C4	3.09	0.41
30:0:1619:G:H2'	30:0:1620:C:O4'	2.21	0.41
30:0:1416:G:C2'	30:0:1417:G:H5'	2.51	0.41
30:0:1362:U:H2'	30:0:1363:G:H8	1.86	0.41
25:Y:152:LYS:HB3	25:Y:160:LYS:HG3	2.02	0.41
5:E:119:HIS:O	5:E:140:ALA:HB1	2.21	0.41
19:S:73:ASP:OD1	19:S:76:GLU:HG3	2.21	0.41
30:0:844:A:C6	30:0:882:A:C6	3.09	0.41
30:0:2453:G:H2'	30:0:2454:C:C6	2.55	0.41
5:E:15:GLN:HG2	5:E:16:ASP:N	2.36	0.41
4:D:36:ASN:HA	38:D:7500:HOH:O	2.20	0.41
14:N:73:ALA:HB1	14:N:74:PRO:CD	2.51	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:Q:41:LEU:HB3	17:Q:52:PHE:CZ	2.56	0.41
16:P:61:ARG:NH2	30:0:2737:C:OP2	2.40	0.41
30:0:1208:C:H2'	30:0:1208:C:O2	2.19	0.41
30:0:1103:C:C2	30:0:1241:G:N2	2.89	0.41
30:0:1195:G:N1	30:0:1205:U:N3	2.69	0.41
31:9:14:G:C5'	31:9:14:G:H8	2.13	0.41
30:0:1591:A:H5'	30:0:1603:A:H61	1.86	0.41
13:M:68:ARG:HB2	38:M:8932:HOH:O	2.19	0.41
30:0:282:C:O2	30:0:282:C:C2'	2.62	0.41
30:0:1634:G:C4	30:0:1635:U:C5	3.08	0.41
30:0:714:U:O4'	30:0:716:G:C2	2.74	0.41
30:0:2269:C:C4	30:0:2270:G:C5	3.08	0.41
38:B:9106:HOH:O	30:0:2818:A:H2	2.04	0.41
2:B:288:GLY:HA2	30:0:2898:G:H4'	2.02	0.41
30:0:2526:C:H5'	30:0:2526:C:C6	2.56	0.41
30:0:736:A:H5''	38:0:4253:HOH:O	2.21	0.41
30:0:123:U:O2'	30:0:124:C:H5'	2.21	0.41
31:9:110:G:H2'	31:9:110:G:N3	2.35	0.41
30:0:2617:G:H5''	38:0:3896:HOH:O	2.20	0.41
30:0:965:A:H2'	30:0:965:A:N3	2.36	0.41
30:0:2016:U:H2'	30:0:2017:U:O4'	2.21	0.41
1:A:37:VAL:HG13	38:A:9088:HOH:O	2.21	0.41
5:E:81:GLU:HA	5:E:133:VAL:O	2.21	0.41
18:R:130:MET:HG3	38:0:7551:HOH:O	2.21	0.41
30:0:2098:C:O5'	30:0:2098:C:H6	2.04	0.41
5:E:23:GLU:HG2	5:E:28:SER:CB	2.51	0.41
23:W:132:VAL:HG21	23:W:140:LYS:O	2.21	0.41
30:0:23:G:H1'	30:0:520:A:N6	2.35	0.41
30:0:1175:G:C5	30:0:1193:A:C2	3.10	0.40
30:0:1170:U:O2	30:0:1172:G:H8	2.04	0.40
23:W:48:VAL:HG12	23:W:48:VAL:O	2.21	0.40
23:W:4:LEU:CD2	23:W:54:PHE:HB3	2.51	0.40
13:M:72:ALA:HB3	38:M:8950:HOH:O	2.21	0.40
30:0:2414:A:N1	30:0:2415:A:C6	2.90	0.40
30:0:1177:A:C6	30:0:1178:G:C5	3.09	0.40
30:0:2635:A:H2'	30:0:2636:C:H5'	1.98	0.40
30:0:2692:G:N2	30:0:2701:G:C4	2.88	0.40
30:0:257:G:N2	30:0:258:G:C4	2.89	0.40
30:0:2330:U:H4'	30:0:2331:C:OP1	2.20	0.40
14:N:110:THR:HA	14:N:111:PRO:HD3	1.98	0.40
19:S:11:THR:CG2	30:0:1444:G:H5''	2.50	0.40
30:0:797:A:H2'	30:0:798:G:O4'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:28:GLY:CA	4:D:69:ILE:HG23	2.51	0.40
13:M:75:ARG:HG3	38:M:8868:HOH:O	2.20	0.40
25:Y:125:LYS:HB2	25:Y:126:PRO:HD2	2.03	0.40
3:C:118:THR:HG21	3:C:233:THR:HB	2.03	0.40
30:0:1832:G:N3	30:0:1833:U:C6	2.89	0.40
28:2:42:TRP:HZ2	30:0:1438:G:H1'	1.87	0.40
6:F:38:LYS:HE3	30:0:244:C:OP2	2.21	0.40
29:3:86:GLY:HA2	38:3:9032:HOH:O	2.21	0.40
30:0:2121:G:C2'	30:0:2122:C:H5'	2.51	0.40
30:0:962:C:H2'	30:0:963:C:H5'	2.03	0.40
30:0:1681:G:H5''	30:0:1682:A:H5'	2.03	0.40
30:0:2831:C:C2'	30:0:2832:C:C5'	2.93	0.40
30:0:2335:C:N3	30:0:2350:G:C2	2.89	0.40
30:0:1634:G:C6	30:0:1635:U:C4	3.10	0.40
30:0:534:C:H2'	30:0:2083:A:C2	2.57	0.40
30:0:69:A:C5'	30:0:69:A:C8	2.98	0.40
30:0:594:C:H2'	30:0:595:U:C6	2.56	0.40
30:0:596:C:H6	30:0:596:C:O5'	2.03	0.40
15:O:32:ARG:HD3	15:O:32:ARG:O	2.22	0.40
30:0:2300:A:H4'	30:0:2301:A:N3	2.37	0.40
30:0:1774:G:H2'	30:0:1775:A:C5'	2.51	0.40
30:0:2834:G:C2'	30:0:2835:C:O5'	2.69	0.40
30:0:312:U:O2	30:0:320:G:C2	2.75	0.40
30:0:2501:G:H1	30:0:2519:C:N4	2.18	0.40
24:X:26:ALA:HB3	24:X:63:ARG:HG3	2.03	0.40
13:M:113:ARG:NH1	13:M:155:GLN:HB2	2.36	0.40
30:0:2245:C:H6	30:0:2245:C:O5'	2.04	0.40
3:C:206:ASN:HB2	30:0:329:A:OP2	2.20	0.40
6:F:48:VAL:CG2	6:F:74:PHE:HB3	2.51	0.40
30:0:366:U:H2'	30:0:367:G:O4'	2.20	0.40
30:0:2510:C:H42	30:0:2564:G:N2	2.19	0.40
30:0:1521:C:O2'	30:0:1522:A:H5'	2.22	0.40
30:0:1325:G:O2'	30:0:1326:C:H5'	2.21	0.40
30:0:1474:C:C6	30:0:1474:C:C5'	2.94	0.40
22:V:12:THR:HG23	22:V:15:GLU:H	1.86	0.40
30:0:822:C:H2'	30:0:823:U:H6	1.86	0.40
30:0:2325:U:H5''	30:0:2417:C:O2'	2.22	0.40
30:0:603:A:H4'	30:0:604:G:O5'	2.22	0.40
30:0:249:G:O2'	30:0:266:G:H5'	2.21	0.40
30:0:2311:A:H3'	38:0:7660:HOH:O	2.20	0.40
29:3:39:GLN:O	29:3:52:PHE:HE1	2.04	0.40
30:0:1133:A:H2'	30:0:1134:G:H5'	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:188:HIS:ND1	2:B:188:HIS:N	2.69	0.40
30:0:568:G:H21	30:0:590:A:H62	1.69	0.40
30:0:2493:C:C2'	30:0:2493:C:O2	2.67	0.40
24:X:43:VAL:HG11	24:X:82:GLU:HA	2.04	0.40
30:0:1613:C:C6	30:0:1613:C:H3'	2.57	0.40
30:0:238:C:H4'	30:0:287:C:OP1	2.22	0.40
2:B:5:ARG:NH2	30:0:2548:C:OP2	2.55	0.40
6:F:50:VAL:HG11	6:F:60:VAL:HG11	2.03	0.40
30:0:462:A:H2'	38:0:4853:HOH:O	2.21	0.40
13:M:46:LEU:O	13:M:50:ARG:HG3	2.21	0.40
2:B:277:GLU:N	2:B:278:PRO:CD	2.84	0.40
30:0:1159:G:C2	30:0:1209:C:N3	2.89	0.40
4:D:14:ARG:HD3	31:9:56:A:O2'	2.22	0.40
30:0:1520:G:C6	30:0:1521:C:N4	2.89	0.40
8:H:91:ARG:H	8:H:91:ARG:HG2	1.43	0.40
30:0:2672:C:H2'	30:0:2673:U:C6	2.53	0.40
30:0:1979:G:H1'	38:0:3061:HOH:O	2.21	0.40
1:A:33:GLU:CD	1:A:33:GLU:N	2.75	0.40
15:O:47:ARG:NH1	15:O:47:ARG:HG3	2.36	0.40
25:Y:132:ASP:OD1	25:Y:135:LYS:HD2	2.20	0.40
30:0:2102:G:N2	30:0:2103:A:N1	2.69	0.40
3:C:100:LEU:HD22	30:0:751:U:H5''	2.03	0.40
31:9:81:C:O2'	31:9:82:U:H5'	2.21	0.40
30:0:2532:A:OP2	30:0:2532:A:H8	2.05	0.40
5:E:23:GLU:HG2	5:E:28:SER:HB3	2.03	0.40
2:B:73:VAL:HG21	2:B:284:PHE:HZ	1.86	0.40
31:9:89:C:O2'	31:9:90:G:H5'	2.22	0.40
30:0:192:A:N6	30:0:194:A:C2	2.89	0.40
30:0:1102:C:H5	38:0:3479:HOH:O	2.04	0.40
15:O:96:VAL:HG13	15:O:100:GLN:OE1	2.21	0.40
15:O:49:GLU:OE1	15:O:72:LYS:HG3	2.22	0.40
7:G:19:GLU:HG2	7:G:66:LEU:HD13	2.03	0.40
31:9:2:U:OP2	31:9:2:U:H4'	2.22	0.40
30:0:2004:U:H5''	30:0:2005:G:C8	2.57	0.40
20:T:26:THR:HA	20:T:39:ASN:HB3	2.03	0.40
28:2:41:HIS:HE1	30:0:1439:C:OP1	2.05	0.40
30:0:146:U:C4	30:0:147:G:C6	3.09	0.40
30:0:37:A:H2'	30:0:38:G:H8	1.84	0.40
2:B:201:ASP:N	2:B:312:ARG:O	2.53	0.40
30:0:920:C:H5'	30:0:921:G:N3	2.37	0.40
15:O:32:ARG:NE	15:O:32:ARG:HA	2.35	0.40
16:P:78:GLY:O	30:0:1813:U:H4'	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:20:SER:C	1:A:22:ARG:H	2.25	0.40
16:P:13:VAL:HG21	16:P:41:ARG:HG2	2.03	0.40
29:3:17:HIS:CG	30:0:2409:C:H4'	2.57	0.40
3:C:1:MET:HG2	3:C:2:GLN:N	2.34	0.40
30:0:2273:C:O2'	30:0:2274:A:H5'	2.22	0.40
30:0:1016:U:H2'	30:0:1017:U:O4'	2.21	0.40
4:D:135:VAL:HG22	4:D:136:ARG:N	2.36	0.40
30:0:1525:G:OP1	30:0:1525:G:H4'	2.21	0.40
30:0:1557:G:H2'	30:0:1558:C:C6	2.57	0.40
5:E:84:MET:HA	5:E:167:TYR:O	2.22	0.40
25:Y:229:LEU:O	30:0:552:A:H5''	2.22	0.40
14:N:127:LEU:HD12	14:N:127:LEU:HA	1.93	0.40
3:C:104:ASP:O	3:C:108:GLN:HG3	2.22	0.40
30:0:766:A:HO2'	30:0:767:A:H8	1.68	0.40
30:0:295:C:H2'	30:0:296:G:O4'	2.22	0.40
6:F:59:ILE:CD1	30:0:263:U:C2	3.04	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%)	200 (85%)	30 (13%)	5 (2%)	11	47
2	B	335/338 (99%)	305 (91%)	23 (7%)	7 (2%)	11	47
3	C	244/246 (99%)	216 (88%)	26 (11%)	2 (1%)	27	76
4	D	134/177 (76%)	105 (78%)	23 (17%)	6 (4%)	4	22
5	E	170/178 (96%)	158 (93%)	11 (6%)	1 (1%)	33	81
6	F	117/120 (98%)	97 (83%)	16 (14%)	4 (3%)	6	31
7	G	25/348 (7%)	22 (88%)	3 (12%)	0	100	100
8	H	156/177 (88%)	139 (89%)	16 (10%)	1 (1%)	33	81
9	I	68/162 (42%)	49 (72%)	16 (24%)	3 (4%)	4	22

