



wwPDB EM Map/Model Validation Report ⓘ

Jul 26, 2016 – 05:53 AM EDT

PDB ID : 5JPQ
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 wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.
For rigid body fitted models, validation errors reported here could stem from errors in the original structure(s) used in the fitting.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/EMValidationReportHelp>

MolProbity : 4.02b-467
Mogul : unknown
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : rb-20027939

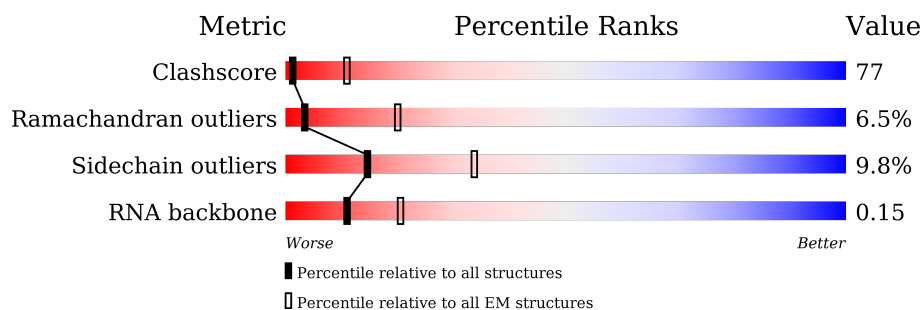
1 Overall quality at a glance

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.
























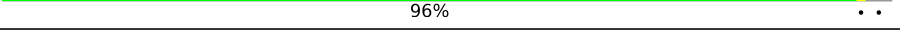
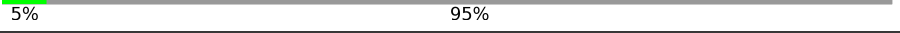


Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686
RNA backbone	3027	244

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. 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 $\leq 5\%$

Mol	Chain	Length	Quality of chain
1	A	1290	22% 77%
1	B	1290	21% 77%
1	C	1290	21% 77%
1	D	1290	20% 77%
1	E	1290	20% 77%
1	F	1290	21% 77%
1	J	1290	21% 77%
1	K	1290	21% 77%











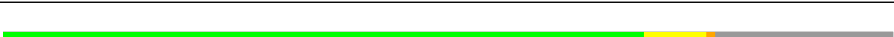


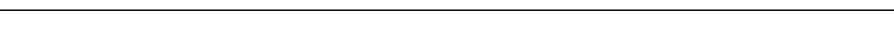
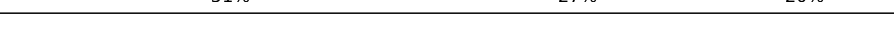
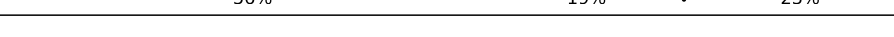

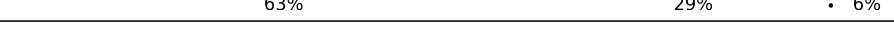

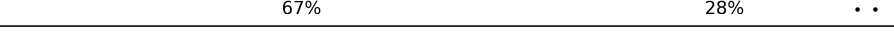
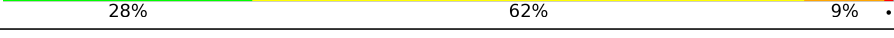
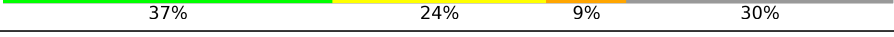

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Mol	Chain	Length	Quality of chain
1	L	1290	 21% . 77%
1	N	1290	 21% . 77%
1	P	1290	 21% . 77%
1	l	1290	 23% 77%
1	n	1290	 23% 77%
2	G	1802	 13% . 84%
3	H	920	 29% 5% . 63%
4	I	939	 67% . 32%
5	M	870	 31% . 64%
5	O	870	 32% . 64%
5	m	870	 36% 64%
6	Q	456	 78% . 18%
7	R	560	 58% . 41%
8	S	412	 85% . 11%
8	T	412	 84% 5% 11%
9	U	130	 82% 12% . 6%
9	V	130	 82% 12% . 6%
10	W	232	 91% 6% .
10	X	232	 91% 6% .
11	Y	573	 63% . 36%
12	Z	367	 96% . .
13	a	1183	 5% 95%
14	b	183	 76% 7% . 16%
15	c	297	 56% 6% . 35%
16	d	184	 52% 15% . 33%

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Mol	Chain	Length	Quality of chain
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	
34	1	67	
35	2	1800	
36	3	274	

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 Snu13.

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 RNA.

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

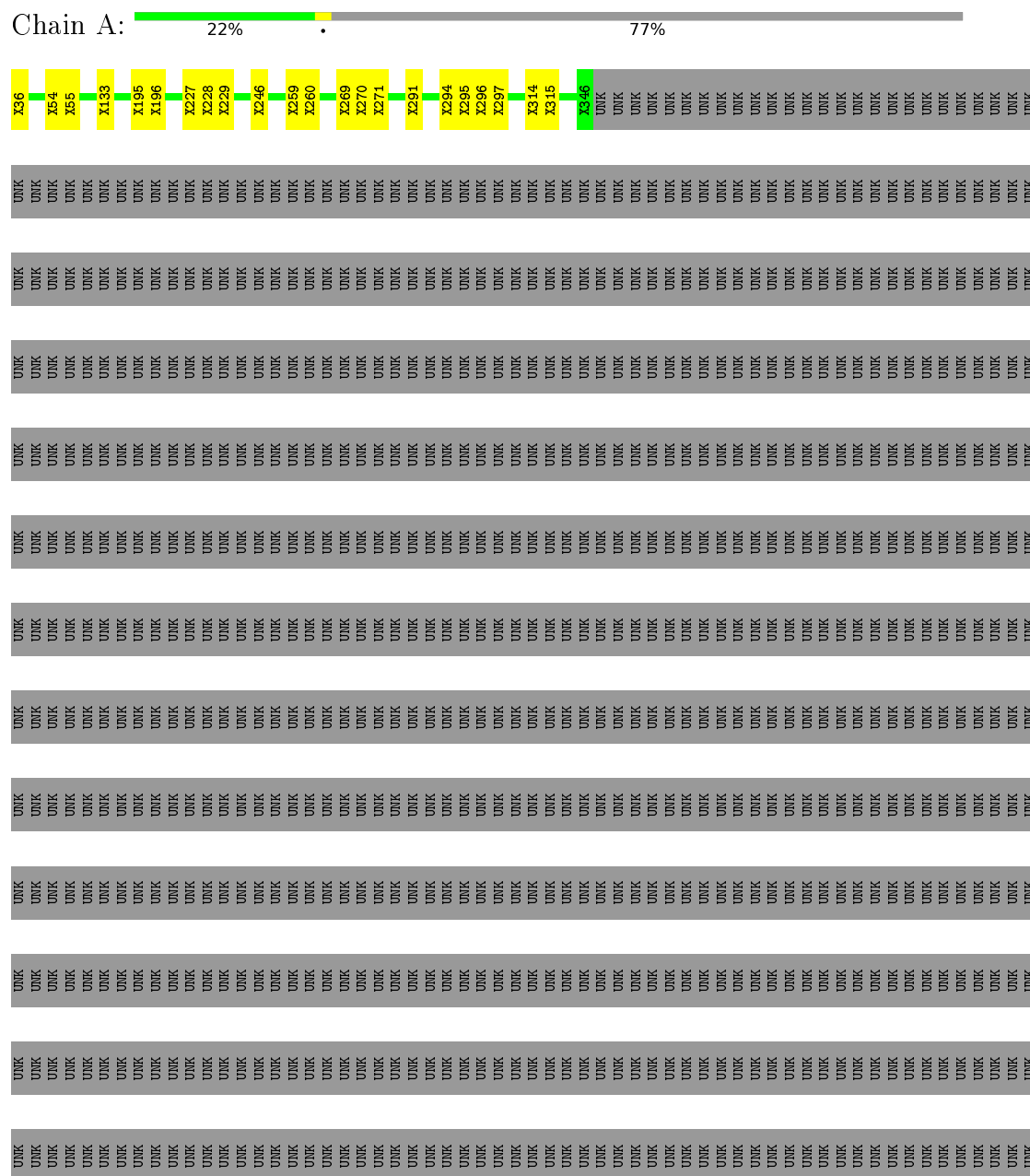
- Molecule 36 is a RNA chain called U3 RNA.

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

3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. 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. 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.

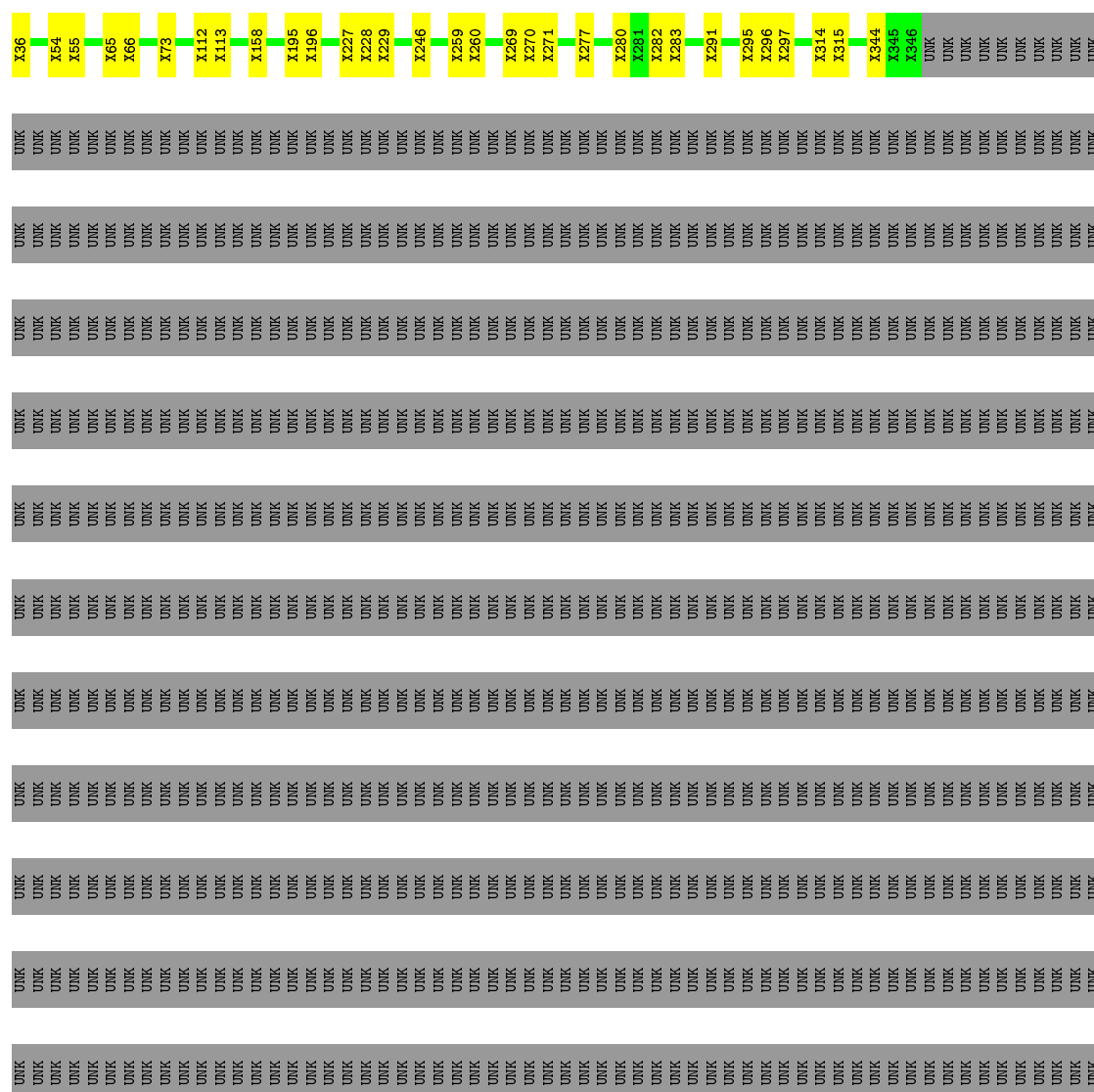
- Molecule 1: WD40 domain proteins

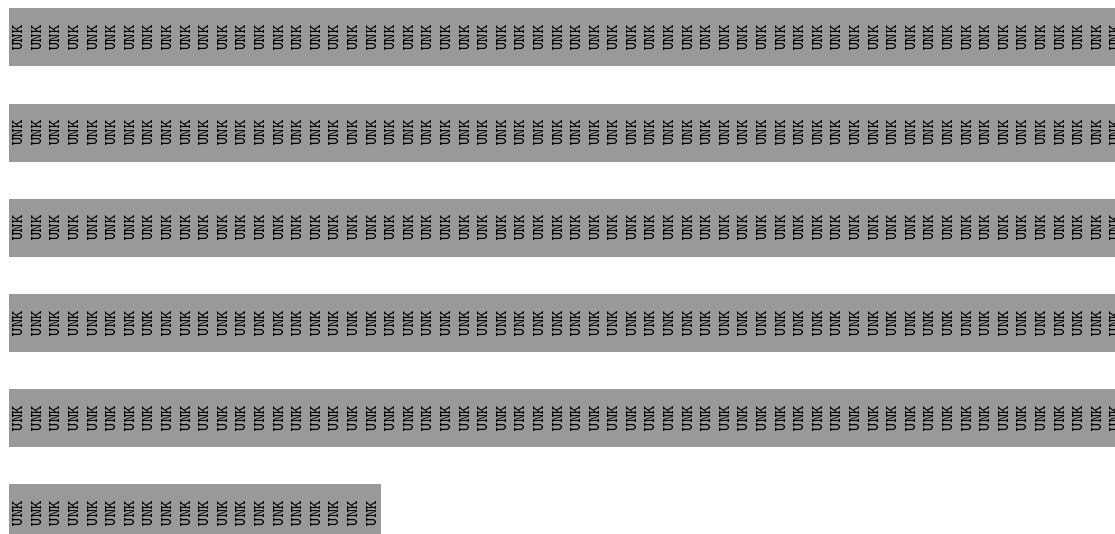


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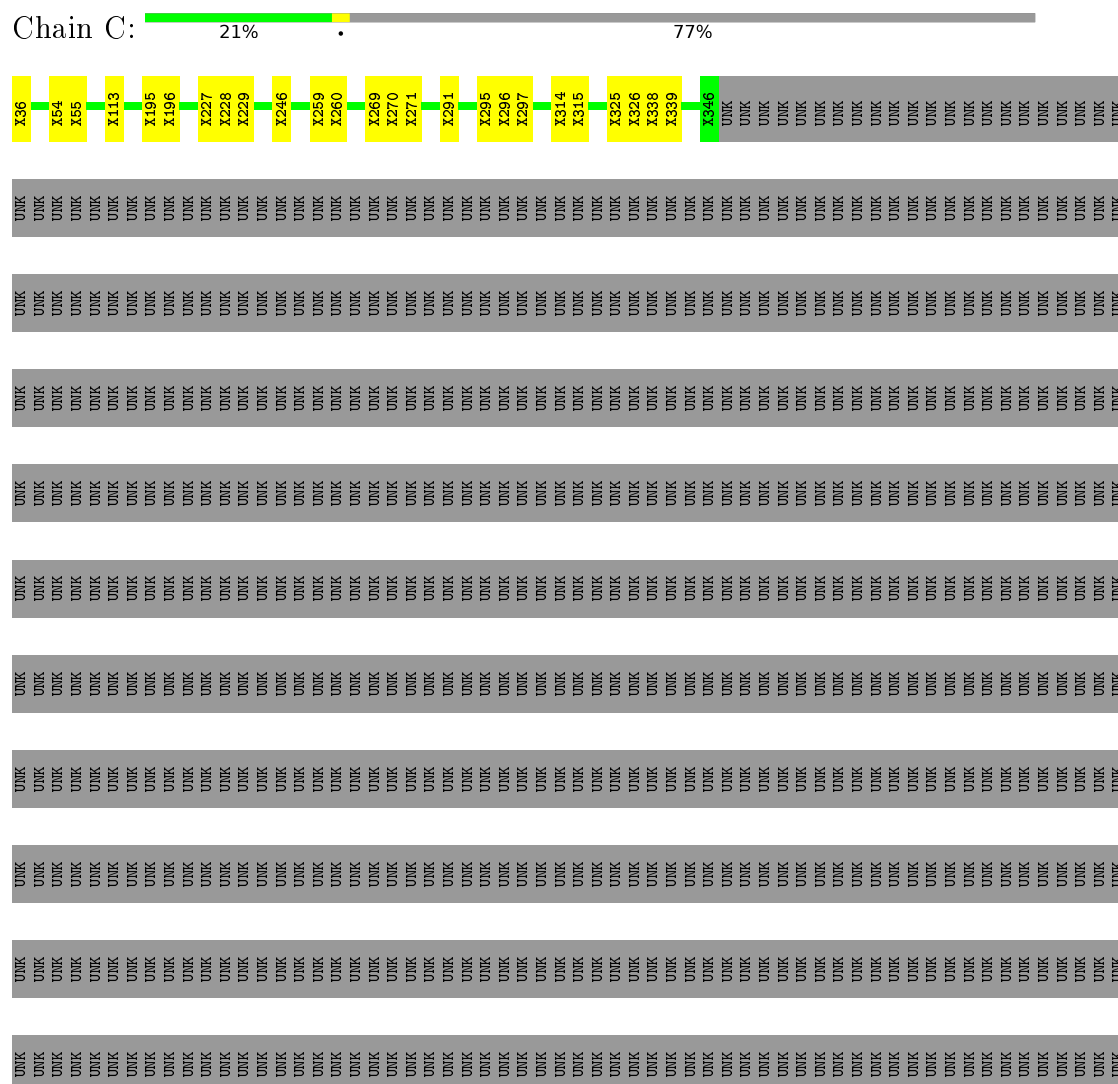
- Molecule 1: WD40 domain proteins

Chain B: 21% 77%

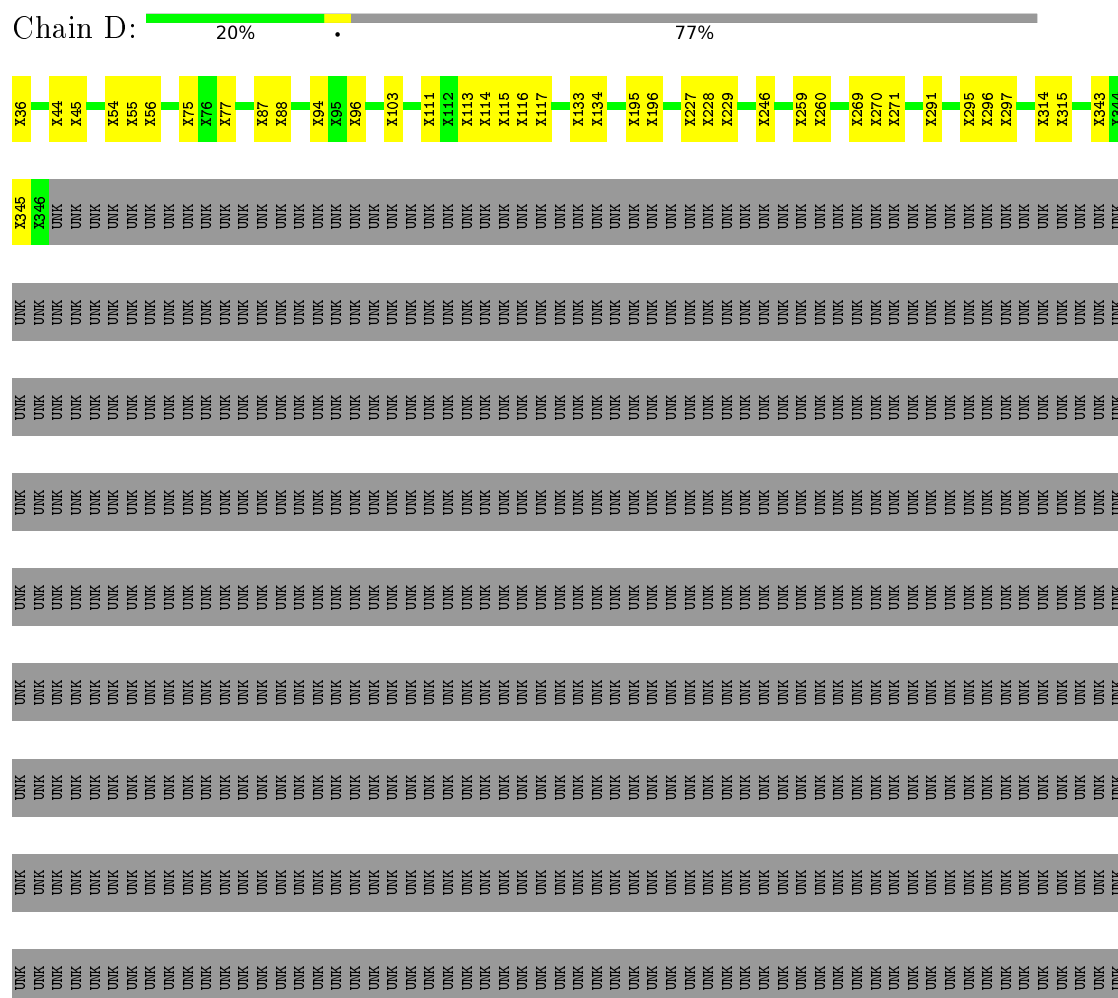




- Molecule 1: WD40 domain proteins

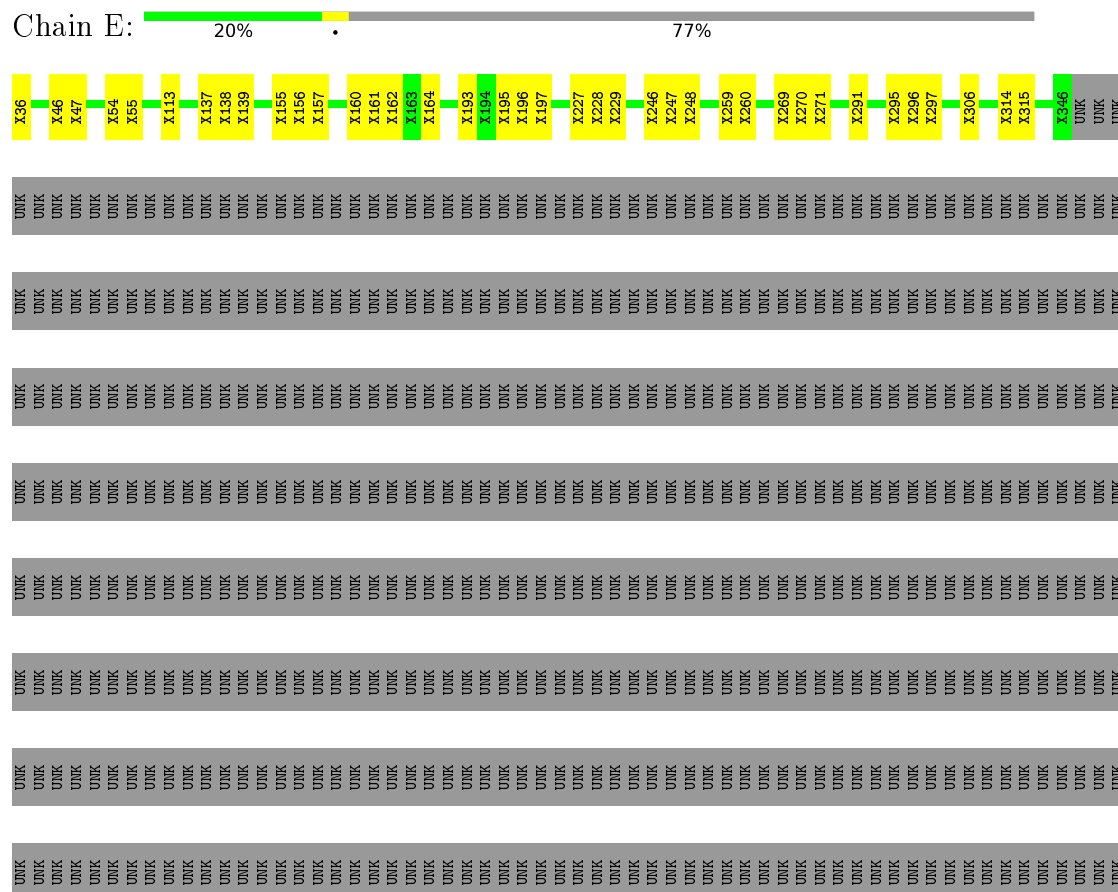


- Molecule 1: WD40 domain proteins



[illegible]

- Molecule 1: WD40 domain proteins



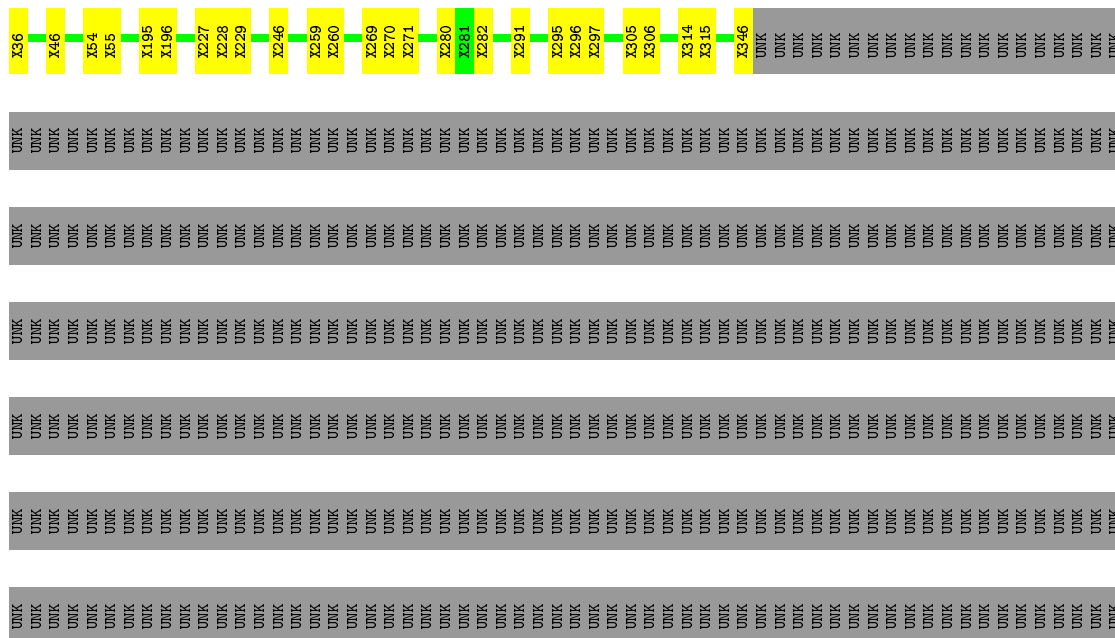
[illegible]

- Molecule 1: WD40 domain proteins



[illegible]

- Molecule 1: WD40 domain proteins



[illegible]

- Molecule 1: WD40 domain proteins

Chain K: 21% . 77%

[illegible]

[illegible]

- Molecule 1: WD40 domain proteins

Chain L:  21% • 77%

[illegible]

[illegible]

- Molecule 1: WD40 domain proteins

Chain N: 21% . 77%

[illegible]

[illegible]

- Molecule 1: WD40 domain proteins

Chain P:  21% . 77%

[illegible]

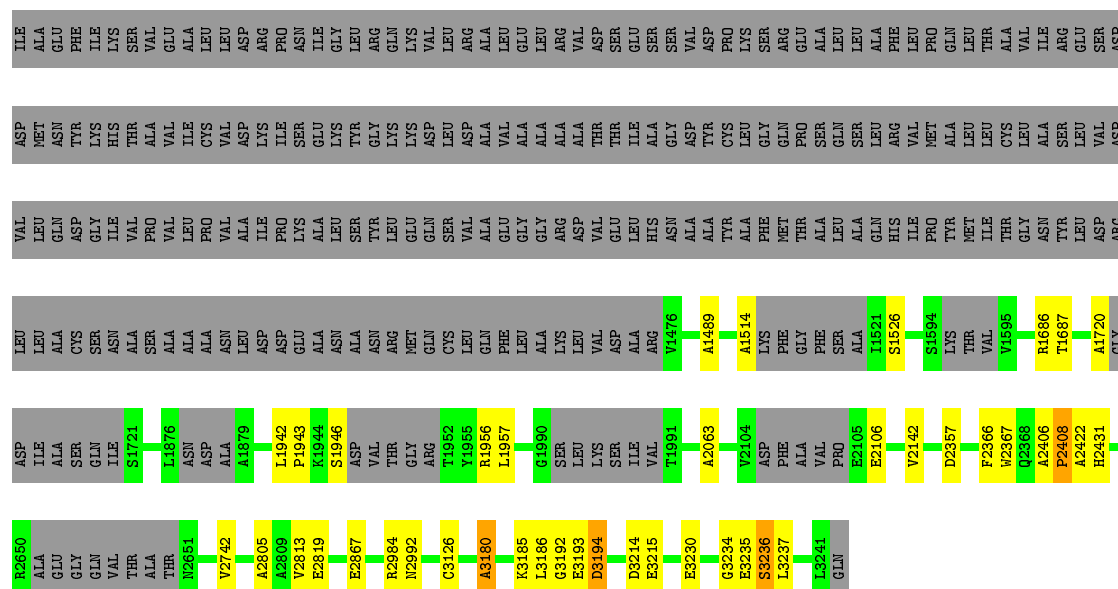
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- Molecule 1: WD40 domain proteins

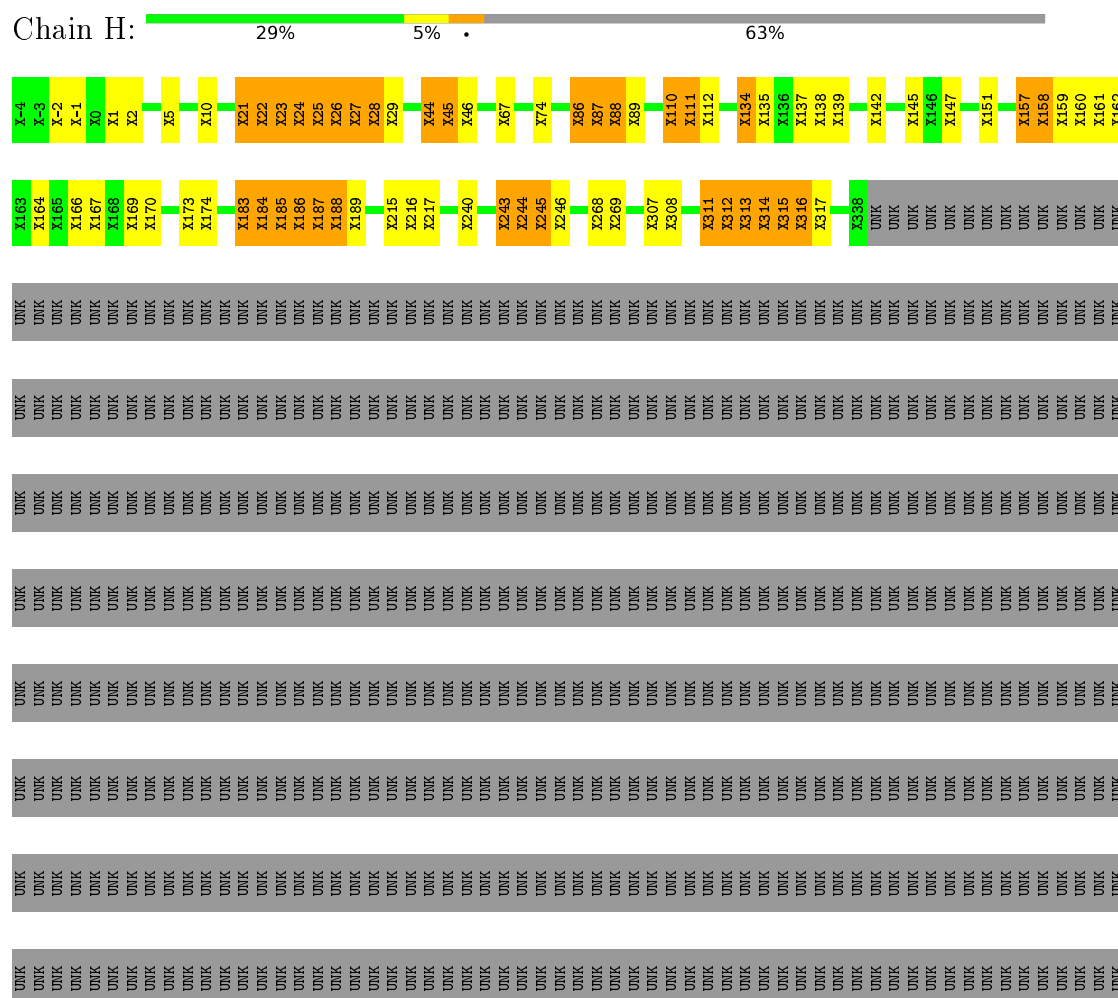
Chain 1: 23% 77%

[illegible]



- Molecule 3: UTP-A oligomerization domain



[illegible]

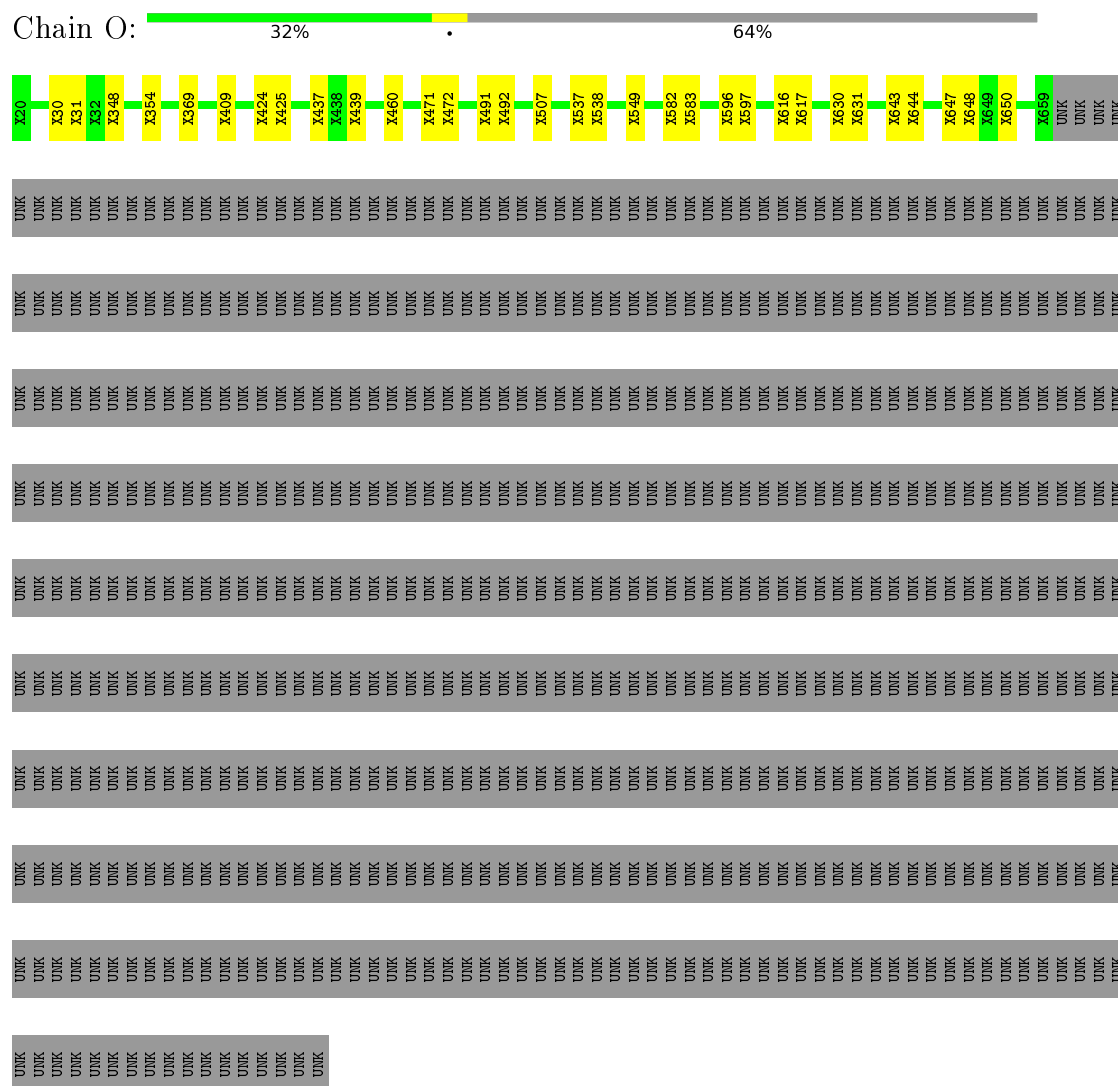
- Chain I:  67% . 32%

VAL	HIS	LYS	LYS	GLU	ASP	ARG	LEU	ASP	ASP	LEU	VAL	LYS	PHE	CYS	MET	GLY	VAL	ALA	ALA	PHE	VAL	THR	THR	ALA
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

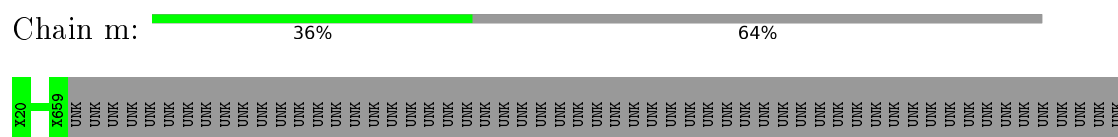
- Chain M:  31% 1% 64%

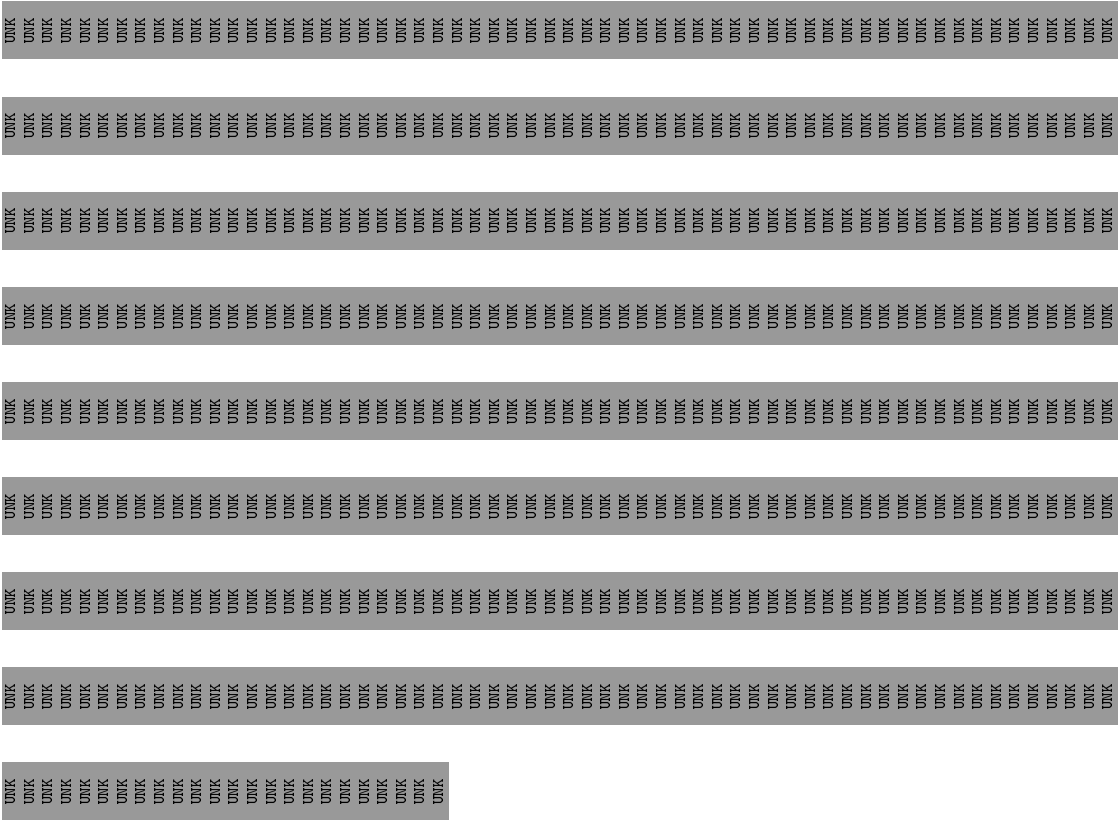
[illegible]

- Molecule 5: WD40 domain proteins

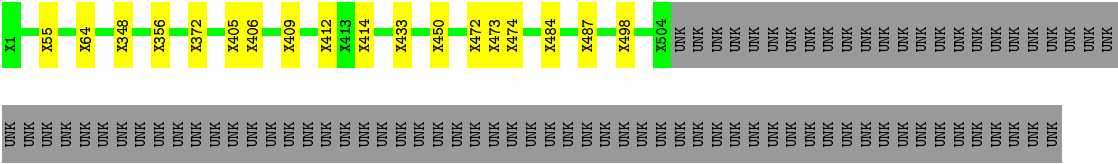
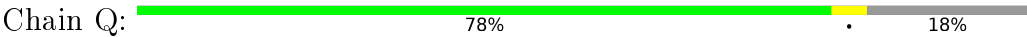


- Molecule 5: WD40 domain proteins

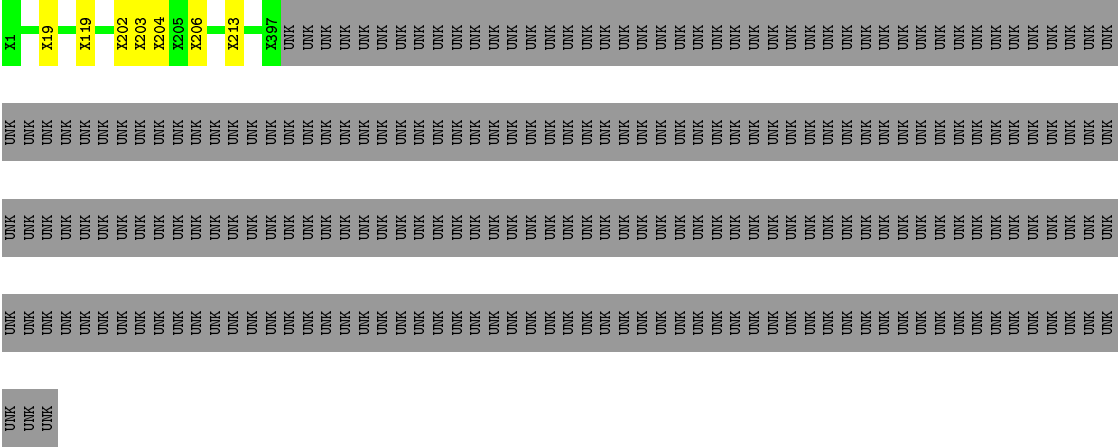




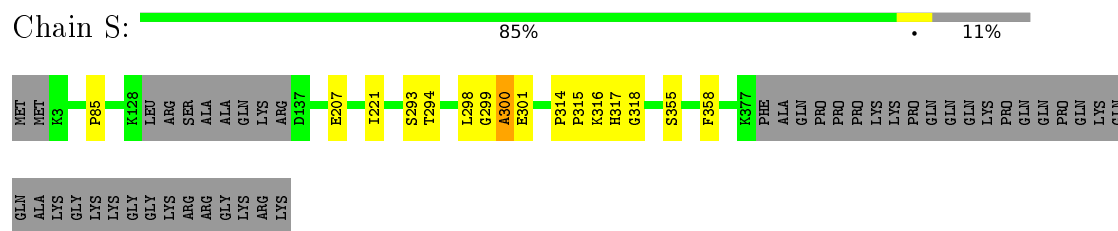
● Molecule 6: UTP6



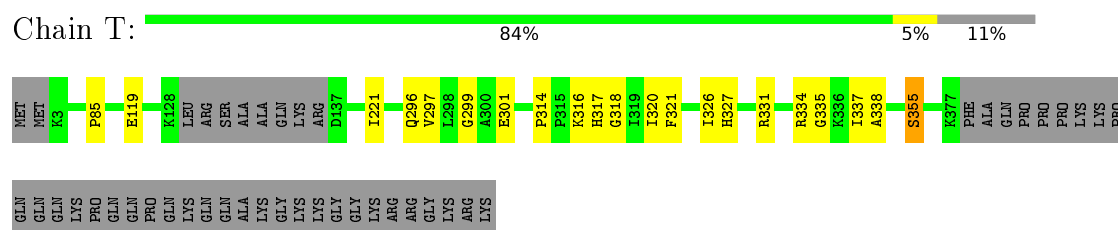
● Molecule 7: UTP-B oligomerisation domain



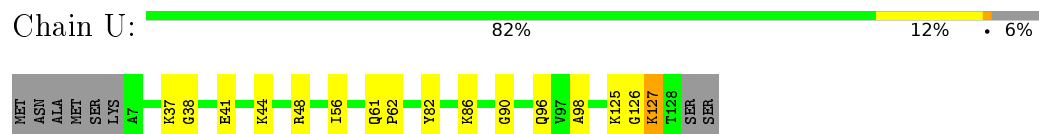
- Molecule 8: Pre mRNA splicing protein



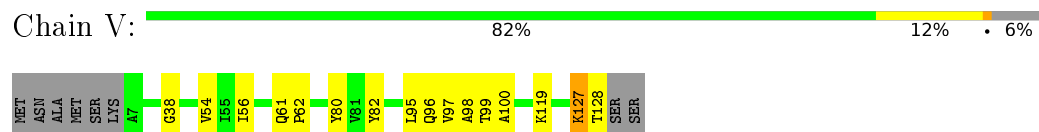
- Molecule 8: Pre mRNA splicing protein



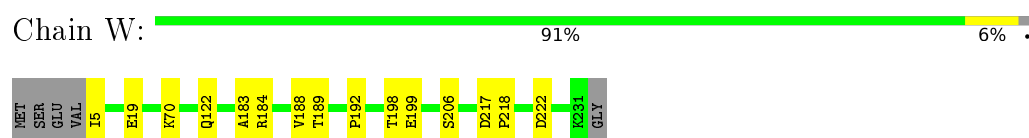
- Molecule 9: Snu13



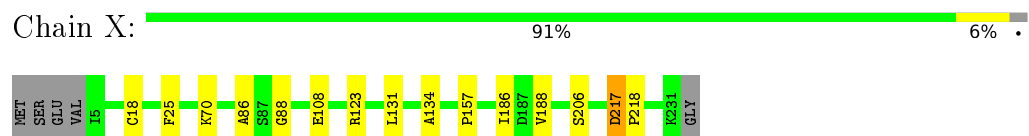
- Molecule 9: Snu13



- Molecule 10: Nop1

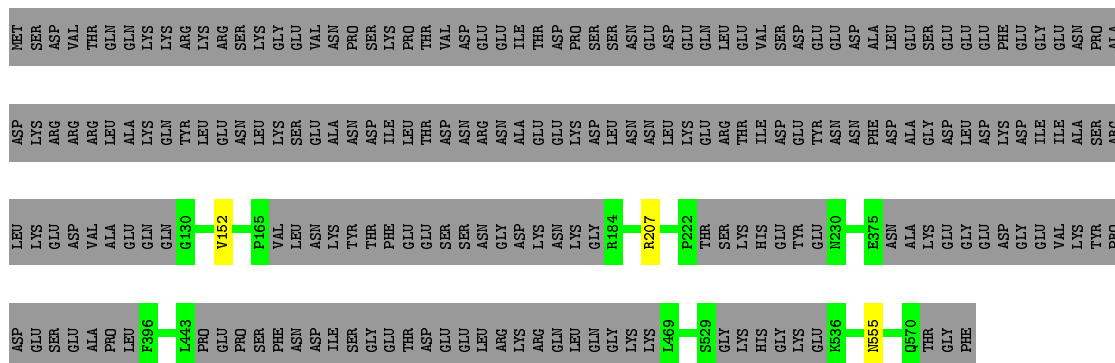


- Molecule 10: Nop1



- Molecule 11: rrp9





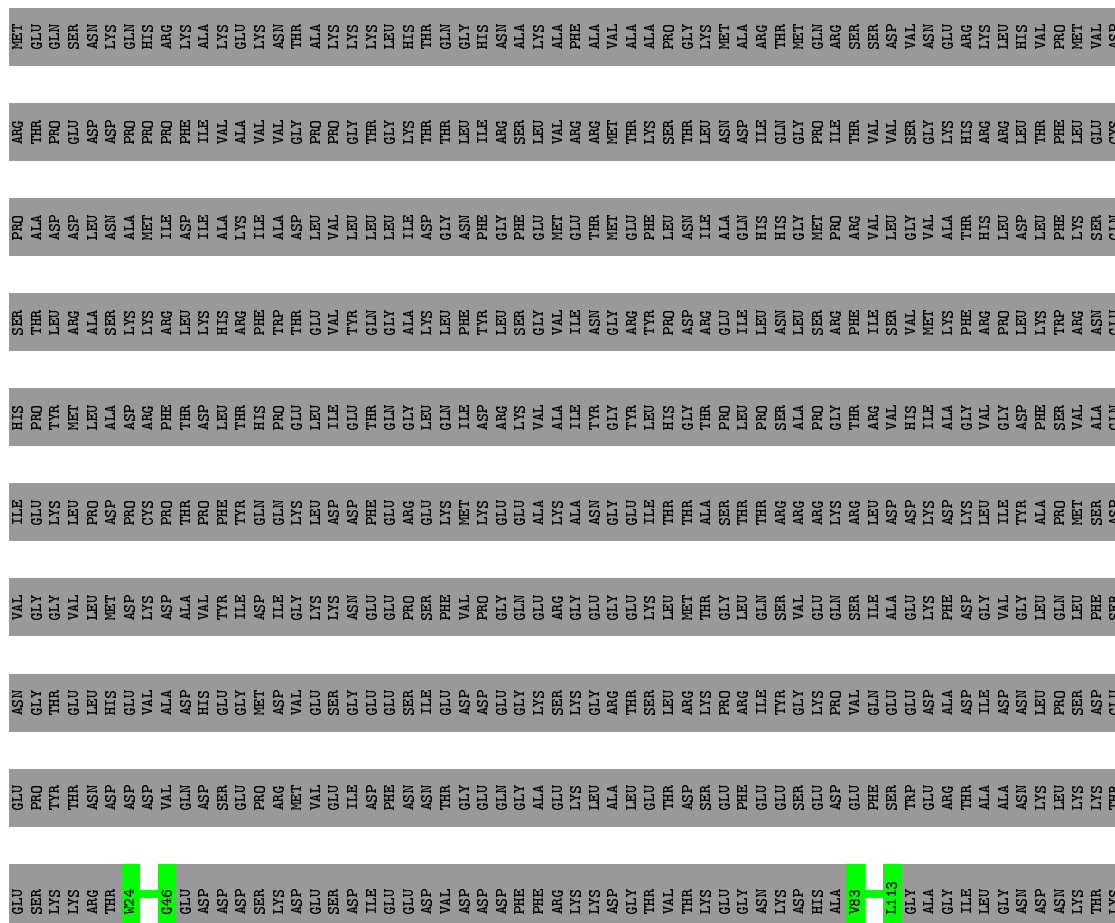
- Molecule 12: Rcl1

Chain Z: 96% ..



- Molecule 13: Bms1

Chain a: 



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

- Molecule 14: Imp3

Chain b: 76% 7% • 16%

MET	VAL	ARG	LYS	LEU	LYS	TVR	HIS	GLU	GLN	LYS	LYS	LEU	LYS	LYS	K15	S23	H27	G86	K91	A92	K93	A107	P112	R119	A127	H135	V160	T161	V162	T166	K167	ASN	ASP	ILE	MET	LYS	TVR	ARG	ASP	LYS	LEU	LYS	LEU	LEU	GLU	LEU
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- Molecule 15: Putative U3 small nucleolar ribonucleoprotein

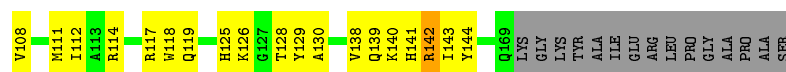
Chain c:  56% 6% • 35%

[illegible]

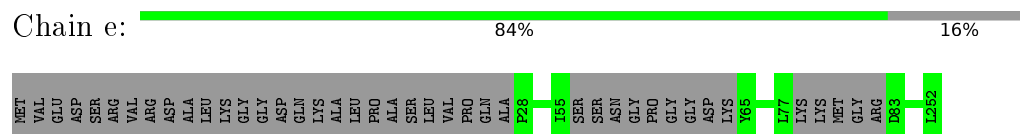
- Molecule 16: Utp24

Chain d:  52% 15% . 33%

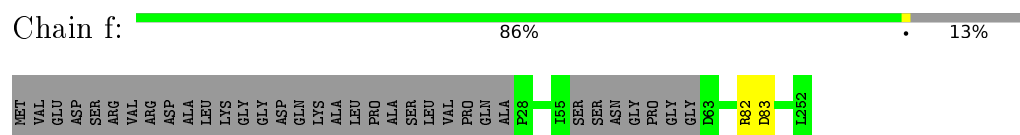
MET	GLY	VAL	ARG	ARG	ILE	ILE	GLY	GLN	ASP	GLU	ARG	ARG	ARG	LYS	LYS	ALA	ALA	ALA	ALA	ILE	ARG	GLU	VAL	LYS	LYS	LYS	GLU	GLU	GLU	GLN	GLN	GLN	MET	MET	PRO	PRO	PRO	PRO	GLU	VAL	VAL	F46	F47	H48	N49	E50			P74	K101	L102	P103	P104	L105	R106	P107	P108	P109	P110	P111	P112	P113	P114	P115	P116	P117	P118	P119	P120	P121	P122	P123	P124	P125	P126	P127	P128	P129	P130	P131	P132	P133	P134	P135	P136	P137	P138	P139	P140	P141	P142	P143	P144	P145	P146	P147	P148	P149	P150	P151	P152	P153	P154	P155	P156	P157	P158	P159	P160	P161	P162	P163	P164	P165	P166	P167	P168	P169	P170	P171	P172	P173	P174	P175	P176	P177	P178	P179	P180	P181	P182	P183	P184	P185	P186	P187	P188	P189	P190	P191	P192	P193	P194	P195	P196	P197	P198	P199	P200	P201	P202	P203	P204	P205	P206	P207	P208	P209	P210	P211	P212	P213	P214	P215	P216	P217	P218	P219	P220	P221	P222	P223	P224	P225	P226	P227	P228	P229	P230	P231	P232	P233	P234	P235	P236	P237	P238	P239	P240	P241	P242	P243	P244	P245	P246	P247	P248	P249	P250	P251	P252	P253	P254	P255	P256	P257	P258	P259	P260	P261	P262	P263	P264	P265	P266	P267	P268	P269	P270	P271	P272	P273	P274	P275	P276	P277	P278	P279	P280	P281	P282	P283	P284	P285	P286	P287	P288	P289	P290	P291	P292	P293	P294	P295	P296	P297	P298	P299	P300	P301	P302	P303	P304	P305	P306	P307	P308	P309	P310	P311	P312	P313	P314	P315	P316	P317	P318	P319	P320	P321	P322	P323	P324	P325	P326	P327	P328	P329	P330	P331	P332	P333	P334	P335	P336	P337	P338	P339	P340	P341	P342	P343	P344	P345	P346	P347	P348	P349	P350	P351	P352	P353	P354	P355	P356	P357	P358	P359	P360	P361	P362	P363	P364	P365	P366	P367	P368	P369	P370	P371	P372	P373	P374	P375	P376	P377	P378	P379	P380	P381	P382	P383	P384	P385	P386	P387	P388	P389	P390	P391	P392	P393	P394	P395	P396	P397	P398	P399	P400	P401	P402	P403	P404	P405	P406	P407	P408	P409	P410	P411	P412	P413	P414	P415	P416	P417	P418	P419	P420	P421	P422	P423	P424	P425	P426	P427	P428	P429	P430	P431	P432	P433	P434	P435	P436	P437	P438	P439	P440	P441	P442	P443	P444	P445	P446	P447	P448	P449	P450	P451	P452	P453	P454	P455	P456	P457	P458	P459	P460	P461	P462	P463	P464	P465	P466	P467	P468	P469	P470	P471	P472	P473	P474	P475	P476	P477	P478	P479	P480	P481	P482	P483	P484	P485	P486	P487	P488	P489	P490	P491	P492	P493	P494	P495	P496	P497	P498	P499	P500	P501	P502	P503	P504	P505	P506	P507	P508	P509	P510	P511	P512	P513	P514	P515	P516	P517	P518	P519	P520	P521	P522	P523	P524	P525	P526	P527	P528	P529	P530	P531	P532	P533	P534	P535	P536	P537	P538	P539	P540	P541	P542	P543	P544	P545	P546	P547	P548	P549	P550	P551	P552	P553	P554	P555	P556	P557	P558	P559	P560	P561	P562	P563	P564	P565	P566	P567	P568	P569	P570	P571	P572	P573	P574	P575	P576	P577	P578	P579	P580	P581	P582	P583	P584	P585	P586	P587	P588	P589	P590	P591	P592	P593	P594	P595	P596	P597	P598	P599	P600	P601	P602	P603	P604	P605	P606	P607	P608	P609	P610	P611	P612	P613	P614	P615	P616	P617	P618	P619	P620	P621	P622	P623	P624	P625	P626	P627	P628	P629	P630	P631	P632	P633	P634	P635	P636	P637	P638	P639	P640	P641	P642	P643	P644	P645	P646	P647	P648	P649	P650	P651	P652	P653	P654	P655	P656	P657	P658	P659	P660	P661	P662	P663	P664	P665	P666	P667	P668	P669	P670	P671	P672	P673	P674	P675	P676	P677	P678	P679	P680	P681	P682	P683	P684	P685	P686	P687	P688	P689	P690	P691	P692	P693	P694	P695	P696	P697	P698	P699	P700	P701	P702	P703	P704	P705	P706	P707	P708	P709	P710	P711	P712	P713	P714	P715	P716	P717	P718	P719	P720	P721	P722	P723	P724	P725	P726	P727	P728	P729	P730	P731	P732	P733	P734	P735	P736	P737	P738	P739	P740	P741	P742	P743	P744	P745	P746	P747	P748	P749	P750	P751	P752	P753	P754	P755	P756	P757	P758	P759	P760	P761	P762	P763	P764	P765	P766	P767	P768	P769	P770	P771	P772	P773	P774	P775	P776	P777	P778	P779	P780	P781	P782	P783	P784	P785	P786	P787	P788	P789	P790	P791	P792	P793	P794	P795	P796	P797	P798	P799	P800	P801	P802	P803	P804	P805	P806	P807	P808	P809	P810	P811	P812	P813	P814	P815	P816	P817	P818	P819	P820	P821	P822	P823	P824	P825	P826	P827	P828	P829	P830	P831	P832	P833	P834	P835	P836	P837	P838	P839	P840	P841	P842	P843	P844	P845	P846	P847	P848	P849	P850	P851	P852	P853	P854	P855	P856	P857	P858	P859	P860	P861	P862	P863	P864	P865	P866	P867	P868	P869	P870	P871	P872	P873	P874	P875	P876	P877	P878	P879	P880	P881	P882	P883	P884	P885	P886	P887	P888	P889	P890	P891	P892	P893	P894	P895	P896	P897	P898	P899	P900	P901	P902	P903	P904	P905	P906	P907	P908	P909	P910	P911	P912	P913	P914	P915	P916	P917	P918	P919	P920	P921	P922	P923	P924	P925	P926	P927	P928	P929	P930	P931	P932	P933	P934	P935	P936	P937	P938	P939	P940	P941	P942	P943	P944	P945	P946	P947	P948	P949	P950	P951	P952	P953	P954	P955	P956	P957	P958	P959	P960	P961	P962	P963	P964	P965	P966	P967	P968	P969	P970	P971	P972	P973	P974	P975	P976	P977	P978	P979	P980	P981	P982	P983	P984	P985	P986	P987	P988	P989	P990	P991	P992	P993	P994	P995	P996	P997	P998	P999
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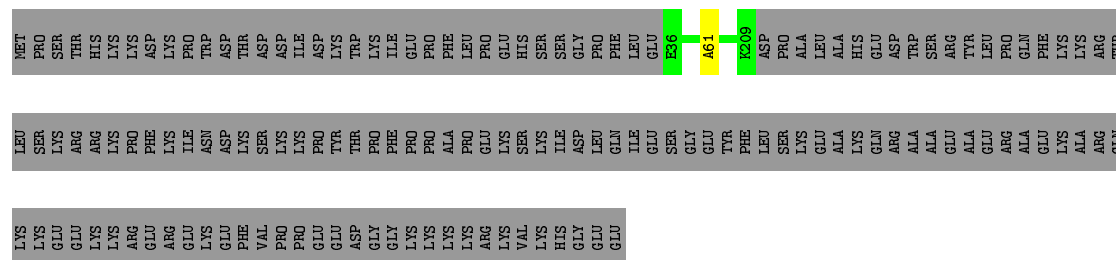
- Molecule 17: Emg1



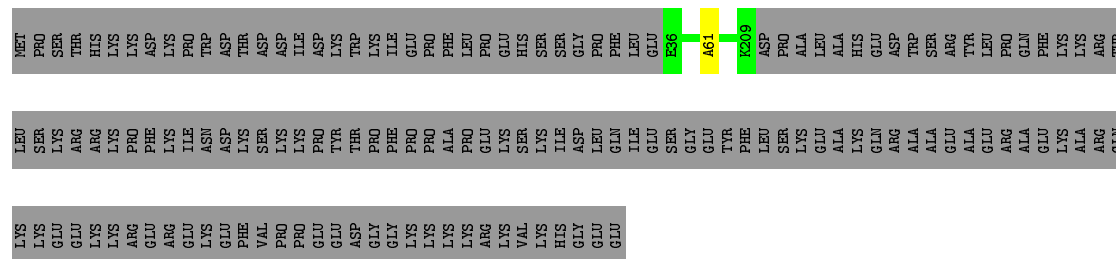
- Molecule 17: Emg1



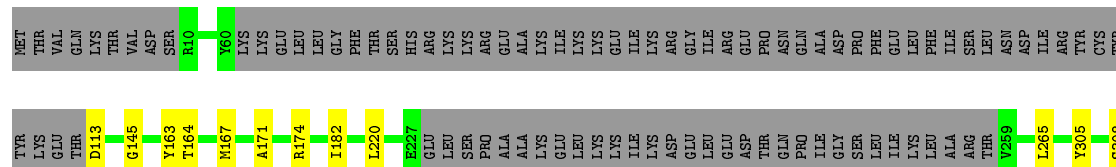
- Molecule 18: KRR1 small subunit processome component

