



Full wwPDB EM Validation Report ⓘ

Mar 6, 2026 – 12:35 AM UTC

PDB ID : 5JPQ / pdb_00005jpq
EMDB ID : EMD-8143
Title : Cryo-EM structure of the 90S pre-ribosome
Authors : Turk, M.; Cheng, J.; Berninghausen, O.; Kornprobst, M.; Flemming, D.; Kos-Braun, I.C.; Kos, M.; Thoms, M.; Hurt, E.; Beckmann, R.
Deposited on : 2016-05-04
Resolution : 7.30 Å(reported)

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

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

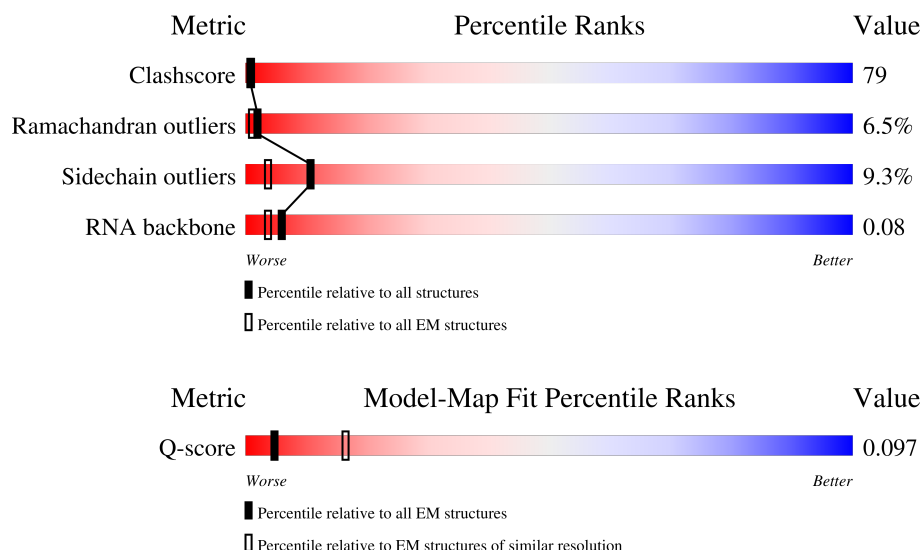
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 7.30 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	436 (6.80 - 7.80)

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

Mol	Chain	Length	Quality of chain
1	A	1290	
1	B	1290	
1	C	1290	

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Mol	Chain	Length	Quality of chain
1	D	1290	
1	E	1290	
1	F	1290	
1	J	1290	
1	K	1290	
1	L	1290	
1	N	1290	
1	P	1290	
1	l	1290	
1	n	1290	
2	G	1802	
3	H	920	
4	I	939	
5	M	870	
5	O	870	
5	m	870	
6	Q	456	
7	R	560	
8	S	412	
8	T	412	
9	U	130	
9	V	130	
10	W	232	
10	X	232	
11	Y	573	

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Mol	Chain	Length	Quality of chain
12	Z	367	
13	a	1183	
14	b	183	
15	c	297	
16	d	184	
17	e	252	
17	f	252	
18	g	322	
18	h	322	
19	i	1073	
19	j	1073	
20	k	391	
21	o	265	
22	p	259	
23	q	225	
24	r	293	
25	s	197	
26	t	208	
27	u	197	
28	v	151	
29	w	137	
30	x	143	
31	y	157	
32	z	130	
33	0	149	

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Mol	Chain	Length	Quality of chain
34	1	67	40%34%25%10%30%
35	2	1800	9%11%34%.53%
36	3	274	15%.28%28%.40%

2 Entry composition

There are 36 unique types of molecules in this entry. The entry contains 95839 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called WD40 domain proteins.

Mol	Chain	Residues	Atoms				AltConf	Trace
1	A	300	Total	C	N	O	0	0
			1500	900	300	300		
1	B	300	Total	C	N	O	0	0
			1500	900	300	300		
1	C	300	Total	C	N	O	0	0
			1500	900	300	300		
1	D	300	Total	C	N	O	0	0
			1500	900	300	300		
1	E	300	Total	C	N	O	0	0
			1500	900	300	300		
1	F	300	Total	C	N	O	0	0
			1500	900	300	300		
1	J	300	Total	C	N	O	0	0
			1500	900	300	300		
1	K	300	Total	C	N	O	0	0
			1500	900	300	300		
1	L	300	Total	C	N	O	0	0
			1500	900	300	300		
1	N	300	Total	C	N	O	0	0
			1500	900	300	300		
1	P	300	Total	C	N	O	0	0
			1500	900	300	300		
1	l	300	Total	C	N	O	0	0
			1500	900	300	300		
1	n	300	Total	C	N	O	0	0
			1500	900	300	300		

- Molecule 2 is a protein called UTP10.

Mol	Chain	Residues	Atoms				AltConf	Trace
2	G	283	Total	C	N	O	0	0
			1402	836	283	283		

- Molecule 3 is a protein called UTP-A oligomerization domain.

Mol	Chain	Residues	Atoms				AltConf	Trace
3	H	343	Total	C	N	O	0	0
			1715	1029	343	343		

- Molecule 4 is a protein called U3 small nucleolar RNA-associated protein 21.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	I	634	Total	C	N	O	0	0
			3124	1856	634	634		

- Molecule 5 is a protein called WD40 domain proteins.

Mol	Chain	Residues	Atoms				AltConf	Trace
5	M	309	Total	C	N	O	0	0
			1545	927	309	309		
5	O	309	Total	C	N	O	0	0
			1545	927	309	309		
5	m	309	Total	C	N	O	0	0
			1545	927	309	309		

- Molecule 6 is a protein called UTP6.

Mol	Chain	Residues	Atoms				AltConf	Trace
6	Q	375	Total	C	N	O	0	0
			1875	1125	375	375		

- Molecule 7 is a protein called UTP-B oligomerisation domain.

Mol	Chain	Residues	Atoms				AltConf	Trace
7	R	332	Total	C	N	O	0	0
			1660	996	332	332		

- Molecule 8 is a protein called Pre mRNA splicing protein.

Mol	Chain	Residues	Atoms				AltConf	Trace
8	S	367	Total	C	N	O	0	0
			1815	1081	367	367		
8	T	367	Total	C	N	O	0	0
			1815	1081	367	367		

- Molecule 9 is a protein called Snul3.

Mol	Chain	Residues	Atoms				AltConf	Trace
9	U	122	Total	C	N	O	0	0
			603	359	122	122		
9	V	122	Total	C	N	O	0	0
			603	359	122	122		

- Molecule 10 is a protein called Nop1.

Mol	Chain	Residues	Atoms				AltConf	Trace
10	W	227	Total	C	N	O	0	0
			1124	670	227	227		
10	X	227	Total	C	N	O	0	0
			1124	670	227	227		

- Molecule 11 is a protein called rrp9.

Mol	Chain	Residues	Atoms				AltConf	Trace
11	Y	365	Total	C	N	O	0	0
			1799	1069	365	365		

- Molecule 12 is a protein called Rcl1.

Mol	Chain	Residues	Atoms				AltConf	Trace
12	Z	355	Total	C	N	O	0	0
			1742	1032	355	355		

- Molecule 13 is a protein called Bms1.

Mol	Chain	Residues	Atoms				AltConf	Trace
13	a	54	Total	C	N	O	0	0
			267	160	54	53		

- Molecule 14 is a protein called Imp3.

Mol	Chain	Residues	Atoms				AltConf	Trace
14	b	153	Total	C	N	O	0	0
			760	454	153	153		

- Molecule 15 is a protein called Putative U3 small nucleolar ribonucleoprotein.

Mol	Chain	Residues	Atoms				AltConf	Trace
15	c	192	Total	C	N	O	0	0
			951	567	192	192		

- Molecule 16 is a protein called Utp24.

Mol	Chain	Residues	Atoms				AltConf	Trace
16	d	124	Total	C	N	O	0	0
			616	368	124	124		

- Molecule 17 is a protein called Emg1.

Mol	Chain	Residues	Atoms				AltConf	Trace
17	e	211	Total	C	N	O	0	0
			1047	625	211	211		
17	f	218	Total	C	N	O	0	0
			1081	645	218	218		

- Molecule 18 is a protein called KRR1 small subunit processome component.

Mol	Chain	Residues	Atoms				AltConf	Trace
18	g	174	Total	C	N	O	0	0
			861	513	174	174		
18	h	174	Total	C	N	O	0	0
			861	513	174	174		

- Molecule 19 is a protein called Kre33.

Mol	Chain	Residues	Atoms				AltConf	Trace
19	i	659	Total	C	N	O	0	0
			3254	1936	659	659		
19	j	677	Total	C	N	O	0	0
			3342	1988	677	677		

- Molecule 20 is a protein called Utp30.

Mol	Chain	Residues	Atoms				AltConf	Trace
20	k	182	Total	C	N	O	0	0
			905	541	182	182		

- Molecule 21 is a protein called eS1.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	o	215	Total	C	N	O	S	0	0
			1724	1090	314	316	4		

- Molecule 22 is a protein called eS4.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	p	259	Total	C	N	O	S	0	0
			2079	1322	383	370	4		

- Molecule 23 is a protein called uS7.

Mol	Chain	Residues	Atoms				AltConf	Trace
23	q	169	Total	C	N	O	0	0
			836	498	169	169		

- Molecule 24 is a protein called eS6.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	r	235	Total	C	N	O	S	0	0
			1868	1184	347	326	11		

- Molecule 25 is a protein called eS7.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	s	186	Total	C	N	O	S	0	0
			1539	989	271	278	1		

- Molecule 26 is a protein called eS8.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	t	207	Total	C	N	O	S	0	0
			1693	1057	336	296	4		

- Molecule 27 is a protein called uS4.

Mol	Chain	Residues	Atoms				AltConf	Trace
27	u	157	Total	C	N	O	0	0
			777	463	157	157		

- Molecule 28 is a protein called uS15.

Mol	Chain	Residues	Atoms				AltConf	Trace
28	v	117	Total	C	N	O	0	0
			580	346	117	117		

- Molecule 29 is a protein called uS11.

Mol	Chain	Residues	Atoms				AltConf	Trace
29	w	128	Total	C	N	O	0	0
			627	371	128	128		

- Molecule 30 is a protein called uS9.

Mol	Chain	Residues	Atoms				AltConf	Trace
30	x	134	Total	C	N	O	0	0
			658	390	134	134		

- Molecule 31 is a protein called uS17.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	y	157	Total	C	N	O	S	0	0
			1275	818	235	217	5		

- Molecule 32 is a protein called uS8.

Mol	Chain	Residues	Atoms				AltConf	Trace
32	z	127	Total	C	N	O	0	0
			622	368	127	127		

- Molecule 33 is a protein called eS24.

Mol	Chain	Residues	Atoms				AltConf	Trace
33	0	148	Total	C	N	O	0	0
			1197	763	221	213		

- Molecule 34 is a protein called eS28.

Mol	Chain	Residues	Atoms				AltConf	Trace
34	1	47	Total	C	N	O	0	0
			230	136	47	47		

- Molecule 35 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	2	852	Total	C	N	O	P	0	0
			18149	8120	3229	5948	852		

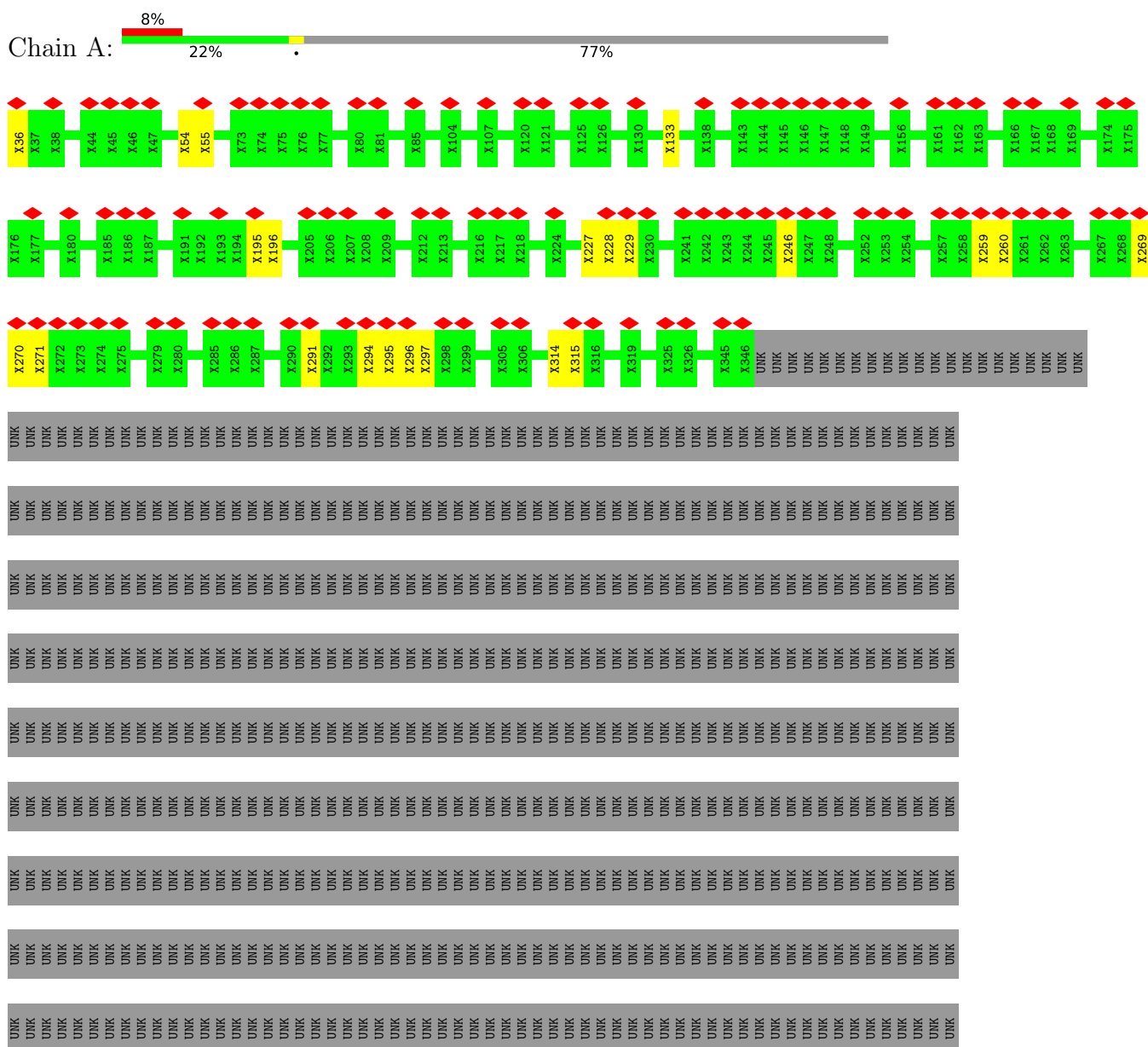
- Molecule 36 is a RNA chain called U3 RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
36	3	164	3504	1560	626	1154	164	0	0

3 Residue-property plots

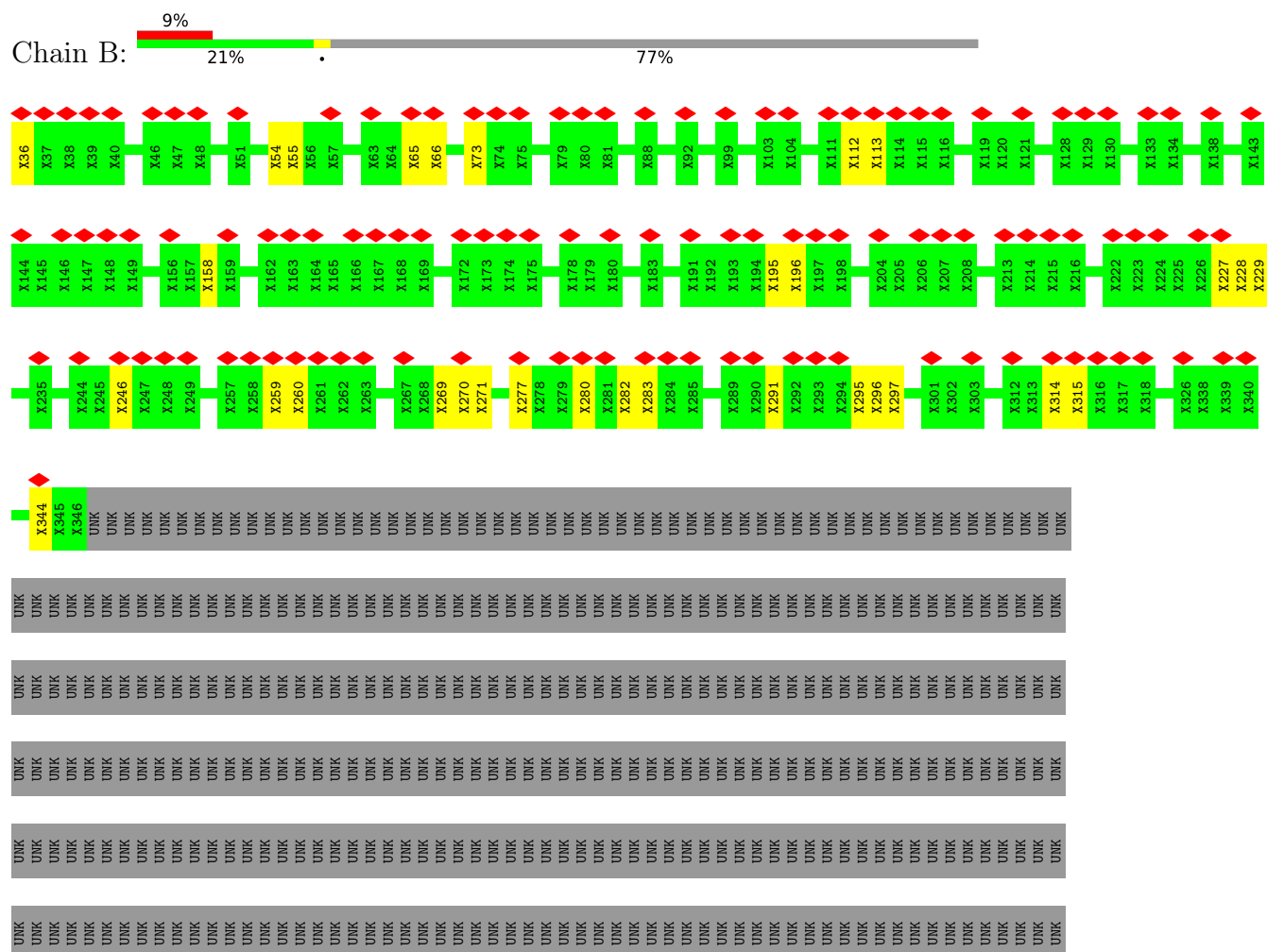
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: WD40 domain proteins

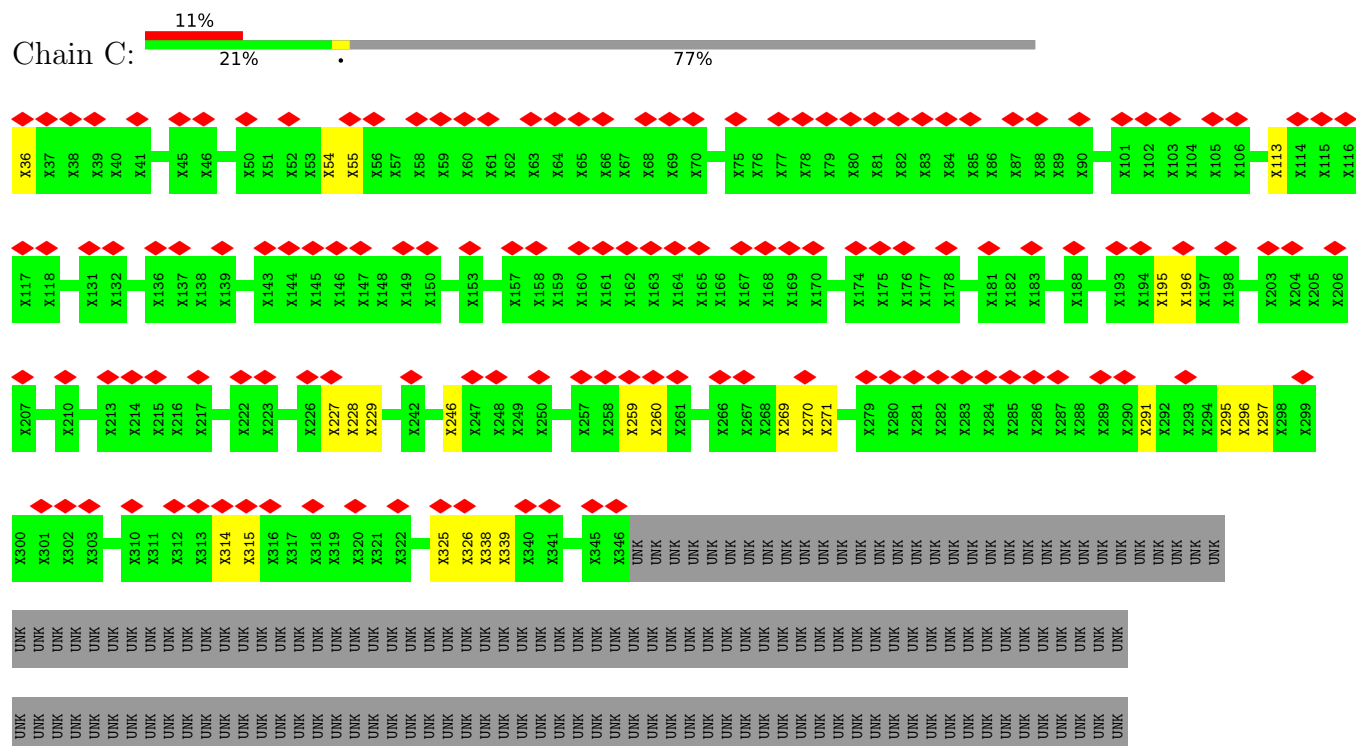


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- Molecule 1: WD40 domain proteins



- Molecule 1: WD40 domain proteins

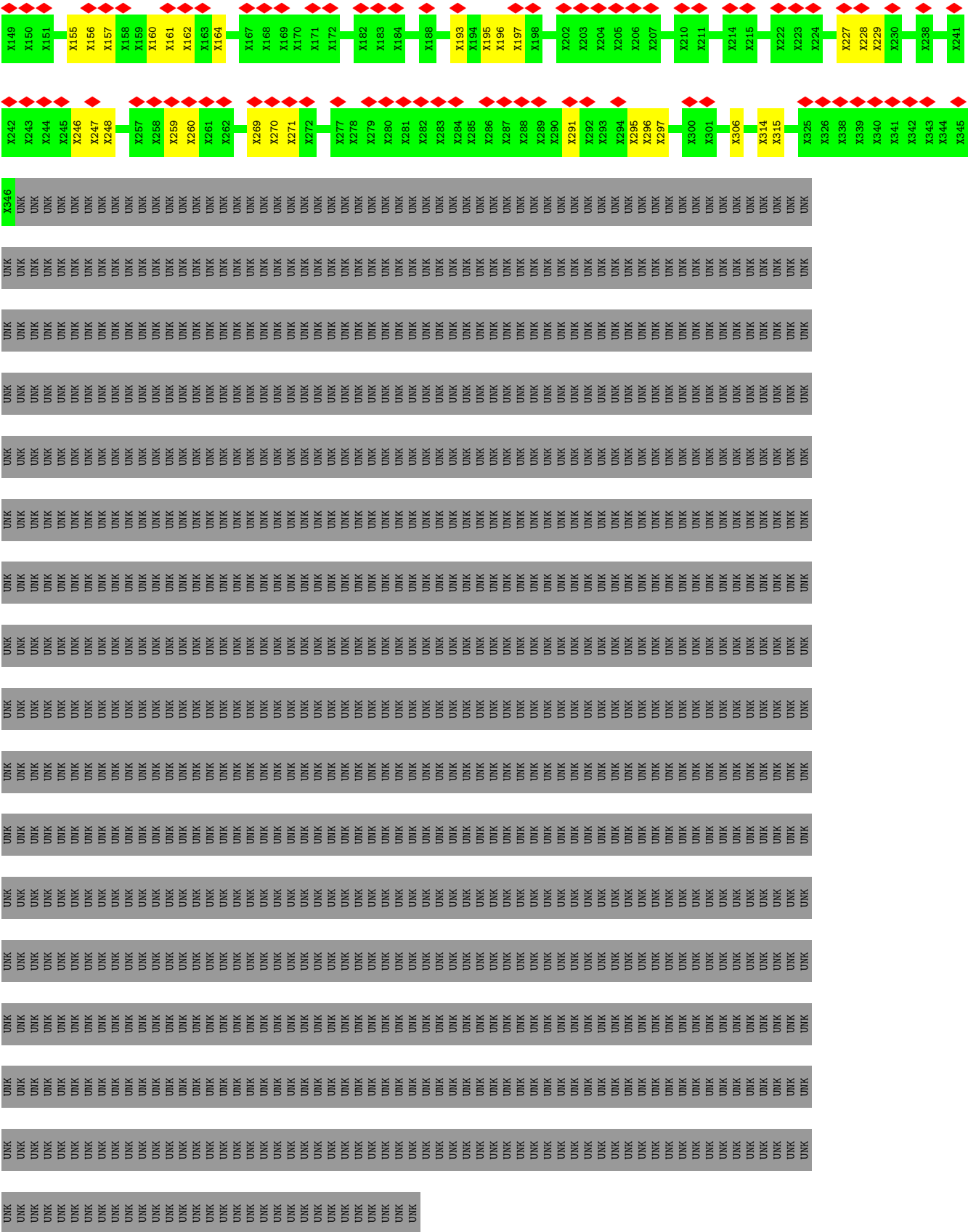


- Molecule 1: WD40 domain proteins

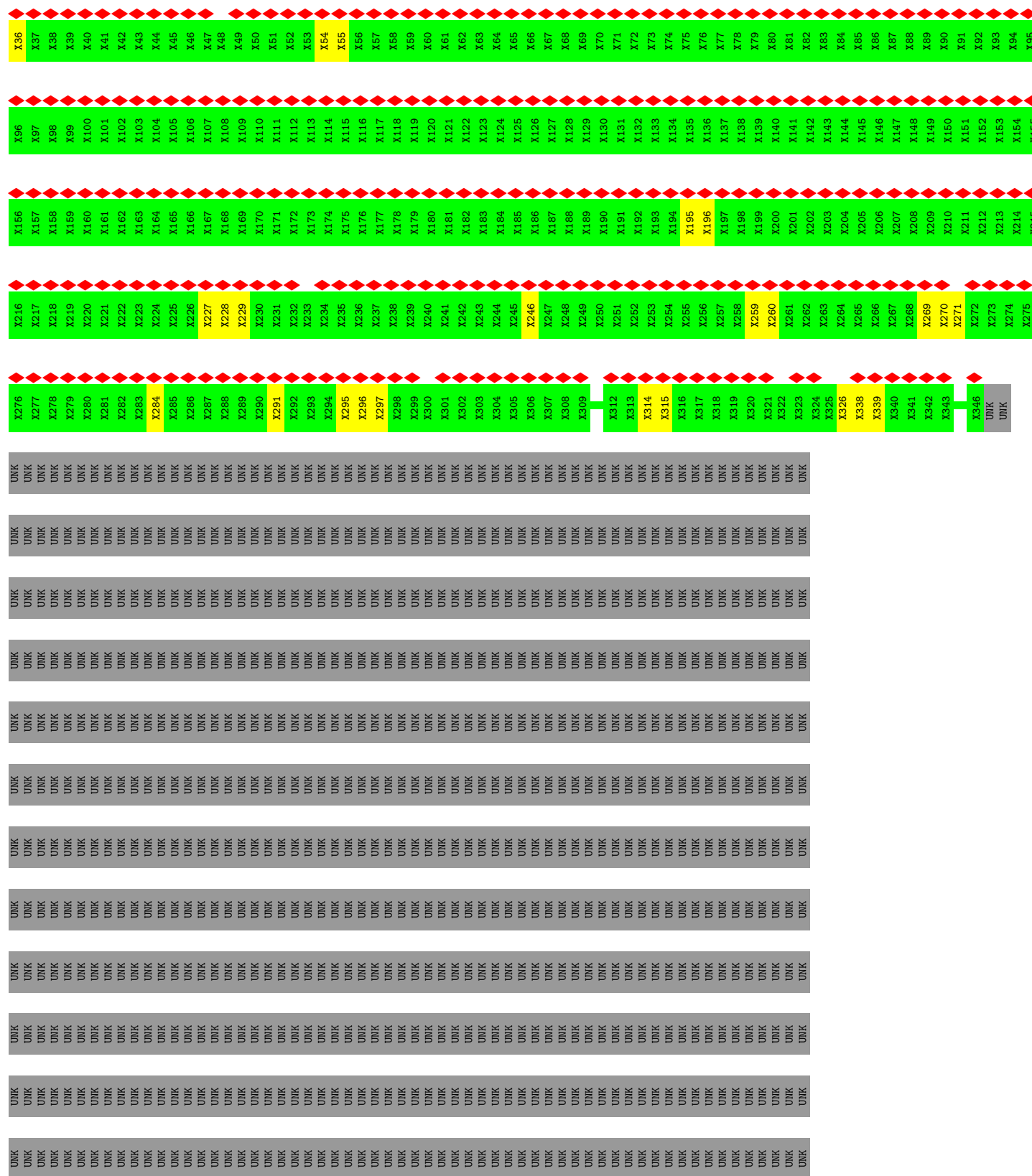
X227	X228	X229
X235	X236	X246
X247	X248	X269
X270	X271	X272
X280	X281	X288
X289	X290	X291
X292	X293	X294
X295	X296	X297
X298	X299	X300
X301	X302	X303
X312	X313	X314
X315	X316	X317
X326	X336	X339
X340	X343	X344
X345	X346	UNK
UNK	UNK	
X119	X122	X132
X133	X134	X135
X136	X143	X144
X145	X146	X147
X148	X149	X150
X151	X152	X153
X154	X155	X156
X157	X158	X162
X163	X164	X165
X168	X169	X170
X180	X191	X192
X193	X194	X195
X196	X197	X204
X205	X206	X210
X211	X212	X213
X214	X215	X224
X225	X226	
X36	X37	X38
X42	X43	X44
X45	X46	X54
X55	X56	X57
X58	X59	X63
X64	X65	X66
X74	X75	X76
X77	X80	X81
X82	X87	X88
X89	X90	X94
X95	X96	X99
X100	X101	X102
X103	X104	X105
X106	X107	X108
X109	X110	X111
X112	X113	X114
X115	X116	X117
X118		

- Molecule 1: WD40 domain proteins

Category	Color
X36	Red
X37	Red
X38	Red
X39	Red
X40	Red
X41	Red
X42	Green
X43	Red
X44	Red
X45	Red
X46	Red
X47	Red
X48	Yellow
X49	Yellow
X50	Yellow
X51	Yellow
X52	Yellow
X53	Yellow
X54	Red
X55	Red
X56	Red
X57	Yellow
X58	Yellow
X59	Yellow
X60	Yellow
X61	Yellow
X62	Yellow
X63	Red
X64	Yellow
X65	Yellow
X66	Yellow
X67	Yellow
X68	Red
X69	Yellow
X70	Yellow
X71	Yellow
X72	Yellow
X73	Red
X74	Red
X75	Red
X76	Yellow
X77	Yellow
X78	Yellow
X79	Red
X80	Red
X81	Yellow
X82	Yellow
X83	Yellow
X84	Yellow
X85	Yellow
X86	Yellow
X87	Yellow
X88	Yellow
X89	Yellow
X90	Yellow
X91	Yellow
X92	Red
X93	Red
X94	Red
X95	Red
X96	Red
X97	Yellow
X98	Yellow
X99	Yellow
X100	Yellow
X101	Yellow
X102	Yellow
X103	Red
X104	Red
X105	Red
X106	Red
X107	Red
X108	Yellow
X109	Yellow
X110	Yellow
X111	Yellow
X112	Yellow
X113	Red
X114	Red
X115	Red
X116	Red
X117	Red
X118	Red
X119	Yellow
X120	Yellow
X121	Red
X122	Red
X123	Yellow
X124	Yellow
X125	Yellow
X126	Yellow
X127	Yellow
X128	Yellow
X129	Yellow
X130	Red
X131	Red
X132	Red
X133	Red
X134	Red
X135	Red
X136	Red
X137	Yellow
X138	Yellow
X139	Yellow
X140	Yellow
X141	Yellow
X142	Yellow
X143	Red
X144	Red
X145	Red



● Molecule 1: WD40 domain proteins

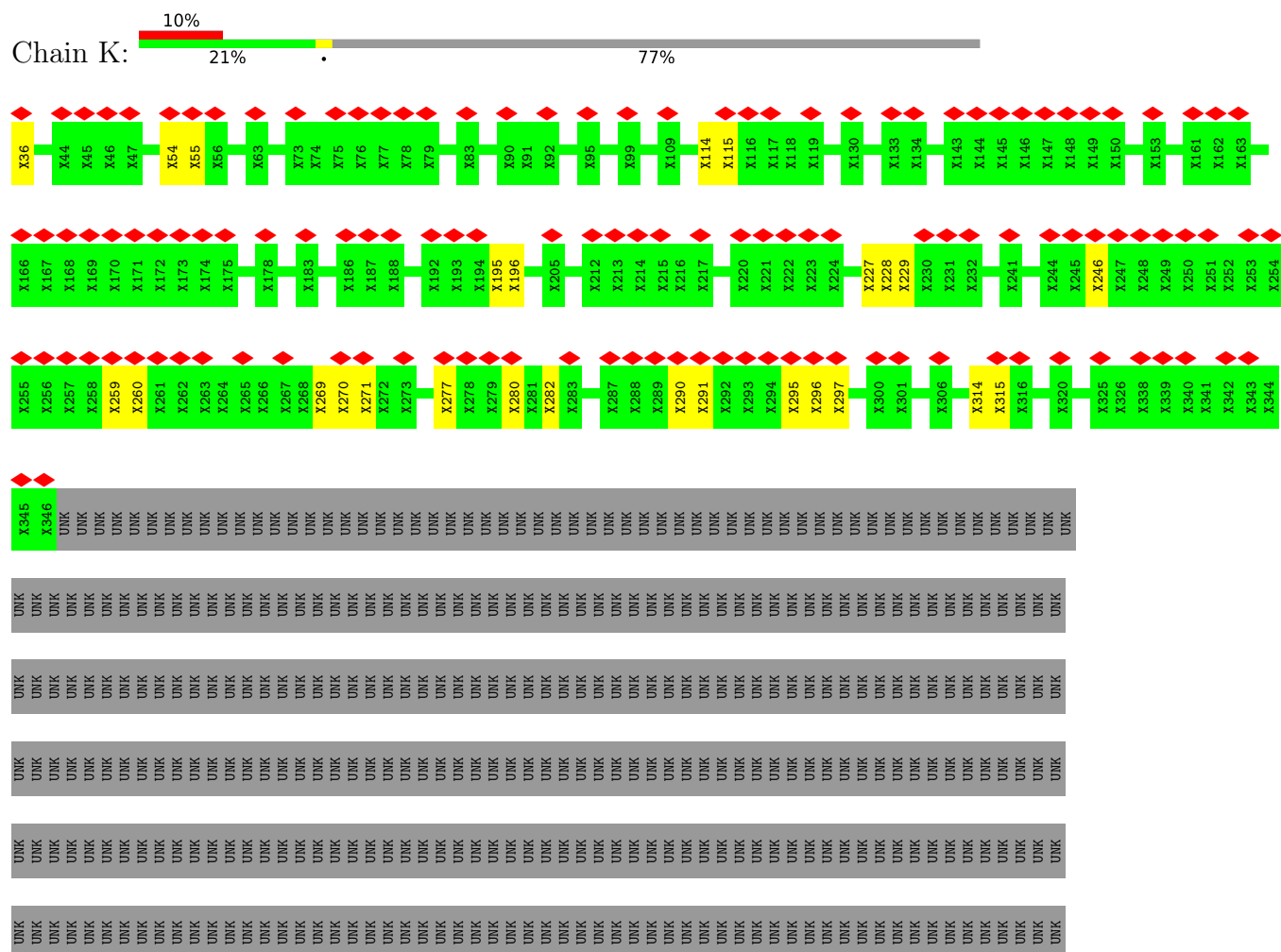


- Molecule 1: WD40 domain proteins

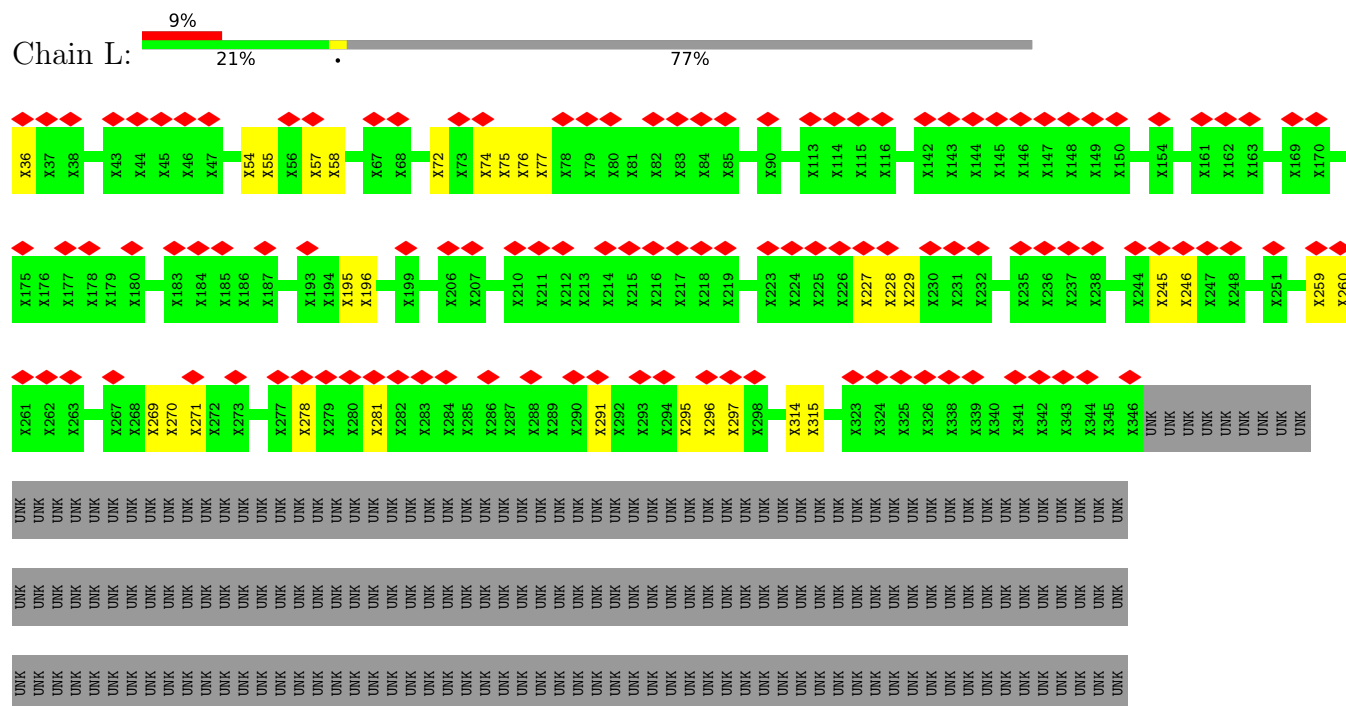
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- Molecule 1: WD40 domain proteins

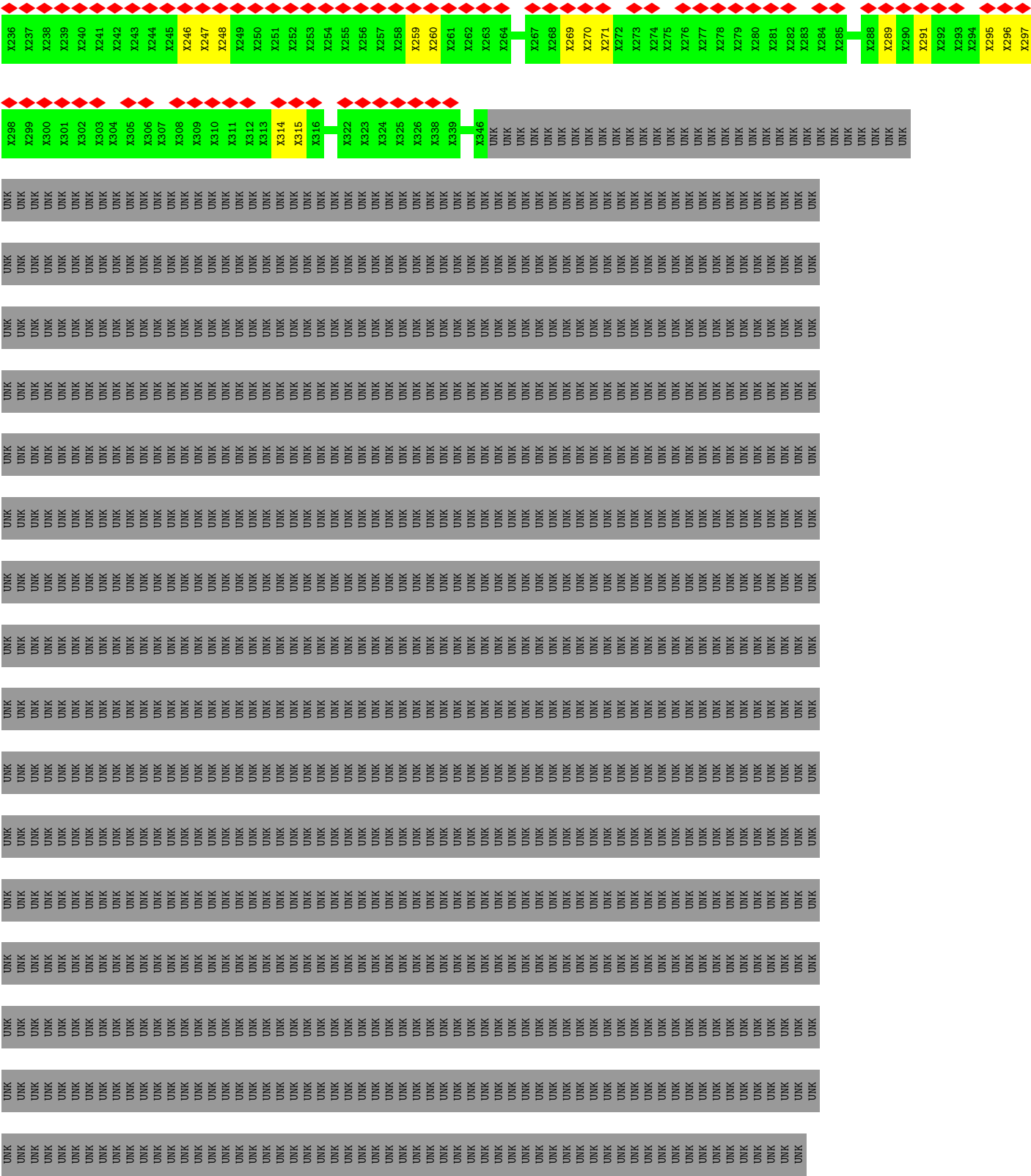


- Molecule 1: WD40 domain proteins



- Molecule 1: WD40 domain proteins





● Molecule 1: WD40 domain proteins





- Molecule 1: WD40 domain proteins

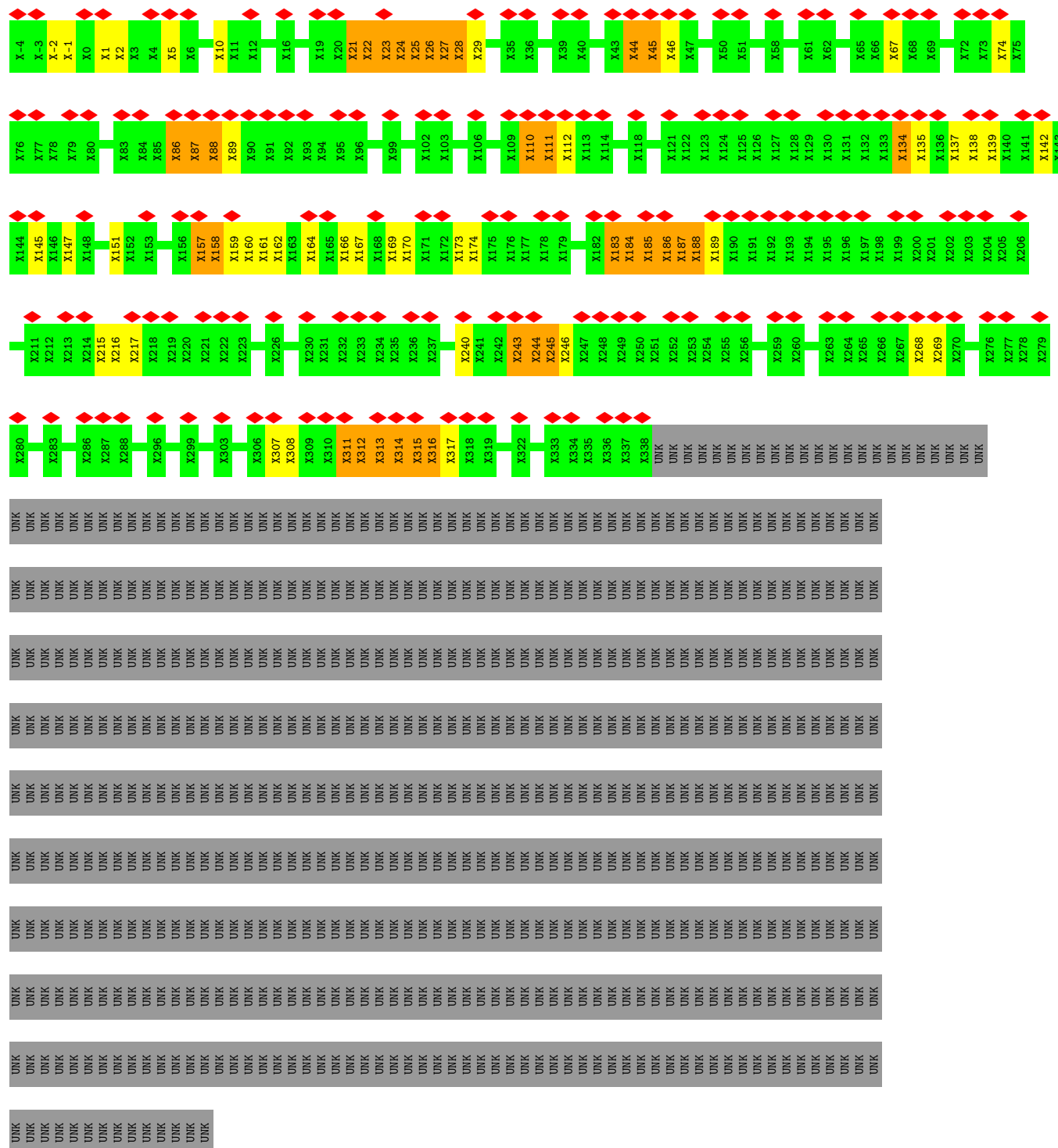
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SER	SER	SER	PRO	GLY	ALA	THR	LEU	ALA	THR	LEU	ALA	LEU	THR	ALA	LEU	HIS	MET
ASP	ASP	ARG	VAL	SER	PHE	VAL	VAL	PHE	ASP	GLN	ILE	ASN	THR	ILE	ILE	LEU	ALA
PRO	PRO	ASP	ASP	ALA	ALA	ASP	ASP	THR	THR	ASN	VAL	ARG	ARG	VAL	ARG	ASP	SER
ALA	ALA	LYS	GLN	LEU	VAL	LEU	ARG	LEU	LEU	HIS	GLN	PHE	ARG	GLN	PHE	ARG	SER
LYS	LYS	ALA	PRO	ARG	LEU	LEU	LEU	LEU	ARG	LEU	ALA	LEU	ARG	ALA	ARG	ALA	ALA
VAL	VAL	SER	SER	LEU	LEU	PRO	LEU	ALA	PRO	LEU	THR	ILE	VAL	PRO	VAL	VAL	GLN
ARG	ARG	ASN	LEU	SER	LYS	LYS	GLY	LYS	GLY	LEU	ASN	HIS	HIS	PRO	PRO	GLN	GLN
ASP	ASP	PHE	ARG	GLN	GLY	VAL	SER	GLY	VAL	LEU	PRO	GLY	GLY	ASP	ASP	ASP	ALA
ALA	ALA	THR	THR	GLU	ILE	CYS	LEU	ILE	CYS	ILE	ASP	ASN	ASN	ASP	ASN	ALA	GLN
LEU	LEU	LEU	PHE	GLY	ARG	THR	THR	THR	THR	PRO	LEU	THR	GLY	LEU	GLY	THR	ILE
ASP	ASP	SER	GLU	ASP	THR	THR	THR	THR	THR	VAL	SER	LEU	LEU	LEU	LEU	LEU	ALA
LEU	LEU	PHE	ARG	VAL	THR	MET	LEU	LEU	MET	VAL	SER	LEU	LEU	THR	THR	PHE	ALA
VAL	VAL	LEU	LEU	GLY	PRO	LEU	LEU	ALA	ALA	SER	ILE	ALA	ALA	ALA	ALA	ASN	ASN
VAL	VAL	VAL	LEU	ALA	ILE	GLN	GLN	VAL	GLN	ASP	SER	GLN	SER	SER	SER	GLN	ARG
LEU	LEU	TRP	GLN	ARG	ASN	HIS	ALA	ALA	MET	ALA	ARG	THR	THR	THR	THR	GLN	SER
GLY	GLY	TRP	PRO	THR	ASN	ARG	SER	SER	THR	VAL	TYR	THR	THR	THR	PHE	GLN	SER
SER	SER	CYS	PRO	THR	SER	ARG	ARG	ALA	VAL	VAL	THR	VAL	VAL	VAL	THR	GLY	PHE
SEP	SEP	ALA	THR	ALA	LEU	LYS	LEU	LEU	LYS	LYS	ASP	VAL	VAL	VAL	VAL	VAL	VAL
LEU	LEU	THR	THR	GLU	SER	LEU	SER	VAL	GLU	VAL	CYS	THR	THR	THR	THR	GLN	LYS
GLU	GLU	LEU	LEU	VAL	LEU	GLY	GLY	GLY	GLY	ILE	GLY	PRO	PRO	PRO	PRO	PRO	LYS
LYS	LYS	ALA	ALA	PHE	LEU	ARG	ILE	ILE	LEU	ILE	LYS	LEU	LEU	LEU	LEU	LEU	ALA
SER	SER	VAL	ASP	ILE	GLN	VAL	GLN	GLN	VAL	ILE	GLU	VAL	VAL	VAL	VAL	VAL	HIS
LEU	LEU	ALA	SER	GLU	SER	LYS	LEU	ALA	LYS	ALA	TYR	THR	THR	THR	THR	GLU	SER
TRP	TRP	LEU	GLU	GLU	GLU	ALA	ALA	SER	ALA	SER	PRO	PRO	PRO	PRO	PRO	PRO	LYS
LEU	LEU	ALA	GLU	GLU	GLU	VAL	TYR	TYR	LEU	LEU	GLY	LEU	LEU	LEU	LEU	ASN	SER
TRP	TRP	ALA	LEU	LEU	LEU	ALA	ALA	ALA	ALA	LEU	PRO	PRO	PRO	PRO	PRO	PRO	LYS
ALA	ALA	ARG	PHE	LEU	VAL	LYS	LEU	VAL	ILE	VAL	ILE	ILE	ILE	ILE	ILE	ILE	ALA
LYS	LYS	VAL	ASN	LYS	ALA	VAL	ASN	ALA	VAL	VAL	SER	ALA	SER	ILE	ILE	ILE	TRP
ASP	ASP	LYS	ASP	LEU	TYR	PRO	LEU	PHE	ALA	ALA	PHE	ASP	ASP	ASP	ASP	ASP	GLU
LEU	LEU	THR	LEU	GLY	LYS	THR	LEU	TRP	TRP	TRP	TRP	TRP	TRP	TRP	TRP	TRP	GLY
LEU	LEU	THR	SER	GLY	THR	LEU	LEU	THR	THR	VAL	THR	VAL	VAL	VAL	VAL	VAL	ASP
TRP	TRP	THR	SER	GLY	THR	LEU	LEU	THR	THR	VAL							

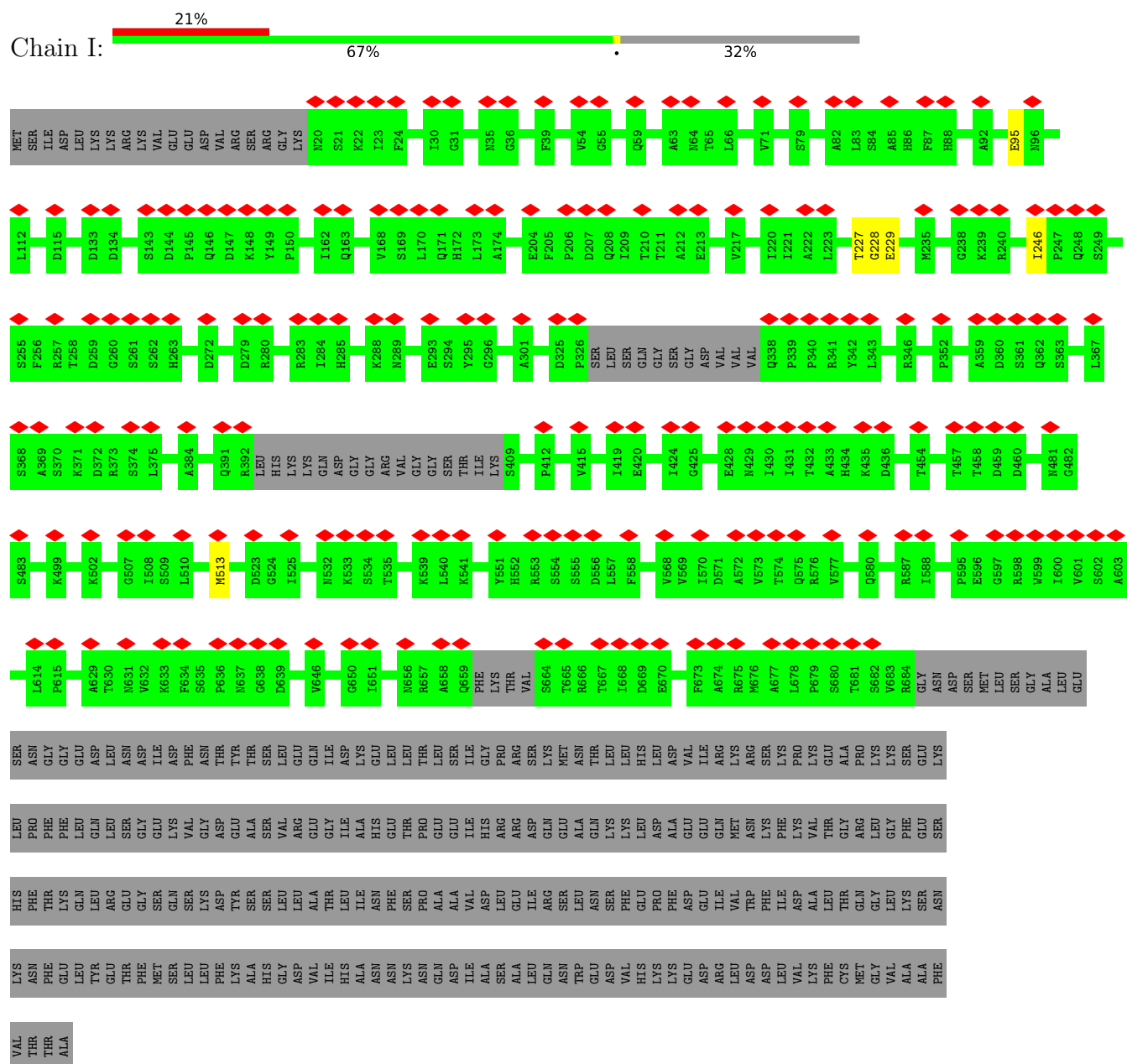




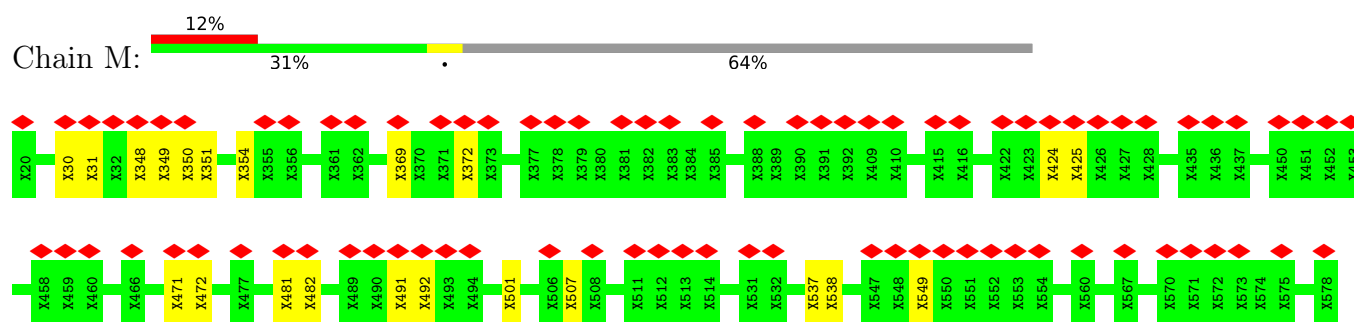
● Molecule 3: UTP-A oligomerization domain

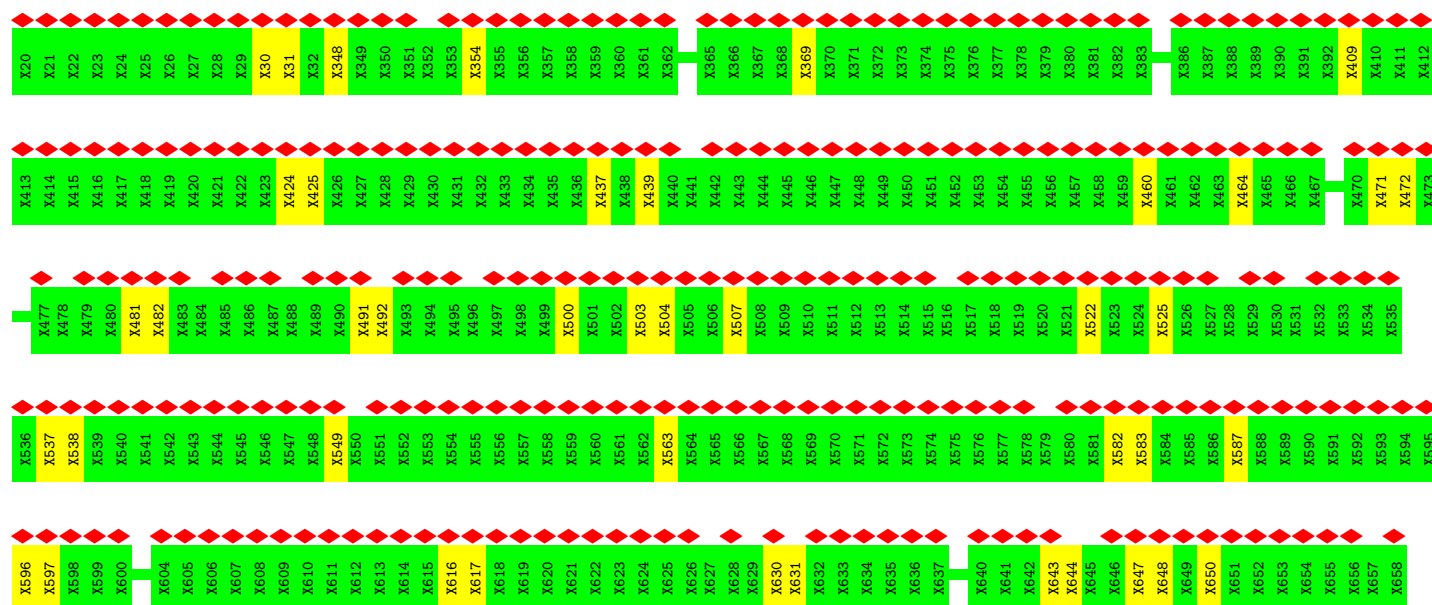


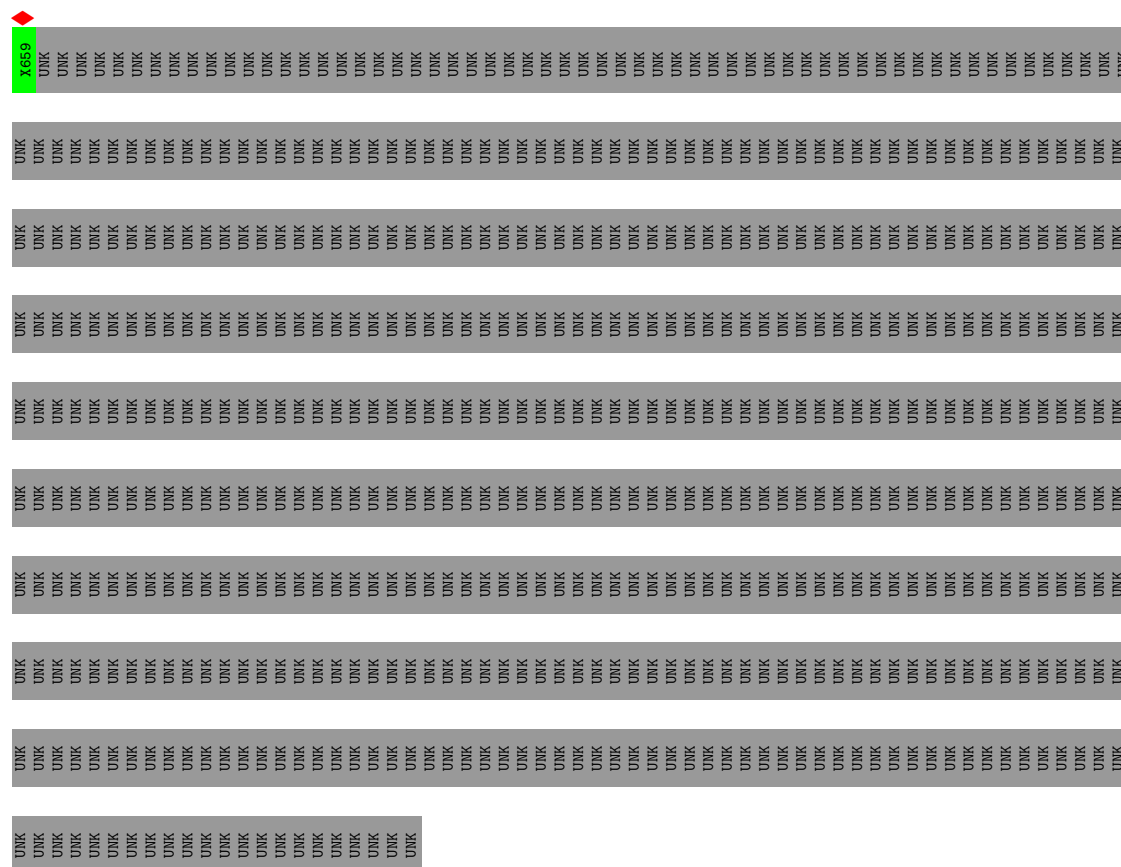
- Molecule 4: U3 small nucleolar RNA-associated protein 21



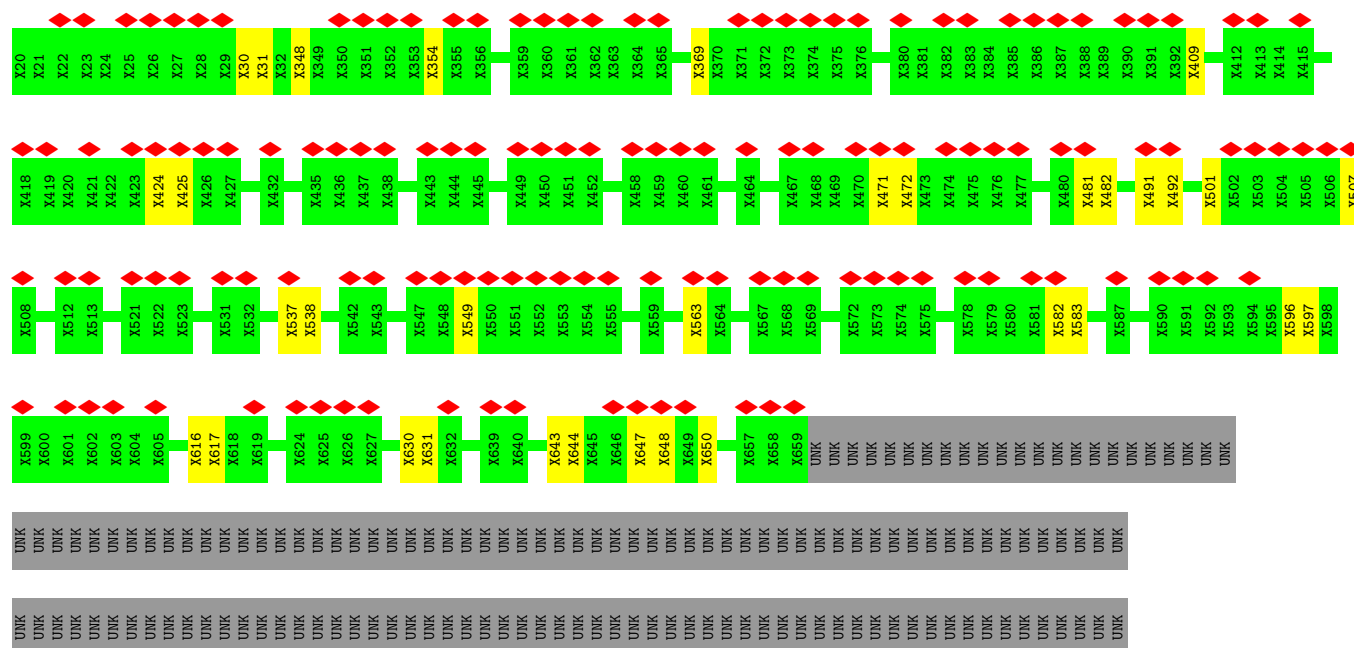
- Molecule 5: WD40 domain proteins





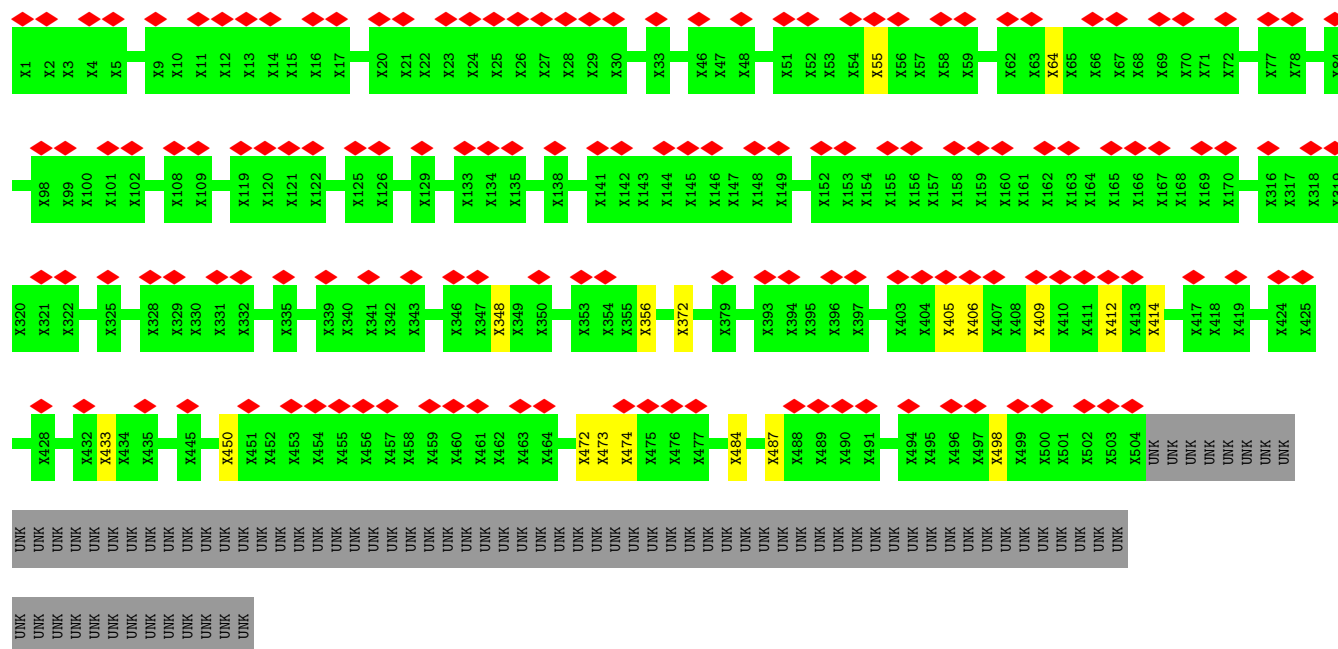
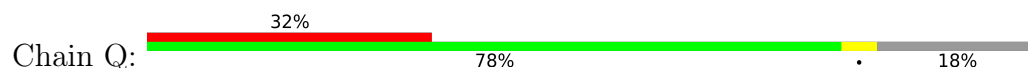


• Molecule 5: WD40 domain proteins

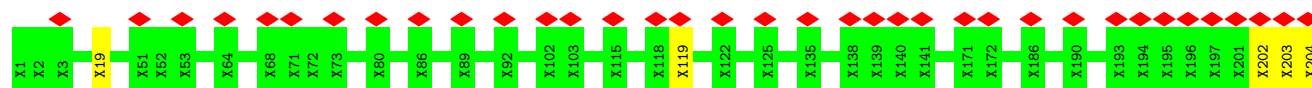


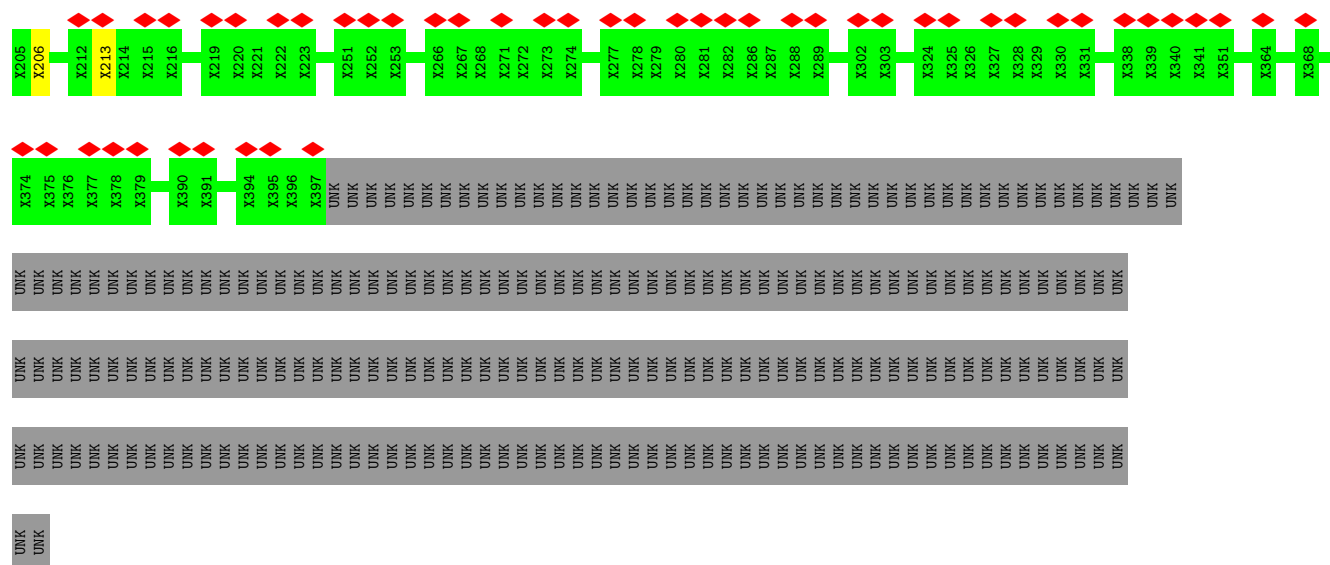
[illegible]

- Molecule 6: UTP6



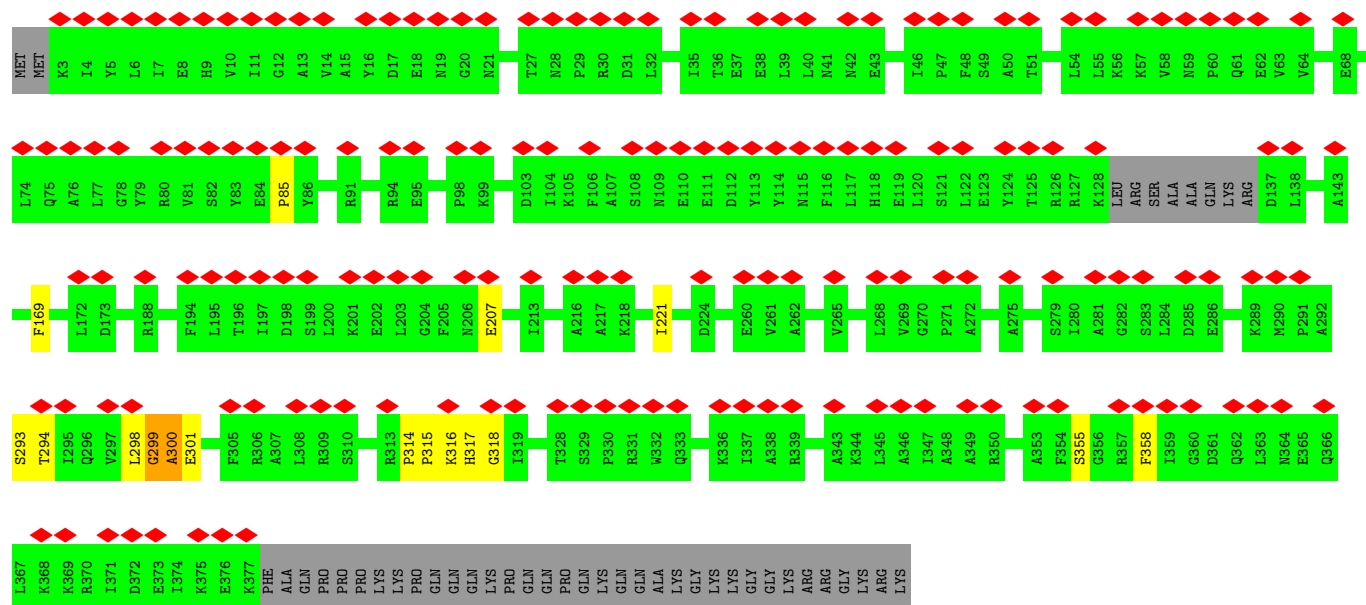
- Molecule 7: UTP-B oligomerisation domain





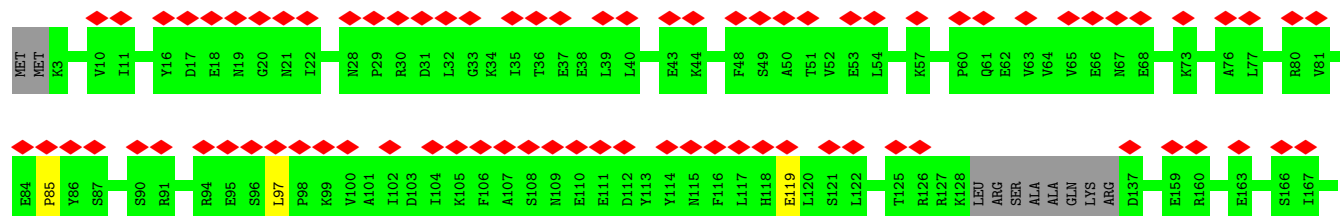
• Molecule 8: Pre mRNA splicing protein

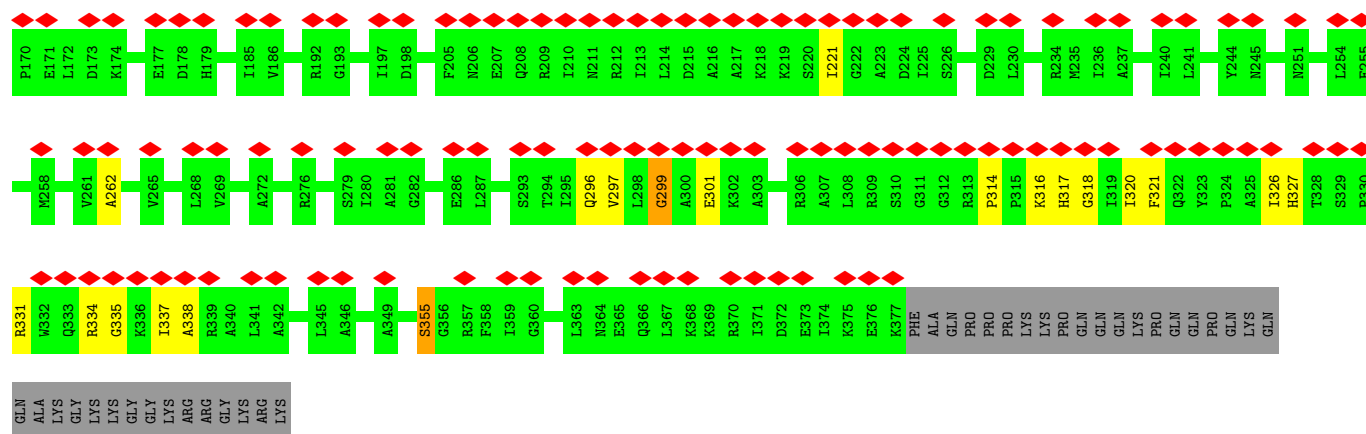
Chain S: 42% 85% 11%



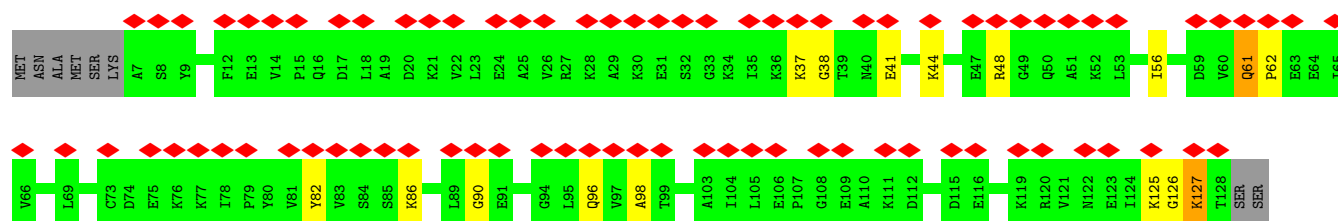
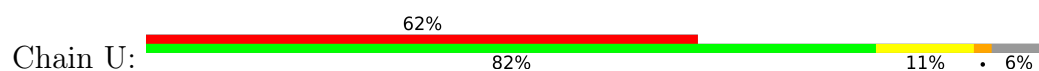
• Molecule 8: Pre mRNA splicing protein

Chain T: 49% 83% 5% 11%

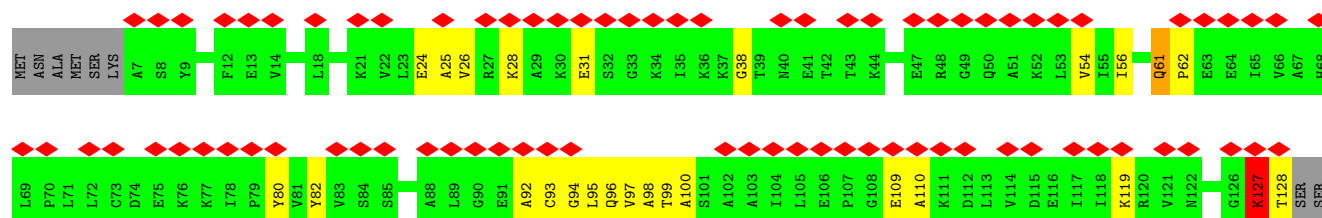
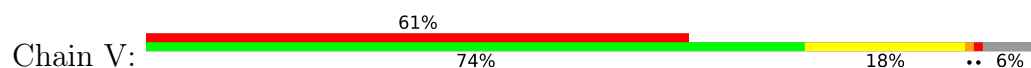




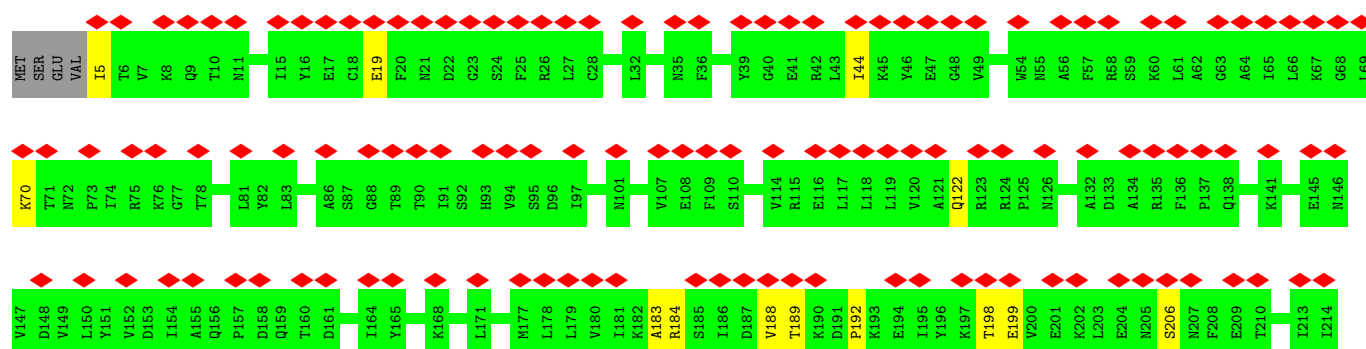
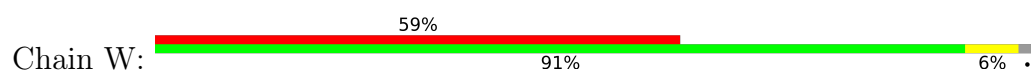
• Molecule 9: Snu13



• Molecule 9: Snu13

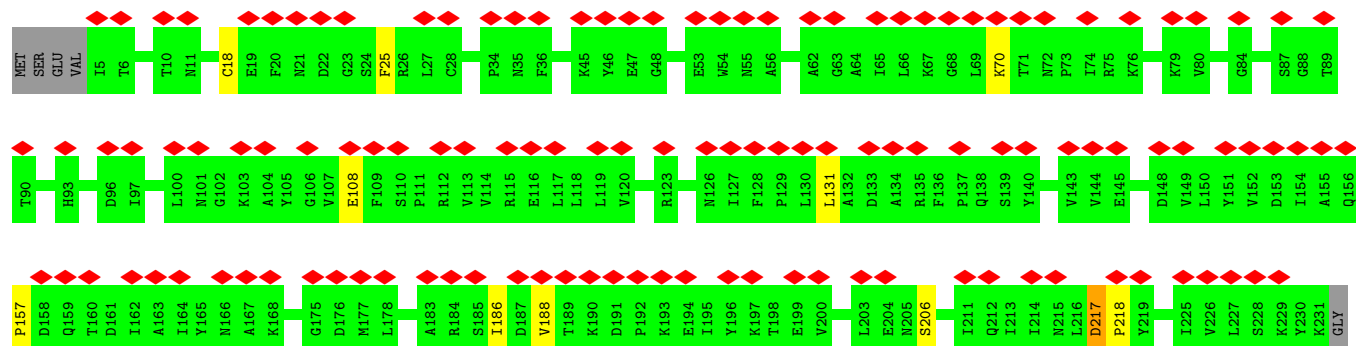


• Molecule 10: Nop1

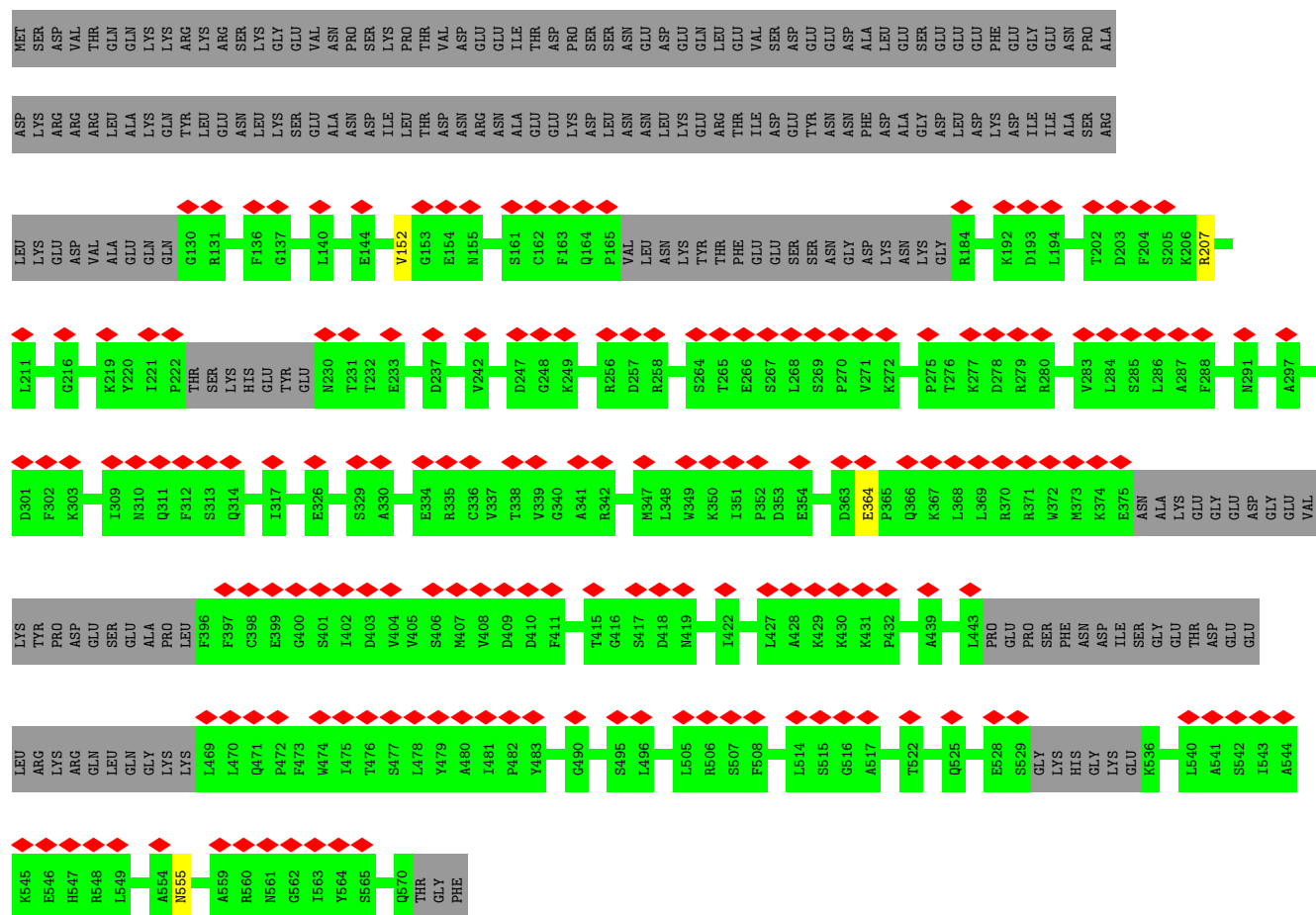




• Molecule 10: Nop1



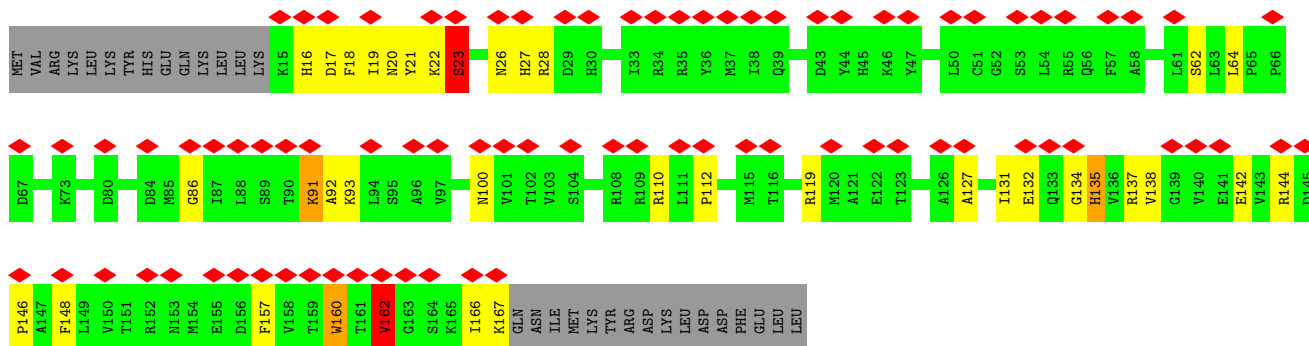
• Molecule 11: rrp9



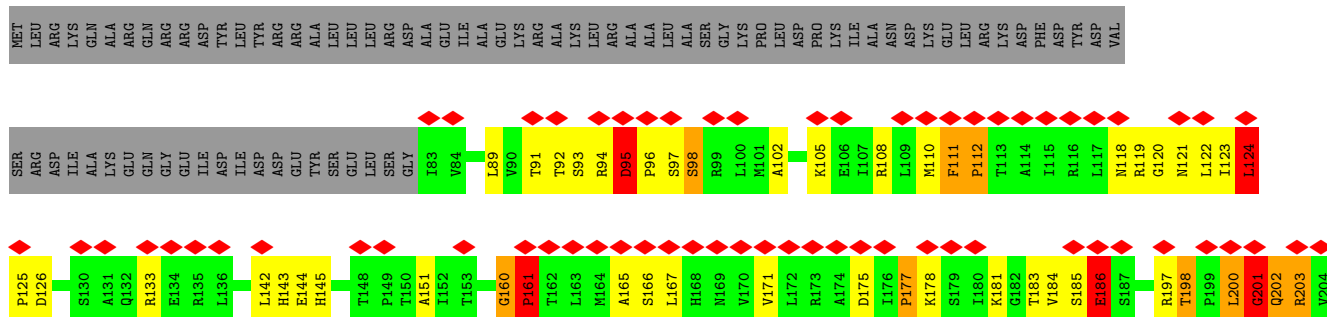
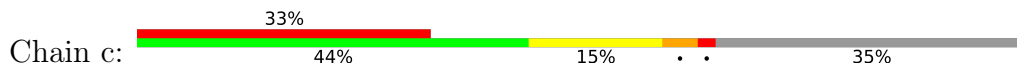
• Molecule 12: Rcl1

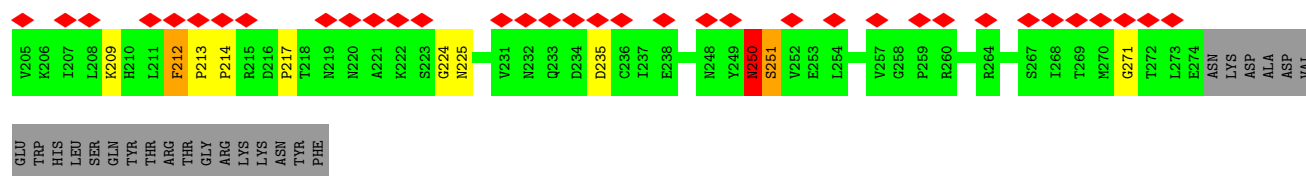
[illegible]

- Molecule 14: Imp3

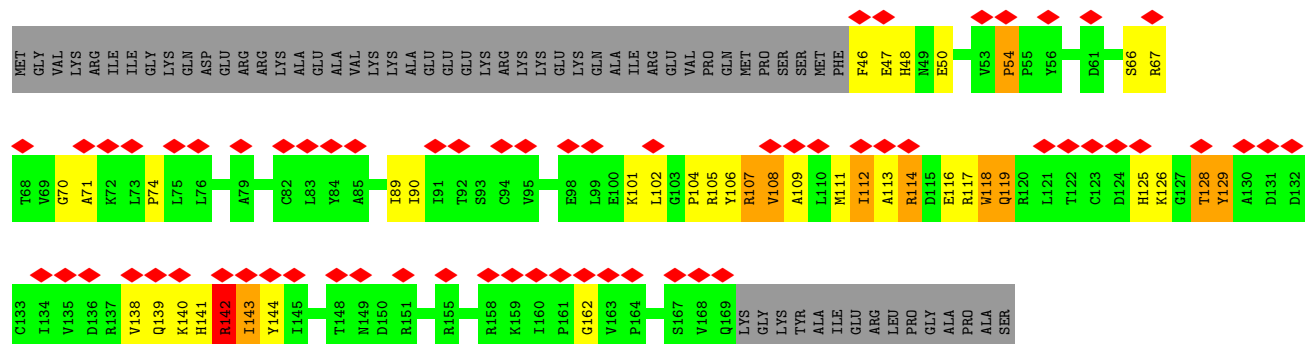


- Molecule 15: Putative U3 small nucleolar ribonucleoprotein

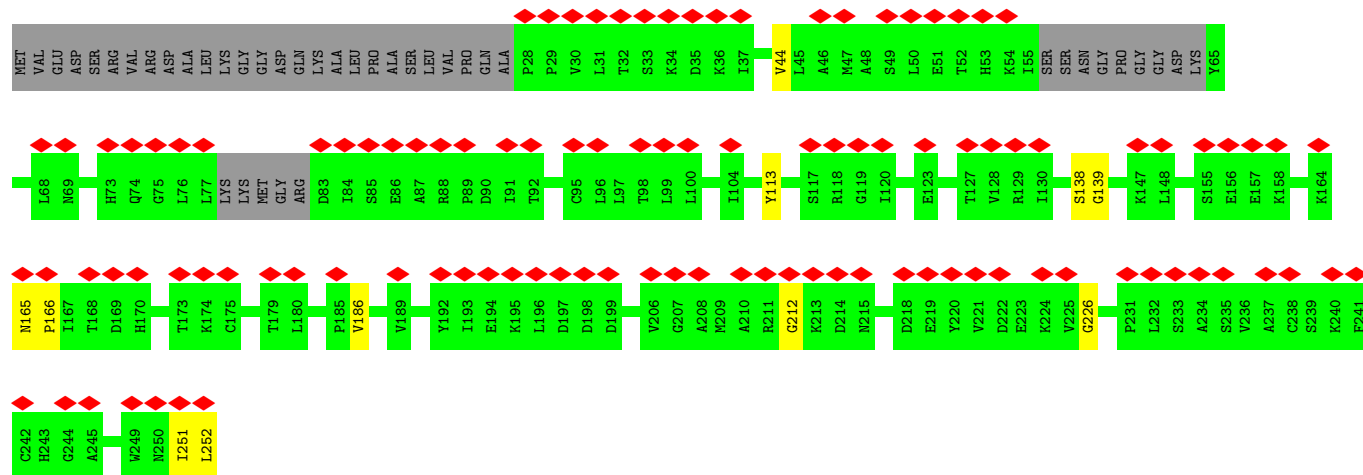
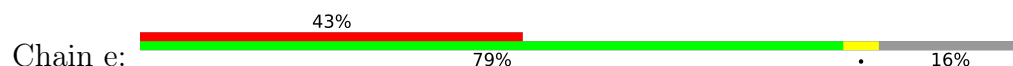




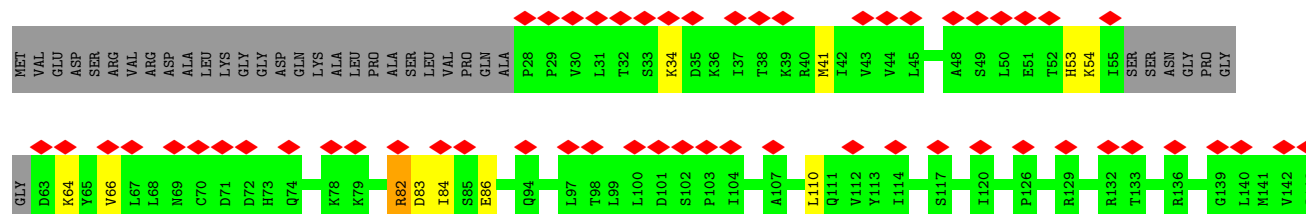
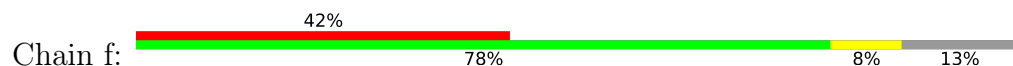
• Molecule 16: Utp24

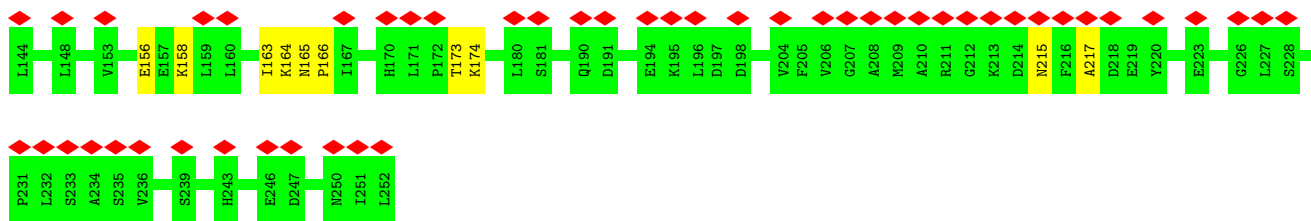


• Molecule 17: Emg1

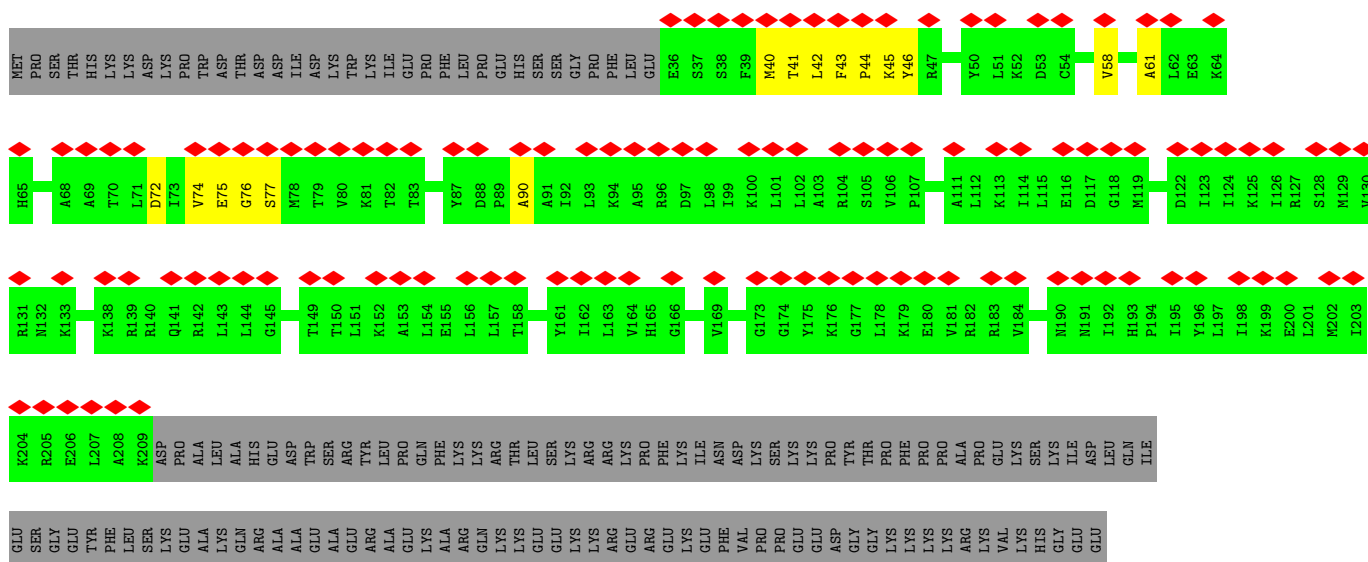


• Molecule 17: Emg1

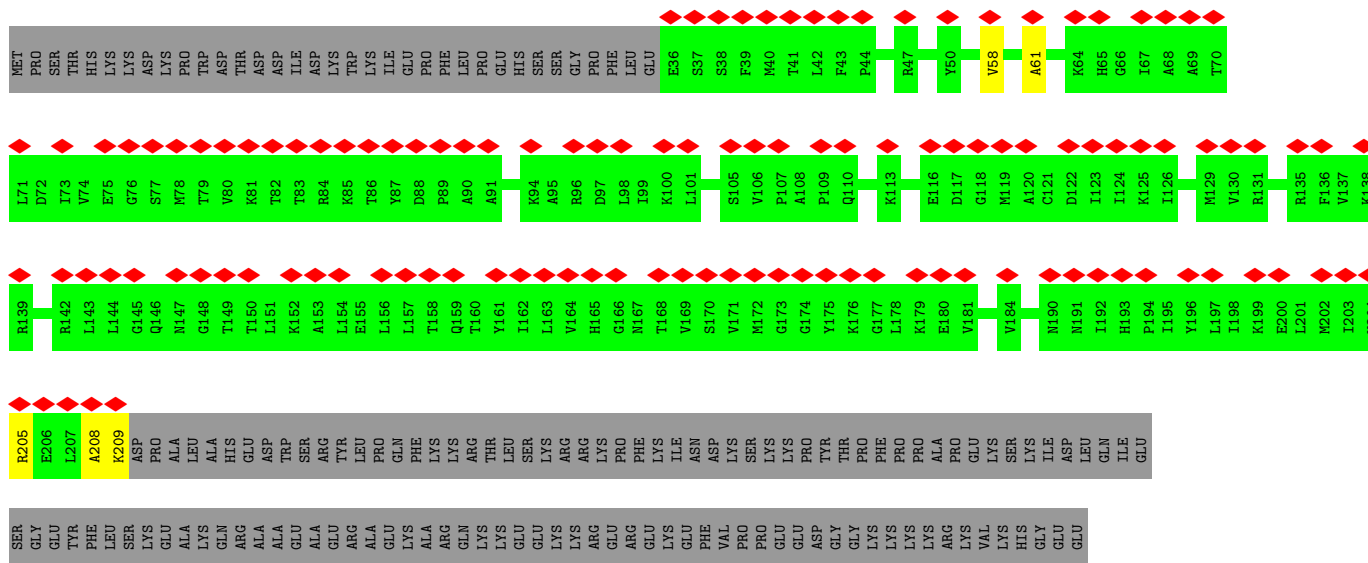




- Molecule 18: KRR1 small subunit processome component

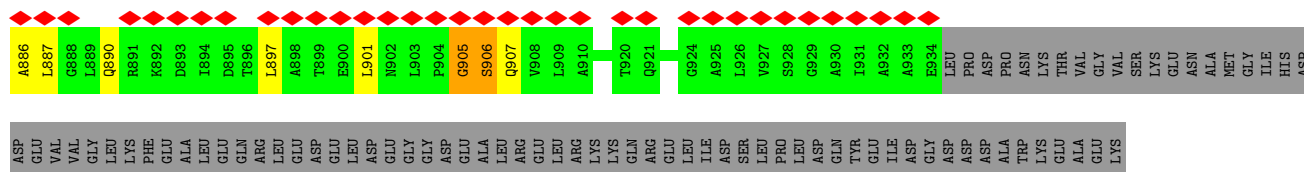


- Molecule 18: KRR1 small subunit processome component

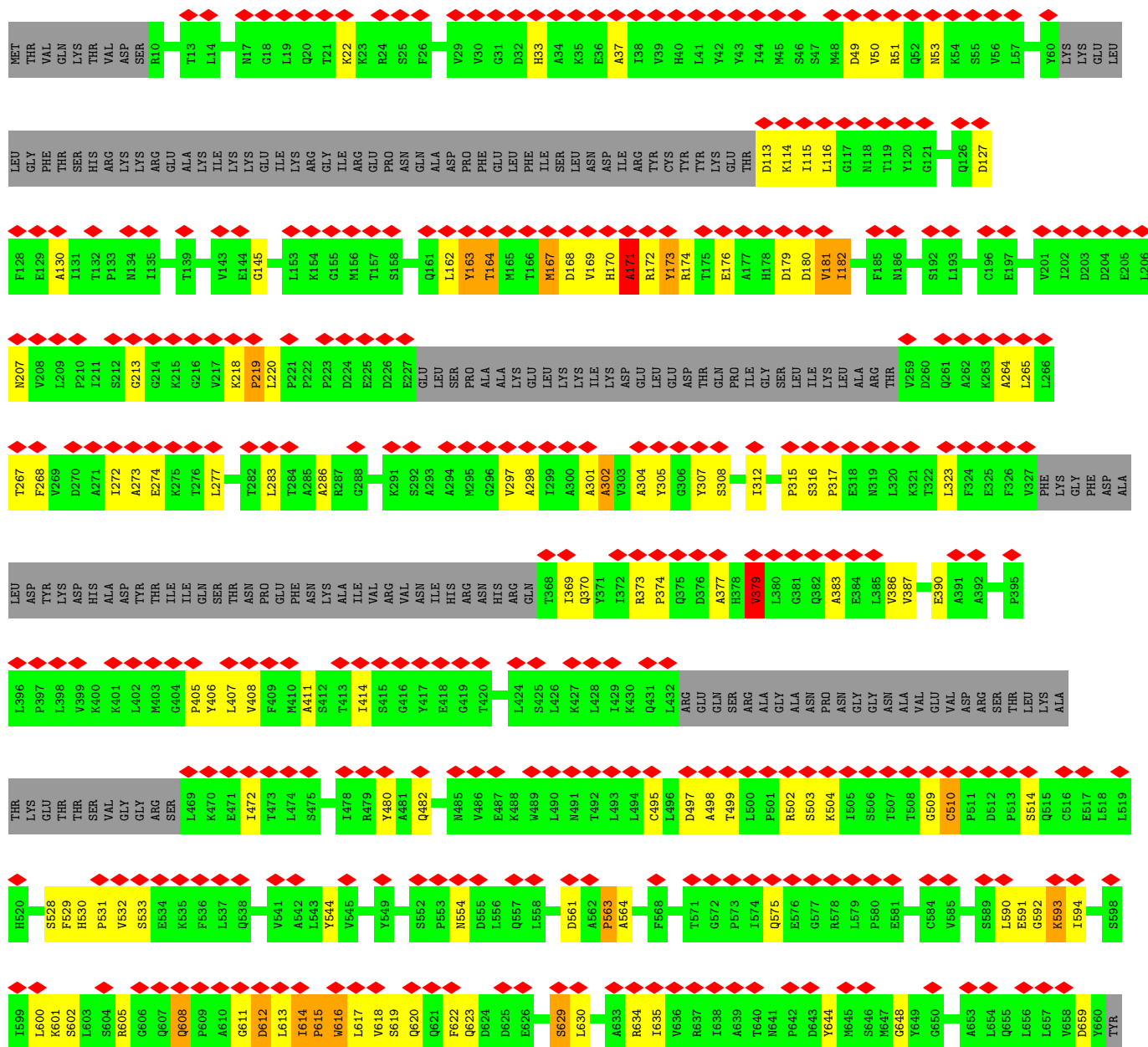
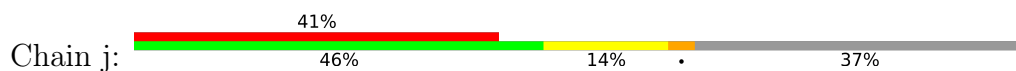


- Molecule 19: Kre33

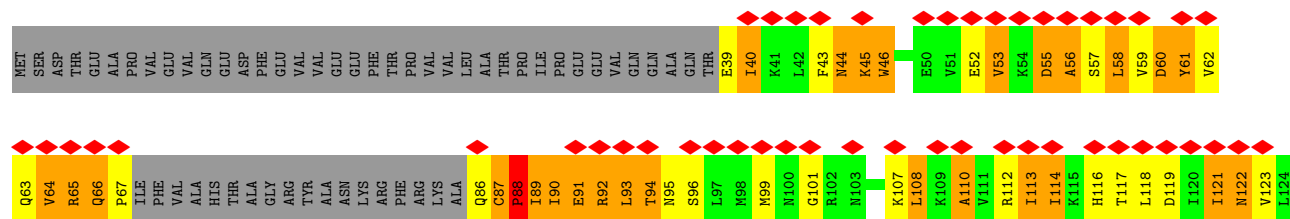


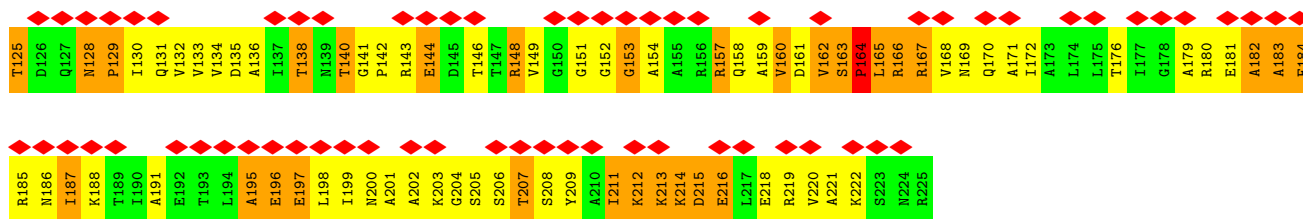


• Molecule 19: Kre33

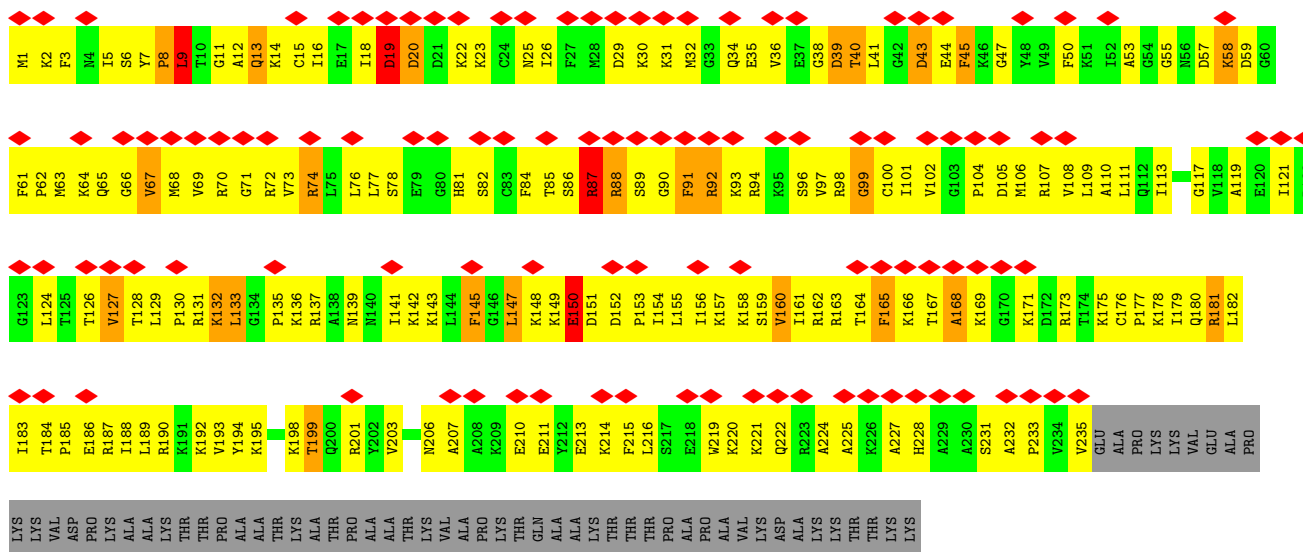
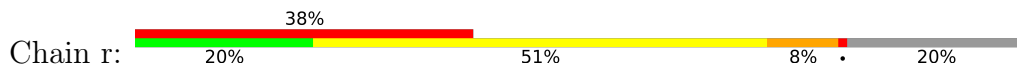




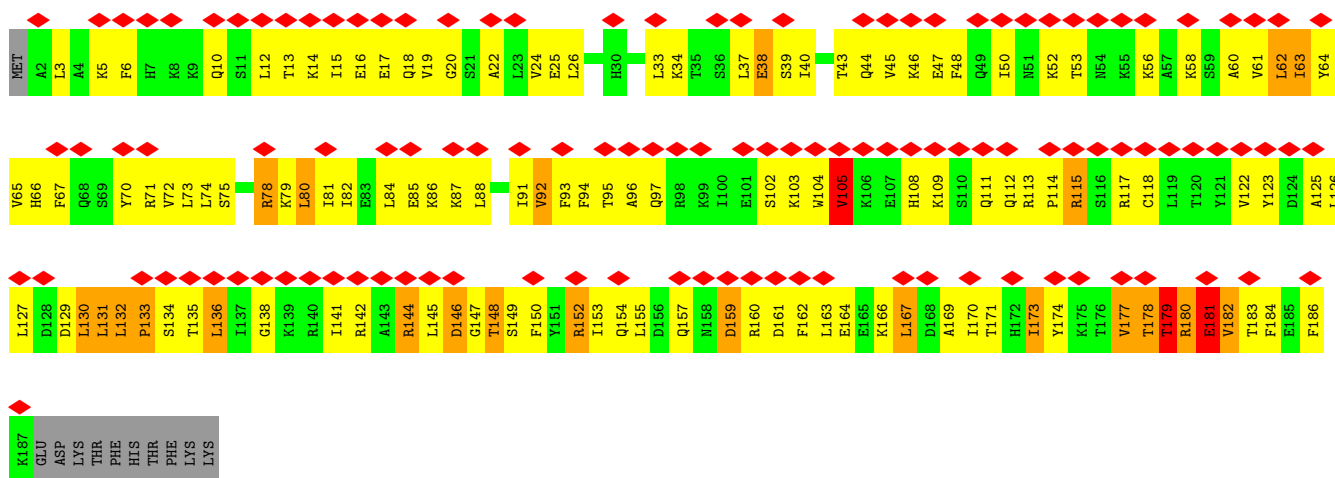




• Molecule 24: eS6

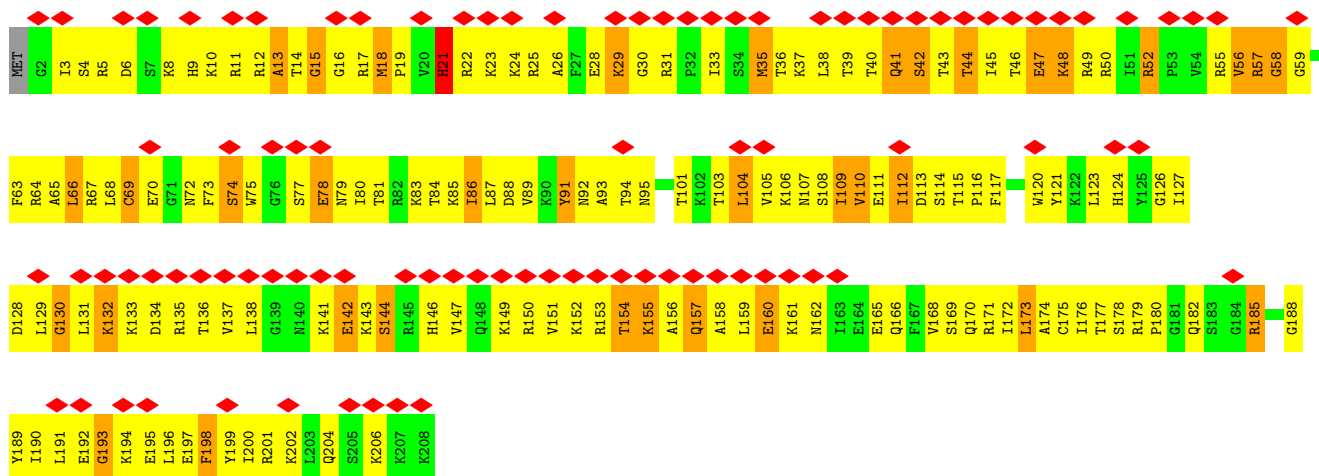


• Molecule 25: eS7

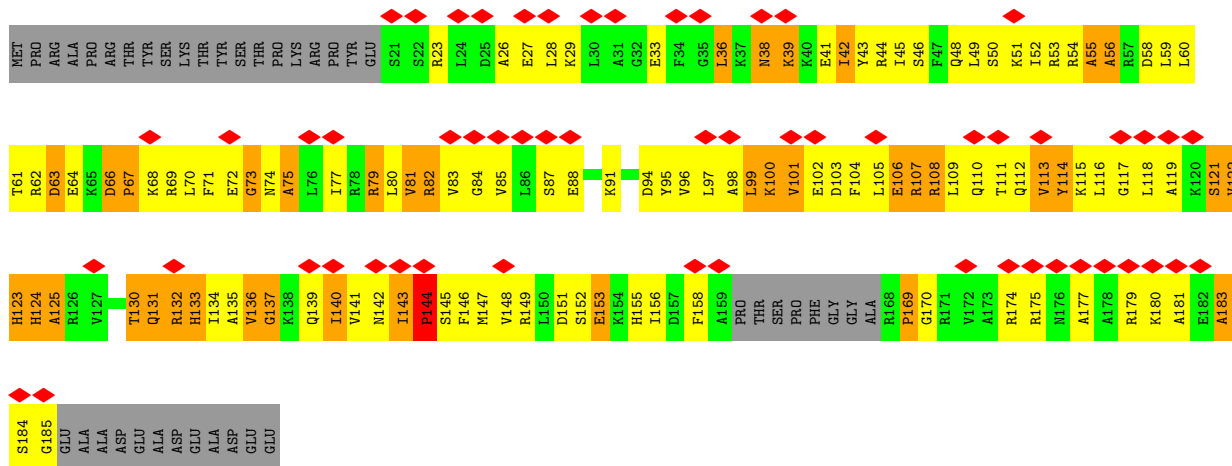
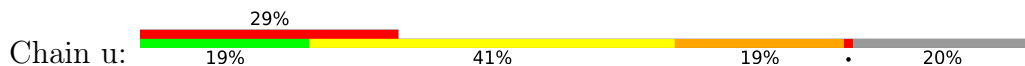


• Molecule 26: eS8

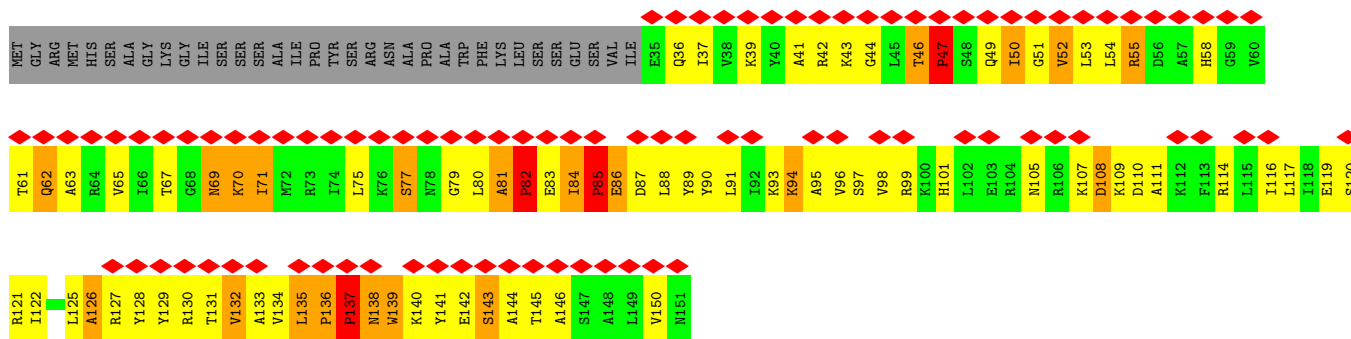
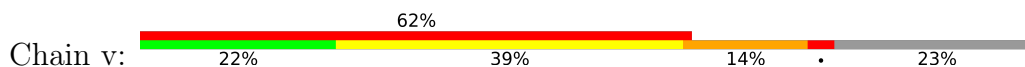




• Molecule 27: uS4

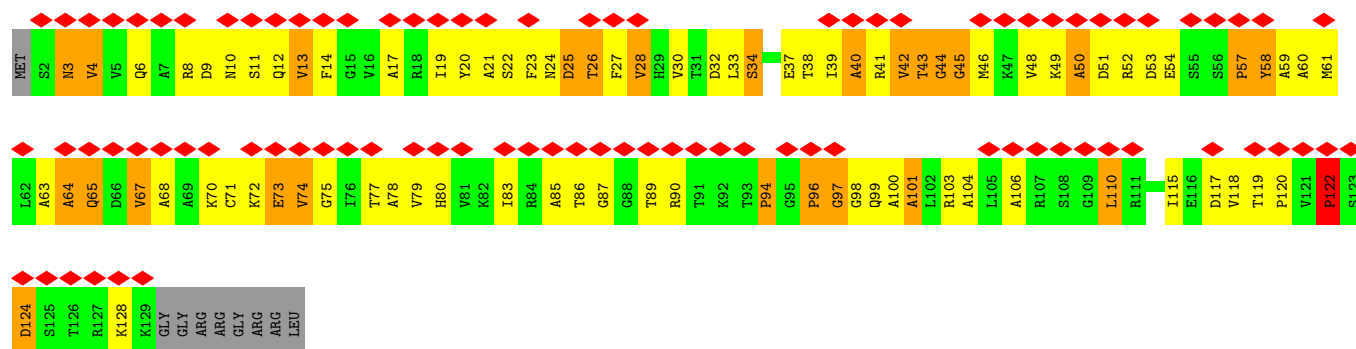


• Molecule 28: uS15

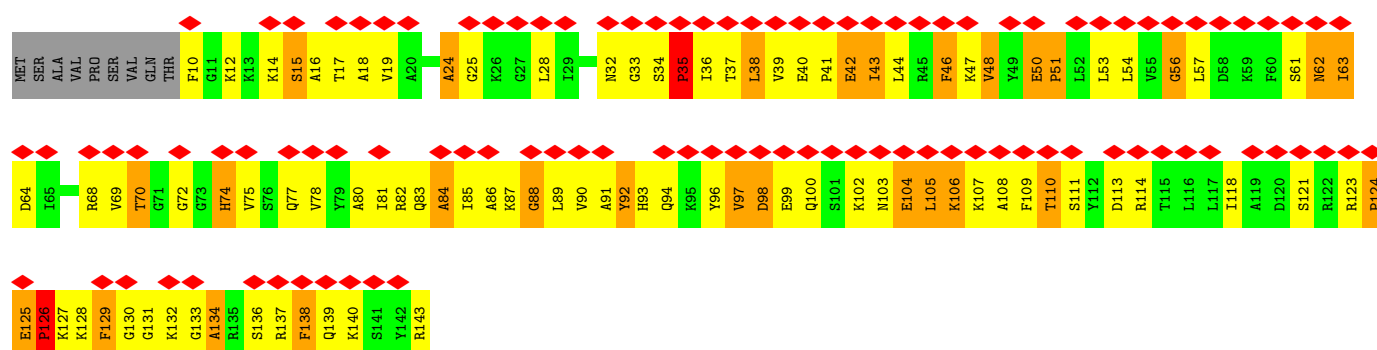


• Molecule 29: uS11

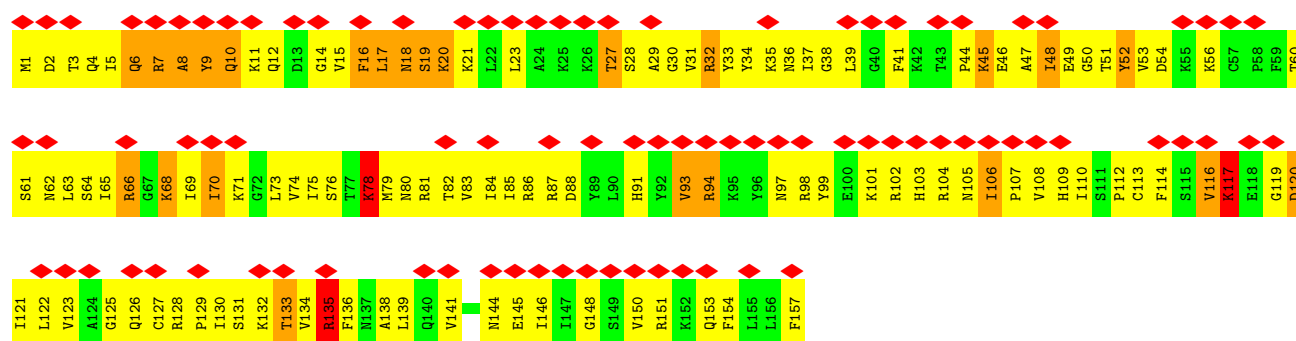




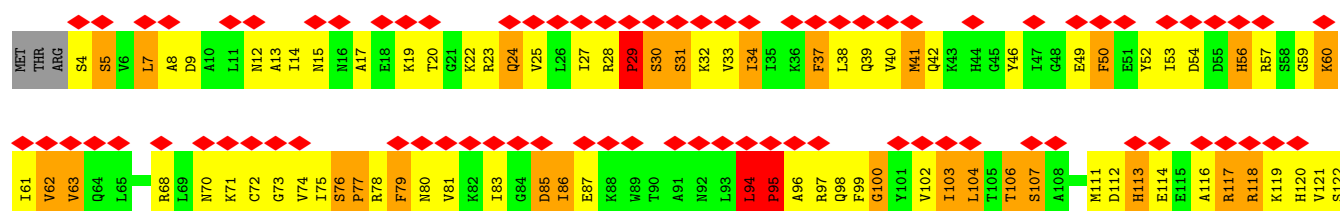
• Molecule 30: uS9



• Molecule 31: uS17

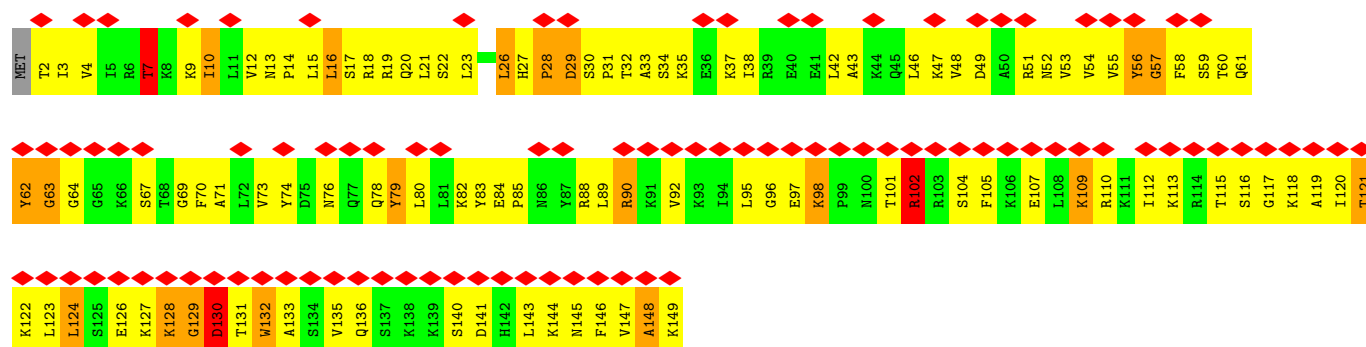


• Molecule 32: uS8

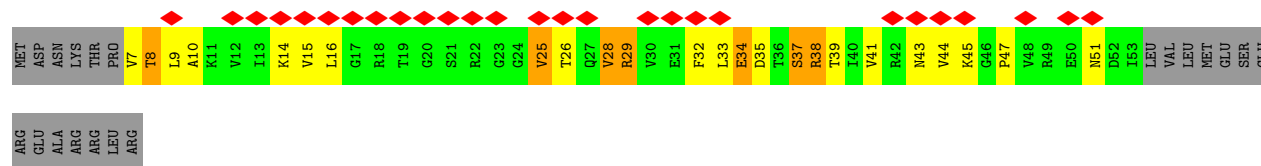




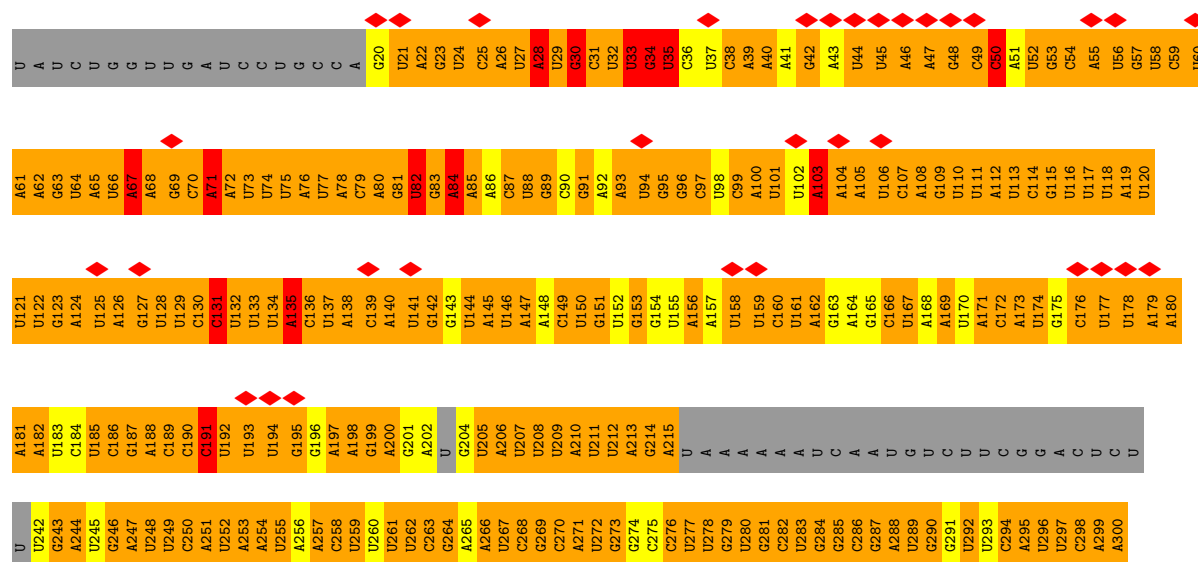
• Molecule 33: eS24



• Molecule 34: eS28



• Molecule 35: 18S ribosomal RNA







4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	43000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	16	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.107	Depositor
Minimum map value	-0.056	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.007	Depositor
Recommended contour level	0.025	Depositor
Map size ($\text{\AA}$)	478.464, 478.464, 478.464	wwPDB
Map dimensions	448, 448, 448	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.068, 1.068, 1.068	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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	$\# Z > 5$
2	G	1.67	12/1393 (0.9%)	2.07	34/1928 (1.8%)
4	I	0.37	0/3120	0.87	1/4334 (0.0%)
8	S	0.61	0/1813	1.08	3/2523 (0.1%)
8	T	0.64	0/1813	1.10	5/2523 (0.2%)
9	U	0.61	0/602	1.12	1/837 (0.1%)
9	V	0.67	0/602	1.10	2/837 (0.2%)
10	W	0.68	0/1123	1.14	3/1564 (0.2%)
10	X	0.60	0/1123	1.04	0/1564
11	Y	0.37	0/1793	0.94	2/2485 (0.1%)
12	Z	0.89	1/1741 (0.1%)	1.31	4/2416 (0.2%)
13	a	0.92	0/265	1.56	1/367 (0.3%)
14	b	1.23	5/759 (0.7%)	1.51	2/1058 (0.2%)
15	c	1.16	5/950 (0.5%)	1.92	38/1323 (2.9%)
16	d	0.83	1/615 (0.2%)	3.00	47/857 (5.5%)
17	e	0.59	0/1044	1.12	1/1452 (0.1%)
17	f	0.61	0/1079	1.06	1/1502 (0.1%)
18	g	0.93	0/860	1.30	0/1197
18	h	0.93	0/860	1.30	0/1197
19	i	1.66	14/3246 (0.4%)	2.23	138/4507 (3.1%)
19	j	1.68	19/3335 (0.6%)	2.29	154/4632 (3.3%)
20	k	1.45	1/900 (0.1%)	2.63	22/1249 (1.8%)
21	o	0.49	0/1748	1.05	15/2340 (0.6%)
22	p	0.52	0/2119	1.15	22/2849 (0.8%)
23	q	0.69	0/834	1.10	9/1159 (0.8%)
24	r	0.46	0/1895	1.07	9/2523 (0.4%)
25	s	0.47	0/1563	1.06	8/2100 (0.4%)
26	t	0.49	0/1717	1.05	10/2288 (0.4%)
27	u	0.81	0/775	1.13	9/1077 (0.8%)
28	v	0.80	0/579	1.32	9/806 (1.1%)
29	w	0.68	0/626	1.12	5/867 (0.6%)
30	x	0.75	0/657	1.21	11/911 (1.2%)
31	y	0.57	0/1298	1.13	14/1741 (0.8%)
32	z	0.89	0/621	1.40	11/860 (1.3%)
33	0	0.50	0/1215	1.08	8/1626 (0.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
34	1	0.59	0/229	1.05	2/316 (0.6%)
35	2	0.95	0/20292	1.10	64/31586 (0.2%)
36	3	0.51	0/3912	0.70	3/6092 (0.0%)
All	All	0.93	58/69116 (0.1%)	1.33	668/99493 (0.7%)

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
3	H	0	33
8	T	0	1
9	U	0	1
9	V	0	1
10	W	0	1
10	X	0	1
14	b	0	5
15	c	0	7
16	d	0	2
19	i	0	3
19	j	0	3
20	k	0	1
All	All	0	59

All (58) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	j	612	ASP	CA-C	-12.33	1.36	1.52
19	i	616	TRP	N-CA	11.30	1.59	1.46
19	j	616	TRP	N-CA	11.28	1.59	1.46
15	c	161	PRO	C-O	-10.63	1.10	1.24
19	j	882	ALA	CA-C	-10.58	1.38	1.52
19	i	882	ALA	CA-C	-10.54	1.38	1.52
19	i	615	PRO	CA-C	10.09	1.69	1.52
19	j	615	PRO	CA-C	10.09	1.69	1.52
19	i	615	PRO	C-N	9.94	1.46	1.33
19	j	615	PRO	C-N	9.89	1.46	1.33
15	c	161	PRO	CA-C	-9.13	1.39	1.52
19	j	406	TYR	C-N	8.48	1.44	1.33
19	i	406	TYR	C-N	8.47	1.44	1.33
20	k	272	PRO	C-N	8.37	1.45	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	b	160	TRP	C-O	-8.19	1.14	1.23
2	G	3214	ASP	C-N	8.11	1.44	1.33
14	b	135	HIS	C-O	-7.96	1.14	1.24
19	i	612	ASP	CA-C	-7.92	1.36	1.52
19	j	616	TRP	CA-C	7.46	1.62	1.52
15	c	209	LYS	C-O	-7.44	1.15	1.24
19	i	616	TRP	CA-C	7.41	1.62	1.52
14	b	146	PRO	C-O	-7.35	1.15	1.24
16	d	50	GLU	C-N	-7.20	1.22	1.34
19	j	614	ILE	CA-C	7.13	1.60	1.52
19	i	614	ILE	CA-C	7.11	1.60	1.52
19	j	612	ASP	N-CA	-7.07	1.37	1.46
12	Z	180	MET	CA-CB	6.92	1.64	1.53
2	G	3186	LEU	N-CA	-6.60	1.38	1.46
2	G	2833	GLN	C-N	6.52	1.42	1.33
2	G	3185	LYS	CA-C	-6.50	1.44	1.52
19	j	162	LEU	CA-C	-6.49	1.44	1.52
15	c	167	LEU	CA-CB	-6.48	1.40	1.54
2	G	3215	GLU	N-CA	6.47	1.54	1.46
19	i	162	LEU	CA-C	-6.47	1.44	1.52
15	c	161	PRO	C-N	-6.39	1.25	1.33
2	G	2984	ARG	C-N	6.34	1.42	1.33
19	j	611	GLY	CA-C	-6.26	1.44	1.52
2	G	3214	ASP	CA-C	6.06	1.60	1.52
2	G	2367	TRP	N-CA	-5.79	1.38	1.46
19	i	743	VAL	CA-CB	-5.65	1.50	1.54
19	j	635	ILE	CA-C	-5.61	1.47	1.53
2	G	2984	ARG	CA-C	5.59	1.60	1.52
19	j	601	LYS	CA-C	-5.57	1.45	1.52
19	j	615	PRO	N-CA	5.54	1.54	1.47
19	j	743	VAL	CA-CB	-5.53	1.50	1.54
19	i	615	PRO	N-CA	5.51	1.54	1.47
2	G	2366	PHE	CA-C	-5.51	1.44	1.52
19	i	635	ILE	CA-C	-5.50	1.47	1.53
19	i	406	TYR	CA-C	5.49	1.60	1.52
19	j	406	TYR	CA-C	5.45	1.60	1.52
2	G	3007	SER	C-N	-5.40	1.27	1.34
19	j	407	LEU	N-CA	5.36	1.52	1.46
19	i	407	LEU	N-CA	5.35	1.52	1.46
19	j	883	ILE	CA-C	-5.07	1.46	1.52
2	G	3019	PRO	N-CA	-5.07	1.40	1.47
14	b	23	SER	C-O	-5.05	1.18	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	b	28	ARG	C-O	-5.04	1.18	1.24
19	j	613	LEU	C-N	5.02	1.39	1.33