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
10	J	140/145 (97%)	128 (91%)	10 (7%)	2 (1%)	16	60
11	K	130/132 (98%)	120 (92%)	9 (7%)	1 (1%)	27	76
12	L	141/165 (86%)	116 (82%)	22 (16%)	3 (2%)	11	47
13	M	192/196 (98%)	171 (89%)	17 (9%)	4 (2%)	11	47
14	N	184/187 (98%)	163 (89%)	17 (9%)	4 (2%)	10	45
15	O	113/116 (97%)	106 (94%)	7 (6%)	0	100	100
16	P	141/149 (95%)	133 (94%)	8 (6%)	0	100	100
17	Q	93/96 (97%)	86 (92%)	5 (5%)	2 (2%)	10	45
18	R	148/155 (96%)	138 (93%)	9 (6%)	1 (1%)	30	78
19	S	79/85 (93%)	75 (95%)	4 (5%)	0	100	100
20	T	117/120 (98%)	108 (92%)	9 (8%)	0	100	100
21	U	51/67 (76%)	44 (86%)	6 (12%)	1 (2%)	11	48
22	V	63/71 (89%)	58 (92%)	4 (6%)	1 (2%)	14	56
23	W	152/154 (99%)	142 (93%)	9 (6%)	1 (1%)	30	78
24	X	80/92 (87%)	72 (90%)	6 (8%)	2 (2%)	9	40
25	Y	140/241 (58%)	132 (94%)	7 (5%)	1 (1%)	30	78
26	Z	71/116 (61%)	55 (78%)	12 (17%)	4 (6%)	3	16
27	1	54/57 (95%)	49 (91%)	5 (9%)	0	100	100
28	2	42/50 (84%)	41 (98%)	1 (2%)	0	100	100
29	3	90/92 (98%)	64 (71%)	17 (19%)	9 (10%)	1	4
All	All	3705/4472 (83%)	3292 (89%)	348 (9%)	65 (2%)	13	53

All (65) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	206	THR
2	B	306	LYS
4	D	137	PRO
6	F	61	MET
6	F	101	ALA
10	J	5	GLU
12	L	80	ASP
13	M	75	ARG
14	N	154	LEU
14	N	183	ASP

