Full wwPDB EM Validation Report

Mar 31, 2025 – 04:21 PM JST

PDB ID	:	5H1S / pdb_00005h1s
EMDB ID	:	EMD-9572
Title	:	Structure of the large subunit of the chloro-ribosome
Authors	:	Ahmed, T.; Yin, Z.; Bhushan, S.
Deposited on	:	2016-10-11
Resolution	:	3.50 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

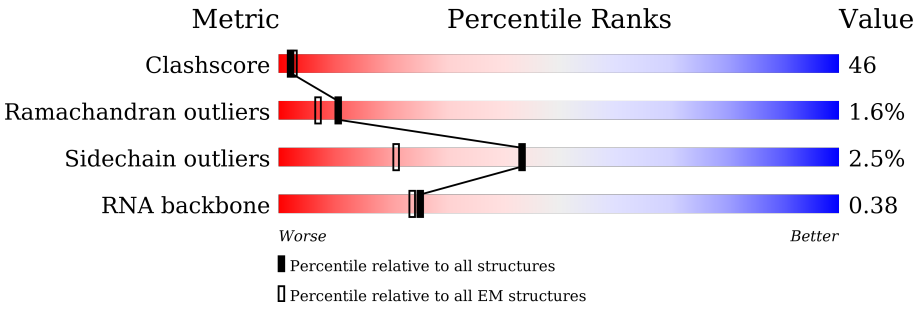
EMDB validation analysis	:	0.0.1.dev117
MolProbity	:	4.02b-467
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.42

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 3.50 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.



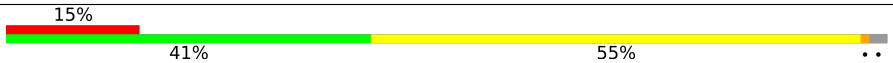
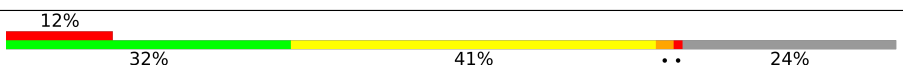
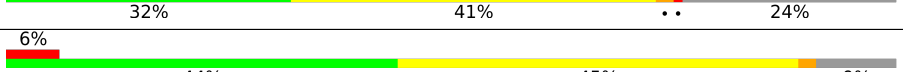
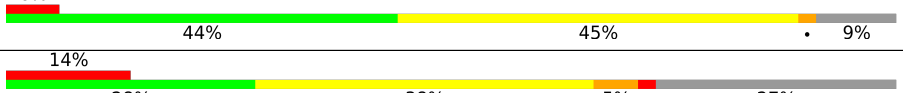
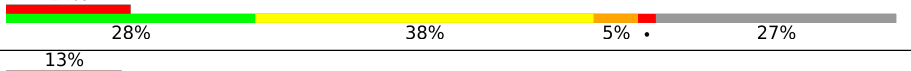
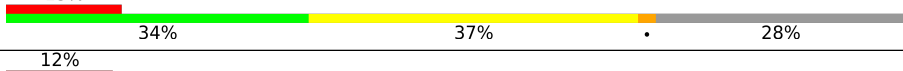
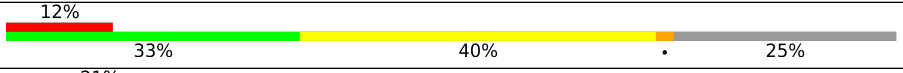
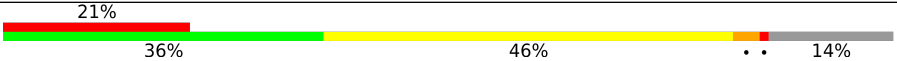
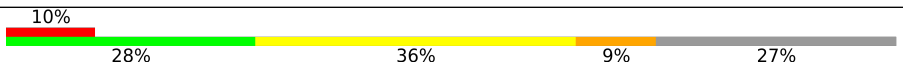
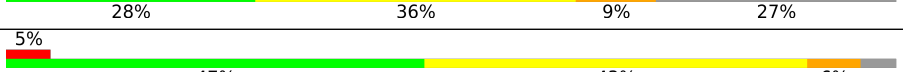
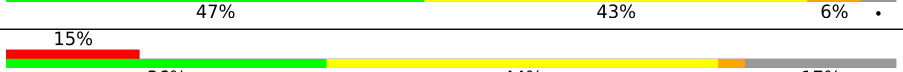
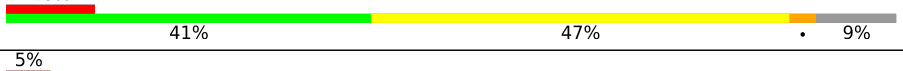
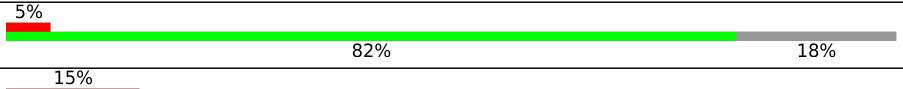
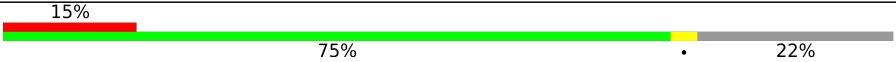
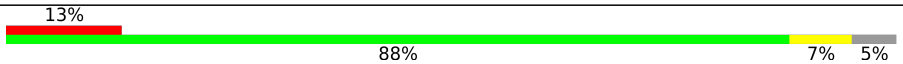
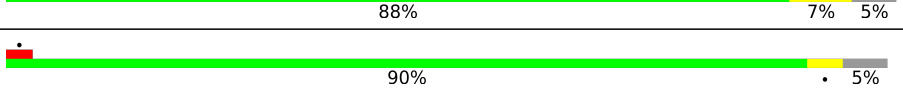
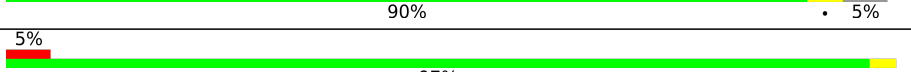
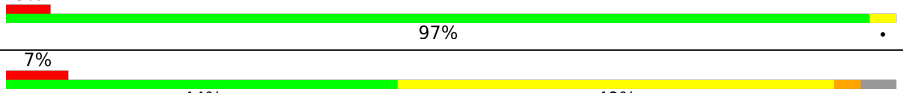
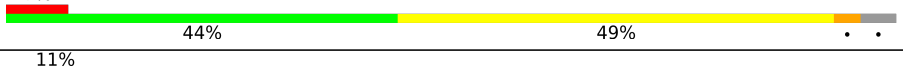
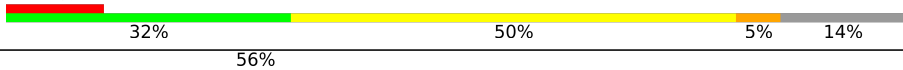
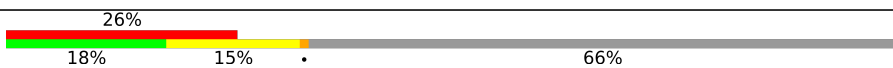
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415
RNA backbone	6643	2191

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

Mol	Chain	Length	Quality of chain
1	A	2810	11% 29% 43% 27%
2	C	106	6% 9% 46% 37%
3	B	121	12% 43% 40%
4	L	191	36% 39% 23%
5	M	121	17% 54% 46%
6	N	192	9% 31% 51% 9% 8%
7	O	135	16% 44% 54%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
8	P	116	
9	Q	123	
10	R	156	
11	S	127	
12	T	201	
13	U	199	
14	V	122	
15	W	145	
16	X	137	
17	Y	77	
18	Z	109	
19	E	271	
20	b	56	
21	c	65	
22	d	60	
23	e	73	
24	f	37	
25	F	221	
26	G	243	
27	H	220	
28	I	182	
29	J	155	
30	g	142	
31	a	94	
32	h	116	

2 Entry composition

There are 32 unique types of molecules in this entry. The entry contains 90825 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 RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	A	2799	60117	26819	11134	19365	2799	0	0

- Molecule 2 is a RNA chain called Spinach chloroplast 4.5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	C	102	2187	977	403	705	102	0	0

- Molecule 3 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	B	117	2500	1116	452	815	117	0	0

- Molecule 4 is a protein called 50S ribosomal protein L13, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	L	147	1184	754	225	202	3	0	0

- Molecule 5 is a protein called 50S ribosomal protein L14, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	M	121	942	588	179	170	5	0	0

- Molecule 6 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	N	177	1342	836	264	236	6	0	0

- Molecule 7 is a protein called 50S ribosomal protein L16, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	O	134	Total	C	N	O	S	0	0
			1067	672	217	173	5		

- Molecule 8 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	P	116	Total	C	N	O	S	0	0
			944	592	193	155	4		

- Molecule 9 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	Q	120	Total	C	N	O	S	0	0
			947	589	183	170	5		

- Molecule 10 is a protein called 50S ribosomal protein L19, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	R	118	Total	C	N	O	S	0	0
			953	610	186	156	1		

- Molecule 11 is a protein called 50S ribosomal protein L20, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	S	115	Total	C	N	O	S	0	0
			996	633	208	153	2		

- Molecule 12 is a protein called 50S ribosomal protein L21, chloroplastic.

Mol	Chain	Residues	Atoms				AltConf	Trace
12	T	147	Total	C	N	O	0	0
			1171	759	202	210		

- Molecule 13 is a protein called 50S ribosomal protein L22, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	U	144	Total	C	N	O	S	0	0
			1149	731	210	200	8		

- Molecule 14 is a protein called 50S ribosomal protein L23, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	V	92	Total	C	N	O	S	0	0
			740	477	129	132	2		

- Molecule 15 is a protein called 50S ribosomal protein L24, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	W	124	Total	C	N	O	S	0	0
			993	624	187	180	2		

- Molecule 16 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms				AltConf	Trace
16	X	100	Total	C	N	O	0	0
			810	511	159	140		

- Molecule 17 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Y	74	Total	C	N	O	S	0	0
			605	385	121	98	1		

- Molecule 18 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	Z	90	Total	C	N	O	S	0	0
			754	470	150	131	3		

- Molecule 19 is a protein called 50S ribosomal protein L2, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	E	247	Total	C	N	O	S	0	0
			1904	1181	390	327	6		

- Molecule 20 is a protein called 50S ribosomal protein L32, chloroplastic.

Mol	Chain	Residues	Atoms				AltConf	Trace
20	b	46	Total	C	N	O	0	0
			378	250	70	58		

- Molecule 21 is a protein called 50S ribosomal protein L33, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	c	51	Total	C	N	O	S	0	0
			415	258	83	70	4		

- Molecule 22 is a protein called 50S ribosomal protein L34, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	d	57	Total	C	N	O	S	0	0
			445	268	103	71	3		

- Molecule 23 is a protein called 50S ribosomal protein L35, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	e	69	Total	C	N	O	S	0	0
			563	353	119	90	1		

- Molecule 24 is a protein called 50S ribosomal protein L36, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	f	37	Total	C	N	O	S	0	0
			304	186	70	44	4		

- Molecule 25 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	F	212	Total	C	N	O	S	0	0
			1620	1025	295	289	11		

- Molecule 26 is a protein called 50S ribosomal protein L4, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	G	210	Total	C	N	O	S	0	0
			1655	1052	308	292	3		

- Molecule 27 is a protein called 50S ribosomal protein L5, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	H	175	Total	C	N	O	S	0	0
			1351	862	233	248	8		

- Molecule 28 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	I	173	Total	C	N	O	S	0	0
			1353	855	249	245	4		

- Molecule 29 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	J	53	Total	C	N	O	S	0	0
			423	280	74	68	1		

- Molecule 30 is a protein called 50S ribosomal protein 5 alpha, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	g	43	Total	C	N	O	S	0	0
			345	218	65	59	3		

- Molecule 31 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	a	38	Total	C	N	O	S	0	0
			300	187	49	62	2		

- Molecule 32 is a protein called 50S ribosomal protein 6, chloroplastic.

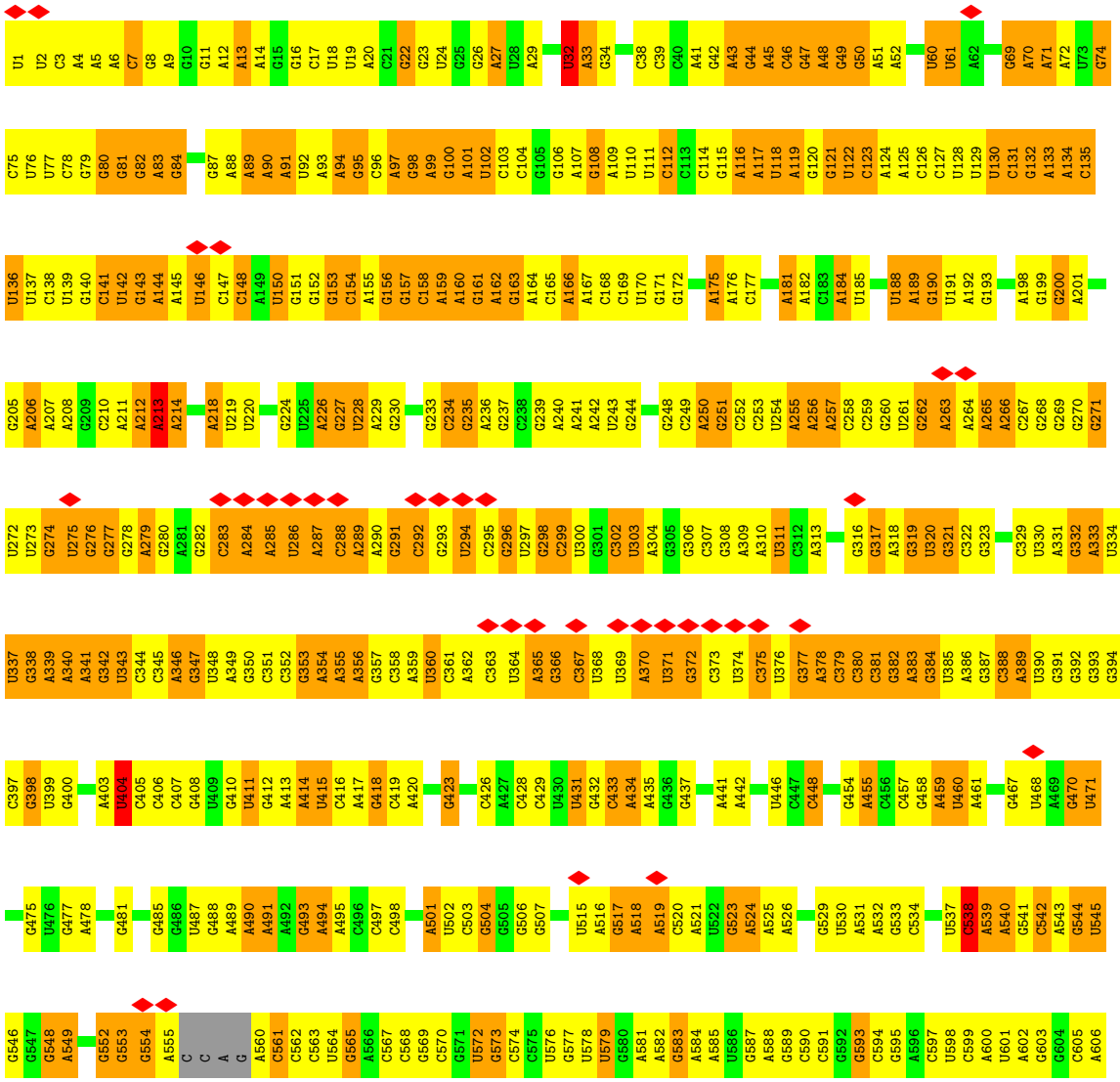
Mol	Chain	Residues	Atoms					AltConf	Trace
32	h	46	Total	C	N	O	S	0	0
			368	237	71	59	1		

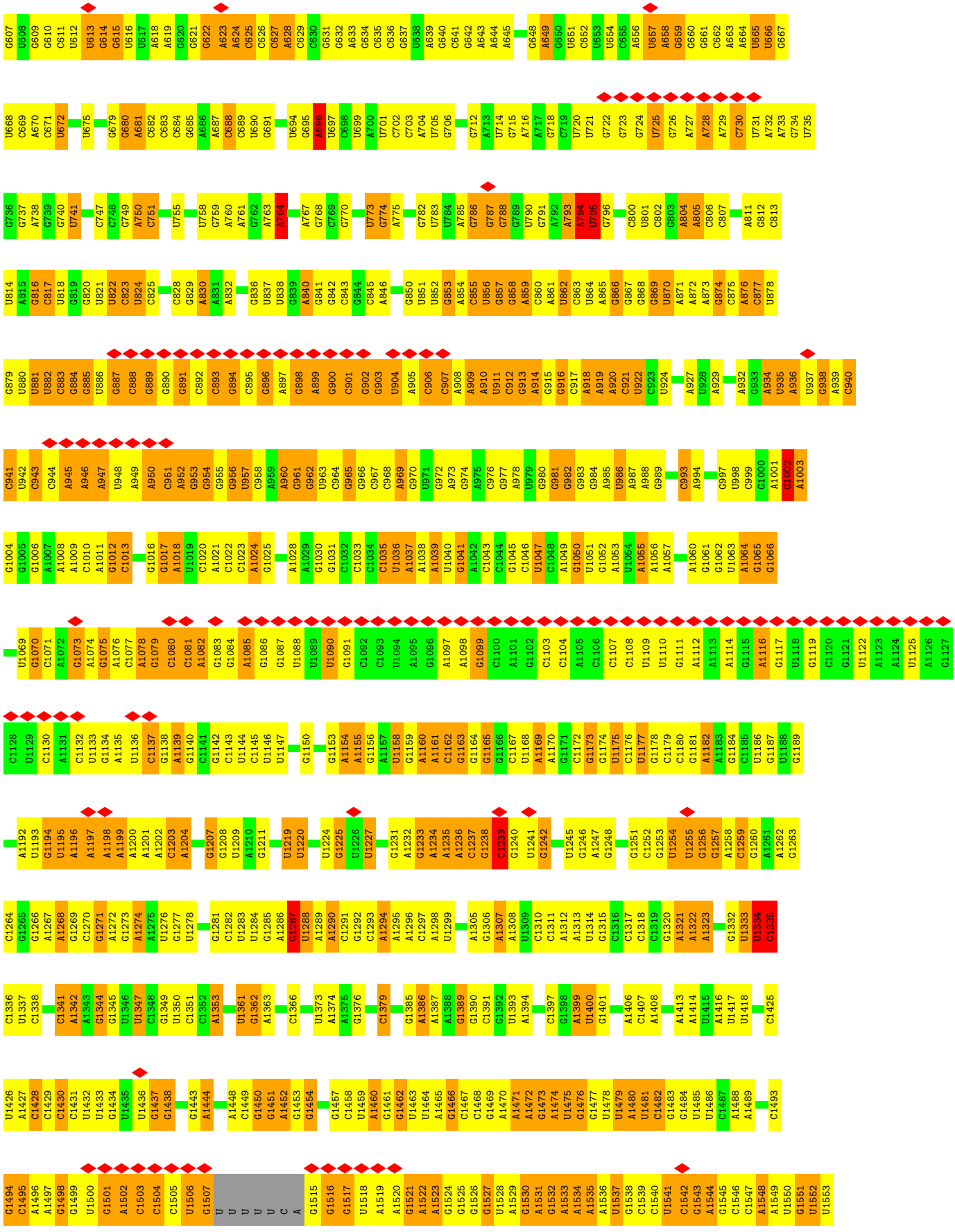
3 Residue-property plots (i)

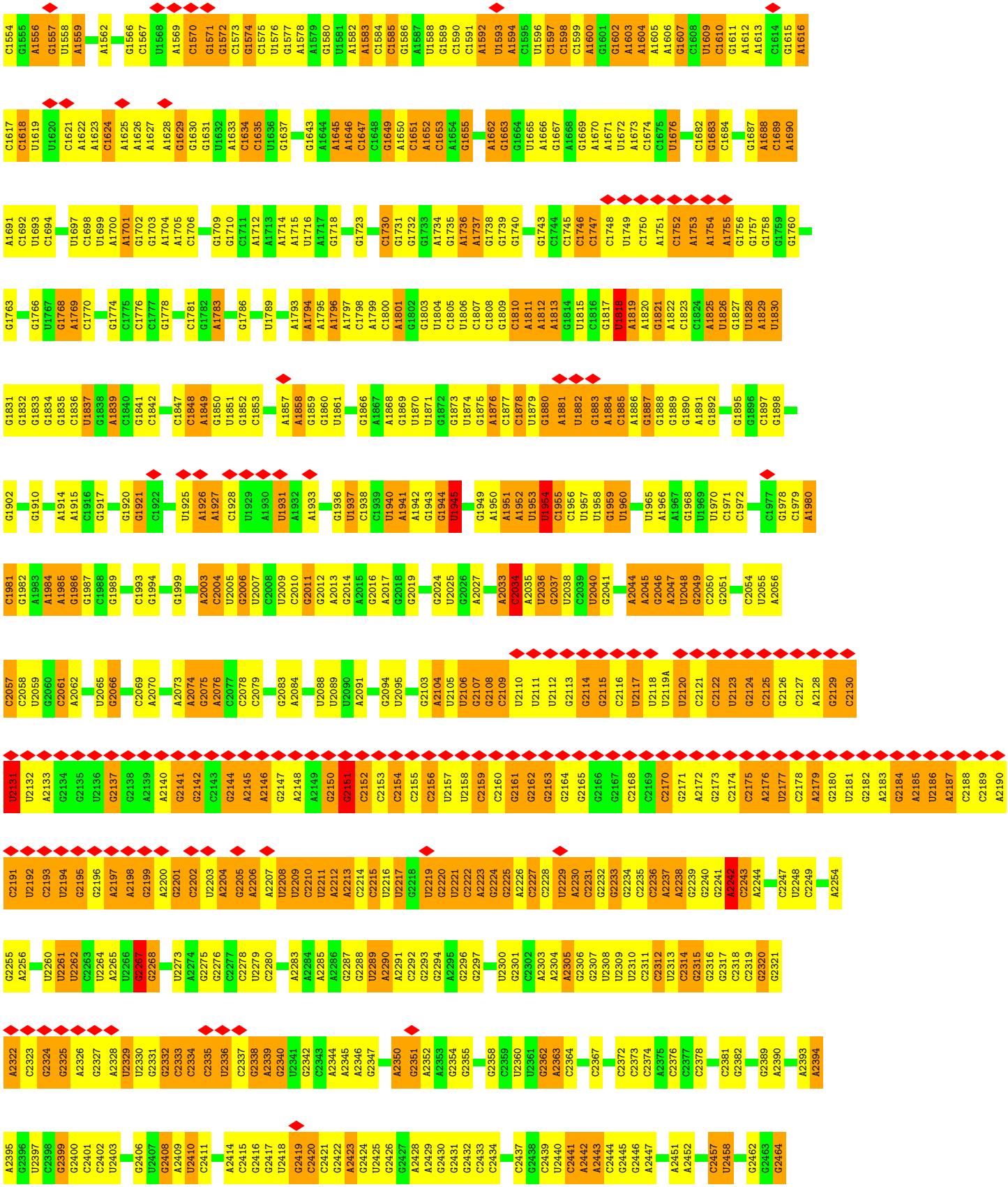
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

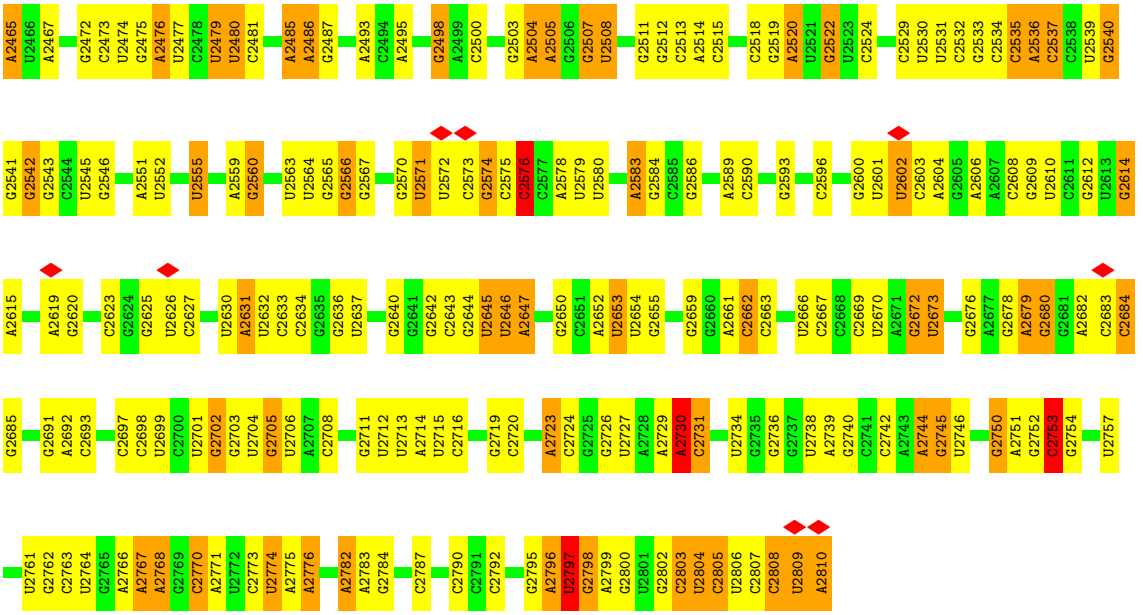
- Molecule 1: 23S rRNA

Chain A:



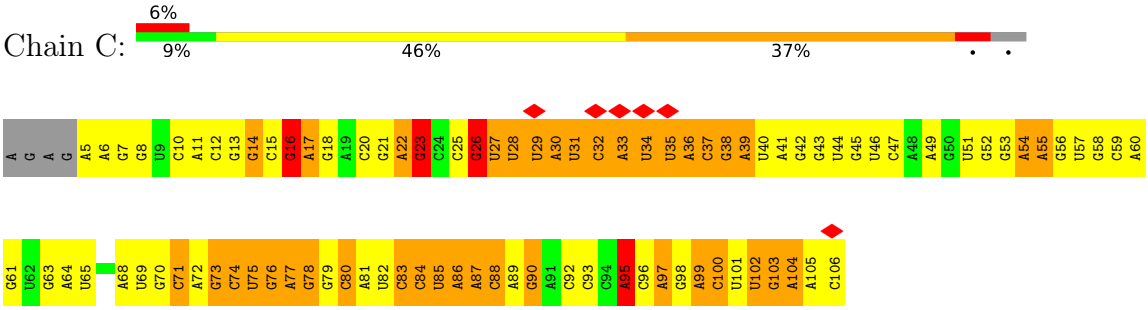






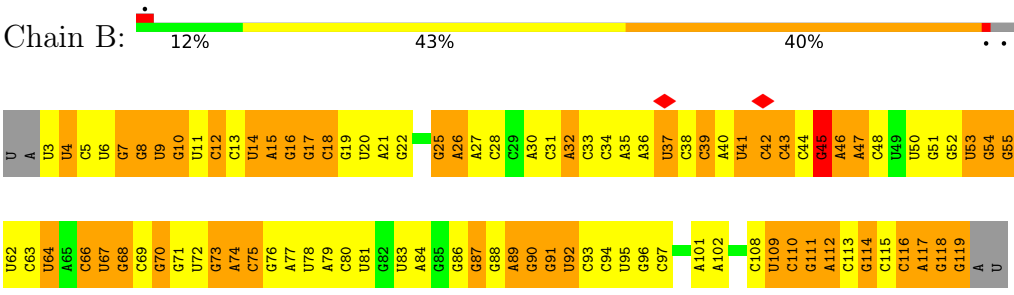
• Molecule 2: Spinach chloroplast 4.5S rRNA

Chain C:



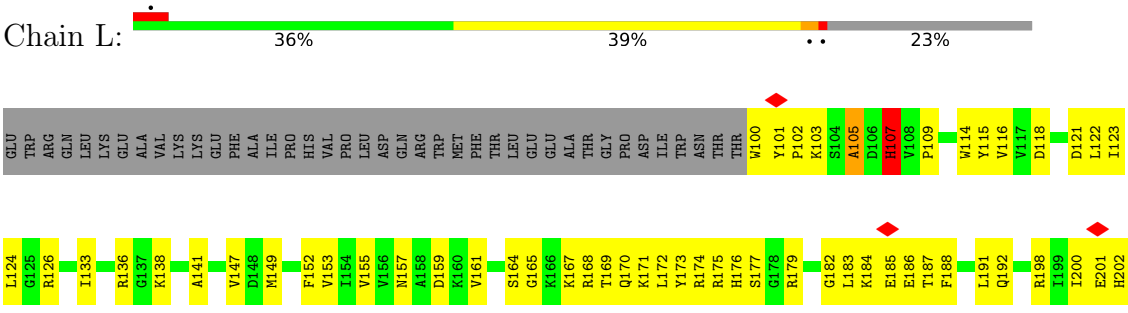
• Molecule 3: 5S rRNA

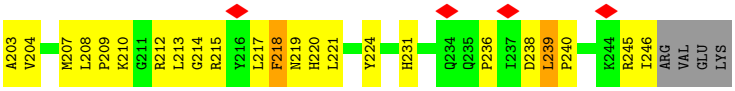
Chain B:



• Molecule 4: 50S ribosomal protein L13, chloroplastic

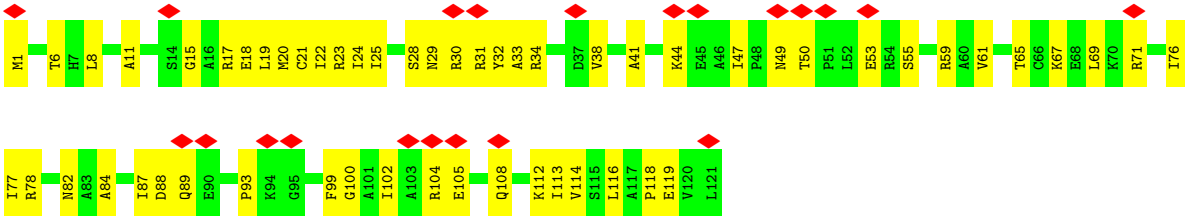
Chain L:





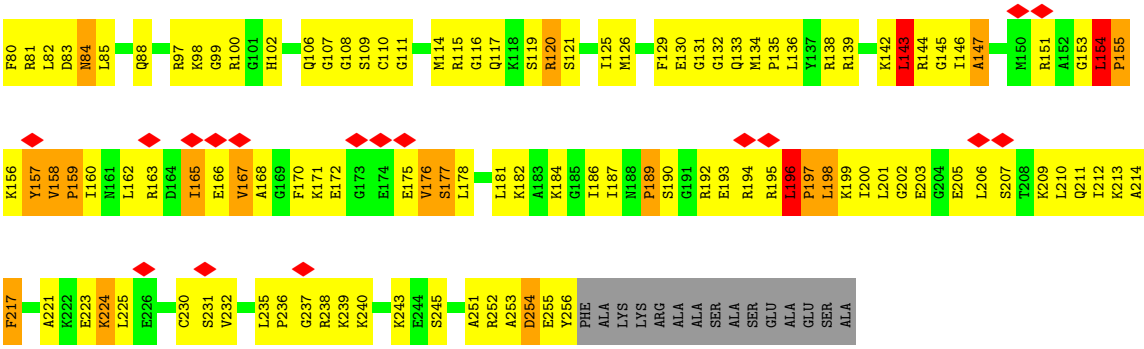
• Molecule 5: 50S ribosomal protein L14, chloroplastic

Chain M:



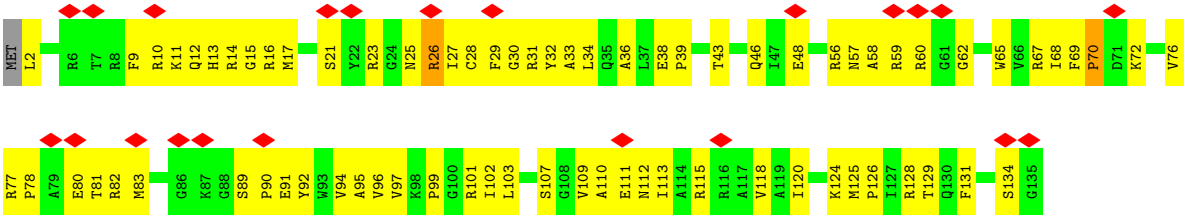
• Molecule 6: 50S ribosomal protein L15

Chain N:



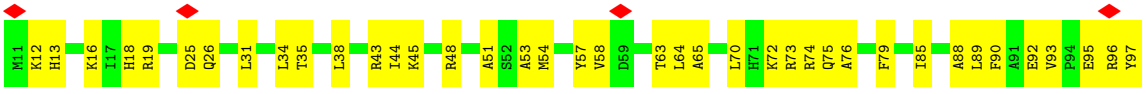
• Molecule 7: 50S ribosomal protein L16, chloroplastic

Chain O:

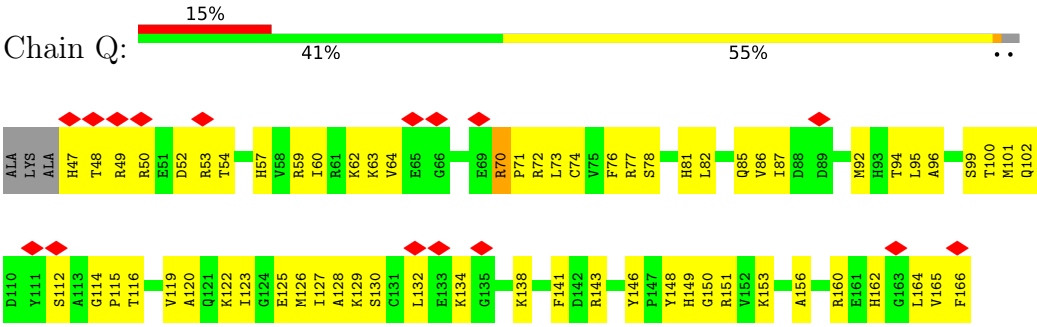


• Molecule 8: 50S ribosomal protein L17

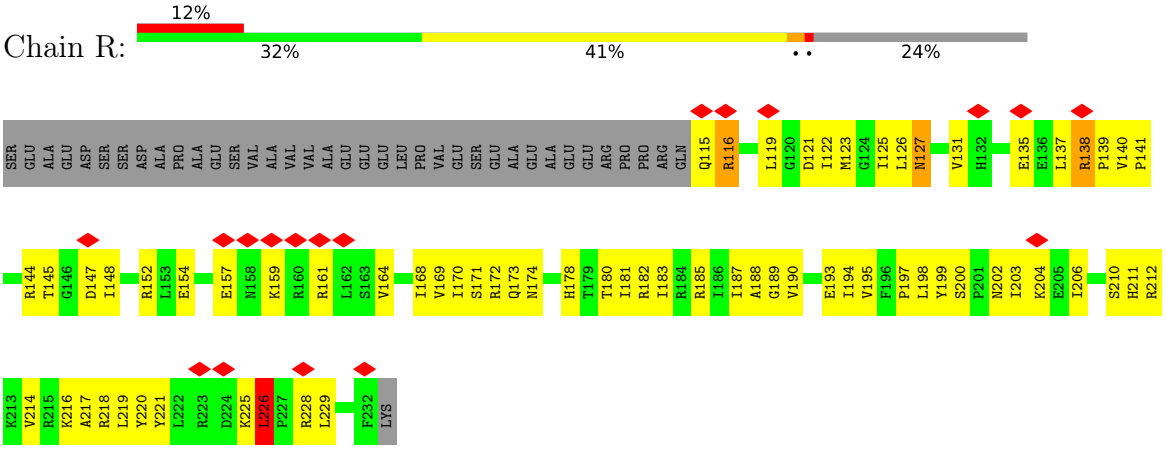
Chain P:



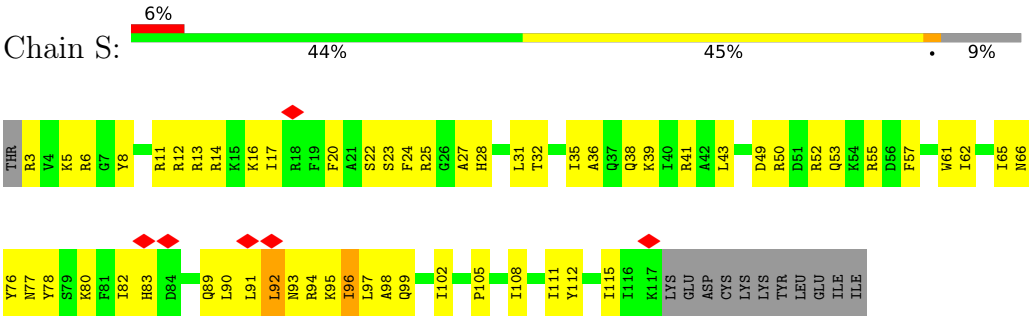
• Molecule 9: 50S ribosomal protein L18



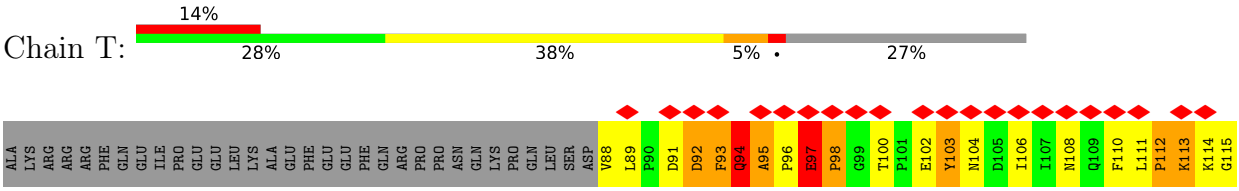
• Molecule 10: 50S ribosomal protein L19, chloroplastic

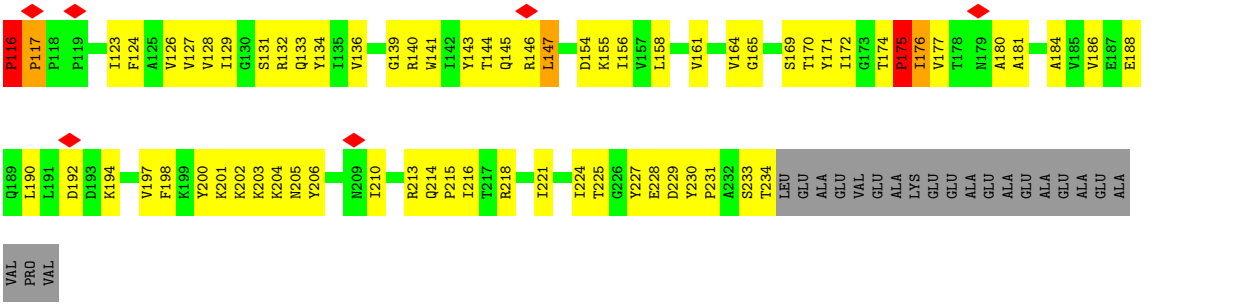


• Molecule 11: 50S ribosomal protein L20, chloroplastic



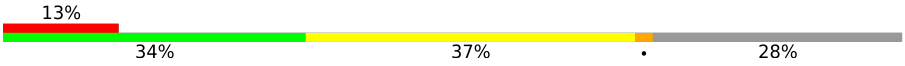
• Molecule 12: 50S ribosomal protein L21, chloroplastic

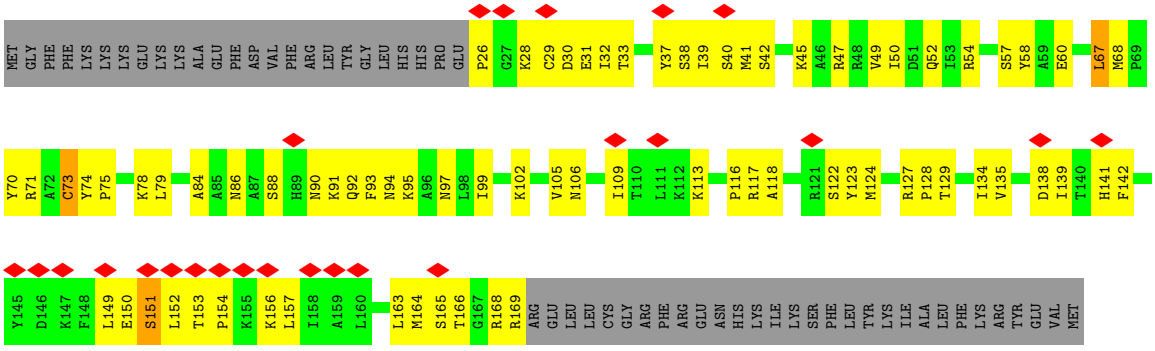




• Molecule 13: 50S ribosomal protein L22, chloroplastic

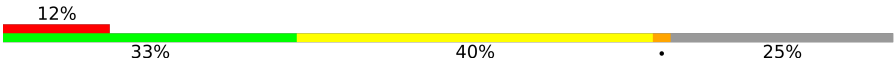
Chain U:

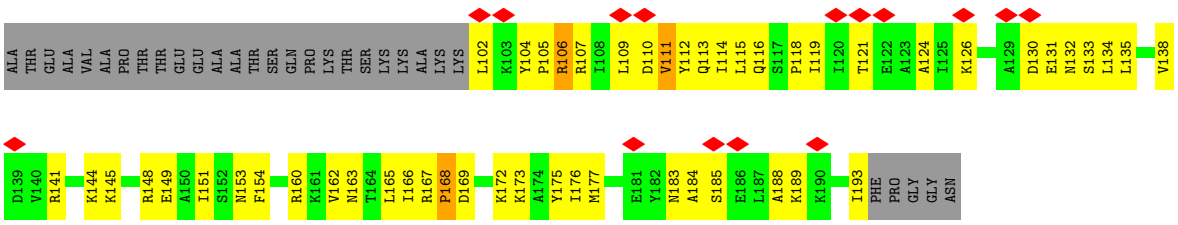




• Molecule 14: 50S ribosomal protein L23, chloroplastic

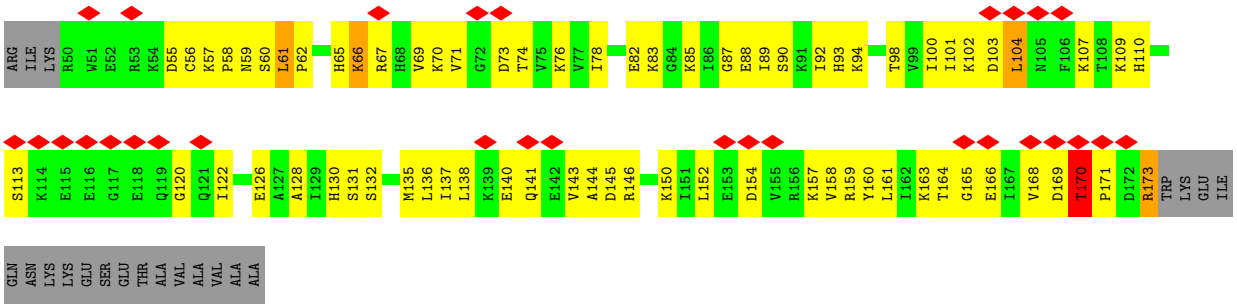
Chain V:





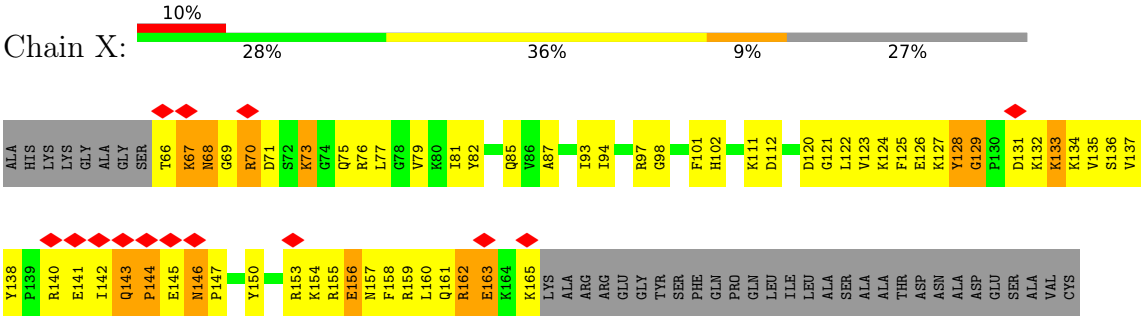
• Molecule 15: 50S ribosomal protein L24, chloroplastic

Chain W:



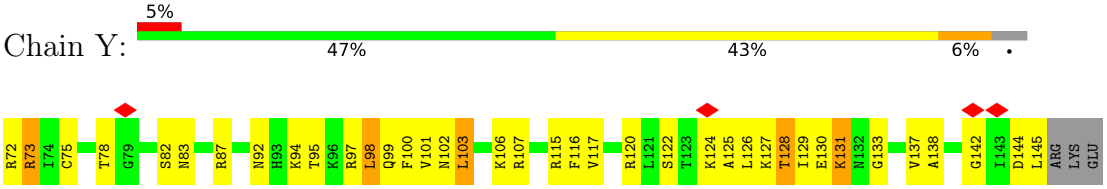
• Molecule 16: 50S ribosomal protein L27

Chain X:



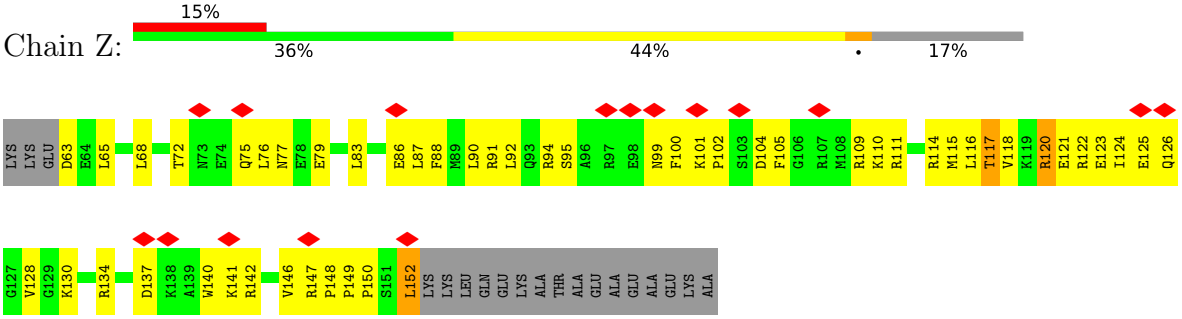
• Molecule 17: 50S ribosomal protein L28

Chain Y:



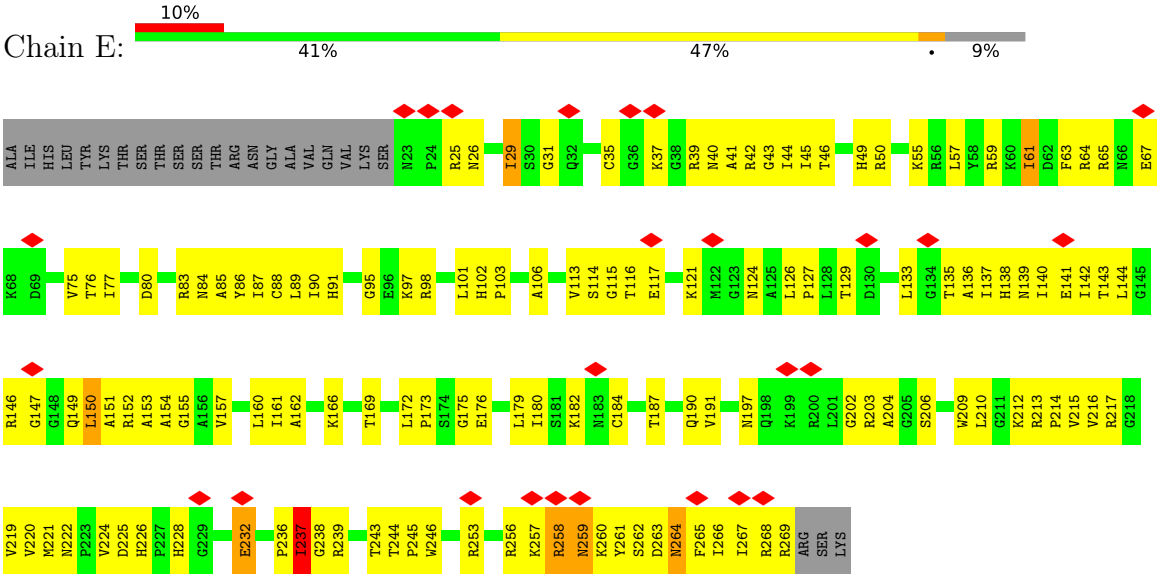
• Molecule 18: 50S ribosomal protein L29

Chain Z:



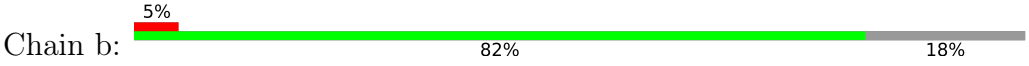
• Molecule 19: 50S ribosomal protein L2, chloroplastic

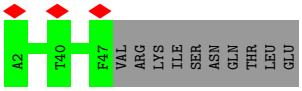
Chain E:



• Molecule 20: 50S ribosomal protein L32, chloroplastic

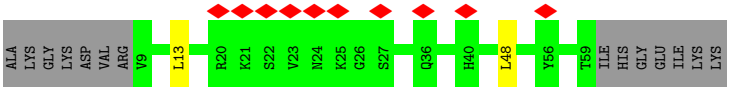
Chain b:





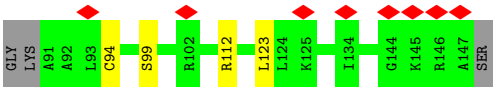
• Molecule 21: 50S ribosomal protein L33, chloroplastic

Chain c:



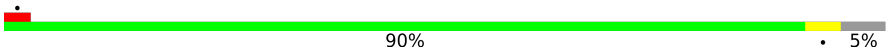
• Molecule 22: 50S ribosomal protein L34, chloroplastic

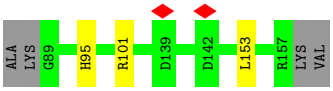
Chain d:



• Molecule 23: 50S ribosomal protein L35, chloroplastic

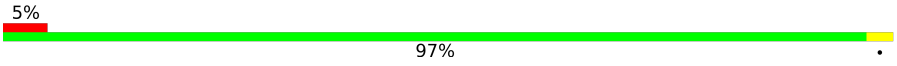
Chain e:





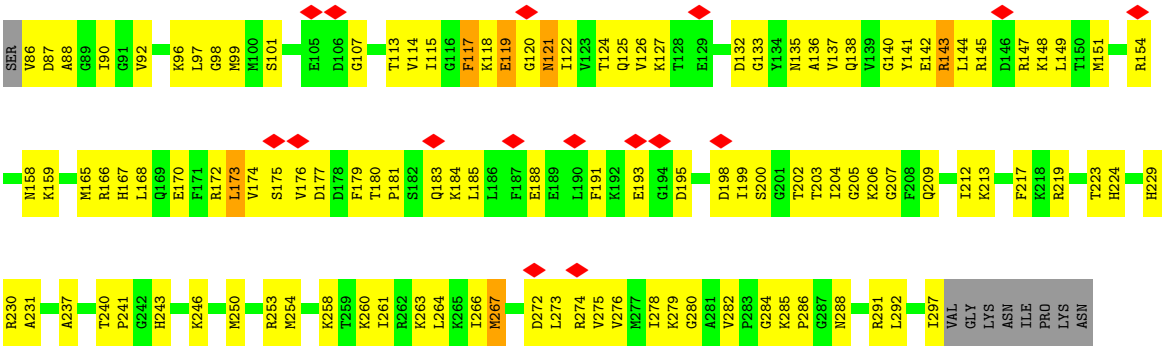
• Molecule 24: 50S ribosomal protein L36, chloroplastic

Chain f:



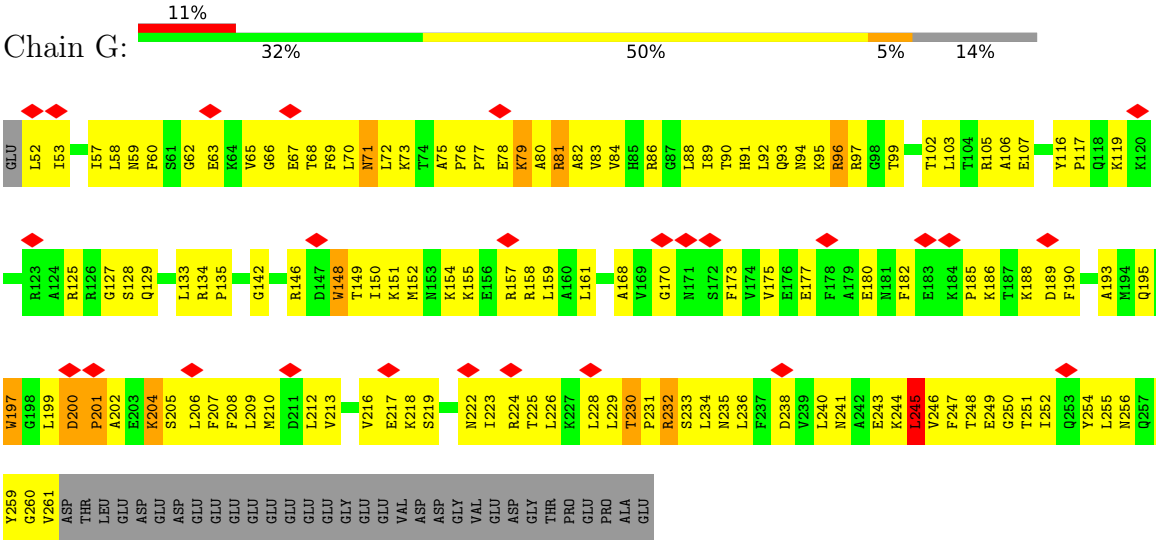
• Molecule 25: 50S ribosomal protein L3

Chain F:



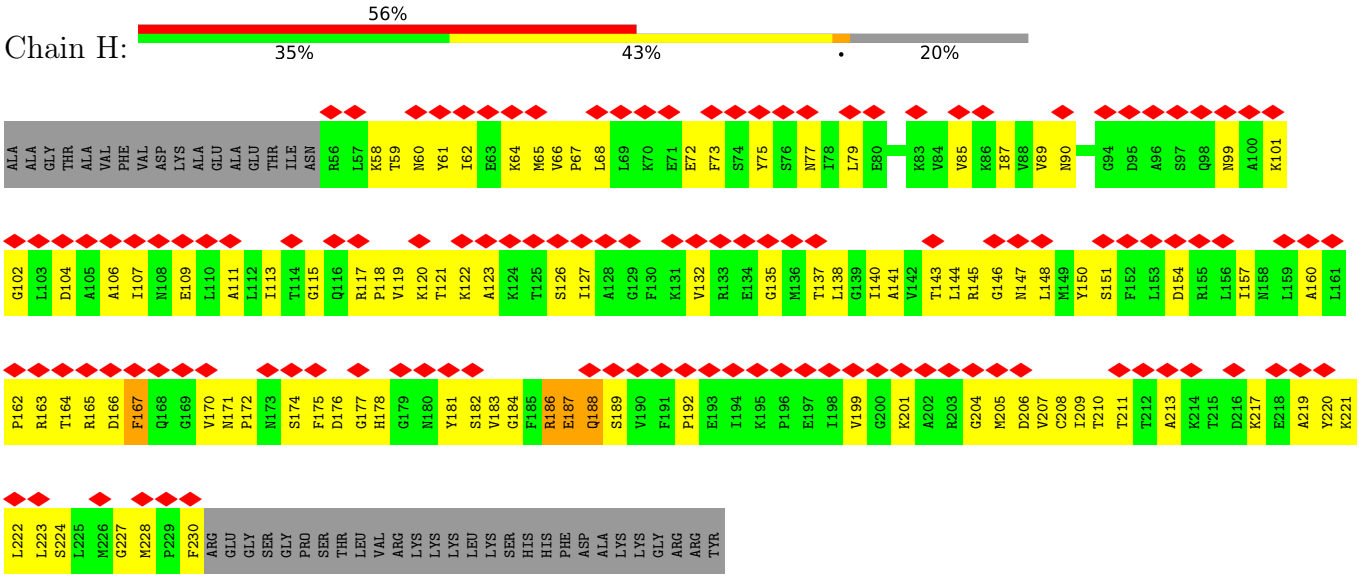
• Molecule 26: 50S ribosomal protein L4, chloroplastic

Chain G:



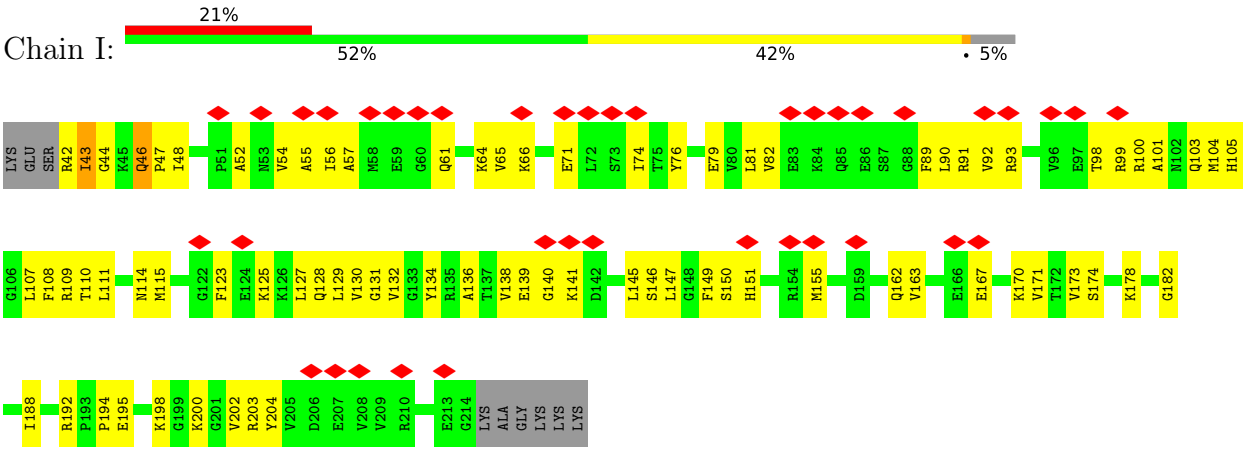
• Molecule 27: 50S ribosomal protein L5, chloroplastic

Chain H:



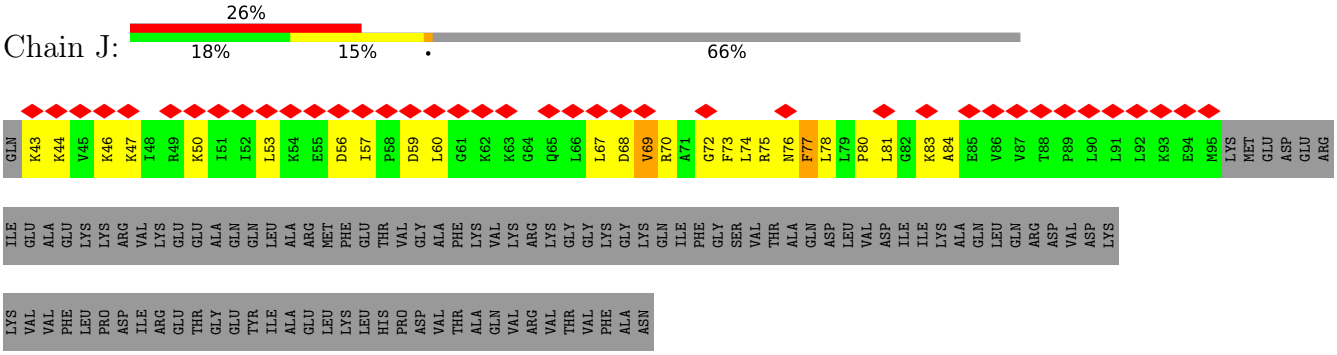
• Molecule 28: 50S ribosomal protein L6

Chain I:



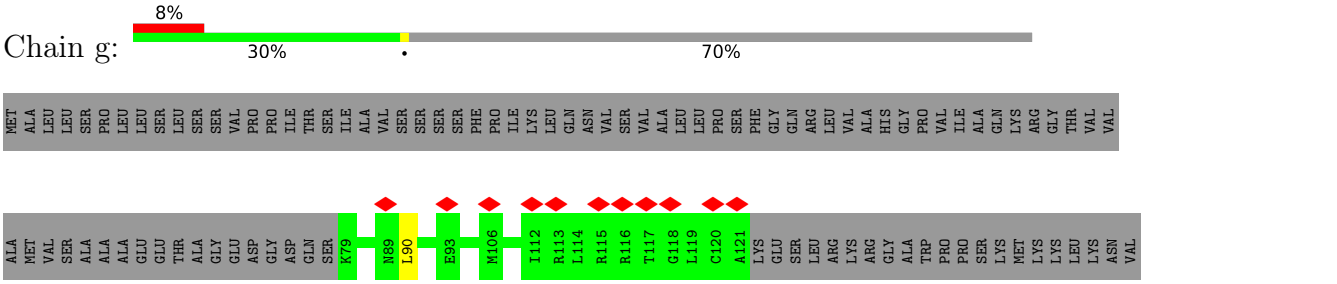
• Molecule 29: 50S ribosomal protein L9

Chain J:



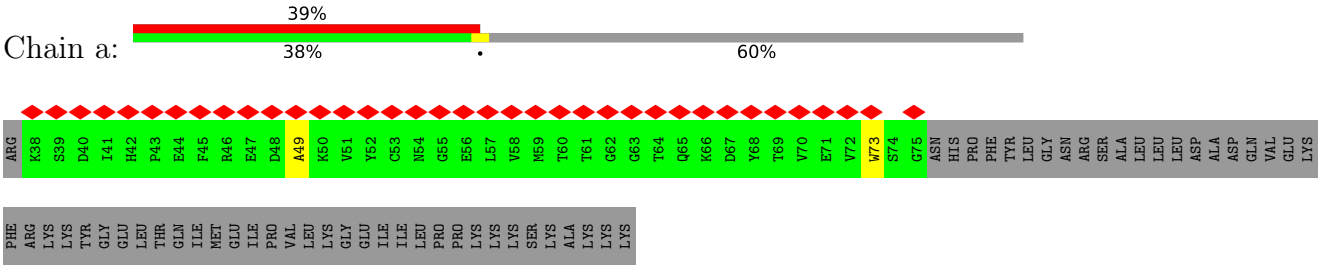
• Molecule 30: 50S ribosomal protein 5 alpha, chloroplastic

Chain g:



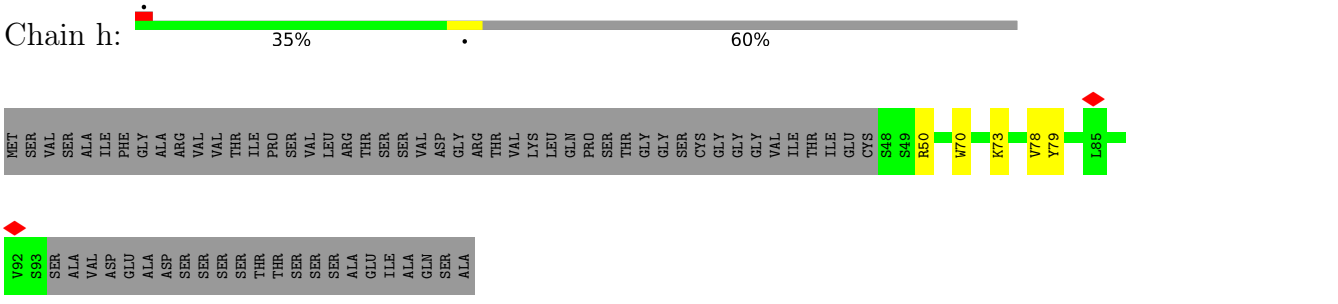
• Molecule 31: 50S ribosomal protein L31

Chain a:



• Molecule 32: 50S ribosomal protein 6, chloroplastic

Chain h:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	174949	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI TECNAI ARCTICA	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/Å^2$)	26	Depositor
Minimum defocus (nm)	200	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	109375	Depositor
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.928	Depositor
Minimum map value	-0.585	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.028	Depositor
Recommended contour level	0.132	Depositor
Map size (Å)	399.36, 399.36, 399.36	wwPDB
Map dimensions	312, 312, 312	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.28, 1.28, 1.28	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.80	18/67340 (0.0%)	0.94	109/105056 (0.1%)
2	C	3.05	9/2449 (0.4%)	1.30	26/3817 (0.7%)
3	B	0.78	0/2796	0.87	2/4357 (0.0%)
4	L	0.67	0/1212	0.68	1/1634 (0.1%)
5	M	0.60	0/951	0.69	1/1282 (0.1%)
6	N	0.40	0/1361	0.77	3/1806 (0.2%)
7	O	0.63	1/1089 (0.1%)	0.71	1/1461 (0.1%)
8	P	0.63	0/959	0.76	0/1280
9	Q	0.52	0/963	0.67	0/1293
10	R	0.61	0/967	0.79	2/1300 (0.2%)
11	S	0.77	0/1013	0.82	1/1351 (0.1%)
12	T	0.73	0/1199	0.88	3/1633 (0.2%)
13	U	0.60	1/1168 (0.1%)	0.69	0/1566
14	V	0.53	0/749	0.65	0/1006
15	W	0.49	0/1006	0.67	2/1343 (0.1%)
16	X	0.66	0/825	0.80	2/1099 (0.2%)
17	Y	0.65	0/615	0.78	2/819 (0.2%)
18	Z	0.52	0/762	0.71	0/1012
19	E	0.60	0/1938	0.78	1/2603 (0.0%)
20	b	0.72	0/387	0.65	0/513
21	c	0.55	0/422	0.85	1/564 (0.2%)
22	d	0.45	0/447	0.63	0/588
23	e	0.72	0/569	0.82	1/752 (0.1%)
24	f	0.57	0/306	0.78	0/403
25	F	0.66	0/1646	0.74	1/2201 (0.0%)
26	G	0.65	2/1687 (0.1%)	0.78	1/2271 (0.0%)
27	H	0.37	0/1372	0.60	0/1848
28	I	0.49	0/1374	0.63	1/1849 (0.1%)
29	J	0.33	0/427	0.65	0/568
30	g	0.44	0/345	0.85	1/455 (0.2%)
31	a	0.29	0/306	0.60	0/413
32	h	0.70	1/382 (0.3%)	0.81	2/520 (0.4%)
All	All	0.88	32/99032 (0.0%)	0.90	164/148663 (0.1%)

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
9	Q	0	1
10	R	0	1
11	S	0	3
13	U	0	1
19	E	0	3
24	f	0	1
25	F	0	1
26	G	0	2
27	H	0	1
32	h	0	2
All	All	0	16

All (32) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	95	A	N3-C4	76.76	1.80	1.34
2	C	95	A	C6-N1	71.09	1.85	1.35
2	C	95	A	C5-C4	50.90	1.74	1.38
2	C	95	A	C2-N3	47.29	1.76	1.33
2	C	95	A	N1-C2	47.04	1.76	1.34
2	C	95	A	C5-C6	42.75	1.79	1.41
32	h	70	TRP	CB-CG	-7.30	1.37	1.50
2	C	14	G	N9-C4	-6.91	1.32	1.38
1	A	2168	C	C1'-N1	6.58	1.58	1.48
1	A	2177	U	C1'-N1	6.53	1.58	1.48
1	A	2170	C	C1'-N1	6.40	1.58	1.48
1	A	2155	C	C1'-N1	6.20	1.58	1.48
1	A	2158	U	C1'-N1	6.05	1.57	1.48
1	A	2156	C	C1'-N1	5.95	1.57	1.48
1	A	2131	U	C1'-N1	5.92	1.57	1.48
1	A	2145	A	C1'-N9	-5.88	1.38	1.46
1	A	2179	A	C1'-N9	-5.86	1.38	1.46
1	A	2154	C	C1'-N1	5.77	1.57	1.48
2	C	14	G	N3-C4	-5.71	1.31	1.35
1	A	2152	C	C1'-N1	5.66	1.57	1.48
1	A	2130	C	C1'-N1	5.63	1.57	1.48
1	A	2144	G	C1'-N9	-5.51	1.39	1.46
1	A	794	A	N9-C4	-5.43	1.34	1.37
26	G	197	TRP	CB-CG	-5.40	1.40	1.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	G	148	TRP	CB-CG	-5.27	1.40	1.50
7	O	76	VAL	C-N	-5.24	1.22	1.34
1	A	2146	A	C1'-N9	-5.17	1.39	1.46
13	U	73	CYS	CB-SG	-5.13	1.73	1.81
1	A	2479	U	N3-C4	-5.10	1.33	1.38
1	A	2151	G	C1'-N9	-5.09	1.39	1.46
2	C	25	C	N1-C2	-5.07	1.35	1.40
1	A	2480	U	N3-C4	-5.05	1.33	1.38

All (164) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	95	A	N1-C2-N3	-28.24	115.18	129.30
2	C	95	A	C2-N3-C4	24.30	122.75	110.60
2	C	95	A	N7-C8-N9	14.45	121.03	113.80
6	N	196	LEU	C-N-CD	-14.44	88.83	120.60
2	C	95	A	C4-C5-N7	-13.30	104.05	110.70
12	T	116	PRO	C-N-CD	-11.72	94.82	120.60
2	C	14	G	N3-C4-N9	-11.20	119.28	126.00
6	N	154	LEU	C-N-CD	-11.17	96.03	120.60
2	C	95	A	N3-C4-N9	10.29	135.63	127.40
1	A	783	U	N1-C2-O2	9.16	129.22	122.80
2	C	95	A	C6-N1-C2	9.05	124.03	118.60
21	c	48	LEU	CA-CB-CG	-8.73	95.22	115.30
1	A	2479	U	C5-C4-O4	8.50	131.00	125.90
1	A	684	C	C2-N3-C4	-8.21	115.79	119.90
1	A	764	A	C5-N7-C8	-8.11	99.84	103.90
2	C	14	G	N3-C4-C5	8.01	132.60	128.60
2	C	95	A	N9-C4-C5	-8.00	102.60	105.80
1	A	1035	C	C2-N3-C4	-7.87	115.97	119.90
1	A	2730	A	N7-C8-N9	7.74	117.67	113.80
1	A	1335	C	C2-N1-C1'	7.63	127.20	118.80
1	A	818	U	C2-N3-C4	-7.62	122.43	127.00
2	C	95	A	N3-C4-C5	-7.51	121.55	126.80
1	A	2480	U	C5-C4-O4	7.45	130.37	125.90
1	A	2504	A	C6-N1-C2	-7.34	114.19	118.60
1	A	2504	A	N1-C2-N3	7.31	132.96	129.30
2	C	14	G	C5-C6-O6	7.26	132.96	128.60
1	A	1035	C	N1-C2-N3	7.16	124.21	119.20
1	A	1609	U	C5-C4-O4	7.12	130.17	125.90
1	A	1585	C	N3-C2-O2	-7.10	116.93	121.90
1	A	2312	C	C2-N3-C4	-7.08	116.36	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2753	C	N1-C2-O2	7.07	123.14	118.90
1	A	730	C	N3-C2-O2	-7.00	117.00	121.90
1	A	755	U	C5-C4-O4	-6.96	121.72	125.90
1	A	2034	C	C2-N3-C4	-6.93	116.43	119.90
2	C	95	A	C6-C5-N7	6.92	137.15	132.30
2	C	23	G	C6-C5-N7	-6.89	126.27	130.40
16	X	129	GLY	N-CA-C	-6.88	95.90	113.10
1	A	2480	U	C2-N1-C1'	6.86	125.93	117.70
1	A	2730	A	C8-N9-C4	-6.79	103.08	105.80
12	T	175	PRO	CA-N-CD	-6.76	102.03	111.50
2	C	14	G	N9-C4-C5	6.74	108.09	105.40
1	A	1444	A	N1-C2-N3	6.71	132.65	129.30
26	G	245	LEU	CA-CB-CG	6.58	130.45	115.30
30	g	90	LEU	CB-CG-CD2	-6.55	99.87	111.00
1	A	1035	C	N1-C2-O2	-6.49	115.01	118.90
5	M	49	ASN	C-N-CA	6.46	137.84	121.70
1	A	2505	A	C6-N1-C2	-6.43	114.74	118.60
1	A	1203	C	C2-N1-C1'	6.41	125.85	118.80
1	A	1444	A	C6-N1-C2	-6.39	114.77	118.60
1	A	764	A	N7-C8-N9	6.38	116.99	113.80
2	C	14	G	C2-N3-C4	-6.37	108.71	111.90
2	C	25	C	C2-N1-C1'	-6.26	111.91	118.80
1	A	1035	C	C6-N1-C1'	6.25	128.30	120.80
1	A	2217	U	C5-C4-O4	-6.20	122.18	125.90
2	C	23	G	C4-C5-N7	6.20	113.28	110.80
1	A	783	U	N3-C2-O2	-6.14	117.90	122.20
1	A	2457	C	C2-N1-C1'	6.14	125.55	118.80
3	B	45	G	P-O3'-C3'	6.11	127.03	119.70
1	A	538	C	O4'-C1'-N1	6.11	113.09	108.20
1	A	783	U	C2-N1-C1'	6.09	125.01	117.70
1	A	1335	C	C6-N1-C1'	-6.07	113.52	120.80
1	A	1655	G	C6-C5-N7	-6.06	126.77	130.40
1	A	1239	C	N1-C2-O2	6.04	122.52	118.90
1	A	135	C	N3-C2-O2	-6.04	117.67	121.90
1	A	2311	C	N3-C2-O2	-6.04	117.67	121.90
2	C	14	G	C8-N9-C1'	6.02	134.83	127.00
1	A	2753	C	C2-N1-C1'	6.01	125.41	118.80
2	C	14	G	C4-N9-C1'	-5.99	118.71	126.50
17	Y	73	ARG	NE-CZ-NH2	-5.97	117.31	120.30
1	A	544	G	C6-C5-N7	-5.92	126.85	130.40
1	A	2479	U	N3-C4-O4	-5.92	115.25	119.40
1	A	755	U	C2-N3-C4	-5.88	123.47	127.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	23	G	C4-N9-C1'	5.87	134.12	126.50
1	A	2753	C	C6-N1-C1'	-5.86	113.76	120.80
1	A	2480	U	N3-C4-O4	-5.77	115.36	119.40
1	A	2505	A	N1-C2-N3	5.77	132.19	129.30
32	h	70	TRP	CA-CB-CG	-5.76	102.76	113.70
19	E	101	LEU	C-N-CA	-5.72	107.41	121.70
1	A	1035	C	C2-N1-C1'	-5.72	112.51	118.80
1	A	1609	U	C2-N1-C1'	5.71	124.56	117.70
1	A	2034	C	C5-C4-N4	-5.70	116.21	120.20
1	A	1610	C	N1-C2-O2	5.69	122.32	118.90
23	e	101	ARG	NE-CZ-NH2	-5.67	117.47	120.30
2	C	25	C	N1-C2-O2	-5.65	115.51	118.90
2	C	23	G	C8-N9-C1'	-5.64	119.67	127.00
1	A	764	A	C8-N9-C4	-5.62	103.55	105.80
1	A	1347	U	N1-C2-O2	5.61	126.72	122.80
1	A	1960	U	N3-C2-O2	-5.60	118.28	122.20
1	A	1945	U	C2-N1-C1'	5.58	124.40	117.70
1	A	1203	C	N1-C2-O2	5.58	122.25	118.90
1	A	1655	G	C4-C5-N7	5.58	113.03	110.80
4	L	239	LEU	CA-CB-CG	5.56	128.08	115.30
2	C	90	G	C4-C5-N7	5.52	113.01	110.80
1	A	213	A	P-O3'-C3'	5.52	126.32	119.70
2	C	25	C	C6-N1-C1'	5.51	127.42	120.80
17	Y	98	LEU	CA-CB-CG	5.50	127.95	115.30
1	A	1818	U	N3-C2-O2	-5.46	118.38	122.20
1	A	2535	C	N1-C2-O2	5.46	122.17	118.90
1	A	1344	G	N3-C4-N9	5.44	129.26	126.00
1	A	2545	U	N1-C2-O2	5.43	126.60	122.80
1	A	404	U	N1-C2-O2	5.43	126.60	122.80
1	A	544	G	N3-C4-N9	5.42	129.25	126.00
1	A	794	A	C5-N7-C8	-5.40	101.20	103.90
1	A	2332	G	C5-C6-O6	5.38	131.83	128.60
1	A	2267	G	N3-C4-C5	5.35	131.28	128.60
1	A	1416	A	O4'-C1'-N9	5.35	112.48	108.20
1	A	135	C	N1-C2-O2	5.35	122.11	118.90
1	A	2311	C	N1-C2-O2	5.34	122.10	118.90
12	T	97	GLU	C-N-CD	5.34	139.62	128.40
1	A	1462	G	N1-C6-O6	-5.34	116.70	119.90
1	A	2457	C	N1-C2-O2	5.33	122.10	118.90
1	A	1610	C	N3-C2-O2	-5.30	118.19	121.90
1	A	544	G	C4-C5-N7	5.29	112.92	110.80
1	A	2797	U	C5-C4-O4	-5.29	122.72	125.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1462	G	C5-C6-O6	5.28	131.77	128.60
1	A	563	C	C2-N1-C1'	5.28	124.60	118.80
10	R	138	ARG	C-N-CD	5.28	139.48	128.40
1	A	2457	C	N3-C2-O2	-5.27	118.21	121.90
25	F	173	LEU	CA-CB-CG	5.27	127.42	115.30
1	A	1801	A	N1-C2-N3	5.26	131.93	129.30
1	A	2410	U	N3-C2-O2	-5.26	118.52	122.20
3	B	45	G	OP2-P-O3'	5.26	116.77	105.20
1	A	1610	C	C2-N1-C1'	5.26	124.58	118.80
2	C	26	G	C4-C5-N7	5.25	112.90	110.80
6	N	158	VAL	C-N-CD	5.24	139.41	128.40
1	A	1428	C	C2-N1-C1'	5.24	124.56	118.80
1	A	112	C	C2-N1-C1'	5.23	124.55	118.80
1	A	1287	G	P-O3'-C3'	5.22	125.97	119.70
2	C	16	G	P-O3'-C3'	5.21	125.96	119.70
1	A	2046	G	C4-N9-C1'	-5.20	119.74	126.50
1	A	2576	C	N3-C2-O2	-5.20	118.26	121.90
28	I	46	GLN	C-N-CD	5.19	139.29	128.40
1	A	1002	G	P-O3'-C3'	5.18	125.92	119.70
1	A	1585	C	N1-C2-N3	5.17	122.82	119.20
16	X	129	GLY	C-N-CD	5.17	139.25	128.40
1	A	1400	U	C2-N1-C1'	5.16	123.89	117.70
1	A	1266	G	N3-C4-N9	-5.15	122.91	126.00
1	A	1585	C	C6-N1-C2	-5.15	118.24	120.30
1	A	2535	C	C2-N1-C1'	5.14	124.46	118.80
1	A	1227	U	N1-C2-O2	5.14	126.40	122.80
32	h	50	ARG	C-N-CD	5.14	139.19	128.40
1	A	32	U	N3-C2-O2	-5.13	118.61	122.20
7	O	76	VAL	C-N-CA	5.13	134.53	121.70
1	A	696	A	N1-C6-N6	-5.12	115.53	118.60
1	A	675	U	N3-C2-O2	-5.11	118.62	122.20
1	A	1683	G	O4'-C1'-N9	5.10	112.28	108.20
15	W	170	THR	C-N-CD	5.10	139.12	128.40
1	A	2354	G	C6-C5-N7	-5.10	127.34	130.40
11	S	92	LEU	C-N-CA	-5.09	108.97	121.70
1	A	542	C	O4'-C1'-N1	5.09	112.27	108.20
1	A	544	G	N9-C4-C5	-5.08	103.37	105.40
10	R	226	LEU	CA-CB-CG	5.08	126.99	115.30
1	A	2354	G	N3-C4-N9	5.07	129.04	126.00
1	A	1334	U	C2-N1-C1'	5.07	123.78	117.70
15	W	61	LEU	C-N-CD	5.06	139.03	128.40
1	A	764	A	C4-C5-N7	5.06	113.23	110.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2535	C	N3-C2-O2	-5.06	118.36	121.90
1	A	2242	A	P-O3'-C3'	5.05	125.76	119.70
1	A	2332	G	N1-C6-O6	-5.04	116.87	119.90
1	A	1452	A	C6-C5-N7	-5.04	128.77	132.30
1	A	795	U	P-O3'-C3'	5.04	125.74	119.70
1	A	1203	C	C6-N1-C1'	-5.03	114.76	120.80
1	A	1954	U	P-O3'-C3'	5.03	125.73	119.70
1	A	1400	U	C5-C6-N1	5.01	125.20	122.70

There are no chirality outliers.

