



# Full wwPDB/EMDatabank EM Map/Model Validation Report ⓘ

Mar 2, 2017 – 12:57 pm GMT

PDB ID : 5IMQ  
EMDB ID: : EMD-6584  
Title : Structure of ribosome bound to cofactor at 3.8 angstrom resolution  
Authors : Kumar, V.; Ero, R.; Jian, G.K.; Ahmed, T.; Zhan, Y.; Bhushan, S.; Gao, Y.G.  
Deposited on : 2016-03-06  
Resolution : 3.80 Å(reported)  
Based on PDB ID : 4W2E, 5AA0

This is a Full wwPDB/EMDatabank EM Map/Model Validation Report  
for a publicly released PDB/EMDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<http://wwpdb.org/validation/2016/EMValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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MolProbity : 4.02b-467  
Mogul : 1.7.2 (RC1), CSD as538be (2017)  
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : recalc29047

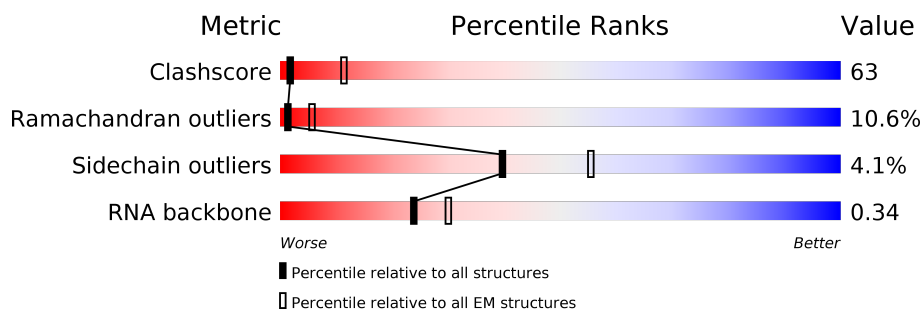
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.80 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	125131	1336
Ramachandran outliers	121729	1120
Sidechain outliers	121581	1026
RNA backbone	3398	335

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  $\geq 3$ , 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	1	37	35% 49% 16%
2	2	173	58% 17% 25%
3	3	147	13% 55% 20% 9%
4	4	77	19% 52% 29%
5	5	76	11% 51% 34%
6	A	1522	11% 56% 31%
7	D	2893	9% 45% 38% 7%
8	E	123	12% 54% 33%

















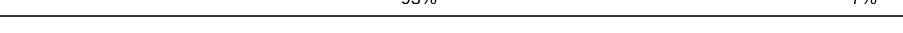
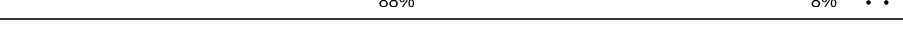

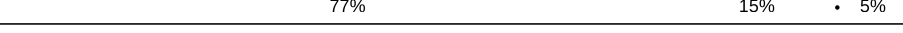



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Mol	Chain	Length	Quality of chain
9	F	256	
10	G	239	
11	H	209	
12	I	162	
13	J	101	
14	K	156	
15	L	138	
16	M	128	
17	N	105	
18	O	129	
19	P	132	
20	Q	126	
21	R	61	
22	S	89	
23	T	88	
24	U	105	
25	V	88	
26	W	93	
27	X	106	
28	Y	27	
29	Z	229	
30	a	276	
31	b	206	
32	c	210	
33	d	182	

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Mol	Chain	Length	Quality of chain
34	e	180	 83% 13% ..
35	f	140	 88% 11% ..
36	g	122	 85% 15%
37	h	150	 79% 16% ..
38	i	141	 84% 13% .
39	j	118	 93% 6% .
40	k	112	 88% 10% .
41	l	146	 66% 12% . 20%
42	m	118	 96% ..
43	n	101	 86% 14%
44	o	113	 89% 8% .
45	p	96	 91% 6% ..
46	q	110	 78% 22%
47	r	206	 77% 10% 13%
48	s	85	 91% . 7%
49	t	67	 93% 7%
50	u	60	 88% 8% ..
51	v	71	 77% 21% .
52	w	60	 77% 15% . 5%
53	x	54	 56% 33% . 9%
54	y	49	 88% 12%
55	z	65	 80% 14% 5% .
56	B	610	 8% 52% 32% 5% .

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	GCP	B	701	-	-	X	-

## 2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 153046 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 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	1	37	Total	C	N	O	S	0	0
			307	188	68	47	4		

- Molecule 2 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms				AltConf	Trace
2	2	130	Total	C	N	O	0	0
			641	381	130	130		

- Molecule 3 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	3	134	Total	C	N	O	S	0	0
			993	632	175	181	5		

- Molecule 4 is a RNA chain called P- site tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	4	77	Total	C	N	O	P	0	0
			1640	732	297	535	76		

- Molecule 5 is a RNA chain called E site tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	5	76	Total	C	N	O	P	0	0
			1623	723	290	534	76		

- Molecule 6 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	A	1515	Total	C	N	O	P	0	0
			32554	14490	6022	10527	1515		

- Molecule 7 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	D	2889	Total	C	N	O	P	0	0
			62218	27691	11629	20009	2889		

- Molecule 8 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	E	123	Total	C	N	O	P	0	0
			2641	1175	488	855	123		

- Molecule 9 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	F	234	Total	C	N	O	S	0	0
			1900	1213	341	341	5		

- Molecule 10 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	G	206	Total	C	N	O	S	0	0
			1612	1016	314	281	1		

- Molecule 11 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	H	208	Total	C	N	O	S	0	0
			1703	1066	339	291	7		

- Molecule 12 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	I	150	Total	C	N	O	S	0	0
			1146	724	217	201	4		

- Molecule 13 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	J	101	Total	C	N	O	S	0	0
			843	531	155	154	3		

- Molecule 14 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	K	155	Total	C	N	O	S	0	0
			1257	781	252	218	6		

- Molecule 15 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	L	138	Total	C	N	O	S	0	0
			1116	705	215	193	3		

- Molecule 16 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	M	127	Total	C	N	O	S	0	0
			1010	639	197	174			

- Molecule 17 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	N	98	Total	C	N	O	S	0	0
			794	499	156	138	1		

- Molecule 18 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	O	119	Total	C	N	O	S	0	0
			885	549	168	165	3		

- Molecule 19 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	P	124	Total	C	N	O	S	0	0
			970	611	195	163	1		

- Molecule 20 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	Q	114	Total	C	N	O	S	0	0
			914	565	189	158	2		

- Molecule 21 is a protein called 30S ribosomal protein S14 type Z.



Mol	Chain	Residues	Atoms					AltConf	Trace
21	R	60	Total	C	N	O	S	0	0
			492	312	104	72	4		

- Molecule 22 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	S	88	Total	C	N	O	S	0	0
			734	459	147	126	2		

- Molecule 23 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	T	83	Total	C	N	O	S	0	0
			700	443	139	117	1		

- Molecule 24 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	U	104	Total	C	N	O	S	0	0
			857	547	161	147	2		

- Molecule 25 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				AltConf	Trace
25	V	73	Total	C	N	O	0	0
			597	380	118	99		

- Molecule 26 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	W	80	Total	C	N	O	S	0	0
			647	414	119	112	2		

- Molecule 27 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	X	99	Total	C	N	O	S	0	0
			763	470	162	129	2		

- Molecule 28 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				AltConf	Trace
28	Y	24	Total	C	N	O	0	0
			208	128	50	30		

- Molecule 29 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	Z	228	Total	C	N	O	S	0	0
			1742	1102	318	319	3		

- Molecule 30 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	a	272	Total	C	N	O	S	0	0
			2124	1339	424	358	3		

- Molecule 31 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	b	206	Total	C	N	O	S	0	0
			1578	997	302	273	6		

- Molecule 32 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	c	208	Total	C	N	O	S	0	0
			1625	1034	303	286	2		

- Molecule 33 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	d	182	Total	C	N	O	S	0	0
			1482	947	269	261	5		

- Molecule 34 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	e	174	Total	C	N	O	S	0	0
			1328	844	248	235	1		

- Molecule 35 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	f	139	Total	C	N	O	S	0	0
			1113	717	207	186	3		

- Molecule 36 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	g	122	Total	C	N	O	S	0	0
			932	587	171	170	4		

- Molecule 37 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	h	145	Total	C	N	O	S	0	0
			1106	688	226	190	2		

- Molecule 38 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	i	136	Total	C	N	O	S	0	0
			1080	688	204	183	5		

- Molecule 39 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms				AltConf	Trace
39	j	117	Total	C	N	O	0	0
			960	599	202	159		

- Molecule 40 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				AltConf	Trace
40	k	110	Total	C	N	O	0	0
			877	553	175	149		

- Molecule 41 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	l	117	Total	C	N	O	S	0	0
			976	614	197	164	1		

- Molecule 42 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	m	117	Total	C	N	O	S	0	0
			964	610	202	151	1		

- Molecule 43 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	n	101	Total	C	N	O	S	0	0
			779	501	142	135	1		

- Molecule 44 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	o	110	Total	C	N	O	S	0	0
			876	552	171	151	2		

- Molecule 45 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				AltConf	Trace
45	p	94	Total	C	N	O	0	0
			742	483	133	126		

- Molecule 46 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	q	110	Total	C	N	O	S	0	0
			844	539	158	141	6		

- Molecule 47 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	r	180	Total	C	N	O	S	0	0
			1435	916	256	260	3		

- Molecule 48 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	s	79	Total	C	N	O	S	0	0
			625	387	131	106	1		

- Molecule 49 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	t	67	Total	C	N	O	S	0	0
			567	350	116	99	2		

- Molecule 50 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	u	59	Total	C	N	O		0	0
			469	298	90	81			

- Molecule 51 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	v	71	Total	C	N	O	S	0	0
			581	364	108	104	5		

- Molecule 52 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	w	57	Total	C	N	O	S	0	0
			445	279	87	74	5		

- Molecule 53 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	x	49	Total	C	N	O	S	0	0
			426	265	87	70	4		

- Molecule 54 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	y	49	Total	C	N	O	S	0	0
			430	263	108	57	2		

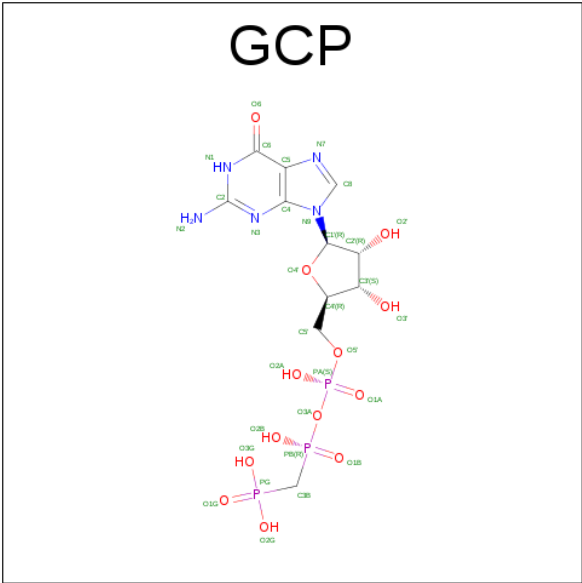
- Molecule 55 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	z	64	Total	C	N	O	S	0	0
			515	331	102	79	3		

- Molecule 56 is a protein called Elongation factor 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	B	591	Total	C	N	O	S	0	0
			4628	2968	794	857	9		

- Molecule 57 is PHOSPHOMETHYLPHOSPHONIC ACID GUANYLATE ESTER (three-letter code: GCP) (formula: C<sub>11</sub>H<sub>18</sub>N<sub>5</sub>O<sub>13</sub>P<sub>3</sub>).



Mol	Chain	Residues	Atoms					AltConf
57	B	1	Total	C	N	O	P	0
			32	11	5	13	3	

### 3 Residue-property plots

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

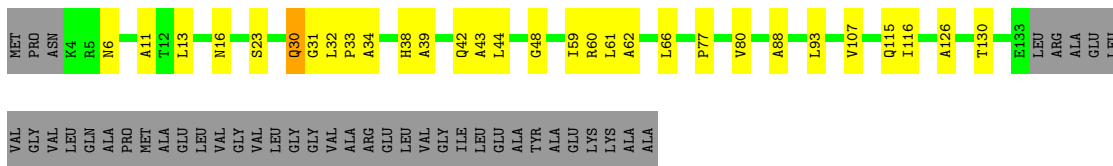
- Molecule 1: 50S ribosomal protein L36

Chain 1: 




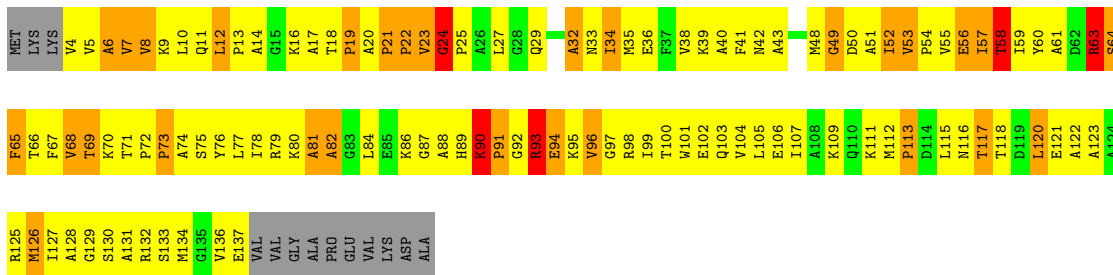
- Molecule 2: 50S ribosomal protein L10

Chain 2: 




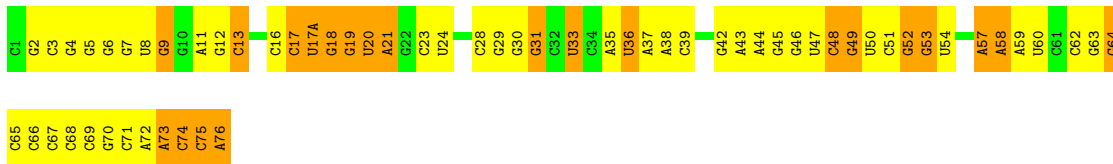
- Molecule 3: 50S ribosomal protein L11

Chain 3: 



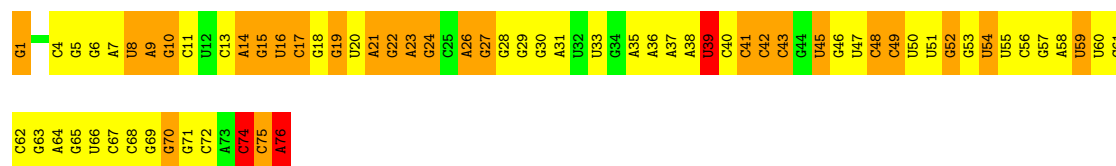
- Molecule 4: P- site tRNA

Chain 4: 




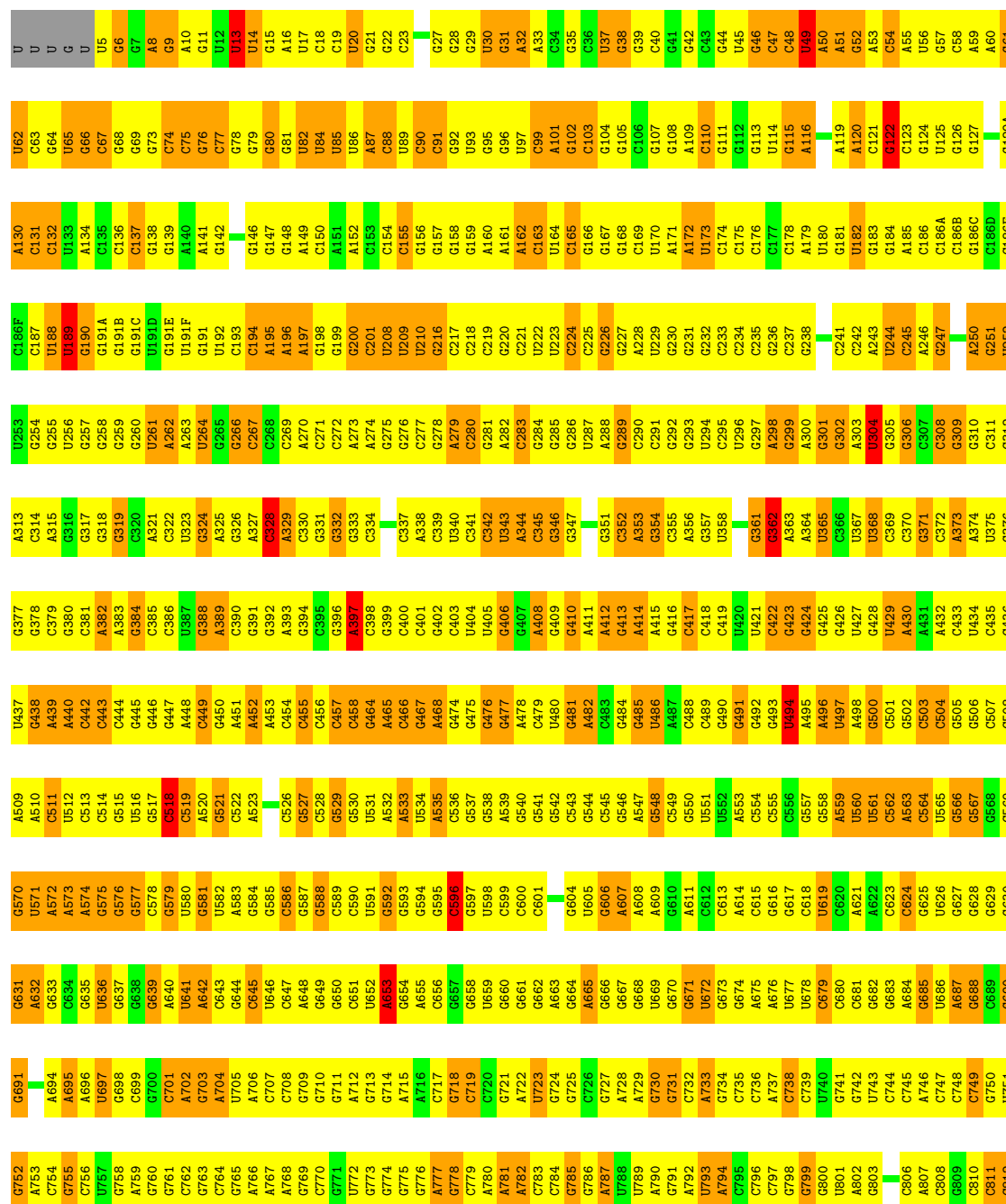
- Molecule 5: E site tRNA

Chain 5:  11% 51% 34% .



- Molecule 6: 16S ribosomal RNA

Chain A:  11% 56% 31%





- Molecule 7: 23S ribosomal RNA

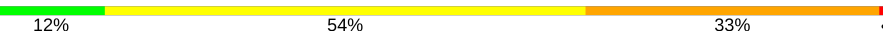
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A2030	A1969	C1909	G1839	U1778	G1702	A1641	U1580	G1521	A1460	G1400	G1337	G1277	C1218	C1153
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● Molecule 8: 5S ribosomal RNA

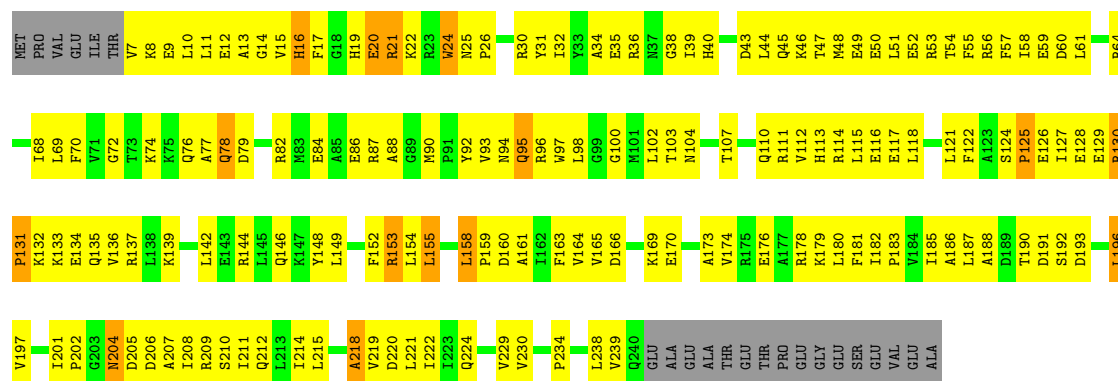
Chain E:  12% 54% 33%

A-1	C38
A0	A39
U1	U40
C2	U41
C3	C42
C4	C43
C5	C44
C6	U2865
G7	U2866
U8	U2867
G9	A2868
C10	U2869
C11	C2870
C12	C2871
A13	G2872
U14	A2873
A15	C2874
G16	C2875
C17	U2876
G18	C2877
G19	C2878
C20	A2879
G21	C2880
G22	C2881
G23	
G24	
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A26	
C27	
C28	
A29	
C30	
C31	
C32	
G33	
U34	
U35	



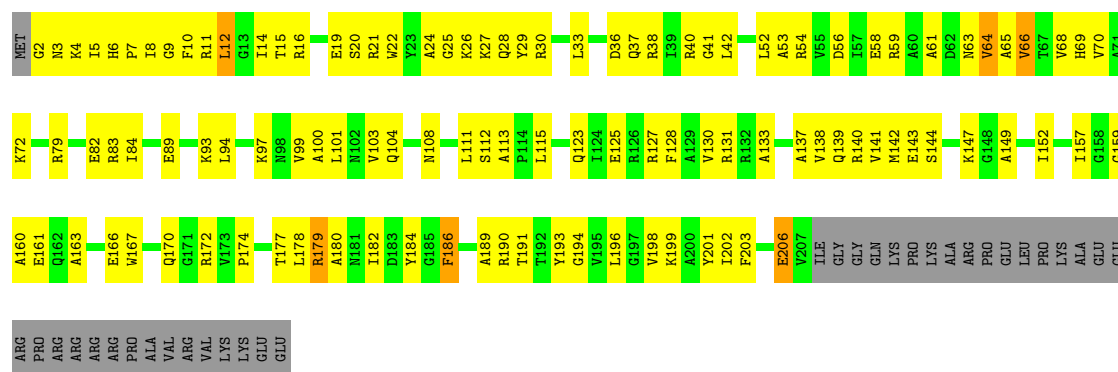
### • Molecule 9: 30S ribosomal protein S2

Chain F: 28% 57% 6% 9%



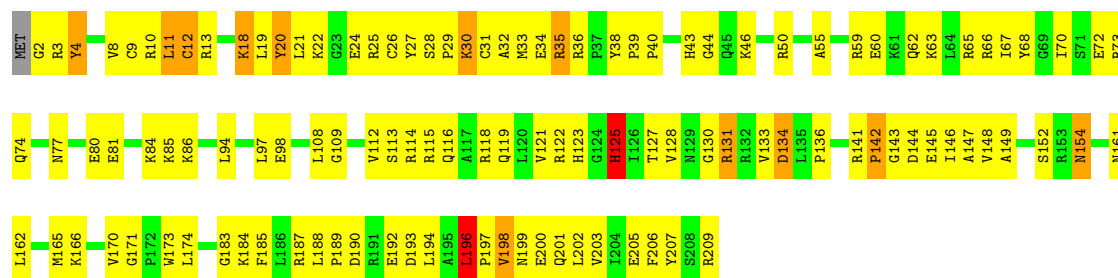
### • Molecule 10: 30S ribosomal protein S3

Chain G: 39% 44% 14%



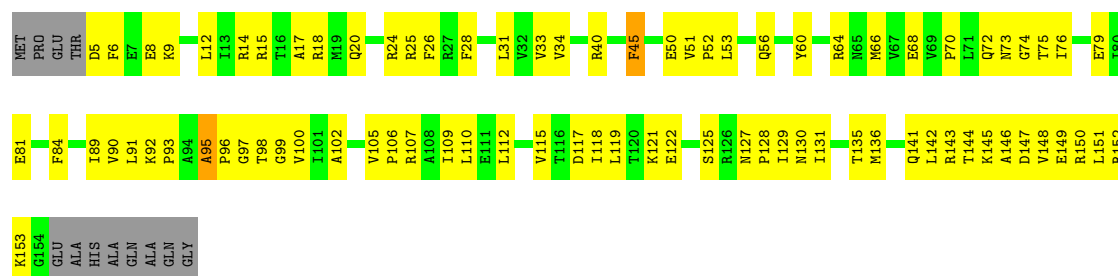
### • Molecule 11: 30S ribosomal protein S4

Chain H: 44% 49% 6%



### • Molecule 12: 30S ribosomal protein S5

Chain I: 42% 49% 7%



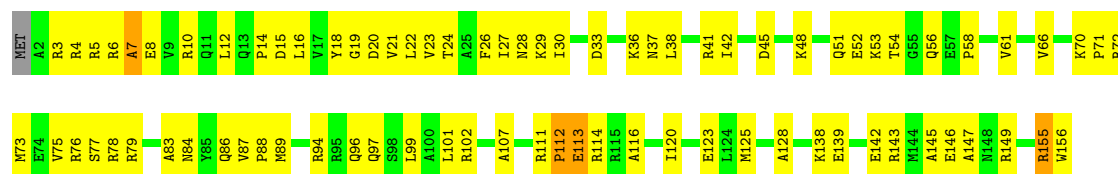
• Molecule 13: 30S ribosomal protein S6

Chain J: 32% 63% 5%



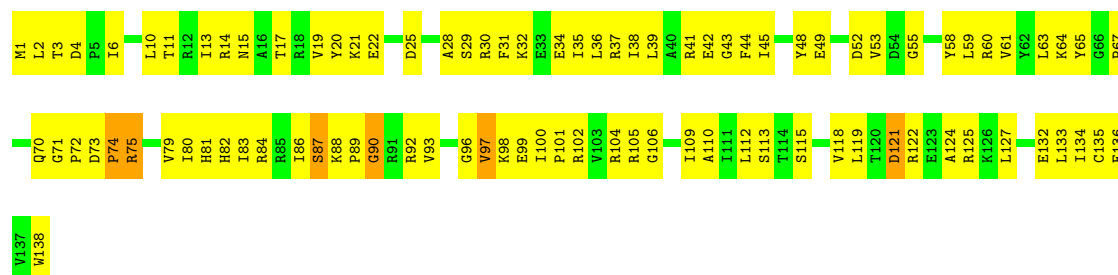
• Molecule 14: 30S ribosomal protein S7

Chain K: 48% 49% ..



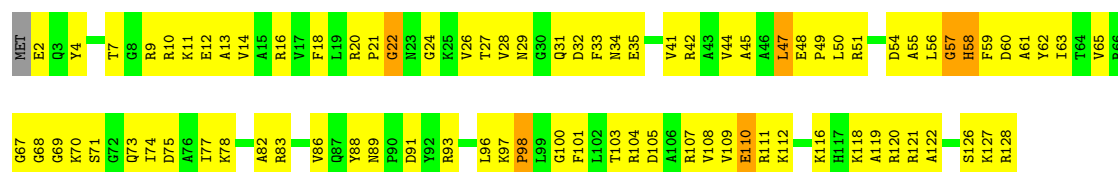
• Molecule 15: 30S ribosomal protein S8

Chain L: 33% 62% \*

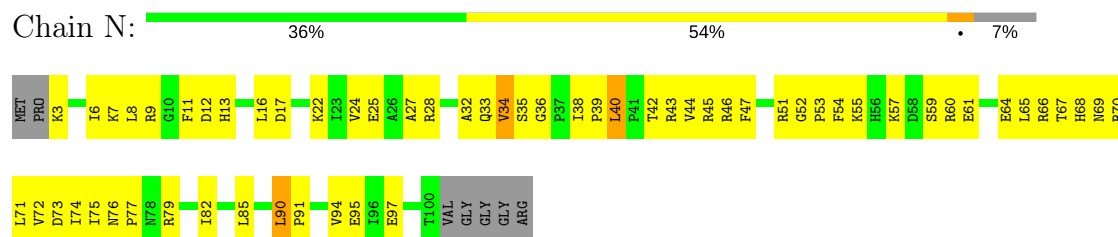


• Molecule 16: 30S ribosomal protein S9

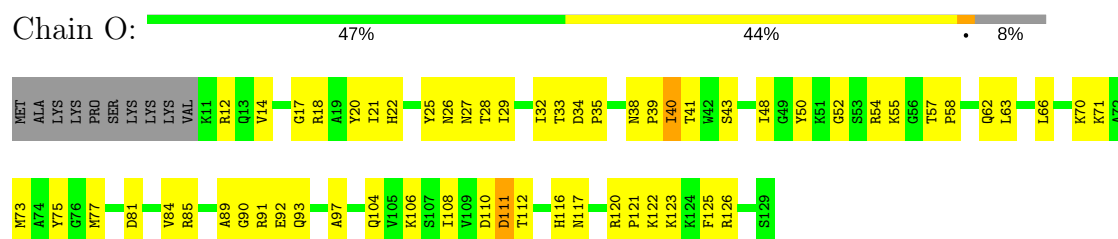
Chain M: 34% 61% 5% \*



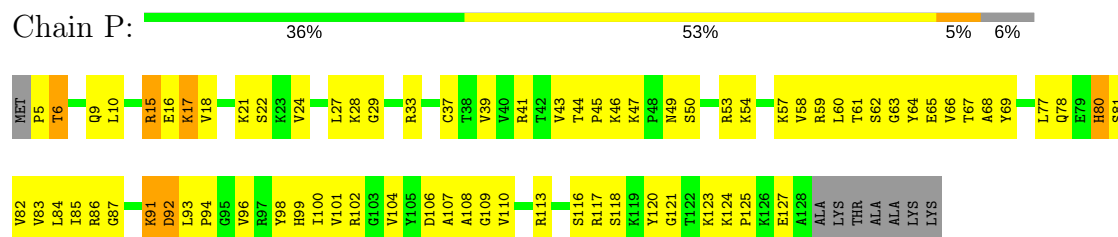
- Molecule 17: 30S ribosomal protein S10



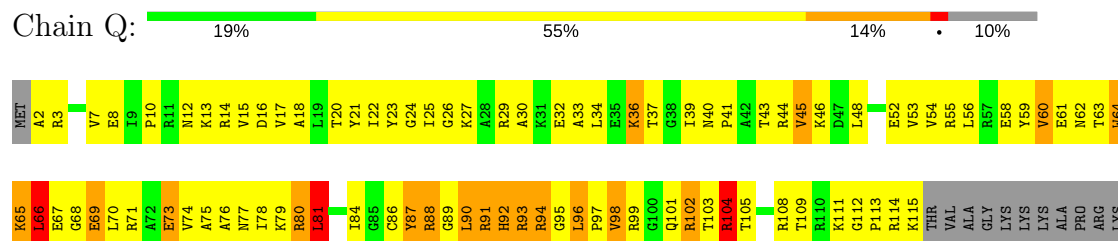
- Molecule 18: 30S ribosomal protein S11



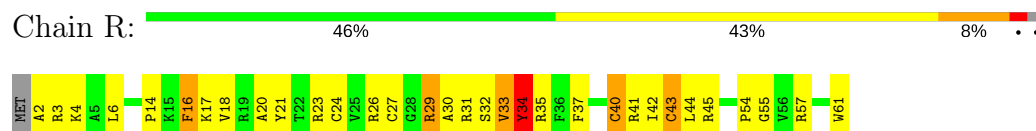
- Molecule 19: 30S ribosomal protein S12



- Molecule 20: 30S ribosomal protein S13



- Molecule 21: 30S ribosomal protein S14 type Z

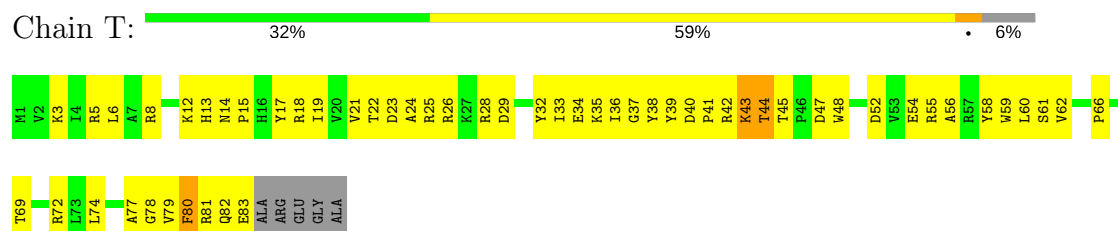


- Molecule 22: 30S ribosomal protein S15

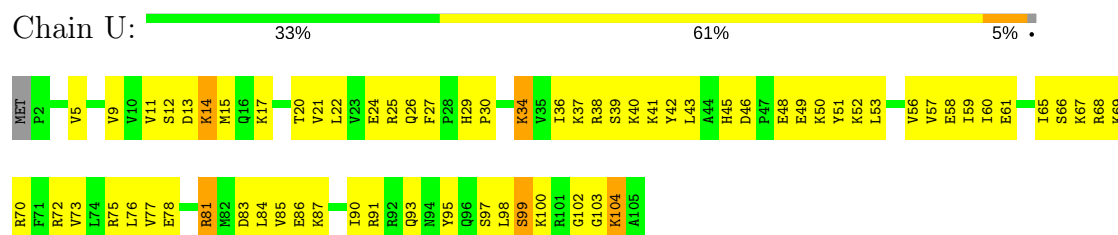




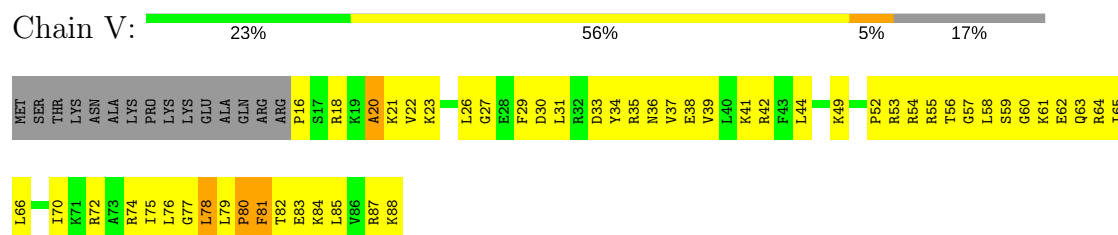
- Molecule 23: 30S ribosomal protein S16



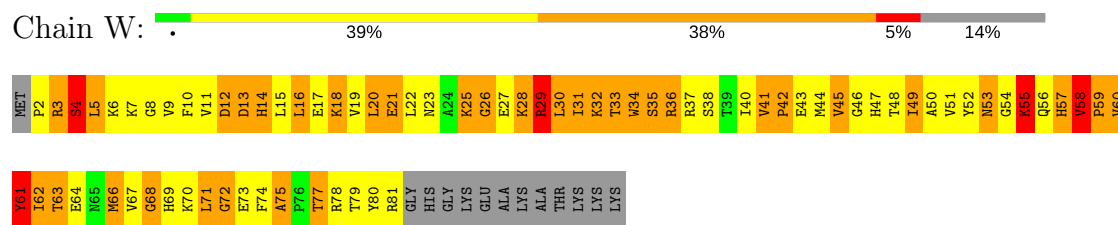
- Molecule 24: 30S ribosomal protein S17



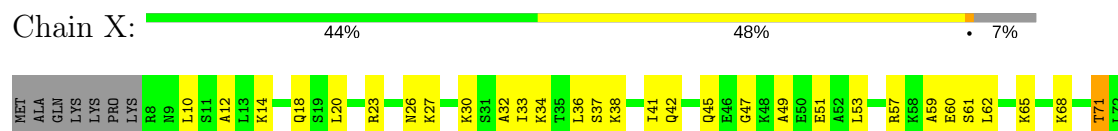
- Molecule 25: 30S ribosomal protein S18



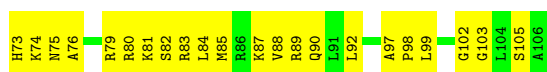
- Molecule 26: 30S ribosomal protein S19



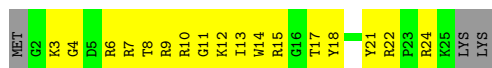
- Molecule 27: 30S ribosomal protein S20



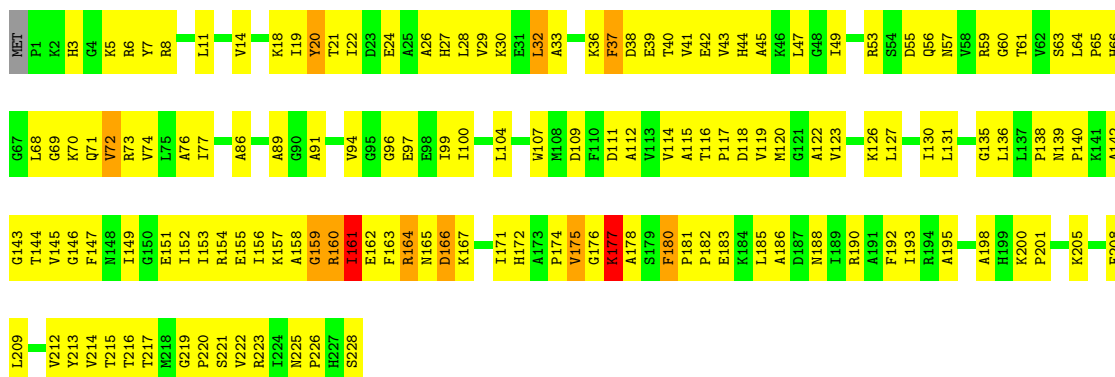




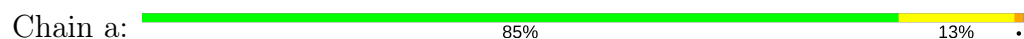
- Molecule 28: 30S ribosomal protein Thx



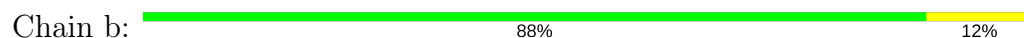
- Molecule 29: 50S ribosomal protein L1



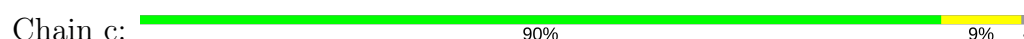
- Molecule 30: 50S ribosomal protein L2



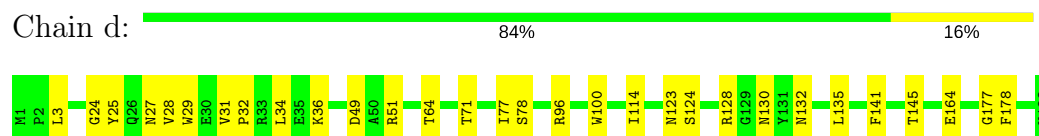
- Molecule 31: 50S ribosomal protein L3



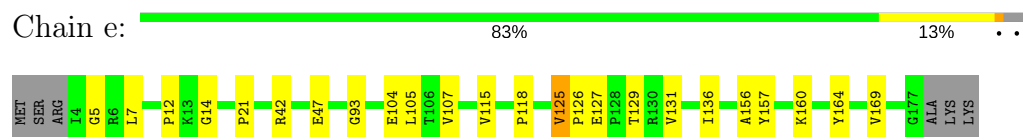
- Molecule 32: 50S ribosomal protein L4



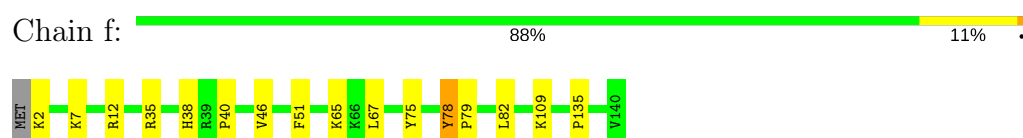
- Molecule 33: 50S ribosomal protein L5



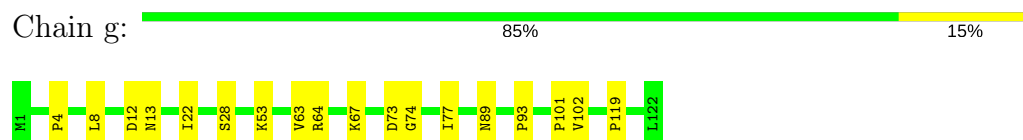
- Molecule 34: 50S ribosomal protein L6



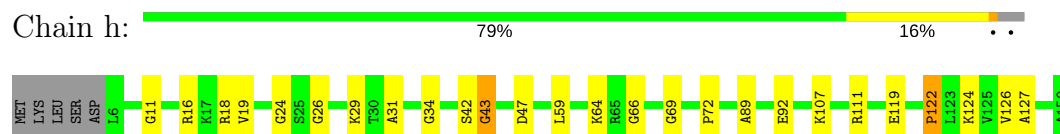
- Molecule 35: 50S ribosomal protein L13



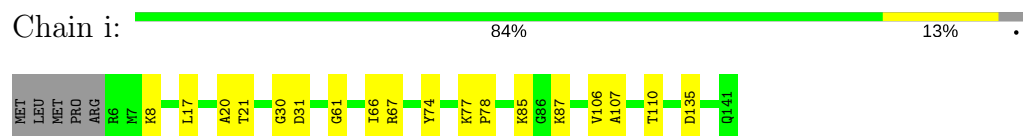
- Molecule 36: 50S ribosomal protein L14



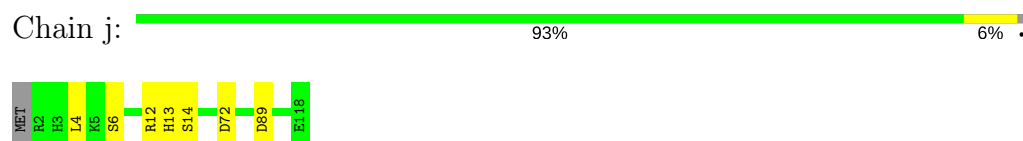
- Molecule 37: 50S ribosomal protein L15



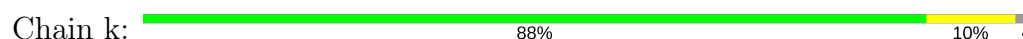
- Molecule 38: 50S ribosomal protein L16



- Molecule 39: 50S ribosomal protein L17

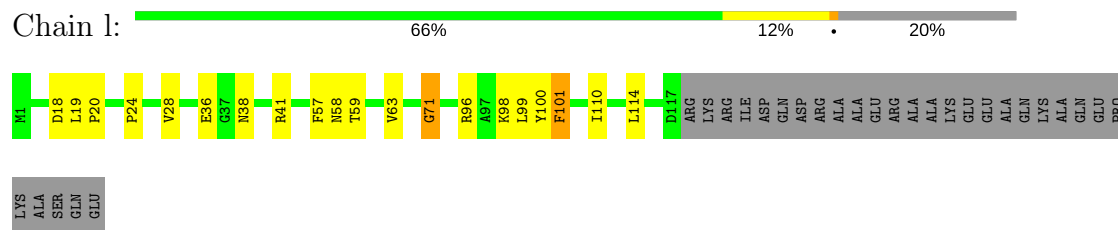


- Molecule 40: 50S ribosomal protein L18

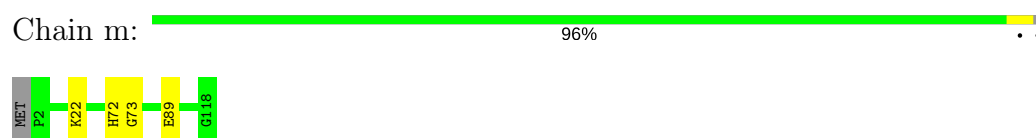




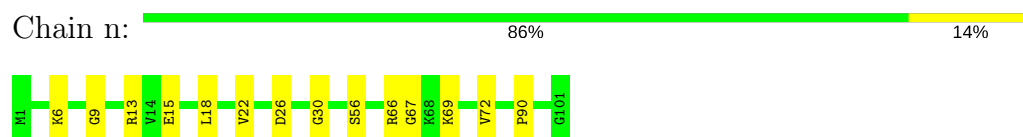
- Molecule 41: 50S ribosomal protein L19



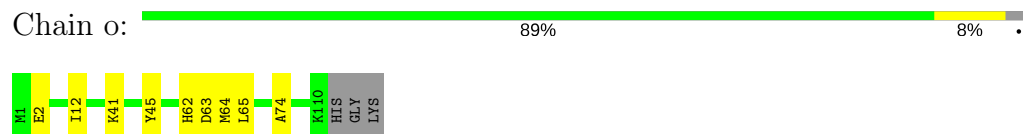
- Molecule 42: 50S ribosomal protein L20



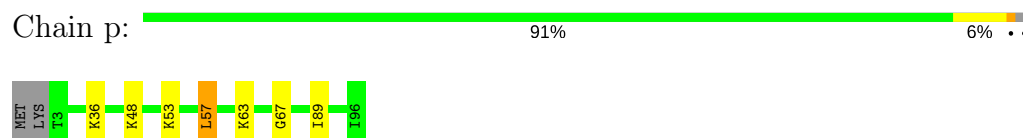
- Molecule 43: 50S ribosomal protein L21



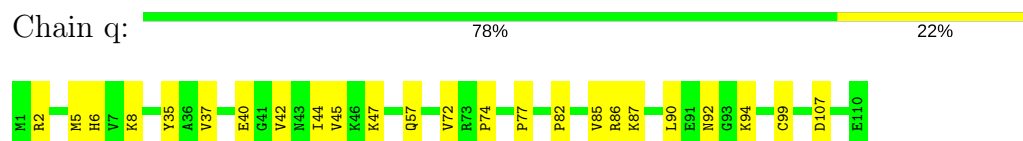
- Molecule 44: 50S ribosomal protein L22



- Molecule 45: 50S ribosomal protein L23

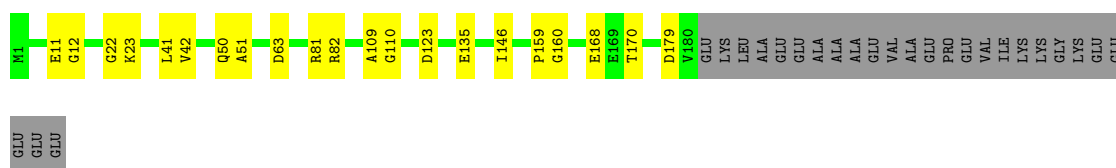


- Molecule 46: 50S ribosomal protein L24



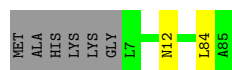
- Molecule 47: 50S ribosomal protein L25





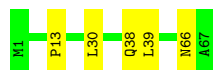
- Molecule 48: 50S ribosomal protein L27

Chain s: 91% 7%



- Molecule 49: 50S ribosomal protein L29

Chain t: 93% 7%



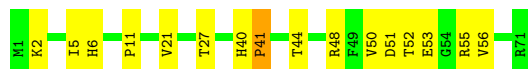
- Molecule 50: 50S ribosomal protein L30

Chain u: 88% 8% . .



- Molecule 51: 50S ribosomal protein L31

Chain v: 77% 21% .



- Molecule 52: 50S ribosomal protein L32

Chain w: 77% 15% . 5%



- Molecule 53: 50S ribosomal protein L33

Chain x: 56% 33% . 9%



- Molecule 54: 50S ribosomal protein L34

Chain y: 88% 12%



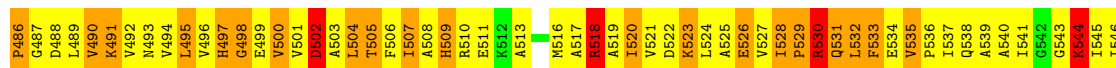
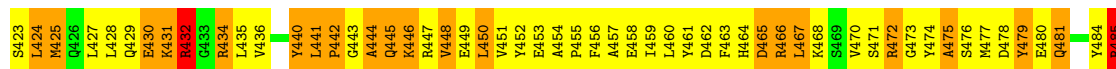
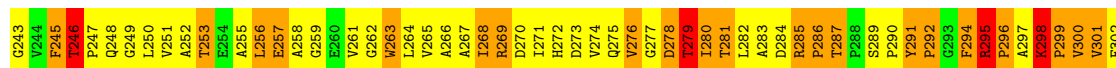
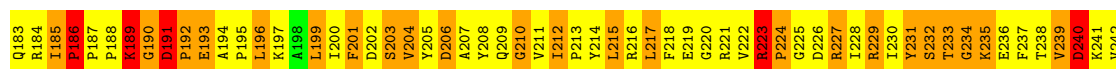
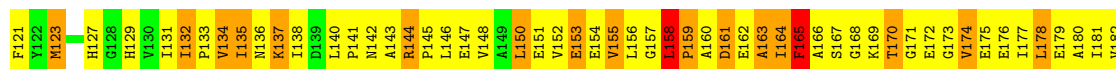
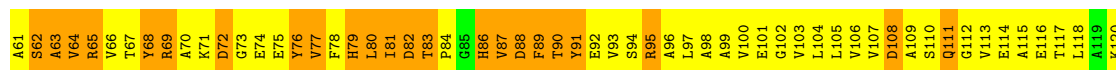
- Molecule 55: 50S ribosomal protein L35

Chain z: 80% 14% 5% .



- Molecule 56: Elongation factor 4

Chain B: 8% 52% 32% 5% .



## 4 Experimental information

Property	Value	Source
Reconstruction method	Not provided	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images used	110981	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Not provided	Depositor
Microscope	Not provided	Depositor
Voltage (kV)	200	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 ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: GCP

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	$\# Z  > 2$
1	1	0.77	0/310	0.90	0/407
10	G	0.54	0/1636	0.67	0/2205
11	H	0.53	0/1733	0.76	3/2318 (0.1%)
12	I	0.69	0/1162	0.80	0/1564
13	J	0.48	0/856	0.70	1/1154 (0.1%)
14	K	0.47	0/1276	0.66	0/1709
15	L	0.59	0/1136	0.73	0/1527
16	M	0.46	0/1029	0.68	0/1379
17	N	0.49	0/807	0.69	0/1085
18	O	0.51	0/900	0.64	0/1213
19	P	0.67	0/986	0.79	0/1320
2	2	0.26	0/640	0.50	0/889
20	Q	0.39	0/924	0.66	1/1238 (0.1%)
21	R	0.64	0/501	0.76	1/664 (0.2%)
22	S	0.54	0/745	0.77	0/992
23	T	0.60	0/716	0.73	0/963
24	U	0.54	0/870	0.74	0/1159
25	V	0.44	0/603	0.71	0/799
26	W	0.39	0/661	0.50	2/890 (0.2%)
27	X	0.52	0/765	0.77	0/1007
28	Y	0.51	0/212	0.67	0/277
29	Z	0.37	0/1775	0.63	1/2393 (0.0%)
3	3	0.54	0/1012	0.82	6/1373 (0.4%)
30	a	0.81	0/2174	0.93	3/2927 (0.1%)
31	b	0.77	0/1611	0.94	1/2171 (0.0%)
32	c	0.77	0/1660	0.90	0/2247
33	d	0.55	0/1507	0.81	1/2027 (0.0%)
34	e	0.58	0/1354	0.78	1/1831 (0.1%)
35	f	0.75	0/1140	0.95	2/1537 (0.1%)
36	g	0.79	0/942	0.93	2/1268 (0.2%)
37	h	0.64	0/1123	1.03	3/1493 (0.2%)
38	i	0.75	0/1100	0.90	0/1470

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >2	RMSZ	# Z  >2
39	j	0.74	0/974	0.91	0/1302
4	4	0.85	0/1832	1.03	0/2855
40	k	0.61	0/887	0.95	0/1180
41	l	0.70	0/990	0.93	2/1325 (0.2%)
42	m	0.91	0/982	0.96	0/1306
43	n	0.65	0/790	0.94	1/1057 (0.1%)
44	o	0.78	0/886	0.83	0/1189
45	p	0.71	0/756	0.85	1/1015 (0.1%)
46	q	0.51	0/857	0.84	0/1142
47	r	0.56	0/1467	0.75	0/1992
48	s	0.81	0/633	0.84	0/843
49	t	0.59	0/569	0.82	1/751 (0.1%)
5	5	0.62	2/1813 (0.1%)	1.14	7/2823 (0.2%)
50	u	0.69	0/474	0.93	1/635 (0.2%)
51	v	0.82	0/594	1.11	2/795 (0.3%)
52	w	0.80	0/459	0.99	1/621 (0.2%)
53	x	0.67	0/433	1.00	2/576 (0.3%)
54	y	0.83	0/438	0.98	1/575 (0.2%)
55	z	0.79	0/523	0.96	1/690 (0.1%)
56	B	0.41	0/4718	0.52	25/6392 (0.4%)
6	A	1.00	4/36438 (0.0%)	1.10	59/56869 (0.1%)
7	D	1.40	164/69685 (0.2%)	1.34	623/108786 (0.6%)
8	E	1.10	1/2954 (0.0%)	1.15	6/4606 (0.1%)
9	F	0.50	0/1935	0.74	0/2609
All	All	1.09	171/165953 (0.1%)	1.14	761/247430 (0.3%)

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
17	N	0	1
19	P	0	1
21	R	0	1
30	a	0	4
32	c	0	2
33	d	0	2
35	f	0	3
37	h	0	1
40	k	0	2
41	l	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
47	r	0	1
51	v	0	1
52	w	0	5
53	x	0	3
55	z	0	3
9	F	0	1
All	All	0	34

All (171) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	D	1786	A	N9-C4	12.42	1.45	1.37
5	5	1	G	OP3-P	-10.94	1.48	1.61
7	D	1	G	OP3-P	-10.91	1.48	1.61
8	E	-1	A	OP3-P	-10.79	1.48	1.61
7	D	363(F)	A	O3'-P	9.72	1.72	1.61
7	D	1668	A	N9-C4	-8.35	1.32	1.37
7	D	775	G	N9-C4	8.03	1.44	1.38
7	D	783	A	N9-C4	-7.73	1.33	1.37
7	D	1668	A	N3-C4	-7.71	1.30	1.34
7	D	1021	A	N9-C4	-7.52	1.33	1.37
7	D	2019	A	N9-C4	-7.37	1.33	1.37
7	D	603	A	N9-C4	-7.31	1.33	1.37
7	D	781	A	N9-C4	-7.07	1.33	1.37
7	D	792	G	N7-C5	-7.05	1.35	1.39
7	D	792	G	C6-N1	-7.03	1.34	1.39
7	D	1154	G	N7-C5	-6.91	1.35	1.39
7	D	1787	A	N9-C4	-6.78	1.33	1.37
7	D	1791	A	N3-C4	-6.75	1.30	1.34
7	D	1669	A	N3-C4	-6.73	1.30	1.34
7	D	574	C	N1-C6	-6.72	1.33	1.37
7	D	586	A	C5-C4	-6.62	1.34	1.38
5	5	76	A	N9-C4	-6.57	1.33	1.37
7	D	1669	A	C5-C6	-6.56	1.35	1.41
7	D	1670	C	N1-C6	-6.53	1.33	1.37
7	D	2240	C	N1-C6	-6.49	1.33	1.37
7	D	764	A	C5-C4	-6.36	1.34	1.38
7	D	676	A	N3-C4	-6.31	1.31	1.34
7	D	2019	A	N3-C4	-6.28	1.31	1.34
7	D	794	G	N7-C5	-6.27	1.35	1.39
6	A	298	A	N9-C4	-6.21	1.34	1.37
7	D	1791	A	N9-C4	-6.21	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	D	793	A	N7-C5	-6.18	1.35	1.39
6	A	574	A	N9-C4	-6.16	1.34	1.37
7	D	2589	A	N7-C5	-6.14	1.35	1.39
7	D	793	A	C5-C6	-6.02	1.35	1.41
7	D	2495	G	N7-C5	-6.01	1.35	1.39
7	D	2241	A	N7-C5	-6.00	1.35	1.39
7	D	678	C	N1-C6	-6.00	1.33	1.37
7	D	514	A	N9-C4	-5.98	1.34	1.37
7	D	247	G	C6-N1	-5.97	1.35	1.39
7	D	586	A	N3-C4	-5.97	1.31	1.34
7	D	972	G	C6-N1	-5.97	1.35	1.39
7	D	2444	G	N7-C5	-5.97	1.35	1.39
7	D	190	A	N9-C4	-5.96	1.34	1.37
7	D	687	C	N1-C6	-5.96	1.33	1.37
7	D	1821	A	N9-C4	-5.92	1.34	1.37
7	D	689	A	N9-C4	-5.91	1.34	1.37
7	D	820	A	N3-C4	-5.88	1.31	1.34
7	D	2491	U	C2-N3	5.87	1.41	1.37
7	D	2273	A	N7-C5	-5.83	1.35	1.39
7	D	2503	A	N7-C5	-5.76	1.35	1.39
7	D	1815	A	N3-C4	-5.74	1.31	1.34
7	D	1668	A	C6-N1	-5.73	1.31	1.35
7	D	573	G	N7-C5	-5.68	1.35	1.39
7	D	2242	G	N7-C5	-5.66	1.35	1.39
7	D	2393	A	N9-C4	-5.66	1.34	1.37
7	D	468	G	N7-C5	-5.65	1.35	1.39
7	D	1760	A	N9-C4	-5.64	1.34	1.37
7	D	1819	A	N9-C4	-5.64	1.34	1.37
7	D	2051	A	N9-C4	-5.63	1.34	1.37
7	D	449	A	N7-C5	-5.61	1.35	1.39
7	D	1354	A	N3-C4	-5.59	1.31	1.34
7	D	947	G	N7-C5	-5.58	1.35	1.39
7	D	1677	A	N9-C4	-5.57	1.34	1.37
7	D	675	A	N3-C4	-5.56	1.31	1.34
7	D	2446	G	N7-C5	-5.56	1.35	1.39
7	D	451	C	N1-C6	-5.55	1.33	1.37
7	D	1377	G	C6-N1	-5.55	1.35	1.39
7	D	781	A	N3-C4	-5.52	1.31	1.34
7	D	1986	A	N7-C5	-5.52	1.35	1.39
7	D	2459	A	N7-C5	-5.52	1.35	1.39
7	D	2251	G	N7-C5	-5.51	1.35	1.39
7	D	783	A	N3-C4	-5.51	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	D	973	A	N9-C4	-5.51	1.34	1.37
7	D	2433	A	N3-C4	-5.48	1.31	1.34
7	D	677	A	N9-C4	-5.48	1.34	1.37
7	D	1787	A	C5-C6	-5.48	1.36	1.41
7	D	526	A	N9-C4	-5.46	1.34	1.37
7	D	1813	G	N7-C5	-5.46	1.35	1.39
7	D	2005	A	N3-C4	-5.46	1.31	1.34
7	D	800	A	N7-C5	-5.44	1.35	1.39
7	D	1977	A	N9-C4	-5.44	1.34	1.37
7	D	2826	A	N9-C4	-5.43	1.34	1.37
7	D	1354	A	N9-C4	-5.43	1.34	1.37
7	D	2274	A	N3-C4	-5.41	1.31	1.34
7	D	2541	A	N9-C4	-5.41	1.34	1.37
7	D	443	A	N9-C4	-5.40	1.34	1.37
7	D	2055	C	N3-C4	-5.39	1.30	1.33
7	D	250	G	C6-N1	-5.38	1.35	1.39
7	D	2021	C	N1-C6	-5.37	1.33	1.37
7	D	806	C	N1-C2	-5.37	1.34	1.40
7	D	1006	C	N1-C2	-5.37	1.34	1.40
7	D	1377	G	N7-C5	-5.36	1.36	1.39
7	D	2052	G	N9-C8	-5.36	1.34	1.37
7	D	1899	G	N3-C4	-5.36	1.31	1.35
7	D	974	G	N7-C5	-5.36	1.36	1.39
7	D	1735	C	O3'-P	5.34	1.67	1.61
7	D	817	C	N1-C6	-5.34	1.33	1.37
7	D	1154	G	C8-N7	-5.34	1.27	1.30
7	D	2443	C	N1-C6	-5.34	1.33	1.37
7	D	2238	G	N7-C5	-5.33	1.36	1.39
6	A	1483	A	N9-C4	-5.33	1.34	1.37
7	D	1783	A	N9-C4	-5.32	1.34	1.37
7	D	2614	A	C5-C4	-5.32	1.35	1.38
7	D	2689	U	C2-N3	-5.31	1.34	1.37
7	D	1998	G	N7-C5	-5.30	1.36	1.39
7	D	775	G	N7-C5	-5.29	1.36	1.39
7	D	2052	G	C5-C4	-5.29	1.34	1.38
7	D	617	G	N9-C4	-5.28	1.33	1.38
7	D	974	G	C8-N7	-5.28	1.27	1.30
7	D	564	C	N1-C6	-5.27	1.33	1.37
7	D	2052	G	N7-C5	-5.27	1.36	1.39
7	D	190	A	C5-C4	-5.27	1.35	1.38
6	A	574	A	N3-C4	-5.26	1.31	1.34
7	D	957	A	N9-C4	-5.26	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	D	1632	A	C5-C6	-5.26	1.36	1.41
7	D	49	A	N9-C4	-5.25	1.34	1.37
7	D	1301	A	N3-C4	-5.25	1.31	1.34
7	D	2594	C	N1-C6	-5.25	1.34	1.37
7	D	190	A	N3-C4	-5.25	1.31	1.34
7	D	782	A	N9-C4	-5.24	1.34	1.37
7	D	1029	A	N3-C4	-5.24	1.31	1.34
7	D	2013	A	C5-C4	-5.23	1.35	1.38
7	D	1617	C	N1-C6	-5.23	1.34	1.37
7	D	746	A	N9-C4	-5.22	1.34	1.37
7	D	1364	G	N9-C8	-5.22	1.34	1.37
7	D	1952	A	N9-C4	-5.22	1.34	1.37
7	D	1143	A	N7-C5	-5.22	1.36	1.39
7	D	586	A	C6-N1	-5.22	1.31	1.35
7	D	835	A	N9-C4	-5.21	1.34	1.37
7	D	1999	C	N1-C6	-5.21	1.34	1.37
7	D	820	A	C6-N1	-5.21	1.31	1.35
7	D	2024	G	N7-C5	-5.20	1.36	1.39
7	D	515	A	N7-C5	-5.20	1.36	1.39
7	D	1830	C	C4-C5	-5.20	1.38	1.43
7	D	1189	A	N7-C5	-5.18	1.36	1.39
7	D	1937	A	N9-C4	-5.18	1.34	1.37
7	D	1783	A	N3-C4	-5.18	1.31	1.34
7	D	1668	A	C2-N3	-5.17	1.28	1.33
7	D	2589	A	N9-C4	-5.17	1.34	1.37
7	D	578	A	N9-C4	-5.17	1.34	1.37
7	D	2713	A	N9-C4	-5.17	1.34	1.37
7	D	2587	A	N9-C4	-5.16	1.34	1.37
7	D	2392	A	N9-C4	-5.16	1.34	1.37
7	D	1981	A	N3-C4	-5.15	1.31	1.34
7	D	632	A	N9-C4	-5.14	1.34	1.37
7	D	981	A	N3-C4	-5.14	1.31	1.34
7	D	1024	G	N3-C4	-5.12	1.31	1.35
7	D	2242	G	C6-N1	-5.12	1.35	1.39
7	D	1803	A	N9-C4	-5.12	1.34	1.37
7	D	773	U	N1-C2	-5.09	1.33	1.38
7	D	1992	G	C5-C4	-5.08	1.34	1.38
7	D	1287	A	N9-C4	-5.08	1.34	1.37
7	D	806	C	N1-C6	-5.06	1.34	1.37
7	D	514	A	N7-C5	-5.06	1.36	1.39
7	D	863	A	N3-C4	-5.06	1.31	1.34
7	D	2495	G	C8-N7	-5.06	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	D	778	G	N7-C5	-5.05	1.36	1.39
7	D	2520	C	N1-C6	-5.05	1.34	1.37
7	D	794	G	C6-N1	-5.04	1.36	1.39
7	D	1301	A	N9-C4	-5.04	1.34	1.37
7	D	957	A	N3-C4	-5.04	1.31	1.34
7	D	2588	G	C5-C4	-5.04	1.34	1.38
7	D	810	U	C2-N3	-5.03	1.34	1.37
7	D	2826	A	C5-C6	-5.03	1.36	1.41
7	D	804	A	N9-C4	-5.02	1.34	1.37
7	D	1137	G	C6-N1	-5.02	1.36	1.39
7	D	2697	G	N9-C4	-5.01	1.33	1.38
7	D	2540	C	N1-C6	-5.01	1.34	1.37
7	D	528	A	N3-C4	-5.01	1.31	1.34
7	D	699	A	N3-C4	-5.00	1.31	1.34

All (761) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	775	G	N3-C4-C5	-15.67	120.77	128.60
7	D	2491	U	C6-N1-C2	-13.29	113.03	121.00
7	D	1664	A	C8-N9-C4	-13.09	100.56	105.80
7	D	1779	U	C5-C4-O4	-12.85	118.19	125.90
7	D	775	G	C8-N9-C4	-12.80	101.28	106.40
7	D	791	C	N1-C2-O2	12.50	126.40	118.90
7	D	1786	A	N3-C4-C5	-12.04	118.37	126.80
7	D	1779	U	N3-C4-O4	12.01	127.81	119.40
7	D	1779	U	C5-C6-N1	11.90	128.65	122.70
7	D	1786	A	N3-C4-N9	11.36	136.49	127.40
7	D	775	G	N3-C4-N9	11.33	132.80	126.00
7	D	879	G	N1-C6-O6	-11.33	113.10	119.90
7	D	515	A	C6-C5-N7	-10.49	124.96	132.30
7	D	1786	A	C4-C5-C6	10.46	122.23	117.00
7	D	688	U	C2-N3-C4	-10.30	120.82	127.00
7	D	1664	A	N7-C8-N9	10.24	118.92	113.80
7	D	774	A	C6-N1-C2	-10.15	112.51	118.60
7	D	2490	G	N1-C6-O6	-9.97	113.92	119.90
7	D	341	G	N3-C4-N9	9.94	131.96	126.00
7	D	1668	A	N1-C2-N3	9.92	134.26	129.30
7	D	1786	A	C6-N1-C2	-9.91	112.65	118.60
7	D	2073	C	C6-N1-C2	-9.85	116.36	120.30
7	D	1786	A	C6-C5-N7	-9.76	125.47	132.30
6	A	1086	U	C2-N1-C1'	9.72	129.36	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	775	G	N3-C2-N2	9.66	126.66	119.90
7	D	775	G	N1-C2-N2	-9.55	107.60	116.20
7	D	775	G	C4-N9-C1'	9.41	138.73	126.50
7	D	1786	A	C8-N9-C4	-9.39	102.04	105.80
7	D	729	G	C8-N9-C4	-9.29	102.68	106.40
7	D	2035	G	N3-C4-N9	9.26	131.56	126.00
7	D	1313	U	N3-C2-O2	-9.25	115.73	122.20
7	D	1025	G	O4'-C1'-N9	9.17	115.54	108.20
7	D	1632	A	N1-C6-N6	9.16	124.09	118.60
7	D	2459	A	C6-N1-C2	-9.09	113.15	118.60
7	D	1313	U	C6-N1-C2	-9.03	115.58	121.00
7	D	2491	U	C5-C6-N1	8.99	127.20	122.70
7	D	775	G	N7-C8-N9	8.95	117.58	113.10
7	D	458	G	O4'-C1'-N9	8.83	115.26	108.20
7	D	1925	C	C2-N1-C1'	8.83	128.51	118.80
7	D	531	C	C6-N1-C2	-8.82	116.77	120.30
7	D	791	C	C6-N1-C1'	-8.81	110.23	120.80
7	D	2251	G	C6-C5-N7	-8.79	125.12	130.40
7	D	1313	U	C5-C6-N1	8.78	127.09	122.70
7	D	2495	G	N3-C4-N9	8.78	131.27	126.00
7	D	531	C	N3-C2-O2	-8.73	115.79	121.90
7	D	2495	G	C6-C5-N7	-8.69	125.19	130.40
7	D	1813	G	C6-C5-N7	-8.67	125.20	130.40
7	D	1668	A	C2-N3-C4	-8.67	106.27	110.60
7	D	1205	U	N1-C2-O2	8.62	128.83	122.80
7	D	341	G	C6-C5-N7	-8.56	125.26	130.40
7	D	363(F)	A	OP2-P-O3'	8.56	124.04	105.20
7	D	1513	C	N1-C2-O2	8.49	124.00	118.90
7	D	1785	A	C8-N9-C4	-8.44	102.42	105.80
7	D	2444	G	C6-C5-N7	-8.44	125.33	130.40
7	D	1617	C	C2-N1-C1'	8.40	128.04	118.80
7	D	2492	U	N3-C2-O2	-8.38	116.34	122.20
7	D	2035	G	N3-C4-C5	-8.38	124.41	128.60
7	D	2460	U	N3-C2-O2	-8.36	116.35	122.20
7	D	778	G	C4-C5-N7	8.34	114.13	110.80
7	D	1377	G	C6-C5-N7	-8.28	125.43	130.40
6	A	1064	G	O4'-C1'-N9	8.27	114.82	108.20
5	5	74	C	N1-C2-O2	8.26	123.85	118.90
7	D	1571	A	C2-N3-C4	8.25	114.72	110.60
7	D	794	G	C6-C5-N7	-8.23	125.46	130.40
7	D	2460	U	C2-N1-C1'	8.21	127.55	117.70
7	D	515	A	N3-C4-N9	8.13	133.91	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	515	A	N9-C4-C5	-8.05	102.58	105.80
7	D	350	U	N3-C2-O2	-8.05	116.57	122.20
7	D	2056	G	C4-N9-C1'	8.05	136.96	126.50
7	D	2288	A	O4'-C1'-N9	8.04	114.63	108.20
7	D	2035	G	C8-N9-C1'	-8.01	116.58	127.00
7	D	687	C	C2-N3-C4	-8.00	115.90	119.90
7	D	1012	U	C2-N1-C1'	-7.98	108.13	117.70
7	D	2056	G	C8-N9-C1'	-7.91	116.72	127.00
7	D	1377	G	C4-N9-C1'	7.85	136.71	126.50
7	D	120	U	N1-C2-O2	7.84	128.29	122.80
6	A	1328	C	C2-N1-C1'	7.83	127.42	118.80
7	D	404	C	N1-C2-O2	7.81	123.59	118.90
7	D	1205	U	C3'-C2'-C1'	-7.81	95.25	101.50
7	D	515	A	C4-C5-C6	7.80	120.90	117.00
7	D	2459	A	C4-C5-C6	7.74	120.87	117.00
7	D	2287	A	C8-N9-C4	7.71	108.88	105.80
6	A	1328	C	N1-C2-O2	7.70	123.52	118.90
7	D	1813	G	N3-C4-N9	7.68	130.61	126.00
7	D	1527	G	C5-C6-N1	-7.64	107.68	111.50
7	D	1313	U	C2-N1-C1'	7.60	126.82	117.70
7	D	1649	G	C6-C5-N7	-7.60	125.84	130.40
7	D	2035	G	C4-N9-C1'	7.57	136.34	126.50
7	D	297	C	N1-C2-O2	7.55	123.43	118.90
7	D	1656	C	C2-N1-C1'	7.54	127.10	118.80
7	D	791	C	C2-N1-C1'	7.54	127.09	118.80
7	D	2495	G	C8-N9-C1'	-7.54	117.20	127.00
7	D	879	G	C5-C6-O6	7.53	133.12	128.60
7	D	150	C	C2-N1-C1'	7.49	127.04	118.80
7	D	2445	G	N3-C4-N9	7.48	130.49	126.00
7	D	1657	C	C5-C6-N1	7.48	124.74	121.00
7	D	2495	G	C4-N9-C1'	7.43	136.16	126.50
7	D	1492	G	C5-C6-O6	-7.43	124.14	128.60
7	D	1786	A	C4-N9-C1'	7.43	139.67	126.30
7	D	1604	C	N3-C2-O2	-7.41	116.71	121.90
7	D	2492	U	C2-N1-C1'	7.38	126.55	117.70
7	D	1698	A	O4'-C1'-N9	7.37	114.09	108.20
6	A	115	G	C4-N9-C1'	7.36	136.07	126.50
7	D	1813	G	C4-C5-N7	7.35	113.74	110.80
7	D	791	C	N3-C4-C5	7.30	124.82	121.90
7	D	1805	U	N3-C2-O2	-7.25	117.12	122.20
7	D	1566	A	O4'-C1'-N9	7.24	114.00	108.20
7	D	341	G	C8-N9-C1'	-7.24	117.59	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	1313	U	N1-C2-O2	7.21	127.85	122.80
7	D	791	C	N3-C2-O2	-7.21	116.85	121.90
5	5	74	C	C2-N1-C1'	7.21	126.73	118.80
7	D	1492	G	N3-C4-N9	7.20	130.32	126.00
7	D	120	U	C2-N1-C1'	7.18	126.32	117.70
7	D	341	G	N1-C2-N2	-7.17	109.74	116.20
7	D	1617	C	C6-N1-C1'	-7.16	112.21	120.80
7	D	2449	U	C5-C6-N1	-7.16	119.12	122.70
7	D	2491	U	N1-C2-N3	7.16	119.19	114.90
7	D	1810	A	O4'-C1'-N9	7.15	113.92	108.20
7	D	1377	G	N3-C4-N9	7.15	130.29	126.00
7	D	2615	U	C2-N1-C1'	7.14	126.27	117.70
7	D	811	U	C5-C6-N1	7.13	126.27	122.70
7	D	341	G	N9-C4-C5	-7.13	102.55	105.40
7	D	1925	C	C6-N1-C1'	-7.11	112.27	120.80
6	A	1328	C	C6-N1-C1'	-7.11	112.27	120.80
6	A	1200	C	C6-N1-C2	-7.08	117.47	120.30
7	D	1656	C	C6-N1-C2	-7.07	117.47	120.30
7	D	1925	C	N1-C2-O2	7.07	123.14	118.90
7	D	981	A	N9-C4-C5	7.06	108.62	105.80
7	D	1021	A	C2-N3-C4	-7.04	107.08	110.60
7	D	2689	U	N3-C2-O2	-7.04	117.27	122.20
7	D	2522	U	C2-N1-C1'	7.04	126.14	117.70
7	D	805	G	O4'-C1'-N9	7.03	113.83	108.20
7	D	1205	U	N1-C1'-C2'	-7.00	104.30	112.00
7	D	2444	G	C4-C5-N7	6.99	113.59	110.80
7	D	2459	A	C4-N9-C1'	6.97	138.85	126.30
7	D	49	A	C8-N9-C4	6.97	108.59	105.80
7	D	687	C	C4-C5-C6	6.96	120.88	117.40
7	D	1204	A	C4-N9-C1'	6.96	138.82	126.30
7	D	1830	C	C2-N1-C1'	6.95	126.45	118.80
7	D	775	G	C6-N1-C2	-6.93	120.94	125.10
7	D	1786	A	C5-C6-N1	6.92	121.16	117.70
7	D	1813	G	N9-C4-C5	-6.91	102.64	105.40
55	z	62	LEU	CA-CB-CG	-6.90	99.42	115.30
7	D	974	G	C2-N3-C4	-6.89	108.45	111.90
7	D	350	U	N1-C2-O2	6.89	127.62	122.80
7	D	515	A	C4-C5-N7	6.88	114.14	110.70
7	D	531	C	N1-C2-O2	6.88	123.03	118.90
7	D	1312	U	C5-C6-N1	-6.88	119.26	122.70
7	D	247	G	C6-C5-N7	-6.87	126.28	130.40
7	D	775	G	C2-N3-C4	6.86	115.33	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	458	G	C4-N9-C1'	-6.85	117.60	126.50
7	D	775	G	C4-C5-C6	6.85	122.91	118.80
7	D	1377	G	N3-C4-C5	-6.84	125.18	128.60
7	D	341	G	C4-N9-C1'	6.84	135.39	126.50
7	D	2021	C	C5-C6-N1	-6.83	117.59	121.00
6	A	20	U	C2-N1-C1'	6.81	125.87	117.70
7	D	2445	G	C6-C5-N7	-6.81	126.31	130.40
7	D	733	G	C6-C5-N7	-6.80	126.32	130.40
7	D	1222	C	C2-N1-C1'	6.79	126.27	118.80
7	D	1786	A	C2-N3-C4	6.76	113.98	110.60
7	D	67	U	N3-C2-O2	-6.75	117.47	122.20
7	D	1493	C	N1-C2-O2	6.73	122.94	118.90
7	D	1012	U	C5-C6-N1	-6.73	119.33	122.70
7	D	2459	A	C8-N9-C1'	-6.69	115.66	127.70
7	D	783	A	C5-N7-C8	-6.67	100.56	103.90
7	D	2830	G	C6-C5-N7	-6.66	126.40	130.40
7	D	1497	U	C5-C4-O4	-6.66	121.90	125.90
6	A	115	G	C8-N9-C1'	-6.65	118.36	127.00
7	D	753	C	C6-N1-C2	-6.64	117.64	120.30
7	D	2021	C	C2-N1-C1'	-6.63	111.50	118.80
7	D	1527	G	C6-N1-C2	6.63	129.08	125.10
7	D	2612	C	N3-C2-O2	-6.62	117.26	121.90
37	h	59	LEU	CA-CB-CG	6.61	130.49	115.30
7	D	2032	G	C4-C5-N7	6.60	113.44	110.80
7	D	733	G	C8-N9-C1'	-6.59	118.43	127.00
7	D	945	A	O4'-C1'-N9	6.58	113.47	108.20
7	D	2837	G	C4-N9-C1'	6.57	135.04	126.50
7	D	1377	G	C8-N9-C1'	-6.57	118.46	127.00
7	D	1204	A	N7-C8-N9	6.56	117.08	113.80
7	D	1253	A	N9-C4-C5	-6.56	103.18	105.80
7	D	764	A	C8-N9-C4	6.53	108.41	105.80
11	H	12	CYS	CA-CB-SG	6.53	125.75	114.00
7	D	778	G	C6-C5-N7	-6.53	126.48	130.40
6	A	1329	A	N7-C8-N9	6.52	117.06	113.80
7	D	1657	C	C4-C5-C6	-6.52	114.14	117.40
7	D	1813	G	C8-N9-C1'	-6.50	118.55	127.00
7	D	2459	A	N3-C4-N9	6.50	132.60	127.40
7	D	2056	G	N3-C4-N9	6.49	129.89	126.00
6	A	115	G	N3-C4-N9	6.48	129.89	126.00
7	D	1154	G	C4-N9-C1'	6.47	134.91	126.50
7	D	2251	G	C4-C5-N7	6.47	113.39	110.80
7	D	2500	U	O5'-P-OP2	-6.47	99.88	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	794	G	C4-N9-C1'	6.46	134.90	126.50
7	D	917	A	C6-N1-C2	-6.46	114.73	118.60
7	D	764	A	N7-C8-N9	-6.46	110.57	113.80
7	D	2450	A	O5'-P-OP1	-6.45	99.89	105.70
7	D	1787	A	C2-N3-C4	-6.44	107.38	110.60
6	A	244	U	C2-N1-C1'	6.43	125.42	117.70
7	D	2490	G	C5-C6-O6	6.43	132.46	128.60
7	D	1925	C	N3-C2-O2	-6.43	117.40	121.90
6	A	1086	U	C5-C6-N1	6.42	125.91	122.70
7	D	1632	A	C6-C5-N7	-6.42	127.80	132.30
7	D	2449	U	C2-N1-C1'	-6.42	110.00	117.70
7	D	1338	G	C4-C5-N7	6.41	113.36	110.80
7	D	1571	A	O4'-C1'-N9	6.40	113.32	108.20
7	D	879	G	C6-C5-N7	6.40	134.24	130.40
7	D	150	C	C6-N1-C1'	-6.39	113.13	120.80
6	A	324	G	C8-N9-C4	-6.39	103.85	106.40
7	D	733	G	C4-N9-C1'	6.38	134.80	126.50
49	t	30	LEU	CA-CB-CG	-6.37	100.64	115.30
7	D	733	G	N3-C4-N9	6.37	129.82	126.00
7	D	1205	U	N3-C2-O2	-6.37	117.74	122.20
7	D	1628	G	C4-N9-C1'	6.35	134.76	126.50
7	D	396	G	C4-N9-C1'	6.34	134.75	126.50
7	D	2571	C	C2-N1-C1'	-6.33	111.84	118.80
7	D	1776	G	C4-C5-N7	6.32	113.33	110.80
7	D	1222	C	N1-C2-O2	6.30	122.68	118.90
7	D	715	G	C6-C5-N7	-6.28	126.63	130.40
7	D	571	A	N1-C6-N6	-6.28	114.83	118.60
5	5	74	C	C6-N1-C1'	-6.28	113.27	120.80
7	D	848	G	C2-N3-C4	-6.28	108.76	111.90
7	D	1123	C	N1-C2-O2	6.27	122.66	118.90
7	D	2495	G	N9-C4-C5	-6.27	102.89	105.40
7	D	120	U	N3-C2-O2	-6.26	117.81	122.20
7	D	2251	G	N1-C2-N2	-6.26	110.56	116.20
7	D	2251	G	C4-N9-C1'	6.26	134.64	126.50
7	D	1779	U	C2-N1-C1'	6.26	125.21	117.70
7	D	2490	G	N1-C2-N2	-6.26	110.57	116.20
7	D	1429	G	C6-C5-N7	-6.24	126.66	130.40
7	D	1204	A	O5'-P-OP2	-6.24	100.09	105.70
7	D	730	C	N3-C2-O2	-6.23	117.54	121.90
7	D	1566	A	N7-C8-N9	6.23	116.92	113.80
6	A	1369	C	N1-C2-O2	6.22	122.64	118.90
7	D	341	G	N3-C4-C5	-6.22	125.49	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	321	G	C4-N9-C1'	-6.20	118.45	126.50
7	D	396	G	C8-N9-C1'	-6.20	118.94	127.00
7	D	1668	A	N3-C4-N9	-6.19	122.44	127.40
35	f	78	TYR	C-N-CD	-6.18	106.99	120.60
7	D	13	A	N1-C6-N6	-6.17	114.89	118.60
7	D	1344	G	C8-N9-C4	-6.17	103.93	106.40
6	A	494	U	C2-N1-C1'	6.17	125.10	117.70
7	D	2689	U	N1-C2-O2	6.17	127.12	122.80
6	A	13	U	C5-C6-N1	6.17	125.78	122.70
30	a	155	LEU	CA-CB-CG	6.17	129.48	115.30
7	D	2495	G	C4-C5-N7	6.16	113.27	110.80
7	D	283	A	N1-C6-N6	6.16	122.30	118.60
7	D	48	G	C6-C5-N7	-6.15	126.71	130.40
7	D	2036	C	N1-C2-O2	6.14	122.59	118.90
6	A	1498	U	C5-C6-N1	-6.14	119.63	122.70
7	D	1123	C	C2-N1-C1'	6.14	125.55	118.80
7	D	945	A	N1-C6-N6	-6.14	114.92	118.60
6	A	115	G	C6-C5-N7	-6.14	126.72	130.40
6	A	960	U	C2-N1-C1'	6.13	125.06	117.70
7	D	729	G	C5-C6-O6	6.13	132.28	128.60
7	D	2490	G	N3-C2-N2	6.13	124.19	119.90
7	D	2837	G	C6-C5-N7	-6.13	126.72	130.40
7	D	2445	G	N9-C4-C5	-6.13	102.95	105.40
7	D	2837	G	C8-N9-C1'	-6.13	119.03	127.00
7	D	562	U	N1-C2-O2	-6.13	118.51	122.80
7	D	1813	G	C4-N9-C1'	6.12	134.46	126.50
7	D	1492	G	N9-C4-C5	-6.11	102.95	105.40
7	D	270(Y)	G	C8-N9-C4	6.11	108.84	106.40
7	D	774	A	C5-C6-N1	6.11	120.75	117.70
7	D	515	A	N1-C2-N3	6.10	132.35	129.30
7	D	1492	G	C5-C6-N1	6.10	114.55	111.50
7	D	2460	U	C6-N1-C2	-6.10	117.34	121.00
7	D	2289	G	C8-N9-C1'	-6.09	119.08	127.00
45	p	57	LEU	CB-CG-CD1	-6.09	100.64	111.00
7	D	1775	U	C2-N1-C1'	6.08	125.00	117.70
7	D	2035	G	C5-C6-N1	6.08	114.54	111.50
7	D	1005	C	N1-C2-O2	6.08	122.55	118.90
7	D	1006	C	N1-C2-O2	-6.08	115.25	118.90
7	D	2459	A	C6-C5-N7	-6.07	128.05	132.30
7	D	321	G	N3-C4-N9	-6.07	122.36	126.00
7	D	458	G	C8-N9-C1'	6.07	134.89	127.00
7	D	944	G	C4-N9-C1'	6.07	134.39	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	1604	C	C2-N1-C1'	6.07	125.48	118.80
7	D	2459	A	N3-C4-C5	-6.06	122.56	126.80
7	D	805	G	C2-N3-C4	-6.05	108.87	111.90
7	D	1429	G	C4-N9-C1'	6.05	134.37	126.50
36	g	74	GLY	N-CA-C	-6.05	97.98	113.10
6	A	872	A	O4'-C1'-N9	6.05	113.04	108.20
7	D	2653	U	C5-C6-N1	6.04	125.72	122.70
7	D	1660	C	N1-C2-O2	-6.04	115.28	118.90
7	D	729	G	N9-C4-C5	6.03	107.81	105.40
7	D	775	G	C6-C5-N7	-6.03	126.78	130.40
7	D	806	C	N1-C2-O2	-6.03	115.28	118.90
7	D	917	A	C5-C6-N1	6.02	120.71	117.70
31	b	63	LEU	CA-CB-CG	6.02	129.15	115.30
6	A	1086	U	C6-N1-C1'	-6.01	112.78	121.20
7	D	247	G	C4-N9-C1'	6.01	134.32	126.50
7	D	2307	G	C4-N9-C1'	6.00	134.30	126.50
7	D	1998	G	C6-C5-N7	-5.99	126.81	130.40
7	D	2491	U	P-O3'-C3'	-5.99	112.52	119.70
7	D	1785	A	N9-C4-C5	5.98	108.19	105.80
7	D	774	A	N1-C2-N3	5.97	132.29	129.30
7	D	2445	G	C8-N9-C1'	-5.97	119.23	127.00
7	D	2268	A	C8-N9-C4	-5.96	103.42	105.80
11	H	196	LEU	CA-CB-CG	5.94	128.97	115.30
7	D	687	C	N3-C2-O2	-5.94	117.74	121.90
7	D	1493	C	C2-N1-C1'	5.94	125.33	118.80
7	D	350	U	C2-N1-C1'	5.94	124.83	117.70
7	D	688	U	N1-C2-N3	5.94	118.46	114.90
7	D	515	A	C6-N1-C2	-5.93	115.04	118.60
7	D	1649	G	C4-N9-C1'	5.93	134.21	126.50
7	D	792	G	C4-N9-C1'	5.93	134.21	126.50
7	D	727	A	N1-C2-N3	5.93	132.26	129.30
6	A	518	C	P-O3'-C3'	5.92	126.81	119.70
7	D	60	G	N1-C2-N2	-5.92	110.87	116.20
7	D	676	A	C5-N7-C8	-5.92	100.94	103.90
7	D	729	G	N7-C8-N9	5.91	116.06	113.10
7	D	297	C	N3-C4-C5	5.91	124.26	121.90
7	D	450	G	N1-C6-O6	5.91	123.45	119.90
7	D	1377	G	N1-C2-N2	-5.91	110.88	116.20
7	D	774	A	O4'-C1'-N9	5.90	112.92	108.20
7	D	1428	C	OP1-P-O3'	5.90	118.18	105.20
7	D	2126	A	O4'-C1'-N9	5.90	112.92	108.20
7	D	2459	A	N1-C2-N3	5.89	132.25	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	1251	C	C6-N1-C2	5.89	122.66	120.30
7	D	1380	G	C8-N9-C1'	-5.89	119.34	127.00
7	D	1425	G	C6-C5-N7	-5.88	126.88	130.40
7	D	1632	A	C4-C5-N7	5.88	113.64	110.70
7	D	1598	C	N1-C2-O2	5.87	122.42	118.90
7	D	383	U	N1-C2-O2	5.87	126.91	122.80
7	D	856	C	C2-N1-C1'	5.87	125.26	118.80
7	D	1157	G	C4-N9-C1'	5.87	134.13	126.50
6	A	397	A	N1-C6-N6	-5.87	115.08	118.60
7	D	1253	A	C8-N9-C4	5.87	108.15	105.80
7	D	2289	G	C4-N9-C1'	5.87	134.12	126.50
7	D	1665	A	N7-C8-N9	5.86	116.73	113.80
7	D	682	G	C6-C5-N7	-5.85	126.89	130.40
7	D	531	C	C2-N1-C1'	5.85	125.23	118.80
7	D	311	A	O4'-C1'-N9	5.84	112.87	108.20
7	D	1799	G	O4'-C1'-N9	5.84	112.87	108.20
7	D	2612	C	O5'-P-OP1	-5.83	100.45	105.70
7	D	1566	A	C4-N9-C1'	5.83	136.79	126.30
7	D	761	A	C4-C5-N7	5.83	113.61	110.70
7	D	1325	G	O4'-C1'-N9	5.83	112.86	108.20
7	D	1241	A	N7-C8-N9	5.82	116.71	113.80
6	A	324	G	N7-C8-N9	5.82	116.01	113.10
7	D	972	G	C4-N9-C1'	5.82	134.07	126.50
7	D	1222	C	C6-N1-C1'	-5.82	113.82	120.80
7	D	1649	G	C8-N9-C1'	-5.81	119.44	127.00
7	D	1341	U	O5'-P-OP1	-5.81	100.47	105.70
7	D	659	C	C6-N1-C2	5.81	122.62	120.30
7	D	733	G	C4-C5-N7	5.81	113.12	110.80
33	d	3	LEU	CA-CB-CG	5.81	128.66	115.30
7	D	2002	G	C4-C5-N7	5.80	113.12	110.80
7	D	1972	A	C6-N1-C2	-5.80	115.12	118.60
41	l	114	LEU	CA-CB-CG	-5.80	101.96	115.30
7	D	1513	C	N3-C2-O2	-5.80	117.84	121.90
7	D	1623	G	C4-N9-C1'	5.79	134.03	126.50
7	D	730	C	N1-C2-O2	5.79	122.37	118.90
7	D	1123	C	C6-N1-C1'	-5.79	113.86	120.80
7	D	1667	G	C4-N9-C1'	5.77	134.00	126.50
7	D	1205	U	P-O3'-C3'	-5.77	112.78	119.70
7	D	1204	A	C8-N9-C4	-5.76	103.50	105.80
7	D	295	G	C8-N9-C4	5.75	108.70	106.40
7	D	453	C	N1-C2-O2	5.75	122.35	118.90
7	D	2445	G	C4-C5-N7	5.75	113.10	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	617	G	N3-C4-C5	5.75	131.47	128.60
7	D	1380	G	C4-N9-C1'	5.75	133.97	126.50
7	D	1475	G	N3-C4-N9	5.74	129.45	126.00
7	D	2501	C	N1-C2-O2	5.74	122.34	118.90
5	5	1	G	N3-C4-C5	5.74	131.47	128.60
7	D	1522	G	C6-C5-N7	-5.74	126.96	130.40
35	f	82	LEU	CA-CB-CG	-5.74	102.11	115.30
7	D	138	G	N3-C4-N9	5.73	129.44	126.00
7	D	1416	G	C2-N3-C4	-5.73	109.03	111.90
7	D	1840	G	C6-C5-N7	-5.73	126.96	130.40
7	D	2758	A	N9-C4-C5	-5.73	103.51	105.80
7	D	1527	G	N7-C8-N9	5.73	115.96	113.10
7	D	776	G	P-O3'-C3'	5.72	126.57	119.70
52	w	12	SER	N-CA-C	5.71	126.42	111.00
6	A	1086	U	C6-N1-C2	-5.71	117.58	121.00
7	D	2582	G	C4-N9-C1'	5.71	133.92	126.50
7	D	341	G	N3-C2-N2	5.70	123.89	119.90
7	D	1377	G	C4-C5-C6	5.69	122.22	118.80
7	D	1790	C	C2-N1-C1'	-5.69	112.54	118.80
7	D	321	G	N3-C4-C5	5.69	131.44	128.60
7	D	792	G	N3-C4-C5	-5.68	125.76	128.60
7	D	2073	C	N3-C2-O2	-5.68	117.92	121.90
7	D	1667	G	C6-C5-N7	-5.68	126.99	130.40
7	D	820	A	N1-C2-N3	5.67	132.14	129.30
7	D	2270	G	C6-C5-N7	-5.67	127.00	130.40
7	D	400	G	N1-C6-O6	5.67	123.30	119.90
7	D	779	U	C5-C6-N1	5.67	125.53	122.70
7	D	2756	U	C6-N1-C2	5.67	124.40	121.00
6	A	1364	U	C2-N1-C1'	5.66	124.49	117.70
7	D	972	G	N3-C4-C5	-5.66	125.77	128.60
7	D	2029	G	N3-C4-N9	-5.66	122.61	126.00
7	D	791	C	C6-N1-C2	5.66	122.56	120.30
7	D	470	A	C6-N1-C2	-5.65	115.21	118.60
7	D	106	C	N1-C2-O2	-5.65	115.51	118.90
7	D	2660	A	O4'-C1'-N9	-5.65	103.68	108.20
7	D	2242	G	C4-N9-C1'	5.64	133.84	126.50
6	A	328	C	C6-N1-C2	-5.64	118.04	120.30
7	D	1661	G	N3-C4-N9	-5.64	122.61	126.00
7	D	1950	G	N1-C6-O6	-5.64	116.51	119.90
7	D	1799	G	C8-N9-C1'	5.64	134.33	127.00
7	D	410	G	C4-N9-C1'	5.63	133.82	126.50
7	D	1204	A	C8-N9-C1'	-5.63	117.56	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	1377	G	N1-C2-N3	5.63	127.28	123.90
7	D	1951	U	N3-C2-O2	-5.63	118.26	122.20
7	D	688	U	N3-C4-C5	5.63	117.98	114.60
7	D	1937	A	C5-N7-C8	-5.63	101.08	103.90
6	A	49	U	C5-C6-N1	-5.63	119.88	122.70
7	D	410	G	N3-C4-N9	5.63	129.38	126.00
7	D	1786	A	N7-C8-N9	5.63	116.61	113.80
6	A	38	G	N3-C4-N9	-5.62	122.63	126.00
7	D	775	G	C5-C6-N1	5.61	114.31	111.50
7	D	2035	G	N1-C6-O6	-5.61	116.53	119.90
7	D	2289	G	C6-C5-N7	-5.61	127.03	130.40
7	D	1153	C	C6-N1-C2	-5.60	118.06	120.30
7	D	498	G	C8-N9-C4	-5.60	104.16	106.40
7	D	1012	U	O4'-C1'-N1	5.60	112.68	108.20
8	E	12	C	C6-N1-C2	-5.60	118.06	120.30
7	D	1513	C	C2-N1-C1'	5.60	124.96	118.80
13	J	10	LEU	CA-CB-CG	5.59	128.16	115.30
7	D	793	A	N1-C6-N6	5.59	121.95	118.60
7	D	2025	C	C2-N1-C1'	5.59	124.95	118.80
7	D	1475	G	C6-C5-N7	-5.59	127.05	130.40
7	D	1266	G	N3-C4-N9	-5.58	122.65	126.00
7	D	1632	A	C5-C6-N6	-5.58	119.23	123.70
7	D	2021	C	C4-C5-C6	5.58	120.19	117.40
6	A	1498	U	C2-N1-C1'	-5.58	111.01	117.70
7	D	1669	A	C6-C5-N7	-5.58	128.40	132.30
7	D	582	G	C6-C5-N7	-5.57	127.06	130.40
7	D	1429	G	C8-N9-C1'	-5.56	119.77	127.00
7	D	603	A	C4-C5-C6	-5.56	114.22	117.00
7	D	1840	G	C4-C5-N7	5.56	113.02	110.80
7	D	1267	U	C5-C6-N1	5.56	125.48	122.70
8	E	100	G	C4-N9-C1'	5.56	133.72	126.50
7	D	1397	U	C2-N1-C1'	5.55	124.36	117.70
7	D	2777	G	C8-N9-C4	-5.55	104.18	106.40
7	D	1833	U	N1-C2-N3	5.55	118.23	114.90
7	D	2457	U	N1-C2-O2	5.54	126.68	122.80
5	5	1	G	N3-C4-N9	-5.54	122.67	126.00
7	D	1699	G	N3-C4-N9	-5.54	122.67	126.00
7	D	1899	G	C2-N3-C4	-5.54	109.13	111.90
7	D	1653	G	N1-C2-N2	-5.54	111.22	116.20
7	D	1800	C	C6-N1-C1'	-5.54	114.16	120.80
7	D	2492	U	N1-C2-O2	5.54	126.67	122.80
7	D	2495	G	N3-C4-C5	-5.54	125.83	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	A	122	G	N3-C4-N9	5.53	129.32	126.00
7	D	2020	A	P-O3'-C3'	5.52	126.33	119.70
7	D	2544	G	C6-C5-N7	-5.52	127.09	130.40
7	D	1025	G	C2-N3-C4	5.52	114.66	111.90
7	D	1559	G	N9-C1'-C2'	-5.52	105.93	112.00
7	D	150	C	O4'-C1'-N1	5.51	112.61	108.20
7	D	120	U	C6-N1-C1'	-5.51	113.49	121.20
6	A	581	G	C6-C5-N7	-5.51	127.09	130.40
7	D	1566	A	C6-C5-N7	-5.51	128.44	132.30
6	A	1296	C	N1-C2-O2	5.51	122.20	118.90
7	D	363(F)	A	O3'-P-O5'	-5.51	93.54	104.00
7	D	1944	U	N3-C2-O2	-5.51	118.34	122.20
7	D	2241	A	N1-C2-N3	5.51	132.05	129.30
5	5	74	C	N3-C2-O2	-5.50	118.05	121.90
6	A	1261	A	N1-C6-N6	5.50	121.90	118.60
7	D	1355	G	C4-C5-N7	5.50	113.00	110.80
7	D	2460	U	N1-C2-O2	5.50	126.65	122.80
6	A	570	G	C4-C5-N7	5.50	113.00	110.80
7	D	1340	U	N1-C2-N3	5.50	118.20	114.90
7	D	1735	C	O3'-P-O5'	-5.50	93.55	104.00
7	D	1668	A	N9-C4-C5	5.50	108.00	105.80
7	D	2025	C	C6-N1-C2	-5.48	118.11	120.30
7	D	1139	G	N1-C6-O6	5.48	123.19	119.90
7	D	2447	G	N3-C4-C5	-5.48	125.86	128.60
7	D	297	C	N3-C2-O2	-5.47	118.07	121.90
7	D	2718	G	C4-N9-C1'	5.47	133.62	126.50
7	D	1154	G	C8-N9-C1'	-5.47	119.89	127.00
7	D	359	A	N9-C1'-C2'	-5.47	105.98	112.00
7	D	848	G	C4-C5-N7	5.47	112.99	110.80
7	D	2612	C	C6-N1-C2	-5.47	118.11	120.30
7	D	2069	G	N3-C4-N9	5.46	129.28	126.00
7	D	1665	A	C5-N7-C8	-5.45	101.17	103.90
7	D	360	G	C4-N9-C1'	5.45	133.59	126.50
7	D	138	G	C4-N9-C1'	5.44	133.58	126.50
7	D	1522	G	C4-C5-N7	5.44	112.98	110.80
7	D	1652	A	C5-N7-C8	-5.44	101.18	103.90
7	D	25	U	C2-N3-C4	-5.44	123.74	127.00
7	D	247	G	C8-N9-C1'	-5.44	119.93	127.00
7	D	1071	G	C6-C5-N7	-5.44	127.14	130.40
7	D	1810	A	C5-C6-N1	5.43	120.42	117.70
7	D	1475	G	C4-N9-C1'	5.43	133.56	126.50
7	D	1604	C	C6-N1-C2	-5.43	118.13	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	859	G	C4-C5-N7	5.43	112.97	110.80
7	D	1012	U	C6-N1-C1'	5.43	128.80	121.20
7	D	138	G	C8-N9-C1'	-5.43	119.94	127.00
7	D	1786	A	C5-C6-N6	-5.43	119.36	123.70
7	D	775	G	C8-N9-C1'	-5.42	119.95	127.00
7	D	1632	A	N9-C4-C5	-5.42	103.63	105.80
7	D	2307	G	C8-N9-C1'	-5.42	119.95	127.00
7	D	1007	C	N1-C2-O2	-5.42	115.65	118.90
7	D	2503	A	C6-C5-N7	-5.42	128.50	132.30
7	D	848	G	C6-C5-N7	-5.42	127.15	130.40
7	D	2517	C	C2-N3-C4	-5.42	117.19	119.90
7	D	1660	C	C2-N3-C4	-5.41	117.19	119.90
7	D	1830	C	C6-N1-C2	-5.41	118.14	120.30
6	A	596	C	C5-C6-N1	5.41	123.70	121.00
7	D	1338	G	N9-C4-C5	-5.41	103.24	105.40
7	D	341	G	C4-C5-C6	5.40	122.04	118.80
7	D	283	A	C5-C6-N6	-5.40	119.38	123.70
7	D	1950	G	N9-C4-C5	5.40	107.56	105.40
7	D	2136	C	C2-N1-C1'	5.40	124.74	118.80
7	D	2512	C	C5-C6-N1	5.40	123.70	121.00
7	D	2522	U	C6-N1-C1'	-5.39	113.65	121.20
7	D	1544	C	N1-C2-O2	5.39	122.13	118.90
7	D	2241	A	C6-N1-C2	-5.39	115.37	118.60
7	D	1675	C	N1-C2-O2	5.39	122.13	118.90
7	D	792	G	C6-C5-N7	-5.38	127.17	130.40
6	A	1504	G	O5'-P-OP2	-5.38	100.86	105.70
7	D	1254	A	O4'-C1'-N9	5.38	112.51	108.20
6	A	1301	U	C2-N1-C1'	5.38	124.16	117.70
7	D	1314	C	C6-N1-C2	-5.38	118.15	120.30
7	D	1943	U	P-O3'-C3'	5.38	126.16	119.70
7	D	1649	G	N3-C4-N9	5.38	129.23	126.00
7	D	1828	G	N9-C4-C5	5.38	107.55	105.40
7	D	2444	G	C4-N9-C1'	5.38	133.49	126.50
7	D	859	G	C6-C5-N7	-5.37	127.17	130.40
41	I	63	VAL	N-CA-C	-5.37	96.49	111.00
6	A	1086	U	N1-C2-O2	5.37	126.56	122.80
7	D	759	G	C4-C5-N7	5.37	112.95	110.80
7	D	2307	G	N3-C4-N9	5.37	129.22	126.00
21	R	43	CYS	CA-CB-SG	5.37	123.66	114.00
7	D	656	G	C6-C5-N7	-5.36	127.18	130.40
7	D	1791	A	O5'-P-OP1	-5.36	100.87	105.70
7	D	2251	G	N3-C4-N9	5.36	129.22	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	A	645	C	C2-N1-C1'	5.35	124.69	118.80
7	D	730	C	C6-N1-C2	-5.35	118.16	120.30
7	D	1205	U	C2-N3-C4	5.35	130.21	127.00
7	D	280	C	C6-N1-C1'	-5.35	114.38	120.80
7	D	1669	A	C4-C5-N7	5.35	113.37	110.70
7	D	2056	G	C6-N1-C2	-5.35	121.89	125.10
7	D	974(A)	C	N3-C4-N4	5.34	121.74	118.00
7	D	2073	C	C5-C6-N1	5.34	123.67	121.00
7	D	1675	C	N3-C2-O2	-5.33	118.17	121.90
7	D	973	A	OP1-P-O3'	5.33	116.92	105.20
7	D	2251	G	O5'-P-OP2	-5.33	100.91	105.70
7	D	2703	C	C6-N1-C2	-5.33	118.17	120.30
7	D	1660	C	C2-N1-C1'	-5.32	112.94	118.80
7	D	67	U	N1-C2-O2	5.31	126.52	122.80
7	D	1810	A	C2-N3-C4	5.31	113.25	110.60
6	A	494	U	N1-C2-O2	5.30	126.51	122.80
7	D	1025	G	C8-N9-C4	-5.30	104.28	106.40
7	D	1964	G	O4'-C1'-N9	-5.30	103.96	108.20
7	D	2426	A	C4-N9-C1'	5.30	135.83	126.30
53	x	39	TYR	N-CA-C	5.30	125.30	111.00
7	D	1143	A	C6-N1-C2	-5.29	115.43	118.60
7	D	2630	G	N3-C4-N9	5.29	129.17	126.00
7	D	940	G	C8-N9-C4	-5.28	104.29	106.40
7	D	2612	C	N1-C2-N3	5.28	122.90	119.20
51	v	40	HIS	C-N-CD	-5.28	108.98	120.60
6	A	244	U	N1-C2-O2	5.28	126.50	122.80
7	D	2073	C	C2-N1-C1'	5.27	124.60	118.80
7	D	2407	G	N1-C6-O6	-5.27	116.74	119.90
7	D	363(F)	A	P-O3'-C3'	-5.27	113.38	119.70
7	D	1604	C	N1-C2-O2	5.27	122.06	118.90
7	D	2447	G	N3-C4-N9	5.27	129.16	126.00
7	D	323	G	N3-C4-C5	-5.27	125.97	128.60
7	D	603	A	C4-N9-C1'	-5.27	116.82	126.30
7	D	1519	G	C8-N9-C1'	-5.27	120.15	127.00
8	E	50	G	C8-N9-C4	5.26	108.50	106.40
7	D	2445	G	C4-N9-C1'	5.26	133.33	126.50
7	D	848	G	N1-C6-O6	5.25	123.05	119.90
36	g	8	LEU	CA-CB-CG	5.25	127.38	115.30
7	D	2472	G	C8-N9-C1'	-5.25	120.17	127.00
7	D	410	G	N3-C4-C5	-5.25	125.98	128.60
7	D	774	A	C8-N9-C4	-5.25	103.70	105.80
7	D	776	G	C6-C5-N7	-5.25	127.25	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	2266	A	P-O3'-C3'	5.24	125.99	119.70
7	D	2136	C	N1-C2-O2	5.24	122.04	118.90
7	D	1771	C	C6-N1-C2	-5.24	118.21	120.30
7	D	2027	G	C8-N9-C1'	-5.24	120.19	127.00
7	D	794	G	N3-C4-N9	5.23	129.14	126.00
7	D	1253	A	O4'-C1'-N9	-5.23	104.01	108.20
7	D	1786	A	C8-N9-C1'	-5.23	118.28	127.70
6	A	244	U	C6-N1-C1'	-5.23	113.88	121.20
7	D	1628	G	C8-N9-C1'	-5.23	120.20	127.00
7	D	1809	A	O4'-C1'-N9	5.23	112.38	108.20
7	D	1667	G	C8-N9-C1'	-5.23	120.20	127.00
7	D	1571	A	C5-C6-N1	5.22	120.31	117.70
5	5	39	U	C2-N1-C1'	5.22	123.96	117.70
7	D	546	C	N1-C2-O2	5.21	122.03	118.90
7	D	1527	G	C2-N3-C4	-5.21	109.30	111.90
51	v	41	PRO	N-CA-C	5.21	125.64	112.10
7	D	2125	G	N3-C4-N9	-5.21	122.88	126.00
7	D	1647	G	O5'-P-OP1	-5.20	101.02	105.70
6	A	1477	C	N1-C2-O2	5.20	122.02	118.90
7	D	856	C	C6-N1-C1'	-5.20	114.57	120.80
7	D	1951	U	C2-N1-C1'	5.20	123.93	117.70
7	D	2606	C	N3-C4-C5	5.19	123.98	121.90
6	A	13	U	N1-C2-O2	5.19	126.44	122.80
7	D	793	A	C6-C5-N7	-5.19	128.67	132.30
7	D	2021	C	C6-N1-C1'	5.19	127.03	120.80
7	D	280	C	C6-N1-C2	5.19	122.38	120.30
7	D	676	A	C2-N3-C4	-5.19	108.01	110.60
7	D	1664	A	C5-N7-C8	-5.19	101.31	103.90
7	D	1776	G	C6-C5-N7	-5.19	127.29	130.40
7	D	778	G	N9-C4-C5	-5.18	103.33	105.40
53	x	23	THR	N-CA-C	5.18	124.99	111.00
7	D	2251	G	C8-N9-C1'	-5.18	120.27	127.00
3	3	21	PRO	C-N-CD	5.18	139.27	128.40
7	D	1784	A	N9-C4-C5	-5.18	103.73	105.80
7	D	60	G	N1-C6-O6	-5.17	116.80	119.90
6	A	137	C	C6-N1-C2	5.17	122.37	120.30
7	D	794	G	C8-N9-C1'	-5.17	120.28	127.00
7	D	1656	C	N3-C2-O2	-5.17	118.28	121.90
7	D	515	A	C4-N9-C1'	5.16	135.59	126.30
7	D	602	G	P-O3'-C3'	5.16	125.90	119.70
7	D	794	G	C4-C5-N7	5.16	112.87	110.80
7	D	2258	C	N3-C4-C5	5.16	123.97	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	H	11	LEU	CA-CB-CG	-5.16	103.42	115.30
50	u	11	SER	C-N-CD	-5.16	109.24	120.60
6	A	115	G	N3-C4-C5	-5.16	126.02	128.60
7	D	609(A)	G	N3-C4-N9	-5.16	122.91	126.00
7	D	1800	C	C2-N1-C1'	5.16	124.47	118.80
7	D	687	C	N1-C2-N3	5.15	122.81	119.20
7	D	1834	U	N3-C2-O2	-5.15	118.59	122.20
7	D	277	C	C2-N1-C1'	5.15	124.47	118.80
7	D	1799	G	C4-N9-C1'	-5.15	119.80	126.50
37	h	43	GLY	N-CA-C	-5.15	100.23	113.10
7	D	2472	G	C6-C5-N7	-5.14	127.31	130.40
7	D	1139	G	C4-C5-N7	5.14	112.86	110.80
6	A	362	G	C2-N3-C4	-5.14	109.33	111.90
7	D	2642	G	C6-C5-N7	-5.13	127.32	130.40
7	D	183	C	C2-N3-C4	-5.13	117.33	119.90
7	D	733	G	N9-C4-C5	-5.13	103.35	105.40
7	D	1325	G	N1-C6-O6	5.13	122.98	119.90
7	D	2239	G	C4-N9-C1'	5.13	133.17	126.50
7	D	811	U	C4-C5-C6	-5.13	116.62	119.70
7	D	613	U	O4'-C1'-N1	5.12	112.30	108.20
7	D	1402	C	C6-N1-C2	-5.12	118.25	120.30
6	A	304	U	C2-N1-C1'	5.12	123.85	117.70
56	B	186	PRO	C-N-CD	5.12	139.16	128.40
7	D	321	G	C8-N9-C1'	5.12	133.66	127.00
7	D	462	C	C2-N1-C1'	5.12	124.43	118.80
7	D	295	G	C4-N9-C1'	-5.11	119.85	126.50
7	D	515	A	C8-N9-C1'	-5.11	118.50	127.70
7	D	2056	G	O4'-C1'-N9	-5.11	104.11	108.20
6	A	1106	G	N3-C4-N9	-5.11	122.93	126.00
29	Z	181	PRO	C-N-CD	5.11	139.13	128.40
6	A	1369	C	C2-N1-C1'	5.11	124.42	118.80
7	D	791	C	N3-C4-N4	-5.11	114.42	118.00
37	h	69	GLY	N-CA-C	-5.11	100.33	113.10
7	D	2703	C	N1-C2-O2	5.10	121.96	118.90
7	D	972	G	N3-C4-N9	5.10	129.06	126.00
7	D	1397	U	C5-C6-N1	5.10	125.25	122.70
43	n	15	GLU	C-N-CD	5.10	139.11	128.40
7	D	1519	G	C4-N9-C1'	5.10	133.13	126.50
7	D	247	G	N1-C2-N3	5.10	126.96	123.90
7	D	974	G	N9-C4-C5	-5.10	103.36	105.40
7	D	2242	G	C8-N9-C1'	-5.09	120.38	127.00
7	D	740	U	C5-C6-N1	5.09	125.25	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	805	G	N3-C4-C5	5.09	131.15	128.60
7	D	1032	A	C8-N9-C4	5.09	107.84	105.80
7	D	1157	G	C8-N9-C1'	-5.09	120.38	127.00
6	A	1369	C	N3-C2-O2	-5.09	118.34	121.90
7	D	2052	G	C6-C5-N7	-5.09	127.35	130.40
7	D	1153	C	C2-N1-C1'	5.09	124.39	118.80
56	B	396	LEU	C-N-CD	5.09	139.08	128.40
7	D	60	G	N3-C4-N9	5.08	129.05	126.00
7	D	1996	C	P-O3'-C3'	5.08	125.80	119.70
8	E	50	G	N9-C4-C5	-5.08	103.37	105.40
7	D	761	A	C5-N7-C8	-5.08	101.36	103.90
7	D	2617	C	N3-C4-C5	5.08	123.93	121.90
8	E	100	G	C6-C5-N7	-5.08	127.35	130.40
56	B	398	ASP	C-N-CD	5.08	139.07	128.40
3	3	90	LYS	C-N-CD	5.08	139.07	128.40
7	D	462	C	N3-C2-O2	-5.08	118.34	121.90
56	B	333	GLU	C-N-CD	5.08	139.06	128.40
3	3	18	THR	C-N-CD	5.08	139.06	128.40
7	D	1635	G	C4-N9-C1'	5.08	133.10	126.50
7	D	1986	A	C8-N9-C4	-5.08	103.77	105.80
20	Q	96	LEU	C-N-CD	5.08	139.06	128.40
30	a	48	ARG	CB-CG-CD	5.08	124.80	111.60
56	B	454	ALA	C-N-CD	5.08	139.06	128.40
6	A	189	U	C2-N1-C1'	5.07	123.79	117.70
7	D	1997	G	C2-N3-C4	-5.07	109.36	111.90
56	B	528	ILE	C-N-CD	5.07	139.06	128.40
7	D	1617	C	N3-C2-O2	-5.07	118.35	121.90
56	B	289	SER	C-N-CD	5.07	139.05	128.40
56	B	373	ALA	C-N-CD	5.07	139.05	128.40
7	D	1919	A	P-O3'-C3'	5.07	125.78	119.70
3	3	53	VAL	C-N-CD	5.07	139.04	128.40
7	D	2653	U	C2-N1-C1'	5.06	123.78	117.70
56	B	223	ARG	C-N-CD	5.06	139.03	128.40
7	D	247	G	N3-C4-N9	5.06	129.04	126.00
7	D	1205	U	C5-C6-N1	5.06	125.23	122.70
56	B	191	ASP	C-N-CD	5.06	139.03	128.40
56	B	246	THR	C-N-CD	5.06	139.03	128.40
7	D	1607	C	N3-C2-O2	5.06	125.44	121.90
7	D	2500	U	P-O3'-C3'	5.06	125.77	119.70
7	D	1571	A	N1-C2-N3	-5.06	126.77	129.30
26	W	75	ALA	C-N-CD	5.06	139.02	128.40
3	3	24	GLY	C-N-CD	5.06	139.02	128.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	A	1498	U	C2-N3-C4	-5.06	123.97	127.00
7	D	1660	C	C6-N1-C1'	5.06	126.87	120.80
56	B	158	LEU	C-N-CD	5.06	139.02	128.40
56	B	407	GLU	C-N-CD	5.06	139.02	128.40
7	D	2069	G	C6-C5-N7	-5.06	127.37	130.40
56	B	287	THR	C-N-CD	5.06	139.02	128.40
56	B	295	ARG	C-N-CD	5.06	139.02	128.40
56	B	298	LYS	C-N-CD	5.06	139.02	128.40
7	D	297	C	C2-N1-C1'	5.05	124.36	118.80
7	D	1956	U	N3-C2-O2	-5.05	118.66	122.20
34	e	125	VAL	C-N-CD	5.05	139.02	128.40
56	B	416	THR	C-N-CD	5.05	139.01	128.40
56	B	485	ARG	C-N-CD	5.05	139.01	128.40
56	B	592	VAL	C-N-CD	5.05	139.02	128.40
56	B	185	ILE	C-N-CD	5.05	139.01	128.40
6	A	38	G	N3-C4-C5	5.05	131.13	128.60
7	D	1507	A	O4'-C1'-N9	5.05	112.24	108.20
56	B	535	VAL	C-N-CD	5.05	139.01	128.40
7	D	1286	A	C8-N9-C4	5.05	107.82	105.80
56	B	132	ILE	C-N-CD	5.05	139.01	128.40
56	B	212	ILE	C-N-CD	5.05	139.00	128.40
3	3	12	LEU	C-N-CD	5.05	139.00	128.40
7	D	1623	G	C8-N9-C1'	-5.05	120.44	127.00
7	D	2279	G	C6-C5-N7	-5.05	127.37	130.40
56	B	441	LEU	C-N-CD	5.04	139.00	128.40
26	W	58	VAL	C-N-CD	5.04	138.99	128.40
7	D	1628	G	N3-C4-N9	5.04	129.02	126.00
7	D	1669	A	C5-N7-C8	-5.04	101.38	103.90
7	D	676	A	C6-C5-N7	-5.04	128.77	132.30
56	B	83	THR	C-N-CD	5.04	138.98	128.40
7	D	479	A	C8-N9-C4	5.04	107.81	105.80
7	D	1205	U	C2'-C3'-O3'	5.04	121.76	113.70
7	D	1300	U	O4'-C1'-N1	-5.04	104.17	108.20
7	D	1792	G	C6-C5-N7	-5.04	127.38	130.40
7	D	2758	A	C5-C6-N6	-5.03	119.67	123.70
8	E	100	G	C8-N9-C1'	-5.03	120.46	127.00
7	D	1522	G	N1-C6-O6	5.03	122.92	119.90
7	D	206	U	C2-N1-C1'	-5.03	111.67	117.70
7	D	1186	G	C4-C5-N7	-5.03	108.79	110.80
6	A	1086	U	N3-C2-O2	-5.03	118.68	122.20
7	D	433	C	C2-N1-C1'	5.03	124.33	118.80
7	D	659	C	N3-C4-C5	5.03	123.91	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	D	1833	U	C2-N3-C4	-5.02	123.99	127.00
7	D	2642	G	C4-C5-N7	5.02	112.81	110.80
54	y	31	LEU	CA-CB-CG	-5.02	103.75	115.30
6	A	653	A	O4'-C1'-N9	5.02	112.22	108.20
7	D	410	G	C8-N9-C1'	-5.02	120.47	127.00
7	D	733	G	C5-C6-O6	-5.02	125.59	128.60
30	a	220	HIS	N-CA-C	5.02	124.55	111.00
7	D	753	C	C5-C6-N1	5.02	123.51	121.00
7	D	1021	A	C5-N7-C8	-5.01	101.39	103.90
7	D	246	C	N3-C4-C5	5.01	123.91	121.90
7	D	2703	C	N3-C2-O2	-5.01	118.39	121.90
7	D	2703	C	C2-N1-C1'	5.01	124.31	118.80
7	D	688	U	N1-C2-O2	-5.01	119.29	122.80
7	D	1204	A	C4-C5-C6	5.01	119.50	117.00
7	D	1811	G	C4-C5-N7	5.01	112.80	110.80
7	D	1950	G	O4'-C1'-N9	5.01	112.21	108.20
7	D	13	A	N9-C4-C5	5.01	107.80	105.80
7	D	932	G	N1-C2-N2	-5.01	111.69	116.20
7	D	609(A)	G	N3-C2-N2	-5.00	116.40	119.90
7	D	1020	A	C8-N9-C4	5.00	107.80	105.80
7	D	1135	C	N1-C2-O2	5.00	121.90	118.90
6	A	190	G	C8-N9-C4	-5.00	104.40	106.40
7	D	1950	G	C8-N9-C4	-5.00	104.40	106.40

There are no chirality outliers.

All (34) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
9	F	95	GLN	Peptide
17	N	33	GLN	Peptide
19	P	15	ARG	Peptide
21	R	34	TYR	Peptide
30	a	226	MET	Peptide
30	a	233	HIS	Peptide
30	a	238	GLY	Peptide
30	a	246	PRO	Peptide
32	c	177	ALA	Peptide
32	c	98	SER	Peptide
33	d	130	ASN	Peptide
33	d	141	PHE	Peptide
35	f	2	LYS	Peptide
35	f	75	TYR	Peptide

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Mol	Chain	Res	Type	Group
35	f	78	TYR	Peptide
37	h	122	PRO	Peptide
40	k	53	SER	Peptide
40	k	94	TYR	Peptide
41	l	100	TYR	Peptide
41	l	57	PHE	Peptide
41	l	71	GLY	Peptide
47	r	160	GLY	Peptide
51	v	2	LYS	Peptide
52	w	11	THR	Peptide
52	w	4	HIS	Peptide
52	w	41	PRO	Peptide
52	w	49	CYS	Peptide
52	w	5	PRO	Peptide
53	x	22	ALA	Peptide
53	x	26	ASN	Peptide
53	x	38	LYS	Peptide
55	z	29	LYS	Peptide
55	z	4	MET	Peptide
55	z	59	LYS	Peptide

## 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	1	307	0	335	38	0
2	2	641	0	309	20	0
3	3	993	0	1030	310	0
4	4	1640	0	837	65	0
5	5	1623	0	821	102	0
6	A	32554	0	16429	2728	0
7	D	62218	0	31354	5215	0
8	E	2641	0	1337	129	0
9	F	1900	0	1951	165	0
10	G	1612	0	1677	107	0
11	H	1703	0	1763	146	0
12	I	1146	0	1207	73	0
13	J	843	0	857	81	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
14	K	1257	0	1296	93	0
15	L	1116	0	1177	100	0
16	M	1010	0	1035	104	0
17	N	794	0	840	77	0
18	O	885	0	904	61	0
19	P	970	0	1057	116	0
20	Q	914	0	967	226	0
21	R	492	0	529	45	0
22	S	734	0	771	63	0
23	T	700	0	720	75	0
24	U	857	0	930	85	0
25	V	597	0	668	73	0
26	W	647	0	670	438	0
27	X	763	0	861	68	0
28	Y	208	0	221	25	0
29	Z	1742	0	1796	282	0
30	a	2124	0	2207	0	0
31	b	1578	0	1647	0	0
32	c	1625	0	1666	0	0
33	d	1482	0	1546	0	0
34	e	1328	0	1408	0	0
35	f	1113	0	1183	0	0
36	g	932	0	994	0	0
37	h	1106	0	1183	0	0
38	i	1080	0	1127	0	0
39	j	960	0	1021	0	0
40	k	877	0	938	0	0
41	l	976	0	1033	0	0
42	m	964	0	1022	0	0
43	n	779	0	852	0	0
44	o	876	0	941	0	0
45	p	742	0	800	0	0
46	q	844	0	930	0	0
47	r	1435	0	1463	0	0
48	s	625	0	647	0	0
49	t	567	0	621	0	0
50	u	469	0	518	0	0
51	v	581	0	577	0	0
52	w	445	0	459	0	0
53	x	426	0	452	0	0
54	y	430	0	480	0	0
55	z	515	0	587	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	B	4628	0	4707	2436	0
57	B	32	0	12	51	0
All	All	153046	0	105370	12757	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 63.