All (668) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	k	272	PRO	N-CA-CB	42.72	148.80	103.52
16	d	104	PRO	N-CA-CB	41.84	148.58	103.39
20	k	82	LYS	O-C-N	-28.80	84.28	122.59
16	d	128	THR	N-CA-CB	27.50	155.54	110.16
20	k	272	PRO	CB-CA-C	-24.33	76.59	112.11
16	d	104	PRO	CB-CA-C	-23.68	75.27	112.21
20	k	271	VAL	N-CA-CB	22.60	142.85	111.21
16	d	128	THR	CB-CA-C	-20.42	76.30	109.80
2	G	3215	GLU	N-CA-C	20.27	132.76	111.07
2	G	3214	ASP	CA-C-N	19.43	145.69	120.44
2	G	3214	ASP	C-N-CA	19.43	145.69	120.44
19	i	614	ILE	CA-C-N	17.40	137.97	119.87
19	i	614	ILE	C-N-CA	17.40	137.97	119.87
19	j	614	ILE	CA-C-N	17.35	137.92	119.87
19	j	614	ILE	C-N-CA	17.35	137.92	119.87
19	i	615	PRO	N-CA-C	17.16	135.13	114.03
19	j	611	GLY	CA-C-N	-17.14	88.80	121.54
19	j	611	GLY	C-N-CA	-17.14	88.80	121.54
19	j	615	PRO	N-CA-C	17.11	135.08	114.03
19	j	611	GLY	N-CA-C	-16.53	96.24	111.95
19	i	616	TRP	N-CA-C	16.20	128.41	111.07
19	j	616	TRP	N-CA-C	16.20	128.41	111.07
20	k	83	ILE	CB-CA-C	-16.03	91.74	111.94
19	j	615	PRO	CA-C-N	15.77	140.94	120.44
19	j	615	PRO	C-N-CA	15.77	140.94	120.44
19	i	615	PRO	CA-C-N	15.76	140.93	120.44
19	i	615	PRO	C-N-CA	15.76	140.93	120.44
16	d	112	ILE	N-CA-CB	15.37	131.44	110.54
16	d	143	ILE	CB-CA-C	-15.19	92.14	112.04
19	j	612	ASP	CA-C-N	15.03	139.97	120.44
19	j	612	ASP	C-N-CA	15.03	139.97	120.44
19	i	612	ASP	CA-C-N	14.66	140.00	120.65
19	i	612	ASP	C-N-CA	14.66	140.00	120.65
16	d	112	ILE	CB-CA-C	-14.56	92.48	112.14
16	d	143	ILE	N-CA-CB	14.45	131.32	110.52
15	c	202	GLN	CA-C-N	14.42	140.05	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	c	202	GLN	C-N-CA	14.42	140.05	120.44
20	k	271	VAL	CB-CA-C	-13.90	86.06	111.36
19	i	905	GLY	CA-C-O	-13.56	112.87	122.23
19	j	905	GLY	CA-C-O	-13.53	112.89	122.23
19	j	613	LEU	N-CA-C	13.00	124.98	111.07
15	c	111	PHE	O-C-N	-12.89	109.19	121.17
19	i	613	LEU	N-CA-C	12.84	124.96	110.97
19	i	855	LEU	N-CA-C	12.46	127.31	111.24
19	j	855	LEU	N-CA-C	12.41	127.26	111.24
20	k	104	PRO	N-CA-CB	12.12	115.98	103.25
19	j	406	TYR	CA-C-N	12.06	139.99	122.99
19	j	406	TYR	C-N-CA	12.06	139.99	122.99
19	i	406	TYR	CA-C-N	12.01	139.93	122.99
19	i	406	TYR	C-N-CA	12.01	139.93	122.99
24	r	40	THR	N-CA-C	-11.65	100.62	112.97
15	c	95	ASP	CA-C-N	11.53	131.29	119.76
15	c	95	ASP	C-N-CA	11.53	131.29	119.76
20	k	84	ILE	CB-CA-C	-11.25	89.10	111.60
20	k	83	ILE	N-CA-CB	11.15	131.03	110.40
20	k	292	PRO	N-CA-CB	10.84	113.67	103.15
20	k	237	PRO	N-CA-CB	10.75	113.83	103.51
20	k	84	ILE	N-CA-CB	10.59	129.51	111.50
19	j	905	GLY	N-CA-C	-10.40	100.64	112.29
15	c	209	LYS	CA-C-O	-10.38	109.42	120.42
19	i	905	GLY	N-CA-C	-10.37	100.68	112.29
19	j	497	ASP	CA-C-N	10.30	139.17	121.14
19	j	497	ASP	C-N-CA	10.30	139.17	121.14
15	c	167	LEU	CB-CA-C	-10.05	89.18	109.79
20	k	61	PRO	N-CA-CB	10.01	113.77	103.25
2	G	2867	GLU	N-CA-C	9.97	124.58	109.62
20	k	80	PRO	N-CA-CB	9.97	113.72	103.25
19	j	795	ARG	N-CA-C	-9.71	100.54	111.71
19	i	795	ARG	N-CA-C	-9.70	100.56	111.71
22	p	107	THR	N-CA-C	-9.67	100.67	114.12
2	G	3192	GLY	N-CA-C	-9.59	100.33	114.61
31	y	18	ASN	CB-CA-C	-9.48	105.63	116.63
15	c	151	ALA	N-CA-CB	-9.42	94.35	110.17
16	d	144	TYR	N-CA-CB	9.39	123.78	109.97
16	d	106	TYR	N-CA-CB	9.30	125.87	111.64
19	i	480	TYR	CB-CA-C	-9.29	91.60	111.11
2	G	2368	GLN	N-CA-C	-9.28	101.12	111.14
19	j	480	TYR	CB-CA-C	-9.27	91.64	111.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	d	125	HIS	CB-CA-C	-9.22	98.29	111.85
22	p	20	LEU	N-CA-C	9.20	122.67	110.53
32	z	117	ARG	N-CA-C	-9.16	101.17	111.71
32	z	95	PRO	N-CA-CB	9.16	112.87	103.25
19	j	116	LEU	N-CA-C	9.16	121.26	111.28
19	i	116	LEU	N-CA-C	9.13	121.23	111.28
20	k	286	PRO	N-CA-CB	9.08	112.79	103.25
19	i	497	ASP	CA-C-N	9.00	139.14	121.58
19	i	497	ASP	C-N-CA	9.00	139.14	121.58
32	z	61	ILE	N-CA-C	8.97	121.25	108.42
16	d	144	TYR	CB-CA-C	-8.96	94.33	109.65
19	j	612	ASP	O-C-N	8.95	134.49	122.59
19	i	882	ALA	N-CA-C	-8.88	91.88	110.80
36	3	77	C	OP1-P-O3'	-8.88	81.37	108.00
16	d	106	TYR	CB-CA-C	-8.86	97.66	111.74
15	c	177	PRO	CA-C-O	-8.85	104.49	120.60
19	j	882	ALA	N-CA-C	-8.85	91.96	110.80
15	c	165	ALA	N-CA-CB	-8.83	96.70	110.65
17	e	212	GLY	N-CA-C	8.80	121.76	111.63
19	i	629	SER	CA-C-N	-8.61	107.66	121.86
19	i	629	SER	C-N-CA	-8.61	107.66	121.86
19	j	629	SER	CA-C-N	-8.60	107.67	121.86
19	j	629	SER	C-N-CA	-8.60	107.67	121.86
25	s	3	LEU	N-CA-C	-8.56	102.82	113.18
20	k	20	PRO	N-CA-CB	8.54	112.73	103.33
19	j	617	LEU	N-CA-C	8.54	121.72	111.82
19	i	617	LEU	N-CA-C	8.52	121.70	111.82
19	j	620	GLN	N-CA-CB	8.42	122.28	110.07
19	i	620	GLN	N-CA-CB	8.41	122.26	110.07
19	j	881	GLN	CA-C-N	8.40	137.59	121.54
19	j	881	GLN	C-N-CA	8.40	137.59	121.54
19	i	881	GLN	CA-C-N	8.40	137.59	121.54
19	i	881	GLN	C-N-CA	8.40	137.59	121.54
20	k	252	PRO	N-CA-CB	8.40	112.46	103.39
19	j	174	ARG	CA-C-N	8.33	134.65	122.82
19	j	174	ARG	C-N-CA	8.33	134.65	122.82
15	c	161	PRO	N-CA-CB	8.32	111.98	103.25
19	i	174	ARG	CA-C-N	8.30	134.60	122.82
19	i	174	ARG	C-N-CA	8.30	134.60	122.82
36	3	77	C	OP2-P-O3'	-8.29	83.12	108.00
10	W	217	ASP	CA-C-N	8.28	130.19	119.84
10	W	217	ASP	C-N-CA	8.28	130.19	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	r	132	LYS	N-CA-C	8.25	121.83	111.69
25	s	144	ARG	N-CA-C	-8.19	99.72	110.53
19	i	316	SER	N-CA-C	-8.19	99.50	109.57
28	v	41	ALA	N-CA-C	-8.17	103.03	113.16
19	j	316	SER	N-CA-C	-8.12	99.58	109.57
19	j	180	ASP	CA-C-N	8.12	130.79	120.56
19	j	180	ASP	C-N-CA	8.12	130.79	120.56
2	G	1957	LEU	CA-C-N	-8.11	109.60	120.63
2	G	1957	LEU	C-N-CA	-8.11	109.60	120.63
19	j	602	SER	CA-C-N	-8.11	106.59	121.52
19	j	602	SER	C-N-CA	-8.11	106.59	121.52
19	i	180	ASP	CA-C-N	8.11	130.78	120.56
19	i	180	ASP	C-N-CA	8.11	130.78	120.56
19	i	613	LEU	CA-C-O	-8.10	112.50	121.00
22	p	250	ILE	N-CA-C	-8.03	101.01	111.05
35	2	30	G	O4'-C1'-N9	8.03	120.24	108.20
16	d	140	LYS	N-CA-CB	8.00	121.80	110.67
19	j	591	GLU	CB-CA-C	8.00	123.41	109.89
35	2	365	G	C4'-C3'-O3'	7.99	124.99	113.00
19	i	591	GLU	CB-CA-C	7.99	123.39	109.89
15	c	200	LEU	O-C-N	7.93	131.50	122.22
33	0	10	ILE	N-CA-C	7.93	119.21	108.11
15	c	167	LEU	N-CA-C	7.92	121.80	109.52
19	i	620	GLN	CB-CA-C	-7.91	98.40	110.90
19	j	620	GLN	CB-CA-C	-7.89	98.43	110.90
19	j	613	LEU	CA-C-O	-7.88	112.55	120.82
15	c	161	PRO	N-CA-C	7.88	128.69	112.47
19	i	616	TRP	O-C-N	-7.86	113.98	122.07
19	j	616	TRP	O-C-N	-7.84	113.99	122.07
26	t	23	LYS	N-CA-C	-7.84	100.76	110.41
28	v	130	ARG	N-CA-C	-7.82	102.84	112.38
22	p	14	ALA	CA-C-N	7.77	129.55	119.84
22	p	14	ALA	C-N-CA	7.77	129.55	119.84
19	i	181	VAL	N-CA-C	7.75	117.86	110.42
19	j	181	VAL	N-CA-C	7.75	117.86	110.42
35	2	457	G	N9-C1'-C2'	-7.69	100.46	112.00
30	x	51	PRO	N-CA-CB	7.66	111.29	103.25
2	G	3185	LYS	CA-C-N	-7.66	110.22	120.63
2	G	3185	LYS	C-N-CA	-7.66	110.22	120.63
26	t	18	MET	CA-C-N	7.65	129.40	119.84
26	t	18	MET	C-N-CA	7.65	129.40	119.84
16	d	101	LYS	N-CA-CB	7.64	121.09	110.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	i	630	LEU	N-CA-CB	7.64	121.45	110.45
19	j	630	LEU	N-CA-CB	7.63	121.44	110.45
19	j	267	THR	N-CA-C	7.63	119.23	111.07
21	o	156	SER	N-CA-C	-7.62	103.44	112.89
16	d	114	ARG	N-CA-CB	7.62	121.53	110.47
19	i	267	THR	N-CA-C	7.61	119.27	110.97
16	d	107	ARG	N-CA-CB	7.58	121.14	109.85
30	x	41	PRO	N-CA-CB	7.57	111.19	103.25
15	c	151	ALA	CB-CA-C	7.51	122.77	110.22
19	j	369	ILE	N-CA-CB	7.51	120.20	110.13
21	o	73	ALA	N-CA-C	-7.51	94.80	110.80
2	G	3194	ASP	N-CA-C	7.51	126.80	110.80
19	i	369	ILE	N-CA-CB	7.50	120.18	110.13
15	c	124	LEU	O-C-N	7.50	129.94	121.32
33	0	109	LYS	N-CA-C	-7.50	102.26	111.33
35	2	35	U	C4'-C3'-O3'	7.47	124.20	113.00
21	o	62	GLU	N-CA-C	-7.45	104.32	113.41
20	k	270	PHE	N-CA-CB	7.43	123.06	110.49
28	v	136	PRO	N-CA-CB	7.40	110.26	103.08
16	d	139	GLN	N-CA-CB	7.37	122.62	110.39
16	d	107	ARG	CB-CA-C	-7.36	98.11	109.89
19	j	594	ILE	N-CA-CB	7.31	123.52	111.38
19	j	619	SER	CA-C-N	-7.28	110.53	120.44
19	j	619	SER	C-N-CA	-7.28	110.53	120.44
31	y	70	ILE	N-CA-C	7.28	120.06	108.85
19	i	619	SER	CA-C-N	-7.28	110.54	120.44
19	i	619	SER	C-N-CA	-7.28	110.54	120.44
19	i	906	SER	CA-C-N	7.28	131.37	120.31
19	i	906	SER	C-N-CA	7.28	131.37	120.31
19	i	616	TRP	CA-C-N	7.26	131.35	120.31
19	i	616	TRP	C-N-CA	7.26	131.35	120.31
28	v	37	ILE	N-CA-C	-7.26	102.74	110.36
27	u	67	PRO	N-CA-CB	7.25	110.87	103.25
16	d	117	ARG	N-CA-CB	7.25	121.59	110.14
19	j	906	SER	CA-C-N	7.25	131.33	120.31
19	j	906	SER	C-N-CA	7.25	131.33	120.31
35	2	67	A	C2'-C3'-O3'	7.25	120.37	109.50
34	1	47	PRO	N-CA-CB	7.23	110.71	103.48
19	j	498	ALA	N-CA-C	7.23	121.85	112.89
31	y	66	ARG	N-CA-C	7.22	120.56	108.13
19	i	612	ASP	O-C-N	7.22	134.55	123.00
19	j	616	TRP	CA-C-N	7.21	131.27	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	j	616	TRP	C-N-CA	7.21	131.27	120.31
35	2	28	A	O4'-C1'-N9	7.21	119.01	108.20
19	i	498	ALA	N-CA-C	7.19	121.88	113.18
28	v	82	PRO	N-CA-CB	7.16	110.77	103.25
29	w	57	PRO	N-CA-CB	7.16	110.35	103.19
28	v	85	PRO	N-CA-CB	7.16	110.47	102.60
16	d	105	ARG	CB-CA-C	-7.15	97.46	109.75
16	d	101	LYS	CB-CA-C	-7.14	99.66	110.88
35	2	135	A	N9-C1'-C2'	-7.14	101.29	112.00
33	0	97	GLU	N-CA-C	7.13	119.73	110.53
33	0	132	TRP	N-CA-C	-7.12	103.25	112.23
19	j	277	LEU	N-CA-C	-7.09	102.60	112.45
25	s	92	VAL	N-CA-C	7.08	118.09	108.17
19	i	277	LEU	N-CA-C	-7.08	102.61	112.45
30	x	124	PRO	N-CA-CB	7.06	109.46	103.25
19	j	114	LYS	CA-C-N	7.05	132.63	120.86
19	j	114	LYS	C-N-CA	7.05	132.63	120.86
19	i	745	VAL	N-CA-C	7.05	118.01	111.45
16	d	102	LEU	N-CA-CB	7.05	121.28	110.14
19	i	114	LYS	CA-C-N	7.04	132.62	120.86
19	i	114	LYS	C-N-CA	7.04	132.62	120.86
15	c	201	GLY	CA-C-O	-7.02	108.35	120.57
2	G	3192	GLY	CA-C-N	7.02	131.42	122.16
2	G	3192	GLY	C-N-CA	7.02	131.42	122.16
22	p	212	VAL	N-CA-C	7.02	117.72	107.75
16	d	118	TRP	N-CA-CB	7.01	120.97	110.53
19	j	745	VAL	N-CA-C	6.97	117.94	111.45
16	d	142	ARG	N-CA-CB	6.97	122.27	110.49
29	w	94	PRO	N-CA-CB	6.96	110.56	103.25
27	u	169	PRO	N-CA-CB	6.96	110.55	103.25
26	t	133	LYS	N-CA-C	6.95	119.49	111.02
15	c	213	PRO	CA-C-N	6.94	128.52	119.84
15	c	213	PRO	C-N-CA	6.94	128.52	119.84
24	r	53	ALA	N-CA-C	6.94	118.85	111.28
26	t	130	GLY	N-CA-C	-6.92	101.92	112.51
19	j	614	ILE	N-CA-C	6.91	123.81	108.88
19	j	623	GLN	CA-C-N	-6.91	113.18	122.72
19	j	623	GLN	C-N-CA	-6.91	113.18	122.72
19	i	623	GLN	CA-C-N	-6.91	113.19	122.72
19	i	623	GLN	C-N-CA	-6.91	113.19	122.72
19	i	614	ILE	N-CA-C	6.90	123.78	108.88
19	i	162	LEU	N-CA-C	-6.87	99.86	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	z	77	PRO	N-CA-CB	6.86	110.45	103.25
22	p	249	THR	N-CA-C	-6.85	101.45	110.43
16	d	74	PRO	N-CA-CB	6.85	110.44	103.25
19	i	51	ARG	N-CA-C	-6.84	98.16	109.80
19	j	162	LEU	N-CA-C	-6.84	99.90	110.10
19	j	51	ARG	N-CA-C	-6.84	98.17	109.80
28	v	47	PRO	N-CA-CB	6.82	110.41	103.25
27	u	114	TYR	N-CA-C	-6.81	103.62	112.68
8	T	97	LEU	CA-C-N	-6.80	111.50	119.05
8	T	97	LEU	C-N-CA	-6.80	111.50	119.05
32	z	29	PRO	N-CA-CB	6.80	110.39	103.25
16	d	105	ARG	N-CA-CB	6.78	120.72	110.95
15	c	212	PHE	CA-C-N	6.77	127.35	120.38
15	c	212	PHE	C-N-CA	6.77	127.35	120.38
23	q	67	PRO	N-CA-CB	6.74	110.41	103.00
25	s	40	ILE	N-CA-C	6.73	118.12	109.30
26	t	132	LYS	N-CA-C	6.72	125.11	110.80
19	i	544	TYR	N-CA-CB	6.71	120.10	110.16
19	j	544	TYR	N-CA-CB	6.71	120.08	110.16
19	i	115	ILE	N-CA-C	6.70	121.54	111.89
35	2	479	C	P-O3'-C3'	-6.68	110.18	120.20
19	j	115	ILE	N-CA-C	6.68	121.51	111.89
35	2	314	C	N1-C1'-C2'	6.65	121.98	112.00
35	2	365	G	C3'-C2'-C1'	-6.64	94.66	101.30
16	d	114	ARG	CB-CA-C	-6.63	98.57	110.37
28	v	137	PRO	N-CA-CB	6.61	110.19	103.25
31	y	48	ILE	N-CA-C	6.60	116.63	110.42
19	j	593	LYS	CA-C-N	-6.60	111.52	120.95
19	j	593	LYS	C-N-CA	-6.60	111.52	120.95
22	p	34	GLY	CA-C-N	6.60	126.18	119.19
22	p	34	GLY	C-N-CA	6.60	126.18	119.19
19	j	611	GLY	CA-C-O	-6.58	117.94	122.22
19	i	480	TYR	N-CA-CB	6.58	121.61	111.22
35	2	71	A	O4'-C1'-N9	6.57	118.06	108.20
19	j	480	TYR	N-CA-CB	6.55	121.57	111.22
27	u	36	LEU	N-CA-C	-6.54	104.40	112.38
16	d	118	TRP	CB-CA-C	-6.54	98.27	109.65
19	i	857	LEU	N-CA-C	-6.53	104.08	111.14
23	q	129	PRO	N-CA-CB	6.53	110.11	103.25
2	G	3180	ALA	N-CA-CB	6.52	120.38	110.28
19	j	857	LEU	N-CA-C	-6.50	104.12	111.14
29	w	120	PRO	N-CA-CB	6.50	110.08	103.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	33	U	OP2-P-O3'	-6.50	88.49	108.00
15	c	111	PHE	CA-C-O	6.50	128.69	121.15
23	q	88	PRO	N-CA-CB	6.50	110.07	103.25
19	j	880	GLN	N-CA-C	6.48	118.42	111.36
27	u	43	TYR	N-CA-C	-6.48	104.64	112.54
22	p	101	PHE	N-CA-C	6.48	120.08	109.72
15	c	251	SER	N-CA-CB	6.47	121.49	110.50
16	d	46	PHE	CB-CA-C	-6.46	97.83	110.10
19	i	880	GLN	N-CA-C	6.44	118.38	111.36
23	q	164	PRO	N-CA-CB	6.44	110.01	103.25
32	z	37	PHE	N-CA-C	-6.42	103.91	111.03
16	d	48	HIS	N-CA-CB	6.41	120.93	110.17
35	2	82	U	C2'-C3'-O3'	6.40	123.30	113.70
19	i	323	LEU	CB-CA-C	-6.38	101.13	110.96
19	j	323	LEU	CB-CA-C	-6.37	101.15	110.96
21	o	207	THR	N-CA-C	6.37	118.30	111.36
15	c	200	LEU	CA-C-O	-6.37	112.90	120.10
19	i	181	VAL	CB-CA-C	-6.36	103.82	111.97
27	u	79	ARG	N-CA-C	-6.36	104.44	111.82
15	c	160	GLY	O-C-N	6.35	128.12	121.77
19	i	495	CYS	CA-C-N	6.34	129.30	120.29
19	i	495	CYS	C-N-CA	6.34	129.30	120.29
12	Z	250	LYS	N-CA-C	6.34	118.19	111.28
35	2	82	U	P-O3'-C3'	-6.34	110.69	120.20
19	i	883	ILE	CA-C-N	-6.33	110.13	120.71
19	i	883	ILE	C-N-CA	-6.33	110.13	120.71
19	j	495	CYS	CA-C-N	6.33	129.28	120.29
19	j	495	CYS	C-N-CA	6.33	129.28	120.29
29	w	122	PRO	N-CA-CB	6.32	109.89	103.25
24	r	127	VAL	N-CA-C	6.32	118.27	109.55
19	j	883	ILE	CA-C-N	-6.31	110.18	120.71
19	j	883	ILE	C-N-CA	-6.31	110.18	120.71
19	j	181	VAL	CB-CA-C	-6.30	103.90	111.97
30	x	35	PRO	N-CA-CB	6.30	109.87	103.25
27	u	144	PRO	N-CA-CB	6.30	109.86	103.25
16	d	46	PHE	N-CA-CB	6.29	121.19	110.50
8	T	299	GLY	N-CA-C	-6.27	100.83	112.37
23	q	203	LYS	N-CA-C	-6.26	104.53	111.36
2	G	2984	ARG	CA-C-O	-6.26	112.78	119.97
19	j	274	GLU	N-CA-C	-6.26	104.46	111.28
19	j	317	PRO	N-CA-C	6.25	125.34	112.47
19	i	317	PRO	N-CA-C	6.24	125.32	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	r	133	LEU	N-CA-C	6.23	118.95	108.23
19	i	274	GLU	N-CA-C	-6.23	104.49	111.28
35	2	973	A	N9-C1'-C2'	-6.22	102.67	112.00
15	c	166	SER	CA-C-N	-6.21	112.84	122.59
15	c	166	SER	C-N-CA	-6.21	112.84	122.59
19	i	554	ASN	N-CA-C	-6.20	104.58	111.71
19	j	554	ASN	N-CA-C	-6.19	104.59	111.71
19	j	608	GLN	N-CA-C	6.19	123.49	109.81
24	r	58	LYS	N-CA-C	-6.17	105.85	113.19
22	p	72	VAL	N-CA-C	6.17	117.00	108.12
19	i	591	GLU	CA-C-N	-6.16	111.76	123.03
19	i	591	GLU	C-N-CA	-6.16	111.76	123.03
19	j	591	GLU	CA-C-N	-6.16	111.77	123.03
19	j	591	GLU	C-N-CA	-6.16	111.77	123.03
35	2	50	C	O4'-C1'-N1	6.14	117.71	108.50
15	c	186	GLU	O-C-N	-6.13	114.44	122.59
19	i	268	PHE	CA-C-N	6.11	130.79	120.64
19	i	268	PHE	C-N-CA	6.11	130.79	120.64
22	p	158	ILE	N-CA-C	6.11	117.59	110.62
19	i	644	TYR	N-CA-C	6.10	120.72	113.28
19	j	644	TYR	N-CA-C	6.10	120.72	113.28
35	2	523	G	O4'-C1'-N9	6.09	117.64	108.50
23	q	198	LEU	N-CA-C	-6.08	104.93	112.90
16	d	117	ARG	CB-CA-C	-6.07	98.68	110.46
9	U	61	GLN	N-CA-C	6.07	123.23	109.81
19	j	268	PHE	CA-C-N	6.07	130.71	120.64
19	j	268	PHE	C-N-CA	6.07	130.71	120.64
19	i	50	VAL	N-CA-C	-6.06	104.60	110.72
16	d	54	PRO	N-CA-CB	6.06	108.95	103.08
35	2	365	G	N9-C1'-C2'	-6.05	102.93	112.00
26	t	21	HIS	N-CA-C	-6.02	105.66	114.39
19	j	50	VAL	N-CA-C	-6.02	104.64	110.72
22	p	149	ILE	N-CA-C	6.00	117.65	108.71
19	j	301	ALA	N-CA-C	-5.99	104.08	111.33
32	z	32	LYS	N-CA-C	-5.98	104.76	111.28
16	d	126	LYS	N-CA-CB	5.98	120.48	110.32
19	i	634	ARG	CA-C-N	-5.97	115.01	122.48
19	i	634	ARG	C-N-CA	-5.97	115.01	122.48
19	j	634	ARG	CA-C-N	-5.97	115.02	122.48
19	j	634	ARG	C-N-CA	-5.97	115.02	122.48
19	i	51	ARG	CA-C-N	-5.96	112.36	121.66
19	i	51	ARG	C-N-CA	-5.96	112.36	121.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	i	301	ALA	N-CA-C	-5.96	104.12	111.33
35	2	936	G	N9-C1'-C2'	-5.95	103.07	112.00
21	o	107	ASP	N-CA-C	5.93	116.07	108.24
19	j	51	ARG	CA-C-N	-5.93	112.41	121.66
19	j	51	ARG	C-N-CA	-5.93	112.41	121.66
35	2	401	A	N9-C1'-C2'	5.90	122.86	114.00
16	d	50	GLU	CA-C-N	5.89	130.07	120.23
16	d	50	GLU	C-N-CA	5.89	130.07	120.23
30	x	126	PRO	N-CA-CB	5.89	109.43	103.25
19	j	219	PRO	N-CA-C	5.88	119.73	110.50
19	j	789	LEU	CB-CA-C	-5.88	101.61	110.90
19	i	219	PRO	N-CA-C	5.88	119.73	110.50
22	p	134	GLY	CA-C-N	5.87	127.18	119.84
22	p	134	GLY	C-N-CA	5.87	127.18	119.84
19	i	789	LEU	CB-CA-C	-5.87	101.63	110.90
35	2	430	G	N9-C1'-C2'	-5.86	103.21	112.00
35	2	1053	G	N9-C1'-C2'	-5.86	103.21	112.00
16	d	48	HIS	CB-CA-C	-5.85	100.45	110.22
35	2	34	G	O5'-P-OP2	5.85	125.55	108.00
8	T	262	ALA	CA-C-N	5.85	125.54	119.05
8	T	262	ALA	C-N-CA	5.85	125.54	119.05
19	j	659	ASP	N-CA-C	5.84	118.15	111.02
22	p	153	ASN	CA-C-N	5.84	125.46	119.56
22	p	153	ASN	C-N-CA	5.84	125.46	119.56
19	i	173	TYR	CA-C-N	5.84	128.39	120.44
19	i	173	TYR	C-N-CA	5.84	128.39	120.44
35	2	455	C	O4'-C1'-N1	-5.84	99.44	108.20
19	i	659	ASP	N-CA-C	5.83	118.14	111.02
19	j	173	TYR	CA-C-N	5.83	128.37	120.44
19	j	173	TYR	C-N-CA	5.83	128.37	120.44
19	j	784	LYS	CA-C-N	5.83	130.45	120.72
19	j	784	LYS	C-N-CA	5.83	130.45	120.72
33	0	79	TYR	N-CA-C	-5.83	103.65	112.04
19	i	748	ARG	CA-C-N	5.83	130.58	120.68
19	i	748	ARG	C-N-CA	5.83	130.58	120.68
19	j	648	GLY	N-CA-C	-5.83	107.06	115.27
19	i	784	LYS	CA-C-N	5.82	130.44	120.72
19	i	784	LYS	C-N-CA	5.82	130.44	120.72
15	c	98	SER	CA-C-O	5.81	126.92	120.82
16	d	139	GLN	CB-CA-C	-5.81	98.18	110.31
19	j	748	ARG	CA-C-N	5.81	130.55	120.68
19	j	748	ARG	C-N-CA	5.81	130.55	120.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	u	44	ARG	N-CA-C	-5.81	105.30	112.38
26	t	78	GLU	N-CA-C	5.80	119.62	112.54
19	i	648	GLY	N-CA-C	-5.79	107.10	115.27
22	p	128	VAL	N-CA-C	5.79	117.11	108.54
35	2	467	G	N9-C1'-C2'	-5.77	103.34	112.00
12	Z	38	SER	N-CA-C	5.77	118.03	111.11
14	b	127	ALA	N-CA-CB	-5.77	101.35	109.94
17	f	86	GLU	N-CA-C	-5.76	106.11	113.02
2	G	1521	ILE	CA-C-N	5.76	132.54	121.54
2	G	1521	ILE	C-N-CA	5.76	132.54	121.54
16	d	102	LEU	CB-CA-C	-5.75	99.30	110.46
19	i	482	GLN	CB-CA-C	-5.73	97.79	109.65
21	o	91	ILE	N-CA-C	-5.72	101.29	108.84
19	j	482	GLN	CB-CA-C	-5.72	97.82	109.65
15	c	198	THR	CA-C-N	5.71	126.03	119.92
15	c	198	THR	C-N-CA	5.71	126.03	119.92
2	G	2813	VAL	CB-CA-C	-5.70	104.35	112.22
19	j	618	VAL	N-CA-CB	5.70	121.08	110.77
2	G	1970	VAL	CB-CA-C	-5.69	104.69	111.97
35	2	1074	G	N9-C1'-C2'	-5.69	103.47	112.00
36	3	259	A	O4'-C1'-N9	5.67	116.71	108.20
24	r	39	ASP	N-CA-C	-5.67	105.70	113.30
25	s	182	VAL	N-CA-C	5.67	114.98	106.42
2	G	2897	HIS	CA-C-N	5.67	128.19	120.54
2	G	2897	HIS	C-N-CA	5.67	128.19	120.54
35	2	191	C	C6-N1-C1'	5.67	137.80	120.80
22	p	189	ASN	N-CA-C	-5.66	106.07	112.87
32	z	34	ILE	N-CA-C	-5.66	104.34	110.23
19	i	618	VAL	N-CA-CB	5.66	121.01	110.77
15	c	89	LEU	CB-CA-C	-5.66	101.64	110.74
35	2	480	G	N9-C1'-C2'	-5.64	103.54	112.00
35	2	50	C	N1-C1'-C2'	5.63	120.44	112.00
25	s	38	GLU	N-CA-C	-5.62	104.37	111.11
35	2	1042	G	N9-C1'-C2'	-5.62	103.57	112.00
19	j	600	LEU	CA-C-N	-5.61	111.34	120.71
19	j	600	LEU	C-N-CA	-5.61	111.34	120.71
21	o	75	LEU	N-CA-C	-5.60	99.47	108.55
23	q	44	ASN	CB-CA-C	-5.59	110.11	116.54
35	2	530	C	N1-C1'-C2'	-5.58	103.63	112.00
15	c	203	ARG	N-CA-C	-5.58	105.11	111.14
19	j	113	ASP	N-CA-C	5.57	126.59	111.00
24	r	168	ALA	N-CA-C	-5.57	105.59	112.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	i	113	ASP	N-CA-C	5.56	126.57	111.00
23	q	142	PRO	N-CA-CB	5.56	110.32	103.15
21	o	185	LEU	N-CA-C	5.55	117.41	109.14
19	j	114	LYS	N-CA-C	5.55	118.85	111.75
35	2	480	G	C4'-C3'-O3'	5.54	121.31	113.00
19	i	114	LYS	N-CA-C	5.54	118.84	111.75
19	j	775	LEU	CB-CA-C	-5.54	102.19	110.88
19	i	173	TYR	CB-CA-C	-5.53	102.16	110.90
35	2	591	A	C4'-C3'-O3'	5.53	121.29	113.00
19	j	173	TYR	CB-CA-C	-5.52	102.18	110.90
19	j	592	GLY	CA-C-N	5.52	129.97	122.19
19	j	592	GLY	C-N-CA	5.52	129.97	122.19
21	o	138	ILE	CB-CA-C	-5.52	103.63	111.19
19	i	775	LEU	CB-CA-C	-5.51	102.22	110.88
15	c	202	GLN	O-C-N	-5.51	115.26	122.59
35	2	485	A	N9-C1'-C2'	-5.51	105.74	114.00
19	j	176	GLU	N-CA-C	-5.49	102.63	110.59
19	i	749	GLN	CA-C-N	-5.48	115.43	123.00
19	i	749	GLN	C-N-CA	-5.48	115.43	123.00
11	Y	364	GLU	CA-C-N	5.48	125.14	119.05
11	Y	364	GLU	C-N-CA	5.48	125.14	119.05
19	i	622	PHE	CA-C-N	5.48	130.00	120.68
19	i	622	PHE	C-N-CA	5.48	130.00	120.68
19	j	622	PHE	CA-C-N	5.48	130.00	120.68
19	j	622	PHE	C-N-CA	5.48	130.00	120.68
19	j	749	GLN	CA-C-N	-5.48	115.44	123.00
19	j	749	GLN	C-N-CA	-5.48	115.44	123.00
19	i	176	GLU	N-CA-C	-5.47	102.65	110.59
19	j	499	THR	N-CA-C	5.47	118.76	111.75
35	2	365	G	P-O3'-C3'	-5.47	111.99	120.20
2	G	1956	ARG	CA-C-N	-5.47	112.52	120.29
2	G	1956	ARG	C-N-CA	-5.47	112.52	120.29
31	y	18	ASN	N-CA-C	5.47	117.32	108.08
31	y	141	VAL	N-CA-C	5.47	115.82	108.17
21	o	21	ARG	N-CA-C	5.46	117.62	109.59
21	o	56	ASN	N-CA-C	-5.46	105.24	111.14
19	i	499	THR	N-CA-C	5.46	118.74	111.75
15	c	250	ASN	CB-CA-C	5.46	121.28	110.42
16	d	126	LYS	CB-CA-C	-5.46	98.81	110.32
35	2	440	U	C2-N1-C1'	5.45	134.06	117.70
8	S	299	GLY	N-CA-C	-5.45	102.35	112.37
19	j	298	ALA	CA-C-N	-5.43	113.91	120.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	j	298	ALA	C-N-CA	-5.43	113.91	120.70
35	2	67	A	P-O5'-C5'	5.43	129.05	120.90
19	i	591	GLU	N-CA-CB	-5.42	101.40	110.57
8	S	169	PHE	CA-C-N	5.42	124.94	119.19
8	S	169	PHE	C-N-CA	5.42	124.94	119.19
19	i	298	ALA	CA-C-N	-5.42	113.92	120.70
19	i	298	ALA	C-N-CA	-5.42	113.92	120.70
24	r	19	ASP	N-CA-C	5.42	116.99	111.14
19	j	612	ASP	N-CA-C	5.42	122.34	110.80
35	2	871	G	N9-C1'-C2'	-5.42	105.88	114.00
35	2	307	G	N9-C1'-C2'	-5.42	103.88	112.00
19	j	591	GLU	N-CA-CB	-5.41	101.42	110.57
31	y	117	LYS	N-CA-C	-5.41	99.27	110.80
2	G	2824	SER	N-CA-C	5.40	119.13	112.54
2	G	2406	ALA	CA-C-N	-5.39	113.11	119.84
2	G	2406	ALA	C-N-CA	-5.39	113.11	119.84
16	d	142	ARG	CB-CA-C	-5.39	99.70	110.42
31	y	9	TYR	N-CA-C	5.38	117.43	110.65
30	x	111	SER	N-CA-C	-5.38	106.30	112.92
22	p	108	LYS	N-CA-C	-5.37	105.95	112.88
25	s	180	ARG	N-CA-C	5.37	117.99	109.24
31	y	110	ILE	N-CA-C	5.36	115.81	107.28
22	p	10	LYS	N-CA-C	5.36	117.97	109.24
19	i	882	ALA	O-C-N	5.36	129.71	122.59
30	x	53	LEU	N-CA-C	-5.36	105.36	111.14
35	2	35	U	N1-C1'-C2'	-5.35	103.97	112.00
30	x	103	ASN	N-CA-C	-5.34	106.83	113.19
35	2	103	A	C4-N9-C1'	5.34	142.32	126.30
19	j	268	PHE	N-CA-C	-5.34	105.50	112.23
10	W	44	ILE	N-CA-C	5.33	115.66	107.77
19	j	744	PRO	CA-C-N	5.33	129.54	121.65
19	j	744	PRO	C-N-CA	5.33	129.54	121.65
35	2	1074	G	C4'-C3'-O3'	5.33	121.00	113.00
19	i	304	ALA	N-CA-C	-5.33	102.02	109.96
19	j	563	PRO	N-CA-C	-5.33	103.47	111.57
19	i	370	GLN	CA-C-N	-5.33	114.50	122.39
19	i	370	GLN	C-N-CA	-5.33	114.50	122.39
19	j	370	GLN	CA-C-N	-5.33	114.51	122.39
19	j	370	GLN	C-N-CA	-5.33	114.51	122.39
16	d	125	HIS	N-CA-C	5.33	117.28	108.49
19	i	744	PRO	CA-C-N	5.33	129.53	121.65
19	i	744	PRO	C-N-CA	5.33	129.53	121.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	b	100	ASN	N-CA-C	5.32	119.54	112.30
19	i	268	PHE	N-CA-C	-5.32	105.53	112.23
12	Z	179	THR	CA-C-N	5.32	128.40	120.95
12	Z	179	THR	C-N-CA	5.32	128.40	120.95
2	G	2408	PRO	N-CA-C	5.32	123.43	112.47
35	2	1052	U	C4'-C3'-O3'	5.32	120.98	113.00
19	j	882	ALA	O-C-N	5.32	129.66	122.59
19	i	171	ALA	CA-C-N	5.31	129.19	120.63
19	i	171	ALA	C-N-CA	5.31	129.19	120.63
35	2	401	A	O4'-C1'-N9	5.31	116.17	108.20
23	q	110	ALA	N-CA-C	-5.31	104.73	111.11
19	j	171	ALA	CA-C-N	5.30	129.17	120.63
19	j	171	ALA	C-N-CA	5.30	129.17	120.63
19	i	297	VAL	CB-CA-C	-5.30	105.19	111.97
21	o	128	VAL	N-CA-C	5.30	116.29	108.45
19	j	297	VAL	CB-CA-C	-5.30	105.19	111.97
19	j	304	ALA	N-CA-C	-5.30	102.07	109.96
21	o	38	ILE	CA-C-N	-5.30	113.22	119.84
21	o	38	ILE	C-N-CA	-5.30	113.22	119.84
31	y	148	GLY	N-CA-C	5.30	116.72	111.21
19	i	563	PRO	N-CA-C	-5.29	103.53	111.57
16	d	125	HIS	N-CA-CB	5.28	119.31	111.23
20	k	25	LYS	CA-C-N	5.28	127.30	120.44
20	k	25	LYS	C-N-CA	5.28	127.30	120.44
33	0	90	ARG	N-CA-C	-5.27	105.65	111.71
19	i	302	ALA	CA-C-N	-5.27	116.31	123.10
19	i	302	ALA	C-N-CA	-5.27	116.31	123.10
35	2	84	A	N9-C1'-C2'	-5.26	104.11	112.00
19	i	859	PRO	N-CA-CB	5.26	108.77	103.25
16	d	47	GLU	CB-CA-C	-5.25	101.14	111.06
19	j	22	LYS	CB-CA-C	-5.25	103.25	111.39
19	j	302	ALA	CA-C-N	-5.25	116.33	123.10
19	j	302	ALA	C-N-CA	-5.25	116.33	123.10
19	j	859	PRO	N-CA-CB	5.24	108.76	103.25
35	2	530	C	P-O3'-C3'	-5.24	112.33	120.20
19	i	264	ALA	N-CA-C	5.24	118.83	112.23
19	i	22	LYS	CB-CA-C	-5.23	103.28	111.39
19	j	264	ALA	N-CA-C	5.23	118.82	112.23
35	2	131	C	C5'-C4'-O4'	5.22	116.94	109.10
35	2	485	A	C4-N9-C1'	-5.22	110.64	126.30
26	t	104	LEU	N-CA-C	5.22	117.90	107.62
19	j	630	LEU	CA-C-N	-5.22	114.62	122.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	j	630	LEU	C-N-CA	-5.22	114.62	122.81
19	i	630	LEU	CA-C-N	-5.21	114.62	122.81
19	i	630	LEU	C-N-CA	-5.21	114.62	122.81
35	2	497	G	N9-C1'-C2'	-5.21	104.19	112.00
19	i	659	ASP	CA-C-N	-5.20	112.34	121.70
19	i	659	ASP	C-N-CA	-5.20	112.34	121.70
35	2	391	A	N9-C1'-C2'	-5.20	104.20	112.00
20	k	285	GLY	N-CA-C	-5.19	105.72	112.10
19	j	870	LEU	CA-C-N	5.18	131.44	121.54
19	j	870	LEU	C-N-CA	5.18	131.44	121.54
32	z	73	GLY	N-CA-C	-5.18	105.45	112.14
19	i	774	TRP	N-CA-CB	5.18	117.83	110.16
35	2	452	A	O4'-C1'-N9	-5.18	100.73	108.50
26	t	198	PHE	N-CA-C	5.18	116.61	110.97
33	0	16	LEU	N-CA-C	-5.18	106.55	112.92
2	G	3007	SER	CA-C-O	5.17	127.24	120.16
19	j	659	ASP	CA-C-N	-5.17	112.40	121.70
19	j	659	ASP	C-N-CA	-5.17	112.40	121.70
19	i	379	VAL	N-CA-C	5.17	120.08	109.34
19	j	379	VAL	N-CA-C	5.17	120.08	109.34
19	i	870	LEU	CA-C-N	5.16	131.39	121.54
19	i	870	LEU	C-N-CA	5.16	131.39	121.54
19	j	774	TRP	N-CA-CB	5.16	117.79	110.16
30	x	87	LYS	N-CA-C	-5.15	106.19	113.20
35	2	475	A	C4'-C3'-O3'	5.15	120.72	113.00
20	k	80	PRO	N-CA-C	-5.15	101.86	112.47
19	j	605	ARG	N-CA-CB	5.15	118.79	110.40
35	2	381	C	N3-C4-N4	-5.14	102.57	118.00
19	i	207	ASN	N-CA-C	-5.14	105.57	111.07
19	i	383	ALA	CA-C-N	5.14	129.42	120.68
19	i	383	ALA	C-N-CA	5.14	129.42	120.68
35	2	1083	G	N9-C1'-C2'	-5.14	104.29	112.00
31	y	150	VAL	N-CA-C	-5.14	104.56	111.44
19	j	207	ASN	N-CA-C	-5.13	105.58	111.07
35	2	377	G	N9-C1'-C2'	-5.13	106.31	114.00
19	j	383	ALA	CA-C-N	5.13	129.40	120.68
19	j	383	ALA	C-N-CA	5.13	129.40	120.68
32	z	94	LEU	CA-C-N	5.13	126.25	119.84
32	z	94	LEU	C-N-CA	5.13	126.25	119.84
34	1	16	LEU	CB-CA-C	-5.13	110.64	116.54
2	G	1870	LYS	N-CA-C	5.12	116.94	111.36
15	c	160	GLY	CA-C-N	5.11	126.23	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	c	160	GLY	C-N-CA	5.11	126.23	119.84
2	G	2408	PRO	CA-C-N	5.11	127.12	120.28
2	G	2408	PRO	C-N-CA	5.11	127.12	120.28
2	G	1602	VAL	N-CA-C	5.10	115.72	110.36
4	I	95	GLU	CB-CA-C	-5.10	110.67	116.54
25	s	181	GLU	N-CA-C	-5.10	102.31	109.96
19	i	405	PRO	N-CA-C	5.10	120.30	114.03
35	2	407	A	C8-N9-C1'	5.10	143.00	127.70
2	G	2819	GLU	CA-C-N	5.10	129.23	120.72
2	G	2819	GLU	C-N-CA	5.10	129.23	120.72
9	V	127	LYS	N-CA-C	5.09	121.65	110.80
31	y	45	LYS	N-CA-C	-5.09	105.62	111.07
19	i	619	SER	N-CA-CB	5.09	117.79	110.20
16	d	140	LYS	CB-CA-C	-5.08	100.53	109.07
35	2	1096	C	N1-C1'-C2'	5.08	119.62	112.00
29	w	54	GLU	N-CA-C	-5.08	107.08	113.28
35	2	467	G	P-O3'-C3'	-5.08	112.58	120.20
19	j	531	PRO	N-CA-C	-5.08	103.14	111.21
13	a	102	TRP	N-CA-C	5.07	118.50	112.72
19	i	531	PRO	N-CA-C	-5.07	103.15	111.21
19	j	619	SER	N-CA-CB	5.07	117.76	110.20
31	y	52	TYR	N-CA-C	5.07	117.58	110.23
9	V	61	GLN	N-CA-C	5.07	121.01	109.81
31	y	93	VAL	N-CA-C	5.07	113.68	106.53
19	j	405	PRO	N-CA-C	5.07	120.26	114.03
30	x	48	VAL	N-CA-C	-5.07	106.72	111.48
35	2	473	A	O4'-C1'-N9	5.06	115.79	108.20
19	j	856	ASP	CA-C-N	-5.06	113.56	120.44
19	j	856	ASP	C-N-CA	-5.06	113.56	120.44
28	v	94	LYS	N-CA-C	-5.06	105.21	111.33
21	o	135	GLY	N-CA-C	-5.06	101.19	113.18
33	0	7	THR	N-CA-C	-5.05	102.22	110.20
35	2	1043	A	N9-C1'-C2'	-5.05	104.42	112.00
22	p	183	CYS	N-CA-C	5.04	116.73	109.07
15	c	122	LEU	CA-C-O	5.04	125.53	119.59
16	d	116	GLU	CB-CA-C	-5.03	100.69	110.46
35	2	480	G	C3'-C2'-C1'	-5.03	96.27	101.30
35	2	328	A	N9-C1'-C2'	-5.03	104.46	112.00
19	i	856	ASP	CA-C-N	-5.03	113.60	120.44
19	i	856	ASP	C-N-CA	-5.03	113.60	120.44
35	2	493	U	P-O3'-C3'	-5.02	112.66	120.20
30	x	24	ALA	N-CA-C	5.02	117.32	110.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	u	136	VAL	N-CA-C	5.02	113.82	106.55
35	2	905	A	C8-N9-C1'	5.01	142.72	127.70

There are no chirality outliers.

All (59) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	H	110	UNK	Mainchain
3	H	111	UNK	Mainchain
3	H	134	UNK	Mainchain
3	H	157	UNK	Mainchain
3	H	158	UNK	Mainchain
3	H	183	UNK	Mainchain
3	H	184	UNK	Mainchain
3	H	185	UNK	Mainchain
3	H	186	UNK	Mainchain
3	H	187	UNK	Mainchain
3	H	188	UNK	Mainchain
3	H	21	UNK	Mainchain
3	H	22	UNK	Mainchain
3	H	23	UNK	Mainchain
3	H	24	UNK	Mainchain
3	H	243	UNK	Mainchain
3	H	244	UNK	Mainchain
3	H	245	UNK	Mainchain
3	H	25	UNK	Mainchain
3	H	26	UNK	Mainchain
3	H	27	UNK	Mainchain
3	H	28	UNK	Mainchain
3	H	311	UNK	Mainchain
3	H	312	UNK	Mainchain
3	H	313	UNK	Mainchain
3	H	314	UNK	Mainchain
3	H	315	UNK	Mainchain
3	H	316	UNK	Mainchain
3	H	44	UNK	Mainchain
3	H	45	UNK	Mainchain
3	H	86	UNK	Mainchain
3	H	87	UNK	Mainchain
3	H	88	UNK	Mainchain
8	T	355	SER	Peptide
9	U	61	GLN	Peptide

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Mol	Chain	Res	Type	Group
9	V	61	GLN	Peptide
10	W	217	ASP	Peptide
10	X	217	ASP	Peptide
14	b	160	TRP	Mainchain
14	b	162	VAL	Mainchain
14	b	23	SER	Mainchain
14	b	27	HIS	Mainchain
14	b	91	LYS	Peptide
15	c	124	LEU	Peptide
15	c	161	PRO	Peptide
15	c	177	PRO	Peptide,Mainchain
15	c	181	LYS	Peptide
15	c	197	ARG	Peptide
15	c	93	SER	Mainchain
16	d	111	MET	Mainchain
16	d	138	VAL	Mainchain
19	i	614	ILE	Peptide
19	i	615	PRO	Peptide
19	i	882	ALA	Peptide
19	j	614	ILE	Peptide
19	j	615	PRO	Peptide
19	j	882	ALA	Peptide
20	k	82	LYS	Mainchain

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1500	0	326	24	0
1	B	1500	0	326	35	0
1	C	1500	0	326	28	0
1	D	1500	0	321	84	0
1	E	1500	0	321	85	0
1	F	1500	0	326	26	0
1	J	1500	0	323	32	0
1	K	1500	0	326	43	0
1	L	1500	0	325	47	0
1	N	1500	0	324	20	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	P	1500	0	326	72	0
1	l	1500	0	325	28	0
1	n	1500	0	325	79	0
2	G	1402	0	649	79	0
3	H	1715	0	364	121	0
4	I	3124	0	1397	6	0
5	M	1545	0	333	45	0
5	O	1545	0	331	43	0
5	m	1545	0	334	31	0
6	Q	1875	0	432	18	0
7	R	1660	0	362	13	0
8	S	1815	0	842	39	0
8	T	1815	0	841	69	0
9	U	603	0	287	53	0
9	V	603	0	288	71	0
10	W	1124	0	497	37	0
10	X	1124	0	497	12	0
11	Y	1799	0	805	4	0
12	Z	1742	0	785	5	0
13	a	267	0	112	0	0
14	b	760	0	331	57	0
15	c	951	0	393	152	0
16	d	616	0	271	50	0
17	e	1047	0	454	6	0
17	f	1081	0	469	31	0
18	g	861	0	385	96	0
18	h	861	0	386	22	0
19	i	3254	0	1481	139	0
19	j	3342	0	1522	113	0
20	k	905	0	399	31	0
21	o	1724	0	1793	455	0
22	p	2079	0	2150	340	0
23	q	836	0	390	144	0
24	r	1868	0	1985	535	0
25	s	1539	0	1620	164	0
26	t	1693	0	1793	467	0
27	u	777	0	360	132	0
28	v	580	0	266	71	0
29	w	627	0	307	103	0
30	x	658	0	304	127	0
31	y	1275	0	1353	418	0
32	z	622	0	283	63	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
33	0	1197	0	1281	286	0
34	1	230	0	100	11	0
35	2	18149	0	9087	7048	0
36	3	3504	0	1769	656	0
All	All	95839	0	44308	10818	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 79.