All (16) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
19	E	150	LEU	Peptide
19	E	29	ILE	Peptide
19	E	41	ALA	Peptide
25	F	267	MET	Peptide
26	G	200	ASP	Peptide
26	G	204	LYS	Peptide
27	H	167	PHE	Peptide
9	Q	70	ARG	Peptide
10	R	190	VAL	Peptide
11	S	24	PHE	Peptide
11	S	82	ILE	Peptide
11	S	96	ILE	Peptide
13	U	90	ASN	Peptide
24	f	73	GLN	Peptide
32	h	73	LYS	Peptide
32	h	78	VAL	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	60117	0	30254	3962	0
2	C	2187	0	1099	306	0
3	B	2500	0	1263	331	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	L	1184	0	1221	135	0
5	M	942	0	996	51	0
6	N	1342	0	1413	392	0
7	O	1067	0	1120	103	0
8	P	944	0	1004	68	0
9	Q	947	0	966	87	0
10	R	953	0	1044	80	0
11	S	996	0	1060	122	0
12	T	1171	0	1216	216	0
13	U	1149	0	1220	98	0
14	V	740	0	795	103	0
15	W	993	0	1054	127	0
16	X	810	0	847	185	0
17	Y	605	0	652	51	0
18	Z	754	0	804	99	0
19	E	1904	0	1982	219	0
20	b	378	0	413	0	0
21	c	415	0	434	0	0
22	d	445	0	501	0	0
23	e	563	0	621	0	0
24	f	304	0	342	0	0
25	F	1620	0	1699	174	0
26	G	1655	0	1723	238	0
27	H	1351	0	1407	136	0
28	I	1353	0	1416	90	0
29	J	423	0	488	39	0
30	g	345	0	395	0	0
31	a	300	0	279	0	0
32	h	368	0	386	0	0
All	All	90825	0	60114	6418	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 46.

All (6418) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2351:G:C4	9:Q:64:VAL:HG21	1.27	1.61
2:C:95:A:C5	2:C:95:A:C6	1.79	1.59
16:X:128:TYR:CB	16:X:134:LYS:CD	1.78	1.58
11:S:91:LEU:CD1	12:T:175:PRO:HB3	1.30	1.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:274:G:C6	1:A:433:C:C6	1.94	1.54
16:X:128:TYR:HB3	16:X:134:LYS:CG	1.33	1.52
2:C:95:A:C2	2:C:95:A:N1	1.76	1.51
12:T:171:TYR:CE2	12:T:231:PRO:HB3	1.40	1.51
2:C:95:A:C2	2:C:95:A:N3	1.76	1.51
12:T:170:THR:H	12:T:233:SER:CB	1.20	1.51
16:X:128:TYR:HB2	16:X:134:LYS:CD	1.05	1.50
1:A:2351:G:C4	9:Q:64:VAL:CG2	1.95	1.47
1:A:2213:A:N6	1:A:2241:G:H21	0.98	1.47
2:C:95:A:N3	2:C:95:A:C4	1.80	1.46
2:C:95:A:C6	2:C:95:A:N1	1.85	1.45
1:A:983:G:N2	7:O:82:ARG:CZ	1.80	1.43
10:R:123:MET:CE	25:F:97:LEU:O	1.64	1.43
1:A:983:G:N2	7:O:82:ARG:NH2	1.63	1.42
1:A:330:U:C2	26:G:218:LYS:HE2	1.52	1.42
1:A:133:A:N6	1:A:162:A:C2	1.77	1.41
1:A:135:C:C5	1:A:161:G:O6	1.74	1.41
1:A:2213:A:N6	1:A:2241:G:N2	1.66	1.41
1:A:274:G:O6	1:A:433:C:C3'	1.67	1.40
16:X:128:TYR:CB	16:X:134:LYS:CG	1.93	1.40
1:A:1527:G:N1	1:A:1539:C:N3	1.70	1.40
1:A:2279:U:OP2	16:X:73:LYS:CG	1.67	1.39
1:A:639:A:N6	6:N:201:LEU:HD13	1.34	1.38
1:A:2351:G:N9	9:Q:64:VAL:HG21	1.35	1.38
14:V:116:GLN:HA	18:Z:91:ARG:NH2	1.31	1.38
12:T:170:THR:N	12:T:233:SER:HB3	1.06	1.37
6:N:165:ILE:HG13	6:N:206:LEU:CA	1.45	1.37
2:C:30:A:N6	2:C:83:C:O2'	1.56	1.36
6:N:156:LYS:NZ	6:N:215:ARG:NH1	1.68	1.36
1:A:983:G:C2	7:O:82:ARG:NH2	1.92	1.36
1:A:1263:G:N2	6:N:83:ASP:OD2	1.58	1.35
1:A:2322:A:N3	27:H:186:ARG:NH1	1.74	1.35
6:N:81:ARG:NH1	26:G:243:GLU:HB2	1.39	1.35
1:A:44:G:N7	1:A:200:G:O2'	1.58	1.35
1:A:540:A:P	4:L:212:ARG:HH11	1.48	1.35
1:A:1002:G:H5'	12:T:201:LYS:NZ	1.38	1.35
3:B:41:U:C2'	3:B:46:A:H61	1.39	1.35
28:I:46:GLN:OE1	28:I:109:ARG:CG	1.71	1.35
6:N:159:PRO:HB3	6:N:187:ILE:CD1	1.54	1.34
1:A:1236:A:N6	1:A:1253:G:H1	1.21	1.34
16:X:128:TYR:CB	16:X:134:LYS:HD3	1.44	1.33

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:V:109:LEU:CD1	14:V:141:ARG:O	1.75	1.33
1:A:1528:U:O2	1:A:1538:G:N2	1.61	1.33
12:T:169:SER:HB2	12:T:233:SER:OG	1.27	1.33
1:A:329:C:C2'	26:G:222:ASN:ND2	1.92	1.32
1:A:2213:A:C2	1:A:2214:C:C2	2.17	1.32
12:T:108:ASN:O	12:T:112:PRO:HD3	1.23	1.32
1:A:639:A:C6	6:N:201:LEU:HD13	1.62	1.32
1:A:111:U:OP2	18:Z:134:ARG:NH1	1.62	1.31
1:A:2113:G:H22	1:A:2204:A:N6	1.25	1.31
1:A:330:U:N3	26:G:218:LYS:NZ	1.76	1.31
1:A:355:A:C8	1:A:356:A:C8	2.19	1.30
14:V:109:LEU:HD11	14:V:141:ARG:O	1.23	1.30
1:A:82:G:OP2	15:W:157:LYS:CE	1.79	1.30
3:B:17:G:N2	3:B:70:G:H1'	1.47	1.30
1:A:234:C:C6	6:N:142:LYS:NZ	2.00	1.30
1:A:1751:A:C2	1:A:1753:A:C8	2.20	1.29
25:F:142:GLU:OE2	25:F:167:HIS:CE1	1.84	1.29
1:A:330:U:N3	26:G:218:LYS:CE	1.95	1.29
3:B:16:G:O6	3:B:111:G:C2	1.85	1.29
16:X:128:TYR:CB	16:X:134:LYS:HG3	1.54	1.29
1:A:983:G:N2	7:O:82:ARG:NH1	1.78	1.29
12:T:96:PRO:C	12:T:98:PRO:HD3	1.50	1.29
1:A:2109:C:C5	1:A:2110:U:C2	2.20	1.28
11:S:91:LEU:CD1	12:T:175:PRO:CB	2.11	1.28
1:A:983:G:N3	7:O:82:ARG:NH2	1.81	1.28
1:A:1023:C:O2	4:L:102:PRO:HD3	1.13	1.28
1:A:2154:C:N3	1:A:2165:G:N2	1.82	1.26
1:A:330:U:O2	26:G:218:LYS:HE2	1.30	1.26
1:A:1169:A:OP1	4:L:245:ARG:NH2	1.67	1.26
1:A:2107:G:OP1	29:J:72:GLY:HA3	1.33	1.26
1:A:822:U:C5	1:A:1272:A:C2	2.23	1.26
4:L:175:ARG:HH22	4:L:184:LYS:NZ	1.31	1.25
6:N:160:ILE:HG21	6:N:203:GLU:OE2	1.22	1.25
1:A:2120:U:O4	1:A:2197:A:N1	1.69	1.25
6:N:160:ILE:CG2	6:N:203:GLU:OE2	1.83	1.25
6:N:205:GLU:OE1	6:N:224:LYS:CD	1.82	1.25
1:A:279:A:N7	1:A:379:C:N4	1.83	1.25
28:I:46:GLN:OE1	28:I:109:ARG:HG3	1.13	1.25
1:A:843:C:H4'	6:N:125:ILE:CD1	1.67	1.24
25:F:117:PHE:HA	25:F:141:TYR:OH	1.35	1.24
1:A:1830:U:C4	19:E:197:ASN:ND2	2.06	1.24

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2124:G:N2	1:A:2194:U:O2	1.69	1.24
6:N:205:GLU:OE1	6:N:224:LYS:HD2	1.15	1.24
1:A:330:U:C2	26:G:218:LYS:CE	2.18	1.24
26:G:70:LEU:CD1	26:G:256:ASN:OD1	1.85	1.24
1:A:822:U:H2'	6:N:100:ARG:O	1.27	1.23
1:A:2116:C:N3	1:A:2201:G:N2	1.84	1.23
1:A:932:A:C4'	16:X:85:GLN:HE22	1.51	1.23
1:A:1023:C:O2	4:L:102:PRO:CD	1.87	1.22
2:C:30:A:N1	2:C:83:C:H2'	1.53	1.22
1:A:981:G:OP2	7:O:16:ARG:HD3	1.34	1.22
1:A:274:G:N1	1:A:433:C:C5	2.08	1.22
1:A:540:A:OP1	4:L:212:ARG:NH1	1.71	1.22
1:A:279:A:N6	1:A:379:C:H42	1.38	1.22
1:A:329:C:O2	26:G:222:ASN:ND2	1.70	1.22
1:A:2011:G:O5'	25:F:219:ARG:NH2	1.73	1.22
1:A:2322:A:C4	27:H:186:ARG:NH1	2.07	1.21
26:G:73:LYS:CA	26:G:261:VAL:O	1.88	1.21
16:X:126:GLU:O	16:X:133:LYS:O	1.57	1.21
1:A:1521:G:C8	1:A:1543:G:N2	2.09	1.20
1:A:2322:A:N6	27:H:204:GLY:HA3	1.55	1.20
16:X:128:TYR:CE2	16:X:132:LYS:HB2	1.76	1.20
1:A:1211:G:C5'	6:N:111:GLY:HA2	1.71	1.20
1:A:2804:U:OP1	25:F:159:LYS:HG3	1.39	1.20
1:A:1196:A:N6	1:A:1201:A:H61	1.38	1.20
1:A:1023:C:N3	4:L:102:PRO:HD2	1.57	1.19
1:A:2213:A:C5	1:A:2242:A:N1	2.09	1.19
12:T:171:TYR:HD2	12:T:231:PRO:HA	1.06	1.19
1:A:1224:U:H1'	6:N:83:ASP:OD1	1.38	1.19
1:A:1499:G:N2	1:A:1546:C:N3	1.89	1.19
1:A:2233:G:H2'	1:A:2234:G:C8	1.76	1.19
28:I:48:ILE:HG12	28:I:90:LEU:O	1.37	1.19
1:A:913:G:H2'	1:A:914:A:H8	1.04	1.19
6:N:159:PRO:CD	6:N:199:LYS:O	1.92	1.18
1:A:1211:G:H5"	6:N:111:GLY:CA	1.73	1.18
1:A:1751:A:H2	1:A:1753:A:C8	1.57	1.18
1:A:60:U:O2'	18:Z:94:ARG:NH1	1.74	1.18
1:A:881:U:O2	1:A:915:G:N2	1.76	1.18
1:A:1532:G:N2	1:A:1611:G:N3	1.90	1.18
1:A:384:G:O2'	1:A:412:G:O6	1.60	1.18
1:A:888:C:N4	1:A:908:A:H2	1.42	1.18
1:A:2684:C:H5	28:I:150:SER:HB3	1.06	1.18

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:79:G:O2'	1:A:355:A:C2	1.95	1.17
1:A:2121:C:N4	1:A:2196:G:N2	1.93	1.17
6:N:159:PRO:CB	6:N:187:ILE:HD11	1.74	1.17
26:G:70:LEU:HD12	26:G:256:ASN:OD1	1.40	1.17
26:G:73:LYS:HA	26:G:261:VAL:O	1.41	1.17
1:A:1196:A:H61	1:A:1201:A:N6	1.41	1.16
29:J:76:ASN:O	29:J:80:PRO:HD2	1.42	1.16
1:A:2075:G:OP2	26:G:119:LYS:CE	1.93	1.16
1:A:2684:C:C5	28:I:150:SER:HB3	1.81	1.16
16:X:128:TYR:CD2	16:X:132:LYS:HB2	1.78	1.16
1:A:1159:G:C5	4:L:176:HIS:CE1	2.34	1.16
1:A:2129:G:O2'	1:A:2180:G:N2	1.78	1.16
1:A:2767:A:OP2	28:I:42:ARG:O	1.64	1.16
1:A:329:C:H2'	26:G:222:ASN:ND2	1.56	1.15
1:A:1521:G:N2	1:A:1544:A:N1	1.94	1.15
10:R:123:MET:HE2	25:F:97:LEU:O	1.44	1.15
1:A:279:A:N7	1:A:379:C:C4	2.14	1.15
1:A:609:G:H5"	26:G:79:LYS:HD2	1.23	1.15
1:A:2156:C:O2	1:A:2164:G:N2	1.79	1.15
6:N:165:ILE:HG21	6:N:205:GLU:O	1.46	1.15
1:A:49:G:O2'	18:Z:130:LYS:HD2	1.45	1.15
1:A:93:A:O2'	18:Z:102:PRO:CG	1.93	1.15
1:A:2279:U:OP2	16:X:73:LYS:HG3	0.99	1.15
3:B:6:U:C2	3:B:118:G:N2	2.15	1.15
3:B:91:G:H22	7:O:38:GLU:CG	1.59	1.15
1:A:93:A:O2'	18:Z:102:PRO:HG2	0.99	1.14
1:A:624:A:C4	1:A:625:C:C5	2.34	1.14
1:A:853:G:O6	1:A:965:G:O6	1.65	1.14
1:A:2351:G:C5	9:Q:64:VAL:CG2	2.27	1.14
3:B:17:G:H22	3:B:70:G:C1'	1.58	1.14
2:C:77:A:H1'	8:P:16:LYS:HB2	1.17	1.14
3:B:35:A:C2	3:B:51:G:C2	2.35	1.14
1:A:75:C:OP1	18:Z:110:LYS:NZ	1.81	1.14
1:A:290:A:H2'	1:A:291:G:H8	1.11	1.14
1:A:384:G:OP2	17:Y:131:LYS:HE3	1.47	1.14
1:A:1002:G:C5'	12:T:201:LYS:NZ	2.08	1.14
1:A:1159:G:C4	4:L:176:HIS:CE1	2.36	1.14
1:A:1596:U:C2'	1:A:1597:C:H5'	1.77	1.14
1:A:1159:G:C5	4:L:176:HIS:HE1	1.66	1.14
14:V:116:GLN:CA	18:Z:91:ARG:HH22	1.60	1.14
1:A:135:C:H5	1:A:161:G:O6	1.15	1.14

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:104:A:C2	2:C:105:A:C5	2.36	1.13
1:A:355:A:H2'	1:A:356:A:H5'	1.23	1.13
1:A:274:G:C2	1:A:433:C:C5	2.35	1.13
1:A:368:U:C2	1:A:369:U:C5	2.37	1.13
1:A:2798:G:C6	4:L:201:GLU:OE2	2.01	1.13
1:A:2798:G:O6	4:L:201:GLU:OE2	1.66	1.13
6:N:81:ARG:NH1	26:G:243:GLU:CB	2.10	1.13
1:A:83:A:N6	1:A:98:G:N7	1.96	1.13
1:A:2095:U:OP1	17:Y:87:ARG:NH1	1.79	1.13
25:F:144:LEU:HD11	25:F:166:ARG:CZ	1.77	1.12
6:N:162:LEU:CD1	6:N:203:GLU:OE1	1.98	1.12
12:T:108:ASN:O	12:T:112:PRO:CD	1.97	1.12
1:A:289:A:H2'	1:A:290:A:H8	1.10	1.12
1:A:381:C:O2	1:A:416:C:C5	2.03	1.12
1:A:1507:G:N2	1:A:1515:G:OP2	1.81	1.12
1:A:2109:C:H5	1:A:2110:U:C2	1.61	1.12
1:A:48:A:N1	1:A:162:A:N7	1.66	1.12
1:A:857:G:N2	1:A:961:G:C4	2.16	1.12
1:A:1525:G:N2	1:A:1541:U:C2	2.16	1.12
1:A:609:G:H5"	26:G:79:LYS:CD	1.79	1.12
1:A:740:G:O6	19:E:204:ALA:HB3	1.50	1.12
1:A:234:C:C5	6:N:142:LYS:NZ	2.18	1.11
6:N:159:PRO:HD2	6:N:199:LYS:O	1.41	1.11
14:V:114:ILE:HG23	14:V:115:LEU:HD12	1.31	1.11
15:W:59:ASN:O	15:W:60:SER:OG	1.66	1.11
1:A:1475:U:H1'	8:P:70:LEU:CD1	1.81	1.11
6:N:202:GLY:N	6:N:221:ALA:HB2	1.63	1.11
28:I:48:ILE:HD11	28:I:109:ARG:NH2	1.65	1.11
1:A:276:G:N2	1:A:416:C:O2'	1.82	1.11
1:A:1811:A:OP1	19:E:146:ARG:NH2	1.82	1.11
28:I:48:ILE:HD11	28:I:109:ARG:HH21	0.94	1.11
1:A:133:A:N6	1:A:162:A:N1	1.98	1.10
1:A:2279:U:OP2	16:X:73:LYS:CB	1.99	1.10
3:B:92:U:OP2	7:O:16:ARG:NH2	1.84	1.10
1:A:313:A:C2	1:A:323:G:N1	2.20	1.10
1:A:356:A:H2'	1:A:357:G:H8	1.16	1.10
1:A:1002:G:C5'	12:T:201:LYS:HZ1	1.63	1.10
1:A:2113:G:N2	1:A:2204:A:N1	1.97	1.10
3:B:16:G:O6	3:B:111:G:N3	1.83	1.10
3:B:91:G:N1	7:O:38:GLU:OE2	1.84	1.10
1:A:140:G:C6	1:A:155:A:N1	2.18	1.10

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:857:G:N2	1:A:961:G:N3	1.98	1.10
1:A:1885:C:N4	6:N:253:ALA:HB2	1.66	1.10
6:N:202:GLY:HA2	6:N:221:ALA:CA	1.81	1.10
1:A:279:A:H62	1:A:379:C:N4	1.50	1.10
26:G:193:ALA:O	26:G:197:TRP:HB2	1.48	1.10
19:E:237:ILE:HD11	19:E:239:ARG:HB2	1.15	1.10
1:A:639:A:C5	6:N:201:LEU:CD1	2.35	1.09
6:N:143:LEU:HG	6:N:146:ILE:HD11	1.13	1.09
1:A:1702:G:O2'	5:M:6:THR:HG22	1.50	1.09
6:N:162:LEU:HD12	6:N:203:GLU:OE1	1.52	1.09
14:V:104:TYR:HD1	18:Z:142:ARG:HD2	1.05	1.09
1:A:2107:G:OP1	29:J:72:GLY:CA	1.99	1.09
6:N:200:ILE:HD11	6:N:212:ILE:HG21	1.34	1.09
6:N:202:GLY:CA	6:N:221:ALA:HB2	1.83	1.09
12:T:171:TYR:CE2	12:T:231:PRO:CB	2.34	1.09
1:A:857:G:N3	1:A:961:G:C2	2.21	1.09
1:A:903:G:H2'	1:A:904:U:H5"	1.31	1.09
1:A:1885:C:C4	6:N:253:ALA:HB2	1.88	1.09
1:A:2211:U:C5	1:A:2241:G:C6	2.39	1.09
6:N:156:LYS:HZ1	6:N:215:ARG:NH1	1.30	1.09
1:A:368:U:C2	1:A:369:U:H5	1.71	1.09
2:C:36:A:H2	25:F:274:ARG:CZ	1.65	1.09
11:S:91:LEU:HD11	12:T:175:PRO:CB	1.75	1.09
3:B:41:U:C2'	3:B:46:A:N6	2.14	1.08
6:N:156:LYS:NZ	6:N:215:ARG:HH11	1.37	1.08
10:R:123:MET:HE1	25:F:97:LEU:O	1.27	1.08
1:A:932:A:C4'	16:X:85:GLN:NE2	2.15	1.08
1:A:2279:U:P	16:X:73:LYS:HG3	1.94	1.08
3:B:8:G:OP2	9:Q:76:PHE:CZ	2.05	1.08
1:A:2157:U:C2	1:A:2163:G:N2	2.21	1.08
16:X:128:TYR:HB2	16:X:134:LYS:HD2	1.09	1.08
1:A:356:A:H2'	1:A:357:G:C8	1.89	1.08
1:A:639:A:N7	6:N:201:LEU:CD1	2.15	1.08
1:A:2120:U:O4	1:A:2197:A:C2	2.06	1.08
16:X:122:LEU:HD11	16:X:140:ARG:CG	1.70	1.08
17:Y:124:LYS:O	17:Y:128:THR:HG23	1.53	1.08
1:A:504:G:H4'	13:U:37:TYR:HB2	1.35	1.08
1:A:858:G:H2'	1:A:859:A:H8	1.17	1.08
1:A:2320:G:H2'	1:A:2321:G:C8	1.89	1.08
16:X:77:LEU:HD11	16:X:97:ARG:NH1	1.66	1.08
2:C:37:C:C2	25:F:143:ARG:NH2	2.22	1.07

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:81:ARG:O	6:N:84:ASN:ND2	1.88	1.07
1:A:274:G:C6	1:A:433:C:H6	1.45	1.07
1:A:330:U:C4	26:G:218:LYS:NZ	2.18	1.07
2:C:104:A:C2	2:C:105:A:C6	2.43	1.07
16:X:122:LEU:CD1	16:X:140:ARG:HG3	1.79	1.07
1:A:274:G:O6	1:A:433:C:H3'	0.89	1.07
1:A:289:A:H2'	1:A:290:A:C8	1.89	1.07
1:A:290:A:H2'	1:A:291:G:C8	1.89	1.07
1:A:2113:G:N2	1:A:2204:A:H61	1.49	1.07
1:A:2322:A:C6	27:H:204:GLY:HA3	1.90	1.07
15:W:170:THR:HG22	15:W:171:PRO:HD3	1.32	1.07
1:A:416:C:O2	1:A:418:G:C5	2.07	1.07
1:A:669:C:H2'	1:A:670:A:C8	1.89	1.07
1:A:856:U:C6	1:A:962:G:N2	1.95	1.07
2:C:40:U:C4	2:C:87:A:N6	2.21	1.07
4:L:105:ALA:HB3	4:L:147:VAL:HG21	1.35	1.07
6:N:165:ILE:CG1	6:N:206:LEU:HA	1.71	1.07
15:W:173:ARG:HH21	15:W:173:ARG:HB3	1.14	1.07
18:Z:76:LEU:CD1	18:Z:115:MET:HE3	1.83	1.07
1:A:292:C:H2'	1:A:293:G:C8	1.90	1.07
1:A:624:A:C4	1:A:625:C:C6	2.42	1.07
1:A:1521:G:C5	1:A:1543:G:N2	2.23	1.07
1:A:2109:C:C5	1:A:2110:U:N3	2.22	1.07
6:N:102:HIS:NE2	12:T:205:ASN:ND2	2.02	1.07
26:G:254:TYR:OH	26:G:258:ARG:NE	1.86	1.07
1:A:853:G:C6	1:A:965:G:C6	2.43	1.06
6:N:165:ILE:CD1	6:N:207:SER:H	1.66	1.06
1:A:822:U:C2'	6:N:100:ARG:O	2.03	1.06
1:A:1746:C:O2'	1:A:1747:C:H5'	1.53	1.06
2:C:104:A:H2'	2:C:105:A:C8	1.90	1.06
16:X:128:TYR:CG	16:X:134:LYS:HG3	1.89	1.06
1:A:83:A:N7	1:A:98:G:O6	1.89	1.06
1:A:313:A:H2	1:A:323:G:N1	1.50	1.06
1:A:1482:C:H2'	1:A:1483:G:C8	1.89	1.06
1:A:1499:G:H1	1:A:1546:C:N4	1.51	1.06
1:A:2186:U:OP2	1:A:2188:C:C5	2.07	1.06
3:B:87:G:O2'	3:B:88:G:H5'	1.55	1.06
1:A:545:U:O2'	11:S:49:ASP:OD2	1.71	1.06
1:A:890:G:H2'	1:A:891:G:H8	1.20	1.06
1:A:44:G:O2'	1:A:200:G:C8	2.09	1.06
1:A:160:A:C2	1:A:161:G:N7	2.24	1.06

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:274:G:C6	1:A:433:C:C5	2.40	1.06
1:A:388:C:N4	1:A:410:G:H1	1.54	1.06
1:A:887:G:N2	1:A:909:A:N1	2.02	1.06
1:A:1521:G:N7	1:A:1543:G:N2	2.03	1.06
6:N:154:LEU:N	6:N:155:PRO:CD	2.19	1.06
1:A:913:G:H2'	1:A:914:A:C8	1.91	1.05
1:A:2500:C:N3	7:O:124:LYS:NZ	2.04	1.05
19:E:226:HIS:CE1	19:E:228:HIS:HD2	1.74	1.05
29:J:76:ASN:O	29:J:80:PRO:CD	2.03	1.05
1:A:883:C:H2'	1:A:884:G:C8	1.90	1.05
11:S:91:LEU:HG	12:T:175:PRO:CA	1.85	1.05
14:V:104:TYR:CD1	18:Z:142:ARG:HD2	1.90	1.05
1:A:82:G:OP2	15:W:157:LYS:HE2	1.54	1.05
1:A:141:C:N3	1:A:153:G:N1	2.03	1.05
1:A:1479:U:H4'	1:A:1480:A:H5"	1.33	1.05
1:A:1887:G:H2'	1:A:1888:G:C8	1.91	1.05
2:C:53:G:H22	10:R:144:ARG:NH1	1.55	1.05
4:L:217:LEU:HD12	4:L:218:PHE:N	1.72	1.05
6:N:154:LEU:H	6:N:155:PRO:CD	1.69	1.05
1:A:1269:G:N7	11:S:3:ARG:N	2.03	1.04
1:A:2075:G:OP2	26:G:119:LYS:HE3	1.56	1.04
1:A:2806:U:O2'	2:C:5:A:N3	1.89	1.04
3:B:41:U:O2'	3:B:46:A:N6	1.90	1.04
27:H:188:GLN:HE21	27:H:188:GLN:HA	1.17	1.04
1:A:2211:U:H5	1:A:2241:G:C6	1.73	1.04
14:V:106:ARG:O	14:V:107:ARG:HG2	1.55	1.04
1:A:234:C:H6	6:N:142:LYS:NZ	1.43	1.04
1:A:1159:G:C4	4:L:176:HIS:ND1	2.24	1.04
1:A:2322:A:C2	27:H:186:ARG:NH1	2.25	1.04
3:B:41:U:H2'	3:B:46:A:N6	1.73	1.04
6:N:176:VAL:HG12	6:N:177:SER:H	1.20	1.04
1:A:858:G:C2'	1:A:859:A:H5'	1.85	1.04
1:A:1539:C:H2'	1:A:1540:C:C6	1.92	1.04
1:A:2233:G:H2'	1:A:2234:G:H8	1.09	1.04
2:C:40:U:H2'	2:C:41:A:C8	1.92	1.04
16:X:128:TYR:CE2	16:X:132:LYS:CB	2.41	1.04
18:Z:76:LEU:HD12	18:Z:115:MET:CE	1.86	1.04
28:I:48:ILE:CG1	28:I:90:LEU:O	2.03	1.04
1:A:255:A:OP2	1:A:271:G:N2	1.88	1.03
1:A:2809:U:H2'	1:A:2810:A:H4'	1.05	1.03
6:N:158:VAL:HG11	6:N:201:LEU:HD21	1.36	1.03

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:329:C:H2'	26:G:222:ASN:HD22	0.87	1.03
2:C:37:C:N3	25:F:143:ARG:NH2	2.06	1.03
3:B:39:C:N4	3:B:45:G:H1	1.56	1.03
1:A:912:C:H2'	1:A:913:G:C8	1.92	1.03
1:A:1596:U:O2'	1:A:1597:C:H5'	1.56	1.03
1:A:1600:A:C2	19:E:209:TRP:CZ3	2.47	1.03
1:A:2304:A:N6	1:A:2363:A:H62	1.56	1.03
1:A:898:G:C8	1:A:899:A:N7	2.25	1.03
1:A:1529:A:N1	1:A:1537:U:N3	2.06	1.03
1:A:1829:A:H4'	1:A:1830:U:C5'	1.89	1.03
10:R:141:PRO:HD2	10:R:206:ILE:HD11	1.40	1.03
1:A:279:A:C5	1:A:379:C:N4	2.27	1.02
1:A:1879:U:O4	6:N:252:ARG:NH2	1.92	1.02
1:A:2213:A:C2	1:A:2242:A:C2	2.47	1.02
1:A:5:A:H2'	1:A:6:A:C8	1.94	1.02
1:A:96:C:H2'	1:A:97:A:C8	1.95	1.02
1:A:152:G:C2	1:A:153:G:C8	2.47	1.02
1:A:912:C:H2'	1:A:913:G:H8	1.20	1.02
1:A:1083:G:N2	1:A:1132:C:N3	2.06	1.02
1:A:1635:C:H4'	14:V:106:ARG:NH2	1.73	1.02
1:A:2351:G:C4	9:Q:64:VAL:HG22	1.95	1.02
1:A:2479:U:O4	1:A:2505:A:N1	1.92	1.02
3:B:91:G:N2	7:O:38:GLU:HG3	1.74	1.02
1:A:1178:G:C1'	11:S:83:HIS:NE2	2.23	1.02
6:N:202:GLY:HA2	6:N:221:ALA:CB	1.90	1.02
1:A:1361:U:O4	14:V:168:PRO:HB3	1.58	1.02
1:A:1745:C:C4	1:A:1746:C:N4	2.28	1.02
3:B:35:A:C2	3:B:51:G:N3	2.28	1.02
1:A:259:C:H2'	1:A:260:G:H8	1.25	1.01
1:A:2075:G:OP2	26:G:119:LYS:HE2	1.56	1.01
1:A:2322:A:C6	27:H:204:GLY:CA	2.43	1.01
6:N:197:PRO:HB3	6:N:215:ARG:HD2	1.40	1.01
1:A:1808:C:H2'	1:A:1829:A:H61	1.22	1.01
1:A:2154:C:N4	1:A:2165:G:H22	1.58	1.01
6:N:211:GLN:HA	6:N:231:SER:O	1.60	1.01
1:A:139:U:N3	1:A:140:G:N7	2.09	1.01
1:A:1689:C:H41	8:P:19:ARG:NE	1.55	1.01
11:S:91:LEU:HG	12:T:175:PRO:CB	1.90	1.01
19:E:213:ARG:HD3	19:E:214:PRO:HD2	1.43	1.01
1:A:1023:C:C2	4:L:102:PRO:CD	2.44	1.01
1:A:1516:G:H3'	1:A:1517:G:H5"	1.39	1.01

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1751:A:C2	1:A:1753:A:N7	2.27	1.01
1:A:2074:A:H62	26:G:125:ARG:HH22	1.05	1.01
1:A:133:A:N6	1:A:162:A:H2	1.26	1.01
1:A:276:G:N2	1:A:416:C:HO2'	1.58	1.01
1:A:2328:A:O4'	27:H:127:ILE:CD1	2.09	1.01
1:A:2731:C:OP1	8:P:25:ASP:OD2	1.79	1.01
6:N:205:GLU:CD	6:N:224:LYS:HD2	1.80	1.01
19:E:258:ARG:C	19:E:259:ASN:HD22	1.64	1.01
1:A:853:G:C6	1:A:965:G:O6	2.14	1.00
1:A:1830:U:N3	19:E:197:ASN:ND2	2.08	1.00
2:C:53:G:H8	2:C:70:G:H21	1.01	1.00
1:A:60:U:O2'	18:Z:94:ARG:CZ	1.94	1.00
1:A:883:C:O4'	7:O:65:TRP:HZ3	1.45	1.00
1:A:1076:A:N1	1:A:1139:A:O2'	1.93	1.00
1:A:2393:A:H2	9:Q:166:PHE:CZ	1.78	1.00
1:A:2809:U:C2'	1:A:2810:A:H4'	1.90	1.00
6:N:159:PRO:HB3	6:N:187:ILE:HD11	1.04	1.00
12:T:96:PRO:C	12:T:98:PRO:CD	2.29	1.00
1:A:278:G:N2	1:A:380:C:N3	2.10	1.00
1:A:843:C:H4'	6:N:125:ILE:HD11	1.39	1.00
1:A:1393:U:O2'	1:A:2230:A:H2'	1.61	1.00
1:A:1529:A:C2	1:A:1537:U:C2	2.50	1.00
2:C:30:A:N1	2:C:83:C:C2'	2.25	1.00
19:E:265:PHE:CD1	19:E:266:ILE:HG13	1.97	1.00
1:A:1248:G:OP1	11:S:13:ARG:NH2	1.93	1.00
1:A:1472:A:N6	1:A:1479:U:C4	2.30	1.00
1:A:2480:U:O4	1:A:2504:A:N1	1.95	1.00
11:S:91:LEU:CG	12:T:175:PRO:CB	2.40	1.00
1:A:626:C:C6	1:A:627:C:C5	2.49	1.00
16:X:121:GLY:HA3	16:X:138:TYR:O	1.61	1.00
1:A:295:C:H2'	1:A:296:G:H8	1.23	1.00
1:A:2798:G:N1	4:L:201:GLU:OE2	1.94	1.00
10:R:116:ARG:CZ	10:R:116:ARG:HA	1.91	1.00
1:A:648:G:N7	6:N:199:LYS:HE2	1.76	1.00
6:N:172:GLU:HA	6:N:210:LEU:CD2	1.92	0.99
12:T:171:TYR:HD2	12:T:231:PRO:CA	1.76	0.99
1:A:1023:C:C2	4:L:102:PRO:HD2	1.96	0.99
1:A:1470:A:C2	1:A:1482:C:N3	2.30	0.99
15:W:161:LEU:CD1	15:W:168:VAL:CG2	2.40	0.99
1:A:274:G:O6	1:A:433:C:C6	2.15	0.99
1:A:1475:U:H1'	8:P:70:LEU:HD13	1.42	0.99

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1812:A:H2'	1:A:1813:A:C8	1.98	0.99
1:A:629:C:OP1	26:G:158:ARG:NE	1.95	0.99
13:U:149:LEU:HD23	13:U:149:LEU:H	1.25	0.99
14:V:116:GLN:CA	18:Z:91:ARG:NH2	2.23	0.99
1:A:2189:C:H2'	1:A:2190:A:C8	1.98	0.99
12:T:171:TYR:CD2	12:T:231:PRO:HA	1.97	0.99
1:A:259:C:H2'	1:A:260:G:C8	1.98	0.99
1:A:639:A:N6	6:N:201:LEU:CD1	2.26	0.99
2:C:40:U:N3	2:C:87:A:C6	2.31	0.99
1:A:540:A:P	4:L:212:ARG:NH1	2.32	0.99
1:A:329:C:C2'	26:G:222:ASN:HD22	1.60	0.99
6:N:165:ILE:HG13	6:N:206:LEU:HA	1.00	0.99
1:A:2739:A:C2	2:C:77:A:N6	2.31	0.99
2:C:38:G:OP2	25:F:144:LEU:HD22	1.63	0.99
1:A:102:U:H2'	1:A:103:C:H5'	1.42	0.99
1:A:139:U:C2	1:A:140:G:C8	2.51	0.99
1:A:143:G:H2'	1:A:144:A:H5'	1.42	0.98
1:A:1211:G:OP1	6:N:109:SER:OG	1.79	0.98
1:A:1470:A:C2	1:A:1482:C:O2	2.16	0.98
1:A:2191:C:H2'	1:A:2192:U:H5'	1.45	0.98
2:C:33:A:H1'	2:C:34:U:H5'	1.44	0.98
4:L:175:ARG:NH2	4:L:184:LYS:HD3	1.78	0.98
16:X:131:ASP:OD1	16:X:132:LYS:NZ	1.94	0.98
6:N:205:GLU:OE2	6:N:224:LYS:CE	2.12	0.98
12:T:169:SER:HB2	12:T:233:SER:CB	1.93	0.98
1:A:1886:A:H2'	1:A:1887:G:H5'	1.45	0.98
1:A:2219:U:H3'	1:A:2220:G:C5'	1.92	0.98
6:N:154:LEU:N	6:N:155:PRO:HD3	1.78	0.98
2:C:40:U:H2'	2:C:41:A:H8	1.27	0.98
2:C:40:U:O4	2:C:87:A:N6	1.95	0.98
1:A:932:A:O4'	16:X:85:GLN:NE2	1.93	0.98
1:A:267:C:H2'	1:A:268:G:H8	1.26	0.98
1:A:317:G:H21	1:A:338:G:H21	1.08	0.98
1:A:330:U:H3	26:G:218:LYS:CE	1.67	0.98
1:A:609:G:C5'	26:G:79:LYS:HD2	1.93	0.98
1:A:82:G:OP2	15:W:157:LYS:HE3	1.62	0.98
1:A:1444:A:N1	1:A:1609:U:O4	1.97	0.98
1:A:582:A:OP2	12:T:203:LYS:NZ	1.96	0.98
1:A:1479:U:H4'	1:A:1480:A:C5'	1.93	0.98
1:A:1876:A:H3'	1:A:1877:C:H6	1.28	0.98
1:A:145:A:H3'	1:A:146:U:H5"	1.45	0.98

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:639:A:C6	6:N:201:LEU:CD1	2.47	0.98
1:A:934:A:H1'	1:A:935:U:C5'	1.93	0.98
1:A:274:G:N1	1:A:433:C:C6	2.28	0.97
1:A:1522:A:H2'	1:A:1523:A:H8	1.29	0.97
1:A:144:A:H62	1:A:150:U:H3	1.10	0.97
1:A:330:U:C2	26:G:218:LYS:NZ	2.26	0.97
1:A:1083:G:H1	1:A:1132:C:H42	1.11	0.97
11:S:91:LEU:HG	12:T:175:PRO:CG	1.93	0.97
12:T:171:TYR:CD2	12:T:231:PRO:HB3	1.99	0.97
1:A:822:U:C5	1:A:1272:A:N1	2.32	0.97
1:A:857:G:N3	1:A:961:G:N2	2.12	0.97
1:A:861:A:N6	1:A:935:U:O4	1.96	0.97
1:A:1800:C:O2'	19:E:204:ALA:HB1	1.63	0.97
1:A:2213:A:C2	1:A:2242:A:H2	1.80	0.97
2:C:33:A:H1'	2:C:34:U:C5'	1.93	0.97
1:A:2116:C:H2'	1:A:2117:U:H5'	1.46	0.97
1:A:2215:C:O2'	1:A:2216:U:H5'	1.64	0.97
1:A:2304:A:C6	1:A:2363:A:N6	2.33	0.97
1:A:2213:A:H61	1:A:2241:G:H21	1.11	0.97
2:C:36:A:C2	25:F:274:ARG:NH1	2.33	0.97
4:L:175:ARG:HH21	4:L:184:LYS:HD3	1.26	0.97
18:Z:118:VAL:CG1	18:Z:122:ARG:NH2	2.26	0.97
1:A:911:U:H2'	1:A:912:C:C6	1.99	0.97
1:A:1829:A:H4'	1:A:1830:U:H5'	1.46	0.97
1:A:1885:C:C5	6:N:253:ALA:HB2	2.00	0.97
1:A:2129:G:H2'	1:A:2131:U:H5	1.27	0.96
1:A:2205:G:H2'	1:A:2206:A:H8	1.29	0.96
4:L:175:ARG:NH2	4:L:184:LYS:NZ	2.13	0.96
1:A:624:A:N9	1:A:625:C:H5	1.62	0.96
1:A:856:U:H6	1:A:962:G:N2	1.22	0.96
12:T:169:SER:HA	12:T:233:SER:HB2	1.44	0.96
2:C:36:A:C2	25:F:274:ARG:CZ	2.48	0.96
16:X:128:TYR:HB3	16:X:134:LYS:HG3	0.99	0.96
1:A:616:U:OP2	26:G:155:LYS:NZ	1.98	0.96
1:A:1526:G:N2	1:A:1540:C:O2	1.97	0.96
1:A:1691:A:N6	1:A:2019:G:N3	2.14	0.96
1:A:2304:A:C5	1:A:2363:A:N6	2.34	0.96
4:L:105:ALA:CB	4:L:147:VAL:HG21	1.94	0.96
1:A:639:A:H62	6:N:201:LEU:HD13	1.22	0.96
1:A:2432:G:O3'	6:N:145:GLY:HA2	1.65	0.96
1:A:624:A:C5	1:A:625:C:C5	2.52	0.96

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1178:G:H1'	11:S:83:HIS:NE2	1.80	0.96
1:A:2328:A:O4'	27:H:127:ILE:HD11	1.65	0.96
12:T:113:LYS:HA	12:T:113:LYS:HZ3	1.27	0.96
15:W:159:ARG:CB	15:W:168:VAL:HB	1.95	0.96
1:A:44:G:C8	1:A:200:G:H2'	2.00	0.96
1:A:524:A:O2'	11:S:11:ARG:NH2	1.97	0.96
1:A:140:G:N1	1:A:154:C:N3	2.14	0.96
12:T:113:LYS:HA	12:T:113:LYS:NZ	1.79	0.96
1:A:2723:A:O2'	8:P:74:ARG:HD3	1.65	0.96
1:A:159:A:H1'	1:A:160:A:OP1	1.64	0.95
1:A:351:C:H2'	1:A:352:C:C6	2.01	0.95
1:A:639:A:C5	6:N:201:LEU:HD13	1.98	0.95
1:A:888:C:N4	1:A:908:A:C2	2.24	0.95
1:A:1881:A:N7	6:N:255:GLU:OE1	1.99	0.95
1:A:2186:U:P	1:A:2188:C:H41	1.88	0.95
1:A:83:A:N6	1:A:98:G:C5	2.32	0.95
1:A:329:C:C1'	26:G:222:ASN:HD21	1.79	0.95
14:V:109:LEU:HD12	14:V:141:ARG:O	1.66	0.95
1:A:1470:A:C2	1:A:1482:C:C2	2.54	0.95
11:S:91:LEU:CG	12:T:175:PRO:HA	1.95	0.95
1:A:2129:G:H1'	1:A:2180:G:N2	1.80	0.95
1:A:2186:U:OP1	1:A:2188:C:N4	1.97	0.95
3:B:5:C:O2	3:B:119:G:N1	1.97	0.95
3:B:42:C:OP1	3:B:44:C:H5	1.48	0.95
3:B:91:G:H22	7:O:38:GLU:HG3	1.25	0.95
1:A:1879:U:C4	6:N:252:ARG:NH2	2.33	0.95
3:B:10:G:OP1	9:Q:63:LYS:HD2	1.67	0.95
29:J:76:ASN:O	29:J:80:PRO:CG	2.13	0.95
1:A:152:G:N3	1:A:153:G:C8	2.35	0.95
1:A:256:A:H8	1:A:380:C:O2'	1.48	0.95
6:N:202:GLY:HA2	6:N:221:ALA:HB2	1.47	0.95
7:O:26:ARG:HG3	7:O:27:ILE:H	1.31	0.95
1:A:276:G:H22	1:A:416:C:HO2'	0.99	0.95
1:A:822:U:O2'	1:A:1271:G:O2'	1.85	0.95
2:C:54:A:OP2	2:C:70:G:N2	2.00	0.95
1:A:140:G:O6	1:A:154:C:N4	1.99	0.95
1:A:636:C:H2'	1:A:637:G:H8	1.29	0.95
1:A:2698:C:OP1	25:F:285:LYS:CE	2.15	0.94
1:A:1525:G:N2	1:A:1541:U:O2	2.00	0.94
1:A:2579:U:O2'	5:M:23:ARG:NH1	1.99	0.94
1:A:1041:G:N2	1:A:1177:U:O2	2.00	0.94

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1080:C:H3'	1:A:1081:C:H5"	1.47	0.94
6:N:175:GLU:O	6:N:213:LYS:NZ	2.00	0.94
28:I:48:ILE:CD1	28:I:109:ARG:HH21	1.80	0.94
1:A:83:A:C2	1:A:100:G:N2	2.34	0.94
15:W:166:GLU:OE1	15:W:166:GLU:N	2.01	0.94
16:X:128:TYR:HB3	16:X:134:LYS:CB	1.96	0.94
1:A:1532:G:H1'	1:A:1611:G:O2'	1.67	0.94
1:A:46:C:H2'	1:A:47:G:H5'	1.46	0.94
1:A:857:G:C2	1:A:961:G:C2	2.56	0.94
1:A:1024:A:O2'	11:S:94:ARG:HD2	1.68	0.94
12:T:96:PRO:HB2	12:T:98:PRO:HD3	1.45	0.94
1:A:330:U:N3	26:G:218:LYS:HE2	1.72	0.94
1:A:2113:G:N2	1:A:2204:A:N6	2.08	0.94
1:A:2191:C:C2'	1:A:2192:U:H5'	1.96	0.94
1:A:2129:G:H2'	1:A:2131:U:C5	2.03	0.94
1:A:2213:A:N1	1:A:2214:C:C2	2.35	0.94
1:A:2646:U:O2'	1:A:2647:A:O5'	1.85	0.94
16:X:122:LEU:HG	16:X:140:ARG:CB	1.98	0.94
18:Z:118:VAL:CG1	18:Z:122:ARG:HH21	1.81	0.94
1:A:250:A:H4'	1:A:251:G:OP1	1.64	0.94
1:A:539:A:OP2	4:L:215:ARG:NH1	2.01	0.94
1:A:1499:G:N2	1:A:1546:C:C2	2.34	0.94
25:F:142:GLU:OE2	25:F:167:HIS:ND1	2.01	0.94
1:A:1187:G:N3	12:T:131:SER:OG	1.99	0.93
1:A:161:G:O2'	1:A:162:A:O5'	1.85	0.93
1:A:213:A:H3'	6:N:239:LYS:O	1.69	0.93
1:A:880:U:H2'	1:A:881:U:H5'	1.49	0.93
1:A:2351:G:C5	9:Q:64:VAL:HG22	2.00	0.93
12:T:170:THR:N	12:T:233:SER:CB	1.94	0.93
18:Z:76:LEU:HD12	18:Z:115:MET:HE3	1.40	0.93
1:A:158:C:C5	1:A:159:A:N7	2.37	0.93
1:A:2320:G:H4'	27:H:175:PHE:HA	1.47	0.93
3:B:30:A:H2'	3:B:31:C:H6	1.29	0.93
6:N:253:ALA:O	6:N:255:GLU:N	2.02	0.93
12:T:169:SER:CA	12:T:233:SER:HB2	1.98	0.93
1:A:1504:C:H2'	1:A:1505:C:C6	2.03	0.93
1:A:2114:G:C6	1:A:2204:A:N1	2.37	0.93
1:A:2129:G:C2'	1:A:2131:U:H5	1.82	0.93
1:A:2213:A:C2	1:A:2214:C:N1	2.37	0.93
1:A:388:C:N4	1:A:410:G:N1	2.15	0.93
1:A:2213:A:C6	1:A:2242:A:C2	2.57	0.93

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:205:GLU:OE2	6:N:224:LYS:HE3	1.66	0.93
15:W:57:LYS:HA	15:W:61:LEU:O	1.69	0.93
6:N:160:ILE:HG12	6:N:201:LEU:HD12	1.50	0.93
16:X:128:TYR:CD2	16:X:132:LYS:CB	2.52	0.93
1:A:279:A:N6	1:A:379:C:N4	2.12	0.93
1:A:368:U:H2'	1:A:369:U:H6	1.31	0.93
1:A:1178:G:O4'	11:S:83:HIS:NE2	2.01	0.93
15:W:141:GLN:CG	15:W:166:GLU:OE2	2.17	0.93
1:A:1471:A:H2	1:A:1481:U:H3	1.16	0.93
1:A:2206:A:H2'	1:A:2207:A:C8	2.03	0.93
1:A:2322:A:C1'	27:H:186:ARG:CD	2.37	0.93
1:A:1876:A:H3'	1:A:1877:C:C6	2.02	0.92
3:B:7:G:N1	3:B:117:A:C2	2.37	0.92
16:X:153:ARG:HG2	16:X:153:ARG:HH11	1.32	0.92
1:A:416:C:O2	1:A:418:G:C4	2.22	0.92
1:A:2107:G:C5	1:A:2242:A:C8	2.56	0.92
1:A:2213:A:N1	1:A:2214:C:N3	2.17	0.92
6:N:143:LEU:CG	6:N:146:ILE:HD11	1.99	0.92
6:N:182:LYS:HE2	6:N:189:PRO:CG	1.99	0.92
12:T:197:VAL:HG23	12:T:210:ILE:HG13	1.50	0.92
1:A:890:G:H2'	1:A:891:G:C8	2.04	0.92
1:A:2213:A:H2	1:A:2214:C:C2	1.72	0.92
13:U:138:ASP:OD1	13:U:139:ILE:N	2.01	0.92
1:A:102:U:C2'	1:A:103:C:H5'	2.00	0.92
1:A:901:C:H2'	1:A:902:G:C4'	1.99	0.92
28:I:48:ILE:HG13	28:I:90:LEU:HB2	1.51	0.92
1:A:983:G:N2	7:O:82:ARG:HH12	1.53	0.92
1:A:1689:C:C5'	8:P:12:LYS:HE2	2.00	0.92
1:A:276:G:O6	1:A:433:C:N4	2.02	0.92
2:C:104:A:H2'	2:C:105:A:H8	1.29	0.92
11:S:91:LEU:HG	12:T:175:PRO:HA	1.47	0.92
11:S:91:LEU:CG	12:T:175:PRO:HB3	2.00	0.92
16:X:133:LYS:HE2	16:X:133:LYS:HA	1.49	0.92
16:X:143:GLN:C	16:X:145:GLU:OE1	2.08	0.92
1:A:44:G:C8	1:A:200:G:C2'	2.52	0.92
1:A:1178:G:O4'	11:S:83:HIS:CD2	2.23	0.92
1:A:2316:G:H1	1:A:2334:C:H42	1.14	0.92
12:T:174:THR:O	12:T:176:ILE:N	2.02	0.92
13:U:151:SER:O	13:U:152:LEU:HD23	1.68	0.92
1:A:609:G:H5"	26:G:79:LYS:CE	2.00	0.92
1:A:860:C:H2'	1:A:861:A:H8	1.35	0.92

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2764:U:O4	1:A:2774:U:O4	1.87	0.92
12:T:96:PRO:O	12:T:98:PRO:CD	2.17	0.92
1:A:93:A:HO2'	18:Z:102:PRO:HG2	1.13	0.92
1:A:858:G:H2'	1:A:859:A:H5'	1.49	0.92
1:A:1470:A:N1	1:A:1482:C:N3	2.17	0.92
1:A:2318:C:H2'	1:A:2319:C:C6	2.04	0.92
12:T:171:TYR:HE2	12:T:231:PRO:CB	1.73	0.92
1:A:295:C:H2'	1:A:296:G:C8	2.03	0.91
1:A:1833:G:OP1	19:E:50:ARG:NH1	2.03	0.91
1:A:2247:C:H1'	17:Y:102:ASN:HB3	1.50	0.91
12:T:169:SER:CB	12:T:233:SER:OG	2.18	0.91
1:A:2116:C:H42	1:A:2201:G:H1	1.07	0.91
1:A:2219:U:HO2'	1:A:2229:U:H3	1.10	0.91
1:A:44:G:O2'	1:A:200:G:N7	1.99	0.91
1:A:131:C:N4	14:V:104:TYR:CD2	2.38	0.91
25:F:145:ARG:HH21	25:F:145:ARG:HG3	1.33	0.91
1:A:874:G:OP2	7:O:23:ARG:NH2	2.03	0.91
1:A:1482:C:H2'	1:A:1483:G:H8	1.29	0.91
1:A:96:C:H2'	1:A:97:A:H8	1.31	0.91
1:A:822:U:C6	1:A:1272:A:C2	2.58	0.91
1:A:2114:G:O6	1:A:2204:A:C6	2.24	0.91
1:A:2322:A:H61	27:H:204:GLY:HA3	1.30	0.91
25:F:142:GLU:OE2	25:F:167:HIS:HE1	1.42	0.91
1:A:2151:G:C6	1:A:2152:C:N4	2.39	0.91
11:S:14:ARG:HD3	11:S:32:THR:HG21	1.52	0.91
12:T:91:ASP:HB2	13:U:142:PHE:CZ	2.05	0.91
1:A:47:G:N2	1:A:162:A:OP2	2.03	0.91
1:A:639:A:N7	6:N:201:LEU:HD12	1.86	0.91
6:N:154:LEU:H	6:N:155:PRO:HD2	1.33	0.91
13:U:153:THR:O	13:U:157:LEU:HG	1.69	0.91
1:A:387:G:H3'	1:A:388:C:H5"	1.52	0.91
1:A:2320:G:H2'	1:A:2321:G:H8	1.28	0.91
1:A:946:A:N6	1:A:950:A:H61	1.68	0.90
16:X:128:TYR:CA	16:X:134:LYS:HD3	2.01	0.90
1:A:381:C:O2	1:A:416:C:H5	1.45	0.90
1:A:951:C:H2'	1:A:952:A:C8	2.05	0.90
1:A:1159:G:N7	4:L:176:HIS:HE1	1.69	0.90
1:A:1278:U:O2'	26:G:135:PRO:HD3	1.71	0.90
3:B:35:A:C2	3:B:51:G:C4	2.60	0.90
1:A:1002:G:H5'	12:T:201:LYS:HZ1	0.77	0.90
1:A:2220:G:N2	1:A:2236:C:O2	2.05	0.90

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2236:C:H2'	1:A:2237:A:H5"	1.51	0.90
15:W:170:THR:CG2	15:W:171:PRO:HD3	2.01	0.90
1:A:243:U:O2	6:N:194:ARG:NH1	2.04	0.90
1:A:2213:A:C4	1:A:2242:A:N1	2.39	0.90
2:C:40:U:C2	2:C:87:A:N1	2.39	0.90
1:A:377:G:O2'	1:A:378:A:O5'	1.89	0.90
6:N:165:ILE:HD11	6:N:207:SER:H	1.37	0.90
15:W:109:LYS:O	15:W:122:ILE:HG23	1.70	0.90
1:A:135:C:C5	1:A:161:G:C6	2.60	0.90
3:B:36:A:C6	3:B:45:G:C5	2.59	0.90
16:X:122:LEU:HD11	16:X:140:ARG:HG3	0.91	0.90
1:A:919:A:H62	7:O:12:GLN:HA	1.35	0.90
1:A:44:G:H3'	1:A:45:A:C5'	2.02	0.90
1:A:624:A:C8	1:A:625:C:H5	1.90	0.90
1:A:2809:U:H2'	1:A:2810:A:C4'	2.00	0.90
12:T:96:PRO:HB2	12:T:98:PRO:CD	2.01	0.90
1:A:355:A:C2'	1:A:356:A:H5'	2.00	0.90
1:A:843:C:H4'	6:N:125:ILE:HD13	1.51	0.90
1:A:2117:U:O2	1:A:2200:A:N1	2.05	0.90
1:A:2124:G:N2	1:A:2194:U:C2	2.38	0.90
6:N:202:GLY:HA2	6:N:221:ALA:HA	1.52	0.90
15:W:173:ARG:HB3	15:W:173:ARG:NH2	1.86	0.90
1:A:599:C:H2'	1:A:600:A:H8	1.37	0.89
1:A:960:A:N1	16:X:154:LYS:NZ	2.19	0.89
3:B:36:A:N6	3:B:45:G:C8	2.41	0.89
1:A:260:G:C6	1:A:268:G:N1	2.40	0.89
1:A:902:G:H2'	1:A:903:G:H5"	1.51	0.89
2:C:104:A:N1	2:C:105:A:N6	2.20	0.89
1:A:416:C:O2	1:A:418:G:C6	2.24	0.89
1:A:2647:A:H61	1:A:2806:U:H3	1.12	0.89
6:N:159:PRO:HD3	6:N:199:LYS:O	1.69	0.89
12:T:88:VAL:O	12:T:89:LEU:HD23	1.73	0.89
1:A:1522:A:H2'	1:A:1523:A:C8	2.07	0.89
1:A:2213:A:N1	1:A:2242:A:C2	2.40	0.89
4:L:175:ARG:HH22	4:L:184:LYS:HZ1	1.14	0.89
12:T:96:PRO:CB	12:T:98:PRO:HD3	2.01	0.89
1:A:2647:A:N6	1:A:2806:U:H3	1.69	0.89
3:B:36:A:N6	3:B:45:G:C5	2.41	0.89
1:A:1024:A:OP2	12:T:132:ARG:HD2	1.71	0.89
1:A:1534:A:H2'	1:A:1535:A:H5"	1.52	0.89
1:A:2330:U:O4'	27:H:90:ASN:ND2	2.06	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:16:G:O6	3:B:111:G:N2	2.05	0.89
11:S:91:LEU:CG	12:T:175:PRO:CA	2.48	0.89
12:T:91:ASP:CB	13:U:142:PHE:CZ	2.56	0.89
1:A:368:U:H2'	1:A:369:U:C6	2.07	0.89
1:A:624:A:N3	1:A:625:C:H6	1.69	0.89
1:A:2117:U:H2'	1:A:2118:U:C6	2.06	0.89
1:A:131:C:H5	14:V:104:TYR:CE2	1.90	0.89
1:A:160:A:N3	1:A:161:G:N7	2.21	0.89
1:A:1690:A:H5"	1:A:1690:A:N3	1.87	0.89
2:C:28:U:H1'	2:C:30:A:C8	2.07	0.89
6:N:106:GLN:O	6:N:110:CYS:HA	1.73	0.89
1:A:1532:G:N3	1:A:1611:G:H1'	1.87	0.89
6:N:195:ARG:O	6:N:197:PRO:HD3	1.73	0.89
1:A:285:A:O2'	1:A:286:U:OP1	1.90	0.88
1:A:981:G:OP2	7:O:16:ARG:CD	2.19	0.88
1:A:636:C:H2'	1:A:637:G:C8	2.08	0.88
1:A:1083:G:H1	1:A:1132:C:N4	1.71	0.88
1:A:1756:G:H2'	1:A:1757:G:H8	1.38	0.88
1:A:2114:G:O6	1:A:2204:A:N6	2.07	0.88
14:V:115:LEU:O	18:Z:91:ARG:NH2	2.06	0.88
15:W:67:ARG:HB3	15:W:67:ARG:NH1	1.88	0.88
26:G:234:LEU:HD23	26:G:235:ASN:N	1.89	0.88
1:A:329:C:C1'	26:G:222:ASN:ND2	2.35	0.88
1:A:2121:C:C4	1:A:2196:G:N2	2.41	0.88
13:U:150:GLU:O	13:U:152:LEU:N	2.06	0.88
1:A:291:G:O2'	1:A:292:C:H5'	1.74	0.88
1:A:1756:G:H2'	1:A:1757:G:C8	2.08	0.88
12:T:88:VAL:HG12	12:T:89:LEU:H	1.35	0.88
25:F:122:ILE:CG2	25:F:183:GLN:HA	2.03	0.88
1:A:858:G:H2'	1:A:859:A:C8	2.07	0.88
1:A:2213:A:C6	1:A:2242:A:N1	2.41	0.88
6:N:156:LYS:HZ3	6:N:215:ARG:HH11	0.91	0.88
1:A:1449:C:N4	1:A:1604:A:OP2	2.06	0.88
6:N:82:LEU:HD23	26:G:240:LEU:CD2	2.03	0.88
16:X:101:PHE:CD1	16:X:133:LYS:HB3	2.08	0.88
1:A:151:G:H2'	1:A:152:G:H8	1.38	0.88
1:A:274:G:N7	1:A:433:C:H5"	1.87	0.88
1:A:795:U:H5'	19:E:222:ASN:OD1	1.74	0.88
1:A:1545:G:C8	1:A:1546:C:H5	1.92	0.88
1:A:1689:C:N4	8:P:19:ARG:NE	2.20	0.88
1:A:2113:G:H22	1:A:2204:A:H61	0.89	0.88