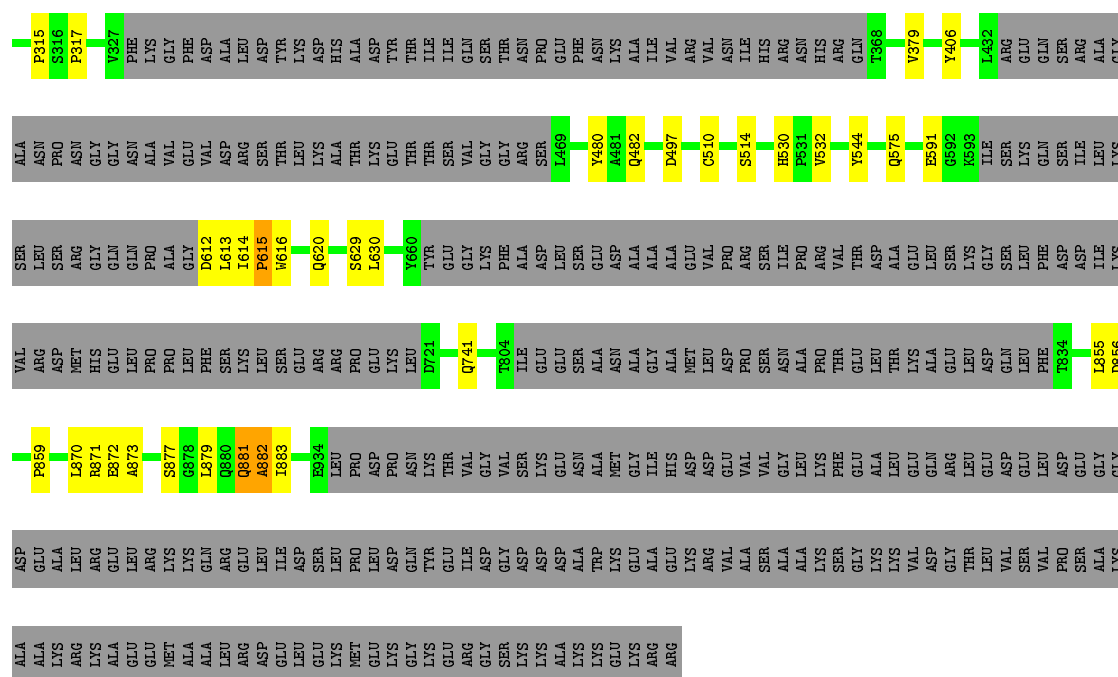


- Molecule 18: KRR1 small subunit processome component



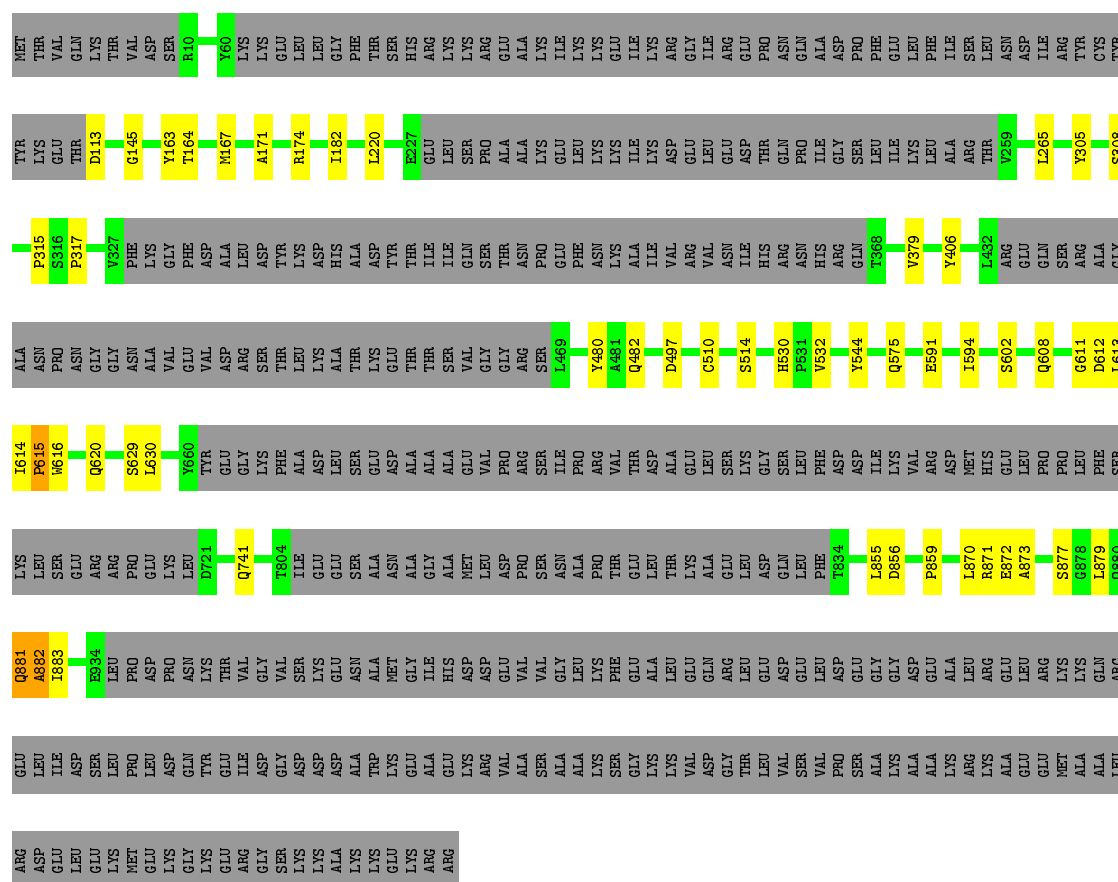
- Molecule 19: Kre33





- Molecule 19: Kre33

Chain j:  58% . 37%

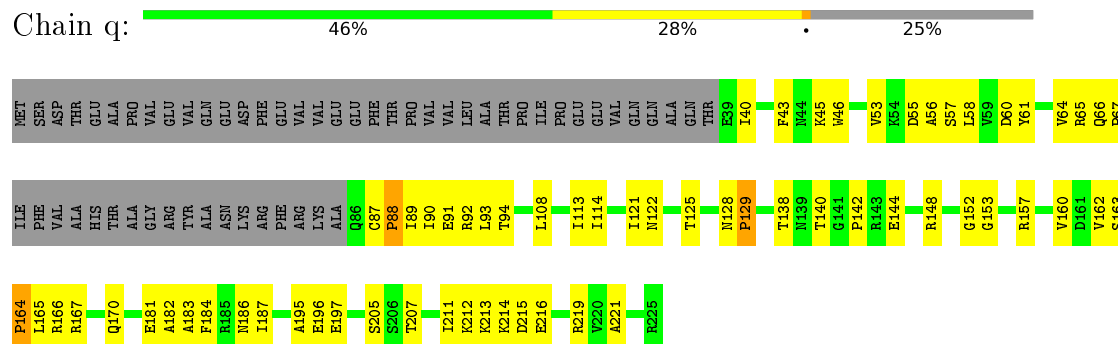


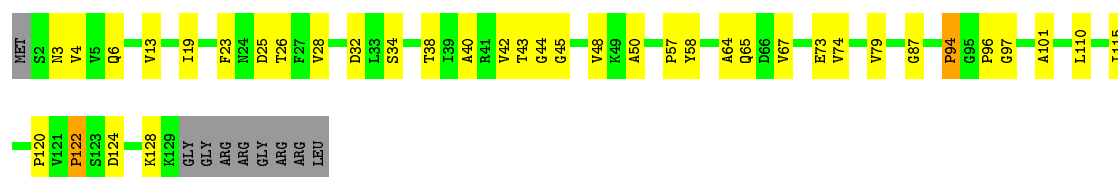
- Molecule 20: Utp30

- Molecule 21: eS1

- Molecule 22: eS4

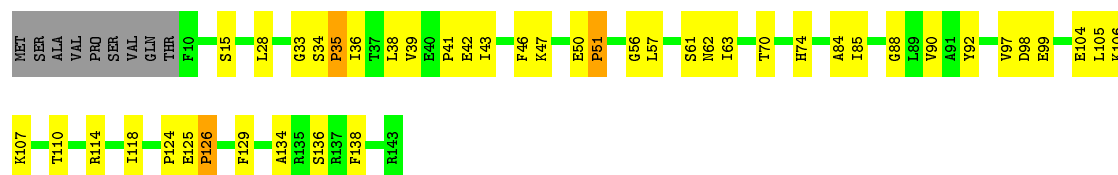
- Molecule 23: uS7





• Molecule 30: uS9

Chain x: 63% 29% 6%



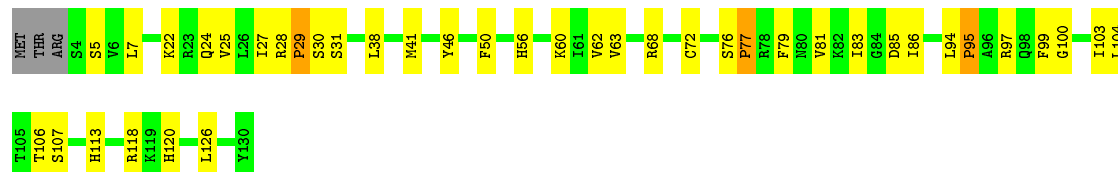
• Molecule 31: uS17

Chain y: 83% 15% 2%



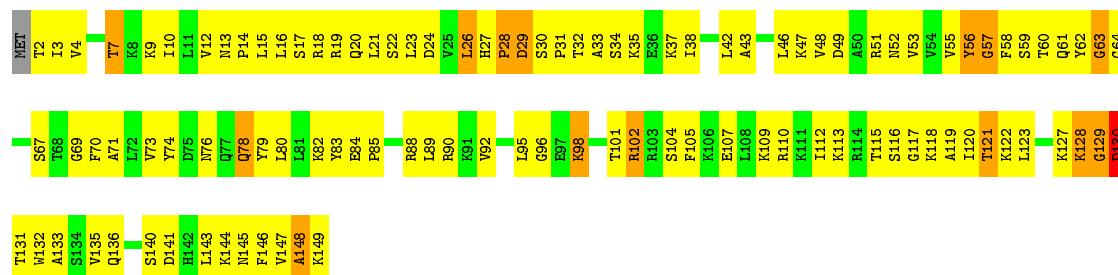
• Molecule 32: uS8

Chain z: 67% 28% 5%



• Molecule 33: eS24

Chain 0: 28% 62% 9%



• Molecule 34: eS28

Chain 1: 37% 24% 9% 30%



Chain 2: 5% 16% 26% 53%



G182	A183	G184	A185	G186	A187	G188	C189	G191	A192	G193	A194	A195	C196	G197	A198	G199	U200	A201	C202	G203	C204	G205	G206	G	C	C	U	U	U	U	U	C	C	C	U	G183	G184	G185	G186	G187	G188	G189	G190	G191	G192	G193	G194	G195	G196	G197	G198	G199	G200	G201	G202	G203	G204	G205	G206	G207	G208	G209	G210	G211	G212	G213	G214	G215	G216	G217	G218	G219	G220	G221	G222	G223	G224	G225	G226	G227	G228	G229	G230	G231	G232	G233	G234	G235	G236	G237	G238	G239	G240	G241	G242	G243	G244	G245	G246	G247	G248	G249	G250	G251	G252	G253	G254	G255	G256	G257	G258	G259	G260	G261	G262	G263	G264	G265	G266	G267	G268	G269	G270	G271	G272	G273	G274	G275	G276	G277	G278	G279	G280	G281	G282	G283	G284	G285	G286	G287	G288	G289	G290	G291	G292	G293	G294	G295	G296	G297	G298	G299	G300	G301	G302	G303	G304	G305	G306	G307	G308	G309	G310	G311	G312	G313	G314	G315	G316	G317	G318	G319	G320	G321	G322	G323	G324	G325	G326	G327	G328	G329	G330	G331	G332	G333	G334	G335	G336	G337	G338	G339	G340	G341	G342	G343	G344	G345	G346	G347	G348	G349	G350	G351	G352	G353	G354	G355	G356	G357	G358	G359	G360	G361	G362	G363	G364	G365	G366	G367	G368	G369	G370	G371	G372	G373	G374	G375	G376	G377	G378	G379	G380	G381	G382	G383	G384	G385	G386	G387	G388	G389	G390	G391	G392	G393	G394	G395	G396	G397	G398	G399	G400	G401	G402	G403	G404	G405	G406	G407	G408	G409	G410	G411	G412	G413	G414	G415	G416	G417	G418	G419	G420	G421	G422	G423	G424	G425	G426	G427	G428	G429	G430	G431	G432	G433	G434	G435	G436	G437	G438	G439	G440	G441	G442	G443	G444	G445	G446	G447	G448	G449	G450	G451	G452	G453	G454	G455	G456	G457	G458	G459	G460	G461	G462	G463	G464	G465	G466	G467	G468	G469	G470	G471	G472	G473	G474	G475	G476	G477	G478	G479	G480	G481	G482	G483	G484	G485	G486	G487	G488	G489	G490	G491	G492	G493	G494	G495	G496	G497	G498	G499	G500	G501	G502	G503	G504	G505	G506	G507	G508	G509	G510	G511	G512	G513	G514	G515	G516	G517	G518	G519	G520	G521	G522	G523	G524	G525	G526	G527	G528	G529	G530	G531	G532	G533	G534	G535	G536	G537	G538	G539	G540	G541	G542	G543	G544	G545	G546	G547	G548	G549	G550	G551	G552	G553	G554	G555	G556	G557	G558	G559	G560	G561	G562	G563	G564	G565	G566	G567	G568	G569	G570	G571	G572	G573	G574	G575	G576	G577	G578	G579	G580	G581	G582	G583	G584	G585	G586	G587	G588	G589	G590	G591	G592	G593	G594	G595	G596	G597	G598	G599	G600	G601	G602	G603	G604	G605	G606	G607	G608	G609	G610	G611	G612	G613	G614	G615	G616	G617	G618	G619	G620	G621	G622	G623	G624	G625	G626	G627	G628	G629	G630	G631	G632	G633	G634	G635	G636	G637	G638	G639	G640	G641	G642	G643	G644	G645	G646	G647	G648	G649	G650	G651	G652	G653	G654	G655	G656	G657	G658	G659	G660	G661	G662	G663	G664	G665	G666	G667	G668	G669	G670	G671	G672	G673	G674	G675	G676	G677	G678	G679	G680	G681	G682	G683	G684	G685	G686	G687	G688	G689	G690	G691	G692	G693	G694	G695	G696	G697	G698	G699	G700	G701	G702	G703	G704	G705	G706	G707	G708	G709	G710	G711	G712	G713	G714	G715	G716	G717	G718	G719	G720	G721	G722	G723	G724	G725	G726	G727	G728	G729	G730	G731	G732	G733	G734	G735	G736	G737	G738	G739	G740	G741	G742	G743	G744	G745	G746	G747	G748	G749	G750	G751	G752	G753	G754	G755	G756	G757	G758	G759	G760	G761	G762	G763	G764	G765	G766	G767	G768	G769	G770	G771	G772	G773	G774	G775	G776	G777	G778	G779	G780	G781	G782	G783	G784	G785	G786	G787	G788	G789	G790	G791	G792	G793	G794	G795	G796	G797	G798	G799	G800	G801	G802	G803	G804	G805	G806	G807	G808	G809	G810	G811	G812	G813	G814	G815	G816	G817	G818	G819	G820	G821	G822	G823	G824	G825	G826	G827	G828	G829	G830	G831	G832	G833	G834	G835	G836	G837	G838	G839	G840	G841	G842	G843	G844	G845	G846	G847	G848	G849	G850	G851	G852	G853	G854	G855	G856	G857	G858	G859	G860	G861	G862	G863	G864	G865	G866	G867	G868	G869	G870	G871	G872	G873	G874	G875	G876	G877	G878	G879	G880	G881	G882	G883	G884	G885	G886	G887	G888	G889	G890	G891	G892	G893	G894	G895	G896	G897	G898	G899	G900	G901	G902	G903	G904	G905	G906	G907	G908	G909	G910	G911	G912	G913	G914	G915	G916	G917	G918	G919	G920	G921	G922	G923	G924	G925	G926	G927	G928	G929	G930	G931	G932	G933	G934	G935	G936	G937	G938	G939	G940	G941	G942	G943	G944	G945	G946	G947	G948	G949	G950	G951	G952	G953	G954	G955	G956	G957	G958	G959	G960	G961	G962	G963	G964	G965	G966	G967	G968	G969	G970	G971	G972	G973	G974	G975	G976	G977	G978	G979	G980	G981	G982	G983	G984	G985	G986	G987	G988	G989	G990	G991	G992	G993	G994	G995	G996	G997	G998	G999	G1000	G1001	G1002	G1003	G1004	G1005	G1006	G1007	G1008	G1009	G1010	G1011	G1012	G1013	G1014	G1015	G1016	G1017	G1018	G1019	G1020	G1021	G1022	G1023	G1024	G1025	G1026	G1027	G1028	G1029	G1030	G1031	G1032	G1033	G1034	G1035	G1036	G1037	G1038	G1039	G1040	G1041	G1042	G1043	G1044	G1045	G1046	G1047	G1048	G1049	G1050	G1051	G1052	G1053	G1054	G1055	G1056	G1057	G1058	G1059	G1060	G1061	G1062	G1063	G1064	G1065	G1066	G1067	G1068	G1069	G1070	G1071	G1072	G1073	G1074	G1075	G1076	G1077	G1078	G1079	G1080	G1081	G1082	G1083	G1084	G1085	G1086	G1087	G1088	G1089	G1090	G1091	G1092	G1093	G1094	G1095	G1096	G1097	G1098	G1099	G1100	G1101	G1102	G1103	G1104	G1105	G1106	G1107	G1108	G1109	G1110	G1111	G1112	G1113	G1114	G1115	G1116	G1117	G1118	G1119	G1120	G1121	G1122	G1123	G1124	G1125	G1126	G1127	G1128	G1129	G1130	G1131	G1132	G1133	G1134	G1135	G1136	G1137	G1138	G1139	G1140	G1141	G1142	G1143	G1144	G1145	G1146	G1147	G1148	G1149	G1150	G1151	G1152	G1153	G1154	G1155	G1156	G1157	G1158	G1159	G1160	G1161	G1162	G1163	G1164	G1165	G1166	G1167	G1168	G1169	G1170	G1171	G1172	G1173	G1174	G1175	G1176	G1177	G1178	G1179	G1180	G1181	G1182	G1183	G1184	G1185	G1186	G1187	G1188	G1189	G1190	G1191	G1192	G1193	G1194	G1195	G1196	G1197	G1198	G1199	G1200	G1201	G1202	G1203	G1204	G1205	G1206	G1207	G1208	G1209	G1210	G1211	G1212	G1213	G1214	G1215	G1216	G1217	G1218	G1219	G1220	G1221	G1222	G1223	G1224	G1225	G1226	G1227	G1228	G1229	G1230	G1231	G1232	G1233	G1234	G1235	G1236	G1237	G1238	G1239	G1240	G1241	G1242	G1243	G1244	G1245	G1246	G1247	G1248	G1249	G1250	G1251	G1252	G1253	G1254	G1255	G1256	G1257	G1258	G1259	G1260	G1261	G1262	G1263	G1264	G1265	G1266	G1267	G1268	G1269	G1270	G1271	G1272	G1273	G1274	G1275	G1276	G1277	G1278	G1279	G1280	G1281	G1282	G1283	G1284	G1285	G1286	G1287	G1288	G1289	G1290	G1291	G1292	G1293	G1294	G1295	G1296	G1297	G1298	G1299	G1300	G1301	G1302	G1303	G1304	G1305	G1306	G1307	G1308	G1309	G1310	G1311	G1312	G1313	G1314	G1315	G1316	G1317	G1318	G1319	G1320	G1321	G1322	G1323	G1324	G1325	G1326	G1327	G1328	G1329	G1330	G1331	G1332	G1333	G1334	G1335	G1336	G1337	G1338	G1339	G1340	G1341	G1342	G1343	G1344	G1345	G1346	G1347	G1348	G1349	G1350	G1351	G1352	G1353	G1354	G1355	G1356	G1357	G1358	G1359	G1360	G1361	G1362	G1363	G1364	G1365	G1366	G1367	G1368	G1369	G1370	G1371	G1372	G1373	G1374	G1375	G1376	G1377	G1378	G1379	G1380	G1381	G1382	G1383	G1384	G1385	G1386	G1387	G1388	G1389	G1390	G1391	G1392	G1393	G1394	G1395	G1396	G1397	G1398	G1399	G1400	G1401	G1402	G1403	G1404	G1405	G1406	G1407	G1408	G1409	G1410	G1411	G1412	G1413	G1414	G1415	G1416	G1417	G1418	G1419	G1420	G1421	G1422	G1423	G1424	G1425	G1426	G1427	G1428	G1429	G1430	G1431	G1432	G1433	G1434	G1435	G1436	G1437	G1438	G1439	G1440	G1441	G1442	G1443	G1444	G1445	G1446	G1447	G1448	G1449	G1450	G1451	G1452	G1453	G1454	G1455	G1456	G1457	G1458	G1459	G1460	G1461	G1462	G1463	G1464	G1465	G1466	G1467	G1468	G1469	G1470	G1471	G1472	G1473	G1474	G1475	G1476	G1477	G1478	G1479	G1480	G1481	G1482	G1483	G1484	G1485	G1486	G1487	G1488	G1489	G1490	G1491	G1492	G1493	G1494	G1495	G1496	G1497	G1498	G1499	G1500	G1501	G1502	G1503	G1504	G1505	G1506	G1507	G1508	G1509	G1510	G1511	G1512	G1513	G1514	G1515	G1516	G1517	G1518	G1519	G1520	G1521	G1522	G1523	G1524	G1525	G1526	G1527	G1528	G1529	G1530	G1531	G1532	G1533	G1534	G1535	G1536	G1537	G1538	G1539	G1540	G1541	G1542	G1543	G1544	G1545	G1546	G1547	G1548	G1549	G1550	G1551	G1552	G1553	G1554	G1555	G1556	G1557	G1558	G1559	G1560	G1561	G1562	G1563	G1564	G1565	G1566	G1567	G1568	G1569	G1570	G1571	G1572	G1573	G1574	G1575	G1576	G1577	G1578	G1579	G1580	G1581	G1582	G1583	G1584	G1585	G1586	G1587	G1588	G1589	G1590	G1591	G1592	G1593	G1594	G1595	G1596	G1597	G1598	G1599	G1600	G1601	G1602	G1603	G1604	G1605
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G242	G243	G244	U245	G246	G247	G248	U249	G250	U251	G252	G253	A254	U255	G256	G257	A258	A259	G260	U261	G262	U263	G264	A265	G266	G267	G268	G269	G270	C	A	U	U
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4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of particles used	43000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Not provided	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	Not provided	Depositor
Minimum defocus (nm)	Not provided	Depositor
Maximum defocus (nm)	Not provided	Depositor
Magnification	Not provided	Depositor
Image detector	Not provided	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 >2	RMSZ	# Z >2
10	W	0.40	0/1123	0.62	0/1564
10	X	0.35	0/1123	0.57	0/1564
11	Y	0.23	0/1793	0.52	0/2485
12	Z	0.45	0/1741	0.70	0/2416
13	a	0.48	0/265	0.70	0/367
14	b	0.72	0/759	1.01	2/1058 (0.2%)
15	c	0.74	3/950 (0.3%)	1.32	15/1323 (1.1%)
16	d	0.55	1/615 (0.2%)	2.34	41/857 (4.8%)
17	e	0.35	0/1044	0.61	0/1452
17	f	0.39	0/1079	0.58	0/1502
18	g	0.53	0/860	0.73	1/1197 (0.1%)
18	h	0.53	0/860	0.74	1/1197 (0.1%)
19	i	1.00	5/3246 (0.2%)	1.37	27/4507 (0.6%)
19	j	1.01	5/3335 (0.1%)	1.40	31/4632 (0.7%)
2	G	0.99	0/1393	1.23	7/1928 (0.4%)
20	k	0.88	0/900	2.02	18/1249 (1.4%)
21	o	0.40	0/1748	0.71	1/2340 (0.0%)
22	p	0.42	0/2119	0.74	0/2849
23	q	0.45	0/834	0.71	5/1159 (0.4%)
24	r	0.38	0/1895	0.67	0/2523
25	s	0.41	0/1563	0.71	0/2100
26	t	0.38	0/1717	0.70	1/2288 (0.0%)
27	u	0.54	0/775	0.73	3/1077 (0.3%)
28	v	0.52	0/579	0.79	5/806 (0.6%)
29	w	0.44	0/626	0.72	4/867 (0.5%)
30	x	0.49	0/657	0.78	5/911 (0.5%)
31	y	0.46	0/1298	0.74	0/1741
32	z	0.56	0/621	0.85	3/860 (0.3%)
33	0	0.41	0/1215	0.70	0/1626
34	1	0.40	0/229	0.64	1/316 (0.3%)
35	2	2.02	729/20292 (3.6%)	2.64	2257/31586 (7.1%)
36	3	1.06	8/3912 (0.2%)	1.68	94/6092 (1.5%)
4	I	0.23	0/3120	0.49	0/4334
8	S	0.36	0/1813	0.53	0/2523

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
8	T	0.38	0/1813	0.55	0/2523
9	U	0.35	0/602	0.57	0/837
9	V	0.39	0/602	0.59	0/837
All	All	1.22	751/69116 (1.1%)	1.71	2522/99493 (2.5%)

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
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
3	H	0	33
8	T	0	1
9	U	0	1
9	V	0	1
All	All	0	59

All (751) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	407	A	N9-C4	-12.24	1.30	1.37
35	2	485	A	N9-C4	-12.21	1.30	1.37
35	2	328	A	N9-C4	-12.18	1.30	1.37
35	2	432	G	N7-C5	-12.13	1.31	1.39
35	2	503	G	N9-C4	-11.40	1.28	1.38
35	2	210	A	N9-C4	-11.25	1.31	1.37
35	2	1023	A	N9-C4	-11.05	1.31	1.37
35	2	307	G	N9-C4	-10.94	1.29	1.38
35	2	256	A	C5-C6	-10.86	1.31	1.41
35	2	1039	A	N9-C4	-10.85	1.31	1.37
35	2	53	G	N9-C4	-10.79	1.29	1.38
35	2	549	G	C2-N3	-10.59	1.24	1.32
35	2	381	C	N3-C4	-10.53	1.26	1.33
35	2	173	A	N9-C4	-10.52	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	196	G	N9-C4	-10.37	1.29	1.38
35	2	537	G	C2-N3	-10.28	1.24	1.32
35	2	288	A	N9-C4	-10.22	1.31	1.37
35	2	941	A	N9-C4	-10.12	1.31	1.37
35	2	456	A	C5-C6	-9.94	1.32	1.41
35	2	375	U	C2-N3	-9.89	1.30	1.37
35	2	484	C	N1-C6	-9.87	1.31	1.37
35	2	196	G	C2-N3	-9.78	1.25	1.32
35	2	905	A	N9-C4	-9.75	1.32	1.37
35	2	914	G	N9-C4	-9.74	1.30	1.38
35	2	497	G	N9-C4	-9.70	1.30	1.38
35	2	488	G	C8-N7	-9.67	1.25	1.30
35	2	498	G	N9-C4	-9.53	1.30	1.38
35	2	521	A	N9-C4	-9.51	1.32	1.37
35	2	497	G	C5-C4	-9.50	1.31	1.38
35	2	301	A	N9-C4	-9.48	1.32	1.37
35	2	481	A	N9-C4	-9.48	1.32	1.37
35	2	156	A	N9-C4	-9.44	1.32	1.37
35	2	496	G	C6-N1	-9.31	1.33	1.39
35	2	432	G	N9-C8	-9.24	1.31	1.37
35	2	1083	G	N9-C4	-9.21	1.30	1.38
35	2	382	C	N3-C4	-9.20	1.27	1.33
35	2	488	G	C5-C6	-9.19	1.33	1.42
35	2	503	G	C5-C6	-9.19	1.33	1.42
35	2	589	C	C2-N3	-9.11	1.28	1.35
35	2	171	A	N9-C4	-9.07	1.32	1.37
35	2	365	G	N7-C5	-9.07	1.33	1.39
35	2	366	A	N9-C4	-9.06	1.32	1.37
35	2	419	G	N9-C4	-9.03	1.30	1.38
35	2	548	G	C5-C6	-9.03	1.33	1.42
35	2	463	U	C2-N3	-9.02	1.31	1.37
35	2	488	G	N7-C5	-9.00	1.33	1.39
35	2	411	C	N1-C6	-8.97	1.31	1.37
35	2	922	G	N9-C4	-8.96	1.30	1.38
35	2	312	A	N9-C4	-8.95	1.32	1.37
35	2	357	G	C2-N3	-8.92	1.25	1.32
35	2	72	A	N9-C4	-8.89	1.32	1.37
35	2	404	G	N9-C4	-8.89	1.30	1.38
35	2	1076	A	N9-C4	-8.89	1.32	1.37
35	2	412	A	N9-C4	-8.87	1.32	1.37
35	2	365	G	C8-N7	-8.87	1.25	1.30
35	2	309	C	N1-C2	-8.86	1.31	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	391	A	C5-C6	-8.86	1.33	1.41
35	2	955	A	N9-C4	-8.85	1.32	1.37
35	2	456	A	N9-C4	-8.83	1.32	1.37
35	2	493	U	N1-C2	-8.80	1.30	1.38
35	2	152	U	C2-N3	-8.76	1.31	1.37
35	2	1094	G	C8-N7	-8.75	1.25	1.30
35	2	514	G	C6-O6	-8.71	1.16	1.24
35	2	142	G	N9-C4	-8.71	1.30	1.38
35	2	210	A	C5-C6	-8.69	1.33	1.41
35	2	885	G	N9-C4	-8.59	1.31	1.38
35	2	84	A	C8-N7	-8.59	1.25	1.31
19	i	615	PRO	CA-C	8.52	1.69	1.52
19	j	615	PRO	CA-C	8.52	1.69	1.52
35	2	502	U	C2-N3	-8.49	1.31	1.37
35	2	514	G	N9-C4	-8.47	1.31	1.38
35	2	407	A	C5-C6	-8.45	1.33	1.41
35	2	430	G	N9-C4	-8.45	1.31	1.38
35	2	484	C	C2-N3	-8.44	1.28	1.35
35	2	491	C	C2-N3	-8.35	1.29	1.35
35	2	485	A	C5-C4	-8.35	1.32	1.38
35	2	148	A	N9-C4	-8.33	1.32	1.37
35	2	1045	C	C2-N3	-8.31	1.29	1.35
35	2	482	U	C2-N3	-8.29	1.31	1.37
35	2	548	G	N9-C4	-8.29	1.31	1.38
35	2	503	G	C2-N3	-8.28	1.26	1.32
35	2	107	C	N3-C4	-8.27	1.28	1.33
35	2	288	A	N3-C4	-8.26	1.29	1.34
35	2	923	A	N7-C5	-8.25	1.34	1.39
35	2	868	G	C2-N3	-8.19	1.26	1.32
35	2	202	A	N9-C4	-8.19	1.32	1.37
35	2	162	A	C5-C6	-8.18	1.33	1.41
35	2	93	A	N3-C4	-8.17	1.29	1.34
35	2	53	G	C2-N3	-8.14	1.26	1.32
35	2	295	A	N9-C4	-8.10	1.32	1.37
35	2	390	G	C2-N3	-8.09	1.26	1.32
35	2	407	A	C2-N3	-8.09	1.26	1.33
35	2	73	U	C2-N3	-8.05	1.32	1.37
35	2	142	G	C5-C4	-8.05	1.32	1.38
35	2	381	C	C2-N3	-8.01	1.29	1.35
35	2	151	G	C5-C4	-7.98	1.32	1.38
35	2	84	A	N7-C5	-7.97	1.34	1.39
35	2	93	A	N9-C4	-7.96	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	907	A	N9-C4	-7.96	1.33	1.37
35	2	486	G	C8-N7	-7.95	1.26	1.30
35	2	492	A	N9-C4	-7.95	1.33	1.37
35	2	323	A	N9-C4	-7.93	1.33	1.37
35	2	1084	A	N9-C4	-7.92	1.33	1.37
35	2	490	C	N1-C6	-7.90	1.32	1.37
35	2	902	G	C8-N7	-7.88	1.26	1.30
35	2	496	G	N9-C4	-7.87	1.31	1.38
35	2	514	G	C6-N1	-7.86	1.34	1.39
35	2	307	G	C2-N3	-7.86	1.26	1.32
35	2	65	A	N9-C4	-7.85	1.33	1.37
35	2	473	A	N7-C5	-7.79	1.34	1.39
35	2	108	A	C5-C6	-7.78	1.34	1.41
35	2	333	A	N9-C4	-7.78	1.33	1.37
35	2	419	G	N3-C4	-7.77	1.30	1.35
35	2	399	A	N7-C5	-7.75	1.34	1.39
35	2	324	U	C4-O4	-7.75	1.17	1.23
35	2	369	A	N9-C4	-7.75	1.33	1.37
35	2	309	C	N1-C6	-7.73	1.32	1.37
35	2	164	A	N9-C4	-7.72	1.33	1.37
35	2	1094	G	N9-C4	-7.70	1.31	1.38
35	2	497	G	C5-C6	-7.69	1.34	1.42
35	2	392	G	C6-N1	-7.69	1.34	1.39
35	2	480	G	C2-N3	-7.67	1.26	1.32
35	2	495	C	C2-N3	-7.66	1.29	1.35
35	2	1042	G	C6-N1	-7.65	1.34	1.39
35	2	360	A	N9-C4	-7.61	1.33	1.37
35	2	880	C	N1-C6	-7.58	1.32	1.37
35	2	461	G	N9-C8	-7.57	1.32	1.37
35	2	520	A	N7-C5	-7.57	1.34	1.39
35	2	124	A	C5-C4	-7.54	1.33	1.38
35	2	488	G	C6-N1	-7.54	1.34	1.39
35	2	357	G	C5-C6	-7.54	1.34	1.42
35	2	188	A	N9-C4	-7.54	1.33	1.37
35	2	269	G	N9-C4	-7.44	1.31	1.38
35	2	375	U	N1-C2	-7.41	1.31	1.38
35	2	164	A	C5-C4	-7.41	1.33	1.38
35	2	287	G	C5-C6	-7.40	1.34	1.42
35	2	497	G	C2-N3	-7.38	1.26	1.32
35	2	326	G	N9-C4	-7.36	1.32	1.38
35	2	189	C	N1-C6	-7.34	1.32	1.37
35	2	83	G	C2-N3	-7.33	1.26	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	1025	A	N9-C4	7.33	1.42	1.37
35	2	497	G	N9-C8	-7.32	1.32	1.37
35	2	484	C	N1-C2	-7.31	1.32	1.40
35	2	406	U	N1-C6	-7.30	1.31	1.38
35	2	253	A	C5-C6	-7.30	1.34	1.41
35	2	295	A	C5-C6	-7.30	1.34	1.41
35	2	307	G	C5-C6	-7.29	1.35	1.42
35	2	365	G	N9-C8	-7.29	1.32	1.37
35	2	328	A	C5-C6	-7.28	1.34	1.41
35	2	549	G	N9-C4	-7.27	1.32	1.38
35	2	549	G	N1-C2	-7.26	1.31	1.37
35	2	874	C	N1-C6	-7.26	1.32	1.37
35	2	162	A	C6-N1	-7.26	1.30	1.35
35	2	497	G	N3-C4	-7.25	1.30	1.35
35	2	47	A	C6-N1	-7.23	1.30	1.35
35	2	548	G	C2-N3	-7.23	1.26	1.32
35	2	872	G	N9-C4	-7.21	1.32	1.38
35	2	496	G	N3-C4	-7.21	1.30	1.35
35	2	396	G	N9-C4	-7.20	1.32	1.38
35	2	303	U	C2-N3	-7.19	1.32	1.37
35	2	108	A	N9-C4	-7.19	1.33	1.37
35	2	1053	G	N9-C4	-7.17	1.32	1.38
35	2	191	C	N1-C2	-7.17	1.32	1.40
35	2	281	G	C5-C6	-7.16	1.35	1.42
35	2	923	A	N9-C4	-7.16	1.33	1.37
35	2	386	G	C8-N7	-7.15	1.26	1.30
35	2	243	G	C5-C6	-7.14	1.35	1.42
35	2	1094	G	N7-C5	-7.13	1.34	1.39
35	2	34	G	P-O5'	7.12	1.66	1.59
35	2	419	G	C2-N3	-7.11	1.27	1.32
35	2	199	G	N9-C4	-7.11	1.32	1.38
35	2	514	G	C5-C6	-7.08	1.35	1.42
35	2	406	U	C2-N3	-7.08	1.32	1.37
35	2	1091	A	N9-C4	-7.06	1.33	1.37
35	2	498	G	N3-C4	-7.03	1.30	1.35
35	2	588	U	C2-N3	-7.03	1.32	1.37
35	2	32	U	C2-N3	-7.01	1.32	1.37
35	2	307	G	C5-C4	-7.01	1.33	1.38
35	2	967	A	N9-C4	-7.01	1.33	1.37
35	2	502	U	C5-C6	-7.00	1.27	1.34
35	2	309	C	C2-N3	-6.99	1.30	1.35
35	2	1039	A	C5-C6	-6.97	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	195	G	N9-C4	-6.96	1.32	1.38
35	2	507	U	C2-N3	-6.96	1.32	1.37
35	2	212	U	C2-N3	-6.95	1.32	1.37
35	2	412	A	N9-C8	-6.94	1.32	1.37
35	2	460	A	N9-C4	-6.93	1.33	1.37
35	2	27	U	C2-N3	-6.93	1.32	1.37
35	2	496	G	C5-C6	-6.92	1.35	1.42
35	2	498	G	C6-N1	-6.91	1.34	1.39
35	2	195	G	C2-N3	-6.91	1.27	1.32
35	2	592	A	N9-C8	-6.90	1.32	1.37
35	2	294	C	N1-C6	-6.90	1.33	1.37
35	2	53	G	N3-C4	-6.89	1.30	1.35
35	2	124	A	N9-C4	-6.88	1.33	1.37
35	2	71	A	N9-C4	-6.88	1.33	1.37
35	2	365	G	C5-C6	-6.88	1.35	1.42
35	2	592	A	C5-C4	-6.88	1.33	1.38
35	2	83	G	N9-C4	-6.87	1.32	1.38
35	2	490	C	C2-N3	-6.87	1.30	1.35
35	2	200	A	N9-C4	-6.87	1.33	1.37
35	2	246	G	N7-C5	-6.83	1.35	1.39
35	2	280	U	N1-C2	-6.83	1.32	1.38
35	2	285	G	N9-C8	-6.83	1.33	1.37
35	2	50	C	N1-C6	-6.82	1.33	1.37
35	2	460	A	C5-C4	-6.81	1.33	1.38
35	2	955	A	N7-C5	-6.81	1.35	1.39
35	2	256	A	C8-N7	-6.81	1.26	1.31
35	2	462	G	C2-N3	-6.80	1.27	1.32
35	2	425	A	N7-C5	-6.79	1.35	1.39
35	2	123	G	C5-C6	-6.79	1.35	1.42
35	2	498	G	C5-C4	-6.78	1.33	1.38
35	2	142	G	C2-N3	-6.77	1.27	1.32
35	2	512	A	N9-C4	-6.75	1.33	1.37
19	i	616	TRP	N-CA	6.74	1.59	1.46
35	2	456	A	C8-N7	-6.74	1.26	1.31
35	2	326	G	C2-N3	-6.73	1.27	1.32
35	2	97	C	N1-C6	-6.73	1.33	1.37
19	j	616	TRP	N-CA	6.72	1.59	1.46
35	2	1038	U	C2-N3	-6.72	1.33	1.37
35	2	1070	C	C2-N3	-6.72	1.30	1.35
35	2	1094	G	C5-C6	-6.72	1.35	1.42
15	c	161	PRO	CA-C	-6.71	1.39	1.52
35	2	174	U	C2-N3	-6.71	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	344	A	N9-C4	-6.71	1.33	1.37
35	2	404	G	C5-C6	-6.70	1.35	1.42
35	2	407	A	N3-C4	-6.70	1.30	1.34
35	2	469	C	N1-C6	-6.70	1.33	1.37
35	2	401	A	N9-C4	-6.70	1.33	1.37
35	2	485	A	C5-C6	-6.70	1.35	1.41
35	2	880	C	C2-N3	-6.70	1.30	1.35
35	2	530	C	C5-C6	-6.70	1.28	1.34
35	2	539	G	N9-C8	-6.70	1.33	1.37
35	2	1023	A	C2-N3	-6.70	1.27	1.33
35	2	80	A	C6-N1	-6.69	1.30	1.35
35	2	341	A	N9-C4	-6.67	1.33	1.37
35	2	173	A	N3-C4	-6.67	1.30	1.34
35	2	1053	G	C2-N3	-6.67	1.27	1.32
35	2	281	G	N9-C4	-6.66	1.32	1.38
35	2	343	C	C2-N3	-6.66	1.30	1.35
35	2	390	G	C5-C4	-6.66	1.33	1.38
35	2	540	G	N7-C5	-6.66	1.35	1.39
35	2	537	G	N9-C4	-6.65	1.32	1.38
35	2	527	A	C6-N1	-6.65	1.30	1.35
35	2	371	G	N9-C4	-6.65	1.32	1.38
35	2	456	A	N7-C5	-6.64	1.35	1.39
35	2	456	A	C6-N1	-6.63	1.30	1.35
35	2	47	A	N7-C5	-6.62	1.35	1.39
35	2	288	A	C6-N1	-6.61	1.30	1.35
35	2	1041	G	C5-C6	-6.61	1.35	1.42
35	2	213	A	N9-C4	-6.61	1.33	1.37
35	2	1042	G	C5-C6	-6.60	1.35	1.42
35	2	955	A	N9-C8	-6.59	1.32	1.37
35	2	108	A	N7-C5	-6.59	1.35	1.39
35	2	1080	U	C4-O4	-6.59	1.18	1.23
35	2	243	G	C8-N7	-6.59	1.26	1.30
35	2	496	G	C2-N3	-6.58	1.27	1.32
35	2	328	A	C2-N3	-6.57	1.27	1.33
35	2	974	A	C5-C6	-6.57	1.35	1.41
15	c	161	PRO	C-O	-6.55	1.10	1.23
35	2	243	G	C6-N1	-6.55	1.34	1.39
35	2	951	A	N9-C4	-6.55	1.33	1.37
35	2	549	G	C6-N1	-6.55	1.34	1.39
35	2	367	A	N9-C4	-6.54	1.33	1.37
35	2	441	A	C5-C6	-6.53	1.35	1.41
35	2	428	A	N9-C4	-6.53	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	255	U	C2-N3	-6.52	1.33	1.37
35	2	163	G	C8-N7	-6.52	1.27	1.30
35	2	549	G	C5-C4	-6.52	1.33	1.38
35	2	163	G	C5-C6	-6.52	1.35	1.42
35	2	1053	G	N9-C8	-6.52	1.33	1.37
35	2	309	C	C4-C5	-6.51	1.37	1.43
35	2	519	C	N1-C2	-6.51	1.33	1.40
35	2	391	A	C5-C4	-6.50	1.34	1.38
35	2	405	C	C2-N3	-6.50	1.30	1.35
35	2	117	U	C2-N3	-6.50	1.33	1.37
35	2	112	A	N9-C4	-6.49	1.33	1.37
35	2	900	A	N9-C4	-6.46	1.33	1.37
35	2	589	C	N1-C2	-6.46	1.33	1.40
35	2	1074	G	C5-C6	-6.45	1.35	1.42
19	j	612	ASP	CA-C	-6.42	1.36	1.52
35	2	353	A	C5-C6	-6.42	1.35	1.41
35	2	386	G	C6-N1	-6.42	1.35	1.39
35	2	460	A	C5-C6	-6.42	1.35	1.41
35	2	922	G	C5-C6	-6.42	1.35	1.42
19	i	612	ASP	CA-C	-6.40	1.36	1.52
35	2	432	G	C8-N7	-6.40	1.27	1.30
35	2	955	A	N3-C4	-6.39	1.31	1.34
35	2	883	C	N1-C6	-6.39	1.33	1.37
35	2	1074	G	C6-N1	-6.39	1.35	1.39
35	2	527	A	N9-C4	-6.38	1.34	1.37
35	2	976	G	N3-C4	-6.38	1.30	1.35
35	2	390	G	N3-C4	-6.37	1.30	1.35
35	2	382	C	N1-C6	-6.36	1.33	1.37
35	2	388	G	C5-C6	-6.36	1.35	1.42
35	2	496	G	C5-C4	-6.36	1.33	1.38
35	2	923	A	C5-C6	-6.35	1.35	1.41
35	2	1045	C	N1-C2	-6.35	1.33	1.40
35	2	1083	G	C2-N3	-6.35	1.27	1.32
35	2	589	C	N3-C4	-6.35	1.29	1.33
35	2	53	G	C5-C4	-6.34	1.33	1.38
35	2	85	A	N9-C4	-6.34	1.34	1.37
35	2	629	U	N1-C2	-6.34	1.32	1.38
35	2	196	G	N3-C4	-6.34	1.31	1.35
35	2	279	G	N7-C5	-6.33	1.35	1.39
35	2	1082	C	P-O5'	6.33	1.66	1.59
35	2	492	A	N3-C4	-6.33	1.31	1.34
35	2	404	G	C5-C4	-6.32	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	256	A	N7-C5	-6.31	1.35	1.39
35	2	357	G	C6-N1	-6.30	1.35	1.39
35	2	495	C	N3-C4	-6.30	1.29	1.33
35	2	271	A	N9-C4	-6.30	1.34	1.37
35	2	477	A	C6-N1	-6.29	1.31	1.35
35	2	267	U	C2-N3	-6.29	1.33	1.37
35	2	151	G	C5-C6	-6.29	1.36	1.42
35	2	109	G	C8-N7	-6.29	1.27	1.30
35	2	163	G	N9-C4	-6.29	1.32	1.38
35	2	124	A	C6-N1	-6.28	1.31	1.35
35	2	309	C	C5-C6	-6.28	1.29	1.34
35	2	491	C	N1-C2	-6.28	1.33	1.40
35	2	462	G	N9-C4	-6.27	1.32	1.38
35	2	922	G	C2-N3	-6.26	1.27	1.32
35	2	502	U	C4-O4	-6.24	1.18	1.23
35	2	344	A	C5-C6	-6.24	1.35	1.41
35	2	377	G	N9-C8	-6.23	1.33	1.37
35	2	1043	A	N9-C4	-6.23	1.34	1.37
35	2	504	U	C2-N3	-6.23	1.33	1.37
35	2	167	U	C4-O4	-6.23	1.18	1.23
35	2	285	G	C6-N1	-6.23	1.35	1.39
35	2	107	C	N1-C6	-6.22	1.33	1.37
35	2	163	G	N7-C5	-6.22	1.35	1.39
35	2	341	A	C5-C6	-6.22	1.35	1.41
35	2	460	A	C6-N6	-6.21	1.28	1.33
35	2	419	G	C2-N2	-6.21	1.28	1.34
35	2	624	G	N9-C4	-6.21	1.32	1.38
35	2	530	C	C4-C5	-6.21	1.38	1.43
35	2	407	A	N7-C5	-6.20	1.35	1.39
35	2	477	A	C6-N6	-6.20	1.28	1.33
35	2	548	G	C5-C4	-6.20	1.34	1.38
35	2	210	A	C5-C4	-6.19	1.34	1.38
35	2	163	G	N9-C8	-6.19	1.33	1.37
35	2	630	A	C6-N6	-6.19	1.28	1.33
35	2	142	G	N3-C4	-6.19	1.31	1.35
36	3	84	G	N9-C4	-6.19	1.32	1.38
35	2	316	A	N3-C4	-6.17	1.31	1.34
35	2	512	A	C6-N6	-6.17	1.29	1.33
35	2	109	G	N9-C4	-6.16	1.33	1.38
35	2	307	G	N3-C4	-6.16	1.31	1.35
35	2	295	A	N3-C4	-6.16	1.31	1.34
35	2	1076	A	C5-C6	-6.16	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	340	U	N1-C2	-6.15	1.33	1.38
35	2	103	A	N9-C4	6.15	1.41	1.37
35	2	387	A	N3-C4	-6.14	1.31	1.34
35	2	206	A	N9-C4	-6.14	1.34	1.37
35	2	514	G	N9-C8	-6.13	1.33	1.37
35	2	382	C	C5-C6	-6.12	1.29	1.34
35	2	494	U	C5-C6	-6.12	1.28	1.34
35	2	885	G	C5-C4	-6.12	1.34	1.38
35	2	398	G	C5-C4	-6.12	1.34	1.38
35	2	489	C	N1-C6	-6.11	1.33	1.37
35	2	1080	U	C2-N3	-6.11	1.33	1.37
35	2	885	G	C6-N1	-6.09	1.35	1.39
35	2	213	A	C5-C4	-6.09	1.34	1.38
35	2	592	A	N7-C5	-6.08	1.35	1.39
35	2	168	A	N7-C5	-6.07	1.35	1.39
35	2	496	G	N7-C5	-6.07	1.35	1.39
35	2	488	G	N1-C2	-6.07	1.32	1.37
35	2	112	A	C5-C6	-6.06	1.35	1.41
35	2	173	A	C2-N3	-6.06	1.28	1.33
35	2	187	G	N9-C4	-6.06	1.33	1.38
35	2	950	C	N1-C6	-6.04	1.33	1.37
35	2	325	G	C5-C6	-6.04	1.36	1.42
35	2	156	A	C5-C6	-6.04	1.35	1.41
36	3	81	G	N9-C4	-6.04	1.33	1.38
35	2	28	A	N9-C4	6.04	1.41	1.37
35	2	316	A	C5-C6	-6.04	1.35	1.41
35	2	477	A	C5-C6	-6.03	1.35	1.41
35	2	546	U	C2-N3	-6.03	1.33	1.37
35	2	65	A	N3-C4	-6.03	1.31	1.34
35	2	84	A	N9-C8	-6.03	1.32	1.37
35	2	948	G	N9-C4	-6.03	1.33	1.38
35	2	100	A	N9-C4	-6.02	1.34	1.37
35	2	441	A	C6-N1	-6.02	1.31	1.35
35	2	142	G	C5-C6	-6.01	1.36	1.42
35	2	973	A	C5-C6	-6.00	1.35	1.41
35	2	922	G	C5-C4	-5.99	1.34	1.38
35	2	955	A	C5-C6	-5.99	1.35	1.41
35	2	288	A	C5-C4	-5.99	1.34	1.38
35	2	879	G	C6-N1	-5.99	1.35	1.39
35	2	301	A	N7-C5	-5.99	1.35	1.39
35	2	352	A	N9-C4	-5.99	1.34	1.37
35	2	548	G	C8-N7	-5.99	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	72	A	C5-C4	-5.98	1.34	1.38
35	2	514	G	C5-C4	-5.98	1.34	1.38
35	2	110	U	C2-O2	-5.98	1.17	1.22
35	2	881	A	N9-C4	-5.98	1.34	1.37
35	2	244	A	N9-C4	-5.97	1.34	1.37
35	2	361	C	N1-C2	-5.97	1.34	1.40
35	2	872	G	C5-C4	-5.97	1.34	1.38
35	2	465	G	N9-C8	-5.97	1.33	1.37
35	2	384	G	C5-C6	-5.97	1.36	1.42
35	2	99	C	C5-C6	-5.96	1.29	1.34
35	2	286	C	N1-C6	-5.96	1.33	1.37
35	2	305	C	N1-C6	-5.96	1.33	1.37
35	2	85	A	C8-N7	-5.96	1.27	1.31
35	2	885	G	C2-N3	-5.95	1.27	1.32
35	2	89	G	N9-C4	-5.95	1.33	1.38
35	2	926	A	C5-C6	-5.95	1.35	1.41
35	2	80	A	C5-C6	-5.94	1.35	1.41
35	2	895	G	C5-C4	-5.94	1.34	1.38
35	2	57	G	N9-C4	-5.94	1.33	1.38
35	2	1079	U	N1-C2	-5.94	1.33	1.38
35	2	878	G	C2-N3	-5.93	1.28	1.32
35	2	279	G	N9-C8	-5.92	1.33	1.37
35	2	295	A	N9-C8	-5.92	1.33	1.37
35	2	955	A	C6-N1	-5.92	1.31	1.35
35	2	209	U	C2-N3	-5.91	1.33	1.37
35	2	471	A	N9-C4	-5.91	1.34	1.37
35	2	465	G	N9-C4	-5.91	1.33	1.38
35	2	1023	A	C6-N1	-5.91	1.31	1.35
35	2	483	A	C5-C6	-5.91	1.35	1.41
35	2	185	U	C2-N3	-5.91	1.33	1.37
35	2	254	A	N9-C4	-5.91	1.34	1.37
35	2	457	G	C5-C4	-5.91	1.34	1.38
35	2	484	C	C5-C6	-5.91	1.29	1.34
35	2	1023	A	N3-C4	-5.91	1.31	1.34
35	2	538	A	C5-C6	-5.90	1.35	1.41
35	2	281	G	N7-C5	-5.90	1.35	1.39
35	2	365	G	C6-N1	-5.90	1.35	1.39
35	2	48	G	N9-C4	5.89	1.42	1.38
35	2	406	U	C5-C6	-5.89	1.28	1.34
35	2	464	A	C5-C4	-5.89	1.34	1.38
35	2	34	G	C6-N1	-5.88	1.35	1.39
35	2	590	C	N1-C2	-5.88	1.34	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	496	G	N1-C2	-5.86	1.33	1.37
35	2	328	A	N3-C4	-5.86	1.31	1.34
35	2	316	A	N9-C4	-5.83	1.34	1.37
35	2	590	C	N1-C6	-5.83	1.33	1.37
35	2	377	G	C8-N7	-5.82	1.27	1.30
35	2	405	C	C5-C6	-5.82	1.29	1.34
35	2	47	A	N3-C4	-5.82	1.31	1.34
35	2	949	C	C2-N3	-5.82	1.31	1.35
35	2	462	G	N1-C2	-5.82	1.33	1.37
35	2	1042	G	C5-C4	-5.82	1.34	1.38
35	2	496	G	C2-N2	-5.80	1.28	1.34
35	2	100	A	N7-C5	-5.80	1.35	1.39
35	2	404	G	C8-N7	-5.79	1.27	1.30
35	2	884	A	C5-C6	-5.79	1.35	1.41
35	2	269	G	C5-C4	-5.79	1.34	1.38
35	2	898	A	C5-C6	-5.79	1.35	1.41
35	2	295	A	C8-N7	-5.78	1.27	1.31
35	2	1075	C	N1-C2	-5.78	1.34	1.40
35	2	210	A	C8-N7	-5.78	1.27	1.31
35	2	390	G	N9-C4	-5.78	1.33	1.38
35	2	497	G	C8-N7	-5.78	1.27	1.30
35	2	625	C	N1-C6	-5.78	1.33	1.37
35	2	143	G	C5-C4	-5.77	1.34	1.38
35	2	900	A	C5-C4	-5.76	1.34	1.38
35	2	270	C	N1-C6	-5.76	1.33	1.37
35	2	927	C	N1-C6	-5.76	1.33	1.37
35	2	253	A	C6-N1	-5.75	1.31	1.35
35	2	448	C	N1-C6	-5.75	1.33	1.37
35	2	1041	G	C8-N7	-5.75	1.27	1.30
35	2	433	C	N1-C6	-5.75	1.33	1.37
15	c	167	LEU	CA-CB	-5.74	1.40	1.53
35	2	353	A	N7-C5	-5.74	1.35	1.39
35	2	147	A	N7-C5	-5.73	1.35	1.39
35	2	357	G	C5-C4	-5.73	1.34	1.38
35	2	891	A	N9-C4	-5.73	1.34	1.37
35	2	1039	A	C5-C4	-5.73	1.34	1.38
35	2	162	A	N7-C5	-5.72	1.35	1.39
35	2	91	G	C6-O6	-5.72	1.19	1.24
35	2	36	C	C2-N3	-5.71	1.31	1.35
35	2	1074	G	C8-N7	-5.70	1.27	1.30
35	2	108	A	C6-N1	-5.70	1.31	1.35
35	2	497	G	N1-C2	-5.70	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	894	U	N1-C2	-5.70	1.33	1.38
35	2	516	G	C2-N3	-5.70	1.28	1.32
35	2	900	A	C5-C6	-5.70	1.35	1.41
35	2	357	G	N9-C4	-5.69	1.33	1.38
35	2	1043	A	C5-C6	-5.69	1.35	1.41
35	2	273	G	C5-C6	-5.68	1.36	1.42
35	2	430	G	C8-N7	-5.68	1.27	1.30
35	2	87	C	C2-N3	-5.68	1.31	1.35
35	2	172	C	N1-C6	-5.68	1.33	1.37
35	2	303	U	N1-C2	-5.68	1.33	1.38
35	2	399	A	C5-C6	-5.68	1.35	1.41
35	2	401	A	C5-C4	-5.68	1.34	1.38
35	2	61	A	N9-C4	-5.67	1.34	1.37
35	2	100	A	C5-C6	-5.67	1.35	1.41
35	2	100	A	C6-N6	-5.67	1.29	1.33
35	2	936	G	C5-C4	-5.67	1.34	1.38
35	2	295	A	C5-C4	-5.67	1.34	1.38
35	2	179	A	N9-C4	5.66	1.41	1.37
35	2	325	G	C6-N1	-5.66	1.35	1.39
35	2	295	A	N7-C5	-5.66	1.35	1.39
35	2	516	G	C5-C4	-5.66	1.34	1.38
35	2	79	C	N1-C6	-5.66	1.33	1.37
35	2	269	G	C2-N3	-5.66	1.28	1.32
35	2	489	C	N3-C4	-5.66	1.29	1.33
35	2	312	A	C5-C4	-5.65	1.34	1.38
35	2	547	U	C5-C6	-5.65	1.29	1.34
35	2	392	G	N9-C8	-5.65	1.33	1.37
35	2	406	U	C4-C5	-5.64	1.38	1.43
35	2	506	A	N9-C4	-5.64	1.34	1.37
35	2	1083	G	C5-C6	-5.64	1.36	1.42
35	2	591	A	C5-C4	-5.64	1.34	1.38
35	2	914	G	C2-N3	-5.64	1.28	1.32
35	2	288	A	C2-N3	-5.64	1.28	1.33
35	2	498	G	C2-N3	-5.63	1.28	1.32
36	3	114	A	N9-C4	-5.63	1.34	1.37
35	2	488	G	C5-C4	-5.63	1.34	1.38
35	2	156	A	C5-C4	-5.63	1.34	1.38
35	2	152	U	N1-C2	-5.62	1.33	1.38
35	2	510	G	N9-C4	-5.62	1.33	1.38
35	2	353	A	N9-C8	-5.62	1.33	1.37
35	2	493	U	C2-N3	-5.62	1.33	1.37
35	2	353	A	C8-N7	-5.61	1.27	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	432	G	N3-C4	-5.61	1.31	1.35
35	2	497	G	N7-C5	-5.61	1.35	1.39
35	2	392	G	N1-C2	-5.60	1.33	1.37
35	2	588	U	C5-C6	-5.60	1.29	1.34
35	2	387	A	N9-C4	-5.60	1.34	1.37
35	2	428	A	C2-N3	-5.60	1.28	1.33
35	2	504	U	C4-O4	-5.60	1.19	1.23
35	2	151	G	N9-C4	-5.59	1.33	1.38
35	2	538	A	N7-C5	-5.59	1.35	1.39
35	2	87	C	N3-C4	-5.59	1.30	1.33
35	2	499	U	C2-N3	-5.59	1.33	1.37
35	2	405	C	N1-C6	-5.58	1.33	1.37
35	2	1037	C	N1-C2	-5.58	1.34	1.40
35	2	915	A	N9-C4	-5.58	1.34	1.37
35	2	442	C	N1-C6	-5.57	1.33	1.37
35	2	626	U	C2-N3	-5.57	1.33	1.37
35	2	151	G	C6-O6	-5.56	1.19	1.24
35	2	162	A	N9-C8	-5.56	1.33	1.37
35	2	491	C	N1-C6	-5.55	1.33	1.37
35	2	157	A	N9-C4	-5.55	1.34	1.37
35	2	390	G	C6-N1	-5.55	1.35	1.39
35	2	162	A	C8-N7	-5.55	1.27	1.31
35	2	1078	C	C2-N3	-5.54	1.31	1.35
36	3	250	G	N9-C4	-5.54	1.33	1.38
35	2	283	U	N1-C2	-5.54	1.33	1.38
35	2	325	G	C6-O6	-5.53	1.19	1.24
35	2	414	C	N1-C6	-5.53	1.33	1.37
35	2	153	G	N9-C4	-5.52	1.33	1.38
35	2	486	G	N7-C5	-5.52	1.35	1.39
35	2	1071	U	C2-N3	-5.52	1.33	1.37
19	j	882	ALA	CA-C	-5.52	1.38	1.52
35	2	503	G	N7-C5	-5.52	1.35	1.39
35	2	519	C	N3-C4	-5.52	1.30	1.33
19	i	882	ALA	CA-C	-5.50	1.38	1.52
35	2	949	C	N1-C6	-5.50	1.33	1.37
35	2	334	G	C8-N7	-5.50	1.27	1.30
35	2	474	A	N9-C4	-5.50	1.34	1.37
35	2	481	A	C5-C6	-5.50	1.36	1.41
35	2	884	A	N9-C4	-5.50	1.34	1.37
35	2	515	A	C2-N3	-5.49	1.28	1.33
35	2	399	A	N9-C4	-5.49	1.34	1.37
35	2	440	U	N1-C2	5.49	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	70	C	N1-C2	-5.49	1.34	1.40
35	2	1040	G	N9-C4	-5.49	1.33	1.38
35	2	189	C	C5-C6	-5.48	1.29	1.34
35	2	281	G	N9-C8	-5.48	1.34	1.37
35	2	394	C	C2-N3	-5.48	1.31	1.35
35	2	162	A	N9-C4	-5.47	1.34	1.37
35	2	442	C	N1-C2	-5.47	1.34	1.40
35	2	392	G	C8-N7	-5.47	1.27	1.30
35	2	496	G	C8-N7	-5.47	1.27	1.30
35	2	124	A	N3-C4	-5.46	1.31	1.34
35	2	243	G	C5-C4	-5.46	1.34	1.38
35	2	324	U	C2-N3	-5.46	1.33	1.37
35	2	109	G	C5-C4	-5.46	1.34	1.38
35	2	881	A	C5-C6	-5.45	1.36	1.41
35	2	284	G	C5-C6	-5.45	1.36	1.42
35	2	341	A	C5-C4	-5.44	1.34	1.38
35	2	123	G	N1-C2	-5.44	1.33	1.37
35	2	163	G	N3-C4	-5.44	1.31	1.35
35	2	173	A	C5-C4	-5.44	1.34	1.38
35	2	872	G	C2-N3	-5.43	1.28	1.32
35	2	32	U	N3-C4	-5.43	1.33	1.38
35	2	93	A	C5-C4	-5.43	1.34	1.38
35	2	46	A	N9-C4	5.43	1.41	1.37
35	2	65	A	C2-N3	-5.43	1.28	1.33
35	2	357	G	N1-C2	-5.42	1.33	1.37
19	i	615	PRO	C-N	5.42	1.46	1.34
35	2	1053	G	C5-C4	-5.42	1.34	1.38
35	2	473	A	N9-C8	-5.42	1.33	1.37
35	2	879	G	C5-C6	-5.41	1.36	1.42
35	2	877	G	N9-C4	-5.40	1.33	1.38
35	2	518	A	C6-N6	-5.40	1.29	1.33
35	2	1030	A	N9-C4	5.40	1.41	1.37
35	2	35	U	C2-N3	-5.40	1.33	1.37
35	2	464	A	C5-C6	-5.40	1.36	1.41
35	2	880	C	N1-C2	-5.40	1.34	1.40
35	2	87	C	C2-O2	-5.40	1.19	1.24
35	2	301	A	N3-C4	-5.39	1.31	1.34
35	2	523	G	C6-O6	-5.39	1.19	1.24
19	j	615	PRO	C-N	5.39	1.46	1.34
35	2	317	C	C2-N3	-5.39	1.31	1.35
35	2	538	A	N9-C8	-5.39	1.33	1.37
35	2	386	G	C5-C6	-5.38	1.36	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	441	A	C8-N7	-5.38	1.27	1.31
35	2	30	G	N7-C5	-5.38	1.36	1.39
35	2	1082	C	C5'-C4'	5.38	1.57	1.51
35	2	270	C	N1-C2	-5.37	1.34	1.40
35	2	83	G	C5-C4	-5.37	1.34	1.38
35	2	389	G	C5-C6	-5.37	1.36	1.42
36	3	248	G	N9-C4	-5.37	1.33	1.38
35	2	154	G	N9-C4	-5.36	1.33	1.38
35	2	498	G	N7-C5	-5.36	1.36	1.39
35	2	503	G	C8-N7	-5.36	1.27	1.30
35	2	57	G	C5-C4	-5.36	1.34	1.38
35	2	963	A	N9-C4	-5.36	1.34	1.37
35	2	488	G	N9-C8	-5.36	1.34	1.37
35	2	865	A	N9-C4	-5.36	1.34	1.37
35	2	103	A	N7-C5	-5.35	1.36	1.39
35	2	624	G	N3-C4	-5.35	1.31	1.35
35	2	325	G	N9-C4	-5.35	1.33	1.38
35	2	420	A	N9-C8	-5.35	1.33	1.37
35	2	113	U	C2-N3	-5.35	1.34	1.37
35	2	941	A	C5-C6	-5.35	1.36	1.41
35	2	413	U	C2-N3	-5.34	1.34	1.37
35	2	283	U	C2-N3	-5.34	1.34	1.37
35	2	397	A	N7-C5	-5.33	1.36	1.39
35	2	481	A	C2-N3	-5.33	1.28	1.33
35	2	527	A	C5-C6	-5.33	1.36	1.41
35	2	419	G	N9-C8	-5.33	1.34	1.37
35	2	186	C	N1-C2	-5.33	1.34	1.40
35	2	415	C	N3-C4	-5.33	1.30	1.33
35	2	538	A	C8-N7	-5.33	1.27	1.31
35	2	299	A	N9-C4	-5.32	1.34	1.37
35	2	263	C	N1-C6	-5.32	1.33	1.37
35	2	902	G	N7-C5	-5.32	1.36	1.39
35	2	960	U	N1-C2	-5.32	1.33	1.38
35	2	504	U	C5-C6	-5.32	1.29	1.34
35	2	393	C	C2-N3	-5.31	1.31	1.35
35	2	1027	A	C5-C6	-5.30	1.36	1.41
35	2	442	C	C2-N3	-5.30	1.31	1.35
35	2	388	G	C6-N1	-5.30	1.35	1.39
35	2	465	G	N7-C5	-5.30	1.36	1.39
35	2	105	A	C6-N6	-5.30	1.29	1.33
35	2	395	U	C2-N3	-5.30	1.34	1.37
35	2	316	A	C5-C4	-5.29	1.35	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	100	A	C5-C4	-5.28	1.35	1.38
35	2	974	A	N9-C4	-5.28	1.34	1.37
35	2	466	U	C2-N3	-5.28	1.34	1.37
35	2	253	A	C5-C4	-5.28	1.35	1.38
35	2	39	A	C6-N1	-5.28	1.31	1.35
35	2	143	G	N9-C4	-5.28	1.33	1.38
35	2	353	A	C6-N1	-5.27	1.31	1.35
35	2	336	G	C2-N3	-5.27	1.28	1.32
35	2	483	A	C6-N1	-5.26	1.31	1.35
35	2	503	G	C5-C4	-5.26	1.34	1.38
35	2	483	A	N9-C4	-5.26	1.34	1.37
35	2	148	A	C6-N6	-5.26	1.29	1.33
35	2	70	C	C4-N4	-5.25	1.29	1.33
35	2	497	G	C6-N1	-5.25	1.35	1.39
35	2	537	G	C5-C6	-5.25	1.37	1.42
16	d	50	GLU	C-N	-5.25	1.22	1.34
35	2	119	A	C5-C4	-5.25	1.35	1.38
35	2	353	A	C6-N6	-5.24	1.29	1.33
35	2	198	A	N9-C8	-5.24	1.33	1.37
35	2	267	U	N3-C4	-5.24	1.33	1.38
35	2	326	G	C5-C4	-5.24	1.34	1.38
35	2	393	C	C5-C6	-5.24	1.30	1.34
36	3	114	A	C5-C6	-5.24	1.36	1.41
35	2	869	A	N9-C4	-5.23	1.34	1.37
35	2	506	A	C5-C6	-5.23	1.36	1.41
35	2	285	G	N7-C5	-5.23	1.36	1.39
35	2	328	A	N7-C5	-5.22	1.36	1.39
35	2	1041	G	N9-C4	-5.22	1.33	1.38
35	2	147	A	N9-C4	-5.22	1.34	1.37
35	2	145	A	C2-N3	-5.22	1.28	1.33
35	2	536	C	N1-C2	-5.21	1.34	1.40
35	2	960	U	N1-C6	-5.21	1.33	1.38
35	2	415	C	C2-N3	-5.20	1.31	1.35
35	2	285	G	N3-C4	-5.19	1.31	1.35
35	2	366	A	C6-N1	-5.19	1.31	1.35
35	2	513	U	C2-N3	-5.19	1.34	1.37
35	2	389	G	C8-N7	-5.19	1.27	1.30
35	2	415	C	C2-O2	-5.19	1.19	1.24
35	2	590	C	C2-N3	-5.19	1.31	1.35
35	2	930	A	N9-C4	-5.18	1.34	1.37
35	2	1074	G	C2-N3	-5.18	1.28	1.32
35	2	419	G	C6-N1	-5.18	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	1077	C	C2-N3	-5.18	1.31	1.35
35	2	281	G	C8-N7	-5.17	1.27	1.30
35	2	1026	A	N9-C4	5.17	1.41	1.37
35	2	936	G	N9-C4	-5.17	1.33	1.38
35	2	41	A	N9-C4	5.15	1.41	1.37
35	2	151	G	N1-C2	-5.15	1.33	1.37
35	2	537	G	N3-C4	-5.15	1.31	1.35
35	2	281	G	C2-N3	-5.15	1.28	1.32
35	2	518	A	N9-C4	-5.15	1.34	1.37
35	2	922	G	C6-N1	-5.15	1.35	1.39
35	2	465	G	C8-N7	-5.14	1.27	1.30
35	2	276	C	C4-C5	-5.13	1.38	1.43
35	2	412	A	C8-N7	-5.13	1.27	1.31
35	2	506	A	C6-N1	-5.13	1.31	1.35
35	2	1080	U	N1-C2	-5.13	1.33	1.38
36	3	75	A	N9-C4	-5.12	1.34	1.37
35	2	287	G	C2-N3	-5.12	1.28	1.32
35	2	384	G	N9-C4	-5.11	1.33	1.38
35	2	865	A	C5-C6	-5.11	1.36	1.41
35	2	949	C	N1-C2	-5.11	1.35	1.40
35	2	87	C	N1-C2	-5.11	1.35	1.40
35	2	1043	A	N7-C5	-5.11	1.36	1.39
35	2	246	G	N9-C8	-5.10	1.34	1.37
35	2	269	G	N9-C8	-5.10	1.34	1.37
35	2	324	U	N3-C4	-5.09	1.33	1.38
35	2	333	A	N3-C4	-5.09	1.31	1.34
35	2	488	G	N9-C4	-5.09	1.33	1.38
35	2	480	G	N1-C2	-5.08	1.33	1.37
35	2	930	A	N7-C5	-5.08	1.36	1.39
35	2	243	G	N9-C4	-5.08	1.33	1.38
35	2	427	C	N3-C4	-5.08	1.30	1.33
35	2	1091	A	N3-C4	-5.08	1.31	1.34
36	3	268	G	C5-C6	-5.08	1.37	1.42
35	2	202	A	C5-C6	-5.08	1.36	1.41
35	2	591	A	C2-N3	-5.08	1.28	1.33
35	2	411	C	C5-C6	-5.08	1.30	1.34
35	2	81	G	C5-C6	-5.08	1.37	1.42
35	2	412	A	N3-C4	-5.07	1.31	1.34
35	2	279	G	C8-N7	-5.07	1.27	1.30
35	2	906	A	N7-C5	-5.07	1.36	1.39
35	2	926	A	C5-C4	-5.07	1.35	1.38
35	2	927	C	C4-C5	-5.07	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	2	317	C	C5-C6	-5.07	1.30	1.34
35	2	1053	G	N3-C4	-5.06	1.31	1.35
35	2	384	G	C2-N3	-5.06	1.28	1.32
35	2	973	A	C5-C4	-5.05	1.35	1.38
35	2	259	U	N1-C2	-5.05	1.34	1.38
35	2	69	G	N9-C4	-5.05	1.33	1.38
35	2	871	G	N9-C4	-5.05	1.33	1.38
35	2	1041	G	C6-N1	-5.04	1.36	1.39
35	2	481	A	C5-C4	-5.04	1.35	1.38
35	2	57	G	C5-C6	-5.04	1.37	1.42
35	2	85	A	N9-C8	-5.04	1.33	1.37
35	2	171	A	C6-N1	-5.04	1.32	1.35
35	2	448	C	C5-C6	-5.03	1.30	1.34
35	2	151	G	C8-N7	-5.02	1.27	1.30
35	2	310	C	C2-N3	-5.02	1.31	1.35
35	2	624	G	N9-C8	-5.01	1.34	1.37
35	2	70	C	C2-N3	-5.01	1.31	1.35
35	2	935	U	C5-C6	-5.01	1.29	1.34
35	2	406	U	C4-O4	-5.01	1.19	1.23
35	2	389	G	C6-N1	-5.00	1.36	1.39
35	2	514	G	N1-C2	-5.00	1.33	1.37
35	2	163	G	C2-N3	-5.00	1.28	1.32
35	2	246	G	C8-N7	-5.00	1.27	1.30