All (12757) 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)
56:B:79:HIS:CD2	56:B:261:VAL:HG23	1.16	1.68
7:D:884:C:C2	7:D:885:C:C5	1.74	1.66
56:B:382:LEU:HG	56:B:401:ARG:CD	1.24	1.66
3:3:10:LEU:HD11	3:3:57:ILE:CG1	1.22	1.64
3:3:6:ALA:HB3	3:3:59:ILE:CB	1.23	1.64
26:W:14:HIS:CE1	26:W:34:TRP:CZ3	1.83	1.64
56:B:523:LYS:HB3	56:B:598:LEU:CD2	1.20	1.64
26:W:69:HIS:HB2	26:W:74:PHE:CZ	1.16	1.64
56:B:230:ILE:HA	56:B:280:ILE:CG2	1.16	1.63
56:B:243:GLY:HA3	56:B:263:TRP:CD1	1.13	1.62
26:W:14:HIS:HE1	26:W:34:TRP:CH2	1.01	1.62
3:3:10:LEU:HD11	3:3:57:ILE:CD1	1.21	1.62
56:B:378:TYR:CB	56:B:406:LEU:HD13	1.22	1.62
56:B:298:LYS:HA	56:B:348:PHE:CE2	1.12	1.61
26:W:40:ILE:CG2	26:W:67:VAL:HG22	1.26	1.60
56:B:218:PHE:HZ	56:B:291:TYR:CZ	1.02	1.60
26:W:11:VAL:CG2	26:W:41:VAL:HG13	1.29	1.60
26:W:69:HIS:CB	26:W:74:PHE:CZ	1.82	1.59
56:B:195:PRO:HB2	56:B:286:PRO:CA	1.26	1.58
56:B:42:ARG:CD	56:B:53:ARG:HH21	0.95	1.58
56:B:383:LYS:HG2	56:B:402:ILE:CG2	1.20	1.57
56:B:137:LYS:HG3	57:B:701:GCP:C5	1.22	1.57
56:B:431:LYS:CD	56:B:455:PRO:HG3	1.24	1.57
29:Z:38:ASP:CB	29:Z:177:LYS:HD2	1.27	1.57
56:B:79:HIS:CD2	56:B:261:VAL:CG2	1.88	1.56
56:B:382:LEU:HB2	56:B:401:ARG:CG	1.20	1.56
56:B:135:ILE:CG1	56:B:165:PHE:CB	1.76	1.56
3:3:10:LEU:CD1	3:3:57:ILE:CD1	1.83	1.56
56:B:383:LYS:CG	56:B:402:ILE:CG2	1.77	1.56
56:B:27:ASP:CG	56:B:45:PHE:HB2	1.26	1.55
26:W:14:HIS:CE1	26:W:34:TRP:CH2	1.85	1.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:P:80:HIS:CD2	56:B:316:LEU:HG	1.36	1.55
56:B:382:LEU:CB	56:B:401:ARG:HG3	1.29	1.55
56:B:431:LYS:CG	56:B:458:GLU:HG3	1.27	1.55
56:B:490:VAL:HB	56:B:508:ALA:CB	1.27	1.55
56:B:218:PHE:CZ	56:B:291:TYR:CZ	1.89	1.54
56:B:64:VAL:CG1	56:B:80:LEU:HB3	1.35	1.54
56:B:497:HIS:HA	56:B:535:VAL:CG1	1.37	1.54
56:B:137:LYS:CG	57:B:701:GCP:C5	1.86	1.54
6:A:1309:G:N2	6:A:1329:A:C8	1.71	1.54
56:B:495:LEU:HD12	56:B:540:ALA:CB	1.08	1.54
56:B:431:LYS:HG3	56:B:458:GLU:CG	1.30	1.54
29:Z:38:ASP:HB3	29:Z:177:LYS:CD	1.31	1.54
56:B:195:PRO:CB	56:B:286:PRO:HA	1.12	1.53
7:D:884:C:C2	7:D:885:C:H5	0.86	1.53
56:B:528:ILE:HG22	56:B:592:VAL:CG2	1.39	1.53
56:B:121:PHE:CZ	56:B:157:GLY:HA3	1.40	1.53
3:3:6:ALA:HB3	3:3:59:ILE:CG2	1.10	1.53
56:B:225:GLY:N	56:B:239:VAL:CG1	1.71	1.52
6:A:500:G:C6	6:A:546:G:N2	1.78	1.52
56:B:46:LEU:CB	56:B:61:ALA:HB1	1.37	1.52
56:B:492:VAL:HG22	56:B:541:ILE:CD1	1.07	1.51
20:Q:96:LEU:CD1	20:Q:103:THR:HG22	1.38	1.51
3:3:6:ALA:CB	3:3:59:ILE:CG2	1.81	1.51
56:B:135:ILE:CG1	56:B:165:PHE:HB3	1.08	1.51
56:B:282:LEU:HD13	56:B:283:ALA:N	1.20	1.50
7:D:489:G:N7	7:D:1284:A:C2	1.76	1.50
56:B:383:LYS:CB	56:B:402:ILE:HG21	1.07	1.50
56:B:135:ILE:CD1	56:B:165:PHE:CG	1.94	1.50
7:D:2790:A:N3	7:D:2893:G:C6	1.76	1.50
56:B:81:ILE:CD1	56:B:100:VAL:CG2	1.84	1.50
56:B:383:LYS:N	56:B:402:ILE:HG12	1.25	1.50
6:A:1014:A:H4'	26:W:18:LYS:CE	1.37	1.49
56:B:431:LYS:HD2	56:B:455:PRO:CG	1.42	1.49
3:3:6:ALA:CB	3:3:59:ILE:CB	1.81	1.49
56:B:242:VAL:HB	56:B:256:LEU:CG	1.38	1.49
56:B:169:LYS:HD2	57:B:701:GCP:C4	1.37	1.49
56:B:412:LEU:CD2	56:B:477:MET:HE3	1.43	1.49
26:W:36:ARG:HA	26:W:71:LEU:CB	1.41	1.49
56:B:523:LYS:CB	56:B:598:LEU:CD2	1.89	1.49
56:B:196:LEU:CD1	56:B:220:GLY:HA3	1.38	1.48
56:B:528:ILE:CG2	56:B:592:VAL:HG21	1.01	1.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:316:LEU:CD1	56:B:342:PHE:CD1	1.96	1.48
56:B:298:LYS:CA	56:B:348:PHE:HE2	1.09	1.48
56:B:135:ILE:HD11	56:B:165:PHE:CG	1.44	1.47
56:B:282:LEU:CD1	56:B:283:ALA:H	1.25	1.46
56:B:417:PRO:HA	56:B:448:VAL:CG2	1.43	1.46
56:B:191:ASP:HB3	56:B:219:GLU:CB	1.44	1.46
56:B:378:TYR:HB3	56:B:406:LEU:CD1	1.43	1.46
26:W:36:ARG:CA	26:W:71:LEU:HB2	1.45	1.45
56:B:243:GLY:CA	56:B:263:TRP:NE1	1.76	1.45
56:B:412:LEU:CD2	56:B:477:MET:CE	1.93	1.45
7:D:884:C:C4	7:D:885:C:N4	1.80	1.45
56:B:196:LEU:HD11	56:B:220:GLY:C	1.30	1.45
56:B:382:LEU:HD23	56:B:401:ARG:CA	0.97	1.44
56:B:382:LEU:CD2	56:B:401:ARG:HA	0.97	1.44
56:B:46:LEU:HB3	56:B:61:ALA:CB	1.46	1.44
6:A:500:G:C5	6:A:546:G:N2	1.85	1.44
56:B:316:LEU:HD12	56:B:342:PHE:CE1	1.50	1.44
6:A:1226:C:N4	20:Q:104:ARG:HD2	1.22	1.44
56:B:412:LEU:HD23	56:B:477:MET:CE	1.48	1.44
6:A:1320:C:H5"	26:W:70:LYS:NZ	1.27	1.44
56:B:492:VAL:O	56:B:505:THR:CA	1.65	1.43
26:W:14:HIS:CB	26:W:35:SER:HB2	1.46	1.43
56:B:135:ILE:CD1	56:B:145:PRO:HB3	1.48	1.43
56:B:135:ILE:CD1	56:B:165:PHE:CB	1.94	1.43
20:Q:71:ARG:HG3	20:Q:75:ALA:CB	1.49	1.43
56:B:528:ILE:CG2	56:B:592:VAL:CG2	1.94	1.43
56:B:135:ILE:HG12	56:B:165:PHE:CD1	1.54	1.42
29:Z:38:ASP:HB3	29:Z:177:LYS:CE	1.50	1.42
56:B:492:VAL:O	56:B:505:THR:CB	1.65	1.42
3:3:6:ALA:CB	3:3:59:ILE:HG21	1.41	1.42
56:B:559:LEU:HD21	56:B:574:LEU:CD1	1.49	1.42
56:B:196:LEU:CD1	56:B:220:GLY:CA	1.98	1.42
56:B:137:LYS:HG2	57:B:701:GCP:C6	1.50	1.42
56:B:298:LYS:CA	56:B:348:PHE:CE2	1.82	1.42
56:B:411:LYS:CE	56:B:453:GLU:OE2	1.66	1.42
56:B:412:LEU:CD1	56:B:479:TYR:HA	1.46	1.42
56:B:417:PRO:CB	56:B:446:LYS:O	1.65	1.41
56:B:379:LYS:N	56:B:406:LEU:HB2	1.19	1.41
56:B:306:TYR:CD1	56:B:370:ILE:HD12	1.56	1.41
56:B:243:GLY:CA	56:B:263:TRP:HE1	1.30	1.40
56:B:81:ILE:HD11	56:B:100:VAL:CG2	1.46	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:W:15:LEU:HD21	26:W:19:VAL:CG1	1.52	1.40
56:B:137:LYS:HE3	57:B:701:GCP:N3	1.14	1.40
56:B:169:LYS:HD2	57:B:701:GCP:N3	1.08	1.40
7:D:1063:G:C6	7:D:1064:C:N4	1.90	1.40
26:W:14:HIS:NE2	26:W:34:TRP:CZ3	1.76	1.40
56:B:378:TYR:CA	56:B:406:LEU:HD13	1.48	1.40
56:B:417:PRO:HB3	56:B:447:ARG:CA	1.49	1.40
26:W:70:LYS:HB3	26:W:73:GLU:CG	1.50	1.39
56:B:43:GLU:HB2	56:B:53:ARG:NH2	1.38	1.39
26:W:14:HIS:C	26:W:35:SER:CB	1.90	1.39
56:B:135:ILE:CD1	56:B:165:PHE:HB3	1.48	1.39
56:B:225:GLY:CA	56:B:239:VAL:CG1	1.99	1.39
16:M:111:ARG:NH1	21:R:61:TRP:OXT	1.56	1.39
3:3:10:LEU:CD1	3:3:57:ILE:HD11	1.38	1.39
56:B:406:LEU:HD11	56:B:489:LEU:CD1	1.52	1.38
20:Q:23:TYR:CG	20:Q:70:LEU:HD21	1.57	1.38
56:B:298:LYS:HA	56:B:348:PHE:CZ	1.57	1.38
56:B:46:LEU:CD1	56:B:82:ASP:HB2	1.52	1.38
56:B:533:PHE:CZ	56:B:588:GLY:O	1.75	1.38
26:W:15:LEU:HD23	26:W:33:THR:CG2	1.54	1.37
56:B:211:VAL:O	56:B:265:VAL:CG2	1.71	1.37
56:B:245:PHE:CE2	56:B:262:GLY:HA2	1.58	1.37
56:B:81:ILE:CD1	56:B:100:VAL:HG21	0.91	1.37
56:B:417:PRO:CA	56:B:448:VAL:HG23	1.54	1.36
56:B:523:LYS:CB	56:B:598:LEU:HD22	1.48	1.36
7:D:1048:A:OP2	7:D:1109:C:N4	1.58	1.36
56:B:191:ASP:CB	56:B:219:GLU:HB3	1.55	1.36
56:B:200:ILE:CD1	56:B:279:THR:HG23	1.53	1.36
56:B:492:VAL:CG2	56:B:541:ILE:HD13	0.92	1.36
56:B:46:LEU:CD1	56:B:82:ASP:CB	2.02	1.36
56:B:378:TYR:HE2	56:B:507:ILE:CG2	1.38	1.35
56:B:495:LEU:CD1	56:B:540:ALA:CB	2.02	1.35
56:B:42:ARG:HD2	56:B:53:ARG:NH2	1.02	1.35
7:D:852:G:C6	7:D:926:A:N6	1.95	1.35
26:W:29:ARG:HB3	26:W:48:THR:CG2	1.57	1.35
56:B:243:GLY:HA3	56:B:263:TRP:NE1	1.26	1.35
56:B:135:ILE:HD11	56:B:165:PHE:CB	1.53	1.34
6:A:1309:G:H5'	20:Q:88:ARG:NH2	1.40	1.34
56:B:133:PRO:O	56:B:163:ALA:HA	1.27	1.34
56:B:188:PRO:HB2	56:B:216:ARG:NH2	1.35	1.34
56:B:218:PHE:HZ	56:B:291:TYR:CE2	1.44	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:521:VAL:CG2	56:B:539:ALA:HB2	1.56	1.34
4:4:75:C:H5	56:B:569:ARG:NH2	1.19	1.33
56:B:169:LYS:CD	57:B:701:GCP:N3	1.91	1.33
56:B:489:LEU:O	56:B:508:ALA:C	1.65	1.33
7:D:489:G:C5	7:D:1284:A:N1	1.96	1.33
56:B:134:VAL:CB	56:B:163:ALA:O	1.75	1.33
26:W:3:ARG:O	26:W:42:PRO:CG	1.76	1.33
6:A:55:A:C4	56:B:208:TYR:HE2	1.46	1.33
56:B:521:VAL:HG21	56:B:539:ALA:CB	1.58	1.33
26:W:15:LEU:CD2	26:W:33:THR:HG21	1.56	1.33
6:A:1226:C:C4	20:Q:104:ARG:HD2	1.63	1.32
56:B:306:TYR:HB3	56:B:370:ILE:CB	1.58	1.32
29:Z:63:SER:HA	29:Z:155:GLU:OE2	1.29	1.32
29:Z:38:ASP:CG	29:Z:177:LYS:HD2	1.47	1.32
29:Z:38:ASP:OD2	29:Z:177:LYS:CD	1.76	1.31
26:W:44:MET:O	26:W:45:VAL:HG22	1.29	1.31
56:B:490:VAL:CB	56:B:508:ALA:CB	2.07	1.31
56:B:360:ARG:CG	56:B:364:GLU:OE1	1.78	1.31
56:B:396:LEU:HD13	56:B:491:LYS:CG	1.31	1.31
7:D:1084:A:H1'	7:D:1106:G:N7	1.45	1.31
56:B:206:ASP:OD2	56:B:269:ARG:HB3	1.25	1.30
56:B:225:GLY:CA	56:B:239:VAL:HG12	1.58	1.30
20:Q:71:ARG:CG	20:Q:75:ALA:HB3	1.59	1.30
29:Z:38:ASP:CB	29:Z:177:LYS:CD	1.96	1.30
56:B:411:LYS:HB2	56:B:480:GLU:OE1	1.31	1.30
26:W:12:ASP:CB	26:W:38:SER:OG	1.79	1.30
29:Z:38:ASP:OD1	29:Z:178:ALA:HB3	1.29	1.30
56:B:242:VAL:CB	56:B:256:LEU:HG	1.59	1.30
56:B:31:GLU:HG3	56:B:40:GLU:CG	1.52	1.29
56:B:492:VAL:O	56:B:505:THR:CG2	1.79	1.29
3:3:13:PRO:HG2	3:3:16:LYS:CE	1.62	1.29
56:B:243:GLY:CA	56:B:263:TRP:CD1	2.09	1.29
56:B:383:LYS:CB	56:B:402:ILE:CG2	1.92	1.29
56:B:68:TYR:CD2	56:B:75:GLU:HG3	1.67	1.29
6:A:500:G:C6	6:A:546:G:C2	2.20	1.29
56:B:379:LYS:NZ	56:B:407:GLU:O	1.65	1.29
56:B:200:ILE:HD11	56:B:279:THR:CG2	1.62	1.29
56:B:378:TYR:CB	56:B:406:LEU:CD1	2.01	1.29
56:B:382:LEU:CG	56:B:401:ARG:CD	2.10	1.29
56:B:379:LYS:N	56:B:406:LEU:CB	1.94	1.29
56:B:74:GLU:OE2	56:B:182:VAL:CG1	1.77	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:439:A:OP2	6:A:493:G:N2	1.65	1.29
56:B:559:LEU:CD2	56:B:574:LEU:HD13	1.61	1.29
56:B:229:ARG:NE	56:B:282:LEU:O	1.63	1.28
6:A:1321:C:P	20:Q:98:VAL:CG2	2.21	1.28
56:B:221:ARG:HG2	56:B:256:LEU:O	1.31	1.28
26:W:12:ASP:CB	26:W:38:SER:CB	2.10	1.28
6:A:1320:C:C5'	26:W:70:LYS:HZ2	1.43	1.28
6:A:1309:G:N2	6:A:1329:A:N7	1.82	1.28
56:B:27:ASP:OD2	56:B:45:PHE:HB2	1.31	1.28
56:B:65:ARG:HG3	56:B:245:PHE:O	1.22	1.28
56:B:230:ILE:CA	56:B:280:ILE:CG2	2.10	1.28
26:W:36:ARG:HB3	26:W:71:LEU:C	1.54	1.28
3:3:10:LEU:CD1	3:3:57:ILE:CG1	2.04	1.27
56:B:134:VAL:N	56:B:163:ALA:HB1	1.48	1.27
56:B:27:ASP:OD1	56:B:45:PHE:HB2	1.28	1.27
56:B:302:PHE:CD1	56:B:460:LEU:HD22	1.67	1.27
56:B:74:GLU:OE2	56:B:182:VAL:HG11	1.21	1.27
56:B:492:VAL:C	56:B:505:THR:HG22	1.51	1.27
56:B:218:PHE:CZ	56:B:291:TYR:CE2	2.20	1.27
26:W:16:LEU:O	26:W:20:LEU:HB2	1.14	1.26
56:B:135:ILE:HD12	56:B:145:PRO:CG	1.62	1.26
14:K:138:LYS:NZ	14:K:139:GLU:OE2	1.68	1.26
56:B:379:LYS:CE	56:B:484:TYR:HB3	1.64	1.26
26:W:14:HIS:O	26:W:35:SER:HB3	1.13	1.26
56:B:137:LYS:HG3	57:B:701:GCP:N7	1.51	1.26
56:B:135:ILE:CD1	56:B:145:PRO:CB	2.13	1.26
56:B:406:LEU:CD1	56:B:489:LEU:HD11	1.64	1.26
56:B:8:ARG:CB	56:B:74:GLU:HB3	1.64	1.26
19:P:80:HIS:HB3	56:B:342:PHE:CZ	1.70	1.26
56:B:8:ARG:HG3	56:B:74:GLU:CB	1.66	1.25
26:W:12:ASP:HB2	26:W:38:SER:CB	1.66	1.25
6:A:1220:G:OP1	26:W:34:TRP:CD1	1.88	1.25
26:W:15:LEU:HB2	26:W:35:SER:OG	1.29	1.25
56:B:431:LYS:CD	56:B:455:PRO:CG	2.02	1.25
56:B:34:HIS:NE2	56:B:67:THR:HG22	1.52	1.25
56:B:242:VAL:CG1	56:B:256:LEU:HG	1.63	1.25
56:B:330:LEU:HG	56:B:346:CYS:N	1.51	1.25
26:W:14:HIS:CD2	26:W:35:SER:HA	1.71	1.25
6:A:278:G:OP2	24:U:41:LYS:NZ	1.67	1.24
7:D:539:G:C2	7:D:556:G:N1	2.05	1.24
26:W:70:LYS:CB	26:W:73:GLU:CG	2.14	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:Z:69:GLY:HA2	29:Z:157:LYS:CA	1.64	1.24
56:B:494:VAL:HG21	56:B:520:ILE:CD1	1.66	1.24
56:B:497:HIS:CB	56:B:535:VAL:HG11	1.67	1.24
56:B:46:LEU:HD13	56:B:61:ALA:O	1.37	1.24
56:B:430:GLU:OE1	56:B:458:GLU:O	1.55	1.24
6:A:1014:A:C2	26:W:32:LYS:HD3	1.73	1.24
26:W:3:ARG:O	26:W:42:PRO:HG3	1.14	1.24
7:D:1451:C:O2	7:D:1461:G:N2	1.68	1.24
56:B:211:VAL:O	56:B:265:VAL:HG23	1.07	1.24
56:B:43:GLU:CB	56:B:53:ARG:HH22	1.50	1.24
26:W:15:LEU:CB	26:W:35:SER:OG	1.84	1.24
56:B:306:TYR:CB	56:B:370:ILE:HB	1.68	1.23
26:W:40:ILE:CG2	26:W:67:VAL:CG2	2.15	1.23
56:B:135:ILE:HG13	56:B:165:PHE:CB	1.51	1.23
56:B:379:LYS:HE3	56:B:484:TYR:CB	1.69	1.23
26:W:47:HIS:O	26:W:61:TYR:CD2	1.91	1.23
56:B:133:PRO:C	56:B:163:ALA:HB1	1.58	1.23
26:W:69:HIS:CB	26:W:74:PHE:HZ	1.27	1.23
56:B:196:LEU:CD1	56:B:220:GLY:C	2.06	1.23
56:B:206:ASP:OD2	56:B:269:ARG:CB	1.87	1.23
56:B:133:PRO:O	56:B:163:ALA:CA	1.84	1.23
56:B:378:TYR:CE2	56:B:507:ILE:CG2	2.21	1.23
7:D:1749:A:O2'	7:D:1750:G:H5'	1.37	1.23
56:B:46:LEU:HD11	56:B:82:ASP:CG	1.58	1.23
7:D:2661:G:N2	56:B:465:ASP:OD1	1.72	1.23
6:A:1014:A:H2	26:W:32:LYS:CD	1.51	1.23
56:B:137:LYS:HE3	57:B:701:GCP:C2	1.69	1.23
56:B:135:ILE:CG1	56:B:165:PHE:CD1	2.20	1.23
56:B:316:LEU:HD12	56:B:342:PHE:CD1	1.59	1.23
6:A:835:U:O2	6:A:851:G:N2	1.72	1.22
20:Q:91:ARG:HG3	20:Q:96:LEU:O	1.33	1.22
26:W:29:ARG:CB	26:W:48:THR:CG2	2.18	1.22
56:B:64:VAL:HB	56:B:80:LEU:CB	1.69	1.22
6:A:1321:C:OP2	20:Q:98:VAL:CG2	1.87	1.22
56:B:497:HIS:CA	56:B:535:VAL:CG1	2.16	1.22
56:B:230:ILE:CA	56:B:280:ILE:HG22	1.67	1.22
56:B:420:TYR:CD1	56:B:471:SER:HA	1.74	1.22
7:D:2793:G:N2	7:D:2803:C:N3	1.87	1.22
56:B:121:PHE:CZ	56:B:157:GLY:CA	2.19	1.22
56:B:196:LEU:C	56:B:281:THR:HG22	1.60	1.22
56:B:49:LEU:HD21	56:B:60:LYS:NZ	1.53	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:Q:71:ARG:CG	20:Q:75:ALA:CB	2.16	1.22
56:B:396:LEU:CD1	56:B:491:LYS:CG	2.12	1.21
56:B:492:VAL:HG13	56:B:541:ILE:CG1	1.69	1.21
6:A:1319:A:OP1	26:W:38:SER:HA	1.41	1.21
56:B:134:VAL:CA	56:B:163:ALA:O	1.87	1.21
56:B:137:LYS:CG	57:B:701:GCP:C6	2.13	1.21
56:B:533:PHE:HZ	56:B:588:GLY:O	0.91	1.21
26:W:70:LYS:CB	26:W:73:GLU:HG2	1.70	1.21
3:3:33:ASN:O	3:3:63:ARG:HD3	1.38	1.21
56:B:242:VAL:O	56:B:263:TRP:O	1.55	1.21
56:B:242:VAL:CB	56:B:256:LEU:CG	2.15	1.20
56:B:531:GLN:O	56:B:554:LEU:HB2	1.04	1.20
22:S:26:GLU:OE2	22:S:77:ARG:NH1	1.71	1.20
56:B:137:LYS:CE	57:B:701:GCP:N3	2.04	1.20
6:A:1014:A:C4'	26:W:18:LYS:HE2	1.70	1.20
56:B:492:VAL:CG2	56:B:541:ILE:CD1	1.80	1.20
3:3:24:GLY:O	56:B:440:TYR:CE2	1.91	1.20
6:A:37:U:OP2	19:P:123:LYS:NZ	1.74	1.20
56:B:431:LYS:HB3	56:B:455:PRO:CD	1.70	1.20
3:3:6:ALA:HB1	3:3:59:ILE:CG1	1.72	1.20
56:B:46:LEU:CD1	56:B:82:ASP:CG	2.10	1.19
7:D:1174:A:N6	7:D:1176:G:N7	1.90	1.19
6:A:1014:A:H5'	26:W:18:LYS:NZ	1.53	1.19
3:3:6:ALA:CB	3:3:59:ILE:HB	1.50	1.19
29:Z:38:ASP:OD2	29:Z:178:ALA:N	1.75	1.19
56:B:225:GLY:N	56:B:239:VAL:HG11	1.36	1.19
56:B:11:ASN:OD1	56:B:79:HIS:CD2	1.96	1.19
56:B:383:LYS:HB3	56:B:402:ILE:CG2	1.64	1.19
7:D:1869:G:N2	7:D:1872:A:OP2	1.73	1.19
56:B:410:VAL:CG1	56:B:481:GLN:H	1.55	1.19
56:B:135:ILE:CG1	56:B:165:PHE:CG	2.20	1.19
6:A:1447:G:N2	6:A:1460:A:C4	2.11	1.19
6:A:75:C:C2	6:A:96:G:C2	2.30	1.19
6:A:1319:A:C5'	26:W:37:ARG:O	1.91	1.19
56:B:212:ILE:HG21	56:B:263:TRP:CE3	1.78	1.19
56:B:411:LYS:HE2	56:B:453:GLU:OE2	1.27	1.19
7:D:2790:A:N3	7:D:2893:G:O6	1.72	1.18
56:B:12:PHE:HA	56:B:102:GLY:O	1.42	1.18
56:B:490:VAL:CB	56:B:508:ALA:HB1	1.71	1.18
56:B:218:PHE:O	56:B:258:ALA:HB1	1.41	1.18
56:B:196:LEU:O	56:B:281:THR:HG22	1.41	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:493:ASN:HB3	56:B:503:ALA:HB1	1.25	1.18
56:B:49:LEU:CD2	56:B:60:LYS:HZ2	1.56	1.18
7:D:1023:U:OP2	7:D:1025:G:N2	1.76	1.18
56:B:205:TYR:OH	56:B:271:ILE:HG12	1.43	1.18
56:B:428:LEU:HD13	56:B:452:TYR:CD1	1.78	1.18
7:D:2790:A:H1'	7:D:2893:G:O6	1.41	1.18
56:B:377:VAL:O	56:B:391:HIS:HB3	1.41	1.18
56:B:379:LYS:HG2	56:B:406:LEU:HA	1.26	1.18
56:B:299:PRO:O	56:B:479:TYR:OH	1.61	1.18
7:D:583:G:OP2	16:M:10:ARG:NH1	174.05	1.18
56:B:378:TYR:CA	56:B:406:LEU:CD1	2.21	1.17
3:3:10:LEU:CD1	3:3:57:ILE:HG12	1.68	1.17
6:A:1320:C:C5	26:W:36:ARG:HG3	1.76	1.17
3:3:52:ILE:HD13	7:D:1062:G:OP1	1.45	1.17
56:B:227:ARG:HB3	56:B:237:PHE:CD2	1.78	1.17
56:B:316:LEU:CD1	56:B:342:PHE:CE1	2.21	1.17
56:B:205:TYR:CE2	56:B:271:ILE:HG23	1.79	1.17
56:B:416:THR:O	56:B:448:VAL:HB	1.41	1.17
56:B:380:VAL:O	56:B:387:GLU:O	1.62	1.17
56:B:11:ASN:C	56:B:100:VAL:HG13	1.63	1.17
56:B:242:VAL:HB	56:B:256:LEU:CD2	1.75	1.16
56:B:78:PHE:CZ	56:B:182:VAL:HG22	1.80	1.16
56:B:27:ASP:OD1	56:B:45:PHE:CB	1.93	1.16
56:B:27:ASP:OD2	56:B:41:MET:SD	2.03	1.16
56:B:299:PRO:C	56:B:479:TYR:OH	1.83	1.16
56:B:335:GLU:HG3	56:B:375:SER:OG	1.43	1.16
29:Z:68:LEU:O	29:Z:157:LYS:C	1.82	1.16
56:B:523:LYS:HB2	56:B:598:LEU:HD22	1.27	1.16
6:A:1014:A:C5'	26:W:18:LYS:NZ	2.07	1.16
6:A:1165:C:H2'	6:A:1166:G:H8	1.02	1.16
56:B:242:VAL:HB	56:B:256:LEU:CD1	1.75	1.16
56:B:322:LYS:HB3	56:B:331:THR:CG2	1.76	1.16
56:B:411:LYS:HD3	56:B:436:VAL:HG21	1.17	1.16
56:B:64:VAL:CB	56:B:80:LEU:HB3	1.75	1.15
56:B:306:TYR:HD1	56:B:370:ILE:CD1	1.57	1.15
56:B:104:LEU:HD21	56:B:181:ILE:CD1	1.76	1.15
56:B:431:LYS:CG	56:B:455:PRO:HG3	1.75	1.15
56:B:64:VAL:HB	56:B:80:LEU:HB2	1.21	1.15
26:W:70:LYS:HB2	26:W:73:GLU:CD	1.65	1.15
56:B:13:SER:O	56:B:103:VAL:HB	1.45	1.15
26:W:11:VAL:CG2	26:W:41:VAL:CG1	2.24	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:Z:38:ASP:OD2	29:Z:177:LYS:HD3	1.40	1.15
56:B:135:ILE:CD1	56:B:145:PRO:CG	2.24	1.15
56:B:559:LEU:HD21	56:B:574:LEU:HD11	1.15	1.15
29:Z:38:ASP:O	29:Z:177:LYS:HE3	1.43	1.15
56:B:230:ILE:HA	56:B:280:ILE:HG21	1.19	1.15
7:D:1749:A:H2'	7:D:1750:G:C8	1.82	1.15
56:B:118:LEU:CD1	56:B:446:LYS:NZ	2.09	1.15
56:B:197:LYS:CA	56:B:281:THR:HG22	1.76	1.15
19:P:80:HIS:CD2	56:B:316:LEU:CG	2.30	1.15
7:D:435:C:H2'	7:D:436:C:H5'	1.27	1.15
20:Q:56:LEU:O	20:Q:60:VAL:CG2	1.94	1.15
6:A:79:G:N1	6:A:90:C:O2	1.80	1.14
56:B:412:LEU:CG	56:B:479:TYR:HA	1.77	1.14
26:W:12:ASP:CB	26:W:38:SER:HB2	1.75	1.14
4:4:75:C:C5	56:B:569:ARG:NH2	2.01	1.14
6:A:64:G:N2	6:A:68:G:O6	1.79	1.14
56:B:221:ARG:CG	56:B:256:LEU:O	1.93	1.14
7:D:2794:C:C5	7:D:2799:A:C2	2.35	1.14
56:B:134:VAL:HA	56:B:163:ALA:O	1.43	1.14
26:W:14:HIS:HB3	26:W:35:SER:HB2	1.20	1.14
26:W:11:VAL:HG11	26:W:40:ILE:HA	1.16	1.14
56:B:489:LEU:O	56:B:509:HIS:N	1.78	1.14
6:A:55:A:C4	56:B:208:TYR:CE2	2.34	1.14
29:Z:64:LEU:O	29:Z:159:GLY:HA3	1.48	1.14
56:B:42:ARG:HH21	56:B:53:ARG:NH2	1.44	1.14
56:B:229:ARG:CZ	56:B:283:ALA:HA	1.76	1.14
56:B:407:GLU:OE2	56:B:431:LYS:NZ	1.81	1.14
56:B:135:ILE:CD1	56:B:165:PHE:CD1	2.31	1.13
56:B:221:ARG:HG3	56:B:257:GLU:HA	1.16	1.13
56:B:378:TYR:HE2	56:B:507:ILE:HG21	1.01	1.13
56:B:495:LEU:HD12	56:B:540:ALA:HB2	1.18	1.13
3:3:13:PRO:HG2	3:3:16:LYS:HE3	1.15	1.13
4:4:74:C:C5	56:B:569:ARG:NH2	2.16	1.13
56:B:153:GLU:HA	56:B:159:PRO:HA	1.22	1.13
56:B:228:ILE:HA	56:B:282:LEU:HD22	1.15	1.13
56:B:8:ARG:CG	56:B:74:GLU:CB	2.26	1.13
26:W:70:LYS:HB3	26:W:73:GLU:CB	1.76	1.13
56:B:417:PRO:CB	56:B:447:ARG:HA	1.77	1.13
56:B:493:ASN:CB	56:B:503:ALA:HB1	1.77	1.13
56:B:492:VAL:O	56:B:505:THR:HA	1.25	1.13
3:3:6:ALA:CA	3:3:59:ILE:HB	1.79	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:196:LEU:O	56:B:281:THR:CG2	1.96	1.13
56:B:15:ILE:HD12	56:B:103:VAL:CG2	1.77	1.13
56:B:17:HIS:ND1	56:B:116:GLU:HB2	1.62	1.13
6:A:526:C:OP2	19:P:91:LYS:NZ	1.79	1.13
56:B:322:LYS:HG2	56:B:331:THR:HG21	1.19	1.13
56:B:490:VAL:CB	56:B:508:ALA:HB3	1.70	1.13
6:A:1014:A:C4'	26:W:18:LYS:CE	2.24	1.13
6:A:1321:C:P	20:Q:98:VAL:HG21	1.84	1.13
56:B:177:ILE:HG23	56:B:181:ILE:HD12	1.17	1.13
56:B:240:ASP:OD2	56:B:266:ALA:HB1	1.48	1.13
56:B:24:THR:HG21	56:B:169:LYS:HG3	1.27	1.13
56:B:492:VAL:CG1	56:B:541:ILE:HG12	1.79	1.13
56:B:492:VAL:O	56:B:505:THR:HG22	1.42	1.13
7:D:1084:A:C1'	7:D:1106:G:C8	2.32	1.12
7:D:370:G:H22	7:D:422:A:P	1.71	1.12
7:D:539:G:C2	7:D:556:G:C6	2.37	1.12
26:W:16:LEU:O	26:W:20:LEU:CB	1.97	1.12
56:B:64:VAL:CG1	56:B:80:LEU:CB	2.28	1.12
20:Q:71:ARG:HG3	20:Q:75:ALA:HB1	1.20	1.12
56:B:8:ARG:CB	56:B:74:GLU:CB	2.27	1.12
3:3:103:GLN:O	3:3:107:ILE:HG13	1.44	1.12
3:3:10:LEU:HD21	3:3:57:ILE:HG13	1.20	1.12
6:A:1440:C:H2'	6:A:1441:G:H5'	1.29	1.12
6:A:1320:C:C5'	26:W:70:LYS:NZ	2.06	1.12
6:A:403:C:O2'	11:H:122:ARG:NH1	1.82	1.12
7:D:1063:G:O6	7:D:1064:C:N4	1.81	1.12
7:D:848:G:N2	7:D:931:G:N7	1.98	1.12
56:B:330:LEU:CG	56:B:346:CYS:H	1.61	1.12
56:B:412:LEU:CD2	56:B:477:MET:HE2	1.74	1.12
26:W:29:ARG:HB3	26:W:48:THR:CB	1.78	1.12
56:B:378:TYR:CE2	56:B:507:ILE:HG23	1.81	1.12
56:B:195:PRO:CB	56:B:286:PRO:CA	1.97	1.12
56:B:104:LEU:HD21	56:B:181:ILE:HD11	1.25	1.12
56:B:425:MET:CE	56:B:452:TYR:OH	1.97	1.12
26:W:11:VAL:HG23	26:W:41:VAL:HG13	1.28	1.12
29:Z:69:GLY:O	29:Z:157:LYS:HG2	1.48	1.11
56:B:196:LEU:O	56:B:281:THR:CB	1.98	1.11
56:B:492:VAL:HG21	56:B:513:ALA:CB	1.78	1.11
56:B:8:ARG:HB2	56:B:74:GLU:CB	1.80	1.11
20:Q:96:LEU:CD1	20:Q:103:THR:CG2	2.27	1.11
56:B:225:GLY:HA2	56:B:239:VAL:HG12	1.13	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:195:PRO:HB3	56:B:286:PRO:HA	1.26	1.11
6:A:464:G:H3'	6:A:465:A:H5''	1.32	1.11
56:B:227:ARG:CB	56:B:237:PHE:HD2	1.62	1.11
56:B:197:LYS:CA	56:B:281:THR:CG2	2.27	1.11
56:B:330:LEU:HD12	56:B:345:ARG:HH11	1.08	1.11
56:B:382:LEU:CB	56:B:401:ARG:CG	2.02	1.11
3:3:21:PRO:HB2	7:D:1067:A:C5'	1.78	1.11
6:A:69:G:H2'	6:A:73:G:H8	1.02	1.11
6:A:75:C:N3	6:A:96:G:N1	1.99	1.11
56:B:64:VAL:HG11	56:B:80:LEU:C	1.69	1.11
26:W:29:ARG:CB	26:W:48:THR:HG22	1.79	1.11
56:B:135:ILE:HG12	56:B:165:PHE:CG	1.82	1.11
7:D:1735:C:O2'	7:D:1741:C:O4'	1.65	1.11
26:W:40:ILE:HG22	26:W:67:VAL:HG22	1.12	1.11
56:B:378:TYR:HA	56:B:406:LEU:CD1	1.80	1.11
29:Z:69:GLY:HA2	29:Z:157:LYS:C	1.71	1.11
56:B:79:HIS:NE2	56:B:261:VAL:HG23	1.64	1.11
56:B:64:VAL:CB	56:B:80:LEU:CB	2.28	1.11
7:D:1084:A:H1'	7:D:1106:G:C8	1.85	1.11
7:D:848:G:N7	7:D:929:G:N2	1.99	1.11
26:W:14:HIS:O	26:W:35:SER:CB	1.90	1.11
56:B:242:VAL:HG11	56:B:256:LEU:H	1.07	1.10
56:B:489:LEU:O	56:B:507:ILE:O	1.65	1.10
7:D:2794:C:N4	7:D:2799:A:N3	1.99	1.10
6:A:1226:C:H5'	20:Q:94:ARG:NH1	1.65	1.10
56:B:382:LEU:CG	56:B:401:ARG:HA	1.79	1.10
56:B:316:LEU:HD12	56:B:342:PHE:CZ	1.86	1.10
7:D:2107:C:H1'	7:D:2108:C:H5''	1.28	1.10
7:D:884:C:N1	7:D:885:C:H5	1.47	1.10
26:W:14:HIS:CA	26:W:35:SER:HB2	1.81	1.10
56:B:240:ASP:HB2	56:B:266:ALA:HB3	1.22	1.10
29:Z:71:GLN:O	29:Z:156:ILE:HG23	1.50	1.10
6:A:1452:C:H4'	6:A:1453:G:H5''	1.33	1.10
56:B:15:ILE:CD1	56:B:103:VAL:HG21	1.80	1.10
56:B:297:ALA:CB	56:B:328:ALA:HB2	1.79	1.10
56:B:330:LEU:HD12	56:B:345:ARG:NH1	1.65	1.10
56:B:383:LYS:CG	56:B:402:ILE:HG23	1.53	1.10
56:B:412:LEU:HD21	56:B:477:MET:HE2	1.26	1.10
56:B:528:ILE:HG21	56:B:592:VAL:HG21	1.19	1.10
56:B:306:TYR:CE1	56:B:339:ALA:O	2.04	1.10
56:B:408:PRO:HG2	56:B:456:PHE:HB3	1.31	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:495:LEU:HD12	56:B:540:ALA:HB1	1.21	1.10
56:B:495:LEU:HD12	56:B:540:ALA:HB3	1.16	1.10
7:D:892:G:H2'	7:D:893:C:H6	1.14	1.10
56:B:305:LEU:HD22	56:B:358:GLN:HE21	1.15	1.10
56:B:428:LEU:HD11	56:B:450:LEU:HD21	1.14	1.10
7:D:2120:G:C2	7:D:2179:C:O2	2.05	1.10
56:B:431:LYS:HB3	56:B:455:PRO:HD3	1.22	1.09
7:D:1418:G:N2	7:D:1580:A:C2	2.19	1.09
26:W:35:SER:O	26:W:71:LEU:HD12	1.51	1.09
26:W:36:ARG:CD	26:W:72:GLY:HA3	1.81	1.09
6:A:1321:C:OP1	20:Q:98:VAL:HG21	1.49	1.09
56:B:12:PHE:CA	56:B:100:VAL:HG11	1.82	1.09
56:B:228:ILE:HG12	56:B:282:LEU:HD23	1.27	1.09
26:W:32:LYS:HE3	26:W:52:TYR:CD2	1.85	1.09
3:3:90:LYS:HE3	3:3:91:PRO:HD3	1.18	1.09
56:B:222:VAL:HG21	56:B:264:LEU:HD21	1.13	1.09
7:D:273:G:O6	7:D:364:C:N4	1.85	1.09
26:W:59:PRO:O	26:W:60:VAL:HG22	1.51	1.09
56:B:164:ILE:HG23	56:B:176:GLU:OE1	1.53	1.09
56:B:416:THR:HG21	56:B:424:LEU:HD13	1.19	1.09
56:B:245:PHE:CE2	56:B:262:GLY:CA	2.34	1.09
56:B:459:ILE:HG22	56:B:463:PHE:CE2	1.87	1.09
7:D:1063:G:C6	7:D:1064:C:C4	2.40	1.09
7:D:1847:A:N6	7:D:1890:A:OP2	1.85	1.09
6:A:89:U:H2'	6:A:90:C:H5'	1.16	1.09
56:B:428:LEU:CD1	56:B:450:LEU:HD21	1.81	1.09
7:D:243:U:OP1	29:Z:5:LYS:NZ	89.61	1.09
56:B:197:LYS:HA	56:B:281:THR:CG2	1.81	1.09
56:B:322:LYS:CG	56:B:331:THR:HG21	1.80	1.09
6:A:1321:C:P	20:Q:98:VAL:HG23	1.88	1.09
29:Z:66:HIS:HB2	29:Z:158:ALA:O	1.50	1.09
7:D:1748:G:H2'	7:D:1749:A:C8	1.87	1.09
26:W:40:ILE:HG21	26:W:67:VAL:CG2	1.80	1.09
56:B:420:TYR:CD1	56:B:471:SER:CA	2.36	1.09
56:B:227:ARG:HB3	56:B:237:PHE:HD2	1.04	1.08
7:D:1726:G:C6	7:D:1727:U:N3	2.20	1.08
3:3:77:LEU:O	3:3:111:LYS:HD2	1.51	1.08
56:B:322:LYS:HD2	56:B:323:LEU:H	0.99	1.08
56:B:316:LEU:HD11	56:B:342:PHE:CD1	1.71	1.08
29:Z:43:VAL:HG21	29:Z:175:VAL:HG11	1.34	1.08
56:B:493:ASN:N	56:B:505:THR:HG22	1.67	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:97:LEU:HD21	56:B:103:VAL:CG1	1.82	1.08
7:D:2000:G:OP2	13:J:2:ARG:NH2	113.25	1.08
3:3:10:LEU:HD11	3:3:57:ILE:HG12	1.08	1.08
56:B:382:LEU:HG	56:B:401:ARG:HD3	1.32	1.08
56:B:531:GLN:O	56:B:554:LEU:CB	2.00	1.08
56:B:169:LYS:HB2	57:B:701:GCP:N1	1.68	1.08
7:D:1456:G:C2	7:D:1457:A:N7	2.20	1.08
9:F:144:ARG:NH1	9:F:148:TYR:OH	1.86	1.08
26:W:11:VAL:HG22	26:W:41:VAL:HG13	1.28	1.08
56:B:81:ILE:HD12	56:B:100:VAL:HG21	1.14	1.08
56:B:251:VAL:HG12	56:B:252:ALA:H	0.95	1.08
56:B:531:GLN:NE2	56:B:584:LEU:HD11	1.69	1.08
6:A:216:G:H2'	6:A:217:C:C6	1.88	1.08
56:B:225:GLY:N	56:B:239:VAL:HG13	1.58	1.08
7:D:931:G:H8	7:D:932:G:H1'	1.18	1.08
56:B:81:ILE:HD13	56:B:100:VAL:HG21	1.20	1.08
56:B:137:LYS:HE3	57:B:701:GCP:C4	1.83	1.08
56:B:200:ILE:HD12	56:B:274:VAL:CG1	1.82	1.08
7:D:39:C:H2'	7:D:40:C:C6	1.89	1.08
56:B:212:ILE:CG2	56:B:263:TRP:CE3	2.37	1.08
56:B:497:HIS:CA	56:B:535:VAL:HG11	1.80	1.08
7:D:1749:A:H2'	7:D:1750:G:H8	0.93	1.08
56:B:360:ARG:HG3	56:B:364:GLU:OE1	0.91	1.07
56:B:306:TYR:CG	56:B:370:ILE:HD12	1.87	1.07
56:B:8:ARG:HG3	56:B:74:GLU:CA	1.84	1.07
56:B:64:VAL:HG11	56:B:80:LEU:HB3	1.24	1.07
7:D:489:G:N7	7:D:1284:A:N1	1.99	1.07
7:D:884:C:O2	7:D:885:C:C5	2.07	1.07
7:D:884:C:O2'	7:D:885:C:OP2	1.69	1.07
26:W:15:LEU:HD21	26:W:19:VAL:HG13	1.15	1.07
6:A:838:G:N1	6:A:849:C:N3	2.02	1.07
56:B:305:LEU:CD1	56:B:369:LEU:HD23	1.83	1.07
7:D:775:G:N2	7:D:788:A:OP2	1.87	1.07
12:I:40:ARG:NH1	12:I:68:GLU:OE1	1.87	1.07
26:W:69:HIS:CD2	26:W:74:PHE:CE1	2.40	1.07
6:A:216:G:N7	6:A:217:C:N4	2.00	1.07
56:B:134:VAL:CA	56:B:163:ALA:HB1	1.84	1.07
56:B:152:VAL:HG13	56:B:156:LEU:HB3	1.36	1.07
56:B:431:LYS:HD2	56:B:455:PRO:CB	1.84	1.07
56:B:431:LYS:HB3	56:B:455:PRO:CG	1.83	1.07
56:B:489:LEU:HA	56:B:509:HIS:HA	1.37	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:523:LYS:HB3	56:B:598:LEU:HD23	1.09	1.07
7:D:270:A:C2	7:D:370:G:H1'	1.87	1.07
56:B:10:ARG:HG2	56:B:186:PRO:O	1.53	1.07
26:W:69:HIS:CB	26:W:74:PHE:CE1	2.37	1.07
6:A:445:G:H2'	6:A:446:G:C8	1.90	1.07
56:B:382:LEU:CG	56:B:401:ARG:HD2	1.78	1.07
56:B:412:LEU:CD1	56:B:479:TYR:CA	2.31	1.07
56:B:64:VAL:HG21	56:B:80:LEU:N	1.70	1.07
7:D:1712:C:H2'	7:D:1716:U:C6	1.90	1.07
6:A:1226:C:N4	20:Q:104:ARG:CD	2.16	1.07
56:B:17:HIS:CE1	56:B:114:GLU:HB2	1.89	1.07
56:B:229:ARG:HG2	56:B:237:PHE:CZ	1.89	1.07
56:B:27:ASP:CG	56:B:45:PHE:CB	2.23	1.07
56:B:351:LEU:HG	56:B:465:ASP:OD2	1.54	1.07
6:A:1308:U:P	20:Q:97:PRO:HG3	1.93	1.07
7:D:848:G:C2	7:D:931:G:O6	2.08	1.07
3:3:6:ALA:HB2	3:3:59:ILE:HG21	1.31	1.07
56:B:383:LYS:N	56:B:402:ILE:CG1	2.17	1.07
56:B:411:LYS:HE3	56:B:453:GLU:OE2	1.41	1.07
56:B:406:LEU:HD11	56:B:489:LEU:HD13	1.31	1.07
56:B:493:ASN:CA	56:B:505:THR:HG22	1.82	1.07
3:3:14:ALA:HB2	3:3:53:VAL:H	0.90	1.07
56:B:118:LEU:HD13	56:B:446:LYS:CE	1.82	1.07
56:B:431:LYS:CB	56:B:455:PRO:CG	2.32	1.07
7:D:1590:U:H2'	7:D:1591:G:C8	1.90	1.07
56:B:169:LYS:CD	57:B:701:GCP:C4	2.27	1.07
19:P:80:HIS:CB	56:B:342:PHE:CE1	2.37	1.07
56:B:490:VAL:HB	56:B:508:ALA:HB3	1.13	1.07
7:D:2790:A:N3	7:D:2893:G:N1	2.02	1.07
56:B:417:PRO:HB2	56:B:446:LYS:O	0.89	1.06
7:D:890:A:H3'	7:D:892:G:H5''	1.33	1.06
56:B:379:LYS:H	56:B:406:LEU:CB	1.58	1.06
56:B:425:MET:HE3	56:B:452:TYR:OH	1.53	1.06
56:B:492:VAL:HG13	56:B:541:ILE:HG12	1.14	1.06
56:B:559:LEU:CD2	56:B:574:LEU:CD1	2.23	1.06
7:D:884:C:N1	7:D:885:C:C5	2.20	1.06
26:W:28:LYS:HG3	26:W:29:ARG:HH21	1.02	1.06
56:B:8:ARG:HG3	56:B:74:GLU:HB2	1.37	1.06
56:B:31:GLU:HG3	56:B:40:GLU:HG3	1.33	1.06
3:3:6:ALA:HB1	3:3:59:ILE:HG12	1.36	1.06
56:B:240:ASP:HB2	56:B:266:ALA:CB	1.85	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:W:40:ILE:HG21	26:W:67:VAL:HG22	1.24	1.06
29:Z:63:SER:CA	29:Z:155:GLU:OE2	2.04	1.06
7:D:2076:U:OP2	7:D:2238:G:N2	1.87	1.06
56:B:379:LYS:C	56:B:406:LEU:HB3	1.74	1.06
7:D:2216:G:H2'	7:D:2217:G:C8	1.89	1.06
6:A:859:A:OP2	6:A:869:G:N1	1.87	1.06
56:B:10:ARG:CG	56:B:186:PRO:O	2.04	1.06
6:A:1309:G:C5'	20:Q:88:ARG:HH22	1.69	1.06
7:D:2794:C:C5	7:D:2799:A:H2	1.72	1.06
6:A:1319:A:O5'	26:W:37:ARG:O	1.73	1.06
6:A:1321:C:OP1	20:Q:98:VAL:CG2	2.03	1.05
56:B:218:PHE:O	56:B:258:ALA:CB	2.04	1.05
56:B:406:LEU:CD1	56:B:489:LEU:CD1	2.25	1.05
7:D:1583:A:H4'	7:D:1585:C:C6	1.90	1.05
7:D:895:U:H4'	7:D:896:A:H5'	1.38	1.05
6:A:1310:G:H2'	6:A:1311:G:C8	1.91	1.05
56:B:27:ASP:OD2	56:B:45:PHE:CB	2.03	1.05
56:B:306:TYR:CD1	56:B:370:ILE:CD1	2.34	1.05
56:B:431:LYS:HD3	56:B:455:PRO:HG3	1.31	1.05
56:B:46:LEU:HD13	56:B:82:ASP:HB2	1.09	1.05
3:3:6:ALA:C	3:3:59:ILE:HB	1.75	1.05
26:W:70:LYS:HB3	26:W:73:GLU:HG2	1.09	1.05
56:B:20:HIS:NE2	56:B:108:ASP:HB2	1.71	1.05
56:B:17:HIS:CE1	56:B:116:GLU:HB2	1.92	1.05
56:B:322:LYS:HB3	56:B:331:THR:HG23	1.09	1.05
26:W:70:LYS:O	26:W:72:GLY:N	1.86	1.05
56:B:133:PRO:C	56:B:163:ALA:CB	2.25	1.05
56:B:134:VAL:HB	56:B:163:ALA:O	1.53	1.05
56:B:382:LEU:HB2	56:B:401:ARG:CB	1.86	1.05
56:B:135:ILE:HD13	56:B:145:PRO:CB	1.83	1.05
56:B:412:LEU:HD11	56:B:479:TYR:CB	1.85	1.05
56:B:492:VAL:HG21	56:B:541:ILE:HD13	1.38	1.05
7:D:552:G:H2'	7:D:553:U:H6	1.17	1.05
6:A:443:C:H2'	6:A:444:C:C6	1.92	1.05
20:Q:24:GLY:O	20:Q:29:ARG:NH1	1.90	1.05
56:B:559:LEU:HD23	56:B:574:LEU:HD13	1.38	1.04
6:A:1220:G:OP1	26:W:34:TRP:CG	2.09	1.04
6:A:1014:A:H4'	26:W:18:LYS:HE2	1.09	1.04
56:B:118:LEU:CD1	56:B:446:LYS:CE	2.35	1.04
26:W:33:THR:O	26:W:36:ARG:NH2	1.89	1.04
26:W:32:LYS:HG3	26:W:52:TYR:CB	1.86	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:200:G:N2	6:A:218:C:C2	2.24	1.04
56:B:383:LYS:HG2	56:B:402:ILE:HG22	1.36	1.04
56:B:410:VAL:CG1	56:B:480:GLU:H	1.69	1.04
56:B:65:ARG:HG3	56:B:245:PHE:C	1.76	1.04
26:W:14:HIS:HE1	26:W:34:TRP:CZ2	1.75	1.04
26:W:14:HIS:CG	26:W:35:SER:HA	1.93	1.04
29:Z:69:GLY:HA2	29:Z:157:LYS:O	1.54	1.04
6:A:1014:A:H4'	26:W:18:LYS:HE3	1.38	1.04
56:B:236:GLU:HA	56:B:268:ILE:CG2	1.87	1.04
56:B:492:VAL:HG21	56:B:513:ALA:HB2	1.35	1.04
56:B:531:GLN:HE22	56:B:584:LEU:CD1	1.70	1.04
7:D:2219:G:H2'	7:D:2224:G:H5'	1.39	1.04
6:A:1014:A:H2	26:W:32:LYS:HD3	0.94	1.04
6:A:454:C:H5''	6:A:455:C:C5	1.93	1.04
6:A:838:G:N2	6:A:848:C:O2	1.90	1.04
56:B:46:LEU:HD12	56:B:82:ASP:CB	1.78	1.04
20:Q:23:TYR:CD1	20:Q:70:LEU:HD21	1.91	1.04
6:A:448:A:OP2	6:A:485:G:N2	1.90	1.04
56:B:188:PRO:CB	56:B:216:ARG:NH2	2.21	1.04
56:B:490:VAL:HB	56:B:508:ALA:HB1	1.08	1.04
56:B:412:LEU:HD12	56:B:479:TYR:HA	1.39	1.04
56:B:497:HIS:CG	56:B:535:VAL:HG11	1.92	1.04
7:D:2199:A:H2'	7:D:2205:C:H5'	1.40	1.04
11:H:60:GLU:OE2	11:H:199:ASN:N	1.90	1.04
19:P:80:HIS:HB3	56:B:342:PHE:CE1	1.93	1.04
3:3:103:GLN:HA	3:3:106:GLU:OE2	1.58	1.04
26:W:30:LEU:HD13	26:W:31:ILE:H	1.20	1.04
6:A:1452:C:O2'	6:A:1453:G:N2	1.88	1.04
56:B:78:PHE:CZ	56:B:182:VAL:CG2	2.41	1.04
56:B:229:ARG:NH2	56:B:286:PRO:HG3	1.73	1.04
56:B:410:VAL:HG13	56:B:481:GLN:H	1.23	1.04
56:B:33:THR:HG21	56:B:69:ARG:HD2	1.33	1.04
7:D:557:U:H2'	7:D:558:G:C8	1.93	1.04
26:W:32:LYS:HG3	26:W:52:TYR:HB2	1.34	1.04
56:B:282:LEU:CD1	56:B:283:ALA:N	1.98	1.03
7:D:542:C:H2'	7:D:543:C:C6	1.92	1.03
56:B:306:TYR:CB	56:B:370:ILE:HD12	1.88	1.03
6:A:1309:G:C5'	20:Q:88:ARG:NH2	2.21	1.03
56:B:230:ILE:CA	56:B:280:ILE:HG21	1.82	1.03
56:B:513:ALA:O	56:B:517:ALA:N	1.90	1.03
56:B:531:GLN:HE22	56:B:584:LEU:HD11	0.89	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:10:LEU:HD13	3:3:57:ILE:HD11	1.06	1.03
56:B:335:GLU:HG3	56:B:375:SER:CB	1.86	1.03
56:B:197:LYS:CB	56:B:281:THR:CG2	2.36	1.03
56:B:242:VAL:HG11	56:B:256:LEU:HG	1.40	1.03
19:P:80:HIS:NE2	56:B:316:LEU:HG	1.73	1.03
29:Z:43:VAL:HG21	29:Z:175:VAL:CG1	1.89	1.03
56:B:381:ARG:O	56:B:402:ILE:HG13	1.56	1.03
6:A:1461:G:H2'	6:A:1462:G:H8	1.18	1.03
56:B:197:LYS:N	56:B:281:THR:HG22	1.74	1.03
56:B:383:LYS:CG	56:B:402:ILE:HG21	1.61	1.03
7:D:1174:A:C6	7:D:1176:G:N7	2.25	1.03
6:A:828:A:OP1	15:L:21:LYS:NZ	1.91	1.03
26:W:59:PRO:O	26:W:60:VAL:CG2	2.06	1.03
29:Z:38:ASP:C	29:Z:177:LYS:HE3	1.77	1.03
56:B:166:ALA:HB1	56:B:172:GLU:HG2	1.40	1.03
7:D:154:G:H2'	7:D:155:C:H5'	1.39	1.03
6:A:91:C:H2'	6:A:92:G:C8	1.94	1.03
6:A:69:G:H2'	6:A:73:G:C8	1.94	1.02
56:B:306:TYR:HB3	56:B:370:ILE:CD1	1.89	1.02
7:D:535:C:H2'	7:D:536:A:H8	1.19	1.02
7:D:974:G:H3'	7:D:974(A):C:H5''	1.36	1.02
6:A:1321:C:OP2	20:Q:98:VAL:HG23	1.50	1.02
56:B:240:ASP:OD2	56:B:266:ALA:CB	2.07	1.02
7:D:892:G:H2'	7:D:893:C:C6	1.94	1.02
56:B:67:THR:C	56:B:76:TYR:HB2	1.77	1.02
7:D:1869:G:C2	7:D:1878:G:C6	2.47	1.02
7:D:849:A:C2	7:D:931:G:N2	2.27	1.02
3:3:6:ALA:HB1	3:3:59:ILE:CB	1.83	1.02
56:B:251:VAL:HG12	56:B:252:ALA:N	1.66	1.02
56:B:414:ILE:HB	56:B:450:LEU:HB3	1.41	1.02
26:W:69:HIS:CG	26:W:74:PHE:CZ	2.45	1.02
56:B:431:LYS:CB	56:B:455:PRO:HG3	1.88	1.02
29:Z:69:GLY:HA2	29:Z:157:LYS:CB	1.88	1.02
56:B:135:ILE:HD12	56:B:145:PRO:HG3	1.06	1.02
56:B:66:VAL:HG23	56:B:76:TYR:CE1	1.93	1.02
56:B:91:TYR:CE2	56:B:296:PRO:C	2.29	1.02
29:Z:38:ASP:CB	29:Z:177:LYS:CE	2.31	1.02
6:A:754:C:P	22:S:72:ARG:HH12	1.80	1.02
56:B:200:ILE:CG1	56:B:279:THR:HG23	1.87	1.02
56:B:361:LEU:HD21	56:B:369:LEU:HD22	1.41	1.02
18:O:12:ARG:NH1	18:O:34:ASP:OD2	1.91	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:280:ILE:HG23	56:B:281:THR:H	1.23	1.02
56:B:65:ARG:NH1	56:B:76:TYR:OH	1.91	1.02
7:D:151:C:H2'	7:D:152:G:C8	1.95	1.02
7:D:537:C:H2'	7:D:539:G:C8	1.95	1.02
56:B:302:PHE:CD1	56:B:460:LEU:CD2	2.43	1.02
6:A:1461:G:N3	6:A:1462:G:C8	2.27	1.01
7:D:1061:U:H1'	7:D:1070:A:O4'	1.60	1.01
26:W:29:ARG:HB3	26:W:48:THR:HB	1.42	1.01
26:W:36:ARG:HD3	26:W:72:GLY:HA3	1.39	1.01
29:Z:61:THR:HB	29:Z:162:GLU:HG3	1.40	1.01
6:A:1165:C:H2'	6:A:1166:G:C8	1.94	1.01
20:Q:59:TYR:O	20:Q:61:GLU:N	1.92	1.01
6:A:103:C:H2'	6:A:104:G:C8	1.95	1.01
56:B:489:LEU:CA	56:B:509:HIS:HA	1.89	1.01
7:D:1742:C:H3'	7:D:1743:G:H5''	1.38	1.01
7:D:552:G:H2'	7:D:553:U:C6	1.94	1.01
7:D:573:G:N1	7:D:2031:A:OP2	1.92	1.01
56:B:239:VAL:HG22	56:B:240:ASP:H	1.23	1.01
56:B:251:VAL:CG1	56:B:252:ALA:H	1.70	1.01
56:B:316:LEU:CD1	56:B:342:PHE:CG	2.43	1.01
56:B:301:VAL:O	56:B:347:GLY:O	1.78	1.01
56:B:411:LYS:HD3	56:B:436:VAL:CG2	1.90	1.01
56:B:434:ARG:O	56:B:452:TYR:HA	1.60	1.01
56:B:537:ILE:N	56:B:549:ALA:O	1.91	1.01
3:3:104:VAL:HA	3:3:107:ILE:HD12	1.40	1.01
56:B:79:HIS:CD2	56:B:261:VAL:HG21	1.95	1.01
56:B:265:VAL:HG22	56:B:266:ALA:H	1.22	1.01
7:D:2789:C:O2	7:D:2893:G:N1	1.93	1.01
7:D:860:U:H3	7:D:917:A:H61	1.08	1.01
26:W:12:ASP:HB2	26:W:38:SER:OG	0.85	1.01
6:A:1014:A:H5'	26:W:18:LYS:HZ1	0.90	1.01
56:B:298:LYS:C	56:B:348:PHE:HE2	1.63	1.01
7:D:2602:A:C2	56:B:561:LYS:O	2.13	1.01
7:D:458:G:O2'	7:D:459:U:OP2	1.79	1.01
56:B:412:LEU:HD21	56:B:477:MET:CE	1.84	1.01
15:L:22:GLU:HA	15:L:63:LEU:HD23	1.38	1.01
6:A:503:C:OP2	19:P:116:SER:OG	1.76	1.01
6:A:707:C:OP1	18:O:85:ARG:NH1	1.94	1.01
6:A:835:U:H3	6:A:851:G:H1	1.03	1.01
56:B:196:LEU:HD13	56:B:220:GLY:HA3	1.39	1.01
56:B:27:ASP:OD2	56:B:45:PHE:CD1	2.12	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:195:PRO:CG	56:B:286:PRO:C	2.29	1.01
56:B:306:TYR:HB3	56:B:370:ILE:CG1	1.90	1.01
7:D:532:A:OP2	7:D:2021:C:N4	1.93	1.01
3:3:13:PRO:HB2	3:3:16:LYS:HZ2	1.23	1.01
56:B:200:ILE:HD12	56:B:274:VAL:HG11	1.41	1.01
26:W:12:ASP:HB2	26:W:38:SER:HG	1.23	1.01
3:3:6:ALA:HB3	3:3:59:ILE:HG22	1.40	1.00
56:B:196:LEU:HD11	56:B:220:GLY:O	1.58	1.00
7:D:884:C:N4	7:D:885:C:H41	1.58	1.00
18:O:62:GLN:HB3	18:O:93:GLN:HG3	1.37	1.00
56:B:65:ARG:CB	56:B:246:THR:HA	1.91	1.00
56:B:302:PHE:CE1	56:B:460:LEU:CD2	2.43	1.00
56:B:494:VAL:CG2	56:B:520:ILE:HD12	1.90	1.00
29:Z:43:VAL:CG2	29:Z:175:VAL:HG11	1.90	1.00
6:A:103:C:H2'	6:A:104:G:H8	1.22	1.00
26:W:12:ASP:HB3	26:W:38:SER:HB2	1.35	1.00
56:B:196:LEU:HD12	56:B:220:GLY:HA3	1.02	1.00
56:B:376:VAL:HG12	56:B:377:VAL:H	1.25	1.00
26:W:11:VAL:HG21	26:W:41:VAL:HG13	1.43	1.00
26:W:43:GLU:OE1	26:W:64:GLU:HB2	1.58	1.00
26:W:69:HIS:CD2	26:W:74:PHE:HE1	1.77	1.00
56:B:200:ILE:CD1	56:B:274:VAL:HG11	1.92	1.00
56:B:306:TYR:CB	56:B:370:ILE:CB	2.33	1.00
56:B:383:LYS:CA	56:B:402:ILE:HG12	1.91	1.00
56:B:95:ARG:NE	56:B:294:PHE:CE1	2.13	1.00
7:D:1869:G:O2'	7:D:1871:A:N6	1.93	1.00
7:D:559:G:H2'	7:D:560:C:C6	1.96	1.00
26:W:14:HIS:CB	26:W:35:SER:CB	2.38	1.00
6:A:85:U:H2'	6:A:86:U:H5'	1.44	1.00
56:B:196:LEU:HD12	56:B:220:GLY:CA	1.74	1.00
7:D:2793:G:N1	7:D:2802:G:O6	1.95	1.00
3:3:10:LEU:CD2	3:3:57:ILE:HG13	1.91	1.00
56:B:191:ASP:HB3	56:B:219:GLU:HB2	1.39	1.00
56:B:229:ARG:NH2	56:B:283:ALA:HA	1.76	1.00
56:B:417:PRO:HB2	56:B:446:LYS:C	1.81	1.00
3:3:21:PRO:HB2	7:D:1067:A:H5''	1.44	1.00
7:D:539:G:N2	7:D:556:G:C4	2.28	1.00
26:W:69:HIS:HB3	26:W:74:PHE:CZ	1.94	1.00
29:Z:156:ILE:HA	29:Z:160:ARG:HB2	1.44	1.00
56:B:197:LYS:CB	56:B:281:THR:HG23	1.92	1.00
7:D:2794:C:C4	7:D:2799:A:N3	2.30	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:12:PHE:N	56:B:100:VAL:CG1	2.24	1.00
56:B:221:ARG:CG	56:B:257:GLU:HA	1.91	1.00
56:B:34:HIS:HE2	56:B:67:THR:HG22	1.06	1.00
56:B:420:TYR:CD1	56:B:471:SER:CB	2.44	1.00
7:D:848:G:H21	7:D:933:A:H1'	1.25	1.00
9:F:82:ARG:NH1	9:F:92:TYR:OH	1.95	1.00
3:3:25:PRO:HB3	56:B:440:TYR:OH	1.62	0.99
56:B:459:ILE:HG22	56:B:463:PHE:HE2	1.22	0.99
7:D:2660:A:H5''	56:B:114:GLU:OE1	1.62	0.99
20:Q:97:PRO:HG2	20:Q:99:ARG:CG	1.92	0.99
6:A:1225:A:H5'	26:W:78:ARG:CZ	1.91	0.99
6:A:685:G:N1	6:A:704:A:OP2	1.93	0.99
56:B:412:LEU:HD11	56:B:479:TYR:HB3	1.39	0.99
56:B:525:ALA:HB1	56:B:528:ILE:CG1	1.91	0.99
56:B:137:LYS:CE	57:B:701:GCP:C4	2.39	0.99
56:B:297:ALA:HB3	56:B:328:ALA:CB	1.91	0.99
56:B:299:PRO:CA	56:B:479:TYR:OH	2.10	0.99
3:3:14:ALA:HB2	3:3:53:VAL:N	1.76	0.99
56:B:15:ILE:HD12	56:B:103:VAL:HG21	0.99	0.99
56:B:200:ILE:HD11	56:B:279:THR:HG23	1.03	0.99
11:H:72:GLU:OE2	11:H:207:TYR:OH	1.81	0.99
6:A:1226:C:H5'	20:Q:94:ARG:CZ	1.91	0.99
6:A:837:G:C2	6:A:838:G:N7	2.31	0.99
6:A:1222:G:OP2	6:A:1322:C:N4	1.93	0.99
6:A:99:C:H2'	6:A:101:A:C8	1.97	0.99
6:A:1308:U:OP1	20:Q:97:PRO:HG3	1.62	0.99
56:B:349:LEU:HD12	56:B:353:HIS:CG	1.98	0.99
7:D:1586:A:H2'	7:D:1587:A:H5''	1.45	0.99
7:D:2790:A:C4	7:D:2893:G:O6	2.15	0.99
6:A:1452:C:H4'	6:A:1453:G:C5'	1.92	0.99
56:B:562:CYS:SG	56:B:570:LYS:NZ	2.35	0.99
7:D:2194:G:N2	7:D:2195:C:N3	2.10	0.99
7:D:536:A:C6	7:D:558:G:N1	2.31	0.99
9:F:204:ASN:HD22	9:F:210:SER:HB3	1.27	0.99
5:5:41:C:O3'	14:K:143:ARG:NH1	1.95	0.98
56:B:151:GLU:O	56:B:155:VAL:HB	1.62	0.98
7:D:163:U:H2'	7:D:164:U:H5''	1.43	0.98
20:Q:97:PRO:HG2	20:Q:99:ARG:HG3	1.45	0.98
26:W:29:ARG:HB2	26:W:48:THR:HG22	1.41	0.98
56:B:218:PHE:CZ	56:B:291:TYR:OH	2.14	0.98
7:D:884:C:N3	7:D:885:C:C5	2.31	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1248:A:N3	16:M:70:LYS:NZ	2.11	0.98
29:Z:69:GLY:CA	29:Z:157:LYS:O	2.11	0.98
6:A:74:C:H2'	6:A:75:C:C6	1.97	0.98
56:B:11:ASN:OD1	56:B:79:HIS:HD2	1.38	0.98
56:B:13:SER:CB	56:B:97:LEU:HG	1.94	0.98
7:D:489:G:C5	7:D:1284:A:C6	2.50	0.98
7:D:1871:A:H2'	7:D:1872:A:H8	1.27	0.98
7:D:2631:G:HO2'	7:D:2810:A:H2	1.08	0.98
7:D:852:G:O6	7:D:926:A:N6	1.96	0.98
6:A:618:C:N4	6:A:621:A:OP2	1.95	0.98
56:B:221:ARG:HG2	56:B:256:LEU:C	1.83	0.98
56:B:229:ARG:HH22	56:B:286:PRO:HD3	1.28	0.98
56:B:494:VAL:HG21	56:B:520:ILE:HD12	1.45	0.98
3:3:21:PRO:CB	7:D:1067:A:H5'	1.93	0.98
7:D:715:G:OP2	22:S:88:ARG:NH2	1.97	0.98
7:D:859:G:N2	7:D:917:A:OP2	1.97	0.98
14:K:111:ARG:NH2	14:K:123:GLU:OE2	1.96	0.98
20:Q:102:ARG:HB3	20:Q:102:ARG:HH11	1.24	0.98
29:Z:61:THR:OG1	29:Z:161:ILE:O	1.79	0.98
56:B:396:LEU:CD1	56:B:491:LYS:HG2	1.92	0.98
7:D:2120:G:N2	7:D:2179:C:O2	1.97	0.98
56:B:361:LEU:CD2	56:B:366:GLY:HA3	1.92	0.98
56:B:91:TYR:HE2	56:B:296:PRO:C	1.65	0.98
7:D:1084:A:C1'	7:D:1106:G:N7	2.27	0.98
7:D:2107:C:H1'	7:D:2108:C:C5'	1.93	0.98
29:Z:163:PHE:HB3	29:Z:171:ILE:HD11	1.42	0.98
6:A:55:A:H1'	56:B:208:TYR:CZ	1.99	0.98
6:A:848:C:H2'	6:A:849:C:C5	1.97	0.98
56:B:11:ASN:C	56:B:100:VAL:CG1	2.31	0.98
56:B:492:VAL:CA	56:B:541:ILE:HG23	1.86	0.98
56:B:33:THR:CG2	56:B:69:ARG:HD2	1.52	0.98
14:K:72:ARG:N	14:K:142:GLU:OE2	1.97	0.98
56:B:42:ARG:HD2	56:B:53:ARG:HH22	1.24	0.98
7:D:648:G:H2'	7:D:649:G:C8	1.98	0.98
7:D:2810:A:H61	7:D:2891:G:H1'	1.28	0.97
7:D:885:C:O2	7:D:890:A:H4'	1.64	0.97
24:U:46:ASP:OD2	24:U:49:GLU:N	1.97	0.97
56:B:229:ARG:CZ	56:B:282:LEU:O	2.11	0.97
56:B:222:VAL:CG2	56:B:264:LEU:HD21	1.94	0.97
56:B:396:LEU:HD13	56:B:491:LYS:HG2	1.47	0.97
7:D:931:G:C8	7:D:932:G:H1'	1.99	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:Z:68:LEU:C	29:Z:157:LYS:O	2.02	0.97
56:B:79:HIS:HD2	56:B:261:VAL:CG2	1.65	0.97
56:B:42:ARG:HD3	56:B:53:ARG:HH21	1.25	0.97
7:D:1171:G:C8	7:D:1173:G:H4'	1.97	0.97
26:W:12:ASP:HB3	26:W:38:SER:CB	1.86	0.97
3:3:25:PRO:CA	56:B:440:TYR:OH	2.11	0.97
6:A:1326:C:OP1	28:Y:12:LYS:NZ	1.95	0.97
7:D:274:G:OP2	7:D:274:G:N2	1.97	0.97
6:A:468:A:O2'	23:T:82:GLN:HG2	1.64	0.97
26:W:14:HIS:HE2	26:W:34:TRP:HZ3	0.99	0.97
6:A:74:C:O2	6:A:97:U:O2	1.83	0.97
56:B:196:LEU:CB	56:B:282:LEU:HB2	1.95	0.97
56:B:431:LYS:CB	56:B:455:PRO:CD	2.41	0.97
56:B:42:ARG:CD	56:B:53:ARG:NH2	1.77	0.97
7:D:83:G:N1	7:D:102:G:N3	2.11	0.97
2:2:60:ARG:O	7:D:1046:A:O2'	1.82	0.97
7:D:153:C:H2'	7:D:154:G:C8	1.98	0.97
3:3:13:PRO:CG	3:3:16:LYS:HE3	1.94	0.97
56:B:118:LEU:HD11	56:B:446:LYS:HZ1	1.27	0.97
56:B:202:ASP:O	56:B:276:VAL:O	1.81	0.97
56:B:238:THR:OG1	56:B:267:ALA:HB2	1.65	0.97
56:B:489:LEU:HA	56:B:509:HIS:CA	1.94	0.97
56:B:66:VAL:HG23	56:B:76:TYR:CD1	1.99	0.97
7:D:1057:A:OP2	7:D:1089:G:N2	1.98	0.97
7:D:1453:A:OP2	7:D:2702:U:O2	1.83	0.97
7:D:1799:G:N2	7:D:1819:A:OP2	1.96	0.97
56:B:376:VAL:HB	56:B:378:TYR:CE1	1.99	0.97
7:D:1726:G:N1	7:D:1727:U:C2	2.32	0.97
29:Z:38:ASP:CG	29:Z:177:LYS:CD	2.13	0.97
56:B:322:LYS:HD2	56:B:323:LEU:N	1.79	0.97
56:B:67:THR:CA	56:B:76:TYR:HB2	1.93	0.97
6:A:1319:A:P	26:W:12:ASP:OD2	2.23	0.97
26:W:15:LEU:CD2	26:W:19:VAL:HG13	1.93	0.97
56:B:382:LEU:HD23	56:B:401:ARG:N	1.79	0.97
7:D:1725:G:C2	7:D:1735:C:O2	2.17	0.97
7:D:539:G:N2	7:D:556:G:C5	2.33	0.97
11:H:85:LYS:NZ	11:H:86:LYS:O	1.96	0.97
56:B:416:THR:O	56:B:448:VAL:CB	2.13	0.96
56:B:492:VAL:HA	56:B:541:ILE:HG23	1.45	0.96
19:P:82:VAL:N	19:P:106:ASP:OD2	1.98	0.96
56:B:410:VAL:HG13	56:B:481:GLN:N	1.78	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:64:VAL:HG12	56:B:80:LEU:HB3	1.45	0.96
7:D:1455:G:H2'	7:D:1456:G:H8	1.30	0.96
26:W:47:HIS:O	26:W:61:TYR:HD2	1.42	0.96
6:A:79:G:C2	6:A:90:C:O2	2.18	0.96
56:B:188:PRO:HB2	56:B:216:ARG:HH22	0.98	0.96
19:P:80:HIS:CB	56:B:342:PHE:HE1	1.74	0.96
56:B:377:VAL:O	56:B:391:HIS:CB	2.13	0.96
7:D:1480:G:N2	7:D:1482:U:O4'	1.96	0.96
7:D:539:G:C2	7:D:556:G:C2	2.52	0.96
7:D:884:C:O2	7:D:885:C:H5	1.44	0.96
6:A:1163:C:C2'	6:A:1164:G:H5'	1.95	0.96
6:A:438:G:H2'	6:A:494:U:H3	1.26	0.96
6:A:90:C:H2'	6:A:91:C:C6	1.99	0.96
56:B:409:TYR:CB	56:B:485:ARG:HD2	1.95	0.96
56:B:495:LEU:CD1	56:B:540:ALA:HB2	1.79	0.96
56:B:68:TYR:HA	56:B:75:GLU:HG2	1.47	0.96
7:D:931:G:C8	7:D:932:G:O2'	2.15	0.96
6:A:89:U:C2'	6:A:90:C:H5'	1.94	0.96
56:B:195:PRO:HG2	56:B:287:THR:N	1.80	0.96
7:D:1746:G:H3'	7:D:1747:G:C8	2.00	0.96
6:A:719:C:H42	25:V:74:ARG:HH12	1.13	0.96
56:B:228:ILE:CG1	56:B:282:LEU:HD23	1.93	0.96
56:B:229:ARG:HH22	56:B:286:PRO:CD	1.78	0.96
56:B:335:GLU:CG	56:B:375:SER:OG	2.12	0.96
19:P:80:HIS:HB3	56:B:342:PHE:HZ	1.23	0.96
56:B:378:TYR:CE2	56:B:507:ILE:HG21	1.93	0.96
56:B:541:ILE:HD12	56:B:546:ILE:HD12	1.46	0.96
7:D:2848:G:H22	7:D:2867:G:H1'	1.29	0.96
3:3:10:LEU:CG	3:3:57:ILE:CG1	2.44	0.96
6:A:67:C:H2'	6:A:68:G:C8	2.01	0.96
56:B:282:LEU:HD13	56:B:283:ALA:CA	1.96	0.96
56:B:523:LYS:CB	56:B:598:LEU:HD21	1.96	0.96
4:4:74:C:H5	56:B:569:ARG:HE	0.99	0.96
3:3:10:LEU:HD11	3:3:57:ILE:HD13	1.48	0.96
6:A:55:A:N9	56:B:208:TYR:HE2	1.64	0.96
56:B:420:TYR:CD1	56:B:471:SER:HB2	2.00	0.96
56:B:67:THR:HA	56:B:76:TYR:HB2	1.48	0.96
3:3:21:PRO:CB	7:D:1067:A:C5'	2.43	0.96
7:D:1478:G:H2'	7:D:1479:G:H5'	1.48	0.96
7:D:1586:A:C2'	7:D:1587:A:H5''	1.95	0.96
7:D:559:G:H2'	7:D:560:C:H6	1.31	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:Q:96:LEU:HD11	20:Q:103:THR:HG22	0.99	0.96
6:A:960:U:O2'	6:A:961:U:OP2	1.82	0.96
56:B:202:ASP:O	56:B:203:SER:HB3	1.63	0.96
56:B:226:ASP:H	56:B:239:VAL:CG1	1.79	0.96
56:B:412:LEU:HG	56:B:479:TYR:CA	1.96	0.96
56:B:64:VAL:HG11	56:B:80:LEU:CB	1.93	0.96
6:A:1316:G:N1	6:A:1319:A:OP2	1.99	0.95
56:B:298:LYS:C	56:B:348:PHE:CE2	2.35	0.95
56:B:381:ARG:O	56:B:402:ILE:O	1.83	0.95
7:D:489:G:C8	7:D:1284:A:C4	2.53	0.95
20:Q:56:LEU:O	20:Q:60:VAL:HG21	1.62	0.95
56:B:243:GLY:HA2	56:B:263:TRP:HE1	0.79	0.95
6:A:1164:G:C5	6:A:1165:C:C4	2.53	0.95
6:A:75:C:H2'	6:A:76:G:H8	1.31	0.95
56:B:228:ILE:CA	56:B:282:LEU:HD22	1.96	0.95
7:D:535:C:O2'	7:D:536:A:H5'	1.66	0.95
10:G:179:ARG:NE	10:G:206:GLU:OE2	1.99	0.95
6:A:1014:A:C5'	26:W:18:LYS:HZ1	1.69	0.95
56:B:135:ILE:HD13	56:B:145:PRO:HB3	0.96	0.95
56:B:245:PHE:CE2	56:B:261:VAL:O	2.19	0.95
7:D:2194:G:C2	7:D:2195:C:N3	2.33	0.95
29:Z:69:GLY:CA	29:Z:157:LYS:CA	2.44	0.95
56:B:14:ILE:HD12	56:B:26:ALA:HB2	1.48	0.95
20:Q:71:ARG:CA	20:Q:75:ALA:HB3	1.95	0.95
56:B:134:VAL:CG2	56:B:163:ALA:O	2.14	0.95
56:B:536:PRO:CB	56:B:550:THR:HG22	1.96	0.95
56:B:222:VAL:CG1	56:B:264:LEU:HD11	1.96	0.95
56:B:420:TYR:CE1	56:B:471:SER:HA	2.00	0.95
7:D:1668:A:N6	7:D:1674:G:N3	2.15	0.95
26:W:36:ARG:HD3	26:W:72:GLY:CA	1.96	0.95
3:3:25:PRO:HA	56:B:440:TYR:OH	1.67	0.95
56:B:242:VAL:HG11	56:B:256:LEU:N	1.82	0.95
56:B:137:LYS:CG	57:B:701:GCP:C4	2.45	0.95
7:D:1449(A):G:H2'	7:D:1450:C:H6	1.24	0.95
56:B:428:LEU:HD11	56:B:450:LEU:CD2	1.95	0.95
56:B:67:THR:HA	56:B:76:TYR:CG	2.02	0.95
7:D:818:G:N2	7:D:1189:A:N7	2.15	0.95
7:D:1580:A:H2'	7:D:1581:G:C5	2.01	0.95
20:Q:23:TYR:CG	20:Q:70:LEU:CD2	2.49	0.95
26:W:14:HIS:C	26:W:35:SER:HB2	1.66	0.95
6:A:200:G:N2	6:A:218:C:O2	2.00	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:169:LYS:HB2	57:B:701:GCP:C2	1.96	0.95
56:B:497:HIS:ND1	56:B:535:VAL:CG2	2.30	0.95
7:D:2238:G:O2'	7:D:2239:G:OP2	1.84	0.95
26:W:44:MET:O	26:W:45:VAL:CG2	2.15	0.95
56:B:70:ALA:HA	56:B:178:LEU:HD22	1.48	0.94
6:A:55:A:H1'	56:B:208:TYR:OH	1.66	0.94
56:B:494:VAL:HG21	56:B:520:ILE:HD11	1.49	0.94
26:W:28:LYS:CG	26:W:29:ARG:HH21	1.80	0.94
6:A:1318:A:C2'	26:W:37:ARG:HB2	1.97	0.94
6:A:458:C:H5''	6:A:465:A:N1	1.82	0.94
6:A:55:A:N3	56:B:208:TYR:CE2	2.34	0.94
56:B:196:LEU:HB3	56:B:282:LEU:HB2	1.47	0.94
7:D:2216:G:H2'	7:D:2217:G:H8	1.22	0.94
56:B:18:VAL:CG2	56:B:86:HIS:HB3	1.97	0.94
56:B:305:LEU:HD11	56:B:369:LEU:HD23	1.46	0.94
56:B:497:HIS:ND1	56:B:535:VAL:CG1	2.30	0.94
7:D:2790:A:C1'	7:D:2893:G:O6	2.15	0.94
6:A:1182:G:O2'	6:A:1183:A:OP2	1.85	0.94
7:D:1527:G:N1	7:D:1544:C:N3	2.14	0.94
7:D:370:G:O2'	7:D:371:A:O4'	1.85	0.94
7:D:537:C:O2'	7:D:539:G:O5'	1.85	0.94
24:U:29:HIS:HB2	24:U:36:ILE:HD11	1.49	0.94
6:A:1086:U:H3	6:A:1099:G:H1	1.13	0.94
56:B:197:LYS:HG3	56:B:281:THR:HG23	1.45	0.94
10:G:36:ASP:OD1	10:G:40:ARG:NH1	2.00	0.94
6:A:1226:C:C4	20:Q:104:ARG:CD	2.49	0.94
20:Q:71:ARG:CB	20:Q:75:ALA:HB3	1.96	0.94
3:3:133:SER:HA	7:D:1077:A:H2	1.32	0.94
56:B:306:TYR:HB3	56:B:370:ILE:CG2	1.98	0.94
56:B:383:LYS:H	56:B:402:ILE:HG23	1.30	0.94
56:B:410:VAL:HG11	56:B:481:GLN:H	1.32	0.94
17:N:57:LYS:HG3	17:N:60:ARG:HH12	1.29	0.94
26:W:14:HIS:CG	26:W:35:SER:CB	2.51	0.94
3:3:55:VAL:HB	3:3:69:THR:HG22	1.48	0.94
6:A:1446:A:O2'	6:A:1447:G:O5'	1.85	0.94
56:B:134:VAL:HG23	56:B:164:ILE:C	1.86	0.94
56:B:378:TYR:HB3	56:B:406:LEU:HD11	1.46	0.94
56:B:450:LEU:HD11	56:B:452:TYR:HE1	1.30	0.94
56:B:49:LEU:CD2	56:B:60:LYS:NZ	2.21	0.94
56:B:137:LYS:HG2	57:B:701:GCP:N1	1.82	0.94
7:D:1174:A:H2'	7:D:1175:U:C5	2.02	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:154:G:C2'	7:D:155:C:H5'	1.97	0.94
7:D:536:A:N1	7:D:558:G:N1	2.16	0.94
56:B:176:GLU:O	56:B:180:ALA:N	2.00	0.94
56:B:531:GLN:HG2	56:B:532:LEU:HG	1.49	0.94
7:D:2227:A:N6	7:D:2228:G:C6	2.35	0.94
56:B:322:LYS:CB	56:B:331:THR:HG23	1.97	0.94
56:B:370:ILE:HG22	56:B:371:ALA:H	1.29	0.94
56:B:420:TYR:CE1	56:B:471:SER:CA	2.50	0.94
7:D:1519:G:H5'	7:D:1520:U:OP2	1.67	0.94
56:B:47:ASP:OD2	56:B:53:ARG:NH1	2.01	0.94
56:B:492:VAL:HG22	56:B:541:ILE:CG1	1.98	0.94
7:D:1869:G:N1	7:D:1878:G:O6	2.01	0.94
7:D:1871:A:H2'	7:D:1872:A:C8	2.03	0.94
7:D:884:C:N4	7:D:885:C:N4	2.16	0.94
20:Q:56:LEU:O	20:Q:60:VAL:HG23	1.65	0.94
6:A:1318:A:H1'	26:W:14:HIS:CE1	2.01	0.94
26:W:16:LEU:HB3	26:W:20:LEU:HD13	1.49	0.94
26:W:51:VAL:HG21	26:W:75:ALA:HB2	1.46	0.94
3:3:103:GLN:O	3:3:107:ILE:CG1	2.14	0.94
56:B:221:ARG:HG3	56:B:257:GLU:CA	1.90	0.94
56:B:412:LEU:HG	56:B:479:TYR:HA	1.47	0.93
56:B:411:LYS:CD	56:B:436:VAL:HG21	1.96	0.93
56:B:489:LEU:HD23	56:B:509:HIS:HB3	1.49	0.93
17:N:46:ARG:NH1	17:N:64:GLU:OE1	2.01	0.93
56:B:412:LEU:HG	56:B:479:TYR:N	1.83	0.93
56:B:409:TYR:HB2	56:B:485:ARG:HD2	1.49	0.93
56:B:428:LEU:CD1	56:B:452:TYR:CD1	2.52	0.93
56:B:497:HIS:CG	56:B:535:VAL:CG1	2.50	0.93
7:D:602:G:O2'	7:D:603:A:OP2	1.85	0.93
56:B:406:LEU:CG	56:B:489:LEU:HD11	1.98	0.93
3:3:25:PRO:CB	56:B:440:TYR:OH	2.16	0.93
7:D:2805:G:H2'	7:D:2807:G:C4'	1.98	0.93
26:W:14:HIS:CG	26:W:35:SER:HB2	2.02	0.93
6:A:192:U:O3'	27:X:57:ARG:NH1	2.02	0.93
56:B:197:LYS:CG	56:B:281:THR:HG23	1.97	0.93
56:B:299:PRO:C	56:B:479:TYR:HH	1.61	0.93
56:B:497:HIS:HA	56:B:535:VAL:HG11	1.39	0.93
4:4:28:C:H42	4:4:42:G:H1	1.15	0.93
6:A:881:G:OP2	19:P:9:GLN:NE2	2.01	0.93
56:B:134:VAL:HA	56:B:163:ALA:CB	1.98	0.93
56:B:222:VAL:HG13	56:B:264:LEU:HD11	1.50	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:379:LYS:CG	56:B:406:LEU:HA	1.99	0.93
7:D:485:C:N3	7:D:486:C:C4	2.37	0.93
20:Q:96:LEU:HD11	20:Q:103:THR:CG2	1.95	0.93
56:B:316:LEU:HD12	56:B:342:PHE:CG	2.02	0.93
19:P:80:HIS:CG	56:B:342:PHE:HE1	1.87	0.93
56:B:490:VAL:C	56:B:508:ALA:HB3	1.89	0.93
26:W:40:ILE:CB	26:W:67:VAL:O	2.17	0.93
26:W:69:HIS:HB3	26:W:74:PHE:CE1	2.03	0.93
56:B:361:LEU:HD22	56:B:366:GLY:HA3	1.50	0.93
56:B:378:TYR:HA	56:B:406:LEU:HD12	1.50	0.93
7:D:435:C:C2'	7:D:436:C:H5'	1.98	0.93
26:W:69:HIS:HD2	26:W:74:PHE:CE1	1.86	0.93
3:3:10:LEU:HD21	3:3:57:ILE:CG1	1.97	0.93
56:B:197:LYS:HA	56:B:281:THR:HG23	1.51	0.93
56:B:361:LEU:HD13	56:B:362:GLU:N	1.84	0.93
56:B:379:LYS:HZ2	56:B:407:GLU:H	1.12	0.93
56:B:490:VAL:CG1	56:B:508:ALA:HB1	1.97	0.93
26:W:40:ILE:O	26:W:68:GLY:HA2	1.69	0.93
56:B:299:PRO:HA	56:B:479:TYR:CZ	2.04	0.92
56:B:523:LYS:HB3	56:B:598:LEU:HD22	1.11	0.92
6:A:1226:C:H42	20:Q:104:ARG:HD2	1.28	0.92
26:W:11:VAL:CG1	26:W:40:ILE:HA	1.98	0.92
26:W:70:LYS:CB	26:W:73:GLU:CD	2.36	0.92
3:3:21:PRO:HD2	3:3:22:PRO:HD3	1.50	0.92
4:4:58:A:O2'	4:4:60:U:OP2	1.86	0.92
56:B:12:PHE:CA	56:B:100:VAL:CG1	2.46	0.92
56:B:174:VAL:HG12	56:B:177:ILE:HG13	1.50	0.92
6:A:444:C:H2'	6:A:445:G:C8	2.03	0.92
7:D:1747:G:H2'	7:D:1748:G:H5'	1.49	0.92
26:W:28:LYS:HG3	26:W:29:ARG:NH2	1.83	0.92
6:A:1216:G:OP1	21:R:3:ARG:NH1	2.01	0.92
6:A:96:G:C2	6:A:97:U:C2	2.57	0.92
56:B:300:VAL:HG11	56:B:477:MET:SD	2.09	0.92
56:B:558:VAL:HG23	56:B:577:GLN:NE2	1.84	0.92
7:D:1583:A:H4'	7:D:1585:C:C5	2.03	0.92
6:A:1092:A:H5''	14:K:4:ARG:HH12	1.29	0.92
6:A:1461:G:C2	6:A:1462:G:N7	2.38	0.92
56:B:222:VAL:HG11	56:B:264:LEU:CD1	2.00	0.92
56:B:65:ARG:CG	56:B:245:PHE:C	2.37	0.92
7:D:851:U:O2	7:D:928:G:N2	2.02	0.92
29:Z:66:HIS:CB	29:Z:158:ALA:O	2.18	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:89:HIS:O	3:3:90:LYS:HB2	1.65	0.92
6:A:1396:A:O2'	6:A:1397:C:OP2	1.85	0.92
6:A:90:C:H2'	6:A:91:C:C5	2.03	0.92
56:B:133:PRO:O	56:B:163:ALA:CB	2.17	0.92
56:B:191:ASP:HB3	56:B:219:GLU:HB3	0.94	0.92
56:B:240:ASP:CB	56:B:266:ALA:CB	2.47	0.92
56:B:322:LYS:CB	56:B:331:THR:CG2	2.48	0.92
56:B:42:ARG:NH2	56:B:53:ARG:NH2	2.16	0.92
56:B:492:VAL:HA	56:B:541:ILE:CB	1.99	0.92
7:D:1417:C:N3	7:D:1581:G:N2	2.17	0.92
7:D:820:A:OP2	7:D:973:A:N6	2.01	0.92
25:V:21:LYS:NZ	25:V:23:LYS:HB3	1.85	0.92
3:3:6:ALA:HB3	3:3:59:ILE:HB	1.17	0.92
6:A:1306:A:N7	6:A:1331:G:N2	2.18	0.92
56:B:243:GLY:HA2	56:B:263:TRP:NE1	1.61	0.92
56:B:69:ARG:HA	56:B:69:ARG:CZ	2.00	0.92
26:W:14:HIS:NE2	26:W:34:TRP:CE3	2.37	0.92
6:A:89:U:H2'	6:A:90:C:C5'	1.98	0.92
56:B:135:ILE:HG13	56:B:165:PHE:CA	2.00	0.92
56:B:243:GLY:HA3	56:B:263:TRP:HD1	1.13	0.92
56:B:361:LEU:O	56:B:366:GLY:N	2.03	0.92
7:D:1054:A:H2'	7:D:1055:G:H8	1.34	0.92
7:D:768:G:O2'	7:D:1379:A:N6	2.03	0.92
56:B:379:LYS:NZ	56:B:407:GLU:H	1.66	0.92
56:B:441:LEU:HD13	56:B:447:ARG:HD2	1.50	0.92
56:B:417:PRO:HB3	56:B:447:ARG:HA	0.95	0.92
56:B:523:LYS:HA	56:B:598:LEU:HD21	1.52	0.92
56:B:81:ILE:HD11	56:B:100:VAL:HG22	1.47	0.92
6:A:564:C:OP1	19:P:15:ARG:NH1	2.02	0.92
29:Z:180:PHE:HB3	29:Z:185:LEU:HD11	1.52	0.92
56:B:490:VAL:CG1	56:B:508:ALA:CB	2.48	0.92
56:B:497:HIS:HA	56:B:535:VAL:HG12	0.94	0.92
56:B:506:PHE:HZ	56:B:520:ILE:HG21	1.32	0.92
7:D:154:G:C6	7:D:155:C:C4	2.58	0.92
7:D:2226:C:C2'	7:D:2227:A:H5'	1.99	0.92
26:W:16:LEU:HB3	26:W:20:LEU:CD1	1.99	0.92
3:3:52:ILE:CD1	7:D:1062:G:OP1	2.18	0.91
6:A:1491:G:OP1	19:P:46:LYS:NZ	2.04	0.91
56:B:493:ASN:O	56:B:540:ALA:O	1.86	0.91
56:B:531:GLN:NE2	56:B:584:LEU:CD1	2.31	0.91
7:D:2794:C:C4	7:D:2799:A:C2	2.57	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:W:14:HIS:CG	26:W:35:SER:CA	2.52	0.91
29:Z:43:VAL:CG2	29:Z:175:VAL:CG1	2.46	0.91
6:A:1309:G:C8	6:A:1310:G:N7	2.38	0.91
6:A:1319:A:H5'	26:W:37:ARG:O	1.67	0.91
7:D:1725:G:N2	7:D:1735:C:O2	2.02	0.91
6:A:411:A:N6	6:A:430:A:N7	2.17	0.91
7:D:603:A:OP2	7:D:655:A:N6	2.03	0.91
6:A:717:C:H4'	18:O:117:ASN:HD22	1.33	0.91
23:T:52:ASP:OD2	23:T:55:ARG:N	2.02	0.91
3:3:6:ALA:CB	3:3:59:ILE:CG1	2.41	0.91
6:A:474:G:H2'	6:A:475:G:C8	2.04	0.91
7:D:371:A:H5'	7:D:423:A:C6	2.05	0.91
20:Q:96:LEU:HD13	20:Q:103:THR:HG22	1.52	0.91
6:A:1461:G:H2'	6:A:1462:G:C8	2.05	0.91
56:B:221:ARG:CB	56:B:256:LEU:O	2.17	0.91
56:B:195:PRO:CB	56:B:286:PRO:C	2.38	0.91
7:D:1856:G:N7	7:D:1857:G:N2	2.17	0.91
7:D:783:A:H2'	7:D:784:A:H4'	1.51	0.91
20:Q:65:LYS:HG3	20:Q:73:GLU:HG3	1.53	0.91
6:A:1227:A:OP2	20:Q:94:ARG:NH2	2.03	0.91
26:W:11:VAL:HG11	26:W:40:ILE:CA	2.00	0.91
6:A:1028(B):C:O2	6:A:1032(A):G:N1	2.03	0.91
6:A:1318:A:H2'	26:W:37:ARG:HB2	1.51	0.91
6:A:518:C:O2'	6:A:519:C:OP2	1.87	0.91
56:B:298:LYS:N	56:B:348:PHE:HE2	1.67	0.91
7:D:884:C:N3	7:D:885:C:N4	1.99	0.91
29:Z:38:ASP:CA	29:Z:177:LYS:HE3	2.00	0.91
6:A:1439:C:OP2	27:X:38:LYS:NZ	2.04	0.91
56:B:204:VAL:HG12	56:B:205:TYR:H	1.33	0.91
56:B:65:ARG:CG	56:B:245:PHE:O	2.15	0.91
56:B:378:TYR:C	56:B:406:LEU:HB2	1.90	0.91
56:B:379:LYS:HE3	56:B:484:TYR:HB3	0.94	0.91
7:D:71:A:O2'	7:D:72:U:OP2	1.89	0.91
29:Z:38:ASP:HB3	29:Z:177:LYS:HE2	1.50	0.91
7:D:1858:G:N7	7:D:1883:G:N1	2.19	0.91
56:B:34:HIS:HE2	56:B:67:THR:CG2	1.84	0.91
56:B:525:ALA:HB1	56:B:528:ILE:HG12	1.52	0.91
7:D:1725:G:C2	7:D:1726:G:N7	2.39	0.91
6:A:1013:G:N2	6:A:1016:A:OP2	2.03	0.91
56:B:297:ALA:HB3	56:B:328:ALA:HB2	0.94	0.91
56:B:303:ALA:CB	56:B:346:CYS:O	2.19	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1943:U:O2'	7:D:1944:U:OP2	1.87	0.91
3:3:90:LYS:HE3	3:3:91:PRO:CD	2.01	0.90
6:A:1305:G:N2	6:A:1332:A:OP2	2.03	0.90
6:A:498:A:H4'	6:A:500:G:H5'	1.50	0.90
6:A:972:C:OP1	17:N:57:LYS:NZ	2.04	0.90
56:B:12:PHE:CA	56:B:102:GLY:O	2.18	0.90
56:B:147:GLU:HA	56:B:150:LEU:HD23	1.53	0.90
56:B:409:TYR:HD2	56:B:453:GLU:HG2	1.36	0.90
56:B:118:LEU:HD13	56:B:446:LYS:HE2	1.53	0.90
56:B:412:LEU:HD22	56:B:477:MET:HE3	1.53	0.90
7:D:2790:A:C2	7:D:2893:G:C6	2.59	0.90
7:D:539:G:N3	7:D:556:G:C2	2.39	0.90
26:W:15:LEU:CA	26:W:35:SER:OG	2.19	0.90
6:A:1461:G:C2	6:A:1462:G:C5	2.58	0.90
56:B:81:ILE:HD11	56:B:100:VAL:HG21	0.92	0.90
56:B:118:LEU:CD2	56:B:446:LYS:NZ	2.34	0.90
26:W:61:TYR:HD1	26:W:62:ILE:HG12	1.35	0.90
26:W:69:HIS:CG	26:W:74:PHE:CE1	2.59	0.90
3:3:90:LYS:CE	3:3:91:PRO:HD3	2.02	0.90
56:B:242:VAL:CG1	56:B:256:LEU:CG	2.47	0.90
1:1:8:LYS:NZ	7:D:2467:C:OP1	2.04	0.90
20:Q:88:ARG:HG3	20:Q:88:ARG:HH11	1.34	0.90
6:A:305:G:H4'	6:A:306:G:OP2	1.69	0.90
56:B:17:HIS:CE1	56:B:116:GLU:CB	2.55	0.90
56:B:65:ARG:HB2	56:B:246:THR:HA	1.53	0.90
7:D:1478:G:C2'	7:D:1479:G:H5'	2.01	0.90
7:D:1746:G:C6	7:D:1747:G:C2	2.60	0.90
7:D:928:G:N7	7:D:929:G:C5	2.40	0.90
29:Z:69:GLY:CA	29:Z:157:LYS:HB3	2.01	0.90
29:Z:66:HIS:O	29:Z:158:ALA:HA	1.71	0.90
6:A:1309:G:N2	6:A:1329:A:C5	2.39	0.90
56:B:302:PHE:CE1	56:B:460:LEU:HD21	2.05	0.90
56:B:298:LYS:N	56:B:348:PHE:CE2	2.38	0.90
56:B:382:LEU:CG	56:B:401:ARG:CG	2.42	0.90
56:B:420:TYR:CE1	56:B:471:SER:C	2.45	0.90
56:B:468:LYS:O	56:B:473:GLY:N	2.04	0.90
56:B:412:LEU:HD23	56:B:477:MET:HE3	0.96	0.90
56:B:411:LYS:CB	56:B:480:GLU:OE1	2.19	0.90
29:Z:69:GLY:HA2	29:Z:157:LYS:HB3	1.50	0.90
6:A:494:U:O2	6:A:496:A:N6	2.04	0.90
56:B:226:ASP:N	56:B:239:VAL:CG1	2.35	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:528:ILE:HG21	56:B:592:VAL:CG2	1.81	0.90
7:D:2748:A:N7	7:D:2749:A:N6	2.19	0.90
6:A:444:C:H2'	6:A:445:G:H8	1.35	0.90
56:B:135:ILE:HD11	56:B:165:PHE:CD2	2.07	0.90
56:B:301:VAL:HG11	56:B:349:LEU:O	1.70	0.90
20:Q:48:LEU:HB3	20:Q:53:VAL:HG21	1.50	0.90
6:A:974:A:OP2	21:R:29:ARG:NH2	2.05	0.90
6:A:1296:C:O3'	20:Q:13:LYS:NZ	2.05	0.90
6:A:80:G:H1	6:A:89:U:H3	0.91	0.90
56:B:229:ARG:HH22	56:B:286:PRO:CG	1.85	0.90
56:B:494:VAL:CG2	56:B:520:ILE:CD1	2.46	0.90
6:A:998(A):C:O2	6:A:1042:G:N1	2.04	0.90
6:A:808:C:O5'	22:S:48:LYS:NZ	2.05	0.90
6:A:76:G:C5	6:A:95:G:N1	2.40	0.90
56:B:281:THR:CG2	56:B:287:THR:HG23	2.02	0.90
7:D:2793:G:N2	7:D:2803:C:C2	2.40	0.90
26:W:14:HIS:CE1	26:W:34:TRP:CE3	2.60	0.90
6:A:1006:C:H42	6:A:1024:G:H1'	1.35	0.89
56:B:242:VAL:HB	56:B:256:LEU:HD21	1.53	0.89
7:D:120:U:O2'	7:D:121:G:OP2	1.90	0.89
7:D:371:A:N6	7:D:424:G:N7	2.20	0.89
6:A:279:A:O2'	6:A:280:C:OP2	1.90	0.89
56:B:43:GLU:HB2	56:B:53:ARG:HH22	0.73	0.89
56:B:153:GLU:CA	56:B:159:PRO:HA	2.02	0.89
7:D:1479:G:O3'	7:D:1559:G:O6	1.90	0.89
7:D:1870:C:H2'	7:D:1871:A:C8	2.06	0.89
7:D:2206:C:O2'	7:D:2207:C:H5'	1.72	0.89
56:B:201:PHE:N	56:B:215:LEU:HB3	1.86	0.89
56:B:493:ASN:HB3	56:B:503:ALA:CB	2.02	0.89
56:B:34:HIS:NE2	56:B:67:THR:CG2	2.35	0.89
7:D:1666:G:H1	7:D:1994:C:H42	1.20	0.89
7:D:627:A:H61	7:D:636:G:H2'	1.37	0.89
7:D:648:G:C5	7:D:649:G:C6	2.61	0.89
7:D:1102:C:H2'	7:D:1103:A:H5''	1.55	0.89
7:D:1862:G:N2	7:D:1880:C:N3	2.20	0.89
7:D:2447:G:N2	7:D:2450:A:OP2	2.05	0.89
7:D:2810:A:N6	7:D:2891:G:H1'	1.86	0.89
11:H:3:ARG:NH2	11:H:74:GLN:OE1	2.05	0.89
6:A:276:G:O3'	24:U:68:ARG:NH1	2.04	0.89
26:W:70:LYS:C	26:W:72:GLY:H	1.73	0.89
6:A:297:G:N2	6:A:300:A:OP2	2.04	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:75:C:N3	6:A:96:G:C6	2.40	0.89
56:B:12:PHE:N	56:B:100:VAL:HG13	1.86	0.89
7:D:1748:G:C2	7:D:1749:A:C2	2.61	0.89
56:B:306:TYR:O	56:B:370:ILE:N	1.93	0.89
7:D:1491:G:H3'	7:D:1492:G:H4'	1.54	0.89
7:D:171:G:H1'	7:D:172:C:C5	2.08	0.89
11:H:98:GLU:OE2	11:H:173:TRP:NE1	2.06	0.89
6:A:468:A:H5''	23:T:80:PHE:CZ	2.07	0.89
6:A:1309:G:N7	6:A:1310:G:N7	2.20	0.89
6:A:685:G:H1	6:A:703:G:HO2'	1.21	0.89
56:B:196:LEU:HB2	56:B:282:LEU:HB3	1.53	0.89
56:B:246:THR:OG1	56:B:249:GLY:O	1.90	0.89
56:B:197:LYS:HB2	56:B:281:THR:CG2	2.03	0.89
7:D:1455:G:H2'	7:D:1456:G:C8	2.07	0.89
7:D:363(F):A:H2'	7:D:364:C:O4'	1.71	0.89
6:A:402:G:OP2	11:H:74:GLN:NE2	2.04	0.89
29:Z:66:HIS:O	29:Z:158:ALA:CA	2.21	0.89
5:5:1:G:N1	5:5:72:C:N3	2.21	0.89
6:A:848:C:H2'	6:A:849:C:C6	2.07	0.89
56:B:410:VAL:CG1	56:B:481:GLN:N	2.36	0.89
7:D:641:C:H42	7:D:646:A:H61	1.21	0.89
26:W:40:ILE:HG21	26:W:67:VAL:O	1.72	0.89
56:B:245:PHE:CZ	56:B:262:GLY:C	2.46	0.89
56:B:306:TYR:HB3	56:B:370:ILE:HB	1.32	0.89
56:B:431:LYS:CG	56:B:455:PRO:CG	2.43	0.89
56:B:492:VAL:HA	56:B:541:ILE:CG2	2.00	0.89
7:D:485:C:N4	7:D:486:C:N4	2.19	0.89
24:U:58:GLU:OE2	24:U:75:ARG:HB3	1.73	0.89
6:A:1461:G:N3	6:A:1462:G:N7	2.20	0.88
56:B:412:LEU:HD11	56:B:479:TYR:CA	1.99	0.88
56:B:84:PRO:HB2	57:B:701:GCP:O3G	1.73	0.88
7:D:163:U:C2'	7:D:164:U:H5''	2.03	0.88
6:A:1014:A:H2	26:W:32:LYS:CE	1.86	0.88
56:B:210:GLY:HA2	56:B:269:ARG:HB3	1.55	0.88
56:B:196:LEU:CB	56:B:282:LEU:CB	2.51	0.88
56:B:392:ASN:O	56:B:394:ALA:N	2.05	0.88
56:B:420:TYR:HD1	56:B:471:SER:HA	1.30	0.88
56:B:74:GLU:OE1	56:B:74:GLU:N	2.06	0.88
7:D:1750:G:O2'	7:D:1751:C:H5'	1.74	0.88
26:W:14:HIS:CD2	26:W:35:SER:CA	2.55	0.88
6:A:581:G:OP1	22:S:65:ARG:NH1	2.07	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:382:LEU:C	56:B:402:ILE:HG12	1.93	0.88
7:D:1742:C:H3'	7:D:1743:G:C5'	2.01	0.88
7:D:489:G:C8	7:D:1284:A:C2	2.60	0.88
6:A:1014:A:C2	26:W:32:LYS:CD	2.43	0.88
6:A:703:G:O2'	6:A:704:A:OP2	1.90	0.88
7:D:99:U:H5'	7:D:101:G:C5'	2.04	0.88
7:D:1224:G:C2'	7:D:1225:C:H5'	2.03	0.88
7:D:1449(A):G:H2'	7:D:1450:C:C6	2.07	0.88
7:D:2094:G:O6	7:D:2195:C:N4	2.06	0.88
7:D:46:C:OP2	7:D:215:G:H2'	1.72	0.88
6:A:1220:G:OP1	26:W:34:TRP:NE1	2.06	0.88
6:A:1170:A:H2'	6:A:1171:G:H5'	1.56	0.88
56:B:152:VAL:HA	56:B:156:LEU:CB	2.04	0.88
56:B:229:ARG:HH21	56:B:282:LEU:C	1.76	0.88
56:B:212:ILE:HG21	56:B:263:TRP:CZ3	2.08	0.88
56:B:281:THR:HG21	56:B:287:THR:HG23	1.52	0.88
7:D:2660:A:C8	56:B:472:ARG:O	2.27	0.88
56:B:84:PRO:CB	57:B:701:GCP:O3G	2.21	0.88
7:D:370:G:N2	7:D:422:A:OP2	2.07	0.88
7:D:956:G:N2	7:D:960:A:OP2	2.06	0.88
6:A:404:U:H5'	11:H:122:ARG:HH11	1.37	0.88
56:B:300:VAL:N	56:B:479:TYR:HE1	1.70	0.88
56:B:42:ARG:NH2	56:B:53:ARG:CZ	2.36	0.88
56:B:61:ALA:O	56:B:82:ASP:HB2	1.73	0.88
56:B:78:PHE:CE2	56:B:182:VAL:HG22	2.09	0.88
7:D:489:G:C6	7:D:1284:A:N1	2.42	0.88
6:A:1166:G:O2'	6:A:1169:A:N7	2.05	0.88
6:A:129(A):G:O2'	6:A:130:A:OP2	1.91	0.88
56:B:46:LEU:CB	56:B:61:ALA:CB	2.24	0.88
56:B:412:LEU:HG	56:B:478:ASP:C	1.92	0.88
7:D:1869:G:HO2'	7:D:1871:A:H62	1.14	0.88
7:D:535:C:N4	7:D:536:A:H62	1.69	0.88
6:A:1320:C:H5''	26:W:70:LYS:CE	2.02	0.88
6:A:79:G:N1	6:A:90:C:C2	2.37	0.88
56:B:135:ILE:HG12	56:B:165:PHE:HD1	1.06	0.88
56:B:118:LEU:HD13	56:B:446:LYS:NZ	1.81	0.88
56:B:228:ILE:CG1	56:B:282:LEU:CD2	2.52	0.88
7:D:485:C:C4	7:D:486:C:N4	2.41	0.88
26:W:15:LEU:HB2	26:W:35:SER:HG	1.08	0.88
56:B:78:PHE:HZ	56:B:182:VAL:CG2	1.81	0.88
6:A:842:C:O3'	6:A:848:C:OP2	1.91	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:303:ALA:O	56:B:344:PHE:O	1.92	0.87
56:B:533:PHE:HB3	56:B:535:VAL:HG23	1.55	0.87
56:B:70:ALA:HA	56:B:178:LEU:CD2	2.03	0.87
7:D:532:A:H2	7:D:2035:G:H21	1.20	0.87
7:D:609(A):G:N2	7:D:618(A):C:O2	2.07	0.87
6:A:1014:A:C3'	26:W:18:LYS:HE2	2.04	0.87
56:B:135:ILE:HD13	56:B:165:PHE:CD1	2.09	0.87
56:B:282:LEU:HD12	56:B:283:ALA:H	1.37	0.87
3:3:21:PRO:HB2	7:D:1067:A:OP2	1.74	0.87
26:W:14:HIS:HB3	26:W:35:SER:CB	2.04	0.87
26:W:4:SER:O	26:W:6:LYS:N	2.07	0.87
6:A:102:G:H2'	6:A:103:C:C6	2.08	0.87
6:A:456:C:C2	6:A:477:G:C2	2.62	0.87
56:B:405:ILE:HA	56:B:486:PRO:HA	1.55	0.87
56:B:463:PHE:O	56:B:467:LEU:HB2	1.74	0.87
7:D:2449:U:O2'	7:D:2450:A:O5'	1.91	0.87
56:B:338:THR:OG1	56:B:502:ASP:OD2	1.91	0.87
56:B:42:ARG:HH21	56:B:53:ARG:CZ	1.85	0.87
56:B:417:PRO:CB	56:B:447:ARG:CA	2.44	0.87
56:B:492:VAL:C	56:B:505:THR:CG2	2.31	0.87
56:B:523:LYS:CA	56:B:598:LEU:HD21	2.04	0.87
26:W:69:HIS:CG	26:W:74:PHE:HZ	1.84	0.87
56:B:379:LYS:HG2	56:B:406:LEU:CA	2.05	0.87
7:D:40:C:O2'	7:D:41:C:H5'	1.74	0.87
26:W:36:ARG:HD2	26:W:72:GLY:HA3	1.54	0.87
29:Z:68:LEU:O	29:Z:157:LYS:O	1.92	0.87
1:1:9:ARG:NH2	7:D:1033:U:OP1	2.07	0.87
56:B:107:VAL:HG11	56:B:113:VAL:HG22	1.57	0.87
56:B:151:GLU:O	56:B:155:VAL:CB	2.22	0.87
56:B:242:VAL:CB	56:B:256:LEU:CD1	2.45	0.87
56:B:242:VAL:HB	56:B:256:LEU:HD11	1.53	0.87
7:D:1668:A:H62	7:D:1674:G:H1'	1.39	0.87
26:W:40:ILE:CG2	26:W:67:VAL:O	2.23	0.87
56:B:134:VAL:HA	56:B:163:ALA:HB1	1.53	0.87
7:D:539:G:N2	7:D:556:G:C2	2.42	0.87
6:A:591:U:OP1	15:L:30:ARG:NH1	2.08	0.87
26:W:3:ARG:HG2	26:W:42:PRO:HB3	1.56	0.87
56:B:170:THR:HG22	56:B:171:GLY:H	1.39	0.87
56:B:211:VAL:O	56:B:265:VAL:HG21	1.74	0.87
3:3:129:GLY:HA3	7:D:1059:G:H1	1.40	0.87
7:D:1418:G:N2	7:D:1580:A:H2	1.64	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:270:A:H2	7:D:370:G:H1'	1.35	0.87
6:A:1178:G:OP2	16:M:93:ARG:NH1	2.07	0.87
6:A:1310:G:H2'	6:A:1311:G:H8	1.36	0.87
6:A:754:C:OP1	22:S:72:ARG:NH1	2.08	0.87
7:D:648:G:C6	7:D:649:G:C6	2.62	0.87
24:U:50:LYS:O	24:U:52:LYS:NZ	2.07	0.87
26:W:15:LEU:N	26:W:35:SER:OG	2.07	0.87
6:A:75:C:C2	6:A:96:G:N1	2.39	0.86
56:B:152:VAL:CG1	56:B:156:LEU:HB3	2.04	0.86
7:D:371:A:H5'	7:D:423:A:N6	1.89	0.86
28:Y:13:ILE:HG13	28:Y:22:ARG:HH12	1.40	0.86
56:B:490:VAL:O	56:B:507:ILE:O	1.93	0.86
7:D:1735:C:HO2'	7:D:1741:C:C1'	1.88	0.86
7:D:611:C:O2	7:D:617:G:N1	2.08	0.86
5:5:11:C:N4	5:5:24:G:O6	2.08	0.86
56:B:221:ARG:CG	56:B:257:GLU:CA	2.49	0.86
7:D:1710:C:O2'	7:D:1711:C:H5'	1.76	0.86
7:D:535:C:N4	7:D:536:A:N6	2.23	0.86
13:J:23:LYS:NZ	13:J:42:GLU:OE2	2.07	0.86
6:A:1131:G:O6	6:A:1143:G:N2	2.08	0.86
56:B:245:PHE:HE2	56:B:261:VAL:O	1.57	0.86
56:B:361:LEU:HD21	56:B:369:LEU:CD2	2.05	0.86
56:B:67:THR:HA	56:B:76:TYR:CB	2.04	0.86
7:D:1174:A:C5	7:D:1176:G:N7	2.42	0.86
7:D:539:G:N1	7:D:556:G:C6	2.44	0.86
6:A:500:G:N1	6:A:546:G:C2	2.44	0.86
6:A:944:G:N1	6:A:1338:G:OP2	2.08	0.86
56:B:490:VAL:CA	56:B:508:ALA:HB3	2.05	0.86
6:A:1176:A:N1	6:A:1181:G:N2	2.23	0.86
6:A:217:C:H2'	6:A:218:C:C6	2.10	0.86
6:A:92:G:C5	6:A:93:U:C4	2.63	0.86
56:B:229:ARG:NH2	56:B:286:PRO:CG	2.38	0.86
56:B:492:VAL:CB	56:B:541:ILE:CD1	2.52	0.86
56:B:303:ALA:HB2	56:B:346:CYS:O	1.75	0.86
56:B:497:HIS:CA	56:B:535:VAL:HG12	1.91	0.86
7:D:1583:A:H5'	7:D:1585:C:O4'	1.75	0.86
7:D:1919:A:O2'	7:D:1920:C:O5'	1.93	0.86
7:D:2794:C:N3	7:D:2802:G:C6	2.43	0.86
7:D:2285:C:H5	27:X:27:LYS:HZ3	151.73	0.86
6:A:1165:C:O2'	6:A:1166:G:H5'	1.75	0.86
6:A:927:G:H4'	6:A:1503:A:H62	1.40	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:492:VAL:CB	56:B:541:ILE:HD13	2.05	0.86
2:2:11:ALA:HB1	7:D:1046:A:N7	1.91	0.86
19:P:91:LYS:O	19:P:93:LEU:N	2.09	0.86
56:B:134:VAL:HG23	56:B:164:ILE:O	1.76	0.86
56:B:490:VAL:HG12	56:B:491:LYS:H	1.39	0.86
56:B:489:LEU:C	56:B:507:ILE:O	2.14	0.86
6:A:949:A:H1'	6:A:1364:U:H3	1.41	0.86
56:B:379:LYS:HE3	56:B:484:TYR:CG	2.10	0.86
56:B:411:LYS:HA	56:B:452:TYR:O	1.76	0.86
7:D:1224:G:O2'	7:D:1225:C:H5'	1.76	0.86
7:D:154:G:N1	7:D:173:G:C2	2.44	0.86
7:D:359:A:O2'	7:D:360:G:N7	2.06	0.86
19:P:80:HIS:CG	56:B:342:PHE:CE1	2.63	0.86
6:A:1309:G:H5'	20:Q:88:ARG:HH22	1.09	0.86
26:W:29:ARG:CG	26:W:48:THR:HG21	2.06	0.86
6:A:208:U:O2'	6:A:209:U:OP1	1.94	0.85
56:B:416:THR:CG2	56:B:424:LEU:HD13	2.05	0.85
56:B:541:ILE:HD12	56:B:546:ILE:CD1	2.06	0.85
56:B:137:LYS:CD	57:B:701:GCP:C4	2.53	0.85
56:B:8:ARG:HB2	56:B:74:GLU:HB2	1.57	0.85
7:D:1456:G:C2	7:D:1457:A:C8	2.63	0.85
7:D:2756:U:O4	7:D:2758:A:N6	2.09	0.85
6:A:1245:A:OP2	28:Y:9:ARG:NH2	2.09	0.85
6:A:1318:A:H2'	26:W:37:ARG:CB	2.06	0.85
6:A:75:C:O2'	6:A:76:G:H5'	1.76	0.85
56:B:27:ASP:OD2	56:B:45:PHE:HD1	1.59	0.85
56:B:492:VAL:CG1	56:B:541:ILE:CD1	2.53	0.85
7:D:1668:A:H2	7:D:1993:U:C4	1.93	0.85
7:D:1726:G:N1	7:D:1727:U:O2	2.09	0.85
7:D:476:G:N2	7:D:479:A:OP2	2.08	0.85
29:Z:8:ARG:HH11	29:Z:11:LEU:HD23	1.40	0.85
6:A:1379:G:P	14:K:6:ARG:HH12	1.99	0.85
56:B:152:VAL:HA	56:B:156:LEU:HB3	1.58	0.85
7:D:1942:C:OP2	7:D:1943:U:O2'	1.93	0.85
7:D:535:C:H2'	7:D:536:A:C8	2.08	0.85
7:D:536:A:C4	7:D:558:G:N2	2.44	0.85
26:W:29:ARG:CB	26:W:48:THR:HG21	2.01	0.85
56:B:195:PRO:HB2	56:B:286:PRO:C	1.97	0.85
56:B:382:LEU:HG	56:B:401:ARG:HD2	0.87	0.85
26:W:40:ILE:HB	26:W:68:GLY:HA2	1.57	0.85
3:3:25:PRO:HB3	56:B:440:TYR:HH	1.39	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:55:A:H1'	56:B:208:TYR:CE2	2.10	0.85
56:B:229:ARG:NH2	56:B:283:ALA:CA	2.38	0.85
56:B:378:TYR:HD2	56:B:489:LEU:HD13	1.42	0.85
56:B:75:GLU:HG2	56:B:76:TYR:H	1.41	0.85
7:D:1940:U:O2'	7:D:1941:C:OP2	1.94	0.85
7:D:884:C:N3	7:D:885:C:C4	2.44	0.85
14:K:155:ARG:HG3	14:K:156:TRP:H	1.40	0.85
20:Q:69:GLU:O	20:Q:73:GLU:HB3	1.75	0.85
6:A:1443:G:O2'	6:A:1446:A:OP1	1.94	0.85
56:B:13:SER:HB3	56:B:97:LEU:HD11	1.57	0.85
56:B:303:ALA:HB2	56:B:346:CYS:C	1.97	0.85
56:B:317:ARG:HE	56:B:342:PHE:HE2	1.21	0.85
56:B:382:LEU:HD23	56:B:401:ARG:C	1.96	0.85
56:B:118:LEU:HD11	56:B:446:LYS:NZ	1.82	0.85
7:D:2141:G:H1	7:D:2150:U:H3	1.24	0.85
6:A:1014:A:C2	26:W:32:LYS:HE2	2.10	0.85
3:3:21:PRO:CD	3:3:22:PRO:HD3	2.05	0.85
6:A:444:C:O2'	6:A:445:G:H5'	1.75	0.85
7:D:1785:A:H2'	7:D:1786:A:C5	2.11	0.85
7:D:385:C:O2'	7:D:388:G:N2	2.09	0.85
7:D:928:G:C8	7:D:929:G:N7	2.44	0.85
7:D:569:U:OP2	7:D:945:A:N6	2.09	0.85
6:A:1501:C:OP2	6:A:1504:G:O2'	1.95	0.85
6:A:442:C:O2	6:A:493:G:O2'	1.94	0.85
56:B:13:SER:OG	56:B:81:ILE:CG2	2.24	0.85
56:B:22:LYS:N	57:B:701:GCP:O2A	2.09	0.85
56:B:24:THR:HG21	56:B:169:LYS:CG	2.05	0.85
7:D:1068:G:H4'	7:D:1096:A:H1'	1.57	0.85
7:D:1559:G:C6	7:D:1560:G:H4'	2.12	0.85
7:D:2207:C:H2'	7:D:2208:U:O4'	1.76	0.85
26:W:61:TYR:CD1	26:W:62:ILE:HG12	2.11	0.85
6:A:1372:U:H5''	16:M:71:SER:HB3	1.57	0.85
56:B:137:LYS:HA	57:B:701:GCP:O6	1.77	0.85
56:B:383:LYS:CG	56:B:402:ILE:HG22	1.99	0.85
56:B:118:LEU:CD1	56:B:446:LYS:HZ1	1.81	0.85
7:D:1726:G:C6	7:D:1727:U:C2	2.64	0.85
7:D:2199:A:H2'	7:D:2205:C:C5'	2.07	0.85
7:D:800:A:O2'	7:D:801:G:OP2	1.94	0.85
7:D:860:U:O4	7:D:918:A:N6	2.09	0.85
17:N:7:LYS:HB3	17:N:97:GLU:HB2	1.59	0.85
6:A:1440:C:C2'	6:A:1441:G:H5'	2.07	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:902:G:H2'	6:A:903:G:H8	1.41	0.85
56:B:218:PHE:CZ	56:B:291:TYR:CE1	2.65	0.85
56:B:8:ARG:CG	56:B:74:GLU:HB2	1.97	0.85
56:B:8:ARG:HB3	56:B:74:GLU:HB3	1.57	0.85
56:B:13:SER:HB3	56:B:97:LEU:CD1	2.07	0.85
7:D:1061:U:H1'	7:D:1070:A:C4'	2.06	0.85
7:D:363(F):A:N3	7:D:364:C:H1'	1.91	0.85
7:D:439:G:H2'	7:D:440:G:C8	2.11	0.85
7:D:99:U:H5'	7:D:101:G:H5'	1.59	0.85
6:A:1368:G:N7	16:M:112:LYS:NZ	2.25	0.84
6:A:198:G:H2'	6:A:199:G:H8	1.39	0.84
7:D:1580:A:H2'	7:D:1581:G:C8	2.11	0.84
7:D:539:G:N2	7:D:556:G:C6	2.45	0.84
26:W:40:ILE:HB	26:W:67:VAL:O	1.75	0.84
56:B:417:PRO:CB	56:B:446:LYS:C	2.42	0.84
56:B:431:LYS:CB	56:B:455:PRO:HD3	2.02	0.84
7:D:1526:G:N2	7:D:1546:C:N3	2.26	0.84
8:E:55:U:H2'	8:E:56:G:H8	1.40	0.84
22:S:3:ILE:HA	22:S:38:ARG:HH22	1.42	0.84
5:5:11:C:N3	5:5:24:G:N1	2.25	0.84
6:A:1162:C:N4	6:A:1174:G:O6	2.09	0.84
56:B:536:PRO:HB3	56:B:550:THR:HG22	1.57	0.84
7:D:151:C:H2'	7:D:152:G:H8	1.40	0.84
26:W:32:LYS:HE3	26:W:52:TYR:CG	2.12	0.84
6:A:1014:A:C5'	26:W:18:LYS:HZ3	1.90	0.84
6:A:1359:C:OP2	21:R:35:ARG:NE	2.09	0.84
6:A:1379:G:OP2	14:K:6:ARG:NH2	2.10	0.84
56:B:303:ALA:CB	56:B:346:CYS:C	2.45	0.84
4:4:74:C:C5	56:B:569:ARG:NE	2.45	0.84
7:D:270(J):G:N1	7:D:270(P):C:N3	2.24	0.84
6:A:1227:A:P	20:Q:94:ARG:HH22	2.00	0.84
6:A:1366:C:O3'	17:N:60:ARG:NH2	2.10	0.84
56:B:196:LEU:HB2	56:B:282:LEU:CB	2.07	0.84
56:B:206:ASP:HA	56:B:210:GLY:O	1.77	0.84
56:B:223:ARG:HB3	56:B:224:PRO:CD	2.07	0.84
56:B:197:LYS:CA	56:B:281:THR:HG23	2.01	0.84
56:B:299:PRO:HD2	56:B:348:PHE:CD2	2.13	0.84
3:3:25:PRO:HA	56:B:440:TYR:CZ	2.13	0.84
56:B:493:ASN:HA	56:B:505:THR:HG22	1.59	0.84
56:B:541:ILE:CD1	56:B:546:ILE:HD12	2.06	0.84
7:D:1084:A:O4'	7:D:1106:G:C8	2.31	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:370:G:N2	7:D:422:A:P	2.50	0.84
7:D:51:G:O2'	7:D:118:A:N6	2.10	0.84
26:W:14:HIS:C	26:W:35:SER:HB3	1.73	0.84
6:A:1129:C:N4	6:A:1142:G:O6	2.10	0.84
6:A:1294:G:H2'	6:A:1295:G:H8	1.41	0.84
56:B:13:SER:OG	56:B:81:ILE:HB	1.75	0.84
6:A:103:C:O2'	6:A:104:G:H5'	1.78	0.84
56:B:12:PHE:HA	56:B:100:VAL:CG1	2.08	0.84
56:B:211:VAL:C	56:B:212:ILE:HD12	1.98	0.84
56:B:431:LYS:CB	56:B:458:GLU:HG3	2.08	0.84
56:B:501:VAL:O	56:B:503:ALA:N	2.11	0.84
56:B:531:GLN:OE1	56:B:584:LEU:CD1	2.24	0.84
7:D:1589:C:O2'	7:D:1590:U:H5'	1.76	0.84
7:D:1725:G:C2	7:D:1726:G:C8	2.66	0.84
7:D:2226:C:O2'	7:D:2227:A:H5'	1.75	0.84
7:D:270(I):G:N2	7:D:270(Q):C:O2	2.10	0.84
20:Q:103:THR:O	20:Q:105:THR:N	2.11	0.84
25:V:18:ARG:NH1	25:V:55:ARG:O	2.10	0.84
6:A:102:G:O2'	6:A:103:C:H5'	1.77	0.84
6:A:1308:U:OP1	20:Q:97:PRO:CG	2.25	0.84
6:A:467:G:H21	6:A:468:A:H1'	1.42	0.84
56:B:97:LEU:HD21	56:B:103:VAL:HG12	1.59	0.84
7:D:1063:G:C5	7:D:1064:C:C4	2.65	0.84
7:D:2227:A:C5	7:D:2228:G:C5	2.66	0.84
26:W:69:HIS:HB2	26:W:74:PHE:CE2	2.07	0.84
6:A:194:C:O2'	27:X:68:LYS:NZ	2.11	0.84
56:B:38:ASP:O	56:B:40:GLU:N	2.11	0.84
56:B:97:LEU:HD21	56:B:103:VAL:HG11	1.57	0.84
7:D:2106:G:C5	7:D:2108:C:N3	2.46	0.84
6:A:1163:C:O2'	6:A:1164:G:H5'	1.76	0.84
56:B:21:GLY:HA3	56:B:136:ASN:HD22	1.42	0.84
7:D:189:G:H2'	7:D:205:G:H22	1.43	0.84
7:D:2674:G:H2'	7:D:2675:A:H8	1.43	0.84
18:O:18:ARG:HG2	18:O:81:ASP:HB2	1.59	0.84
5:5:54:U:H3	5:5:58:A:H62	1.26	0.83
6:A:498:A:C4'	6:A:500:G:H5'	2.07	0.83
56:B:382:LEU:CD2	56:B:401:ARG:C	2.46	0.83
56:B:489:LEU:O	56:B:508:ALA:CA	2.26	0.83
7:D:1455:G:OP2	7:D:1456:G:OP2	1.94	0.83
7:D:764:A:H62	7:D:1775:U:H3	1.24	0.83
16:M:7:THR:HB	16:M:83:ARG:NH1	1.93	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:13:PRO:O	3:3:16:LYS:NZ	2.11	0.83
56:B:242:VAL:CB	56:B:256:LEU:HD11	2.06	0.83
56:B:373:ALA:HB1	56:B:374:PRO:CD	2.08	0.83
7:D:543:C:O2'	7:D:544:C:H5'	1.77	0.83
6:A:1226:C:N3	20:Q:104:ARG:HG3	1.93	0.83
6:A:1060:C:OP1	21:R:45:ARG:NH2	2.10	0.83
6:A:1461:G:C4	6:A:1462:G:N7	2.46	0.83
56:B:218:PHE:CE1	56:B:291:TYR:CE2	2.65	0.83
56:B:27:ASP:OD2	56:B:45:PHE:CG	2.31	0.83
56:B:411:LYS:HG2	56:B:452:TYR:O	1.78	0.83
7:D:1800:C:N4	7:D:1818:U:H1'	1.93	0.83
20:Q:59:TYR:C	20:Q:61:GLU:H	1.78	0.83
20:Q:24:GLY:HA3	20:Q:66:LEU:HA	1.59	0.83
6:A:1014:A:O3'	26:W:18:LYS:HE2	1.79	0.83
6:A:1306:A:H2'	6:A:1307:U:H5'	1.59	0.83
6:A:75:C:H2'	6:A:76:G:C8	2.13	0.83
56:B:246:THR:HG21	56:B:251:VAL:HG21	1.60	0.83
56:B:281:THR:HG21	56:B:287:THR:H	1.44	0.83
56:B:410:VAL:CG1	56:B:480:GLU:HG2	2.07	0.83
56:B:492:VAL:HA	56:B:541:ILE:CG1	2.08	0.83
7:D:154:G:C5	7:D:155:C:C4	2.66	0.83
7:D:2218:G:O2'	7:D:2219:G:H5'	1.78	0.83
21:R:23:ARG:NH1	21:R:30:ALA:HB2	1.93	0.83
29:Z:38:ASP:OD1	29:Z:178:ALA:CB	2.21	0.83
6:A:443:C:H2'	6:A:444:C:C5	2.14	0.83
56:B:135:ILE:CG1	56:B:165:PHE:CA	2.54	0.83
56:B:383:LYS:H	56:B:402:ILE:CG2	1.91	0.83
7:D:1342:A:O2'	7:D:1343:G:OP1	1.97	0.83
7:D:2459:A:C2	7:D:2460:U:H1'	2.13	0.83
7:D:578:A:OP1	7:D:1255:U:O2'	1.95	0.83
6:A:1014:A:C2	26:W:32:LYS:CE	2.61	0.83
56:B:410:VAL:HG11	56:B:480:GLU:H	1.41	0.83
56:B:431:LYS:HD2	56:B:455:PRO:HG2	1.59	0.83
7:D:2217:G:H2'	7:D:2218:G:H8	1.44	0.83
10:G:70:VAL:HG12	10:G:72:LYS:H	1.41	0.83
16:M:126:SER:HB3	16:M:128:ARG:HH11	1.44	0.83
19:P:53:ARG:NH1	19:P:92:ASP:OD2	2.11	0.83
29:Z:69:GLY:C	29:Z:157:LYS:HA	1.98	0.83
56:B:492:VAL:CG1	56:B:541:ILE:CG1	2.46	0.83
56:B:49:LEU:HD21	56:B:60:LYS:HZ2	0.70	0.83
7:D:1862:G:H1	7:D:1880:C:H42	1.26	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1920:C:H4'	7:D:1921:G:OP1	1.78	0.83
7:D:2106:G:C6	7:D:2108:C:C4	2.66	0.83
7:D:2777:G:O2'	7:D:2778:A:OP2	1.96	0.83
7:D:293:U:H2'	7:D:294:A:C8	2.13	0.83
18:O:33:THR:HG22	18:O:39:PRO:HA	1.61	0.83
56:B:222:VAL:HG11	56:B:264:LEU:CD2	2.09	0.83
56:B:415:PHE:O	56:B:475:ALA:HB2	1.78	0.83
56:B:492:VAL:O	56:B:505:THR:HB	1.78	0.83
26:W:32:LYS:CG	26:W:52:TYR:HB2	2.09	0.83
3:3:66:THR:HG22	3:3:67:PHE:H	1.42	0.83
56:B:121:PHE:HZ	56:B:157:GLY:CA	1.71	0.83
56:B:330:LEU:CD1	56:B:345:ARG:HH11	1.90	0.83
56:B:428:LEU:CD1	56:B:452:TYR:CE1	2.62	0.83
7:D:892:G:O2'	7:D:893:C:O4'	1.97	0.83
20:Q:96:LEU:HD22	20:Q:101:GLN:HG3	1.59	0.83
6:A:405:U:C2	6:A:497:U:C5	2.66	0.83
56:B:196:LEU:O	56:B:281:THR:HB	1.78	0.83
56:B:230:ILE:HG23	56:B:279:THR:C	1.98	0.83
56:B:299:PRO:C	56:B:479:TYR:CZ	2.51	0.83
56:B:537:ILE:HD11	56:B:551:VAL:CG2	2.09	0.83
7:D:1870:C:H2'	7:D:1871:A:H8	1.41	0.83
26:W:13:ASP:OD2	26:W:17:GLU:HB2	1.78	0.83
6:A:1049:U:O2'	6:A:1050:G:OP2	1.95	0.82
6:A:382:A:H2'	6:A:383:A:H8	1.42	0.82
6:A:80:G:H2'	6:A:81:G:H8	1.43	0.82
56:B:20:HIS:CE1	56:B:108:ASP:HB2	2.14	0.82
56:B:229:ARG:NE	56:B:283:ALA:HA	1.94	0.82
56:B:378:TYR:HB3	56:B:406:LEU:HD13	0.88	0.82
56:B:413:THR:HA	56:B:450:LEU:O	1.79	0.82
26:W:34:TRP:HA	26:W:36:ARG:HE	1.41	0.82
29:Z:69:GLY:CA	29:Z:157:LYS:CB	2.57	0.82
56:B:414:ILE:O	56:B:450:LEU:N	2.12	0.82
56:B:65:ARG:HB2	56:B:246:THR:CA	2.09	0.82
7:D:489:G:C4	7:D:1284:A:C6	2.67	0.82
7:D:2194:G:C2	7:D:2195:C:C4	2.67	0.82
7:D:2630:G:O2'	7:D:2893:G:O2'	1.77	0.82
7:D:928:G:N7	7:D:929:G:C6	2.48	0.82
16:M:10:ARG:HH21	16:M:75:ASP:HB2	1.43	0.82
20:Q:61:GLU:HG2	20:Q:62:ASN:H	1.41	0.82
56:B:205:TYR:CE2	56:B:271:ILE:CG2	2.62	0.82
56:B:118:LEU:HD22	56:B:446:LYS:HZ3	1.44	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:299:PRO:C	56:B:479:TYR:CE1	2.53	0.82
56:B:492:VAL:CA	56:B:541:ILE:HG12	2.10	0.82
56:B:492:VAL:HG21	56:B:513:ALA:HB1	1.60	0.82
7:D:1173:G:H2'	7:D:1174:A:N1	1.94	0.82
7:D:1314:C:H42	7:D:1338:G:H1	1.28	0.82
7:D:489:G:C8	7:D:1284:A:C5	2.67	0.82
7:D:655:A:O2'	7:D:656:G:O4'	1.95	0.82
7:D:884:C:C2	7:D:885:C:C4	2.63	0.82
56:B:17:HIS:CE1	56:B:116:GLU:CG	2.62	0.82
56:B:352:LEU:O	56:B:356:ILE:HG13	1.78	0.82
7:D:1128:A:N7	7:D:2518:A:N6	2.28	0.82
7:D:2805:G:H2'	7:D:2807:G:C5'	2.09	0.82
7:D:539:G:N3	7:D:556:G:N1	2.26	0.82
20:Q:71:ARG:HG2	20:Q:75:ALA:HB3	1.57	0.82
6:A:216:G:C8	6:A:217:C:C4	2.67	0.82
56:B:107:VAL:HG21	56:B:156:LEU:CD2	2.09	0.82
56:B:225:GLY:HA2	56:B:239:VAL:CG1	1.84	0.82
56:B:236:GLU:HA	56:B:268:ILE:HG21	1.61	0.82
56:B:329:ALA:C	56:B:330:LEU:HD13	2.00	0.82
56:B:306:TYR:CA	56:B:370:ILE:HB	2.05	0.82
56:B:448:VAL:HG12	56:B:449:GLU:H	1.42	0.82
7:D:1055:G:N2	7:D:1104:C:N3	2.27	0.82
7:D:1872:A:H3'	7:D:1878:G:H5''	1.60	0.82
9:F:204:ASN:ND2	9:F:207:ALA:O	2.11	0.82
26:W:29:ARG:HB3	26:W:48:THR:HG21	1.55	0.82
29:Z:163:PHE:HZ	29:Z:195:ALA:HB1	1.43	0.82
3:3:10:LEU:CD2	3:3:57:ILE:CG1	2.57	0.82
6:A:55:A:C1'	56:B:208:TYR:OH	2.25	0.82
56:B:17:HIS:O	56:B:20:HIS:HB2	1.80	0.82
56:B:200:ILE:CG1	56:B:279:THR:CG2	2.57	0.82
56:B:33:THR:CG2	56:B:69:ARG:CD	2.48	0.82
7:D:802:A:H5''	7:D:803:U:OP2	1.80	0.82
7:D:894:C:C5	7:D:895:U:C2	2.67	0.82
13:J:38:GLU:HG3	13:J:66:GLU:OE2	1.80	0.82
6:A:1461:G:O2'	6:A:1462:G:H5'	1.78	0.82
6:A:457:C:C4	6:A:458:C:N4	2.47	0.82
6:A:443:C:C4	6:A:492:G:C6	2.67	0.82
6:A:674:G:H2'	6:A:675:A:H8	1.45	0.82
6:A:719:C:H42	25:V:74:ARG:NH1	1.78	0.82
56:B:222:VAL:CG1	56:B:264:LEU:CD1	2.56	0.82
56:B:79:HIS:CG	56:B:261:VAL:CG2	2.63	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:305:LEU:HD21	56:B:358:GLN:HG3	1.61	0.82
7:D:1652:A:N6	7:D:1653:G:H21	1.77	0.82
7:D:270(J):G:O6	7:D:270(P):C:N4	2.11	0.82
6:A:1318:A:H1'	26:W:14:HIS:NE2	1.91	0.82
6:A:811:C:O2'	6:A:900:A:N6	2.12	0.82
56:B:8:ARG:CG	56:B:74:GLU:HB3	2.01	0.82
7:D:1667:G:N2	7:D:1993:U:O4	2.12	0.82
7:D:332:A:O2'	7:D:334:C:OP2	1.96	0.82
6:A:1447:G:N2	6:A:1460:A:N9	2.26	0.82
56:B:315:LYS:HD3	56:B:318:ASP:HB3	1.61	0.82
3:3:25:PRO:HA	56:B:440:TYR:CE2	2.15	0.82
56:B:493:ASN:CA	56:B:505:THR:CG2	2.54	0.82
56:B:493:ASN:CG	56:B:503:ALA:HB1	1.99	0.82
56:B:493:ASN:H	56:B:541:ILE:HA	1.44	0.82
7:D:566:U:O2'	7:D:809:G:OP2	1.97	0.82
4:4:74:C:H5	56:B:569:ARG:NE	1.78	0.82
56:B:237:PHE:O	56:B:238:THR:OG1	1.98	0.82
56:B:226:ASP:N	56:B:239:VAL:HG11	1.93	0.82
7:D:1171:G:H8	7:D:1173:G:H4'	1.45	0.82
7:D:1726:G:C6	7:D:1734:C:O2	2.33	0.82
20:Q:23:TYR:O	20:Q:66:LEU:HB2	1.80	0.82
29:Z:66:HIS:CA	29:Z:158:ALA:O	2.27	0.82
6:A:1163:C:H2'	6:A:1164:G:H5'	1.57	0.81
6:A:467:G:N2	6:A:468:A:H1'	1.94	0.81
6:A:89:U:C2'	6:A:90:C:C5'	2.57	0.81
56:B:134:VAL:HG23	56:B:163:ALA:O	1.78	0.81
56:B:230:ILE:HA	56:B:280:ILE:HG22	0.82	0.81
56:B:226:ASP:H	56:B:239:VAL:HG11	1.45	0.81
56:B:306:TYR:HE1	56:B:339:ALA:O	1.58	0.81
56:B:493:ASN:HA	56:B:505:THR:CG2	2.09	0.81
7:D:1105:U:O2'	7:D:1107:G:N7	2.12	0.81
7:D:1364:G:N2	7:D:1367:A:OP2	2.13	0.81
7:D:1580:A:H2'	7:D:1581:G:C4	2.13	0.81
7:D:884:C:C2'	7:D:885:C:OP2	2.28	0.81
6:A:1318:A:O2'	26:W:37:ARG:HB2	1.80	0.81
26:W:40:ILE:HG23	26:W:67:VAL:HG22	1.58	0.81
3:3:34:ILE:HG23	3:3:63:ARG:HH11	1.44	0.81
3:3:58:THR:HG23	3:3:64:SER:OG	1.80	0.81
5:5:19:G:O2'	7:D:2112:G:N3	2.13	0.81
56:B:238:THR:OG1	56:B:267:ALA:CB	2.27	0.81
56:B:195:PRO:HB3	56:B:285:ARG:O	1.81	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:492:VAL:HG13	56:B:541:ILE:CD1	2.09	0.81
7:D:1743:G:H2'	7:D:1746:G:O4'	1.79	0.81
7:D:1712:C:O2	7:D:1746:G:O6	1.96	0.81
7:D:2452:C:H42	7:D:2504:U:H3	1.28	0.81
26:W:40:ILE:CD1	26:W:67:VAL:O	2.29	0.81
29:Z:38:ASP:CG	29:Z:178:ALA:H	1.84	0.81
6:A:1347:G:H8	16:M:107:ARG:HB3	1.45	0.81
6:A:216:G:N7	6:A:217:C:C4	2.47	0.81
56:B:46:LEU:HD12	56:B:82:ASP:CG	1.93	0.81
7:D:2296:U:O2	7:D:2335:A:N6	2.13	0.81
18:O:62:GLN:HB2	18:O:97:ALA:HB2	1.62	0.81
6:A:464:G:H3'	6:A:465:A:C5'	2.09	0.81
56:B:118:LEU:CD2	56:B:446:LYS:HZ3	1.92	0.81
56:B:272:HIS:ND1	56:B:272:HIS:O	2.13	0.81
1:1:6:SER:O	7:D:1031:G:O2'	1.97	0.81
7:D:1800:C:N4	7:D:1818:U:O2	2.13	0.81
9:F:35:GLU:OE2	9:F:39:ILE:N	2.13	0.81
29:Z:69:GLY:N	29:Z:157:LYS:O	2.13	0.81
3:3:11:GLN:O	3:3:12:LEU:HD23	1.80	0.81
6:A:1320:C:H1'	26:W:73:GLU:HB3	1.63	0.81
6:A:1427:U:H2'	6:A:1428:A:H8	1.42	0.81
6:A:1440:C:O2	6:A:1462:G:C2	2.33	0.81
56:B:137:LYS:N	56:B:167:SER:CB	2.44	0.81
56:B:177:ILE:CG2	56:B:181:ILE:HD12	2.08	0.81
56:B:7:SER:O	56:B:8:ARG:HG2	1.80	0.81
7:D:1043:C:HO2'	7:D:1044:G:H8	1.28	0.81
7:D:1712:C:O2'	7:D:1716:U:H5'	1.81	0.81
7:D:266:G:H5'	7:D:271(A):C:H42	1.46	0.81
1:1:36:GLN:HE22	7:D:1031:G:H21	1.28	0.81
3:3:86:LYS:O	7:D:1063:G:O2'	1.98	0.81
6:A:1439:C:O2	6:A:1462:G:N2	2.12	0.81
56:B:232:SER:O	56:B:234:GLY:N	2.13	0.81
56:B:245:PHE:HE2	56:B:262:GLY:HA2	1.45	0.81
56:B:330:LEU:HG	56:B:346:CYS:H	0.70	0.81
56:B:8:ARG:CB	56:B:74:GLU:HB2	2.09	0.81
7:D:238:C:O2'	7:D:607:U:O2	1.99	0.81
7:D:634:C:H2'	7:D:635:C:H6	1.46	0.81
29:Z:69:GLY:CA	29:Z:157:LYS:HA	2.09	0.81
6:A:1064:G:O2'	6:A:1190:G:N2	2.14	0.81
6:A:558:G:OP2	6:A:559:A:O2'	1.99	0.81
6:A:80:G:H2'	6:A:81:G:C8	2.15	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:137:LYS:N	56:B:167:SER:HB2	1.95	0.81
56:B:209:GLN:HE22	56:B:265:VAL:HG13	1.43	0.81
56:B:383:LYS:HG2	56:B:402:ILE:HG23	0.82	0.81
56:B:65:ARG:HD3	56:B:76:TYR:OH	1.80	0.81
7:D:1593:G:H2'	7:D:1594:G:H8	1.44	0.81
26:W:3:ARG:O	26:W:42:PRO:CB	2.28	0.81
6:A:1319:A:OP1	26:W:38:SER:CA	2.27	0.81
6:A:664:G:O2'	6:A:666:G:OP2	1.98	0.81
6:A:837:G:N3	6:A:838:G:N7	2.28	0.81
56:B:196:LEU:HD13	56:B:220:GLY:CA	2.01	0.81
56:B:230:ILE:CG2	56:B:279:THR:HA	2.10	0.81
56:B:306:TYR:CE1	56:B:339:ALA:CB	2.63	0.81
56:B:303:ALA:HB2	56:B:347:GLY:HA3	1.62	0.81
56:B:450:LEU:HD11	56:B:452:TYR:CE1	2.16	0.81
7:D:1230:C:H2'	7:D:1231:G:H8	1.43	0.81
7:D:1590:U:H2'	7:D:1591:G:H8	1.44	0.81
7:D:1634:A:O2'	7:D:1635:G:OP1	1.99	0.81
20:Q:91:ARG:CG	20:Q:96:LEU:O	2.24	0.81
56:B:431:LYS:HB2	56:B:458:GLU:CB	2.11	0.81
7:D:1447:G:O2'	7:D:1448:G:H5'	1.81	0.81
7:D:687:C:H41	7:D:774:A:H61	1.28	0.81
26:W:15:LEU:O	26:W:19:VAL:HG22	1.80	0.81
6:A:210:U:C6	6:A:216:G:N7	2.48	0.81
6:A:422:C:O2'	6:A:423:G:N2	2.14	0.81
6:A:73:G:OP2	6:A:74:C:N4	2.14	0.81
6:A:992:U:O2'	6:A:993:G:OP2	1.96	0.81
56:B:194:ALA:C	56:B:219:GLU:OE1	2.01	0.81
56:B:352:LEU:HD22	56:B:356:ILE:CG1	2.10	0.81
56:B:360:ARG:HG3	56:B:364:GLU:CD	1.99	0.81
56:B:405:ILE:HA	56:B:486:PRO:CA	2.11	0.81
7:D:1300:U:N3	7:D:1626:G:O2'	2.14	0.81
7:D:542:C:O2'	7:D:543:C:H5'	1.81	0.81
8:E:14:U:O2'	8:E:106:G:N2	2.14	0.81
29:Z:155:GLU:O	29:Z:160:ARG:N	2.14	0.81
56:B:444:ALA:C	56:B:445:GLN:HG3	2.01	0.81
7:D:1225:C:O2'	7:D:1226:G:H5'	1.81	0.81
7:D:1710:C:O2	7:D:1748:G:N2	2.14	0.81
26:W:15:LEU:CD2	26:W:19:VAL:CG1	2.48	0.81
6:A:74:C:O2'	6:A:75:C:H5'	1.81	0.80
6:A:838:G:C2	6:A:849:C:N3	2.50	0.80
6:A:939:G:H5''	14:K:102:ARG:HH12	1.45	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:222:VAL:HG21	56:B:264:LEU:CD2	2.07	0.80
56:B:228:ILE:HA	56:B:282:LEU:CD2	2.06	0.80
56:B:303:ALA:HB2	56:B:347:GLY:CA	2.11	0.80
56:B:410:VAL:HG22	56:B:481:GLN:HA	1.62	0.80
56:B:42:ARG:NE	56:B:53:ARG:HH21	1.78	0.80
56:B:75:GLU:O	56:B:77:VAL:HG12	1.81	0.80
7:D:1726:G:C2	7:D:1727:U:C2	2.70	0.80
7:D:2330:G:N2	7:D:2386:C:O2	2.14	0.80
7:D:2715:C:H2'	7:D:2716:U:H6	1.46	0.80
7:D:295:G:OP2	7:D:338:G:N1	2.14	0.80
26:W:40:ILE:HG21	26:W:67:VAL:C	2.01	0.80
3:3:56:GLU:OE1	3:3:70:LYS:HG3	1.81	0.80
6:A:415:A:N6	6:A:428:G:O6	2.14	0.80
56:B:306:TYR:HE1	56:B:339:ALA:HB1	1.46	0.80
56:B:425:MET:HE2	56:B:452:TYR:OH	1.81	0.80
56:B:474:TYR:O	56:B:475:ALA:O	1.99	0.80
26:W:40:ILE:CG2	26:W:67:VAL:C	2.50	0.80
56:B:10:ARG:HG3	56:B:186:PRO:O	1.81	0.80
7:D:890:A:C3'	7:D:892:G:H5''	2.09	0.80
20:Q:108:ARG:NH1	20:Q:114:ARG:HA	1.96	0.80
22:S:49:ASP:OD2	22:S:52:SER:OG	1.98	0.80
26:W:36:ARG:HB3	26:W:71:LEU:CA	2.11	0.80
26:W:40:ILE:HD12	26:W:67:VAL:O	1.80	0.80
29:Z:18:LYS:HG2	29:Z:20:TYR:H	1.43	0.80
6:A:101:A:O2'	6:A:102:G:H5'	1.81	0.80
56:B:151:GLU:O	56:B:155:VAL:N	2.14	0.80
56:B:33:THR:HG21	56:B:69:ARG:CD	2.10	0.80
56:B:8:ARG:HG3	56:B:74:GLU:HA	1.61	0.80
7:D:43:G:C5	7:D:44:A:C5	2.69	0.80
7:D:662:G:H2'	7:D:663:G:H8	1.46	0.80
18:O:40:ILE:HG21	18:O:75:TYR:HE2	1.46	0.80
22:S:2:PRO:O	22:S:38:ARG:NH1	2.12	0.80
6:A:1164:G:N7	6:A:1165:C:N4	2.30	0.80
56:B:317:ARG:NE	56:B:342:PHE:HE2	1.78	0.80
56:B:413:THR:HG22	56:B:451:VAL:HG22	1.64	0.80
7:D:1273:U:O2'	7:D:1275:A:OP2	1.98	0.80
7:D:1913:A:O2'	7:D:1914:C:OP2	1.98	0.80
7:D:270:A:N1	7:D:370:G:H1'	1.95	0.80
7:D:609:A:H2'	7:D:609(A):G:H8	1.47	0.80
6:A:1220:G:OP1	26:W:34:TRP:CE2	2.35	0.80
3:3:13:PRO:HG2	3:3:16:LYS:NZ	1.94	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:88:ASP:O	56:B:349:LEU:HD13	1.80	0.80
7:D:1101:U:O4	7:D:1103:A:N6	2.15	0.80
7:D:2197:U:O2'	7:D:2198:A:H5''	1.81	0.80
7:D:2227:A:C6	7:D:2228:G:C6	2.70	0.80
7:D:295:G:P	7:D:338:G:H1	2.04	0.80
7:D:481:G:O2'	7:D:482:A:OP2	1.98	0.80
56:B:299:PRO:CD	56:B:348:PHE:CD2	2.64	0.80
56:B:480:GLU:O	56:B:481:GLN:HG3	1.80	0.80
56:B:492:VAL:CB	56:B:541:ILE:HG12	2.11	0.80
56:B:544:LYS:C	56:B:545:ILE:HG13	2.00	0.80
56:B:169:LYS:HB2	57:B:701:GCP:C6	2.11	0.80
7:D:1275:A:N6	7:D:1295:C:O2'	2.14	0.80
7:D:2842:G:H2'	7:D:2843:G:H8	1.44	0.80
12:I:31:LEU:HA	12:I:45:PHE:HB2	1.64	0.80
17:N:51:ARG:NH2	17:N:61:GLU:OE1	2.15	0.80
6:A:1321:C:OP2	20:Q:98:VAL:HG22	1.82	0.80
6:A:1346:A:H62	6:A:1375:A:H62	1.26	0.80
56:B:330:LEU:CD1	56:B:345:ARG:NH1	2.43	0.80
56:B:431:LYS:HB2	56:B:458:GLU:HB2	1.64	0.80
7:D:1530:G:N2	7:D:1541:U:O2'	2.15	0.80
7:D:295:G:H1	7:D:343:C:H42	1.30	0.80
10:G:12:LEU:HD11	21:R:57:ARG:HA	1.64	0.80
4:4:74:C:C5	56:B:569:ARG:CZ	2.65	0.80
6:A:697:U:O2	6:A:785:G:N2	2.13	0.80
56:B:383:LYS:O	56:B:384:SER:OG	2.00	0.80
7:D:1062:G:C8	7:D:1070:A:OP2	2.35	0.80
3:3:21:PRO:CB	7:D:1067:A:OP2	2.29	0.80
26:W:16:LEU:HA	26:W:20:LEU:HD12	1.64	0.80
6:A:193:C:H2'	6:A:194:C:H6	1.44	0.80
6:A:75:C:O2	6:A:96:G:C2	2.34	0.80
56:B:107:VAL:HG21	56:B:156:LEU:HD21	1.62	0.80
56:B:382:LEU:CD2	56:B:401:ARG:CA	1.86	0.80
7:D:411:G:O2'	7:D:413:C:N4	2.15	0.80
11:H:98:GLU:HG2	11:H:189:PRO:HG3	1.64	0.80
13:J:50:TYR:OH	13:J:87:ARG:NH2	2.15	0.80
20:Q:90:LEU:O	20:Q:93:ARG:HG2	1.81	0.80
3:3:19:PRO:HB2	3:3:23:VAL:HG23	1.62	0.79
56:B:382:LEU:CB	56:B:401:ARG:CB	2.53	0.79
56:B:407:GLU:CD	56:B:431:LYS:HZ1	1.86	0.79
56:B:492:VAL:HA	56:B:541:ILE:HG12	1.62	0.79
7:D:869:G:H1	7:D:908:C:H42	1.28	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:4:74:C:C4	56:B:569:ARG:NH2	2.46	0.79
7:D:1053:C:N4	7:D:1108:U:O2	2.14	0.79
7:D:2194:G:N2	7:D:2195:C:C2	2.50	0.79
7:D:2237:G:O2'	7:D:2239:G:N7	2.14	0.79
29:Z:69:GLY:HA2	29:Z:157:LYS:HA	1.64	0.79
56:B:136:ASN:HA	56:B:167:SER:HA	1.64	0.79
56:B:36:VAL:HG22	56:B:248:GLN:HE21	1.45	0.79
56:B:382:LEU:HD13	56:B:383:LYS:O	1.82	0.79
56:B:379:LYS:HZ2	56:B:407:GLU:N	1.80	0.79
56:B:417:PRO:HB3	56:B:447:ARG:C	2.02	0.79
7:D:2211:G:H22	7:D:2212:A:H8	1.27	0.79
56:B:91:TYR:CE2	56:B:296:PRO:O	2.33	0.79
7:D:1449(A):G:O6	7:D:1462:C:N4	2.14	0.79
7:D:2217:G:H2'	7:D:2218:G:C8	2.17	0.79
7:D:542:C:H2'	7:D:543:C:C5	2.17	0.79
7:D:974(A):C:O2	7:D:1186:G:N1	2.10	0.79
6:A:245:C:N3	6:A:283:C:N4	2.30	0.79
6:A:457:C:O2	6:A:476:G:N2	2.15	0.79
7:D:1181:C:H2'	7:D:1182:A:H8	1.48	0.79
7:D:1726:G:C5	7:D:1727:U:N3	2.50	0.79
7:D:2115:G:O2'	7:D:2171:A:N6	2.12	0.79
7:D:527:C:O2'	7:D:528:A:O4'	1.99	0.79
13:J:100:ASN:ND2	25:V:26:LEU:O	2.15	0.79
6:A:711:G:H2'	6:A:712:A:H8	1.46	0.79
56:B:188:PRO:CB	56:B:216:ARG:HH22	1.87	0.79
56:B:382:LEU:HD21	56:B:400:THR:O	1.81	0.79
7:D:442:G:C5	7:D:444:C:N4	2.51	0.79
7:D:507:A:O2'	7:D:508:G:OP2	1.99	0.79
7:D:861:A:N6	7:D:917:A:N3	2.31	0.79
19:P:49:ASN:ND2	19:P:92:ASP:OD1	2.13	0.79
4:4:18:G:N2	4:4:58:A:O4'	2.14	0.79
6:A:957:U:O2'	6:A:958:A:N7	2.16	0.79
56:B:135:ILE:HG13	56:B:165:PHE:HB3	0.79	0.79
7:D:1024:G:O6	7:D:1139:G:N1	2.14	0.79
7:D:1862:G:H2'	7:D:1863:G:C8	2.17	0.79
7:D:1864:U:O2'	7:D:1869:G:H5'	1.83	0.79
7:D:928:G:H3'	7:D:929:G:H8	1.47	0.79
6:A:1175:G:H2'	6:A:1176:A:H8	1.47	0.79
6:A:662:G:H2'	6:A:663:A:H8	1.48	0.79
56:B:306:TYR:HB3	56:B:370:ILE:HD12	1.54	0.79
7:D:1086:A:H3'	7:D:1087:G:H5'	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2611:U:H5''	7:D:2612:C:OP2	1.82	0.79
7:D:745:G:N2	7:D:753:C:N3	2.29	0.79
24:U:58:GLU:OE2	24:U:75:ARG:NE	2.16	0.79
3:3:13:PRO:CB	3:3:16:LYS:HZ2	1.94	0.79
6:A:455:C:O2'	6:A:456:C:H5'	1.82	0.79
56:B:135:ILE:HG12	56:B:165:PHE:CB	1.82	0.79
56:B:164:ILE:CG2	56:B:176:GLU:OE1	2.30	0.79
56:B:196:LEU:O	56:B:281:THR:CA	2.31	0.79
7:D:2747:G:N2	7:D:2748:A:N7	2.30	0.79
10:G:84:ILE:HG13	10:G:101:LEU:HD22	1.62	0.79
56:B:118:LEU:HD11	56:B:446:LYS:CE	2.10	0.79
56:B:81:ILE:HD13	56:B:100:VAL:CG2	1.82	0.79
56:B:97:LEU:HD23	56:B:97:LEU:O	1.83	0.79
7:D:2:G:N1	7:D:2901:C:O2	2.16	0.79
7:D:860:U:H3	7:D:917:A:N6	1.81	0.79
26:W:36:ARG:CA	26:W:71:LEU:CB	2.25	0.79
56:B:381:ARG:HH21	56:B:385:GLY:HA2	1.47	0.78
7:D:1477:A:C5	7:D:1478:G:C6	2.71	0.78
20:Q:102:ARG:CB	20:Q:102:ARG:HH11	1.95	0.78
6:A:1162:C:N3	6:A:1174:G:N1	2.31	0.78
6:A:1319:A:OP1	26:W:12:ASP:OD2	2.01	0.78
6:A:324:G:N2	6:A:327:A:OP2	2.16	0.78
56:B:12:PHE:C	56:B:100:VAL:HG11	2.03	0.78
56:B:382:LEU:HG	56:B:401:ARG:CG	2.06	0.78
56:B:489:LEU:CD2	56:B:509:HIS:HB3	2.13	0.78
7:D:1068:G:O2'	7:D:1096:A:O2'	2.01	0.78
7:D:1119:C:N4	7:D:1120:G:O6	2.16	0.78
7:D:1418:G:O2'	7:D:1579:A:N6	2.16	0.78
7:D:1752:C:H5''	7:D:1753:G:OP2	1.83	0.78
6:A:1100:C:H5'	6:A:1101:A:OP2	1.81	0.78
56:B:245:PHE:HE2	56:B:261:VAL:C	1.86	0.78
7:D:1074:G:H2'	7:D:1075:C:H5	1.49	0.78
7:D:1143:A:H2'	7:D:1144:G:H8	1.47	0.78
7:D:1266:G:O2'	7:D:1267:U:OP2	2.00	0.78
7:D:1718:G:HO2'	7:D:1725:G:H8	1.31	0.78
6:A:382:A:OP2	6:A:382:A:H8	1.66	0.78
6:A:495:A:H4'	6:A:496:A:OP1	1.82	0.78
6:A:837:G:N2	6:A:850:U:O2	2.15	0.78
56:B:21:GLY:HA3	56:B:136:ASN:ND2	1.98	0.78
56:B:228:ILE:HG23	56:B:282:LEU:HA	1.64	0.78
7:D:1060:U:H5'	7:D:1061:U:OP2	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1344:G:N2	7:D:1385:G:O4'	2.17	0.78
7:D:1529:A:H3'	7:D:1530:G:H8	1.47	0.78
7:D:1565:C:C4	7:D:1567:A:H8	2.02	0.78
7:D:1726:G:C5	7:D:1727:U:C4	2.71	0.78
7:D:2219:G:C2'	7:D:2224:G:H5'	2.13	0.78
7:D:273(B):C:O2	7:D:363(D):G:N2	2.16	0.78
7:D:648:G:C6	7:D:649:G:N1	2.52	0.78
6:A:1220:G:OP1	26:W:34:TRP:CD2	2.37	0.78
3:3:103:GLN:CA	3:3:106:GLU:OE2	2.32	0.78
56:B:135:ILE:HD11	56:B:145:PRO:HB3	1.64	0.78
56:B:58:THR:OG1	56:B:84:PRO:CG	2.32	0.78
1:1:36:GLN:HE22	7:D:1031:G:N2	1.81	0.78
7:D:1059:G:O6	7:D:1081:U:N3	2.15	0.78
7:D:1210:A:N3	7:D:1212:G:N2	2.32	0.78
7:D:2782:G:H2'	7:D:2783:G:C8	2.18	0.78
7:D:855:G:N2	7:D:923:C:O2	2.15	0.78
26:W:40:ILE:HB	26:W:68:GLY:CA	2.13	0.78
6:A:1353:G:P	28:Y:3:LYS:HZ1	2.07	0.78
6:A:74:C:H2'	6:A:75:C:C5	2.18	0.78
56:B:523:LYS:CA	56:B:598:LEU:CD2	2.60	0.78
7:D:1087:G:N1	7:D:1102:C:N3	2.28	0.78
7:D:1529:A:H8	7:D:1530:G:C8	2.02	0.78
7:D:1980:G:O2'	7:D:1982:C:OP2	2.01	0.78
7:D:2787:C:H2'	7:D:2788:C:H6	1.48	0.78
7:D:739:G:H4'	7:D:1784:A:H61	1.47	0.78
20:Q:52:GLU:HG2	20:Q:55:ARG:HH21	1.49	0.78
6:A:1296:C:OP2	20:Q:44:ARG:NH1	2.16	0.78
6:A:1454:G:C5	6:A:1455:G:C8	2.71	0.78
56:B:186:PRO:HB2	56:B:187:PRO:CD	2.13	0.78
56:B:202:ASP:O	56:B:203:SER:CB	2.32	0.78
56:B:299:PRO:N	56:B:348:PHE:CE2	2.51	0.78
56:B:379:LYS:N	56:B:406:LEU:HB3	1.98	0.78
56:B:383:LYS:H	56:B:402:ILE:HG12	1.42	0.78
56:B:416:THR:O	56:B:448:VAL:CG2	2.31	0.78
56:B:300:VAL:CG1	56:B:477:MET:SD	2.71	0.78
3:3:91:PRO:HB2	7:D:1076:C:O4'	1.84	0.78
7:D:1174:A:H2'	7:D:1175:U:C6	2.19	0.78
7:D:1485:G:C2	7:D:1486:A:C8	2.71	0.78
7:D:1725:G:N3	7:D:1726:G:C8	2.51	0.78
7:D:922:U:O2	7:D:923:C:C2	2.37	0.78
26:W:70:LYS:CA	26:W:73:GLU:HG2	2.13	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:191:G:N2	27:X:103:GLY:O	2.14	0.78
1:1:22:ARG:NH1	1:1:37:GLY:O	2.17	0.78
6:A:1070:U:O2	6:A:1106:G:N2	2.16	0.78
6:A:1309:G:H5'	20:Q:88:ARG:HH21	1.48	0.78
56:B:121:PHE:CE2	56:B:157:GLY:HA3	2.15	0.78
56:B:25:LEU:HB2	56:B:168:GLY:HA3	1.66	0.78
56:B:20:HIS:CD2	56:B:108:ASP:HB2	2.19	0.78
56:B:196:LEU:HB3	56:B:282:LEU:CB	2.14	0.78
56:B:322:LYS:CG	56:B:331:THR:CG2	2.61	0.78
56:B:497:HIS:ND1	56:B:535:VAL:HG21	1.98	0.78
56:B:13:SER:OG	56:B:81:ILE:CB	2.32	0.78
7:D:1476:C:N4	7:D:1516:U:O2	2.16	0.78
7:D:1470:G:N1	7:D:1520:U:O4	2.17	0.78
7:D:2060:A:O2'	7:D:2061:G:OP2	2.02	0.78
7:D:989:G:HO2'	7:D:990:A:P	2.06	0.78
6:A:1438:G:OP2	27:X:34:LYS:NZ	2.17	0.78
6:A:74:C:N3	6:A:75:C:N4	2.32	0.78
56:B:195:PRO:HB2	56:B:286:PRO:CB	2.14	0.78
56:B:345:ARG:HG3	56:B:346:CYS:H	1.49	0.78
56:B:361:LEU:HD23	56:B:366:GLY:HA3	1.66	0.78
7:D:1065:U:H2'	7:D:1066:U:H4'	1.66	0.78
10:G:11:ARG:HB3	10:G:15:THR:HG22	1.64	0.78
6:A:216:G:C5	6:A:217:C:C4	2.72	0.78
56:B:459:ILE:HD12	56:B:460:LEU:N	1.99	0.78
7:D:1666:G:H1	7:D:1994:C:N4	1.81	0.78
7:D:1869:G:HO2'	7:D:1871:A:N6	1.77	0.78
7:D:2794:C:N3	7:D:2802:G:O6	2.17	0.78
7:D:293:U:O4	7:D:346:A:N6	2.17	0.78
7:D:976:C:H5'	7:D:1156:A:H62	1.46	0.78
17:N:52:GLY:O	21:R:41:ARG:NH2	2.17	0.78
26:W:15:LEU:HD23	26:W:33:THR:CB	2.14	0.78
6:A:129(A):G:N2	6:A:188:U:O2'	2.17	0.77
6:A:438:G:H3'	6:A:494:U:O4	1.84	0.77
6:A:974:A:OP2	21:R:32:SER:OG	2.00	0.77
56:B:135:ILE:HD13	56:B:165:PHE:CG	2.17	0.77
56:B:229:ARG:NH2	56:B:282:LEU:O	2.16	0.77
56:B:382:LEU:CD2	56:B:400:THR:O	2.32	0.77
56:B:441:LEU:CD1	56:B:447:ARG:HD2	2.14	0.77
7:D:2449:U:HO2'	7:D:2450:A:P	2.06	0.77
7:D:273(C):C:N4	7:D:363(C):G:O6	2.17	0.77
7:D:2746:U:H3	7:D:2758:A:H61	1.32	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2848:G:N2	7:D:2867:G:N3	2.32	0.77
6:A:1134:G:N2	6:A:1140:C:N3	2.32	0.77
6:A:85:U:C2'	6:A:86:U:H5'	2.14	0.77
56:B:205:TYR:CZ	56:B:271:ILE:HG12	2.18	0.77
56:B:218:PHE:CE2	56:B:291:TYR:OH	2.35	0.77
56:B:320:LEU:O	56:B:322:LYS:HG3	1.85	0.77
56:B:305:LEU:CD2	56:B:358:GLN:HE21	1.94	0.77
7:D:1582:C:H5''	7:D:1583:A:OP2	1.84	0.77
7:D:560:C:H2'	7:D:561:G:H5'	1.67	0.77
29:Z:57:ASN:HA	29:Z:165:ASN:HD21	1.49	0.77
56:B:13:SER:CB	56:B:97:LEU:CG	2.63	0.77
7:D:464:U:O2	7:D:788:A:N6	2.18	0.77
16:M:47:LEU:HD11	16:M:51:ARG:NH1	2.00	0.77
22:S:33:THR:O	22:S:37:ASN:ND2	2.17	0.77
2:2:43:ALA:HA	3:3:117:THR:HG21	1.65	0.77
6:A:1025:U:O4	6:A:1035:A:N6	2.17	0.77
6:A:208:U:H4'	6:A:209:U:OP2	1.84	0.77
56:B:12:PHE:HA	56:B:100:VAL:HG11	1.65	0.77
56:B:383:LYS:CA	56:B:402:ILE:CG1	2.62	0.77
56:B:421:VAL:CG1	56:B:425:MET:HG3	2.15	0.77
56:B:431:LYS:HB3	56:B:455:PRO:HG3	1.47	0.77
56:B:506:PHE:CZ	56:B:520:ILE:HG21	2.16	0.77
56:B:531:GLN:HG2	56:B:532:LEU:CG	2.14	0.77
56:B:95:ARG:HG3	56:B:96:ALA:N	1.97	0.77
7:D:746:A:N6	7:D:2610:C:OP1	2.15	0.77
16:M:67:GLY:O	16:M:73:GLN:NE2	2.14	0.77
56:B:48:SER:O	56:B:49:LEU:HD12	1.84	0.77
7:D:1479:G:O3'	7:D:1559:G:C6	2.37	0.77
7:D:371:A:C5'	7:D:423:A:N6	2.47	0.77
7:D:539:G:O2'	7:D:540:G:H5'	1.84	0.77
7:D:883:G:H2'	7:D:892:G:O6	1.84	0.77
6:A:1328:C:O2'	20:Q:29:ARG:NH2	2.17	0.77
3:3:34:ILE:HG22	3:3:63:ARG:CB	2.15	0.77
56:B:195:PRO:HG2	56:B:286:PRO:C	2.00	0.77
56:B:407:GLU:CD	56:B:431:LYS:NZ	2.38	0.77
7:D:2107:C:O2	7:D:2108:C:H3'	1.84	0.77
7:D:2226:C:H2'	7:D:2227:A:H5'	1.67	0.77
7:D:638:G:N1	7:D:650:C:C2	2.53	0.77
56:B:95:ARG:CZ	56:B:294:PHE:CE1	2.67	0.77
56:B:306:TYR:HE1	56:B:339:ALA:CB	1.96	0.77
56:B:537:ILE:CD1	56:B:551:VAL:CG2	2.62	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:8:ARG:NE	56:B:74:GLU:HA	1.98	0.77
7:D:537:C:H4'	7:D:539:G:OP1	1.84	0.77
7:D:931:G:H3'	7:D:932:G:H4'	1.65	0.77
11:H:30:LYS:H	11:H:34:GLU:HB3	1.50	0.77
6:A:1380:U:O2	6:A:1382:C:N4	2.17	0.77
6:A:376:G:H2'	6:A:377:G:H8	1.50	0.77
6:A:380:G:N2	6:A:383:A:OP2	2.18	0.77
56:B:200:ILE:HG13	56:B:278:ASP:O	1.84	0.77
6:A:455:C:N3	6:A:478:A:C2	2.53	0.77
6:A:85:U:H5''	6:A:87:A:C2	2.20	0.77
56:B:425:MET:HG2	56:B:452:TYR:OH	1.85	0.77
7:D:1047:G:C6	7:D:1110:G:C5	2.73	0.77
7:D:1434:A:H2'	7:D:1435:G:H8	1.49	0.77
7:D:2245:U:O2'	7:D:2436:G:OP2	2.02	0.77
10:G:152:ILE:HG22	10:G:167:TRP:HB2	1.67	0.77
6:A:110:C:O2'	23:T:25:ARG:O	2.03	0.77
3:3:10:LEU:HD12	3:3:12:LEU:HD21	1.65	0.77
6:A:1400:C:H4'	6:A:1401:G:OP2	1.84	0.77
56:B:503:ALA:O	56:B:505:THR:N	2.18	0.77
7:D:2020:A:H2'	7:D:2021:C:H5''	1.66	0.77
7:D:2320:A:H1'	7:D:2333:A:N1	2.00	0.77
7:D:247:G:N2	7:D:249:C:O2'	2.17	0.77
7:D:2704:C:H2'	7:D:2705:A:H8	1.48	0.77
7:D:674:G:O6	7:D:806:C:N4	2.17	0.77
14:K:24:THR:O	14:K:28:ASN:ND2	2.18	0.77
3:3:34:ILE:HG22	3:3:63:ARG:HB3	1.65	0.76
6:A:1158:C:N4	6:A:1160:G:O2'	2.18	0.76
56:B:12:PHE:N	56:B:100:VAL:HG11	1.95	0.76
56:B:135:ILE:HD11	56:B:165:PHE:HB2	1.63	0.76
56:B:300:VAL:HG11	56:B:477:MET:CE	2.14	0.76
3:3:24:GLY:O	56:B:440:TYR:CD2	2.38	0.76
56:B:450:LEU:CD1	56:B:452:TYR:HE1	1.97	0.76
56:B:92:GLU:HA	56:B:96:ALA:HB3	1.66	0.76
7:D:1717:G:O6	7:D:1718:G:N2	2.18	0.76
7:D:721:C:H2'	7:D:722:A:H8	1.48	0.76
7:D:989:G:O2'	7:D:990:A:O5'	2.02	0.76
20:Q:71:ARG:HA	20:Q:75:ALA:CB	2.15	0.76
3:3:76:TYR:OH	3:3:80:LYS:NZ	2.18	0.76
6:A:1164:G:C6	6:A:1165:C:N3	2.53	0.76
6:A:1182:G:HO2'	6:A:1183:A:P	2.08	0.76
6:A:198:G:H2'	6:A:199:G:C8	2.19	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:229:ARG:HG2	56:B:237:PHE:HZ	1.47	0.76
56:B:521:VAL:O	56:B:523:LYS:HG2	1.84	0.76
7:D:2790:A:C2	7:D:2893:G:N1	2.51	0.76
10:G:21:ARG:HB2	10:G:58:GLU:HG2	1.68	0.76
16:M:21:PRO:HA	16:M:59:PHE:HA	1.67	0.76
20:Q:97:PRO:HG2	20:Q:99:ARG:HG2	1.67	0.76
6:A:1378:C:O2	14:K:76:ARG:NH2	2.18	0.76
6:A:1450:U:C2	6:A:1452:C:O2	2.38	0.76
6:A:334:C:HO2'	6:A:1434:A:HO2'	1.30	0.76
6:A:595:G:O2'	6:A:596:C:O5'	2.02	0.76
7:D:1450:C:O2	7:D:1451:C:H1'	1.86	0.76
7:D:1266:G:N2	7:D:2013:A:OP2	2.17	0.76
7:D:2732:G:H4'	7:D:2733:A:OP2	1.84	0.76
7:D:572:A:H5''	7:D:573:G:OP2	1.84	0.76
6:A:1056:U:H5'	10:G:163:ALA:HB2	1.67	0.76
12:I:149:GLU:OE2	12:I:153:LYS:HB2	1.85	0.76
14:K:29:LYS:HG3	14:K:101:LEU:HD22	1.67	0.76
26:W:11:VAL:HG21	26:W:41:VAL:HG22	1.66	0.76
6:A:500:G:O6	6:A:546:G:C2	2.38	0.76
56:B:199:LEU:O	56:B:215:LEU:HB2	1.85	0.76
56:B:206:ASP:OD2	56:B:269:ARG:HB2	1.80	0.76
56:B:402:ILE:O	56:B:402:ILE:HG13	1.84	0.76
56:B:414:ILE:HD13	56:B:428:LEU:HD11	1.67	0.76
56:B:406:LEU:HG	56:B:489:LEU:HD11	1.66	0.76
7:D:163:U:C3'	7:D:164:U:H5''	2.15	0.76
8:E:55:U:H2'	8:E:56:G:C8	2.19	0.76
17:N:34:VAL:HA	17:N:74:ILE:HG12	1.67	0.76
29:Z:69:GLY:O	29:Z:157:LYS:CG	2.29	0.76
6:A:1014:A:H4'	26:W:18:LYS:NZ	1.99	0.76
6:A:197:A:N6	6:A:220:G:O2'	2.19	0.76
6:A:838:G:H1	6:A:849:C:H42	1.31	0.76
56:B:17:HIS:HE1	56:B:116:GLU:H	1.32	0.76
56:B:230:ILE:HG23	56:B:279:THR:CA	2.15	0.76
56:B:408:PRO:CG	56:B:456:PHE:HB3	2.14	0.76
56:B:459:ILE:HA	56:B:463:PHE:HD2	1.50	0.76
7:D:154:G:N1	7:D:173:G:N2	2.33	0.76
7:D:2161:C:O2'	7:D:2173:A:O2'	2.03	0.76
7:D:2792:G:N2	7:D:2804:C:N3	2.32	0.76
7:D:363(F):A:C2	7:D:364:C:H1'	2.20	0.76
7:D:558:G:H2'	7:D:559:G:H8	1.49	0.76
7:D:974(A):C:O2	7:D:989:G:N2	2.19	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:78:PHE:CE2	56:B:182:VAL:CG2	2.68	0.76
56:B:229:ARG:HE	56:B:282:LEU:C	1.88	0.76
56:B:308:VAL:HG23	56:B:370:ILE:HG12	1.67	0.76
56:B:352:LEU:HD22	56:B:356:ILE:HD11	1.68	0.76
56:B:383:LYS:HA	56:B:402:ILE:CD1	2.16	0.76
56:B:493:ASN:HA	56:B:503:ALA:O	1.86	0.76
56:B:543:GLY:C	56:B:544:LYS:HG2	2.06	0.76
6:A:719:C:N3	25:V:74:ARG:NH2	2.33	0.76
6:A:186(B):C:H4'	27:X:89:ARG:NH1	2.00	0.76
6:A:728:A:H2'	6:A:729:A:H8	1.50	0.76
56:B:134:VAL:HA	56:B:163:ALA:C	2.05	0.76
56:B:420:TYR:CG	56:B:471:SER:HB2	2.21	0.76
56:B:490:VAL:HG12	56:B:491:LYS:N	1.97	0.76
56:B:68:TYR:CD2	56:B:75:GLU:CG	2.61	0.76
7:D:485:C:C2'	7:D:486:C:H5'	2.16	0.76
7:D:928:G:H3'	7:D:929:G:C8	2.19	0.76
6:A:210:U:H4'	6:A:216:G:OP1	1.85	0.76
56:B:299:PRO:CD	56:B:348:PHE:CE2	2.68	0.76
7:D:1820:U:O2'	7:D:1821:A:OP2	2.04	0.76
7:D:543:C:C2	7:D:551:G:C2	2.74	0.76
7:D:899:A:O2'	7:D:901:A:N7	2.18	0.76
24:U:67:LYS:C	24:U:70:ARG:HH12	1.89	0.76
25:V:21:LYS:HZ2	25:V:23:LYS:HB3	1.51	0.76
6:A:101:A:H2'	6:A:102:G:H8	1.51	0.76
56:B:78:PHE:HZ	56:B:182:VAL:HG23	1.50	0.76
56:B:380:VAL:O	56:B:387:GLU:C	2.24	0.76
56:B:536:PRO:HA	56:B:550:THR:HA	1.67	0.76
7:D:1173:G:N2	7:D:1175:U:OP2	2.17	0.76
7:D:1174:A:N3	7:D:1174:A:H3'	2.00	0.76
7:D:1543:A:H3'	7:D:1544:C:H4'	1.67	0.76
26:W:4:SER:O	26:W:5:LEU:HG	1.85	0.76
6:A:969:A:O2'	17:N:55:LYS:NZ	2.17	0.76
7:D:1477:A:N1	7:D:1515:C:N4	2.31	0.76
7:D:185:U:H2'	7:D:186:G:H8	1.50	0.76
7:D:2217:G:N3	7:D:2218:G:N7	2.34	0.76
7:D:479:A:HO2'	7:D:480:A:H8	1.33	0.76
7:D:489:G:N7	7:D:1284:A:N3	2.32	0.76
15:L:11:THR:HG22	15:L:14:ARG:NH1	2.00	0.76
3:3:132:ARG:O	7:D:1077:A:H2'	1.85	0.75
6:A:445:G:H2'	6:A:446:G:H8	1.45	0.75
6:A:838:G:H1	6:A:849:C:N4	1.84	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2183:C:H2'	7:D:2184:G:C8	2.21	0.75
13:J:53:ALA:HB3	13:J:86:ARG:NH1	2.00	0.75
3:3:81:ALA:HB3	3:3:107:ILE:HD13	1.66	0.75
6:A:1443:G:H4'	6:A:1446:A:OP2	1.85	0.75
6:A:186:C:O2'	27:X:85:MET:SD	2.42	0.75
56:B:69:ARG:C	56:B:178:LEU:HD21	2.05	0.75
56:B:245:PHE:HE2	56:B:262:GLY:CA	1.94	0.75
7:D:2314:C:H2'	7:D:2315:G:H8	1.50	0.75
7:D:493:G:H2'	7:D:494:G:H8	1.51	0.75
6:A:570:G:O6	6:A:865:A:N6	2.13	0.75
56:B:206:ASP:HB3	56:B:210:GLY:HA2	1.67	0.75
56:B:225:GLY:CA	56:B:239:VAL:HG11	1.93	0.75
56:B:299:PRO:CA	56:B:479:TYR:CZ	2.69	0.75
56:B:64:VAL:HG11	56:B:80:LEU:CA	2.15	0.75
7:D:1058:G:H2'	7:D:1059:G:H5'	1.67	0.75
7:D:1579:A:H5''	7:D:1580:A:C8	2.22	0.75
7:D:704:G:H2'	7:D:726:G:N2	2.01	0.75
11:H:74:GLN:HA	11:H:77:ASN:HD22	1.50	0.75
3:3:104:VAL:HA	3:3:107:ILE:CD1	2.13	0.75
6:A:438:G:N2	6:A:495:A:OP2	2.19	0.75
6:A:500:G:N1	6:A:546:G:N3	2.34	0.75
56:B:166:ALA:CB	56:B:172:GLU:HG2	2.16	0.75
56:B:383:LYS:CA	56:B:402:ILE:HG21	2.10	0.75
7:D:1492:G:H5'	7:D:1493:C:OP2	1.85	0.75
7:D:1748:G:N2	7:D:1749:A:C2	2.54	0.75
11:H:68:TYR:HD1	11:H:114:ARG:HH12	1.32	0.75
16:M:26:VAL:HB	16:M:33:PHE:HB2	1.68	0.75
6:A:391:G:OP1	23:T:8:ARG:NH2	2.19	0.75
26:W:59:PRO:C	26:W:60:VAL:CG2	2.53	0.75
3:3:33:ASN:O	3:3:63:ARG:CD	2.28	0.75
3:3:56:GLU:O	3:3:58:THR:N	2.19	0.75
6:A:1320:C:O2	20:Q:87:TYR:HD2	1.70	0.75
6:A:1440:C:C2	6:A:1462:G:C2	2.73	0.75
56:B:242:VAL:CB	56:B:256:LEU:CD2	2.57	0.75
56:B:205:TYR:HE2	56:B:271:ILE:HG23	1.48	0.75
56:B:95:ARG:NE	56:B:294:PHE:CZ	2.45	0.75
56:B:373:ALA:HB1	56:B:374:PRO:HD3	1.69	0.75
56:B:396:LEU:HD13	56:B:491:LYS:HG3	1.62	0.75
56:B:409:TYR:OH	56:B:432:ARG:NE	2.18	0.75
7:D:2307:G:H5''	7:D:2308:G:H8	1.50	0.75
1:1:11:CYS:SG	1:1:14:CYS:N	2.60	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:76:G:C4	6:A:95:G:N1	2.55	0.75
56:B:15:ILE:CG2	56:B:120:LYS:HD2	2.16	0.75
56:B:558:VAL:CG2	56:B:577:GLN:NE2	2.49	0.75
7:D:1449(A):G:C2'	7:D:1450:C:H6	1.98	0.75
7:D:556:G:O2'	7:D:557:U:H5'	1.86	0.75
17:N:6:ILE:HD11	17:N:72:VAL:HB	1.68	0.75
26:W:53:ASN:OD1	26:W:54:GLY:N	2.16	0.75
6:A:101:A:C2'	6:A:102:G:H5'	2.15	0.75
6:A:1225:A:H5'	26:W:78:ARG:NE	2.01	0.75
6:A:1496:C:O2	6:A:1517:G:N2	2.20	0.75
6:A:69:G:O2'	6:A:73:G:H5'	1.87	0.75
56:B:492:VAL:CG1	56:B:541:ILE:HD11	2.17	0.75
56:B:66:VAL:CG2	56:B:76:TYR:CE1	2.67	0.75
56:B:64:VAL:CG2	56:B:80:LEU:N	2.48	0.75
7:D:1181:C:H2'	7:D:1182:A:C8	2.22	0.75
7:D:2500:U:O2'	7:D:2501:C:OP1	2.05	0.75
7:D:2807:G:H22	7:D:2892:A:H62	1.32	0.75
7:D:8:A:H61	7:D:2629:A:H8	1.35	0.75
6:A:85:U:H5''	6:A:87:A:N1	2.00	0.75
56:B:379:LYS:O	56:B:405:ILE:O	2.04	0.75
7:D:1485:G:N3	7:D:1486:A:C8	2.55	0.75
7:D:558:G:O2'	7:D:559:G:H5'	1.86	0.75
7:D:895:U:C4'	7:D:896:A:H5'	2.16	0.75
20:Q:81:LEU:O	20:Q:84:ILE:HG12	1.86	0.75
3:3:13:PRO:C	3:3:16:LYS:HZ1	1.90	0.75
3:3:10:LEU:CG	3:3:57:ILE:HD11	2.17	0.75
5:5:51:U:H3	5:5:63:G:H1	1.33	0.75
56:B:69:ARG:NH2	56:B:178:LEU:HD11	2.00	0.75
6:A:55:A:N9	56:B:208:TYR:CE2	2.49	0.75
56:B:204:VAL:O	56:B:211:VAL:HG13	1.87	0.75
7:D:1061:U:C1'	7:D:1070:A:H4'	2.17	0.75
7:D:2607:G:H5'	7:D:2608:G:OP2	1.87	0.75
7:D:2632:A:H2'	7:D:2633:G:H8	1.51	0.75
7:D:43:G:C4	7:D:44:A:C8	2.75	0.75
7:D:707:G:N2	7:D:725:G:O2'	2.19	0.75
26:W:36:ARG:HB3	26:W:72:GLY:N	2.00	0.75
6:A:1364:U:O2'	6:A:1365:G:OP1	2.05	0.74
6:A:173:U:H4'	6:A:174:C:OP2	1.87	0.74
6:A:477:G:H2'	6:A:478:A:H8	1.51	0.74
6:A:582:U:OP2	6:A:758:G:N1	2.20	0.74
6:A:685:G:N2	6:A:705:U:O4	2.19	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:107:VAL:CG1	56:B:113:VAL:HG22	2.17	0.74
56:B:188:PRO:HB2	56:B:216:ARG:HH21	1.48	0.74
56:B:18:VAL:CG2	56:B:86:HIS:CB	2.65	0.74
56:B:405:ILE:HA	56:B:486:PRO:CB	2.16	0.74
7:D:1049:C:N3	7:D:1050:A:N6	2.35	0.74
7:D:1746:G:N1	7:D:1747:G:C2	2.55	0.74
7:D:528:A:N6	7:D:2042:A:N7	2.35	0.74
17:N:6:ILE:N	17:N:73:ASP:OD1	2.20	0.74
29:Z:180:PHE:CB	29:Z:185:LEU:HD11	2.17	0.74
29:Z:43:VAL:HA	29:Z:214:VAL:HG22	1.69	0.74
6:A:1014:A:N1	26:W:32:LYS:HE2	2.01	0.74
6:A:713:G:H21	6:A:777:A:H1'	1.50	0.74
56:B:382:LEU:CD2	56:B:401:ARG:HD3	2.17	0.74
56:B:382:LEU:CG	56:B:401:ARG:HD3	1.99	0.74
13:J:46:ARG:HD3	13:J:60:PHE:HE2	1.52	0.74
6:A:449:C:O2	23:T:42:ARG:NH1	2.19	0.74
26:W:54:GLY:HA2	26:W:77:THR:OG1	1.88	0.74
3:3:23:VAL:HG11	3:3:27:LEU:HD12	1.68	0.74
6:A:1075:C:H5''	9:F:179:LYS:NZ	2.00	0.74
6:A:362:G:N2	6:A:365:U:OP2	2.19	0.74
6:A:560:U:O2'	6:A:561:U:OP2	2.05	0.74
6:A:92:G:O2'	6:A:93:U:H5'	1.87	0.74
56:B:22:LYS:HB2	57:B:701:GCP:O1B	1.86	0.74
56:B:533:PHE:HZ	56:B:588:GLY:C	1.86	0.74
56:B:497:HIS:ND1	56:B:535:VAL:HG11	1.98	0.74
7:D:1418:G:N1	7:D:1578:U:OP2	2.14	0.74
7:D:2197:U:H4'	7:D:2198:A:C8	2.21	0.74
7:D:448:U:O2'	7:D:449:A:OP2	2.04	0.74
7:D:493:G:H2'	7:D:494:G:C8	2.21	0.74
9:F:70:PHE:HB3	9:F:163:PHE:HB3	1.68	0.74
17:N:24:VAL:HG13	17:N:34:VAL:HG11	1.70	0.74
6:A:1318:A:N3	26:W:34:TRP:HZ3	1.84	0.74
56:B:109:ALA:HA	56:B:148:VAL:HG11	1.68	0.74
56:B:169:LYS:CB	57:B:701:GCP:C2	2.65	0.74
7:D:1483:G:H2'	7:D:1484:G:H5'	1.68	0.74
7:D:2104:G:O2'	7:D:2105:C:H5'	1.86	0.74
20:Q:23:TYR:CD2	20:Q:70:LEU:HD21	2.19	0.74
26:W:28:LYS:HE2	26:W:29:ARG:NH2	2.02	0.74
26:W:70:LYS:CB	26:W:73:GLU:CB	2.54	0.74
4:4:3:C:N4	4:4:4:G:O6	2.19	0.74
6:A:1353:G:N2	6:A:1370:G:N3	2.36	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:492:VAL:CG2	56:B:513:ALA:CB	2.62	0.74
56:B:69:ARG:NH2	56:B:178:LEU:CD1	2.51	0.74
7:D:1568:G:O2'	7:D:1569:A:OP2	2.05	0.74
7:D:1579:A:H5''	7:D:1580:A:N7	2.02	0.74
7:D:739:G:O2'	7:D:1784:A:N6	2.20	0.74
7:D:641:C:O2'	7:D:2350:C:OP1	2.04	0.74
7:D:638:G:C2	7:D:650:C:O2	2.39	0.74
6:A:619:U:H4'	11:H:131:ARG:HH21	1.51	0.74
26:W:14:HIS:C	26:W:35:SER:OG	2.26	0.74
6:A:1188:A:H8	6:A:1188:A:OP2	1.69	0.74
56:B:152:VAL:HG13	56:B:156:LEU:CB	2.15	0.74
56:B:222:VAL:CG2	56:B:228:ILE:HD11	2.17	0.74
56:B:225:GLY:C	56:B:239:VAL:CG1	2.56	0.74
56:B:528:ILE:CG2	56:B:592:VAL:CB	2.64	0.74
7:D:361:G:N2	7:D:362:U:O2	2.20	0.74
20:Q:87:TYR:HB2	26:W:73:GLU:HB2	1.68	0.74
27:X:10:LEU:HG	27:X:12:ALA:H	1.52	0.74
6:A:200:G:N2	6:A:218:C:N3	2.35	0.74
6:A:498:A:H4'	6:A:500:G:C5'	2.17	0.74
56:B:305:LEU:HD22	56:B:358:GLN:NE2	1.98	0.74
56:B:420:TYR:HB3	56:B:424:LEU:HD12	1.70	0.74
7:D:1456:G:N3	7:D:1457:A:C8	2.56	0.74
7:D:2489:G:H5''	7:D:2490:G:OP2	1.87	0.74
7:D:703:U:H5''	7:D:704:G:OP2	1.87	0.74
23:T:74:LEU:O	23:T:78:GLY:N	2.20	0.74
6:A:572:A:OP2	6:A:573:A:OP2	2.05	0.74
56:B:137:LYS:HA	56:B:167:SER:OG	1.87	0.74
56:B:205:TYR:HH	56:B:271:ILE:HG12	1.51	0.74
56:B:531:GLN:CG	56:B:532:LEU:HG	2.16	0.74
7:D:38:A:H2'	7:D:39:C:C6	2.23	0.74
7:D:63:U:O2'	7:D:64:A:N7	2.20	0.74
7:D:684:G:N2	7:D:794:G:N3	2.35	0.74
29:Z:38:ASP:O	29:Z:177:LYS:CE	2.30	0.74
5:5:28:G:H2'	5:5:29:G:H8	1.52	0.74
6:A:1306:A:C2'	6:A:1307:U:H5'	2.17	0.74
6:A:1508:G:H2'	6:A:1509:C:C6	2.23	0.74
56:B:242:VAL:CA	56:B:256:LEU:HD11	2.17	0.74
56:B:492:VAL:CG2	56:B:513:ALA:HB2	2.13	0.74
56:B:492:VAL:HG21	56:B:541:ILE:CD1	2.01	0.74
7:D:461:C:H2'	7:D:462:C:H6	1.53	0.74
7:D:500:G:N1	7:D:503:A:OP2	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:W:14:HIS:CE1	26:W:34:TRP:CZ2	2.62	0.74
29:Z:74:VAL:HG22	29:Z:112:ALA:HB3	1.70	0.74
6:A:501:C:O2'	6:A:502:G:H5'	1.88	0.74
6:A:836:G:C8	6:A:851:G:N2	2.55	0.74
56:B:152:VAL:CA	56:B:156:LEU:HB3	2.16	0.74
56:B:245:PHE:CZ	56:B:262:GLY:HA2	2.21	0.74
56:B:382:LEU:HB3	56:B:386:GLU:CG	2.18	0.74
56:B:383:LYS:CA	56:B:402:ILE:CG2	2.64	0.74
56:B:431:LYS:O	56:B:432:ARG:HG3	1.87	0.74
56:B:411:LYS:NZ	56:B:436:VAL:HG22	2.02	0.74
56:B:497:HIS:HB2	56:B:535:VAL:HG11	1.65	0.74
7:D:1287:A:N7	7:D:1288:U:N3	2.35	0.74
56:B:330:LEU:HD22	56:B:330:LEU:N	2.02	0.73
7:D:1006:C:N3	7:D:1137:G:N2	2.36	0.73
7:D:1057:A:O2'	7:D:1058:G:H5'	1.88	0.73
7:D:1142(A):A:N6	7:D:1143:A:N7	2.36	0.73
7:D:1265:A:O2'	7:D:1266:G:O5'	2.05	0.73
7:D:2107:C:H4'	7:D:2108:C:OP1	1.87	0.73
56:B:336:SER:HA	56:B:340:LEU:HA	1.70	0.73
56:B:316:LEU:HD12	56:B:342:PHE:CE2	2.22	0.73
56:B:411:LYS:HE2	56:B:453:GLU:HB2	1.71	0.73
56:B:415:PHE:HA	56:B:448:VAL:O	1.87	0.73
7:D:1456:G:N3	7:D:1457:A:N7	2.36	0.73
7:D:270(Z):U:H5	7:D:370:G:O6	1.71	0.73
7:D:2794:C:N3	7:D:2802:G:N1	2.36	0.73
7:D:696:G:N2	7:D:697:C:O2	2.20	0.73
7:D:893:C:H2'	7:D:894:C:O4'	1.88	0.73
26:W:16:LEU:CB	26:W:20:LEU:CD1	2.65	0.73
6:A:1260:C:HO2'	6:A:1261:A:H8	1.35	0.73
6:A:849:C:H2'	6:A:850:U:C6	2.22	0.73
56:B:27:ASP:OD1	56:B:45:PHE:HB3	1.88	0.73
56:B:302:PHE:HD1	56:B:460:LEU:HD22	1.51	0.73
7:D:1057:A:H62	7:D:1086:A:H2'	1.51	0.73
7:D:1213:A:OP2	7:D:1235:G:N1	2.19	0.73
7:D:351:G:H1'	7:D:352:G:C8	2.22	0.73
7:D:371:A:H4'	7:D:372:G:OP2	1.87	0.73
7:D:775:G:H21	7:D:788:A:P	2.10	0.73
6:A:277:C:OP1	24:U:68:ARG:NH2	2.20	0.73
26:W:16:LEU:O	26:W:20:LEU:CD1	2.35	0.73
56:B:228:ILE:HG12	56:B:282:LEU:CD2	2.12	0.73
56:B:236:GLU:HA	56:B:268:ILE:HG22	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:382:LEU:HB3	56:B:401:ARG:HG3	1.65	0.73
7:D:177:G:H5''	7:D:178:G:OP2	1.88	0.73
7:D:1860:G:H2'	7:D:1861:G:H8	1.52	0.73
7:D:2217:G:C2	7:D:2218:G:C5	2.76	0.73
7:D:2789:C:O2	7:D:2893:G:N2	2.21	0.73
7:D:280:C:N4	7:D:359:A:O2'	2.22	0.73
7:D:776:G:N3	7:D:793:A:N6	2.36	0.73
20:Q:71:ARG:CB	20:Q:75:ALA:CB	2.62	0.73
6:A:1047:G:OP1	21:R:4:LYS:NZ	2.18	0.73
6:A:1182:G:H4'	6:A:1183:A:H5''	1.70	0.73
6:A:85:U:H2'	6:A:86:U:C5'	2.18	0.73
56:B:144:ARG:HD3	56:B:144:ARG:O	1.89	0.73
6:A:55:A:C1'	56:B:208:TYR:CE2	2.71	0.73
56:B:246:THR:CG2	56:B:251:VAL:HG21	2.19	0.73
56:B:218:PHE:CE2	56:B:291:TYR:CZ	2.75	0.73
56:B:306:TYR:CE1	56:B:339:ALA:HB1	2.23	0.73
56:B:306:TYR:HB3	56:B:370:ILE:HG21	1.69	0.73
56:B:99:ALA:O	56:B:216:ARG:HD2	1.89	0.73
3:3:21:PRO:O	7:D:1068:G:OP1	2.06	0.73
7:D:2217:G:C2	7:D:2218:G:N7	2.57	0.73
7:D:2260:C:HO2'	7:D:2388:A:HO2'	1.31	0.73
7:D:2346:A:N6	27:X:26:ASN:OD1	161.63	0.73
10:G:189:ALA:HB3	10:G:196:LEU:H	1.51	0.73
20:Q:71:ARG:CA	20:Q:75:ALA:CB	2.66	0.73
26:W:16:LEU:CA	26:W:20:LEU:HD12	2.18	0.73
1:1:35:ARG:HB3	1:1:37:GLY:OXT	1.88	0.73
3:3:13:PRO:CG	3:3:16:LYS:CE	2.54	0.73
6:A:101:A:C5	6:A:102:G:N7	2.56	0.73
6:A:126:G:OP1	6:A:605:U:O2'	2.06	0.73
6:A:1512:U:H2'	6:A:1513:A:H8	1.54	0.73
56:B:324:LYS:O	56:B:325:LEU:HG	1.88	0.73
56:B:31:GLU:CG	56:B:40:GLU:CG	2.46	0.73
56:B:459:ILE:CG2	56:B:463:PHE:CE2	2.71	0.73
56:B:562:CYS:C	56:B:570:LYS:HZ1	1.91	0.73
7:D:1087:G:H8	7:D:1089:G:H1'	1.54	0.73
7:D:1174:A:H2'	7:D:1175:U:H5	1.50	0.73
7:D:1224:G:H2'	7:D:1225:C:H5'	1.69	0.73
7:D:1781:C:O2'	7:D:1782:C:OP2	2.06	0.73
7:D:2211:G:N2	7:D:2212:A:H8	1.87	0.73
7:D:485:C:O2'	7:D:486:C:H5'	1.88	0.73
9:F:103:THR:HB	9:F:176:GLU:OE2	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:107:ILE:HG22	3:3:111:LYS:HG3	1.69	0.73
6:A:1446:A:H4'	6:A:1447:G:OP1	1.87	0.73
6:A:1454:G:C4	6:A:1455:G:C8	2.77	0.73
6:A:615:C:H2'	6:A:616:G:H8	1.54	0.73
56:B:14:ILE:HD12	56:B:26:ALA:CB	2.19	0.73
3:3:21:PRO:CA	7:D:1067:A:H5'	2.18	0.73
7:D:1747:G:C2'	7:D:1748:G:H5'	2.16	0.73
7:D:1819:A:H1'	7:D:1821:A:C6	2.24	0.73
7:D:2378:A:H8	7:D:2378:A:OP2	1.72	0.73
6:A:1256:A:H8	10:G:27:LYS:NZ	1.86	0.73
6:A:1309:G:N2	6:A:1329:A:N9	2.33	0.73
56:B:383:LYS:N	56:B:402:ILE:CG2	2.52	0.73
56:B:383:LYS:N	56:B:402:ILE:HG23	2.03	0.73
56:B:408:PRO:HG2	56:B:456:PHE:CB	2.16	0.73
56:B:459:ILE:HA	56:B:463:PHE:CD2	2.24	0.73
56:B:46:LEU:HD12	56:B:82:ASP:HB3	1.71	0.73
7:D:2660:A:H8	56:B:472:ARG:O	1.68	0.73
7:D:2030:A:O2'	7:D:2031:A:O5'	2.07	0.73
7:D:270(A):A:H4'	7:D:270(B):A:OP2	1.87	0.73
7:D:614:U:H5''	7:D:615:G:OP2	1.89	0.73
22:S:88:ARG:HG2	22:S:89:GLY:H	1.54	0.73
6:A:719:C:N4	25:V:74:ARG:HH12	1.84	0.73
3:3:120:LEU:HD21	3:3:125:ARG:HH11	1.53	0.73
6:A:1206:G:OP1	10:G:190:ARG:NH2	2.21	0.73
6:A:1498:U:O2'	6:A:1499:A:O5'	2.04	0.73
56:B:42:ARG:HD2	56:B:43:GLU:HB2	1.71	0.73
56:B:379:LYS:NZ	56:B:485:ARG:H	1.86	0.73
56:B:492:VAL:CG2	56:B:541:ILE:HD11	2.12	0.73
56:B:74:GLU:OE2	56:B:182:VAL:HG12	1.88	0.73
7:D:2133:G:H8	7:D:2133:G:OP2	1.72	0.73
7:D:2572:A:O2'	7:D:2573:C:OP2	2.06	0.73
26:W:16:LEU:O	26:W:20:LEU:HD13	1.88	0.73
3:3:10:LEU:CG	3:3:57:ILE:HG12	2.16	0.73
6:A:465:A:H1'	6:A:466:C:OP1	1.89	0.73
56:B:227:ARG:O	56:B:283:ALA:HB2	1.88	0.73
56:B:410:VAL:HG13	56:B:480:GLU:HG2	1.71	0.73
3:3:133:SER:HA	7:D:1077:A:C2	2.20	0.73
7:D:175:G:N2	7:D:176:G:N3	2.37	0.73
6:A:737:A:H5''	13:J:92:LYS:HG3	1.69	0.73
20:Q:101:GLN:O	20:Q:103:THR:HG23	1.87	0.73
20:Q:10:PRO:HG3	20:Q:48:LEU:HD11	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:Q:16:ASP:OD2	20:Q:30:ALA:HB1	1.87	0.73
29:Z:161:ILE:HG22	29:Z:174:PRO:HG2	1.70	0.73
3:3:8:VAL:HG12	3:3:9:LYS:H	1.54	0.72
6:A:343:U:O2'	6:A:346:G:O6	2.07	0.72
6:A:964:A:O2'	17:N:55:LYS:NZ	2.18	0.72
56:B:492:VAL:HA	56:B:541:ILE:HA	1.71	0.72
7:D:1047:G:H3'	7:D:1110:G:H21	1.53	0.72
7:D:1464:C:O2'	7:D:1527:G:O2'	2.05	0.72
23:T:8:ARG:HB3	23:T:28:ARG:HH12	1.53	0.72
29:Z:151:GLU:O	29:Z:154:ARG:HG2	1.88	0.72
6:A:551:U:O2'	19:P:86:ARG:NH1	2.22	0.72
56:B:20:HIS:CD2	56:B:108:ASP:H	2.06	0.72
56:B:531:GLN:CD	56:B:584:LEU:CD1	2.58	0.72
7:D:152:G:C2'	7:D:153:C:H5'	2.19	0.72
7:D:1858:G:N3	7:D:1885:A:N6	2.37	0.72
7:D:2104:G:C2'	7:D:2105:C:H5'	2.19	0.72
7:D:330:A:O2'	7:D:1210:A:N6	2.22	0.72
7:D:457:A:H1'	7:D:459:U:C2	2.24	0.72
10:G:54:ARG:HD3	10:G:69:HIS:HD2	1.53	0.72
6:A:474:G:O5'	23:T:81:ARG:HG3	1.89	0.72
26:W:11:VAL:HG23	26:W:41:VAL:CG1	2.09	0.72
26:W:59:PRO:C	26:W:60:VAL:HG23	2.07	0.72
26:W:70:LYS:HB3	26:W:73:GLU:HB3	1.71	0.72
29:Z:38:ASP:OD2	29:Z:177:LYS:HB3	1.88	0.72
6:A:438:G:H2'	6:A:494:U:N3	2.02	0.72
56:B:16:ALA:H	56:B:22:LYS:CE	2.02	0.72
56:B:412:LEU:O	56:B:451:VAL:HA	1.89	0.72
56:B:420:TYR:CE1	56:B:471:SER:O	2.41	0.72
56:B:410:VAL:HG12	56:B:480:GLU:HG2	1.70	0.72
56:B:492:VAL:CB	56:B:541:ILE:CG1	2.67	0.72
56:B:13:SER:OG	56:B:81:ILE:HG21	1.89	0.72
7:D:2491:U:H5'	7:D:2492:U:OP2	1.89	0.72
8:E:44:G:O2'	8:E:47:C:N4	2.22	0.72
11:H:3:ARG:NH1	11:H:70:ILE:HA	2.03	0.72
29:Z:38:ASP:OD2	29:Z:177:LYS:CB	2.37	0.72
6:A:1170:A:C2'	6:A:1171:G:H5'	2.19	0.72
6:A:232:G:O2'	6:A:262:A:N6	2.18	0.72
6:A:467:G:H2'	6:A:468:A:O4'	1.90	0.72
56:B:245:PHE:CD2	56:B:261:VAL:O	2.43	0.72
56:B:8:ARG:HB2	56:B:74:GLU:HB3	1.45	0.72
7:D:1634:A:HO2'	7:D:1635:G:P	2.12	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:676:A:H8	7:D:2069:G:H21	1.34	0.72
7:D:881:G:H2'	7:D:882:G:H5'	1.71	0.72
20:Q:88:ARG:NH1	20:Q:88:ARG:HG3	2.00	0.72
26:W:11:VAL:HG21	26:W:41:VAL:H	1.53	0.72
6:A:490:G:H2'	6:A:491:G:C8	2.25	0.72
56:B:229:ARG:HH21	56:B:283:ALA:N	1.87	0.72
56:B:330:LEU:HD21	56:B:346:CYS:SG	2.29	0.72
56:B:337:SER:OG	56:B:393:PRO:HB3	1.90	0.72
7:D:155:C:O2'	7:D:161:U:OP1	2.07	0.72
7:D:2473:U:OP1	7:D:2529:G:N2	2.21	0.72
7:D:279:C:H41	7:D:359:A:H2	1.38	0.72
10:G:14:ILE:HG13	10:G:178:LEU:HD21	1.71	0.72
6:A:1119:C:N4	6:A:1154:G:O6	2.20	0.72
6:A:173:U:OP1	6:A:197:A:O2'	2.06	0.72
6:A:345:C:H5''	6:A:346:G:C5	2.24	0.72
6:A:405:U:OP1	6:A:406:G:O2'	2.08	0.72
6:A:522:C:H42	6:A:528:C:H42	1.37	0.72
56:B:20:HIS:CE1	56:B:108:ASP:CB	2.71	0.72
56:B:212:ILE:HD12	56:B:212:ILE:N	2.04	0.72
56:B:556:LYS:O	56:B:558:VAL:N	2.17	0.72
56:B:23:SER:HB2	57:B:701:GCP:O1A	1.88	0.72
7:D:489:G:C8	7:D:1284:A:C6	2.77	0.72
7:D:1379:A:O2'	7:D:1380:G:OP1	2.07	0.72
7:D:1490:A:OP2	7:D:1490:A:H3'	1.89	0.72
7:D:154:G:C5	7:D:155:C:C5	2.77	0.72
7:D:346:A:O2'	7:D:347:A:N7	2.22	0.72
7:D:489:G:C8	7:D:1284:A:N3	2.58	0.72
7:D:728:G:H21	7:D:730:C:H41	1.38	0.72
8:E:2:C:H42	8:E:118:G:H1	1.37	0.72
9:F:54:THR:HG21	9:F:201:ILE:HD11	1.70	0.72
15:L:122:ARG:HA	15:L:125:ARG:NH1	2.05	0.72
6:A:446:G:N2	6:A:489:C:C2	2.56	0.72
6:A:642:A:N3	15:L:113:SER:OG	2.21	0.72
6:A:838:G:O2'	6:A:841:U:OP1	2.08	0.72
56:B:231:TYR:N	56:B:280:ILE:HG21	2.04	0.72
56:B:382:LEU:H	56:B:386:GLU:HB3	1.53	0.72
56:B:488:ASP:HB3	56:B:510:ARG:H	1.51	0.72
7:D:1222:C:H42	7:D:1227:A:H61	1.37	0.72
7:D:1477:A:C5	7:D:1478:G:N1	2.57	0.72
7:D:1559:G:C5	7:D:1560:G:H4'	2.25	0.72
7:D:171:G:H4'	7:D:172:C:OP1	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:46:LYS:HE2	11:H:50:ARG:CZ	21.23	0.72
16:M:110:GLU:OE1	16:M:111:ARG:N	2.23	0.72
29:Z:180:PHE:HB3	29:Z:185:LEU:CD1	2.19	0.72
5:5:75:C:O2'	5:5:76:A:O5'	2.04	0.72
6:A:475:G:C4	6:A:476:G:C8	2.78	0.72
56:B:13:SER:HB2	56:B:97:LEU:HG	1.71	0.72
56:B:245:PHE:CZ	56:B:262:GLY:CA	2.73	0.72
56:B:245:PHE:HZ	56:B:262:GLY:C	1.93	0.72
56:B:27:ASP:OD2	56:B:41:MET:HB3	1.90	0.72
56:B:68:TYR:CG	56:B:75:GLU:HG3	2.22	0.72
7:D:2225:A:H4'	7:D:2226:C:C6	2.25	0.72
7:D:2887:U:C2'	7:D:2888:C:H5'	2.20	0.72
7:D:560:C:C2'	7:D:561:G:H5'	2.20	0.72
7:D:96:G:C6	7:D:97:C:N4	2.57	0.72
12:I:152:ARG:HD3	15:L:43:GLY:HA3	1.70	0.72
14:K:16:LEU:HD22	16:M:45:ALA:HB2	1.72	0.72
20:Q:37:THR:OG1	20:Q:55:ARG:NH2	2.22	0.72
3:3:24:GLY:O	56:B:440:TYR:CZ	2.43	0.72
6:A:80:G:C4	6:A:81:G:N7	2.58	0.72
56:B:15:ILE:HG23	56:B:120:LYS:HD2	1.70	0.72
56:B:306:TYR:CB	56:B:370:ILE:CD1	2.56	0.72
56:B:531:GLN:HG2	56:B:532:LEU:CD2	2.19	0.72
7:D:1550:C:OP1	7:D:1727:U:O2'	2.08	0.72
7:D:1862:G:C2	7:D:1863:G:C6	2.77	0.72
7:D:2184:G:C5	7:D:2185:C:C4	2.77	0.72
7:D:583:G:H5''	16:M:10:ARG:HH12	172.88	0.72
7:D:68:G:N2	7:D:74:A:O4'	2.21	0.72
6:A:1319:A:O5'	26:W:37:ARG:C	2.28	0.72
6:A:218:C:H2'	6:A:219:C:C6	2.24	0.72
6:A:422:C:H4'	6:A:423:G:C2	2.25	0.72
6:A:613:C:H2'	6:A:614:A:C8	2.23	0.72
56:B:495:LEU:CD1	56:B:540:ALA:HB1	1.96	0.72
7:D:1908:C:N4	7:D:1922:G:O6	2.18	0.72
17:N:7:LYS:HD3	17:N:9:ARG:HH21	1.54	0.72
3:3:19:PRO:HG3	3:3:41:PHE:HE2	1.54	0.71
6:A:866:C:O2'	6:A:919:A:OP1	2.07	0.71
56:B:492:VAL:HA	56:B:541:ILE:CA	2.20	0.71
7:D:1712:C:H2'	7:D:1716:U:C5	2.24	0.71
7:D:321:G:H5''	7:D:322:A:OP2	1.90	0.71
7:D:371:A:N6	7:D:424:G:C8	2.58	0.71
7:D:40:C:O2	7:D:440:G:N2	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:X:26:ASN:HB2	27:X:71:THR:HG23	1.72	0.71
3:3:13:PRO:HB2	3:3:16:LYS:NZ	2.04	0.71
6:A:1318:A:N3	26:W:34:TRP:CZ3	2.58	0.71
6:A:1357:A:N6	6:A:1358:U:O4	2.23	0.71
6:A:711:G:OP1	13:J:54:LYS:NZ	2.23	0.71
56:B:200:ILE:CG1	56:B:278:ASP:O	2.38	0.71
56:B:63:ALA:O	56:B:64:VAL:HG22	1.90	0.71
7:D:2401:U:H5''	7:D:2402:C:OP2	1.88	0.71
7:D:441:U:H5''	7:D:442:G:OP2	1.91	0.71
7:D:771:G:O2'	7:D:1355:G:O2'	2.05	0.71
7:D:83:G:O2'	7:D:84:A:O5'	2.06	0.71
11:H:34:GLU:HG3	11:H:35:ARG:HG2	1.71	0.71
56:B:12:PHE:O	56:B:81:ILE:HG13	1.88	0.71
56:B:153:GLU:HG3	56:B:159:PRO:CB	2.19	0.71
56:B:225:GLY:C	56:B:239:VAL:HG12	2.09	0.71
7:D:1173:G:N3	7:D:1173:G:H5'	2.03	0.71
7:D:1529:A:N7	7:D:1542:G:N2	2.37	0.71
7:D:344:G:N2	7:D:345:A:C4	2.59	0.71
7:D:775:G:N2	7:D:787:U:O2'	2.23	0.71
7:D:776:G:O2'	7:D:777:A:OP2	2.07	0.71
15:L:84:ARG:HD3	15:L:136:GLU:OE2	1.90	0.71
3:3:19:PRO:C	3:3:22:PRO:HD2	2.11	0.71
6:A:99:C:O2'	6:A:101:A:OP1	2.08	0.71
56:B:396:LEU:HD11	56:B:491:LYS:HG2	1.73	0.71
56:B:379:LYS:CA	56:B:406:LEU:HB3	2.20	0.71
7:D:1071:G:H21	7:D:1089:G:H2'	1.55	0.71
7:D:1944:U:O2'	7:D:1945:G:OP1	2.07	0.71
6:A:409:G:OP1	11:H:25:ARG:N	2.21	0.71
6:A:836:G:H2'	6:A:837:G:C8	2.25	0.71
56:B:528:ILE:HG21	56:B:592:VAL:CB	2.19	0.71
7:D:1742:C:C3'	7:D:1743:G:H5''	2.19	0.71
7:D:2177:C:OP1	29:Z:223:ARG:NH1	2.23	0.71
7:D:385:C:HO2'	7:D:388:G:N2	1.87	0.71
7:D:43:G:C5	7:D:44:A:N7	2.58	0.71
22:S:16:ALA:HB1	22:S:21:ASP:HB3	1.72	0.71
26:W:15:LEU:N	26:W:35:SER:CB	2.53	0.71
3:3:34:ILE:HG12	3:3:35:MET:H	1.55	0.71
6:A:519:C:H2'	6:A:520:A:H8	1.54	0.71
6:A:851:G:H2'	6:A:852:G:O4'	1.91	0.71
7:D:2121:G:O6	7:D:2176:A:N6	2.24	0.71
7:D:2889:C:C5	7:D:2891:G:N7	2.59	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:791:C:OP1	7:D:791:C:H4'	1.90	0.71
3:3:59:ILE:H	3:3:59:ILE:HD12	1.56	0.71
4:4:62:C:H2'	4:4:63:G:H8	1.55	0.71
6:A:101:A:C4	6:A:102:G:C8	2.79	0.71
6:A:1047:G:H5''	21:R:4:LYS:HD3	1.73	0.71
6:A:1427:U:H2'	6:A:1428:A:C8	2.24	0.71
6:A:209:U:H5''	6:A:210:U:OP1	1.91	0.71
6:A:96:G:N1	6:A:97:U:C2	2.59	0.71
56:B:118:LEU:CD1	56:B:446:LYS:HZ3	2.01	0.71
6:A:55:A:N3	56:B:208:TYR:CD2	2.59	0.71
56:B:330:LEU:HB3	56:B:345:ARG:NH1	2.06	0.71
56:B:27:ASP:C	56:B:41:MET:SD	2.68	0.71
56:B:58:THR:CB	56:B:84:PRO:HG3	2.21	0.71
7:D:1058:G:H22	7:D:1081:U:H2'	1.54	0.71
7:D:1419:A:N6	7:D:1577:C:N3	2.39	0.71
7:D:1913:A:OP2	7:D:1914:C:H5'	1.91	0.71
56:B:222:VAL:HG21	56:B:228:ILE:HD11	1.72	0.71
56:B:382:LEU:N	56:B:386:GLU:HB3	2.05	0.71
7:D:771:G:HO2'	7:D:1355:G:HO2'	1.34	0.71
7:D:1364:G:OP2	7:D:1364:G:C8	2.43	0.71
7:D:2198:A:N3	7:D:2198:A:H2'	2.05	0.71
23:T:43:LYS:O	23:T:45:THR:N	2.24	0.71
6:A:1014:A:H5''	26:W:18:LYS:HZ3	1.56	0.71
6:A:1460:A:C2'	6:A:1461:G:H5'	2.20	0.71
6:A:570:G:H5'	6:A:820:U:H1'	1.73	0.71
6:A:572:A:H5'	6:A:573:A:OP2	1.91	0.71
56:B:153:GLU:O	56:B:153:GLU:HG2	1.89	0.71
56:B:315:LYS:CD	56:B:318:ASP:HB3	2.21	0.71
56:B:18:VAL:HG23	56:B:86:HIS:HB3	1.73	0.71
7:D:1497:U:O4	7:D:1576:U:O2'	2.06	0.71
7:D:1563:G:C2	7:D:1564:C:H1'	2.26	0.71
7:D:2227:A:C6	7:D:2228:G:C5	2.78	0.71
7:D:524:U:H2'	7:D:525:U:C6	2.26	0.71
10:G:142:MET:SD	10:G:170:GLN:NE2	2.63	0.71
6:A:1455:G:OP1	27:X:32:ALA:HA	1.90	0.71
6:A:195:A:O5'	27:X:68:LYS:NZ	2.23	0.71
6:A:686:U:O2'	6:A:687:A:O5'	2.09	0.71
56:B:144:ARG:O	56:B:148:VAL:HG23	1.91	0.71
56:B:513:ALA:HB1	56:B:541:ILE:HD11	1.72	0.71
7:D:2063:C:OP2	7:D:2064:C:OP2	2.08	0.71
7:D:2104:G:C2	7:D:2105:C:C2	2.79	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:249:C:OP2	7:D:2394:C:O2'	2.08	0.71
7:D:2901:C:N3	7:D:2902:C:N4	2.39	0.71
7:D:227:A:H61	7:D:410:G:H21	1.39	0.71
11:H:30:LYS:HG2	11:H:35:ARG:HG3	1.72	0.71
11:H:62:GLN:HE22	11:H:65:ARG:HH11	1.38	0.71
22:S:70:LEU:HG	22:S:78:TYR:HB2	1.71	0.71
26:W:53:ASN:HD21	26:W:75:ALA:HB1	1.55	0.71
1:1:11:CYS:N	1:1:14:CYS:SG	2.55	0.70
3:3:103:GLN:O	3:3:107:ILE:CD1	2.38	0.70
3:3:6:ALA:HB1	3:3:59:ILE:HG21	1.68	0.70
5:5:49:C:H5''	5:5:50:U:OP2	1.91	0.70
6:A:1226:C:C2	20:Q:104:ARG:HG3	2.25	0.70
6:A:789:U:N3	6:A:791:G:OP2	2.24	0.70
56:B:200:ILE:HB	56:B:278:ASP:N	2.06	0.70
56:B:337:SER:OG	56:B:393:PRO:CB	2.38	0.70
56:B:414:ILE:N	56:B:450:LEU:O	2.24	0.70
56:B:300:VAL:N	56:B:479:TYR:CE1	2.56	0.70
7:D:1569:A:H2'	7:D:1570:A:C8	2.26	0.70
7:D:1589:C:H2'	7:D:1590:U:C6	2.26	0.70
7:D:1936:A:N6	7:D:1963:U:O2	2.24	0.70
7:D:553:U:H5''	7:D:554:U:OP2	1.91	0.70
16:M:29:ASN:N	16:M:63:ILE:O	2.19	0.70
25:V:16:PRO:HA	25:V:54:ARG:HH12	1.55	0.70
29:Z:182:PRO:HD2	29:Z:183:GLU:OE1	1.91	0.70
3:3:13:PRO:CB	3:3:16:LYS:NZ	2.54	0.70
56:B:241:LYS:HG2	56:B:243:GLY:H	1.56	0.70
56:B:330:LEU:O	56:B:331:THR:HG23	1.91	0.70
56:B:499:GLU:O	56:B:500:VAL:HG12	1.90	0.70
7:D:1152:C:H2'	7:D:1153:C:H6	1.55	0.70
7:D:1390:U:H3	7:D:1395:A:H62	1.40	0.70
7:D:1791:A:N6	7:D:1828:G:O2'	2.24	0.70
7:D:2418:A:H5''	7:D:2419:U:OP2	1.91	0.70
7:D:2895:U:O2'	7:D:2896:C:O4'	2.08	0.70
3:3:68:VAL:O	3:3:69:THR:O	2.07	0.70
6:A:1353:G:OP1	28:Y:3:LYS:NZ	2.24	0.70
56:B:306:TYR:CB	56:B:370:ILE:CG1	2.68	0.70
56:B:58:THR:HB	56:B:84:PRO:HG3	1.73	0.70
7:D:1084:A:O2'	7:D:1106:G:N7	2.21	0.70
7:D:1209:G:H21	7:D:1237:A:H2	1.39	0.70
11:H:20:TYR:HA	11:H:26:CYS:SG	2.32	0.70
25:V:53:ARG:HD2	25:V:63:GLN:HG3	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1447:G:C2	6:A:1460:A:C4	2.79	0.70
56:B:134:VAL:CG2	56:B:164:ILE:O	2.39	0.70
56:B:136:ASN:OD1	56:B:167:SER:HA	1.91	0.70
56:B:137:LYS:NZ	57:B:701:GCP:H1'	2.06	0.70
7:D:2125:G:N1	7:D:2172:U:OP1	2.20	0.70
7:D:2789:C:O2	7:D:2893:G:C2	2.44	0.70
7:D:2805:G:H2'	7:D:2807:G:H4'	1.73	0.70
7:D:894:C:H42	7:D:897:C:N4	1.90	0.70
20:Q:15:VAL:HG11	20:Q:39:ILE:HD11	1.74	0.70
21:R:24:CYS:SG	21:R:40:CYS:N	2.64	0.70
6:A:445:G:N2	6:A:489:C:O2	2.24	0.70
6:A:69:G:N3	6:A:73:G:C8	2.60	0.70
56:B:227:ARG:CB	56:B:237:PHE:CD2	2.53	0.70
56:B:420:TYR:O	56:B:424:LEU:HB2	1.91	0.70
56:B:528:ILE:HG22	56:B:592:VAL:HG22	1.66	0.70
7:D:1869:G:N2	7:D:1878:G:C6	2.59	0.70
7:D:2106:G:C4	7:D:2108:C:N3	2.60	0.70
7:D:226:G:O2'	7:D:227:A:O4'	2.09	0.70
7:D:536:A:O2'	7:D:537:C:H5'	1.91	0.70
19:P:110:VAL:HG23	19:P:113:ARG:HB2	1.73	0.70
29:Z:64:LEU:O	29:Z:159:GLY:CA	2.33	0.70
3:3:10:LEU:HD13	3:3:57:ILE:CD1	1.84	0.70
6:A:194:C:O3'	27:X:68:LYS:NZ	2.20	0.70
6:A:344:A:O2'	6:A:346:G:N7	2.24	0.70
6:A:792:A:O2'	6:A:793:U:OP2	2.07	0.70
56:B:265:VAL:HG22	56:B:266:ALA:N	2.03	0.70
56:B:495:LEU:HG	56:B:500:VAL:HG23	1.72	0.70
7:D:1049:C:N4	7:D:2751:G:O6	2.24	0.70
7:D:1668:A:C2	7:D:1993:U:C4	2.79	0.70
7:D:2157:G:H4'	7:D:2158:A:OP2	1.92	0.70
7:D:2189:U:H2'	7:D:2190:G:C8	2.26	0.70
7:D:2778:A:H4'	7:D:2779:U:OP2	1.91	0.70
7:D:2858:C:H5''	7:D:2859:G:OP2	1.91	0.70
6:A:874:G:N2	15:L:15:ASN:OD1	2.24	0.70
26:W:5:LEU:HD12	26:W:6:LYS:N	2.06	0.70
26:W:70:LYS:CB	26:W:73:GLU:HB3	2.19	0.70
56:B:196:LEU:CD1	56:B:220:GLY:O	2.26	0.70
56:B:379:LYS:NZ	56:B:407:GLU:N	2.36	0.70
56:B:421:VAL:O	56:B:425:MET:N	2.18	0.70
56:B:424:LEU:HD11	56:B:471:SER:HB3	1.73	0.70
7:D:1128:A:N6	7:D:2518:A:N1	2.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1295:C:H2'	7:D:1296:G:H8	1.56	0.70
7:D:1580:A:H2'	7:D:1581:G:N7	2.06	0.70
7:D:2197:U:C2'	7:D:2198:A:H5''	2.20	0.70
7:D:2757:A:H2'	7:D:2758:A:H5'	1.73	0.70
7:D:309:G:N3	7:D:329:G:O2'	2.25	0.70
7:D:341:G:H2'	7:D:342:G:O4'	1.90	0.70
7:D:648:G:O2'	7:D:649:G:H5'	1.92	0.70
3:3:13:PRO:C	3:3:16:LYS:NZ	2.44	0.70
6:A:101:A:C4	6:A:102:G:N7	2.60	0.70
6:A:1322:C:O2	26:W:37:ARG:NH2	2.23	0.70
6:A:1461:G:C2	6:A:1462:G:C8	2.78	0.70
6:A:92:G:C6	6:A:93:U:C4	2.79	0.70
56:B:226:ASP:O	56:B:228:ILE:HG13	1.92	0.70
56:B:455:PRO:HG2	56:B:458:GLU:HB2	1.74	0.70
56:B:525:ALA:HB1	56:B:528:ILE:HG13	1.74	0.70
3:3:126:MET:HG3	7:D:1059:G:C5	2.26	0.70
7:D:136:G:N2	7:D:137:C:N3	2.39	0.70
7:D:1864:U:H4'	7:D:2409:G:H22	1.56	0.70
7:D:370:G:N2	7:D:422:A:OP1	2.24	0.70
7:D:899:A:H1'	7:D:900:A:H2	1.56	0.70
7:D:930:U:O2'	7:D:931:G:OP2	2.09	0.70
18:O:17:GLY:HA2	18:O:35:PRO:HD3	1.72	0.70
6:A:522:C:H41	19:P:53:ARG:HH22	1.38	0.70
3:3:19:PRO:HG3	3:3:41:PHE:CE2	2.27	0.70
6:A:371:G:OP2	6:A:371:G:H8	1.74	0.70
6:A:414:A:OP2	6:A:428:G:N2	2.16	0.70
56:B:137:LYS:HG2	57:B:701:GCP:C5	1.83	0.70
56:B:299:PRO:HA	56:B:479:TYR:OH	1.85	0.70
56:B:330:LEU:HD21	56:B:346:CYS:HA	1.73	0.70
56:B:383:LYS:HB3	56:B:402:ILE:HG21	0.70	0.70
56:B:8:ARG:CG	56:B:74:GLU:HA	2.22	0.70
7:D:1726:G:C6	7:D:1734:C:C2	2.79	0.70
7:D:530:G:N2	7:D:2023:G:OP1	2.23	0.70
7:D:2287:A:N6	7:D:2344:U:H3	1.89	0.70
7:D:2782:G:C2	7:D:2783:G:C4	2.80	0.70
7:D:559:G:O2'	7:D:560:C:OP1	2.08	0.70
9:F:126:GLU:O	9:F:128:GLU:N	2.25	0.70
9:F:204:ASN:ND2	9:F:210:SER:HB3	2.04	0.70
6:A:376:G:H5''	23:T:5:ARG:HD2	1.74	0.70
26:W:40:ILE:O	26:W:68:GLY:CA	2.39	0.70
6:A:1163:C:N4	6:A:1173:G:O6	2.18	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1453:G:H3'	6:A:1453:G:N3	2.05	0.70
56:B:194:ALA:HB1	56:B:195:PRO:CD	2.22	0.70
56:B:194:ALA:N	56:B:219:GLU:OE1	2.11	0.70
56:B:206:ASP:HB3	56:B:210:GLY:CA	2.21	0.70
56:B:46:LEU:HD12	56:B:82:ASP:OD2	1.92	0.70
56:B:137:LYS:CE	57:B:701:GCP:C2	2.60	0.70
7:D:1061:U:C1'	7:D:1070:A:C4'	2.69	0.70
7:D:1047:G:C6	7:D:1110:G:C6	2.80	0.70
7:D:1787:A:H5''	7:D:1788:C:OP2	1.90	0.70
7:D:931:G:H3'	7:D:932:G:C4'	2.22	0.70
20:Q:3:ARG:HG3	20:Q:7:VAL:HG12	1.74	0.70
6:A:1459:C:H2'	6:A:1460:A:H5'	1.73	0.69
56:B:152:VAL:HG22	56:B:156:LEU:HD23	1.74	0.69
56:B:227:ARG:CA	56:B:237:PHE:HD2	2.04	0.69
56:B:537:ILE:CD1	56:B:551:VAL:HG23	2.22	0.69
7:D:2444:G:H5'	7:D:2445:G:OP2	1.91	0.69
7:D:276:A:O2'	7:D:278:A:N6	2.25	0.69
9:F:84:GLU:HG2	9:F:215:LEU:HG	1.74	0.69
14:K:79:ARG:HG2	14:K:84:ASN:HB3	1.74	0.69
3:3:137:GLU:HB3	7:D:1078:U:OP1	1.92	0.69
3:3:77:LEU:CD1	3:3:111:LYS:HD3	2.22	0.69
6:A:1308:U:O2	6:A:1329:A:N6	2.24	0.69
6:A:1438:G:O2'	6:A:1439:C:H5'	1.92	0.69
6:A:216:G:C5	6:A:217:C:N3	2.60	0.69
56:B:97:LEU:CD2	56:B:103:VAL:HG11	2.21	0.69
7:D:1755:A:H5'	7:D:1756:G:OP2	1.93	0.69
7:D:2218:G:H2'	7:D:2219:G:H8	1.55	0.69
7:D:270(W):G:C5	7:D:270(X):G:C5	2.79	0.69
7:D:848:G:N2	7:D:933:A:H1'	2.04	0.69
14:K:111:ARG:HD3	14:K:112:PRO:HD2	1.74	0.69
15:L:97:VAL:HG13	15:L:98:LYS:H	1.57	0.69
20:Q:23:TYR:CD2	20:Q:70:LEU:HD11	2.26	0.69
25:V:37:VAL:HG21	25:V:78:LEU:HD22	1.74	0.69
3:3:12:LEU:H	3:3:54:PRO:CB	2.06	0.69
6:A:382:A:H2'	6:A:383:A:C8	2.27	0.69
6:A:457:C:N4	6:A:458:C:H42	1.90	0.69
56:B:135:ILE:CG1	56:B:165:PHE:HD1	1.78	0.69
56:B:240:ASP:CG	56:B:266:ALA:CB	2.60	0.69
56:B:282:LEU:HD13	56:B:283:ALA:CB	2.21	0.69
56:B:361:LEU:O	56:B:366:GLY:CA	2.40	0.69
7:D:1999:C:H2'	7:D:2000:G:H8	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:775:G:H5''	7:D:777:A:C4	2.27	0.69
10:G:11:ARG:O	10:G:14:ILE:N	2.25	0.69
6:A:545:C:H5''	11:H:72:GLU:HG2	1.73	0.69
6:A:1507:A:H2	6:A:1530:G:H1'	1.56	0.69
56:B:531:GLN:OE1	56:B:584:LEU:HD12	1.91	0.69
7:D:848:G:N2	7:D:931:G:C5	2.60	0.69
12:I:79:GLU:O	15:L:104:ARG:NH1	2.25	0.69
3:3:84:LEU:HD22	3:3:86:LYS:HE3	1.75	0.69
6:A:18:C:P	12:I:127:ASN:HD21	2.14	0.69
6:A:457:C:C5	6:A:458:C:N4	2.60	0.69
56:B:191:ASP:CG	56:B:219:GLU:HB3	2.13	0.69
56:B:229:ARG:O	56:B:280:ILE:HG23	1.93	0.69
56:B:303:ALA:HB3	56:B:345:ARG:O	1.92	0.69
56:B:380:VAL:O	56:B:387:GLU:CA	2.40	0.69
56:B:410:VAL:HG12	56:B:480:GLU:H	1.58	0.69
7:D:1946:U:H5''	7:D:1947:C:OP2	1.93	0.69
7:D:2126:A:N6	7:D:2172:U:OP2	2.25	0.69
7:D:884:C:H1'	7:D:885:C:OP2	1.92	0.69
5:5:42:C:P	14:K:143:ARG:HH12	2.16	0.69
5:5:17:C:H41	7:D:2181:G:C5'	2.05	0.69
6:A:381:C:H2'	6:A:382:A:C8	2.28	0.69
56:B:105:LEU:HD22	56:B:131:ILE:CG2	2.23	0.69
56:B:217:LEU:O	56:B:259:GLY:N	2.20	0.69
56:B:45:PHE:HE2	56:B:247:PRO:O	1.74	0.69
56:B:280:ILE:HG23	56:B:281:THR:N	2.03	0.69
56:B:315:LYS:HE2	56:B:318:ASP:HB3	1.74	0.69
56:B:382:LEU:HD22	56:B:383:LYS:N	2.07	0.69
56:B:428:LEU:HD13	56:B:452:TYR:CE1	2.25	0.69
7:D:82:G:N7	7:D:102:G:N2	2.40	0.69
7:D:1588:C:H2'	7:D:1589:C:C5	2.28	0.69
7:D:2497:A:O2'	7:D:2498:C:OP2	2.10	0.69
7:D:306:U:H3	7:D:310:A:H62	1.39	0.69
7:D:485:C:C4	7:D:486:C:C4	2.81	0.69
7:D:558:G:C4	7:D:559:G:N7	2.60	0.69
13:J:53:ALA:HB3	13:J:86:ARG:HH12	1.57	0.69
19:P:102:ARG:NH2	19:P:108:ALA:O	2.25	0.69
10:G:12:LEU:HD21	21:R:57:ARG:HB2	1.74	0.69
25:V:80:PRO:O	25:V:82:THR:N	2.26	0.69
26:W:53:ASN:ND2	26:W:75:ALA:CB	2.56	0.69
26:W:69:HIS:CD2	26:W:74:PHE:CZ	2.76	0.69
29:Z:131:LEU:HD22	29:Z:136:LEU:HB3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:791:G:N2	6:A:1497:G:O3'	2.25	0.69
56:B:144:ARG:HD3	56:B:148:VAL:HG23	1.74	0.69
56:B:200:ILE:CD1	56:B:278:ASP:O	2.41	0.69
7:D:1332:G:N7	7:D:1609:A:N6	2.41	0.69
7:D:172:C:C2'	7:D:173:G:H5'	2.22	0.69
7:D:2651:C:N3	7:D:2652:C:N4	2.40	0.69
7:D:385:C:HO2'	7:D:388:G:H22	1.38	0.69
9:F:97:TRP:HZ2	9:F:102:LEU:HD13	1.57	0.69
29:Z:71:GLN:O	29:Z:156:ILE:CG2	2.35	0.69
3:3:10:LEU:CD2	3:3:57:ILE:CD1	2.70	0.69
3:3:89:HIS:O	3:3:90:LYS:CB	2.41	0.69
6:A:451:A:O2'	6:A:452:A:OP2	2.09	0.69
56:B:200:ILE:HG13	56:B:279:THR:HG23	1.70	0.69
7:D:1792:G:O2'	7:D:1830:C:OP1	2.11	0.69
7:D:270(O):U:OP1	7:D:270(P):C:N4	2.25	0.69
7:D:890:A:H3'	7:D:892:G:C5'	2.17	0.69
9:F:174:VAL:HG11	9:F:196:LEU:HD13	1.75	0.69
6:A:690:G:OP2	18:O:27:ASN:ND2	2.25	0.69
26:W:43:GLU:HA	26:W:67:VAL:HG11	1.75	0.69
20:Q:87:TYR:N	26:W:73:GLU:O	2.19	0.69
29:Z:161:ILE:O	29:Z:161:ILE:HG13	1.91	0.69
3:3:14:ALA:CB	3:3:53:VAL:H	1.86	0.69
5:5:63:G:H2'	5:5:64:A:C8	2.27	0.69
6:A:1137:C:O2'	6:A:1138:G:N2	2.26	0.69
6:A:1169:A:H2'	6:A:1170:A:C8	2.28	0.69
6:A:444:C:N4	6:A:445:G:O6	2.26	0.69
56:B:113:VAL:HG13	56:B:117:THR:OG1	1.91	0.69
56:B:18:VAL:HA	57:B:701:GCP:O2G	1.92	0.69
56:B:190:GLY:O	56:B:258:ALA:HB3	1.93	0.69
56:B:383:LYS:HA	56:B:402:ILE:HD13	1.73	0.69
56:B:406:LEU:CG	56:B:489:LEU:CD1	2.65	0.69
7:D:1350:C:N3	7:D:1382:G:N2	2.41	0.69
7:D:2020:A:O2'	7:D:2021:C:OP1	2.11	0.69
7:D:2227:A:N6	7:D:2228:G:N1	2.40	0.69
7:D:230:U:H2'	7:D:231:C:H6	1.57	0.69
7:D:609:A:H2'	7:D:609(A):G:C8	2.27	0.69
9:F:34:ALA:HB3	9:F:36:ARG:HH12	1.58	0.69
25:V:21:LYS:HZ3	25:V:23:LYS:HB3	1.56	0.69
7:D:2124:G:H2'	29:Z:217:THR:HG23	1.73	0.69
6:A:562:C:O2'	19:P:15:ARG:O	2.11	0.69
6:A:964:A:H1'	17:N:55:LYS:HZ2	1.58	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:993:G:O2'	6:A:994:A:OP1	2.11	0.69
56:B:115:ALA:HB2	56:B:474:TYR:CD1	2.27	0.69
56:B:137:LYS:H	56:B:167:SER:CB	2.05	0.69
56:B:169:LYS:CD	57:B:701:GCP:C2	2.70	0.69
7:D:1937:A:O2'	7:D:1938:A:OP1	2.09	0.69
7:D:442:G:C4	7:D:444:C:C5	2.80	0.69
26:W:40:ILE:CB	26:W:68:GLY:HA2	2.23	0.69
29:Z:66:HIS:C	29:Z:158:ALA:O	2.31	0.69
1:1:4:ARG:HA	1:1:36:GLN:HA	1.74	0.69
6:A:1014:A:H5''	6:A:1015:A:OP2	1.92	0.69
6:A:681:C:H42	6:A:709:G:H1	1.40	0.69
6:A:74:C:H2'	6:A:75:C:H6	1.56	0.69
56:B:17:HIS:CE1	56:B:116:GLU:HG3	2.28	0.69
56:B:239:VAL:HG22	56:B:240:ASP:N	2.03	0.69
56:B:25:LEU:HD23	56:B:168:GLY:HA2	1.74	0.69
56:B:352:LEU:HD22	56:B:356:ILE:CD1	2.23	0.69
56:B:8:ARG:CD	56:B:74:GLU:HA	2.23	0.69
7:D:1168:G:C2	7:D:1182:A:C2	2.81	0.69
7:D:1710:C:H2'	7:D:1711:C:C6	2.28	0.69
7:D:1821:A:N6	7:D:1822:G:O6	2.25	0.69
7:D:2208:U:H2'	7:D:2209:C:H5'	1.74	0.69
7:D:557:U:H2'	7:D:558:G:H8	1.57	0.69
7:D:99:U:H5'	7:D:101:G:H5''	1.73	0.69
17:N:34:VAL:H	17:N:74:ILE:HG23	1.57	0.69
6:A:1164:G:N7	6:A:1165:C:C4	2.61	0.68
56:B:423:SER:OG	56:B:470:VAL:HG12	1.93	0.68
56:B:497:HIS:CE1	56:B:535:VAL:HG22	2.27	0.68
56:B:497:HIS:ND1	56:B:535:VAL:HG22	2.06	0.68
7:D:1480:G:H3'	7:D:1480:G:N3	2.08	0.68
7:D:1789:A:H5''	7:D:1790:C:OP2	1.93	0.68
12:I:5:ASP:OD2	12:I:6:PHE:HB3	1.93	0.68
6:A:1152:A:H4'	17:N:13:HIS:CE1	2.27	0.68
56:B:152:VAL:HG22	56:B:156:LEU:CD2	2.23	0.68
56:B:29:ILE:HD13	56:B:177:ILE:CD1	2.23	0.68
56:B:497:HIS:ND1	56:B:535:VAL:HG13	2.07	0.68
7:D:1519:G:H3'	7:D:1520:U:C6	2.28	0.68
7:D:803:U:C2'	7:D:804:A:H5'	2.23	0.68
9:F:34:ALA:CB	9:F:36:ARG:HH12	2.07	0.68
11:H:11:LEU:HD13	11:H:66:ARG:HD3	1.74	0.68
6:A:1372:U:OP2	16:M:11:LYS:NZ	2.25	0.68
20:Q:64:TRP:HA	20:Q:64:TRP:CE3	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:230:ILE:HG23	56:B:279:THR:HA	1.75	0.68
56:B:379:LYS:HZ2	56:B:407:GLU:C	1.96	0.68
56:B:490:VAL:HB	56:B:508:ALA:CA	2.20	0.68
7:D:1326:U:H6	7:D:1326:U:OP2	1.75	0.68
7:D:1417:C:N4	7:D:1581:G:H22	1.91	0.68
7:D:154:G:C6	7:D:155:C:N3	2.61	0.68
7:D:1652:A:H62	7:D:1653:G:H21	1.40	0.68
7:D:390:A:O2'	7:D:391:G:O5'	2.12	0.68
3:3:121:GLU:HG3	3:3:123:ALA:H	1.57	0.68
6:A:1044:A:N6	6:A:1045:C:O2	2.27	0.68
6:A:493:G:N2	6:A:494:U:O4	2.26	0.68
56:B:228:ILE:C	56:B:229:ARG:HG3	2.13	0.68
7:D:1236:G:O2'	7:D:1237:A:O5'	2.11	0.68
7:D:2215:G:O2'	7:D:2216:G:OP2	2.09	0.68
7:D:2792:G:H8	7:D:2792:G:OP2	1.77	0.68
7:D:559:G:C2'	7:D:560:C:H6	2.06	0.68
14:K:24:THR:HG22	14:K:28:ASN:HD21	1.59	0.68
29:Z:123:VAL:HG13	29:Z:127:LEU:HD12	1.75	0.68
6:A:1075:C:H5''	9:F:179:LYS:HZ3	1.57	0.68
56:B:46:LEU:CD1	56:B:82:ASP:OD2	2.41	0.68
56:B:584:LEU:O	56:B:586:ALA:N	2.22	0.68
7:D:1043:C:H2'	7:D:1045:A:OP1	1.93	0.68
7:D:1743:G:N3	7:D:1746:G:H1'	2.08	0.68
7:D:150:C:H42	7:D:176:G:H1	1.40	0.68
7:D:1858:G:O2'	7:D:1859:A:O4'	2.12	0.68
5:5:17:C:H41	7:D:2181:G:H5''	1.58	0.68
5:5:17:C:N4	7:D:2181:G:H5''	2.08	0.68
7:D:2218:G:H2'	7:D:2219:G:C8	2.29	0.68
7:D:2807:G:N1	7:D:2892:A:C5	2.61	0.68
20:Q:96:LEU:HD13	20:Q:103:THR:CG2	2.17	0.68
3:3:13:PRO:CG	3:3:16:LYS:NZ	2.57	0.68
6:A:1034:G:H2'	6:A:1035:A:H8	1.58	0.68
6:A:33:A:N6	6:A:550:G:O6	2.26	0.68
6:A:475:G:H2'	6:A:476:G:C1'	2.24	0.68
6:A:883:C:H5'	6:A:884:U:OP2	1.93	0.68
6:A:90:C:O2'	6:A:91:C:H5'	1.94	0.68
56:B:412:LEU:CG	56:B:479:TYR:CA	2.52	0.68
7:D:1105:U:H1'	7:D:1106:G:OP1	1.94	0.68
7:D:1460:A:H5'	7:D:1461:G:OP2	1.94	0.68
7:D:1861:G:C2	7:D:1882:C:O2	2.46	0.68
7:D:1955:U:O2'	7:D:1956:U:OP1	2.09	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2593:U:H2'	7:D:2594:C:H6	1.58	0.68
7:D:489:G:O2'	7:D:491:G:OP1	2.08	0.68
7:D:558:G:H2'	7:D:559:G:C8	2.28	0.68
6:A:254:G:O3'	24:U:69:LYS:NZ	2.25	0.68
25:V:33:ASP:OD2	25:V:36:ASN:HB2	1.92	0.68
29:Z:63:SER:CB	29:Z:155:GLU:OE2	2.42	0.68
29:Z:68:LEU:O	29:Z:158:ALA:N	2.27	0.68
3:3:102:GLU:HA	3:3:105:LEU:HD12	1.74	0.68
6:A:1212:U:O2'	6:A:1213:A:O4'	2.11	0.68
6:A:209:U:H4'	6:A:210:U:O2	1.93	0.68
6:A:850:U:C2'	6:A:851:G:H5'	2.24	0.68
56:B:360:ARG:CA	56:B:364:GLU:OE1	2.42	0.68
56:B:555:ARG:HG3	56:B:577:GLN:CD	2.14	0.68
7:D:99:U:C5'	7:D:101:G:H5'	2.22	0.68
7:D:1743:G:H4'	7:D:1743:G:OP1	1.93	0.68
7:D:1716:U:O2	7:D:1743:G:O6	2.12	0.68
7:D:1904:G:N2	7:D:1905:C:O2	2.27	0.68
7:D:2553:G:H5''	7:D:2554:U:OP2	1.93	0.68
7:D:2580:U:H5''	7:D:2581:G:OP2	1.93	0.68
7:D:884:C:C5	7:D:885:C:N4	2.60	0.68
26:W:15:LEU:HD23	26:W:33:THR:HG21	0.73	0.68
29:Z:20:TYR:HE2	29:Z:28:LEU:HD22	1.59	0.68
3:3:6:ALA:HB1	3:3:59:ILE:CG2	2.10	0.68
6:A:1165:C:C2'	6:A:1166:G:H8	1.95	0.68
6:A:925:G:O2'	6:A:927:G:OP1	2.12	0.68
56:B:435:LEU:HD13	56:B:452:TYR:CZ	2.29	0.68
56:B:42:ARG:HD3	56:B:53:ARG:NH2	1.94	0.68
7:D:1189:A:H5''	7:D:1190:G:OP2	1.93	0.68
7:D:1239:G:N3	7:D:1240:U:H1'	2.09	0.68
7:D:2041:U:O4	7:D:2042:A:N6	2.26	0.68
7:D:2314:C:H2'	7:D:2315:G:C8	2.28	0.68
6:A:1256:A:H5''	10:G:27:LYS:HZ2	1.59	0.68
11:H:30:LYS:NZ	11:H:36:ARG:HH12	1.90	0.68
6:A:760:G:N1	24:U:104:LYS:O	2.27	0.68
6:A:1132:C:H42	6:A:1142:G:H1	1.41	0.68
6:A:1299:A:N7	6:A:1301:U:N3	2.42	0.68
6:A:851:G:C5	6:A:852:G:N7	2.61	0.68
56:B:197:LYS:HG3	56:B:280:ILE:O	1.94	0.68
56:B:316:LEU:HD12	56:B:342:PHE:CD2	2.29	0.68
56:B:414:ILE:CD1	56:B:428:LEU:HD11	2.24	0.68
56:B:405:ILE:HA	56:B:486:PRO:HB3	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:51:LEU:C	56:B:51:LEU:HD23	2.14	0.68
7:D:1095:A:OP2	7:D:1096:A:OP2	2.12	0.68
7:D:1444:G:N2	7:D:1445:C:O2	2.26	0.68
7:D:1447:G:C2'	7:D:1448:G:H5'	2.23	0.68
7:D:1446:C:H2'	7:D:1447:G:H8	1.59	0.68
7:D:1485:G:N1	7:D:1486:A:C5	2.61	0.68
7:D:2332:U:H4'	7:D:2336:A:H62	1.59	0.68
7:D:2848:G:N2	7:D:2867:G:H1'	2.06	0.68
7:D:479:A:N6	7:D:506:G:H21	1.92	0.68
7:D:532:A:H5'	7:D:533:G:OP2	1.92	0.68
11:H:127:THR:OG1	11:H:148:VAL:O	2.12	0.68
6:A:1345:U:H5'	16:M:120:ARG:HH12	1.58	0.68
26:W:29:ARG:HG2	26:W:48:THR:HG21	1.74	0.68
6:A:164:U:H2'	6:A:165:C:C6	2.29	0.68
6:A:323:U:OP1	27:X:26:ASN:ND2	2.26	0.68
56:B:9:ILE:O	56:B:10:ARG:HG3	1.94	0.68
7:D:288:C:N3	7:D:289:A:O2'	2.27	0.68
7:D:442:G:C6	7:D:444:C:N4	2.62	0.68
8:E:7:G:O2'	8:E:8:U:OP1	2.11	0.68
13:J:4:TYR:HB3	13:J:90:VAL:HG23	1.76	0.68
20:Q:71:ARG:HA	20:Q:75:ALA:HB3	1.76	0.68
29:Z:66:HIS:O	29:Z:158:ALA:CB	2.42	0.68
5:5:4:C:H42	5:5:69:G:H1	1.41	0.67
6:A:92:G:C6	6:A:93:U:N3	2.62	0.67
56:B:104:LEU:CD2	56:B:181:ILE:HD11	2.15	0.67
56:B:191:ASP:CB	56:B:219:GLU:CB	2.33	0.67
56:B:376:VAL:HG12	56:B:377:VAL:N	2.05	0.67
56:B:428:LEU:HD12	56:B:452:TYR:CE1	2.28	0.67
56:B:300:VAL:CG1	56:B:477:MET:CE	2.71	0.67
56:B:497:HIS:CG	56:B:535:VAL:HG13	2.28	0.67
56:B:489:LEU:HA	56:B:509:HIS:CB	2.24	0.67
7:D:1087:G:H5''	7:D:1088:A:OP2	1.94	0.67
7:D:1031:G:N2	7:D:1124:C:O2	2.27	0.67
7:D:1591:G:O2'	7:D:1592:C:H5'	1.93	0.67
7:D:190:A:O2'	7:D:191:A:O5'	2.11	0.67
7:D:680:G:C4	7:D:798:G:N2	2.62	0.67
7:D:747:U:O2'	7:D:748:G:OP1	2.10	0.67
17:N:51:ARG:HH21	17:N:61:GLU:HB2	1.59	0.67
26:W:36:ARG:CB	26:W:71:LEU:CB	2.72	0.67
56:B:174:VAL:HG11	56:B:177:ILE:HD11	1.75	0.67
56:B:219:GLU:HA	56:B:258:ALA:HB2	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:214:TYR:HB2	56:B:245:PHE:CZ	2.29	0.67
56:B:428:LEU:HD13	56:B:452:TYR:CG	2.29	0.67
56:B:533:PHE:CZ	56:B:588:GLY:C	2.65	0.67
56:B:532:LEU:HD22	56:B:555:ARG:H	1.59	0.67
56:B:58:THR:OG1	56:B:84:PRO:HG2	1.93	0.67
56:B:66:VAL:CG2	56:B:76:TYR:HE1	2.05	0.67
7:D:1143:A:H2'	7:D:1144:G:C8	2.29	0.67
7:D:2115:G:H2'	7:D:2117:A:N7	2.08	0.67
7:D:2211:G:N3	7:D:2211:G:H3'	2.08	0.67
7:D:2305:A:H2'	7:D:2306:C:H5'	1.75	0.67
7:D:2490:G:H21	7:D:2491:U:H3	1.41	0.67
7:D:267:C:OP2	7:D:271(A):C:N4	2.27	0.67
7:D:926:A:O2'	7:D:928:G:OP1	2.11	0.67
5:5:5:G:H1	5:5:68:C:H42	1.42	0.67
6:A:1452:C:H5''	6:A:1453:G:OP1	1.95	0.67
6:A:479:C:H6	6:A:479:C:O5'	1.78	0.67
6:A:501:C:OP1	19:P:117:ARG:NH2	2.27	0.67
56:B:142:ASN:HD21	56:B:144:ARG:CZ	2.06	0.67
56:B:379:LYS:CA	56:B:406:LEU:CB	2.71	0.67
56:B:421:VAL:HG12	56:B:425:MET:HG3	1.76	0.67
7:D:295:G:H1'	7:D:344:G:H21	1.58	0.67
9:F:118:LEU:HD22	9:F:142:LEU:HB2	1.77	0.67
11:H:128:VAL:HG21	11:H:133:VAL:HB	1.76	0.67
6:A:1376:U:O4	14:K:10:ARG:NH1	2.26	0.67
15:L:11:THR:HG22	15:L:14:ARG:HH12	1.58	0.67
18:O:21:ILE:HD11	18:O:84:VAL:HG12	1.77	0.67
6:A:754:C:O5'	22:S:72:ARG:NH1	2.25	0.67
26:W:30:LEU:HD13	26:W:31:ILE:N	2.04	0.67
29:Z:155:GLU:O	29:Z:159:GLY:N	2.27	0.67
29:Z:156:ILE:CA	29:Z:160:ARG:HB2	2.24	0.67
3:3:77:LEU:O	3:3:111:LYS:CD	2.37	0.67
5:5:14:A:H62	5:5:15:G:H21	1.42	0.67
6:A:1015:A:N3	6:A:1218:C:O2'	2.27	0.67
56:B:137:LYS:HG3	57:B:701:GCP:C4	2.12	0.67
56:B:305:LEU:CD2	56:B:358:GLN:HG3	2.25	0.67
7:D:1705:G:H5'	7:D:1706:U:OP2	1.95	0.67
7:D:270(U):C:H2'	7:D:270(V):G:C8	2.29	0.67
7:D:279:C:O2'	7:D:280:C:O5'	2.12	0.67
9:F:15:VAL:HG23	9:F:16:HIS:H	1.59	0.67
12:I:145:LYS:HA	12:I:148:VAL:HB	1.77	0.67
6:A:932:C:H5''	14:K:3:ARG:HG2	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:L:41:ARG:HG2	15:L:42:GLU:OE2	1.94	0.67
16:M:22:GLY:N	16:M:58:HIS:O	2.26	0.67
22:S:35:ARG:NH1	22:S:59:MET:SD	2.67	0.67
29:Z:43:VAL:CG2	29:Z:175:VAL:HG13	2.24	0.67
6:A:1236:A:H4'	6:A:1304:G:H4'	1.75	0.67
6:A:1448:C:O5'	6:A:1448:C:H6	1.78	0.67
6:A:372:C:H42	6:A:389:A:H62	1.40	0.67
6:A:452:A:O2'	23:T:72:ARG:NH1	2.27	0.67
6:A:458:C:H5''	6:A:465:A:C6	2.29	0.67
6:A:850:U:H2'	6:A:851:G:H5'	1.75	0.67
56:B:17:HIS:HB2	56:B:20:HIS:CD2	2.29	0.67
19:P:80:HIS:HD2	56:B:316:LEU:HG	1.46	0.67
56:B:378:TYR:CD2	56:B:489:LEU:HD13	2.27	0.67
7:D:2307:G:H5''	7:D:2308:G:C8	2.29	0.67
7:D:2808:U:H3	7:D:2891:G:H2'	1.59	0.67
6:A:1227:A:P	20:Q:94:ARG:NH2	2.68	0.67
6:A:808:C:P	22:S:48:LYS:NZ	2.67	0.67
5:5:28:G:N2	5:5:43:C:N3	2.42	0.67
6:A:1112:C:O2	10:G:178:LEU:N	2.25	0.67
6:A:218:C:H2'	6:A:219:C:C5	2.29	0.67
6:A:477:G:N3	6:A:478:A:C8	2.61	0.67
6:A:606:G:H22	6:A:631:G:H2'	1.59	0.67
56:B:118:LEU:HD13	56:B:446:LYS:HZ3	1.56	0.67
56:B:118:LEU:HD21	56:B:446:LYS:NZ	2.10	0.67
56:B:79:HIS:CG	56:B:261:VAL:HG21	2.29	0.67
7:D:1651:G:H2'	7:D:1652:A:C8	2.29	0.67
7:D:1749:A:C2'	7:D:1750:G:H8	1.88	0.67
7:D:2626:C:H2'	7:D:2627:G:C8	2.30	0.67
7:D:2642:G:H1	7:D:2772:C:H42	1.42	0.67
7:D:852:G:C6	7:D:926:A:C6	2.82	0.67
7:D:917:A:H2'	7:D:918:A:C8	2.30	0.67
11:H:141:ARG:HD2	11:H:142:PRO:HD2	1.76	0.67
20:Q:23:TYR:CD1	20:Q:70:LEU:CD2	2.74	0.67
29:Z:114:VAL:HG12	29:Z:144:THR:HG22	1.77	0.67
3:3:103:GLN:HA	3:3:106:GLU:CD	2.13	0.67
6:A:1449:C:C4	6:A:1455:G:N1	2.62	0.67
56:B:221:ARG:HB3	56:B:256:LEU:O	1.92	0.67
56:B:233:THR:OG1	56:B:235:LYS:HD3	1.94	0.67
56:B:558:VAL:HG23	56:B:577:GLN:HE22	1.58	0.67
4:4:74:C:C6	56:B:569:ARG:NH2	2.59	0.67
7:D:1864:U:H6	7:D:1864:U:O5'	1.78	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1869:G:N1	7:D:1878:G:C6	2.61	0.67
7:D:301:G:O2'	7:D:302:C:O4'	2.10	0.67
9:F:22:LYS:HA	9:F:40:HIS:HE1	1.58	0.67
26:W:41:VAL:HB	26:W:42:PRO:CD	2.24	0.67
26:W:70:LYS:N	26:W:73:GLU:OE2	2.28	0.67
6:A:575:G:O2'	6:A:576:G:O5'	2.12	0.67
6:A:668:G:H1'	22:S:46:HIS:NE2	2.08	0.67
56:B:281:THR:HB	56:B:286:PRO:HB2	1.75	0.67
56:B:537:ILE:CA	56:B:549:ALA:O	2.43	0.67
56:B:69:ARG:HH21	56:B:178:LEU:CD1	2.08	0.67
7:D:1742:C:C4	7:D:1743:G:N7	2.63	0.67
7:D:1870:C:O5'	7:D:1870:C:H6	1.78	0.67
7:D:2185:C:H2'	7:D:2186:G:H8	1.60	0.67
7:D:2602:A:C5	56:B:562:CYS:HA	2.30	0.67
7:D:475:U:H5''	7:D:476:G:OP2	1.95	0.67
7:D:84:A:C6	7:D:99:U:H1'	2.30	0.67
6:A:1359:C:O5'	21:R:35:ARG:NH2	2.26	0.67
6:A:1309:G:C2	6:A:1329:A:C8	2.76	0.67
6:A:782:A:H62	6:A:800:G:H21	1.42	0.67
6:A:818:G:O2'	6:A:819:A:OP1	2.12	0.67
6:A:993:G:O6	6:A:1045:C:N4	2.28	0.67
56:B:231:TYR:CE2	56:B:290:PRO:HB3	2.30	0.67
56:B:306:TYR:CZ	56:B:339:ALA:O	2.48	0.67
56:B:378:TYR:CG	56:B:406:LEU:CD1	2.77	0.67
56:B:420:TYR:O	56:B:424:LEU:HD12	1.95	0.67
7:D:1059:G:O6	7:D:1081:U:C2	2.47	0.67
7:D:1417:C:H42	7:D:1581:G:H22	1.42	0.67
7:D:1749:A:C2'	7:D:1750:G:H5'	2.23	0.67
7:D:2105:C:O2'	7:D:2106:G:H5'	1.95	0.67
7:D:38:A:O2'	7:D:39:C:H5'	1.95	0.67
7:D:44:A:O2'	7:D:45:G:H5'	1.95	0.67
7:D:489:G:C5	7:D:1284:A:C2	2.54	0.67
9:F:208:ILE:HA	9:F:211:ILE:HD12	1.77	0.67
29:Z:61:THR:HB	29:Z:162:GLU:CG	2.20	0.67
3:3:10:LEU:CD1	3:3:57:ILE:HD13	2.11	0.67
6:A:1268:A:N7	6:A:1269:A:N6	2.43	0.67
6:A:1308:U:OP2	20:Q:97:PRO:HG3	1.95	0.67
6:A:1447:G:C5	6:A:1448:C:C4	2.82	0.67
56:B:78:PHE:CZ	56:B:182:VAL:HG23	2.24	0.67
56:B:200:ILE:HD12	56:B:278:ASP:O	1.95	0.67
56:B:327:ASP:O	56:B:329:ALA:N	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:388:VAL:HG12	56:B:390:VAL:H	1.58	0.67
56:B:415:PHE:O	56:B:475:ALA:CB	2.43	0.67
56:B:81:ILE:O	56:B:83:THR:N	2.27	0.67
7:D:1726:G:O6	7:D:1734:C:N3	2.28	0.67
7:D:725:G:O6	7:D:726:G:N2	2.28	0.67
7:D:90:U:O2'	7:D:91:A:H8	1.78	0.67
7:D:99:U:C4'	7:D:101:G:H5'	2.24	0.67
6:A:1015:A:OP1	26:W:18:LYS:HD3	1.94	0.67
3:3:10:LEU:CD2	3:3:57:ILE:HD11	2.25	0.66
6:A:1171:G:O2'	6:A:1172:C:H5'	1.95	0.66
6:A:456:C:N3	6:A:477:G:N1	2.44	0.66
6:A:478:A:H2'	6:A:479:C:C5	2.30	0.66
6:A:836:G:C5	6:A:851:G:C2	2.83	0.66
6:A:959:A:HO2'	6:A:984:C:HO2'	1.43	0.66
7:D:1364:G:OP2	7:D:1364:G:H8	1.75	0.66
7:D:1859:A:N1	7:D:1884:A:O2'	2.27	0.66
7:D:1956:U:O4	7:D:1957:C:N4	2.29	0.66
7:D:864:G:N2	7:D:865:C:O2	2.28	0.66
9:F:35:GLU:OE2	9:F:38:GLY:N	2.28	0.66
10:G:20:SER:OG	10:G:22:TRP:NE1	2.28	0.66
20:Q:74:VAL:O	20:Q:78:ILE:HG13	1.94	0.66
6:A:1327:C:H5'	28:Y:21:TYR:HE1	1.58	0.66
29:Z:38:ASP:CG	29:Z:178:ALA:HB3	2.13	0.66
5:5:51:U:O2	5:5:63:G:N2	2.23	0.66
6:A:47:C:O4'	6:A:365:U:N3	2.29	0.66
6:A:659:U:OP1	22:S:9:GLN:NE2	2.29	0.66
19:P:80:HIS:CB	56:B:342:PHE:CZ	2.58	0.66
56:B:417:PRO:HB3	56:B:447:ARG:N	2.09	0.66
56:B:558:VAL:HG12	56:B:573:LEU:HB3	1.78	0.66
56:B:23:SER:N	57:B:701:GCP:O2A	2.26	0.66
7:D:1168:G:H1	7:D:1181:C:H42	1.43	0.66
7:D:2194:G:N1	7:D:2195:C:C4	2.63	0.66
7:D:873:G:O6	7:D:904:C:N4	2.28	0.66
7:D:878:A:O2'	7:D:899:A:N1	2.27	0.66
6:A:401:C:OP2	11:H:73:ARG:NH2	2.29	0.66
15:L:122:ARG:HA	15:L:125:ARG:HH11	1.56	0.66
6:A:553:A:O2'	19:P:29:GLY:O	2.12	0.66
6:A:279:A:OP2	24:U:95:TYR:OH	2.12	0.66
26:W:34:TRP:HA	26:W:36:ARG:NE	2.09	0.66
6:A:216:G:C2'	6:A:217:C:C6	2.74	0.66
6:A:217:C:O2'	6:A:218:C:H5'	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:456:C:C4	6:A:477:G:N1	2.63	0.66
6:A:80:G:N2	6:A:89:U:O2	2.29	0.66
6:A:939:G:H5''	14:K:102:ARG:NH1	2.09	0.66
56:B:104:LEU:HD21	56:B:181:ILE:HD13	1.74	0.66
56:B:242:VAL:CB	56:B:256:LEU:HD21	2.21	0.66
56:B:9:ILE:HG23	56:B:77:VAL:CA	2.24	0.66
7:D:152:G:H2'	7:D:153:C:H5'	1.75	0.66
7:D:607:U:H5'	7:D:608:A:OP2	1.95	0.66
7:D:687:C:N4	7:D:774:A:H61	1.93	0.66
6:A:1240:U:OP2	14:K:116:ALA:N	2.28	0.66
20:Q:64:TRP:HA	20:Q:64:TRP:HE3	1.60	0.66
6:A:478:A:H2'	6:A:479:C:C6	2.30	0.66
56:B:191:ASP:HB2	56:B:218:PHE:O	1.96	0.66
56:B:379:LYS:CD	56:B:406:LEU:HA	2.25	0.66
56:B:502:ASP:OD2	56:B:504:LEU:HD12	1.96	0.66
7:D:1080:C:H2'	7:D:1081:U:C6	2.30	0.66
7:D:2139:C:H2'	7:D:2140:C:O4'	1.94	0.66
7:D:602:G:HO2'	7:D:603:A:P	2.14	0.66
9:F:47:THR:O	9:F:51:LEU:HG	1.95	0.66
11:H:3:ARG:HG3	11:H:118:ARG:NH1	2.11	0.66
29:Z:155:GLU:HB2	29:Z:160:ARG:HA	1.78	0.66
6:A:198:G:H21	6:A:199:G:H1'	1.58	0.66
6:A:454:C:H5''	6:A:455:C:H5	1.56	0.66
6:A:485:G:H4'	6:A:485:G:OP2	1.89	0.66
6:A:505:G:H5'	6:A:534:U:H2'	1.76	0.66
6:A:615:C:H2'	6:A:616:G:C8	2.31	0.66
56:B:227:ARG:H	56:B:227:ARG:HD3	1.60	0.66
56:B:308:VAL:CG2	56:B:370:ILE:HG12	2.25	0.66
56:B:435:LEU:CD1	56:B:452:TYR:CE1	2.79	0.66
3:3:88:ALA:O	7:D:1064:C:O2'	2.12	0.66
3:3:11:GLN:O	7:D:1070:A:N6	2.28	0.66
7:D:1492:G:N3	7:D:1493:C:N4	2.43	0.66
7:D:2168:G:O2'	7:D:2169:A:N7	2.24	0.66
7:D:246:C:N4	7:D:247:G:O6	2.29	0.66
7:D:35:G:O6	7:D:446:G:N2	2.29	0.66
7:D:89:G:C4	7:D:90:U:H5	2.13	0.66
3:3:56:GLU:OE1	3:3:70:LYS:CG	2.44	0.66
6:A:590:C:H2'	6:A:591:U:H6	1.61	0.66
56:B:240:ASP:CG	56:B:266:ALA:HB1	2.16	0.66
56:B:64:VAL:HG21	56:B:80:LEU:CA	2.26	0.66
56:B:80:LEU:HD22	56:B:82:ASP:OD1	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:107:C:H4'	7:D:293:U:H1'	1.78	0.66
7:D:1593:G:H2'	7:D:1594:G:C8	2.27	0.66
7:D:571:A:N6	7:D:575:A:C5	2.64	0.66
7:D:668:G:H2'	7:D:670:A:H62	1.60	0.66
6:A:1447:G:N1	6:A:1460:A:C6	2.63	0.66
6:A:1512:U:H2'	6:A:1513:A:C8	2.30	0.66
6:A:195:A:H4'	27:X:68:LYS:NZ	2.10	0.66
6:A:372:C:H1'	6:A:373:A:OP2	1.95	0.66
6:A:714:G:H2'	6:A:715:A:H8	1.60	0.66
56:B:151:GLU:O	56:B:155:VAL:CA	2.44	0.66
56:B:281:THR:CG2	56:B:287:THR:CG2	2.73	0.66
56:B:306:TYR:CE1	56:B:339:ALA:HB3	2.31	0.66
56:B:327:ASP:HB3	56:B:353:HIS:NE2	2.10	0.66
56:B:409:TYR:OH	56:B:432:ARG:CD	2.43	0.66
7:D:1063:G:N1	7:D:1064:C:N4	2.41	0.66
7:D:1869:G:N2	7:D:1878:G:C5	2.63	0.66
7:D:2154:G:H2'	7:D:2155:G:H8	1.61	0.66
7:D:2197:U:O5'	7:D:2197:U:H6	1.79	0.66
7:D:2301:C:H42	7:D:2315:G:H1	1.42	0.66
7:D:2793:G:N2	7:D:2803:C:C4	2.64	0.66
7:D:298:G:N2	7:D:340:A:OP2	2.26	0.66
6:A:261:U:C5	27:X:79:ARG:NH1	2.64	0.66
6:A:69:G:O6	6:A:101:A:N1	2.29	0.66
6:A:219:C:O5'	6:A:219:C:H6	1.78	0.66
6:A:8:A:H2'	6:A:8:A:OP2	1.96	0.66
56:B:12:PHE:CB	56:B:102:GLY:O	2.44	0.66
56:B:506:PHE:HZ	56:B:520:ILE:CG2	2.07	0.66
7:D:1180:C:H2'	7:D:1181:C:C6	2.31	0.66
7:D:1579:A:N7	7:D:1580:A:N3	2.44	0.66
7:D:2194:G:N1	7:D:2195:C:N4	2.44	0.66
7:D:2893:G:O2'	7:D:2895:U:OP2	2.14	0.66
10:G:130:VAL:HG11	10:G:157:ILE:HD12	1.78	0.66
6:A:1227:A:OP2	20:Q:111:LYS:NZ	2.29	0.66
29:Z:38:ASP:CA	29:Z:177:LYS:CE	2.66	0.66
6:A:1235:U:H2'	6:A:1236:A:H8	1.61	0.66
6:A:1320:C:O2	20:Q:87:TYR:CD2	2.49	0.66
6:A:1449:C:C2	6:A:1455:G:C2	2.84	0.66
6:A:152:A:N6	6:A:169:C:N3	2.43	0.66
6:A:457:C:N3	6:A:476:G:N1	2.43	0.66
56:B:324:LYS:C	56:B:325:LEU:HG	2.16	0.66
7:D:1047:G:O6	7:D:1110:G:C6	2.48	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1448:G:O3'	7:D:1543:A:N6	2.28	0.66
7:D:1571:A:N3	7:D:1571:A:H2'	2.11	0.66
7:D:1706:U:H5	7:D:1757:U:OP2	1.79	0.66
7:D:2887:U:H2'	7:D:2888:C:H5'	1.76	0.66
7:D:40:C:H2'	7:D:41:C:C6	2.31	0.66
7:D:650:C:OP1	7:D:650:C:H4'	1.96	0.66
19:P:28:LYS:HD2	19:P:33:ARG:HH22	1.60	0.66
26:W:5:LEU:HG	26:W:6:LYS:H	1.61	0.66
29:Z:65:PRO:HG2	29:Z:154:ARG:NH1	2.11	0.66
4:4:7:G:OP1	4:4:16:C:N4	2.28	0.66
6:A:1447:G:H2'	6:A:1448:C:C6	2.31	0.66
6:A:196:A:O2'	6:A:197:A:OP1	2.11	0.66
6:A:793:U:H4'	6:A:794:A:OP2	1.95	0.66
6:A:851:G:C4	6:A:852:G:C8	2.84	0.66
6:A:872:A:O2'	6:A:873:A:O5'	2.14	0.66
56:B:118:LEU:CD1	56:B:446:LYS:HE3	2.24	0.66
56:B:99:ALA:O	56:B:216:ARG:CD	2.43	0.66
3:3:25:PRO:HG2	7:D:1095:A:C2	2.30	0.66
7:D:1489:U:O2'	7:D:1490:A:OP1	2.14	0.66
7:D:1480:G:P	7:D:1559:G:C6	2.89	0.66
7:D:49:A:N6	7:D:176:G:N7	2.44	0.66
7:D:2175:C:O2	29:Z:215:THR:OG1	2.13	0.66
7:D:2519:U:O2'	7:D:2520:C:O5'	2.14	0.66
7:D:40:C:O5'	7:D:40:C:H6	1.79	0.66
7:D:926:A:H2'	7:D:928:G:C8	2.31	0.66
9:F:87:ARG:NH2	9:F:220:ASP:OD1	2.26	0.66
17:N:13:HIS:ND1	17:N:17:ASP:OD2	2.28	0.66
29:Z:43:VAL:HG23	29:Z:175:VAL:CG1	2.26	0.66
6:A:1442:G:H5''	6:A:1442:G:N3	2.11	0.65
56:B:11:ASN:OD1	56:B:79:HIS:CG	2.48	0.65
56:B:137:LYS:CA	57:B:701:GCP:O6	2.44	0.65
56:B:231:TYR:H	56:B:280:ILE:HG21	1.60	0.65
56:B:242:VAL:HA	56:B:264:LEU:HD12	1.78	0.65
7:D:1475:G:H21	7:D:1476:C:H5''	1.60	0.65
7:D:1424:G:N1	7:D:1574:C:O2	2.29	0.65
7:D:43:G:C8	7:D:44:A:N7	2.64	0.65
7:D:558:G:H8	7:D:558:G:O5'	1.79	0.65
6:A:619:U:H4'	11:H:131:ARG:NH2	2.11	0.65
26:W:15:LEU:HD22	26:W:15:LEU:O	1.94	0.65
6:A:1320:C:C4	26:W:36:ARG:HD2	2.31	0.65
3:3:19:PRO:O	3:3:22:PRO:HD2	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:5:68:C:H2'	5:5:69:G:C8	2.30	0.65
6:A:266:G:O2'	6:A:267:C:O5'	2.14	0.65
6:A:445:G:O2'	6:A:446:G:H5'	1.96	0.65
56:B:221:ARG:HG2	56:B:257:GLU:CA	2.26	0.65
56:B:322:LYS:HG2	56:B:331:THR:CG2	2.11	0.65
56:B:455:PRO:HG2	56:B:458:GLU:CG	2.26	0.65
56:B:489:LEU:HD22	56:B:507:ILE:CG2	2.25	0.65
7:D:455:C:O2'	7:D:456:C:OP1	2.08	0.65
7:D:536:A:C2	7:D:558:G:C2	2.84	0.65
7:D:940:G:H2'	7:D:941:A:O4'	1.96	0.65
22:S:10:LYS:O	22:S:14:GLU:HG3	1.96	0.65
26:W:32:LYS:HD2	26:W:32:LYS:H	1.61	0.65
3:3:10:LEU:CG	3:3:57:ILE:HG13	2.18	0.65
4:4:71:C:H2'	4:4:72:A:H8	1.61	0.65
56:B:121:PHE:HZ	56:B:157:GLY:HA3	0.89	0.65
56:B:327:ASP:HB3	56:B:353:HIS:CE1	2.32	0.65
56:B:88:ASP:OD2	56:B:352:LEU:HB2	1.96	0.65
56:B:382:LEU:HB3	56:B:386:GLU:HB2	1.78	0.65
56:B:521:VAL:O	56:B:523:LYS:N	2.29	0.65
7:D:2791:C:C5	7:D:2892:A:N7	2.65	0.65
7:D:535:C:N3	7:D:559:G:N1	2.45	0.65
7:D:774:A:H1'	7:D:775:G:C8	2.31	0.65
7:D:932:G:OP1	7:D:932:G:H4'	1.93	0.65
9:F:21:ARG:O	9:F:40:HIS:ND1	2.29	0.65
29:Z:152:ILE:HG22	29:Z:160:ARG:NH1	2.12	0.65
6:A:1101:A:N6	9:F:176:GLU:OE1	2.28	0.65
56:B:200:ILE:CG2	56:B:213:PRO:HB2	2.27	0.65
56:B:322:LYS:CD	56:B:323:LEU:H	1.93	0.65
56:B:332:PHE:CD1	56:B:333:GLU:HB2	2.31	0.65
56:B:68:TYR:HD2	56:B:75:GLU:HG3	1.53	0.65
3:3:126:MET:HG3	7:D:1059:G:C4	2.30	0.65
7:D:1860:G:H2'	7:D:1861:G:C8	2.32	0.65
7:D:1862:G:C2	7:D:1863:G:C5	2.84	0.65
7:D:704:G:H2'	7:D:726:G:H22	1.60	0.65
15:L:11:THR:O	15:L:15:ASN:ND2	2.29	0.65
12:I:151:LEU:HD21	15:L:67:PRO:HD3	1.79	0.65
24:U:60:ILE:HD11	24:U:72:ARG:HB2	1.77	0.65
3:3:66:THR:O	3:3:67:PHE:HB2	1.96	0.65
56:B:65:ARG:HG2	56:B:245:PHE:C	2.17	0.65
56:B:531:GLN:OE1	56:B:584:LEU:HD13	1.97	0.65
7:D:1342:A:OP2	7:D:1342:A:H8	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1641:A:H5'	7:D:1642:G:OP2	1.95	0.65
7:D:1651:G:H2'	7:D:1652:A:H8	1.62	0.65
7:D:1457:A:N6	7:D:2703:C:N4	2.43	0.65
14:K:37:ASN:OD1	14:K:38:LEU:N	2.28	0.65
20:Q:96:LEU:HD22	20:Q:101:GLN:CG	2.26	0.65
29:Z:40:THR:O	29:Z:216:THR:HA	1.97	0.65
6:A:75:C:C4	6:A:96:G:N1	2.65	0.65
56:B:177:ILE:HG23	56:B:181:ILE:CD1	2.11	0.65
56:B:43:GLU:CA	56:B:53:ARG:HH22	2.10	0.65
7:D:1061:U:O4'	7:D:1070:A:H4'	1.96	0.65
7:D:10:G:H2'	7:D:11:G:C8	2.32	0.65
7:D:2711:A:H5''	7:D:2712:U:H5'	1.79	0.65
7:D:2715:C:H2'	7:D:2716:U:C6	2.31	0.65
7:D:2808:U:C4	7:D:2891:G:C4	2.85	0.65
9:F:238:LEU:HD23	9:F:239:VAL:HG23	1.78	0.65
10:G:21:ARG:HD2	10:G:58:GLU:OE2	1.96	0.65
6:A:538:G:OP2	19:P:113:ARG:NH1	2.30	0.65
26:W:11:VAL:CG1	26:W:40:ILE:CA	2.68	0.65
26:W:15:LEU:C	26:W:15:LEU:HD13	2.17	0.65
27:X:59:ALA:HB1	27:X:84:LEU:HD21	1.79	0.65
56:B:488:ASP:O	56:B:509:HIS:HA	1.97	0.65
56:B:530:ARG:O	56:B:532:LEU:N	2.30	0.65
7:D:1062:G:H1'	7:D:1063:G:O5'	1.97	0.65
7:D:2184:G:C6	7:D:2185:C:C4	2.84	0.65
7:D:556:G:H2'	7:D:557:U:C6	2.30	0.65
7:D:855:G:H2'	7:D:856:C:H6	1.62	0.65
7:D:858:U:O2	7:D:920:G:N2	2.29	0.65
16:M:51:ARG:HH12	16:M:56:LEU:HD12	1.60	0.65
6:A:1095:U:OP1	6:A:1108:G:N1	2.27	0.65
6:A:62:U:O2'	6:A:379:C:O2	2.14	0.65
6:A:547:A:O2'	6:A:548:G:O5'	2.15	0.65
56:B:225:GLY:HA2	56:B:238:THR:O	1.96	0.65
56:B:237:PHE:O	56:B:267:ALA:CB	2.45	0.65
19:P:80:HIS:HB2	56:B:342:PHE:CE1	2.31	0.65
56:B:520:ILE:HD13	56:B:520:ILE:C	2.17	0.65
56:B:492:VAL:CA	56:B:541:ILE:CG1	2.74	0.65
56:B:74:GLU:H	56:B:74:GLU:CD	1.99	0.65
7:D:1250:G:H4'	7:D:1251:C:OP2	1.95	0.65
7:D:1952:A:N6	7:D:1953:A:N1	2.45	0.65
7:D:407:G:N2	7:D:421:U:O2	2.29	0.65
7:D:741:G:N1	7:D:757:U:O2	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:922:U:H2'	7:D:923:C:C6	2.32	0.65
9:F:17:PHE:HB3	9:F:44:LEU:HD21	1.78	0.65
15:L:45:ILE:HD13	15:L:61:VAL:HG13	1.77	0.65
6:A:101:A:H2'	6:A:102:G:H5'	1.77	0.65
6:A:1454:G:C6	6:A:1455:G:N7	2.64	0.65
6:A:1463:C:H2'	6:A:1464:G:H8	1.61	0.65
6:A:29:G:H1	6:A:554:C:H42	1.45	0.65
6:A:373:A:H61	6:A:391:G:H1'	1.60	0.65
6:A:37:U:H3	6:A:397:A:H61	1.44	0.65
6:A:443:C:C4	6:A:492:G:N1	2.65	0.65
6:A:817:C:H1'	6:A:819:A:H5'	1.77	0.65
56:B:188:PRO:C	56:B:189:LYS:HG3	2.17	0.65
56:B:240:ASP:OD2	56:B:266:ALA:HB2	1.95	0.65
56:B:386:GLU:OE1	56:B:401:ARG:CG	2.45	0.65
56:B:531:GLN:OE1	56:B:532:LEU:HG	1.97	0.65
7:D:1152:C:H2'	7:D:1153:C:C6	2.32	0.65
7:D:1157:G:OP2	7:D:1158:C:OP2	2.15	0.65
7:D:1968:G:O2'	7:D:1969:A:O4'	2.14	0.65
7:D:283:A:H3'	7:D:284:U:C6	2.31	0.65
7:D:366:C:H2'	7:D:370:G:H5''	1.79	0.65
7:D:519:U:H2'	7:D:520:G:H8	1.61	0.65
7:D:680:G:C2	7:D:681:G:C4	2.85	0.65
12:I:15:ARG:HD2	12:I:26:PHE:CE1	2.32	0.65
15:L:119:LEU:HD21	15:L:127:LEU:HD13	1.79	0.65
3:3:128:ALA:O	7:D:1079:C:O2'	2.11	0.65
3:3:36:GLU:HA	3:3:38:VAL:HG23	1.79	0.65
6:A:1130:A:N6	6:A:1131:G:O6	2.29	0.65
6:A:713:G:H2'	6:A:714:G:C8	2.32	0.65
56:B:306:TYR:OH	56:B:339:ALA:C	2.35	0.65
56:B:410:VAL:CG1	56:B:480:GLU:N	2.53	0.65
7:D:1045:A:O3'	7:D:1046:A:H4'	1.97	0.65
7:D:1084:A:O2'	7:D:1106:G:C8	2.47	0.65
7:D:1314:C:N4	7:D:1315:C:N3	2.44	0.65
7:D:1448:G:H1	7:D:1463:C:H42	1.45	0.65
7:D:1664:A:P	7:D:1664:A:C8	2.90	0.65
7:D:1869:G:H2'	7:D:1871:A:N7	2.12	0.65
7:D:2099:U:H2'	7:D:2100:G:C8	2.32	0.65
7:D:609(A):G:N1	7:D:618(A):C:N3	2.41	0.65
7:D:880:G:H2'	7:D:881:G:H4'	1.78	0.65
8:E:56:G:O2'	8:E:57:A:OP2	2.14	0.65
10:G:191:THR:OG1	10:G:194:GLY:O	2.15	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:185:PHE:HZ	11:H:188:LEU:HA	1.60	0.65
23:T:8:ARG:HD3	23:T:17:TYR:HE1	1.60	0.65
25:V:22:VAL:N	25:V:55:ARG:HH12	1.94	0.65
29:Z:177:LYS:N	29:Z:180:PHE:HD2	1.95	0.65
6:A:1178:G:H22	6:A:1181:G:H5'	1.62	0.64
6:A:209:U:H4'	6:A:210:U:O5'	1.97	0.64
6:A:96:G:C6	6:A:97:U:N3	2.65	0.64
56:B:34:HIS:CE1	56:B:67:THR:HG22	2.32	0.64
7:D:1241:A:C4	7:D:1241:A:OP2	2.50	0.64
7:D:1450:C:H2'	7:D:1451:C:O4'	1.97	0.64
7:D:1742:C:N4	7:D:1743:G:N7	2.44	0.64
7:D:49:A:C6	7:D:177:G:C5	2.85	0.64
7:D:270(D):C:H2'	7:D:270(E):G:H8	1.62	0.64
7:D:279:C:N4	7:D:361:G:O6	2.30	0.64
7:D:2629:A:H5'	7:D:2895:U:O2	1.96	0.64
24:U:5:VAL:HG22	24:U:60:ILE:HG22	1.79	0.64
6:A:1320:C:C5	26:W:36:ARG:CG	2.69	0.64
56:B:242:VAL:CG1	56:B:256:LEU:CD1	2.75	0.64
56:B:360:ARG:CB	56:B:364:GLU:OE1	2.44	0.64
7:D:1676:A:N6	7:D:1677:A:N1	2.44	0.64
7:D:2302:G:H2'	7:D:2303:G:H8	1.62	0.64
7:D:2500:U:O2'	7:D:2504:U:OP1	2.13	0.64
7:D:370:G:N3	7:D:370:G:H2'	2.10	0.64
11:H:39:PRO:O	11:H:44:GLY:HA3	1.98	0.64
20:Q:102:ARG:O	20:Q:103:THR:OG1	2.15	0.64
22:S:76:GLU:HA	22:S:79:ARG:NH2	2.11	0.64
26:W:40:ILE:HG22	26:W:67:VAL:CG2	2.07	0.64
26:W:5:LEU:HD12	26:W:6:LYS:CB	2.28	0.64
29:Z:149:ILE:O	29:Z:153:ILE:HG13	1.96	0.64
29:Z:38:ASP:HB3	29:Z:177:LYS:HD2	0.95	0.64
5:5:68:C:H2'	5:5:69:G:H8	1.61	0.64
6:A:1507:A:H2'	6:A:1508:G:H8	1.63	0.64
6:A:776:G:N2	6:A:802:A:OP2	2.30	0.64
6:A:75:C:C2	6:A:96:G:N2	2.64	0.64
56:B:209:GLN:HE22	56:B:265:VAL:CG1	2.10	0.64
56:B:379:LYS:H	56:B:406:LEU:HB2	0.82	0.64
7:D:1288:U:O2'	7:D:1647:G:N2	2.30	0.64
7:D:1449:A:O5'	7:D:1449:A:H8	1.81	0.64
7:D:1800:C:H42	7:D:1818:U:H1'	1.61	0.64
7:D:2135:A:N7	7:D:2160:G:O2'	2.24	0.64
7:D:2183:C:H2'	7:D:2184:G:H8	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2781:A:H2'	7:D:2782:G:O2'	1.97	0.64
7:D:39:C:O2'	7:D:40:C:H5'	1.96	0.64
7:D:371:A:H5'	7:D:423:A:C5	2.32	0.64
7:D:543:C:C2	7:D:551:G:N2	2.65	0.64
7:D:894:C:C5	7:D:895:U:O2	2.50	0.64
14:K:54:THR:OG1	14:K:56:GLN:OE1	2.13	0.64
19:P:33:ARG:HB3	19:P:85:ILE:HG22	1.80	0.64
29:Z:38:ASP:OD2	29:Z:177:LYS:HD2	1.57	0.64
6:A:819:A:H4'	6:A:820:U:OP2	1.95	0.64
56:B:65:ARG:HG2	56:B:245:PHE:HB2	1.79	0.64
7:D:1791:A:H2'	7:D:1792:G:O4'	1.96	0.64
7:D:1861:G:C2'	7:D:1862:G:H5'	2.28	0.64
7:D:573:G:O2'	7:D:574:C:H3'	1.98	0.64
7:D:65:C:H2'	7:D:66:C:H6	1.61	0.64
7:D:721:C:H2'	7:D:722:A:C8	2.32	0.64
7:D:851:U:O2	7:D:928:G:C2	2.51	0.64
16:M:10:ARG:HA	16:M:104:ARG:HH21	1.62	0.64
16:M:33:PHE:HZ	16:M:44:VAL:HA	1.62	0.64
6:A:1326:C:OP2	28:Y:6:ARG:NH2	2.30	0.64
6:A:1446:A:HO2'	6:A:1447:G:P	2.20	0.64
6:A:1494:G:OP2	6:A:1494:G:H3'	1.98	0.64
56:B:166:ALA:O	56:B:167:SER:HB3	1.97	0.64
56:B:370:ILE:HG22	56:B:371:ALA:N	2.08	0.64
56:B:417:PRO:HA	56:B:448:VAL:HG21	1.70	0.64
56:B:492:VAL:HG22	56:B:541:ILE:CG2	2.26	0.64
7:D:1555:G:N2	7:D:1556:C:O2	2.30	0.64
7:D:2095:C:H2'	7:D:2096:U:C6	2.32	0.64
7:D:2516:G:N3	7:D:2569:G:N2	2.46	0.64
7:D:915:C:H2'	7:D:916:G:H8	1.61	0.64
3:3:34:ILE:HG23	3:3:63:ARG:NH1	2.11	0.64
6:A:1075:C:H2'	6:A:1076:C:H6	1.62	0.64
6:A:192:U:C4'	27:X:57:ARG:HH12	2.11	0.64
56:B:150:LEU:O	56:B:154:GLU:HG2	1.97	0.64
56:B:298:LYS:CA	56:B:348:PHE:CZ	2.44	0.64
56:B:525:ALA:HB2	56:B:551:VAL:HG22	1.79	0.64
56:B:84:PRO:HB3	57:B:701:GCP:O3G	1.97	0.64
7:D:1131:G:N2	7:D:1132:A:N3	2.45	0.64
7:D:1727:U:H6	7:D:1727:U:O5'	1.81	0.64
7:D:2336:A:O2'	7:D:2337:G:OP1	2.15	0.64
7:D:2471:C:H2'	7:D:2472:G:H8	1.62	0.64
7:D:848:G:C2	7:D:931:G:C6	2.85	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:73:ARG:O	11:H:77:ASN:ND2	2.30	0.64
23:T:18:ARG:NH1	23:T:35:LYS:HE2	2.13	0.64
26:W:53:ASN:ND2	26:W:75:ALA:HB1	2.12	0.64
28:Y:18:TYR:HE1	28:Y:22:ARG:HH21	1.46	0.64
29:Z:66:HIS:O	29:Z:158:ALA:HB1	1.97	0.64
3:3:94:GLU:O	3:3:95:LYS:HB2	1.97	0.64
6:A:1256:A:OP2	10:G:27:LYS:NZ	2.27	0.64
6:A:269:C:H2'	6:A:270:A:C8	2.32	0.64
6:A:82:U:O2	6:A:85:U:H5	1.81	0.64
56:B:118:LEU:HD11	56:B:446:LYS:HE3	1.78	0.64
56:B:196:LEU:O	56:B:282:LEU:N	2.31	0.64
56:B:200:ILE:HG13	56:B:278:ASP:C	2.18	0.64
56:B:489:LEU:O	56:B:507:ILE:C	2.34	0.64
7:D:990:A:H62	7:D:1186:G:H21	1.42	0.64
7:D:1313:U:H6	7:D:1313:U:O5'	1.80	0.64
6:A:1450:U:N3	6:A:1452:C:O2	2.31	0.64
6:A:136:C:H42	6:A:227:G:H1	1.46	0.64
6:A:92:G:C2'	6:A:93:U:H5'	2.27	0.64
56:B:409:TYR:CG	56:B:485:ARG:HD2	2.33	0.64
7:D:739:G:C4'	7:D:1784:A:H61	2.10	0.64
7:D:1861:G:O2'	7:D:1862:G:H5'	1.98	0.64
7:D:1942:C:OP1	56:B:556:LYS:NZ	2.22	0.64
7:D:2790:A:N9	7:D:2893:G:O6	2.31	0.64
16:M:10:ARG:NH2	16:M:75:ASP:HB2	2.13	0.64
18:O:120:ARG:CZ	18:O:126:ARG:HH12	2.10	0.64
26:W:57:HIS:O	26:W:58:VAL:HG13	1.97	0.64
6:A:1320:C:O2	26:W:73:GLU:HA	1.98	0.64
6:A:445:G:N1	6:A:490:G:C6	2.66	0.64
6:A:77:C:H2'	6:A:78:G:C8	2.33	0.64
6:A:872:A:HO2'	6:A:873:A:C5'	2.10	0.64
56:B:205:TYR:HE2	56:B:271:ILE:CG2	2.07	0.64
56:B:227:ARG:CA	56:B:237:PHE:CD2	2.80	0.64
56:B:378:TYR:C	56:B:406:LEU:HD13	2.17	0.64
56:B:541:ILE:CG1	56:B:546:ILE:HD12	2.28	0.64
56:B:537:ILE:O	56:B:549:ALA:HB3	1.98	0.64
7:D:152:G:O2'	7:D:153:C:H5'	1.97	0.64
7:D:1613:G:H3'	7:D:1614:A:H5'	1.79	0.64
7:D:532:A:P	7:D:2021:C:H41	2.19	0.64
7:D:296:C:H2'	7:D:297:C:C6	2.33	0.64
7:D:537:C:H6	7:D:537:C:O5'	1.80	0.64
25:V:76:LEU:O	25:V:78:LEU:HG	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:Z:163:PHE:CB	29:Z:171:ILE:HD11	2.22	0.64
6:A:1507:A:C2	6:A:1530:G:H1'	2.33	0.64
56:B:303:ALA:HB2	56:B:347:GLY:N	2.12	0.64
56:B:490:VAL:CG1	56:B:491:LYS:H	2.11	0.64
56:B:488:ASP:C	56:B:509:HIS:HA	2.18	0.64
7:D:2217:G:N3	7:D:2218:G:C8	2.65	0.64
7:D:227:A:H61	7:D:410:G:N2	1.95	0.64
7:D:602:G:H4'	7:D:603:A:H4'	1.79	0.64
9:F:170:GLU:HG3	9:F:173:ALA:HB3	1.80	0.64
15:L:10:LEU:O	15:L:13:ILE:HB	1.98	0.64
26:W:32:LYS:H	26:W:32:LYS:CD	2.11	0.64
1:1:32:HIS:O	1:1:34:GLN:N	2.31	0.63
6:A:185:A:H61	6:A:192:U:H3	1.46	0.63
56:B:197:LYS:HA	56:B:281:THR:HA	1.79	0.63
56:B:229:ARG:NH2	56:B:286:PRO:HD3	2.09	0.63
56:B:322:LYS:HE3	56:B:323:LEU:HD12	1.80	0.63
56:B:382:LEU:HB3	56:B:386:GLU:CB	2.28	0.63
56:B:410:VAL:HG11	56:B:479:TYR:HB2	1.79	0.63
7:D:1107:G:O5'	7:D:1107:G:H8	1.81	0.63
7:D:1313:U:C4	7:D:1314:C:C4	2.87	0.63
7:D:1537:C:C4	7:D:1538:G:H1'	2.33	0.63
7:D:2070:G:N2	7:D:2071:A:N3	2.45	0.63
7:D:2781:A:C6	7:D:2782:G:N3	2.65	0.63
7:D:365:C:O5'	7:D:365:C:H6	1.79	0.63
7:D:727:A:H5''	7:D:728:G:N1	2.13	0.63
9:F:84:GLU:OE2	9:F:219:VAL:HB	1.98	0.63
16:M:9:ARG:O	16:M:104:ARG:NE	2.32	0.63
19:P:24:VAL:HG13	19:P:98:TYR:CE1	2.33	0.63
6:A:277:C:P	24:U:68:ARG:HH12	2.21	0.63
25:V:16:PRO:HA	25:V:54:ARG:NH1	2.13	0.63
29:Z:161:ILE:HA	29:Z:174:PRO:HD2	1.80	0.63
3:3:50:ASP:HB3	3:3:80:LYS:HE2	1.81	0.63
6:A:656:C:H42	6:A:750:G:H1	1.46	0.63
56:B:20:HIS:CD2	56:B:108:ASP:CB	2.80	0.63
56:B:109:ALA:HB2	56:B:135:ILE:CG2	2.28	0.63
56:B:240:ASP:CB	56:B:266:ALA:HB3	2.09	0.63
56:B:229:ARG:CZ	56:B:286:PRO:HG3	2.28	0.63
1:1:36:GLN:NE2	7:D:1031:G:H21	1.96	0.63
7:D:1063:G:C5	7:D:1064:C:C5	2.87	0.63
7:D:1327:C:H5	7:D:1328:G:C6	2.16	0.63
7:D:1397:U:O2'	7:D:1398:C:OP1	2.17	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2522:U:O2'	7:D:2647:U:OP1	2.16	0.63
7:D:491:G:C5	7:D:492:A:C8	2.87	0.63
7:D:543:C:O2	7:D:551:G:C2	2.51	0.63
7:D:800:A:HO2'	7:D:801:G:P	2.21	0.63
8:E:113:C:H2'	8:E:114:G:H8	1.62	0.63
6:A:1226:C:N3	20:Q:104:ARG:CG	2.61	0.63
6:A:278:G:P	24:U:41:LYS:HZ3	2.12	0.63
26:W:11:VAL:HG21	26:W:41:VAL:CG2	2.29	0.63
26:W:11:VAL:O	26:W:38:SER:OG	2.11	0.63
1:1:3:VAL:O	1:1:5:ALA:N	2.30	0.63
6:A:68:G:H8	6:A:68:G:O5'	1.80	0.63
6:A:833:U:H2'	6:A:834:C:C6	2.32	0.63
56:B:202:ASP:OD2	56:B:214:TYR:OH	2.10	0.63
56:B:230:ILE:CB	56:B:280:ILE:HG22	2.28	0.63
56:B:228:ILE:CA	56:B:282:LEU:CD2	2.70	0.63
56:B:23:SER:OG	56:B:44:GLN:HB3	1.98	0.63
7:D:1329:U:O2'	7:D:1330:C:OP1	2.17	0.63
7:D:2030:A:HO2'	7:D:2031:A:P	2.20	0.63
7:D:2645:G:H3'	7:D:2646:C:H5'	1.79	0.63
7:D:38:A:C6	7:D:39:C:N4	2.66	0.63
7:D:434:U:O2'	7:D:435:C:O5'	2.16	0.63
7:D:640:C:O2	7:D:648:G:N2	2.31	0.63
11:H:8:VAL:HG21	11:H:115:ARG:HH22	1.63	0.63
6:A:1330:U:C2	6:A:1331:G:H1'	2.33	0.63
6:A:454:C:OP2	6:A:455:C:N4	2.31	0.63
6:A:467:G:C2	6:A:468:A:H1'	2.34	0.63
56:B:17:HIS:HA	56:B:116:GLU:OE1	1.98	0.63
56:B:18:VAL:HG22	56:B:86:HIS:HB3	1.79	0.63
56:B:223:ARG:HB3	56:B:224:PRO:HD3	1.80	0.63
56:B:238:THR:HG1	56:B:267:ALA:CB	2.12	0.63
56:B:380:VAL:HA	56:B:406:LEU:HD23	1.79	0.63
56:B:513:ALA:HB1	56:B:541:ILE:CD1	2.27	0.63
56:B:75:GLU:CG	56:B:76:TYR:H	2.10	0.63
7:D:1426:G:H8	7:D:1426:G:OP2	1.80	0.63
7:D:2194:G:C2	7:D:2195:C:C2	2.87	0.63
7:D:2701:C:H3'	7:D:2702:U:H5''	1.79	0.63
7:D:270(M):U:O2	7:D:270(N):G:O2'	2.16	0.63
7:D:2637:U:H3	7:D:2781:A:N6	1.95	0.63
7:D:485:C:N4	7:D:486:C:H42	1.96	0.63
7:D:789:A:H3'	7:D:790:C:H5''	1.81	0.63
7:D:861:A:C6	7:D:917:A:N3	2.66	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:974:G:OP2	7:D:974(A):C:OP2	2.16	0.63
17:N:91:PRO:HG2	17:N:94:VAL:HG21	1.79	0.63
6:A:1443:G:H2'	6:A:1443:G:N3	2.13	0.63
6:A:218:C:O5'	6:A:218:C:H6	1.81	0.63
6:A:448:A:P	6:A:485:G:H22	2.21	0.63
6:A:738:C:H2'	6:A:739:C:C6	2.34	0.63
56:B:29:ILE:HD13	56:B:177:ILE:HD12	1.80	0.63
56:B:281:THR:HG21	56:B:287:THR:CG2	2.26	0.63
56:B:382:LEU:CB	56:B:401:ARG:CA	2.75	0.63
56:B:528:ILE:HD11	56:B:537:ILE:HD11	1.80	0.63
7:D:1062:G:H8	7:D:1070:A:OP2	1.81	0.63
7:D:1285:G:H8	7:D:1285:G:OP2	1.81	0.63
7:D:488:G:O5'	7:D:488:G:H8	1.81	0.63
7:D:507:A:HO2'	7:D:508:G:P	2.20	0.63
7:D:634:C:H2'	7:D:635:C:C6	2.31	0.63
7:D:884:C:C4	7:D:885:C:C4	2.75	0.63
6:A:828:A:P	15:L:21:LYS:HZ1	2.19	0.63
25:V:39:VAL:HG13	25:V:42:ARG:NH1	2.13	0.63
5:5:58:A:H1'	5:5:60:U:OP2	1.98	0.63
6:A:1377:A:O2'	14:K:6:ARG:O	2.16	0.63
6:A:837:G:C4	6:A:838:G:N7	2.66	0.63
56:B:152:VAL:CB	56:B:156:LEU:HB3	2.28	0.63
56:B:459:ILE:C	56:B:459:ILE:HD12	2.18	0.63
56:B:496:VAL:O	56:B:498:GLY:N	2.31	0.63
7:D:1173:G:N3	7:D:1173:G:H3'	2.13	0.63
7:D:1579:A:H5''	7:D:1580:A:C5	2.33	0.63
7:D:1803:A:N6	7:D:1814:G:O2'	2.31	0.63
9:F:97:TRP:CH2	9:F:173:ALA:HA	2.34	0.63
19:P:69:TYR:HB3	19:P:99:HIS:HB3	1.79	0.63
20:Q:96:LEU:HD12	20:Q:103:THR:HG22	1.67	0.63
20:Q:15:VAL:HG22	20:Q:45:VAL:HG21	1.79	0.63
6:A:1225:A:H5'	26:W:78:ARG:NH1	2.12	0.63
6:A:1300:G:O2'	6:A:1301:U:O5'	2.16	0.63
6:A:198:G:C2	6:A:199:G:C4	2.86	0.63
6:A:339:C:H2'	6:A:340:U:H6	1.63	0.63
56:B:444:ALA:O	56:B:445:GLN:HG3	1.98	0.63
56:B:488:ASP:O	56:B:509:HIS:CA	2.47	0.63
56:B:489:LEU:N	56:B:509:HIS:HA	2.14	0.63
56:B:518:ARG:HD3	56:B:518:ARG:O	1.99	0.63
56:B:492:VAL:HG22	56:B:541:ILE:HG21	1.80	0.63
56:B:54:GLU:O	56:B:55:ARG:HB2	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1485:G:C4	7:D:1486:A:N7	2.66	0.63
7:D:90:U:O2'	7:D:91:A:O5'	2.12	0.63
8:E:67:G:OP2	8:E:68:C:OP2	2.17	0.63
6:A:529:G:O6	19:P:50:SER:N	2.31	0.63
19:P:91:LYS:HG2	19:P:92:ASP:H	1.62	0.63
19:P:87:GLY:HA2	19:P:98:TYR:HA	1.80	0.63
26:W:40:ILE:HD11	26:W:71:LEU:HD23	1.81	0.63
3:3:23:VAL:CG1	3:3:27:LEU:HD12	2.28	0.63
6:A:256:U:H3	6:A:270:A:H61	1.47	0.63
6:A:522:C:N4	6:A:528:C:H42	1.96	0.63
6:A:576:G:H3'	6:A:577:G:H5''	1.79	0.63
56:B:65:ARG:HB3	56:B:246:THR:HA	1.79	0.63
56:B:297:ALA:O	56:B:298:LYS:HB2	1.98	0.63
56:B:319:ALA:O	56:B:321:GLU:N	2.31	0.63
56:B:396:LEU:CD1	56:B:491:LYS:HG3	2.20	0.63
7:D:1298:C:H42	7:D:1642:G:H1	1.45	0.63
7:D:1819:A:H4'	7:D:1820:U:H5'	1.80	0.63
7:D:2489:G:O6	7:D:2490:G:N1	2.31	0.63
7:D:2044:C:N3	7:D:2625:G:N2	2.46	0.63
7:D:270(K):C:H3'	7:D:270(L):U:H6	1.63	0.63
7:D:548:A:H62	7:D:549:G:H21	1.46	0.63
7:D:568:U:N3	7:D:571:A:OP2	2.32	0.63
13:J:98:LEU:HD21	13:J:101:ALA:HB2	1.81	0.63
22:S:63:ARG:NH1	22:S:87:ILE:HG21	2.14	0.63
26:W:6:LYS:HZ2	26:W:11:VAL:HA	1.64	0.63
6:A:1288:A:H2'	6:A:1289:A:C8	2.33	0.63
6:A:1321:C:H5''	6:A:1322:C:OP2	1.99	0.63
6:A:1454:G:C2	6:A:1455:G:H1'	2.34	0.63
6:A:477:G:C4	6:A:478:A:C8	2.87	0.63
6:A:529:G:H4'	6:A:533:A:C2	2.34	0.63
56:B:210:GLY:CA	56:B:269:ARG:HB3	2.26	0.63
7:D:1042:G:C8	7:D:1042:G:OP2	2.52	0.63
7:D:1177:A:N1	7:D:1178:C:C4	2.67	0.63
7:D:2027:G:H1	7:D:2036:C:H42	1.44	0.63
7:D:45:G:H8	7:D:45:G:O5'	1.81	0.63
7:D:774:A:C5	7:D:775:G:C6	2.87	0.63
9:F:76:GLN:NE2	9:F:206:ASP:O	2.27	0.63
6:A:1256:A:H5''	10:G:27:LYS:NZ	2.14	0.63
11:H:19:LEU:O	11:H:21:LEU:N	2.30	0.63
12:I:122:GLU:OE1	12:I:122:GLU:N	2.31	0.63
16:M:32:ASP:OD1	16:M:35:GLU:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:S:29:VAL:O	22:S:33:THR:OG1	2.06	0.63
22:S:36:ILE:HD12	22:S:60:VAL:HG22	1.80	0.63
26:W:16:LEU:CB	26:W:20:LEU:HD13	2.27	0.63
29:Z:44:HIS:N	29:Z:213:TYR:O	2.28	0.63
1:1:5:ALA:O	1:1:7:VAL:HG23	1.99	0.62
5:5:21:A:N6	5:5:48:C:O4'	2.31	0.62
6:A:533:A:N6	6:A:536:C:C2	2.67	0.62
6:A:90:C:C2	6:A:91:C:C4	2.87	0.62
56:B:339:ALA:O	56:B:340:LEU:C	2.38	0.62
56:B:455:PRO:HG2	56:B:458:GLU:CB	2.29	0.62
56:B:544:LYS:O	56:B:545:ILE:HG13	1.98	0.62
7:D:1171:G:H2'	7:D:1174:A:OP2	1.99	0.62
7:D:1174:A:N7	7:D:1176:G:N7	2.47	0.62
7:D:2180:U:H6	7:D:2180:U:O5'	1.82	0.62
7:D:2208:U:O2	7:D:2217:G:C2	2.52	0.62
7:D:2458:G:H21	7:D:2459:A:N6	1.97	0.62
7:D:2749:A:H8	7:D:2749:A:OP2	1.82	0.62
7:D:915:C:H2'	7:D:916:G:C8	2.34	0.62
8:E:-1:A:H5'	8:E:0:A:OP2	1.99	0.62
9:F:10:LEU:HD23	9:F:11:LEU:HG	1.81	0.62
6:A:1256:A:C8	10:G:27:LYS:NZ	2.66	0.62
13:J:10:LEU:HD13	13:J:84:ASN:HB3	1.81	0.62
16:M:126:SER:O	16:M:128:ARG:NH1	2.32	0.62
26:W:36:ARG:CB	26:W:71:LEU:C	2.49	0.62
3:3:103:GLN:HA	3:3:106:GLU:CG	2.29	0.62
6:A:1238:A:N7	6:A:1299:A:N6	2.48	0.62
6:A:1347:G:C8	16:M:107:ARG:HB3	2.31	0.62
6:A:55:A:C2	56:B:208:TYR:HD2	2.17	0.62
6:A:727:G:C2	6:A:731:G:N3	2.67	0.62
56:B:11:ASN:CB	56:B:100:VAL:HG13	2.27	0.62
56:B:315:LYS:CE	56:B:318:ASP:HB3	2.28	0.62
56:B:381:ARG:HH21	56:B:385:GLY:CA	2.11	0.62
56:B:382:LEU:HD22	56:B:401:ARG:C	2.19	0.62
7:D:1067:A:H2'	7:D:1068:G:C5	2.33	0.62
7:D:146:G:H2'	7:D:147:U:C6	2.34	0.62
7:D:1981:A:H5''	7:D:1982:C:OP2	1.98	0.62
7:D:2219:G:H2'	7:D:2224:G:C5'	2.24	0.62
7:D:2334:G:O2'	7:D:2335:A:OP1	2.17	0.62
7:D:270(L):U:O2'	7:D:270(M):U:H5''	2.00	0.62
7:D:2793:G:H2'	7:D:2793:G:N3	2.15	0.62
7:D:2836:U:H2'	7:D:2837:G:H8	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2630:G:OP2	7:D:2895:U:C6	2.52	0.62
7:D:78:A:H2'	7:D:79:G:H8	1.64	0.62
7:D:969:U:H5''	7:D:970:C:OP2	1.99	0.62
10:G:58:GLU:O	10:G:65:ALA:N	2.21	0.62
6:A:1309:G:P	20:Q:88:ARG:HH22	2.21	0.62
6:A:1432:G:HO2'	6:A:1433:A:H8	1.45	0.62
6:A:1507:A:H2'	6:A:1508:G:C8	2.34	0.62
6:A:259:G:H2'	6:A:260:G:C8	2.34	0.62
6:A:434:U:H2'	6:A:435:C:C6	2.34	0.62
6:A:445:G:N1	6:A:490:G:N1	2.47	0.62
6:A:585:G:H1	6:A:756:C:H42	1.47	0.62
56:B:136:ASN:OD1	56:B:168:GLY:N	2.32	0.62
56:B:135:ILE:HD11	56:B:145:PRO:CB	2.19	0.62
56:B:489:LEU:HA	56:B:509:HIS:HB3	1.81	0.62
56:B:513:ALA:CB	56:B:541:ILE:CD1	2.78	0.62
56:B:62:SER:O	56:B:64:VAL:HG13	1.98	0.62
7:D:1043:C:H4'	7:D:1044:G:N7	2.14	0.62
7:D:1105:U:H4'	7:D:1106:G:OP2	1.99	0.62
7:D:1708:C:N4	7:D:1709:U:O4	2.32	0.62
7:D:2512:C:H5''	7:D:2513:G:OP2	1.98	0.62
7:D:2810:A:H2'	7:D:2811:G:O4'	2.00	0.62
7:D:46:C:N3	7:D:180:G:N2	2.48	0.62
7:D:895:U:H6	7:D:895:U:O5'	1.82	0.62
7:D:96:G:O2'	7:D:97:C:H5'	1.99	0.62
13:J:69:GLU:HG2	13:J:70:ASP:H	1.64	0.62
20:Q:59:TYR:C	20:Q:61:GLU:N	2.43	0.62
26:W:16:LEU:CA	26:W:20:LEU:CD1	2.77	0.62
3:3:131:ALA:HA	3:3:136:VAL:O	1.99	0.62
4:4:51:C:N4	4:4:52:G:O6	2.33	0.62
6:A:1156:G:O2'	6:A:1179:A:N6	2.33	0.62
6:A:1273:G:H3'	6:A:1274:G:H8	1.63	0.62
6:A:1452:C:H4'	6:A:1453:G:O5'	1.98	0.62
6:A:438:G:C2'	6:A:494:U:H3	2.08	0.62
6:A:575:G:HO2'	6:A:576:G:P	2.21	0.62
6:A:595:G:HO2'	6:A:596:C:P	2.21	0.62
6:A:680:C:H2'	6:A:681:C:H6	1.64	0.62
6:A:869:G:O2'	6:A:872:A:N7	2.32	0.62
6:A:898:G:N2	6:A:901:A:OP2	2.31	0.62
56:B:226:ASP:H	56:B:239:VAL:CB	2.12	0.62
56:B:528:ILE:HG23	56:B:592:VAL:HG11	1.81	0.62
7:D:1139:G:N2	7:D:1143:A:O2'	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1477:A:N6	7:D:1478:G:O6	2.32	0.62
7:D:1520:U:H2'	7:D:1521:G:H5''	1.80	0.62
7:D:2217:G:C4	7:D:2218:G:N7	2.68	0.62
7:D:2391:G:O2'	7:D:2392:A:O5'	2.14	0.62
7:D:270(Z):U:C5	7:D:370:G:O6	2.52	0.62
7:D:430:G:H5''	7:D:431:U:OP2	1.99	0.62
7:D:60:G:H21	7:D:74:A:C1'	2.12	0.62
7:D:679:C:H2'	7:D:680:G:H8	1.63	0.62
7:D:728:G:O2'	7:D:729:G:O5'	2.18	0.62
7:D:744:G:H2'	7:D:745:G:O4'	1.98	0.62
3:3:107:ILE:O	3:3:111:LYS:HB2	1.98	0.62
3:3:95:LYS:O	3:3:96:VAL:C	2.38	0.62
6:A:183:G:H2'	6:A:184:G:H8	1.64	0.62
56:B:25:LEU:HD13	56:B:25:LEU:C	2.19	0.62
56:B:330:LEU:CG	56:B:346:CYS:N	2.35	0.62
56:B:537:ILE:HD12	56:B:551:VAL:HG23	1.82	0.62
7:D:1045:A:OP2	7:D:1111:A:N1	2.32	0.62
7:D:1776:G:N2	7:D:1777:U:O2	2.32	0.62
7:D:2061:G:OP2	7:D:2502:G:OP2	2.18	0.62
7:D:2770:G:H5''	7:D:2771:C:OP2	1.99	0.62
7:D:293:U:H2'	7:D:294:A:H8	1.61	0.62
7:D:479:A:N7	7:D:481:G:C8	2.67	0.62
10:G:6:HIS:O	10:G:9:GLY:N	2.31	0.62
15:L:96:GLY:N	15:L:99:GLU:OE1	2.26	0.62
5:5:38:A:H3'	5:5:39:U:H5''	1.80	0.62
6:A:1384:C:N4	6:A:1385:G:O6	2.32	0.62
56:B:109:ALA:HB2	56:B:135:ILE:HG22	1.80	0.62
56:B:166:ALA:HB2	56:B:172:GLU:CD	2.19	0.62
56:B:206:ASP:OD2	56:B:210:GLY:HA2	1.98	0.62
56:B:212:ILE:HG22	56:B:263:TRP:CE3	2.35	0.62
56:B:41:MET:CB	56:B:45:PHE:HD1	2.13	0.62
56:B:495:LEU:HD13	56:B:540:ALA:HB2	1.78	0.62
56:B:75:GLU:HG2	56:B:76:TYR:N	2.14	0.62
7:D:1058:G:N2	7:D:1081:U:H2'	2.14	0.62
7:D:1077:A:N6	7:D:1088:A:O3'	2.33	0.62
7:D:1444:G:H2'	7:D:1445:C:C4	2.34	0.62
7:D:371:A:O5'	7:D:423:A:N6	2.33	0.62
7:D:931:G:C8	7:D:932:G:C1'	2.79	0.62
7:D:931:G:H5''	7:D:932:G:H1'	1.81	0.62
6:A:1328:C:OP2	28:Y:7:ARG:NH2	2.32	0.62
6:A:1131:G:OP2	6:A:1132:C:OP2	2.17	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:216:G:C8	6:A:217:C:N4	2.64	0.62
6:A:75:C:HO2'	6:A:76:G:H5'	1.64	0.62
56:B:281:THR:CB	56:B:286:PRO:HB2	2.28	0.62
7:D:1471:A:N6	7:D:1473:G:N7	2.48	0.62
7:D:1668:A:H1'	7:D:1669:A:C2	2.34	0.62
7:D:322:A:H4'	7:D:323:G:OP2	1.99	0.62
7:D:477:A:N7	7:D:478:A:N6	2.47	0.62
10:G:42:LEU:HD12	10:G:94:LEU:HD12	1.82	0.62
11:H:113:SER:HB3	11:H:116:GLN:HG3	1.82	0.62
11:H:68:TYR:HA	11:H:114:ARG:HH12	1.64	0.62
12:I:14:ARG:NH1	12:I:129:ILE:HD11	2.14	0.62
13:J:41:GLU:HB3	13:J:62:TRP:CE3	2.35	0.62
24:U:59:ILE:HD12	24:U:73:VAL:HA	1.80	0.62
26:W:70:LYS:N	26:W:73:GLU:HG2	2.13	0.62
26:W:70:LYS:H	26:W:73:GLU:HG2	1.64	0.62
29:Z:38:ASP:C	29:Z:177:LYS:CE	2.64	0.62
6:A:1164:G:C6	6:A:1173:G:C6	2.88	0.62
6:A:1367:C:P	17:N:60:ARG:HH21	2.23	0.62
6:A:1377:A:OP2	14:K:94:ARG:NH2	2.32	0.62
6:A:974:A:H4'	6:A:975:A:H3'	1.80	0.62
56:B:118:LEU:HD21	56:B:446:LYS:HZ1	1.65	0.62
56:B:20:HIS:CE1	56:B:111:GLN:HG3	2.35	0.62
56:B:380:VAL:HG22	56:B:381:ARG:N	2.14	0.62
56:B:382:LEU:HB3	56:B:386:GLU:CD	2.20	0.62
56:B:51:LEU:O	56:B:51:LEU:HD23	1.98	0.62
7:D:1285:G:H5''	7:D:1286:A:OP2	1.99	0.62
7:D:1416:G:O2'	7:D:1417:C:O5'	2.17	0.62
7:D:2019:A:H3'	7:D:2020:A:H5''	1.82	0.62
7:D:2740:A:C2	7:D:2741:A:C5	2.88	0.62
7:D:503:A:O2'	7:D:504:U:H5''	2.00	0.62
7:D:612:G:H1'	7:D:617:G:H22	1.64	0.62
7:D:922:U:C2	7:D:923:C:N3	2.67	0.62
16:M:63:ILE:HG21	16:M:77:ILE:HG12	1.82	0.62
26:W:35:SER:O	26:W:71:LEU:CD1	2.40	0.62
6:A:164:U:H2'	6:A:165:C:H6	1.63	0.62
6:A:308:C:H2'	6:A:309:G:C8	2.35	0.62
6:A:465:A:H1'	6:A:466:C:P	2.40	0.62
6:A:521:G:N7	6:A:529:G:N2	2.47	0.62
6:A:626:U:H2'	6:A:627:G:C8	2.35	0.62
6:A:628:G:H2'	6:A:629:G:H8	1.65	0.62
6:A:717:C:H4'	18:O:117:ASN:ND2	2.12	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:74:C:C2	6:A:75:C:C5	2.88	0.62
56:B:164:ILE:HG21	56:B:176:GLU:HB2	1.82	0.62
56:B:218:PHE:O	56:B:258:ALA:HB2	1.96	0.62
56:B:190:GLY:O	56:B:258:ALA:CB	2.48	0.62
56:B:338:THR:O	56:B:339:ALA:HB2	1.98	0.62
56:B:378:TYR:CD2	56:B:406:LEU:CD1	2.82	0.62
56:B:528:ILE:O	56:B:551:VAL:HG11	1.99	0.62
7:D:1067:A:H2'	7:D:1068:G:C6	2.35	0.62
7:D:1174:A:H3'	7:D:1175:U:H5''	1.80	0.62
7:D:1784:A:OP2	7:D:1785:A:C2	2.53	0.62
7:D:536:A:C2	7:D:558:G:N1	2.67	0.62
6:A:430:A:P	11:H:8:VAL:H	2.22	0.62
13:J:62:TRP:CZ2	13:J:64:GLN:HB2	2.34	0.62
16:M:7:THR:HB	16:M:83:ARG:HH11	1.65	0.62
6:A:1071:C:H2'	6:A:1072:G:H8	1.65	0.62
6:A:1101:A:H1'	6:A:1102:A:OP2	2.00	0.62
6:A:1225:A:OP2	6:A:1226:C:H5	1.83	0.62
6:A:1308:U:OP1	20:Q:97:PRO:CD	2.47	0.62
6:A:324:G:H8	6:A:324:G:O5'	1.83	0.62
6:A:888:G:H5''	6:A:889:A:H5''	1.82	0.62
6:A:92:G:C2	6:A:93:U:C2	2.88	0.62
56:B:316:LEU:HD13	56:B:342:PHE:CG	2.35	0.62
56:B:411:LYS:HZ3	56:B:436:VAL:HG22	1.64	0.62
56:B:435:LEU:CD1	56:B:452:TYR:CZ	2.82	0.62
56:B:493:ASN:O	56:B:540:ALA:C	2.38	0.62
7:D:1515:C:O2'	7:D:1516:U:OP1	2.16	0.62
7:D:2641:G:H2'	7:D:2642:G:H8	1.65	0.62
7:D:270(U):C:N4	7:D:270(V):G:O6	2.33	0.62
7:D:684:G:N2	7:D:794:G:C2	2.68	0.62
9:F:74:LYS:NZ	9:F:76:GLN:HB2	2.15	0.62
11:H:24:GLU:O	11:H:28:SER:N	2.32	0.62
13:J:10:LEU:HB2	13:J:84:ASN:O	1.99	0.62
6:A:1350:A:O2'	14:K:33:ASP:OD1	2.15	0.62
6:A:1306:A:C5	6:A:1307:U:C2	2.87	0.61
56:B:238:THR:HG1	56:B:267:ALA:HB2	1.61	0.61
56:B:195:PRO:HB2	56:B:286:PRO:HA	0.62	0.61
7:D:1071:G:OP2	7:D:1071:G:H8	1.82	0.61
7:D:1589:C:C2'	7:D:1590:U:H5'	2.29	0.61
7:D:1863:G:H2'	7:D:1864:U:C6	2.35	0.61
7:D:2135:A:OP2	7:D:2159:G:H1'	2.00	0.61
7:D:2168:G:O2'	7:D:2170:A:N6	2.19	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:247:G:H1'	7:D:386:G:C6	2.35	0.61
7:D:541:C:C5	7:D:542:C:C4	2.87	0.61
7:D:857:C:O2	7:D:921:G:N2	2.34	0.61
7:D:974:G:N7	7:D:974(A):C:C2	2.68	0.61
9:F:19:HIS:O	9:F:190:THR:OG1	2.13	0.61
10:G:113:ALA:HA	10:G:202:ILE:HD12	1.82	0.61
26:W:15:LEU:HD13	26:W:15:LEU:O	2.00	0.61
26:W:16:LEU:C	26:W:20:LEU:HB2	2.12	0.61
26:W:36:ARG:HB3	26:W:71:LEU:CB	2.29	0.61
27:X:65:LYS:HA	27:X:68:LYS:HG2	1.83	0.61
29:Z:74:VAL:HG11	29:Z:114:VAL:HG13	1.82	0.61
3:3:35:MET:C	3:3:63:ARG:HH12	2.03	0.61
6:A:1027:C:H42	6:A:1034:G:H1	1.46	0.61
6:A:1443:G:O3'	6:A:1443:G:OP1	2.17	0.61
6:A:225:C:H2'	6:A:226:G:H8	1.64	0.61
6:A:371:G:OP2	6:A:371:G:C8	2.52	0.61
56:B:137:LYS:HA	57:B:701:GCP:C6	2.30	0.61
19:P:80:HIS:NE2	56:B:316:LEU:CG	2.56	0.61
56:B:417:PRO:CG	56:B:447:ARG:HA	2.29	0.61
7:D:1047:G:N7	7:D:1110:G:N1	2.47	0.61
7:D:1085:A:O2'	7:D:1086:A:OP2	2.13	0.61
7:D:585:G:N2	7:D:1256:G:C6	2.68	0.61
7:D:1785:A:H2'	7:D:1786:A:N7	2.15	0.61
7:D:2577:A:H5''	7:D:2578:G:H5'	1.81	0.61
9:F:113:HIS:ND1	9:F:116:GLU:OE2	2.33	0.61
11:H:62:GLN:NE2	11:H:65:ARG:HH11	1.98	0.61
20:Q:22:ILE:HB	20:Q:25:ILE:HD12	1.82	0.61
26:W:51:VAL:HG12	26:W:52:TYR:N	2.15	0.61
26:W:41:VAL:O	26:W:67:VAL:HG13	2.00	0.61
6:A:1267:C:H5''	6:A:1268:A:OP2	2.00	0.61
6:A:1516:G:N2	6:A:1520:G:N3	2.47	0.61
6:A:179:A:H5'	6:A:180:U:OP2	2.01	0.61
6:A:711:G:H2'	6:A:712:A:C8	2.34	0.61
6:A:97:U:H6	6:A:97:U:O5'	1.83	0.61
56:B:229:ARG:HH21	56:B:283:ALA:CA	2.09	0.61
56:B:386:GLU:OE1	56:B:401:ARG:HG3	1.99	0.61
56:B:137:LYS:HZ1	57:B:701:GCP:H1'	1.63	0.61
7:D:1310:G:N7	7:D:1311:G:N2	2.48	0.61
7:D:1509:C:OP2	7:D:1510:A:C5	2.53	0.61
7:D:1859:A:H8	7:D:1860:G:C8	2.18	0.61
7:D:1913:A:HO2'	7:D:1914:C:P	2.22	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2067:G:H5''	7:D:2068:U:OP2	2.01	0.61
7:D:277:C:H4'	7:D:278:A:N7	2.15	0.61
7:D:295:G:H3'	7:D:338:G:N2	2.15	0.61
7:D:339:U:O2'	7:D:340:A:O4'	2.19	0.61
7:D:491:G:C5	7:D:492:A:N7	2.68	0.61
7:D:501:A:N6	7:D:502:A:N1	2.48	0.61
9:F:43:ASP:OD2	9:F:46:LYS:N	2.33	0.61
13:J:52:ILE:O	13:J:55:ASP:N	2.31	0.61
6:A:1321:C:H5	26:W:37:ARG:NH2	1.97	0.61
29:Z:76:ALA:HB3	29:Z:94:VAL:HG22	1.82	0.61
6:A:1002:G:H1	6:A:1038:C:H42	1.47	0.61
6:A:75:C:O2	6:A:96:G:N3	2.33	0.61
6:A:812:C:O2'	6:A:813:U:O5'	2.17	0.61
6:A:894:G:H2'	6:A:895:G:H8	1.65	0.61