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:8:G:N2	3:B:116:C:C2	2.41	0.88
1:A:2324:G:N2	1:A:2328:A:C8	2.42	0.88
12:T:174:THR:HG23	12:T:175:PRO:HD2	1.54	0.88
16:X:145:GLU:OE1	16:X:145:GLU:N	2.06	0.88
25:F:117:PHE:O	25:F:274:ARG:NH2	2.06	0.88
1:A:265:A:H5"	1:A:266:A:C8	2.09	0.88
1:A:495:A:O4'	15:W:110:HIS:HB3	1.74	0.88
1:A:1651:C:OP2	1:A:1653:C:N4	2.05	0.88
6:N:198:LEU:HD22	6:N:214:ALA:HB1	1.54	0.88
18:Z:118:VAL:HG12	18:Z:122:ARG:NH2	1.89	0.88
26:G:75:ALA:HB2	26:G:159:LEU:HD21	1.55	0.88
1:A:295:C:O2'	1:A:296:G:H5'	1.74	0.88
16:X:128:TYR:HB2	16:X:134:LYS:HD3	0.90	0.88
28:I:46:GLN:OE1	28:I:109:ARG:CD	2.22	0.88
1:A:626:C:C5	1:A:627:C:C4	2.61	0.87
1:A:2351:G:C8	9:Q:64:VAL:HG21	2.08	0.87
6:N:210:LEU:N	6:N:230:CYS:HB2	1.89	0.87
15:W:161:LEU:HD12	15:W:168:VAL:HG23	1.54	0.87
1:A:121:G:H2'	1:A:122:U:H5'	1.53	0.87
1:A:910:A:O2'	1:A:911:U:H5'	1.74	0.87
1:A:1603:A:H5'	19:E:55:LYS:CD	2.02	0.87
1:A:1634:C:H5"	14:V:145:LYS:NZ	1.89	0.87
1:A:2205:G:H2'	1:A:2206:A:C8	2.07	0.87
1:A:2213:A:H62	1:A:2241:G:N2	1.68	0.87
28:I:91:ARG:HA	28:I:109:ARG:HH22	1.38	0.87
1:A:858:G:O2'	1:A:859:A:H5'	1.74	0.87
1:A:891:G:O2'	1:A:892:C:H5'	1.74	0.87
1:A:495:A:H1'	15:W:122:ILE:HG12	1.57	0.87
1:A:2322:A:N1	27:H:204:GLY:CA	2.37	0.87
11:S:91:LEU:CD1	12:T:175:PRO:CA	2.52	0.87
12:T:103:TYR:CD2	12:T:106:ILE:HD12	2.09	0.87
16:X:122:LEU:O	16:X:137:VAL:HA	1.72	0.87
19:E:226:HIS:CE1	19:E:228:HIS:CD2	2.60	0.87
1:A:363:C:H2'	1:A:364:U:C6	2.08	0.87
1:A:1472:A:N6	1:A:1479:U:C5	2.42	0.87
1:A:1474:A:O2'	1:A:1475:U:OP1	1.92	0.87
1:A:1689:C:OP1	2:C:18:G:N1	2.06	0.87
4:L:175:ARG:HH22	4:L:184:LYS:HZ2	1.23	0.87
25:F:135:ASN:HD22	25:F:175:SER:HA	1.38	0.87
1:A:44:G:H8	1:A:200:G:H2'	1.40	0.87
1:A:49:G:O2'	18:Z:130:LYS:CD	2.23	0.87

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:287:A:H2'	1:A:288:C:C6	2.09	0.87
3:B:93:C:O2'	3:B:94:C:H5'	1.74	0.87
1:A:381:C:O2	1:A:416:C:N4	2.08	0.87
1:A:823:C:HO2'	1:A:1247:A:HO2'	1.04	0.87
1:A:2331:G:N2	27:H:182:SER:OG	2.06	0.87
1:A:292:C:H2'	1:A:293:G:H8	1.34	0.87
1:A:1219:U:O2	11:S:5:LYS:CE	2.23	0.87
1:A:1755:A:H2'	1:A:1756:G:H8	1.40	0.87
1:A:2322:A:O2'	1:A:2323:C:H5'	1.74	0.87
1:A:279:A:N7	1:A:379:C:C5	2.42	0.86
1:A:2117:U:O2	1:A:2200:A:C2	2.28	0.86
3:B:34:C:O2	3:B:52:G:C2	2.27	0.86
17:Y:87:ARG:HB3	17:Y:97:ARG:HE	1.40	0.86
27:H:106:ALA:HB1	27:H:140:ILE:HG21	1.57	0.86
1:A:103:C:O2'	1:A:104:C:H5'	1.74	0.86
1:A:143:G:C2'	1:A:144:A:H5'	2.05	0.86
1:A:553:G:H1	1:A:561:C:H42	1.23	0.86
25:F:144:LEU:CD1	25:F:166:ARG:HB2	2.04	0.86
1:A:2121:C:N4	1:A:2196:G:H22	1.72	0.86
28:I:42:ARG:HG3	28:I:44:GLY:H	1.37	0.86
1:A:909:A:H2'	1:A:910:A:C8	2.09	0.86
1:A:913:G:O2'	1:A:914:A:H5'	1.75	0.86
1:A:2109:C:H3'	1:A:2110:U:C5	2.09	0.86
2:C:85:U:O2'	2:C:86:A:H5'	1.76	0.86
6:N:159:PRO:CB	6:N:187:ILE:CD1	2.43	0.86
15:W:85:LYS:HD3	15:W:104:LEU:HD13	1.57	0.86
26:G:80:ALA:O	26:G:84:VAL:HG12	1.75	0.86
1:A:274:G:C2	1:A:433:C:H5	1.84	0.86
1:A:649:A:H5"	6:N:203:GLU:HB2	1.56	0.86
16:X:101:PHE:CD1	16:X:133:LYS:CB	2.59	0.86
16:X:101:PHE:CE1	16:X:133:LYS:CG	2.59	0.86
28:I:130:VAL:HG12	28:I:200:LYS:HG3	1.56	0.86
1:A:1529:A:N1	1:A:1537:U:C4	2.43	0.86
2:C:75:U:H3'	2:C:76:G:H5'	1.55	0.86
15:W:161:LEU:HD12	15:W:168:VAL:CG2	2.04	0.86
19:E:245:PRO:HG2	19:E:246:TRP:CE3	2.10	0.86
25:F:144:LEU:CD1	25:F:166:ARG:CZ	2.52	0.86
1:A:1829:A:OP1	19:E:151:ALA:HA	1.76	0.86
2:C:81:A:O2'	2:C:82:U:H5'	1.74	0.86
1:A:2154:C:C4	1:A:2165:G:N2	2.33	0.86
1:A:883:C:O4'	7:O:65:TRP:CZ3	2.29	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:72:A:H2'	2:C:73:G:H5'	1.57	0.86
6:N:182:LYS:HE2	6:N:189:PRO:HG2	1.57	0.86
12:T:96:PRO:CA	12:T:98:PRO:HD3	2.05	0.86
1:A:1:U:O2'	1:A:2:U:H5'	1.75	0.86
1:A:639:A:H62	6:N:201:LEU:CD1	1.87	0.86
1:A:2708:C:HO2'	2:C:75:U:HO2'	0.94	0.86
1:A:1287:G:O6	13:U:42:SER:OG	1.93	0.85
1:A:1529:A:C2	1:A:1537:U:N3	2.44	0.85
1:A:1751:A:N3	1:A:1753:A:N7	2.24	0.85
1:A:1879:U:C2	1:A:1887:G:N2	2.44	0.85
4:L:177:SER:OG	4:L:182:GLY:HA3	1.76	0.85
1:A:671:C:H5"	26:G:150:ILE:HG23	1.57	0.85
1:A:856:U:O2'	1:A:857:G:OP1	1.94	0.85
1:A:1499:G:H1	1:A:1546:C:H42	0.89	0.85
2:C:103:G:O2'	2:C:104:A:H5'	1.76	0.85
17:Y:87:ARG:HD2	17:Y:97:ARG:HD3	1.57	0.85
1:A:890:G:O2'	1:A:891:G:H5'	1.76	0.85
1:A:898:G:C8	1:A:899:A:C8	2.64	0.85
4:L:100:TRP:CE3	4:L:101:TYR:HB2	2.10	0.85
5:M:15:GLY:HA3	5:M:50:THR:HG21	1.57	0.85
1:A:83:A:N3	1:A:101:A:N6	2.24	0.85
1:A:274:G:N7	1:A:433:C:C5'	2.39	0.85
1:A:855:C:H2'	1:A:856:U:O4'	1.75	0.85
1:A:1811:A:C6	19:E:261:TYR:OH	2.29	0.85
1:A:1887:G:H2'	1:A:1888:G:H8	1.41	0.85
12:T:123:ILE:HD11	12:T:227:TYR:CE1	2.11	0.85
1:A:6:A:O2'	1:A:7:C:H5'	1.74	0.85
1:A:119:A:H5'	1:A:133:A:OP2	1.77	0.85
1:A:270:G:H2'	1:A:271:G:H5'	1.56	0.85
1:A:670:A:H2'	1:A:671:C:C6	2.12	0.85
1:A:1039:A:C2	1:A:1178:G:C6	2.64	0.85
1:A:1812:A:O2'	1:A:1813:A:H5'	1.77	0.85
3:B:34:C:C2	3:B:52:G:C2	2.63	0.85
10:R:127:ASN:O	10:R:131:VAL:HG23	1.75	0.85
1:A:903:G:H2'	1:A:904:U:C5'	2.07	0.85
1:A:1224:U:C1'	6:N:83:ASP:OD1	2.25	0.85
1:A:1885:C:N4	6:N:253:ALA:CB	2.39	0.85
1:A:2234:G:O2'	1:A:2235:C:H5'	1.76	0.85
1:A:2647:A:C4	2:C:98:G:C2	2.65	0.85
1:A:2684:C:C5	28:I:150:SER:CB	2.59	0.85
2:C:31:U:C2	2:C:38:G:N7	2.44	0.85

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:T:171:TYR:CD2	12:T:231:PRO:CA	2.57	0.85
1:A:1882:U:C5	1:A:1883:G:C5	2.65	0.85
3:B:35:A:H2	3:B:51:G:C4	1.94	0.85
12:T:169:SER:CA	12:T:233:SER:CB	2.54	0.85
1:A:3:C:O2'	1:A:4:A:H5'	1.76	0.85
1:A:622:G:H1'	1:A:628:A:H61	1.39	0.85
1:A:1159:G:C8	4:L:176:HIS:CE1	2.65	0.85
15:W:70:LYS:O	15:W:89:ILE:HD11	1.76	0.85
15:W:161:LEU:HD11	15:W:168:VAL:HG22	1.58	0.85
1:A:152:G:C2	1:A:153:G:N7	2.45	0.85
1:A:345:C:O2'	1:A:346:A:H5'	1.77	0.85
1:A:911:U:O2'	1:A:912:C:H5'	1.77	0.85
6:N:165:ILE:HD11	6:N:207:SER:OG	1.75	0.85
1:A:49:G:HO2'	18:Z:130:LYS:HD2	1.40	0.85
1:A:914:A:C2'	1:A:915:G:H5'	2.06	0.85
1:A:1516:G:N7	1:A:1517:G:C8	2.45	0.85
1:A:1527:G:O6	1:A:1539:C:N4	2.09	0.85
1:A:2151:G:O6	1:A:2152:C:N4	2.10	0.85
2:C:49:A:C6	2:C:76:G:N2	2.45	0.85
2:C:102:U:H2'	2:C:103:G:H5'	1.56	0.85
6:N:158:VAL:CG1	6:N:201:LEU:HG	2.06	0.85
15:W:159:ARG:HB2	15:W:168:VAL:HB	1.58	0.85
1:A:280:G:H22	1:A:376:U:H3	1.25	0.84
1:A:287:A:C2	1:A:288:C:N3	2.45	0.84
1:A:1535:A:C8	19:E:95:GLY:HA3	2.12	0.84
1:A:1596:U:H2'	1:A:1597:C:H5'	1.56	0.84
1:A:2767:A:O2'	28:I:103:GLN:OE1	1.93	0.84
2:C:102:U:C2'	2:C:103:G:H5'	2.07	0.84
3:B:32:A:C2'	3:B:33:C:H5'	2.06	0.84
4:L:102:PRO:HA	11:S:99:GLN:HE22	1.40	0.84
6:N:210:LEU:H	6:N:230:CYS:HB2	1.42	0.84
15:W:58:PRO:HD2	15:W:61:LEU:O	1.75	0.84
1:A:274:G:C5	1:A:433:C:C6	2.65	0.84
1:A:877:C:H2'	1:A:878:U:C6	2.11	0.84
1:A:934:A:H1'	1:A:935:U:H5'	1.57	0.84
1:A:1080:C:H2'	1:A:1081:C:O4'	1.78	0.84
1:A:2121:C:N4	1:A:2197:A:C2	2.45	0.84
3:B:7:G:O6	3:B:117:A:N1	2.09	0.84
1:A:279:A:C6	1:A:379:C:N4	2.45	0.84
1:A:2113:G:N2	1:A:2204:A:C6	2.34	0.84
1:A:2219:U:H3'	1:A:2220:G:H5'	1.57	0.84

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2579:U:O2	5:M:23:ARG:NH2	2.10	0.84
1:A:252:C:O2'	1:A:253:C:H5'	1.76	0.84
1:A:1538:G:O2'	1:A:1539:C:H5'	1.77	0.84
1:A:1809:G:N7	19:E:172:LEU:HD13	1.93	0.84
2:C:38:G:N2	25:F:145:ARG:NH2	2.16	0.84
3:B:42:C:OP1	3:B:44:C:C5	2.29	0.84
6:N:158:VAL:CG1	6:N:201:LEU:HD21	2.06	0.84
16:X:67:LYS:HA	16:X:67:LYS:HZ2	1.40	0.84
19:E:226:HIS:ND1	19:E:228:HIS:HD2	1.75	0.84
28:I:46:GLN:HB3	28:I:109:ARG:CD	2.08	0.84
1:A:313:A:N1	1:A:323:G:O6	2.09	0.84
1:A:1021:A:H1'	12:T:214:GLN:HE21	1.40	0.84
1:A:1039:A:N1	1:A:1178:G:C6	2.45	0.84
1:A:1211:G:H5"	6:N:111:GLY:HA2	0.87	0.84
1:A:1470:A:H2	1:A:1482:C:O2	1.61	0.84
1:A:2049:G:H5'	1:A:2050:C:H5	1.41	0.84
2:C:32:C:H1'	2:C:33:A:C5'	2.07	0.84
4:L:171:LYS:NZ	4:L:173:TYR:OH	2.11	0.84
14:V:104:TYR:HD1	18:Z:142:ARG:CD	1.90	0.84
16:X:134:LYS:NZ	16:X:134:LYS:HB3	1.91	0.84
1:A:267:C:H2'	1:A:268:G:C8	2.12	0.84
1:A:1471:A:O2'	1:A:1472:A:OP1	1.95	0.84
1:A:2202:C:H2'	1:A:2203:U:C6	2.12	0.84
3:B:37:U:O2'	3:B:38:C:H5'	1.76	0.84
12:T:116:PRO:HD2	12:T:117:PRO:HD3	1.58	0.84
13:U:79:LEU:HD22	13:U:134:ILE:HD12	1.58	0.84
3:B:30:A:H2'	3:B:31:C:C6	2.12	0.84
5:M:24:ILE:HG21	5:M:33:ALA:HB2	1.58	0.84
16:X:143:GLN:O	16:X:145:GLU:N	2.09	0.84
1:A:530:U:H5"	13:U:54:ARG:HH22	1.43	0.84
1:A:1552:U:H2'	1:A:1553:U:C6	2.13	0.84
3:B:91:G:C2	7:O:38:GLU:OE2	2.30	0.84
6:N:197:PRO:CB	6:N:215:ARG:HD2	2.06	0.84
1:A:75:C:P	18:Z:110:LYS:HZ1	2.00	0.84
1:A:1023:C:C2	4:L:102:PRO:HD3	2.09	0.84
11:S:91:LEU:HD12	12:T:175:PRO:CA	2.06	0.84
1:A:83:A:C5	1:A:98:G:C6	2.66	0.84
1:A:2739:A:N1	2:C:77:A:N6	2.26	0.84
6:N:235:LEU:HD12	6:N:236:PRO:HD2	1.59	0.84
1:A:131:C:C5	14:V:104:TYR:CE2	2.65	0.83
1:A:350:G:O2'	1:A:351:C:H5'	1.77	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:902:G:C2’	1:A:903:G:H5”	2.07	0.83
1:A:946:A:N6	1:A:950:A:N6	2.26	0.83
1:A:1080:C:C3’	1:A:1081:C:H5”	2.07	0.83
1:A:1238:G:N2	1:A:1252:C:N3	2.26	0.83
1:A:2119(A):U:H3	1:A:2199:G:H1	1.21	0.83
2:C:38:G:H22	25:F:145:ARG:NH2	1.32	0.83
6:N:201:LEU:C	6:N:221:ALA:HB2	1.99	0.83
1:A:342:G:O2’	1:A:343:U:H5’	1.77	0.83
1:A:2124:G:C2	1:A:2194:U:O2	2.29	0.83
2:C:17:A:OP2	8:P:13:HIS:NE2	2.11	0.83
1:A:151:G:O2’	1:A:152:G:H5’	1.79	0.83
1:A:1219:U:O2	11:S:5:LYS:HE2	1.77	0.83
1:A:288:C:O2’	1:A:289:A:H5’	1.78	0.83
1:A:2188:C:O2’	1:A:2189:C:H5’	1.79	0.83
1:A:290:A:O2’	1:A:291:G:H5’	1.77	0.83
1:A:318:A:N6	1:A:339:A:N6	2.26	0.83
1:A:883:C:H2’	1:A:884:G:H8	1.43	0.83
1:A:919:A:N6	7:O:12:GLN:HA	1.92	0.83
1:A:1361:U:O4	14:V:168:PRO:CB	2.27	0.83
1:A:1470:A:H2	1:A:1482:C:C2	1.95	0.83
1:A:1504:C:H2’	1:A:1505:C:C5	2.13	0.83
1:A:2236:C:C2’	1:A:2237:A:H5”	2.08	0.83
1:A:2659:G:H5’	4:L:179:ARG:NH2	1.94	0.83
3:B:86:G:O2’	3:B:87:G:H5’	1.79	0.83
6:N:129:PHE:CE2	6:N:131:GLY:HA2	2.12	0.83
1:A:344:C:O2’	1:A:345:C:H5’	1.77	0.83
6:N:158:VAL:HG11	6:N:201:LEU:CD2	2.08	0.83
1:A:2393:A:C2	9:Q:166:PHE:CZ	2.66	0.83
2:C:77:A:C1’	8:P:16:LYS:HB2	2.04	0.83
12:T:177:VAL:HA	12:T:230:TYR:OH	1.78	0.83
14:V:109:LEU:HD11	14:V:141:ARG:CB	2.09	0.83
1:A:133:A:H2’	1:A:134:A:C8	2.13	0.83
1:A:1483:G:H2’	1:A:1484:G:H8	1.44	0.83
2:C:53:G:N2	10:R:144:ARG:NH1	2.26	0.83
6:N:175:GLU:HB3	6:N:213:LYS:HZ1	1.43	0.83
10:R:137:LEU:HD12	10:R:137:LEU:O	1.78	0.83
1:A:144:A:N6	1:A:150:U:H3	1.76	0.83
1:A:289:A:O2’	1:A:290:A:H5’	1.78	0.83
1:A:302:C:O2’	1:A:303:U:H5’	1.78	0.83
1:A:914:A:O2’	1:A:915:G:H5’	1.78	0.83
1:A:121:G:C2’	1:A:122:U:H5’	2.08	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:253:C:O2	1:A:437:G:C2	2.31	0.82
1:A:702:C:P	19:E:213:ARG:NH1	2.52	0.82
1:A:880:U:C2'	1:A:881:U:H5'	2.09	0.82
1:A:2318:C:O2'	1:A:2319:C:H5'	1.79	0.82
2:C:35:U:O2'	2:C:36:A:OP1	1.96	0.82
3:B:34:C:O2	3:B:52:G:N3	2.11	0.82
4:L:172:LEU:CD2	4:L:185:GLU:OE2	2.27	0.82
1:A:44:G:N7	1:A:200:G:C2'	2.42	0.82
1:A:181:A:N7	6:N:117:GLN:NE2	2.28	0.82
1:A:345:C:H2'	1:A:346:A:C8	2.14	0.82
1:A:1485:U:HO2'	1:A:1580:G:HO2'	1.25	0.82
1:A:2328:A:C4'	27:H:127:ILE:HD11	2.09	0.82
3:B:15:A:O2'	3:B:16:G:H5"	1.78	0.82
3:B:32:A:O2'	3:B:33:C:H5'	1.78	0.82
1:A:160:A:H2	1:A:161:G:N7	1.75	0.82
1:A:256:A:H8	1:A:380:C:HO2'	0.82	0.82
1:A:390:U:O2'	1:A:391:G:H5'	1.79	0.82
1:A:1536:A:H5"	1:A:1536:A:N3	1.93	0.82
1:A:1754:A:C8	1:A:1755:A:C8	2.67	0.82
1:A:2108:G:N3	1:A:2108:G:H5'	1.94	0.82
1:A:2154:C:H42	1:A:2165:G:H1	1.28	0.82
3:B:36:A:N6	3:B:45:G:N7	2.27	0.82
6:N:205:GLU:CD	6:N:224:LYS:CE	2.47	0.82
12:T:171:TYR:CD2	12:T:231:PRO:CB	2.59	0.82
1:A:139:U:C2	1:A:140:G:N7	2.47	0.82
1:A:861:A:O2'	1:A:862:U:H5'	1.80	0.82
1:A:1573:C:H2'	1:A:1574:G:H8	1.44	0.82
1:A:2764:U:O4	1:A:2774:U:C4	2.32	0.82
10:R:122:ILE:O	10:R:125:ILE:HG22	1.78	0.82
1:A:329:C:C2	26:G:222:ASN:ND2	2.48	0.82
1:A:329:C:H1'	26:G:222:ASN:HD21	1.42	0.82
1:A:671:C:O2'	1:A:672:U:H5'	1.80	0.82
1:A:1545:G:C8	1:A:1546:C:C5	2.68	0.82
4:L:173:TYR:HD1	4:L:202:HIS:HD1	1.26	0.82
7:O:70:PRO:HA	7:O:95:ALA:HB2	1.61	0.82
10:R:123:MET:HE3	25:F:98:GLY:HA3	1.62	0.82
18:Z:76:LEU:HD11	18:Z:115:MET:HE3	1.60	0.82
19:E:232:GLU:N	19:E:232:GLU:OE1	2.12	0.82
1:A:1545:G:H2'	1:A:1546:C:H6	1.42	0.82
16:X:101:PHE:HD1	16:X:133:LYS:HB3	1.43	0.82
1:A:2129:G:C1'	1:A:2180:G:H21	1.91	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2804:U:OP1	25:F:159:LYS:CG	2.25	0.82
2:C:30:A:C6	2:C:83:C:O2'	2.33	0.82
15:W:56:CYS:O	15:W:62:PRO:HA	1.79	0.82
15:W:70:LYS:N	15:W:73:ASP:OD2	2.12	0.82
1:A:3:C:H2'	1:A:4:A:H8	1.42	0.82
1:A:83:A:C6	1:A:98:G:C6	2.67	0.82
1:A:626:C:C5	1:A:627:C:C5	2.68	0.82
1:A:1536:A:C2	1:A:1537:U:H5	1.98	0.82
1:A:1810:C:H4'	1:A:1811:A:C5'	2.09	0.82
1:A:1886:A:C2'	1:A:1887:G:H5'	2.09	0.82
1:A:2116:C:N4	1:A:2201:G:H22	1.78	0.82
1:A:2202:C:O2'	1:A:2203:U:H5'	1.80	0.82
12:T:170:THR:HG23	12:T:172:ILE:CD1	2.10	0.82
14:V:109:LEU:HD11	14:V:141:ARG:C	1.99	0.82
1:A:1521:G:C4	1:A:1543:G:N2	2.47	0.82
1:A:2730:A:H8	1:A:2731:C:H5"	1.45	0.82
26:G:73:LYS:N	26:G:261:VAL:O	2.13	0.82
1:A:1809:G:OP1	19:E:256:ARG:NH1	2.11	0.81
1:A:912:C:O2'	1:A:913:G:H5'	1.79	0.81
1:A:2103:G:C2'	1:A:2104:A:H5'	2.11	0.81
1:A:2234:G:C2'	1:A:2235:C:H5'	2.09	0.81
13:U:154:PRO:HA	13:U:157:LEU:HD12	1.61	0.81
25:F:117:PHE:HA	25:F:141:TYR:HH	1.42	0.81
1:A:1135:A:O2'	1:A:1136:U:H5'	1.80	0.81
1:A:1689:C:H41	8:P:19:ARG:HE	1.26	0.81
1:A:2109:C:C6	1:A:2110:U:C6	2.67	0.81
1:A:2114:G:C6	1:A:2204:A:C6	2.68	0.81
1:A:2227:C:O2'	1:A:2228:C:H5'	1.80	0.81
1:A:2288:G:OP1	16:X:76:ARG:HA	1.79	0.81
6:N:81:ARG:CZ	26:G:243:GLU:HB2	2.09	0.81
29:J:76:ASN:O	29:J:80:PRO:HG2	1.79	0.81
1:A:253:C:O2	1:A:437:G:N2	2.13	0.81
1:A:355:A:N7	1:A:356:A:C8	2.48	0.81
1:A:823:C:O2'	1:A:1247:A:O2'	1.86	0.81
1:A:1547:C:C2'	1:A:1548:A:H5'	2.11	0.81
1:A:2322:A:C6	27:H:204:GLY:HA2	2.14	0.81
3:B:91:G:H22	7:O:38:GLU:CD	1.83	0.81
6:N:198:LEU:HD23	6:N:199:LYS:N	1.95	0.81
1:A:856:U:O4	1:A:962:G:O6	1.99	0.81
1:A:2325:G:O6	1:A:2328:A:N6	2.12	0.81
11:S:91:LEU:HD12	12:T:175:PRO:CB	2.09	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2:U:O2'	1:A:3:C:H5'	1.81	0.81
1:A:357:G:O2'	1:A:358:C:H5'	1.80	0.81
1:A:1501:G:O3'	1:A:1502:A:H4'	1.80	0.81
1:A:381:C:O2	1:A:416:C:C4	2.33	0.81
1:A:2698:C:OP1	25:F:285:LYS:HD3	1.81	0.81
27:H:175:PHE:HD1	27:H:183:VAL:HG13	1.45	0.81
1:A:361:C:H2'	1:A:362:A:H8	1.43	0.81
1:A:862:U:O2'	1:A:863:C:H5'	1.79	0.81
1:A:917:C:O2'	1:A:918:A:H5'	1.81	0.81
1:A:1651:C:C6	13:U:116:PRO:HG3	2.15	0.81
1:A:2150:G:N1	1:A:2151:G:C2	2.49	0.81
6:N:159:PRO:HB3	6:N:187:ILE:HD13	1.63	0.81
6:N:224:LYS:HB2	6:N:224:LYS:NZ	1.96	0.81
26:G:208:PHE:CB	26:G:229:LEU:HB2	2.11	0.81
1:A:101:A:C6	1:A:102:U:C4	2.67	0.81
1:A:1516:G:C5	1:A:1517:G:C8	2.69	0.81
1:A:1547:C:O2'	1:A:1548:A:H5'	1.81	0.81
1:A:1650:A:P	1:A:1650:A:H8	2.04	0.81
1:A:861:A:C2'	1:A:862:U:H5'	2.11	0.81
6:N:156:LYS:HZ3	6:N:215:ARG:NH1	1.47	0.81
1:A:829:G:N1	1:A:1209:U:OP2	2.14	0.80
1:A:955:G:H2'	1:A:956:G:H5'	1.62	0.80
1:A:1472:A:N6	1:A:1479:U:O4	2.14	0.80
1:A:1745:C:H2'	1:A:1746:C:C6	2.15	0.80
1:A:1879:U:H2'	1:A:1880:G:C8	2.16	0.80
2:C:78:G:O2'	2:C:79:G:H5'	1.79	0.80
2:C:103:G:H2'	2:C:104:A:H8	1.43	0.80
1:A:293:G:C2	1:A:294:U:C4	2.69	0.80
1:A:629:C:H5'	26:G:258:ARG:HH22	1.46	0.80
1:A:1090:U:H3	1:A:1104:C:H42	1.27	0.80
1:A:2107:G:C6	1:A:2242:A:H8	1.99	0.80
19:E:176:GLU:HA	19:E:268:ARG:HB2	1.62	0.80
1:A:337:U:O2	1:A:341:A:N6	2.15	0.80
1:A:932:A:H4'	16:X:85:GLN:NE2	1.94	0.80
1:A:1751:A:C2	1:A:1753:A:H8	1.98	0.80
1:A:1755:A:H2'	1:A:1756:G:C8	2.17	0.80
1:A:1879:U:O2	1:A:1887:G:N2	2.14	0.80
1:A:262:G:H21	1:A:265:A:P	2.04	0.80
1:A:901:C:H2'	1:A:902:G:O4'	1.82	0.80
6:N:158:VAL:CG1	6:N:201:LEU:CG	2.59	0.80
1:A:111:U:P	18:Z:134:ARG:HH11	2.05	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:942:U:H2'	1:A:943:C:O4'	1.81	0.80
1:A:1483:G:H2'	1:A:1484:G:C8	2.15	0.80
1:A:274:G:O6	1:A:433:C:C4'	2.29	0.80
1:A:1879:U:C5	6:N:252:ARG:NH1	2.50	0.80
3:B:35:A:N1	3:B:51:G:N1	2.29	0.80
4:L:175:ARG:NH2	4:L:184:LYS:CE	2.45	0.80
1:A:635:C:O2'	1:A:636:C:H5'	1.82	0.80
1:A:1526:G:H2'	1:A:1527:G:O4'	1.80	0.80
1:A:2192:U:O2'	1:A:2193:C:O4'	1.99	0.80
1:A:2647:A:C8	2:C:98:G:C4	2.70	0.80
14:V:104:TYR:CD1	18:Z:142:ARG:CD	2.65	0.80
1:A:355:A:H2'	1:A:356:A:C5'	2.11	0.80
3:B:67:U:C4	3:B:109:U:C5	2.69	0.80
4:L:175:ARG:NH2	4:L:184:LYS:CD	2.45	0.80
12:T:177:VAL:CA	12:T:230:TYR:OH	2.29	0.80
26:G:193:ALA:O	26:G:197:TRP:CB	2.30	0.80
1:A:329:C:O2'	26:G:222:ASN:ND2	2.13	0.80
1:A:1745:C:O2'	1:A:1746:C:H5'	1.82	0.80
1:A:2154:C:N4	1:A:2165:G:N2	2.28	0.80
6:N:158:VAL:CG1	6:N:201:LEU:CD2	2.60	0.80
15:W:161:LEU:CD1	15:W:168:VAL:HG23	2.08	0.80
16:X:101:PHE:CE1	16:X:133:LYS:HG2	2.17	0.80
25:F:223:THR:HG22	25:F:224:HIS:H	1.45	0.80
1:A:389:A:C6	1:A:410:G:N1	2.50	0.80
1:A:624:A:C8	1:A:625:C:C5	2.69	0.80
1:A:1347:U:O4	1:A:1683:G:O2'	1.99	0.80
1:A:2074:A:N6	26:G:125:ARG:HH22	1.80	0.80
1:A:2653:U:H5'	25:F:170:GLU:OE2	1.82	0.80
2:C:104:A:O2'	2:C:105:A:H5'	1.81	0.80
10:R:123:MET:CE	25:F:97:LEU:C	2.49	0.80
16:X:122:LEU:HG	16:X:140:ARG:HB2	1.64	0.80
1:A:355:A:C8	1:A:356:A:N9	2.49	0.79
1:A:1745:C:N4	1:A:1746:C:N4	2.29	0.79
1:A:2753:C:H42	1:A:2787:C:H42	1.29	0.79
1:A:274:G:C5	1:A:433:C:H6	1.99	0.79
1:A:2156:C:C2	1:A:2164:G:N2	2.46	0.79
6:N:158:VAL:HG12	6:N:201:LEU:HG	1.63	0.79
12:T:169:SER:CB	12:T:233:SER:CB	2.59	0.79
1:A:80:G:H2'	1:A:81:G:C8	2.17	0.79
1:A:310:A:N1	1:A:342:G:O2'	2.14	0.79
1:A:878:U:O2'	1:A:879:G:H5'	1.81	0.79