All (2522) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	k	272	PRO	N-CA-CB	37.92	148.80	103.30
16	d	104	PRO	N-CA-CB	37.74	148.58	103.30
20	k	82	LYS	O-C-N	-24.01	84.28	122.70
16	d	128	THR	N-CA-CB	23.81	155.54	110.30
35	2	381	C	N3-C4-N4	-22.05	102.57	118.00
35	2	432	G	C8-N9-C4	-20.04	98.38	106.40
35	2	432	G	N7-C8-N9	19.61	122.90	113.10
35	2	485	A	C8-N9-C4	19.54	113.61	105.80
35	2	381	C	C5-C4-N4	18.90	133.43	120.20
35	2	503	G	N3-C4-C5	18.61	137.90	128.60
35	2	256	A	N1-C6-N6	18.03	129.42	118.60
35	2	589	C	C6-N1-C2	17.41	127.26	120.30
35	2	278	U	N3-C2-O2	-17.25	110.13	122.20
35	2	398	G	C2-N3-C4	16.81	120.30	111.90
35	2	139	C	C6-N1-C2	-16.73	113.61	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	256	A	C4-C5-N7	16.55	118.97	110.70
35	2	381	C	N1-C2-O2	16.18	128.61	118.90
35	2	540	G	C8-N9-C4	-16.16	99.94	106.40
36	3	266	C	N3-C2-O2	-16.12	110.62	121.90
35	2	381	C	N3-C2-O2	-15.99	110.71	121.90
35	2	495	C	N1-C2-O2	15.96	128.47	118.90
35	2	1056	U	C5-C6-N1	15.52	130.46	122.70
35	2	256	A	N9-C4-C5	-15.46	99.61	105.80
35	2	256	A	C5-C6-N6	-15.40	111.38	123.70
35	2	1070	C	C6-N1-C2	15.36	126.44	120.30
35	2	360	A	C2-N3-C4	-15.28	102.96	110.60
35	2	50	C	C4-C5-C6	15.28	125.04	117.40
35	2	484	C	C4-C5-C6	-15.21	109.80	117.40
35	2	488	G	C4-C5-N7	15.14	116.86	110.80
35	2	386	G	N9-C4-C5	-15.10	99.36	105.40
35	2	30	G	O4'-C1'-N9	15.05	120.24	108.20
35	2	488	G	C5-N7-C8	-15.03	96.79	104.30
35	2	307	G	N3-C4-C5	14.92	136.06	128.60
35	2	503	G	C2-N3-C4	-14.88	104.46	111.90
35	2	328	A	C2-N3-C4	-14.74	103.23	110.60
35	2	243	G	N9-C4-C5	-14.71	99.52	105.40
16	d	104	PRO	CB-CA-C	-14.69	75.27	112.00
35	2	914	G	N3-C4-C5	14.64	135.92	128.60
35	2	243	G	C4-C5-N7	14.57	116.63	110.80
35	2	1023	A	C2-N3-C4	-14.57	103.31	110.60
35	2	503	G	C4-C5-N7	14.56	116.62	110.80
35	2	378	A	C8-N9-C4	-14.52	99.99	105.80
35	2	488	G	N7-C8-N9	14.49	120.34	113.10
35	2	1097	U	C6-N1-C2	-14.45	112.33	121.00
35	2	256	A	C5-N7-C8	-14.41	96.69	103.90
35	2	278	U	N1-C2-O2	14.40	132.88	122.80
35	2	196	G	N3-C4-N9	-14.39	117.37	126.00
35	2	30	G	C8-N9-C4	-14.38	100.65	106.40
35	2	500	C	C6-N1-C2	-14.28	114.59	120.30
20	k	271	VAL	N-CA-CB	14.25	142.85	111.50
35	2	196	G	N3-C4-C5	14.24	135.72	128.60
35	2	365	G	C6-C5-N7	-14.21	121.87	130.40
20	k	272	PRO	CB-CA-C	-14.16	76.59	112.00
35	2	191	C	C6-N1-C1'	14.16	137.80	120.80
35	2	53	G	N3-C4-C5	14.15	135.67	128.60
35	2	99	C	N1-C2-O2	14.11	127.36	118.90
35	2	440	U	C2-N1-C1'	13.63	134.06	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	456	A	C4-C5-N7	13.59	117.50	110.70
35	2	394	C	C6-N1-C2	13.54	125.72	120.30
35	2	588	U	C5-C4-O4	-13.52	117.79	125.90
35	2	28	A	O4'-C1'-N9	13.51	119.01	108.20
35	2	142	G	N1-C6-O6	13.51	128.01	119.90
35	2	48	G	N3-C4-N9	13.50	134.10	126.00
36	3	266	C	N1-C2-O2	13.34	126.90	118.90
20	k	271	VAL	CB-CA-C	-13.34	86.06	111.40
35	2	391	A	N9-C4-C5	-13.33	100.47	105.80
35	2	308	C	C6-N1-C2	13.26	125.60	120.30
35	2	362	G	N1-C6-O6	-13.22	111.97	119.90
35	2	1094	G	C2-N3-C4	-13.18	105.31	111.90
19	j	611	GLY	C-N-CA	-13.16	88.80	121.70
35	2	256	A	C6-C5-N7	-13.16	123.09	132.30
35	2	142	G	C5-C6-O6	-13.09	120.74	128.60
16	d	128	THR	CB-CA-C	-13.07	76.30	111.60
35	2	872	G	N1-C6-O6	13.03	127.72	119.90
35	2	360	A	N1-C2-N3	13.01	135.81	129.30
35	2	53	G	N3-C4-N9	-12.88	118.27	126.00
35	2	955	A	C2-N3-C4	-12.88	104.16	110.60
35	2	210	A	N9-C4-C5	-12.83	100.67	105.80
35	2	524	U	C6-N1-C2	-12.79	113.33	121.00
35	2	403	G	N7-C8-N9	12.73	119.46	113.10
35	2	488	G	C6-C5-N7	-12.66	122.81	130.40
35	2	386	G	C4-C5-N7	12.58	115.83	110.80
35	2	191	C	C2-N1-C1'	-12.57	104.98	118.80
35	2	407	A	C5-N7-C8	-12.56	97.62	103.90
35	2	512	A	N1-C6-N6	-12.55	111.07	118.60
35	2	243	G	N1-C6-O6	12.51	127.41	119.90
35	2	485	A	N9-C4-C5	-12.51	100.80	105.80
35	2	142	G	N3-C4-C5	12.49	134.85	128.60
35	2	253	A	N9-C4-C5	-12.45	100.82	105.80
35	2	404	G	C4-C5-N7	12.44	115.78	110.80
35	2	922	G	N3-C4-C5	12.42	134.81	128.60
35	2	34	G	O5'-P-OP2	12.38	125.55	110.70
35	2	71	A	O4'-C1'-N9	12.32	118.06	108.20
35	2	191	C	N1-C2-O2	-12.27	111.54	118.90
35	2	530	C	N1-C2-O2	12.27	126.26	118.90
35	2	1039	A	C8-N9-C4	12.24	110.69	105.80
35	2	589	C	C5-C6-N1	-12.19	114.90	121.00
35	2	1074	G	C4-C5-N7	12.16	115.66	110.80
35	2	123	G	C4-C5-N7	12.13	115.65	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	460	A	C8-N9-C4	12.13	110.65	105.80
35	2	872	G	C5-C6-O6	-12.13	121.32	128.60
35	2	589	C	C2-N1-C1'	-12.12	105.47	118.80
35	2	312	A	C8-N9-C4	12.11	110.64	105.80
35	2	358	U	C5-C6-N1	12.08	128.74	122.70
35	2	50	C	N3-C4-C5	-12.08	117.07	121.90
35	2	456	A	N1-C6-N6	12.06	125.84	118.60
35	2	491	C	N3-C4-C5	11.92	126.67	121.90
35	2	386	G	C6-C5-N7	-11.92	123.25	130.40
35	2	548	G	N3-C4-C5	11.90	134.55	128.60
35	2	1091	A	N1-C2-N3	11.89	135.25	129.30
35	2	50	C	O4'-C1'-N1	11.88	117.71	108.20
35	2	375	U	C2-N1-C1'	-11.87	103.46	117.70
35	2	493	U	N3-C2-O2	11.86	130.50	122.20
35	2	287	G	C4-C5-N7	11.80	115.52	110.80
35	2	523	G	O4'-C1'-N9	11.79	117.64	108.20
35	2	456	A	C5-N7-C8	-11.79	98.01	103.90
35	2	485	A	N7-C8-N9	-11.77	107.91	113.80
35	2	1094	G	N1-C6-O6	11.77	126.96	119.90
35	2	1083	G	N3-C4-C5	11.77	134.48	128.60
35	2	102	U	C5-C4-O4	-11.71	118.87	125.90
35	2	503	G	N9-C4-C5	-11.65	100.74	105.40
35	2	1091	A	C2-N3-C4	-11.62	104.79	110.60
35	2	243	G	C6-C5-N7	-11.60	123.44	130.40
35	2	365	G	C4-C5-N7	11.57	115.43	110.80
35	2	377	G	C8-N9-C4	11.55	111.02	106.40
35	2	378	A	N7-C8-N9	11.52	119.56	113.80
35	2	28	A	C8-N9-C4	-11.49	101.20	105.80
35	2	406	U	C5-C6-N1	11.46	128.43	122.70
35	2	333	A	C2-N3-C4	-11.44	104.88	110.60
35	2	210	A	C8-N9-C4	11.42	110.37	105.80
35	2	354	C	C5-C4-N4	-11.41	112.21	120.20
35	2	914	G	N3-C4-N9	-11.41	119.16	126.00
35	2	440	U	C5-C4-O4	-11.40	119.06	125.90
35	2	540	G	N7-C8-N9	11.36	118.78	113.10
35	2	79	C	N1-C2-O2	11.35	125.71	118.90
35	2	142	G	N3-C4-N9	-11.34	119.20	126.00
35	2	1096	C	C6-N1-C2	-11.33	115.77	120.30
35	2	456	A	N9-C4-C5	-11.32	101.27	105.80
35	2	432	G	C4-N9-C1'	11.30	141.19	126.50
35	2	900	A	C8-N9-C4	11.27	110.31	105.80
35	2	1041	G	C4-C5-N7	11.25	115.30	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	c	151	ALA	N-CA-CB	-11.25	94.35	110.10
20	k	84	ILE	CB-CA-C	-11.25	89.10	111.60
35	2	539	G	C8-N9-C4	11.25	110.90	106.40
35	2	38	C	C6-N1-C2	-11.23	115.81	120.30
35	2	494	U	C5-C6-N1	11.16	128.28	122.70
35	2	959	U	C6-N1-C2	11.14	127.69	121.00
35	2	99	C	C5-C6-N1	11.13	126.57	121.00
35	2	493	U	C6-N1-C2	11.11	127.67	121.00
35	2	65	A	C2-N3-C4	-11.11	105.05	110.60
35	2	495	C	N3-C2-O2	-11.11	114.13	121.90
35	2	317	C	C6-N1-C2	11.10	124.74	120.30
35	2	973	A	N9-C4-C5	-11.09	101.37	105.80
35	2	523	G	C4-C5-N7	11.08	115.23	110.80
35	2	500	C	C5-C6-N1	11.07	126.53	121.00
15	c	167	LEU	CB-CA-C	-11.06	89.18	110.20
35	2	281	G	C5-N7-C8	-11.05	98.78	104.30
35	2	71	A	O5'-P-OP1	-11.03	95.78	105.70
35	2	377	G	N9-C4-C5	-11.00	101.00	105.40
35	2	485	A	N3-C4-C5	10.98	134.48	126.80
35	2	455	C	O4'-C1'-N1	-10.94	99.44	108.20
35	2	977	A	N1-C6-N6	-10.91	112.05	118.60
35	2	80	A	N1-C2-N3	-10.90	123.85	129.30
35	2	391	A	C8-N9-C4	10.90	110.16	105.80
35	2	333	A	N1-C2-N3	10.90	134.75	129.30
35	2	549	G	C8-N9-C4	10.85	110.74	106.40
35	2	592	A	C6-N1-C2	-10.83	112.10	118.60
36	3	77	C	OP1-P-O3'	-10.83	81.37	105.20
35	2	80	A	N9-C4-C5	-10.82	101.47	105.80
35	2	376	C	C6-N1-C2	10.81	124.63	120.30
35	2	502	U	N3-C4-C5	10.79	121.08	114.60
35	2	1023	A	C5-C6-N1	-10.79	112.31	117.70
35	2	99	C	C4-C5-C6	-10.78	112.01	117.40
35	2	412	A	C5-N7-C8	-10.77	98.51	103.90
35	2	473	A	N1-C2-N3	10.76	134.68	129.30
35	2	309	C	C6-N1-C2	10.75	124.60	120.30
35	2	487	G	C8-N9-C4	-10.75	102.10	106.40
36	3	268	G	N9-C4-C5	-10.74	101.10	105.40
35	2	444	C	N1-C2-O2	-10.71	112.47	118.90
35	2	32	U	C2-N1-C1'	-10.69	104.88	117.70
35	2	139	C	C5-C6-N1	10.68	126.34	121.00
35	2	487	G	N7-C8-N9	10.67	118.44	113.10
35	2	365	G	N7-C8-N9	10.66	118.43	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	496	G	C2-N3-C4	-10.65	106.57	111.90
35	2	166	C	N3-C2-O2	-10.65	114.44	121.90
35	2	391	A	C4-C5-N7	10.64	116.02	110.70
36	3	259	A	O4'-C1'-N9	10.64	116.71	108.20
35	2	404	G	N9-C4-C5	-10.63	101.15	105.40
35	2	151	G	C8-N9-C4	10.61	110.64	106.40
35	2	936	G	C8-N9-C4	10.60	110.64	106.40
35	2	523	G	C5-C6-N1	10.57	116.78	111.50
35	2	512	A	C4-C5-C6	-10.57	111.72	117.00
35	2	955	A	C5-N7-C8	-10.57	98.62	103.90
20	k	104	PRO	N-CA-CB	10.56	115.98	103.30
35	2	166	C	C6-N1-C2	-10.56	116.07	120.30
35	2	65	A	N3-C4-N9	-10.56	118.95	127.40
35	2	493	U	C2-N1-C1'	-10.55	105.04	117.70
35	2	103	A	C8-N9-C4	-10.55	101.58	105.80
35	2	432	G	C4-C5-C6	10.54	125.12	118.80
35	2	872	G	N3-C4-C5	10.54	133.87	128.60
35	2	487	G	N3-C4-C5	-10.51	123.34	128.60
35	2	362	G	O5'-P-OP1	-10.51	96.24	105.70
35	2	163	G	C5-N7-C8	-10.50	99.05	104.30
35	2	326	G	C4-N9-C1'	-10.50	112.85	126.50
35	2	63	G	C5-C6-O6	10.48	134.89	128.60
36	3	114	A	N9-C4-C5	-10.48	101.61	105.80
35	2	162	A	N9-C4-C5	-10.47	101.61	105.80
35	2	243	G	C8-N9-C4	10.47	110.59	106.40
35	2	199	G	C2-N3-C4	-10.46	106.67	111.90
35	2	432	G	C6-C5-N7	-10.46	124.13	130.40
35	2	419	G	C2-N3-C4	-10.44	106.68	111.90
35	2	503	G	C5-N7-C8	-10.44	99.08	104.30
35	2	326	G	N3-C4-C5	10.43	133.82	128.60
35	2	287	G	N9-C4-C5	-10.42	101.23	105.40
35	2	457	G	N9-C1'-C2'	-10.41	100.46	114.00
35	2	923	A	C2-N3-C4	-10.40	105.40	110.60
35	2	463	U	C2-N1-C1'	-10.40	105.22	117.70
35	2	307	G	N3-C4-N9	-10.39	119.76	126.00
36	3	192	A	C8-N9-C4	-10.39	101.64	105.80
35	2	142	G	C4-N9-C1'	-10.36	113.04	126.50
35	2	164	A	C8-N9-C4	10.34	109.94	105.80
35	2	524	U	C5-C6-N1	10.34	127.87	122.70
35	2	1023	A	N3-C4-C5	10.32	134.02	126.80
35	2	1094	G	N3-C4-C5	10.31	133.75	128.60
35	2	486	G	C8-N9-C1'	-10.31	113.60	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	48	G	C6-C5-N7	-10.29	124.22	130.40
35	2	403	G	C8-N9-C4	-10.29	102.28	106.40
35	2	973	A	C8-N9-C4	10.27	109.91	105.80
35	2	1070	C	C5-C6-N1	-10.25	115.87	121.00
35	2	407	A	N7-C8-N9	10.24	118.92	113.80
35	2	531	C	N1-C2-O2	10.20	125.02	118.90
36	3	266	C	C6-N1-C2	-10.19	116.22	120.30
35	2	935	U	C5-C4-O4	-10.18	119.79	125.90
35	2	301	A	C5-N7-C8	-10.16	98.82	103.90
35	2	485	A	C4-C5-C6	-10.14	111.93	117.00
35	2	388	G	N1-C6-O6	10.13	125.98	119.90
35	2	366	A	C6-N1-C2	10.11	124.67	118.60
35	2	195	G	N3-C4-C5	10.10	133.65	128.60
35	2	151	G	N9-C4-C5	-10.09	101.36	105.40
35	2	162	A	C4-C5-N7	10.04	115.72	110.70
35	2	301	A	C2-N3-C4	-10.04	105.58	110.60
35	2	456	A	C6-C5-N7	-10.04	125.27	132.30
35	2	452	A	N9-C4-C5	-10.03	101.79	105.80
36	3	77	C	OP2-P-O3'	-10.04	83.12	105.20
35	2	548	G	C4-C5-N7	10.03	114.81	110.80
35	2	53	G	C4-N9-C1'	-10.03	113.46	126.50
35	2	548	G	C2-N3-C4	-10.03	106.89	111.90
35	2	99	C	C2-N1-C1'	10.02	129.82	118.80
35	2	955	A	N7-C8-N9	10.02	118.81	113.80
35	2	256	A	N7-C8-N9	10.01	118.80	113.80
35	2	343	C	N3-C4-C5	10.01	125.90	121.90
35	2	488	G	N1-C6-O6	9.99	125.90	119.90
35	2	162	A	C5-N7-C8	-9.99	98.91	103.90
35	2	391	A	N1-C2-N3	-9.98	124.31	129.30
35	2	1092	A	N1-C2-N3	9.98	134.29	129.30
35	2	401	A	O4'-C1'-N9	9.96	116.17	108.20
35	2	403	G	C5-N7-C8	-9.96	99.32	104.30
35	2	87	C	C6-N1-C1'	9.96	132.75	120.80
35	2	210	A	C4-C5-N7	9.95	115.68	110.70
35	2	440	U	C6-N1-C1'	-9.95	107.27	121.20
35	2	301	A	N7-C8-N9	9.95	118.77	113.80
35	2	393	C	N3-C4-C5	9.94	125.88	121.90
20	k	83	ILE	CB-CA-C	-9.93	91.74	111.60
35	2	30	G	O5'-P-OP1	-9.92	96.78	105.70
35	2	514	G	C4-C5-N7	9.91	114.76	110.80
35	2	502	U	C4-C5-C6	-9.90	113.76	119.70
35	2	197	A	N1-C2-N3	9.90	134.25	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	326	G	N3-C4-N9	-9.87	120.08	126.00
35	2	73	U	N1-C2-O2	9.86	129.70	122.80
35	2	282	C	C6-N1-C2	9.86	124.24	120.30
35	2	539	G	N3-C4-C5	9.86	133.53	128.60
35	2	430	G	N3-C4-C5	9.83	133.52	128.60
35	2	529	A	C5-C6-N1	9.80	122.60	117.70
36	3	268	G	C4-C5-N7	9.80	114.72	110.80
35	2	362	G	C5-C6-O6	9.79	134.48	128.60
35	2	539	G	C4-N9-C1'	-9.79	113.77	126.50
35	2	63	G	N1-C6-O6	-9.79	114.03	119.90
35	2	1042	G	N1-C6-O6	9.78	125.77	119.90
35	2	394	C	N3-C4-C5	9.76	125.80	121.90
35	2	253	A	C8-N9-C4	9.75	109.70	105.80
35	2	491	C	C2-N1-C1'	-9.75	108.07	118.80
35	2	135	A	N9-C1'-C2'	-9.74	101.29	112.00
16	d	143	ILE	CB-CA-C	-9.73	92.14	111.60
35	2	454	U	C6-N1-C2	-9.71	115.17	121.00
35	2	1073	G	C4-C5-N7	9.71	114.68	110.80
35	2	243	G	C5-C6-O6	-9.70	122.78	128.60
35	2	430	G	C4-C5-N7	9.69	114.68	110.80
35	2	131	C	C2-N1-C1'	9.69	129.46	118.80
35	2	289	U	N1-C2-O2	9.69	129.58	122.80
35	2	357	G	C4-C5-N7	9.67	114.67	110.80
35	2	28	A	N3-C4-C5	-9.66	120.04	126.80
35	2	1042	G	N9-C4-C5	-9.66	101.53	105.40
35	2	486	G	C4-N9-C1'	9.65	139.05	126.50
35	2	296	U	C5-C6-N1	9.64	127.52	122.70
35	2	1070	C	C2-N1-C1'	-9.64	108.20	118.80
35	2	79	C	C6-N1-C1'	-9.64	109.24	120.80
35	2	441	A	N9-C4-C5	-9.61	101.95	105.80
35	2	1620	C	C6-N1-C2	-9.61	116.46	120.30
35	2	497	G	N3-C4-C5	9.61	133.40	128.60
2	G	3214	ASP	C-N-CA	9.60	145.69	121.70
35	2	487	G	C4-N9-C1'	9.60	138.97	126.50
35	2	537	G	N3-C4-C5	9.59	133.40	128.60
35	2	131	C	C6-N1-C1'	-9.59	109.30	120.80
35	2	922	G	C4-N9-C1'	-9.58	114.04	126.50
35	2	163	G	C4-C5-N7	9.58	114.63	110.80
35	2	334	G	C4-C5-N7	9.58	114.63	110.80
15	c	165	ALA	N-CA-CB	-9.57	96.70	110.10
35	2	334	G	C5-N7-C8	-9.57	99.52	104.30
35	2	491	C	C6-N1-C2	9.57	124.13	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	d	112	ILE	CB-CA-C	-9.56	92.48	111.60
35	2	48	G	N3-C4-C5	-9.56	123.82	128.60
35	2	549	G	C4-C5-C6	-9.55	113.07	118.80
35	2	322	G	N9-C4-C5	-9.55	101.58	105.40
35	2	1067	C	C6-N1-C2	9.54	124.11	120.30
35	2	196	G	C4-N9-C1'	-9.52	114.13	126.50
35	2	1042	G	C8-N9-C4	9.52	110.21	106.40
35	2	404	G	C8-N9-C4	9.51	110.20	106.40
35	2	151	G	C4-C5-N7	9.51	114.60	110.80
35	2	57	G	C8-N9-C4	9.50	110.20	106.40
35	2	473	A	O4'-C1'-N9	9.49	115.79	108.20
35	2	926	A	C5-C6-N6	-9.48	116.12	123.70
35	2	124	A	C8-N9-C4	9.46	109.58	105.80
35	2	253	A	C4-C5-N7	9.46	115.43	110.70
35	2	396	G	N3-C4-C5	9.45	133.32	128.60
35	2	191	C	C6-N1-C2	-9.44	116.53	120.30
35	2	41	A	N9-C4-C5	-9.43	102.03	105.80
35	2	471	A	C8-N9-C4	9.41	109.56	105.80
35	2	186	C	C5-C6-N1	9.40	125.70	121.00
19	i	480	TYR	CB-CA-C	-9.40	91.60	110.40
35	2	366	A	C8-N9-C4	9.39	109.56	105.80
35	2	1620	C	C2-N1-C1'	9.39	129.13	118.80
35	2	307	G	C4-N9-C1'	-9.39	114.30	126.50
19	j	480	TYR	CB-CA-C	-9.38	91.64	110.40
35	2	128	U	N3-C2-O2	-9.38	115.64	122.20
35	2	273	G	C4-C5-N7	9.38	114.55	110.80
35	2	390	G	N3-C2-N2	-9.37	113.34	119.90
35	2	103	A	C4-C5-C6	9.36	121.68	117.00
35	2	957	G	C8-N9-C4	9.36	110.14	106.40
35	2	1094	G	N9-C4-C5	-9.36	101.66	105.40
35	2	358	U	C4-C5-C6	-9.35	114.09	119.70
35	2	484	C	N3-C4-C5	9.35	125.64	121.90
35	2	538	A	N9-C4-C5	-9.34	102.06	105.80
35	2	412	A	N7-C8-N9	9.34	118.47	113.80
35	2	452	A	O4'-C1'-N9	-9.34	100.73	108.20
35	2	443	C	C6-N1-C2	9.33	124.03	120.30
35	2	103	A	N3-C4-C5	-9.32	120.27	126.80
35	2	173	A	C2-N3-C4	-9.32	105.94	110.60
35	2	519	C	C2-N1-C1'	-9.31	108.56	118.80
35	2	523	G	N3-C2-N2	9.29	126.41	119.90
35	2	502	U	C6-N1-C2	9.29	126.57	121.00
35	2	549	G	N3-C4-C5	9.28	133.24	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	503	G	C8-N9-C4	9.25	110.10	106.40
35	2	960	U	C5-C6-N1	-9.24	118.08	122.70
35	2	65	A	N9-C4-C5	9.24	109.50	105.80
35	2	184	C	C2-N1-C1'	9.23	128.96	118.80
35	2	463	U	N3-C2-O2	-9.21	115.75	122.20
35	2	460	A	N9-C4-C5	-9.21	102.11	105.80
35	2	1041	G	N9-C4-C5	-9.21	101.72	105.40
36	3	248	G	N3-C4-N9	-9.21	120.47	126.00
35	2	67	A	C5-C6-N1	9.19	122.30	117.70
35	2	281	G	N7-C8-N9	9.19	117.69	113.10
35	2	404	G	N3-C4-C5	9.18	133.19	128.60
35	2	53	G	C2-N3-C4	-9.17	107.32	111.90
35	2	1094	G	C5-C6-N1	-9.17	106.92	111.50
35	2	142	G	C8-N9-C1'	9.16	138.91	127.00
35	2	67	A	O4'-C1'-N9	-9.16	100.87	108.20
35	2	123	G	N9-C4-C5	-9.16	101.74	105.40
35	2	354	C	N3-C4-C5	9.15	125.56	121.90
35	2	365	G	C5-N7-C8	-9.14	99.73	104.30
35	2	328	A	N3-C4-C5	9.13	133.19	126.80
35	2	376	C	N3-C4-C5	9.12	125.55	121.90
35	2	309	C	N3-C2-O2	9.11	128.28	121.90
36	3	84	G	N3-C4-C5	9.12	133.16	128.60
35	2	305	C	C5-C6-N1	9.11	125.56	121.00
35	2	588	U	N1-C2-O2	9.11	129.18	122.80
35	2	398	G	N3-C4-C5	-9.11	124.05	128.60
35	2	432	G	N1-C6-O6	9.11	125.36	119.90
35	2	303	U	C5-C6-N1	-9.10	118.15	122.70
35	2	529	A	N7-C8-N9	9.10	118.35	113.80
35	2	347	G	C4-C5-N7	9.09	114.43	110.80
35	2	898	A	N9-C4-C5	-9.09	102.17	105.80
35	2	1075	C	C6-N1-C2	9.08	123.93	120.30
35	2	868	G	N1-C2-N2	9.08	124.37	116.20
35	2	497	G	C8-N9-C4	9.08	110.03	106.40
35	2	36	C	O5'-P-OP2	-9.07	97.53	105.70
35	2	357	G	N9-C4-C5	-9.07	101.77	105.40
35	2	513	U	N3-C4-O4	-9.06	113.06	119.40
35	2	431	C	N3-C4-C5	9.06	125.52	121.90
35	2	365	G	N9-C4-C5	-9.04	101.78	105.40
35	2	384	G	C4-C5-N7	9.04	114.42	110.80
35	2	60	U	O5'-P-OP2	-9.03	97.57	105.70
35	2	87	C	C2-N1-C1'	-9.03	108.87	118.80
35	2	112	A	N9-C4-C5	-9.03	102.19	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	1039	A	N9-C4-C5	-9.01	102.20	105.80
35	2	894	U	N1-C2-O2	-9.01	116.49	122.80
35	2	1041	G	N1-C6-O6	9.01	125.30	119.90
35	2	504	U	C5-C4-O4	-9.00	120.50	125.90
35	2	121	U	C2-N1-C1'	-8.99	106.91	117.70
35	2	1038	U	C5-C4-O4	-8.98	120.51	125.90
35	2	328	A	C5-N7-C8	-8.98	99.41	103.90
16	d	112	ILE	N-CA-CB	8.97	131.44	110.80
35	2	312	A	N7-C8-N9	-8.97	109.31	113.80
35	2	34	G	C5-C6-O6	8.97	133.98	128.60
35	2	1023	A	N3-C4-N9	-8.97	120.23	127.40
35	2	957	G	N9-C4-C5	-8.97	101.81	105.40
35	2	393	C	N1-C2-O2	8.96	124.28	118.90
35	2	1045	C	C2-N1-C1'	-8.96	108.94	118.80
35	2	326	G	C8-N9-C1'	8.96	138.65	127.00
35	2	1039	A	C2-N3-C4	-8.96	106.12	110.60
35	2	369	A	C8-N9-C4	8.95	109.38	105.80
35	2	200	A	C2-N3-C4	-8.94	106.13	110.60
35	2	936	G	C4-N9-C1'	-8.93	114.89	126.50
16	d	143	ILE	N-CA-CB	8.92	131.32	110.80
35	2	1046	G	N9-C4-C5	-8.92	101.83	105.40
35	2	54	C	N3-C4-C5	8.92	125.47	121.90
35	2	386	G	N3-C4-N9	8.92	131.35	126.00
35	2	388	G	C4-C5-N7	8.92	114.37	110.80
35	2	131	C	N1-C2-O2	8.91	124.25	118.90
35	2	539	G	N9-C4-C5	-8.91	101.84	105.40
35	2	103	A	C4-N9-C1'	8.90	142.32	126.30
35	2	523	G	N1-C2-N3	-8.90	118.56	123.90
35	2	523	G	N9-C4-C5	-8.90	101.84	105.40
35	2	402	C	O5'-P-OP1	-8.90	97.69	105.70
35	2	282	C	C6-N1-C1'	-8.90	110.12	120.80
35	2	488	G	C8-N9-C4	-8.89	102.84	106.40
35	2	210	A	N1-C6-N6	8.88	123.93	118.60
35	2	407	A	N3-C4-N9	-8.88	120.29	127.40
35	2	167	U	C2-N1-C1'	8.88	128.35	117.70
35	2	48	G	N3-C2-N2	8.87	126.11	119.90
35	2	502	U	N1-C2-N3	-8.87	109.58	114.90
19	i	615	PRO	N-CA-C	8.86	135.13	112.10
35	2	1080	U	N3-C4-C5	8.86	119.91	114.60
35	2	26	A	N9-C4-C5	-8.85	102.26	105.80
35	2	406	U	C4-C5-C6	-8.85	114.39	119.70
19	j	615	PRO	N-CA-C	8.84	135.08	112.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	548	G	N1-C6-O6	8.83	125.20	119.90
35	2	99	C	C6-N1-C1'	-8.82	110.21	120.80
35	2	885	G	N3-C4-C5	8.82	133.01	128.60
35	2	473	A	C6-N1-C2	-8.81	113.31	118.60
35	2	398	G	N1-C2-N3	-8.81	118.62	123.90
20	k	83	ILE	N-CA-CB	8.79	131.03	110.80
35	2	588	U	N3-C4-C5	8.79	119.88	114.60
35	2	1046	G	C4-C5-N7	8.79	114.32	110.80
35	2	196	G	C8-N9-C1'	8.79	138.42	127.00
35	2	1025	A	C8-N9-C4	-8.79	102.29	105.80
35	2	488	G	C5-C6-O6	-8.78	123.33	128.60
20	k	237	PRO	N-CA-CB	8.78	113.83	103.30
35	2	134	U	C5-C4-O4	-8.77	120.64	125.90
35	2	900	A	N9-C4-C5	-8.77	102.29	105.80
35	2	57	G	N9-C4-C5	-8.77	101.89	105.40
35	2	31	C	C5-C6-N1	8.76	125.38	121.00
35	2	87	C	N1-C2-N3	8.76	125.33	119.20
35	2	273	G	N1-C6-O6	8.76	125.15	119.90
35	2	1081	A	O4'-C1'-N9	-8.76	101.20	108.20
35	2	209	U	C5-C4-O4	-8.75	120.65	125.90
35	2	955	A	N1-C2-N3	8.75	133.67	129.30
35	2	500	C	N3-C2-O2	-8.74	115.78	121.90
35	2	79	C	C2-N1-C1'	8.74	128.41	118.80
35	2	432	G	C5-N7-C8	-8.74	99.93	104.30
35	2	108	A	C5-N7-C8	-8.73	99.53	103.90
35	2	398	G	C5-C6-N1	8.73	115.86	111.50
35	2	471	A	C5-C6-N1	-8.72	113.34	117.70
20	k	61	PRO	N-CA-CB	8.72	113.77	103.30
35	2	41	A	C6-C5-N7	-8.71	126.20	132.30
35	2	212	U	N1-C2-O2	8.71	128.90	122.80
35	2	1097	U	N1-C2-N3	8.71	120.12	114.90
35	2	205	U	C6-N1-C2	8.71	126.22	121.00
35	2	162	A	C6-N1-C2	8.70	123.82	118.60
35	2	344	A	C5-N7-C8	-8.70	99.55	103.90
35	2	485	A	C4-N9-C1'	-8.70	110.64	126.30
35	2	1070	C	N3-C4-C5	8.70	125.38	121.90
20	k	80	PRO	N-CA-CB	8.68	113.72	103.30
35	2	922	G	C2-N3-C4	-8.68	107.56	111.90
35	2	288	A	C2-N3-C4	-8.67	106.27	110.60
35	2	101	U	C4-C5-C6	8.67	124.90	119.70
35	2	146	U	N3-C2-O2	8.67	128.27	122.20
35	2	589	C	N3-C4-N4	-8.66	111.94	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	34	G	N1-C6-O6	-8.66	114.70	119.90
35	2	70	C	N3-C4-C5	8.66	125.36	121.90
35	2	868	G	N3-C2-N2	-8.66	113.84	119.90
35	2	281	G	C4-C5-N7	8.66	114.26	110.80
20	k	292	PRO	N-CA-CB	8.64	113.67	103.30
35	2	407	A	C8-N9-C4	-8.64	102.34	105.80
35	2	1073	G	N9-C4-C5	-8.64	101.94	105.40
35	2	163	G	N1-C6-O6	8.63	125.08	119.90
35	2	922	G	N3-C4-N9	-8.62	120.83	126.00
35	2	48	G	N1-C2-N2	-8.62	108.44	116.20
35	2	139	C	O4'-C1'-N1	8.62	115.10	108.20
35	2	394	C	C5-C6-N1	-8.61	116.70	121.00
35	2	529	A	C8-N9-C4	-8.61	102.36	105.80
36	3	81	G	C4-N9-C1'	-8.61	115.31	126.50
35	2	340	U	N3-C2-O2	8.60	128.22	122.20
35	2	25	C	C6-N1-C2	-8.59	116.86	120.30
35	2	80	A	C6-N1-C2	8.59	123.75	118.60
35	2	1053	G	N3-C4-C5	8.59	132.90	128.60
35	2	156	A	N1-C6-N6	8.59	123.75	118.60
35	2	199	G	O4'-C1'-N9	8.59	115.07	108.20
35	2	506	A	N9-C4-C5	-8.59	102.37	105.80
35	2	33	U	C6-N1-C2	-8.57	115.86	121.00
35	2	139	C	C2-N1-C1'	8.57	128.22	118.80
35	2	451	A	C8-N9-C4	8.56	109.22	105.80
35	2	187	G	N3-C4-N9	-8.54	120.87	126.00
35	2	365	G	C3'-C2'-C1'	-8.55	94.66	101.50
35	2	974	A	C5-C6-N6	-8.53	116.88	123.70
35	2	184	C	N1-C2-O2	8.53	124.02	118.90
35	2	386	G	C2-N3-C4	-8.52	107.64	111.90
35	2	491	C	N1-C2-O2	-8.52	113.79	118.90
35	2	407	A	N3-C4-C5	8.52	132.76	126.80
35	2	362	G	N9-C4-C5	8.50	108.80	105.40
35	2	28	A	C6-N1-C2	-8.50	113.50	118.60
35	2	353	A	C5-N7-C8	-8.50	99.65	103.90
35	2	388	G	N9-C4-C5	-8.50	102.00	105.40
35	2	184	C	C6-N1-C1'	-8.50	110.60	120.80
35	2	407	A	C8-N9-C1'	8.50	143.00	127.70
16	d	106	TYR	N-CA-CB	8.48	125.87	110.60
35	2	289	U	N3-C2-O2	-8.48	116.26	122.20
35	2	484	C	C5-C6-N1	8.48	125.24	121.00
35	2	973	A	N9-C1'-C2'	-8.48	102.67	112.00
35	2	125	U	O4'-C1'-N1	8.48	114.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	30	G	N9-C4-C5	8.47	108.79	105.40
35	2	366	A	N3-C4-C5	8.47	132.73	126.80
35	2	111	U	N1-C2-O2	8.46	128.72	122.80
35	2	914	G	C8-N9-C4	8.46	109.78	106.40
35	2	48	G	C4-C5-N7	8.46	114.18	110.80
15	c	151	ALA	CB-CA-C	8.45	122.77	110.10
35	2	30	G	N7-C8-N9	8.45	117.32	113.10
35	2	27	U	C5-C6-N1	-8.44	118.48	122.70
35	2	213	A	C8-N9-C4	8.44	109.17	105.80
35	2	960	U	C4-C5-C6	8.43	124.76	119.70
35	2	460	A	N1-C2-N3	-8.42	125.09	129.30
35	2	148	A	C5-N7-C8	-8.41	99.69	103.90
35	2	195	G	C2-N3-C4	-8.41	107.69	111.90
35	2	347	G	N9-C4-C5	-8.41	102.04	105.40
35	2	437	A	C8-N9-C4	-8.40	102.44	105.80
35	2	163	G	N7-C8-N9	8.40	117.30	113.10
35	2	428	A	N3-C4-N9	-8.40	120.68	127.40
35	2	430	G	N9-C4-C5	-8.40	102.04	105.40
35	2	1094	G	C8-N9-C4	8.39	109.76	106.40
35	2	316	A	N9-C4-C5	-8.39	102.44	105.80
35	2	591	A	C4-C5-C6	-8.39	112.81	117.00
35	2	520	A	C8-N9-C4	-8.37	102.45	105.80
35	2	504	U	O4'-C1'-N1	-8.36	101.51	108.20
35	2	199	G	N3-C4-C5	8.36	132.78	128.60
35	2	259	U	C6-N1-C2	8.36	126.01	121.00
35	2	898	A	C5-C6-N6	-8.36	117.02	123.70
35	2	199	G	C8-N9-C4	8.35	109.74	106.40
35	2	289	U	C2-N1-C1'	8.35	127.71	117.70
35	2	905	A	C8-N9-C1'	8.35	142.72	127.70
35	2	404	G	C5-C6-O6	-8.34	123.60	128.60
35	2	519	C	C6-N1-C2	8.34	123.64	120.30
35	2	514	G	C5-N7-C8	-8.33	100.14	104.30
35	2	528	U	O4'-C1'-N1	8.33	114.86	108.20
35	2	1042	G	C4-C5-N7	8.33	114.13	110.80
35	2	1048	G	C4-N9-C1'	-8.33	115.67	126.50
35	2	109	G	C4-C5-N7	8.32	114.13	110.80
35	2	209	U	N1-C2-N3	-8.32	109.91	114.90
35	2	48	G	N9-C4-C5	-8.31	102.08	105.40
35	2	386	G	C8-N9-C4	8.30	109.72	106.40
35	2	926	A	N9-C4-C5	-8.30	102.48	105.80
35	2	53	G	C8-N9-C1'	8.30	137.79	127.00
35	2	504	U	C6-N1-C1'	-8.30	109.58	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	389	G	N9-C4-C5	-8.30	102.08	105.40
35	2	467	G	N7-C8-N9	8.30	117.25	113.10
35	2	362	G	C6-C5-N7	8.29	135.37	130.40
35	2	479	C	O5'-P-OP2	-8.28	98.24	105.70
35	2	482	U	N1-C2-O2	8.29	128.60	122.80
35	2	928	U	C5-C6-N1	8.28	126.84	122.70
35	2	405	C	N3-C4-C5	8.28	125.21	121.90
35	2	952	A	C8-N9-C4	8.28	109.11	105.80
35	2	872	G	N3-C4-N9	-8.28	121.03	126.00
35	2	80	A	C4-C5-N7	8.27	114.84	110.70
35	2	523	G	C4-C5-C6	-8.26	113.84	118.80
35	2	951	A	C8-N9-C1'	8.25	142.56	127.70
35	2	365	G	N9-C1'-C2'	-8.25	102.93	112.00
35	2	41	A	N3-C4-N9	8.24	134.00	127.40
35	2	922	G	C8-N9-C1'	8.24	137.71	127.00
35	2	419	G	N3-C4-C5	8.23	132.71	128.60
35	2	273	G	C5-C6-O6	-8.23	123.66	128.60
35	2	914	G	C4-N9-C1'	-8.23	115.80	126.50
35	2	344	A	C4-C5-N7	8.23	114.81	110.70
35	2	156	A	C5-C6-N6	-8.22	117.12	123.70
35	2	299	A	C8-N9-C4	8.22	109.09	105.80
35	2	951	A	O4'-C1'-N9	8.22	114.78	108.20
35	2	489	C	C2-N1-C1'	-8.22	109.76	118.80
36	3	248	G	C2-N3-C4	-8.22	107.79	111.90
35	2	366	A	C2-N3-C4	-8.21	106.49	110.60
35	2	31	C	N1-C2-O2	8.21	123.83	118.90
35	2	322	G	C4-C5-N7	8.21	114.08	110.80
35	2	334	G	C5-C6-O6	-8.21	123.67	128.60
35	2	936	G	N7-C8-N9	-8.21	109.00	113.10
35	2	489	C	O4'-C1'-N1	8.21	114.76	108.20
35	2	910	C	C2-N1-C1'	-8.20	109.78	118.80
36	3	248	G	N3-C4-C5	8.19	132.69	128.60
35	2	441	A	C4-C5-N7	8.19	114.79	110.70
35	2	974	A	N1-C6-N6	8.18	123.51	118.60
35	2	67	A	C5-C6-N6	-8.17	117.17	123.70
35	2	883	C	C5-C6-N1	8.16	125.08	121.00
35	2	430	G	C5-N7-C8	-8.16	100.22	104.30
35	2	518	A	C4-C5-C6	-8.16	112.92	117.00
36	3	114	A	C8-N9-C4	8.16	109.06	105.80
35	2	624	G	C2-N3-C4	-8.15	107.82	111.90
35	2	1174	C	C6-N1-C2	8.14	123.56	120.30
35	2	185	U	N3-C2-O2	-8.14	116.50	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	k	84	ILE	N-CA-CB	8.13	129.51	110.80
35	2	191	C	N1-C2-N3	8.13	124.89	119.20
35	2	452	A	C4-C5-N7	8.12	114.76	110.70
35	2	486	G	C6-C5-N7	-8.12	125.53	130.40
35	2	872	G	C4-N9-C1'	-8.12	115.94	126.50
35	2	1173	C	C6-N1-C2	8.12	123.55	120.30
35	2	1093	A	C8-N9-C4	8.12	109.05	105.80
35	2	936	G	N9-C1'-C2'	-8.12	103.07	112.00
35	2	303	U	C6-N1-C2	8.12	125.87	121.00
35	2	529	A	C5-N7-C8	-8.12	99.84	103.90
35	2	466	U	N3-C4-C5	8.11	119.47	114.60
35	2	463	U	O4'-C1'-N1	8.11	114.68	108.20
35	2	548	G	C5-N7-C8	-8.10	100.25	104.30
35	2	256	A	N3-C4-N9	8.10	133.88	127.40
35	2	880	C	C2-N1-C1'	-8.10	109.89	118.80
35	2	1075	C	C4-C5-C6	-8.10	113.35	117.40
35	2	277	U	N3-C2-O2	8.09	127.86	122.20
35	2	57	G	C4-C5-N7	8.08	114.03	110.80
35	2	491	C	O5'-P-OP2	-8.07	98.43	105.70
35	2	487	G	N3-C4-N9	8.07	130.84	126.00
35	2	865	A	N9-C4-C5	-8.07	102.57	105.80
35	2	303	U	C2-N1-C1'	-8.06	108.02	117.70
35	2	343	C	N3-C4-N4	-8.06	112.36	118.00
35	2	974	A	C4-C5-N7	8.06	114.73	110.70
2	G	3215	GLU	N-CA-C	8.06	132.76	111.00
35	2	510	G	N3-C4-N9	-8.06	121.16	126.00
35	2	1031	U	N1-C2-O2	-8.06	117.16	122.80
35	2	60	U	O4'-C1'-N1	8.06	114.65	108.20
35	2	467	G	C8-N9-C4	-8.05	103.18	106.40
35	2	68	A	C8-N9-C4	-8.04	102.58	105.80
35	2	421	A	N1-C6-N6	8.04	123.43	118.60
35	2	286	C	C5-C6-N1	8.04	125.02	121.00
16	d	144	TYR	CB-CA-C	-8.04	94.33	110.40
35	2	142	G	N3-C2-N2	-8.04	114.27	119.90
35	2	42	G	N3-C4-C5	-8.03	124.58	128.60
35	2	53	G	N3-C2-N2	-8.03	114.28	119.90
35	2	151	G	C5-C6-O6	-8.03	123.78	128.60
35	2	1077	C	C6-N1-C2	8.03	123.51	120.30
35	2	365	G	N1-C6-O6	8.03	124.72	119.90
35	2	503	G	C6-N1-C2	8.03	129.92	125.10
35	2	1083	G	C5-N7-C8	-8.02	100.29	104.30
35	2	1023	A	C6-N1-C2	8.02	123.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	424	C	C2-N1-C1'	8.01	127.61	118.80
35	2	136	C	C4-C5-C6	8.01	121.40	117.40
35	2	407	A	C2-N3-C4	-8.00	106.60	110.60
35	2	1481	C	C6-N1-C2	-8.00	117.10	120.30
35	2	872	G	N1-C2-N2	8.00	123.40	116.20
35	2	142	G	N1-C2-N2	8.00	123.40	116.20
35	2	537	G	C5-C6-O6	7.99	133.40	128.60
35	2	87	C	C5-C4-N4	7.99	125.79	120.20
35	2	1053	G	N9-C1'-C2'	-7.99	103.21	112.00
35	2	430	G	N9-C1'-C2'	-7.99	103.21	112.00
32	z	95	PRO	N-CA-CB	7.97	112.87	103.30
35	2	510	G	N3-C4-C5	7.96	132.58	128.60
35	2	201	G	N9-C4-C5	-7.96	102.22	105.40
35	2	163	G	C5-C6-O6	-7.95	123.83	128.60
35	2	65	A	N1-C2-N3	7.95	133.27	129.30
35	2	162	A	N1-C6-N6	7.95	123.37	118.60
35	2	138	A	O4'-C1'-N9	7.94	114.55	108.20
35	2	479	C	P-O3'-C3'	-7.94	110.18	119.70
35	2	977	A	C2-N3-C4	7.93	114.57	110.60
35	2	27	U	O4'-C1'-N1	7.93	114.54	108.20
35	2	178	U	C2-N1-C1'	7.93	127.21	117.70
35	2	136	C	C5-C6-N1	-7.92	117.04	121.00
35	2	1039	A	N3-C4-C5	7.92	132.34	126.80
35	2	592	A	C5-C6-N1	7.91	121.66	117.70
35	2	932	U	C2-N1-C1'	-7.91	108.21	117.70
35	2	185	U	N1-C2-O2	7.91	128.34	122.80
20	k	286	PRO	N-CA-CB	7.91	112.79	103.30
36	3	84	G	N3-C4-N9	-7.91	121.26	126.00
35	2	184	C	C5-C6-N1	7.90	124.95	121.00
35	2	353	A	N7-C8-N9	7.90	117.75	113.80
35	2	973	A	C4-C5-N7	7.90	114.65	110.70
35	2	537	G	C6-N1-C2	7.90	129.84	125.10
35	2	1056	U	C2-N1-C1'	7.90	127.17	117.70
35	2	444	C	N3-C2-O2	7.89	127.43	121.90
35	2	1041	G	C6-C5-N7	-7.89	125.66	130.40
35	2	307	G	C2-N3-C4	-7.89	107.96	111.90
35	2	923	A	N1-C6-N6	7.88	123.33	118.60
35	2	398	G	C8-N9-C4	-7.88	103.25	106.40
35	2	504	U	N3-C4-C5	7.88	119.33	114.60
35	2	342	C	O4'-C1'-N1	7.88	114.50	108.20
35	2	467	G	N9-C1'-C2'	-7.87	103.34	112.00
35	2	342	C	C2-N1-C1'	-7.87	110.14	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	164	A	N7-C8-N9	-7.87	109.87	113.80
20	k	20	PRO	N-CA-CB	7.86	112.73	103.30
35	2	965	U	C2-N1-C1'	7.85	127.12	117.70
35	2	493	U	C5-C6-N1	-7.85	118.77	122.70
35	2	112	A	C8-N9-C4	7.84	108.94	105.80
35	2	187	G	C8-N9-C1'	7.84	137.19	127.00
35	2	460	A	C4-C5-C6	-7.83	113.08	117.00
35	2	390	G	N1-C2-N2	7.83	123.25	116.20
35	2	503	G	N3-C4-N9	-7.83	121.30	126.00
35	2	504	U	C4-C5-C6	-7.82	115.01	119.70
35	2	149	C	N1-C2-O2	7.82	123.59	118.90
35	2	1579	U	C5-C4-O4	-7.82	121.21	125.90
35	2	393	C	C6-N1-C1'	-7.81	111.42	120.80
35	2	302	U	C4-C5-C6	-7.81	115.01	119.70
35	2	357	G	N3-C4-C5	7.81	132.50	128.60
35	2	146	U	C5-C4-O4	-7.81	121.22	125.90
35	2	361	C	N1-C2-O2	-7.80	114.22	118.90
35	2	167	U	C5-C4-O4	-7.79	121.22	125.90
35	2	974	A	N9-C4-C5	-7.79	102.69	105.80
35	2	1083	G	N3-C4-N9	-7.78	121.33	126.00
35	2	164	A	C4-C5-C6	-7.78	113.11	117.00
35	2	514	G	N9-C4-C5	-7.78	102.29	105.40
35	2	256	A	N1-C2-N3	-7.78	125.41	129.30
35	2	1083	G	C4-C5-N7	7.77	113.91	110.80
35	2	287	G	N1-C6-O6	7.77	124.56	119.90
35	2	208	U	N1-C2-O2	7.77	128.24	122.80
35	2	24	U	N1-C2-O2	7.77	128.24	122.80
35	2	208	U	N3-C2-O2	-7.77	116.76	122.20
35	2	386	G	C8-N9-C1'	-7.77	116.90	127.00
35	2	1074	G	N9-C1'-C2'	-7.76	103.47	112.00
35	2	423	G	N3-C4-C5	-7.75	124.72	128.60
35	2	471	A	O5'-P-OP1	-7.75	98.72	105.70
35	2	341	A	N9-C4-C5	-7.74	102.70	105.80
35	2	464	A	N9-C4-C5	-7.74	102.70	105.80
35	2	33	U	C5-C4-O4	7.72	130.53	125.90
35	2	201	G	C4-C5-N7	7.72	113.89	110.80
35	2	31	C	C6-N1-C2	-7.72	117.21	120.30
36	3	262	C	C6-N1-C2	7.72	123.39	120.30
35	2	1075	C	N3-C2-O2	7.72	127.30	121.90
35	2	401	A	C4-N9-C1'	-7.71	112.42	126.30
35	2	186	C	N1-C2-O2	-7.71	114.27	118.90
35	2	196	G	C2-N3-C4	-7.71	108.04	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	3	114	A	C4-C5-N7	7.71	114.56	110.70
35	2	489	C	C6-N1-C1'	7.70	130.04	120.80
19	j	615	PRO	C-N-CA	7.70	140.94	121.70
35	2	480	G	N9-C1'-C2'	-7.69	103.54	112.00
19	i	615	PRO	C-N-CA	7.69	140.93	121.70
35	2	546	U	C6-N1-C2	7.69	125.61	121.00
35	2	205	U	N1-C2-O2	7.69	128.18	122.80
35	2	871	G	C8-N9-C4	7.68	109.47	106.40
35	2	405	C	C6-N1-C2	7.68	123.37	120.30
35	2	430	G	N1-C6-O6	7.68	124.51	119.90
35	2	332	U	C5-C6-N1	7.67	126.53	122.70
35	2	448	C	C4-C5-C6	-7.67	113.57	117.40
35	2	1620	C	N3-C2-O2	-7.67	116.53	121.90
35	2	333	A	O5'-P-OP2	-7.67	98.80	105.70
35	2	1591	C	C2-N1-C1'	-7.67	110.37	118.80
35	2	538	A	N1-C6-N6	7.66	123.20	118.60
35	2	1042	G	N9-C1'-C2'	-7.66	103.57	112.00
35	2	243	G	C2-N3-C4	-7.66	108.07	111.90
35	2	87	C	N1-C2-O2	-7.66	114.31	118.90
35	2	391	A	C5-C6-N6	-7.66	117.58	123.70
35	2	432	G	C5-C6-N1	-7.65	107.67	111.50
35	2	389	G	C8-N9-C4	7.65	109.46	106.40
35	2	173	A	N1-C2-N3	7.64	133.12	129.30
20	k	252	PRO	N-CA-CB	7.64	112.46	103.30
36	3	192	A	N7-C8-N9	7.63	117.62	113.80
35	2	332	U	C2-N1-C1'	7.63	126.86	117.70
35	2	591	A	N1-C2-N3	-7.63	125.48	129.30
35	2	396	G	N3-C2-N2	-7.63	114.56	119.90
35	2	334	G	N7-C8-N9	7.62	116.91	113.10
35	2	357	G	C8-N9-C4	7.62	109.45	106.40
35	2	1606	C	C6-N1-C2	7.62	123.35	120.30
35	2	310	C	C4-C5-C6	-7.61	113.59	117.40
35	2	932	U	C5-C6-N1	-7.61	118.89	122.70
35	2	530	C	N1-C1'-C2'	-7.61	103.63	112.00
35	2	263	C	C6-N1-C2	7.60	123.34	120.30
35	2	591	A	O4'-C1'-N9	-7.60	102.12	108.20
35	2	495	C	C6-N1-C1'	-7.60	111.68	120.80
35	2	33	U	OP2-P-O3'	-7.59	88.49	105.20
35	2	898	A	C4-C5-N7	7.59	114.50	110.70
35	2	490	C	C6-N1-C2	7.59	123.34	120.30
35	2	283	U	C2-N1-C1'	-7.58	108.60	117.70
35	2	527	A	C2-N3-C4	-7.58	106.81	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	3	250	G	N3-C4-C5	7.57	132.39	128.60
35	2	964	U	C5-C4-O4	-7.57	121.36	125.90
35	2	69	G	N3-C4-C5	7.56	132.38	128.60
35	2	1053	G	N3-C2-N2	-7.56	114.61	119.90
35	2	136	C	C2-N3-C4	-7.55	116.12	119.90
35	2	460	A	N7-C8-N9	-7.55	110.03	113.80
35	2	97	C	N3-C4-C5	7.55	124.92	121.90
35	2	167	U	C6-N1-C1'	-7.55	110.63	121.20
35	2	400	A	C8-N9-C4	-7.55	102.78	105.80
35	2	184	C	C4-C5-C6	-7.55	113.63	117.40
35	2	490	C	N3-C4-C5	7.54	124.92	121.90
35	2	393	C	C6-N1-C2	7.54	123.32	120.30
35	2	1062	A	C5-N7-C8	-7.53	100.13	103.90
35	2	447	U	C6-N1-C2	7.53	125.52	121.00
35	2	513	U	N1-C2-O2	7.53	128.07	122.80
36	3	114	A	N1-C6-N6	7.53	123.12	118.60
35	2	1067	C	N3-C4-C5	7.53	124.91	121.90
35	2	935	U	C2-N1-C1'	7.53	126.73	117.70
35	2	1074	G	N9-C4-C5	-7.52	102.39	105.40
35	2	325	G	C4-C5-N7	7.52	113.81	110.80
35	2	486	G	N9-C4-C5	-7.51	102.39	105.40
35	2	1074	G	C6-C5-N7	-7.51	125.89	130.40
35	2	386	G	N1-C2-N2	-7.51	109.44	116.20
35	2	82	U	P-O3'-C3'	-7.51	110.69	119.70
35	2	284	G	C4-C5-N7	7.50	113.80	110.80
35	2	307	G	C8-N9-C4	7.50	109.40	106.40
35	2	406	U	N1-C2-O2	7.50	128.05	122.80
35	2	945	U	C5-C4-O4	-7.50	121.40	125.90
35	2	1074	G	C5-N7-C8	-7.50	100.55	104.30
35	2	913	G	C8-N9-C4	-7.50	103.40	106.40
35	2	162	A	N1-C2-N3	-7.50	125.55	129.30
35	2	900	A	N1-C6-N6	7.50	123.10	118.60
35	2	29	U	C2-N1-C1'	-7.49	108.71	117.70
35	2	325	G	C8-N9-C4	7.49	109.40	106.40
35	2	87	C	N3-C4-N4	-7.48	112.76	118.00
35	2	495	C	C2-N1-C1'	7.48	127.03	118.80
35	2	531	C	N3-C2-O2	-7.48	116.67	121.90
35	2	276	C	C5-C4-N4	-7.47	114.97	120.20
35	2	1159	C	C2-N1-C1'	7.47	127.02	118.80
36	3	194	G	N3-C4-C5	-7.47	124.86	128.60
35	2	286	C	C6-N1-C2	-7.47	117.31	120.30
35	2	514	G	C5-C6-N1	7.47	115.23	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	246	G	N7-C8-N9	7.47	116.83	113.10
35	2	491	C	N3-C4-N4	-7.46	112.78	118.00
35	2	140	A	C8-N9-C4	-7.46	102.82	105.80
35	2	32	U	C6-N1-C1'	7.45	131.64	121.20
35	2	375	U	C6-N1-C1'	7.45	131.63	121.20
35	2	537	G	N3-C4-N9	-7.45	121.53	126.00
35	2	898	A	N1-C6-N6	7.45	123.07	118.60
35	2	451	A	N9-C4-C5	-7.45	102.82	105.80
35	2	42	G	N3-C4-N9	7.45	130.47	126.00
35	2	67	A	C2-N3-C4	7.44	114.32	110.60
35	2	456	A	C2-N3-C4	-7.44	106.88	110.60
35	2	400	A	N7-C8-N9	7.44	117.52	113.80
35	2	391	A	N1-C6-N6	7.43	123.06	118.60
35	2	361	C	C6-N1-C2	7.43	123.27	120.30
35	2	529	A	C5-C6-N6	-7.43	117.76	123.70
35	2	354	C	C4-C5-C6	-7.42	113.69	117.40
35	2	1056	U	C4-C5-C6	-7.42	115.25	119.70
35	2	309	C	N1-C2-N3	-7.41	114.01	119.20
36	3	190	C	C6-N1-C2	7.41	123.27	120.30
35	2	452	A	N1-C6-N6	7.41	123.05	118.60
35	2	587	C	N3-C2-O2	-7.41	116.71	121.90
19	i	612	ASP	O-C-N	7.41	134.55	122.70
35	2	325	G	N9-C4-C5	-7.40	102.44	105.40
35	2	46	A	C8-N9-C4	-7.40	102.84	105.80
35	2	317	C	N1-C2-O2	7.40	123.34	118.90
35	2	1038	U	N3-C2-O2	-7.39	117.03	122.20
35	2	199	G	N9-C4-C5	-7.39	102.44	105.40
36	3	197	C	N3-C2-O2	-7.39	116.73	121.90
35	2	316	A	C8-N9-C4	7.39	108.75	105.80
35	2	1620	C	N1-C2-O2	7.39	123.33	118.90
35	2	323	A	C2-N3-C4	-7.39	106.91	110.60
35	2	432	G	N3-C4-C5	-7.39	124.91	128.60
35	2	307	G	N9-C1'-C2'	-7.38	103.88	112.00
35	2	630	A	C5-C6-N1	7.38	121.39	117.70
35	2	34	G	C8-N9-C4	-7.38	103.45	106.40
35	2	214	G	O4'-C1'-N9	7.38	114.10	108.20
35	2	587	C	N1-C2-O2	7.38	123.33	118.90
35	2	254	A	C8-N9-C4	7.38	108.75	105.80
35	2	45	U	N3-C2-O2	-7.37	117.04	122.20
35	2	375	U	C5-C6-N1	-7.37	119.02	122.70
19	j	612	ASP	O-C-N	7.37	134.49	122.70
35	2	1062	A	C5-C6-N6	-7.37	117.80	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	70	C	C4-C5-C6	-7.37	113.72	117.40
35	2	396	G	C4-N9-C1'	-7.37	116.92	126.50
35	2	506	A	C4-C5-N7	7.36	114.38	110.70
35	2	492	A	C8-N9-C4	7.35	108.74	105.80
2	G	3180	ALA	N-CA-CB	7.34	120.38	110.10
35	2	105	A	N1-C6-N6	-7.34	114.19	118.60
35	2	455	C	C2-N1-C1'	-7.34	110.72	118.80
15	c	202	GLN	C-N-CA	7.34	140.05	121.70
35	2	872	G	N3-C2-N2	-7.34	114.76	119.90
36	3	90	C	C6-N1-C2	7.33	123.23	120.30
35	2	413	U	C6-N1-C2	7.33	125.40	121.00
15	c	251	SER	N-CA-CB	7.33	121.49	110.50
35	2	124	A	C5-C6-N6	-7.33	117.84	123.70
35	2	246	G	C6-C5-N7	-7.33	126.00	130.40
35	2	479	C	C6-N1-C2	-7.33	117.37	120.30
35	2	187	G	C4-N9-C1'	-7.33	116.98	126.50
35	2	491	C	C4-C5-C6	-7.33	113.74	117.40
35	2	105	A	C5-C6-N1	7.32	121.36	117.70
16	d	144	TYR	N-CA-CB	7.32	123.78	110.60
19	i	612	ASP	C-N-CA	7.32	140.00	121.70
35	2	366	A	C5-C6-N1	-7.32	114.04	117.70
35	2	941	A	N9-C4-C5	-7.32	102.87	105.80
19	j	406	TYR	C-N-CA	7.32	139.99	121.70
35	2	341	A	C8-N9-C4	7.32	108.73	105.80
35	2	973	A	N1-C2-N3	-7.32	125.64	129.30
35	2	163	G	C6-C5-N7	-7.31	126.01	130.40
19	j	612	ASP	C-N-CA	7.31	139.97	121.70
35	2	148	A	N7-C8-N9	7.31	117.45	113.80
35	2	109	G	C5-N7-C8	-7.31	100.65	104.30
35	2	404	G	N1-C6-O6	7.31	124.28	119.90
35	2	1051	G	N3-C4-N9	7.30	130.38	126.00
35	2	382	C	N1-C2-O2	7.30	123.28	118.90
35	2	157	A	C5-N7-C8	-7.30	100.25	103.90
35	2	35	U	N1-C1'-C2'	-7.30	103.97	112.00
35	2	309	C	C4-C5-C6	-7.30	113.75	117.40
35	2	380	U	C2-N1-C1'	-7.29	108.95	117.70
35	2	1091	A	C8-N9-C4	7.29	108.72	105.80
19	i	406	TYR	C-N-CA	7.29	139.93	121.70
35	2	456	A	C5-C6-N6	-7.29	117.87	123.70
35	2	948	G	C4-C5-N7	7.28	113.71	110.80
35	2	317	C	N3-C4-C5	7.28	124.81	121.90
35	2	526	A	C2-N3-C4	7.28	114.24	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	210	A	N3-C4-C5	7.28	131.90	126.80
35	2	540	G	C6-C5-N7	-7.28	126.03	130.40
35	2	255	U	C4-C5-C6	-7.27	115.34	119.70
35	2	323	A	C5-N7-C8	-7.27	100.26	103.90
35	2	549	G	C4-N9-C1'	-7.27	117.05	126.50
35	2	27	U	C6-N1-C2	7.27	125.36	121.00
35	2	865	A	C4-C5-N7	7.27	114.33	110.70
35	2	1042	G	C2-N3-C4	-7.27	108.27	111.90
36	3	114	A	C5-C6-N6	-7.27	117.89	123.70
35	2	935	U	C5-C6-N1	7.26	126.33	122.70
35	2	1097	U	C5-C6-N1	7.26	126.33	122.70
36	3	113	G	C4-N9-C1'	-7.26	117.06	126.50
35	2	324	U	N1-C2-N3	-7.26	110.54	114.90
35	2	500	C	N1-C2-O2	7.26	123.26	118.90
35	2	139	C	N3-C4-C5	-7.26	119.00	121.90
35	2	407	A	N1-C6-N6	7.26	122.95	118.60
35	2	273	G	N9-C4-C5	-7.25	102.50	105.40
35	2	154	G	N7-C8-N9	7.25	116.73	113.10
35	2	951	A	C4-N9-C1'	-7.25	113.25	126.30
35	2	865	A	C5-N7-C8	-7.25	100.28	103.90
35	2	281	G	N3-C4-C5	7.25	132.22	128.60
35	2	335	U	N1-C2-O2	7.24	127.87	122.80
35	2	950	C	C5-C6-N1	7.24	124.62	121.00
35	2	549	G	C6-C5-N7	7.24	134.75	130.40
35	2	360	A	C5-C6-N1	-7.24	114.08	117.70
35	2	371	G	O5'-P-OP2	-7.24	99.18	105.70
35	2	388	G	C6-C5-N7	-7.24	126.06	130.40
35	2	477	A	C2-N3-C4	-7.24	106.98	110.60
35	2	952	A	N9-C4-C5	-7.24	102.90	105.80
36	3	81	G	N3-C4-C5	7.24	132.22	128.60
35	2	974	A	C5-N7-C8	-7.24	100.28	103.90
15	c	161	PRO	N-CA-CB	7.24	111.98	103.30
35	2	210	A	C5-N7-C8	-7.24	100.28	103.90
35	2	253	A	N1-C6-N6	7.23	122.94	118.60
35	2	462	G	C8-N9-C1'	7.23	136.40	127.00
35	2	81	G	N9-C4-C5	-7.23	102.51	105.40
35	2	1046	G	O4'-C1'-N9	-7.23	102.42	108.20
35	2	879	G	C2-N3-C4	-7.22	108.29	111.90
35	2	260	U	C6-N1-C2	-7.22	116.67	121.00
35	2	1027	A	N1-C6-N6	7.22	122.93	118.60
35	2	501	U	C5-C6-N1	-7.22	119.09	122.70
35	2	1096	C	N3-C2-O2	-7.21	116.85	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	132	U	O4'-C1'-N1	7.21	113.97	108.20
35	2	443	C	N3-C4-C5	7.21	124.78	121.90
35	2	941	A	C4-C5-N7	7.21	114.30	110.70
35	2	424	C	C6-N1-C1'	-7.21	112.15	120.80
35	2	91	G	C5-C6-O6	-7.20	124.28	128.60
35	2	92	A	O4'-C1'-N9	7.20	113.96	108.20
35	2	1053	G	N3-C4-N9	-7.19	121.68	126.00
35	2	38	C	N3-C4-C5	-7.18	119.03	121.90
35	2	590	C	C6-N1-C2	7.18	123.17	120.30
35	2	84	A	N9-C1'-C2'	-7.18	104.11	112.00
36	3	268	G	C8-N9-C4	7.17	109.27	106.40
35	2	324	U	N3-C4-C5	7.17	118.90	114.60
35	2	393	C	C4-C5-C6	-7.17	113.81	117.40
35	2	1065	A	N9-C4-C5	-7.17	102.93	105.80
35	2	328	A	N1-C2-N3	7.17	132.88	129.30
35	2	1076	A	N3-C4-C5	7.17	131.82	126.80
35	2	108	A	N1-C6-N6	7.17	122.90	118.60
35	2	202	A	N1-C6-N6	7.17	122.90	118.60
35	2	1078	C	C4-C5-C6	-7.16	113.82	117.40
35	2	905	A	C5-N7-C8	-7.16	100.32	103.90
35	2	1041	G	C5-N7-C8	-7.16	100.72	104.30
35	2	365	G	N3-C4-N9	7.15	130.29	126.00
35	2	486	G	N3-C4-N9	7.15	130.29	126.00
35	2	287	G	C5-C6-O6	-7.15	124.31	128.60
35	2	881	A	C4-C5-N7	7.15	114.27	110.70
35	2	115	G	N1-C2-N2	-7.14	109.77	116.20
35	2	523	G	C5-N7-C8	-7.14	100.73	104.30
35	2	905	A	O4'-C1'-N9	7.14	113.92	108.20
35	2	209	U	C6-N1-C2	7.14	125.28	121.00
35	2	463	U	N3-C4-O4	-7.14	114.41	119.40
35	2	518	A	C5-C6-N1	7.14	121.27	117.70
35	2	883	C	C4-C5-C6	-7.14	113.83	117.40
35	2	1062	A	C4-C5-N7	7.13	114.27	110.70
35	2	99	C	O4'-C1'-N1	-7.13	102.49	108.20
35	2	206	A	C6-N1-C2	7.13	122.88	118.60
35	2	880	C	C6-N1-C1'	7.13	129.36	120.80
35	2	346	G	O5'-P-OP1	-7.13	99.28	105.70
35	2	1039	A	N1-C6-N6	7.13	122.88	118.60
35	2	205	U	N1-C2-N3	-7.12	110.62	114.90
35	2	885	G	C2-N3-C4	-7.12	108.34	111.90
35	2	73	U	C6-N1-C2	7.12	125.27	121.00
35	2	965	U	C2-N3-C4	7.12	131.27	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	463	U	C6-N1-C1'	7.12	131.16	121.20
35	2	179	A	C8-N9-C4	-7.12	102.95	105.80
35	2	462	G	C4-N9-C1'	-7.12	117.25	126.50
35	2	926	A	N1-C6-N6	7.12	122.87	118.60
35	2	914	G	N3-C2-N2	-7.11	114.92	119.90
35	2	295	A	N9-C4-C5	-7.10	102.96	105.80
35	2	497	G	N9-C1'-C2'	-7.10	104.19	112.00
35	2	65	A	OP1-P-O3'	7.10	120.82	105.20
35	2	274	G	C2-N3-C4	-7.10	108.35	111.90
35	2	353	A	C4-C5-N7	7.09	114.25	110.70
35	2	387	A	N1-C2-N3	7.09	132.85	129.30
35	2	440	U	N3-C4-O4	7.09	124.37	119.40
35	2	353	A	N9-C4-C5	-7.09	102.96	105.80
35	2	119	A	O4'-C1'-N9	7.09	113.87	108.20
35	2	391	A	N9-C1'-C2'	-7.09	104.20	112.00
35	2	357	G	C6-N1-C2	7.08	129.35	125.10
35	2	902	G	C2-N3-C4	-7.08	108.36	111.90
35	2	966	A	N1-C6-N6	7.08	122.85	118.60
36	3	81	G	C8-N9-C1'	7.08	136.21	127.00
19	i	882	ALA	N-CA-C	-7.08	91.88	111.00
35	2	1094	G	C6-C5-N7	-7.08	126.15	130.40
35	2	1591	C	C6-N1-C1'	7.08	129.29	120.80
35	2	941	A	C5-N7-C8	-7.08	100.36	103.90
36	3	257	G	N3-C4-C5	7.08	132.14	128.60
35	2	339	C	N1-C2-O2	7.08	123.14	118.90
36	3	197	C	C6-N1-C2	-7.08	117.47	120.30
35	2	484	C	N3-C4-N4	-7.07	113.05	118.00
35	2	491	C	N3-C2-O2	7.07	126.85	121.90
35	2	48	G	C5-C6-O6	-7.07	124.36	128.60
35	2	962	C	N3-C2-O2	-7.07	116.95	121.90
36	3	91	G	N3-C4-C5	7.07	132.13	128.60
35	2	388	G	C5-C6-O6	-7.06	124.36	128.60
35	2	546	U	O5'-P-OP2	-7.06	99.35	105.70
35	2	322	G	N3-C4-N9	7.06	130.24	126.00
35	2	905	A	C4-N9-C1'	-7.06	113.60	126.30
19	j	882	ALA	N-CA-C	-7.05	91.96	111.00
35	2	89	G	N3-C4-C5	7.05	132.13	128.60
35	2	31	C	C2-N1-C1'	7.05	126.56	118.80
35	2	907	A	C4-C5-C6	-7.05	113.48	117.00
35	2	384	G	C5-N7-C8	-7.04	100.78	104.30
35	2	421	A	C5-C6-N6	-7.04	118.07	123.70
35	2	502	U	C5-C4-O4	-7.03	121.68	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	119	A	C8-N9-C4	7.03	108.61	105.80
35	2	941	A	N1-C6-N6	7.03	122.82	118.60
35	2	29	U	C6-N1-C1'	7.03	131.04	121.20
35	2	540	G	C4-N9-C1'	7.02	135.62	126.50
35	2	324	U	N3-C4-O4	-7.02	114.49	119.40
35	2	589	C	N3-C4-C5	7.01	124.71	121.90
35	2	315	A	O4'-C1'-N9	-7.01	102.59	108.20
35	2	112	A	C4-C5-N7	7.01	114.20	110.70
35	2	69	G	C4-C5-C6	-7.01	114.59	118.80
35	2	1083	G	N9-C1'-C2'	-7.01	104.29	112.00
35	2	1097	U	N3-C2-O2	-7.00	117.30	122.20
35	2	1071	U	C6-N1-C2	7.00	125.20	121.00
35	2	1083	G	C4-N9-C1'	-7.00	117.39	126.50
35	2	471	A	N1-C6-N6	7.00	122.80	118.60
35	2	270	C	C6-N1-C2	7.00	123.10	120.30
35	2	209	U	N1-C2-O2	6.99	127.70	122.80
35	2	73	U	N3-C2-O2	-6.99	117.31	122.20
35	2	154	G	N3-C4-N9	-6.99	121.81	126.00
35	2	243	G	O4'-C1'-N9	-6.99	102.61	108.20
35	2	396	G	C8-N9-C4	6.99	109.20	106.40
19	j	497	ASP	C-N-CA	6.99	139.17	121.70
35	2	955	A	N1-C6-N6	6.98	122.79	118.60
35	2	72	A	C8-N9-C4	6.98	108.59	105.80
35	2	72	A	N7-C8-N9	-6.98	110.31	113.80
19	i	497	ASP	C-N-CA	6.97	139.14	121.70
35	2	251	A	O4'-C1'-N9	6.97	113.78	108.20
35	2	367	A	C8-N9-C4	6.97	108.59	105.80
35	2	879	G	C4-C5-N7	6.97	113.59	110.80
35	2	914	G	C2-N3-C4	-6.97	108.42	111.90
35	2	917	U	C5-C6-N1	6.97	126.18	122.70
35	2	108	A	C4-C5-N7	6.96	114.18	110.70
35	2	471	A	C6-N1-C2	6.96	122.78	118.60
35	2	328	A	N1-C6-N6	6.96	122.78	118.60
35	2	166	C	N1-C2-O2	6.95	123.07	118.90
35	2	253	A	N1-C2-N3	-6.95	125.82	129.30
35	2	627	C	C6-N1-C2	6.95	123.08	120.30
35	2	936	G	N3-C4-C5	6.95	132.08	128.60
35	2	1041	G	C5-C6-O6	-6.95	124.43	128.60
35	2	347	G	N3-C2-N2	6.94	124.76	119.90
35	2	423	G	C4-N9-C1'	6.94	135.52	126.50
35	2	625	C	C5-C6-N1	6.94	124.47	121.00
35	2	865	A	N1-C6-N6	6.94	122.76	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	384	G	N3-C4-C5	6.93	132.07	128.60
35	2	865	A	C6-C5-N7	-6.93	127.44	132.30
35	2	50	C	N3-C2-O2	-6.93	117.05	121.90
35	2	502	U	N1-C2-O2	6.93	127.65	122.80
35	2	481	A	C8-N9-C4	6.93	108.57	105.80
35	2	314	C	C2-N1-C1'	6.92	126.42	118.80
35	2	67	A	OP1-P-OP2	-6.92	109.22	119.60
20	k	270	PHE	N-CA-CB	6.92	123.06	110.60
35	2	617	U	N3-C4-C5	6.92	118.75	114.60
35	2	879	G	N9-C4-C5	-6.91	102.64	105.40
35	2	353	A	N1-C6-N6	6.90	122.74	118.60
35	2	371	G	N3-C4-C5	6.90	132.05	128.60
35	2	378	A	N9-C4-C5	6.90	108.56	105.80
35	2	477	A	N1-C2-N3	6.89	132.75	129.30
35	2	267	U	O4'-C1'-N1	6.89	113.71	108.20
35	2	523	G	C5-C6-O6	-6.89	124.47	128.60
35	2	1043	A	N9-C1'-C2'	-6.89	104.42	112.00
35	2	33	U	N3-C2-O2	-6.88	117.38	122.20
35	2	1025	A	C4-C5-C6	6.88	120.44	117.00
35	2	80	A	C6-C5-N7	-6.88	127.49	132.30
35	2	965	U	C5-C6-N1	6.87	126.14	122.70
35	2	1041	G	C2-N3-C4	-6.87	108.46	111.90
35	2	162	A	C6-C5-N7	-6.87	127.49	132.30
35	2	1051	G	C8-N9-C1'	-6.87	118.07	127.00
35	2	463	U	N1-C2-O2	6.87	127.61	122.80
35	2	328	A	N9-C1'-C2'	-6.86	104.46	112.00
35	2	41	A	C4-C5-N7	6.86	114.13	110.70
35	2	481	A	N9-C4-C5	-6.86	103.06	105.80
35	2	41	A	N1-C2-N3	-6.85	125.88	129.30
35	2	242	U	C2-N1-C1'	6.85	125.92	117.70
35	2	540	G	C4-C5-C6	6.85	122.91	118.80
35	2	885	G	C4-N9-C1'	-6.85	117.60	126.50
35	2	28	A	C4-C5-C6	6.84	120.42	117.00
35	2	884	A	C4-C5-N7	6.84	114.12	110.70
35	2	922	G	C4-C5-N7	6.84	113.54	110.80
35	2	396	G	N3-C4-N9	-6.84	121.90	126.00
35	2	521	A	C5-N7-C8	-6.84	100.48	103.90
35	2	73	U	N3-C4-C5	6.83	118.70	114.60
35	2	166	C	C5-C4-N4	6.83	124.98	120.20
35	2	1606	C	N1-C2-O2	-6.83	114.80	118.90
35	2	211	U	C4-C5-C6	-6.83	115.60	119.70
35	2	498	G	C5-N7-C8	-6.83	100.89	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	462	G	N1-C6-O6	-6.83	115.80	119.90
35	2	371	G	C5-N7-C8	-6.82	100.89	104.30
35	2	258	C	O4'-C1'-N1	-6.82	102.75	108.20
35	2	163	G	N3-C2-N2	-6.82	115.13	119.90
35	2	201	G	C5-C6-O6	-6.82	124.51	128.60
35	2	941	A	N3-C4-C5	6.82	131.57	126.80
35	2	401	A	N9-C1'-C2'	6.81	122.86	114.00
35	2	1159	C	C6-N1-C1'	-6.81	112.63	120.80
35	2	334	G	N1-C6-O6	6.81	123.98	119.90
35	2	948	G	C5-N7-C8	-6.81	100.90	104.30
15	c	201	GLY	CA-C-O	-6.80	108.35	120.60
35	2	512	A	C6-C5-N7	6.80	137.06	132.30
35	2	1463	C	C6-N1-C2	6.80	123.02	120.30
35	2	273	G	C6-C5-N7	-6.80	126.32	130.40
35	2	894	U	N3-C2-O2	6.80	126.96	122.20
35	2	358	U	N1-C2-N3	-6.79	110.83	114.90
35	2	392	G	N3-C4-N9	6.79	130.07	126.00
35	2	548	G	N9-C4-C5	-6.79	102.69	105.40
35	2	187	G	N3-C4-C5	6.78	131.99	128.60
35	2	454	U	N1-C2-N3	6.78	118.97	114.90
35	2	538	A	C4-C5-N7	6.78	114.09	110.70
35	2	407	A	C4-C5-N7	6.78	114.09	110.70
35	2	593	U	N3-C2-O2	-6.78	117.46	122.20
35	2	473	A	C4-C5-C6	6.77	120.39	117.00
35	2	282	C	N3-C4-C5	6.77	124.61	121.90
35	2	894	U	C2-N1-C1'	-6.77	109.58	117.70
35	2	83	G	N3-C4-C5	6.76	131.98	128.60
35	2	425	A	N3-C4-C5	-6.76	122.06	126.80
35	2	401	A	N7-C8-N9	-6.76	110.42	113.80
35	2	115	G	N3-C2-N2	6.76	124.63	119.90
35	2	452	A	C5-C6-N6	-6.76	118.29	123.70
35	2	276	C	O4'-C1'-N1	6.76	113.61	108.20
35	2	81	G	C4-C5-N7	6.75	113.50	110.80
35	2	323	A	N9-C1'-C2'	-6.75	104.57	112.00
35	2	91	G	C5-C6-N1	6.75	114.88	111.50
35	2	428	A	N3-C4-C5	6.75	131.53	126.80
35	2	454	U	N3-C2-O2	-6.75	117.48	122.20
35	2	365	G	C2-N3-C4	-6.75	108.53	111.90
35	2	325	G	N3-C4-C5	6.74	131.97	128.60
19	j	611	GLY	N-CA-C	-6.74	96.24	113.10
36	3	84	G	C2-N3-C4	-6.74	108.53	111.90
35	2	503	G	C4-N9-C1'	-6.74	117.74	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	3	85	A	N1-C6-N6	6.74	122.64	118.60
35	2	540	G	N3-C4-C5	-6.73	125.23	128.60
35	2	362	G	C8-N9-C4	-6.73	103.71	106.40
35	2	493	U	N1-C2-O2	-6.73	118.09	122.80
35	2	910	C	O4'-C1'-N1	6.73	113.58	108.20
35	2	625	C	N1-C2-O2	-6.73	114.86	118.90
35	2	1043	A	C4-C5-N7	6.73	114.06	110.70
35	2	957	G	C4-C5-N7	6.72	113.49	110.80
35	2	1062	A	N1-C6-N6	6.72	122.64	118.60
14	b	107	ALA	CB-CA-C	6.72	120.18	110.10
35	2	33	U	O4'-C1'-N1	6.72	113.57	108.20
35	2	485	A	C2-N3-C4	-6.72	107.24	110.60
35	2	307	G	C8-N9-C1'	6.71	135.73	127.00
35	2	926	A	C4-C5-N7	6.71	114.06	110.70
35	2	184	C	O4'-C1'-N1	-6.71	102.83	108.20
35	2	259	U	N3-C2-O2	6.71	126.89	122.20
35	2	310	C	C6-N1-C2	6.71	122.98	120.30
35	2	332	U	N1-C2-O2	6.71	127.50	122.80
35	2	465	G	C5-N7-C8	-6.71	100.95	104.30
35	2	504	U	N1-C2-O2	6.71	127.50	122.80
35	2	195	G	C8-N9-C4	6.71	109.08	106.40
35	2	196	G	N3-C2-N2	-6.70	115.21	119.90
35	2	593	U	O4'-C1'-N1	6.70	113.56	108.20
35	2	266	A	N1-C6-N6	-6.70	114.58	118.60
35	2	29	U	O5'-P-OP1	-6.70	99.67	105.70
35	2	539	G	C4-C5-C6	-6.70	114.78	118.80
35	2	353	A	O5'-P-OP2	-6.69	99.67	105.70
35	2	907	A	C8-N9-C4	6.69	108.48	105.80
35	2	26	A	C4-C5-N7	6.69	114.05	110.70
35	2	289	U	C6-N1-C1'	-6.69	111.83	121.20
35	2	404	G	C5-N7-C8	-6.69	100.96	104.30
35	2	307	G	N1-C6-O6	6.69	123.91	119.90
35	2	27	U	C2-N1-C1'	-6.68	109.68	117.70
35	2	893	U	N3-C2-O2	-6.68	117.52	122.20
35	2	386	G	N3-C2-N2	6.68	124.58	119.90
35	2	900	A	C5-C6-N6	-6.68	118.36	123.70
35	2	977	A	N9-C4-C5	6.68	108.47	105.80
16	d	139	GLN	N-CA-CB	6.68	122.62	110.60
35	2	492	A	N3-C4-C5	6.67	131.47	126.80
35	2	923	A	C5-C6-N1	-6.67	114.36	117.70
36	3	190	C	C5-C6-N1	-6.67	117.67	121.00
30	x	51	PRO	N-CA-CB	6.66	111.29	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	327	U	C5-C6-N1	-6.66	119.37	122.70
35	2	519	C	N3-C2-O2	6.66	126.56	121.90
35	2	440	U	C5-C6-N1	6.65	126.03	122.70
35	2	35	U	N1-C2-O2	6.65	127.45	122.80
35	2	324	U	C6-N1-C2	6.65	124.99	121.00
35	2	530	C	N3-C2-O2	-6.65	117.25	121.90
35	2	173	A	N3-C4-C5	6.64	131.45	126.80
35	2	295	A	C5-N7-C8	-6.64	100.58	103.90
35	2	103	A	C8-N9-C1'	-6.64	115.74	127.70
35	2	206	A	O4'-C1'-N9	-6.64	102.89	108.20
35	2	964	U	C2-N1-C1'	6.64	125.67	117.70
35	2	366	A	N9-C4-C5	-6.63	103.15	105.80
35	2	884	A	N9-C4-C5	-6.63	103.15	105.80
35	2	210	A	C2-N3-C4	-6.63	107.29	110.60
35	2	50	C	C5-C6-N1	-6.62	117.69	121.00
35	2	162	A	N7-C8-N9	6.62	117.11	113.80
35	2	419	G	N3-C4-N9	-6.62	122.03	126.00
35	2	540	G	O5'-P-OP1	-6.61	99.75	105.70
35	2	633	U	N1-C2-O2	6.61	127.43	122.80
35	2	884	A	C5-N7-C8	-6.61	100.59	103.90
35	2	900	A	N7-C8-N9	-6.61	110.49	113.80
35	2	103	A	O4'-C1'-N9	6.61	113.49	108.20
35	2	392	G	C4-C5-N7	6.61	113.44	110.80
35	2	21	U	C5-C6-N1	6.60	126.00	122.70
35	2	1043	A	C5-N7-C8	-6.60	100.60	103.90
35	2	383	G	C4-N9-C1'	-6.60	117.92	126.50
35	2	415	C	N3-C2-O2	-6.60	117.28	121.90
35	2	1027	A	O4'-C1'-N9	6.60	113.48	108.20
35	2	48	G	C4-N9-C1'	6.60	135.07	126.50
35	2	431	C	N1-C2-O2	6.60	122.86	118.90
35	2	91	G	C4-C5-N7	6.59	113.44	110.80
35	2	173	A	N3-C4-N9	-6.59	122.13	127.40
35	2	878	G	N9-C1'-C2'	-6.59	104.75	112.00
35	2	1094	G	C4-C5-N7	6.59	113.44	110.80
35	2	593	U	N3-C4-O4	6.59	124.01	119.40
35	2	869	A	C5-N7-C8	-6.59	100.61	103.90
35	2	464	A	C4-C5-N7	6.58	113.99	110.70
35	2	871	G	N3-C4-C5	6.58	131.89	128.60
35	2	298	C	C6-N1-C2	6.58	122.93	120.30
30	x	41	PRO	N-CA-CB	6.58	111.19	103.30
35	2	206	A	N9-C4-C5	-6.58	103.17	105.80
35	2	212	U	N3-C2-O2	-6.58	117.60	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	3	64	C	N1-C2-O2	6.58	122.85	118.90
35	2	72	A	C4-N9-C1'	-6.57	114.47	126.30
35	2	151	G	O4'-C1'-N9	-6.57	102.94	108.20
35	2	444	C	C2-N1-C1'	-6.57	111.57	118.80
35	2	876	G	C4-C5-N7	6.57	113.43	110.80
35	2	143	G	C8-N9-C4	6.57	109.03	106.40
35	2	342	C	C6-N1-C1'	6.57	128.69	120.80
35	2	1095	U	C6-N1-C2	-6.57	117.06	121.00
35	2	321	C	C6-N1-C2	-6.57	117.67	120.30
35	2	324	U	C4-C5-C6	-6.57	115.76	119.70
35	2	955	A	C5-C6-N1	-6.57	114.42	117.70
35	2	28	A	N1-C2-N3	6.56	132.58	129.30
35	2	304	U	C5-C6-N1	6.56	125.98	122.70
35	2	487	G	C8-N9-C1'	-6.56	118.47	127.00
35	2	504	U	C2-N1-C1'	6.56	125.58	117.70
35	2	363	G	N3-C4-C5	6.56	131.88	128.60
35	2	454	U	C4-C5-C6	6.56	123.64	119.70
35	2	65	A	N3-C4-C5	6.56	131.39	126.80
35	2	448	C	N1-C2-O2	6.55	122.83	118.90
35	2	103	A	N7-C8-N9	6.55	117.07	113.80
35	2	518	A	N1-C6-N6	-6.55	114.67	118.60
15	c	177	PRO	CA-C-O	-6.55	104.49	120.20
35	2	514	G	C8-N9-C4	6.55	109.02	106.40
36	3	111	G	N3-C4-C5	6.55	131.87	128.60
35	2	1029	U	C6-N1-C2	-6.54	117.07	121.00
35	2	80	A	N1-C6-N6	6.54	122.53	118.60
35	2	195	G	N3-C4-N9	-6.54	122.07	126.00
35	2	463	U	C2-N3-C4	-6.54	123.07	127.00
35	2	480	G	C3'-C2'-C1'	-6.54	96.27	101.50
35	2	515	A	OP1-P-O3'	6.54	119.60	105.20
35	2	1083	G	C2-N3-C4	-6.54	108.63	111.90
35	2	592	A	N1-C2-N3	6.54	132.57	129.30
35	2	68	A	C6-N1-C2	-6.54	114.68	118.60
35	2	295	A	C4-C5-N7	6.54	113.97	110.70
35	2	874	C	C4-C5-C6	-6.54	114.13	117.40
35	2	1073	G	C6-C5-N7	-6.54	126.48	130.40
36	3	78	C	OP1-P-OP2	6.54	129.40	119.60
35	2	287	G	N3-C4-C5	6.53	131.87	128.60
35	2	593	U	C6-N1-C2	-6.53	117.08	121.00
35	2	131	C	C5'-C4'-O4'	6.53	116.94	109.10
35	2	337	G	C4-C5-N7	6.53	113.41	110.80
35	2	382	C	C4-C5-C6	6.52	120.66	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	490	C	C2-N1-C1'	-6.52	111.62	118.80
35	2	491	C	C2-N3-C4	-6.52	116.64	119.90
35	2	30	G	N3-C2-N2	-6.52	115.34	119.90
35	2	959	U	N1-C2-N3	-6.51	110.99	114.90
35	2	1091	A	N9-C4-C5	-6.51	103.19	105.80
35	2	498	G	N3-C4-C5	6.51	131.86	128.60
35	2	524	U	OP1-P-O3'	6.51	119.52	105.20
35	2	332	U	C6-N1-C1'	-6.51	112.09	121.20
19	j	591	GLU	CB-CA-C	6.50	123.41	110.40
35	2	483	A	N9-C4-C5	-6.50	103.20	105.80
36	3	91	G	C4-N9-C1'	-6.50	118.05	126.50
35	2	91	G	C4-N9-C1'	6.50	134.95	126.50
35	2	483	A	C4-C5-N7	6.50	113.95	110.70
35	2	419	G	N1-C6-O6	6.50	123.80	119.90
19	i	591	GLU	CB-CA-C	6.50	123.39	110.40
35	2	365	G	C4-C5-C6	6.50	122.70	118.80
36	3	79	G	N9-C4-C5	-6.50	102.80	105.40
36	3	268	G	C5-C6-O6	-6.50	124.70	128.60
35	2	31	C	N3-C2-O2	-6.49	117.36	121.90
35	2	36	C	C6-N1-C2	6.49	122.90	120.30
35	2	344	A	O4'-C1'-N9	-6.49	103.01	108.20
35	2	439	U	OP1-P-O3'	6.49	119.48	105.20
35	2	427	C	O4'-C1'-N1	6.49	113.39	108.20
35	2	901	G	C8-N9-C4	6.49	109.00	106.40
19	j	620	GLN	N-CA-CB	6.49	122.28	110.60
35	2	1035	G	C4-N9-C1'	-6.49	118.07	126.50
35	2	38	C	N3-C4-N4	6.49	122.54	118.00
35	2	432	G	N9-C4-C5	6.48	107.99	105.40
16	d	142	ARG	N-CA-CB	6.48	122.27	110.60
35	2	341	A	N1-C6-N6	6.48	122.49	118.60
19	i	620	GLN	N-CA-CB	6.48	122.26	110.60
35	2	474	A	C2-N3-C4	-6.48	107.36	110.60
35	2	153	G	C8-N9-C4	6.48	108.99	106.40
35	2	166	C	N3-C4-C5	-6.47	119.31	121.90
35	2	322	G	C8-N9-C1'	-6.47	118.58	127.00
35	2	914	G	N1-C2-N2	6.47	122.03	116.20
16	d	105	ARG	CB-CA-C	-6.47	97.46	110.40
35	2	407	A	C4-N9-C1'	-6.47	114.65	126.30
35	2	926	A	C5-C6-N1	6.47	120.94	117.70
35	2	452	A	C6-C5-N7	-6.46	127.78	132.30
35	2	1071	U	C5-C6-N1	-6.46	119.47	122.70
35	2	99	C	N3-C4-C5	6.46	124.48	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	121	U	O4'-C1'-N1	6.46	113.37	108.20
36	3	266	C	C2-N1-C1'	6.46	125.91	118.80
35	2	308	C	N1-C2-O2	6.46	122.78	118.90
35	2	401	A	C8-N9-C4	6.46	108.38	105.80
35	2	32	U	N1-C2-O2	6.46	127.32	122.80
35	2	413	U	N3-C4-C5	6.46	118.47	114.60
35	2	549	G	N1-C2-N2	6.46	122.01	116.20
35	2	935	U	N3-C4-O4	6.46	123.92	119.40
35	2	392	G	C5-C6-O6	-6.45	124.73	128.60
35	2	287	G	C8-N9-C4	6.45	108.98	106.40
35	2	915	A	C8-N9-C4	6.45	108.38	105.80
19	j	616	TRP	N-CA-C	6.45	128.41	111.00
35	2	1051	G	C4-N9-C1'	6.45	134.88	126.50
19	i	616	TRP	N-CA-C	6.45	128.41	111.00
35	2	62	A	O5'-P-OP2	-6.45	99.90	105.70
35	2	530	C	C5-C4-N4	-6.45	115.69	120.20
35	2	869	A	C4-C5-N7	6.45	113.92	110.70
35	2	110	U	N1-C2-N3	6.45	118.77	114.90
35	2	111	U	C2-N3-C4	6.45	130.87	127.00
35	2	1048	G	N3-C4-C5	6.45	131.82	128.60
35	2	158	U	O4'-C1'-N1	6.44	113.35	108.20
35	2	394	C	C2-N3-C4	-6.44	116.68	119.90
35	2	23	G	C8-N9-C4	-6.44	103.83	106.40
35	2	59	C	C5-C4-N4	-6.43	115.70	120.20
35	2	509	G	N1-C6-O6	-6.43	116.04	119.90
35	2	592	A	N3-C4-N9	6.43	132.55	127.40
35	2	485	A	C4-C5-N7	6.43	113.91	110.70
35	2	1065	A	C8-N9-C4	6.43	108.37	105.80
35	2	365	G	P-O3'-C3'	-6.43	111.99	119.70
35	2	550	A	C8-N9-C4	6.42	108.37	105.80
35	2	588	U	C6-N1-C2	6.42	124.85	121.00
36	3	248	G	C5-C6-O6	6.42	132.45	128.60
35	2	877	G	N3-C4-C5	6.42	131.81	128.60
35	2	617	U	C2-N3-C4	-6.42	123.15	127.00
35	2	881	A	C5-N7-C8	-6.42	100.69	103.90
35	2	479	C	N1-C1'-C2'	-6.42	104.94	112.00
35	2	91	G	N3-C4-N9	6.41	129.85	126.00
35	2	527	A	C8-N9-C4	6.41	108.36	105.80
35	2	108	A	N7-C8-N9	6.41	117.01	113.80
35	2	479	C	C3'-C2'-C1'	-6.41	96.37	101.50
35	2	123	G	C5-N7-C8	-6.41	101.10	104.30
35	2	614	C	C6-N1-C2	-6.41	117.74	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	1591	C	C2-N3-C4	-6.40	116.70	119.90
35	2	496	G	N3-C4-C5	6.40	131.80	128.60
35	2	308	C	C5-C6-N1	-6.40	117.80	121.00
35	2	1080	U	C6-N1-C2	6.40	124.84	121.00
35	2	154	G	C8-N9-C4	-6.40	103.84	106.40
35	2	440	U	N1-C2-O2	6.40	127.28	122.80
35	2	36	C	C4-C5-C6	-6.40	114.20	117.40
35	2	463	U	C5-C6-N1	-6.39	119.50	122.70
35	2	465	G	C4-C5-N7	6.39	113.36	110.80
35	2	86	A	C4-N9-C1'	-6.39	114.80	126.30
35	2	872	G	C8-N9-C4	6.39	108.96	106.40
35	2	461	G	N9-C1'-C2'	-6.39	104.97	112.00
35	2	45	U	C6-N1-C2	-6.38	117.17	121.00
35	2	199	G	C4-C5-N7	6.38	113.35	110.80
35	2	408	C	C6-N1-C2	6.38	122.85	120.30
15	c	161	PRO	N-CA-C	6.38	128.69	112.10
35	2	307	G	C6-N1-C2	6.38	128.93	125.10
35	2	295	A	N1-C6-N6	6.38	122.43	118.60
35	2	316	A	N1-C2-N3	-6.38	126.11	129.30
35	2	488	G	N9-C4-C5	-6.38	102.85	105.40
35	2	504	U	N1-C2-N3	-6.38	111.07	114.90
35	2	202	A	C5-N7-C8	-6.38	100.71	103.90
35	2	157	A	N7-C8-N9	6.37	116.99	113.80
35	2	314	C	C6-N1-C1'	-6.37	113.15	120.80
35	2	463	U	N3-C4-C5	6.37	118.42	114.60
16	d	106	TYR	CB-CA-C	-6.37	97.66	110.40
35	2	124	A	N7-C8-N9	-6.37	110.62	113.80
35	2	69	G	C6-C5-N7	6.37	134.22	130.40
35	2	72	A	N1-C2-N3	-6.37	126.12	129.30
35	2	375	U	C6-N1-C2	6.37	124.82	121.00
35	2	69	G	N3-C4-N9	-6.36	122.18	126.00
35	2	185	U	C3'-C2'-C1'	-6.36	96.41	101.50
19	j	881	GLN	C-N-CA	6.36	137.59	121.70
35	2	192	U	N1-C2-O2	6.36	127.25	122.80
35	2	466	U	C2-N3-C4	-6.36	123.19	127.00
35	2	975	C	N1-C2-O2	-6.36	115.09	118.90
36	3	85	A	C5-N7-C8	-6.36	100.72	103.90
35	2	408	C	C5-C6-N1	-6.36	117.82	121.00
19	i	881	GLN	C-N-CA	6.35	137.59	121.70
35	2	146	U	N1-C2-O2	-6.35	118.35	122.80
35	2	88	U	C6-N1-C2	6.35	124.81	121.00
35	2	550	A	O4'-C1'-N9	-6.35	103.12	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	540	G	N9-C4-C5	6.35	107.94	105.40
35	2	82	U	C3'-C2'-C1'	-6.34	96.43	101.50
35	2	331	A	N7-C8-N9	6.34	116.97	113.80
35	2	875	G	N3-C4-C5	6.34	131.77	128.60
35	2	260	U	N1-C2-N3	6.34	118.70	114.90
35	2	24	U	C6-N1-C1'	-6.33	112.33	121.20
35	2	128	U	N1-C2-O2	6.33	127.23	122.80
35	2	425	A	C5-N7-C8	6.33	107.07	103.90
35	2	868	G	O4'-C1'-N9	-6.33	103.14	108.20
35	2	1075	C	N3-C4-C5	6.33	124.43	121.90
35	2	1088	A	C6-C5-N7	-6.33	127.87	132.30
35	2	28	A	N9-C4-C5	6.33	108.33	105.80
35	2	316	A	C4-C5-N7	6.33	113.86	110.70
35	2	322	G	C6-C5-N7	-6.33	126.61	130.40
35	2	184	C	C5-C4-N4	-6.31	115.78	120.20
35	2	305	C	C2-N3-C4	6.31	123.06	119.90
35	2	54	C	C6-N1-C2	6.31	122.82	120.30
35	2	344	A	N1-C6-N6	6.31	122.39	118.60
36	3	249	U	C2-N1-C1'	-6.31	110.13	117.70
35	2	195	G	N1-C6-O6	6.31	123.68	119.90
19	i	482	GLN	CB-CA-C	-6.30	97.79	110.40
27	u	67	PRO	N-CA-CB	6.30	110.87	103.30
35	2	1042	G	C5-C6-O6	-6.30	124.82	128.60
35	2	539	G	C8-N9-C1'	6.30	135.19	127.00
19	j	482	GLN	CB-CA-C	-6.29	97.82	110.40
35	2	1606	C	N3-C2-O2	6.29	126.30	121.90
16	d	46	PHE	CB-CA-C	-6.29	97.83	110.40
35	2	1097	U	N3-C4-C5	-6.29	110.83	114.60
35	2	347	G	C5-N7-C8	-6.28	101.16	104.30
35	2	484	C	C6-N1-C2	6.28	122.81	120.30
35	2	1095	U	C2-N1-C1'	6.28	125.24	117.70
35	2	151	G	N9-C1'-C2'	-6.28	105.09	112.00
35	2	360	A	N3-C4-C5	6.28	131.20	126.80
35	2	474	A	N1-C2-N3	6.28	132.44	129.30
15	c	111	PHE	O-C-N	-6.27	109.19	121.10
35	2	341	A	C4-C5-N7	6.26	113.83	110.70
35	2	186	C	C6-N1-C2	-6.26	117.80	120.30
35	2	251	A	N1-C2-N3	-6.26	126.17	129.30
35	2	457	G	C4-N9-C1'	-6.26	118.36	126.50
35	2	1046	G	C8-N9-C4	6.26	108.90	106.40
35	2	164	A	C4-N9-C1'	-6.26	115.04	126.30
35	2	431	C	C4-C5-C6	-6.26	114.27	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	537	G	O4'-C1'-N9	-6.26	103.19	108.20
35	2	877	G	C8-N9-C4	6.25	108.90	106.40
35	2	386	G	N1-C6-O6	6.25	123.65	119.90
14	b	127	ALA	N-CA-CB	-6.25	101.35	110.10
35	2	955	A	C6-C5-N7	-6.25	127.92	132.30
35	2	1048	G	C8-N9-C1'	6.25	135.13	127.00
35	2	870	C	N3-C4-C5	6.25	124.40	121.90
35	2	163	G	N9-C1'-C2'	-6.25	105.13	112.00
35	2	587	C	C6-N1-C2	-6.25	117.80	120.30
35	2	124	A	N1-C6-N6	6.25	122.35	118.60
35	2	548	G	C5-C6-O6	-6.25	124.85	128.60
35	2	1043	A	N1-C6-N6	6.25	122.35	118.60
35	2	880	C	C4-C5-C6	-6.24	114.28	117.40
35	2	527	A	N9-C4-C5	-6.24	103.31	105.80
35	2	183	U	C5-C6-N1	6.23	125.82	122.70
35	2	550	A	N9-C1'-C2'	-6.23	105.14	112.00
35	2	167	U	N3-C4-C5	6.23	118.34	114.60
35	2	99	C	N1-C2-N3	-6.23	114.84	119.20
35	2	965	U	N1-C2-O2	6.23	127.16	122.80
35	2	206	A	C5-C6-N1	-6.23	114.59	117.70
28	v	82	PRO	N-CA-CB	6.23	110.77	103.30
36	3	250	G	N3-C4-N9	-6.22	122.27	126.00
35	2	910	C	C6-N1-C1'	6.22	128.26	120.80
16	d	140	LYS	N-CA-CB	6.22	121.80	110.60
35	2	1026	A	C8-N9-C4	-6.22	103.31	105.80
35	2	504	U	C6-N1-C2	6.21	124.73	121.00
35	2	1080	U	C2-N3-C4	-6.21	123.27	127.00
35	2	376	C	C4-C5-C6	-6.21	114.29	117.40
35	2	464	A	C5-C6-N6	-6.21	118.73	123.70
35	2	312	A	C2-N3-C4	-6.21	107.49	110.60
35	2	503	G	C5-C6-N1	-6.21	108.39	111.50
35	2	393	C	O4'-C1'-N1	-6.21	103.23	108.20
35	2	1591	C	N1-C2-O2	-6.21	115.17	118.90
35	2	33	U	N1-C2-N3	6.20	118.62	114.90
35	2	209	U	C6-N1-C1'	-6.20	112.52	121.20
35	2	67	A	C4-C5-C6	-6.20	113.90	117.00
35	2	196	G	C6-C5-N7	6.19	134.11	130.40
35	2	497	G	C2-N3-C4	-6.19	108.80	111.90
35	2	928	U	C6-N1-C2	-6.19	117.29	121.00
35	2	309	C	C2-N3-C4	6.19	122.99	119.90
35	2	1044	U	C2-N1-C1'	6.19	125.12	117.70
35	2	186	C	N3-C2-O2	6.18	126.23	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	510	G	N3-C2-N2	-6.18	115.57	119.90
35	2	546	U	C5-C6-N1	-6.18	119.61	122.70
35	2	328	A	C4-C5-N7	6.18	113.79	110.70
34	1	47	PRO	N-CA-CB	6.18	110.71	103.30
35	2	80	A	N3-C4-N9	6.18	132.34	127.40
35	2	962	C	N1-C2-O2	6.18	122.61	118.90
35	2	524	U	N1-C2-N3	6.18	118.61	114.90
35	2	457	G	C3'-C2'-C1'	-6.17	96.56	101.50
35	2	99	C	N3-C2-O2	-6.17	117.58	121.90
35	2	388	G	C2-N3-C4	-6.17	108.81	111.90
35	2	254	A	N9-C4-C5	-6.17	103.33	105.80
35	2	955	A	C4-C5-N7	6.17	113.78	110.70
35	2	872	G	C8-N9-C1'	6.17	135.01	127.00
35	2	935	U	C6-N1-C1'	-6.16	112.57	121.20
35	2	75	U	N1-C2-O2	6.16	127.11	122.80
35	2	48	G	C8-N9-C1'	-6.16	119.00	127.00
35	2	91	G	C8-N9-C1'	-6.16	119.00	127.00
35	2	360	A	N3-C4-N9	-6.15	122.48	127.40
16	d	107	ARG	CB-CA-C	-6.15	98.11	110.40
35	2	362	G	N3-C4-N9	-6.15	122.31	126.00
35	2	1042	G	C6-N1-C2	6.14	128.79	125.10
35	2	1081	A	C5-C6-N1	-6.14	114.63	117.70
35	2	927	C	C5-C6-N1	6.14	124.07	121.00
35	2	876	G	C8-N9-C4	6.14	108.86	106.40
35	2	530	C	P-O3'-C3'	-6.14	112.33	119.70
35	2	481	A	O5'-P-OP1	-6.14	100.18	105.70
35	2	314	C	N1-C1'-C2'	6.13	121.98	114.00
35	2	548	G	N9-C1'-C2'	-6.13	105.25	112.00
35	2	1611	A	N7-C8-N9	6.13	116.87	113.80
36	3	91	G	C8-N9-C4	6.13	108.85	106.40
35	2	271	A	N9-C1'-C2'	-6.13	105.26	112.00
35	2	117	U	N3-C4-O4	-6.13	115.11	119.40
35	2	448	C	C5-C6-N1	6.13	124.06	121.00
36	3	103	G	C5-C6-O6	-6.12	124.92	128.60
35	2	532	U	C5-C4-O4	-6.12	122.23	125.90
35	2	1599	C	N1-C2-O2	6.12	122.57	118.90
35	2	549	G	N1-C6-O6	-6.12	116.23	119.90
19	i	480	TYR	N-CA-CB	6.12	121.61	110.60
35	2	126	A	C5-C6-N6	-6.11	118.81	123.70
35	2	1062	A	N9-C4-C5	-6.11	103.36	105.80
35	2	1476	C	C6-N1-C2	6.11	122.75	120.30
16	d	139	GLN	CB-CA-C	-6.11	98.18	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	885	G	N3-C4-N9	-6.11	122.33	126.00
35	2	537	G	C5-N7-C8	-6.11	101.25	104.30
16	d	117	ARG	N-CA-CB	6.11	121.59	110.60
35	2	456	A	N9-C1'-C2'	-6.11	105.28	112.00
35	2	1088	A	N9-C4-C5	-6.11	103.36	105.80
35	2	549	G	O5'-P-OP2	-6.11	100.20	105.70
35	2	501	U	C2-N1-C1'	-6.10	110.38	117.70
35	2	329	G	C4-C5-N7	6.10	113.24	110.80
35	2	483	A	OP2-P-O3'	6.10	118.61	105.20
35	2	288	A	N3-C4-N9	-6.09	122.53	127.40
35	2	493	U	N1-C2-N3	-6.09	111.24	114.90
35	2	624	G	C5-C6-N1	-6.09	108.45	111.50
19	j	480	TYR	N-CA-CB	6.09	121.57	110.60
35	2	423	G	C8-N9-C4	-6.09	103.96	106.40
35	2	102	U	N3-C4-C5	6.09	118.25	114.60
35	2	402	C	O5'-P-OP2	6.09	118.01	110.70
35	2	483	A	C5-N7-C8	-6.09	100.86	103.90
35	2	959	U	N3-C4-C5	6.09	118.25	114.60
35	2	51	A	N1-C2-N3	-6.08	126.26	129.30
35	2	81	G	C8-N9-C4	6.08	108.83	106.40
35	2	117	U	C5-C4-O4	6.08	129.55	125.90
35	2	331	A	C8-N9-C4	-6.08	103.37	105.80
35	2	522	U	C6-N1-C2	-6.08	117.35	121.00
35	2	113	U	C2-N1-C1'	-6.08	110.41	117.70
35	2	284	G	C5-C6-O6	-6.08	124.95	128.60
35	2	404	G	C2-N3-C4	-6.08	108.86	111.90
35	2	538	A	C5-C6-N6	-6.08	118.84	123.70
35	2	593	U	C4-C5-C6	6.08	123.35	119.70
35	2	196	G	C6-N1-C2	6.08	128.75	125.10
35	2	284	G	N9-C4-C5	-6.08	102.97	105.40
35	2	75	U	C2-N1-C1'	6.07	124.99	117.70
35	2	497	G	N9-C4-C5	-6.07	102.97	105.40
16	d	114	ARG	N-CA-CB	6.07	121.53	110.60
35	2	546	U	N3-C4-C5	6.07	118.24	114.60
35	2	42	G	C4-N9-C1'	6.07	134.39	126.50
35	2	343	C	C4-C5-C6	-6.07	114.37	117.40
35	2	430	G	C2-N3-C4	-6.07	108.87	111.90
16	d	118	TRP	CB-CA-C	-6.07	98.27	110.40
35	2	401	A	C8-N9-C1'	6.06	138.61	127.70
35	2	442	C	C2-N1-C1'	-6.06	112.13	118.80
36	3	268	G	C6-C5-N7	-6.06	126.76	130.40
35	2	269	G	C4-N9-C1'	-6.06	118.62	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	521	A	N3-C4-C5	6.06	131.04	126.80
35	2	211	U	N3-C4-C5	6.06	118.23	114.60
36	3	79	G	C4-C5-N7	6.06	113.22	110.80
16	d	125	HIS	CB-CA-C	-6.05	98.29	110.40
35	2	964	U	C5-C6-N1	6.05	125.73	122.70
35	2	1024	U	N3-C4-C5	-6.05	110.97	114.60
35	2	351	C	C5-C6-N1	-6.05	117.97	121.00
29	w	94	PRO	N-CA-CB	6.05	110.56	103.30
36	3	85	A	C5-C6-N6	-6.05	118.86	123.70
35	2	288	A	N7-C8-N9	-6.04	110.78	113.80
35	2	334	G	C3'-C2'-C1'	-6.04	96.66	101.50
35	2	913	G	N3-C4-C5	-6.04	125.58	128.60
19	j	602	SER	C-N-CA	-6.04	106.59	121.70
27	u	169	PRO	N-CA-CB	6.04	110.55	103.30
35	2	164	A	N1-C2-N3	-6.04	126.28	129.30
35	2	485	A	C5-C6-N6	-6.04	118.87	123.70
35	2	922	G	C5-N7-C8	-6.04	101.28	104.30
19	i	855	LEU	N-CA-C	6.04	127.31	111.00
35	2	41	A	C4-N9-C1'	6.04	137.17	126.30
35	2	354	C	N3-C4-N4	6.04	122.23	118.00
35	2	354	C	C5-C6-N1	6.04	124.02	121.00
35	2	295	A	C6-C5-N7	-6.04	128.07	132.30
35	2	71	A	C8-N9-C4	6.03	108.21	105.80
35	2	353	A	C5-C6-N6	-6.03	118.87	123.70
35	2	466	U	N3-C2-O2	-6.03	117.98	122.20
35	2	136	C	N1-C2-N3	6.03	123.42	119.20
35	2	430	G	C5-C6-O6	-6.03	124.98	128.60
35	2	529	A	C4-C5-N7	6.03	113.72	110.70
35	2	926	A	C8-N9-C4	6.03	108.21	105.80
35	2	334	G	N9-C1'-C2'	-6.03	105.37	112.00
35	2	1579	U	C2-N1-C1'	6.03	124.93	117.70
35	2	301	A	N1-C6-N6	6.03	122.22	118.60
36	3	257	G	C2-N3-C4	-6.03	108.89	111.90
35	2	497	G	C4-C5-N7	6.02	113.21	110.80
19	j	855	LEU	N-CA-C	6.02	127.26	111.00
35	2	353	A	C6-C5-N7	-6.02	128.09	132.30
35	2	1052	U	C6-N1-C1'	6.02	129.63	121.20
35	2	424	C	N1-C2-O2	6.02	122.51	118.90
35	2	963	A	C8-N9-C4	6.02	108.21	105.80
35	2	1052	U	C2-N1-C1'	-6.02	110.48	117.70
35	2	419	G	C5-N7-C8	-6.01	101.29	104.30
35	2	1039	A	C4-C5-N7	6.01	113.71	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	243	G	N3-C4-N9	6.01	129.61	126.00
35	2	913	G	N7-C8-N9	6.01	116.10	113.10
35	2	401	A	C4-C5-C6	-6.01	114.00	117.00
35	2	285	G	C2-N3-C4	-6.00	108.90	111.90
35	2	514	G	N3-C4-C5	6.00	131.60	128.60
35	2	347	G	N9-C1'-C2'	-6.00	105.40	112.00
21	o	73	ALA	N-CA-C	-6.00	94.80	111.00
35	2	36	C	N3-C4-C5	6.00	124.30	121.90
35	2	82	U	C2'-C3'-O3'	6.00	123.30	113.70
35	2	593	U	C2-N1-C1'	6.00	124.90	117.70
19	i	620	GLN	CB-CA-C	-6.00	98.40	110.40
35	2	441	A	C6-C5-N7	-6.00	128.10	132.30
35	2	103	A	N3-C4-N9	6.00	132.20	127.40
35	2	486	G	C4-C5-C6	6.00	122.40	118.80
35	2	41	A	C8-N9-C1'	-5.99	116.91	127.70
35	2	276	C	N3-C4-N4	5.99	122.20	118.00
35	2	365	G	C4'-C3'-O3'	5.99	124.99	113.00
35	2	1048	G	C8-N9-C4	5.99	108.80	106.40
35	2	477	A	C6-C5-N7	-5.99	128.11	132.30
35	2	1025	A	N3-C4-C5	-5.99	122.61	126.80
35	2	202	A	C4-C5-N7	5.99	113.69	110.70
35	2	243	G	N9-C1'-C2'	-5.99	105.41	112.00
35	2	356	G	N9-C4-C5	-5.99	103.00	105.40
19	j	620	GLN	CB-CA-C	-5.99	98.43	110.40
35	2	502	U	C6-N1-C1'	-5.99	112.82	121.20
35	2	447	U	C4-C5-C6	-5.98	116.11	119.70
35	2	79	C	N3-C2-O2	-5.98	117.71	121.90
35	2	951	A	N3-C4-N9	-5.98	122.61	127.40
35	2	1173	C	N3-C4-C5	5.98	124.29	121.90
28	v	85	PRO	N-CA-CB	5.98	110.47	103.30
35	2	71	A	C2-N3-C4	-5.98	107.61	110.60
35	2	535	A	C5-C6-N1	5.98	120.69	117.70
35	2	592	A	N3-C4-C5	-5.98	122.62	126.80
35	2	877	G	N9-C1'-C2'	-5.97	105.43	112.00
35	2	442	C	N1-C2-O2	-5.97	115.32	118.90
35	2	512	A	N3-C4-C5	5.97	130.98	126.80
35	2	173	A	N9-C1'-C2'	-5.97	105.44	112.00
35	2	1088	A	N3-C4-N9	5.97	132.17	127.40
35	2	271	A	C3'-C2'-C1'	-5.96	96.73	101.50
35	2	312	A	N3-C4-C5	5.96	130.97	126.80
35	2	360	A	O4'-C1'-N9	5.96	112.97	108.20
35	2	447	U	C2-N1-C1'	-5.96	110.55	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	482	U	C4-C5-C6	-5.96	116.12	119.70
32	z	77	PRO	N-CA-CB	5.96	110.45	103.30
35	2	443	C	C2-N1-C1'	-5.96	112.25	118.80
35	2	214	G	N9-C4-C5	-5.95	103.02	105.40
35	2	288	A	C8-N9-C4	5.95	108.18	105.80
16	d	74	PRO	N-CA-CB	5.95	110.44	103.30
35	2	1086	A	C5-C6-N6	-5.95	118.94	123.70
35	2	458	G	N9-C4-C5	-5.95	103.02	105.40
35	2	593	U	N3-C4-C5	-5.94	111.03	114.60
36	3	194	G	N3-C4-N9	5.94	129.57	126.00
35	2	513	U	C5-C4-O4	5.94	129.47	125.90
35	2	966	A	C6-N1-C2	5.94	122.16	118.60
35	2	1078	C	C5-C6-N1	5.94	123.97	121.00
36	3	111	G	C4-N9-C1'	-5.94	118.78	126.50
35	2	90	C	N1-C2-O2	5.93	122.46	118.90
35	2	199	G	N1-C6-O6	5.93	123.46	119.90
35	2	481	A	C4-C5-N7	5.93	113.67	110.70
35	2	467	G	P-O3'-C3'	-5.93	112.58	119.70
23	q	67	PRO	N-CA-CB	5.93	110.41	103.30
28	v	47	PRO	N-CA-CB	5.93	110.41	103.30
35	2	412	A	C4-C5-N7	5.93	113.66	110.70
35	2	282	C	C2-N1-C1'	5.93	125.32	118.80
35	2	119	A	N9-C4-C5	-5.92	103.43	105.80
35	2	977	A	C5-C6-N1	5.92	120.66	117.70
16	d	114	ARG	CB-CA-C	-5.92	98.57	110.40
35	2	353	A	C2-N3-C4	-5.91	107.64	110.60
35	2	514	G	C4-C5-C6	-5.91	115.25	118.80
35	2	1037	C	C4-C5-C6	-5.91	114.44	117.40
32	z	29	PRO	N-CA-CB	5.91	110.39	103.30
35	2	512	A	C5-C6-N6	5.91	128.43	123.70
35	2	618	U	C5-C6-N1	5.91	125.65	122.70
35	2	39	A	O4'-C1'-N9	5.91	112.92	108.20
35	2	392	G	C6-C5-N7	-5.91	126.86	130.40
35	2	405	C	N1-C2-O2	5.90	122.44	118.90
35	2	900	A	C4-C5-N7	5.90	113.65	110.70
35	2	933	A	C2-N3-C4	-5.90	107.65	110.60
35	2	973	A	N1-C6-N6	5.90	122.14	118.60
35	2	83	G	N3-C4-N9	-5.90	122.46	126.00
35	2	1037	C	C5-C6-N1	5.90	123.95	121.00
35	2	78	A	OP2-P-O3'	5.90	118.17	105.20
36	3	257	G	N3-C4-N9	-5.90	122.46	126.00
35	2	524	U	O4'-C1'-N1	5.89	112.92	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	529	A	C2-N3-C4	5.89	113.55	110.60
35	2	537	G	C4-C5-N7	5.89	113.16	110.80
35	2	1024	U	N3-C4-O4	5.89	123.53	119.40
35	2	1050	G	N7-C8-N9	5.89	116.05	113.10
35	2	550	A	O5'-P-OP2	-5.89	100.40	105.70
35	2	282	C	C4-C5-C6	-5.89	114.46	117.40
35	2	869	A	N1-C6-N6	5.89	122.13	118.60
35	2	253	A	C6-C5-N7	-5.89	128.18	132.30
36	3	84	G	N3-C2-N2	-5.89	115.78	119.90
35	2	389	G	N1-C6-O6	5.88	123.43	119.90
35	2	941	A	C2-N3-C4	-5.88	107.66	110.60
16	d	46	PHE	N-CA-CB	5.88	121.19	110.60
35	2	299	A	N9-C4-C5	-5.88	103.45	105.80
35	2	363	G	C4-N9-C1'	-5.88	118.85	126.50
35	2	328	A	N3-C4-N9	-5.88	122.70	127.40
35	2	876	G	N9-C4-C5	-5.88	103.05	105.40
29	w	57	PRO	N-CA-CB	5.88	110.35	103.30
35	2	905	A	N3-C4-N9	-5.88	122.70	127.40
35	2	373	G	C5-C6-O6	5.87	132.12	128.60
35	2	276	C	C4-C5-C6	-5.87	114.47	117.40
35	2	196	G	C4-C5-C6	-5.87	115.28	118.80
35	2	29	U	OP1-P-O3'	5.86	118.10	105.20
35	2	456	A	N7-C8-N9	5.86	116.73	113.80
35	2	493	U	P-O3'-C3'	-5.86	112.66	119.70
16	d	117	ARG	CB-CA-C	-5.86	98.68	110.40
35	2	404	G	N9-C1'-C2'	-5.86	105.56	112.00
16	d	107	ARG	N-CA-CB	5.86	121.14	110.60
35	2	378	A	O4'-C1'-N9	5.86	112.88	108.20
35	2	898	A	C8-N9-C4	5.86	108.14	105.80
35	2	134	U	N3-C2-O2	-5.85	118.10	122.20
35	2	325	G	C2-N3-C4	-5.85	108.97	111.90
35	2	874	C	C5-C6-N1	5.85	123.93	121.00
2	G	3194	ASP	N-CA-C	5.85	126.80	111.00
35	2	506	A	C8-N9-C4	5.85	108.14	105.80
35	2	61	A	N3-C4-C5	5.85	130.90	126.80
23	q	142	PRO	N-CA-CB	5.85	110.32	103.30
35	2	72	A	C4-C5-C6	-5.85	114.08	117.00
35	2	619	A	N1-C6-N6	-5.85	115.09	118.60
35	2	30	G	C1'-O4'-C4'	-5.85	105.22	109.90
35	2	151	G	N7-C8-N9	-5.85	110.18	113.10
35	2	269	G	C8-N9-C4	5.85	108.74	106.40
35	2	389	G	N9-C1'-C2'	-5.85	105.57	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	623	A	C8-N9-C4	-5.84	103.46	105.80
35	2	1045	C	C6-N1-C1'	5.84	127.81	120.80
35	2	31	C	O4'-C1'-N1	5.84	112.87	108.20
35	2	101	U	N3-C4-C5	-5.84	111.10	114.60
35	2	200	A	C5-N7-C8	-5.84	100.98	103.90
35	2	1083	G	C8-N9-C1'	5.84	134.59	127.00
35	2	895	G	C4-C5-N7	5.84	113.14	110.80
35	2	301	A	C8-N9-C4	-5.84	103.47	105.80
35	2	307	G	C4-C5-N7	5.84	113.14	110.80
36	3	247	G	C4-C5-N7	5.84	113.13	110.80
35	2	953	G	N9-C4-C5	-5.83	103.07	105.40
35	2	1051	G	N3-C4-C5	-5.83	125.68	128.60
35	2	389	G	C4-C5-N7	5.83	113.13	110.80
35	2	905	A	N7-C8-N9	5.83	116.72	113.80
35	2	24	U	C2-N1-C1'	5.83	124.69	117.70
35	2	71	A	C5-C6-N1	-5.83	114.79	117.70
16	d	101	LYS	N-CA-CB	5.83	121.09	110.60
35	2	418	G	C6-C5-N7	-5.83	126.91	130.40
35	2	1615	C	C6-N1-C2	-5.83	117.97	120.30
35	2	272	U	O5'-P-OP1	5.82	117.69	110.70
35	2	393	C	C2-N1-C1'	5.82	125.21	118.80
35	2	84	A	C3'-C2'-C1'	-5.82	96.84	101.50
35	2	98	U	C2-N1-C1'	5.82	124.69	117.70
35	2	124	A	N9-C4-C5	-5.82	103.47	105.80
35	2	72	A	N9-C1'-C2'	-5.82	105.60	112.00
35	2	67	A	N1-C2-N3	-5.81	126.39	129.30
35	2	871	G	C4-N9-C1'	-5.81	118.94	126.50
35	2	523	G	C4-N9-C1'	-5.81	118.95	126.50
35	2	495	C	O5'-P-OP2	-5.81	100.47	105.70
35	2	1053	G	N1-C2-N2	5.81	121.43	116.20
35	2	522	U	C5-C6-N1	5.81	125.60	122.70
35	2	1056	U	C2-N3-C4	5.80	130.48	127.00
28	v	136	PRO	N-CA-CB	5.80	110.26	103.30
35	2	121	U	C6-N1-C1'	5.80	129.32	121.20
35	2	196	G	C5-C6-N1	-5.80	108.60	111.50
35	2	404	G	C4-N9-C1'	-5.80	118.96	126.50
35	2	418	G	C2-N3-C4	-5.80	109.00	111.90
35	2	430	G	C8-N9-C4	5.80	108.72	106.40
35	2	534	A	N1-C6-N6	-5.80	115.12	118.60
16	d	126	LYS	CB-CA-C	-5.80	98.81	110.40
35	2	441	A	C5-N7-C8	-5.80	101.00	103.90
35	2	97	C	C2-N3-C4	-5.79	117.00	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	202	A	N9-C4-C5	-5.79	103.48	105.80
35	2	98	U	N1-C2-O2	5.79	126.85	122.80
35	2	189	C	N3-C4-C5	-5.79	119.58	121.90
35	2	519	C	C6-N1-C1'	5.79	127.75	120.80
35	2	396	G	N1-C2-N2	5.79	121.41	116.20
35	2	464	A	C5-C6-N1	5.78	120.59	117.70
35	2	84	A	O4'-C1'-N9	-5.78	103.58	108.20
35	2	970	A	C8-N9-C4	5.78	108.11	105.80
35	2	1077	C	N3-C4-C5	5.78	124.21	121.90
35	2	880	C	N1-C1'-C2'	-5.77	105.65	112.00
19	j	113	ASP	N-CA-C	5.77	126.59	111.00
35	2	891	A	O4'-C1'-N9	-5.77	103.58	108.20
19	i	113	ASP	N-CA-C	5.77	126.57	111.00
35	2	286	C	N1-C2-O2	-5.77	115.44	118.90
36	3	111	G	N3-C4-N9	-5.77	122.54	126.00
35	2	485	A	N1-C6-N6	5.77	122.06	118.60
35	2	481	A	N3-C4-C5	5.76	130.84	126.80
35	2	178	U	N1-C2-O2	5.76	126.83	122.80
35	2	210	A	C5-C6-N6	-5.76	119.09	123.70
35	2	466	U	N3-C4-O4	-5.76	115.37	119.40
35	2	895	G	C5-C6-O6	-5.76	125.14	128.60
16	d	118	TRP	N-CA-CB	5.76	120.97	110.60
35	2	302	U	C5-C6-N1	5.76	125.58	122.70
35	2	875	G	C4-N9-C1'	-5.76	119.02	126.50
35	2	299	A	C2-N3-C4	-5.76	107.72	110.60
35	2	355	G	N9-C1'-C2'	-5.76	105.67	112.00
35	2	361	C	OP1-P-O3'	5.75	117.86	105.20
35	2	869	A	C5-C6-N6	-5.75	119.10	123.70
35	2	920	U	C5-C6-N1	5.75	125.58	122.70
35	2	1529	C	C6-N1-C2	5.75	122.60	120.30
35	2	33	U	N3-C4-C5	-5.75	111.15	114.60
35	2	466	U	N1-C2-O2	5.75	126.83	122.80
35	2	32	U	C5-C6-N1	-5.75	119.83	122.70
35	2	57	G	N3-C4-C5	5.75	131.47	128.60
35	2	171	A	C2-N3-C4	-5.74	107.73	110.60
36	3	85	A	N7-C8-N9	5.74	116.67	113.80
28	v	137	PRO	N-CA-CB	5.74	110.19	103.30
35	2	1602	C	C6-N1-C1'	-5.74	113.91	120.80
16	d	48	HIS	N-CA-CB	5.74	120.93	110.60
35	2	103	A	C6-N1-C2	-5.74	115.16	118.60
35	2	260	U	O4'-C1'-N1	5.74	112.79	108.20
35	2	271	A	C8-N9-C4	5.74	108.10	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	443	C	C5-C6-N1	-5.74	118.13	121.00
35	2	1042	G	C6-C5-N7	-5.74	126.96	130.40
35	2	549	G	N7-C8-N9	-5.74	110.23	113.10
16	d	102	LEU	CB-CA-C	-5.74	99.30	110.20
35	2	144	U	C6-N1-C2	5.74	124.44	121.00
35	2	327	U	C2-N1-C1'	-5.74	110.82	117.70
35	2	242	U	N3-C2-O2	-5.73	118.19	122.20
35	2	383	G	C8-N9-C1'	5.73	134.45	127.00
35	2	520	A	N7-C8-N9	5.73	116.67	113.80
35	2	269	G	N3-C4-C5	5.73	131.47	128.60
35	2	959	U	C5-C6-N1	-5.73	119.84	122.70
35	2	460	A	C4-C5-N7	5.73	113.56	110.70
35	2	408	C	C2-N1-C1'	-5.72	112.50	118.80
35	2	1602	C	C2-N1-C1'	5.72	125.10	118.80
35	2	1080	U	C4-C5-C6	-5.72	116.27	119.70
36	3	113	G	N9-C1'-C2'	-5.72	105.71	112.00
19	j	615	PRO	CA-C-N	5.72	129.78	117.20
35	2	255	U	N3-C4-C5	5.72	118.03	114.60
35	2	1038	U	C4-C5-C6	-5.72	116.27	119.70
16	d	141	HIS	N-CA-CB	5.72	120.89	110.60
35	2	109	G	N9-C4-C5	-5.72	103.11	105.40
35	2	351	C	N3-C4-N4	-5.71	114.00	118.00
35	2	1042	G	N3-C4-C5	5.71	131.46	128.60
35	2	1029	U	C5-C6-N1	5.71	125.56	122.70
35	2	135	A	C8-N9-C1'	-5.71	117.42	127.70
35	2	1081	A	N7-C8-N9	5.71	116.66	113.80
35	2	329	G	N9-C4-C5	-5.71	103.12	105.40
35	2	625	C	C4-C5-C6	-5.71	114.55	117.40
35	2	201	G	C8-N9-C4	5.70	108.68	106.40
35	2	281	G	C2-N3-C4	-5.70	109.05	111.90
19	i	615	PRO	CA-C-N	5.70	129.74	117.20
35	2	327	U	O4'-C1'-N1	5.70	112.76	108.20
35	2	1174	C	C5-C6-N1	-5.70	118.15	121.00
35	2	489	C	C2-N3-C4	-5.70	117.05	119.90
35	2	419	G	C5-C6-N1	-5.70	108.65	111.50
35	2	498	G	N3-C4-N9	-5.70	122.58	126.00
35	2	485	A	N9-C1'-C2'	-5.69	105.74	112.00
35	2	26	A	C5-C6-N6	-5.69	119.15	123.70
35	2	927	C	C4-C5-C6	-5.69	114.55	117.40
35	2	69	G	C4-N9-C1'	-5.69	119.10	126.50
35	2	101	U	N3-C2-O2	-5.69	118.22	122.20
35	2	267	U	C2-N1-C1'	-5.69	110.88	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	373	G	N3-C4-C5	-5.69	125.76	128.60
35	2	403	G	C4-C5-N7	5.69	113.08	110.80
35	2	28	A	N7-C8-N9	5.69	116.64	113.80
35	2	243	G	C5-N7-C8	-5.68	101.46	104.30
35	2	960	U	N1-C2-O2	-5.68	118.82	122.80
35	2	1076	A	N1-C6-N6	5.68	122.01	118.60
35	2	288	A	N3-C4-C5	5.68	130.77	126.80
35	2	334	G	N9-C4-C5	-5.68	103.13	105.40
35	2	389	G	C6-C5-N7	-5.68	126.99	130.40
35	2	324	U	N1-C1'-C2'	-5.67	105.76	112.00
35	2	538	A	C6-C5-N7	-5.67	128.33	132.30
35	2	59	C	N3-C4-C5	5.67	124.17	121.90
23	q	129	PRO	N-CA-CB	5.67	110.11	103.30
35	2	321	C	N3-C4-C5	-5.67	119.63	121.90
35	2	870	C	C4-C5-C6	-5.67	114.56	117.40
35	2	479	C	C5-C6-N1	5.67	123.83	121.00
35	2	1095	U	C5-C6-N1	5.67	125.53	122.70
35	2	629	U	C2-N1-C1'	-5.67	110.90	117.70
35	2	1038	U	C5-C6-N1	5.67	125.53	122.70
35	2	83	G	N9-C1'-C2'	-5.66	105.77	112.00
35	2	361	C	C2-N1-C1'	-5.66	112.57	118.80
35	2	617	U	C4-C5-C6	-5.66	116.30	119.70
35	2	342	C	N1-C1'-C2'	-5.66	105.77	112.00
35	2	123	G	C6-C5-N7	-5.66	127.00	130.40
35	2	26	A	N1-C6-N6	5.66	121.99	118.60
35	2	1076	A	C5-N7-C8	-5.66	101.07	103.90
35	2	346	G	C4-N9-C1'	5.65	133.85	126.50
35	2	82	U	N3-C4-C5	5.65	117.99	114.60
35	2	407	A	O4'-C1'-N9	5.65	112.72	108.20
35	2	27	U	N3-C4-C5	5.65	117.99	114.60
35	2	362	G	C8-N9-C1'	5.65	134.34	127.00
29	w	120	PRO	N-CA-CB	5.65	110.08	103.30
35	2	165	G	C4-C5-N7	5.65	113.06	110.80
35	2	427	C	N1-C2-O2	5.65	122.29	118.90
35	2	1045	C	N3-C4-N4	-5.65	114.05	118.00
35	2	351	C	C6-N1-C2	5.65	122.56	120.30
23	q	88	PRO	N-CA-CB	5.64	110.07	103.30
35	2	301	A	N1-C2-N3	5.64	132.12	129.30
35	2	324	U	N1-C2-O2	5.64	126.75	122.80
35	2	516	G	C4-C5-C6	-5.64	115.42	118.80
35	2	87	C	C6-N1-C2	-5.64	118.04	120.30
35	2	296	U	C5-C4-O4	-5.64	122.52	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	948	G	N3-C4-C5	5.64	131.42	128.60
35	2	347	G	N3-C4-N9	5.64	129.38	126.00
35	2	922	G	O4'-C1'-N9	5.64	112.71	108.20
35	2	190	C	N1-C2-O2	5.63	122.28	118.90
35	2	375	U	N3-C4-O4	-5.63	115.45	119.40
35	2	494	U	C4-C5-C6	-5.63	116.32	119.70
35	2	510	G	C2-N3-C4	-5.63	109.08	111.90
35	2	954	G	C4-C5-N7	5.63	113.05	110.80
35	2	328	A	C5-C6-N1	-5.63	114.89	117.70
35	2	296	U	C4-C5-C6	-5.63	116.32	119.70
36	3	268	G	N1-C6-O6	5.62	123.27	119.90
16	d	105	ARG	N-CA-CB	5.62	120.72	110.60
35	2	920	U	C4-C5-C6	-5.62	116.33	119.70
35	2	973	A	C5-C6-N6	-5.62	119.20	123.70
19	i	629	SER	C-N-CA	-5.62	107.66	121.70
35	2	497	G	C4-N9-C1'	-5.62	119.20	126.50
35	2	881	A	N9-C4-C5	-5.62	103.55	105.80
35	2	307	G	N1-C2-N2	5.62	121.25	116.20
35	2	467	G	C3'-C2'-C1'	-5.61	97.01	101.50
35	2	1074	G	C3'-C2'-C1'	-5.61	97.01	101.50
35	2	1076	A	C4-C5-N7	5.61	113.51	110.70
19	j	629	SER	C-N-CA	-5.61	107.67	121.70
35	2	287	G	C5-N7-C8	-5.61	101.50	104.30
35	2	464	A	C8-N9-C4	5.60	108.04	105.80
35	2	179	A	N3-C4-C5	-5.60	122.88	126.80
35	2	35	U	C4'-C3'-O3'	5.60	124.20	113.00
35	2	357	G	N1-C6-O6	5.60	123.26	119.90
35	2	184	C	N1-C2-N3	-5.60	115.28	119.20
35	2	959	U	O4'-C1'-N1	5.60	112.68	108.20
35	2	1083	G	N1-C6-O6	5.60	123.26	119.90
35	2	450	U	N1-C2-O2	5.60	126.72	122.80
35	2	28	A	C4-N9-C1'	5.59	136.37	126.30
35	2	28	A	C2-N3-C4	5.59	113.40	110.60
35	2	431	C	C5-C4-N4	-5.59	116.28	120.20
23	q	164	PRO	N-CA-CB	5.59	110.01	103.30
35	2	74	U	C6-N1-C2	5.59	124.35	121.00
35	2	624	G	N3-C4-C5	5.59	131.40	128.60
35	2	920	U	N1-C2-O2	5.59	126.71	122.80
35	2	950	C	C4-C5-C6	-5.59	114.60	117.40
35	2	487	G	C6-C5-N7	-5.59	127.05	130.40
35	2	454	U	N3-C4-C5	-5.59	111.25	114.60
35	2	885	G	C8-N9-C4	5.59	108.63	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	63	G	N3-C4-N9	-5.58	122.65	126.00
35	2	482	U	N3-C2-O2	-5.58	118.30	122.20
35	2	1025	A	N7-C8-N9	5.58	116.59	113.80
35	2	134	U	C2-N3-C4	-5.58	123.65	127.00
35	2	309	C	C2-N1-C1'	-5.58	112.67	118.80
35	2	69	G	O4'-C1'-N9	-5.58	103.74	108.20
35	2	332	U	O4'-C1'-N1	-5.58	103.74	108.20
35	2	68	A	N9-C4-C5	5.57	108.03	105.80
35	2	87	C	C2-N3-C4	-5.57	117.11	119.90
35	2	174	U	N1-C2-O2	5.57	126.70	122.80
35	2	246	G	C8-N9-C4	-5.57	104.17	106.40
35	2	871	G	N9-C1'-C2'	-5.57	105.88	112.00
35	2	1075	C	C2-N1-C1'	-5.57	112.68	118.80
35	2	86	A	O4'-C1'-N9	5.57	112.65	108.20
35	2	130	C	N3-C4-C5	5.57	124.13	121.90
35	2	363	G	N9-C1'-C2'	-5.57	105.88	112.00
35	2	512	A	C5-C6-N1	5.56	120.48	117.70
35	2	178	U	C6-N1-C1'	-5.56	113.42	121.20
35	2	591	A	C3'-C2'-C1'	-5.56	97.05	101.50
35	2	1467	C	N1-C2-O2	-5.56	115.57	118.90
35	2	539	G	C2-N3-C4	-5.56	109.12	111.90
35	2	868	G	N3-C4-N9	-5.55	122.67	126.00
35	2	967	A	N1-C6-N6	5.55	121.93	118.60
35	2	530	C	N3-C4-N4	5.55	121.89	118.00
35	2	905	A	C8-N9-C4	-5.55	103.58	105.80
36	3	93	G	C5-N7-C8	-5.55	101.52	104.30
35	2	47	A	C8-N9-C4	-5.55	103.58	105.80
35	2	539	G	C6-N1-C2	5.55	128.43	125.10
35	2	879	G	N1-C6-O6	5.55	123.23	119.90
35	2	495	C	O4'-C1'-N1	5.54	112.63	108.20
35	2	65	A	C5-C6-N1	-5.54	114.93	117.70
35	2	481	A	C4-C5-C6	-5.54	114.23	117.00
36	3	81	G	N9-C1'-C2'	-5.54	105.91	112.00
35	2	469	C	C5-C6-N1	-5.54	118.23	121.00
35	2	86	A	C8-N9-C1'	5.53	137.66	127.70
35	2	1031	U	C5-C6-N1	-5.53	119.93	122.70
35	2	126	A	N1-C6-N6	5.53	121.92	118.60
19	j	594	ILE	N-CA-CB	5.53	123.52	110.80
35	2	194	U	C2-N1-C1'	5.53	124.33	117.70
35	2	413	U	C5-C6-N1	-5.53	119.94	122.70
19	i	630	LEU	N-CA-CB	5.53	121.45	110.40
35	2	427	C	N3-C2-O2	-5.52	118.03	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	j	630	LEU	N-CA-CB	5.52	121.44	110.40
35	2	445	A	C5-C6-N1	5.52	120.46	117.70
35	2	423	G	N3-C4-N9	5.51	129.31	126.00
35	2	504	U	OP2-P-O3'	5.51	117.33	105.20
35	2	1026	A	C2-N3-C4	5.51	113.36	110.60
35	2	1166	A	C5-C6-N6	-5.51	119.29	123.70
36	3	93	G	C4-C5-N7	5.51	113.00	110.80
35	2	285	G	N1-C6-O6	5.51	123.21	119.90
35	2	880	C	N3-C4-C5	5.51	124.10	121.90
35	2	1039	A	N7-C8-N9	-5.51	111.05	113.80
35	2	357	G	C5-N7-C8	-5.51	101.55	104.30
35	2	23	G	N7-C8-N9	5.51	115.85	113.10
35	2	464	A	O5'-P-OP1	5.51	117.31	110.70
35	2	483	A	N1-C6-N6	5.51	121.90	118.60
35	2	442	C	N3-C4-C5	5.50	124.10	121.90
35	2	382	C	C2-N1-C1'	5.50	124.85	118.80
35	2	1045	C	C6-N1-C2	5.50	122.50	120.30
35	2	200	A	N1-C6-N6	5.50	121.90	118.60
35	2	521	A	C4-C5-C6	-5.50	114.25	117.00
35	2	61	A	C4-C5-C6	-5.49	114.25	117.00
35	2	163	G	C2-N3-C4	-5.49	109.15	111.90
35	2	361	C	N3-C4-C5	5.49	124.10	121.90
35	2	1050	G	C5-N7-C8	-5.49	101.55	104.30
35	2	196	G	N1-C2-N2	5.49	121.14	116.20
35	2	481	A	C5-N7-C8	-5.49	101.15	103.90
16	d	126	LYS	N-CA-CB	5.49	120.48	110.60
29	w	122	PRO	N-CA-CB	5.49	109.89	103.30
35	2	383	G	N3-C4-C5	5.49	131.34	128.60
35	2	1076	A	C2-N3-C4	-5.49	107.86	110.60
35	2	295	A	C5-C6-N6	-5.48	119.31	123.70
35	2	926	A	C6-N1-C2	-5.48	115.31	118.60
35	2	149	C	N3-C2-O2	-5.48	118.06	121.90
35	2	288	A	N1-C2-N3	5.48	132.04	129.30
35	2	440	U	N3-C2-O2	-5.48	118.36	122.20
35	2	878	G	N1-C2-N2	5.48	121.13	116.20
36	3	81	G	N3-C4-N9	-5.48	122.71	126.00
35	2	129	U	C2-N1-C1'	5.48	124.27	117.70
35	2	1052	U	C5-C6-N1	5.48	125.44	122.70
35	2	309	C	N1-C1'-C2'	-5.48	105.98	112.00
35	2	506	A	C5-N7-C8	-5.47	101.16	103.90
35	2	900	A	N9-C1'-C2'	-5.47	105.98	112.00
35	2	1041	G	N3-C4-C5	5.47	131.34	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	x	35	PRO	N-CA-CB	5.47	109.87	103.30
35	2	103	A	C2-N3-C4	5.47	113.34	110.60
35	2	183	U	C4-C5-C6	-5.47	116.42	119.70
35	2	213	A	N9-C4-C5	-5.47	103.61	105.80
35	2	247	A	C2-N3-C4	5.47	113.34	110.60
35	2	428	A	OP1-P-OP2	-5.47	111.39	119.60
35	2	471	A	C2-N3-C4	-5.47	107.86	110.60
35	2	914	G	C8-N9-C1'	5.47	134.11	127.00
35	2	1052	U	N1-C1'-C2'	-5.47	105.98	112.00
27	u	144	PRO	N-CA-CB	5.47	109.86	103.30
35	2	449	C	N1-C2-O2	5.47	122.18	118.90
35	2	938	G	C8-N9-C4	5.47	108.59	106.40
35	2	940	A	N1-C6-N6	-5.47	115.32	118.60
35	2	179	A	N9-C4-C5	5.47	107.99	105.80
35	2	83	G	C4-N9-C1'	-5.47	119.39	126.50
35	2	443	C	N3-C4-N4	-5.47	114.17	118.00
35	2	550	A	N7-C8-N9	-5.47	111.07	113.80
35	2	212	U	N1-C1'-C2'	-5.46	105.99	112.00
35	2	916	U	C4-C5-C6	5.46	122.98	119.70
36	3	203	C	N3-C2-O2	-5.46	118.08	121.90
35	2	383	G	N1-C2-N2	5.46	121.11	116.20
35	2	82	U	N1-C1'-C2'	-5.46	106.00	112.00
35	2	503	G	C4-C5-C6	-5.46	115.53	118.80
35	2	1072	C	N1-C2-O2	5.46	122.17	118.90
35	2	152	U	C2-N1-C1'	-5.45	111.16	117.70
35	2	156	A	C4-C5-N7	5.45	113.43	110.70
35	2	941	A	C8-N9-C4	5.45	107.98	105.80
36	3	113	G	N3-C4-C5	5.45	131.33	128.60
19	i	616	TRP	O-C-N	-5.45	113.98	122.70
35	2	922	G	C6-N1-C2	5.45	128.37	125.10
35	2	379	U	C2-N1-C1'	5.45	124.24	117.70
36	3	70	A	N7-C8-N9	5.45	116.52	113.80
35	2	251	A	N9-C4-C5	-5.45	103.62	105.80
35	2	442	C	C6-N1-C2	5.45	122.48	120.30
35	2	516	G	N1-C6-O6	-5.45	116.63	119.90
35	2	527	A	C6-N1-C2	5.45	121.87	118.60
35	2	201	G	N1-C6-O6	5.44	123.17	119.90
19	j	616	TRP	O-C-N	-5.44	113.99	122.70
35	2	1035	G	C8-N9-C4	5.44	108.58	106.40
35	2	413	U	N3-C4-O4	-5.44	115.59	119.40
35	2	425	A	N3-C4-N9	5.44	131.75	127.40
35	2	1086	A	C5-C6-N1	5.44	120.42	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	c	250	ASN	CB-CA-C	5.44	121.28	110.40
16	d	102	LEU	N-CA-CB	5.44	121.28	110.40
35	2	111	U	C2-N1-C1'	5.44	124.22	117.70
35	2	429	G	C5-C6-N1	-5.44	108.78	111.50
35	2	546	U	N3-C4-O4	-5.44	115.59	119.40
35	2	36	C	N1-C1'-C2'	-5.43	106.02	112.00
35	2	448	C	P-O3'-C3'	-5.43	113.18	119.70
35	2	912	U	C2-N3-C4	5.43	130.26	127.00
35	2	68	A	N7-C8-N9	5.43	116.52	113.80
35	2	287	G	C6-C5-N7	-5.43	127.14	130.40
35	2	462	G	C5-C6-O6	5.43	131.86	128.60
35	2	972	G	N9-C1'-C2'	-5.43	106.03	112.00
35	2	471	A	N9-C4-C5	-5.43	103.63	105.80
35	2	914	G	OP2-P-O3'	5.43	117.14	105.20
35	2	501	U	C5-C4-O4	5.43	129.16	125.90
35	2	48	G	C5-C6-N1	5.43	114.21	111.50
35	2	413	U	N1-C1'-C2'	-5.43	106.03	112.00
35	2	284	G	N1-C6-O6	5.42	123.15	119.90
35	2	548	G	N3-C4-N9	-5.42	122.75	126.00
35	2	53	G	N1-C2-N2	5.42	121.08	116.20
35	2	291	G	N7-C8-N9	5.42	115.81	113.10
35	2	1094	G	O4'-C1'-N9	-5.42	103.87	108.20
35	2	251	A	C8-N9-C4	5.42	107.97	105.80
35	2	281	G	N9-C1'-C2'	-5.41	106.05	112.00
35	2	380	U	C5-C6-N1	-5.41	119.99	122.70
35	2	397	A	N1-C6-N6	5.41	121.85	118.60
35	2	632	U	N1-C2-N3	-5.41	111.65	114.90
35	2	377	G	N7-C8-N9	-5.41	110.39	113.10
35	2	479	C	N3-C2-O2	-5.41	118.11	121.90
35	2	632	U	C5-C6-N1	5.41	125.40	122.70
35	2	1535	U	C2-N1-C1'	5.41	124.19	117.70
35	2	959	U	N3-C2-O2	5.40	125.98	122.20
35	2	384	G	C4-C5-C6	-5.40	115.56	118.80
36	3	268	G	N3-C4-N9	5.40	129.24	126.00
35	2	310	C	N1-C2-N3	-5.40	115.42	119.20
36	3	85	A	C4-C5-N7	5.40	113.40	110.70
35	2	317	C	C4-C5-C6	-5.40	114.70	117.40
35	2	446	A	C5-C6-N6	-5.40	119.38	123.70
35	2	539	G	N9-C1'-C2'	5.40	121.02	114.00
35	2	947	U	N1-C1'-C2'	-5.40	106.06	112.00
35	2	76	A	N1-C2-N3	5.40	132.00	129.30
35	2	307	G	C4-C5-C6	-5.40	115.56	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	51	A	O4'-C1'-N9	5.39	112.52	108.20
36	3	78	C	N3-C4-C5	5.39	124.06	121.90
36	3	91	G	N3-C4-N9	-5.39	122.77	126.00
36	3	183	A	N9-C4-C5	-5.39	103.64	105.80
35	2	295	A	O4'-C1'-N9	5.39	112.51	108.20
35	2	401	A	OP1-P-O3'	5.39	117.06	105.20
35	2	958	U	C4-C5-C6	-5.39	116.47	119.70
35	2	343	C	C2-N1-C1'	-5.38	112.88	118.80
35	2	305	C	C4-C5-C6	-5.38	114.71	117.40
35	2	129	U	C6-N1-C1'	-5.38	113.67	121.20
35	2	388	G	C8-N9-C4	5.38	108.55	106.40
35	2	466	U	C6-N1-C2	5.38	124.23	121.00
35	2	879	G	N3-C4-C5	5.38	131.29	128.60
35	2	290	G	C8-N9-C4	5.38	108.55	106.40
35	2	956	C	N1-C2-O2	-5.37	115.67	118.90
35	2	84	A	P-O3'-C3'	-5.37	113.25	119.70
35	2	357	G	N9-C1'-C2'	-5.37	106.09	112.00
35	2	398	G	N3-C4-N9	5.37	129.22	126.00
35	2	491	C	C6-N1-C1'	5.37	127.24	120.80
16	d	101	LYS	CB-CA-C	-5.37	99.66	110.40
35	2	154	G	C5-N7-C8	-5.37	101.61	104.30
35	2	206	A	C2-N3-C4	-5.37	107.92	110.60
35	2	425	A	C4-C5-C6	5.37	119.68	117.00
35	2	455	C	C6-N1-C1'	5.37	127.24	120.80
35	2	918	U	N1-C2-O2	5.37	126.56	122.80
35	2	112	A	C2-N3-C4	-5.37	107.92	110.60
35	2	588	U	N3-C2-O2	-5.37	118.44	122.20
35	2	1093	A	N7-C8-N9	-5.37	111.12	113.80
35	2	591	A	C5-C6-N1	5.36	120.38	117.70
35	2	112	A	C6-C5-N7	-5.36	128.55	132.30
35	2	914	G	C4-C5-C6	-5.36	115.58	118.80
35	2	26	A	C8-N9-C4	5.36	107.94	105.80
35	2	285	G	C6-C5-N7	-5.36	127.19	130.40
36	3	194	G	C2-N3-C4	5.36	114.58	111.90
35	2	334	G	O5'-P-OP2	-5.36	100.88	105.70
35	2	346	G	C6-C5-N7	-5.36	127.19	130.40
35	2	527	A	C4-C5-N7	5.35	113.38	110.70
35	2	323	A	N3-C4-C5	5.35	130.55	126.80
35	2	961	U	N1-C2-O2	-5.35	119.05	122.80
35	2	970	A	N7-C8-N9	-5.35	111.12	113.80
16	d	142	ARG	CB-CA-C	-5.35	99.70	110.40
35	2	922	G	C4-C5-C6	-5.35	115.59	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	3	194	G	O4'-C1'-N9	5.35	112.48	108.20
35	2	253	A	C5-C6-N6	-5.35	119.42	123.70
35	2	253	A	C6-N1-C2	5.35	121.81	118.60
35	2	332	U	OP2-P-O3'	5.35	116.97	105.20
35	2	254	A	N1-C6-N6	5.35	121.81	118.60
35	2	1620	C	C6-N1-C1'	-5.35	114.38	120.80
35	2	76	A	C6-N1-C2	-5.35	115.39	118.60
35	2	977	A	C6-C5-N7	5.35	136.04	132.30
36	3	266	C	O4'-C1'-N1	5.34	112.48	108.20
35	2	1038	U	N3-C4-C5	5.34	117.81	114.60
35	2	412	A	N1-C6-N6	5.34	121.81	118.60
35	2	447	U	N1-C2-N3	-5.34	111.70	114.90
35	2	630	A	C5-C6-N6	-5.34	119.43	123.70
35	2	1600	A	C8-N9-C4	-5.34	103.67	105.80
35	2	41	A	N1-C6-N6	5.34	121.80	118.60
35	2	105	A	O4'-C1'-N9	5.34	112.47	108.20
35	2	471	A	N7-C8-N9	-5.34	111.13	113.80
35	2	1620	C	C5-C6-N1	5.34	123.67	121.00
35	2	337	G	N3-C4-C5	5.34	131.27	128.60
35	2	1083	G	C6-N1-C2	5.34	128.30	125.10
35	2	589	C	N1-C1'-C2'	-5.33	106.13	112.00
35	2	173	A	C4-N9-C1'	-5.33	116.70	126.30
35	2	277	U	N1-C2-O2	-5.33	119.07	122.80
36	3	113	G	C8-N9-C1'	5.33	133.93	127.00
35	2	970	A	C5-N7-C8	5.33	106.56	103.90
35	2	464	A	N3-C4-N9	5.33	131.66	127.40
35	2	953	G	C4-C5-N7	5.33	112.93	110.80
35	2	168	A	N9-C4-C5	-5.33	103.67	105.80
35	2	276	C	N1-C2-N3	-5.33	115.47	119.20
35	2	72	A	N3-C4-C5	5.33	130.53	126.80
35	2	174	U	N3-C2-O2	-5.33	118.47	122.20
35	2	445	A	O4'-C1'-N9	-5.33	103.94	108.20
35	2	122	U	C5-C6-N1	-5.32	120.04	122.70
35	2	259	U	C5-C6-N1	-5.32	120.04	122.70
36	3	262	C	C5-C6-N1	-5.32	118.34	121.00
35	2	481	A	N9-C1'-C2'	-5.32	106.15	112.00
35	2	91	G	C6-N1-C2	-5.32	121.91	125.10
35	2	148	A	C4-C5-C6	-5.32	114.34	117.00
35	2	437	A	N9-C4-C5	5.32	107.93	105.80
35	2	178	U	C5-C6-N1	5.31	125.36	122.70
35	2	204	G	C8-N9-C4	5.31	108.53	106.40
35	2	974	A	C6-C5-N7	-5.31	128.58	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	498	G	N3-C2-N2	-5.31	116.18	119.90
35	2	302	U	N3-C4-C5	5.31	117.78	114.60
35	2	371	G	N7-C8-N9	5.31	115.75	113.10
35	2	966	A	N9-C4-C5	-5.31	103.68	105.80
35	2	291	G	C5-N7-C8	-5.31	101.65	104.30
35	2	511	A	C4-C5-C6	5.31	119.65	117.00
35	2	912	U	N1-C2-O2	5.31	126.51	122.80
35	2	199	G	N1-C2-N2	-5.30	111.43	116.20
35	2	447	U	N3-C2-O2	5.30	125.91	122.20
35	2	522	U	C2-N1-C1'	5.30	124.06	117.70
35	2	326	G	C4-C5-C6	-5.30	115.62	118.80
35	2	389	G	C2-N3-C4	-5.30	109.25	111.90
35	2	165	G	N9-C4-C5	-5.30	103.28	105.40
35	2	963	A	N1-C6-N6	5.30	121.78	118.60
35	2	973	A	N7-C8-N9	-5.30	111.15	113.80
35	2	322	G	C8-N9-C4	5.29	108.52	106.40
35	2	147	A	O5'-P-OP2	-5.29	100.94	105.70
35	2	448	C	N1-C1'-C2'	-5.29	106.18	112.00
35	2	192	U	N3-C2-O2	-5.29	118.50	122.20
35	2	398	G	N7-C8-N9	5.28	115.74	113.10
36	3	67	C	C2-N1-C1'	-5.28	112.99	118.80
35	2	1067	C	N1-C2-O2	5.28	122.07	118.90
35	2	42	G	C8-N9-C1'	-5.28	120.14	127.00
35	2	513	U	N1-C1'-C2'	-5.28	106.19	112.00
19	i	544	TYR	N-CA-CB	5.28	120.10	110.60
35	2	396	G	C8-N9-C1'	5.28	133.86	127.00
35	2	547	U	N3-C2-O2	5.28	125.89	122.20
35	2	1529	C	C5-C6-N1	-5.28	118.36	121.00
35	2	87	C	O4'-C1'-N1	5.27	112.42	108.20
35	2	98	U	C6-N1-C1'	-5.27	113.82	121.20
35	2	34	G	N9-C4-C5	5.27	107.51	105.40
35	2	161	U	N3-C2-O2	5.27	125.89	122.20
35	2	1166	A	C5-C6-N1	5.27	120.33	117.70
19	j	544	TYR	N-CA-CB	5.27	120.08	110.60
35	2	432	G	C8-N9-C1'	-5.27	120.15	127.00
35	2	628	G	C8-N9-C4	5.27	108.51	106.40
35	2	923	A	C8-N9-C4	5.27	107.91	105.80
35	2	473	A	C6-C5-N7	-5.26	128.62	132.30
35	2	523	G	C2-N3-C4	5.26	114.53	111.90
35	2	894	U	C6-N1-C1'	5.26	128.56	121.20
35	2	965	U	O4'-C1'-N1	5.26	112.41	108.20
35	2	550	A	N1-C6-N6	-5.25	115.45	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	1026	A	N3-C4-C5	-5.25	123.12	126.80
35	2	1096	C	C5-C6-N1	5.25	123.63	121.00
35	2	265	A	N1-C6-N6	5.25	121.75	118.60
35	2	1611	A	C5-N7-C8	-5.25	101.28	103.90
36	3	269	G	N3-C4-C5	5.25	131.22	128.60
35	2	492	A	C4-C5-C6	-5.25	114.38	117.00
35	2	526	A	C5-C6-N1	5.25	120.32	117.70
36	3	79	G	C8-N9-C4	5.25	108.50	106.40
35	2	411	C	C2-N1-C1'	5.24	124.57	118.80
35	2	129	U	N1-C2-O2	5.24	126.47	122.80
35	2	286	C	C4-C5-C6	-5.24	114.78	117.40
35	2	135	A	C4-N9-C1'	5.24	135.73	126.30
35	2	190	C	C5-C6-N1	5.24	123.62	121.00
35	2	358	U	P-O3'-C3'	-5.24	113.41	119.70
35	2	39	A	C8-N9-C4	-5.24	103.70	105.80
35	2	360	A	N9-C1'-C2'	-5.24	106.24	112.00
35	2	195	G	N3-C2-N2	-5.24	116.24	119.90
35	2	1084	A	N3-C4-C5	5.24	130.47	126.80
35	2	41	A	C4-C5-C6	5.23	119.62	117.00
35	2	964	U	N3-C4-O4	5.23	123.06	119.40
36	3	82	U	O4'-C1'-N1	5.23	112.39	108.20
35	2	549	G	C6-N1-C2	5.23	128.24	125.10
35	2	891	A	N9-C4-C5	-5.23	103.71	105.80
35	2	516	G	C5-C6-N1	5.23	114.12	111.50
35	2	866	G	N9-C1'-C2'	-5.23	106.25	112.00
35	2	883	C	C2-N3-C4	5.23	122.52	119.90
26	t	132	LYS	N-CA-C	5.23	125.11	111.00
35	2	317	C	N1-C2-N3	-5.23	115.54	119.20
35	2	926	A	C6-C5-N7	-5.22	128.64	132.30
35	2	953	G	C8-N9-C4	5.22	108.49	106.40
35	2	975	C	C6-N1-C2	-5.22	118.21	120.30
35	2	978	A	N7-C8-N9	5.22	116.41	113.80
35	2	276	C	C6-N1-C1'	-5.22	114.54	120.80
35	2	591	A	C2-N3-C4	5.22	113.21	110.60
35	2	959	U	OP1-P-O3'	5.22	116.68	105.20
35	2	386	G	C4-N9-C1'	5.22	133.28	126.50
35	2	1043	A	N9-C4-C5	-5.21	103.71	105.80
35	2	381	C	N3-C4-C5	5.21	123.98	121.90
35	2	301	A	N3-C4-C5	5.21	130.45	126.80
35	2	444	C	C5-C6-N1	-5.21	118.39	121.00
35	2	537	G	C5-C6-N1	-5.21	108.89	111.50
35	2	196	G	C5-C6-O6	5.21	131.73	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	452	A	N3-C4-N9	5.21	131.57	127.40
35	2	68	A	C5-C6-N1	5.21	120.30	117.70
35	2	363	G	C8-N9-C4	5.21	108.48	106.40
35	2	78	A	C2-N3-C4	5.21	113.20	110.60
35	2	284	G	N3-C4-C5	5.21	131.20	128.60
35	2	349	U	N1-C2-N3	-5.21	111.78	114.90
35	2	1030	A	C8-N9-C4	-5.21	103.72	105.80
35	2	186	C	C4-C5-C6	-5.20	114.80	117.40
35	2	428	A	C6-N1-C2	5.20	121.72	118.60
35	2	399	A	N9-C4-C5	-5.20	103.72	105.80
35	2	490	C	P-O3'-C3'	-5.20	113.46	119.70
35	2	319	U	C5-C6-N1	-5.20	120.10	122.70
35	2	498	G	C3'-C2'-C1'	-5.20	97.34	101.50
18	g	61	ALA	N-CA-CB	-5.20	102.83	110.10
35	2	1067	C	N1-C2-N3	-5.20	115.56	119.20
35	2	210	A	C6-C5-N7	-5.19	128.66	132.30
35	2	470	A	C6-N1-C2	5.19	121.72	118.60
35	2	1044	U	O4'-C1'-N1	-5.19	104.05	108.20
15	c	177	PRO	CA-C-N	5.19	128.61	117.20
35	2	344	A	N9-C4-C5	-5.18	103.73	105.80
18	h	61	ALA	N-CA-CB	-5.18	102.84	110.10
19	j	174	ARG	C-N-CA	5.18	134.65	121.70
35	2	139	C	C2-N3-C4	5.18	122.49	119.90
35	2	301	A	C5-C6-N1	-5.18	115.11	117.70
35	2	1080	U	C5-C4-O4	-5.18	122.79	125.90
16	d	130	ALA	N-CA-CB	-5.18	102.85	110.10
35	2	591	A	C6-C5-N7	5.18	135.93	132.30
35	2	967	A	C2-N3-C4	-5.18	108.01	110.60
35	2	369	A	N3-C4-C5	5.18	130.43	126.80
35	2	195	G	C4-N9-C1'	-5.18	119.77	126.50
35	2	377	G	N9-C1'-C2'	-5.18	106.31	112.00
19	j	613	LEU	N-CA-C	5.18	124.98	111.00
35	2	347	G	C5-C6-N1	5.18	114.09	111.50
35	2	441	A	N1-C6-N6	5.18	121.71	118.60
35	2	136	C	N1-C2-O2	-5.17	115.80	118.90
35	2	205	U	C4-C5-C6	-5.17	116.59	119.70
35	2	359	A	P-O3'-C3'	5.17	125.91	119.70
35	2	496	G	C5-C6-N1	-5.17	108.91	111.50
35	2	950	C	C2-N3-C4	5.17	122.49	119.90
19	i	613	LEU	N-CA-C	5.17	124.96	111.00
35	2	352	A	C8-N9-C4	5.17	107.87	105.80
35	2	477	A	N1-C6-N6	5.17	121.70	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	626	U	C4-C5-C6	-5.17	116.60	119.70
35	2	928	U	N3-C2-O2	-5.17	118.58	122.20
35	2	90	C	C4-C5-C6	-5.17	114.81	117.40
35	2	513	U	O4'-C1'-N1	5.17	112.33	108.20
35	2	405	C	C4-C5-C6	-5.17	114.82	117.40
35	2	914	G	N7-C8-N9	-5.17	110.52	113.10
35	2	1463	C	N3-C4-C5	5.17	123.97	121.90
15	c	186	GLU	O-C-N	-5.16	114.44	122.70
35	2	419	G	N1-C2-N3	5.16	127.00	123.90
35	2	878	G	C3'-C2'-C1'	-5.16	97.37	101.50
35	2	1024	U	C2-N1-C1'	5.16	123.89	117.70
19	i	174	ARG	C-N-CA	5.16	134.60	121.70
35	2	70	C	C2-N1-C1'	-5.16	113.13	118.80
35	2	351	C	C5-C4-N4	5.16	123.81	120.20
35	2	498	G	C4-C5-N7	5.16	112.86	110.80
35	2	923	A	N1-C2-N3	5.16	131.88	129.30
35	2	960	U	O5'-P-OP1	-5.16	101.06	105.70
35	2	1046	G	C6-C5-N7	-5.16	127.31	130.40
35	2	1052	U	C3'-C2'-C1'	-5.15	97.38	101.50
35	2	891	A	C4-C5-N7	5.15	113.28	110.70
35	2	448	C	N1-C2-N3	-5.15	115.60	119.20
35	2	972	G	C4-N9-C1'	-5.15	119.81	126.50
35	2	1591	C	N3-C4-N4	-5.15	114.40	118.00
35	2	28	A	N3-C4-N9	5.15	131.52	127.40
35	2	154	G	C5-C6-O6	5.14	131.69	128.60
35	2	32	U	C2-N3-C4	5.14	130.09	127.00
35	2	34	G	N3-C4-N9	-5.14	122.92	126.00
35	2	201	G	N9-C1'-C2'	-5.14	106.34	112.00
35	2	340	U	N1-C2-N3	-5.14	111.81	114.90
35	2	365	G	N1-C2-N2	-5.14	111.57	116.20
35	2	868	G	C3'-C2'-C1'	-5.14	97.39	101.50
35	2	194	U	N1-C2-O2	5.14	126.40	122.80
2	G	2984	ARG	CA-C-N	5.14	128.51	117.20
35	2	34	G	N1-C2-N3	5.14	126.98	123.90
35	2	518	A	N1-C2-N3	-5.14	126.73	129.30
35	2	887	A	C8-N9-C4	-5.14	103.74	105.80
35	2	902	G	N1-C6-O6	5.14	122.98	119.90
35	2	51	A	C4-C5-N7	5.14	113.27	110.70
30	x	124	PRO	N-CA-CB	5.14	109.46	103.30
35	2	103	A	N1-C2-N3	5.13	131.87	129.30
35	2	269	G	N3-C4-N9	-5.13	122.92	126.00
35	2	141	U	C5-C6-N1	5.13	125.27	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	202	A	N1-C2-N3	-5.13	126.73	129.30
35	2	361	C	C2-N3-C4	-5.13	117.33	119.90
35	2	441	A	O4'-C1'-N9	-5.13	104.09	108.20
35	2	883	C	C5-C4-N4	-5.13	116.61	120.20
35	2	885	G	C8-N9-C1'	5.13	133.67	127.00
35	2	163	G	N9-C4-C5	-5.13	103.35	105.40
35	2	79	C	C6-N1-C2	5.13	122.35	120.30
36	3	72	C	C6-N1-C1'	5.13	126.95	120.80
35	2	262	U	N3-C2-O2	-5.13	118.61	122.20
35	2	879	G	C6-C5-N7	-5.13	127.32	130.40
35	2	197	A	C2-N3-C4	-5.12	108.04	110.60
35	2	515	A	O4'-C1'-N9	-5.12	104.10	108.20
35	2	953	G	N9-C1'-C2'	-5.12	106.36	112.00
35	2	34	G	O4'-C1'-N9	5.12	112.30	108.20
35	2	247	A	C8-N9-C4	-5.12	103.75	105.80
35	2	1043	A	C3'-C2'-C1'	-5.12	97.40	101.50
35	2	1088	A	C4-C5-C6	5.12	119.56	117.00
35	2	1604	U	C2-N1-C1'	5.12	123.85	117.70
35	2	629	U	C6-N1-C1'	5.12	128.37	121.20
36	3	192	A	N9-C4-C5	5.12	107.85	105.80
35	2	304	U	C2-N3-C4	5.12	130.07	127.00
35	2	326	G	C6-C5-N7	5.12	133.47	130.40
36	3	69	G	C4-C5-N7	5.12	112.85	110.80
35	2	346	G	C8-N9-C1'	-5.12	120.35	127.00
36	3	74	C	C5-C6-N1	5.12	123.56	121.00
35	2	206	A	N1-C6-N6	5.11	121.67	118.60
35	2	267	U	C5-C4-O4	5.11	128.97	125.90
35	2	485	A	N1-C2-N3	-5.11	126.74	129.30
35	2	490	C	C4-C5-C6	-5.11	114.84	117.40
35	2	626	U	N1-C2-O2	5.11	126.38	122.80
36	3	140	C	C5-C6-N1	5.11	123.56	121.00
30	x	126	PRO	N-CA-CB	5.11	109.43	103.30
35	2	271	A	P-O3'-C3'	-5.11	113.57	119.70
2	G	3192	GLY	N-CA-C	-5.11	100.33	113.10
19	i	591	GLU	N-CA-CB	-5.11	101.40	110.60
35	2	63	G	N9-C4-C5	5.11	107.44	105.40
35	2	538	A	N9-C1'-C2'	-5.11	106.38	112.00
35	2	592	A	N9-C1'-C2'	-5.11	106.38	112.00
35	2	898	A	C6-C5-N7	-5.11	128.72	132.30
35	2	133	U	C5-C6-N1	5.11	125.25	122.70
35	2	269	G	P-O3'-C3'	-5.11	113.57	119.70
35	2	276	C	C5-C6-N1	5.11	123.55	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	423	G	C8-N9-C1'	-5.10	120.36	127.00
35	2	273	G	C5-N7-C8	-5.10	101.75	104.30
36	3	262	C	C2-N1-C1'	-5.10	113.19	118.80
35	2	70	C	OP1-P-O3'	5.10	116.42	105.20
19	j	591	GLU	N-CA-CB	-5.10	101.42	110.60
35	2	34	G	C2-N3-C4	-5.10	109.35	111.90
35	2	392	G	C5-N7-C8	-5.10	101.75	104.30
35	2	403	G	C6-C5-N7	-5.10	127.34	130.40
35	2	1073	G	C2-N3-C4	-5.10	109.35	111.90
35	2	104	A	C6-C5-N7	5.10	135.87	132.30
35	2	901	G	N9-C1'-C2'	-5.10	106.39	112.00
35	2	51	A	C2-N3-C4	5.10	113.15	110.60
35	2	1048	G	N9-C1'-C2'	-5.10	106.39	112.00
35	2	308	C	N1-C2-N3	-5.09	115.63	119.20
36	3	248	G	C8-N9-C1'	5.09	133.62	127.00
35	2	67	A	P-O5'-C5'	5.09	129.05	120.90
19	j	317	PRO	N-CA-C	5.09	125.34	112.10
35	2	355	G	C3'-C2'-C1'	-5.09	97.43	101.50
35	2	380	U	C6-N1-C1'	5.09	128.33	121.20
35	2	949	C	C4-C5-C6	-5.09	114.85	117.40
35	2	967	A	C4-C5-N7	5.09	113.25	110.70
35	2	1044	U	C6-N1-C1'	-5.09	114.07	121.20
35	2	212	U	C6-N1-C2	5.09	124.05	121.00
35	2	367	A	N7-C8-N9	-5.09	111.25	113.80
35	2	969	C	N1-C2-O2	5.09	121.95	118.90
35	2	1056	U	C6-N1-C2	-5.09	117.95	121.00
15	c	209	LYS	CA-C-O	-5.09	109.42	120.10
19	i	317	PRO	N-CA-C	5.09	125.32	112.10
35	2	199	G	C4-N9-C1'	-5.09	119.89	126.50
35	2	480	G	P-O3'-C3'	-5.09	113.60	119.70
35	2	362	G	C4-C5-C6	-5.08	115.75	118.80
35	2	415	C	N3-C4-N4	-5.08	114.44	118.00
35	2	278	U	O4'-C1'-N1	5.08	112.27	108.20
35	2	350	U	P-O3'-C3'	-5.08	113.60	119.70
35	2	1051	G	C2-N3-C4	5.08	114.44	111.90
35	2	1159	C	N1-C2-O2	5.08	121.95	118.90
35	2	456	A	O5'-P-OP2	-5.08	101.13	105.70
35	2	965	U	C6-N1-C1'	-5.08	114.09	121.20
35	2	72	A	N3-C4-N9	-5.07	123.34	127.40
35	2	205	U	N3-C4-C5	5.07	117.64	114.60
35	2	441	A	C5-C6-N6	-5.07	119.64	123.70
35	2	27	U	C2-N3-C4	-5.07	123.96	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	71	A	N9-C4-C5	-5.07	103.77	105.80
35	2	881	A	C5-C6-N6	-5.07	119.64	123.70
35	2	936	G	C5'-C4'-O4'	5.07	115.18	109.10
35	2	355	G	C5'-C4'-O4'	5.07	115.18	109.10
35	2	512	A	C8-N9-C4	5.07	107.83	105.80
35	2	926	A	N3-C4-N9	5.07	131.45	127.40
35	2	1468	U	C5-C4-O4	-5.07	122.86	125.90
35	2	32	U	C5-C4-O4	5.07	128.94	125.90
35	2	1042	G	N7-C8-N9	-5.07	110.57	113.10
36	3	87	G	C5-C6-O6	5.07	131.64	128.60
35	2	547	U	C4-C5-C6	-5.06	116.66	119.70
35	2	63	G	C6-C5-N7	5.06	133.44	130.40
35	2	165	G	C8-N9-C4	5.06	108.42	106.40
35	2	401	A	C3'-C2'-C1'	-5.06	97.45	101.50
35	2	525	A	N7-C8-N9	-5.06	111.27	113.80
35	2	881	A	C4-C5-C6	-5.06	114.47	117.00
35	2	93	A	C4-C5-C6	-5.05	114.47	117.00
35	2	167	U	O5'-P-OP2	-5.05	101.15	105.70
35	2	526	A	N1-C2-N3	-5.05	126.77	129.30
36	3	132	C	N1-C2-O2	-5.05	115.87	118.90
35	2	345	U	OP1-P-O3'	5.05	116.32	105.20
35	2	23	G	O4'-C1'-N9	5.05	112.24	108.20
35	2	164	A	C5-C6-N1	5.05	120.23	117.70
35	2	337	G	C5-N7-C8	-5.05	101.77	104.30
35	2	124	A	C6-N1-C2	-5.05	115.57	118.60
35	2	146	U	N3-C4-O4	5.05	122.93	119.40
35	2	394	C	C2-N1-C1'	-5.05	113.25	118.80
35	2	522	U	N3-C2-O2	-5.05	118.67	122.20
35	2	83	G	O4'-C1'-N9	-5.04	104.16	108.20
35	2	932	U	O4'-C1'-N1	5.04	112.24	108.20
35	2	391	A	N7-C8-N9	-5.04	111.28	113.80
35	2	130	C	C2-N3-C4	-5.04	117.38	119.90
35	2	1067	C	C4-C5-C6	-5.04	114.88	117.40
35	2	53	G	C8-N9-C4	5.04	108.42	106.40
35	2	72	A	C6-C5-N7	5.04	135.83	132.30
35	2	119	A	N7-C8-N9	-5.04	111.28	113.80
35	2	140	A	N9-C4-C5	5.04	107.81	105.80
35	2	358	U	C2-N3-C4	5.04	130.02	127.00
35	2	1481	C	C5-C6-N1	5.04	123.52	121.00
35	2	332	U	C4-C5-C6	-5.03	116.68	119.70
2	G	2867	GLU	N-CA-C	5.03	124.58	111.00
35	2	102	U	N1-C2-N3	-5.03	111.88	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	2	369	A	N9-C4-C5	-5.03	103.79	105.80
35	2	373	G	C8-N9-C4	-5.03	104.39	106.40
35	2	51	A	N9-C4-C5	-5.03	103.79	105.80
35	2	456	A	C6-N1-C2	5.03	121.62	118.60
35	2	462	G	C5-N7-C8	-5.03	101.79	104.30
35	2	957	G	N3-C4-C5	5.02	131.11	128.60
35	2	396	G	N1-C6-O6	5.02	122.91	119.90
35	2	428	A	C8-N9-C1'	5.02	136.74	127.70
35	2	1039	A	C5-C6-N6	-5.02	119.68	123.70
19	i	591	GLU	C-N-CA	-5.02	111.76	122.30
35	2	160	C	C6-N1-C2	-5.02	118.29	120.30
19	j	591	GLU	C-N-CA	-5.02	111.77	122.30
35	2	1611	A	C8-N9-C4	-5.02	103.79	105.80
35	2	83	G	C3'-C2'-C1'	-5.02	97.49	101.50
35	2	593	U	N1-C2-O2	5.02	126.31	122.80
35	2	1596	C	C6-N1-C2	5.02	122.31	120.30
16	d	141	HIS	CB-CA-C	-5.01	100.37	110.40
35	2	1065	A	C4-C5-N7	5.01	113.21	110.70
35	2	1072	C	C2-N1-C1'	5.01	124.31	118.80
35	2	514	G	N1-C6-O6	-5.01	116.89	119.90
35	2	1579	U	C6-N1-C1'	-5.01	114.18	121.20
35	2	34	G	N7-C8-N9	5.01	115.61	113.10
35	2	452	A	C5-N7-C8	-5.01	101.39	103.90
35	2	1177	C	C6-N1-C2	5.01	122.30	120.30
35	2	1613	U	N1-C2-O2	5.01	126.31	122.80
35	2	518	A	C6-C5-N7	5.01	135.81	132.30
35	2	206	A	C4-C5-N7	5.00	113.20	110.70
35	2	131	C	C5-C4-N4	-5.00	116.70	120.20
36	3	113	G	N3-C4-N9	-5.00	123.00	126.00