56:B:137:LYS:CA	56:B:167:SER:OG	2.48	0.61
56:B:8:ARG:CZ	56:B:73:GLY:O	2.49	0.61
2:2:60:ARG:C	7:D:1046:A:O2'	2.38	0.61
7:D:1520:U:O2'	7:D:1521:G:O4'	2.07	0.61
7:D:1603:A:C5	7:D:1604:C:C5	2.89	0.61
7:D:2110:G:H2'	7:D:2120:G:OP1	2.01	0.61
7:D:2345:G:H4'	7:D:2346:A:H5'	1.83	0.61
7:D:2648:C:H2'	7:D:2649:U:H6	1.65	0.61
7:D:295:G:O2'	7:D:296:C:H5'	2.00	0.61
7:D:273(A):G:N2	7:D:363(E):U:O2	2.28	0.61
7:D:536:A:N1	7:D:558:G:C6	2.68	0.61
7:D:881:G:H1'	7:D:896:A:C2	2.34	0.61
11:H:81:GLU:HA	11:H:84:LYS:HD3	1.81	0.61
14:K:71:PRO:HG3	14:K:99:LEU:HD22	1.83	0.61
3:3:93:ARG:HB3	3:3:94:GLU:OE1	1.99	0.61
4:4:19:G:H5'	4:4:20:U:C5	2.35	0.61
4:4:52:G:O2'	4:4:53:G:O5'	2.17	0.61
6:A:1296:C:H4'	6:A:1302:U:C5	2.35	0.61
6:A:337:C:H2'	6:A:338:A:C8	2.34	0.61
6:A:538:G:H2'	6:A:539:A:H8	1.64	0.61
6:A:829:G:H1	6:A:857:C:H42	1.48	0.61
56:B:301:VAL:HG13	56:B:301:VAL:O	2.00	0.61
56:B:381:ARG:O	56:B:402:ILE:CG1	2.41	0.61
56:B:455:PRO:HD2	56:B:458:GLU:HB2	1.83	0.61
56:B:86:HIS:O	56:B:87:VAL:HB	2.00	0.61
7:D:1050:A:H2'	7:D:1051:G:C8	2.35	0.61
7:D:1109:C:H41	7:D:1110:G:H21	1.49	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1203:G:H5'	7:D:1204:A:C8	2.35	0.61
7:D:297:C:N4	7:D:298:G:C2	2.68	0.61
7:D:728:G:C8	7:D:728:G:OP2	2.54	0.61
7:D:869:G:H2'	7:D:870:A:H8	1.64	0.61
9:F:130:ARG:HD3	9:F:131:PRO:HD2	1.81	0.61
11:H:8:VAL:HG21	11:H:115:ARG:NH2	2.15	0.61
26:W:26:GLY:HA3	26:W:47:HIS:ND1	2.15	0.61
56:B:241:LYS:HD2	56:B:252:ALA:O	2.01	0.61
7:D:1020:A:N1	7:D:1141:U:OP2	2.34	0.61
7:D:151:C:N3	7:D:176:G:N2	2.48	0.61
7:D:1625:C:C4	7:D:1626:G:C8	2.88	0.61
7:D:1747:G:H8	7:D:1747:G:P	2.24	0.61
7:D:25:U:H3	7:D:515:A:H61	1.46	0.61
7:D:2783:G:C6	7:D:2784:C:C4	2.88	0.61
7:D:2807:G:C6	7:D:2808:U:C2	2.89	0.61
7:D:414:C:H5''	7:D:1879:C:O2'	2.01	0.61
6:A:1367:C:H5'	17:N:60:ARG:HE	1.65	0.61
20:Q:61:GLU:O	20:Q:62:ASN:HB2	1.99	0.61
26:W:12:ASP:O	26:W:14:HIS:N	2.28	0.61
29:Z:122:ALA:HB1	29:Z:126:LYS:HE2	1.82	0.61
6:A:1043:C:H2'	6:A:1044:A:H8	1.65	0.61
6:A:1225:A:OP1	20:Q:103:THR:OG1	2.07	0.61
6:A:197:A:N1	6:A:221:C:H4'	2.15	0.61
6:A:217:C:H2'	6:A:218:C:C5	2.35	0.61
6:A:216:G:C5	6:A:217:C:N4	2.69	0.61
6:A:27:G:H2'	6:A:28:G:H8	1.66	0.61
6:A:426:G:OP1	11:H:38:TYR:OH	2.14	0.61
56:B:174:VAL:CG1	56:B:177:ILE:HG13	2.26	0.61
56:B:222:VAL:HG11	56:B:264:LEU:HD13	1.81	0.61
56:B:274:VAL:O	56:B:277:GLY:O	2.17	0.61
56:B:489:LEU:HD23	56:B:509:HIS:CB	2.26	0.61
7:D:1300:U:O2'	7:D:1626:G:N2	2.34	0.61
7:D:1455:G:OP2	7:D:1455:G:H3'	2.01	0.61
7:D:1706:U:C5	7:D:1757:U:OP2	2.54	0.61
7:D:1899:G:O2'	7:D:1900:A:H5''	2.00	0.61
7:D:1993:U:H5	7:D:1994:C:C2	2.18	0.61
7:D:2128:C:OP2	29:Z:36:LYS:HB3	2.00	0.61
7:D:2460:U:C4	7:D:2461:C:N4	2.69	0.61
7:D:2848:G:C2	7:D:2867:G:N3	2.68	0.61
7:D:411:G:N2	7:D:2407:G:O6	2.33	0.61
7:D:687:C:H41	7:D:774:A:N6	1.95	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:P:27:LEU:C	19:P:29:GLY:H	2.03	0.61
23:T:6:LEU:HD13	23:T:17:TYR:CG	2.35	0.61
3:3:19:PRO:HG2	3:3:23:VAL:HG21	1.81	0.61
6:A:15:G:O2'	12:I:24:ARG:NH2	2.33	0.61
6:A:308:C:H2'	6:A:309:G:H8	1.64	0.61
6:A:31:G:H3'	6:A:31:G:OP1	2.01	0.61
6:A:447:G:H3'	6:A:485:G:H1	1.64	0.61
6:A:569:C:H42	6:A:881:G:H1	1.47	0.61
6:A:714:G:H2'	6:A:715:A:C8	2.36	0.61
6:A:834:C:H2'	6:A:835:U:H6	1.65	0.61
6:A:836:G:OP1	25:V:61:LYS:NZ	2.30	0.61
56:B:41:MET:HA	56:B:45:PHE:CD1	2.36	0.61
7:D:1418:G:C2	7:D:1580:A:H2	2.18	0.61
7:D:1749:A:C4	7:D:1750:G:N7	2.68	0.61
7:D:1756:G:H4'	7:D:1758:G:H1'	1.81	0.61
7:D:2529:G:H5''	7:D:2530:A:H5''	1.82	0.61
7:D:279:C:N3	7:D:361:G:N1	2.47	0.61
7:D:2845:G:H2'	7:D:2846:G:H8	1.66	0.61
7:D:330:A:HO2'	7:D:1210:A:N6	1.99	0.61
7:D:776:G:C4	7:D:793:A:N7	2.68	0.61
17:N:90:LEU:HB2	17:N:91:PRO:HD3	1.83	0.61
20:Q:71:ARG:O	20:Q:75:ALA:HB3	2.01	0.61
26:W:32:LYS:HG3	26:W:52:TYR:HB3	1.78	0.61
26:W:11:VAL:HG21	26:W:41:VAL:N	2.16	0.61
26:W:5:LEU:HD12	26:W:6:LYS:HB3	1.82	0.61
29:Z:7:TYR:O	29:Z:11:LEU:N	2.33	0.61
6:A:101:A:C6	6:A:102:G:C5	2.88	0.61
6:A:1089:G:H1	6:A:1096:C:H42	1.46	0.61
6:A:1309:G:N2	6:A:1329:A:C4	2.69	0.61
6:A:160:A:H1'	6:A:344:A:C6	2.35	0.61
6:A:376:G:H2'	6:A:377:G:C8	2.33	0.61
6:A:738:C:H2'	6:A:739:C:H6	1.66	0.61
6:A:801:U:H2'	6:A:802:A:H8	1.66	0.61
6:A:934:C:N4	6:A:1344:C:C2	2.69	0.61
4:4:75:C:H41	56:B:569:ARG:NH2	1.98	0.61
56:B:66:VAL:O	56:B:76:TYR:CZ	2.53	0.61
3:3:137:GLU:HB2	7:D:1078:U:H5''	1.83	0.61
7:D:154:G:C2	7:D:173:G:N2	2.67	0.61
7:D:2120:G:N3	7:D:2179:C:O2	2.34	0.61
7:D:2142:C:N4	7:D:2148:G:O6	2.33	0.61
7:D:261:G:N2	7:D:262:A:N3	2.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:270(Z):U:H2'	7:D:271(A):C:H5'	1.81	0.61
7:D:2808:U:O4	7:D:2891:G:C4	2.54	0.61
7:D:289:A:H2'	7:D:351:G:N1	2.16	0.61
7:D:476:G:N1	7:D:479:A:OP2	2.33	0.61
7:D:7:G:N2	7:D:8:A:H1'	2.16	0.61
9:F:219:VAL:O	9:F:222:ILE:HG13	2.00	0.61
6:A:978:A:O2'	26:W:37:ARG:NH2	2.34	0.61
6:A:475:G:C2	6:A:476:G:C5	2.89	0.61
6:A:626:U:H2'	6:A:627:G:H8	1.66	0.61
6:A:966:G:N2	6:A:967:C:O2	2.34	0.61
56:B:137:LYS:N	56:B:167:SER:OG	2.34	0.61
56:B:212:ILE:CG2	56:B:263:TRP:HE3	2.08	0.61
56:B:227:ARG:HB3	56:B:237:PHE:CE2	2.33	0.61
56:B:43:GLU:HB2	56:B:53:ARG:CZ	2.23	0.61
56:B:7:SER:C	56:B:8:ARG:HG2	2.21	0.61
7:D:1204:A:N3	7:D:1204:A:OP2	2.34	0.61
7:D:172:C:H2'	7:D:173:G:H5'	1.82	0.61
7:D:2027:G:N2	7:D:2037:G:C4	2.69	0.61
7:D:2074:U:O2'	7:D:2597:G:O2'	2.19	0.61
7:D:2158:A:O2'	7:D:2159:G:OP2	2.16	0.61
7:D:2195:C:H2'	7:D:2196:C:C6	2.36	0.61
7:D:668:G:H5'	7:D:669:G:OP2	2.01	0.61
20:Q:24:GLY:HA3	20:Q:66:LEU:CA	2.31	0.61
25:V:53:ARG:HH12	25:V:59:SER:C	2.03	0.61
26:W:36:ARG:O	26:W:70:LYS:HD3	1.99	0.61
6:A:1353:G:P	28:Y:3:LYS:NZ	2.72	0.61
3:3:127:ILE:O	3:3:130:SER:OG	2.13	0.60
6:A:1454:G:C2	6:A:1455:G:N9	2.68	0.60
56:B:345:ARG:HH11	56:B:345:ARG:CG	2.14	0.60
56:B:378:TYR:CA	56:B:406:LEU:HB2	2.31	0.60
56:B:409:TYR:CD2	56:B:453:GLU:HG2	2.28	0.60
56:B:456:PHE:HA	56:B:459:ILE:CG1	2.31	0.60
7:D:1314:C:O2	7:D:1339:G:N2	2.34	0.60
7:D:1618:A:H4'	7:D:1619:G:OP1	2.01	0.60
7:D:1857:G:H2'	7:D:1858:G:O4'	2.00	0.60
7:D:2399:G:H1	7:D:2417:C:H42	1.49	0.60
7:D:529:A:N6	7:D:2023:G:C6	2.69	0.60
7:D:706:A:H2'	7:D:707:G:O4'	2.01	0.60
14:K:70:LYS:HB3	14:K:96:GLN:HE21	1.66	0.60
26:W:3:ARG:CG	26:W:3:ARG:HH21	2.14	0.60
2:2:38:HIS:O	3:3:116:ASN:HB2	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:93:ARG:HH11	3:3:93:ARG:HG2	1.65	0.60
6:A:161:A:H2'	6:A:162:A:O4'	2.01	0.60
6:A:198:G:N3	6:A:199:G:C8	2.70	0.60
6:A:443:C:C2	6:A:444:C:C4	2.88	0.60
6:A:959:A:O2'	6:A:984:C:O2'	2.15	0.60
56:B:178:LEU:O	56:B:182:VAL:HG21	2.01	0.60
56:B:555:ARG:HG3	56:B:577:GLN:OE1	2.01	0.60
56:B:528:ILE:HG22	56:B:592:VAL:HG21	0.60	0.60
7:D:1058:G:H2'	7:D:1059:G:C5'	2.31	0.60
7:D:1063:G:H2'	7:D:1064:C:O4'	2.02	0.60
7:D:2170:A:H8	7:D:2170:A:OP2	1.83	0.60
7:D:2748:A:C6	7:D:2757:A:N6	2.69	0.60
7:D:295:G:H1	7:D:343:C:N4	1.99	0.60
7:D:366:C:H2'	7:D:370:G:C5'	2.31	0.60
7:D:440:G:N2	7:D:441:U:O2	2.33	0.60
7:D:879:G:C6	7:D:880:G:N7	2.69	0.60
19:P:61:THR:O	19:P:62:SER:OG	2.17	0.60
29:Z:154:ARG:O	29:Z:158:ALA:HB3	2.01	0.60
29:Z:42:GLU:H	29:Z:214:VAL:HG13	1.65	0.60
2:2:39:ALA:O	3:3:117:THR:OG1	2.11	0.60
6:A:1345:U:C5'	16:M:120:ARG:HH12	2.14	0.60
6:A:261:U:H2'	6:A:263:A:OP2	2.01	0.60
6:A:475:G:N1	6:A:476:G:C5	2.69	0.60
6:A:92:G:H8	6:A:92:G:O5'	1.83	0.60
56:B:13:SER:HA	56:B:81:ILE:HB	1.82	0.60
56:B:228:ILE:HG22	56:B:229:ARG:N	2.16	0.60
56:B:230:ILE:O	56:B:232:SER:N	2.35	0.60
56:B:304:GLY:HA3	56:B:372:THR:O	2.02	0.60
7:D:1005:C:H5''	7:D:1006:C:OP2	2.00	0.60
7:D:126:A:C6	7:D:127:A:N1	2.69	0.60
7:D:1364:G:OP1	7:D:1809:A:C6	2.54	0.60
7:D:1485:G:C5	7:D:1486:A:N7	2.70	0.60
7:D:1707:G:N3	7:D:1756:G:N2	2.49	0.60
7:D:2304:G:H1	7:D:2312:U:H3	1.48	0.60
7:D:2582:G:H21	7:D:2583:G:H1'	1.66	0.60
7:D:270(A):A:N6	7:D:270(X):G:O2'	2.35	0.60
7:D:317:G:H2'	7:D:318:C:C6	2.36	0.60
7:D:491:G:C6	7:D:492:A:C5	2.89	0.60
7:D:58:G:H1'	7:D:70:G:N2	2.15	0.60
7:D:882:G:H8	7:D:883:G:H4'	1.64	0.60
9:F:115:LEU:HD23	9:F:153:ARG:HD3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:J:7:ASN:OD1	25:V:34:TYR:OH	2.06	0.60
15:L:102:ARG:HH12	15:L:106:GLY:N	2.00	0.60
17:N:11:PHE:CE1	21:R:55:GLY:HA2	2.36	0.60
26:W:45:VAL:O	26:W:45:VAL:HG23	2.01	0.60
29:Z:200:LYS:NZ	29:Z:208:PHE:HB2	2.15	0.60
29:Z:22:ILE:N	29:Z:228:SER:OXT	2.27	0.60
6:A:15:G:H4'	12:I:24:ARG:HH22	1.66	0.60
6:A:671:G:H5'	6:A:672:U:OP2	2.01	0.60
56:B:17:HIS:CE1	56:B:114:GLU:CB	2.76	0.60
56:B:383:LYS:HA	56:B:402:ILE:CG1	2.31	0.60
7:D:1109:C:H5	7:D:1110:G:N3	1.99	0.60
7:D:1001:A:N6	7:D:1154:G:O2'	2.34	0.60
7:D:1522:G:H5''	7:D:1523:U:OP2	2.01	0.60
7:D:1569:A:H2'	7:D:1570:A:H8	1.64	0.60
7:D:1665:A:H2	7:D:1666:G:C4	2.19	0.60
7:D:2256:G:OP2	7:D:2256:G:H8	1.84	0.60
7:D:2864:G:H2'	7:D:2865:U:C6	2.37	0.60
7:D:372:G:H5''	7:D:373:U:OP2	2.01	0.60
7:D:535:C:C2	7:D:536:A:N7	2.69	0.60
7:D:67:U:O2'	7:D:68:G:OP1	2.20	0.60
9:F:129:GLU:O	9:F:135:GLN:NE2	2.34	0.60
24:U:13:ASP:O	24:U:15:MET:N	2.35	0.60
26:W:12:ASP:CG	26:W:38:SER:HB2	2.20	0.60
29:Z:139:ASN:N	29:Z:144:THR:OG1	2.35	0.60
6:A:1118:C:H6	6:A:1118:C:OP2	1.85	0.60
6:A:559:A:O2'	6:A:560:U:OP2	2.15	0.60
6:A:595:G:O2'	6:A:596:C:H6	1.83	0.60
6:A:960:U:HO2'	6:A:961:U:P	2.22	0.60
56:B:200:ILE:C	56:B:215:LEU:HB3	2.21	0.60
56:B:200:ILE:CD1	56:B:279:THR:CG2	2.37	0.60
56:B:378:TYR:CD2	56:B:406:LEU:HD11	2.36	0.60
56:B:338:THR:HG23	56:B:502:ASP:OD1	2.02	0.60
56:B:584:LEU:C	56:B:586:ALA:H	2.02	0.60
7:D:1526:G:H5''	7:D:1527:G:OP1	2.01	0.60
7:D:140:A:H61	7:D:1596:A:H4'	1.65	0.60
7:D:2106:G:C5	7:D:2108:C:C4	2.86	0.60
7:D:212:G:H2'	7:D:213:A:C8	2.37	0.60
7:D:307:G:H21	7:D:330:A:N6	1.98	0.60
7:D:474:G:O2'	7:D:475:U:OP1	2.18	0.60
7:D:660:G:H5''	7:D:661:C:OP2	2.01	0.60
7:D:884:C:C1'	7:D:885:C:OP2	2.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:899:A:H1'	7:D:900:A:C2	2.36	0.60
8:E:40:U:H3	8:E:43:C:H5''	1.66	0.60
6:A:642:A:C5	15:L:115:SER:HA	2.36	0.60
23:T:18:ARG:NH2	23:T:35:LYS:HD2	2.17	0.60
6:A:189:U:C4	24:U:72:ARG:NH1	2.70	0.60
6:A:1189:C:H5''	6:A:1190:G:OP2	2.02	0.60
6:A:1304:G:O6	6:A:1331:G:H3'	2.01	0.60
6:A:509:A:H5''	11:H:55:ALA:HB2	1.83	0.60
56:B:335:GLU:HG3	56:B:375:SER:HG	1.62	0.60
7:D:1529:A:H3'	7:D:1530:G:C8	2.35	0.60
7:D:1545:A:N7	7:D:1545(A):A:C6	2.69	0.60
7:D:2226:C:HO2'	7:D:2227:A:H5'	1.66	0.60
7:D:240:G:O2'	7:D:257:A:N6	2.35	0.60
7:D:2782:G:C6	7:D:2783:G:C6	2.89	0.60
7:D:2814:C:H42	7:D:2886:G:H1	1.47	0.60
9:F:22:LYS:HA	9:F:40:HIS:CE1	2.36	0.60
10:G:19:GLU:O	10:G:40:ARG:NH2	2.34	0.60
26:W:66:MET:HB2	26:W:69:HIS:CD2	2.37	0.60
3:3:130:SER:HA	3:3:133:SER:HB3	1.84	0.60
6:A:443:C:O2'	6:A:444:C:H5'	2.00	0.60
6:A:584:G:H2'	6:A:585:G:H8	1.66	0.60
56:B:158:LEU:HB3	56:B:159:PRO:CD	2.31	0.60
56:B:298:LYS:O	56:B:298:LYS:HG2	2.00	0.60
56:B:46:LEU:HD11	56:B:82:ASP:OD1	2.01	0.60
56:B:6:LEU:HD12	56:B:6:LEU:N	2.16	0.60
56:B:13:SER:HB3	56:B:97:LEU:CG	2.31	0.60
7:D:1319:G:H5''	7:D:1320:C:OP2	2.01	0.60
7:D:1456:G:C4	7:D:1457:A:N7	2.70	0.60
7:D:2008:C:H2'	7:D:2009:G:H8	1.66	0.60
7:D:2841:C:H2'	7:D:2842:G:C8	2.37	0.60
7:D:295:G:H2'	7:D:296:C:C6	2.37	0.60
7:D:434:U:O5'	7:D:434:U:H6	1.84	0.60
7:D:489:G:N7	7:D:1284:A:C6	2.62	0.60
22:S:46:HIS:O	22:S:48:LYS:N	2.34	0.60
26:W:50:ALA:HB1	26:W:57:HIS:CB	2.31	0.60
6:A:1452:C:C4'	6:A:1453:G:H5''	2.21	0.60
6:A:73:G:C5	6:A:74:C:C4	2.90	0.60
56:B:97:LEU:CD2	56:B:103:VAL:CG1	2.70	0.60
56:B:14:ILE:CD1	56:B:26:ALA:HB2	2.28	0.60
56:B:330:LEU:HB3	56:B:345:ARG:CZ	2.32	0.60
56:B:410:VAL:CG2	56:B:481:GLN:HA	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:417:PRO:HD2	56:B:420:TYR:HD2	1.66	0.60
56:B:521:VAL:CG2	56:B:539:ALA:CB	2.44	0.60
3:3:130:SER:N	7:D:1059:G:H22	2.00	0.60
7:D:352:G:C6	7:D:353:G:C6	2.90	0.60
7:D:766:C:N3	7:D:767:U:N3	2.49	0.60
20:Q:94:ARG:HB3	20:Q:94:ARG:CZ	2.30	0.60
27:X:36:LEU:O	27:X:51:GLU:HB2	10.17	0.60
6:A:210:U:C6	6:A:216:G:C8	2.89	0.60
6:A:361:G:O6	6:A:362:G:N2	2.34	0.60
6:A:484:G:H4'	6:A:485:G:OP2	2.02	0.60
6:A:55:A:C2	56:B:208:TYR:CD2	2.90	0.60
7:D:1169:G:C6	7:D:1170:G:C5	2.89	0.60
7:D:1228:G:H2'	7:D:1228:G:N3	2.16	0.60
7:D:1453:A:H3'	7:D:1454:U:H5''	1.83	0.60
7:D:1492:G:H21	7:D:1493:C:H42	1.49	0.60
7:D:2699:C:O2	7:D:2709:G:N2	2.35	0.60
10:G:186:PHE:HB2	10:G:198:VAL:O	2.01	0.60
6:A:1132:C:H2'	6:A:1133:G:C8	2.37	0.60
4:4:31:G:HO2'	6:A:1340:A:HO2'	1.46	0.60
6:A:1460:A:O2'	6:A:1461:G:H5'	2.01	0.60
6:A:404:U:H5'	11:H:122:ARG:NH1	2.13	0.60
6:A:477:G:C4	6:A:478:A:N7	2.69	0.60
6:A:443:C:C5	6:A:492:G:N1	2.70	0.60
6:A:76:G:C4	6:A:95:G:C6	2.83	0.60
56:B:529:PRO:HD2	56:B:530:ARG:H	1.67	0.60
56:B:537:ILE:O	56:B:549:ALA:N	2.35	0.60
7:D:1077:A:H5''	7:D:1078:U:OP2	2.02	0.60
7:D:1999:C:H2'	7:D:2000:G:C8	2.36	0.60
7:D:2151:G:OP1	29:Z:5:LYS:NZ	2.31	0.60
7:D:2110:G:N2	7:D:2180:U:C2	2.70	0.60
7:D:2478:A:C2	7:D:2529:G:H2'	2.37	0.60
7:D:295:G:H2'	7:D:296:C:H6	1.66	0.60
7:D:355:G:H2'	7:D:356:G:C8	2.36	0.60
13:J:71:ARG:O	13:J:75:LEU:HG	2.01	0.60
16:M:65:VAL:HG21	16:M:73:GLN:HB3	1.82	0.60
26:W:11:VAL:HG21	26:W:41:VAL:CG1	2.13	0.60
3:3:58:THR:HG23	3:3:64:SER:CB	2.32	0.59
6:A:1130:A:C5	6:A:1146:A:N6	2.69	0.59
6:A:1132:C:H2'	6:A:1133:G:H8	1.66	0.59
6:A:1391:U:H2'	6:A:1392:G:C8	2.37	0.59
6:A:443:C:C6	6:A:492:G:C2	2.89	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:200:ILE:HB	56:B:277:GLY:C	2.22	0.59
56:B:228:ILE:HG22	56:B:229:ARG:H	1.65	0.59
56:B:230:ILE:HG21	56:B:279:THR:HA	1.82	0.59
56:B:23:SER:CB	57:B:701:GCP:O1A	2.49	0.59
56:B:420:TYR:HE1	56:B:471:SER:C	2.05	0.59
56:B:299:PRO:C	56:B:479:TYR:HE1	2.01	0.59
7:D:1074:G:H2'	7:D:1075:C:C5	2.35	0.59
7:D:1487:G:H2'	7:D:1488:G:H8	1.67	0.59
7:D:1565:C:C4	7:D:1567:A:C8	2.88	0.59
7:D:2422:A:N7	7:D:2424:C:N4	2.50	0.59
7:D:2740:A:OP2	7:D:2763:G:N1	2.28	0.59
7:D:283:A:H3'	7:D:284:U:C5	2.37	0.59
7:D:972:G:H8	7:D:972:G:OP2	1.84	0.59
7:D:972:G:H3'	7:D:973:A:H3'	1.84	0.59
8:E:81:G:C5	8:E:96:G:C2	2.90	0.59
10:G:6:HIS:HD2	10:G:8:ILE:HG22	1.66	0.59
11:H:128:VAL:HA	11:H:146:ILE:HG22	1.83	0.59
14:K:27:ILE:HG22	14:K:36:LYS:NZ	2.17	0.59
16:M:31:GLN:HB3	16:M:35:GLU:HB3	1.83	0.59
18:O:18:ARG:NH2	18:O:35:PRO:O	2.35	0.59
10:G:29:TYR:OH	21:R:54:PRO:O	2.19	0.59
17:N:46:ARG:HD2	21:R:61:TRP:CZ3	2.37	0.59
26:W:3:ARG:O	26:W:42:PRO:HB3	2.02	0.59
29:Z:38:ASP:OD2	29:Z:177:LYS:CG	2.49	0.59
6:A:51:A:H4'	6:A:52:G:OP2	2.01	0.59
6:A:498:A:C6	6:A:547:A:C8	2.90	0.59
56:B:280:ILE:HG13	56:B:281:THR:OG1	2.02	0.59
56:B:330:LEU:H	56:B:330:LEU:HD22	1.65	0.59
56:B:420:TYR:HB3	56:B:424:LEU:CD1	2.32	0.59
56:B:65:ARG:NH1	56:B:76:TYR:HH	1.98	0.59
7:D:1088:A:H8	7:D:1088:A:P	2.25	0.59
7:D:1149:G:H2'	7:D:1150:C:C6	2.36	0.59
7:D:1484:G:H2'	7:D:1485:G:O4'	2.01	0.59
7:D:1861:G:N2	7:D:1882:C:O2	2.34	0.59
7:D:219:G:N2	7:D:430:G:O6	2.35	0.59
7:D:270(F):U:O2	7:D:270(T):G:N2	2.35	0.59
7:D:447:A:HO2'	7:D:448:U:P	2.25	0.59
8:E:33:G:H1	8:E:49:C:H42	1.50	0.59
10:G:20:SER:HB2	10:G:40:ARG:HH22	1.67	0.59
15:L:70:GLN:HG3	15:L:72:PRO:HD2	1.84	0.59
6:A:376:G:OP1	23:T:5:ARG:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:375:U:H4'	23:T:6:LEU:HD11	1.84	0.59
23:T:8:ARG:H	23:T:28:ARG:NH1	1.99	0.59
26:W:14:HIS:NE2	26:W:34:TRP:HZ3	1.57	0.59
29:Z:41:VAL:HG13	29:Z:214:VAL:HG11	1.83	0.59
6:A:1426:C:H2'	6:A:1427:U:C6	2.38	0.59
6:A:362:G:C2	6:A:365:U:OP2	2.55	0.59
56:B:152:VAL:CG2	56:B:156:LEU:HD23	2.32	0.59
56:B:246:THR:HB	56:B:247:PRO:CD	2.32	0.59
19:P:80:HIS:HB2	56:B:342:PHE:HE1	1.63	0.59
56:B:493:ASN:N	56:B:541:ILE:HA	2.15	0.59
56:B:137:LYS:HG2	57:B:701:GCP:C2	2.32	0.59
7:D:1417:C:H42	7:D:1581:G:H1	1.50	0.59
7:D:154:G:C6	7:D:173:G:N2	2.70	0.59
7:D:1786:A:C8	7:D:1787:A:C8	2.90	0.59
7:D:2339:G:H2'	7:D:2340:G:H8	1.67	0.59
7:D:2458:G:H1'	7:D:2459:A:N7	2.17	0.59
7:D:2043:C:H42	7:D:2625:G:H1	1.50	0.59
7:D:2631:G:OP2	7:D:2894:G:H5'	2.01	0.59
7:D:2659:G:N2	7:D:2662:A:OP2	2.32	0.59
7:D:2858:C:H3'	7:D:2859:G:C8	2.37	0.59
7:D:2887:U:O2'	7:D:2888:C:H5'	2.02	0.59
7:D:273:G:C2	7:D:365:C:N3	2.70	0.59
7:D:537:C:O2'	7:D:539:G:O4'	2.17	0.59
7:D:542:C:H2'	7:D:543:C:H6	1.59	0.59
12:I:72:GLN:O	12:I:74:GLY:N	2.34	0.59
14:K:79:ARG:HA	14:K:84:ASN:HA	1.83	0.59
15:L:4:ASP:HB3	15:L:89:PRO:HG3	1.84	0.59
24:U:48:GLU:N	24:U:48:GLU:OE1	2.35	0.59
26:W:11:VAL:O	26:W:11:VAL:HG12	2.01	0.59
6:A:1321:C:H41	26:W:37:ARG:NH2	2.00	0.59
26:W:70:LYS:H	26:W:73:GLU:CG	2.15	0.59
6:A:1067:A:O2'	6:A:1093:A:O2'	2.07	0.59
6:A:418:C:H2'	6:A:419:C:C6	2.37	0.59
6:A:684:A:H1'	18:O:39:PRO:HD2	1.85	0.59
56:B:153:GLU:HG3	56:B:159:PRO:HB3	1.85	0.59
56:B:201:PHE:H	56:B:215:LEU:HB3	1.65	0.59
56:B:345:ARG:O	56:B:346:CYS:HB2	2.02	0.59
7:D:1300:U:H4'	7:D:1301:A:O5'	2.02	0.59
7:D:1652:A:OP2	7:D:1652:A:H8	1.85	0.59
7:D:1730:U:O2'	7:D:1731:G:N7	2.35	0.59
7:D:2808:U:O2	7:D:2892:A:C2	2.55	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:439:G:C2	7:D:440:G:C5	2.90	0.59
7:D:792:G:OP2	7:D:792:G:H4'	2.03	0.59
7:D:878:A:H8	7:D:897:C:N3	2.00	0.59
8:E:14:U:H4'	8:E:15:A:OP2	2.02	0.59
11:H:94:LEU:HB3	11:H:194:LEU:HD21	1.83	0.59
23:T:5:ARG:NH1	23:T:22:THR:HG23	2.17	0.59
25:V:21:LYS:N	25:V:55:ARG:NH1	2.50	0.59
25:V:53:ARG:HH12	25:V:60:GLY:N	2.01	0.59
26:W:40:ILE:HG21	26:W:67:VAL:HG23	1.80	0.59
26:W:51:VAL:HG12	26:W:52:TYR:H	1.68	0.59
3:3:55:VAL:HB	3:3:69:THR:CG2	2.26	0.59
5:5:30:G:H2'	5:5:31:A:C8	2.37	0.59
6:A:1018:C:H2'	6:A:1019:C:H6	1.67	0.59
6:A:1058:G:OP1	10:G:199:LYS:HE3	2.03	0.59
6:A:1091:U:O2	6:A:1095:U:N3	2.35	0.59
6:A:159:G:N3	6:A:161:A:OP2	2.35	0.59
6:A:19:C:H2'	6:A:20:U:H6	1.68	0.59
6:A:401:C:OP2	11:H:73:ARG:NE	2.35	0.59
6:A:444:C:H6	6:A:444:C:O5'	1.86	0.59
6:A:92:G:H2'	6:A:93:U:C6	2.37	0.59
6:A:950:U:O2'	6:A:971:G:N3	2.35	0.59
56:B:147:GLU:HA	56:B:150:LEU:CD2	2.30	0.59
56:B:230:ILE:C	56:B:280:ILE:HG21	2.21	0.59
56:B:383:LYS:HA	56:B:402:ILE:HG12	1.83	0.59
56:B:58:THR:OG1	56:B:84:PRO:HG3	2.03	0.59
56:B:65:ARG:CB	56:B:246:THR:CA	2.71	0.59
56:B:64:VAL:HG21	56:B:80:LEU:O	2.03	0.59
56:B:88:ASP:O	56:B:349:LEU:HB3	2.01	0.59
7:D:1174:A:N7	7:D:1176:G:C5	2.70	0.59
7:D:1540:G:H2'	7:D:1540:G:N3	2.17	0.59
7:D:1975:G:C6	7:D:1976:U:N3	2.70	0.59
7:D:409:C:H2'	7:D:410:G:H8	1.68	0.59
7:D:489:G:H4'	7:D:491:G:OP1	2.02	0.59
7:D:552:G:C2'	7:D:553:U:H6	2.05	0.59
11:H:62:GLN:HE22	11:H:65:ARG:NH1	2.00	0.59
12:I:14:ARG:HH12	12:I:129:ILE:CD1	2.16	0.59
1:1:10:ILE:HG13	1:1:32:HIS:CD2	2.38	0.59
5:5:11:C:O2	5:5:24:G:N2	2.33	0.59
6:A:1005:A:H2'	6:A:1006:C:H5'	1.84	0.59
6:A:718:G:H1'	18:O:116:HIS:HA	1.83	0.59
56:B:222:VAL:HG11	56:B:264:LEU:HD21	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:299:PRO:HA	56:B:479:TYR:CE1	2.36	0.59
7:D:1735:C:H4'	7:D:1741:C:OP1	1.97	0.59
7:D:575:A:OP2	7:D:2055:C:H5	1.85	0.59
7:D:2429:G:OP2	7:D:2430:A:OP2	2.20	0.59
7:D:276:A:OP2	7:D:276:A:C4	2.55	0.59
7:D:374:A:N1	7:D:401:A:H1'	2.18	0.59
7:D:846:C:O2'	7:D:847:U:OP2	2.14	0.59
12:I:15:ARG:NH1	12:I:26:PHE:CG	2.71	0.59
6:A:1226:C:C4	20:Q:104:ARG:HG3	2.37	0.59
6:A:1302:U:H5	20:Q:13:LYS:HD3	1.66	0.59
23:T:18:ARG:HH22	23:T:35:LYS:HD2	1.68	0.59
25:V:74:ARG:HG2	25:V:81:PHE:HB3	1.83	0.59
6:A:500:G:O6	6:A:546:G:N2	2.28	0.59
56:B:70:ALA:CA	56:B:178:LEU:CD2	2.79	0.59
56:B:51:LEU:HD13	56:B:360:ARG:NH1	2.18	0.59
7:D:1209:G:N1	7:D:1238:G:O6	2.36	0.59
7:D:585:G:C5	7:D:1251:C:N3	2.71	0.59
7:D:1457:A:N6	7:D:2703:C:H42	1.99	0.59
7:D:2721:A:C2	7:D:2873:A:C6	2.91	0.59
7:D:2807:G:H5'	7:D:2808:U:H5	1.68	0.59
7:D:295:G:P	7:D:338:G:H22	2.26	0.59
7:D:727:A:H5''	7:D:728:G:C6	2.38	0.59
7:D:60:G:H21	7:D:74:A:H1'	1.66	0.59
7:D:974:G:H3'	7:D:974(A):C:C5'	2.22	0.59
17:N:57:LYS:O	17:N:60:ARG:NH1	2.35	0.59
6:A:673:G:H1'	25:V:75:ILE:HG12	1.85	0.59
29:Z:163:PHE:CZ	29:Z:195:ALA:HB1	2.33	0.59
3:3:29:GLN:HB2	56:B:440:TYR:CE2	2.37	0.59
3:3:8:VAL:HG12	3:3:9:LYS:N	2.18	0.59
6:A:1443:G:H3'	6:A:1443:G:P	2.42	0.59
6:A:1460:A:H2'	6:A:1461:G:H5'	1.84	0.59
6:A:193:C:H2'	6:A:194:C:C6	2.31	0.59
6:A:246:A:O2'	6:A:247:G:O4'	2.21	0.59
6:A:456:C:N3	6:A:477:G:C2	2.70	0.59
6:A:63:C:H5'	6:A:64:G:OP2	2.03	0.59
6:A:828:A:N6	6:A:829:G:N3	2.50	0.59
56:B:135:ILE:HG13	56:B:165:PHE:HA	1.82	0.59
56:B:233:THR:HB	56:B:235:LYS:HE2	1.85	0.59
56:B:349:LEU:HD12	56:B:353:HIS:CB	2.32	0.59
56:B:77:VAL:O	56:B:77:VAL:HG13	2.03	0.59
7:D:1061:U:H1'	7:D:1070:A:C1'	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:25:PRO:HG2	7:D:1095:A:N3	2.16	0.59
7:D:1414:G:N2	7:D:1589:C:N3	2.51	0.59
7:D:1455:G:C2	7:D:1456:G:C5	2.91	0.59
7:D:1483:G:C2'	7:D:1484:G:H5'	2.32	0.59
7:D:1466:G:H2'	7:D:1547:C:H41	1.67	0.59
7:D:1324:G:H1'	7:D:1616:A:H62	1.67	0.59
7:D:2756:U:N3	7:D:2758:A:N7	2.50	0.59
7:D:486:C:O2'	7:D:487:C:H5'	2.03	0.59
7:D:535:C:C2'	7:D:536:A:H5'	2.32	0.59
7:D:950:G:C6	7:D:951:C:C4	2.91	0.59
8:E:33:G:N2	8:E:49:C:N3	2.51	0.59
8:E:56:G:H4'	8:E:57:A:O5'	2.02	0.59
10:G:138:VAL:HG13	10:G:149:ALA:HB3	1.85	0.59
12:I:14:ARG:HH12	12:I:129:ILE:HD11	1.68	0.59
15:L:34:GLU:O	15:L:37:ARG:HB3	2.02	0.59
15:L:86:ILE:O	15:L:88:LYS:N	2.36	0.59
23:T:5:ARG:HH12	23:T:22:THR:HG23	1.68	0.59
6:A:1440:C:N3	6:A:1462:G:C2	2.71	0.59
6:A:374:A:C6	6:A:375:U:C4	2.90	0.59
56:B:197:LYS:O	56:B:218:PHE:HD1	1.86	0.59
56:B:382:LEU:HD23	56:B:400:THR:C	2.23	0.59
7:D:1043:C:O3'	7:D:1044:G:H3'	2.03	0.59
7:D:1106:G:N3	7:D:1106:G:H2'	2.18	0.59
7:D:1455:G:N2	7:D:1456:G:C4	2.71	0.59
7:D:1479:G:H2'	7:D:1480:G:C8	2.37	0.59
7:D:1524:G:H2'	7:D:1525:G:H8	1.67	0.59
7:D:1735:C:H2'	7:D:1741:C:C6	2.38	0.59
7:D:1742:C:H4'	7:D:1742:C:OP1	2.03	0.59
7:D:2103:C:N4	7:D:2187:G:O6	2.35	0.59
7:D:2110:G:C2	7:D:2120:G:H1'	2.37	0.59
7:D:2447:G:O2'	7:D:2448:A:OP2	2.21	0.59
7:D:1128:A:H62	7:D:2518:A:N6	2.01	0.59
7:D:280:C:H4'	7:D:281:G:OP2	2.03	0.59
7:D:2886:G:C2	7:D:2887:U:N3	2.71	0.59
7:D:554:U:O2'	7:D:556:G:N7	2.36	0.59
7:D:902:C:N4	7:D:903:C:H41	2.00	0.59
7:D:855:G:C2	7:D:923:C:O2	2.55	0.59
10:G:125:GLU:OE2	10:G:190:ARG:N	2.29	0.59
6:A:495:A:H61	11:H:119:GLN:NE2	2.01	0.59
16:M:27:THR:O	16:M:62:TYR:HA	2.02	0.59
24:U:48:GLU:OE2	24:U:50:LYS:HE3	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:17:ALA:C	3:3:38:VAL:HG13	2.23	0.59
6:A:1129:C:N3	6:A:1143:G:N2	2.51	0.59
6:A:1167:A:H8	6:A:1167:A:O5'	1.86	0.59
6:A:413:G:H22	6:A:428:G:H1'	1.68	0.59
6:A:498:A:N1	6:A:547:A:C8	2.71	0.59
6:A:38:G:H4'	6:A:547:A:N6	2.18	0.59
6:A:975:A:H4'	6:A:976:G:O5'	2.01	0.59
56:B:229:ARG:O	56:B:281:THR:O	2.21	0.59
56:B:245:PHE:HE2	56:B:262:GLY:N	2.01	0.59
56:B:246:THR:HG21	56:B:251:VAL:CG2	2.32	0.59
56:B:31:GLU:CG	56:B:40:GLU:HG3	2.21	0.59
7:D:1063:G:C2	7:D:1064:C:N3	2.71	0.59
7:D:1485:G:C6	7:D:1486:A:C5	2.91	0.59
7:D:185:U:H2'	7:D:186:G:C8	2.36	0.59
7:D:2320:A:H3'	7:D:2320:A:OP1	2.02	0.59
7:D:1637:A:O2'	7:D:2697:G:N2	2.36	0.59
7:D:371:A:C6	7:D:424:G:C8	2.91	0.59
7:D:485:C:H2'	7:D:486:C:H5'	1.83	0.59
7:D:60:G:C8	7:D:63:U:C5	2.91	0.59
7:D:786:C:H2'	7:D:787:U:H6	1.67	0.59
7:D:878:A:H2'	7:D:879:G:H5''	1.85	0.59
11:H:141:ARG:O	11:H:143:GLY:N	2.36	0.59
6:A:562:C:O2'	19:P:15:ARG:HG2	2.03	0.59
26:W:15:LEU:HD21	26:W:19:VAL:HG11	1.70	0.59
29:Z:63:SER:HA	29:Z:155:GLU:CD	2.17	0.59
5:5:33:U:H4'	14:K:84:ASN:HD21	1.68	0.58
5:5:52:G:H8	5:5:52:G:OP2	1.85	0.58
6:A:1038:C:H2'	6:A:1039:C:C6	2.38	0.58
6:A:535:A:H4'	6:A:536:C:OP2	2.03	0.58
56:B:330:LEU:HD21	56:B:346:CYS:CA	2.32	0.58
7:D:1043:C:O2'	7:D:1044:G:H8	1.86	0.58
3:3:12:LEU:HA	7:D:1070:A:H61	1.68	0.58
7:D:1609:A:O2'	7:D:1617:C:OP1	2.19	0.58
7:D:1784:A:O2'	7:D:1785:A:P	2.61	0.58
7:D:2177:C:H2'	7:D:2178:C:C6	2.38	0.58
7:D:2227:A:O5'	7:D:2227:A:H8	1.84	0.58
7:D:270(I):G:N2	7:D:270(J):G:H1'	2.18	0.58
9:F:95:GLN:HG3	9:F:148:TYR:HB3	1.84	0.58
13:J:8:ILE:HG12	13:J:88:VAL:HG12	1.85	0.58
24:U:17:LYS:HG3	24:U:45:HIS:CE1	2.37	0.58
6:A:1296:C:P	20:Q:44:ARG:NH1	2.76	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1454:G:H2'	6:A:1455:G:O4'	2.03	0.58
6:A:1462:G:H2'	6:A:1463:C:C6	2.38	0.58
6:A:109:A:C6	6:A:326:G:C6	2.92	0.58
6:A:773:G:H1	6:A:806:C:H42	1.50	0.58
6:A:96:G:C5	6:A:97:U:C4	2.91	0.58
56:B:13:SER:O	56:B:103:VAL:CB	2.36	0.58
56:B:204:VAL:HG12	56:B:205:TYR:N	2.12	0.58
56:B:406:LEU:HD12	56:B:489:LEU:HD11	1.77	0.58
7:D:1385:G:H1	7:D:1402:C:N4	2.01	0.58
7:D:1603:A:O2'	7:D:1604:C:O4'	2.21	0.58
7:D:1904:G:H21	7:D:1928:A:H2	1.50	0.58
7:D:2134:A:H4'	7:D:2158:A:OP2	2.03	0.58
7:D:2391:G:HO2'	7:D:2392:A:P	2.26	0.58
7:D:2602:A:N3	56:B:561:LYS:O	2.36	0.58
7:D:329:G:H4'	7:D:330:A:OP2	2.01	0.58
7:D:38:A:C6	7:D:39:C:C4	2.90	0.58
7:D:96:G:H2'	7:D:97:C:C6	2.38	0.58
7:D:2674:G:H5''	10:G:26:LYS:NZ	143.45	0.58
20:Q:29:ARG:HA	20:Q:32:GLU:CD	2.22	0.58
20:Q:77:ASN:O	20:Q:80:ARG:HD3	2.03	0.58
23:T:18:ARG:HH12	23:T:35:LYS:HE2	1.68	0.58
29:Z:71:GLN:HG2	29:Z:174:PRO:HB3	1.84	0.58
29:Z:44:HIS:CD2	29:Z:215:THR:HG22	2.38	0.58
7:D:2128:C:P	29:Z:36:LYS:HB3	2.42	0.58
6:A:1284:C:H3'	6:A:1285:A:H8	1.67	0.58
6:A:736:C:H2'	6:A:737:A:H8	1.68	0.58
56:B:230:ILE:HG23	56:B:280:ILE:N	2.18	0.58
56:B:322:LYS:CB	56:B:331:THR:HG21	2.20	0.58
56:B:381:ARG:HA	56:B:387:GLU:H	1.68	0.58
7:D:1053:C:OP2	7:D:1053:C:H6	1.85	0.58
7:D:1063:G:N1	7:D:1064:C:C4	2.70	0.58
7:D:1477:A:N7	7:D:1478:G:C6	2.70	0.58
7:D:1950:G:H5''	7:D:1951:U:OP2	2.03	0.58
7:D:2099:U:H2'	7:D:2100:G:H8	1.68	0.58
7:D:2143:C:O2	7:D:2148:G:N1	2.29	0.58
7:D:215:G:H1'	7:D:216:A:OP2	2.03	0.58
7:D:270(F):U:H2'	7:D:270(G):C:C6	2.37	0.58
7:D:916:G:O2'	7:D:917:A:O4'	2.22	0.58
10:G:22:TRP:CD2	10:G:59:ARG:NH1	2.72	0.58
10:G:64:VAL:HB	10:G:99:VAL:HG12	1.84	0.58
11:H:127:THR:HB	11:H:147:ALA:H	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:M:93:ARG:NH1	16:M:97:LYS:HD3	2.18	0.58
20:Q:108:ARG:CZ	20:Q:114:ARG:HG2	2.32	0.58
22:S:63:ARG:HH12	22:S:87:ILE:HG21	1.67	0.58
25:V:39:VAL:HG13	25:V:42:ARG:HH12	1.68	0.58
3:3:25:PRO:HA	3:3:29:GLN:HB2	1.84	0.58
6:A:259:G:H2'	6:A:260:G:H8	1.67	0.58
6:A:526:C:O2'	6:A:527:G:OP1	2.21	0.58
6:A:754:C:P	22:S:72:ARG:NH1	2.64	0.58
56:B:228:ILE:HG13	56:B:282:LEU:CD2	2.32	0.58
56:B:417:PRO:CA	56:B:448:VAL:CG2	2.40	0.58
7:D:1173:G:C4	7:D:1174:A:H2	2.21	0.58
7:D:1492:G:N2	7:D:1493:C:H42	2.01	0.58
7:D:1591:G:H8	7:D:1591:G:O5'	1.85	0.58
7:D:1606:G:H5''	7:D:1607:C:OP1	2.02	0.58
7:D:1718:G:O2'	7:D:1725:G:H8	1.86	0.58
7:D:1741:C:H2'	7:D:1742:C:O4'	2.03	0.58
7:D:2113:U:O4	7:D:2114:A:N6	2.37	0.58
7:D:43:G:C6	7:D:44:A:C5	2.91	0.58
7:D:701:G:H1	7:D:731:C:H42	1.52	0.58
7:D:974:G:P	7:D:974(A):C:OP2	2.61	0.58
8:E:50:G:H2'	8:E:51:G:H8	1.68	0.58
9:F:114:ARG:HA	9:F:117:GLU:HG2	1.85	0.58
9:F:12:GLU:O	9:F:14:GLY:N	2.35	0.58
13:J:69:GLU:HG2	13:J:70:ASP:N	2.19	0.58
14:K:45:ASP:HA	14:K:48:LYS:NZ	2.19	0.58
6:A:468:A:H5''	23:T:80:PHE:CE2	2.37	0.58
26:W:11:VAL:HG21	26:W:41:VAL:CB	2.32	0.58
26:W:30:LEU:HD21	26:W:57:HIS:NE2	2.18	0.58
3:3:76:TYR:CZ	3:3:80:LYS:NZ	2.71	0.58
5:5:59:U:H2'	5:5:60:U:O4'	2.02	0.58
6:A:1330:U:H2'	6:A:1331:G:H4'	1.84	0.58
6:A:468:A:C5'	23:T:80:PHE:CZ	2.84	0.58
6:A:648:A:H2'	6:A:649:G:C8	2.38	0.58
6:A:652:U:H2'	6:A:752:G:O6	2.03	0.58
6:A:737:A:H5''	13:J:92:LYS:HZ2	1.68	0.58
6:A:808:C:P	22:S:48:LYS:HZ2	2.26	0.58
56:B:305:LEU:CD1	56:B:369:LEU:CD2	2.72	0.58
56:B:389:GLU:HG2	56:B:389:GLU:O	2.03	0.58
56:B:41:MET:O	56:B:42:ARG:HB3	2.02	0.58
56:B:411:LYS:CG	56:B:452:TYR:O	2.52	0.58
56:B:493:ASN:HA	56:B:505:THR:HG23	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:49:LEU:CD2	56:B:60:LYS:HZ1	2.16	0.58
7:D:1022:G:N2	7:D:1024:G:H22	2.00	0.58
7:D:1109:C:H41	7:D:1110:G:N2	2.01	0.58
7:D:1205:U:H3	7:D:1207:C:N4	2.02	0.58
7:D:1307:A:H1'	7:D:1622:G:H22	1.68	0.58
7:D:1814:G:OP2	7:D:1815:A:H3'	2.02	0.58
7:D:1872:A:C3'	7:D:1878:G:H5''	2.33	0.58
7:D:1936:A:OP2	7:D:1961:C:N4	2.36	0.58
7:D:2371:G:N2	7:D:2372:G:C4	2.70	0.58
7:D:629:G:N3	7:D:639:U:O2'	2.35	0.58
7:D:685:A:C8	7:D:774:A:N6	2.72	0.58
7:D:738:G:H5'	7:D:739:G:OP2	2.02	0.58
8:E:51:G:C8	8:E:51:G:OP2	2.56	0.58
6:A:1229:A:OP2	20:Q:108:ARG:NH2	2.36	0.58
6:A:468:A:HO2'	23:T:82:GLN:HG2	1.68	0.58
25:V:77:GLY:O	25:V:79:LEU:N	2.36	0.58
29:Z:37:PHE:HE1	29:Z:40:THR:HG1	1.50	0.58
4:4:50:U:C4	4:4:51:C:C4	2.92	0.58
6:A:1423:G:N2	6:A:1478:C:O2	2.36	0.58
6:A:571:U:O4	6:A:864:A:N6	2.36	0.58
6:A:736:C:H2'	6:A:737:A:C8	2.38	0.58
56:B:10:ARG:HG2	56:B:185:ILE:HG22	1.85	0.58
56:B:11:ASN:O	56:B:100:VAL:CG1	2.52	0.58
56:B:279:THR:O	56:B:281:THR:N	2.36	0.58
56:B:330:LEU:CD2	56:B:346:CYS:SG	2.91	0.58
56:B:379:LYS:HG2	56:B:405:ILE:O	2.02	0.58
56:B:456:PHE:HA	56:B:459:ILE:HG13	1.86	0.58
56:B:497:HIS:CB	56:B:535:VAL:CG1	2.50	0.58
3:3:126:MET:HE1	7:D:1059:G:C8	2.39	0.58
7:D:1173:G:H2'	7:D:1174:A:C6	2.38	0.58
7:D:126:A:N6	7:D:127:A:N1	2.50	0.58
7:D:1542:G:H3'	7:D:1542:G:OP2	2.03	0.58
7:D:1730:U:O2	7:D:1733:G:N2	2.37	0.58
7:D:1861:G:C2	7:D:1862:G:C8	2.91	0.58
7:D:191:A:H2'	7:D:192:C:H6	1.69	0.58
7:D:1964:G:C2	7:D:1967:C:C4	2.92	0.58
7:D:2111:C:N4	7:D:2146:C:OP2	2.37	0.58
7:D:2376:A:H8	7:D:2376:A:OP1	1.85	0.58
7:D:270(E):G:H2'	7:D:270(F):U:O4'	2.03	0.58
7:D:370:G:H4'	7:D:370:G:OP1	2.03	0.58
7:D:539:G:C2'	7:D:540:G:H5'	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:719:C:H2'	7:D:720:C:C6	2.38	0.58
7:D:788:A:H1'	7:D:789:A:OP2	2.04	0.58
9:F:12:GLU:OE1	9:F:209:ARG:NH2	2.33	0.58
11:H:30:LYS:HZ3	11:H:35:ARG:HG3	1.69	0.58
16:M:33:PHE:CZ	16:M:44:VAL:HA	2.38	0.58
18:O:27:ASN:OD1	18:O:28:THR:N	2.37	0.58
18:O:43:SER:HB2	18:O:71:LYS:NZ	2.19	0.58
19:P:5:PRO:O	19:P:6:THR:OG1	2.20	0.58
29:Z:11:LEU:HA	29:Z:14:VAL:HB	1.85	0.58
3:3:10:LEU:HD21	3:3:57:ILE:CD1	2.31	0.58
3:3:21:PRO:CG	7:D:1067:A:OP2	2.51	0.58
3:3:38:VAL:O	3:3:42:ASN:ND2	2.37	0.58
6:A:1055:A:O2'	10:G:161:GLU:O	2.22	0.58
6:A:1202:G:C2	6:A:1203:C:H1'	2.38	0.58
6:A:1294:G:H2'	6:A:1295:G:C8	2.31	0.58
6:A:199:G:N2	6:A:219:C:N3	2.51	0.58
6:A:502:G:N1	6:A:544:G:C6	2.71	0.58
6:A:705:U:H2'	6:A:706:A:O4'	2.02	0.58
56:B:222:VAL:O	56:B:222:VAL:HG13	2.03	0.58
56:B:378:TYR:HD2	56:B:406:LEU:HD11	1.68	0.58
56:B:95:ARG:HG3	56:B:96:ALA:H	1.65	0.58
7:D:1364:G:OP1	7:D:1809:A:N6	2.36	0.58
7:D:1476:C:H5	7:D:1477:A:C2	2.21	0.58
7:D:1735:C:O2'	7:D:1741:C:OP1	2.21	0.58
7:D:2589:A:H2'	7:D:2590:A:H8	1.67	0.58
7:D:565:C:H2'	7:D:566:U:C6	2.39	0.58
7:D:603:A:C6	7:D:604:G:N1	2.72	0.58
7:D:690:G:O2'	7:D:780:G:OP1	2.20	0.58
7:D:71:A:N3	7:D:73:A:N6	2.52	0.58
7:D:852:G:C5	7:D:926:A:N6	2.55	0.58
7:D:957:A:C2	7:D:2459:A:H5'	2.39	0.58
22:S:81:LEU:HA	22:S:84:LYS:HB2	1.85	0.58
13:J:62:TRP:CG	25:V:35:ARG:NH1	2.71	0.58
28:Y:13:ILE:HG13	28:Y:22:ARG:NH1	2.16	0.58
2:2:61:LEU:HA	7:D:1046:A:H2'	1.86	0.58
6:A:1163:C:C2'	6:A:1164:G:C5'	2.79	0.58
6:A:1200:C:H3'	6:A:1201:A:H5'	1.86	0.58
6:A:1347:G:H1'	6:A:1348:U:OP2	2.03	0.58
6:A:546:G:P	11:H:72:GLU:HB3	2.44	0.58
56:B:13:SER:HB2	56:B:97:LEU:CG	2.30	0.58
56:B:421:VAL:O	56:B:425:MET:HB2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1012:U:O2'	7:D:1013:C:OP2	2.16	0.58
7:D:1035:U:H2'	7:D:1036:G:H8	1.69	0.58
7:D:1651:G:C2	7:D:1652:A:C5	2.92	0.58
7:D:1889:A:N3	7:D:2086:U:O2'	2.36	0.58
7:D:2215:G:H4'	7:D:2216:G:OP2	2.04	0.58
7:D:2264:C:H2'	7:D:2265:U:H6	1.69	0.58
1:1:31:LYS:NZ	7:D:2478:A:O4'	2.37	0.58
7:D:2570:G:H5'	7:D:2571:C:OP2	2.04	0.58
7:D:1:G:H2'	7:D:2:G:H8	1.66	0.58
8:E:118:G:H2'	8:E:119:A:H8	1.68	0.58
8:E:44:G:H1'	8:E:47:C:H42	1.67	0.58
16:M:97:LYS:HB3	16:M:98:PRO:HD3	1.84	0.58
17:N:42:THR:HG21	17:N:66:ARG:HD2	1.86	0.58
24:U:22:LEU:HG	24:U:24:GLU:OE2	2.03	0.58
3:3:101:TRP:O	3:3:105:LEU:HG	2.04	0.58
5:5:15:G:H4'	5:5:16:U:OP1	2.04	0.58
6:A:456:C:H2'	6:A:457:C:O4'	2.03	0.58
6:A:500:G:N7	6:A:546:G:N2	2.50	0.58
6:A:702:A:H5''	6:A:703:G:N7	2.18	0.58
6:A:718:G:N7	6:A:719:C:C4	2.72	0.58
6:A:55:A:C1'	56:B:208:TYR:HE2	2.16	0.58
56:B:299:PRO:N	56:B:348:PHE:HE2	1.95	0.58
56:B:301:VAL:CG1	56:B:349:LEU:O	2.50	0.58
56:B:380:VAL:O	56:B:387:GLU:HA	2.03	0.58
56:B:527:VAL:HG23	56:B:527:VAL:O	2.02	0.58
7:D:1564:C:H5'	7:D:1565:C:OP2	2.03	0.58
7:D:215:G:H4'	7:D:216:A:O5'	2.04	0.58
7:D:2507:C:C2	7:D:2583:G:C2	2.92	0.58
7:D:2782:G:H2'	7:D:2783:G:H8	1.69	0.58
7:D:2791:C:OP2	7:D:2792:G:OP2	2.21	0.58
7:D:373:U:O2'	7:D:374:A:P	2.62	0.58
7:D:329:G:C2	7:D:477:A:C2	2.91	0.58
9:F:30:ARG:NH2	9:F:31:TYR:OH	2.37	0.58
6:A:1346:A:C6	14:K:10:ARG:NH1	2.72	0.58
17:N:22:LYS:O	17:N:25:GLU:N	2.37	0.58
17:N:11:PHE:O	17:N:68:HIS:ND1	2.36	0.58
20:Q:69:GLU:HB3	20:Q:73:GLU:HB2	1.84	0.58
20:Q:71:ARG:HA	20:Q:75:ALA:H	1.67	0.58
22:S:76:GLU:HA	22:S:79:ARG:HH21	1.67	0.58
26:W:14:HIS:HB3	26:W:35:SER:O	2.04	0.58
26:W:28:LYS:HE2	26:W:29:ARG:CZ	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1241:G:C8	6:A:1241:G:OP2	2.56	0.58
6:A:1452:C:C1'	6:A:1453:G:C2	2.87	0.58
6:A:1459:C:C2'	6:A:1460:A:H5'	2.34	0.58
6:A:216:G:C8	6:A:217:C:C5	2.91	0.58
6:A:409:G:OP1	11:H:24:GLU:N	2.37	0.58
6:A:646:U:H2'	6:A:647:C:C6	2.38	0.58
6:A:69:G:C2'	6:A:73:G:H8	1.95	0.58
6:A:837:G:H2'	6:A:838:G:H8	1.69	0.58
56:B:299:PRO:CA	56:B:479:TYR:CE1	2.87	0.58
7:D:1143:A:OP2	7:D:1144:G:OP2	2.22	0.58
7:D:1171:G:H2'	7:D:1173:G:O3'	2.04	0.58
7:D:1203:G:H5'	7:D:1204:A:H8	1.68	0.58
7:D:1251:C:H5'	16:M:10:ARG:HE	171.05	0.58
7:D:1358:G:N1	7:D:1372:U:OP2	2.28	0.58
7:D:1485:G:O6	7:D:1486:A:N6	2.37	0.58
7:D:1524:G:H2'	7:D:1525:G:C8	2.39	0.58
7:D:1580:A:H2'	7:D:1581:G:N9	2.18	0.58
7:D:1718:G:O2'	7:D:1725:G:H5'	2.04	0.58
7:D:1748:G:C2'	7:D:1749:A:C8	2.76	0.58
7:D:2287:A:O2'	7:D:2288:A:O5'	2.21	0.58
7:D:2320:A:H1'	7:D:2333:A:C2	2.38	0.58
7:D:2585:U:O2'	7:D:2586:C:O5'	2.21	0.58
7:D:2792:G:C4	7:D:2793:G:C8	2.91	0.58
7:D:280:C:N4	7:D:360:G:N7	2.52	0.58
7:D:28:A:C4	7:D:513:A:N7	2.72	0.58
7:D:542:C:C4	7:D:543:C:N4	2.72	0.58
7:D:548:A:C5	7:D:549:G:H1'	2.39	0.58
9:F:22:LYS:HE2	9:F:38:GLY:HA2	1.86	0.58
26:W:49:ILE:O	26:W:59:PRO:HG2	2.04	0.58
1:1:19:ARG:HD3	1:1:24:TYR:CD2	2.39	0.57
3:3:49:GLY:O	3:3:53:VAL:HG23	2.04	0.57
5:5:16:U:OP2	5:5:17:C:OP2	2.22	0.57
6:A:1092:A:H5''	14:K:4:ARG:NH1	2.11	0.57
6:A:1164:G:C6	6:A:1165:C:C4	2.92	0.57
6:A:1167:A:H8	6:A:1167:A:P	2.25	0.57
6:A:1243:C:H2'	6:A:1244:C:H6	1.68	0.57
6:A:1254:C:H2'	6:A:1255:G:H8	1.69	0.57
6:A:1293:G:H2'	6:A:1294:G:H8	1.67	0.57
6:A:393:A:OP2	23:T:12:LYS:NZ	2.33	0.57
6:A:734:G:H21	25:V:75:ILE:HD11	1.69	0.57
56:B:194:ALA:HB1	56:B:195:PRO:HD2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:308:VAL:HG22	56:B:370:ILE:HD11	1.86	0.57
7:D:1084:A:C4'	7:D:1106:G:H8	2.17	0.57
7:D:1025:G:C8	7:D:1134:G:H1'	2.39	0.57
7:D:1205:U:H2'	7:D:1206:G:N7	2.19	0.57
7:D:1491:G:H5''	7:D:1492:G:OP2	2.04	0.57
7:D:1528:A:C5	7:D:1529:A:C6	2.91	0.57
7:D:154:G:C4	7:D:155:C:C5	2.92	0.57
7:D:1707:G:C4	7:D:1756:G:C2	2.91	0.57
7:D:151:C:C2	7:D:176:G:N2	2.72	0.57
7:D:2206:C:H6	7:D:2206:C:O5'	1.87	0.57
7:D:2681:C:O2'	7:D:2682:U:O5'	2.21	0.57
7:D:1709:U:HO2'	7:D:2859:G:HO2'	1.52	0.57
7:D:646:A:H5''	7:D:647:G:OP2	2.04	0.57
7:D:778:G:C6	7:D:779:U:N3	2.72	0.57
7:D:827:U:H4'	7:D:828:U:O2	2.04	0.57
7:D:930:U:H4'	7:D:931:G:OP2	2.04	0.57
10:G:137:ALA:O	10:G:141:VAL:HG23	2.04	0.57
14:K:146:GLU:HA	14:K:149:ARG:HG3	1.86	0.57
13:J:62:TRP:CD2	25:V:35:ARG:NH1	2.71	0.57
20:Q:87:TYR:HD2	26:W:73:GLU:HA	1.69	0.57
27:X:73:HIS:HD2	27:X:74:LYS:HD2	1.69	0.57
7:D:2125:G:O4'	29:Z:217:THR:HG21	2.04	0.57
6:A:217:C:O5'	6:A:217:C:H6	1.87	0.57
6:A:442:C:O2'	6:A:443:C:H5'	2.04	0.57
6:A:733:A:H5'	6:A:734:G:OP2	2.03	0.57
6:A:850:U:O5'	6:A:850:U:H6	1.87	0.57
56:B:12:PHE:HA	56:B:100:VAL:HG12	1.86	0.57
56:B:192:PRO:HD2	56:B:193:GLU:H	1.69	0.57
56:B:25:LEU:CD2	56:B:29:ILE:HD11	2.34	0.57
56:B:398:ASP:CG	56:B:399:PRO:HD3	2.24	0.57
7:D:82:G:C5	7:D:102:G:N2	2.71	0.57
7:D:1485:G:C4	7:D:1486:A:C8	2.92	0.57
7:D:1511:A:OP2	7:D:1511:A:H8	1.87	0.57
7:D:1747:G:H2'	7:D:1748:G:C5'	2.30	0.57
7:D:1856:G:O6	7:D:1858:G:N2	2.37	0.57
7:D:201:C:O2'	7:D:386:G:N1	2.36	0.57
7:D:2227:A:N7	7:D:2228:G:N7	2.52	0.57
7:D:2656:U:H5''	7:D:2657:A:OP2	2.05	0.57
7:D:2842:G:H2'	7:D:2843:G:C8	2.34	0.57
7:D:2856:C:N4	7:D:2857:G:O6	2.36	0.57
7:D:38:A:C5	7:D:39:C:C4	2.91	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:440:G:C2	7:D:441:U:C2	2.91	0.57
8:E:113:C:H2'	8:E:114:G:C8	2.39	0.57
6:A:511:C:O2'	11:H:43:HIS:NE2	2.34	0.57
11:H:77:ASN:O	11:H:81:GLU:HG2	2.03	0.57
14:K:18:TYR:CD2	14:K:23:VAL:HG21	2.39	0.57
19:P:86:ARG:HH21	19:P:99:HIS:HE1	1.50	0.57
29:Z:127:LEU:HD23	29:Z:130:ILE:HD13	1.86	0.57
6:A:1159:U:H5	6:A:1182:G:N3	2.03	0.57
6:A:1326:C:N3	6:A:1327:C:N4	2.51	0.57
6:A:19:C:H2'	6:A:20:U:C6	2.39	0.57
6:A:199:G:C2	6:A:219:C:N3	2.72	0.57
6:A:614:A:H2'	6:A:615:C:C6	2.39	0.57
6:A:84:U:H6	6:A:84:U:O5'	1.87	0.57
56:B:239:VAL:CG2	56:B:240:ASP:H	2.05	0.57
56:B:118:LEU:HD22	56:B:446:LYS:NZ	2.10	0.57
56:B:490:VAL:HG12	56:B:508:ALA:CB	2.31	0.57
7:D:141:A:N3	7:D:1596:A:O2'	2.37	0.57
7:D:1456:G:N1	7:D:1457:A:N7	2.52	0.57
7:D:1870:C:C2'	7:D:1871:A:C8	2.86	0.57
7:D:2154:G:H2'	7:D:2155:G:C8	2.39	0.57
7:D:2423:U:H1'	7:D:2425:A:C5	2.39	0.57
7:D:2460:U:H3	7:D:2490:G:H1	1.53	0.57
7:D:2792:G:C8	7:D:2792:G:OP2	2.57	0.57
7:D:2807:G:H22	7:D:2892:A:N6	2.01	0.57
7:D:638:G:H22	7:D:650:C:H1'	1.69	0.57
7:D:894:C:H5	7:D:895:U:C2	2.19	0.57
11:H:68:TYR:HD1	11:H:114:ARG:NH1	2.02	0.57
14:K:77:SER:OG	14:K:86:GLN:OE1	2.18	0.57
20:Q:108:ARG:HH21	20:Q:114:ARG:HH11	1.51	0.57
29:Z:65:PRO:HG2	29:Z:154:ARG:HH11	1.69	0.57
6:A:1171:G:H2'	6:A:1172:C:H6	1.68	0.57
6:A:1293:G:H2'	6:A:1294:G:C8	2.38	0.57
6:A:62:U:H5''	6:A:385:C:O2'	2.04	0.57
6:A:850:U:O2'	6:A:851:G:H5'	2.04	0.57
56:B:107:VAL:HG11	56:B:113:VAL:CG2	2.33	0.57
56:B:9:ILE:HG23	56:B:77:VAL:HA	1.85	0.57
7:D:1128:A:OP2	7:D:1128:A:C4	2.58	0.57
7:D:1460:A:OP2	7:D:1461:G:OP2	2.22	0.57
7:D:1448:G:N2	7:D:1463:C:N3	2.51	0.57
7:D:528:A:N7	7:D:2042:A:C6	2.72	0.57
7:D:2047:U:H2'	7:D:2048:G:H8	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:917:A:N6	7:D:2268:A:C4	2.72	0.57
7:D:2270:G:C6	7:D:2271:G:C2	2.92	0.57
7:D:350:U:H2'	7:D:350:U:O2	2.03	0.57
7:D:432:A:C5	7:D:433:C:C5	2.92	0.57
7:D:729:G:O3'	7:D:730:C:H4'	2.03	0.57
7:D:879:G:N1	7:D:880:G:N7	2.53	0.57
9:F:124:SER:O	9:F:126:GLU:N	2.37	0.57
9:F:163:PHE:HA	9:F:185:ILE:O	2.04	0.57
26:W:30:LEU:CD1	26:W:31:ILE:H	2.05	0.57
6:A:1321:C:C5	26:W:37:ARG:NH2	2.73	0.57
26:W:70:LYS:HB3	26:W:73:GLU:H	1.69	0.57
6:A:101:A:C6	6:A:102:G:C6	2.92	0.57
6:A:1059:C:H2'	6:A:1060:C:C6	2.39	0.57
6:A:1131:G:N1	6:A:1144:G:O2'	2.35	0.57
6:A:166:G:H2'	6:A:167:G:C8	2.39	0.57
6:A:447:G:H3'	6:A:485:G:N1	2.20	0.57
6:A:495:A:O4'	6:A:496:A:C8	2.58	0.57
6:A:66:G:C6	6:A:67:C:C4	2.93	0.57
6:A:696:A:C6	6:A:697:U:C4	2.93	0.57
56:B:300:VAL:HG11	56:B:477:MET:HE1	1.85	0.57
56:B:492:VAL:CG2	56:B:541:ILE:CG2	2.83	0.57
56:B:528:ILE:O	56:B:528:ILE:HG13	2.03	0.57
7:D:1275:A:H62	7:D:1296:G:C4'	2.17	0.57
7:D:1512:G:N7	7:D:1513:C:N4	2.52	0.57
7:D:1709:U:O2'	7:D:2859:G:O2'	2.22	0.57
7:D:1746:G:N1	7:D:1747:G:N3	2.52	0.57
7:D:1776:G:C2	7:D:1777:U:C2	2.92	0.57
7:D:2029:G:N2	7:D:2033:A:C4	2.72	0.57
7:D:2089:U:H2'	7:D:2090:G:H8	1.70	0.57
7:D:2104:G:O5'	7:D:2104:G:H8	1.86	0.57
7:D:2427:C:O2'	7:D:2428:G:OP2	2.15	0.57
7:D:2545:G:N1	7:D:2546:U:O2	2.37	0.57
7:D:299:A:N1	7:D:322:A:H2'	2.19	0.57
7:D:519:U:H2'	7:D:520:G:C8	2.39	0.57
7:D:526:A:H4'	7:D:527:C:OP1	2.04	0.57
7:D:738:G:H1'	7:D:759:G:N2	2.19	0.57
7:D:848:G:N3	7:D:931:G:O6	2.36	0.57
16:M:49:PRO:HD3	16:M:101:PHE:HE2	1.69	0.57
18:O:43:SER:HB2	18:O:71:LYS:HZ1	1.70	0.57
26:W:49:ILE:HD13	26:W:49:ILE:N	2.20	0.57
26:W:40:ILE:C	26:W:68:GLY:HA2	2.25	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:Z:91:ALA:HB2	29:Z:153:ILE:CG2	2.35	0.57
4:4:63:G:H5''	4:4:64:G:OP2	2.05	0.57
6:A:1169:A:C6	6:A:1170:A:N6	2.73	0.57
6:A:1265:G:C6	6:A:1266:G:H1'	2.40	0.57
6:A:277:C:H5'	24:U:68:ARG:NH1	2.20	0.57
6:A:443:C:C6	6:A:492:G:N2	2.72	0.57
56:B:153:GLU:HG3	56:B:159:PRO:HB2	1.87	0.57
56:B:205:TYR:OH	56:B:271:ILE:CG1	2.35	0.57
56:B:242:VAL:CG2	56:B:256:LEU:CD2	2.83	0.57
56:B:200:ILE:CD1	56:B:274:VAL:CG1	2.60	0.57
56:B:419:GLU:HG2	56:B:419:GLU:O	2.05	0.57
56:B:411:LYS:CA	56:B:452:TYR:O	2.49	0.57
56:B:556:LYS:O	56:B:558:VAL:HG23	2.04	0.57
56:B:23:SER:N	57:B:701:GCP:O2B	2.38	0.57
56:B:70:ALA:CA	56:B:178:LEU:HD21	2.34	0.57
7:D:585:G:C2	7:D:1251:C:N4	2.73	0.57
7:D:139:G:C2	7:D:140:A:H1'	2.39	0.57
7:D:153:C:O2	7:D:174:C:O2	2.22	0.57
7:D:1899:G:H22	7:D:1902:C:H41	1.50	0.57
7:D:270(Z):U:N3	7:D:271(B):G:OP1	2.36	0.57
7:D:37:C:H2'	7:D:38:A:H8	1.69	0.57
7:D:685:A:C8	7:D:774:A:C6	2.93	0.57
8:E:23:G:H5''	8:E:24:G:OP2	2.04	0.57
11:H:60:GLU:OE2	11:H:198:VAL:HB	2.04	0.57
20:Q:71:ARG:C	20:Q:75:ALA:HB3	2.24	0.57
25:V:80:PRO:HB2	25:V:83:GLU:OE2	2.05	0.57
29:Z:131:LEU:HB3	29:Z:136:LEU:HB2	1.85	0.57
29:Z:66:HIS:N	29:Z:158:ALA:O	2.37	0.57
3:3:10:LEU:CG	3:3:57:ILE:CD1	2.72	0.57
4:4:23:C:H2'	4:4:24:U:H6	1.70	0.57
6:A:1238:A:H5''	6:A:1239:A:OP2	2.03	0.57
6:A:1288:A:C6	6:A:1289:A:C6	2.92	0.57
6:A:1320:C:C5'	26:W:70:LYS:CE	2.31	0.57
6:A:1323:G:H2'	6:A:1324:A:C8	2.40	0.57
6:A:1479:C:H2'	6:A:1480:G:H8	1.68	0.57
6:A:160:A:H2'	6:A:161:A:H8	1.69	0.57
6:A:287:U:H2'	6:A:288:A:C8	2.40	0.57
6:A:362:G:N1	6:A:365:U:OP2	2.37	0.57
6:A:474:G:N2	6:A:475:G:C2	2.73	0.57
6:A:90:C:C2	6:A:91:C:N4	2.73	0.57
56:B:162:GLU:C	56:B:164:ILE:H	2.07	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:229:ARG:O	56:B:280:ILE:CG2	2.52	0.57
56:B:15:ILE:HA	56:B:22:LYS:HE3	1.86	0.57
56:B:306:TYR:HB2	56:B:370:ILE:HB	1.76	0.57
56:B:382:LEU:H	56:B:386:GLU:CB	2.16	0.57
56:B:526:GLU:OE1	56:B:595:GLU:HB3	2.05	0.57
56:B:69:ARG:HA	56:B:69:ARG:NH2	2.18	0.57
7:D:1054:A:H2'	7:D:1055:G:C8	2.26	0.57
7:D:1448:G:H1	7:D:1463:C:N4	2.02	0.57
7:D:1748:G:H2'	7:D:1749:A:N9	2.19	0.57
7:D:1797:C:H2'	7:D:1798:U:H6	1.69	0.57
7:D:1943:U:OP1	56:B:532:LEU:HD11	2.04	0.57
7:D:2301:C:N4	7:D:2302:G:O6	2.37	0.57
7:D:2461:C:H1'	7:D:2492:U:C4	2.39	0.57
7:D:2592:G:C2	7:D:2603:G:C2	2.93	0.57
7:D:2630:G:N3	7:D:2893:G:C2	2.66	0.57
7:D:2659:G:H4'	7:D:2660:A:N1	2.19	0.57
7:D:273(C):C:H2'	7:D:273(D):C:C6	2.38	0.57
7:D:295:G:C4	7:D:344:G:N2	2.72	0.57
7:D:375:C:H42	7:D:399:G:H1	1.53	0.57
7:D:541:C:C5	7:D:542:C:N4	2.73	0.57
7:D:775:G:H5''	7:D:777:A:N9	2.19	0.57
7:D:884:C:C1'	7:D:885:C:C5	2.87	0.57
15:L:118:VAL:O	15:L:119:LEU:HD12	2.05	0.57
19:P:86:ARG:HH21	19:P:99:HIS:CE1	2.22	0.57
19:P:24:VAL:HG13	19:P:98:TYR:HE1	1.70	0.57
23:T:19:ILE:HG22	23:T:36:ILE:HG13	1.85	0.57
6:A:449:C:C2	23:T:42:ARG:NH1	2.73	0.57
6:A:1039:C:H2'	6:A:1040:U:H6	1.68	0.57
6:A:66:G:C2	6:A:104:G:H1'	2.40	0.57
6:A:1408:A:N7	6:A:1409:C:C4	2.73	0.57
6:A:1447:G:C5	6:A:1448:C:N4	2.73	0.57
6:A:44:G:C2	6:A:399:G:C2	2.92	0.57
6:A:477:G:H2'	6:A:478:A:C8	2.35	0.57
6:A:695:A:H61	6:A:797:C:H1'	1.70	0.57
6:A:97:U:C4	6:A:99:C:N4	2.73	0.57
56:B:25:LEU:HB2	56:B:168:GLY:CA	2.34	0.57
56:B:246:THR:OG1	56:B:251:VAL:HG23	2.04	0.57
56:B:337:SER:O	56:B:338:THR:OG1	2.22	0.57
56:B:361:LEU:HD13	56:B:361:LEU:C	2.24	0.57
56:B:397:PRO:HB2	56:B:401:ARG:NH2	2.20	0.57
56:B:383:LYS:CD	56:B:402:ILE:CG2	2.78	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:417:PRO:HA	56:B:448:VAL:HG23	0.65	0.57
56:B:527:VAL:O	56:B:529:PRO:HD3	2.04	0.57
56:B:64:VAL:CG2	56:B:80:LEU:H	2.17	0.57
7:D:1477:A:C6	7:D:1478:G:C6	2.92	0.57
7:D:1480:G:OP1	7:D:1559:G:N1	2.38	0.57
7:D:155:C:H4'	7:D:161:U:OP1	2.03	0.57
7:D:1748:G:O2'	7:D:1749:A:O4'	2.17	0.57
7:D:65:C:H2'	7:D:66:C:C6	2.39	0.57
7:D:727:A:N6	7:D:729:G:O6	2.36	0.57
7:D:958:U:O2'	7:D:959:A:OP2	2.18	0.57
9:F:32:ILE:HD11	9:F:40:HIS:HB3	1.85	0.57
11:H:121:VAL:O	11:H:134:ASP:HB2	2.04	0.57
17:N:54:PHE:CD2	17:N:55:LYS:HG2	2.40	0.57
23:T:3:LYS:NZ	23:T:24:ALA:HB2	2.19	0.57
26:W:67:VAL:C	26:W:69:HIS:H	2.08	0.57
29:Z:22:ILE:HG13	29:Z:228:SER:OXT	2.05	0.57
6:A:979:C:OP1	6:A:1223:C:N4	2.38	0.57
6:A:125:U:H2'	6:A:126:G:C8	2.40	0.57
6:A:210:U:H1'	6:A:216:G:O5'	2.04	0.57
6:A:285:G:H2'	6:A:286:G:H8	1.70	0.57
6:A:308:C:OP2	6:A:308:C:H3'	2.05	0.57
6:A:370:C:O2'	6:A:371:G:H5'	2.05	0.57
6:A:475:G:C2	6:A:476:G:C4	2.93	0.57
6:A:538:G:H2'	6:A:539:A:C8	2.39	0.57
56:B:265:VAL:O	56:B:266:ALA:HB3	2.05	0.57
56:B:332:PHE:CD1	56:B:333:GLU:N	2.73	0.57
7:D:132:G:N2	7:D:148:C:O2	2.38	0.57
7:D:1386:C:H2'	7:D:1387:C:C6	2.40	0.57
7:D:1466:G:N3	7:D:1547:C:N4	2.53	0.57
7:D:1582:C:C4	7:D:1583:A:N6	2.73	0.57
7:D:1652:A:H62	7:D:1653:G:N2	2.02	0.57
7:D:1661:G:N2	7:D:2000:G:C4	2.73	0.57
7:D:1743:G:C2	7:D:1746:G:H1'	2.40	0.57
7:D:1777:U:H3	7:D:1787:A:H61	1.51	0.57
7:D:2205:C:H2'	7:D:2206:C:C6	2.40	0.57
7:D:222:A:N6	7:D:224:G:C2	2.73	0.57
7:D:230:U:H2'	7:D:231:C:C6	2.39	0.57
7:D:2711:A:OP2	7:D:2712(A):A:OP2	2.22	0.57
7:D:2776:A:C6	7:D:2778:A:C6	2.93	0.57
7:D:448:U:O2'	7:D:449:A:P	2.63	0.57
9:F:114:ARG:HG3	9:F:117:GLU:OE2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:W:15:LEU:HD21	26:W:19:VAL:CB	1.96	0.57
6:A:1146:A:H3'	6:A:1147:C:C6	2.39	0.57
6:A:424:G:H2'	6:A:425:G:H8	1.69	0.57
6:A:713:G:N2	6:A:777:A:H1'	2.20	0.57
56:B:106:VAL:CG1	56:B:136:ASN:HB2	2.35	0.57
56:B:372:THR:HG22	56:B:373:ALA:H	1.69	0.57
56:B:378:TYR:HD2	56:B:489:LEU:CD1	2.15	0.57
7:D:1062:G:H1'	7:D:1063:G:P	2.45	0.57
7:D:1882:C:C5	7:D:1883:G:C5	2.92	0.57
7:D:2227:A:C5	7:D:2228:G:N7	2.72	0.57
7:D:2576:G:O2'	7:D:2579:C:OP2	2.22	0.57
7:D:2704:C:H2'	7:D:2705:A:C8	2.37	0.57
7:D:2631:G:P	7:D:2894:G:H5'	2.45	0.57
7:D:336:C:C2'	7:D:337:C:H5'	2.35	0.57
7:D:627:A:H2	7:D:637:A:C4	2.23	0.57
7:D:829:A:N7	7:D:2248:C:H5'	2.19	0.57
8:E:33:G:H2'	8:E:34:U:C6	2.40	0.57
9:F:161:ALA:HA	9:F:182:ILE:HG23	1.86	0.57
6:A:642:A:N7	15:L:115:SER:HA	2.20	0.57
6:A:146:G:H1	6:A:176:C:H42	1.53	0.56
6:A:191(F):U:H2'	6:A:191:G:C8	2.40	0.56
6:A:322:C:H2'	6:A:323:U:C6	2.40	0.56
6:A:443:C:N1	6:A:492:G:C2	2.73	0.56
6:A:502:G:C6	6:A:544:G:C6	2.92	0.56
6:A:570:G:O3'	6:A:819:A:O2'	2.23	0.56
6:A:613:C:H2'	6:A:614:A:H8	1.66	0.56
6:A:848:C:C4	6:A:849:C:N4	2.73	0.56
6:A:86:U:H6	6:A:86:U:O5'	1.87	0.56
6:A:90:C:N3	6:A:91:C:N4	2.52	0.56
6:A:99:C:H4'	6:A:101:A:OP1	2.04	0.56
56:B:195:PRO:HG2	56:B:287:THR:CA	2.34	0.56
56:B:115:ALA:HB2	56:B:474:TYR:CE1	2.40	0.56
7:D:1204:A:H4'	7:D:1205:U:O5'	2.04	0.56
7:D:1307:A:H1'	7:D:1622:G:N2	2.20	0.56
7:D:1862:G:N2	7:D:1863:G:C6	2.73	0.56
7:D:1864:U:HO2'	7:D:1869:G:H5'	1.68	0.56
7:D:2757:A:H2'	7:D:2758:A:C5'	2.34	0.56
7:D:295:G:H1'	7:D:344:G:N2	2.20	0.56
7:D:616:A:O2'	7:D:617:G:O4'	2.22	0.56
7:D:681:G:N2	7:D:797:C:O2	2.38	0.56
7:D:869:G:C2	7:D:909:A:C2	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:L:89:PRO:HA	15:L:92:ARG:HE	1.69	0.56
20:Q:25:ILE:HD11	20:Q:66:LEU:HD13	1.86	0.56
20:Q:68:GLY:C	20:Q:70:LEU:H	2.07	0.56
29:Z:144:THR:OG1	29:Z:145:VAL:N	2.37	0.56
29:Z:152:ILE:HG23	29:Z:155:GLU:OE1	2.04	0.56
6:A:1163:C:H2'	6:A:1164:G:C5'	2.31	0.56
6:A:1449:C:N3	6:A:1455:G:C2	2.73	0.56
6:A:451:A:C5	6:A:481:G:C6	2.93	0.56
6:A:861:G:O2'	6:A:874:G:O2'	2.21	0.56
56:B:135:ILE:CG1	56:B:165:PHE:HA	2.33	0.56
56:B:337:SER:OG	56:B:393:PRO:HB2	2.04	0.56
56:B:351:LEU:CG	56:B:465:ASP:OD2	2.43	0.56
56:B:528:ILE:CG2	56:B:592:VAL:HG11	2.36	0.56
56:B:64:VAL:HG11	56:B:80:LEU:O	2.05	0.56
7:D:149:A:H2'	7:D:150:C:O4'	2.05	0.56
7:D:1580:A:C2'	7:D:1581:G:C4	2.86	0.56
7:D:164:U:O2	7:D:164:U:H5'	2.05	0.56
7:D:1748:G:C2	7:D:1749:A:N3	2.73	0.56
7:D:1871:A:N3	7:D:1872:A:C8	2.73	0.56
7:D:2141:G:H2'	7:D:2142:C:H6	1.69	0.56
7:D:2175:C:OP2	29:Z:5:LYS:HG2	2.04	0.56
7:D:2748:A:N7	7:D:2749:A:C6	2.73	0.56
7:D:294:A:N6	7:D:346:A:C6	2.73	0.56
7:D:707:G:C6	7:D:708:C:C2	2.93	0.56
7:D:740:U:H2'	7:D:741:G:H8	1.70	0.56
7:D:777:A:H2	7:D:778:G:C4	2.22	0.56
7:D:93:C:N4	7:D:94:G:N3	2.53	0.56
11:H:165:MET:HG3	11:H:166:LYS:H	1.70	0.56
11:H:173:TRP:CD1	11:H:174:LEU:HG	2.40	0.56
12:I:97:GLY:O	12:I:99:GLY:N	2.37	0.56
9:F:181:PHE:HE1	15:L:72:PRO:HD3	1.70	0.56
19:P:102:ARG:HA	19:P:107:ALA:HB1	1.87	0.56
20:Q:70:LEU:O	20:Q:74:VAL:HB	2.05	0.56
27:X:60:GLU:OE2	27:X:85:MET:HE1	2.05	0.56
6:A:195:A:H4'	27:X:68:LYS:HZ2	1.70	0.56
28:Y:3:LYS:O	28:Y:11:GLY:HA2	2.05	0.56
3:3:22:PRO:HD2	3:3:23:VAL:H	1.70	0.56
6:A:976:G:N7	6:A:1362:C:N4	2.54	0.56
6:A:1454:G:O5'	6:A:1454:G:H8	1.87	0.56
6:A:1422:G:H1	6:A:1478:C:H42	1.53	0.56
6:A:187:C:N4	6:A:188:U:O2	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:560:U:H4'	6:A:561:U:H5''	1.86	0.56
56:B:298:LYS:O	56:B:479:TYR:OH	2.23	0.56
56:B:382:LEU:HD22	56:B:383:LYS:H	1.69	0.56
56:B:492:VAL:CA	56:B:541:ILE:CG2	2.66	0.56
56:B:587:ILE:H	56:B:587:ILE:HD12	1.70	0.56
7:D:1056:G:H5'	7:D:1057:A:H5'	1.86	0.56
7:D:1181:C:H2'	7:D:1182:A:O4'	2.06	0.56
7:D:150:C:N4	7:D:176:G:H1	2.03	0.56
7:D:1717:G:C6	7:D:1718:G:N2	2.73	0.56
7:D:1734:C:C4	7:D:1735:C:N4	2.73	0.56
7:D:2148:G:H3'	7:D:2149:G:C8	2.40	0.56
7:D:22:C:H2'	7:D:23:G:H8	1.70	0.56
7:D:2577:A:H4'	7:D:2612:C:C5	2.41	0.56
7:D:452:G:H5''	7:D:453:C:OP2	2.04	0.56
7:D:455:C:H5'	7:D:472:A:C2	2.41	0.56
7:D:532:A:OP2	7:D:2021:C:C4	2.58	0.56
7:D:603:A:N1	7:D:625:G:C4	2.73	0.56
7:D:687:C:O2	7:D:788:A:C8	2.58	0.56
9:F:112:VAL:HG22	9:F:149:LEU:HD21	1.87	0.56
10:G:82:GLU:OE2	10:G:83:ARG:HG2	2.06	0.56
6:A:1152:A:O5'	17:N:13:HIS:NE2	2.39	0.56
20:Q:89:GLY:O	20:Q:92:HIS:HB2	2.04	0.56
26:W:29:ARG:HE	26:W:29:ARG:N	2.03	0.56
26:W:6:LYS:NZ	26:W:11:VAL:HA	2.19	0.56
6:A:1075:C:H2'	6:A:1076:C:C6	2.41	0.56
6:A:1169:A:C3'	6:A:1170:A:C8	2.88	0.56
6:A:1401:G:H5''	6:A:1402:C:OP2	2.06	0.56
6:A:1454:G:C6	6:A:1455:G:C8	2.92	0.56
6:A:1495:U:OP1	7:D:1912:A:O2'	2.23	0.56
6:A:410:G:H1'	6:A:432:A:H61	1.70	0.56
6:A:500:G:H2'	6:A:501:C:C6	2.41	0.56
56:B:238:THR:O	56:B:239:VAL:HG12	2.05	0.56
56:B:398:ASP:HB3	56:B:399:PRO:CD	2.36	0.56
56:B:66:VAL:O	56:B:76:TYR:CE2	2.57	0.56
56:B:6:LEU:H	56:B:6:LEU:HD12	1.70	0.56
56:B:169:LYS:HD3	57:B:701:GCP:N3	2.08	0.56
7:D:1735:C:H2'	7:D:1741:C:N1	2.19	0.56
7:D:2134:A:OP2	7:D:2134:A:C4	2.59	0.56
7:D:2503:A:O2'	7:D:2505:G:OP2	2.23	0.56
7:D:2593:U:H2'	7:D:2594:C:C6	2.40	0.56
7:D:2725:A:N6	7:D:2727:G:C4	2.73	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:339:U:H6	7:D:339:U:OP1	1.89	0.56
7:D:542:C:N3	7:D:543:C:N4	2.53	0.56
7:D:684:G:C4	7:D:775:G:C6	2.92	0.56
12:I:75:THR:HB	12:I:117:ASP:OD2	2.05	0.56
19:P:86:ARG:NH2	19:P:99:HIS:HE1	2.04	0.56
6:A:1295:G:H1'	20:Q:14:ARG:HH21	1.69	0.56
6:A:1329:A:O2'	20:Q:24:GLY:HA2	2.05	0.56
22:S:7:GLU:HB2	22:S:10:LYS:HE3	1.87	0.56
29:Z:177:LYS:H	29:Z:180:PHE:HD2	1.54	0.56
29:Z:43:VAL:HG21	29:Z:175:VAL:HG13	1.79	0.56
29:Z:45:ALA:O	29:Z:171:ILE:HG22	2.05	0.56
6:A:1454:G:C6	6:A:1455:G:C5	2.93	0.56
6:A:584:G:H2'	6:A:585:G:C8	2.41	0.56
6:A:588:G:C2	6:A:589:C:C2	2.93	0.56
6:A:789:U:C4	6:A:791:G:OP2	2.59	0.56
6:A:815:A:H62	6:A:1509:C:H1'	1.70	0.56
56:B:17:HIS:CB	56:B:20:HIS:CD2	2.88	0.56
56:B:242:VAL:O	56:B:263:TRP:HD1	1.88	0.56
56:B:338:THR:CG2	56:B:502:ASP:OD1	2.53	0.56
56:B:67:THR:CA	56:B:76:TYR:CB	2.71	0.56
7:D:1085:A:O2'	7:D:1086:A:O4'	2.24	0.56
7:D:140:A:C2	7:D:141:A:H1'	2.40	0.56
7:D:1421:G:H21	7:D:1495:A:N6	2.03	0.56
7:D:1589:C:H2'	7:D:1590:U:H6	1.70	0.56
7:D:1725:G:N2	7:D:1735:C:C2	2.72	0.56
7:D:2630:G:OP1	7:D:2895:U:C4	2.57	0.56
7:D:270(W):G:H2'	7:D:270(X):G:C8	2.40	0.56
7:D:363(F):A:C2'	7:D:364:C:O4'	2.50	0.56
7:D:556:G:H2'	7:D:557:U:H6	1.68	0.56
7:D:611:C:N3	7:D:612:G:N1	2.53	0.56
7:D:59:U:O2'	7:D:74:A:OP2	2.17	0.56
7:D:85:G:N2	7:D:97:C:O2	2.37	0.56
25:V:21:LYS:C	25:V:55:ARG:HH12	2.09	0.56
26:W:54:GLY:O	26:W:55:LYS:HB3	2.06	0.56
29:Z:192:PHE:O	29:Z:195:ALA:HB3	2.05	0.56
29:Z:21:THR:OG1	29:Z:24:GLU:OE1	2.22	0.56
3:3:6:ALA:C	3:3:8:VAL:H	2.09	0.56
5:5:49:C:N4	5:5:63:G:O6	2.39	0.56
5:5:76:A:H62	7:D:2422:A:C5'	2.17	0.56
6:A:1085:U:H3'	6:A:1086:U:C6	2.41	0.56
6:A:1229:A:H2'	6:A:1230:C:H6	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1306:A:N6	6:A:1307:U:O2	2.39	0.56
6:A:1454:G:N2	6:A:1455:G:H1'	2.21	0.56
6:A:173:U:O2	6:A:197:A:N6	2.38	0.56
56:B:174:VAL:HG11	56:B:177:ILE:CD1	2.34	0.56
56:B:345:ARG:CZ	56:B:348:PHE:CE1	2.88	0.56
56:B:379:LYS:NZ	56:B:407:GLU:C	2.49	0.56
56:B:411:LYS:NZ	56:B:436:VAL:CG2	2.68	0.56
56:B:379:LYS:HZ3	56:B:485:ARG:H	1.54	0.56
56:B:67:THR:O	56:B:69:ARG:N	2.39	0.56
7:D:1020:A:N6	7:D:1141:U:OP2	2.37	0.56
7:D:83:G:H22	7:D:102:G:H2'	1.70	0.56
7:D:974:G:C2	7:D:1186:G:N7	2.74	0.56
7:D:173:G:N1	7:D:174:C:C4	2.73	0.56
7:D:182:A:O5'	7:D:182:A:H8	1.88	0.56
7:D:1784:A:C8	7:D:1981:A:C5	2.94	0.56
7:D:2094:G:C6	7:D:2195:C:N4	2.71	0.56
7:D:2205:C:C5	7:D:2206:C:N4	2.73	0.56
7:D:2547:U:C2	7:D:2566:A:N6	2.73	0.56
7:D:2809:A:O4'	7:D:2811:G:N7	2.38	0.56
7:D:307:G:H21	7:D:330:A:H62	1.53	0.56
7:D:729:G:H2'	7:D:730:C:C1'	2.36	0.56
7:D:777:A:C2	7:D:778:G:C4	2.94	0.56
7:D:807:U:H2'	7:D:808:G:H8	1.71	0.56
8:E:100:G:H2'	8:E:101:A:O4'	2.06	0.56
22:S:88:ARG:HG2	22:S:89:GLY:N	2.20	0.56
15:L:90:GLY:O	24:U:34:LYS:HD3	2.06	0.56
24:U:68:ARG:N	24:U:70:ARG:HH12	2.03	0.56
5:5:17:C:N4	7:D:2181:G:C5'	2.67	0.56
6:A:1021:G:H2'	6:A:1022:G:C8	2.40	0.56
6:A:123:C:OP1	6:A:311:C:O2'	2.22	0.56
6:A:1309:G:C2	6:A:1329:A:N7	2.67	0.56
6:A:1440:C:C5	6:A:1441:G:C5	2.94	0.56
6:A:1517:G:N9	7:D:1920:C:OP2	2.39	0.56
6:A:453:A:N1	6:A:454:C:N4	2.53	0.56
56:B:225:GLY:C	56:B:239:VAL:HG11	2.21	0.56
56:B:226:ASP:N	56:B:239:VAL:HG12	2.15	0.56
7:D:1007:C:H42	7:D:1135:C:H42	1.53	0.56
7:D:1193:G:N2	7:D:1194:A:C4	2.74	0.56
7:D:1312:U:O2	7:D:1603:A:N6	2.30	0.56
7:D:1286:A:N1	7:D:1329:U:H2'	2.19	0.56
7:D:1485:G:H2'	7:D:1486:A:H5'	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2126:A:H61	7:D:2172:U:H5'	1.71	0.56
7:D:2461:C:H1'	7:D:2492:U:C5	2.41	0.56
7:D:2805:G:H3'	7:D:2807:G:H5''	1.88	0.56
7:D:355:G:N1	7:D:356:G:C6	2.74	0.56
7:D:415:A:H2'	7:D:416:C:O4'	2.05	0.56
7:D:482:A:C6	7:D:506:G:C5	2.94	0.56
9:F:126:GLU:O	9:F:129:GLU:N	2.30	0.56
9:F:134:GLU:HA	9:F:137:ARG:HH11	1.70	0.56
9:F:74:LYS:HA	9:F:169:LYS:HE2	1.87	0.56
10:G:5:ILE:HD11	10:G:10:PHE:CD2	2.40	0.56
6:A:1226:C:N3	20:Q:104:ARG:CD	2.68	0.56
6:A:280:C:C4	24:U:91:ARG:NH1	2.74	0.56
6:A:113:G:HO2'	6:A:353:A:HO2'	1.51	0.56
6:A:1305:G:O2'	6:A:1306:A:O4'	2.24	0.56
6:A:1452:C:H1'	6:A:1453:G:C2	2.40	0.56
6:A:1455:G:N2	6:A:1459:C:O2	2.39	0.56
6:A:256:U:H3	6:A:270:A:N6	2.03	0.56
6:A:342:C:C4	6:A:343:U:C4	2.94	0.56
6:A:848:C:C2	6:A:849:C:N4	2.73	0.56
56:B:265:VAL:CG2	56:B:266:ALA:H	2.05	0.56
56:B:307:PRO:HD2	56:B:341:GLY:CA	2.35	0.56
56:B:379:LYS:HD3	56:B:407:GLU:H	1.71	0.56
56:B:407:GLU:OE1	56:B:409:TYR:HE1	1.88	0.56
56:B:455:PRO:CG	56:B:458:GLU:HB2	2.36	0.56
56:B:47:ASP:OD1	56:B:53:ARG:N	2.38	0.56
56:B:379:LYS:NZ	56:B:484:TYR:HB3	2.21	0.56
56:B:524:LEU:O	56:B:525:ALA:HB3	2.05	0.56
56:B:532:LEU:CB	56:B:553:ALA:HB1	2.35	0.56
56:B:12:PHE:HE2	56:B:78:PHE:HB3	1.69	0.56
7:D:976:C:H5'	7:D:1156:A:N6	2.18	0.56
7:D:1400:G:H2'	7:D:1401:G:H8	1.69	0.56
7:D:1491:G:C3'	7:D:1492:G:H4'	2.33	0.56
7:D:173:G:C6	7:D:174:C:C4	2.94	0.56
7:D:172:C:O2'	7:D:173:G:H5'	2.06	0.56
7:D:1783:A:H2	7:D:2587:A:C5	2.23	0.56
7:D:439:G:N1	7:D:440:G:C6	2.73	0.56
7:D:46:C:C4	7:D:47:C:N4	2.73	0.56
7:D:615:G:OP2	7:D:615:G:H4'	2.04	0.56
10:G:64:VAL:HG12	10:G:66:VAL:HG23	1.87	0.56
10:G:54:ARG:HD3	10:G:69:HIS:CD2	2.36	0.56
11:H:68:TYR:CE2	11:H:97:LEU:HD13	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:675:A:H1'	18:O:116:HIS:ND1	2.20	0.56
23:T:60:LEU:HD21	23:T:66:PRO:HD3	1.88	0.56
26:W:15:LEU:O	26:W:19:VAL:CG2	2.51	0.56
3:3:84:LEU:HD11	3:3:134:MET:HG3	1.87	0.56
5:5:64:A:H2'	5:5:65:G:O4'	2.06	0.56
6:A:1065:U:O2'	6:A:1066:C:O5'	2.24	0.56
6:A:1504:G:H4'	6:A:1505:G:OP2	2.05	0.56
6:A:443:C:N3	6:A:492:G:C6	2.73	0.56
6:A:942:G:C6	6:A:943:U:C4	2.94	0.56
56:B:308:VAL:HG22	56:B:370:ILE:CD1	2.35	0.56
56:B:381:ARG:NH2	56:B:385:GLY:HA2	2.18	0.56
56:B:42:ARG:CZ	56:B:53:ARG:NH2	2.68	0.56
7:D:1099:G:N2	7:D:1100:C:H1'	2.21	0.56
7:D:1204:A:C4	7:D:1204:A:OP2	2.59	0.56
7:D:1518:C:C4	7:D:1519:G:C8	2.94	0.56
7:D:1665:A:C2	7:D:1666:G:C4	2.94	0.56
7:D:173:G:N2	7:D:174:C:C2	2.73	0.56
7:D:1839:G:C6	7:D:1927:A:C5	2.94	0.56
7:D:2017:U:O2'	7:D:2018:G:OP1	2.24	0.56
7:D:2110:G:C2	7:D:2180:U:C2	2.93	0.56
7:D:2184:G:C5	7:D:2185:C:C5	2.94	0.56
7:D:2268:A:H5'	7:D:2269:A:OP2	2.05	0.56
7:D:2368:C:H2'	7:D:2369:A:H8	1.70	0.56
7:D:273(B):C:N3	7:D:363(D):G:N1	2.52	0.56
7:D:43:G:C4	7:D:44:A:N7	2.73	0.56
7:D:729:G:H2'	7:D:730:C:H1'	1.88	0.56
7:D:974:G:C5	7:D:1186:G:C6	2.94	0.56
25:V:53:ARG:NH1	25:V:58:LEU:O	2.39	0.56
26:W:3:ARG:HG2	26:W:42:PRO:CB	2.32	0.56
26:W:51:VAL:O	26:W:57:HIS:HB3	2.06	0.56
29:Z:91:ALA:HB2	29:Z:153:ILE:HG23	1.88	0.56
29:Z:42:GLU:HB2	29:Z:215:THR:O	2.06	0.56
3:3:65:PHE:HD1	3:3:65:PHE:H	1.54	0.56
6:A:1088:G:H2'	6:A:1089:G:H8	1.70	0.56
6:A:1281:U:H5''	6:A:1282:C:H5	1.71	0.56
6:A:1422:G:H2'	6:A:1423:G:C8	2.41	0.56
6:A:1442:G:H3'	6:A:1442:G:N3	2.20	0.56
6:A:443:C:N3	6:A:444:C:N4	2.54	0.56
6:A:96:G:N1	6:A:97:U:N3	2.54	0.56
56:B:206:ASP:CB	56:B:210:GLY:HA2	2.36	0.56
56:B:339:ALA:O	56:B:341:GLY:N	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:361:LEU:HD13	56:B:362:GLU:H	1.69	0.56
56:B:497:HIS:HE1	56:B:533:PHE:CE1	2.23	0.56
56:B:23:SER:HB2	57:B:701:GCP:PA	2.45	0.56
7:D:1102:C:C4	7:D:1104:C:N4	2.74	0.56
7:D:1153:C:C2	7:D:1154:G:C8	2.94	0.56
7:D:1425:G:H1'	7:D:1573:G:H22	1.71	0.56
7:D:189:G:H2'	7:D:205:G:N2	2.16	0.56
7:D:2212:A:H4'	7:D:2212:A:OP1	2.06	0.56
7:D:2254:C:H2'	7:D:2255:G:H5'	1.88	0.56
7:D:309:G:C6	7:D:330:A:C5	2.94	0.56
7:D:356:G:H3'	7:D:357:A:C8	2.41	0.56
7:D:363(E):U:H2'	7:D:363(F):A:C8	2.41	0.56
7:D:5:A:H2'	7:D:6:A:H8	1.70	0.56
14:K:18:TYR:HD2	14:K:23:VAL:HG21	1.70	0.56
6:A:1347:G:OP1	16:M:107:ARG:HG2	2.05	0.56
20:Q:23:TYR:CB	20:Q:70:LEU:HD21	2.31	0.56
23:T:40:ASP:OD1	23:T:40:ASP:N	2.37	0.56
26:W:14:HIS:NE2	26:W:35:SER:HA	2.19	0.56
26:W:32:LYS:CE	26:W:52:TYR:CD2	2.76	0.56
29:Z:180:PHE:HB3	29:Z:185:LEU:CG	2.35	0.56
6:A:1169:A:C2	6:A:1170:A:C6	2.94	0.56
6:A:1271:G:H2'	6:A:1272:G:H8	1.70	0.56
6:A:1438:G:C6	6:A:1439:C:N4	2.75	0.56
6:A:1508:G:H2'	6:A:1509:C:H6	1.71	0.56
6:A:186(B):C:H4'	27:X:89:ARG:HH12	1.67	0.56
6:A:717:C:HO2'	6:A:718:G:P	2.28	0.56
56:B:16:ALA:N	56:B:22:LYS:HE3	2.21	0.56
56:B:490:VAL:HG11	56:B:508:ALA:HB1	1.88	0.56
7:D:1042:G:H1'	7:D:1113:U:O2	2.05	0.56
7:D:1375:C:H2'	7:D:1376:C:H6	1.71	0.56
7:D:1507:A:N3	7:D:1507:A:H2'	2.21	0.56
7:D:1520:U:C2'	7:D:1521:G:H5''	2.36	0.56
7:D:1613:G:C2	7:D:1619:G:C5	2.94	0.56
7:D:2114:A:H3'	7:D:2115:G:C8	2.41	0.56
7:D:2206:C:O2	7:D:2219:G:C2	2.58	0.56
7:D:963:U:O2'	7:D:2250:G:N3	2.39	0.56
7:D:1783:A:C2	7:D:2587:A:C5	2.94	0.56
7:D:271(B):G:H5''	7:D:271(C):U:O2'	2.06	0.56
7:D:38:A:C4	7:D:442:G:N2	2.74	0.56
7:D:523:C:H1'	7:D:553:U:O2'	2.06	0.56
7:D:792:G:N2	7:D:2072:G:O2'	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:7:G:H21	7:D:8:A:H1'	1.71	0.56
7:D:860:U:H2'	7:D:861:A:H5'	1.88	0.56
7:D:873:G:C2	7:D:874:G:C4	2.94	0.56
7:D:918:A:C2	7:D:919:G:H1'	2.41	0.56
11:H:127:THR:N	11:H:147:ALA:O	2.34	0.56
11:H:197:PRO:O	11:H:198:VAL:HG13	2.06	0.56
6:A:409:G:H5''	11:H:25:ARG:HB2	1.87	0.56
14:K:107:ALA:O	14:K:123:GLU:HG3	2.06	0.56
17:N:79:ARG:NH1	17:N:82:ILE:HG21	2.21	0.56
6:A:1227:A:P	20:Q:111:LYS:NZ	2.79	0.56
22:S:26:GLU:CD	22:S:77:ARG:HH11	2.09	0.56
26:W:26:GLY:CA	26:W:47:HIS:ND1	2.68	0.56
6:A:1150:U:H5''	6:A:1151:A:OP2	2.06	0.55
6:A:1226:C:C4	20:Q:104:ARG:CG	2.87	0.55
6:A:137:C:H2'	6:A:138:G:H8	1.70	0.55
6:A:191(F):U:H2'	6:A:191:G:H8	1.71	0.55
6:A:465:A:C1'	6:A:466:C:P	2.94	0.55
6:A:492:G:C2	6:A:493:G:H1'	2.41	0.55
6:A:86:U:H5	6:A:87:A:N3	2.03	0.55
6:A:962:C:H1'	6:A:1201:A:N6	2.21	0.55
56:B:206:ASP:O	56:B:207:ALA:HB3	2.05	0.55
56:B:351:LEU:HD13	56:B:351:LEU:O	2.05	0.55
56:B:412:LEU:HG	56:B:478:ASP:O	2.05	0.55
56:B:524:LEU:HG	56:B:524:LEU:O	2.05	0.55
7:D:10:G:N2	7:D:2629:A:N3	2.55	0.55
7:D:1102:C:H2'	7:D:1103:A:C5'	2.34	0.55
7:D:1345:C:H2'	7:D:1346:G:H8	1.71	0.55
7:D:1657:C:C2	7:D:2004:G:N2	2.74	0.55
7:D:1778:U:H3	7:D:1786:A:H61	1.52	0.55
7:D:1835:G:H1	7:D:1905:C:H42	1.53	0.55
7:D:1128:A:N7	7:D:2518:A:C6	2.74	0.55
7:D:2834:G:C6	7:D:2879:C:C2	2.94	0.55
7:D:492:A:C8	7:D:493:G:N7	2.75	0.55
7:D:862:G:H2'	7:D:863:A:O4'	2.06	0.55
7:D:926:A:H4'	7:D:928:G:OP1	2.06	0.55
9:F:82:ARG:NE	9:F:86:GLU:OE2	2.39	0.55
11:H:30:LYS:NZ	11:H:35:ARG:HG3	2.21	0.55
12:I:102:ALA:H	12:I:107:ARG:HH22	1.53	0.55
15:L:20:TYR:HE2	15:L:75:ARG:HG3	1.69	0.55
23:T:8:ARG:HB3	23:T:28:ARG:NH1	2.20	0.55
23:T:81:ARG:HG2	23:T:83:GLU:HG2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:W:19:VAL:O	26:W:21:GLU:HG2	2.06	0.55
26:W:25:LYS:C	26:W:27:GLU:H	2.09	0.55
7:D:2160:G:H22	29:Z:6:ARG:HH22	1.54	0.55
3:3:4:VAL:O	3:3:5:VAL:HG12	2.06	0.55
3:3:93:ARG:HH11	3:3:93:ARG:CG	2.20	0.55
5:5:52:G:H3'	5:5:53:G:H8	1.70	0.55
6:A:1116:C:H2'	6:A:1117:G:O4'	2.07	0.55
6:A:1171:G:H2'	6:A:1172:C:C6	2.42	0.55
6:A:1449:C:C2	6:A:1455:G:N2	2.75	0.55
6:A:295:C:H2'	6:A:296:U:C6	2.41	0.55
6:A:113:G:O6	6:A:313:A:N6	2.40	0.55
6:A:687:A:H1'	6:A:688:G:OP2	2.07	0.55
6:A:74:C:C2	6:A:75:C:C4	2.94	0.55
6:A:838:G:H4'	6:A:841:U:OP1	2.04	0.55
56:B:425:MET:CE	56:B:452:TYR:HH	2.14	0.55
56:B:118:LEU:CG	56:B:446:LYS:NZ	2.69	0.55
56:B:49:LEU:O	56:B:51:LEU:N	2.35	0.55
56:B:64:VAL:HG21	56:B:80:LEU:H	1.68	0.55
7:D:1019:U:HO2'	7:D:1021:A:H2	1.54	0.55
7:D:1450:C:H2'	7:D:1451:C:C1'	2.37	0.55
7:D:1456:G:C6	7:D:1457:A:N6	2.73	0.55
7:D:1467:C:C2	7:D:1525:G:N2	2.75	0.55
7:D:1924:C:C4	7:D:1925:C:H5	2.24	0.55
7:D:2003:G:N2	7:D:2004:G:N3	2.53	0.55
7:D:2184:G:C6	7:D:2185:C:N3	2.74	0.55
7:D:2206:C:O2	7:D:2219:G:N2	2.39	0.55
7:D:2492:U:O2	7:D:2492:U:H2'	2.05	0.55
7:D:2694:G:N2	7:D:2695:C:O2	2.38	0.55
7:D:343:C:H2'	7:D:344:G:O4'	2.06	0.55
7:D:559:G:H4'	7:D:560:C:OP1	2.04	0.55
7:D:729:G:C2	7:D:730:C:C2	2.93	0.55
11:H:29:PRO:HB3	11:H:34:GLU:HG2	1.89	0.55
14:K:20:ASP:OD1	14:K:21:VAL:N	2.39	0.55
14:K:26:PHE:HA	14:K:101:LEU:HD21	1.88	0.55
26:W:23:ASN:ND2	26:W:23:ASN:O	2.39	0.55
26:W:51:VAL:HG21	26:W:75:ALA:CB	2.29	0.55
3:3:35:MET:HG3	3:3:36:GLU:H	1.72	0.55
6:A:119:A:H4'	6:A:120:A:O5'	2.06	0.55
6:A:440:A:H62	6:A:493:G:C2'	2.19	0.55
6:A:498:A:H4'	6:A:500:G:OP1	2.04	0.55
6:A:728:A:H2'	6:A:729:A:C8	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:497:HIS:CE1	56:B:533:PHE:CE1	2.94	0.55
56:B:523:LYS:O	56:B:524:LEU:HB3	2.07	0.55
7:D:1143:A:C4	7:D:1144:G:C8	2.94	0.55
7:D:1527:G:H1'	7:D:1528:A:C2	2.41	0.55
7:D:1765:C:H42	7:D:1987:G:H1	1.55	0.55
7:D:2701:C:H5'	7:D:2702:U:H5''	1.89	0.55
7:D:2848:G:N1	7:D:2867:G:O2'	2.40	0.55
7:D:500:G:N2	7:D:503:A:OP2	2.39	0.55
7:D:877:U:N3	7:D:899:A:N7	2.55	0.55
11:H:125:HIS:HA	11:H:149:ALA:HB2	1.87	0.55
6:A:409:G:OP2	11:H:22:LYS:HE3	2.07	0.55
13:J:67:MET:SD	13:J:72:VAL:HG12	2.45	0.55
19:P:60:LEU:O	19:P:63:GLY:N	2.40	0.55
6:A:194:C:C3'	27:X:68:LYS:HZ1	2.17	0.55
29:Z:163:PHE:HZ	29:Z:195:ALA:CB	2.17	0.55
4:4:73:A:H5'	4:4:74:C:H5'	1.88	0.55
6:A:1006:C:N4	6:A:1024:G:H1'	2.15	0.55
6:A:1326:C:H2'	6:A:1327:C:C6	2.41	0.55
6:A:1394:A:H4'	6:A:1395:C:OP2	2.06	0.55
6:A:608:A:H4'	23:T:32:TYR:OH	2.07	0.55
6:A:678:U:H2'	6:A:679:C:C6	2.41	0.55
6:A:870:U:H4'	6:A:871:U:H5''	1.88	0.55
56:B:69:ARG:HH21	56:B:178:LEU:HD11	1.66	0.55
56:B:188:PRO:O	56:B:189:LYS:HD2	2.07	0.55
56:B:242:VAL:HG12	56:B:256:LEU:CD1	2.37	0.55
56:B:594:GLN:O	56:B:595:GLU:HB3	2.06	0.55
7:D:1025:G:N3	7:D:1025:G:H2'	2.21	0.55
7:D:1084:A:C2'	7:D:1106:G:C8	2.90	0.55
7:D:1048:A:N1	7:D:1111:A:N3	2.55	0.55
7:D:1473:G:N2	7:D:1474:C:C2	2.74	0.55
7:D:1831:G:C4	7:D:1975:G:N2	2.75	0.55
7:D:2046:G:N2	7:D:2623:G:C4	2.74	0.55
7:D:2147:G:H3'	7:D:2148:G:H8	1.71	0.55
7:D:227:A:N6	7:D:410:G:H21	2.04	0.55
7:D:2344:U:O2'	7:D:2345:G:H3'	2.06	0.55
7:D:2077:A:C8	7:D:2435:A:C4	2.94	0.55
7:D:261:G:N2	7:D:262:A:C4	2.74	0.55
1:1:35:ARG:NH2	7:D:2742:C:H5''	2.21	0.55
7:D:360:G:C2	7:D:361:G:H1'	2.42	0.55
7:D:25:U:H3	7:D:515:A:N6	2.04	0.55
7:D:684:G:C2	7:D:794:G:C2	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:728:G:H2'	7:D:763:G:OP2	2.07	0.55
7:D:687:C:N4	7:D:774:A:N6	2.51	0.55
7:D:859:G:H21	7:D:2268:A:H2	1.54	0.55
8:E:28:C:H2'	8:E:29:A:O4'	2.07	0.55
18:O:110:ASP:OD1	18:O:111:ASP:N	2.39	0.55
26:W:3:ARG:HH21	26:W:3:ARG:HG2	1.72	0.55
26:W:59:PRO:O	26:W:60:VAL:HG23	1.95	0.55
26:W:15:LEU:HB3	26:W:71:LEU:HD13	1.88	0.55
4:4:19:G:C8	4:4:57:A:H2	2.25	0.55
4:4:43:A:H2'	4:4:44:A:C8	2.42	0.55
5:5:28:G:H2'	5:5:29:G:C8	2.38	0.55
6:A:1128:C:O2'	6:A:1130:A:N7	2.40	0.55
6:A:1160:G:O6	6:A:1181:G:N1	2.31	0.55
6:A:1404:C:H2'	6:A:1405:G:C8	2.42	0.55
6:A:1454:G:H2'	6:A:1455:G:C5'	2.37	0.55
6:A:237:C:OP1	24:U:25:ARG:NH2	2.39	0.55
6:A:529:G:H4'	6:A:533:A:H2	1.70	0.55
6:A:80:G:N3	6:A:81:G:C8	2.74	0.55
56:B:197:LYS:HG3	56:B:287:THR:OG1	2.06	0.55
56:B:406:LEU:HD21	56:B:489:LEU:HD12	1.88	0.55
56:B:488:ASP:O	56:B:509:HIS:CB	2.54	0.55
56:B:556:LYS:H	56:B:577:GLN:NE2	2.04	0.55
7:D:1385:G:C2	7:D:1386:C:N3	2.75	0.55
7:D:14:A:N3	7:D:2625:G:O2'	2.35	0.55
7:D:2106:G:C6	7:D:2108:C:N4	2.73	0.55
7:D:2287:A:HO2'	7:D:2288:A:P	2.29	0.55
7:D:2344:U:O2'	7:D:2345:G:O5'	2.23	0.55
7:D:2631:G:OP2	7:D:2893:G:H1'	2.07	0.55
7:D:2839:G:H2'	7:D:2840:C:C6	2.41	0.55
7:D:265:A:C4	7:D:428:A:N1	2.74	0.55
10:G:139:GLN:O	10:G:143:GLU:HG3	2.06	0.55
15:L:119:LEU:HD23	15:L:124:ALA:HA	1.87	0.55
6:A:1249:C:O2'	16:M:69:GLY:O	2.23	0.55
6:A:116:A:C8	6:A:116:A:OP2	2.58	0.55
6:A:1255:G:H22	6:A:1277:C:H1'	1.71	0.55
6:A:1263:C:H2'	6:A:1264:C:H6	1.71	0.55
6:A:1308:U:OP1	20:Q:97:PRO:HD3	2.07	0.55
6:A:1358:U:H5'	21:R:34:TYR:HA	1.88	0.55
6:A:1461:G:C4	6:A:1462:G:C8	2.92	0.55
6:A:1399:C:C2	6:A:1502:A:N6	2.75	0.55
6:A:196:A:HO2'	6:A:197:A:P	2.29	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:210:U:H2'	6:A:210:U:O2	2.07	0.55
6:A:475:G:C6	6:A:476:G:N7	2.75	0.55
6:A:440:A:N6	6:A:493:G:O2'	2.40	0.55
56:B:218:PHE:C	56:B:258:ALA:HB1	2.22	0.55
56:B:349:LEU:HD12	56:B:353:HIS:CD2	2.39	0.55
56:B:380:VAL:HG22	56:B:381:ARG:H	1.72	0.55
56:B:423:SER:OG	56:B:470:VAL:CG1	2.54	0.55
56:B:431:LYS:CG	56:B:455:PRO:HG2	2.33	0.55
56:B:432:ARG:NH2	56:B:487:GLY:HA2	2.22	0.55
56:B:466:ARG:O	56:B:470:VAL:HG23	2.07	0.55
7:D:1062:G:O2'	7:D:1063:G:H8	1.90	0.55
7:D:1168:G:H2'	7:D:1169:G:O4'	2.07	0.55
7:D:1267:U:HO2'	7:D:1268:A:P	2.29	0.55
7:D:1267:U:O2'	7:D:1268:A:OP1	2.19	0.55
7:D:1515:C:N3	7:D:1516:U:N3	2.54	0.55
7:D:173:G:C2	7:D:174:C:C2	2.95	0.55
7:D:2717:G:H2'	7:D:2718:G:H5''	1.88	0.55
7:D:288:C:C4	7:D:289:A:H1'	2.41	0.55
7:D:527:C:H4'	7:D:527:C:OP1	2.05	0.55
7:D:943:U:H2'	7:D:944:G:H5'	1.88	0.55
10:G:6:HIS:CD2	10:G:8:ILE:HG22	2.42	0.55
11:H:46:LYS:HE2	11:H:50:ARG:NH1	21.11	0.55
26:W:30:LEU:O	26:W:31:ILE:HB	2.06	0.55
26:W:50:ALA:HB1	26:W:57:HIS:CG	2.42	0.55
29:Z:135:GLY:HA3	29:Z:164:ARG:HH12	1.72	0.55
6:A:1105:A:H2'	6:A:1106:G:C8	2.42	0.55
6:A:114:U:H2'	6:A:115:G:C8	2.41	0.55
6:A:1531:A:O2'	6:A:1532:U:OP1	2.22	0.55
6:A:280:C:H4'	6:A:281:G:OP2	2.07	0.55
6:A:113:G:O2'	6:A:353:A:O2'	2.19	0.55
6:A:405:U:C2	6:A:497:U:H5	2.22	0.55
6:A:960:U:H4'	6:A:961:U:H5''	1.89	0.55
56:B:15:ILE:HG23	56:B:120:LYS:CD	2.36	0.55
56:B:242:VAL:HA	56:B:264:LEU:CD1	2.36	0.55
56:B:298:LYS:H	56:B:299:PRO:HD3	1.71	0.55
56:B:92:GLU:HA	56:B:96:ALA:CB	2.36	0.55
7:D:1545:A:N6	7:D:1545(A):A:N1	2.54	0.55
7:D:1710:C:H6	7:D:1710:C:O5'	1.89	0.55
7:D:1709:U:C5	7:D:1710:C:N4	2.75	0.55
7:D:1869:G:C2	7:D:1878:G:N1	2.74	0.55
7:D:960:A:HO2'	7:D:2456:C:HO2'	1.51	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2563:U:H2'	7:D:2565:A:OP2	2.06	0.55
7:D:685:A:C6	7:D:774:A:C2	2.95	0.55
7:D:920:G:H2'	7:D:921:G:O4'	2.07	0.55
8:E:87:G:H5'	8:E:88:C:OP2	2.07	0.55
15:L:112:LEU:HB3	15:L:133:LEU:HD23	1.89	0.55
17:N:24:VAL:O	17:N:28:ARG:N	2.40	0.55
24:U:9:VAL:HG21	24:U:84:LEU:HD21	1.89	0.55
26:W:51:VAL:HG12	26:W:53:ASN:H	1.71	0.55
6:A:192:U:C3'	27:X:57:ARG:HH12	2.20	0.55
29:Z:152:ILE:HG22	29:Z:160:ARG:HH11	1.71	0.55
5:5:69:G:H5''	5:5:70:G:OP2	2.05	0.55
6:A:1282:C:OP2	6:A:1283:G:OP2	2.25	0.55
6:A:909:A:OP2	19:P:21:LYS:NZ	2.40	0.55
56:B:16:ALA:HB3	56:B:22:LYS:HG3	1.88	0.55
56:B:266:ALA:O	56:B:267:ALA:HB3	2.05	0.55
56:B:338:THR:O	56:B:338:THR:HG22	2.07	0.55
56:B:67:THR:CA	56:B:76:TYR:CG	2.85	0.55
7:D:1035:U:H2'	7:D:1036:G:C8	2.41	0.55
7:D:1314:C:N4	7:D:1315:C:C4	2.75	0.55
7:D:1397:U:O2'	7:D:1398:C:P	2.65	0.55
7:D:1484:G:C5	7:D:1485:G:C8	2.94	0.55
7:D:1528:A:C8	7:D:1529:A:C5	2.94	0.55
7:D:1537:C:C5	7:D:1538:G:H1'	2.41	0.55
7:D:1324:G:H1'	7:D:1616:A:N6	2.22	0.55
7:D:2807:G:OP2	7:D:2891:G:O6	2.25	0.55
7:D:342:G:C2	7:D:343:C:C2	2.94	0.55
7:D:78:A:H2'	7:D:79:G:C8	2.40	0.55
7:D:80:G:N2	7:D:81:G:C4	2.74	0.55
7:D:898:C:H2'	7:D:900:A:OP1	2.06	0.55
7:D:99:U:H4'	7:D:101:G:H5'	1.88	0.55
14:K:14:PRO:HB3	14:K:19:GLY:O	2.07	0.55
6:A:1380:U:C4	14:K:3:ARG:HD3	2.42	0.55
7:D:2129:C:H1'	29:Z:6:ARG:HH11	1.70	0.55
3:3:34:ILE:HG22	3:3:63:ARG:CG	2.36	0.55
6:A:1377:A:O2'	6:A:1378:C:OP1	2.22	0.55
6:A:191(F):U:O2	27:X:105:SER:HB2	2.07	0.55
6:A:201:C:H6	6:A:201:C:H3'	1.72	0.55
6:A:562:C:C5	19:P:18:VAL:HG12	2.42	0.55
6:A:934:C:H5	6:A:1345:U:OP2	1.90	0.55
56:B:427:LEU:HD11	56:B:466:ARG:HD2	1.88	0.55
56:B:66:VAL:C	56:B:76:TYR:CD1	2.80	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1064:C:N4	7:D:1074:G:C6	2.75	0.55
7:D:1181:C:C2	7:D:1182:A:C8	2.95	0.55
7:D:1434:A:H2'	7:D:1435:G:C8	2.36	0.55
7:D:1528:A:N7	7:D:1529:A:C5	2.75	0.55
7:D:162:U:H2'	7:D:162:U:O2	2.07	0.55
7:D:1779:U:O4	7:D:1785:A:N1	2.40	0.55
7:D:1926:U:H3	7:D:1929:G:N2	2.05	0.55
7:D:1786:A:O2'	7:D:1938:A:N1	2.40	0.55
7:D:2276:G:C2	7:D:2277:G:C8	2.95	0.55
7:D:2291:U:H2'	7:D:2292:C:C6	2.41	0.55
7:D:2358:G:C6	7:D:2359:C:C4	2.94	0.55
7:D:2663:G:C5	7:D:2664:G:C5	2.95	0.55
7:D:2692:C:H2'	7:D:2693:A:H8	1.71	0.55
7:D:2787:C:H2'	7:D:2788:C:C6	2.37	0.55
7:D:2807:G:C3'	7:D:2808:U:H5'	2.37	0.55
7:D:684:G:C6	7:D:775:G:N7	2.75	0.55
8:E:2:C:N4	8:E:118:G:H1	2.03	0.55
8:E:58:A:N7	8:E:59:A:N6	2.54	0.55
10:G:125:GLU:OE2	10:G:191:THR:N	2.40	0.55
11:H:24:GLU:HA	11:H:27:TYR:HB3	1.89	0.55
12:I:15:ARG:NH1	12:I:26:PHE:CD2	2.75	0.55
20:Q:96:LEU:CD2	20:Q:101:GLN:HG3	2.36	0.55
20:Q:16:ASP:OD1	20:Q:17:VAL:N	2.37	0.55
21:R:18:VAL:O	21:R:20:ALA:N	2.34	0.55
22:S:31:LEU:O	22:S:35:ARG:HG3	2.06	0.55
26:W:36:ARG:HD3	26:W:71:LEU:O	2.07	0.55
5:5:7:A:C8	5:5:49:C:H1'	2.42	0.55
6:A:1195:C:H5''	6:A:1196:U:OP2	2.06	0.55
6:A:1381:U:C2	14:K:78:ARG:NH1	2.75	0.55
6:A:189:U:N3	24:U:72:ARG:NH1	2.55	0.55
6:A:671:G:O3'	13:J:80:ARG:NH2	2.40	0.55
6:A:677:U:H2'	6:A:678:U:C6	2.41	0.55
56:B:17:HIS:HB3	56:B:20:HIS:CG	2.42	0.55
56:B:218:PHE:C	56:B:258:ALA:CB	2.73	0.55
56:B:303:ALA:HB3	56:B:346:CYS:C	2.28	0.55
56:B:435:LEU:HA	56:B:451:VAL:O	2.06	0.55
7:D:1039:G:OP2	7:D:1039:G:N2	2.40	0.55
7:D:819:A:C4	7:D:1189:A:C2	2.95	0.55
7:D:1210:A:O2'	7:D:1211:U:OP2	2.21	0.55
7:D:1400:G:H2'	7:D:1401:G:C8	2.41	0.55
7:D:2081:C:H2'	7:D:2082:A:H8	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2335:A:C8	7:D:2335:A:OP2	2.60	0.55
7:D:2516:G:C4	7:D:2569:G:N2	2.75	0.55
7:D:335:C:H2'	7:D:336:C:H6	1.71	0.55
7:D:341:G:C6	7:D:342:G:C4	2.95	0.55
7:D:411:G:N2	7:D:416:C:N3	2.54	0.55
7:D:539:G:N1	7:D:556:G:O6	2.39	0.55
6:A:115:G:H4'	6:A:116:A:O5'	2.06	0.54
6:A:1273:G:H3'	6:A:1274:G:C8	2.42	0.54
6:A:476:G:H2'	6:A:476:G:N3	2.21	0.54
6:A:894:G:H2'	6:A:895:G:C8	2.42	0.54
6:A:952:U:H5'	6:A:972:C:H41	1.72	0.54
56:B:11:ASN:CA	56:B:100:VAL:HG13	2.34	0.54
56:B:166:ALA:CB	56:B:172:GLU:CG	2.86	0.54
56:B:234:GLY:O	56:B:237:PHE:HE1	1.88	0.54
56:B:303:ALA:HB3	56:B:345:ARG:C	2.28	0.54
56:B:526:GLU:O	56:B:527:VAL:HG22	2.06	0.54
56:B:46:LEU:HB2	56:B:61:ALA:CB	2.27	0.54
7:D:1006:C:C2	7:D:1137:G:N2	2.75	0.54
7:D:1069:A:H4'	7:D:1070:A:H5''	1.89	0.54
7:D:1341:U:H4'	7:D:1342:A:OP1	2.08	0.54
7:D:145:G:H2'	7:D:146:G:H8	1.71	0.54
7:D:1857:G:C6	7:D:1858:G:C6	2.95	0.54
7:D:1993:U:H5	7:D:1994:C:N3	2.05	0.54
7:D:571:A:C6	7:D:2030:A:N1	2.75	0.54
7:D:2070:G:C2	7:D:2071:A:C4	2.95	0.54
7:D:2124:G:O6	7:D:2125:G:N2	2.39	0.54
7:D:2081:C:C4	7:D:2237:G:N2	2.75	0.54
7:D:2368:C:H2'	7:D:2369:A:C8	2.42	0.54
7:D:2631:G:OP2	7:D:2893:G:O3'	2.25	0.54
7:D:284:U:C6	7:D:284:U:OP2	2.60	0.54
7:D:310:A:C6	7:D:312:G:C4	2.95	0.54
11:H:26:CYS:O	11:H:31:CYS:HB3	2.07	0.54
12:I:20:GLN:HG2	12:I:25:ARG:NH2	2.22	0.54
6:A:673:G:H4'	13:J:87:ARG:HH22	1.72	0.54
15:L:1:MET:HG2	15:L:2:LEU:O	2.07	0.54
7:D:456:C:N3	19:P:69:TYR:HD2	139.93	0.54
6:A:1156:G:H1'	6:A:1179:A:H61	1.73	0.54
6:A:1288:A:N3	6:A:1352:C:O2'	2.37	0.54
6:A:1450:U:O2'	6:A:1451:A:N7	2.25	0.54
56:B:25:LEU:HD21	56:B:29:ILE:HD11	1.89	0.54
56:B:200:ILE:HG13	56:B:279:THR:OG1	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:360:ARG:O	56:B:364:GLU:HB2	2.07	0.54
56:B:380:VAL:HG23	56:B:404:GLU:HA	1.87	0.54
56:B:431:LYS:HB2	56:B:455:PRO:CD	2.33	0.54
56:B:49:LEU:C	56:B:51:LEU:H	2.10	0.54
56:B:68:TYR:HA	56:B:75:GLU:CG	2.29	0.54
56:B:69:ARG:HA	56:B:69:ARG:NE	2.20	0.54
3:3:126:MET:CG	7:D:1059:G:C4	2.89	0.54
7:D:1747:G:C2'	7:D:1748:G:C5'	2.86	0.54
7:D:1784:A:O3'	7:D:1785:A:O4'	2.25	0.54
7:D:1657:C:H42	7:D:2003:G:H1	1.55	0.54
7:D:202:U:H2'	7:D:203:C:C6	2.42	0.54
7:D:2196:C:H3'	7:D:2197:U:H5	1.73	0.54
7:D:273(A):G:N2	7:D:363(F):A:H62	2.05	0.54
7:D:40:C:C2'	7:D:41:C:H5'	2.38	0.54
7:D:471:A:C8	7:D:472:A:C8	2.96	0.54
7:D:531:C:H5'	7:D:532:A:C2	2.42	0.54
9:F:87:ARG:HD2	9:F:234:PRO:HD3	1.88	0.54
19:P:27:LEU:O	19:P:29:GLY:N	2.38	0.54
23:T:23:ASP:HB3	23:T:25:ARG:HG2	1.89	0.54
26:W:43:GLU:OE1	26:W:64:GLU:CB	2.46	0.54
4:4:18:G:N7	4:4:57:A:N6	2.55	0.54
6:A:69:G:N1	6:A:101:A:C2	2.75	0.54
6:A:1007:C:N3	6:A:1023:G:C6	2.75	0.54
6:A:1023:G:H2'	6:A:1023:G:N3	2.22	0.54
6:A:1261:A:C5	6:A:1262:C:C4	2.95	0.54
6:A:1266:G:C8	6:A:1268:A:OP2	2.60	0.54
6:A:1454:G:C2	6:A:1455:G:C1'	2.91	0.54
6:A:76:G:N2	6:A:93:U:O2	2.28	0.54
56:B:135:ILE:HG12	56:B:165:PHE:CA	2.28	0.54
56:B:532:LEU:CD2	56:B:555:ARG:H	2.19	0.54
4:4:75:C:C4	56:B:569:ARG:NH2	2.66	0.54
56:B:55:ARG:HB3	56:B:57:ILE:HG13	1.89	0.54
56:B:89:PHE:N	56:B:89:PHE:CD1	2.75	0.54
7:D:1177:A:C2	7:D:1178:C:C6	2.94	0.54
7:D:1312:U:O2'	7:D:1313:U:O4'	2.24	0.54
7:D:1633:G:N7	7:D:1635:G:C6	2.76	0.54
7:D:1779:U:H6	7:D:1779:U:H3'	1.72	0.54
7:D:2227:A:C8	7:D:2228:G:N7	2.76	0.54
7:D:2693:A:H2'	7:D:2694:G:H8	1.72	0.54
7:D:2807:G:N1	7:D:2892:A:N7	2.54	0.54
7:D:2895:U:H6	7:D:2895:U:H3'	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:532:A:H2	7:D:2035:G:N2	1.98	0.54
7:D:99:U:O2	7:D:99:U:H2'	2.07	0.54
8:E:13:A:N7	8:E:70:C:H4'	2.22	0.54
10:G:22:TRP:CE2	21:R:54:PRO:HG2	2.41	0.54
17:N:51:ARG:HB2	17:N:59:SER:O	2.08	0.54
22:S:8:LYS:O	22:S:12:ILE:HG13	2.07	0.54
6:A:452:A:O2'	23:T:72:ARG:HD2	2.07	0.54
24:U:86:GLU:O	24:U:90:ILE:HG13	2.07	0.54
29:Z:41:VAL:HB	29:Z:176:GLY:O	2.07	0.54
3:3:75:SER:OG	7:D:1059:G:N2	2.40	0.54
6:A:1426:C:H42	6:A:1474:G:H1	1.56	0.54
6:A:1447:G:N1	6:A:1460:A:C5	2.75	0.54
6:A:157:G:C6	6:A:165:C:C4	2.95	0.54
6:A:218:C:N3	6:A:219:C:N4	2.55	0.54
6:A:361:G:H5'	6:A:362:G:OP2	2.08	0.54
6:A:694:A:C2	6:A:695:A:H1'	2.42	0.54
56:B:409:TYR:HB3	56:B:453:GLU:HG3	1.89	0.54
7:D:1693:U:H4'	7:D:1694:C:OP2	2.07	0.54
7:D:2120:G:C2	7:D:2179:C:C2	2.92	0.54
7:D:2208:U:O2	7:D:2217:G:N2	2.40	0.54
7:D:2637:U:O2'	7:D:2638:G:O4'	2.22	0.54
7:D:30:G:C5	7:D:31:C:C4	2.96	0.54
7:D:366:C:H6	7:D:366:C:O5'	1.90	0.54
7:D:729:G:C6	7:D:730:C:C4	2.96	0.54
7:D:869:G:H1	7:D:908:C:N4	2.00	0.54
7:D:893:C:H2'	7:D:894:C:C4'	2.37	0.54
11:H:207:TYR:O	11:H:209:ARG:NH1	2.40	0.54
24:U:12:SER:N	24:U:20:THR:OG1	2.40	0.54
26:W:70:LYS:C	26:W:72:GLY:N	2.42	0.54
1:1:36:GLN:NE2	7:D:1124:C:O2	2.40	0.54
6:A:1002:G:H2'	6:A:1003:G:C8	2.42	0.54
6:A:299:G:C6	6:A:300:A:C6	2.95	0.54
6:A:695:A:H2'	6:A:696:A:C8	2.42	0.54
56:B:65:ARG:CD	56:B:76:TYR:OH	2.55	0.54
56:B:8:ARG:NH1	56:B:73:GLY:O	2.41	0.54
7:D:1084:A:C2'	7:D:1106:G:N7	2.70	0.54
7:D:1142(A):A:H8	7:D:1142(A):A:OP2	1.91	0.54
7:D:120:U:O2'	7:D:121:G:P	2.65	0.54
7:D:1327:C:C5	7:D:1328:G:C6	2.95	0.54
7:D:1588:C:H6	7:D:1588:C:O5'	1.91	0.54
7:D:1778:U:H2'	7:D:1779:U:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2003:G:C2	7:D:2004:G:C4	2.95	0.54
7:D:2058:A:O5'	7:D:2058:A:H8	1.89	0.54
7:D:2226:C:H2'	7:D:2227:A:C5'	2.37	0.54
7:D:411:G:N2	7:D:2407:G:C6	2.76	0.54
7:D:2889:C:H6	7:D:2889:C:O5'	1.90	0.54
7:D:668:G:C2	7:D:670:A:C6	2.96	0.54
16:M:50:LEU:HD22	16:M:51:ARG:NH1	2.21	0.54
18:O:91:ARG:HG3	18:O:92:GLU:N	2.22	0.54
20:Q:12:ASN:HD21	20:Q:44:ARG:HB3	1.72	0.54
20:Q:23:TYR:HB3	20:Q:70:LEU:CD2	2.37	0.54
24:U:9:VAL:HG21	24:U:84:LEU:HD11	1.89	0.54
3:3:5:VAL:C	3:3:7:VAL:H	2.11	0.54
3:3:7:VAL:HG12	3:3:58:THR:OG1	2.06	0.54
6:A:1072:G:C5	6:A:1073:U:C4	2.95	0.54
6:A:1202:G:H21	21:R:27:CYS:HB3	1.72	0.54
6:A:125:U:H2'	6:A:126:G:H8	1.72	0.54
6:A:344:A:H3'	6:A:345:C:H5'	1.90	0.54
6:A:443:C:C2	6:A:492:G:C2	2.96	0.54
6:A:477:G:C2	6:A:478:A:C4	2.95	0.54
6:A:992:U:O2	6:A:1044:A:N6	2.19	0.54
56:B:16:ALA:H	56:B:22:LYS:HE3	1.72	0.54
56:B:330:LEU:CD2	56:B:346:CYS:N	2.70	0.54
56:B:374:PRO:CG	56:B:461:TYR:HD1	2.21	0.54
56:B:70:ALA:HA	56:B:178:LEU:HD21	1.88	0.54
7:D:1007:C:OP2	7:D:1009:A:OP2	2.25	0.54
7:D:1061:U:O2'	7:D:1062:G:OP1	2.21	0.54
7:D:1138:G:H2'	7:D:1139:G:C8	2.43	0.54
7:D:1240:U:H3'	7:D:1241:A:C8	2.43	0.54
7:D:1287:A:C5	7:D:1288:U:N3	2.74	0.54
7:D:1527:G:C8	7:D:1528:A:C5	2.95	0.54
7:D:1528:A:H5''	7:D:1529:A:OP2	2.07	0.54
7:D:1533:C:H2'	7:D:1534:G:C8	2.43	0.54
7:D:2123:G:P	29:Z:164:ARG:HE	2.30	0.54
7:D:2207:C:H3'	7:D:2207:C:H6	1.73	0.54
7:D:2312:U:H2'	7:D:2313:C:O4'	2.07	0.54
7:D:2651:C:N3	7:D:2652:C:C4	2.76	0.54
7:D:2797:U:H2'	7:D:2797:U:O2	2.06	0.54
7:D:342:G:H2'	7:D:343:C:O4'	2.07	0.54
7:D:435:C:H6	7:D:435:C:H3'	1.73	0.54
7:D:839:U:O2'	7:D:1191:G:N3	2.39	0.54
7:D:877:U:H2'	7:D:899:A:N6	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:108:LEU:HD23	11:H:170:VAL:HG11	1.89	0.54
20:Q:87:TYR:OH	26:W:77:THR:HG22	2.07	0.54
6:A:1319:A:C4'	26:W:37:ARG:O	2.53	0.54
6:A:1320:C:H6	26:W:70:LYS:HD2	1.72	0.54
3:3:19:PRO:O	3:3:23:VAL:HB	2.08	0.54
5:5:67:C:H2'	5:5:68:C:C6	2.43	0.54
6:A:1099:G:O2'	6:A:1542:U:H4'	2.08	0.54
6:A:986:A:N1	6:A:1220:G:C6	2.75	0.54
6:A:1269:A:OP2	6:A:1270:C:C4	2.61	0.54
6:A:198:G:N2	6:A:199:G:C4	2.76	0.54
6:A:44:G:N1	6:A:45:U:O2	2.40	0.54
6:A:96:G:C6	6:A:97:U:C4	2.96	0.54
56:B:230:ILE:CG2	56:B:280:ILE:HG22	2.37	0.54
56:B:555:ARG:HG2	56:B:556:LYS:H	1.72	0.54
7:D:1024:G:H3'	7:D:1025:G:H5''	1.89	0.54
7:D:1050:A:C5	7:D:2751:G:N1	2.76	0.54
3:3:126:MET:CE	7:D:1059:G:C8	2.91	0.54
7:D:1227:A:H2'	7:D:1228:G:O4'	2.07	0.54
7:D:1238:G:H2'	7:D:1239:G:O4'	2.07	0.54
7:D:1380:G:C2	7:D:1381:G:C8	2.96	0.54
7:D:1478:G:O2'	7:D:1479:G:H5'	2.08	0.54
7:D:1786:A:N6	7:D:1787:A:C2	2.76	0.54
7:D:1952:A:H5''	7:D:1953:A:OP2	2.08	0.54
7:D:2458:G:O2'	7:D:2459:A:O5'	2.25	0.54
7:D:270(M):U:H4'	7:D:270(N):G:H4'	1.89	0.54
7:D:2870:C:H2'	7:D:2871:C:O4'	2.06	0.54
7:D:489:G:C4	7:D:1284:A:N6	2.75	0.54
7:D:695:G:C2	7:D:768:G:C5	2.95	0.54
7:D:818:G:N2	7:D:1190:G:C5	2.76	0.54
13:J:95:GLU:H	13:J:96:PRO:HD2	1.73	0.54
15:L:63:LEU:HD13	15:L:65:TYR:H	1.71	0.54
26:W:12:ASP:OD2	26:W:38:SER:HB2	2.08	0.54
6:A:1320:C:P	26:W:70:LYS:HZ1	2.30	0.54
26:W:79:THR:HG22	26:W:80:TYR:N	2.23	0.54
29:Z:77:ILE:HD13	29:Z:100:ILE:HD11	1.90	0.54
29:Z:160:ARG:O	29:Z:161:ILE:HG13	2.07	0.54
5:5:19:G:O4'	5:5:57:G:N2	2.35	0.54
6:A:57:G:H2'	6:A:58:C:C6	2.43	0.54
6:A:995:C:H1'	21:R:4:LYS:HE2	1.90	0.54
56:B:135:ILE:H	56:B:165:PHE:HD1	1.55	0.54
56:B:169:LYS:CG	57:B:701:GCP:C4	2.85	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:36:VAL:HG11	56:B:39:ARG:O	2.08	0.54
56:B:41:MET:HA	56:B:45:PHE:CE1	2.43	0.54
56:B:492:VAL:C	56:B:505:THR:CB	2.63	0.54
56:B:495:LEU:CD1	56:B:540:ALA:HB3	2.03	0.54
56:B:46:LEU:CD1	56:B:61:ALA:O	2.31	0.54
56:B:67:THR:C	56:B:76:TYR:CB	2.65	0.54
7:D:1008:C:O2'	7:D:1009:A:N7	2.39	0.54
7:D:1030:G:C5	7:D:1125:G:N2	2.76	0.54
7:D:1107:G:P	7:D:1107:G:H8	2.31	0.54
7:D:1208:C:N4	7:D:1209:G:O6	2.41	0.54
7:D:1302:A:H5'	7:D:1608:A:OP2	2.08	0.54
7:D:1386:C:H2'	7:D:1387:C:H6	1.72	0.54
7:D:2347:C:H2'	7:D:2348:U:H6	1.73	0.54
7:D:2360:A:H2'	7:D:2361:A:O4'	2.06	0.54
7:D:239:U:H2'	7:D:240:G:O4'	2.07	0.54
5:5:76:A:H62	7:D:2422:A:H5'	1.71	0.54
7:D:338:G:P	7:D:339:U:OP2	2.65	0.54
7:D:38:A:C2'	7:D:39:C:H5'	2.38	0.54
7:D:540:G:C2	7:D:541:C:C2	2.96	0.54
7:D:58:G:H1'	7:D:70:G:H22	1.72	0.54
7:D:748:G:H5'	7:D:749:C:OP2	2.07	0.54
7:D:944:G:H4'	7:D:945:A:H5''	1.89	0.54
8:E:118:G:C8	8:E:118:G:OP2	2.61	0.54
6:A:1104:G:H4'	9:F:111:ARG:HH21	1.73	0.54
12:I:149:GLU:HA	12:I:152:ARG:HB3	1.90	0.54
5:5:42:C:P	14:K:143:ARG:NH1	2.79	0.54
17:N:42:THR:HG23	17:N:67:THR:C	2.28	0.54
29:Z:11:LEU:HD12	29:Z:14:VAL:HB	1.90	0.54
29:Z:18:LYS:HG2	29:Z:20:TYR:N	2.19	0.54
6:A:110:C:H2'	6:A:111:G:H8	1.73	0.54
6:A:1320:C:C6	26:W:70:LYS:HD2	2.43	0.54
6:A:477:G:C6	6:A:478:A:C5	2.96	0.54
6:A:723:U:OP2	6:A:724:G:OP2	2.26	0.54
6:A:736:C:H5''	25:V:72:ARG:HH12	1.72	0.54
6:A:968:A:H4'	6:A:969:A:OP2	2.06	0.54
56:B:137:LYS:HG3	57:B:701:GCP:C8	2.33	0.54
56:B:25:LEU:CB	56:B:168:GLY:HA3	2.38	0.54
56:B:417:PRO:HD2	56:B:420:TYR:CD2	2.42	0.54
7:D:1002:G:C6	7:D:1003:G:N7	2.76	0.54
7:D:1044:G:O2'	7:D:1047:G:H4'	2.08	0.54
7:D:1084:A:H1'	7:D:1106:G:C5	2.35	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1047:G:H3'	7:D:1110:G:N2	2.20	0.54
7:D:146:G:H2'	7:D:147:U:H6	1.71	0.54
7:D:1492:G:H8	7:D:1495:A:OP2	1.90	0.54
7:D:154:G:C3'	7:D:155:C:H5'	2.38	0.54
7:D:1572:A:H3'	7:D:1573:G:C8	2.42	0.54
7:D:1425:G:H1'	7:D:1573:G:N2	2.23	0.54
7:D:155:C:C2'	7:D:161:U:H3'	2.36	0.54
7:D:1995:U:H3'	7:D:1996:C:H5''	1.89	0.54
7:D:2107:C:H1'	7:D:2108:C:O5'	2.07	0.54
7:D:2133:G:C8	7:D:2133:G:OP2	2.59	0.54
7:D:2242:G:C6	7:D:2243:U:N3	2.76	0.54
7:D:2524:G:N2	7:D:2540:C:C2	2.76	0.54
7:D:2589:A:C6	7:D:2606:C:N4	2.76	0.54
7:D:2653:U:H3'	7:D:2654:A:H8	1.73	0.54
7:D:2781:A:O3'	7:D:2782:G:H4'	2.07	0.54
7:D:2788:C:H5''	7:D:2789:C:OP2	2.07	0.54
7:D:2809:A:O3'	7:D:2811:G:OP2	2.26	0.54
7:D:491:G:C4	7:D:492:A:C8	2.96	0.54
7:D:583:G:N2	7:D:1258:C:O2	2.40	0.54
14:K:61:VAL:HG12	14:K:128:ALA:HB1	1.89	0.54
26:W:36:ARG:CB	26:W:72:GLY:N	2.68	0.54
26:W:51:VAL:HG11	26:W:75:ALA:HB3	1.90	0.54
29:Z:166:ASP:N	29:Z:166:ASP:OD1	2.41	0.54
3:3:104:VAL:CA	3:3:107:ILE:HD12	2.28	0.54
6:A:1252:A:H2'	6:A:1253:G:O4'	2.08	0.54
6:A:1285:A:H1'	6:A:1286:A:OP2	2.08	0.54
6:A:1455:G:C2	6:A:1459:C:N3	2.76	0.54
6:A:162:A:OP2	6:A:162:A:C8	2.60	0.54
56:B:490:VAL:CG1	56:B:491:LYS:N	2.67	0.54
56:B:497:HIS:HE1	56:B:533:PHE:CD1	2.26	0.54
7:D:1131:G:H4'	7:D:1132:A:OP1	2.06	0.54
7:D:1444:G:H1	7:D:1547:C:H42	1.56	0.54
7:D:1582:C:H3'	7:D:1582:C:H6	1.72	0.54
7:D:161:U:H2'	7:D:161:U:O2	2.07	0.54
7:D:1626:G:N3	7:D:1626:G:H2'	2.23	0.54
7:D:1861:G:H2'	7:D:1862:G:H5'	1.89	0.54
7:D:2056:G:C4	7:D:2577:A:C2	2.96	0.54
7:D:2093:G:C5	7:D:2225:A:N7	2.75	0.54
7:D:308:G:O2'	7:D:329:G:N2	2.41	0.54
7:D:884:C:H1'	7:D:885:C:C6	2.43	0.54
8:E:38:C:H2'	8:E:39:A:H8	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:F:79:ASP:O	9:F:82:ARG:HB3	2.07	0.54
10:G:152:ILE:HG13	10:G:199:LYS:HB2	1.89	0.54
11:H:26:CYS:HA	11:H:31:CYS:HB2	1.89	0.54
6:A:1092:A:C5'	14:K:4:ARG:HH12	2.11	0.54
15:L:20:TYR:CE2	15:L:75:ARG:HG3	2.43	0.54
15:L:44:PHE:O	15:L:64:LYS:HD3	2.08	0.54
26:W:36:ARG:CB	26:W:71:LEU:CA	2.84	0.54
27:X:20:LEU:O	27:X:23:ARG:HG2	2.08	0.54
6:A:1018:C:H2'	6:A:1019:C:C6	2.43	0.53
6:A:1292:U:H2'	6:A:1293:G:C8	2.44	0.53
6:A:160:A:H2'	6:A:161:A:C8	2.43	0.53
6:A:225:C:H2'	6:A:226:G:C8	2.43	0.53
6:A:262:A:C6	6:A:263:A:C6	2.96	0.53
6:A:738:C:OP2	13:J:92:LYS:NZ	2.38	0.53
6:A:751:U:C4	6:A:752:G:C2	2.96	0.53
6:A:778:G:H2'	6:A:779:C:O4'	2.08	0.53
6:A:798:G:OP1	18:O:122:LYS:NZ	2.33	0.53
56:B:335:GLU:CG	56:B:375:SER:HG	2.18	0.53
56:B:80:LEU:HD23	56:B:81:ILE:H	1.73	0.53
56:B:92:GLU:O	56:B:96:ALA:HB3	2.08	0.53
7:D:1171:G:H2'	7:D:1174:A:P	2.48	0.53
7:D:1171:G:O6	7:D:1177:A:N1	2.42	0.53
7:D:1580:A:C2'	7:D:1581:G:C8	2.89	0.53
7:D:49:A:C5	7:D:177:G:C6	2.96	0.53
7:D:1950:G:H1	7:D:1956:U:H3	1.56	0.53
7:D:1785:A:H5'	7:D:1982:C:O4'	2.07	0.53
7:D:2491:U:H6	7:D:2491:U:H3'	1.73	0.53
7:D:315:G:H2'	7:D:316:C:O4'	2.09	0.53
7:D:662:G:H2'	7:D:663:G:C8	2.36	0.53
7:D:947:G:N2	7:D:948:G:C4	2.76	0.53
8:E:76:G:C6	8:E:77:U:N3	2.77	0.53
9:F:57:PHE:O	9:F:60:ASP:HB3	2.09	0.53
9:F:96:ARG:HB2	9:F:98:LEU:HD12	1.90	0.53
10:G:152:ILE:HG22	10:G:167:TRP:CB	2.37	0.53
15:L:10:LEU:HD22	15:L:83:ILE:HD11	1.89	0.53
25:V:20:ALA:HB1	25:V:55:ARG:CZ	2.38	0.53
29:Z:212:VAL:O	29:Z:223:ARG:HG3	2.08	0.53
3:3:49:GLY:O	3:3:53:VAL:CG2	2.55	0.53
6:A:1146:A:H3'	6:A:1147:C:H6	1.72	0.53
6:A:1248:A:C2'	16:M:70:LYS:HZ2	2.21	0.53
6:A:1300:G:HO2'	6:A:1301:U:P	2.30	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:195:A:P	27:X:68:LYS:NZ	2.82	0.53
6:A:263:A:OP2	27:X:79:ARG:NH1	2.41	0.53
6:A:509:A:N7	6:A:510:A:C6	2.76	0.53
6:A:762:C:H2'	6:A:763:G:C8	2.44	0.53
56:B:221:ARG:HG2	56:B:257:GLU:N	2.22	0.53
56:B:317:ARG:CG	56:B:317:ARG:HH11	2.21	0.53
56:B:31:GLU:HG3	56:B:40:GLU:HG2	1.76	0.53
56:B:432:ARG:HH21	56:B:487:GLY:CA	2.21	0.53
56:B:455:PRO:CD	56:B:458:GLU:HB2	2.38	0.53
56:B:47:ASP:OD1	56:B:52:GLU:HB3	2.08	0.53
3:3:78:ILE:CD1	7:D:1059:G:H1'	2.37	0.53
7:D:1062:G:N3	7:D:1063:G:H5'	2.23	0.53
7:D:124:G:N2	7:D:128:C:N3	2.56	0.53
7:D:1577:C:OP2	7:D:1577:C:C6	2.61	0.53
7:D:2067:G:C6	7:D:2069:G:N7	2.76	0.53
7:D:2218:G:N2	7:D:2219:G:C4	2.76	0.53
7:D:2406:U:OP2	7:D:2411:A:N6	2.40	0.53
7:D:248:G:C2	7:D:2431:U:H4'	2.44	0.53
7:D:1:G:H2'	7:D:2:G:C8	2.43	0.53
7:D:310:A:C5	7:D:312:G:C5	2.96	0.53
7:D:403:U:O2'	7:D:404:C:OP2	2.24	0.53
7:D:49:A:N6	7:D:176:G:C5	2.76	0.53
7:D:553:U:O2	7:D:553:U:H2'	2.07	0.53
7:D:698:C:O2'	7:D:735:A:N1	2.41	0.53
7:D:883:G:O2'	7:D:892:G:N1	2.41	0.53
9:F:135:GLN:OE1	9:F:135:GLN:N	2.39	0.53
10:G:108:ASN:HD22	10:G:111:LEU:HD13	1.74	0.53
7:D:251:A:OP1	11:H:50:ARG:NH2	149.32	0.53
11:H:86:LYS:N	11:H:86:LYS:HD2	4.49	0.53
14:K:20:ASP:OD2	14:K:22:LEU:HB2	2.08	0.53
16:M:82:ALA:HB2	16:M:101:PHE:HD2	1.72	0.53
26:W:36:ARG:HB3	26:W:71:LEU:O	2.04	0.53
26:W:63:THR:O	26:W:66:MET:HG3	2.08	0.53
3:3:120:LEU:HD21	3:3:125:ARG:NH1	2.20	0.53
6:A:1074:G:H4'	9:F:103:THR:O	2.08	0.53
6:A:1306:A:C6	6:A:1307:U:C2	2.96	0.53
6:A:1488:G:N2	6:A:1489:G:C4	2.76	0.53
6:A:148:G:H2'	6:A:149:A:C8	2.43	0.53
6:A:136:C:N4	6:A:227:G:H1	2.06	0.53
6:A:557:G:C6	6:A:558:G:C6	2.96	0.53
6:A:594:G:H3'	6:A:595:G:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:79:G:H2'	6:A:80:G:O4'	2.09	0.53
6:A:827:U:H4'	15:L:19:VAL:HG21	1.91	0.53
56:B:241:LYS:NZ	56:B:243:GLY:HA2	2.24	0.53
4:4:75:C:N4	56:B:569:ARG:NH2	2.56	0.53
7:D:1357:U:H2'	7:D:1358:G:C8	2.44	0.53
7:D:1456:G:C2	7:D:1457:A:C5	2.95	0.53
7:D:1477:A:C4	7:D:1478:G:C2	2.97	0.53
7:D:1668:A:H62	7:D:1674:G:C1'	2.17	0.53
7:D:2106:G:C6	7:D:2108:C:N3	2.76	0.53
7:D:2197:U:H4'	7:D:2198:A:N7	2.23	0.53
7:D:270(U):C:H2'	7:D:270(V):G:H8	1.73	0.53
7:D:289:A:H2'	7:D:351:G:C2	2.43	0.53
7:D:822:U:OP2	7:D:946:G:OP2	2.26	0.53
7:D:899:A:N3	7:D:900:A:N1	2.57	0.53
7:D:934:G:H2'	7:D:935:C:C6	2.44	0.53
6:A:876:G:P	15:L:14:ARG:HH21	2.32	0.53
18:O:121:PRO:HB2	18:O:125:PHE:HB2	1.91	0.53
24:U:66:SER:HB3	24:U:69:LYS:HE2	1.89	0.53
6:A:1320:C:C6	26:W:36:ARG:HG3	2.36	0.53
29:Z:40:THR:HB	29:Z:216:THR:HB	1.91	0.53
6:A:1221:G:H5'	6:A:1321:C:O2	2.09	0.53
6:A:1447:G:N2	6:A:1460:A:N3	2.53	0.53
6:A:260:G:H2'	6:A:261:U:C6	2.43	0.53
6:A:370:C:H2'	6:A:371:G:C8	2.43	0.53
6:A:66:G:C6	6:A:67:C:N4	2.76	0.53
6:A:762:C:H2'	6:A:763:G:H8	1.73	0.53
6:A:89:U:C2'	6:A:90:C:H5''	2.37	0.53
56:B:206:ASP:OD1	56:B:206:ASP:N	2.40	0.53
56:B:242:VAL:CG2	56:B:256:LEU:HD21	2.38	0.53
56:B:378:TYR:HA	56:B:406:LEU:HB2	1.90	0.53
56:B:41:MET:HB3	56:B:45:PHE:HD1	1.73	0.53
56:B:505:THR:O	56:B:506:PHE:CD1	2.61	0.53
7:D:577:G:O2'	7:D:1254:A:OP1	2.25	0.53
7:D:1324:G:O2'	7:D:1325:G:OP1	2.26	0.53
7:D:1467:C:N4	7:D:1468:C:H41	2.06	0.53
7:D:1581:G:O5'	7:D:1581:G:H8	1.91	0.53
7:D:1730:U:C2	7:D:1733:G:N2	2.77	0.53
7:D:2141:G:H2'	7:D:2142:C:C6	2.43	0.53
7:D:2168:G:N2	7:D:2170:A:H2'	2.24	0.53
7:D:1864:U:H4'	7:D:2409:G:N2	2.23	0.53
7:D:2631:G:C2	7:D:2632:A:C4	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:270(Z):U:H3	7:D:271(B):G:P	2.31	0.53
7:D:295:G:N2	7:D:343:C:N3	2.44	0.53
7:D:455:C:HO2'	7:D:456:C:P	2.27	0.53
7:D:458:G:O2'	7:D:459:U:P	2.65	0.53
7:D:568:U:C6	7:D:570:G:OP2	2.61	0.53
7:D:889:C:C4	7:D:890:A:C2	2.97	0.53
7:D:878:A:C8	7:D:897:C:N3	2.76	0.53
7:D:928:G:H5'	7:D:929:G:OP2	2.09	0.53
7:D:972:G:C8	7:D:972:G:OP2	2.61	0.53
9:F:121:LEU:HD22	9:F:126:GLU:OE1	2.08	0.53
6:A:972:C:P	17:N:57:LYS:HD3	2.49	0.53
26:W:41:VAL:HB	26:W:42:PRO:HD2	1.89	0.53
26:W:67:VAL:O	26:W:69:HIS:N	2.38	0.53
29:Z:200:LYS:NZ	29:Z:208:PHE:CD1	2.72	0.53
2:2:39:ALA:HA	3:3:116:ASN:HB2	1.90	0.53
5:5:4:C:N3	5:5:69:G:N2	2.46	0.53
5:5:55:U:H4'	29:Z:167:LYS:HD3	1.91	0.53
5:5:69:G:C2	5:5:70:G:C5	2.97	0.53
6:A:1034:G:H2'	6:A:1035:A:C8	2.41	0.53
6:A:1221:G:OP2	6:A:1221:G:H8	1.91	0.53
6:A:1443:G:HO2'	6:A:1446:A:P	2.30	0.53
6:A:363:A:C6	6:A:364:A:C6	2.97	0.53
6:A:538:G:P	19:P:113:ARG:NH1	2.82	0.53
6:A:767:A:H2'	6:A:768:A:H8	1.72	0.53
6:A:837:G:C2'	6:A:838:G:H5'	2.39	0.53
6:A:964:A:H1'	17:N:55:LYS:NZ	2.24	0.53
56:B:409:TYR:CD2	56:B:453:GLU:O	2.61	0.53
56:B:450:LEU:HD21	56:B:452:TYR:CD1	2.44	0.53
56:B:493:ASN:HB2	56:B:540:ALA:O	2.08	0.53
56:B:88:ASP:O	56:B:349:LEU:HD22	2.09	0.53
7:D:1140:C:O2'	7:D:1142(A):A:N6	2.41	0.53
7:D:1177:A:C2	7:D:1178:C:C5	2.96	0.53
7:D:1257:C:N3	7:D:1258:C:C4	2.77	0.53
7:D:116:C:O2'	7:D:126:A:N3	2.36	0.53
7:D:190:A:C5	7:D:207:A:C2	2.97	0.53
7:D:2657:A:C6	7:D:2665:A:C8	2.96	0.53
7:D:2686:G:C2	7:D:2687:U:C2	2.96	0.53
7:D:2714:G:C2	7:D:2715:C:C2	2.96	0.53
7:D:707:G:H2'	7:D:708:C:O4'	2.09	0.53
7:D:893:C:H2'	7:D:893:C:O2	2.08	0.53
8:E:40:U:O2'	8:E:43:C:N4	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:30:LYS:N	11:H:34:GLU:HB3	2.23	0.53
18:O:81:ASP:OD1	18:O:106:LYS:HD2	2.08	0.53
20:Q:80:ARG:HH11	20:Q:80:ARG:CG	2.21	0.53
29:Z:216:THR:OG1	29:Z:220:PRO:O	2.16	0.53
6:A:1044:A:C6	6:A:1045:C:H1'	2.43	0.53
6:A:1064:G:HO2'	6:A:1190:G:N2	2.07	0.53
6:A:1502:A:H5'	6:A:1504:G:C8	2.44	0.53
6:A:200:G:H8	6:A:200:G:O5'	1.92	0.53
6:A:339:C:H2'	6:A:340:U:C6	2.44	0.53
6:A:440:A:N6	6:A:493:G:O3'	2.41	0.53
6:A:592:G:O6	6:A:648:A:N6	2.41	0.53
6:A:707:C:H4'	18:O:20:TYR:CE2	2.44	0.53
56:B:135:ILE:HD11	56:B:145:PRO:CG	2.30	0.53
56:B:242:VAL:CG2	56:B:256:LEU:HG	2.37	0.53
56:B:196:LEU:CB	56:B:282:LEU:HB3	2.23	0.53
56:B:195:PRO:HG3	56:B:286:PRO:C	2.24	0.53
56:B:421:VAL:HG13	56:B:425:MET:HG3	1.90	0.53
56:B:80:LEU:O	56:B:81:ILE:HG12	2.08	0.53
7:D:1138:G:H2'	7:D:1139:G:H8	1.74	0.53
7:D:1153:C:C2	7:D:1154:G:H8	2.26	0.53
7:D:1174:A:C2'	7:D:1175:U:H5	2.19	0.53
7:D:1182:A:N6	7:D:1183:G:O6	2.42	0.53
7:D:1698:A:O2'	7:D:1699:G:O5'	2.27	0.53
7:D:1749:A:HO2'	7:D:1750:G:H5'	1.67	0.53
7:D:2269:A:H8	7:D:2269:A:O5'	1.92	0.53
7:D:2336:A:O2'	7:D:2337:G:P	2.67	0.53
7:D:249:C:O2'	7:D:250:G:OP2	2.16	0.53
7:D:336:C:H2'	7:D:337:C:H5'	1.90	0.53
7:D:442:G:C5	7:D:444:C:C4	2.97	0.53
7:D:573:G:H1	7:D:2031:A:P	2.31	0.53
7:D:884:C:O2'	7:D:885:C:P	2.65	0.53
7:D:962:G:H2'	7:D:963:U:O4'	2.09	0.53
10:G:61:ALA:O	10:G:63:ASN:N	2.36	0.53
6:A:1380:U:C2	14:K:3:ARG:NH1	2.76	0.53
15:L:70:GLN:HE21	15:L:72:PRO:HD2	1.74	0.53
21:R:33:VAL:HG23	21:R:34:TYR:H	1.74	0.53
7:D:243:U:P	29:Z:5:LYS:NZ	89.07	0.53
29:Z:66:HIS:H	29:Z:158:ALA:C	2.12	0.53
5:5:27:G:H2'	5:5:28:G:O4'	2.08	0.53
6:A:1164:G:C5	6:A:1165:C:N4	2.76	0.53
6:A:1170:A:H3'	6:A:1171:G:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:322:C:H2'	6:A:323:U:H6	1.73	0.53
6:A:444:C:C2'	6:A:445:G:H5'	2.38	0.53
6:A:495:A:C2	6:A:496:A:C6	2.97	0.53
6:A:575:G:C2	6:A:881:G:C2	2.96	0.53
6:A:837:G:O5'	6:A:837:G:H8	1.90	0.53
6:A:870:U:O5'	6:A:870:U:H6	1.91	0.53
56:B:416:THR:HB	56:B:420:TYR:HB2	1.91	0.53
56:B:396:LEU:HD11	56:B:491:LYS:CG	2.24	0.53
7:D:1023:U:O4	7:D:1024:G:N2	2.28	0.53
7:D:1485:G:C2	7:D:1486:A:N7	2.76	0.53
7:D:1664:A:H2'	7:D:1665:A:C8	2.44	0.53
7:D:1903:G:H2'	7:D:1904:G:H8	1.72	0.53
7:D:528:A:H62	7:D:2042:A:N6	2.06	0.53
7:D:2347:C:H2'	7:D:2348:U:C6	2.43	0.53
7:D:2642:G:H1	7:D:2772:C:N4	2.06	0.53
7:D:2748:A:C8	7:D:2749:A:N7	2.77	0.53
7:D:2779:U:O2'	7:D:2780:G:O5'	2.21	0.53
7:D:534:U:O2	7:D:559:G:N2	2.24	0.53
7:D:784:A:O2'	7:D:785:G:O5'	2.27	0.53
7:D:775:G:N2	7:D:787:U:HO2'	2.03	0.53
7:D:948:G:N2	7:D:970:C:O2	2.42	0.53
8:E:52:A:H4'	8:E:52:A:OP1	2.08	0.53
9:F:152:PHE:O	9:F:154:LEU:N	2.41	0.53
23:T:39:TYR:OH	23:T:41:PRO:HA	2.08	0.53
26:W:29:ARG:HD2	26:W:29:ARG:C	2.29	0.53
26:W:36:ARG:CA	26:W:71:LEU:HB3	2.32	0.53
6:A:1231:G:OP1	16:M:127:LYS:HE2	2.09	0.53
6:A:1472:U:H2'	6:A:1473:A:O4'	2.09	0.53
6:A:665:A:H1'	6:A:733:A:H1'	1.91	0.53
6:A:78:G:H2'	6:A:79:G:H8	1.74	0.53
56:B:222:VAL:HG21	56:B:228:ILE:CD1	2.39	0.53
56:B:241:LYS:HG2	56:B:243:GLY:N	2.23	0.53
56:B:410:VAL:HG11	56:B:480:GLU:N	2.16	0.53
56:B:510:ARG:O	56:B:511:GLU:HB2	2.08	0.53
7:D:1168:G:C4	7:D:1182:A:C2	2.97	0.53
7:D:1748:G:N1	7:D:1749:A:C2	2.77	0.53
7:D:1870:C:C2'	7:D:1871:A:H8	2.17	0.53
7:D:1944:U:HO2'	7:D:1945:G:P	2.31	0.53
7:D:1948:G:H2'	7:D:1949:G:H8	1.73	0.53
7:D:2086:U:H2'	7:D:2087:G:H8	1.73	0.53
7:D:2123:G:OP1	29:Z:164:ARG:NH2	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2162:G:H2'	7:D:2163:C:O4'	2.09	0.53
7:D:2698:U:H2'	7:D:2699:C:C6	2.44	0.53
7:D:2781:A:N1	7:D:2782:G:N2	2.57	0.53
7:D:364:C:O2	7:D:364:C:H2'	2.08	0.53
7:D:46:C:C2	7:D:180:G:N2	2.77	0.53
7:D:500:G:C2	7:D:503:A:OP2	2.62	0.53
7:D:646:A:H3'	7:D:647:G:H8	1.74	0.53
7:D:717:G:H2'	7:D:718:A:O4'	2.09	0.53
7:D:972:G:OP1	7:D:974(A):C:H5'	2.07	0.53
10:G:89:GLU:OE2	10:G:93:LYS:HE2	2.08	0.53
16:M:47:LEU:HD12	16:M:50:LEU:HB3	1.90	0.53
6:A:66:G:N2	6:A:104:G:H1'	2.24	0.53
6:A:1239:A:H1'	6:A:1241:G:C4	2.44	0.53
6:A:1416:G:H2'	6:A:1417:G:O4'	2.09	0.53
6:A:235:C:H5''	24:U:70:ARG:HG3	1.91	0.53
6:A:361:G:N7	6:A:362:G:C4	2.77	0.53
6:A:516:U:H3'	6:A:517:G:C8	2.44	0.53
6:A:579:G:C5	6:A:580:U:C4	2.97	0.53
6:A:579:G:N2	6:A:763:G:C4	2.77	0.53
6:A:681:C:N4	6:A:709:G:H1	2.05	0.53
6:A:934:C:O2'	6:A:935:A:O5'	2.25	0.53
56:B:13:SER:HB2	56:B:97:LEU:CD2	2.39	0.53
56:B:431:LYS:CG	56:B:458:GLU:CG	2.22	0.53
56:B:406:LEU:HG	56:B:489:LEU:CD1	2.35	0.53
56:B:492:VAL:HG13	56:B:541:ILE:HD11	1.86	0.53
56:B:537:ILE:HD12	56:B:551:VAL:CG2	2.36	0.53
56:B:584:LEU:HD23	56:B:587:ILE:HD13	1.91	0.53
7:D:1102:C:H2'	7:D:1102:C:O2	2.08	0.53
7:D:119:A:O2'	7:D:120:U:H3'	2.09	0.53
7:D:1265:A:H4'	7:D:1266:G:OP1	2.09	0.53
7:D:1548:C:H2'	7:D:1549:C:C6	2.44	0.53
7:D:1668:A:N1	7:D:1993:U:C2	2.77	0.53
7:D:2362:G:C2	7:D:2363:C:C2	2.97	0.53
7:D:2399:G:N2	7:D:2400:G:C4	2.77	0.53
7:D:344:G:C2	7:D:345:A:C8	2.97	0.53
7:D:273:G:C2	7:D:365:C:C2	2.97	0.53
7:D:506:G:O2'	7:D:507:A:O5'	2.27	0.53
7:D:513:A:N3	7:D:513:A:H2'	2.24	0.53
7:D:681:G:C6	7:D:682:G:C5	2.96	0.53
7:D:7:G:C2	7:D:2897:U:O2	2.62	0.53
7:D:924:C:O5'	7:D:924:C:H6	1.92	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:26:A:H2'	8:E:27:C:O4'	2.09	0.53
9:F:24:TRP:CG	9:F:25:ASN:N	2.77	0.53
12:I:75:THR:OG1	12:I:90:VAL:HA	12.67	0.53
13:J:4:TYR:CE2	13:J:72:VAL:HG11	2.44	0.53
20:Q:26:GLY:O	20:Q:29:ARG:HB3	2.08	0.53
20:Q:77:ASN:OD1	20:Q:78:ILE:N	2.42	0.53
26:W:16:LEU:O	26:W:20:LEU:CG	2.57	0.53
6:A:101:A:N3	6:A:102:G:C8	2.77	0.53
6:A:102:G:C2	6:A:103:C:C2	2.97	0.53
6:A:1145:C:O2'	6:A:1146:A:O5'	2.27	0.53
6:A:369:C:H2'	6:A:370:C:C6	2.44	0.53
6:A:465:A:O5'	6:A:467:G:O6	2.27	0.53
6:A:727:G:C2	6:A:731:G:C2	2.97	0.53
6:A:652:U:H2'	6:A:752:G:C6	2.44	0.53
6:A:836:G:C6	6:A:837:G:C6	2.97	0.53
56:B:135:ILE:HG13	56:B:138:ILE:HD11	1.90	0.53
56:B:523:LYS:HB2	56:B:598:LEU:CD2	2.00	0.53
7:D:1020:A:H5''	7:D:1021:A:OP1	2.09	0.53
7:D:1230:C:O2'	7:D:1231:G:H5'	2.08	0.53
7:D:1242:A:N3	7:D:1242:A:H2'	2.24	0.53
7:D:1339:G:H22	7:D:1603:A:H8	1.56	0.53
7:D:1795:C:H42	7:D:1824:G:H1	1.57	0.53
7:D:186:G:N2	7:D:187:G:C4	2.77	0.53
7:D:2067:G:H1'	7:D:2444:G:N2	2.24	0.53
7:D:2487:G:N2	7:D:2488:A:C4	2.77	0.53
7:D:2490:G:N2	7:D:2491:U:H3	2.06	0.53
7:D:2497:A:O2'	7:D:2498:C:P	2.67	0.53
7:D:2517:C:C5	7:D:2542:A:C5	2.97	0.53
7:D:467:G:C2	7:D:468:G:C4	2.97	0.53
7:D:485:C:C2	7:D:486:C:C5	2.97	0.53
7:D:650:C:H2'	7:D:650:C:O2	2.08	0.53
7:D:833:U:H2'	7:D:834:C:H6	1.73	0.53
8:E:73:A:C6	8:E:104:A:C2	2.97	0.53
20:Q:60:VAL:HG12	20:Q:60:VAL:O	2.09	0.53
22:S:75:PRO:O	22:S:78:TYR:HB3	2.09	0.53
29:Z:38:ASP:N	29:Z:177:LYS:HE3	2.23	0.53
3:3:98:ARG:HG2	3:3:100:THR:H	1.73	0.52
3:3:77:LEU:HD12	3:3:111:LYS:HD3	1.89	0.52
6:A:1081:G:C2	6:A:1082:G:C4	2.97	0.52
6:A:1316:G:C2	6:A:1319:A:OP2	2.62	0.52
6:A:373:A:N1	6:A:391:G:O2'	2.33	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:658:G:C6	6:A:749:C:N4	2.77	0.52
6:A:695:A:N1	6:A:786:G:N2	2.52	0.52
6:A:903:G:H2'	6:A:904:C:C6	2.44	0.52
56:B:536:PRO:HB3	56:B:550:THR:CG2	2.34	0.52
56:B:92:GLU:CA	56:B:96:ALA:HB3	2.36	0.52
7:D:1001:A:H5''	7:D:1002:G:OP2	2.09	0.52
7:D:1041:C:H1'	7:D:1115:G:C2	2.44	0.52
7:D:999:U:H3'	7:D:1154:G:H1	1.74	0.52
7:D:1252:G:H4'	7:D:1252:G:OP2	2.09	0.52
7:D:1480:G:OP1	7:D:1559:G:C6	2.62	0.52
7:D:1637:A:H5'	7:D:1760:A:O2'	2.08	0.52
7:D:1956:U:C4	7:D:1957:C:C4	2.97	0.52
7:D:2184:G:H2'	7:D:2185:C:O4'	2.09	0.52
7:D:2653:U:H3	7:D:2654:A:H62	1.57	0.52
7:D:2774:C:H2'	7:D:2775:A:C8	2.44	0.52
7:D:2805:G:C2'	7:D:2807:G:C5'	2.86	0.52
7:D:363(F):A:H3'	7:D:364:C:H6	1.73	0.52
7:D:49:A:C6	7:D:177:G:C4	2.97	0.52
7:D:603:A:N1	7:D:604:G:N2	2.57	0.52
7:D:814:C:H42	7:D:1193:G:H1	1.57	0.52
8:E:34:U:O2'	8:E:35:U:O5'	2.26	0.52
9:F:136:VAL:O	9:F:139:LYS:HG2	2.09	0.52
9:F:96:ARG:HB2	9:F:98:LEU:CD1	2.39	0.52
10:G:54:ARG:HB3	10:G:69:HIS:HB2	1.92	0.52
12:I:91:LEU:HD21	12:I:118:ILE:HG21	1.91	0.52
17:N:27:ALA:HB2	17:N:85:LEU:HD11	1.91	0.52
6:A:563:A:O2'	19:P:15:ARG:NH1	2.42	0.52
29:Z:155:GLU:CB	29:Z:160:ARG:HA	2.37	0.52
6:A:1356:G:N2	6:A:1366:C:N3	2.53	0.52
6:A:1447:G:O5'	6:A:1447:G:H8	1.92	0.52
6:A:1419:G:N2	6:A:1482:G:H1'	2.24	0.52
6:A:59:A:C5	6:A:354:G:C6	2.97	0.52
6:A:391:G:H5''	23:T:8:ARG:HH21	1.73	0.52
6:A:73:G:C5	6:A:74:C:C5	2.97	0.52
6:A:73:G:C6	6:A:74:C:C2	2.96	0.52
6:A:966:G:C2	6:A:967:C:C2	2.97	0.52
56:B:195:PRO:HG3	56:B:286:PRO:O	2.09	0.52
56:B:531:GLN:CD	56:B:532:LEU:HG	2.30	0.52
56:B:60:LYS:HG3	56:B:60:LYS:O	2.10	0.52
7:D:83:G:H22	7:D:102:G:C2'	2.23	0.52
7:D:1065:U:OP2	7:D:1066:U:OP2	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1098:A:C6	7:D:1099:G:C6	2.97	0.52
7:D:1419:A:H3'	7:D:1420:U:C2	2.45	0.52
7:D:1469:A:C6	7:D:1470:G:N2	2.77	0.52
7:D:1854:A:C8	7:D:1855:G:C8	2.97	0.52
7:D:2185:C:O2'	7:D:2186:G:H5'	2.09	0.52
7:D:259:G:H2'	7:D:260:G:H8	1.73	0.52
7:D:2731:G:N2	7:D:2732:G:C2	2.78	0.52
7:D:2043:C:OP1	7:D:2777:G:O2'	2.28	0.52
7:D:371:A:N6	7:D:424:G:C5	2.77	0.52
7:D:616:A:H3'	7:D:616:A:OP2	2.10	0.52
7:D:774:A:C4	7:D:775:G:C5	2.97	0.52
7:D:866:A:H2'	7:D:866:A:N3	2.24	0.52
15:L:113:SER:HB2	15:L:134:ILE:HD11	1.90	0.52
6:A:691:G:N7	18:O:26:ASN:ND2	2.56	0.52
6:A:808:C:C5'	22:S:48:LYS:HZ1	2.17	0.52
24:U:99:SER:OG	24:U:100:LYS:N	2.42	0.52
27:X:49:ALA:O	27:X:53:LEU:HG	2.08	0.52
5:5:35:A:H2'	5:5:36:A:C8	2.44	0.52
6:A:1118:C:C6	6:A:1118:C:OP2	2.62	0.52
6:A:1225:A:OP2	6:A:1225:A:C8	2.62	0.52
6:A:1361:G:H5''	6:A:1362:C:OP2	2.10	0.52
6:A:384:G:C8	6:A:384:G:OP2	2.62	0.52
6:A:405:U:C4	6:A:498:A:N7	2.77	0.52
6:A:509:A:OP2	6:A:510:A:OP2	2.27	0.52
56:B:227:ARG:HD3	56:B:227:ARG:N	2.24	0.52
56:B:241:LYS:HE3	56:B:243:GLY:HA2	1.90	0.52
56:B:398:ASP:CB	56:B:399:PRO:CD	2.87	0.52
56:B:409:TYR:HD2	56:B:453:GLU:CG	2.17	0.52
56:B:414:ILE:HG22	56:B:416:THR:HG23	1.90	0.52
56:B:405:ILE:CA	56:B:486:PRO:HA	2.36	0.52
7:D:1004:C:H42	7:D:1151:G:H1	1.57	0.52
7:D:1047:G:C5	7:D:1110:G:C2	2.97	0.52
7:D:1278:A:H2'	7:D:1279:G:H8	1.74	0.52
7:D:1397:U:OP2	7:D:1397:U:O4'	2.27	0.52
7:D:1575:C:N4	7:D:1576:U:O4	2.43	0.52
7:D:1586:A:C3'	7:D:1587:A:H5''	2.39	0.52
7:D:1749:A:C2'	7:D:1750:G:C8	2.74	0.52
7:D:563:G:C2	7:D:2018:G:N3	2.77	0.52
7:D:2185:C:H2'	7:D:2186:G:C8	2.43	0.52
7:D:219:G:O6	7:D:220:G:N1	2.42	0.52
7:D:2306:C:OP2	7:D:2307:G:C8	2.61	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2318:G:P	14:K:3:ARG:HH22	102.52	0.52
7:D:2585:U:H4'	7:D:2586:C:H5'	1.90	0.52
7:D:2686:G:N2	7:D:2687:U:O2	2.42	0.52
7:D:698:C:N4	7:D:762:U:H3	2.06	0.52
9:F:164:VAL:HG22	9:F:166:ASP:H	1.74	0.52
11:H:10:ARG:HA	11:H:13:ARG:HD3	1.91	0.52
13:J:95:GLU:H	13:J:96:PRO:CD	2.22	0.52
6:A:1226:C:C5'	20:Q:94:ARG:CZ	2.78	0.52
22:S:3:ILE:HG13	22:S:38:ARG:NH2	2.24	0.52
26:W:29:ARG:CG	26:W:48:THR:CG2	2.76	0.52
26:W:5:LEU:CG	26:W:6:LYS:H	2.21	0.52
6:A:1065:U:HO2'	6:A:1066:C:H6	1.58	0.52
6:A:1241:G:H2'	6:A:1242:C:O4'	2.10	0.52
6:A:1280:A:OP2	17:N:43:ARG:NH2	2.39	0.52
6:A:1443:G:P	6:A:1443:G:C3'	2.97	0.52
6:A:162:A:C8	6:A:163:C:H1'	2.44	0.52
6:A:594:G:H3'	6:A:595:G:C8	2.43	0.52
6:A:674:G:HO2'	25:V:81:PHE:HZ	1.56	0.52
6:A:842:C:H4'	6:A:848:C:OP2	2.08	0.52
6:A:927:G:OP2	6:A:1503:A:N6	2.43	0.52
56:B:210:GLY:HA2	56:B:269:ARG:CB	2.34	0.52
56:B:195:PRO:HB3	56:B:286:PRO:CA	2.03	0.52
56:B:509:HIS:O	56:B:510:ARG:HB3	2.10	0.52
7:D:1057:A:HO2'	7:D:1058:G:H5'	1.72	0.52
7:D:997:G:H1	7:D:1158:C:H42	1.56	0.52
7:D:1369:G:C6	7:D:1370:C:C4	2.97	0.52
7:D:1332:G:H2'	7:D:1609:A:N1	2.24	0.52
7:D:1668:A:N6	7:D:1674:G:C4	2.78	0.52
7:D:2211:G:N3	7:D:2211:G:C2'	2.73	0.52
1:1:2:LYS:HD2	7:D:2539:C:H4'	1.91	0.52
7:D:295:G:N3	7:D:344:G:N2	2.57	0.52
7:D:351:G:O2'	7:D:352:G:OP2	2.24	0.52
7:D:450:G:N1	7:D:454:A:OP2	2.42	0.52
7:D:536:A:N3	7:D:558:G:N2	2.57	0.52
7:D:66:C:C4	7:D:67:U:C4	2.97	0.52
7:D:68:G:H21	7:D:74:A:C4'	2.23	0.52
7:D:879:G:N1	7:D:898:C:OP1	2.43	0.52
8:E:9:G:C2	8:E:10:C:C2	2.98	0.52
16:M:12:GLU:O	16:M:68:GLY:N	2.43	0.52
6:A:1321:C:H1'	20:Q:87:TYR:CE2	2.44	0.52
29:Z:139:ASN:OD1	29:Z:140:PRO:HD2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:5:15:G:N2	5:5:48:C:O2	2.41	0.52
6:A:189:U:C2	24:U:72:ARG:NH1	2.78	0.52
6:A:455:C:O2	6:A:455:C:H2'	2.08	0.52
6:A:475:G:C5	6:A:476:G:N7	2.78	0.52
6:A:723:U:H5''	6:A:724:G:OP2	2.09	0.52
6:A:893:C:H2'	6:A:894:G:H8	1.75	0.52
56:B:237:PHE:O	56:B:267:ALA:HB1	2.09	0.52
56:B:24:THR:O	56:B:28:ARG:HB2	2.10	0.52
56:B:411:LYS:HZ2	56:B:436:VAL:HG22	1.75	0.52
56:B:432:ARG:NH2	56:B:487:GLY:CA	2.73	0.52
7:D:974:G:N2	7:D:1187:G:C6	2.78	0.52
7:D:1245:G:C2	7:D:1246:A:C5	2.97	0.52
7:D:1485:G:C2'	7:D:1486:A:H5'	2.39	0.52
7:D:2044:C:H42	7:D:2624:G:H1	1.57	0.52
7:D:189:G:C4	7:D:205:G:N2	2.77	0.52
7:D:2078:C:C4	7:D:2079:U:C4	2.97	0.52
7:D:1268:A:O2'	7:D:2613:U:O2	2.23	0.52
7:D:356:G:C6	7:D:357:A:C6	2.97	0.52
7:D:592:G:C2	7:D:593:G:C8	2.97	0.52
7:D:633:A:H5''	7:D:634:C:OP2	2.09	0.52
7:D:778:G:O6	7:D:779:U:N3	2.43	0.52
8:E:33:G:H2'	8:E:34:U:H6	1.74	0.52
9:F:234:PRO:HB2	9:F:238:LEU:HD13	1.91	0.52
9:F:82:ARG:NH1	9:F:92:TYR:HH	2.07	0.52
15:L:38:ILE:O	15:L:41:ARG:HB3	2.09	0.52
26:W:53:ASN:HD21	26:W:75:ALA:CB	2.17	0.52
6:A:1305:G:H5'	28:Y:4:GLY:HA3	1.91	0.52
3:3:21:PRO:HB2	7:D:1067:A:P	2.49	0.52
5:5:18:G:O2'	5:5:57:G:O6	2.21	0.52
6:A:1165:C:C2'	6:A:1166:G:H5'	2.39	0.52
6:A:198:G:N2	6:A:199:G:H1'	2.24	0.52
6:A:380:G:C2	6:A:384:G:C6	2.97	0.52
6:A:924:C:N4	6:A:925:G:O6	2.43	0.52
56:B:13:SER:H	56:B:103:VAL:HG12	1.75	0.52
56:B:219:GLU:HG3	56:B:219:GLU:O	2.09	0.52
56:B:228:ILE:HD13	56:B:264:LEU:HD23	1.91	0.52
56:B:409:TYR:OH	56:B:432:ARG:HD2	2.08	0.52
56:B:13:SER:OG	56:B:97:LEU:HG	2.08	0.52
7:D:1324:G:C2	7:D:1328:G:C6	2.97	0.52
7:D:1381:G:N1	7:D:1382:G:N3	2.58	0.52
7:D:1423:G:C2	7:D:1424:G:C5	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1484:G:C6	7:D:1485:G:C5	2.97	0.52
7:D:149:A:N7	7:D:150:C:N3	2.58	0.52
7:D:1429:G:C5	7:D:1568:G:C6	2.97	0.52
7:D:1746:G:C2	7:D:1747:G:N3	2.77	0.52
7:D:1750:G:C2'	7:D:1751:C:H5'	2.40	0.52
7:D:1944:U:O2'	7:D:1945:G:P	2.67	0.52
7:D:2022:U:H3'	7:D:2022:U:OP2	2.10	0.52
7:D:2196:C:H2'	7:D:2196:C:O2	2.08	0.52
7:D:2285:C:C5	27:X:27:LYS:NZ	151.95	0.52
7:D:2484:G:C2	7:D:2485:G:C8	2.98	0.52
7:D:2762:G:C6	7:D:2763:G:C4	2.97	0.52
7:D:2631:G:O5'	7:D:2894:G:C8	2.63	0.52
7:D:326:G:H2'	7:D:327:G:H8	1.75	0.52
7:D:321:G:H2'	7:D:341:G:O2'	2.08	0.52
7:D:354:G:H2'	7:D:355:G:C8	2.44	0.52
7:D:38:A:C5	7:D:39:C:N4	2.78	0.52
7:D:705:A:C8	7:D:727:A:C2	2.98	0.52
7:D:878:A:H8	7:D:897:C:C4	2.27	0.52
8:E:32:C:N4	8:E:50:G:H1	2.08	0.52
10:G:79:ARG:N	10:G:82:GLU:OE1	2.43	0.52
18:O:54:ARG:O	18:O:57:THR:HG22	2.10	0.52
23:T:18:ARG:HH12	23:T:35:LYS:CE	2.23	0.52
26:W:61:TYR:O	26:W:62:ILE:HB	2.10	0.52
3:3:137:GLU:OE1	7:D:1078:U:C6	2.63	0.52
6:A:1095:U:H5''	6:A:1096:C:OP2	2.10	0.52
6:A:1106:G:H5''	10:G:172:ARG:HG2	1.91	0.52
6:A:1243:C:H2'	6:A:1244:C:C6	2.44	0.52
6:A:1323:G:H2'	6:A:1324:A:H8	1.74	0.52
6:A:976:G:N2	6:A:1363:A:C5	2.78	0.52
6:A:436:C:H2'	6:A:437:U:C2	2.45	0.52
6:A:852:G:H5''	6:A:853:G:OP2	2.10	0.52
56:B:152:VAL:HA	56:B:156:LEU:HB2	1.89	0.52
56:B:145:PRO:HB3	56:B:165:PHE:CG	2.43	0.52
56:B:27:ASP:O	56:B:41:MET:SD	2.67	0.52
56:B:376:VAL:CG1	56:B:377:VAL:H	2.06	0.52
56:B:381:ARG:O	56:B:401:ARG:O	2.27	0.52
56:B:382:LEU:CB	56:B:386:GLU:CG	2.87	0.52
56:B:415:PHE:CA	56:B:448:VAL:O	2.55	0.52
56:B:443:GLY:O	56:B:444:ALA:HB2	2.10	0.52
56:B:520:ILE:O	56:B:520:ILE:HD13	2.10	0.52
7:D:1140:C:H4'	7:D:1142(A):A:N1	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1183:G:H21	7:D:1184:G:H1'	1.75	0.52
7:D:1229:G:C6	7:D:1230:C:C4	2.98	0.52
7:D:141:A:C6	7:D:141(A):C:C2	2.98	0.52
7:D:1424:G:H22	7:D:1574:C:H1'	1.74	0.52
7:D:1746:G:C3'	7:D:1747:G:C8	2.86	0.52
7:D:1818:U:HO2'	7:D:1819:A:P	2.33	0.52
7:D:2224:G:O2'	7:D:2225:A:O4'	2.27	0.52
7:D:830:G:C4	7:D:2448:A:C2	2.97	0.52
7:D:43:G:N7	7:D:44:A:N7	2.56	0.52
7:D:512:G:O2'	7:D:513:A:OP2	2.19	0.52
7:D:560:C:O2	7:D:560:C:H2'	2.08	0.52
7:D:859:G:H2'	7:D:860:U:OP2	2.10	0.52
8:E:100:G:C6	8:E:101:A:C5	2.98	0.52
27:X:34:LYS:O	27:X:37:SER:OG	2.24	0.52
29:Z:107:TRP:CZ2	29:Z:109:ASP:HB2	2.45	0.52
6:A:1016:A:H8	6:A:1016:A:OP2	1.93	0.52
6:A:1213:A:C5	6:A:1215:G:C4	2.98	0.52
6:A:1306:A:N7	6:A:1307:U:N3	2.57	0.52
6:A:1370:G:C2	6:A:1371:G:C8	2.98	0.52
6:A:1453:G:H5''	6:A:1453:G:N3	2.25	0.52
6:A:388:G:O5'	6:A:388:G:H8	1.93	0.52
6:A:507:C:H3'	6:A:508:C:H2'	1.91	0.52
6:A:801:U:C2	6:A:802:A:C8	2.98	0.52
6:A:836:G:N7	6:A:851:G:C2	2.78	0.52
56:B:597:PHE:C	56:B:599:ALA:H	2.12	0.52
56:B:81:ILE:HG22	56:B:83:THR:HG23	1.92	0.52
7:D:1015:G:H2'	7:D:1016:G:H8	1.74	0.52
7:D:1296:G:OP1	7:D:2709:G:O2'	2.19	0.52
7:D:1381:G:O2'	7:D:1571:A:N6	2.42	0.52
7:D:1468:C:N4	7:D:1524:G:H1	2.08	0.52
7:D:1446:C:O2'	7:D:1545(A):A:O2'	2.21	0.52
7:D:1657:C:N3	7:D:2004:G:N2	2.58	0.52
7:D:1707:G:N3	7:D:1756:G:C2	2.78	0.52
7:D:1709:U:N3	7:D:1750:G:N2	2.58	0.52
7:D:1819:A:O2'	7:D:1820:U:P	2.68	0.52
7:D:2024:G:H2'	7:D:2025:C:H6	1.74	0.52
7:D:2352:A:C6	7:D:2366:A:C4	2.97	0.52
7:D:2519:U:C4	7:D:2541:A:C6	2.98	0.52
7:D:2588:G:C5	7:D:2607:G:N2	2.78	0.52
7:D:2694:G:C2	7:D:2695:C:C2	2.97	0.52
7:D:272:G:C2	7:D:366:C:N3	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:568:U:H5'	7:D:945:A:N6	2.25	0.52
7:D:666:G:H2'	7:D:667:U:H6	1.74	0.52
9:F:117:GLU:O	9:F:121:LEU:HG	2.10	0.52
14:K:66:VAL:O	14:K:70:LYS:HG3	2.10	0.52
20:Q:16:ASP:O	20:Q:20:THR:OG1	2.17	0.52
6:A:664:G:OP1	25:V:64:ARG:NH2	2.42	0.52
26:W:6:LYS:HD2	26:W:41:VAL:HG12	1.91	0.52
4:4:50:U:H3	4:4:64:G:H1	1.57	0.52
6:A:1014:A:H3'	6:A:1015:A:C8	2.45	0.52
6:A:57:G:O6	6:A:356:A:N6	2.43	0.52
6:A:404:U:H2'	6:A:405:U:H6	1.74	0.52
6:A:474:G:C2'	6:A:475:G:C8	2.86	0.52
6:A:495:A:H61	11:H:119:GLN:HE22	1.58	0.52
56:B:416:THR:HG21	56:B:424:LEU:CD1	2.13	0.52
56:B:565:GLY:O	56:B:566:ASP:HB2	2.09	0.52
7:D:1151:G:C2	7:D:1152:C:C2	2.98	0.52
7:D:1361:G:C2	7:D:1362:C:C2	2.97	0.52
7:D:1748:G:N2	7:D:1749:A:N3	2.58	0.52
7:D:1753:G:N2	7:D:1756:G:N3	2.57	0.52
7:D:1769:G:H2'	7:D:1770:G:H8	1.74	0.52
7:D:2000:G:H2'	7:D:2001:A:H8	1.75	0.52
7:D:573:G:C2	7:D:2031:A:OP2	2.61	0.52
7:D:2046:G:N2	7:D:2623:G:N3	2.58	0.52
7:D:2124:G:H22	7:D:2174:C:N4	2.08	0.52
7:D:2299:G:C2	7:D:2300:G:C4	2.97	0.52
7:D:270(D):C:C2	7:D:270(E):G:C8	2.98	0.52
7:D:317:G:H2'	7:D:318:C:H6	1.74	0.52
7:D:337:C:C5'	7:D:338:G:OP2	2.58	0.52
7:D:356:G:H3'	7:D:357:A:H8	1.74	0.52
7:D:49:A:C8	7:D:49:A:OP2	2.63	0.52
7:D:612:G:OP2	7:D:612:G:C8	2.63	0.52
7:D:697:C:H5''	7:D:698:C:OP2	2.10	0.52
24:U:68:ARG:N	24:U:70:ARG:NH1	2.58	0.52
26:W:28:LYS:HA	26:W:28:LYS:HE3	1.92	0.52
7:D:2175:C:H1'	29:Z:219:GLY:O	2.09	0.52
3:3:80:LYS:O	3:3:82:ALA:N	2.42	0.52
5:5:45:U:H5''	5:5:46:G:OP2	2.09	0.52
6:A:1529:G:O2'	6:A:1530:G:OP1	2.24	0.52
6:A:262:A:H2'	6:A:263:A:C8	2.45	0.52
6:A:712:A:H2'	6:A:713:G:O4'	2.10	0.52
6:A:939:G:O3'	14:K:102:ARG:NH2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:203:SER:HA	56:B:213:PRO:HA	1.91	0.52
56:B:23:SER:HB3	56:B:44:GLN:HG2	1.90	0.52
56:B:517:ALA:C	56:B:519:ALA:H	2.12	0.52
56:B:537:ILE:HD11	56:B:551:VAL:HG23	1.89	0.52
56:B:555:ARG:HG2	56:B:556:LYS:N	2.24	0.52
7:D:1160:G:H2'	7:D:1161:C:C6	2.45	0.52
7:D:120:U:H2'	7:D:120:U:O2	2.09	0.52
7:D:1368:G:C2	7:D:1369:G:C8	2.98	0.52
7:D:1477:A:C6	7:D:1478:G:N1	2.78	0.52
7:D:1664:A:C8	7:D:1664:A:OP2	2.63	0.52
7:D:1682:G:C2	7:D:1683:C:C2	2.98	0.52
7:D:1747:G:H8	7:D:1747:G:O5'	1.93	0.52
7:D:1985:G:C2	7:D:1986:A:C8	2.98	0.52
7:D:573:G:C6	7:D:2031:A:OP2	2.60	0.52
7:D:2034:U:H5''	7:D:2035:G:OP2	2.10	0.52
7:D:2104:G:H2'	7:D:2105:C:H5'	1.91	0.52
7:D:2332:U:C4'	7:D:2336:A:H62	2.21	0.52
7:D:2392:A:N6	7:D:2393:A:C6	2.78	0.52
7:D:2805:G:C3'	7:D:2807:G:H5''	2.40	0.52
7:D:2805:G:H2'	7:D:2807:G:H5''	1.92	0.52
7:D:476:G:C2	7:D:479:A:OP2	2.62	0.52
7:D:619:G:C8	7:D:620:G:N2	2.78	0.52
9:F:44:LEU:O	9:F:47:THR:HB	2.09	0.52
11:H:171:GLY:HA3	11:H:173:TRP:CZ3	2.45	0.52
17:N:13:HIS:CE1	17:N:70:ARG:HH21	2.28	0.52
20:Q:69:GLU:HB3	20:Q:73:GLU:CB	2.39	0.52
3:3:81:ALA:HB3	3:3:107:ILE:CD1	2.39	0.51
3:3:90:LYS:HB3	3:3:91:PRO:CD	2.40	0.51
5:5:19:G:N2	5:5:56:C:N3	2.58	0.51
6:A:1075:C:H5''	9:F:179:LYS:HZ1	1.75	0.51
6:A:1310:G:C2	6:A:1311:G:C5	2.98	0.51
6:A:210:U:C5	6:A:216:G:N7	2.78	0.51
6:A:428:G:O2'	6:A:429:U:OP2	2.19	0.51
6:A:484:G:H1'	6:A:485:G:OP1	2.10	0.51
6:A:582:U:H5''	22:S:64:ARG:HH22	1.76	0.51
6:A:607:A:C2	6:A:608:A:H1'	2.45	0.51
6:A:837:G:N3	6:A:838:G:C8	2.78	0.51
56:B:413:THR:HG22	56:B:451:VAL:CG2	2.38	0.51
56:B:448:VAL:HG12	56:B:449:GLU:N	2.18	0.51
56:B:48:SER:C	56:B:50:GLU:H	2.13	0.51
7:D:154:G:H8	7:D:154:G:O5'	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1654:A:C6	7:D:1655:A:N7	2.78	0.51
7:D:1668:A:O4'	7:D:1668:A:OP2	2.28	0.51
7:D:1687:G:H1'	7:D:1702:G:N2	2.25	0.51
7:D:1824:G:N2	7:D:1825:A:N3	2.59	0.51
7:D:1861:G:N3	7:D:1862:G:C8	2.79	0.51
7:D:191:A:OP2	7:D:191:A:H8	1.92	0.51
7:D:2020:A:C2'	7:D:2021:C:H5''	2.37	0.51
7:D:2021:C:O2'	7:D:2022:U:OP1	2.21	0.51
7:D:216:A:O4'	7:D:216:A:OP2	2.28	0.51
7:D:2211:G:N3	7:D:2211:G:C3'	2.73	0.51
7:D:2391:G:O2'	7:D:2392:A:P	2.66	0.51
7:D:38:A:C4	7:D:39:C:C5	2.98	0.51
7:D:548:A:H62	7:D:549:G:N2	2.08	0.51
7:D:923:C:H6	7:D:923:C:O5'	1.93	0.51
7:D:958:U:H4'	7:D:959:A:O5'	2.11	0.51
12:I:95:ALA:HB3	12:I:96:PRO:HD3	1.91	0.51
13:J:7:ASN:ND2	13:J:62:TRP:HD1	2.07	0.51
13:J:91:VAL:HG12	13:J:92:LYS:O	2.09	0.51
15:L:110:ALA:HA	15:L:136:GLU:HA	1.91	0.51
15:L:84:ARG:HB3	15:L:136:GLU:OE2	2.10	0.51
15:L:88:LYS:O	15:L:90:GLY:N	2.42	0.51
16:M:105:ASP:O	16:M:107:ARG:HG3	2.10	0.51
18:O:18:ARG:HE	18:O:35:PRO:HA	1.75	0.51
23:T:22:THR:OG1	23:T:26:ARG:NH2	2.44	0.51
25:V:56:THR:HB	25:V:58:LEU:HG	1.91	0.51
29:Z:162:GLU:HG2	29:Z:163:PHE:N	2.25	0.51
29:Z:59:ARG:HD3	29:Z:164:ARG:HG3	1.91	0.51
29:Z:96:GLY:O	29:Z:99:ILE:HG22	2.09	0.51
6:A:1032(A):G:H2'	6:A:1032(B):G:C8	2.45	0.51
6:A:1123:A:H5''	6:A:1124:G:OP2	2.10	0.51
6:A:1134:G:C6	6:A:1135:U:C2	2.98	0.51
6:A:1261:A:H61	6:A:1274:G:H1'	1.75	0.51
6:A:1308:U:H2'	6:A:1309:G:O4'	2.10	0.51
6:A:1330:U:N3	6:A:1331:G:H1'	2.25	0.51
6:A:232:G:H2'	6:A:233:C:C6	2.45	0.51
6:A:328:C:H4'	6:A:329:A:H5'	1.92	0.51
6:A:656:C:N4	6:A:750:G:H1	2.08	0.51
6:A:665:A:C1'	6:A:733:A:H1'	2.40	0.51
56:B:17:HIS:CE1	56:B:116:GLU:H	2.20	0.51
56:B:206:ASP:HA	56:B:210:GLY:C	2.29	0.51
56:B:15:ILE:CA	56:B:22:LYS:HE3	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:306:TYR:CB	56:B:370:ILE:CG2	2.77	0.51
56:B:488:ASP:CB	56:B:510:ARG:H	2.22	0.51
7:D:1048:A:H8	7:D:1048:A:O5'	1.93	0.51
3:3:129:GLY:C	7:D:1059:G:H22	2.13	0.51
7:D:1142(A):A:C5	7:D:1143:A:C8	2.97	0.51
7:D:136:G:H1	7:D:143:C:H42	1.57	0.51
7:D:1459:G:H2'	7:D:1461:G:OP2	2.10	0.51
7:D:1510:A:N6	7:D:1511:A:N1	2.58	0.51
7:D:1521:G:H4'	7:D:1522:G:OP2	2.11	0.51
7:D:2126:A:H4'	7:D:2127:G:OP1	2.09	0.51
7:D:2301:C:N4	7:D:2315:G:H1	2.09	0.51
7:D:2486:G:C6	7:D:2487:G:N7	2.78	0.51
7:D:2516:G:C2	7:D:2569:G:C2	2.98	0.51
7:D:270(D):C:H2'	7:D:270(E):G:C8	2.43	0.51
7:D:270(X):G:H2'	7:D:270(Y):G:O4'	2.11	0.51
7:D:2764:A:N7	7:D:2766:G:C5	2.79	0.51
7:D:43:G:H2'	7:D:44:A:H8	1.74	0.51
7:D:461:C:H2'	7:D:462:C:C6	2.39	0.51
7:D:27:G:H1'	7:D:513:A:N6	2.25	0.51
7:D:616:A:O2'	7:D:617:G:OP1	2.28	0.51
7:D:788:A:H4'	7:D:789:A:H5'	1.91	0.51
7:D:794:G:C5	7:D:795:C:C5	2.98	0.51
7:D:96:G:C5	7:D:97:C:N4	2.78	0.51
9:F:74:LYS:HZ3	9:F:76:GLN:HB2	1.74	0.51
17:N:12:ASP:OD1	17:N:13:HIS:N	2.44	0.51
24:U:81:ARG:NH1	24:U:83:ASP:OD1	2.41	0.51
29:Z:59:ARG:HD2	29:Z:164:ARG:HH11	1.75	0.51
3:3:12:LEU:H	3:3:54:PRO:HB2	1.72	0.51
4:4:69:C:H2'	4:4:70:G:H8	1.74	0.51
6:A:1039:C:H2'	6:A:1040:U:C6	2.44	0.51
6:A:166:G:H2'	6:A:167:G:H8	1.74	0.51
6:A:324:G:H22	6:A:327:A:P	2.33	0.51
6:A:467:G:N3	6:A:468:A:H1'	2.26	0.51
6:A:477:G:C6	6:A:478:A:C6	2.99	0.51
6:A:698:G:C6	6:A:699:C:C4	2.98	0.51
6:A:815:A:O4'	6:A:817:C:N4	2.43	0.51
6:A:79:G:O6	6:A:90:C:N3	2.44	0.51
56:B:123:MET:O	56:B:127:HIS:HB2	2.09	0.51
56:B:105:LEU:HD22	56:B:131:ILE:HG21	1.92	0.51
56:B:200:ILE:HD12	56:B:274:VAL:HG12	1.84	0.51
56:B:242:VAL:HG12	56:B:256:LEU:HD12	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1447:G:HO2'	7:D:1448:G:H5'	1.74	0.51
7:D:1480:G:C2'	7:D:1480:G:N3	2.73	0.51
7:D:1485:G:C2	7:D:1486:A:C5	2.98	0.51
7:D:1632:A:O5'	7:D:1632:A:H8	1.93	0.51
7:D:1742:C:C4	7:D:1743:G:C8	2.98	0.51
7:D:49:A:N6	7:D:177:G:C8	2.79	0.51
6:A:1484:C:O2'	7:D:1960:A:O2'	2.07	0.51
7:D:2102:U:N3	7:D:2187:G:O6	2.43	0.51
7:D:2285:C:H5	27:X:27:LYS:NZ	151.28	0.51
7:D:228:A:C5	7:D:230:U:C2	2.98	0.51
7:D:2331:G:N2	7:D:2385:C:C4	2.78	0.51
7:D:40:C:HO2'	7:D:41:C:H5'	1.73	0.51
7:D:532:A:H3'	7:D:533:G:O4'	2.09	0.51
7:D:617:G:C5	7:D:618:G:C2	2.99	0.51
7:D:960:A:O2'	7:D:2456:C:O2'	2.22	0.51
22:S:81:LEU:HA	22:S:84:LYS:CB	2.39	0.51
4:4:49:G:H1	4:4:65:C:H42	1.58	0.51
5:5:16:U:H5'	5:5:17:C:H5'	1.91	0.51
6:A:1219:U:H2'	6:A:1220:G:H8	1.76	0.51
6:A:1348:U:OP2	6:A:1373:G:N1	2.39	0.51
6:A:1360:A:C6	6:A:1361:G:C4	2.98	0.51
6:A:1442:G:C5'	6:A:1442:G:N3	2.73	0.51
6:A:303:A:H5''	6:A:304:U:OP2	2.10	0.51
6:A:409:G:C5	6:A:410:G:C5	2.99	0.51
6:A:464:G:H8	6:A:464:G:O5'	1.93	0.51
6:A:475:G:H2'	6:A:476:G:O4'	2.11	0.51
6:A:450:G:H2'	6:A:481:G:H22	1.75	0.51
6:A:577:G:C2	6:A:578:C:C2	2.98	0.51
56:B:199:LEU:O	56:B:215:LEU:CB	2.58	0.51
56:B:229:ARG:NH2	56:B:282:LEU:C	2.50	0.51
56:B:577:GLN:O	56:B:581:LYS:HG2	2.11	0.51
56:B:68:TYR:CA	56:B:75:GLU:HG2	2.30	0.51
7:D:1082:U:C6	7:D:1082:U:OP2	2.63	0.51
7:D:1485:G:C6	7:D:1486:A:N7	2.78	0.51
7:D:1477:A:C6	7:D:1515:C:N4	2.77	0.51
7:D:2120:G:C6	7:D:2121:G:C5	2.99	0.51
7:D:2225:A:H4'	7:D:2226:C:C5	2.45	0.51
7:D:858:U:H2'	7:D:2268:A:H2'	1.93	0.51
7:D:2459:A:C8	7:D:2494:G:N2	2.79	0.51
7:D:2489:G:C6	7:D:2490:G:C2	2.98	0.51
7:D:2791:C:H3'	7:D:2792:G:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:499:U:H3	7:D:503:A:H62	1.56	0.51
7:D:803:U:H2'	7:D:804:A:H5'	1.92	0.51
7:D:818:G:O6	7:D:1188:U:OP2	2.28	0.51
8:E:81:G:C5	8:E:82:G:C8	2.98	0.51
9:F:193:ASP:N	9:F:193:ASP:OD1	2.41	0.51
10:G:38:ARG:HB3	10:G:94:LEU:HD21	1.92	0.51
12:I:152:ARG:NH1	15:L:44:PHE:CE1	2.79	0.51
13:J:23:LYS:O	13:J:27:GLN:HG2	2.10	0.51
6:A:876:G:H4'	15:L:14:ARG:HH22	1.76	0.51
17:N:54:PHE:CE2	17:N:55:LYS:HG2	2.46	0.51
20:Q:23:TYR:CB	20:Q:70:LEU:CD2	2.87	0.51
21:R:40:CYS:N	21:R:43:CYS:SG	2.58	0.51
26:W:16:LEU:CD1	26:W:16:LEU:N	2.73	0.51
26:W:5:LEU:CG	26:W:6:LYS:N	2.73	0.51
6:A:1320:C:P	26:W:70:LYS:NZ	2.84	0.51
26:W:69:HIS:HB2	26:W:74:PHE:HZ	0.59	0.51
29:Z:156:ILE:CG1	29:Z:160:ARG:HD3	2.40	0.51
3:3:117:THR:O	3:3:118:THR:OG1	2.17	0.51
6:A:1014:A:C5'	26:W:18:LYS:CE	2.70	0.51
6:A:566:G:O2'	6:A:567:G:O5'	2.29	0.51
6:A:81:G:H3'	6:A:82:U:C5	2.46	0.51
6:A:851:G:C6	6:A:852:G:C5	2.98	0.51
56:B:105:LEU:HD22	56:B:131:ILE:HG23	1.93	0.51
56:B:118:LEU:HD21	56:B:155:VAL:O	2.10	0.51
56:B:212:ILE:HG22	56:B:263:TRP:HE3	1.72	0.51
56:B:230:ILE:HG23	56:B:280:ILE:HG22	1.91	0.51
56:B:49:LEU:HD23	56:B:60:LYS:NZ	2.22	0.51
7:D:1061:U:O2'	7:D:1061:U:O2	2.27	0.51
7:D:76:C:H42	7:D:110:G:H1	1.59	0.51
7:D:1480:G:N3	7:D:1480:G:C3'	2.73	0.51
7:D:1670:C:H6	7:D:1670:C:O5'	1.93	0.51
7:D:1799:G:O2'	7:D:1800:C:O4'	2.24	0.51
7:D:1919:A:HO2'	7:D:1920:C:P	2.30	0.51
7:D:2307:G:C2	7:D:2308:G:H1'	2.45	0.51
7:D:2327:A:H2'	7:D:2328:A:C8	2.46	0.51
7:D:271(C):U:C2	7:D:421:U:C5	2.98	0.51
7:D:627:A:N3	7:D:637:A:C6	2.79	0.51
7:D:648:G:C5	7:D:649:G:C5	2.97	0.51
7:D:88:G:C2	7:D:89:G:C8	2.98	0.51
7:D:931:G:C8	7:D:932:G:C2'	2.93	0.51
6:A:1189:C:H4'	10:G:10:PHE:CZ	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:412:A:H1'	11:H:36:ARG:HH22	1.75	0.51
11:H:80:GLU:O	11:H:84:LYS:HG3	2.11	0.51
12:I:81:GLU:HG3	12:I:90:VAL:HG13	1.92	0.51
13:J:18:GLN:HG3	13:J:21:LEU:HD23	1.92	0.51
17:N:35:SER:HB3	17:N:72:VAL:O	2.11	0.51
26:W:15:LEU:CD2	26:W:33:THR:CG2	2.43	0.51
26:W:32:LYS:HD2	26:W:32:LYS:N	2.25	0.51
5:5:9:A:OP2	5:5:13:C:N4	2.44	0.51
6:A:1005:A:OP2	6:A:1006:C:N4	2.43	0.51
6:A:1093:A:HO2'	6:A:1094:G:H5'	1.75	0.51
6:A:147:G:C2	6:A:148:G:C8	2.98	0.51
6:A:156:G:C2	6:A:166:G:C4	2.98	0.51
6:A:272:C:H2'	6:A:273:A:C8	2.46	0.51
6:A:575:G:N2	6:A:881:G:N3	2.57	0.51
6:A:685:G:C6	6:A:686:U:C4	2.99	0.51
6:A:836:G:P	25:V:61:LYS:NZ	2.84	0.51
56:B:227:ARG:CD	56:B:227:ARG:N	2.73	0.51
56:B:420:TYR:CZ	56:B:471:SER:O	2.63	0.51
7:D:1051:G:C6	7:D:1052:C:N3	2.79	0.51
7:D:1090:U:N3	7:D:1091:G:N7	2.59	0.51
7:D:1173:G:C4	7:D:1174:A:C2	2.98	0.51
7:D:1313:U:N3	7:D:1314:C:C4	2.79	0.51
7:D:1314:C:N4	7:D:1338:G:H1	2.05	0.51
7:D:171:G:C4	7:D:172:C:N4	2.79	0.51
7:D:1797:C:H2'	7:D:1798:U:C6	2.45	0.51
7:D:1858:G:N7	7:D:1883:G:C6	2.78	0.51
7:D:2104:G:C6	7:D:2105:C:C4	2.99	0.51
7:D:2255:G:N2	7:D:2275:C:N3	2.57	0.51
7:D:2404:C:N4	7:D:2413:G:H1	2.08	0.51
7:D:273(C):C:N3	7:D:363(C):G:N1	2.38	0.51
7:D:2763:G:H5''	7:D:2764:A:OP2	2.11	0.51
7:D:284:U:H2'	7:D:285:C:C6	2.45	0.51
7:D:438:G:C2	7:D:439:G:C4	2.99	0.51
7:D:531:C:O2	7:D:531:C:H2'	2.10	0.51
7:D:603:A:C6	7:D:604:G:C2	2.99	0.51
7:D:795:C:N3	7:D:796:C:C4	2.78	0.51
7:D:819:A:C5	7:D:1189:A:C2	2.99	0.51
7:D:928:G:C5	7:D:929:G:C5	2.99	0.51
8:E:75:G:O6	8:E:76:G:N1	2.43	0.51
9:F:55:PHE:HD1	9:F:58:ILE:HD12	1.76	0.51
9:F:82:ARG:O	9:F:86:GLU:HG3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:152:ARG:NH1	15:L:44:PHE:CZ	2.70	0.51
16:M:28:VAL:HG22	16:M:63:ILE:HB	1.91	0.51
17:N:55:LYS:O	17:N:55:LYS:HG3	2.11	0.51
17:N:6:ILE:O	17:N:71:LEU:HD22	2.11	0.51
19:P:83:VAL:HG21	19:P:100:ILE:HG12	1.92	0.51
19:P:84:LEU:HD13	19:P:104:VAL:HG11	1.93	0.51
6:A:526:C:P	19:P:91:LYS:NZ	2.81	0.51
22:S:80:ALA:O	22:S:83:GLU:HB3	2.10	0.51
26:W:16:LEU:CB	26:W:20:LEU:HD12	2.39	0.51
6:A:1015:A:OP1	26:W:18:LYS:CD	2.58	0.51
26:W:3:ARG:CG	26:W:42:PRO:HB3	2.36	0.51
29:Z:32:LEU:HD11	29:Z:222:VAL:HG23	1.93	0.51
3:3:22:PRO:CD	3:3:23:VAL:H	2.24	0.51
4:4:31:G:OP1	16:M:127:LYS:HE3	2.11	0.51
6:A:1104:G:OP1	9:F:144:ARG:NH2	2.44	0.51
6:A:1258:G:O6	6:A:1259:C:N4	2.43	0.51
6:A:934:C:N4	6:A:1344:C:N3	2.59	0.51
6:A:448:A:O2'	6:A:449:C:O4'	2.16	0.51
6:A:477:G:C2	6:A:478:A:C8	2.99	0.51
6:A:696:A:H2	6:A:786:G:H1'	1.74	0.51
6:A:836:G:N7	6:A:851:G:N2	2.59	0.51
56:B:226:ASP:H	56:B:239:VAL:HB	1.75	0.51
19:P:80:HIS:CD2	56:B:316:LEU:CB	2.92	0.51
56:B:326:ASN:O	56:B:327:ASP:HB2	2.11	0.51
56:B:494:VAL:HG22	56:B:520:ILE:HD12	1.89	0.51
56:B:66:VAL:C	56:B:76:TYR:CE1	2.84	0.51
56:B:64:VAL:CG1	56:B:80:LEU:C	2.62	0.51
56:B:81:ILE:HD13	56:B:100:VAL:HG23	1.85	0.51
7:D:1178:C:O2'	7:D:1179:C:H5'	2.10	0.51
7:D:1264:G:N7	7:D:1265:A:C5	2.79	0.51
7:D:1288:U:N3	7:D:1327:C:O2	2.42	0.51
7:D:1514:U:C6	7:D:1514:U:OP2	2.64	0.51
7:D:1477:A:H2	7:D:1516:U:H3	1.59	0.51
7:D:153:C:C2'	7:D:154:G:C8	2.86	0.51
7:D:1613:G:C5	7:D:1617:C:C4	2.99	0.51
7:D:1784:A:N3	7:D:1784:A:OP2	2.44	0.51
7:D:1857:G:C5	7:D:1858:G:C5	2.98	0.51
7:D:2163:C:C5	7:D:2164:C:C4	2.99	0.51
7:D:2163:C:H3'	7:D:2164:C:C6	2.46	0.51
7:D:2198:A:N3	7:D:2198:A:C2'	2.74	0.51
7:D:1128:A:H8	7:D:2516:G:HO2'	1.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2453:A:O2'	7:D:2572:A:H1'	2.10	0.51
7:D:2791:C:OP2	7:D:2792:G:N7	2.43	0.51
7:D:2794:C:C2	7:D:2802:G:N1	2.78	0.51
7:D:2873:A:HO2'	7:D:2874:C:P	2.34	0.51
7:D:541:C:H42	7:D:552:G:H1	1.57	0.51
7:D:775:G:H2'	7:D:794:G:C8	2.46	0.51
7:D:931:G:H5''	7:D:932:G:C1'	2.40	0.51
7:D:974(A):C:O2	7:D:989:G:C2	2.63	0.51
8:E:24:G:C5	8:E:56:G:C2	2.99	0.51
8:E:63:G:C6	8:E:64:C:C4	2.99	0.51
6:A:400:C:H5''	11:H:73:ARG:NH2	2.25	0.51
20:Q:87:TYR:HB2	26:W:73:GLU:CB	2.40	0.51
24:U:51:TYR:CE2	24:U:73:VAL:HG11	2.46	0.51
6:A:247:G:OP2	24:U:99:SER:HA	2.11	0.51
26:W:5:LEU:CD1	26:W:6:LYS:N	2.73	0.51
27:X:61:SER:O	27:X:65:LYS:HG2	2.11	0.51
28:Y:3:LYS:HB3	28:Y:14:TRP:CD2	2.46	0.51
29:Z:164:ARG:H	29:Z:171:ILE:HG13	1.75	0.51
6:A:1098:C:H2'	6:A:1099:G:O4'	2.09	0.51
6:A:1317:C:H2'	6:A:1318:A:O4'	2.11	0.51
6:A:187:C:C2	6:A:188:U:H1'	2.45	0.51
6:A:737:A:O2'	13:J:73:ASN:ND2	2.43	0.51
6:A:79:G:H22	6:A:90:C:H1'	1.75	0.51
6:A:941:G:N3	6:A:1343:G:N2	2.58	0.51
56:B:17:HIS:CD2	56:B:116:GLU:CD	2.84	0.51
56:B:27:ASP:O	56:B:30:LEU:HB2	2.10	0.51
56:B:35:ALA:C	56:B:36:VAL:HG23	2.31	0.51
56:B:66:VAL:HG23	56:B:76:TYR:HE1	1.54	0.51
56:B:95:ARG:HH12	56:B:199:LEU:HD21	1.76	0.51
7:D:1068:G:N2	7:D:1095:A:O3'	2.28	0.51
7:D:1107:G:N7	7:D:1108:U:C4	2.79	0.51
7:D:1197:G:N2	7:D:1250:G:C5	2.79	0.51
7:D:1450:C:H2'	7:D:1450:C:O2	2.09	0.51
7:D:1467:C:O2	7:D:1525:G:N2	2.44	0.51
7:D:149:A:C8	7:D:150:C:C2	2.98	0.51
7:D:1625:C:C2	7:D:1626:G:H8	2.29	0.51
7:D:163:U:C3'	7:D:164:U:C5'	2.89	0.51
7:D:1652:A:N6	7:D:1653:G:N2	2.54	0.51
7:D:1652:A:C8	7:D:1652:A:OP2	2.64	0.51
7:D:739:G:O3'	7:D:1784:A:N6	2.44	0.51
7:D:1861:G:C2	7:D:1882:C:C2	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2000:G:C2	7:D:2001:A:C5	2.99	0.51
7:D:2246:G:C2	7:D:2426:A:H1'	2.45	0.51
7:D:241:A:O4'	7:D:243:U:C2	2.64	0.51
7:D:2610:C:H5''	7:D:2610:C:H6	1.76	0.51
7:D:2886:G:N2	7:D:2887:U:H3	2.08	0.51
7:D:339:U:HO2'	7:D:340:A:C4'	2.24	0.51
7:D:579:G:C2	7:D:1262:A:C5	2.98	0.51
7:D:848:G:C8	7:D:929:G:N2	2.75	0.51
7:D:973:A:H4'	7:D:974:G:OP1	2.11	0.51
8:E:57:A:H2'	8:E:58:A:O4'	2.10	0.51
8:E:78:A:C2	8:E:99:A:C4	2.99	0.51
14:K:79:ARG:NH1	14:K:83:ALA:HA	2.25	0.51
15:L:53:VAL:HB	15:L:58:TYR:CE1	2.45	0.51
15:L:87:SER:HB3	15:L:93:VAL:H	1.75	0.51
22:S:13:GLN:NE2	22:S:19:PRO:HA	2.26	0.51
26:W:36:ARG:CB	26:W:71:LEU:HB2	2.28	0.51
6:A:1320:C:C1'	26:W:73:GLU:HB3	2.39	0.51
29:Z:97:GLU:HA	29:Z:100:ILE:HD12	1.93	0.51
29:Z:37:PHE:HD1	29:Z:38:ASP:O	1.94	0.51
6:A:1032:A:H5''	6:A:1032(A):G:OP2	2.10	0.51
6:A:1464:G:N2	6:A:1465:C:C2	2.79	0.51
6:A:234:C:O2'	6:A:235:C:H5'	2.11	0.51
6:A:237:C:H2'	6:A:238:G:C8	2.45	0.51
6:A:542:G:H2'	6:A:543:C:C6	2.46	0.51
6:A:851:G:H2'	6:A:852:G:H8	1.76	0.51
56:B:17:HIS:HE1	56:B:116:GLU:N	2.06	0.51
6:A:55:A:C1'	56:B:208:TYR:CZ	2.81	0.51
56:B:529:PRO:CD	56:B:530:ARG:H	2.23	0.51
56:B:562:CYS:O	56:B:564:GLY:N	2.44	0.51
3:3:21:PRO:HA	7:D:1067:A:H5'	1.92	0.51
7:D:1173:G:H2'	7:D:1174:A:C2	2.45	0.51
7:D:1222:C:N4	7:D:1227:A:H61	2.08	0.51
7:D:1512:G:C8	7:D:1512:G:OP2	2.63	0.51
7:D:1630:G:N2	7:D:1630(A):C:C2	2.79	0.51
7:D:1698:A:O2'	7:D:1699:G:P	2.69	0.51
7:D:2306:C:H5	7:D:2307:G:HO2'	1.58	0.51
7:D:282:A:N6	7:D:283:A:O2'	2.44	0.51
7:D:2839:G:N2	7:D:2880:C:C4	2.79	0.51
7:D:878:A:H2'	7:D:879:G:C5'	2.41	0.51
7:D:879:G:O6	7:D:897:C:H1'	2.11	0.51
9:F:19:HIS:HB3	9:F:20:GLU:OE1	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:N:79:ARG:HH11	17:N:82:ILE:CD1	2.24	0.51
19:P:109:GLY:HA3	19:P:121:GLY:O	2.10	0.51
6:A:1014:A:C4'	26:W:18:LYS:NZ	2.51	0.51
29:Z:116:THR:OG1	29:Z:118:ASP:OD1	2.27	0.51
29:Z:175:VAL:HA	29:Z:188:ASN:HD22	1.76	0.51
3:3:6:ALA:C	3:3:59:ILE:CB	2.60	0.51
4:4:11:A:C6	4:4:12:G:C5	2.99	0.51
5:5:9:A:H61	5:5:22:G:H3'	1.75	0.51
5:5:55:U:N3	5:5:57:G:OP2	2.44	0.51
5:5:75:C:HO2'	5:5:76:A:P	2.28	0.51
6:A:1131:G:H1	6:A:1144:G:HO2'	1.47	0.51
6:A:1135:U:H2'	6:A:1137:C:H1'	1.93	0.51
6:A:1523:G:H2'	6:A:1524:C:H6	1.76	0.51
6:A:681:C:N4	6:A:710:G:O6	2.43	0.51
6:A:976:G:OP2	6:A:1358:U:H1'	2.10	0.51
56:B:133:PRO:O	56:B:163:ALA:HB1	1.91	0.51
56:B:192:PRO:CD	56:B:193:GLU:H	2.23	0.51
56:B:204:VAL:C	56:B:211:VAL:HG13	2.30	0.51
56:B:281:THR:HB	56:B:286:PRO:CB	2.40	0.51
56:B:373:ALA:CB	56:B:374:PRO:CD	2.86	0.51
56:B:407:GLU:OE1	56:B:431:LYS:NZ	2.40	0.51
7:D:1034:G:C4	7:D:1122:G:N2	2.79	0.51
3:3:11:GLN:C	7:D:1070:A:N6	2.64	0.51
7:D:1316:U:O4	7:D:1317:A:N6	2.44	0.51
7:D:1335:U:H2'	7:D:1336:A:H8	1.75	0.51
7:D:1480:G:N2	7:D:1482:U:C1'	2.73	0.51
7:D:1428:C:O2'	7:D:1569:A:OP1	2.21	0.51
7:D:1641:A:N7	7:D:1642:G:C4	2.79	0.51
7:D:1854:A:H62	7:D:1888:G:H8	1.59	0.51
7:D:1859:A:C8	7:D:1860:G:C8	2.98	0.51
7:D:1855:G:H1	7:D:1887:C:H42	1.58	0.51
7:D:2067:G:C6	7:D:2069:G:C5	2.98	0.51
7:D:2121:G:H2'	7:D:2122:U:O4'	2.11	0.51
7:D:2137:C:H42	7:D:2154:G:H1	1.59	0.51
7:D:2138:C:C2	7:D:2154:G:N2	2.79	0.51
7:D:2168:G:N1	7:D:2171:A:OP2	2.44	0.51
7:D:2230:G:H2'	7:D:2231:C:C6	2.45	0.51
7:D:197:A:C6	7:D:2430:A:C5	2.99	0.51
7:D:255:A:C6	7:D:256:A:C5	2.99	0.51
7:D:270(D):C:C4	7:D:270(E):G:N7	2.78	0.51
7:D:359:A:H5''	7:D:360:G:H5'	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:492:A:H2'	7:D:493:G:H5'	1.92	0.51
7:D:668:G:C2	7:D:670:A:C5	2.99	0.51
7:D:817:C:H2'	7:D:818:G:O4'	2.10	0.51
7:D:848:G:N7	7:D:929:G:C2	2.74	0.51
6:A:1297:C:H1'	14:K:114:ARG:NH1	2.26	0.51
24:U:84:LEU:HD12	24:U:85:VAL:N	2.26	0.51
26:W:34:TRP:C	26:W:36:ARG:H	2.14	0.51
26:W:54:GLY:N	26:W:77:THR:HB	2.25	0.51
29:Z:64:LEU:HD13	29:Z:188:ASN:OD1	2.11	0.51
29:Z:60:GLY:O	29:Z:162:GLU:HG2	2.11	0.51
3:3:112:MET:HG2	3:3:122:ALA:HB2	1.93	0.50
4:4:71:C:C2	4:4:72:A:C8	2.99	0.50
6:A:1036:G:OP2	6:A:1037:C:H5	1.94	0.50
6:A:1364:U:HO2'	6:A:1365:G:P	2.32	0.50
6:A:1452:C:H1'	6:A:1453:G:N2	2.26	0.50
6:A:500:G:C2	6:A:546:G:N3	2.78	0.50
6:A:623:C:H2'	6:A:624:C:O4'	2.11	0.50
6:A:690:G:H2'	6:A:691:G:C8	2.46	0.50
6:A:828:A:OP1	6:A:828:A:H4'	2.10	0.50
6:A:835:U:C2	6:A:851:G:N2	2.56	0.50
6:A:876:G:C6	6:A:877:C:C4	2.99	0.50
56:B:164:ILE:HG23	56:B:176:GLU:CD	2.29	0.50
56:B:16:ALA:H	56:B:22:LYS:NZ	2.09	0.50
56:B:305:LEU:CD2	56:B:358:GLN:NE2	2.66	0.50
56:B:352:LEU:HD22	56:B:356:ILE:HG13	1.93	0.50
7:D:1694:C:O2	7:D:1695:G:N2	2.44	0.50
7:D:1812:A:C2	7:D:1813:G:C5	2.99	0.50
7:D:2079:U:H2'	7:D:2080:G:O4'	2.11	0.50
7:D:2115:G:H4'	7:D:2116:G:OP2	2.11	0.50
7:D:2481:G:O2'	7:D:2482:G:P	2.69	0.50
7:D:2453:A:H4'	7:D:2572:A:O2'	2.11	0.50
7:D:2051:A:C2	7:D:2614:A:C6	2.99	0.50
7:D:269:U:C4	7:D:270(Z):U:OP2	2.63	0.50
7:D:2746:U:H3	7:D:2758:A:N6	2.07	0.50
7:D:302:C:H2'	7:D:303:U:C6	2.47	0.50
7:D:323:G:H4'	7:D:324:A:O5'	2.11	0.50
7:D:49:A:H8	7:D:49:A:OP2	1.93	0.50
7:D:556:G:C5	7:D:557:U:C4	2.99	0.50
7:D:562:U:O2	7:D:572:A:C4	2.64	0.50
7:D:84:A:N7	7:D:99:U:C2	2.79	0.50
16:M:26:VAL:HA	16:M:61:ALA:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:O:120:ARG:NH1	18:O:126:ARG:HH22	2.10	0.50
19:P:110:VAL:HG22	19:P:120:TYR:HB3	1.92	0.50
24:U:25:ARG:HG2	24:U:38:ARG:O	2.11	0.50
27:X:47:GLY:O	27:X:49:ALA:N	2.42	0.50
29:Z:69:GLY:C	29:Z:157:LYS:CA	2.71	0.50
3:3:52:ILE:O	3:3:54:PRO:HD3	2.11	0.50
6:A:1317:C:OP2	21:R:17:LYS:HG2	2.12	0.50
6:A:1459:C:H2'	6:A:1460:A:C5'	2.42	0.50
6:A:432:A:H2'	6:A:433:C:O4'	2.10	0.50
6:A:663:A:H2'	6:A:664:G:C8	2.46	0.50
6:A:748:C:H1'	6:A:749:C:H5	1.76	0.50
6:A:979:C:O2'	6:A:980:C:OP1	2.23	0.50
56:B:506:PHE:C	56:B:507:ILE:HG12	2.31	0.50
7:D:1108:U:H6	7:D:1108:U:H3'	1.75	0.50
7:D:1232:G:C6	7:D:1233:C:C4	3.00	0.50
7:D:1351:C:O2'	7:D:1571:A:H1'	2.11	0.50
7:D:1425:G:O5'	7:D:1425:G:H8	1.94	0.50
7:D:1809:A:OP1	7:D:1809:A:H4'	2.11	0.50
7:D:1895:C:H2'	7:D:1896:G:H8	1.75	0.50
7:D:1945:G:C2	7:D:1946:U:C2	3.00	0.50
7:D:532:A:P	7:D:2021:C:H5	2.34	0.50
7:D:2117:A:OP2	7:D:2117:A:C4	2.64	0.50
7:D:2259:G:H1'	7:D:2427:C:C2	2.46	0.50
7:D:2487:G:C2	7:D:2488:A:C5	3.00	0.50
1:1:31:LYS:HD3	7:D:2528:U:H5''	1.92	0.50
7:D:2586:C:OP1	7:D:2608:G:N1	2.32	0.50
7:D:270(A):A:H61	7:D:273:G:C4'	2.24	0.50
7:D:270(K):C:C4	7:D:270(L):U:H1'	2.47	0.50
7:D:2867:G:H5'	7:D:2868:A:OP1	2.11	0.50
7:D:421:U:HO2'	7:D:422:A:P	2.34	0.50
7:D:528:A:N6	7:D:2042:A:C5	2.79	0.50
7:D:81:G:H1'	7:D:294:A:O2'	2.11	0.50
7:D:926:A:O2'	7:D:928:G:O4'	2.28	0.50
7:D:971:C:OP2	7:D:974(A):C:C4	2.64	0.50
14:K:15:ASP:HB2	14:K:23:VAL:HB	1.93	0.50
14:K:77:SER:HB3	14:K:84:ASN:HD22	1.76	0.50
9:F:181:PHE:CD1	15:L:71:GLY:HA3	2.46	0.50
20:Q:108:ARG:CZ	20:Q:114:ARG:HA	2.40	0.50
20:Q:29:ARG:HD3	20:Q:32:GLU:OE1	2.11	0.50
20:Q:98:VAL:HG22	20:Q:98:VAL:O	2.11	0.50
29:Z:118:ASP:OD1	29:Z:119:VAL:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:4:21:A:N6	4:4:46:G:N3	2.60	0.50
6:A:1302:U:C5	20:Q:13:LYS:HD3	2.44	0.50
6:A:1350:A:C2	6:A:1351:U:C2	3.00	0.50
6:A:186(C):G:C6	6:A:191(E):G:C5	2.99	0.50
6:A:639:G:C2	6:A:640:A:C8	2.99	0.50
6:A:848:C:H3'	6:A:848:C:H6	1.75	0.50
6:A:87:A:H2'	6:A:88:C:C6	2.47	0.50
6:A:979:C:HO2'	6:A:980:C:P	2.35	0.50
56:B:528:ILE:CG2	56:B:592:VAL:CG1	2.89	0.50
7:D:1068:G:C4	7:D:1069:A:N6	2.80	0.50
7:D:1174:A:C3'	7:D:1174:A:N3	2.73	0.50
7:D:812:C:C2	7:D:1250:G:N1	2.80	0.50
7:D:586:A:N6	7:D:1251:C:C4	2.79	0.50
7:D:1397:U:HO2'	7:D:1398:C:P	2.33	0.50
7:D:1635:G:C6	7:D:1636:C:C4	3.00	0.50
7:D:163:U:H3'	7:D:164:U:H5''	1.92	0.50
7:D:1815:A:C2	7:D:1817:G:C6	2.99	0.50
7:D:1859:A:H2	7:D:1885:A:C8	2.30	0.50
7:D:2056:G:N2	7:D:2057:A:C4	2.79	0.50
7:D:2345:G:N3	7:D:2381:C:H2'	2.25	0.50
7:D:465:G:N1	7:D:466:A:N1	2.59	0.50
7:D:627:A:H1'	7:D:637:A:N6	2.26	0.50
7:D:715:G:O6	7:D:716:A:N6	2.44	0.50
7:D:848:G:H8	7:D:848:G:O5'	1.94	0.50
7:D:872:A:C6	7:D:873:G:N7	2.80	0.50
7:D:898:C:N4	7:D:899:A:C2	2.79	0.50
7:D:974:G:C4	7:D:1186:G:C5	2.99	0.50
6:A:1370:G:N7	16:M:109:VAL:HG11	2.26	0.50
19:P:33:ARG:HG2	19:P:60:LEU:HD13	1.93	0.50
20:Q:96:LEU:HD22	20:Q:101:GLN:CB	2.41	0.50
6:A:186(A):C:N3	27:X:105:SER:HB3	2.27	0.50
29:Z:69:GLY:C	29:Z:157:LYS:HG2	2.25	0.50
29:Z:29:VAL:HG22	29:Z:41:VAL:HG22	1.94	0.50
6:A:1029:G:O2'	6:A:1031:G:N7	2.45	0.50
6:A:1071:C:H2'	6:A:1072:G:C8	2.44	0.50
6:A:1164:G:C8	6:A:1165:C:C5	3.00	0.50
6:A:1527:C:N4	6:A:1528:U:O4	2.44	0.50
6:A:223:U:H5''	6:A:224:C:OP2	2.10	0.50
6:A:272:C:H2'	6:A:273:A:H8	1.76	0.50
6:A:274:A:H4'	6:A:275:G:OP1	2.12	0.50
6:A:50:A:OP1	6:A:50:A:H8	1.95	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:614:A:H2'	6:A:615:C:H6	1.76	0.50
6:A:859:A:OP2	6:A:869:G:C6	2.62	0.50
56:B:15:ILE:HD11	56:B:97:LEU:CD1	2.42	0.50
56:B:212:ILE:CD1	56:B:212:ILE:N	2.74	0.50
56:B:65:ARG:HB2	56:B:246:THR:C	2.30	0.50
2:D:34:ALA:N	7:D:1056:G:OP1	2.27	0.50
7:D:1142(A):A:C6	7:D:1143:A:N7	2.80	0.50
7:D:1345:C:H2'	7:D:1346:G:C8	2.46	0.50
7:D:1492:G:N3	7:D:1493:C:N3	2.59	0.50
7:D:1625:C:N3	7:D:1626:G:H8	2.10	0.50
7:D:48:G:C2	7:D:178:G:C5	2.99	0.50
7:D:23:G:N2	7:D:24:G:C4	2.80	0.50
7:D:2570:G:C6	7:D:2571:C:C2	2.99	0.50
7:D:270(Y):G:H5'	7:D:270(Z):U:H4'	1.93	0.50
7:D:2863:C:H2'	7:D:2864:G:C8	2.46	0.50
7:D:2834:G:O4'	7:D:2879:C:N4	2.44	0.50
7:D:350:U:OP2	7:D:350:U:C6	2.64	0.50
7:D:44:A:C2	7:D:45:G:C4	2.99	0.50
7:D:595:C:H2'	7:D:596:G:H8	1.76	0.50
7:D:928:G:C8	7:D:929:G:C5	2.92	0.50
9:F:43:ASP:OD2	9:F:46:LYS:HB2	2.10	0.50
6:A:1113:C:H1'	10:G:178:LEU:HD23	1.93	0.50
11:H:31:CYS:O	11:H:33:MET:N	2.44	0.50
12:I:105:VAL:HB	12:I:106:PRO:HD3	1.93	0.50
21:R:42:ILE:HG13	21:R:43:CYS:N	2.26	0.50
24:U:97:SER:OG	24:U:103:GLY:HA2	2.10	0.50
24:U:65:ILE:HG12	24:U:69:LYS:HE3	1.93	0.50
26:W:50:ALA:HB1	26:W:57:HIS:HB2	1.94	0.50
29:Z:143:GLY:O	29:Z:152:ILE:HD13	2.11	0.50
7:D:2123:G:OP1	29:Z:164:ARG:NE	2.43	0.50
5:5:10:G:C6	5:5:26:A:C5	2.98	0.50
6:A:1134:G:N2	6:A:1136:U:O4	2.39	0.50
6:A:1148:U:H4'	16:M:14:VAL:HG11	1.93	0.50
6:A:1308:U:O5'	6:A:1308:U:H6	1.95	0.50
6:A:148:G:H2'	6:A:149:A:H8	1.77	0.50
6:A:60:A:H1'	6:A:61:G:OP2	2.10	0.50
6:A:632:A:H2'	6:A:633:G:O4'	2.11	0.50
6:A:75:C:N1	6:A:96:G:N2	2.60	0.50
6:A:778:G:C6	6:A:779:C:N3	2.79	0.50
56:B:153:GLU:CB	56:B:159:PRO:HA	2.41	0.50
56:B:242:VAL:O	56:B:256:LEU:HD11	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:338:THR:OG1	56:B:502:ASP:CG	2.50	0.50
56:B:412:LEU:HD23	56:B:477:MET:SD	2.49	0.50
7:D:1050:A:O2'	7:D:2752:C:O2	2.30	0.50
7:D:1134:G:O2'	7:D:1135:C:OP1	2.27	0.50
7:D:1374:G:C2	7:D:1375:C:C2	2.99	0.50
7:D:1475:G:C2	7:D:1476:C:H6	2.30	0.50
7:D:1476:C:C5	7:D:1477:A:C2	3.00	0.50
7:D:1483:G:N2	7:D:1507:A:O2'	2.45	0.50
7:D:1691:C:C4	7:D:1692:U:N3	2.79	0.50
7:D:1847:A:H4'	7:D:1848:A:N7	2.27	0.50
7:D:1890:A:C8	7:D:1891:G:C8	2.99	0.50
7:D:2146:C:H2'	7:D:2147:G:H8	1.75	0.50
7:D:2339:G:H2'	7:D:2340:G:C8	2.46	0.50
7:D:282:A:N6	7:D:283:A:HO2'	2.09	0.50
7:D:535:C:N3	7:D:559:G:C6	2.80	0.50
7:D:590:A:N7	7:D:591:C:N4	2.59	0.50
7:D:609:A:C5	7:D:609(A):G:N7	2.79	0.50
7:D:61:G:C4	7:D:62:C:C5	2.99	0.50
7:D:685:A:C5	7:D:774:A:N1	2.80	0.50
7:D:848:G:N2	7:D:931:G:C6	2.79	0.50
7:D:870:A:C6	7:D:871:U:N3	2.80	0.50
12:I:110:LEU:HD22	12:I:115:VAL:HG21	1.93	0.50
13:J:7:ASN:HD21	13:J:62:TRP:HD1	1.58	0.50
18:O:40:ILE:HG21	18:O:75:TYR:CE2	2.35	0.50
20:Q:65:LYS:CG	20:Q:73:GLU:HG3	2.35	0.50
3:3:75:SER:HB3	3:3:130:SER:HB3	1.93	0.50
5:5:30:G:H1	5:5:40:C:H42	1.60	0.50
6:A:192:U:H4'	27:X:57:ARG:NH1	2.27	0.50
6:A:477:G:O2'	6:A:478:A:H5'	2.11	0.50
6:A:495:A:C2	6:A:496:A:C5	3.00	0.50
6:A:947:G:O3'	20:Q:109:THR:OG1	2.27	0.50
56:B:133:PRO:O	56:B:163:ALA:C	2.47	0.50
19:P:80:HIS:HD2	56:B:316:LEU:CG	2.14	0.50
56:B:317:ARG:CD	56:B:342:PHE:HE2	2.25	0.50
56:B:379:LYS:HE3	56:B:484:TYR:CD2	2.47	0.50
56:B:374:PRO:CD	56:B:461:TYR:CD1	2.95	0.50
56:B:555:ARG:CG	56:B:577:GLN:OE1	2.60	0.50
7:D:1265:A:C8	7:D:1267:U:C4	3.00	0.50
7:D:1478:G:H4'	7:D:1478:G:OP1	2.12	0.50
7:D:1725:G:N2	7:D:1726:G:C5	2.79	0.50
7:D:2020:A:H4'	7:D:2020:A:OP1	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2238:G:HO2'	7:D:2239:G:P	2.26	0.50
7:D:2255:G:H1	7:D:2275:C:H42	1.60	0.50
7:D:2679:A:C2	7:D:2680:C:C2	2.99	0.50
7:D:2695:C:H2'	7:D:2696:U:H6	1.76	0.50
7:D:1629:U:O2	7:D:2698:U:H5''	2.12	0.50
7:D:2824:C:H5''	7:D:2825:C:OP2	2.11	0.50
7:D:295:G:N3	7:D:344:G:C2	2.80	0.50
7:D:55:G:N2	7:D:56:A:C4	2.79	0.50
7:D:618(A):C:C5	7:D:619:G:C5	3.00	0.50
7:D:848:G:C8	7:D:848:G:OP2	2.65	0.50
7:D:900:A:C6	7:D:901:A:C4	2.99	0.50
7:D:901:A:C6	7:D:902:C:C2	2.99	0.50
7:D:919:G:N2	7:D:920:G:H1'	2.27	0.50
7:D:919:G:H5'	7:D:920:G:OP2	2.12	0.50
9:F:21:ARG:HA	9:F:39:ILE:HA	1.93	0.50
19:P:41:ARG:HH12	19:P:57:LYS:HE2	1.76	0.50
19:P:45:PRO:HB3	19:P:93:LEU:HB3	1.93	0.50
6:A:391:G:H5''	23:T:8:ARG:NH2	2.27	0.50
24:U:26:GLN:HG2	24:U:37:LYS:HA	1.92	0.50
18:O:110:ASP:CB	25:V:85:LEU:HB3	2.42	0.50
26:W:53:ASN:ND2	26:W:75:ALA:HB3	2.27	0.50
6:A:191(F):U:H3	27:X:105:SER:HB2	1.75	0.50
3:3:103:GLN:O	3:3:107:ILE:HD11	2.11	0.50
3:3:128:ALA:HB1	7:D:1079:C:O2'	2.11	0.50
6:A:1146:A:C6	6:A:1147:C:C2	2.99	0.50
6:A:1309:G:C8	6:A:1310:G:C8	3.00	0.50
6:A:1505:G:C8	6:A:1505:G:OP2	2.65	0.50
6:A:1517:G:C4	7:D:1920:C:OP2	2.64	0.50
6:A:179:A:H3'	6:A:180:U:C6	2.46	0.50
6:A:495:A:N3	6:A:496:A:C5	2.80	0.50
6:A:495:A:C4	6:A:496:A:N7	2.80	0.50
6:A:585:G:O2'	6:A:879:C:H5''	2.12	0.50
6:A:597:G:N7	6:A:598:U:C4	2.80	0.50
6:A:663:A:C2	6:A:664:G:C4	3.00	0.50
6:A:664:G:N2	6:A:666:G:C8	2.79	0.50
56:B:11:ASN:HB2	56:B:100:VAL:HA	1.93	0.50
56:B:205:TYR:CZ	56:B:271:ILE:HG23	2.41	0.50
56:B:382:LEU:HB2	56:B:401:ARG:HG3	0.52	0.50
56:B:456:PHE:CZ	56:B:460:LEU:HD21	2.46	0.50
56:B:409:TYR:CG	56:B:485:ARG:CD	2.94	0.50
56:B:489:LEU:HD22	56:B:507:ILE:HG21	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:66:VAL:O	56:B:76:TYR:CE1	2.65	0.50
7:D:1001:A:N7	7:D:1002:G:C4	2.80	0.50
7:D:1047:G:O6	7:D:1110:G:C5	2.64	0.50
7:D:1062:G:OP2	7:D:1070:A:C2	2.64	0.50
7:D:1103:A:H2'	7:D:1103:A:N3	2.26	0.50
7:D:1014:U:OP2	7:D:1142:U:H1'	2.11	0.50
7:D:1230:C:H2'	7:D:1231:G:C8	2.35	0.50
7:D:1363:C:O3'	7:D:1809:A:C5	2.64	0.50
7:D:1449:A:H2'	7:D:1449(A):G:C5'	2.41	0.50
7:D:1725:G:C2	7:D:1735:C:C2	2.98	0.50
7:D:2106:G:C2	7:D:2108:C:C2	2.99	0.50
7:D:2308:G:H2'	7:D:2309:A:OP2	2.12	0.50
7:D:2630:G:OP1	7:D:2895:U:N3	2.45	0.50
7:D:2776:A:C2	7:D:2778:A:C4	2.99	0.50
7:D:276:A:HO2'	7:D:278:A:N6	2.10	0.50
7:D:27:G:N2	7:D:512:G:O2'	2.44	0.50
7:D:298:G:O5'	7:D:298:G:H8	1.95	0.50
7:D:37:C:H2'	7:D:38:A:C8	2.46	0.50
7:D:409:C:H2'	7:D:410:G:C8	2.47	0.50
7:D:438:G:N2	7:D:439:G:C4	2.79	0.50
7:D:481:G:O2'	7:D:507:A:N6	2.44	0.50
7:D:548:A:N6	7:D:549:G:H21	2.08	0.50
7:D:5:A:H2'	7:D:6:A:C8	2.47	0.50
7:D:903:C:H2'	7:D:904:C:C6	2.46	0.50
7:D:974:G:H5''	7:D:974(A):C:OP2	2.11	0.50
8:E:57:A:OP2	8:E:58:A:OP2	2.30	0.50
9:F:61:LEU:HD22	9:F:68:ILE:HG13	1.93	0.50
9:F:84:GLU:HG3	9:F:219:VAL:HG21	1.94	0.50
13:J:46:ARG:HH22	25:V:37:VAL:HB	1.76	0.50
6:A:302:G:H4'	19:P:17:LYS:NZ	2.27	0.50
20:Q:16:ASP:HB2	20:Q:30:ALA:HA	1.93	0.50
29:Z:156:ILE:HG12	29:Z:160:ARG:HD3	1.92	0.50
3:3:79:ARG:CZ	3:3:134:MET:HB2	2.41	0.50
6:A:101:A:N6	6:A:102:G:O6	2.44	0.50
6:A:13:U:N3	6:A:21:G:N1	2.59	0.50
6:A:179:A:C5	6:A:180:U:C4	2.99	0.50
6:A:262:A:C6	6:A:263:A:C5	3.00	0.50
6:A:270:A:H2'	6:A:271:C:O4'	2.12	0.50
6:A:653:A:H5'	6:A:654:G:OP2	2.12	0.50
6:A:848:C:C2'	6:A:849:C:C5	2.86	0.50
56:B:127:HIS:HD2	56:B:127:HIS:O	1.95	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:170:THR:HG22	56:B:171:GLY:N	2.18	0.50
7:D:1173:G:N3	7:D:1173:G:C5'	2.73	0.50
7:D:1174:A:C6	7:D:1176:G:C8	2.95	0.50
7:D:1485:G:C6	7:D:1486:A:C6	3.00	0.50
7:D:1748:G:N1	7:D:1749:A:N1	2.59	0.50
7:D:1784:A:N3	7:D:1785:A:C6	2.80	0.50
7:D:1789:A:C5	7:D:1790:C:C2	2.99	0.50
7:D:1945:G:N2	7:D:1946:U:O2	2.45	0.50
7:D:2141:G:N2	7:D:2150:U:O2	2.42	0.50
7:D:2277:G:C6	7:D:2278:A:N7	2.80	0.50
7:D:1128:A:H62	7:D:2518:A:H61	1.59	0.50
7:D:273(A):G:C2	7:D:273(B):C:C2	3.00	0.50
7:D:2793:G:C2	7:D:2803:C:N3	2.72	0.50
7:D:283:A:H3'	7:D:284:U:H6	1.75	0.50
7:D:2887:U:O5'	7:D:2887:U:H6	1.95	0.50
7:D:512:G:HO2'	7:D:513:A:P	2.31	0.50
8:E:44:G:C2	8:E:48:A:C2	3.00	0.50
8:E:83:G:H5'	8:E:84:C:OP2	2.12	0.50
9:F:61:LEU:HD11	9:F:160:ASP:HB3	1.93	0.50
22:S:36:ILE:HG13	22:S:56:LEU:HD11	1.93	0.50
25:V:85:LEU:HD11	25:V:87:ARG:HB3	1.94	0.50
28:Y:10:ARG:HA	28:Y:13:ILE:HG22	1.94	0.50
29:Z:42:GLU:OE1	29:Z:71:GLN:NE2	2.45	0.50
3:3:102:GLU:C	3:3:106:GLU:OE2	2.51	0.50
3:3:66:THR:HG22	3:3:67:PHE:N	2.19	0.50
6:A:1368:G:H2'	6:A:1369:C:H6	1.77	0.50
6:A:1504:G:H4'	6:A:1505:G:O4'	2.11	0.50
6:A:505:G:C5	6:A:535:A:C2	2.99	0.50
6:A:590:C:H2'	6:A:591:U:C6	2.43	0.50
6:A:686:U:N3	6:A:703:G:N3	2.59	0.50
56:B:196:LEU:HD11	56:B:221:ARG:N	2.13	0.50
56:B:200:ILE:HG23	56:B:213:PRO:HB2	1.94	0.50
56:B:558:VAL:CG1	56:B:573:LEU:HB3	2.42	0.50
7:D:1168:G:N3	7:D:1182:A:C2	2.80	0.50
7:D:1268:A:C4	7:D:2013:A:N6	2.80	0.50
7:D:1436:G:C2	7:D:1437:C:C2	3.00	0.50
7:D:1475:G:C2	7:D:1476:C:C6	2.99	0.50
7:D:1561:G:N2	7:D:1562:A:C4	2.80	0.50
7:D:1572:A:C8	7:D:1573:G:C8	3.00	0.50
7:D:1915:U:C4	7:D:1916:A:N7	2.80	0.50
7:D:2104:G:C5	7:D:2105:C:C4	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2126:A:HO2'	7:D:2163:C:HO2'	1.44	0.50
7:D:2346:A:C2	7:D:2383:G:N1	2.80	0.50
7:D:2455:G:C2	7:D:2498:C:N4	2.80	0.50
7:D:2446:G:C2	7:D:2501:C:C5	2.99	0.50
7:D:2548:G:C6	7:D:2561:A:N1	2.80	0.50
7:D:2594:C:C2	7:D:2600:A:H2	2.30	0.50
7:D:270(B):A:H1'	7:D:270(C):C:H5	1.77	0.50
7:D:38:A:C2	7:D:39:C:C2	3.00	0.50
7:D:493:G:N2	7:D:494:G:C4	2.79	0.50
7:D:640:C:H6	7:D:640:C:OP2	1.95	0.50
7:D:674:G:C5	7:D:804:A:N6	2.80	0.50
10:G:63:ASN:O	10:G:99:VAL:HA	2.12	0.50
15:L:87:SER:HB2	15:L:92:ARG:HA	1.94	0.50
18:O:14:VAL:O	18:O:77:MET:HG2	2.12	0.50
20:Q:71:ARG:HG2	20:Q:71:ARG:O	2.11	0.50
20:Q:81:LEU:HD12	20:Q:84:ILE:HG23	1.92	0.50
23:T:21:VAL:HG22	23:T:34:GLU:O	2.12	0.50
24:U:67:LYS:O	24:U:69:LYS:N	2.38	0.50
3:3:77:LEU:HD11	3:3:111:LYS:HD3	1.93	0.49
3:3:58:THR:O	3:3:64:SER:HB2	2.12	0.49
6:A:1014:A:H8	6:A:1015:A:N7	2.10	0.49
6:A:1169:A:C2'	6:A:1170:A:C8	2.93	0.49
6:A:978:A:C5	6:A:1318:A:N6	2.80	0.49
6:A:1498:U:O2'	6:A:1499:A:P	2.69	0.49
6:A:31:G:H8	6:A:31:G:OP1	1.94	0.49
6:A:388:G:O2'	6:A:389:A:OP2	2.30	0.49
6:A:78:G:H2'	6:A:79:G:C8	2.47	0.49
56:B:65:ARG:CG	56:B:246:THR:HA	2.42	0.49
56:B:222:VAL:CB	56:B:264:LEU:HD21	2.42	0.49
56:B:278:ASP:O	56:B:279:THR:HG23	2.11	0.49
56:B:32:LEU:HD22	56:B:173:GLY:O	2.12	0.49
56:B:332:PHE:HD1	56:B:333:GLU:N	2.10	0.49
56:B:48:SER:C	56:B:49:LEU:HD12	2.32	0.49
7:D:987:G:O2'	7:D:1000:A:N3	2.45	0.49
7:D:1062:G:C1'	7:D:1063:G:P	3.00	0.49
7:D:1059:G:O6	7:D:1081:U:O2	2.30	0.49
7:D:1266:G:HO2'	7:D:1267:U:P	2.31	0.49
7:D:1313:U:C2	7:D:1314:C:C6	3.00	0.49
7:D:1356:G:C6	7:D:1357:U:C4	3.00	0.49
7:D:1417:C:N4	7:D:1581:G:H1	2.10	0.49
7:D:1668:A:H2	7:D:1993:U:C5	2.29	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1668:A:N1	7:D:1993:U:N3	2.60	0.49
7:D:2116:G:N7	7:D:2165:G:N1	2.58	0.49
7:D:2262:U:O2'	7:D:2263:C:H5'	2.12	0.49
7:D:411:G:N2	7:D:2408:U:O4	2.40	0.49
7:D:2537:U:N3	7:D:2538:C:C4	2.80	0.49
7:D:2807:G:N3	7:D:2807:G:H2'	2.27	0.49
7:D:2821:A:H2'	7:D:2822:G:O4'	2.12	0.49
7:D:2889:C:N4	7:D:2891:G:C6	2.80	0.49
7:D:358:U:H2'	7:D:359:A:H5'	1.94	0.49
7:D:423:A:OP2	7:D:423:A:H8	1.94	0.49
7:D:439:G:H2'	7:D:440:G:H8	1.71	0.49
7:D:507:A:HO2'	7:D:508:G:H21	1.60	0.49
7:D:13:A:C2	7:D:526:A:N7	2.80	0.49
7:D:752:A:O2'	7:D:753:C:P	2.70	0.49
7:D:969:U:OP1	24:U:17:LYS:N	147.83	0.49
6:A:1056:U:OP1	10:G:163:ALA:N	2.44	0.49
10:G:147:LYS:HB2	10:G:203:PHE:CD1	2.46	0.49
10:G:52:LEU:HA	10:G:70:VAL:HG22	1.94	0.49
6:A:401:C:OP2	11:H:73:ARG:CZ	2.60	0.49
6:A:1058:G:N2	17:N:53:PRO:HG3	2.26	0.49
23:T:56:ALA:HB3	23:T:79:VAL:HG21	1.95	0.49
26:W:20:LEU:C	26:W:22:LEU:H	2.14	0.49
27:X:81:LYS:O	27:X:85:MET:HG2	2.12	0.49
7:D:1861:G:OP1	29:Z:205:LYS:HG3	2.12	0.49
29:Z:37:PHE:HE1	29:Z:40:THR:OG1	1.94	0.49
3:3:21:PRO:CD	3:3:22:PRO:CD	2.86	0.49
4:4:7:G:N2	4:4:67:C:O2	2.45	0.49
6:A:1201:A:O2'	6:A:1202:G:O5'	2.22	0.49
6:A:1412:C:H2'	6:A:1413:A:C8	2.47	0.49
6:A:180:U:N3	6:A:195:A:N7	2.61	0.49
6:A:587:G:H4'	15:L:3:THR:O	2.11	0.49
56:B:210:GLY:CA	56:B:269:ARG:HG2	2.42	0.49
56:B:413:THR:CA	56:B:450:LEU:O	2.57	0.49
56:B:374:PRO:HG3	56:B:461:TYR:HB3	1.95	0.49
56:B:47:ASP:OD2	56:B:53:ARG:HA	2.12	0.49
7:D:1106:G:O3'	7:D:1107:G:O4'	2.30	0.49
7:D:124:G:N2	7:D:128:C:C4	2.81	0.49
7:D:1350:C:C4	7:D:1382:G:N2	2.80	0.49
7:D:1440:G:C5	7:D:1552:G:N2	2.81	0.49
7:D:1587:A:H2'	7:D:1588:C:O4'	2.12	0.49
7:D:1662:C:H2'	7:D:1663:C:C6	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:529:A:N6	7:D:2023:G:C5	2.80	0.49
7:D:2133:G:OP1	7:D:2156:G:O2'	2.26	0.49
7:D:2315:G:H2'	7:D:2316:C:C6	2.47	0.49
7:D:2376:A:P	7:D:2376:A:H8	2.36	0.49
7:D:2655:G:H2'	7:D:2664:G:N1	2.26	0.49
7:D:2793:G:C6	7:D:2802:G:O6	2.65	0.49
7:D:2896:C:H3'	7:D:2897:U:C5	2.47	0.49
7:D:719:C:C2	7:D:720:C:C5	3.00	0.49
7:D:890:A:H4'	7:D:892:G:OP2	2.12	0.49
8:E:43:C:C4	8:E:45:A:N6	2.80	0.49
8:E:29:A:H2	8:E:56:G:C4	2.30	0.49
6:A:1321:C:HO2'	20:Q:87:TYR:HH	1.59	0.49
22:S:7:GLU:HA	22:S:10:LYS:HG2	1.94	0.49
26:W:40:ILE:HG23	26:W:67:VAL:CG2	2.29	0.49
29:Z:215:THR:HA	29:Z:221:SER:HB2	1.93	0.49
5:5:63:G:H2'	5:5:64:A:H8	1.78	0.49
6:A:1129:C:H1'	6:A:1130:A:C8	2.46	0.49
6:A:1129:C:H1'	6:A:1130:A:N7	2.27	0.49
6:A:1134:G:H1	6:A:1140:C:N4	2.11	0.49
6:A:1306:A:C6	6:A:1307:U:O2	2.65	0.49
6:A:1397:C:O2'	6:A:1398:A:OP2	2.22	0.49
6:A:1422:G:H2'	6:A:1423:G:H8	1.76	0.49
6:A:157:G:H2'	6:A:158:G:H8	1.77	0.49
6:A:309:G:C2	6:A:310:G:C8	3.00	0.49
56:B:239:VAL:HG13	56:B:240:ASP:N	2.28	0.49
56:B:349:LEU:HD12	56:B:353:HIS:HB2	1.94	0.49
56:B:379:LYS:CE	56:B:485:ARG:H	2.25	0.49
56:B:66:VAL:HG23	56:B:76:TYR:HD1	1.66	0.49
56:B:8:ARG:O	56:B:9:ILE:HB	2.12	0.49
2:2:11:ALA:CB	7:D:1046:A:N7	2.69	0.49
7:D:1287:A:H2	7:D:1649:G:H4'	1.77	0.49
7:D:1492:G:O6	7:D:1496:A:C6	2.65	0.49
7:D:1305:C:C2	7:D:1624:G:C2	3.00	0.49
7:D:1816:G:O2'	7:D:1817:G:OP2	2.21	0.49
7:D:2053:G:C2	7:D:2617:C:C2	3.00	0.49
7:D:2490:G:N2	7:D:2491:U:O2	2.45	0.49
7:D:2864:G:C5	7:D:2865:U:C4	3.00	0.49
7:D:35:G:C4	7:D:36:G:C8	3.00	0.49
7:D:532:A:C2	7:D:2035:G:N2	2.76	0.49
7:D:685:A:C5	7:D:774:A:C6	2.99	0.49
7:D:752:A:O2'	7:D:753:C:O5'	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:784:A:HO2'	7:D:785:G:P	2.35	0.49
7:D:839:U:H2'	7:D:840:C:C6	2.47	0.49
7:D:875:G:C6	7:D:876:C:N3	2.80	0.49
7:D:876:C:H5''	7:D:877:U:OP2	2.12	0.49
7:D:896:A:OP2	7:D:897:C:OP2	2.31	0.49
7:D:952:G:H5''	7:D:953:A:OP2	2.13	0.49
10:G:11:ARG:HH21	10:G:182:ILE:HD12	1.76	0.49
11:H:127:THR:HB	11:H:147:ALA:N	2.26	0.49
11:H:152:SER:O	11:H:154:ASN:N	2.42	0.49
13:J:33:TYR:CE2	13:J:75:LEU:HD22	2.47	0.49
29:Z:155:GLU:HB3	29:Z:159:GLY:O	2.12	0.49
6:A:1049:U:H4'	6:A:1050:G:C5'	2.43	0.49
6:A:1143:G:H2'	6:A:1144:G:H8	1.76	0.49
6:A:1256:A:N6	6:A:1278:U:O2	2.40	0.49
6:A:439:A:C6	6:A:440:A:H1'	2.47	0.49
6:A:798:G:H5''	6:A:799:G:OP2	2.11	0.49
6:A:819:A:C6	6:A:1529:G:C6	3.00	0.49
56:B:193:GLU:HA	56:B:193:GLU:OE1	2.12	0.49
56:B:196:LEU:HD23	56:B:282:LEU:HB2	1.94	0.49
56:B:17:HIS:HB3	56:B:20:HIS:CE1	2.47	0.49
56:B:290:PRO:O	56:B:292:PRO:HD3	2.12	0.49
56:B:300:VAL:HG23	56:B:301:VAL:N	2.27	0.49
56:B:383:LYS:H	56:B:402:ILE:CB	2.25	0.49
56:B:425:MET:HE2	56:B:452:TYR:HH	1.76	0.49
56:B:456:PHE:CD1	56:B:459:ILE:HD11	2.47	0.49
7:D:1091:G:H2'	7:D:1092:C:C6	2.47	0.49
7:D:1096:A:H2'	7:D:1097:U:O4'	2.11	0.49
7:D:1263:U:C5	7:D:1264:G:C6	3.00	0.49
7:D:1480:G:P	7:D:1559:G:O6	2.70	0.49
7:D:1565:C:N3	7:D:1567:A:H8	2.09	0.49
7:D:749:C:HO2'	7:D:1617:C:HO2'	1.57	0.49
7:D:1272:A:C5	7:D:1618:A:H1'	2.48	0.49
7:D:1681:G:O2'	7:D:1682:G:P	2.70	0.49
7:D:1993:U:C5	7:D:1994:C:C2	3.01	0.49
7:D:2072:G:N1	7:D:2438:U:O2	2.46	0.49
7:D:2134:A:O2'	7:D:2157:G:OP1	2.29	0.49
7:D:2391:G:HO2'	7:D:2392:A:C5'	2.25	0.49
7:D:2639:A:C4	7:D:2778:A:C6	3.01	0.49
7:D:2772:C:H5'	7:D:2773:C:OP2	2.12	0.49
7:D:2781:A:C3'	7:D:2782:G:H4'	2.42	0.49
7:D:308:G:C2	7:D:501:A:C5	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:563:G:C6	7:D:564:C:C4	3.00	0.49
7:D:661:C:H2'	7:D:662:G:C8	2.47	0.49
7:D:848:G:O6	7:D:929:G:N3	2.45	0.49
9:F:49:GLU:HA	9:F:52:GLU:CD	2.31	0.49
11:H:162:LEU:O	11:H:165:MET:N	2.45	0.49
13:J:33:TYR:CZ	13:J:75:LEU:HD22	2.46	0.49
6:A:1227:A:P	20:Q:111:LYS:HZ2	2.33	0.49
6:A:186(B):C:C4'	27:X:89:ARG:NH1	2.74	0.49
29:Z:127:LEU:HA	29:Z:130:ILE:HD13	1.93	0.49
29:Z:86:ALA:HA	29:Z:153:ILE:HD12	1.94	0.49
29:Z:44:HIS:HA	29:Z:172:HIS:HA	1.95	0.49
29:Z:36:LYS:HG3	29:Z:37:PHE:CD2	2.48	0.49
1:I:30:PRO:HB2	7:D:2527:C:H5''	1.93	0.49
6:A:978:A:H61	6:A:1316:G:H1'	1.78	0.49
6:A:1453:G:C3'	6:A:1453:G:N3	2.73	0.49
6:A:429:U:H1'	6:A:430:A:H5''	1.94	0.49
6:A:48:C:OP2	6:A:49:U:OP2	2.30	0.49
6:A:5:U:H1'	6:A:6:G:OP2	2.12	0.49
6:A:837:G:C2	6:A:838:G:C5	3.00	0.49
6:A:996:A:N6	6:A:1046:A:H1'	2.27	0.49
56:B:222:VAL:HG22	56:B:239:VAL:HG21	1.94	0.49
7:D:976:C:C5'	7:D:1156:A:H62	2.23	0.49
7:D:1313:U:H2'	7:D:1314:C:O4'	2.12	0.49
7:D:1511:A:OP2	7:D:1511:A:C8	2.66	0.49
7:D:1603:A:C4	7:D:1604:C:C5	3.01	0.49
7:D:1869:G:C2	7:D:1872:A:OP2	2.59	0.49
7:D:2026:C:C2	7:D:2038:G:N2	2.81	0.49
7:D:2458:G:O5'	7:D:2458:G:H8	1.96	0.49
7:D:284:U:H3'	7:D:284:U:OP2	2.13	0.49
7:D:508:G:OP2	7:D:508:G:N2	2.46	0.49
7:D:529:A:C6	7:D:2042:A:N1	2.80	0.49
7:D:696:G:N2	7:D:697:C:C2	2.80	0.49
7:D:738:G:N2	7:D:759:G:C5	2.80	0.49
7:D:83:G:C2	7:D:84:A:C2	3.00	0.49
7:D:932:G:C5	7:D:933:A:N7	2.80	0.49
9:F:45:GLN:OE1	9:F:45:GLN:N	2.45	0.49
10:G:131:ARG:HG3	10:G:166:GLU:OE2	2.13	0.49
11:H:20:TYR:O	11:H:26:CYS:HB3	2.13	0.49
20:Q:25:ILE:HA	20:Q:29:ARG:HG2	1.94	0.49
23:T:69:THR:O	23:T:72:ARG:HG2	2.13	0.49
23:T:78:GLY:O	23:T:80:PHE:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:W:28:LYS:O	26:W:48:THR:HB	2.13	0.49
27:X:73:HIS:CD2	27:X:74:LYS:HD2	2.48	0.49
29:Z:117:PRO:HG2	29:Z:147:PHE:CE2	2.47	0.49
1:1:22:ARG:HD2	1:1:37:GLY:HA3	1.93	0.49
3:3:103:GLN:N	3:3:106:GLU:OE2	2.46	0.49
3:3:34:ILE:CG2	3:3:63:ARG:HG2	2.43	0.49
4:4:33:U:N3	4:4:36:U:OP2	2.42	0.49
6:A:1229:A:H2'	6:A:1230:C:C6	2.46	0.49
6:A:1250:A:C2	6:A:1287:A:C6	3.01	0.49
6:A:185:A:N6	6:A:192:U:H3	2.09	0.49
6:A:321:A:C2	6:A:333:G:C2	3.00	0.49
6:A:384:G:H2'	6:A:385:C:C6	2.47	0.49
6:A:372:C:N4	6:A:389:A:H62	2.10	0.49
6:A:401:C:H2'	6:A:402:G:H8	1.76	0.49
6:A:477:G:C5	6:A:478:A:N7	2.81	0.49
6:A:506:G:C5	6:A:507:C:C4	3.00	0.49
6:A:735:C:H2'	6:A:736:C:C6	2.47	0.49
56:B:233:THR:OG1	56:B:234:GLY:N	2.46	0.49
56:B:67:THR:OG1	56:B:68:TYR:N	2.45	0.49
7:D:1000:A:N6	7:D:1001:A:N1	2.61	0.49
7:D:1483:G:C2	7:D:1507:A:O2'	2.66	0.49
7:D:1497:U:OP2	7:D:1498:C:C5	2.66	0.49
7:D:1583:A:H4'	7:D:1585:C:C4	2.46	0.49
7:D:1414:G:C2	7:D:1589:C:N3	2.80	0.49
7:D:1684:C:H2'	7:D:1685:C:O4'	2.13	0.49
7:D:1707:G:N2	7:D:1708:C:O2	2.45	0.49
7:D:1726:G:H2'	7:D:1726:G:N3	2.26	0.49
7:D:1732:A:H3'	7:D:1733:G:H5''	1.93	0.49
7:D:202:U:H2'	7:D:203:C:H6	1.78	0.49
7:D:2086:U:H2'	7:D:2087:G:C8	2.48	0.49
7:D:2340:G:N2	7:D:2341:G:C4	2.80	0.49
7:D:2491:U:C4	7:D:2492:U:C4	3.01	0.49
7:D:1128:A:H8	7:D:2516:G:O2'	1.95	0.49
7:D:266:G:H5'	7:D:271(A):C:N4	2.21	0.49
7:D:2819:G:C5	7:D:2821:A:C6	3.00	0.49
7:D:2847:U:C4	7:D:2848:G:N7	2.81	0.49
7:D:292:C:H3'	7:D:293:U:C6	2.46	0.49
7:D:296:C:O2'	7:D:297:C:O4'	2.16	0.49
7:D:669:G:H5''	7:D:670:A:OP2	2.12	0.49
7:D:684:G:C2	7:D:775:G:C5	3.01	0.49
7:D:817:C:O2'	7:D:839:U:H5''	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:863:A:H61	7:D:912:C:H42	1.61	0.49
8:E:85:G:C6	8:E:92:G:C6	3.01	0.49
9:F:12:GLU:HB3	9:F:16:HIS:CE1	2.47	0.49
10:G:159:GLY:HA2	10:G:193:TYR:CE1	2.48	0.49
12:I:15:ARG:HG3	12:I:28:PHE:CE1	2.47	0.49
15:L:100:ILE:HB	15:L:125:ARG:NH2	2.28	0.49
16:M:18:PHE:HB2	16:M:62:TYR:HD2	1.78	0.49
24:U:66:SER:OG	24:U:67:LYS:N	2.44	0.49
6:A:583:A:H5'	24:U:90:ILE:HG21	1.95	0.49
3:3:77:LEU:HD12	3:3:111:LYS:CD	2.42	0.49
6:A:1028(B):C:H2'	6:A:1029:G:H5'	1.95	0.49
6:A:1089:G:H1	6:A:1096:C:N4	2.10	0.49
6:A:137:C:H42	6:A:226:G:H1	1.60	0.49
6:A:424:G:H2'	6:A:425:G:C8	2.48	0.49
6:A:464:G:C3'	6:A:465:A:C5'	2.88	0.49
6:A:475:G:H2'	6:A:476:G:H1'	1.92	0.49
56:B:134:VAL:HA	56:B:163:ALA:CA	2.43	0.49
56:B:200:ILE:HG21	56:B:213:PRO:HB2	1.95	0.49
56:B:88:ASP:HA	56:B:349:LEU:HB3	1.94	0.49
56:B:468:LYS:HA	56:B:473:GLY:HA2	1.95	0.49
56:B:531:GLN:CD	56:B:584:LEU:HD13	2.31	0.49
7:D:1071:G:H21	7:D:1089:G:C2'	2.23	0.49
7:D:1042:G:C4	7:D:1114:G:O6	2.66	0.49
7:D:1162:G:C2	7:D:1163:G:C8	3.01	0.49
7:D:1286:A:N7	7:D:1289:C:N4	2.61	0.49
7:D:1341:U:H3'	7:D:1397:U:O2	2.12	0.49
7:D:1862:G:C2	7:D:1881:C:O2	2.66	0.49
7:D:1871:A:H8	7:D:1871:A:O5'	1.95	0.49
7:D:191:A:H2'	7:D:192:C:C6	2.47	0.49
7:D:2033:A:C6	7:D:2036:C:C4	3.01	0.49
7:D:2026:C:O2	7:D:2038:G:N2	2.45	0.49
7:D:2184:G:H2'	7:D:2185:C:C6	2.47	0.49
7:D:2327:A:H8	7:D:2327:A:OP2	1.95	0.49
7:D:2339:G:C2	7:D:2340:G:C5	3.00	0.49
7:D:2632:A:H2'	7:D:2633:G:C8	2.39	0.49
7:D:2648:C:O2	7:D:2673:G:C2	2.66	0.49
7:D:2749:A:OP2	7:D:2751:G:OP2	2.31	0.49
7:D:294:A:H3'	7:D:295:G:C5'	2.42	0.49
7:D:448:U:HO2'	7:D:449:A:P	2.32	0.49
7:D:974:G:N2	7:D:1187:G:C5	2.80	0.49
8:E:16:G:C6	8:E:69:G:C2	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:18:LYS:HE2	11:H:20:TYR:HE2	1.78	0.49
6:A:909:A:P	19:P:21:LYS:NZ	2.86	0.49
20:Q:37:THR:HG23	20:Q:39:ILE:H	1.78	0.49
20:Q:80:ARG:O	20:Q:81:LEU:HD22	2.13	0.49
26:W:29:ARG:HD2	26:W:30:LEU:N	2.28	0.49
1:1:10:ILE:HG13	1:1:32:HIS:HD2	1.76	0.49
3:3:112:MET:HG3	3:3:112:MET:O	2.12	0.49
3:3:27:LEU:C	3:3:32:ALA:HB3	2.33	0.49
6:A:1016:A:C8	6:A:1016:A:OP2	2.66	0.49
6:A:1228:C:C5'	20:Q:108:ARG:HH12	2.26	0.49
6:A:1255:G:C5	6:A:1279:A:C6	3.01	0.49
6:A:1306:A:N7	6:A:1307:U:C4	2.80	0.49
6:A:222:U:H2'	6:A:223:U:C6	2.48	0.49
6:A:443:C:N4	6:A:492:G:O6	2.45	0.49
6:A:837:G:H2'	6:A:838:G:C8	2.48	0.49
6:A:841:U:H3'	6:A:841:U:H6	1.77	0.49
6:A:838:G:C6	6:A:849:C:N3	2.80	0.49
6:A:927:G:OP2	6:A:1503:A:C6	2.66	0.49
6:A:95:G:H2'	6:A:96:G:H8	1.78	0.49
56:B:214:TYR:HA	56:B:263:TRP:HA	1.95	0.49
56:B:332:PHE:CE1	56:B:333:GLU:HB2	2.48	0.49
56:B:353:HIS:O	56:B:357:VAL:HG23	2.12	0.49
56:B:46:LEU:C	56:B:48:SER:H	2.16	0.49
56:B:5:ASP:C	56:B:7:SER:H	2.16	0.49
7:D:1128:A:OP2	7:D:1128:A:O4'	2.30	0.49
7:D:1251:C:P	16:M:10:ARG:HG3	172.93	0.49
7:D:1299:G:N1	7:D:1640:C:OP2	2.45	0.49
7:D:1405:U:H2'	7:D:1406:U:C6	2.48	0.49
7:D:1541:U:O2	7:D:1542:G:C6	2.65	0.49
7:D:1625:C:H5''	7:D:1626:G:OP2	2.12	0.49
7:D:1688:U:HO2'	7:D:1689:A:P	2.35	0.49
7:D:1746:G:C6	7:D:1747:G:N1	2.79	0.49
7:D:1778:U:H2'	7:D:1779:U:C5	2.48	0.49
7:D:1872:A:H2'	7:D:1872:A:N3	2.27	0.49
7:D:1881:C:N4	7:D:1882:C:N4	2.60	0.49
7:D:1911:U:H5''	7:D:1912:A:OP1	2.13	0.49
7:D:2023:G:C2	7:D:2024:G:C8	3.01	0.49
7:D:2333:A:H1'	7:D:2335:A:C2	2.46	0.49
7:D:2624:G:C2	7:D:2625:G:C4	3.01	0.49
7:D:559:G:O2'	7:D:560:C:O4'	2.30	0.49
7:D:620:G:H4'	7:D:621:A:H5''	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:641:C:H42	7:D:646:A:N6	2.01	0.49
7:D:64:A:C2	7:D:65:C:C2	3.01	0.49
7:D:71:A:N3	7:D:73:A:C6	2.81	0.49
8:E:61:G:C6	8:E:62:C:C4	3.00	0.49
8:E:78:A:C2	8:E:99:A:C5	3.01	0.49
9:F:25:ASN:ND2	9:F:192:SER:O	2.46	0.49
12:I:118:ILE:HG22	12:I:119:LEU:O	2.13	0.49
20:Q:66:LEU:HG	20:Q:67:GLU:N	2.28	0.49
24:U:57:VAL:HG12	24:U:76:LEU:HA	1.93	0.49
25:V:61:LYS:O	25:V:65:ILE:HG12	2.13	0.49
26:W:12:ASP:C	26:W:14:HIS:H	2.13	0.49
29:Z:120:MET:HE1	29:Z:138:PRO:HB2	1.94	0.49
5:5:20:U:H2'	5:5:21:A:H4'	1.95	0.49
6:A:1228:C:H5'	20:Q:115:LYS:H	1.78	0.49
6:A:327:A:C4	6:A:329:A:C8	3.00	0.49
56:B:204:VAL:O	56:B:211:VAL:CG1	2.58	0.49
56:B:229:ARG:NE	56:B:283:ALA:CA	2.72	0.49
56:B:246:THR:CG2	56:B:251:VAL:CG2	2.90	0.49
56:B:222:VAL:CG1	56:B:264:LEU:HD21	2.43	0.49
56:B:300:VAL:HG13	56:B:477:MET:SD	2.51	0.49
7:D:103:A:C5	7:D:104:U:C5	3.01	0.49
7:D:1050:A:N6	7:D:2751:G:C5	2.81	0.49
7:D:1048:A:C2	7:D:1111:A:C2	3.00	0.49
7:D:1168:G:C6	7:D:1182:A:N1	2.81	0.49
7:D:1583:A:H4'	7:D:1585:C:N1	2.24	0.49
7:D:154:G:C2	7:D:173:G:C2	3.00	0.49
7:D:49:A:N6	7:D:176:G:C6	2.81	0.49
7:D:1810:A:H5''	7:D:1811:G:OP2	2.13	0.49
7:D:528:A:H62	7:D:2042:A:H62	1.59	0.49
7:D:792:G:N2	7:D:2072:G:HO2'	2.11	0.49
7:D:2088:G:C6	7:D:2089:U:N3	2.80	0.49
7:D:209:C:H2'	7:D:210:C:H6	1.78	0.49
7:D:2196:C:H3'	7:D:2197:U:C5	2.47	0.49
7:D:2197:U:O2	7:D:2225:A:N7	2.46	0.49
7:D:2557:G:C2	7:D:2558:C:C2	3.01	0.49
7:D:2663:G:C5	7:D:2664:G:N7	2.80	0.49
7:D:379:G:C6	7:D:396:G:O6	2.66	0.49
7:D:778:G:N2	7:D:787:U:C2	2.81	0.49
7:D:950:G:C2	7:D:951:C:C2	3.00	0.49
9:F:22:LYS:HZ1	9:F:35:GLU:CD	2.16	0.49
10:G:3:ASN:OD1	10:G:3:ASN:N	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:8:GLU:HB3	12:I:34:VAL:HG22	1.93	0.49
16:M:24:GLY:N	16:M:57:GLY:HA2	2.28	0.49
20:Q:66:LEU:O	20:Q:69:GLU:HB2	2.13	0.49
22:S:38:ARG:HA	22:S:41:GLU:HB3	1.94	0.49
29:Z:155:GLU:HB3	29:Z:159:GLY:C	2.33	0.49
29:Z:182:PRO:HD2	29:Z:183:GLU:H	1.77	0.49
4:A:62:C:H2'	4:A:63:G:C8	2.41	0.49
6:A:1134:G:H1	6:A:1140:C:H42	1.61	0.49
6:A:1206:G:H2'	6:A:1207:G:O4'	2.13	0.49
6:A:1218:C:H2'	6:A:1219:U:C6	2.48	0.49
6:A:1488:G:C2	6:A:1489:G:C5	3.01	0.49
6:A:306:G:C8	6:A:306:G:OP2	2.66	0.49
6:A:46:G:H5''	6:A:47:C:OP1	2.13	0.49
6:A:658:G:C6	6:A:659:U:C4	3.00	0.49
6:A:976:G:C2	6:A:1363:A:C6	3.01	0.49
56:B:345:ARG:CG	56:B:345:ARG:NH1	2.73	0.49
56:B:303:ALA:HB1	56:B:346:CYS:O	2.11	0.49
56:B:46:LEU:O	56:B:48:SER:N	2.37	0.49
56:B:58:THR:CB	56:B:84:PRO:CG	2.86	0.49
7:D:1022:G:N2	7:D:1140:C:C2	2.81	0.49
7:D:1073:A:OP2	7:D:1073:A:H4'	2.11	0.49
7:D:1107:G:H2'	7:D:1108:U:H5'	1.94	0.49
7:D:1109:C:H5	7:D:1110:G:C4	2.30	0.49
7:D:1137:G:O5'	7:D:1137:G:H8	1.96	0.49
7:D:1022:G:H22	7:D:1140:C:H1'	1.77	0.49
7:D:1385:G:O2'	7:D:1386:C:O4'	2.31	0.49
7:D:1528:A:C8	7:D:1529:A:C4	3.01	0.49
7:D:151:C:N4	7:D:152:G:O6	2.46	0.49
7:D:1527:G:H21	7:D:1545:A:N6	2.11	0.49
7:D:1682:G:H2'	7:D:1682:G:N3	2.28	0.49
7:D:1754:C:C5	15:L:98:LYS:NZ	96.06	0.49
7:D:1780:A:OP2	7:D:1782:C:OP1	2.30	0.49
7:D:1935:G:N2	7:D:1964:G:O4'	2.46	0.49
7:D:1668:A:C2	7:D:1993:U:N3	2.81	0.49
7:D:2123:G:H5'	7:D:2124:G:OP2	2.13	0.49
7:D:2290:G:C5	7:D:2291:U:C4	3.01	0.49
7:D:2748:A:H2'	7:D:2749:A:C8	2.48	0.49
7:D:2632:A:HO2'	7:D:2811:G:HO2'	1.57	0.49
7:D:715:G:C8	7:D:715:G:H3'	2.47	0.49
7:D:728:G:N7	7:D:728:G:OP2	2.46	0.49
7:D:701:G:H1	7:D:731:C:N4	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:780:G:C2	7:D:782:A:C2	3.01	0.49
7:D:859:G:C2'	7:D:860:U:OP2	2.60	0.49
7:D:863:A:N6	7:D:912:C:H42	2.11	0.49
7:D:906:G:H5''	7:D:907:U:OP2	2.13	0.49
13:J:41:GLU:HB3	13:J:62:TRP:CZ3	2.47	0.49
15:L:31:PHE:O	15:L:35:ILE:HG12	2.13	0.49
18:O:25:TYR:HA	18:O:89:ALA:HB2	1.95	0.49
2:2:30:GLN:O	2:2:32:LEU:N	2.36	0.48
5:5:13:C:H2'	5:5:14:A:H5''	1.94	0.48
6:A:1125:U:H4'	6:A:1126:U:C5	2.47	0.48
6:A:1130:A:OP2	6:A:1131:G:OP2	2.31	0.48
6:A:1288:A:C2	6:A:1289:A:C4	3.01	0.48
6:A:137:C:H2'	6:A:138:G:C8	2.47	0.48
6:A:1411:C:H2'	6:A:1412:C:H6	1.78	0.48
6:A:18:C:OP1	12:I:127:ASN:ND2	2.44	0.48
6:A:616:G:C2	6:A:625:G:C5	3.01	0.48
6:A:606:G:N2	6:A:631:G:C4	2.81	0.48
6:A:665:A:C8	6:A:725:G:C2	3.01	0.48
6:A:707:C:O2'	6:A:708:C:H5'	2.13	0.48
6:A:902:G:H2'	6:A:903:G:C8	2.33	0.48
56:B:131:ILE:O	56:B:132:ILE:HG13	2.13	0.48
56:B:241:LYS:HZ1	56:B:243:GLY:HA2	1.76	0.48
7:D:1094:U:O2'	7:D:1095:A:N7	2.43	0.48
7:D:1224:G:H2'	7:D:1225:C:C5'	2.41	0.48
7:D:1263:U:O4	7:D:1264:G:N1	2.46	0.48
7:D:1417:C:H42	7:D:1581:G:N2	2.10	0.48
7:D:1608:A:N6	7:D:1611:C:C2	2.81	0.48
7:D:1698:A:HO2'	7:D:1699:G:P	2.36	0.48
7:D:1746:G:N3	7:D:1746:G:H2'	2.27	0.48
7:D:1814:G:C4	7:D:1815:A:N7	2.80	0.48
7:D:1933:G:C6	7:D:1968:G:N2	2.81	0.48
7:D:1948:G:N1	7:D:1959:G:C6	2.81	0.48
7:D:1833:U:O2	7:D:1973:G:C2	2.66	0.48
7:D:220:G:H5''	7:D:221:A:OP1	2.13	0.48
7:D:2287:A:C5	7:D:2289:G:C5	3.01	0.48
7:D:2392:A:OP2	29:Z:32:LEU:HD12	76.33	0.48
7:D:240:G:C8	7:D:241:A:C8	3.01	0.48
7:D:2652:C:HO2'	7:D:2653:U:H6	1.61	0.48
7:D:270(Q):C:H2'	7:D:270(R):G:H8	1.78	0.48
7:D:280:C:O3'	7:D:281:G:H3'	2.13	0.48
7:D:2843:G:H2'	7:D:2844:G:O4'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:298:G:O2'	7:D:322:A:N1	2.43	0.48
7:D:452:G:N2	7:D:458:G:C4	2.81	0.48
7:D:838:C:H2'	7:D:839:U:C6	2.48	0.48
7:D:884:C:C6	7:D:885:C:C5	3.00	0.48
7:D:926:A:C3'	7:D:928:G:H8	2.25	0.48
8:E:100:G:C4	8:E:101:A:C8	3.01	0.48
8:E:52:A:N6	8:E:53:A:N3	2.61	0.48
10:G:24:ALA:HB3	10:G:29:TYR:HD1	1.76	0.48
11:H:3:ARG:HH11	11:H:70:ILE:HA	1.75	0.48
2:2:59:ILE:O	2:2:61:LEU:N	2.39	0.48
6:A:361:G:N7	6:A:362:G:C5	2.81	0.48
6:A:477:G:N1	6:A:478:A:C5	2.81	0.48
6:A:50:A:H4'	6:A:51:A:O5'	2.12	0.48
6:A:848:C:C2'	6:A:849:C:C6	2.90	0.48
6:A:922:G:H2'	6:A:923:A:C8	2.47	0.48
56:B:214:TYR:C	56:B:215:LEU:HG	2.33	0.48
56:B:70:ALA:N	56:B:178:LEU:HD21	2.28	0.48
7:D:1613:G:C8	7:D:1617:C:N4	2.80	0.48
7:D:574:C:N4	7:D:2034:U:OP1	2.45	0.48
7:D:2422:A:C5	7:D:2424:C:N4	2.81	0.48
7:D:2022:U:O2'	7:D:2617:C:H5'	2.12	0.48
7:D:2872:G:O2'	7:D:2873:A:O4'	2.31	0.48
7:D:571:A:N6	7:D:575:A:C8	2.80	0.48
7:D:690:G:H5'	7:D:691:C:OP2	2.13	0.48
7:D:715:G:H5''	22:S:60:VAL:HG11	1.96	0.48
7:D:715:G:N7	7:D:716:A:C8	2.82	0.48
7:D:672:C:C2	7:D:809:G:N2	2.81	0.48
9:F:220:ASP:O	9:F:224:GLN:HG3	2.13	0.48
10:G:11:ARG:NH2	10:G:182:ILE:HD12	2.28	0.48
11:H:46:LYS:HE2	11:H:50:ARG:NE	20.31	0.48
16:M:26:VAL:HG12	16:M:28:VAL:HG23	1.95	0.48
16:M:9:ARG:HG3	16:M:104:ARG:CZ	2.43	0.48
20:Q:77:ASN:O	20:Q:80:ARG:HB3	2.13	0.48
20:Q:96:LEU:HD22	20:Q:101:GLN:HB2	1.96	0.48
23:T:21:VAL:HG23	23:T:33:ILE:HB	1.94	0.48
26:W:7:LYS:HG3	26:W:7:LYS:O	2.14	0.48
29:Z:44:HIS:HB2	29:Z:213:TYR:CE2	2.48	0.48
4:4:48:C:C2	4:4:59:A:H1'	2.48	0.48
6:A:1159:U:C5	6:A:1182:G:H1'	2.48	0.48
6:A:1325:C:H2'	6:A:1326:C:H6	1.78	0.48
6:A:438:G:N2	6:A:495:A:C8	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:730:G:O2'	6:A:766:A:O4'	2.29	0.48
6:A:853:G:C6	6:A:854:G:N7	2.81	0.48
6:A:874:G:C6	6:A:875:C:C4	3.01	0.48
56:B:200:ILE:HG13	56:B:279:THR:CG2	2.33	0.48
56:B:377:VAL:C	56:B:378:TYR:CD1	2.86	0.48
56:B:412:LEU:N	56:B:412:LEU:CD1	2.76	0.48
56:B:431:LYS:CD	56:B:455:PRO:CB	2.66	0.48
7:D:1173:G:N3	7:D:1173:G:C3'	2.76	0.48
7:D:1206:G:C8	7:D:1206:G:OP2	2.66	0.48
7:D:133:C:N4	7:D:134:C:H41	2.11	0.48
7:D:1342:A:C8	7:D:1342:A:OP2	2.63	0.48
7:D:1426:G:C8	7:D:1427:A:N7	2.81	0.48
7:D:1516:U:H2'	7:D:1517:G:H8	1.78	0.48
7:D:1674:G:N2	7:D:1677:A:N1	2.61	0.48
7:D:1783:A:H5''	7:D:1784:A:OP1	2.13	0.48
7:D:1912:A:C2	7:D:1919:A:N6	2.81	0.48
7:D:2103:C:H2'	7:D:2104:G:C8	2.48	0.48
7:D:2246:G:H1	7:D:2258:C:H42	1.61	0.48
7:D:2705:A:O2'	7:D:2706:G:OP1	2.31	0.48
7:D:270(L):U:C6	7:D:270(L):U:OP2	2.67	0.48
7:D:447:A:N6	7:D:473:G:C4	2.82	0.48
7:D:513:A:C2	7:D:514:A:C5	3.01	0.48
7:D:739:G:C3'	7:D:1784:A:H61	2.25	0.48
7:D:72:U:H4'	7:D:73:A:OP1	2.12	0.48
7:D:808:G:N2	7:D:809:G:C4	2.82	0.48
15:L:29:SER:HB2	15:L:32:LYS:NZ	2.28	0.48
16:M:96:LEU:HA	16:M:100:GLY:HA3	1.93	0.48
17:N:7:LYS:HD3	17:N:9:ARG:NH2	2.27	0.48
18:O:52:GLY:O	18:O:55:LYS:HD3	2.13	0.48
19:P:65:GLU:N	19:P:65:GLU:OE1	2.45	0.48
6:A:1226:C:N3	20:Q:104:ARG:HD2	2.13	0.48
26:W:11:VAL:HG22	26:W:41:VAL:CG1	2.15	0.48
6:A:1017:G:H2'	6:A:1018:C:O4'	2.14	0.48
6:A:101:A:H2'	6:A:102:G:C8	2.41	0.48
6:A:1060:C:C5	10:G:2:GLY:HA2	2.48	0.48
6:A:1128:C:H5'	6:A:1129:C:OP1	2.13	0.48
6:A:1433:A:H2'	6:A:1433:A:N3	2.28	0.48
6:A:1438:G:C2'	6:A:1439:C:H5'	2.42	0.48
6:A:155:C:H2'	6:A:156:G:O4'	2.13	0.48
6:A:27:G:H2'	6:A:28:G:C8	2.45	0.48
6:A:703:G:H4'	6:A:704:A:O5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:666:G:C2	6:A:741:G:C4	3.01	0.48
6:A:947:G:C5	6:A:948:C:C4	3.01	0.48
56:B:134:VAL:CA	56:B:163:ALA:CB	2.62	0.48
56:B:194:ALA:O	56:B:219:GLU:OE1	2.28	0.48
56:B:27:ASP:OD2	56:B:41:MET:CB	2.61	0.48
56:B:67:THR:O	56:B:76:TYR:HA	2.13	0.48
7:D:1095:A:N7	7:D:1096:A:C8	2.82	0.48
7:D:1039:G:N7	7:D:1117:G:C2	2.81	0.48
7:D:1281:G:H1	7:D:1289:C:H42	1.59	0.48
7:D:1335:U:H2'	7:D:1336:A:C8	2.48	0.48
7:D:1379:A:HO2'	7:D:1380:G:P	2.32	0.48
7:D:1707:G:C2	7:D:1708:C:C2	3.01	0.48
7:D:1842:G:H2'	7:D:1843:C:O4'	2.13	0.48
7:D:2107:C:O2	7:D:2108:C:H5''	2.14	0.48
7:D:2159:G:H2'	7:D:2160:G:H8	1.79	0.48
7:D:2188:C:C4	7:D:2189:U:C4	3.02	0.48
7:D:2301:C:N3	7:D:2315:G:N2	2.60	0.48
7:D:2342:C:N4	7:D:2343:C:N3	2.61	0.48
7:D:2377:A:O2'	7:D:2378:A:O5'	2.29	0.48
7:D:2467:C:N3	7:D:2468:G:N2	2.60	0.48
7:D:2486:G:N1	7:D:2487:G:C5	2.81	0.48
7:D:2526:G:C2	7:D:2527:C:C2	3.02	0.48
7:D:2713:A:H5''	7:D:2714:G:OP2	2.13	0.48
7:D:2807:G:H3'	7:D:2808:U:C6	2.48	0.48
7:D:325:G:H2'	7:D:326:G:H8	1.77	0.48
7:D:38:A:H2'	7:D:39:C:H6	1.75	0.48
7:D:39:C:H2'	7:D:40:C:C5	2.42	0.48
7:D:540:G:N2	7:D:541:C:O2	2.46	0.48
7:D:629:G:H1'	7:D:639:U:O2'	2.14	0.48
7:D:813:U:O2'	7:D:1225:C:H1'	2.14	0.48
8:E:61:G:C2	8:E:62:C:C2	3.02	0.48
10:G:38:ARG:CB	10:G:94:LEU:HD21	2.44	0.48
13:J:70:ASP:OD1	13:J:70:ASP:N	2.45	0.48
14:K:26:PHE:O	14:K:30:ILE:HG13	2.13	0.48
15:L:52:ASP:HB3	15:L:55:GLY:HA2	1.95	0.48
6:A:979:C:H42	21:R:18:VAL:HG21	1.78	0.48
10:G:30:ARG:HB2	21:R:37:PHE:O	2.12	0.48
23:T:42:ARG:O	23:T:44:THR:N	2.47	0.48
23:T:58:TYR:O	23:T:61:SER:OG	2.26	0.48
24:U:25:ARG:HH21	24:U:40:LYS:HD2	1.79	0.48
6:A:279:A:C2	24:U:98:LEU:HD23	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:Z:156:ILE:HA	29:Z:160:ARG:CB	2.32	0.48
3:3:67:PHE:O	3:3:68:VAL:HG23	2.13	0.48
6:A:1144:G:N2	6:A:1145:C:H1'	2.29	0.48
6:A:277:C:OP1	24:U:41:LYS:HE3	2.12	0.48
6:A:302:G:C2	6:A:303:A:C4	3.01	0.48
6:A:451:A:N7	6:A:481:G:N1	2.62	0.48
6:A:588:G:N2	6:A:589:C:O2	2.46	0.48
6:A:595:G:C5	6:A:641:U:C4	3.02	0.48
6:A:864:A:H8	6:A:864:A:P	2.35	0.48
56:B:105:LEU:N	56:B:132:ILE:O	2.46	0.48
56:B:222:VAL:HG23	56:B:228:ILE:HD11	1.93	0.48
56:B:382:LEU:N	56:B:386:GLU:CB	2.73	0.48
56:B:493:ASN:O	56:B:540:ALA:N	2.47	0.48
56:B:378:TYR:CD2	56:B:507:ILE:HG23	2.43	0.48
7:D:83:G:C6	7:D:102:G:N3	2.81	0.48
7:D:1182:A:H3'	7:D:1183:G:H2'	1.94	0.48
7:D:1377:G:O5'	7:D:1377:G:H8	1.97	0.48
7:D:1413:G:C2	7:D:1414:G:C4	3.01	0.48
7:D:1580:A:O5'	7:D:1580:A:H8	1.97	0.48
7:D:118:A:C2	7:D:177:G:C6	3.01	0.48
7:D:2630:G:N3	7:D:2630:G:H2'	2.28	0.48
7:D:2869:G:H2'	7:D:2870:C:O4'	2.13	0.48
7:D:270:A:H1'	7:D:371:A:C2	2.49	0.48
7:D:384:U:H5''	7:D:385:C:OP2	2.13	0.48
7:D:40:C:C2	7:D:440:G:N2	2.81	0.48
7:D:465:G:C6	7:D:466:A:N6	2.81	0.48
7:D:470:A:H2'	7:D:471:A:O4'	2.12	0.48
7:D:535:C:C4	7:D:536:A:N7	2.82	0.48
7:D:638:G:C5	7:D:639:U:N3	2.81	0.48
7:D:685:A:C8	7:D:773:U:C4	3.01	0.48
7:D:919:G:N1	7:D:920:G:C4	2.82	0.48
10:G:130:VAL:HG21	10:G:157:ILE:HG23	1.94	0.48
12:I:76:ILE:HD12	12:I:91:LEU:HD21	1.95	0.48
21:R:23:ARG:HD3	21:R:30:ALA:HA	1.94	0.48
6:A:229:U:O2'	23:T:23:ASP:OD1	2.31	0.48
23:T:59:TRP:HA	23:T:62:VAL:HG22	1.94	0.48
23:T:8:ARG:H	23:T:28:ARG:HH11	1.60	0.48
6:A:736:C:H5''	25:V:72:ARG:NH1	2.29	0.48
6:A:1319:A:P	26:W:38:SER:HA	2.47	0.48
6:A:108:G:H5'	6:A:109:A:H5''	1.96	0.48
6:A:110:C:H2'	6:A:111:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1134:G:C2	6:A:1141:C:C4	3.01	0.48
6:A:1411:C:H2'	6:A:1412:C:C6	2.48	0.48
6:A:345:C:H5''	6:A:346:G:C4	2.48	0.48
6:A:415:A:H2'	6:A:416:G:O4'	2.14	0.48
6:A:427:U:C4	6:A:428:G:C6	3.01	0.48
6:A:500:G:O6	6:A:546:G:N1	2.46	0.48
6:A:588:G:N1	6:A:589:C:N3	2.61	0.48
6:A:721:G:C2	6:A:733:A:C6	3.01	0.48
6:A:851:G:C2'	6:A:852:G:O4'	2.61	0.48
56:B:228:ILE:CB	56:B:282:LEU:CD2	2.91	0.48
56:B:90:THR:O	56:B:94:SER:OG	2.22	0.48
56:B:93:VAL:O	56:B:93:VAL:HG22	2.13	0.48
7:D:564:C:O2'	7:D:1252:G:O6	2.29	0.48
7:D:1353:A:C4	7:D:1378:A:N6	2.81	0.48
7:D:1414:G:N2	7:D:1589:C:C4	2.82	0.48
7:D:1426:G:C6	7:D:1427:A:N6	2.82	0.48
7:D:1472:A:C5	7:D:1473:G:C6	3.01	0.48
7:D:1581:G:O2'	7:D:1582:C:H5'	2.13	0.48
7:D:1676:A:N6	7:D:1677:A:C6	2.81	0.48
7:D:1776:G:N2	7:D:1777:U:C2	2.82	0.48
7:D:1906:G:C8	7:D:1929:G:C5	3.02	0.48
7:D:1909:C:O2	7:D:1922:G:N2	2.46	0.48
7:D:1906:G:C4	7:D:1929:G:C6	3.01	0.48
7:D:1933:G:C2	7:D:1934:C:C2	3.01	0.48
7:D:2080:G:N2	7:D:2241:A:C4	2.81	0.48
7:D:2199:A:C2'	7:D:2205:C:H5'	2.28	0.48
7:D:2307:G:O3'	7:D:2311:A:N6	2.46	0.48
7:D:2374:C:N4	7:D:2375:G:O6	2.47	0.48
7:D:2345:G:C4	7:D:2381:C:C2	3.01	0.48
7:D:2589:A:C2	7:D:2590:A:C5	3.02	0.48
7:D:2822:G:OP1	56:B:112:GLY:N	74.54	0.48
7:D:700:G:C2	7:D:701:G:C4	3.02	0.48
7:D:726:G:H4'	7:D:727:A:OP1	2.14	0.48
7:D:862:G:C6	7:D:863:A:C4	3.01	0.48
7:D:921:G:C5	7:D:922:U:C5	3.02	0.48
16:M:21:PRO:HB3	16:M:59:PHE:CD1	2.49	0.48
6:A:909:A:P	19:P:21:LYS:HZ3	2.35	0.48
20:Q:108:ARG:HH21	20:Q:114:ARG:NH1	2.10	0.48
20:Q:91:ARG:CA	20:Q:91:ARG:HE	2.26	0.48
25:V:52:PRO:HG2	25:V:54:ARG:HB3	1.95	0.48
6:A:1157:A:N6	6:A:1180:A:C6	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1396:A:H4'	6:A:1397:C:H5''	1.95	0.48
6:A:162:A:H3'	6:A:163:C:C4'	2.43	0.48
6:A:115:G:C2	6:A:289:G:N7	2.82	0.48
6:A:38:G:N2	6:A:397:A:C4	2.81	0.48
6:A:96:G:N2	6:A:97:U:H1'	2.29	0.48
56:B:20:HIS:HE1	56:B:111:GLN:HG3	1.77	0.48
56:B:14:ILE:CD1	56:B:26:ALA:CB	2.90	0.48
56:B:382:LEU:CA	56:B:401:ARG:CB	2.92	0.48
56:B:386:GLU:OE1	56:B:401:ARG:CD	2.62	0.48
56:B:488:ASP:O	56:B:509:HIS:HB2	2.14	0.48
56:B:555:ARG:HA	56:B:581:LYS:HZ1	1.79	0.48
56:B:80:LEU:CD2	56:B:81:ILE:H	2.26	0.48
7:D:1024:G:H3'	7:D:1025:G:C5'	2.43	0.48
7:D:1047:G:C5	7:D:1110:G:N1	2.82	0.48
7:D:993:G:C6	7:D:1162:G:C6	3.02	0.48
7:D:1171:G:C8	7:D:1173:G:C4'	2.86	0.48
7:D:818:G:C8	7:D:1187:G:C6	3.02	0.48
7:D:1239:G:N2	7:D:1240:U:O2'	2.47	0.48
7:D:1203:G:N1	7:D:1241:A:C8	2.81	0.48
7:D:1251:C:H2'	7:D:1252:G:H5'	1.96	0.48
7:D:1504:C:OP2	7:D:1504:C:H6	1.96	0.48
7:D:153:C:H2'	7:D:154:G:N7	2.26	0.48
7:D:1939:U:O2'	7:D:1940:U:P	2.71	0.48
7:D:2173:A:C5	7:D:2174:C:H1'	2.49	0.48
7:D:2526:G:C6	7:D:2527:C:C4	3.02	0.48
7:D:2674:G:C5	7:D:2675:A:N7	2.81	0.48
7:D:272:G:N2	7:D:366:C:C2	2.82	0.48
7:D:539:G:H2'	7:D:540:G:C8	2.49	0.48
7:D:973:A:HO2'	7:D:974:G:P	2.37	0.48
9:F:50:GLU:O	9:F:53:ARG:HG2	2.13	0.48
10:G:180:ALA:HB1	10:G:182:ILE:HG13	1.95	0.48
12:I:60:TYR:OH	12:I:64:ARG:NH2	2.47	0.48
15:L:97:VAL:HG13	15:L:98:LYS:N	2.27	0.48
19:P:28:LYS:HD2	19:P:33:ARG:HH12	1.78	0.48
6:A:836:G:P	25:V:61:LYS:HZ1	2.36	0.48
6:A:1320:C:H5	26:W:36:ARG:HG3	1.64	0.48
6:A:1319:A:H4'	26:W:37:ARG:O	2.14	0.48
6:A:195:A:C5'	27:X:68:LYS:HZ2	2.26	0.48
27:X:84:LEU:O	27:X:88:VAL:HG23	2.14	0.48
29:Z:66:HIS:NE2	29:Z:188:ASN:OD1	2.47	0.48
29:Z:47:LEU:HD22	29:Z:208:PHE:CZ	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:13:LEU:HA	2:2:16:ASN:CB	2.43	0.48
6:A:102:G:C2	6:A:103:C:N3	2.82	0.48
6:A:1087:G:C6	6:A:1088:G:N7	2.82	0.48
6:A:1092:A:N6	6:A:1093:A:N1	2.62	0.48
6:A:1164:G:H2'	6:A:1165:C:C6	2.49	0.48
6:A:1163:C:H2'	6:A:1164:G:H8	1.79	0.48
6:A:250:A:O2'	6:A:251:G:OP2	2.26	0.48
56:B:160:ALA:C	56:B:162:GLU:H	2.17	0.48
56:B:502:ASP:O	56:B:503:ALA:HB3	2.13	0.48
56:B:532:LEU:HB3	56:B:554:LEU:H	1.78	0.48
56:B:558:VAL:CG1	56:B:573:LEU:HD22	2.44	0.48
56:B:595:GLU:O	56:B:595:GLU:HG3	2.14	0.48
56:B:86:HIS:O	56:B:87:VAL:CB	2.60	0.48
7:D:1003:G:N2	7:D:1004:C:C2	2.82	0.48
7:D:1057:A:C2	7:D:1058:G:C2	3.02	0.48
7:D:1245:G:N2	7:D:1246:A:C4	2.82	0.48
7:D:1708:C:N3	7:D:1750:G:N2	2.45	0.48
7:D:1785:A:P	7:D:1785:A:C8	3.07	0.48
7:D:1811:G:O6	7:D:1812:A:N6	2.47	0.48
7:D:187:G:N2	7:D:210:C:C2	2.81	0.48
7:D:2071:A:H8	7:D:2071:A:O5'	1.96	0.48
7:D:2134:A:H1'	7:D:2155:G:O6	2.14	0.48
7:D:2275:C:H4'	7:D:2276:G:O5'	2.14	0.48
7:D:2548:G:C2	7:D:2561:A:C2	3.02	0.48
7:D:244:A:C6	7:D:255:A:C8	3.02	0.48
7:D:26:G:C6	7:D:27:G:N2	2.82	0.48
7:D:2895:U:O2'	7:D:2896:C:O5'	2.32	0.48
7:D:390:A:O2'	7:D:391:G:O4'	2.32	0.48
7:D:751:A:H62	7:D:789:A:N6	2.11	0.48
7:D:852:G:C5	7:D:926:A:N1	2.82	0.48
8:E:66:A:C2	8:E:107:U:C2	3.02	0.48
8:E:19:G:C2	8:E:20:C:C2	3.02	0.48
8:E:81:G:C6	8:E:96:G:C2	3.01	0.48
15:L:102:ARG:NH1	15:L:106:GLY:N	2.61	0.48
26:W:67:VAL:HG13	26:W:68:GLY:N	2.29	0.48
6:A:1002:G:C2	6:A:1003:G:C5	3.02	0.48
6:A:1228:C:H5'	20:Q:108:ARG:HH12	1.79	0.48
6:A:1440:C:C5	6:A:1441:G:N7	2.82	0.48
6:A:217:C:C4	6:A:218:C:N4	2.82	0.48
6:A:115:G:N3	6:A:289:G:C8	2.82	0.48
6:A:352:C:H42	6:A:357:G:H22	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:619:U:O2	11:H:133:VAL:HG13	2.13	0.48
6:A:631:G:O3'	6:A:632:A:H8	1.95	0.48
6:A:727:G:N2	6:A:731:G:N3	2.61	0.48
6:A:744:C:H2'	6:A:745:C:C6	2.49	0.48
6:A:781:A:H2'	6:A:782:A:O4'	2.14	0.48
6:A:79:G:N1	6:A:80:G:N3	2.62	0.48
6:A:952:U:H5'	6:A:972:C:N4	2.29	0.48
56:B:186:PRO:HB2	56:B:187:PRO:HD2	1.96	0.48
56:B:191:ASP:OD2	56:B:219:GLU:HB3	2.13	0.48
56:B:227:ARG:C	56:B:237:PHE:CD2	2.87	0.48
56:B:28:ARG:HD2	56:B:28:ARG:HA	1.69	0.48
56:B:295:ARG:HD2	56:B:295:ARG:H	1.78	0.48
56:B:388:VAL:O	56:B:389:GLU:HB3	2.14	0.48
56:B:516:MET:O	56:B:520:ILE:HG22	2.14	0.48
56:B:572:LYS:C	56:B:574:LEU:H	2.17	0.48
7:D:1007:C:O2	7:D:1136:G:N2	2.47	0.48
7:D:1155:A:H2'	7:D:1156:A:H5''	1.94	0.48
7:D:1267:U:C5	7:D:2012:G:N2	2.82	0.48
7:D:1361:G:C6	7:D:1371:G:N2	2.82	0.48
7:D:1491:G:N2	7:D:1493:C:H41	2.12	0.48
7:D:1521:G:H3'	7:D:1522:G:O4'	2.13	0.48
7:D:1611:C:H42	7:D:1620:G:H1	1.60	0.48
7:D:1670:C:N4	7:D:1674:G:OP2	2.46	0.48
7:D:1689:A:C8	7:D:1700:A:C6	3.02	0.48
7:D:1879:C:H6	7:D:1879:C:O5'	1.96	0.48
7:D:2170:A:C8	7:D:2170:A:OP2	2.64	0.48
7:D:2249:U:H4'	7:D:2250:G:OP2	2.14	0.48
7:D:2259:G:C2	7:D:2282:G:C6	3.02	0.48
7:D:2396:G:C2	7:D:2421:G:C2	3.02	0.48
7:D:2428:G:H5''	7:D:2429:G:OP1	2.13	0.48
7:D:2681:C:N3	7:D:2724:C:H5	2.12	0.48
7:D:2687:U:C4	7:D:2688:U:N3	2.82	0.48
7:D:411:G:N1	7:D:2407:G:O6	2.45	0.48
7:D:539:G:N2	7:D:556:G:N1	2.41	0.48
7:D:542:C:H6	7:D:542:C:O5'	1.96	0.48
7:D:719:C:N3	7:D:720:C:N4	2.61	0.48
7:D:972:G:C6	7:D:973:A:C6	3.02	0.48
8:E:13:A:N6	8:E:69:G:O2'	2.47	0.48
10:G:139:GLN:HG3	10:G:143:GLU:OE2	2.14	0.48
15:L:100:ILE:HG23	15:L:101:PRO:HD2	1.96	0.48
17:N:3:LYS:N	17:N:77:PRO:HD3	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:R:14:PRO:HB2	21:R:16:PHE:O	2.14	0.48
23:T:23:ASP:H	23:T:26:ARG:NH2	2.12	0.48
26:W:11:VAL:C	26:W:38:SER:HG	2.11	0.48
29:Z:115:ALA:HB3	29:Z:120:MET:SD	2.54	0.48
29:Z:41:VAL:HG12	29:Z:175:VAL:CG2	2.44	0.48
6:A:1005:A:OP2	6:A:1006:C:C4	2.67	0.48
6:A:1065:U:O2'	6:A:1066:C:H6	1.96	0.48
6:A:1120:G:C6	6:A:1121:U:C4	3.01	0.48
6:A:1169:A:H3'	6:A:1170:A:C8	2.48	0.48
6:A:178:C:C2	6:A:179:A:C8	3.02	0.48
6:A:262:A:C5	6:A:263:A:C5	3.02	0.48
6:A:645:C:N3	6:A:646:U:N3	2.62	0.48
6:A:786:G:H2'	6:A:787:A:O4'	2.13	0.48
6:A:789:U:C2	6:A:791:G:OP2	2.66	0.48
6:A:96:G:N2	6:A:97:U:C2	2.82	0.48
56:B:450:LEU:CG	56:B:452:TYR:HE1	2.26	0.48
7:D:585:G:C2	7:D:1251:C:C4	3.02	0.48
7:D:1256:G:C6	7:D:1257:C:C4	3.02	0.48
7:D:1259:G:C4	7:D:1260:G:C8	3.01	0.48
7:D:1266:G:O2'	7:D:1267:U:P	2.70	0.48
7:D:1471:A:N7	7:D:1519:G:C2	2.82	0.48
7:D:1578:U:C5	7:D:1579:A:C5	3.01	0.48
7:D:1819:A:H1'	7:D:1821:A:C5	2.49	0.48
7:D:1965:C:O2	56:B:576:LYS:NZ	2.46	0.48
7:D:276:A:N3	7:D:276:A:H3'	2.29	0.48
7:D:442:G:C6	7:D:444:C:C4	3.02	0.48
7:D:476:G:N2	7:D:479:A:O4'	2.46	0.48
7:D:503:A:O2'	7:D:506:G:OP2	2.27	0.48
7:D:763:G:C6	7:D:765:G:C5	3.02	0.48
7:D:839:U:H2'	7:D:840:C:H6	1.79	0.48
7:D:817:C:O2'	7:D:839:U:OP1	2.26	0.48
7:D:898:C:H5''	7:D:899:A:OP2	2.14	0.48
10:G:53:ALA:N	10:G:69:HIS:O	2.47	0.48
6:A:737:A:C5'	13:J:92:LYS:HZ2	2.27	0.48
15:L:82:HIS:CD2	15:L:138:TRP:NE1	2.81	0.48
22:S:42:HIS:O	22:S:46:HIS:HB2	2.13	0.48
29:Z:164:ARG:N	29:Z:171:ILE:HG13	2.28	0.48
29:Z:68:LEU:HD23	29:Z:70:LYS:H	1.79	0.48
2:2:34:ALA:H	7:D:1056:G:P	2.33	0.47
6:A:1022:G:H2'	6:A:1023:G:H8	1.79	0.47
6:A:1163:C:C2	6:A:1164:G:C8	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1202:G:C4	21:R:42:ILE:HD11	2.49	0.47
6:A:1215:G:N1	6:A:1216:G:C5	2.82	0.47
6:A:1517:G:C8	7:D:1920:C:OP2	2.67	0.47
6:A:455:C:C2'	6:A:456:C:H5'	2.44	0.47
6:A:522:C:OP2	19:P:69:TYR:OH	2.31	0.47
6:A:626:U:C2	6:A:627:G:C8	3.02	0.47
6:A:69:G:C4	6:A:73:G:C8	3.02	0.47
6:A:999:U:H3	6:A:1041:A:N6	2.11	0.47
56:B:236:GLU:CA	56:B:268:ILE:HG21	2.36	0.47
56:B:328:ALA:O	56:B:330:LEU:HD13	2.13	0.47
56:B:118:LEU:CD2	56:B:446:LYS:HZ1	2.10	0.47
56:B:468:LYS:CA	56:B:473:GLY:HA2	2.44	0.47
7:D:1474:C:O2	7:D:1475:G:C8	2.67	0.47
7:D:148:C:H5''	7:D:149:A:OP2	2.14	0.47
7:D:1478:G:N2	7:D:1515:C:C2	2.82	0.47
7:D:1515:C:HO2'	7:D:1516:U:P	2.35	0.47
7:D:1583:A:C4'	7:D:1585:C:C5	2.89	0.47
7:D:1588:C:H2'	7:D:1589:C:C6	2.48	0.47
7:D:1680:U:H2'	7:D:1681:G:O4'	2.13	0.47
7:D:2196:C:C2	7:D:2197:U:C5	3.02	0.47
7:D:247:G:N2	7:D:249:C:H1'	2.29	0.47
7:D:2659:G:H21	7:D:2661:G:H8	1.61	0.47
7:D:270(R):G:C2	7:D:270(S):G:C8	3.02	0.47
7:D:2691:C:C4	7:D:2719:G:N2	2.82	0.47
7:D:2781:A:N1	7:D:2782:G:C2	2.83	0.47
7:D:2637:U:N3	7:D:2781:A:N6	2.62	0.47
7:D:513:A:H2	7:D:514:A:C4	2.32	0.47
7:D:646:A:H3'	7:D:647:G:C8	2.48	0.47
7:D:702:G:C2	7:D:731:C:C2	3.02	0.47
7:D:776:G:H1'	7:D:777:A:OP2	2.13	0.47
7:D:820:A:C2	7:D:821:A:C4	3.02	0.47
9:F:133:LYS:HB3	9:F:137:ARG:NH2	2.29	0.47
9:F:53:ARG:HA	9:F:56:ARG:NE	2.29	0.47
11:H:118:ARG:CZ	11:H:136:PRO:HB3	2.43	0.47
18:O:18:ARG:NE	18:O:35:PRO:HA	2.29	0.47
19:P:39:VAL:HG11	19:P:41:ARG:CZ	2.44	0.47
22:S:9:GLN:HA	22:S:12:ILE:HD12	1.95	0.47
27:X:82:SER:OG	27:X:83:ARG:N	2.47	0.47
6:A:1015:A:H2'	6:A:1016:A:C8	2.49	0.47
6:A:1131:G:O6	6:A:1144:G:H1'	2.13	0.47
6:A:1145:C:O2	6:A:1147:C:N4	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1440:C:C2	6:A:1462:G:N2	2.81	0.47
6:A:1454:G:N1	6:A:1455:G:C4	2.82	0.47
6:A:179:A:H3'	6:A:180:U:H6	1.77	0.47
6:A:19:C:C6	6:A:20:U:H5	2.32	0.47
6:A:655:A:H2'	6:A:656:C:O4'	2.14	0.47
6:A:696:A:C2	6:A:786:G:H1'	2.48	0.47
6:A:894:G:C2	6:A:895:G:C4	3.03	0.47
6:A:895:G:C2	6:A:896:C:C2	3.02	0.47
56:B:380:VAL:CA	56:B:406:LEU:HD23	2.43	0.47
56:B:42:ARG:HD2	56:B:43:GLU:H	1.79	0.47
56:B:411:LYS:CB	56:B:452:TYR:O	2.62	0.47
7:D:1492:G:C8	7:D:1495:A:OP2	2.67	0.47
7:D:1332:G:C8	7:D:1609:A:N6	2.82	0.47
7:D:1300:U:O2'	7:D:1626:G:C2	2.68	0.47
7:D:1747:G:C5	7:D:1748:G:N7	2.83	0.47
7:D:571:A:C6	7:D:2030:A:C6	3.02	0.47
7:D:2067:G:C2	7:D:2069:G:C8	3.02	0.47
7:D:2126:A:O2'	7:D:2163:C:O2'	2.21	0.47
7:D:2190:G:H2'	7:D:2191:G:H8	1.79	0.47
7:D:2481:G:O2'	7:D:2482:G:OP2	2.31	0.47
7:D:2486:G:C2	7:D:2487:G:C8	3.02	0.47
7:D:2554:U:H2'	7:D:2555:U:C6	2.49	0.47
7:D:2565:A:H5''	7:D:2566:A:OP2	2.13	0.47
7:D:2793:G:C2	7:D:2794:C:N3	2.82	0.47
7:D:2824:C:N4	7:D:2825:C:N3	2.62	0.47
7:D:2871:C:H5'	7:D:2872:G:OP1	2.14	0.47
7:D:311:A:O2'	7:D:312:G:OP2	2.32	0.47
7:D:363(B):G:C6	7:D:363(C):G:N7	2.82	0.47
7:D:464:U:C5	7:D:465:G:C5	3.02	0.47
7:D:621:A:N7	7:D:622:G:H1'	2.29	0.47
7:D:723:G:C2	7:D:724:U:C2	3.02	0.47
7:D:728:G:H8	7:D:728:G:H3'	1.79	0.47
7:D:861:A:H61	7:D:917:A:H1'	1.77	0.47
9:F:188:ALA:N	9:F:201:ILE:O	2.47	0.47
18:O:120:ARG:CZ	18:O:126:ARG:NH1	2.76	0.47
6:A:982:U:H5''	21:R:6:LEU:HD11	1.96	0.47
25:V:29:PHE:CG	25:V:30:ASP:N	2.83	0.47
26:W:8:GLY:O	26:W:10:PHE:N	2.47	0.47
3:3:23:VAL:HG12	3:3:24:GLY:N	2.29	0.47
3:3:40:ALA:HA	3:3:43:ALA:HB3	1.95	0.47
6:A:61:G:N7	6:A:107:G:N2	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1455:G:C2	6:A:1459:C:C2	3.01	0.47
6:A:192:U:H4'	27:X:57:ARG:HH12	1.77	0.47
6:A:261:U:C4	27:X:79:ARG:NH1	2.82	0.47
6:A:266:G:HO2'	6:A:267:C:P	2.38	0.47
6:A:35:G:N3	19:P:118:SER:OG	2.46	0.47
6:A:219:C:H4'	6:A:381:C:H5'	1.96	0.47
6:A:382:A:C8	6:A:382:A:OP2	2.57	0.47
6:A:515:G:C6	6:A:516:U:C2	3.02	0.47
6:A:64:G:H5''	6:A:65:U:OP1	2.14	0.47
6:A:96:G:C2	6:A:97:U:N1	2.82	0.47
56:B:379:LYS:HZ2	56:B:407:GLU:CA	2.26	0.47
56:B:474:TYR:O	56:B:475:ALA:C	2.53	0.47
3:3:137:GLU:OE1	7:D:1078:U:H3'	2.14	0.47
7:D:1039:G:C8	7:D:1117:G:C2	3.02	0.47
7:D:1141:U:H5'	7:D:1142(A):A:N6	2.29	0.47
7:D:1239:G:C2	7:D:1240:U:H1'	2.49	0.47
7:D:1288:U:C4	7:D:1327:C:H1'	2.49	0.47
7:D:1375:C:H2'	7:D:1376:C:C6	2.50	0.47
7:D:141:A:N6	7:D:141(A):C:N3	2.61	0.47
7:D:142:G:H2'	7:D:143:C:O4'	2.15	0.47
7:D:1517:G:N2	7:D:1518:C:C2	2.82	0.47
7:D:1543:A:H8	7:D:1544:C:HO2'	1.57	0.47
7:D:1731:G:N3	7:D:1731:G:H2'	2.29	0.47
7:D:1796:U:H2'	7:D:1797:C:C6	2.49	0.47
7:D:194:G:O6	7:D:195:A:C6	2.66	0.47
7:D:18:C:H2'	7:D:19:C:C6	2.48	0.47
7:D:2497:A:H4'	7:D:2498:C:O5'	2.14	0.47
7:D:2603:G:C2	7:D:2604:U:O2	2.68	0.47
7:D:2707:G:N2	7:D:2708:G:C4	2.83	0.47
7:D:270(V):G:H3'	7:D:270(W):G:H8	1.78	0.47
7:D:2723:C:N4	7:D:2724:C:C4	2.82	0.47
7:D:2749:A:C8	7:D:2750:A:N7	2.83	0.47
7:D:648:G:C2'	7:D:649:G:C8	2.86	0.47
7:D:684:G:N1	7:D:775:G:C5	2.83	0.47
8:E:118:G:H8	8:E:118:G:OP2	1.97	0.47
9:F:144:ARG:NH1	9:F:148:TYR:CZ	2.80	0.47
13:J:10:LEU:HD22	13:J:85:VAL:HG22	1.96	0.47
16:M:55:ALA:O	16:M:58:HIS:ND1	2.46	0.47
20:Q:98:VAL:O	20:Q:98:VAL:HG13	2.12	0.47
20:Q:97:PRO:C	20:Q:99:ARG:H	2.18	0.47
22:S:54:ARG:HG2	22:S:58:MET:HE2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:W:36:ARG:HD3	26:W:71:LEU:C	2.35	0.47
28:Y:6:ARG:H	28:Y:11:GLY:HA3	1.79	0.47
29:Z:69:GLY:HA3	29:Z:157:LYS:HB3	1.94	0.47
4:4:74:C:C2'	4:4:75:C:H5'	2.44	0.47
6:A:1009:G:C6	6:A:1021:G:C5	3.03	0.47
6:A:1170:A:H3'	6:A:1171:G:C8	2.49	0.47
6:A:1055:A:C5	6:A:1206:G:C2	3.02	0.47
6:A:1311:G:H8	6:A:1311:G:O5'	1.97	0.47
6:A:1447:G:N2	6:A:1460:A:C5	2.72	0.47
6:A:1528:U:O2'	6:A:1530:G:O4'	2.30	0.47
6:A:886:G:C2	6:A:887:G:H1'	2.50	0.47
56:B:307:PRO:O	56:B:370:ILE:HD11	2.14	0.47
56:B:86:HIS:NE2	56:B:352:LEU:HD12	2.29	0.47
56:B:360:ARG:HA	56:B:364:GLU:OE1	2.13	0.47
56:B:382:LEU:CB	56:B:386:GLU:HG2	2.44	0.47
56:B:379:LYS:CE	56:B:407:GLU:H	2.27	0.47
7:D:1143:A:C5	7:D:1144:G:N7	2.82	0.47
7:D:1228:G:N1	7:D:1229:G:C5	2.82	0.47
7:D:1287:A:N6	7:D:1288:U:H3	2.12	0.47
7:D:1308:A:N6	7:D:1309:G:C2	2.82	0.47
7:D:1385:G:H1	7:D:1402:C:H42	1.60	0.47
7:D:1592:C:H2'	7:D:1593:G:C8	2.50	0.47
7:D:1681:G:HO2'	7:D:1682:G:P	2.37	0.47
7:D:1690:A:N7	7:D:1691:C:C2	2.82	0.47
7:D:1692:U:O2'	7:D:1693:U:H2'	2.15	0.47
7:D:1725:G:C2	7:D:1726:G:C5	3.00	0.47
7:D:1728:G:N3	7:D:1728:G:H2'	2.29	0.47
7:D:1784:A:O4'	7:D:1784:A:OP2	2.32	0.47
7:D:2033:A:C6	7:D:2036:C:N3	2.82	0.47
7:D:2264:C:H2'	7:D:2265:U:C6	2.48	0.47
7:D:2456:C:C5	7:D:2457:U:C4	3.02	0.47
7:D:270(J):G:N1	7:D:270(K):C:C2	2.83	0.47
7:D:273(A):G:C6	7:D:273(B):C:C4	3.03	0.47
7:D:27:G:O2'	7:D:513:A:N6	2.47	0.47
7:D:2839:G:C5	7:D:2840:C:C4	3.03	0.47
7:D:290:G:H22	7:D:350:U:C1'	2.28	0.47