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1811:A:C5	19:E:261:TYR:OH	2.35	0.79
1:A:2116:C:C2'	1:A:2117:U:H5'	2.12	0.79
1:A:2337:C:H5'	1:A:2350:A:N6	1.96	0.79
2:C:76:G:H3'	2:C:76:G:OP2	1.82	0.79
3:B:26:A:C2	3:B:27:A:C8	2.71	0.79
16:X:159:ARG:O	16:X:162:ARG:HG3	1.81	0.79
1:A:1751:A:H3'	1:A:1752:C:C4'	2.13	0.79
1:A:2157:U:H3	1:A:2162:G:H1	1.30	0.79
1:A:2643:C:O2'	1:A:2644:G:H5'	1.83	0.79
2:C:105:A:O2'	2:C:106:C:H5'	1.82	0.79
6:N:165:ILE:HG13	6:N:206:LEU:C	2.03	0.79
13:U:117:ARG:HD2	13:U:123:TYR:HE2	1.46	0.79
1:A:3:C:H2'	1:A:4:A:C8	2.17	0.79
5:M:17:ARG:HH11	5:M:47:ILE:HG12	1.48	0.79
6:N:165:ILE:CD1	6:N:207:SER:N	2.45	0.79
26:G:67:GLU:OE2	26:G:69:PHE:HB3	1.83	0.79
1:A:616:U:P	26:G:155:LYS:NZ	2.56	0.79
1:A:702:C:O5'	19:E:213:ARG:NH1	2.16	0.79
1:A:2247:C:H1'	17:Y:102:ASN:CB	2.12	0.79
2:C:38:G:H22	25:F:145:ARG:HH21	1.27	0.79
1:A:1885:C:H41	6:N:253:ALA:HB2	1.43	0.79
2:C:26:G:H2'	2:C:27:U:H5'	1.65	0.79
15:W:152:LEU:HD12	15:W:154:ASP:H	1.47	0.79
1:A:853:G:N1	1:A:965:G:C6	2.51	0.79
1:A:1832:G:OP1	19:E:212:LYS:NZ	2.14	0.79
28:I:46:GLN:HB3	28:I:109:ARG:HD2	1.65	0.79
1:A:294:U:H2'	1:A:295:C:C2	2.17	0.79
1:A:369:U:O2'	1:A:370:A:OP1	1.98	0.79
1:A:543:A:N6	1:A:2034:C:O2'	2.16	0.79
10:R:173:GLN:HB2	10:R:180:THR:HG22	1.64	0.79
25:F:117:PHE:CA	25:F:141:TYR:OH	2.26	0.79
1:A:639:A:N7	6:N:201:LEU:HD11	1.98	0.79
1:A:2109:C:H3'	1:A:2110:U:C6	2.17	0.79
1:A:2803:C:O2'	1:A:2804:U:O5'	2.01	0.79
2:C:84:C:O2'	2:C:85:U:H5'	1.82	0.79
6:N:143:LEU:HG	6:N:146:ILE:CD1	2.05	0.79
1:A:822:U:C6	1:A:1272:A:N3	2.51	0.78
1:A:1237:C:P	11:S:11:ARG:HH21	2.07	0.78
4:L:107:HIS:ND1	4:L:107:HIS:O	2.16	0.78
25:F:98:GLY:H	25:F:286:PRO:HB3	1.48	0.78
1:A:1830:U:C2	19:E:197:ASN:ND2	2.51	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1878:C:N4	1:A:1887:G:O6	2.16	0.78
16:X:153:ARG:HG2	16:X:153:ARG:NH1	1.97	0.78
1:A:935:U:O2'	1:A:936:A:O5'	2.01	0.78
1:A:2196:G:H2'	1:A:2197:A:C8	2.19	0.78
1:A:2433:C:OP1	6:N:145:GLY:N	2.17	0.78
6:N:106:GLN:OE1	6:N:106:GLN:N	2.17	0.78
6:N:160:ILE:HG22	6:N:203:GLU:OE2	1.82	0.78
6:N:189:PRO:HB3	6:N:196:LEU:HD21	1.65	0.78
26:G:204:LYS:H	26:G:225:THR:HB	1.46	0.78
1:A:133:A:C6	1:A:162:A:H2	2.00	0.78
1:A:1879:U:N3	1:A:1887:G:N1	2.30	0.78
1:A:2319:C:O2'	1:A:2320:G:H5'	1.84	0.78
3:B:91:G:N2	7:O:38:GLU:OE2	2.17	0.78
1:A:2129:G:C2'	1:A:2131:U:C5	2.63	0.78
1:A:2393:A:H2	9:Q:166:PHE:HZ	1.29	0.78
1:A:2684:C:H5	28:I:150:SER:CB	1.92	0.78
1:A:2752:G:H3'	1:A:2753:C:H4'	1.66	0.78
14:V:114:ILE:HG23	14:V:115:LEU:CD1	2.12	0.78
1:A:262:G:N2	1:A:265:A:OP2	2.17	0.78
1:A:296:G:H2'	1:A:297:U:C6	2.18	0.78
1:A:382:G:H3'	1:A:435:A:N7	1.97	0.78
1:A:883:C:C4'	7:O:65:TRP:CZ3	2.67	0.78
1:A:955:G:C2'	1:A:956:G:H5'	2.13	0.78
1:A:1479:U:H5"	1:A:1480:A:OP1	1.83	0.78
1:A:2320:G:O2'	1:A:2321:G:H5'	1.83	0.78
3:B:87:G:C2	3:B:93:C:O2	2.36	0.78
12:T:113:LYS:HA	12:T:113:LYS:CE	2.14	0.78
16:X:127:LYS:HA	16:X:132:LYS:O	1.83	0.78
1:A:394:G:N2	1:A:405:C:N3	2.31	0.78
3:B:8:G:OP2	9:Q:76:PHE:CE2	2.36	0.78
15:W:141:GLN:HG2	15:W:166:GLU:OE2	1.80	0.78
26:G:226:LEU:HD12	26:G:226:LEU:O	1.84	0.78
1:A:98:G:H4'	1:A:99:A:H5"	1.63	0.78
1:A:387:G:H5'	1:A:388:C:OP2	1.84	0.78
1:A:913:G:C4	1:A:914:A:N7	2.52	0.78
1:A:1235:A:N6	1:A:1254:U:O4	2.17	0.78
1:A:1754:A:N7	1:A:1755:A:N7	2.31	0.78
1:A:2219:U:O2'	1:A:2229:U:N3	2.04	0.78
3:B:68:G:N2	3:B:69:C:O2	2.17	0.78
13:U:33:THR:HG22	13:U:135:VAL:HG22	1.64	0.78
1:A:140:G:C6	1:A:155:A:C6	2.71	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:330:U:O2	26:G:218:LYS:CE	2.21	0.78
1:A:1153:G:C6	1:A:1154:A:N7	2.51	0.78
1:A:1161:A:O2'	1:A:1162:C:OP1	2.01	0.78
1:A:1522:A:N3	1:A:1523:A:C8	2.52	0.78
16:X:67:LYS:H	16:X:67:LYS:HD2	1.49	0.78
1:A:60:U:O3'	18:Z:94:ARG:NH1	2.01	0.77
1:A:140:G:H2'	1:A:141:C:H5'	1.65	0.77
1:A:152:G:C4	1:A:153:G:N7	2.52	0.77
1:A:621:G:H2'	1:A:622:G:H5'	1.66	0.77
1:A:634:G:O2'	1:A:635:C:H5'	1.84	0.77
1:A:1136:U:O2'	1:A:1137:C:H5'	1.84	0.77
1:A:1394:A:H5'	1:A:2230:A:H1'	1.65	0.77
1:A:2129:G:H1'	1:A:2180:G:H21	1.44	0.77
4:L:100:TRP:CZ3	4:L:101:TYR:HB2	2.19	0.77
1:A:133:A:N7	1:A:134:A:N6	2.31	0.77
1:A:669:C:H2'	1:A:670:A:H8	1.43	0.77
1:A:1178:G:C4'	11:S:83:HIS:HD2	1.97	0.77
1:A:1472:A:C6	1:A:1479:U:O4	2.37	0.77
1:A:1603:A:H5'	19:E:55:LYS:HD3	1.64	0.77
2:C:12:C:H5"	8:P:109:ARG:HH22	1.49	0.77
3:B:3:U:O2'	3:B:4:U:O5'	2.02	0.77
26:G:254:TYR:CZ	26:G:258:ARG:NE	2.44	0.77
1:A:137:U:C2	1:A:157:G:N2	2.50	0.77
1:A:1164:G:O2'	1:A:1165:G:H5'	1.83	0.77
1:A:1524:G:O2'	1:A:1525:G:H5'	1.85	0.77
1:A:2214:C:O2'	1:A:2215:C:H5'	1.85	0.77
1:A:2304:A:N6	1:A:2363:A:N6	2.32	0.77
1:A:2317:G:O6	1:A:2333:C:N3	2.18	0.77
1:A:2351:G:N9	9:Q:64:VAL:CG2	2.29	0.77
3:B:5:C:O2'	3:B:6:U:H5'	1.84	0.77
27:H:184:GLY:HA2	27:H:207:VAL:O	1.83	0.77
2:C:80:C:C5'	10:R:121:ASP:OD1	2.32	0.77
3:B:41:U:C5'	3:B:42:C:H5"	2.15	0.77
6:N:117:GLN:OE1	6:N:125:ILE:HG12	1.83	0.77
1:A:293:G:O2'	1:A:294:U:H5'	1.84	0.77
1:A:1162:C:O2'	1:A:1163:G:OP1	2.03	0.77
1:A:1537:U:H2'	1:A:1538:G:C8	2.20	0.77
1:A:1545:G:N7	1:A:1546:C:H5	1.80	0.77
1:A:1551:G:O2'	1:A:1552:U:H5'	1.85	0.77
1:A:1926:A:N6	1:A:1931:U:N3	2.32	0.77
2:C:32:C:H1'	2:C:33:A:H5'	1.66	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:823:C:O2'	1:A:824:U:H5'	1.84	0.77
1:A:1519:A:C2	1:A:1520:A:N7	2.53	0.77
1:A:1634:C:H5"	14:V:145:LYS:HZ1	1.50	0.77
1:A:1689:C:O2'	1:A:1690:A:O5'	2.00	0.77
1:A:2103:G:H2'	1:A:2104:A:H5'	1.66	0.77
1:A:2107:G:C5	1:A:2242:A:H8	2.02	0.77
1:A:2112:U:H2'	1:A:2113:G:C8	2.19	0.77
1:A:2210:C:O2'	1:A:2211:U:OP1	2.01	0.77
1:A:2322:A:C4	27:H:186:ARG:CZ	2.67	0.77
3:B:41:U:HO2'	3:B:46:A:N6	1.80	0.77
6:N:172:GLU:HA	6:N:210:LEU:HD21	1.67	0.77
1:A:83:A:C6	1:A:98:G:C5	2.72	0.77
1:A:140:G:C5	1:A:155:A:N1	2.52	0.77
1:A:1039:A:OP1	11:S:77:ASN:HB3	1.85	0.77
1:A:2154:C:H42	1:A:2165:G:N2	1.83	0.77
1:A:2320:G:N2	1:A:2330:U:O2	2.17	0.77
12:T:147:LEU:HD13	12:T:215:PRO:HB2	1.67	0.77
1:A:136:U:C2	1:A:160:A:N1	2.53	0.77
1:A:161:G:H4'	1:A:162:A:OP1	1.83	0.77
1:A:1528:U:H2'	1:A:1529:A:C8	2.20	0.77
1:A:2653:U:H4'	25:F:170:GLU:OE2	1.85	0.77
6:N:156:LYS:HZ1	6:N:215:ARG:HH12	0.80	0.77
19:E:267:ILE:HG22	19:E:269:ARG:HB2	1.65	0.77
1:A:1689:C:N4	8:P:19:ARG:HE	1.81	0.77
1:A:2189:C:H2'	1:A:2190:A:H8	1.47	0.77
2:C:22:A:H3'	2:C:23:G:H5"	1.67	0.77
11:S:91:LEU:HD11	12:T:175:PRO:HB3	0.78	0.77
1:A:1361:U:C4	14:V:168:PRO:HD3	2.20	0.77
7:O:30:GLY:HA2	7:O:107:SER:HB3	1.66	0.77
26:G:200:ASP:O	26:G:202:ALA:N	2.13	0.77
1:A:648:G:N1	6:N:158:VAL:HG21	2.00	0.76
1:A:2109:C:C4	1:A:2110:U:N3	2.53	0.76
7:O:43:THR:OG1	7:O:46:GLN:OE1	2.03	0.76
16:X:128:TYR:HD2	16:X:132:LYS:HB2	1.49	0.76
1:A:7:C:H2'	1:A:8:G:O4'	1.85	0.76
1:A:1751:A:H3'	1:A:1752:C:H4'	1.67	0.76
2:C:36:A:H2	25:F:274:ARG:NH1	1.72	0.76
2:C:104:A:N1	2:C:105:A:C6	2.52	0.76
4:L:175:ARG:HH22	4:L:184:LYS:CE	1.97	0.76
19:E:142:ILE:HA	19:E:180:ILE:HD11	1.66	0.76
1:A:283:C:O2	1:A:372:G:N2	2.18	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:352:C:O2'	1:A:353:G:H5'	1.86	0.76
1:A:639:A:C5	6:N:201:LEU:HD11	2.19	0.76
1:A:903:G:C2'	1:A:904:U:H5"	2.14	0.76
1:A:1527:G:H3'	1:A:1528:U:C5	2.20	0.76
1:A:2393:A:C2	9:Q:166:PHE:CE2	2.73	0.76
3:B:32:A:N6	3:B:55:G:C6	2.53	0.76
16:X:128:TYR:HE2	16:X:132:LYS:HB2	1.47	0.76
1:A:495:A:H1'	15:W:122:ILE:CG1	2.15	0.76
1:A:1808:C:O2'	1:A:1812:A:H1'	1.85	0.76
1:A:2224:G:H5"	1:A:2225:G:C5'	2.16	0.76
3:B:7:G:C6	3:B:117:A:C2	2.73	0.76
6:N:176:VAL:O	6:N:177:SER:OG	2.02	0.76
9:Q:72:ARG:NH1	9:Q:87:ILE:HD11	2.00	0.76
12:T:96:PRO:O	12:T:98:PRO:N	2.19	0.76
18:Z:94:ARG:HG2	18:Z:101:LYS:HE3	1.66	0.76
1:A:140:G:C6	1:A:155:A:C2	2.72	0.76
1:A:495:A:O2'	15:W:120:GLY:O	2.02	0.76
1:A:1810:C:H4'	1:A:1811:A:O5'	1.86	0.76
6:N:165:ILE:HD11	6:N:207:SER:N	2.00	0.76
6:N:225:LEU:HG	6:N:230:CYS:SG	2.25	0.76
12:T:181:ALA:HB3	12:T:225:THR:CG2	2.16	0.76
25:F:284:GLY:HA3	25:F:288:ASN:HD21	1.50	0.76
1:A:278:G:H2'	1:A:279:A:H5"	1.67	0.76
1:A:317:G:H21	1:A:338:G:N2	1.81	0.76
1:A:1689:C:H5'	8:P:12:LYS:HE2	1.67	0.76
16:X:133:LYS:HE2	16:X:133:LYS:CA	2.15	0.76
1:A:432:G:H2'	1:A:433:C:O4'	1.84	0.76
1:A:1164:G:C2'	1:A:1165:G:H5'	2.14	0.76
1:A:83:A:C5	1:A:98:G:O6	2.38	0.76
1:A:624:A:N3	1:A:625:C:C6	2.48	0.76
3:B:86:G:C2	3:B:87:G:N7	2.54	0.76
6:N:209:LYS:CA	6:N:230:CYS:HB3	2.16	0.76
6:N:243:LYS:HE3	6:N:245:SER:OG	1.85	0.76
7:O:68:ILE:HG21	7:O:101:ARG:HE	1.50	0.76
1:A:46:C:C2'	1:A:47:G:H5'	2.16	0.76
1:A:2186:U:P	1:A:2188:C:C5	2.78	0.76
1:A:2698:C:OP1	25:F:285:LYS:CD	2.34	0.76
6:N:102:HIS:CE1	12:T:205:ASN:HD22	2.02	0.76
6:N:165:ILE:CB	6:N:206:LEU:HA	2.16	0.76
10:R:116:ARG:HA	10:R:116:ARG:NE	2.00	0.76
14:V:132:ASN:HA	14:V:184:ALA:HB2	1.68	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:276:G:H4'	1:A:277:G:OP1	1.84	0.76
1:A:277:G:O6	1:A:381:C:N4	2.18	0.76
1:A:280:G:N2	1:A:376:U:H3	1.84	0.76
1:A:969:A:C6	1:A:970:G:C6	2.73	0.76
1:A:1268:A:C2	11:S:5:LYS:NZ	2.53	0.76
1:A:1472:A:C6	1:A:1479:U:C4	2.74	0.76
1:A:2011:G:C5'	25:F:219:ARG:NH2	2.48	0.76
1:A:2104:A:O2'	1:A:2105:U:H5'	1.85	0.76
1:A:2322:A:N6	27:H:204:GLY:CA	2.40	0.76
4:L:171:LYS:C	4:L:172:LEU:HD12	2.06	0.76
6:N:210:LEU:H	6:N:230:CYS:CB	1.99	0.76
1:A:158:C:H41	1:A:159:A:H62	1.32	0.75
1:A:858:G:C4	1:A:859:A:N7	2.53	0.75
1:A:2156:C:O2	1:A:2164:G:C2	2.39	0.75
1:A:2647:A:C4	2:C:98:G:N2	2.54	0.75
6:N:143:LEU:CD2	6:N:146:ILE:HG12	2.16	0.75
6:N:175:GLU:HB3	6:N:213:LYS:NZ	2.00	0.75
12:T:116:PRO:CD	12:T:117:PRO:HD3	2.16	0.75
26:G:79:LYS:O	26:G:83:VAL:HG23	1.84	0.75
27:H:115:GLY:HA3	27:H:148:LEU:HD23	1.68	0.75
1:A:263:A:N3	1:A:263:A:H5"	2.01	0.75
1:A:1178:G:C4'	11:S:83:HIS:CD2	2.69	0.75
4:L:100:TRP:HE3	4:L:101:TYR:HD2	1.33	0.75
17:Y:129:ILE:HD12	17:Y:130:GLU:N	2.01	0.75
1:A:279:A:N3	1:A:279:A:H5'	2.01	0.75
1:A:668:U:H2'	1:A:669:C:C6	2.22	0.75
1:A:869:G:H21	1:A:2285:A:H2	1.34	0.75
1:A:2211:U:O4	1:A:2241:G:C4	2.40	0.75
1:A:2223:A:H2'	1:A:2224:G:C8	2.20	0.75
2:C:77:A:H1'	8:P:16:LYS:CB	2.10	0.75
3:B:35:A:N1	3:B:51:G:C2	2.54	0.75
6:N:81:ARG:HH11	26:G:243:GLU:CB	1.96	0.75
1:A:902:G:C6	1:A:903:G:N7	2.54	0.75
1:A:1586:G:N2	1:A:1586:G:OP2	2.19	0.75
1:A:2337:C:H5'	1:A:2350:A:C6	2.21	0.75
3:B:86:G:C2	3:B:87:G:C8	2.75	0.75
6:N:168:ALA:HB3	6:N:186:ILE:HD11	1.67	0.75
6:N:209:LYS:HA	6:N:230:CYS:HB3	1.66	0.75
11:S:91:LEU:HD12	12:T:175:PRO:C	2.07	0.75
1:A:352:C:C2'	1:A:353:G:H5'	2.16	0.75
1:A:1745:C:N3	1:A:1746:C:C4	2.54	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1809:G:N7	19:E:172:LEU:CD1	2.50	0.75
1:A:1830:U:C5	19:E:197:ASN:ND2	2.39	0.75
3:B:35:A:N1	3:B:51:G:C6	2.54	0.75
16:X:122:LEU:CD1	16:X:140:ARG:CG	2.42	0.75
1:A:2409:A:C2	1:A:2441:C:N4	2.55	0.75
18:Z:152:LEU:O	18:Z:152:LEU:HD22	1.85	0.75
1:A:670:A:O2'	1:A:671:C:H5'	1.87	0.75
1:A:1268:A:H2	11:S:5:LYS:NZ	1.84	0.75
1:A:1475:U:C1'	8:P:70:LEU:HD13	2.14	0.75
1:A:1552:U:O2'	1:A:1553:U:H5'	1.85	0.75
3:B:16:G:C6	3:B:111:G:N3	2.53	0.75
8:P:25:ASP:OD1	8:P:26:GLN:N	2.17	0.75
1:A:2186:U:P	1:A:2188:C:H5	2.10	0.75
1:A:2237:A:H5'	1:A:2237:A:N3	2.01	0.75
1:A:280:G:N1	1:A:376:U:O4	2.19	0.75
1:A:649:A:OP1	6:N:202:GLY:N	2.20	0.75
1:A:670:A:H4'	26:G:151:LYS:O	1.86	0.75
1:A:900:G:O2'	1:A:901:C:H5"	1.86	0.75
1:A:1530:G:N3	1:A:1530:G:H2'	2.02	0.75
6:N:197:PRO:CB	6:N:215:ARG:CD	2.65	0.75
6:N:209:LYS:HB2	6:N:230:CYS:HA	1.69	0.75
25:F:122:ILE:HG22	25:F:183:GLN:HA	1.67	0.75
1:A:335:G:H2'	1:A:336:G:C8	2.22	0.74
1:A:415:U:H5"	1:A:416:C:OP1	1.87	0.74
1:A:615:G:H1'	1:A:668:U:O2'	1.87	0.74
1:A:624:A:C4	1:A:625:C:H5	1.93	0.74
1:A:1789:U:OP2	1:A:1794:A:N6	2.20	0.74
1:A:2109:C:C5	1:A:2110:U:C4	2.74	0.74
1:A:2186:U:OP2	1:A:2188:C:H5	1.69	0.74
6:N:205:GLU:CD	6:N:224:LYS:CD	2.46	0.74
18:Z:122:ARG:HA	18:Z:125:GLU:OE1	1.87	0.74
1:A:857:G:H1'	1:A:961:G:H22	1.51	0.74
1:A:902:G:C3'	1:A:903:G:H5"	2.16	0.74
1:A:2117:U:O2'	1:A:2118:U:H5'	1.86	0.74
1:A:2129:G:C1'	1:A:2180:G:N2	2.51	0.74
1:A:208:A:H1'	1:A:433:C:O2'	1.87	0.74
1:A:504:G:H4'	13:U:37:TYR:CB	2.15	0.74
1:A:1178:G:H4'	11:S:83:HIS:HD2	1.51	0.74
1:A:2186:U:P	1:A:2188:C:N4	2.60	0.74
1:A:278:G:C2'	1:A:279:A:H5"	2.18	0.74
1:A:2224:G:H5"	1:A:2225:G:H5"	1.69	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:143:LEU:HD21	6:N:146:ILE:HG12	1.69	0.74
16:X:128:TYR:CE2	16:X:132:LYS:HG2	2.22	0.74
1:A:2221:U:H5'	1:A:2222:C:OP2	1.88	0.74
15:W:161:LEU:CD1	15:W:168:VAL:HG22	2.13	0.74
29:J:69:VAL:HG23	29:J:70:ARG:H	1.52	0.74
1:A:381:C:C2	1:A:416:C:C5	2.76	0.74
1:A:612:U:C2'	1:A:613:U:H5"	2.17	0.74
1:A:1178:G:C1'	11:S:83:HIS:CD2	2.71	0.74
1:A:2236:C:C3'	1:A:2237:A:H5"	2.17	0.74
1:A:2129:G:C2'	1:A:2180:G:H21	2.01	0.74
1:A:2322:A:C4	27:H:186:ARG:CD	2.49	0.74
26:G:254:TYR:OH	26:G:258:ARG:CZ	2.35	0.74
29:J:56:ASP:O	29:J:83:LYS:NZ	2.19	0.74
1:A:1667:G:N1	1:A:1670:A:OP2	2.19	0.74
1:A:1809:G:C5	19:E:172:LEU:HD13	2.23	0.74
1:A:2211:U:H5	1:A:2241:G:O6	1.71	0.74
1:A:2321:G:H5'	27:H:175:PHE:HB3	1.68	0.74
1:A:2764:U:C4	1:A:2774:U:O4	2.41	0.74
2:C:41:A:N6	2:C:86:A:N1	2.36	0.74
2:C:88:C:O2'	2:C:89:A:H5'	1.87	0.74
6:N:116:GLY:O	6:N:120:ARG:HG2	1.86	0.74
1:A:795:U:C5'	19:E:222:ASN:OD1	2.35	0.74
1:A:1472:A:C5	1:A:1479:U:O4	2.41	0.74
27:H:170:VAL:H	27:H:230:PHE:HB3	1.53	0.74
1:A:636:C:O2'	1:A:637:G:H5'	1.88	0.73
1:A:822:U:H5	1:A:1272:A:N1	1.85	0.73
1:A:2137:G:N2	1:A:2190:A:C6	2.56	0.73
12:T:123:ILE:CD1	12:T:227:TYR:CE1	2.70	0.73
14:V:110:ASP:O	14:V:111:VAL:HG22	1.88	0.73
1:A:288:C:H2'	1:A:289:A:H8	1.51	0.73
1:A:1139:A:H3'	1:A:1139:A:N3	2.03	0.73
1:A:1635:C:H4'	14:V:106:ARG:HH22	1.50	0.73
1:A:2213:A:C2	1:A:2214:C:N3	2.55	0.73
1:A:2798:G:H1	4:L:201:GLU:CD	1.91	0.73
12:T:88:VAL:HG12	12:T:89:LEU:N	2.03	0.73
19:E:137:ILE:HD13	19:E:160:LEU:HD13	1.69	0.73
1:A:345:C:H2'	1:A:346:A:H8	1.52	0.73
1:A:1159:G:C8	4:L:176:HIS:HE1	2.05	0.73
1:A:1730:C:O2'	1:A:1731:G:N2	2.21	0.73
1:A:2338:G:O2'	1:A:2339:A:OP1	2.06	0.73
2:C:30:A:H3'	2:C:30:A:N3	2.03	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:67:U:O4	3:B:109:U:C5	2.41	0.73
6:N:224:LYS:HB2	6:N:224:LYS:HZ2	1.52	0.73
1:A:886:U:H2'	1:A:887:G:H1'	1.69	0.73
1:A:1189:G:H21	12:T:214:GLN:HE22	1.32	0.73
1:A:1533:A:H2'	1:A:1534:A:N3	2.03	0.73
1:A:1588:U:O2	1:A:1670:A:N7	2.21	0.73
1:A:133:A:H2'	1:A:134:A:H8	1.50	0.73
1:A:292:C:O2'	1:A:293:G:H5'	1.89	0.73
1:A:1028:A:OP2	1:A:1181:G:N1	2.18	0.73
1:A:1379:C:N4	1:A:1393:U:OP2	2.22	0.73
1:A:1534:A:H2'	1:A:1535:A:C5'	2.18	0.73
1:A:2195:G:H2'	1:A:2196:G:C8	2.22	0.73
1:A:373:C:H2'	1:A:374:U:C6	2.24	0.73
1:A:609:G:H5"	26:G:79:LYS:HE3	1.69	0.73
1:A:860:C:H2'	1:A:861:A:C8	2.21	0.73
1:A:1023:C:N3	4:L:102:PRO:CD	2.44	0.73
1:A:1690:A:OP1	1:A:1690:A:H4'	1.87	0.73
1:A:1836:C:H5"	19:E:219:VAL:HG23	1.69	0.73
1:A:2316:G:H1	1:A:2334:C:N4	1.86	0.73
1:A:2752:G:O6	25:F:297:ILE:O	2.06	0.73
2:C:85:U:H2'	2:C:86:A:H8	1.51	0.73
10:R:197:PRO:HG2	10:R:200:SER:HB2	1.71	0.73
16:X:66:THR:OG1	16:X:67:LYS:HE2	1.89	0.73
1:A:140:G:N2	1:A:154:C:O2	2.16	0.73
1:A:288:C:C2'	1:A:289:A:H5'	2.19	0.73
1:A:1159:G:N9	4:L:176:HIS:CE1	2.56	0.73
1:A:1444:A:N1	1:A:1609:U:C4	2.56	0.73
1:A:1651:C:C6	13:U:116:PRO:CG	2.71	0.73
12:T:169:SER:C	12:T:233:SER:HB3	2.04	0.73
1:A:612:U:O2'	1:A:613:U:H5"	1.88	0.73
1:A:1082:A:O2'	1:A:1083:G:H5'	1.89	0.73
1:A:1474:A:H4'	1:A:1475:U:OP2	1.86	0.73
1:A:1754:A:C8	1:A:1755:A:N7	2.57	0.73
1:A:1833:G:P	19:E:50:ARG:HH12	2.10	0.73
1:A:2105:U:OP2	1:A:2106:U:O2'	2.06	0.73
1:A:2646:U:H4'	1:A:2647:A:OP1	1.88	0.73
27:H:163:ARG:NH2	27:H:192:PRO:HD3	2.04	0.73
1:A:234:C:H5	6:N:142:LYS:NZ	1.86	0.73
1:A:1082:A:H2'	1:A:1083:G:C8	2.24	0.73
1:A:1197:A:OP1	16:X:165:LYS:HB2	1.89	0.73
1:A:2647:A:N9	2:C:98:G:C2	2.57	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:X:101:PHE:CD1	16:X:133:LYS:CG	2.72	0.73
1:A:888:C:H3’	1:A:889:G:C8	2.23	0.73
13:U:153:THR:HB	13:U:156:LYS:HB2	1.70	0.73
1:A:1550:U:H2’	1:A:1551:G:H5’	1.71	0.72
1:A:253:C:C2	1:A:437:G:N2	2.56	0.72
1:A:626:C:H3’	1:A:627:C:C6	2.24	0.72
1:A:1047:U:OP1	1:A:1063:U:O2’	2.05	0.72
1:A:1161:A:C8	1:A:2040:U:O2’	2.42	0.72
1:A:1528:U:H2’	1:A:1529:A:H8	1.52	0.72
1:A:1806:U:H2’	1:A:1807:C:H6	1.53	0.72
1:A:270:G:H2’	1:A:271:G:C5’	2.18	0.72
1:A:1501:G:H1’	1:A:1502:A:OP1	1.89	0.72
14:V:116:GLN:HA	18:Z:91:ARG:CZ	2.18	0.72
19:E:245:PRO:HG2	19:E:246:TRP:CZ3	2.24	0.72
28:I:198:LYS:HG3	28:I:200:LYS:HB3	1.71	0.72
1:A:93:A:C2’	18:Z:102:PRO:HG2	2.16	0.72
1:A:139:U:C4	1:A:140:G:N7	2.58	0.72
1:A:936:A:H2’	1:A:937:U:O4’	1.89	0.72
1:A:1002:G:H5”	12:T:201:LYS:NZ	2.04	0.72
6:N:81:ARG:HH12	26:G:243:GLU:CG	2.02	0.72
17:Y:129:ILE:O	17:Y:133:GLY:N	2.22	0.72
19:E:157:VAL:HG22	19:E:190:GLN:HB2	1.70	0.72
19:E:237:ILE:CD1	19:E:239:ARG:HB2	2.08	0.72
29:J:57:ILE:HG22	29:J:59:ASP:H	1.55	0.72
1:A:937:U:O2’	1:A:938:G:H5”	1.90	0.72
1:A:1651:C:O2’	1:A:1652:A:OP1	2.08	0.72
1:A:2117:U:C2	1:A:2200:A:N1	2.56	0.72
3:B:36:A:H2	3:B:50:U:O2	1.72	0.72
6:N:175:GLU:C	6:N:213:LYS:HZ3	1.92	0.72
1:A:140:G:C5	1:A:155:A:C2	2.77	0.72
1:A:257:A:H3’	1:A:258:C:C5	2.24	0.72
1:A:410:G:H5”	1:A:2104:A:O4’	1.89	0.72
1:A:627:C:O2’	1:A:628:A:OP1	2.08	0.72
1:A:1090:U:H3	1:A:1104:C:N4	1.88	0.72
1:A:2192:U:O2’	1:A:2193:C:OP1	2.08	0.72
3:B:6:U:N3	3:B:118:G:N2	2.37	0.72
3:B:14:U:H5’	3:B:15:A:C8	2.24	0.72
1:A:317:G:N2	1:A:338:G:H21	1.84	0.72
1:A:884:G:H2’	1:A:885:G:H5’	1.72	0.72
1:A:1877:C:H2’	1:A:1878:C:H5”	1.72	0.72
1:A:1921:G:O6	1:A:1938:C:N4	2.23	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2321:G:O2'	27:H:186:ARG:HB2	1.90	0.72
3:B:66:C:C5	3:B:110:C:C4	2.77	0.72
6:N:154:LEU:H	6:N:155:PRO:HD3	1.42	0.72
1:A:702:C:O2'	19:E:39:ARG:HD3	1.88	0.72
1:A:2216:U:O2'	1:A:2217:U:H5'	1.88	0.72
1:A:2220:G:C5	1:A:2221:U:C5	2.78	0.72
1:A:2321:G:C5'	27:H:175:PHE:HB3	2.20	0.72
1:A:2579:U:H1'	5:M:23:ARG:NH1	2.03	0.72
1:A:2698:C:OP1	25:F:285:LYS:HE3	1.89	0.72
11:S:8:TYR:HE1	11:S:12:ARG:HE	1.37	0.72
12:T:170:THR:HG23	12:T:172:ILE:HD13	1.72	0.72
19:E:29:ILE:O	19:E:31:GLY:N	2.22	0.72
19:E:39:ARG:HB2	19:E:45:ILE:HD13	1.70	0.72
1:A:363:C:H2'	1:A:364:U:C5	2.23	0.72
1:A:377:G:HO2'	1:A:378:A:P	2.13	0.72
1:A:704:A:O2'	1:A:1374:A:N3	2.20	0.72
1:A:889:G:H2'	1:A:890:G:C8	2.25	0.72
1:A:1516:G:C3'	1:A:1517:G:H5"	2.19	0.72
2:C:103:G:C2'	2:C:104:A:H5'	2.20	0.72
12:T:116:PRO:N	12:T:117:PRO:CD	2.53	0.72
19:E:206:SER:HA	19:E:209:TRP:HD1	1.54	0.72
25:F:209:GLN:HE21	25:F:213:LYS:HE2	1.55	0.72
1:A:277:G:C2	1:A:278:G:N7	2.58	0.72
1:A:284:A:H1'	1:A:285:A:OP1	1.89	0.72
2:C:30:A:N6	2:C:83:C:C2'	2.53	0.72
6:N:117:GLN:OE1	6:N:125:ILE:CG1	2.38	0.72
27:H:171:ASN:HB3	27:H:174:SER:HB2	1.72	0.72
1:A:1039:A:N1	1:A:1178:G:O6	2.23	0.71
1:A:1475:U:O2'	8:P:70:LEU:HD13	1.88	0.71
1:A:1532:G:O2'	1:A:1611:G:H4'	1.89	0.71
1:A:1603:A:H2'	1:A:1604:A:C8	2.24	0.71
1:A:1746:C:C2'	1:A:1747:C:H5'	2.19	0.71
1:A:1496:A:C8	1:A:1497:A:C2	2.78	0.71
1:A:1548:A:O2'	1:A:1591:C:H4'	1.90	0.71
1:A:2192:U:H2'	1:A:2193:C:C6	2.24	0.71
3:B:25:G:H4'	3:B:26:A:N7	2.05	0.71
3:B:70:G:O2'	3:B:71:G:H5'	1.89	0.71
16:X:128:TYR:CE2	16:X:132:LYS:CG	2.73	0.71
29:J:73:PHE:CE2	29:J:78:LEU:HD21	2.25	0.71
1:A:151:G:C4	1:A:152:G:C8	2.78	0.71
1:A:290:A:C2	1:A:291:G:C5	2.79	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2324:G:C2	1:A:2328:A:C8	2.78	0.71
6:N:209:LYS:HB2	6:N:230:CYS:CA	2.19	0.71
28:I:48:ILE:HG13	28:I:90:LEU:CB	2.20	0.71
1:A:553:G:H1	1:A:561:C:N4	1.87	0.71
1:A:583:G:N1	1:A:2045:A:OP1	2.20	0.71
1:A:635:C:H2'	1:A:636:C:C6	2.25	0.71
1:A:1021:A:H1'	12:T:214:GLN:NE2	2.06	0.71
1:A:2212:A:O2'	1:A:2213:A:OP1	2.07	0.71
2:C:29:U:H1'	2:C:30:A:OP1	1.88	0.71
3:B:26:A:C2	3:B:27:A:C5	2.77	0.71
6:N:212:ILE:N	6:N:212:ILE:HD12	2.06	0.71
1:A:1:U:H2'	1:A:2:U:C6	2.25	0.71
1:A:234:C:H6	6:N:142:LYS:HZ1	0.74	0.71
1:A:278:G:N2	1:A:380:C:C2	2.59	0.71
1:A:361:C:H2'	1:A:362:A:C8	2.25	0.71
1:A:382:G:H3'	1:A:435:A:C5	2.24	0.71
1:A:858:G:O2'	1:A:859:A:C5'	2.38	0.71
1:A:1234:A:H62	1:A:1256:G:H22	1.38	0.71
1:A:2154:C:N4	1:A:2165:G:H1	1.88	0.71
2:C:72:A:C2'	2:C:73:G:H5'	2.20	0.71
3:B:63:C:O2'	3:B:64:U:H5'	1.90	0.71
3:B:118:G:O2'	3:B:119:G:OP1	2.08	0.71
1:A:255:A:OP2	1:A:271:G:C2	2.44	0.71
1:A:609:G:C4'	26:G:79:LYS:HD2	2.19	0.71
1:A:2107:G:H2'	1:A:2108:G:H5"	1.73	0.71
1:A:2120:U:C4	1:A:2197:A:C2	2.79	0.71
2:C:77:A:O2'	8:P:16:LYS:HG3	1.90	0.71
12:T:127:VAL:HG12	12:T:161:VAL:HG22	1.73	0.71
1:A:158:C:C4	1:A:159:A:N7	2.59	0.71
1:A:298:G:H2'	1:A:299:C:H6	1.56	0.71
1:A:313:A:N1	1:A:323:G:C6	2.59	0.71
1:A:318:A:H62	1:A:339:A:N6	1.87	0.71
1:A:621:G:C2'	1:A:622:G:H5'	2.21	0.71
2:C:103:G:N3	2:C:104:A:C8	2.58	0.71
3:B:45:G:O2'	3:B:46:A:OP2	2.08	0.71
3:B:92:U:H2'	3:B:93:C:C6	2.25	0.71
12:T:96:PRO:O	12:T:98:PRO:HD3	1.81	0.71
15:W:161:LEU:HD11	15:W:168:VAL:CG2	2.14	0.71
19:E:265:PHE:CE1	19:E:266:ILE:HD11	2.26	0.71
1:A:351:C:H2'	1:A:352:C:C5	2.25	0.71
1:A:843:C:C4'	6:N:125:ILE:CD1	2.59	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1538:G:H2'	1:A:1539:C:C6	2.24	0.71
1:A:2739:A:C6	2:C:77:A:N6	2.59	0.71
1:A:2770:C:H2'	1:A:2771:A:H5'	1.71	0.71
18:Z:152:LEU:HD13	18:Z:152:LEU:N	2.05	0.71
26:G:73:LYS:CB	26:G:261:VAL:O	2.38	0.71
27:H:145:ARG:HG2	27:H:146:GLY:H	1.55	0.71
1:A:1035:C:O3'	4:L:209:PRO:HB3	1.91	0.71
1:A:1809:G:OP1	19:E:256:ARG:HD3	1.91	0.71
2:C:53:G:H22	10:R:144:ARG:HH12	1.36	0.71
6:N:81:ARG:NH1	26:G:243:GLU:CG	2.53	0.71
14:V:160:ARG:NH2	14:V:177:MET:SD	2.63	0.71
17:Y:92:ASN:OD1	17:Y:94:LYS:NZ	2.23	0.71
1:A:548:G:HO2'	1:A:549:A:P	2.14	0.71
1:A:983:G:H22	7:O:82:ARG:NH1	1.85	0.71
1:A:1755:A:N3	1:A:1756:G:C8	2.59	0.71
1:A:2103:G:O2'	1:A:2104:A:H5'	1.91	0.71
1:A:2273:U:HO2'	16:X:66:THR:N	1.89	0.71
19:E:142:ILE:HG22	19:E:149:GLN:HG3	1.73	0.71
1:A:289:A:N1	1:A:369:U:C2	2.59	0.70
1:A:2137:G:N2	1:A:2190:A:C2	2.59	0.70
1:A:2807:C:C5	2:C:97:A:C2	2.79	0.70
4:L:208:LEU:HD22	4:L:217:LEU:HD11	1.72	0.70
1:A:1521:G:C2	1:A:1544:A:N1	2.58	0.70
16:X:121:GLY:CA	16:X:138:TYR:O	2.37	0.70
1:A:29:A:OP2	11:S:6:ARG:NH2	2.24	0.70
1:A:1885:C:N4	6:N:253:ALA:CA	2.54	0.70
1:A:1886:A:H61	6:N:252:ARG:HH22	1.39	0.70
1:A:2647:A:C8	2:C:98:G:C2	2.78	0.70
3:B:32:A:C6	3:B:55:G:N1	2.60	0.70
4:L:172:LEU:HG	4:L:187:THR:HG22	1.73	0.70
1:A:335:G:C6	1:A:346:A:N1	2.59	0.70
1:A:530:U:H5"	13:U:54:ARG:NH2	2.07	0.70
1:A:1082:A:H2'	1:A:1083:G:H8	1.56	0.70
1:A:1755:A:C2	1:A:1756:G:C4	2.79	0.70
3:B:91:G:N2	7:O:38:GLU:CG	2.36	0.70
6:N:156:LYS:NZ	6:N:215:ARG:HH12	1.56	0.70
6:N:176:VAL:HG12	6:N:177:SER:N	2.01	0.70
6:N:205:GLU:CD	6:N:224:LYS:HE2	2.11	0.70
1:A:2116:C:C4	1:A:2201:G:N2	2.43	0.70
12:T:171:TYR:C	12:T:172:ILE:HD12	2.11	0.70
15:W:70:LYS:HB2	15:W:70:LYS:NZ	2.07	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:F:144:LEU:HD11	25:F:166:ARG:HB2	1.73	0.70
1:A:2770:C:C2'	1:A:2771:A:H5'	2.22	0.70
7:O:97:VAL:HG23	7:O:101:ARG:HD3	1.73	0.70
12:T:136:VAL:HG21	12:T:221:ILE:HG13	1.73	0.70
16:X:162:ARG:CZ	16:X:162:ARG:HB2	2.22	0.70
1:A:75:C:O2'	18:Z:117:THR:HG21	1.92	0.70
1:A:886:U:O3'	1:A:887:G:O4'	2.08	0.70
1:A:2107:G:OP1	29:J:72:GLY:N	2.25	0.70
2:C:40:U:C2	2:C:87:A:C2	2.79	0.70
1:A:943:C:H4'	1:A:943:C:OP1	1.90	0.70
1:A:2351:G:C8	9:Q:64:VAL:CG2	2.71	0.70
1:A:2522:G:N2	1:A:2627:C:O2	2.25	0.70
2:C:30:A:C6	2:C:83:C:C2'	2.74	0.70
3:B:26:A:C2	3:B:27:A:N7	2.60	0.70
6:N:177:SER:HB3	6:N:213:LYS:HG3	1.74	0.70
6:N:205:GLU:OE1	6:N:224:LYS:CG	2.40	0.70
29:J:76:ASN:C	29:J:80:PRO:HD2	2.10	0.70
1:A:89:A:OP1	15:W:55:ASP:OD2	2.09	0.70
1:A:127:C:O2'	1:A:128:U:H5'	1.92	0.70
1:A:140:G:O6	1:A:155:A:C6	2.45	0.70
1:A:379:C:O2'	1:A:380:C:OP1	2.09	0.70
1:A:2409:A:N1	1:A:2441:C:N3	2.40	0.70
4:L:175:ARG:HH21	4:L:184:LYS:CD	2.01	0.70
6:N:165:ILE:HG23	6:N:166:GLU:CD	2.12	0.70
14:V:167:ARG:HG3	14:V:168:PRO:HD2	1.72	0.70
25:F:151:MET:SD	25:F:154:ARG:NH1	2.64	0.70
1:A:740:G:OP2	19:E:203:ARG:HD3	1.91	0.70
1:A:2236:C:C5	1:A:2237:A:C2	2.80	0.70
3:B:40:A:C2	3:B:45:G:C2	2.80	0.70
6:N:151:ARG:HA	6:N:151:ARG:HH11	1.55	0.70
1:A:297:U:C2'	1:A:298:G:H5'	2.20	0.69
1:A:332:G:N2	1:A:342:G:H1'	2.07	0.69
1:A:2644:G:O2'	1:A:2799:A:N1	2.22	0.69
2:C:80:C:H5'	10:R:121:ASP:OD1	1.93	0.69
12:T:174:THR:CG2	12:T:175:PRO:HD2	2.21	0.69
12:T:188:GLU:OE1	12:T:188:GLU:N	2.26	0.69
1:A:382:G:H1'	1:A:383:A:OP1	1.92	0.69
1:A:384:G:OP2	17:Y:131:LYS:CE	2.34	0.69
1:A:910:A:C2'	1:A:911:U:H5'	2.22	0.69
1:A:1521:G:N9	1:A:1543:G:N2	2.39	0.69
1:A:1926:A:N6	1:A:1931:U:C2	2.60	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2393:A:H2	9:Q:166:PHE:CE2	2.09	0.69
1:A:137:U:N3	1:A:157:G:N1	2.06	0.69
1:A:254:U:H2'	1:A:255:A:H5'	1.74	0.69
1:A:286:U:H2'	1:A:287:A:C8	2.27	0.69
1:A:287:A:C2	1:A:288:C:C2	2.80	0.69
1:A:356:A:C2	1:A:357:G:C5	2.80	0.69
1:A:889:G:H2'	1:A:890:G:H8	1.57	0.69
1:A:945:A:H2'	1:A:945:A:N3	2.05	0.69
1:A:2109:C:C6	1:A:2110:U:C5	2.80	0.69
1:A:2219:U:H4'	1:A:2229:U:N3	2.07	0.69
1:A:2230:A:H2'	1:A:2230:A:N3	2.05	0.69
3:B:86:G:N1	3:B:87:G:C5	2.60	0.69
6:N:81:ARG:HH11	26:G:243:GLU:CA	2.05	0.69
1:A:291:G:H2'	1:A:292:C:C6	2.27	0.69
1:A:624:A:H3'	1:A:625:C:C5	2.27	0.69
1:A:2227:C:C5	1:A:2228:C:C4	2.81	0.69
3:B:86:G:C2	3:B:87:G:C5	2.81	0.69
11:S:52:ARG:HG2	11:S:55:ARG:HH11	1.56	0.69
1:A:296:G:O2'	1:A:297:U:H5'	1.92	0.69
1:A:624:A:C2	1:A:625:C:C6	2.80	0.69
1:A:2655:G:O2'	1:A:2796:A:N6	2.26	0.69
1:A:2215:C:C2'	1:A:2216:U:H5'	2.22	0.69
1:A:2730:A:C8	1:A:2731:C:H5"	2.27	0.69
3:B:12:C:O2	3:B:112:A:H2	1.75	0.69
3:B:34:C:C2	3:B:52:G:N2	2.61	0.69
6:N:135:PRO:HD2	6:N:138:ARG:HB2	1.74	0.69
12:T:103:TYR:HD2	12:T:106:ILE:HD12	1.58	0.69
25:F:229:HIS:O	25:F:231:ALA:N	2.26	0.69
1:A:32:U:O4	1:A:458:G:O2'	2.07	0.69
1:A:2203:U:H2'	1:A:2204:A:O4'	1.92	0.69
3:B:110:C:O2'	3:B:111:G:OP2	2.07	0.69
15:W:71:VAL:HA	15:W:89:ILE:HD11	1.74	0.69
19:E:264:ASN:O	19:E:264:ASN:ND2	2.26	0.69
26:G:129:GLN:CD	26:G:134:ARG:HH22	1.95	0.69
1:A:137:U:O2	1:A:157:G:N2	2.26	0.69
1:A:1159:G:N3	4:L:176:HIS:ND1	2.37	0.69
1:A:1426:U:H2'	1:A:1427:A:H8	1.56	0.69
1:A:2107:G:C2'	1:A:2108:G:H5"	2.21	0.69
1:A:2280:C:OP2	16:X:73:LYS:HE3	1.92	0.69
6:N:182:LYS:HE2	6:N:189:PRO:HG3	1.75	0.69
10:R:137:LEU:HG	10:R:138:ARG:HG3	1.74	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:T:116:PRO:HD2	12:T:117:PRO:CD	2.22	0.69
19:E:176:GLU:HG2	19:E:267:ILE:O	1.92	0.69
1:A:279:A:N3	1:A:279:A:H3'	2.08	0.69
1:A:385:U:O2'	1:A:386:A:H5'	1.93	0.69
1:A:898:G:N9	1:A:899:A:N7	2.40	0.69
1:A:1475:U:C4'	8:P:73:ARG:HH21	2.06	0.69
1:A:2011:G:C5'	25:F:219:ARG:HH21	2.05	0.69
1:A:2810:A:H3'	1:A:2810:A:N3	2.08	0.69
1:A:38:C:O2	26:G:97:ARG:NH1	2.25	0.69
1:A:793:A:C2	19:E:221:MET:HG2	2.26	0.69
1:A:899:A:C4	1:A:900:G:C8	2.81	0.69
1:A:1532:G:N2	1:A:1611:G:C2	2.61	0.69
1:A:1703:G:N2	1:A:2006:G:OP2	2.18	0.69
1:A:2213:A:N6	1:A:2241:G:C2	2.59	0.69
17:Y:124:LYS:O	17:Y:128:THR:CG2	2.38	0.69
28:I:48:ILE:O	28:I:89:PHE:CD1	2.45	0.69
1:A:253:C:C2	1:A:437:G:C2	2.81	0.68
1:A:879:G:N2	1:A:880:U:O2	2.26	0.68
1:A:946:A:H62	1:A:950:A:N6	1.88	0.68
1:A:1535:A:N3	1:A:1535:A:H3'	2.08	0.68
1:A:1951:A:O2'	1:A:1952:A:OP1	2.10	0.68
1:A:2213:A:C5	1:A:2242:A:C2	2.80	0.68
1:A:2213:A:H61	1:A:2241:G:N2	1.69	0.68
6:N:143:LEU:HD23	6:N:143:LEU:N	2.06	0.68
25:F:99:MET:HG2	25:F:113:THR:HG22	1.73	0.68
25:F:140:GLY:HA3	25:F:165:MET:SD	2.33	0.68
1:A:136:U:N3	1:A:160:A:N1	2.14	0.68
1:A:257:A:N7	1:A:258:C:N4	2.41	0.68
1:A:342:G:C2'	1:A:343:U:H5'	2.22	0.68
1:A:362:A:H2'	1:A:363:C:C6	2.28	0.68
1:A:854:A:N1	1:A:964:C:N3	2.41	0.68
1:A:1521:G:N1	1:A:1544:A:C2	2.61	0.68
1:A:2116:C:N4	1:A:2201:G:H1	1.88	0.68
12:T:170:THR:O	12:T:233:SER:N	2.26	0.68
25:F:144:LEU:HD11	25:F:166:ARG:NE	2.08	0.68
27:H:89:VAL:HG22	27:H:207:VAL:HG22	1.75	0.68
1:A:100:G:O2'	1:A:101:A:OP2	2.11	0.68
1:A:368:U:N3	1:A:369:U:C5	2.61	0.68
1:A:1401:G:O2'	1:A:1603:A:N6	2.24	0.68
1:A:1532:G:H2'	1:A:1533:A:H5'	1.76	0.68
1:A:2129:G:HO2'	1:A:2131:U:H5	1.32	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2292:C:H1'	16:X:67:LYS:HD3	1.75	0.68
1:A:2652:A:O2'	25:F:170:GLU:OE1	2.09	0.68
1:A:2655:G:P	25:F:172:ARG:HH22	2.16	0.68
6:N:102:HIS:CD2	12:T:205:ASN:ND2	2.61	0.68
6:N:205:GLU:OE1	6:N:224:LYS:CE	2.41	0.68
12:T:169:SER:C	12:T:233:SER:CB	2.61	0.68
16:X:161:GLN:OE1	16:X:161:GLN:HA	1.94	0.68
16:X:162:ARG:HG2	16:X:162:ARG:HH11	1.58	0.68
1:A:883:C:H4'	7:O:65:TRP:CZ3	2.27	0.68
1:A:1531:A:O2'	1:A:1532:G:OP1	2.08	0.68
4:L:168:ARG:NH2	4:L:192:GLN:OE1	2.27	0.68
6:N:198:LEU:HD22	6:N:214:ALA:CB	2.23	0.68
1:A:143:G:N2	1:A:2224:G:N1	2.42	0.68
1:A:858:G:C4	1:A:859:A:C8	2.82	0.68
1:A:1167:C:OP2	4:L:167:LYS:NZ	2.26	0.68
1:A:2331:G:N2	27:H:182:SER:HG	1.90	0.68
1:A:2338:G:H3'	1:A:2338:G:N3	2.08	0.68
3:B:35:A:H8	3:B:35:A:P	2.16	0.68
1:A:256:A:O2'	1:A:257:A:OP1	2.12	0.68
1:A:263:A:N3	1:A:263:A:H3'	2.08	0.68
1:A:389:A:H2'	1:A:390:U:C6	2.28	0.68
1:A:1294:A:OP2	1:A:1682:C:N4	2.27	0.68
1:A:1449:C:H5	19:E:25:ARG:HH21	1.41	0.68
1:A:1499:G:C2	1:A:1546:C:N3	2.61	0.68
1:A:1525:G:O2'	1:A:1526:G:H5'	1.93	0.68
1:A:2653:U:H5'	25:F:170:GLU:CD	2.14	0.68
12:T:170:THR:CG2	12:T:172:ILE:HD11	2.23	0.68
15:W:67:ARG:NH2	15:W:92:ILE:CG1	2.54	0.68
1:A:812:G:C8	26:G:106:ALA:HB2	2.28	0.68
1:A:854:A:H2'	1:A:855:C:H5'	1.75	0.68
1:A:1531:A:N3	1:A:1531:A:H2'	2.07	0.68
1:A:2074:A:H62	26:G:125:ARG:NH2	1.85	0.68
1:A:2322:A:O4'	27:H:186:ARG:CD	2.40	0.68
2:C:40:U:C4	2:C:87:A:C6	2.81	0.68
3:B:86:G:N3	3:B:87:G:C8	2.61	0.68
4:L:213:LEU:C	4:L:213:LEU:HD13	2.14	0.68
13:U:163:LEU:HD23	13:U:163:LEU:C	2.14	0.68
25:F:145:ARG:HG3	25:F:145:ARG:NH2	2.09	0.68
29:J:75:ARG:O	29:J:80:PRO:HD3	1.93	0.68
1:A:255:A:OP2	1:A:271:G:N1	2.26	0.68
1:A:318:A:N3	1:A:338:G:O2'	2.26	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:616:U:P	26:G:155:LYS:HZ3	2.17	0.68
1:A:902:G:H3'	1:A:903:G:H5"	1.76	0.68
1:A:1263:G:N2	6:N:83:ASP:CG	2.45	0.68
1:A:1806:U:H2'	1:A:1807:C:C6	2.29	0.68
1:A:2213:A:H2	1:A:2214:C:N1	1.79	0.68
3:B:26:A:N3	3:B:27:A:C8	2.62	0.68
3:B:32:A:C6	3:B:55:G:C6	2.82	0.68
18:Z:99:ASN:OD1	18:Z:101:LYS:NZ	2.27	0.68
27:H:119:VAL:N	27:H:141:ALA:O	2.26	0.68
28:I:46:GLN:HB3	28:I:109:ARG:NE	2.09	0.68
1:A:914:A:H2'	1:A:915:G:H5'	1.76	0.68
1:A:1362:G:H1'	14:V:163:ASN:HB3	1.74	0.68
1:A:1539:C:O2'	1:A:1540:C:H5'	1.93	0.68
1:A:2117:U:H3	1:A:2200:A:N6	1.92	0.68
1:A:2322:A:C1'	27:H:186:ARG:HD3	2.21	0.68
2:C:102:U:O2'	2:C:103:G:H5'	1.94	0.68
15:W:67:ARG:HD3	15:W:131:SER:OG	1.92	0.68
18:Z:101:LYS:O	18:Z:105:PHE:N	2.27	0.68
27:H:186:ARG:NH2	27:H:204:GLY:HA2	2.08	0.68
1:A:60:U:C2'	18:Z:94:ARG:NH1	2.56	0.68
1:A:352:C:H2'	1:A:353:G:H5'	1.75	0.68
1:A:355:A:N7	1:A:356:A:N9	2.40	0.68
1:A:1394:A:C5'	1:A:2230:A:H1'	2.23	0.68
1:A:1600:A:C2	19:E:209:TRP:CH2	2.82	0.68
1:A:2351:G:N3	9:Q:64:VAL:CG2	2.55	0.68
1:A:1497:A:H61	1:A:1547:C:N4	1.91	0.67
1:A:1745:C:C2	1:A:1746:C:C5	2.83	0.67
16:X:67:LYS:HD2	16:X:67:LYS:N	2.09	0.67
1:A:208:A:O2'	1:A:432:G:H1'	1.94	0.67
1:A:362:A:O2'	1:A:363:C:H5'	1.95	0.67
1:A:876:A:H2'	1:A:877:C:H5'	1.76	0.67
1:A:966:G:O2'	1:A:967:C:H5'	1.95	0.67
1:A:1236:A:N6	1:A:1253:G:N1	2.02	0.67
1:A:1273:G:OP2	11:S:14:ARG:NH2	2.27	0.67
1:A:1528:U:H3	1:A:1538:G:H1	1.42	0.67
1:A:2233:G:C2	1:A:2234:G:C5	2.82	0.67
1:A:2237:A:C2'	1:A:2238:A:H5'	2.24	0.67
1:A:2360:U:HO2'	1:A:2390:A:HO2'	1.41	0.67
12:T:177:VAL:HB	12:T:230:TYR:OH	1.93	0.67
14:V:109:LEU:CD1	14:V:141:ARG:C	2.61	0.67
1:A:5:A:O2'	1:A:6:A:O4'	2.09	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:276:G:C6	1:A:433:C:N4	2.62	0.67
1:A:988:A:N6	7:O:82:ARG:HH11	1.92	0.67
1:A:2119(A):U:H3	1:A:2199:G:H22	1.42	0.67
1:A:2320:G:H1	1:A:2330:U:H3	1.41	0.67
1:A:2324:G:H4'	1:A:2325:G:H5"	1.75	0.67
2:C:8:G:N1	2:C:92:C:N3	2.34	0.67
3:B:8:G:O6	3:B:115:C:N4	2.28	0.67
3:B:25:G:C5	3:B:57:U:C4	2.82	0.67
11:S:91:LEU:CG	12:T:175:PRO:CG	2.67	0.67
1:A:137:U:N3	1:A:157:G:N2	2.41	0.67
1:A:274:G:C5	1:A:433:C:C5	2.82	0.67
1:A:1545:G:N7	1:A:1546:C:C5	2.61	0.67
1:A:2108:G:O6	1:A:2210:C:N4	2.28	0.67
1:A:2123:U:H6	1:A:2123:U:O5'	1.77	0.67
1:A:2207:A:H2'	1:A:2208:U:C1'	2.25	0.67
25:F:144:LEU:HD12	25:F:166:ARG:HB2	1.76	0.67
28:I:46:GLN:OE1	28:I:109:ARG:HG2	1.90	0.67
1:A:9:A:H1'	2:C:99:A:C6	2.29	0.67
1:A:141:C:N3	1:A:153:G:C2	2.44	0.67
1:A:919:A:H2'	1:A:920:A:H5'	1.75	0.67
1:A:1136:U:C2'	1:A:1137:C:H5'	2.24	0.67
3:B:27:A:O2'	3:B:28:C:H5'	1.95	0.67
3:B:41:U:H5"	3:B:42:C:H5"	1.76	0.67
18:Z:120:ARG:O	18:Z:124:ILE:HG13	1.95	0.67
1:A:75:C:N3	1:A:108:G:O6	2.26	0.67
1:A:161:G:N2	1:A:162:A:N3	2.43	0.67
1:A:268:G:C6	1:A:269:G:C6	2.82	0.67
1:A:1535:A:H8	19:E:95:GLY:HA3	1.54	0.67
1:A:1536:A:N3	1:A:1536:A:H3'	2.09	0.67
1:A:1755:A:C2	1:A:1756:G:C5	2.83	0.67
11:S:91:LEU:CB	12:T:175:PRO:HA	2.23	0.67
1:A:277:G:H3'	1:A:277:G:N3	2.10	0.67
1:A:320:U:H1'	1:A:341:A:N9	2.10	0.67
1:A:644:A:OP1	6:N:151:ARG:NH1	2.28	0.67
1:A:891:G:C2	1:A:892:C:C2	2.82	0.67
1:A:1179:C:O5'	1:A:1179:C:H6	1.78	0.67
1:A:1238:G:H2'	1:A:1239:C:C5	2.30	0.67
16:X:122:LEU:CG	16:X:140:ARG:CB	2.72	0.67
19:E:259:ASN:HD22	19:E:259:ASN:N	1.91	0.67
1:A:857:G:H1'	1:A:961:G:N2	2.10	0.67
1:A:863:C:O5'	1:A:863:C:H6	1.78	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:879:G:C2	1:A:880:U:C2	2.82	0.67
1:A:1080:C:H2'	1:A:1081:C:C4'	2.24	0.67
1:A:1526:G:C2	1:A:1540:C:O2	2.47	0.67
1:A:1830:U:H5'	1:A:1831:G:N7	2.09	0.67
1:A:1878:C:H2'	1:A:1879:U:C6	2.28	0.67
1:A:2231:C:H3'	1:A:2232:G:H8	1.59	0.67
1:A:2345:A:H2'	1:A:2346:A:C8	2.30	0.67
3:B:87:G:N1	3:B:93:C:N3	2.42	0.67
28:I:46:GLN:OE1	28:I:109:ARG:HD2	1.94	0.67
1:A:152:G:C5	1:A:153:G:N7	2.63	0.67
1:A:545:U:C2'	11:S:49:ASP:OD2	2.43	0.67
1:A:1521:G:OP2	1:A:1541:U:OP2	2.13	0.67
1:A:2433:C:P	6:N:145:GLY:HA2	2.35	0.67
10:R:131:VAL:HG13	10:R:199:TYR:CE2	2.29	0.67
10:R:148:ILE:HD12	10:R:210:SER:HB2	1.77	0.67
1:A:1522:A:C2	1:A:1523:A:C5	2.83	0.67
1:A:1746:C:HO2'	1:A:1747:C:H5'	1.59	0.67
1:A:2108:G:N3	1:A:2108:G:H3'	2.09	0.67
1:A:2322:A:C4	27:H:186:ARG:HD2	1.65	0.67
1:A:2480:U:C4	1:A:2504:A:N1	2.62	0.67
27:H:186:ARG:O	27:H:187:GLU:HB2	1.94	0.67
28:I:48:ILE:HG13	28:I:90:LEU:C	2.14	0.67
1:A:524:A:H1'	11:S:11:ARG:NH2	2.09	0.66
3:B:68:G:C2	3:B:69:C:C2	2.83	0.66
6:N:175:GLU:C	6:N:213:LYS:NZ	2.48	0.66
11:S:91:LEU:HG	12:T:175:PRO:CD	2.24	0.66
15:W:67:ARG:NE	15:W:131:SER:OG	2.28	0.66
17:Y:129:ILE:HD12	17:Y:129:ILE:C	2.16	0.66
19:E:237:ILE:HG23	19:E:238:GLY:H	1.59	0.66
1:A:82:G:OP2	15:W:157:LYS:NZ	2.28	0.66
1:A:127:C:O5'	1:A:127:C:H6	1.78	0.66
1:A:160:A:H8	1:A:160:A:OP2	1.78	0.66
1:A:1153:G:H3'	1:A:1154:A:H5"	1.77	0.66
1:A:1882:U:C5	1:A:1883:G:N7	2.63	0.66
10:R:138:ARG:HH12	10:R:199:TYR:HA	1.60	0.66
16:X:156:GLU:OE1	16:X:157:ASN:N	2.28	0.66
1:A:976:C:O2	1:A:1012:G:O2'	2.13	0.66
1:A:1602:G:H4'	19:E:55:LYS:HB2	1.76	0.66
1:A:2330:U:C4'	27:H:90:ASN:HD22	2.08	0.66
1:A:2393:A:C2	9:Q:166:PHE:HZ	2.10	0.66
1:A:2421:C:O5'	1:A:2421:C:H6	1.78	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2647:A:C8	2:C:98:G:C5	2.84	0.66
3:B:26:A:N1	3:B:27:A:C5	2.63	0.66
12:T:170:THR:CA	12:T:233:SER:HB3	2.20	0.66
1:A:111:U:P	18:Z:134:ARG:NH1	2.67	0.66
1:A:298:G:C2	1:A:299:C:C4	2.83	0.66
1:A:368:U:N1	1:A:369:U:H5	1.91	0.66
1:A:902:G:C6	1:A:903:G:C8	2.84	0.66
1:A:942:U:O5'	1:A:942:U:H6	1.78	0.66
1:A:1361:U:O4	14:V:168:PRO:CG	2.43	0.66
1:A:1525:G:N2	1:A:1541:U:N3	2.44	0.66
1:A:2740:G:O2'	8:P:13:HIS:O	2.13	0.66
1:A:2764:U:H3	1:A:2776:A:N6	1.92	0.66
2:C:40:U:N3	2:C:87:A:N6	2.40	0.66
3:B:8:G:O2'	3:B:9:U:O5'	2.13	0.66
6:N:144:ARG:C	6:N:146:ILE:HD12	2.16	0.66
26:G:208:PHE:HB3	26:G:229:LEU:HB2	1.76	0.66
1:A:298:G:C2	1:A:299:C:C5	2.84	0.66
1:A:524:A:C2'	11:S:11:ARG:HH22	2.09	0.66
1:A:1361:U:O4	14:V:168:PRO:HD3	1.95	0.66
1:A:2157:U:C2	1:A:2163:G:C2	2.83	0.66
1:A:2312:C:O2	1:A:2355:G:N2	2.29	0.66
2:C:104:A:N3	2:C:105:A:N7	2.42	0.66
6:N:195:ARG:NE	6:N:195:ARG:HA	2.09	0.66
6:N:197:PRO:HB2	6:N:215:ARG:CD	2.26	0.66
10:R:187:ILE:HG22	10:R:188:ALA:H	1.60	0.66
12:T:93:PHE:O	12:T:94:GLN:HB2	1.96	0.66
12:T:177:VAL:CB	12:T:230:TYR:OH	2.43	0.66
13:U:32:ILE:HD11	13:U:93:PHE:HE2	1.61	0.66
15:W:159:ARG:HB3	15:W:168:VAL:HB	1.77	0.66
16:X:128:TYR:HE2	16:X:132:LYS:CG	2.08	0.66
25:F:121:ASN:HD22	25:F:121:ASN:N	1.93	0.66
1:A:318:A:N6	1:A:339:A:H62	1.90	0.66
1:A:1810:C:H4'	1:A:1811:A:H5'	1.76	0.66
1:A:1815:U:O2	19:E:46:THR:OG1	2.12	0.66
1:A:1878:C:O2'	1:A:1879:U:H5'	1.95	0.66
1:A:2322:A:O4'	27:H:186:ARG:HD3	1.95	0.66
1:A:2336:U:H6	1:A:2336:U:O5'	1.79	0.66
1:A:2479:U:C4	1:A:2505:A:N1	2.63	0.66
3:B:5:C:O5'	3:B:5:C:H6	1.79	0.66
15:W:89:ILE:HG22	15:W:101:ILE:HG22	1.77	0.66
15:W:141:GLN:HG3	15:W:166:GLU:OE2	1.93	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:F:87:ASP:OD1	25:F:88:ALA:N	2.29	0.66
1:A:266:A:H2'	1:A:267:C:C6	2.31	0.66
1:A:389:A:N6	1:A:410:G:C6	2.64	0.66
1:A:824:U:H2'	1:A:825:C:H6	1.60	0.66
1:A:2220:G:C6	1:A:2221:U:C4	2.84	0.66
1:A:629:C:O5'	1:A:629:C:H6	1.78	0.66
1:A:857:G:C2	1:A:961:G:N3	2.60	0.66
1:A:1600:A:N3	19:E:209:TRP:CZ3	2.64	0.66
1:A:2141:G:O2'	1:A:2142:G:O4'	2.13	0.66
1:A:2188:C:O5'	1:A:2188:C:H6	1.79	0.66
2:C:80:C:H2'	2:C:81:A:C8	2.31	0.66
2:C:101:U:H5'	2:C:102:U:OP2	1.94	0.66
3:B:93:C:O5'	3:B:93:C:H6	1.79	0.66
4:L:100:TRP:HE3	4:L:101:TYR:CD2	2.12	0.66
12:T:169:SER:CB	12:T:233:SER:HB2	2.22	0.66
12:T:201:LYS:HG2	12:T:206:TYR:HE2	1.59	0.66
27:H:175:PHE:HD1	27:H:183:VAL:CG1	2.09	0.66
1:A:60:U:C2'	18:Z:94:ARG:HH12	2.08	0.66
1:A:258:C:H6	1:A:258:C:O5'	1.79	0.66
1:A:294:U:H2'	1:A:295:C:C1'	2.26	0.66
1:A:475:G:N2	1:A:478:A:OP2	2.28	0.66
1:A:1220:U:O2	11:S:3:ARG:NH2	2.29	0.66
1:A:1519:A:C2	1:A:1520:A:C5	2.84	0.66
1:A:1582:A:H2'	1:A:1583:A:C8	2.31	0.66
1:A:2315:G:N2	1:A:2338:G:N7	2.44	0.66
1:A:2320:G:C4'	27:H:175:PHE:HA	2.21	0.66
3:B:25:G:C8	3:B:57:U:C5	2.83	0.66
3:B:87:G:C2	3:B:93:C:C2	2.84	0.66
1:A:1393:U:O2'	1:A:2230:A:C2'	2.43	0.66
1:A:1886:A:H61	6:N:252:ARG:NH2	1.94	0.66
1:A:2529:C:H5"	25:F:217:PHE:HD1	1.60	0.66
6:N:212:ILE:HG22	6:N:214:ALA:H	1.60	0.66
7:O:77:ARG:NH1	7:O:78:PRO:O	2.29	0.66
19:E:80:ASP:HB2	19:E:87:ILE:HG12	1.78	0.66
1:A:1538:G:H8	1:A:1538:G:O5'	1.79	0.65
1:A:1544:A:H2'	1:A:1545:G:O4'	1.96	0.65
1:A:2103:G:O6	1:A:2104:A:N6	2.30	0.65
3:B:40:A:O2'	3:B:47:A:N1	2.29	0.65
6:N:88:GLN:HG3	26:G:82:ALA:HB2	1.78	0.65
7:O:39:PRO:HB3	7:O:99:PRO:HD3	1.76	0.65
19:E:226:HIS:ND1	19:E:228:HIS:CD2	2.63	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:206:A:H1'	1:A:218:A:H1'	1.77	0.65
1:A:1160:A:C8	4:L:174:ARG:HD2	2.31	0.65
1:A:1635:C:H4'	14:V:106:ARG:HH21	1.58	0.65
6:N:197:PRO:HB2	6:N:215:ARG:HD3	1.78	0.65
28:I:44:GLY:HA2	28:I:105:HIS:ND1	2.11	0.65
1:A:71:A:C2	18:Z:117:THR:HG23	2.30	0.65
1:A:166:A:H2'	1:A:167:A:C8	2.31	0.65
1:A:336:G:C2'	1:A:337:U:H5'	2.26	0.65
1:A:853:G:H1	1:A:964:C:H42	1.44	0.65
1:A:886:U:O5'	1:A:886:U:H6	1.79	0.65
1:A:1479:U:C4'	1:A:1480:A:H5"	2.20	0.65
1:A:1505:C:H6	1:A:1505:C:O5'	1.78	0.65
1:A:2107:G:C6	1:A:2242:A:C8	2.81	0.65
1:A:2337:C:H6	1:A:2337:C:O5'	1.78	0.65
6:N:197:PRO:HB3	6:N:215:ARG:CD	2.18	0.65
14:V:115:LEU:HD21	14:V:151:ILE:HD11	1.79	0.65
1:A:374:U:O5'	1:A:374:U:H6	1.80	0.65
1:A:843:C:C4'	6:N:125:ILE:HD11	2.20	0.65
1:A:1407:C:H2'	1:A:1408:A:H8	1.62	0.65
1:A:1524:G:N1	1:A:1525:G:C6	2.64	0.65
1:A:1756:G:C2	1:A:1757:G:C5	2.84	0.65
1:A:2157:U:N3	1:A:2163:G:C2	2.64	0.65
1:A:2486:A:O2'	7:O:56:ARG:NE	2.29	0.65
3:B:36:A:C6	3:B:45:G:C6	2.83	0.65
3:B:38:C:O5'	3:B:38:C:H6	1.79	0.65
11:S:92:LEU:O	11:S:94:ARG:HG2	1.95	0.65
1:A:2:U:H2'	1:A:3:C:C6	2.32	0.65
1:A:300:U:O5'	1:A:300:U:H6	1.80	0.65
1:A:330:U:H3	26:G:218:LYS:HE3	1.58	0.65
1:A:669:C:O2'	1:A:670:A:H5'	1.97	0.65
1:A:899:A:H1'	1:A:900:G:O5'	1.96	0.65
1:A:1875:G:H8	1:A:1875:G:O5'	1.79	0.65
1:A:2310:U:OP1	9:Q:62:LYS:NZ	2.29	0.65
1:A:2643:C:O5'	1:A:2643:C:H6	1.79	0.65
2:C:12:C:H5"	8:P:109:ARG:NH2	2.10	0.65
2:C:84:C:O5'	2:C:84:C:H6	1.79	0.65
9:Q:73:LEU:HA	9:Q:85:GLN:O	1.96	0.65
13:U:117:ARG:HD2	13:U:123:TYR:CE2	2.31	0.65
19:E:175:GLY:O	19:E:268:ARG:HB3	1.94	0.65
1:A:1540:C:O5'	1:A:1540:C:H6	1.79	0.65
4:L:172:LEU:HD12	4:L:172:LEU:N	2.10	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:V:162:VAL:HG12	14:V:176:ILE:HG22	1.79	0.65
26:G:71:ASN:HD22	26:G:72:LEU:N	1.95	0.65
27:H:58:LYS:O	27:H:62:ILE:HG12	1.96	0.65
1:A:352:C:O5'	1:A:352:C:H6	1.79	0.65
1:A:861:A:H2'	1:A:862:U:H5'	1.77	0.65
1:A:885:G:H2'	1:A:886:U:C6	2.31	0.65
1:A:917:C:O5'	1:A:917:C:H6	1.79	0.65
1:A:1495:C:C4	1:A:1548:A:N6	2.64	0.65
1:A:1808:C:H2'	1:A:1829:A:N6	2.05	0.65
1:A:2807:C:H42	2:C:98:G:H1	1.45	0.65
2:C:80:C:H2'	2:C:81:A:H8	1.62	0.65
3:B:8:G:N2	3:B:116:C:O2	2.30	0.65
3:B:43:C:H2'	3:B:44:C:C6	2.32	0.65
16:X:128:TYR:HA	16:X:134:LYS:HD3	1.77	0.65
1:A:218:A:H61	1:A:441:A:H61	1.43	0.65
1:A:887:G:H1	1:A:909:A:H61	1.42	0.65
1:A:2109:C:C5	1:A:2110:U:N1	2.64	0.65
1:A:2110:U:H6	1:A:2110:U:O5'	1.80	0.65
1:A:2593:G:O2'	1:A:2596:C:OP2	2.14	0.65
6:N:172:GLU:O	6:N:172:GLU:HG2	1.97	0.65
14:V:144:LYS:O	14:V:148:ARG:CB	2.44	0.65
19:E:267:ILE:CG2	19:E:269:ARG:HB2	2.27	0.65
25:F:198:ASP:OD1	25:F:263:LYS:N	2.30	0.65
26:G:59:ASN:OD1	26:G:62:GLY:N	2.26	0.65
1:A:626:C:H3'	1:A:627:C:C5	2.32	0.65
1:A:635:C:O5'	1:A:635:C:H6	1.78	0.65
1:A:1307:A:C6	1:A:1350:U:N3	2.64	0.65
1:A:2105:U:O5'	1:A:2105:U:H6	1.79	0.65
2:C:31:U:O2	2:C:38:G:N7	2.30	0.65
3:B:7:G:O6	3:B:117:A:C2	2.49	0.65
3:B:30:A:OP2	9:Q:78:SER:OG	2.14	0.65
3:B:35:A:H2'	3:B:36:A:C8	2.32	0.65
6:N:146:ILE:HD12	6:N:146:ILE:N	2.12	0.65
14:V:121:THR:HG23	14:V:124:ALA:H	1.61	0.65
25:F:199:ILE:HD11	25:F:282:VAL:HB	1.79	0.65
1:A:287:A:H2'	1:A:288:C:C5	2.32	0.65
1:A:988:A:H61	7:O:82:ARG:HH11	1.45	0.65
1:A:1926:A:N7	1:A:1931:U:O4	2.29	0.65
1:A:2113:G:O2'	1:A:2114:G:H5'	1.97	0.65
1:A:2213:A:C5	1:A:2242:A:C6	2.85	0.65
1:A:2322:A:H2'	1:A:2323:C:C6	2.31	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:82:U:O5’	2:C:82:U:H6	1.79	0.65
3:B:8:G:C2	3:B:116:C:O2	2.50	0.65
11:S:91:LEU:CD2	12:T:175:PRO:HG3	2.27	0.65
13:U:57:SER:OG	13:U:60:GLU:OE1	2.11	0.65
1:A:274:G:C4	1:A:433:C:H5	2.15	0.64
1:A:363:C:O5’	1:A:363:C:H6	1.79	0.64
1:A:382:G:H4’	1:A:383:A:OP2	1.96	0.64
1:A:1161:A:H1’	1:A:1162:C:P	2.36	0.64
2:C:85:U:H2’	2:C:86:A:C8	2.32	0.64
3:B:32:A:H2’	3:B:33:C:H5’	1.77	0.64
7:O:91:GLU:CD	7:O:92:TYR:H	1.99	0.64
16:X:101:PHE:CD1	16:X:133:LYS:HG2	2.32	0.64
27:H:188:GLN:HA	27:H:188:GLN:NE2	2.00	0.64
28:I:81:LEU:O	28:I:93:ARG:N	2.24	0.64
1:A:98:G:H4’	1:A:99:A:C5’	2.27	0.64
1:A:102:U:H2’	1:A:103:C:C5’	2.22	0.64
1:A:276:G:C2	1:A:416:C:O2’	2.48	0.64
1:A:648:G:H1	6:N:158:VAL:HG21	1.61	0.64
1:A:1528:U:O5’	1:A:1528:U:H6	1.80	0.64