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

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Mol	Chain	Res	Type	Group
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
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	Mainchain,Peptide
15	c	181	LYS	Peptide
15	c	197	ARG	Peptide
15	c	93	SER	Mainchain
16	d	111	MET	Mainchain

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Mol	Chain	Res	Type	Group
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	30	0
1	K	1500	0	326	22	0
1	L	1500	0	325	47	0
1	N	1500	0	324	28	0
1	P	1500	0	326	22	0
1	l	1500	0	325	0	0
1	n	1500	0	325	0	0
2	G	1402	0	649	75	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	20	0
5	m	1545	0	334	0	0
6	Q	1875	0	432	18	0
7	R	1660	0	362	13	0
8	S	1815	0	842	37	0
8	T	1815	0	841	69	0
9	U	603	0	287	52	0
9	V	603	0	288	37	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	W	1124	0	497	37	0
10	X	1124	0	497	19	0
11	Y	1799	0	805	3	0
12	Z	1742	0	785	5	0
13	a	267	0	112	0	0
14	b	760	0	331	0	0
15	c	951	0	392	0	0
16	d	616	0	270	0	0
17	e	1047	0	454	0	0
17	f	1081	0	469	0	0
18	g	861	0	385	0	0
18	h	861	0	386	0	0
19	i	3254	0	1481	0	0
19	j	3342	0	1522	0	0
20	k	905	0	399	0	0
21	o	1724	0	1793	0	0
22	p	2079	0	2150	0	0
23	q	836	0	390	0	0
24	r	1868	0	1985	0	0
25	s	1539	0	1620	0	0
26	t	1693	0	1793	0	0
27	u	777	0	360	0	0
28	v	580	0	266	0	0
29	w	627	0	307	0	0
30	x	658	0	304	0	0
31	y	1275	0	1353	0	0
32	z	622	0	283	0	0
33	0	1197	0	1281	274	0
34	1	230	0	100	9	0
35	2	18149	0	9087	5871	0
36	3	3504	0	1769	650	0
All	All	95839	0	44306	7269	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 77.