All (10818) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:248:UNK:CB	3:H:312:UNK:CA	1.75	1.64
1:l:338:UNK:CA	23:q:199:ILE:CB	1.74	1.63
3:H:1:UNK:CB	3:H:173:UNK:CA	1.77	1.62
26:t:14:THR:CG2	35:2:354:C:H5''	1.15	1.60
24:r:157:LYS:CD	35:2:78:A:C8	1.77	1.60
26:t:105:VAL:CG1	35:2:329:G:H4'	1.15	1.57
19:i:57:LEU:CA	35:2:416:A:H61	1.03	1.56
24:r:157:LYS:HD3	35:2:78:A:C8	1.07	1.56
24:r:183:ILE:CD1	35:2:141:U:H5'	1.32	1.56
2:G:3236:SER:C	33:0:147:VAL:CG1	1.75	1.56
22:p:26:ILE:CD1	35:2:461:G:H5''	1.13	1.55
2:G:3230:GLU:CB	33:0:148:ALA:HB2	1.29	1.55
1:D:114:UNK:CA	1:E:139:UNK:CB	1.80	1.55
2:G:3236:SER:C	33:0:147:VAL:HG11	1.18	1.54
18:g:44:PRO:CB	21:o:119:LYS:HB2	1.32	1.54
24:r:163:ARG:NH1	35:2:69:G:C8	1.73	1.53
26:t:185:ARG:CZ	35:2:208:U:C1'	1.85	1.53
3:H:268:UNK:CB	3:H:307:UNK:CB	1.86	1.53
1:L:74:UNK:CB	5:M:348:UNK:CB	1.85	1.53
26:t:19:PRO:CD	35:2:104:A:H4'	1.38	1.53
3:H:268:UNK:CB	3:H:307:UNK:C	1.80	1.53
1:D:116:UNK:C	1:E:156:UNK:CB	1.85	1.52
18:g:44:PRO:CB	21:o:119:LYS:CB	1.88	1.52
33:0:58:PHE:N	35:2:522:U:C5'	1.67	1.52
1:L:57:UNK:CB	5:M:372:UNK:CB	1.83	1.52
1:l:338:UNK:CB	23:q:199:ILE:CB	1.84	1.52
18:g:45:LYS:CB	21:o:120:TRP:N	1.69	1.52
1:n:73:UNK:CB	35:2:391:A:C4'	1.88	1.52
24:r:58:LYS:NZ	35:2:418:G:C8	1.75	1.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:0:85:PRO:CG	35:2:525:A:N6	1.72	1.51
24:r:94:ARG:N	35:2:406:U:C5'	1.70	1.51
21:o:139:ARG:NH1	35:2:884:A:H4'	1.18	1.51
22:p:26:ILE:CD1	35:2:461:G:C5'	1.82	1.50
22:p:26:ILE:HD12	35:2:461:G:C5'	1.38	1.50
1:C:325:UNK:CB	1:D:44:UNK:HA	1.39	1.50
3:H:1:UNK:CA	3:H:173:UNK:CB	1.90	1.50
1:K:282:UNK:CB	18:h:209:LYS:CB	1.83	1.49
18:g:41:THR:C	21:o:114:CYS:HB3	1.13	1.49
15:c:142:LEU:CB	30:x:129:PHE:C	1.83	1.48
1:n:73:UNK:CB	35:2:391:A:H4'	1.40	1.48
33:0:85:PRO:HG2	35:2:525:A:C6	1.48	1.48
8:T:326:ILE:CB	36:3:108:A:H8	1.27	1.48
24:r:165:PHE:CE1	35:2:68:A:O2'	1.66	1.47
24:r:157:LYS:HB3	35:2:78:A:C5	1.46	1.47
1:L:57:UNK:CA	5:M:350:UNK:CB	1.92	1.46
1:L:57:UNK:HA	5:M:350:UNK:CB	0.98	1.46
33:0:57:GLY:C	35:2:522:U:H5'	1.03	1.46
35:2:71:A:N6	35:2:83:G:C6	1.82	1.46
1:l:261:UNK:CB	23:q:123:VAL:HA	1.43	1.45
5:O:525:UNK:CB	21:o:15:LYS:HD2	1.44	1.45
24:r:165:PHE:CB	35:2:69:G:H21	1.28	1.45
16:d:70:GLY:C	35:2:1097:U:C5	1.94	1.45
2:G:3236:SER:CA	33:0:147:VAL:HG11	1.37	1.44
29:w:122:PRO:CB	35:2:887:A:H4'	1.43	1.44
3:H:268:UNK:CB	3:H:308:UNK:N	1.71	1.44
1:P:289:UNK:N	14:b:16:HIS:CB	1.79	1.44
20:k:135:ALA:HB3	35:2:1523:G:N2	1.21	1.44
21:o:139:ARG:HH12	35:2:884:A:C4'	1.28	1.44
1:D:114:UNK:HA	1:E:139:UNK:CB	0.97	1.44
19:i:57:LEU:HA	35:2:416:A:C6	1.53	1.44
35:2:147:A:N7	35:2:167:U:N3	1.61	1.44
33:0:57:GLY:CA	35:2:522:U:C5'	1.97	1.43
24:r:176:CYS:SG	35:2:67:A:C8	2.10	1.43
21:o:127:ARG:NH2	35:2:946:U:H5'	1.30	1.43
21:o:149:THR:CB	35:2:1067:C:O2'	1.64	1.43
26:t:185:ARG:NH1	35:2:208:U:H1'	1.27	1.43
24:r:132:LYS:HD3	35:2:69:G:N7	1.12	1.42
31:y:66:ARG:CD	35:2:113:U:OP1	1.66	1.42
33:0:57:GLY:C	35:2:522:U:C5'	1.80	1.42
4:I:513:MET:HA	1:J:282:UNK:CB	1.49	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:c:97:SER:C	30:x:138:PHE:CB	1.93	1.42
2:G:3237:LEU:N	33:0:147:VAL:CG1	1.70	1.41
1:K:277:UNK:CB	18:h:208:ALA:O	1.64	1.41
8:T:326:ILE:C	36:3:108:A:N7	1.76	1.41
2:G:3234:GLY:O	33:0:147:VAL:CB	1.69	1.41
24:r:176:CYS:CB	35:2:67:A:O4'	1.64	1.41
1:F:228:UNK:CB	1:F:246:UNK:O	1.69	1.40
1:K:228:UNK:CB	1:K:246:UNK:O	1.69	1.40
20:k:135:ALA:CB	35:2:1523:G:N2	1.83	1.40
26:t:185:ARG:NH1	35:2:208:U:C1'	1.80	1.40
1:n:228:UNK:CB	1:n:246:UNK:O	1.69	1.40
21:o:208:LYS:CB	35:2:1065:A:C2	1.95	1.40
1:D:134:UNK:HA	1:E:113:UNK:CB	1.52	1.40
1:P:228:UNK:CB	1:P:246:UNK:O	1.69	1.40
31:y:68:LYS:CE	35:2:111:U:O2'	1.68	1.40
31:y:76:SER:CB	35:2:347:G:H5''	1.48	1.40
15:c:95:ASP:CB	35:2:1604:U:C5	2.04	1.40
24:r:76:LEU:CD2	35:2:406:U:O2'	1.67	1.40
1:A:228:UNK:CB	1:A:246:UNK:O	1.69	1.39
9:U:127:LYS:O	10:W:183:ALA:CB	1.66	1.39
26:t:105:VAL:HG13	35:2:329:G:C4'	1.52	1.39
1:L:74:UNK:CA	5:M:348:UNK:CB	1.87	1.39
24:r:175:LYS:O	35:2:67:A:C4'	1.71	1.39
24:r:183:ILE:HD13	35:2:141:U:C5'	1.49	1.39
1:C:228:UNK:CB	1:C:246:UNK:O	1.69	1.39
1:N:228:UNK:CB	1:N:246:UNK:O	1.69	1.39
8:S:316:LYS:H	36:3:90:C:C5'	1.36	1.39
1:E:228:UNK:CB	1:E:246:UNK:O	1.69	1.38
15:c:183:THR:O	35:2:1623:C:C5'	1.67	1.38
1:D:228:UNK:CB	1:D:246:UNK:O	1.69	1.38
1:J:228:UNK:CB	1:J:246:UNK:O	1.69	1.38
24:r:183:ILE:CD1	35:2:141:U:C5'	2.01	1.38
33:0:85:PRO:HG2	35:2:525:A:N6	1.21	1.38
1:l:228:UNK:CB	1:l:246:UNK:O	1.69	1.38
2:G:3237:LEU:N	33:0:147:VAL:HG13	1.09	1.37
1:L:228:UNK:CB	1:L:246:UNK:O	1.69	1.37
3:H:216:UNK:HA	3:H:245:UNK:O	1.20	1.37
18:g:76:GLY:HA2	21:o:118:ARG:NE	1.34	1.37
24:r:157:LYS:CB	35:2:78:A:C5	2.08	1.37
35:2:272:U:C2	35:2:284:G:N1	1.93	1.37
1:B:228:UNK:CB	1:B:246:UNK:O	1.69	1.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:i:901:LEU:HA	1:n:326:UNK:CB	1.51	1.36
24:r:157:LYS:CB	35:2:78:A:N7	1.86	1.36
1:P:287:UNK:CB	14:b:18:PHE:O	1.72	1.36
26:t:185:ARG:CZ	35:2:208:U:H1'	0.90	1.36
35:2:631:G:N1	35:2:968:U:O2	1.59	1.36
2:G:3234:GLY:O	33:0:147:VAL:N	1.58	1.36
1:n:295:UNK:CB	26:t:67:ARG:HH12	1.37	1.36
3:H:2:UNK:CB	3:H:170:UNK:N	1.89	1.35
21:o:208:LYS:CG	35:2:1065:A:C2	2.08	1.35
8:S:221:ILE:CB	8:T:119:GLU:CB	2.05	1.35
18:g:72:ASP:O	21:o:118:ARG:NH2	1.59	1.35
24:r:58:LYS:NZ	35:2:418:G:H8	0.90	1.35
5:O:500:UNK:CB	21:o:15:LYS:N	1.88	1.35
3:H:10:UNK:CB	3:H:269:UNK:CB	2.05	1.35
1:D:116:UNK:CB	1:E:156:UNK:CB	2.04	1.34
18:g:41:THR:CA	21:o:114:CYS:HB3	1.54	1.34
26:t:14:THR:CG2	35:2:354:C:C5'	2.05	1.34
33:0:34:SER:HA	35:2:520:A:C1'	1.54	1.34
22:p:26:ILE:HD12	35:2:461:G:C4'	1.56	1.34
31:y:64:SER:HB3	35:2:114:C:O2'	1.20	1.34
8:T:331:ARG:CA	36:3:104:C:O3'	1.75	1.34
1:n:294:UNK:CB	26:t:46:THR:C	2.00	1.33
26:t:19:PRO:HG3	35:2:104:A:C4'	1.58	1.33
1:D:115:UNK:N	1:E:139:UNK:N	1.73	1.33
3:H:216:UNK:O	3:H:245:UNK:CA	1.75	1.33
1:n:295:UNK:CA	26:t:67:ARG:HH12	1.41	1.33
1:L:77:UNK:O	5:M:647:UNK:HA	1.23	1.33
26:t:19:PRO:CG	35:2:104:A:H4'	1.59	1.33
15:c:92:THR:HA	30:x:130:GLY:N	1.42	1.32
24:r:176:CYS:HB2	35:2:67:A:C1'	1.59	1.32
35:2:67:A:N6	35:2:79:C:OP2	1.61	1.32
18:g:74:VAL:O	21:o:215:ASN:ND2	1.60	1.32
31:y:103:HIS:CG	35:2:351:C:O2	1.81	1.32
1:D:116:UNK:O	1:E:156:UNK:C	1.78	1.32
1:n:269:UNK:CB	26:t:44:THR:OG1	1.77	1.31
22:p:26:ILE:CD1	35:2:461:G:H4'	1.54	1.31
1:P:286:UNK:CA	14:b:20:ASN:O	1.77	1.31
8:S:299:GLY:CA	36:3:93:G:N7	1.92	1.31
31:y:37:ILE:O	35:2:246:G:H1'	1.29	1.31
22:p:27:TRP:CB	35:2:448:C:O2'	1.76	1.31
18:g:40:MET:CB	21:o:111:ASP:HA	1.59	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:269:UNK:O	26:t:44:THR:CA	1.80	1.30
24:r:165:PHE:HB3	35:2:69:G:N2	1.43	1.30
24:r:164:THR:C	35:2:69:G:H22	1.39	1.30
31:y:76:SER:OG	35:2:347:G:H5''	1.23	1.30
16:d:70:GLY:HA3	35:2:1097:U:C6	1.66	1.30
24:r:176:CYS:HB3	35:2:67:A:C4	1.67	1.30
15:c:98:SER:O	30:x:140:LYS:CB	1.79	1.30
21:o:165:SER:HA	35:2:875:G:OP1	1.33	1.29
3:H:216:UNK:CA	3:H:245:UNK:O	1.78	1.29
21:o:208:LYS:NZ	35:2:1056:U:C6	1.98	1.29
33:0:57:GLY:CA	35:2:522:U:H5''	1.57	1.29
9:V:99:THR:HA	36:3:192:A:C8	1.67	1.29
22:p:8:HIS:CE1	35:2:449:C:O2'	1.84	1.29
24:r:177:PRO:HA	35:2:66:U:OP2	1.24	1.29
31:y:68:LYS:HE3	35:2:111:U:O2'	1.15	1.29
19:i:848:LEU:CB	24:r:40:THR:HG23	1.61	1.29
24:r:132:LYS:CD	35:2:69:G:N7	1.94	1.29
29:w:122:PRO:CB	35:2:887:A:C4'	2.08	1.29
24:r:76:LEU:HD21	35:2:406:U:C2'	1.63	1.28
24:r:173:ARG:NH2	35:2:73:U:O5'	1.64	1.28
31:y:84:ILE:HD12	35:2:347:G:O3'	1.25	1.28
24:r:76:LEU:HD21	35:2:406:U:O2'	1.18	1.28
21:o:208:LYS:HB2	35:2:1065:A:C2	1.45	1.28
21:o:27:SER:OG	29:w:8:ARG:CB	1.81	1.28
22:p:7:LYS:CE	35:2:451:A:OP2	1.81	1.28
24:r:163:ARG:HD2	35:2:69:G:C5	1.68	1.28
26:t:22:ARG:CA	35:2:385:A:H5'	0.81	1.28
21:o:208:LYS:CB	35:2:1065:A:H2	1.37	1.27
24:r:88:ARG:NH2	35:2:93:A:P	2.04	1.27
2:G:3236:SER:CB	33:0:147:VAL:HG11	1.62	1.27
6:Q:372:UNK:CB	6:Q:412:UNK:CB	2.11	1.27
17:f:174:LYS:N	23:q:212:LYS:CB	1.96	1.27
24:r:190:ARG:NH1	35:2:268:C:C6	2.02	1.27
33:0:35:LYS:N	35:2:520:A:O2'	1.68	1.27
35:2:444:C:C4	35:2:460:A:N7	2.01	1.27
16:d:89:ILE:O	16:d:118:TRP:HA	1.35	1.27
21:o:208:LYS:NZ	35:2:1055:U:C2	1.78	1.27
21:o:212:PRO:HG3	35:2:1067:C:O4'	1.24	1.27
31:y:66:ARG:HD2	35:2:113:U:P	1.74	1.27
3:H:216:UNK:O	3:H:245:UNK:HA	1.16	1.27
1:P:287:UNK:CB	14:b:20:ASN:N	1.88	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:y:84:ILE:HD11	35:2:347:G:O2'	1.16	1.27
35:2:526:A:OP2	35:2:527:A:N6	1.65	1.27
1:n:269:UNK:O	26:t:44:THR:HA	1.09	1.27
24:r:164:THR:O	35:2:69:G:N2	1.64	1.27
24:r:169:LYS:NZ	35:2:72:A:H5''	1.48	1.27
1:D:115:UNK:N	1:E:138:UNK:C	1.89	1.26
15:c:121:ASN:HA	35:2:1605:G:O5'	1.22	1.26
5:O:464:UNK:CB	21:o:20:LYS:CD	2.12	1.26
9:U:127:LYS:HA	10:W:222:ASP:CB	1.65	1.26
17:f:173:THR:C	23:q:212:LYS:CB	2.08	1.26
26:t:19:PRO:HG3	35:2:104:A:O4'	1.33	1.26
21:o:211:PHE:CE1	35:2:1067:C:H5''	1.68	1.26
24:r:201:ARG:NH1	35:2:126:A:O2'	1.65	1.26
35:2:444:C:O2	35:2:460:A:N6	1.69	1.26
1:D:133:UNK:O	1:E:113:UNK:CB	1.82	1.26
8:T:327:HIS:HA	36:3:108:A:C5	1.71	1.26
8:S:300:ALA:CB	36:3:91:G:OP1	1.84	1.25
35:2:147:A:C8	35:2:167:U:N3	2.02	1.25
8:T:326:ILE:CB	36:3:108:A:C8	2.17	1.25
19:i:57:LEU:CA	35:2:416:A:N6	1.73	1.25
1:n:295:UNK:HA	26:t:67:ARG:NH1	1.48	1.25
26:t:83:LYS:CD	35:2:259:U:OP2	1.83	1.25
31:y:103:HIS:CB	35:2:351:C:O2	1.84	1.25
5:O:464:UNK:CB	21:o:20:LYS:HD3	1.65	1.25
9:V:25:ALA:HA	27:u:184:SER:CA	1.65	1.25
18:g:41:THR:HA	21:o:114:CYS:SG	1.76	1.25
26:t:105:VAL:CG1	35:2:329:G:C4'	2.09	1.25
24:r:157:LYS:HB3	35:2:78:A:C4	1.70	1.25
3:H:-2:UNK:O	3:H:170:UNK:CA	1.84	1.25
3:H:2:UNK:HA	3:H:169:UNK:CB	1.64	1.25
8:T:326:ILE:C	36:3:108:A:C8	2.15	1.25
31:y:101:LYS:HB3	35:2:351:C:C5	1.70	1.24
16:d:113:ALA:H	5:m:409:UNK:CB	1.50	1.24
18:g:41:THR:C	21:o:114:CYS:CB	2.09	1.24
31:y:103:HIS:ND1	35:2:351:C:O2	1.69	1.24
24:r:163:ARG:HG3	35:2:69:G:OP2	1.26	1.24
9:V:98:ALA:O	36:3:192:A:C5	1.89	1.24
16:d:113:ALA:N	5:m:409:UNK:CB	2.01	1.24
18:g:74:VAL:C	21:o:215:ASN:ND2	1.94	1.24
35:2:444:C:N4	35:2:460:A:C8	2.05	1.24
2:G:3234:GLY:O	33:0:147:VAL:CA	1.86	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:163:ARG:O	35:2:68:A:H5'	1.32	1.24
1:C:113:UNK:O	36:3:76:C:H5''	1.11	1.23
8:T:326:ILE:O	36:3:108:A:N7	1.69	1.23
18:g:44:PRO:CB	21:o:119:LYS:CG	2.15	1.23
8:T:338:ALA:CB	36:3:109:C:H5	1.51	1.23
3:H:-2:UNK:O	3:H:170:UNK:HA	1.38	1.23
24:r:76:LEU:CD1	35:2:406:U:O2'	1.83	1.23
24:r:76:LEU:CD2	35:2:406:U:H4'	1.66	1.23
24:r:157:LYS:CD	35:2:78:A:N7	1.99	1.23
1:K:280:UNK:CB	18:h:208:ALA:C	2.11	1.23
19:i:57:LEU:HA	35:2:416:A:N6	0.90	1.23
15:c:143:HIS:HA	35:2:1604:U:P	1.78	1.22
21:o:208:LYS:NZ	35:2:1055:U:O2	1.68	1.22
21:o:211:PHE:CD1	35:2:1066:C:O3'	1.91	1.22
24:r:157:LYS:CG	35:2:78:A:C8	2.21	1.22
1:E:46:UNK:O	1:F:338:UNK:CA	1.87	1.22
2:G:3234:GLY:O	33:0:147:VAL:CG2	1.87	1.22
24:r:192:LYS:HD2	35:2:282:C:C5'	1.68	1.22
35:2:70:C:O2	35:2:83:G:N2	1.72	1.22
1:N:289:UNK:CB	5:O:409:UNK:O	1.87	1.22
8:S:314:PRO:C	36:3:89:A:O2'	1.82	1.22
24:r:137:ARG:NH2	35:2:144:U:C5	2.08	1.22
1:L:74:UNK:HA	5:M:348:UNK:CB	1.49	1.22
21:o:208:LYS:CE	35:2:1055:U:O2	1.85	1.22
15:c:92:THR:HA	30:x:129:PHE:C	1.30	1.22
35:2:628:G:N2	35:2:971:A:N7	1.87	1.21
35:2:887:A:N1	35:2:925:G:N1	1.87	1.21
22:p:26:ILE:CD1	35:2:461:G:C4'	2.10	1.21
24:r:173:ARG:CD	35:2:68:A:N7	1.88	1.21
31:y:154:PHE:CE2	35:2:351:C:C5	2.27	1.21
35:2:977:A:N6	35:2:1024:U:H3	1.36	1.21
3:H:216:UNK:C	3:H:245:UNK:HA	1.70	1.21
24:r:175:LYS:HB2	35:2:69:G:OP1	1.37	1.21
31:y:154:PHE:CE2	35:2:351:C:N4	2.08	1.21
9:V:127:LYS:C	10:X:157:PRO:CB	2.12	1.21
26:t:83:LYS:HD2	35:2:259:U:OP2	1.40	1.21
31:y:128:ARG:HD3	35:2:115:G:C8	1.75	1.21
24:r:76:LEU:HD11	35:2:406:U:O2'	1.41	1.20
24:r:94:ARG:N	35:2:406:U:H5''	0.87	1.20
18:g:41:THR:CA	21:o:114:CYS:CB	2.18	1.20
21:o:207:THR:HG21	21:o:213:LEU:HG	1.21	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:163:ARG:HD2	35:2:69:G:C6	1.76	1.20
35:2:309:C:O2	35:2:357:G:N2	1.73	1.20
19:i:848:LEU:CB	24:r:40:THR:CG2	2.19	1.20
2:G:3234:GLY:HA3	33:0:145:ASN:C	1.67	1.19
3:H:268:UNK:CB	3:H:307:UNK:CA	2.19	1.19
1:P:284:UNK:O	14:b:22:LYS:O	1.60	1.19
24:r:76:LEU:HD21	35:2:406:U:C3'	1.73	1.19
21:o:208:LYS:HG3	35:2:1065:A:N3	1.47	1.19
24:r:192:LYS:CD	35:2:282:C:O5'	1.66	1.19
26:t:56:VAL:CG2	35:2:333:A:H4'	1.72	1.19
22:p:27:TRP:CG	35:2:448:C:HO2'	1.57	1.19
33:0:35:LYS:HD3	35:2:521:A:C5'	1.68	1.19
24:r:193:VAL:CG2	35:2:284:G:H2'	1.73	1.19
26:t:22:ARG:HA	35:2:385:A:C5'	0.96	1.19
31:y:84:ILE:CD1	35:2:347:G:O2'	1.90	1.19
26:t:31:ARG:HH12	35:2:333:A:C5'	1.56	1.19
35:2:318:U:N3	35:2:346:G:O6	1.75	1.19
35:2:444:C:N3	35:2:460:A:N7	1.90	1.19
1:D:77:UNK:O	1:E:161:UNK:CA	1.89	1.18
15:c:143:HIS:CA	35:2:1604:U:H5'	1.72	1.18
16:d:90:ILE:HA	16:d:118:TRP:O	1.05	1.18
26:t:185:ARG:NH1	35:2:208:U:C2'	2.03	1.18
27:u:80:LEU:HA	27:u:81:VAL:CB	1.71	1.18
31:y:64:SER:HB2	35:2:247:A:N1	1.58	1.18
32:z:56:HIS:CB	35:2:864:U:OP1	1.89	1.18
15:c:144:GLU:C	35:2:1603:U:O2'	1.68	1.18
15:c:183:THR:C	35:2:1623:C:H5''	1.68	1.18
18:g:42:LEU:HA	21:o:114:CYS:O	1.42	1.18
31:y:132:LYS:NZ	35:2:322:G:O2'	1.76	1.18
1:L:75:UNK:CB	5:M:349:UNK:CB	2.22	1.18
31:y:68:LYS:CD	35:2:304:U:H1'	1.73	1.18
35:2:431:C:H3'	35:2:432:G:H8	1.04	1.18
1:P:286:UNK:HA	14:b:20:ASN:O	1.01	1.17
35:2:108:A:N6	35:2:306:U:O4	1.77	1.17
35:2:147:A:N7	35:2:167:U:C2	2.11	1.17
24:r:176:CYS:HA	35:2:67:A:O5'	1.03	1.17
6:Q:356:UNK:CB	6:Q:409:UNK:CB	2.22	1.17
24:r:173:ARG:HH21	35:2:73:U:P	1.68	1.17
31:y:104:ARG:NH1	35:2:306:U:OP1	1.77	1.17
1:C:113:UNK:O	36:3:76:C:C5'	1.92	1.17
16:d:89:ILE:O	16:d:118:TRP:CA	1.91	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:t:19:PRO:CG	35:2:104:A:C4'	2.17	1.17
35:2:516:G:N2	35:2:536:C:O2	1.77	1.17
24:r:190:ARG:NH1	35:2:268:C:H6	1.39	1.17
31:y:154:PHE:HE2	35:2:351:C:C4	1.62	1.17
35:2:977:A:N6	35:2:1024:U:C2	2.13	1.17
9:U:127:LYS:H	10:W:184:ARG:N	1.25	1.16
24:r:88:ARG:CZ	35:2:93:A:OP1	1.93	1.16
24:r:94:ARG:CA	35:2:406:U:H5''	1.73	1.16
2:G:3234:GLY:HA3	33:0:145:ASN:O	1.43	1.16
9:V:119:LYS:CB	10:X:188:VAL:CB	2.24	1.16
31:y:68:LYS:HD3	35:2:304:U:H1'	1.16	1.16
33:0:34:SER:HA	35:2:520:A:H1'	1.18	1.16
16:d:70:GLY:CA	35:2:1097:U:C5	2.27	1.16
35:2:386:G:N2	35:2:426:G:OP2	1.79	1.16
35:2:938:G:N1	35:2:941:A:OP2	1.78	1.16
3:H:2:UNK:CB	3:H:170:UNK:CA	2.23	1.16
1:A:133:UNK:O	1:B:73:UNK:O	1.63	1.16
2:G:3237:LEU:H	33:0:147:VAL:CG2	1.58	1.16
35:2:431:C:H3'	35:2:432:G:C8	1.79	1.16
2:G:3230:GLU:CB	33:0:148:ALA:CB	2.23	1.15
1:n:75:UNK:CB	26:t:3:ILE:HG12	1.76	1.15
26:t:19:PRO:HB3	35:2:103:A:OP1	1.39	1.15
8:T:334:ARG:CB	36:3:108:A:OP2	1.94	1.15
21:o:208:LYS:NZ	35:2:1056:U:C5	2.14	1.15
31:y:154:PHE:HE2	35:2:351:C:C5	1.63	1.15
15:c:95:ASP:CB	35:2:1604:U:C6	2.28	1.15
35:2:309:C:N3	35:2:357:G:N1	1.94	1.15
35:2:883:C:N3	35:2:945:U:O4	1.79	1.15
2:G:3237:LEU:CA	33:0:147:VAL:HG13	1.75	1.15
15:c:95:ASP:CB	35:2:1604:U:H5	1.44	1.15
35:2:108:A:N1	35:2:306:U:N3	1.94	1.15
15:c:144:GLU:CB	35:2:1603:U:H4'	1.76	1.15
24:r:175:LYS:NZ	35:2:71:A:C8	2.15	1.15
31:y:64:SER:OG	35:2:114:C:H3'	1.42	1.15
35:2:444:C:C2	35:2:460:A:N6	2.13	1.15
2:G:3237:LEU:H	33:0:147:VAL:HG22	1.10	1.14
3:H:137:UNK:HA	3:H:162:UNK:O	1.44	1.14
1:K:115:UNK:CB	1:P:133:UNK:CB	2.24	1.14
8:T:331:ARG:HA	36:3:104:C:O3'	1.00	1.14
15:c:96:PRO:C	30:x:131:GLY:HA2	1.70	1.14
31:y:103:HIS:HB3	35:2:351:C:C2	1.81	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:71:A:C6	35:2:83:G:C2	2.35	1.14
3:H:74:UNK:CB	3:H:138:UNK:CB	2.26	1.14
1:n:295:UNK:CB	26:t:67:ARG:NH1	2.11	1.14
24:r:137:ARG:NH1	35:2:143:G:N7	1.94	1.14
24:r:173:ARG:HD3	35:2:68:A:N7	1.55	1.14
26:t:14:THR:HG22	35:2:355:G:OP2	1.47	1.14
8:S:314:PRO:O	36:3:89:A:C2'	1.95	1.14
8:S:315:PRO:HA	36:3:90:C:H5'	1.22	1.14
21:o:24:ASP:HA	29:w:74:VAL:CB	1.77	1.14
24:r:175:LYS:O	35:2:67:A:H4'	1.00	1.14
24:r:176:CYS:CB	35:2:67:A:N9	2.10	1.14
26:t:56:VAL:CG2	35:2:333:A:C4'	2.25	1.14
33:0:85:PRO:CD	35:2:525:A:N6	2.11	1.14
35:2:485:A:N1	35:2:502:U:C4	2.16	1.14
9:U:127:LYS:CA	10:W:222:ASP:CB	2.25	1.13
15:c:183:THR:C	35:2:1623:C:C5'	2.21	1.13
24:r:157:LYS:HB3	35:2:78:A:C8	1.83	1.13
8:S:299:GLY:HA3	36:3:93:G:N7	1.57	1.13
21:o:25:PRO:HG3	29:w:39:ILE:CB	1.77	1.13
21:o:211:PHE:CD2	35:2:1067:C:OP1	2.02	1.13
24:r:76:LEU:CG	35:2:406:U:O2'	1.96	1.13
26:t:22:ARG:HB2	35:2:385:A:OP1	1.47	1.13
31:y:101:LYS:HB3	35:2:351:C:C6	1.83	1.13
33:0:58:PHE:N	35:2:522:U:H5'	0.81	1.13
35:2:174:U:O2	35:2:266:A:N6	1.81	1.13
35:2:328:A:N1	35:2:340:U:N3	1.97	1.13
35:2:390:G:N1	35:2:407:A:N1	1.94	1.13
35:2:1573:A:H4'	35:2:1574:G:H5'	1.18	1.13
33:0:57:GLY:HA2	35:2:522:U:C5'	1.71	1.13
8:S:294:THR:CB	36:3:261:U:O2	1.97	1.12
24:r:132:LYS:NZ	35:2:69:G:O6	1.82	1.12
24:r:163:ARG:NH1	35:2:69:G:N9	1.96	1.13
26:t:14:THR:CG2	35:2:355:G:OP2	1.96	1.13
33:0:30:SER:C	35:2:534:A:H4'	1.60	1.13
35:2:977:A:N6	35:2:1024:U:N3	1.92	1.12
35:2:1524:A:H2'	35:2:1525:A:C8	1.84	1.12
1:P:286:UNK:HA	14:b:20:ASN:C	1.73	1.12
35:2:514:G:O6	35:2:537:G:N1	1.81	1.12
1:K:280:UNK:CA	18:h:205:ARG:O	1.96	1.12
9:V:26:VAL:CA	27:u:183:ALA:HB3	1.79	1.12
1:n:295:UNK:CA	26:t:67:ARG:NH1	2.09	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:133:LEU:HD12	35:2:166:C:O2	1.47	1.12
24:r:190:ARG:CZ	35:2:268:C:C5	2.32	1.12
24:r:190:ARG:NH2	35:2:269:G:N7	1.96	1.12
31:y:64:SER:OG	35:2:114:C:C3'	1.96	1.12
8:T:338:ALA:HB3	36:3:109:C:H5	1.06	1.12
21:o:127:ARG:NH2	35:2:946:U:C5'	2.13	1.12
35:2:466:U:H3'	35:2:467:G:H8	1.11	1.12
2:G:3234:GLY:O	33:0:146:PHE:C	1.92	1.12
33:0:35:LYS:CD	35:2:521:A:H5'	1.79	1.12
6:Q:473:UNK:O	6:Q:484:UNK:HA	1.50	1.11
24:r:183:ILE:HD13	35:2:141:U:H5''	1.12	1.11
24:r:192:LYS:CD	35:2:282:C:C5'	2.23	1.11
29:w:37:GLU:CB	35:2:895:G:O2'	1.98	1.11
31:y:116:VAL:HG12	31:y:117:LYS:H	1.14	1.11
5:m:482:UNK:CB	5:m:501:UNK:O	1.99	1.11
2:G:3234:GLY:CA	33:0:145:ASN:O	1.98	1.11
15:c:183:THR:CB	35:2:1623:C:P	2.39	1.11
16:d:70:GLY:CA	35:2:1097:U:C6	2.34	1.11
18:g:44:PRO:CA	21:o:119:LYS:HB2	1.69	1.11
18:g:42:LEU:N	21:o:114:CYS:HB3	1.64	1.11
21:o:211:PHE:CE1	35:2:1067:C:C5'	2.32	1.11
24:r:165:PHE:HE1	35:2:68:A:O2'	0.76	1.11
35:2:107:C:H2'	35:2:108:A:H8	1.06	1.11
35:2:518:A:N6	35:2:535:A:N3	1.99	1.11
5:M:482:UNK:CB	5:M:501:UNK:O	1.99	1.10
24:r:93:LYS:HA	35:2:406:U:H5'	1.33	1.10
26:t:19:PRO:HD2	35:2:104:A:H4'	1.32	1.10
33:0:32:THR:OG1	35:2:533:U:H1'	1.49	1.10
35:2:63:G:N2	35:2:87:C:O2	1.83	1.10
35:2:520:A:OP2	35:2:529:A:N6	1.84	1.10
5:O:481:UNK:CB	21:o:16:LYS:NZ	2.13	1.10
9:U:127:LYS:O	10:W:183:ALA:HB3	1.37	1.10
20:k:135:ALA:CB	35:2:1523:G:C2	2.33	1.10
22:p:7:LYS:HE2	35:2:451:A:OP2	0.93	1.10
24:r:157:LYS:CB	35:2:78:A:C8	2.31	1.10
26:t:185:ARG:NH2	35:2:208:U:H1'	1.67	1.10
27:u:122:VAL:O	27:u:125:ALA:HB3	1.49	1.10
35:2:519:C:OP2	35:2:529:A:N6	1.83	1.10
1:D:114:UNK:HA	1:E:139:UNK:CA	1.81	1.10
9:V:97:VAL:N	36:3:114:A:O2'	1.85	1.10
22:p:26:ILE:HD11	35:2:461:G:H4'	1.33	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:59:ASP:OD2	35:2:418:G:O2'	1.66	1.10
24:r:76:LEU:CD2	35:2:406:U:C4'	2.29	1.10
21:o:208:LYS:CG	35:2:1065:A:N3	2.06	1.10
24:r:169:LYS:NZ	35:2:72:A:C5'	2.13	1.10
26:t:26:ALA:HB3	35:2:399:A:H3'	1.32	1.10
31:y:64:SER:HB3	35:2:114:C:C2'	1.82	1.10
35:2:273:G:H1	35:2:283:U:H1'	1.10	1.10
35:2:868:G:N2	35:2:960:U:O2	1.83	1.10
35:2:898:A:OP2	35:2:912:U:N3	1.84	1.10
1:D:116:UNK:CA	1:E:156:UNK:CB	2.28	1.09
21:o:208:LYS:HE3	35:2:1064:G:H1	1.06	1.09
24:r:176:CYS:CA	35:2:67:A:O5'	1.99	1.09
24:r:190:ARG:NH2	35:2:269:G:C8	2.20	1.09
35:2:70:C:N3	35:2:83:G:N1	1.99	1.09
35:2:628:G:N2	35:2:971:A:H62	1.49	1.09
22:p:27:TRP:HB3	35:2:448:C:O2'	1.48	1.09
1:D:77:UNK:O	1:E:161:UNK:HA	1.31	1.09
15:c:96:PRO:O	30:x:131:GLY:HA2	1.49	1.09
24:r:76:LEU:HD22	35:2:406:U:H4'	1.19	1.09
24:r:190:ARG:CZ	35:2:268:C:C6	2.35	1.09
31:y:154:PHE:CE2	35:2:351:C:C4	2.40	1.09
35:2:485:A:N1	35:2:502:U:N3	2.00	1.09
35:2:1055:U:O2	35:2:1064:G:N1	1.83	1.09
21:o:149:THR:HB	35:2:1067:C:O2'	1.33	1.09
24:r:163:ARG:O	35:2:68:A:C5'	1.99	1.09
33:0:35:LYS:H	35:2:520:A:C4'	1.66	1.09
35:2:410:A:C2	35:2:423:G:N1	2.21	1.09
2:G:3234:GLY:O	33:0:147:VAL:HG23	1.47	1.09
8:T:338:ALA:HB3	36:3:109:C:C5	1.86	1.09
35:2:615:A:H5'	35:2:1085:G:H5''	1.35	1.09
15:c:92:THR:CA	30:x:129:PHE:C	2.25	1.08
24:r:13:GLN:HB2	35:2:152:U:O2'	1.53	1.08
24:r:59:ASP:CG	35:2:418:G:O2'	1.96	1.08
24:r:176:CYS:HB2	35:2:67:A:C4'	1.83	1.08
26:t:56:VAL:HG22	35:2:333:A:C4'	1.83	1.08
31:y:33:TYR:OH	35:2:248:U:H4'	1.50	1.08
31:y:66:ARG:CD	35:2:113:U:P	2.32	1.08
31:y:128:ARG:CD	35:2:115:G:H8	1.66	1.08
1:K:115:UNK:CA	1:P:133:UNK:CB	2.31	1.08
1:K:280:UNK:CB	18:h:205:ARG:O	2.01	1.08
15:c:142:LEU:CB	30:x:129:PHE:O	2.00	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:21:ARG:NH2	29:w:71:CYS:O	1.87	1.08
28:v:51:GLY:HA2	28:v:53:LEU:N	1.67	1.08
1:A:294:UNK:O	1:B:66:UNK:CB	2.00	1.08
9:V:38:GLY:CA	36:3:194:G:O6	2.00	1.08
21:o:126:ALA:HB1	21:o:175:ASN:HD21	1.11	1.08
21:o:208:LYS:HA	35:2:1066:C:C1'	1.82	1.08
35:2:272:U:O2	35:2:284:G:C2	2.05	1.08
18:g:44:PRO:CB	21:o:119:LYS:HG3	1.80	1.08
24:r:163:ARG:HH12	35:2:69:G:H3'	0.96	1.08
26:t:19:PRO:CD	35:2:104:A:C4'	2.30	1.08
31:y:33:TYR:CE1	35:2:249:U:OP2	2.05	1.08
35:2:187:G:H1	35:2:197:A:H3'	1.18	1.08
35:2:1525:A:H2'	35:2:1526:A:C8	1.88	1.08
2:G:3235:GLU:N	33:0:144:LYS:O	1.86	1.08
15:c:144:GLU:H	35:2:1603:U:C3'	1.67	1.08
24:r:169:LYS:HZ2	35:2:72:A:C5'	1.67	1.08
24:r:194:TYR:OH	35:2:265:A:OP1	1.70	1.08
35:2:189:C:O2	35:2:196:G:N2	1.87	1.08
16:d:90:ILE:CA	16:d:118:TRP:O	2.02	1.07
16:d:118:TRP:O	16:d:119:GLN:O	1.72	1.07
18:g:42:LEU:CB	21:o:117:ILE:CB	2.32	1.07
26:t:14:THR:HG21	35:2:354:C:H5''	1.24	1.07
35:2:631:G:C2	35:2:968:U:O2	2.06	1.07
3:H:2:UNK:HA	3:H:169:UNK:C	1.84	1.07
15:c:160:GLY:HA2	15:c:271:GLY:H	1.14	1.07
15:c:183:THR:CB	35:2:1623:C:O5'	2.02	1.07
24:r:76:LEU:HD22	35:2:406:U:C4'	1.84	1.07
26:t:22:ARG:HA	35:2:385:A:H5''	1.28	1.07
33:0:85:PRO:CG	35:2:525:A:C6	2.26	1.07
1:C:338:UNK:CB	1:D:88:UNK:CB	2.31	1.07
35:2:71:A:C6	35:2:83:G:N1	2.22	1.07
35:2:153:G:N1	35:2:161:U:O2	1.87	1.07
35:2:312:A:H4'	35:2:313:U:H3'	1.35	1.07
35:2:628:G:H21	35:2:971:A:N6	1.52	1.07
24:r:177:PRO:O	35:2:79:C:C5	2.08	1.07
33:0:57:GLY:HA2	35:2:522:U:P	1.95	1.07
3:H:137:UNK:CB	3:H:167:UNK:N	2.18	1.07
33:0:57:GLY:HA3	35:2:522:U:H5''	1.33	1.07
35:2:145:A:N1	35:2:169:A:N6	2.00	1.07
1:D:115:UNK:CB	1:E:138:UNK:O	1.98	1.06
1:E:46:UNK:O	1:F:338:UNK:N	1.88	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:-2:UNK:HA	3:H:170:UNK:O	1.55	1.06
21:o:139:ARG:HH22	35:2:884:A:H5''	1.20	1.06
31:y:128:ARG:CD	35:2:115:G:C8	2.37	1.06
33:0:57:GLY:CA	35:2:522:U:OP1	2.03	1.06
35:2:100:A:N6	35:2:385:A:N3	2.02	1.06
36:3:97:C:N3	36:3:256:G:N1	2.03	1.06
1:K:280:UNK:HA	18:h:205:ARG:O	1.49	1.06
8:T:327:HIS:HA	36:3:108:A:N7	1.70	1.06
21:o:208:LYS:HE3	35:2:1064:G:N1	1.70	1.06
31:y:80:ASN:ND2	35:2:344:A:H1'	1.70	1.06
36:3:97:C:O2	36:3:256:G:N2	1.87	1.06
1:D:116:UNK:O	1:E:156:UNK:CA	2.02	1.06
9:V:38:GLY:HA2	36:3:194:G:O6	1.52	1.06
35:2:412:A:N3	35:2:421:A:N6	2.03	1.06
1:D:111:UNK:CB	1:E:197:UNK:C	2.34	1.06
1:K:277:UNK:CB	18:h:209:LYS:HA	1.83	1.06
18:g:76:GLY:HA2	21:o:118:ARG:CZ	1.85	1.06
24:r:164:THR:C	35:2:69:G:N2	2.09	1.06
9:V:25:ALA:HA	27:u:184:SER:C	1.80	1.06
18:g:42:LEU:CB	21:o:117:ILE:HG13	1.85	1.06
24:r:139:ASN:ND2	35:2:143:G:OP2	1.87	1.06
31:y:103:HIS:HB3	35:2:351:C:N3	1.70	1.06
31:y:128:ARG:HD3	35:2:115:G:H8	0.90	1.06
1:C:325:UNK:HA	1:D:45:UNK:N	1.71	1.05
17:f:156:GLU:CB	35:2:1537:C:C2	2.39	1.05
1:n:294:UNK:CB	26:t:47:GLU:N	2.19	1.05
21:o:209:ASN:CG	35:2:1064:G:H2'	1.81	1.05
24:r:192:LYS:HD2	35:2:282:C:O5'	1.51	1.05
24:r:137:ARG:NH2	35:2:144:U:H5	1.42	1.05
21:o:149:THR:OG1	35:2:1067:C:O2'	1.74	1.05
24:r:23:LYS:HD3	24:r:41:LEU:HD23	1.37	1.05
24:r:157:LYS:HB2	35:2:78:A:N7	1.67	1.05
24:r:163:ARG:HH12	35:2:69:G:C3'	1.70	1.05
31:y:76:SER:HB2	35:2:347:G:H5''	1.39	1.05
31:y:88:ASP:HA	35:2:351:C:H42	1.21	1.05
35:2:48:G:O6	35:2:432:G:N3	1.89	1.05
35:2:396:G:N1	35:2:399:A:OP2	1.90	1.05
8:S:300:ALA:CA	36:3:91:G:OP1	2.04	1.05
15:c:144:GLU:N	35:2:1603:U:O3'	1.90	1.05
33:0:34:SER:HA	35:2:520:A:O4'	1.55	1.05
33:0:85:PRO:HG2	35:2:525:A:C5	1.90	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:71:A:N6	35:2:83:G:N1	2.03	1.04
35:2:444:C:N3	35:2:460:A:C5	2.25	1.04
21:o:163:LYS:HG2	35:2:1045:C:H5''	1.38	1.04
24:r:139:ASN:HB3	35:2:143:G:OP1	1.57	1.04
24:r:177:PRO:CA	35:2:66:U:OP2	2.06	1.04
35:2:483:A:N6	35:2:504:U:O4	1.90	1.04
35:2:631:G:N1	35:2:968:U:C2	2.25	1.04
35:2:938:G:N2	35:2:941:A:N7	2.05	1.04
8:S:316:LYS:N	36:3:90:C:C5'	2.16	1.04
9:V:25:ALA:HA	27:u:184:SER:HA	1.34	1.04
24:r:177:PRO:HD3	35:2:67:A:OP2	1.57	1.04
35:2:312:A:N6	35:2:353:A:N7	2.05	1.04
1:C:325:UNK:CB	1:D:44:UNK:CA	2.35	1.04
1:K:280:UNK:CB	18:h:208:ALA:CA	2.34	1.04
20:k:81:GLY:O	20:k:232:LEU:CB	2.04	1.04
21:o:205:LYS:HB3	35:2:1056:U:C4'	1.73	1.04
24:r:13:GLN:CB	35:2:152:U:O2'	2.06	1.04
24:r:163:ARG:HB2	35:2:69:G:C6	1.93	1.04
26:t:22:ARG:CB	35:2:385:A:OP1	2.05	1.04
31:y:68:LYS:HE2	35:2:111:U:O2'	1.55	1.04
33:0:35:LYS:HD3	35:2:521:A:H5'	1.06	1.04
22:p:89:MET:HE3	22:p:104:LEU:HD21	1.34	1.04
24:r:157:LYS:CD	35:2:78:A:H8	1.35	1.04
1:l:261:UNK:CB	23:q:123:VAL:CA	2.36	1.03
26:t:31:ARG:NH1	35:2:333:A:C5'	2.21	1.03
35:2:628:G:N1	35:2:970:A:OP2	1.90	1.03
35:2:1055:U:H2'	35:2:1056:U:H6	1.21	1.03
1:n:75:UNK:CB	26:t:3:ILE:CG1	2.37	1.03
35:2:174:U:N3	35:2:266:A:N7	2.06	1.03
35:2:396:G:H22	35:2:399:A:H5''	1.23	1.03
4:I:513:MET:CA	1:J:282:UNK:CB	2.36	1.03
15:c:92:THR:CA	30:x:130:GLY:N	2.22	1.03
15:c:142:LEU:O	30:x:129:PHE:HA	1.54	1.03
16:d:66:SER:O	35:2:1097:U:N3	1.92	1.03
21:o:205:LYS:HB3	35:2:1056:U:H4'	1.04	1.03
24:r:193:VAL:HG22	35:2:284:G:H2'	1.05	1.03
35:2:490:C:N3	35:2:498:G:N1	2.07	1.03
24:r:165:PHE:CE1	35:2:68:A:C2'	2.32	1.03
31:y:85:ILE:HD11	31:y:122:LEU:HD13	1.39	1.03
35:2:108:A:N1	35:2:306:U:C4	2.27	1.03
1:D:77:UNK:O	1:E:164:UNK:O	1.74	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:163:ARG:NH1	35:2:69:G:C3'	2.22	1.03
26:t:105:VAL:HG11	35:2:329:G:H4'	1.38	1.03
31:y:80:ASN:O	35:2:325:G:O2'	1.73	1.03
18:g:40:MET:CB	21:o:111:ASP:CA	2.36	1.02
26:t:31:ARG:NH1	35:2:333:A:OP2	1.91	1.02
31:y:37:ILE:C	35:2:246:G:H1'	1.84	1.02
33:0:2:THR:HG22	33:0:3:ILE:H	1.19	1.02
35:2:485:A:O2'	35:2:486:G:N7	1.90	1.02
15:c:98:SER:N	30:x:138:PHE:CB	2.22	1.02
24:r:5:ILE:HG12	24:r:111:LEU:HB2	1.40	1.02
24:r:163:ARG:NH1	35:2:69:G:H3'	1.43	1.02
1:A:294:UNK:CB	1:B:344:UNK:CB	2.38	1.02
2:G:3236:SER:CB	33:0:147:VAL:CG1	2.36	1.02
6:Q:348:UNK:CB	6:Q:414:UNK:CB	2.37	1.02
21:o:212:PRO:HG2	35:2:1067:C:H5'	1.41	1.02
26:t:26:ALA:CB	35:2:399:A:H3'	1.88	1.02
26:t:28:GLU:OE1	35:2:400:A:N7	1.92	1.02
32:z:54:ASP:HA	32:z:59:GLY:HA2	1.40	1.02
35:2:104:A:OP2	35:2:308:C:N4	1.92	1.02
36:3:85:A:N6	36:3:264:G:C2	2.27	1.02
3:H:-2:UNK:CA	3:H:170:UNK:O	2.08	1.02
3:H:2:UNK:CB	3:H:170:UNK:CB	2.37	1.02
21:o:208:LYS:CD	35:2:1065:A:C2	2.42	1.02
35:2:22:A:H2'	35:2:23:G:H8	1.24	1.02
35:2:977:A:N6	35:2:1024:U:O2	1.93	1.02
1:D:77:UNK:C	1:E:161:UNK:C	2.38	1.02
8:T:327:HIS:N	36:3:108:A:N7	2.07	1.02
9:V:31:GLU:CB	27:u:117:GLY:HA2	1.89	1.02
15:c:92:THR:CB	30:x:130:GLY:HA3	1.89	1.02
33:0:121:THR:HG22	35:2:84:A:O2'	1.57	1.02
1:C:271:UNK:CB	1:C:291:UNK:O	2.08	1.01
9:U:127:LYS:O	10:W:183:ALA:HB1	1.59	1.01
24:r:157:LYS:HB2	35:2:78:A:C5	1.94	1.01
26:t:10:LYS:HZ3	35:2:339:C:P	1.83	1.01
35:2:50:C:H2'	35:2:424:C:C4	1.94	1.01
36:3:99:C:N3	36:3:253:G:N1	2.08	1.01
3:H:-2:UNK:O	3:H:170:UNK:C	2.06	1.01
1:P:288:UNK:C	14:b:16:HIS:CB	2.37	1.01
22:p:27:TRP:CD1	35:2:448:C:H1'	1.96	1.01
33:0:57:GLY:HA2	35:2:522:U:OP1	1.60	1.01
35:2:209:U:O4	35:2:256:A:N6	1.93	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:473:A:OP2	35:2:474:A:N6	1.92	1.01
35:2:504:U:H3'	35:2:506:A:OP2	1.61	1.01
35:2:1604:U:H3'	35:2:1605:G:H5''	1.39	1.01
1:B:271:UNK:CB	1:B:291:UNK:O	2.08	1.01
1:J:271:UNK:CB	1:J:291:UNK:O	2.08	1.01
1:K:271:UNK:CB	1:K:291:UNK:O	2.08	1.01
1:n:271:UNK:CB	1:n:291:UNK:O	2.08	1.01
24:r:160:VAL:HG12	24:r:161:ILE:H	1.19	1.01
26:t:18:MET:HG2	26:t:19:PRO:HD2	1.42	1.01
1:E:271:UNK:CB	1:E:291:UNK:O	2.08	1.01
3:H:2:UNK:CA	3:H:170:UNK:N	2.23	1.01
15:c:102:ALA:HB2	30:x:140:LYS:CB	1.90	1.01
35:2:1084:A:H1'	35:2:1094:G:H4'	1.43	1.01
1:F:271:UNK:CB	1:F:291:UNK:O	2.08	1.01
1:L:271:UNK:CB	1:L:291:UNK:O	2.08	1.01
1:N:271:UNK:CB	1:N:291:UNK:O	2.08	1.01
15:c:143:HIS:CB	35:2:1604:U:C4'	2.38	1.01
1:l:271:UNK:CB	1:l:291:UNK:O	2.08	1.01
24:r:163:ARG:HE	35:2:69:G:P	1.84	1.01
24:r:175:LYS:NZ	35:2:71:A:H8	1.54	1.01
26:t:83:LYS:NZ	35:2:259:U:P	2.34	1.01
26:t:185:ARG:NH2	35:2:208:U:C1'	2.23	1.01
35:2:147:A:OP2	35:2:166:C:N4	1.92	1.01
35:2:269:G:H1'	35:2:287:G:H22	1.17	1.01
1:A:271:UNK:CB	1:A:291:UNK:O	2.08	1.00
15:c:142:LEU:CB	30:x:129:PHE:CA	2.38	1.00
18:g:76:GLY:CA	21:o:118:ARG:NE	2.24	1.00
33:0:30:SER:C	35:2:534:A:C4'	2.29	1.00
35:2:153:G:C6	35:2:161:U:O2	2.13	1.00
16:d:66:SER:C	35:2:1097:U:H3	1.67	1.00
31:y:154:PHE:HE2	35:2:351:C:N4	1.49	1.00
35:2:71:A:N1	35:2:83:G:C2	2.29	1.00
35:2:337:G:O6	35:2:342:C:N4	1.94	1.00
1:P:271:UNK:CB	1:P:291:UNK:O	2.08	1.00
1:P:286:UNK:CA	14:b:20:ASN:C	2.30	1.00
8:T:334:ARG:HA	36:3:108:A:OP1	1.61	1.00
24:r:193:VAL:HG13	35:2:284:G:H3'	1.02	1.00
28:v:51:GLY:HA2	28:v:53:LEU:H	1.22	1.00
35:2:88:U:H3'	35:2:89:G:C8	1.97	1.00
35:2:397:A:H3'	35:2:398:G:H8	1.20	1.00
35:2:1047:G:N2	35:2:1071:U:O2	1.93	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:212:PRO:CG	35:2:1067:C:H5'	1.91	1.00
35:2:499:U:H2'	35:2:500:C:H6	1.26	1.00
1:D:271:UNK:CB	1:D:291:UNK:O	2.08	1.00
1:P:289:UNK:CB	14:b:16:HIS:CB	2.40	1.00
18:g:46:TYR:CB	21:o:119:LYS:CE	2.40	1.00
35:2:274:G:N2	35:2:283:U:O4'	1.95	1.00
9:U:127:LYS:N	10:W:184:ARG:N	1.84	0.99
22:p:26:ILE:HD13	35:2:461:G:H5''	1.02	0.99
31:y:76:SER:OG	35:2:347:G:C5'	2.10	0.99
35:2:473:A:H5''	35:2:474:A:N7	1.77	0.99
5:O:525:UNK:CB	21:o:15:LYS:CD	2.41	0.99
8:T:314:PRO:CB	36:3:110:A:O4'	2.10	0.99
25:s:132:LEU:HB3	25:s:133:PRO:HD3	1.44	0.99
31:y:76:SER:CB	35:2:347:G:C5'	2.39	0.99
35:2:53:G:N1	35:2:427:C:N3	2.09	0.99
2:G:3234:GLY:C	33:0:146:PHE:C	2.30	0.99
18:g:42:LEU:CB	21:o:117:ILE:HB	1.92	0.99
21:o:208:LYS:HD2	35:2:1065:A:C2	1.97	0.99
24:r:26:ILE:O	24:r:30:LYS:HE3	1.62	0.99
35:2:22:A:H2'	35:2:23:G:C8	1.97	0.99
8:T:296:GLN:O	36:3:109:C:C5'	2.10	0.99
8:T:338:ALA:CB	36:3:109:C:C5	2.44	0.99
21:o:48:THR:HG22	21:o:49:LEU:H	1.27	0.99
24:r:193:VAL:HG13	35:2:284:G:C3'	1.91	0.99
35:2:32:U:O2'	35:2:33:U:OP2	1.79	0.99
35:2:332:U:H3'	35:2:334:G:OP2	1.61	0.99
35:2:474:A:H1'	35:2:475:A:C6	1.97	0.99
21:o:208:LYS:HE3	35:2:1055:U:O2	1.62	0.99
31:y:66:ARG:HD2	35:2:113:U:OP1	0.82	0.99
31:y:103:HIS:HB3	35:2:351:C:O2	1.56	0.99
33:0:35:LYS:N	35:2:520:A:H4'	1.76	0.99
9:U:127:LYS:H	10:W:184:ARG:H	1.09	0.99
31:y:68:LYS:CE	35:2:304:U:H1'	1.91	0.99
35:2:88:U:H3'	35:2:89:G:H8	1.26	0.99
35:2:523:G:H2'	35:2:528:U:C5	1.98	0.99
1:L:77:UNK:O	5:M:647:UNK:CA	2.11	0.99
8:T:296:GLN:O	36:3:109:C:H5''	1.62	0.99
24:r:132:LYS:HD3	35:2:69:G:C5	1.98	0.99
24:r:177:PRO:HD3	35:2:67:A:P	2.03	0.99
26:t:10:LYS:NZ	35:2:339:C:P	2.36	0.99
35:2:186:C:H2'	35:2:187:G:O4'	1.62	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:13:GLN:HG3	35:2:152:U:O4'	1.60	0.99
35:2:294:C:H2'	35:2:295:A:C8	1.98	0.99
9:V:92:ALA:O	27:u:181:ALA:HA	1.63	0.99
31:y:33:TYR:HE1	35:2:249:U:P	1.85	0.99
19:j:858:MET:HA	19:j:862:ALA:HB3	1.44	0.98
35:2:480:G:N2	35:2:508:U:O2	1.95	0.98
19:i:858:MET:HA	19:i:862:ALA:HB3	1.44	0.98
1:n:269:UNK:CB	26:t:44:THR:HG1	1.68	0.98
35:2:490:C:H2'	35:2:491:C:C6	1.98	0.98
21:o:63:ILE:HG22	21:o:66:ARG:HG3	1.40	0.98
33:0:35:LYS:H	35:2:520:A:C2'	1.75	0.98
35:2:410:A:N1	35:2:423:G:O6	1.96	0.98
24:r:190:ARG:NH1	35:2:268:C:C5	2.31	0.98
35:2:617:U:O4	35:2:1087:A:N6	1.95	0.98
24:r:157:LYS:HB3	35:2:78:A:N7	1.62	0.98
35:2:105:A:N6	35:2:109:G:N7	2.11	0.98
35:2:504:U:H4'	35:2:505:A:OP2	1.62	0.98
35:2:628:G:N2	35:2:971:A:C5	2.31	0.98
26:t:14:THR:HG23	35:2:354:C:C5'	1.78	0.98
1:P:285:UNK:C	14:b:21:TYR:HA	1.93	0.98
16:d:71:ALA:N	35:2:1097:U:C5	2.31	0.98
1:n:269:UNK:O	26:t:44:THR:CB	2.10	0.98
21:o:212:PRO:CG	35:2:1067:C:O4'	2.11	0.98
24:r:176:CYS:SG	35:2:67:A:H5''	2.02	0.98
24:r:165:PHE:CA	35:2:69:G:H21	1.76	0.98
35:2:283:U:H2'	35:2:284:G:C4	1.99	0.98
35:2:1628:U:H2'	35:2:1629:G:H8	1.28	0.98
8:S:299:GLY:HA2	36:3:93:G:N7	1.76	0.98
26:t:22:ARG:HH11	26:t:25:ARG:HH12	1.11	0.98
35:2:107:C:H2'	35:2:108:A:C8	1.98	0.98
35:2:490:C:O2	35:2:497:G:N2	1.96	0.98
35:2:873:U:O2	35:2:954:G:N1	1.96	0.98
35:2:877:G:N1	35:2:951:A:N1	2.09	0.98
24:r:76:LEU:CD2	35:2:406:U:C3'	2.40	0.97
24:r:190:ARG:HH12	35:2:268:C:H6	1.09	0.97
35:2:252:U:H2'	35:2:252:U:OP2	1.63	0.97
2:G:3230:GLU:CB	33:0:147:VAL:O	2.12	0.97
8:T:331:ARG:CB	36:3:104:C:H3'	1.94	0.97
22:p:27:TRP:HB2	35:2:448:C:C1'	1.94	0.97
36:3:101:G:N2	36:3:251:U:O2	1.96	0.97
35:2:311:U:O2	35:2:355:G:N2	1.96	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:41:GLU:CB	36:3:263:U:OP2	2.12	0.97
35:2:1039:A:N1	35:2:1080:U:N3	2.13	0.97
1:L:77:UNK:C	5:M:647:UNK:HA	1.94	0.97
31:y:128:ARG:HB3	35:2:115:G:OP2	1.64	0.97
35:2:147:A:H3'	35:2:148:A:H8	1.26	0.97
19:j:882:ALA:H	19:j:886:ALA:HB3	1.29	0.97
1:n:294:UNK:O	26:t:45:ILE:HB	1.48	0.97
24:r:143:LYS:NZ	35:2:144:U:OP1	1.97	0.97
24:r:176:CYS:CB	35:2:67:A:C4	2.46	0.97
35:2:145:A:N6	35:2:169:A:N7	2.12	0.97
35:2:903:U:N3	35:2:906:A:N7	2.12	0.97
31:y:80:ASN:HD21	35:2:344:A:H1'	1.29	0.97
18:g:41:THR:HA	21:o:114:CYS:CB	1.88	0.97
21:o:163:LYS:CG	35:2:1045:C:OP1	2.11	0.97
35:2:446:A:N6	35:2:461:G:N3	2.11	0.97
35:2:489:C:N3	35:2:498:G:N1	2.12	0.97
26:t:14:THR:HG21	35:2:354:C:C5'	1.84	0.97
3:H:2:UNK:CA	3:H:169:UNK:C	2.43	0.97
36:3:87:G:N2	36:3:263:U:O2	1.97	0.97
15:c:143:HIS:HA	35:2:1604:U:H5'	1.44	0.96
20:k:134:LYS:N	35:2:1523:G:C6	2.26	0.96
35:2:331:A:H3'	35:2:332:U:H6	1.28	0.96
21:o:208:LYS:HE3	35:2:1064:G:H22	1.29	0.96
31:y:105:ASN:HD22	35:2:348:U:H5''	1.29	0.96
35:2:295:A:OP2	35:2:295:A:H8	1.47	0.96
35:2:629:U:N3	35:2:970:A:N7	2.11	0.96
24:r:157:LYS:HD2	35:2:78:A:N7	1.80	0.96
26:t:56:VAL:HG22	35:2:333:A:O4'	1.64	0.96
35:2:196:G:C4	35:2:197:A:H1'	2.00	0.96
19:i:901:LEU:CA	1:n:326:UNK:CB	2.43	0.96
35:2:143:G:N1	35:2:172:C:N3	2.13	0.96
24:r:183:ILE:HD11	35:2:141:U:H5'	0.97	0.96
26:t:94:THR:HG23	35:2:328:A:N3	1.79	0.96
31:y:102:ARG:C	35:2:351:C:C2	2.43	0.96
31:y:132:LYS:HD2	35:2:324:U:OP1	1.65	0.96
35:2:204:G:N1	35:2:263:C:N3	2.13	0.96
35:2:380:U:O3'	35:2:382:C:N4	1.97	0.96
35:2:410:A:H2	35:2:423:G:H1	1.00	0.96
31:y:64:SER:CB	35:2:114:C:O2'	2.12	0.96
35:2:1083:G:N2	35:2:1092:A:N7	2.13	0.96
1:D:116:UNK:C	1:E:156:UNK:CA	2.44	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:p:3:ARG:HB2	35:2:94:U:H5'	1.46	0.96
31:y:65:ILE:O	35:2:246:G:N2	1.96	0.96
33:0:85:PRO:CG	35:2:525:A:H62	1.51	0.96
2:G:3234:GLY:O	33:0:147:VAL:HB	1.65	0.96
19:j:564:ALA:HB1	19:j:590:LEU:CB	1.96	0.96
26:t:4:SER:HB3	35:2:400:A:N6	1.81	0.96
31:y:104:ARG:CZ	35:2:306:U:OP1	2.13	0.96
35:2:443:C:O2	35:2:445:A:N6	1.98	0.96
8:T:327:HIS:CA	36:3:108:A:N7	2.28	0.96
35:2:415:C:H3'	35:2:417:A:H62	1.30	0.96
35:2:514:G:OP2	35:2:514:G:H8	1.48	0.96
8:S:300:ALA:HA	36:3:91:G:OP1	1.66	0.95
35:2:323:A:O2'	35:2:346:G:N2	1.99	0.95
8:S:315:PRO:CA	36:3:90:C:H5'	1.96	0.95
9:U:86:LYS:CB	36:3:82:U:O2'	2.15	0.95
20:k:135:ALA:HB3	35:2:1523:G:C2	1.96	0.95
25:s:60:ALA:CB	25:s:91:ILE:HB	1.97	0.95
31:y:66:ARG:NE	35:2:115:G:OP1	1.99	0.95
35:2:99:C:O2'	35:2:101:U:OP2	1.84	0.95
8:S:300:ALA:HB1	36:3:91:G:OP1	1.66	0.95
9:U:126:GLY:H	10:W:188:VAL:HA	1.29	0.95
15:c:144:GLU:CA	35:2:1603:U:H4'	1.92	0.95
1:n:297:UNK:CB	26:t:44:THR:HG23	1.91	0.95
31:y:68:LYS:HD3	35:2:304:U:C1'	1.94	0.95
35:2:424:C:O2'	35:2:426:G:N7	1.99	0.95
35:2:539:G:O2'	35:2:540:G:N7	1.99	0.95
35:2:618:U:O4	35:2:1086:A:N6	1.98	0.95
35:2:1583:A:O2'	35:2:1584:G:H5'	1.66	0.95
36:3:65:C:H2'	36:3:66:A:H8	1.31	0.95
35:2:41:A:O2'	35:2:437:A:H2'	1.64	0.95
35:2:629:U:O2	35:2:970:A:N6	2.00	0.95
1:D:133:UNK:O	1:E:113:UNK:O	1.84	0.95
35:2:295:A:O2'	35:2:297:U:OP2	1.84	0.95
35:2:1057:U:H1'	35:2:1062:A:N6	1.82	0.95
19:i:564:ALA:HB1	19:i:590:LEU:CB	1.96	0.95
24:r:193:VAL:HG22	35:2:284:G:C2'	1.96	0.95
36:3:115:G:O2'	36:3:195:A:N3	1.99	0.95
35:2:318:U:O2	35:2:346:G:N1	2.00	0.95
35:2:419:G:H8	35:2:419:G:OP2	1.48	0.95
24:r:176:CYS:HB2	35:2:67:A:O4'	0.77	0.95
35:2:480:G:H1	35:2:508:U:H3	1.15	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:490:C:N3	35:2:497:G:N1	2.13	0.95
36:3:85:A:N1	36:3:264:G:N3	2.15	0.95
18:g:42:LEU:N	21:o:114:CYS:CB	2.24	0.95
35:2:93:A:H62	35:2:398:G:H3'	1.28	0.95
35:2:99:C:N3	35:2:384:G:N1	2.12	0.95
35:2:376:C:H2'	35:2:377:G:H8	1.32	0.95
35:2:1600:A:H4'	35:2:1600:A:OP1	1.67	0.95
15:c:142:LEU:O	35:2:1604:U:C5'	2.15	0.95
15:c:143:HIS:CB	35:2:1604:U:H5'	1.97	0.95
22:p:27:TRP:HB2	35:2:448:C:O2'	1.67	0.95
24:r:163:ARG:HB2	35:2:69:G:O6	1.64	0.95
35:2:314:C:O2	35:2:354:C:N4	1.99	0.95
35:2:322:G:N1	35:2:325:G:O6	1.99	0.95
35:2:1073:G:C6	35:2:1074:G:C6	2.55	0.95
1:E:46:UNK:O	1:F:338:UNK:HA	1.67	0.94
19:i:57:LEU:CB	35:2:416:A:N1	2.30	0.94
21:o:211:PHE:CG	35:2:1066:C:O3'	2.19	0.94
24:r:192:LYS:HD3	35:2:282:C:O5'	1.67	0.94
31:y:154:PHE:CE2	35:2:351:C:H5	1.77	0.94
35:2:324:U:N3	35:2:344:A:N1	2.15	0.94
35:2:411:C:OP2	35:2:412:A:N6	2.00	0.94
9:V:92:ALA:O	27:u:181:ALA:CB	2.14	0.94
23:q:153:GLY:HA3	23:q:154:ALA:HB3	1.45	0.94
31:y:88:ASP:CA	35:2:351:C:H42	1.79	0.94
35:2:912:U:O2	35:2:914:G:N1	1.98	0.94
35:2:1094:G:H2'	35:2:1095:U:C2	2.01	0.94
35:2:1480:G:H5'	35:2:1480:G:H8	1.30	0.94
21:o:208:LYS:CE	35:2:1064:G:H22	1.80	0.94
21:o:211:PHE:CG	35:2:1067:C:OP1	2.19	0.94
26:t:14:THR:HG21	35:2:354:C:P	2.06	0.94
35:2:466:U:H3'	35:2:467:G:C8	2.01	0.94
24:r:132:LYS:HE2	24:r:163:ARG:HD3	1.49	0.94
24:r:165:PHE:CB	35:2:69:G:N2	2.09	0.94
24:r:176:CYS:HA	35:2:67:A:C5'	1.96	0.94
24:r:193:VAL:CG1	35:2:284:G:H3'	1.95	0.94
35:2:1600:A:O2'	35:2:1602:C:H5	1.48	0.94
1:D:134:UNK:CA	1:E:113:UNK:CB	2.45	0.94
9:U:96:GLN:CB	36:3:266:C:C5	2.51	0.94
21:o:21:ARG:NH2	29:w:71:CYS:C	2.25	0.94
35:2:153:G:O6	35:2:161:U:C2	2.21	0.94
1:P:287:UNK:CA	14:b:19:ILE:C	2.31	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:y:33:TYR:CE1	35:2:249:U:P	2.60	0.94
35:2:103:A:N3	35:2:104:A:N6	2.15	0.94
35:2:107:C:N4	35:2:307:G:O6	2.00	0.94
3:H:67:UNK:CB	3:H:142:UNK:O	2.14	0.94
16:d:107:ARG:O	16:d:108:VAL:CB	2.16	0.94
26:t:22:ARG:CB	35:2:385:A:H5'	1.98	0.94
35:2:119:A:H1'	35:2:397:A:C8	2.03	0.94
35:2:390:G:H22	35:2:407:A:H2	1.07	0.94
35:2:549:G:N1	35:2:588:U:O4	2.00	0.94
9:V:98:ALA:O	36:3:192:A:C4	2.21	0.94
23:q:197:GLU:H	23:q:200:ASN:H	1.14	0.94
31:y:63:LEU:HD11	31:y:127:CYS:HB2	1.50	0.94
35:2:454:U:O2'	35:2:455:C:OP2	1.86	0.94
18:g:42:LEU:CB	21:o:117:ILE:CG1	2.45	0.93
19:i:882:ALA:H	19:i:886:ALA:HB3	1.29	0.93
21:o:208:LYS:HA	35:2:1066:C:O4'	1.68	0.93
26:t:55:ARG:CZ	35:2:396:G:N7	2.32	0.93
33:0:35:LYS:N	35:2:520:A:C4'	2.29	0.93
35:2:867:G:N2	35:2:961:U:O2	2.01	0.93
35:2:894:U:O2	35:2:918:U:N3	2.01	0.93
24:r:169:LYS:HZ2	35:2:72:A:H5''	0.80	0.93
35:2:630:A:N6	35:2:969:C:O2	2.01	0.93
35:2:1092:A:H2'	35:2:1094:G:N7	1.84	0.93
35:2:1573:A:H4'	35:2:1574:G:C5'	1.97	0.93
21:o:139:ARG:CZ	35:2:884:A:H4'	1.98	0.93
24:r:187:ARG:O	35:2:141:U:O4	1.84	0.93
36:3:99:C:O2	36:3:253:G:N2	2.00	0.93
16:d:67:ARG:CA	35:2:1097:U:H3	1.78	0.93
20:k:135:ALA:HB2	35:2:1523:G:C2	2.03	0.93
21:o:193:ASN:HB3	21:o:199:TYR:CE1	2.02	0.93
21:o:208:LYS:HE3	35:2:1064:G:N2	1.83	0.93
31:y:37:ILE:O	35:2:246:G:C1'	2.16	0.93
35:2:930:A:OP2	35:2:931:C:N4	2.01	0.93
8:T:327:HIS:HA	36:3:108:A:C6	2.03	0.93
22:p:3:ARG:HB2	35:2:94:U:C5'	1.98	0.93
24:r:59:ASP:OD1	35:2:418:G:C2'	2.16	0.93
24:r:94:ARG:HB2	35:2:406:U:C3'	1.95	0.93
24:r:161:ILE:O	35:2:67:A:C5'	2.15	0.93
33:0:34:SER:CA	35:2:520:A:C1'	2.47	0.93
35:2:318:U:C4	35:2:346:G:O6	2.22	0.93
15:c:183:THR:O	35:2:1623:C:H5''	0.75	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:548:G:N2	35:2:589:C:O2	2.01	0.93
35:2:634:G:N2	35:2:965:U:OP1	2.02	0.93
9:V:25:ALA:CA	27:u:184:SER:CA	2.46	0.93
1:n:269:UNK:CA	26:t:44:THR:OG1	2.17	0.93
22:p:26:ILE:HD11	35:2:461:G:C5'	1.92	0.93
27:u:114:TYR:HA	27:u:119:ALA:HB3	1.50	0.93
35:2:184:C:H3'	35:2:185:U:H6	1.33	0.93
35:2:318:U:N3	35:2:346:G:C6	2.28	0.93
35:2:872:G:O6	35:2:955:A:N1	1.75	0.93
35:2:1084:A:C1'	35:2:1094:G:H4'	1.98	0.93
15:c:121:ASN:CA	35:2:1605:G:O5'	2.15	0.93
24:r:132:LYS:HZ1	24:r:163:ARG:HB3	1.34	0.93
26:t:185:ARG:NE	35:2:208:U:H1'	1.82	0.93
35:2:116:U:O2'	35:2:334:G:N3	2.01	0.93
35:2:391:A:N1	35:2:406:U:N3	2.15	0.93
35:2:929:A:OP2	35:2:930:A:N6	2.00	0.93
1:D:116:UNK:O	1:E:156:UNK:CB	2.15	0.93
5:O:563:UNK:CB	29:w:72:LYS:CB	2.46	0.93
20:k:135:ALA:HB3	35:2:1523:G:H22	1.30	0.93
24:r:158:LYS:N	35:2:78:A:C6	2.37	0.93
31:y:136:PHE:HZ	35:2:304:U:HO2'	0.94	0.93
33:0:57:GLY:HA2	35:2:522:U:O5'	1.68	0.93
36:3:85:A:N6	36:3:264:G:N1	2.17	0.93
5:O:481:UNK:CB	21:o:16:LYS:HZ1	1.81	0.93
16:d:70:GLY:C	35:2:1097:U:C6	2.47	0.93
16:d:70:GLY:C	35:2:1097:U:H5	1.50	0.93
35:2:120:U:H3'	35:2:120:U:OP2	1.68	0.93
35:2:485:A:N6	35:2:502:U:O4	2.01	0.93
1:K:280:UNK:CB	18:h:208:ALA:HB3	1.99	0.92
1:N:227:UNK:CB	5:O:460:UNK:CB	2.47	0.92
21:o:108:ILE:HG22	21:o:109:THR:H	1.34	0.92
24:r:157:LYS:CG	35:2:78:A:N7	2.29	0.92
31:y:66:ARG:HH11	31:y:66:ARG:HG3	1.35	0.92
32:z:56:HIS:CB	35:2:863:A:H4'	1.99	0.92
21:o:193:ASN:HB3	21:o:199:TYR:HE1	1.35	0.92
22:p:28:ALA:N	35:2:448:C:H4'	1.82	0.92
35:2:311:U:O4	35:2:355:G:O6	1.88	0.92
35:2:912:U:H5'	35:2:913:G:C8	2.04	0.92
36:3:134:C:O2'	36:3:181:A:N6	2.03	0.92
4:I:513:MET:O	1:J:280:UNK:O	1.83	0.92
1:P:285:UNK:C	14:b:20:ASN:O	2.17	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:331:ARG:CB	36:3:104:C:O3'	2.16	0.92
17:f:173:THR:CB	23:q:211:ILE:O	2.17	0.92
18:g:75:GLU:CB	21:o:116:MET:N	2.26	0.92
35:2:123:G:O6	35:2:124:A:N6	2.01	0.92
35:2:309:C:N4	35:2:357:G:O6	2.02	0.92
35:2:628:G:N2	35:2:971:A:N6	2.15	0.92
35:2:883:C:N3	35:2:945:U:C4	2.37	0.92
1:D:77:UNK:O	1:E:161:UNK:C	2.17	0.92
18:g:46:TYR:H	21:o:119:LYS:C	1.77	0.92
21:o:208:LYS:HA	35:2:1066:C:H1'	1.51	0.92
31:y:101:LYS:CB	35:2:351:C:C6	2.51	0.92
35:2:460:A:H3'	35:2:461:G:H8	1.35	0.92
35:2:883:C:H2'	35:2:884:A:C8	2.04	0.92
35:2:1484:G:H21	35:2:1606:C:H1'	1.32	0.92
33:0:59:SER:CA	35:2:522:U:H1'	2.00	0.92
35:2:209:U:N3	35:2:256:A:N1	2.17	0.92
35:2:444:C:N4	35:2:460:A:N7	2.08	0.92
35:2:450:U:N3	35:2:456:A:N1	2.17	0.92
9:U:127:LYS:CB	10:W:222:ASP:CB	2.46	0.92
35:2:103:A:N7	35:2:358:U:N3	2.16	0.92
35:2:136:C:H3'	35:2:136:C:OP2	1.70	0.92
35:2:315:A:H4'	35:2:316:A:H4'	1.51	0.92
35:2:874:C:H2'	35:2:875:G:C8	2.04	0.92
3:H:1:UNK:CB	3:H:173:UNK:N	2.32	0.92
21:o:211:PHE:HE1	35:2:1067:C:H5''	1.35	0.92
26:t:74:SER:OG	35:2:210:A:C4'	2.17	0.92
35:2:273:G:O6	35:2:283:U:O2	1.87	0.92
35:2:977:A:N7	35:2:1024:U:O4	2.02	0.92
24:r:59:ASP:OD1	35:2:418:G:O2'	1.85	0.92
1:P:289:UNK:CA	14:b:16:HIS:CB	2.48	0.92
21:o:89:LEU:HB3	21:o:101:THR:HG21	1.51	0.92
35:2:491:C:O2	35:2:496:G:N2	2.02	0.92
2:G:3234:GLY:CA	33:0:145:ASN:C	2.41	0.92
26:t:110:VAL:HG12	26:t:111:GLU:H	1.35	0.92
35:2:50:C:C5	35:2:424:C:H3'	2.04	0.92
35:2:633:U:H3'	35:2:634:G:H8	1.34	0.92
35:2:868:G:N1	35:2:960:U:N3	1.88	0.92
18:g:45:LYS:CB	21:o:120:TRP:CA	2.47	0.91
24:r:163:ARG:CG	35:2:69:G:OP2	2.17	0.91
24:r:165:PHE:HB3	35:2:69:G:C2	2.05	0.91
35:2:208:U:N3	35:2:258:C:O2	2.03	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:512:A:N6	35:2:539:G:O2'	2.04	0.91
35:2:1592:A:H2'	35:2:1593:A:H8	1.35	0.91
26:t:94:THR:OG1	35:2:328:A:O2'	1.85	0.91
35:2:1590:G:H2'	35:2:1591:C:C5	2.05	0.91
3:H:-2:UNK:O	3:H:170:UNK:O	1.89	0.91
24:r:192:LYS:CD	35:2:282:C:H5'	2.00	0.91
29:w:100:ALA:O	29:w:104:ALA:HB2	1.70	0.91
35:2:107:C:N3	35:2:307:G:N1	2.17	0.91
22:p:12:ILE:HG21	35:2:378:A:OP2	1.70	0.91
33:0:34:SER:CA	35:2:520:A:H1'	2.00	0.91
35:2:273:G:C6	35:2:283:U:O2	2.22	0.91
35:2:1575:G:H2'	35:2:1575:G:N3	1.85	0.91
15:c:143:HIS:HA	35:2:1604:U:OP1	1.68	0.91
18:g:46:TYR:CB	21:o:119:LYS:HE3	1.99	0.91
21:o:135:GLY:O	21:o:227:PRO:HD2	1.68	0.91
26:t:55:ARG:CZ	35:2:396:G:C8	2.54	0.91
35:2:1053:G:N2	35:2:1066:C:O2	2.04	0.91
1:J:162:UNK:CB	15:c:133:ARG:CB	2.49	0.91
1:P:339:UNK:HA	14:b:22:LYS:HA	1.52	0.91
35:2:361:C:OP2	35:2:361:C:H4'	1.69	0.91
35:2:1602:C:H3'	35:2:1603:U:H6	1.36	0.91
1:B:113:UNK:CB	10:W:198:THR:C	2.44	0.91
8:T:331:ARG:CB	36:3:104:C:C3'	2.49	0.91
9:V:128:THR:C	10:X:157:PRO:CB	2.44	0.91
9:V:128:THR:N	10:X:157:PRO:CB	2.34	0.91
26:t:194:LYS:HE2	31:y:4:GLN:CD	1.95	0.91
35:2:1052:U:N3	35:2:1053:G:N7	2.18	0.91
35:2:1160:A:H2'	35:2:1161:C:C6	2.05	0.91
1:P:286:UNK:C	14:b:19:ILE:O	2.18	0.91
19:i:57:LEU:C	35:2:416:A:H61	1.77	0.91
21:o:163:LYS:HG2	35:2:1045:C:OP1	1.70	0.91
35:2:370:A:H3'	35:2:371:G:C8	2.05	0.91
35:2:1467:C:H5'	35:2:1602:C:OP1	1.70	0.91
3:H:-2:UNK:C	3:H:170:UNK:O	2.18	0.91
26:t:55:ARG:NH2	35:2:396:G:C8	2.39	0.91
27:u:71:PHE:O	27:u:75:ALA:HB2	1.71	0.91
35:2:901:G:H5''	35:2:902:G:N7	1.86	0.91
15:c:142:LEU:CA	30:x:129:PHE:CA	2.29	0.91
1:n:294:UNK:C	26:t:45:ILE:CG2	2.44	0.91
31:y:66:ARG:HD3	35:2:113:U:P	2.09	0.91
19:j:738:LYS:CB	19:j:802:ALA:HB1	2.02	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:165:SER:HB3	35:2:874:C:O3'	1.71	0.90
31:y:101:LYS:HB3	35:2:351:C:H5	1.30	0.90
35:2:93:A:OP2	35:2:93:A:H4'	1.71	0.90
35:2:146:U:O2	35:2:168:A:N7	1.79	0.90
35:2:483:A:N1	35:2:504:U:N3	2.18	0.90
35:2:490:C:C2	35:2:498:G:C2	2.59	0.90
35:2:497:G:H2'	35:2:498:G:C8	2.05	0.90
35:2:922:G:H8	35:2:922:G:OP2	1.54	0.90
1:L:57:UNK:HA	5:M:350:UNK:CA	1.99	0.90
1:P:287:UNK:CB	14:b:20:ASN:H	1.64	0.90
19:i:738:LYS:CB	19:i:802:ALA:HB1	2.02	0.90
21:o:208:LYS:CE	35:2:1064:G:H1	1.84	0.90
35:2:211:U:O4	35:2:254:A:N6	2.04	0.90
35:2:326:G:N1	35:2:343:C:N3	2.19	0.90
20:k:135:ALA:HB2	35:2:1523:G:N2	1.80	0.90
26:t:19:PRO:HB3	35:2:103:A:P	2.12	0.90
31:y:27:THR:HG22	31:y:28:SER:H	1.34	0.90
33:0:30:SER:O	35:2:534:A:H4'	1.68	0.90
35:2:48:G:O6	35:2:432:G:C2	2.24	0.90
18:g:76:GLY:HA2	21:o:118:ARG:HE	1.37	0.90
1:l:324:UNK:O	23:q:125:THR:C	2.07	0.90
25:s:136:LEU:HD23	25:s:136:LEU:H	1.33	0.90
35:2:131:C:N4	35:2:182:A:N1	2.19	0.90
35:2:1480:G:H8	35:2:1480:G:C5'	1.84	0.90
1:n:294:UNK:C	26:t:45:ILE:HG22	2.01	0.90
31:y:76:SER:HB2	35:2:347:G:C5'	1.99	0.90
35:2:60:U:H4'	35:2:453:U:H5	1.33	0.90
35:2:64:U:N3	35:2:86:A:N1	2.19	0.90
35:2:366:A:N1	35:2:375:U:N3	2.18	0.90
35:2:966:A:H8	35:2:966:A:OP2	1.54	0.90
35:2:1160:A:H2'	35:2:1161:C:H6	1.33	0.90
35:2:481:A:N1	35:2:507:U:N3	2.20	0.90
35:2:547:U:N3	35:2:590:C:N3	2.18	0.90
18:g:46:TYR:CB	21:o:119:LYS:HE2	2.00	0.90
31:y:129:PRO:HG3	35:2:115:G:O6	1.71	0.90
35:2:37:U:N3	35:2:471:A:N1	2.19	0.90
35:2:97:C:O2'	35:2:427:C:OP2	1.89	0.90
35:2:180:A:H1'	35:2:181:A:H4'	1.53	0.90
35:2:281:G:H2'	35:2:282:C:H1'	1.52	0.90
1:E:46:UNK:O	1:F:338:UNK:C	2.20	0.90
1:P:287:UNK:HA	14:b:19:ILE:C	1.96	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:k:135:ALA:CB	35:2:1523:G:H21	1.77	0.90
1:n:294:UNK:O	26:t:45:ILE:CB	2.07	0.90
23:q:161:ASP:HA	23:q:162:VAL:CB	2.01	0.90
31:y:66:ARG:HD3	35:2:113:U:OP2	1.71	0.90
31:y:80:ASN:HD21	35:2:344:A:C1'	1.83	0.90
35:2:31:C:H2'	35:2:32:U:N3	1.86	0.90
35:2:487:G:HO2'	35:2:488:G:H8	1.19	0.90
35:2:883:C:H2'	35:2:884:A:H8	1.36	0.90
9:U:126:GLY:N	10:W:188:VAL:HA	1.87	0.90
16:d:89:ILE:O	16:d:118:TRP:C	2.15	0.90
33:0:34:SER:CA	35:2:520:A:O4'	2.20	0.90
30:x:12:LYS:HA	30:x:17:THR:HA	1.53	0.89
31:y:103:HIS:CE1	35:2:351:C:O2'	2.25	0.89
33:0:57:GLY:CA	35:2:522:U:H5'	1.80	0.89
35:2:402:C:C5	35:2:403:G:H8	1.88	0.89
2:G:3235:GLU:CA	33:0:144:LYS:O	2.20	0.89
3:H:137:UNK:O	3:H:161:UNK:O	1.89	0.89
3:H:151:UNK:CB	3:H:240:UNK:CB	2.49	0.89
31:y:84:ILE:CD1	35:2:347:G:O3'	2.16	0.89
35:2:485:A:C6	35:2:502:U:C4	2.59	0.89
35:2:519:C:OP2	35:2:519:C:H3'	1.72	0.89
35:2:886:U:O4	35:2:926:A:N6	2.04	0.89
35:2:1474:G:H2'	35:2:1475:A:H8	1.37	0.89
35:2:1580:C:H2'	35:2:1581:C:C6	2.05	0.89
36:3:95:U:H3'	36:3:96:C:C6	2.07	0.89
6:Q:55:UNK:CB	6:Q:64:UNK:CB	2.49	0.89
24:r:175:LYS:CB	35:2:69:G:OP1	2.19	0.89
24:r:176:CYS:CB	35:2:67:A:C8	2.52	0.89
26:t:83:LYS:NZ	35:2:259:U:OP2	2.04	0.89
1:A:294:UNK:HA	1:B:65:UNK:C	2.02	0.89
2:G:3234:GLY:C	33:0:147:VAL:HG23	1.67	0.89
15:c:142:LEU:C	30:x:129:PHE:HA	1.96	0.89
15:c:171:VAL:CB	35:2:1177:C:H1'	2.03	0.89
24:r:165:PHE:HB3	35:2:69:G:H21	0.74	0.89
35:2:517:U:N3	35:2:535:A:N1	2.20	0.89
25:s:103:LYS:HA	25:s:113:ARG:NH1	1.86	0.89
35:2:134:U:O2	35:2:136:C:N4	2.05	0.89
35:2:343:C:H2'	35:2:344:A:C8	2.08	0.89
1:D:116:UNK:O	1:E:157:UNK:N	2.06	0.89
15:c:96:PRO:O	30:x:131:GLY:CA	2.21	0.89
35:2:143:G:N2	35:2:172:C:O2	2.06	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:174:U:OP2	35:2:174:U:H6	1.55	0.89
35:2:321:C:N4	35:2:341:A:N7	2.19	0.89
35:2:1056:U:N3	35:2:1063:U:O4	2.06	0.89
9:V:25:ALA:CA	27:u:184:SER:HA	2.03	0.89
27:u:62:ARG:H	27:u:63:ASP:CB	1.86	0.89
35:2:187:G:C8	35:2:187:G:OP2	2.26	0.89
19:i:57:LEU:HA	35:2:416:A:N1	1.86	0.89
21:o:205:LYS:HD3	35:2:1055:U:O2'	1.73	0.89
35:2:58:U:O2	35:2:89:G:N1	2.05	0.89
35:2:625:C:O2'	35:2:939:A:N3	2.05	0.89
36:3:201:A:N1	36:3:245:U:N3	2.19	0.89
9:U:96:GLN:CB	36:3:266:C:C6	2.56	0.89
22:p:26:ILE:HD11	35:2:461:G:C4'	1.91	0.89
29:w:64:ALA:HA	29:w:68:ALA:H	1.36	0.89
36:3:158:C:H2'	36:3:159:G:C8	2.08	0.89
1:D:96:UNK:HA	1:E:156:UNK:O	1.73	0.89
8:S:314:PRO:C	36:3:89:A:HO2'	1.70	0.89
18:g:45:LYS:HA	21:o:118:ARG:HB3	1.53	0.89
21:o:126:ALA:HB1	21:o:175:ASN:ND2	1.88	0.89
21:o:207:THR:CG2	21:o:213:LEU:HG	2.02	0.89
26:t:74:SER:OG	35:2:210:A:H4'	1.70	0.89
31:y:70:ILE:HG23	31:y:87:ARG:NH2	1.88	0.89
33:0:32:THR:OG1	35:2:533:U:C1'	2.20	0.89
35:2:195:G:H2'	35:2:196:G:H8	1.38	0.89
26:t:198:PHE:CE1	26:t:202:LYS:HE2	2.08	0.88
9:U:41:GLU:CB	36:3:263:U:P	2.61	0.88
19:i:58:TRP:N	35:2:416:A:N6	2.21	0.88
24:r:192:LYS:HD3	35:2:282:C:C5'	2.01	0.88
33:0:121:THR:CG2	35:2:84:A:C2'	2.50	0.88
35:2:127:G:C6	35:2:184:C:H4'	2.08	0.88
35:2:483:A:N6	35:2:504:U:C4	2.40	0.88
1:D:116:UNK:N	1:E:156:UNK:HA	1.87	0.88
24:r:176:CYS:HB2	35:2:67:A:N9	1.82	0.88
35:2:489:C:O2	35:2:498:G:N2	2.05	0.88
35:2:1467:C:O2'	35:2:1468:U:H5'	1.73	0.88
15:c:144:GLU:CA	35:2:1603:U:O2'	2.20	0.88
19:j:163:TYR:HA	19:j:167:MET:CA	2.03	0.88
35:2:424:C:H2'	35:2:427:C:H5	1.39	0.88
35:2:625:C:N3	35:2:974:A:N6	2.19	0.88
9:V:26:VAL:N	27:u:183:ALA:CB	2.36	0.88
15:c:143:HIS:CB	35:2:1604:U:H4'	2.01	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:173:ARG:HD2	35:2:68:A:N7	1.52	0.88
27:u:123:HIS:O	27:u:125:ALA:N	2.07	0.88
35:2:314:C:H2'	35:2:354:C:H42	1.38	0.88
35:2:1592:A:H2'	35:2:1593:A:C8	2.07	0.88
35:2:1616:G:H21	35:2:1618:C:H41	1.12	0.88
2:G:3236:SER:C	33:0:147:VAL:HG13	1.69	0.88
3:H:215:UNK:C	3:H:245:UNK:O	2.22	0.88
31:y:15:VAL:HG12	31:y:17:LEU:HG	1.54	0.88
23:q:144:GLU:HA	23:q:160:VAL:O	1.73	0.88
24:r:72:ARG:NH1	35:2:419:G:O5'	2.06	0.88
35:2:191:C:N3	35:2:195:G:N1	2.22	0.88
35:2:495:C:O2'	35:2:496:G:OP2	1.90	0.88
35:2:1041:G:N2	35:2:1078:C:O2	2.06	0.88
36:3:75:A:H2'	36:3:76:C:C6	2.08	0.88
19:i:163:TYR:HA	19:i:167:MET:CA	2.04	0.88
21:o:209:ASN:OD1	35:2:1064:G:H2'	1.72	0.88
25:s:44:GLN:NE2	25:s:46:LYS:HE3	1.89	0.88
25:s:44:GLN:HE22	25:s:46:LYS:HE3	1.36	0.88
33:0:59:SER:CB	35:2:522:U:H1'	2.04	0.88
33:0:85:PRO:CD	35:2:525:A:C6	2.56	0.88
35:2:153:G:O6	35:2:161:U:O2	1.92	0.88
35:2:1480:G:H5'	35:2:1480:G:C8	2.09	0.88
35:2:1628:U:H2'	35:2:1629:G:C8	2.07	0.88
35:2:204:G:N2	35:2:263:C:O2	2.07	0.88
35:2:318:U:C2	35:2:346:G:N1	2.41	0.88
9:V:92:ALA:O	27:u:181:ALA:CA	2.23	0.87
9:V:98:ALA:O	36:3:192:A:C6	2.27	0.87
1:n:294:UNK:O	26:t:45:ILE:CG2	2.21	0.87
24:r:93:LYS:CA	35:2:406:U:H5'	2.05	0.87
33:0:57:GLY:N	35:2:522:U:OP1	2.07	0.87
35:2:115:G:C6	35:2:335:U:H1'	2.09	0.87
35:2:144:U:O4	35:2:171:A:N6	2.06	0.87
35:2:395:U:N3	35:2:399:A:N7	2.21	0.87
1:D:114:UNK:N	1:E:139:UNK:CB	2.38	0.87
19:i:57:LEU:C	35:2:416:A:N6	2.30	0.87
35:2:191:C:O2	35:2:195:G:N2	2.07	0.87
35:2:460:A:H3'	35:2:461:G:C8	2.09	0.87
21:o:211:PHE:CG	35:2:1067:C:P	2.68	0.87
35:2:147:A:N7	35:2:167:U:O2	2.06	0.87
35:2:410:A:N1	35:2:423:G:C6	2.42	0.87
35:2:477:A:O2'	35:2:478:A:O4'	1.92	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:74:UNK:CB	5:M:31:UNK:O	2.22	0.87
18:g:42:LEU:CB	21:o:117:ILE:HG21	2.03	0.87
26:t:42:SER:HA	26:t:45:ILE:HG13	1.54	0.87
35:2:53:G:N2	35:2:427:C:O2	2.07	0.87
35:2:1174:C:H2'	35:2:1175:U:C6	2.09	0.87
1:L:75:UNK:N	5:M:349:UNK:N	2.19	0.87
16:d:67:ARG:HA	35:2:1097:U:N3	1.88	0.87
26:t:56:VAL:HG21	35:2:333:A:H4'	1.56	0.87
35:2:187:G:N3	35:2:198:A:N7	2.00	0.87
35:2:1042:G:O6	35:2:1077:C:N4	2.06	0.87
36:3:101:G:N1	36:3:251:U:N3	2.19	0.87
8:T:326:ILE:CA	36:3:108:A:H8	1.88	0.87
15:c:160:GLY:HA2	15:c:271:GLY:N	1.89	0.87
24:r:163:ARG:NE	35:2:69:G:P	2.48	0.87
33:0:31:PRO:HB2	35:2:533:U:C2	2.10	0.87
35:2:130:C:H3'	35:2:131:C:H4'	1.55	0.87
35:2:252:U:O2'	35:2:253:A:H5''	1.75	0.87
35:2:286:C:H2'	35:2:287:G:C8	2.10	0.87
35:2:293:U:H2'	35:2:294:C:C6	2.09	0.87
29:w:60:ALA:O	29:w:63:ALA:HB3	1.75	0.87
35:2:138:A:O2'	35:2:139:C:OP2	1.91	0.87
8:T:297:VAL:HA	36:3:109:C:H5''	1.54	0.87
35:2:37:U:O4	35:2:39:A:N6	2.08	0.87
35:2:192:U:O2'	35:2:193:U:O4'	1.92	0.87
15:c:143:HIS:HA	35:2:1604:U:C5'	2.04	0.87
24:r:58:LYS:HZ1	35:2:418:G:H8	0.89	0.87
24:r:93:LYS:C	35:2:406:U:C5'	2.47	0.87
31:y:17:LEU:HA	31:y:20:LYS:HE2	1.55	0.87
31:y:80:ASN:CB	35:2:325:G:O2'	2.23	0.87
33:0:34:SER:HB3	35:2:519:C:H4'	1.56	0.87
35:2:195:G:H2'	35:2:196:G:C8	2.10	0.87
3:H:1:UNK:N	3:H:173:UNK:CB	2.37	0.86
8:S:316:LYS:H	36:3:90:C:H5'	1.40	0.86
24:r:76:LEU:HD21	35:2:406:U:O3'	1.74	0.86
8:T:321:PHE:HA	36:3:108:A:O4'	1.75	0.86
26:t:22:ARG:HH11	26:t:25:ARG:NH1	1.73	0.86
27:u:66:ASP:C	27:u:68:LYS:H	1.80	0.86
30:x:93:HIS:CB	30:x:94:GLN:HA	2.06	0.86
35:2:497:G:H8	35:2:497:G:OP2	1.57	0.86
1:B:269:UNK:C	1:B:297:UNK:CB	2.54	0.86
1:P:269:UNK:C	1:P:297:UNK:CB	2.54	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:326:ILE:CA	36:3:108:A:C8	2.58	0.86
8:T:331:ARG:HA	36:3:104:C:HO3'	1.07	0.86
11:Y:207:ARG:CB	36:3:183:A:OP1	2.22	0.86
15:c:143:HIS:CB	35:2:1604:U:C5'	2.54	0.86
1:N:269:UNK:C	1:N:297:UNK:CB	2.54	0.86
1:l:269:UNK:C	1:l:297:UNK:CB	2.54	0.86
21:o:208:LYS:HE3	35:2:1064:G:C2	2.10	0.86
22:p:27:TRP:CG	35:2:448:C:O2'	2.16	0.86
35:2:420:A:C8	35:2:420:A:OP2	2.27	0.86
35:2:883:C:C4	35:2:945:U:O4	2.28	0.86
36:3:95:U:H3'	36:3:96:C:H6	1.38	0.86
3:H:215:UNK:O	3:H:245:UNK:O	1.92	0.86
1:L:269:UNK:C	1:L:297:UNK:CB	2.54	0.86
1:P:284:UNK:O	14:b:22:LYS:C	2.19	0.86
15:c:105:LYS:O	35:2:1159:C:O2	1.94	0.86
22:p:109:GLY:HA2	22:p:191:ILE:HD11	1.54	0.86
24:r:161:ILE:O	35:2:67:A:H5'	1.72	0.86
26:t:19:PRO:HD3	35:2:104:A:H4'	1.58	0.86
31:y:84:ILE:HD11	35:2:347:G:HO2'	1.05	0.86
32:z:56:HIS:CB	35:2:864:U:P	2.64	0.86
35:2:419:G:OP2	35:2:419:G:C8	2.29	0.86
35:2:549:G:N1	35:2:588:U:C4	2.43	0.86
35:2:865:A:H3'	35:2:866:G:H8	1.40	0.86
21:o:165:SER:HA	21:o:168:ARG:HE	1.40	0.86
26:t:195:GLU:HB3	31:y:10:GLN:NE2	1.89	0.86
35:2:110:U:OP2	35:2:110:U:H6	1.58	0.86
1:J:269:UNK:C	1:J:297:UNK:CB	2.54	0.86
18:g:42:LEU:CA	21:o:114:CYS:O	2.23	0.86
1:l:338:UNK:N	23:q:199:ILE:CB	2.38	0.86
1:n:269:UNK:C	1:n:297:UNK:CB	2.54	0.86
22:p:51:ARG:HA	22:p:51:ARG:HE	1.41	0.86
35:2:491:C:H2'	35:2:493:U:C4	2.11	0.86
8:T:335:GLY:HA2	36:3:109:C:C4	2.10	0.86
24:r:139:ASN:CB	35:2:143:G:OP1	2.23	0.86
24:r:163:ARG:CD	35:2:69:G:C5	2.57	0.86
33:0:121:THR:CG2	35:2:84:A:H2'	2.06	0.86
35:2:151:G:H1	35:2:163:G:H1	1.22	0.86
35:2:156:A:H61	35:2:419:G:H1'	1.40	0.86
35:2:199:G:OP2	35:2:199:G:H2'	1.76	0.86
35:2:526:A:H5''	35:2:527:A:N1	1.89	0.86
35:2:1626:U:C2'	35:2:1627:U:H5'	2.05	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:269:UNK:C	1:F:297:UNK:CB	2.54	0.86
22:p:62:THR:HG22	35:2:455:C:C4	2.11	0.86
31:y:80:ASN:HD21	35:2:344:A:C2'	1.89	0.86
31:y:132:LYS:CD	35:2:324:U:OP1	2.24	0.86
35:2:172:C:H2'	35:2:173:A:H8	1.40	0.86
35:2:485:A:C2	35:2:502:U:C2	2.64	0.86
35:2:1055:U:H2'	35:2:1056:U:C6	2.00	0.86
3:H:216:UNK:HA	3:H:245:UNK:C	2.05	0.86
9:V:100:ALA:HB2	36:3:193:U:OP2	1.74	0.86
15:c:95:ASP:N	35:2:1604:U:C5	2.43	0.86
26:t:14:THR:HG23	35:2:354:C:H5''	0.87	0.86
26:t:83:LYS:HD2	35:2:259:U:P	2.16	0.86
35:2:269:G:C8	35:2:269:G:OP2	2.29	0.86
35:2:272:U:C2	35:2:284:G:C2	2.60	0.86
36:3:99:C:N4	36:3:253:G:O6	2.09	0.86
1:E:269:UNK:C	1:E:297:UNK:CB	2.54	0.85
21:o:140:VAL:HG12	21:o:221:VAL:HG22	1.58	0.85
22:p:161:THR:HG21	22:p:229:VAL:O	1.76	0.85
35:2:35:U:O4	35:2:36:C:N4	2.08	0.85
35:2:462:G:C8	35:2:462:G:OP2	2.29	0.85
35:2:927:C:H2'	35:2:928:U:H6	1.41	0.85
1:C:269:UNK:C	1:C:297:UNK:CB	2.54	0.85
1:D:269:UNK:C	1:D:297:UNK:CB	2.54	0.85
9:V:100:ALA:HB2	36:3:192:A:O2'	1.75	0.85
31:y:68:LYS:NZ	35:2:303:U:O2'	2.10	0.85
31:y:80:ASN:HB2	35:2:325:G:O2'	1.76	0.85
35:2:63:G:OP2	35:2:63:G:H8	1.59	0.85
2:G:3237:LEU:N	33:0:147:VAL:CB	2.39	0.85
9:U:44:LYS:CB	36:3:262:C:OP1	2.25	0.85
16:d:112:ILE:N	5:m:409:UNK:CB	2.32	0.85
18:g:76:GLY:C	21:o:117:ILE:H	1.84	0.85
22:p:66:ASN:HB2	35:2:455:C:H42	1.42	0.85
24:r:22:LYS:HA	24:r:25:ASN:ND2	1.92	0.85
29:w:70:LYS:O	29:w:73:GLU:CB	2.25	0.85
1:A:269:UNK:C	1:A:297:UNK:CB	2.54	0.85
1:K:269:UNK:C	1:K:297:UNK:CB	2.54	0.85
5:O:587:UNK:CB	29:w:75:GLY:HA2	2.06	0.85
18:g:41:THR:HA	21:o:114:CYS:HG	1.40	0.85
22:p:26:ILE:HD11	35:2:461:G:H5''	1.47	0.85
24:r:175:LYS:N	35:2:68:A:O5'	1.95	0.85
33:0:140:SER:HA	33:0:143:LEU:HD12	1.56	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1591:C:H2'	35:2:1592:A:C8	2.10	0.85
24:r:92:ARG:NH1	35:2:393:C:H2'	1.91	0.85
35:2:57:G:N1	35:2:90:C:N3	2.24	0.85
35:2:58:U:O2'	35:2:59:C:OP2	1.95	0.85
35:2:322:G:O6	35:2:343:C:N4	2.09	0.85
35:2:431:C:C3'	35:2:432:G:H8	1.88	0.85
35:2:435:C:H2'	35:2:436:A:C8	2.10	0.85
35:2:616:G:P	35:2:1085:G:H4'	2.16	0.85
1:E:306:UNK:CB	1:F:326:UNK:C	2.54	0.85
9:U:37:LYS:O	36:3:264:G:N7	2.10	0.85
24:r:94:ARG:N	35:2:406:U:H5'	1.91	0.85
26:t:25:ARG:HH21	35:2:385:A:P	1.99	0.85
35:2:114:C:OP2	35:2:115:G:H3'	1.77	0.85
35:2:352:A:H4'	35:2:353:A:H8	1.41	0.85
18:g:45:LYS:CB	21:o:119:LYS:C	2.50	0.85
21:o:208:LYS:HZ1	35:2:1056:U:H6	0.90	0.85
35:2:135:A:OP2	35:2:136:C:H2'	1.76	0.85
35:2:895:G:O6	35:2:917:U:N3	2.09	0.85
35:2:1040:G:H22	35:2:1079:U:H1'	1.41	0.85
36:3:71:U:H2'	36:3:72:C:C6	2.12	0.85
35:2:59:C:O2'	35:2:60:U:O2	1.94	0.85
35:2:161:U:H2'	35:2:162:A:H8	1.41	0.85
35:2:337:G:H5''	35:2:339:C:H5	1.42	0.85
35:2:362:G:H8	35:2:362:G:OP2	1.60	0.85
35:2:1481:C:H1'	35:2:1482:C:O5'	1.76	0.85
36:3:67:C:H2'	36:3:68:A:H8	1.41	0.85
1:K:280:UNK:CB	18:h:208:ALA:CB	2.53	0.85
35:2:187:G:N2	35:2:198:A:OP2	2.09	0.85
35:2:589:C:H3'	35:2:589:C:OP2	1.77	0.85
35:2:895:G:H22	35:2:917:U:H2'	1.40	0.85
6:Q:473:UNK:O	6:Q:484:UNK:CA	2.25	0.84
19:i:788:SER:CB	19:i:858:MET:H	1.90	0.84
35:2:162:A:C8	35:2:162:A:OP2	2.30	0.84
35:2:1042:G:H2'	35:2:1043:A:C8	2.11	0.84
18:g:42:LEU:CB	21:o:117:ILE:CG2	2.55	0.84
21:o:111:ASP:O	21:o:115:SER:HB2	1.77	0.84
21:o:168:ARG:NH1	35:2:875:G:OP2	1.89	0.84
21:o:211:PHE:CD1	35:2:1067:C:P	2.70	0.84
24:r:59:ASP:OD1	35:2:156:A:N6	2.10	0.84
26:t:202:LYS:O	26:t:206:LYS:HB2	1.78	0.84
31:y:84:ILE:HD12	35:2:347:G:C3'	2.07	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:0:121:THR:HG21	35:2:84:A:H2'	1.59	0.84
35:2:273:G:N1	35:2:283:U:H1'	1.90	0.84
35:2:1042:G:H2'	35:2:1043:A:H8	1.40	0.84
15:c:94:ARG:H	35:2:1605:G:H5''	1.41	0.84
26:t:19:PRO:HG3	35:2:104:A:C1'	2.07	0.84
31:y:136:PHE:HZ	35:2:304:U:O2'	1.59	0.84
35:2:142:G:O6	35:2:173:A:N6	1.95	0.84
15:c:183:THR:C	35:2:1623:C:H5'	2.02	0.84
33:0:98:LYS:HD3	33:0:98:LYS:N	1.91	0.84
35:2:56:U:O2	35:2:91:G:N2	2.10	0.84
35:2:136:C:H5	35:2:178:U:H3'	1.41	0.84
35:2:280:U:H3'	35:2:281:G:C8	2.12	0.84
24:r:70:ARG:HH21	24:r:104:PRO:HD3	1.43	0.84
24:r:184:THR:HB	24:r:185:PRO:HD2	1.59	0.84
31:y:70:ILE:HG23	31:y:87:ARG:CZ	2.08	0.84
35:2:343:C:H2'	35:2:344:A:H8	1.42	0.84
35:2:1472:C:H4'	35:2:1473:U:H5'	1.60	0.84
1:K:280:UNK:CB	18:h:209:LYS:N	2.39	0.84
19:i:302:ALA:HA	19:i:307:TYR:CB	2.07	0.84
19:j:788:SER:CB	19:j:858:MET:H	1.90	0.84
21:o:149:THR:CG2	35:2:1067:C:O2'	2.26	0.84
26:t:185:ARG:NH2	35:2:208:U:N1	2.25	0.84
2:G:3234:GLY:C	33:0:147:VAL:CG2	2.43	0.84
1:K:115:UNK:HA	1:P:133:UNK:CB	2.06	0.84
19:i:57:LEU:CA	35:2:416:A:N1	2.41	0.84
19:i:882:ALA:HB2	19:i:886:ALA:HB2	1.60	0.84
19:j:302:ALA:HA	19:j:307:TYR:CB	2.07	0.84
21:o:130:CYS:HB2	21:o:138:ILE:HD12	1.57	0.84
24:r:139:ASN:CG	35:2:143:G:P	2.61	0.84
24:r:177:PRO:HB3	35:2:66:U:H5''	1.59	0.84
35:2:47:A:C5	35:2:98:U:H2'	2.13	0.84
35:2:487:G:H4'	35:2:488:G:H5'	1.58	0.84
35:2:592:A:C2	35:2:593:U:H5'	2.13	0.84
25:s:60:ALA:HB1	25:s:91:ILE:HB	1.59	0.84
26:t:77:SER:O	31:y:23:LEU:HD11	1.76	0.84
2:G:2805:ALA:HA	2:G:3185:LYS:CB	2.08	0.84
8:T:296:GLN:O	36:3:109:C:O5'	1.95	0.84
21:o:29:LYS:N	29:w:9:ASP:O	2.11	0.84
22:p:116:LEU:HD12	22:p:120:GLU:HB2	1.58	0.84
24:r:59:ASP:HA	35:2:157:A:N6	1.92	0.84
24:r:157:LYS:HB3	35:2:78:A:N9	1.92	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:t:198:PHE:HE1	26:t:202:LYS:HE2	1.40	0.84
35:2:473:A:OP2	35:2:474:A:C6	2.30	0.84
35:2:1474:G:H2'	35:2:1475:A:C8	2.13	0.84
19:j:503:SER:HA	19:j:510:CYS:N	1.93	0.84
24:r:86:SER:O	24:r:87:ARG:HB2	1.75	0.84
31:y:66:ARG:NE	35:2:113:U:C5'	2.40	0.84
27:u:80:LEU:CA	27:u:81:VAL:CB	2.55	0.83
35:2:287:G:O6	35:2:288:A:N6	2.09	0.83
35:2:428:A:H2'	35:2:429:G:C8	2.12	0.83
35:2:443:C:H2'	35:2:444:C:H4'	1.57	0.83
35:2:490:C:N3	35:2:498:G:C6	2.45	0.83
35:2:1042:G:N1	35:2:1077:C:N3	2.26	0.83
35:2:1161:C:H1'	35:2:1620:C:N4	1.92	0.83
35:2:1595:U:H6	35:2:1596:C:N3	1.76	0.83
9:U:127:LYS:C	10:W:183:ALA:HB3	2.02	0.83
9:V:26:VAL:CB	27:u:183:ALA:HB3	2.07	0.83
24:r:176:CYS:CB	35:2:67:A:C5'	2.56	0.83
26:t:31:ARG:HG3	35:2:333:A:OP2	1.78	0.83
35:2:872:G:C2	35:2:873:U:H1'	2.12	0.83
35:2:960:U:H2'	35:2:961:U:C6	2.12	0.83
22:p:188:GLY:N	22:p:191:ILE:HG22	1.92	0.83
33:0:58:PHE:N	35:2:522:U:C4'	2.41	0.83
35:2:72:A:N6	35:2:81:G:O6	2.11	0.83
3:H:216:UNK:O	3:H:245:UNK:C	2.27	0.83
26:t:14:THR:HG21	35:2:354:C:OP1	1.78	0.83
35:2:23:G:C4	35:2:24:U:H1'	2.13	0.83
35:2:497:G:OP2	35:2:497:G:C8	2.32	0.83
35:2:630:A:C8	35:2:630:A:OP2	2.31	0.83
35:2:1040:G:C6	35:2:1041:G:C6	2.66	0.83
35:2:1580:C:O2'	35:2:1581:C:O4'	1.96	0.83
1:A:269:UNK:O	1:A:297:UNK:CB	2.27	0.83
1:C:269:UNK:O	1:C:297:UNK:CB	2.27	0.83
1:J:269:UNK:O	1:J:297:UNK:CB	2.27	0.83
1:J:306:UNK:HA	7:R:203:UNK:HA	1.60	0.83
1:K:282:UNK:CA	18:h:209:LYS:CB	2.56	0.83
1:N:269:UNK:O	1:N:297:UNK:CB	2.27	0.83
22:p:11:ARG:NH1	22:p:20:LEU:HD22	1.93	0.83
24:r:163:ARG:CD	35:2:69:G:C6	2.61	0.83
33:0:32:THR:HB	35:2:520:A:C2	2.14	0.83
35:2:87:C:C2	35:2:88:U:H1'	2.14	0.83
35:2:245:U:C2	35:2:247:A:H5''	2.12	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:153:G:H1	36:3:176:U:H3	1.26	0.83
1:D:269:UNK:O	1:D:297:UNK:CB	2.27	0.83
1:P:286:UNK:N	14:b:20:ASN:O	2.11	0.83
15:c:92:THR:CB	30:x:130:GLY:CA	2.56	0.83
20:k:137:PHE:CB	20:k:166:ALA:HB1	2.09	0.83
21:o:89:LEU:HB3	21:o:101:THR:CG2	2.07	0.83
21:o:163:LYS:HG3	35:2:1045:C:OP1	1.78	0.83
24:r:173:ARG:NH2	35:2:73:U:P	2.38	0.83
36:3:137:U:O2	36:3:150:G:N2	2.11	0.83
8:T:334:ARG:O	36:3:108:A:OP1	1.96	0.83
19:i:906:SER:CB	24:r:29:ASP:OD2	2.25	0.83
19:j:163:TYR:HA	19:j:167:MET:HA	1.60	0.83
24:r:216:LEU:HD22	24:r:220:LYS:HE3	1.60	0.83
28:v:145:THR:HA	28:v:146:ALA:HB2	1.59	0.83
29:w:22:SER:C	29:w:24:ASN:H	1.86	0.83
33:0:19:ARG:HG3	33:0:73:VAL:HB	1.61	0.83
35:2:70:C:N4	35:2:83:G:O6	2.12	0.83
35:2:415:C:O2	35:2:418:G:N1	2.10	0.83
35:2:617:U:H2'	35:2:618:U:C6	2.14	0.83
1:B:269:UNK:O	1:B:297:UNK:CB	2.27	0.83
2:G:3237:LEU:H	33:0:147:VAL:CB	1.91	0.83
9:U:127:LYS:N	10:W:184:ARG:CB	2.26	0.83
16:d:67:ARG:CA	35:2:1097:U:N3	2.38	0.83
19:i:503:SER:HA	19:i:510:CYS:N	1.93	0.83
22:p:28:ALA:HA	35:2:448:C:H5'	1.59	0.83
25:s:103:LYS:HG2	25:s:113:ARG:HH12	1.43	0.83
35:2:32:U:O2'	35:2:33:U:O2	1.96	0.83
35:2:876:G:H21	35:2:943:C:H3'	1.43	0.83
1:F:269:UNK:O	1:F:297:UNK:CB	2.27	0.83
19:j:858:MET:CA	19:j:862:ALA:HB3	2.09	0.83
22:p:3:ARG:HH12	35:2:95:G:C3'	1.65	0.83
29:w:122:PRO:CB	35:2:887:A:C5'	2.55	0.83
30:x:46:PHE:C	30:x:48:VAL:H	1.83	0.83
35:2:280:U:H3'	35:2:281:G:H8	1.41	0.83
35:2:490:C:N4	35:2:498:G:O6	2.11	0.83
35:2:898:A:N6	35:2:912:U:O5'	2.10	0.83
8:T:321:PHE:HA	36:3:108:A:C1'	2.09	0.83
9:V:110:ALA:HB2	27:u:184:SER:CB	2.08	0.83
16:d:71:ALA:N	35:2:1097:U:H5	1.70	0.83
25:s:85:GLU:HG2	25:s:92:VAL:HG23	1.59	0.83
27:u:82:ARG:C	27:u:84:GLY:H	1.85	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:y:68:LYS:HD2	31:y:126:GLN:HG2	1.61	0.83
31:y:102:ARG:O	35:2:351:C:C4	2.32	0.83
31:y:122:LEU:HD23	31:y:123:VAL:N	1.94	0.83
35:2:473:A:H5'	35:2:474:A:OP2	1.78	0.83
36:3:85:A:C6	36:3:264:G:C2	2.66	0.83
3:H:216:UNK:O	3:H:245:UNK:CB	2.25	0.82
15:c:144:GLU:N	35:2:1603:U:O2'	2.11	0.82
21:o:108:ILE:CD1	21:o:219:ARG:HA	2.09	0.82
31:y:102:ARG:O	35:2:351:C:N3	2.11	0.82
35:2:93:A:H3'	35:2:94:U:O2	1.79	0.82
35:2:93:A:N1	35:2:396:G:O2'	2.12	0.82
35:2:95:G:H8	35:2:95:G:OP2	1.59	0.82
35:2:147:A:C8	35:2:167:U:C4	2.66	0.82
35:2:346:G:H3'	35:2:347:G:C8	2.13	0.82
35:2:894:U:H1'	35:2:919:A:C6	2.14	0.82
3:H:2:UNK:CA	3:H:169:UNK:CB	2.52	0.82
20:k:174:THR:O	20:k:176:THR:N	2.11	0.82
24:r:190:ARG:CZ	35:2:268:C:H5	1.89	0.82
25:s:93:PHE:HZ	25:s:166:LYS:HB3	1.42	0.82
33:0:85:PRO:HG2	35:2:525:A:H62	1.07	0.82
35:2:187:G:H1'	35:2:199:G:H22	1.42	0.82
35:2:882:U:O2	35:2:946:U:N3	2.10	0.82
1:L:269:UNK:O	1:L:297:UNK:CB	2.27	0.82
26:t:22:ARG:CA	35:2:385:A:C5'	1.78	0.82
35:2:477:A:N6	35:2:540:G:N7	2.27	0.82
35:2:877:G:H22	35:2:951:A:H2	1.25	0.82
36:3:85:A:N1	36:3:264:G:C2	2.47	0.82
1:K:269:UNK:O	1:K:297:UNK:CB	2.27	0.82
26:t:4:SER:CB	35:2:400:A:N6	2.43	0.82
31:y:103:HIS:CE1	35:2:351:C:HO2'	1.97	0.82
35:2:316:A:O2'	35:2:353:A:N1	2.10	0.82
35:2:386:G:H2'	35:2:387:A:C8	2.14	0.82
35:2:411:C:H3'	35:2:412:A:C8	2.14	0.82
15:c:201:GLY:C	15:c:203:ARG:H	1.84	0.82
1:l:269:UNK:O	1:l:297:UNK:CB	2.27	0.82
22:p:3:ARG:HH12	35:2:95:G:H3'	1.42	0.82
35:2:210:A:H2'	35:2:211:U:C6	2.14	0.82
35:2:493:U:O2	35:2:496:G:N1	2.13	0.82
15:c:121:ASN:HA	35:2:1605:G:P	2.19	0.82
15:c:142:LEU:C	35:2:1604:U:H5'	2.04	0.82
1:n:269:UNK:O	1:n:297:UNK:CB	2.27	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:136:C:C5	35:2:178:U:H3'	2.14	0.82
35:2:397:A:H3'	35:2:398:G:C8	2.12	0.82
35:2:1591:C:H2'	35:2:1592:A:H8	1.42	0.82
36:3:87:G:C2	36:3:263:U:O2	2.31	0.82
1:E:269:UNK:O	1:E:297:UNK:CB	2.27	0.82
3:H:2:UNK:N	3:H:170:UNK:HA	1.93	0.82
1:P:269:UNK:O	1:P:297:UNK:CB	2.27	0.82
31:y:38:GLY:HA3	35:2:246:G:C1'	2.09	0.82
35:2:245:U:O2	35:2:247:A:H8	1.62	0.82
35:2:276:C:H1'	35:2:277:U:H2'	1.62	0.82
35:2:490:C:H2'	35:2:491:C:H6	1.42	0.82
35:2:1073:G:N1	35:2:1074:G:C6	2.47	0.82
35:2:1083:G:HO2'	35:2:1094:G:HO2'	0.93	0.82
35:2:1578:U:O2'	35:2:1579:U:H5'	1.78	0.82
35:2:1580:C:H4'	35:2:1581:C:OP1	1.79	0.82
17:f:173:THR:CB	23:q:212:LYS:CB	2.58	0.82
19:i:858:MET:CA	19:i:862:ALA:HB3	2.09	0.82
33:0:16:LEU:HA	33:0:83:TYR:HE2	1.45	0.82
35:2:71:A:N1	35:2:83:G:N3	2.27	0.82
35:2:76:A:O3'	35:2:77:U:H2'	1.79	0.82
35:2:164:A:H2'	35:2:165:G:C8	2.15	0.82
35:2:923:A:H3'	35:2:923:A:OP2	1.78	0.82
36:3:248:G:C6	36:3:249:U:O4	2.33	0.82
35:2:284:G:H1'	35:2:285:G:C8	2.15	0.82
35:2:447:U:O2'	35:2:448:C:O5'	1.98	0.82
36:3:162:C:O2	36:3:166:G:N2	2.12	0.82
19:j:882:ALA:HB2	19:j:886:ALA:HB2	1.60	0.82
21:o:207:THR:HG21	21:o:213:LEU:CG	2.07	0.82
24:r:133:LEU:HD13	35:2:167:U:H1'	1.61	0.82
25:s:108:HIS:HB2	25:s:111:GLN:HB2	1.62	0.82
27:u:142:ASN:O	27:u:144:PRO:N	2.13	0.82
35:2:78:A:H4'	35:2:79:C:OP2	1.78	0.82
35:2:184:C:H3'	35:2:185:U:C6	2.14	0.82
35:2:251:A:O2'	35:2:252:U:O5'	1.97	0.82
35:2:272:U:O2	35:2:284:G:N1	2.10	0.82
35:2:406:U:C6	35:2:406:U:OP2	2.33	0.82
35:2:625:C:OP2	35:2:625:C:H6	1.63	0.82
35:2:1080:U:OP2	35:2:1080:U:H6	1.62	0.82
15:c:143:HIS:CA	35:2:1604:U:C5'	2.55	0.81
24:r:180:GLN:O	24:r:181:ARG:HB2	1.78	0.81
35:2:83:G:H8	35:2:83:G:OP2	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:370:A:H3'	35:2:371:G:H8	1.45	0.81
35:2:1573:A:C4'	35:2:1574:G:H5'	2.06	0.81
36:3:81:G:OP2	36:3:81:G:H8	1.63	0.81
21:o:29:LYS:HB3	21:o:49:LEU:HD11	1.62	0.81
22:p:102:ARG:HG2	22:p:116:LEU:HD21	1.62	0.81
31:y:64:SER:CB	35:2:114:C:C2'	2.58	0.81
33:0:107:GLU:O	33:0:110:ARG:HB2	1.80	0.81
35:2:87:C:OP2	35:2:87:C:H6	1.62	0.81
35:2:174:U:H3'	35:2:175:G:C8	2.15	0.81
35:2:514:G:OP2	35:2:514:G:C8	2.33	0.81
35:2:867:G:H1	35:2:961:U:H3	1.24	0.81
2:G:3237:LEU:N	33:0:147:VAL:HG22	1.92	0.81
1:P:285:UNK:O	14:b:20:ASN:O	1.98	0.81
15:c:142:LEU:O	35:2:1604:U:H5'	1.78	0.81
16:d:109:ALA:O	5:m:409:UNK:CB	2.28	0.81
24:r:178:LYS:HG2	35:2:79:C:H1'	1.62	0.81
31:y:66:ARG:NE	35:2:113:U:H5''	1.96	0.81
31:y:135:ARG:HD3	35:2:304:U:OP1	1.81	0.81
35:2:51:A:OP2	35:2:424:C:N4	2.13	0.81
35:2:135:A:H4'	35:2:136:C:OP2	1.79	0.81
35:2:245:U:N3	35:2:248:U:OP2	2.13	0.81
35:2:296:U:H6	35:2:296:U:H3'	1.45	0.81
35:2:382:C:OP2	35:2:382:C:C6	2.34	0.81
35:2:387:A:H2'	35:2:402:C:C2	2.15	0.81
35:2:516:G:N1	35:2:536:C:N3	2.28	0.81
35:2:519:C:H3'	35:2:529:A:H61	1.43	0.81
35:2:1047:G:O6	35:2:1071:U:O4	1.99	0.81
36:3:153:G:N2	36:3:176:U:O2	2.12	0.81
3:H:1:UNK:CB	3:H:173:UNK:CB	0.82	0.81
31:y:116:VAL:HG12	31:y:117:LYS:N	1.96	0.81
35:2:72:A:H2'	35:2:73:U:C6	2.15	0.81
9:V:99:THR:CA	36:3:192:A:C8	2.60	0.81
25:s:34:LYS:O	25:s:38:GLU:HG2	1.79	0.81
26:t:31:ARG:NH1	35:2:333:A:P	2.54	0.81
26:t:83:LYS:HZ2	35:2:259:U:P	2.00	0.81
35:2:388:G:OP2	35:2:423:G:O2'	1.97	0.81
35:2:524:U:OP2	35:2:527:A:N6	2.14	0.81
26:t:105:VAL:HG22	35:2:329:G:O2'	1.81	0.81
31:y:103:HIS:N	35:2:351:C:C2	2.47	0.81
35:2:53:G:O6	35:2:427:C:N4	2.13	0.81
35:2:338:C:H2'	35:2:339:C:C6	2.15	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:461:G:H2'	35:2:462:G:C8	2.15	0.81
35:2:868:G:O6	35:2:960:U:O4	1.98	0.81
35:2:873:U:N3	35:2:954:G:O6	2.14	0.81
1:A:259:UNK:O	1:A:260:UNK:CB	2.29	0.81
1:K:259:UNK:O	1:K:260:UNK:CB	2.29	0.81
19:i:58:TRP:H	35:2:416:A:N6	1.78	0.81
1:l:259:UNK:O	1:l:260:UNK:CB	2.29	0.81
35:2:937:C:C2	35:2:938:G:H1'	2.15	0.81
1:P:259:UNK:O	1:P:260:UNK:CB	2.29	0.81
15:c:97:SER:O	30:x:138:PHE:CB	2.29	0.81
16:d:141:HIS:C	16:d:143:ILE:H	1.84	0.81
19:i:163:TYR:HA	19:i:167:MET:HA	1.60	0.81
21:o:35:ARG:HE	21:o:44:SER:HB3	1.46	0.81
30:x:124:PRO:HA	35:2:1584:G:N3	1.95	0.81
35:2:548:G:N1	35:2:589:C:N3	2.29	0.81
3:H:2:UNK:CB	3:H:166:UNK:O	2.29	0.81
35:2:45:U:N3	35:2:433:C:O2'	2.12	0.81
35:2:274:G:N1	35:2:283:U:O2	2.12	0.81
35:2:96:G:H1	35:2:387:A:N6	1.78	0.81
35:2:133:U:H4'	35:2:134:U:OP2	1.80	0.81
36:3:179:A:H2'	36:3:180:U:H5''	1.61	0.81
1:B:259:UNK:O	1:B:260:UNK:CB	2.29	0.80
1:C:259:UNK:O	1:C:260:UNK:CB	2.29	0.80
1:D:114:UNK:C	1:E:139:UNK:CB	2.58	0.80
8:S:316:LYS:N	36:3:90:C:O5'	1.74	0.80
33:0:19:ARG:HE	33:0:73:VAL:HG11	1.44	0.80
35:2:85:A:H8	35:2:85:A:OP2	1.62	0.80
35:2:410:A:H2	35:2:423:G:N1	1.70	0.80
1:D:259:UNK:O	1:D:260:UNK:CB	2.29	0.80
15:c:95:ASP:CB	35:2:1604:U:H6	1.94	0.80
1:l:326:UNK:O	23:q:202:ALA:HB1	1.81	0.80
25:s:130:LEU:HD12	25:s:170:ILE:HG23	1.63	0.80
31:y:103:HIS:CB	35:2:351:C:C2	2.52	0.80
1:L:72:UNK:O	5:M:348:UNK:O	1.99	0.80
1:n:259:UNK:O	1:n:260:UNK:CB	2.29	0.80
24:r:169:LYS:HZ1	35:2:72:A:C5'	1.90	0.80
35:2:60:U:H4'	35:2:453:U:C5	2.14	0.80
35:2:273:G:N2	35:2:283:U:O2'	2.13	0.80
35:2:446:A:H61	35:2:461:G:H1'	1.45	0.80
35:2:458:G:H8	35:2:458:G:OP2	1.63	0.80
35:2:464:A:H4'	35:2:464:A:OP1	1.80	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:615:A:O2'	35:2:1086:A:N7	2.13	0.80
1:L:259:UNK:O	1:L:260:UNK:CB	2.29	0.80
8:T:334:ARG:HA	36:3:108:A:P	2.22	0.80
19:i:858:MET:HA	19:i:862:ALA:CB	2.12	0.80
31:y:102:ARG:C	35:2:351:C:N3	2.39	0.80
35:2:977:A:H62	35:2:1024:U:H3	0.81	0.80
35:2:1619:C:C2	35:2:1620:C:H5	2.00	0.80
1:E:46:UNK:C	1:F:338:UNK:C	2.60	0.80
1:N:259:UNK:O	1:N:260:UNK:CB	2.29	0.80
8:S:316:LYS:N	36:3:90:C:H5'	1.96	0.80
15:c:95:ASP:CA	35:2:1604:U:C5	2.64	0.80
15:c:175:ASP:CB	30:x:143:ARG:O	2.29	0.80
24:r:153:PRO:HG2	24:r:154:ILE:H	1.45	0.80
31:y:33:TYR:CZ	35:2:249:U:OP2	2.33	0.80
33:0:23:LEU:HD11	33:0:71:ALA:HB2	1.63	0.80
35:2:334:G:OP2	35:2:334:G:C8	2.35	0.80
35:2:376:C:H2'	35:2:377:G:C8	2.16	0.80
35:2:1478:G:H5'	35:2:1478:G:H8	1.45	0.80
1:F:259:UNK:O	1:F:260:UNK:CB	2.29	0.80
6:Q:356:UNK:CB	6:Q:405:UNK:O	2.29	0.80
19:j:130:ALA:HB1	19:j:170:HIS:CB	2.12	0.80
22:p:114:LYS:HA	22:p:114:LYS:HE3	1.64	0.80
25:s:93:PHE:CZ	25:s:166:LYS:HB3	2.16	0.80
26:t:81:THR:O	35:2:257:A:O2'	2.00	0.80
29:w:21:ALA:N	29:w:85:ALA:HB2	1.96	0.80
31:y:80:ASN:HB2	35:2:325:G:H1'	1.62	0.80
35:2:99:C:N4	35:2:384:G:O6	2.14	0.80
35:2:485:A:C6	35:2:503:G:N1	2.50	0.80
35:2:592:A:N3	35:2:593:U:H5'	1.97	0.80
35:2:1525:A:H2'	35:2:1526:A:H8	1.45	0.80
8:T:326:ILE:CB	36:3:108:A:H5'	2.12	0.80
19:i:57:LEU:CA	35:2:416:A:C6	2.40	0.80
22:p:27:TRP:HB2	35:2:448:C:C2'	2.12	0.80
26:t:185:ARG:HH12	35:2:208:U:C1'	1.94	0.80
31:y:33:TYR:CD1	35:2:249:U:C5	2.69	0.80
35:2:122:U:N3	35:2:296:U:O2	2.14	0.80
35:2:128:U:H5''	35:2:204:G:C8	2.17	0.80
35:2:189:C:N3	35:2:196:G:N1	2.30	0.80
35:2:444:C:N3	35:2:460:A:C6	2.50	0.80
35:2:1057:U:H3'	35:2:1058:U:O4'	1.82	0.80
5:M:481:UNK:O	5:M:482:UNK:CB	2.30	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:124:ILE:HG23	21:o:167:VAL:HG13	1.64	0.80
24:r:22:LYS:HA	24:r:25:ASN:HD22	1.46	0.80
26:t:83:LYS:NZ	35:2:259:U:OP1	2.15	0.80
31:y:68:LYS:HG2	35:2:304:U:O2	1.82	0.80
35:2:39:A:N1	35:2:469:C:N4	2.30	0.80
35:2:42:G:N2	35:2:433:C:O2	2.13	0.80
35:2:311:U:H2'	35:2:314:C:C5	2.16	0.80
35:2:359:A:O2'	35:2:361:C:OP1	1.99	0.80
35:2:473:A:H5''	35:2:474:A:C8	2.17	0.80
35:2:1057:U:H1'	35:2:1062:A:H61	1.45	0.80
36:3:85:A:H2'	36:3:86:U:H6	1.46	0.80
1:J:259:UNK:O	1:J:260:UNK:CB	2.29	0.80
1:P:339:UNK:CB	14:b:22:LYS:CB	2.59	0.80
16:d:67:ARG:N	35:2:1097:U:H3	1.79	0.80
5:m:481:UNK:O	5:m:482:UNK:CB	2.30	0.80
22:p:66:ASN:CB	35:2:455:C:H42	1.94	0.80
35:2:61:A:H3'	35:2:62:A:H2'	1.64	0.80
35:2:255:U:H2'	35:2:256:A:C8	2.17	0.80
35:2:520:A:OP2	35:2:529:A:C6	2.34	0.80
1:E:259:UNK:O	1:E:260:UNK:CB	2.29	0.80
3:H:2:UNK:HA	3:H:169:UNK:CA	2.11	0.80
20:k:175:THR:O	20:k:177:LYS:N	2.15	0.80
35:2:89:G:H2'	35:2:90:C:C6	2.17	0.80
35:2:442:C:O2	35:2:462:G:N2	2.14	0.80
35:2:882:U:N3	35:2:946:U:O4	2.11	0.80
35:2:947:U:H2'	35:2:948:G:C8	2.16	0.80
36:3:172:C:H2'	36:3:173:G:C8	2.16	0.80
1:K:280:UNK:CA	18:h:208:ALA:HB3	2.11	0.79
5:O:500:UNK:O	21:o:15:LYS:HA	1.17	0.79
21:o:210:ILE:HG13	35:2:1065:A:H4'	1.62	0.79
31:y:33:TYR:HE1	35:2:249:U:OP2	1.53	0.79
31:y:146:ILE:HD13	31:y:153:GLN:HG2	1.64	0.79
35:2:60:U:H1'	35:2:62:A:C5	2.17	0.79
35:2:907:A:OP2	35:2:907:A:H8	1.64	0.79
35:2:1536:G:N3	35:2:1536:G:H2'	1.97	0.79
26:t:185:ARG:NH2	35:2:259:U:O2	2.15	0.79
35:2:105:A:N7	35:2:108:A:N6	2.30	0.79
35:2:483:A:H3'	35:2:484:C:H6	1.45	0.79
35:2:883:C:O2	35:2:945:U:N3	2.13	0.79
1:P:287:UNK:CB	14:b:20:ASN:CB	2.60	0.79
15:c:142:LEU:CA	30:x:129:PHE:HA	2.10	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:s:95:THR:HG22	25:s:96:ALA:N	1.96	0.79
26:t:185:ARG:NE	35:2:207:U:O2'	2.15	0.79
31:y:66:ARG:NH2	35:2:115:G:OP1	2.14	0.79
31:y:84:ILE:HD13	35:2:348:U:C5'	2.13	0.79
35:2:301:A:H3'	35:2:301:A:OP2	1.82	0.79
35:2:477:A:N6	35:2:540:G:C5	2.51	0.79
35:2:487:G:O3'	35:2:488:G:C8	2.35	0.79
15:c:95:ASP:CA	35:2:1604:U:H5	1.94	0.79
22:p:71:ASN:HB3	33:0:15:LEU:HD22	1.64	0.79
24:r:13:GLN:HB3	35:2:152:U:O2'	1.82	0.79
24:r:76:LEU:HD21	24:r:94:ARG:HD2	1.61	0.79
33:0:56:TYR:CE1	33:0:70:PHE:HB2	2.16	0.79
35:2:71:A:N6	35:2:83:G:C5	2.40	0.79
35:2:161:U:H2'	35:2:162:A:C8	2.18	0.79
35:2:188:A:H3'	35:2:189:C:C6	2.17	0.79
35:2:520:A:H2'	35:2:521:A:O4'	1.82	0.79
35:2:880:C:O2	35:2:948:G:N2	2.15	0.79
36:3:126:U:H3	36:3:188:G:H1	1.30	0.79
18:g:44:PRO:CB	21:o:119:LYS:CA	2.59	0.79
19:i:796:GLU:O	19:j:890:GLN:HA	1.82	0.79
24:r:31:LYS:O	24:r:34:GLN:HG2	1.81	0.79
31:y:64:SER:CB	35:2:114:C:C3'	2.60	0.79
35:2:318:U:N3	35:2:346:G:N1	2.28	0.79
35:2:1166:A:C2	35:2:1167:G:H1'	2.17	0.79
35:2:1523:G:H4'	35:2:1524:A:OP2	1.80	0.79
9:V:99:THR:HA	36:3:192:A:N7	1.96	0.79
15:c:143:HIS:CA	35:2:1604:U:OP1	2.30	0.79
21:o:208:LYS:CA	35:2:1066:C:O4'	2.31	0.79
35:2:100:A:N1	35:2:386:G:H5'	1.98	0.79
35:2:187:G:O2'	35:2:198:A:N6	2.15	0.79
35:2:328:A:H2	35:2:340:U:O2	1.65	0.79
36:3:96:C:H2'	36:3:97:C:H6	1.46	0.79
19:j:858:MET:HA	19:j:862:ALA:CB	2.12	0.79
1:n:295:UNK:CB	26:t:67:ARG:HH22	1.95	0.79
24:r:59:ASP:OD1	35:2:418:G:H2'	1.82	0.79
24:r:161:ILE:O	35:2:67:A:H5''	1.79	0.79
25:s:65:VAL:HG21	25:s:73:LEU:HD22	1.62	0.79
26:t:179:ARG:HG2	35:2:330:G:OP1	1.83	0.79
35:2:57:G:O6	35:2:90:C:N4	2.16	0.79
35:2:1055:U:O2	35:2:1064:G:C6	2.36	0.79
18:g:76:GLY:CA	21:o:118:ARG:CZ	2.59	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:208:LYS:CA	35:2:1066:C:C1'	2.59	0.79
21:o:212:PRO:CG	35:2:1067:C:C5'	2.61	0.79
26:t:195:GLU:HB3	31:y:10:GLN:HE21	1.47	0.79
35:2:491:C:N3	35:2:496:G:N1	2.26	0.79
35:2:517:U:O2'	35:2:518:A:N3	2.14	0.79
35:2:526:A:C4	35:2:527:A:H2	2.01	0.79
24:r:152:ASP:HB3	24:r:153:PRO:HD2	1.65	0.79
29:w:21:ALA:H	29:w:85:ALA:HB2	1.46	0.79
35:2:35:U:N3	35:2:36:C:N3	2.30	0.79
35:2:365:G:N2	35:2:366:A:O4'	2.16	0.79
35:2:512:A:N6	35:2:539:G:H8	1.81	0.79
35:2:898:A:P	35:2:912:U:H3	2.06	0.79
7:R:19:UNK:CB	7:R:119:UNK:HA	2.13	0.79
19:i:130:ALA:HB1	19:i:170:HIS:CB	2.12	0.79
24:r:165:PHE:CA	35:2:69:G:N2	2.41	0.79
31:y:84:ILE:HD12	35:2:348:U:P	2.23	0.79
35:2:301:A:H2'	35:2:302:U:C6	2.18	0.79
35:2:454:U:O2'	35:2:455:C:C2	2.36	0.79
35:2:486:G:N1	35:2:501:U:O2	2.16	0.79
35:2:547:U:H2'	35:2:548:G:C8	2.17	0.79
8:T:334:ARG:O	36:3:108:A:P	2.41	0.78
18:g:46:TYR:N	21:o:119:LYS:HB3	1.97	0.78
21:o:212:PRO:HG2	35:2:1067:C:C5'	2.12	0.78
25:s:60:ALA:HB2	25:s:91:ILE:HB	1.64	0.78
26:t:55:ARG:NH1	35:2:396:G:C8	2.51	0.78
35:2:269:G:OP2	35:2:269:G:H8	1.64	0.78
35:2:499:U:H2'	35:2:500:C:C6	2.16	0.78
36:3:70:A:OP2	36:3:70:A:H8	1.66	0.78
22:p:8:HIS:HE1	35:2:449:C:O2'	1.62	0.78
23:q:59:VAL:C	23:q:61:TYR:H	1.89	0.78
25:s:132:LEU:HB3	25:s:133:PRO:CD	2.12	0.78
26:t:25:ARG:NH2	35:2:385:A:OP1	2.15	0.78
35:2:157:A:N1	35:2:419:G:O2'	2.16	0.78
35:2:324:U:N3	35:2:325:G:N7	2.31	0.78
35:2:335:U:N3	35:2:335:U:OP2	2.15	0.78
3:H:-2:UNK:CB	3:H:174:UNK:CB	2.61	0.78
18:g:46:TYR:N	21:o:119:LYS:C	2.41	0.78
19:j:788:SER:HA	19:j:857:LEU:CB	2.14	0.78
22:p:47:LEU:O	22:p:51:ARG:HB3	1.83	0.78
31:y:33:TYR:OH	35:2:248:U:C4'	2.30	0.78
31:y:80:ASN:ND2	35:2:344:A:C1'	2.45	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:y:128:ARG:HB3	35:2:115:G:P	2.23	0.78
35:2:48:G:O6	35:2:431:C:N4	2.15	0.78
35:2:344:A:P	35:2:345:U:H5	2.06	0.78
36:3:202:C:N4	36:3:244:G:O6	2.16	0.78
1:C:339:UNK:CB	1:D:103:UNK:CB	2.60	0.78
1:P:273:UNK:CB	14:b:20:ASN:CB	2.61	0.78
19:i:788:SER:HA	19:i:857:LEU:CB	2.14	0.78
26:t:141:LYS:NZ	26:t:143:LYS:HE2	1.98	0.78
35:2:285:G:OP2	35:2:286:C:OP2	2.02	0.78
35:2:329:G:H2'	35:2:330:G:C8	2.19	0.78
35:2:362:G:OP2	35:2:362:G:C8	2.37	0.78
35:2:1073:G:C6	35:2:1074:G:O6	2.37	0.78
35:2:1483:A:H1'	35:2:1524:A:H62	1.47	0.78
35:2:1484:G:N2	35:2:1606:C:H1'	1.97	0.78
5:O:504:UNK:CB	21:o:19:LYS:C	2.56	0.78
9:U:127:LYS:O	10:W:192:PRO:CB	2.30	0.78
19:j:881:GLN:HA	19:j:897:LEU:CB	2.14	0.78
22:p:51:ARG:HA	22:p:51:ARG:NE	1.98	0.78
26:t:5:ARG:NH1	35:2:335:U:O4	2.16	0.78
26:t:115:THR:HB	26:t:116:PRO:HD3	1.65	0.78
35:2:867:G:N1	35:2:961:U:N3	2.29	0.78
2:G:3234:GLY:HA2	33:0:145:ASN:O	1.82	0.78
3:H:139:UNK:O	3:H:160:UNK:CB	2.29	0.78
1:K:280:UNK:CB	18:h:208:ALA:N	2.46	0.78
22:p:59:ARG:HH12	33:0:85:PRO:HA	1.46	0.78
24:r:176:CYS:CA	35:2:67:A:C5'	2.60	0.78
35:2:407:A:C8	35:2:407:A:OP2	2.35	0.78
35:2:879:G:H3'	35:2:880:C:H6	1.46	0.78
36:3:246:G:H2'	36:3:247:G:C8	2.18	0.78
1:D:117:UNK:N	1:E:156:UNK:CB	2.46	0.78
1:E:247:UNK:CB	3:H:315:UNK:CB	2.59	0.78
6:Q:55:UNK:CA	6:Q:64:UNK:CB	2.61	0.78
22:p:88:LEU:HD11	22:p:184:TYR:HE2	1.49	0.78
31:y:15:VAL:N	35:2:249:U:C4	2.51	0.78
35:2:148:A:N6	35:2:166:C:O2	2.16	0.78
35:2:327:U:O4	35:2:342:C:N4	2.17	0.78
35:2:470:A:H8	35:2:471:A:H1'	1.48	0.78
36:3:96:C:H2'	36:3:97:C:C6	2.19	0.78
19:i:882:ALA:HB3	19:i:886:ALA:H	1.47	0.78
21:o:205:LYS:CB	35:2:1056:U:H4'	2.00	0.78
35:2:110:U:H2'	35:2:304:U:H3	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:486:G:O6	35:2:501:U:N3	2.16	0.78
35:2:519:C:H3'	35:2:529:A:N6	1.98	0.78
35:2:1056:U:H1'	35:2:1064:G:C2	2.18	0.78
35:2:1468:U:O2'	35:2:1469:A:O5'	1.98	0.78
1:K:277:UNK:CB	18:h:208:ALA:C	2.57	0.78
5:O:507:UNK:CB	5:O:549:UNK:CB	2.62	0.78
19:j:33:HIS:O	19:j:37:ALA:HB3	1.83	0.78
19:j:882:ALA:HB3	19:j:886:ALA:H	1.48	0.78
21:o:208:LYS:HB2	35:2:1065:A:H2	0.63	0.78
30:x:50:GLU:O	30:x:54:LEU:CB	2.32	0.78
33:0:35:LYS:CA	35:2:520:A:O2'	2.31	0.78
35:2:191:C:O2	35:2:193:U:N3	2.17	0.78
35:2:329:G:H2'	35:2:330:G:H8	1.49	0.78
35:2:392:G:C8	35:2:392:G:OP2	2.36	0.78
35:2:432:G:H3'	35:2:433:C:C5	2.19	0.78
35:2:887:A:N1	35:2:925:G:C2	2.51	0.78
35:2:922:G:OP2	35:2:922:G:C8	2.36	0.78
5:M:507:UNK:CB	5:M:549:UNK:CB	2.62	0.78
21:o:212:PRO:CD	35:2:1067:C:H5'	2.14	0.78
26:t:83:LYS:HD3	35:2:259:U:OP2	1.82	0.78
31:y:101:LYS:CB	35:2:351:C:H6	1.95	0.78
33:0:33:ALA:HB3	33:0:38:ILE:HD11	1.65	0.78
35:2:377:G:OP1	35:2:378:A:H8	1.67	0.78
35:2:401:A:H3'	35:2:402:C:H4'	1.66	0.78
35:2:1626:U:H2'	35:2:1627:U:H5'	1.64	0.78
19:i:33:HIS:O	19:i:37:ALA:HB3	1.83	0.77
22:p:70:GLN:HG3	22:p:80:ARG:HH21	1.48	0.77
24:r:94:ARG:CB	35:2:406:U:H5''	2.14	0.77
26:t:31:ARG:HH12	35:2:333:A:H5'	1.48	0.77
35:2:187:G:HO2'	35:2:188:A:H8	1.32	0.77
35:2:412:A:O2'	35:2:421:A:N1	2.17	0.77
35:2:941:A:C5	35:2:942:G:H1'	2.19	0.77
35:2:1590:G:H2'	35:2:1591:C:C6	2.19	0.77
1:J:305:UNK:O	7:R:206:UNK:CB	2.31	0.77
19:j:49:ASP:CB	19:j:53:ASN:H	1.98	0.77
35:2:42:G:O6	35:2:434:G:N2	2.17	0.77
35:2:126:A:H61	35:2:291:G:C2'	1.97	0.77
35:2:327:U:H2'	35:2:328:A:C8	2.19	0.77
35:2:327:U:N3	35:2:342:C:N3	2.31	0.77
35:2:333:A:H2'	35:2:334:G:C8	2.20	0.77
35:2:443:C:O2'	35:2:445:A:OP1	2.03	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:480:G:OP2	35:2:480:G:H8	1.66	0.77
2:G:2367:TRP:CB	2:G:2431:HIS:H	1.97	0.77
18:g:45:LYS:CB	21:o:120:TRP:CB	2.62	0.77
35:2:259:U:O2'	35:2:261:U:N3	2.17	0.77
35:2:324:U:N3	35:2:344:A:C2	2.52	0.77
35:2:415:C:N3	35:2:418:G:N2	2.31	0.77
35:2:432:G:C2	35:2:433:C:C2	2.73	0.77
35:2:461:G:H2'	35:2:462:G:H8	1.45	0.77
35:2:534:A:C8	35:2:534:A:OP2	2.37	0.77
35:2:1472:C:H5	35:2:1474:G:C2	2.01	0.77
35:2:1617:U:O2'	35:2:1618:C:H5''	1.83	0.77
19:i:881:GLN:HA	19:i:897:LEU:CB	2.14	0.77
22:p:62:THR:O	35:2:455:C:N4	2.17	0.77
33:0:131:THR:HG22	33:0:133:ALA:H	1.49	0.77
35:2:352:A:C4'	35:2:353:A:H8	1.97	0.77
35:2:625:C:H2'	35:2:626:U:C6	2.19	0.77
35:2:1584:G:C2	35:2:1585:U:OP1	2.38	0.77
17:f:164:LYS:N	35:2:1575:G:OP2	2.16	0.77
19:i:906:SER:C	24:r:29:ASP:OD2	2.27	0.77
24:r:176:CYS:CA	35:2:67:A:O4'	2.32	0.77
27:u:124:HIS:CB	35:2:479:C:H4'	2.14	0.77
35:2:71:A:N6	35:2:82:U:O2	2.17	0.77
35:2:124:A:H61	35:2:294:C:N4	1.82	0.77
35:2:301:A:OP2	35:2:301:A:C8	2.36	0.77
35:2:879:G:N2	35:2:949:C:O2	2.14	0.77
15:c:98:SER:C	30:x:140:LYS:CB	2.56	0.77
15:c:184:VAL:CB	35:2:1624:C:H5''	2.14	0.77
18:g:76:GLY:CA	21:o:117:ILE:H	1.98	0.77
1:n:269:UNK:C	26:t:44:THR:OG1	2.32	0.77
23:q:64:VAL:HA	23:q:89:ILE:HA	1.65	0.77
24:r:192:LYS:HD2	35:2:282:C:H5'	1.60	0.77
35:2:96:G:H2'	35:2:97:C:C6	2.19	0.77
35:2:443:C:O2'	35:2:445:A:N7	2.17	0.77
35:2:458:G:H5''	35:2:459:G:OP1	1.85	0.77
35:2:905:A:OP2	35:2:905:A:C8	2.37	0.77
35:2:938:G:H1	35:2:941:A:P	2.08	0.77
3:H:67:UNK:CB	3:H:145:UNK:CB	2.62	0.77
33:0:121:THR:CG2	35:2:84:A:O2'	2.33	0.77
35:2:96:G:N2	35:2:426:G:O5'	2.17	0.77
35:2:174:U:H3'	35:2:175:G:H8	1.46	0.77
35:2:470:A:H8	35:2:471:A:C1'	1.97	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:483:A:H3'	35:2:484:C:C6	2.19	0.77
35:2:514:G:H1'	35:2:539:G:N1	1.99	0.77
35:2:898:A:OP2	35:2:912:U:C2	2.38	0.77
18:g:45:LYS:CA	21:o:120:TRP:N	2.48	0.77
21:o:139:ARG:HH22	35:2:884:A:C5'	1.97	0.77
33:0:16:LEU:HA	33:0:83:TYR:CE2	2.20	0.77
35:2:174:U:OP2	35:2:174:U:C6	2.38	0.77
36:3:80:G:H3'	36:3:81:G:C8	2.20	0.77
21:o:29:LYS:CG	29:w:10:ASN:HA	2.15	0.77
24:r:59:ASP:CG	35:2:418:G:HO2'	1.83	0.77
33:0:85:PRO:HG3	35:2:525:A:H62	1.46	0.77
33:0:101:THR:HG23	33:0:105:PHE:CD1	2.20	0.77
35:2:185:U:C2	35:2:201:G:C2	2.72	0.77
35:2:330:G:H2'	35:2:331:A:C8	2.20	0.77
8:T:327:HIS:N	36:3:108:A:C8	2.50	0.77
5:m:507:UNK:CB	5:m:549:UNK:CB	2.63	0.77
24:r:156:ILE:HA	24:r:159:SER:OG	1.84	0.77
35:2:57:G:N2	35:2:90:C:O2	2.18	0.77
35:2:115:G:H21	35:2:116:U:C1'	1.97	0.77
35:2:158:U:H5''	35:2:160:C:C5	2.20	0.77
35:2:201:G:C2	35:2:202:A:C8	2.73	0.77
35:2:387:A:H1'	35:2:425:A:N1	2.00	0.77
35:2:879:G:H3'	35:2:880:C:C6	2.19	0.77
35:2:927:C:H2'	35:2:928:U:C6	2.20	0.77
36:3:103:G:H2'	36:3:104:C:O4'	1.85	0.77
36:3:158:C:H2'	36:3:159:G:H8	1.47	0.77
3:H:67:UNK:CB	3:H:142:UNK:HA	2.15	0.76
1:L:75:UNK:CA	5:M:349:UNK:CB	2.61	0.76
21:o:25:PRO:CG	29:w:39:ILE:CB	2.62	0.76
21:o:211:PHE:CD1	35:2:1067:C:H5'	2.20	0.76
21:o:211:PHE:CD1	35:2:1067:C:C5'	2.68	0.76
24:r:163:ARG:NH1	35:2:69:G:C4	2.53	0.76
26:t:21:HIS:HB2	35:2:385:A:O4'	1.84	0.76
26:t:105:VAL:HG11	35:2:329:G:C4'	2.02	0.76
31:y:84:ILE:HD11	35:2:347:G:C2'	2.15	0.76
31:y:85:ILE:HD12	31:y:108:VAL:HG21	1.65	0.76
31:y:135:ARG:HD3	35:2:304:U:P	2.24	0.76
35:2:47:A:H2'	35:2:100:A:H5'	1.66	0.76
35:2:309:C:C2	35:2:358:U:C2	2.73	0.76
35:2:490:C:C4	35:2:498:G:N1	2.53	0.76
35:2:1152:A:O2'	35:2:1153:G:H5'	1.84	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1613:U:O2	35:2:1613:U:H2'	1.84	0.76
36:3:91:G:OP1	36:3:93:G:N1	2.14	0.76
1:A:133:UNK:O	1:B:73:UNK:C	2.32	0.76
3:H:216:UNK:C	3:H:245:UNK:CA	2.48	0.76
16:d:128:THR:O	16:d:129:TYR:C	2.26	0.76
17:f:173:THR:O	23:q:213:LYS:N	2.18	0.76
19:i:790:LEU:O	19:i:796:GLU:HA	1.86	0.76
21:o:39:PRO:HG3	21:o:192:LYS:HB2	1.67	0.76
24:r:64:LYS:NZ	24:r:82:SER:H	1.83	0.76
35:2:452:A:C2	35:2:453:U:H5''	2.20	0.76
35:2:1153:G:OP2	35:2:1153:G:H8	1.69	0.76
35:2:1627:U:O2'	35:2:1628:U:C6	2.38	0.76
3:H:137:UNK:CB	3:H:164:UNK:O	2.13	0.76
35:2:399:A:O2'	35:2:401:A:O5'	2.02	0.76
35:2:461:G:C8	35:2:461:G:OP2	2.39	0.76
35:2:522:U:OP2	35:2:523:G:H8	1.68	0.76
35:2:1048:G:N2	35:2:1071:U:H1'	1.99	0.76
19:i:848:LEU:CB	24:r:40:THR:HG21	2.15	0.76
21:o:205:LYS:CB	35:2:1056:U:C4'	2.59	0.76
22:p:108:LYS:HB2	22:p:110:ARG:HE	1.48	0.76
23:q:141:GLY:HA2	23:q:171:ALA:HB2	1.67	0.76
24:r:169:LYS:HZ1	35:2:72:A:H5'	1.50	0.76
26:t:10:LYS:HE3	35:2:338:C:H5''	1.65	0.76
26:t:31:ARG:NH1	35:2:333:A:H5''	2.00	0.76
31:y:128:ARG:HD2	35:2:115:G:C8	2.18	0.76
35:2:22:A:O2'	35:2:23:G:H5'	1.84	0.76
35:2:315:A:C4'	35:2:316:A:H4'	2.15	0.76
15:c:97:SER:CB	35:2:1603:U:OP1	2.34	0.76
26:t:70:GLU:HG2	26:t:85:LYS:HG2	1.67	0.76
33:0:59:SER:HA	35:2:522:U:H1'	1.66	0.76
35:2:47:A:N6	35:2:100:A:N7	2.34	0.76
35:2:973:A:H2'	35:2:974:A:C8	2.21	0.76
35:2:1052:U:H2'	35:2:1053:G:H5'	1.66	0.76
2:G:3237:LEU:H	33:0:147:VAL:CG1	1.84	0.76
21:o:90:VAL:O	21:o:101:THR:HG23	1.86	0.76
22:p:27:TRP:HD1	35:2:448:C:H1'	1.50	0.76
24:r:189:LEU:HD13	35:2:272:U:O4	1.85	0.76
31:y:68:LYS:HD2	31:y:126:GLN:CG	2.16	0.76
35:2:51:A:H5''	35:2:52:U:H5	1.49	0.76
35:2:130:C:N4	35:2:182:A:N3	2.33	0.76
35:2:338:C:H2'	35:2:339:C:H6	1.49	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:408:C:H2'	35:2:409:C:C6	2.19	0.76
3:H:147:UNK:CB	3:H:243:UNK:CB	2.64	0.76
3:H:216:UNK:N	3:H:245:UNK:O	2.17	0.76
20:k:270:PHE:O	20:k:273:GLN:N	2.15	0.76
1:n:78:UNK:HA	26:t:33:ILE:CD1	2.16	0.76
25:s:129:ASP:O	25:s:132:LEU:HB2	1.86	0.76
31:y:34:TYR:HE1	31:y:48:ILE:HG12	1.51	0.76
35:2:47:A:N6	35:2:98:U:O2	2.19	0.76
35:2:80:A:H2'	35:2:81:G:O4'	1.85	0.76
35:2:490:C:C2	35:2:498:G:N1	2.53	0.76
35:2:631:G:N2	35:2:968:U:O2	2.18	0.76
35:2:898:A:O2'	35:2:899:G:OP2	2.03	0.76
17:f:174:LYS:CA	23:q:212:LYS:CB	2.63	0.76
33:0:31:PRO:HB2	35:2:533:U:N3	2.00	0.76
35:2:275:C:O2	35:2:281:G:N2	2.19	0.76
35:2:304:U:H3'	35:2:305:C:C6	2.20	0.76
35:2:433:C:C2	35:2:434:G:H1'	2.21	0.76
35:2:631:G:H2'	35:2:632:U:C6	2.21	0.76
35:2:869:A:N6	35:2:958:U:O4	2.19	0.76
35:2:957:G:H2'	35:2:958:U:C6	2.20	0.76
35:2:1609:U:H2'	35:2:1610:G:O4'	1.86	0.76
1:D:94:UNK:CB	1:E:160:UNK:CB	2.64	0.76
2:G:2367:TRP:HA	2:G:2408:PRO:CB	2.15	0.76
35:2:152:U:O4	35:2:162:A:N6	2.15	0.76
35:2:331:A:H3'	35:2:332:U:C6	2.19	0.76
35:2:1030:A:H4'	35:2:1030:A:OP2	1.84	0.76
35:2:1048:G:N2	35:2:1070:C:O2	2.13	0.76
36:3:153:G:H2'	36:3:154:G:C8	2.20	0.76
19:i:49:ASP:CB	19:i:53:ASN:H	1.97	0.76
22:p:57:ASN:HD21	22:p:59:ARG:HB3	1.51	0.76
26:t:14:THR:HG22	35:2:354:C:H5''	1.59	0.76
26:t:38:LEU:HD21	26:t:104:LEU:HD11	1.68	0.76
31:y:66:ARG:HG3	31:y:66:ARG:NH1	1.99	0.76
35:2:198:A:H3'	35:2:199:G:C8	2.21	0.76
35:2:406:U:H2'	35:2:407:A:C8	2.21	0.76
35:2:467:G:H2'	35:2:469:C:O2	1.86	0.76
35:2:483:A:C8	35:2:483:A:OP2	2.39	0.76
35:2:501:U:O2'	35:2:502:U:O4'	2.03	0.76
35:2:168:A:H3'	35:2:169:A:H8	1.50	0.75
35:2:323:A:H8	35:2:323:A:OP1	1.69	0.75
35:2:546:U:H2'	35:2:547:U:C6	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:872:G:O6	35:2:955:A:C6	2.38	0.75
35:2:898:A:H62	35:2:914:G:N2	1.83	0.75
36:3:97:C:N4	36:3:256:G:O6	2.14	0.75
5:M:647:UNK:O	5:M:648:UNK:CB	2.34	0.75
8:S:300:ALA:HB2	36:3:91:G:OP1	1.83	0.75
21:o:163:LYS:HG2	35:2:1045:C:C5'	2.15	0.75
26:t:83:LYS:CE	35:2:259:U:OP2	2.34	0.75
35:2:205:U:N3	35:2:262:U:O4	2.18	0.75
35:2:270:C:C2	35:2:271:A:C8	2.73	0.75
5:O:596:UNK:O	5:O:597:UNK:CB	2.35	0.75
1:l:338:UNK:CB	23:q:199:ILE:CA	2.64	0.75
5:m:596:UNK:O	5:m:597:UNK:CB	2.35	0.75
24:r:55:GLY:HA3	24:r:63:MET:HG3	1.68	0.75
24:r:163:ARG:HG3	35:2:69:G:P	2.27	0.75
35:2:58:U:N3	35:2:89:G:O6	2.20	0.75
35:2:74:U:OP2	35:2:74:U:H2'	1.87	0.75
35:2:328:A:C8	35:2:328:A:OP2	2.39	0.75
35:2:493:U:O4'	35:2:495:C:N4	2.19	0.75
35:2:1046:G:C5	35:2:1073:G:C6	2.73	0.75
36:3:114:A:N6	36:3:194:G:H1'	2.01	0.75
36:3:202:C:N3	36:3:244:G:N1	2.34	0.75
5:M:596:UNK:O	5:M:597:UNK:CB	2.35	0.75
16:d:128:THR:O	16:d:129:TYR:O	2.03	0.75
1:n:316:UNK:HA	26:t:50:ARG:HH22	1.52	0.75
22:p:126:LEU:HD22	22:p:143:THR:HG21	1.68	0.75
35:2:73:U:O4	35:2:80:A:N6	2.19	0.75
35:2:110:U:OP2	35:2:111:U:OP2	2.03	0.75
35:2:187:G:OP2	35:2:187:G:H8	1.67	0.75
35:2:261:U:OP2	35:2:262:U:OP2	2.03	0.75
1:n:73:UNK:HA	35:2:392:G:O4'	1.85	0.75
22:p:99:GLN:HB3	22:p:101:PHE:HE1	1.52	0.75
31:y:66:ARG:CG	35:2:113:U:OP1	2.35	0.75
35:2:137:U:O2'	35:2:138:A:H2'	1.87	0.75
35:2:153:G:H2'	35:2:154:G:C8	2.21	0.75
35:2:267:U:H2'	35:2:268:C:C2	2.21	0.75
35:2:337:G:H1'	35:2:339:C:OP2	1.85	0.75
35:2:484:C:C6	35:2:484:C:OP2	2.39	0.75
15:c:98:SER:CB	35:2:1466:G:P	2.75	0.75
18:g:40:MET:CB	21:o:110:ARG:O	2.34	0.75
5:m:647:UNK:O	5:m:648:UNK:CB	2.34	0.75
24:r:177:PRO:O	35:2:79:C:C4	2.40	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:40:A:N6	35:2:469:C:O2	2.19	0.75
35:2:277:U:HO2'	35:2:280:U:H3	0.85	0.75
35:2:302:U:OP2	35:2:302:U:H6	1.70	0.75
35:2:485:A:C2	35:2:502:U:N3	2.54	0.75
36:3:72:C:OP2	36:3:72:C:H6	1.70	0.75
6:Q:55:UNK:HA	6:Q:64:UNK:CB	2.16	0.75
8:S:293:SER:CB	36:3:262:C:H5''	2.16	0.75
15:c:97:SER:CA	30:x:138:PHE:CB	2.65	0.75
15:c:98:SER:CB	35:2:1465:C:O3'	2.35	0.75
19:j:790:LEU:O	19:j:796:GLU:HA	1.86	0.75
24:r:58:LYS:NZ	35:2:418:G:H1'	2.01	0.75
24:r:76:LEU:CD2	35:2:406:U:C2'	2.38	0.75
26:t:26:ALA:HB3	35:2:399:A:C3'	2.14	0.75
31:y:146:ILE:HG23	31:y:153:GLN:HE21	1.51	0.75
33:0:35:LYS:HB2	35:2:520:A:H4'	1.68	0.75
35:2:101:U:H3	35:2:385:A:H1'	1.52	0.75
35:2:462:G:H2'	35:2:463:U:C6	2.20	0.75
35:2:892:A:H8	35:2:892:A:OP2	1.69	0.75
35:2:1158:C:H42	35:2:1163:A:H61	1.33	0.75
15:c:142:LEU:CB	30:x:130:GLY:N	2.50	0.75
15:c:143:HIS:HA	35:2:1603:U:O3'	1.85	0.75
21:o:212:PRO:CG	35:2:1067:C:C4'	2.65	0.75
24:r:106:MET:HE2	24:r:106:MET:HA	1.69	0.75
26:t:193:GLY:O	26:t:197:GLU:HG3	1.86	0.75
31:y:103:HIS:N	35:2:351:C:O2	2.20	0.75
33:0:35:LYS:CG	35:2:521:A:H5'	2.16	0.75
35:2:93:A:N3	35:2:93:A:H5''	2.00	0.75
35:2:381:C:H3'	35:2:382:C:H6	1.51	0.75
35:2:491:C:N4	35:2:497:G:O6	2.19	0.75
35:2:902:G:O2'	35:2:907:A:N6	2.19	0.75
35:2:906:A:H2'	35:2:907:A:O4'	1.86	0.75
5:O:481:UNK:CB	21:o:16:LYS:HZ3	1.97	0.75
26:t:200:ILE:HG22	26:t:204:GLN:HE21	1.52	0.75
35:2:48:G:C6	35:2:432:G:N3	2.54	0.75
35:2:244:A:C8	35:2:244:A:OP2	2.40	0.75
35:2:314:C:C2'	35:2:354:C:H42	2.00	0.75
35:2:912:U:H5'	35:2:913:G:H8	1.52	0.75
35:2:1570:A:H3'	35:2:1571:C:H6	1.52	0.75
1:B:280:UNK:O	1:D:343:UNK:CB	2.34	0.74
1:E:46:UNK:CB	1:F:339:UNK:HA	2.17	0.74
2:G:3235:GLU:CB	33:0:144:LYS:O	2.35	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:y:32:ARG:HH21	31:y:50:GLY:C	1.95	0.74
35:2:105:A:H1'	35:2:107:C:H41	1.51	0.74
35:2:130:C:C3'	35:2:131:C:H4'	2.16	0.74
35:2:147:A:N6	35:2:167:U:O2	2.20	0.74
35:2:456:A:O5'	35:2:456:A:H8	1.69	0.74
35:2:473:A:H3'	35:2:474:A:N9	2.02	0.74
35:2:548:G:C2	35:2:589:C:O2	2.39	0.74
36:3:99:C:H2'	36:3:100:G:C8	2.22	0.74
19:i:58:TRP:H	35:2:416:A:H62	1.34	0.74
1:n:73:UNK:O	35:2:391:A:O3'	1.92	0.74
21:o:21:ARG:CZ	29:w:75:GLY:H	2.00	0.74
21:o:38:ILE:HG22	21:o:39:PRO:HD2	1.68	0.74
27:u:122:VAL:O	27:u:125:ALA:CB	2.30	0.74
35:2:499:U:O2'	35:2:500:C:O5'	2.03	0.74
35:2:592:A:H8	35:2:592:A:OP2	1.69	0.74
35:2:938:G:H21	35:2:941:A:H62	1.34	0.74
5:O:647:UNK:O	5:O:648:UNK:CB	2.34	0.74
23:q:93:LEU:O	23:q:95:ASN:N	2.20	0.74
24:r:64:LYS:O	24:r:67:VAL:HG12	1.88	0.74
25:s:136:LEU:H	25:s:136:LEU:CD2	1.99	0.74
31:y:35:LYS:HG2	31:y:36:ASN:H	1.52	0.74
35:2:116:U:H1'	35:2:334:G:H21	1.49	0.74
35:2:271:A:H5'	35:2:272:U:OP2	1.87	0.74
35:2:287:G:N1	35:2:288:A:C5	2.55	0.74
35:2:531:C:H3'	35:2:532:U:H5	1.51	0.74
35:2:893:U:OP2	35:2:893:U:H6	1.71	0.74
35:2:975:C:H2'	35:2:976:G:H8	1.50	0.74
35:2:1037:C:O2'	35:2:1038:U:H5'	1.86	0.74
1:K:115:UNK:N	1:P:133:UNK:CB	2.51	0.74
21:o:212:PRO:HG3	35:2:1067:C:C4'	2.16	0.74
26:t:14:THR:HG21	35:2:355:G:OP2	1.85	0.74
26:t:154:THR:C	26:t:156:ALA:H	1.92	0.74
27:u:62:ARG:N	27:u:63:ASP:CB	2.49	0.74
31:y:10:GLN:OE1	31:y:10:GLN:HA	1.87	0.74
35:2:84:A:OP2	35:2:84:A:C8	2.39	0.74
35:2:1575:G:OP1	35:2:1575:G:H4'	1.87	0.74
35:2:1613:U:H3	35:2:1614:A:H8	1.28	0.74
35:2:34:G:C6	35:2:35:U:H1'	2.23	0.74
35:2:312:A:C2	35:2:314:C:H2'	2.23	0.74
35:2:532:U:OP2	35:2:533:U:OP2	2.06	0.74
35:2:619:A:OP1	35:2:1030:A:N6	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1480:G:C5'	35:2:1480:G:C8	2.70	0.74
36:3:138:A:H2'	36:3:139:C:O4'	1.87	0.74
24:r:133:LEU:CD1	35:2:166:C:O2	2.30	0.74
26:t:185:ARG:NH2	35:2:207:U:H2'	2.03	0.74
31:y:64:SER:HG	35:2:114:C:C3'	1.96	0.74
31:y:66:ARG:CD	35:2:113:U:C5'	2.65	0.74
35:2:67:A:O2'	35:2:68:A:OP2	2.04	0.74
35:2:108:A:C6	35:2:306:U:C4	2.75	0.74
35:2:300:A:H3'	35:2:301:A:H8	1.52	0.74
35:2:883:C:O2'	35:2:884:A:H5'	1.88	0.74
35:2:886:U:H3'	35:2:887:A:H8	1.52	0.74
35:2:956:C:H3'	35:2:956:C:OP2	1.87	0.74
35:2:1092:A:C8	35:2:1094:G:H5'	2.23	0.74
35:2:1595:U:C6	35:2:1596:C:N3	2.55	0.74
3:H:216:UNK:C	3:H:245:UNK:C	2.65	0.74
5:O:500:UNK:O	21:o:15:LYS:CA	2.07	0.74
9:V:38:GLY:HA3	36:3:194:G:O6	1.87	0.74
21:o:53:SER:OG	21:o:59:ALA:HB2	1.87	0.74
22:p:159:GLY:O	22:p:177:LEU:HD22	1.88	0.74
29:w:64:ALA:HA	29:w:68:ALA:N	2.03	0.74
35:2:263:C:H2'	35:2:264:G:C4	2.22	0.74
35:2:386:G:H2'	35:2:387:A:H8	1.52	0.74
35:2:528:U:H4'	35:2:529:A:OP2	1.85	0.74
19:i:504:LYS:H	19:i:509:GLY:HA3	1.52	0.74
25:s:136:LEU:HD23	25:s:136:LEU:N	2.03	0.74
31:y:87:ARG:HH11	31:y:104:ARG:NH1	1.83	0.74
35:2:50:C:H5	35:2:425:A:P	2.11	0.74
35:2:65:A:C2	35:2:84:A:N7	2.56	0.74
35:2:267:U:O2	35:2:289:U:H1'	1.88	0.74
35:2:293:U:H2'	35:2:294:C:H6	1.48	0.74
35:2:295:A:C8	35:2:295:A:OP2	2.37	0.74
35:2:880:C:H3'	35:2:880:C:OP2	1.88	0.74
35:2:1466:G:C6	35:2:1467:C:N4	2.55	0.74
35:2:1599:C:O2'	35:2:1600:A:N3	2.21	0.74
3:H:137:UNK:HA	3:H:162:UNK:C	2.17	0.74
1:n:73:UNK:C	35:2:391:A:O3'	2.36	0.74
25:s:173:ILE:O	25:s:177:VAL:HG23	1.88	0.74
31:y:88:ASP:CA	35:2:351:C:N4	2.51	0.74
33:0:35:LYS:H	35:2:520:A:C3'	2.01	0.74
35:2:147:A:H8	35:2:167:U:C4	2.05	0.74
35:2:296:U:H3'	35:2:296:U:C6	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:493:U:H1'	35:2:495:C:N3	2.03	0.74
35:2:1041:G:N1	35:2:1078:C:N3	2.29	0.74
19:j:163:TYR:CA	19:j:167:MET:HA	2.18	0.74
26:t:25:ARG:NE	35:2:385:A:OP1	2.21	0.74
26:t:173:LEU:HB3	26:t:191:LEU:HD12	1.70	0.74
32:z:54:ASP:HA	32:z:59:GLY:CA	2.17	0.74
35:2:109:G:H3'	35:2:110:U:C6	2.23	0.74
35:2:196:G:C5	35:2:197:A:H1'	2.21	0.74
35:2:292:U:OP2	35:2:292:U:H6	1.70	0.74
35:2:427:C:H2'	35:2:428:A:C8	2.22	0.74
35:2:485:A:N6	35:2:503:G:O6	2.21	0.74
35:2:923:A:H2'	35:2:924:A:C8	2.23	0.74
35:2:973:A:H2'	35:2:974:A:H8	1.53	0.74
9:U:41:GLU:CA	36:3:263:U:OP2	2.35	0.73
15:c:96:PRO:C	30:x:131:GLY:CA	2.58	0.73
26:t:166:GLN:HE22	26:t:173:LEU:HD23	1.54	0.73
35:2:183:U:H2'	35:2:184:C:H6	1.52	0.73
35:2:326:G:O6	35:2:343:C:N4	2.20	0.73
35:2:330:G:N1	35:2:339:C:N3	2.35	0.73
35:2:485:A:N6	35:2:502:U:C4	2.55	0.73
35:2:531:C:H3'	35:2:532:U:C5	2.23	0.73
35:2:964:U:H4'	35:2:965:U:H5'	1.70	0.73
35:2:1043:A:H61	35:2:1076:A:N6	1.86	0.73
24:r:163:ARG:HD2	35:2:69:G:C4	2.22	0.73
31:y:82:THR:OG1	35:2:325:G:H4'	1.87	0.73
35:2:59:C:N4	35:2:88:U:O4	2.21	0.73
35:2:315:A:H3'	35:2:315:A:OP2	1.88	0.73
35:2:319:U:O4	35:2:345:U:O2'	2.03	0.73
35:2:381:C:H3'	35:2:382:C:C6	2.23	0.73
35:2:402:C:C5	35:2:403:G:C8	2.76	0.73
35:2:470:A:H2'	35:2:471:A:O4'	1.89	0.73
35:2:951:A:C8	35:2:951:A:OP2	2.41	0.73
5:M:31:UNK:O	5:M:348:UNK:CB	2.36	0.73
8:S:300:ALA:HB2	36:3:91:G:H5''	1.70	0.73
9:V:26:VAL:C	27:u:183:ALA:HB3	1.76	0.73
19:i:879:LEU:O	19:i:884:LEU:HA	1.88	0.73
19:j:881:GLN:CB	19:j:886:ALA:HB3	2.19	0.73
1:n:295:UNK:CB	26:t:67:ARG:CZ	2.66	0.73
35:2:148:A:H3'	35:2:149:C:H6	1.53	0.73
35:2:209:U:O2'	35:2:210:A:H5'	1.88	0.73
35:2:312:A:N7	35:2:352:A:O2'	2.20	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:390:G:O6	35:2:407:A:N6	2.20	0.73
35:2:401:A:H4'	35:2:402:C:OP2	1.88	0.73
8:T:334:ARG:CA	36:3:108:A:OP1	2.36	0.73
24:r:9:LEU:HD23	24:r:9:LEU:H	1.53	0.73
29:w:28:VAL:O	29:w:41:ARG:HA	1.87	0.73
31:y:104:ARG:NH1	35:2:306:U:P	2.62	0.73
35:2:464:A:H2'	35:2:465:G:O4'	1.88	0.73
35:2:488:G:OP2	35:2:489:C:C5	2.42	0.73
35:2:887:A:C8	35:2:887:A:OP2	2.41	0.73
36:3:80:G:OP2	36:3:80:G:H8	1.72	0.73
35:2:139:C:H1'	35:2:141:U:H4'	1.70	0.73
35:2:180:A:C5	35:2:182:A:H5''	2.23	0.73
35:2:316:A:N3	35:2:353:A:C2	2.56	0.73
35:2:412:A:H3'	35:2:412:A:OP2	1.88	0.73
35:2:933:A:O2'	35:2:934:C:OP1	2.07	0.73
36:3:65:C:H2'	36:3:66:A:C8	2.19	0.73
36:3:248:G:H8	36:3:248:G:OP2	1.71	0.73
1:E:248:UNK:CB	3:H:312:UNK:CB	2.66	0.73
19:j:374:PRO:O	19:j:377:ALA:HB3	1.89	0.73
19:j:503:SER:HA	19:j:510:CYS:CA	2.18	0.73
5:m:31:UNK:O	5:m:348:UNK:CB	2.36	0.73
26:t:36:THR:O	26:t:103:THR:HA	1.87	0.73
33:0:59:SER:HB3	35:2:522:U:H1'	1.69	0.73
35:2:58:U:O2	35:2:59:C:N4	2.22	0.73
35:2:315:A:O4'	35:2:353:A:N6	2.21	0.73
35:2:472:U:H2'	35:2:473:A:H8	1.53	0.73
35:2:872:G:H2'	35:2:873:U:O4'	1.89	0.73
36:3:84:G:O2'	36:3:85:A:N7	2.22	0.73
5:O:31:UNK:O	5:O:348:UNK:CB	2.36	0.73
19:i:163:TYR:CA	19:i:167:MET:HA	2.18	0.73
22:p:48:LEU:N	22:p:48:LEU:HD23	2.04	0.73
26:t:56:VAL:HG23	35:2:333:A:H4'	1.69	0.73
26:t:84:THR:HG22	26:t:85:LYS:H	1.54	0.73
26:t:185:ARG:NH1	35:2:208:U:H2'	2.00	0.73
35:2:74:U:O2'	35:2:75:U:OP2	2.04	0.73
35:2:86:A:O2'	35:2:87:C:H5'	1.89	0.73
35:2:158:U:H2'	35:2:160:C:O4'	1.87	0.73
35:2:472:U:C2'	35:2:473:A:H8	2.01	0.73
35:2:914:G:H1'	35:2:915:A:OP2	1.89	0.73
19:j:504:LYS:H	19:j:509:GLY:HA3	1.52	0.73
21:o:116:MET:HE3	21:o:215:ASN:HB3	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:t:83:LYS:HZ3	35:2:259:U:P	2.05	0.73
35:2:339:C:H2'	35:2:340:U:C6	2.24	0.73
35:2:961:U:H2'	35:2:962:C:C6	2.24	0.73
1:E:248:UNK:CB	3:H:312:UNK:C	2.66	0.73
19:i:374:PRO:O	19:i:377:ALA:HB3	1.89	0.73
22:p:89:MET:HG3	22:p:228:PHE:CE2	2.23	0.73
25:s:138:GLY:H	25:s:154:GLN:HB2	1.53	0.73
35:2:100:A:N1	35:2:385:A:O2'	2.21	0.73
35:2:268:C:H2'	35:2:288:A:H2	1.53	0.73
35:2:312:A:C4'	35:2:313:U:H3'	2.18	0.73
35:2:519:C:OP2	35:2:519:C:H6	1.72	0.73
35:2:898:A:N6	35:2:912:U:O4'	2.22	0.73
8:S:315:PRO:HA	36:3:90:C:C5'	2.13	0.73
8:T:314:PRO:CB	36:3:110:A:C1'	2.67	0.73
18:g:42:LEU:CB	21:o:114:CYS:HA	2.18	0.73
31:y:128:ARG:CB	35:2:115:G:OP2	2.37	0.73
33:0:85:PRO:HD3	35:2:525:A:N6	2.04	0.73
35:2:98:U:H1'	35:2:386:G:C2	2.24	0.73
35:2:156:A:N6	35:2:418:G:H2'	2.04	0.73
35:2:424:C:H2'	35:2:427:C:C5	2.21	0.73
24:r:58:LYS:HZ2	35:2:418:G:H1'	1.53	0.72
24:r:132:LYS:NZ	24:r:163:ARG:HB3	2.04	0.72
26:t:64:ARG:NH2	35:2:332:U:OP2	2.22	0.72
29:w:100:ALA:O	29:w:104:ALA:CB	2.36	0.72
35:2:40:A:C5	35:2:469:C:H1'	2.24	0.72
35:2:172:C:H2'	35:2:173:A:C8	2.23	0.72
35:2:412:A:OP2	35:2:412:A:H8	1.70	0.72
35:2:477:A:N1	35:2:512:A:N6	2.37	0.72
35:2:518:A:H5''	35:2:519:C:H5	1.53	0.72
36:3:80:G:OP2	36:3:80:G:C8	2.42	0.72
11:Y:152:VAL:O	36:3:126:U:H5	1.71	0.72
15:c:143:HIS:N	35:2:1604:U:H5'	2.03	0.72
31:y:66:ARG:NE	35:2:113:U:H5'	2.02	0.72
32:z:85:ASP:O	32:z:87:GLU:N	2.22	0.72
35:2:56:U:O2'	35:2:91:G:N2	2.22	0.72
35:2:110:U:OP2	35:2:110:U:C6	2.42	0.72
35:2:483:A:C6	35:2:506:A:C6	2.77	0.72
2:G:3230:GLU:CA	33:0:147:VAL:O	2.37	0.72
21:o:21:ARG:NH1	29:w:75:GLY:H	1.88	0.72
35:2:89:G:H2'	35:2:90:C:H6	1.52	0.72
35:2:194:U:O3'	35:2:195:G:H4'	1.87	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:213:A:C5	35:2:253:A:C6	2.77	0.72
35:2:394:C:C2	35:2:404:G:C4	2.76	0.72
35:2:424:C:C2	35:2:427:C:N4	2.58	0.72
35:2:629:U:P	35:2:969:C:H42	2.12	0.72
35:2:1075:C:H2'	35:2:1076:A:C4	2.24	0.72
5:O:504:UNK:CB	21:o:19:LYS:O	2.37	0.72
1:P:285:UNK:CB	14:b:22:LYS:C	2.32	0.72
32:z:37:PHE:C	32:z:39:GLN:H	1.97	0.72
35:2:29:U:C2	35:2:30:G:C8	2.77	0.72
35:2:52:U:O2	35:2:440:U:N3	2.20	0.72
35:2:192:U:H1'	35:2:193:U:C2	2.24	0.72
35:2:261:U:O2'	35:2:262:U:H5''	1.90	0.72
35:2:321:C:N3	35:2:337:G:N1	2.36	0.72
35:2:473:A:OP2	35:2:474:A:C5	2.42	0.72
35:2:491:C:N3	35:2:497:G:N1	2.38	0.72
35:2:522:U:OP2	35:2:523:G:C8	2.42	0.72
35:2:625:C:OP2	35:2:625:C:C6	2.43	0.72
35:2:629:U:OP2	35:2:969:C:N3	2.23	0.72
35:2:631:G:H22	35:2:968:U:H2'	1.52	0.72
35:2:902:G:H21	35:2:907:A:P	2.12	0.72
36:3:92:A:H4'	36:3:93:G:OP2	1.88	0.72
36:3:101:G:N1	36:3:252:C:N3	2.38	0.72
19:i:882:ALA:N	19:i:886:ALA:HB3	2.02	0.72
19:j:127:ASP:HA	19:j:130:ALA:O	1.89	0.72
19:j:879:LEU:O	19:j:884:LEU:HA	1.88	0.72
26:t:26:ALA:N	35:2:400:A:O4'	2.22	0.72
35:2:206:A:N7	35:2:206:A:OP2	2.22	0.72
35:2:457:G:H8	35:2:457:G:OP2	1.71	0.72
19:i:127:ASP:HA	19:i:130:ALA:O	1.89	0.72
1:n:269:UNK:O	26:t:44:THR:OG1	2.07	0.72
1:n:295:UNK:CB	26:t:67:ARG:NH2	2.53	0.72
22:p:37:LYS:HD2	22:p:40:GLU:OE1	1.90	0.72
22:p:47:LEU:CD1	22:p:113:LEU:HD11	2.20	0.72
24:r:189:LEU:O	24:r:193:VAL:HG23	1.90	0.72
26:t:194:LYS:HE2	31:y:4:GLN:NE2	2.03	0.72
31:y:82:THR:CB	35:2:325:G:H4'	2.19	0.72
35:2:47:A:OP1	35:2:100:A:H5''	1.90	0.72
35:2:96:G:H2'	35:2:97:C:H6	1.53	0.72
35:2:156:A:N6	35:2:419:G:H1'	2.04	0.72
35:2:1076:A:H2'	35:2:1077:C:O4'	1.89	0.72
35:2:1464:G:O2'	35:2:1465:C:H5'	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:334:ARG:CA	36:3:108:A:P	2.78	0.72
19:i:503:SER:HA	19:i:510:CYS:CA	2.18	0.72
19:i:882:ALA:HB3	19:i:886:ALA:N	2.04	0.72
22:p:116:LEU:HD12	22:p:120:GLU:CB	2.19	0.72
24:r:89:SER:OG	35:2:395:U:H4'	1.88	0.72
31:y:84:ILE:CD1	35:2:347:G:C3'	2.67	0.72
31:y:136:PHE:CZ	35:2:304:U:O2'	2.38	0.72
35:2:261:U:OP2	35:2:261:U:H3'	1.90	0.72
35:2:390:G:N2	35:2:407:A:H2	1.86	0.72
35:2:503:G:H2'	35:2:504:U:O4'	1.89	0.72
35:2:929:A:H3'	35:2:930:A:C8	2.25	0.72
36:3:103:G:N1	36:3:249:U:C2	2.57	0.72
18:g:46:TYR:H	21:o:119:LYS:HB3	1.53	0.72
22:p:47:LEU:HD11	22:p:113:LEU:HD11	1.71	0.72
25:s:63:ILE:HD11	25:s:94:PHE:CD2	2.25	0.72
31:y:66:ARG:CZ	35:2:115:G:OP1	2.38	0.72
35:2:618:U:H2'	35:2:619:A:H8	1.55	0.72
35:2:874:C:H2'	35:2:875:G:H8	1.54	0.72
35:2:879:G:N1	35:2:949:C:N3	2.35	0.72
36:3:114:A:C6	36:3:194:G:H1'	2.25	0.72
36:3:176:U:H2'	36:3:177:G:C8	2.24	0.72
2:G:1686:ARG:HA	2:G:1720:ALA:HB2	1.71	0.72
6:Q:474:UNK:C	6:Q:484:UNK:CB	2.67	0.72
9:V:25:ALA:O	27:u:184:SER:HA	1.90	0.72
21:o:209:ASN:CB	35:2:1064:G:H2'	2.20	0.72
28:v:125:LEU:O	28:v:126:ALA:C	2.32	0.72
33:0:12:VAL:O	33:0:14:PRO:HD3	1.90	0.72
33:0:32:THR:HB	35:2:520:A:H2	1.55	0.72
35:2:40:A:H1'	35:2:470:A:H2	1.55	0.72
35:2:91:G:C6	35:2:92:A:C6	2.78	0.72
35:2:284:G:H1'	35:2:285:G:H8	1.53	0.72
35:2:336:G:OP2	35:2:336:G:H8	1.73	0.72
35:2:446:A:H61	35:2:461:G:C1'	2.03	0.72
35:2:488:G:C8	35:2:488:G:OP2	2.43	0.72
35:2:489:C:O2'	35:2:490:C:O4'	2.06	0.72
35:2:949:C:H2'	35:2:950:C:H6	1.53	0.72
35:2:1061:A:H2'	35:2:1062:A:H8	1.55	0.72
2:G:3234:GLY:HA2	33:0:146:PHE:HA	1.72	0.72
19:i:881:GLN:CB	19:i:886:ALA:HB3	2.19	0.72
21:o:43:LYS:HD2	21:o:44:SER:H	1.55	0.72
35:2:84:A:OP2	35:2:84:A:H8	1.73	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:113:U:O2'	35:2:115:G:O2'	2.08	0.72
35:2:521:A:N6	35:2:529:A:N3	2.38	0.72
35:2:628:G:N2	35:2:971:A:C6	2.49	0.72
35:2:1160:A:C4	35:2:1161:C:C5	2.77	0.72
35:2:1600:A:HO2'	35:2:1602:C:H5	0.75	0.72
20:k:135:ALA:HB2	35:2:1523:G:N3	2.05	0.71
24:r:136:LYS:O	24:r:179:ILE:HG23	1.90	0.71
24:r:160:VAL:HG12	24:r:161:ILE:N	2.00	0.71
27:u:143:ILE:O	27:u:145:SER:N	2.23	0.71
35:2:346:G:H3'	35:2:347:G:H8	1.54	0.71
35:2:384:G:C8	35:2:384:G:OP2	2.43	0.71
35:2:484:C:H2'	35:2:485:A:C8	2.25	0.71
35:2:548:G:N1	35:2:589:C:C2	2.58	0.71
35:2:863:A:O2'	35:2:865:A:O5'	2.07	0.71
35:2:924:A:H2'	35:2:925:G:C8	2.25	0.71
35:2:1063:U:C2	35:2:1064:G:C8	2.78	0.71
1:A:294:UNK:CA	1:B:65:UNK:O	2.38	0.71
9:V:100:ALA:CB	36:3:193:U:OP2	2.39	0.71
19:j:882:ALA:HB3	19:j:886:ALA:N	2.04	0.71
22:p:3:ARG:NH1	35:2:95:G:O4'	2.14	0.71
24:r:39:ASP:C	24:r:41:LEU:H	1.97	0.71
35:2:85:A:OP2	35:2:85:A:C8	2.43	0.71
35:2:141:U:O2'	35:2:266:A:H1'	1.89	0.71
35:2:146:U:H3'	35:2:167:U:O4	1.90	0.71
35:2:314:C:O2	35:2:353:A:OP2	2.07	0.71
15:c:95:ASP:N	35:2:1604:U:C6	2.58	0.71
21:o:64:LYS:HG2	21:o:65:GLY:N	2.05	0.71
22:p:204:GLN:NE2	31:y:39:LEU:HA	2.06	0.71
33:0:32:THR:CB	35:2:520:A:H2	2.03	0.71
35:2:89:G:C2	35:2:90:C:C2	2.78	0.71
35:2:474:A:H4'	35:2:475:A:OP2	1.90	0.71
35:2:507:U:OP2	35:2:507:U:H6	1.74	0.71
35:2:1048:G:OP2	35:2:1048:G:C8	2.43	0.71
8:S:315:PRO:CB	36:3:90:C:H4'	2.20	0.71
15:c:250:ASN:CB	15:c:251:SER:HA	2.20	0.71
18:g:77:SER:CB	21:o:114:CYS:O	2.32	0.71
1:n:73:UNK:CB	35:2:391:A:O3'	2.21	0.71
21:o:209:ASN:CG	35:2:1064:G:C2'	2.62	0.71
23:q:204:GLY:C	23:q:206:SER:H	1.97	0.71
23:q:208:SER:CB	23:q:209:TYR:HA	2.21	0.71
26:t:94:THR:HG23	35:2:328:A:C2	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:y:88:ASP:HA	35:2:351:C:N4	2.02	0.71
35:2:65:A:C4	35:2:70:C:N4	2.58	0.71
35:2:128:U:H2'	35:2:204:G:H5'	1.73	0.71
35:2:411:C:OP2	35:2:411:C:C6	2.44	0.71
9:V:92:ALA:O	27:u:181:ALA:HB2	1.90	0.71
33:0:31:PRO:HA	35:2:533:U:H2'	1.72	0.71
35:2:336:G:OP2	35:2:336:G:C8	2.44	0.71
35:2:406:U:H3'	35:2:407:A:H8	1.54	0.71
35:2:1614:A:C2	35:2:1616:G:OP2	2.43	0.71
18:g:45:LYS:CB	21:o:120:TRP:HB2	2.20	0.71
22:p:28:ALA:CA	35:2:448:C:H5'	2.21	0.71
24:r:175:LYS:C	35:2:67:A:C4'	2.61	0.71
35:2:959:U:C2	35:2:960:U:H5	2.08	0.71
35:2:1053:G:N1	35:2:1066:C:N3	2.37	0.71
19:i:882:ALA:H	19:i:886:ALA:CB	2.04	0.71
19:j:882:ALA:N	19:j:886:ALA:HB3	2.02	0.71
24:r:94:ARG:HB2	35:2:406:U:C5'	2.20	0.71
24:r:193:VAL:CG2	35:2:284:G:C2'	2.60	0.71
27:u:82:ARG:CB	27:u:149:ARG:HA	2.20	0.71
31:y:88:ASP:CB	35:2:351:C:N4	2.53	0.71
35:2:61:A:H5''	35:2:453:U:O4	1.91	0.71
35:2:105:A:H1'	35:2:107:C:C5	2.26	0.71
35:2:310:C:C2	35:2:357:G:C2	2.77	0.71
35:2:419:G:C4	35:2:420:A:C8	2.78	0.71
35:2:419:G:H3'	35:2:420:A:H8	1.55	0.71
35:2:485:A:N1	35:2:502:U:C2	2.58	0.71
35:2:629:U:H2'	35:2:630:A:H8	1.55	0.71
35:2:892:A:OP2	35:2:892:A:C8	2.43	0.71
1:L:72:UNK:C	5:M:348:UNK:O	2.39	0.71
18:g:40:MET:CB	21:o:110:ARG:C	2.64	0.71
23:q:108:LEU:C	23:q:110:ALA:N	2.48	0.71
31:y:82:THR:OG1	35:2:325:G:O3'	2.09	0.71
35:2:107:C:O2	35:2:307:G:N2	2.14	0.71
35:2:262:U:H2'	35:2:263:C:O4'	1.90	0.71
35:2:269:G:C2	35:2:270:C:C2	2.79	0.71
35:2:276:C:O2'	35:2:277:U:O5'	2.09	0.71
35:2:478:A:H2'	35:2:479:C:C6	2.25	0.71
35:2:916:U:H3'	35:2:917:U:C6	2.25	0.71
35:2:1481:C:H4'	35:2:1482:C:OP1	1.91	0.71
24:r:87:ARG:O	24:r:88:ARG:HB3	1.89	0.71
24:r:207:ALA:O	24:r:211:GLU:HB2	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:t:8:LYS:HD3	26:t:18:MET:HE1	1.71	0.71
31:y:14:GLY:C	35:2:249:U:C4	2.68	0.71
35:2:23:G:H3'	35:2:23:G:OP2	1.91	0.71
35:2:48:G:N2	35:2:432:G:O2'	2.23	0.71
35:2:142:G:H2'	35:2:143:G:H8	1.56	0.71
35:2:176:C:H2'	35:2:177:U:H4'	1.72	0.71
35:2:281:G:H2'	35:2:282:C:C1'	2.21	0.71
35:2:311:U:N3	35:2:355:G:N1	2.01	0.71
35:2:1170:G:O6	35:2:1574:G:C6	2.44	0.71
35:2:1579:U:C4	35:2:1580:C:N4	2.59	0.71
35:2:1625:C:H2'	35:2:1626:U:C6	2.25	0.71
36:3:68:A:H2'	36:3:69:G:C8	2.26	0.71
16:d:66:SER:C	35:2:1097:U:N3	2.42	0.71
26:t:138:LEU:HD11	26:t:153:ARG:NH1	2.06	0.71
33:0:85:PRO:HD2	33:0:88:ARG:HD2	1.72	0.71
35:2:53:G:OP2	35:2:53:G:H8	1.72	0.71
35:2:99:C:H1'	35:2:101:U:H5	1.56	0.71
35:2:377:G:OP1	35:2:378:A:C8	2.44	0.71
35:2:548:G:C6	35:2:589:C:N3	2.59	0.71
35:2:623:A:O2'	35:2:624:G:OP1	2.08	0.71
35:2:935:U:H2'	35:2:936:G:O4'	1.90	0.71
36:3:253:G:H2'	36:3:254:A:C8	2.26	0.71
1:k:280:UNK:N	18:h:208:ALA:HB3	2.06	0.70
16:d:89:ILE:C	16:d:118:TRP:HA	2.14	0.70
22:p:193:ARG:HH12	22:p:246:VAL:HG13	1.56	0.70
26:t:25:ARG:HB3	35:2:400:A:O5'	1.91	0.70
32:z:98:GLN:O	32:z:100:GLY:N	2.24	0.70
35:2:332:U:H4'	35:2:333:A:OP2	1.91	0.70
35:2:933:A:H8	35:2:935:U:OP2	1.74	0.70
36:3:114:A:H61	36:3:194:G:H1'	1.55	0.70
1:L:75:UNK:N	5:M:349:UNK:CB	2.39	0.70
33:0:21:LEU:N	33:0:21:LEU:HD23	2.06	0.70
35:2:127:G:C5	35:2:184:C:H4'	2.25	0.70
35:2:368:U:OP2	35:2:368:U:H6	1.75	0.70
35:2:430:G:H2'	35:2:431:C:H6	1.55	0.70
35:2:475:A:OP2	35:2:475:A:N9	2.24	0.70
35:2:591:A:C2	35:2:592:A:OP2	2.44	0.70
35:2:896:U:H2'	35:2:897:C:O4'	1.90	0.70
35:2:938:G:H2'	35:2:938:G:N3	2.06	0.70
35:2:976:G:H3'	35:2:1023:A:N1	2.06	0.70
35:2:1046:G:C6	35:2:1073:G:C6	2.79	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:25:PRO:HD3	29:w:74:VAL:CB	2.21	0.70
21:o:108:ILE:HG22	21:o:109:THR:N	2.06	0.70
22:p:62:THR:O	22:p:66:ASN:HB2	1.91	0.70
24:r:143:LYS:NZ	35:2:144:U:P	2.65	0.70
24:r:176:CYS:CB	35:2:67:A:H5''	2.20	0.70
35:2:489:C:H2'	35:2:490:C:C6	2.27	0.70
35:2:535:A:H2'	35:2:536:C:C6	2.26	0.70
35:2:884:A:H2'	35:2:885:G:C8	2.26	0.70
35:2:976:G:H2'	35:2:1023:A:C2	2.26	0.70
36:3:94:A:H2	36:3:95:U:C2	2.09	0.70
3:H:216:UNK:C	3:H:245:UNK:O	2.38	0.70
22:p:92:VAL:HG23	22:p:101:PHE:HB2	1.73	0.70
26:t:74:SER:CB	35:2:210:A:H4'	2.20	0.70
35:2:269:G:H1'	35:2:287:G:N2	2.00	0.70
35:2:371:G:H3'	35:2:372:G:H8	1.55	0.70
35:2:525:A:H4'	35:2:526:A:OP2	1.90	0.70
2:G:3230:GLU:HA	33:0:147:VAL:O	1.90	0.70
24:r:165:PHE:HD2	35:2:69:G:N3	1.88	0.70
35:2:290:G:C6	35:2:291:G:C6	2.79	0.70
35:2:311:U:H2'	35:2:314:C:H5	1.56	0.70
35:2:351:C:H4'	35:2:352:A:OP2	1.91	0.70
35:2:421:A:H2'	35:2:422:G:O4'	1.90	0.70
35:2:865:A:H3'	35:2:866:G:C8	2.25	0.70
35:2:1031:U:OP2	35:2:1031:U:C6	2.45	0.70
35:2:1594:G:C6	35:2:1595:U:N3	2.60	0.70
35:2:1600:A:O2'	35:2:1602:C:C5	2.30	0.70
36:3:203:C:H2'	36:3:204:C:H6	1.55	0.70
1:D:114:UNK:C	1:E:139:UNK:N	2.52	0.70
2:G:3237:LEU:HA	33:0:147:VAL:HG13	1.71	0.70
1:P:287:UNK:CB	14:b:19:ILE:C	2.61	0.70
21:o:121:GLN:NE2	21:o:145:PHE:HD2	1.90	0.70
35:2:107:C:H5''	35:2:383:G:H4'	1.73	0.70
35:2:271:A:C2	35:2:285:G:C5	2.79	0.70
35:2:587:C:N4	35:2:588:U:C4	2.59	0.70
35:2:884:A:C6	35:2:885:G:C6	2.80	0.70
35:2:1533:C:H5''	35:2:1534:G:OP2	1.90	0.70
1:J:306:UNK:C	7:R:203:UNK:HA	2.22	0.70
9:U:126:GLY:H	10:W:188:VAL:CA	2.03	0.70
17:f:164:LYS:CA	35:2:1575:G:OP2	2.40	0.70
19:i:737:TRP:O	19:i:740:ALA:HB3	1.92	0.70
21:o:127:ARG:NH2	35:2:946:U:C4'	2.54	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:190:ARG:NE	35:2:268:C:H5	1.89	0.70
26:t:87:LEU:CD2	26:t:171:ARG:HH11	2.05	0.70
29:w:63:ALA:O	29:w:65:GLN:N	2.23	0.70
31:y:80:ASN:C	35:2:325:G:HO2'	1.94	0.70
35:2:148:A:C8	35:2:149:C:C6	2.80	0.70
35:2:173:A:H2'	35:2:174:U:OP2	1.90	0.70
35:2:180:A:H1'	35:2:181:A:C4'	2.21	0.70
35:2:199:G:O2'	35:2:200:A:OP2	2.08	0.70
35:2:206:A:N7	35:2:262:U:N3	2.39	0.70
35:2:275:C:N3	35:2:281:G:N1	2.38	0.70
35:2:442:C:C6	35:2:442:C:OP2	2.44	0.70
35:2:473:A:C4	35:2:474:A:C2	2.79	0.70
35:2:538:A:OP2	35:2:538:A:N7	2.25	0.70
35:2:546:U:N3	35:2:591:A:C5	2.60	0.70
35:2:1592:A:C4	35:2:1605:G:N2	2.59	0.70
36:3:91:G:H3'	36:3:93:G:C4	2.25	0.70
1:n:269:UNK:C	26:t:44:THR:HA	2.15	0.70
21:o:205:LYS:O	35:2:1064:G:N2	2.25	0.70
26:t:185:ARG:HH11	35:2:208:U:C2'	2.01	0.70
28:v:49:GLN:HA	28:v:50:ILE:CB	2.22	0.70
31:y:84:ILE:HD13	35:2:348:U:H5'	1.72	0.70
35:2:82:U:H2'	35:2:83:G:N9	2.07	0.70
35:2:96:G:N1	35:2:387:A:N6	2.36	0.70
35:2:532:U:OP2	35:2:532:U:H3'	1.91	0.70
35:2:867:G:C8	35:2:867:G:OP2	2.45	0.70
35:2:966:A:H2'	35:2:967:A:C8	2.27	0.70
9:U:90:GLY:HA3	36:3:82:U:C5	2.27	0.70
21:o:208:LYS:HD2	35:2:1065:A:N1	2.06	0.70
24:r:163:ARG:N	35:2:67:A:O3'	2.22	0.70
29:w:22:SER:C	29:w:24:ASN:N	2.49	0.70
33:0:27:HIS:HE1	33:0:67:SER:OG	1.75	0.70
35:2:187:G:N1	35:2:197:A:H3'	2.01	0.70
35:2:876:G:N7	35:2:933:A:N6	2.39	0.70
35:2:1533:C:H3'	35:2:1534:G:C8	2.27	0.70
1:K:295:UNK:O	1:K:296:UNK:CB	2.40	0.70
21:o:144:ALA:HB1	21:o:213:LEU:HD13	1.74	0.70
22:p:206:SER:O	22:p:207:PHE:HB2	1.92	0.70
24:r:192:LYS:HD3	35:2:282:C:H5'	1.67	0.70
25:s:103:LYS:HA	25:s:113:ARG:HH12	1.55	0.70
26:t:25:ARG:HA	35:2:400:A:O4'	1.92	0.70
31:y:103:HIS:ND1	35:2:351:C:O2'	2.20	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:82:U:N3	35:2:83:G:N7	2.39	0.70
35:2:108:A:C6	35:2:306:U:O4	2.44	0.70
35:2:164:A:H2'	35:2:165:G:H8	1.56	0.70
35:2:631:G:O6	35:2:968:U:N3	2.20	0.70
35:2:884:A:H3'	35:2:884:A:OP2	1.91	0.70
19:j:874:VAL:C	19:j:882:ALA:HB1	2.17	0.69
1:l:326:UNK:C	23:q:132:VAL:CB	2.70	0.69
25:s:20:GLY:O	25:s:24:VAL:HG23	1.91	0.69
35:2:33:U:OP2	35:2:33:U:O4'	2.10	0.69
35:2:48:G:H1	35:2:432:G:H1'	1.57	0.69
35:2:157:A:OP2	35:2:157:A:C8	2.44	0.69
35:2:198:A:OP2	35:2:199:G:C5	2.44	0.69
35:2:367:A:H2'	35:2:368:U:C6	2.27	0.69
35:2:514:G:N1	35:2:538:A:H1'	2.06	0.69
35:2:589:C:H2'	35:2:590:C:C5	2.26	0.69
35:2:904:G:H3'	35:2:905:A:H8	1.55	0.69
35:2:1481:C:C5	35:2:1482:C:C2	2.80	0.69
35:2:1597:A:C6	35:2:1598:U:N3	2.60	0.69
1:K:277:UNK:CB	18:h:209:LYS:CA	2.68	0.69
9:V:26:VAL:H	27:u:183:ALA:HB1	1.56	0.69
19:i:907:GLN:N	24:r:29:ASP:OD2	2.25	0.69
22:p:123:TYR:HA	22:p:164:TYR:O	1.91	0.69
24:r:132:LYS:CE	24:r:163:ARG:HD3	2.21	0.69
30:x:81:ILE:O	30:x:84:ALA:HB3	1.92	0.69
35:2:45:U:H3	35:2:433:C:C2'	2.04	0.69
35:2:59:C:H4'	35:2:60:U:OP2	1.90	0.69
35:2:147:A:H8	35:2:167:U:O4	1.75	0.69
35:2:273:G:C6	35:2:284:G:N1	2.60	0.69
35:2:295:A:OP2	35:2:295:A:H2'	1.92	0.69
35:2:880:C:OP2	35:2:881:A:OP2	2.10	0.69
35:2:1045:C:O2	35:2:1073:G:N2	2.18	0.69
35:2:1163:A:N6	35:2:1164:G:C6	2.60	0.69
35:2:1468:U:O2'	35:2:1469:A:O4'	2.10	0.69
36:3:80:G:H3'	36:3:81:G:H8	1.57	0.69
36:3:199:G:O2'	36:3:200:U:OP2	2.10	0.69
15:c:142:LEU:O	35:2:1604:U:H5''	1.91	0.69
21:o:108:ILE:HD11	21:o:219:ARG:HA	1.74	0.69
21:o:184:LYS:HG2	21:o:184:LYS:O	1.93	0.69
22:p:27:TRP:HB2	35:2:448:C:C4'	2.23	0.69
23:q:108:LEU:C	23:q:110:ALA:H	1.99	0.69
33:0:69:GLY:C	33:0:70:PHE:HD1	1.99	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:28:A:O2'	35:2:29:U:C2	2.45	0.69
35:2:127:G:N1	35:2:185:U:OP1	2.25	0.69
35:2:148:A:N6	35:2:166:C:C2	2.60	0.69
35:2:154:G:H3'	35:2:155:U:C6	2.27	0.69
35:2:273:G:C6	35:2:274:G:C6	2.81	0.69
35:2:403:G:H5''	35:2:404:G:C5'	2.23	0.69
35:2:863:A:H3'	35:2:863:A:OP2	1.90	0.69
35:2:901:G:H3'	35:2:902:G:C8	2.28	0.69
36:3:142:G:O2'	36:3:145:A:N6	2.25	0.69
3:H:216:UNK:CA	3:H:245:UNK:C	2.66	0.69
1:P:283:UNK:O	14:b:26:ASN:CB	2.41	0.69
14:b:162:VAL:HA	14:b:167:LYS:CB	2.23	0.69
19:j:882:ALA:H	19:j:886:ALA:CB	2.04	0.69
24:r:181:ARG:HH11	24:r:181:ARG:HG2	1.56	0.69
35:2:63:G:O2'	35:2:170:U:OP1	2.07	0.69
35:2:362:G:O6	35:2:380:U:O2'	2.09	0.69
35:2:396:G:N2	35:2:399:A:H5''	2.04	0.69
35:2:487:G:C4'	35:2:488:G:H5'	2.22	0.69
35:2:507:U:OP2	35:2:507:U:C6	2.45	0.69
35:2:880:C:C6	35:2:880:C:OP2	2.45	0.69
35:2:891:A:C2	35:2:922:G:N1	2.60	0.69
36:3:100:G:H2'	36:3:101:G:C8	2.27	0.69
3:H:139:UNK:CB	3:H:160:UNK:HA	2.22	0.69
21:o:208:LYS:HG3	35:2:1065:A:C4	2.26	0.69
21:o:212:PRO:HD2	35:2:1067:C:H5'	1.75	0.69
24:r:59:ASP:HA	35:2:157:A:H61	1.56	0.69
24:r:88:ARG:NH2	35:2:93:A:OP1	0.62	0.69
24:r:158:LYS:HA	35:2:78:A:C2	2.26	0.69
24:r:177:PRO:C	35:2:79:C:C5	2.69	0.69
31:y:132:LYS:CE	35:2:324:U:OP1	2.41	0.69
35:2:162:A:H2'	35:2:163:G:C8	2.28	0.69
35:2:308:C:O2'	35:2:309:C:O5'	2.11	0.69
35:2:330:G:C8	35:2:330:G:OP2	2.45	0.69
35:2:433:C:C4	35:2:434:G:C4	2.80	0.69
35:2:479:C:C2	35:2:480:G:C8	2.80	0.69
35:2:894:U:H1'	35:2:919:A:C5	2.27	0.69
35:2:1526:A:OP2	35:2:1527:C:H5	1.75	0.69
35:2:1604:U:C3'	35:2:1605:G:H5''	2.20	0.69
36:3:114:A:H8	36:3:114:A:OP2	1.75	0.69
1:F:295:UNK:O	1:F:296:UNK:CB	2.40	0.69
3:H:-2:UNK:C	3:H:170:UNK:C	2.69	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:V:127:LYS:CA	10:X:157:PRO:CB	2.70	0.69
15:c:144:GLU:N	35:2:1603:U:C3'	2.49	0.69
19:j:502:ARG:O	19:j:510:CYS:HA	1.91	0.69
19:j:737:TRP:O	19:j:740:ALA:HB3	1.92	0.69
24:r:133:LEU:CD1	35:2:148:A:H61	2.04	0.69
24:r:154:ILE:O	35:2:78:A:N6	2.26	0.69
25:s:63:ILE:O	25:s:63:ILE:HG13	1.90	0.69
33:0:42:LEU:HD23	33:0:53:VAL:HG11	1.73	0.69
35:2:283:U:H5''	35:2:284:G:OP2	1.93	0.69
35:2:322:G:C6	35:2:324:U:O4	2.46	0.69
35:2:447:U:OP2	35:2:447:U:H6	1.76	0.69
35:2:463:U:C6	35:2:463:U:OP2	2.46	0.69
35:2:549:G:H2'	35:2:549:G:N3	2.08	0.69
35:2:964:U:OP2	35:2:964:U:H5	1.75	0.69
36:3:156:C:H2'	36:3:157:G:C8	2.28	0.69
1:N:295:UNK:O	1:N:296:UNK:CB	2.40	0.69
19:i:164:THR:H	19:i:167:MET:N	1.91	0.69
19:j:164:THR:H	19:j:167:MET:CA	2.06	0.69
21:o:48:THR:HG22	21:o:49:LEU:N	2.02	0.69
26:t:14:THR:HG21	35:2:354:C:O5'	1.93	0.69
26:t:83:LYS:HB2	35:2:258:C:H5''	1.75	0.69
26:t:201:ARG:HH22	31:y:1:MET:HE3	1.57	0.69
27:u:111:THR:O	27:u:113:VAL:N	2.24	0.69
35:2:64:U:H5'	35:2:65:A:OP2	1.93	0.69
35:2:125:U:H4'	35:2:126:A:OP2	1.92	0.69
35:2:146:U:O2	35:2:168:A:C5	2.46	0.69
35:2:207:U:O2	35:2:261:U:N3	2.26	0.69
35:2:213:A:C5	35:2:214:G:C5	2.81	0.69
35:2:269:G:C4	35:2:287:G:N1	2.60	0.69
35:2:335:U:H2'	35:2:336:G:O4'	1.92	0.69
35:2:931:C:OP2	35:2:932:U:O2'	2.09	0.69
1:A:294:UNK:HA	1:B:65:UNK:O	1.92	0.69
1:A:295:UNK:O	1:A:296:UNK:CB	2.40	0.69
1:B:113:UNK:CB	10:W:199:GLU:N	2.56	0.69
1:C:295:UNK:O	1:C:296:UNK:CB	2.40	0.69
1:D:133:UNK:C	1:E:113:UNK:CB	2.69	0.69
1:D:295:UNK:O	1:D:296:UNK:CB	2.40	0.69
19:i:164:THR:H	19:i:167:MET:CA	2.06	0.69
19:i:502:ARG:O	19:i:510:CYS:HA	1.91	0.69
21:o:108:ILE:HD12	21:o:219:ARG:HA	1.75	0.69
24:r:64:LYS:HZ1	24:r:82:SER:H	1.39	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:76:LEU:CD2	35:2:406:U:O3'	2.40	0.69
26:t:39:THR:C	26:t:41:GLN:H	1.99	0.69
26:t:40:THR:HG21	26:t:87:LEU:HD12	1.74	0.69
28:v:109:LYS:C	28:v:111:ALA:H	2.00	0.69
31:y:80:ASN:ND2	35:2:344:A:C2'	2.55	0.69
35:2:40:A:C6	35:2:41:A:C5	2.80	0.69
35:2:50:C:C6	35:2:424:C:H3'	2.28	0.69
35:2:93:A:H2'	35:2:398:G:N2	2.08	0.69
35:2:105:A:C1'	35:2:107:C:H41	2.06	0.69
35:2:111:U:N3	35:2:112:A:C6	2.60	0.69
35:2:205:U:O2	35:2:262:U:N3	2.23	0.69
35:2:286:C:OP2	35:2:286:C:C6	2.45	0.69
35:2:480:G:OP2	35:2:480:G:C8	2.46	0.69
35:2:485:A:C6	35:2:502:U:O4	2.42	0.69
35:2:520:A:H3'	35:2:521:A:C8	2.27	0.69
35:2:588:U:H2'	35:2:589:C:H5'	1.75	0.69
35:2:631:G:H2'	35:2:632:U:H6	1.56	0.69
35:2:880:C:H6	35:2:880:C:OP2	1.75	0.69
35:2:1039:A:N6	35:2:1080:U:O4	2.26	0.69
36:3:72:C:H2'	36:3:73:C:C6	2.27	0.69
8:T:327:HIS:CA	36:3:108:A:C5	2.62	0.69
15:c:94:ARG:H	35:2:1605:G:C5'	2.05	0.69
15:c:183:THR:CB	35:2:1623:C:C5'	2.70	0.69
23:q:199:ILE:C	23:q:201:ALA:H	2.01	0.69
35:2:199:G:OP2	35:2:199:G:H8	1.75	0.69
35:2:292:U:H2'	35:2:293:U:C6	2.28	0.69
35:2:412:A:C8	35:2:412:A:OP2	2.46	0.69
35:2:454:U:O2'	35:2:455:C:O4'	2.10	0.69
35:2:630:A:OP2	35:2:631:G:N7	2.26	0.69
1:B:295:UNK:O	1:B:296:UNK:CB	2.40	0.69
1:L:295:UNK:O	1:L:296:UNK:CB	2.40	0.69
22:p:150:ARG:HG2	22:p:151:PHE:HD1	1.58	0.69
24:r:5:ILE:HD11	24:r:111:LEU:HD12	1.73	0.69
27:u:106:GLU:HA	27:u:111:THR:CB	2.22	0.69
35:2:71:A:H4'	35:2:72:A:OP2	1.93	0.69
35:2:79:C:OP1	35:2:79:C:H2'	1.93	0.69
35:2:214:G:N2	35:2:252:U:O4	2.26	0.69
35:2:429:G:H2'	35:2:430:G:C8	2.28	0.69
35:2:461:G:C4	35:2:462:G:C8	2.81	0.69
35:2:1175:U:H3	35:2:1464:G:H1	1.39	0.69
1:E:295:UNK:O	1:E:296:UNK:CB	2.40	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:306:UNK:CA	7:R:203:UNK:HA	2.24	0.68
19:i:874:VAL:C	19:i:882:ALA:HB1	2.17	0.68
21:o:33:ASP:HB3	21:o:44:SER:HB2	1.74	0.68
22:p:31:PRO:HB2	22:p:38:LEU:HD23	1.74	0.68
22:p:108:LYS:HG3	22:p:110:ARG:HH21	1.58	0.68
22:p:163:LYS:HB2	22:p:237:TRP:HZ3	1.58	0.68
22:p:204:GLN:C	22:p:206:SER:H	2.01	0.68
33:0:49:ASP:HB3	33:0:52:ASN:HD22	1.58	0.68
35:2:877:G:C6	35:2:952:A:C6	2.80	0.68
35:2:949:C:H2'	35:2:950:C:C6	2.28	0.68
1:F:297:UNK:O	1:F:314:UNK:CB	2.42	0.68
24:r:76:LEU:HD23	35:2:406:U:H4'	1.71	0.68
24:r:173:ARG:HH22	35:2:73:U:C5'	2.05	0.68
26:t:19:PRO:CB	35:2:103:A:OP1	2.32	0.68
26:t:36:THR:H	26:t:103:THR:HG23	1.57	0.68
31:y:88:ASP:HB3	35:2:351:C:N4	2.08	0.68
35:2:125:U:H3	35:2:293:U:H3	1.41	0.68
35:2:130:C:H2'	35:2:131:C:O2'	1.94	0.68
35:2:187:G:H2'	35:2:188:A:OP2	1.93	0.68
35:2:272:U:O2	35:2:284:G:N2	2.25	0.68
35:2:300:A:C5	35:2:301:A:C5	2.81	0.68
35:2:358:U:O5'	35:2:358:U:H6	1.76	0.68
35:2:407:A:OP2	35:2:407:A:H3'	1.93	0.68
35:2:495:C:H2'	35:2:495:C:OP2	1.92	0.68
35:2:1038:U:O5'	35:2:1038:U:H6	1.76	0.68
1:E:297:UNK:O	1:E:314:UNK:CB	2.42	0.68
18:g:43:PHE:O	21:o:118:ARG:HA	1.94	0.68
19:j:164:THR:H	19:j:167:MET:N	1.91	0.68
23:q:153:GLY:CA	23:q:154:ALA:HB3	2.21	0.68
30:x:123:ARG:H	35:2:1584:G:H8	1.38	0.68
35:2:188:A:OP2	35:2:197:A:C2	2.46	0.68
35:2:457:G:N2	35:2:458:G:H1'	2.09	0.68
35:2:496:G:C4	35:2:497:G:C8	2.81	0.68
35:2:524:U:O2'	35:2:526:A:N6	2.26	0.68
35:2:591:A:OP2	35:2:591:A:C8	2.47	0.68
35:2:874:C:OP2	35:2:874:C:H6	1.75	0.68
35:2:915:A:H3'	35:2:916:U:C6	2.29	0.68
1:B:297:UNK:O	1:B:314:UNK:CB	2.42	0.68
1:C:297:UNK:O	1:C:314:UNK:CB	2.42	0.68
3:H:1:UNK:CB	3:H:173:UNK:HA	2.14	0.68
1:P:295:UNK:O	1:P:296:UNK:CB	2.40	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:d:70:GLY:N	35:2:1097:U:C4	2.61	0.68
18:g:41:THR:N	21:o:114:CYS:CB	2.57	0.68
24:r:58:LYS:HZ3	35:2:418:G:H8	0.82	0.68
24:r:165:PHE:N	35:2:69:G:N2	2.41	0.68
28:v:142:GLU:C	28:v:144:ALA:H	2.01	0.68
31:y:44:PRO:HG2	31:y:47:ALA:HB2	1.74	0.68
33:0:85:PRO:HD2	35:2:525:A:C6	2.29	0.68
33:0:131:THR:O	33:0:135:VAL:HG23	1.94	0.68
35:2:103:A:H5'	35:2:360:A:N1	2.08	0.68
35:2:117:U:OP2	35:2:117:U:H6	1.75	0.68
35:2:129:U:OP2	35:2:130:C:N4	2.21	0.68
35:2:147:A:C3'	35:2:148:A:H8	2.04	0.68
35:2:161:U:C2'	35:2:162:A:H8	2.05	0.68
35:2:294:C:O2'	35:2:295:A:O5'	2.09	0.68
35:2:376:C:C2	35:2:377:G:N7	2.61	0.68
35:2:432:G:C5	35:2:433:C:C4	2.82	0.68
35:2:1047:G:OP2	35:2:1047:G:C8	2.46	0.68
1:J:306:UNK:HA	7:R:203:UNK:CA	2.24	0.68
1:n:297:UNK:O	1:n:314:UNK:CB	2.42	0.68
26:t:25:ARG:C	35:2:400:A:N9	2.45	0.68
31:y:145:GLU:HA	31:y:145:GLU:OE1	1.93	0.68
35:2:144:U:C2	35:2:145:A:H1'	2.29	0.68
35:2:187:G:O2'	35:2:188:A:O4'	2.11	0.68
35:2:328:A:C2	35:2:340:U:C2	2.81	0.68
35:2:357:G:H2'	35:2:357:G:N3	2.07	0.68
35:2:387:A:N3	35:2:425:A:H2	1.91	0.68
35:2:398:G:H5''	35:2:399:A:OP2	1.94	0.68
35:2:537:G:C6	35:2:538:A:C5	2.81	0.68
35:2:975:C:H2'	35:2:976:G:C8	2.29	0.68
1:J:295:UNK:O	1:J:296:UNK:CB	2.40	0.68
8:T:326:ILE:CB	36:3:108:A:P	2.82	0.68
19:i:213:GLY:H	19:i:219:PRO:N	1.91	0.68
26:t:24:LYS:HB3	35:2:400:A:C5	2.28	0.68
29:w:11:SER:CB	29:w:12:GLN:HA	2.22	0.68
29:w:22:SER:O	29:w:24:ASN:N	2.27	0.68
30:x:93:HIS:CB	30:x:94:GLN:CA	2.72	0.68
35:2:37:U:C2	35:2:471:A:N1	2.61	0.68
35:2:213:A:C6	35:2:253:A:C5	2.80	0.68
35:2:263:C:H2'	35:2:264:G:N9	2.09	0.68
35:2:329:G:OP2	35:2:329:G:H8	1.77	0.68
35:2:450:U:H5''	35:2:451:A:OP2	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1039:A:H1'	35:2:1040:G:O4'	1.92	0.68
35:2:1050:G:C8	35:2:1050:G:OP2	2.47	0.68
1:N:297:UNK:O	1:N:314:UNK:CB	2.42	0.68
24:r:7:TYR:HB3	24:r:12:ALA:HB3	1.76	0.68
35:2:52:U:O2'	35:2:440:U:O4	2.05	0.68
35:2:79:C:H2'	35:2:79:C:P	2.34	0.68
35:2:411:C:C5	35:2:412:A:C6	2.82	0.68
35:2:502:U:O2'	35:2:503:G:O5'	2.12	0.68
35:2:549:G:C8	35:2:549:G:OP2	2.47	0.68
35:2:976:G:N2	35:2:1023:A:O2'	2.24	0.68
36:3:74:C:OP2	36:3:74:C:H3'	1.93	0.68
1:A:297:UNK:O	1:A:314:UNK:CB	2.42	0.68
1:D:297:UNK:O	1:D:314:UNK:CB	2.42	0.68
15:c:111:PHE:N	15:c:112:PRO:HA	2.09	0.68
21:o:29:LYS:HG2	29:w:10:ASN:HA	1.75	0.68
24:r:90:GLY:C	24:r:92:ARG:H	2.02	0.68
26:t:10:LYS:HZ1	35:2:339:C:P	2.14	0.68
26:t:56:VAL:CG2	35:2:333:A:C5'	2.71	0.68
31:y:17:LEU:HA	31:y:20:LYS:CE	2.24	0.68
35:2:92:A:O5'	35:2:93:A:H5'	1.93	0.68
35:2:143:G:C2	35:2:144:U:H1'	2.28	0.68
35:2:329:G:OP2	35:2:329:G:C8	2.47	0.68
35:2:871:G:C6	35:2:957:G:C6	2.81	0.68
35:2:904:G:H3'	35:2:905:A:C8	2.28	0.68
35:2:975:C:OP2	35:2:975:C:C6	2.47	0.68
36:3:132:C:N4	36:3:133:G:O6	2.27	0.68
1:L:297:UNK:O	1:L:314:UNK:CB	2.42	0.68
8:S:299:GLY:CA	36:3:93:G:C5	2.75	0.68
17:f:156:GLU:CB	35:2:1537:C:N1	2.57	0.68
1:l:297:UNK:O	1:l:314:UNK:CB	2.42	0.68
23:q:197:GLU:H	23:q:200:ASN:N	1.91	0.68
24:r:92:ARG:NH1	35:2:393:C:C2'	2.57	0.68
28:v:88:LEU:C	28:v:90:TYR:H	2.01	0.68
33:0:51:ARG:NH2	33:0:148:ALA:HB3	2.09	0.68
35:2:188:A:H62	35:2:197:A:H2'	1.57	0.68
35:2:371:G:C2	35:2:372:G:H1'	2.29	0.68
35:2:520:A:H3'	35:2:521:A:H8	1.59	0.68
35:2:959:U:N1	35:2:960:U:H5	1.92	0.68
35:2:1571:C:H3'	35:2:1572:G:H5''	1.74	0.68
9:U:37:LYS:O	36:3:264:G:C8	2.47	0.68
26:t:141:LYS:HZ2	26:t:143:LYS:HE2	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:21:U:C6	35:2:21:U:OP2	2.46	0.68
35:2:103:A:H5''	35:2:104:A:N3	2.09	0.68
35:2:288:A:H8	35:2:288:A:OP2	1.75	0.68
35:2:328:A:C6	35:2:341:A:N1	2.62	0.68
35:2:332:U:H3'	35:2:334:G:P	2.33	0.68
35:2:516:G:N2	35:2:536:C:C2	2.56	0.68
35:2:884:A:C8	35:2:884:A:OP2	2.47	0.68
35:2:1039:A:O4'	35:2:1091:A:H2	1.76	0.68
35:2:1622:G:H3'	35:2:1623:C:H6	1.59	0.68
36:3:79:G:C6	36:3:80:G:N7	2.61	0.68
1:J:297:UNK:O	1:J:314:UNK:CB	2.42	0.67
8:T:338:ALA:HB2	36:3:108:A:O5'	1.94	0.67
19:j:213:GLY:H	19:j:219:PRO:N	1.91	0.67
21:o:139:ARG:NH2	35:2:884:A:H5''	2.03	0.67
25:s:95:THR:HG22	25:s:96:ALA:H	1.58	0.67
26:t:185:ARG:HD3	35:2:208:U:O2'	1.94	0.67
26:t:194:LYS:HD3	31:y:12:GLN:HE22	1.59	0.67
32:z:53:ILE:O	32:z:60:LYS:N	2.26	0.67
33:0:147:VAL:O	33:0:148:ALA:HB2	1.94	0.67
35:2:34:G:H1'	35:2:476:U:C5	2.29	0.67
35:2:67:A:N1	35:2:79:C:H5'	2.09	0.67
35:2:97:C:O2	35:2:426:G:OP2	2.12	0.67
35:2:352:A:H4'	35:2:353:A:C8	2.28	0.67
35:2:589:C:H2'	35:2:590:C:C6	2.28	0.67
35:2:863:A:P	35:2:963:A:H61	2.17	0.67
35:2:883:C:C2	35:2:945:U:N3	2.58	0.67
35:2:976:G:N3	35:2:1027:A:N1	2.42	0.67
35:2:977:A:OP2	35:2:1023:A:C2	2.47	0.67
35:2:1174:C:C2	35:2:1466:G:C2	2.82	0.67
35:2:1603:U:O2	35:2:1603:U:H2'	1.95	0.67
1:P:287:UNK:CA	14:b:18:PHE:O	2.41	0.67
20:k:174:THR:C	20:k:176:THR:H	2.00	0.67
1:n:295:UNK:CA	26:t:45:ILE:HG22	2.24	0.67
21:o:64:LYS:HG2	21:o:65:GLY:H	1.59	0.67
21:o:163:LYS:CG	35:2:1045:C:H5''	2.19	0.67
26:t:105:VAL:CG1	35:2:329:G:C5'	2.73	0.67
31:y:120:ASP:OD1	31:y:120:ASP:N	2.26	0.67
33:0:33:ALA:O	35:2:520:A:H1'	1.94	0.67
35:2:51:A:H8	35:2:429:G:H21	1.41	0.67
35:2:65:A:H4'	35:2:66:U:OP1	1.95	0.67
35:2:93:A:OP2	35:2:399:A:N1	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:103:A:H1'	35:2:308:C:N3	2.09	0.67
35:2:215:A:C8	35:2:242:U:H2'	2.28	0.67
35:2:465:G:C8	35:2:465:G:OP2	2.46	0.67
35:2:472:U:H2'	35:2:473:A:C8	2.30	0.67
35:2:475:A:OP2	35:2:475:A:C4	2.47	0.67
35:2:879:G:C2	35:2:880:C:C2	2.82	0.67
35:2:922:G:O2'	35:2:923:A:OP2	2.11	0.67
35:2:957:G:O2'	35:2:958:U:H5'	1.95	0.67
35:2:1084:A:O2'	35:2:1094:G:OP1	2.11	0.67
35:2:1159:C:H3'	35:2:1160:A:H5'	1.75	0.67
35:2:1536:G:N2	35:2:1538:U:H3	1.92	0.67
36:3:74:C:C4	36:3:75:A:N6	2.62	0.67
36:3:263:U:H2'	36:3:264:G:N3	2.08	0.67
35:2:147:A:H3'	35:2:148:A:C8	2.19	0.67
35:2:210:A:N1	35:2:256:A:C6	2.63	0.67
35:2:333:A:H2'	35:2:334:G:H8	1.59	0.67
35:2:405:C:H3'	35:2:406:U:H6	1.58	0.67
35:2:412:A:C1'	35:2:421:A:H61	2.07	0.67
35:2:456:A:H2'	35:2:457:G:O4'	1.95	0.67
35:2:496:G:C2'	35:2:497:G:H5'	2.24	0.67
35:2:510:G:N2	35:2:512:A:O2'	2.27	0.67
35:2:1094:G:OP2	35:2:1095:U:OP2	2.11	0.67
36:3:260:G:H4'	36:3:261:U:OP1	1.95	0.67
17:f:163:ILE:C	35:2:1575:G:OP2	2.38	0.67
19:i:163:TYR:CB	19:i:181:VAL:HA	2.24	0.67
21:o:31:TRP:CH2	29:w:14:PHE:CB	2.77	0.67
21:o:208:LYS:CE	35:2:1056:U:C6	2.76	0.67
21:o:211:PHE:CE2	35:2:1067:C:OP1	2.47	0.67
22:p:193:ARG:HG2	22:p:220:PHE:CE2	2.29	0.67
25:s:43:THR:HG21	25:s:97:GLN:CD	2.19	0.67
34:1:28:VAL:CB	34:1:35:ASP:H	2.08	0.67
35:2:111:U:N3	35:2:112:A:N1	2.42	0.67
35:2:207:U:H2'	35:2:208:U:C6	2.28	0.67
35:2:493:U:H2'	35:2:494:U:H5''	1.76	0.67
35:2:898:A:N7	35:2:915:A:N6	2.43	0.67
35:2:905:A:OP2	35:2:905:A:H8	1.75	0.67
35:2:942:G:H8	35:2:942:G:OP2	1.78	0.67
1:P:297:UNK:O	1:P:314:UNK:CB	2.42	0.67
9:U:126:GLY:N	10:W:188:VAL:CA	2.57	0.67
24:r:175:LYS:HB2	35:2:69:G:P	2.35	0.67
26:t:155:LYS:O	26:t:155:LYS:HG2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:53:G:C6	35:2:428:A:N1	2.62	0.67
35:2:70:C:C2	35:2:83:G:N2	2.55	0.67
35:2:524:U:OP2	35:2:525:A:H4'	1.95	0.67
35:2:1087:A:H2'	35:2:1088:A:C8	2.30	0.67
35:2:1478:G:H2'	35:2:1479:A:O4'	1.95	0.67
9:V:96:GLN:H	36:3:114:A:C3'	2.07	0.67
1:l:295:UNK:O	1:l:296:UNK:CB	2.40	0.67
1:n:295:UNK:O	1:n:296:UNK:CB	2.40	0.67
21:o:25:PRO:CD	29:w:74:VAL:CB	2.72	0.67
21:o:181:GLU:HG2	21:o:199:TYR:CE2	2.29	0.67
22:p:120:GLU:HG2	22:p:239:GLU:OE2	1.93	0.67
26:t:78:GLU:O	26:t:79:ASN:HB3	1.93	0.67
27:u:71:PHE:O	27:u:75:ALA:CB	2.43	0.67
35:2:124:A:N6	35:2:294:C:H42	1.92	0.67
35:2:142:G:H8	35:2:142:G:OP2	1.77	0.67
35:2:288:A:OP2	35:2:288:A:H2'	1.95	0.67
35:2:446:A:H3'	35:2:447:U:H6	1.59	0.67
35:2:457:G:C2	35:2:458:G:H1'	2.28	0.67
35:2:488:G:N1	35:2:499:U:N3	2.42	0.67
35:2:515:A:C2	35:2:537:G:N2	2.63	0.67
35:2:1069:A:H8	35:2:1069:A:OP2	1.77	0.67
35:2:1077:C:H3'	35:2:1078:C:H6	1.59	0.67
35:2:1584:G:N3	35:2:1585:U:OP1	2.28	0.67
36:3:171:G:H2'	36:3:172:C:C6	2.30	0.67
1:K:297:UNK:O	1:K:314:UNK:CB	2.42	0.67
22:p:37:LYS:HG3	22:p:40:GLU:HB2	1.76	0.67
22:p:109:GLY:CA	22:p:191:ILE:HD11	2.24	0.67
31:y:103:HIS:CB	35:2:351:C:N3	2.55	0.67
33:0:32:THR:HG1	35:2:533:U:C1'	2.08	0.67
35:2:142:G:H2'	35:2:143:G:C8	2.29	0.67
35:2:156:A:H61	35:2:419:G:C1'	2.07	0.67
35:2:384:G:OP2	35:2:384:G:H8	1.78	0.67
35:2:474:A:H1'	35:2:475:A:N1	2.09	0.67
36:3:78:C:H2'	36:3:79:G:C8	2.29	0.67
36:3:98:U:H2'	36:3:99:C:C6	2.29	0.67
1:L:57:UNK:C	5:M:350:UNK:CB	2.72	0.67
18:g:76:GLY:O	21:o:117:ILE:N	2.28	0.67
24:r:137:ARG:CZ	35:2:144:U:H5	2.07	0.67
28:v:94:LYS:O	28:v:98:VAL:CB	2.43	0.67
35:2:103:A:H4'	35:2:104:A:OP2	1.92	0.67
35:2:160:C:H2'	35:2:161:U:O4'	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:161:U:O2'	35:2:162:A:O4'	2.13	0.67
35:2:201:G:H2'	35:2:201:G:N3	2.07	0.67
35:2:286:C:OP2	35:2:286:C:H6	1.78	0.67
35:2:336:G:H2'	35:2:338:C:OP1	1.95	0.67
35:2:344:A:H3'	35:2:345:U:C6	2.30	0.67
35:2:411:C:H3'	35:2:412:A:H8	1.58	0.67
35:2:480:G:H2'	35:2:480:G:N3	2.09	0.67
35:2:947:U:H2'	35:2:948:G:H8	1.55	0.67
35:2:1095:U:OP2	35:2:1095:U:H2'	1.95	0.67
19:j:163:TYR:CB	19:j:181:VAL:HA	2.24	0.67
21:o:89:LEU:CB	21:o:101:THR:HG21	2.24	0.67
22:p:3:ARG:HB2	35:2:94:U:H5''	1.75	0.67
22:p:106:ASP:HB2	22:p:110:ARG:H	1.60	0.67
22:p:163:LYS:HB2	22:p:237:TRP:CZ3	2.30	0.67
24:r:67:VAL:HG13	24:r:67:VAL:O	1.93	0.67
27:u:77:ILE:C	27:u:79:ARG:H	2.03	0.67
35:2:39:A:H2	35:2:470:A:N7	1.93	0.67
35:2:146:U:H2'	35:2:147:A:O4'	1.95	0.67
35:2:483:A:C3'	35:2:484:C:H6	2.08	0.67
35:2:868:G:C2	35:2:960:U:O2	2.47	0.67
35:2:959:U:H1'	35:2:960:U:OP1	1.95	0.67
35:2:972:G:OP2	35:2:972:G:H8	1.78	0.67
35:2:1602:C:H3'	35:2:1603:U:C6	2.25	0.67
36:3:269:G:C8	36:3:269:G:OP2	2.48	0.67
18:g:46:TYR:N	21:o:119:LYS:O	2.28	0.67
22:p:102:ARG:HE	22:p:238:ILE:HG21	1.58	0.67
24:r:12:ALA:HB1	24:r:124:LEU:HA	1.75	0.67
31:y:135:ARG:CD	35:2:304:U:OP1	2.42	0.67
35:2:103:A:O4'	35:2:360:A:H2	1.78	0.67
35:2:105:A:H1'	35:2:107:C:N4	2.10	0.67
35:2:124:A:C5	35:2:125:U:C4	2.83	0.67
35:2:142:G:N2	35:2:174:U:H1'	2.10	0.67
35:2:147:A:OP2	35:2:167:U:O4	2.13	0.67
35:2:210:A:C8	35:2:210:A:OP2	2.48	0.67
35:2:214:G:H1	35:2:250:C:P	2.18	0.67
35:2:404:G:C2	35:2:405:C:C2	2.83	0.67
35:2:408:C:H2'	35:2:409:C:H6	1.58	0.67
35:2:878:G:N2	35:2:950:C:O2	2.18	0.67
35:2:1048:G:OP2	35:2:1048:G:H8	1.77	0.67
35:2:1078:C:H3'	35:2:1079:U:C6	2.29	0.67
2:G:2406:ALA:HB2	2:G:2813:VAL:O	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:127:LYS:C	10:W:222:ASP:CB	2.67	0.66
9:V:26:VAL:CA	27:u:183:ALA:CB	2.60	0.66
22:p:3:ARG:CB	35:2:94:U:H5''	2.25	0.66
24:r:58:LYS:O	24:r:58:LYS:HD3	1.95	0.66
24:r:136:LYS:HB3	35:2:168:A:OP1	1.95	0.66
35:2:57:G:C6	35:2:91:G:O6	2.48	0.66
35:2:199:G:OP2	35:2:199:G:C8	2.48	0.66
35:2:294:C:N3	35:2:295:A:N6	2.42	0.66
35:2:318:U:O4	35:2:346:G:O6	2.12	0.66
35:2:340:U:O4	35:2:341:A:N6	2.28	0.66
35:2:368:U:H3'	35:2:369:A:O4'	1.95	0.66
35:2:456:A:C6	35:2:457:G:C5	2.84	0.66
35:2:624:G:OP1	35:2:624:G:H8	1.78	0.66
35:2:928:U:H2'	35:2:945:U:OP2	1.94	0.66
35:2:958:U:OP2	35:2:958:U:H6	1.77	0.66
36:3:93:G:H8	36:3:93:G:O5'	1.78	0.66
36:3:113:G:H1'	36:3:195:A:H61	1.60	0.66
15:c:145:HIS:HA	35:2:1603:U:H1'	1.78	0.66
20:k:175:THR:O	20:k:176:THR:C	2.38	0.66
22:p:177:LEU:HD23	22:p:177:LEU:H	1.60	0.66
26:t:37:LYS:O	26:t:38:LEU:HD23	1.96	0.66
33:0:2:THR:HG22	33:0:3:ILE:N	2.00	0.66
35:2:321:C:H2'	35:2:337:G:H22	1.60	0.66
35:2:518:A:H2'	35:2:519:C:H5'	1.75	0.66
35:2:933:A:N6	35:2:944:A:N1	2.43	0.66
35:2:964:U:H4'	35:2:965:U:C5'	2.26	0.66
35:2:1074:G:C6	35:2:1075:C:C4	2.83	0.66
35:2:1076:A:C8	35:2:1076:A:OP2	2.48	0.66
35:2:1524:A:C2'	35:2:1525:A:C8	2.72	0.66
36:3:269:G:H2'	36:3:270:C:O4'	1.95	0.66
3:H:215:UNK:O	3:H:245:UNK:C	2.43	0.66
9:V:26:VAL:N	27:u:183:ALA:HB3	2.07	0.66
25:s:52:LYS:HB3	25:s:56:LYS:HE2	1.77	0.66
25:s:144:ARG:HH21	25:s:145:LEU:HG	1.60	0.66
27:u:55:ALA:O	27:u:58:ASP:N	2.28	0.66
35:2:377:G:C8	35:2:377:G:OP2	2.47	0.66
35:2:417:A:O2'	35:2:418:G:OP2	2.12	0.66
35:2:487:G:O3'	35:2:488:G:H8	1.76	0.66
35:2:490:C:N4	35:2:497:G:O6	2.25	0.66
35:2:898:A:H61	35:2:912:U:C5'	2.07	0.66
35:2:1039:A:N6	35:2:1091:A:H5''	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1061:A:H2'	35:2:1062:A:C8	2.30	0.66
35:2:1166:A:H5''	35:2:1167:G:OP2	1.96	0.66
35:2:1475:A:C5	35:2:1476:C:C5	2.83	0.66
24:r:64:LYS:HZ1	24:r:82:SER:N	1.93	0.66
26:t:10:LYS:CE	35:2:338:C:H5''	2.25	0.66
26:t:22:ARG:HB3	35:2:385:A:OP1	1.92	0.66
35:2:59:C:OP2	35:2:59:C:C2	2.48	0.66
35:2:146:U:O2	35:2:169:A:N6	2.28	0.66
35:2:277:U:O2'	35:2:280:U:N3	1.95	0.66
35:2:280:U:C3'	35:2:281:G:H8	2.07	0.66
35:2:304:U:H3'	35:2:305:C:H6	1.61	0.66
35:2:324:U:C2	35:2:344:A:C2	2.84	0.66
35:2:340:U:N3	35:2:341:A:C5	2.64	0.66
35:2:457:G:C8	35:2:457:G:H3'	2.31	0.66
35:2:942:G:OP2	35:2:942:G:C8	2.48	0.66
18:g:72:ASP:C	21:o:118:ARG:NH2	2.51	0.66
21:o:126:ALA:CB	21:o:175:ASN:HD21	1.98	0.66
31:y:101:LYS:CB	35:2:351:C:C5	2.65	0.66
31:y:105:ASN:ND2	35:2:348:U:H5''	2.06	0.66
35:2:157:A:P	35:2:157:A:H8	2.18	0.66
35:2:269:G:N3	35:2:287:G:N1	2.42	0.66
35:2:447:U:O2'	35:2:448:C:O4'	2.14	0.66
35:2:629:U:C2	35:2:970:A:N7	2.63	0.66
35:2:977:A:H2'	35:2:977:A:N3	2.09	0.66
15:c:98:SER:HA	30:x:138:PHE:C	2.21	0.66
21:o:163:LYS:HG2	35:2:1045:C:P	2.35	0.66
23:q:148:ARG:O	23:q:157:ARG:HA	1.96	0.66
27:u:95:TYR:O	27:u:98:ALA:HB3	1.94	0.66
35:2:38:C:H3'	35:2:39:A:H5''	1.77	0.66
35:2:108:A:N6	35:2:306:U:C4	2.58	0.66
35:2:119:A:H2'	35:2:120:U:O5'	1.95	0.66
35:2:121:U:H3'	35:2:121:U:OP2	1.96	0.66
35:2:410:A:C5	35:2:411:C:C5	2.84	0.66
35:2:522:U:O5'	35:2:523:G:H5''	1.96	0.66
35:2:548:G:H8	35:2:548:G:O5'	1.79	0.66
36:3:103:G:N1	36:3:250:G:N7	2.44	0.66
8:S:294:THR:CB	36:3:261:U:C2	2.78	0.66
15:c:201:GLY:O	15:c:203:ARG:N	2.27	0.66
19:i:57:LEU:CB	35:2:416:A:C6	2.75	0.66
21:o:182:ALA:HB2	21:o:190:PHE:CE2	2.31	0.66
22:p:35:PRO:HD2	22:p:85:PRO:HG2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:p:57:ASN:OD1	35:2:446:A:H5''	1.95	0.66
22:p:93:ARG:HA	22:p:99:GLN:O	1.96	0.66
22:p:144:HIS:C	22:p:146:SER:H	2.03	0.66
29:w:99:GLN:O	29:w:103:ARG:CB	2.44	0.66
31:y:33:TYR:OH	35:2:249:U:OP2	2.13	0.66
31:y:106:ILE:HG22	31:y:108:VAL:HG23	1.77	0.66
35:2:130:C:H5''	35:2:131:C:OP2	1.96	0.66
35:2:268:C:C2	35:2:288:A:C2	2.83	0.66
35:2:349:U:C4'	35:2:353:A:H1'	2.25	0.66
35:2:503:G:C8	35:2:503:G:OP2	2.49	0.66
35:2:904:G:H2'	35:2:905:A:C8	2.31	0.66
35:2:1084:A:H1'	35:2:1094:G:C4'	2.22	0.66
1:C:295:UNK:O	1:C:315:UNK:CB	2.44	0.66
21:o:77:ASP:O	21:o:79:SER:N	2.26	0.66
22:p:230:LEU:HD13	22:p:238:ILE:HD12	1.78	0.66
24:r:176:CYS:SG	35:2:67:A:N7	2.50	0.66
26:t:25:ARG:HA	35:2:400:A:C1'	2.26	0.66
26:t:29:LYS:HB3	35:2:333:A:OP1	1.95	0.66
31:y:44:PRO:HG2	31:y:47:ALA:CB	2.26	0.66
35:2:47:A:C6	35:2:98:U:O2	2.49	0.66
35:2:142:G:OP2	35:2:142:G:C8	2.48	0.66
35:2:394:C:N3	35:2:401:A:C5	2.64	0.66
35:2:405:C:C3'	35:2:406:U:H6	2.09	0.66
35:2:432:G:OP2	35:2:432:G:N7	2.29	0.66
35:2:478:A:H2'	35:2:479:C:H6	1.61	0.66
35:2:519:C:N3	35:2:534:A:C6	2.63	0.66
35:2:520:A:OP2	35:2:529:A:N1	2.29	0.66
35:2:1039:A:HO2'	35:2:1040:G:P	2.18	0.66
35:2:1593:A:O2'	35:2:1594:G:H5'	1.95	0.66
33:0:32:THR:CG2	35:2:520:A:C2	2.79	0.66
35:2:93:A:C8	35:2:399:A:C8	2.83	0.66
35:2:198:A:OP2	35:2:198:A:C8	2.49	0.66
35:2:263:C:C6	35:2:263:C:OP2	2.49	0.66
35:2:474:A:O2'	35:2:475:A:OP2	2.14	0.66
35:2:946:U:H2'	35:2:947:U:C6	2.31	0.66
35:2:966:A:H2'	35:2:967:A:H8	1.61	0.66
35:2:974:A:H3'	35:2:975:C:C5	2.31	0.66
1:J:295:UNK:O	1:J:315:UNK:CB	2.44	0.66
1:L:295:UNK:O	1:L:315:UNK:CB	2.44	0.66
1:N:295:UNK:O	1:N:315:UNK:CB	2.44	0.66
1:n:295:UNK:O	1:n:315:UNK:CB	2.44	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:137:ILE:HD12	21:o:225:LYS:HB2	1.77	0.66
21:o:165:SER:CB	35:2:874:C:O3'	2.43	0.66
21:o:208:LYS:C	35:2:1066:C:O4'	2.39	0.66
24:r:7:TYR:OH	24:r:9:LEU:HD12	1.96	0.66
35:2:45:U:C2	35:2:433:C:O2'	2.49	0.66
35:2:111:U:C2	35:2:303:U:H1'	2.30	0.66
35:2:144:U:H5'	35:2:145:A:OP2	1.95	0.66
35:2:253:A:C6	35:2:254:A:C5	2.84	0.66
35:2:282:C:H3'	35:2:283:U:C6	2.31	0.66
35:2:349:U:H4'	35:2:353:A:H1'	1.77	0.66
35:2:501:U:HO2'	35:2:502:U:C1'	2.08	0.66
35:2:629:U:OP2	35:2:629:U:C6	2.48	0.66
35:2:958:U:C6	35:2:958:U:OP2	2.48	0.66
35:2:966:A:OP2	35:2:966:A:C8	2.43	0.66
35:2:1039:A:C2	35:2:1080:U:C2	2.84	0.66
3:H:-2:UNK:O	3:H:170:UNK:CB	2.42	0.65
1:l:295:UNK:O	1:l:315:UNK:CB	2.44	0.65
21:o:31:TRP:HH2	29:w:14:PHE:CB	2.09	0.65
21:o:205:LYS:HA	35:2:1055:U:O2'	1.96	0.65
24:r:16:ILE:HD13	24:r:45:PHE:CZ	2.31	0.65
24:r:132:LYS:HZ1	24:r:163:ARG:CB	2.07	0.65
24:r:175:LYS:HZ2	35:2:71:A:H8	1.44	0.65
31:y:134:VAL:O	31:y:135:ARG:HG3	1.95	0.65
32:z:37:PHE:C	32:z:39:GLN:N	2.52	0.65
35:2:97:C:H1'	35:2:426:G:C5'	2.25	0.65
35:2:126:A:H61	35:2:291:G:H2'	1.61	0.65
35:2:209:U:C2	35:2:210:A:C8	2.84	0.65
35:2:291:G:H2'	35:2:292:U:C6	2.31	0.65
35:2:309:C:C2	35:2:357:G:N1	2.63	0.65
35:2:324:U:C4	35:2:344:A:N1	2.63	0.65
35:2:353:A:OP2	35:2:355:G:C5	2.49	0.65
35:2:368:U:O2	35:2:373:G:O6	2.15	0.65
35:2:517:U:C2	35:2:535:A:C2	2.84	0.65
35:2:526:A:H3'	35:2:527:A:C2	2.31	0.65
35:2:911:U:H4'	35:2:915:A:H1'	1.78	0.65
35:2:1166:A:O2'	35:2:1587:A:H4'	1.95	0.65
35:2:1466:G:C4	35:2:1467:C:C5	2.83	0.65
1:B:295:UNK:O	1:B:315:UNK:CB	2.44	0.65
1:E:295:UNK:O	1:E:315:UNK:CB	2.44	0.65
15:c:145:HIS:N	35:2:1603:U:O2'	2.28	0.65
21:o:27:SER:HA	29:w:10:ASN:O	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:s:82:ILE:HG22	25:s:86:LYS:HE3	1.78	0.65
25:s:127:LEU:HG	25:s:174:TYR:CE1	2.30	0.65
26:t:35:MET:CE	26:t:37:LYS:HG3	2.26	0.65
31:y:87:ARG:HD3	31:y:104:ARG:NH2	2.12	0.65
33:0:89:LEU:HD12	33:0:95:LEU:HD22	1.79	0.65
35:2:47:A:C6	35:2:100:A:N7	2.65	0.65
35:2:473:A:H2'	35:2:475:A:N1	2.11	0.65
35:2:630:A:N6	35:2:969:C:H2'	2.12	0.65
35:2:874:C:OP2	35:2:874:C:C6	2.49	0.65
35:2:880:C:N3	35:2:948:G:N1	2.42	0.65
35:2:1602:C:O2	35:2:1602:C:H2'	1.96	0.65
1:P:286:UNK:N	14:b:20:ASN:C	2.53	0.65
15:c:96:PRO:O	30:x:131:GLY:C	2.40	0.65
21:o:50:VAL:HG12	21:o:51:THR:N	2.11	0.65
23:q:140:THR:O	23:q:171:ALA:HB1	1.97	0.65
24:r:98:ARG:HG2	24:r:106:MET:HE1	1.79	0.65
26:t:121:TYR:CD2	26:t:129:LEU:HD11	2.31	0.65
29:w:89:THR:HA	29:w:90:ARG:C	2.19	0.65
31:y:88:ASP:CB	35:2:351:C:H42	2.08	0.65
32:z:54:ASP:CA	32:z:59:GLY:HA2	2.21	0.65
35:2:109:G:C8	35:2:109:G:OP2	2.49	0.65
35:2:304:U:H3'	35:2:305:C:C5	2.31	0.65
35:2:357:G:OP2	35:2:357:G:C8	2.49	0.65
35:2:521:A:C8	35:2:521:A:OP2	2.49	0.65
35:2:592:A:N3	35:2:592:A:H2'	2.11	0.65
35:2:907:A:OP2	35:2:907:A:C8	2.48	0.65
35:2:1091:A:O4'	35:2:1091:A:OP2	2.14	0.65
35:2:1570:A:H3'	35:2:1571:C:C6	2.31	0.65
35:2:1570:A:C2	35:2:1571:C:H1'	2.31	0.65
26:t:185:ARG:NH2	35:2:208:U:C6	2.65	0.65
35:2:171:A:OP2	35:2:171:A:H8	1.80	0.65
35:2:267:U:N3	35:2:289:U:C6	2.64	0.65
35:2:277:U:H5'	35:2:278:U:C5	2.32	0.65
35:2:399:A:O2'	35:2:401:A:O4'	2.09	0.65
35:2:457:G:OP2	35:2:457:G:C8	2.49	0.65
35:2:481:A:H1'	35:2:508:U:H1'	1.77	0.65
35:2:537:G:H2'	35:2:537:G:N3	2.10	0.65
35:2:941:A:C6	35:2:942:G:H1'	2.31	0.65
35:2:963:A:C8	35:2:963:A:OP2	2.49	0.65
35:2:1474:G:C2	35:2:1475:A:C5	2.85	0.65
35:2:1612:U:H3'	35:2:1613:U:H5''	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:66:A:H2'	36:3:67:C:C6	2.31	0.65
36:3:153:G:H2'	36:3:154:G:H8	1.60	0.65
36:3:240:C:H2'	36:3:241:G:C8	2.32	0.65
1:A:295:UNK:O	1:A:315:UNK:CB	2.44	0.65
1:D:295:UNK:O	1:D:315:UNK:CB	2.44	0.65
8:T:327:HIS:O	36:3:108:A:N6	2.28	0.65
22:p:43:PRO:HG2	22:p:46:VAL:HG23	1.76	0.65
31:y:66:ARG:HE	35:2:113:U:H5''	1.61	0.65
31:y:82:THR:HB	35:2:325:G:H4'	1.78	0.65
33:0:115:THR:HG22	33:0:116:SER:N	2.11	0.65
33:0:140:SER:HA	33:0:143:LEU:CD1	2.26	0.65
35:2:285:G:C2	35:2:286:C:C2	2.84	0.65
35:2:388:G:H2'	35:2:389:G:H8	1.60	0.65
35:2:391:A:C6	35:2:392:G:C6	2.84	0.65
35:2:525:A:OP1	35:2:527:A:N1	2.30	0.65
35:2:540:G:O5'	35:2:540:G:C8	2.50	0.65
35:2:916:U:C6	35:2:916:U:OP2	2.49	0.65
35:2:950:C:H3'	35:2:951:A:H8	1.60	0.65
35:2:1073:G:O6	35:2:1074:G:O6	2.14	0.65
35:2:1178:G:N2	35:2:1462:G:C4	2.65	0.65
3:H:268:UNK:CB	3:H:308:UNK:CA	2.73	0.65
1:K:295:UNK:O	1:K:315:UNK:CB	2.44	0.65
18:g:42:LEU:N	21:o:114:CYS:CA	2.59	0.65
34:1:25:VAL:O	34:1:38:ARG:HA	1.97	0.65
35:2:123:G:N1	35:2:295:A:C6	2.65	0.65
35:2:171:A:C4	35:2:172:C:C5	2.84	0.65
35:2:323:A:H61	35:2:344:A:H61	1.42	0.65
35:2:331:A:C8	35:2:331:A:OP2	2.50	0.65
35:2:341:A:H8	35:2:341:A:OP2	1.79	0.65
35:2:379:U:H4'	35:2:380:U:OP2	1.95	0.65
35:2:419:G:H2'	35:2:420:A:O4'	1.96	0.65
35:2:470:A:C8	35:2:471:A:H1'	2.31	0.65
35:2:964:U:OP2	35:2:964:U:C5	2.50	0.65
35:2:1040:G:H2'	35:2:1041:G:C8	2.31	0.65
36:3:72:C:C4	36:3:73:C:N4	2.65	0.65
1:C:326:UNK:O	1:D:87:UNK:C	2.45	0.65
1:P:295:UNK:O	1:P:315:UNK:CB	2.44	0.65
16:d:141:HIS:O	16:d:143:ILE:N	2.29	0.65
19:j:858:MET:CB	19:j:862:ALA:HB3	2.26	0.65
21:o:27:SER:OG	29:w:8:ARG:CA	2.45	0.65
26:t:56:VAL:HG13	26:t:57:ARG:N	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:40:A:H1'	35:2:470:A:C2	2.31	0.65
35:2:59:C:N4	35:2:89:G:C2	2.63	0.65
35:2:62:A:OP1	35:2:287:G:N2	2.30	0.65
35:2:99:C:N4	35:2:385:A:C6	2.64	0.65
35:2:309:C:H2'	35:2:310:C:C6	2.30	0.65
35:2:488:G:C8	35:2:488:G:P	2.90	0.65
35:2:529:A:O2'	35:2:530:C:OP2	2.14	0.65
35:2:935:U:O3'	35:2:1044:U:O2'	2.13	0.65
35:2:1083:G:H8	35:2:1083:G:O5'	1.79	0.65
36:3:85:A:H8	36:3:85:A:O5'	1.79	0.65
36:3:114:A:N1	36:3:194:G:H1'	2.12	0.65
36:3:135:U:O2'	36:3:136:C:O5'	2.14	0.65
24:r:175:LYS:C	35:2:67:A:O4'	2.39	0.65
24:r:176:CYS:SG	35:2:67:A:H8	2.12	0.65
26:t:22:ARG:NH1	26:t:25:ARG:HH12	1.91	0.65
31:y:70:ILE:HG22	31:y:71:LYS:N	2.11	0.65
33:0:3:ILE:HG22	33:0:4:VAL:N	2.11	0.65
35:2:57:G:C6	35:2:58:U:C4	2.85	0.65
35:2:102:U:O4	35:2:361:C:OP2	2.14	0.65
35:2:328:A:C2	35:2:340:U:O2	2.48	0.65
35:2:938:G:H5'	35:2:939:A:OP2	1.97	0.65
35:2:1614:A:H2'	35:2:1615:C:H5''	1.79	0.65
35:2:1625:C:H2'	35:2:1626:U:H6	1.61	0.65
22:p:9:LEU:HD12	22:p:10:LYS:H	1.61	0.65
24:r:72:ARG:HH12	35:2:419:G:C5'	2.10	0.65
28:v:129:TYR:C	28:v:132:VAL:H	2.05	0.65
33:0:115:THR:HG21	33:0:119:ALA:HB3	1.79	0.65
33:0:129:GLY:O	33:0:130:ASP:HB2	1.97	0.65
35:2:96:G:N2	35:2:387:A:N1	2.41	0.65
35:2:109:G:H2'	35:2:110:U:O4'	1.97	0.65
35:2:129:U:H5'	35:2:130:C:C5	2.32	0.65
35:2:269:G:C8	35:2:288:A:N1	2.64	0.65
35:2:381:C:O5'	35:2:382:C:H5	1.79	0.65
35:2:391:A:C6	35:2:392:G:C5	2.85	0.65
35:2:469:C:H5	35:2:471:A:C8	2.15	0.65
35:2:499:U:C2'	35:2:500:C:H6	2.07	0.65
35:2:889:U:O2	35:2:923:A:H2	1.80	0.65
1:D:116:UNK:CA	1:E:156:UNK:HA	2.27	0.65
1:F:270:UNK:O	1:F:271:UNK:CB	2.45	0.65
1:F:295:UNK:O	1:F:315:UNK:CB	2.44	0.65
19:i:871:ARG:CB	19:i:876:LEU:H	2.09	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:121:GLN:HE21	21:o:145:PHE:HD2	1.42	0.65
22:p:3:ARG:CB	35:2:94:U:C5'	2.73	0.65
22:p:125:LEU:HD23	22:p:162:LEU:O	1.96	0.65
26:t:14:THR:HG22	35:2:355:G:P	2.36	0.65
26:t:31:ARG:NH1	35:2:333:A:O5'	2.27	0.65
35:2:26:A:H2'	35:2:27:U:H1'	1.77	0.65
35:2:81:G:N1	35:2:82:U:H1'	2.12	0.65
35:2:130:C:C4	35:2:131:C:C2	2.84	0.65
35:2:633:U:C2	35:2:634:G:C8	2.85	0.65
36:3:72:C:C6	36:3:72:C:OP2	2.50	0.65
36:3:114:A:C5	36:3:192:A:N1	2.65	0.65
3:H:-2:UNK:CA	3:H:174:UNK:CB	2.75	0.64
19:i:163:TYR:HA	19:i:167:MET:N	2.12	0.64
22:p:248:GLU:HB3	22:p:252:GLU:HB2	1.79	0.64
25:s:15:ILE:O	25:s:19:VAL:HG23	1.95	0.64
31:y:38:GLY:CA	35:2:246:G:H1'	2.27	0.64
35:2:47:A:N7	35:2:100:A:C8	2.65	0.64
35:2:190:C:O2'	35:2:191:C:H2'	1.97	0.64
35:2:363:G:N2	35:2:382:C:C6	2.65	0.64
35:2:869:A:O5'	35:2:869:A:H8	1.80	0.64
35:2:931:C:H3'	35:2:932:U:H2'	1.80	0.64
35:2:1468:U:HO2'	35:2:1469:A:C5'	2.09	0.64
36:3:68:A:H2'	36:3:69:G:H8	1.63	0.64
1:K:270:UNK:O	1:K:271:UNK:CB	2.45	0.64
1:L:281:UNK:C	12:Z:239:PRO:CB	2.73	0.64
19:j:163:TYR:O	19:j:181:VAL:HA	1.97	0.64
21:o:104:TYR:O	21:o:223:VAL:HG23	1.96	0.64
22:p:33:GLN:CD	35:2:120:U:O2'	2.38	0.64
24:r:165:PHE:HB3	35:2:69:G:N3	2.12	0.64
26:t:87:LEU:HD22	26:t:171:ARG:HH11	1.62	0.64
35:2:95:G:H2'	35:2:96:G:C8	2.33	0.64
35:2:139:C:C4	35:2:266:A:C2	2.85	0.64
35:2:209:U:H2'	35:2:210:A:C8	2.31	0.64
35:2:276:C:C2	35:2:277:U:O2'	2.50	0.64
35:2:499:U:OP2	35:2:499:U:C6	2.50	0.64
35:2:869:A:H2'	35:2:870:C:O4'	1.97	0.64
35:2:1051:G:C2	35:2:1068:C:C2	2.85	0.64
35:2:1583:A:O2'	35:2:1584:G:C5'	2.45	0.64
1:B:270:UNK:O	1:B:271:UNK:CB	2.45	0.64
15:c:144:GLU:N	35:2:1603:U:H4'	2.13	0.64
15:c:145:HIS:CA	35:2:1603:U:H1'	2.26	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:g:46:TYR:H	21:o:119:LYS:CB	2.10	0.64
19:i:858:MET:CB	19:i:862:ALA:HB3	2.26	0.64
22:p:105:TYR:CD2	22:p:191:ILE:HD12	2.31	0.64
24:r:137:ARG:NH2	35:2:144:U:C4	2.65	0.64
26:t:178:SER:O	26:t:180:PRO:HD3	1.97	0.64
33:0:32:THR:CB	35:2:520:A:C2	2.80	0.64
35:2:106:U:H2'	35:2:107:C:C6	2.32	0.64
35:2:124:A:C6	35:2:125:U:C4	2.86	0.64
35:2:150:U:C6	35:2:150:U:OP2	2.50	0.64
35:2:204:G:O6	35:2:263:C:N4	2.29	0.64
35:2:269:G:C6	35:2:270:C:C4	2.86	0.64
35:2:399:A:C2	35:2:401:A:H1'	2.33	0.64
35:2:405:C:H3'	35:2:406:U:C6	2.30	0.64
35:2:493:U:C2'	35:2:494:U:H5''	2.28	0.64
35:2:879:G:C2	35:2:950:C:C2	2.85	0.64
35:2:902:G:H2'	35:2:903:U:C5	2.32	0.64
35:2:1066:C:C5	35:2:1066:C:OP2	2.51	0.64
35:2:1165:G:O6	35:2:1166:A:N6	2.30	0.64
36:3:79:G:C6	36:3:268:G:C6	2.85	0.64
36:3:154:G:H2'	36:3:155:U:H6	1.62	0.64
1:A:270:UNK:O	1:A:271:UNK:CB	2.45	0.64
18:g:43:PHE:O	21:o:118:ARG:CA	2.45	0.64
19:j:871:ARG:CB	19:j:876:LEU:H	2.09	0.64
22:p:11:ARG:HH12	22:p:20:LEU:HD22	1.63	0.64
22:p:42:LEU:HB2	22:p:111:PHE:CD2	2.32	0.64
26:t:86:ILE:O	26:t:86:ILE:HD13	1.97	0.64
32:z:37:PHE:O	32:z:39:GLN:N	2.30	0.64
35:2:105:A:C5	35:2:108:A:N6	2.64	0.64
35:2:143:G:O6	35:2:172:C:N4	2.17	0.64
35:2:285:G:H2'	35:2:286:C:C6	2.33	0.64
35:2:288:A:OP2	35:2:288:A:C8	2.51	0.64
35:2:292:U:OP2	35:2:292:U:C6	2.51	0.64
35:2:392:G:C6	35:2:393:C:C4	2.85	0.64
35:2:497:G:N1	35:2:498:G:C6	2.66	0.64
35:2:919:A:H3'	35:2:920:U:C6	2.32	0.64
35:2:1594:G:O6	35:2:1595:U:N3	2.31	0.64
35:2:1595:U:H2'	35:2:1596:C:O2	1.97	0.64
36:3:112:U:H3	36:3:197:C:H42	1.43	0.64
36:3:137:U:H2'	36:3:138:A:C8	2.32	0.64
1:E:270:UNK:O	1:E:271:UNK:CB	2.45	0.64
1:L:75:UNK:HA	5:M:350:UNK:CA	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:O:503:UNK:O	21:o:16:LYS:C	2.17	0.64
16:d:141:HIS:C	16:d:143:ILE:N	2.55	0.64
17:e:251:ILE:HA	17:e:252:LEU:CB	2.27	0.64
1:l:324:UNK:O	23:q:125:THR:O	2.14	0.64
21:o:77:ASP:C	21:o:79:SER:H	2.06	0.64
22:p:33:GLN:OE1	35:2:120:U:C2'	2.46	0.64
30:x:123:ARG:N	35:2:1584:G:C8	2.59	0.64
35:2:256:A:P	35:2:256:A:H8	2.20	0.64
35:2:256:A:H2'	35:2:257:A:H1'	1.78	0.64
35:2:494:U:H6	35:2:495:C:O5'	1.81	0.64
35:2:508:U:C2	35:2:509:G:C8	2.86	0.64
35:2:915:A:OP1	35:2:916:U:OP2	2.16	0.64
35:2:1050:G:N3	35:2:1051:G:H1'	2.12	0.64
36:3:99:C:H2'	36:3:100:G:H8	1.60	0.64
1:A:294:UNK:C	1:B:65:UNK:O	2.46	0.64
30:x:35:PRO:C	30:x:37:THR:H	2.06	0.64
35:2:108:A:H2'	35:2:109:G:C8	2.32	0.64
35:2:282:C:H3'	35:2:283:U:C5	2.33	0.64
35:2:1032:G:H2'	35:2:1033:C:O4'	1.98	0.64
35:2:1618:C:H5'	35:2:1619:C:OP2	1.98	0.64
36:3:69:G:C8	36:3:69:G:OP2	2.50	0.64
36:3:103:G:O2'	36:3:108:A:N1	2.24	0.64
6:Q:472:UNK:O	6:Q:484:UNK:CB	2.46	0.64
18:g:76:GLY:C	21:o:118:ARG:CZ	2.71	0.64
19:i:163:TYR:O	19:i:181:VAL:HA	1.97	0.64
22:p:36:HIS:CD2	22:p:87:GLY:HA3	2.33	0.64
22:p:127:LYS:NZ	22:p:186:GLN:HE22	1.96	0.64
24:r:13:GLN:NE2	35:2:152:U:H1'	2.12	0.64
31:y:68:LYS:CE	35:2:111:U:C2'	2.74	0.64
31:y:80:ASN:ND2	35:2:344:A:O2'	2.29	0.64
35:2:108:A:H3'	35:2:109:G:H8	1.63	0.64
35:2:108:A:C2	35:2:306:U:N3	2.65	0.64
35:2:142:G:OP2	35:2:266:A:C2	2.51	0.64
35:2:300:A:H3'	35:2:301:A:C8	2.33	0.64
35:2:434:G:N2	35:2:436:A:OP1	2.30	0.64
35:2:488:G:C2	35:2:489:C:C2	2.86	0.64
35:2:537:G:C2	35:2:538:A:C8	2.85	0.64
35:2:624:G:N7	35:2:1027:A:N6	2.44	0.64
35:2:954:G:H3'	35:2:955:A:C8	2.33	0.64
35:2:1046:G:N1	35:2:1047:G:C5	2.65	0.64
35:2:1085:G:N2	35:2:1087:A:H5''	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1171:A:H2'	35:2:1172:G:C8	2.32	0.64
8:T:334:ARG:CA	36:3:108:A:OP2	2.45	0.64
22:p:27:TRP:HB2	35:2:448:C:O4'	1.98	0.64
22:p:188:GLY:O	22:p:191:ILE:HG23	1.98	0.64
25:s:130:LEU:C	25:s:132:LEU:H	2.04	0.64
35:2:81:G:H8	35:2:81:G:OP2	1.81	0.64
35:2:142:G:H22	35:2:174:U:H1'	1.61	0.64
35:2:284:G:O2'	35:2:285:G:N7	2.24	0.64
35:2:894:U:H2'	35:2:895:G:C8	2.32	0.64
35:2:1049:U:C2	35:2:1050:G:C8	2.85	0.64
35:2:1075:C:OP2	35:2:1075:C:C6	2.50	0.64
35:2:1467:C:C2'	35:2:1468:U:H5'	2.27	0.64
35:2:1579:U:C2	35:2:1580:C:C5	2.86	0.64
36:3:75:A:O2'	36:3:76:C:O4'	2.07	0.64
8:T:221:ILE:CB	10:W:122:GLN:CB	2.76	0.64
21:o:34:PHE:HB3	21:o:45:PHE:O	1.97	0.64
24:r:132:LYS:CG	35:2:69:G:N7	2.59	0.64
24:r:139:ASN:ND2	35:2:143:G:P	2.71	0.64
26:t:155:LYS:HD3	26:t:157:GLN:OE1	1.98	0.64
31:y:78:LYS:HB2	35:2:346:G:C4'	2.28	0.64
35:2:65:A:H2	35:2:84:A:N7	1.95	0.64
35:2:124:A:N6	35:2:294:C:N4	2.45	0.64
35:2:198:A:OP2	35:2:199:G:C6	2.51	0.64
35:2:302:U:H5''	35:2:303:U:O4	1.97	0.64
35:2:314:C:C2	35:2:355:G:C2	2.86	0.64
35:2:354:C:OP2	35:2:355:G:C8	2.50	0.64
35:2:413:U:H2'	35:2:414:C:C6	2.32	0.64
35:2:486:G:C5	35:2:487:G:C5	2.86	0.64
35:2:625:C:OP2	35:2:625:C:H3'	1.97	0.64
35:2:631:G:C6	35:2:968:U:N3	2.65	0.64
35:2:884:A:H8	35:2:884:A:OP2	1.80	0.64
35:2:1052:U:N3	35:2:1053:G:C8	2.65	0.64
1:C:270:UNK:O	1:C:271:UNK:CB	2.45	0.64
1:D:116:UNK:CA	1:E:156:UNK:CA	2.73	0.64
2:G:3234:GLY:C	33:0:147:VAL:N	2.46	0.64
9:U:96:GLN:CB	36:3:266:C:H5	2.09	0.64
19:j:163:TYR:HA	19:j:167:MET:N	2.12	0.64
22:p:125:LEU:HD12	22:p:238:ILE:HD11	1.80	0.64
22:p:203:HIS:O	22:p:205:GLY:N	2.23	0.64
24:r:13:GLN:CG	35:2:152:U:O4'	2.42	0.64
25:s:129:ASP:HA	25:s:132:LEU:HD13	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:t:25:ARG:CZ	35:2:385:A:OP1	2.46	0.64
31:y:2:ASP:O	31:y:6:GLN:HB2	1.98	0.64
31:y:27:THR:HG22	31:y:28:SER:N	2.11	0.64
35:2:101:U:H2'	35:2:102:U:O4'	1.96	0.64
35:2:123:G:C6	35:2:124:A:C6	2.86	0.64
35:2:175:G:N2	35:2:266:A:O4'	2.31	0.64
35:2:334:G:OP2	35:2:334:G:H8	1.79	0.64
35:2:336:G:C5	35:2:338:C:C5	2.86	0.64
35:2:368:U:H2'	35:2:369:A:H1'	1.80	0.64
35:2:377:G:N2	35:2:381:C:N3	2.45	0.64
35:2:417:A:C8	35:2:417:A:OP2	2.51	0.64
35:2:489:C:H2'	35:2:490:C:H6	1.63	0.64
35:2:1472:C:C1'	35:2:1473:U:OP2	2.45	0.64
35:2:1609:U:H6	35:2:1609:U:C5'	2.11	0.64
36:3:172:C:H2'	36:3:173:G:H8	1.61	0.64
26:t:84:THR:HG22	26:t:85:LYS:N	2.13	0.63
30:x:134:ALA:HB3	35:2:1586:A:OP1	1.99	0.63
31:y:35:LYS:HG2	31:y:36:ASN:N	2.12	0.63
35:2:52:U:N3	35:2:428:A:C2	2.66	0.63
35:2:158:U:O2'	35:2:159:U:OP1	2.15	0.63
35:2:444:C:C5	35:2:458:G:H3'	2.33	0.63
35:2:466:U:C3'	35:2:467:G:H8	2.01	0.63
35:2:880:C:H2'	35:2:881:A:C8	2.33	0.63
35:2:895:G:H2'	35:2:896:U:O4'	1.98	0.63
35:2:902:G:OP2	35:2:903:U:OP2	2.17	0.63
35:2:915:A:OP1	35:2:916:U:H5	1.81	0.63
35:2:1024:U:C2	35:2:1025:A:C8	2.86	0.63
35:2:1074:G:O6	35:2:1075:C:N4	2.31	0.63
35:2:1086:A:H8	35:2:1086:A:OP1	1.80	0.63
35:2:1523:G:OP2	35:2:1524:A:OP2	2.16	0.63
35:2:1602:C:H5'	35:2:1603:U:OP2	1.98	0.63
15:c:102:ALA:CB	30:x:140:LYS:CB	2.74	0.63
20:k:270:PHE:C	20:k:272:PRO:N	2.54	0.63