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Mol	Chain	Res	Type
14	N	184	ILE
21	U	44	ARG
26	Z	70	ARG
29	3	56	PRO
29	3	64	LYS
29	3	84	ARG
1	A	34	ASP
3	C	8	LEU
3	C	201	SER
5	E	128	GLY
12	L	21	ARG
12	L	82	ALA
13	M	81	ARG
17	Q	21	ARG
23	W	139	GLY
24	X	70	ILE
26	Z	39	GLY
29	3	4	PRO
29	3	68	LYS
29	3	72	GLY
29	3	73	GLU
2	B	169	GLY
4	D	56	ARG
9	I	83	GLY
9	I	107	LYS
11	K	10	GLN
14	N	165	ALA
26	Z	83	TYR
29	3	90	PHE
1	A	119	ALA
2	B	107	SER
2	B	184	ASP
4	D	65	GLU
10	J	7	ASP
13	M	86	GLN
17	Q	18	PRO
18	R	20	GLU
1	A	24	LYS
1	A	122	SER
1	A	132	ASP
2	B	2	GLN
2	B	185	GLY

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Mol	Chain	Res	Type
4	D	172	VAL
6	F	100	ASP
9	I	76	ASP
13	M	80	GLY
24	X	52	PRO
26	Z	105	ARG
29	3	62	THR
4	D	16	PRO
4	D	53	LYS
6	F	64	PRO
8	H	19	ARG
22	V	39	ALA
25	Y	111	ASP

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%)	170 (95%)	9 (5%)	34	77
2	B	282/283 (100%)	263 (93%)	19 (7%)	23	64
3	C	193/193 (100%)	180 (93%)	13 (7%)	23	64
4	D	117/148 (79%)	110 (94%)	7 (6%)	27	69
5	E	152/156 (97%)	146 (96%)	6 (4%)	43	85
6	F	93/94 (99%)	92 (99%)	1 (1%)	84	97
7	G	27/282 (10%)	25 (93%)	2 (7%)	20	58
8	H	134/145 (92%)	124 (92%)	10 (8%)	19	57
9	I	58/130 (45%)	57 (98%)	1 (2%)	73	95
10	J	118/121 (98%)	109 (92%)	9 (8%)	19	57
11	K	106/106 (100%)	103 (97%)	3 (3%)	56	91
12	L	113/127 (89%)	106 (94%)	7 (6%)	26	67
13	M	158/160 (99%)	147 (93%)	11 (7%)	21	62
14	N	149/150 (99%)	146 (98%)	3 (2%)	68	94
15	O	93/94 (99%)	93 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	P	113/117 (97%)	111 (98%)	2 (2%)	71	95
17	Q	79/80 (99%)	74 (94%)	5 (6%)	25	66
18	R	117/122 (96%)	113 (97%)	4 (3%)	49	88
19	S	71/74 (96%)	70 (99%)	1 (1%)	78	96
20	T	105/106 (99%)	98 (93%)	7 (7%)	23	64
21	U	44/53 (83%)	43 (98%)	1 (2%)	63	93
22	V	51/57 (90%)	51 (100%)	0	100	100
23	W	130/130 (100%)	126 (97%)	4 (3%)	52	89
24	X	66/74 (89%)	61 (92%)	5 (8%)	19	57
25	Y	120/196 (61%)	117 (98%)	3 (2%)	60	92
26	Z	60/94 (64%)	60 (100%)	0	100	100
27	1	46/47 (98%)	46 (100%)	0	100	100
28	2	42/46 (91%)	41 (98%)	1 (2%)	61	92
29	3	79/79 (100%)	73 (92%)	6 (8%)	19	57
All	All	3095/3646 (85%)	2955 (96%)	140 (4%)	38	81

All (140) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	30	ARG
1	A	37	VAL
1	A	66	ARG
1	A	94	LEU
1	A	131	HIS
1	A	153	ARG
1	A	179	MET
1	A	190	ARG
1	A	217	ARG
2	B	7	ARG
2	B	11	LEU
2	B	27	ASN
2	B	49	THR
2	B	56	ASP
2	B	71	VAL
2	B	132	HIS
2	B	144	THR
2	B	162	MET

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Mol	Chain	Res	Type
2	B	171	VAL
2	B	180	ASP
2	B	188	HIS
2	B	190	MET
2	B	195	ARG
2	B	254	GLN
2	B	264	GLU
2	B	277	GLU
2	B	312	ARG
2	B	322	ARG
3	C	2	GLN
3	C	16	VAL
3	C	76	ARG
3	C	78	ARG
3	C	87	ARG
3	C	101	ASP
3	C	104	ASP
3	C	162	VAL
3	C	180	SER
3	C	187	ARG
3	C	236	THR
3	C	240	LEU
3	C	243	VAL
4	D	19	GLU
4	D	24	HIS
4	D	29	HIS
4	D	50	VAL
4	D	104	PHE
4	D	137	PRO
4	D	149	ARG
5	E	7	ILE
5	E	100	ASP
5	E	116	THR
5	E	126	ILE
5	E	155	ASN
5	E	156	ASP
6	F	12	LEU
7	G	64	ASN
7	G	72	ASP
8	H	33	GLN
8	H	62	HIS
8	H	65	LEU

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Mol	Chain	Res	Type
8	H	87	LYS
8	H	89	THR
8	H	91	ARG
8	H	99	ARG
8	H	122	LYS
8	H	157	TYR
8	H	172	GLU
9	I	110	ASP
10	J	39	VAL
10	J	45	VAL
10	J	46	ILE
10	J	52	GLN
10	J	74	ARG
10	J	79	PHE
10	J	107	ASN
10	J	120	SER
10	J	131	THR
11	K	10	GLN
11	K	24	THR
11	K	55	VAL
12	L	18	HIS
12	L	35	ARG
12	L	73	VAL
12	L	83	GLU
12	L	102	ASP
12	L	104	ASP
12	L	114	VAL
13	M	10	ASP
13	M	46	LEU
13	M	68	ARG
13	M	73	ARG
13	M	81	ARG
13	M	83	SER
13	M	84	LYS
13	M	89	THR
13	M	91	ILE
13	M	99	ARG
13	M	116	ASN
14	N	21	HIS
14	N	134	ASP
14	N	138	ASP
16	P	91	LYS

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Mol	Chain	Res	Type
16	P	98	ILE
17	Q	16	ASN
17	Q	18	PRO
17	Q	54	PRO
17	Q	75	ILE
17	Q	95	GLU
18	R	13	THR
18	R	39	THR
18	R	82	GLU
18	R	143	VAL
19	S	30	ASP
20	T	5	ASP
20	T	39	ASN
20	T	48	VAL
20	T	73	HIS
20	T	96	VAL
20	T	115	GLU
20	T	117	ASP
21	U	25	ASP
23	W	4	LEU
23	W	35	VAL
23	W	38	THR
23	W	146	ILE
24	X	27	ASP
24	X	52	PRO
24	X	72	VAL
24	X	79	GLU
24	X	82	GLU
25	Y	118	THR
25	Y	189	ASN
25	Y	203	VAL
28	2	18	ASN
29	3	7	PHE
29	3	15	ASN
29	3	17	HIS
29	3	56	PRO
29	3	71	CYS
29	3	90	PHE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (88) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	47	HIS
1	A	92	ASN
1	A	176	HIS
1	A	177	HIS
1	A	199	HIS
2	B	27	ASN
2	B	106	HIS
2	B	145	HIS
2	B	238	ASN
2	B	256	GLN
2	B	260	HIS
2	B	320	GLN
2	B	332	ASN
3	C	73	GLN
3	C	129	HIS
4	D	103	ASN
4	D	133	ASN
5	E	55	ASN
5	E	68	HIS
5	E	74	HIS
5	E	90	HIS
5	E	106	ASN
5	E	143	GLN
7	G	64	ASN
8	H	59	GLN
8	H	135	GLN
9	I	106	GLN
10	J	25	GLN
10	J	52	GLN
10	J	107	ASN
10	J	126	ASN
11	K	10	GLN
11	K	42	ASN
11	K	44	HIS
11	K	119	GLN
12	L	18	HIS
12	L	38	HIS
12	L	41	HIS
12	L	43	HIS
12	L	116	HIS
13	M	24	GLN
13	M	58	GLN
13	M	77	HIS