All (7269) 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
3:H:1:UNK:CB	3:H:173:UNK:CA	1.77	1.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
33:0:58:PHE:N	35:2:522:U:C5'	1.67	1.52
2:G:3236:SER:C	33:0:147:VAL:CG1	1.75	1.52
2:G:3237:LEU:N	33:0:147:VAL:CG1	1.70	1.52
1:L:57:UNK:CB	5:M:372:UNK:CB	1.83	1.52
1:N:73:UNK:CB	35:2:391:A:C4'	128.77	1.52
33:0:85:PRO:CG	35:2:525:A:N6	1.72	1.51
1:C:325:UNK:CB	1:D:44:UNK:HA	1.39	1.50
2:G:3236:SER:C	33:0:147:VAL:HG11	1.18	1.50
3:H:1:UNK:CA	3:H:173:UNK:CB	1.90	1.50
1:N:73:UNK:CB	35:2:391:A:H4'	128.67	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
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
35:2:71:A:N6	35:2:83:G:C6	1.82	1.46
2:G:3236:SER:CA	33:0:147:VAL:HG11	1.37	1.44
3:H:268:UNK:CB	3:H:308:UNK:N	1.71	1.44
1:D:114:UNK:HA	1:E:139:UNK:CB	0.97	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
4:I:513:MET:HA	1:J:282:UNK:CB	1.49	1.42
2:G:3234:GLY:O	33:0:147:VAL:CB	1.69	1.41
33:0:57:GLY:C	35:2:522:U:H5'	1.03	1.41
33:0:57:GLY:C	35:2:522:U:C5'	1.80	1.40
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
1:N:228:UNK:CB	1:N:246:UNK:O	1.69	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
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
1:L:74:UNK:CA	5:M:348:UNK:CB	1.87	1.39
1:C:228:UNK:CB	1:C: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
3:H:216:UNK:HA	3:H:245:UNK:O	1.20	1.37
35:2:272:U:C2	35:2:284:G:N1	1.93	1.37
8:T:326:ILE:C	36:3:108:A:N7	1.76	1.37
1:B:228:UNK:CB	1:B:246:UNK:O	1.69	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
3:H:2:UNK:CB	3:H:170:UNK:N	1.89	1.35
8:S:221:ILE:CB	8:T:119:GLU:CB	2.05	1.35
3:H:10:UNK:CB	3:H:269:UNK:CB	2.05	1.35
33:0:34:SER:HA	35:2:520:A:C1'	1.54	1.34
1:D:116:UNK:CB	1:E:156:UNK:CB	2.04	1.34
8:T:331:ARG:CA	36:3:104:C:O3'	1.75	1.34
3:H:216:UNK:O	3:H:245:UNK:CA	1.75	1.33
1:D:115:UNK:N	1:E:139:UNK:N	1.73	1.33
1:L:77:UNK:O	5:M:647:UNK:HA	1.23	1.33
35:2:67:A:N6	35:2:79:C:OP2	1.61	1.32
1:D:116:UNK:O	1:E:156:UNK:C	1.78	1.32
8:S:299:GLY:CA	36:3:93:G:N7	1.92	1.31
33:0:57:GLY:CA	35:2:522:U:H5''	1.57	1.29
3:H:216:UNK:CA	3:H:245:UNK:O	1.78	1.29
9:V:99:THR:HA	36:3:192:A:C8	1.67	1.29
33:0:35:LYS:N	35:2:520:A:O2'	1.68	1.27
2:G:3236:SER:CB	33:0:147:VAL:HG11	1.62	1.27
35:2:444:C:C4	35:2:460:A:N7	2.01	1.27
6:Q:372:UNK:CB	6:Q:412:UNK:CB	2.11	1.27
3:H:216:UNK:O	3:H:245:UNK:HA	1.16	1.27
35:2:526:A:OP2	35:2:527:A:N6	1.65	1.27
1:D:115:UNK:N	1:E:138:UNK:C	1.89	1.26
9:U:127:LYS:HA	10:W:222:ASP:CB	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
35:2:147:A:C8	35:2:167:U:N3	2.02	1.25
8:S:300:ALA:CB	36:3:91:G:OP1	1.84	1.25
8:T:326:ILE:CB	36:3:108:A:C8	2.17	1.25
3:H:-2:UNK:O	3:H:170:UNK:CA	1.84	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:2:UNK:HA	3:H:169:UNK:CB	1.64	1.25
35:2:444:C:N4	35:2:460:A:C8	2.05	1.24
9:V:98:ALA:O	36:3:192:A:C5	1.89	1.24
2:G:3234:GLY:O	33:0:147:VAL:CA	1.86	1.24
8:T:326:ILE:O	36:3:108:A:N7	1.69	1.23
1:C:113:UNK:O	36:3:76:C:H5'	1.11	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
35:2:70:C:O2	35:2:83:G:N2	1.72	1.22
2:G:3234:GLY:O	33:0:147:VAL:CG2	1.87	1.22
1:E:46:UNK:O	1:F:338:UNK:CA	1.87	1.22
1:N:289:UNK:CB	5:O:409:UNK:O	1.87	1.22
1:L:74:UNK:HA	5:M:348:UNK:CB	1.49	1.22
35:2:887:A:N1	35:2:925:G:N1	1.87	1.21
35:2:628:G:N2	35:2:971:A:N7	1.87	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
35:2:309:C:O2	35:2:357:G:N2	1.73	1.20
3:H:268:UNK:CB	3:H:307:UNK:CA	2.19	1.19
33:0:35:LYS:HD3	35:2:521:A:C5'	1.68	1.19
35:2:444:C:N3	35:2:460:A:N7	1.90	1.19
35:2:318:U:N3	35:2:346:G:O6	1.75	1.19
8:T:326:ILE:C	36:3:108:A:C8	2.15	1.18
1:D:77:UNK:O	1:E:161:UNK:CA	1.89	1.18
35:2:431:C:H3'	35:2:432:G:H8	1.04	1.18
1:L:75:UNK:CB	5:M:349:UNK:CB	2.22	1.18
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
8:S:314:PRO:C	36:3:89:A:O2'	1.82	1.17
6:Q:356:UNK:CB	6:Q:409:UNK:CB	2.22	1.17
1:C:113:UNK:O	36:3:76:C:C5'	1.92	1.17
35:2:516:G:N2	35:2:536:C:O2	1.77	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
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
33:0:34:SER:HA	35:2:520:A:H1'	1.18	1.16
9:V:127:LYS:C	10:X:157:PRO:CB	2.12	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:A:133:UNK:O	1:B:73:UNK:O	1.63	1.16
2:G:3230:GLU:CB	33:0:148:ALA:CB	2.23	1.15
8:T:334:ARG:CB	36:3:108:A:OP2	1.94	1.15
9:U:127:LYS:N	10:W:184:ARG:N	1.84	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
35:2:108:A:N1	35:2:306:U:N3	1.94	1.15
35:2:444:C:C2	35:2:460:A:N6	2.13	1.15
8:T:331:ARG:HA	36:3:104:C:O3'	1.00	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
2:G:3237:LEU:H	33:0:147:VAL:HG22	1.10	1.14
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
8:S:315:PRO:HA	36:3:90:C:H5'	1.22	1.14
8:S:314:PRO:O	36:3:89:A:C2'	1.95	1.14
35:2:485:A:N1	35:2:502:U:C4	2.16	1.14
33:0:85:PRO:CD	35:2:525:A:N6	2.11	1.14
9:U:127:LYS:CA	10:W:222:ASP:CB	2.25	1.13
35:2:390:G:N1	35:2:407:A:N1	1.94	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
33:0:58:PHE:N	35:2:522:U:H5'	0.81	1.13
8:S:299:GLY:HA3	36:3:93:G:N7	1.57	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
35:2:1524:A:H2'	35:2:1525:A:C8	1.84	1.12
35:2:977:A:N6	35:2:1024:U:N3	1.92	1.12
8:S:294:THR:CB	36:3:261:U:O2	1.97	1.12
35:2:514:G:O6	35:2:537:G:N1	1.81	1.12
35:2:466:U:H3'	35:2:467:G:H8	1.11	1.12
8:T:338:ALA:HB3	36:3:109:C:H5	1.06	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
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
2:G:3234:GLY:HA3	33:0:145:ASN:C	1.67	1.11
35:2:518:A:N6	35:2:535:A:N3	1.99	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:107:C:H2'	35:2:108:A:H8	1.06	1.11
33:0:32:THR:OG1	35:2:533:U:H1'	1.49	1.10
35:2:520:A:OP2	35:2:529:A:N6	1.84	1.10
35:2:63:G:N2	35:2:87:C:O2	1.83	1.10
9:U:127:LYS:O	10:W:183:ALA:HB3	1.37	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
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
35:2:628:G:N2	35:2:971:A:H62	1.49	1.09
1:D:116:UNK:CA	1:E:156:UNK:CB	2.28	1.09
35:2:70:C:N3	35:2:83:G:N1	1.99	1.09
35:2:485:A:N1	35:2:502:U:N3	2.00	1.09
1:D:77:UNK:O	1:E:161:UNK:HA	1.31	1.09
35:2:1055:U:O2	35:2:1064:G:N1	1.83	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
35:2:615:A:H5'	35:2:1085:G:H5''	1.35	1.09
8:T:338:ALA:HB3	36:3:109:C:C5	1.86	1.09
2:G:3234:GLY:O	33:0:147:VAL:HG23	1.47	1.09
33:0:30:SER:C	35:2:534:A:H4'	1.60	1.08
1:K:115:UNK:CA	1:P:133:UNK:CB	2.31	1.08
1:A:294:UNK:O	1:B:66:UNK:CB	2.00	1.08
35:2:272:U:O2	35:2:284:G:C2	2.05	1.08
9:V:38:GLY:CA	36:3:194:G:O6	2.00	1.08
35:2:1525:A:H2'	35:2:1526:A:C8	1.88	1.08
35:2:187:G:H1	35:2:197:A:H3'	1.18	1.08
35:2:189:C:O2	35:2:196:G:N2	1.87	1.08
2:G:3235:GLU:N	33:0:144:LYS:O	1.86	1.08
35:2:631:G:C2	35:2:968:U:O2	2.06	1.07
33:0:85:PRO:CG	35:2:525:A:C6	2.26	1.07
3:H:2:UNK:HA	3:H:169:UNK:C	1.84	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
35:2:71:A:C6	35:2:83:G:N1	2.22	1.07
35:2:628:G:H21	35:2:971:A:N6	1.52	1.07
1:C:338:UNK:CB	1:D:88:UNK:CB	2.31	1.07
2:G:3234:GLY:O	33:0:146:PHE:C	1.92	1.07
33:0:57:GLY:HA2	35:2:522:U:P	1.95	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
3:H:137:UNK:CB	3:H:167:UNK:N	2.18	1.07
33:0:57:GLY:CA	35:2:522:U:OP1	2.03	1.06
36:3:97:C:N3	36:3:256:G:N1	2.03	1.06
35:2:100:A:N6	35:2:385:A:N3	2.02	1.06
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
3:H:-2:UNK:HA	3:H:170:UNK:O	1.55	1.06
8:T:327:HIS:HA	36:3:108:A:N7	1.70	1.06
36:3:97:C:O2	36:3:256:G:N2	1.87	1.06
35:2:412:A:N3	35:2:421:A:N6	2.03	1.06
9:V:38:GLY:HA2	36:3:194:G:O6	1.52	1.06
1:D:116:UNK:O	1:E:156:UNK:CA	2.02	1.06
1:D:111:UNK:CB	1:E:197:UNK:C	2.34	1.06
1:C:325:UNK:HA	1:D:45:UNK:N	1.71	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
33:0:85:PRO:HG2	35:2:525:A:C5	1.90	1.05
33:0:34:SER:HA	35:2:520:A:O4'	1.55	1.05
35:2:444:C:N3	35:2:460:A:C5	2.25	1.04
35:2:71:A:N6	35:2:83:G:N1	2.03	1.04
35:2:938:G:N2	35:2:941:A:N7	2.05	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
35:2:312:A:N6	35:2:353:A:N7	2.05	1.04
8:S:316:LYS:N	36:3:90:C:C5'	2.16	1.04
33:0:35:LYS:HD3	35:2:521:A:H5'	1.06	1.04
1:C:325:UNK:CB	1:D:44:UNK:CA	2.35	1.04
35:2:1055:U:H2'	35:2:1056:U:H6	1.21	1.03
35:2:628:G:N1	35:2:970:A:OP2	1.90	1.03
35:2:396:G:H22	35:2:399:A:H5''	1.23	1.03
35:2:174:U:N3	35:2:266:A:N7	2.06	1.03
4:I:513:MET:CA	1:J:282:UNK:CB	2.36	1.03
35:2:490:C:N3	35:2:498:G:N1	2.07	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
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
2:G:3236:SER:CB	33:0:147:VAL:CG1	2.36	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:85:A:N6	36:3:264:G:C2	2.27	1.02
1:A:294:UNK:CB	1:B:344:UNK:CB	2.38	1.02
35:2:104:A:OP2	35:2:308:C:N4	1.92	1.02
6:Q:348:UNK:CB	6:Q:414:UNK:CB	2.37	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
3:H:2:UNK:CB	3:H:170:UNK:CB	2.37	1.02
3:H:-2:UNK:CA	3:H:170:UNK:O	2.08	1.02
33:0:121:THR:HG22	35:2:84:A:O2'	1.57	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
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
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
35:2:209:U:O4	35:2:256:A:N6	1.93	1.01
3:H:-2:UNK:O	3:H:170:UNK:C	2.06	1.01
35:2:1604:U:H3'	35:2:1605:G:H5''	1.39	1.01
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
33:0:57:GLY:HA2	35:2:522:U:OP1	1.60	1.01
1:J:271:UNK:CB	1:J:291:UNK:O	2.08	1.01
1:N:271:UNK:CB	1:N:291:UNK:O	2.08	1.01
1:B:271:UNK:CB	1:B:291:UNK:O	2.08	1.01
1:K:271:UNK:CB	1:K:291:UNK:O	2.08	1.01
35:2:1084:A:H1'	35:2:1094:G:H4'	1.43	1.01
3:H:2:UNK:CA	3:H:170:UNK:N	2.23	1.01
1:E:271:UNK:CB	1:E:291:UNK:O	2.08	1.01
1:L:271:UNK:CB	1:L:291:UNK:O	2.08	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:F:271:UNK:CB	1:F:291:UNK:O	2.08	1.01
35:2:153:G:C6	35:2:161:U:O2	2.13	1.00
1:A:271:UNK:CB	1:A:291:UNK:O	2.08	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
35:2:1047:G:N2	35:2:1071:U:O2	1.93	1.00
35:2:88:U:H3'	35:2:89:G:C8	1.97	1.00
1:P:271:UNK:CB	1:P:291:UNK:O	2.08	1.00
35:2:397:A:H3'	35:2:398:G:H8	1.20	1.00
8:T:334:ARG:HA	36:3:108:A:OP1	1.61	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:274:G:N2	35:2:283:U:O4'	1.95	1.00
35:2:473:A:H5''	35:2:474:A:N7	1.77	0.99
8:T:314:PRO:CB	36:3:110:A:O4'	2.10	0.99
35:2:53:G:N1	35:2:427:C:N3	2.09	0.99
35:2:22:A:H2'	35:2:23:G:C8	1.97	0.99
35:2:332:U:H3'	35:2:334:G:OP2	1.61	0.99
35:2:32:U:O2'	35:2:33:U:OP2	1.79	0.99
35:2:474:A:H1'	35:2:475:A:C6	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
33:0:35:LYS:N	35:2:520:A:H4'	1.76	0.99
35:2:523:G:H2'	35:2:528:U:C5	1.98	0.99
35:2:88:U:H3'	35:2:89:G:H8	1.26	0.99
9:U:127:LYS:H	10:W:184:ARG:H	1.09	0.99
35:2:186:C:H2'	35:2:187:G:O4'	1.62	0.99
35:2:60:U:H6	35:2:62:A:HO2'	1.05	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
35:2:294:C:H2'	35:2:295:A:C8	1.98	0.99
35:2:480:G:N2	35:2:508:U:O2	1.95	0.98
35:2:490:C:H2'	35:2:491:C:C6	1.98	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
35:2:617:U:O4	35:2:1087:A:N6	1.95	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
35:2:1628:U:H2'	35:2:1629:G:H8	1.28	0.98
35:2:283:U:H2'	35:2:284:G:C4	1.99	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
8:S:299:GLY:HA2	36:3:93:G:N7	1.76	0.98
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
36:3:101:G:N2	36:3:251:U:O2	1.96	0.97
8:T:331:ARG:CB	36:3:104:C:H3'	1.94	0.97
33:0:30:SER:C	35:2:534:A:C4'	2.29	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:311:U:O2	35:2:355:G:N2	1.96	0.97
35:2:1039:A:N1	35:2:1080:U:N3	2.13	0.97
9:U:41:GLU:CB	36:3:263:U:OP2	2.12	0.97
35:2:147:A:H3'	35:2:148:A:H8	1.26	0.97
1:L:77:UNK:C	5:M:647:UNK:HA	1.94	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
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
36:3:87:G:N2	36:3:263:U:O2	1.97	0.97
3:H:2:UNK:CA	3:H:169:UNK:C	2.43	0.97
35:2:331:A:H3'	35:2:332:U:H6	1.28	0.96
35:2:295:A:H8	35:2:295:A:OP2	1.47	0.96
35:2:629:U:N3	35:2:970:A:N7	2.11	0.96
35:2:196:G:C4	35:2:197:A:H1'	2.00	0.96
35:2:143:G:N1	35:2:172:C:N3	2.13	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
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
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
35:2:443:C:O2	35:2:445:A:N6	1.98	0.96
35:2:415:C:H3'	35:2:417:A:H62	1.30	0.96
35:2:514:G:H8	35:2:514:G:OP2	1.48	0.96
8:T:327:HIS:CA	36:3:108:A:N7	2.28	0.96
35:2:323:A:O2'	35:2:346:G:N2	1.99	0.95
8:S:300:ALA:HA	36:3:91:G:OP1	1.66	0.95
35:2:99:C:O2'	35:2:101:U:OP2	1.84	0.95
9:U:86:LYS:CB	36:3:82:U:O2'	2.15	0.95
8:S:315:PRO:CA	36:3:90:C:H5'	1.96	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
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
36:3:65:C:H2'	36:3:66:A:H8	1.31	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1057:U:H1'	35:2:1062:A:N6	1.82	0.95
35:2:295:A:O2'	35:2:297:U:OP2	1.84	0.95
1:D:133:UNK:O	1:E:113:UNK:O	1.84	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:OP2	35:2:419:G:H8	1.48	0.95
35:2:480:G:H1	35:2:508:U:H3	1.15	0.95
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
35:2:1600:A:OP1	35:2:1600:A:H4'	1.67	0.95
35:2:376:C:H2'	35:2:377:G:H8	1.32	0.95
35:2:99:C:N3	35:2:384:G:N1	2.12	0.95
35:2:93:A:H62	35:2:398:G:H3'	1.28	0.95
35:2:1073:G:C6	35:2:1074:G:C6	2.55	0.95
35:2:322:G:N1	35:2:325:G:O6	1.99	0.95
35:2:314:C:O2	35:2:354:C:N4	1.99	0.95
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
1:E:46:UNK:O	1:F:338:UNK:HA	1.67	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
35:2:912:U:O2	35:2:914:G:N1	1.98	0.94
35:2:466:U:H3'	35:2:467:G:C8	2.01	0.94
35:2:1600:A:O2'	35:2:1602:C:H5	1.48	0.94
35:2:153:G:O6	35:2:161:U:C2	2.21	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
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
35:2:390:G:H22	35:2:407:A:H2	1.07	0.94
35:2:119:A:H1'	35:2:397:A:C8	2.03	0.94
35:2:549:G:N1	35:2:588:U:O4	2.00	0.94
35:2:454:U:O2'	35:2:455:C:OP2	1.86	0.94
9:V:98:ALA:O	36:3:192:A:C4	2.21	0.94
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
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
35:2:630:A:N6	35:2:969:C:O2	2.01	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:99:C:O2	36:3:253:G:N2	2.00	0.93
35:2:930:A:OP2	35:2:931:C:N4	2.01	0.93
35:2:318:U:C4	35:2:346:G:O6	2.22	0.93
33:0:34:SER:CA	35:2:520:A:C1'	2.47	0.93
8:T:327:HIS:HA	36:3:108:A:C6	2.03	0.93
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
35:2:1084:A:C1'	35:2:1094:G:H4'	1.98	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
35:2:116: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
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
1:D:116:UNK:O	1:E:156:UNK:CB	2.15	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:N:227:UNK:CB	5:O:460:UNK:CB	2.47	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
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
8:T:331:ARG:CB	36:3:104:C:O3'	2.16	0.92
4:I:513:MET:O	1:J:280:UNK:O	1.83	0.92
35:2:1484:G:H21	35:2:1606:C:H1'	1.32	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
1:D:77:UNK:O	1:E:161:UNK:C	2.17	0.92
35:2:209:U:N3	35:2:256:A:N1	2.17	0.92
35:2:450:U:N3	35:2:456:A:N1	2.17	0.92
35:2:444:C:N4	35:2:460:A:N7	2.08	0.92
33:0:59:SER:CA	35:2:522:U:H1'	2.00	0.92
35:2:103:A:N7	35:2:358:U:N3	2.16	0.92
35:2:136:C:OP2	35:2:136:C:H3'	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:127:LYS:CB	10:W:222:ASP:CB	2.46	0.92
35:2:977:A:N7	35:2:1024:U:O4	2.02	0.92
35:2:273:G:O6	35:2:283:U:O2	1.87	0.92
3:H:1:UNK:CB	3:H:173:UNK:N	2.32	0.92
35:2:491:C:O2	35:2:496:G:N2	2.02	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
35:2:1592:A:H2'	35:2:1593:A:H8	1.35	0.91
35:2:208:U:N3	35:2:258:C:O2	2.03	0.91
35:2:512:A:N6	35:2:539:G:O2'	2.04	0.91
35:2:1590:G:H2'	35:2:1591:C:C5	2.05	0.91
35:2:107:C:N3	35:2:307:G:N1	2.17	0.91
3:H:-2:UNK:O	3:H:170:UNK:O	1.89	0.91
35:2:1575:G:N3	35:2:1575:G:H2'	1.85	0.91
35:2:273:G:C6	35:2:283:U:O2	2.22	0.91
33:0:34:SER:CA	35:2:520:A:H1'	2.00	0.91
35:2:1053:G:N2	35:2:1066:C:O2	2.04	0.91
35:2:1602:C:H3'	35:2:1603:U:H6	1.36	0.91
35:2:361:C:OP2	35:2:361:C:H4'	1.69	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
8:T:331:ARG:CB	36:3:104:C:C3'	2.49	0.91
9:V:128:THR:N	10:X:157:PRO:CB	2.34	0.91
35:2:1467:C:H5'	35:2:1602:C:OP1	1.70	0.91
35:2:370:A:H3'	35:2:371:G:C8	2.05	0.91
35:2:901:G:H5''	35:2:902:G:N7	1.86	0.91
3:H:-2:UNK:C	3:H:170:UNK:O	2.18	0.91
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
35:2:497:G:H2'	35:2:498:G:C8	2.05	0.90
35:2:490:C:C2	35:2:498:G:C2	2.59	0.90
35:2:922:G:H8	35:2:922:G:OP2	1.54	0.90
35:2:93:A:OP2	35:2:93:A:H4'	1.71	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
1:L:57:UNK:HA	5:M:350:UNK:CA	1.99	0.90
35:2:48:G:O6	35:2:432:G:C2	2.24	0.90
33:0:30:SER:O	35:2:534:A:H4'	1.68	0.90
35:2:1480:G:C5'	35:2:1480:G:H8	1.84	0.90
35:2:131:C:N4	35:2:182:A:N1	2.19	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1160:A:H2'	35:2:1161:C:H6	1.33	0.90
35:2:366:A:N1	35:2:375:U:N3	2.18	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
35:2:966:A:H8	35:2:966:A:OP2	1.54	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
35:2:97:C:O2'	35:2:427:C:OP2	1.89	0.90
35:2:37:U:N3	35:2:471:A:N1	2.19	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
2:G:3234:GLY:C	33:0:146:PHE:C	2.30	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
1:E:46:UNK:O	1:F:338:UNK:C	2.20	0.90
33:0:34:SER:CA	35:2:520:A:O4'	2.20	0.90
9:U:126:GLY:N	10:W:188:VAL:HA	1.87	0.90
35:2:402:C:C5	35:2:403:G:H8	1.88	0.89
33:0:57:GLY:CA	35:2:522:U:H5'	1.80	0.89
2:G:3235:GLU:CA	33:0:144:LYS:O	2.20	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
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
36:3:95:U:H3'	36:3:96:C:C6	2.07	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
6:Q:55:UNK:CB	6:Q:64:UNK:CB	2.49	0.89
35:2:517:U:N3	35:2:535:A:N1	2.20	0.89
1:A:294:UNK:HA	1:B:65:UNK:C	2.02	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
35:2:1056:U:N3	35:2:1063:U:O4	2.06	0.89
35:2:143:G:N2	35:2:172:C:O2	2.06	0.89
35:2:174:U:H6	35:2:174:U:OP2	1.55	0.89
35:2:321:C:N4	35:2:341:A:N7	2.19	0.89
1:D:116:UNK:O	1:E:157:UNK:N	2.06	0.89
35:2:187:G:OP2	35:2:187:G:C8	2.26	0.89
35:2:58:U:O2	35:2:89:G:N1	2.05	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
36:3:158:C:H2'	36:3:159:G:C8	2.08	0.89
9:U:96:GLN:CB	36:3:266:C:C6	2.56	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
1:D:96:UNK:HA	1:E:156:UNK:O	1.73	0.89
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
33:0:121:THR:CG2	35:2:84:A:C2'	2.50	0.88
9:U:41:GLU:CB	36:3:263:U:P	2.61	0.88
35:2:1467:C:O2'	35:2:1468:U:H5'	1.73	0.88
35:2:489:C:O2	35:2:498:G:N2	2.05	0.88
1:D:116:UNK:N	1:E:156:UNK:HA	1.87	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
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
35:2:314:C:H2'	35:2:354:C:H42	1.38	0.88
3:H:215:UNK:C	3:H:245:UNK:O	2.22	0.88
35:2:1041:G:N2	35:2:1078:C:O2	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
36:3:75:A:H2'	36:3:76:C:C6	2.08	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
35:2:1480:G:H5'	35:2:1480:G:C8	2.09	0.88
35:2:153:G:O6	35:2:161:U:O2	1.92	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
35:2:144:U:O4	35:2:171:A:N6	2.06	0.87
35:2:115:G:C6	35:2:335:U:H1'	2.09	0.87
35:2:395:U:N3	35:2:399:A:N7	2.21	0.87
33:0:57:GLY:N	35:2:522:U:OP1	2.07	0.87
9:V:98:ALA:O	36:3:192:A:C6	2.27	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
1:D:114:UNK:N	1:E:139:UNK:CB	2.38	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:477:A:O2'	35:2:478:A:O4'	1.92	0.87
2:G:3234:GLY:CA	33:0:145:ASN:C	2.41	0.87
35:2:1174:C:H2'	35:2:1175:U:C6	2.09	0.87
35:2:53:G:N2	35:2:427:C:O2	2.07	0.87
1:L:74:UNK:CB	5:M:31:UNK:O	2.22	0.87
35:2:1042:G:O6	35:2:1077:C:N4	2.06	0.87
35:2:187:G:N3	35:2:198:A:N7	2.00	0.87
36:3:101:G:N1	36:3:251:U:N3	2.19	0.87
1:L:75:UNK:N	5:M:349:UNK:N	2.19	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
8:T:326:ILE:CA	36:3:108:A:H8	1.88	0.87
35:2:138:A:O2'	35:2:139:C:OP2	1.91	0.87
35:2:192:U:O2'	35:2:193:U:O4'	1.92	0.87
35:2:37:U:O4	35:2:39:A:N6	2.08	0.87
8:T:297:VAL:HA	36:3:109:C:H5"	1.54	0.87
35:2:195:G:H2'	35:2:196:G:C8	2.10	0.87
33:0:34:SER:HB3	35:2:519:C:H4'	1.56	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
35:2:497:G:OP2	35:2:497:G:H8	1.57	0.86
8:T:321:PHE:HA	36:3:108:A:O4'	1.75	0.86
11:Y:207:ARG:CB	36:3:183:A:OP1	2.22	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
8:T:326:ILE:CA	36:3:108:A:C8	2.58	0.86
9:V:128:THR:C	10:X:157:PRO:CB	2.44	0.86
35:2:420:A:OP2	35:2:420:A:C8	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
1:L:269:UNK:C	1:L:297:UNK:CB	2.54	0.86
1:N:269:UNK:C	1:N:297:UNK:CB	2.54	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
3:H:215:UNK:O	3:H:245:UNK:O	1.92	0.86
1:B:113:UNK:CB	10:W:198:THR:C	2.44	0.86
35:2:110:U:OP2	35:2:110:U:H6	1.58	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:491:C:H2'	35:2:493:U:C4	2.11	0.86
8:T:331:ARG:HA	36:3:104:C:HO3'	1.08	0.86
1:J:269:UNK:C	1:J:297:UNK:CB	2.54	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
35:2:1626:U:C2'	35:2:1627:U:H5'	2.05	0.86
35:2:199:G:H2'	35:2:199:G:OP2	1.76	0.86
35:2:156:A:H61	35:2:419:G:H1'	1.40	0.86
35:2:526:A:H5''	35:2:527:A:N1	1.89	0.86
8:T:335:GLY:HA2	36:3:109:C:C4	2.10	0.86
35:2:1055:U:H2'	35:2:1056:U:C6	2.00	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
1:F:269:UNK:C	1:F:297:UNK:CB	2.54	0.86
35:2:269:G:OP2	35:2:269:G:C8	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
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
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:E:269:UNK:C	1:E:297:UNK:CB	2.54	0.85
35:2:63:G:OP2	35:2:63:G:H8	1.59	0.85
9:V:100:ALA:HB2	36:3:192:A:O2'	1.75	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
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
33:0:140:SER:HA	33:0:143:LEU:HD12	1.56	0.85
35:2:1591:C:H2'	35:2:1592:A:C8	2.10	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
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
35:2:57: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
35:2:616:G:P	35:2:1085:G:H4'	2.16	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:37:LYS:O	36:3:264:G:N7	2.10	0.85
1:E:306:UNK:CB	1:F:326:UNK:C	2.54	0.85
35:2:1040:G:H22	35:2:1079:U:H1'	1.41	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
36:3:71:U:H2'	36:3:72:C:C6	2.12	0.85
35:2:1481:C:H1'	35:2:1482:C:O5'	1.76	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
35:2:59:C:O2'	35:2:60:U:O2	1.94	0.85
36:3:67:C:H2'	36:3:68:A:H8	1.41	0.85
35:2:187:G:N2	35:2:198:A:OP2	2.09	0.85
35:2:589:C:OP2	35:2:589:C:H3'	1.77	0.85
35:2:895:G:H22	35:2:917:U:H2'	1.40	0.85
35:2:1042:G:H2'	35:2:1043:A:C8	2.11	0.84
35:2:162:A:OP2	35:2:162:A:C8	2.30	0.84
6:Q:473:UNK:O	6:Q:484:UNK:CA	2.25	0.84
33:0:121:THR:HG21	35:2:84:A:H2'	1.59	0.84
35:2:1042:G:H2'	35:2:1043:A:H8	1.40	0.84
35:2:273:G:N1	35:2:283:U:H1'	1.90	0.84
36:3:88:A:N7	36:3:262:C:N4	2.24	0.84
2:G:3234:GLY:C	33:0:147:VAL:HG23	1.67	0.84
35:2:142:G:O6	35:2:173:A:N6	1.95	0.84
33:0:98:LYS:N	33:0:98:LYS:HD3	1.91	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
35:2:56:U:O2	35:2:91:G:N2	2.10	0.84
35:2:1472:C:H4'	35:2:1473:U:H5'	1.60	0.84
35:2:343:C:H2'	35:2:344:A:H8	1.42	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
35:2:47:A:C5	35:2:98:U:H2'	2.13	0.84
1:K:115:UNK:HA	1:P:133:UNK:CB	2.06	0.84
35:2:1474:G:H2'	35:2:1475:A:C8	2.13	0.84
35:2:473:A:OP2	35:2:474:A:C6	2.30	0.84
8:T:296:GLN:O	36:3:109:C:O5'	1.95	0.84
2:G:2805:ALA:HA	2:G:3185:LYS:CB	2.08	0.84
35:2:1042:G:N1	35:2:1077:C:N3	2.26	0.83
35:2:1595:U:H6	35:2:1596:C:N3	1.76	0.83
35:2:1161:C:H1'	35:2:1620:C:N4	1.92	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:872: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
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
2:G:3236:SER:C	33:0:147:VAL:HG13	1.69	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
35:2:23:G:C4	35:2:24:U:H1'	2.13	0.83
35:2:497:G:C8	35:2:497:G:OP2	2.32	0.83
35:2:630:A:C8	35:2:630:A:OP2	2.31	0.83
3:H:216:UNK:O	3:H:245:UNK:C	2.27	0.83
33:0:32:THR:HB	35:2:520:A:C2	2.14	0.83
35:2:245:U:C2	35:2:247:A:H5''	2.12	0.83
35:2:87:C:C2	35:2:88:U:H1'	2.14	0.83
36:3:153:G:H1	36:3:176:U:H3	1.26	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:N:269:UNK:O	1:N:297:UNK:CB	2.27	0.83
1:J:306:UNK:HA	7:R:203:UNK:HA	1.60	0.83
36:3:137:U:O2	36:3:150:G:N2	2.11	0.83
1:D:269:UNK:O	1:D:297:UNK:CB	2.27	0.83
33:0:19:ARG:HG3	33:0:73:VAL:HB	1.61	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
35:2:70:C:N4	35:2:83:G:O6	2.12	0.83
8:T:334:ARG:O	36:3:108:A:OP1	1.96	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: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
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
1:F:269:UNK:O	1:F:297:UNK:CB	2.27	0.83
35:2:473:A:H5'	35:2:474:A:OP2	1.78	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:321:PHE:HA	36:3:108:A:C1'	2.09	0.83
36:3:85:A:C6	36:3:264:G:C2	2.66	0.83
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
35:2:93:A:N1	35:2:396:G:O2'	2.12	0.82
35:2:93:A:H3'	35:2:94:U:O2	1.79	0.82
35:2:95:G:OP2	35:2:95:G:H8	1.59	0.82
3:H:216:UNK:O	3:H:245:UNK:CB	2.25	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
3:H:2:UNK:CA	3:H:169:UNK:CB	2.52	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:L:269:UNK:O	1:L:297:UNK:CB	2.27	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
1:K:269:UNK:O	1:K:297:UNK:CB	2.27	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
35:2:1591:C:H2'	35:2:1592:A:H8	1.42	0.82
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
36:3:87:G:C2	36:3:263:U:O2	2.31	0.82
35:2:1073:G:N1	35:2:1074:G:C6	2.47	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
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
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
33:0:16:LEU:HA	33:0:83:TYR:HE2	1.45	0.82
35:2:164:A:H2'	35:2:165:G:C8	2.15	0.82
35:2:76:A:O3'	35:2:77:U:H2'	1.79	0.82
35:2:71:A:N1	35:2:83:G:N3	2.27	0.82
35:2:923:A:H3'	35:2:923:A:OP2	1.78	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:1080:U:H6	35:2:1080:U:OP2	1.62	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:OP2	35:2:406:U:C6	2.33	0.82
35:2:625:C:H6	35:2:625:C:OP2	1.63	0.82
35:2:78:A:H4'	35:2:79:C:OP2	1.78	0.82
35:2:1573:A:C4'	35:2:1574:G:H5'	2.06	0.81
35:2:370:A:H3'	35:2:371:G:H8	1.45	0.81
35:2:83:G:OP2	35:2:83:G:H8	1.62	0.81
36:3:81:G:H8	36:3:81:G:OP2	1.63	0.81
33:0:107:GLU:O	33:0:110:ARG:HB2	1.80	0.81
35:2:174:U:H3'	35:2:175:G:C8	2.15	0.81
35:2:514:G:C8	35:2:514:G:OP2	2.33	0.81
35:2:867:G:H1	35:2:961:U:H3	1.24	0.81
35:2:87:C:OP2	35:2:87:C:H6	1.62	0.81
35:2:1047:G:O6	35:2:1071:U:O4	1.99	0.81
35:2:245:U:N3	35:2:248:U:OP2	2.13	0.81
2:G:3237:LEU:N	33:0:147:VAL:HG22	1.92	0.81
35:2:135:A:H4'	35:2:136:C:OP2	1.79	0.81
35:2:296:U:H3'	35:2:296:U:H6	1.45	0.81
35:2:382:C:C6	35:2:382:C:OP2	2.34	0.81
35:2:387:A:H2'	35:2:402:C:C2	2.15	0.81
35:2:51:A:OP2	35:2:424:C:N4	2.13	0.81
35:2:519:C:H3'	35:2:529:A:H61	1.43	0.81
35:2:516:G:N1	35:2:536:C:N3	2.28	0.81
36:3:153:G:N2	36:3:176:U:O2	2.12	0.81
35:2:72:A:H2'	35:2:73:U:C6	2.15	0.81
3:H:1:UNK:CB	3:H:173:UNK:CB	0.82	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
9:V:99:THR:CA	36:3:192:A:C8	2.60	0.81
35:2:338:C:H2'	35:2:339:C:C6	2.15	0.81
35:2:53:G:O6	35:2:427:C:N4	2.13	0.81
35:2:461:G:H2'	35:2:462:G:C8	2.15	0.81
35:2:873:U:N3	35:2:954:G:O6	2.14	0.81
35:2:868:G:O6	35:2:960:U:O4	1.98	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:937:C:C2	35:2:938:G:H1'	2.15	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
1:L:259:UNK:O	1:L:260:UNK:CB	2.29	0.81
35:2:444:C:N3	35:2:460:A:N6	2.27	0.81
35:2:548:G:N1	35:2:589:C:N3	2.29	0.81
1:P:259:UNK:O	1:P:260:UNK:CB	2.29	0.81
35:2:274:G:N1	35:2:283:U:O2	2.12	0.81
35:2:45:U:N3	35:2:433:C:O2'	2.12	0.81
3:H:2:UNK:CB	3:H:166:UNK:O	2.29	0.81
35:2:133:U:H4'	35:2:134:U:OP2	1.80	0.81
35:2:96:G:H1	35:2:387:A:N6	1.78	0.81
36:3:179:A:H2'	36:3:180:U:H5''	1.61	0.81
33:0:19:ARG:HE	33:0:73:VAL:HG11	1.44	0.80
35:2:410:A:H2	35:2:423:G:N1	1.70	0.80
35:2:85:A:OP2	35:2:85:A:H8	1.62	0.80
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
1:D:259:UNK:O	1:D:260:UNK:CB	2.29	0.80
35:2:615:A:O2'	35:2:1086:A:N7	2.13	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:OP2	35:2:458:G:H8	1.63	0.80
35:2:464:A:H4'	35:2:464:A:OP1	1.80	0.80
35:2:60:U:H4'	35:2:453:U:C5	2.14	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
35:2:1619:C:C2	35:2:1620:C:H5	2.00	0.80
35:2:977:A:H62	35:2:1024:U:H3	0.81	0.80
8:T:334:ARG:HA	36:3:108:A:P	2.22	0.80
33:0:23:LEU:HD11	33:0:71:ALA:HB2	1.63	0.80
35:2:1478:G:H5'	35:2:1478:G:H8	1.45	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
8:S:316:LYS:N	36:3:90:C:H5'	1.96	0.80
1:E:46:UNK:C	1:F:338:UNK:C	2.60	0.80
35:2:1525:A:H2'	35:2:1526:A:H8	1.45	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:592:A:N3	35:2:593:U:H5'	1.97	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
2:G:3234:GLY:C	33:0:147:VAL:CG2	2.43	0.80
35:2:1057:U:H3'	35:2:1058:U:O4'	1.82	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
8:T:326:ILE:CB	36:3:108:A:H5'	2.12	0.80
35:2:1057:U:H1'	35:2:1062:A:H61	1.45	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
35:2:42:G:N2	35:2:433:C:O2	2.13	0.80
35:2:39:A:N1	35:2:469:C:N4	2.30	0.80
35:2:473:A:H5''	35:2:474:A:C8	2.17	0.80
36:3:85:A:H2'	36:3:86:U:H6	1.46	0.80
5:M:481:UNK:O	5:M:482:UNK:CB	2.30	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
35:2:61:A:H3'	35:2:62:A:H2'	1.64	0.80
1:J:259:UNK:O	1:J:260:UNK:CB	2.29	0.80
35:2:442:C:O2	35:2:462:G:N2	2.14	0.80
35:2:89:G:H2'	35:2:90:C:C6	2.17	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: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
35:2:1536:G:H2'	35:2:1536:G:N3	1.97	0.79
35:2:60:U:H1'	35:2:62:A:C5	2.17	0.79
35:2:907:A:H8	35:2:907:A:OP2	1.64	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
35:2:301:A:H3'	35:2:301:A:OP2	1.82	0.79
35:2:487:G:O3'	35:2:488:G:C8	2.35	0.79
35:2:477:A:N6	35:2:540:G:C5	2.51	0.79
33:0:56:TYR:CE1	33:0:70:PHE:HB2	2.16	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:520:A:H2'	35:2:521:A:O4'	1.82	0.79
35:2:71:A:N6	35:2:83:G:C5	2.40	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
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
35:2:318:U:N3	35:2:346:G:N1	2.28	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
35:2:100:A:N1	35:2:386:G:H5'	1.98	0.79
36:3:96:C:H2'	36:3:97:C:H6	1.46	0.79
9:V:99:THR:HA	36:3:192:A:N7	1.96	0.79
35:2:1055:U:O2	35:2:1064:G:C6	2.36	0.79
35:2:57:G:O6	35:2:90:C:N4	2.16	0.79
35:2:1083:G:HO2'	35:2:1094:G:HO2'	0.87	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
9:U:127:LYS:C	10:W:183:ALA:HB3	2.02	0.79
35:2:365:G:N2	35:2:366:A:O4'	2.16	0.79
35:2:35:U:N3	35:2:36:C:N3	2.30	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
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
7:R:19:UNK:CB	7:R:119:UNK:HA	2.13	0.79
35:2:269:G:H8	35:2:269:G:OP2	1.64	0.78
35:2:499:U:H2'	35:2:500:C:C6	2.16	0.78
8:T:334:ARG:O	36:3:108:A:P	2.41	0.78
36:3:70:A:H8	36:3:70:A:OP2	1.66	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:OP2	35:2:335:U:N3	2.15	0.78
35:2:344:A:P	35:2:345:U:H5	2.06	0.78
35:2:48:G:O6	35:2:431:C:N4	2.15	0.78
36:3:202:C:N4	36:3:244:G:O6	2.16	0.78
3:H:-2:UNK:CB	3:H:174:UNK:CB	2.61	0.78
35:2:1073:G:C6	35:2:1074:G:O6	2.37	0.78
35:2:1484:G:N2	35:2:1606:C:H1'	1.97	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1483:A:H1'	35:2:1524:A:H62	1.47	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:C8	35:2:362:G:OP2	2.37	0.78
1:C:339:UNK:CB	1:D:103:UNK:CB	2.60	0.78
2:G:3237:LEU:N	33:0:147:VAL:CG2	2.32	0.78
35:2:867:G:N1	35:2:961:U:N3	2.29	0.78
9:U:127:LYS:O	10:W:192:PRO:CB	2.30	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
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
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
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
35:2:1056:U:H1'	35:2:1064:G:C2	2.18	0.78
35:2:110:U:H2'	35:2:304:U:H3	1.48	0.78
35:2:1468:U:O2'	35:2:1469:A:O5'	1.98	0.78
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
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:OP2	35:2:392:G:C8	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:O:507:UNK:CB	5:O:549:UNK:CB	2.62	0.78
33:0:33:ALA:HB3	33:0:38:ILE:HD11	1.65	0.78
35:2:1626:U:H2'	35:2:1627:U:H5'	1.64	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
5:M:507:UNK:CB	5:M:549:UNK:CB	2.62	0.78
35:2:1590:G:H2'	35:2:1591:C:C6	2.19	0.77
35:2:187:G:HO2'	35:2:188:A:H8	1.32	0.77
35:2:941:A:C5	35:2:942:G:H1'	2.19	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:42:G:O6	35:2:434:G:N2	2.17	0.77
35:2:443:C:O2'	35:2:445:A:OP1	2.03	0.77
35:2:480:G:OP2	35:2:480:G:H8	1.66	0.77
1:J:305:UNK:O	7:R:206:UNK:CB	2.31	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
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:OP2	35:2:534:A:C8	2.37	0.77
2:G:2367:TRP:CB	2:G:2431:HIS:H	1.97	0.77
33:0:131:THR:HG22	33:0:133:ALA:H	1.49	0.77
35:2:1584:G:C2	35:2:1585:U:OP1	2.38	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
35:2:124:A:H61	35:2:294:C:N4	1.82	0.77
35:2:301:A:C8	35:2:301:A:OP2	2.36	0.77
35:2:71:A:N6	35:2:82:U:O2	2.17	0.77
35:2:879:G:N2	35:2:949:C:O2	2.14	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:C8	35:2:905:A:OP2	2.37	0.77
35:2:938:G:H1	35:2:941:A:P	2.08	0.77
35:2:96:G:H2'	35:2:97:C:C6	2.19	0.77
35:2:174:U:H3'	35:2:175:G:H8	1.46	0.77
35:2:96:G:N2	35:2:426:G:O5'	2.17	0.77
35:2:470:A:H8	35:2:471:A:C1'	1.97	0.77
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
33:0:121:THR:CG2	35:2:84:A:O2'	2.33	0.77
35:2:898:A:OP2	35:2:912:U:C2	2.38	0.77
3:H:67:UNK:CB	3:H:145:UNK:CB	2.62	0.77
33:0:16:LEU:HA	33:0:83:TYR:CE2	2.20	0.77
35:2:174:U:C6	35:2:174:U:OP2	2.38	0.77
36:3:80:G:H3'	36:3:81:G:C8	2.20	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
33:0:85:PRO:HG3	35:2:525:A:H62	1.46	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
35:2:57:G:N2	35:2:90:C:O2	2.18	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
8:T:327:HIS:N	36:3:108:A:C8	2.50	0.77
36:3:158:C:H2'	36:3:159:G:H8	1.47	0.77
35:2:47:A:H2'	35:2:100:A:H5'	1.66	0.76
35:2:1152:A:O2'	35:2:1153:G:H5'	1.84	0.76
35:2:1613:U:O2	35:2:1613:U:H2'	1.84	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
36:3:91:G:OP1	36:3:93:G:N1	2.14	0.76
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
35:2:1153:G:H8	35:2:1153:G:OP2	1.69	0.76
35:2:1627:U:O2'	35:2:1628:U:C6	2.38	0.76
35:2:452:A:C2	35:2:453:U:H5''	2.20	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
35:2:1048:G:N2	35:2:1071:U:H1'	1.99	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
3:H:137:UNK:CB	3:H:164:UNK:O	2.13	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
35:2:47:A:N6	35:2:100:A:N7	2.34	0.76
35:2:1052:U:H2'	35:2:1053:G:H5'	1.66	0.76
33:0:59:SER:HA	35:2:522:U:H1'	1.66	0.76
35:2:973:A:H2'	35:2:974:A:C8	2.21	0.76
2:G:3237:LEU:H	33:0:147:VAL:CG1	1.84	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
35:2:51:A:H5''	35:2:52:U:H5	1.49	0.76
35:2:47:A:N6	35:2:98:U:O2	2.19	0.76
35:2:490:C:C2	35:2:498:G:N1	2.53	0.76
35:2:80:A:H2'	35:2:81:G:O4'	1.85	0.76
35:2:898:A:O2'	35:2:899:G:OP2	2.03	0.76
35:2:631:G:N2	35:2:968:U:O2	2.18	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
33:0:31:PRO:HB2	35:2:533:U:N3	2.00	0.76
35:2:1609:U:H2'	35:2:1610:G:O4'	1.86	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
35:2:501:U:O2'	35:2:502:U:O4'	2.03	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
35:2:1030: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
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
36:3:153:G:H2'	36:3:154:G:C8	2.20	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
35:2:198: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:OP2	35:2:483:A:C8	2.39	0.76
35:2:168:A:H3'	35:2:169:A:H8	1.50	0.75
35:2:323:A:OP1	35:2:323:A:H8	1.69	0.75
35:2:546:U:H2'	35:2:547:U:C6	2.21	0.75
35:2:898:A:H62	35:2:914:G:N2	1.83	0.75
35:2:872:G:O6	35:2:955:A:C6	2.38	0.75
36:3:97:C:N4	36:3:256:G:O6	2.14	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
8:S:300:ALA:HB2	36:3:91:G:OP1	1.83	0.75
5:M:647:UNK:O	5:M:648:UNK:CB	2.34	0.75
35:2:1046:G:C5	35:2:1073:G:C6	2.73	0.75
35:2:328:A:C8	35:2:328:A:OP2	2.39	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:493:U:O4'	35:2:495:C:N4	2.19	0.75
35:2:74:U:OP2	35:2:74:U:H2'	1.87	0.75
35:2:58:U:N3	35:2:89:G:O6	2.20	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
5:O:596:UNK:O	5:O:597:UNK:CB	2.35	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
35:2:73:U:O4	35:2:80:A:N6	2.19	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
1:N:73:UNK:HA	35:2:392:G:O4'	133.90	0.75
35:2:277:U:HO2'	35:2:280:U:H3	0.85	0.75
35:2:302:U:H6	35:2:302:U:OP2	1.70	0.75
35:2:40:A:N6	35:2:469:C:O2	2.19	0.75
35:2:485:A:C2	35:2:502:U:N3	2.54	0.75
36:3:72:C:H6	36:3:72:C:OP2	1.70	0.75
35:2:1158:C:H42	35:2:1163:A:H61	1.33	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
33:0:35:LYS:HB2	35:2:520:A:H4'	1.68	0.75
35:2:892:A:H8	35:2:892:A:OP2	1.69	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
33:0:35:LYS:CG	35:2:521:A:H5'	2.16	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
35:2:93:A:H5''	35:2:93:A:N3	2.00	0.75
35:2:1570:A:H3'	35:2:1571:C:H6	1.52	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
35:2:48:G:C6	35:2:432:G:N3	2.54	0.75
35:2:912:U:H5'	35:2:913:G:H8	1.52	0.75
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)
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:H8	35:2:456:A:O5'	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
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
1:N:73:UNK:O	35:2:391:A:O3'	129.30	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
35:2:1037:C:O2'	35:2:1038:U:H5'	1.86	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
5:O:647:UNK:O	5:O:648:UNK:CB	2.34	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
35:2:84:A:OP2	35:2:84:A:C8	2.39	0.74
1:K:115:UNK:N	1:P:133:UNK:CB	2.51	0.74
35:2:1480:G:C5'	35:2:1480:G:C8	2.70	0.74
35:2:312:A:C2	35:2:314:C:H2'	2.23	0.74
35:2:34:G:C6	35:2:35:U:H1'	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
36:3:138:A:H2'	36:3:139:C:O4'	1.87	0.74
35:2:108:A:C6	35:2:306:U:C4	2.75	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
35:2:300:A:H3'	35:2:301:A:H8	1.52	0.74
35:2:67:A:O2'	35:2:68:A:OP2	2.04	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
35:2:263: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:528:U:H4'	35:2:529:A:OP2	1.85	0.74
3:H:216:UNK:C	3:H:245:UNK:C	2.65	0.74
9:V:38:GLY:HA3	36:3:194:G:O6	1.87	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
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
35:2:50: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
35:2:880:C:H3'	35:2:880:C:OP2	1.88	0.74
33:0:35:LYS:H	35:2:520:A:C3'	2.01	0.74
35:2:1041:G:N1	35:2:1078:C:N3	2.29	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
1:N:73:UNK:C	35:2:391:A:O3'	129.93	0.74
35:2:493:U:H1'	35:2:495:C:N3	2.03	0.74
3:H:137:UNK:HA	3:H:162:UNK:C	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
35:2:923: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
35:2:1043:A:H61	35:2:1076:A:N6	1.86	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
35:2:485: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
9:U:41:GLU:CA	36:3:263:U:OP2	2.35	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
35:2:59:C:N4	35:2:88:U:O4	2.21	0.73
35:2:951:A:OP2	35:2:951:A:C8	2.41	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)
35:2:401:A:H4'	35:2:402:C:OP2	1.88	0.73
35:2:390:G:O6	35:2:407:A:N6	2.20	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
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
8:T:334:ARG:CA	36:3:108:A:OP1	2.36	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:OP2	35:2:412:A:H3'	1.88	0.73
35:2:933:A:O2'	35:2:934:C:OP1	2.07	0.73
36:3:248:G:H8	36:3:248:G:OP2	1.71	0.73
36:3:65:C:H2'	36:3:66:A:C8	2.19	0.73
33:0:59:SER:HB3	35:2:522:U:H1'	1.69	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
35:2:58:U:O2	35:2:59:C:N4	2.22	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
1:E:248:UNK:CB	3:H:312:UNK:CB	2.66	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
35:2:74: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
35:2:914:G:H1'	35:2:915:A:OP2	1.89	0.73
5:O:31:UNK:O	5:O:348:UNK:CB	2.36	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
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
35:2:100:A:N1	35:2:385:A:O2'	2.21	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
1:E:248:UNK:CB	3:H:312:UNK:C	2.66	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:172:C:H2'	35:2:173:A:C8	2.23	0.72
35:2:412:A:H8	35:2:412:A:OP2	1.70	0.72
35:2:442:C:N3	35:2:463:U:N3	2.36	0.72
35:2:40:A:C5	35:2:469:C:H1'	2.24	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
35:2:110:U:OP2	35:2:110:U:C6	2.42	0.72
35:2:412:A:O2'	35:2:421:A:N1	2.17	0.72
35:2:483:A:C6	35:2:506:A:C6	2.77	0.72
35:2:56:U:O2'	35:2:91:G:N2	2.22	0.72
11:Y:152:VAL:O	36:3:126:U:H5	1.71	0.72
35:2:1075:C:H2'	35:2:1076:A:C4	2.24	0.72
35:2:194:U:O3'	35:2:195:G:H4'	1.87	0.72
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
35:2:89:G:H2'	35:2:90:C:H6	1.52	0.72
2:G:3230:GLU:CA	33:0:147:VAL:O	2.37	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
35:2:29:U:C2	35:2:30:G:C8	2.77	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
35:2:52:U:O2	35:2:440:U:N3	2.20	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
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
35:2:47:A:OP1	35:2:100:A:H5''	1.90	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
35:2:156:A:N6	35:2:419:G:H1'	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:96:G:H2'	35:2:97:C:H6	1.53	0.72
35:2:261:U:H3'	35:2:261:U:OP2	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
8:T:334:ARG:CA	36:3:108:A:P	2.78	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
33:0:12:VAL:O	33:0:14:PRO:HD3	1.90	0.72
35:2:1061:A:H2'	35:2:1062:A:H8	1.55	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
35:2:40:A:H1'	35:2:470:A:H2	1.55	0.72
35:2:488:G:OP2	35:2:488:G:C8	2.43	0.72
35:2:489:C:O2'	35:2:490:C:O4'	2.06	0.72
33:0:32:THR:HB	35:2:520:A:H2	1.55	0.72
35:2:91:G:C6	35:2:92:A:C6	2.78	0.72
35:2:949:C:H2'	35:2:950:C:H6	1.53	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
35:2:113:U:O2'	35:2:115:G:O2'	2.08	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
35:2:521:A:N6	35:2:529:A:N3	2.38	0.72
35:2:84:A:OP2	35:2:84:A:H8	1.73	0.72
35:2:628:G:N2	35:2:971:A:C6	2.49	0.72
2:G:3234:GLY:HA2	33:0:146:PHE:HA	1.72	0.72
35:2:1063:U:C2	35:2:1064:G:C8	2.78	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
35:2:146:U:H3'	35:2:167:U:O4	1.90	0.71
35:2:141:U:O2'	35:2:266:A:H1'	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:314:C:O2	35:2:353:A:OP2	2.07	0.71
35:2:85:A:OP2	35:2:85:A:C8	2.43	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
33:0:32:THR:CB	35:2:520:A:H2	2.03	0.71
35:2:1048:G:C8	35:2:1048:G:OP2	2.43	0.71
35:2:474:A:H4'	35:2:475:A:OP2	1.90	0.71
35:2:507:U:H6	35:2:507:U:OP2	1.74	0.71
35:2:89:G:C2	35:2:90:C:C2	2.78	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
35:2:65:A:C4	35:2:70:C:N4	2.58	0.71
1:N:73:UNK:CB	35:2:391:A:O3'	131.01	0.71
8:S:315:PRO:CB	36:3:90:C:H4'	2.20	0.71
35:2:1614:A:C2	35:2:1616:G:OP2	2.43	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
33:0:31:PRO:HA	35:2:533:U:H2'	1.72	0.71
35:2:1053:G:N1	35:2:1066:C:N3	2.37	0.71
35:2:959:U:C2	35:2:960:U:H5	2.08	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
35:2:61:A:H5''	35:2:453:U:O4	1.91	0.71
35:2:629:U:H2'	35:2:630:A:H8	1.55	0.71
35:2:892:A:C8	35:2:892:A:OP2	2.43	0.71
35:2:107:C:O2	35:2:307:G:N2	2.14	0.71
35:2:1481:C:H4'	35:2:1482:C:OP1	1.91	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
1:L:72:UNK:C	5:M:348:UNK:O	2.39	0.71
35:2:142:G:H2'	35:2:143:G:H8	1.56	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
35:2:176:C:H2'	35:2:177:U:H4'	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:23:G:OP2	35:2:23:G:H3'	1.91	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
35:2:48:G:N2	35:2:432:G:O2'	2.23	0.71
36:3:68:A:H2'	36:3:69:G:C8	2.26	0.71
33:0:85:PRO:HD2	33:0:88:ARG:HD2	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
35:2:53:G:OP2	35:2:53:G:H8	1.72	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
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
33:0:21:LEU:N	33:0:21:LEU:HD23	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
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:N3	35:2:938:G:H2'	2.06	0.70
1:L:75:UNK:N	5:M:349:UNK:CB	2.39	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
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
3:H:216:UNK:C	3:H:245:UNK:O	2.38	0.70
2:G:3230:GLU:HA	33:0:147:VAL:O	1.90	0.70
35:2:1031:U:C6	35:2:1031:U:OP2	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
35:2:290:G:C6	35:2:291:G:C6	2.79	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
36:3:203:C:H2'	36:3:204:C:H6	1.55	0.70
2:G:3237:LEU:HA	33:0:147:VAL:HG13	1.71	0.70
35:2:1533:C:H5''	35:2:1534:G:OP2	1.90	0.70
35:2:271:A:C2	35:2:285:G:C5	2.79	0.70
35:2:107:C:H5''	35:2:383:G:H4'	1.73	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
1:D:114:UNK:C	1:E:139:UNK:N	2.52	0.70
35:2:148:A:C8	35:2:149:C:C6	2.80	0.70
35:2:1592:A:C4	35:2:1605:G:N2	2.59	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
35:2:294:C:O2'	35:2:295:A:O5'	2.09	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
36:3:91:G:H3'	36:3:93:G:C4	2.25	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
35:2:532:U:H3'	35:2:532:U:OP2	1.91	0.70
35:2:82:U:H2'	35:2:83:G:N9	2.07	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
35:2:96:G:N1	35:2:387:A:N6	2.36	0.70
33:0:27:HIS:HE1	33:0:67:SER:OG	1.75	0.70
35:2:1533:C:H3'	35:2:1534:G:C8	2.27	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
9:U:90:GLY:HA3	36:3:82:U:C5	2.27	0.70
35:2:164:A:H2'	35:2:165:G:H8	1.56	0.70
35:2:108:A:C6	35:2:306:U:O4	2.44	0.70
35:2:631:G:O6	35:2:968:U:N3	2.20	0.70
35:2:82:U:N3	35:2:83:G:N7	2.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:884:A:OP2	35:2:884:A:H3'	1.91	0.70
1:K:295:UNK:O	1:K:296:UNK:CB	2.40	0.70
35:2:1481:C:C5	35:2:1482:C:C2	2.80	0.69
35:2:157:A:C8	35:2:157:A:OP2	2.44	0.69
35:2:1597:A:C6	35:2:1598:U:N3	2.60	0.69
35:2:198:A:OP2	35:2:199:G:C5	2.44	0.69
35:2:33:U:OP2	35:2:33:U:O4'	2.10	0.69
35:2:367:A:H2'	35:2:368:U:C6	2.27	0.69
35:2:48:G:H1	35:2:432:G:H1'	1.57	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
35:2:1045: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
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
35:2:45: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
35:2:880:C:OP2	35:2:881:A:OP2	2.10	0.69
36:3:199:G:O2'	36:3:200:U:OP2	2.10	0.69
36:3:80:G:H3'	36:3:81:G:H8	1.57	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
35:2:28:A:O2'	35:2:29:U:C2	2.45	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
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:C6	35:2:507:U:OP2	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:216:UNK:CA	3:H:245:UNK:C	2.66	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
36:3:114:A:H8	36:3:114:A:OP2	1.75	0.69
3:H:139:UNK:CB	3:H:160:UNK:HA	2.22	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:OP2	35:2:463:U:C6	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: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
9:V:127:LYS:CA	10:X:157:PRO:CB	2.70	0.69
35:2:1039:A:HO2'	35:2:1040:G:P	2.16	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
35:2:213:A:C5	35:2:214:G:C5	2.81	0.69
35:2:207:U:O2	35:2:261:U:N3	2.26	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
35:2:64:U:H5'	35:2:65:A:OP2	1.93	0.69
35:2:931:C:OP2	35:2:932:U:O2'	2.09	0.69
1:N:295:UNK:O	1:N:296:UNK:CB	2.40	0.69
35:2:286:C:OP2	35:2:286:C:C6	2.45	0.69
35:2:93:A:H2'	35:2:398:G:N2	2.08	0.69
35:2:40:A:C6	35:2:41:A:C5	2.80	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
35:2:631:G:H2'	35:2:632:U:H6	1.56	0.69
35:2:880:C:OP2	35:2:880:C:H6	1.75	0.69
36:3:72:C:H2'	36:3:73:C:C6	2.27	0.69
1:A:295:UNK:O	1:A:296:UNK:CB	2.40	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:295:UNK:O	1:C:296:UNK:CB	2.40	0.69
1:B:113:UNK:CB	10:W:199:GLU:N	2.56	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
35:2:50:C:C6	35:2:424:C:H3'	2.28	0.69
35:2:588:U:H2'	35:2:589:C:H5'	1.75	0.69
1:A:294:UNK:HA	1:B:65:UNK:O	1.92	0.69
1:D:295:UNK:O	1:D:296:UNK:CB	2.40	0.69
1:D:133:UNK:C	1:E:113:UNK:CB	2.69	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:OP2	35:2:412:A:C8	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
8:T:327:HIS:CA	36:3:108:A:C5	2.62	0.69
35:2:1175:U:H3	35:2:1464:G:H1	1.39	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
35:2:71:A:H4'	35:2:72:A:OP2	1.93	0.69
35:2:79:C:H2'	35:2:79:C:OP1	1.93	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
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:E:295:UNK:O	1:E:296:UNK:CB	2.40	0.68
1:J:306:UNK:CA	7:R:203:UNK:HA	2.24	0.68
35:2:1038:U:O5'	35:2:1038:U:H6	1.76	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:H6	35:2:358:U:O5'	1.76	0.68
35:2:407:A:H3'	35:2:407:A:OP2	1.93	0.68
35:2:495:C:H2'	35:2:495:C:OP2	1.92	0.68
1:F:297:UNK:O	1:F:314:UNK:CB	2.42	0.68
2:G:3234:GLY:C	33:0:147:VAL:N	2.46	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:E:297:UNK:O	1:E:314:UNK:CB	2.42	0.68
10:X:123:ARG:H	35:2:1584:G:H8	103.36	0.68
33:0:131:THR:O	33:0:135:VAL:HG23	1.94	0.68
35:2:1047:G:C8	35:2:1047:G:OP2	2.46	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
35:2:103:A:H5'	35:2:360:A:N1	2.08	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
33:0:85:PRO:HD2	35:2:525:A: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
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
35:2:547:U:O4	35:2:590:C:N4	2.23	0.68
35:2:975:C:H2'	35:2:976:G:C8	2.29	0.68
1:N:297:UNK:O	1:N:314:UNK:CB	2.42	0.68
1:J:306:UNK:HA	7:R:203:UNK:CA	2.24	0.68
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
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
35:2:37:U:C2	35:2:471:A:N1	2.61	0.68
35:2:450:U:H5''	35:2:451:A:OP2	1.94	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:976:G:N2	35:2:1023:A:O2'	2.24	0.68
35:2:411:C:C5	35:2:412:A:C6	2.82	0.68
35:2:52:U:O2'	35:2:440:U:O4	2.05	0.68
35:2:502:U:O2'	35:2:503:G:O5'	2.12	0.68
35:2:549:G:OP2	35:2:549:G:C8	2.47	0.68
35:2:79:C:H2'	35:2:79:C:P	2.34	0.68
36:3:74:C:OP2	36:3:74:C:H3'	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
35:2:92:A:O5'	35:2:93:A:H5'	1.93	0.68
35:2:975:C:C6	35:2:975:C:OP2	2.47	0.68
36:3:132:C:N4	36:3:133:G:O6	2.27	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
33:0:51:ARG:NH2	33:0:148:ALA:HB3	2.09	0.68
35:2:1571:C:H3'	35:2:1572:G:H5''	1.74	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
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
35:2:103:A:H5''	35:2:104:A:N3	2.09	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
35:2:21:U:C6	35:2:21:U:OP2	2.46	0.68
35:2:288:A:OP2	35:2:288:A:H8	1.75	0.68
35:2:332:U:H3'	35:2:334:G:P	2.33	0.68
35:2:328:A:C6	35:2:341:A:N1	2.62	0.68
35:2:516:G:N2	35:2:536:C:C2	2.56	0.68
35:2:884:A:OP2	35:2:884:A:C8	2.47	0.68
36:3:79:G:C6	36:3:80:G:N7	2.61	0.68
9:U:37:LYS:O	36:3:264:G:C8	2.47	0.68
33:0:147:VAL:O	33:0:148:ALA:HB2	1.94	0.67
35:2:1174:C:C2	35:2:1466:G:C2	2.82	0.67
35:2:1603:U:H2'	35:2:1603:U:O2	1.95	0.67
35:2:34:G:H1'	35:2:476:U:C5	2.29	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:67:A:N1	35:2:79:C:H5'	2.09	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
35:2:97:C:O2	35:2:426:G:OP2	2.12	0.67
8:T:338:ALA:HB2	36:3:108:A:O5'	1.94	0.67
1:J:297:UNK:O	1:J:314:UNK:CB	2.42	0.67
33:0:33:ALA:O	35:2:520:A:H1'	1.94	0.67
35:2:103:A:H1'	35:2:308:C:N3	2.09	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
35:2:215:A:C8	35:2:242:U:H2'	2.28	0.67
35:2:93:A:OP2	35:2:399:A:N1	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:C4	35:2:475:A:OP2	2.47	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
35:2:879: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
36:3:263:U:H2'	36:3:264:G:N3	2.08	0.67
36:3:74:C:C4	36:3:75:A:N6	2.62	0.67
35:2:1094:G:OP2	35:2:1095:U:OP2	2.11	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
36:3:260:G:H4'	36:3:261:U:OP1	1.95	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:H8	35:2:905:A:OP2	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:942:G:H8	35:2:942:G:OP2	1.78	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
35:2:53:G:C6	35:2:428:A:N1	2.62	0.67
35:2:524:U:OP2	35:2:525:A:H4'	1.95	0.67
35:2:70:C:C2	35:2:83:G:N2	2.55	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
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
35:2:142:G:OP2	35:2:142:G:H8	1.77	0.67
35:2:1584:G:N3	35:2:1585:U:OP1	2.28	0.67
35:2:288:A:OP2	35:2:288:A:H2'	1.95	0.67
35:2:124:A:N6	35:2:294:C:H42	1.92	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
9:V:96:GLN:H	36:3:114:A:C3'	2.07	0.67
36:3:171:G:H2'	36:3:172:C:C6	2.30	0.67
35:2:142:G:H2'	35:2:143:G:C8	2.29	0.67
35:2:384:G:H8	35:2:384:G:OP2	1.78	0.67
35:2:156:A:H61	35:2:419:G:C1'	2.07	0.67
35:2:474:A:H1'	35:2:475:A:N1	2.09	0.67
33:0:32:THR:HG1	35:2:533:U:C1'	2.08	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:K:297:UNK:O	1:K:314:UNK:CB	2.42	0.67
35:2:103:A:H4'	35:2:104:A:OP2	1.92	0.67
35:2:1095:U:OP2	35:2:1095:U:H2'	1.95	0.67
35:2:160:C:H2'	35:2:161:U:O4'	1.95	0.67
35:2:161:U:O2'	35:2:162:A:O4'	2.13	0.67
35:2:201:G:N3	35:2:201:G:H2'	2.07	0.67
35:2:286:C:H6	35:2:286:C:OP2	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
1:L:57:UNK:C	5:M:350:UNK:CB	2.72	0.67
35:2:146:U:H2'	35:2:147:A:O4'	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1602:C:H3'	35:2:1603:U:C6	2.25	0.67
35:2:39:A:H2	35:2:470:A:N7	1.93	0.67
35:2:483:A:C3'	35:2:484:C:H6	2.08	0.67
35:2:959:U:H1'	35:2:960:U:OP1	1.95	0.67
35:2:868:G:C2	35:2:960:U:O2	2.47	0.67
35:2:972:G:H8	35:2:972:G:OP2	1.78	0.67
36:3:269:G:C8	36:3:269:G:OP2	2.48	0.67
35:2:103:A:O4'	35:2:360:A:H2	1.78	0.67
35:2:1048:G:H8	35:2:1048:G:OP2	1.77	0.67
35:2:105:A:H1'	35:2:107:C:N4	2.10	0.67
35:2:1078:C:H3'	35:2:1079:U:C6	2.29	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
35:2:199: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
35:2:340:U:O4	35:2:341:A:N6	2.28	0.66
35:2:318:U:O4	35:2:346:G:O6	2.12	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
35:2:57:G:C6	35:2:91:G:O6	2.48	0.66
35:2:624:G:OP1	35:2:624:G:H8	1.78	0.66
35:2:877:G:O6	35:2:951:A:N6	2.26	0.66
35:2:928:U:H2'	35:2:945:U:OP2	1.94	0.66
35:2:958:U:H6	35:2:958:U:OP2	1.77	0.66
36:3:113:G:H1'	36:3:195:A:H61	1.60	0.66
36:3:93:G:O5'	36:3:93:G:H8	1.78	0.66
2:G:2406:ALA:HB2	2:G:2813:VAL:O	1.96	0.66
33:0:2:THR:HG22	33:0:3:ILE:N	2.00	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:269:G:H2'	36:3:270:C:O4'	1.95	0.66
35:2:1061:A:H2'	35:2:1062:A:C8	2.30	0.66
35:2:1039:A:N6	35:2:1091:A:H5''	2.10	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
35:2:377:G:OP2	35:2:377:G:C8	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
3:H:215:UNK:O	3:H:245:UNK:C	2.43	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
35:2:59:C:C2	35:2:59:C:OP2	2.48	0.66
35:2:942:G:OP2	35:2:942:G:C8	2.48	0.66
35:2:157:A:H8	35:2:157:A:P	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
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
35:2:38:C:H3'	35:2:39:A:H5''	1.77	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
35:2:1084:A:H1'	35:2:1094:G:C4'	2.22	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:OP2	35:2:503:G:C8	2.49	0.66
35:2:904:G:H2'	35:2:905:A:C8	2.31	0.66
8:S:294:THR:CB	36:3:261:U:C2	2.78	0.66
35:2:142:G:OP2	35:2:142:G:C8	2.48	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1593:A:O2'	35:2:1594:G:H5'	1.95	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
35:2:47:A:C6	35:2:98:U:O2	2.49	0.66
1:C:295:UNK:O	1:C:315:UNK:CB	2.44	0.66
35:2:198:A:C8	35:2:198:A:OP2	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
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
35:2:946: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
35:2:1039:A:C2	35:2:1080:U:C2	2.84	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
35:2:45:U:C2	35:2:433:C:O2'	2.49	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:C8	35:2:966:A:OP2	2.43	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
35:2:1166:A:O2'	35:2:1587:A:H4'	1.95	0.65
35:2:126:A:H61	35:2:291:G:H2'	1.61	0.65
35:2:1466:G:C4	35:2:1467:C:C5	2.83	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
35:2:324: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
35:2:309:C:C2	35:2:357:G:N1	2.63	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:911:U:H4'	35:2:915:A:H1'	1.78	0.65
35:2:97:C:H1'	35:2:426:G:C5'	2.25	0.65
3:H:-2:UNK:O	3:H:170:UNK:CB	2.42	0.65
33:0:89:LEU:HD12	33:0:95:LEU:HD22	1.79	0.65
35:2:1602:C:O2	35:2:1602:C:H2'	1.96	0.65
35:2:473:A:H2'	35:2:475:A:N1	2.11	0.65
35:2:47:A:C6	35:2:100:A:N7	2.65	0.65
35:2:874:C:C6	35:2:874:C:OP2	2.49	0.65
35:2:880:C:N3	35:2:948:G:N1	2.42	0.65
35:2:630:A:N6	35:2:969:C:H2'	2.12	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
35:2:1091:A:OP2	35:2:1091:A:O4'	2.14	0.65
35:2:109:G:C8	35:2:109:G:OP2	2.49	0.65
35:2:141:U:HO2'	35:2:266:A:H1'	1.60	0.65
35:2:1570:A:C2	35:2:1571:C:H1'	2.31	0.65
35:2:1570:A:H3'	35:2:1571:C:C6	2.31	0.65
35:2:304:U:H3'	35:2:305:C:C5	2.31	0.65
35:2:357:G:C8	35:2:357:G:OP2	2.49	0.65
35:2:521:A:OP2	35:2:521:A:C8	2.49	0.65
35:2:592:A:H2'	35:2:592:A:N3	2.11	0.65
35:2:907:A:C8	35:2:907:A:OP2	2.48	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
35:2:171:A:H8	35:2:171:A:OP2	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
35:2:457:G:C8	35:2:457:G:OP2	2.49	0.65
35:2:481:A:H1'	35:2:508:U:H1'	1.77	0.65
35:2:537:G:N3	35:2:537:G:H2'	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
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
36:3:66:A:H2'	36:3:67:C:C6	2.31	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
35:2:1073: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
34:1:25:VAL:O	34:1:38:ARG:HA	1.97	0.65
35:2:1040:G:H2'	35:2:1041:G:C8	2.31	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
36:3:72:C:C4	36:3:73:C:N4	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
35:2:1083:G:H8	35:2:1083:G:O5'	1.79	0.65
35:2:309:C:H2'	35:2:310:C:C6	2.30	0.65
35:2:40:A:H1'	35:2:470:A:C2	2.31	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
35:2:62:A:OP1	35:2:287:G:N2	2.30	0.65
35:2:59:C:N4	35:2:89:G:C2	2.63	0.65
35:2:935:U:O3'	35:2:1044:U:O2'	2.13	0.65
35:2:99:C:N4	35:2:385:A:C6	2.64	0.65
36:3:135:U:O2'	36:3:136:C:O5'	2.14	0.65
36:3:114:A:N1	36:3:194:G:H1'	2.12	0.65
36:3:85:A:H8	36:3:85:A:O5'	1.79	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
33:0:3:ILE:HG22	33:0:4:VAL:N	2.11	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
35:2:328:A:C2	35:2:340:U:O2	2.48	0.65
35:2:102:U:O4	35:2:361:C:OP2	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:57:G:C6	35:2:58:U:C4	2.85	0.65
35:2:938:G:H5'	35:2:939:A:OP2	1.97	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
33:0:69:GLY:C	33:0:70:PHE:HD1	1.99	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
35:2:96:G:N2	35:2:387:A:N1	2.41	0.65
35:2:130:C:C4	35:2:131:C:C2	2.84	0.65
35:2:26:A:H2'	35:2:27:U:H1'	1.77	0.65
35:2:633:U:C2	35:2:634:G:C8	2.85	0.65
35:2:81:G:N1	35:2:82:U:H1'	2.12	0.65
36:3:114:A:C5	36:3:192:A:N1	2.65	0.65
36:3:72:C:C6	36:3:72:C:OP2	2.50	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
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:H8	35:2:869:A:O5'	1.80	0.64
35:2:931:C:H3'	35:2:932:U:H2'	1.80	0.64
36:3:68:A:H2'	36:3:69:G:H8	1.63	0.64
3:H:-2:UNK:CA	3:H:174:UNK:CB	2.75	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
35:2:209:U:H2'	35:2:210:A:C8	2.31	0.64
35:2:139:C:C4	35:2:266:A:C2	2.85	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
35:2:95:G:H2'	35:2:96:G:C8	2.33	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
35:2:1066:C:OP2	35:2:1066:C:C5	2.51	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:106:U:H2'	35:2:107:C:C6	2.32	0.64
35:2:1165:G:O6	35:2:1166:A:N6	2.30	0.64
35:2:124:A:C6	35:2:125:U:C4	2.86	0.64
35:2:150:U:OP2	35:2:150:U:C6	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
33:0:32:THR:CB	35:2:520:A:C2	2.80	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
36:3:154:G:H2'	36:3:155:U:H6	1.62	0.64
36:3:79:G:C6	36:3:268:G:C6	2.85	0.64
1:B:270:UNK:O	1:B:271:UNK:CB	2.45	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
35:2:1594: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
35:2:158:U:O2'	35:2:159:U:OP1	2.15	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
36:3:137:U:H2'	36:3:138:A:C8	2.32	0.64
36:3:112:U:H3	36:3:197:C:H42	1.43	0.64
1:A:270:UNK:O	1:A:271:UNK:CB	2.45	0.64
35:2:1050:G:N3	35:2:1051:G:H1'	2.12	0.64
35:2:1468:U:HO2'	35:2:1469:A:C5'	2.09	0.64
10:X:123:ARG:N	35:2:1584:G:C8	103.22	0.64
35:2:256:A:H8	35:2:256:A:P	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
36:3:99:C:H2'	36:3:100:G:H8	1.60	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
35:2:1032:G:H2'	35:2:1033:C:O4'	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:108:A:H2'	35:2:109:G:C8	2.32	0.64
35:2:1618:C:H5'	35:2:1619:C:OP2	1.98	0.64
35:2:282:C:H3'	35:2:283:U:C5	2.33	0.64
36:3:103:G:O2'	36:3:108:A:N1	2.24	0.64
36:3:69:G:C8	36:3:69:G:OP2	2.50	0.64
1:A:294:UNK:C	1:B:65:UNK:O	2.46	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
35:2:108:A:H3'	35:2:109:G:H8	1.63	0.64
35:2:1171:A:H2'	35:2:1172:G:C8	2.32	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
35:2:108:A:C2	35:2:306:U:N3	2.65	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
6:Q:472:UNK:O	6:Q:484:UNK:CB	2.46	0.64
35:2:1049:U:C2	35:2:1050:G:C8	2.85	0.64
35:2:1075:C:C6	35:2:1075:C:OP2	2.50	0.64
35:2:142:G:H22	35:2:174:U:H1'	1.61	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
35:2:284:G:O2'	35:2:285:G:N7	2.24	0.64
35:2:81:G:H8	35:2:81:G:OP2	1.81	0.64
35:2:894:U:H2'	35:2:895:G:C8	2.32	0.64
8:T:334:ARG:CA	36:3:108:A:OP2	2.45	0.64
36:3:75:A:O2'	36:3:76:C:O4'	2.07	0.64
35:2:1052:U:N3	35:2:1053:G:C8	2.65	0.64
35:2:198:A:OP2	35:2:199:G:C6	2.51	0.64
35:2:124:A:N6	35:2:294:C:N4	2.45	0.64
35:2:302:U:H5''	35:2:303:U:O4	1.97	0.64
35:2:354:C:OP2	35:2:355:G:C8	2.50	0.64
35:2:314:C:C2	35:2:355:G:C2	2.86	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
35:2:65:A:H2	35:2:84:A:N7	1.95	0.64
35:2:884:A:H8	35:2:884:A:OP2	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:221:ILE:CB	10:W:122:GLN:CB	2.76	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
35:2:1472:C:C1'	35:2:1473:U:OP2	2.45	0.64
35:2:1609:U:C5'	35:2:1609:U:H6	2.11	0.64
35:2:175:G:N2	35:2:266:A:O4'	2.31	0.64
35:2:334:G:H8	35:2:334:G:OP2	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:OP2	35:2:417:A:C8	2.51	0.64
35:2:489:C:H2'	35:2:490:C:H6	1.63	0.64
36:3:172:C:H2'	36:3:173:G:H8	1.61	0.64
9:U:96:GLN:CB	36:3:266:C:H5	2.09	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
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:OP1	35:2:1086:A:H8	1.80	0.63
35:2:1523:G:OP2	35:2:1524:A:OP2	2.16	0.63
10:X:134:ALA:HB3	35:2:1586:A:OP1	112.22	0.63
35:2:1602:C:H5'	35:2:1603:U:OP2	1.98	0.63
35:2:317:C:N3	35:2:348:U:N3	2.45	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
35:2:52:U:N3	35:2:428:A:C2	2.66	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
9:U:125:LYS:C	10:W:184:ARG:CB	2.65	0.63
33:0:3:ILE:CG2	33:0:4:VAL:N	2.61	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
35:2:1616:G:H21	35:2:1618:C:N4	1.93	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:36:C:N4	35:2:472:U:O4	2.31	0.63
35:2:498:G:OP2	35:2:498:G:C8	2.51	0.63
35:2:483:A:C6	35:2:504:U:C4	2.86	0.63
35:2:517:U:OP2	35:2:517:U:C6	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:OP2	35:2:948:G:C8	2.52	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
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
35:2:123:G:C6	35:2:124:A:N6	2.65	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
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
35:2:488:G:N9	35:2:488:G:OP2	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:OP2	35:2:978:A:C8	2.52	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
1:L:270:UNK:O	1:L:271:UNK:CB	2.45	0.63
35:2:1045:C:C6	35:2:1045:C:OP2	2.52	0.63
35:2:122:U:H3'	35:2:123:G:H8	1.63	0.63
35:2:301:A:H8	35:2:301:A:OP2	1.79	0.63
35:2:302:U:OP2	35:2:302:U:C6	2.51	0.63
35:2:311:U:C4	35:2:355:G:O6	2.51	0.63
35:2:312:A:N6	35:2:352:A:H1'	2.12	0.63
35:2:312:A:N6	35:2:352:A:O3'	2.32	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
35:2:42:G:N2	35:2:45:U:O4	2.31	0.63
35:2:868:G:N3	35:2:868:G:H2'	2.13	0.63
36:3:70:A:H2'	36:3:71:U:H6	1.64	0.63
35:2:1478:G:H5'	35:2:1478:G:C8	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:P:270:UNK:O	1:P:271:UNK:CB	2.45	0.63
35:2:1051:G:OP1	35:2:1051:G:H4'	1.98	0.63
35:2:1052:U:C2	35:2:1053:G:C8	2.87	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
35:2:27:U:N3	35:2:28:A:C5	2.66	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
1:N:73:UNK:CA	35:2:391:A:O3'	131.26	0.63
35:2:454:U:HO2'	35:2:455:C:P	2.19	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
35:2:522:U:O4	35:2:523:G:C4	2.52	0.63
35:2:512:A:N6	35:2:539:G:C8	2.64	0.63
35:2:546:U:H2'	35:2:547:U:H6	1.63	0.63
35:2:59:C:H2'	35:2:59:C:OP1	1.98	0.63
35:2:930:A:OP2	35:2:930:A:N7	2.32	0.63
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
36:3:93:G:C8	36:3:93:G:OP2	2.51	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
35:2:171:A:H8	35:2:171:A:P	2.21	0.63
35:2:251:A:OP2	35:2:251:A:C8	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
35:2:55:A:OP2	35:2:55:A:C8	2.51	0.63
2:G:2367:TRP:HA	2:G:2408:PRO:CA	2.28	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
35:2:1084: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H6	35:2:894:U:H5'	1.63	0.63
1:D:270:UNK:O	1:D:271:UNK:CB	2.45	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
35:2:399:A:O2'	35:2:401:A:O4'	2.09	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:O5'	35:2:520:A:H8	1.81	0.63
35:2:624:G:OP1	35:2:624:G:C8	2.51	0.63
35:2:65:A:N6	35:2:83:G:N7	2.46	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
33:0:9:LYS:H	33:0:22:SER:HB2	1.63	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
35:2:37:U:C4	35:2:39:A:N6	2.66	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
35:2:85:A:P	35:2:85:A:H8	2.22	0.62
35:2:963:A:H1'	35:2:964:U:OP2	1.98	0.62
36:3:250:G:C8	36:3:250:G:OP2	2.52	0.62
1:E:46:UNK:C	1:F:339:UNK:N	2.62	0.62
35:2:100:A:C6	35:2:101:U:C4	2.87	0.62
35:2:1179:G:N2	35:2:1461:C:N4	2.47	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
35:2:41:A:O2'	35:2:42:G:OP2	2.17	0.62
35:2:881:A:OP2	35:2:881:A:H8	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Q:474:UNK:C	6:Q:484:UNK:CA	2.71	0.62
33:0:10:ILE:HG12	33:0:21:LEU:CB	2.29	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
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
35:2:27:U:C4	35:2:28:A:C5	2.87	0.62
35:2:292:U:H2'	35:2:293:U:C2	2.33	0.62
35:2:93:A:N6	35:2:398:G:H3'	2.09	0.62
35:2:454:U:H6	35:2:454:U:OP2	1.82	0.62
35:2:538:A:C8	35:2:538:A:OP2	2.53	0.62
36:3:147:G:H2'	36:3:148:G:C8	2.34	0.62
36:3:91:G:H3'	36:3:93:G:C5	2.34	0.62
35:2:1044:U:C5	35:2:1044:U:OP2	2.51	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
35:2:40:A:C6	35:2:469:C:O4'	2.52	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
35:2:60:U:O2'	35:2:61:A:H5''	1.98	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
36:3:64:C:H2'	36:3:65:C:C6	2.34	0.62
1:E:248:UNK:CB	3:H:312:UNK:N	2.59	0.62
35:2:100:A:N6	35:2:385:A:H2'	2.14	0.62
35:2:1165:G:H5''	35:2:1166:A:OP2	1.99	0.62
35:2:342:C:H2'	35:2:343:C:C6	2.35	0.62
35:2:382:C:H3'	35:2:382:C:OP2	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
35:2:53:G:C6	35:2:54:C:N3	2.67	0.62
35:2:928:U:C6	35:2:928:U:OP2	2.53	0.62
1:J:270:UNK:O	1:J:271:UNK:CB	2.45	0.62
1:L:77:UNK:C	5:M:647:UNK:CA	2.69	0.62
1:L:75:UNK:HA	5:M:350:UNK:N	1.85	0.62
1:N:270:UNK:O	1:N:271:UNK:CB	2.45	0.62
33:0:21:LEU:H	33:0:21:LEU:HD23	1.63	0.62
35:2:1525:A:C2	35:2:1526:A:C4	2.87	0.62
35:2:280:U:C3'	35:2:281:G:C8	2.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:407:A:H8	35:2:407:A:OP2	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
35:2:95:G:OP2	35:2:95:G:C8	2.49	0.62
36:3:97:C:H2'	36:3:98:U:H6	1.64	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
35:2:83:G:OP2	35:2:83:G:C8	2.51	0.62
35:2:885:G:C2	35:2:886:U:N3	2.67	0.62
35:2:887:A:H3'	35:2:887:A:OP2	1.99	0.62
36:3:204:C:C2	36:3:243:G:C2	2.88	0.62
36:3:69:G:H2'	36:3:70:A:C8	2.34	0.62
35:2:1074:G:H2'	35:2:1075:C:H5'	1.80	0.62
35:2:204:G:C6	35:2:205:U:C4	2.88	0.62
35:2:25:C:P	35:2:26:A:OP2	2.58	0.62
35:2:390:G:C8	35:2:390:G:OP2	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
35:2:106:U:C2	35:2:107:C:C6	2.88	0.62
35:2:1048:G:C2	35:2:1071:U:C2	2.87	0.62
35:2:148:A:OP2	35:2:149:C:H5	1.82	0.62
35:2:281:G:OP2	35:2:281:G:C8	2.53	0.62
35:2:287:G:C6	35:2:288:A:N7	2.67	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
36:3:133:G:N1	36:3:182:G:C6	2.68	0.62
36:3:114:A:H61	36:3:194:G:C1'	2.12	0.62
35:2:1153:G:C8	35:2:1153:G:OP2	2.53	0.62
35:2:1472:C:C5	35:2:1474:G:C2	2.86	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:447:U:OP2	35:2:447:U:C6	2.52	0.62
35:2:465:G:N7	35:2:465:G:OP2	2.33	0.62
35:2:480:G:P	35:2:480:G:H8	2.22	0.62
35:2:506:A:C6	35:2:507:U:C4	2.87	0.62
35:2:65:A:N1	35:2:84:A:OP2	2.32	0.62
8:T:321:PHE:HA	36:3:108:A:H1'	1.82	0.62
9:U:127:LYS:C	10:W:222:ASP:CB	2.67	0.62
35:2:1597:A:C5	35:2:1598:U:N3	2.68	0.61
35:2:26:A:H2'	35:2:27:U:C1'	2.30	0.61
35:2:309:C:N3	35:2:358:U:C4	2.68	0.61
35:2:98:U:C2	35:2:386:G:C6	2.88	0.61
35:2:486:G:H2'	35:2:487:G:O4'	1.99	0.61
35:2:490:C:C4	35:2:498:G:C6	2.88	0.61
35:2:490:C:C2	35:2:491:C:C5	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:OP2	35:2:879:G:C8	2.53	0.61
36:3:89:A:OP2	36:3:89:A:H3'	2.00	0.61
35:2:1051:G:N3	35:2:1052:U:C2	2.68	0.61
35:2:150:U:OP2	35:2:150:U:H6	1.83	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
35:2:482:U:N3	35:2:507:U:N3	2.48	0.61
36:3:243:G:C6	36:3:244:G:C6	2.88	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
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
33:0:140:SER:O	33:0:143:LEU:HB2	2.01	0.61
35:2:1056:U:OP2	35:2:1056:U:C6	2.53	0.61
35:2:1069:A:C8	35:2:1069:A:OP2	2.54	0.61
35:2:1078:C:O2	35:2:1078:C:H2'	2.00	0.61
35:2:1609:U:H5''	35:2:1609:U:H6	1.63	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:C4	35:2:377:G:C2	2.88	0.61
35:2:365:G:O5'	35:2:365:G:H8	1.81	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:591:A:H3'	35:2:591:A:C4	2.35	0.61
36:3:126:U:H2'	36:3:127:A:H8	1.63	0.61
36:3:79:G:C2	36:3:80:G:C8	2.88	0.61
35:2:1579:U:H2'	35:2:1580:C:C6	2.36	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
35:2:93:A:H61	35:2:396:G:C2'	2.13	0.61
35:2:416:A:H4'	35:2:417:A:OP2	1.97	0.61
35:2:34:G:C6	35:2:475:A:C6	2.88	0.61
35:2:504:U:HO2'	35:2:506:A:H8	1.48	0.61
35:2:63:G:OP2	35:2:63:G:C8	2.49	0.61
35:2:933:A:H2'	35:2:935:U:OP2	2.01	0.61
36:3:97:C:H2'	36:3:98:U:C6	2.35	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
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
35:2:24:U:O3'	35:2:26:A:OP2	2.18	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
36:3:154:G:H2'	36:3:155:U:C6	2.36	0.61
36:3:191:G:OP2	36:3:191:G:H8	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
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
35:2:143:G:N3	35:2:144:U:H1'	2.16	0.61
35:2:1602:C:C3'	35:2:1603:U:H6	2.12	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:P	35:2:881:A:H8	2.23	0.61
36:3:78:C:H2'	36:3:79:G:H8	1.65	0.61
1:J:306:UNK:O	7:R:203:UNK:O	2.18	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
35:2:29:U:O2	35:2:30:G:C8	2.54	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
35:2:442:C:N4	35:2:463:U:O4	2.33	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
35:2:520:A:P	35:2:520:A:H8	2.23	0.61
35:2:99:C:H1'	35:2:101:U:C5	2.35	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
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
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
35:2:52:U:H2'	35:2:53:G:C8	2.35	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
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
35:2:105:A:N6	35:2:109:G:C5	2.69	0.61
35:2:1073:G:H2'	35:2:1074:G:C1'	2.31	0.61
35:2:123:G:C5	35:2:124:A:N7	2.69	0.61
35:2:1614:A:H2	35:2:1616:G:OP2	1.82	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:74:U:OP2	35:2:74:U:H6	1.84	0.61
35:2:900:A:C5	35:2:901:G:C2	2.88	0.61
35:2:99:C:O2'	35:2:361:C:O4'	2.19	0.61
35:2:1173:C:O2'	35:2:1174:C:H5'	2.00	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
35:2:320:U:H4'	35:2:321:C:O3'	2.00	0.61
35:2:314:C:H1'	35:2:355:G:C2	2.36	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
35:2:36:C:N3	35:2:473:A:C6	2.68	0.61
35:2:521:A:P	35:2:521:A:H8	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
8:T:338:ALA:HB2	36:3:108:A:C5'	2.31	0.61
36:3:116:G:N1	36:3:190:C:N3	2.48	0.61
36:3:71:U:C4	36:3:72:C:N4	2.69	0.61
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
35:2:24:U:H2'	35:2:24:U:O2	2.01	0.60
35:2:278:U:O2	35:2:278:U:H2'	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
33:0:32:THR:CG2	35:2:520:A:H2	2.14	0.60
35:2:73:U:O2'	35:2:74:U:H5'	2.00	0.60
35:2:878:G:N3	35:2:878:G:H2'	2.16	0.60
35:2:863:A:C8	35:2:964:U:O4	2.55	0.60
35:2:115:G:N1	35:2:335:U:H1'	2.16	0.60
35:2:1575:G:C4'	35:2:1575:G:OP1	2.49	0.60
35:2:265:A:N6	35:2:290:G:C8	2.69	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
35:2:365:G:C6	35:2:377:G:C6	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
33:0:90:ARG:HB3	33:0:96:GLY:O	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1048:G:N1	35:2:1070:C:N3	2.36	0.60
35:2:615:A:H4'	35:2:1085:G:O3'	2.01	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
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
35:2:23:G:H8	35:2:23:G:OP2	1.85	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
35:2:631:G:OP2	35:2:631:G:C8	2.54	0.60
35:2:63:G:H2'	35:2:64:U:C6	2.36	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
35:2:631:G:H22	35:2:968:U:C2'	2.14	0.60
35:2:969:C:H6	35:2:969:C:OP2	1.83	0.60
36:3:259:A:H4'	36:3:260:G:O5'	1.99	0.60
9:U:90:GLY:HA3	36:3:82:U:H5	1.64	0.60
33:0:35:LYS:H	35:2:520:A:C1'	2.13	0.60
33:0:23:LEU:HD11	33:0:71:ALA:CB	2.29	0.60
35:2:1047:G:N1	35:2:1071:U:N3	1.99	0.60
35:2:1044:U:C2	35:2:1076:A:H2	2.19	0.60
35:2:1576:A:H2'	35:2:1577:A:O4'	2.01	0.60
35:2:1575:G:H5'	35:2:1576:A:OP2	2.01	0.60
35:2:1585:U:C5	35:2:1610:G:N2	2.69	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
35:2:50:C:H5''	35:2:423:G:H4'	1.82	0.60
35:2:442:C:H2'	35:2:443:C:C6	2.36	0.60
35:2:509:G:N3	35:2:509:G:H2'	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
35:2:86:A:H2'	35:2:87:C:C6	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
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
35:2:1039:A:C6	35:2:1080:U:N3	2.64	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:108:A:C2	35:2:306:U:C2	2.90	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
35:2:424:C:H5'	35:2:425:A:OP1	2.01	0.60
35:2:44:U:H5	35:2:437:A:N6	1.99	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
36:3:202:C:O2	36:3:244:G:N2	2.32	0.60
36:3:67:C:H2'	36:3:68:A:C8	2.30	0.60
3:H:67:UNK:CB	3:H:142:UNK:C	2.79	0.60
35:2:99:C:C1'	35:2:101:U:H5	2.14	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
35:2:213:A:C8	35:2:214:G:N7	2.69	0.60
35:2:110:U:C2'	35:2:304:U:H3	2.12	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:C8	35:2:481:A:P	2.95	0.60
35:2:490:C:C2	35:2:498:G:N2	2.69	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
35:2:871:G:C2	35:2:872:G:C4	2.89	0.60
35:2:963:A:H8	35:2:963:A:OP2	1.85	0.60
35:2:972:G:OP2	35:2:972:G:C8	2.54	0.60
36:3:78:C:C2	36:3:269:G:C2	2.90	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
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
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
35:2:45:U:O2	35:2:433:C:O2'	2.20	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:0:58:PHE:HB2	35:2:521:A:H4'	1.83	0.60
33:0:58:PHE:N	35:2:522:U:P	2.74	0.60
35:2:933:A:C8	35:2:935:U:OP2	2.53	0.60
36:3:190:C:H5	36:3:191:G:N1	1.99	0.60
36:3:81:G:C8	36:3:81:G:OP2	2.51	0.60
1:E:47:UNK:HA	1:F:338:UNK:HA	1.82	0.60
5:M:30:UNK:O	5:M:31:UNK:CB	2.50	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
35:2:187:G:H1	35:2:197:A:C3'	2.06	0.60
35:2:331:A:H8	35:2:331:A:OP2	1.85	0.60
35:2:535:A:H2'	35:2:536:C:H6	1.64	0.60
35:2:67:A:N6	35:2:78:A:H4'	2.16	0.60
35:2:929:A:C5	35:2:930:A:C8	2.90	0.60
35:2:961:U:H2'	35:2:962:C:C5	2.35	0.60
35:2:939:A:N6	35:2:975:C:O2'	2.28	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
3:H:2:UNK:N	3:H:170:UNK:CA	2.64	0.60
33:0:60:THR:HG21	35:2:533:U:H1'	1.84	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:C3'	35:2:296:U:C6	2.84	0.60
35:2:31:C:H2'	35:2:32:U:C2	2.36	0.60
35:2:402:C:N3	35:2:403:G:H1'	2.16	0.60
35:2:156:A:H61	35:2:418:G:H2'	1.64	0.60
35:2:54:C:N4	35:2:424:C:N4	2.49	0.60
35:2:934:C:O2'	35:2:935:U:H5'	2.02	0.60
36:3:126:U:H2'	36:3:127:A:C8	2.36	0.60
36:3:70:A:C8	36:3:70:A:OP2	2.52	0.60
35:2:1042:G:C4	35:2:1043:A:C8	2.89	0.60
35:2:616:G:H5'	35:2:1086:A:H62	1.66	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
35:2:39:A:N1	35:2:469:C:C4	2.69	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:137:U:O2	36:3:150:G:C2	2.54	0.60
6:Q:356:UNK:CA	6:Q:409:UNK:CB	2.80	0.60
9:V:97:VAL:N	36:3:114:A:HO2'	1.98	0.60
33:0:56:TYR:HE1	33:0:70:PHE:HB2	1.65	0.59
35:2:1041:G:C6	35:2:1042:G:C5	2.89	0.59
35:2:121:U:OP2	35:2:121:U:H6	1.85	0.59
35:2:210:A:H3'	35:2:210:A:OP2	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
35:2:61:A:H5'	35:2:62:A:O2'	2.01	0.59
36:3:255:U:C6	36:3:255:U:OP1	2.55	0.59
10:X:123:ARG:O	35:2:1584:G:C5	99.98	0.59
35:2:1472:C:H1'	35:2:1473:U:OP2	2.02	0.59
35:2:169:A:O2'	35:2:171:A:N7	2.30	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
33:0:85:PRO:HG3	35:2:525:A:N6	2.01	0.59
35:2:519:C:H6	35:2:529:A:H62	1.50	0.59
35:2:71:A:C4	35:2:72:A:C5	2.89	0.59
35:2:901:G:H5''	35:2:902:G:C5	2.37	0.59
35:2:91:G:C8	35:2:91:G:OP2	2.55	0.59
36:3:142:G:N2	36:3:145:A:OP2	2.35	0.59
35:2:617:U:O2'	35:2:1030:A:H2'	2.02	0.59
35:2:107:C:H3'	35:2:107:C:OP2	2.02	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
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:N3	35:2:458:G:H2'	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:919:A:C6	35:2:920:U:C4	2.90	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
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
35:2:1039:A:H1'	35:2:1040:G:C8	2.37	0.59
35:2:1584:G:H3'	35:2:1584:G:C4	2.37	0.59
35:2:1616:G:O2'	35:2:1617:U:H5'	2.01	0.59
35:2:179:A:H3'	35:2:179:A:OP2	2.02	0.59
35:2:189:C:H5	35:2:189:C:OP2	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:H3'	35:2:461:G:OP2	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
35:2:914:G:OP2	35:2:914:G:C8	2.55	0.59
35:2:877:G:O4'	35:2:937:C:O2'	2.21	0.59
36:3:162:C:H2'	36:3:165:C:C6	2.38	0.59
35:2:1052:U:C6	35:2:1052:U:H3'	2.38	0.59
35:2:1614:A:N3	35:2:1614:A:H2'	2.16	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
35:2:34:G:O6	35:2:473:A:H2	1.85	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:H2'	35:2:482:U:O2	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
35:2:82:U:C2	35:2:83:G:N7	2.70	0.59
35:2:910:C:OP2	35:2:910:C:C6	2.55	0.59
1:L:278:UNK:O	12:Z:265:GLY:N	2.36	0.59
33:0:17:SER:OG	33:0:79:TYR:CD2	2.49	0.59
35:2:188:A:C5	35:2:198:A:C8	2.91	0.59
35:2:263:C:H6	35:2:263:C:OP2	1.85	0.59
35:2:27:U:O2'	35:2:28:A:H5'	2.02	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:39:A:N1	35:2:471:A:C6	2.70	0.59
35:2:455:C:H5''	35:2:455:C:C6	2.37	0.59
35:2:511:A:P	35:2:511:A:H2'	2.43	0.59
35:2:546:U:C4	35:2:547:U:N3	2.71	0.59
35:2:73:U:O4	35:2:81:G:N1	2.36	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
35:2:113:U:H5''	35:2:114:C:H5'	1.85	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
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
35:2:326: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
35:2:310:C:C2	35:2:357:G:N1	2.70	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
35:2:62:A:OP2	35:2:269:G:O4'	2.20	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
35:2:629:U:C2	35:2:971:A:C5	2.91	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:D:111:UNK:CB	1:E:197:UNK:O	2.51	0.59
35:2:108:A:C3'	35:2:109:G:H8	2.15	0.59
35:2:1473:U:O2	35:2:1473:U:O4'	2.17	0.59
35:2:1607:G:C6	35:2:1608:U:C4	2.91	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:P	35:2:288:A:H2'	2.42	0.59
35:2:312:A:C8	35:2:314:C:C5	2.91	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:315:A:N3	35:2:316:A:H1'	2.17	0.59
35:2:324:U:O4	35:2:344:A:N6	2.36	0.59
35:2:362:G:N3	35:2:362:G:H2'	2.15	0.59
35:2:41:A:C2	35:2:438:A:H8	2.21	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
35:2:83: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
35:2:964:U:H1'	35:2:965:U:OP2	2.03	0.59
35:2:632:U:N3	35:2:968:U:O2	2.35	0.59
35:2:628:G:C6	35:2:970:A:OP2	2.56	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
35:2:396:G:H2'	35:2:398:G:OP2	2.02	0.59
35:2:394:C:C4	35:2:404:G:C6	2.91	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
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
35:2:532: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:H8	35:2:867:G:OP2	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
33:0:55:VAL:HG22	33:0:58:PHE:HE1	1.68	0.59
35:2:142:G:N1	35:2:174:U:C2	2.71	0.59
35:2:187:G:C2'	35:2:188:A:OP2	2.51	0.59
35:2:187:G:H1'	35:2:198:A:H62	1.68	0.59
35:2:360:A:H4'	35:2:362:G:H5'	1.84	0.59
35:2:46:A:H62	35:2:433:C:H4'	1.68	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:H8	35:2:902:G:P	2.26	0.59
36:3:243:G:H2'	36:3:244:G:C8	2.38	0.59
36:3:76:C:H2'	36:3:77:C:H6	1.68	0.59
35:2:1073:G:N1	35:2:1074:G:N1	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1080:U:C6	35:2:1080:U:OP2	2.51	0.58
35:2:109:G:C6	35:2:110:U:O2	2.55	0.58
35:2:1481:C:H5	35:2:1482:C:C2	2.21	0.58
35:2:1174:C:H4'	35:2:1601:G:C6	2.37	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
36:3:197:C:H2'	36:3:198:U:C4	2.38	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
1:D:133:UNK:O	1:E:113:UNK:C	2.51	0.58
35:2:104:A:C8	35:2:104:A:OP2	2.56	0.58
35:2:1167:G:H2'	35:2:1167:G:N3	2.18	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:OP2	35:2:927:C:C6	2.56	0.58
35:2:92:A:P	35:2:93:A:H5'	2.44	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
33:0:7:THR:OG1	33:0:10:ILE:HD11	2.02	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
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
35:2:110:U:H2'	35:2:304:U:N3	2.16	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
35:2:514:G:H1'	35:2:539:G:C2	2.39	0.58
35:2:591:A:N7	35:2:591:A:OP2	2.36	0.58
35:2:72:A:C5	35:2:73:U:C5	2.91	0.58
35:2:876:G:C6	35:2:944:A:N6	2.71	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:976:G:N2	35:2:1027:A:N6	2.51	0.58
36:3:144:A:H3'	36:3:145:A:H8	1.66	0.58
36:3:75:A:OP2	36:3:75:A:H8	1.85	0.58
3:H:157:UNK:O	3:H:158:UNK:C	2.51	0.58
35:2:190:C:C6	35:2:190:C:OP2	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:337:ILE:CB	36:3:108:A:OP1	2.51	0.58
3:H:243:UNK:O	3:H:244:UNK:C	2.52	0.58
6:Q:473:UNK:O	6:Q:484:UNK:CB	2.51	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
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
35:2:48:G:O6	35:2:432:G:C4	2.55	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
35:2:936:G:C6	35:2:937:C:C4	2.91	0.58
35:2:933:A:N1	35:2:944:A:C6	2.71	0.58
8:T:338:ALA:HB2	36:3:108:A:H3'	1.83	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
36:3:91:G:P	36:3:93:G:H1	2.26	0.58
35:2:1065:A:H2'	35:2:1066:C:H6	1.60	0.58
35:2:127:G:O2'	35:2:128:U:C2	2.51	0.58
35:2:1627:U:O2'	35:2:1628:U:O5'	2.21	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:OP2	35:2:340:U:C6	2.56	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
35:2:70:C:H1'	35:2:84:A:N3	2.18	0.58
35:2:65:A:H2	35:2:84:A:H62	1.49	0.58
35:2:865:A:C2	35:2:964:U:C2	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
33:0:49:ASP:OD1	33:0:51:ARG:HG2	2.04	0.58
35:2:1044:U:O2	35:2:1044:U:H2'	2.03	0.58
35:2:1054:U:N3	35:2:1066:C:N3	2.52	0.58
35:2:271:A:C4	35:2:272:U:H5''	2.38	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
35:2:93:A:H2'	35:2:398:G:H21	1.69	0.58
35:2:417:A:C4	35:2:418:G:C2	2.92	0.58
35:2:47:A:N3	35:2:425:A:N7	2.52	0.58
35:2:488:G:H3'	35:2:488:G:OP2	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
35:2:52: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
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
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
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
35:2:51:A:H8	35:2:429:G:N2	2.01	0.58
35:2:445:A:C8	35:2:525:A:OP2	2.57	0.58
35:2:45:U:H3	35:2:433:C:HO2'	1.52	0.58
35:2:485:A:C4	35:2:503:G:N2	2.72	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
35:2:624: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
35:2:90:C:C2	35:2:91:G:N7	2.72	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
3:H:110:UNK:O	3:H:111:UNK:C	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:5:UNK:CB	3:H:169:UNK:CB	2.82	0.58
1:J:346:UNK:CB	1:K:290:UNK:HA	2.33	0.58
35:2:154:G:OP2	35:2:154:G:C8	2.57	0.58
35:2:214:G:OP2	35:2:214:G:H2'	2.04	0.58
35:2:110:U:H1'	35:2:305:C:C2	2.38	0.58
35:2:363:G:N1	35:2:381:C:C4	2.72	0.58
35:2:467:G:OP2	35:2:467:G:C8	2.56	0.58
35:2:589:C:P	35:2:589:C:H3'	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
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
35:2:99:C:H4'	35:2:100:A:O5'	2.04	0.58
35:2:1045:C:H6	35:2:1045:C:OP2	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
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
35:2:276:C:HO2'	35:2:277:U:C5'	2.17	0.58
35:2:394:C:H42	35:2:401:A:C2'	2.17	0.58
35:2:432:G:P	35:2:432:G:C8	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
33:0:82:LYS:HD2	33:0:83:TYR:HE1	1.69	0.57
35:2:1082:C:C4	35:2:1091:A:N7	2.72	0.57
35:2:124:A:N6	35:2:125:U:O4	2.37	0.57
35:2:1583:A:N3	35:2:1585:U:N3	2.51	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:H2'	35:2:185:U:O2	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
35:2:32:U:O2	35:2:32:U:O4'	2.19	0.57
35:2:368:U:C6	35:2:368:U:OP2	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:47:A:H5'	35:2:100:A:H5''	1.86	0.57
35:2:514:G:H3'	35:2:515:A:H8	1.69	0.57
35:2:549:G:C5	35:2:589:C:C2	2.92	0.57
35:2:65:A:H61	35:2:83:G:H3'	1.68	0.57
35:2:876:G:H21	35:2:943:C:C3'	2.16	0.57
35:2:88:U:H5'	35:2:89:G:OP2	2.04	0.57
35:2:1177:C:H2'	35:2:1178:G:O4'	2.04	0.57
35:2:135:A:P	35:2:136:C:H5'	2.44	0.57
35:2:1475:A:C4	35:2:1476:C:C6	2.91	0.57
35:2:108:A:C5	35:2:307:G:C2	2.92	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
35:2:392:G:C2	35:2:393:C:C2	2.92	0.57
35:2:391:A:C2	35:2:392:G:C4	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
35:2:71:A:C6	35:2:83:G:C6	2.73	0.57
35:2:939:A:N1	35:2:975:C:H1'	2.18	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
33:0:18:ARG:CZ	33:0:20:GLN:HE21	2.17	0.57
35:2:1170:G:N2	35:2:1571:C:H4'	2.19	0.57
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:H2'	35:2:355:G:N3	2.17	0.57
35:2:405:C:C6	35:2:405:C:OP2	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
35:2:75:U:C6	35:2:75:U:OP2	2.57	0.57
35:2:891:A:N3	35:2:922:G:N2	2.52	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:402:C:C4	35:2:403:G:C8	2.92	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
35:2:522: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
3:H:315:UNK:O	3:H:316:UNK:C	2.51	0.57
3:H:86:UNK:O	3:H:87:UNK:C	2.51	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
35:2:493:U:O5'	35:2:494:U:N3	2.36	0.57
35:2:491:C:C4	35:2:497:G:N1	2.72	0.57
36:3:256:G:H2'	36:3:256:G:N3	2.19	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
7:R:19:UNK:CB	7:R:119:UNK:CA	2.83	0.57
35:2:115:G:H21	35:2:116:U:H1'	1.70	0.57
35:2:1472:C:H5'	35:2:1474:G:H1'	1.85	0.57
35:2:169:A:C5	35:2:171:A:C6	2.92	0.57
35:2:143:G:C6	35:2:173: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
35:2:458: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
35:2:89:G:H8	35:2:89:G:OP2	1.88	0.57
36:3:73:C:H2'	36:3:74:C:N1	2.19	0.57
35:2:1064:G:H2'	35:2:1065:A:C8	2.40	0.57
35:2:1074:G:O5'	35:2:1074:G:H8	1.87	0.57
35:2:148:A:N6	35:2:167:U:C2	2.72	0.57
35:2:1598:U:C5	35:2:1599:C:C5	2.92	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
35:2:89:G:OP2	35:2:89:G:H3'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:948:G:C2	35:2:949:C:C2	2.93	0.57
3:H:187:UNK:O	3:H:188:UNK:C	2.52	0.57
35:2:101:U:N3	35:2:385:A:H1'	2.19	0.57
35:2:99:C:O3'	35:2:101:U:OP2	2.22	0.57
35:2:119:A:C5	35:2:397:A:C2	2.93	0.57
35:2:1619:C:C2	35:2:1620:C:C5	2.88	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
35:2:71:A:C6	35:2:72:A:C6	2.93	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
36:3:113:G:H1'	36:3:195:A:N6	2.19	0.57
1:L:54:UNK:O	1:L:55:UNK:CB	2.53	0.57
35:2:131:C:O2'	35:2:132:U:OP2	2.22	0.57
35:2:1570:A:N3	35:2:1570:A:H2'	2.20	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
35:2:93:A:O4'	35:2:399:A:C6	2.58	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
36:3:115:G:H1'	36:3:195:A:H1'	1.87	0.57
9:V:99:THR:CA	36:3:192:A:N7	2.66	0.57
36:3:254:A:C3'	36:3:255:U:H2'	2.34	0.57
36:3:98:U:C2	36:3:256:G:C2	2.93	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
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
35:2:145:A:C2	35:2:169:A:N6	2.73	0.57
35:2:188:A:OP2	35:2:188:A:H8	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:OP2	35:2:348:U:C5	2.58	0.57
35:2:377:G:N2	35:2:381:C:C2	2.73	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:50:C:C5	35:2:425:A:P	2.96	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
35:2:81:G:C2	35:2:82:U:H1'	2.40	0.57
35:2:82:U:C6	35:2:82:U:H3'	2.40	0.57
36:3:248:G:C5	36:3:249:U:C4	2.93	0.57
33:0:59:SER:CA	35:2:522:U:C1'	2.78	0.56
33:0:53:VAL:HG22	33:0:73:VAL:HG22	1.87	0.56
35:2:1158:C:H42	35:2:1163:A:N6	2.02	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
35:2:404:G:C6	35:2:405:C:C4	2.92	0.56
35:2:388:G:N7	35:2:423:G:C6	2.73	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
35:2:486: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
35:2:483:A:C6	35:2:504:U:O4	2.58	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
35:2:940:A:H2'	35:2:941:A:C8	2.39	0.56
35:2:868:G:N1	35:2:960:U:C2	2.51	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
36:3:70:A:H2'	36:3:71:U:C6	2.40	0.56
3:H:186:UNK:O	3:H:187:UNK:C	2.51	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
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
36:3:177:G:HO2'	36:3:178:U:H6	1.54	0.56
36:3:200:U:H3'	36:3:201:A:H5'	1.87	0.56
36:3:74:C:H2'	36:3:75:A:C5	2.40	0.56
3:H:185:UNK:O	3:H:186:UNK:C	2.51	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:151:G:C6	35:2:152:U:C5	2.92	0.56
35:2:1597:A:C5	35:2:1598:U:C4	2.93	0.56
35:2:175:G:N2	35:2:266:A:C4	2.74	0.56
35:2:214:G:N2	35:2:251:A:C8	2.68	0.56
35:2:22:A:H8	35:2:22:A:OP2	1.87	0.56
35:2:213:A:C5	35:2:253:A:C5	2.93	0.56
35:2:282:C:O4'	35:2:282:C:OP2	2.23	0.56
35:2:366:A:C2	35:2:376:C:C2	2.93	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
35:2:502:U:H2'	35:2:503:G:C8	2.40	0.56
35:2:483:A:N6	35:2:506:A:N6	2.53	0.56
35:2:514:G:H1	35:2:538:A:H1'	1.69	0.56
35:2:535:A:N3	35:2:536:C:C6	2.72	0.56
35:2:65:A:C6	35:2:83:G:C5	2.93	0.56
35:2:865:A:C2	35:2:866:G:H1'	2.40	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
36:3:71:U:H2'	36:3:72:C:H6	1.67	0.56
3:H:158:UNK:O	3:H:159:UNK:C	2.51	0.56
8:S:315:PRO:CB	36:3:90:C:C4'	2.83	0.56
33:0:98:LYS:H	33:0:98:LYS:HD3	1.70	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
35:2:174:U:H2'	35:2:174:U:O2	2.05	0.56
35:2:205:U:H3	35:2:263:C:N4	2.03	0.56
35:2:320:U:O3'	35:2:321:C:H4'	2.05	0.56
35:2:406:U:C2'	35:2:407:A:C8	2.87	0.56
35:2:438:A:OP2	35:2:438:A:C8	2.58	0.56
35:2:519:C:O3'	35:2:520:A:C8	2.59	0.56
35:2:875:G:C6	35:2:952:A:N6	2.74	0.56
8:T:314:PRO:CB	36:3:110:A:H1'	2.34	0.56
36:3:250:G:H2'	36:3:251:U:C6	2.40	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1064:G:H2'	35:2:1065:A:H8	1.70	0.56
35:2:1056:U:H1'	35:2:1064:G:N2	2.20	0.56
35:2:1067:C:OP2	35:2:1067:C:C5	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
35:2:166:C:H3'	35:2:167:U:H6	1.70	0.56
35:2:134:U:O4	35:2:180:A:C4	2.59	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:H3'	35:2:494:U:C6	2.39	0.56
35:2:514:G:C1'	35:2:539:G:N1	2.67	0.56
36:3:100:G:H2'	36:3:101:G:H8	1.68	0.56
8:T:318:GLY:N	36:3:109:C:OP1	2.30	0.56
36:3:114:A:H4'	36:3:115:G:O5'	2.05	0.56
36:3:103:G:O6	36:3:249:U:C4	2.59	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
9:V:38:GLY:HA2	36:3:194:G:C6	2.37	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:H8	35:2:157:A:OP2	1.88	0.56
35:2:1600:A:OP1	35:2:1600:A:C4'	2.48	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:OP2	35:2:281:G:H8	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:H6	35:2:405:C:OP2	1.87	0.56
35:2:495:C:N3	35:2:496:G:C4	2.73	0.56
35:2:888:U:OP2	35:2:888:U:C5	2.59	0.56
35:2:939:A:H2'	35:2:940:A:O4'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:867:G:N1	35:2:961:U:C2	2.67	0.56
36:3:100:G:C8	36:3:100:G:OP2	2.59	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
1:A:54:UNK:O	1:A:55:UNK:CB	2.53	0.56
3:H:217:UNK:C	3:H:245:UNK:HA	2.35	0.56
3:H:24:UNK:O	3:H:25:UNK:C	2.52	0.56
1:N:54:UNK:O	1:N:55:UNK:CB	2.53	0.56
9:U:41:GLU:HA	36:3:263:U:OP2	2.05	0.56
33:0:3:ILE:N	33:0:3:ILE:HD12	2.21	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
35:2:1074: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
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
33:0:35:LYS:HG3	35:2:520:A:C2'	2.35	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
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
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
33:0:85:PRO:CD	35:2:525:A:H61	2.08	0.56
35:2:1038:U:C2	35:2:1094:G:N2	2.74	0.56
35:2:108:A:N1	35:2:306:U:C2	2.73	0.56
35:2:1466:G:H2'	35:2:1467:C:C6	2.41	0.56
35:2:1477:G:C2'	35:2:1478:G:H5''	2.36	0.56
35:2:1467:C:H5'	35:2:1602:C:P	2.44	0.56
35:2:245:U:H6	35:2:245:U:OP2	1.89	0.56
35:2:269:G:C2	35:2:287:G:C6	2.93	0.56
35:2:124:A:H61	35:2:294:C:H42	1.44	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:388:G:C6	35:2:410:A:C6	2.94	0.56
35:2:40:A:C6	35:2:41:A:C4	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:C1'	35:2:495:C:N3	2.68	0.56
35:2:493:U:H4'	35:2:494:U:C4	2.40	0.56
35:2:519:C:N3	35:2:534:A:N6	2.54	0.56
35:2:54:C:N4	35:2:424:C:C4	2.71	0.56
35:2:902:G:OP2	35:2:902:G:C8	2.59	0.56
35:2:935:U:C4	35:2:936:G:N7	2.74	0.56
35:2:879:G:O6	35:2:949:C:N4	2.38	0.56
35:2:970:A:H2'	35:2:971:A:O4'	2.05	0.56
8:T:334:ARG:C	36:3:108:A:OP1	2.44	0.56
36:3:84:G:O2'	36:3:85:A:OP2	2.23	0.56
8:S:315:PRO:CA	36:3:90:C:C5'	2.77	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
35:2:121:U:C6	35:2:121:U:OP2	2.59	0.56
35:2:190:C:OP2	35:2:190:C:H6	1.88	0.56
35:2:186:C:OP2	35:2:200:A:H2	1.88	0.56
35:2:254:A:OP1	35:2:254:A:H4'	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
35:2:39:A:C2	35:2:470:A:N7	2.72	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
35:2:57:G:C4	35:2:91:G:N1	2.74	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
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
35:2:352:A:H4'	35:2:353:A:O4'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
33:0:35:LYS:CA	35:2:520:A:H4'	2.36	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
35:2:902:G:HO2'	35:2:907:A:N6	2.04	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
35:2:47:A:H5'	35:2:100:A:C5'	2.36	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
35:2:255:U:H6	35:2:255:U:OP2	1.89	0.56
35:2:123:G:C6	35:2:295:A:N6	2.74	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:N3	35:2:451:A:H2'	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:C3'	35:2:494:U:C6	2.89	0.56
35:2:520:A:C8	35:2:520:A:P	2.99	0.56
35:2:71:A:N1	35:2:83:G:C4	2.74	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
36:3:241:G:C2	36:3:242:G:C4	2.94	0.56
36:3:98:U:H2'	36:3:99:C:O4'	2.06	0.56
1:D:54:UNK:O	1:D:55:UNK:CB	2.53	0.56
3:H:183:UNK:O	3:H:184:UNK:C	2.51	0.56
3:H:44:UNK:O	3:H:45:UNK:C	2.51	0.56
1:L:228:UNK:O	1:L:246:UNK:N	2.39	0.56
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
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
35:2:41:A:C2	35:2:438:A:C8	2.94	0.55
35:2:454:U:OP2	35:2:454:U:C6	2.59	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:70:C:H6	35:2:70:C:H5''	1.71	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
35:2:956:C:C2	35:2:957:G:C8	2.94	0.55
36:3:248:G:H2'	36:3:249:U:C6	2.41	0.55
36:3:91:G:H1'	36:3:92:A:OP2	2.06	0.55
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
35:2:1084:A:OP2	35:2:1084:A:H8	1.88	0.55
35:2:1608:U:H2'	35:2:1609:U:H5''	1.87	0.55
35:2:1585:U:N3	35:2:1611:A:C2	2.74	0.55
35:2:1622:G:C6	35:2:1623:C:C4	2.94	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:OP2	35:2:432:G:C8	2.59	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
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
35:2:144:U:H3'	35:2:145:A:O4'	2.06	0.55
35:2:1526:A:OP2	35:2:1527:C:C5	2.57	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
35:2:330:G:OP2	35:2:330:G:H8	1.89	0.55
35:2:117:U:O4'	35:2:333:A:C2	2.59	0.55
35:2:315:A:C4	35:2:353:A:N6	2.74	0.55
35:2:99:C:N4	35:2:385:A:N1	2.54	0.55
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
35:2:62:A:C4'	35:2:63:G:OP2	2.55	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:246:G:C6	36:3:247:G:C6	2.94	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
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
35:2:1537:C:C5'	35:2:1538:U:OP1	2.54	0.55
35:2:317:C:N4	35:2:348:U:O4	2.39	0.55
35:2:326:G:N2	35:2:343:C:O2	2.39	0.55
35:2:446:A:C8	35:2:446:A:OP2	2.59	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
35:2:869:A:C5	35:2:960:U:C2	2.94	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
35:2:878:G:C2	35:2:951:A:C2	2.95	0.55
36:3:255:U:O2'	36:3:256:G:O5'	2.24	0.55
36:3:96:C:OP2	36:3:96:C:H6	1.89	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
33:0:32:THR:OG1	35:2:533:U:N1	2.39	0.55
35:2:135:A:C4'	35:2:136:C:OP2	2.52	0.55
35:2:1483:A:H61	35:2:1591:C:H1'	1.71	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
35:2:890: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