22:p:8:HIS:CE1	35:2:449:C:HO2'	1.87	0.63
28:v:67:THR:O	28:v:71:ILE:CB	2.46	0.63
33:0:3:ILE:CG2	33:0:4:VAL:N	2.61	0.63
35:2:36:C:N4	35:2:472:U:O4	2.31	0.63
35:2:145:A:N3	35:2:145:A:H2'	2.13	0.63
35:2:151:G:H1	35:2:163:G:N2	1.96	0.63
35:2:165:G:H2'	35:2:166:C:O4'	1.98	0.63
35:2:188:A:OP2	35:2:189:C:C4	2.51	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:202:A:C8	35:2:202:A:OP2	2.52	0.63
35:2:244:A:H2	35:2:248:U:C5	2.16	0.63
35:2:256:A:H3'	35:2:257:A:H8	1.63	0.63
35:2:325:G:C6	35:2:326:G:C6	2.86	0.63
35:2:381:C:C2'	35:2:382:C:H5'	2.28	0.63
35:2:381:C:O2'	35:2:382:C:H5'	1.98	0.63
35:2:433:C:H2'	35:2:434:G:O2'	1.98	0.63
35:2:483:A:C6	35:2:504:U:C4	2.86	0.63
35:2:498:G:C8	35:2:498:G:OP2	2.51	0.63
35:2:517:U:C6	35:2:517:U:OP2	2.51	0.63
35:2:548:G:N1	35:2:590:C:C4	2.66	0.63
35:2:633:U:H3'	35:2:634:G:C8	2.25	0.63
35:2:932:U:C2	35:2:933:A:H2	2.16	0.63
35:2:948:G:C8	35:2:948:G:OP2	2.52	0.63
35:2:1616:G:H21	35:2:1618:C:N4	1.93	0.63
36:3:144:A:H3'	36:3:145:A:C8	2.32	0.63
36:3:243:G:N1	36:3:244:G:C6	2.66	0.63
1:L:270:UNK:O	1:L:271:UNK:CB	2.45	0.63
15:c:144:GLU:CA	35:2:1603:U:C4'	2.72	0.63
25:s:123:TYR:CD2	25:s:178:THR:HG23	2.33	0.63
29:w:57:PRO:O	29:w:60:ALA:N	2.31	0.63
35:2:123:G:C6	35:2:124:A:N6	2.65	0.63
35:2:310:C:N3	35:2:357:G:C6	2.66	0.63
35:2:397:A:C4	35:2:398:G:C8	2.85	0.63
35:2:415:C:O2	35:2:418:G:N2	2.31	0.63
35:2:488:G:OP2	35:2:488:G:N9	2.30	0.63
35:2:488:G:OP2	35:2:489:C:C6	2.51	0.63
35:2:524:U:H3'	35:2:527:A:N1	2.13	0.63
35:2:978:A:C8	35:2:978:A:OP2	2.52	0.63
35:2:1075:C:H2'	35:2:1076:A:N3	2.14	0.63
35:2:1179:G:C6	35:2:1180:C:C2	2.86	0.63
35:2:1483:A:H1'	35:2:1524:A:N6	2.14	0.63
35:2:1585:U:N3	35:2:1611:A:H2	1.96	0.63
36:3:113:G:O2'	36:3:195:A:N6	2.31	0.63
36:3:240:C:H2'	36:3:241:G:H8	1.63	0.63
21:o:112:ARG:O	21:o:115:SER:HB3	1.98	0.63
24:r:193:VAL:HG21	35:2:284:G:H2'	1.78	0.63
35:2:122:U:H3'	35:2:123:G:H8	1.63	0.63
35:2:301:A:OP2	35:2:301:A:H8	1.79	0.63
35:2:302:U:C6	35:2:302:U:OP2	2.51	0.63
35:2:311:U:C4	35:2:355:G:O6	2.51	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:312:A:N6	35:2:352:A:O3'	2.32	0.63
35:2:312:A:N6	35:2:352:A:H1'	2.12	0.63
35:2:331:A:H5''	35:2:332:U:OP2	1.97	0.63
35:2:372:G:C8	35:2:372:G:OP2	2.52	0.63
35:2:428:A:C6	35:2:429:G:C2	2.86	0.63
35:2:443:C:N3	35:2:462:G:N1	2.47	0.63
35:2:868:G:N3	35:2:868:G:H2'	2.13	0.63
35:2:1045:C:C6	35:2:1045:C:OP2	2.52	0.63
36:3:70:A:H2'	36:3:71:U:H6	1.64	0.63
1:P:270:UNK:O	1:P:271:UNK:CB	2.45	0.63
27:u:55:ALA:O	27:u:56:ALA:C	2.41	0.63
31:y:37:ILE:O	35:2:246:G:N3	2.31	0.63
35:2:268:C:H2'	35:2:288:A:C2	2.34	0.63
35:2:288:A:C5	35:2:289:U:H5	2.16	0.63
35:2:323:A:N6	35:2:344:A:H61	1.97	0.63
35:2:336:G:N2	35:2:338:C:O5'	2.31	0.63
35:2:358:U:P	35:2:359:A:OP2	2.57	0.63
35:2:360:A:O2'	35:2:361:C:O3'	2.07	0.63
35:2:392:G:OP2	35:2:392:G:H8	1.81	0.63
35:2:536:C:C4	35:2:537:G:N7	2.67	0.63
35:2:950:C:C6	35:2:950:C:OP2	2.51	0.63
35:2:1478:G:H5'	35:2:1478:G:C8	2.31	0.63
19:i:164:THR:N	19:i:167:MET:HA	2.14	0.63
19:j:164:THR:N	19:j:167:MET:HA	2.14	0.63
1:n:73:UNK:CA	35:2:391:A:O3'	2.46	0.63
22:p:49:LYS:NZ	22:p:58:GLY:HA2	2.13	0.63
24:r:90:GLY:O	24:r:92:ARG:HG3	1.97	0.63
24:r:190:ARG:CD	35:2:268:C:H5	2.12	0.63
25:s:127:LEU:O	25:s:131:LEU:HG	1.98	0.63
35:2:27:U:N3	35:2:28:A:C5	2.66	0.63
35:2:59:C:H2'	35:2:59:C:OP1	1.98	0.63
35:2:275:C:N4	35:2:276:C:H42	1.96	0.63
35:2:277:U:O4'	35:2:278:U:C2	2.52	0.63
35:2:328:A:H2'	35:2:329:G:C8	2.34	0.63
35:2:361:C:H3'	35:2:362:G:H8	1.63	0.63
35:2:496:G:C2	35:2:497:G:C4	2.87	0.63
35:2:497:G:C6	35:2:498:G:C6	2.86	0.63
35:2:512:A:N6	35:2:539:G:C8	2.64	0.63
35:2:522:U:O4	35:2:523:G:C4	2.52	0.63
35:2:546:U:H2'	35:2:547:U:H6	1.63	0.63
35:2:930:A:OP2	35:2:930:A:N7	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:948:G:C6	35:2:949:C:C4	2.86	0.63
35:2:974:A:C8	35:2:974:A:OP2	2.51	0.63
35:2:1051:G:H4'	35:2:1051:G:OP1	1.98	0.63
35:2:1052:U:C2	35:2:1053:G:C8	2.87	0.63
36:3:93:G:OP2	36:3:93:G:C8	2.51	0.63
2:G:2367:TRP:HA	2:G:2408:PRO:CA	2.28	0.63
22:p:27:TRP:CG	35:2:448:C:H1'	2.33	0.63
24:r:66:GLY:O	24:r:68:MET:N	2.32	0.63
24:r:132:LYS:NZ	24:r:163:ARG:CB	2.62	0.63
26:t:55:ARG:C	26:t:55:ARG:HD3	2.24	0.63
31:y:17:LEU:CA	31:y:20:LYS:HE2	2.28	0.63
35:2:55:A:C8	35:2:55:A:OP2	2.51	0.63
35:2:171:A:H8	35:2:171:A:P	2.21	0.63
35:2:251:A:C8	35:2:251:A:OP2	2.52	0.63
35:2:309:C:N3	35:2:357:G:C6	2.66	0.63
35:2:389:G:C6	35:2:409:C:N3	2.67	0.63
35:2:1078:C:H3'	35:2:1079:U:C5	2.34	0.63
35:2:1095:U:OP2	35:2:1095:U:C6	2.51	0.63
1:D:270:UNK:O	1:D:271:UNK:CB	2.45	0.63
22:p:210:CYS:HB3	22:p:227:ILE:HD11	1.81	0.63
24:r:163:ARG:HB2	35:2:69:G:N1	2.13	0.63
26:t:194:LYS:HG2	31:y:4:GLN:NE2	2.14	0.63
31:y:101:LYS:HB2	35:2:351:C:H6	1.62	0.63
33:0:115:THR:HG22	33:0:116:SER:H	1.62	0.63
35:2:47:A:C5	35:2:100:A:C8	2.87	0.63
35:2:386:G:O2'	35:2:387:A:OP1	2.17	0.63
35:2:407:A:C6	35:2:408:C:C4	2.87	0.63
35:2:460:A:C3'	35:2:461:G:H8	2.10	0.63
35:2:468:A:H4'	35:2:469:C:C5	2.34	0.63
35:2:485:A:C6	35:2:503:G:C6	2.87	0.63
35:2:537:G:H3'	35:2:538:A:N7	2.13	0.63
35:2:624:G:C5	35:2:1027:A:C6	2.87	0.63
35:2:894:U:H5'	35:2:894:U:H6	1.63	0.63
35:2:1084:A:H4'	35:2:1095:U:P	2.38	0.63
35:2:1591:C:H4'	35:2:1592:A:OP1	1.99	0.63
1:l:270:UNK:O	1:l:271:UNK:CB	2.45	0.63
21:o:155:SER:H	21:o:158:SER:HB2	1.62	0.63
22:p:143:THR:HG22	22:p:145:ASP:H	1.63	0.63
26:t:110:VAL:HG12	26:t:111:GLU:N	2.11	0.63
26:t:117:PHE:CE2	26:t:190:ILE:HD11	2.34	0.63
28:v:108:ASP:O	28:v:111:ALA:HB3	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:x:46:PHE:C	30:x:48:VAL:N	2.52	0.63
35:2:65:A:N6	35:2:83:G:N7	2.46	0.63
35:2:106:U:H2'	35:2:107:C:H6	1.64	0.63
35:2:142:G:OP2	35:2:266:A:N3	2.32	0.63
35:2:479:C:H2'	35:2:480:G:C1'	2.29	0.63
35:2:491:C:C2	35:2:497:G:C2	2.87	0.63
35:2:520:A:H8	35:2:520:A:O5'	1.81	0.63
35:2:624:G:OP1	35:2:624:G:C8	2.51	0.63
35:2:894:U:N3	35:2:895:G:O6	2.32	0.63
36:3:114:A:C5	36:3:195:A:N7	2.67	0.63
1:E:46:UNK:C	1:F:339:UNK:N	2.62	0.62
19:j:504:LYS:H	19:j:509:GLY:CA	2.12	0.62
22:p:133:ILE:O	22:p:133:ILE:HG13	1.97	0.62
25:s:178:THR:HG21	25:s:180:ARG:CD	2.29	0.62
31:y:154:PHE:CD2	35:2:351:C:C4	2.87	0.62
32:z:8:ALA:O	32:z:12:ASN:CB	2.47	0.62
33:0:9:LYS:H	33:0:22:SER:HB2	1.63	0.62
35:2:37:U:C4	35:2:39:A:N6	2.66	0.62
35:2:85:A:H8	35:2:85:A:P	2.22	0.62
35:2:123:G:C6	35:2:124:A:C5	2.87	0.62
35:2:188:A:H3'	35:2:189:C:H6	1.62	0.62
35:2:243:G:C5	35:2:251:A:C6	2.87	0.62
35:2:309:C:N3	35:2:358:U:N3	2.47	0.62
35:2:339:C:H2'	35:2:340:U:H6	1.63	0.62
35:2:395:U:C2	35:2:399:A:N7	2.66	0.62
35:2:416:A:OP2	35:2:417:A:N7	2.31	0.62
35:2:510:G:O3'	35:2:511:A:H2'	1.99	0.62
35:2:617:U:OP2	35:2:1032:G:OP1	2.17	0.62
35:2:963:A:H1'	35:2:964:U:OP2	1.98	0.62
36:3:250:G:OP2	36:3:250:G:C8	2.52	0.62
6:Q:474:UNK:C	6:Q:484:UNK:CA	2.71	0.62
21:o:38:ILE:HG22	21:o:39:PRO:CD	2.28	0.62
27:u:100:LYS:HA	27:u:104:PHE:H	1.64	0.62
35:2:41:A:O2'	35:2:42:G:OP2	2.17	0.62
35:2:100:A:C6	35:2:101:U:C4	2.87	0.62
35:2:169:A:O2'	35:2:171:A:N7	2.30	0.62
35:2:276:C:N3	35:2:281:G:C6	2.67	0.62
35:2:312:A:C2	35:2:315:A:C8	2.87	0.62
35:2:391:A:C6	35:2:407:A:C6	2.87	0.62
35:2:881:A:OP2	35:2:881:A:H8	1.82	0.62
35:2:1179:G:N2	35:2:1461:C:N4	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:209:ASN:OD1	35:2:1064:G:C2'	2.46	0.62
24:r:177:PRO:HD3	35:2:67:A:O5'	1.99	0.62
26:t:24:LYS:HB3	35:2:400:A:N7	2.14	0.62
31:y:117:LYS:HZ1	31:y:144:ASN:C	2.08	0.62
31:y:128:ARG:HB2	35:2:115:G:C8	2.34	0.62
33:0:10:ILE:HG12	33:0:21:LEU:CB	2.29	0.62
35:2:27:U:C4	35:2:28:A:C5	2.87	0.62
35:2:93:A:N6	35:2:398:G:H3'	2.09	0.62
35:2:182:A:H2'	35:2:183:U:O4'	1.98	0.62
35:2:187:G:H2'	35:2:197:A:C2	2.34	0.62
35:2:292:U:H2'	35:2:293:U:C2	2.33	0.62
35:2:454:U:H6	35:2:454:U:OP2	1.82	0.62
35:2:538:A:OP2	35:2:538:A:C8	2.53	0.62
35:2:1168:U:C2'	35:2:1169:G:H5'	2.28	0.62
35:2:1481:C:C6	35:2:1482:C:C2	2.86	0.62
36:3:91:G:H3'	36:3:93:G:C5	2.34	0.62
36:3:147:G:H2'	36:3:148:G:C8	2.34	0.62
1:E:248:UNK:CB	3:H:312:UNK:N	2.59	0.62
9:U:125:LYS:C	10:W:184:ARG:CB	2.65	0.62
19:i:504:LYS:H	19:i:509:GLY:CA	2.12	0.62
21:o:34:PHE:HD2	21:o:45:PHE:O	1.83	0.62
22:p:66:ASN:OD1	35:2:454:U:OP1	2.16	0.62
22:p:89:MET:HE2	22:p:89:MET:HA	1.81	0.62
23:q:99:MET:C	23:q:101:GLY:H	2.06	0.62
25:s:15:ILE:HD12	25:s:15:ILE:H	1.63	0.62
27:u:130:THR:O	27:u:132:ARG:N	2.31	0.62
31:y:64:SER:CB	35:2:114:C:H3'	2.25	0.62
31:y:68:LYS:HZ3	35:2:111:U:H1'	1.63	0.62
31:y:71:LYS:HB3	31:y:157:PHE:CE2	2.33	0.62
35:2:40:A:C6	35:2:469:C:O4'	2.52	0.62
35:2:60:U:O2'	35:2:61:A:H5''	1.98	0.62
35:2:332:U:H5''	35:2:334:G:P	2.40	0.62
35:2:391:A:N6	35:2:406:U:O4	2.15	0.62
35:2:410:A:C8	35:2:410:A:OP2	2.52	0.62
35:2:419:G:C3'	35:2:420:A:H8	2.12	0.62
35:2:495:C:C4	35:2:496:G:C4	2.86	0.62
35:2:524:U:C4	35:2:527:A:H1'	2.35	0.62
35:2:613:G:N2	35:2:614:C:N3	2.44	0.62
35:2:922:G:C4	35:2:923:A:N7	2.68	0.62
35:2:1044:U:C5	35:2:1044:U:OP2	2.51	0.62
36:3:64:C:H2'	36:3:65:C:C6	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:270:UNK:O	1:J:271:UNK:CB	2.45	0.62
1:L:75:UNK:HA	5:M:350:UNK:N	1.85	0.62
1:L:77:UNK:C	5:M:647:UNK:CA	2.69	0.62
1:N:270:UNK:O	1:N:271:UNK:CB	2.45	0.62
19:i:58:TRP:N	35:2:416:A:H62	1.93	0.62
20:k:270:PHE:O	20:k:272:PRO:N	2.31	0.62
21:o:163:LYS:HD3	35:2:1045:C:O3'	1.98	0.62
22:p:204:GLN:HE21	31:y:39:LEU:HA	1.64	0.62
26:t:10:LYS:NZ	35:2:339:C:OP1	2.29	0.62
29:w:44:GLY:O	29:w:46:MET:N	2.32	0.62
35:2:53:G:C6	35:2:54:C:N3	2.67	0.62
35:2:100:A:N6	35:2:385:A:H2'	2.14	0.62
35:2:342:C:H2'	35:2:343:C:C6	2.35	0.62
35:2:382:C:OP2	35:2:382:C:H3'	1.99	0.62
35:2:514:G:C6	35:2:515:A:C5	2.87	0.62
35:2:520:A:P	35:2:529:A:H61	2.20	0.62
35:2:928:U:C6	35:2:928:U:OP2	2.53	0.62
35:2:1165:G:H5''	35:2:1166:A:OP2	1.99	0.62
21:o:208:LYS:HG3	35:2:1065:A:C2	1.95	0.62
24:r:139:ASN:CB	35:2:143:G:P	2.88	0.62
24:r:163:ARG:CB	35:2:69:G:O6	2.44	0.62
33:0:21:LEU:HD23	33:0:21:LEU:H	1.63	0.62
35:2:95:G:OP2	35:2:95:G:C8	2.49	0.62
35:2:280:U:C3'	35:2:281:G:C8	2.82	0.62
35:2:407:A:OP2	35:2:407:A:H8	1.82	0.62
35:2:414:C:H5''	35:2:415:C:OP2	1.99	0.62
35:2:491:C:N3	35:2:497:G:C6	2.68	0.62
35:2:497:G:H2'	35:2:498:G:H8	1.60	0.62
35:2:918:U:H2'	35:2:919:A:H8	1.64	0.62
35:2:926:A:H3'	35:2:927:C:C6	2.34	0.62
35:2:1525:A:C2	35:2:1526:A:C4	2.87	0.62
36:3:97:C:H2'	36:3:98:U:H6	1.64	0.62
2:G:3237:LEU:N	33:0:147:VAL:CG2	2.32	0.62
1:P:284:UNK:O	14:b:23:SER:CA	2.47	0.62
15:c:123:ILE:O	15:c:124:LEU:CB	2.48	0.62
15:c:142:LEU:O	35:2:1604:U:OP1	2.17	0.62
21:o:95:ASP:HB2	21:o:100:LYS:HE3	1.80	0.62
22:p:73:PHE:CE2	22:p:78:VAL:HG22	2.34	0.62
22:p:204:GLN:C	22:p:206:SER:N	2.57	0.62
24:r:177:PRO:CD	35:2:67:A:O5'	2.48	0.62
26:t:74:SER:HG	35:2:210:A:C4'	2.11	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:y:84:ILE:CD1	35:2:347:G:C2'	2.75	0.62
32:z:102:VAL:O	32:z:104:LEU:N	2.32	0.62
35:2:83:G:OP2	35:2:83:G:C8	2.51	0.62
35:2:144:U:O2	35:2:145:A:H1'	2.00	0.62
35:2:190:C:N3	35:2:196:G:C2	2.67	0.62
35:2:255:U:OP2	35:2:255:U:C6	2.52	0.62
35:2:394:C:C2	35:2:401:A:C6	2.87	0.62
35:2:521:A:C5'	35:2:528:U:H3	2.13	0.62
35:2:618:U:H2'	35:2:619:A:C8	2.34	0.62
35:2:885:G:C2	35:2:886:U:N3	2.67	0.62
35:2:887:A:OP2	35:2:887:A:H3'	1.99	0.62
36:3:69:G:H2'	36:3:70:A:C8	2.34	0.62
36:3:101:G:O6	36:3:252:C:N4	2.32	0.62
36:3:204:C:C2	36:3:243:G:C2	2.88	0.62
21:o:90:VAL:C	21:o:101:THR:HG23	2.25	0.62
21:o:208:LYS:HG3	35:2:1064:G:N2	2.15	0.62
24:r:175:LYS:O	35:2:67:A:O4'	2.17	0.62
25:s:178:THR:HG21	25:s:180:ARG:HD2	1.82	0.62
26:t:105:VAL:HG13	35:2:329:G:H4'	0.63	0.62
26:t:185:ARG:HH21	35:2:207:U:C2'	2.13	0.62
27:u:99:LEU:O	27:u:101:VAL:N	2.33	0.62
35:2:25:C:P	35:2:26:A:OP2	2.58	0.62
35:2:204:G:C6	35:2:205:U:C4	2.88	0.62
35:2:390:G:OP2	35:2:390:G:C8	2.53	0.62
35:2:489:C:N4	35:2:498:G:O6	2.33	0.62
35:2:618:U:H5''	35:2:619:A:OP2	1.99	0.62
35:2:1074:G:H2'	35:2:1075:C:H5'	1.80	0.62
19:j:164:THR:H	19:j:167:MET:HA	1.64	0.62
22:p:26:ILE:CG1	35:2:461:G:H4'	2.28	0.62
22:p:36:HIS:CG	22:p:87:GLY:HA3	2.34	0.62
24:r:158:LYS:N	35:2:78:A:N1	2.40	0.62
28:v:127:ARG:C	28:v:129:TYR:H	2.08	0.62
30:x:124:PRO:HA	35:2:1584:G:C2	2.35	0.62
31:y:154:PHE:CD2	35:2:351:C:N4	2.66	0.62
35:2:51:A:H2'	35:2:51:A:N3	2.14	0.62
35:2:60:U:H1'	35:2:62:A:N7	2.14	0.62
35:2:106:U:C2	35:2:107:C:C6	2.88	0.62
35:2:148:A:OP2	35:2:149:C:H5	1.82	0.62
35:2:281:G:C8	35:2:281:G:OP2	2.53	0.62
35:2:287:G:C6	35:2:288:A:N7	2.67	0.62
35:2:1048:G:C2	35:2:1071:U:C2	2.87	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:114:A:H61	36:3:194:G:C1'	2.12	0.62
36:3:133:G:N1	36:3:182:G:C6	2.68	0.62
8:T:321:PHE:HA	36:3:108:A:H1'	1.82	0.62
15:c:143:HIS:CA	35:2:1604:U:P	2.72	0.62
23:q:200:ASN:C	23:q:204:GLY:HA3	2.25	0.62
31:y:68:LYS:HD3	35:2:304:U:C2'	2.29	0.62
35:2:65:A:N1	35:2:84:A:OP2	2.32	0.62
35:2:185:U:O2	35:2:201:G:C2	2.52	0.62
35:2:189:C:C5	35:2:189:C:OP2	2.53	0.62
35:2:269:G:C2	35:2:287:G:N1	2.67	0.62
35:2:313:U:OP1	35:2:313:U:H2'	1.99	0.62
35:2:445:A:H8	35:2:525:A:OP2	1.82	0.62
35:2:447:U:OP2	35:2:447:U:C6	2.52	0.62
35:2:465:G:OP2	35:2:465:G:N7	2.33	0.62
35:2:480:G:H8	35:2:480:G:P	2.22	0.62
35:2:506:A:C6	35:2:507:U:C4	2.87	0.62
35:2:1153:G:OP2	35:2:1153:G:C8	2.53	0.62
35:2:1472:C:C5	35:2:1474:G:C2	2.86	0.62
9:V:25:ALA:C	27:u:184:SER:HA	2.17	0.61
1:n:270:UNK:O	1:n:271:UNK:CB	2.45	0.61
21:o:123:LEU:HD13	21:o:145:PHE:CZ	2.34	0.61
23:q:215:ASP:O	23:q:218:GLU:N	2.30	0.61
26:t:39:THR:HG21	26:t:48:LYS:HD3	1.80	0.61
28:v:129:TYR:HA	28:v:133:ALA:H	1.65	0.61
31:y:146:ILE:CD1	31:y:153:GLN:HG2	2.30	0.61
35:2:26:A:H2'	35:2:27:U:C1'	2.30	0.61
35:2:98:U:C2	35:2:386:G:C6	2.88	0.61
35:2:309:C:N3	35:2:358:U:C4	2.68	0.61
35:2:486:G:H2'	35:2:487:G:O4'	1.99	0.61
35:2:490:C:C2	35:2:491:C:C5	2.88	0.61
35:2:490:C:C4	35:2:498:G:C6	2.88	0.61
35:2:492:A:N3	35:2:493:U:C5	2.68	0.61
35:2:496:G:H2'	35:2:497:G:O4'	2.00	0.61
35:2:521:A:N6	35:2:529:A:C4	2.68	0.61
35:2:879:G:C8	35:2:879:G:OP2	2.53	0.61
35:2:1039:A:O2'	35:2:1040:G:O5'	2.08	0.61
35:2:1597:A:C5	35:2:1598:U:N3	2.68	0.61
36:3:89:A:H3'	36:3:89:A:OP2	2.00	0.61
1:D:111:UNK:CB	1:E:197:UNK:CA	2.69	0.61
1:D:114:UNK:CA	1:E:139:UNK:N	2.63	0.61
2:G:2367:TRP:HA	2:G:2408:PRO:N	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:67:UNK:CA	3:H:142:UNK:HA	2.30	0.61
9:U:127:LYS:CA	10:W:183:ALA:HB3	2.31	0.61
19:j:503:SER:HA	19:j:510:CYS:H	1.64	0.61
1:n:78:UNK:HA	26:t:33:ILE:HD11	1.82	0.61
24:r:16:ILE:HD13	24:r:45:PHE:HZ	1.66	0.61
28:v:138:ASN:O	28:v:140:LYS:N	2.33	0.61
35:2:150:U:OP2	35:2:150:U:H6	1.83	0.61
35:2:482:U:N3	35:2:507:U:N3	2.48	0.61
35:2:1051:G:N3	35:2:1052:U:C2	2.68	0.61
35:2:1586:A:C5	35:2:1611:A:C2	2.89	0.61
35:2:1597:A:N7	35:2:1598:U:C4	2.68	0.61
36:3:243:G:C6	36:3:244:G:C6	2.88	0.61
19:i:879:LEU:N	19:i:884:LEU:HA	2.16	0.61
19:j:529:PHE:HA	19:j:533:SER:CB	2.30	0.61
21:o:139:ARG:HG2	21:o:141:PHE:CE1	2.35	0.61
24:r:1:MET:HE2	24:r:3:PHE:CZ	2.34	0.61
26:t:201:ARG:NH2	31:y:1:MET:HE3	2.15	0.61
27:u:143:ILE:C	27:u:145:SER:H	2.08	0.61
31:y:102:ARG:N	35:2:351:C:C6	2.68	0.61
33:0:140:SER:O	33:0:143:LEU:HB2	2.01	0.61
35:2:269:G:C6	35:2:287:G:O6	2.54	0.61
35:2:330:G:C2	35:2:331:A:C4	2.89	0.61
35:2:365:G:O5'	35:2:365:G:H8	1.81	0.61
35:2:365:G:C4	35:2:377:G:C2	2.88	0.61
35:2:396:G:C2	35:2:399:A:OP2	2.52	0.61
35:2:521:A:O5'	35:2:528:U:N3	2.27	0.61
35:2:591:A:C4	35:2:591:A:H3'	2.35	0.61
35:2:1056:U:C6	35:2:1056:U:OP2	2.53	0.61
35:2:1069:A:OP2	35:2:1069:A:C8	2.54	0.61
35:2:1078:C:O2	35:2:1078:C:H2'	2.00	0.61
35:2:1609:U:H6	35:2:1609:U:H5''	1.63	0.61
36:3:79:G:C2	36:3:80:G:C8	2.88	0.61
36:3:126:U:H2'	36:3:127:A:H8	1.63	0.61
22:p:42:LEU:HD12	22:p:47:LEU:HB2	1.82	0.61
22:p:254:ARG:HB3	22:p:254:ARG:HH11	1.65	0.61
23:q:117:THR:CA	23:q:191:ALA:HB1	2.30	0.61
24:r:23:LYS:HD3	24:r:41:LEU:CD2	2.24	0.61
28:v:88:LEU:C	28:v:90:TYR:N	2.59	0.61
31:y:64:SER:HB2	35:2:247:A:C2	2.33	0.61
31:y:128:ARG:HG2	35:2:115:G:OP2	2.00	0.61
32:z:62:VAL:O	32:z:63:VAL:CB	2.47	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:34:G:C6	35:2:475:A:C6	2.88	0.61
35:2:63:G:OP2	35:2:63:G:C8	2.49	0.61
35:2:93:A:H61	35:2:396:G:C2'	2.13	0.61
35:2:290:G:H8	35:2:290:G:OP2	1.83	0.61
35:2:309:C:C2	35:2:357:G:N2	2.57	0.61
35:2:377:G:N2	35:2:381:C:C4	2.68	0.61
35:2:416:A:H4'	35:2:417:A:OP2	1.97	0.61
35:2:933:A:H2'	35:2:935:U:OP2	2.01	0.61
35:2:1579:U:H2'	35:2:1580:C:C6	2.36	0.61
36:3:97:C:H2'	36:3:98:U:C6	2.35	0.61
1:D:113:UNK:C	1:E:139:UNK:CB	2.78	0.61
3:H:-2:UNK:HA	3:H:174:UNK:N	2.15	0.61
5:m:482:UNK:CB	5:m:501:UNK:C	2.78	0.61
22:p:207:PHE:HE2	22:p:223:ARG:CZ	2.13	0.61
24:r:13:GLN:NE2	35:2:152:U:C1'	2.64	0.61
26:t:40:THR:HG22	26:t:40:THR:O	2.00	0.61
26:t:52:ARG:O	26:t:52:ARG:HG2	2.00	0.61
26:t:56:VAL:CG2	35:2:333:A:H5'	2.30	0.61
26:t:147:VAL:O	26:t:151:VAL:HG23	2.00	0.61
29:w:122:PRO:CB	35:2:887:A:O4'	2.48	0.61
31:y:33:TYR:HD1	35:2:249:U:H5	1.48	0.61
32:z:102:VAL:H	32:z:113:HIS:CB	2.14	0.61
35:2:24:U:O3'	35:2:26:A:OP2	2.18	0.61
35:2:160:C:C4	35:2:161:U:C4	2.89	0.61
35:2:256:A:C6	35:2:257:A:C5	2.88	0.61
35:2:325:G:C6	35:2:326:G:C5	2.88	0.61
35:2:394:C:O2'	35:2:395:U:H5'	2.00	0.61
35:2:403:G:H5''	35:2:404:G:O5'	2.00	0.61
35:2:492:A:C5	35:2:492:A:OP2	2.53	0.61
35:2:521:A:H8	35:2:521:A:OP2	1.83	0.61
35:2:527:A:C4	35:2:527:A:OP2	2.53	0.61
35:2:540:G:O5'	35:2:540:G:H8	1.84	0.61
35:2:1038:U:H3'	35:2:1039:A:C5'	2.29	0.61
35:2:1075:C:C5	35:2:1076:A:C6	2.87	0.61
35:2:1172:G:C6	35:2:1173:C:N4	2.69	0.61
35:2:1525:A:C6	35:2:1526:A:C6	2.88	0.61
35:2:1575:G:C6	35:2:1576:A:C6	2.88	0.61
36:3:154:G:H2'	36:3:155:U:C6	2.36	0.61
36:3:191:G:H8	36:3:191:G:OP2	1.84	0.61
36:3:199:G:H5'	36:3:200:U:O3'	2.00	0.61
36:3:262:C:H2'	36:3:263:U:C6	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:306:UNK:O	7:R:203:UNK:O	2.18	0.61
19:i:164:THR:H	19:i:167:MET:HA	1.64	0.61
1:n:295:UNK:N	26:t:45:ILE:HG22	2.16	0.61
21:o:24:ASP:OD1	21:o:25:PRO:HD2	2.00	0.61
22:p:37:LYS:NZ	22:p:37:LYS:HB3	2.15	0.61
24:r:199:THR:O	24:r:203:VAL:HG23	2.01	0.61
26:t:169:SER:O	26:t:170:GLN:HB2	2.00	0.61
27:u:73:GLY:C	27:u:75:ALA:N	2.58	0.61
31:y:70:ILE:HD11	31:y:136:PHE:CZ	2.35	0.61
31:y:79:MET:HE2	35:2:325:G:H5'	1.81	0.61
35:2:143:G:N3	35:2:144:U:H1'	2.16	0.61
35:2:162:A:C6	35:2:163:G:C6	2.88	0.61
35:2:299:A:H5'	35:2:300:A:OP2	2.00	0.61
35:2:322:G:N1	35:2:324:U:O4	2.33	0.61
35:2:432:G:H3'	35:2:433:C:H5	1.64	0.61
35:2:513:U:O2'	35:2:514:G:O5'	2.19	0.61
35:2:881:A:H8	35:2:881:A:P	2.23	0.61
35:2:1602:C:C3'	35:2:1603:U:H6	2.12	0.61
36:3:78:C:H2'	36:3:79:G:H8	1.65	0.61
5:M:482:UNK:CB	5:M:501:UNK:C	2.78	0.61
18:g:42:LEU:CA	21:o:117:ILE:HB	2.31	0.61
19:i:164:THR:H	19:i:167:MET:H	1.48	0.61
22:p:230:LEU:CD1	22:p:238:ILE:HD12	2.30	0.61
23:q:180:ARG:O	23:q:182:ALA:N	2.33	0.61
24:r:77:LEU:HD12	24:r:84:PHE:HB2	1.83	0.61
24:r:190:ARG:NH2	35:2:268:C:C6	2.68	0.61
24:r:190:ARG:NE	35:2:268:C:C5	2.66	0.61
24:r:228:HIS:O	24:r:232:ALA:HB2	2.01	0.61
25:s:178:THR:CG2	25:s:180:ARG:HG3	2.30	0.61
26:t:22:ARG:HD2	26:t:25:ARG:CZ	2.29	0.61
26:t:28:GLU:HB2	35:2:400:A:N6	2.15	0.61
29:w:39:ILE:O	29:w:40:ALA:HB2	1.99	0.61
31:y:68:LYS:NZ	35:2:304:U:H1'	2.16	0.61
35:2:29:U:O2	35:2:30:G:C8	2.54	0.61
35:2:99:C:H1'	35:2:101:U:C5	2.35	0.61
35:2:332:U:C2	35:2:334:G:OP2	2.54	0.61
35:2:415:C:H2'	35:2:418:G:H1	1.66	0.61
35:2:443:C:C2	35:2:462:G:C2	2.89	0.61
35:2:451:A:C6	35:2:456:A:C6	2.89	0.61
35:2:483:A:C5	35:2:484:C:C5	2.89	0.61
35:2:498:G:C5	35:2:499:U:C4	2.89	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:520:A:H8	35:2:520:A:P	2.23	0.61
35:2:1044:U:N3	35:2:1075:C:N3	2.49	0.61
35:2:1466:G:C6	35:2:1467:C:C4	2.88	0.61
36:3:148:G:H2'	36:3:149:U:C6	2.36	0.61
36:3:190:C:H3'	36:3:191:G:C8	2.35	0.61
1:P:287:UNK:HA	14:b:18:PHE:C	2.25	0.61
21:o:116:MET:CE	21:o:215:ASN:HB3	2.31	0.61
23:q:161:ASP:CA	23:q:162:VAL:CB	2.77	0.61
25:s:141:ILE:HG21	32:z:52:TYR:O	2.00	0.61
27:u:151:ASP:O	27:u:153:GLU:N	2.33	0.61
30:x:54:LEU:C	30:x:56:GLY:N	2.58	0.61
35:2:52:U:H2'	35:2:53:G:C8	2.35	0.61
35:2:158:U:H5''	35:2:160:C:C6	2.36	0.61
35:2:381:C:P	35:2:382:C:H5	2.24	0.61
35:2:410:A:C4	35:2:411:C:C5	2.88	0.61
35:2:474:A:C4'	35:2:475:A:OP2	2.48	0.61
35:2:487:G:O2'	35:2:488:G:H8	1.81	0.61
35:2:886:U:H3'	35:2:887:A:C8	2.36	0.61
35:2:916:U:OP2	35:2:916:U:H6	1.83	0.61
35:2:923:A:H2'	35:2:924:A:H8	1.65	0.61
35:2:1046:G:C6	35:2:1073:G:C5	2.89	0.61
35:2:1575:G:C2	35:2:1576:A:C4	2.89	0.61
36:3:175:C:H2'	36:3:176:U:C6	2.36	0.61
36:3:250:G:H2'	36:3:251:U:H6	1.65	0.61
15:c:118:ASN:N	30:x:134:ALA:O	2.33	0.61
21:o:209:ASN:O	35:2:1065:A:O5'	2.03	0.61
24:r:163:ARG:C	35:2:68:A:H5'	2.22	0.61
27:u:26:ALA:O	27:u:29:LYS:N	2.34	0.61
27:u:82:ARG:C	27:u:84:GLY:N	2.53	0.61
27:u:119:ALA:HB1	27:u:125:ALA:HB2	1.83	0.61
31:y:103:HIS:CA	35:2:351:C:O2	2.47	0.61
35:2:74:U:OP2	35:2:74:U:H6	1.84	0.61
35:2:99:C:O2'	35:2:361:C:O4'	2.19	0.61
35:2:105:A:N6	35:2:109:G:C5	2.69	0.61
35:2:123:G:C5	35:2:124:A:N7	2.69	0.61
35:2:245:U:H2'	35:2:247:A:O4'	2.00	0.61
35:2:278:U:H2'	35:2:279:G:C8	2.36	0.61
35:2:350:U:OP1	35:2:351:C:O2'	2.19	0.61
35:2:456:A:N6	35:2:457:G:C6	2.69	0.61
35:2:527:A:P	35:2:528:U:H3'	2.40	0.61
35:2:900:A:C5	35:2:901:G:C2	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1073:G:H2'	35:2:1074:G:C1'	2.31	0.61
35:2:1614:A:H2	35:2:1616:G:OP2	1.82	0.61
8:T:338:ALA:HB2	36:3:108:A:C5'	2.31	0.61
1:l:325:UNK:C	23:q:125:THR:O	2.49	0.61
22:p:28:ALA:HA	35:2:448:C:OP1	2.01	0.61
24:r:92:ARG:HH12	35:2:393:C:C2'	2.14	0.61
26:t:105:VAL:HG13	35:2:329:G:C3'	2.26	0.61
32:z:8:ALA:HB2	32:z:75:ILE:CB	2.30	0.61
35:2:36:C:N3	35:2:473:A:C6	2.68	0.61
35:2:153:G:H2'	35:2:154:G:H8	1.65	0.61
35:2:187:G:H1'	35:2:199:G:N2	2.15	0.61
35:2:282:C:O2	35:2:282:C:H2'	2.00	0.61
35:2:314:C:H1'	35:2:355:G:C2	2.36	0.61
35:2:320:U:H4'	35:2:321:C:O3'	2.00	0.61
35:2:387:A:C2	35:2:426:G:OP2	2.53	0.61
35:2:433:C:N1	35:2:434:G:H1'	2.16	0.61
35:2:521:A:H8	35:2:521:A:P	2.23	0.61
35:2:883:C:C5	35:2:883:C:OP2	2.54	0.61
35:2:929:A:OP1	35:2:944:A:O2'	2.19	0.61
35:2:974:A:H3'	35:2:975:C:C6	2.36	0.61
35:2:1173:C:O2'	35:2:1174:C:H5'	2.00	0.61
36:3:71:U:C4	36:3:72:C:N4	2.69	0.61
36:3:116:G:N1	36:3:190:C:N3	2.48	0.61
8:T:334:ARG:C	36:3:108:A:OP1	2.44	0.60
15:c:142:LEU:C	35:2:1604:U:OP1	2.44	0.60
19:j:871:ARG:C	19:j:876:LEU:H	2.09	0.60
21:o:123:LEU:HB3	35:2:931:C:O2'	2.01	0.60
23:q:153:GLY:HA3	23:q:154:ALA:CB	2.26	0.60
26:t:19:PRO:HD3	35:2:104:A:C4'	2.25	0.60
26:t:136:THR:HG22	26:t:137:VAL:N	2.16	0.60
33:0:32:THR:CG2	35:2:520:A:H2	2.14	0.60
35:2:24:U:O2	35:2:24:U:H2'	2.01	0.60
35:2:73:U:O2'	35:2:74:U:H5'	2.00	0.60
35:2:278:U:H2'	35:2:278:U:O2	1.99	0.60
35:2:344:A:C6	35:2:345:U:C4	2.89	0.60
35:2:347:G:H2'	35:2:348:U:C6	2.36	0.60
35:2:410:A:H2'	35:2:411:C:C6	2.36	0.60
35:2:432:G:H3'	35:2:433:C:C6	2.36	0.60
35:2:468:A:H2'	35:2:471:A:OP2	2.00	0.60
35:2:863:A:C8	35:2:964:U:O4	2.55	0.60
35:2:878:G:N3	35:2:878:G:H2'	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1084:A:O2'	35:2:1094:G:H5''	2.01	0.60
35:2:1624:C:O2	35:2:1624:C:H2'	2.01	0.60
1:P:285:UNK:O	14:b:21:TYR:HA	2.00	0.60
15:c:186:GLU:CB	35:2:1624:C:H4'	2.30	0.60
19:i:503:SER:HA	19:i:510:CYS:H	1.64	0.60
19:i:529:PHE:HA	19:i:533:SER:CB	2.30	0.60
19:i:871:ARG:C	19:i:876:LEU:H	2.09	0.60
19:j:593:LYS:HA	19:j:629:SER:O	2.01	0.60
21:o:139:ARG:NH1	35:2:884:A:C4'	2.10	0.60
24:r:1:MET:HE1	24:r:109:LEU:HD12	1.82	0.60
24:r:158:LYS:CB	35:2:78:A:H61	2.03	0.60
26:t:22:ARG:CB	35:2:385:A:C5'	2.68	0.60
26:t:39:THR:HG21	26:t:48:LYS:HA	1.83	0.60
35:2:115:G:N1	35:2:335:U:H1'	2.16	0.60
35:2:265:A:N6	35:2:290:G:C8	2.69	0.60
35:2:365:G:C6	35:2:377:G:C6	2.89	0.60
35:2:366:A:C4	35:2:376:C:C2	2.89	0.60
35:2:366:A:C6	35:2:376:C:C4	2.89	0.60
35:2:491:C:C2	35:2:493:U:N3	2.69	0.60
35:2:909:U:H2'	35:2:910:C:H6	1.66	0.60
35:2:1575:G:OP1	35:2:1575:G:C4'	2.49	0.60
9:U:90:GLY:HA3	36:3:82:U:H5	1.64	0.60
15:c:200:LEU:O	15:c:201:GLY:O	2.18	0.60
21:o:34:PHE:CD2	21:o:45:PHE:HB3	2.35	0.60
22:p:89:MET:HA	22:p:89:MET:CE	2.31	0.60
22:p:102:ARG:NE	22:p:238:ILE:HG21	2.16	0.60
22:p:204:GLN:O	22:p:206:SER:N	2.34	0.60
26:t:25:ARG:C	35:2:400:A:C4	2.79	0.60
31:y:68:LYS:HE2	35:2:111:U:H1'	1.84	0.60
32:z:106:THR:O	32:z:107:SER:C	2.44	0.60
33:0:90:ARG:HB3	33:0:96:GLY:O	2.00	0.60
35:2:23:G:H8	35:2:23:G:OP2	1.85	0.60
35:2:63:G:H2'	35:2:64:U:C6	2.36	0.60
35:2:153:G:C4	35:2:162:A:C6	2.89	0.60
35:2:169:A:O2'	35:2:171:A:OP2	2.19	0.60
35:2:407:A:H2'	35:2:408:C:H6	1.65	0.60
35:2:495:C:H2'	35:2:495:C:P	2.42	0.60
35:2:520:A:N7	35:2:529:A:C6	2.69	0.60
35:2:524:U:OP2	35:2:526:A:OP2	2.20	0.60
35:2:615:A:H4'	35:2:1085:G:O3'	2.01	0.60
35:2:631:G:H22	35:2:968:U:C2'	2.14	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:631:G:C8	35:2:631:G:OP2	2.54	0.60
35:2:888:U:H3'	35:2:889:U:H6	1.66	0.60
35:2:962:C:H2'	35:2:963:A:O4'	2.02	0.60
35:2:969:C:OP2	35:2:969:C:H6	1.83	0.60
35:2:1048:G:N1	35:2:1070:C:N3	2.36	0.60
35:2:1157:A:H2'	35:2:1160:A:N7	2.16	0.60
35:2:1160:A:C2'	35:2:1161:C:H6	2.11	0.60
35:2:1172:G:C4	35:2:1173:C:C5	2.88	0.60
36:3:259:A:H4'	36:3:260:G:O5'	1.99	0.60
1:D:77:UNK:C	1:E:162:UNK:N	2.64	0.60
3:H:67:UNK:CB	3:H:142:UNK:CA	2.80	0.60
19:j:872:GLU:HA	19:j:876:LEU:C	2.27	0.60
22:p:71:ASN:HB3	33:0:15:LEU:CD2	2.31	0.60
22:p:97:THR:HB	22:p:99:GLN:HG2	1.82	0.60
23:q:135:ASP:HA	23:q:138:THR:CB	2.32	0.60
24:r:59:ASP:CA	35:2:157:A:H61	2.13	0.60
24:r:102:VAL:HG11	24:r:109:LEU:HD11	1.83	0.60
24:r:150:GLU:O	35:2:140:A:H8	1.83	0.60
25:s:81:ILE:HG12	25:s:94:PHE:CE1	2.36	0.60
31:y:116:VAL:CG1	31:y:117:LYS:H	1.97	0.60
33:0:23:LEU:HD11	33:0:71:ALA:CB	2.29	0.60
33:0:35:LYS:H	35:2:520:A:C1'	2.13	0.60
35:2:50:C:H5''	35:2:423:G:H4'	1.82	0.60
35:2:86:A:H2'	35:2:87:C:C6	2.36	0.60
35:2:127:G:O2'	35:2:128:U:C2	2.51	0.60
35:2:214:G:N2	35:2:250:C:OP2	2.34	0.60
35:2:310:C:N3	35:2:357:G:N1	2.48	0.60
35:2:331:A:C8	35:2:332:U:C5	2.89	0.60
35:2:442:C:H2'	35:2:443:C:C6	2.36	0.60
35:2:509:G:H2'	35:2:509:G:N3	2.16	0.60
35:2:511:A:N3	35:2:511:A:H5'	2.15	0.60
35:2:513:U:H2'	35:2:514:G:C8	2.36	0.60
35:2:923:A:H2'	35:2:924:A:O4'	2.01	0.60
35:2:955:A:H2'	35:2:956:C:C6	2.36	0.60
35:2:1044:U:C2	35:2:1076:A:H2	2.19	0.60
35:2:1047:G:N1	35:2:1071:U:N3	1.99	0.60
35:2:1575:G:H5'	35:2:1576:A:OP2	2.01	0.60
35:2:1576:A:H2'	35:2:1577:A:O4'	2.01	0.60
35:2:1585:U:C5	35:2:1610:G:N2	2.69	0.60
3:H:67:UNK:CB	3:H:142:UNK:C	2.79	0.60
19:j:879:LEU:N	19:j:884:LEU:HA	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:20:LYS:HG3	21:o:20:LYS:O	2.00	0.60
21:o:161:TYR:CE1	35:2:934:C:N4	2.69	0.60
22:p:215:ALA:C	22:p:217:GLY:H	2.08	0.60
26:t:5:ARG:NE	35:2:332:U:O2'	2.34	0.60
29:w:124:ASP:CB	35:2:929:A:O2'	2.50	0.60
35:2:44:U:H5	35:2:437:A:N6	1.99	0.60
35:2:108:A:C2	35:2:306:U:C2	2.90	0.60
35:2:424:C:H5'	35:2:425:A:OP1	2.01	0.60
35:2:514:G:O6	35:2:537:G:C6	2.53	0.60
35:2:629:U:OP2	35:2:629:U:C5	2.55	0.60
35:2:874:C:OP2	35:2:874:C:H3'	2.02	0.60
35:2:1039:A:C6	35:2:1080:U:N3	2.64	0.60
35:2:1586:A:C4	35:2:1611:A:C2	2.90	0.60
35:2:1623:C:O2	35:2:1623:C:H2'	2.01	0.60
36:3:67:C:H2'	36:3:68:A:C8	2.30	0.60
36:3:202:C:O2	36:3:244:G:N2	2.32	0.60
3:H:2:UNK:CB	3:H:170:UNK:HA	2.25	0.60
1:J:46:UNK:CB	7:R:213:UNK:CB	2.80	0.60
22:p:163:LYS:HD2	22:p:237:TRP:CE3	2.37	0.60
24:r:139:ASN:O	24:r:143:LYS:HG3	2.02	0.60
24:r:176:CYS:HA	35:2:67:A:P	2.38	0.60
31:y:33:TYR:CE1	35:2:249:U:OP1	2.55	0.60
33:0:85:PRO:HD3	35:2:525:A:H61	1.64	0.60
35:2:74:U:O2'	35:2:75:U:H5'	2.01	0.60
35:2:99:C:C1'	35:2:101:U:H5	2.14	0.60
35:2:110:U:C2'	35:2:304:U:H3	2.12	0.60
35:2:213:A:C8	35:2:214:G:N7	2.69	0.60
35:2:322:G:H2'	35:2:337:G:N3	2.16	0.60
35:2:366:A:N1	35:2:367:A:C6	2.70	0.60
35:2:377:G:O2'	35:2:378:A:OP1	2.20	0.60
35:2:394:C:N3	35:2:404:G:C5	2.69	0.60
35:2:402:C:C2	35:2:403:G:H1'	2.37	0.60
35:2:481:A:P	35:2:481:A:C8	2.95	0.60
35:2:490:C:C2	35:2:498:G:N2	2.69	0.60
35:2:871:G:C2	35:2:872:G:C4	2.89	0.60
35:2:963:A:OP2	35:2:963:A:H8	1.85	0.60
35:2:972:G:OP2	35:2:972:G:C8	2.54	0.60
35:2:1049:U:H3'	35:2:1050:G:H8	1.67	0.60
35:2:1051:G:H2'	35:2:1052:U:C2	2.36	0.60
35:2:1527:C:O2	35:2:1527:C:H2'	2.02	0.60
36:3:78:C:C2	36:3:269:G:C2	2.90	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:47:UNK:HA	1:F:338:UNK:HA	1.82	0.60
1:P:287:UNK:CB	14:b:18:PHE:C	2.68	0.60
5:m:30:UNK:O	5:m:31:UNK:CB	2.50	0.60
22:p:188:GLY:N	22:p:191:ILE:CG2	2.65	0.60
24:r:130:PRO:O	24:r:131:ARG:C	2.45	0.60
33:0:35:LYS:CB	35:2:520:A:H4'	2.32	0.60
33:0:35:LYS:HG3	35:2:520:A:O2'	2.01	0.60
33:0:58:PHE:N	35:2:522:U:P	2.74	0.60
33:0:58:PHE:HB2	35:2:521:A:H4'	1.83	0.60
35:2:45:U:O2	35:2:433:C:O2'	2.20	0.60
35:2:168:A:C6	35:2:169:A:C6	2.90	0.60
35:2:325:G:C2	35:2:326:G:C4	2.88	0.60
35:2:407:A:H2'	35:2:408:C:C6	2.35	0.60
35:2:410:A:C6	35:2:411:C:C4	2.89	0.60
35:2:933:A:C8	35:2:935:U:OP2	2.53	0.60
35:2:1040:G:N2	35:2:1079:U:H1'	2.16	0.60
35:2:1537:C:H5'	35:2:1538:U:OP1	2.02	0.60
36:3:81:G:OP2	36:3:81:G:C8	2.51	0.60
36:3:190:C:H5	36:3:191:G:N1	1.99	0.60
3:H:2:UNK:N	3:H:170:UNK:CA	2.64	0.60
21:o:127:ARG:HH22	35:2:946:U:C5'	2.12	0.60
23:q:162:VAL:O	23:q:164:PRO:N	2.35	0.60
26:t:56:VAL:HG23	35:2:333:A:C5'	2.32	0.60
26:t:56:VAL:HG23	35:2:333:A:H5'	1.84	0.60
26:t:105:VAL:HG12	26:t:107:ASN:H	1.67	0.60
31:y:5:ILE:O	31:y:6:GLN:C	2.45	0.60
31:y:8:ALA:HB3	31:y:11:LYS:HE2	1.84	0.60
35:2:67:A:N6	35:2:78:A:H4'	2.16	0.60
35:2:187:G:H1	35:2:197:A:C3'	2.06	0.60
35:2:331:A:OP2	35:2:331:A:H8	1.85	0.60
35:2:535:A:H2'	35:2:536:C:H6	1.64	0.60
35:2:929:A:C5	35:2:930:A:C8	2.90	0.60
35:2:939:A:N6	35:2:975:C:O2'	2.28	0.60
35:2:961:U:H2'	35:2:962:C:C5	2.35	0.60
35:2:1159:C:H3'	35:2:1160:A:C5'	2.32	0.60
35:2:1616:G:N2	35:2:1618:C:H41	1.93	0.60
36:3:248:G:C6	36:3:249:U:C4	2.90	0.60
36:3:252:C:H2'	36:3:253:G:C8	2.37	0.60
36:3:253:G:C8	36:3:253:G:OP2	2.55	0.60
15:c:144:GLU:H	35:2:1603:U:C2'	2.14	0.60
22:p:213:LYS:HG2	22:p:214:ASP:N	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:u:82:ARG:O	27:u:148:VAL:O	2.20	0.60
29:w:78:ALA:HA	29:w:110:LEU:HA	1.84	0.60
31:y:68:LYS:NZ	35:2:303:U:HO2'	1.99	0.60
33:0:60:THR:HG21	35:2:533:U:H1'	1.84	0.60
35:2:31:C:H2'	35:2:32:U:C2	2.36	0.60
35:2:54:C:N4	35:2:424:C:N4	2.49	0.60
35:2:156:A:H61	35:2:418:G:H2'	1.64	0.60
35:2:188:A:N7	35:2:197:A:H2	1.99	0.60
35:2:251:A:OP2	35:2:251:A:H8	1.85	0.60
35:2:279:G:C5	35:2:279:G:OP2	2.55	0.60
35:2:296:U:C6	35:2:296:U:C3'	2.84	0.60
35:2:402:C:N3	35:2:403:G:H1'	2.16	0.60
35:2:934:C:O2'	35:2:935:U:H5'	2.02	0.60
36:3:70:A:OP2	36:3:70:A:C8	2.52	0.60
36:3:126:U:H2'	36:3:127:A:C8	2.36	0.60
6:Q:356:UNK:CA	6:Q:409:UNK:CB	2.80	0.60
18:g:75:GLU:N	21:o:215:ASN:ND2	2.48	0.60
19:j:164:THR:H	19:j:167:MET:H	1.48	0.60
21:o:211:PHE:HD1	35:2:1066:C:O3'	1.73	0.60
24:r:13:GLN:HG3	35:2:152:U:C4'	2.31	0.60
26:t:128:ASP:O	26:t:129:LEU:HB2	2.01	0.60
31:y:11:LYS:O	31:y:53:VAL:HG21	2.02	0.60
31:y:78:LYS:HG2	35:2:347:G:C5'	2.31	0.60
31:y:154:PHE:CD2	35:2:351:C:C5	2.87	0.60
35:2:39:A:N1	35:2:469:C:C4	2.69	0.60
35:2:109:G:OP2	35:2:109:G:H8	1.85	0.60
35:2:380:U:C3'	35:2:382:C:H41	2.11	0.60
35:2:435:C:O2'	35:2:436:A:H5'	2.02	0.60
35:2:616:G:H5'	35:2:1086:A:H62	1.66	0.60
35:2:891:A:N3	35:2:891:A:H2'	2.15	0.60
35:2:895:G:C2	35:2:918:U:C2	2.89	0.60
35:2:909:U:H2'	35:2:910:C:C6	2.36	0.60
35:2:1042:G:C4	35:2:1043:A:C8	2.89	0.60
36:3:137:U:O2	36:3:150:G:C2	2.54	0.60
9:V:97:VAL:N	36:3:114:A:HO2'	1.98	0.59
16:d:70:GLY:N	35:2:1097:U:C5	2.70	0.59
21:o:48:THR:CG2	21:o:49:LEU:H	2.09	0.59
21:o:205:LYS:CD	35:2:1055:U:O2'	2.49	0.59
21:o:209:ASN:HB3	35:2:1064:G:H2'	1.82	0.59
22:p:59:ARG:NH1	33:0:85:PRO:HA	2.16	0.59
24:r:13:GLN:CD	35:2:152:U:H1'	2.27	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:132:LYS:CE	35:2:69:G:N7	2.65	0.59
28:v:145:THR:N	28:v:146:ALA:HA	2.17	0.59
30:x:123:ARG:O	35:2:1584:G:C5	2.55	0.59
33:0:56:TYR:HE1	33:0:70:PHE:HB2	1.65	0.59
35:2:61:A:H5'	35:2:62:A:O2'	2.01	0.59
35:2:121:U:OP2	35:2:121:U:H6	1.85	0.59
35:2:210:A:OP2	35:2:210:A:H3'	2.02	0.59
35:2:300:A:C3'	35:2:301:A:H8	2.15	0.59
35:2:300:A:H2'	35:2:301:A:O4'	2.02	0.59
35:2:302:U:H3'	35:2:303:U:C2	2.37	0.59
35:2:328:A:C2	35:2:340:U:N3	2.64	0.59
35:2:361:C:H3'	35:2:362:G:C8	2.37	0.59
35:2:512:A:N7	35:2:539:G:C8	2.70	0.59
35:2:587:C:N3	35:2:588:U:C2	2.69	0.59
35:2:1041:G:C6	35:2:1042:G:C5	2.89	0.59
36:3:255:U:C6	36:3:255:U:OP1	2.55	0.59
1:n:294:UNK:O	26:t:45:ILE:HG22	1.91	0.59
22:p:123:TYR:CD2	22:p:163:LYS:HE2	2.38	0.59
23:q:195:ALA:O	23:q:196:GLU:C	2.44	0.59
24:r:41:LEU:HB3	24:r:45:PHE:CD1	2.37	0.59
24:r:176:CYS:CB	35:2:67:A:C4'	2.60	0.59
26:t:35:MET:HG2	26:t:103:THR:HG23	1.84	0.59
26:t:136:THR:HG22	26:t:138:LEU:HG	1.84	0.59
30:x:91:ALA:HB3	30:x:96:TYR:CB	2.32	0.59
31:y:129:PRO:HD2	35:2:115:G:N7	2.17	0.59
33:0:85:PRO:HG3	35:2:525:A:N6	2.01	0.59
35:2:71:A:C4	35:2:72:A:C5	2.89	0.59
35:2:91:G:C8	35:2:91:G:OP2	2.55	0.59
35:2:381:C:P	35:2:382:C:C5	2.95	0.59
35:2:409:C:H2'	35:2:410:A:C8	2.36	0.59
35:2:433:C:N4	35:2:434:G:C5	2.70	0.59
35:2:468:A:H4'	35:2:469:C:C4	2.37	0.59
35:2:496:G:O2'	35:2:497:G:H5'	2.01	0.59
35:2:497:G:C2	35:2:498:G:C5	2.90	0.59
35:2:519:C:H6	35:2:529:A:H62	1.50	0.59
35:2:901:G:H5''	35:2:902:G:C5	2.37	0.59
35:2:1472:C:H1'	35:2:1473:U:OP2	2.02	0.59
36:3:142:G:N2	36:3:145:A:OP2	2.35	0.59
5:O:30:UNK:O	5:O:31:UNK:CB	2.49	0.59
9:V:99:THR:CB	36:3:192:A:N7	2.65	0.59
1:n:295:UNK:HA	26:t:67:ARG:CZ	2.25	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:161:ILE:C	35:2:67:A:H5'	2.27	0.59
30:x:35:PRO:O	30:x:37:THR:N	2.34	0.59
31:y:33:TYR:OH	35:2:249:U:P	2.60	0.59
35:2:107:C:H3'	35:2:107:C:OP2	2.02	0.59
35:2:328:A:H8	35:2:328:A:O5'	1.85	0.59
35:2:394:C:C4	35:2:404:G:C5	2.90	0.59
35:2:427:C:O2'	35:2:428:A:OP1	2.17	0.59
35:2:458:G:H2'	35:2:458:G:N3	2.16	0.59
35:2:486:G:C2	35:2:487:G:C4	2.90	0.59
35:2:524:U:OP2	35:2:528:U:H5	1.85	0.59
35:2:617:U:O2'	35:2:1030:A:H2'	2.02	0.59
35:2:919:A:C6	35:2:920:U:C4	2.90	0.59
35:2:1467:C:H2'	35:2:1468:U:C6	2.37	0.59
35:2:1483:A:C8	35:2:1524:A:N7	2.70	0.59
31:y:84:ILE:CD1	35:2:348:U:P	2.89	0.59
33:0:18:ARG:NH2	33:0:20:GLN:NE2	2.50	0.59
35:2:102:U:C5	35:2:102:U:OP2	2.55	0.59
35:2:179:A:H3'	35:2:179:A:OP2	2.02	0.59
35:2:189:C:OP2	35:2:189:C:H5	1.85	0.59
35:2:208:U:H5'	35:2:209:U:OP2	2.01	0.59
35:2:441:A:N6	35:2:463:U:C4	2.71	0.59
35:2:461:G:OP2	35:2:461:G:H3'	2.02	0.59
35:2:471:A:C6	35:2:472:U:C4	2.90	0.59
35:2:485:A:H2	35:2:502:U:C2	2.18	0.59
35:2:548:G:N1	35:2:590:C:N3	2.51	0.59
35:2:877:G:O4'	35:2:937:C:O2'	2.21	0.59
35:2:914:G:OP2	35:2:914:G:C8	2.55	0.59
35:2:1039:A:H1'	35:2:1040:G:C8	2.37	0.59
35:2:1584:G:C4	35:2:1584:G:H3'	2.37	0.59
35:2:1616:G:O2'	35:2:1617:U:H5'	2.01	0.59
36:3:162:C:H2'	36:3:165:C:C6	2.38	0.59
1:L:278:UNK:O	12:Z:265:GLY:N	2.36	0.59
15:c:143:HIS:CA	35:2:1603:U:O3'	2.50	0.59
17:f:156:GLU:HA	35:2:1537:C:C4	2.38	0.59
19:i:872:GLU:HA	19:i:876:LEU:C	2.27	0.59
21:o:130:CYS:HB2	21:o:138:ILE:CD1	2.32	0.59
21:o:181:GLU:HG2	21:o:199:TYR:HE2	1.68	0.59
22:p:11:ARG:HG2	22:p:27:TRP:O	2.01	0.59
24:r:137:ARG:HG3	24:r:181:ARG:HG3	1.84	0.59
24:r:201:ARG:HH11	35:2:126:A:HO2'	1.43	0.59
31:y:9:TYR:O	31:y:10:GLN:CB	2.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1:25:VAL:C	34:1:38:ARG:HA	2.28	0.59
35:2:34:G:O6	35:2:473:A:H2	1.85	0.59
35:2:82:U:C2	35:2:83:G:N7	2.70	0.59
35:2:198:A:H2'	35:2:199:G:O4'	2.02	0.59
35:2:211:U:C4	35:2:254:A:N6	2.70	0.59
35:2:257:A:C5	35:2:258:C:N3	2.70	0.59
35:2:397:A:C3'	35:2:398:G:H8	2.06	0.59
35:2:412:A:H1'	35:2:422:G:N2	2.17	0.59
35:2:474:A:N3	35:2:475:A:N6	2.50	0.59
35:2:482:U:O2	35:2:482:U:H2'	2.01	0.59
35:2:523:G:H2'	35:2:528:U:C6	2.37	0.59
35:2:624:G:C5	35:2:625:C:C4	2.90	0.59
35:2:910:C:C6	35:2:910:C:OP2	2.55	0.59
35:2:1052:U:H3'	35:2:1052:U:C6	2.38	0.59
35:2:1614:A:H2'	35:2:1614:A:N3	2.16	0.59
9:U:127:LYS:N	10:W:183:ALA:C	2.58	0.59
24:r:163:ARG:CB	35:2:69:G:C6	2.78	0.59
24:r:190:ARG:NH2	35:2:269:G:H8	1.95	0.59
33:0:17:SER:OG	33:0:79:TYR:CD2	2.49	0.59
35:2:27:U:O2'	35:2:28:A:H5'	2.02	0.59
35:2:39:A:N1	35:2:471:A:C6	2.70	0.59
35:2:188:A:C5	35:2:198:A:C8	2.91	0.59
35:2:263:C:OP2	35:2:263:C:H6	1.85	0.59
35:2:302:U:C6	35:2:303:U:N3	2.71	0.59
35:2:314:C:N3	35:2:352:A:O2'	2.35	0.59
35:2:332:U:H5'	35:2:333:A:OP2	2.03	0.59
35:2:339:C:H2'	35:2:340:U:C5	2.37	0.59
35:2:347:G:C4	35:2:348:U:C5	2.90	0.59
35:2:455:C:C6	35:2:455:C:H5''	2.37	0.59
35:2:511:A:H2'	35:2:511:A:P	2.43	0.59
35:2:546:U:C4	35:2:547:U:N3	2.71	0.59
35:2:893:U:C2	35:2:894:U:H5''	2.37	0.59
35:2:902:G:H2'	35:2:903:U:C4	2.38	0.59
35:2:961:U:H2'	35:2:962:C:H6	1.67	0.59
36:3:159:G:C2	36:3:171:G:C2	2.91	0.59
36:3:201:A:C6	36:3:246:G:C5	2.91	0.59
1:D:111:UNK:CB	1:E:197:UNK:O	2.51	0.59
15:c:92:THR:HA	30:x:130:GLY:CA	2.32	0.59
16:d:114:ARG:H	5:m:409:UNK:CB	2.16	0.59
19:i:593:LYS:HA	19:i:629:SER:O	2.01	0.59
23:q:196:GLU:HA	23:q:199:ILE:CB	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:94:ARG:CB	35:2:406:U:C5'	2.78	0.59
35:2:62:A:OP2	35:2:269:G:O4'	2.20	0.59
35:2:113:U:H5''	35:2:114:C:H5'	1.85	0.59
35:2:243:G:C6	35:2:251:A:C6	2.90	0.59
35:2:291:G:O2'	35:2:292:U:H5'	2.02	0.59
35:2:293:U:H2'	35:2:294:C:C5	2.37	0.59
35:2:302:U:H3'	35:2:303:U:N3	2.17	0.59
35:2:310:C:C2	35:2:357:G:N1	2.70	0.59
35:2:326:G:C6	35:2:327:U:C4	2.90	0.59
35:2:350:U:O2	35:2:352:A:C6	2.55	0.59
35:2:387:A:N3	35:2:425:A:C2	2.70	0.59
35:2:415:C:C2	35:2:418:G:N2	2.60	0.59
35:2:430:G:H2'	35:2:431:C:C6	2.36	0.59
35:2:591:A:N1	35:2:592:A:N7	2.50	0.59
35:2:629:U:C2	35:2:971:A:C5	2.91	0.59
35:2:630:A:C2	35:2:631:G:H1'	2.38	0.59
35:2:878:G:C8	35:2:878:G:OP2	2.55	0.59
35:2:922:G:N3	35:2:923:A:N7	2.50	0.59
35:2:1172:G:H2'	35:2:1173:C:C6	2.38	0.59
35:2:1606:C:H2'	35:2:1607:G:C8	2.37	0.59
36:3:137:U:H2'	36:3:138:A:H8	1.68	0.59
36:3:155:U:H2'	36:3:156:C:C6	2.37	0.59
1:n:295:UNK:CA	26:t:67:ARG:CZ	2.80	0.59
23:q:215:ASP:O	23:q:216:GLU:C	2.44	0.59
23:q:218:GLU:C	23:q:220:VAL:H	2.10	0.59
25:s:46:LYS:O	25:s:61:VAL:HG13	2.03	0.59
35:2:41:A:C2	35:2:438:A:H8	2.21	0.59
35:2:83:G:N3	35:2:83:G:H2'	2.18	0.59
35:2:87:C:OP2	35:2:87:C:C6	2.49	0.59
35:2:108:A:C3'	35:2:109:G:H8	2.15	0.59
35:2:174:U:C4	35:2:175:G:C6	2.91	0.59
35:2:271:A:H3'	35:2:272:U:C5'	2.33	0.59
35:2:288:A:H2'	35:2:288:A:P	2.42	0.59
35:2:312:A:C8	35:2:314:C:C5	2.91	0.59
35:2:315:A:N3	35:2:316:A:H1'	2.17	0.59
35:2:362:G:H2'	35:2:362:G:N3	2.15	0.59
35:2:537:G:C5	35:2:538:A:N7	2.70	0.59
35:2:546:U:C4	35:2:591:A:C5	2.90	0.59
35:2:628:G:C6	35:2:970:A:OP2	2.56	0.59
35:2:964:U:H1'	35:2:965:U:OP2	2.03	0.59
35:2:1473:U:O2	35:2:1473:U:O4'	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1607:G:C6	35:2:1608:U:C4	2.91	0.59
1:P:285:UNK:C	14:b:21:TYR:CA	2.74	0.59
16:d:54:PRO:CB	27:u:98:ALA:HB2	2.32	0.59
17:f:174:LYS:CB	23:q:212:LYS:CB	2.81	0.59
19:j:879:LEU:C	19:j:884:LEU:HA	2.28	0.59
21:o:90:VAL:HG23	21:o:104:TYR:HB2	1.85	0.59
24:r:58:LYS:HZ2	35:2:417:A:H4'	1.68	0.59
25:s:13:THR:H	25:s:16:GLU:HB2	1.65	0.59
26:t:55:ARG:NH1	35:2:396:G:H8	1.99	0.59
27:u:68:LYS:C	27:u:70:LEU:N	2.57	0.59
31:y:6:GLN:OE1	31:y:6:GLN:HA	2.02	0.59
32:z:103:ILE:HA	32:z:112:ASP:HA	1.85	0.59
33:0:32:THR:HG21	35:2:520:A:C2	2.37	0.59
35:2:52:U:O4	35:2:429:G:N2	2.36	0.59
35:2:105:A:N1	35:2:108:A:OP2	2.36	0.59
35:2:243:G:C6	35:2:244:A:C5	2.90	0.59
35:2:251:A:H2'	35:2:252:U:N1	2.17	0.59
35:2:295:A:N3	35:2:296:U:H5'	2.18	0.59
35:2:332:U:H5''	35:2:334:G:OP1	2.03	0.59
35:2:394:C:C4	35:2:404:G:C6	2.91	0.59
35:2:396:G:H2'	35:2:398:G:OP2	2.02	0.59
35:2:444:C:N3	35:2:458:G:C6	2.71	0.59
35:2:477:A:C2	35:2:478:A:C5	2.91	0.59
35:2:532:U:H2'	35:2:533:U:O4'	2.03	0.59
35:2:630:A:H3'	35:2:631:G:H8	1.67	0.59
35:2:867:G:OP2	35:2:867:G:H8	1.85	0.59
35:2:922:G:O2'	35:2:923:A:N7	2.35	0.59
35:2:955:A:C6	35:2:956:C:N4	2.71	0.59
36:3:145:A:H2'	36:3:146:A:O4'	2.03	0.59
36:3:254:A:C8	36:3:254:A:OP2	2.56	0.59
19:i:879:LEU:C	19:i:884:LEU:HA	2.28	0.59
21:o:34:PHE:HE1	21:o:89:LEU:HD12	1.67	0.59
22:p:108:LYS:CG	22:p:110:ARG:HH21	2.16	0.59
24:r:64:LYS:O	24:r:65:GLN:C	2.45	0.59
25:s:13:THR:HG22	25:s:15:ILE:HD12	1.84	0.59
25:s:80:LEU:HD13	25:s:94:PHE:CE2	2.38	0.59
26:t:87:LEU:HB3	26:t:111:GLU:HB2	1.85	0.59
26:t:196:LEU:HG	26:t:200:ILE:HD11	1.85	0.59
27:u:73:GLY:C	27:u:75:ALA:H	2.10	0.59
27:u:122:VAL:O	27:u:123:HIS:C	2.46	0.59
31:y:132:LYS:NZ	35:2:324:U:OP1	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:0:55:VAL:HG22	33:0:58:PHE:HE1	1.68	0.59
35:2:46:A:H62	35:2:433:C:H4'	1.68	0.59
35:2:142:G:N1	35:2:174:U:C2	2.71	0.59
35:2:187:G:H1'	35:2:198:A:H62	1.68	0.59
35:2:187:G:C2'	35:2:188:A:OP2	2.51	0.59
35:2:360:A:H4'	35:2:362:G:H5'	1.84	0.59
35:2:452:A:H61	35:2:454:U:P	2.26	0.59
35:2:548:G:C6	35:2:590:C:N3	2.71	0.59
35:2:902:G:P	35:2:902:G:H8	2.26	0.59
36:3:76:C:H2'	36:3:77:C:H6	1.68	0.59
36:3:243:G:H2'	36:3:244:G:C8	2.38	0.59
1:D:133:UNK:O	1:E:113:UNK:C	2.51	0.58
16:d:70:GLY:O	35:2:1097:U:C5	2.50	0.58
24:r:55:GLY:O	24:r:62:PRO:HA	2.02	0.58
24:r:179:ILE:O	24:r:180:GLN:C	2.45	0.58
26:t:166:GLN:NE2	26:t:173:LEU:HD23	2.18	0.58
35:2:109:G:C6	35:2:110:U:O2	2.55	0.58
35:2:210:A:OP2	35:2:210:A:H8	1.85	0.58
35:2:391:A:C2	35:2:407:A:C2	2.91	0.58
35:2:504:U:O5'	35:2:505:A:H5''	2.03	0.58
35:2:879:G:C6	35:2:880:C:C4	2.91	0.58
35:2:884:A:C4	35:2:945:U:C2	2.90	0.58
35:2:918:U:O2'	35:2:919:A:H5'	2.03	0.58
35:2:929:A:P	35:2:930:A:H62	2.25	0.58
35:2:933:A:HO2'	35:2:934:C:P	2.26	0.58
35:2:1073:G:N1	35:2:1074:G:N1	2.51	0.58
35:2:1080:U:OP2	35:2:1080:U:C6	2.51	0.58
35:2:1174:C:H4'	35:2:1601:G:C6	2.37	0.58
35:2:1481:C:H5	35:2:1482:C:C2	2.21	0.58
36:3:74:C:OP2	36:3:74:C:H6	1.86	0.58
36:3:85:A:C8	36:3:85:A:OP2	2.56	0.58
36:3:197:C:H2'	36:3:198:U:C4	2.38	0.58
5:M:30:UNK:O	5:M:31:UNK:CB	2.50	0.58
18:g:43:PHE:C	21:o:117:ILE:HG22	2.28	0.58
20:k:135:ALA:HB2	35:2:1523:G:H21	1.54	0.58
21:o:214:GLN:O	21:o:215:ASN:C	2.47	0.58
24:r:137:ARG:CZ	35:2:144:U:C5	2.85	0.58
27:u:96:VAL:O	27:u:99:LEU:N	2.36	0.58
28:v:119:GLU:C	28:v:121:ARG:N	2.60	0.58
31:y:66:ARG:HD2	35:2:113:U:C5'	2.32	0.58
35:2:92:A:P	35:2:93:A:H5'	2.44	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:104:A:OP2	35:2:104:A:C8	2.56	0.58
35:2:123:G:H5''	35:2:124:A:O5'	2.03	0.58
35:2:143:G:C2	35:2:173:A:C4	2.91	0.58
35:2:285:G:OP2	35:2:286:C:P	2.61	0.58
35:2:321:C:H42	35:2:342:C:H41	1.52	0.58
35:2:550:A:C5	35:2:588:U:O4	2.56	0.58
35:2:625:C:C4	35:2:974:A:N6	2.68	0.58
35:2:892:A:H2'	35:2:893:U:C6	2.38	0.58
35:2:927:C:C6	35:2:927:C:OP2	2.56	0.58
35:2:929:A:C4	35:2:930:A:C8	2.91	0.58
35:2:950:C:H3'	35:2:951:A:C8	2.38	0.58
35:2:953:G:C2	35:2:954:G:C4	2.91	0.58
35:2:1167:G:N3	35:2:1167:G:H2'	2.18	0.58
3:H:157:UNK:O	3:H:158:UNK:C	2.51	0.58
19:j:213:GLY:H	19:j:218:LYS:C	2.11	0.58
21:o:123:LEU:HD12	21:o:124:ILE:N	2.18	0.58
22:p:3:ARG:NH1	35:2:95:G:C8	2.71	0.58
22:p:89:MET:HE1	22:p:238:ILE:HD13	1.84	0.58
22:p:212:VAL:HG23	22:p:220:PHE:CB	2.33	0.58
31:y:87:ARG:HD3	31:y:104:ARG:CZ	2.33	0.58
33:0:7:THR:OG1	33:0:10:ILE:HD11	2.02	0.58
35:2:72:A:C5	35:2:73:U:C5	2.91	0.58
35:2:110:U:H2'	35:2:304:U:N3	2.16	0.58
35:2:244:A:H2	35:2:248:U:H5	1.51	0.58
35:2:274:G:N1	35:2:275:C:C4	2.71	0.58
35:2:325:G:H2'	35:2:326:G:C8	2.39	0.58
35:2:400:A:H4'	35:2:401:A:O5'	2.03	0.58
35:2:467:G:O2'	35:2:469:C:OP1	2.16	0.58
35:2:514:G:H1'	35:2:539:G:C2	2.39	0.58
35:2:591:A:OP2	35:2:591:A:N7	2.36	0.58
35:2:876:G:C6	35:2:944:A:N6	2.71	0.58
35:2:976:G:N2	35:2:1027:A:N6	2.51	0.58
35:2:1047:G:C2	35:2:1071:U:O2	2.57	0.58
35:2:1482:C:O2'	35:2:1483:A:O5'	2.19	0.58
36:3:75:A:H8	36:3:75:A:OP2	1.85	0.58
36:3:144:A:H3'	36:3:145:A:H8	1.66	0.58
3:H:243:UNK:O	3:H:244:UNK:C	2.52	0.58
5:O:500:UNK:CA	21:o:15:LYS:N	2.66	0.58
6:Q:473:UNK:O	6:Q:484:UNK:CB	2.51	0.58
8:T:337:ILE:CB	36:3:108:A:OP1	2.51	0.58
19:i:213:GLY:H	19:i:218:LYS:C	2.11	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:36:ALA:HB2	21:o:101:THR:HB	1.85	0.58
22:p:205:GLY:O	22:p:206:SER:CB	2.52	0.58
24:r:190:ARG:HD3	35:2:268:C:H5	1.68	0.58
25:s:95:THR:CG2	25:s:96:ALA:N	2.62	0.58
26:t:121:TYR:HD2	26:t:129:LEU:HD11	1.67	0.58
35:2:190:C:OP2	35:2:190:C:C6	2.56	0.58
35:2:264:G:OP1	35:2:291:G:O2'	2.12	0.58
35:2:317:C:H2'	35:2:318:U:O4'	2.02	0.58
35:2:318:U:C6	35:2:318:U:OP2	2.57	0.58
35:2:365:G:N1	35:2:366:A:C8	2.71	0.58
35:2:386:G:N2	35:2:425:A:N3	2.35	0.58
35:2:483:A:C4	35:2:484:C:C6	2.91	0.58
35:2:873:U:H3'	35:2:874:C:C6	2.38	0.58
35:2:875:G:C2	35:2:953:G:C2	2.91	0.58
8:T:338:ALA:HB2	36:3:108:A:H3'	1.83	0.58
21:o:208:LYS:CG	35:2:1064:G:H22	2.15	0.58
24:r:177:PRO:O	35:2:79:C:H5	1.80	0.58
26:t:87:LEU:HD21	26:t:171:ARG:NH1	2.18	0.58
26:t:154:THR:O	26:t:156:ALA:N	2.31	0.58
31:y:80:ASN:C	35:2:325:G:O2'	2.44	0.58
35:2:48:G:O6	35:2:432:G:C4	2.55	0.58
35:2:279:G:N2	35:2:280:U:H4'	2.18	0.58
35:2:366:A:C2	35:2:375:U:O2	2.55	0.58
35:2:389:G:C2	35:2:409:C:C2	2.91	0.58
35:2:524:U:C5	35:2:527:A:H1'	2.38	0.58
35:2:533:U:H3'	35:2:534:A:H8	1.69	0.58
35:2:933:A:N1	35:2:944:A:C6	2.71	0.58
35:2:936:G:C6	35:2:937:C:C4	2.91	0.58
35:2:1039:A:H1'	35:2:1040:G:C1'	2.33	0.58
35:2:1084:A:O4'	35:2:1094:G:H4'	2.03	0.58
36:3:91:G:P	36:3:93:G:H1	2.26	0.58
36:3:188:G:N1	36:3:189:G:N7	2.51	0.58
36:3:203:C:H2'	36:3:204:C:C6	2.38	0.58
3:H:314:UNK:O	3:H:315:UNK:C	2.52	0.58
8:S:300:ALA:CB	36:3:91:G:P	2.90	0.58
8:S:315:PRO:C	36:3:90:C:H5'	2.28	0.58
16:d:90:ILE:HA	16:d:118:TRP:C	2.13	0.58
16:d:112:ILE:C	5:m:409:UNK:CB	2.75	0.58
20:k:75:SER:C	20:k:77:ARG:H	2.12	0.58
22:p:27:TRP:CB	35:2:448:C:C1'	2.77	0.58
23:q:58:LEU:O	23:q:61:TYR:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:s:43:THR:HG21	25:s:97:GLN:HG2	1.86	0.58
35:2:35:U:C4	35:2:473:A:N1	2.72	0.58
35:2:40:A:C5	35:2:41:A:C5	2.91	0.58
35:2:65:A:H2	35:2:84:A:H62	1.49	0.58
35:2:70:C:H1'	35:2:84:A:N3	2.18	0.58
35:2:186:C:C2	35:2:200:A:C4	2.92	0.58
35:2:324:U:C2	35:2:325:G:C8	2.92	0.58
35:2:340:U:C6	35:2:340:U:OP2	2.56	0.58
35:2:865:A:C2	35:2:964:U:C2	2.92	0.58
35:2:1065:A:H2'	35:2:1066:C:H6	1.60	0.58
35:2:1627:U:O2'	35:2:1628:U:O5'	2.21	0.58
2:G:3234:GLY:HA2	33:0:146:PHE:CA	2.34	0.58
3:H:184:UNK:O	3:H:185:UNK:C	2.51	0.58
19:i:130:ALA:HB1	19:i:170:HIS:H	1.68	0.58
22:p:255:LYS:O	22:p:259:SER:HA	2.04	0.58
26:t:26:ALA:HB2	35:2:399:A:H3'	1.82	0.58
26:t:159:LEU:O	26:t:160:GLU:O	2.21	0.58
32:z:125:ILE:O	32:z:127:GLY:N	2.37	0.58
33:0:49:ASP:OD1	33:0:51:ARG:HG2	2.04	0.58
35:2:47:A:N3	35:2:425:A:N7	2.52	0.58
35:2:52:U:N3	35:2:53:G:C5	2.71	0.58
35:2:87:C:OP2	35:2:87:C:H3'	2.04	0.58
35:2:93:A:H2'	35:2:398:G:H21	1.69	0.58
35:2:271:A:C4	35:2:272:U:H5''	2.38	0.58
35:2:276:C:HO2'	35:2:277:U:C5'	2.16	0.58
35:2:296:U:H2'	35:2:297:U:C6	2.38	0.58
35:2:366:A:N1	35:2:375:U:C2	2.71	0.58
35:2:392:G:H2'	35:2:393:C:C1'	2.34	0.58
35:2:417:A:C4	35:2:418:G:C2	2.92	0.58
35:2:488:G:OP2	35:2:488:G:H3'	2.04	0.58
35:2:497:G:O2'	35:2:498:G:H5'	2.03	0.58
35:2:518:A:H3'	35:2:519:C:C6	2.38	0.58
35:2:521:A:H3'	35:2:523:G:C8	2.39	0.58
35:2:526:A:H5''	35:2:527:A:C6	2.39	0.58
35:2:1044:U:O2	35:2:1044:U:H2'	2.03	0.58
3:H:5:UNK:CB	3:H:169:UNK:CB	2.82	0.58
3:H:110:UNK:O	3:H:111:UNK:C	2.51	0.58
1:J:346:UNK:CB	1:K:290:UNK:HA	2.33	0.58
22:p:27:TRP:CB	35:2:448:C:C2'	2.72	0.58
23:q:92:ARG:O	23:q:94:THR:N	2.37	0.58
23:q:93:LEU:C	23:q:95:ASN:H	2.12	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:94:ARG:HB2	35:2:406:U:C4'	2.33	0.58
25:s:79:LYS:HA	25:s:82:ILE:HD12	1.85	0.58
31:y:125:GLY:O	31:y:136:PHE:HD1	1.86	0.58
35:2:45:U:H3	35:2:433:C:HO2'	1.52	0.58
35:2:51:A:H8	35:2:429:G:N2	2.01	0.58
35:2:58:U:C5	35:2:58:U:OP2	2.56	0.58
35:2:59:C:H1'	35:2:62:A:N6	2.18	0.58
35:2:90:C:C2	35:2:91:G:N7	2.72	0.58
35:2:127:G:N1	35:2:184:C:H4'	2.17	0.58
35:2:188:A:OP2	35:2:189:C:C5	2.56	0.58
35:2:192:U:H4'	35:2:192:U:OP1	2.03	0.58
35:2:341:A:H3'	35:2:342:C:H6	1.68	0.58
35:2:383:G:OP2	35:2:383:G:H8	1.87	0.58
35:2:445:A:C8	35:2:525:A:OP2	2.57	0.58
35:2:485:A:C4	35:2:503:G:N2	2.72	0.58
35:2:624:G:C2	35:2:625:C:C2	2.92	0.58
35:2:906:A:C6	35:2:907:A:C4	2.92	0.58
35:2:907:A:C6	35:2:908:U:C2	2.92	0.58
35:2:962:C:C6	35:2:962:C:OP2	2.56	0.58
35:2:976:G:N2	35:2:1027:A:H61	1.99	0.58
35:2:976:G:C2	35:2:1023:A:C4	2.92	0.58
35:2:1050:G:C6	35:2:1069:A:C6	2.91	0.58
2:G:1686:ARG:O	2:G:1720:ALA:HB3	2.02	0.58
3:H:27:UNK:O	3:H:28:UNK:C	2.51	0.58
15:c:175:ASP:CB	30:x:143:ARG:C	2.77	0.58
19:j:130:ALA:HB1	19:j:170:HIS:H	1.68	0.58
19:j:882:ALA:CB	19:j:886:ALA:HB2	2.33	0.58
21:o:211:PHE:CE1	35:2:1067:C:H5'	2.28	0.58
23:q:179:ALA:O	23:q:180:ARG:C	2.47	0.58
26:t:29:LYS:CB	35:2:333:A:OP1	2.52	0.58
26:t:43:THR:O	26:t:44:THR:CB	2.52	0.58
26:t:185:ARG:NH1	35:2:208:U:N1	2.51	0.58
33:0:56:TYR:C	33:0:56:TYR:CD1	2.81	0.58
35:2:110:U:H1'	35:2:305:C:C2	2.38	0.58
35:2:154:G:C8	35:2:154:G:OP2	2.57	0.58
35:2:214:G:H2'	35:2:214:G:OP2	2.04	0.58
35:2:363:G:N1	35:2:381:C:C4	2.72	0.58
35:2:467:G:C8	35:2:467:G:OP2	2.56	0.58
35:2:589:C:H3'	35:2:589:C:P	2.44	0.58
35:2:926:A:H3'	35:2:927:C:C5	2.39	0.58
35:2:954:G:C6	35:2:955:A:C6	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:g:41:THR:N	21:o:114:CYS:HB2	2.19	0.58
5:m:563:UNK:C	25:s:144:ARG:HH11	2.17	0.58
21:o:127:ARG:HH22	35:2:946:U:C4'	2.15	0.58
22:p:3:ARG:NH1	35:2:95:G:H3'	2.18	0.58
22:p:249:THR:HG22	22:p:251:LEU:H	1.69	0.58
25:s:149:SER:HB3	32:z:52:TYR:CB	2.34	0.58
29:w:42:VAL:O	29:w:43:THR:O	2.20	0.58
35:2:99:C:H4'	35:2:100:A:O5'	2.04	0.58
35:2:191:C:C2	35:2:195:G:N2	2.71	0.58
35:2:262:U:C4	35:2:263:C:C4	2.91	0.58
35:2:394:C:H42	35:2:401:A:C2'	2.17	0.58
35:2:432:G:C8	35:2:432:G:P	2.97	0.58
35:2:461:G:C2'	35:2:462:G:H8	2.16	0.58
35:2:497:G:N1	35:2:498:G:C5	2.72	0.58
35:2:868:G:O6	35:2:960:U:C4	2.57	0.58
35:2:963:A:O2'	35:2:964:U:OP2	2.21	0.58
35:2:1045:C:OP2	35:2:1045:C:H6	1.87	0.58
35:2:1526:A:H8	35:2:1526:A:O5'	1.87	0.58
35:2:1575:G:N1	35:2:1576:A:C4	2.71	0.58
1:n:78:UNK:HA	26:t:33:ILE:HD12	1.86	0.57
22:p:26:ILE:HD12	35:2:461:G:H5'	1.69	0.57
22:p:117:SER:OG	22:p:119:GLU:HB2	2.04	0.57
30:x:46:PHE:O	30:x:48:VAL:N	2.37	0.57
33:0:82:LYS:HD2	33:0:83:TYR:HE1	1.69	0.57
35:2:32:U:O2	35:2:32:U:O4'	2.19	0.57
35:2:47:A:H5'	35:2:100:A:H5''	1.86	0.57
35:2:65:A:H61	35:2:83:G:H3'	1.68	0.57
35:2:88:U:H5'	35:2:89:G:OP2	2.04	0.57
35:2:124:A:N6	35:2:125:U:O4	2.37	0.57
35:2:180:A:N3	35:2:181:A:H1'	2.19	0.57
35:2:182:A:H2'	35:2:183:U:C6	2.40	0.57
35:2:185:U:O2	35:2:185:U:H2'	2.05	0.57
35:2:199:G:C2	35:2:200:A:C8	2.93	0.57
35:2:267:U:C2	35:2:268:C:N3	2.72	0.57
35:2:273:G:O6	35:2:283:U:C2	2.57	0.57
35:2:287:G:C6	35:2:288:A:C5	2.91	0.57
35:2:312:A:N7	35:2:314:C:C4	2.72	0.57
35:2:368:U:OP2	35:2:368:U:C6	2.54	0.57
35:2:410:A:C6	35:2:423:G:O6	2.57	0.57
35:2:414:C:C5	35:2:414:C:OP2	2.56	0.57
35:2:514:G:H3'	35:2:515:A:H8	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:549:G:C5	35:2:589:C:C2	2.92	0.57
35:2:876:G:H21	35:2:943:C:C3'	2.16	0.57
35:2:1082:C:C4	35:2:1091:A:N7	2.72	0.57
35:2:1583:A:N3	35:2:1585:U:N3	2.51	0.57
2:G:1489:ALA:O	2:G:1514:ALA:HB3	2.04	0.57
3:H:2:UNK:N	3:H:169:UNK:C	2.66	0.57
18:g:45:LYS:HA	21:o:118:ARG:CB	2.31	0.57
19:i:880:GLN:O	19:i:883:ILE:HA	2.05	0.57
21:o:116:MET:O	21:o:117:ILE:HG12	2.03	0.57
24:r:63:MET:HA	24:r:98:ARG:O	2.04	0.57
24:r:184:THR:HB	24:r:185:PRO:CD	2.33	0.57
25:s:73:LEU:HD21	25:s:94:PHE:HB3	1.86	0.57
26:t:84:THR:CG2	26:t:113:ASP:HB3	2.34	0.57
28:v:83:GLU:O	28:v:84:ILE:CB	2.52	0.57
28:v:129:TYR:C	28:v:131:THR:N	2.53	0.57
35:2:71:A:C6	35:2:83:G:C6	2.73	0.57
35:2:108:A:C5	35:2:307:G:C2	2.92	0.57
35:2:135:A:P	35:2:136:C:H5'	2.44	0.57
35:2:312:A:N6	35:2:353:A:C8	2.72	0.57
35:2:313:U:H4'	35:2:314:C:H5'	1.87	0.57
35:2:330:G:C2	35:2:339:C:C2	2.93	0.57
35:2:391:A:C2	35:2:392:G:C4	2.92	0.57
35:2:392:G:C2	35:2:393:C:C2	2.92	0.57
35:2:442:C:H2'	35:2:443:C:H6	1.69	0.57
35:2:466:U:O5'	35:2:467:G:OP2	2.22	0.57
35:2:519:C:OP2	35:2:520:A:OP2	2.21	0.57
35:2:525:A:OP1	35:2:526:A:C8	2.57	0.57
35:2:939:A:N1	35:2:975:C:H1'	2.18	0.57
35:2:1177:C:H2'	35:2:1178:G:O4'	2.04	0.57
35:2:1475:A:C4	35:2:1476:C:C6	2.91	0.57
15:c:110:MET:C	15:c:112:PRO:HA	2.29	0.57
18:g:40:MET:CB	21:o:111:ASP:N	2.67	0.57
19:i:882:ALA:CB	19:i:886:ALA:HB2	2.33	0.57
22:p:157:LYS:N	22:p:160:ASP:OD2	2.37	0.57
24:r:158:LYS:HB2	35:2:78:A:H61	1.68	0.57
25:s:95:THR:CG2	25:s:96:ALA:H	2.16	0.57
26:t:16:GLY:CA	35:2:355:G:OP1	2.52	0.57
31:y:101:LYS:C	35:2:351:C:C6	2.82	0.57
32:z:17:ALA:O	32:z:20:THR:N	2.36	0.57
33:0:18:ARG:CZ	33:0:20:GLN:HE21	2.17	0.57
35:2:75:U:OP2	35:2:75:U:C6	2.57	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:180:A:O2'	35:2:181:A:OP2	2.22	0.57
35:2:213:A:N1	35:2:252:U:C4	2.72	0.57
35:2:322:G:C6	35:2:337:G:C6	2.92	0.57
35:2:355:G:N3	35:2:355:G:H2'	2.17	0.57
35:2:405:C:OP2	35:2:405:C:C6	2.57	0.57
35:2:412:A:H1'	35:2:421:A:H61	1.68	0.57
35:2:485:A:O2'	35:2:486:G:C5	2.56	0.57
35:2:515:A:C2	35:2:516:G:C8	2.91	0.57
35:2:625:C:OP2	35:2:626:U:OP2	2.21	0.57
35:2:891:A:N3	35:2:922:G:N2	2.52	0.57
35:2:1170:G:N2	35:2:1571:C:H4'	2.19	0.57
3:H:86:UNK:O	3:H:87:UNK:C	2.51	0.57
3:H:315:UNK:O	3:H:316:UNK:C	2.51	0.57
21:o:163:LYS:HD3	35:2:1045:C:H3'	1.86	0.57
21:o:165:SER:HA	35:2:875:G:P	2.39	0.57
22:p:62:THR:CG2	35:2:455:C:N3	2.67	0.57
25:s:103:LYS:HB2	25:s:104:TRP:CE3	2.39	0.57
26:t:156:ALA:O	26:t:158:ALA:N	2.36	0.57
27:u:96:VAL:O	27:u:99:LEU:C	2.47	0.57
30:x:40:GLU:C	30:x:42:GLU:N	2.60	0.57
34:1:7:VAL:HA	34:1:28:VAL:C	2.30	0.57
35:2:49:C:H41	35:2:425:A:H5''	1.69	0.57
35:2:50:C:H2'	35:2:424:C:N3	2.19	0.57
35:2:267:U:H5''	35:2:268:C:OP2	2.04	0.57
35:2:305:C:C5	35:2:305:C:OP2	2.57	0.57
35:2:329:G:N1	35:2:340:U:C4	2.72	0.57
35:2:402:C:C4	35:2:403:G:C8	2.92	0.57
35:2:522:U:OP2	35:2:528:U:C4	2.56	0.57
35:2:535:A:H8	35:2:535:A:OP2	1.86	0.57
35:2:629:U:H2'	35:2:630:A:C8	2.38	0.57
35:2:876:G:C5	35:2:936:G:C2	2.92	0.57
35:2:887:A:N6	35:2:926:A:C6	2.72	0.57
35:2:1082:C:H2'	35:2:1083:G:C8	2.40	0.57
35:2:1169:G:C2	35:2:1577:A:C6	2.92	0.57
2:G:2742:VAL:CB	2:G:3126:CYS:HA	2.33	0.57
3:H:26:UNK:O	3:H:27:UNK:C	2.51	0.57
1:P:284:UNK:O	14:b:23:SER:HA	2.04	0.57
7:R:19:UNK:CB	7:R:119:UNK:CA	2.83	0.57
15:c:143:HIS:CB	35:2:1604:U:O4'	2.52	0.57
19:i:130:ALA:HB1	19:i:170:HIS:N	2.19	0.57
1:n:294:UNK:CB	26:t:46:THR:CA	2.49	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:226:ARG:HG3	21:o:226:ARG:O	2.05	0.57
22:p:54:TYR:O	33:o:13:ASN:ND2	2.37	0.57
22:p:58:GLY:N	35:2:447:U:OP1	2.37	0.57
22:p:62:THR:HG22	35:2:455:C:N3	2.19	0.57
22:p:117:SER:O	22:p:119:GLU:N	2.37	0.57
23:q:146:THR:HA	23:q:158:GLN:O	2.04	0.57
35:2:214:G:H21	35:2:251:A:H8	1.48	0.57
35:2:302:U:H5'	35:2:303:U:C4	2.38	0.57
35:2:319:U:H1'	35:2:323:A:C5	2.39	0.57
35:2:408:C:H6	35:2:408:C:OP2	1.87	0.57
35:2:491:C:C4	35:2:497:G:N1	2.72	0.57
35:2:493:U:O5'	35:2:494:U:N3	2.36	0.57
36:3:256:G:H2'	36:3:256:G:N3	2.19	0.57
15:c:92:THR:CB	30:x:130:GLY:N	2.67	0.57
22:p:122:LYS:HG3	22:p:167:VAL:CG2	2.34	0.57
23:q:164:PRO:O	23:q:167:ARG:N	2.38	0.57
24:r:57:ASP:C	24:r:59:ASP:H	2.13	0.57
24:r:91:PHE:CD1	24:r:91:PHE:O	2.57	0.57
24:r:183:ILE:HD11	35:2:141:U:C5'	1.92	0.57
25:s:95:THR:HG22	25:s:96:ALA:O	2.05	0.57
26:t:31:ARG:NH1	35:2:333:A:H5'	2.10	0.57
26:t:185:ARG:NH1	35:2:208:U:O2'	2.36	0.57
35:2:89:G:H8	35:2:89:G:OP2	1.88	0.57
35:2:115:G:H21	35:2:116:U:H1'	1.70	0.57
35:2:143:G:C6	35:2:173:A:C6	2.92	0.57
35:2:169:A:C5	35:2:171:A:C6	2.92	0.57
35:2:187:G:C2	35:2:199:G:C6	2.92	0.57
35:2:360:A:O2'	35:2:362:G:H5'	2.04	0.57
35:2:443:C:N4	35:2:462:G:O6	2.37	0.57
35:2:458:G:OP2	35:2:458:G:C8	2.51	0.57
35:2:516:G:H2'	35:2:516:G:N3	2.18	0.57
35:2:524:U:H3'	35:2:527:A:C6	2.40	0.57
35:2:890:C:H2'	35:2:891:A:O4'	2.05	0.57
35:2:1472:C:H5'	35:2:1474:G:H1'	1.85	0.57
36:3:73:C:H2'	36:3:74:C:N1	2.19	0.57
3:H:187:UNK:O	3:H:188:UNK:C	2.52	0.57
1:l:324:UNK:C	23:q:125:THR:O	2.49	0.57
21:o:128:VAL:O	21:o:139:ARG:HA	2.05	0.57
22:p:43:PRO:HG2	22:p:46:VAL:CG2	2.34	0.57
24:r:23:LYS:HE2	24:r:41:LEU:HA	1.86	0.57
25:s:72:VAL:O	25:s:75:SER:OG	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:s:138:GLY:N	25:s:154:GLN:HB2	2.19	0.57
26:t:4:SER:CB	35:2:400:A:H61	2.17	0.57
26:t:192:GLU:HB2	31:y:19:SER:CB	2.34	0.57
27:u:26:ALA:C	27:u:28:LEU:N	2.61	0.57
27:u:66:ASP:C	27:u:68:LYS:N	2.50	0.57
27:u:100:LYS:O	27:u:104:PHE:N	2.37	0.57
29:w:61:MET:C	29:w:63:ALA:H	2.13	0.57
35:2:89:G:OP2	35:2:89:G:H3'	2.04	0.57
35:2:148:A:N6	35:2:167:U:C2	2.72	0.57
35:2:452:A:H5'	35:2:453:U:OP2	2.04	0.57
35:2:496:G:N1	35:2:497:G:C5	2.72	0.57
35:2:498:G:C4	35:2:499:U:N3	2.72	0.57
35:2:515:A:N1	35:2:516:G:C5	2.72	0.57
35:2:948:G:C2	35:2:949:C:C2	2.93	0.57
35:2:1064:G:H2'	35:2:1065:A:C8	2.40	0.57
35:2:1074:G:H8	35:2:1074:G:O5'	1.87	0.57
35:2:1598:U:C5	35:2:1599:C:C5	2.92	0.57
20:k:23:THR:O	20:k:26:ALA:HB3	2.05	0.57
1:l:54:UNK:O	1:l:55:UNK:CB	2.53	0.57
26:t:127:ILE:HD11	26:t:153:ARG:HG3	1.87	0.57
31:y:82:THR:OG1	35:2:325:G:C4'	2.52	0.57
35:2:71:A:C6	35:2:72:A:C6	2.93	0.57
35:2:99:C:O3'	35:2:101:U:OP2	2.22	0.57
35:2:101:U:N3	35:2:385:A:H1'	2.19	0.57
35:2:119:A:C5	35:2:397:A:C2	2.93	0.57
35:2:155:U:O2'	35:2:157:A:N7	2.36	0.57
35:2:394:C:N3	35:2:404:G:C4	2.73	0.57
35:2:486:G:C4	35:2:487:G:C8	2.92	0.57
35:2:538:A:O2'	35:2:539:G:OP1	2.18	0.57
35:2:624:G:H2'	35:2:625:C:C6	2.38	0.57
35:2:919:A:H3'	35:2:920:U:H6	1.68	0.57
35:2:970:A:H3'	35:2:971:A:H8	1.70	0.57
35:2:1619:C:C2	35:2:1620:C:C5	2.88	0.57
36:3:113:G:H1'	36:3:195:A:N6	2.19	0.57
36:3:177:G:HO2'	36:3:178:U:H6	1.53	0.57
2:G:1687:THR:CB	2:G:1946:SER:HA	2.35	0.57
3:H:28:UNK:O	3:H:29:UNK:C	2.52	0.57
9:V:99:THR:CA	36:3:192:A:N7	2.66	0.57
26:t:19:PRO:HG2	35:2:104:A:O2'	2.04	0.57
28:v:127:ARG:O	28:v:131:THR:N	2.37	0.57
35:2:93:A:O4'	35:2:399:A:C6	2.58	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:131:C:O2'	35:2:132:U:OP2	2.22	0.57
35:2:186:C:OP1	35:2:186:C:H6	1.87	0.57
35:2:196:G:OP2	35:2:197:A:OP2	2.22	0.57
35:2:210:A:C6	35:2:256:A:C6	2.92	0.57
35:2:256:A:C8	35:2:256:A:OP2	2.58	0.57
35:2:328:A:H2	35:2:340:U:C2	2.19	0.57
35:2:342:C:H2'	35:2:343:C:N1	2.20	0.57
35:2:415:C:O2	35:2:418:G:C2	2.58	0.57
35:2:473:A:H3'	35:2:474:A:C4	2.39	0.57
35:2:899:G:H21	35:2:915:A:H2	1.53	0.57
35:2:1570:A:N3	35:2:1570:A:H2'	2.20	0.57
36:3:98:U:C2	36:3:256:G:C2	2.93	0.57
36:3:115:G:H1'	36:3:195:A:H1'	1.87	0.57
36:3:254:A:C3'	36:3:255:U:H2'	2.34	0.57
1:k:280:UNK:N	18:h:208:ALA:CB	2.68	0.57
19:i:386:VAL:O	19:i:408:VAL:HA	2.05	0.57
21:o:166:GLN:O	21:o:169:ALA:HB3	2.04	0.57
23:q:65:ARG:O	23:q:87:CYS:C	2.48	0.57
24:r:77:LEU:O	24:r:92:ARG:HA	2.05	0.57
24:r:133:LEU:CD1	35:2:167:U:H1'	2.33	0.57
26:t:144:SER:O	26:t:147:VAL:HG23	2.05	0.57
35:2:50:C:C5	35:2:425:A:P	2.96	0.57
35:2:81:G:C2	35:2:82:U:H1'	2.40	0.57
35:2:82:U:H3'	35:2:82:U:C6	2.40	0.57
35:2:145:A:C2	35:2:169:A:N6	2.73	0.57
35:2:188:A:H8	35:2:188:A:OP2	1.88	0.57
35:2:243:G:C5	35:2:251:A:N6	2.73	0.57
35:2:306:U:O4	35:2:307:G:C5	2.58	0.57
35:2:348:U:C5	35:2:348:U:OP2	2.58	0.57
35:2:377:G:N2	35:2:381:C:C2	2.73	0.57
35:2:448:C:C2	35:2:449:C:C6	2.93	0.57
35:2:480:G:C2	35:2:508:U:O2	2.56	0.57
35:2:517:U:O2	35:2:518:A:C6	2.58	0.57
35:2:521:A:C6	35:2:523:G:O6	2.57	0.57
35:2:546:U:C5	35:2:547:U:C4	2.93	0.57
35:2:1055:U:O2	35:2:1064:G:O6	2.22	0.57
35:2:1073:G:P	35:2:1074:G:OP2	2.63	0.57
36:3:248:G:C5	36:3:249:U:C4	2.93	0.57
3:H:186:UNK:O	3:H:187:UNK:C	2.51	0.56
15:c:120:GLY:C	30:x:127:LYS:N	2.43	0.56
22:p:185:ILE:HD11	22:p:193:ARG:HB3	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:s:157:GLN:OE1	25:s:186:PHE:HB3	2.05	0.56
27:u:68:LYS:O	27:u:69:ARG:C	2.47	0.56
31:y:68:LYS:CE	35:2:111:U:H1'	2.35	0.56
32:z:13:ALA:O	32:z:17:ALA:HB2	2.05	0.56
33:0:53:VAL:HG22	33:0:73:VAL:HG22	1.87	0.56
33:0:59:SER:CA	35:2:522:U:C1'	2.78	0.56
35:2:63:G:N1	35:2:87:C:N3	2.52	0.56
35:2:71:A:H1'	35:2:72:A:C8	2.40	0.56
35:2:283:U:C2	35:2:284:G:C6	2.92	0.56
35:2:288:A:C5	35:2:289:U:C5	2.92	0.56
35:2:312:A:N1	35:2:314:C:H2'	2.20	0.56
35:2:319:U:H4'	35:2:323:A:C8	2.39	0.56
35:2:388:G:N7	35:2:423:G:C6	2.73	0.56
35:2:404:G:C6	35:2:405:C:C4	2.92	0.56
35:2:445:A:N6	35:2:462:G:C2	2.72	0.56
35:2:481:A:H2	35:2:507:U:O2	1.88	0.56
35:2:483:A:C6	35:2:504:U:O4	2.58	0.56
35:2:486:G:C6	35:2:487:G:C6	2.93	0.56
35:2:486:G:H3'	35:2:487:G:C8	2.39	0.56
35:2:868:G:N1	35:2:960:U:C2	2.51	0.56
35:2:940:A:H2'	35:2:941:A:C8	2.39	0.56
35:2:1158:C:H42	35:2:1163:A:N6	2.02	0.56
36:3:70:A:H2'	36:3:71:U:C6	2.40	0.56
36:3:113:G:O2'	36:3:114:A:OP2	2.17	0.56
36:3:156:C:H2'	36:3:157:G:H8	1.66	0.56
3:H:25:UNK:O	3:H:26:UNK:C	2.51	0.56
3:H:87:UNK:O	3:H:88:UNK:C	2.51	0.56
3:H:88:UNK:O	3:H:89:UNK:C	2.51	0.56
3:H:185:UNK:O	3:H:186:UNK:C	2.51	0.56
24:r:13:GLN:CG	35:2:152:U:C1'	2.83	0.56
24:r:38:GLY:HA3	24:r:50:PHE:HE1	1.70	0.56
24:r:187:ARG:NH2	35:2:141:U:C2	2.73	0.56
26:t:185:ARG:HH12	35:2:208:U:C2'	2.10	0.56
31:y:14:GLY:HA3	35:2:249:U:O4	2.05	0.56
31:y:117:LYS:HB3	31:y:120:ASP:OD2	2.06	0.56
35:2:210:A:C6	35:2:256:A:N6	2.73	0.56
35:2:498:G:O5'	35:2:499:U:P	2.63	0.56
35:2:526:A:H5'	35:2:527:A:OP2	2.05	0.56
35:2:971:A:H3'	35:2:972:G:H8	1.70	0.56
35:2:1057:U:OP2	35:2:1058:U:C5	2.59	0.56
35:2:1082:C:N3	35:2:1092:A:N6	2.51	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:74:C:H2'	36:3:75:A:C5	2.40	0.56
36:3:200:U:H3'	36:3:201:A:H5'	1.87	0.56
1:D:114:UNK:HA	1:E:139:UNK:N	2.18	0.56
1:D:195:UNK:O	1:D:196:UNK:CB	2.54	0.56
1:F:195:UNK:O	1:F:196:UNK:CB	2.54	0.56
3:H:158:UNK:O	3:H:159:UNK:C	2.51	0.56
1:K:195:UNK:O	1:K:196:UNK:CB	2.54	0.56
1:P:195:UNK:O	1:P:196:UNK:CB	2.54	0.56
1:P:339:UNK:CA	14:b:22:LYS:HA	2.32	0.56
8:S:315:PRO:CB	36:3:90:C:C4'	2.83	0.56
8:T:314:PRO:CB	36:3:110:A:H1'	2.34	0.56
15:c:105:LYS:O	15:c:108:ARG:O	2.24	0.56
15:c:145:HIS:HA	35:2:1602:C:O2	2.05	0.56
18:g:76:GLY:HA2	21:o:118:ARG:CD	2.28	0.56
19:i:163:TYR:C	19:i:181:VAL:HA	2.31	0.56
21:o:149:THR:HG21	35:2:1067:C:O2'	2.02	0.56
22:p:69:GLU:O	22:p:70:GLN:HB2	2.04	0.56
24:r:70:ARG:NH2	24:r:104:PRO:HD3	2.17	0.56
26:t:57:ARG:O	26:t:59:GLY:N	2.38	0.56
27:u:72:GLU:C	27:u:75:ALA:HB3	2.31	0.56
30:x:25:GLY:H	30:x:64:ASP:HA	1.70	0.56
30:x:96:TYR:O	30:x:97:VAL:CB	2.53	0.56
31:y:78:LYS:HB2	35:2:346:G:H4'	1.86	0.56
31:y:84:ILE:CD1	35:2:347:G:H4'	2.34	0.56
33:0:98:LYS:HD3	33:0:98:LYS:H	1.70	0.56
35:2:22:A:H8	35:2:22:A:OP2	1.87	0.56
35:2:65:A:C6	35:2:83:G:C5	2.93	0.56
35:2:103:A:N7	35:2:358:U:C2	2.73	0.56
35:2:119:A:C2'	35:2:120:U:O5'	2.52	0.56
35:2:151:G:C6	35:2:152:U:C5	2.92	0.56
35:2:174:U:O2	35:2:174:U:H2'	2.05	0.56
35:2:175:G:N2	35:2:266:A:C4	2.74	0.56
35:2:205:U:H3	35:2:263:C:N4	2.03	0.56
35:2:213:A:C5	35:2:253:A:C5	2.93	0.56
35:2:214:G:N2	35:2:251:A:C8	2.68	0.56
35:2:282:C:OP2	35:2:282:C:O4'	2.23	0.56
35:2:320:U:O3'	35:2:321:C:H4'	2.05	0.56
35:2:366:A:C2	35:2:376:C:C2	2.93	0.56
35:2:406:U:C2'	35:2:407:A:C8	2.87	0.56
35:2:406:U:C3'	35:2:407:A:H8	2.19	0.56
35:2:412:A:H2'	35:2:413:U:OP2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:438:A:C8	35:2:438:A:OP2	2.58	0.56
35:2:483:A:N6	35:2:506:A:N6	2.53	0.56
35:2:502:U:H2'	35:2:503:G:C8	2.40	0.56
35:2:514:G:H1	35:2:538:A:H1'	1.69	0.56
35:2:519:C:O3'	35:2:520:A:C8	2.59	0.56
35:2:535:A:N3	35:2:536:C:C6	2.72	0.56
35:2:865:A:C2	35:2:866:G:H1'	2.40	0.56
35:2:875:G:C6	35:2:952:A:N6	2.74	0.56
35:2:887:A:H2'	35:2:888:U:O4'	2.05	0.56
35:2:896:U:O4	35:2:914:G:O2'	2.22	0.56
35:2:1597:A:C5	35:2:1598:U:C4	2.93	0.56
36:3:71:U:H2'	36:3:72:C:H6	1.67	0.56
36:3:250:G:H2'	36:3:251:U:C6	2.40	0.56
1:E:195:UNK:O	1:E:196:UNK:CB	2.54	0.56
3:H:21:UNK:O	3:H:22:UNK:C	2.51	0.56
3:H:245:UNK:O	3:H:246:UNK:C	2.51	0.56
8:T:318:GLY:N	36:3:109:C:OP1	2.30	0.56
9:V:38:GLY:HA2	36:3:194:G:C6	2.37	0.56
15:c:183:THR:CB	35:2:1623:C:OP2	2.53	0.56
18:g:41:THR:N	21:o:114:CYS:HB3	2.19	0.56
22:p:52:LEU:O	22:p:53:ASN:CB	2.54	0.56
22:p:127:LYS:NZ	22:p:186:GLN:NE2	2.53	0.56
22:p:187:GLN:C	22:p:191:ILE:HG22	2.31	0.56
22:p:222:THR:HG23	22:p:223:ARG:N	2.19	0.56
24:r:74:ARG:HG3	24:r:96:SER:HB3	1.88	0.56
25:s:131:LEU:N	25:s:131:LEU:HD23	2.20	0.56
25:s:152:ARG:HG3	25:s:154:GLN:HE22	1.70	0.56
26:t:56:VAL:HG22	35:2:333:A:C5'	2.31	0.56
29:w:3:ASN:O	29:w:4:VAL:CB	2.54	0.56
35:2:134:U:O4	35:2:180:A:C4	2.59	0.56
35:2:166:C:H3'	35:2:167:U:H6	1.70	0.56
35:2:209:U:H2'	35:2:210:A:O4'	2.06	0.56
35:2:212:U:O4	35:2:254:A:N6	2.38	0.56
35:2:257:A:H5'	35:2:258:C:OP2	2.05	0.56
35:2:265:A:C2	35:2:290:G:H1'	2.40	0.56
35:2:309:C:H2'	35:2:310:C:H6	1.71	0.56
35:2:332:U:C4'	35:2:333:A:OP2	2.53	0.56
35:2:456:A:C6	35:2:457:G:C4	2.94	0.56
35:2:468:A:H1'	35:2:471:A:H8	1.70	0.56
35:2:494:U:C6	35:2:494:U:H3'	2.39	0.56
35:2:514:G:C1'	35:2:539:G:N1	2.67	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1056:U:H1'	35:2:1064:G:N2	2.20	0.56
35:2:1064:G:H2'	35:2:1065:A:H8	1.70	0.56
35:2:1067:C:C5	35:2:1067:C:OP2	2.58	0.56
35:2:1069:A:C6	35:2:1070:C:C4	2.93	0.56
35:2:1475:A:C6	35:2:1476:C:C4	2.94	0.56
36:3:100:G:H2'	36:3:101:G:H8	1.68	0.56
36:3:103:G:O6	36:3:249:U:C4	2.59	0.56
36:3:114:A:H4'	36:3:115:G:O5'	2.05	0.56
1:A:54:UNK:O	1:A:55:UNK:CB	2.53	0.56
3:H:24:UNK:O	3:H:25:UNK:C	2.52	0.56
3:H:217:UNK:C	3:H:245:UNK:HA	2.35	0.56
1:L:54:UNK:O	1:L:55:UNK:CB	2.53	0.56
9:U:41:GLU:HA	36:3:263:U:OP2	2.05	0.56
17:f:173:THR:CA	23:q:212:LYS:CB	2.83	0.56
19:j:130:ALA:HB1	19:j:170:HIS:N	2.19	0.56
1:n:54:UNK:O	1:n:55:UNK:CB	2.53	0.56
22:p:27:TRP:HB2	35:2:448:C:H1'	1.84	0.56
22:p:49:LYS:HE2	22:p:58:GLY:HA2	1.87	0.56
27:u:131:GLN:O	27:u:133:HIS:N	2.35	0.56
35:2:110:U:OP2	35:2:110:U:H3'	2.05	0.56
35:2:156:A:C6	35:2:157:A:C6	2.93	0.56
35:2:157:A:OP2	35:2:157:A:H8	1.88	0.56
35:2:161:U:HO2'	35:2:162:A:H8	1.53	0.56
35:2:166:C:H5'	35:2:167:U:OP2	2.05	0.56
35:2:188:A:N7	35:2:197:A:C2	2.72	0.56
35:2:254:A:C5	35:2:255:U:C4	2.93	0.56
35:2:281:G:H8	35:2:281:G:OP2	1.88	0.56
35:2:335:U:OP2	35:2:335:U:C2	2.59	0.56
35:2:342:C:H3'	35:2:342:C:OP2	2.05	0.56
35:2:370:A:O5'	35:2:371:G:OP2	2.24	0.56
35:2:405:C:OP2	35:2:405:C:H6	1.87	0.56
35:2:495:C:N3	35:2:496:G:C4	2.73	0.56
35:2:867:G:N1	35:2:961:U:C2	2.67	0.56
35:2:888:U:C5	35:2:888:U:OP2	2.59	0.56
35:2:939:A:H2'	35:2:940:A:O4'	2.05	0.56
35:2:1600:A:OP1	35:2:1600:A:C4'	2.48	0.56
36:3:69:G:C6	36:3:70:A:N6	2.74	0.56
36:3:71:U:C4	36:3:72:C:C4	2.93	0.56
36:3:100:G:C8	36:3:100:G:OP2	2.59	0.56
3:H:111:UNK:O	3:H:112:UNK:C	2.51	0.56
3:H:188:UNK:O	3:H:189:UNK:C	2.51	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:312:UNK:O	3:H:313:UNK:C	2.51	0.56
1:L:77:UNK:N	5:M:648:UNK:C	2.64	0.56
19:i:848:LEU:CB	24:r:40:THR:OG1	2.54	0.56
21:o:21:ARG:HB2	29:w:73:GLU:HA	1.87	0.56
21:o:212:PRO:HD3	35:2:1066:C:C2	2.39	0.56
22:p:213:LYS:HG2	22:p:214:ASP:H	1.71	0.56
26:t:14:THR:O	26:t:16:GLY:N	2.38	0.56
26:t:19:PRO:HD3	35:2:104:A:H5'	1.88	0.56
26:t:194:LYS:HD3	31:y:12:GLN:NE2	2.20	0.56
33:0:3:ILE:N	33:0:3:ILE:HD12	2.21	0.56
33:0:35:LYS:HG3	35:2:520:A:C2'	2.35	0.56
33:0:55:VAL:HG23	33:0:71:ALA:HB2	1.86	0.56
35:2:47:A:C5	35:2:100:A:N7	2.74	0.56
35:2:200:A:H2'	35:2:201:G:O4'	2.04	0.56
35:2:209:U:H2'	35:2:210:A:H8	1.70	0.56
35:2:275:C:N4	35:2:281:G:O6	2.38	0.56
35:2:282:C:C4	35:2:283:U:N3	2.74	0.56
35:2:286:C:H2'	35:2:287:G:N9	2.20	0.56
35:2:341:A:C6	35:2:342:C:C4	2.93	0.56
35:2:518:A:N1	35:2:536:C:H1'	2.21	0.56
35:2:887:A:H2'	35:2:888:U:H6	1.69	0.56
35:2:895:G:H2'	35:2:896:U:C1'	2.35	0.56
35:2:1074:G:N2	35:2:1075:C:O4'	2.38	0.56
35:2:1165:G:C6	35:2:1166:A:C6	2.94	0.56
35:2:1588:G:C6	35:2:1589:C:C4	2.93	0.56
8:S:315:PRO:CA	36:3:90:C:C5'	2.77	0.56
17:f:156:GLU:HA	35:2:1537:C:N3	2.20	0.56
19:j:163:TYR:C	19:j:181:VAL:HA	2.31	0.56
21:o:34:PHE:CE2	21:o:45:PHE:HB3	2.41	0.56
21:o:124:ILE:CG2	21:o:167:VAL:HG13	2.33	0.56
22:p:106:ASP:HB3	22:p:108:LYS:H	1.70	0.56
25:s:14:LYS:O	25:s:18:GLN:HG3	2.06	0.56
25:s:130:LEU:C	25:s:132:LEU:N	2.62	0.56
26:t:37:LYS:HE2	26:t:101:THR:CG2	2.35	0.56
27:u:26:ALA:C	27:u:28:LEU:H	2.13	0.56
30:x:35:PRO:C	30:x:37:THR:N	2.64	0.56
33:0:85:PRO:CD	35:2:525:A:H61	2.08	0.56
35:2:40:A:C6	35:2:41:A:C4	2.94	0.56
35:2:54:C:N4	35:2:424:C:C4	2.71	0.56
35:2:108:A:N1	35:2:306:U:C2	2.73	0.56
35:2:124:A:H61	35:2:294:C:H42	1.44	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:245:U:OP2	35:2:245:U:H6	1.89	0.56
35:2:269:G:C2	35:2:287:G:C6	2.93	0.56
35:2:275:C:N4	35:2:282:C:N3	2.53	0.56
35:2:315:A:H5''	35:2:354:C:N3	2.21	0.56
35:2:365:G:C2	35:2:377:G:C5	2.94	0.56
35:2:384:G:H2'	35:2:385:A:H8	1.71	0.56
35:2:388:G:C6	35:2:410:A:C6	2.94	0.56
35:2:421:A:H2'	35:2:422:G:C8	2.41	0.56
35:2:467:G:H2'	35:2:467:G:N3	2.19	0.56
35:2:493:U:H4'	35:2:494:U:C4	2.40	0.56
35:2:493:U:C1'	35:2:495:C:N3	2.68	0.56
35:2:519:C:N3	35:2:534:A:N6	2.54	0.56
35:2:879:G:O6	35:2:949:C:N4	2.38	0.56
35:2:902:G:C8	35:2:902:G:OP2	2.59	0.56
35:2:935:U:C4	35:2:936:G:N7	2.74	0.56
35:2:970:A:H2'	35:2:971:A:O4'	2.05	0.56
35:2:1038:U:C2	35:2:1094:G:N2	2.74	0.56
35:2:1466:G:H2'	35:2:1467:C:C6	2.41	0.56
35:2:1467:C:H5'	35:2:1602:C:P	2.44	0.56
35:2:1477:G:C2'	35:2:1478:G:H5''	2.36	0.56
36:3:84:G:O2'	36:3:85:A:OP2	2.23	0.56
1:E:228:UNK:O	1:E:246:UNK:N	2.39	0.56
1:F:54:UNK:O	1:F:55:UNK:CB	2.53	0.56
3:H:22:UNK:O	3:H:23:UNK:C	2.51	0.56
3:H:45:UNK:O	3:H:46:UNK:C	2.51	0.56
1:L:75:UNK:HA	5:M:350:UNK:C	2.36	0.56
1:N:195:UNK:O	1:N:196:UNK:CB	2.54	0.56
1:N:228:UNK:O	1:N:246:UNK:N	2.39	0.56
19:j:857:LEU:O	19:j:862:ALA:HB2	2.06	0.56
19:j:880:GLN:O	19:j:883:ILE:HA	2.05	0.56
21:o:196:GLY:C	21:o:198:ASP:H	2.13	0.56
22:p:193:ARG:NH1	22:p:246:VAL:HG13	2.20	0.56
24:r:167:THR:HG22	24:r:168:ALA:N	2.21	0.56
26:t:40:THR:O	26:t:41:GLN:HG3	2.06	0.56
31:y:68:LYS:HD3	35:2:304:U:O2'	2.05	0.56
31:y:127:CYS:SG	31:y:130:ILE:HD11	2.46	0.56
35:2:39:A:C2	35:2:470:A:N7	2.72	0.56
35:2:57:G:C4	35:2:91:G:N1	2.74	0.56
35:2:121:U:OP2	35:2:121:U:C6	2.59	0.56
35:2:186:C:OP2	35:2:200:A:H2	1.88	0.56
35:2:190:C:OP2	35:2:190:C:H6	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:254:A:H4'	35:2:254:A:OP1	2.06	0.56
35:2:268:C:C2'	35:2:288:A:H2	2.18	0.56
35:2:447:U:O2'	35:2:448:C:H6	1.88	0.56
35:2:480:G:C4	35:2:481:A:OP2	2.59	0.56
35:2:497:G:C2	35:2:498:G:C4	2.93	0.56
35:2:503:G:C6	35:2:504:U:C4	2.94	0.56
35:2:1053:G:N1	35:2:1067:C:C2	2.74	0.56
35:2:1074:G:N1	35:2:1075:C:C4	2.73	0.56
35:2:1164:G:H2'	35:2:1165:G:C8	2.41	0.56
3:H:23:UNK:O	3:H:24:UNK:C	2.51	0.56
1:K:54:UNK:O	1:K:55:UNK:CB	2.53	0.56
5:O:424:UNK:O	5:O:425:UNK:CB	2.54	0.56
15:c:184:VAL:C	35:2:1624:C:H5''	2.31	0.56
25:s:43:THR:HG21	25:s:97:GLN:CG	2.36	0.56
33:0:35:LYS:CA	35:2:520:A:H4'	2.36	0.56
35:2:352:A:H4'	35:2:353:A:O4'	2.06	0.56
35:2:451:A:N1	35:2:456:A:C6	2.74	0.56
35:2:492:A:H4'	35:2:493:U:H5'	1.88	0.56
35:2:498:G:C5	35:2:499:U:N3	2.73	0.56
35:2:548:G:C8	35:2:548:G:O5'	2.58	0.56
35:2:628:G:H1	35:2:970:A:P	2.29	0.56
35:2:886:U:C3'	35:2:887:A:H8	2.18	0.56
35:2:1056:U:H3'	35:2:1057:U:C6	2.41	0.56
35:2:1092:A:H5''	35:2:1094:G:O6	2.06	0.56
35:2:1534:G:H4'	35:2:1536:G:O6	2.06	0.56
35:2:1583:A:N3	35:2:1585:U:C4	2.74	0.56
1:D:54:UNK:O	1:D:55:UNK:CB	2.53	0.56
3:H:44:UNK:O	3:H:45:UNK:C	2.51	0.56
3:H:183:UNK:O	3:H:184:UNK:C	2.51	0.56
19:j:386:VAL:O	19:j:408:VAL:HA	2.05	0.56
1:l:228:UNK:O	1:l:246:UNK:N	2.39	0.56
24:r:165:PHE:CD2	35:2:69:G:N3	2.70	0.56
25:s:12:LEU:HB2	25:s:17:GLU:HG2	1.87	0.56
25:s:167:LEU:HD11	25:s:184:PHE:HB2	1.88	0.56
26:t:39:THR:HB	26:t:69:CYS:HB3	1.87	0.56
26:t:107:ASN:H	35:2:329:G:H5''	1.69	0.56
27:u:42:ILE:O	27:u:45:ILE:CB	2.54	0.56
30:x:83:GLN:O	30:x:84:ALA:C	2.49	0.56
35:2:47:A:H5'	35:2:100:A:C5'	2.36	0.56
35:2:71:A:N1	35:2:83:G:C4	2.74	0.56
35:2:123:G:C6	35:2:295:A:N6	2.74	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:255:U:OP2	35:2:255:U:H6	1.89	0.56
35:2:337:G:C1'	35:2:339:C:OP2	2.54	0.56
35:2:446:A:H3'	35:2:447:U:C6	2.40	0.56
35:2:451:A:H2'	35:2:451:A:N3	2.21	0.56
35:2:467:G:C2	35:2:469:C:N3	2.74	0.56
35:2:469:C:C6	35:2:470:A:C5	2.93	0.56
35:2:494:U:C6	35:2:494:U:C3'	2.89	0.56
35:2:520:A:P	35:2:520:A:C8	2.99	0.56
35:2:898:A:C8	35:2:915:A:N6	2.74	0.56
35:2:903:U:C2	35:2:906:A:N7	2.74	0.56
35:2:931:C:H6	35:2:931:C:O5'	1.89	0.56
35:2:1029:U:O3'	35:2:1031:U:H5	1.89	0.56
35:2:1053:G:C6	35:2:1067:C:C2	2.94	0.56
36:3:98:U:H2'	36:3:99:C:O4'	2.06	0.56
36:3:241:G:C2	36:3:242:G:C4	2.94	0.56
1:B:54:UNK:O	1:B:55:UNK:CB	2.53	0.55
1:F:228:UNK:O	1:F:246:UNK:N	2.39	0.55
1:J:228:UNK:O	1:J:246:UNK:N	2.39	0.55
1:P:54:UNK:O	1:P:55:UNK:CB	2.53	0.55
9:U:127:LYS:C	10:W:183:ALA:CB	2.64	0.55
1:n:75:UNK:CB	26:t:3:ILE:HG13	2.35	0.55
22:p:207:PHE:CE2	22:p:223:ARG:HD3	2.41	0.55
23:q:99:MET:C	23:q:101:GLY:N	2.63	0.55
24:r:58:LYS:HZ2	35:2:418:G:C1'	2.19	0.55
31:y:38:GLY:HA3	35:2:246:G:O4'	2.05	0.55
31:y:38:GLY:HA3	35:2:246:G:H1'	1.82	0.55
31:y:151:ARG:NH2	35:2:349:U:C5	2.74	0.55
33:0:26:LEU:C	33:0:28:PRO:HD2	2.31	0.55
35:2:41:A:C2	35:2:438:A:C8	2.94	0.55
35:2:53:G:N1	35:2:428:A:N1	2.54	0.55
35:2:70:C:H5''	35:2:70:C:H6	1.71	0.55
35:2:151:G:C5	35:2:164:A:C6	2.95	0.55
35:2:191:C:O2	35:2:195:G:C2	2.58	0.55
35:2:292:U:H2'	35:2:293:U:N1	2.20	0.55
35:2:454:U:OP2	35:2:454:U:C6	2.59	0.55
35:2:519:C:P	35:2:520:A:OP2	2.64	0.55
35:2:529:A:HO2'	35:2:530:C:P	2.28	0.55
35:2:590:C:H2'	35:2:591:A:C8	2.41	0.55
35:2:877:G:C2	35:2:878:G:C4	2.93	0.55
35:2:881:A:C6	35:2:948:G:C6	2.94	0.55
35:2:922:G:OP2	35:2:922:G:H2'	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:956:C:C2	35:2:957:G:C8	2.94	0.55
35:2:1047:G:N1	35:2:1048:G:C5	2.74	0.55
35:2:1072:C:H2'	35:2:1073:G:H5''	1.87	0.55
35:2:1079:U:C6	35:2:1079:U:OP2	2.58	0.55
36:3:91:G:H1'	36:3:92:A:OP2	2.06	0.55
36:3:248:G:H2'	36:3:249:U:C6	2.41	0.55
2:G:1957:LEU:CB	2:G:2106:GLU:CB	2.84	0.55
3:H:139:UNK:N	3:H:164:UNK:N	2.53	0.55
22:p:183:CYS:O	22:p:194:VAL:HA	2.06	0.55
28:v:46:THR:O	28:v:47:PRO:CB	2.54	0.55
29:w:64:ALA:CA	29:w:68:ALA:H	2.16	0.55
35:2:65:A:C2	35:2:85:A:C6	2.94	0.55
35:2:85:A:O2'	35:2:86:A:O4'	2.23	0.55
35:2:199:G:N3	35:2:200:A:H5'	2.20	0.55
35:2:245:U:O2	35:2:247:A:C8	2.52	0.55
35:2:295:A:H1'	35:2:296:U:O5'	2.05	0.55
35:2:432:G:C8	35:2:432:G:OP2	2.59	0.55
35:2:1084:A:OP2	35:2:1084:A:H8	1.88	0.55
35:2:1585:U:N3	35:2:1611:A:C2	2.74	0.55
35:2:1608:U:H2'	35:2:1609:U:H5''	1.87	0.55
35:2:1622:G:C6	35:2:1623:C:C4	2.94	0.55
3:H:134:UNK:O	3:H:135:UNK:C	2.51	0.55
1:J:54:UNK:O	1:J:55:UNK:CB	2.53	0.55
1:L:195:UNK:O	1:L:196:UNK:CB	2.54	0.55
19:i:857:LEU:O	19:i:862:ALA:HB2	2.06	0.55
21:o:37:PRO:HD2	21:o:101:THR:O	2.06	0.55
23:q:196:GLU:O	23:q:197:GLU:CB	2.54	0.55
24:r:141:ILE:HG21	24:r:156:ILE:HG23	1.88	0.55
25:s:131:LEU:HD23	25:s:131:LEU:H	1.71	0.55
25:s:133:PRO:HD2	25:s:162:PHE:HE2	1.70	0.55
26:t:42:SER:HA	26:t:45:ILE:CG1	2.33	0.55
27:u:54:ARG:O	27:u:55:ALA:O	2.24	0.55
29:w:60:ALA:O	29:w:63:ALA:CB	2.53	0.55
35:2:62:A:C4'	35:2:63:G:OP2	2.55	0.55
35:2:99:C:N4	35:2:385:A:N1	2.54	0.55
35:2:117:U:O4'	35:2:333:A:C2	2.59	0.55
35:2:144:U:H3'	35:2:145:A:O4'	2.06	0.55
35:2:207:U:H2'	35:2:208:U:H6	1.71	0.55
35:2:207:U:H1'	35:2:261:U:O2	2.06	0.55
35:2:315:A:C4	35:2:353:A:N6	2.74	0.55
35:2:330:G:H8	35:2:330:G:OP2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:462:G:C6	35:2:463:U:C4	2.93	0.55
35:2:491:C:H2'	35:2:493:U:O4	2.06	0.55
35:2:514:G:O2'	35:2:539:G:N1	2.35	0.55
35:2:869:A:C4	35:2:960:U:C2	2.94	0.55
35:2:904:G:C2'	35:2:905:A:C8	2.89	0.55
35:2:912:U:H4'	35:2:913:G:H2'	1.88	0.55
35:2:1042:G:N1	35:2:1078:C:N3	2.55	0.55
35:2:1526:A:OP2	35:2:1527:C:C5	2.57	0.55
36:3:79:G:C6	36:3:268:G:N1	2.75	0.55
36:3:81:G:O2'	36:3:82:U:O2	2.24	0.55
36:3:246:G:C6	36:3:247:G:C6	2.94	0.55
1:A:228:UNK:O	1:A:246:UNK:N	2.39	0.55
3:H:244:UNK:O	3:H:245:UNK:C	2.52	0.55
5:O:504:UNK:N	21:o:19:LYS:N	2.54	0.55
17:f:34:LYS:CB	23:q:183:ALA:CB	2.84	0.55
1:n:65:UNK:CB	24:r:69:VAL:HG21	2.36	0.55
1:n:228:UNK:O	1:n:246:UNK:N	2.39	0.55
24:r:91:PHE:O	24:r:92:ARG:C	2.49	0.55
24:r:107:ARG:HG3	24:r:108:VAL:HG23	1.87	0.55
24:r:110:ALA:O	24:r:111:LEU:HD23	2.06	0.55
35:2:77:U:O3'	35:2:78:A:H3'	2.07	0.55
35:2:82:U:H2'	35:2:83:G:C8	2.41	0.55
35:2:326:G:N2	35:2:343:C:O2	2.39	0.55
35:2:446:A:OP2	35:2:446:A:C8	2.59	0.55
35:2:869:A:C5	35:2:960:U:C2	2.94	0.55
35:2:878:G:C2	35:2:951:A:C2	2.95	0.55
35:2:921:U:H3'	35:2:922:G:C8	2.41	0.55
35:2:924:A:C8	35:2:924:A:OP2	2.59	0.55
35:2:1537:C:C5'	35:2:1538:U:OP1	2.54	0.55
36:3:96:C:H6	36:3:96:C:OP2	1.89	0.55
36:3:255:U:O2'	36:3:256:G:O5'	2.24	0.55
1:A:195:UNK:O	1:A:196:UNK:CB	2.54	0.55
1:C:228:UNK:O	1:C:246:UNK:N	2.39	0.55
1:E:54:UNK:O	1:E:55:UNK:CB	2.53	0.55
24:r:163:ARG:NH1	35:2:69:G:C5	2.65	0.55
24:r:177:PRO:O	35:2:79:C:N4	2.38	0.55
26:t:25:ARG:O	35:2:400:A:C5	2.59	0.55
26:t:64:ARG:HH22	35:2:332:U:P	2.30	0.55
31:y:102:ARG:N	35:2:351:C:C5	2.74	0.55
33:0:32:THR:OG1	35:2:533:U:N1	2.39	0.55
34:1:7:VAL:O	34:1:8:THR:C	2.49	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:135:A:C4'	35:2:136:C:OP2	2.52	0.55
35:2:171:A:OP2	35:2:171:A:C8	2.59	0.55
35:2:251:A:OP2	35:2:252:U:O4	2.24	0.55
35:2:335:U:C6	35:2:336:G:C8	2.94	0.55
35:2:346:G:H5'	35:2:347:G:OP2	2.06	0.55
35:2:450:U:C2	35:2:451:A:C8	2.95	0.55
35:2:457:G:C6	35:2:458:G:C8	2.94	0.55
35:2:631:G:N1	35:2:968:U:N3	2.53	0.55
35:2:872:G:C2	35:2:956:C:C2	2.95	0.55
35:2:890:C:H2'	35:2:891:A:C1'	2.37	0.55
35:2:915:A:C5	35:2:916:U:N3	2.74	0.55
35:2:917:U:C5	35:2:917:U:OP2	2.60	0.55
35:2:977:A:N7	35:2:1024:U:C4	2.72	0.55
35:2:1483:A:H61	35:2:1591:C:H1'	1.71	0.55
1:B:228:UNK:O	1:B:246:UNK:N	2.39	0.55
1:D:116:UNK:CB	1:E:156:UNK:CA	2.82	0.55
3:H:313:UNK:O	3:H:314:UNK:C	2.51	0.55
1:P:228:UNK:O	1:P:246:UNK:N	2.39	0.55
18:g:76:GLY:HA3	21:o:117:ILE:H	1.70	0.55
31:y:107:PRO:CB	31:y:133:THR:HB	2.36	0.55
35:2:172:C:C2	35:2:173:A:C8	2.95	0.55
35:2:212:U:N3	35:2:213:A:C8	2.75	0.55
35:2:275:C:N4	35:2:276:C:N4	2.54	0.55
35:2:325:G:C6	35:2:344:A:C5	2.93	0.55
35:2:350:U:C2	35:2:352:A:C6	2.95	0.55
35:2:355:G:C4	35:2:356:G:C8	2.95	0.55
35:2:388:G:C8	35:2:423:G:C2	2.94	0.55
35:2:429:G:C8	35:2:429:G:OP2	2.60	0.55
35:2:546:U:C4	35:2:547:U:C4	2.95	0.55
35:2:591:A:N3	35:2:592:A:OP2	2.40	0.55
35:2:890:C:C5	35:2:890:C:OP2	2.60	0.55
35:2:916:U:C5	35:2:917:U:N3	2.75	0.55
35:2:1161:C:H1'	35:2:1620:C:H42	1.69	0.55
35:2:1571:C:H5''	35:2:1572:G:OP2	2.05	0.55
1:N:54:UNK:O	1:N:55:UNK:CB	2.53	0.55
5:O:491:UNK:O	5:O:492:UNK:CB	2.55	0.55
22:p:9:LEU:HD12	22:p:10:LYS:N	2.22	0.55
24:r:139:ASN:HA	24:r:142:LYS:HE2	1.87	0.55
26:t:22:ARG:NH1	26:t:25:ARG:NH1	2.49	0.55
26:t:191:LEU:HB3	26:t:196:LEU:HD13	1.88	0.55
30:x:110:THR:HA	30:x:113:ASP:CB	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:y:66:ARG:CB	35:2:113:U:OP1	2.55	0.55
35:2:64:U:C2	35:2:87:C:O2	2.59	0.55
35:2:202:A:H8	35:2:202:A:O5'	1.89	0.55
35:2:371:G:H3'	35:2:372:G:C8	2.39	0.55
35:2:391:A:C6	35:2:407:A:N1	2.75	0.55
35:2:391:A:N6	35:2:392:G:O6	2.40	0.55
35:2:411:C:C3'	35:2:412:A:C8	2.86	0.55
35:2:474:A:O2'	35:2:475:A:C5	2.58	0.55
35:2:630:A:C5	35:2:970:A:C8	2.95	0.55
35:2:872:G:C6	35:2:873:U:C2	2.94	0.55
35:2:902:G:N2	35:2:906:A:H5''	2.22	0.55
35:2:936:G:H2'	35:2:937:C:C6	2.42	0.55
35:2:940:A:C6	35:2:941:A:C6	2.95	0.55
35:2:955:A:OP2	35:2:955:A:N7	2.40	0.55
35:2:1164:G:C2	35:2:1165:G:C4	2.95	0.55
35:2:1591:C:H2'	35:2:1591:C:O2	2.05	0.55
35:2:1592:A:O2'	35:2:1593:A:H5'	2.07	0.55
36:3:103:G:C2	36:3:250:G:C8	2.94	0.55
1:l:195:UNK:O	1:l:196:UNK:CB	2.54	0.55
21:o:128:VAL:HG22	21:o:175:ASN:CG	2.32	0.55
22:p:29:THR:N	35:2:448:C:H5'	2.21	0.55
22:p:122:LYS:HG3	22:p:167:VAL:HG23	1.88	0.55
33:0:147:VAL:O	33:0:148:ALA:CB	2.55	0.55
35:2:123:G:N1	35:2:124:A:C6	2.75	0.55
35:2:142:G:C5	35:2:266:A:N7	2.75	0.55
35:2:151:G:H4'	35:2:151:G:OP1	2.05	0.55
35:2:158:U:C4	35:2:420:A:H5''	2.41	0.55
35:2:197:A:H2'	35:2:197:A:N3	2.21	0.55
35:2:206:A:C2	35:2:261:U:C2	2.94	0.55
35:2:206:A:C6	35:2:262:U:C5	2.95	0.55
35:2:327:U:H2'	35:2:328:A:N7	2.21	0.55
35:2:346:G:C6	35:2:347:G:C6	2.95	0.55
35:2:358:U:O5'	35:2:358:U:C6	2.58	0.55
35:2:392:G:C5	35:2:393:C:C5	2.94	0.55
35:2:404:G:H2'	35:2:405:C:O4'	2.06	0.55
35:2:466:U:H2'	35:2:467:G:O4'	2.05	0.55
35:2:475:A:OP1	35:2:475:A:H3'	2.06	0.55
35:2:592:A:OP2	35:2:592:A:C8	2.56	0.55
35:2:882:U:H2'	35:2:883:C:C6	2.41	0.55
35:2:951:A:OP2	35:2:951:A:H8	1.88	0.55
35:2:956:C:OP2	35:2:956:C:C6	2.60	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1080:U:O2'	35:2:1091:A:N6	2.40	0.55
35:2:1086:A:H8	35:2:1086:A:P	2.30	0.55
35:2:1165:G:C6	35:2:1166:A:C5	2.95	0.55
35:2:1174:C:H2'	35:2:1175:U:H6	1.66	0.55
36:3:79:G:C2	36:3:268:G:C2	2.94	0.55
36:3:142:G:H2'	36:3:144:A:OP2	2.07	0.55
36:3:269:G:C2	36:3:270:C:C2	2.95	0.55
1:K:228:UNK:O	1:K:246:UNK:N	2.39	0.55
1:n:195:UNK:O	1:n:196:UNK:CB	2.54	0.55
22:p:206:SER:O	22:p:207:PHE:CB	2.55	0.55
22:p:210:CYS:CB	22:p:227:ILE:HD11	2.37	0.55
24:r:176:CYS:SG	24:r:177:PRO:HD2	2.47	0.55
24:r:185:PRO:HG2	24:r:186:GLU:OE1	2.07	0.55
27:u:175:ARG:C	27:u:177:ALA:H	2.15	0.55
28:v:88:LEU:O	28:v:90:TYR:N	2.40	0.55
31:y:21:LYS:HZ2	31:y:31:VAL:HG23	1.72	0.55
31:y:73:LEU:O	31:y:85:ILE:HG23	2.07	0.55
31:y:132:LYS:NZ	35:2:322:G:HO2'	2.01	0.55
35:2:183:U:H2'	35:2:184:C:C6	2.39	0.55
35:2:195:G:C6	35:2:196:G:C5	2.95	0.55
35:2:282:C:H5''	35:2:283:U:H5	1.72	0.55
35:2:315:A:C5'	35:2:353:A:H61	2.20	0.55
35:2:334:G:C2	35:2:335:U:N3	2.70	0.55
35:2:450:U:H3'	35:2:451:A:H8	1.72	0.55
35:2:457:G:H8	35:2:457:G:P	2.30	0.55
35:2:481:A:P	35:2:481:A:H8	2.30	0.55
35:2:918:U:H2'	35:2:919:A:C8	2.42	0.55
35:2:938:G:C2	35:2:941:A:OP2	2.56	0.55
35:2:1047:G:N1	35:2:1071:U:C2	2.59	0.55
35:2:1590:G:H2'	35:2:1591:C:H5	1.69	0.55
2:G:3186:LEU:C	2:G:3193:GLU:N	2.61	0.55
3:H:311:UNK:O	3:H:312:UNK:C	2.51	0.55
1:L:228:UNK:O	1:L:246:UNK:N	2.39	0.55
5:M:491:UNK:O	5:M:492:UNK:CB	2.55	0.55
15:c:98:SER:CB	30:x:139:GLN:N	2.70	0.55
18:g:41:THR:CA	21:o:114:CYS:SG	2.67	0.55
19:j:563:PRO:O	19:j:564:ALA:HB3	2.07	0.55
21:o:205:LYS:HD2	35:2:1056:U:O4'	2.07	0.55
22:p:117:SER:C	22:p:119:GLU:H	2.15	0.55
24:r:58:LYS:NZ	35:2:418:G:C1'	2.70	0.55
25:s:47:GLU:HG3	25:s:61:VAL:HG22	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:s:65:VAL:CG2	25:s:73:LEU:HD22	2.33	0.55
26:t:12:ARG:O	26:t:13:ALA:C	2.49	0.55
26:t:141:LYS:HZ1	26:t:143:LYS:HE2	1.71	0.55
26:t:185:ARG:NH2	35:2:207:U:C2'	2.69	0.55
35:2:40:A:C8	35:2:470:A:N1	2.75	0.55
35:2:107:C:O2	35:2:108:A:C8	2.59	0.55
35:2:123:G:C2	35:2:295:A:N1	2.74	0.55
35:2:152:U:O5'	35:2:152:U:H6	1.89	0.55
35:2:206:A:C8	35:2:262:U:C2	2.94	0.55
35:2:414:C:N3	35:2:420:A:C2	2.75	0.55
35:2:448:C:N3	35:2:449:C:C5	2.75	0.55
35:2:488:G:N1	35:2:499:U:C4	2.75	0.55
35:2:529:A:C4'	35:2:530:C:H5	2.20	0.55
35:2:536:C:C5	35:2:536:C:OP2	2.60	0.55
35:2:615:A:H5'	35:2:1085:G:C5'	2.24	0.55
35:2:627:C:C4	35:2:973:A:C6	2.95	0.55
35:2:1534:G:H4'	35:2:1536:G:N7	2.22	0.55
36:3:95:U:OP2	36:3:95:U:C6	2.61	0.55
24:r:149:LYS:NZ	35:2:137:U:O4	2.40	0.54
24:r:150:GLU:H	24:r:150:GLU:CD	2.13	0.54
30:x:124:PRO:HA	35:2:1584:G:C4	2.41	0.54
33:0:10:ILE:HG12	33:0:21:LEU:HB3	1.88	0.54
35:2:108:A:C2	35:2:109:G:C5	2.94	0.54
35:2:180:A:OP2	35:2:180:A:C8	2.60	0.54
35:2:181:A:OP2	35:2:181:A:N3	2.40	0.54
35:2:312:A:C8	35:2:314:C:C4	2.95	0.54
35:2:382:C:C2	35:2:383:G:C8	2.95	0.54
35:2:388:G:C4	35:2:389:G:C8	2.96	0.54
35:2:390:G:N2	35:2:407:A:C2	2.69	0.54
35:2:439:U:OP1	35:2:465:G:N2	2.40	0.54
35:2:463:U:OP2	35:2:463:U:H6	1.90	0.54
35:2:887:A:H2'	35:2:888:U:C6	2.41	0.54
35:2:1039:A:C2	35:2:1080:U:N3	2.75	0.54
36:3:266:C:O2	36:3:266:C:H2'	2.07	0.54
18:g:90:ALA:H	29:w:99:GLN:CB	2.21	0.54
5:m:491:UNK:O	5:m:492:UNK:CB	2.55	0.54
23:q:131:GLN:O	23:q:135:ASP:CB	2.56	0.54
24:r:187:ARG:HB3	35:2:141:U:C4	2.41	0.54
32:z:39:GLN:O	32:z:40:VAL:C	2.49	0.54
32:z:112:ASP:O	32:z:114:GLU:N	2.41	0.54
33:0:131:THR:HG22	33:0:132:TRP:N	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:86:A:H4'	35:2:148:A:H4'	1.89	0.54
35:2:87:C:OP2	35:2:88:U:OP2	2.25	0.54
35:2:328:A:N1	35:2:329:G:C5	2.75	0.54
35:2:339:C:C2	35:2:340:U:C5	2.95	0.54
35:2:399:A:N3	35:2:401:A:H1'	2.22	0.54
35:2:447:U:C2	35:2:448:C:C6	2.95	0.54
35:2:550:A:C4	35:2:588:U:N3	2.65	0.54
35:2:624:G:C8	35:2:1027:A:C6	2.95	0.54
35:2:867:G:H2'	35:2:868:G:C1'	2.37	0.54
35:2:876:G:C6	35:2:936:G:N1	2.75	0.54
35:2:928:U:H2'	35:2:945:U:P	2.47	0.54
35:2:1153:G:H2'	35:2:1154:G:O4'	2.06	0.54
35:2:1168:U:H2'	35:2:1169:G:H5'	1.87	0.54
1:D:228:UNK:O	1:D:246:UNK:N	2.39	0.54
18:g:76:GLY:CA	21:o:118:ARG:CD	2.84	0.54
5:m:424:UNK:O	5:m:425:UNK:CB	2.54	0.54
21:o:38:ILE:CG2	21:o:39:PRO:HD2	2.37	0.54
21:o:139:ARG:NH1	35:2:884:A:O2'	2.40	0.54
22:p:150:ARG:HH11	22:p:150:ARG:HG3	1.73	0.54
25:s:122:VAL:O	25:s:125:ALA:HB3	2.08	0.54
26:t:22:ARG:HB3	35:2:385:A:P	2.46	0.54
26:t:72:ASN:HD22	35:2:258:C:H4'	1.72	0.54
28:v:137:PRO:O	28:v:141:TYR:N	2.40	0.54
30:x:125:GLU:HA	35:2:1607:G:OP2	2.06	0.54
31:y:14:GLY:CA	35:2:249:U:O4	2.55	0.54
31:y:38:GLY:HA3	35:2:246:G:O2'	2.07	0.54
32:z:75:ILE:O	32:z:76:SER:O	2.25	0.54
35:2:47:A:C8	35:2:99:C:P	3.00	0.54
35:2:60:U:H6	35:2:62:A:O2'	1.88	0.54
35:2:148:A:OP2	35:2:149:C:C5	2.59	0.54
35:2:278:U:O2	35:2:279:G:N7	2.40	0.54
35:2:317:C:H4'	35:2:354:C:H1'	1.89	0.54
35:2:336:G:H8	35:2:336:G:P	2.30	0.54
35:2:350:U:C2	35:2:352:A:N1	2.75	0.54
35:2:365:G:O5'	35:2:365:G:C8	2.59	0.54
35:2:528:U:OP2	35:2:529:A:H4'	2.07	0.54
35:2:549:G:C6	35:2:589:C:C4	2.95	0.54
35:2:1571:C:H3'	35:2:1572:G:C5'	2.38	0.54
36:3:75:A:OP2	36:3:75:A:C8	2.61	0.54
36:3:141:U:C2	36:3:147:G:C2	2.95	0.54
36:3:191:G:OP2	36:3:191:G:C8	2.60	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:195:UNK:O	1:C:196:UNK:CB	2.54	0.54
1:J:195:UNK:O	1:J:196:UNK:CB	2.54	0.54
5:M:630:UNK:N	5:M:644:UNK:O	2.41	0.54
15:c:142:LEU:O	30:x:129:PHE:CA	2.44	0.54
19:j:528:SER:O	19:j:533:SER:HA	2.07	0.54
21:o:117:ILE:HG22	21:o:117:ILE:O	2.08	0.54
21:o:162:ALA:O	21:o:163:LYS:C	2.50	0.54
22:p:127:LYS:HZ3	22:p:186:GLN:HE22	1.54	0.54
25:s:62:LEU:HD11	25:s:64:TYR:CE1	2.43	0.54
30:x:14:LYS:O	30:x:15:SER:CB	2.55	0.54
31:y:129:PRO:CG	35:2:115:G:O6	2.50	0.54
35:2:39:A:H61	35:2:471:A:N6	2.05	0.54
35:2:111:U:C4	35:2:303:U:C2	2.95	0.54
35:2:114:C:H5	35:2:248:U:H3	1.51	0.54
35:2:192:U:H2'	35:2:193:U:OP2	2.08	0.54
35:2:251:A:H2'	35:2:252:U:C2	2.42	0.54
35:2:285:G:H2'	35:2:286:C:O4'	2.08	0.54
35:2:368:U:H2'	35:2:373:G:H1	1.72	0.54
35:2:388:G:N3	35:2:389:G:C8	2.76	0.54
35:2:456:A:O5'	35:2:456:A:C8	2.56	0.54
35:2:482:U:C5	35:2:482:U:OP2	2.61	0.54
35:2:531:C:O2	35:2:531:C:H2'	2.08	0.54
35:2:628:G:C2	35:2:972:G:C6	2.95	0.54
35:2:629:U:C2	35:2:971:A:C6	2.95	0.54
35:2:884:A:C6	35:2:945:U:C4	2.94	0.54
35:2:884:A:C2	35:2:885:G:C4	2.96	0.54
35:2:884:A:N1	35:2:885:G:C6	2.76	0.54
35:2:957:G:H2'	35:2:958:U:H6	1.68	0.54
35:2:1091:A:H1'	35:2:1092:A:C2	2.42	0.54
35:2:1172:G:C6	35:2:1173:C:C4	2.94	0.54
36:3:73:C:H2'	36:3:74:C:C6	2.41	0.54
2:G:3186:LEU:CB	2:G:3193:GLU:H	2.19	0.54
5:M:424:UNK:O	5:M:425:UNK:CB	2.54	0.54
1:P:285:UNK:C	14:b:20:ASN:C	2.81	0.54
9:U:38:GLY:HA2	36:3:84:G:O6	2.07	0.54
21:o:163:LYS:CD	35:2:1045:C:H3'	2.38	0.54
22:p:36:HIS:CE1	22:p:87:GLY:HA3	2.43	0.54
22:p:117:SER:C	22:p:119:GLU:N	2.61	0.54
23:q:204:GLY:C	23:q:206:SER:N	2.66	0.54
24:r:64:LYS:HE2	24:r:82:SER:O	2.08	0.54
24:r:167:THR:HG22	24:r:169:LYS:H	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:176:CYS:HB2	35:2:67:A:C5'	2.24	0.54
31:y:66:ARG:CD	35:2:113:U:H5'	2.34	0.54
31:y:68:LYS:HE2	35:2:111:U:C1'	2.36	0.54
31:y:70:ILE:HD11	31:y:136:PHE:CE1	2.43	0.54
35:2:123:G:N1	35:2:295:A:N1	2.56	0.54
35:2:130:C:H3'	35:2:131:C:C4'	2.35	0.54
35:2:147:A:P	35:2:166:C:H41	2.28	0.54
35:2:156:A:C6	35:2:419:G:H1'	2.42	0.54
35:2:158:U:H3'	35:2:160:C:OP2	2.08	0.54
35:2:206:A:C5	35:2:207:U:C5	2.95	0.54
35:2:251:A:C4	35:2:252:U:C2	2.96	0.54
35:2:270:C:N3	35:2:271:A:C8	2.74	0.54
35:2:300:A:C6	35:2:301:A:C6	2.96	0.54
35:2:309:C:C4	35:2:358:U:N3	2.75	0.54
35:2:321:C:H2'	35:2:337:G:N2	2.23	0.54
35:2:326:G:C2	35:2:343:C:N3	2.76	0.54
35:2:331:A:C3'	35:2:332:U:H6	2.11	0.54
35:2:481:A:C4	35:2:508:U:C2	2.95	0.54
35:2:909:U:O2'	35:2:910:C:O5'	2.20	0.54
35:2:912:U:H1'	35:2:914:G:C6	2.42	0.54
35:2:925:G:H8	35:2:925:G:OP2	1.91	0.54
35:2:1051:G:N3	35:2:1052:U:N3	2.56	0.54
35:2:1481:C:H1'	35:2:1482:C:C5'	2.38	0.54
35:2:1623:C:N3	35:2:1624:C:C5	2.75	0.54
36:3:80:G:C2	36:3:267:C:C2	2.95	0.54
1:A:36:UNK:CB	1:A:315:UNK:CB	2.86	0.54
1:B:36:UNK:CB	1:B:315:UNK:CB	2.86	0.54
1:B:195:UNK:O	1:B:196:UNK:CB	2.54	0.54
1:C:54:UNK:O	1:C:55:UNK:CB	2.53	0.54
1:D:75:UNK:CB	1:E:162:UNK:CB	2.86	0.54
1:N:36:UNK:CB	1:N:315:UNK:CB	2.86	0.54
8:S:300:ALA:HB2	36:3:91:G:P	2.46	0.54
9:U:127:LYS:O	10:W:183:ALA:HB2	1.91	0.54
9:V:127:LYS:HA	10:X:157:PRO:CB	2.37	0.54
15:c:144:GLU:N	35:2:1603:U:C4'	2.71	0.54
17:f:158:LYS:N	35:2:1572:G:C8	2.75	0.54
18:g:43:PHE:N	21:o:117:ILE:HG22	2.22	0.54
5:m:563:UNK:HA	25:s:144:ARG:CZ	2.37	0.54
1:n:296:UNK:N	26:t:45:ILE:HG22	2.22	0.54
22:p:102:ARG:CG	22:p:116:LEU:HD21	2.37	0.54
24:r:165:PHE:HD1	24:r:165:PHE:O	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:t:26:ALA:HB3	35:2:400:A:OP2	2.07	0.54
26:t:94:THR:HA	35:2:328:A:H1'	1.89	0.54
31:y:128:ARG:HB2	31:y:129:PRO:HD2	1.89	0.54
35:2:23:G:C8	35:2:23:G:OP2	2.60	0.54
35:2:53:G:N1	35:2:428:A:C6	2.76	0.54
35:2:128:U:H5'	35:2:129:U:O2	2.08	0.54
35:2:200:A:C4	35:2:201:G:C8	2.96	0.54
35:2:251:A:C8	35:2:252:U:N3	2.76	0.54
35:2:293:U:C6	35:2:294:C:H5	2.26	0.54
35:2:322:G:C6	35:2:343:C:N4	2.75	0.54
35:2:365:G:C8	35:2:365:G:H3'	2.42	0.54
35:2:444:C:N4	35:2:458:G:C2	2.75	0.54
35:2:454:U:O2'	35:2:455:C:P	2.65	0.54
35:2:514:G:C6	35:2:538:A:H1'	2.42	0.54
35:2:535:A:C2	35:2:536:C:C2	2.94	0.54
35:2:865:A:C6	35:2:964:U:C4	2.96	0.54
35:2:923:A:C4	35:2:924:A:C8	2.95	0.54
35:2:1583:A:C2	35:2:1585:U:C4	2.95	0.54
35:2:1599:C:O2	35:2:1600:A:C2	2.60	0.54
36:3:126:U:O4	36:3:127:A:N6	2.40	0.54
36:3:268:G:N1	36:3:269:G:C5	2.76	0.54
36:3:269:G:C6	36:3:270:C:N3	2.75	0.54
1:D:36:UNK:CB	1:D:315:UNK:CB	2.86	0.54
3:H:-1:UNK:HA	3:H:170:UNK:CB	2.38	0.54
1:J:36:UNK:CB	1:J:315:UNK:CB	2.86	0.54
5:O:630:UNK:N	5:O:644:UNK:O	2.41	0.54
8:T:327:HIS:HA	36:3:108:A:N6	2.23	0.54
21:o:208:LYS:HG3	35:2:1064:G:H22	1.73	0.54
25:s:145:LEU:O	25:s:146:ASP:C	2.51	0.54
33:0:59:SER:HA	35:2:522:U:C1'	2.38	0.54
35:2:34:G:O6	35:2:473:A:C2	2.61	0.54
35:2:97:C:C5	35:2:97:C:OP2	2.61	0.54
35:2:110:U:P	35:2:111:U:OP2	2.66	0.54
35:2:147:A:OP2	35:2:147:A:O4'	2.26	0.54
35:2:153:G:H1'	35:2:162:A:C2	2.42	0.54
35:2:245:U:C4	35:2:248:U:OP2	2.59	0.54
35:2:263:C:C4	35:2:264:G:O6	2.60	0.54
35:2:300:A:H2'	35:2:301:A:C8	2.42	0.54
35:2:391:A:N1	35:2:407:A:C6	2.76	0.54
35:2:443:C:O4'	35:2:526:A:N6	2.40	0.54
35:2:514:G:H2'	35:2:514:G:N3	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:631:G:C4	35:2:632:U:C5	2.95	0.54
35:2:633:U:N3	35:2:967:A:C2	2.76	0.54
35:2:945:U:C2	35:2:946:U:C6	2.96	0.54
35:2:968:U:C4	35:2:969:C:C4	2.96	0.54
35:2:1051:G:H5'	35:2:1052:U:OP2	2.08	0.54
1:B:280:UNK:C	1:D:343:UNK:C	2.85	0.54
1:F:36:UNK:CB	1:F:315:UNK:CB	2.86	0.54
1:L:36:UNK:CB	1:L:315:UNK:CB	2.86	0.54
8:T:326:ILE:CB	36:3:108:A:O4'	2.56	0.54
22:p:126:LEU:HB3	22:p:143:THR:HG21	1.89	0.54
24:r:71:GLY:HA2	24:r:98:ARG:NH1	2.23	0.54
28:v:81:ALA:O	28:v:82:PRO:CB	2.56	0.54
31:y:66:ARG:HH22	31:y:128:ARG:HA	1.73	0.54
31:y:117:LYS:NZ	31:y:144:ASN:O	2.37	0.54
32:z:96:ALA:O	32:z:98:GLN:N	2.40	0.54
35:2:76:A:C2	35:2:79:C:H3'	2.42	0.54
35:2:109:G:C5	35:2:110:U:C2	2.96	0.54
35:2:124:A:C6	35:2:125:U:N3	2.76	0.54
35:2:183:U:OP2	35:2:183:U:H5	1.91	0.54
35:2:188:A:C8	35:2:197:A:H2	2.26	0.54
35:2:243:G:C6	35:2:251:A:N6	2.76	0.54
35:2:279:G:C8	35:2:279:G:OP2	2.61	0.54
35:2:322:G:C6	35:2:325:G:O6	2.60	0.54
35:2:337:G:H5''	35:2:339:C:C5	2.33	0.54
35:2:348:U:OP2	35:2:349:U:H5	1.90	0.54
35:2:355:G:N1	35:2:356:G:C5	2.76	0.54
35:2:366:A:N3	35:2:376:C:C2	2.76	0.54
35:2:367:A:N1	35:2:375:U:O2	2.41	0.54
35:2:383:G:OP2	35:2:383:G:C8	2.60	0.54
35:2:406:U:N3	35:2:407:A:C5	2.76	0.54
35:2:443:C:C4	35:2:462:G:N1	2.76	0.54
35:2:868:G:C6	35:2:960:U:N3	2.59	0.54
35:2:885:G:N2	35:2:928:U:C2	2.75	0.54
35:2:925:G:H2'	35:2:926:A:O4'	2.08	0.54
35:2:930:A:OP2	35:2:931:C:C4	2.61	0.54
35:2:1591:C:O2'	35:2:1592:A:O5'	2.26	0.54
1:E:36:UNK:CB	1:E:315:UNK:CB	2.86	0.54
1:P:288:UNK:CA	14:b:16:HIS:CB	2.86	0.54
18:g:46:TYR:H	21:o:119:LYS:CA	2.21	0.54
24:r:181:ARG:HG2	24:r:181:ARG:NH1	2.23	0.54
26:t:106:LYS:O	26:t:176:ILE:HB	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:t:136:THR:CG2	26:t:138:LEU:HG	2.38	0.54
27:u:130:THR:O	27:u:131:GLN:C	2.50	0.54
28:v:119:GLU:O	28:v:122:ILE:N	2.41	0.54
35:2:49:C:C2	35:2:50:C:C5	2.96	0.54
35:2:50:C:OP2	35:2:423:G:O3'	2.26	0.54
35:2:81:G:H3'	35:2:82:U:H5''	1.90	0.54
35:2:99:C:C2	35:2:101:U:C5	2.96	0.54
35:2:143:G:N1	35:2:144:U:C2	2.76	0.54
35:2:183:U:C2	35:2:184:C:C6	2.95	0.54
35:2:347:G:H2'	35:2:348:U:H6	1.72	0.54
35:2:395:U:H3	35:2:396:G:N2	2.06	0.54
35:2:477:A:O2'	35:2:478:A:O5'	2.25	0.54
35:2:496:G:C6	35:2:497:G:C5	2.96	0.54
35:2:515:A:H2'	35:2:515:A:N3	2.23	0.54
35:2:548:G:O6	35:2:590:C:N4	2.40	0.54
35:2:871:G:C4	35:2:957:G:N1	2.76	0.54
36:3:192:A:H4'	36:3:193:U:H3'	1.89	0.54
36:3:257:G:C8	36:3:257:G:OP2	2.61	0.54
8:S:314:PRO:O	36:3:89:A:O2'	0.59	0.54
19:i:528:SER:O	19:i:533:SER:HA	2.07	0.54
1:l:36:UNK:CB	1:l:315:UNK:CB	2.86	0.54
21:o:136:TYR:CD2	21:o:187:ILE:HG12	2.43	0.54
24:r:41:LEU:HB3	24:r:45:PHE:HD1	1.73	0.54
24:r:176:CYS:CA	35:2:67:A:C4'	2.86	0.54
26:t:91:TYR:HD2	26:t:109:ILE:CD1	2.21	0.54
28:v:77:SER:C	28:v:79:GLY:N	2.66	0.54
31:y:21:LYS:C	31:y:23:LEU:H	2.16	0.54
35:2:102:U:O4	35:2:360:A:H2'	2.08	0.54
35:2:105:A:C6	35:2:108:A:N7	2.76	0.54
35:2:152:U:OP2	35:2:152:U:C6	2.61	0.54
35:2:156:A:C5	35:2:157:A:C6	2.96	0.54
35:2:299:A:C6	35:2:300:A:C6	2.95	0.54
35:2:401:A:N3	35:2:401:A:O2'	2.28	0.54
35:2:432:G:C4	35:2:433:C:C5	2.96	0.54
35:2:452:A:N6	35:2:454:U:OP2	2.22	0.54
35:2:515:A:H61	35:2:536:C:H42	1.55	0.54
35:2:527:A:OP1	35:2:528:U:H3'	2.07	0.54
35:2:590:C:H2'	35:2:591:A:H8	1.72	0.54
35:2:617:U:OP1	35:2:1093:A:C8	2.61	0.54
35:2:886:U:C6	35:2:886:U:OP2	2.61	0.54
35:2:889:U:O2	35:2:923:A:C2	2.60	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1042:G:C2'	35:2:1043:A:H8	2.15	0.54
35:2:1611:A:H2'	35:2:1612:U:O4'	2.06	0.54
35:2:1613:U:N3	35:2:1614:A:H8	2.02	0.54
36:3:113:G:N2	36:3:114:A:N6	2.56	0.54
3:H:316:UNK:O	3:H:317:UNK:C	2.51	0.53
1:K:36:UNK:CB	1:K:315:UNK:CB	2.86	0.53
1:P:36:UNK:CB	1:P:315:UNK:CB	2.86	0.53
21:o:60:SER:OG	21:o:94:VAL:HB	2.08	0.53
21:o:124:ILE:HB	21:o:144:ALA:HB3	1.90	0.53
21:o:139:ARG:HH12	35:2:884:A:C3'	2.10	0.53
23:q:112:ARG:O	23:q:113:ILE:C	2.50	0.53
24:r:175:LYS:HD3	35:2:66:U:C2	2.43	0.53
26:t:25:ARG:C	35:2:400:A:C5	2.84	0.53
26:t:31:ARG:HH12	35:2:333:A:P	2.26	0.53
26:t:185:ARG:HH21	35:2:207:U:H2'	1.68	0.53
27:u:117:GLY:O	27:u:118:LEU:C	2.51	0.53
30:x:40:GLU:O	30:x:42:GLU:N	2.39	0.53
32:z:111:MET:CB	32:z:116:ALA:HB2	2.38	0.53
35:2:71:A:C2	35:2:83:G:C2	2.96	0.53
35:2:105:A:H1'	35:2:107:C:C4	2.43	0.53
35:2:114:C:H1'	35:2:115:G:H5''	1.90	0.53
35:2:147:A:C5	35:2:168:A:N7	2.76	0.53
35:2:150:U:H3'	35:2:151:G:O4'	2.08	0.53
35:2:204:G:C6	35:2:264:G:N1	2.75	0.53
35:2:283:U:C2	35:2:284:G:O6	2.61	0.53
35:2:471:A:H2'	35:2:472:U:C1'	2.38	0.53
35:2:481:A:C2	35:2:507:U:C2	2.96	0.53
35:2:499:U:OP2	35:2:499:U:C5	2.61	0.53
35:2:630:A:H3'	35:2:631:G:C8	2.43	0.53
35:2:1046:G:C2	35:2:1073:G:C4	2.96	0.53
35:2:1073:G:N2	35:2:1074:G:C2	2.76	0.53
35:2:1478:G:C2'	35:2:1479:A:O4'	2.55	0.53
35:2:1575:G:N3	35:2:1575:G:C2'	2.64	0.53
35:2:1588:G:H2'	35:2:1588:G:N3	2.22	0.53
36:3:114:A:OP2	36:3:114:A:C8	2.59	0.53
36:3:202:C:OP2	36:3:202:C:C6	2.61	0.53
2:G:3234:GLY:CA	33:0:146:PHE:CA	2.86	0.53
5:m:563:UNK:HA	25:s:144:ARG:NH1	2.24	0.53
1:n:73:UNK:HA	35:2:392:G:C4'	2.37	0.53
24:r:78:SER:H	24:r:81:HIS:HD2	1.54	0.53
26:t:65:ALA:HB3	26:t:180:PRO:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:v:80:LEU:O	28:v:81:ALA:HB2	2.07	0.53
31:y:68:LYS:NZ	35:2:111:U:H1'	2.23	0.53
31:y:73:LEU:HD11	31:y:119:GLY:C	2.33	0.53
32:z:78:ARG:O	32:z:79:PHE:CB	2.56	0.53
35:2:77:U:H4'	35:2:78:A:OP2	2.07	0.53
35:2:109:G:H3'	35:2:110:U:C5	2.43	0.53
35:2:143:G:C2	35:2:144:U:C2	2.96	0.53
35:2:148:A:C8	35:2:149:C:C5	2.96	0.53
35:2:314:C:H1'	35:2:355:G:N3	2.23	0.53
35:2:358:U:OP2	35:2:359:A:OP2	2.25	0.53
35:2:406:U:C2	35:2:407:A:C8	2.96	0.53
35:2:452:A:N6	35:2:454:U:H5	2.07	0.53
35:2:519:C:H2'	35:2:520:A:C5	2.43	0.53
35:2:524:U:H3'	35:2:527:A:C2	2.43	0.53
35:2:633:U:C2	35:2:967:A:C2	2.96	0.53
35:2:863:A:O2'	35:2:865:A:H8	1.90	0.53
35:2:879:G:C6	35:2:950:C:N3	2.76	0.53
35:2:883:C:C2	35:2:946:U:N3	2.77	0.53
35:2:964:U:O5'	35:2:964:U:H6	1.91	0.53
36:3:166:G:H3'	36:3:167:U:C6	2.44	0.53
5:M:30:UNK:O	5:M:650:UNK:CB	2.56	0.53
8:T:334:ARG:C	36:3:108:A:P	2.91	0.53
1:n:36:UNK:CB	1:n:315:UNK:CB	2.86	0.53
21:o:212:PRO:HG2	35:2:1067:C:C4'	2.35	0.53
26:t:154:THR:C	26:t:156:ALA:N	2.59	0.53
28:v:109:LYS:C	28:v:111:ALA:N	2.67	0.53
29:w:39:ILE:O	29:w:40:ALA:CB	2.57	0.53
31:y:65:ILE:H	35:2:247:A:H2	1.55	0.53
33:0:101:THR:HG23	33:0:105:PHE:CG	2.43	0.53
35:2:107:C:C6	35:2:107:C:OP2	2.60	0.53
35:2:156:A:C6	35:2:157:A:N1	2.77	0.53
35:2:162:A:N1	35:2:163:G:C6	2.77	0.53
35:2:245:U:N1	35:2:247:A:H5''	2.22	0.53
35:2:328:A:C6	35:2:341:A:C6	2.95	0.53
35:2:372:G:H2'	35:2:373:G:H5'	1.91	0.53
35:2:396:G:N2	35:2:398:G:H3'	2.23	0.53
35:2:425:A:N3	35:2:425:A:H3'	2.22	0.53
35:2:452:A:C6	35:2:454:U:H5	2.27	0.53
35:2:477:A:N1	35:2:512:A:N1	2.56	0.53
35:2:477:A:C6	35:2:512:A:N6	2.77	0.53
35:2:511:A:OP1	35:2:511:A:C4	2.62	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:592:A:O2'	35:2:593:U:OP1	2.24	0.53
35:2:632:U:C2	35:2:968:U:O2	2.62	0.53
35:2:910:C:OP2	35:2:910:C:H3'	2.08	0.53
35:2:938:G:H3'	35:2:940:A:P	2.49	0.53
35:2:1085:G:C2	35:2:1087:A:OP2	2.61	0.53
36:3:265:A:O2'	36:3:266:C:O4'	2.27	0.53
15:c:119:ARG:CB	30:x:127:LYS:HA	2.38	0.53
15:c:186:GLU:N	35:2:1624:C:O5'	2.35	0.53
19:i:168:ASP:O	19:i:171:ALA:HB2	2.09	0.53
22:p:49:LYS:CE	22:p:58:GLY:HA2	2.39	0.53
26:t:74:SER:HB2	35:2:210:A:H4'	1.91	0.53
29:w:17:ALA:HB2	29:w:30:VAL:CB	2.39	0.53
31:y:66:ARG:CD	35:2:113:U:H5''	2.37	0.53
31:y:128:ARG:CG	35:2:115:G:OP2	2.57	0.53
35:2:120:U:H3'	35:2:120:U:P	2.48	0.53
35:2:134:U:O2	35:2:136:C:C4	2.60	0.53
35:2:410:A:H2'	35:2:411:C:H6	1.72	0.53
35:2:457:G:H2'	35:2:458:G:O4'	2.08	0.53
35:2:546:U:C5	35:2:591:A:N6	2.76	0.53
35:2:872:G:N3	35:2:873:U:H1'	2.22	0.53
35:2:885:G:H2'	35:2:886:U:C6	2.43	0.53
35:2:976:G:C5	35:2:1023:A:C6	2.96	0.53
35:2:1061:A:C4	35:2:1062:A:C8	2.97	0.53
35:2:1469:A:C6	35:2:1470:C:N4	2.77	0.53
36:3:248:G:C2	36:3:249:U:N3	2.76	0.53
9:U:96:GLN:CB	36:3:266:C:H6	2.18	0.53
16:d:128:THR:C	16:d:129:TYR:O	2.51	0.53
19:i:563:PRO:O	19:i:564:ALA:HB3	2.07	0.53
21:o:35:ARG:HE	21:o:44:SER:CB	2.19	0.53
21:o:161:TYR:CE2	35:2:934:C:C2	2.95	0.53
23:q:59:VAL:C	23:q:61:TYR:N	2.56	0.53
23:q:128:ASN:O	23:q:130:ILE:N	2.42	0.53
26:t:123:LEU:HD23	26:t:123:LEU:C	2.34	0.53
27:u:135:ALA:CB	27:u:140:ILE:HA	2.39	0.53
31:y:38:GLY:CA	35:2:246:G:O2'	2.56	0.53
31:y:60:THR:O	31:y:60:THR:HG22	2.09	0.53
31:y:122:LEU:HD23	31:y:123:VAL:H	1.68	0.53
33:0:146:PHE:CD1	33:0:147:VAL:N	2.77	0.53
35:2:26:A:C6	35:2:27:U:C4	2.97	0.53
35:2:74:U:OP2	35:2:74:U:C6	2.62	0.53
35:2:97:C:H2'	35:2:425:A:O2'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:105:A:N6	35:2:109:G:C6	2.76	0.53
35:2:106:U:H2'	35:2:107:C:O4'	2.08	0.53
35:2:144:U:C4	35:2:145:A:C8	2.97	0.53
35:2:206:A:H5''	35:2:207:U:OP2	2.08	0.53
35:2:253:A:N1	35:2:254:A:C5	2.76	0.53
35:2:323:A:H61	35:2:344:A:N6	2.06	0.53
35:2:388:G:C4	35:2:389:G:N7	2.77	0.53
35:2:460:A:H2'	35:2:461:G:O4'	2.08	0.53
35:2:885:G:C6	35:2:886:U:O4	2.61	0.53
35:2:920:U:H6	35:2:920:U:OP2	1.92	0.53
35:2:1055:U:C2	35:2:1065:A:N1	2.76	0.53
35:2:1085:G:C4	35:2:1087:A:OP2	2.61	0.53
35:2:1094:G:H2'	35:2:1095:U:O2	2.05	0.53
35:2:1155:G:C6	35:2:1156:C:N4	2.77	0.53
35:2:1534:G:C4'	35:2:1536:G:O6	2.56	0.53
36:3:80:G:N7	36:3:81:G:C5	2.77	0.53
19:i:905:GLY:C	19:i:907:GLN:H	2.15	0.53
22:p:71:ASN:CB	33:0:15:LEU:HD22	2.36	0.53
22:p:150:ARG:HG3	22:p:150:ARG:NH1	2.23	0.53
24:r:90:GLY:C	24:r:92:ARG:N	2.67	0.53
25:s:115:ARG:HA	25:s:118:CYS:SG	2.49	0.53
26:t:21:HIS:CD2	26:t:21:HIS:N	2.76	0.53
31:y:14:GLY:C	35:2:249:U:N3	2.67	0.53
31:y:33:TYR:CZ	35:2:249:U:P	2.99	0.53
31:y:87:ARG:NH1	31:y:104:ARG:NH1	2.55	0.53
33:0:27:HIS:CE1	33:0:67:SER:OG	2.59	0.53
35:2:105:A:C1'	35:2:107:C:N4	2.70	0.53
35:2:149:C:O2	35:2:149:C:H2'	2.09	0.53
35:2:169:A:C4	35:2:171:A:C5	2.96	0.53
35:2:185:U:C2	35:2:201:G:N1	2.77	0.53
35:2:195:G:C2	35:2:196:G:C4	2.97	0.53
35:2:250:C:OP2	35:2:250:C:C6	2.62	0.53
35:2:272:U:H1'	35:2:273:G:OP2	2.08	0.53
35:2:287:G:N3	35:2:287:G:H2'	2.24	0.53
35:2:309:C:C2	35:2:357:G:C2	2.97	0.53
35:2:314:C:P	35:2:314:C:O4'	2.67	0.53
35:2:323:A:C6	35:2:324:U:C4	2.97	0.53
35:2:488:G:N2	35:2:489:C:C2	2.77	0.53
35:2:512:A:N6	35:2:539:G:C2'	2.70	0.53
35:2:537:G:C5	35:2:538:A:C5	2.96	0.53
35:2:894:U:N3	35:2:895:G:C6	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:956:C:OP2	35:2:956:C:H6	1.91	0.53
35:2:1046:G:C4	35:2:1073:G:C2	2.96	0.53
35:2:1080:U:O2	35:2:1091:A:C6	2.61	0.53
36:3:101:G:C6	36:3:252:C:N3	2.76	0.53
16:d:70:GLY:HA3	35:2:1097:U:N1	2.17	0.53
19:i:182:ILE:HA	19:i:561:ASP:CB	2.39	0.53
24:r:184:THR:O	24:r:188:ILE:HG13	2.09	0.53
25:s:78:ARG:O	25:s:82:ILE:HG13	2.09	0.53
25:s:133:PRO:HD2	25:s:162:PHE:CE2	2.44	0.53
26:t:94:THR:OG1	35:2:328:A:C2'	2.57	0.53
28:v:107:LYS:O	28:v:109:LYS:N	2.42	0.53
28:v:119:GLU:O	28:v:121:ARG:N	2.42	0.53
29:w:64:ALA:HA	29:w:68:ALA:HB3	1.89	0.53
31:y:80:ASN:HB2	35:2:325:G:C1'	2.38	0.53
35:2:26:A:OP1	35:2:27:U:OP2	2.26	0.53
35:2:38:C:H5''	35:2:39:A:OP2	2.08	0.53
35:2:53:G:OP2	35:2:53:G:C8	2.58	0.53
35:2:138:A:C4	35:2:139:C:H5''	2.44	0.53
35:2:152:U:C5	35:2:152:U:OP2	2.62	0.53
35:2:206:A:H2'	35:2:206:A:N3	2.24	0.53
35:2:244:A:OP2	35:2:244:A:H8	1.87	0.53
35:2:246:G:H3'	35:2:246:G:H8	1.73	0.53
35:2:387:A:C2	35:2:402:C:N4	2.77	0.53
35:2:439:U:N3	35:2:441:A:C8	2.76	0.53
35:2:495:C:C5	35:2:496:G:H1'	2.44	0.53
35:2:548:G:O6	35:2:589:C:N4	2.40	0.53
35:2:624:G:O2'	35:2:625:C:H5'	2.08	0.53
35:2:630:A:N6	35:2:969:C:C2'	2.71	0.53
35:2:915:A:N7	35:2:916:U:C4	2.77	0.53
35:2:1039:A:N1	35:2:1079:U:C2	2.77	0.53
35:2:1051:G:C2	35:2:1052:U:N3	2.76	0.53
35:2:1053:G:H2'	35:2:1054:U:O4'	2.08	0.53
36:3:90:C:H1'	36:3:91:G:H5'	1.89	0.53
1:C:36:UNK:CB	1:C:315:UNK:CB	2.86	0.53
9:V:128:THR:CA	10:X:157:PRO:CB	2.87	0.53
19:j:130:ALA:CB	19:j:170:HIS:H	2.21	0.53
23:q:136:ALA:C	23:q:138:THR:H	2.15	0.53
26:t:143:LYS:HG3	26:t:144:SER:N	2.24	0.53
28:v:117:LEU:C	28:v:119:GLU:N	2.65	0.53
31:y:8:ALA:CB	31:y:11:LYS:HE2	2.38	0.53
33:0:51:ARG:CZ	33:0:146:PHE:CE1	2.92	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:40:A:C6	35:2:41:A:C6	2.97	0.53
35:2:109:G:OP2	35:2:110:U:O4	2.27	0.53
35:2:365:G:C2	35:2:377:G:C4	2.97	0.53
35:2:471:A:H2'	35:2:472:U:C6	2.44	0.53
35:2:487:G:O3'	35:2:488:G:O4'	2.27	0.53
35:2:520:A:C5	35:2:521:A:C5	2.96	0.53
35:2:624:G:N1	35:2:976:G:C4	2.77	0.53
35:2:872:G:N2	35:2:956:C:C2	2.77	0.53
35:2:881:A:C2	35:2:948:G:C2	2.97	0.53
35:2:884:A:H2'	35:2:885:G:O4'	2.09	0.53
35:2:887:A:C6	35:2:926:A:C6	2.96	0.53
35:2:930:A:OP2	35:2:931:C:C5	2.62	0.53
35:2:1025:A:O3'	35:2:1027:A:OP2	2.26	0.53
5:O:30:UNK:O	5:O:650:UNK:CB	2.56	0.53
15:c:124:LEU:C	15:c:126:ASP:N	2.66	0.53
5:m:630:UNK:N	5:m:644:UNK:O	2.41	0.53
21:o:58:ILE:O	21:o:59:ALA:C	2.52	0.53
24:r:76:LEU:CD2	24:r:94:ARG:HD2	2.32	0.53
26:t:83:LYS:CE	35:2:259:U:P	2.96	0.53
31:y:33:TYR:CD1	35:2:249:U:H5	2.21	0.53
33:0:56:TYR:C	33:0:56:TYR:HD1	2.16	0.53
33:0:101:THR:HG23	33:0:105:PHE:CE1	2.44	0.53
35:2:73:U:N3	35:2:81:G:C2	2.77	0.53
35:2:114:C:C1'	35:2:115:G:H5''	2.39	0.53
35:2:163:G:C8	35:2:163:G:OP2	2.61	0.53
35:2:282:C:N3	35:2:283:U:C2	2.77	0.53
35:2:340:U:H2'	35:2:341:A:C1'	2.38	0.53
35:2:357:G:C2	35:2:358:U:C5	2.97	0.53
35:2:375:U:H2'	35:2:376:C:O4'	2.09	0.53
35:2:419:G:H3'	35:2:420:A:C8	2.39	0.53
35:2:522:U:H3'	35:2:523:G:C5'	2.36	0.53
35:2:888:U:H3'	35:2:889:U:C6	2.44	0.53
35:2:890:C:H3'	35:2:891:A:H8	1.74	0.53
35:2:890:C:C2	35:2:923:A:C4	2.96	0.53
35:2:940:A:C5	35:2:941:A:C5	2.96	0.53
35:2:975:C:C2	35:2:976:G:N7	2.77	0.53
35:2:1047:G:O6	35:2:1071:U:C4	2.62	0.53
35:2:1054:U:H3'	35:2:1055:U:H5	1.74	0.53
1:C:325:UNK:CA	1:D:45:UNK:N	2.60	0.53
3:H:139:UNK:CB	3:H:160:UNK:CA	2.86	0.53
21:o:212:PRO:HD2	35:2:1067:C:C5'	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:p:185:ILE:HD11	22:p:193:ARG:CB	2.39	0.53
24:r:2:LYS:HB3	24:r:108:VAL:HG22	1.90	0.53
24:r:92:ARG:HB2	35:2:405:C:O2'	2.08	0.53
24:r:163:ARG:H	35:2:67:A:H4'	1.73	0.53
24:r:180:GLN:HB3	35:2:169:A:OP1	2.08	0.53
26:t:124:HIS:CE1	26:t:152:LYS:HD3	2.44	0.53
26:t:155:LYS:O	26:t:156:ALA:C	2.50	0.53
27:u:49:LEU:O	27:u:50:SER:C	2.51	0.53
35:2:103:A:N3	35:2:104:A:C6	2.74	0.53
35:2:147:A:C5	35:2:167:U:O2	2.60	0.53
35:2:190:C:O2'	35:2:191:C:P	2.66	0.53
35:2:198:A:C5	35:2:199:G:C2	2.97	0.53
35:2:207:U:C2	35:2:261:U:N3	2.76	0.53
35:2:245:U:OP2	35:2:245:U:C6	2.62	0.53
35:2:276:C:C6	35:2:277:U:H3'	2.44	0.53
35:2:324:U:O4	35:2:344:A:C6	2.61	0.53
35:2:324:U:H1'	35:2:346:G:H1'	1.91	0.53
35:2:476:U:C2'	35:2:477:A:OP2	2.57	0.53
35:2:495:C:C2	35:2:496:G:C8	2.96	0.53
35:2:895:G:C6	35:2:896:U:C4	2.97	0.53
35:2:954:G:C3'	35:2:955:A:H8	2.21	0.53
35:2:1087:A:H2'	35:2:1088:A:H8	1.73	0.53
35:2:1570:A:N3	35:2:1571:C:H1'	2.24	0.53
36:3:101:G:N1	36:3:251:U:C2	2.73	0.53
36:3:101:G:C2	36:3:251:U:O2	2.60	0.53
1:E:46:UNK:N	1:F:284:UNK:O	2.34	0.52
1:P:286:UNK:O	14:b:19:ILE:O	2.27	0.52
9:V:25:ALA:CA	27:u:184:SER:N	2.51	0.52
19:j:905:GLY:C	19:j:907:GLN:H	2.15	0.52
5:m:30:UNK:O	5:m:650:UNK:CB	2.56	0.52
21:o:30:GLU:HG3	21:o:52:LYS:HD3	1.90	0.52
22:p:31:PRO:HB2	22:p:38:LEU:CD2	2.38	0.52
26:t:33:ILE:HG23	35:2:330:G:O2'	2.08	0.52
26:t:89:VAL:HA	26:t:110:VAL:HG13	1.90	0.52
31:y:128:ARG:HD2	35:2:115:G:N7	2.23	0.52
35:2:62:A:OP2	35:2:288:A:C2	2.62	0.52
35:2:62:A:H4'	35:2:63:G:OP2	2.09	0.52
35:2:95:G:N2	35:2:426:G:H1'	2.25	0.52
35:2:143:G:C4	35:2:173:A:C2	2.97	0.52
35:2:180:A:O2'	35:2:181:A:O4'	2.23	0.52
35:2:195:G:C6	35:2:196:G:C6	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:245:U:N3	35:2:247:A:H5''	2.23	0.52
35:2:269:G:H22	35:2:285:G:N2	2.07	0.52
35:2:281:G:C5	35:2:282:C:C6	2.96	0.52
35:2:287:G:N1	35:2:288:A:C6	2.77	0.52
35:2:298:C:C4	35:2:299:A:C8	2.97	0.52
35:2:367:A:C2	35:2:368:U:C2	2.97	0.52
35:2:389:G:C6	35:2:390:G:C5	2.97	0.52
35:2:464:A:C6	35:2:465:G:C5	2.97	0.52
35:2:490:C:O2	35:2:498:G:C2	2.62	0.52
35:2:537:G:C4	35:2:538:A:N7	2.77	0.52
35:2:546:U:C4	35:2:591:A:C6	2.97	0.52
35:2:879:G:N1	35:2:950:C:C4	2.77	0.52
35:2:881:A:OP2	35:2:881:A:C8	2.61	0.52
35:2:882:U:C5	35:2:882:U:OP2	2.62	0.52
35:2:932:U:H4'	35:2:933:A:OP1	2.09	0.52
35:2:950:C:OP2	35:2:950:C:C5	2.62	0.52
35:2:1092:A:C8	35:2:1094:G:C8	2.97	0.52
20:k:135:ALA:N	35:2:1523:G:C2	2.77	0.52
21:o:120:TRP:CH2	21:o:156:SER:HA	2.44	0.52
23:q:59:VAL:HA	23:q:62:VAL:CB	2.38	0.52
23:q:220:VAL:C	23:q:222:LYS:H	2.16	0.52
25:s:33:LEU:O	25:s:37:LEU:HB2	2.08	0.52
25:s:52:LYS:HD2	25:s:53:THR:H	1.73	0.52
26:t:55:ARG:NH2	35:2:396:G:N7	2.53	0.52
30:x:133:GLY:O	30:x:134:ALA:HB3	2.09	0.52
31:y:61:SER:OG	31:y:62:ASN:N	2.42	0.52
31:y:83:VAL:CG1	31:y:84:ILE:N	2.72	0.52
33:0:19:ARG:NE	33:0:73:VAL:HG11	2.20	0.52
33:0:85:PRO:CG	35:2:525:A:C5	2.74	0.52
35:2:79:C:OP2	35:2:79:C:C2	2.62	0.52
35:2:93:A:C2	35:2:398:G:C2	2.98	0.52
35:2:95:G:C2	35:2:96:G:C4	2.98	0.52
35:2:105:A:OP1	35:2:106:U:OP2	2.28	0.52
35:2:115:G:O2'	35:2:116:U:O5'	2.27	0.52
35:2:129:U:OP2	35:2:182:A:C2	2.63	0.52
35:2:130:C:O3'	35:2:131:C:H4'	2.05	0.52
35:2:133:U:C6	35:2:133:U:H5'	2.45	0.52
35:2:188:A:P	35:2:189:C:C5	3.03	0.52
35:2:301:A:C5	35:2:302:U:C4	2.97	0.52
35:2:312:A:H5'	35:2:314:C:OP1	2.10	0.52
35:2:315:A:C5	35:2:350:U:C5	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:316:A:C6	35:2:349:U:N3	2.77	0.52
35:2:329:G:C4	35:2:330:G:C8	2.97	0.52
35:2:355:G:C2	35:2:356:G:C4	2.98	0.52
35:2:445:A:N6	35:2:462:G:N2	2.57	0.52
35:2:473:A:OP2	35:2:474:A:N7	2.42	0.52
35:2:491:C:N4	35:2:497:G:C6	2.77	0.52
35:2:495:C:OP2	35:2:495:C:O2	2.28	0.52
35:2:512:A:C6	35:2:539:G:H8	2.27	0.52
35:2:515:A:C2	35:2:537:G:C2	2.96	0.52
35:2:546:U:N3	35:2:547:U:C2	2.77	0.52
35:2:631:G:N2	35:2:969:C:H1'	2.25	0.52
35:2:1043:A:C2	35:2:1077:C:C2	2.97	0.52
35:2:1054:U:C5	35:2:1054:U:OP2	2.62	0.52
35:2:1595:U:H6	35:2:1596:C:C2	2.27	0.52
36:3:129:U:C2	36:3:186:G:C2	2.97	0.52
15:c:142:LEU:CB	30:x:129:PHE:CB	2.46	0.52
15:c:184:VAL:C	35:2:1624:C:C5'	2.74	0.52
19:i:130:ALA:CB	19:i:170:HIS:H	2.21	0.52
19:j:168:ASP:O	19:j:171:ALA:HB2	2.09	0.52
1:n:294:UNK:CB	26:t:47:GLU:C	2.82	0.52
22:p:33:GLN:OE1	35:2:120:U:C1'	2.57	0.52
23:q:66:GLN:HA	23:q:87:CYS:O	2.09	0.52
24:r:23:LYS:CE	24:r:41:LEU:HA	2.39	0.52
24:r:55:GLY:HA3	24:r:63:MET:CG	2.37	0.52
25:s:178:THR:HG22	25:s:180:ARG:HG3	1.89	0.52
26:t:14:THR:HG22	26:t:14:THR:O	2.08	0.52
26:t:72:ASN:OD1	26:t:81:THR:HG22	2.10	0.52
26:t:111:GLU:HA	26:t:172:ILE:O	2.09	0.52
27:u:72:GLU:O	27:u:75:ALA:HB3	2.09	0.52
33:0:30:SER:O	35:2:534:A:C4'	2.50	0.52
35:2:51:A:C6	35:2:52:U:H1'	2.44	0.52
35:2:65:A:H2'	35:2:70:C:N4	2.24	0.52
35:2:168:A:C5	35:2:169:A:C5	2.97	0.52
35:2:209:U:N3	35:2:210:A:C5	2.77	0.52
35:2:243:G:C6	35:2:244:A:C6	2.97	0.52
35:2:333:A:C5	35:2:334:G:C5	2.98	0.52
35:2:399:A:N3	35:2:402:C:OP2	2.42	0.52
35:2:409:C:C2	35:2:410:A:C8	2.97	0.52
35:2:473:A:H3'	35:2:474:A:C8	2.44	0.52
35:2:484:C:N3	35:2:504:U:O4	2.42	0.52
35:2:514:G:C6	35:2:515:A:C4	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:535:A:OP2	35:2:535:A:C8	2.62	0.52
35:2:876:G:O6	35:2:936:G:C6	2.62	0.52
35:2:877:G:C6	35:2:878:G:C5	2.98	0.52
35:2:1032:G:C6	35:2:1033:C:C2	2.97	0.52
35:2:1040:G:C2	35:2:1041:G:C4	2.97	0.52
35:2:1041:G:C5	35:2:1042:G:N7	2.78	0.52
35:2:1043:A:C5	35:2:1044:U:H5	2.27	0.52
35:2:1057:U:O2	35:2:1061:A:C8	2.62	0.52
35:2:1073:G:C2	35:2:1074:G:C2	2.97	0.52
35:2:1575:G:N2	35:2:1576:A:C1'	2.72	0.52
36:3:192:A:C4	36:3:194:G:C4	2.97	0.52
15:c:120:GLY:C	30:x:127:LYS:H	2.03	0.52
15:c:120:GLY:O	30:x:128:LYS:N	2.40	0.52
21:o:107:ASP:OD1	21:o:108:ILE:N	2.32	0.52
21:o:210:ILE:CG1	35:2:1065:A:H4'	2.34	0.52
22:p:174:PHE:O	22:p:175:ALA:HB2	2.10	0.52
33:0:2:THR:CG2	33:0:3:ILE:H	1.96	0.52
35:2:163:G:H8	35:2:163:G:P	2.32	0.52
35:2:187:G:N3	35:2:199:G:N1	2.57	0.52
35:2:191:C:H2'	35:2:191:C:OP2	2.09	0.52
35:2:206:A:N1	35:2:261:U:C2	2.77	0.52
35:2:210:A:C6	35:2:211:U:O4	2.62	0.52
35:2:254:A:C2'	35:2:255:U:H5'	2.40	0.52
35:2:391:A:N1	35:2:392:G:C5	2.77	0.52
35:2:406:U:H3'	35:2:407:A:C8	2.41	0.52
35:2:890:C:C2	35:2:923:A:C2	2.98	0.52
35:2:891:A:C2	35:2:892:A:C4	2.97	0.52
35:2:902:G:H8	35:2:902:G:O5'	1.93	0.52
35:2:921:U:OP2	35:2:921:U:C6	2.62	0.52
35:2:1043:A:N1	35:2:1077:C:C4	2.78	0.52
36:3:78:C:C2	36:3:79:G:C8	2.97	0.52
36:3:78:C:N3	36:3:269:G:N1	2.58	0.52
36:3:96:C:C6	36:3:96:C:OP2	2.61	0.52
36:3:199:G:OP1	36:3:200:U:O2'	2.16	0.52
17:e:186:VAL:HA	17:e:226:GLY:O	2.09	0.52
5:m:563:UNK:CB	25:s:150:PHE:HE2	2.23	0.52
24:r:35:GLU:OE1	24:r:35:GLU:HA	2.09	0.52
26:t:22:ARG:CB	35:2:385:A:P	2.97	0.52
30:x:18:ALA:CB	30:x:84:ALA:HB2	2.39	0.52
35:2:38:C:H3'	35:2:39:A:C5'	2.38	0.52
35:2:65:A:N1	35:2:84:A:N7	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:117:U:O2	35:2:299:A:H2	1.92	0.52
35:2:441:A:C5	35:2:464:A:C6	2.97	0.52
35:2:448:C:H2'	35:2:449:C:H6	1.74	0.52
35:2:532:U:H2'	35:2:533:U:C4'	2.39	0.52
35:2:536:C:C4	35:2:537:G:C8	2.98	0.52
35:2:877:G:C4	35:2:878:G:C8	2.97	0.52
35:2:912:U:H1'	35:2:914:G:O6	2.09	0.52
35:2:971:A:OP2	35:2:971:A:C8	2.62	0.52
35:2:1165:G:C5	35:2:1166:A:N7	2.78	0.52
35:2:1176:G:C6	35:2:1177:C:C4	2.97	0.52
35:2:1573:A:H4'	35:2:1574:G:OP2	2.09	0.52
36:3:74:C:N3	36:3:75:A:N6	2.58	0.52
21:o:182:ALA:HB2	21:o:190:PHE:HE2	1.72	0.52
23:q:45:LYS:O	23:q:46:TRP:CB	2.58	0.52
25:s:131:LEU:HD23	25:s:170:ILE:HD13	1.92	0.52
35:2:72:A:N1	35:2:81:G:C6	2.78	0.52
35:2:149:C:N3	35:2:166:C:C4	2.77	0.52
35:2:315:A:N7	35:2:350:U:C5	2.77	0.52
35:2:368:U:C4	35:2:369:A:C2	2.97	0.52
35:2:407:A:C5	35:2:408:C:C5	2.97	0.52
35:2:452:A:N6	35:2:454:U:C5	2.78	0.52
35:2:480:G:N3	35:2:480:G:C2'	2.73	0.52
35:2:513:U:O2'	35:2:514:G:O4'	2.26	0.52
35:2:520:A:H2'	35:2:521:A:C1'	2.39	0.52
35:2:532:U:OP2	35:2:532:U:C6	2.63	0.52
35:2:630:A:C6	35:2:631:G:C4	2.97	0.52
35:2:863:A:H2'	35:2:865:A:C8	2.44	0.52
35:2:978:A:H8	35:2:978:A:O5'	1.93	0.52
35:2:1094:G:OP2	35:2:1095:U:P	2.67	0.52
35:2:1619:C:N3	35:2:1620:C:H5	2.08	0.52
36:3:64:C:H3'	36:3:64:C:OP2	2.09	0.52
36:3:87:G:OP2	36:3:87:G:C8	2.63	0.52
36:3:90:C:O2'	36:3:91:G:OP2	2.23	0.52
36:3:196:U:C4	36:3:197:C:N4	2.77	0.52
21:o:75:LEU:HB2	21:o:79:SER:OG	2.10	0.52
21:o:175:ASN:HD22	21:o:175:ASN:N	2.06	0.52
23:q:132:VAL:O	23:q:136:ALA:HB2	2.09	0.52
25:s:123:TYR:CE2	25:s:178:THR:HA	2.45	0.52
26:t:14:THR:HG22	35:2:354:C:C5'	2.26	0.52
30:x:123:ARG:O	35:2:1584:G:C8	2.63	0.52
31:y:128:ARG:HB2	35:2:115:G:N7	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:0:35:LYS:HB2	35:2:520:A:C4'	2.38	0.52
35:2:35:U:H2'	35:2:36:C:O5'	2.10	0.52
35:2:38:C:H3'	35:2:38:C:H6	1.75	0.52
35:2:61:A:H2'	35:2:453:U:H3	1.75	0.52
35:2:122:U:C2	35:2:296:U:O2	2.63	0.52
35:2:131:C:N3	35:2:182:A:C6	2.78	0.52
35:2:142:G:C6	35:2:174:U:C2	2.97	0.52
35:2:153:G:C5	35:2:162:A:C6	2.98	0.52
35:2:154:G:H3'	35:2:155:U:C5	2.45	0.52
35:2:180:A:H1'	35:2:181:A:O3'	2.08	0.52
35:2:193:U:N3	35:2:195:G:N3	2.58	0.52
35:2:208:U:C4	35:2:259:U:N3	2.72	0.52
35:2:269:G:N3	35:2:287:G:C2	2.78	0.52
35:2:310:C:C5	35:2:310:C:OP2	2.63	0.52
35:2:340:U:C2	35:2:341:A:C8	2.98	0.52
35:2:398:G:H5''	35:2:399:A:P	2.50	0.52
35:2:481:A:C6	35:2:508:U:C4	2.98	0.52
35:2:616:G:H5'	35:2:1086:A:N6	2.24	0.52
35:2:865:A:C6	35:2:866:G:C4	2.98	0.52
35:2:891:A:N3	35:2:922:G:N1	2.58	0.52
35:2:1083:G:H1'	35:2:1094:G:H1'	1.92	0.52
35:2:1156:C:O2'	35:2:1157:A:H5'	2.09	0.52
35:2:1584:G:N3	35:2:1584:G:C2'	2.73	0.52
36:3:112:U:H3'	36:3:113:G:H8	1.74	0.52
1:B:277:UNK:CB	1:D:343:UNK:O	2.57	0.52
8:S:315:PRO:CB	36:3:90:C:C3'	2.87	0.52
15:c:143:HIS:C	35:2:1603:U:O3'	2.51	0.52
19:j:286:ALA:HA	19:j:414:ILE:O	2.10	0.52
22:p:28:ALA:H	35:2:448:C:H4'	1.69	0.52
22:p:196:ILE:O	22:p:212:VAL:HG12	2.09	0.52
23:q:149:VAL:C	23:q:151:GLY:H	2.18	0.52
24:r:164:THR:HA	35:2:68:A:H5'	1.91	0.52
26:t:19:PRO:HD3	35:2:104:A:C5'	2.39	0.52
28:v:51:GLY:O	28:v:55:ARG:HA	2.09	0.52
31:y:91:HIS:O	31:y:99:TYR:HA	2.10	0.52
35:2:82:U:H2'	35:2:83:G:C1'	2.40	0.52
35:2:92:A:OP2	35:2:398:G:N1	2.38	0.52
35:2:119:A:C8	35:2:397:A:C4	2.98	0.52
35:2:186:C:OP1	35:2:186:C:C6	2.63	0.52
35:2:255:U:C2'	35:2:256:A:C8	2.92	0.52
35:2:265:A:C2	35:2:267:U:C2	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:300:A:C4	35:2:301:A:C8	2.98	0.52
35:2:309:C:O2	35:2:357:G:C2	2.58	0.52
35:2:325:G:C4	35:2:326:G:C8	2.98	0.52
35:2:432:G:OP2	35:2:433:C:N4	2.42	0.52
35:2:459:G:H4'	35:2:460:A:OP1	2.08	0.52
35:2:462:G:H2'	35:2:462:G:N3	2.24	0.52
35:2:470:A:C8	35:2:471:A:C1'	2.85	0.52
35:2:481:A:C6	35:2:508:U:C5	2.98	0.52
35:2:485:A:N6	35:2:503:G:C6	2.78	0.52
35:2:488:G:H3'	35:2:489:C:H6	1.75	0.52
35:2:868:G:N3	35:2:868:G:C2'	2.72	0.52
35:2:882:U:O2	35:2:947:U:N3	2.42	0.52
35:2:884:A:C6	35:2:885:G:C5	2.97	0.52
35:2:887:A:C4	35:2:888:U:C6	2.98	0.52
35:2:954:G:C3'	35:2:955:A:C8	2.92	0.52
35:2:1039:A:C4	35:2:1040:G:C8	2.98	0.52
35:2:1063:U:N3	35:2:1064:G:N7	2.57	0.52
36:3:247:G:H2'	36:3:248:G:C8	2.45	0.52
9:V:95:LEU:HA	36:3:114:A:H3'	1.91	0.52
15:c:250:ASN:CB	15:c:251:SER:CA	2.87	0.52
20:k:134:LYS:N	35:2:1523:G:C5	2.64	0.52
23:q:169:ASN:O	23:q:172:ILE:N	2.36	0.52
24:r:59:ASP:CA	35:2:157:A:N6	2.67	0.52
25:s:43:THR:HG21	25:s:97:GLN:OE1	2.09	0.52
25:s:109:LYS:H	25:s:109:LYS:HD2	1.75	0.52
26:t:6:ASP:HB2	26:t:22:ARG:HH21	1.74	0.52
35:2:44:U:H2'	35:2:436:A:H61	1.75	0.52
35:2:99:C:H2'	35:2:361:C:C6	2.45	0.52
35:2:102:U:O2	35:2:361:C:H1'	2.10	0.52
35:2:282:C:C2	35:2:283:U:C2	2.98	0.52
35:2:328:A:C2	35:2:329:G:C4	2.98	0.52
35:2:336:G:C6	35:2:338:C:C6	2.98	0.52
35:2:483:A:N1	35:2:504:U:C4	2.78	0.52
35:2:499:U:H2'	35:2:500:C:O4'	2.10	0.52
35:2:503:G:C6	35:2:504:U:O4	2.63	0.52
35:2:503:G:O3'	35:2:505:A:OP2	2.28	0.52
35:2:634:G:C2	35:2:966:A:C5	2.98	0.52
35:2:966:A:C2	35:2:967:A:C4	2.98	0.52
36:3:71:U:O2'	36:3:72:C:H5'	2.10	0.52
36:3:79:G:C2'	36:3:80:G:H5'	2.39	0.52
36:3:86:U:N3	36:3:87:G:C6	2.77	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:253:G:OP2	36:3:253:G:H8	1.93	0.52
19:j:182:ILE:HA	19:j:561:ASP:CB	2.39	0.52
24:r:113:ILE:CD1	24:r:124:LEU:HD13	2.40	0.52
26:t:79:ASN:O	26:t:79:ASN:ND2	2.43	0.52
32:z:116:ALA:C	32:z:118:ARG:N	2.64	0.52
33:0:32:THR:HG21	35:2:520:A:H2	1.75	0.52
35:2:23:G:H2'	35:2:24:U:C1'	2.40	0.52
35:2:37:U:O4	35:2:471:A:N6	2.41	0.52
35:2:105:A:H1'	35:2:107:C:H5	1.75	0.52
35:2:129:U:C4	35:2:264:G:C2	2.98	0.52
35:2:153:G:C2	35:2:154:G:C4	2.98	0.52
35:2:160:C:O2'	35:2:161:U:OP1	2.25	0.52
35:2:190:C:O2'	35:2:191:C:C6	2.58	0.52
35:2:262:U:C2	35:2:263:C:C6	2.97	0.52
35:2:273:G:O2'	35:2:274:G:C8	2.62	0.52
35:2:317:C:C4'	35:2:354:C:H1'	2.40	0.52
35:2:323:A:C5	35:2:324:U:C5	2.97	0.52
35:2:347:G:H8	35:2:347:G:OP2	1.93	0.52
35:2:366:A:N1	35:2:367:A:C5	2.78	0.52
35:2:366:A:C5	35:2:376:C:N3	2.77	0.52
35:2:432:G:C4	35:2:433:C:C4	2.98	0.52
35:2:475:A:H8	35:2:476:U:OP2	1.92	0.52
35:2:498:G:H2'	35:2:499:U:C2	2.45	0.52
35:2:498:G:O3'	35:2:499:U:O4'	2.28	0.52
35:2:916:U:OP2	35:2:917:U:C4	2.62	0.52
35:2:941:A:OP2	35:2:942:G:C8	2.63	0.52
35:2:972:G:C2	35:2:973:A:C8	2.98	0.52
35:2:1026:A:P	35:2:1027:A:OP2	2.68	0.52
35:2:1073:G:C5	35:2:1074:G:C5	2.98	0.52
35:2:1590:G:C6	35:2:1591:C:N4	2.78	0.52
36:3:85:A:H1'	36:3:265:A:C2	2.45	0.52
1:N:248:UNK:CB	5:O:437:UNK:O	2.56	0.51
17:f:54:LYS:O	17:f:64:LYS:O	2.28	0.51
1:n:67:UNK:CB	24:r:73:VAL:HG11	2.39	0.51
22:p:28:ALA:CA	35:2:448:C:H4'	2.40	0.51
22:p:42:LEU:HB2	22:p:111:PHE:CE2	2.45	0.51
22:p:161:THR:OG1	22:p:229:VAL:HB	2.10	0.51
24:r:9:LEU:HD23	24:r:9:LEU:N	2.22	0.51
24:r:36:VAL:HB	24:r:50:PHE:HB2	1.92	0.51
24:r:94:ARG:N	35:2:406:U:C4'	2.64	0.51
24:r:157:LYS:HB2	35:2:78:A:C6	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:t:57:ARG:O	35:2:398:G:OP1	2.28	0.51
27:u:23:ARG:O	27:u:26:ALA:HB3	2.10	0.51
33:0:127:LYS:O	33:0:128:LYS:C	2.53	0.51
35:2:89:G:C8	35:2:89:G:OP2	2.63	0.51
35:2:138:A:O2'	35:2:139:C:P	2.68	0.51
35:2:151:G:C6	35:2:164:A:C6	2.98	0.51
35:2:312:A:H4'	35:2:313:U:C3'	2.24	0.51
35:2:339:C:O2'	35:2:340:U:O5'	2.25	0.51
35:2:356:G:C3'	35:2:357:G:H8	2.23	0.51
35:2:392:G:C2	35:2:406:U:C2	2.98	0.51
35:2:410:A:C4	35:2:411:C:C6	2.98	0.51
35:2:472:U:C2	35:2:473:A:C8	2.98	0.51
35:2:477:A:N1	35:2:512:A:C6	2.79	0.51
35:2:517:U:H3	35:2:534:A:H61	1.58	0.51
35:2:876:G:C6	35:2:936:G:C6	2.98	0.51
35:2:886:U:C4	35:2:926:A:N6	2.63	0.51
35:2:895:G:O6	35:2:917:U:C4	2.63	0.51
35:2:963:A:H1'	35:2:965:U:O4	2.10	0.51
35:2:1046:G:C2	35:2:1047:G:C4	2.98	0.51
35:2:1158:C:N4	35:2:1163:A:H61	2.05	0.51
35:2:1478:G:O2'	35:2:1479:A:O4'	2.28	0.51
35:2:1480:G:H2'	35:2:1481:C:H5''	1.91	0.51
35:2:1591:C:O2'	35:2:1592:A:C5'	2.58	0.51
35:2:1591:C:O2'	35:2:1592:A:P	2.68	0.51
36:3:70:A:C4	36:3:71:U:C5	2.98	0.51
1:K:114:UNK:C	1:P:133:UNK:CB	2.88	0.51
15:c:98:SER:CA	30:x:138:PHE:CB	2.88	0.51
21:o:161:TYR:N	21:o:161:TYR:HD1	2.08	0.51
22:p:129:THR:HB	22:p:142:VAL:HG12	1.92	0.51
22:p:163:LYS:HD2	22:p:237:TRP:CZ3	2.46	0.51
22:p:195:GLY:HA3	22:p:213:LYS:O	2.10	0.51
24:r:179:ILE:O	24:r:179:ILE:HG22	2.10	0.51
26:t:4:SER:HB3	35:2:400:A:H61	1.71	0.51
26:t:87:LEU:CD2	26:t:171:ARG:NH1	2.73	0.51
27:u:103:ASP:C	27:u:105:LEU:N	2.66	0.51
31:y:17:LEU:HD23	31:y:20:LYS:NZ	2.25	0.51
31:y:66:ARG:NH1	31:y:66:ARG:CG	2.70	0.51
35:2:70:C:H5''	35:2:70:C:C6	2.45	0.51
35:2:76:A:H4'	35:2:77:U:C2	2.44	0.51
35:2:136:C:H41	35:2:178:U:H2'	1.75	0.51
35:2:153:G:C2	35:2:162:A:C4	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:212:U:C4	35:2:254:A:N6	2.78	0.51
35:2:244:A:H8	35:2:244:A:P	2.32	0.51
35:2:299:A:N1	35:2:300:A:C6	2.78	0.51
35:2:392:G:H2'	35:2:393:C:H1'	1.92	0.51
35:2:433:C:C3'	35:2:434:G:H4'	2.40	0.51
35:2:475:A:OP2	35:2:475:A:C8	2.64	0.51
35:2:494:U:H5	35:2:495:C:C6	2.28	0.51
35:2:526:A:H5'	35:2:528:U:H2'	1.92	0.51
35:2:536:C:C4	35:2:537:G:C5	2.98	0.51
35:2:915:A:C5	35:2:916:U:C2	2.98	0.51
35:2:1030:A:OP2	35:2:1030:A:C4'	2.57	0.51
35:2:1051:G:H2'	35:2:1052:U:N1	2.25	0.51
35:2:1619:C:H2'	35:2:1620:C:C6	2.45	0.51
1:P:285:UNK:CB	14:b:22:LYS:O	2.58	0.51
8:T:326:ILE:CB	36:3:108:A:C5'	2.87	0.51
18:g:76:GLY:O	21:o:117:ILE:O	2.29	0.51
23:q:65:ARG:O	23:q:88:PRO:N	2.43	0.51
23:q:182:ALA:O	23:q:184:PHE:N	2.43	0.51
24:r:211:GLU:OE1	24:r:211:GLU:HA	2.10	0.51
25:s:113:ARG:O	25:s:113:ARG:HG2	2.09	0.51
26:t:21:HIS:CB	35:2:385:A:O4'	2.54	0.51
31:y:78:LYS:CG	35:2:347:G:C5'	2.70	0.51
31:y:97:ASN:C	31:y:98:ARG:HG2	2.34	0.51
35:2:28:A:O2'	35:2:29:U:N3	2.40	0.51
35:2:33:U:OP2	35:2:33:U:O2	2.29	0.51
35:2:60:U:H1'	35:2:62:A:C8	2.46	0.51
35:2:159:U:O2'	35:2:160:C:H5''	2.10	0.51
35:2:188:A:O5'	35:2:189:C:OP2	2.28	0.51
35:2:206:A:C8	35:2:206:A:O5'	2.63	0.51
35:2:208:U:C2	35:2:259:U:O2	2.63	0.51
35:2:388:G:C5	35:2:389:G:N7	2.78	0.51
35:2:442:C:N3	35:2:462:G:N1	2.55	0.51
35:2:485:A:O2'	35:2:486:G:O6	2.29	0.51
35:2:515:A:C2	35:2:516:G:C5	2.98	0.51
35:2:895:G:N1	35:2:917:U:C2	2.78	0.51
35:2:922:G:N3	35:2:923:A:C8	2.78	0.51
35:2:930:A:N6	35:2:931:C:N3	2.58	0.51
35:2:955:A:C8	35:2:955:A:OP2	2.63	0.51
36:3:88:A:OP2	36:3:88:A:H2	1.93	0.51
36:3:130:C:H2'	36:3:131:U:C6	2.45	0.51
36:3:248:G:OP2	36:3:248:G:C8	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:V:94:GLY:N	27:u:181:ALA:HB2	2.25	0.51
16:d:118:TRP:C	16:d:119:GLN:O	2.52	0.51
19:i:170:HIS:C	19:i:172:ARG:H	2.19	0.51
22:p:201:GLU:H	22:p:201:GLU:CD	2.19	0.51
26:t:39:THR:C	26:t:41:GLN:N	2.68	0.51
27:u:179:ARG:C	27:u:181:ALA:H	2.17	0.51
30:x:125:GLU:O	35:2:1584:G:N1	2.39	0.51
31:y:10:GLN:O	31:y:11:LYS:HD3	2.10	0.51
35:2:42:G:O4'	35:2:437:A:N1	2.43	0.51
35:2:83:G:C8	35:2:83:G:H5''	2.45	0.51
35:2:111:U:O4'	35:2:304:U:C4	2.63	0.51
35:2:187:G:N1	35:2:199:G:O6	2.44	0.51
35:2:256:A:H2'	35:2:257:A:C1'	2.39	0.51
35:2:356:G:N3	35:2:356:G:H2'	2.24	0.51
35:2:467:G:OP2	35:2:467:G:N7	2.44	0.51
35:2:477:A:H4'	35:2:478:A:OP1	2.10	0.51
35:2:483:A:C6	35:2:484:C:C4	2.99	0.51
35:2:509:G:O3'	35:2:510:G:C8	2.63	0.51
35:2:514:G:O6	35:2:538:A:C4	2.63	0.51
35:2:514:G:C5	35:2:515:A:C5	2.98	0.51
35:2:539:G:C1'	35:2:540:G:OP1	2.58	0.51
35:2:1172:G:C5	35:2:1173:C:C4	2.99	0.51
35:2:1484:G:H21	35:2:1606:C:C1'	2.12	0.51
35:2:1579:U:N3	35:2:1580:C:C4	2.78	0.51
35:2:1584:G:N3	35:2:1584:G:H2'	2.25	0.51
35:2:1589:C:H2'	35:2:1590:G:O4'	2.10	0.51
36:3:98:U:H2'	36:3:99:C:H6	1.74	0.51
1:B:282:UNK:N	1:D:343:UNK:O	2.43	0.51
15:c:143:HIS:N	35:2:1604:U:OP1	2.43	0.51
16:d:66:SER:O	35:2:1097:U:C2	2.63	0.51
21:o:161:TYR:CE1	35:2:934:C:C4	2.92	0.51
22:p:10:LYS:O	22:p:11:ARG:C	2.53	0.51
24:r:61:PHE:HZ	35:2:420:A:OP1	1.93	0.51
24:r:98:ARG:NH2	24:r:101:ILE:O	2.44	0.51
24:r:180:GLN:O	24:r:181:ARG:CB	2.56	0.51
27:u:81:VAL:O	27:u:82:ARG:O	2.29	0.51
35:2:40:A:N1	35:2:41:A:C4	2.79	0.51
35:2:50:C:C5'	35:2:423:G:H4'	2.41	0.51
35:2:94:U:C2	35:2:94:U:OP2	2.64	0.51
35:2:95:G:C6	35:2:96:G:C6	2.99	0.51
35:2:119:A:H3'	35:2:120:U:C5	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:145:A:C2	35:2:171:A:N1	2.79	0.51
35:2:147:A:C5	35:2:168:A:C8	2.99	0.51
35:2:183:U:OP2	35:2:183:U:C5	2.63	0.51
35:2:330:G:O6	35:2:339:C:N4	2.43	0.51
35:2:391:A:N1	35:2:392:G:C6	2.79	0.51
35:2:456:A:C8	35:2:456:A:H3'	2.45	0.51
35:2:624:G:C8	35:2:1027:A:C5	2.99	0.51
35:2:893:U:N3	35:2:894:U:O4'	2.44	0.51
35:2:902:G:H1'	35:2:907:A:N7	2.26	0.51
35:2:967:A:H8	35:2:967:A:OP2	1.94	0.51
35:2:1071:U:H5''	35:2:1072:C:OP2	2.10	0.51
35:2:1097:U:O2'	35:2:1098:U:OP1	2.26	0.51
36:3:103:G:C6	36:3:250:G:C5	2.98	0.51
36:3:252:C:H2'	36:3:253:G:H8	1.73	0.51
1:K:114:UNK:HA	1:P:117:UNK:CB	2.41	0.51
1:n:75:UNK:CB	26:t:3:ILE:CD1	2.89	0.51
21:o:94:VAL:HG13	21:o:98:ASN:O	2.10	0.51
22:p:161:THR:HG23	22:p:228:PHE:HE1	1.76	0.51
23:q:39:GLU:HA	23:q:40:ILE:CB	2.40	0.51
24:r:165:PHE:CD2	35:2:69:G:O4'	2.63	0.51
24:r:166:LYS:HA	24:r:171:LYS:O	2.10	0.51
31:y:29:ALA:O	31:y:31:VAL:N	2.43	0.51
35:2:40:A:N6	35:2:41:A:C6	2.79	0.51
35:2:147:A:C8	35:2:148:A:N7	2.78	0.51
35:2:246:G:H2'	35:2:247:A:H4'	1.93	0.51
35:2:311:U:O2'	35:2:314:C:OP1	2.12	0.51
35:2:417:A:O4'	35:2:418:G:C8	2.63	0.51
35:2:418:G:N2	35:2:419:G:C2	2.79	0.51
35:2:514:G:H3'	35:2:515:A:C8	2.46	0.51
35:2:591:A:C2	35:2:592:A:C8	2.98	0.51
35:2:869:A:C5	35:2:960:U:N3	2.79	0.51
35:2:910:C:H6	35:2:910:C:OP2	1.92	0.51
35:2:1085:G:N3	35:2:1087:A:OP2	2.43	0.51
1:B:283:UNK:CB	1:D:345:UNK:O	2.58	0.51
6:Q:487:UNK:CB	6:Q:498:UNK:C	2.89	0.51
22:p:33:GLN:HE22	35:2:120:U:H1'	1.75	0.51
24:r:176:CYS:CB	35:2:67:A:C1'	2.41	0.51
26:t:12:ARG:O	26:t:15:GLY:N	2.43	0.51
26:t:75:TRP:NE1	26:t:77:SER:HB2	2.26	0.51
27:u:96:VAL:O	27:u:97:LEU:C	2.54	0.51
33:0:9:LYS:O	33:0:21:LEU:HA	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:0:51:ARG:HH22	33:0:148:ALA:HB3	1.75	0.51
35:2:38:C:H42	35:2:471:A:H2	1.57	0.51
35:2:58:U:O5'	35:2:58:U:H6	1.94	0.51
35:2:73:U:C4	35:2:81:G:N1	2.78	0.51
35:2:87:C:P	35:2:88:U:OP2	2.69	0.51
35:2:93:A:OP2	35:2:93:A:C4'	2.53	0.51
35:2:256:A:C6	35:2:257:A:C6	2.97	0.51
35:2:360:A:HO2'	35:2:362:G:H5'	1.75	0.51
35:2:361:C:N3	35:2:384:G:C6	2.79	0.51
35:2:394:C:N3	35:2:401:A:C6	2.79	0.51
35:2:443:C:C2'	35:2:444:C:H4'	2.36	0.51
35:2:489:C:N3	35:2:498:G:C6	2.79	0.51
35:2:508:U:O2	35:2:508:U:H2'	2.11	0.51
35:2:871:G:OP2	35:2:871:G:H8	1.94	0.51
35:2:902:G:OP2	35:2:902:G:H8	1.92	0.51
35:2:1063:U:C4	35:2:1064:G:N7	2.79	0.51
1:L:75:UNK:HA	5:M:351:UNK:N	2.25	0.51
5:M:471:UNK:O	5:M:472:UNK:CB	2.59	0.51
22:p:150:ARG:HG2	22:p:151:PHE:CD1	2.41	0.51
22:p:185:ILE:HG22	22:p:226:ASN:O	2.11	0.51
24:r:137:ARG:CG	24:r:181:ARG:HG3	2.40	0.51
25:s:132:LEU:O	25:s:133:PRO:C	2.53	0.51
25:s:169:ALA:O	25:s:173:ILE:HG13	2.10	0.51
26:t:8:LYS:CD	26:t:18:MET:HE1	2.39	0.51
26:t:115:THR:CB	26:t:116:PRO:HD3	2.40	0.51
29:w:52:ARG:CB	29:w:53:ASP:HA	2.41	0.51
35:2:51:A:H3'	35:2:52:U:C6	2.46	0.51
35:2:102:U:C4	35:2:360:A:H2'	2.45	0.51
35:2:119:A:C4	35:2:397:A:C5	2.98	0.51
35:2:271:A:H1'	35:2:285:G:N2	2.26	0.51
35:2:287:G:C6	35:2:288:A:N6	2.78	0.51
35:2:396:G:C8	35:2:398:G:OP2	2.63	0.51
35:2:549:G:C4	35:2:589:C:C2	2.99	0.51
35:2:904:G:H2'	35:2:905:A:N9	2.26	0.51
35:2:1039:A:N1	35:2:1080:U:C4	2.79	0.51
35:2:1043:A:C5	35:2:1044:U:C5	2.99	0.51
35:2:1053:G:N2	35:2:1067:C:H1'	2.25	0.51
36:3:133:G:C6	36:3:134:C:C4	2.99	0.51
36:3:140:C:C2	36:3:141:U:C5	2.99	0.51
5:O:481:UNK:CB	21:o:16:LYS:CE	2.58	0.51
9:U:41:GLU:CB	36:3:263:U:OP1	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:V:109:GLU:O	27:u:115:LYS:CB	2.59	0.51
19:i:874:VAL:O	19:i:882:ALA:HA	2.10	0.51
1:n:269:UNK:O	26:t:44:THR:CG2	2.59	0.51
21:o:63:ILE:CG2	21:o:66:ARG:HG3	2.28	0.51
21:o:169:ALA:CB	21:o:210:ILE:HD13	2.41	0.51
24:r:13:GLN:HG3	35:2:152:U:C1'	2.41	0.51
24:r:47:GLY:O	24:r:117:GLY:HA3	2.09	0.51
24:r:97:VAL:CG1	24:r:98:ARG:N	2.74	0.51
25:s:5:LYS:O	25:s:6:PHE:CD1	2.64	0.51
25:s:84:LEU:HD12	25:s:94:PHE:HZ	1.76	0.51
27:u:121:SER:O	27:u:122:VAL:C	2.53	0.51
28:v:108:ASP:O	28:v:111:ALA:N	2.43	0.51
28:v:108:ASP:O	28:v:111:ALA:CB	2.59	0.51
32:z:74:VAL:CB	32:z:128:PHE:O	2.59	0.51
35:2:103:A:C8	35:2:358:U:N3	2.79	0.51
35:2:143:G:N3	35:2:173:A:C2	2.79	0.51
35:2:189:C:N4	35:2:197:A:C2	2.79	0.51
35:2:253:A:C6	35:2:254:A:N7	2.79	0.51
35:2:269:G:N1	35:2:270:C:N3	2.59	0.51
35:2:315:A:N6	35:2:349:U:O2'	2.44	0.51
35:2:392:G:C4	35:2:393:C:C6	2.99	0.51
35:2:394:C:C2	35:2:404:G:N3	2.78	0.51
35:2:452:A:C6	35:2:454:U:C5	2.98	0.51
35:2:548:G:C6	35:2:590:C:C4	2.99	0.51
35:2:624:G:C5	35:2:1027:A:N6	2.79	0.51
35:2:891:A:N1	35:2:892:A:C5	2.79	0.51
35:2:1061:A:C5	35:2:1062:A:C5	2.99	0.51
36:3:159:G:C6	36:3:160:U:C2	2.99	0.51
3:H:2:UNK:HA	3:H:170:UNK:N	2.06	0.51
19:j:874:VAL:O	19:j:882:ALA:HA	2.10	0.51
22:p:57:ASN:O	22:p:60:ASP:HB2	2.11	0.51
28:v:119:GLU:O	28:v:120:SER:C	2.54	0.51
31:y:65:ILE:C	35:2:246:G:H22	2.08	0.51
31:y:68:LYS:HE2	35:2:111:U:C2'	2.40	0.51
33:0:92:VAL:O	33:0:92:VAL:HG12	2.09	0.51
35:2:47:A:N7	35:2:99:C:O4'	2.44	0.51
35:2:130:C:N4	35:2:182:A:C2	2.79	0.51
35:2:295:A:H1'	35:2:296:U:C5'	2.41	0.51
35:2:295:A:C5	35:2:296:U:C4	2.99	0.51
35:2:318:U:O2	35:2:346:G:C2	2.62	0.51
35:2:327:U:O2'	35:2:328:A:O5'	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:370:A:C6	35:2:371:G:H1'	2.46	0.51
35:2:389:G:N1	35:2:409:C:N3	2.59	0.51
35:2:404:G:N2	35:2:405:C:C2	2.79	0.51
35:2:414:C:O5'	35:2:414:C:H6	1.93	0.51
35:2:446:A:C5	35:2:447:U:C4	2.99	0.51
35:2:478:A:H2'	35:2:479:C:C5	2.46	0.51
35:2:481:A:C6	35:2:482:U:C4	2.98	0.51
35:2:624:G:OP2	35:2:1027:A:N7	2.44	0.51
35:2:631:G:N1	35:2:969:C:C2	2.80	0.51
35:2:899:G:C6	35:2:911:U:N3	2.79	0.51
36:3:74:C:H2'	36:3:75:A:C8	2.46	0.51
1:L:278:UNK:C	12:Z:264:ALA:HB1	2.31	0.50
15:c:143:HIS:HA	35:2:1604:U:O5'	2.09	0.50
19:i:286:ALA:HA	19:i:414:ILE:O	2.10	0.50
26:t:8:LYS:C	26:t:10:LYS:H	2.19	0.50
26:t:109:ILE:CG2	26:t:191:LEU:HD11	2.40	0.50
27:u:54:ARG:O	27:u:58:ASP:CB	2.59	0.50
31:y:68:LYS:CE	35:2:304:U:C1'	2.78	0.50
32:z:80:ASN:O	32:z:123:GLY:O	2.30	0.50
33:0:35:LYS:CB	35:2:520:A:O3'	2.48	0.50
33:0:117:GLY:HA3	35:2:86:A:OP1	2.10	0.50
35:2:25:C:OP2	35:2:26:A:OP2	2.29	0.50
35:2:53:G:C6	35:2:54:C:C2	2.99	0.50
35:2:150:U:C4	35:2:151:G:C8	2.99	0.50
35:2:248:U:O2'	35:2:250:C:C5	2.63	0.50
35:2:273:G:O2'	35:2:274:G:H8	1.94	0.50
35:2:292:U:H2'	35:2:293:U:C5	2.45	0.50
35:2:366:A:C2	35:2:367:A:C5	2.99	0.50
35:2:424:C:O2	35:2:427:C:N4	2.44	0.50
35:2:431:C:C4	35:2:432:G:C5	2.99	0.50
35:2:478:A:C4	35:2:479:C:C5	3.00	0.50
35:2:486:G:C6	35:2:487:G:C5	2.99	0.50
35:2:488:G:N3	35:2:488:G:H2'	2.25	0.50
35:2:492:A:C3'	35:2:493:U:H5'	2.40	0.50
35:2:495:C:C2	35:2:496:G:C5	2.99	0.50
35:2:591:A:N1	35:2:592:A:C8	2.80	0.50
35:2:904:G:C3'	35:2:905:A:C8	2.94	0.50
35:2:1042:G:N2	35:2:1077:C:O2	2.31	0.50
35:2:1048:G:H2'	35:2:1049:U:H6	1.77	0.50
35:2:1066:C:OP2	35:2:1066:C:C6	2.64	0.50
35:2:1092:A:C4	35:2:1094:G:C5	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1170:G:H2'	35:2:1170:G:N3	2.25	0.50
36:3:94:A:C8	36:3:94:A:OP2	2.64	0.50
36:3:103:G:C5	36:3:250:G:C6	2.99	0.50
36:3:267:C:C4	36:3:268:G:N7	2.79	0.50
3:H:2:UNK:CA	3:H:170:UNK:CA	2.82	0.50
19:j:793:LYS:CB	19:j:796:GLU:H	2.25	0.50
20:k:270:PHE:O	20:k:271:VAL:C	2.54	0.50
1:n:294:UNK:CB	26:t:46:THR:O	2.53	0.50
22:p:124:LYS:HZ1	22:p:145:ASP:CG	2.18	0.50
23:q:163:SER:O	23:q:165:LEU:N	2.44	0.50
24:r:57:ASP:C	24:r:59:ASP:N	2.68	0.50
24:r:70:ARG:HH21	24:r:104:PRO:CD	2.16	0.50
24:r:153:PRO:HG2	24:r:154:ILE:N	2.20	0.50
30:x:86:ALA:C	30:x:88:GLY:H	2.19	0.50
31:y:33:TYR:HD1	35:2:249:U:C5	2.19	0.50
31:y:78:LYS:HB2	35:2:346:G:C5'	2.42	0.50
35:2:44:U:H2'	35:2:436:A:N6	2.25	0.50
35:2:106:U:C2	35:2:107:C:C5	2.99	0.50
35:2:195:G:C4	35:2:196:G:C8	3.00	0.50
35:2:206:A:N7	35:2:262:U:C4	2.80	0.50
35:2:253:A:O5'	35:2:254:A:OP2	2.29	0.50
35:2:274:G:C6	35:2:275:C:N4	2.79	0.50
35:2:307:G:C8	35:2:307:G:H3'	2.46	0.50
35:2:381:C:O2	35:2:381:C:O4'	2.28	0.50
35:2:391:A:N6	35:2:407:A:N6	2.59	0.50
35:2:433:C:H3'	35:2:434:G:C4'	2.42	0.50
35:2:470:A:H2'	35:2:471:A:C4'	2.42	0.50
35:2:473:A:H2'	35:2:473:A:N3	2.25	0.50
35:2:475:A:H2'	35:2:476:U:O2	2.11	0.50
35:2:619:A:H2	35:2:620:A:H62	1.57	0.50
35:2:890:C:O2	35:2:923:A:C4	2.64	0.50
35:2:894:U:C1'	35:2:919:A:C6	2.92	0.50
35:2:965:U:O5'	35:2:966:A:OP2	2.30	0.50
35:2:1074:G:H2'	35:2:1074:G:N3	2.26	0.50
35:2:1583:A:H1'	35:2:1585:U:N1	2.26	0.50
35:2:1590:G:C2	35:2:1591:C:C4	3.00	0.50
35:2:1622:G:C5	35:2:1623:C:C5	3.00	0.50
5:O:471:UNK:O	5:O:472:UNK:CB	2.59	0.50
19:j:164:THR:N	19:j:167:MET:H	2.09	0.50
21:o:119:LYS:O	21:o:119:LYS:HG2	2.11	0.50
21:o:150:SER:O	21:o:151:ALA:HB3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:p:18:TRP:O	22:p:19:MET:C	2.53	0.50
22:p:44:LEU:O	22:p:47:LEU:N	2.45	0.50
22:p:193:ARG:NE	22:p:247:ARG:HG2	2.26	0.50
24:r:91:PHE:O	24:r:91:PHE:HD1	1.93	0.50
24:r:139:ASN:CG	35:2:143:G:OP2	2.48	0.50
24:r:187:ARG:C	35:2:141:U:O4	2.54	0.50
26:t:55:ARG:HH12	35:2:396:G:H8	1.57	0.50
31:y:12:GLN:HG3	31:y:16:PHE:HE1	1.76	0.50
31:y:103:HIS:CG	35:2:351:C:HO2'	2.24	0.50
32:z:94:LEU:O	32:z:95:PRO:CB	2.59	0.50
32:z:114:GLU:HA	32:z:117:ARG:CB	2.42	0.50
33:0:58:PHE:CB	35:2:521:A:O2'	2.59	0.50
35:2:59:C:H1'	35:2:62:A:H61	1.74	0.50
35:2:63:G:C6	35:2:88:U:O2	2.65	0.50
35:2:112:A:C5	35:2:113:U:C4	2.98	0.50
35:2:187:G:H2'	35:2:197:A:N1	2.26	0.50
35:2:196:G:C5	35:2:197:A:C1'	2.93	0.50
35:2:325:G:C2	35:2:344:A:C8	2.99	0.50
35:2:357:G:C2	35:2:358:U:C6	2.99	0.50
35:2:406:U:C2	35:2:407:A:N7	2.79	0.50
35:2:412:A:H1'	35:2:422:G:C2	2.46	0.50
35:2:498:G:O5'	35:2:499:U:OP2	2.28	0.50
35:2:527:A:N6	35:2:528:U:H6	2.10	0.50
35:2:953:G:N1	35:2:954:G:C5	2.80	0.50
35:2:1031:U:OP2	35:2:1031:U:H6	1.94	0.50
35:2:1039:A:O4'	35:2:1091:A:C2	2.62	0.50
35:2:1041:G:C6	35:2:1042:G:C6	3.00	0.50
35:2:1049:U:C3'	35:2:1050:G:H8	2.23	0.50
35:2:1166:A:C6	35:2:1167:G:C8	3.00	0.50
35:2:1179:G:H3'	35:2:1180:C:H6	1.75	0.50
19:i:874:VAL:O	19:i:882:ALA:HB1	2.12	0.50
19:j:503:SER:HA	19:j:510:CYS:HA	1.93	0.50
21:o:42:SER:O	21:o:43:LYS:O	2.29	0.50
21:o:189:GLU:O	21:o:193:ASN:ND2	2.44	0.50
22:p:193:ARG:NE	22:p:220:PHE:CZ	2.80	0.50
22:p:205:GLY:O	22:p:206:SER:HB2	2.11	0.50
23:q:212:LYS:O	23:q:214:LYS:N	2.44	0.50
24:r:31:LYS:HE2	24:r:68:MET:HE1	1.93	0.50
26:t:40:THR:CG2	26:t:87:LEU:HD12	2.40	0.50
26:t:192:GLU:HB2	31:y:19:SER:HB3	1.92	0.50
27:u:100:LYS:O	27:u:101:VAL:C	2.53	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:v:91:LEU:O	28:v:95:ALA:CB	2.59	0.50
30:x:40:GLU:C	30:x:42:GLU:H	2.19	0.50
31:y:66:ARG:HH21	35:2:115:G:P	2.34	0.50
31:y:146:ILE:HG23	31:y:153:GLN:NE2	2.24	0.50
35:2:47:A:N6	35:2:100:A:N6	2.59	0.50
35:2:70:C:H4'	35:2:71:A:OP1	2.10	0.50
35:2:71:A:C5	35:2:72:A:C6	3.00	0.50
35:2:100:A:C2	35:2:386:G:H5'	2.45	0.50
35:2:142:G:C8	35:2:266:A:C5	2.99	0.50
35:2:157:A:C8	35:2:157:A:P	3.04	0.50
35:2:188:A:OP2	35:2:189:C:N4	2.44	0.50
35:2:251:A:OP2	35:2:251:A:O4'	2.28	0.50
35:2:263:C:H2'	35:2:264:G:C8	2.47	0.50
35:2:278:U:C2'	35:2:279:G:C8	2.94	0.50
35:2:300:A:C6	35:2:301:A:C5	2.99	0.50
35:2:348:U:OP2	35:2:349:U:C5	2.64	0.50
35:2:386:G:H2'	35:2:387:A:O4'	2.11	0.50
35:2:389:G:C4	35:2:390:G:C8	2.99	0.50
35:2:406:U:C2	35:2:407:A:C5	2.99	0.50
35:2:481:A:C8	35:2:508:U:C2	2.99	0.50
35:2:524:U:C2	35:2:527:A:C8	3.00	0.50
35:2:529:A:H4'	35:2:530:C:C5	2.46	0.50
35:2:538:A:C8	35:2:538:A:P	3.05	0.50
35:2:936:G:H2'	35:2:937:C:H6	1.77	0.50
35:2:1046:G:C2	35:2:1047:G:C8	2.99	0.50
35:2:1075:C:H3'	35:2:1075:C:H6	1.77	0.50
36:3:76:C:H2'	36:3:77:C:C6	2.45	0.50
36:3:196:U:H2'	36:3:197:C:C6	2.45	0.50
1:J:306:UNK:HA	7:R:202:UNK:O	2.11	0.50
15:c:184:VAL:C	35:2:1623:C:H5'	2.36	0.50
17:f:34:LYS:CB	23:q:183:ALA:HB1	2.42	0.50
21:o:69:GLU:HB2	21:o:86:LYS:HE2	1.94	0.50
21:o:135:GLY:O	21:o:136:TYR:HD1	1.94	0.50
22:p:212:VAL:HG23	22:p:220:PHE:HB3	1.94	0.50
23:q:59:VAL:O	23:q:61:TYR:N	2.36	0.50
23:q:64:VAL:CA	23:q:89:ILE:HA	2.40	0.50
24:r:98:ARG:HD2	24:r:99:GLY:N	2.26	0.50
24:r:165:PHE:CG	35:2:69:G:N2	2.77	0.50
25:s:70:TYR:CE1	25:s:96:ALA:HB2	2.47	0.50
26:t:12:ARG:O	26:t:14:THR:N	2.45	0.50
26:t:41:GLN:C	26:t:43:THR:H	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:t:101:THR:O	26:t:101:THR:HG22	2.11	0.50
26:t:152:LYS:O	26:t:155:LYS:HB3	2.12	0.50
31:y:132:LYS:NZ	35:2:324:U:P	2.84	0.50
33:0:58:PHE:HB2	35:2:521:A:O2'	2.11	0.50
35:2:49:C:N4	35:2:425:A:H5''	2.27	0.50
35:2:188:A:OP2	35:2:188:A:C8	2.64	0.50
35:2:193:U:C4	35:2:195:G:C4	3.00	0.50
35:2:246:G:C8	35:2:247:A:O4'	2.65	0.50
35:2:316:A:N1	35:2:349:U:C2	2.79	0.50
35:2:481:A:C5	35:2:508:U:C2	3.00	0.50
35:2:518:A:H5''	35:2:519:C:C5	2.39	0.50
35:2:547:U:N3	35:2:548:G:C6	2.79	0.50
35:2:865:A:C5	35:2:964:U:C4	2.99	0.50
35:2:868:G:N1	35:2:961:U:N3	2.60	0.50
35:2:878:G:N1	35:2:879:G:C5	2.80	0.50
35:2:891:A:C6	35:2:922:G:O6	2.65	0.50
35:2:897:C:C2	35:2:914:G:C2	2.99	0.50
35:2:911:U:H4'	35:2:915:A:C4	2.46	0.50
35:2:976:G:H1'	35:2:1027:A:H2	1.77	0.50
35:2:1053:G:C6	35:2:1067:C:N3	2.80	0.50
35:2:1169:G:N2	35:2:1577:A:C5	2.80	0.50
35:2:1588:G:H1	35:2:1608:U:H3	1.58	0.50
35:2:1591:C:C2'	35:2:1592:A:H8	2.19	0.50
35:2:1609:U:C5'	35:2:1609:U:C6	2.92	0.50
36:3:94:A:H2'	36:3:95:U:O4'	2.11	0.50
1:P:287:UNK:CA	14:b:18:PHE:C	2.84	0.50
9:V:110:ALA:HA	27:u:185:GLY:H	1.77	0.50
19:i:272:ILE:O	19:i:273:ALA:HB2	2.12	0.50
21:o:69:GLU:O	21:o:69:GLU:CD	2.55	0.50
23:q:52:GLU:O	23:q:53:VAL:C	2.53	0.50
23:q:89:ILE:O	23:q:90:ILE:C	2.53	0.50
24:r:210:GLU:O	24:r:214:LYS:HG3	2.12	0.50
26:t:105:VAL:HB	26:t:108:SER:OG	2.11	0.50
30:x:108:ALA:C	30:x:110:THR:H	2.19	0.50
31:y:17:LEU:HD23	31:y:20:LYS:HZ3	1.77	0.50
35:2:40:A:N6	35:2:41:A:N1	2.59	0.50
35:2:87:C:H2'	35:2:88:U:C1'	2.42	0.50
35:2:100:A:H2'	35:2:101:U:O4'	2.12	0.50
35:2:108:A:N1	35:2:109:G:C6	2.80	0.50
35:2:200:A:H2'	35:2:201:G:C8	2.46	0.50
35:2:288:A:C4	35:2:289:U:C5	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:322:G:C2	35:2:324:U:O4	2.65	0.50
35:2:515:A:N1	35:2:537:G:C2	2.78	0.50
35:2:525:A:P	35:2:526:A:N7	2.85	0.50
35:2:893:U:OP2	35:2:893:U:C6	2.58	0.50
35:2:1057:U:C5	35:2:1058:U:C2	2.99	0.50
36:3:91:G:H3'	36:3:93:G:C2	2.47	0.50
21:o:75:LEU:O	21:o:79:SER:OG	2.30	0.50
23:q:93:LEU:C	23:q:95:ASN:N	2.68	0.50
23:q:212:LYS:C	23:q:214:LYS:N	2.63	0.50
26:t:21:HIS:CD2	35:2:384:G:O2'	2.65	0.50
26:t:114:SER:HA	26:t:172:ILE:CD1	2.42	0.50
29:w:65:GLN:C	29:w:67:VAL:H	2.20	0.50
35:2:38:C:C5	35:2:39:A:O4'	2.64	0.50
35:2:81:G:C6	35:2:82:U:C2	2.99	0.50
35:2:100:A:N6	35:2:385:A:C2	2.78	0.50
35:2:153:G:C6	35:2:154:G:C5	3.00	0.50
35:2:188:A:H2'	35:2:189:C:O4'	2.12	0.50
35:2:243:G:H3'	35:2:244:A:C8	2.47	0.50
35:2:250:C:N3	35:2:251:A:C8	2.80	0.50
35:2:371:G:C8	35:2:371:G:O5'	2.64	0.50
35:2:415:C:C2	35:2:417:A:N6	2.80	0.50
35:2:455:C:OP2	35:2:455:C:C6	2.65	0.50
35:2:479:C:N3	35:2:480:G:N7	2.60	0.50
35:2:516:G:C2	35:2:517:U:C6	2.99	0.50
35:2:629:U:C2	35:2:630:A:C8	3.00	0.50
35:2:904:G:C5	35:2:905:A:C6	3.00	0.50
35:2:916:U:OP2	35:2:917:U:O4	2.30	0.50
35:2:926:A:H3'	35:2:927:C:H6	1.77	0.50
35:2:1037:C:N3	35:2:1094:G:C6	2.80	0.50
35:2:1073:G:C6	35:2:1074:G:C5	2.99	0.50
36:3:80:G:OP2	36:3:81:G:N7	2.45	0.50
14:b:138:VAL:HA	14:b:157:PHE:O	2.12	0.50
15:c:91:THR:CB	30:x:128:LYS:HA	2.42	0.50
15:c:94:ARG:N	35:2:1605:G:C5'	2.74	0.50
18:h:58:VAL:O	18:h:61:ALA:HB3	2.12	0.50
19:i:793:LYS:CB	19:i:796:GLU:H	2.24	0.50
19:j:170:HIS:C	19:j:172:ARG:H	2.19	0.50
5:m:563:UNK:O	25:s:144:ARG:NH1	2.37	0.50
21:o:90:VAL:HG23	21:o:104:TYR:CG	2.46	0.50
21:o:161:TYR:N	21:o:161:TYR:CD1	2.79	0.50
22:p:52:LEU:HB3	22:p:54:TYR:CD1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:p:88:LEU:CD1	22:p:104:LEU:HD23	2.41	0.50
24:r:12:ALA:CB	24:r:124:LEU:HA	2.42	0.50
25:s:13:THR:O	25:s:17:GLU:HG3	2.11	0.50
25:s:127:LEU:HG	25:s:174:TYR:CZ	2.47	0.50
29:w:33:LEU:O	29:w:34:SER:C	2.54	0.50
29:w:37:GLU:CB	35:2:895:G:HO2'	2.21	0.50
29:w:43:THR:O	29:w:44:GLY:C	2.52	0.50
30:x:131:GLY:HA3	30:x:138:PHE:H	1.76	0.50
33:0:16:LEU:HB3	33:0:83:TYR:HD2	1.75	0.50
35:2:40:A:C4	35:2:469:C:H1'	2.46	0.50
35:2:47:A:N6	35:2:100:A:C5	2.79	0.50
35:2:252:U:H2'	35:2:252:U:P	2.50	0.50
35:2:273:G:C4	35:2:274:G:C5	2.99	0.50
35:2:287:G:C6	35:2:288:A:C6	3.00	0.50
35:2:311:U:C2	35:2:355:G:N1	2.63	0.50
35:2:342:C:OP2	35:2:343:C:OP2	2.29	0.50
35:2:352:A:O3'	35:2:353:A:C8	2.65	0.50
35:2:491:C:C4	35:2:497:G:C6	3.00	0.50
35:2:495:C:O2'	35:2:496:G:P	2.69	0.50
35:2:630:A:OP2	35:2:630:A:H8	1.92	0.50
35:2:881:A:N1	35:2:948:G:C6	2.79	0.50
35:2:1039:A:C2	35:2:1080:U:O2	2.64	0.50
35:2:1481:C:H6	35:2:1482:C:C2	2.29	0.50
35:2:1612:U:C3'	35:2:1613:U:H5''	2.42	0.50
36:3:96:C:C2	36:3:97:C:C5	3.00	0.50
1:P:284:UNK:C	14:b:23:SER:HA	2.41	0.50
22:p:188:GLY:C	22:p:190:ASN:H	2.19	0.50
24:r:167:THR:C	24:r:169:LYS:N	2.68	0.50
26:t:25:ARG:O	35:2:400:A:N7	2.45	0.50
26:t:63:PHE:N	26:t:63:PHE:CD1	2.79	0.50
27:u:106:GLU:O	27:u:108:ARG:N	2.45	0.50
28:v:129:TYR:C	28:v:131:THR:H	2.19	0.50
29:w:49:LYS:O	29:w:51:ASP:N	2.45	0.50
35:2:111:U:O4'	35:2:304:U:N3	2.44	0.50
35:2:118:U:O2'	35:2:119:A:OP2	2.30	0.50
35:2:164:A:C2	35:2:165:G:C4	3.00	0.50
35:2:188:A:C5	35:2:189:C:C2	3.00	0.50
35:2:206:A:C5	35:2:262:U:C4	3.00	0.50
35:2:207:U:H1'	35:2:261:U:C2	2.47	0.50
35:2:250:C:C2	35:2:251:A:C8	3.00	0.50
35:2:271:A:N1	35:2:272:U:O2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:362:G:H8	35:2:362:G:P	2.34	0.50
35:2:404:G:C8	35:2:404:G:H3'	2.47	0.50
35:2:451:A:N6	35:2:456:A:N6	2.59	0.50
35:2:488:G:C6	35:2:500:C:C4	3.00	0.50
35:2:532:U:H3'	35:2:532:U:P	2.52	0.50
35:2:889:U:C2	35:2:924:A:C2	3.00	0.50
35:2:1160:A:C2'	35:2:1161:C:C6	2.87	0.50
36:3:86:U:C4	36:3:264:G:N2	2.80	0.50
3:H:217:UNK:O	3:H:245:UNK:CA	2.60	0.49
9:U:126:GLY:C	10:W:183:ALA:C	2.74	0.49
18:g:58:VAL:O	18:g:61:ALA:HB3	2.12	0.49
19:j:612:ASP:O	19:j:616:TRP:CB	2.60	0.49
21:o:163:LYS:HD3	35:2:1045:C:C3'	2.42	0.49
26:t:78:GLU:HB2	26:t:80:ILE:CD1	2.42	0.49
29:w:83:ILE:O	29:w:117:ASP:HA	2.12	0.49
29:w:118:VAL:O	29:w:119:THR:C	2.54	0.49
33:0:141:ASP:O	33:0:145:ASN:ND2	2.45	0.49
35:2:84:A:N6	35:2:85:A:C4	2.80	0.49
35:2:117:U:O2	35:2:299:A:C2	2.65	0.49
35:2:137:U:C6	35:2:138:A:C8	2.99	0.49
35:2:156:A:C5	35:2:418:G:C5	3.00	0.49
35:2:157:A:H8	35:2:157:A:O5'	1.93	0.49
35:2:251:A:OP2	35:2:252:U:C4	2.65	0.49
35:2:283:U:H2'	35:2:284:G:C5	2.46	0.49
35:2:315:A:N9	35:2:353:A:N6	2.60	0.49
35:2:395:U:N3	35:2:399:A:C8	2.78	0.49
35:2:411:C:C4	35:2:412:A:C6	3.00	0.49
35:2:431:C:O5'	35:2:432:G:N7	2.45	0.49
35:2:490:C:N3	35:2:491:C:C4	2.80	0.49
35:2:493:U:O4'	35:2:495:C:C4	2.64	0.49
35:2:550:A:H2'	35:2:550:A:N3	2.25	0.49
35:2:884:A:C5	35:2:945:U:N3	2.80	0.49
35:2:976:G:O3'	35:2:977:A:O4'	2.29	0.49
35:2:1176:G:C6	35:2:1177:C:N4	2.80	0.49
35:2:1571:C:C3'	35:2:1572:G:H5''	2.41	0.49
35:2:1598:U:C4	35:2:1599:C:C5	3.00	0.49
22:p:124:LYS:NZ	22:p:145:ASP:CG	2.70	0.49
24:r:131:ARG:NH2	24:r:133:LEU:O	2.44	0.49
25:s:66:HIS:ND1	25:s:67:PHE:N	2.59	0.49
25:s:102:SER:HB2	25:s:105:VAL:HG23	1.93	0.49
26:t:192:GLU:HA	26:t:196:LEU:HD22	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:v:142:GLU:C	28:v:144:ALA:N	2.66	0.49
33:0:16:LEU:HB3	33:0:83:TYR:CD2	2.47	0.49
35:2:35:U:C2	35:2:473:A:C2	3.00	0.49
35:2:73:U:H3'	35:2:74:U:C6	2.47	0.49
35:2:117:U:OP2	35:2:117:U:C6	2.62	0.49
35:2:123:G:C6	35:2:295:A:N1	2.80	0.49
35:2:209:U:O4	35:2:257:A:N6	2.45	0.49
35:2:273:G:C4	35:2:274:G:N7	2.80	0.49
35:2:312:A:C5	35:2:352:A:N3	2.79	0.49
35:2:431:C:C4	35:2:432:G:C4	3.00	0.49
35:2:483:A:C5	35:2:484:C:C4	2.99	0.49
35:2:486:G:N1	35:2:501:U:C2	2.78	0.49
35:2:522:U:H3'	35:2:523:G:H5''	1.94	0.49
35:2:629:U:OP2	35:2:629:U:H6	1.94	0.49
35:2:865:A:C5	35:2:866:G:C5	3.01	0.49
35:2:919:A:C5	35:2:920:U:C4	3.00	0.49
35:2:923:A:OP2	35:2:924:A:OP2	2.30	0.49
35:2:1043:A:N1	35:2:1076:A:C6	2.80	0.49
35:2:1046:G:N9	35:2:1073:G:C2	2.79	0.49
36:3:114:A:C4	36:3:195:A:C8	3.00	0.49
36:3:246:G:N1	36:3:247:G:C6	2.81	0.49
1:E:248:UNK:O	3:H:312:UNK:C	2.60	0.49
9:V:26:VAL:CB	27:u:183:ALA:CB	2.87	0.49
21:o:21:ARG:HB2	29:w:73:GLU:CA	2.42	0.49
21:o:31:TRP:CZ2	29:w:14:PHE:CB	2.95	0.49
21:o:217:THR:HG22	21:o:218:ILE:N	2.27	0.49
22:p:8:HIS:O	22:p:30:ARG:HD2	2.13	0.49
22:p:67:ASP:C	22:p:69:GLU:H	2.20	0.49
22:p:144:HIS:C	22:p:146:SER:N	2.70	0.49
22:p:188:GLY:C	22:p:190:ASN:N	2.70	0.49
23:q:166:ARG:O	23:q:168:VAL:N	2.45	0.49
24:r:90:GLY:O	24:r:92:ARG:N	2.44	0.49
29:w:96:PRO:O	29:w:97:GLY:C	2.55	0.49
31:y:81:ARG:HD3	31:y:112:PRO:HG3	1.94	0.49
35:2:34:G:C6	35:2:473:A:H2	2.30	0.49
35:2:72:A:C6	35:2:73:U:O4	2.65	0.49
35:2:112:A:C2	35:2:113:U:C2	3.00	0.49
35:2:199:G:O2'	35:2:200:A:P	2.70	0.49
35:2:206:A:C6	35:2:207:U:C4	3.00	0.49
35:2:263:C:C4	35:2:264:G:C6	3.00	0.49
35:2:283:U:C6	35:2:284:G:N7	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:325:G:N1	35:2:344:A:C8	2.81	0.49
35:2:366:A:C6	35:2:367:A:N7	2.81	0.49
35:2:419:G:C5	35:2:420:A:N7	2.80	0.49
35:2:457:G:H2'	35:2:457:G:N3	2.26	0.49
35:2:481:A:C2	35:2:507:U:N3	2.80	0.49
35:2:546:U:H2'	35:2:547:U:O4'	2.12	0.49
35:2:878:G:N1	35:2:951:A:C6	2.80	0.49
35:2:897:C:C4	35:2:914:G:C5	2.99	0.49
35:2:904:G:C6	35:2:905:A:N1	2.81	0.49
35:2:941:A:OP2	35:2:942:G:N7	2.46	0.49
35:2:976:G:C6	35:2:1023:A:C5	3.00	0.49
35:2:1179:G:N2	35:2:1461:C:C4	2.80	0.49
36:3:242:G:OP2	36:3:242:G:H8	1.95	0.49
1:K:280:UNK:CB	18:h:208:ALA:H	2.22	0.49
1:n:295:UNK:C	26:t:45:ILE:HG22	2.42	0.49
22:p:89:MET:HG3	22:p:228:PHE:HE2	1.76	0.49
24:r:148:LYS:N	24:r:151:ASP:OD2	2.46	0.49
25:s:44:GLN:HG2	25:s:45:VAL:N	2.28	0.49
25:s:135:THR:CG2	25:s:136:LEU:HD23	2.42	0.49
26:t:162:ASN:O	26:t:166:GLN:HG2	2.12	0.49
31:y:9:TYR:O	31:y:10:GLN:HB2	2.12	0.49
31:y:66:ARG:HD2	35:2:113:U:H5'	1.93	0.49
32:z:23:ARG:O	32:z:24:GLN:O	2.31	0.49
35:2:42:G:N2	35:2:45:U:C4	2.81	0.49
35:2:70:C:O2	35:2:84:A:C4	2.65	0.49
35:2:70:C:C2	35:2:83:G:N1	2.78	0.49
35:2:97:C:O2	35:2:426:G:P	2.70	0.49
35:2:104:A:N7	35:2:308:C:C5	2.80	0.49
35:2:187:G:C1'	35:2:198:A:H62	2.25	0.49
35:2:199:G:C4	35:2:200:A:C8	3.00	0.49
35:2:295:A:C4	35:2:296:U:C6	3.00	0.49
35:2:357:G:N3	35:2:357:G:C2'	2.75	0.49
35:2:399:A:C5	35:2:401:A:C8	3.01	0.49
35:2:446:A:OP2	35:2:446:A:H8	1.95	0.49
35:2:457:G:C2	35:2:458:G:C1'	2.96	0.49
35:2:630:A:H2'	35:2:631:G:O4'	2.12	0.49
35:2:871:G:O2'	35:2:872:G:O4'	2.30	0.49
35:2:883:C:OP2	35:2:883:C:C6	2.65	0.49
35:2:902:G:C1'	35:2:907:A:H62	2.25	0.49
35:2:909:U:C2	35:2:910:C:C6	3.01	0.49
35:2:1080:U:O2'	35:2:1081:A:OP2	2.22	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:j:272:ILE:O	19:j:273:ALA:HB2	2.12	0.49
5:m:471:UNK:O	5:m:472:UNK:CB	2.59	0.49
21:o:25:PRO:HD2	29:w:74:VAL:CB	2.43	0.49
21:o:31:TRP:C	21:o:32:TYR:CD1	2.91	0.49
22:p:70:GLN:CG	22:p:80:ARG:HH21	2.21	0.49
24:r:61:PHE:HZ	35:2:420:A:P	2.36	0.49
24:r:162:ARG:NE	35:2:68:A:OP2	2.45	0.49
24:r:190:ARG:NH2	35:2:269:G:OP2	2.45	0.49
26:t:130:GLY:O	26:t:131:LEU:C	2.55	0.49
31:y:3:THR:HG21	31:y:51:THR:C	2.38	0.49
35:2:47:A:N1	35:2:386:G:C4	2.80	0.49
35:2:104:A:N7	35:2:308:C:N4	2.60	0.49
35:2:162:A:C2'	35:2:163:G:C8	2.96	0.49
35:2:196:G:C6	35:2:197:A:C4	3.00	0.49
35:2:213:A:H2'	35:2:214:G:O4'	2.12	0.49
35:2:213:A:N6	35:2:214:G:N1	2.60	0.49
35:2:213:A:N7	35:2:253:A:C6	2.81	0.49
35:2:322:G:C5	35:2:337:G:N1	2.81	0.49
35:2:447:U:C2	35:2:448:C:C5	3.00	0.49
35:2:460:A:C8	35:2:461:G:C8	2.99	0.49
35:2:495:C:O2'	35:2:496:G:C8	2.66	0.49
35:2:495:C:N3	35:2:496:G:C5	2.81	0.49
35:2:548:G:H8	35:2:548:G:P	2.35	0.49
35:2:549:G:C5	35:2:589:C:N3	2.81	0.49
35:2:886:U:OP2	35:2:886:U:C5	2.65	0.49
35:2:911:U:OP1	35:2:913:G:C2	2.66	0.49
35:2:915:A:OP2	35:2:916:U:O4	2.31	0.49
35:2:969:C:OP2	35:2:969:C:C6	2.65	0.49
35:2:1049:U:H2'	35:2:1050:G:O4'	2.12	0.49
35:2:1598:U:C4	35:2:1599:C:H5	2.30	0.49
35:2:1608:U:C2'	35:2:1609:U:H5''	2.42	0.49
36:3:64:C:H3'	36:3:64:C:P	2.53	0.49
1:J:203:UNK:HA	30:x:121:SER:CB	2.43	0.49
9:U:98:ALA:O	36:3:82:U:N3	2.13	0.49
9:V:97:VAL:CB	36:3:192:A:N1	2.76	0.49
19:j:874:VAL:O	19:j:882:ALA:HB1	2.12	0.49
22:p:127:LYS:HB2	22:p:228:PHE:CE1	2.47	0.49
22:p:181:ASN:O	22:p:196:ILE:HA	2.13	0.49
24:r:163:ARG:CG	35:2:69:G:P	2.95	0.49
26:t:39:THR:O	26:t:39:THR:HG22	2.12	0.49
27:u:42:ILE:C	27:u:45:ILE:H	2.21	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:y:10:GLN:OE1	31:y:10:GLN:CA	2.59	0.49
33:0:83:TYR:CD1	33:0:83:TYR:N	2.79	0.49
35:2:65:A:H2	35:2:84:A:N6	2.09	0.49
35:2:96:G:H1'	35:2:426:G:O2'	2.13	0.49
35:2:113:U:C5'	35:2:114:C:H5'	2.42	0.49
35:2:118:U:H3	35:2:299:A:N6	2.09	0.49
35:2:138:A:H1'	35:2:139:C:O5'	2.12	0.49
35:2:143:G:H2'	35:2:144:U:O4'	2.12	0.49
35:2:147:A:C6	35:2:168:A:C8	3.00	0.49
35:2:171:A:O2'	35:2:172:C:O5'	2.27	0.49
35:2:209:U:C2'	35:2:210:A:H5'	2.43	0.49
35:2:244:A:C2	35:2:248:U:H5	2.29	0.49
35:2:288:A:C8	35:2:289:U:C4	3.00	0.49
35:2:315:A:C4'	35:2:353:A:H61	2.23	0.49
35:2:328:A:H8	35:2:328:A:P	2.36	0.49
35:2:366:A:H2	35:2:375:U:O2	1.95	0.49
35:2:371:G:C6	35:2:372:G:C4	3.00	0.49
35:2:390:G:N1	35:2:407:A:C2	2.67	0.49
35:2:392:G:H8	35:2:392:G:P	2.35	0.49
35:2:411:C:OP2	35:2:412:A:N7	2.46	0.49
35:2:433:C:C6	35:2:434:G:H1'	2.47	0.49
35:2:491:C:C2	35:2:493:U:C2	3.01	0.49
35:2:494:U:P	35:2:494:U:O4'	2.71	0.49
35:2:497:G:C6	35:2:498:G:C5	3.00	0.49
35:2:504:U:H2'	35:2:506:A:C8	2.48	0.49
35:2:512:A:H8	35:2:513:U:O4'	1.95	0.49
35:2:920:U:C6	35:2:920:U:OP2	2.66	0.49
35:2:1091:A:OP2	35:2:1091:A:C8	2.65	0.49
35:2:1476:C:H2'	35:2:1477:G:C8	2.47	0.49
35:2:1600:A:H2'	35:2:1602:C:H41	1.77	0.49
36:3:112:U:H3'	36:3:113:G:C8	2.48	0.49
1:C:326:UNK:C	1:D:87:UNK:C	2.90	0.49
5:O:522:UNK:CB	21:o:19:LYS:O	2.60	0.49
21:o:127:ARG:NH2	35:2:946:U:O4'	2.38	0.49
22:p:10:LYS:O	22:p:13:ASN:N	2.45	0.49
22:p:66:ASN:HB3	35:2:455:C:H42	1.76	0.49
22:p:108:LYS:HG3	22:p:110:ARG:NH2	2.27	0.49
22:p:124:LYS:HE2	22:p:126:LEU:CD2	2.43	0.49
29:w:30:VAL:H	29:w:40:ALA:HB3	1.77	0.49
31:y:33:TYR:CE1	35:2:249:U:C5	3.00	0.49
33:0:112:ILE:HG23	33:0:120:ILE:HG23	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:64:U:O4	35:2:86:A:N6	2.45	0.49
35:2:90:C:H2'	35:2:91:G:C8	2.47	0.49
35:2:120:U:OP2	35:2:121:U:C5	2.66	0.49
35:2:215:A:C5	35:2:242:U:C2	3.00	0.49
35:2:265:A:C6	35:2:267:U:C4	3.00	0.49
35:2:323:A:OP1	35:2:323:A:C8	2.57	0.49
35:2:341:A:H2'	35:2:341:A:N3	2.27	0.49
35:2:367:A:C6	35:2:368:U:C4	3.00	0.49
35:2:517:U:N3	35:2:535:A:C2	2.79	0.49
35:2:976:G:OP2	35:2:1023:A:N6	2.46	0.49
35:2:1077:C:H3'	35:2:1078:C:C6	2.43	0.49
35:2:1082:C:C4	35:2:1083:G:C6	3.00	0.49
35:2:1164:G:H2'	35:2:1165:G:H8	1.76	0.49
35:2:1526:A:C8	35:2:1526:A:O5'	2.66	0.49
35:2:1530:C:C2	35:2:1531:G:C8	3.01	0.49
16:d:113:ALA:CA	5:m:409:UNK:CB	2.89	0.49
19:i:213:GLY:H	19:i:218:LYS:CB	2.26	0.49
19:i:881:GLN:O	19:i:883:ILE:HA	2.12	0.49
21:o:53:SER:HG	21:o:59:ALA:HB2	1.78	0.49
22:p:3:ARG:HB3	35:2:94:U:OP1	2.13	0.49
25:s:102:SER:OG	25:s:105:VAL:HB	2.13	0.49
25:s:130:LEU:N	25:s:130:LEU:HD23	2.27	0.49
27:u:79:ARG:O	27:u:81:VAL:CB	2.60	0.49
31:y:3:THR:HG21	31:y:51:THR:HB	1.93	0.49
35:2:63:G:N2	35:2:88:U:O2'	2.46	0.49
35:2:64:U:C5'	35:2:65:A:OP2	2.60	0.49
35:2:93:A:C8	35:2:399:A:O4'	2.66	0.49
35:2:142:G:P	35:2:266:A:C2	3.06	0.49
35:2:253:A:H3'	35:2:254:A:O4'	2.13	0.49
35:2:255:U:OP2	35:2:255:U:H3'	2.13	0.49
35:2:298:C:H2'	35:2:299:A:O4'	2.12	0.49
35:2:312:A:C6	35:2:354:C:N4	2.80	0.49
35:2:315:A:C4	35:2:353:A:C6	3.00	0.49
35:2:333:A:H2'	35:2:334:G:O4'	2.13	0.49
35:2:341:A:OP2	35:2:341:A:C8	2.63	0.49
35:2:450:U:N3	35:2:457:G:C2	2.81	0.49
35:2:462:G:N1	35:2:463:U:C4	2.80	0.49
35:2:628:G:N1	35:2:972:G:C6	2.80	0.49
35:2:633:U:C3'	35:2:634:G:H8	2.15	0.49
35:2:870:C:OP2	35:2:870:C:C6	2.66	0.49
35:2:935:U:O5'	35:2:935:U:H6	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:960:U:O2'	35:2:961:U:O4'	2.18	0.49
35:2:1065:A:C5	35:2:1066:C:C5	3.01	0.49
36:3:85:A:H2'	36:3:86:U:C6	2.38	0.49
36:3:126:U:C2	36:3:127:A:C8	3.01	0.49
36:3:147:G:H2'	36:3:148:G:H8	1.76	0.49
8:T:321:PHE:CB	36:3:108:A:H1'	2.42	0.49
1:n:296:UNK:N	26:t:45:ILE:CG2	2.75	0.49
21:o:34:PHE:CE1	21:o:89:LEU:HD12	2.48	0.49
21:o:85:ARG:HH22	21:o:218:ILE:H	1.61	0.49
23:q:63:GLN:CB	23:q:92:ARG:HA	2.43	0.49
24:r:176:CYS:N	35:2:67:A:O4'	2.45	0.49
29:w:97:GLY:HA2	29:w:100:ALA:HB3	1.94	0.49
30:x:10:PHE:N	30:x:18:ALA:O	2.46	0.49
31:y:18:ASN:HD22	31:y:18:ASN:N	2.11	0.49
31:y:52:TYR:O	31:y:52:TYR:CD1	2.65	0.49
35:2:36:C:H42	35:2:473:A:N6	2.11	0.49
35:2:52:U:H1'	35:2:440:U:O4	2.13	0.49
35:2:70:C:N3	35:2:83:G:C2	2.78	0.49
35:2:101:U:H3	35:2:385:A:C1'	2.25	0.49
35:2:107:C:O2'	35:2:108:A:H5'	2.12	0.49
35:2:110:U:H2'	35:2:304:U:C4	2.47	0.49
35:2:120:U:N3	35:2:298:C:H1'	2.27	0.49
35:2:130:C:N4	35:2:131:C:N3	2.61	0.49
35:2:152:U:H1'	35:2:163:G:N2	2.28	0.49
35:2:162:A:C3'	35:2:163:G:H8	2.26	0.49
35:2:185:U:O2	35:2:200:A:H2	1.95	0.49
35:2:322:G:O6	35:2:344:A:N6	2.45	0.49
35:2:548:G:C2	35:2:590:C:C2	3.01	0.49
35:2:631:G:C6	35:2:969:C:O2	2.65	0.49
35:2:868:G:C2	35:2:869:A:C8	3.01	0.49
35:2:879:G:C6	35:2:950:C:C4	3.01	0.49
35:2:1042:G:C6	35:2:1078:C:N3	2.80	0.49
35:2:1483:A:C1'	35:2:1524:A:H62	2.22	0.49
35:2:1603:U:H2'	35:2:1604:U:C6	2.48	0.49
36:3:94:A:H2'	36:3:94:A:N3	2.27	0.49
36:3:192:A:C5	36:3:194:G:C2	3.01	0.49
17:f:158:LYS:N	35:2:1572:G:H8	2.11	0.49
26:t:175:CYS:HB3	26:t:189:TYR:CZ	2.48	0.49
31:y:18:ASN:O	31:y:21:LYS:N	2.36	0.49
33:0:34:SER:O	33:0:35:LYS:C	2.54	0.49
35:2:59:C:OP2	35:2:59:C:O2	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:65:A:N6	35:2:83:G:C5	2.81	0.49
35:2:89:G:C6	35:2:90:C:C4	3.00	0.49
35:2:110:U:O2	35:2:305:C:N3	2.46	0.49
35:2:156:A:O5'	35:2:156:A:H8	1.95	0.49
35:2:187:G:C2	35:2:198:A:OP2	2.66	0.49
35:2:301:A:C6	35:2:302:U:O4	2.66	0.49
35:2:373:G:H5''	35:2:374:U:OP2	2.12	0.49
35:2:433:C:C6	35:2:433:C:OP2	2.66	0.49
35:2:473:A:H2'	35:2:475:A:C2	2.47	0.49
35:2:487:G:O2'	35:2:488:G:C8	2.60	0.49
35:2:488:G:C6	35:2:489:C:C4	3.01	0.49
35:2:515:A:N6	35:2:537:G:C6	2.81	0.49
35:2:624:G:C4	35:2:1027:A:N1	2.81	0.49
35:2:627:C:C2	35:2:973:A:C2	3.00	0.49
35:2:869:A:C6	35:2:960:U:C4	3.00	0.49
35:2:874:C:O2'	35:2:875:G:O4'	2.21	0.49