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Mol	Chain	Res	Type
13	M	86	GLN
13	M	137	ASN
13	M	142	GLN
13	M	170	ASN
14	N	107	ASN
14	N	132	ASN
16	P	50	GLN
16	P	66	GLN
16	P	88	GLN
16	P	118	GLN
17	Q	27	GLN
17	Q	40	HIS
18	R	61	GLN
18	R	94	ASN
18	R	98	ASN
18	R	117	HIS
19	S	9	HIS
19	S	44	GLN
19	S	53	ASN
20	T	39	ASN
20	T	43	ASN
21	U	39	ASN
22	V	34	GLN
22	V	60	GLN
23	W	12	ASN
23	W	110	GLN
23	W	119	HIS
23	W	141	HIS
24	X	23	HIS
25	Y	129	ASN
25	Y	134	HIS
25	Y	149	GLN
25	Y	189	ASN
27	1	16	HIS
27	1	28	HIS
28	2	16	ASN
28	2	18	ASN
28	2	41	HIS
28	2	45	ASN
29	3	2	GLN
29	3	13	HIS
29	3	18	GLN

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Mol	Chain	Res	Type
29	3	20	HIS
29	3	30	GLN
29	3	78	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
30	0	2745/2923 (93%)	243 (8%)	22 (0%)
31	9	121/122 (99%)	19 (15%)	2 (1%)
All	All	2866/3045 (94%)	262 (9%)	24 (0%)

All (262) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
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
30	0	88	G
30	0	114	A
30	0	115	U
30	0	120	A
30	0	130	C
30	0	138	U
30	0	141	C
30	0	151	A
30	0	166	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	219	G
30	0	237	G
30	0	271	C
30	0	272	A
30	0	273	G

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Mol	Chain	Res	Type
30	0	283	U
30	0	284	C
30	0	285	A
30	0	308	U
30	0	309	C
30	0	318	U
30	0	336	G
30	0	337	A
30	0	342	C
30	0	358	G
30	0	368	C
30	0	381	G
30	0	397	A
30	0	417	G
30	0	457	U
30	0	461	C
30	0	487	G
30	0	498	A
30	0	510	U
30	0	511	A
30	0	514	G
30	0	537	G
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	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	701	U
30	0	702	G
30	0	746	A
30	0	759	C
30	0	777	U

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Mol	Chain	Res	Type
30	0	809	G
30	0	821	U
30	0	835	U
30	0	840	U
30	0	857	A
30	0	858	U
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	884	C
30	0	885	G
30	0	898	G
30	0	905	C
30	0	920	C
30	0	921	G
30	0	923	A
30	0	953	G
30	0	960	G
30	0	961	A
30	0	1006	A
30	0	1008	C
30	0	1011	C
30	0	1029	U
30	0	1045	G
30	0	1059	G
30	0	1060	C
30	0	1072	G
30	0	1080	C
30	0	1081	A
30	0	1088	A
30	0	1109	U
30	0	1110	G
30	0	1119	G
30	0	1130	U
30	0	1137	G
30	0	1151	G
30	0	1161	A
30	0	1166	A

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Mol	Chain	Res	Type
30	0	1174	A
30	0	1175	G
30	0	1185	U
30	0	1192	A
30	0	1193	A
30	0	1205	U
30	0	1206	U
30	0	1208	C
30	0	1216	G
30	0	1238	C
30	0	1239	G
30	0	1279	U
30	0	1289	C
30	0	1342	C
30	0	1353	C
30	0	1354	G
30	0	1360	C
30	0	1377	C
30	0	1378	G
30	0	1407	A
30	0	1460	G
30	0	1474	C
30	0	1485	A
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	1562	C
30	0	1592	G
30	0	1605	G
30	0	1617	C
30	0	1625	U
30	0	1626	A
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

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Mol	Chain	Res	Type
30	0	1701	A
30	0	1710	A
30	0	1722	U
30	0	1723	G
30	0	1725	C
30	0	1730	G
30	0	1731	C
30	0	1752	G
30	0	1778	A
30	0	1798	C
30	0	1820	G
30	0	1829	A
30	0	1856	C
30	0	1879	U
30	0	1919	A
30	0	1942	A
30	0	1967	U
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	2006	C
30	0	2008	U
30	0	2011	A
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	2110	G
30	0	2238	A
30	0	2243	C
30	0	2258	A
30	0	2271	G

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Mol	Chain	Res	Type
30	0	2272	G
30	0	2317	C
30	0	2321	A
30	0	2354	A
30	0	2361	A
30	0	2369	A
30	0	2422	U
30	0	2462	G
30	0	2465	A
30	0	2469	A
30	0	2476	C
30	0	2480	G
30	0	2483	A
30	0	2507	G
30	0	2509	A
30	0	2511	A
30	0	2533	C
30	0	2537	G
30	0	2541	U
30	0	2553	A
30	0	2564	G
30	0	2589	U
30	0	2601	A
30	0	2602	G
30	0	2608	C
30	0	2613	G
30	0	2638	G
30	0	2664	A
30	0	2681	A
30	0	2682	C
30	0	2718	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	2792	A
30	0	2800	A
30	0	2811	A
30	0	2812	A

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Mol	Chain	Res	Type
30	0	2825	C
30	0	2876	G
30	0	2890	A
30	0	2896	A
30	0	2903	C
30	0	2914	A
31	9	2	U
31	9	7	G
31	9	14	G
31	9	22	G
31	9	23	U
31	9	24	U
31	9	25	G
31	9	39	U
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	65	A
31	9	66	G
31	9	77	A
31	9	114	G
31	9	122	C

All (24) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
30	0	129	A
30	0	341	C
30	0	396	U
30	0	545	G
30	0	603	A
30	0	604	G
30	0	644	G
30	0	699	C
30	0	834	G
30	0	857	A
30	0	871	G
30	0	877	G
30	0	1080	C

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Mol	Chain	Res	Type
30	0	1237	U
30	0	1352	A
30	0	1685	A
30	0	1970	G
30	0	2011	A
30	0	2536	C
30	0	2718	C
30	0	2761	A
30	0	2791	U
31	9	43	G
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	0.83	0
30	OMG	0	2588	30	24,26,27	0.74	0	32,38,41	5.18	3 (9%)
30	UR3	0	2619	30	20,22,23	0.77	0	23,32,35	0.84	0
30	PSU	0	2621	30	19,21,22	1.12	2 (10%)	23,30,33	1.00	1 (4%)
30	1MA	0	628	30	23,25,26	0.86	0	32,37,40	0.90	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
30	1MA	0	628	30	-	0/8/25/26	0/1/3/3

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	0	2621	PSU	C2-N1	3.08	1.43	1.37
30	0	2621	PSU	C6-N1	2.15	1.34	1.32