7:D:329:G:C8	7:D:329:G:H5''	2.49	0.47
7:D:492:A:H3'	7:D:493:G:H8	1.79	0.47
7:D:836:G:N7	7:D:837:C:N4	2.63	0.47
7:D:869:G:N2	7:D:870:A:C4	2.82	0.47
7:D:8:A:C6	7:D:9:U:C4	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:18:ARG:HB3	12:I:25:ARG:O	2.15	0.47
14:K:22:LEU:HD21	14:K:97:GLN:HE21	1.78	0.47
21:R:40:CYS:HB2	21:R:43:CYS:H	1.79	0.47
5:5:5:G:N2	5:5:68:C:N3	2.51	0.47
5:5:5:G:H1	5:5:68:C:N4	2.09	0.47
6:A:99:C:C2'	6:A:101:A:C8	2.86	0.47
6:A:1169:A:N1	6:A:1170:A:N6	2.61	0.47
6:A:1244:C:H2'	6:A:1245:A:C8	2.50	0.47
6:A:1440:C:N3	6:A:1462:G:C6	2.82	0.47
6:A:1529:G:HO2'	6:A:1530:G:P	2.37	0.47
6:A:231:G:N1	6:A:232:G:C5	2.82	0.47
6:A:363:A:H2'	6:A:364:A:C8	2.49	0.47
6:A:446:G:H2'	6:A:447:G:O4'	2.14	0.47
6:A:654:G:H2'	6:A:654:G:N3	2.30	0.47
6:A:728:A:N6	22:S:54:ARG:HD2	2.29	0.47
56:B:28:ARG:HG2	56:B:168:GLY:O	2.14	0.47
56:B:222:VAL:HG11	56:B:264:LEU:HD22	1.92	0.47
56:B:42:ARG:HD2	56:B:43:GLU:N	2.29	0.47
56:B:528:ILE:HG21	56:B:592:VAL:HB	1.96	0.47
7:D:1168:G:C4	7:D:1182:A:H2	2.33	0.47
7:D:1206:G:H1	7:D:1242:A:H62	1.61	0.47
7:D:1257:C:H2'	7:D:1258:C:C6	2.50	0.47
7:D:1307:A:N1	7:D:1308:A:C4	2.82	0.47
7:D:1332:G:C5'	7:D:1333:C:OP2	2.63	0.47
7:D:1340:U:HO2'	7:D:1341:U:P	2.38	0.47
7:D:1410:G:C6	7:D:1411:C:C4	3.02	0.47
7:D:1798:U:N3	7:D:1822:G:N1	2.62	0.47
7:D:2125:G:O2'	7:D:2126:A:O4'	2.26	0.47
7:D:2099:U:H1'	7:D:2191:G:H22	1.78	0.47
7:D:2548:G:C2	7:D:2549:G:C8	3.02	0.47
7:D:270(W):G:C5	7:D:270(X):G:C6	3.03	0.47
7:D:270(W):G:H2'	7:D:270(X):G:O4'	2.15	0.47
7:D:49:A:C5	7:D:177:G:C5	3.02	0.47
7:D:548:A:H5''	7:D:549:G:OP2	2.14	0.47
7:D:587:C:H4'	7:D:588:U:O5'	2.14	0.47
7:D:638:G:C2	7:D:650:C:C2	3.01	0.47
7:D:685:A:H5'	7:D:687:C:N4	2.30	0.47
7:D:975:G:C2	7:D:990:A:C8	3.03	0.47
9:F:181:PHE:CE1	15:L:72:PRO:HD3	2.50	0.47
9:F:163:PHE:HA	9:F:185:ILE:HG13	1.95	0.47
14:K:48:LYS:HA	14:K:51:GLN:OE1	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:P:27:LEU:HG	19:P:28:LYS:N	2.30	0.47
20:Q:93:ARG:C	20:Q:95:GLY:H	2.18	0.47
22:S:33:THR:HG22	22:S:37:ASN:HD21	1.79	0.47
24:U:50:LYS:HD2	24:U:51:TYR:CE1	2.50	0.47
27:X:41:ILE:O	27:X:45:GLN:HG2	2.14	0.47
6:A:124:G:C6	6:A:125:U:N3	2.83	0.47
6:A:1363:A:O2'	6:A:1364:U:O5'	2.28	0.47
6:A:191(A):G:C2	6:A:191(B):G:C4	3.03	0.47
6:A:198:G:C2	6:A:199:G:N9	2.83	0.47
6:A:208:U:H6	6:A:208:U:H3'	1.80	0.47
6:A:464:G:H1'	6:A:468:A:N6	2.29	0.47
6:A:588:G:C4	6:A:753:A:C6	3.03	0.47
6:A:651:C:C4	6:A:652:U:C4	3.02	0.47
6:A:708:C:H2'	6:A:709:G:C8	2.49	0.47
56:B:268:ILE:HG23	56:B:268:ILE:O	2.15	0.47
56:B:296:PRO:HG2	56:B:297:ALA:H	1.79	0.47
56:B:349:LEU:CD1	56:B:353:HIS:CD2	2.97	0.47
56:B:537:ILE:HB	56:B:549:ALA:O	2.14	0.47
7:D:1202:C:C5	7:D:1203:G:C8	3.01	0.47
7:D:1455:G:N3	7:D:1456:G:C8	2.82	0.47
7:D:149:A:C5	7:D:150:C:C4	3.02	0.47
7:D:1543:A:H8	7:D:1544:C:H4'	1.80	0.47
7:D:1579:A:C8	7:D:1580:A:N3	2.82	0.47
7:D:1613:G:C5	7:D:1617:C:N4	2.83	0.47
7:D:1708:C:H42	7:D:1750:G:H1	1.62	0.47
7:D:1839:G:C4	7:D:1927:A:C8	3.03	0.47
7:D:1937:A:HO2'	7:D:1938:A:P	2.32	0.47
7:D:2307:G:H3'	7:D:2308:G:O4'	2.15	0.47
7:D:2445:G:N2	7:D:2446:G:C4	2.82	0.47
7:D:273(F):C:C5	7:D:274:G:C8	3.03	0.47
7:D:2869:G:C6	7:D:2870:C:N3	2.83	0.47
7:D:279:C:N4	7:D:359:A:H2	2.10	0.47
7:D:596:G:C2	7:D:597:U:C2	3.02	0.47
7:D:869:G:H2'	7:D:870:A:C8	2.47	0.47
7:D:890:A:H5'	7:D:892:G:OP2	2.14	0.47
7:D:909:A:O2'	7:D:910:A:H5'	2.15	0.47
7:D:952:G:C2	7:D:966:G:C2	3.03	0.47
8:E:91:C:H2'	8:E:92:G:C8	2.49	0.47
9:F:88:ALA:HB1	9:F:90:MET:HG2	1.95	0.47
14:K:155:ARG:CG	14:K:156:TRP:H	2.15	0.47
17:N:57:LYS:CG	17:N:60:ARG:HH12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:P:85:ILE:HD12	19:P:100:ILE:HA	1.96	0.47
26:W:13:ASP:OD2	26:W:17:GLU:CB	2.56	0.47
6:A:1015:A:P	26:W:18:LYS:HE2	2.54	0.47
28:Y:3:LYS:HB3	28:Y:14:TRP:CG	2.49	0.47
29:Z:33:ALA:HB2	29:Z:220:PRO:HG2	1.95	0.47
29:Z:60:GLY:O	29:Z:163:PHE:HD1	1.98	0.47
3:3:93:ARG:CG	3:3:93:ARG:NH1	2.77	0.47
4:4:31:G:H5'	16:M:127:LYS:HD2	1.96	0.47
6:A:1046:A:H3'	6:A:1047:G:H8	1.79	0.47
6:A:1089:G:H1'	6:A:1169:A:C2	2.49	0.47
6:A:1226:C:H42	20:Q:104:ARG:CD	2.01	0.47
6:A:345:C:H6	6:A:346:G:C2	2.33	0.47
6:A:59:A:C6	6:A:354:G:C6	3.03	0.47
6:A:89:U:O2'	6:A:90:C:H5''	2.14	0.47
6:A:917:G:C2	6:A:918:A:C4	3.02	0.47
6:A:9:G:OP2	12:I:121:LYS:HD2	2.14	0.47
56:B:188:PRO:O	56:B:189:LYS:HG3	2.14	0.47
56:B:241:LYS:CE	56:B:243:GLY:HA2	2.45	0.47
56:B:525:ALA:O	56:B:527:VAL:N	2.48	0.47
7:D:1346:G:C2	7:D:1601:G:C2	3.02	0.47
7:D:1655:A:OP1	13:J:2:ARG:HD3	116.95	0.47
7:D:1689:A:C2	7:D:1690:A:C4	3.02	0.47
7:D:1784:A:H1'	7:D:1785:A:OP2	2.15	0.47
7:D:1831:G:C6	7:D:1832:C:C4	3.02	0.47
7:D:1856:G:N7	7:D:1857:G:C2	2.82	0.47
7:D:2053:G:C6	7:D:2617:C:C4	3.03	0.47
7:D:2109:U:H1'	7:D:2181:G:H22	1.79	0.47
7:D:2148:G:C2	7:D:2149:G:C2	3.02	0.47
7:D:2124:G:H22	7:D:2174:C:H42	1.63	0.47
7:D:2205:C:C4	7:D:2206:C:N4	2.82	0.47
7:D:2376:A:C6	7:D:2377:A:C5	3.03	0.47
7:D:2672:G:H5''	7:D:2673:G:OP2	2.15	0.47
7:D:2764:A:N7	7:D:2766:G:C6	2.82	0.47
7:D:2802:G:C8	7:D:2803:C:C5	3.03	0.47
7:D:293:U:C2	7:D:294:A:C8	3.03	0.47
7:D:339:U:O2'	7:D:340:A:O5'	2.31	0.47
7:D:341:G:N1	7:D:342:G:N3	2.63	0.47
7:D:363(F):A:H2'	7:D:364:C:C1'	2.45	0.47
7:D:470:A:H4'	7:D:471:A:OP1	2.15	0.47
7:D:457:A:N6	7:D:470:A:H5''	2.30	0.47
7:D:609:A:H8	7:D:609:A:O5'	1.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:607:U:C2	7:D:621:A:N6	2.82	0.47
7:D:627:A:C2	7:D:637:A:C4	3.02	0.47
7:D:878:A:O2'	7:D:898:C:N4	2.48	0.47
7:D:894:C:N4	7:D:897:C:N4	2.59	0.47
7:D:999:U:C2	7:D:1154:G:N2	2.82	0.47
12:I:79:GLU:HB3	12:I:93:PRO:HD2	1.96	0.47
20:Q:97:PRO:O	20:Q:99:ARG:N	2.41	0.47
25:V:29:PHE:HD2	25:V:31:LEU:HD12	1.78	0.47
29:Z:112:ALA:HA	29:Z:136:LEU:HD23	1.95	0.47
6:A:1170:A:O5'	6:A:1170:A:H8	1.97	0.47
6:A:1196:U:H5'	6:A:1197:G:H5'	1.97	0.47
6:A:1256:A:OP2	6:A:1256:A:C8	2.68	0.47
6:A:1288:A:H2'	6:A:1289:A:H8	1.77	0.47
6:A:131:C:O2'	6:A:132:C:H5'	2.15	0.47
6:A:1437:C:H2'	6:A:1438:G:C8	2.50	0.47
6:A:19:C:C2	6:A:20:U:C5	3.03	0.47
6:A:236:G:H3'	6:A:237:C:H6	1.80	0.47
6:A:250:A:N3	6:A:252:U:C4	2.83	0.47
6:A:44:G:C6	6:A:45:U:C2	3.03	0.47
6:A:494:U:O2	6:A:496:A:C6	2.66	0.47
6:A:670:G:H1	6:A:736:C:H42	1.61	0.47
56:B:16:ALA:HB1	56:B:106:VAL:O	2.15	0.47
56:B:174:VAL:HG12	56:B:177:ILE:CG1	2.34	0.47
56:B:236:GLU:CA	56:B:268:ILE:CG2	2.76	0.47
56:B:275:GLN:O	56:B:277:GLY:N	2.48	0.47
56:B:374:PRO:CG	56:B:461:TYR:CD1	2.98	0.47
56:B:424:LEU:CD1	56:B:471:SER:HB3	2.44	0.47
56:B:489:LEU:O	56:B:508:ALA:CB	2.62	0.47
56:B:74:GLU:CG	56:B:77:VAL:HG11	2.44	0.47
7:D:1084:A:C4'	7:D:1106:G:C8	2.97	0.47
7:D:1041:C:H1'	7:D:1115:G:N2	2.30	0.47
7:D:1177:A:C2	7:D:1178:C:C4	3.03	0.47
7:D:1273:U:O2'	7:D:1274:A:H5''	2.14	0.47
7:D:1275:A:HO2'	7:D:1276:A:P	2.37	0.47
7:D:489:G:N9	7:D:1284:A:C6	2.83	0.47
7:D:1412:A:H2'	7:D:1413:G:C8	2.50	0.47
7:D:1422:G:C2	7:D:1423:G:C8	3.02	0.47
7:D:1812:A:H2'	7:D:1813:G:C8	2.50	0.47
7:D:1863:G:H8	7:D:1863:G:O5'	1.97	0.47
7:D:1840:G:H1	7:D:1902:C:H42	1.63	0.47
7:D:1925:C:H2'	7:D:1925:C:O2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2006:C:O2'	7:D:2823:A:H1'	2.15	0.47
7:D:2040:C:N3	7:D:2041:U:C4	2.82	0.47
7:D:2270:G:O6	7:D:2271:G:N1	2.48	0.47
7:D:2255:G:H1	7:D:2275:C:N4	2.13	0.47
7:D:2320:A:H3'	7:D:2320:A:P	2.55	0.47
7:D:23:G:N2	7:D:24:G:N3	2.63	0.47
7:D:410:G:O2'	7:D:2407:G:OP2	2.31	0.47
7:D:2448:A:OP2	7:D:2499:C:OP2	2.33	0.47
7:D:2692:C:N4	7:D:2718:G:O6	2.48	0.47
7:D:2773:C:H2'	7:D:2774:C:C6	2.50	0.47
7:D:2638:G:N2	7:D:2776:A:C8	2.81	0.47
7:D:28:A:C2	7:D:513:A:C8	3.03	0.47
7:D:295:G:P	7:D:338:G:N1	2.80	0.47
7:D:299:A:C2	7:D:322:A:C8	3.03	0.47
7:D:327:G:H1	7:D:335:C:H42	1.61	0.47
7:D:381:G:N2	7:D:382:G:C4	2.83	0.47
7:D:464:U:H2'	7:D:465:G:O4'	2.15	0.47
7:D:556:G:C8	7:D:557:U:C5	3.02	0.47
7:D:598:G:H2'	7:D:599:G:O4'	2.15	0.47
7:D:680:G:N2	7:D:681:G:N3	2.63	0.47
7:D:741:G:C6	7:D:742:G:N7	2.82	0.47
7:D:807:U:C5	7:D:808:G:N7	2.83	0.47
7:D:812:C:O2'	7:D:813:U:H5'	2.14	0.47
7:D:894:C:H6	7:D:894:C:O5'	1.97	0.47
9:F:100:GLY:O	9:F:103:THR:N	2.42	0.47
9:F:187:LEU:HD21	9:F:204:ASN:O	2.14	0.47
10:G:65:ALA:O	10:G:100:ALA:HB3	2.14	0.47
13:J:41:GLU:HB3	13:J:62:TRP:HE3	1.79	0.47
15:L:37:ARG:O	15:L:41:ARG:HB2	2.14	0.47
20:Q:12:ASN:ND2	20:Q:44:ARG:HB3	2.29	0.47
20:Q:91:ARG:C	20:Q:93:ARG:H	2.18	0.47
27:X:81:LYS:HB3	27:X:85:MET:HE3	1.96	0.47
29:Z:74:VAL:HA	29:Z:112:ALA:O	2.15	0.47
4:4:4:G:N1	4:4:70:G:C6	2.82	0.47
5:5:68:C:H2'	5:5:69:G:O4'	2.15	0.47
6:A:1027:C:N4	6:A:1034:G:H1	2.13	0.47
6:A:1244:C:H2'	6:A:1245:A:H8	1.79	0.47
6:A:1365:G:C6	6:A:1366:C:N3	2.83	0.47
6:A:741:G:H2'	6:A:742:G:C8	2.50	0.47
6:A:92:G:H2'	6:A:93:U:H5'	1.95	0.47
6:A:962:C:H1'	6:A:1201:A:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:134:VAL:O	56:B:134:VAL:HG13	2.15	0.47
56:B:174:VAL:CG1	56:B:177:ILE:CD1	2.93	0.47
56:B:20:HIS:CD2	56:B:108:ASP:N	2.80	0.47
56:B:242:VAL:C	56:B:256:LEU:HD11	2.34	0.47
56:B:347:GLY:HA2	56:B:354:ALA:HB2	1.96	0.47
56:B:459:ILE:CA	56:B:463:PHE:CD2	2.97	0.47
7:D:1943:U:H5	56:B:531:GLN:NE2	2.12	0.47
3:3:132:ARG:NH2	7:D:1060:U:H2'	2.30	0.47
7:D:1074:G:C2	7:D:1075:C:N4	2.83	0.47
7:D:1449:A:C5	7:D:1449(A):G:C8	3.02	0.47
7:D:1488:G:C2	7:D:1502:C:C2	3.03	0.47
7:D:1510:A:N7	7:D:1511:A:C6	2.83	0.47
7:D:155:C:O3'	7:D:161:U:H3'	2.15	0.47
7:D:1871:A:C2'	7:D:1872:A:H8	2.11	0.47
7:D:1917:U:C5	7:D:1918:A:C2	3.02	0.47
7:D:199:A:O2'	7:D:200:U:O5'	2.23	0.47
7:D:2033:A:HO2'	7:D:2034:U:P	2.37	0.47
7:D:2115:G:O3'	7:D:2117:A:N6	2.48	0.47
7:D:2450:A:N7	7:D:2501:C:N4	2.63	0.47
7:D:2044:C:N3	7:D:2625:G:C2	2.83	0.47
7:D:295:G:C2	7:D:344:G:C2	3.03	0.47
7:D:301:G:H1	7:D:316:C:H42	1.62	0.47
7:D:418:G:C6	7:D:419:C:C4	3.03	0.47
7:D:35:G:C6	7:D:446:G:N2	2.83	0.47
7:D:485:C:H42	7:D:486:C:H42	1.63	0.47
7:D:827:U:H4'	7:D:828:U:C2	2.49	0.47
7:D:953:A:C6	7:D:965:C:N3	2.83	0.47
7:D:968:G:H5''	7:D:969:U:OP2	2.14	0.47
12:I:33:VAL:HG11	12:I:109:ILE:HG13	1.96	0.47
6:A:738:C:OP1	13:J:92:LYS:HE3	2.15	0.47
14:K:51:GLN:HG3	14:K:58:PRO:HD3	1.96	0.47
15:L:41:ARG:NH1	15:L:42:GLU:OE2	2.48	0.47
19:P:66:VAL:HG21	19:P:98:TYR:HE2	1.80	0.47
21:R:6:LEU:HB3	21:R:23:ARG:NH2	2.29	0.47
26:W:21:GLU:O	26:W:22:LEU:HB2	2.15	0.47
26:W:3:ARG:NH2	26:W:3:ARG:CG	2.73	0.47
29:Z:162:GLU:HG2	29:Z:163:PHE:H	1.78	0.47
29:Z:66:HIS:H	29:Z:158:ALA:HB1	1.78	0.47
3:3:36:GLU:C	3:3:38:VAL:H	2.17	0.47
3:3:48:MET:O	3:3:53:VAL:HG21	2.15	0.47
5:5:28:G:N2	5:5:43:C:C4	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:5:52:G:C2	5:5:63:G:C2	3.03	0.47
6:A:103:C:C2'	6:A:104:G:H5'	2.45	0.47
6:A:1076:C:C2	6:A:1082:G:N2	2.83	0.47
6:A:1104:G:O3'	9:F:111:ARG:NH2	2.45	0.47
6:A:1135:U:H4'	6:A:1136:U:C5	2.50	0.47
6:A:1294:G:C4	6:A:1295:G:N7	2.83	0.47
6:A:1440:C:O2	6:A:1462:G:N3	2.47	0.47
6:A:1454:G:C2	6:A:1455:G:C4	3.03	0.47
6:A:236:G:N3	6:A:236:G:H2'	2.30	0.47
6:A:401:C:O2'	6:A:621:A:N3	2.47	0.47
6:A:535:A:H5'	6:A:536:C:H5	1.80	0.47
6:A:608:A:C4	6:A:609:A:C8	3.03	0.47
6:A:741:G:H2'	6:A:742:G:O4'	2.15	0.47
6:A:851:G:H2'	6:A:852:G:C8	2.49	0.47
56:B:142:ASN:HD21	56:B:144:ARG:NH2	2.12	0.47
56:B:441:LEU:HD22	56:B:442:PRO:CD	2.45	0.47
56:B:409:TYR:CD2	56:B:485:ARG:HD3	2.49	0.47
56:B:486:PRO:HG2	56:B:487:GLY:H	1.79	0.47
56:B:504:LEU:CD1	56:B:504:LEU:N	2.78	0.47
7:D:1003:G:C6	7:D:1153:C:N4	2.83	0.47
7:D:1353:A:C6	7:D:1378:A:C5	3.03	0.47
7:D:1456:G:N2	7:D:1457:A:C8	2.82	0.47
7:D:1705:G:C2	7:D:1706:U:O2	2.67	0.47
7:D:1857:G:H8	7:D:1858:G:H5''	1.79	0.47
7:D:1862:G:N2	7:D:1880:C:C2	2.79	0.47
7:D:1910:G:C2	7:D:1921:G:N3	2.83	0.47
7:D:2298:A:C6	7:D:2299:G:C4	3.03	0.47
7:D:2358:G:O5'	7:D:2358:G:H8	1.98	0.47
7:D:2781:A:C6	7:D:2782:G:C2	3.03	0.47
7:D:460:A:C2	7:D:470:A:C6	3.03	0.47
7:D:495:G:N2	7:D:496:G:N3	2.62	0.47
7:D:557:U:O5'	7:D:557:U:H6	1.98	0.47
7:D:686:G:H4'	7:D:687:C:OP2	2.14	0.47
7:D:768:G:C2	7:D:769:G:C4	3.02	0.47
7:D:778:G:C6	7:D:779:U:C2	3.03	0.47
7:D:809:G:C2	7:D:810:U:O2	2.68	0.47
7:D:921:G:H5''	7:D:922:U:OP2	2.15	0.47
7:D:848:G:N2	7:D:931:G:O6	2.47	0.47
7:D:947:G:N2	7:D:948:G:N3	2.63	0.47
8:E:30:C:C4	8:E:31:C:H1'	2.49	0.47
8:E:57:A:C8	8:E:58:A:C8	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:68:TYR:CD2	11:H:97:LEU:HD13	2.50	0.47
19:P:84:LEU:O	19:P:101:VAL:HG22	2.15	0.47
19:P:41:ARG:NH1	19:P:57:LYS:HE2	2.30	0.47
26:W:32:LYS:HB3	26:W:50:ALA:O	2.14	0.47
28:Y:10:ARG:O	28:Y:13:ILE:HG22	2.15	0.47
29:Z:59:ARG:CD	29:Z:164:ARG:HH11	2.28	0.47
3:3:25:PRO:CA	56:B:440:TYR:CZ	2.84	0.47
3:3:5:VAL:HG13	3:3:5:VAL:O	2.15	0.47
6:A:1311:G:H2'	6:A:1312:G:O5'	2.15	0.47
6:A:937:A:C2	6:A:1379:G:C6	3.03	0.47
6:A:1415:G:C5	6:A:1486:G:C2	3.03	0.47
6:A:1461:G:N2	6:A:1462:G:C4	2.82	0.47
6:A:1511:G:H2'	6:A:1512:U:O4'	2.15	0.47
6:A:264:U:H6	6:A:264:U:OP2	1.97	0.47
6:A:275:G:C4	6:A:276:G:C8	3.03	0.47
6:A:563:A:C2	6:A:567:G:C4	3.03	0.47
6:A:773:G:H1	6:A:806:C:N4	2.13	0.47
56:B:34:HIS:ND1	56:B:35:ALA:N	2.62	0.47
56:B:380:VAL:N	56:B:406:LEU:HB3	2.28	0.47
3:3:74:ALA:HA	7:D:1061:U:OP1	2.15	0.47
7:D:1183:G:N2	7:D:1184:G:H1'	2.30	0.47
7:D:1240:U:H3'	7:D:1241:A:N7	2.30	0.47
7:D:1260:G:N2	7:D:1261:C:O2	2.48	0.47
7:D:1369:G:C2	7:D:1370:C:C2	3.03	0.47
7:D:1530:G:C5	7:D:1531:C:N4	2.83	0.47
7:D:1555:G:C2	7:D:1556:C:C2	3.03	0.47
7:D:1332:G:C5	7:D:1609:A:C6	3.03	0.47
7:D:1996:C:H2'	7:D:1997:G:O4'	2.15	0.47
7:D:203:C:C4	7:D:204:A:N7	2.83	0.47
7:D:2063:C:N4	7:D:2064:C:N4	2.62	0.47
7:D:2070:G:C2	7:D:2071:A:N3	2.83	0.47
7:D:2106:G:O5'	7:D:2106:G:H8	1.98	0.47
7:D:2210:G:O2'	7:D:2211:G:N7	2.48	0.47
7:D:2315:G:H2'	7:D:2316:C:H6	1.80	0.47
7:D:2410:G:C6	7:D:2411:A:C4	3.03	0.47
7:D:2528:U:HO2'	7:D:2529:G:P	2.37	0.47
7:D:1457:A:C6	7:D:2703:C:N4	2.82	0.47
7:D:1637:A:H4'	7:D:2711:A:O2'	2.15	0.47
7:D:283:A:N1	7:D:358:U:N3	2.63	0.47
7:D:46:C:OP2	7:D:215:G:C2'	2.54	0.47
7:D:919:G:C2	7:D:2268:A:C8	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:92:G:N2	8:E:93:C:O2	2.48	0.47
10:G:184:TYR:HE1	10:G:201:TYR:HE1	1.62	0.47
10:G:22:TRP:CG	10:G:59:ARG:NH1	2.83	0.47
11:H:63:LYS:O	11:H:67:ILE:HG23	2.14	0.47
18:O:33:THR:HG22	18:O:39:PRO:CA	2.39	0.47
19:P:27:LEU:HG	19:P:28:LYS:H	1.80	0.47
20:Q:55:ARG:HA	20:Q:58:GLU:CG	2.45	0.47
20:Q:88:ARG:NH1	20:Q:88:ARG:CG	2.73	0.47
6:A:191(F):U:C2	27:X:105:SER:HB2	2.50	0.47
3:3:25:PRO:O	3:3:29:GLN:HB3	2.15	0.46
3:3:55:VAL:HG23	3:3:69:THR:HA	1.97	0.46
5:5:74:C:O5'	5:5:75:C:OP2	2.32	0.46
6:A:1023:G:OP2	6:A:1024:G:N7	2.49	0.46
6:A:1088:G:C2	6:A:1098:C:C2	3.04	0.46
6:A:1147:C:O2	6:A:1148:U:H5	1.98	0.46
6:A:1494:G:H1'	6:A:1495:U:C5	2.50	0.46
6:A:165:C:H2'	6:A:166:G:H8	1.80	0.46
6:A:113:G:C2	6:A:315:A:C2	3.03	0.46
6:A:481:G:H4'	6:A:482:A:OP1	2.13	0.46
6:A:648:A:H2'	6:A:649:G:H8	1.78	0.46
6:A:695:A:N6	6:A:797:C:H1'	2.31	0.46
6:A:703:G:HO2'	6:A:704:A:P	2.29	0.46
6:A:812:C:H2'	6:A:813:U:OP2	2.15	0.46
6:A:958:A:OP2	6:A:959:A:OP2	2.33	0.46
56:B:16:ALA:O	56:B:22:LYS:HD2	2.15	0.46
56:B:196:LEU:CD2	56:B:282:LEU:HG	2.45	0.46
56:B:218:PHE:CE1	56:B:291:TYR:CD2	3.03	0.46
56:B:22:LYS:C	57:B:701:GCP:O2B	2.53	0.46
56:B:306:TYR:CE1	56:B:339:ALA:C	2.83	0.46
56:B:330:LEU:CD2	56:B:346:CYS:CA	2.92	0.46
56:B:306:TYR:CB	56:B:370:ILE:HG21	2.41	0.46
56:B:431:LYS:CB	56:B:458:GLU:CG	2.83	0.46
56:B:543:GLY:O	56:B:544:LYS:HG2	2.16	0.46
56:B:65:ARG:CG	56:B:246:THR:N	2.78	0.46
56:B:92:GLU:O	56:B:97:LEU:N	2.48	0.46
3:3:132:ARG:O	7:D:1077:A:N3	2.48	0.46
3:3:132:ARG:CZ	7:D:1080:C:H42	2.28	0.46
7:D:1113:U:H2'	7:D:1114:G:C8	2.49	0.46
7:D:1205:U:O2	7:D:1205:U:H2'	2.15	0.46
7:D:122:G:C6	7:D:123:G:N7	2.83	0.46
7:D:1301:A:N6	7:D:1303:G:C4	2.82	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1416:G:O2'	7:D:1417:C:O4'	2.32	0.46
7:D:145:G:H2'	7:D:146:G:C8	2.49	0.46
7:D:121:G:H5''	7:D:149:A:H5'	1.97	0.46
7:D:1511:A:H2'	7:D:1512:G:C8	2.49	0.46
7:D:1784:A:N3	7:D:1785:A:N6	2.64	0.46
7:D:17:G:C4	7:D:18:C:C5	3.03	0.46
7:D:1942:C:O2'	56:B:577:GLN:HA	2.16	0.46
7:D:2051:A:C4	7:D:2614:A:N6	2.83	0.46
7:D:2413:G:N2	7:D:2414:G:C4	2.83	0.46
7:D:2740:A:C2	7:D:2741:A:C6	3.03	0.46
7:D:2819:G:C2	7:D:2821:A:C5	3.03	0.46
7:D:29:U:H6	7:D:29:U:O5'	1.99	0.46
7:D:295:G:OP2	7:D:338:G:C2	2.68	0.46
7:D:752:A:HO2'	7:D:753:C:P	2.38	0.46
7:D:900:A:H2'	7:D:901:A:O4'	2.15	0.46
9:F:22:LYS:O	9:F:24:TRP:HD1	1.98	0.46
10:G:33:LEU:O	10:G:36:ASP:HB3	2.15	0.46
12:I:51:VAL:HB	12:I:52:PRO:HD3	1.97	0.46
9:F:181:PHE:HD1	15:L:71:GLY:HA3	1.79	0.46
16:M:20:ARG:O	16:M:60:ASP:HB2	2.15	0.46
7:D:2884:U:C2	26:W:52:TYR:HD1	170.69	0.46
26:W:70:LYS:HB3	26:W:73:GLU:N	2.29	0.46
1:1:10:ILE:HG21	7:D:2477:C:H42	1.81	0.46
5:5:54:U:H3	5:5:58:A:N6	2.04	0.46
6:A:1084:G:H2'	6:A:1085:U:H2'	1.96	0.46
6:A:1089:G:O2'	6:A:1169:A:N1	2.34	0.46
6:A:1287:A:H2'	6:A:1288:A:C8	2.50	0.46
6:A:285:G:C4	6:A:286:G:C8	3.04	0.46
6:A:498:A:O4'	6:A:500:G:H5'	2.16	0.46
6:A:519:C:C2	6:A:520:A:C8	3.03	0.46
6:A:544:G:C6	6:A:545:C:C4	3.03	0.46
6:A:498:A:N1	6:A:547:A:N9	2.64	0.46
6:A:550:G:H2'	6:A:551:U:C6	2.50	0.46
6:A:585:G:H1	6:A:756:C:N4	2.13	0.46
6:A:690:G:C6	6:A:691:G:C6	3.03	0.46
6:A:769:G:N2	6:A:770:C:C2	2.83	0.46
6:A:80:G:C4	6:A:81:G:C8	3.02	0.46
56:B:230:ILE:HG12	56:B:279:THR:HA	1.97	0.46
56:B:386:GLU:HG2	56:B:401:ARG:HG3	1.97	0.46
56:B:434:ARG:O	56:B:452:TYR:CA	2.47	0.46
56:B:425:MET:HG2	56:B:452:TYR:HH	1.75	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:474:TYR:C	56:B:475:ALA:O	2.52	0.46
56:B:559:LEU:HG	56:B:559:LEU:H	1.47	0.46
56:B:88:ASP:O	56:B:349:LEU:CD1	2.58	0.46
7:D:1067:A:H2'	7:D:1068:G:C4	2.50	0.46
7:D:1095:A:H2'	7:D:1096:A:O4'	2.14	0.46
7:D:585:G:N3	7:D:1251:C:N4	2.63	0.46
7:D:130:C:H2'	7:D:131:G:O4'	2.16	0.46
7:D:1468:C:H42	7:D:1524:G:H1	1.62	0.46
7:D:152:G:C6	7:D:153:C:C4	3.03	0.46
7:D:1670:C:C4	7:D:1671:U:C2	3.03	0.46
7:D:1823:G:C2	7:D:1824:G:C8	3.03	0.46
7:D:1928:A:H8	7:D:1928:A:OP2	1.98	0.46
7:D:2335:A:N6	7:D:2337:G:C4	2.82	0.46
7:D:255:A:N6	7:D:256:A:C6	2.83	0.46
7:D:2648:C:O2	7:D:2673:G:N2	2.48	0.46
7:D:2781:A:N1	7:D:2782:G:N3	2.62	0.46
7:D:2837:G:C2	7:D:2882:A:C2	3.03	0.46
7:D:2873:A:O2'	7:D:2874:C:OP1	2.31	0.46
7:D:2629:A:N6	7:D:2896:C:O4'	2.48	0.46
7:D:612:G:H1'	7:D:617:G:N2	2.29	0.46
7:D:743:G:N1	7:D:744:G:C4	2.84	0.46
7:D:744:G:N2	7:D:754:C:C2	2.83	0.46
7:D:860:U:N3	7:D:917:A:N6	2.55	0.46
8:E:53:A:C5	8:E:54:G:N7	2.83	0.46
10:G:141:VAL:O	10:G:144:SER:OG	2.24	0.46
11:H:125:HIS:HA	11:H:149:ALA:CB	2.45	0.46
11:H:185:PHE:CZ	11:H:188:LEU:HD23	2.50	0.46
12:I:40:ARG:HG2	12:I:66:MET:CE	2.46	0.46
13:J:40:VAL:O	13:J:41:GLU:HB2	2.15	0.46
16:M:4:TYR:CE2	16:M:88:TYR:HD1	2.34	0.46
20:Q:80:ARG:CG	20:Q:80:ARG:NH1	2.79	0.46
26:W:40:ILE:CG1	26:W:67:VAL:O	2.62	0.46
29:Z:174:PRO:O	29:Z:175:VAL:HG13	2.15	0.46
29:Z:200:LYS:HZ2	29:Z:208:PHE:CB	2.28	0.46
29:Z:20:TYR:O	29:Z:225:ASN:ND2	2.49	0.46
4:4:12:G:N1	4:4:13:C:C2	2.83	0.46
6:A:1156:G:H21	6:A:1179:A:H2	1.62	0.46
6:A:1319:A:C5	6:A:1323:G:C4	3.04	0.46
6:A:1452:C:C1'	6:A:1453:G:N2	2.78	0.46
6:A:156:G:C5	6:A:166:G:C6	3.03	0.46
6:A:230:G:C6	6:A:231:G:N7	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:237:C:H2'	6:A:238:G:H8	1.81	0.46
6:A:767:A:O5'	6:A:767:A:H8	1.97	0.46
6:A:767:A:H2'	6:A:768:A:O4'	2.15	0.46
56:B:372:THR:HG22	56:B:373:ALA:N	2.29	0.46
56:B:335:GLU:HG2	56:B:375:SER:OG	2.07	0.46
56:B:432:ARG:HH21	56:B:487:GLY:HA3	1.79	0.46
7:D:1177:A:N3	7:D:1178:C:C6	2.83	0.46
7:D:1203:G:OP1	7:D:1204:A:H8	1.98	0.46
7:D:1277:G:C2	7:D:1278:A:C4	3.03	0.46
7:D:1312:U:H2'	7:D:1313:U:C6	2.50	0.46
7:D:1427:A:O2'	7:D:1428:C:P	2.73	0.46
7:D:1650:G:C2	7:D:1651:G:C8	3.04	0.46
7:D:1784:A:N7	7:D:1981:A:C6	2.83	0.46
7:D:1764:G:C5	7:D:1989:G:N2	2.83	0.46
7:D:2246:G:N2	7:D:2426:A:H1'	2.30	0.46
7:D:2287:A:N6	7:D:2344:U:N3	2.62	0.46
7:D:2310:A:O2'	7:D:2311:A:O5'	2.27	0.46
7:D:2370:G:C5	7:D:2371:G:C5	3.03	0.46
7:D:2397:G:C2	7:D:2398:U:C2	3.03	0.46
7:D:2595:G:N2	7:D:2599:G:C4	2.83	0.46
7:D:2653:U:C2	7:D:2654:A:N7	2.83	0.46
7:D:270(J):G:C2	7:D:270(K):C:C2	3.03	0.46
7:D:279:C:N4	7:D:359:A:C2	2.81	0.46
7:D:456:C:C4	19:P:69:TYR:HD2	140.08	0.46
7:D:725:G:C6	7:D:726:G:N2	2.83	0.46
7:D:766:C:C4	7:D:767:U:C4	3.03	0.46
7:D:685:A:N9	7:D:774:A:N6	2.63	0.46
7:D:930:U:O4'	7:D:932:G:C5	2.68	0.46
7:D:821:A:N7	7:D:946:G:C5	2.84	0.46
12:I:147:ASP:HA	12:I:150:ARG:HB2	1.96	0.46
6:A:1203:C:OP1	21:R:2:ALA:N	2.48	0.46
23:T:22:THR:OG1	23:T:23:ASP:N	2.47	0.46
29:Z:3:HIS:O	29:Z:5:LYS:N	2.44	0.46
3:3:21:PRO:CG	3:3:22:PRO:HD3	2.45	0.46
3:3:23:VAL:HG13	3:3:27:LEU:HG	1.97	0.46
4:4:12:G:H2'	4:4:13:C:O4'	2.15	0.46
5:5:8:U:O2	5:5:21:A:H2	1.98	0.46
6:A:1044:A:C5	6:A:1045:C:H1'	2.50	0.46
6:A:1084:G:H3'	6:A:1086:U:C5	2.50	0.46
6:A:1196:U:O2'	6:A:1197:G:OP2	2.25	0.46
6:A:1215:G:C2	6:A:1216:G:C8	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1326:C:H2'	6:A:1327:C:C5	2.50	0.46
6:A:159:G:H2'	6:A:161:A:OP2	2.15	0.46
6:A:200:G:N3	6:A:201:C:N4	2.63	0.46
6:A:270:A:C5	6:A:271:C:C4	3.03	0.46
6:A:345:C:OP2	6:A:345:C:H3'	2.16	0.46
6:A:357:G:H2'	6:A:358:U:H6	1.79	0.46
6:A:381:C:C4	6:A:382:A:C6	3.04	0.46
6:A:408:A:C6	6:A:409:G:C5	3.03	0.46
6:A:5:U:H5'	6:A:6:G:C8	2.50	0.46
56:B:11:ASN:O	56:B:100:VAL:HG12	2.14	0.46
56:B:201:PHE:CD2	56:B:215:LEU:HA	2.51	0.46
56:B:245:PHE:CZ	56:B:263:TRP:N	2.84	0.46
56:B:229:ARG:NH2	56:B:286:PRO:CD	2.61	0.46
56:B:352:LEU:HD13	56:B:356:ILE:HD11	1.97	0.46
56:B:584:LEU:C	56:B:586:ALA:N	2.66	0.46
7:D:1084:A:C8	7:D:1085:A:N7	2.83	0.46
7:D:119:A:O2'	7:D:120:U:O5'	2.27	0.46
7:D:1228:G:H5'	7:D:1229:G:OP2	2.16	0.46
7:D:1286:A:C2	7:D:1329:U:C2	3.03	0.46
7:D:1410:G:C5	7:D:1411:C:C5	3.03	0.46
7:D:1425:G:C6	7:D:1426:G:C6	3.03	0.46
7:D:1449(A):G:H2'	7:D:1450:C:O4'	2.16	0.46
7:D:1504:C:H2'	7:D:1505:C:C6	2.51	0.46
7:D:152:G:H8	7:D:152:G:O5'	1.98	0.46
7:D:154:G:N1	7:D:155:C:C2	2.83	0.46
7:D:1638:C:H5''	7:D:2710:C:O2'	2.15	0.46
7:D:1708:C:H5''	7:D:1709:U:OP2	2.15	0.46
7:D:1732:A:H3'	7:D:1733:G:C5'	2.46	0.46
7:D:215:G:H4'	7:D:216:A:H4'	1.97	0.46
7:D:2194:G:C6	7:D:2195:C:N4	2.84	0.46
7:D:2209:C:H2'	7:D:2211:G:P	2.55	0.46
7:D:2565:A:H2'	7:D:2566:A:H1'	1.96	0.46
7:D:747:U:N3	7:D:2613:U:H5	2.14	0.46
7:D:266:G:C2	7:D:267:C:H1'	2.51	0.46
7:D:479:A:O2'	7:D:480:A:H8	1.94	0.46
7:D:503:A:C2	7:D:506:G:C4	3.04	0.46
7:D:800:A:H8	7:D:800:A:O5'	1.98	0.46
7:D:881:G:H2'	7:D:882:G:C5'	2.44	0.46
7:D:884:C:O2	7:D:885:C:C6	2.62	0.46
8:E:14:U:HO2'	8:E:106:G:N2	2.11	0.46
8:E:92:G:C2	8:E:93:C:C2	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:140:ARG:HA	10:G:143:GLU:HB2	1.98	0.46
12:I:91:LEU:CD2	12:I:118:ILE:HG21	2.46	0.46
24:U:97:SER:O	24:U:103:GLY:N	2.49	0.46
6:A:1318:A:H1'	26:W:34:TRP:CZ3	2.50	0.46
4:4:17:C:OP2	4:4:17(A):U:H5	1.98	0.46
6:A:1063:C:N4	6:A:1193:G:H1	2.14	0.46
6:A:1320:C:O2'	26:W:73:GLU:HB3	2.15	0.46
6:A:1492:A:OP1	19:P:47:LYS:HB3	2.16	0.46
6:A:234:C:H2'	6:A:235:C:C6	2.51	0.46
6:A:254:G:C6	6:A:273:A:C6	3.03	0.46
6:A:280:C:C5	24:U:91:ARG:NH1	2.83	0.46
6:A:451:A:H8	6:A:451:A:O5'	1.98	0.46
6:A:51:A:H4'	6:A:52:G:H5'	1.97	0.46
6:A:802:A:C4	6:A:803:G:C8	3.03	0.46
6:A:831:U:H2'	6:A:832:C:H6	1.80	0.46
6:A:838:G:N1	6:A:849:C:C4	2.71	0.46
6:A:925:G:N3	6:A:927:G:C8	2.84	0.46
56:B:147:GLU:O	56:B:150:LEU:HB2	2.16	0.46
56:B:380:VAL:N	56:B:406:LEU:HD22	2.31	0.46
56:B:492:VAL:CG2	56:B:541:ILE:HG21	2.43	0.46
56:B:69:ARG:HH21	56:B:178:LEU:HD12	1.78	0.46
56:B:58:THR:HG1	56:B:84:PRO:CG	2.28	0.46
7:D:1024:G:N1	7:D:1139:G:N2	2.63	0.46
7:D:1229:G:C5	7:D:1230:C:C4	3.03	0.46
7:D:1256:G:C5	7:D:1257:C:C5	3.04	0.46
7:D:1482:U:H3'	7:D:1482:U:O2	2.15	0.46
7:D:1629:U:H2'	7:D:1630:G:H8	1.80	0.46
7:D:1707:G:H2'	7:D:1708:C:O4'	2.14	0.46
7:D:1798:U:C2	7:D:1822:G:N2	2.83	0.46
7:D:1839:G:C5	7:D:1840:G:C8	3.04	0.46
7:D:1869:G:C2'	7:D:1871:A:N7	2.76	0.46
7:D:1871:A:C2	7:D:1872:A:C5	3.03	0.46
7:D:1869:G:C6	7:D:1878:G:O6	2.68	0.46
7:D:2013:A:H2'	7:D:2014:A:H8	1.80	0.46
7:D:2054:A:H62	7:D:2577:A:H61	1.63	0.46
7:D:2192:G:C2	7:D:2193:G:C8	3.04	0.46
7:D:2301:C:H2'	7:D:2302:G:C8	2.51	0.46
7:D:238:C:O2	7:D:260:G:C2	2.69	0.46
7:D:2511:U:H2'	7:D:2512:C:O4'	2.16	0.46
7:D:489:G:C2	7:D:491:G:C2	3.04	0.46
7:D:558:G:N3	7:D:559:G:N7	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:707:G:O6	7:D:725:G:N2	2.49	0.46
7:D:785:G:C2	7:D:786:C:C2	3.03	0.46
7:D:828:U:O2'	7:D:829:A:O4'	2.32	0.46
7:D:852:G:C4	7:D:926:A:N1	2.84	0.46
10:G:19:GLU:OE1	10:G:19:GLU:N	2.48	0.46
14:K:52:GLU:HG2	14:K:53:LYS:HD3	1.97	0.46
6:A:1248:A:H1'	16:M:70:LYS:HZ1	1.80	0.46
20:Q:36:LYS:HG3	20:Q:37:THR:N	2.31	0.46
26:W:66:MET:C	26:W:66:MET:SD	2.94	0.46
29:Z:200:LYS:HZ3	29:Z:208:PHE:HB2	1.81	0.46
5:5:4:C:N4	5:5:69:G:H1	2.09	0.46
6:A:1015:A:H2'	6:A:1016:A:H8	1.81	0.46
6:A:1023:G:C6	6:A:1024:G:C4	3.04	0.46
6:A:1182:G:OP2	6:A:1182:G:C5	2.68	0.46
6:A:1380:U:N3	14:K:3:ARG:NH1	2.64	0.46
6:A:1520:G:C2	6:A:1521:G:C4	3.04	0.46
6:A:16:A:O2'	6:A:17:U:H5'	2.16	0.46
6:A:422:C:H4'	6:A:423:G:N3	2.30	0.46
6:A:513:C:H2'	6:A:514:C:C6	2.51	0.46
6:A:607:A:H2'	6:A:608:A:O4'	2.16	0.46
6:A:688:G:H1	6:A:699:C:H42	1.63	0.46
6:A:767:A:H2'	6:A:768:A:C8	2.50	0.46
6:A:814:A:OP2	6:A:816:A:N6	2.48	0.46
56:B:12:PHE:HB2	56:B:102:GLY:O	2.16	0.46
56:B:211:VAL:HG12	56:B:212:ILE:N	2.31	0.46
56:B:317:ARG:N	56:B:317:ARG:HD2	2.31	0.46
56:B:338:THR:O	56:B:339:ALA:CB	2.64	0.46
7:D:1049:C:C4	7:D:1050:A:N7	2.84	0.46
7:D:1056:G:H8	7:D:1056:G:H3'	1.81	0.46
7:D:1416:G:N2	7:D:1417:C:N4	2.64	0.46
7:D:1613:G:C4	7:D:1617:C:N4	2.84	0.46
7:D:1633:G:C5	7:D:1635:G:C5	3.04	0.46
7:D:48:G:C2	7:D:178:G:C6	3.03	0.46
7:D:1897:G:C2	7:D:1898:U:C2	3.04	0.46
7:D:2012:G:O2'	7:D:2013:A:O5'	2.31	0.46
7:D:2069:G:C2	7:D:2070:G:C8	3.04	0.46
7:D:2116:G:H3'	7:D:2117:A:C2	2.50	0.46
7:D:2116:G:N7	7:D:2165:G:N2	2.62	0.46
7:D:226:G:N2	7:D:227:A:C2	2.83	0.46
7:D:2848:G:N1	7:D:2867:G:N3	2.64	0.46
7:D:429:A:N7	7:D:430:G:C6	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:500:G:H22	7:D:503:A:P	2.39	0.46
7:D:649:G:H2'	7:D:650:C:O4'	2.15	0.46
7:D:689:A:N3	7:D:779:U:O2'	2.49	0.46
7:D:699:A:H1'	7:D:1634:A:N7	2.31	0.46
7:D:702:G:C2	7:D:703:U:C2	3.04	0.46
7:D:888:C:H4'	7:D:889:C:OP1	2.15	0.46
8:E:110:G:H2'	8:E:111:U:O4'	2.16	0.46
11:H:146:ILE:O	11:H:183:GLY:N	2.38	0.46
13:J:14:LEU:HD21	13:J:18:GLN:HB3	1.98	0.46
15:L:49:GLU:OE2	15:L:60:ARG:HD2	2.15	0.46
3:3:137:GLU:CB	7:D:1078:U:H5''	2.44	0.46
6:A:102:G:N2	6:A:103:C:C2	2.84	0.46
6:A:1119:C:N3	6:A:1154:G:N1	2.59	0.46
6:A:1225:A:OP2	6:A:1225:A:H3'	2.15	0.46
6:A:1316:G:H22	6:A:1319:A:C5'	2.29	0.46
6:A:158:G:C6	6:A:159:G:C5	3.04	0.46
6:A:45:U:H2'	6:A:46:G:C8	2.50	0.46
6:A:475:G:O5'	6:A:475:G:H8	1.98	0.46
6:A:748:C:O2'	6:A:749:C:O5'	2.34	0.46
6:A:77:C:N4	6:A:78:G:O6	2.48	0.46
6:A:75:C:O2	6:A:96:G:C4	2.69	0.46
6:A:95:G:H2'	6:A:96:G:C8	2.51	0.46
56:B:144:ARG:N	56:B:144:ARG:HD2	2.31	0.46
56:B:23:SER:HB2	57:B:701:GCP:O2B	2.15	0.46
56:B:223:ARG:HD2	56:B:255:ALA:HB2	1.97	0.46
56:B:360:ARG:C	56:B:364:GLU:OE1	2.54	0.46
56:B:409:TYR:HB3	56:B:453:GLU:CG	2.45	0.46
56:B:562:CYS:CB	56:B:570:LYS:NZ	2.78	0.46
7:D:1138:G:C6	7:D:1139:G:C6	3.04	0.46
7:D:1310:G:O2'	7:D:1311:G:OP1	2.27	0.46
7:D:1499:C:H2'	7:D:1500:G:H8	1.81	0.46
7:D:1792:G:C6	7:D:1793:C:C4	3.03	0.46
7:D:2106:G:C5	7:D:2108:C:N4	2.84	0.46
7:D:216:A:H2'	7:D:217:G:C8	2.50	0.46
7:D:2249:U:O2'	7:D:2250:G:OP1	2.33	0.46
7:D:248:G:O2'	7:D:2432:A:OP1	2.15	0.46
7:D:2588:G:C5	7:D:2589:A:C8	3.04	0.46
7:D:2700:C:H42	7:D:2707:G:H1	1.62	0.46
7:D:270(M):U:C4'	7:D:270(N):G:H4'	2.45	0.46
7:D:279:C:HO2'	7:D:280:C:P	2.39	0.46
7:D:2889:C:H2'	7:D:2891:G:O5'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:326:G:C4	7:D:327:G:C8	3.04	0.46
7:D:487:C:H2'	7:D:488:G:C8	2.50	0.46
7:D:529:A:HO2'	7:D:530:G:P	2.39	0.46
7:D:655:A:O2'	7:D:656:G:O5'	2.33	0.46
7:D:657:U:H2'	7:D:658:C:C6	2.50	0.46
7:D:715:G:C6	7:D:716:A:C6	3.04	0.46
8:E:91:C:O2'	8:E:92:G:H5'	2.16	0.46
9:F:196:LEU:HD12	9:F:197:VAL:HG23	1.98	0.46
10:G:14:ILE:HG21	10:G:178:LEU:HG	1.97	0.46
10:G:5:ILE:HD12	10:G:6:HIS:O	2.16	0.46
12:I:75:THR:OG1	12:I:76:ILE:N	2.48	0.46
6:A:738:C:P	13:J:92:LYS:NZ	2.89	0.46
14:K:75:VAL:HG23	14:K:145:ALA:HB2	1.97	0.46
15:L:28:ALA:O	15:L:29:SER:OG	2.32	0.46
17:N:95:GLU:OE1	17:N:95:GLU:N	2.49	0.46
19:P:81:SER:HB3	19:P:106:ASP:OD2	2.15	0.46
20:Q:36:LYS:HE3	20:Q:59:TYR:HB3	1.98	0.46
23:T:8:ARG:HD3	23:T:17:TYR:CE1	2.46	0.46
29:Z:69:GLY:C	29:Z:157:LYS:CB	2.83	0.46
3:3:23:VAL:HG13	3:3:27:LEU:CG	2.45	0.46
4:4:17:C:OP2	4:4:17(A):U:C5	2.69	0.46
6:A:1053:G:C2'	6:A:1054:C:OP2	2.64	0.46
6:A:1055:A:H5'	6:A:1055:A:H8	1.81	0.46
6:A:1241:G:H8	6:A:1241:G:OP2	1.97	0.46
6:A:1261:A:H61	6:A:1274:G:C1'	2.28	0.46
6:A:1321:C:OP2	6:A:1322:C:H3'	2.15	0.46
6:A:1330:U:C4	6:A:1331:G:H1'	2.51	0.46
6:A:1461:G:N1	6:A:1462:G:C5	2.83	0.46
6:A:1501:C:N4	6:A:1504:G:C2	2.84	0.46
6:A:216:G:C4	6:A:217:C:N3	2.84	0.46
6:A:310:G:C6	6:A:311:C:C4	3.04	0.46
6:A:458:C:C5'	6:A:465:A:N1	2.66	0.46
6:A:705:U:C4	6:A:706:A:C5	3.03	0.46
6:A:85:U:O5'	6:A:85:U:H6	1.98	0.46
6:A:945:G:H2'	6:A:945:G:N3	2.31	0.46
56:B:214:TYR:HB2	56:B:245:PHE:HZ	1.76	0.46
56:B:432:ARG:HG3	56:B:432:ARG:O	2.16	0.46
7:D:1040:C:H3'	7:D:1041:C:C5	2.51	0.46
7:D:585:G:C6	7:D:1251:C:C4	3.04	0.46
7:D:1316:U:H2'	7:D:1317:A:H8	1.80	0.46
7:D:1472:A:C5	7:D:1473:G:C5	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1472:A:C8	7:D:1473:G:C8	3.04	0.46
7:D:1484:G:C4	7:D:1485:G:C8	3.03	0.46
7:D:1563:G:N3	7:D:1564:C:H1'	2.31	0.46
7:D:1578:U:H5'	7:D:1579:A:OP2	2.16	0.46
7:D:1655:A:N6	7:D:2005:A:O2'	2.49	0.46
7:D:1860:G:N3	7:D:1861:G:C8	2.84	0.46
7:D:532:A:OP2	7:D:2021:C:C5	2.69	0.46
7:D:2230:G:N2	7:D:2231:C:C2	2.83	0.46
7:D:2450:A:N1	7:D:2451:A:C5	2.83	0.46
7:D:2589:A:H2'	7:D:2590:A:C8	2.51	0.46
7:D:2717:G:C5	7:D:2718:G:N7	2.83	0.46
7:D:2797:U:H4'	7:D:2798:C:OP1	2.15	0.46
7:D:326:G:N3	7:D:327:G:C8	2.84	0.46
7:D:366:C:H2'	7:D:370:G:O5'	2.16	0.46
7:D:470:A:C2	7:D:471:A:N3	2.84	0.46
7:D:594:U:N3	7:D:595:C:C4	2.84	0.46
7:D:67:U:HO2'	7:D:68:G:P	2.38	0.46
7:D:716:A:N6	7:D:717:G:N3	2.60	0.46
7:D:85:G:C6	7:D:98:G:C6	3.03	0.46
15:L:17:THR:HG23	15:L:65:TYR:HE1	1.80	0.46
17:N:6:ILE:HA	17:N:97:GLU:O	2.15	0.46
22:S:39:LEU:HD22	22:S:56:LEU:HB2	1.98	0.46
23:T:43:LYS:HA	23:T:48:TRP:CD1	2.50	0.46
3:3:49:GLY:C	3:3:51:ALA:H	2.18	0.46
5:5:7:A:H61	5:5:66:U:C2'	2.29	0.46
6:A:1016:A:H3'	6:A:1017:G:C8	2.50	0.46
6:A:1045:C:H2'	6:A:1046:A:H8	1.80	0.46
6:A:1288:A:C6	6:A:1289:A:C5	3.04	0.46
6:A:1455:G:N1	6:A:1459:C:N3	2.63	0.46
6:A:1479:C:H2'	6:A:1480:G:C8	2.47	0.46
6:A:195:A:H4'	27:X:68:LYS:HZ3	1.80	0.46
6:A:11:G:H1	6:A:23:C:H42	1.64	0.46
6:A:404:U:H2'	6:A:405:U:C6	2.50	0.46
6:A:763:G:C6	6:A:764:C:C4	3.03	0.46
56:B:282:LEU:CD1	56:B:283:ALA:HB3	2.45	0.46
56:B:386:GLU:OE1	56:B:401:ARG:HD2	2.16	0.46
56:B:411:LYS:HZ2	56:B:436:VAL:CG2	2.26	0.46
7:D:1174:A:H3'	7:D:1175:U:C5'	2.46	0.46
7:D:1221:C:O2'	7:D:1222:C:OP1	2.29	0.46
7:D:1229:G:C6	7:D:1230:C:N3	2.84	0.46
7:D:1213:A:C8	7:D:1237:A:C5	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1298:C:C2	7:D:1643:G:N2	2.84	0.46
7:D:1342:A:C6	7:D:1345:C:C4	3.04	0.46
7:D:1419:A:H3'	7:D:1420:U:O2	2.16	0.46
7:D:1509:C:H5'	7:D:1510:A:C8	2.50	0.46
7:D:1910:G:C6	7:D:1921:G:C6	3.04	0.46
7:D:191:A:C2	7:D:192:C:C4	3.04	0.46
7:D:2379:G:N2	7:D:2380:C:O2	2.49	0.46
7:D:2572:A:OP2	56:B:144:ARG:O	76.95	0.46
7:D:2749:A:C6	7:D:2750:A:N6	2.83	0.46
7:D:30:G:C6	7:D:31:C:N3	2.84	0.46
7:D:453:C:H5'	7:D:454:A:OP2	2.16	0.46
7:D:452:G:H5''	7:D:453:C:P	2.56	0.46
7:D:489:G:O2'	7:D:491:G:O4'	2.34	0.46
7:D:498:G:N2	7:D:499:U:C2	2.83	0.46
7:D:607:U:OP2	7:D:619:G:N1	2.38	0.46
7:D:618(A):C:H5	7:D:619:G:C6	2.33	0.46
7:D:868:U:N3	7:D:869:G:N7	2.64	0.46
7:D:895:U:H5''	7:D:896:A:OP1	2.16	0.46
9:F:133:LYS:O	9:F:137:ARG:HG2	2.16	0.46
10:G:152:ILE:CG1	10:G:199:LYS:HB2	2.46	0.46
10:G:7:PRO:HG2	10:G:184:TYR:CD1	2.51	0.46
11:H:30:LYS:HZ2	11:H:36:ARG:HH12	1.59	0.46
12:I:79:GLU:HB3	12:I:92:LYS:HG3	1.97	0.46
19:P:16:GLU:OE1	19:P:17:LYS:N	2.49	0.46
19:P:86:ARG:HG2	19:P:99:HIS:O	2.15	0.46
20:Q:86:CYS:HB2	26:W:74:PHE:HD1	1.81	0.46
22:S:65:ARG:O	22:S:68:ARG:HB3	2.16	0.46
13:J:97:PHE:HD2	25:V:30:ASP:HA	1.81	0.46
29:Z:175:VAL:O	29:Z:185:LEU:HD23	2.16	0.46
3:3:79:ARG:HE	3:3:130:SER:HB2	1.81	0.46
5:5:5:G:C2	5:5:69:G:C2	3.04	0.46
6:A:1049:U:H6	6:A:1049:U:O5'	1.99	0.46
6:A:1187:G:N2	6:A:1188:A:N3	2.64	0.46
6:A:953:G:N2	6:A:1229:A:C4	2.84	0.46
6:A:216:G:H2'	6:A:217:C:N1	2.28	0.46
6:A:38:G:H4'	6:A:547:A:H61	1.81	0.46
6:A:519:C:C4	6:A:520:A:N7	2.84	0.46
6:A:542:G:H2'	6:A:543:C:H6	1.79	0.46
6:A:900:A:N6	6:A:901:A:C6	2.84	0.46
56:B:205:TYR:HD1	56:B:206:ASP:H	1.61	0.46
56:B:199:LEU:HB2	56:B:218:PHE:HE1	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:237:PHE:C	56:B:239:VAL:H	2.19	0.46
56:B:397:PRO:CB	56:B:401:ARG:HH21	2.28	0.46
56:B:414:ILE:CG2	56:B:416:THR:HG23	2.46	0.46
7:D:110:G:N2	7:D:111:A:C4	2.83	0.46
7:D:1239:G:H5''	7:D:1240:U:OP2	2.15	0.46
7:D:1306:C:N3	7:D:1623:G:C6	2.84	0.46
7:D:1374:G:C6	7:D:1375:C:C4	3.04	0.46
7:D:1479:G:C2'	7:D:1480:G:C8	2.99	0.46
7:D:1504:C:C6	7:D:1504:C:OP2	2.69	0.46
7:D:1562:A:C2	7:D:1563:G:C4	3.04	0.46
7:D:1609:A:N3	7:D:1609:A:H2'	2.31	0.46
7:D:1625:C:C4	7:D:1626:G:H8	2.32	0.46
7:D:1633:G:N7	7:D:1635:G:C5	2.84	0.46
7:D:1642:G:C6	7:D:1643:G:C5	3.04	0.46
7:D:1681:G:O2'	7:D:1682:G:OP1	2.27	0.46
7:D:173:G:N1	7:D:174:C:N3	2.64	0.46
7:D:1779:U:C6	7:D:1779:U:H3'	2.51	0.46
7:D:1785:A:H2'	7:D:1786:A:C8	2.51	0.46
7:D:216:A:C2	7:D:217:G:C4	3.04	0.46
7:D:2287:A:H61	7:D:2344:U:H3	1.63	0.46
7:D:247:G:C2	7:D:249:C:H1'	2.51	0.46
7:D:2542:A:OP2	7:D:2542:A:C8	2.69	0.46
7:D:2693:A:C2	7:D:2694:G:C5	3.04	0.46
7:D:2845:G:H2'	7:D:2846:G:C8	2.49	0.46
7:D:332:A:C5	7:D:335:C:C4	3.04	0.46
7:D:442:G:HO2'	7:D:444:C:H6	1.62	0.46
7:D:521:G:H2'	7:D:522:G:H8	1.80	0.46
7:D:537:C:H2'	7:D:539:G:H8	1.70	0.46
7:D:677:A:C5	7:D:678:C:C5	3.04	0.46
7:D:893:C:C2	7:D:894:C:H1'	2.51	0.46
7:D:962:G:C2	7:D:963:U:O2	2.69	0.46
8:E:69:G:N2	8:E:70:C:H1'	2.31	0.46
11:H:145:GLU:OE1	11:H:184:LYS:HD3	2.16	0.46
14:K:16:LEU:HD11	16:M:42:ARG:HD3	1.97	0.46
15:L:63:LEU:HD22	15:L:65:TYR:CE2	2.51	0.46
20:Q:2:ALA:N	20:Q:10:PRO:HD2	2.31	0.46
20:Q:25:ILE:CD1	20:Q:66:LEU:HD13	2.45	0.46
23:T:12:LYS:O	23:T:14:ASN:N	2.49	0.46
6:A:1182:G:H3'	6:A:1182:G:C8	2.51	0.45
6:A:1333:A:H2'	6:A:1334:G:O4'	2.16	0.45
6:A:503:C:O5'	6:A:503:C:H6	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:73:G:C6	6:A:74:C:N3	2.84	0.45
6:A:743:U:H2'	6:A:744:C:H6	1.80	0.45
6:A:886:G:C2	6:A:912:C:O2	2.69	0.45
6:A:973:G:H3'	6:A:974:A:H5''	1.98	0.45
56:B:111:GLN:HG2	56:B:111:GLN:H	1.49	0.45
56:B:27:ASP:OD2	56:B:41:MET:CG	2.64	0.45
56:B:575:GLU:HA	56:B:575:GLU:OE1	2.16	0.45
7:D:1035:U:C2	7:D:1036:G:N7	2.85	0.45
7:D:117:G:H3'	7:D:119:A:C8	2.50	0.45
7:D:1209:G:C2	7:D:1238:G:C6	3.04	0.45
7:D:1457:A:O2'	7:D:1459:G:H1'	2.15	0.45
7:D:1534:G:O5'	7:D:1534:G:H8	1.99	0.45
7:D:1789:A:N7	7:D:1790:C:C4	2.84	0.45
7:D:1818:U:O2'	7:D:1819:A:OP2	2.33	0.45
7:D:1862:G:H2'	7:D:1863:G:H8	1.75	0.45
7:D:186:G:C2	7:D:187:G:C4	3.04	0.45
7:D:1952:A:C6	7:D:1953:A:N1	2.85	0.45
7:D:2069:G:N1	7:D:2070:G:C5	2.84	0.45
7:D:2123:G:N2	7:D:2176:A:N1	2.64	0.45
7:D:2425:A:H1'	7:D:2427:C:C4	2.51	0.45
7:D:2495:G:H2'	7:D:2496:C:C6	2.51	0.45
7:D:2653:U:N3	7:D:2654:A:N7	2.63	0.45
7:D:270(W):G:C6	7:D:270(X):G:C2	3.04	0.45
7:D:2715:C:C6	7:D:2716:U:H5	2.33	0.45
7:D:2737:G:C2	7:D:2738:A:C4	3.04	0.45
7:D:2780:G:O2'	7:D:2781:A:H4'	2.16	0.45
7:D:2783:G:C2	7:D:2784:C:C2	3.05	0.45
7:D:2789:C:H2'	7:D:2790:A:O4'	2.17	0.45
7:D:2807:G:N2	7:D:2892:A:N6	2.64	0.45
7:D:296:C:C2	7:D:297:C:C5	3.05	0.45
7:D:357:A:C4	7:D:358:U:N3	2.84	0.45
7:D:387:U:H4'	7:D:388:G:C5	2.51	0.45
7:D:489:G:C2	7:D:491:G:N3	2.84	0.45
7:D:756:C:N4	7:D:757:U:H3	2.14	0.45
7:D:952:G:H3'	7:D:953:A:H5''	1.98	0.45
9:F:180:LEU:HD23	9:F:180:LEU:HA	1.80	0.45
9:F:45:GLN:O	9:F:48:MET:N	2.48	0.45
11:H:193:ASP:OD1	11:H:194:LEU:HD12	2.15	0.45
13:J:10:LEU:HD12	13:J:11:ASN:N	2.31	0.45
16:M:13:ALA:HB2	16:M:68:GLY:HA3	1.98	0.45
18:O:120:ARG:HA	18:O:121:PRO:HD2	1.72	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:P:27:LEU:C	19:P:29:GLY:N	2.69	0.45
20:Q:40:ASN:HB3	20:Q:43:THR:HG23	1.97	0.45
26:W:46:GLY:HA3	26:W:64:GLU:OE1	2.16	0.45
6:A:1325:C:H4'	28:Y:17:THR:HG21	1.98	0.45
3:3:12:LEU:O	3:3:54:PRO:HB3	2.16	0.45
3:3:131:ALA:O	3:3:137:GLU:HA	2.16	0.45
5:5:6:G:N2	5:5:67:C:O2	2.41	0.45
6:A:1184:G:OP1	6:A:1185:G:OP2	2.34	0.45
6:A:1309:G:H2'	6:A:1310:G:H5'	1.98	0.45
6:A:1316:G:C8	6:A:1318:A:OP2	2.69	0.45
6:A:1340:A:C6	6:A:1341:U:C4	3.04	0.45
6:A:162:A:H3'	6:A:163:C:O4'	2.16	0.45
6:A:30:U:O4	6:A:32:A:N6	2.49	0.45
6:A:376:G:C2	6:A:377:G:C5	3.05	0.45
6:A:515:G:H2'	6:A:516:U:O4'	2.17	0.45
6:A:682:G:C2	6:A:709:G:C2	3.04	0.45
56:B:133:PRO:HB2	56:B:163:ALA:HB2	1.97	0.45
56:B:317:ARG:CG	56:B:317:ARG:NH1	2.78	0.45
56:B:338:THR:HG21	56:B:502:ASP:CG	2.37	0.45
56:B:411:LYS:H	56:B:480:GLU:CD	2.20	0.45
56:B:21:GLY:HA2	57:B:701:GCP:O2A	2.16	0.45
7:D:1181:C:C4	7:D:1182:A:C5	3.04	0.45
7:D:1321:A:H8	7:D:1321:A:OP1	1.99	0.45
7:D:1363:C:O3'	7:D:1809:A:N7	2.49	0.45
7:D:1509:C:OP2	7:D:1510:A:C6	2.69	0.45
7:D:1530:G:C2	7:D:1542:G:C2	3.04	0.45
7:D:1663:C:O3'	7:D:1664:A:C8	2.70	0.45
7:D:1839:G:C4	7:D:1840:G:C8	3.04	0.45
7:D:1842:G:N2	7:D:1901:A:C4	2.84	0.45
7:D:186:G:N2	7:D:187:G:N3	2.65	0.45
7:D:221:A:O2'	7:D:222:A:OP2	2.26	0.45
7:D:2273:A:N7	7:D:2274:A:C5	2.84	0.45
7:D:2377:A:C2	7:D:2378:A:C4	3.03	0.45
7:D:2531:A:C6	7:D:2532:G:C5	3.04	0.45
7:D:2641:G:H2'	7:D:2642:G:C8	2.49	0.45
7:D:272:G:C2	7:D:273:G:C8	3.04	0.45
7:D:2779:U:HO2'	7:D:2780:G:C5'	2.29	0.45
7:D:422:A:H2'	7:D:423:A:C8	2.51	0.45
7:D:481:G:O2'	7:D:482:A:P	2.74	0.45
7:D:700:G:H2'	7:D:701:G:C8	2.51	0.45
7:D:852:G:N1	7:D:853:G:C5	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:855:G:H2'	7:D:856:C:C6	2.48	0.45
7:D:919:G:N1	7:D:920:G:N3	2.64	0.45
7:D:821:A:C8	7:D:946:G:C8	3.04	0.45
8:E:75:G:O6	8:E:76:G:C2	2.69	0.45
12:I:109:ILE:HG21	12:I:135:THR:HG21	1.98	0.45
13:J:6:VAL:HA	13:J:90:VAL:HA	1.97	0.45
14:K:24:THR:HG22	14:K:28:ASN:ND2	2.30	0.45
20:Q:54:VAL:O	20:Q:58:GLU:HG3	2.16	0.45
22:S:4:THR:OG1	22:S:7:GLU:HG2	2.16	0.45
23:T:38:TYR:OH	23:T:47:ASP:O	2.20	0.45
29:Z:186:ALA:HB1	29:Z:190:ARG:NH1	2.32	0.45
6:A:1273:G:C2	6:A:1274:G:H1'	2.51	0.45
6:A:1290:G:C6	6:A:1291:G:C5	3.05	0.45
6:A:1363:A:C5	6:A:1365:G:C2	3.04	0.45
6:A:1353:G:C2	6:A:1370:G:C2	3.04	0.45
6:A:234:C:H2'	6:A:235:C:H6	1.82	0.45
6:A:687:A:H61	6:A:701:C:H5'	1.81	0.45
6:A:825:G:C2	6:A:826:C:C2	3.04	0.45
6:A:876:G:O6	6:A:877:C:N4	2.50	0.45
6:A:946:A:H2'	6:A:947:G:H8	1.81	0.45
56:B:17:HIS:HB3	56:B:20:HIS:ND1	2.32	0.45
56:B:282:LEU:HD13	56:B:283:ALA:HB3	1.98	0.45
56:B:315:LYS:HE2	56:B:318:ASP:CB	2.44	0.45
56:B:447:ARG:O	56:B:448:VAL:HG22	2.16	0.45
56:B:497:HIS:ND1	56:B:535:VAL:CB	2.80	0.45
56:B:532:LEU:HB3	56:B:553:ALA:HB1	1.99	0.45
56:B:77:VAL:O	56:B:78:PHE:CG	2.69	0.45
7:D:1090:U:C4	7:D:1091:G:N7	2.84	0.45
7:D:1068:G:H1'	7:D:1096:A:H4'	1.99	0.45
7:D:1163:G:N2	7:D:1164:G:C4	2.84	0.45
7:D:1164:G:C2	7:D:1165:U:C2	3.04	0.45
7:D:1167:U:O4	7:D:1168:G:O6	2.34	0.45
7:D:1213:A:N7	7:D:1237:A:N7	2.64	0.45
7:D:1295:C:H2'	7:D:1296:G:C8	2.43	0.45
7:D:1302:A:H5'	7:D:1608:A:P	2.56	0.45
7:D:1324:G:C4	7:D:1328:G:O6	2.69	0.45
7:D:1519:G:N3	7:D:1519:G:H2'	2.32	0.45
7:D:1777:U:H3	7:D:1787:A:N6	2.14	0.45
7:D:2101:G:C2	7:D:2102:U:C2	3.05	0.45
7:D:2114:A:H2'	7:D:2115:G:O4'	2.17	0.45
7:D:2166:G:H1	7:D:2171:A:H2'	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2491:U:N3	7:D:2492:U:C4	2.84	0.45
7:D:2701:C:H5'	7:D:2702:U:C5'	2.46	0.45
7:D:2759:G:N2	7:D:2760:C:C2	2.85	0.45
7:D:2834:G:C4	7:D:2879:C:C4	3.04	0.45
7:D:2629:A:H2'	7:D:2895:U:O5'	2.15	0.45
7:D:28:A:N6	7:D:29:U:O2	2.49	0.45
7:D:337:C:H5''	7:D:338:G:OP2	2.17	0.45
7:D:477:A:H2'	7:D:478:A:C8	2.50	0.45
7:D:485:C:C2	7:D:486:C:C4	3.02	0.45
7:D:51:G:H22	7:D:120:U:H3	1.63	0.45
7:D:668:G:C4	7:D:670:A:N7	2.84	0.45
7:D:685:A:O4'	7:D:774:A:N6	2.50	0.45
7:D:743:G:C6	7:D:744:G:C5	3.04	0.45
7:D:748:G:C4	7:D:750:A:N7	2.84	0.45
7:D:944:G:H3'	7:D:944:G:N3	2.32	0.45
9:F:152:PHE:CE1	9:F:155:LEU:HD12	2.51	0.45
12:I:9:LYS:HG2	12:I:112:LEU:HD11	1.98	0.45
12:I:151:LEU:HB3	15:L:79:VAL:HG22	1.98	0.45
15:L:25:ASP:HB3	15:L:58:TYR:CD2	2.51	0.45
19:P:125:PRO:O	19:P:127:GLU:N	2.43	0.45
19:P:39:VAL:HG12	19:P:41:ARG:H	1.81	0.45
6:A:1307:U:OP1	20:Q:101:GLN:OE1	2.33	0.45
20:Q:102:ARG:CB	20:Q:102:ARG:NH1	2.74	0.45
20:Q:67:GLU:HG3	20:Q:68:GLY:H	1.82	0.45
20:Q:68:GLY:O	20:Q:70:LEU:N	2.48	0.45
1:1:26:ILE:HG12	1:1:33:LYS:NZ	2.31	0.45
1:1:31:LYS:HZ1	7:D:2478:A:P	2.39	0.45
3:3:33:ASN:O	3:3:63:ARG:HB2	2.17	0.45
4:4:53:G:C6	4:4:54:U:C4	3.05	0.45
6:A:1084:G:OP1	6:A:1086:U:H1'	2.16	0.45
6:A:1145:C:O2'	6:A:1147:C:N4	2.50	0.45
6:A:1175:G:H2'	6:A:1176:A:C8	2.39	0.45
6:A:1201:A:O2'	6:A:1202:G:P	2.74	0.45
6:A:1247:U:H2'	6:A:1248:A:H8	1.81	0.45
6:A:1265:G:H1'	6:A:1271:G:H22	1.82	0.45
6:A:1300:G:O2'	6:A:1303:C:N4	2.50	0.45
6:A:1305:G:HO2'	6:A:1306:A:H8	1.64	0.45
6:A:1321:C:O2'	20:Q:87:TYR:OH	2.33	0.45
6:A:1454:G:N3	6:A:1455:G:C1'	2.80	0.45
6:A:1463:C:H2'	6:A:1464:G:C8	2.48	0.45
6:A:1475:G:C2	6:A:1476:G:C8	3.03	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:267:C:OP2	24:U:67:LYS:HE2	2.16	0.45
6:A:714:G:C4	6:A:715:A:C8	3.03	0.45
6:A:837:G:H2'	6:A:838:G:H5'	1.96	0.45
56:B:131:ILE:C	56:B:132:ILE:HG13	2.37	0.45
56:B:152:VAL:HG13	56:B:156:LEU:CG	2.46	0.45
56:B:16:ALA:H	56:B:22:LYS:HZ2	1.64	0.45
56:B:435:LEU:HD12	56:B:452:TYR:CE1	2.49	0.45
56:B:502:ASP:HB3	56:B:504:LEU:CD1	2.46	0.45
56:B:493:ASN:C	56:B:540:ALA:O	2.54	0.45
56:B:541:ILE:HG13	56:B:546:ILE:HD12	1.96	0.45
56:B:137:LYS:HZ2	57:B:701:GCP:H1'	1.81	0.45
7:D:1023:U:C4	7:D:1024:G:N3	2.84	0.45
7:D:1063:G:N1	7:D:1064:C:N3	2.64	0.45
7:D:109:G:C6	7:D:110:G:N7	2.85	0.45
7:D:1171:G:H3'	7:D:1173:G:C5'	2.47	0.45
7:D:1453:A:H3'	7:D:1454:U:C5'	2.45	0.45
7:D:1785:A:H2'	7:D:1786:A:C4	2.51	0.45
7:D:1778:U:N3	7:D:1787:A:C2	2.83	0.45
7:D:1921:G:H2'	7:D:1922:G:O4'	2.15	0.45
7:D:1766:U:C2	7:D:1987:G:N2	2.84	0.45
7:D:198:C:N4	7:D:248:G:O6	2.50	0.45
7:D:2080:G:C5	7:D:2081:C:C5	3.04	0.45
7:D:2134:A:H5'	7:D:2158:A:OP2	2.16	0.45
7:D:2259:G:C6	7:D:2260:C:C4	3.05	0.45
7:D:2333:A:C8	7:D:2335:A:N1	2.84	0.45
7:D:2447:G:H3'	7:D:2500:U:OP2	2.17	0.45
7:D:270(F):U:OP2	7:D:270(F):U:C6	2.70	0.45
7:D:374:A:C8	7:D:375:C:C5	3.05	0.45
7:D:383:U:O2	7:D:385:C:N4	2.50	0.45
7:D:464:U:C2	7:D:788:A:C6	3.04	0.45
7:D:485:C:C2	7:D:496:G:N2	2.84	0.45
7:D:623:G:C2	7:D:624:C:O2	2.70	0.45
7:D:875:G:H2'	7:D:876:C:C6	2.52	0.45
7:D:900:A:C8	7:D:901:A:H1'	2.51	0.45
7:D:950:G:C4	7:D:968:G:N2	2.84	0.45
8:E:30:C:N4	8:E:31:C:O2	2.49	0.45
11:H:141:ARG:HB3	11:H:144:ASP:HB2	1.99	0.45
11:H:68:TYR:HA	11:H:114:ARG:NH1	2.31	0.45
17:N:16:LEU:HD23	17:N:94:VAL:HG22	1.97	0.45
24:U:29:HIS:CG	24:U:30:PRO:HD2	2.52	0.45
27:X:30:LYS:NZ	27:X:80:ARG:HH22	2.13	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:Z:195:ALA:HA	29:Z:198:ALA:HB3	1.98	0.45
29:Z:49:ILE:HB	29:Z:56:GLN:OE1	2.16	0.45
3:3:20:ALA:N	3:3:21:PRO:CD	2.80	0.45
4:4:21:A:N7	4:4:46:G:C6	2.84	0.45
4:4:63:G:C2	4:4:64:G:C4	3.04	0.45
6:A:1076:C:C2	6:A:1082:G:C2	3.04	0.45
6:A:1224:G:N2	6:A:1362(A):C:N3	2.65	0.45
6:A:324:G:N2	6:A:327:A:C8	2.85	0.45
6:A:411:A:C6	6:A:429:U:C4	3.04	0.45
6:A:439:A:N7	6:A:496:A:C2	2.85	0.45
6:A:438:G:N1	6:A:495:A:OP2	2.50	0.45
6:A:495:A:O4'	6:A:496:A:H8	2.00	0.45
6:A:53:A:H2'	6:A:54:C:O4'	2.16	0.45
6:A:69:G:C6	6:A:101:A:N1	2.85	0.45
6:A:750:G:C2	6:A:751:U:C2	3.05	0.45
6:A:80:G:N2	6:A:89:U:C2	2.80	0.45
6:A:842:C:H6	6:A:842:C:O5'	1.99	0.45
6:A:851:G:C6	6:A:852:G:C6	3.04	0.45
56:B:230:ILE:CD1	56:B:279:THR:HG22	2.47	0.45
7:D:1943:U:OP1	56:B:532:LEU:HD21	2.16	0.45
7:D:1072:C:H42	7:D:1100:C:H41	1.63	0.45
7:D:108:U:O2'	7:D:348:G:N2	2.40	0.45
7:D:1348:G:C6	7:D:1349:A:N7	2.85	0.45
7:D:1419:A:N6	7:D:1421:G:C2	2.85	0.45
7:D:1592:C:H2'	7:D:1593:G:H8	1.81	0.45
7:D:1622:G:H2'	7:D:1623:G:H8	1.82	0.45
7:D:1363:C:O3'	7:D:1809:A:N6	2.49	0.45
7:D:1363:C:H4'	7:D:1809:A:N7	2.32	0.45
7:D:1814:G:C8	7:D:1815:A:C8	3.05	0.45
7:D:2124:G:C6	7:D:2125:G:N2	2.84	0.45
7:D:2179:C:H5''	7:D:2179:C:H6	1.82	0.45
7:D:2234:G:C6	7:D:2235:G:C5	3.05	0.45
7:D:2302:G:N3	7:D:2303:G:C8	2.84	0.45
7:D:2320:A:H1'	7:D:2333:A:C6	2.52	0.45
7:D:2456:C:H5	7:D:2457:U:C4	2.35	0.45
7:D:2458:G:H2'	7:D:2490:G:O6	2.16	0.45
7:D:2485:G:H2'	7:D:2486:G:H8	1.82	0.45
7:D:2537:U:H2'	7:D:2538:C:C6	2.51	0.45
7:D:2579:C:N4	7:D:2580:U:C4	2.84	0.45
7:D:270(I):G:C2	7:D:270(J):G:H1'	2.51	0.45
7:D:2791:C:C4	7:D:2792:G:C6	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:67:U:H1'	7:D:88:G:N2	2.31	0.45
7:D:841:A:C6	7:D:842:G:C5	3.05	0.45
7:D:971:C:C5	7:D:972:G:C5	3.05	0.45
8:E:40:U:N3	8:E:43:C:OP2	2.50	0.45
8:E:53:A:C5	8:E:54:G:C8	3.04	0.45
9:F:69:LEU:HD12	9:F:92:TYR:HA	1.99	0.45
11:H:3:ARG:HH12	11:H:70:ILE:CD1	2.29	0.45
12:I:24:ARG:O	12:I:26:PHE:HD2	2.00	0.45
14:K:145:ALA:O	14:K:147:ALA:N	2.45	0.45
6:A:1381:U:N1	14:K:78:ARG:NH1	2.65	0.45
15:L:36:LEU:HD12	15:L:37:ARG:N	2.31	0.45
16:M:33:PHE:HD2	16:M:34:ASN:ND2	2.14	0.45
18:O:120:ARG:NH2	18:O:126:ARG:NH1	2.64	0.45
19:P:60:LEU:HD11	19:P:64:TYR:HB2	1.97	0.45
7:D:2123:G:N2	29:Z:215:THR:HG21	2.32	0.45
2:2:126:ALA:O	2:2:130:THR:N	2.50	0.45
3:3:24:GLY:C	56:B:440:TYR:CZ	2.90	0.45
3:3:39:LYS:O	3:3:43:ALA:N	2.37	0.45
3:3:84:LEU:HD23	3:3:96:VAL:HG12	1.97	0.45
3:3:87:GLY:HA2	3:3:92:GLY:H	1.81	0.45
5:5:5:G:H2'	5:5:6:G:H8	1.82	0.45
6:A:1054:C:OP1	6:A:1198:G:OP2	2.34	0.45
6:A:1325:C:H2'	6:A:1326:C:C6	2.51	0.45
6:A:1350:A:C5	6:A:1351:U:C4	3.04	0.45
6:A:1423:G:C6	6:A:1424:C:C4	3.05	0.45
6:A:174:C:H2'	6:A:175:C:O4'	2.17	0.45
6:A:185:A:C6	6:A:186:C:C4	3.04	0.45
6:A:129(A):G:N2	6:A:191(A):G:C8	2.84	0.45
6:A:199:G:N2	6:A:200:G:C2	2.85	0.45
6:A:600:C:N3	6:A:639:G:C6	2.84	0.45
6:A:675:A:C4	6:A:676:A:C8	3.04	0.45
6:A:687:A:H4'	6:A:688:G:O5'	2.17	0.45
6:A:575:G:N2	6:A:881:G:C4	2.85	0.45
56:B:101:GLU:O	56:B:101:GLU:HG3	2.16	0.45
56:B:205:TYR:CD1	56:B:206:ASP:N	2.82	0.45
19:P:80:HIS:HD2	56:B:316:LEU:CB	2.27	0.45
56:B:34:HIS:O	56:B:35:ALA:HB3	2.17	0.45
56:B:305:LEU:HD12	56:B:369:LEU:HD23	1.90	0.45
56:B:401:ARG:HA	56:B:401:ARG:HD3	1.76	0.45
56:B:95:ARG:HE	56:B:294:PHE:HZ	1.62	0.45
7:D:1030:G:C6	7:D:1031:G:C5	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1078:U:C6	7:D:1078:U:OP2	2.70	0.45
7:D:1171:G:H3'	7:D:1173:G:H4'	1.97	0.45
7:D:1182:A:C5	7:D:1183:G:N7	2.84	0.45
7:D:1236:G:HO2'	7:D:1237:A:P	2.40	0.45
7:D:1342:A:C5	7:D:1345:C:C4	3.05	0.45
7:D:1353:A:C8	7:D:1377:G:N2	2.85	0.45
7:D:1443:G:C4	7:D:1444:G:C8	3.04	0.45
7:D:1455:G:OP2	7:D:1456:G:P	2.73	0.45
7:D:1496:A:N3	7:D:1496:A:H2'	2.32	0.45
7:D:1497:U:OP2	7:D:1498:C:H5	1.99	0.45
7:D:1510:A:N7	7:D:1511:A:N6	2.65	0.45
7:D:1472:A:H61	7:D:1518:C:N4	2.14	0.45
7:D:1627:G:C4	7:D:1640:C:N3	2.85	0.45
7:D:1650:G:N1	7:D:1651:G:C5	2.85	0.45
7:D:1897:G:N2	7:D:1898:U:O2	2.50	0.45
7:D:1956:U:C4	7:D:1957:C:N4	2.84	0.45
7:D:2095:C:C4	7:D:2096:U:C4	3.04	0.45
7:D:2115:G:H5''	7:D:2116:G:OP2	2.16	0.45
7:D:2335:A:C6	7:D:2337:G:C4	3.05	0.45
7:D:411:G:N2	7:D:2408:U:C4	2.78	0.45
7:D:2536:G:C5	7:D:2537:U:C5	3.04	0.45
7:D:2693:A:H2'	7:D:2694:G:C8	2.50	0.45
7:D:270(F):U:H6	7:D:270(F):U:OP2	1.99	0.45
7:D:2882:A:N6	7:D:2883:A:N7	2.65	0.45
7:D:376:C:N3	7:D:377:C:C4	2.84	0.45
7:D:452:G:N2	7:D:458:G:N3	2.64	0.45
7:D:579:G:N2	7:D:580:C:O2	2.49	0.45
7:D:599:G:N2	7:D:659:C:C2	2.85	0.45
7:D:667:U:C4	7:D:668:G:N7	2.84	0.45
7:D:730:C:H5''	7:D:763:G:OP1	2.17	0.45
9:F:32:ILE:CD1	9:F:40:HIS:HB3	2.47	0.45
9:F:7:VAL:HG23	9:F:8:LYS:H	1.82	0.45
11:H:2:GLY:O	11:H:4:TYR:N	2.45	0.45
12:I:17:ALA:HA	12:I:26:PHE:HB3	1.99	0.45
16:M:2:GLU:O	16:M:21:PRO:HD2	2.17	0.45
17:N:44:VAL:HG11	17:N:46:ARG:CZ	2.47	0.45
17:N:42:THR:HG23	17:N:67:THR:O	2.17	0.45
24:U:56:VAL:HB	24:U:78:GLU:HB3	1.97	0.45
25:V:88:LYS:HG2	25:V:88:LYS:OXT	2.16	0.45
29:Z:43:VAL:HG23	29:Z:175:VAL:CG2	2.47	0.45
29:Z:42:GLU:CD	29:Z:71:GLN:HE22	2.18	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:4:75:C:O5'	4:4:76:A:OP2	2.35	0.45
5:5:1:G:C2	5:5:72:C:N3	2.84	0.45
6:A:1046:A:H2'	6:A:1046:A:N3	2.32	0.45
6:A:1116:C:C4	6:A:1117:G:C8	3.05	0.45
6:A:130:A:O2'	6:A:131:C:O5'	2.28	0.45
6:A:1345:U:C2	6:A:1377:A:N1	2.85	0.45
6:A:1384:C:H2'	6:A:1385:G:C8	2.51	0.45
6:A:1419:G:N1	6:A:1420:C:O2	2.50	0.45
6:A:1452:C:H1'	6:A:1453:G:N1	2.31	0.45
6:A:29:G:H1	6:A:554:C:N4	2.14	0.45
6:A:456:C:C2	6:A:477:G:N2	2.84	0.45
6:A:511:C:N3	6:A:512:U:C4	2.85	0.45
6:A:593:G:C2	6:A:594:G:C4	3.04	0.45
6:A:709:G:C2	6:A:710:G:N7	2.84	0.45
6:A:80:G:O2'	6:A:81:G:H5'	2.17	0.45
6:A:907:A:N6	6:A:908:A:N1	2.63	0.45
56:B:166:ALA:HB1	56:B:172:GLU:CG	2.27	0.45
56:B:493:ASN:CA	56:B:540:ALA:O	2.65	0.45
56:B:47:ASP:CG	56:B:53:ARG:HD2	2.37	0.45
56:B:567:VAL:O	56:B:567:VAL:HG12	2.17	0.45
7:D:1034:G:C2	7:D:1035:U:C2	3.05	0.45
7:D:1092:C:OP2	7:D:1092:C:C6	2.69	0.45
7:D:1042:G:N3	7:D:1113:U:N3	2.64	0.45
7:D:974:G:C6	7:D:1186:G:O6	2.70	0.45
7:D:565:C:H4'	7:D:1253:A:C6	2.52	0.45
7:D:1278:A:H61	7:D:1292:U:H3	1.63	0.45
7:D:1613:G:N1	7:D:1619:G:C5	2.84	0.45
7:D:1627:G:C2	7:D:1628:G:C8	3.04	0.45
7:D:16:G:C2	7:D:17:G:C8	3.05	0.45
7:D:1860:G:C4	7:D:1861:G:N7	2.85	0.45
7:D:2104:G:C6	7:D:2105:C:N3	2.85	0.45
7:D:2094:G:H1	7:D:2195:C:N4	2.15	0.45
7:D:2332:U:H5''	7:D:2333:A:OP2	2.17	0.45
7:D:2444:G:H8	7:D:2444:G:H5''	1.81	0.45
7:D:2489:G:C6	7:D:2490:G:N1	2.85	0.45
7:D:2627:G:N2	7:D:2777:G:C4	2.85	0.45
7:D:270(V):G:C4	7:D:270(W):G:N7	2.85	0.45
7:D:2740:A:N6	7:D:2764:A:C4	2.84	0.45
7:D:285:C:H2'	7:D:286:C:H6	1.81	0.45
7:D:329:G:OP2	7:D:329:G:O4'	2.35	0.45
7:D:363(F):A:C4	7:D:364:C:H1'	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:513:A:C2	7:D:514:A:C4	3.05	0.45
7:D:609:A:H61	7:D:618(A):C:N4	2.14	0.45
7:D:690:G:N2	7:D:773:U:C2	2.85	0.45
7:D:819:A:C2	7:D:820:A:C4	3.05	0.45
7:D:829:A:C8	7:D:2248:C:H5'	2.51	0.45
7:D:993:G:C5	7:D:994:C:C5	3.05	0.45
8:E:100:G:C2	8:E:101:A:C4	3.05	0.45
8:E:9:G:C2	8:E:112:G:C4	3.04	0.45
8:E:40:U:C2	8:E:43:C:OP2	2.69	0.45
8:E:66:A:O2'	8:E:67:G:OP2	2.29	0.45
10:G:58:GLU:HB2	10:G:65:ALA:HB3	1.99	0.45
11:H:143:GLY:HA2	11:H:185:PHE:HB3	1.98	0.45
12:I:15:ARG:HG3	12:I:28:PHE:HE1	1.82	0.45
14:K:5:ARG:NH1	14:K:7:ALA:HA	2.31	0.45
16:M:110:GLU:OE1	16:M:119:ALA:HB1	2.16	0.45
18:O:32:ILE:O	18:O:40:ILE:HD12	2.17	0.45
18:O:66:LEU:C	18:O:70:LYS:HZ3	2.20	0.45
24:U:21:VAL:CG2	24:U:42:TYR:HB2	2.47	0.45
26:W:16:LEU:C	26:W:20:LEU:HD13	2.36	0.45
29:Z:44:HIS:HB2	29:Z:213:TYR:CD2	2.52	0.45
1:1:35:ARG:NH1	7:D:2742:C:OP1	2.50	0.45
3:3:102:GLU:O	3:3:106:GLU:OE2	2.35	0.45
6:A:1179:A:H8	6:A:1179:A:P	2.39	0.45
6:A:181:G:N1	6:A:194:C:C2	2.85	0.45
6:A:374:A:C2	6:A:375:U:C2	3.05	0.45
6:A:495:A:N6	11:H:119:GLN:HE22	2.13	0.45
6:A:516:U:H3'	6:A:517:G:H8	1.80	0.45
6:A:592:G:C6	6:A:648:A:C6	3.05	0.45
6:A:664:G:HO2'	6:A:666:G:P	2.27	0.45
6:A:874:G:C2	6:A:875:C:C2	3.05	0.45
6:A:918:A:H2'	6:A:919:A:C8	2.51	0.45
56:B:121:PHE:CZ	56:B:157:GLY:HA2	2.37	0.45
56:B:196:LEU:HA	56:B:219:GLU:O	2.16	0.45
56:B:265:VAL:HG13	56:B:266:ALA:N	2.32	0.45
56:B:536:PRO:HB2	56:B:550:THR:HG22	1.88	0.45
7:D:1024:G:O6	7:D:1025:G:C6	2.69	0.45
7:D:1061:U:H2'	7:D:1061:U:P	2.57	0.45
7:D:1168:G:H2'	7:D:1169:G:O5'	2.17	0.45
7:D:1274:A:C6	7:D:1302:A:C2	3.05	0.45
7:D:1281:G:N2	7:D:1290:C:C2	2.85	0.45
7:D:1336:A:H2'	7:D:1337:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1664:A:N7	7:D:1664:A:OP2	2.50	0.45
7:D:1819:A:H4'	7:D:1820:U:C5'	2.45	0.45
7:D:2049:G:O2'	7:D:2050:C:OP1	2.32	0.45
7:D:2106:G:C4	7:D:2108:C:C2	3.04	0.45
7:D:2166:G:H2'	7:D:2167:U:C6	2.52	0.45
7:D:2168:G:H22	7:D:2170:A:H2'	1.81	0.45
7:D:270(I):G:O6	7:D:270(Q):C:N4	2.35	0.45
7:D:2712:U:OP1	7:D:2714:G:H4'	2.16	0.45
7:D:2744:G:N7	7:D:2755:C:H1'	2.32	0.45
7:D:2814:C:N4	7:D:2886:G:H1	2.13	0.45
7:D:421:U:O2'	7:D:422:A:P	2.74	0.45
7:D:498:G:H5''	7:D:499:U:OP2	2.16	0.45
7:D:529:A:O2'	7:D:530:G:O5'	2.27	0.45
7:D:612:G:N3	7:D:615:G:N2	2.65	0.45
7:D:684:G:O3'	7:D:686:G:N2	2.50	0.45
7:D:957:A:H8	7:D:957:A:O5'	1.99	0.45
8:E:24:G:O2'	8:E:27:C:N4	2.50	0.45
8:E:46:A:H2'	8:E:47:C:O4'	2.17	0.45
10:G:6:HIS:HD2	10:G:8:ILE:CG2	2.29	0.45
11:H:185:PHE:CZ	11:H:188:LEU:HA	2.46	0.45
11:H:190:ASP:O	11:H:192:GLU:N	2.47	0.45
13:J:14:LEU:HD11	13:J:18:GLN:HB3	1.98	0.45
16:M:73:GLN:O	16:M:77:ILE:HG13	2.17	0.45
6:A:718:G:O5'	18:O:117:ASN:ND2	2.49	0.45
25:V:29:PHE:CD2	25:V:31:LEU:HD12	2.51	0.45
25:V:38:GLU:OE1	25:V:38:GLU:N	2.43	0.45
6:A:719:C:O2'	25:V:49:LYS:HD2	2.17	0.45
26:W:29:ARG:HE	26:W:29:ARG:H	1.63	0.45
29:Z:38:ASP:CG	29:Z:177:LYS:HD3	2.03	0.45
2:2:62:ALA:O	2:2:66:LEU:N	2.49	0.45
6:A:1057:G:C6	6:A:1058:G:C4	3.04	0.45
6:A:1058:G:C6	6:A:1059:C:C4	3.05	0.45
6:A:1248:A:C6	6:A:1290:G:C6	3.05	0.45
6:A:941:G:C2	6:A:1343:G:C2	3.05	0.45
6:A:1447:G:P	6:A:1447:G:H8	2.39	0.45
6:A:1489:G:C2	6:A:1490:C:O2	2.70	0.45
6:A:1520:G:N1	6:A:1521:G:C5	2.85	0.45
6:A:154:C:C2	6:A:168:G:C2	3.05	0.45
6:A:456:C:N1	6:A:477:G:N2	2.65	0.45
6:A:566:G:H4'	6:A:567:G:OP1	2.16	0.45
6:A:701:C:C4	6:A:703:G:N2	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:898:G:C2	6:A:902:G:C6	3.05	0.45
56:B:396:LEU:O	56:B:491:LYS:NZ	2.48	0.45
56:B:555:ARG:CG	56:B:556:LYS:H	2.30	0.45
56:B:64:VAL:HG23	56:B:64:VAL:O	2.17	0.45
7:D:1000:A:OP2	7:D:1154:G:C6	2.69	0.45
7:D:1174:A:C2'	7:D:1175:U:C5	2.88	0.45
7:D:1281:G:C5	7:D:1282:U:C4	3.04	0.45
7:D:1395:A:N1	7:D:1398:C:C2	2.85	0.45
7:D:1450:C:O3'	7:D:1451:C:H4'	2.16	0.45
7:D:1513:C:OP2	7:D:1513:C:H6	2.00	0.45
7:D:1579:A:C5'	7:D:1580:A:N7	2.77	0.45
7:D:1641:A:C8	7:D:1642:G:C8	3.04	0.45
7:D:1675:C:N4	7:D:1676:A:C2	2.85	0.45
7:D:1716:U:O2	7:D:1743:G:C6	2.70	0.45
7:D:151:C:H42	7:D:175:G:H1	1.64	0.45
7:D:1798:U:C4	7:D:1819:A:C2	3.05	0.45
7:D:2033:A:O2'	7:D:2034:U:P	2.75	0.45
7:D:2135:A:O5'	7:D:2159:G:O2'	2.35	0.45
7:D:216:A:C5	7:D:432:A:C6	3.04	0.45
7:D:2218:G:C2	7:D:2219:G:C5	3.05	0.45
7:D:2377:A:H2'	7:D:2378:A:C8	2.52	0.45
7:D:2411:A:H2'	7:D:2412:A:H8	1.82	0.45
7:D:2067:G:C4	7:D:2444:G:N2	2.85	0.45
7:D:244:A:C2	7:D:255:A:C4	3.05	0.45
1:1:6:SER:OG	7:D:2466:C:H5''	2.17	0.45
7:D:2499:C:H5'	7:D:2500:U:OP2	2.16	0.45
7:D:270(J):G:N2	7:D:270(P):C:O2	2.28	0.45
7:D:2792:G:H2'	7:D:2793:G:H8	1.81	0.45
7:D:26:G:C6	7:D:27:G:C2	3.05	0.45
7:D:375:C:N3	7:D:399:G:N2	2.52	0.45
7:D:390:A:N3	7:D:390:A:H2'	2.32	0.45
7:D:491:G:N7	7:D:492:A:N7	2.65	0.45
7:D:549:G:H2'	7:D:550:G:O4'	2.17	0.45
7:D:704:G:C6	7:D:726:G:C6	3.05	0.45
7:D:748:G:C2	7:D:750:A:N6	2.84	0.45
7:D:844:C:H3'	7:D:845:G:C8	2.52	0.45
8:E:23:G:H1	8:E:60:C:H42	1.64	0.45
8:E:64:C:H2'	8:E:65:C:C6	2.51	0.45
9:F:95:GLN:HA	9:F:96:ARG:NH1	2.32	0.45
7:D:2406:U:C5	11:H:65:ARG:HB3	169.08	0.45
7:D:1251:C:OP1	16:M:10:ARG:HG3	174.22	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:Q:25:ILE:HG23	20:Q:29:ARG:CG	2.46	0.45
26:W:40:ILE:HB	26:W:67:VAL:C	2.37	0.45
28:Y:10:ARG:HA	28:Y:13:ILE:CG2	2.47	0.45
29:Z:42:GLU:H	29:Z:214:VAL:CG1	2.29	0.45
1:1:36:GLN:NE2	7:D:1124:C:H1'	2.32	0.45
5:5:18:G:N2	5:5:55:U:H6	2.15	0.45
5:5:74:C:O2'	5:5:75:C:OP1	2.24	0.45
6:A:1104:G:C3'	9:F:111:ARG:HH21	2.30	0.45
6:A:1386:G:H2'	6:A:1387:G:H8	1.81	0.45
6:A:1452:C:O4'	6:A:1453:G:C2	2.71	0.45
6:A:1447:G:C2	6:A:1460:A:N3	2.85	0.45
6:A:163:C:C4	6:A:164:U:C4	3.05	0.45
6:A:21:G:H21	6:A:914:A:H62	1.65	0.45
6:A:44:G:N3	6:A:399:G:N2	2.65	0.45
6:A:479:C:OP2	6:A:479:C:C5	2.70	0.45
6:A:57:G:H2'	6:A:58:C:H6	1.81	0.45
6:A:737:A:H2'	6:A:738:C:C6	2.52	0.45
6:A:773:G:C2	6:A:774:G:C5	3.05	0.45
6:A:80:G:N2	6:A:90:C:C2	2.85	0.45
6:A:849:C:C5	6:A:850:U:O4	2.70	0.45
6:A:92:G:C4	6:A:93:U:C5	3.05	0.45
56:B:118:LEU:HA	56:B:118:LEU:HD23	1.83	0.45
56:B:36:VAL:CG2	56:B:248:GLN:HE21	2.24	0.45
7:D:1037:G:C2	7:D:1038:C:C2	3.05	0.45
7:D:1056:G:O6	7:D:1101:U:H5''	2.16	0.45
7:D:1072:C:OP2	7:D:1073:A:OP1	2.35	0.45
7:D:1106:G:H5''	7:D:1107:G:OP2	2.17	0.45
7:D:1354:A:N7	7:D:1355:G:C4	2.85	0.45
7:D:1344:G:C2	7:D:1385:G:C8	3.05	0.45
7:D:154:G:C6	7:D:155:C:N4	2.84	0.45
7:D:1594:G:C4	7:D:1595:G:C8	3.04	0.45
7:D:1682:G:H5''	7:D:1683:C:OP2	2.17	0.45
7:D:764:A:N6	7:D:1775:U:H3	2.02	0.45
7:D:2335:A:H2'	7:D:2336:A:H3'	1.99	0.45
7:D:2362:G:N2	7:D:2363:C:O2	2.50	0.45
7:D:2510:C:C4	7:D:2511:U:N3	2.84	0.45
7:D:2521:C:HO2'	7:D:2564:A:HO2'	1.65	0.45
7:D:2572:A:C2'	7:D:2573:C:OP2	2.65	0.45
7:D:270(I):G:C2	7:D:270(R):G:C5	3.05	0.45
7:D:2837:G:C2	7:D:2838:G:C8	3.05	0.45
7:D:373:U:HO2'	7:D:374:A:P	2.38	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:509:C:O2'	7:D:510:C:H5'	2.16	0.45
7:D:696:G:C2	7:D:767:U:O2	2.69	0.45
7:D:922:U:O2	7:D:923:C:N3	2.48	0.45
7:D:926:A:C2'	7:D:928:G:C8	3.00	0.45
7:D:948:G:H2'	7:D:949:C:O4'	2.16	0.45
7:D:974:G:OP2	7:D:974(A):C:C5'	2.65	0.45
17:N:7:LYS:HA	17:N:71:LEU:CD2	2.46	0.45
20:Q:80:ARG:HH11	20:Q:80:ARG:HG3	1.81	0.45
6:A:761:G:P	24:U:102:GLY:HA3	2.57	0.45
6:A:1320:C:H5''	26:W:70:LYS:HZ2	0.49	0.45
26:W:51:VAL:HG11	26:W:75:ALA:CB	2.47	0.45
27:X:53:LEU:O	27:X:57:ARG:HG3	2.17	0.45
3:3:134:MET:HE2	3:3:136:VAL:HB	1.99	0.44
6:A:122:G:N1	6:A:123:C:C2	2.85	0.44
6:A:1378:C:O3'	14:K:6:ARG:NH1	2.48	0.44
6:A:1399:C:N3	6:A:1401:G:C2	2.85	0.44
6:A:1433:A:H5''	6:A:1434:A:OP2	2.16	0.44
6:A:172:A:H5''	6:A:173:U:OP2	2.17	0.44
6:A:286:G:C2	6:A:287:U:C2	3.05	0.44
6:A:443:C:O2	6:A:491:G:N1	2.47	0.44
6:A:464:G:OP2	6:A:465:A:C4	2.70	0.44
6:A:503:C:O5'	6:A:503:C:C6	2.71	0.44
6:A:577:G:H2'	6:A:578:C:H6	1.83	0.44
6:A:583:A:H2	6:A:759:A:C4	2.35	0.44
6:A:597:G:H5''	6:A:598:U:OP2	2.18	0.44
6:A:666:G:C5	6:A:667:G:N7	2.85	0.44
6:A:977:A:O2'	6:A:979:C:OP2	2.29	0.44
56:B:131:ILE:HG22	56:B:132:ILE:N	2.32	0.44
56:B:241:LYS:CG	56:B:242:VAL:N	2.80	0.44
56:B:280:ILE:CG2	56:B:281:THR:H	2.07	0.44
56:B:328:ALA:O	56:B:330:LEU:CD1	2.66	0.44
56:B:40:GLU:HG2	56:B:41:MET:H	1.82	0.44
7:D:1034:G:C6	7:D:1035:U:C4	3.05	0.44
7:D:1137:G:H5''	7:D:1138:G:OP2	2.17	0.44
7:D:1221:C:HO2'	7:D:1222:C:P	2.40	0.44
7:D:1296:G:N2	7:D:1297:C:C2	2.85	0.44
7:D:1447:G:C2	7:D:1448:G:C4	3.05	0.44
7:D:1492:G:N3	7:D:1493:C:C4	2.85	0.44
7:D:1538:G:C6	7:D:1539:G:C6	3.06	0.44
7:D:1589:C:C4	7:D:1590:U:O4	2.70	0.44
7:D:1821:A:C6	7:D:1822:G:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1847:A:C6	7:D:1890:A:OP2	2.65	0.44
7:D:1900:A:HO2'	7:D:1901:A:P	2.41	0.44
7:D:2027:G:C2	7:D:2037:G:C2	3.05	0.44
7:D:2105:C:HO2'	7:D:2106:G:H5'	1.82	0.44
7:D:2230:G:C2	7:D:2231:C:C2	3.04	0.44
7:D:2671:A:H2'	7:D:2672:G:H8	1.82	0.44
7:D:270(X):G:C6	7:D:270(Y):G:C4	3.05	0.44
7:D:2744:G:C2	7:D:2761:G:C4	3.05	0.44
7:D:301:G:H1	7:D:316:C:N4	2.14	0.44
7:D:309:G:C6	7:D:330:A:C6	3.05	0.44
7:D:354:G:C6	7:D:355:G:C6	3.04	0.44
7:D:492:A:C5	7:D:493:G:C8	3.05	0.44
7:D:541:C:H5''	7:D:541:C:H6	1.83	0.44
7:D:558:G:C6	7:D:559:G:O6	2.70	0.44
7:D:648:G:HO2'	7:D:649:G:H5'	1.83	0.44
7:D:740:U:O5'	7:D:1784:A:C6	2.70	0.44
7:D:763:G:C2	7:D:765:G:C4	3.04	0.44
7:D:838:C:H2'	7:D:839:U:H6	1.82	0.44
7:D:974:G:OP2	7:D:974(A):C:P	2.74	0.44
11:H:20:TYR:HA	11:H:31:CYS:SG	2.56	0.44
11:H:22:LYS:HB3	11:H:26:CYS:HB2	1.98	0.44
13:J:69:GLU:O	13:J:72:VAL:HG13	2.16	0.44
17:N:47:PHE:CE1	21:R:44:LEU:HD21	2.51	0.44
21:R:21:TYR:OH	21:R:23:ARG:NH2	2.49	0.44
23:T:45:THR:OG1	23:T:48:TRP:HB3	2.17	0.44
6:A:127:G:N2	24:U:61:GLU:OE2	2.49	0.44
4:4:9:G:N2	4:4:45:G:C5	2.86	0.44
6:A:123:C:H2'	6:A:124:G:C8	2.51	0.44
6:A:1480:G:C6	6:A:1481:U:N3	2.85	0.44
6:A:14:U:N3	6:A:17:U:OP2	2.40	0.44
6:A:328:C:H4'	6:A:329:A:C5'	2.48	0.44
6:A:512:U:H2'	6:A:513:C:H6	1.82	0.44
6:A:635:G:C6	6:A:636:U:C4	3.04	0.44
6:A:663:A:H2'	6:A:664:G:H8	1.82	0.44
6:A:708:C:H2'	6:A:709:G:H8	1.83	0.44
6:A:717:C:N4	6:A:734:G:N7	2.65	0.44
6:A:764:C:H2'	6:A:765:G:C8	2.53	0.44
6:A:85:U:C6	6:A:85:U:O5'	2.71	0.44
6:A:85:U:C2'	6:A:86:U:C5'	2.87	0.44
6:A:90:C:C2'	6:A:91:C:C6	2.86	0.44
56:B:106:VAL:HG11	56:B:136:ASN:ND2	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:13:SER:HB2	56:B:97:LEU:HD21	2.00	0.44
56:B:16:ALA:N	56:B:22:LYS:CE	2.74	0.44
56:B:197:LYS:HA	56:B:281:THR:HG22	1.54	0.44
56:B:33:THR:HG21	56:B:69:ARG:CG	2.47	0.44
56:B:383:LYS:N	56:B:402:ILE:CB	2.78	0.44
56:B:490:VAL:HB	56:B:508:ALA:C	2.36	0.44
56:B:338:THR:CG2	56:B:502:ASP:CG	2.86	0.44
56:B:530:ARG:HB3	56:B:533:PHE:HD2	1.83	0.44
7:D:1024:G:C6	7:D:1139:G:N1	2.76	0.44
7:D:1041:C:O2	7:D:1115:G:C6	2.70	0.44
7:D:1047:G:C5	7:D:1110:G:C6	3.05	0.44
7:D:1015:G:O6	7:D:1148:A:N6	2.50	0.44
7:D:1171:G:C5	7:D:1173:G:O2'	2.70	0.44
7:D:1255:U:H5'	7:D:1256:G:H5''	2.00	0.44
7:D:1278:A:H2'	7:D:1279:G:C8	2.53	0.44
7:D:1363:C:C5'	7:D:1809:A:H62	2.29	0.44
7:D:1410:G:C6	7:D:1593:G:C6	3.04	0.44
7:D:1485:G:C6	7:D:1486:A:N6	2.85	0.44
7:D:1588:C:C6	7:D:1588:C:O5'	2.70	0.44
7:D:1717:G:O5'	7:D:1717:G:H8	2.00	0.44
7:D:1764:G:N2	7:D:1765:C:C2	2.85	0.44
7:D:1802:A:OP2	7:D:1815:A:N6	2.38	0.44
7:D:1881:C:H41	7:D:1882:C:N4	2.15	0.44
7:D:1916:A:C6	7:D:1917:U:O4	2.70	0.44
7:D:2087:G:C6	7:D:2088:G:C5	3.06	0.44
7:D:2227:A:C5	7:D:2228:G:C6	3.01	0.44
7:D:227:A:H1'	7:D:228:A:C5	2.51	0.44
7:D:242:G:O2'	7:D:243:U:OP2	2.36	0.44
7:D:250:G:N1	7:D:251:A:C2	2.85	0.44
7:D:2517:C:C4	7:D:2542:A:C6	3.05	0.44
7:D:2657:A:C4	7:D:2665:A:C6	3.05	0.44
7:D:2839:G:N2	7:D:2880:C:N3	2.66	0.44
7:D:2884:U:C5	26:W:52:TYR:HE1	167.21	0.44
7:D:335:C:H2'	7:D:336:C:C6	2.50	0.44
7:D:295:G:OP2	7:D:338:G:N2	2.50	0.44
7:D:460:A:C2	7:D:470:A:C5	3.05	0.44
7:D:54:G:C6	7:D:55:G:N7	2.86	0.44
7:D:699:A:N7	7:D:734:A:C6	2.85	0.44
7:D:776:G:C2	7:D:793:A:N6	2.85	0.44
7:D:81:G:C5	7:D:82:G:C5	3.06	0.44
7:D:854:G:N1	7:D:855:G:C5	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:926:A:C3'	7:D:928:G:C8	3.01	0.44
7:D:974:G:C5'	7:D:974(A):C:OP2	2.66	0.44
8:E:116:G:C2	8:E:117:G:C4	3.06	0.44
9:F:130:ARG:O	9:F:135:GLN:NE2	2.38	0.44
9:F:182:ILE:HA	9:F:183:PRO:HD3	1.78	0.44
10:G:68:VAL:HG12	10:G:70:VAL:HG23	1.98	0.44
11:H:18:LYS:HG2	11:H:33:MET:HG3	1.99	0.44
11:H:68:TYR:CD2	11:H:97:LEU:HD22	2.52	0.44
13:J:91:VAL:HG11	13:J:94:GLN:HE22	1.81	0.44
15:L:73:ASP:OD1	15:L:74:PRO:HD2	2.16	0.44
15:L:81:HIS:HD2	15:L:138:TRP:CZ3	2.34	0.44
16:M:105:ASP:HB3	16:M:107:ARG:HB2	1.99	0.44
17:N:6:ILE:HG12	17:N:73:ASP:OD1	2.15	0.44
1:1:10:ILE:HG21	7:D:2477:C:N4	2.32	0.44
3:3:27:LEU:C	3:3:32:ALA:CB	2.86	0.44
6:A:1263:C:H2'	6:A:1264:C:C6	2.51	0.44
6:A:1356:G:H1	6:A:1366:C:H42	1.65	0.44
6:A:1384:C:C4	6:A:1385:G:N7	2.85	0.44
6:A:1448:C:H2'	6:A:1449:C:H6	1.82	0.44
6:A:243:A:C2	6:A:246:A:C8	3.05	0.44
6:A:251:G:H4'	6:A:252:U:O5'	2.16	0.44
6:A:258:G:C2	6:A:259:G:C4	3.05	0.44
6:A:325:A:H2'	6:A:326:G:C8	2.53	0.44
6:A:321:A:N7	6:A:328:C:C6	2.85	0.44
6:A:451:A:C6	6:A:481:G:C5	3.06	0.44
6:A:714:G:C2	6:A:715:A:C4	3.05	0.44
6:A:755:G:N2	6:A:756:C:C2	2.85	0.44
6:A:875:C:O3'	15:L:14:ARG:NH2	2.32	0.44
6:A:88:C:H2'	6:A:89:U:C6	2.52	0.44
6:A:916:G:H2'	6:A:917:G:C8	2.52	0.44
6:A:947:G:C6	6:A:948:C:C4	3.06	0.44
56:B:18:VAL:C	56:B:20:HIS:H	2.21	0.44
56:B:379:LYS:NZ	56:B:485:ARG:N	2.60	0.44
56:B:380:VAL:CG2	56:B:381:ARG:N	2.80	0.44
56:B:431:LYS:HB2	56:B:458:GLU:CG	2.46	0.44
56:B:537:ILE:CD1	56:B:551:VAL:HG22	2.45	0.44
56:B:58:THR:HB	56:B:84:PRO:CG	2.45	0.44
7:D:1054:A:N3	7:D:1107:G:N2	2.66	0.44
7:D:1128:A:N6	7:D:2518:A:H61	2.15	0.44
7:D:1144:G:C6	7:D:1145:C:C4	3.06	0.44
7:D:1167:U:C2'	7:D:1168:G:H5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1197:G:N2	7:D:1250:G:C4	2.85	0.44
7:D:119:A:HO2'	7:D:120:U:P	2.39	0.44
7:D:1240:U:H2'	7:D:1241:A:C8	2.53	0.44
7:D:1401:G:H5''	7:D:1402:C:OP2	2.18	0.44
7:D:1456:G:O6	7:D:1457:A:N6	2.51	0.44
7:D:1444(A):A:N6	7:D:1462:C:OP2	2.50	0.44
7:D:1692:U:O2	7:D:1696:G:C2	2.71	0.44
7:D:1732:A:OP1	7:D:1733:G:C5	2.70	0.44
7:D:1734:C:OP2	7:D:1734:C:C6	2.71	0.44
7:D:1881:C:N4	7:D:1882:C:C4	2.85	0.44
7:D:2267:A:O2'	7:D:2268:A:OP2	2.24	0.44
7:D:2645:G:H4'	7:D:2732:G:O2'	2.17	0.44
7:D:2714:G:N2	7:D:2715:C:O2	2.51	0.44
7:D:2896:C:H3'	7:D:2896:C:H6	1.81	0.44
7:D:290:G:OP2	7:D:290:G:O4'	2.34	0.44
7:D:371:A:C5'	7:D:423:A:H62	2.28	0.44
7:D:401:A:C4	7:D:402:A:C8	3.05	0.44
7:D:479:A:C2	7:D:480:A:C6	3.06	0.44
7:D:531:C:H5'	7:D:532:A:N3	2.33	0.44
7:D:592:G:H1	7:D:665:C:H42	1.66	0.44
7:D:696:G:C2	7:D:697:C:C2	3.06	0.44
7:D:715:G:C3'	7:D:715:G:C8	2.99	0.44
7:D:909:A:N6	7:D:912:C:O2	2.50	0.44
7:D:972:G:C6	7:D:973:A:C5	3.06	0.44
7:D:980:A:N7	7:D:981:A:C6	2.85	0.44
8:E:34:U:O4	8:E:44:G:H2'	2.18	0.44
10:G:103:VAL:O	10:G:104:GLN:NE2	2.50	0.44
10:G:37:GLN:HE21	21:R:26:ARG:HD2	1.81	0.44
12:I:128:PRO:O	12:I:131:ILE:HG22	2.17	0.44
13:J:28:ARG:O	13:J:31:GLU:HB3	2.18	0.44
23:T:60:LEU:HA	23:T:60:LEU:HD23	1.76	0.44
24:U:12:SER:OG	24:U:13:ASP:N	2.50	0.44
24:U:90:ILE:O	24:U:93:GLN:HB2	2.17	0.44
13:J:97:PHE:HZ	25:V:62:GLU:OE1	2.00	0.44
7:D:2160:G:H22	29:Z:6:ARG:NH2	2.14	0.44
6:A:109:A:C8	6:A:327:A:N3	2.85	0.44
6:A:1256:A:O3'	6:A:1257:U:H4'	2.16	0.44
6:A:1312:G:N2	6:A:1313:U:C2	2.85	0.44
6:A:1446:A:O2'	6:A:1447:G:C8	2.71	0.44
6:A:1461:G:N2	6:A:1462:G:C5	2.85	0.44
6:A:329:A:C6	6:A:332:G:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:501:C:H6	6:A:501:C:O5'	2.00	0.44
6:A:503:C:O2'	6:A:504:C:H5'	2.17	0.44
6:A:582:U:O2	6:A:583:A:C4	2.71	0.44
6:A:596:C:N4	6:A:645:C:N3	2.66	0.44
6:A:74:C:C4	6:A:75:C:N4	2.81	0.44
6:A:778:G:H21	18:O:120:ARG:HG2	1.82	0.44
6:A:818:G:HO2'	6:A:819:A:P	2.39	0.44
6:A:575:G:C2	6:A:881:G:N3	2.85	0.44
6:A:890:G:H2'	6:A:906:G:O6	2.17	0.44
6:A:945:G:H21	6:A:1334:G:H4'	1.82	0.44
56:B:17:HIS:CB	56:B:20:HIS:CG	3.00	0.44
56:B:203:SER:O	56:B:204:VAL:HG22	2.17	0.44
56:B:306:TYR:CZ	56:B:339:ALA:HB3	2.52	0.44
56:B:331:THR:O	56:B:332:PHE:CD2	2.71	0.44
56:B:43:GLU:HB3	56:B:53:ARG:HH12	1.82	0.44
7:D:1138:G:C2	7:D:1139:G:C5	3.05	0.44
7:D:1167:U:H2'	7:D:1168:G:H5'	1.99	0.44
7:D:1262:A:C2	7:D:1263:U:C2	3.06	0.44
7:D:121:G:N2	7:D:131:G:C4	2.86	0.44
7:D:1365:A:C6	7:D:1366:A:C5	3.06	0.44
7:D:138:G:N3	7:D:139:G:H5''	2.32	0.44
7:D:1475:G:N7	7:D:1517:G:C2	2.85	0.44
7:D:1513:C:OP2	7:D:1513:C:C6	2.70	0.44
7:D:1524:G:N2	7:D:1525:G:C4	2.86	0.44
7:D:1527:G:N1	7:D:1544:C:C2	2.77	0.44
7:D:1300:U:C4	7:D:1627:G:OP2	2.70	0.44
7:D:1735:C:C6	7:D:1735:C:O5'	2.70	0.44
7:D:1762:A:H5''	7:D:1763:G:OP2	2.18	0.44
7:D:1764:G:C2	7:D:1765:C:C2	3.06	0.44
7:D:1776:G:C2	7:D:1789:A:C2	3.05	0.44
7:D:16:G:C4	7:D:17:G:C8	3.06	0.44
7:D:1878:G:C2	7:D:1879:C:O2	2.70	0.44
7:D:1910:G:C2	7:D:1921:G:C4	3.05	0.44
7:D:1947:C:H5''	7:D:1948:G:OP2	2.17	0.44
7:D:1268:A:N3	7:D:2013:A:C6	2.85	0.44
7:D:2013:A:N3	7:D:2014:A:C8	2.86	0.44
7:D:2122:U:C4	7:D:2123:G:C4	3.06	0.44
7:D:2508:G:C6	7:D:2582:G:O6	2.70	0.44
7:D:2851:A:N7	7:D:2852:G:N7	2.65	0.44
7:D:2889:C:C6	7:D:2889:C:O5'	2.70	0.44
7:D:35:G:C4	7:D:454:A:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:436:C:C4	7:D:438:G:N7	2.86	0.44
7:D:38:A:N3	7:D:442:G:N2	2.64	0.44
7:D:608:A:H2'	7:D:609:A:O4'	2.18	0.44
7:D:890:A:C3'	7:D:892:G:C5'	2.86	0.44
9:F:158:LEU:HA	9:F:159:PRO:HD3	1.58	0.44
10:G:29:TYR:CE2	10:G:33:LEU:HD11	2.52	0.44
11:H:39:PRO:HG2	11:H:44:GLY:CA	2.47	0.44
12:I:102:ALA:H	12:I:107:ARG:NH2	2.16	0.44
14:K:146:GLU:HG2	14:K:149:ARG:NE	2.32	0.44
18:O:50:TYR:CD1	18:O:54:ARG:NH1	2.85	0.44
18:O:48:ILE:HG21	18:O:63:LEU:HD22	1.99	0.44
20:Q:96:LEU:HD12	20:Q:103:THR:CG2	2.34	0.44
26:W:70:LYS:O	26:W:73:GLU:N	2.49	0.44
29:Z:153:ILE:HA	29:Z:156:ILE:HD12	1.99	0.44
29:Z:32:LEU:HB3	29:Z:220:PRO:HB2	2.00	0.44
29:Z:71:GLN:HG3	29:Z:72:VAL:HG23	1.99	0.44
3:3:79:ARG:NH2	3:3:134:MET:HB2	2.33	0.44
6:A:1134:G:C2	6:A:1135:U:H1'	2.53	0.44
6:A:1268:A:C5	6:A:1269:A:N6	2.85	0.44
6:A:1449:C:N4	6:A:1455:G:C6	2.86	0.44
6:A:156:G:C6	6:A:157:G:N7	2.86	0.44
6:A:438:G:OP1	11:H:123:HIS:HB3	2.17	0.44
6:A:464:G:OP2	6:A:464:G:C8	2.70	0.44
6:A:686:U:H4'	6:A:687:A:OP1	2.18	0.44
6:A:830:G:H2'	6:A:831:U:O4'	2.18	0.44
56:B:593:PRO:O	56:B:597:PHE:CE1	2.70	0.44
7:D:1071:G:N2	7:D:1089:G:H2'	2.29	0.44
7:D:1258:C:H2'	7:D:1259:G:H8	1.82	0.44
7:D:1279:G:C4	7:D:1280:G:C8	3.06	0.44
7:D:1361:G:N2	7:D:1362:C:O2	2.51	0.44
7:D:1472:A:H62	7:D:1474:C:N4	2.16	0.44
7:D:1477:A:N7	7:D:1478:G:C5	2.86	0.44
7:D:1483:G:N1	7:D:1484:G:C5	2.86	0.44
7:D:1486:A:H2'	7:D:1487:G:C8	2.53	0.44
7:D:1487:G:N3	7:D:1488:G:C8	2.85	0.44
7:D:1559:G:N2	7:D:1561:G:OP1	2.49	0.44
7:D:1582:C:C6	7:D:1582:C:C3'	3.00	0.44
7:D:1869:G:C5	7:D:1871:A:OP2	2.71	0.44
7:D:1853:A:N1	7:D:1889:A:C6	2.86	0.44
7:D:2028:U:H2'	7:D:2029:G:C8	2.53	0.44
7:D:2211:G:N3	7:D:2211:G:H2'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2400:G:C2	7:D:2401:U:C2	3.05	0.44
7:D:2613:U:O2'	7:D:2614:A:OP1	2.30	0.44
7:D:261:G:O2'	7:D:262:A:H5'	2.17	0.44
7:D:273(A):G:H1	7:D:363(E):U:H3	1.66	0.44
7:D:2786:U:O4	7:D:2787:C:N4	2.50	0.44
7:D:381:G:N2	7:D:382:G:N3	2.66	0.44
7:D:441:U:O5'	7:D:441:U:C6	2.71	0.44
7:D:447:A:N1	7:D:454:A:C8	2.85	0.44
7:D:602:G:N2	7:D:656:G:N7	2.65	0.44
7:D:729:G:H2'	7:D:730:C:O4'	2.17	0.44
8:E:51:G:H2'	8:E:51:G:N3	2.33	0.44
8:E:87:G:N2	8:E:90:C:C2	2.86	0.44
9:F:12:GLU:O	9:F:16:HIS:ND1	2.50	0.44
9:F:208:ILE:O	9:F:212:GLN:HG2	2.18	0.44
10:G:11:ARG:HD3	10:G:178:LEU:HD12	1.98	0.44
10:G:25:GLY:O	10:G:29:TYR:HB2	2.18	0.44
6:A:403:C:HO2'	11:H:122:ARG:HH12	1.54	0.44
15:L:109:ILE:HA	15:L:121:ASP:OD2	2.17	0.44
19:P:39:VAL:HG11	19:P:41:ARG:NH2	2.33	0.44
22:S:18:PHE:HA	22:S:19:PRO:HD3	1.85	0.44
23:T:36:ILE:HG23	23:T:37:GLY:N	5.07	0.44
23:T:52:ASP:OD2	23:T:54:GLU:HB3	2.17	0.44
24:U:45:HIS:CG	24:U:65:ILE:HD13	2.53	0.44
26:W:28:LYS:HA	26:W:28:LYS:CE	2.46	0.44
3:3:75:SER:O	3:3:79:ARG:HG2	2.18	0.44
5:5:21:A:C6	5:5:46:G:C2	3.06	0.44
6:A:999:U:C2	6:A:1041:A:N1	2.86	0.44
6:A:1252:A:H61	6:A:1285:A:H61	1.65	0.44
6:A:131:C:H2'	6:A:132:C:H6	1.82	0.44
6:A:1400:C:HO2'	6:A:1401:G:P	2.41	0.44
6:A:1521:G:C2	6:A:1522:U:C2	3.06	0.44
6:A:254:G:C6	6:A:273:A:N1	2.86	0.44
6:A:38:G:H1	6:A:397:A:H5''	1.83	0.44
6:A:414:A:H2'	6:A:415:A:C8	2.53	0.44
6:A:417:C:C6	6:A:417:C:OP2	2.70	0.44
6:A:443:C:C2	6:A:492:G:C4	3.06	0.44
6:A:501:C:C6	6:A:501:C:O5'	2.71	0.44
6:A:533:A:H5'	6:A:534:U:OP2	2.18	0.44
6:A:650:G:C2	6:A:651:C:C6	3.06	0.44
6:A:727:G:N2	6:A:731:G:H1'	2.33	0.44
6:A:81:G:OP2	6:A:82:U:C5	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:834:C:H2'	6:A:835:U:C6	2.49	0.44
6:A:939:G:N2	6:A:940:C:C2	2.85	0.44
56:B:144:ARG:CD	56:B:148:VAL:HG23	2.44	0.44
56:B:196:LEU:CD2	56:B:282:LEU:HB2	2.48	0.44
56:B:226:ASP:O	56:B:228:ILE:N	2.51	0.44
56:B:275:GLN:C	56:B:277:GLY:N	2.70	0.44
56:B:378:TYR:O	56:B:391:HIS:HB2	2.17	0.44
56:B:406:LEU:O	56:B:407:GLU:HG3	2.18	0.44
56:B:9:ILE:C	56:B:10:ARG:HD2	2.38	0.44
7:D:1082:U:H2'	7:D:1083:U:O4'	2.18	0.44
7:D:1047:G:C8	7:D:1110:G:N2	2.86	0.44
7:D:1164:G:H2'	7:D:1165:U:O4'	2.18	0.44
7:D:1174:A:C4	7:D:1174:A:OP1	2.71	0.44
7:D:1222:C:H42	7:D:1227:A:N6	2.11	0.44
7:D:1251:C:C5'	16:M:10:ARG:HE	170.99	0.44
7:D:1471:A:C4	7:D:1521:G:N2	2.86	0.44
7:D:1591:G:C2'	7:D:1592:C:H5'	2.46	0.44
7:D:1749:A:P	7:D:1749:A:H8	2.41	0.44
7:D:1750:G:H2'	7:D:1751:C:C6	2.51	0.44
7:D:1781:C:C2'	7:D:1782:C:OP2	2.65	0.44
7:D:1864:U:H2'	7:D:1869:G:C8	2.52	0.44
7:D:195:A:C6	7:D:198:C:C5	3.05	0.44
7:D:2115:G:H8	7:D:2115:G:O5'	2.01	0.44
7:D:2125:G:O2'	7:D:2126:A:O5'	2.35	0.44
7:D:2217:G:O5'	7:D:2217:G:H8	2.01	0.44
7:D:2330:G:N2	7:D:2386:C:C2	2.83	0.44
7:D:255:A:C6	7:D:256:A:C4	3.06	0.44
7:D:2795:G:C8	7:D:2795:G:OP2	2.70	0.44
7:D:323:G:C6	7:D:333:G:C5	3.05	0.44
7:D:342:G:N2	7:D:343:C:C2	2.86	0.44
7:D:436:C:H2'	7:D:438:G:O5'	2.18	0.44
7:D:571:A:C5	7:D:2030:A:N6	2.86	0.44
7:D:572:A:N6	7:D:573:G:C6	2.85	0.44
7:D:746:A:OP1	7:D:748:G:O2'	2.25	0.44
7:D:829:A:N7	7:D:2247:A:O2'	2.51	0.44
7:D:879:G:C6	7:D:897:C:H1'	2.52	0.44
8:E:43:C:N3	8:E:45:A:C6	2.86	0.44
8:E:75:G:N7	8:E:76:G:C5	2.86	0.44
9:F:9:GLU:OE1	9:F:12:GLU:HG2	2.18	0.44
9:F:215:LEU:O	9:F:218:ALA:HB3	2.18	0.44
9:F:60:ASP:OD1	9:F:64:ARG:NH1	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:22:TRP:CZ2	21:R:54:PRO:HG2	2.53	0.44
16:M:28:VAL:O	16:M:31:GLN:N	2.44	0.44
18:O:123:LYS:HA	18:O:126:ARG:HB3	1.99	0.44
18:O:12:ARG:HH12	18:O:38:ASN:HB2	1.83	0.44
18:O:57:THR:OG1	18:O:58:PRO:HD2	2.18	0.44
23:T:43:LYS:HA	23:T:48:TRP:CG	2.52	0.44
25:V:29:PHE:CE2	25:V:39:VAL:HG11	2.53	0.44
28:Y:6:ARG:HH11	28:Y:15:ARG:NE	2.16	0.44
29:Z:18:LYS:HE3	29:Z:20:TYR:HA	1.99	0.44
3:3:34:ILE:CG1	3:3:35:MET:H	2.29	0.44
3:3:67:PHE:C	3:3:68:VAL:CG2	2.86	0.44
3:3:71:THR:O	3:3:73:PRO:HD3	2.18	0.44
3:3:89:HIS:ND1	3:3:90:LYS:HG2	2.33	0.44
6:A:1019:C:N4	6:A:1020:U:C4	2.86	0.44
6:A:1156:G:P	6:A:1157:A:OP2	2.76	0.44
6:A:1452:C:O5'	6:A:1452:C:C6	2.71	0.44
6:A:173:U:C2	6:A:197:A:N6	2.85	0.44
6:A:428:G:H1'	6:A:429:U:OP2	2.18	0.44
6:A:406:G:C5	6:A:495:A:C5	3.05	0.44
6:A:543:C:H2'	6:A:544:G:H8	1.82	0.44
6:A:630:G:H2'	6:A:631:G:O4'	2.17	0.44
6:A:587:G:N2	6:A:755:G:C8	2.85	0.44
6:A:823:G:H2'	6:A:824:C:C6	2.53	0.44
6:A:885:G:C2	6:A:886:G:C8	3.05	0.44
56:B:101:GLU:HA	56:B:129:HIS:ND1	2.32	0.44
56:B:65:ARG:HG2	56:B:245:PHE:CB	2.45	0.44
56:B:195:PRO:CG	56:B:287:THR:N	2.56	0.44
56:B:98:ALA:CB	56:B:127:HIS:HE1	2.30	0.44
3:3:126:MET:O	7:D:1059:G:N2	2.51	0.44
7:D:1058:G:OP2	7:D:1060:U:C5	2.71	0.44
7:D:109:G:C5	7:D:110:G:N7	2.86	0.44
7:D:1106:G:C8	7:D:1106:G:OP1	2.71	0.44
7:D:1206:G:H22	7:D:1242:A:N6	2.15	0.44
7:D:1264:G:O6	7:D:1265:A:N6	2.51	0.44
7:D:1485:G:H2'	7:D:1486:A:H8	1.83	0.44
7:D:1485:G:O2'	7:D:1486:A:H5'	2.17	0.44
7:D:1580:A:O5'	7:D:1580:A:C8	2.70	0.44
7:D:1697:G:C6	7:D:1698:A:C6	3.06	0.44
7:D:1779:U:C3'	7:D:1779:U:C6	3.00	0.44
7:D:1795:C:N4	7:D:1796:U:C4	2.86	0.44
7:D:1840:G:H1	7:D:1902:C:N4	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2060:A:C2	7:D:2502:G:C6	3.06	0.44
7:D:1128:A:C8	7:D:2516:G:O2'	2.70	0.44
7:D:2759:G:H2'	7:D:2760:C:H6	1.83	0.44
7:D:2895:U:HO2'	7:D:2896:C:C1'	2.30	0.44
7:D:297:C:H2'	7:D:298:G:O4'	2.18	0.44
7:D:350:U:H2'	7:D:351:G:OP1	2.17	0.44
7:D:43:G:N2	7:D:438:G:C4	2.86	0.44
7:D:894:C:H5''	7:D:895:U:OP2	2.18	0.44
10:G:130:VAL:O	10:G:133:ALA:N	2.51	0.44
12:I:151:LEU:HA	12:I:151:LEU:HD23	1.78	0.44
13:J:29:ALA:HA	13:J:32:ASN:OD1	2.18	0.44
17:N:34:VAL:HG12	17:N:36:GLY:N	2.33	0.44
19:P:67:THR:OG1	19:P:96:VAL:HA	2.17	0.44
22:S:25:THR:O	22:S:28:GLN:HB2	2.18	0.44
26:W:43:GLU:CA	26:W:67:VAL:HG11	2.41	0.44
3:3:103:GLN:HA	3:3:106:GLU:HG2	1.99	0.44
3:3:106:GLU:O	3:3:109:LYS:HG2	2.17	0.44
3:3:5:VAL:HG22	3:3:5:VAL:O	2.17	0.44
3:3:60:TYR:CD2	3:3:61:ALA:N	2.86	0.44
3:3:95:LYS:HD2	3:3:95:LYS:HA	1.63	0.44
5:5:28:G:C5	5:5:29:G:N7	2.85	0.44
6:A:1049:U:H4'	6:A:1050:G:H5'	1.99	0.44
6:A:1169:A:H5'	6:A:1170:A:OP2	2.17	0.44
6:A:1188:A:C8	6:A:1188:A:OP2	2.59	0.44
6:A:1261:A:N7	6:A:1262:C:N4	2.65	0.44
6:A:791:G:N1	6:A:1498:U:OP1	2.40	0.44
6:A:201:C:H2'	6:A:208:U:OP1	2.17	0.44
6:A:437:U:O5'	6:A:437:U:C6	2.71	0.44
6:A:444:C:C4	6:A:445:G:O6	2.71	0.44
6:A:540:G:H2'	6:A:541:G:H8	1.82	0.44
6:A:731:G:C6	6:A:732:C:C4	3.06	0.44
6:A:790:A:OP1	6:A:790:A:H8	2.00	0.44
6:A:810:C:H2'	6:A:811:C:O4'	2.17	0.44
6:A:941:G:H2'	6:A:942:G:O4'	2.18	0.44
6:A:954:G:H21	6:A:1227:A:H62	1.66	0.44
56:B:109:ALA:HB2	56:B:135:ILE:HB	1.99	0.44
56:B:229:ARG:C	56:B:230:ILE:HG13	2.37	0.44
56:B:307:PRO:HD2	56:B:341:GLY:HA3	2.00	0.44
56:B:382:LEU:CG	56:B:401:ARG:CA	2.61	0.44
56:B:383:LYS:CD	56:B:402:ILE:HG22	2.47	0.44
56:B:502:ASP:C	56:B:504:LEU:H	2.20	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:526:GLU:OE1	56:B:594:GLN:O	2.36	0.44
7:D:81:G:C2	7:D:106:C:O2	2.71	0.44
7:D:1077:A:H62	7:D:1089:G:P	2.41	0.44
7:D:110:G:N2	7:D:111:A:N3	2.66	0.44
7:D:1128:A:H3'	7:D:1128:A:N3	2.33	0.44
7:D:1130:U:OP2	7:D:2570:G:N2	2.51	0.44
7:D:119:A:O2'	7:D:120:U:P	2.76	0.44
7:D:1251:C:H2'	7:D:1251:C:H6	1.53	0.44
7:D:1313:U:C4	7:D:1314:C:N4	2.86	0.44
7:D:1493:C:O2	7:D:1493:C:H2'	2.17	0.44
7:D:14:A:N7	7:D:15:G:C4	2.86	0.44
7:D:1523:U:H2'	7:D:1524:G:H8	1.82	0.44
7:D:155:C:O2'	7:D:161:U:C2	2.63	0.44
7:D:1712:C:H6	7:D:1712:C:H3'	1.82	0.44
7:D:1784:A:O3'	7:D:1785:A:C8	2.71	0.44
7:D:1902:C:N4	7:D:1903:G:N3	2.66	0.44
7:D:190:A:C6	7:D:207:A:N3	2.86	0.44
7:D:2360:A:C2	7:D:2361:A:H1'	2.52	0.44
7:D:247:G:O2'	7:D:248:G:OP1	2.27	0.44
7:D:2447:G:C6	7:D:2501:C:N3	2.86	0.44
7:D:2588:G:H2'	7:D:2589:A:H5'	2.00	0.44
7:D:267:C:OP2	7:D:271(A):C:C4	2.70	0.44
7:D:2693:A:N3	7:D:2694:G:C8	2.86	0.44
7:D:2712:U:H2'	7:D:2712(A):A:H5''	2.00	0.44
7:D:2714:G:C2	7:D:2715:C:O2	2.71	0.44
7:D:30:G:C6	7:D:31:C:C4	3.06	0.44
7:D:344:G:N1	7:D:345:A:N7	2.66	0.44
7:D:381:G:C2	7:D:382:G:C4	3.06	0.44
7:D:389:G:H5''	7:D:390:A:OP2	2.17	0.44
7:D:454:A:H3'	7:D:454:A:H8	1.83	0.44
7:D:464:U:C5	7:D:465:G:C4	3.06	0.44
7:D:467:G:N2	7:D:468:G:N3	2.65	0.44
7:D:458:G:O2'	7:D:469:G:O6	2.36	0.44
7:D:745:G:N2	7:D:753:C:C4	2.86	0.44
7:D:93:C:N3	7:D:94:G:H1'	2.33	0.44
14:K:77:SER:CB	14:K:84:ASN:HD22	2.31	0.44
20:Q:108:ARG:HE	20:Q:114:ARG:NH1	2.15	0.44
25:V:21:LYS:CA	25:V:55:ARG:HH12	2.30	0.44
27:X:42:GLN:O	27:X:45:GLN:HB2	2.18	0.44
3:3:72:PRO:HG2	3:3:77:LEU:HD22	1.99	0.44
5:5:29:G:H1	5:5:41:C:H42	1.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:101:A:N6	6:A:102:G:C6	2.86	0.44
6:A:1025:U:H2'	6:A:1026:G:C8	2.53	0.44
6:A:1119:C:N3	6:A:1155:G:N1	2.66	0.44
6:A:1167:A:N7	6:A:1169:A:N7	2.65	0.44
6:A:1244:C:C2	6:A:1294:G:N2	2.86	0.44
6:A:1442:G:C3'	6:A:1442:G:N3	2.81	0.44
6:A:1426:C:N4	6:A:1474:G:H1	2.16	0.44
6:A:1509:C:H2'	6:A:1510:U:O4'	2.18	0.44
6:A:142:G:O2'	6:A:196:A:N1	2.51	0.44
6:A:232:G:H2'	6:A:233:C:O4'	2.17	0.44
6:A:406:G:C5	6:A:495:A:C4	3.06	0.44
6:A:457:C:C2	6:A:476:G:N1	2.86	0.44
6:A:540:G:H2'	6:A:541:G:C8	2.53	0.44
6:A:61:G:H2'	6:A:62:U:C6	2.52	0.44
6:A:785:G:C2	6:A:798:G:N3	2.86	0.44
6:A:837:G:C6	6:A:838:G:O6	2.71	0.44
6:A:849:C:H3'	6:A:849:C:H6	1.82	0.44
6:A:849:C:C4	6:A:850:U:O4	2.71	0.44
6:A:562:C:C2	6:A:884:U:C5	3.05	0.44
56:B:206:ASP:CB	56:B:210:GLY:CA	2.95	0.44
56:B:296:PRO:CG	56:B:297:ALA:H	2.31	0.44
56:B:486:PRO:CG	56:B:487:GLY:H	2.31	0.44
7:D:1000:A:H5''	7:D:1001:A:OP2	2.17	0.44
7:D:1080:C:H5	7:D:1086:A:N6	2.15	0.44
7:D:1190:G:N1	7:D:1191:G:C6	2.86	0.44
7:D:121:G:C2	7:D:131:G:C4	3.05	0.44
7:D:1309:G:HO2'	7:D:1611:C:HO2'	1.64	0.44
7:D:1746:G:H3'	7:D:1747:G:N7	2.30	0.44
7:D:1786:A:N7	7:D:1787:A:C8	2.86	0.44
7:D:190:A:H2'	7:D:191:A:C8	2.53	0.44
7:D:1:G:H2'	7:D:2:G:O4'	2.18	0.44
7:D:2253:G:C5	7:D:2254:C:C4	3.05	0.44
7:D:226:G:O2'	7:D:227:A:O5'	2.34	0.44
7:D:2305:A:N1	7:D:2312:U:C2	2.86	0.44
7:D:2642:G:N2	7:D:2643:G:C4	2.86	0.44
7:D:2663:G:C8	7:D:2664:G:N7	2.86	0.44
7:D:290:G:OP2	7:D:290:G:C8	2.71	0.44
7:D:301:G:C6	7:D:302:C:N4	2.86	0.44
7:D:311:A:H1'	7:D:332:A:C4	2.53	0.44
7:D:382:G:H2'	7:D:383:U:H5'	2.00	0.44
7:D:453:C:H2'	7:D:453:C:O2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:512:G:C2'	7:D:513:A:OP2	2.65	0.44
7:D:722:A:C2	7:D:723:G:C4	3.06	0.44
7:D:83:G:C2	7:D:84:A:H2	2.35	0.44
9:F:165:VAL:O	9:F:187:LEU:HD22	2.18	0.44
9:F:210:SER:O	9:F:214:ILE:HG12	2.18	0.44
11:H:145:GLU:HB3	11:H:184:LYS:HD3	1.98	0.44
6:A:718:G:C5	18:O:116:HIS:CD2	3.05	0.44
20:Q:29:ARG:O	20:Q:32:GLU:HB2	2.18	0.44
20:Q:66:LEU:CG	20:Q:67:GLU:N	2.80	0.44
20:Q:86:CYS:O	20:Q:89:GLY:N	2.34	0.44
26:W:66:MET:O	26:W:69:HIS:CG	2.71	0.44
29:Z:89:ALA:O	29:Z:154:ARG:HA	2.18	0.44
3:3:80:LYS:HB3	3:3:111:LYS:HE3	1.99	0.43
6:A:1013:G:H22	6:A:1016:A:P	2.40	0.43
6:A:101:A:H2'	6:A:102:G:C5'	2.44	0.43
6:A:1167:A:C8	6:A:1167:A:OP1	2.70	0.43
6:A:1167:A:C8	6:A:1167:A:O5'	2.70	0.43
6:A:1342:C:O2'	6:A:1343:G:H5'	2.18	0.43
6:A:1452:C:O5'	6:A:1452:C:H6	2.01	0.43
6:A:1508:G:C2	6:A:1509:C:C2	3.06	0.43
6:A:15:G:H3'	6:A:16:A:H8	1.82	0.43
6:A:184:G:C2	6:A:185:A:C8	3.06	0.43
6:A:259:G:C5	6:A:260:G:C5	3.06	0.43
6:A:246:A:N6	6:A:279:A:C4	2.86	0.43
6:A:298:A:N6	6:A:299:G:N1	2.66	0.43
6:A:309:G:N3	6:A:310:G:C8	2.87	0.43
6:A:318:G:C2	6:A:319:G:C8	3.06	0.43
6:A:440:A:OP2	6:A:442:C:C5	2.71	0.43
6:A:593:G:C6	6:A:594:G:C5	3.06	0.43
6:A:309:G:O2'	6:A:607:A:N6	2.51	0.43
6:A:829:G:C2	6:A:830:G:C4	3.06	0.43
6:A:22:G:H4'	6:A:885:G:C8	2.53	0.43
6:A:925:G:C2	6:A:927:G:C8	3.06	0.43
6:A:953:G:C6	6:A:954:G:C4	3.06	0.43
56:B:105:LEU:HB3	56:B:133:PRO:HA	1.99	0.43
56:B:207:ALA:O	56:B:208:TYR:CD1	2.71	0.43
56:B:274:VAL:HG12	56:B:274:VAL:O	2.17	0.43
56:B:327:ASP:OD2	56:B:353:HIS:CE1	2.71	0.43
56:B:331:THR:O	56:B:332:PHE:CG	2.70	0.43
19:P:80:HIS:CD2	56:B:342:PHE:CE1	3.06	0.43
56:B:299:PRO:HD3	56:B:348:PHE:CD2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1137:G:O6	7:D:1138:G:C2	2.71	0.43
7:D:1210:A:H4'	7:D:1211:U:OP2	2.15	0.43
7:D:1241:A:N9	7:D:1241:A:OP2	2.51	0.43
7:D:1316:U:H2'	7:D:1317:A:C8	2.53	0.43
7:D:1285:G:C6	7:D:1329:U:C5	3.06	0.43
7:D:1420:U:C6	7:D:1420:U:OP2	2.71	0.43
7:D:1456:G:N1	7:D:1457:A:C5	2.86	0.43
7:D:1630:G:C2	7:D:1630(A):C:C4	3.06	0.43
7:D:1682:G:C6	7:D:1683:C:C4	3.06	0.43
7:D:1726:G:H3'	7:D:1727:U:C5	2.53	0.43
7:D:1879:C:C6	7:D:1879:C:O5'	2.70	0.43
7:D:188:G:C6	7:D:189:G:C4	3.06	0.43
7:D:2001:A:H2'	7:D:2002:G:H8	1.81	0.43
7:D:207:A:H2'	7:D:208:C:O4'	2.18	0.43
7:D:2164:C:OP2	7:D:2165:G:C8	2.71	0.43
7:D:2403:C:C4	7:D:2415:G:N1	2.86	0.43
7:D:2436:G:C2	7:D:2437:U:C2	3.06	0.43
7:D:2511:U:C5	7:D:2512:C:C4	3.06	0.43
7:D:2659:G:O3'	7:D:2660:A:C5	2.71	0.43
7:D:2783:G:H2'	7:D:2784:C:O4'	2.18	0.43
7:D:296:C:N3	7:D:297:C:C4	2.87	0.43
7:D:322:A:O2'	7:D:323:G:P	2.76	0.43
7:D:673:C:C4	7:D:674:G:N7	2.86	0.43
7:D:699:A:N6	7:D:734:A:C8	2.86	0.43
7:D:738:G:H1'	7:D:759:G:H22	1.83	0.43
8:E:24:G:C6	8:E:56:G:C2	3.06	0.43
8:E:59:A:H2'	8:E:60:C:O4'	2.18	0.43
8:E:83:G:N2	8:E:84:C:O2	2.50	0.43
10:G:125:GLU:OE2	10:G:190:ARG:C	2.56	0.43
13:J:5:GLU:HB2	13:J:62:TRP:HE1	1.83	0.43
16:M:75:ASP:OD1	16:M:75:ASP:N	2.49	0.43
17:N:7:LYS:HA	17:N:71:LEU:HD22	2.00	0.43
18:O:50:TYR:HB3	18:O:54:ARG:HB2	1.99	0.43
23:T:28:ARG:HG3	23:T:29:ASP:OD1	2.18	0.43
26:W:69:HIS:HB3	26:W:70:LYS:H	1.69	0.43
7:D:2175:C:OP2	29:Z:7:TYR:HB3	2.18	0.43
6:A:1170:A:C3'	6:A:1171:G:H5'	2.48	0.43
6:A:1183:A:HO2'	6:A:1184:G:P	2.41	0.43
6:A:1213:A:N7	6:A:1215:G:C5	2.86	0.43
6:A:1308:U:O5'	6:A:1308:U:C6	2.70	0.43
6:A:1423:G:C5	6:A:1424:C:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1440:C:H5''	6:A:1440:C:H6	1.83	0.43
6:A:186(E):C:C2	6:A:191(C):G:N2	2.87	0.43
6:A:220:G:H2'	6:A:221:C:O4'	2.18	0.43
6:A:227:G:C6	6:A:228:A:C6	3.06	0.43
6:A:289:G:C6	6:A:290:C:C4	3.06	0.43
6:A:44:G:H2'	6:A:45:U:O4'	2.17	0.43
6:A:455:C:N3	6:A:478:A:H2	2.14	0.43
6:A:528:C:H2'	6:A:529:G:O4'	2.18	0.43
6:A:674:G:H2'	6:A:675:A:C8	2.37	0.43
6:A:99:C:OP2	6:A:99:C:C6	2.71	0.43
56:B:335:GLU:O	56:B:340:LEU:O	2.35	0.43
56:B:387:GLU:HB3	56:B:388:VAL:H	1.70	0.43
56:B:414:ILE:O	56:B:449:GLU:HA	2.18	0.43
56:B:500:VAL:O	56:B:500:VAL:HG13	2.17	0.43
56:B:49:LEU:HD23	56:B:60:LYS:HZ1	1.81	0.43
7:D:1053:C:H3'	7:D:1054:A:C8	2.53	0.43
7:D:1062:G:O2'	7:D:1063:G:C8	2.70	0.43
7:D:1062:G:OP2	7:D:1070:A:N3	2.51	0.43
7:D:1071:G:OP2	7:D:1071:G:C8	2.68	0.43
7:D:1092:C:H3'	7:D:1093:G:O4'	2.18	0.43
7:D:1149:G:H2'	7:D:1150:C:H6	1.83	0.43
7:D:1579:A:C8	7:D:1580:A:C4	3.05	0.43
7:D:1769:G:N3	7:D:1984:G:C2	2.86	0.43
7:D:1904:G:C2	7:D:1905:C:C2	3.07	0.43
7:D:1910:G:C2	7:D:1911:U:C2	3.06	0.43
7:D:197:A:C6	7:D:198:C:N3	2.86	0.43
7:D:2004:G:C6	7:D:2005:A:C4	3.06	0.43
7:D:2199:A:H2'	7:D:2205:C:O5'	2.18	0.43
7:D:2217:G:C2	7:D:2218:G:C8	3.06	0.43
7:D:2093:G:C5	7:D:2225:A:C5	3.06	0.43
7:D:227:A:HO2'	7:D:228:A:P	2.41	0.43
7:D:2362:G:N1	7:D:2363:C:N3	2.66	0.43
7:D:2581:G:O2'	7:D:2582:G:N7	2.49	0.43
7:D:2657:A:C8	7:D:2658:C:C5	3.06	0.43
7:D:221:A:C5	7:D:266:G:N7	2.86	0.43
7:D:267:C:OP2	7:D:271(A):C:C5	2.70	0.43
7:D:1051:G:H4'	7:D:2752:C:O2'	2.19	0.43
7:D:2777:G:C8	7:D:2777:G:H3'	2.53	0.43
7:D:2845:G:N2	7:D:2846:G:C4	2.85	0.43
7:D:295:G:C2	7:D:296:C:C4	3.06	0.43
7:D:36:G:N2	7:D:37:C:C2	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:532:A:P	7:D:2021:C:C5	3.11	0.43
7:D:55:G:H1	7:D:115:C:H42	1.66	0.43
7:D:571:A:N1	7:D:2030:A:C2	2.86	0.43
7:D:58:G:N2	7:D:59:U:C2	2.86	0.43
7:D:786:C:O2'	7:D:787:U:H5'	2.18	0.43
14:K:12:LEU:HD13	14:K:24:THR:HB	2.00	0.43
16:M:7:THR:N	16:M:83:ARG:HD2	2.33	0.43
22:S:11:VAL:HA	22:S:14:GLU:CD	2.38	0.43
6:A:1318:A:O3'	26:W:12:ASP:OD2	2.36	0.43
29:Z:117:PRO:HG3	29:Z:146:GLY:HA2	2.01	0.43
2:2:23:SER:C	2:2:88:ALA:HB2	2.38	0.43
3:3:21:PRO:N	3:3:22:PRO:CD	2.81	0.43
4:4:31:G:O2'	6:A:1340:A:O2'	2.19	0.43
6:A:1078:U:O4	6:A:1079:G:N1	2.52	0.43
6:A:1079:G:C6	6:A:1080:A:N6	2.86	0.43
6:A:1129:C:O2'	6:A:1130:A:O5'	2.27	0.43
6:A:1236:A:C2	6:A:1237:C:N3	2.86	0.43
6:A:1448:C:H2'	6:A:1449:C:C6	2.53	0.43
6:A:1462:G:N2	6:A:1463:C:C2	2.86	0.43
6:A:201:C:C3'	6:A:201:C:C6	3.01	0.43
6:A:300:A:H5''	6:A:301:G:OP2	2.19	0.43
6:A:438:G:C2	6:A:495:A:OP2	2.71	0.43
6:A:748:C:O2'	6:A:749:C:P	2.76	0.43
6:A:750:G:N2	6:A:751:U:O2	2.51	0.43
6:A:760:G:N2	24:U:104:LYS:HB3	2.33	0.43
6:A:899:C:H5''	6:A:900:A:OP2	2.18	0.43
6:A:89:U:C3'	6:A:90:C:C5'	2.97	0.43
6:A:986:A:N6	6:A:987:G:C6	2.85	0.43
56:B:203:SER:C	56:B:204:VAL:CG2	2.87	0.43
56:B:222:VAL:HG11	56:B:264:LEU:CG	2.48	0.43
56:B:230:ILE:CG2	56:B:279:THR:CA	2.80	0.43
56:B:241:LYS:HG2	56:B:242:VAL:N	2.33	0.43
56:B:45:PHE:CE2	56:B:247:PRO:O	2.64	0.43
56:B:27:ASP:CG	56:B:45:PHE:H	2.21	0.43
56:B:230:ILE:C	56:B:280:ILE:CG2	2.81	0.43
56:B:506:PHE:O	56:B:507:ILE:HD13	2.18	0.43
56:B:537:ILE:CB	56:B:549:ALA:O	2.67	0.43
56:B:88:ASP:OD2	56:B:352:LEU:CB	2.64	0.43
7:D:1020:A:C2	7:D:1140:C:C2	3.06	0.43
7:D:113:G:OP1	7:D:113:G:H4'	2.18	0.43
7:D:1325:G:OP2	7:D:1325:G:H4'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1340:U:HO2'	7:D:1394:U:HO2'	1.63	0.43
7:D:1400:G:C6	7:D:1401:G:C6	3.06	0.43
7:D:1421:G:C2	7:D:1422:G:N7	2.86	0.43
7:D:1444:G:H2'	7:D:1445:C:N4	2.33	0.43
7:D:1487:G:C4	7:D:1488:G:C8	3.06	0.43
7:D:1508:A:OP2	7:D:1508:A:N3	2.50	0.43
7:D:1711:C:H6	7:D:1711:C:O5'	2.00	0.43
7:D:1814:G:H3'	7:D:1815:A:H8	1.83	0.43
7:D:1860:G:C2	7:D:1861:G:C5	3.06	0.43
7:D:190:A:C6	7:D:207:A:C2	3.06	0.43
7:D:1909:C:C2	7:D:1922:G:C2	3.06	0.43
7:D:1933:G:O5'	7:D:1933:G:H8	2.01	0.43
7:D:2031:A:H62	7:D:2498:C:H1'	1.83	0.43
7:D:2082:A:C6	7:D:2083:G:C4	3.07	0.43
7:D:2137:C:H2'	7:D:2138:C:C6	2.53	0.43
7:D:2167:U:H2'	7:D:2168:G:O4'	2.18	0.43
7:D:2226:C:C2'	7:D:2227:A:C5'	2.86	0.43
7:D:2325:G:C5	7:D:2326:C:C5	3.06	0.43
7:D:2540:C:C4	7:D:2541:A:C8	3.06	0.43
7:D:2545:G:C6	7:D:2546:U:O2	2.71	0.43
7:D:460:A:C6	7:D:470:A:N7	2.87	0.43
7:D:492:A:C8	7:D:493:G:C8	3.06	0.43
7:D:539:G:HO2'	7:D:540:G:H5'	1.79	0.43
7:D:728:G:O2'	7:D:729:G:P	2.76	0.43
7:D:948:G:C6	7:D:949:C:N3	2.86	0.43
8:E:9:G:H1'	8:E:112:G:N2	2.33	0.43
11:H:10:ARG:O	11:H:13:ARG:HB2	2.18	0.43
6:A:1347:G:H3'	16:M:108:VAL:O	2.18	0.43
25:V:63:GLN:O	25:V:66:LEU:HG	2.18	0.43
26:W:34:TRP:O	26:W:34:TRP:CE3	2.71	0.43
26:W:36:ARG:O	26:W:70:LYS:CD	2.66	0.43
7:D:1310:G:OP2	28:Y:9:ARG:NH2	164.53	0.43
3:3:12:LEU:HB3	3:3:13:PRO:CD	2.48	0.43
4:4:75:C:C2	7:D:2252:G:N2	2.86	0.43
6:A:1164:G:C2'	6:A:1165:C:H5'	2.48	0.43
6:A:1171:G:C2	6:A:1172:C:C4	3.07	0.43
6:A:1238:A:C2	6:A:1303:C:H4'	2.52	0.43
6:A:1426:C:C2	6:A:1475:G:C2	3.06	0.43
6:A:302:G:H4'	19:P:17:LYS:HZ2	1.81	0.43
6:A:370:C:H2'	6:A:371:G:H8	1.80	0.43
6:A:393:A:C4	6:A:394:G:C8	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:413:G:H2'	6:A:428:G:N2	2.34	0.43
6:A:837:G:N1	6:A:838:G:O6	2.51	0.43
6:A:892:A:C2	6:A:893:C:C2	3.06	0.43
6:A:996:A:H2'	6:A:997:U:H6	1.83	0.43
56:B:179:GLU:O	56:B:183:GLN:HG2	2.18	0.43
56:B:370:ILE:CG2	56:B:371:ALA:N	2.76	0.43
56:B:64:VAL:CB	56:B:80:LEU:CA	2.96	0.43
56:B:91:TYR:O	56:B:94:SER:HB2	2.19	0.43
7:D:1047:G:N2	7:D:1110:G:H2'	2.34	0.43
7:D:1060:U:OP1	7:D:1061:U:C2	2.70	0.43
7:D:1062:G:O2'	7:D:1063:G:O5'	2.19	0.43
7:D:1165:U:H4'	7:D:1224:G:H22	1.83	0.43
7:D:118:A:C4	7:D:177:G:N2	2.86	0.43
7:D:1203:G:O6	7:D:1205:U:H1'	2.18	0.43
7:D:1314:C:N3	7:D:1338:G:N2	2.55	0.43
7:D:1416:G:HO2'	7:D:1417:C:H6	1.65	0.43
7:D:1487:G:H2'	7:D:1488:G:C8	2.50	0.43
7:D:1581:G:C6	7:D:1582:C:O2	2.71	0.43
7:D:1632:A:C6	7:D:1633:G:C6	3.06	0.43
7:D:1675:C:N4	56:B:129:HIS:CE1	85.82	0.43
7:D:1800:C:OP1	7:D:1800:C:H4'	2.17	0.43
7:D:2033:A:N6	7:D:2036:C:C2	2.83	0.43
7:D:2037:G:C6	7:D:2038:G:C6	3.07	0.43
7:D:208:C:H2'	7:D:209:C:C6	2.53	0.43
7:D:2125:G:H1	7:D:2172:U:P	2.38	0.43
7:D:2141:G:O2'	7:D:2142:C:H5'	2.19	0.43
7:D:2193:G:N1	7:D:2194:G:C5	2.87	0.43
7:D:2212:A:O2'	7:D:2213:U:C5	2.70	0.43
7:D:2379:G:C2	7:D:2380:C:C2	3.06	0.43
7:D:2399:G:C2	7:D:2400:G:C4	3.06	0.43
7:D:2548:G:N1	7:D:2549:G:C5	2.86	0.43
7:D:2652:C:H2'	7:D:2653:U:C5	2.54	0.43
7:D:2691:C:N3	7:D:2719:G:N2	2.66	0.43
7:D:270(X):G:C4	7:D:270(Y):G:H1'	2.54	0.43
7:D:2781:A:C4	7:D:2782:G:H1'	2.53	0.43
7:D:2844:G:C4	7:D:2845:G:C8	3.07	0.43
7:D:2887:U:O5'	7:D:2887:U:C6	2.71	0.43
7:D:312:G:H5''	7:D:313:C:OP2	2.18	0.43
7:D:438:G:H2'	7:D:438:G:N3	2.33	0.43
7:D:528:A:C6	7:D:2042:A:C5	3.06	0.43
7:D:56:A:C5	7:D:57:C:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:742:G:N2	7:D:743:G:C4	2.86	0.43
7:D:880:G:C2'	7:D:881:G:H4'	2.46	0.43
7:D:93:C:N4	7:D:94:G:C4	2.87	0.43
7:D:958:U:O2'	7:D:959:A:P	2.76	0.43
9:F:209:ARG:O	9:F:212:GLN:HB2	2.18	0.43
9:F:49:GLU:HA	9:F:52:GLU:OE1	2.17	0.43
10:G:112:SER:HB3	10:G:115:LEU:HD12	1.99	0.43
11:H:18:LYS:O	11:H:19:LEU:HD23	2.18	0.43
13:J:75:LEU:HD23	13:J:75:LEU:HA	2.26	0.43
14:K:112:PRO:HB2	14:K:113:GLU:H	1.56	0.43
6:A:1343:G:O2'	16:M:121:ARG:HD2	2.19	0.43
17:N:55:LYS:HE3	17:N:55:LYS:HB2	1.82	0.43
24:U:93:GLN:HB3	24:U:104:LYS:HE2	1.99	0.43
18:O:110:ASP:HB3	25:V:85:LEU:HB3	1.99	0.43
29:Z:130:ILE:HG22	29:Z:131:LEU:HD23	2.00	0.43
29:Z:56:GLN:O	29:Z:201:PRO:HB3	2.17	0.43
29:Z:26:ALA:HA	29:Z:29:VAL:HG12	2.00	0.43
29:Z:60:GLY:HA2	29:Z:142:ALA:HA	1.99	0.43
3:3:115:LEU:HD23	3:3:116:ASN:H	1.83	0.43
3:3:115:LEU:HD23	3:3:116:ASN:N	2.34	0.43
5:5:19:G:OP1	5:5:60:U:N3	2.52	0.43
6:A:1028(A):C:H3'	6:A:1028(B):C:C6	2.53	0.43
6:A:1099:G:N1	6:A:1100:C:O2	2.52	0.43
6:A:1177:G:N2	6:A:1181:G:H21	2.16	0.43
6:A:11:G:H1	6:A:23:C:N4	2.16	0.43
6:A:1343:G:H1'	16:M:121:ARG:NH1	2.33	0.43
6:A:1447:G:C2	6:A:1460:A:C2	3.07	0.43
6:A:1510:U:H2'	6:A:1511:G:C8	2.53	0.43
6:A:218:C:C4	6:A:219:C:N4	2.86	0.43
6:A:448:A:H2'	6:A:449:C:C6	2.53	0.43
6:A:476:G:C6	6:A:477:G:O6	2.72	0.43
6:A:502:G:N1	6:A:544:G:C5	2.86	0.43
6:A:565:U:C4	6:A:566:G:C6	3.07	0.43
6:A:579:G:C6	6:A:580:U:C4	3.06	0.43
6:A:594:G:H2'	6:A:595:G:O4'	2.18	0.43
6:A:597:G:N3	6:A:644:G:C2	2.86	0.43
6:A:645:C:C4	6:A:646:U:C4	3.06	0.43
6:A:681:C:C2	6:A:682:G:C8	3.06	0.43
6:A:722:A:H3'	6:A:722:A:N3	2.32	0.43
6:A:843:U:H6	6:A:843:U:H5'	1.83	0.43
6:A:86:U:OP2	6:A:87:A:C4	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:881:G:C6	6:A:882:C:C4	3.06	0.43
6:A:900:A:C6	6:A:901:A:C5	3.06	0.43
6:A:99:C:H2'	6:A:101:A:H8	1.72	0.43
56:B:240:ASP:CB	56:B:266:ALA:HB2	2.41	0.43
56:B:414:ILE:O	56:B:449:GLU:C	2.57	0.43
56:B:431:LYS:CB	56:B:458:GLU:HB2	2.43	0.43
7:D:1109:C:C5	7:D:1110:G:N3	2.82	0.43
7:D:1142(A):A:C6	7:D:1143:A:C8	3.07	0.43
7:D:1139:G:O2'	7:D:1143:A:O4'	2.23	0.43
7:D:1203:G:H2'	7:D:1203:G:N3	2.33	0.43
7:D:1205:U:N3	7:D:1207:C:N4	2.66	0.43
7:D:1379:A:O2'	7:D:1380:G:P	2.75	0.43
7:D:1480:G:N3	7:D:1480:G:H2'	2.33	0.43
7:D:1512:G:H8	7:D:1512:G:OP2	2.00	0.43
7:D:154:G:C4	7:D:155:C:C6	3.06	0.43
7:D:1629:U:H2'	7:D:1630:G:C8	2.53	0.43
7:D:1668:A:C6	7:D:1674:G:N3	2.82	0.43
7:D:118:A:C4	7:D:177:G:C2	3.06	0.43
7:D:1787:A:O5'	7:D:1787:A:H8	2.02	0.43
7:D:1789:A:N7	7:D:1790:C:N3	2.66	0.43
7:D:1817:G:H5''	7:D:1818:U:OP2	2.18	0.43
7:D:1885:A:H5''	7:D:1886:C:OP2	2.18	0.43
7:D:1912:A:C6	7:D:1919:A:N6	2.87	0.43
7:D:1938:A:H4'	7:D:1939:U:OP2	2.16	0.43
7:D:210:C:OP2	7:D:210:C:C6	2.72	0.43
7:D:2114:A:H3'	7:D:2115:G:H8	1.84	0.43
7:D:2199:A:C2'	7:D:2205:C:C5'	2.89	0.43
7:D:2458:G:H21	7:D:2459:A:H61	1.66	0.43
7:D:2519:U:C2	7:D:2542:A:N6	2.87	0.43
7:D:257:A:OP2	7:D:257:A:H8	2.01	0.43
7:D:2703:C:N3	7:D:2704:C:N4	2.66	0.43
7:D:270(A):A:H5'	7:D:270(B):A:O5'	2.18	0.43
7:D:344:G:N2	7:D:345:A:C5	2.86	0.43
7:D:435:C:C2'	7:D:436:C:C5'	2.86	0.43
7:D:21:A:N1	7:D:520:G:C6	2.86	0.43
7:D:627:A:N3	7:D:637:A:C5	2.87	0.43
7:D:707:G:N1	7:D:708:C:O2	2.51	0.43
7:D:774:A:C1'	7:D:775:G:C8	3.01	0.43
7:D:835:A:C6	7:D:836:G:C5	3.06	0.43
13:J:2:ARG:HD2	13:J:69:GLU:HB2	2.00	0.43
24:U:45:HIS:O	24:U:73:VAL:HG23	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:V:84:LYS:N	25:V:84:LYS:HD2	2.34	0.43
26:W:60:VAL:HB	26:W:61:TYR:H	1.70	0.43
29:Z:201:PRO:HD2	29:Z:208:PHE:CZ	2.54	0.43
3:3:12:LEU:C	3:3:54:PRO:HB3	2.39	0.43
3:3:60:TYR:CG	3:3:61:ALA:N	2.86	0.43
6:A:1177:G:H8	6:A:1177:G:O5'	2.01	0.43
6:A:1187:G:C2	6:A:1188:A:C4	3.06	0.43
6:A:1321:C:H41	26:W:37:ARG:HH21	1.67	0.43
6:A:141:A:C6	6:A:142:G:C5	3.07	0.43
6:A:247:G:C5	6:A:278:G:C2	3.07	0.43
6:A:256:U:H2'	6:A:257:G:C8	2.54	0.43
6:A:381:C:N4	6:A:382:A:N1	2.66	0.43
6:A:391:G:C6	6:A:392:G:C5	3.06	0.43
6:A:414:A:C4	6:A:415:A:C8	3.07	0.43
6:A:498:A:C2	6:A:547:A:C4	3.06	0.43
6:A:763:G:H2'	6:A:764:C:C6	2.54	0.43
56:B:142:ASN:ND2	56:B:144:ARG:NH2	2.67	0.43
7:D:1301:A:HO2'	7:D:1302:A:P	2.39	0.43
7:D:1364:G:C2	7:D:1368:G:C5	3.07	0.43
7:D:1369:G:N1	7:D:1370:C:N3	2.67	0.43
7:D:1419:A:N1	7:D:1421:G:C4	2.87	0.43
7:D:1427:A:H1'	7:D:1428:C:C5	2.54	0.43
7:D:1454:U:C5	7:D:1455:G:N7	2.86	0.43
7:D:1591:G:O5'	7:D:1591:G:C8	2.70	0.43
7:D:1664:A:H3'	7:D:1664:A:C8	2.53	0.43
7:D:1687:G:C2	7:D:1688:U:C5	3.06	0.43
7:D:1726:G:O6	7:D:1734:C:C2	2.71	0.43
7:D:17:G:H21	7:D:554:U:P	2.41	0.43
7:D:1803:A:C8	7:D:1804:C:C6	3.07	0.43
7:D:1939:U:HO2'	7:D:1940:U:P	2.41	0.43
7:D:2207:C:C3'	7:D:2207:C:C6	3.01	0.43
7:D:270(G):C:H2'	7:D:270(H):C:C1'	2.49	0.43
7:D:2801:A:H2'	7:D:2802:G:OP1	2.18	0.43
7:D:2847:U:C5	7:D:2848:G:N7	2.87	0.43
7:D:326:G:C2	7:D:327:G:C8	3.07	0.43
7:D:41:C:H2'	7:D:43:G:O4'	2.18	0.43
7:D:520:G:C2	7:D:521:G:C4	3.06	0.43
7:D:535:C:C2	7:D:536:A:C8	3.06	0.43
7:D:590:A:C2	7:D:668:G:C2	3.07	0.43
7:D:675:A:C5	7:D:676:A:N1	2.86	0.43
7:D:685:A:N1	7:D:689:A:C2	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:744:G:C6	7:D:745:G:C4	3.07	0.43
7:D:787:U:C2	7:D:791:C:N4	2.86	0.43
7:D:89:G:H3'	7:D:90:U:H5''	2.01	0.43
7:D:918:A:H3'	7:D:919:G:O4'	2.19	0.43
9:F:69:LEU:HD11	9:F:93:VAL:HG23	2.01	0.43
13:J:11:ASN:HA	13:J:12:PRO:HD2	1.73	0.43
13:J:74:ASP:O	13:J:78:GLU:N	2.49	0.43
13:J:99:ALA:HB2	25:V:31:LEU:HD13	2.01	0.43
17:N:32:ALA:HB2	17:N:76:ASN:HB2	2.00	0.43
26:W:52:TYR:CD1	26:W:52:TYR:O	2.72	0.43
28:Y:18:TYR:CE2	28:Y:24:ARG:NH1	2.86	0.43
6:A:1046:A:C8	6:A:1046:A:OP2	2.72	0.43
6:A:1088:G:H2'	6:A:1089:G:C8	2.53	0.43
6:A:1195:C:H2'	6:A:1197:G:O4'	2.19	0.43
6:A:1235:U:H2'	6:A:1236:A:C8	2.48	0.43
6:A:1413:A:N1	6:A:1488:G:C2	2.86	0.43
6:A:166:G:C2	6:A:167:G:C4	3.07	0.43
6:A:286:G:C6	6:A:287:U:N3	2.87	0.43
6:A:308:C:O2'	6:A:309:G:OP1	2.33	0.43
6:A:411:A:C5	6:A:429:U:C4	3.06	0.43
6:A:457:C:O2	6:A:476:G:C2	2.70	0.43
6:A:698:G:C2	6:A:699:C:C2	3.06	0.43
6:A:755:G:H2'	6:A:756:C:C6	2.54	0.43
6:A:806:C:H2'	6:A:807:A:C8	2.53	0.43
6:A:806:C:H2'	6:A:807:A:H8	1.83	0.43
56:B:251:VAL:CG1	56:B:252:ALA:N	2.39	0.43
56:B:33:THR:HG23	56:B:34:HIS:H	1.83	0.43
56:B:379:LYS:H	56:B:406:LEU:CA	2.25	0.43
56:B:382:LEU:HD22	56:B:402:ILE:HG23	2.01	0.43
56:B:447:ARG:C	56:B:448:VAL:CG2	2.86	0.43
56:B:89:PHE:C	56:B:91:TYR:H	2.22	0.43
7:D:1050:A:C5	7:D:2751:G:C2	3.07	0.43
3:3:132:ARG:HH22	7:D:1060:U:C2'	2.31	0.43
7:D:1246:A:H2'	7:D:1247:A:O4'	2.19	0.43
7:D:1332:G:C5	7:D:1609:A:N6	2.86	0.43
7:D:1663:C:H5''	7:D:1664:A:OP1	2.18	0.43
7:D:1728:G:N2	7:D:1729:A:C5	2.87	0.43
7:D:1773:A:H2'	7:D:1774:C:H5'	2.01	0.43
7:D:1776:G:C4	7:D:1789:A:C2	3.07	0.43
7:D:1916:A:C5	7:D:1917:U:O4	2.72	0.43
7:D:1993:U:C5	7:D:1994:C:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2085:C:C4	7:D:2086:U:C4	3.07	0.43
7:D:2246:G:C6	7:D:2247:A:C6	3.06	0.43
7:D:2271:G:C6	7:D:2272:U:N3	2.85	0.43
7:D:2290:G:C6	7:D:2291:U:N3	2.87	0.43
7:D:2519:U:H4'	7:D:2520:C:OP1	2.19	0.43
7:D:2655:G:H2'	7:D:2664:G:C6	2.54	0.43
7:D:2881:C:H5''	7:D:2882:A:OP2	2.18	0.43
7:D:30:G:C2	7:D:511:U:O2	2.71	0.43
7:D:337:C:O3'	7:D:339:U:OP2	2.36	0.43
7:D:364:C:C4	7:D:365:C:N4	2.86	0.43
7:D:366:C:HO2'	7:D:370:G:P	2.42	0.43
7:D:411:G:O5'	7:D:412:A:OP2	2.37	0.43
7:D:564:C:N4	7:D:573:G:OP1	2.49	0.43
7:D:579:G:C2	7:D:580:C:C2	3.07	0.43
7:D:860:U:O4	7:D:917:A:N6	2.52	0.43
7:D:973:A:O2'	7:D:974:G:O5'	2.22	0.43
9:F:19:HIS:HA	9:F:39:ILE:HD11	2.00	0.43
12:I:112:LEU:HD23	12:I:112:LEU:HA	1.86	0.43
13:J:51:PRO:HA	13:J:55:ASP:O	2.19	0.43
15:L:39:LEU:HD12	15:L:39:LEU:HA	1.79	0.43
29:Z:176:GLY:CA	29:Z:180:PHE:CD2	3.02	0.43
29:Z:24:GLU:O	29:Z:27:HIS:HB2	2.18	0.43
3:3:98:ARG:CZ	3:3:100:THR:HA	2.49	0.43
5:5:5:G:H2'	5:5:6:G:C8	2.53	0.43
6:A:193:C:O2'	6:A:194:C:H5'	2.18	0.43
6:A:533:A:OP2	6:A:533:A:O4'	2.36	0.43
6:A:606:G:N2	6:A:631:G:H2'	2.30	0.43
6:A:695:A:C6	6:A:696:A:C6	3.07	0.43
6:A:718:G:C5	18:O:116:HIS:NE2	2.86	0.43
6:A:802:A:C2	6:A:803:G:H1'	2.54	0.43
6:A:860:A:H2'	6:A:861:G:O4'	2.19	0.43
56:B:195:PRO:HG2	56:B:287:THR:HA	1.98	0.43
56:B:330:LEU:HB3	56:B:345:ARG:HH11	1.84	0.43
56:B:417:PRO:HB3	56:B:446:LYS:C	2.21	0.43
56:B:396:LEU:CD2	56:B:491:LYS:HG3	2.49	0.43
7:D:83:G:N2	7:D:102:G:O2'	2.51	0.43
7:D:1047:G:N7	7:D:1110:G:C2	2.86	0.43
7:D:126:A:C5	7:D:127:A:C6	3.07	0.43
7:D:1306:C:H2'	7:D:1307:A:O4'	2.19	0.43
7:D:1433:U:H2'	7:D:1434:A:H8	1.83	0.43
7:D:1728:G:N2	7:D:1730:U:H1'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1741:C:H3'	7:D:1741:C:H6	1.82	0.43
7:D:1749:A:C8	7:D:1749:A:OP2	2.71	0.43
7:D:2019:A:H3'	7:D:2020:A:C5'	2.48	0.43
7:D:2120:G:H5''	7:D:2121:G:OP2	2.18	0.43
7:D:2169:A:H8	7:D:2169:A:P	2.42	0.43
7:D:2432:A:C2	7:D:2433:A:C5	3.07	0.43
7:D:2603:G:H2'	7:D:2604:U:O4'	2.19	0.43
7:D:2696:U:O2	7:D:2697:G:C8	2.71	0.43
7:D:270(C):C:H2'	7:D:270(D):C:O4'	2.19	0.43
7:D:2807:G:H5'	7:D:2808:U:C5	2.50	0.43
7:D:2845:G:N1	7:D:2871:C:O2	2.48	0.43
7:D:2893:G:H4'	7:D:2894:G:OP1	2.17	0.43
7:D:233:A:N6	7:D:429:A:H61	2.17	0.43
7:D:454:A:H4'	7:D:455:C:O2	2.19	0.43
7:D:479:A:O2'	7:D:480:A:C8	2.69	0.43
7:D:541:C:N4	7:D:552:G:H1	2.16	0.43
7:D:616:A:H2'	7:D:617:G:N3	2.34	0.43
7:D:728:G:C8	7:D:728:G:H3'	2.54	0.43
7:D:889:C:N4	7:D:890:A:C2	2.87	0.43
7:D:978:G:C2	7:D:986:C:C2	3.06	0.43
11:H:201:GLN:O	11:H:205:GLU:HB2	2.19	0.43
11:H:63:LYS:HZ1	11:H:198:VAL:HG12	1.83	0.43
14:K:139:GLU:O	14:K:143:ARG:HG2	2.19	0.43
16:M:50:LEU:O	16:M:54:ASP:N	2.51	0.43
17:N:24:VAL:HG11	17:N:28:ARG:HH21	1.83	0.43
19:P:43:VAL:HG12	19:P:44:THR:O	2.18	0.43
6:A:1360:A:OP2	21:R:35:ARG:NH2	2.51	0.43
24:U:40:LYS:HE3	24:U:42:TYR:CE1	2.54	0.43
13:J:89:MET:HB2	25:V:76:LEU:HD11	2.01	0.43
26:W:79:THR:CG2	26:W:80:TYR:N	2.82	0.43
27:X:14:LYS:O	27:X:18:GLN:HG3	2.19	0.43
29:Z:152:ILE:CG2	29:Z:160:ARG:NH1	2.80	0.43
5:5:17:C:H41	7:D:2181:G:H5'	1.81	0.43
5:5:24:G:O5'	5:5:24:G:H8	2.00	0.43
5:5:36:A:C5	5:5:37:A:C8	3.07	0.43
6:A:1010:G:C4	6:A:1011:G:C8	3.07	0.43
6:A:1035:A:C6	6:A:1036:G:N7	2.87	0.43
6:A:1041:A:H8	6:A:1041:A:O5'	2.02	0.43
6:A:1059:C:N3	6:A:1060:C:C4	2.86	0.43
6:A:1167:A:H8	6:A:1167:A:OP1	2.02	0.43
6:A:216:G:H3'	6:A:217:C:C5	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:262:A:C2	6:A:263:A:C4	3.07	0.43
6:A:345:C:H4'	6:A:346:G:O5'	2.18	0.43
6:A:425:G:C4	6:A:426:G:C8	3.07	0.43
6:A:464:G:P	6:A:464:G:H8	2.42	0.43
6:A:46:G:C2	6:A:396:G:C2	3.06	0.43
6:A:527:G:N1	6:A:528:C:N3	2.67	0.43
6:A:580:U:O4	6:A:581:G:N1	2.51	0.43
6:A:617:G:C6	6:A:624:C:N3	2.87	0.43
6:A:76:G:C8	6:A:95:G:N1	2.82	0.43
6:A:774:G:C2	6:A:806:C:C2	3.06	0.43
6:A:818:G:O2'	6:A:819:A:H5''	2.18	0.43
6:A:872:A:HO2'	6:A:873:A:P	2.40	0.43
6:A:994:A:H2'	6:A:994:A:N3	2.33	0.43
56:B:127:HIS:CD2	56:B:127:HIS:O	2.71	0.43
56:B:250:LEU:CD1	56:B:250:LEU:N	2.81	0.43
56:B:417:PRO:CB	56:B:447:ARG:N	2.74	0.43
56:B:19:ASP:HA	57:B:701:GCP:H5'2	2.00	0.43
56:B:70:ALA:HB3	56:B:75:GLU:H	1.83	0.43
7:D:1174:A:C3'	7:D:1175:U:H5''	2.46	0.43
7:D:1297:C:OP1	7:D:2710:C:H4'	2.19	0.43
7:D:1369:G:N1	7:D:1370:C:C2	2.86	0.43
7:D:1439:A:N1	7:D:1553:A:C4	2.87	0.43
7:D:1449(A):G:N2	7:D:1450:C:H1'	2.34	0.43
7:D:1451:C:H2'	7:D:1453:A:OP1	2.19	0.43
7:D:1477:A:C6	7:D:1478:G:O6	2.72	0.43
7:D:1519:G:H3'	7:D:1520:U:N1	2.33	0.43
7:D:1537:C:H2'	7:D:1538:G:H4'	2.00	0.43
7:D:1557:C:H2'	7:D:1558:A:N7	2.34	0.43
7:D:1580:A:C2'	7:D:1581:G:N9	2.82	0.43
7:D:1725:G:N1	7:D:1726:G:N7	2.67	0.43
7:D:173:G:C6	7:D:174:C:N4	2.87	0.43
7:D:1707:G:C2	7:D:1756:G:N2	2.87	0.43
7:D:1792:G:C6	7:D:1828:G:N2	2.86	0.43
7:D:1850:G:C5	7:D:1851:U:C5	3.07	0.43
7:D:1853:A:C6	7:D:1889:A:C6	3.06	0.43
7:D:1993:U:O4'	7:D:1993:U:O2	2.37	0.43
7:D:2099:U:C2	7:D:2100:G:N7	2.87	0.43
7:D:2196:C:C4	7:D:2197:U:O4	2.71	0.43
7:D:2266:A:N3	7:D:2272:U:H5	2.16	0.43
7:D:2333:A:H1'	7:D:2335:A:C4	2.54	0.43
7:D:2383:G:C5	7:D:2384:G:N7	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2396:G:C2	7:D:2397:G:C8	3.07	0.43
7:D:261:G:C2	7:D:262:A:C4	3.06	0.43
7:D:2695:C:H2'	7:D:2696:U:C6	2.53	0.43
7:D:2813:A:H2'	7:D:2814:C:C6	2.53	0.43
7:D:2849:U:C2'	7:D:2850:A:OP2	2.67	0.43
7:D:353:G:C6	7:D:354:G:C5	3.06	0.43
7:D:375:C:N4	7:D:399:G:H1	2.17	0.43
7:D:479:A:N6	7:D:481:G:N3	2.66	0.43
7:D:560:C:N4	7:D:561:G:C6	2.87	0.43
7:D:563:G:N1	7:D:2018:G:N3	2.65	0.43
7:D:718:A:H8	7:D:718:A:O5'	2.01	0.43
9:F:124:SER:OG	9:F:125:PRO:HD2	2.18	0.43
9:F:74:LYS:HE3	9:F:205:ASP:CG	2.39	0.43
11:H:203:VAL:O	11:H:206:PHE:N	2.51	0.43
12:I:144:THR:HG22	12:I:145:LYS:N	2.33	0.43
12:I:79:GLU:N	12:I:79:GLU:OE1	2.36	0.43
24:U:25:ARG:HD2	24:U:27:PHE:HE2	1.84	0.43
26:W:70:LYS:HB2	26:W:73:GLU:OE2	2.15	0.43
29:Z:39:GLU:OE2	29:Z:216:THR:HG21	2.18	0.43
29:Z:91:ALA:HB3	29:Z:94:VAL:HG23	2.00	0.43
3:3:23:VAL:O	3:3:25:PRO:HD2	2.19	0.43
5:5:55:U:C4	5:5:57:G:OP2	2.72	0.43
6:A:1175:G:N3	6:A:1176:A:C8	2.87	0.43
6:A:1201:A:HO2'	6:A:1202:G:P	2.41	0.43
6:A:1235:U:C2	6:A:1236:A:C8	3.07	0.43
6:A:1304:G:H1	6:A:1332:A:P	2.42	0.43
6:A:1343:G:H4'	16:M:122:ALA:O	2.19	0.43
6:A:285:G:H2'	6:A:286:G:C8	2.54	0.43
6:A:538:G:C2	6:A:539:A:C4	3.06	0.43
6:A:5:U:C1'	6:A:6:G:OP2	2.66	0.43
6:A:710:G:H2'	6:A:711:G:H8	1.84	0.43
6:A:830:G:C6	6:A:831:U:C4	3.07	0.43
6:A:848:C:OP1	6:A:848:C:C6	2.72	0.43
6:A:981:U:C2	6:A:982:U:H5	2.37	0.43
56:B:143:ALA:O	56:B:145:PRO:HD3	2.19	0.43
56:B:361:LEU:HA	56:B:365:PHE:HD1	1.84	0.43
56:B:385:GLY:O	56:B:386:GLU:HB2	2.19	0.43
56:B:80:LEU:C	56:B:81:ILE:CG1	2.87	0.43
7:D:1022:G:H21	7:D:1024:G:H22	1.63	0.43
7:D:1062:G:O6	7:D:1077:A:C4	2.72	0.43
7:D:1293:C:N3	7:D:1294:U:C4	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1434:A:C4	7:D:1435:G:C8	3.06	0.43
7:D:1449:A:OP1	7:D:1543:A:N1	2.52	0.43
7:D:1859:A:C2	7:D:1885:A:C8	3.07	0.43
7:D:2399:G:H1	7:D:2417:C:N4	2.14	0.43
7:D:2396:G:C2	7:D:2421:G:N1	2.87	0.43
7:D:2711:A:C5'	7:D:2712:U:H5'	2.47	0.43
7:D:2638:G:C5	7:D:2775:A:C6	3.07	0.43
7:D:2631:G:C5'	7:D:2894:G:H5''	2.49	0.43
7:D:271:G:C5	7:D:404:C:N3	2.87	0.43
7:D:465:G:C6	7:D:466:A:C6	3.06	0.43
7:D:602:G:N2	7:D:656:G:C5	2.87	0.43
7:D:660:G:C6	7:D:661:C:N3	2.86	0.43
7:D:775:G:H5''	7:D:777:A:C8	2.54	0.43
7:D:875:G:C5	7:D:876:C:C4	3.07	0.43
7:D:909:A:N7	7:D:912:C:N3	2.66	0.43
7:D:921:G:C5	7:D:922:U:C4	3.07	0.43
8:E:21:G:C2	8:E:22:U:C2	3.07	0.43
8:E:7:G:H3'	8:E:8:U:C5	2.54	0.43
12:I:70:PRO:HA	12:I:95:ALA:HB2	16.94	0.43
15:L:19:VAL:O	15:L:20:TYR:HB2	2.19	0.43
15:L:49:GLU:OE1	15:L:49:GLU:N	2.52	0.43
18:O:40:ILE:HB	18:O:41:THR:H	1.56	0.43
19:P:85:ILE:HA	19:P:85:ILE:HD12	1.82	0.43
20:Q:30:ALA:O	20:Q:33:ALA:N	2.52	0.43
22:S:80:ALA:O	22:S:84:LYS:HB2	2.18	0.43
6:A:44:G:OP2	23:T:12:LYS:HB2	2.19	0.43
23:T:74:LEU:HA	23:T:77:ALA:HB3	1.99	0.43
24:U:13:ASP:CG	24:U:14:LYS:H	2.20	0.43
27:X:76:ALA:O	27:X:80:ARG:HG2	2.19	0.43
29:Z:163:PHE:O	29:Z:164:ARG:HB2	2.19	0.43
3:3:35:MET:HG3	3:3:36:GLU:N	2.32	0.42
3:3:55:VAL:O	3:3:55:VAL:HG13	2.19	0.42
4:4:28:C:H2'	4:4:29:G:H8	1.83	0.42
4:4:30:G:C2	4:4:31:G:C8	3.07	0.42
4:4:49:G:H1	4:4:65:C:N4	2.16	0.42
6:A:1043:C:H2'	6:A:1044:A:C8	2.50	0.42
6:A:1074:G:O2'	6:A:1101:A:N1	2.37	0.42
6:A:1120:G:C2	6:A:1121:U:C2	3.07	0.42
6:A:1206:G:C6	6:A:1207:G:C5	3.07	0.42
6:A:1300:G:OP2	6:A:1300:G:O4'	2.37	0.42
6:A:1419:G:C5	6:A:1482:G:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1452:C:C2'	6:A:1453:G:N2	2.80	0.42
6:A:172:A:N7	6:A:174:C:C2	2.87	0.42
6:A:294:U:H2'	6:A:295:C:H6	1.84	0.42
6:A:403:C:H2'	6:A:404:U:C6	2.53	0.42
6:A:448:A:C2	6:A:449:C:C4	3.07	0.42
6:A:474:G:N2	6:A:475:G:N3	2.67	0.42
6:A:586:C:H42	6:A:755:G:H1	1.67	0.42
6:A:741:G:H2'	6:A:742:G:H8	1.84	0.42
6:A:814:A:C8	6:A:816:A:N7	2.87	0.42
6:A:848:C:N3	6:A:849:C:N4	2.66	0.42
6:A:575:G:C4	6:A:881:G:N2	2.87	0.42
56:B:121:PHE:CZ	56:B:157:GLY:N	2.80	0.42
56:B:238:THR:OG1	56:B:267:ALA:HB1	2.15	0.42
56:B:252:ALA:O	56:B:253:THR:OG1	2.32	0.42
56:B:281:THR:CG2	56:B:287:THR:OG1	2.66	0.42
56:B:396:LEU:HD22	56:B:491:LYS:HG3	2.01	0.42
56:B:489:LEU:CA	56:B:509:HIS:CA	2.67	0.42
56:B:543:GLY:O	56:B:545:ILE:N	2.52	0.42
7:D:1056:G:C8	7:D:1056:G:H3'	2.54	0.42
7:D:1131:G:N2	7:D:1132:A:C2	2.87	0.42
7:D:1138:G:C2	7:D:1139:G:C4	3.07	0.42
7:D:1163:G:C2	7:D:1164:G:C4	3.06	0.42
7:D:1192:G:C2	7:D:1193:G:C8	3.07	0.42
7:D:1251:C:H5'	16:M:10:ARG:NE	170.81	0.42
7:D:1258:C:N4	7:D:1259:G:O6	2.51	0.42
7:D:1268:A:C5	7:D:1269:A:C5	3.07	0.42
7:D:1288:U:O4	7:D:1327:C:H1'	2.18	0.42
7:D:1429:G:C2	7:D:1430:C:C2	3.07	0.42
7:D:1623:G:C2	7:D:1624:G:C8	3.07	0.42
7:D:1627:G:C5	7:D:1640:C:N3	2.87	0.42
7:D:1725:G:N1	7:D:1735:C:N3	2.66	0.42
7:D:1872:A:H2'	7:D:1878:G:OP1	2.19	0.42
7:D:1899:G:N2	7:D:1902:C:H41	2.16	0.42
7:D:1995:U:C4	7:D:1996:C:C5	3.07	0.42
7:D:1992:G:O6	7:D:1997:G:C2	2.71	0.42
7:D:2104:G:H2'	7:D:2105:C:C6	2.54	0.42
7:D:2105:C:H2'	7:D:2106:G:C8	2.54	0.42
7:D:223:A:O2'	7:D:224:G:OP2	2.30	0.42
7:D:2448:A:O2'	7:D:2449:U:OP1	2.37	0.42
7:D:2528:U:O2'	7:D:2529:G:H3'	2.18	0.42
7:D:2572:A:O2'	7:D:2573:C:P	2.77	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2782:G:C2	7:D:2783:G:C5	3.06	0.42
7:D:2818:G:C2	7:D:2819:G:C4	3.07	0.42
7:D:456:C:C4	19:P:69:TYR:CD2	139.94	0.42
7:D:799:G:N1	7:D:800:A:N6	2.67	0.42
7:D:818:G:N2	7:D:1190:G:C4	2.87	0.42
7:D:869:G:C2	7:D:870:A:C5	3.07	0.42
7:D:883:G:C2'	7:D:892:G:O6	2.62	0.42
8:E:4:C:C2	8:E:117:G:N2	2.87	0.42
8:E:13:A:N6	8:E:69:G:HO2'	2.17	0.42
9:F:52:GLU:O	9:F:56:ARG:HG2	2.18	0.42
11:H:196:LEU:O	11:H:196:LEU:HD12	2.19	0.42
13:J:46:ARG:HB3	13:J:60:PHE:CE2	2.54	0.42
19:P:93:LEU:HA	19:P:94:PRO:HD3	1.76	0.42
25:V:58:LEU:HB2	25:V:63:GLN:OE1	2.19	0.42
18:O:108:ILE:HB	25:V:88:LYS:OXT	2.19	0.42
29:Z:44:HIS:ND1	29:Z:172:HIS:HB3	2.34	0.42
1:1:35:ARG:CZ	7:D:2742:C:H5''	2.49	0.42
1:1:2:LYS:HE2	1:1:37:GLY:OXT	2.19	0.42
3:3:79:ARG:NH1	3:3:134:MET:SD	2.93	0.42
3:3:10:LEU:HG	3:3:57:ILE:CG1	2.43	0.42
4:4:17:C:H5''	4:4:17(A):U:C6	2.54	0.42
6:A:1044:A:H5''	6:A:1045:C:OP2	2.19	0.42
6:A:954:G:O6	6:A:1225:A:N6	2.52	0.42
6:A:1235:U:C2	6:A:1236:A:N7	2.87	0.42
6:A:1284:C:H3'	6:A:1285:A:C8	2.52	0.42
6:A:1354:C:N4	6:A:1368:G:H1	2.17	0.42
6:A:1426:C:H2'	6:A:1427:U:H6	1.83	0.42
6:A:284:G:N1	6:A:285:G:C5	2.87	0.42
6:A:373:A:C2	6:A:374:A:C8	3.07	0.42
6:A:410:G:H3'	6:A:410:G:OP2	2.18	0.42
6:A:447:G:N2	6:A:488:C:C4	2.87	0.42
6:A:52:G:C2	6:A:53:A:C4	3.07	0.42
6:A:560:U:C5	6:A:566:G:C4	3.07	0.42
6:A:597:G:N1	6:A:644:G:C6	2.87	0.42
6:A:671:G:C6	6:A:672:U:C2	3.07	0.42
6:A:722:A:C2	6:A:724:G:C5	3.08	0.42
6:A:754:C:H3'	6:A:755:G:C5'	2.49	0.42
6:A:837:G:C8	6:A:837:G:O5'	2.71	0.42
56:B:397:PRO:HB2	56:B:401:ARG:HH21	1.83	0.42
56:B:398:ASP:OD2	56:B:399:PRO:HD3	2.19	0.42
56:B:537:ILE:HD11	56:B:551:VAL:HG21	1.96	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:74:GLU:HG3	56:B:77:VAL:HG11	2.00	0.42
7:D:1423:G:H2'	7:D:1424:G:C8	2.53	0.42
7:D:1457:A:O2'	7:D:1459:G:C1'	2.67	0.42
7:D:1459:G:O6	7:D:1461:G:C2	2.72	0.42
7:D:1605:C:C5	7:D:1606:G:C8	3.07	0.42
7:D:1697:G:C4	7:D:1698:A:C2	3.07	0.42
7:D:1707:G:H3'	7:D:1707:G:OP2	2.19	0.42
7:D:1735:C:H6	7:D:1735:C:H3'	1.85	0.42
7:D:1799:G:O2'	7:D:1800:C:O2	2.38	0.42
7:D:1812:A:C2	7:D:1813:G:C4	3.07	0.42
7:D:1860:G:C4	7:D:1861:G:C8	3.07	0.42
7:D:2067:G:N1	7:D:2069:G:C5	2.87	0.42
7:D:2266:A:C4	7:D:2272:U:C5	3.07	0.42
7:D:2487:G:N3	7:D:2488:A:C8	2.88	0.42
7:D:2588:G:C5	7:D:2589:A:N7	2.87	0.42
7:D:2654:A:C4	7:D:2656:U:C4	3.07	0.42
7:D:270(G):C:H5''	7:D:270(H):C:OP2	2.19	0.42
7:D:2740:A:N6	7:D:2764:A:C5	2.87	0.42
7:D:2836:U:H3'	7:D:2836:U:H6	1.84	0.42
7:D:1:G:C2'	7:D:2:G:H8	2.32	0.42
7:D:37:C:C2	7:D:38:A:C8	3.06	0.42
7:D:425:G:N2	7:D:426:C:C2	2.87	0.42
7:D:5:A:C6	7:D:6:A:C5	3.07	0.42
7:D:685:A:C8	7:D:773:U:C5	3.07	0.42
7:D:833:U:H2'	7:D:834:C:C6	2.54	0.42
7:D:834:C:C2	7:D:835:A:C8	3.07	0.42
7:D:880:G:P	7:D:881:G:OP2	2.77	0.42
7:D:923:C:O5'	7:D:923:C:C6	2.70	0.42
7:D:932:G:H2'	7:D:933:A:C1'	2.49	0.42
7:D:971:C:OP2	7:D:974(A):C:C5	2.72	0.42
8:E:34:U:O2'	8:E:35:U:P	2.77	0.42
9:F:208:ILE:HG22	9:F:212:GLN:HE21	1.84	0.42
12:I:15:ARG:NH1	12:I:26:PHE:CE2	2.88	0.42
14:K:22:LEU:CD2	14:K:97:GLN:HE21	2.32	0.42
14:K:45:ASP:HA	14:K:48:LYS:HZ3	1.83	0.42
20:Q:24:GLY:HA3	20:Q:66:LEU:CB	2.49	0.42
20:Q:67:GLU:OE1	20:Q:67:GLU:HA	2.19	0.42
22:S:5:LYS:O	22:S:9:GLN:HG2	2.19	0.42
23:T:82:GLN:HG3	23:T:83:GLU:N	2.34	0.42
6:A:237:C:H5''	24:U:25:ARG:NH1	2.35	0.42
26:W:36:ARG:HG2	26:W:36:ARG:H	1.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:Z:131:LEU:HA	29:Z:136:LEU:HD12	2.01	0.42
4:4:7:G:O2'	4:4:49:G:O4'	2.30	0.42
6:A:1147:C:O2	16:M:16:ARG:NH2	2.41	0.42
6:A:114:U:O2'	6:A:115:G:H5'	2.19	0.42
6:A:1319:A:O5'	26:W:37:ARG:HB3	2.18	0.42
6:A:1319:A:HO2'	6:A:1320:C:P	2.42	0.42
6:A:150:C:O2	6:A:171:A:N6	2.51	0.42
6:A:440:A:N6	6:A:494:U:O5'	2.52	0.42
6:A:537:G:C6	6:A:538:G:C5	3.07	0.42
6:A:539:A:C6	6:A:540:G:C5	3.08	0.42
6:A:52:G:N1	6:A:53:A:C4	2.87	0.42
6:A:576:G:H3'	6:A:577:G:C5'	2.49	0.42
6:A:635:G:C2	6:A:636:U:C2	3.08	0.42
6:A:767:A:N6	6:A:813:U:H3	2.17	0.42
6:A:943:U:H2'	6:A:944:G:H8	1.82	0.42
56:B:425:MET:HE3	56:B:435:LEU:HD13	2.01	0.42
56:B:42:ARG:CG	56:B:43:GLU:N	2.80	0.42
56:B:504:LEU:HD12	56:B:504:LEU:N	2.35	0.42
56:B:66:VAL:O	56:B:76:TYR:CD2	2.72	0.42
7:D:1025:G:N3	7:D:1025:G:C2'	2.83	0.42
7:D:117:G:C5	7:D:119:A:N6	2.87	0.42
7:D:1206:G:H8	7:D:1206:G:OP2	2.01	0.42
7:D:1206:G:N2	7:D:1242:A:N6	2.67	0.42
7:D:1319:G:C2	7:D:1334:G:C5	3.07	0.42
7:D:1394:U:N3	7:D:1395:A:C6	2.87	0.42
7:D:1412:A:C4	7:D:1591:G:N2	2.87	0.42
7:D:1415:U:O3'	7:D:1416:G:H4'	2.19	0.42
7:D:1443:G:C2	7:D:1444:G:C4	3.07	0.42
7:D:1515:C:N3	7:D:1516:U:C4	2.87	0.42
7:D:1534:G:C5	7:D:1536:A:OP2	2.72	0.42
7:D:1583:A:H5'	7:D:1585:C:O5'	2.19	0.42
7:D:155:C:O2'	7:D:161:U:P	2.77	0.42
7:D:1735:C:H2'	7:D:1741:C:C2	2.54	0.42
7:D:118:A:C2	7:D:177:G:N1	2.87	0.42
7:D:2077:A:C2	7:D:2078:C:C4	3.07	0.42
7:D:2104:G:N1	7:D:2105:C:N3	2.66	0.42
7:D:2166:G:N2	7:D:2171:A:C8	2.87	0.42
7:D:2356:C:H5'	7:D:2357:U:OP2	2.20	0.42
7:D:2418:A:C5	7:D:2419:U:C2	3.07	0.42
7:D:2422:A:C8	7:D:2424:C:N4	2.87	0.42
7:D:2509:G:C2	7:D:2510:C:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:259:G:N3	7:D:260:G:C8	2.86	0.42
7:D:270(O):U:H5''	7:D:270(P):C:H5	1.84	0.42
7:D:2709:G:C6	7:D:2710:C:N3	2.87	0.42
7:D:2774:C:H2'	7:D:2775:A:H8	1.85	0.42
7:D:2805:G:C5	7:D:2807:G:C8	3.08	0.42
7:D:2837:G:N3	7:D:2838:G:C8	2.86	0.42
7:D:309:G:O2'	7:D:329:G:C4	2.72	0.42
7:D:273(F):C:O2'	7:D:363(A):A:N3	2.52	0.42
7:D:435:C:C3'	7:D:435:C:C6	3.01	0.42
7:D:441:U:O5'	7:D:441:U:H6	2.01	0.42
7:D:455:C:O2'	7:D:456:C:P	2.77	0.42
7:D:478:A:C6	7:D:480:A:N6	2.87	0.42
7:D:491:G:H2'	7:D:492:A:O5'	2.19	0.42
7:D:571:A:C6	7:D:575:A:N7	2.87	0.42
7:D:775:G:C5'	7:D:777:A:C4	3.01	0.42
7:D:857:C:C2	7:D:921:G:N2	2.88	0.42
7:D:884:C:H1'	7:D:885:C:C5	2.55	0.42
7:D:960:A:N7	7:D:962:G:C4	2.88	0.42
8:E:9:G:C5	8:E:112:G:C6	3.07	0.42
8:E:118:G:OP2	8:E:118:G:H3'	2.18	0.42
12:I:76:ILE:HD12	12:I:91:LEU:CD2	2.49	0.42
13:J:35:ALA:HA	13:J:66:GLU:O	2.20	0.42
25:V:18:ARG:HD2	25:V:21:LYS:HB2	2.02	0.42
28:Y:8:THR:HB	28:Y:9:ARG:H	1.57	0.42
29:Z:116:THR:O	29:Z:120:MET:HG2	2.19	0.42
3:3:51:ALA:HB1	3:3:77:LEU:HA	2.01	0.42
6:A:1040:U:C4	6:A:1041:A:N6	2.87	0.42
6:A:1128:C:H3'	6:A:1139:G:N7	2.34	0.42
6:A:1129:C:N3	6:A:1143:G:C2	2.88	0.42
6:A:1152:A:N6	6:A:1153:C:C4	2.87	0.42
6:A:1321:C:H5	26:W:37:ARG:CZ	2.31	0.42
6:A:922:G:N2	6:A:1396:A:C4	2.88	0.42
6:A:1431:C:H2'	6:A:1432:G:O4'	2.19	0.42
6:A:424:G:C2	6:A:425:G:C4	3.07	0.42
6:A:410:G:C2	6:A:429:U:N3	2.87	0.42
6:A:49:U:C2	6:A:364:A:N6	2.88	0.42
6:A:703:G:O2'	6:A:704:A:P	2.74	0.42
6:A:799:G:H3'	6:A:800:G:C8	2.54	0.42
6:A:81:G:OP2	6:A:82:U:H5	2.02	0.42
6:A:848:C:C3'	6:A:848:C:C6	3.02	0.42
6:A:853:G:C2	6:A:854:G:C8	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:934:C:HO2'	6:A:935:A:P	2.41	0.42
56:B:17:HIS:NE2	56:B:116:GLU:CD	2.73	0.42
56:B:138:ILE:O	56:B:138:ILE:HG22	2.20	0.42
56:B:204:VAL:CG1	56:B:205:TYR:H	2.12	0.42
56:B:360:ARG:O	56:B:364:GLU:CB	2.68	0.42
56:B:427:LEU:CD1	56:B:466:ARG:HD2	2.48	0.42
7:D:1037:G:N2	7:D:1038:C:O2	2.52	0.42
7:D:1239:G:C4	7:D:1240:U:H1'	2.54	0.42
7:D:1284:A:H2'	7:D:1285:G:C8	2.54	0.42
7:D:1368:G:N3	7:D:1369:G:C8	2.88	0.42
7:D:1492:G:OP1	7:D:1493:C:OP2	2.36	0.42
7:D:1486:A:N6	7:D:1504:C:H42	2.17	0.42
7:D:1643:G:H2'	7:D:1644:C:O4'	2.20	0.42
7:D:1795:C:H2'	7:D:1796:U:O4'	2.19	0.42
7:D:1817:G:O5'	7:D:1817:G:H8	2.02	0.42
7:D:1919:A:OP2	7:D:1920:C:C5	2.72	0.42
7:D:1924:C:N3	7:D:1925:C:H5	2.17	0.42
7:D:1935:G:C2	7:D:1964:G:C4	3.07	0.42
7:D:1965:C:C2	7:D:1966:A:N7	2.88	0.42
7:D:1967:C:N4	7:D:1968:G:C6	2.88	0.42
7:D:2114:A:N3	7:D:2167:U:O2'	2.34	0.42
7:D:2206:C:C2'	7:D:2207:C:H5'	2.48	0.42
1:I:31:LYS:NZ	7:D:2478:A:O5'	2.51	0.42
7:D:2497:A:HO2'	7:D:2498:C:P	2.37	0.42
7:D:2692:C:H2'	7:D:2693:A:C8	2.52	0.42
7:D:2895:U:C3'	7:D:2895:U:C6	3.02	0.42
7:D:38:A:C2	7:D:39:C:N3	2.88	0.42
7:D:55:G:H2'	7:D:56:A:C8	2.54	0.42
7:D:708:C:N4	7:D:709:U:O4	2.53	0.42
7:D:710:G:C4	7:D:711:G:C8	3.07	0.42
7:D:78:A:C6	7:D:109:G:C6	3.06	0.42
7:D:918:A:N3	7:D:919:G:H1'	2.34	0.42
7:D:938:G:H2'	7:D:939:G:H8	1.84	0.42
8:E:-1:A:N7	8:E:0:A:H8	2.18	0.42
9:F:118:LEU:HA	9:F:121:LEU:HB2	2.01	0.42
9:F:54:THR:HG21	9:F:201:ILE:CD1	2.46	0.42
13:J:6:VAL:O	13:J:7:ASN:ND2	2.52	0.42
15:L:34:GLU:CG	15:L:118:VAL:HB	2.49	0.42
17:N:8:LEU:HD21	17:N:16:LEU:HD22	2.01	0.42
6:A:691:G:C8	18:O:26:ASN:ND2	2.87	0.42
19:P:124:LYS:HD3	19:P:127:GLU:OE1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:363:A:OP1	19:P:33:ARG:HD3	2.20	0.42
19:P:68:ALA:HB1	19:P:85:ILE:HD11	2.01	0.42
26:W:15:LEU:CB	26:W:71:LEU:HD13	2.50	0.42
6:A:1003:G:C6	6:A:1004:A:C5	3.07	0.42
6:A:1015:A:C2	6:A:1016:A:C4	3.08	0.42
6:A:1074:G:C6	6:A:1075:C:C4	3.07	0.42
6:A:1129:C:O2'	6:A:1130:A:H3'	2.20	0.42
6:A:1144:G:N1	6:A:1145:C:C2	2.87	0.42
6:A:1245:A:N6	6:A:1291:G:O6	2.52	0.42
6:A:1250:A:C6	6:A:1251:A:C2	3.08	0.42
6:A:1260:C:O5'	6:A:1284:C:H4'	2.19	0.42
6:A:277:C:C2	6:A:278:G:C8	3.08	0.42
6:A:392:G:C2	6:A:393:A:C5	3.08	0.42
6:A:440:A:C6	6:A:494:U:H6	2.37	0.42
6:A:545:C:H2'	6:A:546:G:O4'	2.20	0.42
6:A:59:A:C4	6:A:331:G:N2	2.86	0.42
6:A:680:C:H2'	6:A:681:C:C6	2.51	0.42
6:A:73:G:N3	6:A:73:G:H2'	2.34	0.42
6:A:781:A:O2'	6:A:782:A:OP1	2.35	0.42
6:A:773:G:N1	6:A:807:A:C6	2.87	0.42
6:A:894:G:C4	6:A:895:G:C8	3.08	0.42
56:B:150:LEU:HA	56:B:150:LEU:HD13	1.85	0.42
56:B:282:LEU:CD1	56:B:283:ALA:CA	2.79	0.42
56:B:294:PHE:CD1	56:B:294:PHE:N	2.82	0.42
56:B:358:GLN:O	56:B:362:GLU:HG3	2.20	0.42
56:B:412:LEU:HD12	56:B:479:TYR:CA	2.26	0.42
56:B:415:PHE:HD1	56:B:448:VAL:O	2.02	0.42
56:B:48:SER:C	56:B:50:GLU:N	2.73	0.42
56:B:65:ARG:HD3	56:B:65:ARG:HA	1.58	0.42
7:D:1048:A:C8	7:D:1048:A:O5'	2.73	0.42
7:D:1057:A:C2	7:D:1058:G:N1	2.87	0.42
7:D:1059:G:C2	7:D:1060:U:O2'	2.71	0.42
7:D:1090:U:C2	7:D:1103:A:N6	2.87	0.42
7:D:1148:A:C2	7:D:1149:G:C4	3.08	0.42
7:D:116:C:H2'	7:D:117:G:C8	2.54	0.42
7:D:1194:A:N1	7:D:1195:G:C5	2.87	0.42
7:D:1319:G:H1	7:D:1333:C:H42	1.66	0.42
7:D:1323:U:C4	7:D:1324:G:N7	2.88	0.42
7:D:137(A):G:C2	7:D:142:G:C2	3.08	0.42
7:D:1529:A:H8	7:D:1530:G:N7	2.15	0.42
7:D:1586:A:H2'	7:D:1587:A:C5'	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:164:U:O2	7:D:164:U:H3'	2.19	0.42
7:D:1670:C:OP2	7:D:2550:G:OP1	2.37	0.42
7:D:150:C:N4	7:D:176:G:N1	2.64	0.42
7:D:1778:U:H6	7:D:1778:U:H3'	1.85	0.42
7:D:1784:A:OP2	7:D:1785:A:N1	2.53	0.42
7:D:1799:G:N2	7:D:1818:U:O2'	2.53	0.42
7:D:1930:G:H2'	7:D:1931:U:OP2	2.19	0.42
7:D:1664:A:H61	7:D:1992:G:P	2.43	0.42
7:D:2009:G:C2	7:D:2010:G:C8	3.08	0.42
7:D:2013:A:H2'	7:D:2014:A:C8	2.55	0.42
7:D:2158:A:H1'	7:D:2159:G:OP2	2.19	0.42
7:D:2195:C:H3'	7:D:2196:C:C6	2.55	0.42
7:D:2205:C:H6	7:D:2205:C:H3'	1.85	0.42
7:D:2333:A:C8	7:D:2335:A:C2	3.08	0.42
7:D:2345:G:N3	7:D:2381:C:C2	2.86	0.42
7:D:246:C:H2'	7:D:247:G:C8	2.54	0.42
7:D:2491:U:H3'	7:D:2491:U:C6	2.52	0.42
7:D:2571:C:N4	7:D:2574:G:C8	2.87	0.42
7:D:2577:A:O2'	7:D:2612:C:H2'	2.20	0.42
7:D:259:G:C4	7:D:260:G:C8	3.08	0.42
7:D:2699:C:O2	7:D:2709:G:C2	2.72	0.42
7:D:2773:C:H2'	7:D:2774:C:H6	1.85	0.42
7:D:2865:U:C4	7:D:2866:U:C5	3.08	0.42
7:D:290:G:N1	7:D:349:G:N2	2.67	0.42
7:D:289:A:O2'	7:D:352:G:O6	2.34	0.42
7:D:471:A:N7	7:D:472:A:C5	2.88	0.42
7:D:547:A:C4	7:D:548:A:C8	3.08	0.42
7:D:464:U:O2'	7:D:686:G:O6	2.37	0.42
7:D:713:G:H5'	7:D:714:U:OP1	2.19	0.42
7:D:775:G:H21	7:D:787:U:C2'	2.32	0.42
7:D:6:A:C5	7:D:7:G:N7	2.87	0.42
7:D:926:A:HO2'	7:D:928:G:P	2.37	0.42
8:E:99:A:C6	8:E:100:G:C5	3.07	0.42
10:G:159:GLY:HA2	10:G:193:TYR:CZ	2.54	0.42
15:L:36:LEU:HD13	15:L:48:TYR:CG	2.55	0.42
16:M:127:LYS:HG3	16:M:127:LYS:O	2.20	0.42
16:M:48:GLU:N	16:M:49:PRO:HD2	2.35	0.42
6:A:1124:G:H4'	17:N:38:ILE:HD11	2.00	0.42
17:N:40:LEU:O	17:N:69:ASN:HB2	2.19	0.42
20:Q:8:GLU:HG3	20:Q:21:TYR:HB2	2.01	0.42
20:Q:60:VAL:O	20:Q:66:LEU:HD21	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:Q:71:ARG:HA	20:Q:75:ALA:HB2	1.99	0.42
23:T:55:ARG:HD2	23:T:59:TRP:HE1	1.84	0.42
26:W:36:ARG:HD3	26:W:72:GLY:N	2.30	0.42
26:W:44:MET:C	26:W:45:VAL:HG22	2.22	0.42
6:A:192:U:H5''	27:X:57:ARG:HH22	1.84	0.42
29:Z:176:GLY:HA3	29:Z:180:PHE:CD2	2.54	0.42
5:5:13:C:C2	5:5:23:A:C6	3.08	0.42
6:A:1024:G:H2'	6:A:1025:U:OP2	2.19	0.42
6:A:1032(A):G:H2'	6:A:1032(B):G:H8	1.82	0.42
6:A:1141:C:C4	6:A:1142:G:N7	2.88	0.42
6:A:1307:U:C4	6:A:1308:U:O4	2.72	0.42
6:A:1340:A:C5	6:A:1341:U:C5	3.07	0.42
6:A:20:U:OP2	12:I:125:SER:HB2	2.19	0.42
6:A:21:G:N2	6:A:914:A:H62	2.17	0.42
6:A:430:A:OP1	11:H:9:CYS:N	2.45	0.42
6:A:468:A:N6	6:A:474:G:C2	2.87	0.42
6:A:475:G:C8	6:A:475:G:O5'	2.72	0.42
6:A:601:C:H42	6:A:637:G:H1	1.68	0.42
6:A:668:G:H2'	6:A:669:U:C6	2.55	0.42
6:A:683:G:C6	6:A:684:A:C6	3.08	0.42
6:A:686:U:N3	6:A:703:G:O2'	2.46	0.42
6:A:578:C:O2'	6:A:728:A:N3	2.44	0.42
6:A:796:C:H2'	6:A:797:C:H6	1.83	0.42
6:A:786:G:O6	6:A:797:C:N4	2.53	0.42
56:B:196:LEU:O	56:B:281:THR:HA	2.15	0.42
56:B:200:ILE:HB	56:B:277:GLY:CA	2.49	0.42
56:B:242:VAL:C	56:B:263:TRP:O	2.46	0.42
56:B:285:ARG:HD3	56:B:285:ARG:HA	1.85	0.42
56:B:411:LYS:CD	56:B:436:VAL:CG2	2.75	0.42
56:B:493:ASN:O	56:B:540:ALA:CA	2.67	0.42
56:B:536:PRO:CA	56:B:550:THR:HG22	2.49	0.42
7:D:1024:G:H5''	7:D:1025:G:H5''	2.00	0.42
7:D:1081:U:H3'	7:D:1082:U:C5	2.54	0.42
7:D:1280:G:C2	7:D:1281:G:C4	3.08	0.42
7:D:135:G:N1	7:D:145:G:C6	2.88	0.42
7:D:1350:C:C2	7:D:1382:G:N2	2.88	0.42
7:D:1345:C:OP1	7:D:1385:G:H5''	2.20	0.42
7:D:1422:G:N3	7:D:1423:G:C8	2.87	0.42
7:D:1434:A:N3	7:D:1435:G:C8	2.88	0.42
7:D:1496:A:H2	7:D:1498:C:N3	2.18	0.42
7:D:1581:G:H2'	7:D:1582:C:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1708:C:C4	7:D:1709:U:C4	3.08	0.42
7:D:1746:G:O6	7:D:1747:G:C2	2.70	0.42
7:D:1762:A:C8	7:D:1762:A:OP2	2.73	0.42
7:D:1860:G:H1	7:D:1882:C:H42	1.66	0.42
7:D:1964:G:N2	7:D:1967:C:N3	2.68	0.42
7:D:200:U:O2	7:D:200:U:H2'	2.19	0.42
7:D:2054:A:H62	7:D:2577:A:N6	2.16	0.42
7:D:2078:C:N4	7:D:2079:U:O4	2.53	0.42
7:D:2094:G:H1	7:D:2195:C:H42	1.67	0.42
7:D:210:C:H2'	7:D:211:A:C8	2.54	0.42
7:D:2138:C:H2'	7:D:2153:G:H22	1.85	0.42
7:D:2312:U:N3	7:D:2313:C:C4	2.88	0.42
7:D:2673:G:C6	7:D:2674:G:C6	3.08	0.42
7:D:2732:G:C4'	7:D:2733:A:OP2	2.61	0.42
7:D:2805:G:C2'	7:D:2807:G:H5''	2.49	0.42
7:D:280:C:C4	7:D:360:G:N7	2.88	0.42
7:D:2692:C:H1'	7:D:2847:U:O2'	2.20	0.42
7:D:2862:G:C5	7:D:2863:C:C5	3.06	0.42
7:D:2901:C:C2	7:D:2902:C:N4	2.87	0.42
7:D:346:A:H8	7:D:346:A:O5'	2.03	0.42
7:D:463:G:C2	7:D:467:G:C5	3.07	0.42
7:D:607:U:C2	7:D:621:A:C6	3.07	0.42
7:D:669:G:N3	7:D:801:G:N1	2.68	0.42
7:D:836:G:C5	7:D:837:C:C4	3.07	0.42
7:D:89:G:C4	7:D:90:U:C5	3.02	0.42
7:D:94:G:C6	7:D:95:G:C5	3.07	0.42
8:E:49:C:C4	8:E:50:G:N7	2.88	0.42
8:E:73:A:N1	8:E:74:U:C2	2.87	0.42
6:A:877:C:OP1	15:L:88:LYS:HD3	2.20	0.42
6:A:684:A:O2'	18:O:38:ASN:HB3	2.19	0.42
19:P:65:GLU:HG2	19:P:65:GLU:O	2.19	0.42
20:Q:94:ARG:CZ	20:Q:94:ARG:CB	2.96	0.42
26:W:21:GLU:HG2	26:W:21:GLU:H	1.52	0.42
26:W:70:LYS:HB3	26:W:73:GLU:CA	2.45	0.42
29:Z:22:ILE:HB	29:Z:190:ARG:NH1	2.33	0.42
3:3:55:VAL:CG2	3:3:69:THR:HA	2.50	0.42
4:4:6:G:N2	4:4:68:C:O2	2.52	0.42
5:5:18:G:C8	5:5:58:A:N1	2.88	0.42
6:A:1061:G:C2	6:A:1062:U:O2	2.72	0.42
6:A:1088:G:C4	6:A:1089:G:N7	2.88	0.42
6:A:1125:U:H5'	6:A:1126:U:C5	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1250:A:C6	6:A:1287:A:C4	3.07	0.42
6:A:1303:C:N4	6:A:1304:G:C2	2.88	0.42
6:A:138:G:C4	6:A:139:G:C8	3.08	0.42
6:A:146:G:H2'	6:A:147:G:C8	2.55	0.42
6:A:181:G:O2'	6:A:182:U:P	2.77	0.42
6:A:255:G:P	24:U:69:LYS:NZ	2.93	0.42
6:A:377:G:O2'	6:A:378:G:H5'	2.20	0.42
6:A:479:C:H5	6:A:479:C:OP2	2.01	0.42
6:A:643:C:H2'	6:A:644:G:C8	2.54	0.42
6:A:593:G:C2	6:A:647:C:O2	2.73	0.42
6:A:73:G:N7	6:A:74:C:C4	2.88	0.42
6:A:949:A:C6	6:A:950:U:C2	3.08	0.42
56:B:152:VAL:HA	56:B:156:LEU:H	1.85	0.42
56:B:197:LYS:HB2	56:B:281:THR:HG21	1.89	0.42
56:B:299:PRO:HB2	56:B:300:VAL:H	1.72	0.42
56:B:488:ASP:HB2	56:B:510:ARG:HA	2.01	0.42
56:B:509:HIS:CD2	56:B:509:HIS:O	2.73	0.42
56:B:537:ILE:O	56:B:549:ALA:CB	2.67	0.42
56:B:43:GLU:CB	56:B:53:ARG:NH2	2.29	0.42
7:D:1942:C:O3'	56:B:577:GLN:HG3	2.20	0.42
56:B:93:VAL:HA	56:B:97:LEU:HB2	2.01	0.42
7:D:1003:G:C2	7:D:1153:C:C2	3.07	0.42
7:D:1007:C:H42	7:D:1135:C:N4	2.16	0.42
7:D:1230:C:O5'	7:D:1230:C:H6	2.02	0.42
7:D:1245:G:N1	7:D:1246:A:C5	2.88	0.42
7:D:1324:G:C5	7:D:1328:G:O6	2.73	0.42
7:D:1442:G:C2	7:D:1443:G:C8	3.08	0.42
7:D:1454:U:H5	7:D:1455:G:O6	2.03	0.42
7:D:1454:U:H5	7:D:1455:G:C6	2.37	0.42
7:D:1517:G:C2	7:D:1518:C:C2	3.07	0.42
7:D:1627:G:N2	7:D:1628:G:C4	2.88	0.42
7:D:2159:G:C5	7:D:2160:G:N7	2.88	0.42
7:D:222:A:H5''	7:D:421:U:OP1	2.20	0.42
7:D:2372:G:H1	7:D:2381:C:H42	1.68	0.42
7:D:2429:G:H5''	7:D:2430:A:OP2	2.20	0.42
7:D:2631:G:N2	7:D:2632:A:N3	2.68	0.42
7:D:2668:G:N2	7:D:2669:G:C2	2.87	0.42
7:D:2736:G:H2'	7:D:2737:G:H8	1.83	0.42
7:D:276:A:N3	7:D:276:A:OP2	2.52	0.42
7:D:2808:U:O4	7:D:2891:G:C5	2.72	0.42
7:D:2824:C:C4	7:D:2825:C:N3	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:29:U:H2'	7:D:30:G:C8	2.55	0.42
7:D:311:A:O2'	7:D:312:G:P	2.76	0.42
7:D:295:G:C2	7:D:344:G:N3	2.88	0.42
7:D:13:A:N6	7:D:525:U:C4	2.84	0.42
7:D:549:G:C6	7:D:550:G:C5	3.08	0.42
7:D:626:U:O2'	7:D:627:A:OP1	2.34	0.42
7:D:627:A:N6	7:D:636:G:H2'	2.19	0.42
7:D:683:C:N4	7:D:684:G:O6	2.52	0.42
7:D:80:G:C2	7:D:81:G:C8	3.07	0.42
7:D:909:A:N7	7:D:912:C:C2	2.87	0.42
7:D:93:C:N4	7:D:94:G:C2	2.88	0.42
8:E:83:G:C2	8:E:84:C:C2	3.08	0.42
11:H:165:MET:HG3	11:H:166:LYS:N	2.33	0.42
13:J:8:ILE:O	13:J:61:LEU:HB2	2.19	0.42
14:K:73:MET:HG3	14:K:89:MET:C	2.40	0.42
15:L:86:ILE:HD12	15:L:135:CYS:HA	2.01	0.42
17:N:70:ARG:O	17:N:71:LEU:HD23	2.20	0.42
17:N:79:ARG:HH11	17:N:82:ILE:HD12	1.84	0.42
6:A:1302:U:C4	20:Q:17:VAL:HG21	2.54	0.42
6:A:280:C:N3	24:U:39:SER:HB3	2.34	0.42
24:U:65:ILE:HG23	24:U:69:LYS:HG2	2.00	0.42
3:3:35:MET:CA	3:3:63:ARG:HH12	2.32	0.42
3:3:75:SER:HB3	3:3:130:SER:CB	2.50	0.42
3:3:84:LEU:HA	3:3:96:VAL:HG11	2.01	0.42
6:A:1006:C:H6	6:A:1006:C:O5'	2.03	0.42
6:A:1131:G:C6	6:A:1144:G:H1'	2.54	0.42
6:A:1355:G:C6	6:A:1356:G:C5	3.07	0.42
6:A:1461:G:N1	6:A:1462:G:C6	2.88	0.42
6:A:1514:C:H2'	6:A:1515:C:O4'	2.20	0.42
6:A:115:G:C2	6:A:313:A:C2	3.08	0.42
6:A:608:A:C6	6:A:609:A:C5	3.08	0.42
6:A:763:G:C2	6:A:764:C:C2	3.07	0.42
6:A:829:G:H1	6:A:857:C:N4	2.14	0.42
6:A:897:C:H2'	6:A:898:G:H8	1.84	0.42
56:B:17:HIS:ND1	56:B:114:GLU:HB2	2.28	0.42
56:B:162:GLU:O	56:B:164:ILE:N	2.52	0.42
56:B:17:HIS:CE1	56:B:116:GLU:CD	2.93	0.42
56:B:199:LEU:HB2	56:B:218:PHE:CE1	2.54	0.42
56:B:317:ARG:CD	56:B:342:PHE:CE2	3.03	0.42
56:B:380:VAL:HA	56:B:404:GLU:O	2.20	0.42
56:B:392:ASN:C	56:B:394:ALA:N	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:450:LEU:HD21	56:B:452:TYR:CE1	2.55	0.42
56:B:506:PHE:HB2	56:B:507:ILE:H	1.70	0.42
56:B:89:PHE:C	56:B:91:TYR:N	2.73	0.42
7:D:1112:G:C5	7:D:1113:U:C4	3.08	0.42
7:D:1141:U:H5'	7:D:1142(A):A:C6	2.53	0.42
7:D:1212:G:H2'	7:D:1236:G:H22	1.84	0.42
7:D:1324:G:N1	7:D:1328:G:C6	2.88	0.42
7:D:1346:G:C4	7:D:1601:G:N2	2.88	0.42
7:D:1445:C:H2'	7:D:1446:C:C6	2.55	0.42
7:D:1499:C:C4	7:D:1500:G:N7	2.88	0.42
7:D:1552:G:H5'	7:D:1553:A:OP2	2.20	0.42
7:D:1583:A:OP1	7:D:1586:A:H1'	2.19	0.42
7:D:1748:G:C6	7:D:1749:A:C6	3.08	0.42
7:D:1824:G:C2	7:D:1825:A:C4	3.07	0.42
7:D:1996:C:HO2'	7:D:1997:G:P	2.43	0.42
7:D:2003:G:N2	7:D:2004:G:C4	2.88	0.42
7:D:2013:A:C4	7:D:2014:A:C8	3.08	0.42
7:D:2312:U:OP1	7:D:2313:C:OP2	2.37	0.42
7:D:2687:U:H2'	7:D:2688:U:O4'	2.19	0.42
7:D:270(W):G:C6	7:D:270(X):G:C6	3.06	0.42
7:D:273(A):G:H2'	7:D:273(B):C:C6	2.55	0.42
7:D:2643:G:N2	7:D:2772:C:O2	2.53	0.42
7:D:2776:A:C4	7:D:2781:A:C8	3.07	0.42
7:D:2777:G:C2'	7:D:2778:A:OP2	2.66	0.42
7:D:2822:G:H2'	7:D:2823:A:H5''	2.02	0.42
7:D:2836:U:N3	7:D:2883:A:C6	2.88	0.42
7:D:317:G:N2	7:D:334:C:O2	2.49	0.42
7:D:270:A:C4	7:D:371:A:C2	3.08	0.42
7:D:381:G:H21	7:D:382:G:H1'	1.85	0.42
7:D:503:A:H4'	7:D:504:U:O5'	2.20	0.42
7:D:611:C:N3	7:D:612:G:C2	2.88	0.42
7:D:690:G:C6	7:D:691:C:C4	3.07	0.42
7:D:740:U:H2'	7:D:741:G:C8	2.53	0.42
7:D:791:C:O2	7:D:791:C:H2'	2.20	0.42
7:D:889:C:N4	7:D:890:A:H2	2.18	0.42
11:H:202:LEU:HA	11:H:202:LEU:HD23	1.73	0.42
6:A:280:C:O4'	24:U:38:ARG:NH1	2.52	0.42
25:V:29:PHE:CZ	25:V:39:VAL:HG11	2.55	0.42
26:W:34:TRP:HE3	26:W:34:TRP:O	2.03	0.42
26:W:40:ILE:CA	26:W:68:GLY:HA2	2.49	0.42
29:Z:200:LYS:HZ2	29:Z:208:PHE:HB2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:6:ALA:HB1	3:3:59:ILE:CD1	2.44	0.42
6:A:1162:C:H2'	6:A:1163:C:C6	2.54	0.42
6:A:1220:G:H5''	26:W:34:TRP:HB3	2.02	0.42
6:A:1302:U:H2'	6:A:1302:U:OP1	2.19	0.42
6:A:1396:A:HO2'	6:A:1397:C:P	2.29	0.42
6:A:1454:G:C5	6:A:1455:G:N7	2.86	0.42
6:A:156:G:N1	6:A:165:C:O2	2.47	0.42
6:A:298:A:H2'	6:A:299:G:O4'	2.20	0.42
6:A:311:C:H2'	6:A:312:C:O4'	2.18	0.42
6:A:361:G:O6	6:A:362:G:C2	2.73	0.42
6:A:376:G:N3	6:A:377:G:C8	2.88	0.42
6:A:397:A:N3	6:A:397:A:H3'	2.35	0.42
6:A:424:G:C2	6:A:425:G:C5	3.08	0.42
6:A:437:U:H3'	6:A:437:U:H6	1.85	0.42
6:A:454:C:H6	6:A:455:C:C5	2.38	0.42
6:A:464:G:OP2	6:A:464:G:H8	2.02	0.42
6:A:597:G:C5	6:A:598:U:C2	3.08	0.42
6:A:774:G:C5	6:A:775:G:C8	3.08	0.42
6:A:779:C:N4	6:A:780:A:C6	2.88	0.42
6:A:823:G:C6	6:A:824:C:C4	3.08	0.42
6:A:960:U:O4	6:A:1225:A:H1'	2.20	0.42
56:B:411:LYS:CA	56:B:480:GLU:CD	2.88	0.42
56:B:490:VAL:CG2	56:B:508:ALA:O	2.68	0.42
56:B:574:LEU:HD12	56:B:574:LEU:HA	1.82	0.42
56:B:69:ARG:NH2	56:B:69:ARG:CA	2.83	0.42
56:B:18:VAL:HG21	56:B:86:HIS:CB	2.48	0.42
7:D:1020:A:C2	7:D:1140:C:H2'	2.55	0.42
7:D:1043:C:H4'	7:D:1044:G:C8	2.55	0.42
3:3:78:ILE:HD11	7:D:1059:G:H1'	2.01	0.42
7:D:1104:C:H5''	7:D:1104:C:H6	1.84	0.42
7:D:1174:A:H5''	7:D:1175:U:OP2	2.20	0.42
7:D:1174:A:N7	7:D:1176:G:C6	2.87	0.42
7:D:1227:A:C4	7:D:1228:G:C8	3.08	0.42
7:D:1275:A:O2'	7:D:1276:A:O5'	2.33	0.42
7:D:1300:U:H1'	7:D:1301:A:OP2	2.19	0.42
7:D:134:C:H2'	7:D:135:G:O4'	2.20	0.42
7:D:1381:G:C6	7:D:1382:G:C4	3.07	0.42
7:D:1434:A:C6	7:D:1560:G:C2	3.08	0.42
7:D:1486:A:H61	7:D:1504:C:H42	1.66	0.42
7:D:132:G:C2	7:D:148:C:O2	2.72	0.42
7:D:1528:A:C6	7:D:1529:A:N6	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1571:A:OP2	7:D:1571:A:C8	2.73	0.42
7:D:163:U:H3'	7:D:164:U:C5'	2.48	0.42
7:D:1685:C:H2'	7:D:1686:C:H6	1.84	0.42
7:D:1735:C:C4'	7:D:1741:C:OP1	2.67	0.42
7:D:1786:A:N7	7:D:1787:A:C5	2.88	0.42
7:D:2046:G:C6	7:D:2047:U:O4	2.73	0.42
7:D:2060:A:HO2'	7:D:2061:G:P	2.32	0.42
7:D:2124:G:N7	7:D:2125:G:N1	2.67	0.42
7:D:2141:G:C6	7:D:2151:G:C6	3.07	0.42
7:D:2168:G:C6	7:D:2171:A:OP2	2.72	0.42
7:D:2264:C:C6	7:D:2265:U:H5	2.37	0.42
7:D:919:G:N1	7:D:2268:A:N7	2.68	0.42
7:D:2508:G:C2	7:D:2582:G:O6	2.72	0.42
7:D:2613:U:HO2'	7:D:2614:A:P	2.43	0.42
7:D:2634:G:C4	7:D:2635:C:C5	3.08	0.42
7:D:2687:U:C4	7:D:2688:U:C2	3.07	0.42
7:D:270(S):G:N1	7:D:270(T):G:C5	2.87	0.42
7:D:270(W):G:C8	7:D:270(X):G:N7	2.88	0.42
7:D:2735:G:C2	7:D:2736:G:C4	3.08	0.42
7:D:2758:A:C6	7:D:2759:G:C5	3.08	0.42
7:D:2799:A:OP1	7:D:2801:A:C4	2.72	0.42
7:D:2805:G:H2'	7:D:2807:G:O4'	2.19	0.42
7:D:2809:A:H4'	7:D:2811:G:C8	2.54	0.42
7:D:2825:C:N4	7:D:2826:A:C4	2.88	0.42
7:D:298:G:O6	7:D:338:G:H4'	2.20	0.42
7:D:363(A):A:C6	7:D:363(B):G:C5	3.07	0.42
7:D:43:G:N7	7:D:44:A:C5	2.88	0.42
7:D:49:A:O4'	7:D:49:A:OP2	2.38	0.42
7:D:663:G:C2	7:D:664:C:C2	3.08	0.42
7:D:725:G:C6	7:D:726:G:C2	3.08	0.42
7:D:775:G:C2'	7:D:794:G:C8	3.03	0.42
7:D:808:G:C2	7:D:809:G:C4	3.08	0.42
7:D:946:G:C4	7:D:947:G:C8	3.08	0.42
9:F:56:ARG:HA	9:F:59:GLU:OE2	2.20	0.42
11:H:187:ARG:HG3	11:H:188:LEU:O	2.20	0.42
11:H:19:LEU:HA	11:H:19:LEU:HD23	1.75	0.42
14:K:37:ASN:O	14:K:41:ARG:HG2	2.20	0.42
16:M:89:ASN:HB3	16:M:91:ASP:OD1	2.20	0.42
20:Q:103:THR:C	20:Q:105:THR:N	2.73	0.42
6:A:1359:C:P	21:R:35:ARG:HH21	2.42	0.42
23:T:14:ASN:HA	23:T:15:PRO:HD2	1.75	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:T:6:LEU:HA	23:T:18:ARG:O	2.20	0.42
26:W:62:ILE:C	26:W:63:THR:OG1	2.57	0.42
6:A:1320:C:H4'	26:W:70:LYS:HE3	0.60	0.42
20:Q:87:TYR:CD2	26:W:73:GLU:HA	2.52	0.42
29:Z:209:LEU:HD21	29:Z:226:PRO:CG	2.49	0.42
6:A:1083:U:H5''	6:A:1084:G:OP2	2.20	0.42
6:A:1357:A:N6	6:A:1358:U:C4	2.87	0.42
6:A:1377:A:H3'	6:A:1378:C:H5'	2.02	0.42
6:A:1448:C:O2'	6:A:1449:C:H5'	2.19	0.42
6:A:1515:C:O2	6:A:1521:G:N2	2.53	0.42
6:A:324:G:C2	6:A:327:A:OP2	2.73	0.42
6:A:355:C:N4	6:A:356:A:N6	2.68	0.42
6:A:355:C:C4	6:A:356:A:N7	2.88	0.42
6:A:474:G:C2	6:A:475:G:C4	3.08	0.42
6:A:688:G:O4'	6:A:688:G:OP2	2.38	0.42
6:A:696:A:N1	6:A:697:U:C4	2.88	0.42
6:A:838:G:O2'	6:A:841:U:C6	2.70	0.42
6:A:92:G:N1	6:A:93:U:N3	2.68	0.42
6:A:986:A:C6	6:A:987:G:C6	3.08	0.42
56:B:229:ARG:CZ	56:B:283:ALA:CA	2.69	0.42
56:B:361:LEU:HD22	56:B:366:GLY:CA	2.34	0.42
56:B:306:TYR:N	56:B:370:ILE:HB	2.35	0.42
56:B:448:VAL:CG1	56:B:449:GLU:H	2.24	0.42
56:B:489:LEU:C	56:B:509:HIS:N	2.66	0.42
56:B:528:ILE:CD1	56:B:551:VAL:HG21	2.50	0.42
56:B:499:GLU:CB	56:B:589:LYS:HD3	2.50	0.42
7:D:1022:G:C6	7:D:1139:G:C5	3.08	0.42
3:3:126:MET:O	7:D:1059:G:C2	2.73	0.42
3:3:78:ILE:HD12	7:D:1059:G:H1'	2.01	0.42
7:D:1112:G:C6	7:D:1113:U:N3	2.87	0.42
7:D:1125:G:N7	7:D:1126:A:C5	2.88	0.42
7:D:1190:G:C2	7:D:1191:G:C5	3.08	0.42
7:D:1285:G:C5	7:D:1329:U:C4	3.07	0.42
7:D:1406:U:C4	7:D:1407:C:C5	3.08	0.42
7:D:1472:A:C6	7:D:1473:G:C6	3.07	0.42
7:D:1491:G:C2	7:D:1493:C:N4	2.78	0.42
7:D:120:U:C2	7:D:149:A:C2	3.08	0.42
7:D:1630:G:C2	7:D:1637:A:N1	2.88	0.42
7:D:1951:U:O2	7:D:1951:U:H3'	2.20	0.42
7:D:1959:G:C2	7:D:1960:A:C4	3.08	0.42
7:D:1992:G:C6	7:D:1997:G:C2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1997:G:C5	7:D:1998:G:N7	2.88	0.42
7:D:2099:U:O2	7:D:2191:G:N1	2.53	0.42
7:D:2196:C:C5	7:D:2197:U:O4	2.73	0.42
7:D:2354:G:C6	7:D:2355:C:N4	2.88	0.42
7:D:2485:G:N3	7:D:2486:G:C8	2.88	0.42
7:D:2563:U:O2	7:D:2566:A:C5	2.72	0.42
7:D:2582:G:OP2	7:D:2583:G:OP2	2.38	0.42
7:D:2589:A:N3	7:D:2590:A:C8	2.88	0.42
7:D:2639:A:C4	7:D:2778:A:C5	3.07	0.42
7:D:339:U:N3	7:D:340:A:C2	2.82	0.42
7:D:436:C:O5'	7:D:436:C:H6	2.02	0.42
7:D:447:A:C5	7:D:473:G:C5	3.08	0.42
7:D:493:G:N2	7:D:494:G:N3	2.68	0.42
7:D:562:U:C2'	7:D:563:G:OP2	2.68	0.42
7:D:662:G:C4	7:D:663:G:N7	2.88	0.42
7:D:738:G:C6	7:D:739:G:N7	2.88	0.42
7:D:685:A:N7	7:D:774:A:C6	2.88	0.42
7:D:887:A:H2'	7:D:888:C:O4'	2.20	0.42
7:D:89:G:N1	7:D:90:U:O4	2.53	0.42
7:D:901:A:C5	7:D:902:C:C2	3.07	0.42
7:D:920:G:C6	7:D:921:G:C5	3.08	0.42
8:E:0:A:N3	8:E:0:A:H3'	2.35	0.42
8:E:13:A:O2'	8:E:15:A:H5''	2.20	0.42
8:E:46:A:C6	8:E:47:C:C2	3.08	0.42
8:E:52:A:C6	8:E:53:A:H1'	2.55	0.42
8:E:7:G:HO2'	8:E:8:U:P	2.40	0.42
9:F:133:LYS:HB3	9:F:137:ARG:HH22	1.85	0.42
11:H:59:ARG:HD3	11:H:59:ARG:HA	1.81	0.42
11:H:9:CYS:O	11:H:12:CYS:HB2	2.19	0.42
15:L:119:LEU:HB3	15:L:124:ALA:HB2	2.01	0.42
16:M:50:LEU:HD22	16:M:51:ARG:HH11	1.85	0.42
17:N:9:ARG:NH1	17:N:69:ASN:OD1	2.52	0.42
20:Q:55:ARG:HA	20:Q:58:GLU:CD	2.41	0.42
20:Q:68:GLY:C	20:Q:70:LEU:N	2.73	0.42
23:T:12:LYS:C	23:T:14:ASN:H	2.23	0.42
29:Z:32:LEU:HD13	29:Z:220:PRO:HB2	2.02	0.42
5:5:75:C:HO2'	5:5:76:A:C5'	2.24	0.41
6:A:1033:G:H2'	6:A:1034:G:O4'	2.20	0.41
6:A:9:G:C2	6:A:10:A:C8	3.08	0.41
6:A:1110:A:N6	6:A:1111:A:C6	2.88	0.41
6:A:1319:A:N7	6:A:1323:G:C6	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1366:C:C4	6:A:1367:C:C4	3.07	0.41
6:A:1469:G:C6	6:A:1470:G:C5	3.08	0.41
6:A:1470:G:N1	6:A:1471:G:C5	2.88	0.41
6:A:191(B):G:H2'	6:A:191(C):G:H8	1.84	0.41
6:A:191(F):U:N3	27:X:105:SER:HB2	2.35	0.41
6:A:352:C:H4'	6:A:354:G:OP1	2.20	0.41
6:A:371:G:C2'	6:A:372:C:H5''	2.50	0.41
6:A:439:A:OP2	6:A:493:G:C2	2.58	0.41
6:A:542:G:N2	6:A:543:C:C2	2.88	0.41
6:A:828:A:N6	6:A:829:G:C2	2.88	0.41
6:A:829:G:N1	6:A:830:G:C5	2.88	0.41
6:A:978:A:C2	6:A:1319:A:C4	3.08	0.41
56:B:121:PHE:CE1	56:B:157:GLY:CA	2.94	0.41
19:P:80:HIS:NE2	56:B:316:LEU:CD2	2.83	0.41
56:B:455:PRO:C	56:B:457:ALA:N	2.74	0.41
56:B:75:GLU:CG	56:B:76:TYR:N	2.79	0.41
56:B:15:ILE:HD11	56:B:97:LEU:HD13	2.00	0.41
7:D:1174:A:N6	7:D:1177:A:C5	2.88	0.41
7:D:1186:G:O2'	7:D:1187:G:H5'	2.20	0.41
7:D:1203:G:H22	7:D:1241:A:H1'	1.83	0.41
7:D:1319:G:C2	7:D:1334:G:C6	3.07	0.41
7:D:1317:A:C6	7:D:1336:A:N1	2.88	0.41
7:D:1337:G:N1	7:D:1338:G:C5	2.88	0.41
7:D:1444:G:H5''	7:D:1444(A):A:OP2	2.20	0.41
7:D:1500:G:C2	7:D:1501:C:C2	3.08	0.41
7:D:1506:C:H3'	7:D:1507:A:H4'	2.02	0.41
7:D:1540:G:N3	7:D:1541:U:H5'	2.35	0.41
7:D:188:G:C2	7:D:209:C:N3	2.88	0.41
7:D:190:A:N7	7:D:207:A:C6	2.88	0.41
7:D:1670:C:O2	7:D:1993:U:H1'	2.19	0.41
7:D:199:A:C6	7:D:2433:A:N1	2.88	0.41
7:D:2188:C:OP2	7:D:2188:C:H6	2.02	0.41
7:D:2265:U:N3	7:D:2266:A:C5	2.88	0.41
7:D:234:C:H2'	7:D:235:U:O4'	2.20	0.41
7:D:2614:A:O2'	7:D:2615:U:P	2.78	0.41
7:D:273(B):C:N3	7:D:273(C):C:N4	2.68	0.41
7:D:2876:G:H4'	15:L:1:MET:N	132.40	0.41
7:D:626:U:H3'	7:D:627:A:H5'	2.02	0.41
8:E:87:G:C2	8:E:90:C:C2	3.08	0.41
12:I:9:LYS:HG2	12:I:112:LEU:CD1	2.50	0.41
12:I:147:ASP:HA	12:I:150:ARG:CB	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:125:MET:O	14:K:128:ALA:HB3	2.19	0.41
14:K:138:LYS:NZ	14:K:139:GLU:CD	2.63	0.41
14:K:16:LEU:HD12	16:M:41:VAL:HG12	2.02	0.41
17:N:11:PHE:CZ	21:R:55:GLY:HA2	2.55	0.41
20:Q:15:VAL:O	20:Q:18:ALA:HB3	2.20	0.41
27:X:14:LYS:HB3	27:X:14:LYS:HE2	1.71	0.41
29:Z:153:ILE:HA	29:Z:156:ILE:CD1	2.49	0.41
29:Z:19:ILE:HG22	29:Z:225:ASN:HA	2.01	0.41
29:Z:26:ALA:O	29:Z:30:LYS:HG3	2.20	0.41
3:3:34:ILE:HG22	3:3:63:ARG:HG2	2.02	0.41
3:3:34:ILE:CG2	3:3:63:ARG:HB3	2.44	0.41
4:4:23:C:H2'	4:4:24:U:C6	2.51	0.41
6:A:1005:A:C4	6:A:1036:G:N2	2.88	0.41
6:A:1038:C:N3	6:A:1039:C:C4	2.88	0.41
6:A:1178:G:O2'	6:A:1179:A:N7	2.40	0.41
6:A:1183:A:H8	6:A:1183:A:O5'	2.03	0.41
6:A:1278:U:H4'	6:A:1279:A:H8	1.85	0.41
6:A:1320:C:OP1	26:W:70:LYS:NZ	2.45	0.41
6:A:1517:G:C6	6:A:1518:A:C6	3.08	0.41
6:A:154:C:H2'	6:A:155:C:C6	2.55	0.41
6:A:157:G:O6	6:A:165:C:N4	2.53	0.41
6:A:299:G:C5	6:A:300:A:C6	3.08	0.41
6:A:414:A:C6	6:A:415:A:C5	3.08	0.41
6:A:512:U:O2	6:A:540:G:N2	2.52	0.41
6:A:814:A:N7	6:A:816:A:C5	2.88	0.41
6:A:21:G:H21	6:A:914:A:N6	2.16	0.41
6:A:925:G:C2	6:A:927:G:N7	2.89	0.41
56:B:337:SER:CB	56:B:393:PRO:HB2	2.50	0.41
56:B:23:SER:CB	56:B:44:GLN:HB3	2.50	0.41
56:B:44:GLN:O	56:B:47:ASP:HB2	2.20	0.41
56:B:460:LEU:HA	56:B:460:LEU:HD23	1.78	0.41
7:D:1071:G:N3	7:D:1089:G:C8	2.88	0.41
7:D:1078:U:P	7:D:1078:U:H6	2.42	0.41
7:D:1153:C:C5	7:D:1154:G:N7	2.88	0.41
7:D:1169:G:N2	7:D:1180:C:N3	2.68	0.41
7:D:1194:A:C6	7:D:1195:G:N7	2.88	0.41
7:D:1204:A:H5'	7:D:1205:U:O3'	2.20	0.41
7:D:1273:U:H4'	7:D:1275:A:OP2	2.20	0.41
7:D:1341:U:O2'	7:D:1342:A:P	2.78	0.41
7:D:1529:A:C8	7:D:1530:G:C8	2.94	0.41
7:D:1565:C:C5	7:D:1567:A:H8	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1586:A:H2'	7:D:1587:A:C8	2.55	0.41
7:D:1653:G:HO2'	7:D:1654:A:P	2.43	0.41
7:D:1696:G:C6	7:D:1697:G:C4	3.08	0.41
7:D:171:G:H1'	7:D:172:C:C6	2.54	0.41
7:D:1784:A:H4'	7:D:1785:A:C4	2.55	0.41
7:D:191:A:C4	7:D:192:C:C5	3.08	0.41
7:D:1941:C:C5	7:D:1942:C:C4	3.08	0.41
7:D:207:A:C5	7:D:208:C:C2	3.08	0.41
7:D:2128:C:O2'	29:Z:6:ARG:NH2	2.52	0.41
7:D:2196:C:C4	7:D:2197:U:C4	3.08	0.41
7:D:2211:G:N2	7:D:2212:A:C8	2.73	0.41
7:D:2298:A:C6	7:D:2321:G:O6	2.73	0.41
7:D:2373:G:H2'	7:D:2374:C:O4'	2.19	0.41
7:D:2431:U:P	7:D:2432:A:OP2	2.78	0.41
7:D:2570:G:C5	7:D:2571:C:C2	3.08	0.41
7:D:2594:C:C2	7:D:2600:A:C2	3.08	0.41
7:D:2670:A:H2'	7:D:2670:A:N3	2.35	0.41
7:D:271:G:N2	7:D:272:G:C4	2.88	0.41
7:D:2808:U:C5	7:D:2891:G:C2	3.08	0.41
7:D:287:C:C2	7:D:288:C:H5	2.38	0.41
7:D:308:G:C6	7:D:309:G:C2	3.08	0.41
7:D:356:G:N1	7:D:357:A:C2	2.88	0.41
7:D:434:U:C6	7:D:434:U:O5'	2.71	0.41
7:D:507:A:C2'	7:D:508:G:OP2	2.68	0.41
7:D:603:A:N1	7:D:604:G:C2	2.88	0.41
7:D:685:A:H1'	7:D:688:U:O4	2.20	0.41
7:D:724:U:H2'	7:D:725:G:O4'	2.20	0.41
7:D:809:G:N2	7:D:810:U:O2	2.54	0.41
8:E:16:G:N2	8:E:17:C:C2	2.88	0.41
8:E:3:C:C2	8:E:118:G:N2	2.88	0.41
11:H:196:LEU:HA	11:H:197:PRO:HD2	1.86	0.41
12:I:109:ILE:HD11	12:I:136:MET:SD	2.60	0.41
6:A:673:G:H4'	13:J:87:ARG:HH12	1.85	0.41
16:M:89:ASN:C	16:M:91:ASP:H	2.23	0.41
19:P:5:PRO:HA	19:P:10:LEU:HD11	2.02	0.41
19:P:5:PRO:HB2	19:P:6:THR:H	1.56	0.41
22:S:2:PRO:C	22:S:38:ARG:HH12	2.13	0.41
24:U:87:LYS:HA	24:U:90:ILE:HD12	2.02	0.41
26:W:60:VAL:O	26:W:61:TYR:HB3	2.20	0.41
29:Z:215:THR:HA	29:Z:221:SER:CB	2.50	0.41
1:1:35:ARG:HH12	7:D:2742:C:H5'	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:44:LEU:O	2:2:48:GLY:N	2.52	0.41
2:2:42:GLN:CB	3:3:117:THR:HB	2.51	0.41
3:3:94:GLU:N	3:3:94:GLU:OE1	2.54	0.41
5:5:51:U:H2'	5:5:52:G:C8	2.56	0.41
6:A:1002:G:H1	6:A:1038:C:N4	2.17	0.41
6:A:1007:C:O5'	6:A:1007:C:H6	2.03	0.41
6:A:1028:C:N4	6:A:1028(A):C:C4	2.88	0.41
6:A:1063:C:H42	6:A:1193:G:H1	1.68	0.41
6:A:1401:G:C5	6:A:1402:C:C2	3.09	0.41
6:A:163:C:N3	6:A:164:U:N3	2.68	0.41
6:A:259:G:C6	6:A:260:G:C6	3.09	0.41
6:A:291:C:O2'	6:A:292:G:H5'	2.20	0.41
6:A:475:G:H5''	6:A:476:G:OP2	2.20	0.41
6:A:549:C:N3	6:A:550:G:C8	2.87	0.41
6:A:710:G:H2'	6:A:711:G:C8	2.55	0.41
6:A:735:C:H2'	6:A:736:C:H6	1.84	0.41
6:A:778:G:C6	6:A:779:C:C2	3.08	0.41
6:A:79:G:C6	6:A:90:C:N3	2.88	0.41
6:A:811:C:H5	6:A:812:C:C4	2.38	0.41
6:A:866:C:C4	6:A:867:G:H1'	2.55	0.41
6:A:942:G:C5	6:A:943:U:C5	3.08	0.41
56:B:217:LEU:HD23	56:B:220:GLY:O	2.19	0.41
56:B:382:LEU:CB	56:B:386:GLU:OE1	2.68	0.41
56:B:442:PRO:HB2	56:B:443:GLY:H	1.72	0.41
56:B:57:ILE:O	56:B:59:ILE:HG13	2.20	0.41
56:B:90:THR:HA	56:B:93:VAL:HG12	2.02	0.41
56:B:99:ALA:O	56:B:216:ARG:HD3	2.19	0.41
7:D:1062:G:H1'	7:D:1063:G:OP1	2.20	0.41
7:D:1069:A:C6	7:D:1073:A:C8	3.08	0.41
3:3:126:MET:HA	7:D:1080:C:O2	2.20	0.41
7:D:1142(A):A:C5	7:D:1143:A:N7	2.88	0.41
7:D:1162:G:N2	7:D:1163:G:C4	2.88	0.41
7:D:1165:U:H2'	7:D:1166:C:H6	1.84	0.41
7:D:1223:C:N3	7:D:1227:A:N1	2.68	0.41
7:D:1252:G:N7	7:D:1253:A:C2	2.88	0.41
7:D:1272:A:OP2	7:D:1647:G:OP1	2.38	0.41
7:D:1284:A:C6	7:D:1285:G:C2	3.08	0.41
7:D:1288:U:C4	7:D:1327:C:O2	2.73	0.41
7:D:1341:U:O2'	7:D:1342:A:O5'	2.38	0.41
7:D:13:A:H2'	7:D:15:G:N7	2.34	0.41
7:D:1455:G:P	7:D:1455:G:H3'	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1497:U:H3'	7:D:1497:U:H6	1.85	0.41
7:D:1511:A:C5	7:D:1512:G:C6	3.08	0.41
7:D:1520:U:N3	7:D:1522:G:N1	2.67	0.41
7:D:1520:U:C4	7:D:1522:G:O6	2.73	0.41
7:D:1716:U:O2'	7:D:1717:G:H5'	2.20	0.41
7:D:2112:G:C6	7:D:2113:U:C2	3.07	0.41
7:D:2147:G:H2'	7:D:2148:G:H5'	2.02	0.41
7:D:2184:G:H2'	7:D:2185:C:H6	1.85	0.41
7:D:2209:C:H6	7:D:2209:C:H5'	1.85	0.41
7:D:224:G:C2	7:D:225:A:C8	3.08	0.41
7:D:2573:C:H5''	7:D:2574:G:H5'	2.02	0.41
7:D:2043:C:N4	7:D:2625:G:H1	2.17	0.41
7:D:2625:G:N7	7:D:2626:C:C5	2.88	0.41
7:D:269:U:C5	7:D:270(Z):U:OP2	2.73	0.41
7:D:1457:A:H61	7:D:2703:C:N4	2.17	0.41
7:D:273(B):C:H2'	7:D:273(C):C:C6	2.56	0.41
7:D:2791:C:C2	7:D:2807:G:C2	3.08	0.41
7:D:2819:G:C2	7:D:2821:A:C4	3.08	0.41
7:D:290:G:H22	7:D:350:U:H1'	1.84	0.41
7:D:432:A:C8	7:D:433:C:H5	2.38	0.41
7:D:579:G:C2	7:D:580:C:N3	2.88	0.41
7:D:584:C:H2'	7:D:585:G:O4'	2.20	0.41
7:D:679:C:H2'	7:D:680:G:C8	2.49	0.41
7:D:728:G:C3'	7:D:728:G:C8	3.03	0.41
7:D:852:G:C5	7:D:926:A:C6	3.06	0.41
7:D:858:U:O2'	7:D:859:G:OP1	2.34	0.41
11:H:30:LYS:HZ2	11:H:36:ARG:NH1	2.17	0.41
16:M:75:ASP:O	16:M:78:LYS:HB3	2.21	0.41
17:N:13:HIS:CE1	17:N:17:ASP:OD2	2.73	0.41
17:N:44:VAL:HG11	17:N:46:ARG:NE	2.35	0.41
17:N:74:ILE:HG22	17:N:75:ILE:O	2.20	0.41
20:Q:112:GLY:HA3	20:Q:113:PRO:HD2	1.85	0.41
25:V:66:LEU:O	25:V:70:ILE:HG13	2.20	0.41
26:W:25:LYS:O	26:W:27:GLU:N	2.53	0.41
29:Z:66:HIS:N	29:Z:158:ALA:C	2.72	0.41
29:Z:182:PRO:CD	29:Z:183:GLU:H	2.33	0.41
29:Z:72:VAL:HG12	29:Z:74:VAL:HG23	2.02	0.41
3:3:19:PRO:C	3:3:22:PRO:CD	2.86	0.41
4:4:35:A:C2	4:4:36:U:C2	3.08	0.41
6:A:1028(B):C:C4	6:A:1029:G:N7	2.89	0.41
6:A:104:G:C2	6:A:105:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:104:G:N2	6:A:105:G:C4	2.88	0.41
6:A:1074:G:C5	6:A:1075:C:C4	3.08	0.41
6:A:1310:G:N1	6:A:1311:G:C6	2.89	0.41
6:A:1329:A:C6	6:A:1330:U:C4	3.08	0.41
6:A:1362:C:C2'	6:A:1362(A):C:H5''	2.50	0.41
6:A:1379:G:P	14:K:6:ARG:NH1	2.81	0.41
6:A:158:G:H2'	6:A:159:G:O4'	2.20	0.41
6:A:168:G:C2	6:A:169:C:N3	2.88	0.41
6:A:355:C:N4	6:A:356:A:H62	2.18	0.41
6:A:477:G:C2	6:A:478:A:C5	3.08	0.41
6:A:523:A:H61	19:P:53:ARG:HH12	1.69	0.41
6:A:605:U:H5''	6:A:606:G:OP2	2.21	0.41
6:A:737:A:H3'	13:J:92:LYS:NZ	2.36	0.41
6:A:829:G:C6	6:A:830:G:C5	3.08	0.41
56:B:25:LEU:HA	56:B:168:GLY:CA	2.50	0.41
56:B:200:ILE:HD11	56:B:279:THR:HG21	1.82	0.41
56:B:427:LEU:HD11	56:B:466:ARG:CD	2.49	0.41
56:B:492:VAL:H	56:B:505:THR:HB	1.86	0.41
56:B:49:LEU:C	56:B:51:LEU:N	2.73	0.41
56:B:497:HIS:CE1	56:B:533:PHE:CD1	3.08	0.41
56:B:87:VAL:O	56:B:87:VAL:HG12	2.20	0.41
56:B:97:LEU:HD23	56:B:97:LEU:C	2.39	0.41
7:D:1069:A:C8	7:D:1074:G:C6	3.09	0.41
7:D:1180:C:C4	7:D:1181:C:N4	2.88	0.41
7:D:1203:G:N2	7:D:1206:G:O6	2.53	0.41
7:D:1238:G:C2	7:D:1239:G:C4	3.08	0.41
7:D:1339:G:H5''	7:D:1340:U:OP1	2.20	0.41
7:D:1453:A:C6	7:D:1454:U:H1'	2.56	0.41
7:D:1582:C:H3'	7:D:1582:C:C6	2.54	0.41
7:D:151:C:C4	7:D:176:G:N2	2.88	0.41
7:D:1975:G:C5	7:D:1976:U:N3	2.89	0.41
7:D:1995:U:C4	7:D:1996:C:N4	2.89	0.41
7:D:2025:C:H2'	7:D:2026:C:C6	2.56	0.41
7:D:2195:C:C3'	7:D:2196:C:H6	2.33	0.41
7:D:2251:G:O6	7:D:2252:G:C6	2.74	0.41
7:D:919:G:C6	7:D:2268:A:N7	2.88	0.41
7:D:240:G:N7	7:D:241:A:C5	2.88	0.41
7:D:240:G:C6	7:D:241:A:N6	2.88	0.41
7:D:2494:G:C5	7:D:2495:G:N7	2.88	0.41
7:D:2566:A:HO2'	7:D:2567:G:P	2.44	0.41
7:D:2594:C:N3	7:D:2600:A:C2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:2588:G:C6	7:D:2607:G:C2	3.09	0.41
7:D:2648:C:H2'	7:D:2649:U:C6	2.52	0.41
7:D:2736:G:C4	7:D:2737:G:C8	3.09	0.41
7:D:2791:C:C5	7:D:2892:A:C8	3.08	0.41
7:D:2629:A:H3'	7:D:2895:U:C2	2.55	0.41
7:D:290:G:C5	7:D:291:C:C4	3.09	0.41
7:D:297:C:C4	7:D:298:G:C4	3.07	0.41
7:D:306:U:O4	7:D:307:G:C2	2.73	0.41
7:D:406:G:H2'	7:D:407:G:O4'	2.21	0.41
7:D:408:G:C2	7:D:420:C:O2	2.73	0.41
7:D:616:A:O2'	7:D:617:G:P	2.79	0.41
7:D:643:A:H4'	7:D:644:A:OP1	2.18	0.41
7:D:71:A:C2	7:D:73:A:N1	2.89	0.41
7:D:724:U:H6	7:D:724:U:O5'	2.04	0.41
7:D:81:G:N3	7:D:294:A:O2'	2.54	0.41
7:D:827:U:H4'	7:D:828:U:H3	1.84	0.41
9:F:186:ALA:HB3	9:F:197:VAL:HG11	2.01	0.41
9:F:7:VAL:HG12	9:F:221:LEU:HD13	2.01	0.41
11:H:46:LYS:CE	11:H:50:ARG:NH1	20.75	0.41
13:J:25:ILE:HG12	13:J:28:ARG:HH21	1.85	0.41
14:K:29:LYS:HG3	14:K:101:LEU:CD2	2.45	0.41
17:N:13:HIS:HB2	17:N:68:HIS:CE1	2.56	0.41
18:O:70:LYS:O	18:O:73:MET:HB2	2.20	0.41
19:P:37:CYS:SG	19:P:81:SER:HB2	2.61	0.41
19:P:69:TYR:O	19:P:99:HIS:HB2	2.20	0.41
6:A:1359:C:H3'	21:R:35:ARG:HH22	1.85	0.41
25:V:41:LYS:HA	25:V:44:LEU:HD21	2.02	0.41
26:W:70:LYS:HB2	26:W:73:GLU:OE1	2.13	0.41
3:3:98:ARG:CG	3:3:100:THR:H	2.34	0.41
3:3:29:GLN:HB2	56:B:440:TYR:CZ	2.56	0.41
3:3:78:ILE:HG22	3:3:127:ILE:HG12	2.01	0.41
5:5:27:G:O6	5:5:43:C:N4	2.20	0.41
5:5:52:G:H3'	5:5:53:G:C8	2.53	0.41
6:A:1072:G:C2	6:A:1073:U:C2	3.08	0.41
6:A:1164:G:C5	6:A:1165:C:N3	2.77	0.41
6:A:1213:A:C8	6:A:1215:G:C5	3.09	0.41
6:A:1245:A:C5	6:A:1246:C:C4	3.07	0.41
6:A:1423:G:C5	6:A:1424:C:C5	3.09	0.41
6:A:354:G:C2	6:A:355:C:C5	3.09	0.41
6:A:357:G:C5	6:A:358:U:C5	3.09	0.41
6:A:373:A:C2	6:A:482:A:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:475:G:N1	6:A:476:G:C6	2.89	0.41
6:A:597:G:C4	6:A:644:G:C2	3.09	0.41
6:A:629:G:H2'	6:A:630:G:C8	2.55	0.41
6:A:642:A:C6	6:A:643:C:C4	3.08	0.41
6:A:87:A:H2'	6:A:88:C:N1	2.35	0.41
6:A:979:C:H42	21:R:18:VAL:CG2	2.33	0.41
6:A:992:U:HO2'	6:A:993:G:P	2.34	0.41
56:B:230:ILE:HG12	56:B:279:THR:CA	2.50	0.41
56:B:200:ILE:HG13	56:B:279:THR:CB	2.50	0.41
56:B:279:THR:C	56:B:280:ILE:HG22	2.41	0.41
56:B:532:LEU:CA	56:B:553:ALA:HB1	2.50	0.41
56:B:555:ARG:HA	56:B:581:LYS:NZ	2.34	0.41
7:D:1448:G:H2'	7:D:1449:A:N7	2.35	0.41
7:D:1465:G:C5	7:D:1466:G:N7	2.89	0.41
7:D:1523:U:C4	7:D:1524:G:N7	2.89	0.41
7:D:1534:G:N2	7:D:1538:G:C5	2.89	0.41
7:D:1497:U:C4	7:D:1576:U:O3'	2.73	0.41
7:D:1728:G:H22	7:D:1730:U:H1'	1.85	0.41
7:D:174:C:H5''	7:D:174:C:H6	1.84	0.41
7:D:739:G:O3'	7:D:1784:A:C6	2.74	0.41
7:D:1793:C:C2	7:D:1794:U:C5	3.08	0.41
7:D:1880:C:H6	7:D:1880:C:H5''	1.85	0.41
7:D:1972:A:C2	7:D:1973:G:C8	3.08	0.41
7:D:197:A:C2	7:D:2430:A:C6	3.07	0.41
7:D:1995:U:C5	7:D:1996:C:C5	3.08	0.41
7:D:202:U:C4	7:D:203:C:N4	2.89	0.41
7:D:2123:G:N1	7:D:2124:G:C2	2.88	0.41
7:D:2155:G:C5	7:D:2156:G:H4'	2.56	0.41
7:D:2431:U:OP1	7:D:2432:A:OP2	2.37	0.41
7:D:2527:C:H2'	7:D:2528:U:H6	1.85	0.41
7:D:2531:A:C4	7:D:2532:G:C8	3.09	0.41
7:D:2659:G:N2	7:D:2661:G:H3'	2.35	0.41
7:D:329:G:H5''	7:D:329:G:H8	1.85	0.41
7:D:44:A:H2'	7:D:45:G:C8	2.56	0.41
7:D:489:G:HO2'	7:D:491:G:P	2.35	0.41
7:D:497:A:C5	7:D:498:G:C8	3.08	0.41
7:D:585:G:C5	7:D:1251:C:C2	3.08	0.41
7:D:766:C:N3	7:D:767:U:C4	2.88	0.41
7:D:684:G:C6	7:D:775:G:C5	3.09	0.41
7:D:843:G:C2	7:D:844:C:C2	3.09	0.41
7:D:931:G:C3'	7:D:932:G:H4'	2.44	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:946:G:C6	7:D:947:G:N7	2.89	0.41
9:F:72:GLY:O	9:F:78:GLN:HA	2.20	0.41
11:H:63:LYS:NZ	11:H:198:VAL:HG12	2.35	0.41
15:L:71:GLY:H	15:L:72:PRO:HD2	1.86	0.41
15:L:81:HIS:HD2	15:L:138:TRP:HZ3	1.67	0.41
16:M:71:SER:HA	16:M:74:ILE:HD12	2.03	0.41
22:S:13:GLN:HE22	22:S:19:PRO:HA	1.85	0.41
6:A:750:G:H1'	22:S:22:THR:O	2.20	0.41
26:W:16:LEU:N	26:W:16:LEU:HD12	2.34	0.41
27:X:57:ARG:NH2	27:X:102:GLY:HA2	2.36	0.41
29:Z:38:ASP:CG	29:Z:178:ALA:CB	2.81	0.41
3:3:10:LEU:HG	3:3:57:ILE:HG12	1.96	0.41
5:5:8:U:C4	5:5:13:C:C2	3.08	0.41
5:5:60:U:H6	5:5:60:U:O5'	2.04	0.41
6:A:1065:U:O2'	6:A:1066:C:P	2.78	0.41
6:A:1125:U:H4'	6:A:1126:U:H5	1.84	0.41
6:A:1155:G:C6	6:A:1156:G:C5	3.08	0.41
6:A:1160:G:N7	6:A:1181:G:C6	2.89	0.41
6:A:1319:A:C8	6:A:1323:G:C6	3.08	0.41
6:A:186:C:H2'	6:A:186(A):C:C6	2.55	0.41
6:A:518:C:C2'	6:A:519:C:OP2	2.67	0.41
6:A:686:U:H3	6:A:703:G:C2'	2.32	0.41
6:A:694:A:N3	6:A:695:A:H1'	2.35	0.41
6:A:701:C:C2	6:A:703:G:N1	2.88	0.41
6:A:836:G:C2'	6:A:837:G:C8	3.01	0.41
6:A:850:U:O5'	6:A:850:U:C6	2.71	0.41
6:A:954:G:C6	6:A:955:U:C4	3.09	0.41
6:A:961:U:H2'	6:A:962:C:O4'	2.20	0.41
56:B:162:GLU:C	56:B:164:ILE:N	2.73	0.41
56:B:164:ILE:O	56:B:166:ALA:N	2.53	0.41
6:A:55:A:O4'	56:B:208:TYR:OH	2.38	0.41
56:B:267:ALA:C	56:B:268:ILE:HG22	2.41	0.41
56:B:272:HIS:O	56:B:272:HIS:CG	2.74	0.41
56:B:338:THR:CB	56:B:502:ASP:OD2	2.66	0.41
56:B:555:ARG:CA	56:B:581:LYS:HZ1	2.33	0.41
56:B:46:LEU:HD11	56:B:82:ASP:CB	2.04	0.41
7:D:1182:A:C6	7:D:1183:G:N7	2.89	0.41
7:D:1253:A:H2'	7:D:1253:A:H8	1.72	0.41
7:D:135:G:C2	7:D:145:G:C5	3.08	0.41
7:D:1447:G:H2'	7:D:1448:G:H5'	2.00	0.41
7:D:1471:A:N3	7:D:1521:G:N2	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1741:C:C3'	7:D:1741:C:C6	3.04	0.41
7:D:1779:U:C3'	7:D:1779:U:H6	2.34	0.41
7:D:1793:C:H2'	7:D:1794:U:H6	1.84	0.41
7:D:1842:G:N2	7:D:1901:A:C5	2.88	0.41
7:D:1845:G:C6	7:D:1846:G:N7	2.89	0.41
7:D:1862:G:N1	7:D:1863:G:C6	2.88	0.41
7:D:1900:A:C2	7:D:1970:A:C5	3.08	0.41
7:D:1666:G:N2	7:D:1995:U:C4	2.88	0.41
7:D:579:G:O2'	7:D:2019:A:OP1	2.38	0.41
7:D:2060:A:O2'	7:D:2061:G:P	2.78	0.41
7:D:2118:U:H2'	7:D:2147:G:O6	2.20	0.41
7:D:212:G:C2	7:D:213:A:C5	3.09	0.41
7:D:2195:C:H2'	7:D:2196:C:H6	1.83	0.41
7:D:2353:G:C6	7:D:2365:G:N2	2.89	0.41
7:D:247:G:H1'	7:D:386:G:O6	2.19	0.41
7:D:2632:A:C4	7:D:2633:G:N7	2.88	0.41
7:D:2766:G:C6	7:D:2767:C:C4	3.09	0.41
7:D:2838:G:C2	7:D:2839:G:C4	3.09	0.41
7:D:323:G:H4'	7:D:324:A:C5'	2.50	0.41
7:D:494:G:H8	7:D:494:G:O5'	2.04	0.41
7:D:56:A:C6	7:D:57:C:C4	3.09	0.41
7:D:604:G:H1	7:D:624:C:N4	2.18	0.41
7:D:60:G:N2	7:D:68:G:C2	2.89	0.41
7:D:763:G:C4	7:D:765:G:C8	3.08	0.41
7:D:800:A:O2'	7:D:801:G:P	2.76	0.41
8:E:95:U:C2	8:E:96:G:C8	3.09	0.41
9:F:115:LEU:HD11	9:F:146:GLN:OE1	2.20	0.41
9:F:25:ASN:HA	9:F:26:PRO:HD3	1.89	0.41
9:F:48:MET:HA	9:F:51:LEU:HD12	2.02	0.41
14:K:87:VAL:HA	14:K:88:PRO:HD2	1.88	0.41
15:L:4:ASP:N	15:L:4:ASP:OD1	2.53	0.41
16:M:33:PHE:HD2	16:M:34:ASN:HD21	1.69	0.41
6:A:972:C:O5'	17:N:57:LYS:HD3	2.20	0.41
20:Q:71:ARG:HA	20:Q:75:ALA:N	2.34	0.41
6:A:1216:G:P	21:R:3:ARG:HH12	2.42	0.41
27:X:62:LEU:HA	27:X:62:LEU:HD23	1.87	0.41
28:Y:6:ARG:NH1	28:Y:15:ARG:CD	2.84	0.41
29:Z:8:ARG:HH11	29:Z:11:LEU:CD2	2.22	0.41
6:A:1016:A:H3'	6:A:1017:G:H8	1.84	0.41
6:A:1017:G:C6	6:A:1018:C:N3	2.89	0.41
6:A:1045:C:H2'	6:A:1046:A:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1219:U:C2'	6:A:1220:G:H5'	2.51	0.41
6:A:299:G:H2'	6:A:300:A:C8	2.56	0.41
6:A:500:G:N2	6:A:545:C:O2	2.48	0.41
6:A:604:G:C6	6:A:605:U:C2	3.08	0.41
56:B:109:ALA:HB2	56:B:135:ILE:CB	2.50	0.41
56:B:152:VAL:HA	56:B:156:LEU:N	2.35	0.41
56:B:223:ARG:O	56:B:239:VAL:HG21	2.20	0.41
56:B:555:ARG:CG	56:B:556:LYS:N	2.83	0.41
56:B:556:LYS:C	56:B:558:VAL:N	2.73	0.41
7:D:1083:U:O2'	7:D:1084:A:H8	2.03	0.41
7:D:1165:U:H2'	7:D:1166:C:C6	2.56	0.41
7:D:1223:C:H42	7:D:1227:A:N6	2.18	0.41
7:D:1268:A:C6	7:D:1269:A:C4	3.09	0.41
7:D:1483:G:C5	7:D:1507:A:C4	3.09	0.41
7:D:1551:C:H5''	7:D:1552:G:OP2	2.20	0.41
7:D:1884:A:O4'	7:D:1884:A:P	2.78	0.41
7:D:1840:G:N2	7:D:1902:C:N3	2.55	0.41
7:D:1993:U:H2'	7:D:1994:C:O4'	2.21	0.41
7:D:2152:G:H2'	7:D:2153:G:H5'	2.03	0.41
7:D:2348:U:C4	7:D:2370:G:C2	3.09	0.41
7:D:2444:G:C5	7:D:2445:G:C8	3.08	0.41
7:D:2521:C:C2	7:D:2545:G:N2	2.89	0.41
7:D:2585:U:O2'	7:D:2586:C:P	2.78	0.41
7:D:2624:G:N1	7:D:2625:G:C4	2.88	0.41
7:D:2627:G:C5	7:D:2628:C:C4	3.08	0.41
7:D:270(J):G:H5''	7:D:270(K):C:OP2	2.21	0.41
1:1:20:HIS:CE1	7:D:2757:A:OP2	2.73	0.41
7:D:2765:A:H5'	7:D:2766:G:OP2	2.21	0.41
7:D:2794:C:N4	7:D:2799:A:C2	2.74	0.41
7:D:2807:G:O6	7:D:2892:A:C4	2.74	0.41
7:D:288:C:H3'	7:D:289:A:C5'	2.51	0.41
7:D:342:G:N2	7:D:343:C:O2	2.53	0.41
7:D:464:U:O4	7:D:465:G:C2	2.73	0.41
7:D:475:U:O5'	7:D:475:U:H6	2.03	0.41
7:D:14:A:C2	7:D:526:A:C6	3.09	0.41
7:D:783:A:C8	7:D:785:G:C8	3.09	0.41
7:D:852:G:C6	7:D:853:G:C5	3.08	0.41
7:D:89:G:C5	7:D:90:U:C5	3.08	0.41
7:D:974:G:O4'	7:D:1187:G:H1'	2.20	0.41
7:D:990:A:P	7:D:991:C:OP2	2.78	0.41
9:F:114:ARG:HA	9:F:117:GLU:OE2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:F:43:ASP:O	9:F:47:THR:OG1	2.25	0.41
11:H:162:LEU:C	11:H:165:MET:H	2.24	0.41
11:H:165:MET:O	11:H:166:LYS:HB2	2.20	0.41
11:H:187:ARG:HA	11:H:187:ARG:HD2	1.74	0.41
12:I:50:GLU:HB2	12:I:53:LEU:HD12	2.03	0.41
13:J:30:LEU:HB3	13:J:35:ALA:HB3	2.02	0.41
14:K:78:ARG:HD3	14:K:156:TRP:CH2	2.56	0.41
15:L:79:VAL:O	15:L:81:HIS:N	2.53	0.41
16:M:54:ASP:CG	16:M:55:ALA:H	2.24	0.41
22:S:31:LEU:O	22:S:34:LEU:HG	2.21	0.41
24:U:75:ARG:NH1	24:U:77:VAL:HG22	2.35	0.41
24:U:83:ASP:HA	24:U:86:GLU:HG2	2.03	0.41
25:V:26:LEU:HD12	25:V:27:GLY:H	1.85	0.41
25:V:56:THR:OG1	25:V:57:GLY:N	2.53	0.41
26:W:2:PRO:C	26:W:4:SER:H	2.24	0.41
26:W:61:TYR:HD1	26:W:62:ILE:CG1	2.20	0.41
26:W:64:GLU:C	26:W:66:MET:N	2.73	0.41
29:Z:64:LEU:HB3	29:Z:66:HIS:NE2	2.35	0.41
29:Z:73:ARG:HB2	29:Z:111:ASP:H	1.85	0.41
3:3:112:MET:N	3:3:113:PRO:CD	2.84	0.41
3:3:29:GLN:HB2	56:B:440:TYR:OH	2.21	0.41
3:3:99:ILE:O	3:3:100:THR:OG1	2.25	0.41
6:A:1459:C:O2'	6:A:1460:A:H5'	2.21	0.41
6:A:161:A:C4	6:A:162:A:C8	3.09	0.41
6:A:198:G:H8	6:A:198:G:OP2	2.04	0.41
6:A:325:A:C6	6:A:326:G:C6	3.09	0.41
6:A:55:A:H61	6:A:368:U:H3	1.67	0.41
6:A:456:C:N3	6:A:477:G:C6	2.88	0.41
6:A:448:A:N6	6:A:486:U:O4	2.45	0.41
6:A:445:G:C6	6:A:490:G:N1	2.89	0.41
6:A:503:C:C2'	6:A:504:C:H5'	2.51	0.41
6:A:588:G:C6	6:A:753:A:C5	3.08	0.41
6:A:838:G:O2'	6:A:841:U:P	2.79	0.41
6:A:848:C:P	6:A:848:C:O4'	2.79	0.41
6:A:872:A:H4'	6:A:873:A:OP1	2.21	0.41
56:B:174:VAL:CG1	56:B:177:ILE:CG1	2.97	0.41
56:B:317:ARG:HA	56:B:320:LEU:HD13	2.03	0.41
7:D:1040:C:H3'	7:D:1041:C:H5	1.86	0.41
7:D:1061:U:OP2	7:D:1061:U:C6	2.74	0.41
7:D:1087:G:H2'	7:D:1089:G:H1'	2.02	0.41
7:D:1092:C:H5''	7:D:1093:G:OP2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1202:C:C4	7:D:1203:G:H1'	2.56	0.41
7:D:1243:G:C6	7:D:1244:G:C5	3.09	0.41
7:D:1346:G:C6	7:D:1601:G:N1	2.89	0.41
7:D:145:G:C6	7:D:146:G:C5	3.09	0.41
7:D:1492:G:N2	7:D:1498:C:N3	2.68	0.41
7:D:1615:C:C5	7:D:1617:C:C5	3.09	0.41
7:D:1619:G:C8	7:D:1619:G:OP2	2.74	0.41
7:D:1642:G:N1	7:D:1643:G:C5	2.89	0.41
7:D:1668:A:O2'	7:D:1669:A:O5'	2.38	0.41
7:D:1779:U:C2	7:D:1783:A:C8	3.09	0.41
7:D:781:A:H1'	7:D:1789:A:O2'	2.21	0.41
7:D:197:A:C6	7:D:2430:A:C4	3.09	0.41
7:D:2050:C:H2'	7:D:2051:A:C8	2.55	0.41
7:D:2057:A:C6	7:D:2058:A:C6	3.09	0.41
7:D:2164:C:H3'	7:D:2165:G:O4'	2.21	0.41
7:D:2195:C:H2'	7:D:2196:C:O4'	2.21	0.41
7:D:2259:G:C6	7:D:2260:C:N3	2.89	0.41
7:D:827:U:C4	7:D:2430:A:C6	3.09	0.41
7:D:2459:A:N1	7:D:2460:U:H1'	2.34	0.41
7:D:2519:U:N3	7:D:2542:A:C6	2.89	0.41
7:D:2592:G:C6	7:D:2593:U:N3	2.88	0.41
7:D:2618:G:C5	7:D:2619:C:C5	3.09	0.41
7:D:2646:C:C4	7:D:2647:U:N3	2.89	0.41
7:D:2678:C:C2	7:D:2679:A:C8	3.09	0.41
7:D:2819:G:C4	7:D:2821:A:C6	3.09	0.41
7:D:289:A:C6	7:D:351:G:N7	2.88	0.41
7:D:467:G:H2'	7:D:468:G:O4'	2.21	0.41
7:D:447:A:C6	7:D:473:G:C4	3.08	0.41
7:D:677:A:C6	7:D:678:C:C4	3.09	0.41
7:D:718:A:OP2	7:D:719:C:C4	2.74	0.41
7:D:757:U:C5	7:D:758:C:C5	3.08	0.41
7:D:79:G:C2	7:D:80:G:C8	3.09	0.41
7:D:79:G:C4	7:D:80:G:C8	3.09	0.41
7:D:922:U:C2	7:D:923:C:C4	3.08	0.41
9:F:132:LYS:O	9:F:136:VAL:HG23	2.20	0.41
9:F:92:TYR:HE2	9:F:94:ASN:ND2	2.19	0.41
11:H:30:LYS:HZ3	11:H:35:ARG:HH11	1.68	0.41
12:I:89:ILE:HD13	12:I:122:GLU:HG3	2.03	0.41
6:A:1297:C:H1'	14:K:114:ARG:CZ	2.51	0.41
14:K:155:ARG:HG3	14:K:156:TRP:N	2.22	0.41
20:Q:43:THR:O	20:Q:45:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:T:22:THR:HA	23:T:33:ILE:HG13	2.03	0.41
23:T:55:ARG:HD2	23:T:59:TRP:NE1	2.35	0.41
24:U:43:LEU:CD1	24:U:69:LYS:HB2	2.51	0.41
25:V:21:LYS:N	25:V:55:ARG:HH12	2.18	0.41
6:A:1319:A:P	26:W:37:ARG:O	2.77	0.41
6:A:194:C:C2'	27:X:68:LYS:HZ1	2.33	0.41
27:X:92:LEU:HA	27:X:92:LEU:HD23	1.80	0.41
29:Z:66:HIS:O	29:Z:158:ALA:C	2.59	0.41
3:3:35:MET:CA	3:3:63:ARG:NH1	2.84	0.41
3:3:80:LYS:HB3	3:3:111:LYS:CE	2.51	0.41
4:4:50:U:O4	4:4:51:C:N4	2.53	0.41
6:A:1104:G:H4'	9:F:111:ARG:NH2	2.35	0.41
6:A:1119:C:C2	6:A:1155:G:C2	3.09	0.41
6:A:1179:A:C6	6:A:1180:A:N1	2.89	0.41
6:A:1305:G:O2'	6:A:1306:A:C8	2.74	0.41
6:A:1323:G:C2	6:A:1324:A:C5	3.09	0.41
6:A:13:U:H6	6:A:13:U:H3'	1.86	0.41
6:A:1447:G:C6	6:A:1448:C:C4	3.08	0.41
6:A:1419:G:C6	6:A:1482:G:C2	3.09	0.41
6:A:1410:G:N3	6:A:1491:G:C2	2.89	0.41
6:A:254:G:H2'	6:A:255:G:H8	1.85	0.41
6:A:326:G:O5'	6:A:326:G:H8	2.03	0.41
6:A:388:G:O2'	6:A:389:A:P	2.79	0.41
6:A:451:A:C2	6:A:480:U:N3	2.89	0.41
6:A:670:G:H2'	6:A:671:G:O4'	2.20	0.41
6:A:671:G:O6	6:A:672:U:N3	2.54	0.41
6:A:764:C:H2'	6:A:765:G:H8	1.86	0.41
6:A:842:C:H4'	6:A:848:C:O2	2.21	0.41
6:A:903:G:N2	6:A:904:C:C2	2.89	0.41
56:B:297:ALA:CB	56:B:328:ALA:CB	2.73	0.41
56:B:322:LYS:CE	56:B:323:LEU:HD12	2.50	0.41
56:B:379:LYS:O	56:B:406:LEU:HB3	2.15	0.41
56:B:492:VAL:CG2	56:B:541:ILE:CG1	2.67	0.41
56:B:517:ALA:C	56:B:519:ALA:N	2.74	0.41
56:B:598:LEU:HA	56:B:598:LEU:HD12	1.78	0.41
56:B:7:SER:C	56:B:8:ARG:CG	2.87	0.41
7:D:1023:U:C4	7:D:1024:G:N2	2.88	0.41
7:D:1050:A:C6	7:D:2751:G:C6	3.09	0.41
7:D:110:G:C2	7:D:111:A:C4	3.08	0.41
7:D:1171:G:N7	7:D:1173:G:O2'	2.45	0.41
7:D:1471:A:C6	7:D:1473:G:N7	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1480:G:H22	7:D:1482:U:C1'	2.33	0.41
7:D:1668:A:H2'	7:D:1669:A:OP2	2.21	0.41
7:D:1710:C:C2'	7:D:1711:C:H5'	2.51	0.41
7:D:1728:G:N2	7:D:1730:U:O2	2.53	0.41
7:D:1785:A:C2'	7:D:1786:A:C8	3.03	0.41
7:D:1809:A:H5''	7:D:1810:A:C2	2.56	0.41
7:D:181:A:N6	7:D:182:A:N1	2.69	0.41
7:D:1980:G:C2	7:D:1982:C:N3	2.89	0.41
7:D:227:A:O2'	7:D:228:A:O5'	2.33	0.41
7:D:2290:G:C6	7:D:2291:U:C4	3.09	0.41
7:D:2585:U:HO2'	7:D:2586:C:C5'	2.34	0.41
7:D:2645:G:OP2	7:D:2645:G:O4'	2.38	0.41
7:D:2650:U:H2'	7:D:2651:C:O4'	2.20	0.41
7:D:2665:A:C2	7:D:2666:C:C2	3.09	0.41
7:D:2674:G:H2'	7:D:2675:A:C8	2.35	0.41
7:D:2686:G:N2	7:D:2687:U:C2	2.89	0.41
7:D:2896:C:C6	7:D:2896:C:C3'	3.04	0.41
7:D:361:G:N2	7:D:362:U:C2	2.89	0.41
7:D:47:C:H3'	7:D:47:C:H6	1.86	0.41
7:D:537:C:O2'	7:D:539:G:P	2.79	0.41
7:D:5:A:C4	7:D:6:A:C8	3.08	0.41
7:D:875:G:H2'	7:D:876:C:O4'	2.21	0.41
8:E:110:G:N3	8:E:111:U:H1'	2.35	0.41
8:E:58:A:C8	8:E:59:A:N7	2.88	0.41
9:F:111:ARG:HA	9:F:111:ARG:HD3	1.88	0.41
11:H:114:ARG:HA	11:H:114:ARG:HD3	1.89	0.41
12:I:100:VAL:HG22	12:I:118:ILE:H	1.86	0.41
13:J:97:PHE:CE2	25:V:31:LEU:HB2	2.56	0.41
15:L:82:HIS:CE1	15:L:84:ARG:HB2	2.56	0.41
6:A:523:A:N6	19:P:53:ARG:HH12	2.19	0.41
19:P:59:ARG:HH11	19:P:59:ARG:HG3	1.85	0.41
23:T:40:ASP:HA	23:T:41:PRO:HD3	1.96	0.41
24:U:11:VAL:HG23	24:U:22:LEU:HB2	2.01	0.41
27:X:74:LYS:HB3	27:X:75:ASN:H	1.37	0.41
29:Z:100:ILE:O	29:Z:104:LEU:HG	2.21	0.41
5:5:17:C:H5''	5:5:18:G:OP1	2.21	0.41
5:5:48:C:OP1	5:5:48:C:H6	2.04	0.41
6:A:1028(A):C:H2'	6:A:1028(B):C:O4'	2.20	0.41
6:A:109:A:C8	6:A:327:A:C4	3.09	0.41
6:A:1190:G:C2'	6:A:1191:A:OP2	2.69	0.41
6:A:1225:A:OP2	6:A:1226:C:C5	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:1265:G:H1	6:A:1270:C:H42	1.69	0.41
6:A:1299:A:C5	6:A:1301:U:C2	3.09	0.41
6:A:216:G:C4	6:A:217:C:C4	3.09	0.41
6:A:371:G:H2'	6:A:372:C:H5''	2.03	0.41
6:A:550:G:C2	6:A:551:U:C2	3.09	0.41
6:A:574:A:H8	6:A:574:A:O5'	2.04	0.41
6:A:746:A:C6	6:A:747:C:C4	3.08	0.41
6:A:841:U:C6	6:A:841:U:C3'	3.04	0.41
6:A:925:G:H5''	6:A:926:G:OP1	2.21	0.41
6:A:933:G:H5''	6:A:934:C:OP1	2.21	0.41
56:B:194:ALA:CB	56:B:195:PRO:CD	2.95	0.41
56:B:222:VAL:CG1	56:B:264:LEU:HD13	2.42	0.41
56:B:379:LYS:CD	56:B:407:GLU:H	2.32	0.41
56:B:53:ARG:HH11	56:B:53:ARG:HA	1.86	0.41
7:D:1065:U:O4'	7:D:1074:G:N2	2.53	0.41
7:D:1108:U:C6	7:D:1108:U:C3'	3.03	0.41
7:D:1177:A:C6	7:D:1178:C:C4	3.09	0.41
7:D:1218:C:O2'	7:D:1219:G:H5'	2.21	0.41
7:D:1231:G:H2'	7:D:1232:G:C8	2.56	0.41
7:D:1361:G:N1	7:D:1362:C:N3	2.69	0.41
7:D:1386:C:OP2	7:D:1396:U:O2	2.39	0.41
7:D:1486:A:H2'	7:D:1487:G:O4'	2.20	0.41
7:D:1363:C:O3'	7:D:1809:A:C6	2.74	0.41
7:D:1912:A:H5'	7:D:1913:A:OP1	2.21	0.41
7:D:1919:A:H1'	7:D:1920:C:OP1	2.21	0.41
7:D:1941:C:C5	7:D:1942:C:C5	3.09	0.41
7:D:2024:G:N2	7:D:2025:C:C2	2.89	0.41
7:D:2043:C:C2	7:D:2777:G:N2	2.89	0.41
7:D:2120:G:H2'	7:D:2121:G:O4'	2.21	0.41
7:D:2199:A:C2	7:D:2205:C:O4'	2.74	0.41
7:D:2270:G:O6	7:D:2271:G:C2	2.74	0.41
7:D:265:A:C8	7:D:428:A:N6	2.89	0.41
7:D:2693:A:C4	7:D:2717:G:N2	2.89	0.41
7:D:270(M):U:O3'	7:D:270(N):G:H4'	2.21	0.41
7:D:2741:A:H5''	7:D:2742:C:OP2	2.21	0.41
7:D:334:C:HO2'	7:D:335:C:P	2.44	0.41
7:D:43:G:H2'	7:D:44:A:C8	2.55	0.41
7:D:508:G:C2	7:D:508:G:OP2	2.74	0.41
7:D:551:G:C4	7:D:552:G:N7	2.89	0.41
7:D:562:U:O2'	7:D:563:G:OP2	2.38	0.41
7:D:607:U:C5	7:D:608:A:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:464:U:O2'	7:D:686:G:C6	2.74	0.41
7:D:818:G:OP2	7:D:1187:G:O6	2.38	0.41
7:D:870:A:C2	7:D:908:C:N3	2.88	0.41
8:E:46:A:N7	8:E:47:C:C4	2.88	0.41
8:E:53:A:C4	8:E:54:G:C8	3.08	0.41
8:E:52:A:N1	8:E:53:A:H1'	2.36	0.41
8:E:84:C:H2'	8:E:85:G:O4'	2.21	0.41
9:F:218:ALA:O	9:F:221:LEU:HB3	2.21	0.41
6:A:1256:A:P	10:G:27:LYS:HZ3	2.39	0.41
11:H:109:GLY:O	11:H:161:ASN:HB3	2.21	0.41
12:I:100:VAL:HG13	12:I:118:ILE:O	2.21	0.41
13:J:4:TYR:O	13:J:65:VAL:HG22	2.21	0.41
13:J:2:ARG:HH11	13:J:69:GLU:CB	2.34	0.41
14:K:42:ILE:HG22	14:K:120:ILE:HD12	2.02	0.41
15:L:36:LEU:HD21	15:L:59:LEU:HD13	2.03	0.41
6:A:1148:U:C6	16:M:16:ARG:NH1	2.89	0.41
16:M:65:VAL:HG21	16:M:73:GLN:CB	2.48	0.41
6:A:564:C:P	19:P:15:ARG:HH12	2.43	0.41
19:P:54:LYS:N	19:P:54:LYS:HD2	2.35	0.41
24:U:25:ARG:HD2	24:U:27:PHE:CE2	2.56	0.41
25:V:44:LEU:HD23	25:V:79:LEU:HD22	2.01	0.41
26:W:59:PRO:HB2	26:W:60:VAL:H	1.66	0.41
6:A:1438:G:P	27:X:34:LYS:NZ	2.94	0.41
1:1:19:ARG:HH12	1:1:26:ILE:HD11	1.86	0.41
3:3:12:LEU:CB	3:3:13:PRO:CD	2.99	0.41
6:A:1038:C:C4	6:A:1039:C:N4	2.89	0.41
6:A:1127:G:N2	6:A:1148:U:O4	2.54	0.41
6:A:1162:C:H2'	6:A:1163:C:H6	1.86	0.41
6:A:1198:G:H2'	6:A:1199:U:O4'	2.20	0.41
6:A:1231:G:N2	6:A:1232:U:C2	2.89	0.41
6:A:1234:C:H2'	6:A:1235:U:H6	1.86	0.41
6:A:1302:U:C2	20:Q:27:LYS:NZ	2.89	0.41
6:A:1320:C:H5'	26:W:37:ARG:HH11	1.86	0.41
6:A:1393:U:H4'	6:A:1501:C:O2'	2.21	0.41
6:A:1408:A:N1	6:A:1494:G:O4'	2.54	0.41
6:A:1419:G:C5	6:A:1482:G:N2	2.89	0.41
6:A:926:G:C6	6:A:1505:G:C6	3.08	0.41
6:A:115:G:C2	6:A:289:G:C8	3.09	0.41
6:A:327:A:C4	6:A:329:A:N7	2.89	0.41
6:A:55:A:C5	6:A:56:U:C5	3.09	0.41
6:A:594:G:N7	6:A:595:G:C5	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:767:A:C5	6:A:768:A:N7	2.89	0.41
6:A:85:U:O2'	6:A:86:U:H5'	2.20	0.41
56:B:196:LEU:HD23	56:B:282:LEU:HG	2.03	0.41
56:B:410:VAL:HG11	56:B:481:GLN:N	2.16	0.41
56:B:441:LEU:HD23	56:B:441:LEU:HA	1.84	0.41
56:B:81:ILE:HG22	56:B:83:THR:CG2	2.51	0.41
7:D:1044:G:C5	7:D:1044:G:OP1	2.74	0.41
3:3:74:ALA:N	7:D:1059:G:O2'	2.54	0.41
7:D:1056:G:C2	7:D:1102:C:H5	2.39	0.41
7:D:1178:C:N3	7:D:1179:C:N4	2.69	0.41
7:D:117:G:C6	7:D:119:A:N6	2.88	0.41
7:D:1344:G:H2'	7:D:1344:G:N3	2.36	0.41
7:D:1378:A:O2'	7:D:1380:G:O6	2.30	0.41
7:D:1447:G:N2	7:D:1448:G:C4	2.89	0.41
7:D:1455:G:N2	7:D:1456:G:C5	2.88	0.41
7:D:1488:G:C5	7:D:1489:U:C5	3.09	0.41
7:D:1491:G:H8	7:D:1491:G:O5'	2.03	0.41
7:D:1506:C:H2'	7:D:1507:A:O3'	2.21	0.41
7:D:1606:G:H4'	7:D:1608:A:C2	2.56	0.41
7:D:1766:U:H2'	7:D:1767:C:H6	1.86	0.41
7:D:49:A:C4	7:D:177:G:C6	3.09	0.41
7:D:1862:G:N2	7:D:1863:G:C5	2.88	0.41
7:D:1998:G:C6	7:D:1999:C:C4	3.08	0.41
7:D:2047:U:HO2'	7:D:2048:G:P	2.44	0.41
7:D:2056:G:O5'	7:D:2057:A:OP2	2.39	0.41
7:D:2101:G:N2	7:D:2189:U:H1'	2.36	0.41
7:D:2115:G:C4'	7:D:2116:G:OP2	2.69	0.41
7:D:2136:C:H3'	7:D:2137:C:C6	2.55	0.41
7:D:2195:C:H3'	7:D:2196:C:H6	1.86	0.41
7:D:2338:G:N1	7:D:2339:G:C5	2.89	0.41
7:D:2519:U:O2'	7:D:2520:C:P	2.79	0.41
7:D:2542:A:OP2	7:D:2542:A:O4'	2.39	0.41
7:D:2545:G:C2	7:D:2546:U:O2	2.74	0.41
7:D:1782:C:N3	7:D:2587:A:N1	2.69	0.41
7:D:2681:C:O2	7:D:2681:C:OP2	2.39	0.41
7:D:270(B):A:H1'	7:D:270(C):C:C5	2.56	0.41
7:D:2836:U:N3	7:D:2883:A:N6	2.69	0.41
7:D:2854:G:C2	7:D:2855:C:C2	3.09	0.41
7:D:2895:U:H3'	7:D:2895:U:C6	2.55	0.41
7:D:293:U:H6	7:D:293:U:OP2	2.04	0.41
7:D:181:A:C5	7:D:435:C:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:535:C:C4	7:D:536:A:N6	2.81	0.41
7:D:548:A:N6	7:D:549:G:N3	2.69	0.41
7:D:543:C:C2	7:D:551:G:N1	2.89	0.41
7:D:559:G:O2'	7:D:560:C:P	2.79	0.41
7:D:625:G:C5	7:D:626:U:C6	3.09	0.41
7:D:776:G:O2'	7:D:777:A:P	2.79	0.41
7:D:780:G:C6	7:D:782:A:N1	2.89	0.41
7:D:79:G:H2'	7:D:80:G:H8	1.85	0.41
7:D:945:A:N1	7:D:2448:A:N7	2.69	0.41
8:E:30:C:H1'	8:E:58:A:C2	2.56	0.41
9:F:50:GLU:OE2	9:F:201:ILE:HA	2.21	0.41
9:F:49:GLU:HA	9:F:52:GLU:OE2	2.20	0.41
9:F:61:LEU:HD22	9:F:68:ILE:CG1	2.50	0.41
10:G:177:THR:HG23	10:G:180:ALA:HB2	2.02	0.41
11:H:60:GLU:HG3	11:H:198:VAL:HG12	2.03	0.41
16:M:83:ARG:HA	16:M:86:VAL:HG23	2.03	0.41
19:P:123:LYS:HB3	19:P:123:LYS:HE3	1.91	0.41
19:P:28:LYS:HD2	19:P:33:ARG:NH2	2.32	0.41
19:P:66:VAL:HG21	19:P:98:TYR:CE2	2.56	0.41
20:Q:71:ARG:O	20:Q:76:ALA:N	2.54	0.41
20:Q:81:LEU:HA	20:Q:81:LEU:HD13	1.83	0.41
20:Q:96:LEU:HD23	20:Q:96:LEU:HA	1.84	0.41
29:Z:70:LYS:N	29:Z:157:LYS:HA	2.35	0.41
29:Z:20:TYR:CE2	29:Z:28:LEU:HD22	2.48	0.41
29:Z:53:ARG:NH2	29:Z:55:ASP:OD2	2.54	0.41
3:3:39:LYS:HA	3:3:42:ASN:HD22	1.86	0.40
6:A:1155:G:C5	6:A:1156:G:C5	3.09	0.40
6:A:1118:C:H1'	6:A:1179:A:H1'	2.03	0.40
6:A:1179:A:C6	6:A:1180:A:C6	3.09	0.40
6:A:1198:G:C6	6:A:1199:U:C4	3.08	0.40
6:A:1202:G:N2	6:A:1203:C:H1'	2.36	0.40
6:A:1330:U:H6	6:A:1330:U:O5'	2.04	0.40
6:A:1371:G:C6	6:A:1372:U:N3	2.89	0.40
6:A:137:C:N4	6:A:226:G:H1	2.19	0.40
6:A:405:U:O4	6:A:498:A:N7	2.54	0.40
6:A:518:C:C4	6:A:529:G:N7	2.89	0.40
6:A:546:G:OP1	11:H:73:ARG:N	2.46	0.40
6:A:61:G:C5	6:A:107:G:C2	3.09	0.40
6:A:782:A:C8	6:A:783:C:C5	3.09	0.40
6:A:791:G:H22	6:A:1498:U:P	2.44	0.40
56:B:25:LEU:CA	56:B:168:GLY:HA3	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:197:LYS:HA	56:B:281:THR:CA	2.50	0.40
56:B:337:SER:CA	56:B:393:PRO:HB2	2.51	0.40
56:B:45:PHE:O	56:B:46:LEU:HB2	2.22	0.40
56:B:489:LEU:O	56:B:508:ALA:HB3	2.21	0.40
2:2:33:PRO:HA	7:D:1055:G:O3'	2.21	0.40
7:D:1074:G:N3	7:D:1075:C:N4	2.69	0.40
7:D:1153:C:C4	7:D:1154:G:N7	2.89	0.40
7:D:1212:G:H2'	7:D:1236:G:N2	2.37	0.40
7:D:579:G:C2	7:D:1262:A:C4	3.09	0.40
7:D:1296:G:C4	7:D:1645:G:N2	2.89	0.40
7:D:1356:G:C5	7:D:1357:U:C5	3.09	0.40
7:D:1370:C:N4	7:D:1371:G:C6	2.89	0.40
7:D:1442:G:C2	7:D:1443:G:C4	3.09	0.40
7:D:1300:U:H3	7:D:1626:G:HO2'	1.54	0.40
7:D:1665:A:H2	7:D:1666:G:N3	2.19	0.40
7:D:1703:G:N2	7:D:1704:G:C4	2.89	0.40
7:D:49:A:N6	7:D:177:G:C4	2.89	0.40
7:D:1807:G:O2'	7:D:1810:A:N6	2.54	0.40
7:D:2046:G:C2	7:D:2623:G:N3	2.89	0.40
7:D:2047:U:C2	7:D:2048:G:C8	3.09	0.40
7:D:2117:A:C6	7:D:2172:U:O4	2.74	0.40
7:D:2137:C:C4	7:D:2138:C:C4	3.09	0.40
7:D:2182:G:C6	7:D:2183:C:N4	2.89	0.40
7:D:2215:G:O2'	7:D:2216:G:P	2.79	0.40
7:D:2291:U:H2'	7:D:2292:C:H6	1.83	0.40
7:D:2356:C:C5	7:D:2357:U:N3	2.90	0.40
7:D:2417:C:H5''	7:D:2418:A:OP2	2.20	0.40
5:5:76:A:C6	7:D:2422:A:C4	3.09	0.40
7:D:271:G:C2	7:D:272:G:C8	3.09	0.40
7:D:1050:A:C6	7:D:2751:G:C5	3.09	0.40
7:D:2643:G:C2	7:D:2772:C:O2	2.73	0.40
7:D:2805:G:C4	7:D:2807:G:O4'	2.75	0.40
7:D:2843:G:H2'	7:D:2844:G:H8	1.86	0.40
7:D:2889:C:H2'	7:D:2891:G:C5'	2.51	0.40
7:D:398:G:N2	7:D:399:G:H1'	2.36	0.40
7:D:563:G:N3	7:D:2018:G:N2	2.69	0.40
7:D:798:G:C5	7:D:799:G:N7	2.90	0.40
7:D:852:G:C2	7:D:853:G:C4	3.09	0.40
7:D:915:C:C4	7:D:916:G:C5	3.09	0.40
7:D:957:A:N6	7:D:959:A:C2	2.89	0.40
7:D:978:G:C6	7:D:979:G:C4	3.08	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:6:C:H2'	8:E:7:G:O4'	2.21	0.40
9:F:186:ALA:O	9:F:201:ILE:N	2.54	0.40
6:A:1188:A:H4'	17:N:61:GLU:OE2	2.21	0.40
20:Q:12:ASN:OD1	20:Q:44:ARG:HB3	2.21	0.40
20:Q:34:LEU:HD22	20:Q:41:PRO:HG3	2.03	0.40
22:S:24:SER:O	22:S:28:GLN:HG2	2.22	0.40
6:A:277:C:H5'	24:U:68:ARG:HH12	1.84	0.40
26:W:5:LEU:CD1	26:W:6:LYS:HB3	2.50	0.40
29:Z:127:LEU:O	29:Z:131:LEU:HG	2.21	0.40
3:3:130:SER:HA	3:3:133:SER:CB	2.51	0.40
5:5:52:G:C8	5:5:52:G:OP2	2.70	0.40
6:A:1081:G:N2	6:A:1082:G:C4	2.89	0.40
6:A:10:A:C2	6:A:11:G:C5	3.10	0.40
6:A:1129:C:N4	6:A:1139:G:N1	2.69	0.40
6:A:1183:A:O2'	6:A:1184:G:OP2	2.39	0.40
6:A:1285:A:C1'	6:A:1286:A:OP2	2.69	0.40
6:A:1299:A:C5	6:A:1301:U:N3	2.90	0.40
6:A:1436:U:H5''	6:A:1437:C:OP2	2.21	0.40
6:A:1451:A:O5'	6:A:1451:A:C8	2.74	0.40
6:A:1483:A:H2'	6:A:1484:C:O4'	2.22	0.40
6:A:1413:A:C2	6:A:1488:G:C2	3.08	0.40
6:A:147:G:N3	6:A:148:G:C8	2.89	0.40
6:A:208:U:C3'	6:A:208:U:C6	3.04	0.40
6:A:247:G:N7	6:A:278:G:N2	2.68	0.40
6:A:564:C:H2'	6:A:565:U:C6	2.56	0.40
6:A:778:G:C5	6:A:779:C:C4	3.09	0.40
6:A:81:G:H2'	6:A:81:G:N3	2.36	0.40
6:A:952:U:H4'	6:A:964:A:H61	1.86	0.40
6:A:987:G:C6	6:A:988:G:N7	2.90	0.40
6:A:99:C:O2'	6:A:101:A:P	2.79	0.40
56:B:15:ILE:HA	56:B:22:LYS:CE	2.49	0.40
56:B:171:GLY:C	56:B:173:GLY:H	2.25	0.40
56:B:228:ILE:HG13	56:B:282:LEU:HD21	2.03	0.40
56:B:33:THR:HG23	56:B:34:HIS:N	2.36	0.40
56:B:379:LYS:HD3	56:B:407:GLU:N	2.35	0.40
56:B:479:TYR:N	56:B:479:TYR:CD1	2.86	0.40
56:B:69:ARG:NH2	56:B:178:LEU:HD12	2.32	0.40
7:D:1024:G:N7	7:D:1025:G:C4	2.89	0.40
7:D:1039:G:N7	7:D:1117:G:C6	2.90	0.40
7:D:1059:G:P	7:D:1060:U:OP2	2.79	0.40
7:D:1063:G:OP2	7:D:1064:C:P	2.79	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1092:C:P	7:D:1092:C:H6	2.44	0.40
7:D:1145:C:C4	7:D:1146:C:C5	3.09	0.40
7:D:1000:A:C2	7:D:1155:A:C6	3.09	0.40
7:D:993:G:N1	7:D:1162:G:C5	2.89	0.40
7:D:1179:C:H2'	7:D:1179:C:H6	1.64	0.40
7:D:1182:A:N7	7:D:1183:G:C8	2.90	0.40
7:D:1247:A:N1	7:D:1249:U:C2	2.89	0.40
7:D:1320:C:H4'	7:D:1321:A:OP1	2.20	0.40
7:D:1447:G:C4	7:D:1465:G:N2	2.89	0.40
7:D:145:G:C6	7:D:146:G:C6	3.09	0.40
7:D:1543:A:C8	7:D:1544:C:O2'	2.70	0.40
7:D:1608:A:O2'	7:D:1610:A:OP1	2.19	0.40
7:D:1307:A:C4	7:D:1622:G:N1	2.90	0.40
7:D:1707:G:O2'	7:D:1758:G:N2	2.52	0.40
7:D:1829:A:C4	7:D:1830:C:C6	3.09	0.40
7:D:1864:U:H5''	7:D:2410:G:O2'	2.21	0.40
7:D:1891:G:C6	7:D:1892:C:N3	2.89	0.40
7:D:1919:A:O2'	7:D:1920:C:P	2.78	0.40
7:D:1942:C:C4	7:D:1943:U:N3	2.89	0.40
7:D:2283:C:C5	7:D:2389:G:C4	3.09	0.40
7:D:2491:U:N3	7:D:2492:U:C5	2.90	0.40
7:D:2546:U:HO2'	7:D:2566:A:HO2'	1.64	0.40
7:D:2671:A:H2'	7:D:2672:G:C8	2.56	0.40
7:D:270(O):U:H5''	7:D:270(P):C:H41	1.86	0.40
7:D:2732:G:H8	7:D:2732:G:OP2	2.04	0.40
7:D:2744:G:C6	7:D:2761:G:C6	3.10	0.40
7:D:2758:A:N6	7:D:2759:G:C6	2.89	0.40
7:D:277:C:H4'	7:D:278:A:C5	2.56	0.40
7:D:2807:G:H2'	7:D:2808:U:H5'	2.04	0.40
7:D:310:A:N6	7:D:312:G:C2	2.90	0.40
7:D:315:G:C6	7:D:316:C:N3	2.89	0.40
7:D:335:C:H2'	7:D:336:C:O4'	2.21	0.40
7:D:337:C:O3'	7:D:339:U:P	2.79	0.40
7:D:85:G:H1'	7:D:103:A:C2	2.56	0.40
7:D:899:A:H4'	7:D:900:A:OP2	2.12	0.40
7:D:968:G:C5'	7:D:969:U:OP2	2.69	0.40
9:F:178:ARG:NH1	15:L:71:GLY:HA2	2.36	0.40
9:F:44:LEU:O	9:F:48:MET:HG2	2.20	0.40
10:G:123:GLN:NE2	10:G:128:PHE:HZ	2.18	0.40
13:J:45:LEU:HD23	13:J:45:LEU:HA	1.86	0.40
14:K:27:ILE:HG22	14:K:36:LYS:HZ1	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:61:VAL:HG12	14:K:128:ALA:CB	2.52	0.40
15:L:132:GLU:HG2	15:L:133:LEU:O	2.21	0.40
6:A:643:C:H5'	15:L:31:PHE:CE1	2.57	0.40
16:M:24:GLY:CA	16:M:57:GLY:HA2	2.51	0.40
27:X:30:LYS:HA	27:X:33:ILE:HD12	2.02	0.40
27:X:87:LYS:HA	27:X:90:GLN:OE1	2.22	0.40
29:Z:209:LEU:HD11	29:Z:226:PRO:HB2	2.02	0.40
1:1:2:LYS:HG2	1:1:35:ARG:HB2	2.02	0.40
3:3:53:VAL:O	3:3:53:VAL:HG12	2.21	0.40
4:4:2:G:N2	4:4:3:C:C2	2.90	0.40
6:A:113:G:C2	6:A:315:A:H2	2.39	0.40
6:A:1221:G:C2	6:A:1222:G:C4	3.10	0.40
6:A:1323:G:C2	6:A:1324:A:C4	3.09	0.40
6:A:1438:G:N2	6:A:1463:C:O2	2.52	0.40
6:A:1433:A:C5	6:A:1468:A:C2	3.09	0.40
6:A:257:G:C2	6:A:258:G:C8	3.09	0.40
6:A:293:G:C6	6:A:294:U:N3	2.90	0.40
6:A:493:G:N3	6:A:493:G:H2'	2.35	0.40
6:A:660:G:C2	6:A:746:A:C4	3.09	0.40
6:A:662:G:H2'	6:A:663:A:C8	2.40	0.40
6:A:674:G:H5'	13:J:50:TYR:CE1	2.56	0.40
6:A:687:A:C8	6:A:704:A:N6	2.90	0.40
6:A:758:G:O2'	6:A:759:A:H5'	2.22	0.40
6:A:90:C:O2	6:A:91:C:C4	2.74	0.40
6:A:960:U:H4'	6:A:961:U:C5'	2.50	0.40
56:B:106:VAL:HG12	56:B:136:ASN:HB2	2.04	0.40
56:B:138:ILE:HD11	56:B:165:PHE:C	2.41	0.40
56:B:280:ILE:O	56:B:281:THR:HG23	2.22	0.40
56:B:383:LYS:H	56:B:402:ILE:CG1	2.10	0.40
56:B:459:ILE:CD1	56:B:459:ILE:C	2.87	0.40
56:B:65:ARG:HE	56:B:245:PHE:HB2	1.86	0.40
56:B:137:LYS:CA	57:B:701:GCP:C6	2.97	0.40
7:D:991:C:OP2	7:D:1186:G:OP2	2.40	0.40
7:D:1191:G:H2'	7:D:1192:G:O4'	2.22	0.40
7:D:1208:C:C2	7:D:1239:G:C2	3.10	0.40
7:D:1319:G:C2	7:D:1320:C:N3	2.90	0.40
7:D:1378:A:N3	7:D:1380:G:C8	2.89	0.40
7:D:1484:G:C6	7:D:1485:G:N7	2.89	0.40
7:D:1557:C:O5'	7:D:1558:A:OP2	2.39	0.40
7:D:1651:G:N2	7:D:1652:A:C4	2.89	0.40
7:D:1671:U:C2	7:D:1673:U:H5'	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:1789:A:C5	7:D:1790:C:N3	2.89	0.40
7:D:1800:C:H5	7:D:1817:G:O6	2.04	0.40
7:D:1797:C:N3	7:D:1823:G:C6	2.90	0.40
7:D:2001:A:H2'	7:D:2002:G:C8	2.56	0.40
7:D:2093:G:C4	7:D:2225:A:C5	3.09	0.40
7:D:2134:A:H5''	7:D:2135:A:OP2	2.22	0.40
7:D:2137:C:N3	7:D:2154:G:N2	2.67	0.40
7:D:2175:C:O2'	29:Z:221:SER:N	2.54	0.40
7:D:2209:C:H2'	7:D:2211:G:OP1	2.21	0.40
7:D:2274:A:O3'	7:D:2275:C:H3'	2.21	0.40
7:D:2481:G:H4'	7:D:2482:G:H5'	2.04	0.40
7:D:2491:U:C2	7:D:2492:U:C5	3.10	0.40
7:D:2499:C:N4	7:D:2500:U:C4	2.90	0.40
7:D:252:G:N2	7:D:253:C:C2	2.89	0.40
7:D:269:U:N3	7:D:424:G:C6	2.89	0.40
7:D:270(E):G:H1	7:D:270(T):G:N2	2.20	0.40
7:D:270(E):G:C6	7:D:270(F):U:N3	2.89	0.40
7:D:2634:G:H1	7:D:2784:C:H42	1.69	0.40
7:D:557:U:O2'	7:D:558:G:H5'	2.22	0.40
7:D:565:C:O2	7:D:577:G:C2	2.74	0.40
7:D:60:G:O2'	7:D:63:U:H5	2.04	0.40
7:D:612:G:N2	7:D:617:G:C6	2.89	0.40
7:D:609(A):G:N2	7:D:618(A):C:C2	2.79	0.40
7:D:71:A:HO2'	7:D:72:U:P	2.29	0.40
7:D:743:G:N1	7:D:744:G:C5	2.90	0.40
7:D:744:G:C4	7:D:745:G:H1'	2.57	0.40
7:D:913:U:O2'	7:D:914:C:O5'	2.35	0.40
7:D:919:G:C6	7:D:920:G:C4	3.09	0.40
7:D:97:C:H6	7:D:97:C:O5'	2.04	0.40
8:E:61:G:H2'	8:E:62:C:C6	2.57	0.40
8:E:75:G:C2	8:E:102:G:N2	2.90	0.40
9:F:10:LEU:O	9:F:11:LEU:HB2	2.21	0.40
9:F:224:GLN:HG2	9:F:229:VAL:HG21	2.03	0.40
12:I:53:LEU:CD2	12:I:56:GLN:HE22	2.34	0.40
15:L:6:ILE:O	15:L:10:LEU:HG	2.21	0.40
16:M:58:HIS:NE2	16:M:59:PHE:CD2	2.90	0.40
18:O:22:HIS:HB3	18:O:29:ILE:HG13	2.03	0.40
23:T:39:TYR:CZ	23:T:41:PRO:HA	2.57	0.40
25:V:84:LYS:H	25:V:84:LYS:HD2	1.86	0.40
26:W:16:LEU:C	26:W:20:LEU:CD1	2.89	0.40
26:W:51:VAL:CG1	26:W:52:TYR:N	2.83	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:5:15:G:H8	5:5:15:G:OP2	2.03	0.40
6:A:1002:G:C2	6:A:1003:G:C6	3.10	0.40
6:A:1133:G:C4	6:A:1134:G:C8	3.10	0.40
6:A:1164:G:C2	6:A:1173:G:C4	3.10	0.40
6:A:1227:A:O5'	20:Q:111:LYS:NZ	2.48	0.40
6:A:1228:C:H41	20:Q:104:ARG:HG2	1.87	0.40
6:A:1235:U:N3	6:A:1236:A:N7	2.69	0.40
6:A:124:G:C6	6:A:125:U:C4	3.09	0.40
6:A:1298:C:O2'	6:A:1299:A:O5'	2.36	0.40
6:A:1314:C:H2'	6:A:1315:U:C6	2.56	0.40
6:A:1355:G:C4	6:A:1368:G:C2	3.10	0.40
6:A:1449:C:HO2'	6:A:1450:U:P	2.45	0.40
6:A:1459:C:C5	6:A:1460:A:N7	2.89	0.40
6:A:243:A:C5	6:A:245:C:C4	3.09	0.40
6:A:598:U:H2'	6:A:599:C:H6	1.86	0.40
6:A:632:A:C8	6:A:633:G:C8	3.10	0.40
6:A:721:G:H5'	6:A:722:A:C8	2.57	0.40
6:A:722:A:N1	6:A:724:G:C6	2.89	0.40
6:A:819:A:N6	6:A:1529:G:C5	2.89	0.40
6:A:92:G:C5	6:A:93:U:C5	3.08	0.40
56:B:455:PRO:O	56:B:458:GLU:N	2.42	0.40
56:B:412:LEU:CD1	56:B:479:TYR:HB3	2.30	0.40
56:B:6:LEU:CD1	56:B:6:LEU:H	2.30	0.40
56:B:64:VAL:CG2	56:B:80:LEU:O	2.68	0.40
7:D:1083:U:H2'	7:D:1085:A:OP2	2.21	0.40
7:D:1048:A:C2	7:D:1111:A:N3	2.89	0.40
7:D:1338:G:C2	7:D:1339:G:C8	3.09	0.40
7:D:1353:A:OP2	7:D:1377:G:N2	2.50	0.40
7:D:1389:G:C6	7:D:1390:U:C4	3.08	0.40
7:D:1448:G:N2	7:D:1463:C:C2	2.87	0.40
7:D:1488:G:C6	7:D:1489:U:C4	3.09	0.40
7:D:1536:A:H2'	7:D:1537:C:C6	2.56	0.40
7:D:1562:A:C6	7:D:1563:G:C5	3.10	0.40
7:D:2000:G:C2	7:D:2001:A:N7	2.90	0.40
7:D:2165:G:H3'	7:D:2166:G:O4'	2.21	0.40
7:D:231:C:C4	7:D:232:G:N2	2.89	0.40
7:D:1966:A:H1'	7:D:2593:U:H4'	2.02	0.40
7:D:2588:G:C5	7:D:2607:G:C2	3.10	0.40
7:D:2663:G:C6	7:D:2664:G:C5	3.10	0.40
7:D:295:G:N2	7:D:296:C:C2	2.89	0.40
7:D:439:G:O5'	7:D:439:G:C8	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:765:G:N3	7:D:766:C:C6	2.90	0.40
7:D:774:A:C8	7:D:775:G:N7	2.89	0.40
7:D:80:G:C2	7:D:81:G:C5	3.10	0.40
7:D:882:G:OP2	7:D:883:G:O5'	2.40	0.40
8:E:12:C:H2'	8:E:13:A:H5''	2.03	0.40
8:E:34:U:C4	8:E:44:G:C8	3.09	0.40
9:F:107:THR:O	9:F:110:GLN:N	2.55	0.40
6:A:829:G:H4'	9:F:26:PRO:HG3	2.03	0.40
11:H:68:TYR:HE2	11:H:97:LEU:HD13	1.86	0.40
12:I:84:PHE:HD1	12:I:130:ASN:OD1	2.04	0.40
16:M:118:LYS:O	16:M:119:ALA:HB3	2.22	0.40
17:N:45:ARG:HB2	17:N:65:LEU:HB3	2.03	0.40
18:O:12:ARG:NH1	18:O:34:ASP:CG	2.69	0.40
26:W:16:LEU:HG	26:W:44:MET:CE	2.52	0.40
29:Z:65:PRO:CG	29:Z:154:ARG:HH11	2.34	0.40
29:Z:65:PRO:CG	29:Z:154:ARG:NH1	2.80	0.40
29:Z:193:ILE:HD11	29:Z:212:VAL:HG11	2.03	0.40
5:5:40:C:H2'	5:5:41:C:O4'	2.22	0.40
6:A:1198:G:C5	6:A:1199:U:C4	3.10	0.40
6:A:1245:A:H2'	6:A:1246:C:C6	2.56	0.40
6:A:1248:A:H1'	16:M:70:LYS:NZ	2.35	0.40
6:A:1349:A:H3'	6:A:1350:A:H8	1.85	0.40
6:A:1365:G:H2'	6:A:1366:C:O4'	2.21	0.40
6:A:1381:U:O2	14:K:79:ARG:HB2	2.22	0.40
6:A:922:G:H1	6:A:1395:C:H42	1.68	0.40
6:A:1447:G:N7	6:A:1448:C:N4	2.70	0.40
6:A:181:G:O2'	6:A:182:U:O5'	2.39	0.40
6:A:185:A:C5	6:A:186:C:C5	3.09	0.40
6:A:186(E):C:C2	6:A:191(C):G:C2	3.09	0.40
6:A:20:U:O2	6:A:21:G:C4	2.74	0.40
6:A:241:C:H2'	6:A:242:C:H6	1.86	0.40
6:A:442:C:O2	6:A:493:G:C2'	2.70	0.40
6:A:477:G:C2	6:A:478:A:N9	2.89	0.40
6:A:521:G:N2	6:A:522:C:C2	2.89	0.40
6:A:498:A:N6	6:A:547:A:C8	2.90	0.40
6:A:566:G:HO2'	6:A:567:G:P	2.45	0.40
6:A:623:C:N3	6:A:624:C:C4	2.89	0.40
6:A:849:C:C3'	6:A:849:C:C6	3.04	0.40
6:A:872:A:N1	6:A:874:G:C5	2.89	0.40
6:A:811:C:HO2'	6:A:900:A:N6	2.17	0.40
6:A:960:U:H2'	6:A:1223:C:H5'	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:B:231:TYR:HD1	56:B:280:ILE:HG12	1.44	0.40
56:B:282:LEU:CG	56:B:283:ALA:N	2.70	0.40
56:B:335:GLU:O	56:B:340:LEU:HA	2.20	0.40
56:B:377:VAL:C	56:B:378:TYR:HD1	2.23	0.40
56:B:51:LEU:C	56:B:51:LEU:CD2	2.86	0.40
7:D:1053:C:H2'	7:D:1054:A:C8	2.56	0.40
7:D:1086:A:OP2	7:D:1086:A:O4'	2.39	0.40
7:D:118:A:C6	7:D:177:G:N1	2.89	0.40
7:D:1203:G:C6	7:D:1241:A:C8	3.10	0.40
7:D:1264:G:C6	7:D:1265:A:N6	2.89	0.40
7:D:1319:G:H1	7:D:1333:C:N4	2.20	0.40
7:D:1483:G:H1	7:D:1507:A:HO2'	1.65	0.40
7:D:1520:U:O5'	7:D:1520:U:H6	2.04	0.40
7:D:1424:G:N2	7:D:1574:C:H1'	2.35	0.40
7:D:1603:A:O2'	7:D:1604:C:O5'	2.39	0.40
7:D:1703:G:C2	7:D:1704:G:C4	3.10	0.40
7:D:1712:C:C6	7:D:1712:C:C3'	3.04	0.40
7:D:1819:A:HO2'	7:D:1820:U:P	2.42	0.40
7:D:1904:G:N2	7:D:1905:C:H1'	2.37	0.40
7:D:1933:G:O6	7:D:1968:G:N2	2.54	0.40
7:D:2008:C:H2'	7:D:2009:G:C8	2.52	0.40
7:D:2024:G:N3	7:D:2025:C:C6	2.90	0.40
7:D:2134:A:H2'	7:D:2136:C:C5	2.55	0.40
7:D:2148:G:C6	7:D:2149:G:C6	3.10	0.40
7:D:2154:G:N3	7:D:2155:G:C8	2.89	0.40
7:D:2182:G:H2'	7:D:2183:C:O4'	2.22	0.40
7:D:2184:G:C2	7:D:2185:C:C2	3.09	0.40
7:D:2344:U:HO2'	7:D:2345:G:P	2.44	0.40
7:D:270(W):G:O6	7:D:270(X):G:N1	2.54	0.40
7:D:2679:A:N3	7:D:2729:G:N2	2.70	0.40
7:D:2789:C:OP1	7:D:2789:C:H4'	2.21	0.40
7:D:2834:G:C4	7:D:2879:C:N3	2.90	0.40
7:D:291:C:N4	7:D:292:C:H41	2.19	0.40
7:D:350:U:N3	7:D:351:G:O6	2.33	0.40
7:D:354:G:N1	7:D:355:G:C6	2.89	0.40
7:D:397:G:C2	7:D:398:G:C8	3.10	0.40
7:D:434:U:O2	7:D:435:C:N4	2.51	0.40
7:D:464:U:O2	7:D:788:A:C6	2.73	0.40
7:D:535:C:N3	7:D:536:A:N7	2.70	0.40
7:D:582:G:C2	7:D:1259:G:C2	3.09	0.40
7:D:640:C:N4	7:D:641:C:H41	2.19	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:686:G:O2'	7:D:687:C:OP1	2.33	0.40
7:D:827:U:C4	7:D:2430:A:N6	2.90	0.40
7:D:866:A:C6	7:D:914:C:C5	3.08	0.40
7:D:879:G:C8	7:D:898:C:N4	2.90	0.40
7:D:930:U:O4'	7:D:932:G:C4	2.74	0.40
7:D:948:G:C2	7:D:970:C:O2	2.75	0.40
9:F:113:HIS:HA	9:F:116:GLU:CD	2.42	0.40
9:F:174:VAL:CG1	9:F:196:LEU:HD13	2.48	0.40
10:G:56:ASP:OD1	10:G:56:ASP:N	3.17	0.40
7:D:2296:U:H5	14:K:8:GLU:CD	106.90	0.40
15:L:80:ILE:H	15:L:80:ILE:HD12	1.87	0.40
16:M:55:ALA:HB1	16:M:58:HIS:CG	2.56	0.40
6:A:1177:G:P	16:M:93:ARG:HH21	2.45	0.40
18:O:50:TYR:HD1	18:O:54:ARG:NH1	2.20	0.40
19:P:37:CYS:HA	19:P:58:VAL:HG22	2.04	0.40
24:U:67:LYS:HA	24:U:70:ARG:HH22	1.87	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	1	35/37 (95%)	23 (66%)	6 (17%)	6 (17%)	0	4
2	2	128/173 (74%)	96 (75%)	23 (18%)	9 (7%)	1	22
3	3	132/147 (90%)	68 (52%)	37 (28%)	27 (20%)	0	2
9	F	232/256 (91%)	179 (77%)	32 (14%)	21 (9%)	1	15
10	G	204/239 (85%)	170 (83%)	21 (10%)	13 (6%)	1	25
11	H	206/209 (99%)	172 (84%)	17 (8%)	17 (8%)	1	17
12	I	148/162 (91%)	125 (84%)	15 (10%)	8 (5%)	2	28