1:A:1879:U:C4	6:N:252:ARG:NH1	2.64	0.64
1:A:2141:G:O2’	1:A:2142:G:O5’	2.16	0.64
1:A:2316:G:N2	1:A:2334:C:N3	2.39	0.64
4:L:173:TYR:HD1	4:L:202:HIS:ND1	1.94	0.64
6:N:198:LEU:HD23	6:N:198:LEU:C	2.16	0.64
25:F:121:ASN:ND2	25:F:141:TYR:HD1	1.95	0.64
26:G:59:ASN:ND2	26:G:63:GLU:OE2	2.30	0.64
1:A:83:A:N6	1:A:98:G:C6	2.65	0.64
1:A:385:U:O5’	1:A:385:U:H6	1.80	0.64
1:A:560:A:O2’	1:A:561:C:OP1	2.13	0.64
1:A:858:G:C5	1:A:859:A:N7	2.65	0.64
1:A:934:A:H1’	1:A:935:U:O5’	1.97	0.64
1:A:937:U:H2’	1:A:938:G:H5’	1.80	0.64
1:A:1394:A:H5’	1:A:2230:A:C1’	2.27	0.64
1:A:1497:A:H3’	1:A:1498:G:H8	1.60	0.64
1:A:1545:G:C5	1:A:1546:C:C5	2.85	0.64
1:A:1702:G:HO2’	5:M:6:THR:HG22	1.62	0.64
1:A:1866:G:H5”	29:J:43:LYS:HG3	1.79	0.64
1:A:1879:U:C4	6:N:252:ARG:CZ	2.80	0.64
1:A:2393:A:H1’	9:Q:160:ARG:HH12	1.62	0.64
3:B:38:C:H3’	3:B:39:C:O4’	1.97	0.64
28:I:129:LEU:HG	28:I:202:VAL:HG22	1.80	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:297:U:O2'	1:A:298:G:H5'	1.98	0.64
1:A:853:G:N1	1:A:965:G:C5	2.65	0.64
1:A:854:A:C2'	1:A:855:C:H5'	2.27	0.64
1:A:1553:U:O5'	1:A:1553:U:H6	1.81	0.64
1:A:1763:G:N2	1:A:1766:G:OP2	2.31	0.64
1:A:1879:U:O5'	1:A:1879:U:H6	1.80	0.64
2:C:32:C:H1'	2:C:33:A:O5'	1.97	0.64
2:C:41:A:O2'	2:C:42:G:H5'	1.97	0.64
6:N:162:LEU:HD11	6:N:203:GLU:OE1	1.96	0.64
6:N:171:LYS:O	6:N:172:GLU:HB3	1.97	0.64
15:W:76:LYS:HE2	15:W:137:ILE:HD11	1.79	0.64
18:Z:76:LEU:HD12	18:Z:115:MET:HE1	1.79	0.64
26:G:81:ARG:HB2	26:G:81:ARG:NH2	2.13	0.64
1:A:389:A:N6	1:A:410:G:N1	2.45	0.64
1:A:1345:G:O2'	1:A:1347:U:OP2	2.12	0.64
1:A:1751:A:N6	1:A:1754:A:N7	2.45	0.64
1:A:2186:U:OP2	1:A:2188:C:C4	2.50	0.64
1:A:2319:C:N3	1:A:2332:G:N1	2.45	0.64
3:B:4:U:C5	3:B:5:C:C4	2.86	0.64
3:B:41:U:O2'	3:B:46:A:C6	2.49	0.64
3:B:90:G:C6	3:B:91:G:C6	2.86	0.64
17:Y:138:ALA:O	17:Y:142:GLY:N	2.27	0.64
19:E:155:GLY:H	19:E:191:VAL:HG13	1.61	0.64
26:G:234:LEU:HD23	26:G:234:LEU:C	2.17	0.64
1:A:9:A:H1'	2:C:99:A:N1	2.13	0.64
1:A:89:A:OP1	15:W:55:ASP:CG	2.36	0.64
1:A:131:C:C5	14:V:104:TYR:CZ	2.85	0.64
1:A:135:C:C6	1:A:161:G:C6	2.85	0.64
1:A:318:A:C6	1:A:339:A:C6	2.85	0.64
1:A:616:U:P	26:G:155:LYS:HZ1	2.18	0.64
1:A:911:U:H2'	1:A:912:C:C5	2.33	0.64
1:A:1308:A:C8	8:P:113:ARG:NH2	2.65	0.64
1:A:1618:C:OP1	1:A:1621:C:N4	2.21	0.64
1:A:1634:C:H5"	14:V:145:LYS:HZ3	1.62	0.64
1:A:1811:A:N3	1:A:1811:A:H2'	2.10	0.64
1:A:1828:U:O2'	1:A:1829:A:OP2	2.13	0.64
3:B:87:G:H2'	3:B:88:G:C8	2.32	0.64
6:N:82:LEU:HD22	26:G:88:LEU:HD11	1.77	0.64
19:E:61:ILE:HD11	19:E:63:PHE:CZ	2.33	0.64
1:A:44:G:H3'	1:A:45:A:H5"	1.77	0.64
1:A:131:C:N4	14:V:104:TYR:CG	2.65	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:267:C:O5'	1:A:267:C:H6	1.79	0.64
1:A:354:A:H2'	1:A:356:A:H62	1.60	0.64
1:A:682:C:H5	1:A:820:G:H1	1.46	0.64
1:A:1248:G:N7	11:S:16:LYS:NZ	2.46	0.64
1:A:1385:G:O2'	1:A:1818:U:O4	2.14	0.64
1:A:2238:A:N3	1:A:2239:G:C8	2.66	0.64
1:A:2351:G:H4'	9:Q:57:HIS:CE1	2.33	0.64
12:T:154:ASP:OD1	12:T:155:LYS:N	2.30	0.64
1:A:78:C:O2'	1:A:355:A:H1'	1.98	0.64
1:A:373:C:O5'	1:A:373:C:H6	1.81	0.64
1:A:590:C:O2'	11:S:31:LEU:HD11	1.98	0.64
1:A:626:C:H6	1:A:626:C:O5'	1.79	0.64
1:A:822:U:C4	1:A:1272:A:C2	2.85	0.64
1:A:895:C:H3'	1:A:896:G:H8	1.62	0.64
1:A:999:C:OP2	1:A:1002:G:N2	2.30	0.64
1:A:1497:A:H3'	1:A:1498:G:C8	2.33	0.64
1:A:2205:G:O2'	1:A:2206:A:H5'	1.98	0.64
3:B:36:A:C2	3:B:50:U:O2	2.50	0.64
5:M:28:SER:HA	5:M:30:ARG:NH2	2.13	0.64
7:O:31:ARG:NH2	7:O:32:TYR:OH	2.30	0.64
13:U:149:LEU:HD23	13:U:149:LEU:N	2.06	0.64
1:A:23:G:H2'	1:A:24:U:C6	2.32	0.64
1:A:152:G:C6	1:A:153:G:N7	2.66	0.64
1:A:1189:G:N2	12:T:214:GLN:HE22	1.95	0.64
1:A:1499:G:N1	1:A:1546:C:N4	2.27	0.64
1:A:1747:C:O2'	1:A:1748:C:H5'	1.97	0.64
1:A:1880:G:H8	1:A:1880:G:O5'	1.81	0.64
1:A:2114:G:H2'	1:A:2115:G:C8	2.33	0.64
1:A:2212:A:H8	1:A:2212:A:O5'	1.81	0.64
1:A:2213:A:O2'	17:Y:106:LYS:NZ	2.31	0.64
1:A:2219:U:C3'	1:A:2220:G:C5'	2.75	0.64
1:A:2411:C:H5"	6:N:142:LYS:HE3	1.78	0.64
6:N:159:PRO:HB2	6:N:187:ILE:HD11	1.78	0.64
1:A:420:A:C4	1:A:432:G:N2	2.66	0.64
1:A:624:A:C2	1:A:625:C:H6	2.16	0.64
1:A:759:G:OP2	13:U:117:ARG:HD3	1.97	0.64
1:A:877:C:O2'	1:A:878:U:H5'	1.98	0.64
1:A:916:G:H4'	1:A:916:G:OP1	1.97	0.64
1:A:1600:A:N1	19:E:209:TRP:CH2	2.66	0.64
1:A:2213:A:C4	1:A:2242:A:C2	2.85	0.64
1:A:2267:G:H1	7:O:82:ARG:CZ	2.11	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:173:TYR:O	4:L:186:GLU:HB3	1.98	0.64
4:L:201:GLU:HG3	4:L:218:PHE:HZ	1.62	0.64
4:L:208:LEU:HD22	4:L:217:LEU:CD1	2.28	0.64
6:N:82:LEU:HD23	26:G:240:LEU:HD23	1.79	0.64
6:N:209:LYS:CB	6:N:230:CYS:HB3	2.28	0.64
10:R:123:MET:HE3	25:F:98:GLY:CA	2.28	0.64
15:W:67:ARG:CD	15:W:131:SER:OG	2.46	0.64
26:G:70:LEU:HD13	26:G:256:ASN:OD1	1.94	0.64
1:A:258:C:O2'	1:A:259:C:H5'	1.98	0.63
1:A:543:A:O2'	1:A:2035:A:N6	2.31	0.63
1:A:891:G:C2'	1:A:892:C:H5'	2.28	0.63
1:A:919:A:C2'	1:A:920:A:H5'	2.28	0.63
1:A:1474:A:H2'	1:A:1474:A:N3	2.13	0.63
1:A:2232:G:C2	1:A:2233:G:N7	2.66	0.63
1:A:2330:U:H4'	27:H:90:ASN:HD22	1.60	0.63
1:A:2790:C:H5"	25:F:260:LYS:HG3	1.80	0.63
6:N:196:LEU:HD12	6:N:196:LEU:O	1.98	0.63
14:V:116:GLN:HA	18:Z:91:ARG:HH22	0.68	0.63
15:W:67:ARG:HB3	15:W:67:ARG:HH11	1.60	0.63
15:W:67:ARG:HD3	15:W:131:SER:CB	2.28	0.63
28:I:66:LYS:HA	28:I:71:GLU:HG2	1.80	0.63
1:A:114:C:O2'	1:A:124:A:N3	2.24	0.63
1:A:261:U:H2'	1:A:262:G:H5'	1.80	0.63
1:A:1515:G:P	1:A:1515:G:H8	2.21	0.63
1:A:1532:G:C2'	1:A:1533:A:H5'	2.28	0.63
11:S:49:ASP:OD1	11:S:52:ARG:NH1	2.31	0.63
26:G:79:LYS:HB2	26:G:79:LYS:NZ	2.13	0.63
26:G:228:LEU:O	26:G:229:LEU:HD23	1.98	0.63
1:A:287:A:H8	1:A:287:A:O5'	1.81	0.63
1:A:1902:G:N2	1:A:1902:G:OP2	2.29	0.63
2:C:21:G:H3'	2:C:22:A:H5"	1.81	0.63
2:C:41:A:C6	2:C:86:A:N1	2.67	0.63
2:C:71:C:O2'	2:C:72:A:N7	2.30	0.63
14:V:133:SER:HA	14:V:176:ILE:O	1.98	0.63
15:W:67:ARG:HD2	15:W:69:VAL:HB	1.80	0.63
16:X:162:ARG:HH11	16:X:162:ARG:CG	2.12	0.63
19:E:65:ARG:HD3	19:E:114:SER:HB3	1.80	0.63
25:F:132:ASP:OD1	25:F:133:GLY:N	2.30	0.63
1:A:260:G:N1	1:A:268:G:C6	2.66	0.63
1:A:573:G:O3'	11:S:41:ARG:NH2	2.31	0.63
1:A:1535:A:N3	1:A:1535:A:H5'	2.13	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2211:U:C5	1:A:2241:G:N1	2.67	0.63
2:C:74:C:OP1	8:P:72:LYS:NZ	2.24	0.63
10:R:123:MET:HE2	25:F:97:LEU:C	2.14	0.63
1:A:643:A:OP1	6:N:144:ARG:HD2	1.98	0.63
1:A:888:C:H41	1:A:908:A:H2	0.70	0.63
1:A:909:A:O5'	1:A:909:A:H8	1.81	0.63
1:A:1828:U:HO2'	1:A:1829:A:P	2.21	0.63
1:A:2224:G:O2'	1:A:2225:G:OP2	2.10	0.63
2:C:33:A:H1'	2:C:34:U:O5'	1.97	0.63
3:B:92:U:OP2	7:O:16:ARG:CZ	2.46	0.63
1:A:351:C:O2'	1:A:352:C:H5'	1.98	0.63
1:A:381:C:C2	1:A:416:C:H5	2.15	0.63
1:A:1450:G:H2'	1:A:1451:G:H8	1.64	0.63
1:A:1472:A:H4'	1:A:1473:G:H5"	1.80	0.63
1:A:1475:U:O2	8:P:70:LEU:HD11	1.98	0.63
1:A:1751:A:N7	1:A:1754:A:N6	2.46	0.63
10:R:115:GLN:O	10:R:116:ARG:HB2	1.97	0.63
12:T:116:PRO:CD	12:T:117:PRO:CD	2.76	0.63
12:T:170:THR:CG2	12:T:172:ILE:CD1	2.77	0.63
16:X:79:VAL:HG22	16:X:94:ILE:HD12	1.81	0.63
25:F:119:GLU:HG3	25:F:143:ARG:HB3	1.80	0.63
28:I:82:VAL:HB	28:I:92:VAL:HG12	1.80	0.63
1:A:716:A:N6	1:A:737:G:H1'	2.14	0.63
1:A:2120:U:C4	1:A:2197:A:H2	2.16	0.63
1:A:2190:A:H2'	1:A:2191:C:C1'	2.28	0.63
1:A:2275:G:O2'	1:A:2444:C:OP2	2.16	0.63
4:L:172:LEU:HD23	4:L:185:GLU:OE2	1.97	0.63
16:X:127:LYS:HE3	16:X:133:LYS:HZ1	1.64	0.63
16:X:143:GLN:O	16:X:144:PRO:C	2.34	0.63
1:A:274:G:O6	1:A:433:C:C5'	2.47	0.63
1:A:298:G:N3	1:A:299:C:C5	2.67	0.63
1:A:341:A:H8	1:A:341:A:O5'	1.81	0.63
1:A:1161:A:C8	1:A:2040:U:H4'	2.34	0.63
2:C:37:C:O2	25:F:143:ARG:NH2	2.23	0.63
6:N:165:ILE:HD12	6:N:207:SER:H	1.61	0.63
9:Q:115:PRO:HB2	9:Q:151:ARG:CZ	2.29	0.63
1:A:278:G:C3'	1:A:279:A:H5"	2.27	0.63
1:A:910:A:C2	1:A:911:U:C2	2.86	0.63
1:A:927:A:N3	3:B:81:U:O2'	2.32	0.63
1:A:1603:A:H2'	1:A:1604:A:H8	1.63	0.63
1:A:1699:U:O2	1:A:2011:G:O6	2.17	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2129:G:O2'	1:A:2131:U:H5	1.81	0.63
1:A:2207:A:C2	1:A:2208:U:N3	2.67	0.63
1:A:2211:U:H2'	1:A:2212:A:C8	2.34	0.63
1:A:2647:A:N9	2:C:98:G:N3	2.46	0.63
2:C:44:U:H5"	8:P:63:THR:HG21	1.79	0.63
2:C:49:A:N6	2:C:76:G:N2	2.46	0.63
13:U:68:MET:HB3	13:U:73:CYS:SG	2.39	0.63
15:W:60:SER:O	15:W:61:LEU:HD23	1.98	0.63
15:W:109:LYS:O	15:W:122:ILE:CG2	2.46	0.63
16:X:67:LYS:HA	16:X:67:LYS:NZ	2.13	0.63
1:A:553:G:H3'	1:A:554:G:H5"	1.80	0.62
1:A:919:A:N3	7:O:13:HIS:CE1	2.67	0.62
1:A:1002:G:H5'	12:T:201:LYS:HZ2	1.59	0.62
1:A:1881:A:H8	1:A:1881:A:O5'	1.81	0.62
4:L:217:LEU:HD12	4:L:217:LEU:C	2.19	0.62
6:N:167:VAL:HG12	6:N:168:ALA:H	1.63	0.62
6:N:195:ARG:O	6:N:195:ARG:HD3	1.99	0.62
7:O:97:VAL:HG21	7:O:103:LEU:HD21	1.81	0.62
9:Q:49:ARG:HB2	9:Q:52:ASP:HB2	1.79	0.62
1:A:254:U:H5"	1:A:272:U:O4	1.98	0.62
1:A:2112:U:H6	1:A:2112:U:O5'	1.82	0.62
1:A:2123:U:C2	1:A:2195:G:N2	2.67	0.62
2:C:33:A:C1'	2:C:34:U:H5'	2.25	0.62
28:I:167:GLU:HB3	28:I:170:LYS:HG2	1.80	0.62
1:A:1391:C:O2'	1:A:1821:G:O2'	2.18	0.62
1:A:2238:A:C2	1:A:2239:G:C5	2.88	0.62
1:A:2409:A:H2	1:A:2441:C:N4	1.95	0.62
1:A:2691:G:O3'	5:M:29:ASN:HB3	1.98	0.62
6:N:97:ARG:NH1	6:N:100:ARG:CD	2.62	0.62
29:J:78:LEU:HB3	29:J:84:ALA:HB3	1.81	0.62
1:A:355:A:N7	1:A:356:A:C4	2.67	0.62
1:A:896:G:N3	1:A:896:G:H2'	2.14	0.62
1:A:2197:A:O5'	1:A:2197:A:H8	1.82	0.62
1:A:2351:G:C6	9:Q:64:VAL:HG22	2.35	0.62
2:C:68:A:O2'	2:C:69:U:H5'	1.99	0.62
10:R:147:ASP:OD1	10:R:211:HIS:ND1	2.27	0.62
14:V:144:LYS:O	14:V:148:ARG:HB2	1.99	0.62
19:E:237:ILE:HD11	19:E:239:ARG:CB	2.10	0.62
28:I:127:LEU:HA	28:I:204:TYR:HA	1.80	0.62
1:A:364:U:O5'	1:A:364:U:H6	1.80	0.62
1:A:983:G:N2	1:A:2267:G:H1	1.97	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:41:U:C5	3:B:44:C:OP2	2.52	0.62
1:A:156:G:N2	1:A:157:G:H1'	2.13	0.62
1:A:289:A:C2	1:A:369:U:H1'	2.33	0.62
1:A:313:A:H2	1:A:323:G:H1	0.70	0.62
1:A:853:G:H1	1:A:964:C:N4	1.97	0.62
1:A:901:C:H2'	1:A:902:G:H4'	1.81	0.62
1:A:917:C:C2'	1:A:918:A:H5'	2.28	0.62
1:A:1798:C:H5"	19:E:220:VAL:HG11	1.82	0.62
1:A:1809:G:N2	1:A:1829:A:OP2	2.31	0.62
1:A:2659:G:C5'	4:L:179:ARG:NH2	2.63	0.62
3:B:5:C:H2'	3:B:6:U:C6	2.34	0.62
3:B:87:G:H2'	3:B:88:G:H8	1.64	0.62
7:O:115:ARG:HG2	7:O:131:PHE:CZ	2.34	0.62
8:P:92:GLU:OE2	8:P:96:ARG:NE	2.22	0.62
13:U:40:SER:OG	13:U:127:ARG:NH1	2.33	0.62
16:X:142:ILE:HG22	16:X:143:GLN:H	1.64	0.62
1:A:415:U:O5'	1:A:415:U:H6	1.82	0.62
1:A:824:U:H2'	1:A:825:C:C6	2.35	0.62
1:A:859:A:O2'	1:A:860:C:H5'	2.00	0.62
1:A:1688:A:H8	1:A:1688:A:O5'	1.81	0.62
1:A:2529:C:H5"	25:F:217:PHE:CD1	2.35	0.62
9:Q:116:THR:H	9:Q:119:VAL:HG22	1.64	0.62
16:X:101:PHE:CE1	16:X:133:LYS:HG3	2.33	0.62
1:A:152:G:C4	1:A:153:G:C8	2.87	0.62
1:A:274:G:N7	1:A:433:C:H5'	2.14	0.62
1:A:357:G:C2'	1:A:358:C:H5'	2.29	0.62
1:A:599:C:H2'	1:A:600:A:C8	2.26	0.62
1:A:909:A:H2'	1:A:910:A:H8	1.64	0.62
1:A:2227:C:C2'	1:A:2228:C:H5'	2.29	0.62
1:A:2642:G:C5	1:A:2643:C:N3	2.68	0.62
6:N:82:LEU:HD23	26:G:240:LEU:HD22	1.78	0.62
9:Q:82:LEU:HD11	9:Q:115:PRO:HB3	1.81	0.62
12:T:116:PRO:O	12:T:117:PRO:O	2.18	0.62
16:X:66:THR:O	16:X:68:ASN:OD1	2.18	0.62
1:A:90:A:H2'	1:A:91:A:C8	2.34	0.62
1:A:226:A:H1'	1:A:228:U:C6	2.35	0.62
1:A:320:U:O2'	1:A:321:G:OP1	2.17	0.62
1:A:919:A:O2'	1:A:920:A:H5'	1.99	0.62
1:A:1496:A:C2	1:A:1497:A:H1'	2.35	0.62
1:A:1498:G:C6	1:A:1499:G:C6	2.88	0.62
1:A:1547:C:H2'	1:A:1548:A:H5'	1.80	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1950:A:H2	1:A:1957:U:H3	1.48	0.62
1:A:2125:C:N3	1:A:2159:C:O2	2.33	0.62
1:A:2647:A:C1'	2:C:98:G:N3	2.62	0.62
1:A:2808:C:OP1	1:A:2808:C:H4'	1.98	0.62
6:N:136:LEU:HD23	6:N:139:ARG:NH1	2.13	0.62
14:V:106:ARG:O	14:V:107:ARG:CG	2.41	0.62
25:F:237:ALA:HB3	25:F:241:PRO:HG3	1.81	0.62
26:G:204:LYS:N	26:G:225:THR:HB	2.15	0.62
26:G:206:LEU:HD11	26:G:229:LEU:HD12	1.81	0.62
1:A:390:U:O5'	1:A:390:U:H6	1.80	0.62
1:A:898:G:H2'	1:A:899:A:C8	2.35	0.62
1:A:1002:G:H5"	12:T:201:LYS:HZ3	1.64	0.62
1:A:2234:G:H2'	1:A:2235:C:H5'	1.81	0.62
13:U:30:ASP:OD1	13:U:138:ASP:O	2.18	0.62
19:E:261:TYR:O	19:E:262:SER:OG	2.14	0.62
28:I:48:ILE:HG13	28:I:90:LEU:CA	2.30	0.62
1:A:50:G:O2'	1:A:117:A:N6	2.32	0.61
1:A:329:C:O2	26:G:222:ASN:CG	2.36	0.61
1:A:389:A:O2'	1:A:390:U:H5'	2.00	0.61
1:A:886:U:H2'	1:A:887:G:C1'	2.29	0.61
1:A:950:A:H5'	1:A:951:C:OP2	2.00	0.61
1:A:1057:A:OP1	7:O:128:ARG:NH1	2.32	0.61
1:A:1701:A:H1'	5:M:1:MET:HG2	1.80	0.61
1:A:1860:G:H2'	1:A:1861:U:C6	2.35	0.61
1:A:2129:G:C2'	1:A:2180:G:N2	2.59	0.61
2:C:61:G:N2	2:C:64:A:OP2	2.32	0.61
4:L:213:LEU:HD13	4:L:213:LEU:O	1.99	0.61
9:Q:108:ASN:OD1	9:Q:109:ILE:N	2.30	0.61
13:U:152:LEU:O	13:U:153:THR:OG1	2.16	0.61
18:Z:125:GLU:HG2	18:Z:126:GLN:N	2.15	0.61
28:I:61:GLN:HA	28:I:76:TYR:CD2	2.35	0.61
1:A:898:G:C4	1:A:899:A:N7	2.68	0.61
1:A:1479:U:H4'	1:A:1480:A:O5'	1.99	0.61
1:A:2121:C:H42	1:A:2196:G:N2	1.96	0.61
2:C:8:G:N2	2:C:92:C:O2	2.20	0.61
2:C:49:A:N6	2:C:76:G:H22	1.98	0.61
3:B:46:A:H8	27:H:145:ARG:HH11	1.47	0.61
15:W:82:GLU:HG3	15:W:104:LEU:HD11	1.81	0.61
18:Z:120:ARG:HH11	18:Z:120:ARG:CG	2.13	0.61
1:A:4:A:H2'	1:A:5:A:C8	2.35	0.61
1:A:17:C:O2'	1:A:564:U:OP1	2.19	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:553:G:N2	1:A:562:C:C2	2.68	0.61
1:A:1161:A:O5'	1:A:1162:C:N4	2.33	0.61
1:A:1211:G:P	6:N:109:SER:OG	2.58	0.61
1:A:1268:A:H2	11:S:5:LYS:HZ2	1.47	0.61
1:A:1888:G:C6	1:A:1889:G:C5	2.88	0.61
1:A:2279:U:OP2	16:X:73:LYS:HB3	1.99	0.61
2:C:104:A:N3	2:C:105:A:C5	2.68	0.61
3:B:93:C:C2'	3:B:94:C:H5'	2.30	0.61
3:B:117:A:H8	3:B:117:A:O5'	1.83	0.61
4:L:167:LYS:O	4:L:170:GLN:N	2.33	0.61
6:N:144:ARG:O	6:N:146:ILE:HD12	2.00	0.61
8:P:44:ILE:HG22	8:P:123:ILE:HB	1.81	0.61
12:T:200:TYR:HB2	12:T:206:TYR:O	2.01	0.61
19:E:237:ILE:C	19:E:237:ILE:HD12	2.19	0.61
26:G:79:LYS:HB2	26:G:79:LYS:HZ3	1.66	0.61
26:G:255:LEU:CD1	26:G:259:TYR:CE2	2.82	0.61
1:A:306:G:OP1	15:W:66:LYS:NZ	2.33	0.61
1:A:471:U:OP2	1:A:481:G:N1	2.28	0.61
1:A:1137:C:H3'	1:A:1138:G:C8	2.35	0.61
1:A:1161:A:O2'	1:A:2041:G:H5'	1.99	0.61
1:A:1197:A:OP1	16:X:165:LYS:HD3	2.00	0.61
1:A:1499:G:O5'	1:A:1499:G:H8	1.83	0.61
1:A:1888:G:H8	1:A:1888:G:O5'	1.83	0.61
1:A:2267:G:O6	7:O:82:ARG:NH2	2.30	0.61
1:A:2331:G:N3	27:H:182:SER:CB	2.64	0.61
2:C:36:A:N3	25:F:274:ARG:NH1	2.49	0.61
2:C:85:U:C2'	2:C:86:A:H5'	2.29	0.61
4:L:159:ASP:O	4:L:192:GLN:NE2	2.22	0.61
6:N:151:ARG:HA	6:N:151:ARG:NH1	2.16	0.61
11:S:91:LEU:HG	12:T:175:PRO:HG3	1.78	0.61
12:T:124:PHE:HB3	12:T:165:GLY:O	2.01	0.61
13:U:165:SER:O	13:U:166:THR:OG1	2.16	0.61
1:A:284:A:H1'	1:A:285:A:P	2.41	0.61
1:A:386:A:H2'	1:A:387:G:O4'	2.01	0.61
1:A:564:U:OP1	11:S:23:SER:HB3	2.01	0.61
1:A:966:G:H2'	1:A:967:C:C6	2.35	0.61
1:A:1829:A:O2'	19:E:173:PRO:O	2.16	0.61
1:A:2672:G:N2	1:A:2682:A:OP2	2.32	0.61
1:A:2711:G:H2'	1:A:2712:U:O4'	2.00	0.61
6:N:153:GLY:O	6:N:154:LEU:HG	2.00	0.61
26:G:57:ILE:HD13	26:G:66:GLY:HA3	1.81	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:G:255:LEU:CD1	26:G:259:TYR:HE2	2.14	0.61
28:I:98:THR:HG23	28:I:101:ALA:H	1.65	0.61
1:A:3:C:HO2'	1:A:4:A:H5'	1.62	0.61
1:A:624:A:C5	1:A:625:C:C6	2.83	0.61
1:A:932:A:C5'	16:X:85:GLN:NE2	2.62	0.61
1:A:1153:G:C5	1:A:1154:A:N7	2.68	0.61
1:A:1168:U:H4'	1:A:1169:A:O4'	2.00	0.61
1:A:1516:G:N7	1:A:1517:G:H8	1.98	0.61
1:A:2206:A:O2'	1:A:2207:A:H5'	1.99	0.61
1:A:2213:A:C2	1:A:2214:C:C6	2.89	0.61
6:N:209:LYS:HB2	6:N:230:CYS:CB	2.31	0.61
6:N:210:LEU:N	6:N:230:CYS:CB	2.59	0.61
12:T:194:LYS:HG2	12:T:213:ARG:HD3	1.83	0.61
28:I:195:GLU:HB2	28:I:198:LYS:HB3	1.83	0.61
1:A:622:G:H22	1:A:627:C:H3'	1.65	0.61
1:A:920:A:H2	1:A:2294:G:N3	1.98	0.61
1:A:1137:C:H2'	1:A:1138:G:C8	2.36	0.61
1:A:1270:C:N4	6:N:97:ARG:HD3	2.16	0.61
1:A:1501:G:H1'	1:A:1502:A:P	2.41	0.61
1:A:2103:G:C5	1:A:2104:A:N7	2.69	0.61
1:A:2229:U:O4	19:E:64:ARG:NH1	2.33	0.61
1:A:2580:U:H5'	5:M:30:ARG:NH1	2.15	0.61
2:C:75:U:C3'	2:C:76:G:H5'	2.30	0.61
2:C:80:C:O2'	2:C:81:A:H5'	2.01	0.61
3:B:37:U:HO2'	3:B:38:C:H5'	1.65	0.61
5:M:93:PRO:HG3	5:M:113:ILE:HD13	1.82	0.61
6:N:192:ARG:HB3	6:N:195:ARG:HB3	1.83	0.61
15:W:70:LYS:C	15:W:89:ILE:HD11	2.21	0.61
19:E:141:GLU:HB2	19:E:184:CYS:HB3	1.83	0.61
1:A:888:C:H3'	1:A:889:G:H8	1.66	0.61
1:A:1376:G:OP1	19:E:35:CYS:SG	2.57	0.61
1:A:1688:A:H5"	1:A:1689:C:OP2	2.01	0.61
1:A:1885:C:C4	6:N:253:ALA:CB	2.75	0.61
3:B:8:G:H2'	3:B:9:U:C6	2.35	0.61
19:E:257:LYS:HE3	19:E:260:LYS:HD2	1.81	0.61
1:A:260:G:N1	1:A:268:G:N1	2.47	0.61
1:A:370:A:H4'	1:A:371:U:OP1	2.01	0.61
1:A:383:A:HO2'	17:Y:131:LYS:HE3	1.65	0.61
1:A:628:A:O2'	1:A:629:C:H5'	1.99	0.61
1:A:1516:G:H2'	1:A:1517:G:O4'	2.01	0.61
1:A:2074:A:N7	26:G:125:ARG:NH2	2.49	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:26:G:C6	2:C:27:U:C4	2.89	0.61
3:B:34:C:H2'	3:B:35:A:C8	2.36	0.61
3:B:86:G:C2'	3:B:87:G:H5'	2.30	0.61
6:N:126:MET:O	6:N:129:PHE:HB3	2.00	0.61
16:X:66:THR:C	16:X:67:LYS:HZ3	2.04	0.61
16:X:134:LYS:HB3	16:X:134:LYS:HZ3	1.63	0.61
18:Z:152:LEU:HD13	18:Z:152:LEU:H	1.64	0.61
1:A:892:C:O2'	1:A:893:C:H5'	2.01	0.61
1:A:1522:A:N6	1:A:1544:A:H1'	2.16	0.61
1:A:1873:G:O2'	1:A:1874:U:H5'	2.01	0.61
2:C:28:U:O2'	2:C:30:A:OP2	2.19	0.61
2:C:31:U:O2'	2:C:32:C:H5'	2.01	0.61
2:C:37:C:H3'	2:C:38:G:H5'	1.83	0.61
2:C:73:G:H2'	2:C:74:C:C6	2.35	0.61
3:B:35:A:H8	3:B:35:A:O5'	1.83	0.61
9:Q:96:ALA:HB2	9:Q:134:LYS:HE3	1.83	0.61
10:R:170:ILE:HB	10:R:182:ARG:HG3	1.82	0.61
12:T:91:ASP:OD2	13:U:142:PHE:HZ	1.83	0.61
15:W:170:THR:HB	15:W:171:PRO:CD	2.30	0.61
1:A:248:G:O2'	1:A:441:A:N3	2.31	0.60
1:A:268:G:N1	1:A:269:G:N1	2.49	0.60
1:A:294:U:H2'	1:A:295:C:N1	2.15	0.60
1:A:887:G:O6	1:A:908:A:N6	2.31	0.60
1:A:1194:G:C6	1:A:1204:A:N1	2.68	0.60
1:A:2647:A:C5	2:C:98:G:C2	2.89	0.60
1:A:2767:A:H5"	1:A:2768:A:H2'	1.81	0.60
2:C:30:A:C6	2:C:83:C:C2	2.89	0.60
2:C:75:U:H2'	2:C:76:G:C5'	2.31	0.60
3:B:87:G:N1	3:B:93:C:C2	2.69	0.60
12:T:128:VAL:HG22	12:T:133:GLN:HG2	1.83	0.60
26:G:86:ARG:HE	26:G:152:MET:HE1	1.66	0.60
1:A:119:A:H1'	1:A:132:G:C2	2.37	0.60
1:A:434:A:N6	1:A:435:A:N6	2.48	0.60
1:A:624:A:N9	1:A:625:C:C5	2.46	0.60
1:A:661:G:C2'	1:A:662:C:H5'	2.32	0.60
1:A:898:G:C5	1:A:899:A:N7	2.69	0.60
1:A:1451:G:N2	1:A:1598:C:O2	2.34	0.60
1:A:2103:G:H2'	1:A:2104:A:C5'	2.31	0.60
1:A:2752:G:C6	25:F:297:ILE:O	2.53	0.60
2:C:80:C:O5'	10:R:121:ASP:OD1	2.19	0.60
3:B:42:C:OP2	3:B:43:C:N4	2.34	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:X:77:LEU:HD11	16:X:97:ARG:HH11	1.59	0.60
26:G:129:GLN:CD	26:G:134:ARG:NH2	2.53	0.60
26:G:251:THR:O	26:G:255:LEU:HB2	2.01	0.60
1:A:671:C:C5'	26:G:150:ILE:HG23	2.28	0.60
1:A:1078:A:H3'	1:A:1079:G:H8	1.66	0.60
1:A:1091:G:O6	1:A:1103:C:N3	2.34	0.60
1:A:1136:U:H2'	1:A:1137:C:H5'	1.84	0.60
1:A:1476:G:O2'	1:A:1477:G:H5'	2.01	0.60
1:A:2288:G:OP1	16:X:76:ARG:CA	2.49	0.60
1:A:2322:A:N1	27:H:204:GLY:HA2	2.11	0.60
1:A:2322:A:N1	27:H:204:GLY:HA3	2.06	0.60
6:N:134:MET:HE3	6:N:138:ARG:HB3	1.82	0.60
1:A:156:G:H8	1:A:156:G:O5'	1.84	0.60
1:A:257:A:C8	1:A:258:C:C4	2.90	0.60
1:A:661:G:O2'	1:A:662:C:H5'	2.00	0.60
1:A:1507:G:N2	1:A:1515:G:P	2.74	0.60
1:A:1521:G:C2	1:A:1544:A:C2	2.89	0.60
1:A:2201:G:H8	1:A:2201:G:O5'	1.85	0.60
1:A:2318:C:H2'	1:A:2319:C:H6	1.63	0.60
3:B:43:C:OP2	27:H:117:ARG:NH2	2.34	0.60
6:N:81:ARG:HH11	26:G:243:GLU:HA	1.65	0.60
6:N:168:ALA:HB1	6:N:184:LYS:HE3	1.84	0.60
10:R:182:ARG:HA	10:R:194:ILE:O	2.01	0.60
26:G:146:ARG:HG3	26:G:148:TRP:CE3	2.36	0.60
1:A:291:G:C2'	1:A:292:C:H5'	2.31	0.60
1:A:322:C:H2'	1:A:323:G:H8	1.66	0.60
1:A:855:C:N3	1:A:856:U:C5	2.70	0.60
1:A:884:G:C2'	1:A:885:G:H5'	2.32	0.60
1:A:1321:A:H4'	1:A:1322:A:H5"	1.84	0.60
1:A:1825:A:H5"	19:E:37:LYS:NZ	2.16	0.60
1:A:2201:G:O2'	1:A:2202:C:H5'	2.01	0.60
1:A:2393:A:N3	9:Q:166:PHE:HE2	2.00	0.60
16:X:128:TYR:HB3	16:X:134:LYS:HB2	1.80	0.60
1:A:133:A:C5	1:A:134:A:C5	2.89	0.60
1:A:434:A:C6	1:A:435:A:N6	2.70	0.60
1:A:495:A:C4	15:W:122:ILE:HD11	2.36	0.60
1:A:2137:G:N2	1:A:2190:A:C5	2.69	0.60
1:A:2330:U:C4'	27:H:90:ASN:ND2	2.63	0.60
2:C:29:U:H1'	2:C:30:A:P	2.41	0.60
6:N:211:GLN:C	6:N:212:ILE:HD12	2.21	0.60
8:P:34:LEU:HB3	8:P:54:MET:HE3	1.84	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:V:109:LEU:HD11	14:V:141:ARG:HB3	1.82	0.60
14:V:126:LYS:O	14:V:130:ASP:HB2	2.02	0.60
26:G:250:GLY:O	26:G:254:TYR:HB3	2.01	0.60
1:A:276:G:H1	1:A:416:C:HO2'	1.47	0.60
1:A:1175:U:O5'	1:A:1175:U:H6	1.84	0.60
1:A:2464:G:H4'	1:A:2465:A:O5'	2.00	0.60
3:B:36:A:N6	3:B:45:G:C4	2.68	0.60
6:N:165:ILE:HG13	6:N:207:SER:N	2.16	0.60
8:P:18:HIS:HD2	8:P:53:ALA:HB2	1.66	0.60
9:Q:49:ARG:HG3	9:Q:53:ARG:HG3	1.84	0.60
1:A:82:G:N1	1:A:100:G:C4	2.69	0.60
1:A:127:C:H2'	1:A:128:U:C6	2.36	0.60
1:A:579:U:H5"	1:A:832:A:C2	2.37	0.60
1:A:633:A:H2'	1:A:634:G:H5'	1.83	0.60
1:A:893:C:H2'	1:A:894:G:C1'	2.32	0.60
1:A:898:G:N7	1:A:899:A:N7	2.48	0.60
1:A:1428:C:H5	1:A:1631:G:H1	1.47	0.60
1:A:1809:G:C6	19:E:172:LEU:HD13	2.37	0.60
1:A:2212:A:H2'	1:A:2213:A:C8	2.37	0.60
1:A:2288:G:OP1	16:X:75:GLN:O	2.19	0.60
6:N:154:LEU:O	6:N:156:LYS:N	2.34	0.60
13:U:153:THR:C	13:U:157:LEU:HG	2.22	0.60
25:F:174:VAL:O	25:F:176:VAL:N	2.35	0.60
28:I:76:TYR:HD1	28:I:108:PHE:CZ	2.18	0.60
1:A:152:G:N1	1:A:153:G:N7	2.50	0.60
1:A:294:U:C5	1:A:295:C:N3	2.70	0.60
1:A:364:U:H2'	1:A:365:A:C8	2.37	0.60
1:A:614:G:C6	1:A:637:G:N1	2.70	0.60
1:A:2119(A):U:H3	1:A:2199:G:N2	2.00	0.60
1:A:2194:U:OP2	1:A:2195:G:OP2	2.19	0.60
3:B:70:G:H2'	3:B:71:G:H8	1.65	0.60
7:O:91:GLU:OE1	7:O:92:TYR:N	2.31	0.60
18:Z:137:ASP:O	18:Z:141:LYS:HG2	2.00	0.60
29:J:60:LEU:HB2	29:J:67:LEU:HD22	1.81	0.60
1:A:159:A:H4'	1:A:160:A:OP2	2.01	0.60
1:A:161:G:HO2'	1:A:162:A:C5'	2.13	0.60
1:A:899:A:O2'	1:A:900:G:O5'	2.20	0.60
1:A:1164:G:H2'	1:A:1165:G:H5'	1.83	0.60
1:A:1195:U:O2'	1:A:1196:A:O5'	2.20	0.60
1:A:1830:U:C6	19:E:197:ASN:ND2	2.69	0.60
3:B:7:G:N1	3:B:117:A:H2	2.00	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:32:TYR:OH	5:M:34:ARG:HD3	2.02	0.60
1:A:103:C:O5'	1:A:103:C:H6	1.84	0.59
1:A:163:G:C6	1:A:164:A:C6	2.90	0.59
1:A:2229:U:C5	19:E:64:ARG:NH1	2.70	0.59
1:A:2708:C:O2'	2:C:75:U:O2'	1.85	0.59
2:C:37:C:HO2'	2:C:38:G:P	2.24	0.59
16:X:142:ILE:HG22	16:X:143:GLN:N	2.16	0.59
26:G:208:PHE:HB2	26:G:229:LEU:HB2	1.83	0.59
27:H:73:PHE:HB3	27:H:75:TYR:CE2	2.37	0.59
1:A:48:A:N1	1:A:162:A:C8	2.62	0.59
1:A:570:C:H1'	11:S:52:ARG:CZ	2.32	0.59
1:A:623:A:O2'	1:A:624:A:OP1	2.20	0.59
1:A:702:C:P	19:E:213:ARG:HH12	2.19	0.59
1:A:702:C:O2'	19:E:39:ARG:CD	2.50	0.59
1:A:857:G:N2	1:A:961:G:C2	2.62	0.59
1:A:2115:G:H8	1:A:2115:G:O5'	1.83	0.59
1:A:2224:G:H4'	1:A:2225:G:OP2	2.02	0.59
3:B:8:G:C2	3:B:116:C:C2	2.90	0.59
6:N:102:HIS:CE1	12:T:205:ASN:ND2	2.66	0.59
11:S:91:LEU:CG	12:T:175:PRO:HG3	2.31	0.59
1:A:143:G:C3'	1:A:144:A:H5'	2.31	0.59
1:A:1047:U:H3	1:A:1169:A:H62	1.48	0.59
1:A:1085:A:N1	1:A:1109:U:O4	2.35	0.59
1:A:1567:C:O2	1:A:1572:G:N1	2.35	0.59
1:A:2061:C:H2'	1:A:2062:A:H8	1.65	0.59
1:A:2118:U:O5'	1:A:2118:U:H6	1.85	0.59
1:A:2310:U:H5'	9:Q:143:ARG:NH1	2.17	0.59
15:W:113:SER:HB2	15:W:120:GLY:H	1.67	0.59
26:G:77:PRO:O	26:G:78:GLU:HB3	2.00	0.59
1:A:140:G:H2'	1:A:141:C:C5'	2.31	0.59
1:A:141:C:H2'	1:A:142:U:O4'	2.02	0.59
1:A:362:A:C2	1:A:363:C:N3	2.71	0.59
1:A:504:G:H5'	13:U:37:TYR:CD1	2.37	0.59
1:A:822:U:C3'	6:N:100:ARG:O	2.49	0.59
1:A:836:G:O2'	6:N:133:GLN:HG2	2.01	0.59
1:A:840:A:N7	1:A:2265:A:H5'	2.17	0.59
1:A:868:G:N2	1:A:929:A:N1	2.51	0.59
1:A:1136:U:H6	1:A:1136:U:O5'	1.86	0.59
1:A:2075:G:P	26:G:119:LYS:HE2	2.43	0.59
6:N:202:GLY:CA	6:N:221:ALA:CB	2.58	0.59
12:T:97:GLU:O	12:T:97:GLU:HG2	2.00	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:U:149:LEU:H	13:U:149:LEU:CD2	2.06	0.59
1:A:140:G:C4	1:A:155:A:C2	2.91	0.59
1:A:279:A:C8	1:A:379:C:C5	2.91	0.59
1:A:293:G:N1	1:A:294:U:O4	2.34	0.59
1:A:354:A:H8	1:A:354:A:O5'	1.86	0.59
1:A:897:A:N3	1:A:897:A:H2'	2.17	0.59
1:A:920:A:C8	7:O:9:PHE:CE2	2.91	0.59
1:A:1179:C:H2'	1:A:1180:C:H6	1.66	0.59
1:A:1448:A:H4'	1:A:1449:C:O4'	2.02	0.59
1:A:1522:A:N3	1:A:1523:A:N7	2.50	0.59
1:A:1745:C:H2'	1:A:1746:C:H6	1.64	0.59
1:A:2713:U:O4	1:A:2714:A:N6	2.36	0.59
2:C:41:A:H61	2:C:86:A:N6	2.00	0.59
2:C:84:C:H2'	2:C:85:U:C6	2.37	0.59
3:B:14:U:O2'	3:B:15:A:OP1	2.21	0.59
14:V:167:ARG:CG	14:V:168:PRO:HD2	2.33	0.59
28:I:134:TYR:HD1	28:I:147:LEU:HA	1.68	0.59
1:A:43:A:H8	1:A:43:A:OP2	1.84	0.59
1:A:685:G:OP1	26:G:105:ARG:NH2	2.33	0.59
1:A:1237:C:OP1	11:S:11:ARG:NH2	2.35	0.59
1:A:2049:G:H5'	1:A:2050:C:C5	2.31	0.59
1:A:2761:U:OP2	1:A:2773:C:N4	2.35	0.59
2:C:52:G:N2	2:C:71:C:O2'	2.34	0.59
14:V:109:LEU:O	14:V:110:ASP:HB3	2.02	0.59
15:W:113:SER:CB	15:W:120:GLY:H	2.16	0.59
19:E:265:PHE:CE1	19:E:266:ILE:CD1	2.85	0.59
26:G:204:LYS:HA	26:G:225:THR:O	2.02	0.59
1:A:82:G:C6	1:A:100:G:C5	2.91	0.59
1:A:255:A:P	1:A:271:G:H22	2.21	0.59
1:A:355:A:H8	1:A:356:A:O4'	1.85	0.59
1:A:820:G:C5	1:A:821:U:C4	2.91	0.59
1:A:952:A:O5'	1:A:952:A:H8	1.86	0.59
1:A:1750:C:H6	1:A:1750:C:O5'	1.85	0.59
2:C:37:C:O2'	2:C:38:G:OP1	2.17	0.59
5:M:20:MET:O	5:M:41:ALA:HA	2.03	0.59
6:N:156:LYS:CE	6:N:215:ARG:HH11	2.16	0.59
1:A:6:A:C2'	1:A:7:C:H5'	2.32	0.59
1:A:1192:A:H2'	1:A:1193:U:C6	2.37	0.59
1:A:1426:U:H2'	1:A:1427:A:C8	2.36	0.59
1:A:1497:A:N6	1:A:1547:C:H42	2.01	0.59
1:A:2230:A:C2	1:A:2231:C:N4	2.71	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:97:ARG:HH11	6:N:100:ARG:HE	1.49	0.59
6:N:162:LEU:CG	6:N:203:GLU:OE1	2.50	0.59
13:U:151:SER:C	13:U:152:LEU:HD23	2.23	0.59
14:V:109:LEU:HD11	14:V:141:ARG:HB2	1.84	0.59
19:E:39:ARG:HE	19:E:45:ILE:HD11	1.68	0.59
19:E:239:ARG:HH21	19:E:243:THR:HG21	1.68	0.59
26:G:254:TYR:OH	26:G:258:ARG:NH1	2.36	0.59
27:H:150:TYR:O	27:H:154:ASP:HB2	2.03	0.59
1:A:362:A:C2	1:A:363:C:C2	2.90	0.59
1:A:823:C:C2	1:A:1271:G:C2	2.91	0.59
1:A:1361:U:OP1	14:V:175:TYR:OH	2.21	0.59
1:A:1450:G:H2'	1:A:1451:G:C8	2.38	0.59
1:A:1689:C:H41	8:P:19:ARG:CD	2.15	0.59
1:A:2744:A:O2'	1:A:2745:G:OP1	2.21	0.59
2:C:79:G:O2'	10:R:121:ASP:OD1	2.21	0.59
3:B:66:C:N4	3:B:110:C:C2	2.71	0.59
11:S:105:PRO:O	11:S:108:ILE:HG22	2.03	0.59
14:V:102:LEU:HB3	18:Z:142:ARG:NH2	2.18	0.59
19:E:85:ALA:HB2	19:E:154:ALA:HA	1.85	0.59
25:F:86:VAL:N	25:F:172:ARG:HH11	2.00	0.59
25:F:180:THR:H	25:F:184:LYS:HD2	1.68	0.59
29:J:57:ILE:HG21	29:J:60:LEU:HG	1.85	0.59
1:A:294:U:C6	1:A:295:C:N3	2.71	0.59
1:A:1088:U:C4	1:A:1116:A:N7	2.71	0.59
1:A:1516:G:H3'	1:A:1517:G:C5'	2.24	0.59
1:A:1885:C:H41	6:N:253:ALA:CB	2.10	0.59
2:C:36:A:O2'	2:C:37:C:OP1	2.20	0.59
3:B:25:G:C4	3:B:57:U:C4	2.91	0.59
3:B:67:U:C4	3:B:109:U:H5	2.19	0.59
11:S:28:HIS:HD2	11:S:38:GLN:CD	2.05	0.59
13:U:154:PRO:HA	13:U:157:LEU:CD1	2.32	0.59
16:X:67:LYS:HZ2	16:X:67:LYS:CA	2.13	0.59
16:X:128:TYR:HE2	16:X:132:LYS:HG2	1.64	0.59
28:I:48:ILE:CG1	28:I:90:LEU:C	2.70	0.59
1:A:46:C:H2'	1:A:47:G:C5'	2.25	0.58
1:A:75:C:P	18:Z:110:LYS:NZ	2.70	0.58
1:A:288:C:H2'	1:A:289:A:H5'	1.84	0.58
1:A:887:G:H22	1:A:909:A:N6	2.00	0.58
1:A:1430:C:H2'	1:A:1431:C:H6	1.68	0.58
1:A:1830:U:H4'	1:A:1831:G:N7	2.17	0.58
1:A:2565:G:H4'	5:M:31:ARG:NH2	2.18	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:94:A:H1'	18:Z:102:PRO:HB2	1.85	0.58
1:A:291:G:C2	1:A:292:C:C2	2.92	0.58
1:A:332:G:O2'	26:G:224:ARG:NH2	2.36	0.58
1:A:371:U:H4'	1:A:372:G:OP1	2.01	0.58
1:A:548:G:O2'	1:A:549:A:O5'	2.15	0.58
1:A:552:G:O5'	1:A:552:G:H8	1.86	0.58
1:A:644:A:OP1	6:N:151:ARG:HA	2.02	0.58
1:A:881:U:H4'	7:O:69:PHE:CD2	2.38	0.58
1:A:983:G:C2	7:O:82:ARG:NH1	2.64	0.58
1:A:2228:C:O5'	1:A:2228:C:H6	1.85	0.58
1:A:2345:A:H2'	1:A:2346:A:H8	1.68	0.58
1:A:2647:A:N6	1:A:2806:U:N3	2.31	0.58
6:N:225:LEU:HD23	6:N:232:VAL:CG2	2.33	0.58
16:X:144:PRO:O	16:X:146:ASN:ND2	2.36	0.58
25:F:121:ASN:ND2	25:F:141:TYR:CD1	2.71	0.58
28:I:44:GLY:CA	28:I:105:HIS:ND1	2.66	0.58
28:I:48:ILE:HB	28:I:90:LEU:H	1.67	0.58
1:A:235:G:O6	1:A:398:G:N2	2.34	0.58
1:A:322:C:H2'	1:A:323:G:C8	2.39	0.58
1:A:332:G:H21	1:A:342:G:H1'	1.67	0.58
1:A:379:C:H4'	1:A:380:C:OP1	2.02	0.58
1:A:902:G:H3'	1:A:903:G:C5'	2.33	0.58
1:A:1573:C:H2'	1:A:1574:G:C8	2.33	0.58
1:A:1584:C:H2'	1:A:1585:C:C6	2.38	0.58
1:A:2196:G:O5'	1:A:2196:G:H8	1.84	0.58
2:C:84:C:H1'	8:P:102:GLY:O	2.03	0.58
1:A:159:A:C1'	1:A:160:A:OP1	2.48	0.58
1:A:299:C:H2'	1:A:300:U:H5'	1.86	0.58
1:A:1515:G:P	1:A:1515:G:C8	2.96	0.58
3:B:36:A:C5	3:B:45:G:C6	2.92	0.58
6:N:197:PRO:O	6:N:198:LEU:HB3	2.02	0.58
1:A:3:C:O5'	1:A:3:C:H6	1.86	0.58
1:A:636:C:C2	1:A:637:G:N7	2.72	0.58
1:A:899:A:N3	1:A:900:G:C8	2.72	0.58
1:A:2108:G:N7	1:A:2210:C:N3	2.52	0.58
1:A:2125:C:O2	1:A:2161:G:N2	2.37	0.58
1:A:2190:A:H2'	1:A:2191:C:H1'	1.85	0.58
1:A:2325:G:H2'	1:A:2325:G:N3	2.18	0.58
1:A:2559:A:H4'	1:A:2560:G:H5'	1.85	0.58
4:L:122:LEU:HD22	4:L:246:ILE:HG22	1.86	0.58
12:T:181:ALA:O	12:T:225:THR:HG22	2.04	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:V:111:VAL:HG23	18:Z:146:VAL:HG22	1.84	0.58
19:E:40:ASN:ND2	19:E:43:GLY:O	2.36	0.58
19:E:113:VAL:O	19:E:124:ASN:HB2	2.03	0.58
1:A:71:A:O4'	18:Z:116:LEU:HD12	2.03	0.58
1:A:79:G:O2'	1:A:355:A:H2	1.77	0.58
1:A:110:U:OP2	18:Z:130:LYS:HE2	2.04	0.58
1:A:140:G:O6	1:A:155:A:N6	2.37	0.58
1:A:274:G:C5	1:A:433:C:H5"	2.39	0.58
1:A:283:C:O2'	1:A:284:A:H5'	2.02	0.58
1:A:890:G:C2	1:A:891:G:C5	2.91	0.58
1:A:1507:G:H21	1:A:1515:G:P	2.26	0.58
1:A:1519:A:N1	1:A:1520:A:C5	2.71	0.58
1:A:1751:A:N3	1:A:1751:A:H2'	2.17	0.58
1:A:2137:G:N2	1:A:2190:A:N1	2.51	0.58
1:A:2219:U:H1'	19:E:64:ARG:NH2	2.19	0.58
1:A:2351:G:C1'	9:Q:64:VAL:HG21	2.30	0.58
3:B:89:A:C6	3:B:90:G:C5	2.92	0.58
5:M:61:VAL:O	5:M:84:ALA:HA	2.03	0.58
6:N:97:ARG:NH1	6:N:100:ARG:HD2	2.19	0.58
6:N:158:VAL:HG11	6:N:201:LEU:CG	2.31	0.58
6:N:167:VAL:HG12	6:N:168:ALA:N	2.19	0.58
17:Y:87:ARG:HB3	17:Y:97:ARG:NE	2.16	0.58
26:G:75:ALA:HB2	26:G:159:LEU:CD2	2.29	0.58
27:H:87:ILE:HD11	27:H:144:LEU:HD11	1.84	0.58
29:J:76:ASN:HA	29:J:80:PRO:HG2	1.86	0.58
1:A:101:A:H2'	1:A:102:U:H5'	1.86	0.58
1:A:1088:U:O4	1:A:1116:A:N7	2.37	0.58
1:A:1174:G:H2'	1:A:1175:U:C6	2.38	0.58
1:A:1551:G:C2'	1:A:1552:U:H5'	2.33	0.58
1:A:2211:U:C5	1:A:2241:G:O6	2.51	0.58
1:A:2223:A:C2'	1:A:2224:G:C8	2.87	0.58
27:H:172:PRO:HG3	27:H:220:TYR:CZ	2.38	0.58
1:A:49:G:O2'	18:Z:130:LYS:CE	2.51	0.58
1:A:318:A:C5	1:A:339:A:C6	2.92	0.58
1:A:373:C:O2'	1:A:374:U:O4'	2.15	0.58
1:A:389:A:C5	1:A:390:U:C4	2.92	0.58
1:A:740:G:C5	19:E:203:ARG:O	2.57	0.58
1:A:885:G:O2'	1:A:886:U:H5'	2.02	0.58
1:A:1500:U:OP2	1:A:1501:G:H5"	2.04	0.58
1:A:2752:G:H8	1:A:2753:C:H4'	1.68	0.58
3:B:8:G:N1	3:B:116:C:N3	2.52	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:80:PHE:CD1	6:N:85:LEU:HD21	2.38	0.58
13:U:74:TYR:HB3	13:U:75:PRO:HD3	1.85	0.58
26:G:206:LEU:HD11	26:G:229:LEU:CD1	2.33	0.58
26:G:207:PHE:HA	26:G:246:VAL:HG22	1.85	0.58
1:A:32:U:O2'	1:A:33:A:N3	2.33	0.58
1:A:137:U:N3	1:A:157:G:C2	2.63	0.58
1:A:139:U:H2'	1:A:140:G:H8	1.68	0.58
1:A:266:A:H2'	1:A:267:C:C5	2.38	0.58
1:A:381:C:HO2'	1:A:416:C:H41	1.50	0.58
1:A:986:U:O4	7:O:17:MET:HE3	2.04	0.58
1:A:1069:U:O2	1:A:1142:G:O6	2.22	0.58
1:A:2200:A:H2'	1:A:2200:A:N3	2.17	0.58
1:A:2207:A:O3'	1:A:2208:U:O4'	2.22	0.58
1:A:2237:A:H2'	1:A:2238:A:H5'	1.84	0.58
1:A:2317:G:N1	1:A:2333:C:O2	2.34	0.58
14:V:113:GLN:O	14:V:113:GLN:HG2	2.04	0.58
19:E:161:ILE:HB	19:E:169:THR:O	2.04	0.58
25:F:115:ILE:HB	25:F:276:VAL:HB	1.86	0.58
27:H:147:ASN:HA	27:H:150:TYR:HD2	1.68	0.58
1:A:71:A:C2	18:Z:117:THR:CG2	2.87	0.58
1:A:128:U:H2'	1:A:129:U:O4'	2.03	0.58
1:A:133:A:C2'	1:A:134:A:C8	2.86	0.58
1:A:269:G:H8	1:A:269:G:O5'	1.86	0.58
1:A:611:C:O2'	1:A:612:U:H5'	2.04	0.58
1:A:1334:U:O2'	1:A:1335:C:OP1	2.21	0.58
1:A:1502:A:H2'	1:A:1502:A:N3	2.19	0.58
1:A:2340:G:O5'	1:A:2340:G:H8	1.86	0.58
1:A:2643:C:H2'	1:A:2644:G:C8	2.39	0.58
1:A:2763:C:O2'	28:I:182:GLY:HA3	2.03	0.58
3:B:11:U:O5'	3:B:11:U:H6	1.86	0.58
3:B:89:A:H8	3:B:89:A:O5'	1.87	0.58
3:B:92:U:O2'	3:B:93:C:H5'	2.04	0.58
4:L:155:VAL:HG11	4:L:200:ILE:HD13	1.86	0.58
25:F:159:LYS:HD3	25:F:159:LYS:C	2.24	0.58
25:F:199:ILE:HG12	25:F:261:ILE:HG22	1.85	0.58
1:A:19:U:H2'	1:A:20:A:H8	1.68	0.57
1:A:47:G:N1	1:A:162:A:OP2	2.37	0.57
1:A:267:C:O2'	1:A:268:G:H5'	2.04	0.57
1:A:554:G:H5"	1:A:554:G:N3	2.19	0.57
1:A:1056:A:H2'	1:A:1057:A:C8	2.39	0.57
1:A:1078:A:H3'	1:A:1079:G:C8	2.39	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1087:G:H1	1:A:1107:C:H42	1.51	0.57
1:A:1472:A:N7	1:A:1479:U:O4	2.37	0.57
1:A:1519:A:C2	1:A:1520:A:C8	2.91	0.57
1:A:1623:A:H2'	1:A:1624:C:C6	2.39	0.57
1:A:2129:G:O2'	1:A:2131:U:C5	2.55	0.57
1:A:2192:U:H4'	1:A:2193:C:OP1	2.04	0.57
1:A:2647:A:O4'	2:C:98:G:H1'	2.03	0.57
1:A:2662:C:H4'	1:A:2750:G:H2'	1.86	0.57
2:C:32:C:H1'	2:C:33:A:P	2.44	0.57
2:C:38:G:OP2	25:F:144:LEU:CD2	2.46	0.57
12:T:143:TYR:HD1	12:T:216:ILE:HD12	1.69	0.57
1:A:158:C:H41	1:A:159:A:N6	2.01	0.57
1:A:823:C:C2	1:A:1271:G:N1	2.72	0.57
1:A:1159:G:O6	1:A:2038:U:O2'	2.22	0.57
1:A:1236:A:N6	1:A:1253:G:C6	2.69	0.57
1:A:1361:U:O4	14:V:168:PRO:CD	2.52	0.57
1:A:1810:C:H5'	19:E:142:ILE:CD1	2.34	0.57
1:A:2219:U:C6	1:A:2220:G:H5'	2.39	0.57
5:M:65:THR:HA	5:M:82:ASN:HD22	1.68	0.57
6:N:162:LEU:O	6:N:166:GLU:HG2	2.05	0.57
25:F:200:SER:HB2	25:F:291:ARG:HB2	1.84	0.57
1:A:137:U:H3	1:A:157:G:H1	0.62	0.57
1:A:143:G:H2'	1:A:144:A:C5'	2.27	0.57
1:A:150:U:H3'	1:A:151:G:C8	2.39	0.57
1:A:554:G:OP1	1:A:554:G:H4'	2.03	0.57
1:A:1267:A:H2'	1:A:1268:A:O4'	2.03	0.57
1:A:1809:G:N2	1:A:1828:U:O2'	2.37	0.57
1:A:2151:G:C5	1:A:2152:C:C5	2.92	0.57
1:A:2206:A:H2'	1:A:2207:A:H8	1.62	0.57
9:Q:77:ARG:HG2	9:Q:146:TYR:CE2	2.39	0.57
18:Z:118:VAL:HG11	18:Z:122:ARG:NH2	2.18	0.57
1:A:143:G:H1'	1:A:2224:G:H1'	1.86	0.57
1:A:320:U:H1'	1:A:341:A:C8	2.39	0.57
1:A:822:U:C6	1:A:1272:A:C4	2.92	0.57
1:A:830:A:OP2	1:A:1208:G:N2	2.23	0.57
1:A:864:U:H2'	1:A:865:A:H8	1.70	0.57
1:A:920:A:N7	7:O:9:PHE:CD2	2.72	0.57
1:A:938:G:C2'	1:A:939:A:H5'	2.34	0.57
1:A:1233:G:O2'	1:A:1258:A:N1	2.37	0.57
1:A:1516:G:H2'	1:A:1517:G:C4'	2.34	0.57
1:A:1553:U:H2'	1:A:1554:C:C6	2.40	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1853:C:OP1	19:E:253:ARG:NH1	2.38	0.57
1:A:2344:A:H2'	1:A:2345:A:C8	2.39	0.57
1:A:2351:G:H4'	9:Q:57:HIS:NE2	2.19	0.57
2:C:74:C:H4'	8:P:75:GLN:HE22	1.69	0.57
3:B:34:C:N3	3:B:52:G:C2	2.72	0.57
15:W:67:ARG:HD3	15:W:131:SER:HB3	1.87	0.57
26:G:129:GLN:CG	26:G:134:ARG:NH2	2.67	0.57
1:A:130:U:H5"	1:A:130:U:O2	2.04	0.57
1:A:274:G:O6	1:A:433:C:H6	1.62	0.57
1:A:336:G:H2'	1:A:337:U:H5'	1.85	0.57
1:A:893:C:H2'	1:A:894:G:H1'	1.86	0.57
1:A:1017:G:O2'	1:A:1018:A:O5'	2.21	0.57
1:A:1830:U:C2	19:E:197:ASN:CG	2.78	0.57
1:A:2475:G:H1'	1:A:2476:A:N7	2.19	0.57
4:L:118:ASP:OD1	4:L:157:ASN:ND2	2.35	0.57
10:R:159:LYS:H	10:R:161:ARG:NH1	2.02	0.57
16:X:75:GLN:CD	16:X:76:ARG:H	2.08	0.57
1:A:42:G:O6	1:A:43:A:N6	2.38	0.57
1:A:912:C:C2	1:A:913:G:N7	2.72	0.57
1:A:1291:C:H5"	1:A:1292:G:H5'	1.87	0.57
1:A:1529:A:C6	1:A:1537:U:N3	2.69	0.57
1:A:1533:A:H2'	1:A:1534:A:C4	2.39	0.57
1:A:1545:G:H2'	1:A:1546:C:C6	2.33	0.57
1:A:2328:A:O4'	27:H:127:ILE:HD12	1.98	0.57
2:C:72:A:H2'	2:C:73:G:C5'	2.32	0.57
3:B:88:G:N2	3:B:92:U:C2	2.73	0.57
6:N:82:LEU:CD2	26:G:240:LEU:CD2	2.81	0.57
28:I:127:LEU:HB2	28:I:171:VAL:HB	1.85	0.57
1:A:47:G:C2	1:A:162:A:OP2	2.58	0.57
1:A:297:U:O5'	1:A:297:U:H6	1.87	0.57
1:A:302:C:C2'	1:A:303:U:H5'	2.35	0.57
1:A:308:G:N2	1:A:350:G:O6	2.38	0.57
1:A:611:C:H2'	1:A:612:U:C6	2.40	0.57
1:A:622:G:H1'	1:A:628:A:N6	2.16	0.57
1:A:671:C:C2'	1:A:672:U:H5'	2.33	0.57
1:A:1495:C:C5	1:A:1548:A:N6	2.73	0.57
1:A:1754:A:N7	1:A:1755:A:C5	2.72	0.57
1:A:2201:G:C2	1:A:2202:C:C4	2.93	0.57
1:A:2205:G:C6	1:A:2206:A:N6	2.73	0.57
1:A:2223:A:H2'	1:A:2224:G:N7	2.20	0.57
3:B:52:G:OP1	9:Q:112:SER:OG	2.20	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:89:A:N6	3:B:90:G:C6	2.73	0.57
6:N:205:GLU:OE2	6:N:224:LYS:CD	2.50	0.57
11:S:91:LEU:HD21	12:T:175:PRO:HG3	1.85	0.57
12:T:228:GLU:O	12:T:231:PRO:HD3	2.04	0.57
1:A:291:G:N2	1:A:292:C:C2	2.73	0.57
1:A:612:U:H2'	1:A:613:U:H5"	1.86	0.57
1:A:629:C:OP1	26:G:158:ARG:CZ	2.52	0.57
1:A:1497:A:H61	1:A:1547:C:H42	1.52	0.57
1:A:1882:U:C6	1:A:1883:G:N7	2.73	0.57
1:A:2150:G:C2	1:A:2151:G:C2	2.93	0.57
1:A:2215:C:H2'	1:A:2216:U:C6	2.40	0.57
1:A:2642:G:H2'	1:A:2643:C:C6	2.40	0.57
2:C:75:U:H3'	2:C:76:G:C5'	2.33	0.57
3:B:39:C:H42	3:B:45:G:H1	1.46	0.57
3:B:91:G:O5'	3:B:91:G:H8	1.88	0.57
19:E:83:ARG:HG3	19:E:84:ASN:H	1.68	0.57
19:E:116:THR:HA	19:E:127:PRO:HD2	1.86	0.57
1:A:71:A:C8	18:Z:116:LEU:CD1	2.88	0.57
1:A:589:G:H2'	1:A:590:C:C6	2.40	0.57
1:A:860:C:H6	1:A:860:C:O5'	1.88	0.57
1:A:874:G:H2'	1:A:875:C:C6	2.40	0.57
1:A:964:C:C4	1:A:965:G:N7	2.73	0.57
1:A:1540:C:O2'	1:A:1541:U:H5'	2.04	0.57
1:A:2214:C:H2'	1:A:2215:C:C6	2.39	0.57
1:A:2475:G:OP2	1:A:2475:G:N2	2.36	0.57
2:C:33:A:H1'	2:C:34:U:P	2.45	0.57
2:C:79:G:HO2'	10:R:121:ASP:CG	2.07	0.57
3:B:69:C:C5	3:B:70:G:N7	2.73	0.57
6:N:201:LEU:C	6:N:221:ALA:CB	2.73	0.57
18:Z:72:THR:OG1	18:Z:75:GLN:OE1	2.22	0.57
18:Z:150:PRO:O	18:Z:152:LEU:HD12	2.05	0.57
26:G:206:LEU:O	26:G:245:LEU:HA	2.05	0.57
27:H:120:LYS:HB2	27:H:137:THR:HG21	1.87	0.57
1:A:410:G:C2	1:A:411:U:N3	2.72	0.57
1:A:899:A:H1'	1:A:900:G:P	2.44	0.57
1:A:899:A:HO2'	1:A:900:G:C5'	2.18	0.57
1:A:934:A:H1'	1:A:935:U:P	2.45	0.57
1:A:949:A:N6	1:A:950:A:C2	2.73	0.57
1:A:951:C:C4	1:A:952:A:N6	2.73	0.57
1:A:1531:A:H4'	1:A:1532:G:OP1	2.05	0.57
1:A:1650:A:P	1:A:1650:A:C8	2.94	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2078:C:O2'	1:A:2268:G:N2	2.37	0.57
2:C:104:A:C2	2:C:105:A:N7	2.73	0.57
3:B:43:C:H2'	3:B:44:C:H6	1.70	0.57
6:N:175:GLU:HA	6:N:175:GLU:OE2	2.05	0.57
6:N:237:GLY:O	6:N:238:ARG:HG3	2.05	0.57
12:T:123:ILE:HG12	12:T:224:ILE:HD12	1.87	0.57
17:Y:126:LEU:O	17:Y:129:ILE:HG13	2.05	0.57
18:Z:120:ARG:HH11	18:Z:120:ARG:HG2	1.68	0.57
19:E:75:VAL:O	19:E:76:THR:OG1	2.21	0.57
19:E:237:ILE:CD1	19:E:239:ARG:H	2.18	0.57
1:A:253:C:N3	1:A:437:G:N1	2.52	0.56
1:A:257:A:C8	1:A:258:C:N4	2.73	0.56
1:A:882:U:C4	1:A:883:C:N4	2.73	0.56
1:A:897:A:H8	1:A:897:A:OP2	1.88	0.56
1:A:1622:A:H2'	1:A:1623:A:C8	2.40	0.56
1:A:2107:G:N2	1:A:2108:G:C5	2.73	0.56
1:A:2119(A):U:OP1	1:A:2119(A):U:H4'	2.05	0.56
1:A:2137:G:C2	1:A:2190:A:N1	2.73	0.56
1:A:2215:C:HO2'	1:A:2216:U:H5'	1.70	0.56
1:A:2261:U:O2'	1:A:2262:U:OP1	2.23	0.56
3:B:38:C:C5	3:B:39:C:C2	2.93	0.56
26:G:93:GLN:NE2	26:G:150:ILE:HD11	2.20	0.56
1:A:356:A:O2'	1:A:357:G:H5'	2.05	0.56
1:A:389:A:C2	1:A:390:U:C2	2.92	0.56
1:A:668:U:H2'	1:A:669:C:C5	2.39	0.56
1:A:725:U:O2'	1:A:727:A:N7	2.34	0.56
1:A:822:U:H5	1:A:1272:A:C6	2.23	0.56
1:A:910:A:H8	1:A:910:A:O5'	1.88	0.56
1:A:1307:A:C6	1:A:1350:U:C4	2.93	0.56
1:A:2231:C:H3'	1:A:2232:G:C8	2.40	0.56
3:B:6:U:O5'	3:B:6:U:H6	1.88	0.56
5:M:53:GLU:OE1	5:M:53:GLU:N	2.38	0.56
11:S:111:ILE:HD13	12:T:172:ILE:HG12	1.85	0.56
12:T:181:ALA:HB3	12:T:225:THR:HG22	1.85	0.56
1:A:60:U:HO2'	18:Z:94:ARG:NH1	2.00	0.56
1:A:81:G:O2'	1:A:82:G:OP1	2.20	0.56
1:A:151:G:N3	1:A:152:G:C8	2.73	0.56
1:A:274:G:N3	1:A:433:C:H5	2.00	0.56
1:A:332:G:H5'	1:A:333:A:OP1	2.06	0.56
1:A:431:U:C2'	1:A:432:G:H5'	2.35	0.56
1:A:489:A:H2'	1:A:490:A:C8	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:627:C:H4'	1:A:628:A:OP1	2.05	0.56
1:A:840:A:N7	1:A:2264:U:O2'	2.38	0.56
1:A:887:G:H2'	1:A:888:C:C6	2.40	0.56
1:A:911:U:H2'	1:A:912:C:H6	1.65	0.56
1:A:1002:G:C5'	12:T:201:LYS:HZ3	2.09	0.56
1:A:1134:G:H8	1:A:1134:G:O5'	1.88	0.56
1:A:1394:A:H5'	1:A:2230:A:C2'	2.35	0.56
1:A:1481:U:C4	1:A:1482:C:N4	2.73	0.56
1:A:1524:G:N2	1:A:1525:G:C2	2.74	0.56
1:A:2107:G:N7	1:A:2242:A:C8	2.73	0.56
1:A:2194:U:P	1:A:2195:G:OP2	2.63	0.56
1:A:2215:C:N3	1:A:2240:G:C2	2.73	0.56
1:A:2224:G:C5'	1:A:2225:G:H5"	2.34	0.56
1:A:2338:G:N2	1:A:2339:A:C8	2.73	0.56
1:A:2563:U:O2'	1:A:2583:A:O2'	2.19	0.56
1:A:2645:U:H3'	1:A:2646:U:C5'	2.36	0.56
2:C:32:C:O2'	2:C:33:A:O5'	2.22	0.56
3:B:4:U:C5	3:B:5:C:N4	2.73	0.56
6:N:144:ARG:N	6:N:146:ILE:HD11	2.20	0.56
9:Q:138:LYS:HA	9:Q:165:VAL:O	2.06	0.56
12:T:172:ILE:HD12	12:T:172:ILE:N	2.20	0.56
14:V:144:LYS:NZ	14:V:162:VAL:O	2.36	0.56
16:X:127:LYS:HB3	16:X:129:GLY:O	2.05	0.56
26:G:255:LEU:HD12	26:G:259:TYR:CD2	2.40	0.56
28:I:82:VAL:HA	28:I:92:VAL:HA	1.87	0.56
1:A:668:U:C4	1:A:669:C:N4	2.73	0.56
1:A:1238:G:H2'	1:A:1239:C:H5	1.69	0.56
1:A:2227:C:C6	1:A:2228:C:C5	2.94	0.56
4:L:239:LEU:HD22	4:L:240:PRO:HD2	1.88	0.56
10:R:138:ARG:NH1	10:R:199:TYR:HA	2.20	0.56
12:T:116:PRO:N	12:T:117:PRO:HD3	2.21	0.56
16:X:125:PHE:CD1	16:X:135:VAL:HG22	2.41	0.56
16:X:163:GLU:HA	16:X:163:GLU:OE1	2.06	0.56
28:I:132:VAL:O	28:I:134:TYR:N	2.29	0.56
1:A:120:G:H2'	1:A:121:G:C8	2.41	0.56
1:A:151:G:H2'	1:A:152:G:C8	2.29	0.56
1:A:165:C:H5"	1:A:166:A:OP1	2.05	0.56
1:A:219:U:H5	1:A:442:A:N1	2.04	0.56
1:A:289:A:H2	1:A:369:U:H1'	1.70	0.56
1:A:823:C:O2	1:A:1271:G:C2	2.58	0.56
1:A:1501:G:C1'	1:A:1502:A:P	2.94	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1504:C:C4	1:A:1505:C:N4	2.73	0.56
1:A:1754:A:N7	1:A:1755:A:C8	2.70	0.56
1:A:1873:G:C2'	1:A:1874:U:H5'	2.36	0.56
1:A:2608:C:H2'	1:A:2609:G:H8	1.68	0.56
3:B:14:U:H5'	3:B:15:A:N7	2.21	0.56
3:B:41:U:O2'	3:B:46:A:N1	2.39	0.56
4:L:152:PHE:HE1	4:L:220:HIS:CD2	2.23	0.56
6:N:84:ASN:HD22	6:N:85:LEU:H	1.53	0.56
6:N:97:ARG:HH11	6:N:100:ARG:NE	2.04	0.56
6:N:129:PHE:CE2	6:N:131:GLY:CA	2.85	0.56
6:N:210:LEU:O	6:N:230:CYS:HB2	2.05	0.56
15:W:65:HIS:O	15:W:66:LYS:HB2	2.04	0.56
19:E:176:GLU:CG	19:E:267:ILE:O	2.53	0.56
19:E:258:ARG:HA	19:E:258:ARG:NE	2.20	0.56
26:G:95:LYS:O	26:G:96:ARG:O	2.23	0.56
1:A:166:A:OP2	1:A:167:A:OP2	2.24	0.56
1:A:288:C:H2'	1:A:289:A:C8	2.37	0.56
1:A:548:G:O2'	1:A:549:A:H8	1.88	0.56
1:A:609:G:OP1	26:G:79:LYS:HE3	2.05	0.56
1:A:1064:A:H3'	1:A:1065:G:H5"	1.86	0.56
1:A:1353:A:H2	1:A:1645:A:HO2'	1.53	0.56
1:A:1475:U:C2'	8:P:70:LEU:HD13	2.35	0.56
1:A:2201:G:C2	1:A:2202:C:N4	2.73	0.56
1:A:2318:C:H2'	1:A:2319:C:C5	2.41	0.56
8:P:35:THR:HG21	8:P:79:PHE:HE2	1.70	0.56
12:T:128:VAL:O	12:T:129:ILE:HD13	2.05	0.56
15:W:143:VAL:HG21	15:W:163:LYS:HZ3	1.70	0.56
1:A:614:G:N1	1:A:637:G:C6	2.73	0.56
1:A:669:C:HO2'	1:A:670:A:H5'	1.71	0.56
1:A:859:A:C6	1:A:860:C:C4	2.94	0.56
1:A:986:U:O4	7:O:17:MET:CE	2.54	0.56
1:A:988:A:N6	7:O:82:ARG:NH1	2.53	0.56
1:A:1079:G:C6	1:A:1080:C:N4	2.73	0.56
1:A:1522:A:C4	1:A:1523:A:N7	2.74	0.56
1:A:1649:G:H3'	1:A:1650:A:C5'	2.35	0.56
1:A:2109:C:C4	1:A:2110:U:C4	2.93	0.56
3:B:118:G:H4'	3:B:119:G:OP1	2.04	0.56
4:L:100:TRP:CE3	4:L:101:TYR:CB	2.86	0.56
4:L:115:TYR:HB3	4:L:239:LEU:HB2	1.88	0.56
4:L:171:LYS:NZ	4:L:173:TYR:CZ	2.73	0.56
6:N:165:ILE:CD1	6:N:207:SER:OG	2.51	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:T:91:ASP:HB2	13:U:142:PHE:CE1	2.41	0.56