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	0	2588	OMG	C6-C5-N7	-28.74	130.27	134.14
30	0	628	1MA	C2-N3-C4	-3.23	110.71	116.23
30	0	2588	OMG	C6-N1-C2	3.19	125.08	119.51
30	0	2588	OMG	C2-N3-C4	-2.37	111.76	115.09
30	0	2621	PSU	C5-C4-N3	-2.15	114.94	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%)	-0.38	1 (0%) 90 41	29, 65, 98, 115	0
2	B	337/338 (99%)	-0.47	0 100 100	31, 59, 87, 97	0
3	C	246/246 (100%)	-0.52	0 100 100	23, 47, 69, 80	0
4	D	140/177 (79%)	0.26	1 (0%) 84 28	74, 109, 132, 140	0
5	E	172/178 (96%)	-0.42	0 100 100	50, 74, 97, 103	0
6	F	119/120 (99%)	-0.18	0 100 100	50, 73, 106, 113	0
7	G	29/348 (8%)	0.12	0 100 100	75, 96, 105, 109	0
8	H	160/177 (90%)	-0.30	0 100 100	48, 67, 99, 109	0
9	I	70/162 (43%)	1.11	13 (18%) 2 1	134, 152, 167, 169	0
10	J	142/145 (97%)	-0.49	0 100 100	40, 58, 75, 97	0
11	K	132/132 (100%)	-0.56	0 100 100	39, 55, 81, 86	0
12	L	145/165 (87%)	-0.16	1 (0%) 84 28	35, 72, 113, 129	0
13	M	194/196 (98%)	-0.35	4 (2%) 60 12	31, 46, 99, 106	0
14	N	186/187 (99%)	-0.17	0 100 100	60, 80, 126, 132	0
15	O	115/116 (99%)	-0.49	0 100 100	43, 56, 74, 80	0
16	P	143/149 (95%)	-0.48	0 100 100	40, 59, 79, 85	0
17	Q	95/96 (98%)	-0.42	0 100 100	44, 56, 72, 88	0
18	R	150/155 (96%)	-0.53	0 100 100	33, 49, 70, 83	0
19	S	81/85 (95%)	-0.37	0 100 100	40, 62, 82, 92	0
20	T	119/120 (99%)	-0.36	0 100 100	40, 59, 87, 116	0
21	U	53/67 (79%)	1.56	15 (28%) 1 0	107, 117, 125, 126	0
22	V	65/71 (91%)	-0.03	3 (4%) 31 7	47, 74, 118, 123	0
23	W	154/154 (100%)	-0.42	0 100 100	39, 54, 73, 87	0
24	X	82/92 (89%)	-0.28	0 100 100	46, 65, 94, 108	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	Y	142/241 (58%)	-0.57	0 100 100	30, 49, 71, 92	0
26	Z	73/116 (62%)	2.06	32 (43%) 1 0	98, 116, 126, 130	0
27	1	56/57 (98%)	-0.52	0 100 100	28, 36, 43, 48	0
28	2	46/50 (92%)	-0.31	0 100 100	31, 66, 97, 104	0
29	3	92/92 (100%)	2.55	47 (51%) 0 0	104, 119, 130, 134	0
30	0	2754/2923 (94%)	-0.88	2 (0%) 93 63	23, 51, 96, 175	0
31	9	122/122 (100%)	-0.99	1 (0%) 83 26	45, 75, 103, 154	0
All	All	6651/7517 (88%)	-0.49	120 (1%) 65 14	23, 57, 116, 175	0

All (120) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
29	3	41	GLU	8.2
29	3	38	ARG	8.1
29	3	34	LYS	7.8
29	3	39	GLN	7.8
26	Z	46	SER	7.6
26	Z	36	GLY	7.0
29	3	42	ARG	6.4
26	Z	58	ASN	6.1
29	3	37	ASP	6.0
29	3	40	ARG	6.0
29	3	35	TRP	5.9
29	3	36	ILE	5.8
26	Z	48	ARG	5.7
26	Z	49	ARG	5.7
26	Z	59	GLU	5.6
26	Z	50	VAL	5.4
26	Z	43	GLY	5.4
26	Z	44	ARG	5.2
29	3	20	HIS	5.2
29	3	33	MET	5.0
29	3	19	GLU	4.6
29	3	82	GLY	4.6
26	Z	35	SER	4.4
29	3	14	CYS	4.4
26	Z	69	ASP	4.4
13	M	70	GLY	4.3
26	Z	57	MET	4.3
26	Z	54	GLU	4.2

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Mol	Chain	Res	Type	RSRZ
29	3	51	LYS	4.2
29	3	11	CYS	4.0
26	Z	47	ARG	4.0
21	U	46	ALA	4.0
21	U	54	THR	4.0
26	Z	55	SER	3.9
29	3	81	GLU	3.8
26	Z	42	TYR	3.6
29	3	31	THR	3.4
31	9	1	U	3.4
29	3	16	GLU	3.4
29	3	71	CYS	3.4
26	Z	53	ILE	3.4
21	U	40	ALA	3.3
26	Z	45	VAL	3.2
29	3	32	GLY	3.2
29	3	78	HIS	3.2
29	3	18	GLN	3.1
29	3	47	GLY	3.0
21	U	9	CYS	3.0
26	Z	56	GLU	3.0
29	3	56	PRO	3.0
29	3	15	ASN	2.9
29	3	62	THR	2.9
9	I	66	GLY	2.9
29	3	21	GLU	2.9
13	M	80	GLY	2.8
29	3	30	GLN	2.8
26	Z	77	GLY	2.8
9	I	74	ILE	2.8
26	Z	60	ASP	2.8
29	3	85	ALA	2.8
12	L	60	GLU	2.8
29	3	43	ASN	2.8
29	3	29	ARG	2.8
21	U	5	GLU	2.8
26	Z	81	CYS	2.7
29	3	45	GLY	2.7
29	3	84	ARG	2.6
21	U	56	ARG	2.6
29	3	48	ASN	2.6
9	I	106	GLN	2.6