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
13	J	99/101 (98%)	85 (86%)	8 (8%)	6 (6%)	2	25
14	K	153/156 (98%)	138 (90%)	11 (7%)	4 (3%)	6	43
15	L	136/138 (99%)	112 (82%)	17 (12%)	7 (5%)	2	29
16	M	125/128 (98%)	90 (72%)	27 (22%)	8 (6%)	1	25
17	N	96/105 (91%)	80 (83%)	12 (12%)	4 (4%)	3	33
18	O	117/129 (91%)	104 (89%)	8 (7%)	5 (4%)	3	32
19	P	122/132 (92%)	91 (75%)	24 (20%)	7 (6%)	2	27
20	Q	112/126 (89%)	77 (69%)	23 (20%)	12 (11%)	0	10
21	R	58/61 (95%)	43 (74%)	9 (16%)	6 (10%)	0	11
22	S	86/89 (97%)	74 (86%)	10 (12%)	2 (2%)	7	46
23	T	81/88 (92%)	69 (85%)	8 (10%)	4 (5%)	2	30
24	U	102/105 (97%)	80 (78%)	16 (16%)	6 (6%)	2	26
25	V	71/88 (81%)	57 (80%)	10 (14%)	4 (6%)	2	27
26	W	78/93 (84%)	30 (38%)	25 (32%)	23 (30%)	0	0
27	X	97/106 (92%)	85 (88%)	8 (8%)	4 (4%)	3	34
28	Y	22/27 (82%)	19 (86%)	3 (14%)	0	100	100
29	Z	226/229 (99%)	187 (83%)	28 (12%)	11 (5%)	2	30
30	a	270/276 (98%)	201 (74%)	38 (14%)	31 (12%)	0	8
31	b	204/206 (99%)	150 (74%)	31 (15%)	23 (11%)	0	9
32	c	206/210 (98%)	165 (80%)	25 (12%)	16 (8%)	1	19
33	d	180/182 (99%)	115 (64%)	42 (23%)	23 (13%)	0	7
34	e	172/180 (96%)	125 (73%)	24 (14%)	23 (13%)	0	5
35	f	137/140 (98%)	107 (78%)	19 (14%)	11 (8%)	1	18
36	g	120/122 (98%)	81 (68%)	24 (20%)	15 (12%)	0	7
37	h	143/150 (95%)	93 (65%)	28 (20%)	22 (15%)	0	4
38	i	134/141 (95%)	92 (69%)	25 (19%)	17 (13%)	0	7
39	j	115/118 (98%)	104 (90%)	6 (5%)	5 (4%)	3	32
40	k	108/112 (96%)	77 (71%)	22 (20%)	9 (8%)	1	17
41	l	115/146 (79%)	80 (70%)	19 (16%)	16 (14%)	0	5
42	m	115/118 (98%)	100 (87%)	11 (10%)	4 (4%)	4	38
43	n	99/101 (98%)	66 (67%)	20 (20%)	13 (13%)	0	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
44	o	108/113 (96%)	86 (80%)	14 (13%)	8 (7%)	1	20
45	p	92/96 (96%)	71 (77%)	14 (15%)	7 (8%)	1	19
46	q	108/110 (98%)	63 (58%)	21 (19%)	24 (22%)	0	1
47	r	178/206 (86%)	130 (73%)	28 (16%)	20 (11%)	0	9
48	s	77/85 (91%)	65 (84%)	10 (13%)	2 (3%)	6	43
49	t	65/67 (97%)	54 (83%)	7 (11%)	4 (6%)	2	25
50	u	57/60 (95%)	44 (77%)	8 (14%)	5 (9%)	1	15
51	v	69/71 (97%)	35 (51%)	21 (30%)	13 (19%)	0	2
52	w	55/60 (92%)	37 (67%)	11 (20%)	7 (13%)	0	7
53	x	47/54 (87%)	16 (34%)	16 (34%)	15 (32%)	0	0
54	y	47/49 (96%)	33 (70%)	9 (19%)	5 (11%)	0	10
55	z	62/65 (95%)	45 (73%)	8 (13%)	9 (14%)	0	5
56	B	587/610 (96%)	267 (46%)	188 (32%)	132 (22%)	0	1
All	All	6536/6972 (94%)	4756 (73%)	1087 (17%)	693 (11%)	1	10