12:T:154:ASP:HB3	12:T:186:VAL:HB	1.88	0.56
1:A:151:G:C2'	1:A:152:G:H5'	2.36	0.56
1:A:1287:G:HO2'	1:A:1288:U:P	2.29	0.56
1:A:1336:C:H2'	1:A:1337:U:H6	1.71	0.56
1:A:1542:C:H4'	1:A:1543:G:H5'	1.88	0.56
1:A:2212:A:N3	29:J:76:ASN:HB2	2.20	0.56
2:C:13:G:OP1	8:P:48:ARG:NH1	2.39	0.56
2:C:26:G:H8	2:C:87:A:C2	2.24	0.56
2:C:40:U:C2'	2:C:41:A:H8	2.12	0.56
3:B:7:G:C1'	3:B:8:G:OP1	2.53	0.56
3:B:110:C:H4'	3:B:111:G:OP2	2.06	0.56
6:N:189:PRO:O	6:N:193:GLU:HG2	2.05	0.56
25:F:117:PHE:N	25:F:117:PHE:CD2	2.73	0.56
25:F:272:ASP:OD1	25:F:273:LEU:N	2.38	0.56
29:J:74:LEU:HA	29:J:78:LEU:HB2	1.88	0.56
1:A:140:G:C2'	1:A:141:C:H5'	2.36	0.56
1:A:185:U:H4'	17:Y:92:ASN:O	2.06	0.56
1:A:643:A:OP1	6:N:144:ARG:CD	2.53	0.56
1:A:1475:U:C4'	8:P:73:ARG:NH2	2.69	0.56
1:A:1745:C:C4	1:A:1746:C:C4	2.90	0.56
1:A:1954:U:H5'	1:A:1955:C:OP1	2.05	0.56
2:C:103:G:H2'	2:C:104:A:C8	2.34	0.56
3:B:25:G:C6	3:B:57:U:C2	2.94	0.56
6:N:154:LEU:O	6:N:155:PRO:C	2.44	0.56
26:G:129:GLN:CG	26:G:134:ARG:HH21	2.19	0.56
26:G:230:THR:HG23	26:G:233:SER:H	1.70	0.56
1:A:133:A:C8	1:A:134:A:N7	2.73	0.56
1:A:287:A:N3	1:A:288:C:C2	2.74	0.56
1:A:351:C:O5'	1:A:351:C:H6	1.89	0.56
1:A:702:C:OP1	19:E:213:ARG:NH1	2.37	0.56
1:A:823:C:O2	1:A:1271:G:N1	2.39	0.56
1:A:878:U:C2'	1:A:879:G:H5'	2.35	0.56
1:A:1307:A:N1	1:A:1350:U:C4	2.74	0.56
1:A:2107:G:C5	1:A:2242:A:N7	2.74	0.56
1:A:2129:G:HO2'	1:A:2180:G:N2	2.02	0.56
1:A:2213:A:H2'	1:A:2213:A:N3	2.20	0.56
1:A:2730:A:H2'	1:A:2731:C:H5"	1.86	0.56
3:B:7:G:C6	3:B:117:A:H2	2.24	0.56
11:S:50:ARG:O	11:S:53:GLN:HG2	2.05	0.56
18:Z:118:VAL:HG13	18:Z:122:ARG:HH21	1.67	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:G:146:ARG:HG3	26:G:148:TRP:CZ3	2.41	0.56
26:G:260:GLY:O	26:G:261:VAL:HG22	2.06	0.56
1:A:143:G:N2	1:A:2224:G:C6	2.74	0.55
1:A:158:C:N4	1:A:159:A:H62	2.02	0.55
1:A:337:U:H4'	15:W:130:HIS:CD2	2.41	0.55
1:A:913:G:C6	1:A:914:A:N6	2.74	0.55
1:A:1161:A:C1'	1:A:1162:C:P	2.94	0.55
1:A:1500:U:H3'	1:A:1500:U:H6	1.72	0.55
1:A:2238:A:C2	1:A:2239:G:N7	2.74	0.55
1:A:2421:C:C2	1:A:2431:G:N2	2.74	0.55
3:B:7:G:H1'	3:B:8:G:OP1	2.05	0.55
5:M:112:LYS:HE3	5:M:116:LEU:HD11	1.88	0.55
6:N:189:PRO:CB	6:N:196:LEU:HD21	2.36	0.55
13:U:105:VAL:O	13:U:106:ASN:ND2	2.38	0.55
16:X:73:LYS:HD3	16:X:73:LYS:N	2.21	0.55
1:A:137:U:H3	1:A:157:G:N2	2.04	0.55
1:A:160:A:H8	1:A:160:A:P	2.29	0.55
1:A:937:U:H2'	1:A:937:U:O2	2.06	0.55
1:A:1248:G:OP1	11:S:13:ARG:CZ	2.54	0.55
1:A:1308:A:OP1	8:P:114:ARG:O	2.24	0.55
1:A:1673:A:H2'	1:A:1674:C:C6	2.41	0.55
16:X:159:ARG:HA	16:X:162:ARG:HG2	1.88	0.55
1:A:364:U:H2'	1:A:365:A:H8	1.72	0.55
1:A:682:C:H2'	1:A:683:C:H6	1.71	0.55
1:A:857:G:O6	16:X:154:LYS:HD2	2.07	0.55
1:A:2199:G:H8	1:A:2199:G:OP2	1.89	0.55
1:A:2579:U:O2	5:M:23:ARG:CZ	2.54	0.55
1:A:2653:U:C5'	25:F:170:GLU:OE2	2.52	0.55
2:C:29:U:C1'	2:C:30:A:P	2.94	0.55
2:C:105:A:H2'	2:C:106:C:C6	2.42	0.55
3:B:31:C:C2	3:B:32:A:N7	2.74	0.55
5:M:25:ILE:HB	5:M:38:VAL:HG23	1.88	0.55
7:O:57:ASN:HD22	7:O:120:ILE:HD12	1.69	0.55
10:R:214:VAL:HG11	10:R:219:LEU:HD11	1.87	0.55
14:V:109:LEU:CD1	14:V:141:ARG:HB2	2.37	0.55
1:A:628:A:H2'	1:A:629:C:C6	2.40	0.55
1:A:950:A:C5	1:A:951:C:N3	2.75	0.55
1:A:1099:G:H1'	1:A:1117:G:H2'	1.89	0.55
1:A:1318:C:O2'	1:A:1323:A:N1	2.40	0.55
1:A:1521:G:N2	1:A:1544:A:C2	2.73	0.55
1:A:1596:U:H2'	1:A:1597:C:C5'	2.33	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1745:C:C2'	1:A:1746:C:H5'	2.36	0.55
1:A:1749:U:H3	1:A:1756:G:N2	2.04	0.55
1:A:1750:C:H42	1:A:1755:A:N6	2.04	0.55
1:A:1886:A:N6	6:N:252:ARG:NH2	2.53	0.55
1:A:2113:G:H1	1:A:2204:A:H61	1.54	0.55
1:A:2123:U:O2	1:A:2195:G:N2	2.39	0.55
1:A:2212:A:H4'	1:A:2213:A:OP1	2.06	0.55
1:A:2233:G:N1	1:A:2234:G:C6	2.75	0.55
2:C:52:G:H8	10:R:217:ALA:HB2	1.72	0.55
2:C:52:G:C8	10:R:217:ALA:HB2	2.42	0.55
2:C:75:U:H2'	2:C:75:U:O2	2.07	0.55
2:C:80:C:O5'	2:C:80:C:H6	1.90	0.55
3:B:7:G:H1'	3:B:8:G:P	2.47	0.55
10:R:123:MET:CE	25:F:98:GLY:CA	2.84	0.55
12:T:188:GLU:OE2	12:T:218:ARG:NH1	2.40	0.55
26:G:73:LYS:HB2	26:G:261:VAL:O	2.06	0.55
1:A:101:A:C2'	1:A:102:U:H5'	2.35	0.55
1:A:150:U:H2'	1:A:150:U:O2	2.07	0.55
1:A:256:A:H4'	1:A:256:A:OP1	2.05	0.55
1:A:259:C:H6	1:A:259:C:O5'	1.89	0.55
1:A:261:U:C2'	1:A:262:G:H5'	2.36	0.55
1:A:434:A:C6	1:A:435:A:C6	2.94	0.55
1:A:606:A:H2'	1:A:607:G:H8	1.72	0.55
1:A:806:C:H2'	1:A:807:C:C6	2.42	0.55
1:A:816:G:H1'	6:N:117:GLN:HE21	1.70	0.55
1:A:910:A:H2'	1:A:911:U:C6	2.42	0.55
1:A:1036:U:O2'	1:A:1037:A:O5'	2.18	0.55
1:A:2187:A:O2'	1:A:2188:C:H5'	2.06	0.55
1:A:2227:C:C5	1:A:2228:C:N4	2.74	0.55
1:A:2736:G:OP1	10:R:220:TYR:HD2	1.88	0.55
3:B:68:G:N2	3:B:69:C:C2	2.73	0.55
6:N:178:LEU:HD11	6:N:196:LEU:HD13	1.88	0.55
7:O:125:MET:HG3	7:O:126:PRO:HD2	1.88	0.55
10:R:154:GLU:HB2	10:R:204:LYS:HD3	1.89	0.55
12:T:156:ILE:HB	12:T:184:ALA:HB3	1.87	0.55
14:V:145:LYS:HD3	14:V:148:ARG:HH11	1.70	0.55
19:E:264:ASN:HD22	19:E:264:ASN:C	2.10	0.55
26:G:249:GLU:OE1	26:G:249:GLU:N	2.39	0.55
27:H:87:ILE:HG22	27:H:209:ILE:HG12	1.89	0.55
28:I:48:ILE:O	28:I:89:PHE:HA	2.06	0.55
28:I:134:TYR:HA	28:I:146:SER:O	2.06	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:284:A:C1’	1:A:285:A:P	2.94	0.55
1:A:348:U:O2	1:A:348:U:H2’	2.06	0.55
1:A:863:C:O2’	1:A:864:U:H5’	2.07	0.55
1:A:891:G:N2	1:A:892:C:C2	2.75	0.55
1:A:1836:C:H5”	19:E:219:VAL:CG2	2.35	0.55
1:A:2227:C:H2’	1:A:2228:C:C6	2.41	0.55
1:A:2807:C:OP1	1:A:2807:C:H4’	2.07	0.55
10:R:137:LEU:HD12	10:R:137:LEU:C	2.26	0.55
1:A:103:C:H2’	1:A:104:C:C6	2.42	0.55
1:A:416:C:O2	1:A:418:G:C2	2.59	0.55
1:A:504:G:C5’	13:U:37:TYR:CD1	2.90	0.55
1:A:670:A:H2’	1:A:671:C:C5	2.41	0.55
1:A:1468:C:O2’	1:A:1578:A:N3	2.31	0.55
1:A:1651:C:H4’	1:A:1652:A:OP1	2.04	0.55
1:A:1822:A:C6	1:A:1823:C:N4	2.75	0.55
1:A:2331:G:C2	27:H:182:SER:OG	2.58	0.55
1:A:2647:A:N7	2:C:98:G:C6	2.75	0.55
2:C:103:G:C2	2:C:104:A:C8	2.94	0.55
6:N:225:LEU:HD23	6:N:232:VAL:HG22	1.88	0.55
11:S:89:GLN:O	12:T:174:THR:HA	2.06	0.55
16:X:141:GLU:C	16:X:142:ILE:HG13	2.26	0.55
27:H:58:LYS:O	27:H:61:TYR:HB3	2.06	0.55
1:A:734:G:H2’	1:A:735:U:C6	2.42	0.55
1:A:1169:A:H5’	4:L:245:ARG:CZ	2.37	0.55
1:A:2267:G:H1	7:O:82:ARG:NH2	2.04	0.55
1:A:2806:U:H4’	2:C:6:A:O4’	2.07	0.55
7:O:89:SER:N	7:O:90:PRO:HD2	2.21	0.55
12:T:103:TYR:CD2	12:T:106:ILE:CD1	2.85	0.55
18:Z:137:ASP:OD1	18:Z:141:LYS:HG2	2.06	0.55
26:G:129:GLN:HG2	26:G:134:ARG:HH21	1.72	0.55
1:A:129:U:H2’	1:A:129:U:O2	2.07	0.55
1:A:140:G:C2	1:A:155:A:C2	2.95	0.55
1:A:335:G:N2	1:A:345:C:O2	2.37	0.55
1:A:967:C:O5’	1:A:967:C:H6	1.90	0.55
1:A:1020:C:H2’	1:A:1021:A:H8	1.72	0.55
1:A:1137:C:H3’	1:A:1138:G:H8	1.71	0.55
1:A:1317:C:OP1	1:A:2726:G:O2’	2.20	0.55
1:A:1651:C:C6	13:U:116:PRO:HG2	2.41	0.55
1:A:1704:A:N3	1:A:1706:C:N4	2.55	0.55
1:A:1799:A:H2’	1:A:1800:C:O4’	2.07	0.55
1:A:2109:C:C6	1:A:2110:U:N1	2.75	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2207:A:H8	1:A:2207:A:O5'	1.90	0.55
1:A:2229:U:O4	19:E:64:ARG:NH2	2.40	0.55
1:A:2267:G:N1	7:O:82:ARG:CZ	2.70	0.55
4:L:100:TRP:CE3	4:L:101:TYR:N	2.75	0.55
14:V:106:ARG:C	14:V:107:ARG:HG2	2.25	0.55
19:E:39:ARG:HG3	19:E:40:ASN:CG	2.27	0.55
25:F:144:LEU:CD1	25:F:166:ARG:NH1	2.70	0.55
1:A:274:G:C4	1:A:433:C:C5	2.95	0.55
1:A:458:G:H5"	1:A:459:A:OP1	2.07	0.55
1:A:871:A:H2'	1:A:872:A:O4'	2.07	0.55
1:A:1536:A:C2	1:A:1537:U:C5	2.87	0.55
1:A:1650:A:H8	1:A:1650:A:O5'	1.89	0.55
1:A:1876:A:H5"	1:A:1877:C:OP2	2.06	0.55
1:A:1882:U:C6	1:A:1883:G:C8	2.95	0.55
1:A:2278:C:N4	16:X:71:ASP:HB3	2.21	0.55
1:A:2310:U:H5'	9:Q:143:ARG:HH11	1.71	0.55
1:A:2799:A:H5"	1:A:2800:G:H5'	1.87	0.55
2:C:26:G:C6	2:C:27:U:N3	2.75	0.55
2:C:28:U:O2	2:C:28:U:H2'	2.07	0.55
2:C:28:U:C1'	2:C:30:A:C8	2.86	0.55
6:N:160:ILE:HG22	6:N:203:GLU:O	2.07	0.55
16:X:162:ARG:HD3	16:X:163:GLU:OE1	2.07	0.55
26:G:152:MET:HB3	26:G:157:ARG:NH2	2.22	0.55
26:G:205:SER:OG	26:G:226:LEU:HB3	2.07	0.55
29:J:69:VAL:HG21	29:J:78:LEU:CD1	2.37	0.55
1:A:42:G:H1	1:A:448:C:H42	1.54	0.54
1:A:208:A:C1'	1:A:433:C:O2'	2.53	0.54
1:A:626:C:C3'	1:A:627:C:H6	2.20	0.54
1:A:626:C:H2'	1:A:627:C:H6	1.72	0.54
1:A:1443:G:H22	1:A:1610:C:H5	1.54	0.54
1:A:1878:C:N3	1:A:1887:G:N1	2.55	0.54
1:A:2212:A:H2'	1:A:2213:A:H8	1.71	0.54
2:C:78:G:C2	2:C:79:G:N7	2.75	0.54
4:L:172:LEU:HD23	4:L:185:GLU:CD	2.28	0.54
6:N:143:LEU:CD2	6:N:146:ILE:CG1	2.86	0.54
15:W:164:THR:CB	15:W:166:GLU:OE1	2.55	0.54
1:A:175:A:OP2	1:A:190:G:N2	2.31	0.54
1:A:434:A:H8	1:A:434:A:O5'	1.90	0.54
1:A:901:C:H3'	1:A:901:C:H6	1.72	0.54
1:A:1161:A:N7	1:A:2040:U:H4'	2.21	0.54
1:A:1175:U:O2'	1:A:1176:C:H5'	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2003:A:O2'	1:A:2004:C:OP1	2.24	0.54
3:B:27:A:H2'	3:B:28:C:H6	1.72	0.54
3:B:47:A:H5'	3:B:48:C:OP2	2.06	0.54
6:N:97:ARG:NH1	6:N:100:ARG:HG3	2.22	0.54
11:S:43:LEU:HB3	12:T:198:PHE:HB3	1.89	0.54
14:V:118:PRO:HD2	18:Z:95:SER:OG	2.08	0.54
16:X:143:GLN:C	16:X:145:GLU:N	2.60	0.54
1:A:48:A:C2	1:A:162:A:N7	2.65	0.54
1:A:143:G:N2	1:A:2223:A:C2	2.76	0.54
1:A:793:A:H4'	1:A:794:A:O5'	2.07	0.54
1:A:859:A:C5	1:A:860:C:C4	2.95	0.54
1:A:981:G:H2'	1:A:982:G:H5"	1.88	0.54
1:A:1036:U:HO2'	1:A:1037:A:P	2.30	0.54
1:A:1196:A:H61	1:A:1201:A:H61	0.66	0.54
1:A:1571:G:H5"	1:A:1572:G:C8	2.42	0.54
1:A:1748:C:H3'	1:A:1748:C:H6	1.72	0.54
1:A:1825:A:O2'	1:A:1826:U:H4'	2.08	0.54
2:C:81:A:C2'	2:C:82:U:H5'	2.37	0.54
8:P:43:ARG:HA	8:P:123:ILE:O	2.07	0.54
11:S:91:LEU:HB2	12:T:175:PRO:HA	1.88	0.54
12:T:93:PHE:CD2	12:T:93:PHE:N	2.73	0.54
15:W:67:ARG:HB3	15:W:67:ARG:CZ	2.37	0.54
1:A:137:U:C4	1:A:157:G:N1	2.66	0.54
1:A:213:A:C3'	6:N:239:LYS:O	2.51	0.54
1:A:887:G:H22	1:A:909:A:H61	1.55	0.54
1:A:1361:U:C5	14:V:168:PRO:HD3	2.42	0.54
1:A:2190:A:H2'	1:A:2191:C:O4'	2.07	0.54
1:A:2647:A:C8	2:C:98:G:N3	2.76	0.54
1:A:2676:G:N2	1:A:2678:G:H3'	2.22	0.54
6:N:154:LEU:N	6:N:155:PRO:HD2	2.00	0.54
6:N:165:ILE:CG1	6:N:207:SER:N	2.70	0.54
8:P:44:ILE:O	8:P:122:TYR:HA	2.08	0.54
13:U:168:ARG:O	13:U:169:ARG:HB2	2.06	0.54
17:Y:125:ALA:O	17:Y:129:ILE:HG23	2.07	0.54
19:E:226:HIS:HE1	19:E:228:HIS:CD2	2.21	0.54
25:F:179:PHE:HA	25:F:184:LYS:NZ	2.23	0.54
26:G:86:ARG:NE	26:G:152:MET:HE1	2.21	0.54
26:G:251:THR:O	26:G:255:LEU:CB	2.56	0.54
1:A:27:A:H61	1:A:523:G:H1'	1.72	0.54
1:A:103:C:HO2'	1:A:104:C:H5'	1.72	0.54
1:A:153:G:N2	1:A:154:C:C2	2.75	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:504:G:C4’	13:U:37:TYR:HB2	2.23	0.54
1:A:1504:C:O2’	1:A:1505:C:H5’	2.07	0.54
1:A:1515:G:H2’	1:A:1515:G:N3	2.22	0.54
1:A:1603:A:O2’	1:A:1604:A:O5’	2.23	0.54
1:A:1687:G:C6	1:A:1688:A:C2	2.96	0.54
1:A:2224:G:H5”	1:A:2225:G:H5’	1.86	0.54
2:C:41:A:HO2’	2:C:42:G:H5’	1.72	0.54
3:B:25:G:C5	3:B:57:U:N3	2.76	0.54
3:B:32:A:C5	3:B:55:G:C2	2.95	0.54
6:N:157:TYR:HB2	6:N:196:LEU:CD2	2.38	0.54
6:N:200:ILE:HD12	6:N:217:PHE:CD1	2.42	0.54
12:T:156:ILE:HG13	12:T:186:VAL:HG23	1.90	0.54
12:T:174:THR:CG2	12:T:175:PRO:CD	2.85	0.54
13:U:84:ALA:HB1	13:U:95:LYS:HE3	1.88	0.54
15:W:70:LYS:O	15:W:89:ILE:CD1	2.52	0.54
16:X:66:THR:OG1	16:X:67:LYS:CE	2.54	0.54
16:X:123:VAL:HA	16:X:136:SER:O	2.06	0.54
16:X:133:LYS:HA	16:X:133:LYS:CE	2.32	0.54
1:A:169:C:H2’	1:A:170:U:H6	1.73	0.54
1:A:171:G:H2’	1:A:172:G:H8	1.72	0.54
1:A:317:G:N2	1:A:489:A:N7	2.54	0.54
1:A:817:C:O3’	1:A:841:G:N2	2.40	0.54
1:A:822:U:C5	1:A:1272:A:C6	2.96	0.54
1:A:951:C:C2’	1:A:952:A:C8	2.87	0.54
1:A:1495:C:C4	1:A:1548:A:C6	2.96	0.54
1:A:1980:A:H1’	1:A:2610:U:H5’	1.90	0.54
1:A:2219:U:H1’	19:E:64:ARG:HH22	1.72	0.54
1:A:2242:A:O2’	1:A:2243:C:OP2	2.24	0.54
1:A:2320:G:H4’	27:H:175:PHE:CA	2.30	0.54
6:N:82:LEU:CD2	26:G:240:LEU:HD22	2.36	0.54
15:W:82:GLU:OE1	15:W:82:GLU:N	2.25	0.54
27:H:89:VAL:HA	27:H:206:ASP:O	2.07	0.54
27:H:123:ALA:HB3	27:H:135:GLY:H	1.73	0.54
28:I:57:ALA:HB3	28:I:64:LYS:O	2.08	0.54
1:A:1056:A:H2’	1:A:1057:A:H8	1.72	0.54
1:A:1196:A:N6	1:A:1201:A:N6	2.21	0.54
1:A:1522:A:C6	1:A:1544:A:N3	2.73	0.54
1:A:1634:C:C5’	14:V:145:LYS:HZ3	2.21	0.54
1:A:1634:C:C5’	14:V:145:LYS:NZ	2.68	0.54
1:A:2221:U:O2	1:A:2221:U:H2’	2.07	0.54
1:A:2393:A:C2	9:Q:166:PHE:HE2	2.25	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2608:C:H2'	1:A:2609:G:C8	2.42	0.54
1:A:2684:C:C6	28:I:150:SER:OG	2.60	0.54
2:C:35:U:O2	2:C:35:U:H2'	2.07	0.54
2:C:99:A:H2'	2:C:100:C:H5'	1.90	0.54
4:L:116:VAL:HG23	4:L:236:PRO:HB2	1.90	0.54
4:L:172:LEU:HD21	4:L:185:GLU:OE2	2.06	0.54
6:N:99:GLY:HA2	6:N:107:GLY:HA2	1.90	0.54
12:T:141:TRP:HE3	12:T:218:ARG:HG2	1.73	0.54
16:X:69:GLY:O	16:X:70:ARG:HB3	2.08	0.54
1:A:610:G:OP1	26:G:79:LYS:HG2	2.08	0.54
1:A:1534:A:C3'	1:A:1535:A:C5'	2.86	0.54
1:A:1830:U:H5'	1:A:1831:G:C8	2.42	0.54
1:A:1936:G:H2'	1:A:1937:U:C6	2.43	0.54
1:A:2636:G:H5"	25:F:246:LYS:HB3	1.90	0.54
1:A:2644:G:N2	1:A:2795:G:OP2	2.41	0.54
2:C:88:C:C2'	2:C:89:A:H5'	2.38	0.54
3:B:34:C:O5'	3:B:34:C:H6	1.91	0.54
4:L:204:VAL:HG21	4:L:221:LEU:HD22	1.89	0.54
6:N:168:ALA:HB1	6:N:184:LYS:CE	2.38	0.54
6:N:172:GLU:HA	6:N:210:LEU:HD23	1.82	0.54
15:W:170:THR:CB	15:W:171:PRO:CD	2.85	0.54
28:I:43:ILE:O	28:I:43:ILE:HG22	2.07	0.54
1:A:410:G:C6	1:A:411:U:O4	2.61	0.54
1:A:635:C:OP2	6:N:190:SER:OG	2.18	0.54
1:A:910:A:HO2'	1:A:911:U:H5'	1.71	0.54
1:A:1432:U:H2'	1:A:1433:U:C6	2.43	0.54
1:A:1885:C:O2'	1:A:1886:A:O4'	2.21	0.54
1:A:2188:C:C2'	1:A:2189:C:H5'	2.38	0.54
10:R:135:GLU:O	10:R:138:ARG:O	2.25	0.54
11:S:8:TYR:HE1	11:S:12:ARG:NE	2.04	0.54
12:T:91:ASP:O	12:T:92:ASP:HB2	2.08	0.54
15:W:70:LYS:HE3	15:W:159:ARG:NE	2.23	0.54
19:E:245:PRO:CG	19:E:246:TRP:CZ3	2.90	0.54
25:F:212:ILE:HG21	25:F:230:ARG:NH1	2.22	0.54
26:G:209:LEU:HD12	26:G:248:THR:HG21	1.89	0.54
28:I:55:ALA:HB3	28:I:66:LYS:HB2	1.89	0.54
1:A:152:G:N3	1:A:153:G:N7	2.52	0.54
1:A:242:A:H2	6:N:194:ARG:NH2	2.06	0.54
1:A:268:G:N2	1:A:269:G:C2	2.76	0.54
1:A:671:C:O5'	1:A:671:C:H6	1.90	0.54
1:A:856:U:H6	1:A:962:G:H22	0.59	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:890:G:C4	1:A:891:G:N7	2.76	0.54
1:A:896:G:H21	1:A:897:A:H4'	1.71	0.54
1:A:1444:A:C2	1:A:1609:U:H5	2.26	0.54
1:A:1847:C:O2'	1:A:1941:A:H1'	2.08	0.54
1:A:2504:A:H2'	1:A:2505:A:C8	2.43	0.54
1:A:2684:C:H6	28:I:150:SER:H	1.55	0.54
2:C:28:U:HO2'	2:C:30:A:P	2.31	0.54
3:B:38:C:C4	3:B:39:C:C2	2.96	0.54
25:F:154:ARG:HG2	25:F:158:ASN:OD1	2.08	0.54
26:G:102:THR:HG21	26:G:142:GLY:HA3	1.90	0.54
1:A:16:G:O2'	11:S:25:ARG:HG3	2.07	0.53
1:A:145:A:H3'	1:A:146:U:C5'	2.28	0.53
1:A:856:U:C4	1:A:962:G:O6	2.42	0.53
1:A:1160:A:OP1	4:L:183:LEU:HD22	2.08	0.53
1:A:1432:U:H2'	1:A:1433:U:H6	1.74	0.53
1:A:1691:A:H8	1:A:1691:A:O5'	1.91	0.53
1:A:1804:U:H2'	1:A:1805:C:H6	1.73	0.53
1:A:1827:G:H5"	19:E:83:ARG:HE	1.72	0.53
1:A:1829:A:C4'	1:A:1830:U:H5'	2.30	0.53
1:A:1876:A:H8	1:A:1876:A:O5'	1.91	0.53
1:A:2209:U:H2'	1:A:2210:C:C6	2.43	0.53
7:O:10:ARG:NH2	7:O:90:PRO:HD3	2.22	0.53
26:G:175:VAL:HG23	26:G:246:VAL:HG12	1.90	0.53
1:A:299:C:H2'	1:A:299:C:O2	2.08	0.53
1:A:367:C:O2	1:A:367:C:H2'	2.08	0.53
1:A:731:U:O4	1:A:732:A:N6	2.40	0.53
1:A:790:U:H2'	1:A:791:G:O4'	2.08	0.53
1:A:804:A:O2'	1:A:805:A:OP2	2.21	0.53
1:A:884:G:N1	1:A:913:G:C6	2.76	0.53
1:A:934:A:C1'	1:A:935:U:H5'	2.34	0.53
1:A:1081:C:C2	1:A:1135:A:N1	2.76	0.53
1:A:1393:U:HO2'	1:A:2230:A:H2'	1.67	0.53
1:A:1534:A:H3'	1:A:1535:A:H5'	1.88	0.53
1:A:2236:C:O5'	1:A:2236:C:H6	1.90	0.53
3:B:57:U:O2'	3:B:58:A:OP2	2.26	0.53
6:N:213:LYS:O	6:N:235:LEU:HB2	2.07	0.53
16:X:122:LEU:CG	16:X:140:ARG:HB2	2.37	0.53
19:E:67:GLU:O	19:E:114:SER:OG	2.27	0.53
19:E:142:ILE:HG23	19:E:143:THR:HG22	1.88	0.53
19:E:237:ILE:HG13	19:E:239:ARG:H	1.72	0.53
25:F:96:LYS:NZ	25:F:284:GLY:O	2.40	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:H:90:ASN:O	27:H:205:MET:HA	2.07	0.53
27:H:122:LYS:HG3	27:H:135:GLY:O	2.08	0.53
28:I:76:TYR:CD1	28:I:108:PHE:CZ	2.96	0.53
1:A:6:A:H8	1:A:6:A:O5'	1.92	0.53
1:A:140:G:N1	1:A:155:A:C2	2.76	0.53
1:A:199:G:H2'	1:A:200:G:C8	2.42	0.53
1:A:627:C:O2	1:A:627:C:H2'	2.08	0.53
1:A:903:G:H4'	1:A:903:G:OP1	2.08	0.53
1:A:1003:A:OP2	1:A:1003:A:H8	1.91	0.53
1:A:1161:A:H1'	1:A:1162:C:OP2	2.09	0.53
1:A:1197:A:OP1	16:X:165:LYS:CG	2.57	0.53
1:A:1224:U:H3	1:A:1263:G:H1	1.57	0.53
1:A:1336:C:H2'	1:A:1337:U:C6	2.44	0.53
1:A:1522:A:C2	1:A:1523:A:N7	2.76	0.53
1:A:1603:A:H5'	19:E:55:LYS:HD2	1.88	0.53
1:A:2205:G:C4	1:A:2206:A:N7	2.76	0.53
3:B:7:G:H1'	3:B:8:G:C5'	2.37	0.53
4:L:175:ARG:NH2	4:L:184:LYS:HZ2	1.89	0.53
25:F:119:GLU:HG3	25:F:143:ARG:CB	2.38	0.53
28:I:48:ILE:O	28:I:89:PHE:HD1	1.86	0.53
1:A:13:A:O2'	1:A:14:A:O4'	2.26	0.53
1:A:260:G:C6	1:A:268:G:C6	2.96	0.53
1:A:339:A:H4'	1:A:340:A:OP1	2.08	0.53
1:A:420:A:C2	1:A:432:G:C2	2.96	0.53
1:A:860:C:O2'	1:A:861:A:H5'	2.08	0.53
1:A:888:C:O2	1:A:888:C:H2'	2.08	0.53
1:A:1200:A:H3'	1:A:1201:A:H8	1.73	0.53
1:A:1399:A:H2'	1:A:1401:G:N7	2.24	0.53
1:A:1519:A:N1	1:A:1520:A:N7	2.56	0.53
1:A:1546:C:O2	1:A:1546:C:H2'	2.08	0.53
1:A:2214:C:H6	1:A:2214:C:O5'	1.92	0.53
1:A:2336:U:P	1:A:2336:U:H3'	2.49	0.53
1:A:2373:C:H4'	16:X:76:ARG:HD2	1.91	0.53
3:B:13:C:H1'	3:B:111:G:H22	1.73	0.53
12:T:177:VAL:HG23	12:T:177:VAL:O	2.07	0.53
15:W:138:LEU:HG	15:W:140:GLU:H	1.74	0.53
25:F:144:LEU:HD13	25:F:166:ARG:NH1	2.22	0.53
26:G:250:GLY:O	26:G:254:TYR:CB	2.56	0.53
28:I:42:ARG:O	28:I:43:ILE:HB	2.09	0.53
1:A:97:A:OP1	18:Z:63:ASP:HB3	2.08	0.53
1:A:98:G:C2	1:A:100:G:N2	2.77	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:122:U:O2'	1:A:123:C:H5"	2.08	0.53
1:A:288:C:O5'	1:A:288:C:H6	1.91	0.53
1:A:297:U:H2'	1:A:298:G:H5'	1.89	0.53
1:A:411:U:OP2	17:Y:127:LYS:HE3	2.08	0.53
1:A:1066:G:N2	1:A:1146:U:O2	2.41	0.53
1:A:1454:G:H1	1:A:1594:A:H62	1.56	0.53
1:A:1481:U:C5	1:A:1482:C:N4	2.76	0.53
1:A:1552:U:H2'	1:A:1553:U:H6	1.72	0.53
1:A:1966:A:OP2	5:M:55:SER:OG	2.16	0.53
1:A:2335:C:O3'	1:A:2336:U:H3'	2.09	0.53
1:A:2612:G:N2	1:A:2615:A:OP2	2.42	0.53
10:R:203:ILE:O	10:R:203:ILE:HG13	2.08	0.53
14:V:144:LYS:O	14:V:148:ARG:HB3	2.08	0.53
18:Z:86:GLU:O	18:Z:90:LEU:HG	2.08	0.53
1:A:121:G:H8	1:A:121:G:O5'	1.91	0.53
1:A:133:A:C5	1:A:134:A:C6	2.96	0.53
1:A:154:C:N4	1:A:155:A:C6	2.77	0.53
1:A:426:C:O2'	1:A:1874:U:H1'	2.08	0.53
1:A:567:C:OP2	4:L:212:ARG:NH2	2.40	0.53
1:A:843:C:C5'	6:N:125:ILE:HD11	2.38	0.53
1:A:887:G:N2	1:A:909:A:C6	2.74	0.53
1:A:1145:C:H2'	1:A:1146:U:C6	2.42	0.53
1:A:1881:A:N7	6:N:255:GLU:CD	2.62	0.53
1:A:2033:A:H3'	1:A:2034:C:H5"	1.89	0.53
1:A:2106:U:H4'	1:A:2107:G:O5'	2.07	0.53
1:A:2186:U:H4'	1:A:2187:A:H5'	1.90	0.53
1:A:2647:A:C8	2:C:98:G:C6	2.97	0.53
2:C:75:U:C3'	2:C:76:G:C5'	2.86	0.53
3:B:31:C:O2	3:B:31:C:H2'	2.08	0.53
3:B:66:C:O2	3:B:66:C:H2'	2.08	0.53
10:R:144:ARG:O	10:R:145:THR:C	2.47	0.53
12:T:91:ASP:OD2	13:U:142:PHE:CZ	2.61	0.53
18:Z:123:GLU:HG2	18:Z:128:VAL:HG21	1.91	0.53
25:F:119:GLU:OE1	25:F:119:GLU:HA	2.09	0.53
26:G:148:TRP:O	26:G:149:THR:OG1	2.25	0.53
1:A:44:G:C8	1:A:200:G:N9	2.77	0.53
1:A:153:G:H4'	1:A:154:C:OP1	2.09	0.53
1:A:576:U:O2'	1:A:820:G:OP2	2.23	0.53
1:A:613:U:H3'	1:A:613:U:H6	1.73	0.53
1:A:1334:U:OP2	1:A:1335:C:N4	2.38	0.53
1:A:1534:A:C2'	1:A:1535:A:C5'	2.86	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2116:C:N4	1:A:2201:G:N2	2.52	0.53
1:A:2207:A:H2'	1:A:2208:U:N1	2.24	0.53
1:A:2475:G:O2'	1:A:2477:U:O4	2.26	0.53
1:A:2647:A:C5	2:C:98:G:N1	2.77	0.53
3:B:11:U:O4'	9:Q:92:MET:SD	2.67	0.53
4:L:224:TYR:OH	4:L:231:HIS:NE2	2.28	0.53
1:A:822:U:H3	6:N:100:ARG:NH2	2.07	0.53
1:A:884:G:C2	1:A:913:G:N1	2.77	0.53
1:A:937:U:C2'	1:A:938:G:C5'	2.87	0.53
1:A:1879:U:H2'	1:A:1880:G:N7	2.24	0.53
1:A:2207:A:H2'	1:A:2208:U:C2	2.44	0.53
1:A:2542:G:H1	1:A:2555:U:H3	1.57	0.53
1:A:2650:G:H1	1:A:2803:C:N4	2.05	0.53
2:C:103:G:C4	2:C:104:A:C8	2.96	0.53
3:B:5:C:N3	3:B:119:G:O6	2.42	0.53
3:B:7:G:N3	3:B:8:G:H5'	2.24	0.53
3:B:118:G:O2'	3:B:119:G:H5'	2.09	0.53
12:T:136:VAL:CG2	12:T:221:ILE:HG13	2.38	0.53
25:F:213:LYS:HE3	25:F:254:MET:HE3	1.90	0.53
1:A:160:A:C2	1:A:161:G:C5	2.95	0.53
1:A:885:G:C5	1:A:886:U:C4	2.96	0.53
1:A:1197:A:OP1	16:X:165:LYS:CB	2.57	0.53
1:A:1496:A:N7	1:A:1497:A:C2	2.77	0.53
1:A:1596:U:C2'	1:A:1597:C:C5'	2.70	0.53
2:C:75:U:H2'	2:C:76:G:H5"	1.89	0.53
2:C:78:G:C2'	2:C:79:G:H5'	2.38	0.53
3:B:25:G:N7	3:B:57:U:C5	2.76	0.53
19:E:64:ARG:HG3	19:E:147:GLY:HA2	1.91	0.53
19:E:133:LEU:HD22	19:E:162:ALA:HA	1.90	0.53
29:J:77:PHE:O	29:J:81:LEU:HB2	2.09	0.53
1:A:420:A:C5	1:A:432:G:N2	2.77	0.53
1:A:877:C:H2'	1:A:878:U:H6	1.71	0.53
1:A:950:A:C6	1:A:951:C:N3	2.76	0.53
1:A:2228:C:H4'	1:A:2230:A:OP1	2.09	0.53
1:A:2233:G:C4	1:A:2234:G:N7	2.77	0.53
1:A:2394:A:H2'	1:A:2395:A:C8	2.44	0.53
1:A:2684:C:C6	28:I:150:SER:CB	2.92	0.53
2:C:103:G:C4	2:C:104:A:N7	2.77	0.53
3:B:10:G:OP1	9:Q:63:LYS:CD	2.49	0.53
6:N:88:GLN:HE22	26:G:79:LYS:NZ	2.07	0.53
11:S:5:LYS:HG3	11:S:5:LYS:O	2.09	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S:93:ASN:HB2	11:S:97:LEU:HD23	1.90	0.53
14:V:111:VAL:O	14:V:114:ILE:HG22	2.09	0.53
28:I:104:MET:HA	28:I:107:LEU:HB3	1.91	0.53
1:A:270:G:C2'	1:A:271:G:H5'	2.34	0.52
1:A:381:C:O2	1:A:381:C:O2'	2.26	0.52
1:A:389:A:N6	1:A:410:G:H1	2.06	0.52
1:A:581:A:O2'	1:A:583:G:H8	1.91	0.52
1:A:602:A:H2'	1:A:603:G:H8	1.72	0.52
1:A:824:U:O4'	1:A:1247:A:H1'	2.09	0.52
1:A:869:G:N2	1:A:2285:A:H2	2.05	0.52
1:A:984:G:N7	7:O:14:ARG:NH1	2.57	0.52
1:A:1413:A:H2'	1:A:1414:A:C8	2.44	0.52
1:A:1541:U:O5'	1:A:1541:U:H6	1.92	0.52
1:A:1877:C:H2'	1:A:1877:C:O2	2.08	0.52
1:A:2036:U:H4'	1:A:2037:G:OP1	2.09	0.52
1:A:2209:U:C4	1:A:2210:C:N4	2.73	0.52
1:A:2211:U:C4	1:A:2241:G:C6	2.97	0.52
2:C:56:G:H2'	2:C:57:U:C6	2.44	0.52
6:N:146:ILE:O	6:N:147:ALA:HB2	2.09	0.52
10:R:226:LEU:HD13	10:R:226:LEU:H	1.72	0.52
15:W:78:ILE:O	15:W:83:LYS:HG3	2.08	0.52
19:E:37:LYS:HE3	19:E:50:ARG:HD3	1.90	0.52
26:G:204:LYS:HA	26:G:225:THR:HB	1.90	0.52
26:G:226:LEU:HD12	26:G:226:LEU:C	2.30	0.52
1:A:625:C:O2	1:A:625:C:H2'	2.08	0.52
1:A:740:G:O6	19:E:204:ALA:CB	2.39	0.52
1:A:841:G:N3	1:A:841:G:H2'	2.24	0.52
1:A:906:C:O5'	1:A:906:C:H6	1.91	0.52
1:A:1164:G:O5'	1:A:1164:G:H8	1.91	0.52
1:A:1344:G:H5"	13:U:113:LYS:HE2	1.90	0.52
1:A:2203:U:O5'	1:A:2203:U:H6	1.91	0.52
1:A:2324:G:C2	1:A:2328:A:N7	2.77	0.52
1:A:2631:A:H8	1:A:2631:A:OP1	1.93	0.52
1:A:2647:A:H1'	2:C:98:G:N3	2.24	0.52
1:A:2654:U:H5"	25:F:172:ARG:NH2	2.24	0.52
2:C:31:U:O2	2:C:31:U:H2'	2.08	0.52
6:N:165:ILE:CG1	6:N:207:SER:H	2.19	0.52
15:W:67:ARG:CZ	15:W:67:ARG:CB	2.87	0.52
15:W:70:LYS:HE3	15:W:159:ARG:HE	1.74	0.52
25:F:135:ASN:HD21	25:F:177:ASP:H	1.57	0.52
26:G:230:THR:OG1	26:G:231:PRO:HD2	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:H:189:SER:HB2	27:H:205:MET:HE1	1.90	0.52
28:I:61:GLN:HA	28:I:76:TYR:HD2	1.74	0.52
1:A:71:A:C8	18:Z:116:LEU:HD12	2.44	0.52
1:A:116:A:O2'	1:A:163:G:OP1	2.26	0.52
1:A:545:U:H2'	1:A:546:G:C8	2.44	0.52
1:A:597:C:O2'	6:N:98:LYS:HD2	2.10	0.52
1:A:690:U:H2'	1:A:691:G:H8	1.74	0.52
1:A:902:G:H2'	1:A:903:G:C5'	2.32	0.52
1:A:1080:C:C3'	1:A:1081:C:C5'	2.86	0.52
1:A:1176:C:H2'	1:A:1177:U:O4'	2.09	0.52
1:A:1407:C:H2'	1:A:1408:A:C8	2.41	0.52
1:A:1534:A:H3'	1:A:1535:A:C5'	2.39	0.52
1:A:1633:A:H5"	1:A:1634:C:OP1	2.10	0.52
1:A:1691:A:C6	1:A:1692:C:C2	2.97	0.52
1:A:1800:C:H2'	1:A:1801:A:C8	2.44	0.52
1:A:2116:C:H2'	1:A:2116:C:O2	2.08	0.52
1:A:2229:U:C4	19:E:64:ARG:NH1	2.78	0.52
1:A:2339:A:H2'	1:A:2340:G:O4'	2.08	0.52
1:A:2420:C:O2	1:A:2420:C:H2'	2.08	0.52
1:A:2475:G:H8	1:A:2476:A:H62	1.56	0.52
2:C:85:U:HO2'	2:C:86:A:H5'	1.72	0.52
3:B:45:G:H1'	3:B:48:C:H42	1.74	0.52
6:N:176:VAL:CG1	6:N:177:SER:H	2.03	0.52
10:R:212:ARG:NH2	10:R:229:LEU:O	2.29	0.52
1:A:77:U:H2'	1:A:78:C:C6	2.45	0.52
1:A:276:G:C5	1:A:433:C:N4	2.78	0.52
1:A:997:G:H2'	1:A:998:U:C6	2.43	0.52
1:A:1527:G:C2	1:A:1539:C:N3	2.40	0.52
1:A:1651:C:C5	13:U:116:PRO:CG	2.92	0.52
1:A:1801:A:O2'	19:E:202:GLY:HA2	2.08	0.52
1:A:2113:G:H8	1:A:2113:G:O5'	1.92	0.52
1:A:2137:G:N2	1:A:2190:A:C4	2.77	0.52
1:A:2807:C:N4	2:C:98:G:H1	2.06	0.52
6:N:157:TYR:HD1	6:N:158:VAL:N	2.08	0.52
9:Q:47:HIS:ND1	9:Q:48:THR:HG23	2.24	0.52
11:S:76:TYR:O	11:S:77:ASN:ND2	2.43	0.52
12:T:96:PRO:C	12:T:98:PRO:N	2.63	0.52
12:T:113:LYS:HA	12:T:113:LYS:HE2	1.91	0.52
12:T:145:GLN:O	12:T:147:LEU:N	2.42	0.52
12:T:177:VAL:HG23	12:T:180:ALA:HB2	1.91	0.52
16:X:67:LYS:N	16:X:67:LYS:CD	2.73	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:X:101:PHE:HB3	16:X:135:VAL:HG23	1.92	0.52
1:A:98:G:H5'	1:A:99:A:O5'	2.09	0.52
1:A:101:A:C4	1:A:102:U:C5	2.97	0.52
1:A:256:A:C8	1:A:380:C:O2'	2.39	0.52
1:A:319:G:C4	1:A:339:A:C2	2.98	0.52
1:A:358:C:H2'	1:A:359:A:H8	1.74	0.52
1:A:858:G:N3	1:A:859:A:C8	2.77	0.52
1:A:2338:G:N3	1:A:2338:G:C2'	2.73	0.52
1:A:2672:G:O2'	1:A:2673:U:O5'	2.26	0.52
3:B:86:G:C4	3:B:87:G:N7	2.78	0.52
6:N:143:LEU:CD2	6:N:143:LEU:N	2.73	0.52
6:N:144:ARG:N	6:N:146:ILE:CD1	2.73	0.52
17:Y:101:VAL:HG23	17:Y:103:LEU:HD12	1.90	0.52
17:Y:129:ILE:CD1	17:Y:130:GLU:N	2.73	0.52
27:H:175:PHE:CD1	27:H:183:VAL:CG1	2.91	0.52
1:A:902:G:C3'	1:A:903:G:C5'	2.86	0.52
1:A:922:U:O5'	1:A:922:U:H6	1.93	0.52
1:A:1530:G:N3	1:A:1530:G:C2'	2.73	0.52
1:A:1534:A:N3	1:A:1534:A:H5"	2.25	0.52
1:A:1801:A:H2	1:A:1839:A:HO2'	1.55	0.52
1:A:1829:A:OP1	19:E:152:ARG:N	2.42	0.52
1:A:1866:G:C5'	29:J:43:LYS:HG3	2.39	0.52
1:A:2238:A:C4	1:A:2239:G:C8	2.97	0.52
1:A:2319:C:C2'	1:A:2320:G:H5'	2.39	0.52
1:A:2652:A:H2'	1:A:2653:U:O4'	2.10	0.52
3:B:17:G:H22	3:B:70:G:H1'	0.62	0.52
9:Q:49:ARG:CG	9:Q:53:ARG:HG3	2.39	0.52
13:U:141:HIS:ND1	13:U:141:HIS:O	2.43	0.52
19:E:140:ILE:HD11	19:E:150:LEU:HB2	1.91	0.52
26:G:206:LEU:HD13	26:G:207:PHE:N	2.24	0.52
29:J:77:PHE:CD1	29:J:81:LEU:HD12	2.44	0.52
1:A:82:G:P	15:W:157:LYS:NZ	2.82	0.52
1:A:268:G:N1	1:A:269:G:C6	2.78	0.52
1:A:298:G:C4	1:A:299:C:C5	2.97	0.52
1:A:355:A:H3'	1:A:356:A:H8	1.74	0.52
1:A:874:G:P	7:O:23:ARG:HH22	2.29	0.52
1:A:890:G:N3	1:A:891:G:N7	2.58	0.52
1:A:891:G:H2'	1:A:892:C:C6	2.44	0.52
1:A:895:C:O5'	1:A:895:C:H6	1.93	0.52
1:A:1056:A:N3	1:A:2503:G:O2'	2.32	0.52
1:A:1180:C:H5'	11:S:78:TYR:HE2	1.74	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1444:A:C2	1:A:1609:U:C5	2.97	0.52
1:A:2204:A:H2'	1:A:2205:G:H5'	1.92	0.52
1:A:2320:G:C6	1:A:2331:G:C6	2.98	0.52
1:A:2329:U:O3'	27:H:121:THR:HG21	2.09	0.52
3:B:13:C:O2	3:B:111:G:N1	2.41	0.52
8:P:88:ALA:O	8:P:92:GLU:HB2	2.10	0.52
12:T:172:ILE:CD1	12:T:172:ILE:N	2.73	0.52
15:W:164:THR:HB	15:W:166:GLU:OE1	2.09	0.52
16:X:67:LYS:NZ	16:X:67:LYS:CA	2.73	0.52
16:X:101:PHE:HA	16:X:133:LYS:HB2	1.91	0.52
16:X:162:ARG:NH1	16:X:162:ARG:CB	2.73	0.52
19:E:258:ARG:NE	19:E:258:ARG:CA	2.73	0.52
1:A:624:A:N7	1:A:625:C:C5	2.78	0.52
1:A:626:C:C2'	1:A:627:C:H6	2.23	0.52
1:A:1624:C:H2'	1:A:1625:A:C8	2.45	0.52
1:A:1651:C:O2	1:A:1651:C:H2'	2.09	0.52
1:A:1810:C:H1'	1:A:1811:A:OP2	2.09	0.52
1:A:1926:A:O2'	1:A:1927:A:H5'	2.10	0.52
1:A:2207:A:H5"	1:A:2208:U:OP2	2.10	0.52
1:A:2210:C:H2'	1:A:2210:C:O2	2.08	0.52
1:A:2319:C:HO2'	1:A:2320:G:H5'	1.71	0.52
4:L:208:LEU:HD13	4:L:217:LEU:HD11	1.90	0.52
10:R:202:ASN:HD21	25:F:107:GLY:HA3	1.73	0.52
13:U:42:SER:HA	13:U:128:PRO:HG2	1.92	0.52
16:X:73:LYS:HD3	16:X:73:LYS:H	1.74	0.52
16:X:153:ARG:HH11	16:X:153:ARG:CG	2.12	0.52
19:E:175:GLY:O	19:E:268:ARG:O	2.27	0.52
27:H:61:TYR:HE1	27:H:222:LEU:HD11	1.75	0.52
1:A:279:A:H62	1:A:379:C:H42	0.65	0.52
1:A:289:A:N1	1:A:369:U:O2	2.43	0.52
1:A:333:A:C6	1:A:334:U:C2	2.98	0.52
1:A:529:G:O5'	13:U:47:ARG:NH2	2.43	0.52
1:A:822:U:N3	6:N:100:ARG:NH2	2.58	0.52
1:A:823:C:N3	1:A:1271:G:C6	2.78	0.52
1:A:836:G:H2'	1:A:837:U:O4'	2.10	0.52
1:A:855:C:C4	1:A:856:U:C4	2.98	0.52
1:A:932:A:H5'	16:X:85:GLN:NE2	2.25	0.52
1:A:1139:A:N3	1:A:1139:A:C3'	2.73	0.52
1:A:1311:C:H2'	1:A:1312:A:H8	1.74	0.52
1:A:1536:A:N3	1:A:1536:A:C3'	2.73	0.52
1:A:1877:C:C2'	1:A:1878:C:H5"	2.40	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2347:G:H21	16:X:98:GLY:CA	2.22	0.52
3:B:53:U:C2	3:B:54:G:H1'	2.45	0.52
3:B:66:C:C4	3:B:110:C:N3	2.78	0.52
6:N:212:ILE:N	6:N:212:ILE:CD1	2.73	0.52
15:W:70:LYS:HB2	15:W:70:LYS:HZ2	1.75	0.52
16:X:145:GLU:H	16:X:145:GLU:CD	1.95	0.52
26:G:57:ILE:HB	26:G:65:VAL:O	2.10	0.52
1:A:19:U:H2'	1:A:20:A:C8	2.44	0.52
1:A:27:A:N6	1:A:523:G:H1'	2.25	0.52
1:A:128:U:O5'	1:A:128:U:H6	1.93	0.52
1:A:279:A:N3	1:A:279:A:C3'	2.73	0.52
1:A:457:C:H2'	1:A:458:G:O4'	2.10	0.52
1:A:670:A:H5"	26:G:151:LYS:HE3	1.90	0.52
1:A:1112:A:N3	1:A:1133:U:O2'	2.40	0.52
1:A:1635:C:C4'	14:V:106:ARG:NH2	2.62	0.52
1:A:1650:A:N1	13:U:116:PRO:HB3	2.25	0.52
1:A:2736:G:H1'	2:C:51:U:H5"	1.92	0.52
1:A:2739:A:C2	2:C:77:A:C6	2.98	0.52
2:C:30:A:N3	2:C:30:A:C3'	2.73	0.52
3:B:87:G:O2'	3:B:88:G:C5'	2.43	0.52
9:Q:50:ARG:O	9:Q:54:THR:CB	2.58	0.52
1:A:61:U:O4	1:A:92:U:O2	2.28	0.51
1:A:263:A:N3	1:A:263:A:C3'	2.73	0.51
1:A:277:G:N3	1:A:277:G:C5'	2.73	0.51
1:A:350:G:C2'	1:A:351:C:H5'	2.41	0.51
1:A:1064:A:H3'	1:A:1065:G:C5'	2.41	0.51
1:A:1488:A:H2'	1:A:1489:A:C8	2.44	0.51
1:A:1848:C:H4'	1:A:1849:A:O5'	2.09	0.51
1:A:2198:A:O5'	1:A:2198:A:H8	1.93	0.51
1:A:2753:C:N4	1:A:2787:C:H42	2.03	0.51
1:A:2810:A:N3	1:A:2810:A:C3'	2.73	0.51
2:C:102:U:H2'	2:C:103:G:C5'	2.34	0.51
3:B:19:G:H2'	3:B:20:U:C6	2.45	0.51
3:B:36:A:C5	3:B:45:G:C5	2.98	0.51
3:B:86:G:H2'	3:B:87:G:H8	1.74	0.51
13:U:47:ARG:HA	13:U:50:ILE:HG22	1.90	0.51
16:X:143:GLN:O	16:X:145:GLU:OE1	2.28	0.51
26:G:202:ALA:C	26:G:225:THR:HG21	2.30	0.51
27:H:221:LYS:HD2	27:H:224:SER:HB2	1.92	0.51
29:J:43:LYS:HG2	29:J:44:LYS:HG2	1.92	0.51
1:A:320:U:H1'	1:A:341:A:C4	2.45	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:350:G:H2'	1:A:351:C:C6	2.45	0.51
1:A:539:A:C6	1:A:2056:A:C5	2.99	0.51
1:A:554:G:N3	1:A:554:G:C5'	2.73	0.51
1:A:614:G:C2	1:A:615:G:C5	2.99	0.51
1:A:941:C:O2	1:A:956:G:C2	2.63	0.51
1:A:1179:C:H2'	1:A:1180:C:C6	2.45	0.51
1:A:1501:G:OP1	1:A:1501:G:H4'	2.10	0.51
1:A:1835:G:H2'	1:A:1836:C:C6	2.44	0.51
1:A:2108:G:N3	1:A:2108:G:C3'	2.73	0.51
1:A:2211:U:O2'	1:A:2212:A:OP1	2.28	0.51
1:A:2423:A:OP2	1:A:2428:A:N6	2.41	0.51
3:B:46:A:P	27:H:145:ARG:HH12	2.33	0.51
4:L:172:LEU:N	4:L:172:LEU:CD1	2.73	0.51
9:Q:120:ALA:HA	9:Q:123:ILE:HG22	1.91	0.51
16:X:132:LYS:CD	16:X:132:LYS:N	2.73	0.51
25:F:124:THR:O	25:F:125:GLN:HB2	2.09	0.51
1:A:133:A:H61	1:A:162:A:H2	0.53	0.51
1:A:274:G:C5	1:A:433:C:C5'	2.94	0.51
1:A:560:A:C6	1:A:561:C:C4	2.99	0.51
1:A:634:G:H2'	1:A:635:C:C6	2.45	0.51
1:A:858:G:C6	1:A:859:A:C6	2.98	0.51
1:A:884:G:N1	1:A:913:G:N1	2.58	0.51
1:A:1021:A:OP1	11:S:50:ARG:NH1	2.33	0.51
1:A:1162:C:O2	1:A:1162:C:H2'	2.08	0.51
1:A:1189:G:H1'	12:T:145:GLN:NE2	2.25	0.51
1:A:1535:A:C5'	1:A:1535:A:N3	2.73	0.51
1:A:1562:A:C4	1:A:1578:A:N6	2.79	0.51
1:A:2061:C:H2'	1:A:2062:A:C8	2.44	0.51
1:A:2393:A:N3	9:Q:166:PHE:CE2	2.79	0.51
2:C:26:G:H8	2:C:87:A:H2	1.57	0.51
2:C:104:A:C6	2:C:105:A:N6	2.78	0.51
3:B:70:G:H2'	3:B:71:G:C8	2.43	0.51
5:M:88:ASP:OD1	5:M:89:GLN:N	2.43	0.51
16:X:133:LYS:HE2	16:X:133:LYS:N	2.25	0.51
19:E:228:HIS:CE1	19:E:237:ILE:HD13	2.45	0.51
26:G:236:LEU:HD21	26:G:240:LEU:HD13	1.92	0.51
26:G:243:GLU:OE1	26:G:244:LYS:N	2.43	0.51
27:H:87:ILE:HA	27:H:208:CYS:O	2.10	0.51
1:A:101:A:C2	1:A:102:U:C2	2.99	0.51
1:A:383:A:O2'	1:A:384:G:OP2	2.26	0.51
1:A:919:A:H2'	1:A:920:A:C5'	2.38	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1137:C:C3'	1:A:1138:G:H8	2.24	0.51
1:A:1444:A:N1	1:A:1609:U:C5	2.78	0.51
1:A:1575:C:H2'	1:A:1576:U:C6	2.45	0.51
1:A:1635:C:OP1	14:V:144:LYS:HG3	2.09	0.51
1:A:1810:C:C4'	1:A:1811:A:H5'	2.40	0.51
1:A:1847:C:O2'	1:A:1941:A:N3	2.35	0.51
1:A:2416:G:H2'	1:A:2417:G:C8	2.46	0.51
1:A:2433:C:OP1	6:N:145:GLY:CA	2.58	0.51
2:C:99:A:C3'	2:C:100:C:H5'	2.40	0.51
3:B:90:G:H4'	3:B:90:G:OP1	2.10	0.51
6:N:130:GLU:OE2	6:N:139:ARG:NH2	2.43	0.51
7:O:110:ALA:HB3	7:O:113:ILE:HD13	1.91	0.51
10:R:171:SER:HB3	10:R:218:ARG:HG3	1.92	0.51
11:S:65:ILE:HB	11:S:98:ALA:HB2	1.93	0.51
15:W:67:ARG:HH22	15:W:94:LYS:HA	1.76	0.51
27:H:178:HIS:CD2	27:H:181:TYR:HA	2.45	0.51
1:A:569:G:H21	11:S:52:ARG:HH22	1.59	0.51
1:A:626:C:H3'	1:A:627:C:H6	1.69	0.51
1:A:740:G:C6	19:E:203:ARG:O	2.64	0.51
1:A:1307:A:N6	1:A:1310:C:O2	2.43	0.51
1:A:1694:C:OP1	25:F:229:HIS:HE1	1.94	0.51
1:A:1886:A:C2'	1:A:1887:G:C5'	2.86	0.51
1:A:2322:A:H5"	27:H:186:ARG:CB	2.40	0.51
1:A:2445:G:H21	6:N:139:ARG:CZ	2.23	0.51
6:N:115:ARG:O	6:N:119:SER:HB3	2.10	0.51
6:N:136:LEU:CD2	6:N:139:ARG:NH1	2.73	0.51
25:F:144:LEU:HD11	25:F:166:ARG:NH2	2.21	0.51
26:G:79:LYS:NZ	26:G:79:LYS:CB	2.73	0.51
1:A:347:G:C4	1:A:348:U:C5	2.98	0.51
1:A:820:G:C6	1:A:821:U:C4	2.98	0.51
1:A:957:U:C5	1:A:958:C:N4	2.79	0.51
1:A:1522:A:C2	1:A:1523:A:C8	2.98	0.51
1:A:2123:U:N3	1:A:2194:U:N3	2.59	0.51
1:A:2322:A:H5"	27:H:186:ARG:HG3	1.93	0.51
1:A:2645:U:O5'	1:A:2645:U:H6	1.94	0.51
1:A:2810:A:N3	1:A:2810:A:C5'	2.73	0.51
2:C:38:G:N2	25:F:145:ARG:HH21	1.95	0.51
3:B:37:U:C2'	3:B:38:C:H5'	2.40	0.51
3:B:92:U:O5'	3:B:92:U:H6	1.93	0.51
6:N:165:ILE:HG21	6:N:206:LEU:HA	1.93	0.51
6:N:202:GLY:HA2	6:N:221:ALA:N	2.24	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:90:A:O2'	1:A:91:A:O5'	2.28	0.51
1:A:124:A:O2'	1:A:125:A:H5'	2.11	0.51
1:A:144:A:N7	1:A:150:U:O4	2.44	0.51
1:A:218:A:H61	1:A:441:A:N6	2.08	0.51
1:A:355:A:N9	1:A:356:A:C8	2.76	0.51
1:A:670:A:H8	1:A:670:A:O5'	1.92	0.51
1:A:728:A:H2'	1:A:729:A:O4'	2.11	0.51
1:A:1002:G:H4'	1:A:1003:A:O5'	2.11	0.51
1:A:1159:G:N7	4:L:176:HIS:CE1	2.58	0.51
1:A:1457:G:O2'	1:A:1496:A:N1	2.44	0.51
1:A:1477:G:O5'	1:A:1477:G:H8	1.94	0.51
1:A:1760:G:N3	2:C:64:A:H2	2.09	0.51
1:A:2157:U:N3	1:A:2163:G:N2	2.57	0.51
1:A:2362:G:H4'	1:A:2363:A:O5'	2.11	0.51
1:A:2692:A:H2'	1:A:2693:C:O4'	2.10	0.51
4:L:100:TRP:CG	4:L:101:TYR:N	2.75	0.51
16:X:133:LYS:N	16:X:133:LYS:HD2	2.26	0.51
1:A:320:U:C1'	1:A:341:A:C4	2.94	0.51
1:A:416:C:O2	1:A:418:G:N1	2.43	0.51
1:A:1083:G:N2	1:A:1132:C:C2	2.78	0.51
1:A:1187:G:H21	12:T:131:SER:HB2	1.74	0.51
1:A:1194:G:C2	1:A:1204:A:C2	2.99	0.51
1:A:1199:A:H2'	1:A:1200:A:O4'	2.10	0.51
1:A:1263:G:N2	6:N:83:ASP:HB3	2.26	0.51
1:A:2047:A:O2'	1:A:2048:U:OP1	2.28	0.51
4:L:133:ILE:HD11	4:L:138:LYS:HD3	1.92	0.51
14:V:154:PHE:CZ	18:Z:149:PRO:HD3	2.46	0.51
15:W:145:ASP:OD1	15:W:146:ARG:N	2.41	0.51
18:Z:118:VAL:HG12	18:Z:122:ARG:HH21	1.56	0.51
27:H:107:ILE:O	27:H:111:ALA:CB	2.59	0.51
1:A:71:A:N6	1:A:109:A:O2'	2.41	0.51
1:A:84:G:P	15:W:71:VAL:HG22	2.51	0.51
1:A:102:U:O2'	1:A:103:C:H5'	2.10	0.51
1:A:274:G:C2'	1:A:275:U:OP2	2.58	0.51
1:A:277:G:N3	1:A:277:G:C3'	2.73	0.51
1:A:355:A:H3'	1:A:356:A:C8	2.46	0.51
1:A:388:C:H42	1:A:411:U:H3	1.58	0.51
1:A:863:C:H2'	1:A:864:U:C6	2.46	0.51
1:A:1076:A:H61	1:A:1139:A:C1'	2.23	0.51
1:A:1387:A:OP1	17:Y:72:ARG:HG2	2.10	0.51
1:A:1488:A:H2'	1:A:1489:A:H8	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1597:C:H2'	1:A:1598:C:O4'	2.11	0.51
1:A:1879:U:C2	1:A:1887:G:C2	2.99	0.51
1:A:2109:C:H3'	1:A:2110:U:H5	1.70	0.51
1:A:2198:A:H2'	1:A:2199:G:C8	2.46	0.51
1:A:2338:G:N3	1:A:2338:G:C3'	2.73	0.51
10:R:127:ASN:C	10:R:127:ASN:HD22	2.15	0.51
12:T:88:VAL:CG1	12:T:89:LEU:H	2.14	0.51
12:T:180:ALA:HA	12:T:225:THR:O	2.11	0.51
27:H:186:ARG:CZ	27:H:204:GLY:HA2	2.41	0.51
1:A:161:G:O2'	1:A:162:A:O4'	2.29	0.51
1:A:345:C:O5'	1:A:345:C:H6	1.94	0.51
1:A:525:A:H2'	1:A:526:A:C8	2.46	0.51
1:A:1272:A:O2'	1:A:1274:A:OP2	2.20	0.51
1:A:2095:U:H5"	17:Y:87:ARG:HH11	1.76	0.51
1:A:2288:G:H2'	1:A:2289:U:C6	2.46	0.51
1:A:2290:A:H2'	1:A:2291:A:C8	2.46	0.51
2:C:88:C:O5'	2:C:88:C:H6	1.93	0.51
3:B:46:A:C4	3:B:47:A:C8	2.99	0.51
12:T:170:THR:HG21	12:T:172:ILE:HD11	1.93	0.51
15:W:57:LYS:HZ2	15:W:62:PRO:N	2.09	0.51
19:E:49:HIS:HB2	19:E:213:ARG:HB3	1.92	0.51
19:E:172:LEU:HD11	19:E:176:GLU:OE1	2.11	0.51
25:F:174:VAL:O	25:F:176:VAL:HG22	2.11	0.51
1:A:420:A:C6	1:A:432:G:N1	2.79	0.50
1:A:504:G:H4'	13:U:37:TYR:CG	2.45	0.50
1:A:1081:C:O2	1:A:1135:A:C2	2.64	0.50
1:A:1197:A:H1'	1:A:1198:A:N7	2.25	0.50
1:A:1263:G:C2	6:N:83:ASP:OD2	2.51	0.50
1:A:1535:A:N3	1:A:1535:A:C3'	2.73	0.50
1:A:2213:A:N3	1:A:2242:A:C2	2.79	0.50
1:A:2410:U:H5'	6:N:139:ARG:O	2.10	0.50
1:A:2578:A:H2'	1:A:2579:U:O4'	2.11	0.50
3:B:33:C:C4	3:B:34:C:N4	2.79	0.50
6:N:175:GLU:HB3	6:N:213:LYS:CE	2.41	0.50
12:T:100:THR:HG21	13:U:150:GLU:OE2	2.10	0.50
15:W:58:PRO:CD	15:W:61:LEU:O	2.55	0.50
26:G:129:GLN:NE2	26:G:134:ARG:HH22	2.09	0.50
1:A:4:A:C6	1:A:5:A:N6	2.78	0.50
1:A:343:U:OP1	1:A:344:C:N4	2.44	0.50
1:A:937:U:C2'	1:A:938:G:H5"	2.40	0.50
1:A:1590:C:N3	1:A:1591:C:N4	2.59	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1971:C:H2'	1:A:1972:C:C6	2.47	0.50
1:A:2764:U:O4	1:A:2774:U:C5	2.64	0.50
7:O:27:ILE:HD13	7:O:134:SER:HA	1.93	0.50
13:U:153:THR:O	13:U:157:LEU:N	2.34	0.50
14:V:185:SER:O	14:V:189:LYS:HG3	2.11	0.50
15:W:67:ARG:NH2	15:W:94:LYS:HA	2.26	0.50
16:X:68:ASN:OD1	16:X:68:ASN:N	2.45	0.50
16:X:102:HIS:CE1	16:X:132:LYS:HG3	2.46	0.50
26:G:73:LYS:HA	26:G:261:VAL:C	2.25	0.50
1:A:276:G:N1	1:A:416:C:O2'	2.42	0.50
1:A:626:C:C6	1:A:627:C:C6	2.99	0.50
1:A:1178:G:O2'	11:S:83:HIS:CD2	2.65	0.50
1:A:1211:G:P	6:N:109:SER:HG	2.17	0.50
1:A:1256:G:H3'	1:A:1257:G:C8	2.46	0.50
1:A:1287:G:N2	1:A:2027:A:OP2	2.41	0.50
4:L:186:GLU:HG3	4:L:191:LEU:HD11	1.94	0.50
13:U:32:ILE:HD11	13:U:93:PHE:CE2	2.42	0.50
13:U:50:ILE:HG21	13:U:105:VAL:HG23	1.93	0.50
18:Z:152:LEU:N	18:Z:152:LEU:CD1	2.73	0.50
26:G:83:VAL:HG11	26:G:159:LEU:CD2	2.41	0.50
1:A:42:G:C6	1:A:43:A:N6	2.79	0.50
1:A:348:U:O2'	1:A:349:A:H5'	2.11	0.50
1:A:855:C:N4	1:A:856:U:C4	2.79	0.50
1:A:2107:G:N2	1:A:2108:G:N7	2.59	0.50
1:A:2417:G:H8	1:A:2417:G:O5'	1.94	0.50
3:B:87:G:C6	3:B:93:C:N3	2.80	0.50
4:L:115:TYR:HB2	4:L:153:VAL:HG12	1.93	0.50
6:N:144:ARG:H	6:N:146:ILE:HD11	1.77	0.50
6:N:194:ARG:HG3	6:N:195:ARG:N	2.26	0.50
14:V:167:ARG:O	14:V:169:ASP:N	2.45	0.50
16:X:82:TYR:O	16:X:85:GLN:HG2	2.11	0.50
16:X:93:ILE:HD12	16:X:123:VAL:HG11	1.93	0.50
16:X:140:ARG:O	16:X:140:ARG:HG2	2.12	0.50
28:I:110:THR:O	28:I:114:ASN:ND2	2.45	0.50
1:A:205:G:N3	1:A:218:A:H2	2.10	0.50
1:A:291:G:C2	1:A:292:C:N3	2.80	0.50
1:A:389:A:N6	1:A:410:G:O6	2.45	0.50
1:A:626:C:H2'	1:A:627:C:C6	2.46	0.50
1:A:648:G:C6	6:N:158:VAL:HG21	2.46	0.50
1:A:1158:U:O4	25:F:240:THR:O	2.30	0.50
1:A:1876:A:H62	1:A:1889:G:H21	1.59	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2066:G:N3	25:F:243:HIS:HA	2.27	0.50
1:A:2075:G:O2'	1:A:2076:A:O5'	2.28	0.50
4:L:172:LEU:HA	4:L:186:GLU:O	2.11	0.50
5:M:1:MET:HA	5:M:32:TYR:CD1	2.47	0.50
6:N:84:ASN:HD22	6:N:85:LEU:N	2.09	0.50
6:N:165:ILE:CG2	6:N:206:LEU:HA	2.41	0.50
12:T:126:VAL:HA	12:T:134:TYR:O	2.12	0.50
17:Y:103:LEU:HD23	17:Y:120:ARG:HG2	1.93	0.50
27:H:166:ASP:OD1	27:H:167:PHE:N	2.45	0.50
1:A:152:G:N3	1:A:153:G:H8	2.06	0.50
1:A:169:C:H2'	1:A:170:U:C6	2.47	0.50
1:A:279:A:N3	1:A:279:A:C5'	2.73	0.50
1:A:287:A:N3	1:A:288:C:N3	2.59	0.50
1:A:919:A:N3	7:O:13:HIS:HE1	2.09	0.50
1:A:1081:C:N3	1:A:1135:A:N6	2.60	0.50
1:A:1651:C:C5	13:U:116:PRO:HG2	2.47	0.50
1:A:1879:U:C6	6:N:252:ARG:NH1	2.79	0.50
1:A:1926:A:N6	1:A:1931:U:H3	2.08	0.50
1:A:2213:A:H2'	1:A:2214:C:O5'	2.11	0.50
1:A:2374:C:O2'	1:A:2376:C:OP2	2.15	0.50
2:C:32:C:C1'	2:C:33:A:P	3.00	0.50
2:C:41:A:H61	2:C:86:A:H61	1.60	0.50
3:B:36:A:C6	3:B:45:G:N7	2.74	0.50
6:N:205:GLU:OE2	6:N:224:LYS:HD2	2.12	0.50
15:W:71:VAL:CA	15:W:89:ILE:HD11	2.40	0.50
19:E:63:PHE:CE1	19:E:152:ARG:HD2	2.46	0.50
19:E:139:ASN:OD1	19:E:140:ILE:N	2.45	0.50
26:G:90:THR:O	26:G:94:ASN:HB2	2.12	0.50
1:A:606:A:H2'	1:A:607:G:C8	2.47	0.50
1:A:854:A:C2	1:A:964:C:N3	2.80	0.50
1:A:913:G:N3	1:A:914:A:C8	2.79	0.50
1:A:1745:C:N3	1:A:1746:C:N4	2.51	0.50
1:A:1881:A:O2'	1:A:1882:U:OP1	2.17	0.50
1:A:2103:G:C2'	1:A:2104:A:C5'	2.85	0.50
1:A:2513:C:H2'	1:A:2514:A:O4'	2.12	0.50
2:C:37:C:H3'	2:C:38:G:C5'	2.41	0.50
2:C:40:U:O2	2:C:87:A:C2	2.64	0.50
3:B:7:G:H1'	3:B:8:G:H5'	1.93	0.50
3:B:32:A:N6	3:B:55:G:O6	2.44	0.50
3:B:110:C:H3'	3:B:110:C:H6	1.77	0.50
12:T:96:PRO:O	12:T:98:PRO:CG	2.60	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:T:192:ASP:HB3	12:T:216:ILE:HD13	1.93	0.50
26:G:255:LEU:HD12	26:G:259:TYR:CE2	2.46	0.50
27:H:223:LEU:HB3	27:H:228:MET:HB2	1.92	0.50
1:A:414:A:H2'	1:A:415:U:O4'	2.12	0.50
1:A:878:U:H2'	1:A:879:G:H8	1.77	0.50
1:A:913:G:N3	1:A:914:A:N7	2.59	0.50
1:A:944:C:H3'	1:A:944:C:H6	1.76	0.50
1:A:945:A:N3	1:A:945:A:C2'	2.74	0.50
1:A:1194:G:N1	1:A:1204:A:C2	2.80	0.50
1:A:1245:U:O2'	12:T:210:ILE:HG22	2.11	0.50
1:A:1748:C:O2'	1:A:1749:U:O5'	2.28	0.50
1:A:1801:A:C2	1:A:1839:A:H4'	2.47	0.50
1:A:2088:U:HO2'	1:A:2614:G:HO2'	1.51	0.50
1:A:2238:A:H2'	1:A:2239:G:H8	1.77	0.50
3:B:5:C:O2	3:B:119:G:C6	2.64	0.50
12:T:129:ILE:HD11	12:T:158:LEU:HD22	1.94	0.50
13:U:102:LYS:HG2	13:U:135:VAL:HB	1.94	0.50
14:V:105:PRO:O	14:V:107:ARG:N	2.45	0.50
1:A:642:G:N2	1:A:645:A:OP2	2.43	0.50
1:A:685:G:H4'	26:G:125:ARG:O	2.12	0.50
1:A:957:U:C4	1:A:958:C:N4	2.80	0.50
1:A:2109:C:C6	1:A:2110:U:C4	3.00	0.50
1:A:2322:A:C5	27:H:186:ARG:CZ	2.95	0.50
2:C:53:G:H8	2:C:70:G:N2	1.87	0.50
7:O:56:ARG:O	7:O:59:ARG:HB2	2.12	0.50
15:W:113:SER:OG	15:W:120:GLY:HA2	2.11	0.50
27:H:211:THR:HG22	27:H:213:ALA:H	1.76	0.50
1:A:311:U:OP2	15:W:146:ARG:NH1	2.44	0.49
1:A:525:A:H2'	1:A:526:A:H8	1.77	0.49
1:A:540:A:OP2	4:L:212:ARG:NE	2.40	0.49
1:A:907:C:O5'	1:A:907:C:H6	1.94	0.49
1:A:1532:G:O2'	1:A:1611:G:C4'	2.60	0.49
1:A:1566:G:H2'	1:A:1567:C:H6	1.77	0.49
1:A:1980:A:O2'	1:A:1981:C:O5'	2.29	0.49
1:A:2318:C:O5'	1:A:2318:C:H6	1.94	0.49
1:A:2401:C:OP1	16:X:111:LYS:HE3	2.12	0.49
3:B:72:U:H2'	3:B:73:G:C8	2.47	0.49
3:B:88:G:H8	3:B:88:G:O5'	1.95	0.49
7:O:69:PHE:CD1	7:O:70:PRO:HD2	2.47	0.49
9:Q:103:LYS:NZ	9:Q:107:GLU:HB3	2.27	0.49
12:T:91:ASP:CB	13:U:142:PHE:HZ	2.21	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:X:143:GLN:HA	16:X:145:GLU:OE1	2.12	0.49
29:J:53:LEU:HD22	29:J:57:ILE:HD11	1.94	0.49
1:A:71:A:C8	18:Z:116:LEU:HD13	2.46	0.49
1:A:355:A:C8	1:A:356:A:C1'	2.95	0.49
1:A:374:U:H2'	1:A:375:C:C2	2.46	0.49
1:A:688:C:O2'	1:A:2084:A:O2'	2.20	0.49
1:A:705:U:OP1	19:E:55:LYS:HE2	2.12	0.49
1:A:1268:A:H2	11:S:5:LYS:HZ1	1.56	0.49
1:A:1650:A:C2	13:U:116:PRO:HB3	2.46	0.49
1:A:2006:G:N2	1:A:2009:U:H5	2.10	0.49
1:A:2570:G:C2	1:A:2571:U:H1'	2.47	0.49
11:S:52:ARG:CG	11:S:55:ARG:HH11	2.24	0.49
12:T:95:ALA:H	12:T:96:PRO:CD	2.25	0.49
15:W:101:ILE:HD11	15:W:104:LEU:HB2	1.94	0.49
15:W:113:SER:H	15:W:120:GLY:HA2	1.76	0.49
26:G:186:LYS:O	26:G:188:LYS:N	2.46	0.49
28:I:74:ILE:HD12	28:I:115:MET:SD	2.52	0.49
1:A:278:G:C3'	1:A:279:A:C5'	2.89	0.49
1:A:377:G:O2'	1:A:378:A:O4'	2.29	0.49
1:A:854:A:C2	1:A:964:C:C2	3.00	0.49
1:A:934:A:C1'	1:A:935:U:P	3.00	0.49