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Mol	Chain	Res	Type	RSRZ
26	Z	51	ALA	2.6
29	3	23	GLU	2.6
21	U	32	CYS	2.6
13	M	71	SER	2.6
21	U	55	ALA	2.6
26	Z	67	GLY	2.5
21	U	39	ASN	2.5
9	I	93	ALA	2.5
29	3	12	PRO	2.4
9	I	112	LEU	2.4
4	D	57	THR	2.4
9	I	100	VAL	2.4
29	3	91	GLN	2.3
21	U	48	ASN	2.3
26	Z	104	ARG	2.3
26	Z	52	GLU	2.3
30	0	735	C	2.3
13	M	82	ARG	2.2
26	Z	61	HIS	2.2
22	V	1	THR	2.2
1	A	237	GLY	2.2
29	3	74	CYS	2.2
29	3	1	MET	2.2
21	U	11	THR	2.2
21	U	24	LYS	2.2
26	Z	34	SER	2.2
29	3	53	SER	2.2
21	U	41	ASP	2.2
21	U	43	GLY	2.2
9	I	99	GLN	2.1
9	I	72	GLU	2.1
9	I	67	VAL	2.1
30	0	1199	A	2.1
29	3	44	SER	2.1
9	I	102	GLN	2.1
29	3	64	LYS	2.1
22	V	38	GLY	2.1
26	Z	37	ARG	2.1
26	Z	68	GLU	2.1
29	3	6	ARG	2.1
29	3	10	TYR	2.1
9	I	71	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
22	V	39	ALA	2.0
29	3	28	GLY	2.0
21	U	12	ASP	2.0
26	Z	70	ARG	2.0
26	Z	40	ALA	2.0
9	I	105	GLU	2.0
29	3	3	MET	2.0
9	I	104	ALA	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	UR3	0	2619	21/22	0.13	0.47	39,43,45,48	0
30	PSU	0	2621	20/21	0.16	0.16	40,43,44,44	0
30	OMU	0	2587	21/22	0.11	0.10	41,44,50,50	0
30	OMG	0	2588	24/25	0.12	-0.82	39,41,42,45	0
30	1MA	0	628	23/24	0.14	-1.13	31,36,38,38	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
36	SR	0	8997	1/1	0.56	187.79	194,194,194,194	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
36	SR	0	8982	1/1	1.74	127.39	200,200,200,200	0
34	NA	0	8565	1/1	0.72	70.85	70,70,70,70	0
34	NA	0	8559	1/1	0.64	59.86	122,122,122,122	0
35	CL	A	8809	1/1	0.43	50.92	100,100,100,100	0
34	NA	0	8505	1/1	1.07	50.76	53,53,53,53	0
34	NA	0	8547	1/1	0.42	44.26	47,47,47,47	0
34	NA	0	8508	1/1	0.31	41.08	61,61,61,61	0
35	CL	0	8822	1/1	0.56	37.17	97,97,97,97	0
34	NA	0	8566	1/1	0.34	36.52	62,62,62,62	0
34	NA	0	8562	1/1	0.54	33.30	89,89,89,89	0
34	NA	0	8506	1/1	0.45	27.31	58,58,58,58	0
34	NA	0	8528	1/1	0.79	25.17	83,83,83,83	0
36	SR	0	8919	1/1	0.33	24.08	200,200,200,200	0
36	SR	0	8983	1/1	0.27	23.63	191,191,191,191	0
32	MG	0	8081	1/1	0.30	21.97	80,80,80,80	0
34	NA	0	8574	1/1	0.35	21.70	54,54,54,54	0
36	SR	0	8925	1/1	0.14	21.40	94,94,94,94	0
32	MG	0	8037	1/1	0.15	20.00	76,76,76,76	0
32	MG	0	8066	1/1	0.37	19.56	75,75,75,75	0
34	NA	0	8573	1/1	0.41	19.27	55,55,55,55	0
36	SR	0	8922	1/1	0.35	19.25	169,169,169,169	0
36	SR	0	8957	1/1	0.64	18.80	200,200,200,200	0
36	SR	0	9004	1/1	0.95	18.19	200,200,200,200	0
36	SR	0	9007	1/1	0.23	18.14	179,179,179,179	0
36	SR	0	9000	1/1	0.27	18.12	200,200,200,200	0
34	NA	0	8558	1/1	0.33	17.83	44,44,44,44	0
34	NA	0	8545	1/1	0.24	16.89	33,33,33,33	0
34	NA	0	8554	1/1	0.53	16.83	65,65,65,65	0
34	NA	0	8563	1/1	0.50	15.82	65,65,65,65	0
32	MG	0	8031	1/1	0.22	14.99	52,52,52,52	0
34	NA	0	8561	1/1	0.40	14.73	57,57,57,57	0
34	NA	R	8575	1/1	0.40	13.67	89,89,89,89	0
34	NA	0	8530	1/1	0.45	13.50	49,49,49,49	0
32	MG	0	8033	1/1	0.15	13.15	40,40,40,40	0
32	MG	0	8016	1/1	0.26	12.78	48,48,48,48	0
34	NA	0	8519	1/1	0.29	12.69	51,51,51,51	0
36	SR	0	8959	1/1	0.27	12.67	200,200,200,200	0
36	SR	0	8927	1/1	0.17	12.28	196,196,196,196	0
34	NA	0	8524	1/1	0.29	12.00	54,54,54,54	0
32	MG	0	8041	1/1	0.30	11.50	36,36,36,36	0
36	SR	0	8994	1/1	0.27	11.03	200,200,200,200	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
34	NA	0	8525	1/1	0.15	10.69	85,85,85,85	0
34	NA	0	8553	1/1	0.34	10.33	70,70,70,70	0
34	NA	0	8564	1/1	0.27	10.03	57,57,57,57	0
36	SR	0	8955	1/1	0.18	9.95	200,200,200,200	0
34	NA	0	8509	1/1	0.14	9.76	54,54,54,54	0
36	SR	0	8991	1/1	0.29	9.75	193,193,193,193	0
34	NA	0	8535	1/1	0.20	9.62	64,64,64,64	0
34	NA	0	8518	1/1	0.22	9.50	75,75,75,75	0
36	SR	0	8947	1/1	0.31	8.92	194,194,194,194	0
34	NA	0	8526	1/1	0.13	8.80	33,33,33,33	0
36	SR	0	8986	1/1	0.43	8.67	200,200,200,200	0
34	NA	0	8556	1/1	0.58	8.38	63,63,63,63	0
34	NA	0	8555	1/1	0.40	7.65	50,50,50,50	0
34	NA	0	8567	1/1	0.27	7.28	68,68,68,68	0
36	SR	B	8987	1/1	0.41	7.19	200,200,200,200	0
36	SR	0	8976	1/1	0.23	6.91	197,197,197,197	0
36	SR	0	8998	1/1	0.33	6.86	184,184,184,184	0
34	NA	0	8521	1/1	0.23	6.40	53,53,53,53	0
34	NA	0	8550	1/1	0.28	6.29	47,47,47,47	0
35	CL	0	8816	1/1	0.23	6.11	94,94,94,94	0
34	NA	0	8513	1/1	0.33	5.99	66,66,66,66	0
32	MG	0	8085	1/1	0.18	5.96	67,67,67,67	0
32	MG	0	8078	1/1	0.27	5.58	51,51,51,51	0
36	SR	0	8905	1/1	0.22	5.39	62,62,62,62	0
36	SR	0	8914	1/1	0.20	5.30	105,105,105,105	0
35	CL	0	8814	1/1	0.19	5.15	72,72,72,72	0
32	MG	0	8063	1/1	0.23	4.91	86,86,86,86	0
34	NA	9	8572	1/1	0.17	4.82	71,71,71,71	0
33	K	0	8401	1/1	0.17	4.78	156,156,156,156	0
34	NA	0	8546	1/1	0.36	4.74	80,80,80,80	0
32	MG	0	8005	1/1	0.24	4.65	34,34,34,34	0
36	SR	0	8971	1/1	0.11	4.47	170,170,170,170	0
36	SR	0	8989	1/1	0.21	4.46	200,200,200,200	0
34	NA	0	8569	1/1	0.23	4.30	67,67,67,67	0
36	SR	0	8969	1/1	0.22	4.28	192,192,192,192	0
36	SR	0	8901	1/1	0.14	4.22	63,63,63,63	0
32	MG	0	8040	1/1	0.20	4.16	54,54,54,54	0
34	NA	0	8541	1/1	0.25	4.09	54,54,54,54	0
34	NA	0	8529	1/1	0.15	3.89	41,41,41,41	0
34	NA	0	8552	1/1	0.26	3.82	58,58,58,58	0
32	MG	0	8014	1/1	0.20	3.78	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