35:2:872:G:C2	35:2:956:C:C2	2.95	0.55
35:2:977:A:N7	35:2:1024:U:C4	2.72	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
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
35:2:172:C:C2	35:2:173:A:C8	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
35:2:1164:G:C2	35:2:1165:G:C4	2.95	0.55
35:2:1591:C:O2	35:2:1591:C:H2'	2.05	0.55
35:2:1592:A:O2'	35:2:1593:A:H5'	2.07	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:N6	35:2:392:G:O6	2.40	0.55
35:2:391:A:C6	35:2:407:A:N1	2.75	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
35:2:872:G:C6	35:2:873:U:C2	2.94	0.55
35:2:64:U:C2	35:2:87:C:O2	2.59	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
35:2:630:A:C5	35:2:970:A:C8	2.95	0.55
36:3:103:G:C2	36:3:250:G:C8	2.94	0.55
5:O:491:UNK:O	5:O:492:UNK:CB	2.55	0.55
33:0:147:VAL:O	33:0:148:ALA:CB	2.55	0.55
35:2:1080:U:O2'	35:2:1091:A:N6	2.40	0.55
35:2:1086:A:P	35:2:1086:A:H8	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1591:C:HO2'	35:2:1592:A:C5'	2.20	0.55
35:2:197:A:N3	35:2:197:A:H2'	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:C6	35:2:358:U:O5'	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
35:2:158:U:C4	35:2:420:A:H5''	2.41	0.55
35:2:466:U:H2'	35:2:467:G:O4'	2.05	0.55
35:2:475:A:H3'	35:2:475:A:OP1	2.06	0.55
35:2:592:A:C8	35:2:592:A:OP2	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:C6	35:2:956:C:OP2	2.60	0.55
36:3:142:G:H2'	36:3:144:A:OP2	2.07	0.55
36:3:79:G:C2	36:3:268:G:C2	2.94	0.55
36:3:269:G:C2	36:3:270:C:C2	2.95	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
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
1:K:228:UNK:O	1:K:246:UNK:N	2.39	0.55
35:2:107:C:O2	35:2:108:A:C8	2.59	0.55
35:2:152:U:H6	35:2:152:U:O5'	1.89	0.55
35:2:1534:G:H4'	35:2:1536:G:N7	2.22	0.55
35:2:206:A:C8	35:2:262:U:C2	2.94	0.55
35:2:123:G:C2	35:2:295:A:N1	2.74	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
35:2:40:A:C8	35:2:470:A:N1	2.75	0.55
35:2:488:G:N1	35:2:499:U:C4	2.75	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
36:3:95:U:OP2	36:3:95:U:C6	2.61	0.55
3:H:311:UNK:O	3:H:312:UNK:C	2.51	0.55
5:M:491:UNK:O	5:M:492:UNK:CB	2.55	0.55
33:0:10:ILE:HG12	33:0:21:LEU:HB3	1.88	0.54
34:1:25:VAL:C	34:1:38:ARG:HA	2.28	0.54
35:2:1039:A:C2	35:2:1080:U:N3	2.75	0.54
35:2:108:A:C2	35:2:109:G:C5	2.94	0.54
35:2:180:A:C8	35:2:180:A:OP2	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
36:3:266:C:O2	36:3:266:C:H2'	2.07	0.54
9:V:127:LYS:O	10:X:157:PRO:CB	2.55	0.54
33:0:131:THR:HG22	33:0:132:TRP:N	2.23	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
35:2:86:A:H4'	35:2:148:A:H4'	1.89	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
35:2:87:C:OP2	35:2:88:U:OP2	2.25	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
9:U:127:LYS:N	10:W:183:ALA:C	2.58	0.54
35:2:148:A:OP2	35:2:149:C:C5	2.59	0.54
35:2:1571:C:H3'	35:2:1572:G:C5'	2.38	0.54
35:2:278:U:O2	35:2:279:G:N7	2.40	0.54
35:2:336:G:H8	35:2:336:G:P	2.30	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:350:U:C2	35:2:352:A:N1	2.75	0.54
35:2:317:C:H4'	35:2:354:C:H1'	1.89	0.54
35:2:365:G:O5'	35:2:365:G:C8	2.59	0.54
35:2:467:G:O2'	35:2:469:C:OP1	2.16	0.54
35:2:47:A:C8	35:2:99:C:P	3.00	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
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
36:3:75:A:OP2	36:3:75:A:C8	2.61	0.54
1:D:228:UNK:O	1:D:246:UNK:N	2.39	0.54
5:M:424:UNK:O	5:M:425:UNK:CB	2.54	0.54
35:2:1091:A:H1'	35:2:1092:A:C2	2.42	0.54
35:2:111:U:C4	35:2:303:U:C2	2.95	0.54
35:2:1172:G:C6	35:2:1173:C:C4	2.94	0.54
35:2:192:U:H2'	35:2:193:U:OP2	2.08	0.54
35:2:114:C:H5	35:2:248:U:H3	1.51	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
35:2:39:A:H61	35:2:471:A:N6	2.05	0.54
35:2:456:A:C8	35:2:456:A:O5'	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
36:3:73:C:H2'	36:3:74:C:C6	2.41	0.54
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
35:2:1039:A:O2'	35:2:1040:G:O5'	2.08	0.54
35:2:1051:G:N3	35:2:1052:U:N3	2.56	0.54
35:2:130:C:H3'	35:2:131:C:C4'	2.35	0.54
35:2:1481:C:H1'	35:2:1482:C:C5'	2.38	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1623:C:N3	35:2:1624:C:C5	2.75	0.54
35:2:147:A:P	35:2:166:C:H41	2.28	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
35:2:326: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
35:2:321:C:H2'	35:2:337:G:N2	2.23	0.54
35:2:309:C:C4	35:2:358:U:N3	2.75	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:OP2	35:2:925:G:H8	1.91	0.54
36:3:80:G:C2	36:3:267:C:C2	2.95	0.54
9:U:38:GLY:HA2	36:3:84:G:O6	2.07	0.54
2:G:3186:LEU:CB	2:G:3193:GLU:H	2.19	0.54
35:2:128:U:H5'	35:2:129:U:O2	2.08	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
35:2:200:A:C4	35:2:201:G:C8	2.96	0.54
35:2:23:G:C8	35:2:23:G:OP2	2.60	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:H3'	35:2:365:G:C8	2.42	0.54
35:2:444:C:N4	35:2:458:G:C2	2.75	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
35:2:53:G:N1	35:2:428:A:C6	2.76	0.54
35:2:923:A:C4	35:2:924:A:C8	2.95	0.54
35:2:865:A:C6	35:2:964:U:C4	2.96	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:A:36:UNK:CB	1:A:315:UNK:CB	2.86	0.54
1:B:195:UNK:O	1:B:196:UNK:CB	2.54	0.54
1:B:36:UNK:CB	1:B:315:UNK:CB	2.86	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
33:0:59:SER:HA	35:2:522:U:C1'	2.38	0.54
35:2:1051:G:H5'	35:2:1052:U:OP2	2.08	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
35:2:34:G:O6	35:2:473:A:C2	2.61	0.54
35:2:514:G:H2'	35:2:514:G:N3	2.23	0.54
35:2:631:G:C4	35:2:632:U:C5	2.95	0.54
35:2:945:U:C2	35:2:946:U:C6	2.96	0.54
35:2:633:U:N3	35:2:967:A:C2	2.76	0.54
35:2:968:U:C4	35:2:969:C:C4	2.96	0.54
35:2:97:C:OP2	35:2:97:C:C5	2.61	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
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
35:2:1591:C:O2'	35:2:1592:A:O5'	2.26	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
35:2:367:A:N1	35:2:375:U:O2	2.41	0.54
35:2:366:A:N3	35:2:376:C:C2	2.76	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:76:A:C2	35:2:79:C:H3'	2.42	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
35:2:868:G:C6	35:2:960:U:N3	2.59	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
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
35:2:50:C:OP2	35:2:423:G:O3'	2.26	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
35:2:49:C:C2	35:2:50:C: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
35:2:81:G:H3'	35:2:82:U:H5''	1.90	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
1:E:36:UNK:CB	1:E:315:UNK:CB	2.86	0.54
35:2:102:U:O4	35:2:360:A:H2'	2.08	0.54
35:2:1042:G:C2'	35:2:1043:A:H8	2.15	0.54
35:2:105:A:C6	35:2:108:A:N7	2.76	0.54
35:2:617:U:OP1	35:2:1093:A:C8	2.61	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
35:2:1611: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
35:2:299:A:C6	35:2:300:A:C6	2.95	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
35:2:527:A:OP1	35:2:528:U:H3'	2.07	0.54
35:2:515:A:H61	35:2:536:C:H42	1.55	0.54
35:2:590:C:H2'	35:2:591:A:H8	1.72	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)
36:3:113:G:N2	36:3:114:A:N6	2.56	0.54
8:S:314:PRO:O	36:3:89:A:O2'	0.59	0.54
35:2:105:A:H1'	35:2:107:C:C4	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
35:2:114:C:H1'	35:2:115:G:H5''	1.90	0.53
35:2:1478:G:C2'	35:2:1479:A:O4'	2.55	0.53
35:2:150:U:H3'	35:2:151:G:O4'	2.08	0.53
35:2:1575:G:C2'	35:2:1575:G:N3	2.64	0.53
35:2:1588:G:N3	35:2:1588:G:H2'	2.22	0.53
35:2:147:A:C5	35:2:168:A:N7	2.76	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:C5	35:2:499:U:OP2	2.61	0.53
35:2:630:A:H3'	35:2:631:G:C8	2.43	0.53
35:2:71:A:C2	35:2:83:G:C2	2.96	0.53
36:3:114:A:OP2	36:3:114:A:C8	2.59	0.53
36:3:202:C:C6	36:3:202:C:OP2	2.61	0.53
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
2:G:3234:GLY:CA	33:0:146:PHE:CA	2.86	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
35:2:77:U:H4'	35:2:78:A:OP2	2.07	0.53
35:2:863:A:O2'	35:2:865:A:H8	1.90	0.53
35:2:883:C:C2	35:2:946:U:N3	2.77	0.53
35:2:879:G:C6	35:2:950:C:N3	2.76	0.53
35:2:964:U:H6	35:2:964:U:O5'	1.91	0.53
36:3:166:G:H3'	36:3:167:U:C6	2.44	0.53
8:S:315:PRO:C	36:3:90:C:H5'	2.28	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:73:UNK:HA	35:2:392:G:C4'	134.67	0.53
33:0:101:THR:HG23	33:0:105:PHE:CG	2.43	0.53
35:2:107:C:OP2	35:2:107:C:C6	2.60	0.53
35:2:1085:G:C2	35:2:1087:A:OP2	2.61	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:H3'	35:2:425:A:N3	2.22	0.53
35:2:452:A:C6	35:2:454:U:H5	2.27	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
35:2:477:A:N1	35:2:512:A:N1	2.56	0.53
35:2:592:A:O2'	35:2:593:U:OP1	2.24	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
35:2:632:U:C2	35:2:968:U:O2	2.62	0.53
5:M:30:UNK:O	5:M:650:UNK:CB	2.56	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
35:2:120: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
35:2:1469:A:C6	35:2:1470:C:N4	2.77	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
36:3:248:G:C2	36:3:249:U:N3	2.76	0.53
9:U:98:ALA:O	36:3:82:U:N3	2.13	0.53
33:0:146:PHE:CD1	33:0:147:VAL:N	2.77	0.53
33:0:56:TYR:C	33:0:56:TYR:CD1	2.81	0.53
35:2:1055:U:C2	35:2:1065:A:N1	2.76	0.53
35:2:106:U:H2'	35:2:107:C:O4'	2.08	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
35:2:105:A:N6	35:2:109:G:C6	2.76	0.53
35:2:1155:G:C6	35:2:1156:C:N4	2.77	0.53
35:2:144:U:C4	35:2:145:A:C8	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1534:G:C4'	35:2:1536:G:O6	2.56	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
35:2:26:A:C6	35:2:27:U:C4	2.97	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
35:2:74:U:OP2	35:2:74:U:C6	2.62	0.53
35:2:885:G:C6	35:2:886:U:O4	2.61	0.53
35:2:920:U:OP2	35:2:920:U:H6	1.92	0.53
35:2:97:C:H2'	35:2:425:A:O2'	2.09	0.53
36:3:80:G:N7	36:3:81:G:C5	2.77	0.53
9:U:96:GLN:CB	36:3:266:C:H6	2.18	0.53
33:0:27:HIS:CE1	33:0:67:SER:OG	2.59	0.53
35:2:1046:G:C4	35:2:1073:G:C2	2.96	0.53
35:2:105:A:C1'	35:2:107:C:N4	2.70	0.53
35:2:1080:U:O2	35:2:1091:A:C6	2.61	0.53
35:2:149:C:H2'	35:2:149:C:O2	2.09	0.53
35:2:169:A:C4	35:2:171:A:C5	2.96	0.53
35:2:144:U:N3	35:2:172:C:N3	2.56	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:C6	35:2:250:C:OP2	2.62	0.53
35:2:272:U:H1'	35:2:273:G:OP2	2.08	0.53
35:2:287:G:H2'	35:2:287:G:N3	2.24	0.53
35:2:314:C:O4'	35:2:314:C:P	2.67	0.53
35:2:323:A:C6	35:2:324:U:C4	2.97	0.53
35:2:309:C:C2	35:2:357:G:C2	2.97	0.53
35:2:41:A:HO2'	35:2:437:A:H2'	1.69	0.53
35:2:488:G:N2	35:2:489:C:C2	2.77	0.53
35:2:537:G:C5	35:2:538:A:C5	2.96	0.53
35:2:512:A:N6	35:2:539:G:C2'	2.70	0.53
35:2:894:U:N3	35:2:895:G:C6	2.77	0.53
35:2:956:C:H6	35:2:956:C:OP2	1.91	0.53
36:3:101:G:C6	36:3:252:C:N3	2.76	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
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:N3	35:2:206:A:H2'	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:244:A:H8	35:2:244:A:OP2	1.87	0.53
35:2:246:G:H8	35:2:246:G:H3'	1.73	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
35:2:387: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
35:2:53:G:C8	35:2:53:G:OP2	2.58	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
36:3:90:C:H1'	36:3:91:G:H5'	1.89	0.53
33:0:51:ARG:CZ	33:0:146:PHE:CE1	2.92	0.53
35:2:1025:A:O3'	35:2:1027:A:OP2	2.26	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
35:2:40:A:C6	35:2:41:A:C6	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
35:2:884: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
35:2:881:A:C2	35:2:948:G:C2	2.97	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
33:0:101:THR:HG23	33:0:105:PHE:CE1	2.44	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
35:2:114:C:C1'	35:2:115:G:H5''	2.39	0.53
35:2:163:G:OP2	35:2:163:G:C8	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
35:2:454:U:O2'	35:2:455:C:P	2.65	0.53
35:2:522:U:H3'	35:2:523:G:C5'	2.36	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:73:U:N3	35:2:81:G:C2	2.77	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
5:O:30:UNK:O	5:O:650:UNK:CB	2.56	0.53
34:1:7:VAL:HA	34:1:28:VAL:C	2.30	0.53
35:2:103:A:N3	35:2:104:A:C6	2.74	0.53
35:2:1087:A:H2'	35:2:1088:A:H8	1.73	0.53
35:2:147:A:C5	35:2:167:U:O2	2.60	0.53
35:2:1570:A:N3	35:2:1571:C:H1'	2.24	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
35:2:245:U:C6	35:2:245:U:OP2	2.62	0.53
35:2:207:U:C2	35:2:261:U:N3	2.76	0.53
35:2:276:C:C6	35:2:277:U:H3'	2.44	0.53
35:2:324:U:H1'	35:2:346:G:H1'	1.91	0.53
35:2:324:U:O4	35:2:344:A:C6	2.61	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
36:3:101:G:C2	36:3:251:U:O2	2.60	0.53
36:3:101:G:N1	36:3:251:U:C2	2.73	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
35:2:1092:A:C8	35:2:1094:G:C8	2.97	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:546:U:C4	35:2:591:A:C6	2.97	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
35:2:881:A:OP2	35:2:881:A:C8	2.61	0.52
35:2:882:U:OP2	35:2:882:U:C5	2.62	0.52
35:2:932:U:H4'	35:2:933:A:OP1	2.09	0.52
35:2:879:G:N1	35:2:950:C:C4	2.77	0.52
35:2:950:C:C5	35:2:950:C:OP2	2.62	0.52
35:2:95:G:N2	35:2:426:G:H1'	2.25	0.52
1:E:46:UNK:N	1:F:284:UNK:O	2.34	0.52
33:0:19:ARG:NE	33:0:73:VAL:HG11	2.20	0.52
35:2:1054:U:OP2	35:2:1054:U:C5	2.62	0.52
35:2:105:A:OP1	35:2:106:U:OP2	2.28	0.52
35:2:1043:A:C2	35:2:1077:C:C2	2.97	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
35:2:1595:U:H6	35:2:1596:C:C2	2.27	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
35:2:329:G:C4	35:2:330:G:C8	2.97	0.52
35:2:316:A:C6	35:2:349:U:N3	2.77	0.52
35:2:315:A:C5	35:2:350:U:C5	2.97	0.52
35:2:355:G:C2	35:2:356:G:C4	2.98	0.52
35:2:93:A:C2	35:2:398:G:C2	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
35:2:495:C:O2	35:2:495:C:OP2	2.28	0.52
35:2:491:C:N4	35:2:497:G:C6	2.77	0.52
35:2:515:A:C2	35:2:537:G:C2	2.96	0.52
33:0:85:PRO:CG	35:2:525:A:C5	2.74	0.52
35:2:512:A:C6	35:2:539:G:H8	2.27	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
35:2:79:C:C2	35:2:79:C:OP2	2.62	0.52
35:2:95:G:C2	35:2:96:G:C4	2.98	0.52
36:3:129:U:C2	36:3:186:G:C2	2.97	0.52
33:0:30:SER:O	35:2:534:A:C4'	2.50	0.52
35:2:1032:G:C6	35:2:1033:C:C2	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
35:2:51:A:C6	35:2:52:U:H1'	2.44	0.52
35:2:535:A:C8	35:2:535:A:OP2	2.62	0.52
35:2:65:A:H2'	35:2:70:C:N4	2.24	0.52
35:2:877:G:C6	35:2:878:G:C5	2.98	0.52
35:2:876:G:O6	35:2:936:G:C6	2.62	0.52
36:3:192:A:C4	36:3:194:G:C4	2.97	0.52
33:0:2:THR:CG2	33:0:3:ILE:H	1.96	0.52
35:2:1043:A:N1	35:2:1077:C:C4	2.78	0.52
35:2:163:G:P	35:2:163:G:H8	2.32	0.52
35:2:191:C:OP2	35:2:191:C:H2'	2.09	0.52
35:2:187:G:N3	35:2:199:G:N1	2.57	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
35:2:891: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:C6	35:2:921:U:OP2	2.62	0.52
35:2:890:C:C2	35:2:923:A:C2	2.98	0.52
36:3:199:G:OP1	36:3:200:U:O2'	2.16	0.52
36:3:78:C:C2	36:3:79:G:C8	2.97	0.52
36:3:96:C:OP2	36:3:96:C:C6	2.61	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
35:2:117:U:O2	35:2:299:A:H2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1573:A:H4'	35:2:1574:G:OP2	2.09	0.52
35:2:38:C:H3'	35:2:39:A:C5'	2.38	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
35:2:65:A:N1	35:2:84:A:N7	2.58	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
36:3:74:C:N3	36:3:75:A:N6	2.58	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
35:2:149:C:N3	35:2:166:C:C4	2.77	0.52
35:2:209:U:HO2'	35:2:210:A:H5'	1.73	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:C6	35:2:532:U:OP2	2.63	0.52
35:2:630:A:C6	35:2:631:G:C4	2.97	0.52
35:2:72:A:N1	35:2:81:G:C6	2.78	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
36:3:196:U:C4	36:3:197:C:N4	2.77	0.52
36:3:265:A:HO2'	36:3:266:C:C4'	2.22	0.52
36:3:64:C:OP2	36:3:64:C:H3'	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
35:2:616:G:H5'	35:2:1086:A:N6	2.24	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
35:2:154:G:H3'	35:2:155:U:C5	2.45	0.52
35:2:1584:G:C2'	35:2:1584:G:N3	2.73	0.52
35:2:153:G:C5	35:2:162:A:C6	2.98	0.52
35:2:142:G:C6	35:2:174:U:C2	2.97	0.52
35:2:180:A:H1'	35:2:181:A:O3'	2.08	0.52
35:2:131:C:N3	35:2:182:A:C6	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:122:U:C2	35:2:296:U:O2	2.63	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
35:2:35: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
35:2:398: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
33:0:35:LYS:HB2	35:2:520:A:C4'	2.38	0.52
35:2:61:A:H2'	35:2:453:U:H3	1.75	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
36:3:112:U:H3'	36:3:113:G:H8	1.74	0.52
10:X:123:ARG:O	35:2:1584:G:C8	100.22	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
35:2:119:A:C8	35:2:397:A:C4	2.98	0.52
35:2:158:U:HO2'	35:2:159:U:P	2.31	0.52
35:2:146:U:O2	35:2:168:A:N6	2.41	0.52
35:2:186:C:C6	35:2:186:C:OP1	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
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
35:2:82:U:H2'	35:2:83:G:C1'	2.40	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
35:2:92:A:OP2	35:2:398:G:N1	2.38	0.52
35:2:954:G:C3'	35:2:955:A:C8	2.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:247:G:H2'	36:3:248:G:C8	2.45	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
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
35:2:102:U:O2	35:2:361:C:H1'	2.10	0.52
35:2:44:U:H2'	35:2:436:A:H61	1.75	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:O3'	35:2:505:A:OP2	2.28	0.52
35:2:503:G:C6	35:2:504:U:O4	2.63	0.52
35:2:966:A:C2	35:2:967:A:C4	2.98	0.52
35:2:634:G:C2	35:2:966:A:C5	2.98	0.52
35:2:99:C:H2'	35:2:361:C:C6	2.45	0.52
36:3:253:G:H8	36:3:253:G:OP2	1.93	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
9:V:95:LEU:HA	36:3:114:A:H3'	1.91	0.52
35:2:1026:A:P	35:2:1027:A:OP2	2.68	0.52
35:2:105:A:H1'	35:2:107:C:H5	1.75	0.52
35:2:1073:G:C5	35:2:1074:G:C5	2.98	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
35:2:1590:G:C6	35:2:1591:C:N4	2.78	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
35:2:23:G:H2'	35:2:24:U:C1'	2.40	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:OP2	35:2:347:G:H8	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
35:2:37:U:O4	35:2:471:A:N6	2.41	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:0:32:THR:HG21	35:2:520:A:H2	1.75	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
36:3:85:A:H1'	36:3:265:A:C2	2.45	0.52
33:0:57:GLY:C	35:2:522:U:H5''	1.91	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
35:2:138:A:O2'	35:2:139:C:P	2.68	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
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
35:2:89:G:OP2	35:2:89:G:C8	2.63	0.51
35:2:963:A:H1'	35:2:965:U:O4	2.10	0.51
36:3:70:A:C4	36:3:71:U:C5	2.98	0.51
1:N:248:UNK:CB	5:O:437:UNK:O	2.56	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
35:2:136: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
35:2:1619:C:H2'	35:2:1620:C:C6	2.45	0.51
35:2:244:A:H8	35:2:244:A:P	2.32	0.51
35:2:212:U:C4	35:2:254:A:N6	2.78	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:70: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
35:2:915:A:C5	35:2:916:U:C2	2.98	0.51
1:K:114:UNK:C	1:P:133:UNK:CB	2.88	0.51
35:2:1083:G:O2'	35:2:1094:G:O2'	1.87	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:O5'	35:2:206:A:C8	2.63	0.51
35:2:208:U:C2	35:2:259:U:O2	2.63	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
35:2:388: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
35:2:60:U:H1'	35:2:62:A:C8	2.46	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:OP2	35:2:955:A:C8	2.63	0.51
8:T:326:ILE:CB	36:3:108:A:C5'	2.87	0.51
36:3:130:C:H2'	36:3:131:U:C6	2.45	0.51
36:3:248:G:C8	36:3:248:G:OP2	2.59	0.51
36:3:88:A:OP2	36:3:88:A:H2	1.93	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:H2'	35:2:1584:G:N3	2.25	0.51
35:2:1589:C:H2'	35:2:1590:G:O4'	2.10	0.51
35:2:256:A:H2'	35:2:257:A:C1'	2.39	0.51
35:2:111:U:O4'	35:2:304:U:C4	2.63	0.51
35:2:356:G:H2'	35:2:356:G:N3	2.24	0.51
35:2:42:G:O4'	35:2:437:A:N1	2.43	0.51
35:2:467:G:N7	35:2:467:G:OP2	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:C5	35:2:515:A:C5	2.98	0.51
35:2:514:G:O6	35:2:538:A:C4	2.63	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:539:G:C1'	35:2:540:G:OP1	2.58	0.51
35:2:83:G:H5''	35:2:83:G:C8	2.45	0.51
36:3:98:U:H2'	36:3:99:C:H6	1.74	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
35:2:119:A:H3'	35:2:120:U:C5	2.46	0.51
35:2:147:A:C5	35:2:168:A:C8	2.99	0.51
35:2:145:A:C2	35:2:171:A:N1	2.79	0.51
35:2:183:U:C5	35:2:183:U:OP2	2.63	0.51
35:2:391:A:N1	35:2:392:G:C6	2.79	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
35:2:456: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
35:2:94:U:C2	35:2:94:U:OP2	2.64	0.51
35:2:967:A:OP2	35:2:967:A:H8	1.94	0.51
35:2:95:G:C6	35:2:96:G:C6	2.99	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:B:282:UNK:N	1:D:343:UNK:O	2.43	0.51
35:2:1085:G:N3	35:2:1087:A:OP2	2.43	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
35:2:40:A:N6	35:2:41:A:C6	2.79	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:OP2	35:2:910:C:H6	1.92	0.51
1:K:114:UNK:HA	1:P:117:UNK:CB	2.41	0.51
33:0:9:LYS:O	33:0:21:LEU:HA	2.10	0.51
33:0:51:ARG:HH22	33:0:148:ALA:HB3	1.75	0.51
35:2:1063:U:C4	35:2:1064:G:N7	2.79	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
35:2:38:C:H42	35:2:471:A:H2	1.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:58:U:H6	35:2:58:U:O5'	1.94	0.51
35:2:73:U:C4	35:2:81:G:N1	2.78	0.51
35:2:871:G:H8	35:2:871:G:OP2	1.94	0.51
35:2:87:C:P	35:2:88:U:OP2	2.69	0.51
35:2:902:G:H8	35:2:902:G:OP2	1.92	0.51
35:2:93:A:OP2	35:2:93:A:C4'	2.53	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
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
35:2:1039:A:N1	35:2:1080:U:C4	2.79	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
35:2:102:U:C4	35:2:360:A:H2'	2.45	0.51
35:2:396:G:C8	35:2:398:G:OP2	2.63	0.51
35:2:51:A:H3'	35:2:52:U:C6	2.46	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
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
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
9:U:127:LYS:C	10:W:183:ALA:CB	2.64	0.51
33:0:26:LEU:C	33:0:28:PRO:HD2	2.31	0.51
35:2:624:G:C5	35:2:1027:A:N6	2.79	0.51
35:2:1061:A:C5	35:2:1062:A:C5	2.99	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
35:2:103:A:C8	35:2:358:U:N3	2.79	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
35:2:509:G:O2'	35:2:510:G:OP1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:548:G:C6	35:2:590:C:C4	2.99	0.51
35:2:891:A:N1	35:2:892:A:C5	2.79	0.51
36:3:159:G:C6	36:3:160:U:C2	2.99	0.51
9:U:41:GLU:CB	36:3:263:U:OP1	2.59	0.51
33:0:92:VAL:O	33:0:92:VAL:HG12	2.09	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
35:2:370:A:C6	35:2:371:G:H1'	2.46	0.51
35:2:404:G:N2	35:2:405:C:C2	2.79	0.51
35:2:389:G:N1	35:2:409:C:N3	2.59	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
35:2:47:A:N7	35:2:99:C:O4'	2.44	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
3:H:2:UNK:HA	3:H:170:UNK:N	2.06	0.51
33:0:35:LYS:CB	35:2:520:A:O3'	2.48	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
35:2:1042:G:N2	35:2:1077:C:O2	2.31	0.50
35:2:1092:A:C4	35:2:1094:G:C5	3.00	0.50
35:2:1170:G:N3	35:2:1170:G:H2'	2.25	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
35:2:25:C:OP2	35:2:26:A:OP2	2.29	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:H2'	35:2:488:G:N3	2.25	0.50
35:2:492:A:C3'	35:2:493:U:H5'	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:495:C:C2	35:2:496:G:C5	2.99	0.50
35:2:53:G:C6	35:2:54:C:C2	2.99	0.50
35:2:591:A:N1	35:2:592:A:C8	2.80	0.50
33:0:117:GLY:HA3	35:2:86:A:OP1	2.10	0.50
35:2:904:G:C3'	35:2:905:A:C8	2.94	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
36:3:94:A:C8	36:3:94:A:OP2	2.64	0.50
1:L:278:UNK:C	12:Z:264:ALA:HB1	2.31	0.50
35:2:1074:G:H2'	35:2:1074:G:N3	2.26	0.50
35:2:106:U:C2	35:2:107:C:C5	2.99	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
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:H3'	35:2:307:G:C8	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
35:2:44:U:H2'	35:2:436:A:N6	2.25	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
35:2:894:U:C1'	35:2:919:A:C6	2.92	0.50
35:2:890:C:O2	35:2:923:A:C4	2.64	0.50
35:2:965:U:O5'	35:2:966:A:OP2	2.30	0.50
3:H:2:UNK:CA	3:H:170:UNK:CA	2.82	0.50
33:0:58:PHE:CB	35:2:521:A:O2'	2.59	0.50
34:1:7:VAL:O	34:1:8:THR:C	2.49	0.50
35:2:1031:U:H6	35:2:1031:U:OP2	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
35:2:112:A:C5	35:2:113:U:C4	2.98	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
35:2:196:G:C5	35:2:197:A:C1'	2.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:187:G:H2'	35:2:197:A:N1	2.26	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
35:2:59: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
35:2:953:G:N1	35:2:954:G:C5	2.80	0.50
5:O:471:UNK:O	5:O:472:UNK:CB	2.59	0.50
35:2:47:A:N6	35:2:100:A:N6	2.59	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
35:2:157:A:P	35:2:157:A:C8	3.04	0.50
35:2:188:A:OP2	35:2:189:C:N4	2.44	0.50
35:2:251:A:O4'	35:2:251:A:OP2	2.28	0.50
35:2:263:C:H2'	35:2:264:G:C8	2.47	0.50
35:2:142:G:C8	35:2:266:A:C5	2.99	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
35:2:100:A:C2	35:2:386:G:H5'	2.45	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
35:2:70: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
35:2:936:G:H2'	35:2:937:C:H6	1.77	0.50
36:3:196:U:H2'	36:3:197:C:C6	2.45	0.50
36:3:76:C:H2'	36:3:77:C:C6	2.45	0.50
2:G:3186:LEU:C	2:G:3193:GLU:N	2.61	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:49:C:N4	35:2:425:A:H5''	2.27	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
33:0:58:PHE:HB2	35:2:521:A:O2'	2.11	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
35:2:878:G:N1	35:2:879:G:C5	2.80	0.50
35:2:911:U:H4'	35:2:915:A:C4	2.46	0.50
35:2:897:C:C2	35:2:914:G:C2	2.99	0.50
35:2:891:A:C6	35:2:922:G:O6	2.65	0.50
35:2:868:G:N1	35:2:961:U:N3	2.60	0.50
35:2:976:G:H1'	35:2:1027:A:H2	1.77	0.50
36:3:94:A:H2'	36:3:95:U:O4'	2.11	0.50
1:J:306:UNK:HA	7:R:202:UNK:O	2.11	0.50
35:2:100:A:H2'	35:2:101:U:O4'	2.12	0.50
35:2:1057:U:C5	35:2:1058:U:C2	2.99	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
35:2:322:G:C2	35:2:324:U:O4	2.65	0.50
35:2:40:A:N6	35:2:41:A:N1	2.59	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
35:2:87:C:H2'	35:2:88:U:C1'	2.42	0.50
35:2:893:U:OP2	35:2:893:U:C6	2.58	0.50
36:3:91:G:H3'	36:3:93:G:C2	2.47	0.50
35:2:100:A:N6	35:2:385:A:C2	2.78	0.50
35:2:1073:G:C6	35:2:1074:G:C5	2.99	0.50
35:2:1037:C:N3	35:2:1094:G:C6	2.80	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
35:2:38:C:C5	35:2:39:A:O4'	2.64	0.50
35:2:415:C:C2	35:2:417:A:N6	2.80	0.50
35:2:455:C:C6	35:2:455:C:OP2	2.65	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:81:G:C6	35:2:82:U:C2	2.99	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
36:3:80:G:OP2	36:3:81:G:N7	2.45	0.50
33:0:16:LEU:HB3	33:0:83:TYR:HD2	1.75	0.50
35:2:47:A:N6	35:2:100:A:C5	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
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
35:2:40:A:C4	35:2:469:C:H1'	2.46	0.50
35:2:495:C:O2'	35:2:496:G:P	2.69	0.50
35:2:491:C:C4	35:2:497:G:C6	3.00	0.50
35:2:630:A:H8	35:2:630:A:OP2	1.92	0.50
35:2:881:A:N1	35:2:948:G:C6	2.79	0.50
36:3:96:C:C2	36:3:97:C:C5	3.00	0.50
35:2:1160:A:C2'	35:2:1161:C:C6	2.87	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
35:2:111:U:O4'	35:2:304:U:N3	2.44	0.50
35:2:362:G:P	35:2:362:G:H8	2.34	0.50
35:2:404:G:H3'	35:2:404:G:C8	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
36:3:86:U:C4	36:3:264:G:N2	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:0:141:ASP:O	33:0:145:ASN:ND2	2.45	0.49
35:2:1176:G:C6	35:2:1177:C:N4	2.80	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
35:2:1571:C:C3'	35:2:1572:G:H5''	2.41	0.49
35:2:157:A:H8	35:2:157:A:O5'	1.93	0.49
35:2:1598:U:C4	35:2:1599:C:C5	3.00	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
35:2:117:U:O2	35:2:299:A:C2	2.65	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
35:2:84:A:N6	35:2:85:A:C4	2.80	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
3:H:217:UNK:O	3:H:245:UNK:CA	2.60	0.49
33:0:16:LEU:HB3	33:0:83:TYR:CD2	2.47	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
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
35:2:35:U:C2	35:2:473:A:C2	3.00	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
35:2:73:U:H3'	35:2:74:U:C6	2.47	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
36:3:114:A:C4	36:3:195:A:C8	3.00	0.49
36:3:202:C:N3	36:3:245:U:N3	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:246:G:N1	36:3:247:G:C6	2.81	0.49
35:2:976:G:C6	35:2:1023:A:C5	3.00	0.49
35:2:112:A:C2	35:2:113:U:C2	3.00	0.49
35:2:1179:G:N2	35:2:1461:C:C4	2.80	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
35:2:325:G:N1	35:2:344:A:C8	2.81	0.49
35:2:34:G:C6	35:2:473:A:H2	2.30	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
35:2:72:A:C6	35:2:73:U:O4	2.65	0.49
35:2:904:G:C6	35:2:905:A:N1	2.81	0.49
35:2:897:C:C4	35:2:914:G:C5	2.99	0.49
35:2:941:A:OP2	35:2:942:G:N7	2.46	0.49
35:2:878:G:N1	35:2:951:A:C6	2.80	0.49
36:3:242:G:H8	36:3:242:G:OP2	1.95	0.49
1:E:248:UNK:O	3:H:312:UNK:C	2.60	0.49
35:2:104:A:N7	35:2:308:C:C5	2.80	0.49
35:2:1080:U:O2'	35:2:1081:A:OP2	2.22	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:C2'	35:2:357:G:N3	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
35:2:42:G:N2	35:2:45:U:C4	2.81	0.49
35:2:630:A:H2'	35:2:631:G:O4'	2.12	0.49
35:2:70:C:C2	35:2:83:G:N1	2.78	0.49
35:2:70:C:O2	35:2:84:A:C4	2.65	0.49
35:2:871:G:O2'	35:2:872:G:O4'	2.30	0.49
35:2:883:C:C6	35:2:883:C:OP2	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
35:2:97:C:O2	35:2:426:G:P	2.70	0.49
35:2:104:A:N7	35:2:308:C:N4	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:N6	35:2:214:G:N1	2.60	0.49
35:2:213:A:H2'	35:2:214:G:O4'	2.12	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
35:2:47:A:N1	35:2:386:G:C4	2.80	0.49
35:2:495:C:N3	35:2:496:G:C5	2.81	0.49
35:2:495:C:O2'	35:2:496:G:C8	2.66	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:C5	35:2:886:U:OP2	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
36:3:64:C:P	36:3:64:C:H3'	2.53	0.49
33:0:83:TYR:CD1	33:0:83:TYR:N	2.79	0.49
35:2:1091:A:C8	35:2:1091:A:OP2	2.65	0.49
35:2:113:U:C5'	35:2:114:C:H5'	2.42	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
35:2:1476:C:H2'	35:2:1477:G:C8	2.47	0.49
35:2:147:A:C6	35:2:168:A:C8	3.00	0.49
35:2:1600:A:H2'	35:2:1602:C:H41	1.77	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
35:2:118:U:H3	35:2:299:A:N6	2.09	0.49
35:2:328:A:H8	35:2:328:A:P	2.36	0.49
35:2:315:A:C4'	35:2:353:A:H61	2.23	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:P	35:2:392:G:H8	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:491:C:C2	35:2:493:U:C2	3.01	0.49
35:2:494:U:O4'	35:2:494:U:P	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
35:2:65:A:H2	35:2:84:A:N6	2.09	0.49
35:2:920:U:OP2	35:2:920:U:C6	2.66	0.49
35:2:96:G:H1'	35:2:426:G:O2'	2.13	0.49
36:3:112:U:H3'	36:3:113:G:C8	2.48	0.49
9:V:97:VAL:CB	36:3:192:A:N1	2.76	0.49
33:0:112:ILE:HG23	33:0:120:ILE:HG23	1.95	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
35:2:120:U:OP2	35:2:121:U:C5	2.66	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
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:C8	35:2:323:A:OP1	2.57	0.49
35:2:341:A:N3	35:2:341:A:H2'	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
35:2:90:C:H2'	35:2:91:G:C8	2.47	0.49
35:2:976:G:OP2	35:2:1023:A:N6	2.46	0.49
1:C:326:UNK:C	1:D:87:UNK:C	2.90	0.49
35:2:1065:A:C5	35:2:1066:C:C5	3.01	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:H3'	35:2:255:U:OP2	2.13	0.49
35:2:298:C:H2'	35:2:299:A:O4'	2.12	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:C8	35:2:341:A:OP2	2.63	0.49
35:2:312:A:C6	35:2:354:C:N4	2.80	0.49
35:2:401:A:O2'	35:2:401:A:N3	2.28	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
35:2:64:U:C5'	35:2:65:A:OP2	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:870:C:C6	35:2:870:C:OP2	2.66	0.49
35:2:63:G:N2	35:2:88:U:O2'	2.46	0.49
35:2:935:U:H6	35:2:935:U:O5'	1.95	0.49
35:2:93:A:C8	35:2:399:A:O4'	2.66	0.49
35:2:960:U:O2'	35:2:961:U:O4'	2.18	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
36:3:85:A:H2'	36:3:86:U:C6	2.38	0.49
33:0:56:TYR:C	33:0:56:TYR:HD1	2.16	0.49
35:2:101:U:H3	35:2:385:A:C1'	2.25	0.49
35:2:1042:G:C6	35:2:1078:C:N3	2.80	0.49
35:2:107:C:O2'	35:2:108:A:H5'	2.12	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
35:2:1483: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
35:2:162:A:C3'	35:2:163:G:H8	2.26	0.49
35:2:152:U:H1'	35:2:163:G:N2	2.28	0.49
35:2:185:U:O2	35:2:200:A:H2	1.95	0.49
35:2:110:U:H2'	35:2:304:U:C4	2.47	0.49
35:2:322:G:O6	35:2:344:A:N6	2.45	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
35:2:548: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
35:2:70:C:N3	35:2:83:G:C2	2.78	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
36:3:102:C:N3	36:3:251:U:N3	2.61	0.49
8:T:321:PHE:CB	36:3:108:A:H1'	2.42	0.49
36:3:192:A:C5	36:3:194:G:C2	3.01	0.49
36:3:94:A:H2'	36:3:94:A:N3	2.27	0.49
35:2:1053:G:C6	35:2:1054:U:C4	3.00	0.49
35:2:110:U:O2	35:2:305:C:N3	2.46	0.49
35:2:1160:A:H2'	35:2:1161:C:C5	2.47	0.49
35:2:156:A:O5'	35:2:156:A:H8	1.95	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:59:C:O2	35:2:59:C:OP2	2.30	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
35:2:65:A:N6	35:2:83:G:C5	2.81	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
35:2:89:G:C6	35:2:90:C:C4	3.00	0.49
35:2:908:U:O5'	35:2:909:U:OP2	2.30	0.49
36:3:103:G:C6	36:3:250:G:C6	3.01	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
35:2:1036:A:O2'	35:2:1037:C:O5'	2.31	0.48
35:2:119:A:N3	35:2:119:A:H2'	2.27	0.48
35:2:153:G:C4	35:2:154:G:C8	3.00	0.48
35:2:163:G:P	35:2:163:G:C8	3.06	0.48
35:2:212:U:C4	35:2:254:A:C6	3.00	0.48
35:2:318:U:C5	35:2:318:U:OP2	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
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
35:2:35:U:N3	35:2:473:A:C2	2.81	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
35:2:50:C:H5	35:2:425:A:OP2	1.96	0.48
35:2:57:G:OP1	35:2:57:G:H4'	2.12	0.48
35:2:63:G:C6	35:2:64:U:C4	3.01	0.48
35:2:957:G:N2	35:2:958:U:C2	2.81	0.48
8:T:334:ARG:C	36:3:108:A:P	2.91	0.48
36:3:265:A:N3	36:3:266:C:O2'	2.44	0.48
2:G:3186:LEU:CB	2:G:3193:GLU:CB	2.91	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
35:2:1041: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)
35:2:109: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
35:2:1478: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
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
35:2:323:A:N1	35:2:344:A:N1	2.60	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
35:2:354: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:H8	35:2:483:A:P	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
35:2:53:G:C2	35:2:428:A:C2	3.01	0.48
35:2:868:G:C2	35:2:961:U:O2	2.66	0.48
35:2:93:A:O2'	35:2:94:U:O5'	2.27	0.48
36:3:190:C:C5	36:3:191:G:N1	2.79	0.48
33:0:55:VAL:CG2	33:0:58:PHE:HE1	2.26	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
35:2:136:C:C2	35:2:176:C:O2'	2.61	0.48
35:2:1602:C:C5'	35:2:1603:U:OP2	2.62	0.48
35:2:1622:G:C5	35:2:1623:C:C4	3.01	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
35:2:350: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:513:U:H2'	35:2:514:G:H8	1.78	0.48
35:2:525:A:H3'	35:2:525:A:OP1	2.12	0.48
35:2:67:A:N6	35:2:79:C:C6	2.81	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
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
6:Q:356:UNK:CB	6:Q:406:UNK:HA	2.43	0.48
35:2:1038:U:OP2	35:2:1038:U:C5	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
35:2:109:G:N3	35:2:109:G:H2'	2.27	0.48
35:2:1579:U:H2'	35:2:1580:C:H6	1.76	0.48
35:2:171:A:C5	35:2:172:C:C5	3.01	0.48
35:2:134:U:O4	35:2:180:A:H2'	2.13	0.48
35:2:187:G:C5	35:2:197:A:C6	3.01	0.48
35:2:23:G:H2'	35:2:24:U:H1'	1.96	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:H3'	35:2:479:C:C6	2.48	0.48
35:2:507:U:H2'	35:2:507:U:O2	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
35:2:879:G:N7	35:2:879:G:OP2	2.46	0.48
35:2:887:A:C6	35:2:925:G:N1	2.15	0.48
35:2:890:C:H5	35:2:890:C:OP2	1.97	0.48
35:2:91:G:O6	35:2:92:A:N6	2.47	0.48
35:2:877:G:C5	35:2:952:A:N1	2.82	0.48
35:2:968:U:H3'	35:2:969:C:C6	2.48	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
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
35:2:99:C:C2	35:2:101:U:H5	2.32	0.48
35:2:1025:A:H5''	35:2:1026:A:OP1	2.14	0.48
35:2:114:C:OP2	35:2:114:C:O4'	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:118:U:O2'	35:2:119:A:P	2.72	0.48
35:2:1472:C:O2	35:2:1472:C:H2'	2.12	0.48
35:2:146:U:C5	35:2:167:U:C4	3.02	0.48
35:2:134:U:N3	35:2:180:A:OP2	2.42	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
35:2:27:U:O4	35:2:28:A:N6	2.46	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:H3'	35:2:365:G:C4	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:O2	35:2:424:C:H2'	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
35:2:50: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
35:2:628: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
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
36:3:244:G:H8	36:3:244:G:OP2	1.95	0.48
36:3:78:C:C4	36:3:269:G:N1	2.82	0.48
35:2:1023:A:C1'	35:2:1024:U:H5	2.27	0.48
35:2:117:U:C4	35:2:300:A:N1	2.82	0.48
35:2:1535:U:O2'	35:2:1536:G:N2	2.47	0.48
35:2:1584:G:H3'	35:2:1584:G:N3	2.28	0.48
35:2:1596:C:O2	35:2:1596:C:O4'	2.27	0.48
35:2:1620:C:H2'	35:2:1620:C:O2	2.12	0.48
35:2:174:U:C3'	35:2:175:G:C8	2.93	0.48
35:2:189:C:C4	35:2:197:A:C2	3.01	0.48
35:2:187:G:C2	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:H2'	35:2:290:G:N3	2.28	0.48
35:2:290:G:C5	35:2:291:G:C6	3.01	0.48
35:2:301:A:H2'	35:2:302:U:N1	2.28	0.48
35:2:323:A:H3'	35:2:323:A:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:38:C:H5	35:2:39:A:O4'	1.95	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
35:2:156:A:N1	35:2:419:G:H1'	2.29	0.48
35:2:462:G:C2'	35:2:462:G:N3	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
35:2:82:U:C2	35:2:83:G:C8	3.01	0.48
35:2:70:C:H1'	35:2:84:A:C2	2.49	0.48
35:2:91:G:OP2	35:2:92:A:H2	1.96	0.48
35:2:929:A:H3'	35:2:930:A:H8	1.71	0.48
35:2:935:U:P	35:2:935:U:H6	2.36	0.48
35:2:940:A:N1	35:2:975:C:O2'	2.44	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
36:3:75:A:C5	36:3:76:C:N4	2.81	0.48
5:M:616:UNK:O	5:M:617:UNK:CB	2.62	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
35:2:197:A:OP2	35:2:197:A:O4'	2.32	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
35:2:205:U:C2	35:2:263:C:N3	2.82	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
35:2:489:C:C2'	35:2:490:C:C6	2.95	0.48
35:2:483:A:C5	35:2:506:A:N1	2.82	0.48
35:2:534:A:H2'	35:2:534:A:N3	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
36:3:101:G:O6	36:3:251:U:O4	2.30	0.48
8:T:320:ILE:CB	36:3:109:C:OP1	2.60	0.48
36:3:148:G:H2'	36:3:149:U:H6	1.78	0.48
36:3:93:G:H3'	36:3:94:A:H8	1.78	0.48
7:R:19:UNK:CB	7:R:119:UNK:CB	2.91	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Y:152:VAL:O	36:3:126:U:C5	2.58	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
35:2:1466: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
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:O5'	35:2:481:A:H8	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
35:2:59:C:H2'	35:2:59:C:P	2.53	0.48
35:2:630:A:C4	35:2:970:A:C8	3.02	0.48
35:2:906:A:H3'	35:2:906:A:C8	2.48	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
36:3:100:G:C2	36:3:253:G:C4	3.02	0.48
36:3:254:A:H8	36:3:254:A:OP2	1.96	0.48
36:3:265:A:O2'	36:3:266:C:O4'	2.27	0.48
2:G:3234:GLY:O	33:0:146:PHE:O	2.31	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
35:2:152: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
35:2:123:G:N1	35:2:295:A:N6	2.62	0.48
35:2:294:C:C2	35:2:295:A:N7	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
35:2:314:C:C2	35:2:355:G:N1	2.82	0.48
35:2:389:G:N1	35:2:390:G:C5	2.82	0.48
35:2:462:G:H3'	35:2:462:G:OP2	2.14	0.48
35:2:441:A:C6	35:2:464:A:C5	3.02	0.48
35:2:481:A:C8	35:2:481:A:OP2	2.67	0.48
35:2:50:C:C5	35:2:425:A:OP2	2.67	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:0:35:LYS:N	35:2:520:A:C1'	2.76	0.48
35:2:84:A:OP1	35:2:85:A:N7	2.47	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
36:3:205:C:H2'	36:3:206:G:C8	2.48	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
9:U:126:GLY:HA2	10:W:183:ALA:O	2.13	0.48
9:U:126:GLY:N	10:W:188:VAL:CB	2.77	0.48
33:0:28:PRO:O	33:0:29:ASP:CB	2.61	0.48
35:2:1064:G:C2	35:2:1065:A:C4	3.01	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
35:2:1467: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
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:C4	35:2:279:G:OP2	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
35:2:450:U:N3	35:2:451:A:C5	2.82	0.48
35:2:446:A:N6	35:2:460:A:N6	2.62	0.48
35:2:476:U:O2'	35:2:477:A:OP2	2.28	0.48
35:2:485:A:OP1	35:2:485:A:H4'	2.14	0.48
35:2:491:C:H3'	35:2:492:A:C2	2.49	0.48
35:2:481:A:C2	35:2:507:U:O2	2.67	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:1050:G:H2'	35:2:1051:G:H1'	1.96	0.47
35:2:1046:G:N1	35:2:1073:G:C5	2.82	0.47
35:2:117:U:C4	35:2:118:U:C4	3.02	0.47
35:2:125:U:H2'	35:2:125:U:OP2	2.14	0.47
35:2:151:G:H2'	35:2:151:G:N3	2.29	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
35:2:318:U:H6	35:2:318:U:OP2	1.97	0.47
35:2:53:G:C6	35:2:428:A:C6	3.02	0.47
35:2:56:U:HO2'	35:2:91:G:N2	2.11	0.47
35:2:57:G:C5	35:2:91:G:O6	2.67	0.47
35:2:977:A:C5	35:2:978:A:C5	3.02	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
33:0:35:LYS:N	35:2:520:A:O4'	2.46	0.47
35:2:1041:G:H2'	35:2:1042:G:O4'	2.14	0.47
35:2:213:A:C5	35:2:214:G:C6	3.02	0.47
35:2:27:U:N3	35:2:28:A:C6	2.82	0.47
35:2:301:A:C6	35:2:302:U:C4	3.02	0.47
35:2:108:A:N6	35:2:307:G:C6	2.82	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
35:2:451:A:H2	35:2:454:U:O4	1.98	0.47
35:2:449:C:C2	35:2:458:G:C2	3.02	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
35:2:50:C:O2'	35:2:51:A:O5'	2.32	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
35:2:63:G:OP1	35:2:64:U:OP2	2.31	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
36:3:101:G:H2'	36:3:102:C:C6	2.49	0.47
33:0:27:HIS:N	33:0:28:PRO:CD	2.77	0.47
35:2:115:G:O2'	35:2:116:U:P	2.72	0.47
35:2:118:U:O2'	35:2:120:U:O4	2.29	0.47
35:2:127:G:H1	35:2:185:U:P	2.36	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:156:A:P	35:2:157:A:OP2	2.72	0.47
35:2:1581:C:H2'	35:2:1582:U:H5'	1.95	0.47
35:2:195:G:C4	35:2:196:G:N7	2.82	0.47
35:2:185:U:O2	35:2:200:A:C2	2.67	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
35:2:498:G:OP2	35:2:498:G:H8	1.93	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
35:2:907:A:H2'	35:2:908:U:O4'	2.13	0.47
35:2:898:A:C5	35:2:915:A:N6	2.83	0.47
35:2:93:A:N6	35:2:396:G:C2	2.79	0.47
35:2:871:G:C6	35:2:957:G:O6	2.67	0.47
35:2:865:A:C4	35:2:964:U:N3	2.82	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
36:3:242:G:C8	36:3:242:G:OP2	2.67	0.47
36:3:269:G:C5	36:3:270:C:C4	3.02	0.47
36:3:80:G:C5	36:3:81:G:C5	3.02	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
35:2:143:G:C2	35:2:144:U:C1'	2.97	0.47
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
35:2:190:C:C2	35:2:196:G:N2	2.81	0.47
35:2:187:G:C6	35:2:197:A:C5	3.02	0.47
35:2:282:C:C6	35:2:283:U:C4	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:35:U:O2	35:2:35:U:H2'	2.15	0.47
35:2:37:U:H2'	35:2:38:C:C4	2.49	0.47
35:2:417:A:H8	35:2:417:A:OP2	1.95	0.47
35:2:489:C:C2	35:2:490:C:C5	3.02	0.47
35:2:623:A:HO2'	35:2:624:G:P	2.35	0.47
35:2:82:U:O3'	35:2:83:G:O4'	2.32	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
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
8:T:338:ALA:HA	36:3:108:A:H5''	1.96	0.47
35:2:107:C:C2	35:2:108:A:C8	3.02	0.47
35:2:120:U:H6	35:2:120:U:OP2	1.96	0.47
35:2:142:G:C4	35:2:266:A:N6	2.83	0.47
35:2:1599:C:O2'	35:2:1600:A:C2	2.64	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
35:2:24:U:H3'	35:2:26:A:H8	1.80	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
35:2:488: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
35:2:58:U:C2	35:2:89:G:N1	2.73	0.47
33:0:121:THR:HG23	35:2:84:A:O3'	2.14	0.47
35:2:84:A:N3	35:2:85:A:H5'	2.29	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:OP2	35:2:954:G:C8	2.68	0.47
35:2:966:A:C6	35:2:967:A:C5	3.03	0.47
36:3:171:G:C2	36:3:172:C:C2	3.02	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)
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
35:2:109: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
35:2:1469: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
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:C3'	35:2:296:U:H6	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:P	35:2:480:G:C8	3.07	0.47
35:2:486:G:C6	35:2:501:U:N3	2.80	0.47
35:2:486:G:H2'	35:2:487:G:C8	2.49	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
35:2:632:U:C5	35:2:632:U:OP2	2.67	0.47
35:2:73:U:N3	35:2:81:G:N2	2.63	0.47
35:2:877:G:H2'	35:2:878:G:C8	2.49	0.47
35:2:894:U:C2	35:2:895:G:C5	3.02	0.47
35:2:894:U:O2	35:2:919:A:N6	2.47	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
36:3:204:C:H2'	36:3:205:C:C6	2.49	0.47
36:3:99:C:C2	36:3:100:G:C8	3.03	0.47
35:2:1479:A:C3'	35:2:1480:G:H5''	2.44	0.47
35:2:154:G:C5	35:2:155:U:C4	3.02	0.47
35:2:1600:A:C2'	35:2:1602:C:H41	2.27	0.47
35:2:208:U:H4'	35:2:209:U:OP1	2.13	0.47
35:2:290:G:O4'	35:2:290:G:OP2	2.32	0.47
35:2:301:A:H3'	35:2:301:A:P	2.55	0.47
35:2:330:G:C3'	35:2:331:A:H8	2.28	0.47
35:2:321:C:C4	35:2:337:G:N1	2.82	0.47
35:2:350:U:H1'	35:2:352:A:C5	2.49	0.47
35:2:98:U:H1'	35:2:386:G:N1	2.30	0.47
35:2:407:A:C6	35:2:408:C:N4	2.82	0.47
35:2:52:U:C4	35:2:429:G:N2	2.82	0.47
35:2:43:A:H3'	35:2:44:U:H5''	1.97	0.47
35:2:447:U:O2'	35:2:448:C:C6	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:488:G:C2	35:2:489:C:N3	2.83	0.47
35:2:51:A:C8	35:2:429:G:N3	2.82	0.47
35:2:532:U:H6	35:2:532:U:O5'	1.97	0.47
35:2:630:A:H1'	35:2:970:A:C6	2.50	0.47
35:2:65:A:N1	35:2:85:A:C6	2.82	0.47
35:2:903:U:H2'	35:2:904:G:H3'	1.96	0.47
35:2:57:G:C2	35:2:90:C:N3	2.83	0.47
35:2:930:A:OP2	35:2:930:A:C8	2.67	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
36:3:74:C:C6	36:3:75:A:N7	2.83	0.47
1:N:227:UNK:CB	5:O:460:UNK:CA	2.93	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
35:2:157:A:H2	35:2:420:A:O4'	1.98	0.47
35:2:1609:U:H3'	35:2:1610:G:H8	1.80	0.47
35:2:206:A:C8	35:2:206:A:OP2	2.67	0.47
35:2:24:U:C5	35:2:26:A:C6	3.02	0.47
35:2:265:A:C2	35:2:267:U:N3	2.83	0.47
35:2:24:U:H3'	35:2:26:A:C8	2.50	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
35:2:116:U:N3	35:2:301:A:C2	2.83	0.47
35:2:330:G:C2'	35:2:331:A:C8	2.94	0.47
35:2:115:G:C5	35:2:335:U:H1'	2.50	0.47
35:2:407:A:N6	35:2:408:C:N4	2.62	0.47
35:2:419:G:C2'	35:2:420:A:H8	2.28	0.47
35:2:519:C:P	35:2:519:C:H3'	2.52	0.47
35:2:517:U:C4	35:2:535:A:N1	2.82	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
35:2:937:C:H2'	35:2:938:G:O2'	2.15	0.47
35:2:93:A:C6	35:2:398:G:C4	3.02	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
36:3:97:C:N3	36:3:257:G:C6	2.83	0.47
36:3:257:G:N1	36:3:258:A:C6	2.83	0.47
36:3:71:U:N3	36:3:72:C:C4	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:283:UNK:N	1:D:345:UNK:N	2.56	0.47
1:A:294:UNK:C	1:B:66:UNK:CB	2.87	0.47
1:N:271:UNK:N	1:N:297:UNK:CB	2.78	0.47
8:S:299:GLY:HA2	36:3:93:G:C8	2.46	0.47
33:0:127:LYS:O	33:0:128:LYS:C	2.53	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
35:2:108:A:C8	35:2:108:A:OP2	2.68	0.47
35:2:1466:G:H2'	35:2:1467:C:H6	1.79	0.47
35:2:1170:G:C6	35:2:1574:G:C5	3.02	0.47
35:2:1585:U:O2'	35:2:1586:A:H5'	2.15	0.47
35:2:192:U:O2	35:2:192:U:H2'	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
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
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:A:271:UNK:N	1:A:297:UNK:CB	2.78	0.47
35:2:103:A:O4'	35:2:360:A:C2	2.64	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
35:2:145:A:C2	35:2:171:A:C2	3.03	0.47
35:2:1596:C:HO2'	35:2:1597:A:H3'	1.80	0.47
35:2:1607:G:C4	35:2:1608:U:C5	3.03	0.47
35:2:22:A:C8	35:2:22:A:OP2	2.67	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:OP2	35:2:343:C:C6	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:397:A:C2	35:2:398:G:H1'	2.49	0.47
35:2:499:U:H3'	35:2:499:U:C6	2.49	0.47
35:2:530:C:H3'	35:2:530:C:C6	2.50	0.47
35:2:529:A:H4'	35:2:530:C:H5	1.79	0.47
35:2:626:U:N3	35:2:974:A:C6	2.83	0.47
35:2:902:G:H3'	35:2:902:G:C8	2.50	0.47
35:2:904:G:C5	35:2:905:A:C5	3.03	0.47
35:2:91:G:OP2	35:2:92:A:C2	2.68	0.47
35:2:875:G:N1	35:2:952:A:C6	2.82	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
33:0:119:ALA:O	33:0:123:LEU:HD13	2.15	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
35:2:130:C:O2'	35:2:132:U:H5''	2.15	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
35:2:258:C:O2'	35:2:259:U:O5'	2.33	0.47
35:2:204:G:C2	35:2:264:G:N2	2.82	0.47
35:2:271:A:C5	35:2:272:U:H5''	2.50	0.47
35:2:28:A:O5'	35:2:29:U:P	2.72	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
35:2:322:G:H5''	35:2:337:G:H21	1.79	0.47
35:2:345:U:H6	35:2:345:U:OP2	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
35:2:39:A:C6	35:2:467:G:N1	2.83	0.47
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
35:2:493:U:O2	35:2:496:G:C6	2.65	0.47
35:2:485:A:C5	35:2:503:G:N1	2.81	0.47
35:2:504:U:H2'	35:2:506:A:H8	1.79	0.47
33:0:34:SER:CB	35:2:520:A:O4'	2.63	0.47
35:2:526:A:H5'	35:2:528:U:C2'	2.45	0.47
35:2:524:U:H2'	35:2:527:A:N3	2.30	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
35:2:937: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:101:G:C6	36:3:102:C:C4	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
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
34:1:33:LEU:O	34:1:34:GLU:CB	2.62	0.46
35:2:1032:G:C2	35:2:1033:C:H1'	2.51	0.46
35:2:1039:A:N7	35:2:1091:A:H2'	2.31	0.46
35:2:1039:A:C1'	35:2:1040:G:C8	2.97	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
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
35:2:118:U:C2	35:2:299:A:N1	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
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
35:2:889: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
35:2:93:A:H61	35:2:396:G:H2'	1.80	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
9:V:100:ALA:CB	36:3:192:A:O2'	2.56	0.46
36:3:241:G:O5'	36:3:241:G:H8	1.98	0.46
9:U:48:ARG:HA	36:3:261:U:OP1	2.14	0.46
36:3:263:U:C6	36:3:264: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
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
35:2:1039:A:N1	35:2:1080:U:C2	2.77	0.46
35:2:103:A:H5''	35:2:104:A:C2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:146: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
35:2:162:A:C2	35:2:163:G:C5	3.03	0.46
35:2:153:G:C4	35:2:162:A: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:N3	35:2:538:A:H2'	2.30	0.46
35:2:65:A:N6	35:2:83:G:C8	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
35:2:634:G:C4	35:2:966:A:N1	2.84	0.46
35:2:95:G:C2'	35:2:96:G:H5'	2.45	0.46
36:3:116:G:N1	36:3:190:C:C2	2.78	0.46
2:G:2063:ALA:CB	2:G:2142:VAL:CB	2.93	0.46
1:L:271:UNK:N	1:L:297:UNK:CB	2.78	0.46
9:U:126:GLY:CA	10:W:188:VAL:HA	2.45	0.46
35:2:106:U:C2'	35:2:107:C:H6	2.28	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
35:2:155:U:O2'	35:2:157:A:N7	2.36	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
35:2:281:G:O6	35:2:282:C:C4	2.67	0.46
35:2:120:U:C2	35:2:298:C:H1'	2.51	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:70:C:C2	35:2:83:G:C2	3.04	0.46
35:2:71:A:C5	35:2:72:A:N6	2.83	0.46
35:2:71:A:C6	35:2:82:U:O2	2.68	0.46
35:2:869:A:OP2	35:2:869:A:C8	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
35:2:57:G:C2	35:2:91:G:C6	3.03	0.46
35:2:967:A:C5	35:2:968:U:C5	3.03	0.46
35:2:98:U:H1'	35:2:386:G:N2	2.30	0.46
36:3:96:C:O2'	36:3:97:C:H5'	2.15	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
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
35:2:143:G:C6	35:2:144:U:C5	3.04	0.46
35:2:1470:C:OP1	35:2:1471:A:H1'	2.15	0.46
35:2:1528:U:H6	35:2:1528:U:O5'	1.99	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:H5	35:2:431:C:OP2	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
35:2:46: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
35:2:865:A:N3	35:2:964:U:C2	2.84	0.46
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
35:2:98:U:O2'	35:2:425:A:C8	2.69	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
1:E:271:UNK:N	1:E:297:UNK:CB	2.78	0.46
5:M:354:UNK:N	5:M:369:UNK:O	2.48	0.46
33:0:32:THR:CG2	35:2:520:A:N3	2.79	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
35:2:118:U:H6	35:2:118:U:O5'	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:31:C:C2	35:2:32:U:O4	2.69	0.46
35:2:339:C:C2'	35:2:340:U:O5'	2.63	0.46
35:2:312:A:C6	35:2:352:A:H1'	2.50	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
35:2:461:G:O2'	35:2:462:G:O5'	2.23	0.46
35:2:465:G:H8	35:2:465:G:P	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
35:2:71: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
35:2:931:C:H5''	35:2:932:U:H3'	1.98	0.46
33:0:115:THR:CG2	33:0:116:SER:N	2.79	0.46
35:2:1076:A:P	35:2:1076:A:C8	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
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
35:2:50:C:C2	35:2:424:C:C2	3.04	0.46
33:0:35:LYS:HB2	35:2:520:A:O3'	2.13	0.46
35:2:539:G:N3	35:2:539:G:O4'	2.45	0.46
35:2:56:U:HO2'	35:2:92:A:H8	1.59	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:OP2	35:2:90:C:C6	2.68	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
33:0:43:ALA:O	33:0:47:LYS:N	2.48	0.46
35:2:106:U:C4	35:2:107:C:C4	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:112:A:HO2'	35:2:113:U:H6	1.63	0.46
35:2:1470:C:H3'	35:2:1573:A:H62	1.80	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
35:2:47:A:C6	35:2:98:U:H2'	2.48	0.46
35:2:64:U:H5''	35:2:64:U:H6	1.80	0.46
35:2:64:U:N3	35:2:86:A:C2	2.83	0.46
35:2:871:G:N3	35:2:957:G:C2	2.84	0.46
35:2:64:U:N3	35:2:87:C:O2	2.49	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
35:2:629:U:OP2	35:2:969:C:C4	2.69	0.46
35:2:99:C:O2	35:2:101:U:C5	2.68	0.46
8:T:316:LYS:CB	36:3:199:G:O6	2.63	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
5:O:354:UNK:N	5:O:369:UNK:O	2.49	0.46
1:B:158:UNK:CB	10:W:189:THR:CB	2.93	0.46
33:0:123:LEU:CD1	33:0:123:LEU:H	2.28	0.46
35:2:1046:G:C6	35:2:1047:G:C5	3.04	0.46
35:2:130:C:C2	35:2:131:C:O2'	2.64	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:C2'	35:2:278:U:O2	2.64	0.46
35:2:293:U:C6	35:2:293:U:OP2	2.69	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:N3	35:2:529:A:OP2	2.49	0.46
35:2:546:U:C2	35:2:591:A:C6	3.03	0.46
35:2:549:G:C2	35:2:550:A:C8	3.04	0.46
35:2:548:G:N1	35:2:590:C:C2	2.84	0.46
35:2:60:U:C2	35:2:62:A:C2	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:881:A:C2	35:2:948:G:C4	3.03	0.46
35:2:90:C:N3	35:2:91:G:O6	2.49	0.46
35:2:936:G:O2'	35:2:937:C:H5'	2.16	0.46
35:2:47:A:N7	35:2:99:C:H6	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
36:3:96:C:N4	36:3:258:A:H61	2.14	0.46
1:D:56:UNK:CB	1:E:162:UNK:CB	2.94	0.46
33:0:35:LYS:CD	35:2:521:A:C5'	2.53	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
35:2:156:A:H3'	35:2:157:A:C8	2.51	0.46
35:2:151:G:C6	35:2:164:A:C5	3.04	0.46
35:2:299:A:N6	35:2:300:A:N6	2.63	0.46
35:2:103:A:C4	35:2:308:C:C2	3.04	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
35:2:628:G:O2'	35:2:629:U:O5'	2.26	0.46
35:2:69:G:H5'	35:2:71:A:OP2	2.16	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
35:2:95:G:C5	35:2:96:G:C5	3.04	0.46
36:3:145:A:H3'	36:3:146:A:H8	1.80	0.46
36:3:126:U:H3	36:3:188:G:H22	1.64	0.46
36:3:270:C:OP2	36:3:270:C:C5	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:70:A:C2	36:3:71:U:C4	3.04	0.46
1:D:113:UNK:HA	1:E:193:UNK:CA	2.45	0.46
10:X:86:ALA:C	10:X:88:GLY:H	2.86	0.46
35:2:1483:A:C4	35:2:1524:A:C6	3.03	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
35:2:108:A:C6	35:2:307:G:C2	3.04	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
35:2:37: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
35:2:483:A:C8	35:2:483:A:P	3.08	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
35:2:515:A:C6	35:2:537:G:N1	2.84	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
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
1:L:245:UNK:O	12:Z:201:SER:CB	2.63	0.46
33:0:10:ILE:HG12	33:0:21:LEU:HB2	1.98	0.45
35:2:1075:C:C5	35:2:1076:A:N1	2.84	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
35:2:1527: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
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
35:2:20:G:O2'	35:2:21:U:H5'	2.15	0.45
35:2:20:G:H3'	35:2:21:U:C6	2.51	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:N3	35:2:390:G:H2'	2.31	0.45
35:2:409:C:H2'	35:2:410:A:H8	1.76	0.45
35:2:44:U:C2'	35:2:436:A:H61	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
36:3:159:G:C2	36:3:160:U:H1'	2.51	0.45
36:3:79:G:O2'	36:3:80:G:H5'	2.15	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
35:2:108:A:C2'	35:2:109:G:C8	2.97	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
35:2:151:G:C2	35:2:164:A:C4	3.04	0.45
35:2:166:C:H2'	35:2:166:C:O2	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:C2'	35:2:187:G:H5'	2.46	0.45
35:2:186:C:P	35:2:186:C:H6	2.39	0.45
35:2:186:C:OP2	35:2:200:A:C2	2.69	0.45
35:2:299:A:C6	35:2:300:A:C5	3.04	0.45
35:2:341:A:H3'	35:2:342:C:C6	2.49	0.45
35:2:317:C:C2	35:2:348:U:N3	2.84	0.45
35:2:353:A:OP2	35:2:355:G:N7	2.49	0.45
35:2:40:A:C6	35:2:469:C:O2	2.68	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
35:2:57:G:C4	35:2:91:G:C6	3.04	0.45
35:2:634:G:N3	35:2:634:G:H2'	2.31	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
36:3:100:G:C4	36:3:253:G:C2	3.05	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
35:2:1043:A:N1	35:2:1076:A:N1	2.63	0.45
35:2:110:U:H3'	35:2:110:U:H6	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:1478:G:C2	35:2:1479:A:C4	3.04	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:H2'	35:2:420:A:N3	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
35:2:50:C:C2	35:2:424:C:O2	2.69	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:H6	35:2:897:C:OP2	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
35:2:47:A:C4	35:2:98:U:C2'	2.99	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
36:3:93:G:P	36:3:93:G:H8	2.38	0.45
1:C:326:UNK:C	1:D:87:UNK:CA	2.95	0.45
33:0:104:SER:HB3	33:0:128:LYS:HE3	1.98	0.45
35:2:1038:U:H5	35:2:1038:U:OP2	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
35:2:201:G:N2	35:2:202:A:C8	2.84	0.45
35:2:22:A:H2'	35:2:23:G:OP2	2.16	0.45
35:2:23:G:H2'	35:2:24:U:H4'	1.98	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:N3	35:2:353:A:H2'	2.32	0.45
35:2:375:U:C4	35:2:376:C:C5	3.05	0.45
35:2:377:G:H2'	35:2:377:G:OP2	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:467:G:N2	35:2:469:C:N3	2.64	0.45
35:2:47:A:H2'	35:2:100:A:C5'	2.43	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:H2'	35:2:591:A:N3	2.30	0.45
35:2:74:U:O2	35:2:80:A:N1	2.49	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
35:2:96:G:C6	35:2:387:A:N6	2.76	0.45
36:3:188:G:OP2	36:3:188:G:H8	2.00	0.45
9:U:56:ILE:O	9:U:82:TYR:HA	2.16	0.45
10:X:123:ARG:O	35:2:1584:G:N7	99.82	0.45
35:2:1048:G:N2	35:2:1049:U:C2	2.84	0.45
35:2:616:G:OP2	35:2:1085:G:H4'	2.17	0.45
35:2:127:G:N3	35:2:127:G:O2'	2.50	0.45
35:2:130:C:H2'	35:2:132:U:OP2	2.15	0.45
35:2:137:U:H6	35:2:137:U:OP1	2.00	0.45
35:2:1472:C:H5'	35:2:1474:G:C1'	2.46	0.45
35:2:1591:C:H6	35:2:1591:C:O5'	1.99	0.45
35:2:1595:U:C6	35:2:1596:C:C2	3.03	0.45
35:2:163:G:OP2	35:2:163:G:N7	2.49	0.45
35:2:136:C:N4	35:2:178:U:H2'	2.32	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
35:2:251: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
35:2:204:G:C6	35:2:263:C:N3	2.83	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
35:2:478:A:HO2'	35:2:479:C:C5'	2.30	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
35:2:54: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
35:2:84:A:P	35:2:84:A:C8	3.09	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:869:A:P	35:2:869:A:H8	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
35:2:99:C:C2	35:2:101:U:O4	2.70	0.45
35:2:1064:G:N1	35:2:1065:A:C5	2.84	0.45
35:2:1045:C:C4	35:2:1075:C:N3	2.85	0.45
35:2:1076:A:N7	35:2:1076:A:OP2	2.49	0.45
35:2:145:A:N3	35:2:145:A:C2'	2.78	0.45
35:2:1534:G:H4'	35:2:1536:G:C6	2.51	0.45
35:2:23:G:C5	35:2:24:U:C6	3.04	0.45
35:2:23:G:H2'	35:2:24:U:C4'	2.47	0.45
35:2:275:C:H42	35:2:282:C:N4	2.14	0.45
35:2:27:U:C2	35:2:28:A:C4	3.04	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
35:2:37:U:H2'	35:2:38:C:C5	2.51	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
35:2:76:A:O5'	35:2:77:U:C4	2.70	0.45
35:2:70:C:C2	35:2:84:A:C4	3.04	0.45
35:2:925:G:OP2	35:2:925:G:C8	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
8:T:338:ALA:HB1	36:3:109:C:C5	2.41	0.45
36:3:257:G:OP2	36:3:257:G:H3'	2.17	0.45
1:L:58:UNK:N	5:M:350:UNK:CB	2.80	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
35:2:117: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
35:2:1532: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
35:2:201:G:C2'	35:2:201:G:N3	2.78	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:207:U:OP2	35:2:207:U:C5	2.70	0.45
35:2:207:U:O2	35:2:261:U:C4	2.70	0.45
35:2:244:A:H2'	35:2:245:U:C6	2.51	0.45
35:2:252:U:C2'	35:2:252:U:OP2	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:OP2	35:2:414:C:C6	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:P	35:2:617:U:H6	2.39	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
35:2:878: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
35:2:91:G:C5	35:2:92:A:C6	3.04	0.45
35:2:974:A:OP2	35:2:974:A:N7	2.50	0.45
36:3:154:G:C6	36:3:155:U:C4	3.04	0.45
36:3:134:C:C2'	36:3:181:A:H61	2.24	0.45
36:3:77:C:OP2	36:3:77:C:C6	2.70	0.45
36:3:80:G:C8	36:3:81:G:N7	2.85	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
33:0:46:LEU:O	33:0:47:LYS:HB2	2.17	0.45
35:2:1053:G:H2'	35:2:1054:U:H6	1.82	0.45
35:2:1038:U:O4	35:2:1091:A:O3'	2.35	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
35:2:1623:C:C4	35:2:1624:C:C5	3.05	0.45
35:2:172:C:C2	35:2:173:A:N7	2.85	0.45
35:2:189:C:C2	35:2:196:G:N2	2.62	0.45
35:2:20:G:H2'	35:2:21:U:O4'	2.17	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
35:2:29:U:N3	35:2:30:G:N7	2.65	0.45
35:2:328:A:C6	35:2:329:G:C6	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:33:U:OP2	35:2:33:U:C2	2.70	0.45
35:2:340:U:H2'	35:2:341:A:C8	2.52	0.45
35:2:322:G:C6	35:2:344:A:N6	2.85	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
33:0:60:THR:HG21	35:2:533:U:C1'	2.46	0.45
33:0:31:PRO:CB	35:2:533:U:C2	2.85	0.45
35:2:65:A:H2	35:2:84:A:C5	2.35	0.45
35:2:926:A:C4	35:2:927:C:C6	3.04	0.45
35:2:91:G:O2'	35:2:92:A:H5'	2.15	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
36:3:115:G:H2'	36:3:116:G:O4'	2.17	0.45
36:3:91:G:H3'	36:3:93:G:C6	2.52	0.45
33:0:27:HIS:O	33:0:29:ASP:N	2.49	0.45
33:0:3:ILE:CG2	33:0:4:VAL:H	2.30	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
35:2:121:U:O5'	35:2:122:U:OP2	2.34	0.45
35:2:1583:A:H1'	35:2:1585:U:C2	2.52	0.45
35:2:180:A:HO2'	35:2:181:A:P	2.38	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:H2'	35:2:445:A:N3	2.32	0.45
35:2:451:A:C6	35:2:456:A:N6	2.85	0.45
35:2:47:A:N1	35:2:386:G:N9	2.65	0.45
35:2:481:A:N3	35:2:481:A:H2'	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:C2'	35:2:549:G:N3	2.68	0.45
35:2:57:G:H1'	35:2:91:G:N2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
36:3:103:G:N1	36:3:249:U:N3	2.65	0.45
36:3:255:U:O2'	36:3:256:G:H8	2.00	0.45
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
10:X:157:PRO:HA	10:X:186:ILE:HA	1.98	0.45
35:2:1047:G:C4	35:2:1048:G:C8	3.05	0.45
35:2:162:A:OP2	35:2:162:A:H8	1.93	0.45
35:2:143:G:N1	35:2:173:A:C6	2.85	0.45
35:2:182:A:C6	35:2:183:U:N3	2.85	0.45
35:2:187:G:H3'	35:2:187:G:OP2	2.18	0.45
35:2:194:U:H2'	35:2:195:G:O2'	2.17	0.45
35:2:213:A:C8	35:2:253:A:N1	2.84	0.45
35:2:206:A:N1	35:2:261:U:C6	2.85	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
35:2:330:G:C4	35:2:331:A:C8	3.05	0.45
35:2:321:C:N3	35:2:337:G:C6	2.85	0.45
35:2:346:G:C2	35:2:347:G:C4	3.05	0.45
35:2:347:G:P	35:2:347:G:H8	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
35:2:52:U:O2	35:2:428:A:H2	2.00	0.45
35:2:495:C:N4	35:2:496:G:C2	2.85	0.45
35:2:499:U:H6	35:2:499:U:H3'	1.82	0.45
35:2:538:A:O5'	35:2:538:A:C8	2.69	0.45
35:2:60:U:O2'	35:2:62:A:C8	2.59	0.45
35:2:83:G:N3	35:2:83:G:C2'	2.76	0.45
35:2:881:A:N3	35:2:881:A:H2'	2.31	0.45
35:2:900:A:N7	35:2:901:G:N2	2.64	0.45
35:2:890:C:H1'	35:2:923:A:N3	2.32	0.45
35:2:883:C:C2	35:2:946:U:C2	3.04	0.45
8:T:321:PHE:CA	36:3:108:A:H1'	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
8:S:300:ALA:HB2	36:3:91:G:C5'	2.43	0.45
35:2:624:G:N7	35:2:1027:A:C6	2.84	0.44
35:2:1056:U:C4	35:2:1063:U:O4	2.70	0.44
35:2:1089:U:C6	35:2:1089:U:OP2	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
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
35:2:377:G:HO2'	35:2:378:A:P	2.40	0.44
35:2:389:G:C2	35:2:390:G:C4	3.05	0.44
35:2:93:A:C8	35:2:399:A:N9	2.85	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
35:2:156:A:C5	35:2:418:G:N7	2.85	0.44
35:2:428:A:H2'	35:2:429:G:N9	2.32	0.44
35:2:442:C:C5	35:2:442:C:OP2	2.70	0.44
35:2:492:A:H2	35:2:493:U:O4	2.00	0.44
35:2:520:A:N6	35:2:521:A:N1	2.64	0.44
35:2:520:A:C5	35:2:521:A:C4	3.05	0.44
35:2:626:U:OP2	35:2:626:U:C6	2.70	0.44
35:2:71:A:C6	35:2:72:A:N6	2.85	0.44
35:2:929:A:O5'	35:2:930:A:OP2	2.35	0.44
35:2:867:G:C2	35:2:961:U:O2	2.68	0.44
36:3:73:C:O2'	36:3:74:C:H5'	2.16	0.44
2:G:3236:SER:CB	33:0:147:VAL:CB	2.95	0.44
33:0:132:TRP:O	33:0:136:GLN:HG2	2.16	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:H6	35:2:1052:U:O5'	2.00	0.44
35:2:1054:U:H3'	35:2:1055:U:C5	2.51	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
35:2:1179:G:H21	35:2:1460:A:N6	2.15	0.44
35:2:153:G:C2'	35:2:154:G:H8	2.29	0.44
35:2:143:G:N2	35:2:173:A:C4	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:40:A:C5	35:2:469:C:C1'	2.98	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
35:2:73:U:C2	35:2:74:U:C2	3.06	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
35:2:95:G:H2'	35:2:96:G:H8	1.81	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
35:2:977:A:C8	35:2:977:A:OP2	2.70	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: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
35:2:1047:G:C2	35:2:1048:G:C4	3.06	0.44
35:2:1044:U:O2	35:2:1075:C:C2	2.70	0.44
35:2:1077:C:C3'	35:2:1078:C:H6	2.28	0.44
35:2:109:G:C2'	35:2:110:U:H5'	2.47	0.44
35:2:1174:C:H4'	35:2:1601:G:C5	2.52	0.44
35:2:136:C:H3'	35:2:137:U:H3'	1.99	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
35:2:134:U:C4	35:2:180:A:C4	3.05	0.44
35:2:21:U:H6	35:2:21:U:OP2	1.99	0.44
35:2:302:U:N1	35:2:303:U:N3	2.66	0.44
35:2:101:U:C4	35:2:385:A:H1'	2.52	0.44
35:2:391:A:N6	35:2:392:G:C6	2.85	0.44
35:2:53:G:H1'	35:2:440:U:N3	2.32	0.44
35:2:532:U:H2'	35:2:533:U:C5'	2.46	0.44
35:2:64:U:C6	35:2:64:U:H5''	2.52	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:926:A:C6	35:2:927:C:C4	3.05	0.44
35:2:629:U:OP2	35:2:969:C:N4	2.49	0.44
35:2:95:G:C4	35:2:96:G:C8	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
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
35:2:1084:A:C8	35:2:1084:A:OP2	2.69	0.44
35:2:1094:G:H8	35:2:1094:G:C5'	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
35:2:163:G:C2	35:2:164:A:C8	3.06	0.44
35:2:162:A:C3'	35:2:163:G:C8	3.01	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
35:2:29:U:N3	35:2:30:G:C8	2.86	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
35:2:41:A:N3	35:2:438:A:H8	2.15	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:C8	35:2:929:A:OP2	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
35:2:95:G:H22	35:2:426:G:H1'	1.82	0.44
36:3:247:G:C5	36:3:248:G:C6	3.05	0.44
6:Q:433:UNK:CB	6:Q:450:UNK:O	2.65	0.44
33:0:107:GLU:O	33:0:110:ARG:CB	2.59	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
35:2:105:A:N6	35:2:108:A:C5	2.85	0.44
35:2:1093:A:O2'	35:2:1094:G:C5'	2.65	0.44
35:2:111:U:O2	35:2:111:U:H2'	2.18	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
35:2:171:A:HO2'	35:2:172:C:P	2.40	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:356:G:OP2	35:2:356:G:C8	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:H8	35:2:483:A:OP2	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
36:3:102:C:H2'	36:3:102:C:O2	2.16	0.44
36:3:260:G:N2	36:3:261:U:H5	2.15	0.44
9:U:90:GLY:HA3	36:3:82:U:C4	2.52	0.44
33:0:34:SER:O	33:0:35:LYS:C	2.54	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
35:2:123:G:H2'	35:2:123:G:N3	2.32	0.44
35:2:1525:A:C2	35:2:1526:A:C5	3.06	0.44
35:2:153:G:C6	35:2:154:G:C6	3.05	0.44
35:2:1584:G:C3'	35:2:1584:G:C4	2.97	0.44
35:2:1602:C:O2	35:2:1602:C:C2'	2.66	0.44
35:2:151:G:O6	35:2:163:G:C6	2.71	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
35:2:276:C:N3	35:2:281:G:O6	2.51	0.44
35:2:269:G:H22	35:2:285:G:H22	1.66	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
35:2:40:A:C4	35:2:41:A:C8	3.06	0.44
35:2:449:C:C2	35:2:458:G:N3	2.85	0.44
35:2:36:C:O2	35:2:473:A:C4	2.71	0.44
35:2:493:U:H4'	35:2:494:U:C5	2.53	0.44
35:2:527:A:C5	35:2:527:A:OP2	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
35:2:93:A:C5	35:2:398:G:H2'	2.53	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:954:G:H3'	35:2:955:A:N7	2.32	0.44
35:2:954:G:H8	35:2:954:G:P	2.40	0.44
9:V:96:GLN:N	36:3:114:A:O2'	2.50	0.44
36:3:126:U:N3	36:3:127:A:N7	2.65	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
33:0:146:PHE:O	33:0:147:VAL:HG23	2.17	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
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
35:2:108:A:C4	35:2:109:G:N7	2.86	0.44
35:2:1179:G:C2	35:2:1180:C:H1'	2.53	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
35:2:46:A:C6	35:2:48:G:H1'	2.53	0.44
35:2:477:A:H2	35:2:478:A:C6	2.36	0.44
35:2:50:C:H2'	35:2:424:C:C5	2.48	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
35:2:52:U:O2'	35:2:53:G:H5'	2.17	0.44
35:2:625:C:O2	35:2:939:A:H2	2.01	0.44
35:2:85:A:O5'	35:2:85:A:C8	2.70	0.44
35:2:949:C:C2'	35:2:950:C:H6	2.28	0.44
35:2:955:A:P	35:2:955:A:C8	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
35:2:96:G:H21	35:2:426:G:C5'	2.30	0.44
36:3:99:C:O2'	36:3:100:G:H5'	2.17	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
36:3:114:A:C2	36:3:195:A:C8	3.06	0.44
36:3:255:U:H6	36:3:255:U:OP1	2.00	0.44
36:3:74:C:H2'	36:3:75:A:N7	2.32	0.44
36:3:78:C:OP2	36:3:78:C:C5	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
9:U:126:GLY:H	10:W:188:VAL:CB	2.30	0.44
33:0:2:THR:HG22	33:0:3:ILE:HD13	2.00	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
35:2:128:U:C2	35:2:204:G:O4'	2.70	0.44
35:2:1572:G:H3'	35:2:1572:G:OP1	2.17	0.44
35:2:1573:A:C5'	35:2:1574:G:H5'	2.48	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
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
35:2:395:U:C4	35:2:399:A:N7	2.85	0.44
35:2:388:G:C2	35:2:410:A:C4	3.06	0.44
35:2:39:A:N1	35:2:471:A:C5	2.86	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
35:2:51: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
35:2:872:G:O6	35:2:955:A:N6	2.50	0.44
35:2:883:C:H5	35:2:883:C:OP2	2.01	0.44
35:2:876:G:O6	35:2:935:U:O4	2.35	0.44
35:2:940:A:C6	35:2:941:A:C5	3.06	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:260:G:C2	36:3:261:U:H5	2.35	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
35:2:1039:A:C6	35:2:1079:U:N3	2.86	0.44
35:2:104:A:C8	35:2:106:U:C5	3.05	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
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
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
35:2:274: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
35:2:265:A:N1	35:2:289:U:C2	2.85	0.44
35:2:265:A:N6	35:2:289:U:C2	2.81	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
35:2:310:C:C4	35:2:357:G:C6	3.05	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
35:2:532:U:H2'	35:2:533:U:H5''	2.00	0.44
35:2:517:U:O2	35:2:535:A:C2	2.70	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
33:0:117:GLY:HA3	35:2:86:A:P	2.58	0.44
35:2:871:G:C5	35:2:957:G:N1	2.86	0.44
35:2:920:U:C2	35:2:921:U:C5	3.06	0.44
36:3:177:G:O2'	36:3:178:U:H5''	2.18	0.44
36:3:73:C:C2	36:3:74:C:C2	3.06	0.44
35:2:1094:G:O2'	35:2:1095:U:O4'	2.36	0.43
35:2:153:G:C2'	35:2:154:G:C8	2.98	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
35:2:142:G:C2	35:2:174:U:H1'	2.52	0.43
35:2:210:A:P	35:2:211:U:OP2	2.76	0.43
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:O4'	35:2:899:G:OP2	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
36:3:182:G:C2	36:3:183:A:C8	3.06	0.43
36:3:72:C:N4	36:3:73:C:N4	2.66	0.43
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
33:0:109:LYS:O	33:0:113:LYS:HB2	2.18	0.43
35:2:99:C:C4'	35:2:100:A:O5'	2.66	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
35:2:617:U:C4	35:2:1093:A:C6	3.06	0.43
35:2:1094:G:C8	35:2:1095:U:N3	2.86	0.43
35:2:1092:A:N7	35:2:1094:G:O4'	2.51	0.43
35:2:109:G:OP2	35:2:110:U:C4	2.71	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
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
35:2:22:A:C4	35:2:23:G:C8	3.05	0.43
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
35:2:34:G:N1	35:2:475:A:C5	2.86	0.43
35:2:355:G:C6	35:2:356:G:C5	3.06	0.43
35:2:44:U:H5	35:2:437:A:H62	1.66	0.43
35:2:450:U:H2'	35:2:450:U:O2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:65: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
35:2:890: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
36:3:247:G:H2'	36:3:248:G:N9	2.33	0.43
1:D:116:UNK:O	1:E:156:UNK:HA	2.08	0.43
33:0:10:ILE:HA	33:0:20:GLN:O	2.18	0.43
35:2:1046:G:N2	35:2:1047:G:C4	2.86	0.43
35:2:1047:G:N1	35:2:1071:U:O2	2.51	0.43
35:2:1056:U:O4	35:2:1061:A:H5''	2.18	0.43
35:2:147:A:H2'	35:2:148:A:O4'	2.17	0.43
35:2:199:G:C2'	35:2:199:G:OP2	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:O5'	35:2:487:G:H8	2.01	0.43
35:2:514:G:O2'	35:2:539:G:N2	2.48	0.43
35:2:51:A:H3'	35:2:52:U:H6	1.82	0.43
35:2:53:G:H2'	35:2:54:C:H1'	1.99	0.43
35:2:626:U:OP2	35:2:626:U:C5	2.71	0.43
35:2:84:A:O5'	35:2:84:A:C8	2.72	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
36:3:86:U:H2'	36:3:87:G:N9	2.33	0.43
2:G:2367:TRP:CB	2:G:2422:ALA:N	2.81	0.43
34:1:28:VAL:O	34:1:29:ARG:CB	2.66	0.43
35:2:1086:A:C8	35:2:1086:A:P	3.11	0.43
35:2:121:U:C4	35:2:296:U:C2	3.06	0.43
35:2:1615:C:H3'	35:2:1616:G:H5''	1.99	0.43
35:2:185:U:H3'	35:2:185:U:C2	2.54	0.43
35:2:188:A:C4	35:2:198:A:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:N3	35:2:253:A:H2'	2.33	0.43
35:2:213:A:C6	35:2:253:A:N7	2.86	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
35:2:41:A:O2'	35:2:437:A:C8	2.71	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:OP2	35:2:634:G:C8	2.71	0.43
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
35:2:901:G:O4'	35:2:901:G:N3	2.49	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
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:H2'	35:2:148:A:N3	2.33	0.43
35:2:1594:G:C6	35:2:1595:U:C2	3.06	0.43
35:2:198:A:C6	35:2:199:G:N2	2.86	0.43
35:2:213:A:C6	35:2:214:G:C6	3.06	0.43
35:2:212:U:C2	35:2:254:A:C2	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
35:2:448:C:C2	35:2:460:A:C2	3.07	0.43
35:2:34:G:O6	35:2:475:A:N1	2.52	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:624:G:C4	35:2:1027:A:C6	3.07	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
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
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:C3'	35:2:365:G:C8	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
35:2:546:U:C2'	35:2:547:U:O5'	2.67	0.43
35:2:54:C:C4	35:2:55:A:N1	2.87	0.43
35:2:626:U:O2'	35:2:627:C:H5'	2.18	0.43
35:2:903:U:O2	35:2:906:A:C6	2.72	0.43
35:2:877:G:N2	35:2:951:A:H2	2.03	0.43
35:2:871:G:N1	35:2:957:G:C6	2.87	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: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
33:0:76:ASN:C	33:0:78:GLN:N	2.69	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
35:2:154:G:H5''	35:2:155:U:OP2	2.19	0.43
35:2:149:C:O2	35:2:166:C:C2	2.71	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
35:2:34:G:C6	35:2:475:A:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:356:G:H5''	35:2:357:G:OP1	2.19	0.43
35:2:395:U:C4	35:2:399:A:C8	3.06	0.43
35:2:394:C:N4	35:2:401:A:C2'	2.82	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
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
35:2:47:A:C4	35:2:98:U:H2'	2.49	0.43
36:3:85:A:C4	36:3:86:U:C6	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
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
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
35:2:326: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
35:2:309:C:C4	35:2:358:U:C4	3.07	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
35:2:47:A:C4	35:2:98:U:O2'	2.63	0.43
35:2:504:U:C4'	35:2:505:A:OP2	2.51	0.43
35:2:483:A:N6	35:2:506:A:C6	2.87	0.43
35:2:620:A:C8	35:2:621:A:N1	2.87	0.43
35:2:630:A:H3'	35:2:630:A:OP2	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
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
36:3:202:C:O5'	36:3:203:C:OP2	2.37	0.43
35:2:1164:G:O2'	35:2:1165:G:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:147:A:H5''	35:2:149:C:N4	2.34	0.43
35:2:1597:A:N6	35:2:1598:U:H3	2.17	0.43
35:2:166:C:H3'	35:2:167:U:C6	2.52	0.43
35:2:146:U:C4	35:2:167:U:N3	2.87	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
35:2:27:U:N3	35:2:28:A:C4	2.87	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
35:2:452:A:N3	35:2:453:U:H5''	2.32	0.43
35:2:450:U:O2	35:2:456:A:C2	2.72	0.43
35:2:513:U:O4	35:2:538:A:H2'	2.19	0.43
35:2:591:A:C2'	35:2:591:A:N3	2.82	0.43
35:2:73:U:C2	35:2:81:G:N2	2.86	0.43
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
36:3:130:C:H2'	36:3:131:U:H6	1.84	0.43
36:3:76:C:O2'	36:3:77:C:H5'	2.18	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
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
35:2:147:A:N9	35:2:148:A:C8	2.87	0.43
35:2:1538:U:H3'	35:2:1538:U:C6	2.53	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
35:2:244:A:N7	35:2:244:A:OP2	2.52	0.43
35:2:210:A:C2	35:2:256:A:C6	3.07	0.43
35:2:142:G:C5	35:2:266:A:C5	3.07	0.43
35:2:24:U:H3'	35:2:26:A:OP2	2.19	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
35:2:50:C:N4	35:2:425:A:OP2	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:45:U:O4	35:2:434:G:O2'	2.36	0.43
35:2:484:C:H5''	35:2:485:A:OP2	2.19	0.43
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
35:2:57: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
35:2:879:G:C8	35:2:879:G:P	3.12	0.43
35:2:883:C:P	35:2:883:C:H6	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
35:2:93:A:O4'	35:2:93:A:N3	2.49	0.43
35:2:974:A:C5	35:2:975:C:C5	3.07	0.43
35:2:977:A:C2'	35:2:977:A:N3	2.80	0.43
36:3:182:G:H2'	36:3:183:A:O4'	2.19	0.43
36:3:95:U:OP2	36:3:95:U:H6	2.00	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
1:B:113:UNK:CA	10:W:198:THR:C	2.56	0.43
33:0:74:TYR:CD2	33:0:80:LEU:HA	2.54	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
35:2:312:A:H2	35:2:315:A:H5'	1.84	0.42
35:2:30:G:O2'	35:2:31:C:C6	2.69	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:OP2	35:2:500:C:C6	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
35:2:57:G:C6	35:2:90:C:N4	2.72	0.42
35:2:546:U:O4	35:2:590:C:N3	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:84:A:N6	35:2:85:A:N3	2.66	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
35:2:99:C:C6	35:2:99:C:C5'	3.02	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
36:3:85:A:C4	36:3:86:U:C5	3.07	0.42
10:X:18:CYS:O	10:X:25:PHE:HA	2.19	0.42
33:0:78:GLN:CG	33:0:143:LEU:HD22	2.49	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
35:2:146:U:H2'	35:2:147:A:C1'	2.48	0.42
35:2:1477:G:C2'	35:2:1478:G:C5'	2.96	0.42
35:2:162:A:C6	35:2:163:G:O6	2.72	0.42
35:2:136:C:O2	35:2:176:C:O3'	2.37	0.42
35:2:195:G:O4'	35:2:195:G:OP2	2.36	0.42
35:2:200:A:H2'	35:2:201:G:C1'	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
35:2:253:A:C2	35:2:254:A:C4	3.07	0.42
35:2:273:G:O4'	35:2:273:G:OP2	2.37	0.42
35:2:279:G:OP1	35:2:280:U:N3	2.52	0.42
35:2:273:G:O6	35:2:284:G:C6	2.72	0.42
35:2:269:G:N2	35:2:285:G:H22	2.16	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
35:2:57:G:C2	35:2:58:U:N1	2.87	0.42
35:2:617:U:O4'	35:2:1031:U:C2	2.72	0.42
35:2:81:G:C5	35:2:82:U:N1	2.87	0.42
35:2:886:U:O4	35:2:926:A:C6	2.69	0.42
35:2:886:U:H6	35:2:886:U:P	2.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:94:U:O4'	35:2:94:U:O2	2.33	0.42
35:2:950:C:N3	35:2:951:A:C5	2.87	0.42
35:2:629:U:O4	35:2:970:A:OP2	2.36	0.42
36:3:116:G:N1	36:3:190:C:C4	2.87	0.42
36:3:69:G:C2'	36:3:70:A:C8	3.02	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
33:0:123:LEU:H	33:0:123:LEU:HD12	1.84	0.42
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:C8	35:2:246:G:H3'	2.52	0.42
35:2:288:A:C8	35:2:289:U:C5	3.08	0.42
35:2:265:A:N6	35:2:290:G:N7	2.67	0.42
35:2:294:C:N3	35:2:295:A:C6	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
35:2:309:C:C2	35:2:358:U:N3	2.87	0.42
35:2:34:G:N1	35:2:35:U:H1'	2.34	0.42
35:2:366:A:C4	35:2:376:C:N3	2.87	0.42
35:2:101:U:N3	35:2:385:A:O2'	2.49	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
35:2:57: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
35:2:887: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
36:3:140:C:H2'	36:3:140:C:O2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
2:G:2406:ALA:N	2:G:2813:VAL:CB	2.82	0.42
10:W:5:ILE:HA	10:W:19:GLU:O	2.20	0.42
33:0:115:THR:CG2	33:0:116:SER:H	2.30	0.42
33:0:3:ILE:HD13	33:0:37:LYS:HZ3	1.83	0.42
33:0:70:PHE:CD1	33:0:70:PHE:N	2.88	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
35:2:153:G:N1	35:2:162:A:C8	2.86	0.42
35:2:23:G:C2'	35:2:24:U:H4'	2.49	0.42
35:2:252:U:C6	35:2:253:A:H8	2.36	0.42
35:2:206:A:N6	35:2:262:U:C5	2.87	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:P	35:2:372:G:H8	2.43	0.42
35:2:384:G:P	35:2:384:G:H8	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
35:2:60:U:O2'	35:2:61:A:C5'	2.67	0.42
35:2:627:C:H2'	35:2:628:G:O4'	2.19	0.42
35:2:67:A:N6	35:2:79:C:H5'	2.34	0.42
35:2:870:C:H2'	35:2:871:G:O4'	2.19	0.42
35:2:941:A:C8	35:2:941:A:OP2	2.72	0.42
35:2:634:G:C6	35:2:966:A:N6	2.87	0.42
36:3:241:G:O5'	36:3:241:G:C8	2.72	0.42
36:3:255:U:HO2'	36:3:256:G:C5'	2.31	0.42
36:3:64:C:O2	36:3:65:C:C2	2.72	0.42
1:C:227:UNK:O	1:C:229:UNK:N	2.51	0.42
33:0:119:ALA:O	33:0:120:ILE:C	2.58	0.42
35:2:1029:U:O3'	35:2:1031:U:C5	2.71	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:103:A:N3	35:2:104:A:N1	2.68	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:H5'	35:2:1159:C:H6	1.84	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
35:2:1462:G:C6	35:2:1463:C:C4	3.08	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
35:2:253:A:N6	35:2:254:A:N6	2.67	0.42
35:2:210:A:N6	35:2:256:A:N6	2.67	0.42
35:2:291:G:H8	35:2:291:G:P	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
35:2:50:C:H5	35:2:425:A:OP1	2.02	0.42
35:2:49:C:H2'	35:2:50:C:H6	1.85	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
36:3:192:A:C8	36:3:194:G:C6	3.07	0.42
36:3:72:C:C4	36:3:73:C:C4	3.07	0.42
3:H:151:UNK:CB	3:H:240:UNK:CA	2.98	0.42
35:2:619:A:N6	35:2:1086:A:N6	2.67	0.42
35:2:123:G:H3'	35:2:124:A:O4'	2.19	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
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
35:2:22:A:C4	35:2:23:G:N7	2.88	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:59:C:O4'	35:2:59:C:O2	2.38	0.42
35:2:633:U:C4	35:2:967:A:N1	2.88	0.42
35:2:81:G:OP2	35:2:81:G:C8	2.69	0.42
35:2:895:G:N1	35:2:918:U:C4	2.87	0.42
35:2:895:G:C6	35:2:917:U:N3	2.85	0.42
35:2:940:A:N6	35:2:941:A:N1	2.67	0.42
36:3:85:A:C5	36:3:86:U:C5	3.07	0.42
9:V:119:LYS:CA	10:X:188:VAL:CB	2.96	0.42
35:2:1044:U:C2	35:2:1076:A:C2	3.06	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
35:2:124:A:H4'	35:2:124:A:OP1	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
35:2:213: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
35:2:206:A:C5	35:2:262:U:C2	3.08	0.42
35:2:273:G:OP1	35:2:273:G:C8	2.73	0.42
35:2:27:U:O2'	35:2:28:A:O4'	2.30	0.42
35:2:324:U:N3	35:2:325:G:C5	2.88	0.42
35:2:116:U:O2'	35:2:333:A:C2	2.71	0.42
35:2:333:A:C4	35:2:334:G:C8	3.07	0.42
35:2:333:A:C2	35:2:334:G:H1'	2.55	0.42
35:2:33:U:P	35:2:33:U:O4'	2.78	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
35:2:485:A:N3	35:2:485:A:O2'	2.52	0.42
35:2:481:A:H2	35:2:507:U:C2	2.37	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:903:U:O2	35:2:906:A:N6	2.53	0.42
35:2:921:U:C5	35:2:921:U:OP2	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
36:3:269:G:O5'	36:3:269:G:H8	2.03	0.42
4:I:228:GLY:HA3	4:I:246:ILE:O	2.19	0.42
1:B:112:UNK:O	10:W:198:THR:CB	2.68	0.42
33:0:117:GLY:O	33:0:118:LYS:C	2.58	0.42
33:0:18:ARG:HA	33:0:73:VAL:O	2.20	0.42
35:2:1043:A:H2'	35:2:1043:A:N3	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
35:2:136: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
35:2:1533: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
35:2:27:U:C4	35:2:28:A:C6	3.08	0.42
35:2:309:C:H2'	35:2:310:C:O4'	2.20	0.42
35:2:347:G:OP2	35:2:347:G:C8	2.73	0.42
35:2:39:A:N6	35:2:471:A:N6	2.67	0.42
35:2:394:C:N4	35:2:401:A:H2'	2.34	0.42
35:2:454:U:H2'	35:2:454:U:P	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
35:2:54:C:C2	35:2:55:A:N1	2.87	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
35:2:883:C:O2	35:2:946:U:C2	2.73	0.42
9:V:95:LEU:CB	36:3:114:A:H2'	2.50	0.42
36:3:183:A:C2	36:3:184:G:C5	3.07	0.42
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
36:3:69:G:H3'	36:3:70:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:3:79:G:C5	36:3:80:G:N7	2.88	0.42
5:M:582:UNK:O	5:M:583:UNK:CB	2.68	0.42
1:J:259:UNK:C	7:R:204:UNK:N	2.83	0.42
9:V:38:GLY:CA	36:3:194:G:C6	2.91	0.42
34:1:8:THR:HA	34:1:51:ASN:N	2.35	0.42
35:2:1051:G:N2	35:2:1068:C:C2	2.87	0.42
35:2:1053:G:H3'	35:2:1053:G:C8	2.54	0.42
35:2:148:A:C5	35:2:149:C:H1'	2.55	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
35:2:139:C:H41	35:2:175:G:H21	1.68	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
35:2:32:U:O2'	35:2:33:U:P	2.75	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
35:2:38:C:H3'	35:2:38:C:C6	2.54	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:H8	35:2:429:G:P	2.43	0.42
35:2:487:G:H4'	35:2:488:G:C5'	2.38	0.42
35:2:514:G:C2'	35:2:514:G:N3	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
36:3:177:G:O2'	36:3:178:U:H6	2.03	0.42
36:3:197:C:H6	36:3:197:C:O5'	2.02	0.42
36:3:198:U:C6	36:3:198:U:OP2	2.73	0.42
36:3:201:A:H2'	36:3:201:A:N3	2.34	0.42
36:3:246:G:C6	36:3:247:G:O6	2.73	0.42
33:0:58:PHE:N	35:2:522:U:O5'	2.40	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
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
35:2:34:G:C6	35:2:35:U:C1'	3.00	0.42
35:2:354:C:OP1	35:2:355:G:OP2	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:C3'	35:2:404:G:C8	3.02	0.42
35:2:414:C:H5	35:2:414:C:OP2	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
35:2:57:G:C5	35:2:58:U:C4	3.08	0.42
35:2:630:A:C4	35:2:970:A:N7	2.87	0.42
35:2:630:A:C5	35:2:631:G:C8	3.08	0.42
35:2:867:G:H3'	35:2:868:G:H8	1.84	0.42
35:2:906:A:C3'	35:2:906:A:C8	3.03	0.42
35:2:91:G:C6	35:2:92:A:C5	3.08	0.42
35:2:876:G:C5	35:2:933:A:N6	2.88	0.42
35:2:938:G:C6	35:2:940:A:H5''	2.55	0.42
35:2:875:G:C6	35:2:953:G:N1	2.88	0.42
35:2:963:A:H1'	35:2:965:U:C4	2.55	0.42
36:3:87:G:H1	36:3:263:U:H3	1.68	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
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
35:2:145:A:N6	35:2:146:U:N3	2.67	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
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
35:2:28:A:OP2	35:2:29:U:OP2	2.37	0.41
35:2:30:G:O2'	35:2:31:C:H6	2.03	0.41
35:2:344:A:OP2	35:2:345:U:H5	2.02	0.41
35:2:312:A:C6	35:2:353:A:N7	2.82	0.41
35:2:396:G:H22	35:2:399:A:C5'	2.11	0.41
35:2:395:U:C5	35:2:401:A:N7	2.88	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:58:U:O2'	35:2:59:C:P	2.78	0.41
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
35:2:63:G:N2	35:2:87:C:C2	2.64	0.41
35:2:82:U:C3'	35:2:82:U:C6	3.02	0.41
35:2:902:G:P	35:2:902:G:C8	3.11	0.41
35:2:915:A:OP1	35:2:916:U:C5	2.67	0.41
35:2:933:A:HO2'	35:2:934:C:P	2.36	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
35:2:869:A:N6	35:2:960:U:C4	2.88	0.41
35:2:974:A:H3'	35:2:975:C:H5	1.80	0.41
36:3:260:G:O4'	36:3:260:G:OP1	2.38	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
5:O:582:UNK:O	5:O:583:UNK:CB	2.68	0.41
35:2:100:A:N6	35:2:101:U:O4	2.53	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
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
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
35:2:27: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
35:2:295: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
35:2:31:C:P	35:2:31:C:O4'	2.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:328:A:N6	35:2:341:A:N6	2.68	0.41
35:2:344:A:O5'	35:2:344:A:C8	2.74	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
35:2:485:A:N1	35:2:502:U:C5	2.83	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
35:2:899: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
36:3:101:G:N1	36:3:252:C: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
35:2:99:C:N1	35:2:101:U:H5	2.17	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
35:2:127: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
35:2:1480:G:C2	35:2:1528:U:C2	3.07	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
35:2:93:A:N1	35:2:395:U:O2	2.53	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:O5'	35:2:516:G:C8	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
35:2:76:A:H4'	35:2:77:U:N1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:79:C:H2'	35:2:79:C:O2	2.21	0.41
35:2:71:A:C2	35:2:83:G:N2	2.89	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
35:2:91:G:C6	35:2:92:A:N6	2.88	0.41
35:2:931:C:H3'	35:2:932:U:C2'	2.49	0.41
36:3:197:C:H2'	36:3:198:U:N3	2.35	0.41
33:0:30:SER:CB	35:2:534:A:O2'	2.49	0.41
35:2:1044:U:H3	35:2:1075:C:N4	2.18	0.41
35:2:1052:U:C3'	35:2:1052:U:C6	3.02	0.41
35:2:1073:G:C5	35:2:1074:G:N7	2.88	0.41
35:2:1075:C:C3'	35:2:1075:C:C6	3.03	0.41
35:2:119:A:H1'	35:2:397:A:N9	2.32	0.41
35:2:1474:G:C4	35:2:1475:A:N7	2.88	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
35:2:46:A:H62	35:2:433:C:C4'	2.33	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
35:2:70:C:O2	35:2:83:G:C2	2.62	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
33:0:123:LEU:N	33:0:123:LEU:HD12	2.35	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
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
35:2:156:A:C4	35:2:418:G:C5	3.08	0.41
35:2:450:U:C4	35:2:457:G:N1	2.89	0.41
35:2:446:A:N6	35:2:461:G:H1'	2.24	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
35:2:548:G:O6	35:2:589:C:N3	2.53	0.41
35:2:547:U:C4	35:2:590:C:N3	2.86	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
35:2:878:G:H8	35:2:878:G:P	2.43	0.41
35:2:878:G:C2	35:2:879:G:C5	3.09	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
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
36:3:97:C:N3	36:3:256:G:C6	2.84	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
35:2:1045:C:H6	35:2:1045:C:P	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
35:2:86:A:O5'	35:2:148:A:H4'	2.21	0.41
35:2:1592:A:C5	35:2:1605:G:N2	2.88	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:23:G:O3'	35:2:24:U:H4'	2.19	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
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
35:2:49:C:C5	35:2:425:A:C5'	3.04	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
35:2:76: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
35:2:878:G:C2'	35:2:878:G:N3	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
36:3:243:G:C2	36:3:244:G:C4	3.08	0.41
36:3:69:G:C3'	36:3:70:A:C8	3.04	0.41
36:3:85:A:P	36:3:85:A:H8	2.43	0.41
1:D:75:UNK:O	1:E:162:UNK:O	2.38	0.41
9:U:127:LYS:O	10:W:192:PRO:CA	2.67	0.41
9:U:126:GLY:CA	10:W:183:ALA:O	2.64	0.41
33:0:148:ALA:O	33:0:149:LYS:C	2.58	0.41
33:0:3:ILE:CD1	33:0:3:ILE:N	2.83	0.41
33:0:69:GLY:O	33:0:70:PHE:HD1	2.02	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
35:2:111:U:N3	35:2:303:U:H1'	2.35	0.41
35:2:1161:C:H2'	35:2:1161:C:O2	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
35:2:156:A:H2'	35:2:157:A:C1'	2.51	0.41
35:2:1590:G:C4	35:2:1591:C:C5	3.09	0.41
35:2:171:A:O2'	35:2:172:C:O5'	2.27	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
35:2:258:C:O2'	35:2:259:U:C6	2.73	0.41
35:2:261:U:HO2'	35:2:262:U:H5''	1.81	0.41
35:2:267:U:N3	35:2:268:C:N3	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:P	35:2:521:A:C8	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
35:2:903: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:H2'	35:2:929:A:N3	2.36	0.41
35:2:939:A:N6	35:2:940:A:C6	2.89	0.41
35:2:869:A:C6	35:2:960:U:C5	3.08	0.41
35:2:965:U:O5'	35:2:966:A:P	2.79	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
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
2:G:3234:GLY:CA	33:0:146:PHE:N	2.84	0.41
1:J:306:UNK:HA	7:R:203:UNK:C	2.51	0.41
8:S:298:LEU:O	8:S:318:GLY:HA3	2.20	0.41
8:T:327:HIS:C	36:3:108:A:H62	2.24	0.41
8:T:331:ARG:CA	36:3:104:C:C3'	2.82	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:H5'	35:2:1073:G:H8	1.86	0.41
35:2:1044:U:N3	35:2:1075:C:C4	2.87	0.41
35:2:105:A:N3	35:2:107:C:C5	2.89	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
35:2:160:C:O2'	35:2:161:U:P	2.79	0.41
35:2:154:G:N1	35:2:161:U:C2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:24:U:H3'	35:2:26:A:H5'	2.02	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:P	35:2:328:A:C8	3.12	0.41
35:2:333:A:N3	35:2:334:G:H1'	2.36	0.41
35:2:343:C:H6	35:2:343:C:P	2.44	0.41
35:2:36:C:C3'	35:2:36:C:C6	3.02	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
35:2:45:U:H3	35:2:433:C:H2'	1.83	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
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
35:2:516:G:C2	35:2:536:C:N3	2.87	0.41
35:2:537:G:C4	35:2:538:A:C8	3.08	0.41
35:2:57:G:C5	35:2:58:U:C5	3.09	0.41
35:2:629:U:O4	35:2:969:C:H2'	2.21	0.41
35:2:63:G:H8	35:2:63:G:P	2.42	0.41
35:2:875:G:H22	35:2:952:A:H2	1.67	0.41
35:2:90:C:OP2	35:2:90:C:H6	2.04	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
35:2:882:U:O2	35:2:947:U:C2	2.74	0.41
35:2:959:U:H1'	35:2:960:U:P	2.60	0.41
35:2:959:U:N1	35:2:960:U:C5	2.80	0.41
35:2:963:A:C1'	35:2:964:U:OP2	2.68	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
36:3:79:G:C6	36:3:80:G:C5	3.09	0.41
36:3:98:U:OP2	36:3:98:U:C6	2.74	0.41
1:D:75:UNK:C	1:E:162:UNK:C	2.96	0.41
33:0:42:LEU:HD23	33:0:53:VAL:CG1	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:617:U:H1'	35:2:1030:A:H5'	2.03	0.41
35:2:103:A:H1'	35:2:308:C:C4	2.56	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
35:2:127: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
35:2:1587:A:N3	35:2:1587:A:H2'	2.36	0.41
35:2:151:G:N1	35:2:164:A:C5	2.89	0.41
35:2:187:G:N3	35:2:197:A:C2	2.89	0.41
35:2:205:U:H2'	35:2:205:U:O2	2.19	0.41
35:2:265:A:N1	35:2:267:U:N3	2.69	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
35:2:388:G:N1	35:2:410:A:C4	2.88	0.41
35:2:406:U:O2	35:2:406:U:H2'	2.21	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
35:2:482: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
35:2:493:U:O3'	35:2:494:U:C2	2.74	0.41
35:2:488:G:C4	35:2:500:C:C2	3.09	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
35:2:535:A:N3	35:2:535:A:H2'	2.35	0.41
35:2:57:G:N2	35:2:90:C:C2	2.86	0.41
35:2:899:G:C6	35:2:911:U:C2	3.09	0.41
35:2:917:U:H3'	35:2:917:U:H6	1.85	0.41
35:2:948:G:H8	35:2:948:G:P	2.43	0.41
35:2:880:C:O2	35:2:949:C:O2	2.39	0.41
35:2:875:G:C2	35:2:952:A:N1	2.87	0.41
35:2:957:G:C2	35:2:958:U:C2	3.08	0.41
36:3:115:G:C6	36:3:116:G:C4	3.09	0.41
36:3:97:C:OP2	36:3:97:C:C6	2.74	0.41
33:0:119:ALA:C	33:0:123:LEU:HD13	2.41	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
35:2:1477:G:H2'	35:2:1478:G:H5'	2.02	0.41
35:2:1591:C:O2'	35:2:1592:A:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:20:G:H2'	35:2:20:G:N3	2.35	0.41
35:2:213:A:C2	35:2:253:A:C4	3.09	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
35:2:35:U:H2'	35:2:36:C:C5'	2.50	0.41
35:2:387:A:C2	35:2:426:G:P	3.14	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
35:2:156:A:H2	35:2:419:G:N2	2.19	0.41
35:2:481:A:C3'	35:2:482:U:H6	2.34	0.41
35:2:498:G:H3'	35:2:498:G:C8	2.56	0.41
35:2:499:U:C6	35:2:499:U:C3'	3.04	0.41
35:2:526:A:C5'	35:2:527:A:N1	2.74	0.41
35:2:546:U:O4	35:2:590:C:C2	2.73	0.41
35:2:76:A:H4'	35:2:77:U:C6	2.56	0.41
35:2:905:A:O4'	35:2:905:A:OP2	2.38	0.41
35:2:930:A:O5'	35:2:930:A:C8	2.74	0.41
35:2:630:A:C5	35:2:970:A:N7	2.89	0.41
35:2:97:C:H1'	35:2:426:G:H5'	2.00	0.41
36:3:100:G:C6	36:3:253:G:C6	3.09	0.41
36:3:72:C:H2'	36:3:73:C:C1'	2.51	0.41
35:2:976:G:C4	35:2:1023:A:C6	3.09	0.41
35:2:1043:A:OP2	35:2:1043:A:C8	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
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:C6	35:2:276:C:O2'	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:C5	35:2:358:U:OP2	2.74	0.41
35:2:389:G:C6	35:2:390:G:N7	2.89	0.41
35:2:119:A:C4	35:2:397:A:C4	3.09	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:P	35:2:442:C:H6	2.44	0.41
35:2:495:C:N4	35:2:496:G:N3	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:N3	35:2:973:A:H2'	2.35	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
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
9:U:126:GLY:C	10:W:183:ALA:C	2.74	0.41
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
35:2:1061: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
35:2:127:G:C6	35:2:184:C:C4'	2.93	0.40
35:2:86:A:OP1	35:2:149:C:OP1	2.39	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
35:2:155:U:C2'	35:2:157:A:OP2	2.69	0.40
35:2:1587:A:C4	35:2:1588:G:C8	3.09	0.40
35:2:1526:A:H1'	35:2:1589:C:H1'	2.03	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:P	35:2:430:G:H8	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
35:2:69:G:N3	35:2:69:G:O4'	2.52	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
4:I:227:THR:O	4:I:229:GLU:N	2.51	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