1:A:956:G:H2'	1:A:957:U:H5"	1.93	0.49
1:A:977:G:O6	1:A:978:A:N6	2.46	0.49
1:A:1469:G:C6	1:A:1483:G:N1	2.81	0.49
1:A:1496:A:N6	1:A:1549:A:C6	2.80	0.49
1:A:1885:C:C5	6:N:253:ALA:CB	2.85	0.49
2:C:10:C:C2	2:C:11:A:C8	3.01	0.49
3:B:3:U:C2	3:B:4:U:C4	3.01	0.49
6:N:84:ASN:ND2	6:N:85:LEU:N	2.60	0.49
7:O:26:ARG:HG3	7:O:27:ILE:N	2.12	0.49
12:T:102:GLU:HA	12:T:102:GLU:OE1	2.12	0.49
12:T:110:PHE:C	12:T:110:PHE:CD1	2.85	0.49
25:F:119:GLU:CD	25:F:120:GLY:H	2.15	0.49
28:I:134:TYR:CD1	28:I:147:LEU:HA	2.47	0.49
1:A:77:U:H2'	1:A:78:C:H6	1.77	0.49
1:A:83:A:C2	1:A:101:A:N6	2.80	0.49
1:A:145:A:H8	1:A:145:A:O5'	1.96	0.49
1:A:154:C:N4	1:A:155:A:N6	2.60	0.49
1:A:158:C:N4	1:A:159:A:N6	2.60	0.49
1:A:329:C:C5	26:G:188:LYS:HD3	2.47	0.49
1:A:368:U:H6	1:A:368:U:O5'	1.94	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:375:C:O5'	1:A:375:C:H6	1.96	0.49
1:A:918:A:C6	1:A:921:C:C2	3.00	0.49
1:A:941:C:C5	1:A:942:U:C4	3.00	0.49
1:A:1136:U:C4	1:A:1137:C:N4	2.81	0.49
1:A:1550:U:C2'	1:A:1551:G:H5'	2.40	0.49
1:A:1693:U:H2'	1:A:1694:C:H6	1.77	0.49
1:A:1745:C:C2	1:A:1746:C:C4	3.00	0.49
1:A:1781:C:O2'	1:A:1796:A:H1'	2.12	0.49
1:A:1810:C:O2'	19:E:149:GLN:NE2	2.45	0.49
1:A:1834:G:O2'	19:E:244:THR:HG22	2.13	0.49
1:A:2151:G:C5	1:A:2152:C:N4	2.80	0.49
1:A:2318:C:C4	1:A:2319:C:N4	2.80	0.49
1:A:2771:A:H8	1:A:2771:A:O5'	1.95	0.49
2:C:31:U:O2'	2:C:32:C:H2'	2.12	0.49
13:U:37:TYR:CG	13:U:38:SER:N	2.80	0.49
15:W:100:ILE:O	15:W:100:ILE:HG13	2.11	0.49
29:J:77:PHE:CE1	29:J:81:LEU:CD1	2.95	0.49
1:A:160:A:P	1:A:160:A:C8	3.05	0.49
1:A:162:A:O2'	1:A:163:G:OP2	2.27	0.49
1:A:533:G:HO2'	1:A:552:G:HO2'	1.61	0.49
1:A:560:A:C2	1:A:561:C:C2	3.00	0.49
1:A:958:C:O5'	1:A:958:C:H6	1.95	0.49
1:A:1287:G:O2'	1:A:1288:U:OP2	2.23	0.49
1:A:2123:U:H5"	1:A:2124:G:OP2	2.12	0.49
1:A:2150:G:C6	1:A:2151:G:N1	2.80	0.49
1:A:2220:G:C6	1:A:2221:U:C5	3.01	0.49
1:A:2237:A:N3	1:A:2237:A:C5'	2.73	0.49
1:A:2322:A:C4	27:H:186:ARG:NE	2.80	0.49
2:C:97:A:H4'	2:C:97:A:OP1	2.12	0.49
12:T:97:GLU:N	12:T:98:PRO:HD3	2.20	0.49
14:V:106:ARG:C	14:V:107:ARG:CG	2.79	0.49
15:W:89:ILE:HA	15:W:101:ILE:HA	1.94	0.49
19:E:39:ARG:HG3	19:E:40:ASN:ND2	2.27	0.49
19:E:89:LEU:HD23	19:E:90:ILE:N	2.28	0.49
28:I:98:THR:CG2	28:I:101:ALA:H	2.24	0.49
1:A:41:A:N6	1:A:42:G:C6	2.81	0.49
1:A:335:G:N1	1:A:346:A:C6	2.81	0.49
1:A:493:G:HO2'	1:A:494:A:P	2.36	0.49
1:A:589:G:H2'	1:A:590:C:H6	1.78	0.49
1:A:696:A:O2'	1:A:699:U:O4	2.25	0.49
1:A:953:G:H2'	1:A:954:G:C8	2.46	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1527:G:C6	1:A:1539:C:N4	2.76	0.49
1:A:1874:U:O2'	1:A:1875:G:H5'	2.12	0.49
1:A:1966:A:H5'	5:M:55:SER:HB3	1.95	0.49
1:A:2238:A:C2	1:A:2239:G:C8	3.00	0.49
2:C:58:G:H2'	2:C:59:C:H6	1.78	0.49
4:L:209:PRO:O	4:L:214:GLY:HA3	2.12	0.49
6:N:97:ARG:HH11	6:N:100:ARG:CD	2.24	0.49
6:N:209:LYS:HB2	6:N:230:CYS:HB3	1.90	0.49
1:A:388:C:N4	1:A:410:G:C6	2.80	0.49
1:A:651:U:H2'	1:A:652:C:C6	2.47	0.49
1:A:1176:C:O5'	1:A:1176:C:H6	1.96	0.49
1:A:1263:G:N2	6:N:83:ASP:CB	2.75	0.49
1:A:2016:G:O6	1:A:2017:A:N6	2.46	0.49
5:M:105:GLU:O	5:M:108:GLN:HG2	2.13	0.49
12:T:103:TYR:O	12:T:104:ASN:HB2	2.13	0.49
12:T:201:LYS:HG2	12:T:206:TYR:CE2	2.42	0.49
13:U:38:SER:HB3	13:U:129:THR:HB	1.95	0.49
19:E:29:ILE:HG22	19:E:57:LEU:HD23	1.94	0.49
19:E:113:VAL:HG22	19:E:114:SER:O	2.13	0.49
1:A:313:A:H2	1:A:323:G:C2	2.23	0.49
1:A:344:C:H2'	1:A:345:C:C6	2.47	0.49
1:A:543:A:H61	1:A:2034:C:H1'	1.76	0.49
1:A:899:A:C1'	1:A:900:G:P	3.00	0.49
1:A:1259:C:H2'	1:A:1260:G:O4'	2.13	0.49
1:A:1778:G:C6	1:A:1999:G:C6	3.01	0.49
1:A:1879:U:N3	1:A:1887:G:C2	2.80	0.49
1:A:2088:U:O2'	1:A:2614:G:O2'	2.22	0.49
1:A:2279:U:OP2	16:X:73:LYS:HB2	2.04	0.49
1:A:2308:U:H3	1:A:2358:G:H1	1.61	0.49
1:A:2389:G:H2'	1:A:2390:A:H8	1.76	0.49
1:A:2647:A:N7	2:C:98:G:N1	2.60	0.49
2:C:33:A:C1'	2:C:34:U:P	3.00	0.49
2:C:36:A:HO2'	2:C:37:C:P	2.35	0.49
2:C:41:A:N6	2:C:86:A:C6	2.81	0.49
2:C:103:G:H2'	2:C:104:A:H5'	1.94	0.49
3:B:35:A:P	3:B:35:A:C8	3.04	0.49
6:N:251:ALA:O	6:N:254:ASP:HB2	2.13	0.49
9:Q:70:ARG:HB3	9:Q:71:PRO:CD	2.42	0.49
9:Q:129:LYS:HA	9:Q:132:LEU:HB3	1.94	0.49
12:T:230:TYR:O	12:T:230:TYR:HD1	1.95	0.49
16:X:67:LYS:N	16:X:67:LYS:NZ	2.60	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:X:162:ARG:CG	16:X:162:ARG:NH1	2.72	0.49
19:E:75:VAL:HG21	19:E:91:HIS:CE1	2.48	0.49
25:F:138:GLN:HE21	25:F:168:LEU:HG	1.78	0.49
27:H:60:ASN:O	27:H:64:LYS:HG2	2.13	0.49
1:A:150:U:C4	1:A:151:G:C6	3.01	0.49
1:A:152:G:N1	1:A:153:G:C5	2.81	0.49
1:A:824:U:H4'	1:A:1246:G:O2'	2.12	0.49
1:A:1091:G:N1	1:A:1103:C:O2	2.37	0.49
1:A:1629:G:H2'	1:A:1630:G:C8	2.48	0.49
1:A:1689:C:H5"	8:P:12:LYS:HE2	1.91	0.49
1:A:1965:U:N3	1:A:1968:G:OP2	2.33	0.49
1:A:2055:U:O4	1:A:2056:A:N6	2.46	0.49
1:A:2150:G:H1	1:A:2151:G:N2	2.11	0.49
1:A:2650:G:H1	1:A:2803:C:H42	1.60	0.49
6:N:82:LEU:HD22	26:G:88:LEU:CD1	2.42	0.49
11:S:61:TRP:O	11:S:65:ILE:HG22	2.12	0.49
14:V:109:LEU:HD21	14:V:141:ARG:HD2	1.95	0.49
14:V:167:ARG:NH2	14:V:173:LYS:HB2	2.28	0.49
19:E:140:ILE:CG1	19:E:150:LEU:HB2	2.42	0.49
25:F:195:ASP:HA	25:F:266:ILE:HG22	1.94	0.49
26:G:195:GLN:HA	26:G:200:ASP:HB2	1.93	0.49
26:G:254:TYR:HH	26:G:258:ARG:NE	2.04	0.49
1:A:140:G:C2'	1:A:141:C:C5'	2.91	0.49
1:A:270:G:H8	1:A:270:G:O5'	1.96	0.49
1:A:290:A:N3	1:A:291:G:N7	2.60	0.49
1:A:689:C:H2'	1:A:690:U:C6	2.48	0.49
1:A:1237:C:H42	1:A:1238:G:N2	2.09	0.49
1:A:1498:G:H2'	1:A:1499:G:C8	2.48	0.49
3:B:40:A:H8	3:B:40:A:O5'	1.96	0.49
15:W:103:ASP:HA	15:W:126:GLU:OE2	2.12	0.49
1:A:11:G:H2'	1:A:12:A:O4'	2.13	0.48
1:A:214:A:H1'	6:N:238:ARG:HH21	1.78	0.48
1:A:335:G:H2'	1:A:336:G:H8	1.71	0.48
1:A:381:C:H3'	1:A:381:C:OP2	2.12	0.48
1:A:898:G:N1	1:A:899:A:N6	2.61	0.48
1:A:1070:G:C2	1:A:1142:G:C5	3.01	0.48
1:A:1099:G:O6	1:A:1119:G:O6	2.31	0.48
1:A:1362:G:H4'	14:V:165:LEU:HB3	1.94	0.48
1:A:1504:C:H2'	1:A:1505:C:H6	1.71	0.48
1:A:1747:C:N3	1:A:1758:G:N1	2.61	0.48
1:A:1891:A:H2'	1:A:1892:G:O4'	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2137:G:C2	1:A:2190:A:C6	3.00	0.48
3:B:6:U:N3	3:B:118:G:C2	2.81	0.48
17:Y:107:ARG:HG2	17:Y:116:PHE:HB3	1.94	0.48
18:Z:88:PHE:C	18:Z:88:PHE:CD2	2.85	0.48
25:F:121:ASN:N	25:F:121:ASN:ND2	2.60	0.48
26:G:207:PHE:HD2	26:G:228:LEU:HD23	1.78	0.48
28:I:99:ARG:O	28:I:103:GLN:HG2	2.13	0.48
1:A:70:A:N3	1:A:72:A:N6	2.61	0.48
1:A:291:G:HO2'	1:A:292:C:H5'	1.73	0.48
1:A:366:G:OP2	1:A:366:G:H8	1.96	0.48
1:A:533:G:H2'	1:A:534:C:C6	2.48	0.48
1:A:1163:G:H2'	1:A:1164:G:C8	2.49	0.48
1:A:1438:G:H22	1:A:1616:A:H62	1.61	0.48
1:A:1718:G:P	1:A:1735:G:H22	2.35	0.48
1:A:2210:C:H4'	1:A:2211:U:OP1	2.13	0.48
1:A:2211:U:O4	1:A:2241:G:C5	2.66	0.48
1:A:2215:C:N3	1:A:2240:G:N2	2.61	0.48
1:A:2575:C:O2'	1:A:2576:C:N3	2.46	0.48
2:C:16:G:H4'	8:P:13:HIS:CD2	2.48	0.48
3:B:112:A:C2'	3:B:113:C:O5'	2.61	0.48
4:L:164:SER:OG	4:L:165:GLY:N	2.47	0.48
6:N:158:VAL:HG13	6:N:201:LEU:CD2	2.43	0.48
10:R:221:TYR:O	10:R:225:LYS:HG2	2.13	0.48
1:A:101:A:N1	1:A:102:U:C4	2.81	0.48
1:A:265:A:C5'	1:A:266:A:C8	2.92	0.48
1:A:277:G:N3	1:A:277:G:H5"	2.28	0.48
1:A:296:G:H2'	1:A:297:U:C5	2.48	0.48
1:A:459:A:O2'	1:A:485:G:N7	2.31	0.48
1:A:560:A:N6	1:A:561:C:N4	2.60	0.48
1:A:635:C:H2'	1:A:636:C:H6	1.78	0.48
1:A:1386:A:OP2	17:Y:73:ARG:HG3	2.13	0.48
1:A:1575:C:H2'	1:A:1576:U:H6	1.78	0.48
1:A:1592:A:H4'	1:A:1593:U:O5'	2.13	0.48
1:A:1600:A:C2	19:E:209:TRP:HZ3	2.22	0.48
1:A:2192:U:H2'	1:A:2193:C:N1	2.28	0.48
1:A:2260:U:H2'	1:A:2261:U:C6	2.48	0.48
1:A:2723:A:O2'	8:P:74:ARG:CD	2.50	0.48
2:C:34:U:O2	2:C:34:U:O2'	2.28	0.48
2:C:106:C:O5'	2:C:106:C:H6	1.95	0.48
3:B:8:G:O2'	3:B:9:U:O4'	2.31	0.48
28:I:128:GLN:HA	28:I:170:LYS:HA	1.94	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:143:G:C2	1:A:2224:G:C2	3.02	0.48
1:A:268:G:C2	1:A:269:G:C2	3.01	0.48
1:A:358:C:O2'	1:A:359:A:O5'	2.30	0.48
1:A:477:G:O2'	1:A:694:U:O2'	2.27	0.48
1:A:663:A:H2'	1:A:664:A:H5'	1.94	0.48
1:A:837:U:O2'	6:N:132:GLY:HA3	2.13	0.48
1:A:895:C:H3'	1:A:896:G:C8	2.46	0.48
1:A:932:A:C5'	16:X:85:GLN:HE22	2.20	0.48
1:A:962:G:H4'	1:A:962:G:OP1	2.13	0.48
1:A:1757:G:H8	1:A:1757:G:O5'	1.97	0.48
1:A:1810:C:H5'	19:E:142:ILE:HD12	1.94	0.48
1:A:2213:A:C2	1:A:2214:C:C4	3.00	0.48
1:A:2320:G:O6	1:A:2331:G:O6	2.31	0.48
15:W:164:THR:OG1	15:W:166:GLU:OE1	2.28	0.48
16:X:143:GLN:CA	16:X:145:GLU:OE1	2.61	0.48
26:G:60:PHE:CZ	26:G:180:GLU:HA	2.49	0.48
1:A:42:G:C6	1:A:43:A:C6	3.02	0.48
1:A:71:A:H61	1:A:109:A:HO2'	1.58	0.48
1:A:93:A:HO2'	18:Z:102:PRO:CG	2.02	0.48
1:A:101:A:C6	1:A:102:U:O4	2.66	0.48
1:A:133:A:N7	1:A:134:A:C6	2.81	0.48
1:A:226:A:O2'	1:A:227:G:O5'	2.28	0.48
1:A:598:U:H2'	1:A:599:C:C6	2.48	0.48
1:A:1268:A:O2'	1:A:1269:G:H5'	2.13	0.48
1:A:1548:A:O2'	1:A:1591:C:C4'	2.60	0.48
1:A:1558:U:H2'	1:A:1559:A:O4'	2.12	0.48
1:A:1971:C:H2'	1:A:1972:C:H6	1.77	0.48
1:A:2176:A:H5"	1:A:2185:A:H2'	1.95	0.48
1:A:2227:C:HO2'	1:A:2228:C:H5'	1.73	0.48
1:A:2321:G:H5"	27:H:175:PHE:HB3	1.93	0.48
1:A:2606:A:N1	1:A:2623:C:N4	2.62	0.48
1:A:2715:U:H2'	1:A:2716:C:C6	2.48	0.48
2:C:101:U:C5'	2:C:102:U:OP2	2.61	0.48
3:B:60:A:H2'	3:B:61:C:H6	1.78	0.48
5:M:69:LEU:H	5:M:76:ILE:HG23	1.79	0.48
15:W:87:GLY:HA3	15:W:101:ILE:HD13	1.95	0.48
17:Y:82:SER:HB3	17:Y:100:PHE:HB3	1.96	0.48
17:Y:87:ARG:HG2	17:Y:95:THR:OG1	2.13	0.48
19:E:65:ARG:CD	19:E:114:SER:HB3	2.43	0.48
19:E:135:THR:HG22	19:E:136:ALA:H	1.79	0.48
1:A:318:A:C6	1:A:339:A:N6	2.81	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:423:G:O2'	1:A:2423:A:N7	2.41	0.48
1:A:531:A:P	13:U:54:ARG:HH12	2.36	0.48
1:A:605:C:H2'	1:A:606:A:C8	2.48	0.48
1:A:656:A:HO2'	1:A:657:U:H5	1.61	0.48
1:A:680:G:H2'	1:A:680:G:N3	2.28	0.48
1:A:715:G:H1'	1:A:738:A:N6	2.28	0.48
1:A:793:A:N3	19:E:221:MET:HG2	2.29	0.48
1:A:1122:U:N3	1:A:1125:U:OP2	2.41	0.48
1:A:1169:A:H5'	4:L:245:ARG:NH2	2.27	0.48
1:A:1809:G:N7	19:E:172:LEU:HD11	2.29	0.48
1:A:1914:A:H1'	1:A:1984:A:H2'	1.96	0.48
1:A:2267:G:C6	7:O:82:ARG:NH2	2.81	0.48
1:A:2301:G:O2'	1:A:2305:A:N6	2.47	0.48
1:A:2320:G:O2'	27:H:175:PHE:CB	2.62	0.48
2:C:58:G:C6	2:C:68:A:C6	3.02	0.48
2:C:79:G:O2'	10:R:121:ASP:CG	2.52	0.48
16:X:87:ALA:O	16:X:120:ASP:HA	2.14	0.48
16:X:127:LYS:HE3	16:X:133:LYS:NZ	2.27	0.48
18:Z:79:GLU:OE2	18:Z:111:ARG:NH1	2.46	0.48
1:A:88:A:H5'	15:W:57:LYS:HZ3	1.78	0.48
1:A:583:G:C6	1:A:2044:A:H3'	2.48	0.48
1:A:626:C:C5	1:A:627:C:N4	2.81	0.48
1:A:994:A:H4'	1:A:2288:G:H22	1.77	0.48
1:A:1085:A:H2'	1:A:1086:G:H8	1.79	0.48
1:A:1524:G:C6	1:A:1525:G:C6	3.01	0.48
1:A:1885:C:H41	6:N:253:ALA:N	2.12	0.48
1:A:2199:G:C5	1:A:2200:A:C8	3.01	0.48
1:A:2304:A:C5	1:A:2306:G:C8	3.01	0.48
1:A:2507:G:O2'	1:A:2508:U:O5'	2.27	0.48
2:C:13:G:H21	2:C:40:U:C1'	2.26	0.48
3:B:12:C:N3	3:B:112:A:N1	2.62	0.48
3:B:60:A:H2'	3:B:61:C:C6	2.49	0.48
5:M:19:LEU:HD13	5:M:41:ALA:CB	2.44	0.48
6:N:175:GLU:CB	6:N:213:LYS:HZ1	2.19	0.48
11:S:72:ARG:HG3	11:S:112:TYR:CE2	2.48	0.48
14:V:167:ARG:HH21	14:V:173:LYS:HB2	1.78	0.48
18:Z:120:ARG:CG	18:Z:120:ARG:NH1	2.72	0.48
26:G:60:PHE:HZ	26:G:180:GLU:HA	1.77	0.48
26:G:96:ARG:HB2	26:G:148:TRP:NE1	2.29	0.48
1:A:857:G:C2	1:A:961:G:C4	3.00	0.48
1:A:913:G:C2	1:A:914:A:C5	3.02	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1287:G:O2'	1:A:1288:U:P	2.72	0.48
1:A:1469:G:C6	1:A:1483:G:C6	3.02	0.48
1:A:1605:A:H2'	1:A:1606:A:H8	1.79	0.48
1:A:2324:G:N2	1:A:2328:A:C2'	2.77	0.48
1:A:2330:U:C1'	27:H:90:ASN:HD21	2.27	0.48
1:A:2335:C:H3'	1:A:2335:C:H6	1.78	0.48
1:A:2479:U:H5	1:A:2505:A:H2	1.60	0.48
1:A:2486:A:H2'	1:A:2487:G:O4'	2.13	0.48
7:O:28:CYS:HB2	7:O:67:ARG:NH1	2.29	0.48
10:R:226:LEU:HD23	10:R:228:ARG:HB2	1.96	0.48
16:X:134:LYS:HB3	16:X:134:LYS:HZ2	1.73	0.48
16:X:157:ASN:O	16:X:158:PHE:C	2.51	0.48
26:G:57:ILE:HD11	26:G:68:THR:HG23	1.96	0.48
1:A:454:G:N3	26:G:99:THR:OG1	2.45	0.48
1:A:853:G:O2'	1:A:854:A:O5'	2.25	0.48
1:A:863:C:H2'	1:A:864:U:H6	1.79	0.48
1:A:950:A:C5	1:A:951:C:C2	3.01	0.48
1:A:1012:G:H5"	1:A:1013:C:OP2	2.14	0.48
1:A:1437:G:H2'	1:A:1438:G:H5"	1.96	0.48
1:A:1482:C:H3'	1:A:1482:C:H6	1.79	0.48
1:A:1524:G:H8	1:A:1524:G:O5'	1.96	0.48
1:A:1799:A:H5"	19:E:216:VAL:HA	1.96	0.48
1:A:2433:C:OP1	6:N:145:GLY:HA2	2.14	0.48
2:C:40:U:O5'	2:C:40:U:H6	1.97	0.48
2:C:68:A:H2'	2:C:69:U:C6	2.49	0.48
3:B:7:G:C1'	3:B:8:G:P	3.01	0.48
3:B:7:G:C4'	3:B:8:G:OP1	2.61	0.48
3:B:94:C:H2'	3:B:95:U:H6	1.79	0.48
10:R:172:ARG:NH2	10:R:174:ASN:HB3	2.29	0.48
11:S:72:ARG:HG3	11:S:112:TYR:CZ	2.49	0.48
15:W:85:LYS:HD3	15:W:104:LEU:CD1	2.38	0.48
26:G:199:LEU:C	26:G:201:PRO:HD3	2.34	0.48
1:A:320:U:O2	1:A:340:A:H2'	2.14	0.48
1:A:884:G:H8	1:A:884:G:O5'	1.97	0.48
1:A:938:G:H2'	1:A:939:A:H5'	1.94	0.48
1:A:1307:A:C2	1:A:1350:U:C4	3.02	0.48
1:A:1576:U:H2'	1:A:1577:G:O4'	2.14	0.48
2:C:33:A:C2'	2:C:33:A:N3	2.76	0.48
6:N:205:GLU:OE1	6:N:205:GLU:HA	2.14	0.48
15:W:113:SER:HB2	15:W:120:GLY:N	2.29	0.48
15:W:170:THR:CG2	15:W:171:PRO:CD	2.85	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:H:175:PHE:CD1	27:H:183:VAL:HG13	2.37	0.48
1:A:76:U:H2'	1:A:77:U:H6	1.79	0.47
1:A:389:A:C6	1:A:390:U:N3	2.81	0.47
1:A:431:U:H2'	1:A:432:G:H5'	1.95	0.47
1:A:614:G:H2'	1:A:615:G:C8	2.49	0.47
1:A:616:U:H3	1:A:634:G:H1	1.62	0.47
1:A:878:U:H2'	1:A:879:G:C8	2.49	0.47
1:A:1674:C:O2	1:A:2715:U:O2'	2.30	0.47
1:A:2187:A:H2'	1:A:2188:C:O4'	2.15	0.47
1:A:2247:C:H5"	17:Y:100:PHE:CE1	2.49	0.47
2:C:102:U:C2'	2:C:103:G:C5'	2.88	0.47
3:B:26:A:N3	3:B:26:A:H2'	2.28	0.47
3:B:86:G:N1	3:B:87:G:C6	2.82	0.47
6:N:81:ARG:HH11	26:G:243:GLU:HB2	1.51	0.47
9:Q:115:PRO:HB2	9:Q:151:ARG:NE	2.29	0.47
9:Q:125:GLU:OE1	9:Q:162:HIS:NE2	2.43	0.47
9:Q:156:ALA:O	9:Q:160:ARG:HG3	2.14	0.47
16:X:128:TYR:CD2	16:X:132:LYS:HB3	2.46	0.47
26:G:182:PHE:HE2	26:G:190:PHE:HD1	1.61	0.47
1:A:16:G:H2'	1:A:17:C:C6	2.49	0.47
1:A:182:A:H2	1:A:2451:A:H62	1.61	0.47
1:A:293:G:N1	1:A:294:U:C4	2.82	0.47
1:A:384:G:O2'	1:A:412:G:C6	2.51	0.47
1:A:649:A:OP1	6:N:202:GLY:CA	2.61	0.47
1:A:659:G:H2'	1:A:660:G:O4'	2.13	0.47
1:A:1196:A:H4'	1:A:1197:A:OP1	2.13	0.47
1:A:1497:A:N6	1:A:1547:C:N4	2.57	0.47
1:A:1752:C:H3'	1:A:1752:C:H6	1.79	0.47
1:A:2107:G:C4	1:A:2242:A:N7	2.81	0.47
1:A:2191:C:O2'	1:A:2192:U:H5'	2.13	0.47
1:A:2559:A:H5"	1:A:2560:G:OP1	2.15	0.47
2:C:88:C:H6	2:C:88:C:P	2.37	0.47
2:C:92:C:H2'	2:C:93:C:H6	1.79	0.47
5:M:100:GLY:HA2	10:R:188:ALA:HB3	1.97	0.47
14:V:138:VAL:HG23	14:V:172:LYS:HB3	1.96	0.47
16:X:77:LEU:HD11	16:X:97:ARG:CZ	2.41	0.47
16:X:122:LEU:HG	16:X:140:ARG:HB3	1.88	0.47
19:E:267:ILE:HG22	19:E:269:ARG:CB	2.39	0.47
26:G:133:LEU:N	26:G:133:LEU:HD12	2.29	0.47
1:A:76:U:H2'	1:A:77:U:C6	2.49	0.47
1:A:1055:A:C2	1:A:2505:A:H5'	2.50	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1234:A:N6	1:A:1256:G:H22	2.07	0.47
1:A:1524:G:C2'	1:A:1525:G:H5'	2.44	0.47
1:A:2213:A:N3	1:A:2242:A:H2	2.09	0.47
3:B:10:G:OP1	9:Q:59:ARG:NE	2.40	0.47
3:B:43:C:O2	27:H:143:THR:HB	2.14	0.47
3:B:46:A:O5'	27:H:145:ARG:NH1	2.48	0.47
3:B:86:G:N1	3:B:87:G:N7	2.61	0.47
5:M:78:ARG:O	10:R:193:GLU:HB3	2.13	0.47
13:U:113:LYS:O	13:U:124:MET:HA	2.14	0.47
16:X:128:TYR:CG	16:X:134:LYS:CG	2.66	0.47
19:E:61:ILE:HD11	19:E:63:PHE:CE1	2.49	0.47
25:F:229:HIS:C	25:F:231:ALA:H	2.18	0.47
1:A:164:A:H8	1:A:164:A:O5'	1.97	0.47
1:A:295:C:C2'	1:A:296:G:H5'	2.43	0.47
1:A:455:A:N6	26:G:92:LEU:O	2.48	0.47
1:A:593:G:O6	1:A:1278:U:O2	2.33	0.47
1:A:761:A:OP2	13:U:118:ALA:HB2	2.14	0.47
1:A:1168:U:OP1	4:L:123:ILE:HD12	2.14	0.47
1:A:1662:A:O2'	1:A:1663:G:OP2	2.28	0.47
1:A:1755:A:C2	1:A:1756:G:C8	3.02	0.47
1:A:1841:G:C6	1:A:1989:G:N1	2.82	0.47
1:A:2117:U:H3	1:A:2200:A:H61	1.61	0.47
1:A:2191:C:C4	1:A:2192:U:C4	3.03	0.47
1:A:2193:C:N4	1:A:2194:U:O4	2.48	0.47
1:A:2230:A:N3	1:A:2230:A:C2'	2.77	0.47
1:A:2531:U:H2'	1:A:2532:C:C6	2.49	0.47
3:B:91:G:N2	7:O:38:GLU:CD	2.59	0.47
6:N:195:ARG:O	6:N:197:PRO:CD	2.56	0.47
7:O:25:ASN:HD22	7:O:101:ARG:HG3	1.79	0.47
7:O:72:LYS:HG2	7:O:94:VAL:O	2.14	0.47
14:V:111:VAL:CG2	14:V:112:TYR:N	2.78	0.47
15:W:71:VAL:HA	15:W:89:ILE:CD1	2.42	0.47
25:F:223:THR:HG22	25:F:224:HIS:N	2.22	0.47
27:H:85:VAL:HB	27:H:210:THR:OG1	2.15	0.47
29:J:73:PHE:CD2	29:J:78:LEU:HD11	2.50	0.47
1:A:115:G:OP2	1:A:117:A:O2'	2.23	0.47
1:A:119:A:C8	1:A:132:G:C6	3.02	0.47
1:A:241:A:H2'	1:A:242:A:C8	2.49	0.47
1:A:295:C:O5'	1:A:295:C:H6	1.97	0.47
1:A:369:U:O2'	1:A:369:U:O2	2.28	0.47
1:A:938:G:O2'	1:A:939:A:H5'	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1135:A:H2'	1:A:1136:U:C6	2.49	0.47
1:A:1144:U:H2'	1:A:1145:C:C6	2.49	0.47
1:A:1496:A:H62	1:A:1549:A:N6	2.12	0.47
1:A:1546:C:H2'	1:A:1547:C:H5'	1.97	0.47
1:A:2186:U:P	1:A:2188:C:C4	3.07	0.47
1:A:2315:G:N2	1:A:2338:G:C5	2.81	0.47
6:N:240:LYS:HG3	6:N:240:LYS:O	2.13	0.47
15:W:158:VAL:CG1	15:W:169:ASP:OD1	2.63	0.47
26:G:75:ALA:CB	26:G:159:LEU:HD21	2.37	0.47
1:A:101:A:N1	1:A:102:U:N3	2.62	0.47
1:A:318:A:C6	1:A:339:A:C5	3.02	0.47
1:A:420:A:C6	1:A:432:G:C2	3.03	0.47
1:A:506:G:H1'	13:U:86:ASN:OD1	2.14	0.47
1:A:560:A:N1	1:A:561:C:N3	2.62	0.47
1:A:614:G:H2'	1:A:615:G:H8	1.79	0.47
1:A:623:A:H3'	1:A:623:A:OP2	2.13	0.47
1:A:679:G:H5'	1:A:680:G:OP2	2.14	0.47
1:A:934:A:O2'	1:A:935:U:O5'	2.20	0.47
1:A:1520:A:C2	1:A:1521:G:H1'	2.50	0.47
1:A:1603:A:C5'	19:E:55:LYS:CD	2.86	0.47
1:A:1723:G:N2	1:A:1738:G:C6	2.83	0.47
1:A:2003:A:HO2'	1:A:2004:C:P	2.36	0.47
1:A:2602:U:O2'	1:A:2603:C:H5'	2.14	0.47
1:A:2672:G:HO2'	1:A:2673:U:P	2.37	0.47
7:O:33:ALA:HB1	7:O:102:ILE:HG23	1.96	0.47
11:S:36:ALA:O	11:S:39:LYS:HB3	2.15	0.47
11:S:91:LEU:HD12	12:T:175:PRO:O	2.13	0.47
15:W:74:THR:HG22	15:W:88:GLU:OE1	2.15	0.47
15:W:158:VAL:HG12	15:W:169:ASP:OD1	2.15	0.47
19:E:179:LEU:HG	19:E:263:ASP:O	2.14	0.47
28:I:163:VAL:HG12	28:I:173:VAL:HG22	1.95	0.47
1:A:43:A:C2	1:A:44:G:C2	3.02	0.47
1:A:97:A:H8	1:A:97:A:O5'	1.97	0.47
1:A:228:U:OP2	1:A:239:G:N1	2.47	0.47
1:A:270:G:C2'	1:A:271:G:C5'	2.91	0.47
1:A:344:C:O5'	1:A:344:C:H6	1.98	0.47
1:A:428:C:H2'	1:A:429:C:C6	2.49	0.47
1:A:554:G:O6	1:A:560:A:N1	2.48	0.47
1:A:723:G:H2'	1:A:724:G:N9	2.29	0.47
1:A:866:G:H2'	1:A:867:G:C8	2.50	0.47
1:A:902:G:C5	1:A:903:G:C8	3.02	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:937:U:H2'	1:A:938:G:C5'	2.44	0.47
1:A:983:G:C2	7:O:82:ARG:CZ	2.64	0.47
1:A:1039:A:C2	1:A:1178:G:C5	3.01	0.47
1:A:1137:C:C3'	1:A:1138:G:C8	2.98	0.47
1:A:1237:C:N4	1:A:1238:G:C2	2.83	0.47
1:A:1437:G:C2	1:A:1618:C:H1'	2.50	0.47
1:A:1483:G:O2'	1:A:1484:G:H5'	2.15	0.47
1:A:1506:U:H3'	1:A:1507:G:O4'	2.14	0.47
1:A:1750:C:H42	1:A:1755:A:H61	1.61	0.47
1:A:1841:G:H2'	1:A:1842:C:C6	2.49	0.47
1:A:1882:U:C5	1:A:1883:G:C6	3.02	0.47
1:A:2114:G:C5	1:A:2204:A:N1	2.83	0.47
1:A:2330:U:C1'	27:H:90:ASN:ND2	2.77	0.47
1:A:2473:C:N4	1:A:2474:U:O4	2.47	0.47
1:A:2705:G:N1	1:A:2738:U:OP2	2.24	0.47
2:C:30:A:C2	2:C:83:C:C6	3.03	0.47
2:C:39:A:C5	2:C:83:C:C5	3.03	0.47
2:C:58:G:H2'	2:C:59:C:C6	2.50	0.47
3:B:25:G:C8	3:B:57:U:C4	3.02	0.47
3:B:69:C:H2'	3:B:70:G:H5'	1.97	0.47
6:N:129:PHE:CZ	6:N:131:GLY:HA2	2.47	0.47
6:N:202:GLY:CA	6:N:221:ALA:CA	2.73	0.47
9:Q:50:ARG:O	9:Q:54:THR:HB	2.14	0.47
9:Q:57:HIS:HD2	9:Q:60:ILE:HB	1.80	0.47
14:V:134:LEU:O	14:V:176:ILE:HG12	2.15	0.47
15:W:59:ASN:C	15:W:60:SER:OG	2.45	0.47
16:X:133:LYS:N	16:X:133:LYS:CD	2.77	0.47
26:G:212:LEU:HD11	26:G:217:GLU:HB2	1.97	0.47
28:I:138:VAL:HG12	28:I:140:GLY:H	1.79	0.47
29:J:46:LYS:HG2	29:J:47:LYS:H	1.79	0.47
1:A:155:A:H2'	1:A:156:G:C8	2.50	0.47
1:A:274:G:C6	1:A:433:C:C5'	2.97	0.47
1:A:287:A:C4	1:A:288:C:C4	3.02	0.47
1:A:334:U:H2'	1:A:335:G:H8	1.80	0.47
1:A:434:A:H2'	1:A:435:A:C8	2.50	0.47
1:A:626:C:C3'	1:A:627:C:C6	2.93	0.47
1:A:825:C:O2'	1:A:1245:U:O2	2.32	0.47
1:A:852:U:C2	1:A:853:G:N7	2.83	0.47
1:A:856:U:H5"	1:A:856:U:O2	2.14	0.47
1:A:869:G:C8	1:A:869:G:OP2	2.68	0.47
1:A:1429:C:C2'	1:A:1430:C:H5'	2.44	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2118:U:H2'	1:A:2119(A):U:O4'	2.14	0.47
1:A:2472:G:H2'	1:A:2473:C:H6	1.78	0.47
1:A:2666:U:H2'	1:A:2667:C:H6	1.80	0.47
3:B:8:G:OP2	9:Q:76:PHE:CE1	2.64	0.47
3:B:14:U:OP2	3:B:15:A:N6	2.48	0.47
4:L:147:VAL:HG23	4:L:149:MET:HG2	1.96	0.47
9:Q:128:ALA:O	9:Q:132:LEU:N	2.43	0.47
15:W:113:SER:N	15:W:120:GLY:HA2	2.30	0.47
16:X:162:ARG:HG3	16:X:163:GLU:N	2.30	0.47
19:E:172:LEU:HB2	19:E:173:PRO:HD2	1.97	0.47
28:I:136:ALA:HB2	28:I:145:LEU:HD23	1.96	0.47
1:A:9:A:C1'	2:C:99:A:C6	2.96	0.47
1:A:26:G:H1'	1:A:524:A:N6	2.30	0.47
1:A:87:G:O2'	15:W:57:LYS:NZ	2.24	0.47
1:A:262:G:C2	1:A:266:A:N6	2.83	0.47
1:A:410:G:C6	1:A:411:U:C4	3.03	0.47
1:A:1080:C:C2'	1:A:1081:C:H5"	2.44	0.47
1:A:1474:A:HO2'	1:A:1475:U:P	2.34	0.47
1:A:1482:C:O2'	1:A:1483:G:H5'	2.15	0.47
1:A:1496:A:H62	1:A:1548:A:H2	1.63	0.47
1:A:1532:G:O6	1:A:1612:A:H8	1.98	0.47
1:A:1650:A:H8	1:A:1650:A:OP2	1.98	0.47
1:A:2075:G:C8	1:A:2520:A:H1'	2.49	0.47
1:A:2170:C:N4	1:A:2171:G:O6	2.48	0.47
1:A:2351:G:C2	9:Q:64:VAL:HG22	2.49	0.47
1:A:2579:U:H1'	5:M:23:ARG:CZ	2.44	0.47
1:A:2672:G:O2'	1:A:2673:U:P	2.72	0.47
1:A:2691:G:H2'	1:A:2692:A:C8	2.50	0.47
3:B:35:A:H2'	3:B:36:A:N9	2.29	0.47
3:B:73:G:O2'	3:B:74:A:O4'	2.22	0.47
7:O:57:ASN:ND2	7:O:120:ILE:HD12	2.29	0.47
12:T:91:ASP:HB3	13:U:142:PHE:CZ	2.46	0.47
19:E:224:VAL:HG13	19:E:225:ASP:OD1	2.15	0.47
26:G:70:LEU:HD11	26:G:256:ASN:OD1	2.01	0.47
26:G:103:LEU:HD13	26:G:107:GLU:OE1	2.15	0.47
27:H:157:ILE:HG23	27:H:227:GLY:HA3	1.96	0.47
27:H:189:SER:HB2	27:H:205:MET:CE	2.44	0.47
1:A:143:G:C2'	1:A:144:A:C5'	2.86	0.47
1:A:290:A:N3	1:A:291:G:C8	2.83	0.47
1:A:881:U:O2	1:A:916:G:C6	2.68	0.47
1:A:969:A:N6	1:A:970:G:O6	2.48	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1039:A:C2	1:A:1178:G:N1	2.83	0.47
1:A:1081:C:O2	1:A:1135:A:N1	2.47	0.47
1:A:1718:G:OP2	1:A:1735:G:N2	2.40	0.47
1:A:2117:U:HO2'	1:A:2118:U:H5'	1.78	0.47
1:A:2233:G:C2'	1:A:2234:G:H8	2.01	0.47
6:N:143:LEU:HD21	6:N:146:ILE:CG1	2.41	0.47
6:N:162:LEU:HG	6:N:203:GLU:OE1	2.15	0.47
6:N:197:PRO:CB	6:N:215:ARG:HD3	2.38	0.47
12:T:123:ILE:CD1	12:T:227:TYR:HE1	2.24	0.47
25:F:179:PHE:HA	25:F:184:LYS:HZ3	1.80	0.47
27:H:188:GLN:HE21	27:H:188:GLN:CA	2.00	0.47
1:A:87:G:O6	1:A:88:A:N6	2.47	0.46
1:A:109:A:O3'	18:Z:120:ARG:NH1	2.48	0.46
1:A:836:G:N3	6:N:133:GLN:HG3	2.30	0.46
1:A:946:A:O2'	1:A:947:A:N7	2.48	0.46
1:A:1318:C:OP1	1:A:2727:U:H4'	2.14	0.46
1:A:1472:A:C4'	1:A:1473:G:H5"	2.46	0.46
1:A:1739:G:H2'	1:A:1740:G:H8	1.80	0.46
1:A:1986:G:C2	1:A:1987:G:N7	2.82	0.46
1:A:2336:U:O3'	1:A:2337:C:H5	1.98	0.46
9:Q:47:HIS:HB2	9:Q:53:ARG:NH2	2.29	0.46
14:V:102:LEU:HB3	18:Z:142:ARG:HH21	1.78	0.46
15:W:67:ARG:HH22	15:W:92:ILE:CG1	2.28	0.46
18:Z:87:LEU:O	18:Z:91:ARG:HG3	2.15	0.46
19:E:26:ASN:ND2	19:E:89:LEU:HD11	2.29	0.46
19:E:166:LYS:HA	19:E:182:LYS:HD3	1.97	0.46
19:E:265:PHE:CE1	19:E:266:ILE:HG13	2.44	0.46
26:G:207:PHE:O	26:G:228:LEU:HA	2.14	0.46
1:A:176:A:H2'	1:A:177:C:C6	2.50	0.46
1:A:350:G:O5'	1:A:350:G:H8	1.98	0.46
1:A:491:A:HO2'	1:A:493:G:H8	1.63	0.46
1:A:525:A:N3	1:A:591:C:O2'	2.46	0.46
1:A:538:C:O2'	1:A:539:A:C4	2.66	0.46
1:A:636:C:H6	1:A:636:C:O5'	1.98	0.46
1:A:874:G:O2'	1:A:875:C:H5'	2.15	0.46
1:A:1156:G:N2	1:A:2533:G:H21	2.13	0.46
1:A:1194:G:O2'	1:A:1195:U:H2'	2.15	0.46
1:A:1284:U:H2'	1:A:1285:G:C8	2.50	0.46
1:A:1341:C:O2'	1:A:1342:A:O5'	2.31	0.46
1:A:1516:G:C3'	1:A:1517:G:C5'	2.88	0.46
1:A:2248:U:H2'	1:A:2249:C:H6	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2540:G:N2	1:A:2782:A:N3	2.63	0.46
2:C:72:A:O2'	2:C:73:G:H5'	2.15	0.46
14:V:131:GLU:HG2	14:V:131:GLU:O	2.14	0.46
16:X:67:LYS:N	16:X:67:LYS:HZ3	2.14	0.46
19:E:265:PHE:CD1	19:E:266:ILE:CG1	2.86	0.46
25:F:193:GLU:OE1	25:F:193:GLU:N	2.48	0.46
26:G:75:ALA:HB1	26:G:76:PRO:HD2	1.96	0.46
1:A:146:U:H3	1:A:148:C:H41	1.64	0.46
1:A:252:C:C2'	1:A:253:C:H5'	2.45	0.46
1:A:523:G:HO2'	1:A:524:A:P	2.38	0.46
1:A:682:C:C2	6:N:121:SER:HB3	2.51	0.46
1:A:821:U:H2'	6:N:108:GLY:CA	2.44	0.46
1:A:854:A:C2	1:A:964:C:O2	2.69	0.46
1:A:1081:C:H2'	1:A:1082:A:C8	2.50	0.46
1:A:1234:A:C8	1:A:1258:A:H2	2.33	0.46
1:A:1254:U:H4'	1:A:1255:U:OP1	2.14	0.46
1:A:1336:C:O2'	1:A:1413:A:N3	2.39	0.46
1:A:1427:A:H2'	1:A:1428:C:O2	2.16	0.46
1:A:1596:U:O2'	1:A:1597:C:C5'	2.45	0.46
1:A:1836:C:C5'	19:E:219:VAL:HG23	2.40	0.46
1:A:2108:G:N3	1:A:2108:G:C5'	2.73	0.46
1:A:2195:G:O2'	1:A:2196:G:H5'	2.15	0.46
1:A:2479:U:H5	1:A:2505:A:C2	2.33	0.46
1:A:2507:G:HO2'	1:A:2508:U:P	2.38	0.46
1:A:2637:U:H1'	25:F:250:MET:HB2	1.97	0.46
3:B:36:A:H2	3:B:50:U:C2	2.33	0.46
5:M:102:ILE:HD11	5:M:114:VAL:HA	1.96	0.46
6:N:195:ARG:NE	6:N:195:ARG:CA	2.73	0.46
11:S:22:SER:O	11:S:23:SER:OG	2.21	0.46
15:W:170:THR:CB	15:W:171:PRO:HD3	2.43	0.46
25:F:97:LEU:O	25:F:114:VAL:HB	2.16	0.46
25:F:135:ASN:ND2	25:F:175:SER:HA	2.18	0.46
26:G:79:LYS:HA	26:G:79:LYS:HZ2	1.80	0.46
28:I:48:ILE:CD1	28:I:109:ARG:NH2	2.54	0.46
1:A:288:C:N4	1:A:289:A:N6	2.63	0.46
1:A:618:A:H2'	1:A:619:A:C8	2.51	0.46
1:A:956:G:H2'	1:A:957:U:C5'	2.45	0.46
1:A:968:C:C3'	1:A:969:A:H5"	2.45	0.46
1:A:2106:U:N3	1:A:2243:C:OP2	2.45	0.46
1:A:2220:G:P	1:A:2221:U:OP2	2.73	0.46
1:A:2806:U:O2'	2:C:5:A:C2	2.44	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:30:A:N1	2:C:83:C:O2'	2.45	0.46
3:B:17:G:N1	3:B:70:G:C4	2.77	0.46
7:O:2:LEU:HD12	7:O:48:GLU:OE2	2.15	0.46
12:T:204:LYS:N	12:T:204:LYS:HD2	2.31	0.46
16:X:73:LYS:H	16:X:73:LYS:CD	2.27	0.46
16:X:81:ILE:CG2	16:X:85:GLN:HB2	2.45	0.46
16:X:143:GLN:N	16:X:144:PRO:HD2	2.30	0.46
18:Z:65:LEU:HB3	18:Z:68:LEU:HD13	1.97	0.46
19:E:121:LYS:HB3	19:E:124:ASN:HD21	1.80	0.46
26:G:154:LYS:O	26:G:158:ARG:HG2	2.15	0.46
26:G:185:PRO:HB2	26:G:219:SER:OG	2.15	0.46
1:A:44:G:C8	1:A:200:G:C4	3.03	0.46
1:A:118:U:H4'	1:A:119:A:O5'	2.15	0.46
1:A:224:G:N2	1:A:244:G:O6	2.49	0.46
1:A:334:U:H2'	1:A:335:G:C8	2.50	0.46
1:A:504:G:H4'	13:U:37:TYR:CD1	2.50	0.46
1:A:614:G:C6	1:A:637:G:C6	3.03	0.46
1:A:749:G:N2	1:A:770:G:C4	2.83	0.46
1:A:898:G:C6	1:A:899:A:N6	2.73	0.46
1:A:1162:C:H4'	1:A:1163:G:OP1	2.12	0.46
1:A:1596:U:HO2'	1:A:1597:C:H5'	1.73	0.46
1:A:1756:G:N3	1:A:1757:G:C8	2.84	0.46
1:A:2024:G:H5"	13:U:71:ARG:CB	2.45	0.46
1:A:2114:G:C6	1:A:2204:A:C2	3.02	0.46
1:A:2213:A:C2'	1:A:2214:C:O5'	2.64	0.46
1:A:2236:C:C5	1:A:2237:A:H2	2.31	0.46
1:A:2457:C:C5	1:A:2458:U:H1'	2.50	0.46
1:A:2541:G:H2'	1:A:2542:G:H5"	1.98	0.46
7:O:26:ARG:CG	7:O:27:ILE:H	2.15	0.46
7:O:31:ARG:HG3	7:O:134:SER:OG	2.16	0.46
13:U:139:ILE:O	13:U:139:ILE:HG23	2.15	0.46
17:Y:98:LEU:CD1	17:Y:100:PHE:HD2	2.28	0.46
25:F:119:GLU:CG	25:F:143:ARG:HB3	2.43	0.46
26:G:81:ARG:HB2	26:G:81:ARG:HH21	1.79	0.46
1:A:159:A:C4'	1:A:160:A:OP2	2.64	0.46
1:A:192:A:H2'	1:A:193:G:O4'	2.16	0.46
1:A:227:G:N2	1:A:239:G:H2'	2.31	0.46
1:A:553:G:H3'	1:A:554:G:C5'	2.44	0.46
1:A:919:A:C2'	1:A:920:A:C5'	2.92	0.46
1:A:1009:A:N1	1:A:2041:G:O2'	2.40	0.46
1:A:1187:G:N2	12:T:131:SER:HB2	2.30	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1333:U:H5'	1:A:1334:U:H5	1.81	0.46
1:A:1592:A:H5'	1:A:1594:A:H5"	1.95	0.46
1:A:1835:G:H2'	1:A:1836:C:H6	1.80	0.46
1:A:2292:C:O2'	7:O:83:MET:HG3	2.14	0.46
1:A:2419:G:H4'	1:A:2420:C:OP1	2.15	0.46
10:R:123:MET:HE1	25:F:98:GLY:C	2.36	0.46
12:T:96:PRO:O	12:T:97:GLU:C	2.54	0.46
13:U:49:VAL:O	13:U:52:GLN:HB3	2.15	0.46
16:X:162:ARG:CZ	16:X:162:ARG:CB	2.89	0.46
19:E:117:GLU:OE1	19:E:117:GLU:N	2.48	0.46
19:E:144:LEU:HD12	19:E:184:CYS:SG	2.56	0.46
26:G:78:GLU:O	26:G:78:GLU:HG2	2.16	0.46
1:A:1:U:O5'	1:A:1:U:H6	1.99	0.46
1:A:46:C:C2'	1:A:47:G:C5'	2.88	0.46
1:A:211:A:H2'	1:A:214:A:H61	1.81	0.46
1:A:320:U:O4'	1:A:341:A:C4	2.69	0.46
1:A:380:C:H2'	1:A:381:C:O5'	2.16	0.46
1:A:623:A:HO2'	1:A:624:A:P	2.39	0.46
1:A:786:G:H4'	1:A:787:G:O5'	2.16	0.46
1:A:1475:U:O2	8:P:70:LEU:CD1	2.64	0.46
1:A:1567:C:N3	1:A:1572:G:O6	2.49	0.46
1:A:1629:G:H2'	1:A:1630:G:H8	1.81	0.46
1:A:1884:A:H2'	1:A:1885:C:O5'	2.16	0.46
1:A:2114:G:H2'	1:A:2115:G:H8	1.81	0.46
1:A:2122:C:N4	1:A:2195:G:N2	2.64	0.46
1:A:2273:U:O2'	16:X:66:THR:N	2.47	0.46
3:B:36:A:C5	3:B:45:G:O6	2.68	0.46
6:N:160:ILE:HA	6:N:201:LEU:HB2	1.98	0.46
11:S:89:GLN:O	12:T:175:PRO:HD2	2.16	0.46
12:T:91:ASP:CB	13:U:142:PHE:CE1	2.96	0.46
17:Y:144:ASP:OD1	17:Y:145:LEU:HG	2.16	0.46
19:E:26:ASN:HD21	19:E:89:LEU:HD11	1.78	0.46
19:E:245:PRO:HG2	19:E:246:TRP:CD2	2.49	0.46
25:F:173:LEU:HD23	25:F:174:VAL:O	2.15	0.46
26:G:182:PHE:CE2	26:G:190:PHE:HD1	2.34	0.46
26:G:208:PHE:HB2	26:G:229:LEU:O	2.16	0.46
27:H:217:LYS:O	27:H:221:LYS:N	2.28	0.46
1:A:159:A:C1'	1:A:160:A:P	3.04	0.46
1:A:188:U:H5"	1:A:189:A:H5"	1.96	0.46
1:A:253:C:O5'	1:A:253:C:H6	1.99	0.46
1:A:254:U:C2'	1:A:255:A:H5'	2.44	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:270:G:H2'	1:A:271:G:O5'	2.16	0.46
1:A:532:A:N6	1:A:533:G:O6	2.49	0.46
1:A:574:C:OP1	11:S:41:ARG:NH2	2.49	0.46
1:A:773:U:H4'	1:A:774:G:O5'	2.16	0.46
1:A:873:A:H2'	1:A:874:G:H5'	1.98	0.46
1:A:919:A:C4	7:O:13:HIS:CE1	3.04	0.46
1:A:1219:U:O2	11:S:5:LYS:NZ	2.49	0.46
1:A:1516:G:C8	1:A:1517:G:H8	2.33	0.46
1:A:1525:G:C2	1:A:1541:U:O2	2.68	0.46
1:A:1536:A:N3	1:A:1536:A:C5'	2.73	0.46
1:A:1570:C:H5'	1:A:1571:G:C2	2.51	0.46
1:A:2480:U:O4	1:A:2504:A:C6	2.65	0.46
2:C:31:U:N3	2:C:38:G:N7	2.63	0.46
2:C:42:G:C2	2:C:85:U:N3	2.83	0.46
3:B:38:C:H42	3:B:50:U:H1'	1.81	0.46
4:L:123:ILE:HD11	4:L:126:ARG:HD2	1.98	0.46
4:L:152:PHE:CE1	4:L:220:HIS:CD2	3.04	0.46
8:P:88:ALA:O	8:P:92:GLU:CB	2.64	0.46
10:R:168:ILE:O	10:R:183:ILE:HA	2.16	0.46
14:V:109:LEU:HD21	14:V:141:ARG:CD	2.46	0.46
15:W:150:LYS:HE3	15:W:160:TYR:CD2	2.51	0.46
16:X:142:ILE:O	16:X:143:GLN:HB2	2.15	0.46
26:G:57:ILE:HD11	26:G:68:THR:CG2	2.46	0.46
26:G:70:LEU:HD22	26:G:252:ILE:HD11	1.98	0.46
27:H:151:SER:O	27:H:154:ASP:HB3	2.15	0.46
27:H:188:GLN:HG3	27:H:188:GLN:O	2.15	0.46
28:I:65:VAL:O	28:I:71:GLU:HA	2.16	0.46
1:A:212:A:O2'	1:A:213:A:O5'	2.33	0.46
1:A:367:C:H3'	1:A:368:U:C6	2.50	0.46
1:A:1110:U:O2	1:A:1114:A:N1	2.49	0.46
1:A:1341:C:HO2'	1:A:1342:A:P	2.39	0.46
1:A:1385:G:H5"	17:Y:73:ARG:HD2	1.97	0.46
1:A:1479:U:H3'	1:A:1479:U:H6	1.81	0.46
1:A:1665:U:O4	1:A:1666:A:N6	2.49	0.46
1:A:1702:G:H2'	1:A:1703:G:H5'	1.98	0.46
1:A:2209:U:C6	1:A:2210:C:H5	2.33	0.46
1:A:2213:A:C6	1:A:2242:A:C6	3.03	0.46
1:A:2324:G:N2	1:A:2328:A:O2'	2.49	0.46
1:A:2669:C:H2'	1:A:2670:U:O4'	2.16	0.46
3:B:35:A:C6	3:B:51:G:N1	2.84	0.46
9:Q:60:ILE:O	9:Q:64:VAL:HG23	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:U:31:GLU:OE1	13:U:31:GLU:N	2.48	0.46
17:Y:98:LEU:HD12	17:Y:100:PHE:HD2	1.81	0.46
19:E:57:LEU:O	19:E:59:ARG:NH2	2.49	0.46
26:G:168:ALA:O	26:G:173:PHE:HB2	2.16	0.46
26:G:177:GLU:HG3	26:G:248:THR:HG22	1.98	0.46
1:A:268:G:C6	1:A:269:G:O6	2.69	0.46
1:A:306:G:N1	1:A:352:C:N3	2.63	0.46
1:A:493:G:O2'	1:A:518:A:N6	2.49	0.46
1:A:622:G:N2	1:A:627:C:H3'	2.31	0.46
1:A:1888:G:C4	1:A:1889:G:C8	3.04	0.46
1:A:2326:A:C6	1:A:2327:G:C6	3.04	0.46
1:A:2422:G:O2'	1:A:2429:A:N6	2.49	0.46
2:C:21:G:H3'	2:C:22:A:C5'	2.44	0.46
19:E:258:ARG:O	19:E:259:ASN:ND2	2.47	0.46
25:F:147:ARG:C	25:F:149:LEU:H	2.19	0.46
26:G:161:LEU:HD23	26:G:161:LEU:HA	1.76	0.46
27:H:189:SER:CB	27:H:205:MET:CE	2.94	0.46
1:A:70:A:H4'	1:A:71:A:H5"	1.97	0.45
1:A:83:A:C2	1:A:100:G:C2	3.04	0.45
1:A:90:A:O2'	1:A:91:A:O4'	2.27	0.45
1:A:133:A:C2'	1:A:134:A:H8	2.23	0.45
1:A:293:G:C6	1:A:294:U:O4	2.69	0.45
1:A:493:G:O2'	1:A:494:A:P	2.74	0.45
1:A:526:A:H2	1:A:1282:C:H1'	1.81	0.45
1:A:908:A:H2'	1:A:909:A:C8	2.50	0.45
1:A:1305:A:H2'	1:A:1306:G:O4'	2.16	0.45
1:A:1769:A:H2'	1:A:1770:C:H6	1.81	0.45
1:A:2123:U:C2	1:A:2194:U:N3	2.84	0.45
1:A:2211:U:H2'	1:A:2212:A:H8	1.78	0.45
1:A:2237:A:O2'	1:A:2238:A:H5'	2.15	0.45
1:A:2319:C:HO2'	27:H:177:GLY:C	2.19	0.45
1:A:2542:G:H2'	1:A:2543:G:H8	1.81	0.45
2:C:92:C:H2'	2:C:93:C:C6	2.51	0.45
2:C:99:A:C2'	2:C:100:C:H5'	2.45	0.45
3:B:6:U:C2	3:B:118:G:C2	2.99	0.45
3:B:31:C:O2	3:B:32:A:C8	2.70	0.45
3:B:31:C:H1'	3:B:58:A:H61	1.81	0.45
3:B:34:C:N3	3:B:52:G:N1	2.64	0.45
3:B:38:C:N4	3:B:39:C:N3	2.64	0.45
3:B:92:U:H2'	3:B:93:C:C5	2.50	0.45
4:L:114:TRP:HB3	4:L:236:PRO:HB3	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:136:ARG:NH1	4:L:209:PRO:HG3	2.32	0.45
6:N:156:LYS:CE	6:N:215:ARG:NH1	2.69	0.45
10:R:187:ILE:O	10:R:189:GLY:N	2.49	0.45
19:E:137:ILE:HG23	19:E:187:THR:O	2.16	0.45
25:F:145:ARG:NH2	25:F:145:ARG:CG	2.73	0.45
26:G:76:PRO:HG2	26:G:79:LYS:HB3	1.98	0.45
26:G:230:THR:CG2	26:G:233:SER:HB3	2.45	0.45
29:J:56:ASP:OD1	29:J:57:ILE:N	2.50	0.45
1:A:61:U:H5'	18:Z:94:ARG:HH12	1.81	0.45
1:A:100:G:HO2'	1:A:101:A:P	2.38	0.45
1:A:224:G:N2	1:A:244:G:C6	2.84	0.45
1:A:280:G:H2'	1:A:280:G:N3	2.31	0.45
1:A:292:C:C2'	1:A:293:G:H8	2.19	0.45
1:A:332:G:N2	1:A:342:G:C1'	2.78	0.45
1:A:651:U:H2'	1:A:652:C:H6	1.82	0.45
1:A:669:C:HO2'	1:A:670:A:C5'	2.29	0.45
1:A:939:A:H2'	1:A:940:C:O4'	2.16	0.45
1:A:1004:G:O6	1:A:1016:G:N2	2.49	0.45
1:A:1060:A:N1	1:A:1150:G:O6	2.50	0.45
1:A:1598:C:C5	1:A:1599:C:N4	2.84	0.45
1:A:2112:U:C2'	1:A:2113:G:C8	2.96	0.45
1:A:2752:G:C8	1:A:2753:C:H4'	2.50	0.45
2:C:17:A:OP1	25:F:205:GLY:N	2.48	0.45
2:C:17:A:P	8:P:13:HIS:HE2	2.38	0.45
2:C:103:G:C2	2:C:104:A:C5	3.04	0.45
3:B:31:C:N3	3:B:32:A:N7	2.64	0.45
3:B:108:C:O5'	3:B:108:C:H6	1.99	0.45
6:N:129:PHE:CE2	6:N:131:GLY:N	2.83	0.45
6:N:223:GLU:HA	6:N:223:GLU:OE2	2.16	0.45
13:U:29:CYS:HB3	13:U:91:LYS:HE2	1.98	0.45
16:X:143:GLN:N	16:X:144:PRO:CD	2.80	0.45
17:Y:129:ILE:HD12	17:Y:130:GLU:CA	2.46	0.45
19:E:77:ILE:O	19:E:77:ILE:HG13	2.16	0.45
25:F:96:LYS:O	25:F:97:LEU:HD12	2.16	0.45
1:A:151:G:H8	1:A:151:G:O5'	2.00	0.45
1:A:252:C:HO2'	1:A:253:C:H5'	1.80	0.45
1:A:263:A:N3	1:A:263:A:C5'	2.73	0.45
1:A:386:A:O5'	1:A:386:A:H8	1.99	0.45
1:A:859:A:H2'	1:A:860:C:C6	2.51	0.45
1:A:1002:G:H8	1:A:1018:A:H62	1.62	0.45
1:A:1075:G:N2	1:A:1139:A:N7	2.64	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1197:A:OP1	16:X:165:LYS:CD	2.65	0.45
1:A:1320:G:N1	1:A:1676:U:OP2	2.38	0.45
1:A:1467:C:H2'	1:A:1468:C:C6	2.52	0.45
1:A:1497:A:H2'	1:A:1498:G:OP1	2.17	0.45
1:A:1504:C:O5'	1:A:1504:C:H6	1.99	0.45
1:A:1540:C:H2'	1:A:1541:U:C6	2.51	0.45
1:A:2205:G:C6	1:A:2206:A:C6	3.04	0.45
1:A:2389:G:H2'	1:A:2390:A:C8	2.50	0.45
1:A:2579:U:C2'	5:M:23:ARG:NH1	2.78	0.45
1:A:2745:G:H2'	1:A:2746:U:O4'	2.16	0.45
6:N:162:LEU:O	6:N:166:GLU:HB2	2.16	0.45
10:R:122:ILE:HD13	10:R:122:ILE:N	2.31	0.45
14:V:154:PHE:CE1	18:Z:149:PRO:HD3	2.51	0.45
15:W:74:THR:OG1	15:W:137:ILE:O	2.33	0.45
16:X:93:ILE:O	16:X:94:ILE:HD13	2.16	0.45
25:F:136:ALA:HB2	25:F:172:ARG:HA	1.97	0.45
26:G:189:ASP:OD1	26:G:190:PHE:N	2.48	0.45
1:A:120:G:OP1	1:A:133:A:O2'	2.35	0.45
1:A:131:C:H4'	1:A:132:G:C4	2.51	0.45
1:A:161:G:HO2'	1:A:162:A:C4'	2.28	0.45
1:A:248:G:H2'	1:A:249:C:O4'	2.17	0.45
1:A:293:G:H22	1:A:365:A:H2	1.63	0.45
1:A:626:C:C2'	1:A:627:C:C6	2.99	0.45
1:A:690:U:H2'	1:A:691:G:C8	2.51	0.45
1:A:740:G:H5'	1:A:741:U:H5"	1.98	0.45
1:A:888:C:H2'	1:A:889:G:OP1	2.16	0.45
1:A:1522:A:N6	1:A:1544:A:N3	2.64	0.45
1:A:1532:G:H1'	1:A:1611:G:HO2'	1.77	0.45
1:A:1553:U:H2'	1:A:1554:C:H6	1.78	0.45
1:A:1650:A:N1	13:U:122:SER:OG	2.49	0.45
1:A:2322:A:C2'	1:A:2323:C:H5'	2.46	0.45
1:A:2536:A:H4'	1:A:2537:C:O5'	2.16	0.45
1:A:2633:C:H2'	1:A:2634:C:H6	1.82	0.45
2:C:33:A:O2'	2:C:34:U:O5'	2.20	0.45
2:C:86:A:H2'	2:C:87:A:O5'	2.16	0.45
3:B:43:C:O2'	3:B:44:C:O4'	2.29	0.45
6:N:143:LEU:HD23	6:N:146:ILE:HG12	1.97	0.45
7:O:112:ASN:OD1	7:O:113:ILE:N	2.49	0.45
11:S:31:LEU:HD12	11:S:31:LEU:HA	1.72	0.45
13:U:149:LEU:N	13:U:149:LEU:CD2	2.73	0.45
18:Z:79:GLU:O	18:Z:83:LEU:HG	2.15	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:G:116:TYR:HB2	26:G:117:PRO:HD2	1.97	0.45
27:H:172:PRO:O	27:H:176:ASP:HB2	2.17	0.45
27:H:175:PHE:O	27:H:183:VAL:HG13	2.17	0.45
1:A:69:G:HO2'	1:A:70:A:P	2.40	0.45
1:A:83:A:H2'	1:A:84:G:H4'	1.98	0.45
1:A:171:G:H2'	1:A:172:G:C8	2.51	0.45
1:A:234:C:H5	6:N:142:LYS:HZ2	1.56	0.45
1:A:361:C:H5"	1:A:361:C:H6	1.82	0.45
1:A:374:U:H2'	1:A:375:C:N1	2.32	0.45
1:A:553:G:H5'	1:A:554:G:OP2	2.17	0.45
1:A:836:G:O2'	6:N:133:GLN:CD	2.55	0.45
1:A:887:G:H2'	1:A:888:C:H6	1.79	0.45
1:A:1496:A:C5	1:A:1497:A:N3	2.84	0.45
1:A:1556:A:H5"	1:A:1557:G:OP1	2.16	0.45
1:A:2047:A:O2'	1:A:2048:U:P	2.75	0.45
1:A:2653:U:C4'	25:F:170:GLU:OE2	2.58	0.45
3:B:26:A:C2	3:B:27:A:C4	3.04	0.45
3:B:32:A:C6	3:B:55:G:C2	3.04	0.45
3:B:63:C:H2'	3:B:64:U:C6	2.51	0.45
12:T:116:PRO:HD2	12:T:117:PRO:N	2.31	0.45
16:X:128:TYR:HE2	16:X:132:LYS:CB	2.04	0.45
17:Y:144:ASP:OD1	17:Y:145:LEU:N	2.49	0.45
28:I:162:GLN:HG3	28:I:174:SER:HB2	1.97	0.45
1:A:261:U:H3	1:A:266:A:N6	2.15	0.45
1:A:863:C:O2	1:A:934:A:C2	2.70	0.45
1:A:951:C:H6	1:A:951:C:H5"	1.81	0.45
1:A:957:U:C4	1:A:958:C:C4	3.05	0.45
1:A:1363:A:H2	1:A:1417:U:HO2'	1.65	0.45
1:A:1459:U:C2	1:A:1460:A:C8	3.05	0.45
1:A:1590:C:C4	1:A:1591:C:N4	2.84	0.45
1:A:1808:C:C2	1:A:1829:A:C6	3.05	0.45
1:A:2190:A:H8	1:A:2190:A:O5'	1.98	0.45
1:A:2227:C:C5	1:A:2228:C:C5	3.05	0.45
1:A:2307:G:H2'	1:A:2308:U:C6	2.51	0.45
1:A:2480:U:H5	1:A:2504:A:C2	2.35	0.45
2:C:7:G:H2'	2:C:8:G:O4'	2.17	0.45
2:C:80:C:H4'	10:R:119:LEU:HD13	1.99	0.45
3:B:43:C:C6	27:H:119:VAL:HG22	2.51	0.45
4:L:136:ARG:HD3	4:L:209:PRO:HD3	1.98	0.45
7:O:32:TYR:OH	7:O:111:GLU:OE2	2.33	0.45
12:T:214:GLN:OE1	12:T:215:PRO:HD2	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:U:58:TYR:CE2	13:U:95:LYS:HD3	2.52	0.45
14:V:126:LYS:O	14:V:130:ASP:CB	2.65	0.45
25:F:266:ILE:HG13	25:F:267:MET:H	1.81	0.45
26:G:89:ILE:O	26:G:93:GLN:HB3	2.17	0.45
26:G:146:ARG:NH2	26:G:148:TRP:CE3	2.84	0.45
27:H:147:ASN:O	27:H:150:TYR:N	2.49	0.45
1:A:342:G:H2'	1:A:343:U:H5'	1.97	0.45
1:A:612:U:H6	1:A:612:U:O5'	1.99	0.45
1:A:890:G:C2	1:A:891:G:N7	2.85	0.45
1:A:913:G:C2'	1:A:914:A:H5'	2.46	0.45
1:A:920:A:N7	7:O:9:PHE:CE2	2.85	0.45
1:A:1137:C:C6	1:A:1138:G:N7	2.85	0.45
1:A:1299:U:H3	1:A:1313:A:H61	1.65	0.45
1:A:1337:U:H2'	1:A:1338:C:H6	1.81	0.45
1:A:1494:G:N2	1:A:1551:G:O6	2.50	0.45
1:A:1549:A:C6	1:A:1550:U:C2	3.05	0.45
1:A:1749:U:H6	1:A:1749:U:H5"	1.82	0.45
1:A:1868:A:H2'	1:A:1869:G:O4'	2.17	0.45
1:A:2480:U:H5	1:A:2504:A:H2	1.65	0.45
3:B:27:A:H2'	3:B:28:C:O4'	2.17	0.45
8:P:45:LYS:HG2	8:P:122:TYR:HD1	1.80	0.45
10:R:169:VAL:HG23	10:R:181:ILE:HG23	1.99	0.45
12:T:177:VAL:HB	12:T:230:TYR:HH	1.82	0.45
13:U:113:LYS:HB2	13:U:113:LYS:HE3	1.76	0.45
16:X:156:GLU:O	16:X:160:LEU:HG	2.17	0.45
19:E:76:THR:O	19:E:88:CYS:HA	2.17	0.45
26:G:71:ASN:ND2	26:G:72:LEU:N	2.63	0.45
27:H:68:LEU:O	27:H:72:GLU:HB2	2.17	0.45
28:I:155:MET:HG2	28:I:188:ILE:HD11	1.99	0.45
1:A:18:U:H2'	1:A:19:U:C6	2.52	0.45
1:A:82:G:N1	1:A:100:G:C5	2.85	0.45
1:A:101:A:C5	1:A:102:U:C4	3.04	0.45
1:A:103:C:C2'	1:A:104:C:H5'	2.46	0.45
1:A:658:A:H5"	1:A:659:G:OP2	2.16	0.45
1:A:767:A:H2'	1:A:768:G:O4'	2.17	0.45
1:A:1178:G:H4'	11:S:83:HIS:CD2	2.37	0.45
1:A:1197:A:H1'	1:A:1198:A:C8	2.52	0.45
1:A:1219:U:H2'	1:A:1220:U:C6	2.52	0.45
1:A:1502:A:H3'	1:A:1503:C:C5'	2.47	0.45
1:A:1533:A:C2'	1:A:1534:A:N3	2.78	0.45
1:A:1534:A:C2'	1:A:1535:A:H5"	2.36	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1795:A:HO2'	1:A:1796:A:H8	1.63	0.45
1:A:2201:G:C2'	1:A:2202:C:H5'	2.46	0.45
1:A:2201:G:N1	1:A:2202:C:N4	2.65	0.45
1:A:2329:U:O5'	1:A:2329:U:H6	1.99	0.45
1:A:2373:C:H2'	1:A:2374:C:O4'	2.17	0.45
1:A:2684:C:H2'	1:A:2685:G:O4'	2.16	0.45
1:A:2701:U:OP1	10:R:173:GLN:HG3	2.17	0.45
3:B:7:G:H1'	3:B:8:G:O5'	2.16	0.45
3:B:41:U:C3'	3:B:42:C:H5"	2.47	0.45
8:P:93:VAL:O	8:P:96:ARG:N	2.50	0.45
12:T:113:LYS:HE2	12:T:113:LYS:CA	2.46	0.45
12:T:230:TYR:O	12:T:230:TYR:CD1	2.70	0.45
19:E:175:GLY:O	19:E:268:ARG:CB	2.62	0.45
26:G:204:LYS:CA	26:G:225:THR:HB	2.47	0.45
27:H:147:ASN:HA	27:H:150:TYR:CD2	2.52	0.45
27:H:164:THR:HB	27:H:167:PHE:CZ	2.52	0.45
1:A:126:C:H6	1:A:126:C:H5"	1.82	0.45
1:A:161:G:N3	1:A:161:G:H2'	2.32	0.45
1:A:262:G:O2'	1:A:263:A:H5"	2.17	0.45
1:A:489:A:H2'	1:A:490:A:H8	1.79	0.45
1:A:611:C:C2'	1:A:612:U:H5'	2.47	0.45
1:A:636:C:HO2'	1:A:637:G:H5'	1.81	0.45
1:A:882:U:H5"	1:A:882:U:H6	1.82	0.45
1:A:1137:C:C2'	1:A:1138:G:C8	2.99	0.45
1:A:2209:U:H2'	1:A:2210:C:C5	2.52	0.45
1:A:2313:U:H5'	1:A:2314:C:OP1	2.16	0.45
1:A:2698:C:OP1	25:F:285:LYS:HE2	2.08	0.45
1:A:2744:A:N3	5:M:67:LYS:NZ	2.52	0.45
13:U:70:TYR:O	13:U:73:CYS:HB3	2.17	0.45
25:F:90:ILE:HD12	25:F:137:VAL:HG21	1.97	0.45
25:F:279:LYS:HG2	25:F:280:GLY:N	2.32	0.45
1:A:6:A:H2'	1:A:7:C:C6	2.52	0.45
1:A:376:U:O2'	1:A:377:G:OP2	2.27	0.45
1:A:380:C:N4	1:A:381:C:N4	2.64	0.45
1:A:394:G:H2'	1:A:395:C:O4'	2.17	0.45
1:A:950:A:C6	1:A:951:C:C2	3.05	0.45
1:A:1751:A:C2	1:A:1753:A:O5'	2.70	0.45
1:A:1885:C:N4	6:N:253:ALA:N	2.65	0.45
1:A:1888:G:C5	1:A:1889:G:N7	2.85	0.45
1:A:2024:G:H5"	13:U:71:ARG:HB3	1.99	0.45
1:A:2111:U:H6	1:A:2111:U:H5"	1.82	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2142:G:O2'	1:A:2188:C:O4'	2.34	0.45
1:A:2322:A:HO2'	1:A:2323:C:H5'	1.77	0.45
1:A:2472:G:H2'	1:A:2473:C:C6	2.52	0.45
1:A:2645:U:O5'	1:A:2645:U:C6	2.70	0.45
3:B:66:C:C5	3:B:110:C:N3	2.84	0.45
3:B:110:C:HO2'	3:B:111:G:P	2.36	0.45
10:R:147:ASP:O	10:R:169:VAL:HG12	2.17	0.45
11:S:27:ALA:HB1	11:S:31:LEU:HD23	1.98	0.45
11:S:111:ILE:O	11:S:115:ILE:HG12	2.16	0.45
14:V:104:TYR:CD1	18:Z:142:ARG:NE	2.85	0.45
14:V:105:PRO:C	14:V:107:ARG:N	2.71	0.45
18:Z:130:LYS:HD3	18:Z:134:ARG:NH2	2.32	0.45
19:E:49:HIS:CE1	19:E:215:VAL:HG12	2.51	0.45
19:E:75:VAL:HG21	19:E:91:HIS:HE1	1.81	0.45
19:E:135:THR:HB	19:E:137:ILE:HD11	1.99	0.45
27:H:163:ARG:CZ	27:H:192:PRO:HD3	2.46	0.45
1:A:160:A:C2	1:A:161:G:O6	2.71	0.44
1:A:210:C:H2'	1:A:211:A:O4'	2.17	0.44
1:A:276:G:C8	1:A:276:G:OP2	2.71	0.44
1:A:367:C:OP2	1:A:367:C:C6	2.70	0.44
1:A:371:U:C5	1:A:371:U:OP2	2.71	0.44
1:A:413:A:H2'	1:A:414:A:C8	2.52	0.44
1:A:640:G:H2'	1:A:641:C:C6	2.53	0.44
1:A:858:G:C6	1:A:859:A:C5	3.05	0.44
1:A:1020:C:H2'	1:A:1021:A:C8	2.50	0.44
1:A:1207:G:H2'	1:A:1208:G:O4'	2.17	0.44
1:A:1264:C:O2	6:N:83:ASP:O	2.35	0.44
1:A:1475:U:O4'	8:P:73:ARG:HD2	2.16	0.44
1:A:1495:C:N4	1:A:1548:A:C5	2.86	0.44
1:A:1515:G:H2'	1:A:1516:G:OP1	2.17	0.44
1:A:1804:U:H2'	1:A:1805:C:C6	2.52	0.44
1:A:2011:G:H5"	25:F:219:ARG:NH2	2.28	0.44
1:A:2109:C:H5'	1:A:2110:U:H5	1.82	0.44
1:A:2214:C:C6	1:A:2214:C:O5'	2.70	0.44
1:A:2267:G:N1	7:O:82:ARG:NH2	2.65	0.44
2:C:79:G:C2	2:C:80:C:C2	3.05	0.44
2:C:80:C:O5'	2:C:80:C:C6	2.70	0.44
3:B:118:G:C2	3:B:119:G:O6	2.70	0.44
4:L:177:SER:OG	4:L:182:GLY:CA	2.58	0.44
7:O:34:LEU:HD13	7:O:118:VAL:CG1	2.46	0.44
8:P:65:ALA:HB1	8:P:90:PHE:HA	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:V:114:ILE:CG2	14:V:115:LEU:HD12	2.23	0.44
18:Z:137:ASP:OD1	18:Z:141:LYS:CG	2.65	0.44