36	SR	0	8924	1/1	0.16	3.67	133,133,133,133	0
34	NA	0	8522	1/1	0.20	3.66	45,45,45,45	0
36	SR	0	8979	1/1	0.13	3.51	198,198,198,198	0
34	NA	0	8520	1/1	0.14	3.25	39,39,39,39	0
32	MG	0	8011	1/1	0.22	2.89	24,24,24,24	0
34	NA	0	8534	1/1	0.21	2.84	37,37,37,37	0
35	CL	0	8817	1/1	0.19	2.83	69,69,69,69	0
32	MG	0	8004	1/1	0.19	2.79	21,21,21,21	0
36	SR	0	8904	1/1	0.17	2.76	58,58,58,58	0
32	MG	0	8023	1/1	0.15	2.60	24,24,24,24	0
32	MG	K	8054	1/1	0.14	2.59	40,40,40,40	0
36	SR	9	8980	1/1	0.13	2.48	182,182,182,182	0
32	MG	A	8051	1/1	0.31	2.44	101,101,101,101	0
32	MG	0	8009	1/1	0.19	2.43	24,24,24,24	0
34	NA	0	8537	1/1	0.21	2.43	29,29,29,29	0
36	SR	0	8909	1/1	0.14	2.35	89,89,89,89	0
32	MG	0	8048	1/1	0.21	2.33	20,20,20,20	0
32	MG	0	8044	1/1	0.15	2.26	52,52,52,52	0
32	MG	0	8015	1/1	0.13	2.24	25,25,25,25	0
32	MG	0	8022	1/1	0.13	2.20	17,17,17,17	0
34	NA	0	8571	1/1	0.14	2.07	46,46,46,46	0
32	MG	0	8030	1/1	0.35	2.07	86,86,86,86	0
32	MG	0	8071	1/1	0.15	2.04	31,31,31,31	0
34	NA	R	8532	1/1	0.15	2.01	37,37,37,37	0
32	MG	0	8020	1/1	0.12	2.01	29,29,29,29	0
36	SR	0	8996	1/1	0.17	2.01	199,199,199,199	0
32	MG	0	8007	1/1	0.19	1.97	18,18,18,18	0
35	CL	N	8807	1/1	0.34	1.94	99,99,99,99	0
32	MG	0	8075	1/1	0.13	1.93	83,83,83,83	0
32	MG	0	8047	1/1	0.20	1.84	67,67,67,67	0
36	SR	0	9008	1/1	0.16	1.71	97,97,97,97	0
32	MG	0	8018	1/1	0.13	1.70	34,34,34,34	0
32	MG	0	8059	1/1	0.12	1.63	53,53,53,53	0
32	MG	0	8010	1/1	0.18	1.61	24,24,24,24	0
36	SR	0	8906	1/1	0.20	1.51	64,64,64,64	0
32	MG	0	8003	1/1	0.17	1.46	22,22,22,22	0
34	NA	0	8502	1/1	0.14	1.38	56,56,56,56	0
34	NA	0	8507	1/1	0.15	1.35	32,32,32,32	0
35	CL	0	8811	1/1	0.28	1.34	79,79,79,79	0
32	MG	0	8008	1/1	0.13	1.27	26,26,26,26	0
34	NA	0	8560	1/1	0.94	1.27	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
34	NA	0	8548	1/1	0.12	1.16	68,68,68,68	0
32	MG	0	8088	1/1	0.15	1.14	35,35,35,35	0
36	SR	0	8903	1/1	0.13	1.13	46,46,46,46	0
32	MG	0	8062	1/1	0.19	1.08	57,57,57,57	0
36	SR	0	8902	1/1	0.16	0.92	67,67,67,67	0
36	SR	0	8968	1/1	0.13	0.86	177,177,177,177	0
32	MG	0	8019	1/1	0.16	0.72	23,23,23,23	0
36	SR	0	8941	1/1	0.17	0.56	122,122,122,122	0
36	SR	0	8985	1/1	0.12	0.54	182,182,182,182	0
32	MG	0	8084	1/1	0.13	0.49	24,24,24,24	0
32	MG	0	8061	1/1	0.19	0.42	19,19,19,19	0
36	SR	0	8937	1/1	0.15	0.42	100,100,100,100	0
32	MG	0	8029	1/1	0.12	0.35	68,68,68,68	0
37	CD	3	8704	1/1	0.70	0.25	200,200,200,200	0
32	MG	2	8060	1/1	0.11	0.18	35,35,35,35	0
32	MG	0	8083	1/1	0.12	0.17	71,71,71,71	0
35	CL	0	8803	1/1	0.14	0.14	69,69,69,69	0
32	MG	0	8027	1/1	0.11	0.11	26,26,26,26	0
34	NA	0	8515	1/1	0.14	0.06	44,44,44,44	0
36	SR	0	8943	1/1	0.10	0.04	72,72,72,72	0
34	NA	0	8551	1/1	0.13	0.03	55,55,55,55	0
34	NA	0	8544	1/1	0.10	-0.00	41,41,41,41	0
34	NA	0	8557	1/1	0.08	-0.05	59,59,59,59	0
32	MG	0	8006	1/1	0.13	-0.06	20,20,20,20	0
32	MG	0	8068	1/1	0.11	-0.18	49,49,49,49	0
34	NA	C	8503	1/1	0.15	-0.20	45,45,45,45	0
32	MG	0	8077	1/1	0.10	-0.21	43,43,43,43	0
36	SR	0	8908	1/1	0.12	-0.21	77,77,77,77	0
35	CL	R	8806	1/1	0.12	-0.22	47,47,47,47	0
32	MG	0	8080	1/1	0.22	-0.24	68,68,68,68	0
36	SR	0	8951	1/1	0.10	-0.25	139,139,139,139	0
34	NA	Q	8540	1/1	0.14	-0.27	67,67,67,67	0
32	MG	0	8021	1/1	0.11	-0.29	25,25,25,25	0
32	MG	0	8028	1/1	0.13	-0.30	19,19,19,19	0
34	NA	0	8514	1/1	0.17	-0.33	17,17,17,17	0
32	MG	0	8039	1/1	0.14	-0.33	71,71,71,71	0
34	NA	0	8527	1/1	0.19	-0.35	54,54,54,54	0
36	SR	0	8926	1/1	0.09	-0.36	109,109,109,109	0
35	CL	0	8805	1/1	0.10	-0.36	70,70,70,70	0
36	SR	0	8988	1/1	0.11	-0.38	170,170,170,170	0
32	MG	0	8034	1/1	0.14	-0.39	53,53,53,53	0
32	MG	3	8090	1/1	0.14	-0.41	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
35	CL	O	8808	1/1	0.14	-0.43	87,87,87,87	0
32	MG	B	8043	1/1	0.11	-0.47	53,53,53,53	0
35	CL	J	8801	1/1	0.15	-0.50	71,71,71,71	0
34	NA	0	8517	1/1	0.13	-0.55	21,21,21,21	0
37	CD	1	8702	1/1	0.11	-0.57	61,61,61,61	0
33	K	M	8402	1/1	0.14	-0.59	60,60,60,60	0
36	SR	0	8940	1/1	0.10	-0.61	77,77,77,77	0
32	MG	0	8070	1/1	0.10	-0.68	40,40,40,40	0
36	SR	F	9005	1/1	0.10	-0.68	131,131,131,131	0
32	MG	0	8069	1/1	0.14	-0.69	55,55,55,55	0
35	CL	J	8821	1/1	0.11	-0.72	66,66,66,66	0
35	CL	Y	8820	1/1	0.10	-0.73	47,47,47,47	0
36	SR	B	8950	1/1	0.15	-0.75	113,113,113,113	0
36	SR	0	8923	1/1	0.11	-0.76	85,85,85,85	0
34	NA	0	8501	1/1	0.11	-0.84	43,43,43,43	0
36	SR	A	8993	1/1	0.08	-0.85	159,159,159,159	0
32	MG	0	8056	1/1	0.11	-0.86	75,75,75,75	0
32	MG	0	8024	1/1	0.11	-0.91	96,96,96,96	0
36	SR	0	8990	1/1	0.13	-0.92	125,125,125,125	0
36	SR	0	8953	1/1	0.07	-0.93	200,200,200,200	0
36	SR	R	8912	1/1	0.12	-0.95	86,86,86,86	0
36	SR	0	8954	1/1	0.11	-0.95	103,103,103,103	0
36	SR	0	8918	1/1	0.10	-0.96	71,71,71,71	0
36	SR	0	8916	1/1	0.10	-0.98	114,114,114,114	0
32	MG	B	8042	1/1	0.08	-1.03	56,56,56,56	0
36	SR	0	8964	1/1	0.08	-1.04	129,129,129,129	0
36	SR	0	8977	1/1	0.09	-1.04	181,181,181,181	0
36	SR	1	8913	1/1	0.12	-1.07	100,100,100,100	0
36	SR	0	8915	1/1	0.10	-1.09	118,118,118,118	0
36	SR	0	8972	1/1	0.09	-1.09	150,150,150,150	0
36	SR	0	8907	1/1	0.10	-1.12	40,40,40,40	0