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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
33:0:61:GLN:O	33:0:63:GLY:N	2.54	0.40
35:2:624:G:C5	35:2:1027:A:N1	2.90	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
35:2:1038:U:H3	35:2:1091:A:H1'	1.86	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
35:2:187: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:C6	35:2:270:C:OP2	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
35:2:72: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
35:2:948: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
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
36:3:69:G:H8	36:3:69:G:OP2	2.01	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
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
35:2:119:A:C8	35:2:397:A:N3	2.89	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:2:48:G:H1	35:2:432:G:C1'	2.29	0.40
35:2:494:U:H5	35:2:495:C:N1	2.19	0.40
33:0:32:THR:CB	35:2:533:U:N1	2.76	0.40
35:2:516:G:C2	35:2:536:C:C2	3.09	0.40
35:2:65:A:H2'	35:2:66:U:C5	2.56	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
35:2:879:G:N1	35:2:950:C:C2	2.90	0.40
35:2:96:G:H2'	35:2:97:C:O4'	2.21	0.40
36:3:188:G:C6	36:3:189:G:N7	2.89	0.40
33:0:98:LYS:N	33:0:98:LYS:CD	2.68	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
35:2:103:A:C4'	35:2:104:A:OP2	2.65	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
35:2:1046:G:N3	35:2:1073:G:C4	2.89	0.40
35:2:1084:A:O5'	35:2:1084:A:H8	2.04	0.40
35:2:142:G:C4	35:2:266:A:C6	3.10	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
35:2:164:A:C6	35:2:165:G:C5	3.09	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
35:2:204:G:N1	35:2:264:G:N1	2.69	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
35:2:478:A:HO2'	35:2:479:C:H6	1.69	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
35:2:52:U:C2	35:2:53:G:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:60:U:N3	35:2:62:A:C2	2.89	0.40
35:2:878:G:P	35:2:878:G:C8	3.14	0.40
35:2:887:A:C6	35:2:926:A:N1	2.89	0.40
35:2:91:G:N1	35:2:92:A:C5	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
36:3:154:G:C2	36:3:176:U:O2	2.75	0.40
36:3:190:C:C5	36:3:191:G:C6	3.09	0.40
36:3:97:C:C2	36:3:256:G:N2	2.77	0.40
36:3:257:G:C2	36:3:258:A:C5	3.10	0.40
36:3:85:A:O2'	36:3:86:U:H5'	2.21	0.40
6:Q:356:UNK:CB	6:Q:405:UNK:C	2.99	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
35:2:1039:A:C6	35:2:1080:U:C4	3.10	0.40
35:2:1078:C:C4	35:2:1079:U:O4	2.74	0.40
35:2:111:U:O4	35:2:303:U:N3	2.54	0.40
35:2:1161:C:C2'	35:2:1162:C:H5'	2.52	0.40
35:2:120:U:H2'	35:2:121:U:C6	2.57	0.40
35:2:1594:G:C2'	35:2:1595:U:H5'	2.51	0.40
35:2:164:A:C4	35:2:165:G:C8	3.10	0.40
35:2:188:A:C4	35:2:198:A:C5	3.09	0.40
35:2:188:A:C8	35:2:198:A:N7	2.89	0.40
35:2:186:C:N3	35:2:200:A:C5	2.90	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
35:2:322:G:O6	35:2:343:C:C4	2.72	0.40
35:2:319:U:C4'	35:2:323:A:C8	3.04	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:OP2	35:2:489:C:H6	2.05	0.40
35:2:490:C:N3	35:2:491:C:C5	2.90	0.40
35:2:492:A:O5'	35:2:492:A:N9	2.55	0.40
35:2:50:C:C6	35:2:424:C:H5''	2.56	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
35:2:84:A:C6	35:2:85:A:O4'	2.74	0.40
35:2:871:G:C6	35:2:872:G:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2:879:G:C3'	35:2:880:C:H6	2.25	0.40
35:2:918:U:P	35:2:918:U:H6	2.45	0.40
35:2:877:G:C6	35:2:951:A:N1	2.86	0.40
35:2:957:G:C2	35:2:958:U:C4	3.09	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
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