35:2:875:G:O2'	35:2:877:G:OP2	2.21	0.49
35:2:908:U:O5'	35:2:909:U:OP2	2.30	0.49
35:2:1053:G:C6	35:2:1054:U:C4	3.00	0.49
35:2:1160:A:H2'	35:2:1161:C:C5	2.47	0.49
35:2:1575:G:C6	35:2:1576:A:C5	3.01	0.49
35:2:1608:U:H2'	35:2:1609:U:C6	2.48	0.49
36:3:74:C:OP2	36:3:74:C:C6	2.65	0.49
36:3:87:G:C8	36:3:88:A:C2	3.01	0.49
36:3:103:G:C6	36:3:250:G:C6	3.01	0.49
2:G:3186:LEU:CB	2:G:3193:GLU:CB	2.91	0.48
23:q:133:VAL:O	23:q:136:ALA:HB3	2.13	0.48
31:y:56:LYS:HE3	35:2:327:U:OP2	2.13	0.48
31:y:78:LYS:HB2	35:2:346:G:O5'	2.13	0.48
31:y:117:LYS:HD3	31:y:120:ASP:OD2	2.13	0.48
35:2:35:U:N3	35:2:473:A:C2	2.81	0.48
35:2:50:C:H5	35:2:425:A:OP2	1.96	0.48
35:2:57:G:H4'	35:2:57:G:OP1	2.12	0.48
35:2:63:G:C6	35:2:64:U:C4	3.01	0.48
35:2:119:A:H2'	35:2:119:A:N3	2.27	0.48
35:2:153:G:C4	35:2:154:G:C8	3.00	0.48
35:2:163:G:C8	35:2:163:G:P	3.06	0.48
35:2:212:U:C4	35:2:254:A:C6	3.00	0.48
35:2:318:U:OP2	35:2:318:U:C5	2.66	0.48
35:2:328:A:N1	35:2:329:G:C6	2.81	0.48
35:2:409:C:C4	35:2:410:A:N7	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:450:U:C2	35:2:457:G:N2	2.81	0.48
35:2:460:A:C2'	35:2:461:G:H5'	2.43	0.48
35:2:464:A:C4	35:2:465:G:C8	3.01	0.48
35:2:496:G:C2	35:2:497:G:N9	2.81	0.48
35:2:498:G:C6	35:2:499:U:O4	2.66	0.48
35:2:957:G:N2	35:2:958:U:C2	2.81	0.48
35:2:1036:A:O2'	35:2:1037:C:O5'	2.31	0.48
36:3:265:A:N3	36:3:266:C:O2'	2.44	0.48
5:O:482:UNK:N	21:o:16:LYS:HE3	1.43	0.48
9:V:25:ALA:HA	27:u:184:SER:O	2.09	0.48
19:i:164:THR:N	19:i:167:MET:H	2.09	0.48
19:i:612:ASP:O	19:i:616:TRP:CB	2.60	0.48
22:p:216:LYS:O	22:p:216:LYS:HG2	2.13	0.48
25:s:81:ILE:HG23	25:s:92:VAL:HB	1.95	0.48
26:t:93:ALA:HA	31:y:9:TYR:CD2	2.48	0.48
26:t:179:ARG:HD3	26:t:182:GLN:HG3	1.95	0.48
30:x:91:ALA:H	30:x:97:VAL:CB	2.26	0.48
31:y:11:LYS:HB3	31:y:53:VAL:HB	1.94	0.48
33:0:59:SER:HB3	35:2:522:U:C1'	2.42	0.48
33:0:83:TYR:N	33:0:83:TYR:HD1	2.10	0.48
35:2:53:G:C2	35:2:428:A:C2	3.01	0.48
35:2:93:A:O2'	35:2:94:U:O5'	2.27	0.48
35:2:109:G:O2'	35:2:110:U:H5'	2.13	0.48
35:2:139:C:N4	35:2:266:A:C2	2.81	0.48
35:2:199:G:H1'	35:2:200:A:H5'	1.95	0.48
35:2:210:A:H2'	35:2:211:U:H6	1.72	0.48
35:2:273:G:H1	35:2:283:U:C1'	2.02	0.48
35:2:311:U:N3	35:2:355:G:C6	2.63	0.48
35:2:314:C:H1'	35:2:355:G:N2	2.28	0.48
35:2:323:A:N1	35:2:344:A:N1	2.60	0.48
35:2:354:C:OP2	35:2:355:G:N7	2.47	0.48
35:2:389:G:N1	35:2:409:C:C2	2.81	0.48
35:2:391:A:H2'	35:2:392:G:C8	2.49	0.48
35:2:396:G:C2	35:2:398:G:H3'	2.48	0.48
35:2:439:U:C4	35:2:441:A:C8	3.01	0.48
35:2:483:A:P	35:2:483:A:H8	2.36	0.48
35:2:498:G:C6	35:2:499:U:N3	2.81	0.48
35:2:525:A:P	35:2:526:A:C8	3.07	0.48
35:2:534:A:C2	35:2:535:A:H1'	2.48	0.48
35:2:868:G:C2	35:2:961:U:O2	2.66	0.48
35:2:1041:G:C6	35:2:1042:G:N7	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1478:G:C4	35:2:1479:A:C8	3.01	0.48
35:2:1536:G:C4	35:2:1538:U:O2	2.65	0.48
35:2:1586:A:H2'	35:2:1587:A:O4'	2.13	0.48
36:3:190:C:C5	36:3:191:G:N1	2.79	0.48
6:Q:356:UNK:CB	6:Q:406:UNK:HA	2.43	0.48
9:V:31:GLU:CB	27:u:117:GLY:CA	2.79	0.48
15:c:105:LYS:HA	35:2:1159:C:C2	2.49	0.48
19:i:169:VAL:C	19:i:171:ALA:H	2.21	0.48
19:i:881:GLN:CB	19:i:886:ALA:CB	2.91	0.48
23:q:44:ASN:C	23:q:46:TRP:H	2.21	0.48
23:q:117:THR:HA	23:q:191:ALA:HB1	1.94	0.48
26:t:38:LEU:HD21	26:t:104:LEU:CD1	2.41	0.48
26:t:49:ARG:HB2	26:t:68:LEU:HD23	1.95	0.48
28:v:49:GLN:CA	28:v:50:ILE:CB	2.90	0.48
28:v:93:LYS:O	28:v:96:VAL:N	2.41	0.48
31:y:84:ILE:HD13	35:2:348:U:O5'	2.12	0.48
32:z:33:VAL:O	32:z:34:ILE:C	2.54	0.48
32:z:39:GLN:O	32:z:41:MET:N	2.46	0.48
33:0:55:VAL:CG2	33:0:58:PHE:HE1	2.26	0.48
35:2:67:A:N6	35:2:79:C:C6	2.81	0.48
35:2:136:C:C2	35:2:176:C:O2'	2.61	0.48
35:2:166:C:C4	35:2:167:U:C4	3.01	0.48
35:2:182:A:C2	35:2:183:U:C2	3.02	0.48
35:2:199:G:H1'	35:2:200:A:C5'	2.42	0.48
35:2:312:A:C5	35:2:314:C:C2	3.01	0.48
35:2:318:U:O2	35:2:346:G:N2	2.46	0.48
35:2:350:U:H5''	35:2:352:A:O4'	2.14	0.48
35:2:369:A:H5'	35:2:370:A:OP2	2.13	0.48
35:2:390:G:OP2	35:2:390:G:H8	1.95	0.48
35:2:392:G:N1	35:2:406:U:C4	2.81	0.48
35:2:396:G:C5	35:2:398:G:P	3.06	0.48
35:2:432:G:C2'	35:2:433:C:H5'	2.43	0.48
35:2:496:G:C5	35:2:497:G:N7	2.81	0.48
35:2:513:U:H2'	35:2:514:G:H8	1.78	0.48
35:2:525:A:OP1	35:2:525:A:H3'	2.12	0.48
35:2:875:G:N1	35:2:953:G:C2	2.82	0.48
35:2:894:U:H2'	35:2:895:G:N9	2.28	0.48
35:2:917:U:C6	35:2:917:U:H3'	2.49	0.48
35:2:1047:G:C6	35:2:1071:U:N3	2.64	0.48
35:2:1151:A:C2'	35:2:1152:A:H5'	2.43	0.48
35:2:1602:C:C5'	35:2:1603:U:OP2	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1622:G:C5	35:2:1623:C:C4	3.01	0.48
36:3:157:G:H2'	36:3:158:C:O4'	2.14	0.48
36:3:188:G:C2	36:3:189:G:N7	2.81	0.48
9:V:127:LYS:O	10:X:157:PRO:CB	2.55	0.48
20:k:82:LYS:HA	20:k:232:LEU:CB	2.43	0.48
21:o:35:ARG:NH1	21:o:98:ASN:OD1	2.46	0.48
21:o:50:VAL:CG1	21:o:51:THR:N	2.75	0.48
22:p:3:ARG:NH1	35:2:95:G:C3'	2.51	0.48
22:p:88:LEU:HD12	22:p:104:LEU:HD23	1.95	0.48
23:q:66:GLN:N	23:q:87:CYS:N	2.61	0.48
23:q:188:LYS:HA	35:2:1472:C:O2'	2.13	0.48
25:s:144:ARG:HA	25:s:144:ARG:NE	2.28	0.48
31:y:4:GLN:CD	31:y:10:GLN:OE1	2.56	0.48
31:y:21:LYS:C	31:y:23:LEU:N	2.70	0.48
32:z:7:LEU:C	32:z:9:ASP:N	2.71	0.48
35:2:23:G:H2'	35:2:24:U:H1'	1.96	0.48
35:2:30:G:HO2'	35:2:31:C:H6	1.53	0.48
35:2:91:G:O6	35:2:92:A:N6	2.47	0.48
35:2:109:G:H2'	35:2:109:G:N3	2.27	0.48
35:2:134:U:O4	35:2:180:A:H2'	2.13	0.48
35:2:171:A:C5	35:2:172:C:C5	3.01	0.48
35:2:187:G:C5	35:2:197:A:C6	3.01	0.48
35:2:261:U:HO2'	35:2:262:U:H5''	1.76	0.48
35:2:317:C:N3	35:2:348:U:C4	2.81	0.48
35:2:366:A:C5	35:2:367:A:N7	2.82	0.48
35:2:411:C:H2'	35:2:412:A:C8	2.49	0.48
35:2:435:C:C4	35:2:436:A:C6	3.01	0.48
35:2:471:A:H2'	35:2:472:U:O4'	2.14	0.48
35:2:479:C:C6	35:2:479:C:H3'	2.48	0.48
35:2:507:U:O2	35:2:507:U:H2'	2.14	0.48
35:2:519:C:N3	35:2:534:A:N1	2.62	0.48
35:2:869:A:H2'	35:2:870:C:C6	2.48	0.48
35:2:877:G:C5	35:2:952:A:N1	2.82	0.48
35:2:879:G:OP2	35:2:879:G:N7	2.46	0.48
35:2:887:A:C6	35:2:925:G:N1	2.15	0.48
35:2:890:C:OP2	35:2:890:C:H5	1.97	0.48
35:2:968:U:H3'	35:2:969:C:C6	2.48	0.48
35:2:1038:U:C5	35:2:1038:U:OP2	2.66	0.48
35:2:1050:G:OP2	35:2:1050:G:H8	1.96	0.48
35:2:1074:G:C4	35:2:1075:C:OP2	2.67	0.48
35:2:1075:C:C4	35:2:1076:A:N1	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1579:U:H2'	35:2:1580:C:H6	1.76	0.48
36:3:68:A:C2	36:3:69:G:C4	3.02	0.48
36:3:72:C:H2'	36:3:73:C:N1	2.27	0.48
36:3:85:A:N6	36:3:264:G:C6	2.72	0.48
36:3:269:G:N1	36:3:270:C:C2	2.82	0.48
19:j:881:GLN:CB	19:j:886:ALA:CB	2.91	0.48
21:o:21:ARG:CZ	29:w:75:GLY:N	2.73	0.48
22:p:249:THR:HB	22:p:252:GLU:H	1.77	0.48
25:s:14:LYS:HA	25:s:17:GLU:OE1	2.14	0.48
25:s:126:LEU:HB2	25:s:174:TYR:HE1	1.78	0.48
26:t:84:THR:HG21	26:t:113:ASP:O	2.14	0.48
31:y:38:GLY:N	35:2:246:G:H1'	2.25	0.48
35:2:27:U:O4	35:2:28:A:N6	2.46	0.48
35:2:50:C:O2'	35:2:51:A:P	2.71	0.48
35:2:57:G:C2	35:2:58:U:C2	3.01	0.48
35:2:99:C:C2	35:2:101:U:H5	2.32	0.48
35:2:114:C:OP2	35:2:114:C:O4'	2.32	0.48
35:2:118:U:O2'	35:2:119:A:P	2.72	0.48
35:2:134:U:N3	35:2:180:A:OP2	2.42	0.48
35:2:146:U:C5	35:2:167:U:C4	3.02	0.48
35:2:245:U:C6	35:2:247:A:H5''	2.47	0.48
35:2:245:U:O3'	35:2:246:G:C8	2.65	0.48
35:2:274:G:C6	35:2:275:C:C4	3.01	0.48
35:2:283:U:H2'	35:2:284:G:N3	2.28	0.48
35:2:333:A:C2'	35:2:334:G:C8	2.93	0.48
35:2:334:G:N3	35:2:334:G:H2'	2.29	0.48
35:2:340:U:C4	35:2:341:A:N7	2.82	0.48
35:2:365:G:C4	35:2:365:G:H3'	2.48	0.48
35:2:414:C:C2	35:2:420:A:C2	3.02	0.48
35:2:416:A:H3'	35:2:418:G:C6	2.48	0.48
35:2:424:C:H2'	35:2:424:C:O2	2.14	0.48
35:2:455:C:OP2	35:2:455:C:C5	2.66	0.48
35:2:462:G:H2'	35:2:463:U:H6	1.77	0.48
35:2:628:G:N2	35:2:629:U:C4	2.81	0.48
35:2:865:A:H2'	35:2:866:G:O4'	2.14	0.48
35:2:868:G:C2	35:2:960:U:C2	3.01	0.48
35:2:1025:A:H5''	35:2:1026:A:OP1	2.14	0.48
35:2:1472:C:O2	35:2:1472:C:H2'	2.12	0.48
36:3:78:C:C4	36:3:269:G:N1	2.82	0.48
36:3:100:G:H8	36:3:100:G:OP2	1.96	0.48
36:3:157:G:N1	36:3:173:G:C6	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:244:G:H8	36:3:244:G:OP2	1.95	0.48
5:M:616:UNK:O	5:M:617:UNK:CB	2.62	0.48
19:i:848:LEU:CB	24:r:40:THR:CB	2.87	0.48
19:i:872:GLU:O	19:i:873:ALA:HB2	2.14	0.48
19:j:213:GLY:H	19:j:218:LYS:CB	2.26	0.48
19:j:881:GLN:O	19:j:883:ILE:HA	2.12	0.48
5:m:616:UNK:O	5:m:617:UNK:CB	2.62	0.48
22:p:184:TYR:HE1	22:p:192:GLY:HA2	1.78	0.48
22:p:188:GLY:H	22:p:191:ILE:CG2	2.27	0.48
23:q:55:ASP:O	23:q:56:ALA:C	2.56	0.48
23:q:197:GLU:O	23:q:201:ALA:HB2	2.14	0.48
23:q:199:ILE:C	23:q:201:ALA:N	2.67	0.48
24:r:187:ARG:O	35:2:141:U:C4	2.64	0.48
26:t:22:ARG:CD	26:t:25:ARG:CZ	2.91	0.48
26:t:65:ALA:C	26:t:66:LEU:HD23	2.39	0.48
30:x:72:GLY:HA2	35:2:1483:A:O2'	2.14	0.48
30:x:125:GLU:N	35:2:1584:G:N1	2.61	0.48
35:2:38:C:H5	35:2:39:A:O4'	1.95	0.48
35:2:70:C:H1'	35:2:84:A:C2	2.49	0.48
35:2:82:U:C2	35:2:83:G:C8	3.01	0.48
35:2:91:G:OP2	35:2:92:A:H2	1.96	0.48
35:2:117:U:C4	35:2:300:A:N1	2.82	0.48
35:2:156:A:N1	35:2:419:G:H1'	2.29	0.48
35:2:174:U:C3'	35:2:175:G:C8	2.93	0.48
35:2:187:G:C2	35:2:197:A:C2	3.01	0.48
35:2:189:C:C4	35:2:197:A:C2	3.01	0.48
35:2:209:U:O4	35:2:210:A:N6	2.47	0.48
35:2:290:G:C5	35:2:291:G:C6	3.01	0.48
35:2:290:G:H2'	35:2:290:G:N3	2.28	0.48
35:2:301:A:H2'	35:2:302:U:N1	2.28	0.48
35:2:323:A:C8	35:2:323:A:H3'	2.49	0.48
35:2:376:C:N3	35:2:377:G:N7	2.62	0.48
35:2:385:A:N3	35:2:385:A:H2'	2.27	0.48
35:2:395:U:H3	35:2:396:G:H21	1.61	0.48
35:2:399:A:C6	35:2:401:A:C5	3.01	0.48
35:2:404:G:C2	35:2:405:C:N1	2.82	0.48
35:2:462:G:N3	35:2:462:G:C2'	2.76	0.48
35:2:514:G:C4	35:2:515:A:C8	3.02	0.48
35:2:518:A:N6	35:2:535:A:C4	2.78	0.48
35:2:929:A:H3'	35:2:930:A:H8	1.71	0.48
35:2:935:U:H6	35:2:935:U:P	2.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1023:A:C1'	35:2:1024:U:H5	2.27	0.48
35:2:1535:U:O2'	35:2:1536:G:N2	2.47	0.48
35:2:1584:G:N3	35:2:1584:G:H3'	2.28	0.48
35:2:1596:C:O2	35:2:1596:C:O4'	2.27	0.48
35:2:1620:C:O2	35:2:1620:C:H2'	2.12	0.48
36:3:75:A:C5	36:3:76:C:N4	2.81	0.48
36:3:244:G:H2'	36:3:245:U:C6	2.48	0.48
36:3:268:G:C6	36:3:269:G:C6	3.01	0.48
7:R:19:UNK:CB	7:R:119:UNK:CB	2.91	0.48
8:T:320:ILE:CB	36:3:109:C:OP1	2.60	0.48
11:Y:152:VAL:O	36:3:126:U:C5	2.58	0.48
19:j:390:GLU:HA	19:j:411:ALA:O	2.14	0.48
19:j:872:GLU:O	19:j:873:ALA:HB2	2.14	0.48
22:p:57:ASN:ND2	22:p:59:ARG:HB3	2.26	0.48
23:q:136:ALA:C	23:q:138:THR:N	2.72	0.48
24:r:23:LYS:NZ	24:r:43:ASP:OD2	2.42	0.48
24:r:180:GLN:HB3	35:2:169:A:P	2.54	0.48
24:r:187:ARG:NH2	35:2:141:U:O2	2.47	0.48
26:t:114:SER:CB	26:t:172:ILE:HD11	2.43	0.48
31:y:103:HIS:CA	35:2:351:C:C2	2.97	0.48
32:z:14:ILE:O	32:z:15:ASN:C	2.56	0.48
35:2:197:A:OP2	35:2:197:A:O4'	2.32	0.48
35:2:205:U:C2	35:2:263:C:N3	2.82	0.48
35:2:211:U:H2'	35:2:212:U:H6	1.78	0.48
35:2:256:A:C8	35:2:256:A:P	3.06	0.48
35:2:263:C:H5''	35:2:264:G:OP2	2.13	0.48
35:2:328:A:C6	35:2:329:G:C5	3.02	0.48
35:2:380:U:H1'	35:2:382:C:N4	2.29	0.48
35:2:483:A:C5	35:2:506:A:N1	2.82	0.48
35:2:489:C:C2'	35:2:490:C:C6	2.95	0.48
35:2:534:A:N3	35:2:534:A:H2'	2.18	0.48
35:2:550:A:C2	35:2:587:C:N3	2.81	0.48
35:2:942:G:C6	35:2:943:C:C4	3.02	0.48
35:2:975:C:C2	35:2:976:G:C8	3.02	0.48
35:2:976:G:H2'	35:2:1023:A:H2	1.78	0.48
35:2:1047:G:OP2	35:2:1047:G:N7	2.46	0.48
35:2:1162:C:O2'	35:2:1163:A:H5'	2.14	0.48
36:3:93:G:H3'	36:3:94:A:H8	1.78	0.48
36:3:101:G:O6	36:3:251:U:O4	2.30	0.48
36:3:148:G:H2'	36:3:149:U:H6	1.78	0.48
16:d:118:TRP:O	16:d:119:GLN:C	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:131:LYS:NZ	21:o:137:ILE:HG12	2.28	0.48
22:p:62:THR:CG2	35:2:455:C:C2	2.97	0.48
24:r:59:ASP:CG	35:2:418:G:C2'	2.76	0.48
24:r:163:ARG:HH12	35:2:69:G:C2'	2.22	0.48
25:s:70:TYR:CE2	25:s:74:LEU:HD11	2.49	0.48
25:s:152:ARG:HA	25:s:183:THR:O	2.13	0.48
26:t:108:SER:O	26:t:176:ILE:HG13	2.14	0.48
26:t:159:LEU:O	26:t:160:GLU:C	2.57	0.48
26:t:194:LYS:HG2	31:y:4:GLN:HE21	1.79	0.48
31:y:17:LEU:C	31:y:20:LYS:HE2	2.39	0.48
31:y:21:LYS:HD2	31:y:29:ALA:HA	1.95	0.48
31:y:88:ASP:HB3	35:2:351:C:H41	1.77	0.48
35:2:59:C:H2'	35:2:59:C:P	2.53	0.48
35:2:123:G:C6	35:2:124:A:N7	2.82	0.48
35:2:124:A:N1	35:2:294:C:C4	2.82	0.48
35:2:178:U:H1'	35:2:179:A:H2'	1.96	0.48
35:2:287:G:H2'	35:2:288:A:O5'	2.14	0.48
35:2:315:A:H4'	35:2:316:A:OP1	2.13	0.48
35:2:325:G:N2	35:2:344:A:C8	2.81	0.48
35:2:349:U:C1'	35:2:353:A:H1'	2.44	0.48
35:2:394:C:N3	35:2:401:A:C4	2.82	0.48
35:2:431:C:C5	35:2:431:C:OP2	2.67	0.48
35:2:481:A:H8	35:2:481:A:O5'	1.96	0.48
35:2:484:C:C2	35:2:504:U:N3	2.79	0.48
35:2:490:C:N4	35:2:498:G:C6	2.82	0.48
35:2:516:G:C4	35:2:517:U:C5	3.00	0.48
35:2:630:A:C4	35:2:970:A:C8	3.02	0.48
35:2:906:A:C8	35:2:906:A:H3'	2.48	0.48
35:2:1466:G:C5	35:2:1467:C:N4	2.82	0.48
35:2:1575:G:C5'	35:2:1576:A:OP2	2.62	0.48
36:3:100:G:C2	36:3:253:G:C4	3.02	0.48
36:3:133:G:C2	36:3:134:C:C2	3.01	0.48
36:3:167:U:H2'	36:3:168:C:O4'	2.14	0.48
36:3:206:G:OP2	36:3:206:G:C8	2.67	0.48
36:3:254:A:OP2	36:3:254:A:H8	1.96	0.48
9:U:126:GLY:N	10:W:188:VAL:CB	2.77	0.48
9:U:126:GLY:HA2	10:W:183:ALA:O	2.13	0.48
19:j:169:VAL:C	19:j:171:ALA:H	2.21	0.48
19:j:374:PRO:HA	19:j:377:ALA:HB3	1.96	0.48
21:o:123:LEU:HD12	21:o:124:ILE:H	1.77	0.48
22:p:44:LEU:O	22:p:45:SER:C	2.56	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:p:177:LEU:H	22:p:177:LEU:CD2	2.24	0.48
23:q:65:ARG:O	23:q:66:GLN:CB	2.62	0.48
23:q:91:GLU:O	23:q:92:ARG:C	2.56	0.48
24:r:68:MET:O	24:r:69:VAL:HG23	2.13	0.48
24:r:153:PRO:O	24:r:156:ILE:N	2.46	0.48
25:s:13:THR:O	25:s:14:LYS:C	2.57	0.48
26:t:35:MET:HE3	26:t:37:LYS:HG3	1.96	0.48
27:u:38:ASN:O	27:u:39:LYS:O	2.31	0.48
29:w:61:MET:C	29:w:63:ALA:N	2.70	0.48
32:z:30:SER:O	32:z:34:ILE:CB	2.62	0.48
33:0:35:LYS:N	35:2:520:A:C1'	2.76	0.48
35:2:50:C:C5	35:2:425:A:OP2	2.67	0.48
35:2:84:A:OP1	35:2:85:A:N7	2.47	0.48
35:2:100:A:C5	35:2:101:U:C5	3.02	0.48
35:2:105:A:N6	35:2:108:A:C6	2.82	0.48
35:2:107:C:C2	35:2:108:A:N7	2.82	0.48
35:2:123:G:N1	35:2:295:A:N6	2.62	0.48
35:2:152:U:C2	35:2:162:A:N1	2.81	0.48
35:2:243:G:N1	35:2:244:A:C5	2.81	0.48
35:2:294:C:C2	35:2:295:A:N7	2.82	0.48
35:2:314:C:C2	35:2:355:G:N1	2.82	0.48
35:2:323:A:C6	35:2:324:U:C5	3.01	0.48
35:2:347:G:C2	35:2:348:U:C5	3.01	0.48
35:2:389:G:N1	35:2:390:G:C5	2.82	0.48
35:2:441:A:C6	35:2:464:A:C5	3.02	0.48
35:2:462:G:OP2	35:2:462:G:H3'	2.14	0.48
35:2:481:A:C8	35:2:481:A:OP2	2.67	0.48
35:2:877:G:H2'	35:2:877:G:N3	2.29	0.48
35:2:904:G:H2'	35:2:905:A:O4'	2.13	0.48
36:3:73:C:C6	36:3:74:C:C4	3.01	0.48
36:3:79:G:C4	36:3:80:G:C8	3.02	0.48
36:3:81:G:H22	36:3:266:C:N4	2.12	0.48
36:3:205:C:H2'	36:3:206:G:C8	2.48	0.48
17:f:156:GLU:CB	35:2:1537:C:O2	2.59	0.48
17:f:215:ASN:C	17:f:217:ALA:H	2.22	0.48
18:g:45:LYS:CA	21:o:118:ARG:HB3	2.35	0.48
22:p:71:ASN:HA	22:p:95:GLU:HB3	1.96	0.48
22:p:95:GLU:O	22:p:97:THR:N	2.47	0.48
23:q:212:LYS:O	23:q:215:ASP:N	2.47	0.48
24:r:133:LEU:HD12	35:2:166:C:H2'	1.95	0.48
26:t:25:ARG:C	35:2:400:A:N7	2.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:x:54:LEU:O	30:x:56:GLY:N	2.47	0.48
33:0:28:PRO:O	33:0:29:ASP:CB	2.61	0.48
35:2:123:G:N1	35:2:124:A:C5	2.81	0.48
35:2:129:U:OP2	35:2:130:C:C5	2.67	0.48
35:2:143:G:C2	35:2:173:A:C2	3.02	0.48
35:2:180:A:C8	35:2:182:A:OP1	2.67	0.48
35:2:246:G:H2'	35:2:247:A:C4'	2.44	0.48
35:2:279:G:OP2	35:2:279:G:C4	2.67	0.48
35:2:290:G:H3'	35:2:291:G:N7	2.29	0.48
35:2:299:A:C2	35:2:300:A:C4	3.02	0.48
35:2:316:A:N6	35:2:349:U:H3	2.12	0.48
35:2:328:A:H2'	35:2:329:G:O4'	2.13	0.48
35:2:341:A:C6	35:2:342:C:N4	2.82	0.48
35:2:386:G:C2	35:2:387:A:C5	3.02	0.48
35:2:430:G:C8	35:2:430:G:H3'	2.49	0.48
35:2:446:A:N6	35:2:460:A:N6	2.62	0.48
35:2:450:U:N3	35:2:451:A:C5	2.82	0.48
35:2:476:U:O2'	35:2:477:A:OP2	2.28	0.48
35:2:481:A:C2	35:2:507:U:O2	2.67	0.48
35:2:485:A:H4'	35:2:485:A:OP1	2.14	0.48
35:2:491:C:H3'	35:2:492:A:C2	2.49	0.48
35:2:521:A:C2	35:2:531:C:H5	2.32	0.48
35:2:887:A:H8	35:2:887:A:OP2	1.95	0.48
35:2:904:G:N1	35:2:905:A:C2	2.81	0.48
35:2:977:A:C6	35:2:978:A:C4	3.01	0.48
35:2:1064:G:C2	35:2:1065:A:C4	3.01	0.48
35:2:1467:C:C5'	35:2:1602:C:OP1	2.54	0.48
35:2:1585:U:H5	35:2:1610:G:N2	2.12	0.48
36:3:78:C:O2'	36:3:79:G:OP1	2.30	0.48
36:3:91:G:C1'	36:3:92:A:OP2	2.61	0.48
36:3:192:A:C8	36:3:194:G:C5	3.02	0.48
36:3:263:U:C2	36:3:264:G:N2	2.82	0.48
15:c:96:PRO:CB	30:x:131:GLY:O	2.62	0.47
19:i:390:GLU:HA	19:i:411:ALA:O	2.14	0.47
20:k:174:THR:C	20:k:176:THR:N	2.63	0.47
26:t:73:PHE:HA	26:t:188:GLY:O	2.14	0.47
26:t:185:ARG:CZ	35:2:208:U:N1	2.59	0.47
27:u:26:ALA:O	27:u:28:LEU:N	2.47	0.47
27:u:103:ASP:O	27:u:104:PHE:C	2.56	0.47
28:v:91:LEU:O	28:v:95:ALA:HB3	2.12	0.47
29:w:71:CYS:C	29:w:73:GLU:N	2.70	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:y:74:VAL:HG13	31:y:83:VAL:CG1	2.44	0.47
33:0:13:ASN:OD1	33:0:15:LEU:HB2	2.14	0.47
33:0:21:LEU:N	33:0:21:LEU:CD2	2.77	0.47
34:1:26:THR:HA	34:1:38:ARG:HA	1.96	0.47
35:2:53:G:C6	35:2:428:A:C6	3.02	0.47
35:2:57:G:C5	35:2:91:G:O6	2.67	0.47
35:2:117:U:C4	35:2:118:U:C4	3.02	0.47
35:2:125:U:OP2	35:2:125:U:H2'	2.14	0.47
35:2:151:G:H2'	35:2:151:G:N3	2.29	0.47
35:2:318:U:OP2	35:2:318:U:H6	1.97	0.47
35:2:977:A:C5	35:2:978:A:C5	3.02	0.47
35:2:1046:G:N1	35:2:1073:G:C5	2.82	0.47
35:2:1050:G:H2'	35:2:1051:G:H1'	1.96	0.47
35:2:1538:U:H2'	35:2:1539:G:H3'	1.96	0.47
35:2:1584:G:N2	35:2:1585:U:OP1	2.47	0.47
35:2:1612:U:C4	35:2:1613:U:H6	2.32	0.47
36:3:103:G:H22	36:3:249:U:C2'	2.26	0.47
36:3:254:A:H3'	36:3:255:U:H2'	1.96	0.47
19:i:877:SER:C	19:i:884:LEU:CB	2.87	0.47
19:j:877:SER:C	19:j:884:LEU:CB	2.87	0.47
1:n:76:UNK:O	26:t:3:ILE:HD13	2.14	0.47
22:p:11:ARG:NH1	22:p:21:ASN:HB3	2.30	0.47
24:r:31:LYS:HB2	24:r:34:GLN:NE2	2.29	0.47
24:r:97:VAL:HG12	24:r:98:ARG:N	2.30	0.47
26:t:66:LEU:C	26:t:67:ARG:HG2	2.39	0.47
29:w:64:ALA:HA	29:w:68:ALA:CB	2.44	0.47
30:x:54:LEU:C	30:x:56:GLY:H	2.21	0.47
30:x:81:ILE:C	30:x:84:ALA:HB3	2.39	0.47
30:x:92:TYR:N	30:x:93:HIS:HA	2.29	0.47
33:0:35:LYS:N	35:2:520:A:O4'	2.46	0.47
33:0:76:ASN:C	33:0:78:GLN:N	2.69	0.47
35:2:27:U:N3	35:2:28:A:C6	2.82	0.47
35:2:50:C:O2'	35:2:51:A:O5'	2.32	0.47
35:2:60:U:O2'	35:2:62:A:C8	2.59	0.47
35:2:63:G:OP1	35:2:64:U:OP2	2.31	0.47
35:2:108:A:N6	35:2:307:G:C6	2.82	0.47
35:2:213:A:C5	35:2:214:G:C6	3.02	0.47
35:2:301:A:C6	35:2:302:U:C4	3.02	0.47
35:2:315:A:N6	35:2:350:U:H6	2.11	0.47
35:2:337:G:H4'	35:2:338:C:H3'	1.94	0.47
35:2:449:C:C2	35:2:458:G:C2	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:451:A:H2	35:2:454:U:O4	1.98	0.47
35:2:468:A:O5'	35:2:469:C:N4	2.47	0.47
35:2:495:C:C4	35:2:496:G:N3	2.82	0.47
35:2:537:G:N3	35:2:537:G:C2'	2.70	0.47
35:2:620:A:C8	35:2:620:A:OP2	2.66	0.47
35:2:871:G:N1	35:2:872:G:C5	2.82	0.47
35:2:923:A:C2	35:2:924:A:C5	3.02	0.47
35:2:1041:G:H2'	35:2:1042:G:O4'	2.14	0.47
36:3:101:G:H2'	36:3:102:C:C6	2.49	0.47
22:p:72:VAL:HG23	22:p:72:VAL:O	2.14	0.47
24:r:145:PHE:N	24:r:145:PHE:CD1	2.82	0.47
24:r:231:SER:O	24:r:235:VAL:HG23	2.14	0.47
24:r:232:ALA:N	24:r:233:PRO:HD2	2.30	0.47
25:s:52:LYS:CB	25:s:56:LYS:HE2	2.44	0.47
25:s:91:ILE:HG23	25:s:166:LYS:HD2	1.96	0.47
26:t:10:LYS:CE	35:2:338:C:C5'	2.91	0.47
27:u:77:ILE:C	27:u:79:ARG:N	2.66	0.47
29:w:20:TYR:HA	29:w:85:ALA:H	1.80	0.47
33:0:27:HIS:N	33:0:28:PRO:CD	2.77	0.47
35:2:57:G:C4	35:2:58:U:C5	3.03	0.47
35:2:81:G:O2'	35:2:82:U:OP1	2.28	0.47
35:2:86:A:C6	35:2:87:C:C4	3.02	0.47
35:2:93:A:N6	35:2:396:G:C2	2.79	0.47
35:2:115:G:O2'	35:2:116:U:P	2.72	0.47
35:2:127:G:H1	35:2:185:U:P	2.36	0.47
35:2:156:A:P	35:2:157:A:OP2	2.72	0.47
35:2:185:U:O2	35:2:200:A:C2	2.67	0.47
35:2:195:G:C4	35:2:196:G:N7	2.82	0.47
35:2:243:G:C2	35:2:244:A:C4	3.03	0.47
35:2:244:A:C2	35:2:250:C:C2	3.02	0.47
35:2:262:U:C4	35:2:263:C:C5	3.03	0.47
35:2:273:G:N1	35:2:284:G:N1	2.61	0.47
35:2:277:U:O3'	35:2:279:G:OP1	2.33	0.47
35:2:300:A:C2'	35:2:301:A:C8	2.98	0.47
35:2:301:A:H2'	35:2:302:U:C1'	2.44	0.47
35:2:333:A:C6	35:2:334:G:C4	3.02	0.47
35:2:337:G:O5'	35:2:338:C:C5	2.67	0.47
35:2:353:A:C6	35:2:354:C:C4	3.03	0.47
35:2:392:G:N1	35:2:406:U:N3	2.62	0.47
35:2:412:A:C2	35:2:422:G:O6	2.68	0.47
35:2:485:A:O2'	35:2:486:G:C6	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:498:G:OP2	35:2:498:G:H8	1.93	0.47
35:2:865:A:C4	35:2:964:U:N3	2.82	0.47
35:2:871:G:C6	35:2:957:G:O6	2.67	0.47
35:2:898:A:C5	35:2:915:A:N6	2.83	0.47
35:2:907:A:H2'	35:2:908:U:O4'	2.13	0.47
35:2:967:A:N3	35:2:967:A:H2'	2.28	0.47
35:2:969:C:O2'	35:2:970:A:H5'	2.14	0.47
35:2:970:A:C6	35:2:971:A:H1'	2.49	0.47
35:2:1581:C:H2'	35:2:1582:U:H5'	1.95	0.47
36:3:80:G:C5	36:3:81:G:C5	3.02	0.47
36:3:242:G:OP2	36:3:242:G:C8	2.67	0.47
36:3:269:G:C5	36:3:270:C:C4	3.02	0.47
8:T:338:ALA:HA	36:3:108:A:H5''	1.96	0.47
19:j:163:TYR:HA	19:j:167:MET:C	2.39	0.47
21:o:89:LEU:HB3	21:o:101:THR:HG22	1.92	0.47
22:p:49:LYS:HE3	22:p:61:VAL:CG2	2.45	0.47
23:q:66:GLN:HA	23:q:86:GLN:C	2.40	0.47
24:r:6:SER:HB2	35:2:164:A:H5'	1.97	0.47
24:r:165:PHE:CD2	35:2:69:G:C2	3.02	0.47
25:s:71:ARG:NH2	28:v:52:VAL:H	2.10	0.47
27:u:114:TYR:C	27:u:116:LEU:H	2.22	0.47
29:w:98:GLY:O	29:w:101:ALA:HB3	2.14	0.47
35:2:35:U:H2'	35:2:35:U:O2	2.15	0.47
35:2:37:U:H2'	35:2:38:C:C4	2.49	0.47
35:2:57:G:N1	35:2:91:G:O6	2.47	0.47
35:2:82:U:O3'	35:2:83:G:O4'	2.32	0.47
35:2:143:G:C2	35:2:144:U:C1'	2.97	0.47
35:2:187:G:C6	35:2:197:A:C5	3.02	0.47
35:2:190:C:C2	35:2:196:G:N2	2.81	0.47
35:2:282:C:C6	35:2:283:U:C4	3.02	0.47
35:2:305:C:O2	35:2:305:C:H2'	2.14	0.47
35:2:312:A:H62	35:2:352:A:H1'	1.76	0.47
35:2:417:A:OP2	35:2:417:A:H8	1.95	0.47
35:2:489:C:C2	35:2:490:C:C5	3.02	0.47
35:2:924:A:C2	35:2:925:G:C5	3.03	0.47
35:2:926:A:C4	35:2:927:C:C5	3.02	0.47
35:2:955:A:C4	35:2:956:C:C5	3.03	0.47
35:2:966:A:OP1	35:2:966:A:H3'	2.14	0.47
35:2:1046:G:C2	35:2:1047:G:C5	3.02	0.47
35:2:1056:U:H3'	35:2:1057:U:C5	2.49	0.47
35:2:1082:C:N4	35:2:1091:A:C8	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1535:U:OP1	35:2:1536:G:C5	2.68	0.47
35:2:1594:G:H2'	35:2:1595:U:H5'	1.96	0.47
36:3:147:G:C2	36:3:148:G:C5	3.03	0.47
36:3:268:G:C2	36:3:269:G:C5	3.03	0.47
1:P:284:UNK:C	14:b:22:LYS:C	2.87	0.47
16:d:70:GLY:O	35:2:1097:U:C6	2.65	0.47
21:o:88:LYS:O	21:o:104:TYR:HB3	2.15	0.47
22:p:49:LYS:O	22:p:53:ASN:HA	2.15	0.47
22:p:87:GLY:N	22:p:90:ASP:OD2	2.47	0.47
22:p:106:ASP:O	22:p:192:GLY:HA3	2.15	0.47
24:r:44:GLU:O	24:r:119:ALA:HB1	2.15	0.47
24:r:176:CYS:HB3	35:2:67:A:C5	2.36	0.47
25:s:155:LEU:HD13	25:s:163:LEU:HD13	1.95	0.47
26:t:136:THR:HG21	26:t:153:ARG:NH1	2.28	0.47
28:v:36:GLN:HA	28:v:39:LYS:CB	2.45	0.47
29:w:57:PRO:O	29:w:58:TYR:C	2.58	0.47
33:0:121:THR:HG23	35:2:84:A:O3'	2.14	0.47
35:2:24:U:H3'	35:2:26:A:H8	1.80	0.47
35:2:58:U:C2	35:2:89:G:N1	2.73	0.47
35:2:84:A:N3	35:2:85:A:H5'	2.29	0.47
35:2:107:C:C2	35:2:108:A:C8	3.02	0.47
35:2:120:U:OP2	35:2:120:U:H6	1.96	0.47
35:2:142:G:C4	35:2:266:A:N6	2.83	0.47
35:2:188:A:OP2	35:2:197:A:H2	1.92	0.47
35:2:196:G:P	35:2:197:A:OP2	2.73	0.47
35:2:210:A:C6	35:2:211:U:C4	3.03	0.47
35:2:246:G:N1	35:2:247:A:C2	2.83	0.47
35:2:268:C:O2	35:2:289:U:H6	1.96	0.47
35:2:279:G:H2'	35:2:279:G:N3	2.29	0.47
35:2:328:A:C2	35:2:329:G:C5	3.02	0.47
35:2:328:A:N6	35:2:341:A:C6	2.83	0.47
35:2:411:C:C2'	35:2:412:A:C8	2.97	0.47
35:2:485:A:N1	35:2:503:G:N1	2.62	0.47
35:2:488:G:C5	35:2:500:C:N3	2.82	0.47
35:2:519:C:H2'	35:2:520:A:N7	2.30	0.47
35:2:874:C:C2	35:2:875:G:C8	3.03	0.47
35:2:877:G:N1	35:2:878:G:C5	2.83	0.47
35:2:933:A:N7	35:2:935:U:C2	2.83	0.47
35:2:954:G:C8	35:2:954:G:OP2	2.68	0.47
35:2:966:A:C6	35:2:967:A:C5	3.03	0.47
36:3:85:A:C4	36:3:265:A:N1	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:171:G:C2	36:3:172:C:C2	3.02	0.47
22:p:97:THR:O	22:p:97:THR:HG22	2.14	0.47
23:q:164:PRO:C	23:q:166:ARG:N	2.72	0.47
24:r:183:ILE:HD12	35:2:141:U:P	2.54	0.47
25:s:134:SER:HB2	25:s:159:ASP:OD2	2.14	0.47
26:t:182:GLN:NE2	35:2:334:G:OP1	2.48	0.47
30:x:98:ASP:C	30:x:100:GLN:H	2.23	0.47
30:x:125:GLU:N	35:2:1584:G:C2	2.80	0.47
31:y:12:GLN:O	31:y:53:VAL:HG13	2.14	0.47
31:y:128:ARG:HG2	31:y:128:ARG:HH11	1.79	0.47
35:2:51:A:N7	35:2:429:G:N3	2.62	0.47
35:2:60:U:C6	35:2:62:A:C4	3.02	0.47
35:2:73:U:N3	35:2:81:G:N2	2.63	0.47
35:2:109:G:C5	35:2:110:U:O2	2.68	0.47
35:2:110:U:H2'	35:2:111:U:H5''	1.97	0.47
35:2:185:U:C6	35:2:185:U:OP2	2.68	0.47
35:2:250:C:OP2	35:2:250:C:C5	2.67	0.47
35:2:281:G:C4	35:2:282:C:H1'	2.49	0.47
35:2:296:U:H6	35:2:296:U:C3'	2.21	0.47
35:2:318:U:H2'	35:2:319:U:H5''	1.96	0.47
35:2:446:A:H2'	35:2:447:U:O4'	2.15	0.47
35:2:465:G:C8	35:2:465:G:P	3.08	0.47
35:2:480:G:C8	35:2:480:G:P	3.07	0.47
35:2:486:G:H2'	35:2:487:G:C8	2.49	0.47
35:2:486:G:C6	35:2:501:U:N3	2.80	0.47
35:2:632:U:C5	35:2:632:U:OP2	2.67	0.47
35:2:877:G:H2'	35:2:878:G:C8	2.49	0.47
35:2:894:U:O2	35:2:919:A:N6	2.47	0.47
35:2:894:U:C2	35:2:895:G:C5	3.02	0.47
35:2:935:U:P	35:2:935:U:C6	3.07	0.47
35:2:949:C:C2	35:2:950:C:C5	3.02	0.47
35:2:1027:A:O2'	35:2:1028:C:OP2	2.29	0.47
35:2:1048:G:C2	35:2:1049:U:C6	3.03	0.47
35:2:1081:A:H62	35:2:1091:A:H61	1.63	0.47
35:2:1469:A:H2'	35:2:1470:C:C6	2.50	0.47
35:2:1528:U:H2'	35:2:1529:C:H6	1.78	0.47
36:3:99:C:C2	36:3:100:G:C8	3.03	0.47
36:3:204:C:H2'	36:3:205:C:C6	2.49	0.47
1:A:294:UNK:C	1:B:66:UNK:CB	2.87	0.47
1:B:283:UNK:N	1:D:345:UNK:N	2.56	0.47
1:N:227:UNK:CB	5:O:460:UNK:CA	2.93	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S:299:GLY:HA2	36:3:93:G:C8	2.46	0.47
14:b:137:ARG:HA	14:b:142:GLU:HA	1.97	0.47
15:c:124:LEU:O	15:c:126:ASP:N	2.48	0.47
1:n:271:UNK:N	1:n:297:UNK:CB	2.78	0.47
22:p:33:GLN:NE2	35:2:120:U:H1'	2.29	0.47
22:p:211:HIS:C	22:p:212:VAL:HG22	2.40	0.47
23:q:113:ILE:O	23:q:114:ILE:C	2.56	0.47
24:r:163:ARG:NH1	35:2:69:G:C1'	2.75	0.47
30:x:18:ALA:HB3	30:x:84:ALA:HB2	1.96	0.47
31:y:84:ILE:CD1	35:2:347:G:C4'	2.92	0.47
33:0:119:ALA:O	33:0:120:ILE:C	2.58	0.47
35:2:24:U:H3'	35:2:26:A:C8	2.50	0.47
35:2:24:U:C5	35:2:26:A:C6	3.02	0.47
35:2:43:A:H3'	35:2:44:U:H5''	1.97	0.47
35:2:51:A:C8	35:2:429:G:N3	2.82	0.47
35:2:52:U:C4	35:2:429:G:N2	2.82	0.47
35:2:57:G:C2	35:2:90:C:N3	2.83	0.47
35:2:65:A:N1	35:2:85:A:C6	2.82	0.47
35:2:93:A:C6	35:2:398:G:C4	3.02	0.47
35:2:98:U:H1'	35:2:386:G:N1	2.30	0.47
35:2:115:G:C5	35:2:335:U:H1'	2.50	0.47
35:2:116:U:N3	35:2:301:A:C2	2.83	0.47
35:2:154:G:C5	35:2:155:U:C4	3.02	0.47
35:2:157:A:H2	35:2:420:A:O4'	1.98	0.47
35:2:206:A:OP2	35:2:206:A:C8	2.67	0.47
35:2:208:U:H4'	35:2:209:U:OP1	2.13	0.47
35:2:265:A:C2	35:2:267:U:N3	2.83	0.47
35:2:273:G:C2	35:2:274:G:C4	3.03	0.47
35:2:274:G:C6	35:2:283:U:O2	2.67	0.47
35:2:290:G:OP2	35:2:290:G:O4'	2.32	0.47
35:2:301:A:H3'	35:2:301:A:P	2.55	0.47
35:2:321:C:C4	35:2:337:G:N1	2.82	0.47
35:2:330:G:C3'	35:2:331:A:H8	2.28	0.47
35:2:330:G:C2'	35:2:331:A:C8	2.94	0.47
35:2:350:U:H1'	35:2:352:A:C5	2.49	0.47
35:2:407:A:N6	35:2:408:C:N4	2.62	0.47
35:2:407:A:C6	35:2:408:C:N4	2.82	0.47
35:2:419:G:C2'	35:2:420:A:H8	2.28	0.47
35:2:447:U:O2'	35:2:448:C:C6	2.67	0.47
35:2:488:G:C2	35:2:489:C:N3	2.83	0.47
35:2:517:U:C4	35:2:535:A:N1	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:519:C:H3'	35:2:519:C:P	2.52	0.47
35:2:532:U:O5'	35:2:532:U:H6	1.97	0.47
35:2:630:A:H1'	35:2:970:A:C6	2.50	0.47
35:2:863:A:C6	35:2:865:A:H1'	2.50	0.47
35:2:879:G:N1	35:2:950:C:N3	2.62	0.47
35:2:895:G:C5	35:2:896:U:C4	3.03	0.47
35:2:902:G:HO2'	35:2:907:A:N6	2.13	0.47
35:2:903:U:H2'	35:2:904:G:H3'	1.96	0.47
35:2:930:A:OP2	35:2:930:A:C8	2.67	0.47
35:2:937:C:H2'	35:2:938:G:O2'	2.15	0.47
35:2:947:U:H2'	35:2:948:G:O4'	2.13	0.47
35:2:967:A:C6	35:2:968:U:C4	3.02	0.47
35:2:1053:G:H2'	35:2:1054:U:C6	2.50	0.47
35:2:1065:A:C4	35:2:1066:C:C5	3.03	0.47
35:2:1479:A:C3'	35:2:1480:G:H5''	2.44	0.47
35:2:1600:A:C2'	35:2:1602:C:H41	2.27	0.47
35:2:1609:U:H3'	35:2:1610:G:H8	1.80	0.47
36:3:71:U:N3	36:3:72:C:C4	2.83	0.47
36:3:74:C:C6	36:3:75:A:N7	2.83	0.47
36:3:84:G:OP2	36:3:84:G:O4'	2.32	0.47
36:3:84:G:N2	36:3:85:A:N6	2.63	0.47
36:3:97:C:N3	36:3:257:G:C6	2.83	0.47
36:3:159:G:C6	36:3:171:G:N1	2.82	0.47
36:3:198:U:OP2	36:3:199:G:OP2	2.33	0.47
36:3:257:G:N1	36:3:258:A:C6	2.83	0.47
1:A:271:UNK:N	1:A:297:UNK:CB	2.78	0.47
1:P:284:UNK:CA	14:b:23:SER:HA	2.44	0.47
16:d:108:VAL:CB	32:z:94:LEU:O	2.62	0.47
22:p:193:ARG:NH1	22:p:246:VAL:HA	2.30	0.47
22:p:215:ALA:C	22:p:217:GLY:N	2.72	0.47
24:r:19:ASP:O	24:r:20:ASP:C	2.58	0.47
24:r:102:VAL:CG1	24:r:109:LEU:HD11	2.45	0.47
26:t:17:ARG:HG2	26:t:18:MET:H	1.80	0.47
26:t:22:ARG:HG3	26:t:22:ARG:O	2.15	0.47
26:t:129:LEU:O	26:t:168:VAL:HG22	2.14	0.47
26:t:196:LEU:O	26:t:197:GLU:C	2.58	0.47
29:w:13:VAL:N	29:w:14:PHE:CB	2.78	0.47
35:2:108:A:C8	35:2:108:A:OP2	2.68	0.47
35:2:192:U:H2'	35:2:192:U:O2	2.15	0.47
35:2:199:G:HO2'	35:2:200:A:P	2.35	0.47
35:2:300:A:N6	35:2:301:A:N1	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:330:G:H2'	35:2:331:A:C1'	2.44	0.47
35:2:365:G:C6	35:2:366:A:C8	3.03	0.47
35:2:370:A:H3'	35:2:371:G:N7	2.29	0.47
35:2:438:A:O2'	35:2:439:U:P	2.72	0.47
35:2:459:G:H8	35:2:459:G:O5'	1.98	0.47
35:2:477:A:N6	35:2:540:G:C8	2.82	0.47
35:2:479:C:C4	35:2:480:G:N7	2.83	0.47
35:2:592:A:C2'	35:2:593:U:OP1	2.63	0.47
35:2:903:U:O2	35:2:905:A:C8	2.68	0.47
35:2:957:G:C6	35:2:958:U:C4	3.03	0.47
35:2:1023:A:H1'	35:2:1024:U:H5	1.80	0.47
35:2:1039:A:N9	35:2:1040:G:C8	2.82	0.47
35:2:1042:G:N1	35:2:1078:C:C2	2.83	0.47
35:2:1170:G:C6	35:2:1574:G:C5	3.02	0.47
35:2:1466:G:H2'	35:2:1467:C:H6	1.79	0.47
35:2:1585:U:O2'	35:2:1586:A:H5'	2.15	0.47
36:3:108:A:OP2	36:3:108:A:H2'	2.14	0.47
36:3:126:U:C2	36:3:189:G:O6	2.68	0.47
1:D:116:UNK:C	1:E:156:UNK:HA	2.40	0.47
3:H:217:UNK:O	3:H:245:UNK:HA	2.15	0.47
21:o:130:CYS:HB3	21:o:182:ALA:CB	2.44	0.47
22:p:215:ALA:O	22:p:217:GLY:N	2.48	0.47
24:r:76:LEU:C	24:r:77:LEU:HD23	2.40	0.47
24:r:127:VAL:CG1	24:r:129:LEU:HG	2.45	0.47
24:r:215:PHE:CZ	24:r:219:TRP:HB2	2.50	0.47
26:t:66:LEU:HD23	26:t:66:LEU:N	2.30	0.47
29:w:21:ALA:CB	29:w:26:THR:HA	2.44	0.47
31:y:78:LYS:HG2	35:2:347:G:H5'	1.97	0.47
35:2:22:A:OP2	35:2:22:A:C8	2.67	0.47
35:2:91:G:OP2	35:2:92:A:C2	2.68	0.47
35:2:103:A:O4'	35:2:360:A:C2	2.64	0.47
35:2:145:A:C2	35:2:171:A:C2	3.03	0.47
35:2:242:U:C2	35:2:242:U:P	3.08	0.47
35:2:259:U:O2'	35:2:261:U:C2	2.65	0.47
35:2:273:G:O6	35:2:284:G:O6	2.33	0.47
35:2:304:U:H2'	35:2:305:C:O4'	2.14	0.47
35:2:323:A:H1'	35:2:346:G:C2	2.49	0.47
35:2:343:C:C6	35:2:343:C:OP2	2.68	0.47
35:2:397:A:C2	35:2:398:G:H1'	2.49	0.47
35:2:499:U:C6	35:2:499:U:H3'	2.49	0.47
35:2:529:A:H4'	35:2:530:C:H5	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:530:C:C6	35:2:530:C:H3'	2.50	0.47
35:2:626:U:N3	35:2:974:A:C6	2.83	0.47
35:2:875:G:N1	35:2:952:A:C6	2.82	0.47
35:2:902:G:C8	35:2:902:G:H3'	2.50	0.47
35:2:904:G:C5	35:2:905:A:C5	3.03	0.47
35:2:1070:C:H2'	35:2:1071:U:O4'	2.15	0.47
35:2:1083:G:N2	35:2:1094:G:O4'	2.40	0.47
35:2:1578:U:HO2'	35:2:1579:U:H5'	1.78	0.47
35:2:1607:G:C4	35:2:1608:U:C5	3.03	0.47
1:D:271:UNK:N	1:D:297:UNK:CB	2.78	0.47
1:J:271:UNK:N	1:J:297:UNK:CB	2.78	0.47
1:N:271:UNK:N	1:N:297:UNK:CB	2.78	0.47
5:O:616:UNK:O	5:O:617:UNK:CB	2.62	0.47
1:P:271:UNK:N	1:P:297:UNK:CB	2.78	0.47
17:f:34:LYS:O	23:q:183:ALA:HB3	2.15	0.47
19:i:163:TYR:HA	19:i:167:MET:C	2.39	0.47
19:i:374:PRO:HA	19:i:377:ALA:HB3	1.96	0.47
24:r:55:GLY:HA3	24:r:63:MET:SD	2.55	0.47
25:s:48:PHE:HE2	25:s:62:LEU:HD23	1.80	0.47
25:s:109:LYS:H	25:s:109:LYS:CD	2.28	0.47
26:t:112:ILE:HD11	26:t:174:ALA:CB	2.45	0.47
27:u:117:GLY:HA3	27:u:179:ARG:CB	2.45	0.47
28:v:97:SER:C	28:v:99:ARG:H	2.23	0.47
31:y:131:SER:O	31:y:132:LYS:C	2.57	0.47
33:0:34:SER:CB	35:2:520:A:O4'	2.63	0.47
33:0:117:GLY:O	33:0:118:LYS:C	2.58	0.47
33:0:119:ALA:O	33:0:123:LEU:HD13	2.15	0.47
35:2:28:A:O5'	35:2:29:U:P	2.72	0.47
35:2:39:A:C6	35:2:467:G:N1	2.83	0.47
35:2:64:U:N3	35:2:87:C:C2	2.82	0.47
35:2:84:A:C2	35:2:85:A:H5'	2.50	0.47
35:2:130:C:O2'	35:2:132:U:H5''	2.15	0.47
35:2:204:G:C2	35:2:264:G:N2	2.82	0.47
35:2:258:C:O2'	35:2:259:U:O5'	2.33	0.47
35:2:271:A:C5	35:2:272:U:H5''	2.50	0.47
35:2:322:G:H5''	35:2:337:G:H21	1.79	0.47
35:2:330:G:C2	35:2:339:C:N3	2.82	0.47
35:2:330:G:C6	35:2:339:C:N3	2.83	0.47
35:2:345:U:OP2	35:2:345:U:H6	1.98	0.47
35:2:384:G:C5	35:2:385:A:N7	2.83	0.47
35:2:421:A:C5	35:2:422:G:C5	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:467:G:N2	35:2:469:C:C2	2.83	0.47
35:2:473:A:H5'	35:2:474:A:P	2.55	0.47
35:2:481:A:C2	35:2:508:U:C6	3.03	0.47
35:2:485:A:C5	35:2:503:G:N1	2.81	0.47
35:2:493:U:O2	35:2:496:G:C6	2.65	0.47
35:2:504:U:H2'	35:2:506:A:H8	1.79	0.47
35:2:524:U:H2'	35:2:527:A:N3	2.30	0.47
35:2:526:A:H5'	35:2:528:U:C2'	2.45	0.47
35:2:937:C:C4	35:2:938:G:C8	3.03	0.47
35:2:942:G:N1	35:2:943:C:C4	2.83	0.47
35:2:1038:U:O5'	35:2:1038:U:C6	2.64	0.47
35:2:1054:U:OP2	35:2:1054:U:C6	2.68	0.47
35:2:1536:G:C5	35:2:1538:U:O2	2.68	0.47
35:2:1590:G:N3	35:2:1591:C:C5	2.83	0.47
36:3:101:G:C6	36:3:102:C:C4	3.03	0.47
1:C:271:UNK:N	1:C:297:UNK:CB	2.78	0.46
1:F:271:UNK:N	1:F:297:UNK:CB	2.78	0.46
1:K:271:UNK:N	1:K:297:UNK:CB	2.78	0.46
9:U:48:ARG:HA	36:3:261:U:OP1	2.14	0.46
9:V:26:VAL:N	27:u:183:ALA:HB1	2.13	0.46
9:V:100:ALA:CB	36:3:192:A:O2'	2.56	0.46
21:o:34:PHE:CD2	21:o:45:PHE:O	2.65	0.46
21:o:76:LYS:HD2	21:o:76:LYS:O	2.15	0.46
24:r:89:SER:HG	35:2:395:U:H4'	1.79	0.46
24:r:177:PRO:CD	35:2:67:A:OP2	2.48	0.46
25:s:178:THR:O	25:s:179:THR:HG23	2.15	0.46
26:t:169:SER:O	26:t:170:GLN:CB	2.63	0.46
31:y:84:ILE:CD1	35:2:348:U:O5'	2.63	0.46
34:1:33:LEU:O	34:1:34:GLU:CB	2.62	0.46
35:2:53:G:H2'	35:2:54:C:C1'	2.45	0.46
35:2:57:G:N2	35:2:58:U:H1'	2.29	0.46
35:2:73:U:O4	35:2:81:G:C6	2.68	0.46
35:2:93:A:H61	35:2:396:G:H2'	1.80	0.46
35:2:118:U:C2	35:2:299:A:N1	2.83	0.46
35:2:188:A:OP2	35:2:197:A:N1	2.49	0.46
35:2:191:C:C2	35:2:192:U:C6	3.03	0.46
35:2:270:C:C4	35:2:271:A:N7	2.83	0.46
35:2:308:C:O2'	35:2:309:C:P	2.72	0.46
35:2:311:U:C2	35:2:356:G:C2	3.04	0.46
35:2:322:G:H4'	35:2:323:A:OP2	2.04	0.46
35:2:353:A:OP2	35:2:354:C:C5	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:889:U:O2	35:2:889:U:H2'	2.14	0.46
35:2:898:A:H1'	35:2:899:G:C1'	2.44	0.46
35:2:963:A:H2	35:2:964:U:O4	1.98	0.46
35:2:970:A:C2	35:2:971:A:H1'	2.50	0.46
35:2:1032:G:C2	35:2:1033:C:H1'	2.51	0.46
35:2:1039:A:C1'	35:2:1040:G:C8	2.97	0.46
35:2:1039:A:N7	35:2:1091:A:H2'	2.31	0.46
35:2:1049:U:H2'	35:2:1050:G:C8	2.50	0.46
35:2:1077:C:C2	35:2:1078:C:C6	3.03	0.46
35:2:1176:G:C4	35:2:1464:G:C2	3.03	0.46
36:3:80:G:N7	36:3:81:G:C6	2.83	0.46
36:3:87:G:N7	36:3:88:A:C6	2.83	0.46
36:3:87:G:P	36:3:87:G:H8	2.38	0.46
36:3:94:A:O2'	36:3:95:U:H5'	2.15	0.46
36:3:241:G:H8	36:3:241:G:O5'	1.98	0.46
36:3:263:U:C6	36:3:264:G:C2	3.03	0.46
2:G:2063:ALA:CB	2:G:2142:VAL:CB	2.93	0.46
9:U:126:GLY:CA	10:W:188:VAL:HA	2.45	0.46
1:l:271:UNK:N	1:l:297:UNK:CB	2.78	0.46
21:o:45:PHE:HD1	21:o:46:GLY:N	2.13	0.46
22:p:73:PHE:HB2	22:p:93:ARG:HB3	1.97	0.46
22:p:91:VAL:HA	22:p:101:PHE:O	2.15	0.46
22:p:126:LEU:HB3	22:p:143:THR:CG2	2.45	0.46
22:p:194:VAL:CG1	22:p:230:LEU:HD23	2.45	0.46
23:q:65:ARG:CB	23:q:87:CYS:CB	2.94	0.46
24:r:13:GLN:CG	35:2:152:U:H1'	2.45	0.46
24:r:149:LYS:O	24:r:151:ASP:N	2.48	0.46
26:t:3:ILE:O	26:t:30:GLY:HA3	2.15	0.46
26:t:92:ASN:O	26:t:94:THR:N	2.46	0.46
26:t:138:LEU:HD11	26:t:153:ARG:HH12	1.75	0.46
26:t:175:CYS:HB3	26:t:189:TYR:CE1	2.50	0.46
27:u:99:LEU:O	27:u:102:GLU:N	2.48	0.46
29:w:27:PHE:HA	29:w:43:THR:CB	2.45	0.46
35:2:65:A:N6	35:2:83:G:C8	2.84	0.46
35:2:95:G:C2'	35:2:96:G:H5'	2.45	0.46
35:2:103:A:H5''	35:2:104:A:C2	2.50	0.46
35:2:110:U:H2'	35:2:304:U:O4	2.15	0.46
35:2:117:U:H2'	35:2:118:U:C6	2.50	0.46
35:2:134:U:O2'	35:2:136:C:C2	2.67	0.46
35:2:146:U:C4	35:2:167:U:C2	3.03	0.46
35:2:152:U:N3	35:2:162:A:C6	2.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:153:G:C4	35:2:162:A:C5	3.03	0.46
35:2:162:A:C2	35:2:163:G:C5	3.03	0.46
35:2:191:C:C2	35:2:195:G:C2	3.02	0.46
35:2:304:U:C2	35:2:305:C:C6	3.03	0.46
35:2:344:A:N3	35:2:344:A:H2'	2.30	0.46
35:2:395:U:N3	35:2:396:G:N3	2.62	0.46
35:2:407:A:N1	35:2:408:C:C4	2.83	0.46
35:2:467:G:C2'	35:2:469:C:OP1	2.62	0.46
35:2:527:A:C2	35:2:527:A:OP2	2.68	0.46
35:2:536:C:H2'	35:2:537:G:H1'	1.97	0.46
35:2:538:A:H2'	35:2:538:A:N3	2.30	0.46
35:2:634:G:C4	35:2:966:A:N1	2.84	0.46
35:2:898:A:H1'	35:2:899:G:H1'	1.97	0.46
35:2:938:G:C2	35:2:942:G:C5	3.03	0.46
35:2:959:U:C2	35:2:960:U:C5	2.98	0.46
35:2:1039:A:N1	35:2:1080:U:C2	2.77	0.46
36:3:116:G:N1	36:3:190:C:C2	2.78	0.46
1:B:271:UNK:N	1:B:297:UNK:CB	2.78	0.46
3:H:-2:UNK:HA	3:H:174:UNK:CB	2.45	0.46
1:n:78:UNK:CA	26:t:33:ILE:HD12	2.44	0.46
23:q:166:ARG:O	23:q:169:ASN:N	2.48	0.46
23:q:166:ARG:O	23:q:167:ARG:C	2.58	0.46
24:r:18:ILE:HD13	24:r:41:LEU:HD21	1.97	0.46
24:r:153:PRO:CG	24:r:154:ILE:H	2.22	0.46
24:r:179:ILE:HD11	35:2:79:C:H42	1.80	0.46
26:t:202:LYS:O	26:t:206:LYS:CB	2.59	0.46
28:v:36:GLN:C	28:v:39:LYS:H	2.23	0.46
28:v:42:ARG:O	28:v:43:LYS:C	2.59	0.46
30:x:93:HIS:HA	30:x:96:TYR:O	2.16	0.46
31:y:56:LYS:HD3	31:y:130:ILE:HG21	1.96	0.46
35:2:53:G:O6	35:2:428:A:N6	2.48	0.46
35:2:57:G:C2	35:2:91:G:C6	3.03	0.46
35:2:70:C:C2	35:2:83:G:C2	3.04	0.46
35:2:71:A:C6	35:2:82:U:O2	2.68	0.46
35:2:71:A:C5	35:2:72:A:N6	2.83	0.46
35:2:98:U:H1'	35:2:386:G:N2	2.30	0.46
35:2:106:U:C2'	35:2:107:C:H6	2.28	0.46
35:2:120:U:C2	35:2:298:C:H1'	2.51	0.46
35:2:169:A:C4	35:2:171:A:N7	2.84	0.46
35:2:175:G:H1'	35:2:266:A:N6	2.29	0.46
35:2:243:G:H3'	35:2:244:A:H8	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:281:G:O6	35:2:282:C:C4	2.67	0.46
35:2:368:U:C2	35:2:373:G:O6	2.68	0.46
35:2:410:A:H2	35:2:423:G:C2	2.31	0.46
35:2:457:G:C8	35:2:457:G:C3'	2.97	0.46
35:2:490:C:C2	35:2:491:C:C6	3.03	0.46
35:2:510:G:C2	35:2:512:A:O4'	2.68	0.46
35:2:539:G:O4'	35:2:540:G:OP1	2.33	0.46
35:2:627:C:N3	35:2:973:A:C6	2.84	0.46
35:2:869:A:C8	35:2:869:A:OP2	2.69	0.46
35:2:873:U:H3'	35:2:874:C:H6	1.79	0.46
35:2:885:G:H2'	35:2:886:U:N1	2.30	0.46
35:2:967:A:C5	35:2:968:U:C5	3.03	0.46
35:2:1466:G:C5	35:2:1467:C:C4	3.03	0.46
35:2:1471:A:N3	35:2:1471:A:H2'	2.29	0.46
36:3:96:C:O2'	36:3:97:C:H5'	2.15	0.46
1:E:271:UNK:N	1:E:297:UNK:CB	2.78	0.46
1:L:271:UNK:N	1:L:297:UNK:CB	2.78	0.46
5:M:354:UNK:N	5:M:369:UNK:O	2.48	0.46
21:o:139:ARG:NH2	35:2:884:A:H4'	2.29	0.46
22:p:120:GLU:C	22:p:122:LYS:H	2.24	0.46
22:p:127:LYS:O	22:p:143:THR:HG23	2.15	0.46
24:r:14:LYS:HG3	24:r:15:CYS:N	2.30	0.46
25:s:73:LEU:HD12	25:s:73:LEU:O	2.16	0.46
25:s:93:PHE:HD2	25:s:173:ILE:CD1	2.27	0.46
26:t:80:ILE:HD11	26:t:120:TRP:CZ3	2.50	0.46
28:v:82:PRO:O	28:v:83:GLU:C	2.58	0.46
28:v:134:VAL:O	28:v:135:LEU:C	2.59	0.46
30:x:48:VAL:C	30:x:50:GLU:H	2.23	0.46
35:2:46:A:N6	35:2:433:C:H4'	2.30	0.46
35:2:72:A:C2	35:2:81:G:N1	2.83	0.46
35:2:98:U:O2'	35:2:425:A:C8	2.69	0.46
35:2:143:G:C6	35:2:144:U:C5	3.04	0.46
35:2:175:G:C2	35:2:266:A:C5	3.04	0.46
35:2:185:U:N3	35:2:201:G:N1	2.63	0.46
35:2:278:U:C2'	35:2:279:G:H8	2.27	0.46
35:2:303:U:C5	35:2:303:U:OP2	2.68	0.46
35:2:325:G:C5	35:2:326:G:N7	2.83	0.46
35:2:431:C:OP2	35:2:431:C:H5	1.99	0.46
35:2:444:C:N4	35:2:458:G:N3	2.63	0.46
35:2:444:C:H5	35:2:458:G:H3'	1.76	0.46
35:2:865:A:N3	35:2:964:U:C2	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:869:A:N6	35:2:958:U:C4	2.84	0.46
35:2:904:G:C6	35:2:905:A:C6	3.03	0.46
35:2:1047:G:C2	35:2:1048:G:C8	3.04	0.46
35:2:1050:G:C4	35:2:1069:A:C2	3.03	0.46
35:2:1078:C:H5'	35:2:1079:U:P	2.56	0.46
35:2:1155:G:C4	35:2:1156:C:C5	3.04	0.46
35:2:1470:C:OP1	35:2:1471:A:H1'	2.15	0.46
35:2:1528:U:O5'	35:2:1528:U:H6	1.99	0.46
36:3:114:A:C8	36:3:192:A:N6	2.84	0.46
36:3:145:A:C2	36:3:146:A:H1'	2.50	0.46
9:V:92:ALA:O	27:u:181:ALA:HB1	2.13	0.46
9:V:93:CYS:C	27:u:181:ALA:HB2	2.41	0.46
19:i:283:LEU:HA	19:i:472:ILE:O	2.16	0.46
19:j:879:LEU:CB	19:j:887:LEU:CB	2.94	0.46
22:p:61:VAL:O	22:p:63:LEU:N	2.48	0.46
23:q:117:THR:O	23:q:121:ILE:CB	2.63	0.46
25:s:22:ALA:O	25:s:25:GLU:HB2	2.15	0.46
28:v:145:THR:CA	28:v:146:ALA:HB2	2.40	0.46
29:w:77:THR:O	29:w:110:LEU:HA	2.16	0.46
30:x:74:HIS:O	30:x:75:VAL:C	2.59	0.46
33:0:32:THR:CG2	35:2:520:A:N3	2.79	0.46
35:2:31:C:C2	35:2:32:U:O4	2.69	0.46
35:2:71:A:N6	35:2:83:G:O6	2.31	0.46
35:2:71:A:H1'	35:2:72:A:OP1	2.15	0.46
35:2:76:A:H2	35:2:79:C:OP1	1.98	0.46
35:2:118:U:O5'	35:2:118:U:H6	1.99	0.46
35:2:312:A:C6	35:2:352:A:H1'	2.50	0.46
35:2:339:C:C2'	35:2:340:U:O5'	2.63	0.46
35:2:355:G:C2	35:2:356:G:C8	3.03	0.46
35:2:410:A:C2'	35:2:411:C:H6	2.29	0.46
35:2:429:G:C2'	35:2:430:G:C8	2.98	0.46
35:2:465:G:P	35:2:465:G:H8	2.39	0.46
35:2:478:A:C2'	35:2:479:C:H6	2.27	0.46
35:2:526:A:OP1	35:2:528:U:C5	2.69	0.46
35:2:535:A:O2'	35:2:536:C:H5'	2.15	0.46
35:2:931:C:H5''	35:2:932:U:H3'	1.98	0.46
35:2:1052:U:C2	35:2:1053:G:H8	2.34	0.46
35:2:1067:C:C2	35:2:1068:C:C6	3.03	0.46
15:c:97:SER:HA	30:x:138:PHE:CB	2.44	0.46
19:i:503:SER:HA	19:i:510:CYS:HA	1.93	0.46
19:j:283:LEU:HA	19:j:472:ILE:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:208:LYS:C	35:2:1066:C:C1'	2.85	0.46
22:p:31:PRO:CB	22:p:38:LEU:HD23	2.45	0.46
24:r:157:LYS:CB	35:2:78:A:C6	2.86	0.46
26:t:24:LYS:CB	35:2:400:A:N7	2.67	0.46
26:t:176:ILE:HG22	26:t:177:THR:N	2.30	0.46
28:v:70:LYS:O	28:v:71:ILE:C	2.58	0.46
31:y:66:ARG:HB2	35:2:113:U:OP1	2.15	0.46
32:z:57:ARG:C	32:z:59:GLY:H	2.23	0.46
33:0:35:LYS:HB2	35:2:520:A:O3'	2.13	0.46
33:0:57:GLY:C	35:2:522:U:H5''	1.91	0.46
33:0:115:THR:CG2	33:0:116:SER:N	2.79	0.46
35:2:50:C:C2	35:2:424:C:C2	3.04	0.46
35:2:63:G:N1	35:2:64:U:C4	2.84	0.46
35:2:65:A:C6	35:2:83:G:C6	3.04	0.46
35:2:90:C:C6	35:2:90:C:OP2	2.68	0.46
35:2:198:A:N7	35:2:199:G:C2	2.83	0.46
35:2:251:A:C2'	35:2:252:U:O5'	2.64	0.46
35:2:295:A:H1'	35:2:296:U:H5'	1.97	0.46
35:2:296:U:OP2	35:2:297:U:OP1	2.33	0.46
35:2:302:U:C2	35:2:303:U:O2	2.68	0.46
35:2:304:U:C3'	35:2:305:C:H6	2.27	0.46
35:2:322:G:C2	35:2:337:G:C5	3.04	0.46
35:2:330:G:C6	35:2:331:A:C6	3.04	0.46
35:2:404:G:OP2	35:2:404:G:O3'	2.33	0.46
35:2:469:C:C2'	35:2:470:A:H5'	2.45	0.46
35:2:488:G:O6	35:2:499:U:C4	2.69	0.46
35:2:539:G:O4'	35:2:539:G:N3	2.45	0.46
35:2:929:A:P	35:2:929:A:C8	3.09	0.46
35:2:952:A:H2'	35:2:953:G:H8	1.80	0.46
35:2:1076:A:C8	35:2:1076:A:P	3.08	0.46
35:2:1086:A:C6	35:2:1087:A:N6	2.84	0.46
35:2:1467:C:H2'	35:2:1468:U:H6	1.81	0.46
35:2:1528:U:H2'	35:2:1529:C:C6	2.50	0.46
1:B:158:UNK:CB	10:W:189:THR:CB	2.93	0.46
5:O:354:UNK:N	5:O:369:UNK:O	2.49	0.46
1:P:288:UNK:O	14:b:17:ASP:O	2.31	0.46
8:T:316:LYS:CB	36:3:199:G:O6	2.63	0.46
15:c:120:GLY:O	35:2:1605:G:O5'	2.34	0.46
18:g:77:SER:CA	21:o:114:CYS:O	2.64	0.46
19:i:130:ALA:CB	19:i:170:HIS:N	2.79	0.46
21:o:75:LEU:O	21:o:79:SER:CB	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:q:164:PRO:O	23:q:165:LEU:C	2.59	0.46
24:r:176:CYS:SG	35:2:67:A:C5'	2.89	0.46
26:t:111:GLU:OE1	26:t:171:ARG:HB3	2.16	0.46
27:u:59:LEU:C	27:u:61:THR:N	2.74	0.46
31:y:68:LYS:CD	35:2:304:U:C1'	2.65	0.46
31:y:80:ASN:HB3	35:2:325:G:O2'	2.13	0.46
33:0:43:ALA:O	33:0:47:LYS:N	2.48	0.46
35:2:47:A:C6	35:2:98:U:H2'	2.48	0.46
35:2:64:U:N3	35:2:86:A:C2	2.83	0.46
35:2:64:U:N3	35:2:87:C:O2	2.49	0.46
35:2:64:U:H6	35:2:64:U:H5''	1.80	0.46
35:2:99:C:O2	35:2:101:U:C5	2.68	0.46
35:2:106:U:C4	35:2:107:C:C4	3.03	0.46
35:2:112:A:HO2'	35:2:113:U:H6	1.63	0.46
35:2:188:A:H62	35:2:197:A:C2'	2.25	0.46
35:2:311:U:O2'	35:2:312:A:H5'	2.16	0.46
35:2:324:U:C2	35:2:325:G:N7	2.83	0.46
35:2:332:U:O3'	35:2:333:A:H3'	2.15	0.46
35:2:405:C:C2	35:2:406:U:C5	3.04	0.46
35:2:509:G:HO2'	35:2:510:G:P	2.37	0.46
35:2:629:U:OP2	35:2:969:C:C4	2.69	0.46
35:2:871:G:N3	35:2:957:G:C2	2.84	0.46
35:2:900:A:H2'	35:2:901:G:O4'	2.15	0.46
35:2:912:U:H6	35:2:912:U:H2'	1.42	0.46
35:2:915:A:P	35:2:916:U:C5	3.09	0.46
35:2:927:C:OP2	35:2:927:C:C5	2.68	0.46
35:2:962:C:H2'	35:2:963:A:C8	2.51	0.46
35:2:1470:C:H3'	35:2:1573:A:H62	1.80	0.46
36:3:87:G:OP2	36:3:87:G:H8	1.98	0.46
36:3:88:A:C8	36:3:262:C:N3	2.84	0.46
36:3:91:G:H5''	36:3:93:G:C6	2.50	0.46
1:D:56:UNK:CB	1:E:162:UNK:CB	2.94	0.46
8:T:327:HIS:C	36:3:108:A:H62	2.24	0.46
19:j:877:SER:CB	19:j:885:LEU:CA	2.94	0.46
22:p:42:LEU:C	22:p:42:LEU:HD13	2.40	0.46
22:p:143:THR:HG22	22:p:144:HIS:N	2.31	0.46
22:p:163:LYS:HB3	22:p:172:GLU:O	2.15	0.46
23:q:44:ASN:O	23:q:46:TRP:N	2.49	0.46
23:q:144:GLU:HA	23:q:160:VAL:C	2.39	0.46
26:t:109:ILE:HD13	26:t:199:TYR:CD2	2.50	0.46
27:u:53:ARG:HA	27:u:56:ALA:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:v:69:ASN:O	28:v:70:LYS:C	2.58	0.46
28:v:114:ARG:O	28:v:117:LEU:N	2.49	0.46
31:y:31:VAL:HG12	31:y:32:ARG:N	2.31	0.46
31:y:52:TYR:CD1	31:y:52:TYR:C	2.93	0.46
31:y:64:SER:CB	35:2:247:A:N1	2.52	0.46
31:y:91:HIS:ND1	35:2:307:G:OP1	2.49	0.46
33:0:123:LEU:CD1	33:0:123:LEU:H	2.28	0.46
35:2:47:A:N7	35:2:99:C:H6	2.14	0.46
35:2:60:U:C2	35:2:62:A:C2	3.03	0.46
35:2:80:A:N3	35:2:81:G:H1'	2.30	0.46
35:2:81:G:C6	35:2:82:U:H1'	2.50	0.46
35:2:90:C:N3	35:2:91:G:O6	2.49	0.46
35:2:156:A:C6	35:2:418:G:C4	3.03	0.46
35:2:263:C:C5'	35:2:264:G:OP2	2.63	0.46
35:2:269:G:N1	35:2:287:G:C6	2.84	0.46
35:2:278:U:O2	35:2:278:U:C2'	2.64	0.46
35:2:293:U:C6	35:2:293:U:OP2	2.69	0.46
35:2:294:C:HO2'	35:2:295:A:P	2.37	0.46
35:2:363:G:N2	35:2:381:C:C5	2.84	0.46
35:2:400:A:H1'	35:2:401:A:OP2	2.15	0.46
35:2:430:G:C2	35:2:431:C:C6	3.03	0.46
35:2:529:A:OP2	35:2:529:A:N3	2.49	0.46
35:2:546:U:C2	35:2:591:A:C6	3.03	0.46
35:2:548:G:N1	35:2:590:C:C2	2.84	0.46
35:2:549:G:C2	35:2:550:A:C8	3.04	0.46
35:2:881:A:C2	35:2:948:G:C4	3.03	0.46
35:2:936:G:O2'	35:2:937:C:H5'	2.16	0.46
35:2:1046:G:C6	35:2:1047:G:C5	3.04	0.46
36:3:96:C:N4	36:3:258:A:H61	2.14	0.46
36:3:115:G:N7	36:3:116:G:C8	2.84	0.46
36:3:247:G:H3'	36:3:248:G:C8	2.50	0.46
1:D:113:UNK:HA	1:E:193:UNK:CA	2.45	0.46
5:O:482:UNK:O	21:o:16:LYS:HB2	2.16	0.46
17:f:82:ARG:O	17:f:84:ILE:N	2.49	0.46
21:o:40:PHE:N	21:o:40:PHE:CD1	2.84	0.46
21:o:122:THR:HB	21:o:146:THR:OG1	2.15	0.46
22:p:77:LYS:NZ	22:p:147:ARG:HH12	2.14	0.46
22:p:101:PHE:HA	22:p:114:LYS:O	2.16	0.46
25:s:149:SER:CB	32:z:52:TYR:CB	2.94	0.46
25:s:181:GLU:H	25:s:181:GLU:HG2	1.41	0.46
26:t:24:LYS:CB	35:2:400:A:C5	2.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:y:17:LEU:HD13	31:y:21:LYS:HE2	1.98	0.46
33:0:35:LYS:CD	35:2:521:A:C5'	2.53	0.46
33:0:148:ALA:O	33:0:149:LYS:C	2.58	0.46
35:2:69:G:H5'	35:2:71:A:OP2	2.16	0.46
35:2:95:G:C5	35:2:96:G:C5	3.04	0.46
35:2:103:A:C4	35:2:308:C:C2	3.04	0.46
35:2:151:G:C6	35:2:164:A:C5	3.04	0.46
35:2:156:A:H3'	35:2:157:A:C8	2.51	0.46
35:2:299:A:N6	35:2:300:A:N6	2.63	0.46
35:2:308:C:O2'	35:2:308:C:O2	2.32	0.46
35:2:324:U:C4	35:2:325:G:N7	2.83	0.46
35:2:335:U:C5	35:2:336:G:C8	3.04	0.46
35:2:389:G:C5	35:2:390:G:N7	2.84	0.46
35:2:462:G:C2	35:2:463:U:C2	3.03	0.46
35:2:467:G:N2	35:2:470:A:N6	2.63	0.46
35:2:483:A:C4	35:2:484:C:C5	3.04	0.46
35:2:491:C:H5''	35:2:492:A:N1	2.31	0.46
35:2:496:G:C6	35:2:497:G:N7	2.84	0.46
35:2:549:G:OP2	35:2:549:G:H3'	2.16	0.46
35:2:617:U:C4	35:2:618:U:C4	3.04	0.46
35:2:628:G:H2'	35:2:629:U:C6	2.50	0.46
35:2:898:A:H61	35:2:912:U:C4'	2.28	0.46
35:2:898:A:C6	35:2:912:U:O5'	2.69	0.46
35:2:917:U:C6	35:2:917:U:OP2	2.68	0.46
35:2:948:G:H8	35:2:948:G:OP2	1.99	0.46
35:2:1050:G:C5	35:2:1051:G:C8	3.04	0.46
35:2:1074:G:O5'	35:2:1074:G:C8	2.68	0.46
35:2:1151:A:C4	35:2:1152:A:C8	3.04	0.46
35:2:1472:C:H3'	35:2:1472:C:P	2.56	0.46
36:3:70:A:C2	36:3:71:U:C4	3.04	0.46
36:3:126:U:H3	36:3:188:G:H22	1.64	0.46
36:3:145:A:H3'	36:3:146:A:H8	1.80	0.46
36:3:270:C:C5	36:3:270:C:OP2	2.68	0.46
1:L:245:UNK:O	12:Z:201:SER:CB	2.63	0.46
20:k:132:HIS:HA	35:2:1523:G:N2	1.99	0.46
5:m:354:UNK:N	5:m:369:UNK:O	2.49	0.46
21:o:122:THR:OG1	21:o:161:TYR:HA	2.15	0.46
21:o:207:THR:C	21:o:209:ASN:N	2.67	0.46
23:q:191:ALA:O	23:q:195:ALA:N	2.38	0.46
24:r:185:PRO:HA	24:r:188:ILE:HD12	1.98	0.46
24:r:213:GLU:OE1	24:r:213:GLU:HA	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:s:81:ILE:O	25:s:85:GLU:HG3	2.16	0.46
26:t:80:ILE:HD13	26:t:120:TRP:CE3	2.51	0.46
26:t:142:GLU:HB2	26:t:150:ARG:NH2	2.30	0.46
26:t:194:LYS:CG	31:y:4:GLN:NE2	2.79	0.46
26:t:197:GLU:O	26:t:201:ARG:HG3	2.16	0.46
28:v:114:ARG:C	28:v:116:ILE:N	2.74	0.46
29:w:21:ALA:H	29:w:85:ALA:CB	2.21	0.46
29:w:44:GLY:O	29:w:45:GLY:C	2.59	0.46
31:y:112:PRO:O	31:y:113:CYS:C	2.59	0.46
35:2:37:U:C4	35:2:471:A:N1	2.85	0.46
35:2:47:A:C8	35:2:98:U:O3'	2.69	0.46
35:2:108:A:C6	35:2:307:G:C2	3.04	0.46
35:2:162:A:C2	35:2:163:G:C4	3.04	0.46
35:2:169:A:C8	35:2:171:A:N6	2.84	0.46
35:2:198:A:N6	35:2:199:G:N2	2.64	0.46
35:2:354:C:C4	35:2:355:G:H1'	2.51	0.46
35:2:365:G:C5	35:2:377:G:N1	2.84	0.46
35:2:406:U:C3'	35:2:407:A:C8	2.98	0.46
35:2:483:A:C8	35:2:483:A:P	3.08	0.46
35:2:515:A:C6	35:2:537:G:N1	2.84	0.46
35:2:518:A:H62	35:2:534:A:H2	1.54	0.46
35:2:519:C:P	35:2:520:A:P	3.13	0.46
35:2:634:G:C2	35:2:966:A:C6	3.04	0.46
35:2:957:G:N1	35:2:958:U:C4	2.84	0.46
35:2:1483:A:C4	35:2:1524:A:C6	3.03	0.46
36:3:101:G:C2	36:3:252:C:C2	3.04	0.46
36:3:269:G:C6	36:3:270:C:C4	3.03	0.46
9:V:28:LYS:N	27:u:183:ALA:C	2.75	0.45
15:c:98:SER:HA	30:x:138:PHE:CB	2.47	0.45
15:c:250:ASN:N	15:c:251:SER:CB	2.79	0.45
21:o:90:VAL:HG23	21:o:104:TYR:CB	2.45	0.45
21:o:165:SER:CB	35:2:874:C:H5''	2.46	0.45
24:r:62:PRO:O	24:r:98:ARG:HB3	2.17	0.45
26:t:4:SER:CB	35:2:400:A:H62	2.28	0.45
26:t:72:ASN:HD22	35:2:258:C:C4'	2.29	0.45
26:t:83:LYS:CD	35:2:259:U:P	2.86	0.45
30:x:105:LEU:O	30:x:106:LYS:C	2.59	0.45
31:y:4:GLN:NE2	31:y:10:GLN:OE1	2.50	0.45
33:0:10:ILE:HG12	33:0:21:LEU:HB2	1.98	0.45
35:2:20:G:H3'	35:2:21:U:C6	2.51	0.45
35:2:20:G:O2'	35:2:21:U:H5'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:44:U:C2'	35:2:436:A:H61	2.29	0.45
35:2:105:A:C2	35:2:107:C:OP2	2.69	0.45
35:2:145:A:N6	35:2:146:U:C4	2.84	0.45
35:2:158:U:HO2'	35:2:159:U:P	2.37	0.45
35:2:169:A:N7	35:2:171:A:N6	2.64	0.45
35:2:183:U:O5'	35:2:183:U:H6	1.98	0.45
35:2:186:C:C4	35:2:200:A:C6	3.04	0.45
35:2:187:G:C6	35:2:199:G:O6	2.70	0.45
35:2:273:G:O2'	35:2:274:G:OP2	2.34	0.45
35:2:315:A:O3'	35:2:316:A:H4'	2.16	0.45
35:2:340:U:C4	35:2:341:A:C5	3.05	0.45
35:2:381:C:OP2	35:2:382:C:C5	2.69	0.45
35:2:390:G:H2'	35:2:390:G:N3	2.31	0.45
35:2:409:C:H2'	35:2:410:A:H8	1.76	0.45
35:2:456:A:N1	35:2:457:G:C4	2.84	0.45
35:2:477:A:C2	35:2:512:A:N1	2.84	0.45
35:2:629:U:O2	35:2:970:A:C6	2.68	0.45
35:2:877:G:C2	35:2:878:G:N9	2.84	0.45
35:2:884:A:N6	35:2:885:G:O6	2.49	0.45
35:2:926:A:C5	35:2:927:C:C5	3.04	0.45
35:2:1075:C:C5	35:2:1076:A:N1	2.84	0.45
35:2:1527:C:C2	35:2:1528:U:C5	3.04	0.45
35:2:1530:C:H2'	35:2:1531:G:H8	1.81	0.45
36:3:79:G:O2'	36:3:80:G:H5'	2.15	0.45
36:3:159:G:C2	36:3:160:U:H1'	2.51	0.45
1:D:114:UNK:O	1:E:137:UNK:O	2.30	0.45
2:G:2063:ALA:HB1	2:G:2142:VAL:CB	2.47	0.45
2:G:2406:ALA:HB2	2:G:2813:VAL:CA	2.46	0.45
3:H:269:UNK:N	3:H:307:UNK:CB	2.79	0.45
19:i:901:LEU:CB	1:n:326:UNK:CB	2.94	0.45
19:j:877:SER:CB	19:j:885:LEU:CB	2.95	0.45
21:o:120:TRP:CZ3	21:o:156:SER:HA	2.51	0.45
21:o:165:SER:HB2	35:2:874:C:C5'	2.46	0.45
21:o:199:TYR:N	21:o:199:TYR:CD1	2.84	0.45
22:p:249:THR:CG2	22:p:251:LEU:HB2	2.46	0.45
23:q:143:ARG:O	23:q:144:GLU:CB	2.62	0.45
24:r:69:VAL:O	24:r:99:GLY:HA3	2.16	0.45
24:r:143:LYS:HZ1	35:2:144:U:P	2.39	0.45
26:t:192:GLU:C	26:t:196:LEU:HB2	2.42	0.45
27:u:100:LYS:CA	27:u:104:PHE:H	2.29	0.45
29:w:21:ALA:HB2	29:w:26:THR:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:x:42:GLU:O	30:x:44:LEU:N	2.49	0.45
33:0:119:ALA:C	33:0:123:LEU:HD13	2.41	0.45
35:2:40:A:C6	35:2:469:C:O2	2.68	0.45
35:2:57:G:C4	35:2:91:G:C6	3.04	0.45
35:2:67:A:C2'	35:2:68:A:OP2	2.64	0.45
35:2:95:G:C6	35:2:96:G:C5	3.04	0.45
35:2:97:C:C6	35:2:97:C:OP2	2.69	0.45
35:2:108:A:C2'	35:2:109:G:C8	2.97	0.45
35:2:151:G:C2	35:2:164:A:C4	3.04	0.45
35:2:166:C:O2	35:2:166:C:H2'	2.15	0.45
35:2:174:U:N3	35:2:175:G:C5	2.84	0.45
35:2:185:U:N3	35:2:201:G:C6	2.84	0.45
35:2:186:C:H6	35:2:186:C:P	2.39	0.45
35:2:186:C:OP2	35:2:200:A:C2	2.69	0.45
35:2:186:C:C2'	35:2:187:G:H5'	2.46	0.45
35:2:299:A:C6	35:2:300:A:C5	3.04	0.45
35:2:317:C:C2	35:2:348:U:N3	2.84	0.45
35:2:341:A:H3'	35:2:342:C:C6	2.49	0.45
35:2:353:A:OP2	35:2:355:G:N7	2.49	0.45
35:2:411:C:N4	35:2:412:A:C2	2.84	0.45
35:2:432:G:H2'	35:2:433:C:H5'	1.97	0.45
35:2:446:A:C4	35:2:447:U:C6	3.04	0.45
35:2:503:G:C2'	35:2:504:U:O4'	2.63	0.45
35:2:634:G:N3	35:2:634:G:H2'	2.31	0.45
35:2:1047:G:C2	35:2:1072:C:C2	3.05	0.45
35:2:1074:G:C6	35:2:1075:C:C5	3.04	0.45
35:2:1155:G:C2	35:2:1156:C:C4	3.04	0.45
35:2:1607:G:C2	35:2:1608:U:C6	3.05	0.45
36:3:100:G:C4	36:3:253:G:C2	3.05	0.45
1:C:326:UNK:C	1:D:87:UNK:CA	2.95	0.45
1:K:282:UNK:N	18:h:209:LYS:CB	2.79	0.45
20:k:131:SER:O	35:2:1523:G:C2	2.56	0.45
21:o:122:THR:HG22	21:o:123:LEU:N	2.32	0.45
23:q:185:ARG:C	23:q:187:ILE:H	2.23	0.45
24:r:222:GLN:HA	24:r:225:ALA:HB3	1.98	0.45
25:s:142:ARG:O	25:s:149:SER:HA	2.17	0.45
26:t:154:THR:O	26:t:154:THR:CG2	2.64	0.45
27:u:123:HIS:C	27:u:125:ALA:N	2.72	0.45
31:y:14:GLY:HA3	35:2:249:U:H3	1.81	0.45
31:y:37:ILE:O	35:2:246:G:C4	2.70	0.45
31:y:70:ILE:CG2	31:y:71:LYS:N	2.78	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:z:4:SER:O	32:z:5:SER:CB	2.64	0.45
35:2:47:A:C4	35:2:98:U:C2'	2.99	0.45
35:2:50:C:C2	35:2:424:C:O2	2.69	0.45
35:2:110:U:H6	35:2:110:U:H3'	1.82	0.45
35:2:148:A:P	35:2:149:C:H5	2.38	0.45
35:2:190:C:C4	35:2:196:G:N1	2.84	0.45
35:2:213:A:N7	35:2:214:G:C5	2.83	0.45
35:2:279:G:C2	35:2:280:U:O4'	2.69	0.45
35:2:280:U:C4	35:2:281:G:O6	2.69	0.45
35:2:322:G:C6	35:2:337:G:O6	2.69	0.45
35:2:353:A:OP2	35:2:354:C:H5	1.98	0.45
35:2:420:A:N3	35:2:420:A:H2'	2.32	0.45
35:2:463:U:OP2	35:2:463:U:O4'	2.33	0.45
35:2:479:C:H2'	35:2:480:G:O4'	2.16	0.45
35:2:625:C:H1'	35:2:939:A:H2	1.82	0.45
35:2:871:G:OP2	35:2:871:G:C8	2.69	0.45
35:2:892:A:H2'	35:2:893:U:C1'	2.46	0.45
35:2:897:C:OP2	35:2:897:C:H6	1.98	0.45
35:2:949:C:OP2	35:2:949:C:C6	2.69	0.45
35:2:952:A:O2'	35:2:953:G:H5'	2.17	0.45
35:2:956:C:H2'	35:2:957:G:O4'	2.17	0.45
35:2:1043:A:N1	35:2:1076:A:N1	2.63	0.45
35:2:1478:G:C2	35:2:1479:A:C4	3.04	0.45
36:3:93:G:H8	36:3:93:G:P	2.38	0.45
36:3:175:C:H2'	36:3:176:U:H6	1.79	0.45
36:3:269:G:H2'	36:3:270:C:C6	2.52	0.45
9:U:56:ILE:O	9:U:82:TYR:HA	2.16	0.45
9:V:25:ALA:CA	27:u:184:SER:C	2.71	0.45
14:b:131:ILE:O	14:b:144:ARG:HA	2.17	0.45
18:g:42:LEU:N	21:o:114:CYS:SG	2.89	0.45
19:i:879:LEU:CB	19:i:887:LEU:CB	2.94	0.45
19:j:878:GLY:CA	19:j:884:LEU:CB	2.95	0.45
21:o:186:GLY:O	21:o:189:GLU:N	2.50	0.45
22:p:255:LYS:HA	22:p:260:TYR:H	1.82	0.45
23:q:61:TYR:HA	23:q:64:VAL:CB	2.46	0.45
24:r:132:LYS:HG2	35:2:69:G:N7	2.31	0.45
29:w:85:ALA:HA	29:w:86:THR:HA	1.38	0.45
30:x:123:ARG:O	35:2:1584:G:N7	2.50	0.45
31:y:38:GLY:N	35:2:246:G:O2'	2.50	0.45
33:0:104:SER:HB3	33:0:128:LYS:HE3	1.98	0.45
35:2:22:A:H2'	35:2:23:G:OP2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:23:G:H2'	35:2:24:U:H4'	1.98	0.45
35:2:47:A:H2'	35:2:100:A:C5'	2.43	0.45
35:2:74:U:O2	35:2:80:A:N1	2.49	0.45
35:2:96:G:C6	35:2:387:A:N6	2.76	0.45
35:2:201:G:N2	35:2:202:A:C8	2.84	0.45
35:2:213:A:N1	35:2:252:U:N3	2.65	0.45
35:2:300:A:C3'	35:2:301:A:C8	2.98	0.45
35:2:353:A:H2'	35:2:353:A:N3	2.32	0.45
35:2:375:U:C4	35:2:376:C:C5	3.05	0.45
35:2:377:G:OP2	35:2:377:G:H2'	2.16	0.45
35:2:413:U:C2	35:2:414:C:C5	3.05	0.45
35:2:416:A:C3'	35:2:417:A:H8	2.29	0.45
35:2:433:C:C5	35:2:433:C:OP2	2.70	0.45
35:2:467:G:N2	35:2:469:C:N3	2.64	0.45
35:2:480:G:N2	35:2:509:G:H1'	2.31	0.45
35:2:495:C:H1'	35:2:496:G:O5'	2.17	0.45
35:2:591:A:N3	35:2:591:A:H2'	2.30	0.45
35:2:901:G:N7	35:2:908:U:O4	2.50	0.45
35:2:932:U:C2	35:2:933:A:C2	3.01	0.45
35:2:933:A:N1	35:2:944:A:N1	2.64	0.45
35:2:1038:U:OP2	35:2:1038:U:H5	2.00	0.45
35:2:1048:G:H2'	35:2:1049:U:C6	2.51	0.45
35:2:1051:G:H3'	35:2:1052:U:C6	2.52	0.45
35:2:1483:A:C4	35:2:1524:A:C5	3.05	0.45
35:2:1538:U:H3'	35:2:1538:U:H6	1.80	0.45
36:3:188:G:OP2	36:3:188:G:H8	2.00	0.45
9:U:86:LYS:CB	36:3:82:U:HO2'	2.22	0.45
16:d:71:ALA:N	35:2:1097:U:C4	2.82	0.45
19:i:877:SER:CB	19:i:885:LEU:CA	2.94	0.45
21:o:121:GLN:NE2	21:o:145:PHE:CD2	2.78	0.45
22:p:11:ARG:NH2	35:2:447:U:O3'	2.39	0.45
23:q:164:PRO:O	23:q:166:ARG:N	2.49	0.45
26:t:26:ALA:N	35:2:400:A:N9	2.64	0.45
26:t:87:LEU:HG	26:t:88:ASP:N	2.31	0.45
27:u:136:VAL:O	27:u:137:GLY:C	2.57	0.45
30:x:42:GLU:O	30:x:43:ILE:C	2.60	0.45
30:x:125:GLU:O	30:x:126:PRO:O	2.34	0.45
31:y:14:GLY:HA3	35:2:249:U:C4	2.52	0.45
31:y:17:LEU:HA	31:y:20:LYS:NZ	2.31	0.45
35:2:54:C:N3	35:2:55:A:N1	2.65	0.45
35:2:82:U:C2	35:2:83:G:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:84:A:C8	35:2:84:A:P	3.09	0.45
35:2:127:G:O2'	35:2:127:G:N3	2.50	0.45
35:2:130:C:H2'	35:2:132:U:OP2	2.15	0.45
35:2:136:C:N4	35:2:178:U:H2'	2.32	0.45
35:2:137:U:OP1	35:2:137:U:H6	2.00	0.45
35:2:163:G:OP2	35:2:163:G:N7	2.49	0.45
35:2:190:C:C2	35:2:196:G:C2	3.04	0.45
35:2:193:U:N3	35:2:195:G:C2	2.85	0.45
35:2:204:G:N2	35:2:205:U:H1'	2.31	0.45
35:2:204:G:C6	35:2:263:C:N3	2.83	0.45
35:2:251:A:HO2'	35:2:252:U:C5'	2.18	0.45
35:2:257:A:C8	35:2:258:C:N4	2.84	0.45
35:2:302:U:H3'	35:2:303:U:C4	2.52	0.45
35:2:308:C:O2'	35:2:309:C:C6	2.69	0.45
35:2:330:G:N2	35:2:339:C:C2	2.85	0.45
35:2:373:G:H8	35:2:373:G:O5'	2.00	0.45
35:2:392:G:N2	35:2:406:U:C2	2.85	0.45
35:2:419:G:H2'	35:2:420:A:C8	2.51	0.45
35:2:520:A:C6	35:2:521:A:C2	3.05	0.45
35:2:536:C:H2'	35:2:537:G:C1'	2.47	0.45
35:2:616:G:OP2	35:2:1085:G:H4'	2.17	0.45
35:2:869:A:H8	35:2:869:A:P	2.40	0.45
35:2:871:G:C6	35:2:872:G:C5	3.04	0.45
35:2:924:A:H8	35:2:924:A:OP2	1.99	0.45
35:2:968:U:OP2	35:2:968:U:C6	2.69	0.45
35:2:1048:G:N2	35:2:1049:U:C2	2.84	0.45
35:2:1472:C:H5'	35:2:1474:G:C1'	2.46	0.45
35:2:1591:C:O5'	35:2:1591:C:H6	1.99	0.45
35:2:1595:U:C6	35:2:1596:C:C2	3.03	0.45
1:L:58:UNK:N	5:M:350:UNK:CB	2.80	0.45
8:T:338:ALA:HB1	36:3:109:C:C5	2.41	0.45
11:Y:152:VAL:C	36:3:126:U:H5	2.25	0.45
19:j:878:GLY:N	19:j:884:LEU:CB	2.80	0.45
19:j:882:ALA:CB	19:j:886:ALA:CB	2.95	0.45
22:p:23:LEU:O	22:p:24:GLY:C	2.58	0.45
23:q:122:ASN:O	23:q:123:VAL:C	2.59	0.45
24:r:177:PRO:CB	35:2:66:U:OP2	2.64	0.45
29:w:25:ASP:O	29:w:26:THR:CB	2.63	0.45
30:x:62:ASN:O	30:x:63:ILE:CB	2.64	0.45
30:x:131:GLY:HA3	30:x:138:PHE:N	2.31	0.45
31:y:79:MET:HG3	35:2:346:G:O3'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:23:G:H2'	35:2:24:U:C4'	2.47	0.45
35:2:23:G:C5	35:2:24:U:C6	3.04	0.45
35:2:27:U:C2	35:2:28:A:C4	3.04	0.45
35:2:37:U:H2'	35:2:38:C:C5	2.51	0.45
35:2:70:C:C2	35:2:84:A:C4	3.04	0.45
35:2:76:A:O5'	35:2:77:U:C4	2.70	0.45
35:2:99:C:C2	35:2:101:U:O4	2.70	0.45
35:2:145:A:N3	35:2:145:A:C2'	2.78	0.45
35:2:275:C:H42	35:2:282:C:N4	2.14	0.45
35:2:322:G:N1	35:2:337:G:C6	2.84	0.45
35:2:372:G:C2	35:2:373:G:O4'	2.69	0.45
35:2:386:G:N2	35:2:425:A:C2	2.79	0.45
35:2:459:G:O4'	35:2:459:G:OP2	2.34	0.45
35:2:485:A:C2	35:2:503:G:C2	3.05	0.45
35:2:549:G:C6	35:2:588:U:O4	2.69	0.45
35:2:925:G:C8	35:2:925:G:OP2	2.70	0.45
35:2:928:U:H6	35:2:928:U:OP2	1.98	0.45
35:2:959:U:O2'	35:2:960:U:H3'	2.16	0.45
35:2:971:A:C2	35:2:972:G:H1'	2.52	0.45
35:2:974:A:C4	35:2:975:C:C5	3.04	0.45
35:2:1045:C:C4	35:2:1075:C:N3	2.85	0.45
35:2:1064:G:N1	35:2:1065:A:C5	2.84	0.45
35:2:1076:A:OP2	35:2:1076:A:N7	2.49	0.45
35:2:1534:G:H4'	35:2:1536:G:C6	2.51	0.45
36:3:257:G:OP2	36:3:257:G:H3'	2.17	0.45
1:B:113:UNK:CA	10:W:198:THR:C	2.56	0.45
2:G:2357:ASP:CB	2:G:2366:PHE:CA	2.95	0.45
1:L:76:UNK:N	5:M:350:UNK:C	2.79	0.45
17:f:165:ASN:CB	17:f:166:PRO:HA	2.47	0.45
19:i:877:SER:CB	19:i:885:LEU:CB	2.95	0.45
19:j:130:ALA:CB	19:j:170:HIS:N	2.79	0.45
19:j:167:MET:CB	19:j:179:ASP:CB	2.95	0.45
19:j:872:GLU:N	19:j:876:LEU:CB	2.80	0.45
21:o:127:ARG:CZ	35:2:946:U:H5'	2.27	0.45
21:o:149:THR:HB	35:2:1068:C:H5'	1.99	0.45
23:q:117:THR:CB	23:q:191:ALA:HB1	2.47	0.45
23:q:182:ALA:C	23:q:184:PHE:H	2.25	0.45
23:q:183:ALA:O	23:q:184:PHE:CB	2.64	0.45
26:t:21:HIS:CD2	26:t:21:HIS:H	2.33	0.45
30:x:10:PHE:N	30:x:19:VAL:HA	2.32	0.45
30:x:69:VAL:O	30:x:70:THR:CB	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:x:89:LEU:O	30:x:97:VAL:HA	2.16	0.45
31:y:11:LYS:HB3	31:y:53:VAL:CB	2.46	0.45
31:y:64:SER:HG	35:2:115:G:P	2.36	0.45
35:2:63:G:H5'	35:2:170:U:C4	2.52	0.45
35:2:81:G:HO2'	35:2:82:U:P	2.39	0.45
35:2:91:G:C5	35:2:92:A:C6	3.04	0.45
35:2:117:U:C4	35:2:118:U:O4	2.70	0.45
35:2:151:G:O6	35:2:163:G:O6	2.35	0.45
35:2:201:G:N3	35:2:201:G:C2'	2.78	0.45
35:2:207:U:O2	35:2:261:U:C4	2.70	0.45
35:2:207:U:C5	35:2:207:U:OP2	2.70	0.45
35:2:244:A:H2'	35:2:245:U:C6	2.51	0.45
35:2:252:U:OP2	35:2:252:U:C2'	2.52	0.45
35:2:272:U:C1'	35:2:273:G:OP2	2.65	0.45
35:2:362:G:C2	35:2:383:G:C2	3.04	0.45
35:2:407:A:O2'	35:2:408:C:H5'	2.17	0.45
35:2:414:C:C6	35:2:414:C:OP2	2.70	0.45
35:2:417:A:H1'	35:2:418:G:O4'	2.16	0.45
35:2:462:G:C5	35:2:463:U:C5	3.04	0.45
35:2:481:A:C4	35:2:508:U:N1	2.85	0.45
35:2:488:G:C6	35:2:499:U:C4	3.04	0.45
35:2:498:G:C6	35:2:499:U:C4	3.05	0.45
35:2:617:U:H6	35:2:617:U:P	2.39	0.45
35:2:878:G:C2	35:2:879:G:C8	3.05	0.45
35:2:887:A:C2	35:2:888:U:H1'	2.51	0.45
35:2:897:C:N3	35:2:914:G:C4	2.84	0.45
35:2:940:A:N1	35:2:975:C:O2'	2.44	0.45
35:2:974:A:OP2	35:2:974:A:N7	2.50	0.45
35:2:1039:A:C4	35:2:1091:A:C2	3.05	0.45
35:2:1053:G:C2	35:2:1067:C:H1'	2.50	0.45
35:2:1078:C:H3'	35:2:1079:U:H6	1.75	0.45
35:2:1151:A:C6	35:2:1152:A:N7	2.84	0.45
35:2:1532:U:H2'	35:2:1533:C:C6	2.52	0.45
35:2:1591:C:C6	35:2:1591:C:O5'	2.69	0.45
35:2:1623:C:C2	35:2:1624:C:C5	3.05	0.45
36:3:77:C:C6	36:3:77:C:OP2	2.70	0.45
36:3:80:G:C8	36:3:81:G:N7	2.85	0.45
36:3:134:C:C2'	36:3:181:A:H61	2.24	0.45
36:3:154:G:C6	36:3:155:U:C4	3.04	0.45
19:i:167:MET:CB	19:i:179:ASP:CB	2.95	0.45
19:i:312:ILE:HA	19:i:387:VAL:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:j:163:TYR:C	19:j:167:MET:HA	2.41	0.45
21:o:27:SER:HG	29:w:8:ARG:CB	2.15	0.45
21:o:33:ASP:O	21:o:99:ALA:HB3	2.17	0.45
22:p:6:LYS:HB2	22:p:30:ARG:HH12	1.81	0.45
22:p:129:THR:N	22:p:142:VAL:O	2.39	0.45
24:r:157:LYS:C	35:2:78:A:C6	2.95	0.45
24:r:163:ARG:NE	35:2:69:G:OP1	2.29	0.45
25:s:152:ARG:HG3	25:s:154:GLN:NE2	2.31	0.45
26:t:16:GLY:HA3	35:2:355:G:OP1	2.16	0.45
26:t:78:GLU:HB2	26:t:80:ILE:HG13	1.98	0.45
27:u:61:THR:CB	27:u:62:ARG:O	2.65	0.45
30:x:131:GLY:O	30:x:132:LYS:C	2.59	0.45
31:y:68:LYS:NZ	35:2:304:U:C1'	2.80	0.45
31:y:78:LYS:CG	35:2:347:G:H5'	2.46	0.45
33:0:31:PRO:CB	35:2:533:U:C2	2.85	0.45
33:0:60:THR:HG21	35:2:533:U:C1'	2.46	0.45
35:2:20:G:H2'	35:2:21:U:O4'	2.17	0.45
35:2:29:U:N3	35:2:30:G:N7	2.65	0.45
35:2:33:U:OP2	35:2:33:U:C2	2.70	0.45
35:2:65:A:H2	35:2:84:A:C5	2.35	0.45
35:2:91:G:O2'	35:2:92:A:H5'	2.15	0.45
35:2:154:G:H3'	35:2:155:U:H6	1.81	0.45
35:2:156:A:N1	35:2:419:G:N3	2.65	0.45
35:2:172:C:C2	35:2:173:A:N7	2.85	0.45
35:2:180:A:HO2'	35:2:181:A:P	2.38	0.45
35:2:189:C:C2	35:2:196:G:N2	2.62	0.45
35:2:206:A:C8	35:2:262:U:N3	2.85	0.45
35:2:265:A:C6	35:2:267:U:O4	2.70	0.45
35:2:285:G:C5	35:2:286:C:C4	3.05	0.45
35:2:322:G:C6	35:2:344:A:N6	2.85	0.45
35:2:328:A:C6	35:2:329:G:C6	3.05	0.45
35:2:340:U:H2'	35:2:341:A:C8	2.52	0.45
35:2:366:A:C6	35:2:367:A:C5	3.05	0.45
35:2:428:A:C6	35:2:429:G:N2	2.85	0.45
35:2:448:C:C2	35:2:449:C:C5	3.04	0.45
35:2:522:U:C4	35:2:531:C:N4	2.84	0.45
35:2:926:A:C4	35:2:927:C:C6	3.04	0.45
35:2:930:A:C6	35:2:931:C:N3	2.84	0.45
35:2:946:U:C4	35:2:947:U:C4	3.05	0.45
35:2:956:C:N3	35:2:957:G:N7	2.65	0.45
35:2:1038:U:O4	35:2:1091:A:O3'	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1053:G:H2'	35:2:1054:U:H6	1.82	0.45
35:2:1623:C:C4	35:2:1624:C:C5	3.05	0.45
36:3:91:G:H3'	36:3:93:G:C6	2.52	0.45
36:3:115:G:H2'	36:3:116:G:O4'	2.17	0.45
10:X:157:PRO:HA	10:X:186:ILE:HA	1.98	0.45
15:c:171:VAL:CB	35:2:1177:C:C1'	2.86	0.45
24:r:71:GLY:CA	24:r:98:ARG:NH1	2.80	0.45
24:r:193:VAL:CG1	35:2:284:G:C3'	2.75	0.45
25:s:174:TYR:CD2	25:s:182:VAL:HG21	2.52	0.45
26:t:22:ARG:HD3	26:t:25:ARG:NH2	2.32	0.45
29:w:49:LYS:O	29:w:50:ALA:C	2.58	0.45
32:z:17:ALA:C	32:z:19:LYS:N	2.75	0.45
33:0:3:ILE:CG2	33:0:4:VAL:H	2.30	0.45
33:0:27:HIS:O	33:0:29:ASP:N	2.49	0.45
35:2:47:A:N1	35:2:386:G:N9	2.65	0.45
35:2:57:G:H1'	35:2:91:G:N2	2.31	0.45
35:2:121:U:O5'	35:2:122:U:OP2	2.34	0.45
35:2:281:G:C6	35:2:282:C:C4	3.05	0.45
35:2:328:A:OP2	35:2:328:A:N7	2.50	0.45
35:2:344:A:N1	35:2:345:U:C4	2.84	0.45
35:2:419:G:C6	35:2:420:A:C5	3.05	0.45
35:2:430:G:H2'	35:2:431:C:O4'	2.17	0.45
35:2:445:A:N3	35:2:445:A:H2'	2.32	0.45
35:2:451:A:C6	35:2:456:A:N6	2.85	0.45
35:2:481:A:H2'	35:2:481:A:N3	2.31	0.45
35:2:486:G:H2'	35:2:487:G:H8	1.82	0.45
35:2:501:U:C6	35:2:502:U:C4	3.05	0.45
35:2:518:A:N7	35:2:519:C:C2	2.85	0.45
35:2:547:U:C2'	35:2:548:G:C8	2.95	0.45
35:2:549:G:N3	35:2:549:G:C2'	2.68	0.45
35:2:879:G:C5	35:2:880:C:C4	3.05	0.45
35:2:901:G:C5'	35:2:902:G:N7	2.72	0.45
35:2:935:U:C4	35:2:936:G:C8	3.05	0.45
35:2:939:A:C6	35:2:940:A:C5	3.04	0.45
35:2:953:G:C6	35:2:954:G:C5	3.05	0.45
35:2:954:G:H2'	35:2:955:A:C8	2.51	0.45
35:2:1063:U:H2'	35:2:1064:G:H8	1.81	0.45
35:2:1065:A:C6	35:2:1066:C:C4	3.04	0.45
35:2:1092:A:C2'	35:2:1094:G:N7	2.70	0.45
35:2:1167:G:N1	35:2:1168:U:C4	2.85	0.45
35:2:1583:A:H1'	35:2:1585:U:C2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:68:A:C4	36:3:69:G:C8	3.05	0.45
36:3:78:C:C2	36:3:269:G:N2	2.85	0.45
36:3:103:G:N1	36:3:249:U:N3	2.65	0.45
36:3:114:A:C6	36:3:192:A:C2	3.05	0.45
36:3:249:U:H2'	36:3:250:G:C8	2.52	0.45
36:3:255:U:O2'	36:3:256:G:H8	2.00	0.45
5:O:504:UNK:N	21:o:18:ALA:CA	2.68	0.45
8:S:300:ALA:HB2	36:3:91:G:C5'	2.43	0.45
8:T:321:PHE:CA	36:3:108:A:H1'	2.46	0.45
15:c:105:LYS:C	35:2:1159:C:O2	2.59	0.45
19:i:213:GLY:N	19:i:218:LYS:CB	2.80	0.45
19:j:312:ILE:HA	19:j:387:VAL:O	2.17	0.45
24:r:72:ARG:NH1	35:2:419:G:C5'	2.73	0.45
26:t:74:SER:HB3	26:t:81:THR:OG1	2.17	0.45
31:y:53:VAL:O	31:y:53:VAL:HG12	2.17	0.45
31:y:76:SER:HB2	31:y:78:LYS:HE2	1.98	0.45
32:z:29:PRO:O	32:z:57:ARG:O	2.35	0.45
35:2:52:U:O2	35:2:428:A:H2	2.00	0.45
35:2:83:G:N3	35:2:83:G:C2'	2.76	0.45
35:2:143:G:N1	35:2:173:A:C6	2.85	0.45
35:2:162:A:H8	35:2:162:A:OP2	1.93	0.45
35:2:182:A:C6	35:2:183:U:N3	2.85	0.45
35:2:187:G:OP2	35:2:187:G:H3'	2.18	0.45
35:2:194:U:H2'	35:2:195:G:O2'	2.17	0.45
35:2:206:A:N1	35:2:261:U:C6	2.85	0.45
35:2:213:A:C8	35:2:253:A:N1	2.84	0.45
35:2:271:A:H3'	35:2:272:U:H5''	1.99	0.45
35:2:315:A:H2	35:2:349:U:O2	2.00	0.45
35:2:321:C:N3	35:2:337:G:C6	2.85	0.45
35:2:330:G:C4	35:2:331:A:C8	3.05	0.45
35:2:346:G:C2	35:2:347:G:C4	3.05	0.45
35:2:347:G:H8	35:2:347:G:P	2.40	0.45
35:2:348:U:H6	35:2:348:U:O5'	2.00	0.45
35:2:388:G:C2	35:2:389:G:C8	3.05	0.45
35:2:390:G:C2	35:2:407:A:C2	3.04	0.45
35:2:495:C:N4	35:2:496:G:C2	2.85	0.45
35:2:499:U:H3'	35:2:499:U:H6	1.82	0.45
35:2:538:A:C8	35:2:538:A:O5'	2.69	0.45
35:2:881:A:H2'	35:2:881:A:N3	2.31	0.45
35:2:883:C:C2	35:2:946:U:C2	3.04	0.45
35:2:890:C:H1'	35:2:923:A:N3	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:900:A:N7	35:2:901:G:N2	2.64	0.45
35:2:1047:G:C4	35:2:1048:G:C8	3.05	0.45
36:3:73:C:C5	36:3:74:C:N4	2.85	0.45
36:3:90:C:O2'	36:3:91:G:P	2.75	0.45
2:G:3236:SER:CB	33:0:147:VAL:CB	2.95	0.44
15:c:160:GLY:N	15:c:271:GLY:HA3	2.32	0.44
18:g:42:LEU:N	21:o:114:CYS:HA	2.32	0.44
19:i:878:GLY:N	19:i:884:LEU:CB	2.80	0.44
21:o:95:ASP:O	21:o:96:GLY:O	2.35	0.44
21:o:217:THR:HG22	21:o:218:ILE:H	1.82	0.44
22:p:27:TRP:HB2	35:2:448:C:H4'	1.98	0.44
22:p:33:GLN:HB3	35:2:297:U:O2	2.16	0.44
22:p:99:GLN:HB3	22:p:101:PHE:CE1	2.42	0.44
22:p:127:LYS:HZ3	22:p:186:GLN:NE2	2.13	0.44
24:r:23:LYS:CD	24:r:41:LEU:HD23	2.28	0.44
24:r:180:GLN:HG2	35:2:169:A:O5'	2.17	0.44
25:s:62:LEU:HD12	25:s:63:ILE:N	2.32	0.44
30:x:106:LYS:O	30:x:109:PHE:N	2.50	0.44
31:y:80:ASN:HB2	35:2:325:G:C2'	2.45	0.44
35:2:71:A:C6	35:2:72:A:N6	2.85	0.44
35:2:93:A:C8	35:2:399:A:N9	2.85	0.44
35:2:156:A:C5	35:2:418:G:N7	2.85	0.44
35:2:190:C:N3	35:2:196:G:N1	2.66	0.44
35:2:194:U:OP2	35:2:195:G:OP2	2.35	0.44
35:2:294:C:C2	35:2:295:A:C5	3.04	0.44
35:2:329:G:C2	35:2:330:G:C4	3.05	0.44
35:2:344:A:H3'	35:2:345:U:H6	1.79	0.44
35:2:389:G:C2	35:2:390:G:C4	3.05	0.44
35:2:399:A:C4	35:2:401:A:C8	3.05	0.44
35:2:415:C:N3	35:2:419:G:C6	2.84	0.44
35:2:417:A:O2'	35:2:418:G:P	2.74	0.44
35:2:428:A:H2'	35:2:429:G:N9	2.32	0.44
35:2:442:C:OP2	35:2:442:C:C5	2.70	0.44
35:2:492:A:H2	35:2:493:U:O4	2.00	0.44
35:2:520:A:C5	35:2:521:A:C4	3.05	0.44
35:2:520:A:N6	35:2:521:A:N1	2.64	0.44
35:2:624:G:N7	35:2:1027:A:C6	2.84	0.44
35:2:626:U:C6	35:2:626:U:OP2	2.70	0.44
35:2:867:G:C2	35:2:961:U:O2	2.68	0.44
35:2:929:A:O5'	35:2:930:A:OP2	2.35	0.44
35:2:1056:U:C4	35:2:1063:U:O4	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1089:U:OP2	35:2:1089:U:C6	2.70	0.44
35:2:1592:A:C5	35:2:1605:G:C2	3.05	0.44
35:2:1600:A:C8	35:2:1602:C:C5	3.05	0.44
35:2:1608:U:C2	35:2:1609:U:C5	3.06	0.44
36:3:73:C:O2'	36:3:74:C:H5'	2.16	0.44
2:G:2367:TRP:CA	2:G:2408:PRO:CA	2.95	0.44
5:M:537:UNK:O	5:M:538:UNK:CB	2.64	0.44
9:V:56:ILE:O	9:V:82:TYR:HA	2.17	0.44
14:b:132:GLU:C	14:b:134:GLY:H	2.25	0.44
19:i:871:ARG:CB	19:i:875:LYS:CB	2.95	0.44
19:j:213:GLY:N	19:j:218:LYS:CB	2.80	0.44
21:o:21:ARG:HB2	29:w:73:GLU:C	2.42	0.44
21:o:174:ILE:O	21:o:178:ILE:HG13	2.17	0.44
22:p:120:GLU:C	22:p:122:LYS:N	2.73	0.44
24:r:121:ILE:HB	24:r:124:LEU:HD12	1.98	0.44
25:s:154:GLN:C	25:s:155:LEU:HD23	2.42	0.44
26:t:10:LYS:HE2	35:2:338:C:C5'	2.47	0.44
31:y:65:ILE:HB	35:2:246:G:N2	2.32	0.44
32:z:49:GLU:O	32:z:50:PHE:C	2.60	0.44
33:0:132:TRP:O	33:0:136:GLN:HG2	2.16	0.44
35:2:40:A:C5	35:2:469:C:C1'	2.98	0.44
35:2:73:U:C2	35:2:74:U:C2	3.06	0.44
35:2:95:G:H2'	35:2:96:G:H8	1.81	0.44
35:2:110:U:H1'	35:2:305:C:N3	2.32	0.44
35:2:129:U:O4	35:2:264:G:C4	2.70	0.44
35:2:143:G:N2	35:2:173:A:C4	2.86	0.44
35:2:153:G:C2'	35:2:154:G:H8	2.29	0.44
35:2:273:G:C5	35:2:274:G:C6	3.05	0.44
35:2:277:U:O2'	35:2:280:U:C2	2.51	0.44
35:2:295:A:O2'	35:2:296:U:C5	2.71	0.44
35:2:326:G:N1	35:2:327:U:C4	2.85	0.44
35:2:349:U:H4'	35:2:353:A:C1'	2.45	0.44
35:2:376:C:C2	35:2:377:G:C8	3.04	0.44
35:2:464:A:C6	35:2:465:G:C4	3.05	0.44
35:2:526:A:OP2	35:2:527:A:C6	2.55	0.44
35:2:526:A:N3	35:2:527:A:H2	2.15	0.44
35:2:536:C:N4	35:2:537:G:C5	2.86	0.44
35:2:863:A:N7	35:2:964:U:C4	2.86	0.44
35:2:898:A:OP2	35:2:912:U:O2	2.34	0.44
35:2:959:U:C6	35:2:960:U:C5	3.05	0.44
35:2:963:A:O2'	35:2:964:U:P	2.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:977:A:OP2	35:2:977:A:C8	2.70	0.44
35:2:1045:C:H2'	35:2:1046:G:O5'	2.18	0.44
35:2:1047:G:C6	35:2:1048:G:C5	3.05	0.44
35:2:1052:U:O5'	35:2:1052:U:H6	2.00	0.44
35:2:1054:U:H3'	35:2:1055:U:C5	2.51	0.44
35:2:1179:G:H21	35:2:1460:A:N6	2.15	0.44
36:3:84:G:H8	36:3:84:G:OP1	2.00	0.44
36:3:95:U:H5''	36:3:96:C:P	2.57	0.44
2:G:3186:LEU:CB	2:G:3193:GLU:N	2.81	0.44
9:U:38:GLY:CA	36:3:84:G:O6	2.65	0.44
15:c:124:LEU:C	15:c:126:ASP:H	2.24	0.44
16:d:54:PRO:CB	27:u:98:ALA:CB	2.96	0.44
17:e:165:ASN:CB	17:e:166:PRO:HA	2.48	0.44
17:e:251:ILE:CA	17:e:252:LEU:CB	2.94	0.44
17:f:156:GLU:CB	35:2:1537:C:O4'	2.66	0.44
21:o:69:GLU:HB2	21:o:86:LYS:CE	2.46	0.44
21:o:174:ILE:HG22	21:o:175:ASN:HD22	1.82	0.44
21:o:197:GLU:O	21:o:201:LYS:HG3	2.17	0.44
22:p:27:TRP:CB	35:2:448:C:H1'	2.44	0.44
25:s:138:GLY:C	25:s:154:GLN:HG2	2.42	0.44
26:t:73:PHE:CD1	26:t:73:PHE:N	2.86	0.44
26:t:105:VAL:HG12	26:t:107:ASN:N	2.32	0.44
28:v:138:ASN:HA	28:v:142:GLU:H	1.82	0.44
31:y:75:ILE:HD11	31:y:86:ARG:HD3	1.99	0.44
31:y:102:ARG:C	35:2:351:C:C4	2.93	0.44
35:2:21:U:OP2	35:2:21:U:H6	1.99	0.44
35:2:53:G:H1'	35:2:440:U:N3	2.32	0.44
35:2:64:U:C6	35:2:64:U:H5''	2.52	0.44
35:2:95:G:C4	35:2:96:G:C8	3.05	0.44
35:2:101:U:C4	35:2:385:A:H1'	2.52	0.44
35:2:109:G:C2'	35:2:110:U:H5'	2.47	0.44
35:2:134:U:C4	35:2:180:A:C4	3.05	0.44
35:2:136:C:H3'	35:2:137:U:H3'	1.99	0.44
35:2:302:U:N1	35:2:303:U:N3	2.66	0.44
35:2:391:A:N6	35:2:392:G:C6	2.85	0.44
35:2:532:U:H2'	35:2:533:U:C5'	2.46	0.44
35:2:629:U:OP2	35:2:969:C:N4	2.49	0.44
35:2:906:A:C2	35:2:907:A:H1'	2.53	0.44
35:2:923:A:C2	35:2:924:A:C4	3.06	0.44
35:2:926:A:C6	35:2:927:C:C4	3.05	0.44
35:2:1044:U:O2	35:2:1075:C:C2	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1047:G:C2	35:2:1048:G:C4	3.06	0.44
35:2:1077:C:C3'	35:2:1078:C:H6	2.28	0.44
35:2:1174:C:H4'	35:2:1601:G:C5	2.52	0.44
35:2:1523:G:H3'	35:2:1524:A:H5''	1.99	0.44
35:2:1623:C:C2	35:2:1624:C:C6	3.05	0.44
36:3:144:A:H2'	36:3:145:A:O4'	2.17	0.44
36:3:201:A:N1	36:3:245:U:C2	2.85	0.44
6:Q:433:UNK:CB	6:Q:450:UNK:O	2.65	0.44
21:o:95:ASP:O	21:o:96:GLY:C	2.60	0.44
21:o:134:ASP:OD1	21:o:186:GLY:HA2	2.17	0.44
22:p:193:ARG:HG3	22:p:193:ARG:HH11	1.82	0.44
24:r:179:ILE:HD11	35:2:79:C:N4	2.32	0.44
28:v:139:TRP:C	28:v:141:TYR:N	2.75	0.44
32:z:106:THR:HA	32:z:122:SER:O	2.17	0.44
35:2:29:U:N3	35:2:30:G:C8	2.86	0.44
35:2:41:A:N3	35:2:438:A:H8	2.15	0.44
35:2:95:G:H22	35:2:426:G:H1'	1.82	0.44
35:2:162:A:C3'	35:2:163:G:C8	3.01	0.44
35:2:163:G:C2	35:2:164:A:C8	3.06	0.44
35:2:172:C:C2'	35:2:173:A:C8	2.98	0.44
35:2:175:G:N3	35:2:266:A:C5	2.85	0.44
35:2:213:A:C4	35:2:253:A:C2	3.05	0.44
35:2:371:G:O5'	35:2:372:G:OP2	2.36	0.44
35:2:388:G:N1	35:2:389:G:C5	2.85	0.44
35:2:431:C:C5	35:2:432:G:C5	3.06	0.44
35:2:477:A:C2	35:2:478:A:C6	3.06	0.44
35:2:902:G:O2'	35:2:907:A:C6	2.69	0.44
35:2:929:A:OP2	35:2:929:A:C8	2.71	0.44
35:2:929:A:O5'	35:2:931:C:N4	2.51	0.44
35:2:938:G:H3'	35:2:940:A:OP1	2.18	0.44
35:2:1084:A:OP2	35:2:1084:A:C8	2.69	0.44
35:2:1094:G:C5'	35:2:1094:G:H8	2.29	0.44
35:2:1477:G:H2'	35:2:1478:G:C5'	2.47	0.44
35:2:1575:G:C2	35:2:1576:A:N9	2.86	0.44
35:2:1579:U:O4	35:2:1580:C:N4	2.51	0.44
36:3:247:G:C5	36:3:248:G:C6	3.05	0.44
9:U:90:GLY:HA3	36:3:82:U:C4	2.52	0.44
18:g:43:PHE:N	21:o:117:ILE:O	2.51	0.44
19:i:882:ALA:CB	19:i:886:ALA:CB	2.95	0.44
21:o:130:CYS:CB	21:o:138:ILE:HD12	2.39	0.44
22:p:28:ALA:C	35:2:448:C:H5'	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:p:37:LYS:HB3	22:p:37:LYS:HZ3	1.82	0.44
22:p:124:LYS:HE2	22:p:126:LEU:HD23	2.00	0.44
24:r:64:LYS:HZ1	24:r:81:HIS:HB3	1.82	0.44
24:r:133:LEU:HD13	35:2:148:A:H61	1.80	0.44
24:r:158:LYS:H	35:2:78:A:N6	2.15	0.44
25:s:39:SER:OG	25:s:72:VAL:HG21	2.18	0.44
25:s:84:LEU:O	25:s:88:LEU:HB2	2.17	0.44
27:u:59:LEU:C	27:u:61:THR:H	2.23	0.44
28:v:85:PRO:O	28:v:87:ASP:N	2.51	0.44
28:v:97:SER:O	28:v:99:ARG:N	2.51	0.44
29:w:57:PRO:CB	29:w:60:ALA:HB3	2.47	0.44
29:w:64:ALA:O	29:w:68:ALA:N	2.50	0.44
31:y:21:LYS:NZ	31:y:31:VAL:CG2	2.81	0.44
33:0:107:GLU:O	33:0:110:ARG:CB	2.59	0.44
35:2:105:A:N6	35:2:108:A:C5	2.85	0.44
35:2:111:U:O2	35:2:111:U:H2'	2.18	0.44
35:2:345:U:O2'	35:2:346:G:H8	2.00	0.44
35:2:347:G:N3	35:2:348:U:C5	2.85	0.44
35:2:356:G:C8	35:2:356:G:OP2	2.71	0.44
35:2:356:G:H3'	35:2:357:G:H8	1.81	0.44
35:2:365:G:H1'	35:2:377:G:N2	2.32	0.44
35:2:399:A:C8	35:2:401:A:C8	3.06	0.44
35:2:407:A:C4	35:2:408:C:C5	3.05	0.44
35:2:442:C:C2	35:2:463:U:N3	2.85	0.44
35:2:473:A:C5'	35:2:474:A:OP2	2.59	0.44
35:2:483:A:OP2	35:2:483:A:H8	1.92	0.44
35:2:485:A:N1	35:2:503:G:C6	2.85	0.44
35:2:509:G:N3	35:2:509:G:C2'	2.81	0.44
35:2:520:A:C3'	35:2:521:A:H8	2.29	0.44
35:2:1046:G:C2	35:2:1073:G:C8	3.06	0.44
35:2:1050:G:C2	35:2:1069:A:C4	3.05	0.44
35:2:1093:A:O2'	35:2:1094:G:C5'	2.65	0.44
35:2:1167:G:C6	35:2:1168:U:O4	2.71	0.44
35:2:1604:U:H3'	35:2:1605:G:C5'	2.28	0.44
36:3:102:C:O2	36:3:102:C:H2'	2.16	0.44
36:3:260:G:N2	36:3:261:U:H5	2.15	0.44
2:G:2357:ASP:CB	2:G:2366:PHE:CB	2.95	0.44
2:G:2367:TRP:CA	2:G:2408:PRO:N	2.79	0.44
1:P:227:UNK:O	1:P:229:UNK:N	2.51	0.44
8:T:314:PRO:CB	36:3:110:A:C4'	2.95	0.44
9:V:96:GLN:N	36:3:114:A:O2'	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:b:110:ARG:HA	14:b:148:PHE:O	2.18	0.44
19:j:871:ARG:CB	19:j:875:LYS:CB	2.95	0.44
22:p:14:ALA:HA	22:p:15:PRO:HD2	1.69	0.44
22:p:78:VAL:O	22:p:79:ARG:HD3	2.17	0.44
24:r:126:THR:O	24:r:126:THR:HG22	2.17	0.44
24:r:169:LYS:CE	35:2:72:A:H5'	2.39	0.44
25:s:26:LEU:HD23	25:s:87:LYS:NZ	2.33	0.44
25:s:70:TYR:OH	25:s:129:ASP:OD1	2.30	0.44
26:t:136:THR:CG2	26:t:137:VAL:N	2.80	0.44
31:y:14:GLY:CA	35:2:249:U:C4	3.00	0.44
31:y:82:THR:HG1	35:2:325:G:H4'	1.81	0.44
35:2:36:C:O2	35:2:473:A:C4	2.71	0.44
35:2:40:A:C4	35:2:41:A:C8	3.06	0.44
35:2:93:A:C5	35:2:398:G:H2'	2.53	0.44
35:2:123:G:H2'	35:2:123:G:N3	2.32	0.44
35:2:151:G:O6	35:2:163:G:C6	2.71	0.44
35:2:153:G:C6	35:2:154:G:C6	3.05	0.44
35:2:190:C:O2'	35:2:191:C:O5'	2.35	0.44
35:2:267:U:H2'	35:2:268:C:N1	2.33	0.44
35:2:269:G:H22	35:2:285:G:H22	1.66	0.44
35:2:276:C:N3	35:2:281:G:O6	2.51	0.44
35:2:354:C:C5	35:2:355:G:C8	3.06	0.44
35:2:360:A:O3'	35:2:362:G:OP1	2.36	0.44
35:2:449:C:C2	35:2:458:G:N3	2.85	0.44
35:2:493:U:H4'	35:2:494:U:C5	2.53	0.44
35:2:527:A:OP2	35:2:527:A:C5	2.71	0.44
35:2:902:G:C8	35:2:902:G:C3'	3.01	0.44
35:2:923:A:H3'	35:2:923:A:P	2.56	0.44
35:2:938:G:H3'	35:2:940:A:OP2	2.18	0.44
35:2:951:A:H2'	35:2:952:A:O4'	2.18	0.44
35:2:954:G:H3'	35:2:955:A:N7	2.32	0.44
35:2:954:G:P	35:2:954:G:H8	2.40	0.44
35:2:1042:G:C6	35:2:1077:C:N3	2.85	0.44
35:2:1042:G:C2	35:2:1078:C:C2	3.05	0.44
35:2:1091:A:O3'	35:2:1092:A:H2	2.01	0.44
35:2:1167:G:C6	35:2:1168:U:C4	3.06	0.44
35:2:1525:A:C2	35:2:1526:A:C5	3.06	0.44
35:2:1584:G:C4	35:2:1584:G:C3'	2.97	0.44
35:2:1602:C:O2	35:2:1602:C:C2'	2.66	0.44
36:3:126:U:N3	36:3:127:A:N7	2.65	0.44
8:S:315:PRO:C	36:3:90:C:C5'	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:126:GLY:H	10:W:188:VAL:CB	2.30	0.44
19:i:872:GLU:N	19:i:876:LEU:CB	2.80	0.44
22:p:94:ILE:HD12	22:p:99:GLN:HG3	1.99	0.44
22:p:201:GLU:CD	22:p:201:GLU:N	2.75	0.44
24:r:147:LEU:C	24:r:151:ASP:OD2	2.61	0.44
25:s:127:LEU:HD13	25:s:153:ILE:CD1	2.48	0.44
27:u:106:GLU:O	27:u:107:ARG:C	2.60	0.44
30:x:35:PRO:O	30:x:38:LEU:N	2.51	0.44
31:y:135:ARG:HD3	35:2:304:U:OP2	2.18	0.44
32:z:85:ASP:O	32:z:86:ILE:C	2.60	0.44
33:0:2:THR:HG22	33:0:3:ILE:CD1	2.48	0.44
33:0:43:ALA:HB1	33:0:48:VAL:O	2.18	0.44
33:0:85:PRO:HG2	35:2:525:A:N7	2.31	0.44
33:0:146:PHE:O	33:0:147:VAL:HG23	2.17	0.44
35:2:46:A:C6	35:2:48:G:H1'	2.53	0.44
35:2:50:C:H2'	35:2:424:C:C5	2.48	0.44
35:2:52:U:O2'	35:2:53:G:H5'	2.17	0.44
35:2:85:A:C8	35:2:85:A:O5'	2.70	0.44
35:2:96:G:H21	35:2:426:G:C5'	2.30	0.44
35:2:108:A:C4	35:2:109:G:N7	2.86	0.44
35:2:116:U:C4	35:2:117:U:C4	3.06	0.44
35:2:147:A:C6	35:2:167:U:O2	2.71	0.44
35:2:180:A:C1'	35:2:181:A:H4'	2.37	0.44
35:2:191:C:N3	35:2:195:G:C6	2.85	0.44
35:2:285:G:C6	35:2:286:C:C4	3.05	0.44
35:2:290:G:H3'	35:2:291:G:C8	2.53	0.44
35:2:311:U:C2	35:2:314:C:C4	3.06	0.44
35:2:332:U:C5'	35:2:333:A:OP2	2.65	0.44
35:2:333:A:C2'	35:2:334:G:H8	2.27	0.44
35:2:355:G:C2	35:2:356:G:N9	2.85	0.44
35:2:365:G:C4	35:2:377:G:N1	2.86	0.44
35:2:388:G:C2'	35:2:389:G:H5'	2.48	0.44
35:2:411:C:H3'	35:2:412:A:N7	2.32	0.44
35:2:429:G:C8	35:2:429:G:H3'	2.53	0.44
35:2:467:G:N3	35:2:469:C:O2	2.51	0.44
35:2:477:A:H2	35:2:478:A:C6	2.36	0.44
35:2:512:A:C8	35:2:513:U:O4'	2.70	0.44
35:2:521:A:C2	35:2:531:C:C5	3.06	0.44
35:2:625:C:O2	35:2:939:A:H2	2.01	0.44
35:2:949:C:C2'	35:2:950:C:H6	2.28	0.44
35:2:955:A:C8	35:2:955:A:P	3.10	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:959:U:O2'	35:2:961:U:OP2	2.31	0.44
35:2:1024:U:H2'	35:2:1025:A:O4'	2.17	0.44
35:2:1039:A:C2	35:2:1079:U:O2	2.71	0.44
35:2:1179:G:C2	35:2:1180:C:H1'	2.53	0.44
36:3:74:C:H2'	36:3:75:A:N7	2.32	0.44
36:3:78:C:C5	36:3:78:C:OP2	2.70	0.44
36:3:79:G:H2'	36:3:80:G:H5'	2.00	0.44
36:3:80:G:H2'	36:3:81:G:O4'	2.16	0.44
36:3:99:C:O2'	36:3:100:G:H5'	2.17	0.44
36:3:114:A:C2	36:3:195:A:C8	3.06	0.44
36:3:132:C:C2	36:3:183:A:C2	3.05	0.44
36:3:195:A:C6	36:3:196:U:C5	3.06	0.44
36:3:204:C:N3	36:3:243:G:N1	2.65	0.44
36:3:255:U:OP1	36:3:255:U:H6	2.00	0.44
1:B:227:UNK:O	1:B:229:UNK:N	2.51	0.44
1:l:227:UNK:O	1:l:229:UNK:N	2.51	0.44
21:o:60:SER:OG	21:o:94:VAL:CB	2.66	0.44
21:o:176:THR:O	21:o:180:ASN:ND2	2.51	0.44
21:o:191:SER:O	21:o:195:ILE:HG13	2.18	0.44
22:p:70:GLN:OE1	22:p:78:VAL:HG21	2.18	0.44
22:p:194:VAL:HG21	22:p:240:LEU:HD13	2.00	0.44
23:q:39:GLU:CA	23:q:40:ILE:CB	2.96	0.44
23:q:118:LEU:O	23:q:119:ASP:C	2.60	0.44
23:q:182:ALA:C	23:q:184:PHE:N	2.75	0.44
24:r:163:ARG:O	35:2:68:A:O5'	2.33	0.44
25:s:160:ARG:O	25:s:164:GLU:HB2	2.18	0.44
26:t:84:THR:HB	26:t:112:ILE:CG2	2.48	0.44
27:u:103:ASP:O	27:u:105:LEU:N	2.51	0.44
31:y:78:LYS:O	31:y:79:MET:HB2	2.18	0.44
32:z:117:ARG:O	32:z:118:ARG:O	2.35	0.44
33:0:2:THR:HG22	33:0:3:ILE:HD13	2.00	0.44
33:0:31:PRO:O	33:0:32:THR:C	2.61	0.44
33:0:46:LEU:O	33:0:47:LYS:HB2	2.17	0.44
35:2:39:A:N1	35:2:471:A:C5	2.86	0.44
35:2:51:A:N7	35:2:52:U:C2	2.86	0.44
35:2:56:U:O2	35:2:91:G:C2	2.69	0.44
35:2:62:A:OP2	35:2:288:A:N3	2.51	0.44
35:2:80:A:O3'	35:2:80:A:OP2	2.36	0.44
35:2:128:U:C2	35:2:204:G:O4'	2.70	0.44
35:2:269:G:C6	35:2:270:C:N4	2.86	0.44
35:2:340:U:P	35:2:340:U:H3'	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:348:U:H2'	35:2:349:U:C6	2.53	0.44
35:2:370:A:C8	35:2:371:G:C8	3.05	0.44
35:2:388:G:C2	35:2:410:A:C4	3.06	0.44
35:2:395:U:C4	35:2:399:A:N7	2.85	0.44
35:2:472:U:N1	35:2:473:A:C8	2.86	0.44
35:2:484:C:N4	35:2:485:A:H62	2.16	0.44
35:2:493:U:C4'	35:2:495:C:C4	3.01	0.44
35:2:515:A:C2	35:2:516:G:N7	2.86	0.44
35:2:628:G:O2'	35:2:629:U:O5'	2.26	0.44
35:2:872:G:O6	35:2:955:A:N6	2.50	0.44
35:2:876:G:O6	35:2:935:U:O4	2.35	0.44
35:2:883:C:OP2	35:2:883:C:H5	2.01	0.44
35:2:940:A:C6	35:2:941:A:C5	3.06	0.44
35:2:1031:U:O2	35:2:1093:A:N7	2.51	0.44
35:2:1077:C:C4	35:2:1078:C:C4	3.06	0.44
35:2:1172:G:C5	35:2:1173:C:C5	3.05	0.44
35:2:1572:G:OP1	35:2:1572:G:H3'	2.17	0.44
35:2:1573:A:C5'	35:2:1574:G:H5'	2.48	0.44
36:3:116:G:C6	36:3:117:U:C4	3.06	0.44
36:3:159:G:C6	36:3:171:G:C6	3.05	0.44
36:3:166:G:O2'	36:3:167:U:O4'	2.28	0.44
36:3:260:G:C2	36:3:261:U:H5	2.35	0.44
2:G:2367:TRP:CB	2:G:2408:PRO:C	2.91	0.44
15:c:200:LEU:C	15:c:201:GLY:O	2.60	0.44
17:e:44:VAL:HA	17:e:113:TYR:O	2.18	0.44
19:i:130:ALA:HB1	19:i:170:HIS:CA	2.48	0.44
19:i:878:GLY:CA	19:i:884:LEU:CB	2.95	0.44
19:i:879:LEU:N	19:i:884:LEU:CA	2.81	0.44
21:o:110:ARG:HD3	21:o:110:ARG:HA	1.75	0.44
26:t:72:ASN:C	26:t:73:PHE:CD1	2.96	0.44
26:t:126:GLY:O	26:t:136:THR:HG23	2.17	0.44
28:v:93:LYS:O	28:v:94:LYS:C	2.61	0.44
29:w:60:ALA:HA	29:w:63:ALA:HB2	2.00	0.44
30:x:24:ALA:HA	30:x:64:ASP:HA	2.00	0.44
32:z:119:LYS:O	32:z:121:VAL:N	2.51	0.44
33:0:117:GLY:HA3	35:2:86:A:P	2.58	0.44
35:2:104:A:C8	35:2:106:U:C5	3.05	0.44
35:2:124:A:H2'	35:2:125:U:O4'	2.17	0.44
35:2:147:A:H5'	35:2:148:A:OP2	2.18	0.44
35:2:195:G:C5	35:2:196:G:N7	2.86	0.44
35:2:209:U:C2'	35:2:210:A:H8	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:212:U:N3	35:2:254:A:N1	2.65	0.44
35:2:243:G:C6	35:2:251:A:C5	3.06	0.44
35:2:265:A:N6	35:2:289:U:C2	2.81	0.44
35:2:265:A:N1	35:2:289:U:C2	2.85	0.44
35:2:274:G:C2	35:2:275:C:C4	3.06	0.44
35:2:282:C:H5''	35:2:283:U:C5	2.52	0.44
35:2:310:C:C4	35:2:357:G:C6	3.05	0.44
35:2:326:G:H2'	35:2:327:U:C6	2.53	0.44
35:2:345:U:O2'	35:2:346:G:C8	2.70	0.44
35:2:386:G:N1	35:2:387:A:C6	2.86	0.44
35:2:414:C:N3	35:2:415:C:C4	2.86	0.44
35:2:517:U:O2	35:2:535:A:C2	2.70	0.44
35:2:532:U:H2'	35:2:533:U:H5''	2.00	0.44
35:2:539:G:H1'	35:2:540:G:OP1	2.18	0.44
35:2:627:C:N4	35:2:973:A:N6	2.65	0.44
35:2:871:G:C5	35:2:957:G:N1	2.86	0.44
35:2:898:A:HO2'	35:2:899:G:P	2.41	0.44
35:2:920:U:C2	35:2:921:U:C5	3.06	0.44
35:2:1039:A:C6	35:2:1079:U:N3	2.86	0.44
35:2:1039:A:H62	35:2:1091:A:H5''	1.80	0.44
35:2:1170:G:C6	35:2:1574:G:C6	3.06	0.44
36:3:73:C:C2	36:3:74:C:C2	3.06	0.44
36:3:177:G:O2'	36:3:178:U:H5''	2.18	0.44
1:N:227:UNK:O	1:N:229:UNK:N	2.51	0.43
8:T:317:HIS:CB	36:3:109:C:H6	2.21	0.43
9:U:41:GLU:HA	36:3:263:U:P	2.58	0.43
19:i:163:TYR:C	19:i:167:MET:HA	2.41	0.43
21:o:138:ILE:CD1	21:o:190:PHE:CE2	3.00	0.43
22:p:33:GLN:OE1	35:2:120:U:H1'	2.16	0.43
22:p:144:HIS:CG	22:p:145:ASP:N	2.86	0.43
22:p:207:PHE:HE2	22:p:223:ARG:NE	2.15	0.43
22:p:222:THR:CG2	22:p:223:ARG:N	2.80	0.43
24:r:165:PHE:HD2	35:2:69:G:O4'	2.00	0.43
25:s:50:ILE:HB	25:s:58:LYS:O	2.18	0.43
26:t:65:ALA:HB3	26:t:180:PRO:CB	2.48	0.43
26:t:93:ALA:HA	31:y:9:TYR:HD2	1.83	0.43
26:t:105:VAL:H	26:t:108:SER:HG	1.66	0.43
26:t:161:LYS:O	26:t:165:GLU:HG3	2.17	0.43
35:2:142:G:C2	35:2:174:U:H1'	2.52	0.43
35:2:153:G:C2'	35:2:154:G:C8	2.98	0.43
35:2:210:A:P	35:2:211:U:OP2	2.76	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:268:C:C4	35:2:288:A:C6	3.06	0.43
35:2:276:C:C2	35:2:281:G:N1	2.86	0.43
35:2:276:C:O2	35:2:281:G:C2	2.71	0.43
35:2:325:G:C6	35:2:344:A:C6	3.05	0.43
35:2:368:U:O2	35:2:373:G:C6	2.71	0.43
35:2:388:G:C5	35:2:423:G:N1	2.86	0.43
35:2:404:G:C4	35:2:405:C:C6	3.05	0.43
35:2:473:A:H5'	35:2:474:A:C5	2.50	0.43
35:2:508:U:H2'	35:2:509:G:C8	2.54	0.43
35:2:513:U:H1'	35:2:539:G:C5	2.52	0.43
35:2:631:G:C6	35:2:632:U:C4	3.06	0.43
35:2:899:G:OP2	35:2:899:G:O4'	2.36	0.43
35:2:941:A:O5'	35:2:942:G:OP2	2.34	0.43
35:2:955:A:C2	35:2:956:C:C4	3.06	0.43
35:2:1094:G:O2'	35:2:1095:U:O4'	2.36	0.43
35:2:1587:A:C6	35:2:1588:G:N7	2.86	0.43
35:2:1592:A:C4	35:2:1593:A:C8	3.06	0.43
36:3:72:C:N4	36:3:73:C:N4	2.66	0.43
36:3:182:G:C2	36:3:183:A:C8	3.06	0.43
1:D:116:UNK:O	1:E:156:UNK:HA	2.08	0.43
2:G:1521:ILE:C	2:G:1530:GLU:H	2.26	0.43
18:g:77:SER:N	21:o:118:ARG:CZ	2.82	0.43
19:j:130:ALA:HB1	19:j:170:HIS:CA	2.48	0.43
20:k:81:GLY:C	20:k:232:LEU:CB	2.85	0.43
22:p:88:LEU:HD11	22:p:184:TYR:CE2	2.40	0.43
22:p:258:PHE:N	22:p:258:PHE:CD1	2.86	0.43
24:r:62:PRO:O	24:r:97:VAL:HG13	2.18	0.43
26:t:110:VAL:CG1	26:t:111:GLU:H	2.16	0.43
31:y:78:LYS:CB	35:2:346:G:O5'	2.66	0.43
33:0:109:LYS:O	33:0:113:LYS:HB2	2.18	0.43
35:2:22:A:C4	35:2:23:G:C8	3.05	0.43
35:2:34:G:N1	35:2:475:A:C5	2.86	0.43
35:2:44:U:H5	35:2:437:A:H62	1.66	0.43
35:2:65:A:C6	35:2:85:A:N6	2.85	0.43
35:2:76:A:C2	35:2:79:C:O5'	2.71	0.43
35:2:99:C:C4'	35:2:100:A:O5'	2.66	0.43
35:2:109:G:OP2	35:2:110:U:C4	2.71	0.43
35:2:185:U:O2	35:2:186:C:OP2	2.35	0.43
35:2:188:A:N1	35:2:198:A:H1'	2.34	0.43
35:2:202:A:H8	35:2:202:A:P	2.41	0.43
35:2:207:U:C2	35:2:208:U:C5	3.05	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:287:G:C5	35:2:288:A:N7	2.86	0.43
35:2:300:A:N6	35:2:301:A:C6	2.87	0.43
35:2:311:U:C2	35:2:314:C:C5	3.06	0.43
35:2:325:G:N1	35:2:344:A:C5	2.85	0.43
35:2:355:G:C6	35:2:356:G:C5	3.06	0.43
35:2:450:U:O2	35:2:450:U:H2'	2.18	0.43
35:2:462:G:N2	35:2:463:U:C2	2.86	0.43
35:2:523:G:N7	35:2:528:U:C2	2.86	0.43
35:2:527:A:N6	35:2:528:U:C6	2.86	0.43
35:2:547:U:O2	35:2:590:C:O2	2.37	0.43
35:2:617:U:C4	35:2:1093:A:C6	3.06	0.43
35:2:890:C:N1	35:2:923:A:C2	2.86	0.43
35:2:893:U:H2'	35:2:894:U:H5''	1.99	0.43
35:2:910:C:H2'	35:2:911:U:H6	1.82	0.43
35:2:938:G:C4	35:2:942:G:N1	2.86	0.43
35:2:959:U:C6	35:2:960:U:H5	2.36	0.43
35:2:1046:G:C5	35:2:1073:G:N1	2.86	0.43
35:2:1050:G:C2	35:2:1069:A:C2	3.06	0.43
35:2:1055:U:C2	35:2:1065:A:C6	3.06	0.43
35:2:1076:A:N7	35:2:1077:C:C5	2.86	0.43
35:2:1092:A:N7	35:2:1094:G:O4'	2.51	0.43
35:2:1094:G:C8	35:2:1095:U:N3	2.86	0.43
35:2:1155:G:H2'	35:2:1156:C:C6	2.53	0.43
35:2:1525:A:H1'	35:2:1590:G:H4'	1.98	0.43
35:2:1627:U:O2'	35:2:1628:U:H6	1.94	0.43
36:3:247:G:H2'	36:3:248:G:N9	2.33	0.43
2:G:2367:TRP:CB	2:G:2422:ALA:N	2.81	0.43
19:i:881:GLN:C	19:i:883:ILE:CA	2.92	0.43
19:j:881:GLN:C	19:j:883:ILE:CA	2.92	0.43
5:m:537:UNK:O	5:m:538:UNK:CB	2.64	0.43
21:o:37:PRO:O	21:o:38:ILE:C	2.59	0.43
22:p:188:GLY:O	22:p:191:ILE:CG2	2.66	0.43
23:q:153:GLY:H	23:q:154:ALA:C	2.26	0.43
25:s:62:LEU:HD11	25:s:64:TYR:HE1	1.81	0.43
26:t:57:ARG:O	26:t:58:GLY:C	2.61	0.43
27:u:33:GLU:HA	27:u:36:LEU:CB	2.49	0.43
29:w:17:ALA:N	29:w:80:HIS:O	2.40	0.43
31:y:44:PRO:CG	31:y:47:ALA:HB2	2.45	0.43
31:y:66:ARG:O	31:y:126:GLN:CG	2.67	0.43
33:0:10:ILE:HA	33:0:20:GLN:O	2.18	0.43
35:2:51:A:H3'	35:2:52:U:H6	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:53:G:H2'	35:2:54:C:H1'	1.99	0.43
35:2:84:A:C8	35:2:84:A:O5'	2.72	0.43
35:2:147:A:H2'	35:2:148:A:O4'	2.17	0.43
35:2:199:G:OP2	35:2:199:G:C2'	2.58	0.43
35:2:315:A:H4'	35:2:316:A:C4'	2.36	0.43
35:2:326:G:N2	35:2:343:C:C2	2.86	0.43
35:2:365:G:C5	35:2:377:G:C6	3.06	0.43
35:2:476:U:OP2	35:2:476:U:O2	2.36	0.43
35:2:487:G:H8	35:2:487:G:O5'	2.01	0.43
35:2:514:G:O2'	35:2:539:G:N2	2.48	0.43
35:2:626:U:OP2	35:2:626:U:C5	2.71	0.43
35:2:894:U:C2	35:2:919:A:N6	2.86	0.43
35:2:932:U:N3	35:2:933:A:H2	2.17	0.43
35:2:938:G:C2	35:2:942:G:C4	3.06	0.43
35:2:938:G:C6	35:2:942:G:C6	3.06	0.43
35:2:1046:G:N2	35:2:1047:G:C4	2.86	0.43
35:2:1056:U:O4	35:2:1061:A:H5''	2.18	0.43
36:3:86:U:H2'	36:3:87:G:N9	2.33	0.43
1:E:227:UNK:O	1:E:229:UNK:N	2.51	0.43
2:G:2742:VAL:CB	2:G:3180:ALA:HB3	2.48	0.43
1:N:247:UNK:CB	5:O:439:UNK:HA	2.49	0.43
5:O:537:UNK:O	5:O:538:UNK:CB	2.64	0.43
8:S:299:GLY:O	8:S:301:GLU:N	2.52	0.43
1:n:227:UNK:O	1:n:229:UNK:N	2.51	0.43
21:o:19:LYS:HD3	29:w:70:LYS:CB	2.49	0.43
21:o:81:ASP:OD1	21:o:81:ASP:C	2.61	0.43
21:o:93:GLU:O	21:o:100:LYS:HB2	2.18	0.43
21:o:144:ALA:C	21:o:145:PHE:CD1	2.96	0.43
21:o:153:LYS:O	21:o:154:GLN:C	2.62	0.43
21:o:163:LYS:O	21:o:166:GLN:N	2.45	0.43
22:p:124:LYS:NZ	22:p:145:ASP:OD2	2.46	0.43
24:r:158:LYS:CB	35:2:78:A:N6	2.57	0.43
26:t:128:ASP:O	26:t:129:LEU:CB	2.62	0.43
27:u:135:ALA:O	27:u:155:HIS:O	2.36	0.43
30:x:102:LYS:C	30:x:104:GLU:N	2.74	0.43
31:y:38:GLY:CA	35:2:246:G:C1'	2.84	0.43
31:y:66:ARG:CZ	35:2:113:U:H5'	2.46	0.43
31:y:68:LYS:CE	35:2:111:U:C1'	2.97	0.43
31:y:71:LYS:HB3	31:y:157:PHE:HE2	1.82	0.43
34:1:8:THR:O	34:1:9:LEU:C	2.62	0.43
34:1:28:VAL:O	34:1:29:ARG:CB	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:75:U:O2	35:2:75:U:H2'	2.18	0.43
35:2:86:A:C2	35:2:87:C:C2	3.06	0.43
35:2:121:U:C4	35:2:296:U:C2	3.06	0.43
35:2:185:U:C2	35:2:185:U:H3'	2.54	0.43
35:2:188:A:C4	35:2:198:A:C4	3.06	0.43
35:2:211:U:N3	35:2:254:A:N1	2.66	0.43
35:2:213:A:C6	35:2:253:A:N7	2.86	0.43
35:2:243:G:N7	35:2:251:A:N6	2.66	0.43
35:2:245:U:H5''	35:2:246:G:OP2	2.18	0.43
35:2:253:A:H2'	35:2:253:A:N3	2.33	0.43
35:2:322:G:H1'	35:2:324:U:OP2	2.19	0.43
35:2:326:G:C6	35:2:343:C:N4	2.77	0.43
35:2:377:G:O2'	35:2:378:A:P	2.76	0.43
35:2:384:G:C4	35:2:385:A:C8	3.07	0.43
35:2:412:A:H1'	35:2:421:A:N6	2.33	0.43
35:2:467:G:H2'	35:2:469:C:C2	2.51	0.43
35:2:498:G:H2'	35:2:499:U:C1'	2.48	0.43
35:2:624:G:H8	35:2:624:G:P	2.42	0.43
35:2:634:G:C8	35:2:634:G:OP2	2.71	0.43
35:2:901:G:O4'	35:2:901:G:N3	2.49	0.43
35:2:1086:A:P	35:2:1086:A:C8	3.11	0.43
35:2:1615:C:H3'	35:2:1616:G:H5''	1.99	0.43
23:q:176:THR:O	23:q:179:ALA:HB3	2.18	0.43
24:r:88:ARG:O	24:r:89:SER:C	2.61	0.43
30:x:80:ALA:C	30:x:82:ARG:N	2.75	0.43
31:y:76:SER:OG	35:2:347:G:C4'	2.64	0.43
33:0:28:PRO:O	33:0:29:ASP:CG	2.61	0.43
35:2:34:G:O6	35:2:475:A:N1	2.52	0.43
35:2:120:U:H5''	35:2:121:U:OP1	2.18	0.43
35:2:121:U:H2'	35:2:122:U:C6	2.53	0.43
35:2:148:A:N3	35:2:148:A:H2'	2.33	0.43
35:2:198:A:C6	35:2:199:G:N2	2.86	0.43
35:2:212:U:C2	35:2:254:A:C2	3.06	0.43
35:2:213:A:C6	35:2:214:G:C6	3.06	0.43
35:2:315:A:C6	35:2:349:U:O2'	2.69	0.43
35:2:350:U:O2	35:2:352:A:N6	2.51	0.43
35:2:362:G:C6	35:2:380:U:O2	2.72	0.43
35:2:372:G:H8	35:2:372:G:OP2	1.97	0.43
35:2:392:G:H3'	35:2:393:C:H6	1.84	0.43
35:2:406:U:H2'	35:2:407:A:N9	2.34	0.43
35:2:447:U:HO2'	35:2:448:C:P	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:448:C:C2	35:2:460:A:C2	3.07	0.43
35:2:630:A:C4	35:2:631:G:C8	3.06	0.43
35:2:900:A:C8	35:2:901:G:N2	2.87	0.43
35:2:959:U:H4'	35:2:960:U:OP2	2.18	0.43
35:2:1594:G:C6	35:2:1595:U:C2	3.06	0.43
36:3:71:U:H2'	36:3:72:C:O4'	2.18	0.43
36:3:81:G:OP2	36:3:81:G:H3'	2.18	0.43
1:C:113:UNK:O	36:3:76:C:O5'	2.32	0.43
1:D:115:UNK:N	1:E:139:UNK:CA	2.71	0.43
4:I:513:MET:HA	1:J:282:UNK:CA	2.35	0.43
19:i:873:ALA:O	19:i:882:ALA:HB1	2.18	0.43
1:n:78:UNK:CA	26:t:33:ILE:CD1	2.94	0.43
21:o:208:LYS:CA	35:2:1066:C:H1'	2.32	0.43
21:o:212:PRO:HD3	35:2:1066:C:N1	1.98	0.43
22:p:240:LEU:HD12	22:p:245:GLY:H	1.83	0.43
24:r:175:LYS:HZ1	35:2:71:A:C2'	2.32	0.43
25:s:133:PRO:HG2	25:s:162:PHE:CE2	2.54	0.43
26:t:28:GLU:HB2	35:2:400:A:H62	1.84	0.43
26:t:91:TYR:HD2	26:t:109:ILE:HD11	1.83	0.43
31:y:33:TYR:HH	35:2:248:U:C4'	2.31	0.43
31:y:73:LEU:HD12	31:y:120:ASP:O	2.18	0.43
35:2:54:C:C4	35:2:55:A:N1	2.87	0.43
35:2:175:G:N2	35:2:266:A:N9	2.67	0.43
35:2:206:A:OP1	35:2:207:U:OP2	2.37	0.43
35:2:252:U:H1'	35:2:253:A:O4'	2.18	0.43
35:2:275:C:H41	35:2:276:C:H42	1.67	0.43
35:2:278:U:O3'	35:2:279:G:C8	2.72	0.43
35:2:365:G:C8	35:2:365:G:C3'	2.99	0.43
35:2:432:G:C6	35:2:433:C:N3	2.86	0.43
35:2:446:A:O2'	35:2:447:U:H5'	2.19	0.43
35:2:456:A:C8	35:2:456:A:C3'	3.02	0.43
35:2:464:A:C5	35:2:465:G:C5	3.06	0.43
35:2:468:A:O2'	35:2:469:C:C6	2.72	0.43
35:2:546:U:C2'	35:2:547:U:O5'	2.67	0.43
35:2:624:G:C4	35:2:1027:A:C6	3.07	0.43
35:2:626:U:O2'	35:2:627:C:H5'	2.18	0.43
35:2:871:G:N1	35:2:957:G:C6	2.87	0.43
35:2:877:G:N2	35:2:951:A:H2	2.03	0.43
35:2:903:U:O2	35:2:906:A:C6	2.72	0.43
35:2:1038:U:O2'	35:2:1082:C:H1'	2.18	0.43
35:2:1050:G:C2	35:2:1051:G:H1'	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1061:A:C2'	35:2:1062:A:H8	2.28	0.43
35:2:1082:C:C5	35:2:1091:A:N7	2.86	0.43
35:2:1481:C:H6	35:2:1482:C:N1	2.15	0.43
36:3:182:G:C6	36:3:183:A:N7	2.86	0.43
36:3:268:G:C2	36:3:269:G:C8	3.07	0.43
1:A:227:UNK:O	1:A:229:UNK:N	2.51	0.43
1:K:227:UNK:O	1:K:229:UNK:N	2.51	0.43
1:L:227:UNK:O	1:L:229:UNK:N	2.51	0.43
19:j:881:GLN:C	19:j:883:ILE:N	2.76	0.43
22:p:94:ILE:O	22:p:95:GLU:C	2.61	0.43
24:r:7:TYR:CZ	24:r:9:LEU:HD12	2.54	0.43
24:r:13:GLN:CB	35:2:152:U:C1'	2.97	0.43
25:s:91:ILE:CG2	25:s:166:LYS:HD2	2.49	0.43
25:s:178:THR:O	25:s:179:THR:OG1	2.36	0.43
26:t:26:ALA:O	26:t:29:LYS:HG2	2.18	0.43
26:t:112:ILE:HD11	26:t:174:ALA:HB3	2.01	0.43
30:x:32:ASN:H	30:x:68:ARG:HA	1.83	0.43
31:y:15:VAL:HG12	31:y:15:VAL:O	2.17	0.43
31:y:18:ASN:O	31:y:21:LYS:HB2	2.18	0.43
31:y:83:VAL:HG12	31:y:84:ILE:N	2.34	0.43
31:y:132:LYS:HZ2	35:2:324:U:P	2.42	0.43
31:y:138:ALA:C	31:y:139:LEU:HD23	2.43	0.43
32:z:17:ALA:O	32:z:19:LYS:N	2.51	0.43
32:z:102:VAL:O	32:z:103:ILE:C	2.61	0.43
35:2:34:G:C6	35:2:475:A:C5	3.07	0.43
35:2:47:A:C4	35:2:98:U:H2'	2.49	0.43
35:2:149:C:O2	35:2:166:C:C2	2.71	0.43
35:2:154:G:H5''	35:2:155:U:OP2	2.19	0.43
35:2:168:A:C2'	35:2:169:A:H5'	2.49	0.43
35:2:204:G:C5	35:2:205:U:C5	3.07	0.43
35:2:270:C:H6	35:2:270:C:P	2.42	0.43
35:2:289:U:O2	35:2:290:G:OP2	2.36	0.43
35:2:326:G:H2'	35:2:327:U:H6	1.83	0.43
35:2:341:A:C5	35:2:342:C:C5	3.07	0.43
35:2:356:G:H5''	35:2:357:G:OP1	2.19	0.43
35:2:394:C:N4	35:2:401:A:C2'	2.82	0.43
35:2:395:U:C4	35:2:399:A:C8	3.06	0.43
35:2:414:C:N4	35:2:415:C:N4	2.67	0.43
35:2:417:A:C5	35:2:418:G:C2	3.07	0.43
35:2:498:G:C2	35:2:499:U:N3	2.87	0.43
35:2:506:A:C2	35:2:507:U:C2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:519:C:C3'	35:2:529:A:H61	2.22	0.43
35:2:887:A:C2	35:2:926:A:C2	3.07	0.43
35:2:899:G:N1	35:2:900:A:C5	2.87	0.43
35:2:921:U:N3	35:2:922:G:C6	2.87	0.43
35:2:1151:A:C2	35:2:1152:A:C8	3.07	0.43
35:2:1538:U:C3'	35:2:1538:U:C6	3.02	0.43
36:3:85:A:C4	36:3:86:U:C6	3.07	0.43
18:g:75:GLU:CB	21:o:116:MET:H	2.22	0.43
21:o:72:LEU:HD11	21:o:195:ILE:HG21	2.01	0.43
22:p:67:ASP:O	22:p:69:GLU:N	2.52	0.43
22:p:101:PHE:CD2	22:p:113:LEU:HB3	2.53	0.43
22:p:157:LYS:O	22:p:160:ASP:OD2	2.36	0.43
22:p:178:GLU:O	22:p:179:SER:C	2.61	0.43
22:p:244:ASP:O	22:p:246:VAL:N	2.52	0.43
23:q:134:VAL:C	23:q:136:ALA:H	2.27	0.43
23:q:134:VAL:C	23:q:136:ALA:N	2.77	0.43
24:r:176:CYS:C	35:2:66:U:H3'	2.43	0.43
29:w:57:PRO:O	29:w:59:ALA:N	2.52	0.43
30:x:12:LYS:CB	30:x:16:ALA:O	2.66	0.43
31:y:7:ARG:O	31:y:8:ALA:C	2.61	0.43
31:y:75:ILE:HG22	31:y:76:SER:N	2.34	0.43
31:y:130:ILE:HD12	31:y:134:VAL:CG1	2.49	0.43
35:2:47:A:C4	35:2:98:U:O2'	2.63	0.43
35:2:188:A:C1'	35:2:198:A:C6	3.02	0.43
35:2:213:A:C2'	35:2:214:G:H5'	2.49	0.43
35:2:309:C:C4	35:2:358:U:C4	3.07	0.43
35:2:326:G:C5	35:2:327:U:C5	3.06	0.43
35:2:331:A:H3'	35:2:332:U:O4'	2.18	0.43
35:2:386:G:C2'	35:2:387:A:O4'	2.67	0.43
35:2:413:U:H2'	35:2:414:C:H6	1.80	0.43
35:2:443:C:C2	35:2:462:G:N2	2.87	0.43
35:2:468:A:C8	35:2:471:A:P	3.12	0.43
35:2:483:A:N6	35:2:506:A:C6	2.87	0.43
35:2:504:U:C4'	35:2:505:A:OP2	2.51	0.43
35:2:620:A:C8	35:2:621:A:N1	2.87	0.43
35:2:630:A:OP2	35:2:630:A:H3'	2.19	0.43
35:2:865:A:C4	35:2:866:G:C8	3.07	0.43
35:2:877:G:C2	35:2:952:A:C2	3.07	0.43
35:2:891:A:N3	35:2:922:G:C2	2.87	0.43
35:2:899:G:C2	35:2:900:A:C4	3.06	0.43
35:2:914:G:OP2	35:2:914:G:H8	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:938:G:H1	35:2:940:A:H3'	1.83	0.43
35:2:956:C:H3'	35:2:956:C:P	2.59	0.43
35:2:1053:G:C2	35:2:1054:U:C2	3.07	0.43
35:2:1073:G:H3'	35:2:1074:G:C8	2.54	0.43
35:2:1529:C:H2'	35:2:1530:C:C6	2.54	0.43
36:3:202:C:O5'	36:3:203:C:OP2	2.37	0.43
1:D:227:UNK:O	1:D:229:UNK:N	2.51	0.43
9:V:54:VAL:O	9:V:80:TYR:HA	2.18	0.43
18:g:46:TYR:N	21:o:119:LYS:CB	2.71	0.43
19:i:504:LYS:N	19:i:509:GLY:HA3	2.27	0.43
21:o:75:LEU:C	21:o:79:SER:HG	2.26	0.43
21:o:163:LYS:HB2	21:o:166:GLN:HE21	1.84	0.43
22:p:129:THR:HG22	22:p:130:ALA:N	2.32	0.43
24:r:127:VAL:HG12	24:r:128:THR:N	2.33	0.43
24:r:132:LYS:HG2	35:2:69:G:C8	2.53	0.43
24:r:180:GLN:HG2	35:2:169:A:C5'	2.49	0.43
25:s:135:THR:HG23	25:s:136:LEU:HD23	2.01	0.43
26:t:22:ARG:HD2	26:t:25:ARG:NH1	2.34	0.43
26:t:37:LYS:HE2	26:t:101:THR:HG22	1.99	0.43
31:y:18:ASN:HB3	31:y:19:SER:H	1.46	0.43
31:y:41:PHE:CE2	31:y:139:LEU:HB2	2.54	0.43
31:y:48:ILE:HB	31:y:49:GLU:OE1	2.19	0.43
31:y:56:LYS:HB2	31:y:109:HIS:NE2	2.34	0.43
35:2:27:U:N3	35:2:28:A:C4	2.87	0.43
35:2:73:U:C2	35:2:81:G:N2	2.86	0.43
35:2:146:U:C4	35:2:167:U:N3	2.87	0.43
35:2:147:A:H5''	35:2:149:C:N4	2.34	0.43
35:2:166:C:H3'	35:2:167:U:C6	2.52	0.43
35:2:166:C:C5'	35:2:167:U:OP2	2.66	0.43
35:2:172:C:O2'	35:2:173:A:O4'	2.35	0.43
35:2:189:C:H2'	35:2:190:C:C6	2.53	0.43
35:2:215:A:C5	35:2:242:U:N3	2.87	0.43
35:2:254:A:C6	35:2:255:U:N3	2.87	0.43
35:2:262:U:O2'	35:2:263:C:H5'	2.19	0.43
35:2:347:G:H2'	35:2:348:U:C5	2.53	0.43
35:2:416:A:H3'	35:2:418:G:O6	2.18	0.43
35:2:449:C:H2'	35:2:450:U:C6	2.54	0.43
35:2:450:U:O2	35:2:456:A:C2	2.72	0.43
35:2:452:A:N3	35:2:453:U:H5''	2.32	0.43
35:2:513:U:O4	35:2:538:A:H2'	2.19	0.43
35:2:591:A:N3	35:2:591:A:C2'	2.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:945:U:H2'	35:2:946:U:O4'	2.19	0.43
35:2:978:A:H8	35:2:978:A:P	2.42	0.43
35:2:1164:G:O2'	35:2:1165:G:H5'	2.18	0.43
35:2:1597:A:N6	35:2:1598:U:H3	2.17	0.43
36:3:76:C:O2'	36:3:77:C:H5'	2.18	0.43
36:3:130:C:H2'	36:3:131:U:H6	1.84	0.43
1:J:227:UNK:O	1:J:229:UNK:N	2.51	0.43
8:S:317:HIS:H	36:3:90:C:H4'	1.84	0.43
9:V:110:ALA:CB	27:u:185:GLY:H	2.32	0.43
19:i:881:GLN:C	19:i:883:ILE:N	2.76	0.43
19:j:873:ALA:O	19:j:882:ALA:HB1	2.18	0.43
20:k:100:ILE:O	20:k:101:THR:CB	2.65	0.43
22:p:33:GLN:OE1	35:2:120:U:O2'	2.36	0.43
22:p:176:HIS:CD2	22:p:176:HIS:H	2.36	0.43
24:r:224:ALA:O	24:r:227:ALA:HB3	2.19	0.43
26:t:43:THR:O	26:t:44:THR:HB	2.17	0.43
26:t:109:ILE:HG22	26:t:191:LEU:HD11	2.01	0.43
26:t:149:LYS:O	26:t:153:ARG:HB2	2.19	0.43
27:u:50:SER:O	27:u:51:LYS:C	2.61	0.43
27:u:73:GLY:O	27:u:75:ALA:N	2.52	0.43
27:u:94:ASP:O	27:u:95:TYR:C	2.60	0.43
30:x:92:TYR:CB	30:x:93:HIS:O	2.67	0.43
31:y:64:SER:OG	35:2:114:C:O3'	2.04	0.43
32:z:107:SER:N	32:z:122:SER:O	2.43	0.43
35:2:24:U:H3'	35:2:26:A:OP2	2.19	0.43
35:2:45:U:O4	35:2:434:G:O2'	2.36	0.43
35:2:50:C:N4	35:2:425:A:OP2	2.47	0.43
35:2:57:G:H22	35:2:89:G:H1	1.65	0.43
35:2:64:U:C4	35:2:86:A:N1	2.86	0.43
35:2:93:A:N3	35:2:93:A:O4'	2.49	0.43
35:2:142:G:C5	35:2:266:A:C5	3.07	0.43
35:2:147:A:N9	35:2:148:A:C8	2.87	0.43
35:2:153:G:C6	35:2:162:A:N7	2.87	0.43
35:2:188:A:N7	35:2:189:C:C2	2.87	0.43
35:2:195:G:N3	35:2:196:G:C8	2.87	0.43
35:2:210:A:C2	35:2:256:A:C6	3.07	0.43
35:2:244:A:OP2	35:2:244:A:N7	2.52	0.43
35:2:312:A:N6	35:2:354:C:N4	2.67	0.43
35:2:399:A:C6	35:2:401:A:C4	3.07	0.43
35:2:411:C:C3'	35:2:412:A:H8	2.29	0.43
35:2:484:C:H5''	35:2:485:A:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:496:G:C8	35:2:496:G:H3'	2.54	0.43
35:2:499:U:HO2'	35:2:500:C:P	2.36	0.43
35:2:520:A:N6	35:2:521:A:C6	2.87	0.43
35:2:879:G:C8	35:2:879:G:P	3.12	0.43
35:2:883:C:H6	35:2:883:C:P	2.41	0.43
35:2:885:G:N1	35:2:928:U:N3	2.67	0.43
35:2:894:U:O2	35:2:918:U:C4	2.69	0.43
35:2:912:U:C1'	35:2:914:G:C6	3.02	0.43
35:2:925:G:C4	35:2:926:A:C8	3.07	0.43
35:2:974:A:C5	35:2:975:C:C5	3.07	0.43
35:2:977:A:N3	35:2:977:A:C2'	2.80	0.43
35:2:1040:G:C5	35:2:1041:G:C5	3.07	0.43
35:2:1062:A:C5	35:2:1063:U:C6	3.07	0.43
35:2:1064:G:C6	35:2:1065:A:C5	3.06	0.43
35:2:1538:U:H3'	35:2:1538:U:C6	2.53	0.43
36:3:95:U:OP2	36:3:95:U:H6	2.00	0.43
36:3:182:G:H2'	36:3:183:A:O4'	2.19	0.43
10:X:18:CYS:O	10:X:25:PHE:HA	2.19	0.42
21:o:19:LYS:HZ1	29:w:67:VAL:H	1.66	0.42
21:o:211:PHE:HA	35:2:1067:C:P	2.26	0.42
23:q:212:LYS:O	23:q:213:LYS:C	2.62	0.42
24:r:31:LYS:C	24:r:34:GLN:HG2	2.41	0.42
24:r:167:THR:C	24:r:169:LYS:H	2.26	0.42
24:r:182:LEU:HG	24:r:184:THR:HG23	2.01	0.42
26:t:173:LEU:HB3	26:t:191:LEU:CD1	2.45	0.42
28:v:101:HIS:O	28:v:105:ASN:N	2.51	0.42
30:x:137:ARG:O	30:x:138:PHE:O	2.37	0.42
31:y:93:VAL:O	31:y:94:ARG:C	2.61	0.42
32:z:53:ILE:N	32:z:60:LYS:O	2.50	0.42
33:0:74:TYR:CD2	33:0:80:LEU:HA	2.54	0.42
35:2:57:G:C6	35:2:90:C:N4	2.72	0.42
35:2:84:A:N6	35:2:85:A:N3	2.66	0.42
35:2:99:C:C6	35:2:99:C:C5'	3.02	0.42
35:2:312:A:H2	35:2:315:A:H5'	1.84	0.42
35:2:397:A:C8	35:2:397:A:OP1	2.72	0.42
35:2:405:C:C2	35:2:406:U:C6	3.06	0.42
35:2:446:A:C2	35:2:447:U:C2	3.07	0.42
35:2:460:A:C5	35:2:461:G:N9	2.87	0.42
35:2:500:C:C6	35:2:500:C:OP2	2.72	0.42
35:2:501:U:C2	35:2:502:U:N3	2.87	0.42
35:2:514:G:C6	35:2:538:A:N3	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:546:U:O4	35:2:590:C:N3	2.51	0.42
35:2:616:G:H2'	35:2:617:U:OP2	2.19	0.42
35:2:628:G:H3'	35:2:969:C:N4	2.34	0.42
35:2:633:U:H2'	35:2:634:G:O4'	2.19	0.42
35:2:893:U:C2'	35:2:894:U:H5''	2.49	0.42
35:2:932:U:H1'	35:2:933:A:O5'	2.19	0.42
35:2:1069:A:C2	35:2:1070:C:C2	3.07	0.42
35:2:1069:A:C2	35:2:1070:C:N1	2.87	0.42
35:2:1075:C:C6	35:2:1075:C:H3'	2.54	0.42
35:2:1083:G:C2	35:2:1084:A:C4	3.07	0.42
35:2:1170:G:N7	35:2:1574:G:C8	2.87	0.42
35:2:1573:A:O4'	35:2:1574:G:C2	2.72	0.42
35:2:1614:A:H2	35:2:1616:G:P	2.42	0.42
35:2:1622:G:H2'	35:2:1622:G:N3	2.33	0.42
36:3:85:A:C4	36:3:86:U:C5	3.07	0.42
36:3:132:C:H2'	36:3:133:G:C8	2.53	0.42
36:3:202:C:H2'	36:3:203:C:C1'	2.49	0.42
1:D:113:UNK:C	1:E:155:UNK:CB	2.97	0.42
1:F:227:UNK:O	1:F:229:UNK:N	2.51	0.42
2:G:1521:ILE:C	2:G:1530:GLU:N	2.78	0.42
21:o:97:ARG:HA	21:o:97:ARG:HD2	1.87	0.42
22:p:8:HIS:NE2	35:2:449:C:O2'	2.12	0.42
22:p:210:CYS:SG	22:p:227:ILE:HD11	2.60	0.42
22:p:213:LYS:HA	22:p:218:ASN:O	2.19	0.42
23:q:163:SER:O	23:q:164:PRO:C	2.60	0.42
29:w:64:ALA:O	29:w:67:VAL:C	2.63	0.42
31:y:74:VAL:HG13	31:y:83:VAL:HG11	2.01	0.42
33:0:78:GLN:CG	33:0:143:LEU:HD22	2.49	0.42
35:2:22:A:C2	35:2:23:G:C5	3.07	0.42
35:2:24:U:C3'	35:2:26:A:OP2	2.66	0.42
35:2:57:G:C2	35:2:58:U:N1	2.87	0.42
35:2:81:G:C5	35:2:82:U:N1	2.87	0.42
35:2:94:U:O2	35:2:94:U:O4'	2.33	0.42
35:2:136:C:O2	35:2:176:C:O3'	2.37	0.42
35:2:146:U:H2'	35:2:147:A:C1'	2.48	0.42
35:2:162:A:C6	35:2:163:G:O6	2.72	0.42
35:2:195:G:OP2	35:2:195:G:O4'	2.36	0.42
35:2:200:A:H2'	35:2:201:G:C1'	2.49	0.42
35:2:253:A:C2	35:2:254:A:C4	3.07	0.42
35:2:269:G:N2	35:2:285:G:H22	2.16	0.42
35:2:273:G:O6	35:2:284:G:C6	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:273:G:OP2	35:2:273:G:O4'	2.37	0.42
35:2:279:G:OP1	35:2:280:U:N3	2.52	0.42
35:2:296:U:O5'	35:2:297:U:OP2	2.36	0.42
35:2:334:G:C6	35:2:335:U:O4	2.72	0.42
35:2:355:G:N3	35:2:356:G:C8	2.87	0.42
35:2:367:A:N6	35:2:375:U:N3	2.67	0.42
35:2:382:C:H3'	35:2:383:G:H8	1.82	0.42
35:2:386:G:N2	35:2:425:A:H2'	2.34	0.42
35:2:483:A:N1	35:2:504:U:C2	2.84	0.42
35:2:534:A:C6	35:2:535:A:C5	3.06	0.42
35:2:549:G:C2	35:2:588:U:C4	3.04	0.42
35:2:617:U:O4'	35:2:1031:U:C2	2.72	0.42
35:2:629:U:O4	35:2:970:A:OP2	2.36	0.42
35:2:886:U:O4	35:2:926:A:C6	2.69	0.42
35:2:886:U:P	35:2:886:U:H6	2.42	0.42
35:2:921:U:H2'	35:2:922:G:C4	2.53	0.42
35:2:938:G:O4'	35:2:938:G:OP2	2.37	0.42
35:2:950:C:N3	35:2:951:A:C5	2.87	0.42
35:2:1044:U:O2	35:2:1044:U:C2'	2.66	0.42
35:2:1055:U:OP2	35:2:1055:U:C6	2.72	0.42
35:2:1477:G:C2'	35:2:1478:G:C5'	2.96	0.42
36:3:69:G:C2'	36:3:70:A:C8	3.02	0.42
36:3:116:G:N1	36:3:190:C:C4	2.87	0.42
2:G:2406:ALA:N	2:G:2813:VAL:CB	2.82	0.42
1:K:282:UNK:C	18:h:209:LYS:CB	2.97	0.42
10:W:5:ILE:HA	10:W:19:GLU:O	2.20	0.42
15:c:98:SER:HA	30:x:139:GLN:N	2.33	0.42
19:i:881:GLN:C	19:i:883:ILE:HA	2.44	0.42
22:p:127:LYS:HZ2	22:p:186:GLN:NE2	2.18	0.42
24:r:23:LYS:HZ3	24:r:41:LEU:HA	1.84	0.42
24:r:87:ARG:O	24:r:88:ARG:CB	2.63	0.42
26:t:4:SER:HB2	35:2:400:A:N6	2.32	0.42
26:t:56:VAL:HG22	35:2:333:A:H5'	1.98	0.42
26:t:69:CYS:C	26:t:86:ILE:HD12	2.45	0.42
29:w:65:GLN:C	29:w:67:VAL:N	2.77	0.42
31:y:87:ARG:HH11	31:y:104:ARG:CZ	2.31	0.42
33:0:123:LEU:H	33:0:123:LEU:HD12	1.84	0.42
35:2:34:G:N1	35:2:35:U:H1'	2.34	0.42
35:2:57:G:H2'	35:2:58:U:C6	2.54	0.42
35:2:65:A:C5	35:2:83:G:O6	2.72	0.42
35:2:101:U:N3	35:2:385:A:O2'	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:114:C:H2'	35:2:247:A:N6	2.34	0.42
35:2:116:U:N3	35:2:117:U:C4	2.87	0.42
35:2:130:C:N4	35:2:182:A:C4	2.81	0.42
35:2:143:G:C2	35:2:144:U:N1	2.88	0.42
35:2:192:U:O2	35:2:193:U:C5	2.72	0.42
35:2:215:A:H8	35:2:242:U:H2'	1.79	0.42
35:2:246:G:H3'	35:2:246:G:C8	2.52	0.42
35:2:265:A:N6	35:2:290:G:N7	2.67	0.42
35:2:288:A:C8	35:2:289:U:C5	3.08	0.42
35:2:294:C:N3	35:2:295:A:C6	2.87	0.42
35:2:309:C:C2	35:2:358:U:N3	2.87	0.42
35:2:313:U:H4'	35:2:314:C:C5'	2.48	0.42
35:2:317:C:H4'	35:2:354:C:O2'	2.18	0.42
35:2:319:U:N3	35:2:345:U:C2	2.87	0.42
35:2:324:U:O2	35:2:344:A:C2	2.72	0.42
35:2:348:U:C4	35:2:349:U:C4	3.06	0.42
35:2:366:A:C4	35:2:376:C:N3	2.87	0.42
35:2:386:G:O2'	35:2:387:A:O4'	2.35	0.42
35:2:391:A:C5	35:2:392:G:N7	2.87	0.42
35:2:397:A:N3	35:2:398:G:H1'	2.34	0.42
35:2:413:U:C6	35:2:421:A:C6	3.07	0.42
35:2:451:A:N1	35:2:456:A:C5	2.87	0.42
35:2:463:U:H2'	35:2:464:A:O4'	2.19	0.42
35:2:887:A:C5	35:2:888:U:C5	3.08	0.42
35:2:899:G:OP2	35:2:899:G:H8	2.02	0.42
35:2:912:U:OP1	35:2:915:A:C8	2.72	0.42
36:3:76:C:C2'	36:3:77:C:H5'	2.49	0.42
36:3:93:G:C8	36:3:93:G:P	3.12	0.42
36:3:140:C:H2'	36:3:140:C:O2	2.18	0.42
36:3:160:U:H2'	36:3:161:G:N7	2.34	0.42
36:3:247:G:C6	36:3:248:G:O6	2.73	0.42
1:C:227:UNK:O	1:C:229:UNK:N	2.51	0.42
22:p:73:PHE:CZ	22:p:78:VAL:HG22	2.54	0.42
23:q:60:ASP:O	23:q:61:TYR:CB	2.67	0.42
24:r:64:LYS:HZ3	24:r:82:SER:H	1.61	0.42
24:r:87:ARG:HH12	35:2:92:A:H62	1.66	0.42
24:r:161:ILE:HG22	24:r:162:ARG:N	2.35	0.42
25:s:62:LEU:HD21	25:s:64:TYR:HE1	1.85	0.42
25:s:112:GLN:O	25:s:114:PRO:HD3	2.19	0.42
26:t:192:GLU:CB	31:y:19:SER:HB3	2.49	0.42
27:u:66:ASP:O	27:u:68:LYS:N	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:v:69:ASN:O	28:v:71:ILE:N	2.51	0.42
29:w:30:VAL:N	29:w:40:ALA:HB3	2.33	0.42
31:y:87:ARG:CD	31:y:104:ARG:CZ	2.97	0.42
32:z:80:ASN:C	32:z:123:GLY:O	2.62	0.42
33:0:3:ILE:HD13	33:0:37:LYS:HZ3	1.83	0.42
33:0:70:PHE:N	33:0:70:PHE:CD1	2.88	0.42
33:0:115:THR:CG2	33:0:116:SER:H	2.30	0.42
35:2:23:G:C2'	35:2:24:U:H4'	2.49	0.42
35:2:60:U:O2'	35:2:61:A:C5'	2.67	0.42
35:2:67:A:N6	35:2:79:C:H5'	2.34	0.42
35:2:153:G:N1	35:2:162:A:C8	2.86	0.42
35:2:206:A:N6	35:2:262:U:C5	2.87	0.42
35:2:252:U:C6	35:2:253:A:H8	2.36	0.42
35:2:271:A:C2	35:2:285:G:C6	3.07	0.42
35:2:310:C:OP2	35:2:310:C:H5	2.02	0.42
35:2:311:U:O2	35:2:355:G:C2	2.66	0.42
35:2:372:G:H8	35:2:372:G:P	2.43	0.42
35:2:384:G:H8	35:2:384:G:P	2.41	0.42
35:2:433:C:N3	35:2:434:G:N3	2.67	0.42
35:2:469:C:C5	35:2:471:A:C8	3.03	0.42
35:2:472:U:C6	35:2:473:A:N7	2.88	0.42
35:2:521:A:H2	35:2:532:U:C4	2.37	0.42
35:2:627:C:H2'	35:2:628:G:O4'	2.19	0.42
35:2:634:G:C6	35:2:966:A:N6	2.87	0.42
35:2:870:C:H2'	35:2:871:G:O4'	2.19	0.42
35:2:941:A:OP2	35:2:941:A:C8	2.72	0.42
35:2:1041:G:N1	35:2:1042:G:C5	2.87	0.42
35:2:1045:C:HO2'	35:2:1046:G:P	2.42	0.42
35:2:1082:C:N4	35:2:1091:A:N7	2.67	0.42
35:2:1172:G:C5	35:2:1173:C:N4	2.88	0.42
35:2:1575:G:N2	35:2:1576:A:O4'	2.52	0.42
35:2:1591:C:O2	35:2:1591:C:C2'	2.54	0.42
35:2:1596:C:O2'	35:2:1597:A:H3'	2.19	0.42
36:3:64:C:O2	36:3:65:C:C2	2.72	0.42
36:3:241:G:C8	36:3:241:G:O5'	2.72	0.42
3:H:151:UNK:CB	3:H:240:UNK:CA	2.98	0.42
19:i:881:GLN:CA	19:i:897:LEU:CB	2.93	0.42
19:j:881:GLN:CA	19:j:897:LEU:CB	2.93	0.42
22:p:46:VAL:HA	22:p:50:GLU:OE1	2.19	0.42
22:p:168:ASN:O	22:p:169:ASN:C	2.63	0.42
24:r:206:ASN:O	24:r:210:GLU:HG3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:221:LYS:O	24:r:225:ALA:HB2	2.19	0.42
26:t:18:MET:CE	26:t:19:PRO:O	2.67	0.42
26:t:114:SER:HA	26:t:172:ILE:HD11	2.00	0.42
26:t:174:ALA:HB1	26:t:189:TYR:O	2.19	0.42
32:z:29:PRO:O	32:z:30:SER:CB	2.67	0.42
34:1:26:THR:HA	34:1:37:SER:C	2.45	0.42
35:2:49:C:H2'	35:2:50:C:H6	1.85	0.42
35:2:50:C:H5	35:2:425:A:OP1	2.02	0.42
35:2:103:A:N3	35:2:104:A:N1	2.68	0.42
35:2:123:G:C6	35:2:295:A:C6	3.07	0.42
35:2:125:U:OP2	35:2:125:U:H6	2.02	0.42
35:2:147:A:C5	35:2:148:A:C5	3.08	0.42
35:2:156:A:H2'	35:2:157:A:N9	2.35	0.42
35:2:210:A:N6	35:2:256:A:N6	2.67	0.42
35:2:253:A:N6	35:2:254:A:N6	2.67	0.42
35:2:291:G:P	35:2:291:G:H8	2.43	0.42
35:2:323:A:C4	35:2:324:U:C6	3.07	0.42
35:2:325:G:N1	35:2:326:G:C5	2.87	0.42
35:2:414:C:C4	35:2:415:C:C4	3.07	0.42
35:2:481:A:C5	35:2:508:U:N3	2.88	0.42
35:2:491:C:C6	35:2:493:U:O4	2.72	0.42
35:2:514:G:C6	35:2:538:A:C1'	3.03	0.42
35:2:546:U:C2'	35:2:547:U:O4'	2.68	0.42
35:2:871:G:C4	35:2:957:G:C2	3.07	0.42
35:2:890:C:N3	35:2:922:G:C6	2.87	0.42
35:2:974:A:C8	35:2:974:A:P	3.12	0.42
35:2:1029:U:O3'	35:2:1031:U:C5	2.71	0.42
35:2:1073:G:C2	35:2:1074:G:C4	3.07	0.42
35:2:1079:U:C5	35:2:1079:U:OP2	2.73	0.42
35:2:1089:U:OP2	35:2:1089:U:C5	2.72	0.42
35:2:1159:C:H6	35:2:1159:C:H5'	1.84	0.42
35:2:1462:G:C6	35:2:1463:C:C4	3.08	0.42
36:3:72:C:C4	36:3:73:C:C4	3.07	0.42
36:3:192:A:C8	36:3:194:G:C6	3.07	0.42
2:G:2788:ALA:C	2:G:3185:LYS:CB	2.93	0.42
1:P:287:UNK:HA	14:b:19:ILE:N	2.35	0.42
9:V:119:LYS:CA	10:X:188:VAL:CB	2.96	0.42
18:g:74:VAL:O	21:o:214:GLN:NE2	2.52	0.42
18:g:76:GLY:CA	21:o:117:ILE:N	2.76	0.42
18:g:76:GLY:HA3	21:o:117:ILE:N	2.35	0.42
18:g:77:SER:HA	21:o:114:CYS:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:85:THR:HG22	24:r:86:SER:N	2.35	0.42
26:t:12:ARG:HG3	26:t:13:ALA:N	2.33	0.42
26:t:75:TRP:HE1	26:t:77:SER:HB2	1.83	0.42
26:t:117:PHE:CD1	26:t:117:PHE:N	2.87	0.42
27:u:96:VAL:C	27:u:98:ALA:N	2.76	0.42
28:v:127:ARG:O	28:v:129:TYR:N	2.49	0.42
35:2:22:A:C4	35:2:23:G:N7	2.88	0.42
35:2:59:C:O2	35:2:59:C:O4'	2.38	0.42
35:2:81:G:OP2	35:2:81:G:C8	2.69	0.42
35:2:123:G:H3'	35:2:124:A:O4'	2.19	0.42
35:2:187:G:C2	35:2:197:A:N3	2.88	0.42
35:2:212:U:C2	35:2:213:A:C8	3.07	0.42
35:2:287:G:C2'	35:2:288:A:O5'	2.68	0.42
35:2:310:C:C4	35:2:357:G:N1	2.87	0.42
35:2:312:A:O5'	35:2:314:C:H5	2.02	0.42
35:2:344:A:C2	35:2:345:U:C2	3.08	0.42
35:2:344:A:C6	35:2:345:U:O4	2.72	0.42
35:2:407:A:C6	35:2:408:C:C5	3.08	0.42
35:2:414:C:C4	35:2:420:A:N1	2.88	0.42
35:2:472:U:C2	35:2:473:A:N7	2.88	0.42
35:2:491:C:C6	35:2:493:U:N3	2.82	0.42
35:2:517:U:H1'	35:2:518:A:C2	2.55	0.42
35:2:588:U:C2'	35:2:589:C:H5'	2.48	0.42
35:2:590:C:H2'	35:2:591:A:OP2	2.19	0.42
35:2:619:A:N6	35:2:1086:A:N6	2.67	0.42
35:2:633:U:C4	35:2:967:A:N1	2.88	0.42
35:2:895:G:C6	35:2:917:U:N3	2.85	0.42
35:2:895:G:N1	35:2:918:U:C4	2.87	0.42
35:2:940:A:N6	35:2:941:A:N1	2.67	0.42
35:2:1585:U:C2'	35:2:1586:A:H5'	2.49	0.42
35:2:1602:C:C2	35:2:1603:U:C6	3.07	0.42
35:2:1622:G:H3'	35:2:1623:C:C6	2.48	0.42
36:3:85:A:C5	36:3:86:U:C5	3.07	0.42
1:B:112:UNK:O	10:W:198:THR:CB	2.68	0.42
2:G:2367:TRP:C	2:G:2408:PRO:N	2.77	0.42
4:I:228:GLY:HA3	4:I:246:ILE:O	2.19	0.42
19:i:881:GLN:CB	19:i:887:LEU:N	2.82	0.42
22:p:194:VAL:HG11	22:p:230:LEU:HD23	2.02	0.42
23:q:93:LEU:O	23:q:96:SER:N	2.32	0.42
24:r:98:ARG:HD2	24:r:99:GLY:H	1.84	0.42
24:r:136:LYS:HG3	24:r:178:LYS:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:r:152:ASP:CB	24:r:153:PRO:HD2	2.39	0.42
26:t:18:MET:SD	35:2:105:A:OP2	2.78	0.42
26:t:176:ILE:HG22	26:t:177:THR:H	1.84	0.42
26:t:198:PHE:CD1	31:y:5:ILE:HG12	2.54	0.42
27:u:61:THR:CB	27:u:62:ARG:CA	2.97	0.42
27:u:68:LYS:O	27:u:70:LEU:N	2.52	0.42
35:2:27:U:O2'	35:2:28:A:O4'	2.30	0.42
35:2:33:U:O4'	35:2:33:U:P	2.78	0.42
35:2:105:A:N9	35:2:107:C:N4	2.68	0.42
35:2:108:A:C4	35:2:109:G:C8	3.08	0.42
35:2:116:U:O2'	35:2:333:A:C2	2.71	0.42
35:2:124:A:OP1	35:2:124:A:H4'	2.20	0.42
35:2:129:U:O2'	35:2:130:C:OP1	2.32	0.42
35:2:142:G:N7	35:2:266:A:C5	2.88	0.42
35:2:184:C:C2	35:2:185:U:C6	3.07	0.42
35:2:206:A:C5	35:2:262:U:C2	3.08	0.42
35:2:213:A:N6	35:2:214:G:C6	2.88	0.42
35:2:254:A:H2'	35:2:255:U:O4'	2.20	0.42
35:2:258:C:O2'	35:2:259:U:O4'	2.37	0.42
35:2:273:G:OP1	35:2:273:G:C8	2.73	0.42
35:2:324:U:N3	35:2:325:G:C5	2.88	0.42
35:2:333:A:C2	35:2:334:G:H1'	2.55	0.42
35:2:333:A:C4	35:2:334:G:C8	3.07	0.42
35:2:456:A:N6	35:2:457:G:C5	2.88	0.42
35:2:463:U:H3'	35:2:464:A:C5'	2.50	0.42
35:2:471:A:C5	35:2:472:U:C5	3.07	0.42
35:2:481:A:H2	35:2:507:U:C2	2.37	0.42
35:2:485:A:O2'	35:2:485:A:N3	2.52	0.42
35:2:617:U:O4	35:2:1087:A:C6	2.66	0.42
35:2:866:G:H2'	35:2:867:G:O4'	2.20	0.42
35:2:894:U:C4	35:2:895:G:O6	2.72	0.42
35:2:921:U:OP2	35:2:921:U:C5	2.73	0.42
35:2:930:A:P	35:2:931:C:H5	2.42	0.42
35:2:948:G:H3'	35:2:949:C:C6	2.54	0.42
35:2:1044:U:C2	35:2:1076:A:C2	3.06	0.42
36:3:269:G:H8	36:3:269:G:O5'	2.03	0.42
1:J:259:UNK:C	7:R:204:UNK:N	2.83	0.42
5:M:582:UNK:O	5:M:583:UNK:CB	2.68	0.42
9:V:38:GLY:CA	36:3:194:G:C6	2.91	0.42
9:V:95:LEU:CB	36:3:114:A:H2'	2.50	0.42
17:f:164:LYS:HA	35:2:1575:G:OP2	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:g:42:LEU:H	21:o:114:CYS:CB	2.26	0.42
18:g:46:TYR:N	21:o:119:LYS:CA	2.81	0.42
1:n:269:UNK:O	26:t:44:THR:HG23	2.20	0.42
21:o:30:GLU:OE1	21:o:97:ARG:NH1	2.53	0.42
22:p:101:PHE:HD2	22:p:113:LEU:HB3	1.85	0.42
23:q:89:ILE:O	23:q:91:GLU:N	2.53	0.42
24:r:195:LYS:HA	24:r:198:LYS:HB2	2.02	0.42
24:r:216:LEU:HD23	24:r:216:LEU:HA	1.86	0.42
26:t:147:VAL:O	26:t:147:VAL:HG12	2.19	0.42
31:y:73:LEU:HD12	31:y:120:ASP:C	2.45	0.42
33:0:18:ARG:HA	33:0:73:VAL:O	2.20	0.42
35:2:27:U:C4	35:2:28:A:C6	3.08	0.42
35:2:39:A:N6	35:2:471:A:N6	2.67	0.42
35:2:54:C:C2	35:2:55:A:N1	2.87	0.42
35:2:136:C:OP2	35:2:137:U:O5'	2.36	0.42
35:2:144:U:O4	35:2:171:A:C6	2.68	0.42
35:2:146:U:C2	35:2:147:A:C8	3.08	0.42
35:2:152:U:C4	35:2:153:G:C8	3.08	0.42
35:2:309:C:H2'	35:2:310:C:O4'	2.20	0.42
35:2:347:G:C8	35:2:347:G:OP2	2.73	0.42
35:2:394:C:N4	35:2:401:A:H2'	2.34	0.42
35:2:454:U:P	35:2:454:U:H2'	2.60	0.42
35:2:465:G:C2'	35:2:466:U:H5'	2.49	0.42
35:2:470:A:H8	35:2:471:A:O4'	2.02	0.42
35:2:481:A:N1	35:2:507:U:C4	2.87	0.42
35:2:482:U:OP2	35:2:482:U:H5	2.03	0.42
35:2:491:C:N1	35:2:493:U:N3	2.68	0.42
35:2:498:G:C4	35:2:499:U:C2	3.08	0.42
35:2:883:C:O2	35:2:946:U:C2	2.73	0.42
35:2:888:U:C3'	35:2:889:U:H6	2.33	0.42
35:2:891:A:C2	35:2:921:U:O2	2.73	0.42
35:2:915:A:P	35:2:916:U:H5	2.42	0.42
35:2:1043:A:N3	35:2:1043:A:H2'	2.34	0.42
35:2:1073:G:C4	35:2:1074:G:C5	3.08	0.42
35:2:1083:G:H8	35:2:1083:G:P	2.43	0.42
35:2:1179:G:C6	35:2:1180:C:N3	2.88	0.42
35:2:1533:C:H4'	35:2:1539:G:C6	2.54	0.42
35:2:1573:A:C4'	35:2:1574:G:OP2	2.68	0.42
36:3:69:G:H3'	36:3:70:A:C8	2.54	0.42
36:3:79:G:C5	36:3:80:G:N7	2.88	0.42
36:3:183:A:C2	36:3:184:G:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:248:G:C4	36:3:249:U:C4	3.07	0.42
36:3:268:G:N3	36:3:269:G:C8	2.87	0.42
19:i:871:ARG:CB	19:i:876:LEU:N	2.81	0.42
19:j:722:TYR:HA	19:j:766:LEU:H	1.85	0.42
19:j:879:LEU:N	19:j:884:LEU:CA	2.81	0.42
19:j:881:GLN:CB	19:j:887:LEU:N	2.82	0.42
1:n:294:UNK:CB	26:t:47:GLU:O	2.68	0.42
22:p:66:ASN:HB3	35:2:455:C:N4	2.34	0.42
22:p:105:TYR:CD2	22:p:191:ILE:CD1	3.00	0.42
22:p:143:THR:O	22:p:146:SER:N	2.53	0.42
23:q:207:THR:HA	23:q:208:SER:HA	1.61	0.42
24:r:153:PRO:HG2	24:r:154:ILE:HG13	2.01	0.42
25:s:129:ASP:O	25:s:132:LEU:HD13	2.20	0.42
25:s:132:LEU:O	25:s:134:SER:N	2.53	0.42
25:s:132:LEU:HD12	25:s:132:LEU:HA	1.86	0.42
25:s:180:ARG:O	25:s:182:VAL:HG23	2.20	0.42
31:y:20:LYS:HE3	31:y:20:LYS:HB2	1.55	0.42
34:1:8:THR:HA	34:1:51:ASN:N	2.35	0.42
35:2:32:U:O2'	35:2:33:U:P	2.75	0.42
35:2:38:C:H3'	35:2:38:C:C6	2.54	0.42
35:2:139:C:H41	35:2:175:G:H21	1.68	0.42
35:2:148:A:C5	35:2:149:C:H1'	2.55	0.42
35:2:214:G:N2	35:2:251:A:H8	2.14	0.42
35:2:283:U:C5'	35:2:284:G:OP2	2.65	0.42
35:2:286:C:C2	35:2:287:G:N7	2.88	0.42
35:2:353:A:C2	35:2:354:C:C6	3.08	0.42
35:2:371:G:C5	35:2:372:G:C8	3.08	0.42
35:2:390:G:C2	35:2:391:A:C8	3.07	0.42
35:2:418:G:N2	35:2:419:G:C4	2.87	0.42
35:2:429:G:P	35:2:429:G:H8	2.43	0.42
35:2:487:G:H4'	35:2:488:G:C5'	2.38	0.42
35:2:514:G:N3	35:2:514:G:C2'	2.83	0.42
35:2:524:U:OP1	35:2:525:A:H5''	2.19	0.42
35:2:550:A:N7	35:2:588:U:O4	2.53	0.42
35:2:873:U:C2	35:2:874:C:C5	3.08	0.42
35:2:946:U:H2'	35:2:947:U:H6	1.80	0.42
35:2:1042:G:O6	35:2:1078:C:N4	2.53	0.42
35:2:1051:G:N2	35:2:1068:C:C2	2.87	0.42
35:2:1053:G:C8	35:2:1053:G:H3'	2.54	0.42
35:2:1578:U:C2'	35:2:1579:U:H5'	2.50	0.42
35:2:1608:U:H2'	35:2:1609:U:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:177:G:O2'	36:3:178:U:H6	2.03	0.42
36:3:197:C:O5'	36:3:197:C:H6	2.02	0.42
36:3:198:U:OP2	36:3:198:U:C6	2.73	0.42
36:3:201:A:N3	36:3:201:A:H2'	2.34	0.42
36:3:246:G:C6	36:3:247:G:O6	2.73	0.42
1:L:77:UNK:O	5:M:646:UNK:O	2.38	0.42
5:M:631:UNK:O	5:M:643:UNK:HA	2.20	0.42
15:c:186:GLU:CA	35:2:1624:C:H4'	2.50	0.42
15:c:224:GLY:HA3	15:c:225:ASN:HA	1.88	0.42
16:d:142:ARG:O	16:d:162:GLY:O	2.38	0.42
18:g:76:GLY:O	21:o:117:ILE:C	2.63	0.42
19:j:881:GLN:C	19:j:883:ILE:HA	2.44	0.42
5:m:563:UNK:CB	25:s:150:PHE:CE2	3.02	0.42
21:o:119:LYS:O	21:o:120:TRP:CG	2.73	0.42
22:p:27:TRP:CG	35:2:448:C:C1'	2.99	0.42
22:p:61:VAL:O	22:p:62:THR:C	2.62	0.42
23:q:44:ASN:C	23:q:46:TRP:N	2.76	0.42
24:r:76:LEU:HD22	35:2:406:U:C2'	2.42	0.42
25:s:33:LEU:HB3	25:s:37:LEU:HD12	2.02	0.42
28:v:86:GLU:C	28:v:88:LEU:N	2.77	0.42
30:x:102:LYS:C	30:x:104:GLU:H	2.26	0.42
31:y:15:VAL:N	35:2:249:U:O4	2.52	0.42
31:y:128:ARG:HG2	31:y:128:ARG:NH1	2.35	0.42
33:0:58:PHE:N	35:2:522:U:O5'	2.40	0.42
35:2:34:G:C6	35:2:35:U:C1'	3.00	0.42
35:2:57:G:C5	35:2:58:U:C4	3.08	0.42
35:2:91:G:C6	35:2:92:A:C5	3.08	0.42
35:2:154:G:C3'	35:2:155:U:C6	2.99	0.42
35:2:245:U:C2	35:2:248:U:C5	3.08	0.42
35:2:354:C:OP1	35:2:355:G:OP2	2.38	0.42
35:2:355:G:C6	35:2:356:G:N7	2.88	0.42
35:2:394:C:N4	35:2:401:A:N9	2.68	0.42
35:2:401:A:C3'	35:2:402:C:H4'	2.44	0.42
35:2:404:G:C8	35:2:404:G:C3'	3.02	0.42
35:2:414:C:OP2	35:2:414:C:H5	2.02	0.42
35:2:443:C:N3	35:2:462:G:C6	2.88	0.42
35:2:458:G:N2	35:2:460:A:C4	2.88	0.42
35:2:527:A:H62	35:2:528:U:H6	1.65	0.42
35:2:630:A:C5	35:2:631:G:C8	3.08	0.42
35:2:630:A:C4	35:2:970:A:N7	2.87	0.42
35:2:867:G:H3'	35:2:868:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:875:G:C6	35:2:953:G:N1	2.88	0.42
35:2:876:G:C5	35:2:933:A:N6	2.88	0.42
35:2:906:A:C8	35:2:906:A:C3'	3.03	0.42
35:2:938:G:C6	35:2:940:A:H5''	2.55	0.42
35:2:963:A:H1'	35:2:965:U:C4	2.55	0.42
35:2:976:G:C3'	35:2:1023:A:N1	2.80	0.42
35:2:1050:G:H2'	35:2:1051:G:C1'	2.50	0.42
35:2:1070:C:H2'	35:2:1071:U:H6	1.85	0.42
35:2:1078:C:C4	35:2:1079:U:C4	3.08	0.42
36:3:87:G:H1	36:3:263:U:H3	1.68	0.42
5:O:582:UNK:O	5:O:583:UNK:CB	2.68	0.41
15:c:96:PRO:CA	35:2:1604:U:OP1	2.68	0.41
15:c:185:SER:N	35:2:1624:C:O4'	2.53	0.41
19:i:890:GLN:O	19:j:796:GLU:CB	2.68	0.41
21:o:165:SER:HB2	35:2:874:C:H5''	2.02	0.41
22:p:49:LYS:HE3	22:p:61:VAL:HG21	2.01	0.41
22:p:117:SER:O	22:p:118:LYS:C	2.63	0.41
24:r:157:LYS:O	24:r:160:VAL:HG23	2.20	0.41
25:s:141:ILE:HG22	25:s:142:ARG:N	2.35	0.41
26:t:17:ARG:HG2	26:t:18:MET:N	2.35	0.41
26:t:78:GLU:O	26:t:79:ASN:CB	2.62	0.41
26:t:93:ALA:O	26:t:94:THR:C	2.62	0.41
33:0:61:GLN:O	33:0:62:TYR:C	2.62	0.41
35:2:28:A:OP2	35:2:29:U:OP2	2.37	0.41
35:2:58:U:O2'	35:2:59:C:P	2.78	0.41
35:2:63:G:N2	35:2:87:C:C2	2.64	0.41
35:2:82:U:C6	35:2:82:U:C3'	3.02	0.41
35:2:145:A:N6	35:2:146:U:N3	2.67	0.41
35:2:210:A:N1	35:2:255:U:C2	2.86	0.41
35:2:245:U:C4	35:2:247:A:H5''	2.55	0.41
35:2:312:A:C6	35:2:353:A:N7	2.82	0.41
35:2:344:A:OP2	35:2:345:U:H5	2.02	0.41
35:2:395:U:C5	35:2:401:A:N7	2.88	0.41
35:2:396:G:H22	35:2:399:A:C5'	2.11	0.41
35:2:412:A:C1'	35:2:422:G:N2	2.82	0.41
35:2:436:A:H2'	35:2:437:A:C4	2.55	0.41
35:2:447:U:C4	35:2:448:C:C4	3.08	0.41
35:2:452:A:H3'	35:2:453:U:C5'	2.50	0.41
35:2:460:A:H2'	35:2:461:G:H5'	2.02	0.41
35:2:494:U:C5	35:2:495:C:C6	3.07	0.41
35:2:547:U:C4	35:2:548:G:O6	2.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:625:C:H1'	35:2:939:A:C2	2.54	0.41
35:2:630:A:C1'	35:2:970:A:C6	3.03	0.41
35:2:632:U:O2	35:2:968:U:H1'	2.20	0.41
35:2:869:A:N6	35:2:960:U:C4	2.88	0.41
35:2:902:G:C8	35:2:902:G:P	3.11	0.41
35:2:915:A:OP1	35:2:916:U:C5	2.67	0.41
35:2:946:U:H2'	35:2:947:U:O4'	2.19	0.41
35:2:959:U:OP2	35:2:959:U:O4'	2.37	0.41
35:2:974:A:H3'	35:2:975:C:H5	1.80	0.41
35:2:1048:G:N1	35:2:1071:U:C2	2.88	0.41
35:2:1092:A:C6	35:2:1094:G:C4	3.08	0.41
35:2:1160:A:C6	35:2:1161:C:N4	2.87	0.41
35:2:1168:U:O2'	35:2:1169:G:H5'	2.19	0.41
35:2:1598:U:H2'	35:2:1599:C:O5'	2.20	0.41
35:2:1628:U:C2'	35:2:1629:G:C8	2.93	0.41
36:3:71:U:O4	36:3:72:C:N4	2.52	0.41
36:3:77:C:C2	36:3:78:C:C5	3.08	0.41
36:3:85:A:H1'	36:3:265:A:H2	1.84	0.41
36:3:98:U:C4	36:3:256:G:N1	2.88	0.41
36:3:260:G:OP1	36:3:260:G:O4'	2.38	0.41
1:P:284:UNK:HA	14:b:23:SER:HA	2.02	0.41
15:c:105:LYS:CB	35:2:1159:C:H1'	2.50	0.41
21:o:24:ASP:HA	29:w:74:VAL:CA	2.46	0.41
21:o:131:LYS:O	21:o:183:ALA:HA	2.20	0.41
21:o:196:GLY:C	21:o:198:ASP:N	2.78	0.41
22:p:127:LYS:O	22:p:143:THR:HA	2.20	0.41
24:r:1:MET:HE3	24:r:109:LEU:HG	2.02	0.41
24:r:11:GLY:HA3	24:r:129:LEU:HD12	2.02	0.41
26:t:191:LEU:O	26:t:192:GLU:HG2	2.20	0.41
35:2:27:U:O4	35:2:28:A:C6	2.73	0.41
35:2:28:A:O5'	35:2:29:U:OP2	2.38	0.41
35:2:31:C:P	35:2:31:C:O4'	2.78	0.41
35:2:37:U:C2	35:2:471:A:C2	3.08	0.41
35:2:40:A:N6	35:2:41:A:C2	2.88	0.41
35:2:72:A:C4	35:2:73:U:C5	3.08	0.41
35:2:88:U:H5'	35:2:89:G:P	2.60	0.41
35:2:100:A:N6	35:2:101:U:O4	2.53	0.41
35:2:160:C:H2'	35:2:161:U:C6	2.54	0.41
35:2:189:C:C4	35:2:190:C:N4	2.88	0.41
35:2:191:C:H1'	35:2:192:U:O4'	2.20	0.41
35:2:198:A:P	35:2:199:G:N7	2.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:209:U:C4	35:2:257:A:N1	2.89	0.41
35:2:251:A:C4	35:2:252:U:O2	2.73	0.41
35:2:277:U:O4'	35:2:278:U:N3	2.53	0.41
35:2:286:C:O5'	35:2:287:G:OP2	2.38	0.41
35:2:295:A:O2'	35:2:296:U:C6	2.73	0.41
35:2:316:A:H1'	35:2:353:A:N1	2.34	0.41
35:2:328:A:N6	35:2:341:A:N6	2.68	0.41
35:2:344:A:C8	35:2:344:A:O5'	2.74	0.41
35:2:485:A:N1	35:2:502:U:C5	2.83	0.41
35:2:899:G:C2	35:2:911:U:H1'	2.55	0.41
35:2:915:A:OP2	35:2:916:U:C4	2.72	0.41
35:2:918:U:C2	35:2:919:A:N7	2.87	0.41
35:2:937:C:C6	35:2:937:C:OP2	2.74	0.41
35:2:956:C:OP1	35:2:1073:G:O2'	2.33	0.41
35:2:1034:C:OP2	35:2:1035:G:OP2	2.38	0.41
35:2:1036:A:H2'	35:2:1037:C:C5	2.55	0.41
35:2:1073:G:H3'	35:2:1074:G:H8	1.85	0.41
35:2:1074:G:O6	35:2:1075:C:C4	2.73	0.41
35:2:1086:A:N1	35:2:1087:A:C6	2.88	0.41
35:2:1176:G:N3	35:2:1464:G:C2	2.88	0.41
36:3:66:A:H2'	36:3:67:C:H6	1.84	0.41
36:3:78:C:N3	36:3:269:G:C2	2.88	0.41
36:3:83:U:H4'	36:3:84:G:OP1	2.20	0.41
36:3:87:G:H3'	36:3:88:A:C2	2.56	0.41
36:3:101:G:N1	36:3:252:C:C2	2.88	0.41
19:j:171:ALA:C	19:j:173:TYR:N	2.79	0.41
21:o:72:LEU:HB2	21:o:82:LYS:O	2.20	0.41
21:o:77:ASP:C	21:o:79:SER:N	2.71	0.41
22:p:96:LYS:HB2	33:0:15:LEU:HD23	2.01	0.41
24:r:44:GLU:H	24:r:44:GLU:HG3	1.62	0.41
24:r:64:LYS:NZ	24:r:81:HIS:HB3	2.35	0.41
25:s:13:THR:HG22	25:s:14:LYS:N	2.35	0.41
26:t:93:ALA:CA	31:y:9:TYR:HD2	2.34	0.41
26:t:106:LYS:C	26:t:106:LYS:HD3	2.45	0.41
26:t:138:LEU:HD11	26:t:153:ARG:HH11	1.84	0.41
26:t:185:ARG:NH1	35:2:208:U:C2	2.76	0.41
27:u:98:ALA:O	27:u:99:LEU:O	2.38	0.41
31:y:17:LEU:O	31:y:20:LYS:HE2	2.21	0.41
31:y:117:LYS:O	31:y:120:ASP:OD1	2.38	0.41
32:z:30:SER:O	32:z:31:SER:O	2.38	0.41
35:2:58:U:HO2'	35:2:59:C:P	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:71:A:C2	35:2:83:G:N2	2.89	0.41
35:2:76:A:H4'	35:2:77:U:N1	2.36	0.41
35:2:79:C:H2'	35:2:79:C:O2	2.21	0.41
35:2:91:G:C6	35:2:92:A:N6	2.88	0.41
35:2:93:A:N1	35:2:395:U:O2	2.53	0.41
35:2:99:C:N1	35:2:101:U:H5	2.17	0.41
35:2:127:G:C2	35:2:184:C:H4'	2.55	0.41
35:2:137:U:C5	35:2:138:A:C5	3.08	0.41
35:2:191:C:O2	35:2:193:U:C2	2.73	0.41
35:2:246:G:C5	35:2:247:A:C4	3.08	0.41
35:2:276:C:O2'	35:2:277:U:P	2.78	0.41
35:2:356:G:H3'	35:2:357:G:C8	2.55	0.41
35:2:388:G:C2	35:2:389:G:C5	3.08	0.41
35:2:405:C:H3'	35:2:406:U:C5	2.55	0.41
35:2:430:G:C8	35:2:430:G:C3'	3.03	0.41
35:2:441:A:C4	35:2:464:A:C2	3.08	0.41
35:2:442:C:O5'	35:2:442:C:H6	2.03	0.41
35:2:483:A:H3'	35:2:484:C:C5	2.52	0.41
35:2:516:G:C8	35:2:516:G:O5'	2.73	0.41
35:2:518:A:C8	35:2:519:C:C2	3.08	0.41
35:2:528:U:OP1	35:2:530:C:C2	2.73	0.41
35:2:530:C:C6	35:2:530:C:C3'	3.04	0.41
35:2:893:U:H3'	35:2:894:U:H5''	2.02	0.41
35:2:905:A:C2	35:2:906:A:C2	3.09	0.41
35:2:931:C:H3'	35:2:932:U:C2'	2.49	0.41
35:2:977:A:C8	35:2:1025:A:N1	2.88	0.41
35:2:1043:A:C2	35:2:1077:C:N3	2.88	0.41
35:2:1048:G:C6	35:2:1049:U:C4	3.08	0.41
35:2:1083:G:H21	35:2:1094:G:C4'	2.32	0.41
35:2:1480:G:C2	35:2:1528:U:C2	3.07	0.41
36:3:197:C:H2'	36:3:198:U:N3	2.35	0.41
1:D:96:UNK:CA	1:E:156:UNK:O	2.53	0.41
2:G:2805:ALA:CA	2:G:3185:LYS:CB	2.91	0.41
8:T:299:GLY:O	8:T:301:GLU:N	2.54	0.41
9:U:127:LYS:H	10:W:184:ARG:CB	2.08	0.41
15:c:96:PRO:HA	35:2:1604:U:OP1	2.19	0.41
15:c:201:GLY:C	15:c:203:ARG:N	2.61	0.41
18:g:75:GLU:HA	21:o:215:ASN:ND2	2.35	0.41
19:i:373:ARG:O	19:i:377:ALA:HB2	2.21	0.41
19:i:722:TYR:HA	19:i:766:LEU:H	1.85	0.41
21:o:108:ILE:CG2	21:o:109:THR:N	2.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:o:190:PHE:CE1	21:o:194:LEU:CD1	3.04	0.41
21:o:208:LYS:CE	35:2:1056:U:H6	2.23	0.41
22:p:134:GLY:HA3	22:p:135:PRO:HD2	1.73	0.41
23:q:132:VAL:O	23:q:136:ALA:N	2.53	0.41
25:s:126:LEU:O	25:s:130:LEU:HG	2.19	0.41
25:s:178:THR:C	25:s:179:THR:OG1	2.62	0.41
26:t:10:LYS:NZ	35:2:338:C:O3'	2.46	0.41
26:t:25:ARG:NH2	35:2:384:G:O3'	2.50	0.41
26:t:55:ARG:CZ	35:2:396:G:H8	2.24	0.41
26:t:69:CYS:O	26:t:86:ILE:CD1	2.68	0.41
26:t:196:LEU:O	26:t:200:ILE:HG13	2.20	0.41
27:u:48:GLN:O	27:u:49:LEU:C	2.62	0.41
29:w:103:ARG:O	29:w:106:ALA:HB3	2.19	0.41
30:x:125:GLU:C	35:2:1584:G:H1	2.27	0.41
32:z:8:ALA:O	32:z:9:ASP:C	2.64	0.41
33:0:30:SER:CB	35:2:534:A:O2'	2.49	0.41
35:2:46:A:H62	35:2:433:C:C4'	2.33	0.41
35:2:70:C:O2	35:2:83:G:C2	2.62	0.41
35:2:119:A:H1'	35:2:397:A:N9	2.32	0.41
35:2:168:A:C3'	35:2:169:A:H8	2.26	0.41
35:2:186:C:C4	35:2:200:A:C5	3.08	0.41
35:2:210:A:C4	35:2:211:U:C5	3.09	0.41
35:2:254:A:O2'	35:2:255:U:H5'	2.20	0.41
35:2:256:A:H3'	35:2:257:A:C8	2.50	0.41
35:2:279:G:OP1	35:2:280:U:C4	2.74	0.41
35:2:325:G:N1	35:2:344:A:N7	2.69	0.41
35:2:368:U:C3'	35:2:369:A:O4'	2.64	0.41
35:2:386:G:C4	35:2:387:A:C8	3.08	0.41
35:2:386:G:HO2'	35:2:387:A:P	2.43	0.41
35:2:390:G:C6	35:2:408:C:N3	2.88	0.41
35:2:409:C:C2'	35:2:410:A:H8	2.34	0.41
35:2:461:G:C2	35:2:462:G:C4	3.09	0.41
35:2:482:U:C2	35:2:507:U:O2	2.74	0.41
35:2:505:A:H4'	35:2:506:A:OP2	2.21	0.41
35:2:516:G:C2	35:2:517:U:C5	3.09	0.41
35:2:518:A:N6	35:2:534:A:N1	2.67	0.41
35:2:875:G:H2'	35:2:877:G:OP1	2.20	0.41
35:2:895:G:C6	35:2:896:U:N3	2.89	0.41
35:2:927:C:C2	35:2:928:U:C5	3.07	0.41
35:2:964:U:C1'	35:2:965:U:OP2	2.68	0.41
35:2:975:C:H2'	35:2:975:C:O2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1044:U:H3	35:2:1075:C:N4	2.18	0.41
35:2:1052:U:C6	35:2:1052:U:C3'	3.02	0.41
35:2:1073:G:C5	35:2:1074:G:N7	2.88	0.41
35:2:1075:C:C6	35:2:1075:C:C3'	3.03	0.41
35:2:1474:G:C4	35:2:1475:A:N7	2.88	0.41
36:3:167:U:H2'	36:3:168:C:C6	2.54	0.41
36:3:249:U:O2'	36:3:250:G:O5'	2.26	0.41
36:3:251:U:H2'	36:3:252:C:C6	2.54	0.41
1:C:326:UNK:C	1:D:87:UNK:HA	2.51	0.41
1:L:281:UNK:O	12:Z:239:PRO:CB	2.67	0.41
1:P:288:UNK:O	14:b:17:ASP:C	2.63	0.41
17:e:138:SER:O	17:e:139:GLY:C	2.63	0.41
17:f:53:HIS:N	17:f:66:VAL:O	2.54	0.41
18:g:90:ALA:H	29:w:99:GLN:CA	2.33	0.41
21:o:163:LYS:HE2	35:2:1045:C:OP2	2.21	0.41
22:p:116:LEU:CD2	22:p:116:LEU:N	2.83	0.41
22:p:185:ILE:HD12	22:p:190:ASN:O	2.20	0.41
23:q:184:PHE:HA	23:q:185:ARG:HA	1.72	0.41
23:q:185:ARG:O	23:q:187:ILE:N	2.44	0.41
24:r:5:ILE:HD13	24:r:50:PHE:CE2	2.55	0.41
24:r:5:ILE:CD1	24:r:111:LEU:HD12	2.45	0.41
24:r:23:LYS:NZ	24:r:41:LEU:HA	2.35	0.41
26:t:92:ASN:HB3	26:t:95:ASN:O	2.21	0.41
28:v:127:ARG:C	28:v:129:TYR:N	2.75	0.41
30:x:123:ARG:C	35:2:1584:G:N9	2.78	0.41
31:y:17:LEU:HA	31:y:20:LYS:HZ3	1.86	0.41
31:y:32:ARG:HG2	31:y:33:TYR:N	2.36	0.41
31:y:32:ARG:HD2	31:y:48:ILE:O	2.20	0.41
33:0:123:LEU:HD12	33:0:123:LEU:N	2.35	0.41
35:2:30:G:O2'	35:2:31:C:H6	2.03	0.41
35:2:63:G:H2'	35:2:64:U:H6	1.84	0.41
35:2:67:A:C6	35:2:79:C:H5'	2.54	0.41
35:2:156:A:C4	35:2:418:G:C5	3.08	0.41
35:2:171:A:C4	35:2:172:C:H5	2.37	0.41
35:2:330:G:C2	35:2:339:C:O2	2.74	0.41
35:2:338:C:C2	35:2:339:C:C5	3.09	0.41
35:2:340:U:H3'	35:2:341:A:H8	1.85	0.41
35:2:365:G:C5	35:2:366:A:OP2	2.73	0.41
35:2:394:C:O2	35:2:401:A:C6	2.74	0.41
35:2:416:A:OP2	35:2:417:A:C5	2.73	0.41
35:2:446:A:N6	35:2:461:G:H1'	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:450:U:C4	35:2:457:G:N1	2.89	0.41
35:2:466:U:C6	35:2:467:G:C8	3.08	0.41
35:2:476:U:OP2	35:2:476:U:C2	2.73	0.41
35:2:547:U:C4	35:2:590:C:N3	2.86	0.41
35:2:548:G:O6	35:2:589:C:N3	2.53	0.41
35:2:878:G:C2	35:2:879:G:C5	3.09	0.41
35:2:878:G:P	35:2:878:G:H8	2.43	0.41
35:2:921:U:H2'	35:2:922:G:N9	2.35	0.41
35:2:973:A:N3	35:2:974:A:C8	2.88	0.41
35:2:1042:G:C6	35:2:1043:A:C5	3.08	0.41
35:2:1607:G:N3	35:2:1608:U:C6	2.89	0.41
36:3:97:C:N3	36:3:256:G:C6	2.84	0.41
36:3:114:A:N7	36:3:192:A:N6	2.69	0.41
36:3:161:G:C6	36:3:169:U:C4	3.09	0.41
36:3:242:G:C4	36:3:243:G:C8	3.08	0.41
36:3:250:G:O2'	36:3:251:U:H5'	2.20	0.41
1:D:75:UNK:O	1:E:162:UNK:O	2.38	0.41
9:U:126:GLY:CA	10:W:183:ALA:O	2.64	0.41
9:U:127:LYS:O	10:W:192:PRO:CA	2.67	0.41
19:j:504:LYS:N	19:j:509:GLY:HA3	2.28	0.41
5:m:582:UNK:O	5:m:583:UNK:CB	2.68	0.41
1:n:75:UNK:CB	26:t:3:ILE:HD11	2.51	0.41
21:o:21:ARG:CG	29:w:74:VAL:HA	2.45	0.41
21:o:37:PRO:C	21:o:38:ILE:O	2.61	0.41
24:r:87:ARG:HA	24:r:87:ARG:HD3	1.86	0.41
24:r:165:PHE:CD1	24:r:165:PHE:C	2.98	0.41
25:s:178:THR:HB	25:s:179:THR:H	1.52	0.41
26:t:91:TYR:HD2	26:t:109:ILE:HD12	1.84	0.41
28:v:61:THR:O	28:v:62:GLN:C	2.63	0.41
30:x:18:ALA:HB1	30:x:84:ALA:HB2	2.02	0.41
32:z:70:ASN:HA	32:z:71:LYS:HA	1.42	0.41
35:2:23:G:O3'	35:2:24:U:H4'	2.19	0.41
35:2:49:C:C5	35:2:425:A:C5'	3.04	0.41
35:2:76:A:C6	35:2:80:A:OP1	2.73	0.41
35:2:81:G:C2	35:2:82:U:C1'	3.04	0.41
35:2:86:A:O5'	35:2:148:A:H4'	2.21	0.41
35:2:168:A:C4	35:2:169:A:C8	3.08	0.41
35:2:213:A:N7	35:2:214:G:C6	2.89	0.41
35:2:267:U:C4	35:2:268:C:N4	2.88	0.41
35:2:300:A:C6	35:2:301:A:C4	3.08	0.41
35:2:322:G:C5	35:2:324:U:O4	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:345:U:O2	35:2:346:G:C8	2.72	0.41
35:2:477:A:N6	35:2:539:G:O2'	2.53	0.41
35:2:483:A:OP2	35:2:483:A:N7	2.53	0.41
35:2:494:U:H2'	35:2:495:C:O5'	2.20	0.41
35:2:519:C:C2	35:2:534:A:C6	3.08	0.41
35:2:536:C:O5'	35:2:537:G:OP2	2.38	0.41
35:2:878:G:N3	35:2:878:G:C2'	2.79	0.41
35:2:893:U:H2'	35:2:893:U:O2	2.20	0.41
35:2:938:G:N1	35:2:940:A:O5'	2.54	0.41
35:2:1045:C:P	35:2:1045:C:H6	2.42	0.41
35:2:1051:G:N2	35:2:1053:G:C8	2.88	0.41
35:2:1076:A:C8	35:2:1077:C:C5	3.09	0.41
35:2:1592:A:C5	35:2:1605:G:N2	2.88	0.41
36:3:69:G:C3'	36:3:70:A:C8	3.04	0.41
36:3:85:A:H8	36:3:85:A:P	2.43	0.41
36:3:243:G:C2	36:3:244:G:C4	3.08	0.41
1:J:306:UNK:HA	7:R:203:UNK:C	2.51	0.41
1:P:284:UNK:C	14:b:26:ASN:CB	2.98	0.41
8:S:298:LEU:O	8:S:318:GLY:HA3	2.20	0.41
8:T:331:ARG:CA	36:3:104:C:C3'	2.82	0.41
9:V:24:GLU:HA	27:u:183:ALA:HA	1.84	0.41
19:j:373:ARG:O	19:j:377:ALA:HB2	2.20	0.41
5:m:631:UNK:O	5:m:643:UNK:HA	2.20	0.41
21:o:50:VAL:HG12	21:o:51:THR:H	1.83	0.41
21:o:125:GLU:HG2	21:o:143:LEU:HD12	2.03	0.41
22:p:72:VAL:CG2	22:p:79:ARG:O	2.69	0.41
23:q:58:LEU:O	23:q:59:VAL:C	2.64	0.41
23:q:107:LYS:O	23:q:108:LEU:O	2.39	0.41
23:q:146:THR:HA	23:q:159:ALA:HA	2.03	0.41
23:q:213:LYS:O	23:q:214:LYS:C	2.63	0.41
24:r:76:LEU:HA	24:r:93:LYS:O	2.21	0.41
24:r:139:ASN:CG	35:2:143:G:OP1	2.59	0.41
25:s:127:LEU:HD23	25:s:127:LEU:HA	1.86	0.41
25:s:130:LEU:HB2	25:s:170:ILE:HD13	2.03	0.41
25:s:170:ILE:O	25:s:171:THR:C	2.64	0.41
26:t:192:GLU:O	26:t:196:LEU:HB2	2.21	0.41
31:y:37:ILE:C	35:2:246:G:C1'	2.74	0.41
31:y:133:THR:O	31:y:134:VAL:C	2.63	0.41
33:0:3:ILE:N	33:0:3:ILE:CD1	2.83	0.41
33:0:69:GLY:O	33:0:70:PHE:HD1	2.02	0.41
33:0:101:THR:O	33:0:102:ARG:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:111:U:N3	35:2:303:U:H1'	2.35	0.41
35:2:156:A:H2'	35:2:157:A:C1'	2.51	0.41
35:2:188:A:H1'	35:2:198:A:C6	2.55	0.41
35:2:214:G:C2	35:2:250:C:OP2	2.73	0.41
35:2:254:A:C6	35:2:255:U:C4	3.09	0.41
35:2:267:U:N3	35:2:268:C:N3	2.68	0.41
35:2:274:G:N2	35:2:275:C:C2	2.88	0.41
35:2:276:C:C4	35:2:280:U:O4	2.73	0.41
35:2:283:U:N3	35:2:284:G:O6	2.53	0.41
35:2:287:G:N1	35:2:288:A:N7	2.68	0.41
35:2:298:C:OP1	35:2:299:A:OP2	2.39	0.41
35:2:326:G:C6	35:2:327:U:C5	3.08	0.41
35:2:427:C:C2	35:2:428:A:C5	3.09	0.41
35:2:479:C:C6	35:2:480:G:OP2	2.73	0.41
35:2:481:A:C5	35:2:482:U:C5	3.09	0.41
35:2:492:A:OP2	35:2:492:A:N7	2.54	0.41
35:2:514:G:O6	35:2:515:A:C6	2.74	0.41
35:2:521:A:C8	35:2:521:A:P	3.10	0.41
35:2:528:U:OP2	35:2:530:C:C6	2.73	0.41
35:2:633:U:H2'	35:2:633:U:O2	2.21	0.41
35:2:869:A:C6	35:2:960:U:C5	3.08	0.41
35:2:903:U:O2'	35:2:904:G:H5'	2.21	0.41
35:2:907:A:C5	35:2:908:U:C4	3.09	0.41
35:2:929:A:N3	35:2:929:A:H2'	2.36	0.41
35:2:939:A:N6	35:2:940:A:C6	2.89	0.41
35:2:965:U:O5'	35:2:966:A:P	2.79	0.41
35:2:1042:G:C5	35:2:1043:A:N7	2.89	0.41
35:2:1052:U:H2'	35:2:1053:G:C5'	2.43	0.41
35:2:1080:U:O4	35:2:1091:A:H5''	2.19	0.41
35:2:1161:C:O2	35:2:1161:C:H2'	2.20	0.41
35:2:1472:C:O2	35:2:1472:C:C2'	2.67	0.41
35:2:1481:C:C4'	35:2:1482:C:OP1	2.64	0.41
35:2:1590:G:C4	35:2:1591:C:C5	3.09	0.41
36:3:70:A:C6	36:3:71:U:C4	3.09	0.41
36:3:80:G:C6	36:3:81:G:C2	3.08	0.41
36:3:153:G:C2	36:3:154:G:C4	3.09	0.41
36:3:181:A:H2'	36:3:182:G:O4'	2.20	0.41
36:3:187:U:C4	36:3:188:G:C5	3.09	0.41
36:3:256:G:C2	36:3:257:G:C5	3.09	0.41
36:3:260:G:OP1	36:3:260:G:C4'	2.69	0.41
1:D:75:UNK:C	1:E:162:UNK:C	2.96	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:c:185:SER:O	15:c:186:GLU:CB	2.68	0.41
22:p:29:THR:H	35:2:448:C:H5'	1.86	0.41
22:p:50:GLU:CD	22:p:50:GLU:N	2.79	0.41
24:r:8:PRO:HB2	24:r:9:LEU:HD23	2.01	0.41
24:r:98:ARG:HG2	24:r:106:MET:CE	2.48	0.41
24:r:180:GLN:CG	35:2:169:A:O5'	2.68	0.41
25:s:47:GLU:CG	25:s:61:VAL:HG22	2.51	0.41
25:s:148:THR:HB	25:s:150:PHE:CE1	2.56	0.41
26:t:112:ILE:HG22	26:t:113:ASP:H	1.85	0.41
28:v:42:ARG:C	28:v:44:GLY:N	2.76	0.41
28:v:96:VAL:C	28:v:98:VAL:N	2.76	0.41
30:x:12:LYS:CA	30:x:17:THR:HA	2.38	0.41
30:x:77:GLN:O	30:x:78:VAL:C	2.63	0.41
31:y:79:MET:H	35:2:346:G:H4'	1.86	0.41
31:y:80:ASN:O	35:2:325:G:O3'	2.38	0.41
31:y:135:ARG:NH1	35:2:304:U:OP2	2.54	0.41
32:z:39:GLN:C	32:z:41:MET:N	2.75	0.41
35:2:24:U:H3'	35:2:26:A:H5'	2.02	0.41
35:2:36:C:C3'	35:2:36:C:C6	3.02	0.41
35:2:45:U:H3	35:2:433:C:H2'	1.83	0.41
35:2:57:G:C5	35:2:58:U:C5	3.09	0.41
35:2:63:G:H8	35:2:63:G:P	2.42	0.41
35:2:71:A:O2'	35:2:72:A:N7	2.35	0.41
35:2:90:C:H6	35:2:90:C:OP2	2.04	0.41
35:2:105:A:N3	35:2:107:C:C5	2.89	0.41
35:2:154:G:N1	35:2:161:U:C2	2.89	0.41
35:2:160:C:O2'	35:2:161:U:P	2.79	0.41
35:2:168:A:H2'	35:2:169:A:C8	2.55	0.41
35:2:173:A:H2'	35:2:174:U:O4'	2.20	0.41
35:2:209:U:C4	35:2:210:A:C5	3.09	0.41
35:2:295:A:C4	35:2:296:U:C5	3.09	0.41
35:2:306:U:N3	35:2:307:G:N9	2.69	0.41
35:2:328:A:C8	35:2:328:A:P	3.12	0.41
35:2:333:A:N3	35:2:334:G:H1'	2.36	0.41
35:2:343:C:P	35:2:343:C:H6	2.44	0.41
35:2:399:A:N3	35:2:401:A:C1'	2.84	0.41
35:2:416:A:P	35:2:417:A:N7	2.93	0.41
35:2:438:A:O2'	35:2:439:U:OP1	2.33	0.41
35:2:464:A:N6	35:2:465:G:C6	2.88	0.41
35:2:488:G:C5	35:2:500:C:C2	3.09	0.41
35:2:514:G:N1	35:2:515:A:C4	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:516:G:C2	35:2:536:C:N3	2.87	0.41
35:2:518:A:N6	35:2:535:A:C2	2.83	0.41
35:2:524:U:P	35:2:525:A:H4'	2.60	0.41
35:2:526:A:H3'	35:2:526:A:N3	2.35	0.41
35:2:537:G:C4	35:2:538:A:C8	3.08	0.41
35:2:629:U:O4	35:2:969:C:H2'	2.21	0.41
35:2:875:G:H22	35:2:952:A:H2	1.67	0.41
35:2:882:U:O2	35:2:947:U:C2	2.74	0.41
35:2:898:A:N6	35:2:914:G:C2	2.84	0.41
35:2:917:U:C6	35:2:917:U:C3'	3.04	0.41
35:2:941:A:H3'	35:2:942:G:H8	1.86	0.41
35:2:944:A:H4'	35:2:945:U:OP1	2.20	0.41
35:2:959:U:N1	35:2:960:U:C5	2.80	0.41
35:2:959:U:H1'	35:2:960:U:P	2.60	0.41
35:2:963:A:C1'	35:2:964:U:OP2	2.68	0.41
35:2:1044:U:N3	35:2:1075:C:C4	2.87	0.41
35:2:1055:U:H6	35:2:1055:U:O5'	2.04	0.41
35:2:1073:G:C2	35:2:1074:G:N1	2.89	0.41
35:2:1073:G:H8	35:2:1073:G:H5'	1.86	0.41
35:2:1470:C:C2'	35:2:1471:A:OP1	2.69	0.41
35:2:1484:G:H22	35:2:1605:G:N2	2.18	0.41
36:3:79:G:C6	36:3:80:G:C5	3.09	0.41
36:3:98:U:C6	36:3:98:U:OP2	2.74	0.41
36:3:133:G:C5	36:3:134:C:C4	3.09	0.41
36:3:153:G:C4	36:3:177:G:N2	2.89	0.41
36:3:255:U:HO2'	36:3:256:G:C5'	2.34	0.41
19:i:171:ALA:C	19:i:173:TYR:N	2.79	0.41
1:l:338:UNK:H2	23:q:199:ILE:CB	2.30	0.41
21:o:139:ARG:HH12	35:2:884:A:H4'	0.43	0.41
21:o:141:PHE:N	21:o:141:PHE:CD1	2.88	0.41
21:o:167:VAL:HG12	21:o:168:ARG:N	2.36	0.41
21:o:194:LEU:HD23	21:o:221:VAL:HG21	2.02	0.41
22:p:249:THR:C	22:p:251:LEU:N	2.72	0.41
23:q:149:VAL:CB	23:q:157:ARG:H	2.34	0.41
24:r:1:MET:HE3	24:r:109:LEU:HB2	2.03	0.41
24:r:141:ILE:HG21	24:r:156:ILE:CG2	2.51	0.41
24:r:173:ARG:HH22	35:2:73:U:H5''	1.85	0.41
24:r:175:LYS:HD3	35:2:66:U:N1	2.35	0.41
24:r:190:ARG:HH22	35:2:269:G:H8	1.66	0.41
25:s:13:THR:HB	25:s:16:GLU:HG3	2.02	0.41
26:t:55:ARG:NH1	35:2:396:G:N7	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:t:193:GLY:C	26:t:197:GLU:OE2	2.64	0.41
27:u:156:ILE:O	27:u:158:PHE:N	2.54	0.41
31:y:33:TYR:CE2	31:y:35:LYS:HB2	2.56	0.41
31:y:104:ARG:NH1	35:2:305:C:O3'	2.54	0.41
32:z:41:MET:O	32:z:42:GLN:C	2.63	0.41
33:0:42:LEU:HD23	33:0:53:VAL:CG1	2.48	0.41
33:0:60:THR:O	33:0:61:GLN:C	2.64	0.41
33:0:124:LEU:C	33:0:126:GLU:H	2.29	0.41
35:2:20:G:H2'	35:2:20:G:N3	2.35	0.41
35:2:30:G:O2'	35:2:31:C:C6	2.69	0.41
35:2:35:U:H2'	35:2:36:C:C5'	2.50	0.41
35:2:57:G:N2	35:2:90:C:C2	2.86	0.41
35:2:76:A:H4'	35:2:77:U:C6	2.56	0.41
35:2:97:C:H1'	35:2:426:G:H5'	2.00	0.41
35:2:103:A:H1'	35:2:308:C:C4	2.56	0.41
35:2:127:G:O3'	35:2:128:U:O4'	2.39	0.41
35:2:139:C:H4'	35:2:141:U:OP1	2.21	0.41
35:2:143:G:C6	35:2:144:U:C6	3.08	0.41
35:2:151:G:N1	35:2:164:A:C5	2.89	0.41
35:2:156:A:H2	35:2:419:G:N2	2.19	0.41
35:2:187:G:N3	35:2:197:A:C2	2.89	0.41
35:2:205:U:O2	35:2:205:U:H2'	2.19	0.41
35:2:213:A:C2	35:2:253:A:C4	3.09	0.41
35:2:265:A:N1	35:2:267:U:N3	2.69	0.41
35:2:275:C:C4	35:2:276:C:N4	2.89	0.41
35:2:358:U:OP1	35:2:359:A:P	2.79	0.41
35:2:360:A:O3'	35:2:362:G:P	2.79	0.41
35:2:365:G:C2	35:2:366:A:O4'	2.72	0.41
35:2:387:A:C2	35:2:426:G:P	3.14	0.41
35:2:388:G:N1	35:2:410:A:C4	2.88	0.41
35:2:406:U:H2'	35:2:406:U:O2	2.21	0.41
35:2:408:C:N4	35:2:409:C:N4	2.69	0.41
35:2:411:C:C5	35:2:412:A:C5	3.09	0.41
35:2:446:A:N6	35:2:460:A:C6	2.89	0.41
35:2:461:G:C5	35:2:462:G:N7	2.89	0.41
35:2:472:U:H3'	35:2:474:A:N6	2.35	0.41
35:2:481:A:C3'	35:2:482:U:H6	2.34	0.41
35:2:482:U:O2	35:2:506:A:C2	2.74	0.41
35:2:485:A:O3'	35:2:486:G:C8	2.73	0.41
35:2:488:G:C4	35:2:500:C:C2	3.09	0.41
35:2:493:U:O3'	35:2:494:U:C2	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:498:G:C8	35:2:498:G:H3'	2.56	0.41
35:2:499:U:C6	35:2:499:U:C3'	3.04	0.41
35:2:524:U:C3'	35:2:527:A:C2	3.03	0.41
35:2:526:A:H5'	35:2:528:U:O2'	2.20	0.41
35:2:526:A:C5'	35:2:527:A:N1	2.74	0.41
35:2:535:A:N3	35:2:535:A:H2'	2.35	0.41
35:2:546:U:O4	35:2:590:C:C2	2.73	0.41
35:2:617:U:H1'	35:2:1030:A:H5'	2.03	0.41
35:2:630:A:C5	35:2:970:A:N7	2.89	0.41
35:2:875:G:C2	35:2:952:A:N1	2.87	0.41
35:2:880:C:O2	35:2:949:C:O2	2.39	0.41
35:2:899:G:C6	35:2:911:U:C2	3.09	0.41
35:2:905:A:OP2	35:2:905:A:O4'	2.38	0.41
35:2:917:U:H3'	35:2:917:U:H6	1.85	0.41
35:2:930:A:C8	35:2:930:A:O5'	2.74	0.41
35:2:948:G:H8	35:2:948:G:P	2.43	0.41
35:2:957:G:C2	35:2:958:U:C2	3.08	0.41
35:2:1025:A:N6	35:2:1027:A:C2	2.89	0.41
35:2:1039:A:C2	35:2:1040:G:C4	3.09	0.41
35:2:1049:U:C4	35:2:1050:G:N7	2.89	0.41
35:2:1064:G:C5	35:2:1065:A:N7	2.89	0.41
35:2:1090:C:O2	35:2:1092:A:N7	2.54	0.41
35:2:1477:G:H2'	35:2:1478:G:H5'	2.02	0.41
35:2:1587:A:N3	35:2:1587:A:H2'	2.36	0.41
35:2:1591:C:O2'	35:2:1592:A:H5'	2.21	0.41
36:3:72:C:H2'	36:3:73:C:C1'	2.51	0.41
36:3:97:C:C6	36:3:97:C:OP2	2.74	0.41
36:3:100:G:C6	36:3:253:G:C6	3.09	0.41
36:3:115:G:C6	36:3:116:G:C4	3.09	0.41
36:3:164:U:HO2'	36:3:166:G:H1	1.65	0.41
2:G:3234:GLY:C	33:0:147:VAL:CB	2.71	0.41
17:f:41:MET:O	17:f:110:LEU:HA	2.21	0.41
17:f:156:GLU:CA	35:2:1537:C:C2	3.02	0.41
21:o:169:ALA:HB1	21:o:210:ILE:HD13	2.03	0.41
22:p:42:LEU:CD1	22:p:47:LEU:HB2	2.49	0.41
22:p:161:THR:CB	22:p:229:VAL:HB	2.51	0.41
22:p:183:CYS:HA	22:p:230:LEU:H	1.86	0.41
22:p:185:ILE:HA	22:p:226:ASN:O	2.21	0.41
24:r:23:LYS:HA	24:r:40:THR:HG22	2.02	0.41
24:r:77:LEU:CD1	24:r:84:PHE:HB2	2.50	0.41
25:s:138:GLY:O	25:s:154:GLN:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:v:84:ILE:HA	28:v:85:PRO:HA	1.75	0.41
35:2:119:A:C4	35:2:397:A:C4	3.09	0.41
35:2:207:U:C2	35:2:261:U:C4	3.08	0.41
35:2:211:U:O4	35:2:254:A:C6	2.71	0.41
35:2:246:G:C8	35:2:246:G:P	3.14	0.41
35:2:269:G:C6	35:2:287:G:C6	3.09	0.41
35:2:276:C:O2'	35:2:276:C:C6	2.72	0.41
35:2:323:A:H2'	35:2:324:U:H6	1.86	0.41
35:2:357:G:C6	35:2:358:U:C4	3.09	0.41
35:2:358:U:OP2	35:2:358:U:C5	2.74	0.41
35:2:389:G:C6	35:2:390:G:N7	2.89	0.41
35:2:390:G:C6	35:2:407:A:N1	2.79	0.41
35:2:414:C:H3'	35:2:415:C:H6	1.86	0.41
35:2:442:C:H6	35:2:442:C:P	2.44	0.41
35:2:495:C:N4	35:2:496:G:N3	2.69	0.41
35:2:527:A:C8	35:2:528:U:H5'	2.56	0.41
35:2:625:C:O2	35:2:975:C:O2	2.39	0.41
35:2:888:U:OP2	35:2:888:U:H5	2.01	0.41
35:2:919:A:C2	35:2:920:U:C2	3.08	0.41
35:2:973:A:H2'	35:2:973:A:N3	2.35	0.41
35:2:976:G:C4	35:2:1023:A:C6	3.09	0.41
35:2:1043:A:C8	35:2:1043:A:OP2	2.74	0.41
35:2:1052:U:C4	35:2:1053:G:N7	2.87	0.41
35:2:1075:C:OP1	35:2:1076:A:OP2	2.38	0.41
35:2:1094:G:H2'	35:2:1095:U:N1	2.32	0.41
35:2:1623:C:O2	35:2:1623:C:C2'	2.68	0.41
36:3:84:G:C2	36:3:85:A:N6	2.89	0.41
36:3:86:U:N3	36:3:264:G:N2	2.68	0.41
36:3:192:A:C5	36:3:194:G:N3	2.89	0.41
36:3:268:G:C2	36:3:269:G:C4	3.09	0.41
4:I:227:THR:O	4:I:229:GLU:N	2.51	0.40
5:O:504:UNK:CB	21:o:19:LYS:CA	2.99	0.40
9:V:96:GLN:H	36:3:114:A:C2'	2.35	0.40
9:V:96:GLN:H	36:3:114:A:H3'	1.84	0.40
10:X:108:GLU:O	10:X:131:LEU:HA	2.20	0.40
21:o:31:TRP:CE3	21:o:48:THR:O	2.74	0.40
21:o:150:SER:C	21:o:152:GLY:H	2.29	0.40
21:o:163:LYS:CB	35:2:1045:C:H5''	2.51	0.40
22:p:61:VAL:C	22:p:63:LEU:N	2.78	0.40
24:r:68:MET:HA	24:r:100:CYS:HB3	2.04	0.40
26:t:182:GLN:HE21	35:2:331:A:P	2.44	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:u:177:ALA:C	27:u:179:ARG:N	2.79	0.40
33:0:84:GLU:HA	33:0:85:PRO:HD3	1.78	0.40
35:2:47:A:C2'	35:2:100:A:H5'	2.44	0.40
35:2:69:G:N3	35:2:69:G:O4'	2.52	0.40
35:2:86:A:OP1	35:2:149:C:OP1	2.39	0.40
35:2:127:G:C6	35:2:184:C:C4'	2.93	0.40
35:2:155:U:C2'	35:2:157:A:OP2	2.69	0.40
35:2:182:A:C6	35:2:183:U:C2	3.10	0.40
35:2:248:U:OP2	35:2:248:U:H2'	2.21	0.40
35:2:273:G:C5	35:2:274:G:C5	3.09	0.40
35:2:430:G:H8	35:2:430:G:P	2.44	0.40
35:2:433:C:N4	35:2:434:G:C4	2.89	0.40
35:2:447:U:HO2'	35:2:448:C:C5'	2.19	0.40
35:2:473:A:H3'	35:2:474:A:C1'	2.50	0.40
35:2:519:C:O2	35:2:534:A:C2	2.74	0.40
35:2:529:A:O2'	35:2:530:C:P	2.79	0.40
35:2:631:G:C6	35:2:969:C:C2	3.09	0.40
35:2:874:C:N3	35:2:875:G:C5	2.90	0.40
35:2:907:A:C4	35:2:908:U:C6	3.09	0.40
35:2:936:G:C2	35:2:937:C:C2	3.09	0.40
35:2:957:G:C4	35:2:958:U:C5	3.10	0.40
35:2:1061:A:C2'	35:2:1062:A:C8	3.01	0.40
35:2:1084:A:C8	35:2:1084:A:O5'	2.74	0.40
35:2:1151:A:N3	35:2:1152:A:C8	2.89	0.40
35:2:1526:A:H1'	35:2:1589:C:H1'	2.03	0.40
35:2:1534:G:H4'	35:2:1536:G:C5	2.56	0.40
35:2:1535:U:HO2'	35:2:1536:G:N2	2.18	0.40
35:2:1587:A:C4	35:2:1588:G:C8	3.09	0.40
1:P:283:UNK:C	14:b:26:ASN:CB	2.98	0.40
15:c:118:ASN:N	30:x:134:ALA:C	2.76	0.40
24:r:190:ARG:HH22	35:2:268:C:H3'	1.85	0.40
26:t:124:HIS:ND1	26:t:152:LYS:HD3	2.36	0.40
26:t:173:LEU:HD13	26:t:173:LEU:HA	1.79	0.40
26:t:194:LYS:HE2	31:y:4:GLN:OE1	2.18	0.40
27:u:109:LEU:O	27:u:110:GLN:C	2.64	0.40
27:u:142:ASN:O	27:u:143:ILE:C	2.63	0.40
30:x:91:ALA:O	30:x:92:TYR:CB	2.69	0.40
31:y:38:GLY:HA3	35:2:246:G:C2'	2.49	0.40
31:y:54:ASP:HB2	31:y:81:ARG:NH1	2.36	0.40
31:y:75:ILE:CD1	31:y:86:ARG:HB2	2.51	0.40
33:0:61:GLN:O	33:0:63:GLY:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:0:119:ALA:O	33:0:122:LYS:N	2.53	0.40
35:2:72:A:C2	35:2:82:U:H1'	2.56	0.40
35:2:85:A:C6	35:2:86:A:C6	3.10	0.40
35:2:93:A:O4'	35:2:399:A:N1	2.55	0.40
35:2:129:U:C5	35:2:264:G:C6	3.09	0.40
35:2:137:U:H1'	35:2:138:A:P	2.61	0.40
35:2:143:G:C5	35:2:173:A:N1	2.89	0.40
35:2:147:A:C5	35:2:148:A:C4	3.09	0.40
35:2:171:A:HO2'	35:2:172:C:P	2.44	0.40
35:2:187:G:C2'	35:2:188:A:H8	2.34	0.40
35:2:206:A:C6	35:2:262:U:C4	3.09	0.40
35:2:268:C:O2'	35:2:269:G:H5'	2.20	0.40
35:2:270:C:OP2	35:2:270:C:C6	2.75	0.40
35:2:322:G:C2	35:2:324:U:C4	3.10	0.40
35:2:345:U:H4'	35:2:346:G:OP1	2.17	0.40
35:2:363:G:C8	35:2:380:U:C2	3.09	0.40
35:2:473:A:N3	35:2:475:A:N1	2.70	0.40
35:2:496:G:C2	35:2:497:G:C5	3.09	0.40
35:2:528:U:OP2	35:2:530:C:C5	2.74	0.40
35:2:624:G:C5	35:2:1027:A:N1	2.90	0.40
35:2:948:G:C6	35:2:949:C:N4	2.88	0.40
35:2:963:A:H1'	35:2:965:U:C5	2.56	0.40
35:2:1038:U:H3	35:2:1091:A:H1'	1.86	0.40
35:2:1047:G:N3	35:2:1048:G:C8	2.89	0.40
35:2:1054:U:C4	35:2:1055:U:C4	3.10	0.40
35:2:1062:A:C6	35:2:1063:U:C2	3.09	0.40
35:2:1067:C:OP2	35:2:1067:C:H5	2.01	0.40
36:3:69:G:H8	36:3:69:G:OP2	2.01	0.40
36:3:199:G:H5'	36:3:201:A:P	2.61	0.40
36:3:253:G:O2'	36:3:254:A:H5'	2.21	0.40
17:f:164:LYS:CB	35:2:1575:G:OP2	2.68	0.40
19:j:865:TYR:CB	19:j:877:SER:HA	2.51	0.40
21:o:31:TRP:O	21:o:32:TYR:CD1	2.75	0.40
21:o:43:LYS:CG	21:o:44:SER:N	2.85	0.40
22:p:27:TRP:CD1	35:2:448:C:C1'	2.86	0.40
22:p:210:CYS:SG	22:p:227:ILE:CD1	3.09	0.40
23:q:65:ARG:C	23:q:87:CYS:C	2.90	0.40
25:s:48:PHE:CE2	25:s:62:LEU:HD23	2.57	0.40
26:t:77:SER:HA	31:y:23:LEU:HD11	2.03	0.40
26:t:78:GLU:CB	26:t:80:ILE:HD11	2.52	0.40
27:u:114:TYR:O	27:u:116:LEU:N	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:w:89:THR:HA	29:w:90:ARG:CB	2.50	0.40
30:x:98:ASP:C	30:x:100:GLN:N	2.79	0.40
31:y:84:ILE:HD11	35:2:347:G:H4'	2.04	0.40
33:0:32:THR:CB	35:2:533:U:N1	2.76	0.40
35:2:48:G:H1	35:2:432:G:C1'	2.29	0.40
35:2:65:A:H2'	35:2:66:U:C5	2.56	0.40
35:2:96:G:H2'	35:2:97:C:O4'	2.21	0.40
35:2:119:A:C8	35:2:397:A:N3	2.89	0.40
35:2:280:U:H2'	35:2:281:G:C8	2.56	0.40
35:2:366:A:H2'	35:2:367:A:O4'	2.20	0.40
35:2:391:A:H2'	35:2:392:G:O4'	2.22	0.40
35:2:400:A:C1'	35:2:401:A:OP2	2.70	0.40
35:2:404:G:C5	35:2:405:C:C5	3.09	0.40
35:2:411:C:P	35:2:412:A:H62	2.36	0.40
35:2:480:G:C8	35:2:480:G:O5'	2.75	0.40
35:2:481:A:N9	35:2:508:U:C2	2.89	0.40
35:2:484:C:OP2	35:2:485:A:H8	2.03	0.40
35:2:494:U:H5	35:2:495:C:N1	2.19	0.40
35:2:516:G:C2	35:2:536:C:C2	3.09	0.40
35:2:879:G:N1	35:2:950:C:C2	2.90	0.40
35:2:879:G:C3'	35:2:880:C:C6	3.00	0.40
35:2:886:U:C3'	35:2:887:A:C8	3.00	0.40
35:2:1036:A:O2'	35:2:1037:C:P	2.80	0.40
35:2:1040:G:C5	35:2:1041:G:C6	3.08	0.40
35:2:1474:G:N1	35:2:1475:A:C6	2.89	0.40
36:3:188:G:C6	36:3:189:G:N7	2.89	0.40
6:Q:356:UNK:CB	6:Q:405:UNK:C	2.99	0.40
14:b:62:SER:C	14:b:64:LEU:H	2.30	0.40
19:i:379:VAL:CB	19:j:379:VAL:CB	2.99	0.40
21:o:166:GLN:O	21:o:170:ILE:HG13	2.22	0.40
21:o:208:LYS:CG	35:2:1064:G:N2	2.80	0.40
22:p:95:GLU:C	22:p:97:THR:H	2.30	0.40
22:p:187:GLN:HA	22:p:191:ILE:CG2	2.51	0.40
23:q:116:HIS:C	23:q:118:LEU:N	2.79	0.40
24:r:176:CYS:SG	35:2:67:A:C5	3.14	0.40
25:s:145:LEU:HD23	25:s:145:LEU:HA	1.80	0.40
26:t:11:ARG:HD3	26:t:15:GLY:O	2.22	0.40
26:t:21:HIS:ND1	35:2:102:U:O2'	2.54	0.40
26:t:126:GLY:C	26:t:127:ILE:HG13	2.45	0.40
27:u:108:ARG:HA	27:u:147:MET:HA	2.03	0.40
28:v:93:LYS:C	28:v:95:ALA:N	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:v:96:VAL:O	28:v:97:SER:C	2.63	0.40
28:v:143:SER:O	28:v:146:ALA:CA	2.69	0.40
30:x:106:LYS:O	30:x:108:ALA:N	2.54	0.40
31:y:80:ASN:CA	35:2:325:G:O2'	2.68	0.40
33:0:98:LYS:N	33:0:98:LYS:CD	2.68	0.40
35:2:52:U:C2	35:2:53:G:C8	3.09	0.40
35:2:60:U:N3	35:2:62:A:C2	2.89	0.40
35:2:91:G:N1	35:2:92:A:C5	2.89	0.40
35:2:103:A:C4'	35:2:104:A:OP2	2.65	0.40
35:2:142:G:C4	35:2:266:A:C6	3.10	0.40
35:2:164:A:C6	35:2:165:G:C5	3.09	0.40
35:2:204:G:N1	35:2:264:G:N1	2.69	0.40
35:2:209:U:C2'	35:2:210:A:C8	3.01	0.40
35:2:243:G:O6	35:2:244:A:N6	2.54	0.40
35:2:297:U:C2	35:2:298:C:H5'	2.56	0.40
35:2:315:A:C5	35:2:353:A:N7	2.89	0.40
35:2:343:C:O2'	35:2:344:A:H5'	2.21	0.40
35:2:433:C:C4	35:2:434:G:N9	2.90	0.40
35:2:441:A:C8	35:2:441:A:H5''	2.56	0.40
35:2:480:G:N1	35:2:509:G:C5	2.90	0.40
35:2:518:A:H3'	35:2:519:C:C5	2.57	0.40
35:2:523:G:C8	35:2:528:U:C2	3.08	0.40
35:2:536:C:C2	35:2:537:G:C8	3.08	0.40
35:2:878:G:C8	35:2:878:G:P	3.14	0.40
35:2:887:A:C6	35:2:926:A:N1	2.89	0.40
35:2:962:C:C2'	35:2:963:A:O4'	2.67	0.40
35:2:971:A:H3'	35:2:972:G:C8	2.53	0.40
35:2:976:G:C2'	35:2:1023:A:C2	3.03	0.40
35:2:1046:G:C4	35:2:1073:G:C4	3.09	0.40
35:2:1046:G:N3	35:2:1073:G:C4	2.89	0.40
35:2:1050:G:C6	35:2:1069:A:N1	2.90	0.40
35:2:1057:U:O2	35:2:1061:A:N7	2.54	0.40
35:2:1071:U:H2'	35:2:1072:C:C1'	2.51	0.40
35:2:1084:A:H8	35:2:1084:A:O5'	2.04	0.40
35:2:1176:G:H1'	35:2:1464:G:N2	2.36	0.40
35:2:1580:C:H2'	35:2:1581:C:H6	1.71	0.40
35:2:1599:C:O2	35:2:1600:A:N1	2.54	0.40
35:2:1626:U:O2'	35:2:1627:U:H5'	2.19	0.40
36:3:85:A:O2'	36:3:86:U:H5'	2.21	0.40
36:3:97:C:C2	36:3:256:G:N2	2.77	0.40
36:3:154:G:C2	36:3:176:U:O2	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:190:C:C5	36:3:191:G:C6	3.09	0.40
36:3:257:G:C2	36:3:258:A:C5	3.10	0.40
1:E:47:UNK:N	1:F:339:UNK:N	2.70	0.40
2:G:2406:ALA:HB2	2:G:2813:VAL:HA	2.04	0.40
5:O:631:UNK:O	5:O:643:UNK:HA	2.20	0.40
1:P:103:UNK:O	1:P:104:UNK:CB	2.70	0.40
21:o:60:SER:HA	21:o:63:ILE:HD11	2.03	0.40
22:p:65:LEU:HB3	22:p:80:ARG:HA	2.04	0.40
24:r:187:ARG:NH2	35:2:141:U:H2'	2.36	0.40
25:s:103:LYS:HG2	25:s:113:ARG:NH1	2.24	0.40
31:y:31:VAL:CG1	31:y:32:ARG:N	2.83	0.40
33:0:18:ARG:CZ	33:0:20:GLN:NE2	2.84	0.40
35:2:47:A:H61	35:2:100:A:N6	2.18	0.40
35:2:50:C:C6	35:2:424:C:H5''	2.56	0.40
35:2:84:A:C6	35:2:85:A:O4'	2.74	0.40
35:2:111:U:O4	35:2:303:U:N3	2.54	0.40
35:2:120:U:H2'	35:2:121:U:C6	2.57	0.40
35:2:164:A:C4	35:2:165:G:C8	3.10	0.40
35:2:186:C:N3	35:2:200:A:C5	2.90	0.40
35:2:188:A:C8	35:2:198:A:N7	2.89	0.40
35:2:188:A:C4	35:2:198:A:C5	3.09	0.40
35:2:206:A:C5	35:2:262:U:N3	2.88	0.40
35:2:316:A:C6	35:2:317:C:C4	3.10	0.40
35:2:319:U:C4'	35:2:323:A:C8	3.04	0.40
35:2:322:G:O6	35:2:343:C:C4	2.72	0.40
35:2:329:G:C2	35:2:340:U:C2	3.09	0.40
35:2:355:G:C5	35:2:356:G:N7	2.89	0.40
35:2:408:C:C4	35:2:409:C:C4	3.09	0.40
35:2:415:C:C2	35:2:419:G:N2	2.89	0.40
35:2:462:G:C4	35:2:463:U:C5	3.10	0.40
35:2:489:C:H6	35:2:489:C:OP2	2.05	0.40
35:2:490:C:N3	35:2:491:C:C5	2.90	0.40
35:2:492:A:N9	35:2:492:A:O5'	2.55	0.40
35:2:514:G:C5	35:2:538:A:N3	2.89	0.40
35:2:618:U:C6	35:2:619:A:N7	2.90	0.40
35:2:871:G:C6	35:2:872:G:C6	3.09	0.40
35:2:877:G:C6	35:2:951:A:N1	2.86	0.40
35:2:879:G:C3'	35:2:880:C:H6	2.25	0.40
35:2:918:U:H6	35:2:918:U:P	2.45	0.40
35:2:957:G:C2	35:2:958:U:C4	3.09	0.40
35:2:1039:A:C6	35:2:1080:U:C4	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1078:C:C4	35:2:1079:U:O4	2.74	0.40
35:2:1161:C:C2'	35:2:1162:C:H5'	2.52	0.40
35:2:1594:G:C2'	35:2:1595:U:H5'	2.51	0.40
36:3:254:A:H5''	36:3:255:U:OP2	2.21	0.40
36:3:256:G:H3'	36:3:257:G:C8	2.57	0.40
36:3:265:A:HO2'	36:3:266:C:C4'	2.34	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	G	265/1802 (15%)	245 (92%)	11 (4%)	9 (3%)	3	21
4	I	626/939 (67%)	609 (97%)	17 (3%)	0	100	100
8	S	363/412 (88%)	344 (95%)	14 (4%)	5 (1%)	9	40
8	T	363/412 (88%)	341 (94%)	20 (6%)	2 (1%)	21	59
9	U	120/130 (92%)	111 (92%)	7 (6%)	2 (2%)	7	36
9	V	120/130 (92%)	112 (93%)	6 (5%)	2 (2%)	7	36
10	W	225/232 (97%)	206 (92%)	16 (7%)	3 (1%)	9	42
10	X	225/232 (97%)	204 (91%)	17 (8%)	4 (2%)	6	34
11	Y	353/573 (62%)	341 (97%)	11 (3%)	1 (0%)	36	72
12	Z	353/367 (96%)	347 (98%)	6 (2%)	0	100	100
13	a	50/1183 (4%)	49 (98%)	1 (2%)	0	100	100
14	b	151/183 (82%)	128 (85%)	14 (9%)	9 (6%)	1	13
15	c	190/297 (64%)	163 (86%)	12 (6%)	15 (8%)	1	9
16	d	122/184 (66%)	110 (90%)	8 (7%)	4 (3%)	3	21
17	e	205/252 (81%)	190 (93%)	15 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	f	214/252 (85%)	201 (94%)	11 (5%)	2 (1%)	14	51
18	g	172/322 (53%)	163 (95%)	9 (5%)	0	100	100
18	h	172/322 (53%)	163 (95%)	9 (5%)	0	100	100
19	i	643/1073 (60%)	577 (90%)	38 (6%)	28 (4%)	2	17
19	j	663/1073 (62%)	591 (89%)	43 (6%)	29 (4%)	2	17
20	k	172/391 (44%)	151 (88%)	12 (7%)	9 (5%)	1	15
21	o	213/265 (80%)	161 (76%)	33 (16%)	19 (9%)	0	8
22	p	257/259 (99%)	193 (75%)	40 (16%)	24 (9%)	0	8
23	q	165/225 (73%)	55 (33%)	46 (28%)	64 (39%)	0	0
24	r	233/293 (80%)	188 (81%)	31 (13%)	14 (6%)	1	13
25	s	184/197 (93%)	151 (82%)	23 (12%)	10 (5%)	1	15
26	t	205/208 (99%)	147 (72%)	38 (18%)	20 (10%)	0	7
27	u	153/197 (78%)	48 (31%)	49 (32%)	56 (37%)	0	0
28	v	115/151 (76%)	49 (43%)	33 (29%)	33 (29%)	0	0
29	w	126/137 (92%)	51 (40%)	39 (31%)	36 (29%)	0	0
30	x	132/143 (92%)	57 (43%)	33 (25%)	42 (32%)	0	0
31	y	155/157 (99%)	115 (74%)	26 (17%)	14 (9%)	0	8
32	z	125/130 (96%)	50 (40%)	35 (28%)	40 (32%)	0	0
33	0	146/149 (98%)	115 (79%)	20 (14%)	11 (8%)	1	10
34	1	45/67 (67%)	17 (38%)	12 (27%)	16 (36%)	0	0
All	All	8021/13339 (60%)	6743 (84%)	755 (9%)	523 (6%)	2	12