All (693) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	1	4	ARG
1	1	33	LYS
2	2	77	PRO
2	2	93	LEU
2	2	107	VAL
3	3	23	VAL
3	3	57	ILE
3	3	69	THR
3	3	73	PRO
3	3	90	LYS
3	3	96	VAL
3	3	117	THR
9	F	16	HIS
9	F	20	GLU
9	F	104	ASN
9	F	127	ILE
9	F	158	LEU
10	G	16	ARG
11	H	20	TYR

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Mol	Chain	Res	Type
11	H	30	LYS
11	H	142	PRO
11	H	198	VAL
12	I	73	ASN
12	I	98	THR
13	J	49	ALA
14	K	113	GLU
15	L	97	VAL
16	M	98	PRO
17	N	90	LEU
19	P	77	LEU
19	P	91	LYS
20	Q	36	LYS
20	Q	60	VAL
20	Q	65	LYS
20	Q	81	LEU
21	R	34	TYR
23	T	44	THR
24	U	99	SER
25	V	78	LEU
25	V	81	PHE
26	W	5	LEU
26	W	53	ASN
26	W	55	LYS
26	W	60	VAL
26	W	61	TYR
26	W	62	ILE
26	W	71	LEU
27	X	71	THR
29	Z	37	PHE
30	a	52	ARG
30	a	58	HIS
30	a	59	LYS
30	a	89	SER
30	a	91	ARG
30	a	211	ARG
30	a	226	MET
30	a	243	GLY
30	a	245	PRO
30	a	249	PRO
31	b	16	ARG
31	b	38	THR