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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%)	5	40
4	I	626/939 (67%)	609 (97%)	17 (3%)	0	100	100
8	S	363/412 (88%)	344 (95%)	14 (4%)	5 (1%)	14	58
8	T	363/412 (88%)	341 (94%)	20 (6%)	2 (1%)	30	74
9	U	120/130 (92%)	111 (92%)	7 (6%)	2 (2%)	11	55
9	V	120/130 (92%)	112 (93%)	6 (5%)	2 (2%)	11	55
10	W	225/232 (97%)	206 (92%)	16 (7%)	3 (1%)	15	60
10	X	225/232 (97%)	204 (91%)	17 (8%)	4 (2%)	11	53
11	Y	353/573 (62%)	341 (97%)	11 (3%)	1 (0%)	46	83
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%)	2	26

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	c	190/297 (64%)	163 (86%)	12 (6%)	15 (8%)	1	19
16	d	122/184 (66%)	110 (90%)	8 (7%)	4 (3%)	5	40
17	e	205/252 (81%)	190 (93%)	15 (7%)	0	100	100
17	f	214/252 (85%)	201 (94%)	11 (5%)	2 (1%)	21	67
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%)	3	33
19	j	663/1073 (62%)	591 (89%)	43 (6%)	29 (4%)	3	33
20	k	172/391 (44%)	151 (88%)	12 (7%)	9 (5%)	2	30
21	o	213/265 (80%)	161 (76%)	33 (16%)	19 (9%)	1	17
22	p	257/259 (99%)	193 (75%)	40 (16%)	24 (9%)	1	16
23	q	165/225 (73%)	55 (33%)	46 (28%)	64 (39%)	0	0
24	r	233/293 (80%)	188 (81%)	31 (13%)	14 (6%)	2	26
25	s	184/197 (93%)	151 (82%)	23 (12%)	10 (5%)	2	29
26	t	205/208 (99%)	147 (72%)	38 (18%)	20 (10%)	1	14
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%)	1	17
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	21
34	1	45/67 (67%)	17 (38%)	12 (27%)	16 (36%)	0	0
All	All	8021/13339 (60%)	6743 (84%)	755 (9%)	523 (6%)	3	25

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

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Mol	Chain	Res	Type
10	W	218	PRO
10	X	218	PRO
14	b	93	LYS
14	b	166	ILE
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

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Mol	Chain	Res	Type
20	k	176	THR
21	o	37	PRO
21	o	43	LYS
21	o	52	LYS
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

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Mol	Chain	Res	Type
24	r	43	ASP
24	r	87	ARG
24	r	181	ARG
25	s	132	LEU
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

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Mol	Chain	Res	Type
28	v	50	ILE
28	v	58	HIS
28	v	62	GLN
28	v	65	VAL
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

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Mol	Chain	Res	Type
30	x	118	ILE
30	x	126	PRO
30	x	136	SER
31	y	10	GLN
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

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Mol	Chain	Res	Type
14	b	92	ALA
14	b	135	HIS
15	c	178	LYS
15	c	201	GLY
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

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Mol	Chain	Res	Type
23	q	167	ARG
23	q	181	GLU
23	q	183	ALA
23	q	197	GLU
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

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Mol	Chain	Res	Type
30	x	98	ASP
30	x	104	GLU
30	x	107	LYS
30	x	129	PHE
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

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Mol	Chain	Res	Type
19	j	220	LEU
19	j	308	SER
19	j	741	GLN
19	j	859	PRO
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

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Mol	Chain	Res	Type
31	y	7	ARG
31	y	117	LYS
31	y	135	ARG
32	z	46	TYR
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

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Mol	Chain	Res	Type
28	v	81	ALA
29	w	32	ASP
29	w	38	THR
29	w	110	LEU
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

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Mol	Chain	Res	Type
27	u	74	ASN
27	u	75	ALA
27	u	125	ALA
27	u	170	GLY
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	l	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

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Mol	Chain	Res	Type
2	G	1943	PRO
14	b	162	VAL
15	c	212	PHE
23	q	121	ILE
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%)	166 (87%)	25 (13%)	5	28
22	p	226/226 (100%)	197 (87%)	29 (13%)	5	29
24	r	201/244 (82%)	187 (93%)	14 (7%)	19	56
25	s	172/183 (94%)	156 (91%)	16 (9%)	11	42
26	t	184/185 (100%)	171 (93%)	13 (7%)	18	55
31	y	141/141 (100%)	125 (89%)	16 (11%)	7	33
33	0	133/134 (99%)	124 (93%)	9 (7%)	20	57
All	All	1248/1338 (93%)	1126 (90%)	122 (10%)	14	39

All (122) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
21	o	38	ILE
21	o	45	PHE
21	o	61	GLU
21	o	63	ILE

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Mol	Chain	Res	Type
21	o	64	LYS
21	o	69	GLU
21	o	74	ASP
21	o	81	ASP
21	o	92	ASP
21	o	97	ARG
21	o	106	LEU
21	o	111	ASP
21	o	116	MET
21	o	124	ILE
21	o	129	ASP
21	o	132	THR
21	o	134	ASP
21	o	138	ILE
21	o	142	THR
21	o	146	THR
21	o	150	SER
21	o	190	PHE
21	o	194	LEU
21	o	197	GLU
21	o	211	PHE
22	p	12	ILE
22	p	21	ASN
22	p	29	THR
22	p	37	LYS
22	p	48	LEU
22	p	51	ARG
22	p	57	ASN
22	p	81	ASP
22	p	89	MET
22	p	92	VAL
22	p	106	ASP
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	191	ILE
22	p	193	ARG

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Mol	Chain	Res	Type
22	p	207	PHE
22	p	212	VAL
22	p	222	THR
22	p	228	PHE
22	p	238	ILE
22	p	239	GLU
22	p	244	ASP
22	p	254	ARG
24	r	9	LEU
24	r	19	ASP
24	r	20	ASP
24	r	45	PHE
24	r	74	ARG
24	r	87	ARG
24	r	91	PHE
24	r	105	ASP
24	r	145	PHE
24	r	152	ASP
24	r	155	LEU
24	r	165	PHE
24	r	181	ARG
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	131	LEU
25	s	136	LEU
25	s	144	ARG
25	s	146	ASP
25	s	148	THR
25	s	152	ARG
25	s	159	ASP
25	s	174	TYR
25	s	179	THR
25	s	181	GLU
26	t	21	HIS
26	t	31	ARG
26	t	35	MET
26	t	55	ARG

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Mol	Chain	Res	Type
26	t	56	VAL
26	t	66	LEU
26	t	74	SER
26	t	86	ILE
26	t	109	ILE
26	t	112	ILE
26	t	134	ASP
26	t	146	HIS
26	t	185	ARG
31	y	2	ASP
31	y	13	ASP
31	y	16	PHE
31	y	20	LYS
31	y	32	ARG
31	y	45	LYS
31	y	68	LYS
31	y	69	ILE
31	y	78	LYS
31	y	97	ASN
31	y	114	PHE
31	y	120	ASP
31	y	121	ILE
31	y	128	ARG
31	y	133	THR
31	y	135	ARG
33	0	7	THR
33	0	24	ASP
33	0	26	LEU
33	0	56	TYR
33	0	78	GLN
33	0	98	LYS
33	0	102	ARG
33	0	121	THR
33	0	130	ASP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (37) such sidechains are listed below:

Mol	Chain	Res	Type
21	o	133	ASN
21	o	166	GLN
21	o	175	ASN
21	o	180	ASN

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Mol	Chain	Res	Type
21	o	193	ASN
22	p	8	HIS
22	p	21	ASN
22	p	53	ASN
22	p	186	GLN
22	p	204	GLN
22	p	211	HIS
24	r	25	ASN
24	r	34	GLN
24	r	81	HIS
24	r	180	GLN
24	r	206	ASN
25	s	28	ASN
25	s	44	GLN
25	s	49	GLN
25	s	54	ASN
25	s	154	GLN
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	153	GLN
33	0	20	GLN
33	0	27	HIS
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 carbohydrates 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	O	2
5	M	2
5	m	2
1	P	1
1	J	1
1	D	1
1	K	1
1	E	1
1	l	1
1	B	1
1	C	1
1	n	1
1	A	1
1	N	1
1	L	1
1	F	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