All (523) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	G	2992	ASN
2	G	3194	ASP
8	T	355	SER
9	U	62	PRO
9	V	62	PRO
10	W	206	SER
10	W	218	PRO
10	X	218	PRO
14	b	93	LYS
14	b	166	ILE

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Mol	Chain	Res	Type
15	c	124	LEU
15	c	125	PRO
15	c	161	PRO
15	c	186	GLU
15	c	198	THR
15	c	214	PRO
15	c	235	ASP
16	d	108	VAL
16	d	119	GLN
16	d	142	ARG
17	f	83	ASP
19	i	145	GLY
19	i	163	TYR
19	i	164	THR
19	i	510	CYS
19	i	514	SER
19	i	530	HIS
19	i	856	ASP
19	i	873	ALA
19	i	877	SER
19	i	879	LEU
19	i	881	GLN
19	i	883	ILE
19	j	163	TYR
19	j	164	THR
19	j	510	CYS
19	j	514	SER
19	j	530	HIS
19	j	856	ASP
19	j	873	ALA
19	j	877	SER
19	j	879	LEU
19	j	881	GLN
19	j	883	ILE
20	k	80	PRO
20	k	104	PRO
20	k	172	TYR
20	k	175	THR
20	k	176	THR
21	o	37	PRO
21	o	43	LYS
21	o	52	LYS