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Mol	Chain	Res	Type
31	b	74	PRO
31	b	100	GLU
31	b	119	ARG
31	b	123	ALA
31	b	147	PRO
31	b	178	GLU
31	b	185	LYS
31	b	191	PRO
32	c	45	ARG
32	c	126	VAL
32	c	169	ASN
33	d	27	ASN
33	d	51	ARG
33	d	114	ILE
33	d	123	ASN
33	d	145	THR
35	f	35	ARG
35	f	51	PHE
35	f	65	LYS
35	f	67	LEU
35	f	79	PRO
36	g	22	ILE
36	g	63	VAL
36	g	89	ASN
36	g	101	PRO
36	g	102	VAL
37	h	18	ARG
37	h	42	SER
37	h	47	ASP
37	h	92	GLU
37	h	111	ARG
37	h	122	PRO
38	i	8	LYS
38	i	31	ASP
38	i	66	ILE
38	i	67	ARG
38	i	77	LYS
38	i	78	PRO
38	i	87	LYS
39	j	6	SER
39	j	12	ARG
40	k	31	SER

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Mol	Chain	Res	Type
40	k	32	LEU
40	k	95	HIS
41	l	24	PRO
41	l	28	VAL
41	l	58	ASN
42	m	22	LYS
42	m	89	GLU
43	n	18	LEU
43	n	22	VAL
43	n	69	LYS
43	n	90	PRO
44	o	12	ILE
44	o	65	LEU
44	o	74	ALA
45	p	36	LYS
45	p	89	ILE
46	q	47	LYS
46	q	72	VAL
46	q	77	PRO
46	q	82	PRO
46	q	94	LYS
46	q	107	ASP
47	r	41	LEU
47	r	63	ASP
47	r	146	ILE
48	s	12	ASN
49	t	13	PRO
49	t	38	GLN
49	t	39	LEU
50	u	12	PRO
50	u	17	LYS
50	u	51	ALA
51	v	11	PRO
51	v	27	THR
51	v	41	PRO
51	v	44	THR
51	v	51	ASP
51	v	56	VAL
52	w	23	HIS
52	w	36	CYS
53	x	19	ARG
53	x	25	LYS