36	SR	0	8946	1/1	0.13	-1.15	123,123,123,123	0
34	NA	0	8549	1/1	0.15	-1.22	77,77,77,77	0
32	MG	0	8012	1/1	0.14	-1.25	15,15,15,15	0
32	MG	0	8046	1/1	0.12	-1.26	26,26,26,26	0
37	CD	U	8701	1/1	0.36	-1.30	200,200,200,200	0
35	CL	J	8802	1/1	0.07	-1.32	76,76,76,76	0
32	MG	0	8058	1/1	0.07	-1.35	22,22,22,22	0
36	SR	A	8930	1/1	0.11	-1.35	125,125,125,125	0
36	SR	3	8932	1/1	0.11	-1.36	158,158,158,158	0
36	SR	0	8939	1/1	0.08	-1.39	152,152,152,152	0
36	SR	9	9003	1/1	0.11	-1.40	177,177,177,177	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
35	CL	0	8815	1/1	0.09	-1.42	87,87,87,87	0
34	NA	9	8543	1/1	0.09	-1.43	38,38,38,38	0
34	NA	0	8523	1/1	0.10	-1.47	51,51,51,51	0
36	SR	0	8956	1/1	0.04	-1.49	151,151,151,151	0
36	SR	0	8958	1/1	0.07	-1.50	114,114,114,114	0
32	MG	0	8082	1/1	0.11	-1.50	66,66,66,66	0
34	NA	J	8538	1/1	0.07	-1.50	49,49,49,49	0
36	SR	0	8995	1/1	0.15	-1.54	140,140,140,140	0
32	MG	0	8067	1/1	0.14	-1.57	32,32,32,32	0
35	CL	L	8810	1/1	0.11	-1.68	64,64,64,64	0
36	SR	0	8936	1/1	0.08	-1.71	87,87,87,87	0
36	SR	0	8975	1/1	0.08	-1.74	171,171,171,171	0
35	CL	K	8812	1/1	0.08	-1.76	48,48,48,48	0
36	SR	1	8952	1/1	0.11	-1.77	72,72,72,72	0
36	SR	0	8984	1/1	0.08	-1.80	105,105,105,105	0
36	SR	0	9002	1/1	0.07	-1.81	157,157,157,157	0
36	SR	0	8981	1/1	0.09	-1.83	157,157,157,157	0
36	SR	0	8935	1/1	0.08	-1.87	87,87,87,87	0
34	NA	0	8531	1/1	0.09	-1.89	15,15,15,15	0
36	SR	9	8978	1/1	0.07	-1.91	125,125,125,125	0
32	MG	0	8001	1/1	0.12	-1.92	26,26,26,26	0
36	SR	A	8929	1/1	0.05	-1.98	117,117,117,117	0
35	CL	B	8819	1/1	0.11	-1.99	59,59,59,59	0
36	SR	0	8928	1/1	0.07	-2.04	146,146,146,146	0
32	MG	0	8036	1/1	0.07	-2.13	37,37,37,37	0
34	NA	0	8504	1/1	0.09	-2.19	27,27,27,27	0
36	SR	0	8944	1/1	0.06	-2.21	165,165,165,165	0
34	NA	0	8570	1/1	0.07	-2.26	25,25,25,25	0
32	MG	0	8076	1/1	0.10	-2.37	27,27,27,27	0
36	SR	0	8933	1/1	0.07	-2.40	126,126,126,126	0
32	MG	0	8017	1/1	0.09	-2.43	20,20,20,20	0
37	CD	Z	8703	1/1	0.30	-2.49	200,200,200,200	0
36	SR	0	8921	1/1	0.09	-2.59	75,75,75,75	0
36	SR	0	8938	1/1	0.07	-2.59	164,164,164,164	0
32	MG	0	8052	1/1	0.06	-2.60	51,51,51,51	0
36	SR	0	8911	1/1	0.06	-2.66	79,79,79,79	0
32	MG	0	8053	1/1	0.05	-2.69	45,45,45,45	0
36	SR	0	8931	1/1	0.07	-2.72	110,110,110,110	0
32	MG	0	8073	1/1	0.07	-2.80	51,51,51,51	0
34	NA	M	8539	1/1	0.07	-2.81	32,32,32,32	0
35	CL	3	8804	1/1	0.13	-2.98	120,120,120,120	0
32	MG	0	8038	1/1	0.07	-3.04	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
32	MG	0	8065	1/1	0.09	-3.06	50,50,50,50	0
34	NA	0	8568	1/1	0.10	-3.08	38,38,38,38	0
35	CL	M	8818	1/1	0.05	-3.12	39,39,39,39	0
32	MG	T	8057	1/1	0.04	-3.17	63,63,63,63	0
34	NA	0	8533	1/1	0.08	-3.20	53,53,53,53	0
36	SR	0	8910	1/1	0.07	-3.22	99,99,99,99	0
36	SR	0	8960	1/1	0.06	-3.22	152,152,152,152	0
32	MG	0	8055	1/1	0.09	-3.23	45,45,45,45	0
36	SR	0	8967	1/1	0.05	-3.27	133,133,133,133	0
34	NA	0	8511	1/1	0.07	-3.27	48,48,48,48	0
32	MG	0	8079	1/1	0.09	-3.44	36,36,36,36	0
32	MG	0	8087	1/1	0.08	-3.59	26,26,26,26	0
36	SR	0	8934	1/1	0.08	-3.65	99,99,99,99	0
36	SR	0	8917	1/1	0.09	-3.67	109,109,109,109	0
36	SR	0	8948	1/1	0.08	-3.73	103,103,103,103	0
34	NA	0	8536	1/1	0.07	-3.98	40,40,40,40	0
36	SR	0	9001	1/1	0.07	-4.11	166,166,166,166	0
34	NA	0	8542	1/1	0.14	-4.13	51,51,51,51	0
36	SR	S	8961	1/1	0.05	-4.14	126,126,126,126	0
36	SR	0	8974	1/1	0.13	-4.53	164,164,164,164	0
36	SR	0	8992	1/1	0.06	-4.66	130,130,130,130	0
32	MG	Y	8086	1/1	0.04	-4.84	37,37,37,37	0
34	NA	0	8512	1/1	0.08	-4.88	36,36,36,36	0
32	MG	0	8045	1/1	0.07	-4.94	24,24,24,24	0
32	MG	0	8089	1/1	0.16	-5.00	59,59,59,59	0
34	NA	0	8516	1/1	0.09	-5.40	20,20,20,20	0
34	NA	S	8510	1/1	0.03	-5.50	26,26,26,26	0
36	SR	0	8970	1/1	0.03	-5.52	131,131,131,131	0
36	SR	0	8965	1/1	0.07	-5.53	127,127,127,127	0
32	MG	0	8013	1/1	0.04	-5.59	24,24,24,24	0
32	MG	0	8091	1/1	0.08	-5.67	58,58,58,58	0
32	MG	0	8025	1/1	0.09	-5.74	30,30,30,30	0
32	MG	0	8093	1/1	0.05	-5.83	28,28,28,28	0
36	SR	0	8942	1/1	0.06	-5.85	130,130,130,130	0
36	SR	0	8962	1/1	0.08	-5.96	179,179,179,179	0
32	MG	0	8064	1/1	0.06	-6.20	33,33,33,33	0
36	SR	0	8949	1/1	0.07	-6.43	102,102,102,102	0
36	SR	0	8945	1/1	0.06	-6.66	107,107,107,107	0
32	MG	9	8074	1/1	0.03	-6.67	63,63,63,63	0
36	SR	0	8920	1/1	0.04	-6.95	106,106,106,106	0
32	MG	0	8072	1/1	0.08	-6.97	47,47,47,47	0
32	MG	0	8050	1/1	0.07	-7.45	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
32	MG	0	8002	1/1	0.09	-7.47	29,29,29,29	0
35	CL	0	8813	1/1	0.04	-7.55	46,46,46,46	0
36	SR	3	8999	1/1	0.25	-7.85	172,172,172,172	0
36	SR	0	8966	1/1	0.07	-8.83	97,97,97,97	0
32	MG	0	8032	1/1	0.07	-11.31	27,27,27,27	0
32	MG	0	8026	1/1	0.04	-11.48	27,27,27,27	0
32	MG	0	8035	1/1	0.06	-17.00	61,61,61,61	0
36	SR	0	8963	1/1	0.06	-18.00	123,123,123,123	0
37	CD	O	8705	1/1	0.06	-20.20	93,93,93,93	0
32	MG	0	8092	1/1	0.05	-48.00	44,44,44,44	0
36	SR	0	8973	1/1	0.12	-	112,112,112,112	0
32	MG	0	8049	1/1	0.56	-	74,74,74,74	0
36	SR	0	9006	1/1	0.53	-	180,180,180,180	0

6.5 Other polymers ⓘ

There are no such residues in this entry.