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Mol	Chain	Res	Type
21	o	59	ALA
21	o	77	ASP
21	o	78	ASN
21	o	96	GLY
22	p	15	PRO
22	p	24	GLY
22	p	96	LYS
22	p	106	ASP
22	p	204	GLN
22	p	206	SER
22	p	207	PHE
22	p	215	ALA
23	q	40	ILE
23	q	46	TRP
23	q	53	VAL
23	q	57	SER
23	q	61	TYR
23	q	66	GLN
23	q	87	CYS
23	q	88	PRO
23	q	90	ILE
23	q	91	GLU
23	q	92	ARG
23	q	93	LEU
23	q	94	THR
23	q	128	ASN
23	q	129	PRO
23	q	160	VAL
23	q	162	VAL
23	q	163	SER
23	q	164	PRO
23	q	182	ALA
23	q	184	PHE
23	q	187	ILE
23	q	195	ALA
23	q	216	GLU
24	r	8	PRO
24	r	9	LEU
24	r	43	ASP
24	r	87	ARG
24	r	181	ARG
25	s	132	LEU

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Mol	Chain	Res	Type
25	s	178	THR
25	s	179	THR
26	t	13	ALA
26	t	15	GLY
26	t	44	THR
26	t	57	ARG
26	t	132	LYS
26	t	135	ARG
26	t	160	GLU
27	u	39	LYS
27	u	41	GLU
27	u	55	ALA
27	u	56	ALA
27	u	64	GLU
27	u	66	ASP
27	u	67	PRO
27	u	81	VAL
27	u	82	ARG
27	u	83	VAL
27	u	99	LEU
27	u	100	LYS
27	u	106	GLU
27	u	112	GLN
27	u	121	SER
27	u	122	VAL
27	u	124	HIS
27	u	130	THR
27	u	131	GLN
27	u	132	ARG
27	u	140	ILE
27	u	141	VAL
27	u	143	ILE
27	u	152	SER
27	u	153	GLU
27	u	169	PRO
27	u	174	ARG
28	v	46	THR
28	v	47	PRO
28	v	50	ILE
28	v	58	HIS
28	v	62	GLN
28	v	65	VAL