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Mol	Chain	Res	Type
53	x	29	ASN
53	x	52	VAL
54	y	5	TRP
54	y	18	PHE
54	y	23	ARG
55	z	32	LEU
56	B	39	ARG
56	B	68	TYR
56	B	146	LEU
56	B	203	SER
56	B	223	ARG
56	B	233	THR
56	B	280	ILE
56	B	296	PRO
56	B	298	LYS
56	B	320	LEU
56	B	328	ALA
56	B	339	ALA
56	B	340	LEU
56	B	386	GLU
56	B	394	ALA
56	B	444	ALA
56	B	475	ALA
56	B	486	PRO
56	B	490	VAL
56	B	497	HIS
56	B	504	LEU
56	B	531	GLN
56	B	557	ASP
56	B	563	TYR
56	B	585	LYS
56	B	587	ILE
1	1	5	ALA
1	1	9	ARG
2	2	30	GLN
2	2	80	VAL
2	2	116	ILE
3	3	24	GLY
3	3	32	ALA
3	3	34	ILE
3	3	49	GLY
3	3	56	GLU

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Mol	Chain	Res	Type
3	3	58	THR
3	3	82	ALA
3	3	93	ARG
9	F	24	TRP
9	F	155	LEU
9	F	191	ASP
10	G	66	VAL
10	G	179	ARG
11	H	4	TYR
11	H	154	ASN
11	H	196	LEU
11	H	200	GLU
12	I	12	LEU
12	I	95	ALA
13	J	53	ALA
14	K	112	PRO
15	L	74	PRO
15	L	121	ASP
16	M	47	LEU
16	M	110	GLU
16	M	116	LYS
17	N	39	PRO
19	P	6	THR
20	Q	45	VAL
20	Q	46	LYS
20	Q	69	GLU
20	Q	98	VAL
20	Q	104	ARG
21	R	16	PHE
21	R	29	ARG
21	R	31	ARG
23	T	43	LYS
23	T	80	PHE
24	U	104	LYS
25	V	20	ALA
26	W	4	SER
26	W	9	VAL
26	W	13	ASP
26	W	59	PRO
29	Z	20	TYR
29	Z	32	LEU
29	Z	166	ASP

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Mol	Chain	Res	Type
30	a	6	PHE
30	a	18	VAL
30	a	55	GLY
30	a	158	ALA
30	a	160	GLY
30	a	163	ALA
30	a	201	HIS
30	a	217	ARG
30	a	219	PRO
30	a	233	HIS
31	b	44	TYR
31	b	53	PRO
31	b	54	GLN
31	b	202	LYS
32	c	14	PRO
32	c	89	VAL
32	c	168	ARG
33	d	24	GLY
33	d	28	VAL
33	d	36	LYS
33	d	64	THR
33	d	71	THR
33	d	124	SER
34	e	12	PRO
34	e	21	PRO
34	e	93	GLY
34	e	107	VAL
34	e	118	PRO
34	e	131	VAL
34	e	164	TYR
35	f	7	LYS
35	f	38	HIS
36	g	13	ASN
36	g	64	ARG
36	g	67	LYS
36	g	119	PRO
37	h	11	GLY
37	h	16	ARG
37	h	24	GLY
37	h	29	LYS
37	h	31	ALA
37	h	107	LYS

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Mol	Chain	Res	Type
37	h	124	LYS
37	h	127	ALA
38	i	20	ALA
38	i	85	LYS
38	i	107	ALA
39	j	14	SER
39	j	89	ASP
40	k	54	LEU
40	k	79	ALA
40	k	82	ILE
40	k	97	ARG
41	l	38	ASN
41	l	98	LYS
41	l	99	LEU
41	l	101	PHE
42	m	72	HIS
43	n	56	SER
43	n	66	ARG
44	o	2	GLU
44	o	63	ASP
45	p	53	LYS
45	p	67	GLY
46	q	8	LYS
46	q	87	LYS
46	q	90	LEU
47	r	12	GLY
47	r	42	VAL
47	r	109	ALA
47	r	123	ASP
47	r	159	PRO
47	r	179	ASP
49	t	66	ASN
51	v	5	ILE
51	v	6	HIS
52	w	11	THR
52	w	12	SER
53	x	16	CYS
53	x	28	ARG
53	x	38	LYS
53	x	41	PRO
53	x	50	ARG
55	z	27	THR

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Mol	Chain	Res	Type
55	z	31	HIS
56	B	9	ILE
56	B	40	GLU
56	B	47	ASP
56	B	71	LYS
56	B	77	VAL
56	B	79	HIS
56	B	82	ASP
56	B	87	VAL
56	B	88	ASP
56	B	158	LEU
56	B	163	ALA
56	B	165	PHE
56	B	190	GLY
56	B	204	VAL
56	B	227	ARG
56	B	231	TYR
56	B	234	GLY
56	B	239	VAL
56	B	240	ASP
56	B	268	ILE
56	B	273	ASP
56	B	300	VAL
56	B	301	VAL
56	B	338	THR
56	B	371	ALA
56	B	398	ASP
56	B	502	ASP
56	B	522	ASP
56	B	526	GLU
56	B	548	ARG
56	B	593	PRO
56	B	594	GLN
2	2	115	GLN
3	3	22	PRO
9	F	131	PRO
9	F	204	ASN
10	G	12	LEU
10	G	64	VAL
10	G	160	ALA
10	G	206	GLU
11	H	35	ARG

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Mol	Chain	Res	Type
11	H	130	GLY
11	H	131	ARG
12	I	143	ARG
12	I	146	ALA
13	J	41	GLU
13	J	56	PRO
14	K	7	ALA
14	K	155	ARG
15	L	87	SER
16	M	58	HIS
16	M	103	THR
17	N	34	VAL
18	O	104	GLN
18	O	111	ASP
19	P	22	SER
22	S	76	GLU
24	U	14	LYS
27	X	99	LEU
29	Z	161	ILE
29	Z	177	LYS
30	a	17	THR
30	a	247	ALA
30	a	271	ILE
31	b	68	ALA
31	b	72	VAL
31	b	118	LYS
31	b	168	MET
31	b	188	VAL
32	c	46	ARG
32	c	130	ALA
32	c	178	PRO
33	d	29	TRP
33	d	32	PRO
33	d	132	ASN
33	d	135	LEU
33	d	164	GLU
33	d	177	GLY
34	e	47	GLU
34	e	156	ALA
34	e	157	TYR
34	e	160	LYS
34	e	169	VAL

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Mol	Chain	Res	Type
35	f	40	PRO
35	f	135	PRO
36	g	4	PRO
36	g	53	LYS
36	g	73	ASP
36	g	93	PRO
37	h	64	LYS
38	i	21	THR
38	i	135	ASP
40	k	5	THR
41	l	19	LEU
41	l	36	GLU
41	l	41	ARG
41	l	110	ILE
43	n	6	LYS
43	n	26	ASP
45	p	48	LYS
45	p	63	LYS
46	q	2	ARG
46	q	35	TYR
46	q	45	VAL
46	q	86	ARG
47	r	51	ALA
47	r	81	ARG
47	r	135	GLU
51	v	21	VAL
51	v	48	ARG
51	v	50	VAL
51	v	55	ARG
52	w	37	LYS
53	x	47	THR
53	x	51	GLU
56	B	8	ARG
56	B	34	HIS
56	B	36	VAL
56	B	42	ARG
56	B	64	VAL
56	B	81	ILE
56	B	86	HIS
56	B	141	PRO
56	B	159	PRO
56	B	170	THR

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Mol	Chain	Res	Type
56	B	189	LYS
56	B	192	PRO
56	B	253	THR
56	B	299	PRO
56	B	305	LEU
56	B	321	GLU
56	B	332	PHE
56	B	368	SER
56	B	373	ALA
56	B	388	VAL
56	B	393	PRO
56	B	402	ILE
56	B	418	GLU
56	B	442	PRO
56	B	500	VAL
56	B	529	PRO
56	B	530	ARG
56	B	544	LYS
3	3	6	ALA
3	3	7	VAL
3	3	63	ARG
3	3	81	ALA
3	3	126	MET
9	F	13	ALA
9	F	21	ARG
9	F	77	ALA
9	F	202	PRO
10	G	4	LYS
10	G	28	GLN
11	H	32	ALA
11	H	125	HIS
11	H	134	ASP
13	J	95	GLU
13	J	100	ASN
17	N	40	LEU
18	O	90	GLY
18	O	112	THR
19	P	17	LYS
19	P	78	GLN
19	P	92	ASP
20	Q	92	HIS
21	R	33	VAL

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Mol	Chain	Res	Type
24	U	53	LEU
24	U	81	ARG
26	W	29	ARG
26	W	34	TRP
26	W	35	SER
26	W	41	VAL
26	W	72	GLY
29	Z	160	ARG
29	Z	164	ARG
30	a	148	GLU
30	a	272	ALA
31	b	70	ALA
33	d	49	ASP
33	d	78	SER
33	d	96	ARG
33	d	178	PHE
34	e	7	LEU
34	e	14	GLY
34	e	104	GLU
34	e	127	GLU
34	e	136	ILE
36	g	28	SER
37	h	66	GLY
37	h	89	ALA
37	h	119	GLU
38	i	17	LEU
38	i	30	GLY
38	i	61	GLY
40	k	9	ARG
41	l	59	THR
42	m	73	GLY
43	n	13	ARG
43	n	72	VAL
44	o	41	LYS
44	o	62	HIS
45	p	57	LEU
46	q	6	HIS
46	q	42	VAL
46	q	57	GLN
46	q	92	ASN
46	q	99	CYS
47	r	11	GLU

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Mol	Chain	Res	Type
47	r	23	LYS
47	r	82	ARG
47	r	168	GLU
47	r	170	THR
48	s	84	LEU
50	u	11	SER
50	u	31	LEU
51	v	53	GLU
53	x	24	GLU
53	x	46	HIS
54	y	37	LYS
54	y	39	ARG
55	z	4	MET
56	B	6	LEU
56	B	37	SER
56	B	44	GLN
56	B	63	ALA
56	B	134	VAL
56	B	186	PRO
56	B	232	SER
56	B	245	PHE
56	B	279	THR
56	B	317	ARG
56	B	326	ASN
56	B	360	ARG
56	B	372	THR
56	B	387	GLU
56	B	390	VAL
56	B	432	ARG
56	B	498	GLY
56	B	598	LEU
1	1	6	SER
1	1	7	VAL
2	2	6	ASN
3	3	8	VAL
3	3	113	PRO
9	F	78	GLN
9	F	122	PHE
9	F	125	PRO
9	F	218	ALA
10	G	127	ARG
11	H	18	LYS

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Mol	Chain	Res	Type
11	H	112	VAL
12	I	141	GLN
12	I	142	LEU
15	L	75	ARG
15	L	105	ARG
20	Q	63	THR
22	S	88	ARG
24	U	34	LYS
26	W	12	ASP
26	W	31	ILE
29	Z	72	VAL
29	Z	175	VAL
30	a	48	ARG
30	a	63	ARG
31	b	133	LYS
31	b	180	ASN
32	c	62	ARG
32	c	69	HIS
32	c	70	THR
32	c	99	TYR
32	c	162	LEU
33	d	25	TYR
33	d	128	ARG
34	e	42	ARG
34	e	105	LEU
36	g	12	ASP
37	h	26	GLY
37	h	72	PRO
39	j	72	ASP
41	l	18	ASP
41	l	96	ARG
44	o	64	MET
46	q	5	MET
46	q	44	ILE
46	q	74	PRO
46	q	85	VAL
47	r	50	GLN
52	w	59	GLU
53	x	35	GLU
53	x	40	CYS
55	z	6	THR
55	z	62	LEU

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Mol	Chain	Res	Type
55	z	63	PRO
56	B	5	ASP
56	B	35	ALA
56	B	72	ASP
56	B	76	TYR
56	B	137	LYS
56	B	155	VAL
56	B	161	ASP
56	B	286	PRO
56	B	324	LYS
56	B	327	ASP
56	B	345	ARG
56	B	403	GLU
56	B	417	PRO
56	B	446	LYS
56	B	505	THR
56	B	553	ALA
56	B	573	LEU
9	F	153	ARG
9	F	230	VAL
10	G	97	LYS
20	Q	66	LEU
21	R	40	CYS
23	T	13	HIS
27	X	97	ALA
30	a	36	PRO
30	a	62	TYR
32	c	4	VAL
34	e	125	VAL
35	f	109	LYS
38	i	110	THR
43	n	9	GLY
46	q	40	GLU
52	w	38	ALA
55	z	3	LYS
56	B	224	PRO
56	B	408	PRO
56	B	518	ARG
3	3	19	PRO
3	3	91	PRO
10	G	41	GLY
11	H	40	PRO

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Mol	Chain	Res	Type
18	O	40	ILE
25	V	80	PRO
26	W	42	PRO
26	W	68	GLY
27	X	98	PRO
30	a	28	GLU
34	e	126	PRO
35	f	46	VAL
47	r	22	GLY
47	r	110	GLY
55	z	45	GLY
56	B	174	VAL
56	B	507	ILE
2	2	31	GLY
3	3	97	GLY
16	M	57	GLY
26	W	58	VAL
31	b	91	VAL
34	e	5	GLY
37	h	34	GLY
37	h	43	GLY
43	n	30	GLY
56	B	276	VAL
56	B	370	ILE
9	F	130	ARG
10	G	174	PRO
15	L	90	GLY
26	W	26	GLY
26	W	45	VAL
30	a	270	ILE
34	e	115	VAL
38	i	106	VAL
41	l	71	GLY
46	q	37	VAL
56	B	191	ASP
56	B	448	VAL
3	3	52	ILE
16	M	22	GLY
29	Z	159	GLY
32	c	132	VAL
41	l	20	PRO
43	n	67	GLY

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Mol	Chain	Res	Type
56	B	210	GLY
56	B	292	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	
1	1	34/34 (100%)	34 (100%)	0	100	100
3	3	101/111 (91%)	93 (92%)	8 (8%)	14	51
9	F	202/220 (92%)	201 (100%)	1 (0%)	91	96
10	G	160/188 (85%)	159 (99%)	1 (1%)	89	95
11	H	180/181 (99%)	179 (99%)	1 (1%)	89	95
12	I	115/123 (94%)	114 (99%)	1 (1%)	82	92
13	J	90/90 (100%)	90 (100%)	0	100	100
14	K	126/127 (99%)	126 (100%)	0	100	100
15	L	119/119 (100%)	119 (100%)	0	100	100
16	M	98/99 (99%)	98 (100%)	0	100	100
17	N	88/92 (96%)	88 (100%)	0	100	100
18	O	90/99 (91%)	90 (100%)	0	100	100
19	P	104/109 (95%)	103 (99%)	1 (1%)	80	90
20	Q	92/101 (91%)	78 (85%)	14 (15%)	3	22
21	R	49/50 (98%)	49 (100%)	0	100	100
22	S	79/80 (99%)	78 (99%)	1 (1%)	73	88
23	T	72/74 (97%)	72 (100%)	0	100	100
24	U	96/97 (99%)	96 (100%)	0	100	100
25	V	64/77 (83%)	64 (100%)	0	100	100
26	W	71/80 (89%)	47 (66%)	24 (34%)	0	1
27	X	76/82 (93%)	76 (100%)	0	100	100
28	Y	19/22 (86%)	19 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
29	Z	180/181 (99%)	177 (98%)	3 (2%)	66	85
30	a	215/218 (99%)	212 (99%)	3 (1%)	71	87
31	b	166/166 (100%)	165 (99%)	1 (1%)	89	95
32	c	164/166 (99%)	161 (98%)	3 (2%)	64	85
33	d	156/156 (100%)	152 (97%)	4 (3%)	51	78
34	e	143/148 (97%)	142 (99%)	1 (1%)	87	94
35	f	118/119 (99%)	117 (99%)	1 (1%)	85	93
36	g	100/100 (100%)	99 (99%)	1 (1%)	80	90
37	h	111/116 (96%)	109 (98%)	2 (2%)	64	85
38	i	106/111 (96%)	105 (99%)	1 (1%)	82	92
39	j	100/101 (99%)	98 (98%)	2 (2%)	60	83
40	k	87/88 (99%)	87 (100%)	0	100	100
41	l	105/127 (83%)	104 (99%)	1 (1%)	80	90
42	m	93/94 (99%)	93 (100%)	0	100	100
43	n	82/82 (100%)	82 (100%)	0	100	100
44	o	90/92 (98%)	89 (99%)	1 (1%)	78	89
45	p	76/78 (97%)	76 (100%)	0	100	100
46	q	91/91 (100%)	91 (100%)	0	100	100
47	r	159/179 (89%)	159 (100%)	0	100	100
48	s	63/67 (94%)	63 (100%)	0	100	100
49	t	62/62 (100%)	62 (100%)	0	100	100
50	u	51/52 (98%)	50 (98%)	1 (2%)	60	83
51	v	63/63 (100%)	62 (98%)	1 (2%)	68	86
52	w	50/52 (96%)	50 (100%)	0	100	100
53	x	48/52 (92%)	48 (100%)	0	100	100
54	y	42/42 (100%)	42 (100%)	0	100	100
55	z	54/55 (98%)	52 (96%)	2 (4%)	39	71
56	B	490/505 (97%)	347 (71%)	143 (29%)	0	3
All	All	5390/5618 (96%)	5167 (96%)	223 (4%)	40	69

All (223) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	3	58	THR
3	3	63	ARG
3	3	64	SER
3	3	65	PHE
3	3	68	VAL
3	3	93	ARG
3	3	94	GLU
3	3	120	LEU
9	F	196	LEU
10	G	186	PHE
11	H	125	HIS
12	I	45	PHE
19	P	80	HIS
20	Q	64	TRP
20	Q	66	LEU
20	Q	73	GLU
20	Q	79	LYS
20	Q	80	ARG
20	Q	81	LEU
20	Q	87	TYR
20	Q	88	ARG
20	Q	90	LEU
20	Q	91	ARG
20	Q	93	ARG
20	Q	94	ARG
20	Q	102	ARG
20	Q	104	ARG
22	S	42	HIS
26	W	3	ARG
26	W	4	SER
26	W	14	HIS
26	W	16	LEU
26	W	18	LYS
26	W	20	LEU
26	W	21	GLU
26	W	25	LYS
26	W	28	LYS
26	W	29	ARG
26	W	30	LEU
26	W	32	LYS
26	W	33	THR
26	W	36	ARG
26	W	49	ILE

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Mol	Chain	Res	Type
26	W	55	LYS
26	W	56	GLN
26	W	57	HIS
26	W	58	VAL
26	W	61	TYR
26	W	63	THR
26	W	66	MET
26	W	77	THR
26	W	81	ARG
29	Z	161	ILE
29	Z	177	LYS
29	Z	180	PHE
30	a	61	LEU
30	a	206	LEU
30	a	242	ARG
31	b	52	LEU
32	c	65	TRP
32	c	99	TYR
32	c	197	ASP
33	d	31	VAL
33	d	34	LEU
33	d	77	ILE
33	d	100	TRP
34	e	129	THR
35	f	12	ARG
36	g	77	ILE
37	h	19	VAL
37	h	126	VAL
38	i	74	TYR
39	j	4	LEU
39	j	13	HIS
41	l	101	PHE
44	o	45	TYR
50	u	15	TYR
51	v	52	THR
55	z	6	THR
55	z	60	LEU
56	B	4	MET
56	B	5	ASP
56	B	6	LEU
56	B	8	ARG
56	B	10	ARG

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Mol	Chain	Res	Type
56	B	13	SER
56	B	19	ASP
56	B	20	HIS
56	B	23	SER
56	B	27	ASP
56	B	28	ARG
56	B	31	GLU
56	B	44	GLN
56	B	45	PHE
56	B	49	LEU
56	B	53	ARG
56	B	62	SER
56	B	65	ARG
56	B	69	ARG
56	B	72	ASP
56	B	80	LEU
56	B	89	PHE
56	B	90	THR
56	B	91	TYR
56	B	95	ARG
56	B	108	ASP
56	B	110	SER
56	B	111	GLN
56	B	123	MET
56	B	135	ILE
56	B	140	LEU
56	B	144	ARG
56	B	150	LEU
56	B	153	GLU
56	B	161	ASP
56	B	164	ILE
56	B	165	PHE
56	B	175	GLU
56	B	178	LEU
56	B	184	ARG
56	B	189	LYS
56	B	193	GLU
56	B	196	LEU
56	B	199	LEU
56	B	201	PHE
56	B	206	ASP
56	B	215	LEU

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Mol	Chain	Res	Type
56	B	217	LEU
56	B	229	ARG
56	B	235	LYS
56	B	240	ASP
56	B	246	THR
56	B	256	LEU
56	B	257	GLU
56	B	263	TRP
56	B	269	ARG
56	B	270	ASP
56	B	278	ASP
56	B	279	THR
56	B	281	THR
56	B	284	ASP
56	B	285	ARG
56	B	291	TYR
56	B	294	PHE
56	B	295	ARG
56	B	305	LEU
56	B	306	TYR
56	B	315	LYS
56	B	316	LEU
56	B	317	ARG
56	B	320	LEU
56	B	322	LYS
56	B	326	ASN
56	B	327	ASP
56	B	330	LEU
56	B	336	SER
56	B	337	SER
56	B	340	LEU
56	B	345	ARG
56	B	348	PHE
56	B	351	LEU
56	B	352	LEU
56	B	361	LEU
56	B	365	PHE
56	B	367	LEU
56	B	368	SER
56	B	379	LYS
56	B	381	ARG
56	B	383	LYS

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Mol	Chain	Res	Type
56	B	387	GLU
56	B	391	HIS
56	B	395	ASP
56	B	398	ASP
56	B	400	THR
56	B	401	ARG
56	B	402	ILE
56	B	412	LEU
56	B	418	GLU
56	B	424	LEU
56	B	425	MET
56	B	429	GLN
56	B	430	GLU
56	B	431	LYS
56	B	432	ARG
56	B	434	ARG
56	B	440	TYR
56	B	445	GLN
56	B	450	LEU
56	B	462	ASP
56	B	464	HIS
56	B	465	ASP
56	B	466	ARG
56	B	467	LEU
56	B	472	ARG
56	B	476	SER
56	B	479	TYR
56	B	481	GLN
56	B	485	ARG
56	B	491	LYS
56	B	495	LEU
56	B	502	ASP
56	B	509	HIS
56	B	518	ARG
56	B	520	ILE
56	B	523	LYS
56	B	530	ARG
56	B	532	LEU
56	B	533	PHE
56	B	534	GLU
56	B	538	GLN
56	B	544	LYS

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Mol	Chain	Res	Type
56	B	548	ARG
56	B	552	LYS
56	B	554	LEU
56	B	556	LYS
56	B	559	LEU
56	B	570	LYS
56	B	574	LEU
56	B	578	LYS
56	B	582	LYS
56	B	589	LYS
56	B	591	GLU
56	B	598	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (92) such sidechains are listed below:

Mol	Chain	Res	Type
1	1	32	HIS
1	1	36	GLN
3	3	29	GLN
9	F	212	GLN
10	G	6	HIS
10	G	37	GLN
10	G	63	ASN
10	G	69	HIS
10	G	102	ASN
10	G	104	GLN
11	H	62	GLN
11	H	77	ASN
11	H	119	GLN
11	H	125	HIS
11	H	129	ASN
12	I	141	GLN
13	J	73	ASN
14	K	84	ASN
14	K	96	GLN
14	K	97	GLN
14	K	148	ASN
15	L	81	HIS
16	M	34	ASN
17	N	33	GLN
17	N	56	HIS
18	O	117	ASN

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Mol	Chain	Res	Type
19	P	80	HIS
19	P	99	HIS
20	Q	101	GLN
22	S	13	GLN
22	S	37	ASN
22	S	46	HIS
24	U	26	GLN
24	U	45	HIS
24	U	96	GLN
26	W	14	HIS
26	W	69	HIS
27	X	45	GLN
27	X	73	HIS
29	Z	71	GLN
29	Z	165	ASN
30	a	115	GLN
30	a	116	GLN
30	a	201	HIS
30	a	233	HIS
31	b	85	ASN
31	b	129	HIS
31	b	135	HIS
31	b	180	ASN
33	d	130	ASN
34	e	143	GLN
34	e	158	HIS
35	f	94	HIS
36	g	88	ASN
37	h	27	HIS
37	h	84	ASN
37	h	128	HIS
39	j	13	HIS
39	j	50	HIS
40	k	38	GLN
41	l	84	GLN
42	m	94	ASN
42	m	117	GLN
43	n	80	GLN
43	n	87	HIS
44	o	34	ASN
44	o	57	ASN
44	o	61	ASN

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Mol	Chain	Res	Type
45	p	31	HIS
47	r	54	HIS
47	r	73	GLN
49	t	4	GLN
49	t	51	GLN
50	u	19	GLN
51	v	20	ASN
51	v	47	GLN
52	w	23	HIS
53	x	49	HIS
54	y	16	HIS
56	B	17	HIS
56	B	20	HIS
56	B	79	HIS
56	B	127	HIS
56	B	142	ASN
56	B	209	GLN
56	B	248	GLN
56	B	275	GLN
56	B	353	HIS
56	B	358	GLN
56	B	481	GLN
56	B	509	HIS
56	B	577	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
4	4	76/77 (98%)	29 (38%)	0
5	5	75/76 (98%)	32 (42%)	0
6	A	1514/1522 (99%)	529 (34%)	0
7	D	2888/2893 (99%)	1316 (45%)	0
8	E	122/123 (99%)	48 (39%)	0
All	All	4675/4691 (99%)	1954 (41%)	0

All (1954) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
4	4	5	G
4	4	8	U
4	4	9	G

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Mol	Chain	Res	Type
4	4	13	C
4	4	17	C
4	4	17(A)	U
4	4	18	G
4	4	19	G
4	4	20	U
4	4	21	A
4	4	31	G
4	4	33	U
4	4	36	U
4	4	37	A
4	4	38	A
4	4	39	C
4	4	47	U
4	4	48	C
4	4	49	G
4	4	52	G
4	4	53	G
4	4	57	A
4	4	58	A
4	4	64	G
4	4	66	C
4	4	73	A
4	4	74	C
4	4	75	C
4	4	76	A
5	5	8	U
5	5	9	A
5	5	10	G
5	5	14	A
5	5	15	G
5	5	16	U
5	5	17	C
5	5	19	G
5	5	21	A
5	5	22	G
5	5	23	A
5	5	24	G
5	5	26	A
5	5	27	G
5	5	39	U
5	5	41	C

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Mol	Chain	Res	Type
5	5	42	C
5	5	43	C
5	5	45	U
5	5	47	U
5	5	48	C
5	5	49	C
5	5	52	G
5	5	54	U
5	5	59	U
5	5	61	C
5	5	62	C
5	5	70	G
5	5	71	G
5	5	74	C
5	5	75	C
5	5	76	A
6	A	6	G
6	A	8	A
6	A	9	G
6	A	13	U
6	A	14	U
6	A	30	U
6	A	31	G
6	A	32	A
6	A	37	U
6	A	39	G
6	A	40	C
6	A	42	G
6	A	46	G
6	A	47	C
6	A	48	C
6	A	49	U
6	A	50	A
6	A	51	A
6	A	52	G
6	A	54	C
6	A	61	G
6	A	62	U
6	A	65	U
6	A	66	G
6	A	67	C
6	A	74	C

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Mol	Chain	Res	Type
6	A	75	C
6	A	76	G
6	A	77	C
6	A	80	G
6	A	82	U
6	A	84	U
6	A	85	U
6	A	87	A
6	A	88	C
6	A	90	C
6	A	91	C
6	A	99	C
6	A	101	A
6	A	102	G
6	A	103	C
6	A	110	C
6	A	116	A
6	A	120	A
6	A	121	C
6	A	122	G
6	A	130	A
6	A	131	C
6	A	132	C
6	A	134	A
6	A	155	C
6	A	162	A
6	A	163	C
6	A	165	C
6	A	170	U
6	A	172	A
6	A	173	U
6	A	182	U
6	A	188	U
6	A	189	U
6	A	190	G
6	A	194	C
6	A	195	A
6	A	196	A
6	A	197	A
6	A	200	G
6	A	201	C
6	A	208	U

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Mol	Chain	Res	Type
6	A	209	U
6	A	210	U
6	A	216	G
6	A	224	C
6	A	226	G
6	A	244	U
6	A	245	C
6	A	247	G
6	A	250	A
6	A	251	G
6	A	252	U
6	A	261	U
6	A	262	A
6	A	264	U
6	A	266	G
6	A	267	C
6	A	279	A
6	A	280	C
6	A	282	A
6	A	283	C
6	A	289	G
6	A	299	G
6	A	301	G
6	A	302	G
6	A	304	U
6	A	306	G
6	A	308	C
6	A	309	G
6	A	314	C
6	A	317	G
6	A	319	G
6	A	328	C
6	A	329	A
6	A	330	C
6	A	332	G
6	A	341	C
6	A	342	C
6	A	343	U
6	A	344	A
6	A	345	C
6	A	346	G
6	A	347	G

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Mol	Chain	Res	Type
6	A	351	G
6	A	352	C
6	A	353	A
6	A	354	G
6	A	361	G
6	A	362	G
6	A	365	U
6	A	367	U
6	A	368	U
6	A	371	G
6	A	373	A
6	A	382	A
6	A	384	G
6	A	386	C
6	A	388	G
6	A	389	A
6	A	390	C
6	A	397	A
6	A	398	C
6	A	406	G
6	A	408	A
6	A	410	G
6	A	412	A
6	A	413	G
6	A	414	A
6	A	417	C
6	A	421	U
6	A	422	C
6	A	423	G
6	A	424	G
6	A	429	U
6	A	430	A
6	A	438	G
6	A	439	A
6	A	440	A
6	A	442	C
6	A	443	C
6	A	449	C
6	A	452	A
6	A	455	C
6	A	457	C
6	A	458	C

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Mol	Chain	Res	Type
6	A	464	G
6	A	465	A
6	A	466	C
6	A	467	G
6	A	468	A
6	A	476	G
6	A	477	G
6	A	481	G
6	A	482	A
6	A	485	G
6	A	486	U
6	A	491	G
6	A	494	U
6	A	496	A
6	A	497	U
6	A	500	G
6	A	503	C
6	A	504	C
6	A	511	C
6	A	518	C
6	A	519	C
6	A	521	G
6	A	527	G
6	A	529	G
6	A	530	G
6	A	531	U
6	A	532	A
6	A	533	A
6	A	535	A
6	A	548	G
6	A	555	C
6	A	559	A
6	A	560	U
6	A	561	U
6	A	562	C
6	A	563	A
6	A	564	C
6	A	566	G
6	A	567	G
6	A	571	U
6	A	572	A
6	A	573	A

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Mol	Chain	Res	Type
6	A	575	G
6	A	576	G
6	A	577	G
6	A	579	G
6	A	586	C
6	A	588	G
6	A	592	G
6	A	596	C
6	A	606	G
6	A	607	A
6	A	611	A
6	A	619	U
6	A	624	C
6	A	631	G
6	A	632	A
6	A	636	U
6	A	639	G
6	A	641	U
6	A	642	A
6	A	653	A
6	A	661	G
6	A	665	A
6	A	671	G
6	A	672	U
6	A	679	C
6	A	685	G
6	A	687	A
6	A	688	G
6	A	690	G
6	A	691	G
6	A	695	A
6	A	697	U
6	A	701	C
6	A	702	A
6	A	703	G
6	A	704	A
6	A	718	G
6	A	719	C
6	A	723	U
6	A	730	G
6	A	731	G
6	A	733	A

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Mol	Chain	Res	Type
6	A	738	C
6	A	749	C
6	A	752	G
6	A	755	G
6	A	772	U
6	A	777	A
6	A	778	G
6	A	781	A
6	A	782	A
6	A	784	C
6	A	785	G
6	A	787	A
6	A	793	U
6	A	794	A
6	A	799	G
6	A	811	C
6	A	812	C
6	A	813	U
6	A	815	A
6	A	816	A
6	A	817	C
6	A	818	G
6	A	819	A
6	A	820	U
6	A	821	G
6	A	826	C
6	A	827	U
6	A	828	A
6	A	838	G
6	A	841	U
6	A	842	C
6	A	843	U
6	A	848	C
6	A	850	U
6	A	851	G
6	A	853	G
6	A	866	C
6	A	869	G
6	A	871	U
6	A	873	A
6	A	874	G
6	A	876	G

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Mol	Chain	Res	Type
6	A	884	U
6	A	885	G
6	A	888	G
6	A	889	A
6	A	890	G
6	A	900	A
6	A	902	G
6	A	910	C
6	A	913	A
6	A	914	A
6	A	919	A
6	A	921	U
6	A	927	G
6	A	931	C
6	A	933	G
6	A	934	C
6	A	935	A
6	A	942	G
6	A	950	U
6	A	952	U
6	A	953	G
6	A	954	G
6	A	956	U
6	A	958	A
6	A	960	U
6	A	961	U
6	A	965	A
6	A	966	G
6	A	968	A
6	A	969	A
6	A	971	G
6	A	972	C
6	A	974	A
6	A	975	A
6	A	976	G
6	A	977	A
6	A	978	A
6	A	980	C
6	A	982	U
6	A	983	A
6	A	984	C
6	A	987	G

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Mol	Chain	Res	Type
6	A	991	U
6	A	993	G
6	A	994	A
6	A	998	G
6	A	1002	G
6	A	1003	G
6	A	1004	A
6	A	1005	A
6	A	1006	C
6	A	1009	G
6	A	1010	G
6	A	1014	A
6	A	1016	A
6	A	1021	G
6	A	1023	G
6	A	1024	G
6	A	1025	U
6	A	1026	G
6	A	1027	C
6	A	1028(A)	C
6	A	1029	G
6	A	1031	G
6	A	1032(A)	G
6	A	1045	C
6	A	1046	A
6	A	1050	G
6	A	1052	U
6	A	1053	G
6	A	1054	C
6	A	1055	A
6	A	1056	U
6	A	1060	C
6	A	1062	U
6	A	1064	G
6	A	1065	U
6	A	1066	C
6	A	1084	G
6	A	1085	U
6	A	1094	G
6	A	1095	U
6	A	1096	C
6	A	1101	A

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Mol	Chain	Res	Type
6	A	1102	A
6	A	1108	G
6	A	1115	C
6	A	1117	G
6	A	1118	C
6	A	1121	U
6	A	1124	G
6	A	1125	U
6	A	1126	U
6	A	1127	G
6	A	1129	C
6	A	1130	A
6	A	1131	G
6	A	1132	C
6	A	1136	U
6	A	1137	C
6	A	1138	G
6	A	1139	G
6	A	1140	C
6	A	1146	A
6	A	1148	U
6	A	1151	A
6	A	1157	A
6	A	1158	C
6	A	1159	U
6	A	1164	G
6	A	1165	C
6	A	1170	A
6	A	1173	G
6	A	1181	G
6	A	1183	A
6	A	1184	G
6	A	1188	A
6	A	1189	C
6	A	1191	A
6	A	1192	C
6	A	1195	C
6	A	1196	U
6	A	1197	G
6	A	1200	C
6	A	1201	A
6	A	1202	G

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Mol	Chain	Res	Type
6	A	1203	C
6	A	1211	U
6	A	1212	U
6	A	1215	G
6	A	1220	G
6	A	1224	G
6	A	1225	A
6	A	1227	A
6	A	1237	C
6	A	1238	A
6	A	1239	A
6	A	1240	U
6	A	1241	G
6	A	1242	C
6	A	1249	C
6	A	1250	A
6	A	1251	A
6	A	1256	A
6	A	1257	U
6	A	1258	G
6	A	1259	C
6	A	1265	G
6	A	1268	A
6	A	1269	A
6	A	1277	C
6	A	1278	U
6	A	1279	A
6	A	1280	A
6	A	1281	U
6	A	1282	C
6	A	1286	A
6	A	1287	A
6	A	1297	C
6	A	1298	C
6	A	1299	A
6	A	1300	G
6	A	1301	U
6	A	1302	U
6	A	1303	C
6	A	1305	G
6	A	1307	U
6	A	1310	G

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Mol	Chain	Res	Type
6	A	1312	G
6	A	1316	G
6	A	1317	C
6	A	1320	C
6	A	1321	C
6	A	1322	C
6	A	1327	C
6	A	1329	A
6	A	1331	G
6	A	1332	A
6	A	1336	C
6	A	1338	G
6	A	1340	A
6	A	1345	U
6	A	1346	A
6	A	1347	G
6	A	1348	U
6	A	1349	A
6	A	1353	G
6	A	1358	U
6	A	1360	A
6	A	1361	G
6	A	1362(A)	C
6	A	1363	A
6	A	1364	U
6	A	1365	G
6	A	1366	C
6	A	1370	G
6	A	1378	C
6	A	1379	G
6	A	1380	U
6	A	1381	U
6	A	1389	C
6	A	1395	C
6	A	1397	C
6	A	1398	A
6	A	1400	C
6	A	1401	G
6	A	1408	A
6	A	1418	A
6	A	1419	G
6	A	1433	A

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Mol	Chain	Res	Type
6	A	1436	U
6	A	1439	C
6	A	1441	G
6	A	1442	G
6	A	1443	G
6	A	1446	A
6	A	1447	G
6	A	1450	U
6	A	1452	C
6	A	1453	G
6	A	1454	G
6	A	1455	G
6	A	1459	C
6	A	1460	A
6	A	1463	C
6	A	1467	G
6	A	1469	G
6	A	1478	C
6	A	1481	U
6	A	1483	A
6	A	1487	G
6	A	1492	A
6	A	1494	G
6	A	1495	U
6	A	1497	G
6	A	1499	A
6	A	1504	G
6	A	1505	G
6	A	1506	U
6	A	1507	A
6	A	1515	C
6	A	1517	G
6	A	1518	A
6	A	1519	A
6	A	1520	G
6	A	1525	G
6	A	1528	U
6	A	1529	G
6	A	1530	G
6	A	1531	A
6	A	1532	U
7	D	13	A

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Mol	Chain	Res	Type
7	D	14	A
7	D	15	G
7	D	33	U
7	D	34	C
7	D	35	G
7	D	39	C
7	D	41	C
7	D	46	C
7	D	49	A
7	D	50	U
7	D	51	G
7	D	60	G
7	D	61	G
7	D	63	U
7	D	64	A
7	D	68	G
7	D	71	A
7	D	72	U
7	D	73	A
7	D	74	A
7	D	75	G
7	D	76	C
7	D	84	A
7	D	88	G
7	D	90	U
7	D	91	A
7	D	92	G
7	D	94	G
7	D	95	G
7	D	99	U
7	D	101	G
7	D	102	G
7	D	108	U
7	D	109	G
7	D	112	U
7	D	113	G
7	D	118	A
7	D	119	A
7	D	120	U
7	D	121	G
7	D	125	G
7	D	128	C

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Mol	Chain	Res	Type
7	D	131	G
7	D	132	G
7	D	134	C
7	D	137	C
7	D	138	G
7	D	140	A
7	D	141	A
7	D	143	C
7	D	147	U
7	D	149	A
7	D	152	G
7	D	153	C
7	D	154	G
7	D	155	C
7	D	161	U
7	D	162	U
7	D	163	U
7	D	164	U
7	D	172	C
7	D	178	G
7	D	181	A
7	D	188	G
7	D	190	A
7	D	191	A
7	D	193	U
7	D	195	A
7	D	196	A
7	D	197	A
7	D	200	U
7	D	201	C
7	D	204	A
7	D	205	G
7	D	206	U
7	D	207	A
7	D	210	C
7	D	216	A
7	D	217	G
7	D	221	A
7	D	222	A
7	D	223	A
7	D	224	G
7	D	227	A

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Mol	Chain	Res	Type
7	D	228	A
7	D	229	A
7	D	230	U
7	D	232	G
7	D	233	A
7	D	241	A
7	D	242	G
7	D	243	U
7	D	245	G
7	D	248	G
7	D	249	C
7	D	250	G
7	D	252	G
7	D	257	A
7	D	264	C
7	D	265	A
7	D	266	G
7	D	270(A)	A
7	D	270(B)	A
7	D	270(C)	C
7	D	270(F)	U
7	D	270(H)	C
7	D	270(J)	G
7	D	270(K)	C
7	D	270(M)	U
7	D	270(N)	G
7	D	270(O)	U
7	D	270(V)	G
7	D	270(X)	G
7	D	270(Y)	G
7	D	270(Z)	U
7	D	271(A)	C
7	D	271(C)	U
7	D	271	G
7	D	273(F)	C
7	D	275	G
7	D	276	A
7	D	278	A
7	D	279	C
7	D	280	C
7	D	281	G
7	D	282	A

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Mol	Chain	Res	Type
7	D	283	A
7	D	284	U
7	D	287	C
7	D	289	A
7	D	290	G
7	D	293	U
7	D	294	A
7	D	295	G
7	D	296	C
7	D	299	A
7	D	301	G
7	D	303	U
7	D	304	G
7	D	309	G
7	D	310	A
7	D	311	A
7	D	312	G
7	D	316	C
7	D	321	G
7	D	322	A
7	D	323	G
7	D	324	A
7	D	329	G
7	D	330	A
7	D	331	A
7	D	332	A
7	D	335	C
7	D	338	G
7	D	339	U
7	D	340	A
7	D	347	A
7	D	348	G
7	D	349	G
7	D	350	U
7	D	351	G
7	D	356	G
7	D	359	A
7	D	360	G
7	D	363(A)	A
7	D	363(C)	G
7	D	363(F)	A
7	D	370	G

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Mol	Chain	Res	Type
7	D	371	A
7	D	372	G
7	D	373	U
7	D	374	A
7	D	382	G
7	D	385	C
7	D	386	G
7	D	388	G
7	D	390	A
7	D	391	G
7	D	395	U
7	D	397	G
7	D	400	G
7	D	401	A
7	D	405	U
7	D	406	G
7	D	407	G
7	D	411	G
7	D	412	A
7	D	418	G
7	D	420	C
7	D	421	U
7	D	422	A
7	D	423	A
7	D	427	U
7	D	428	A
7	D	431	U
7	D	434	U
7	D	435	C
7	D	440	G
7	D	441	U
7	D	442	G
7	D	443	A
7	D	444	C
7	D	445	C
7	D	446	G
7	D	447	A
7	D	448	U
7	D	449	A
7	D	450	G
7	D	451	C
7	D	452	G

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Mol	Chain	Res	Type
7	D	453	C
7	D	454	A
7	D	455	C
7	D	456	C
7	D	457	A
7	D	458	G
7	D	459	U
7	D	465	G
7	D	471	A
7	D	473	G
7	D	475	U
7	D	478	A
7	D	479	A
7	D	480	A
7	D	481	G
7	D	482	A
7	D	483	A
7	D	486	C
7	D	491	G
7	D	493	G
7	D	494	G
7	D	498	G
7	D	499	U
7	D	501	A
7	D	503	A
7	D	504	U
7	D	505	A
7	D	507	A
7	D	508	G
7	D	510	C
7	D	513	A
7	D	518	G
7	D	526	A
7	D	527	C
7	D	528	A
7	D	529	A
7	D	530	G
7	D	531	C
7	D	532	A
7	D	533	G
7	D	536	A
7	D	539	G

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Mol	Chain	Res	Type
7	D	540	G
7	D	549	G
7	D	550	G
7	D	552	G
7	D	553	U
7	D	554	U
7	D	556	G
7	D	559	G
7	D	560	C
7	D	561	G
7	D	563	G
7	D	568	U
7	D	569	U
7	D	571	A
7	D	572	A
7	D	573	G
7	D	575	A
7	D	583	G
7	D	586	A
7	D	588	U
7	D	599	G
7	D	600	G
7	D	601	C
7	D	603	A
7	D	606	U
7	D	612	G
7	D	613	U
7	D	614	U
7	D	615	G
7	D	616	A
7	D	617	G
7	D	618	G
7	D	619	G
7	D	621	A
7	D	622	G
7	D	625	G
7	D	626	U
7	D	627	A
7	D	631	A
7	D	632	A
7	D	633	A
7	D	634	C

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Mol	Chain	Res	Type
7	D	637	A
7	D	640	C
7	D	642	G
7	D	643	A
7	D	644	A
7	D	645	C
7	D	646	A
7	D	647	G
7	D	648	G
7	D	649	G
7	D	650	C
7	D	651	G
7	D	653	A
7	D	654	A
7	D	655	A
7	D	656	G
7	D	660	G
7	D	668	G
7	D	670	A
7	D	677	A
7	D	687	C
7	D	690	G
7	D	697	C
7	D	698	C
7	D	699	A
7	D	704	G
7	D	705	A
7	D	709	U
7	D	714	U
7	D	715	G
7	D	716	A
7	D	717	G
7	D	724	U
7	D	725	G
7	D	726	G
7	D	727	A
7	D	728	G
7	D	729	G
7	D	730	C
7	D	731	C
7	D	736	C
7	D	739	G

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Mol	Chain	Res	Type
7	D	740	U
7	D	741	G
7	D	745	G
7	D	746	A
7	D	747	U
7	D	748	G
7	D	752	A
7	D	753	C
7	D	760	G
7	D	762	U
7	D	764	A
7	D	771	G
7	D	774	A
7	D	775	G
7	D	776	G
7	D	777	A
7	D	778	G
7	D	779	U
7	D	781	A
7	D	782	A
7	D	783	A
7	D	784	A
7	D	785	G
7	D	789	A
7	D	790	C
7	D	791	C
7	D	792	G
7	D	793	A
7	D	794	G
7	D	800	A
7	D	801	G
7	D	802	A
7	D	803	U
7	D	804	A
7	D	805	G
7	D	806	C
7	D	811	U
7	D	814	C
7	D	819	A
7	D	825	C
7	D	827	U
7	D	828	U

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Mol	Chain	Res	Type
7	D	832	G
7	D	844	C
7	D	846	C
7	D	847	U
7	D	848	G
7	D	857	C
7	D	858	U
7	D	859	G
7	D	860	U
7	D	861	A
7	D	865	C
7	D	866	A
7	D	867	C
7	D	871	U
7	D	876	C
7	D	877	U
7	D	878	A
7	D	880	G
7	D	881	G
7	D	882	G
7	D	883	G
7	D	884	C
7	D	885	C
7	D	886	C
7	D	887	A
7	D	888	C
7	D	889	C
7	D	890	A
7	D	892	G
7	D	894	C
7	D	895	U
7	D	896	A
7	D	898	C
7	D	899	A
7	D	900	A
7	D	901	A
7	D	903	C
7	D	906	G
7	D	907	U
7	D	908	C
7	D	910	A
7	D	918	A

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Mol	Chain	Res	Type
7	D	919	G
7	D	921	G
7	D	923	C
7	D	925	C
7	D	926	A
7	D	928	G
7	D	929	G
7	D	930	U
7	D	931	G
7	D	932	G
7	D	933	A
7	D	941	A
7	D	943	U
7	D	944	G
7	D	945	A
7	D	946	G
7	D	951	C
7	D	952	G
7	D	953	A
7	D	958	U
7	D	959	A
7	D	961	C
7	D	966	G
7	D	968	G
7	D	969	U
7	D	972	G
7	D	973	A
7	D	974	G
7	D	974(A)	C
7	D	980	A
7	D	983	A
7	D	990	A
7	D	991	C
7	D	994	C
7	D	995	C
7	D	996	A
7	D	997	G
7	D	1001	A
7	D	1005	C
7	D	1008	C
7	D	1009	A
7	D	1010	A

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Mol	Chain	Res	Type
7	D	1011	G
7	D	1012	U
7	D	1013	C
7	D	1015	G
7	D	1020	A
7	D	1021	A
7	D	1022	G
7	D	1023	U
7	D	1024	G
7	D	1025	G
7	D	1026	U
7	D	1027	A
7	D	1030	G
7	D	1031	G
7	D	1032	A
7	D	1033	U
7	D	1034	G
7	D	1041	C
7	D	1042	G
7	D	1044	G
7	D	1045	A
7	D	1046	A
7	D	1047	G
7	D	1048	A
7	D	1052	C
7	D	1053	C
7	D	1058	G
7	D	1059	G
7	D	1060	U
7	D	1061	U
7	D	1062	G
7	D	1063	G
7	D	1064	C
7	D	1065	U
7	D	1066	U
7	D	1068	G
7	D	1069	A
7	D	1070	A
7	D	1071	G
7	D	1072	C
7	D	1073	A
7	D	1074	G

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Mol	Chain	Res	Type
7	D	1075	C
7	D	1076	C
7	D	1077	A
7	D	1078	U
7	D	1079	C
7	D	1080	C
7	D	1081	U
7	D	1082	U
7	D	1083	U
7	D	1084	A
7	D	1085	A
7	D	1086	A
7	D	1087	G
7	D	1088	A
7	D	1089	G
7	D	1090	U
7	D	1093	G
7	D	1094	U
7	D	1095	A
7	D	1096	A
7	D	1100	C
7	D	1101	U
7	D	1102	C
7	D	1104	C
7	D	1105	U
7	D	1106	G
7	D	1107	G
7	D	1108	U
7	D	1109	C
7	D	1110	G
7	D	1111	A
7	D	1112	G
7	D	1115	G
7	D	1126	A
7	D	1128	A
7	D	1129	A
7	D	1130	U
7	D	1132	A
7	D	1134	G
7	D	1135	C
7	D	1136	G
7	D	1138	G

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Mol	Chain	Res	Type
7	D	1140	C
7	D	1141	U
7	D	1142(A)	A
7	D	1143	A
7	D	1155	A
7	D	1156	A
7	D	1157	G
7	D	1168	G
7	D	1169	G
7	D	1170	G
7	D	1171	G
7	D	1173	G
7	D	1174	A
7	D	1175	U
7	D	1177	A
7	D	1180	C
7	D	1182	A
7	D	1184	G
7	D	1186	G
7	D	1187	G
7	D	1188	U
7	D	1190	G
7	D	1194	A
7	D	1200	C
7	D	1203	G
7	D	1204	A
7	D	1205	U
7	D	1206	G
7	D	1211	U
7	D	1212	G
7	D	1214	A
7	D	1220	A
7	D	1221	C
7	D	1222	C
7	D	1229	G
7	D	1234	U
7	D	1237	A
7	D	1238	G
7	D	1240	U
7	D	1241	A
7	D	1242	A
7	D	1243	G

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Mol	Chain	Res	Type
7	D	1244	G
7	D	1247	A
7	D	1248	G
7	D	1251	C
7	D	1252	G
7	D	1253	A
7	D	1254	A
7	D	1255	U
7	D	1256	G
7	D	1264	G
7	D	1265	A
7	D	1266	G
7	D	1267	U
7	D	1268	A
7	D	1271	G
7	D	1272	A
7	D	1273	U
7	D	1274	A
7	D	1275	A
7	D	1284	A
7	D	1285	G
7	D	1286	A
7	D	1288	U
7	D	1289	C
7	D	1291	C
7	D	1295	C
7	D	1300	U
7	D	1301	A
7	D	1302	A
7	D	1311	G
7	D	1312	U
7	D	1319	G
7	D	1320	C
7	D	1321	A
7	D	1324	G
7	D	1325	G
7	D	1326	U
7	D	1329	U
7	D	1330	C
7	D	1332	G
7	D	1333	C
7	D	1340	U

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Mol	Chain	Res	Type
7	D	1341	U
7	D	1342	A
7	D	1343	G
7	D	1344	G
7	D	1345	C
7	D	1352	U
7	D	1353	A
7	D	1355	G
7	D	1363	C
7	D	1364	G
7	D	1365	A
7	D	1366	A
7	D	1380	G
7	D	1384	A
7	D	1394	U
7	D	1395	A
7	D	1397	U
7	D	1398	C
7	D	1402	C
7	D	1404	C
7	D	1412	A
7	D	1415	U
7	D	1416	G
7	D	1417	C
7	D	1418	G
7	D	1419	A
7	D	1420	U
7	D	1421	G
7	D	1422	G
7	D	1426	G
7	D	1427	A
7	D	1428	C
7	D	1429	G
7	D	1431	U
7	D	1436	G
7	D	1438	U
7	D	1441	G
7	D	1444(A)	A
7	D	1445	C
7	D	1449(A)	G
7	D	1451	C
7	D	1453	A

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Mol	Chain	Res	Type
7	D	1454	U
7	D	1455	G
7	D	1456	G
7	D	1457	A
7	D	1458	C
7	D	1459	G
7	D	1460	A
7	D	1461	G
7	D	1462	C
7	D	1467	C
7	D	1471	A
7	D	1472	A
7	D	1473	G
7	D	1476	C
7	D	1477	A
7	D	1478	G
7	D	1479	G
7	D	1480	G
7	D	1482	U
7	D	1484	G
7	D	1485	G
7	D	1486	A
7	D	1490	A
7	D	1491	G
7	D	1492	G
7	D	1493	C
7	D	1494	A
7	D	1495	A
7	D	1496	A
7	D	1497	U
7	D	1498	C
7	D	1499	C
7	D	1504	C
7	D	1505	C
7	D	1507	A
7	D	1508	A
7	D	1510	A
7	D	1511	A
7	D	1512	G
7	D	1513	C
7	D	1514	U
7	D	1515	C

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Mol	Chain	Res	Type
7	D	1516	U
7	D	1517	G
7	D	1519	G
7	D	1521	G
7	D	1522	G
7	D	1523	U
7	D	1527	G
7	D	1529	A
7	D	1536	A
7	D	1538	G
7	D	1542	G
7	D	1544	C
7	D	1552	G
7	D	1554	A
7	D	1555	G
7	D	1558	A
7	D	1559	G
7	D	1560	G
7	D	1564	C
7	D	1565	C
7	D	1566	A
7	D	1568	G
7	D	1569	A
7	D	1570	A
7	D	1571	A
7	D	1572	A
7	D	1573	G
7	D	1577	C
7	D	1579	A
7	D	1580	A
7	D	1581	G
7	D	1583	A
7	D	1585	C
7	D	1586	A
7	D	1587	A
7	D	1588	C
7	D	1589	C
7	D	1590	U
7	D	1592	C
7	D	1594	G
7	D	1597	A
7	D	1602	U

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Mol	Chain	Res	Type
7	D	1603	A
7	D	1604	C
7	D	1607	C
7	D	1608	A
7	D	1609	A
7	D	1610	A
7	D	1614	A
7	D	1615	C
7	D	1616	A
7	D	1617	C
7	D	1618	A
7	D	1619	G
7	D	1622	G
7	D	1626	G
7	D	1627	G
7	D	1628	G
7	D	1635	G
7	D	1641	A
7	D	1647	G
7	D	1648	C
7	D	1649	G
7	D	1652	A
7	D	1653	G
7	D	1654	A
7	D	1664	A
7	D	1667	G
7	D	1668	A
7	D	1669	A
7	D	1672	C
7	D	1673	U
7	D	1674	G
7	D	1675	C
7	D	1677	A
7	D	1678	G
7	D	1680	U
7	D	1682	G
7	D	1683	C
7	D	1689	A
7	D	1691	C
7	D	1694	C
7	D	1695	G
7	D	1696	G

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Mol	Chain	Res	Type
7	D	1698	A
7	D	1699	G
7	D	1700	A
7	D	1702	G
7	D	1703	G
7	D	1705	G
7	D	1706	U
7	D	1707	G
7	D	1708	C
7	D	1709	U
7	D	1716	U
7	D	1718	G
7	D	1727	U
7	D	1728	G
7	D	1730	U
7	D	1731	G
7	D	1732	A
7	D	1733	G
7	D	1734	C
7	D	1741	C
7	D	1742	C
7	D	1743	G
7	D	1748	G
7	D	1749	A
7	D	1750	G
7	D	1751	C
7	D	1752	C
7	D	1753	G
7	D	1758	G
7	D	1761	C
7	D	1762	A
7	D	1763	G
7	D	1764	G
7	D	1773	A
7	D	1776	G
7	D	1779	U
7	D	1780	A
7	D	1781	C
7	D	1782	C
7	D	1784	A
7	D	1785	A
7	D	1787	A

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Mol	Chain	Res	Type
7	D	1789	A
7	D	1790	C
7	D	1791	A
7	D	1799	G
7	D	1800	C
7	D	1802	A
7	D	1804	C
7	D	1809	A
7	D	1810	A
7	D	1811	G
7	D	1814	G
7	D	1815	A
7	D	1816	G
7	D	1817	G
7	D	1820	U
7	D	1821	A
7	D	1827	C
7	D	1828	G
7	D	1831	G
7	D	1833	U
7	D	1834	U
7	D	1838	C
7	D	1839	G
7	D	1847	A
7	D	1848	A
7	D	1858	G
7	D	1860	G
7	D	1861	G
7	D	1862	G
7	D	1871	A
7	D	1872	A
7	D	1878	G
7	D	1879	C
7	D	1880	C
7	D	1881	C
7	D	1882	C
7	D	1883	G
7	D	1884	A
7	D	1885	A
7	D	1889	A
7	D	1899	G
7	D	1900	A

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Mol	Chain	Res	Type
7	D	1901	A
7	D	1906	G
7	D	1909	C
7	D	1912	A
7	D	1913	A
7	D	1914	C
7	D	1915	U
7	D	1917	U
7	D	1918	A
7	D	1919	A
7	D	1920	C
7	D	1921	G
7	D	1922	G
7	D	1923	U
7	D	1928	A
7	D	1929	G
7	D	1930	G
7	D	1931	U
7	D	1934	C
7	D	1937	A
7	D	1938	A
7	D	1939	U
7	D	1940	U
7	D	1944	U
7	D	1945	G
7	D	1946	U
7	D	1947	C
7	D	1955	U
7	D	1956	U
7	D	1964	G
7	D	1966	A
7	D	1967	C
7	D	1968	G
7	D	1970	A
7	D	1971	A
7	D	1972	A
7	D	1975	G
7	D	1982	C
7	D	1986	A
7	D	1988	C
7	D	1990	C
7	D	1991	U

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Mol	Chain	Res	Type
7	D	1992	G
7	D	1993	U
7	D	1996	C
7	D	1997	G
7	D	1998	G
7	D	2011	U
7	D	2012	G
7	D	2013	A
7	D	2015	A
7	D	2018	G
7	D	2020	A
7	D	2021	C
7	D	2023	G
7	D	2026	C
7	D	2027	G
7	D	2030	A
7	D	2031	A
7	D	2032	G
7	D	2033	A
7	D	2034	U
7	D	2035	G
7	D	2036	C
7	D	2039	C
7	D	2043	C
7	D	2048	G
7	D	2049	G
7	D	2050	C
7	D	2055	C
7	D	2056	G
7	D	2060	A
7	D	2061	G
7	D	2062	A
7	D	2063	C
7	D	2064	C
7	D	2065	C
7	D	2067	G
7	D	2068	U
7	D	2069	G
7	D	2075	U
7	D	2076	U
7	D	2077	A
7	D	2080	G

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Mol	Chain	Res	Type
7	D	2085	C
7	D	2087	G
7	D	2092	U
7	D	2093	G
7	D	2098	U
7	D	2101	G
7	D	2104	G
7	D	2105	C
7	D	2107	C
7	D	2108	C
7	D	2109	U
7	D	2110	G
7	D	2111	C
7	D	2112	G
7	D	2114	A
7	D	2116	G
7	D	2117	A
7	D	2119	A
7	D	2120	G
7	D	2121	G
7	D	2123	G
7	D	2125	G
7	D	2126	A
7	D	2127	G
7	D	2130	U
7	D	2131	G
7	D	2132	U
7	D	2133	G
7	D	2134	A
7	D	2135	A
7	D	2136	C
7	D	2139	C
7	D	2144	U
7	D	2145	C
7	D	2148	G
7	D	2154	G
7	D	2156	G
7	D	2159	G
7	D	2165	G
7	D	2166	G
7	D	2170	A
7	D	2172	U

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Mol	Chain	Res	Type
7	D	2173	A
7	D	2174	C
7	D	2175	C
7	D	2177	C
7	D	2181	G
7	D	2183	C
7	D	2186	G
7	D	2187	G
7	D	2188	C
7	D	2190	G
7	D	2195	C
7	D	2196	C
7	D	2197	U
7	D	2198	A
7	D	2205	C
7	D	2208	U
7	D	2209	C
7	D	2210	G
7	D	2212	A
7	D	2213	U
7	D	2215	G
7	D	2216	G
7	D	2217	G
7	D	2224	G
7	D	2225	A
7	D	2234	G
7	D	2235	G
7	D	2236	C
7	D	2238	G
7	D	2239	G
7	D	2240	C
7	D	2241	A
7	D	2248	C
7	D	2249	U
7	D	2250	G
7	D	2251	G
7	D	2252	G
7	D	2259	G
7	D	2262	U
7	D	2266	A
7	D	2267	A
7	D	2268	A

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Mol	Chain	Res	Type
7	D	2269	A
7	D	2276	G
7	D	2280	G
7	D	2283	C
7	D	2284	C
7	D	2286	A
7	D	2287	A
7	D	2288	A
7	D	2296	U
7	D	2297	C
7	D	2304	G
7	D	2306	C
7	D	2307	G
7	D	2308	G
7	D	2309	A
7	D	2310	A
7	D	2311	A
7	D	2316	C
7	D	2317	C
7	D	2319	G
7	D	2320	A
7	D	2321	G
7	D	2322	A
7	D	2327	A
7	D	2329	G
7	D	2331	G
7	D	2333	A
7	D	2334	G
7	D	2335	A
7	D	2336	A
7	D	2337	G
7	D	2342	C
7	D	2345	G
7	D	2346	A
7	D	2347	C
7	D	2350	C
7	D	2351	G
7	D	2355	C
7	D	2356	C
7	D	2361	A
7	D	2366	A
7	D	2378	A

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Mol	Chain	Res	Type
7	D	2381	C
7	D	2382	G
7	D	2383	G
7	D	2385	C
7	D	2389	G
7	D	2392	A
7	D	2393	A
7	D	2396	G
7	D	2401	U
7	D	2403	C
7	D	2406	U
7	D	2407	G
7	D	2410	G
7	D	2417	C
7	D	2418	A
7	D	2420	C
7	D	2423	U
7	D	2424	C
7	D	2425	A
7	D	2426	A
7	D	2427	C
7	D	2428	G
7	D	2429	G
7	D	2430	A
7	D	2432	A
7	D	2434	A
7	D	2436	G
7	D	2437	U
7	D	2441	C
7	D	2445	G
7	D	2447	G
7	D	2448	A
7	D	2449	U
7	D	2450	A
7	D	2459	A
7	D	2470	G
7	D	2476	A
7	D	2478	A
7	D	2480	C
7	D	2481	G
7	D	2482	G
7	D	2483	C

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Mol	Chain	Res	Type
7	D	2489	G
7	D	2490	G
7	D	2491	U
7	D	2492	U
7	D	2494	G
7	D	2498	C
7	D	2501	C
7	D	2502	G
7	D	2503	A
7	D	2504	U
7	D	2505	G
7	D	2506	U
7	D	2510	C
7	D	2512	C
7	D	2513	G
7	D	2518	A
7	D	2519	U
7	D	2520	C
7	D	2523	G
7	D	2529	G
7	D	2535	G
7	D	2538	C
7	D	2541	A
7	D	2542	A
7	D	2543	G
7	D	2546	U
7	D	2547	U
7	D	2553	G
7	D	2554	U
7	D	2555	U
7	D	2558	C
7	D	2560	C
7	D	2564	A
7	D	2566	A
7	D	2567	G
7	D	2569	G
7	D	2570	G
7	D	2572	A
7	D	2573	C
7	D	2574	G
7	D	2576	G
7	D	2577	A

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Mol	Chain	Res	Type
7	D	2578	G
7	D	2580	U
7	D	2581	G
7	D	2582	G
7	D	2586	C
7	D	2599	G
7	D	2602	A
7	D	2603	G
7	D	2604	U
7	D	2608	G
7	D	2609	U
7	D	2610	C
7	D	2611	U
7	D	2612	C
7	D	2613	U
7	D	2614	A
7	D	2615	U
7	D	2621	A
7	D	2629	A
7	D	2630	G
7	D	2631	G
7	D	2634	G
7	D	2638	G
7	D	2645	G
7	D	2646	C
7	D	2652	C
7	D	2653	U
7	D	2655	G
7	D	2656	U
7	D	2660	A
7	D	2661	G
7	D	2663	G
7	D	2664	G
7	D	2665	A
7	D	2670	A
7	D	2671	A
7	D	2673	G
7	D	2680	C
7	D	2681	C
7	D	2682	U
7	D	2684	U
7	D	2689	U

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Mol	Chain	Res	Type
7	D	2690	C
7	D	2691	C
7	D	2701	C
7	D	2702	U
7	D	2704	C
7	D	2706	G
7	D	2711	A
7	D	2712	U
7	D	2712(A)	A
7	D	2713	A
7	D	2714	G
7	D	2718	G
7	D	2724	C
7	D	2725	A
7	D	2730	C
7	D	2731	G
7	D	2732	G
7	D	2733	A
7	D	2739	U
7	D	2741	A
7	D	2744	G
7	D	2748	A
7	D	2749	A
7	D	2750	A
7	D	2751	G
7	D	2752	C
7	D	2756	U
7	D	2757	A
7	D	2758	A
7	D	2764	A
7	D	2765	A
7	D	2766	G
7	D	2771	C
7	D	2772	C
7	D	2773	C
7	D	2774	C
7	D	2776	A
7	D	2777	G
7	D	2778	A
7	D	2779	U
7	D	2780	G
7	D	2781	A

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Mol	Chain	Res	Type
7	D	2782	G
7	D	2783	G
7	D	2787	C
7	D	2789	C
7	D	2790	A
7	D	2791	C
7	D	2792	G
7	D	2794	C
7	D	2797	U
7	D	2798	C
7	D	2799	A
7	D	2801	A
7	D	2802	G
7	D	2804	C
7	D	2805	G
7	D	2807	G
7	D	2808	U
7	D	2809	A
7	D	2810	A
7	D	2811	G
7	D	2818	G
7	D	2820	A
7	D	2823	A
7	D	2824	C
7	D	2826	A
7	D	2832	U
7	D	2833	G
7	D	2834	G
7	D	2836	U
7	D	2837	G
7	D	2845	G
7	D	2847	U
7	D	2849	U
7	D	2850	A
7	D	2851	A
7	D	2858	C
7	D	2866	U
7	D	2867	G
7	D	2868	A
7	D	2872	G
7	D	2874	C
7	D	2879	C

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Mol	Chain	Res	Type
7	D	2882	A
7	D	2884	U
7	D	2885	C
7	D	2887	U
7	D	2888	C
7	D	2889	C
7	D	2891	G
7	D	2893	G
7	D	2894	G
7	D	2895	U
7	D	2896	C
7	D	2897	U
7	D	2899	G
8	E	0	A
8	E	1	U
8	E	4	C
8	E	5	C
8	E	7	G
8	E	8	U
8	E	10	C
8	E	12	C
8	E	13	A
8	E	14	U
8	E	15	A
8	E	16	G
8	E	23	G
8	E	24	G
8	E	25	A
8	E	30	C
8	E	31	C
8	E	32	C
8	E	35	U
8	E	41	U
8	E	42	C
8	E	44	G
8	E	45	A
8	E	48	A
8	E	51	G
8	E	52	A
8	E	57	A
8	E	59	A
8	E	62	C

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Mol	Chain	Res	Type
8	E	64	C
8	E	65	C
8	E	67	G
8	E	69	G
8	E	73	A
8	E	75	G
8	E	76	G
8	E	85	G
8	E	88	C
8	E	99	A
8	E	103	U
8	E	105	G
8	E	109	G
8	E	111	U
8	E	115	G
8	E	117	G
8	E	118	G
8	E	119	A
8	E	120	U

There are no RNA pucker outliers to report.

## 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](#)

1 ligand is modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
57	GCP	B	701	-	25,34,34	2.57	8 (32%)	28,54,54	1.22	2 (7%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	GCP	B	701	-	-	0/18/38/38	0/3/3/3

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	B	701	GCP	C4-N9	-10.27	1.34	1.47
57	B	701	GCP	C8-N9	-3.84	1.35	1.46
57	B	701	GCP	C5-C6	-2.44	1.48	1.53
57	B	701	GCP	C2-N1	-2.18	1.35	1.44
57	B	701	GCP	PB-O2B	2.08	1.61	1.56
57	B	701	GCP	PG-O2G	2.77	1.61	1.54
57	B	701	GCP	PB-O3A	2.77	1.61	1.58
57	B	701	GCP	PG-O3G	2.78	1.61	1.54

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	B	701	GCP	PA-O3A-PB	-3.71	120.45	132.39
57	B	701	GCP	C3'-C2'-C1'	2.52	106.27	101.43

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 51 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	B	701	GCP	51	0

## 5.7 Other polymers

There are no such residues in this entry.

## 5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.