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Mol	Chain	Res	Type
28	v	69	ASN
28	v	71	ILE
28	v	82	PRO
28	v	84	ILE
28	v	85	PRO
28	v	86	GLU
28	v	126	ALA
28	v	132	VAL
28	v	135	LEU
28	v	136	PRO
28	v	137	PRO
29	w	4	VAL
29	w	23	PHE
29	w	26	THR
29	w	40	ALA
29	w	42	VAL
29	w	43	THR
29	w	50	ALA
29	w	65	GLN
29	w	67	VAL
29	w	79	VAL
29	w	94	PRO
29	w	96	PRO
29	w	101	ALA
29	w	122	PRO
30	x	34	SER
30	x	35	PRO
30	x	36	ILE
30	x	38	LEU
30	x	42	GLU
30	x	57	LEU
30	x	61	SER
30	x	63	ILE
30	x	70	THR
30	x	74	HIS
30	x	85	ILE
30	x	97	VAL
30	x	105	LEU
30	x	118	ILE
30	x	126	PRO
30	x	136	SER
31	y	10	GLN

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Mol	Chain	Res	Type
31	y	16	PHE
31	y	17	LEU
32	z	5	SER
32	z	24	GLN
32	z	27	ILE
32	z	28	ARG
32	z	29	PRO
32	z	30	SER
32	z	31	SER
32	z	38	LEU
32	z	63	VAL
32	z	76	SER
32	z	77	PRO
32	z	79	PHE
32	z	85	ASP
32	z	86	ILE
32	z	95	PRO
32	z	97	ARG
32	z	99	PHE
32	z	103	ILE
32	z	106	THR
32	z	118	ARG
32	z	120	HIS
32	z	126	LEU
33	0	29	ASP
33	0	57	GLY
33	0	148	ALA
34	1	10	ALA
34	1	14	LYS
34	1	15	VAL
34	1	34	GLU
34	1	39	THR
34	1	44	VAL
8	S	85	PRO
8	T	85	PRO
11	Y	555	ASN
14	b	86	GLY
14	b	91	LYS
14	b	92	ALA
14	b	135	HIS
15	c	178	LYS
15	c	201	GLY

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Mol	Chain	Res	Type
15	c	202	GLN
15	c	250	ASN
16	d	129	TYR
19	i	171	ALA
19	i	532	VAL
19	i	870	LEU
19	j	145	GLY
19	j	171	ALA
19	j	532	VAL
19	j	608	GLN
19	j	870	LEU
20	k	236	SER
20	k	274	LYS
21	o	38	ILE
21	o	46	GLY
21	o	61	GLU
21	o	197	GLU
21	o	215	ASN
22	p	5	PRO
22	p	62	THR
22	p	68	LYS
22	p	95	GLU
22	p	173	ASN
22	p	175	ALA
22	p	216	LYS
23	q	43	PHE
23	q	56	ALA
23	q	60	ASP
23	q	64	VAL
23	q	89	ILE
23	q	108	LEU
23	q	113	ILE
23	q	122	ASN
23	q	140	THR
23	q	144	GLU
23	q	153	GLY
23	q	165	LEU
23	q	166	ARG
23	q	167	ARG
23	q	181	GLU
23	q	183	ALA
23	q	197	GLU

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Mol	Chain	Res	Type
23	q	211	ILE
23	q	215	ASP
24	r	67	VAL
24	r	91	PHE
24	r	99	GLY
24	r	147	LEU
24	r	150	GLU
25	s	10	GLN
25	s	161	ASP
26	t	48	LYS
26	t	58	GLY
26	t	155	LYS
26	t	193	GLY
27	u	63	ASP
27	u	85	VAL
27	u	88	GLU
27	u	113	VAL
27	u	133	HIS
27	u	137	GLY
27	u	139	GLN
27	u	146	PHE
28	v	54	LEU
28	v	128	TYR
28	v	138	ASN
29	w	3	ASN
29	w	6	GLN
29	w	19	ILE
29	w	25	ASP
29	w	28	VAL
29	w	45	GLY
29	w	64	ALA
29	w	73	GLU
29	w	97	GLY
29	w	124	ASP
29	w	128	LYS
30	x	43	ILE
30	x	62	ASN
30	x	92	TYR
30	x	98	ASP
30	x	104	GLU
30	x	107	LYS
30	x	129	PHE

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Mol	Chain	Res	Type
31	y	6	GLN
31	y	8	ALA
31	y	19	SER
31	y	27	THR
31	y	30	GLY
31	y	94	ARG
32	z	22	LYS
32	z	56	HIS
32	z	62	VAL
32	z	68	ARG
32	z	72	CYS
32	z	81	VAL
32	z	94	LEU
32	z	100	GLY
32	z	113	HIS
33	0	62	TYR
33	0	63	GLY
33	0	102	ARG
33	0	129	GLY
33	0	130	ASP
34	1	28	VAL
34	1	29	ARG
34	1	41	VAL
34	1	45	LYS
2	G	1956	ARG
2	G	3236	SER
8	S	207	GLU
8	S	300	ALA
8	S	355	SER
8	S	358	PHE
9	V	127	LYS
10	W	70	LYS
10	X	206	SER
15	c	217	PRO
19	i	220	LEU
19	i	308	SER
19	i	741	GLN
19	i	859	PRO
19	j	220	LEU
19	j	308	SER
19	j	741	GLN
19	j	859	PRO

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Mol	Chain	Res	Type
20	k	61	PRO
21	o	41	SER
22	p	56	LEU
22	p	82	LYS
22	p	118	LYS
22	p	205	GLY
23	q	55	ASP
23	q	125	THR
23	q	205	SER
23	q	207	THR
24	r	92	ARG
24	r	160	VAL
25	s	147	GLY
25	s	167	LEU
26	t	42	SER
26	t	91	TYR
26	t	157	GLN
27	u	38	ASN
27	u	87	SER
27	u	107	ARG
27	u	108	ARG
27	u	123	HIS
27	u	134	ILE
28	v	52	VAL
28	v	63	ALA
28	v	70	LYS
28	v	89	TYR
28	v	110	ASP
28	v	139	TRP
29	w	34	SER
29	w	48	VAL
30	x	47	LYS
30	x	56	GLY
30	x	88	GLY
30	x	110	THR
30	x	114	ARG
30	x	125	GLU
30	x	138	PHE
31	y	7	ARG
31	y	117	LYS
31	y	135	ARG
32	z	46	TYR

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Mol	Chain	Res	Type
33	0	28	PRO
34	1	8	THR
34	1	25	VAL
34	1	43	ASN
2	G	1526	SER
2	G	2819	GLU
10	X	70	LYS
14	b	119	ARG
19	i	167	MET
19	i	265	LEU
19	i	305	TYR
19	j	167	MET
19	j	265	LEU
19	j	305	TYR
21	o	117	ILE
21	o	154	GLN
21	o	163	LYS
22	p	3	ARG
23	q	58	LEU
23	q	138	THR
23	q	148	ARG
23	q	157	ARG
23	q	186	ASN
23	q	196	GLU
23	q	212	LYS
23	q	219	ARG
24	r	135	PRO
26	t	9	HIS
26	t	29	LYS
26	t	47	GLU
26	t	69	CYS
27	u	27	GLU
27	u	46	SER
27	u	91	LYS
27	u	101	VAL
27	u	180	LYS
28	v	55	ARG
28	v	75	LEU
28	v	81	ALA
29	w	32	ASP
29	w	38	THR
29	w	110	LEU

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Mol	Chain	Res	Type
30	x	28	LEU
30	x	46	PHE
30	x	51	PRO
30	x	90	VAL
30	x	99	GLU
30	x	106	LYS
30	x	134	ALA
32	z	41	MET
32	z	50	PHE
32	z	60	LYS
32	z	83	ILE
32	z	104	LEU
32	z	107	SER
34	1	32	PHE
34	1	38	ARG
2	G	2408	PRO
14	b	112	PRO
17	f	82	ARG
19	i	182	ILE
19	i	575	GLN
19	i	872	GLU
19	j	182	ILE
19	j	575	GLN
19	j	872	GLU
21	o	23	ILE
21	o	164	SER
22	p	51	ARG
22	p	53	ASN
22	p	145	ASP
23	q	45	LYS
23	q	65	ARG
23	q	213	LYS
23	q	214	LYS
23	q	221	ALA
24	r	88	ARG
26	t	41	GLN
26	t	144	SER
27	u	60	LEU
27	u	74	ASN
27	u	75	ALA
27	u	125	ALA
27	u	170	GLY

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Mol	Chain	Res	Type
27	u	183	ALA
28	v	77	SER
28	v	150	VAL
30	x	15	SER
31	y	78	LYS
33	0	64	GLY
33	0	128	LYS
9	U	127	LYS
15	c	95	ASP
19	i	379	VAL
19	i	871	ARG
19	j	379	VAL
19	j	871	ARG
20	k	271	VAL
23	q	170	GLN
25	s	78	ARG
28	v	108	ASP
28	v	143	SER
29	w	58	TYR
29	w	87	GLY
29	w	115	ILE
30	x	33	GLY
30	x	84	ALA
32	z	7	LEU
34	1	37	SER
19	i	315	PRO
19	j	315	PRO
22	p	245	GLY
25	s	105	VAL
25	s	133	PRO
30	x	39	VAL
31	y	116	VAL
21	o	63	ILE
23	q	114	ILE
27	u	52	ILE
27	u	144	PRO
29	w	74	VAL
2	G	1942	LEU
2	G	1943	PRO
14	b	162	VAL
15	c	212	PHE
23	q	121	ILE

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Mol	Chain	Res	Type
23	q	152	GLY
27	u	42	ILE
29	w	13	VAL
32	z	25	VAL
10	X	217	ASP
27	u	73	GLY
29	w	44	GLY
30	x	50	GLU
15	c	112	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
21	o	191/225 (85%)	171 (90%)	20 (10%)	6	21
22	p	226/226 (100%)	199 (88%)	27 (12%)	5	18
24	r	201/244 (82%)	187 (93%)	14 (7%)	14	35
25	s	172/183 (94%)	155 (90%)	17 (10%)	7	24
26	t	184/185 (100%)	168 (91%)	16 (9%)	9	29
31	y	141/141 (100%)	128 (91%)	13 (9%)	8	26
33	0	133/134 (99%)	124 (93%)	9 (7%)	14	36
All	All	1248/1338 (93%)	1132 (91%)	116 (9%)	11	26

All (116) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
21	o	38	ILE
21	o	61	GLU
21	o	63	ILE
21	o	67	VAL
21	o	81	ASP
21	o	92	ASP
21	o	106	LEU
21	o	111	ASP

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Mol	Chain	Res	Type
21	o	116	MET
21	o	124	ILE
21	o	128	VAL
21	o	132	THR
21	o	138	ILE
21	o	142	THR
21	o	143	LEU
21	o	146	THR
21	o	150	SER
21	o	194	LEU
21	o	197	GLU
21	o	227	PRO
22	p	12	ILE
22	p	29	THR
22	p	37	LYS
22	p	48	LEU
22	p	57	ASN
22	p	66	ASN
22	p	81	ASP
22	p	89	MET
22	p	92	VAL
22	p	114	LYS
22	p	116	LEU
22	p	123	TYR
22	p	137	GLN
22	p	141	ILE
22	p	152	PRO
22	p	176	HIS
22	p	185	ILE
22	p	189	ASN
22	p	191	ILE
22	p	193	ARG
22	p	207	PHE
22	p	212	VAL
22	p	222	THR
22	p	238	ILE
22	p	239	GLU
22	p	244	ASP
22	p	254	ARG
24	r	9	LEU
24	r	13	GLN
24	r	19	ASP

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Mol	Chain	Res	Type
24	r	20	ASP
24	r	32	MET
24	r	45	PHE
24	r	74	ARG
24	r	87	ARG
24	r	105	ASP
24	r	145	PHE
24	r	150	GLU
24	r	155	LEU
24	r	165	PHE
24	r	199	THR
25	s	62	LEU
25	s	63	ILE
25	s	80	LEU
25	s	105	VAL
25	s	115	ARG
25	s	117	ARG
25	s	130	LEU
25	s	131	LEU
25	s	136	LEU
25	s	146	ASP
25	s	148	THR
25	s	152	ARG
25	s	159	ASP
25	s	173	ILE
25	s	177	VAL
25	s	179	THR
25	s	181	GLU
26	t	21	HIS
26	t	35	MET
26	t	52	ARG
26	t	56	VAL
26	t	66	LEU
26	t	74	SER
26	t	86	ILE
26	t	109	ILE
26	t	110	VAL
26	t	112	ILE
26	t	134	ASP
26	t	142	GLU
26	t	146	HIS
26	t	154	THR

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Mol	Chain	Res	Type
26	t	173	LEU
26	t	185	ARG
31	y	20	LYS
31	y	32	ARG
31	y	45	LYS
31	y	46	GLU
31	y	68	LYS
31	y	69	ILE
31	y	78	LYS
31	y	106	ILE
31	y	114	PHE
31	y	120	ASP
31	y	121	ILE
31	y	133	THR
31	y	135	ARG
33	0	7	THR
33	0	26	LEU
33	0	54	VAL
33	0	56	TYR
33	0	98	LYS
33	0	102	ARG
33	0	121	THR
33	0	124	LEU
33	0	130	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (44) such sidechains are listed below:

Mol	Chain	Res	Type
21	o	78	ASN
21	o	98	ASN
21	o	166	GLN
21	o	175	ASN
21	o	180	ASN
21	o	193	ASN
22	p	8	HIS
22	p	21	ASN
22	p	53	ASN
22	p	169	ASN
22	p	186	GLN
22	p	203	HIS
22	p	204	GLN
22	p	211	HIS

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Mol	Chain	Res	Type
24	r	25	ASN
24	r	56	ASN
24	r	81	HIS
24	r	112	GLN
24	r	180	GLN
24	r	206	ASN
25	s	27	GLN
25	s	44	GLN
25	s	49	GLN
25	s	54	ASN
25	s	154	GLN
25	s	172	HIS
26	t	79	ASN
26	t	92	ASN
26	t	124	HIS
26	t	182	GLN
26	t	204	GLN
31	y	4	GLN
31	y	12	GLN
31	y	36	ASN
31	y	62	ASN
31	y	80	ASN
31	y	97	ASN
31	y	109	HIS
31	y	140	GLN
31	y	153	GLN
33	0	20	GLN
33	0	27	HIS
33	0	61	GLN
33	0	136	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
35	2	842/1800 (46%)	640 (76%)	124 (14%)
36	3	160/274 (58%)	80 (50%)	11 (6%)
All	All	1002/2074 (48%)	720 (71%)	135 (13%)

All (720) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
35	2	21	U
35	2	22	A
35	2	23	G
35	2	24	U
35	2	25	C
35	2	26	A
35	2	27	U
35	2	28	A
35	2	29	U
35	2	30	G
35	2	31	C
35	2	32	U
35	2	33	U
35	2	34	G
35	2	35	U
35	2	38	C
35	2	39	A
35	2	40	A
35	2	42	G
35	2	44	U
35	2	45	U
35	2	46	A
35	2	47	A
35	2	48	G
35	2	49	C
35	2	50	C
35	2	52	U
35	2	53	G
35	2	54	C
35	2	55	A
35	2	56	U
35	2	57	G
35	2	58	U
35	2	59	C
35	2	60	U
35	2	61	A
35	2	62	A
35	2	63	G
35	2	64	U
35	2	65	A
35	2	66	U
35	2	67	A
35	2	68	A

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Mol	Chain	Res	Type
35	2	69	G
35	2	70	C
35	2	71	A
35	2	72	A
35	2	73	U
35	2	74	U
35	2	75	U
35	2	76	A
35	2	77	U
35	2	78	A
35	2	79	C
35	2	80	A
35	2	82	U
35	2	83	G
35	2	84	A
35	2	85	A
35	2	87	C
35	2	88	U
35	2	89	G
35	2	91	G
35	2	93	A
35	2	94	U
35	2	95	G
35	2	96	G
35	2	97	C
35	2	99	C
35	2	100	A
35	2	101	U
35	2	104	A
35	2	105	A
35	2	106	U
35	2	107	C
35	2	108	A
35	2	109	G
35	2	110	U
35	2	111	U
35	2	113	U
35	2	114	C
35	2	115	G
35	2	116	U
35	2	117	U
35	2	119	A

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Mol	Chain	Res	Type
35	2	120	U
35	2	121	U
35	2	122	U
35	2	123	G
35	2	124	A
35	2	125	U
35	2	126	A
35	2	127	G
35	2	128	U
35	2	129	U
35	2	130	C
35	2	131	C
35	2	132	U
35	2	133	U
35	2	134	U
35	2	135	A
35	2	136	C
35	2	137	U
35	2	138	A
35	2	139	C
35	2	140	A
35	2	141	U
35	2	142	G
35	2	144	U
35	2	145	A
35	2	146	U
35	2	147	A
35	2	149	C
35	2	150	U
35	2	151	G
35	2	153	G
35	2	156	A
35	2	158	U
35	2	159	U
35	2	160	C
35	2	161	U
35	2	162	A
35	2	166	C
35	2	167	U
35	2	169	A
35	2	171	A
35	2	172	C

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Mol	Chain	Res	Type
35	2	173	A
35	2	174	U
35	2	176	C
35	2	177	U
35	2	178	U
35	2	179	A
35	2	180	A
35	2	181	A
35	2	182	A
35	2	185	U
35	2	186	C
35	2	187	G
35	2	188	A
35	2	189	C
35	2	190	C
35	2	191	C
35	2	192	U
35	2	193	U
35	2	194	U
35	2	195	G
35	2	197	A
35	2	198	A
35	2	199	G
35	2	200	A
35	2	205	U
35	2	206	A
35	2	207	U
35	2	208	U
35	2	209	U
35	2	210	A
35	2	211	U
35	2	212	U
35	2	213	A
35	2	214	G
35	2	215	A
35	2	243	G
35	2	244	A
35	2	246	G
35	2	247	A
35	2	248	U
35	2	249	U
35	2	250	C

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Mol	Chain	Res	Type
35	2	251	A
35	2	252	U
35	2	253	A
35	2	254	A
35	2	255	U
35	2	257	A
35	2	258	C
35	2	259	U
35	2	260	U
35	2	261	U
35	2	262	U
35	2	263	C
35	2	264	G
35	2	266	A
35	2	267	U
35	2	268	C
35	2	269	G
35	2	270	C
35	2	271	A
35	2	272	U
35	2	273	G
35	2	276	C
35	2	277	U
35	2	278	U
35	2	279	G
35	2	280	U
35	2	281	G
35	2	282	C
35	2	283	U
35	2	284	G
35	2	285	G
35	2	286	C
35	2	287	G
35	2	288	A
35	2	289	U
35	2	290	G
35	2	292	U
35	2	294	C
35	2	295	A
35	2	296	U
35	2	297	U
35	2	298	C

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Mol	Chain	Res	Type
35	2	299	A
35	2	300	A
35	2	301	A
35	2	302	U
35	2	303	U
35	2	304	U
35	2	307	G
35	2	308	C
35	2	309	C
35	2	313	U
35	2	314	C
35	2	315	A
35	2	316	A
35	2	317	C
35	2	318	U
35	2	319	U
35	2	320	U
35	2	321	C
35	2	322	G
35	2	323	A
35	2	327	U
35	2	328	A
35	2	329	G
35	2	330	G
35	2	331	A
35	2	332	U
35	2	333	A
35	2	334	G
35	2	335	U
35	2	336	G
35	2	337	G
35	2	338	C
35	2	340	U
35	2	341	A
35	2	342	C
35	2	343	C
35	2	345	U
35	2	346	G
35	2	348	U
35	2	349	U
35	2	351	C
35	2	353	A

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Mol	Chain	Res	Type
35	2	355	G
35	2	356	G
35	2	357	G
35	2	359	A
35	2	360	A
35	2	361	C
35	2	363	G
35	2	368	U
35	2	369	A
35	2	370	A
35	2	374	U
35	2	375	U
35	2	376	C
35	2	377	G
35	2	378	A
35	2	379	U
35	2	380	U
35	2	381	C
35	2	382	C
35	2	383	G
35	2	384	G
35	2	385	A
35	2	387	A
35	2	388	G
35	2	390	G
35	2	391	A
35	2	392	G
35	2	393	C
35	2	394	C
35	2	396	G
35	2	399	A
35	2	400	A
35	2	401	A
35	2	402	C
35	2	403	G
35	2	404	G
35	2	406	U
35	2	407	A
35	2	408	C
35	2	409	C
35	2	410	A
35	2	411	C

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Mol	Chain	Res	Type
35	2	412	A
35	2	413	U
35	2	414	C
35	2	415	C
35	2	416	A
35	2	417	A
35	2	418	G
35	2	419	G
35	2	420	A
35	2	424	C
35	2	425	A
35	2	426	G
35	2	428	A
35	2	429	G
35	2	430	G
35	2	431	C
35	2	433	C
35	2	434	G
35	2	435	C
35	2	436	A
35	2	437	A
35	2	438	A
35	2	439	U
35	2	440	U
35	2	441	A
35	2	442	C
35	2	444	C
35	2	445	A
35	2	446	A
35	2	447	U
35	2	448	C
35	2	449	C
35	2	451	A
35	2	452	A
35	2	453	U
35	2	454	U
35	2	455	C
35	2	456	A
35	2	457	G
35	2	458	G
35	2	459	G
35	2	460	A

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Mol	Chain	Res	Type
35	2	461	G
35	2	462	G
35	2	463	U
35	2	464	A
35	2	465	G
35	2	466	U
35	2	467	G
35	2	468	A
35	2	469	C
35	2	470	A
35	2	471	A
35	2	473	A
35	2	474	A
35	2	475	A
35	2	476	U
35	2	477	A
35	2	478	A
35	2	479	C
35	2	480	G
35	2	481	A
35	2	484	C
35	2	485	A
35	2	486	G
35	2	487	G
35	2	488	G
35	2	489	C
35	2	492	A
35	2	493	U
35	2	494	U
35	2	495	C
35	2	496	G
35	2	497	G
35	2	498	G
35	2	499	U
35	2	500	C
35	2	501	U
35	2	502	U
35	2	503	G
35	2	504	U
35	2	505	A
35	2	506	A
35	2	507	U

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Mol	Chain	Res	Type
35	2	508	U
35	2	510	G
35	2	511	A
35	2	512	A
35	2	513	U
35	2	514	G
35	2	515	A
35	2	516	G
35	2	517	U
35	2	519	C
35	2	520	A
35	2	522	U
35	2	523	G
35	2	525	A
35	2	526	A
35	2	527	A
35	2	528	U
35	2	529	A
35	2	530	C
35	2	531	C
35	2	532	U
35	2	533	U
35	2	534	A
35	2	536	C
35	2	537	G
35	2	538	A
35	2	539	G
35	2	540	G
35	2	547	U
35	2	549	G
35	2	588	U
35	2	589	C
35	2	591	A
35	2	592	A
35	2	593	U
35	2	614	C
35	2	615	A
35	2	617	U
35	2	619	A
35	2	620	A
35	2	622	A
35	2	623	A

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Mol	Chain	Res	Type
35	2	624	G
35	2	625	C
35	2	629	U
35	2	630	A
35	2	631	G
35	2	632	U
35	2	633	U
35	2	634	G
35	2	635	A
35	2	864	U
35	2	865	A
35	2	867	G
35	2	868	G
35	2	870	C
35	2	871	G
35	2	872	G
35	2	873	U
35	2	874	C
35	2	876	G
35	2	880	C
35	2	881	A
35	2	882	U
35	2	884	A
35	2	887	A
35	2	888	U
35	2	890	C
35	2	891	A
35	2	892	A
35	2	893	U
35	2	894	U
35	2	896	U
35	2	897	C
35	2	898	A
35	2	899	G
35	2	902	G
35	2	903	U
35	2	904	G
35	2	905	A
35	2	906	A
35	2	907	A
35	2	908	U
35	2	909	U

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Mol	Chain	Res	Type
35	2	910	C
35	2	912	U
35	2	913	G
35	2	914	G
35	2	915	A
35	2	916	U
35	2	917	U
35	2	918	U
35	2	920	U
35	2	921	U
35	2	922	G
35	2	923	A
35	2	924	A
35	2	925	G
35	2	926	A
35	2	927	C
35	2	928	U
35	2	931	C
35	2	932	U
35	2	933	A
35	2	934	C
35	2	935	U
35	2	936	G
35	2	937	C
35	2	938	G
35	2	939	A
35	2	942	G
35	2	943	C
35	2	944	A
35	2	945	U
35	2	947	U
35	2	948	G
35	2	950	C
35	2	951	A
35	2	953	G
35	2	956	C
35	2	958	U
35	2	959	U
35	2	960	U
35	2	962	C
35	2	963	A
35	2	964	U

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Mol	Chain	Res	Type
35	2	965	U
35	2	966	A
35	2	968	U
35	2	969	C
35	2	970	A
35	2	971	A
35	2	972	G
35	2	975	C
35	2	977	A
35	2	978	A
35	2	1026	A
35	2	1027	A
35	2	1028	C
35	2	1029	U
35	2	1030	A
35	2	1031	U
35	2	1032	G
35	2	1033	C
35	2	1034	C
35	2	1035	G
35	2	1036	A
35	2	1037	C
35	2	1039	A
35	2	1040	G
35	2	1041	G
35	2	1043	A
35	2	1045	C
35	2	1046	G
35	2	1047	G
35	2	1048	G
35	2	1050	G
35	2	1051	G
35	2	1053	G
35	2	1054	U
35	2	1055	U
35	2	1056	U
35	2	1057	U
35	2	1058	U
35	2	1059	U
35	2	1061	A
35	2	1066	C
35	2	1067	C

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Mol	Chain	Res	Type
35	2	1069	A
35	2	1071	U
35	2	1072	C
35	2	1073	G
35	2	1074	G
35	2	1075	C
35	2	1076	A
35	2	1077	C
35	2	1078	C
35	2	1079	U
35	2	1080	U
35	2	1081	A
35	2	1082	C
35	2	1083	G
35	2	1084	A
35	2	1085	G
35	2	1087	A
35	2	1088	A
35	2	1089	U
35	2	1091	A
35	2	1092	A
35	2	1094	G
35	2	1095	U
35	2	1096	C
35	2	1097	U
35	2	1098	U
35	2	1152	A
35	2	1153	G
35	2	1154	G
35	2	1158	C
35	2	1160	A
35	2	1161	C
35	2	1162	C
35	2	1166	A
35	2	1167	G
35	2	1168	U
35	2	1178	G
35	2	1179	G
35	2	1461	C
35	2	1466	G
35	2	1467	C
35	2	1468	U

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Mol	Chain	Res	Type
35	2	1469	A
35	2	1471	A
35	2	1472	C
35	2	1473	U
35	2	1474	G
35	2	1477	G
35	2	1478	G
35	2	1479	A
35	2	1481	C
35	2	1482	C
35	2	1483	A
35	2	1484	G
35	2	1524	A
35	2	1533	C
35	2	1534	G
35	2	1535	U
35	2	1536	G
35	2	1537	C
35	2	1538	U
35	2	1539	G
35	2	1572	G
35	2	1573	A
35	2	1574	G
35	2	1575	G
35	2	1576	A
35	2	1581	C
35	2	1583	A
35	2	1584	G
35	2	1587	A
35	2	1590	G
35	2	1591	C
35	2	1592	A
35	2	1599	C
35	2	1600	A
35	2	1601	G
35	2	1602	C
35	2	1605	G
35	2	1607	G
35	2	1609	U
35	2	1610	G
35	2	1611	A
35	2	1613	U

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Mol	Chain	Res	Type
35	2	1614	A
35	2	1615	C
35	2	1616	G
35	2	1618	C
35	2	1623	C
35	2	1624	C
35	2	1625	C
35	2	1627	U
35	2	1628	U
36	3	69	G
36	3	70	A
36	3	72	C
36	3	74	C
36	3	75	A
36	3	77	C
36	3	78	C
36	3	79	G
36	3	80	G
36	3	81	G
36	3	82	U
36	3	83	U
36	3	84	G
36	3	85	A
36	3	89	A
36	3	90	C
36	3	91	G
36	3	92	A
36	3	93	G
36	3	95	U
36	3	96	C
36	3	97	C
36	3	98	U
36	3	99	C
36	3	100	G
36	3	101	G
36	3	104	C
36	3	109	C
36	3	111	G
36	3	112	U
36	3	114	A
36	3	116	G
36	3	131	U

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Mol	Chain	Res	Type
36	3	132	C
36	3	133	G
36	3	134	C
36	3	135	U
36	3	136	C
36	3	142	G
36	3	162	C
36	3	163	C
36	3	164	U
36	3	165	C
36	3	166	G
36	3	167	U
36	3	168	C
36	3	174	G
36	3	178	U
36	3	180	U
36	3	181	A
36	3	183	A
36	3	188	G
36	3	189	G
36	3	190	C
36	3	191	G
36	3	193	U
36	3	194	G
36	3	195	A
36	3	198	U
36	3	199	G
36	3	200	U
36	3	201	A
36	3	202	C
36	3	242	G
36	3	248	G
36	3	250	G
36	3	253	G
36	3	254	A
36	3	255	U
36	3	256	G
36	3	257	G
36	3	259	A
36	3	260	G
36	3	261	U
36	3	262	C

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Mol	Chain	Res	Type
36	3	264	G
36	3	265	A
36	3	266	C
36	3	268	G
36	3	269	G

All (135) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
35	2	23	G
35	2	24	U
35	2	27	U
35	2	28	A
35	2	29	U
35	2	30	G
35	2	39	A
35	2	49	C
35	2	55	A
35	2	58	U
35	2	59	C
35	2	62	A
35	2	64	U
35	2	65	A
35	2	66	U
35	2	67	A
35	2	68	A
35	2	70	C
35	2	71	A
35	2	77	U
35	2	78	A
35	2	81	G
35	2	82	U
35	2	87	C
35	2	99	C
35	2	103	A
35	2	112	A
35	2	118	U
35	2	125	U
35	2	131	C
35	2	133	U
35	2	135	A
35	2	137	U

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Mol	Chain	Res	Type
35	2	138	A
35	2	140	A
35	2	141	U
35	2	159	U
35	2	160	C
35	2	173	A
35	2	179	A
35	2	192	U
35	2	199	G
35	2	208	U
35	2	259	U
35	2	263	C
35	2	272	U
35	2	278	U
35	2	294	C
35	2	295	A
35	2	314	C
35	2	322	G
35	2	327	U
35	2	332	U
35	2	342	C
35	2	344	A
35	2	345	U
35	2	355	G
35	2	359	A
35	2	365	G
35	2	379	U
35	2	386	G
35	2	398	G
35	2	400	A
35	2	401	A
35	2	416	A
35	2	417	A
35	2	440	U
35	2	447	U
35	2	455	C
35	2	457	G
35	2	459	G
35	2	461	G
35	2	467	G
35	2	473	A
35	2	474	A

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Mol	Chain	Res	Type
35	2	477	A
35	2	479	C
35	2	485	A
35	2	492	A
35	2	495	C
35	2	499	U
35	2	500	C
35	2	501	U
35	2	504	U
35	2	509	G
35	2	513	U
35	2	515	A
35	2	525	A
35	2	528	U
35	2	529	A
35	2	530	C
35	2	534	A
35	2	538	A
35	2	539	G
35	2	587	C
35	2	592	A
35	2	614	C
35	2	628	G
35	2	880	C
35	2	887	A
35	2	914	G
35	2	932	U
35	2	933	A
35	2	936	G
35	2	959	U
35	2	963	A
35	2	964	U
35	2	1023	A
35	2	1026	A
35	2	1045	C
35	2	1055	U
35	2	1080	U
35	2	1084	A
35	2	1091	A
35	2	1094	G
35	2	1472	C
35	2	1478	G

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Mol	Chain	Res	Type
35	2	1480	G
35	2	1481	C
35	2	1573	A
35	2	1574	G
35	2	1580	C
35	2	1591	C
35	2	1609	U
36	3	78	C
36	3	91	G
36	3	92	A
36	3	110	A
36	3	113	G
36	3	135	U
36	3	199	G
36	3	255	U
36	3	258	A
36	3	259	A
36	3	260	G

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
6	Q	30
7	R	15
3	H	13
5	M	2
5	O	2
5	m	2
1	A	1
1	B	1
1	C	1
1	D	1
1	E	1
1	F	1
1	J	1
1	K	1
1	L	1
1	N	1
1	P	1
1	l	1
1	n	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	Q	171:UNK	C	301:UNK	N	88.70
1	R	41:UNK	C	51:UNK	N	66.84
1	R	141:UNK	C	151:UNK	N	66.84
1	R	241:UNK	C	251:UNK	N	66.84
1	R	341:UNK	C	351:UNK	N	66.84
1	H	287:UNK	C	288:UNK	N	58.68
1	R	197:UNK	C	201:UNK	N	55.89
1	H	135:UNK	C	136:UNK	N	47.92
1	R	297:UNK	C	301:UNK	N	46.21
1	H	66:UNK	C	67:UNK	N	46.19
1	H	217:UNK	C	218:UNK	N	41.95
1	R	97:UNK	C	101:UNK	N	41.50
1	H	89:UNK	C	90:UNK	N	37.62
1	Q	153:UNK	C	154:UNK	N	35.55
1	H	112:UNK	C	113:UNK	N	34.97
1	H	46:UNK	C	47:UNK	N	34.40
1	Q	416:UNK	C	417:UNK	N	31.57
1	H	159:UNK	C	160:UNK	N	30.20
1	Q	340:UNK	C	341:UNK	N	30.12
1	H	266:UNK	C	267:UNK	N	28.92
1	H	317:UNK	C	318:UNK	N	28.31

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	R	68:UNK	C	71:UNK	N	27.85
1	R	168:UNK	C	171:UNK	N	27.85
1	R	268:UNK	C	271:UNK	N	27.85
1	R	368:UNK	C	371:UNK	N	27.85
1	Q	96:UNK	C	97:UNK	N	26.91
1	Q	352:UNK	C	353:UNK	N	24.70
1	Q	402:UNK	C	403:UNK	N	24.25
1	Q	444:UNK	C	445:UNK	N	23.16
1	Q	366:UNK	C	367:UNK	N	22.53
1	Q	378:UNK	C	379:UNK	N	22.27
1	Q	120:UNK	C	121:UNK	N	22.17
1	H	29:UNK	C	30:UNK	N	21.69
1	H	246:UNK	C	247:UNK	N	21.15
1	Q	107:UNK	C	108:UNK	N	19.83
1	Q	330:UNK	C	331:UNK	N	18.77
1	Q	12:UNK	C	13:UNK	N	18.66
1	Q	342:UNK	C	343:UNK	N	18.27
1	Q	392:UNK	C	393:UNK	N	18.09
1	Q	133:UNK	C	134:UNK	N	17.79
1	Q	474:UNK	C	475:UNK	N	17.24
1	Q	316:UNK	C	317:UNK	N	17.11
1	Q	484:UNK	C	485:UNK	N	16.84
1	H	189:UNK	C	190:UNK	N	15.95
1	Q	494:UNK	C	495:UNK	N	14.94
1	M	392:UNK	C	409:UNK	N	13.48
1	O	392:UNK	C	409:UNK	N	13.48
1	Q	81:UNK	C	82:UNK	N	13.48
1	m	392:UNK	C	409:UNK	N	13.48
1	Q	26:UNK	C	27:UNK	N	11.03
1	Q	454:UNK	C	455:UNK	N	10.27
1	Q	430:UNK	C	431:UNK	N	9.59
1	Q	46:UNK	C	47:UNK	N	9.29
1	Q	33:UNK	C	34:UNK	N	9.18
1	R	82:UNK	C	86:UNK	N	7.41
1	R	182:UNK	C	186:UNK	N	7.41
1	R	282:UNK	C	286:UNK	N	7.41
1	R	382:UNK	C	386:UNK	N	7.41
1	Q	72:UNK	C	73:UNK	N	7.40
1	A	326:UNK	C	338:UNK	N	7.23
1	B	326:UNK	C	338:UNK	N	7.23
1	C	326:UNK	C	338:UNK	N	7.23
1	D	326:UNK	C	338:UNK	N	7.23

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	E	326:UNK	C	338:UNK	N	7.23
1	F	326:UNK	C	338:UNK	N	7.23
1	J	326:UNK	C	338:UNK	N	7.23
1	K	326:UNK	C	338:UNK	N	7.23
1	L	326:UNK	C	338:UNK	N	7.23
1	N	326:UNK	C	338:UNK	N	7.23
1	P	326:UNK	C	338:UNK	N	7.23
1	l	326:UNK	C	338:UNK	N	7.23
1	n	326:UNK	C	338:UNK	N	7.23
1	Q	59:UNK	C	60:UNK	N	7.16
1	O	32:UNK	C	348:UNK	N	6.12
1	M	32:UNK	C	348:UNK	N	6.11
1	m	32:UNK	C	348:UNK	N	6.11
1	Q	464:UNK	C	465:UNK	N	3.86

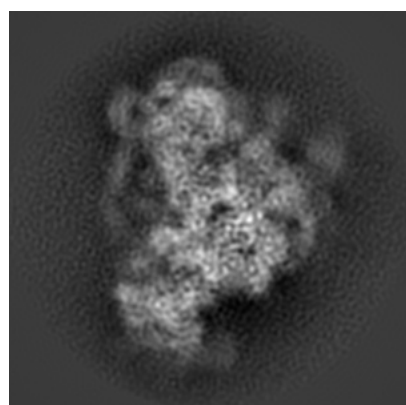
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-8143. These allow visual inspection of the internal detail of the map and identification of artifacts.

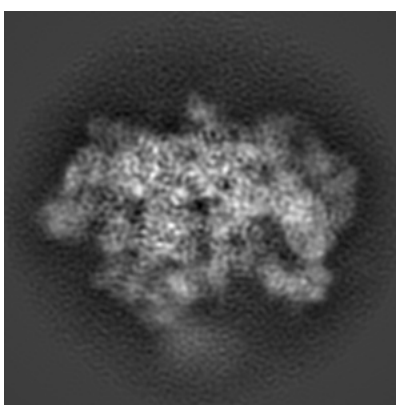
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

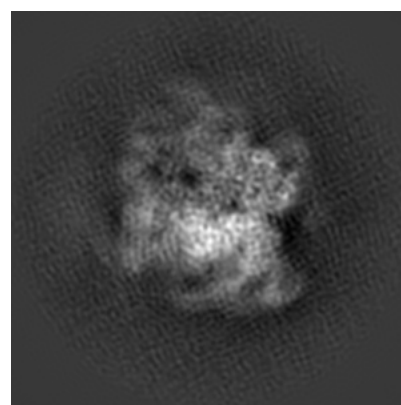
6.1.1 Primary map



X



Y

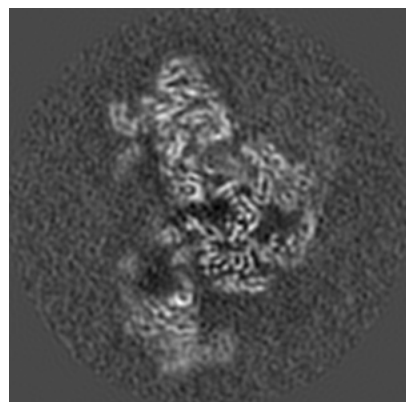


Z

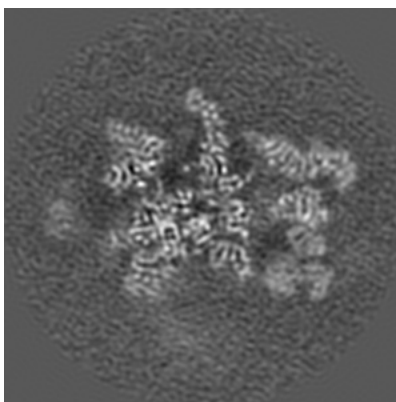
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

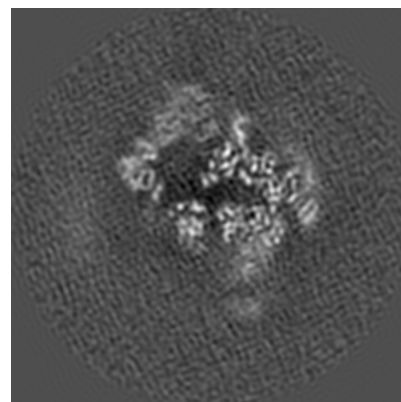
6.2.1 Primary map



X Index: 224



Y Index: 224

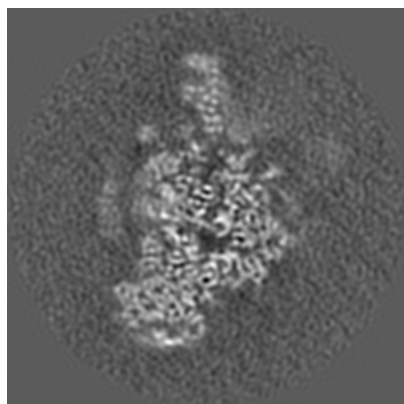


Z Index: 224

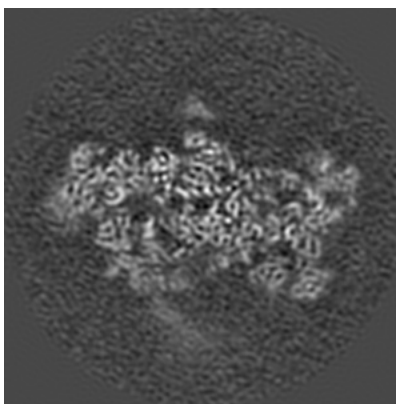
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

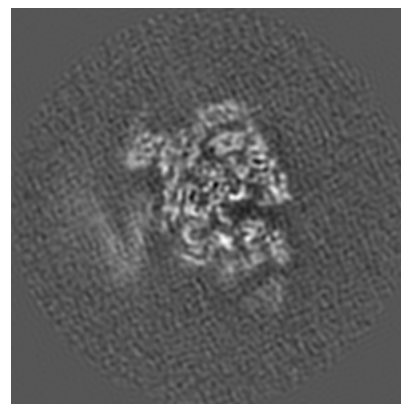
6.3.1 Primary map



X Index: 266



Y Index: 206

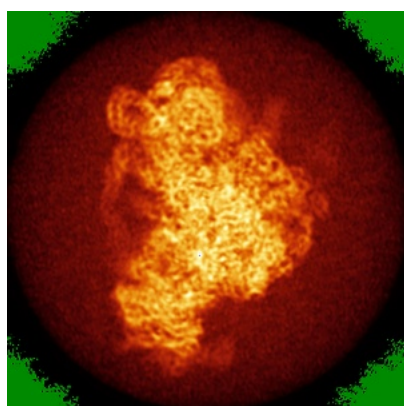


Z Index: 191

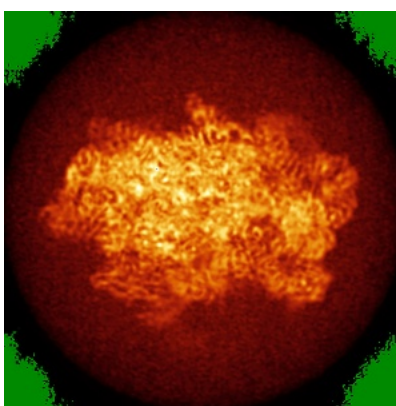
The images above show the largest variance slices of the map in three orthogonal directions.

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

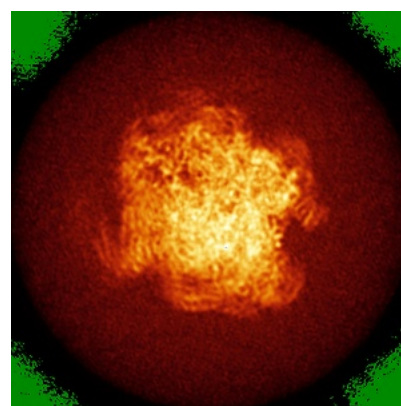
6.4.1 Primary map



X



Y



Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.025. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

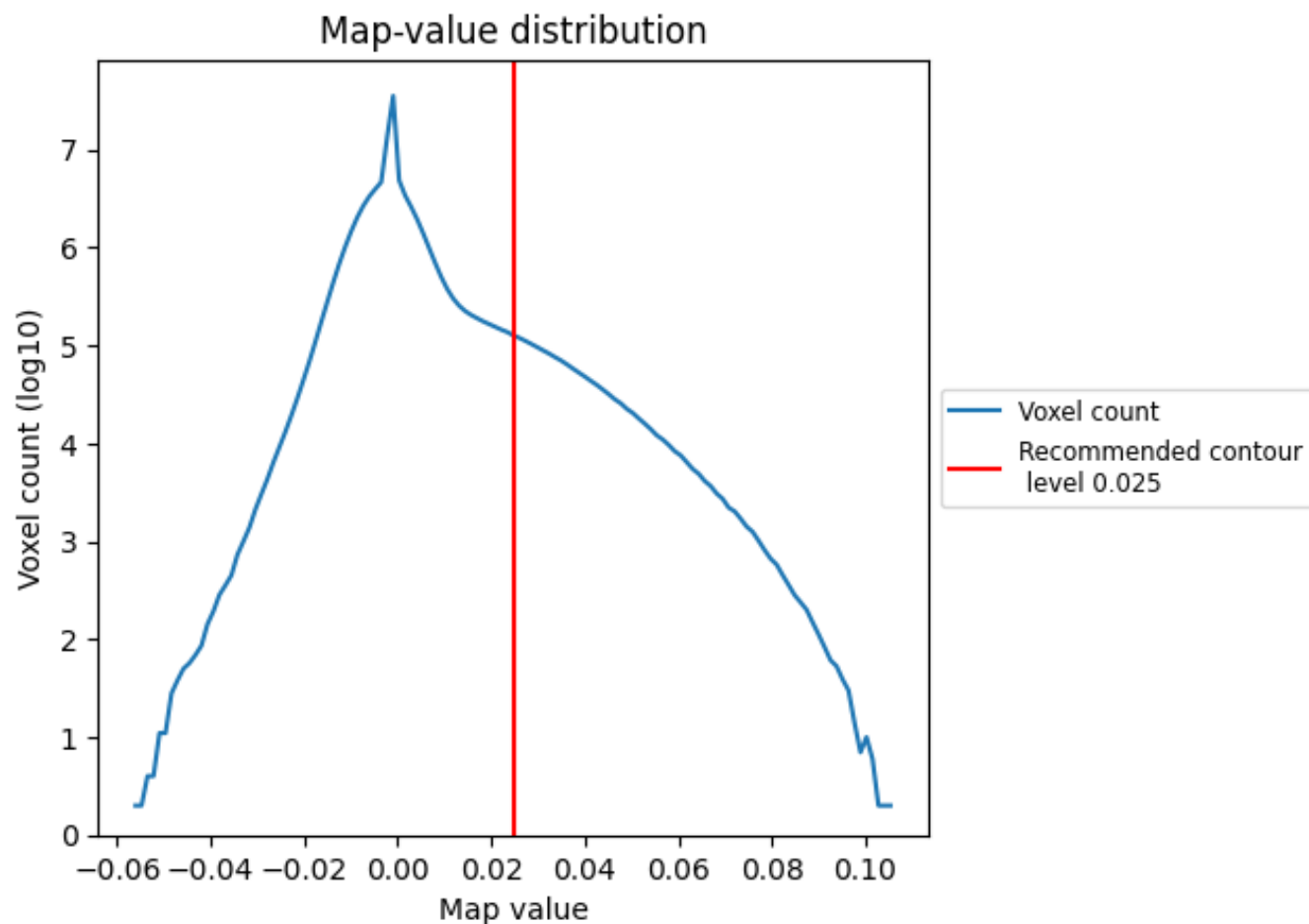
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

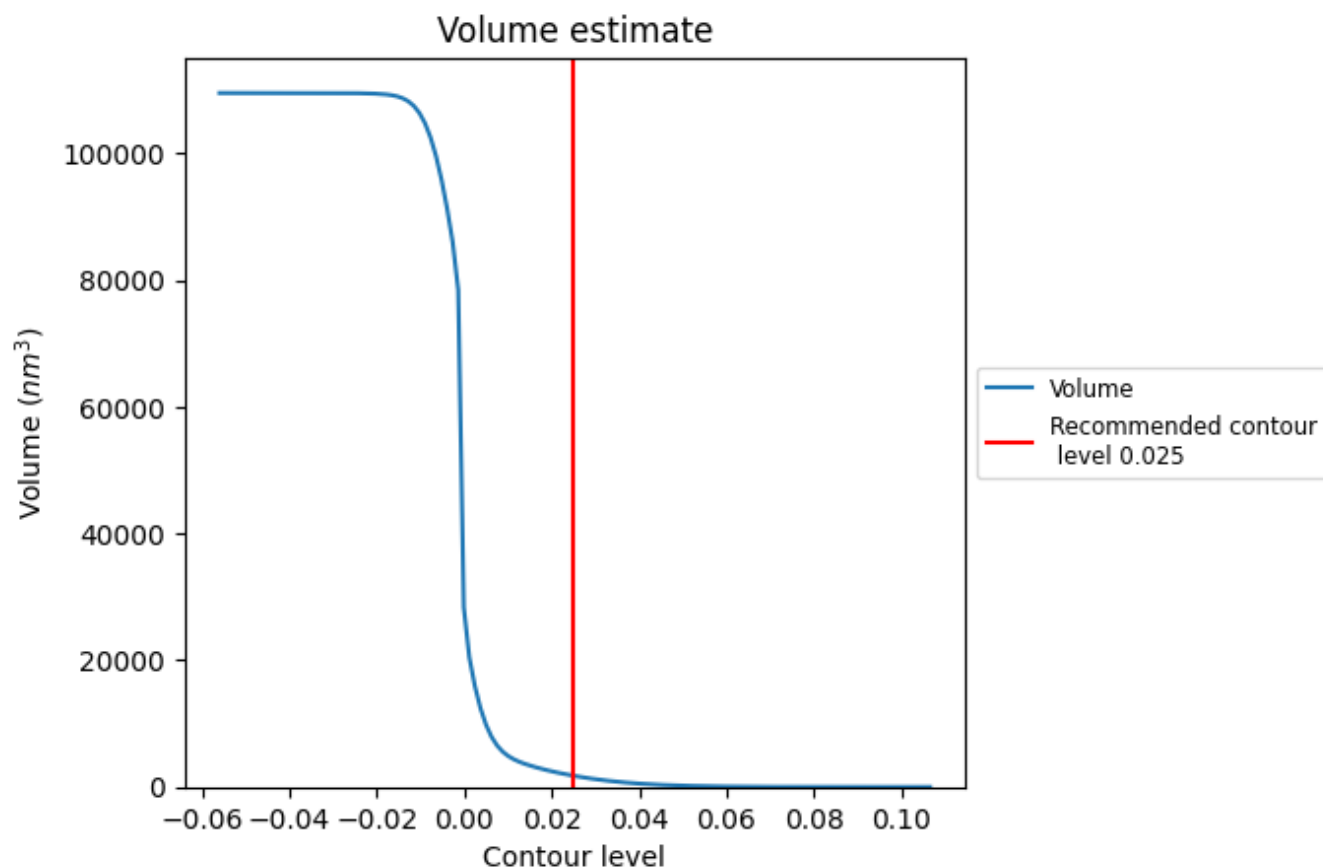
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

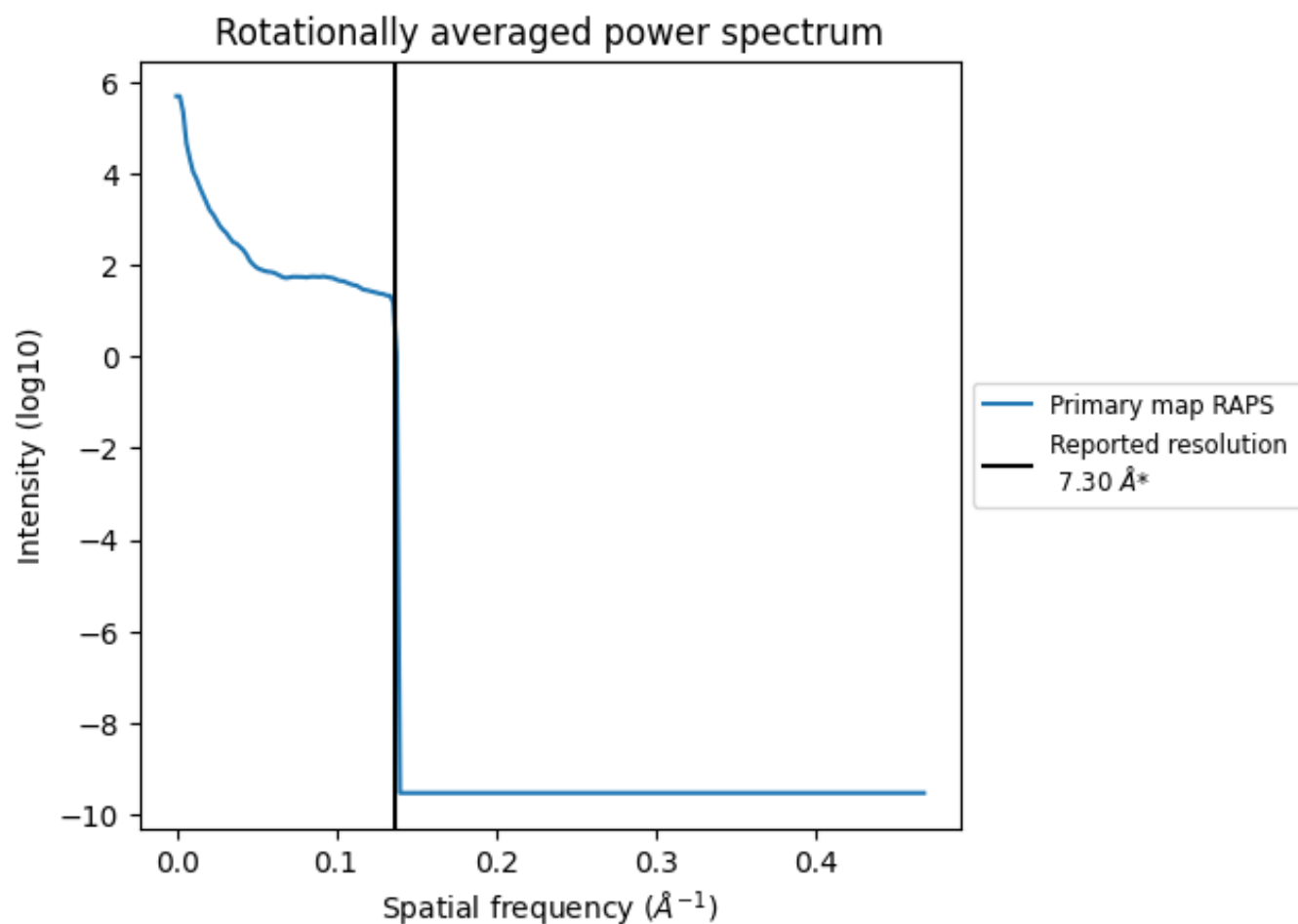
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1769 nm³; this corresponds to an approximate mass of 1598 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

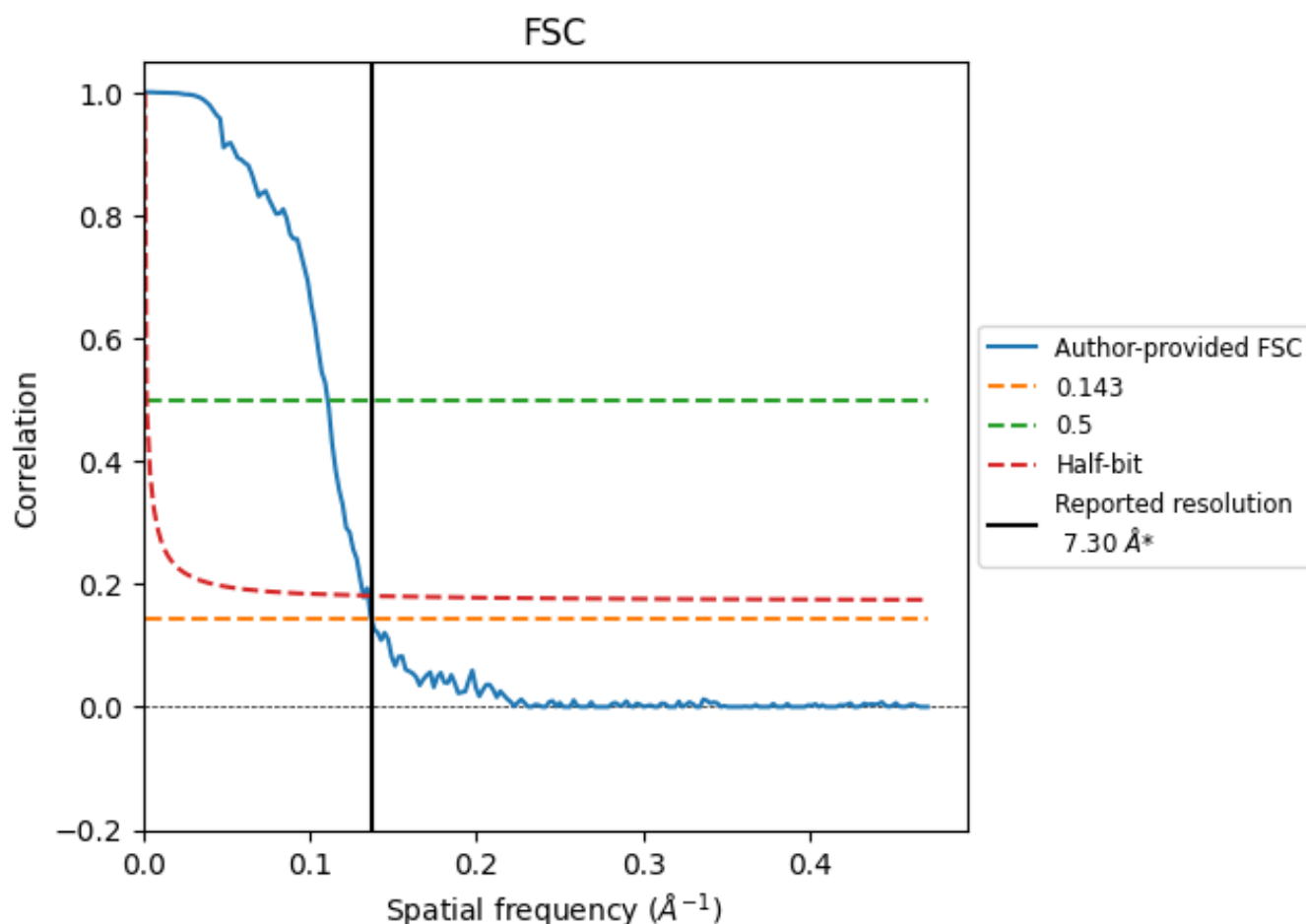


*Reported resolution corresponds to spatial frequency of 0.137 $\text{\AA}^{-1}$

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.137 Å⁻¹

8.2 Resolution estimates [i](#)

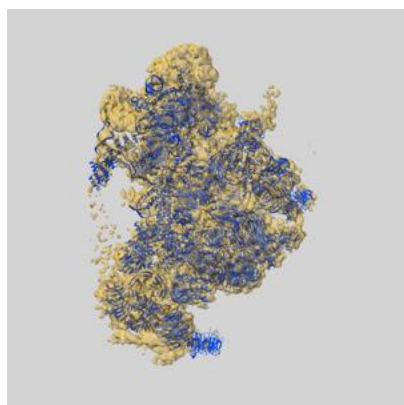
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	7.30	-	-
Author-provided FSC curve	7.30	9.03	7.56
Unmasked-calculated*	-	-	-

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

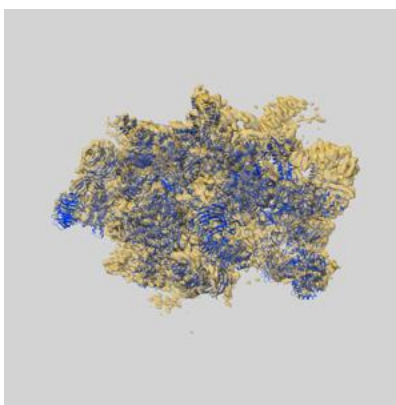
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-8143 and PDB model 5JPQ. Per-residue inclusion information can be found in section [3](#) on page [13](#).

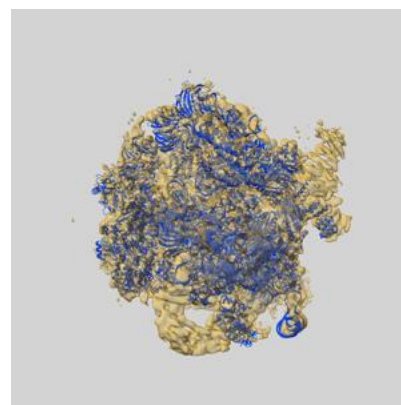
9.1 Map-model overlay [i](#)



X



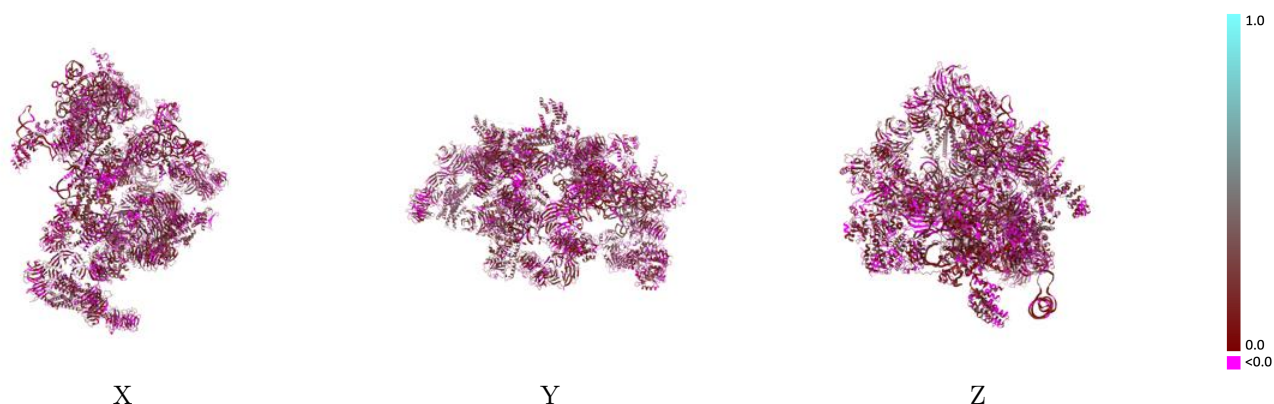
Y



Z

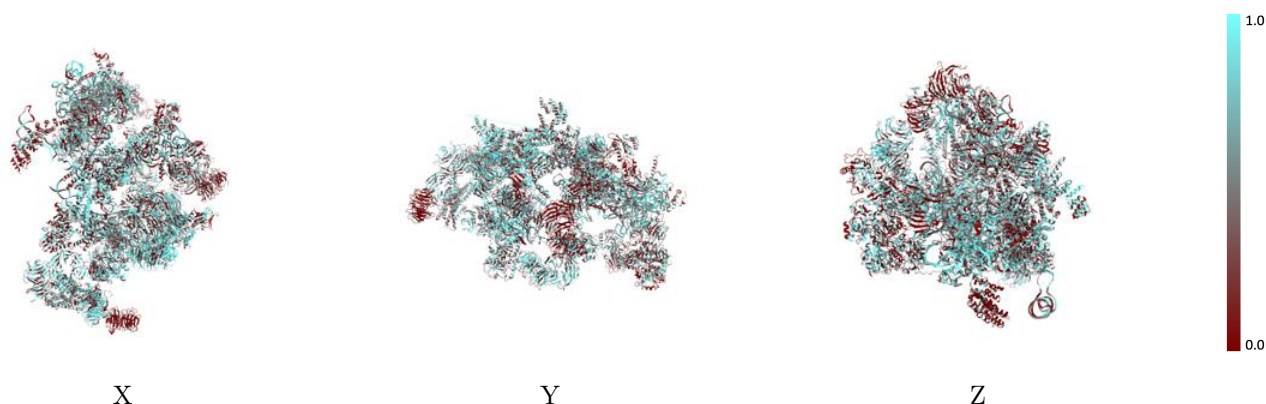
The images above show the 3D surface view of the map at the recommended contour level 0.025 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



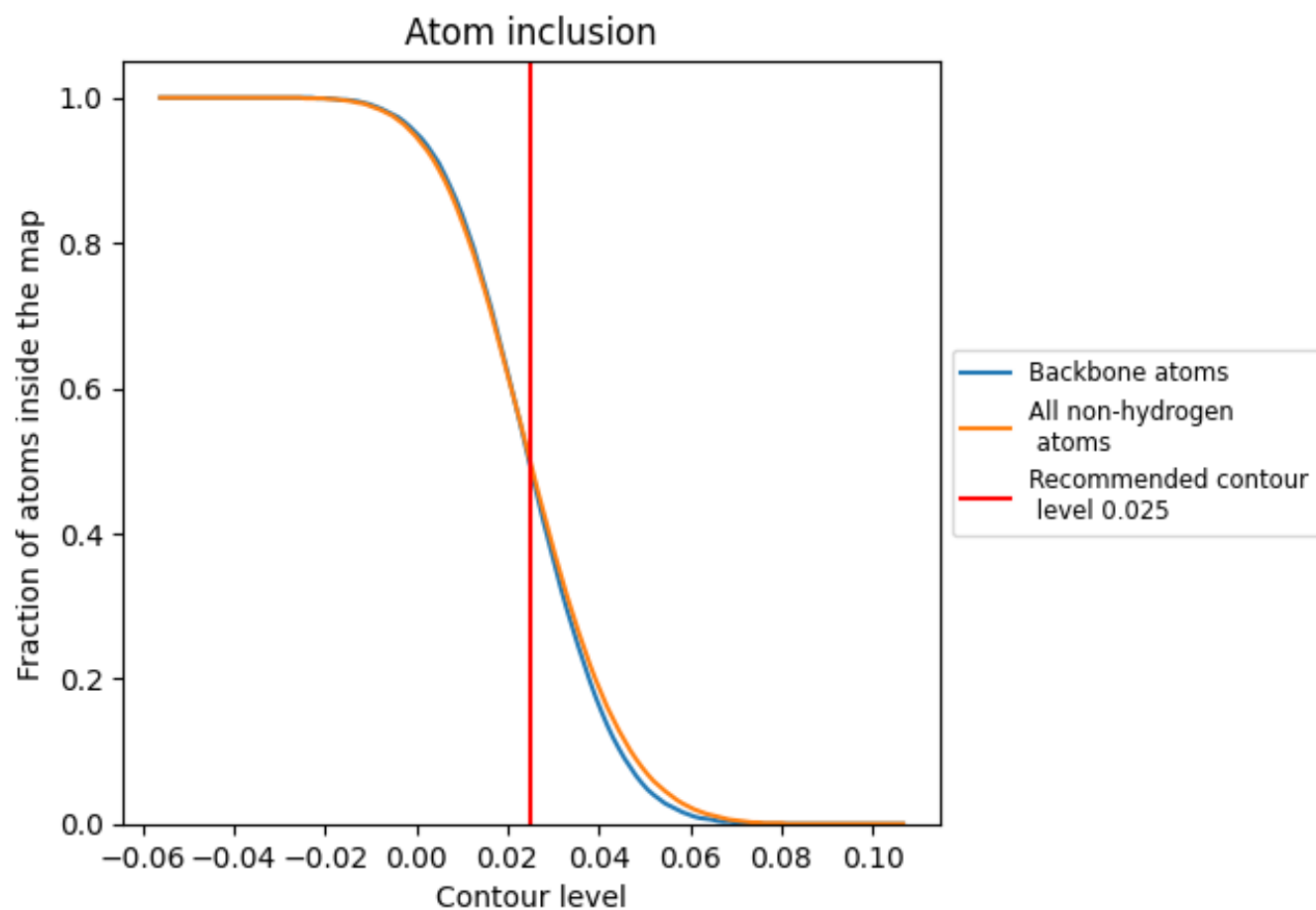
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.025).

9.4 Atom inclusion [i](#)



At the recommended contour level, 49% of all backbone atoms, 50% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.025) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.4980	 0.0970
0	 0.3050	 0.0260
1	 0.4090	 0.0650
2	 0.6610	 0.1280
3	 0.6130	 0.1220
A	 0.6110	 0.0820
B	 0.5830	 0.0830
C	 0.5450	 0.0770
D	 0.6070	 0.0980
E	 0.5800	 0.0960
F	 0.0370	 0.0410
G	 0.1130	 0.0640
H	 0.4960	 0.1840
I	 0.6530	 0.1260
J	 0.4470	 0.1170
K	 0.5400	 0.0860
L	 0.5940	 0.1300
M	 0.6140	 0.1110
N	 0.2330	 0.0800
O	 0.1180	 0.0390
P	 0.5430	 0.1060
Q	 0.6010	 0.1280
R	 0.7250	 0.2060
S	 0.5240	 0.1050
T	 0.4570	 0.0770
U	 0.3580	 0.0160
V	 0.3450	 0.0050
W	 0.4000	 0.0570
X	 0.4600	 0.0650
Y	 0.5190	 0.0970
Z	 0.5700	 0.1350
a	 0.5280	 0.1590
b	 0.4850	 0.1190
c	 0.4660	 0.1190
d	 0.4560	 0.1080



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Chain	Atom inclusion	Q-score
e	 0.4720	 0.1430
f	 0.4800	 0.1490
g	 0.3550	 0.0620
h	 0.3440	 0.0650
i	 0.4080	 0.0800
j	 0.3610	 0.0740
k	 0.5390	 0.1430
l	 0.5990	 0.1410
m	 0.5480	 0.0940
n	 0.4410	 0.0680
o	 0.2980	 0.0530
p	 0.3620	 0.0230
q	 0.3370	 0.0210
r	 0.4370	 0.0780
s	 0.3020	 0.0230
t	 0.4470	 0.0610
u	 0.6240	 0.1790
v	 0.2140	 0.0690
w	 0.3270	 0.0790
x	 0.2400	 -0.0630
y	 0.3760	 0.0250
z	 0.3140	 0.0310