25:F:143:ARG:HA	25:F:165:MET:HA	1.99	0.44
25:F:188:GLU:OE1	25:F:188:GLU:N	2.50	0.44
1:A:2:U:O5'	1:A:2:U:H6	2.00	0.44
1:A:84:G:OP2	15:W:71:VAL:HG22	2.17	0.44
1:A:145:A:O5'	1:A:145:A:C8	2.70	0.44
1:A:319:G:O2'	1:A:320:U:H3'	2.16	0.44
1:A:368:U:C4	1:A:369:U:O4	2.70	0.44
1:A:375:C:O5'	1:A:375:C:C6	2.70	0.44
1:A:416:C:C2	1:A:418:G:C4	3.02	0.44
1:A:428:C:H2'	1:A:429:C:H6	1.82	0.44
1:A:622:G:C8	1:A:622:G:OP2	2.70	0.44
1:A:640:G:H2'	1:A:641:C:H6	1.82	0.44
1:A:824:U:O2'	1:A:825:C:C5'	2.65	0.44
1:A:852:U:O2'	1:A:853:G:H5'	2.17	0.44
1:A:862:U:H2'	1:A:863:C:C6	2.52	0.44
1:A:944:C:C5	1:A:944:C:OP2	2.70	0.44
1:A:1155:A:N7	1:A:2505:A:O2'	2.47	0.44
1:A:1193:U:C2'	1:A:1194:G:H5'	2.47	0.44
1:A:1337:U:H2'	1:A:1338:C:C6	2.52	0.44
1:A:1472:A:O4'	1:A:1473:G:C8	2.71	0.44
1:A:1754:A:H2'	1:A:1755:A:O5'	2.16	0.44
1:A:2009:U:H5	1:A:2010:C:HO2'	1.64	0.44
1:A:2156:C:C2	1:A:2164:G:C2	3.03	0.44
1:A:2224:G:O3'	1:A:2225:G:C8	2.70	0.44
1:A:2236:C:O5'	1:A:2236:C:C6	2.70	0.44
1:A:2319:C:N3	1:A:2332:G:C6	2.85	0.44
1:A:2420:C:OP2	1:A:2420:C:C6	2.71	0.44
2:C:88:C:H2'	2:C:89:A:C8	2.53	0.44
3:B:18:C:C5	3:B:19:G:N7	2.85	0.44
3:B:88:G:N2	3:B:92:U:N3	2.65	0.44
6:N:255:GLU:C	6:N:256:TYR:CG	2.91	0.44
7:O:80:GLU:O	7:O:81:THR:OG1	2.24	0.44
9:Q:99:SER:C	9:Q:101:MET:H	2.19	0.44
12:T:95:ALA:N	12:T:96:PRO:CD	2.79	0.44
12:T:106:ILE:H	12:T:106:ILE:HG13	1.61	0.44
15:W:82:GLU:HG2	15:W:82:GLU:O	2.17	0.44
18:Z:123:GLU:HG2	18:Z:128:VAL:CG2	2.47	0.44
19:E:260:LYS:O	19:E:261:TYR:CD2	2.70	0.44
25:F:202:THR:HA	25:F:258:LYS:HA	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:H:107:ILE:O	27:H:111:ALA:HB3	2.18	0.44
29:J:46:LYS:HG2	29:J:47:LYS:N	2.32	0.44
1:A:32:U:O4	1:A:459:A:N7	2.50	0.44
1:A:95:G:C6	1:A:96:C:C4	3.06	0.44
1:A:355:A:C8	1:A:356:A:H8	2.16	0.44
1:A:386:A:C2	1:A:413:A:C4	3.06	0.44
1:A:390:U:H2'	1:A:391:G:C8	2.53	0.44
1:A:760:A:H61	1:A:764:A:H8	1.63	0.44
1:A:917:C:H2'	1:A:918:A:H5'	1.99	0.44
1:A:922:U:O5'	1:A:922:U:C6	2.70	0.44
1:A:1008:A:N3	1:A:2051:G:O2'	2.40	0.44
1:A:1870:U:H2'	1:A:1871:U:H6	1.82	0.44
1:A:2113:G:C8	1:A:2113:G:O5'	2.70	0.44
1:A:2278:C:C2	1:A:2297:G:N2	2.86	0.44
1:A:2394:A:O2'	9:Q:166:PHE:O	2.36	0.44
2:C:80:C:C2'	2:C:81:A:H5'	2.48	0.44
4:L:217:LEU:HD12	4:L:218:PHE:CA	2.46	0.44
6:N:165:ILE:CG2	6:N:166:GLU:N	2.79	0.44
6:N:200:ILE:HB	6:N:217:PHE:HB3	1.99	0.44
6:N:255:GLU:O	6:N:256:TYR:CG	2.70	0.44
12:T:229:ASP:O	12:T:230:TYR:CG	2.70	0.44
17:Y:129:ILE:O	17:Y:133:GLY:O	2.35	0.44
29:J:77:PHE:CE1	29:J:81:LEU:HD11	2.51	0.44
1:A:44:G:C3'	1:A:45:A:C5'	2.86	0.44
1:A:131:C:C4	14:V:104:TYR:CD2	3.04	0.44
1:A:253:C:C2	1:A:254:U:O2	2.70	0.44
1:A:253:C:N3	1:A:437:G:C2	2.86	0.44
1:A:715:G:HO2'	1:A:716:A:P	2.40	0.44
1:A:919:A:N6	7:O:11:LYS:O	2.50	0.44
1:A:1050:G:O6	4:L:167:LYS:HE3	2.16	0.44
1:A:2103:G:H2'	1:A:2104:A:H8	1.83	0.44
1:A:2103:G:C4	1:A:2104:A:N7	2.86	0.44
1:A:2205:G:C2'	1:A:2206:A:H5'	2.47	0.44
1:A:2421:C:H2'	1:A:2422:G:O4'	2.18	0.44
1:A:2808:C:H3'	1:A:2808:C:H6	1.82	0.44
2:C:80:C:P	10:R:121:ASP:OD1	2.75	0.44
4:L:102:PRO:HA	11:S:99:GLN:NE2	2.21	0.44
5:M:59:ARG:O	5:M:87:ILE:HG22	2.18	0.44
8:P:51:ALA:HA	8:P:123:ILE:HD11	1.98	0.44
9:Q:123:ILE:O	9:Q:127:ILE:HG22	2.18	0.44
12:T:116:PRO:CD	12:T:117:PRO:N	2.81	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:U:154:PRO:HA	13:U:157:LEU:CG	2.47	0.44
15:W:70:LYS:HB2	15:W:70:LYS:HZ3	1.80	0.44
25:F:96:LYS:HD3	25:F:282:VAL:HG23	1.99	0.44
25:F:207:GLY:O	25:F:253:ARG:HA	2.18	0.44
26:G:52:LEU:HD13	26:G:71:ASN:ND2	2.32	0.44
26:G:79:LYS:HG3	26:G:83:VAL:HG23	1.99	0.44
26:G:152:MET:HB3	26:G:157:ARG:HH21	1.82	0.44
26:G:207:PHE:CD1	26:G:246:VAL:HG21	2.52	0.44
28:I:125:LYS:HB3	28:I:173:VAL:HB	1.98	0.44
29:J:43:LYS:HG2	29:J:44:LYS:HE2	1.99	0.44
1:A:139:U:O2	1:A:140:G:C8	2.67	0.44
1:A:145:A:C8	1:A:145:A:OP2	2.70	0.44
1:A:294:U:C2	1:A:295:C:O2	2.71	0.44
1:A:318:A:N6	1:A:339:A:C6	2.85	0.44
1:A:540:A:OP2	4:L:212:ARG:NH1	2.42	0.44
1:A:658:A:H2'	1:A:658:A:N3	2.32	0.44
1:A:703:C:H2'	1:A:704:A:H8	1.82	0.44
1:A:887:G:N2	1:A:909:A:H61	2.16	0.44
1:A:901:C:H2'	1:A:902:G:C5'	2.46	0.44
1:A:909:A:C8	1:A:909:A:OP2	2.70	0.44
1:A:948:U:C6	1:A:948:U:OP1	2.70	0.44
1:A:1264:C:H1'	6:N:83:ASP:O	2.17	0.44
1:A:1376:G:P	19:E:35:CYS:HG	2.41	0.44
1:A:1504:C:O5'	1:A:1504:C:C6	2.70	0.44
1:A:1694:C:OP1	25:F:229:HIS:CE1	2.70	0.44
1:A:1831:G:H5'	19:E:84:ASN:HD22	1.82	0.44
1:A:1874:U:O5'	1:A:1874:U:H6	2.01	0.44
1:A:2280:C:OP2	16:X:73:LYS:CE	2.63	0.44
1:A:2338:G:N3	1:A:2338:G:H2'	2.33	0.44
2:C:36:A:C2	25:F:274:ARG:NE	2.84	0.44
2:C:75:U:C2'	2:C:76:G:C5'	2.95	0.44
3:B:14:U:C5'	3:B:15:A:N7	2.81	0.44
11:S:89:GLN:HB2	12:T:174:THR:HG23	1.99	0.44
11:S:91:LEU:CD1	12:T:175:PRO:HA	2.35	0.44
12:T:139:GLY:N	12:T:221:ILE:O	2.50	0.44
16:X:132:LYS:N	16:X:132:LYS:HD2	2.32	0.44
17:Y:103:LEU:HA	17:Y:122:SER:HA	1.99	0.44
19:E:29:ILE:HG23	19:E:59:ARG:HG2	1.99	0.44
1:A:74:G:H22	1:A:109:A:H2	1.65	0.44
1:A:329:C:H4'	1:A:331:A:N7	2.32	0.44
1:A:389:A:C6	1:A:410:G:C6	3.03	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:393:G:C6	1:A:394:G:N2	2.85	0.44
1:A:433:C:H2'	1:A:434:A:OP2	2.17	0.44
1:A:631:G:H3'	1:A:632:G:H21	1.81	0.44
1:A:824:U:O2'	1:A:825:C:O4'	2.33	0.44
1:A:1084:G:N1	1:A:1130:C:OP2	2.37	0.44
1:A:1164:G:O5'	1:A:1164:G:C8	2.71	0.44
1:A:1170:A:N6	4:L:126:ARG:HA	2.33	0.44
1:A:1459:U:H2'	1:A:1460:A:H8	1.82	0.44
1:A:1748:C:C3'	1:A:1748:C:C6	3.01	0.44
1:A:2150:G:N1	1:A:2151:G:N2	2.66	0.44
1:A:2324:G:N2	1:A:2328:A:N9	2.66	0.44
1:A:2324:G:O4'	1:A:2325:G:C4	2.70	0.44
1:A:2485:A:N7	1:A:2498:G:C6	2.85	0.44
2:C:20:C:O5'	2:C:20:C:H6	2.01	0.44
2:C:30:A:C6	2:C:83:C:N1	2.86	0.44
3:B:14:U:HO2'	3:B:15:A:P	2.39	0.44
3:B:87:G:C2'	3:B:88:G:H5'	2.45	0.44
4:L:167:LYS:O	4:L:169:THR:N	2.50	0.44
6:N:170:PHE:HZ	6:N:181:LEU:HD23	1.83	0.44
10:R:172:ARG:NH1	10:R:174:ASN:HD22	2.16	0.44
15:W:165:GLY:N	15:W:166:GLU:OE1	2.50	0.44
19:E:237:ILE:CG1	19:E:239:ARG:H	2.30	0.44
25:F:127:LYS:HD2	25:F:132:ASP:OD2	2.16	0.44
26:G:127:GLY:O	26:G:128:SER:OG	2.26	0.44
1:A:16:G:H2'	1:A:17:C:H6	1.83	0.44
1:A:165:C:C6	1:A:165:C:O5'	2.70	0.44
1:A:861:A:C6	1:A:935:U:O4	2.69	0.44
1:A:941:C:C5	1:A:942:U:O4	2.70	0.44
1:A:1022:C:OP1	11:S:50:ARG:HD2	2.17	0.44
1:A:1475:U:HO2'	1:A:1476:G:C5'	2.31	0.44
1:A:1479:U:C5	1:A:1479:U:OP2	2.71	0.44
1:A:1524:G:N2	1:A:1525:G:N3	2.65	0.44
1:A:1882:U:C6	1:A:1882:U:O5'	2.71	0.44
1:A:2123:U:H5"	1:A:2124:G:P	2.57	0.44
1:A:2205:G:O6	1:A:2206:A:N6	2.50	0.44
1:A:2209:U:H3'	1:A:2210:C:C5	2.53	0.44
1:A:2216:U:O5'	1:A:2216:U:H6	2.00	0.44
1:A:2647:A:O4'	2:C:98:G:C1'	2.65	0.44
1:A:2764:U:H3	1:A:2776:A:H62	1.64	0.44
2:C:88:C:OP2	2:C:88:C:C6	2.70	0.44
3:B:25:G:C6	3:B:57:U:N3	2.85	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:36:A:C5	3:B:45:G:N7	2.85	0.44
3:B:96:G:H2'	3:B:97:C:C6	2.52	0.44
6:N:168:ALA:HB3	6:N:186:ILE:CD1	2.42	0.44
7:O:125:MET:CG	7:O:126:PRO:HD2	2.48	0.44
9:Q:86:VAL:O	9:Q:95:LEU:N	2.51	0.44
26:G:83:VAL:HG11	26:G:159:LEU:HD22	1.99	0.44
1:A:184:A:H5'	1:A:185:U:OP2	2.18	0.44
1:A:262:G:O2'	1:A:263:A:C2	2.71	0.44
1:A:295:C:O5'	1:A:295:C:C6	2.70	0.44
1:A:347:G:H2'	1:A:348:U:H6	1.83	0.44
1:A:383:A:O2'	17:Y:131:LYS:CE	2.66	0.44
1:A:415:U:O3'	1:A:416:C:C6	2.71	0.44
1:A:716:A:H62	1:A:737:G:H1'	1.81	0.44
1:A:733:A:H2'	1:A:734:G:C8	2.53	0.44
1:A:740:G:O2'	1:A:774:G:H4'	2.17	0.44
1:A:883:C:H4'	7:O:65:TRP:CH2	2.53	0.44
1:A:980:G:H1	1:A:993:C:H5	1.65	0.44
1:A:1062:G:H2'	1:A:1063:U:O4'	2.18	0.44
1:A:1073:G:H5"	1:A:1075:G:N3	2.33	0.44
1:A:1651:C:OP2	1:A:1653:C:C4	2.70	0.44
1:A:1954:U:O2'	1:A:1956:C:N4	2.46	0.44
1:A:2058:C:H2'	1:A:2059:U:O4'	2.18	0.44
1:A:2248:U:H2'	1:A:2249:C:C6	2.53	0.44
1:A:2336:U:O3'	1:A:2337:C:C5	2.71	0.44
1:A:2534:C:C4	1:A:2559:A:C6	3.06	0.44
1:A:2565:G:H2'	1:A:2566:G:O4'	2.18	0.44
2:C:39:A:C4	2:C:83:C:C4	3.05	0.44
2:C:79:G:N2	2:C:80:C:O2	2.50	0.44
3:B:61:C:C2	3:B:62:U:C5	3.05	0.44
6:N:162:LEU:O	6:N:166:GLU:CG	2.65	0.44
6:N:255:GLU:O	6:N:256:TYR:CD2	2.70	0.44
9:Q:50:ARG:O	9:Q:54:THR:OG1	2.31	0.44
9:Q:164:LEU:HD23	9:Q:164:LEU:HA	1.77	0.44
12:T:114:LYS:HG2	12:T:115:GLY:N	2.31	0.44
12:T:227:TYR:CD2	12:T:228:GLU:OE2	2.70	0.44
15:W:93:HIS:HB2	15:W:98:THR:OG1	2.17	0.44
15:W:113:SER:OG	15:W:120:GLY:CA	2.66	0.44
16:X:128:TYR:CD2	16:X:128:TYR:C	2.91	0.44
16:X:134:LYS:CB	16:X:134:LYS:NZ	2.73	0.44
25:F:122:ILE:HG12	25:F:185:LEU:HG	1.99	0.44
26:G:53:ILE:HG21	26:G:170:GLY:HA3	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:I:92:VAL:HG22	28:I:109:ARG:CZ	2.47	0.44
1:A:354:A:H2'	1:A:355:A:OP2	2.18	0.44
1:A:404:U:O2	1:A:404:U:H2'	2.18	0.44
1:A:416:C:O4'	1:A:418:G:C8	2.71	0.44
1:A:495:A:N3	15:W:122:ILE:HD11	2.33	0.44
1:A:577:G:O6	12:T:203:LYS:HB3	2.18	0.44
1:A:851:U:H2'	1:A:852:U:C6	2.53	0.44
1:A:951:C:N4	1:A:952:A:N6	2.66	0.44
1:A:1289:A:H2'	1:A:1290:A:O4'	2.18	0.44
1:A:1476:G:H2'	1:A:1477:G:C8	2.53	0.44
1:A:1541:U:OP2	1:A:1541:U:C5	2.71	0.44
1:A:1582:A:H2'	1:A:1583:A:H8	1.76	0.44
1:A:1700:A:H2'	1:A:1700:A:N3	2.32	0.44
1:A:1837:U:OP2	19:E:217:ARG:HD2	2.18	0.44
1:A:2157:U:O2	1:A:2163:G:N2	2.46	0.44
1:A:2222:C:H2'	1:A:2223:A:C8	2.53	0.44
1:A:2320:G:C6	1:A:2331:G:O6	2.71	0.44
2:C:42:G:C4	2:C:43:G:C8	3.05	0.44
2:C:89:A:H8	2:C:89:A:O5'	2.01	0.44
3:B:35:A:C3'	3:B:36:A:C8	3.01	0.44
3:B:111:G:C2'	3:B:112:A:H5'	2.48	0.44
5:M:24:ILE:HD13	5:M:33:ALA:HB2	2.00	0.44
19:E:266:ILE:HG22	19:E:268:ARG:H	1.83	0.44
26:G:79:LYS:HZ2	26:G:79:LYS:CA	2.31	0.44
26:G:88:LEU:O	26:G:91:HIS:HB3	2.17	0.44
26:G:185:PRO:CG	26:G:218:LYS:HZ2	2.31	0.44
27:H:61:TYR:HA	27:H:65:MET:HG2	1.99	0.44
1:A:133:A:H3'	1:A:134:A:N7	2.33	0.43
1:A:198:A:H2'	1:A:199:G:C8	2.53	0.43
1:A:863:C:O2	1:A:934:A:N1	2.51	0.43
1:A:877:C:C4	1:A:878:U:O4	2.71	0.43
1:A:887:G:OP2	1:A:887:G:C8	2.70	0.43
1:A:1025:G:OP1	11:S:95:LYS:HD3	2.18	0.43
1:A:1307:A:N6	1:A:1310:C:C2	2.86	0.43
1:A:1480:A:H2	1:A:2720:C:HO2'	1.62	0.43
1:A:1714:A:C4	1:A:1715:A:C8	3.05	0.43
1:A:1959:G:H2'	1:A:1960:U:O2	2.18	0.43
1:A:2006:G:C6	1:A:2011:G:C6	3.06	0.43
1:A:2189:C:O2'	1:A:2190:A:H5'	2.18	0.43
1:A:2190:A:C2	1:A:2191:C:O2	2.71	0.43
1:A:2213:A:H2	1:A:2214:C:C1'	2.30	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2324:G:H4'	1:A:2325:G:O4'	2.17	0.43
1:A:2347:G:H21	16:X:98:GLY:HA2	1.81	0.43
2:C:73:G:C2	2:C:74:C:O2	2.71	0.43
2:C:104:A:N3	2:C:105:A:C8	2.86	0.43
3:B:92:U:O5'	3:B:92:U:C6	2.71	0.43
5:M:18:GLU:HG3	5:M:44:LYS:HB3	1.99	0.43
5:M:19:LEU:HD13	5:M:41:ALA:HB1	2.00	0.43
5:M:71:ARG:HH12	5:M:104:ARG:HH21	1.64	0.43
8:P:72:LYS:O	8:P:75:GLN:HB2	2.18	0.43
11:S:94:ARG:O	11:S:96:ILE:HG12	2.18	0.43
12:T:108:ASN:O	12:T:112:PRO:HD2	2.04	0.43
12:T:188:GLU:HG2	12:T:190:LEU:HD12	2.00	0.43
15:W:67:ARG:NH2	15:W:92:ILE:HG13	2.31	0.43
15:W:69:VAL:CG1	15:W:89:ILE:HD13	2.48	0.43
19:E:161:ILE:HG22	19:E:162:ALA:H	1.83	0.43
19:E:265:PHE:CE1	19:E:266:ILE:CG1	3.01	0.43
25:F:135:ASN:HD21	25:F:177:ASP:HB3	1.83	0.43
25:F:261:ILE:HD12	25:F:261:ILE:HA	1.89	0.43
1:A:136:U:C2	1:A:160:A:C2	3.06	0.43
1:A:160:A:OP1	1:A:160:A:C8	2.70	0.43
1:A:163:G:C6	1:A:164:A:C5	3.06	0.43
1:A:252:C:H6	1:A:252:C:H5"	1.82	0.43
1:A:256:A:C8	1:A:381:C:OP1	2.71	0.43
1:A:265:A:H3'	1:A:266:A:C5'	2.48	0.43
1:A:318:A:H62	1:A:339:A:H62	1.57	0.43
1:A:723:G:H2'	1:A:724:G:C8	2.53	0.43
1:A:823:C:C2	1:A:1271:G:C6	3.06	0.43
1:A:901:C:C6	1:A:901:C:C3'	3.01	0.43
1:A:1187:G:N3	12:T:131:SER:CB	2.81	0.43
1:A:1200:A:H2'	1:A:1201:A:O4'	2.18	0.43
1:A:1451:G:C2	1:A:1598:C:O2	2.71	0.43
1:A:1603:A:C5'	19:E:55:LYS:HD3	2.41	0.43
1:A:1812:A:H2'	1:A:1813:A:H8	1.72	0.43
1:A:1879:U:C5	6:N:252:ARG:CZ	2.98	0.43
1:A:2151:G:C5	1:A:2152:C:H5	2.36	0.43
1:A:2175:C:H4'	1:A:2187:A:P	2.58	0.43
1:A:2219:U:C2'	1:A:2229:U:H3	2.26	0.43
1:A:2416:G:H2'	1:A:2417:G:H8	1.83	0.43
1:A:2579:U:C1'	5:M:23:ARG:NH1	2.78	0.43
3:B:26:A:N1	3:B:27:A:C6	2.86	0.43
4:L:210:LYS:HE2	4:L:210:LYS:HB2	1.87	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:77:ARG:HG2	7:O:78:PRO:O	2.18	0.43
9:Q:103:LYS:HB2	9:Q:126:MET:SD	2.58	0.43
10:R:216:LYS:HG3	10:R:217:ALA:H	1.84	0.43
15:W:130:HIS:CD2	15:W:132:SER:H	2.36	0.43
26:G:69:PHE:CD1	26:G:69:PHE:O	2.70	0.43
27:H:160:ALA:N	27:H:162:PRO:HD2	2.32	0.43
1:A:133:A:H3'	1:A:134:A:C8	2.53	0.43
1:A:333:A:H62	1:A:347:G:H21	1.65	0.43
1:A:355:A:C2'	1:A:356:A:C5'	2.85	0.43
1:A:357:G:H2'	1:A:358:C:H5'	2.01	0.43
1:A:614:G:N1	1:A:615:G:C6	2.86	0.43
1:A:649:A:OP1	6:N:202:GLY:HA3	2.19	0.43
1:A:888:C:H5'	1:A:889:G:C8	2.54	0.43
1:A:1444:A:C6	1:A:1609:U:O4	2.67	0.43
1:A:1480:A:N3	1:A:1480:A:C2'	2.82	0.43
1:A:1522:A:H62	1:A:1544:A:H1'	1.84	0.43
1:A:1603:A:O2'	1:A:1604:A:O4'	2.31	0.43
1:A:1812:A:C6	1:A:1813:A:N6	2.86	0.43
1:A:2291:A:O2'	1:A:2293:G:OP1	2.27	0.43
1:A:2647:A:N3	2:C:98:G:N2	2.66	0.43
2:C:43:G:H2'	2:C:44:U:H6	1.82	0.43
3:B:14:U:O2'	3:B:16:G:N2	2.50	0.43
3:B:30:A:C4	3:B:31:C:C5	3.06	0.43
4:L:141:ALA:O	11:S:102:ILE:HD12	2.18	0.43
7:O:29:PHE:H	7:O:67:ARG:NH1	2.16	0.43
7:O:62:GLY:HA3	7:O:109:VAL:HG23	1.99	0.43
9:Q:127:ILE:O	9:Q:130:SER:OG	2.25	0.43
9:Q:149:HIS:CG	9:Q:150:GLY:N	2.86	0.43
12:T:229:ASP:O	12:T:230:TYR:CD1	2.71	0.43
14:V:111:VAL:HG23	14:V:112:TYR:N	2.33	0.43
15:W:135:MET:SD	15:W:144:ALA:HB1	2.58	0.43
17:Y:75:CYS:HB3	17:Y:78:THR:O	2.18	0.43
25:F:118:LYS:N	25:F:141:TYR:OH	2.51	0.43
26:G:70:LEU:HD22	26:G:252:ILE:CD1	2.49	0.43
1:A:119:A:H2'	1:A:120:G:C8	2.53	0.43
1:A:213:A:O2'	1:A:214:A:OP2	2.28	0.43
1:A:278:G:H8	1:A:278:G:O5'	2.01	0.43
1:A:374:U:C5	1:A:374:U:OP2	2.71	0.43
1:A:488:G:N1	1:A:491:A:OP2	2.48	0.43
1:A:668:U:O5'	1:A:668:U:C6	2.71	0.43
1:A:791:G:H21	1:A:794:A:H62	1.65	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1523:A:H3'	1:A:1524:G:C8	2.54	0.43
1:A:1532:G:C6	1:A:1612:A:H8	2.36	0.43
1:A:1538:G:H2'	1:A:1539:C:C5	2.53	0.43
1:A:1751:A:N1	1:A:1753:A:P	2.91	0.43
1:A:1851:U:C2	1:A:1852:G:C8	3.06	0.43
1:A:1876:A:N6	1:A:1889:G:H21	2.16	0.43
1:A:2075:G:P	26:G:119:LYS:CE	3.01	0.43
1:A:2187:A:C2'	1:A:2188:C:H5'	2.48	0.43
1:A:2193:C:C4	1:A:2194:U:O4	2.71	0.43
1:A:2644:G:H8	1:A:2644:G:O5'	2.01	0.43
2:C:10:C:H2'	2:C:11:A:O4'	2.17	0.43
2:C:44:U:O2'	2:C:45:G:H5'	2.17	0.43
3:B:13:C:O2	3:B:111:G:C2	2.71	0.43
3:B:62:U:H2'	3:B:63:C:H6	1.84	0.43
10:R:185:ARG:HE	10:R:187:ILE:HD11	1.83	0.43
25:F:209:GLN:NE2	25:F:213:LYS:HE2	2.28	0.43
26:G:230:THR:HG23	26:G:233:SER:HB3	2.01	0.43
28:I:79:GLU:OE2	28:I:100:ARG:NH2	2.51	0.43
1:A:71:A:N6	1:A:109:A:HO2'	2.17	0.43
1:A:273:U:C6	1:A:273:U:O5'	2.71	0.43
1:A:273:U:H2'	1:A:274:G:O4'	2.19	0.43
1:A:949:A:C2	1:A:950:A:H1'	2.53	0.43
1:A:969:A:N6	1:A:970:G:C6	2.87	0.43
1:A:1172:C:O2'	1:A:1173:G:H8	2.00	0.43
1:A:1496:A:N6	1:A:1549:A:N6	2.65	0.43
1:A:1822:A:N1	1:A:1823:C:C4	2.87	0.43
1:A:1940:U:O3'	1:A:1941:A:H8	2.02	0.43
1:A:2103:G:C6	1:A:2104:A:C5	3.05	0.43
1:A:2287:G:C4	1:A:2288:G:C8	3.06	0.43
1:A:2642:G:C6	1:A:2643:C:N3	2.86	0.43
1:A:2647:A:C8	2:C:98:G:N1	2.87	0.43
3:B:35:A:H2'	3:B:36:A:C1'	2.48	0.43
4:L:107:HIS:O	4:L:107:HIS:CG	2.70	0.43
5:M:21:CYS:O	5:M:22:ILE:HD13	2.19	0.43
6:N:120:ARG:HG2	6:N:120:ARG:H	1.64	0.43
6:N:129:PHE:HE2	6:N:131:GLY:HA2	1.77	0.43
8:P:12:LYS:O	8:P:13:HIS:C	2.57	0.43
8:P:85:ILE:O	8:P:89:LEU:HB2	2.18	0.43
15:W:100:ILE:HG22	15:W:128:ALA:HA	1.99	0.43
16:X:73:LYS:HG2	16:X:75:GLN:H	1.84	0.43
16:X:141:GLU:C	16:X:142:ILE:CG1	2.85	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Y:129:ILE:HG22	17:Y:137:VAL:HG21	2.01	0.43
25:F:114:VAL:HG13	25:F:275:VAL:CG1	2.48	0.43
25:F:144:LEU:CD1	25:F:166:ARG:NE	2.76	0.43
1:A:218:A:N6	1:A:441:A:H61	2.12	0.43
1:A:538:C:C2	1:A:2797:U:C5	3.07	0.43
1:A:577:G:H8	1:A:577:G:O5'	2.01	0.43
1:A:671:C:H2'	1:A:672:U:C6	2.54	0.43
1:A:890:G:N3	1:A:891:G:C8	2.86	0.43
1:A:907:C:O5'	1:A:907:C:C6	2.70	0.43
1:A:1136:U:H2'	1:A:1137:C:C5'	2.47	0.43
1:A:1225:G:H22	1:A:1262:A:H61	1.65	0.43
1:A:1500:U:H2'	1:A:1501:G:OP1	2.18	0.43
1:A:1611:G:O2'	1:A:1612:A:O5'	2.37	0.43
1:A:1875:G:OP1	6:N:243:LYS:NZ	2.51	0.43
1:A:2123:U:H4'	1:A:2124:G:OP1	2.18	0.43
1:A:2215:C:H2'	1:A:2216:U:H5'	1.99	0.43
1:A:2315:G:C2	1:A:2338:G:C6	3.06	0.43
1:A:2479:U:H2'	1:A:2480:U:O4'	2.18	0.43
3:B:15:A:H2'	3:B:16:G:OP2	2.19	0.43
3:B:77:A:H2'	3:B:78:U:C6	2.54	0.43
6:N:225:LEU:HD23	6:N:232:VAL:HG21	2.00	0.43
7:O:36:ALA:HA	7:O:129:THR:HG22	2.00	0.43
8:P:93:VAL:O	8:P:95:GLU:N	2.52	0.43
9:Q:125:GLU:HG3	9:Q:129:LYS:HE3	2.01	0.43
14:V:149:GLU:OE2	14:V:153:ASN:ND2	2.51	0.43
25:F:125:GLN:HB3	25:F:138:GLN:HB3	2.00	0.43
27:H:59:THR:O	27:H:62:ILE:N	2.46	0.43
28:I:48:ILE:HB	28:I:90:LEU:N	2.31	0.43
1:A:165:C:O5'	1:A:165:C:H6	2.02	0.43
1:A:389:A:H2'	1:A:390:U:H6	1.79	0.43
1:A:624:A:N3	1:A:624:A:H2'	2.33	0.43
1:A:836:G:O2'	6:N:133:GLN:CG	2.65	0.43
1:A:869:G:O2'	1:A:870:U:P	2.75	0.43
1:A:950:A:C2	1:A:951:C:O2	2.71	0.43
1:A:965:G:C2	1:A:966:G:C8	3.07	0.43
1:A:1211:G:OP1	6:N:111:GLY:N	2.50	0.43
1:A:1461:G:H2'	1:A:1462:G:C8	2.54	0.43
1:A:1598:C:C4	1:A:1599:C:N4	2.87	0.43
1:A:1793:A:N1	1:A:2604:A:H2'	2.34	0.43
1:A:1819:A:H2'	1:A:1820:A:C8	2.54	0.43
1:A:1825:A:H5"	19:E:37:LYS:HZ2	1.83	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1849:A:H2'	1:A:1849:A:N3	2.34	0.43
1:A:1887:G:O2'	1:A:1888:G:H5'	2.18	0.43
1:A:2025:U:OP2	13:U:45:LYS:HE3	2.18	0.43
1:A:2088:U:H2'	1:A:2089:U:C6	2.53	0.43
1:A:2120:U:C4	1:A:2198:A:H2	2.37	0.43
1:A:2228:C:H5"	1:A:2229:U:H5'	2.01	0.43
1:A:2536:A:H3'	1:A:2536:A:OP2	2.18	0.43
1:A:2752:G:C6	25:F:297:ILE:C	2.92	0.43
3:B:32:A:C5	3:B:55:G:N1	2.86	0.43
4:L:175:ARG:NH2	4:L:184:LYS:HZ1	1.96	0.43
8:P:31:LEU:HD13	8:P:57:TYR:CE2	2.52	0.43
8:P:93:VAL:C	8:P:95:GLU:N	2.72	0.43
14:V:109:LEU:HD11	14:V:141:ARG:CA	2.49	0.43
14:V:119:ILE:HD12	14:V:135:LEU:HB3	2.01	0.43
16:X:123:VAL:O	16:X:124:LYS:HD2	2.19	0.43
1:A:158:C:H6	1:A:158:C:H5"	1.83	0.43
1:A:1134:G:O5'	1:A:1134:G:C8	2.70	0.43
1:A:1547:C:O5'	1:A:1547:C:H6	2.01	0.43
1:A:1650:A:C8	1:A:1650:A:OP2	2.71	0.43
1:A:2103:G:C6	1:A:2104:A:C6	3.07	0.43
1:A:2213:A:N1	1:A:2214:C:C4	2.86	0.43
1:A:2213:A:N7	1:A:2242:A:N6	2.67	0.43
1:A:2339:A:H8	1:A:2339:A:O5'	2.02	0.43
1:A:2682:A:N3	1:A:2682:A:H2'	2.34	0.43
2:C:37:C:O2'	2:C:38:G:H5"	2.18	0.43
2:C:71:C:C2	10:R:144:ARG:NH2	2.87	0.43
2:C:84:C:H2'	2:C:85:U:H6	1.80	0.43
3:B:32:A:HO2'	3:B:33:C:H5'	1.83	0.43
3:B:34:C:C2'	3:B:35:A:C8	3.01	0.43
3:B:42:C:H2'	3:B:43:C:OP1	2.19	0.43
3:B:62:U:C2	3:B:63:C:C5	3.07	0.43
3:B:71:G:H2'	3:B:72:U:H6	1.83	0.43
3:B:80:C:H2'	3:B:81:U:O4'	2.19	0.43
6:N:165:ILE:HD13	6:N:165:ILE:O	2.18	0.43
13:U:163:LEU:C	13:U:163:LEU:CD2	2.85	0.43
16:X:81:ILE:HG23	16:X:85:GLN:HB2	2.00	0.43
18:Z:88:PHE:CE2	18:Z:92:LEU:HD13	2.54	0.43
25:F:266:ILE:HA	25:F:278:ILE:HD12	2.01	0.43
26:G:177:GLU:HB3	26:G:197:TRP:HZ2	1.84	0.43
27:H:90:ASN:ND2	27:H:206:ASP:HB2	2.33	0.43
1:A:5:A:H2'	1:A:6:A:H8	1.68	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:83:A:C2	1:A:101:A:N7	2.87	0.43
1:A:159:A:H1'	1:A:160:A:P	2.58	0.43
1:A:355:A:N7	1:A:356:A:C5	2.87	0.43
1:A:459:A:H4'	1:A:460:U:O5'	2.18	0.43
1:A:749:G:N2	1:A:770:G:C5	2.87	0.43
1:A:946:A:O2'	1:A:947:A:C8	2.70	0.43
1:A:1047:U:O2'	1:A:1049:A:H2	2.02	0.43
1:A:1269:G:C8	11:S:3:ARG:C	2.92	0.43
1:A:1524:G:C2	1:A:1525:G:C5	3.07	0.43
1:A:1671:A:H2'	1:A:1672:U:O4'	2.18	0.43
1:A:1739:G:H2'	1:A:1740:G:C8	2.54	0.43
1:A:1827:G:H5"	19:E:83:ARG:NE	2.34	0.43
1:A:2075:G:C8	1:A:2518:C:O2'	2.72	0.43
1:A:2180:G:O6	1:A:2184:G:O6	2.36	0.43
1:A:2202:C:C4	1:A:2203:U:O4	2.71	0.43
1:A:2242:A:O2'	1:A:2243:C:P	2.77	0.43
1:A:2654:U:C2	1:A:2800:G:C2	3.07	0.43
3:B:33:C:H6	3:B:33:C:O5'	2.01	0.43
4:L:201:GLU:HG3	4:L:218:PHE:CZ	2.48	0.43
4:L:213:LEU:C	4:L:213:LEU:CD1	2.85	0.43
4:L:217:LEU:CD1	4:L:217:LEU:C	2.85	0.43
4:L:238:ASP:OD1	4:L:238:ASP:N	2.50	0.43
6:N:162:LEU:HG	6:N:203:GLU:CD	2.39	0.43
7:O:58:ALA:O	7:O:60:ARG:N	2.52	0.43
8:P:45:LYS:HD3	8:P:120:MET:HE2	2.00	0.43
8:P:64:LEU:HD23	8:P:76:ALA:HB2	2.01	0.43
8:P:97:TYR:HD1	8:P:100:ARG:HG3	1.84	0.43
8:P:116:ASP:HB2	8:P:118:ALA:HB2	2.00	0.43
10:R:123:MET:SD	25:F:114:VAL:HG21	2.59	0.43
19:E:40:ASN:HA	19:E:44:ILE:O	2.19	0.43
25:F:92:VAL:HG22	25:F:191:PHE:HE2	1.83	0.43
28:I:194:PRO:HG3	28:I:203:ARG:HB3	2.00	0.43
1:A:341:A:N6	1:A:344:C:N3	2.67	0.43
1:A:470:G:O2'	1:A:481:G:O6	2.33	0.43
1:A:501:A:H2'	1:A:501:A:N3	2.34	0.43
1:A:517:G:O2'	1:A:518:A:P	2.77	0.43
1:A:572:U:H5"	1:A:573:G:OP2	2.18	0.43
1:A:821:U:H2'	6:N:108:GLY:HA2	2.00	0.43
1:A:1483:G:H8	1:A:1483:G:O5'	2.01	0.43
1:A:1841:G:C6	1:A:1842:C:N4	2.86	0.43
1:A:2035:A:C5	11:S:25:ARG:NH2	2.82	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2212:A:C2	29:J:77:PHE:HB2	2.54	0.43
1:A:2233:G:C6	1:A:2234:G:O6	2.72	0.43
1:A:2414:A:H2'	1:A:2415:C:C6	2.53	0.43
1:A:2433:C:H2'	1:A:2434:C:C6	2.53	0.43
1:A:2472:G:C4	1:A:2473:C:C5	3.07	0.43
2:C:51:U:H2'	2:C:52:G:O4'	2.18	0.43
2:C:73:G:C2	2:C:74:C:C2	3.07	0.43
3:B:16:G:O3'	3:B:17:G:O4'	2.37	0.43
3:B:18:C:H6	3:B:18:C:H5"	1.83	0.43
6:N:165:ILE:HG23	6:N:166:GLU:N	2.34	0.43
12:T:204:LYS:HD2	12:T:204:LYS:H	1.84	0.43
13:U:26:PRO:C	13:U:28:LYS:H	2.22	0.43
19:E:103:PRO:HG2	19:E:106:ALA:HB2	2.00	0.43
25:F:114:VAL:HA	25:F:276:VAL:O	2.19	0.43
25:F:199:ILE:HB	25:F:291:ARG:O	2.18	0.43
26:G:79:LYS:O	26:G:83:VAL:CG2	2.63	0.43
27:H:99:ASN:OD1	27:H:102:GLY:N	2.52	0.43
27:H:132:VAL:HG22	27:H:138:LEU:HD11	2.01	0.43
28:I:82:VAL:HA	28:I:91:ARG:O	2.18	0.43
1:A:391:G:C6	1:A:408:G:O6	2.72	0.42
1:A:609:G:C5'	26:G:79:LYS:CD	2.67	0.42
1:A:859:A:C4	1:A:860:C:C5	3.07	0.42
1:A:1009:A:H8	1:A:1010:C:C5	2.36	0.42
1:A:1307:A:N6	1:A:1350:U:N3	2.67	0.42
1:A:1478:U:H6	1:A:1478:U:H5"	1.84	0.42
1:A:1527:G:H3'	1:A:1528:U:C6	2.54	0.42
1:A:1527:G:H3'	1:A:1528:U:H5	1.76	0.42
1:A:1757:G:C8	1:A:1757:G:O5'	2.72	0.42
1:A:1852:G:H2'	1:A:1853:C:C6	2.54	0.42
1:A:1897:C:H2'	1:A:1898:G:O4'	2.19	0.42
1:A:2120:U:N3	1:A:2198:A:C2	2.87	0.42
1:A:2198:A:O5'	1:A:2198:A:C8	2.73	0.42
1:A:2229:U:O4	19:E:64:ARG:CZ	2.67	0.42
1:A:2308:U:H5'	1:A:2397:U:H1'	2.01	0.42
3:B:36:A:P	3:B:36:A:H8	2.42	0.42
6:N:143:LEU:HG	6:N:144:ARG:H	1.84	0.42
9:Q:74:CYS:SG	9:Q:85:GLN:HB2	2.59	0.42
11:S:90:LEU:O	11:S:92:LEU:N	2.48	0.42
15:W:140:GLU:OE1	15:W:141:GLN:HG2	2.19	0.42
25:F:159:LYS:C	25:F:159:LYS:CD	2.86	0.42
1:A:297:U:H2'	1:A:298:G:C8	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:366:G:OP2	1:A:366:G:C8	2.72	0.42
1:A:387:G:C3'	1:A:388:C:H5"	2.38	0.42
1:A:524:A:C1'	11:S:11:ARG:HH22	2.31	0.42
1:A:609:G:H4'	26:G:79:LYS:HD2	1.99	0.42
1:A:610:G:P	26:G:79:LYS:HG2	2.59	0.42
1:A:881:U:C2	1:A:916:G:O6	2.71	0.42
1:A:903:G:C2'	1:A:904:U:C5'	2.86	0.42
1:A:1086:G:O6	1:A:1108:C:N3	2.52	0.42
1:A:1142:G:H2'	1:A:1143:C:O4'	2.20	0.42
1:A:1469:G:N1	1:A:1483:G:C6	2.87	0.42
1:A:1541:U:OP2	1:A:1541:U:H5	2.00	0.42
1:A:1603:A:H5'	19:E:55:LYS:CE	2.49	0.42
1:A:1850:G:C5	1:A:1851:U:C5	3.07	0.42
1:A:1870:U:H2'	1:A:1871:U:C6	2.54	0.42
1:A:1879:U:O2	1:A:1887:G:C2	2.71	0.42
1:A:2229:U:O2	1:A:2229:U:H5"	2.19	0.42
1:A:2278:C:H41	16:X:71:ASP:HB3	1.82	0.42
1:A:2381:C:H2'	1:A:2382:G:O4'	2.19	0.42
2:C:88:C:O5'	2:C:88:C:C6	2.70	0.42
3:B:10:G:C2	3:B:114:G:C2	3.07	0.42
3:B:56:U:H1'	27:H:79:LEU:HD21	2.01	0.42
3:B:118:G:OP1	9:Q:102:GLN:OE1	2.37	0.42
4:L:191:LEU:HD12	4:L:191:LEU:N	2.34	0.42
4:L:198:ARG:HA	4:L:201:GLU:HB3	2.01	0.42
4:L:204:VAL:O	4:L:208:LEU:HG	2.18	0.42
6:N:102:HIS:CD2	12:T:205:ASN:HD21	2.35	0.42
6:N:175:GLU:O	6:N:176:VAL:HB	2.19	0.42
7:O:91:GLU:OE1	7:O:92:TYR:CD2	2.72	0.42
8:P:43:ARG:HD2	8:P:122:TYR:CE2	2.53	0.42
9:Q:114:GLY:O	9:Q:119:VAL:HG21	2.18	0.42
12:T:143:TYR:CD1	12:T:216:ILE:HD12	2.51	0.42
12:T:144:THR:HG23	12:T:146:ARG:H	1.84	0.42
15:W:82:GLU:H	15:W:82:GLU:CD	2.12	0.42
15:W:90:SER:CB	15:W:102:LYS:HD3	2.49	0.42
19:E:29:ILE:C	19:E:31:GLY:H	2.15	0.42
25:F:199:ILE:CD1	25:F:282:VAL:HB	2.48	0.42
26:G:89:ILE:HD12	26:G:89:ILE:HA	1.72	0.42
26:G:234:LEU:C	26:G:234:LEU:CD2	2.85	0.42
29:J:50:LYS:HG2	29:J:68:ASP:OD1	2.18	0.42
1:A:138:C:C2	1:A:157:G:N2	2.88	0.42
1:A:226:A:HO2'	1:A:227:G:P	2.42	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:320:U:O2'	1:A:340:A:O2'	2.36	0.42
1:A:387:G:C6	1:A:388:C:N3	2.88	0.42
1:A:682:C:H2'	1:A:683:C:C6	2.54	0.42
1:A:787:G:O2'	1:A:788:G:P	2.77	0.42
1:A:856:U:O2	1:A:856:U:H3'	2.20	0.42
1:A:898:G:C2	1:A:899:A:N6	2.87	0.42
1:A:957:U:C2'	1:A:958:C:H5'	2.49	0.42
1:A:980:G:H2'	1:A:981:G:O4'	2.18	0.42
1:A:1081:C:N3	1:A:1135:A:C6	2.88	0.42
1:A:1533:A:H2'	1:A:1534:A:O4'	2.19	0.42
1:A:1821:G:H2'	1:A:1822:A:H8	1.84	0.42
1:A:2006:G:N1	1:A:2009:U:O4	2.52	0.42
1:A:2078:C:H2'	1:A:2079:C:H6	1.84	0.42
1:A:2215:C:C2'	1:A:2216:U:C5'	2.97	0.42
1:A:2321:G:O2'	27:H:186:ARG:CB	2.65	0.42
1:A:2697:C:H2'	1:A:2698:C:C6	2.54	0.42
2:C:33:A:N3	2:C:33:A:H2'	2.34	0.42
2:C:104:A:C4	2:C:105:A:N7	2.86	0.42
3:B:33:C:H2'	3:B:34:C:C6	2.54	0.42
3:B:56:U:O2'	27:H:77:ASN:OD1	2.26	0.42
3:B:119:G:OP1	9:Q:101:MET:HE2	2.20	0.42
4:L:124:LEU:HD13	4:L:161:VAL:HG11	2.01	0.42
6:N:135:PRO:O	6:N:139:ARG:HG3	2.18	0.42
9:Q:148:TYR:HE2	9:Q:153:LYS:HZ2	1.67	0.42
13:U:94:ASN:HB2	13:U:97:ASN:OD1	2.19	0.42
14:V:105:PRO:O	14:V:106:ARG:C	2.58	0.42
14:V:115:LEU:C	18:Z:91:ARG:HH22	2.22	0.42
14:V:119:ILE:HG22	14:V:121:THR:HG22	2.00	0.42
29:J:69:VAL:HG21	29:J:78:LEU:HD12	2.00	0.42
1:A:81:G:HO2'	1:A:82:G:P	2.38	0.42
1:A:101:A:C5	1:A:102:U:C5	3.07	0.42
1:A:121:G:O2'	1:A:122:U:H5'	2.19	0.42
1:A:379:C:H3'	1:A:379:C:O2	2.19	0.42
1:A:549:A:N6	1:A:565:G:O2'	2.52	0.42
1:A:913:G:C4	1:A:914:A:C8	3.07	0.42
1:A:1028:A:N6	1:A:1182:A:C8	2.87	0.42
1:A:1876:A:O5'	1:A:1876:A:C8	2.70	0.42
1:A:2055:U:H2'	1:A:2056:A:C8	2.54	0.42
1:A:2103:G:C6	1:A:2104:A:N6	2.87	0.42
1:A:2243:C:H2'	1:A:2244:A:O4'	2.20	0.42
3:B:86:G:C6	3:B:87:G:N7	2.87	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:34:LEU:HD11	7:O:129:THR:OG1	2.19	0.42
13:U:57:SER:HA	13:U:99:ILE:HA	2.02	0.42
13:U:67:LEU:HD23	13:U:67:LEU:O	2.20	0.42
16:X:76:ARG:O	16:X:77:LEU:HD23	2.19	0.42
19:E:206:SER:HA	19:E:209:TRP:CD1	2.43	0.42
19:E:266:ILE:HG22	19:E:268:ARG:N	2.34	0.42
25:F:264:LEU:HD11	25:F:280:GLY:HA3	2.00	0.42
26:G:58:LEU:HA	26:G:63:GLU:O	2.19	0.42
26:G:238:ASP:OD1	26:G:238:ASP:N	2.52	0.42
27:H:101:LYS:HA	27:H:104:ASP:HB2	2.02	0.42
1:A:6:A:C8	1:A:6:A:O5'	2.70	0.42
1:A:130:U:O2	1:A:130:U:H3'	2.19	0.42
1:A:176:A:H2'	1:A:177:C:H6	1.85	0.42
1:A:274:G:O6	1:A:433:C:C2'	2.58	0.42
1:A:288:C:C6	1:A:288:C:O5'	2.70	0.42
1:A:337:U:H3	1:A:341:A:H62	1.67	0.42
1:A:605:C:H2'	1:A:606:A:H8	1.84	0.42
1:A:906:C:O5'	1:A:906:C:C6	2.70	0.42
1:A:1168:U:OP1	4:L:123:ILE:CD1	2.68	0.42
1:A:1444:A:O2'	1:A:1534:A:H1'	2.20	0.42
1:A:1524:G:HO2'	1:A:1525:G:H5'	1.82	0.42
1:A:1537:U:C4	1:A:1538:G:O6	2.72	0.42
1:A:2236:C:C3'	1:A:2237:A:C5'	2.93	0.42
2:C:37:C:C3'	2:C:38:G:C5'	2.98	0.42
9:Q:87:ILE:HG22	9:Q:94:THR:HG22	2.01	0.42
10:R:157:GLU:OE1	10:R:161:ARG:NH1	2.53	0.42
11:S:62:ILE:O	11:S:66:ASN:HB2	2.19	0.42
13:U:150:GLU:O	13:U:152:LEU:HG	2.19	0.42
19:E:42:ARG:HG2	19:E:43:GLY:H	1.84	0.42
25:F:119:GLU:OE1	25:F:120:GLY:N	2.42	0.42
1:A:144:A:O3'	1:A:145:A:O4'	2.36	0.42
1:A:319:G:C5	1:A:321:G:C6	3.07	0.42
1:A:420:A:N1	1:A:432:G:C2	2.88	0.42
1:A:591:C:C2	1:A:1281:G:N2	2.88	0.42
1:A:633:A:C2'	1:A:634:G:H5'	2.49	0.42
1:A:880:U:O2'	1:A:881:U:H5'	2.20	0.42
1:A:891:G:N2	1:A:892:C:O2	2.53	0.42
1:A:1429:C:H2'	1:A:1430:C:H5'	2.00	0.42
1:A:1500:U:C3'	1:A:1500:U:C6	3.02	0.42
1:A:1528:U:O2'	1:A:1529:A:H5'	2.19	0.42
1:A:1588:U:C2	1:A:1670:A:N7	2.85	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1697:U:C2	1:A:2014:G:N2	2.88	0.42
1:A:1812:A:C2'	1:A:1813:A:H5'	2.48	0.42
1:A:1828:U:H6	1:A:1828:U:O5'	2.03	0.42
3:B:17:G:C2	3:B:70:G:H1'	2.40	0.42
3:B:42:C:P	3:B:43:C:C5	3.13	0.42
4:L:121:ASP:O	4:L:122:LEU:HD23	2.20	0.42
4:L:203:ALA:O	4:L:207:MET:HG2	2.19	0.42
10:R:194:ILE:HG22	10:R:195:VAL:N	2.34	0.42
11:S:91:LEU:HD23	11:S:91:LEU:HA	1.86	0.42
12:T:233:SER:O	12:T:234:THR:HG23	2.18	0.42
16:X:67:LYS:O	16:X:69:GLY:N	2.47	0.42
16:X:75:GLN:OE1	16:X:76:ARG:N	2.47	0.42
18:Z:77:ASN:HD21	18:Z:140:TRP:HE1	1.66	0.42
19:E:42:ARG:NH2	19:E:44:ILE:HD13	2.34	0.42
19:E:140:ILE:HD13	19:E:180:ILE:HD13	2.02	0.42
25:F:119:GLU:CD	25:F:120:GLY:N	2.73	0.42
26:G:190:PHE:O	26:G:193:ALA:HB3	2.19	0.42
1:A:133:A:C6	1:A:162:A:C2	2.80	0.42
1:A:307:C:H2'	1:A:308:G:O4'	2.20	0.42
1:A:356:A:N3	1:A:357:G:C8	2.87	0.42
1:A:394:G:N2	1:A:405:C:C4	2.87	0.42
1:A:582:A:H5'	12:T:202:LYS:NZ	2.35	0.42
1:A:823:C:HO2'	1:A:824:U:H5'	1.80	0.42
1:A:845:C:C2	1:A:846:A:C8	3.07	0.42
1:A:878:U:H6	1:A:878:U:O5'	2.03	0.42
1:A:881:U:C2	1:A:916:G:C6	3.08	0.42
1:A:943:C:H6	1:A:943:C:H5"	1.85	0.42
1:A:964:C:C4	1:A:965:G:C8	3.07	0.42
1:A:1017:G:HO2'	1:A:1018:A:P	2.43	0.42
1:A:1070:G:C2	1:A:1071:C:C2	3.08	0.42
1:A:1637:G:OP1	14:V:166:ILE:HG21	2.19	0.42
1:A:1691:A:H62	1:A:2019:G:N2	2.16	0.42
1:A:1804:U:C2	1:A:1805:C:C5	3.08	0.42
1:A:1882:U:O5'	1:A:1882:U:H6	2.03	0.42
1:A:2211:U:O4	1:A:2241:G:N3	2.53	0.42
1:A:2233:G:C2	1:A:2234:G:C6	3.07	0.42
1:A:2485:A:N6	1:A:2498:G:C5	2.88	0.42
1:A:2565:G:H4'	5:M:31:ARG:HH22	1.84	0.42
1:A:2804:U:C4	1:A:2805:C:C5	3.08	0.42
2:C:63:G:O5'	2:C:63:G:H8	2.02	0.42
2:C:78:G:C2	2:C:79:G:C8	3.08	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:75:C:H2'	3:B:76:G:O4'	2.20	0.42
6:N:97:ARG:NH1	6:N:100:ARG:CG	2.82	0.42
13:U:88:SER:O	13:U:92:GLN:HA	2.20	0.42
27:H:107:ILE:HA	27:H:118:PRO:HG3	2.00	0.42
1:A:131:C:C5	14:V:104:TYR:CD2	3.06	0.42
1:A:154:C:H5'	1:A:154:C:H6	1.85	0.42
1:A:167:A:H2'	1:A:168:C:H6	1.84	0.42
1:A:419:C:H2'	1:A:420:A:H8	1.84	0.42
1:A:524:A:C1'	11:S:11:ARG:NH2	2.80	0.42
1:A:1192:A:H2'	1:A:1193:U:H6	1.83	0.42
1:A:1526:G:H8	1:A:1526:G:O5'	2.01	0.42
1:A:1691:A:O5'	1:A:1691:A:C8	2.70	0.42
1:A:1805:C:H2'	1:A:1806:U:C6	2.53	0.42
1:A:2033:A:OP2	1:A:2033:A:H8	2.03	0.42
1:A:2425:U:N3	1:A:2426:G:N7	2.68	0.42
1:A:2600:G:H2'	1:A:2601:U:O4'	2.20	0.42
1:A:2678:G:H8	1:A:2678:G:OP2	2.03	0.42
2:C:74:C:H4'	8:P:75:GLN:NE2	2.34	0.42
3:B:79:A:H4'	7:O:21:SER:CB	2.50	0.42
5:M:8:LEU:HD12	5:M:8:LEU:N	2.34	0.42
5:M:11:ALA:O	5:M:99:PHE:N	2.34	0.42
6:N:157:TYR:HB2	6:N:196:LEU:HD22	2.01	0.42
8:P:38:LEU:HD22	8:P:58:VAL:HG21	2.02	0.42
16:X:120:ASP:OD1	16:X:120:ASP:N	2.53	0.42
25:F:142:GLU:O	25:F:144:LEU:HG	2.20	0.42
26:G:58:LEU:HA	26:G:58:LEU:HD13	1.93	0.42
27:H:181:TYR:CE1	27:H:219:ALA:HB3	2.55	0.42
28:I:52:ALA:O	28:I:54:VAL:HG23	2.20	0.42
1:A:106:G:H2'	1:A:107:A:O4'	2.20	0.42
1:A:253:C:H2'	1:A:254:U:O2	2.20	0.42
1:A:354:A:O2'	1:A:355:A:O5'	2.37	0.42
1:A:523:G:HO2'	1:A:524:A:H8	1.68	0.42
1:A:632:G:C8	1:A:634:G:O6	2.73	0.42
1:A:679:G:H2'	1:A:681:A:H62	1.84	0.42
1:A:1006:G:HO2'	1:A:1030:G:HO2'	1.64	0.42
1:A:1477:G:C2	1:A:1478:U:O2	2.73	0.42
1:A:1625:A:H3'	1:A:1626:A:C8	2.55	0.42
1:A:1852:G:H2'	1:A:1853:C:H6	1.85	0.42
1:A:2116:C:H42	1:A:2201:G:N2	2.17	0.42
1:A:2424:G:H2'	1:A:2425:U:C6	2.55	0.42
1:A:2442:A:H4'	1:A:2443:A:O5'	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2574:G:O2'	1:A:2575:C:H5'	2.19	0.42
3:B:110:C:C3'	3:B:110:C:C6	3.03	0.42
12:T:110:PHE:HD1	12:T:111:LEU:HD23	1.84	0.42
29:J:76:ASN:O	29:J:80:PRO:CB	2.65	0.42
1:A:208:A:H4'	1:A:432:G:O2'	2.20	0.42
1:A:275:U:H3'	1:A:275:U:O2	2.19	0.42
1:A:289:A:HO2'	1:A:290:A:H5'	1.81	0.42
1:A:306:G:H2'	1:A:307:C:C6	2.55	0.42
1:A:613:U:C3'	1:A:613:U:C6	3.02	0.42
1:A:689:C:H2'	1:A:690:U:H6	1.85	0.42
1:A:1531:A:N3	1:A:1531:A:C2'	2.79	0.42
1:A:1736:A:H2'	1:A:1737:A:H5'	2.02	0.42
1:A:1803:G:H2'	1:A:1804:U:C6	2.55	0.42
1:A:1885:C:N4	6:N:253:ALA:HA	2.32	0.42
1:A:2220:G:C4	1:A:2221:U:C6	3.08	0.42
1:A:2308:U:H2'	1:A:2309:U:C6	2.55	0.42
1:A:2322:A:C5	27:H:186:ARG:CD	2.88	0.42
4:L:168:ARG:HH22	4:L:192:GLN:CD	2.22	0.42
9:Q:122:LYS:O	9:Q:125:GLU:HB3	2.19	0.42
16:X:122:LEU:CD1	16:X:140:ARG:CB	2.98	0.42
19:E:172:LEU:C	19:E:172:LEU:HD12	2.40	0.42
19:E:258:ARG:HA	19:E:258:ARG:CZ	2.50	0.42
25:F:147:ARG:O	25:F:149:LEU:N	2.53	0.42
26:G:204:LYS:HZ1	26:G:241:ASN:HB3	1.85	0.42
28:I:123:PHE:CE1	28:I:178:LYS:HE3	2.55	0.42
1:A:127:C:H2'	1:A:128:U:H6	1.82	0.41
1:A:298:G:H2'	1:A:299:C:C6	2.46	0.41
1:A:497:C:H2'	1:A:498:C:C6	2.55	0.41
1:A:545:U:O2'	11:S:49:ASP:CG	2.53	0.41
1:A:944:C:C3'	1:A:944:C:C6	3.02	0.41
1:A:963:U:O5'	1:A:963:U:H6	2.03	0.41
1:A:1065:G:O2'	1:A:1066:G:H8	2.03	0.41
1:A:1506:U:H2'	1:A:1507:G:O4'	2.20	0.41
1:A:1524:G:O5'	1:A:1524:G:C8	2.73	0.41
1:A:1693:U:OP1	25:F:229:HIS:O	2.38	0.41
1:A:1877:C:N3	1:A:1878:C:C5	2.88	0.41
1:A:1878:C:C4	1:A:1879:U:O4	2.72	0.41
1:A:1985:A:H1'	19:E:236:PRO:HB3	2.02	0.41
1:A:2142:G:O2'	1:A:2188:C:C4'	2.68	0.41
3:B:14:U:H3'	3:B:15:A:C8	2.54	0.41
7:O:17:MET:SD	7:O:96:VAL:HG13	2.59	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:T:181:ALA:HB3	12:T:225:THR:HG21	1.99	0.41
16:X:145:GLU:C	16:X:146:ASN:ND2	2.73	0.41
19:E:259:ASN:N	19:E:259:ASN:ND2	2.60	0.41
1:A:226:A:H1'	1:A:228:U:C5	2.54	0.41
1:A:278:G:O5'	1:A:278:G:C8	2.73	0.41
1:A:671:C:C4	1:A:672:U:O4	2.73	0.41
1:A:879:G:C2	1:A:880:U:O2	2.73	0.41
1:A:919:A:N6	1:A:920:A:N6	2.68	0.41
1:A:1134:G:O2'	1:A:1135:A:H5'	2.20	0.41
1:A:1482:C:C3'	1:A:1482:C:C6	3.03	0.41
1:A:1650:A:C8	1:A:1650:A:O5'	2.71	0.41
1:A:1651:C:OP2	1:A:1653:C:C5	2.73	0.41
1:A:1693:U:H2'	1:A:1694:C:C6	2.56	0.41
1:A:2109:C:C5	1:A:2110:U:C6	3.05	0.41
1:A:2120:U:N3	1:A:2198:A:H2	2.18	0.41
1:A:2351:G:N3	9:Q:64:VAL:HG22	2.31	0.41
1:A:2479:U:C5	1:A:2505:A:C2	3.08	0.41
1:A:2524:C:C2	1:A:2600:G:C2	3.08	0.41
1:A:2798:G:N1	4:L:201:GLU:CD	2.61	0.41
2:C:78:G:H2'	2:C:79:G:H8	1.84	0.41
6:N:158:VAL:HG11	6:N:201:LEU:HD11	2.02	0.41
7:O:72:LYS:HB2	7:O:72:LYS:HE3	1.87	0.41
9:Q:100:THR:O	9:Q:100:THR:HG22	2.21	0.41
11:S:80:LYS:HG3	11:S:83:HIS:ND1	2.35	0.41
13:U:168:ARG:HD3	13:U:168:ARG:HA	1.62	0.41
14:V:131:GLU:O	14:V:132:ASN:HB2	2.20	0.41
19:E:115:GLY:O	19:E:127:PRO:HD3	2.20	0.41
26:G:97:ARG:O	26:G:99:THR:HG22	2.20	0.41
27:H:109:GLU:O	27:H:113:ILE:HD12	2.20	0.41
1:A:82:G:C6	1:A:100:G:C6	3.08	0.41
1:A:133:A:C4	1:A:134:A:N7	2.88	0.41
1:A:704:A:H2'	1:A:705:U:O4'	2.21	0.41
1:A:720:U:H2'	1:A:721:U:C6	2.55	0.41
1:A:822:U:O2	6:N:99:GLY:O	2.37	0.41
1:A:885:G:C2	1:A:886:U:C2	3.08	0.41
1:A:1471:A:HO2'	1:A:1472:A:P	2.30	0.41
1:A:1539:C:H2'	1:A:1540:C:H6	1.70	0.41
1:A:1600:A:H5"	19:E:210:LEU:CD2	2.50	0.41
1:A:1698:C:O2'	1:A:2704:U:H5"	2.20	0.41
1:A:1993:C:O2'	1:A:1994:G:H5'	2.20	0.41
1:A:2211:U:C4	1:A:2241:G:N1	2.88	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2324:G:H4'	1:A:2325:G:C5'	2.46	0.41
1:A:2422:G:HO2'	1:A:2423:A:P	2.42	0.41
3:B:35:A:C2'	3:B:36:A:C8	3.01	0.41
3:B:57:U:H4'	3:B:58:A:O5'	2.19	0.41
3:B:89:A:O5'	3:B:89:A:C8	2.70	0.41
5:M:1:MET:SD	5:M:32:TYR:HD1	2.42	0.41
6:N:80:PHE:CD1	6:N:85:LEU:CD2	3.03	0.41
6:N:153:GLY:O	6:N:154:LEU:CB	2.68	0.41
9:Q:81:HIS:O	9:Q:82:LEU:HD12	2.21	0.41
10:R:152:ARG:HH21	10:R:164:VAL:HG22	1.85	0.41
11:S:32:THR:HA	11:S:35:ILE:CG1	2.50	0.41
11:S:52:ARG:CD	11:S:55:ARG:HH11	2.32	0.41
14:V:132:ASN:OD1	14:V:183:ASN:HA	2.20	0.41
19:E:153:ALA:O	19:E:191:VAL:HG11	2.20	0.41
26:G:52:LEU:HD22	26:G:71:ASN:HA	2.02	0.41
29:J:74:LEU:HA	29:J:78:LEU:HD12	2.03	0.41
1:A:95:G:OP1	18:Z:100:PHE:HE1	2.04	0.41
1:A:320:U:O4'	1:A:341:A:N3	2.53	0.41
1:A:381:C:N3	1:A:416:C:C5	2.88	0.41
1:A:393:G:N2	1:A:406:C:C2	2.88	0.41
1:A:795:U:H5"	19:E:222:ASN:OD1	2.17	0.41
1:A:873:A:C2'	1:A:874:G:H5'	2.50	0.41
1:A:891:G:C2	1:A:892:C:N3	2.88	0.41
1:A:1031:G:N2	1:A:1180:C:C2	2.89	0.41
1:A:1269:G:C8	11:S:3:ARG:HB3	2.54	0.41
1:A:1783:A:N7	1:A:1839:A:H1'	2.35	0.41
1:A:1830:U:C5'	1:A:1831:G:N7	2.82	0.41
1:A:1857:A:H4'	1:A:1858:A:C8	2.56	0.41
1:A:2335:C:C3'	1:A:2335:C:C6	3.03	0.41
1:A:2702:G:C2	1:A:2703:G:N7	2.89	0.41
2:C:53:G:H2'	2:C:70:G:N2	2.35	0.41
3:B:45:G:H1'	3:B:48:C:N4	2.35	0.41
3:B:111:G:H2'	3:B:112:A:H5'	2.02	0.41
6:N:162:LEU:O	6:N:166:GLU:CB	2.69	0.41
10:R:187:ILE:HD12	10:R:187:ILE:HG23	1.79	0.41
11:S:17:ILE:O	11:S:20:PHE:N	2.54	0.41
13:U:163:LEU:O	13:U:164:MET:SD	2.79	0.41
18:Z:120:ARG:HD2	18:Z:120:ARG:HA	1.58	0.41
19:E:83:ARG:HG3	19:E:84:ASN:N	2.34	0.41
19:E:129:THR:HG22	19:E:182:LYS:HB2	2.02	0.41
19:E:144:LEU:HD12	19:E:144:LEU:H	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:E:155:GLY:N	19:E:191:VAL:HG13	2.32	0.41
26:G:146:ARG:CZ	26:G:148:TRP:CE3	3.03	0.41
28:I:56:ILE:HG21	28:I:90:LEU:HD21	2.02	0.41
1:A:23:G:H2'	1:A:24:U:H6	1.83	0.41
1:A:229:A:H2'	1:A:230:G:O4'	2.20	0.41
1:A:236:A:H8	1:A:236:A:O5'	2.03	0.41
1:A:383:A:O2'	17:Y:131:LYS:NZ	2.52	0.41
1:A:539:A:H5'	4:L:212:ARG:NE	2.34	0.41
1:A:622:G:OP2	1:A:622:G:H8	2.02	0.41
1:A:634:G:OP1	6:N:190:SER:O	2.39	0.41
1:A:668:U:H3'	1:A:668:U:H6	1.85	0.41
1:A:856:U:O4	1:A:962:G:C6	2.61	0.41
1:A:964:C:H5"	1:A:964:C:H6	1.85	0.41
1:A:1036:U:HO2'	1:A:1037:A:H8	1.69	0.41
1:A:1076:A:H2'	1:A:1077:C:C6	2.54	0.41
1:A:1153:G:C5	1:A:1154:A:C8	3.08	0.41
1:A:1189:G:H1'	12:T:145:GLN:HE21	1.85	0.41
1:A:1669:G:C6	1:A:1671:A:C6	3.09	0.41
1:A:1808:C:C2	1:A:1829:A:N6	2.88	0.41
1:A:1949:G:H1'	1:A:1978:G:N2	2.36	0.41
1:A:2292:C:OP2	16:X:70:ARG:NE	2.53	0.41
1:A:2742:C:OP1	25:F:206:LYS:NZ	2.37	0.41
1:A:2804:U:OP1	25:F:159:LYS:CB	2.68	0.41
2:C:32:C:H1'	2:C:33:A:OP1	2.20	0.41
2:C:69:U:H6	2:C:69:U:O5'	2.03	0.41
2:C:84:C:C2'	2:C:85:U:H5'	2.50	0.41
3:B:11:U:O5'	3:B:11:U:C6	2.71	0.41
3:B:19:G:H2'	3:B:20:U:H6	1.85	0.41
3:B:36:A:C2	3:B:50:U:C2	3.09	0.41
3:B:39:C:H3'	3:B:40:A:C8	2.54	0.41
3:B:86:G:H2'	3:B:87:G:H5'	2.02	0.41
3:B:118:G:O2'	3:B:119:G:P	2.79	0.41
4:L:168:ARG:HA	4:L:188:PHE:HD2	1.86	0.41
5:M:69:LEU:O	5:M:76:ILE:HA	2.20	0.41
11:S:92:LEU:HD13	11:S:94:ARG:NH1	2.34	0.41
12:T:228:GLU:CD	12:T:228:GLU:N	2.73	0.41
13:U:39:ILE:O	13:U:41:MET:N	2.52	0.41
19:E:126:LEU:O	19:E:126:LEU:HD12	2.20	0.41
25:F:136:ALA:CB	25:F:172:ARG:HA	2.51	0.41
1:A:22:G:C4	1:A:529:G:N2	2.88	0.41
1:A:99:A:O5'	1:A:99:A:C8	2.73	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:490:A:N3	15:W:107:LYS:HE3	2.35	0.41
1:A:751:C:H5'	1:A:1794:A:H2'	2.01	0.41
1:A:858:G:C6	1:A:859:A:N6	2.89	0.41
1:A:861:A:C2	1:A:862:U:C2	3.08	0.41
1:A:899:A:C2	1:A:900:G:C8	3.09	0.41
1:A:910:A:C8	1:A:910:A:O5'	2.70	0.41
1:A:1201:A:H2'	1:A:1202:A:H8	1.85	0.41
1:A:1311:C:H2'	1:A:1312:A:C8	2.53	0.41
1:A:1425:C:C2	1:A:1426:U:C5	3.08	0.41
1:A:1692:C:OP1	25:F:230:ARG:HD3	2.20	0.41
1:A:2176:A:OP1	1:A:2185:A:H2'	2.20	0.41
1:A:2223:A:N6	1:A:2233:G:N1	2.69	0.41
1:A:2247:C:H5"	17:Y:100:PHE:CD1	2.55	0.41
1:A:2430:G:H2'	1:A:2431:G:O4'	2.21	0.41
1:A:2654:U:C2	1:A:2800:G:N2	2.88	0.41
1:A:2806:U:H1'	2:C:5:A:H2	1.86	0.41
2:C:78:G:N3	2:C:79:G:C8	2.89	0.41
5:M:118:PRO:HG2	5:M:119:GLU:OE1	2.20	0.41
9:Q:128:ALA:HB1	9:Q:162:HIS:HB2	2.01	0.41
10:R:140:VAL:HG23	10:R:206:ILE:HG12	2.02	0.41
11:S:108:ILE:HA	11:S:108:ILE:HD12	1.85	0.41
15:W:67:ARG:HH22	15:W:92:ILE:HG12	1.86	0.41
16:X:162:ARG:HG3	16:X:163:GLU:H	1.86	0.41
26:G:210:MET:HG2	26:G:251:THR:HG23	2.02	0.41
28:I:198:LYS:HE2	28:I:200:LYS:HB3	2.03	0.41
1:A:143:G:N3	1:A:2224:G:C2	2.89	0.41
1:A:166:A:C2	1:A:446:U:H1'	2.55	0.41
1:A:493:G:O2'	1:A:494:A:OP2	2.39	0.41
1:A:501:A:H62	13:U:78:LYS:HZ2	1.68	0.41
1:A:899:A:H1'	1:A:900:G:OP1	2.21	0.41
1:A:1087:G:H1	1:A:1107:C:N4	2.15	0.41
1:A:1464:U:H2'	1:A:1465:A:O4'	2.20	0.41
1:A:1479:U:O2	1:A:2719:G:N2	2.54	0.41
1:A:2204:A:C2'	1:A:2205:G:H5'	2.50	0.41
1:A:2207:A:N3	1:A:2208:U:C2	2.89	0.41
1:A:2211:U:H6	1:A:2211:U:H5"	1.84	0.41
1:A:2403:U:H4'	16:X:112:ASP:HA	2.01	0.41
2:C:33:A:H1'	2:C:34:U:OP1	2.21	0.41
2:C:60:A:H2'	2:C:61:G:O4'	2.21	0.41
3:B:35:A:H3'	3:B:36:A:C8	2.55	0.41
3:B:90:G:H2'	3:B:91:G:O5'	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:R:126:LEU:HD23	10:R:126:LEU:HA	1.90	0.41
12:T:171:TYR:HE2	12:T:231:PRO:HB3	0.78	0.41
17:Y:129:ILE:CG1	17:Y:130:GLU:N	2.84	0.41
18:Z:68:LEU:HG	18:Z:115:MET:SD	2.61	0.41
25:F:126:VAL:HG12	25:F:181:PRO:HB3	2.03	0.41
25:F:203:THR:OG1	25:F:204:ILE:N	2.53	0.41
26:G:71:ASN:ND2	26:G:71:ASN:C	2.73	0.41
1:A:665:U:H2'	1:A:666:U:C5'	2.51	0.41
1:A:722:G:O6	1:A:732:A:C6	2.74	0.41
1:A:859:A:C6	1:A:860:C:N4	2.89	0.41
1:A:867:G:H2'	1:A:868:G:O4'	2.21	0.41
1:A:885:G:C6	1:A:886:U:N3	2.88	0.41
1:A:1082:A:C6	1:A:1134:G:C6	3.09	0.41
1:A:1307:A:N6	1:A:1350:U:C2	2.88	0.41
1:A:1750:C:O5'	1:A:1750:C:C6	2.71	0.41
1:A:1809:G:P	19:E:256:ARG:HD3	2.61	0.41
1:A:1886:A:C3'	1:A:1887:G:H5'	2.49	0.41
1:A:1888:G:O6	1:A:1889:G:C6	2.73	0.41
1:A:2012:G:H2'	1:A:2013:A:C8	2.55	0.41
1:A:2107:G:N2	1:A:2108:G:C8	2.89	0.41
1:A:2120:U:C4	1:A:2198:A:C2	3.09	0.41
1:A:2150:G:H22	1:A:2151:G:N2	2.19	0.41
1:A:2199:G:C6	1:A:2200:A:C8	3.08	0.41
1:A:2212:A:O2'	1:A:2213:A:P	2.79	0.41
1:A:2223:A:O3'	1:A:2224:G:H8	2.04	0.41
1:A:2227:C:H2'	1:A:2228:C:H5'	2.02	0.41
1:A:2242:A:H1'	1:A:2243:C:H5	1.86	0.41
1:A:2642:G:C4	1:A:2643:C:C2	3.09	0.41
2:C:13:G:H21	2:C:40:U:H1'	1.85	0.41
3:B:35:A:C8	3:B:35:A:O5'	2.70	0.41
6:N:198:LEU:HD23	6:N:199:LYS:CA	2.50	0.41
10:R:218:ARG:HD3	10:R:220:TYR:OH	2.20	0.41
11:S:57:PHE:HD1	11:S:57:PHE:HA	1.70	0.41
12:T:116:PRO:N	12:T:117:PRO:HD2	2.32	0.41
17:Y:82:SER:CB	17:Y:100:PHE:HB3	2.51	0.41
19:E:61:ILE:HG12	19:E:83:ARG:HH22	1.86	0.41
19:E:135:THR:HG22	19:E:136:ALA:N	2.35	0.41
27:H:157:ILE:HD13	27:H:227:GLY:H	1.86	0.41
28:I:74:ILE:HD12	28:I:115:MET:CG	2.51	0.41
28:I:139:GLU:O	28:I:141:LYS:N	2.52	0.41
1:A:17:C:C5'	11:S:25:ARG:HA	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:44:G:C8	1:A:200:G:O2'	2.41	0.41
1:A:151:G:C4	1:A:152:G:N7	2.88	0.41
1:A:261:U:N3	1:A:266:A:N6	2.68	0.41
1:A:274:G:N3	1:A:276:G:C8	2.89	0.41
1:A:290:A:C2	1:A:291:G:N7	2.88	0.41
1:A:341:A:C6	1:A:344:C:C4	3.08	0.41
1:A:355:A:C5	1:A:356:A:C5	3.09	0.41
1:A:359:A:C6	1:A:360:U:O4	2.74	0.41
1:A:367:C:OP2	1:A:367:C:H6	2.03	0.41
1:A:384:G:O3'	1:A:385:U:C6	2.73	0.41
1:A:434:A:O5'	1:A:434:A:C8	2.70	0.41
1:A:501:A:H62	13:U:78:LYS:NZ	2.19	0.41
1:A:537:U:O2'	1:A:2057:C:O2'	2.30	0.41
1:A:627:C:O2'	1:A:628:A:P	2.79	0.41
1:A:897:A:OP2	1:A:897:A:C8	2.70	0.41
1:A:1049:A:H62	1:A:1168:U:H3	1.67	0.41
1:A:1257:G:H5"	1:A:1258:A:OP1	2.21	0.41
1:A:1337:U:C2	1:A:1338:C:C5	3.09	0.41
1:A:1461:G:N1	1:A:1586:G:N7	2.69	0.41
1:A:1474:A:O2'	1:A:1475:U:P	2.79	0.41
1:A:1495:C:N4	1:A:1548:A:C6	2.88	0.41
1:A:1607:G:H2'	1:A:1607:G:N3	2.36	0.41
1:A:1752:C:C3'	1:A:1752:C:C6	3.03	0.41
1:A:1756:G:C8	1:A:1756:G:O5'	2.74	0.41
1:A:1756:G:N2	1:A:1757:G:C4	2.88	0.41
1:A:1829:A:H1'	1:A:1830:U:OP2	2.21	0.41
1:A:1876:A:H62	1:A:1889:G:N2	2.19	0.41
1:A:1944:G:O2'	1:A:1945:U:O5'	2.36	0.41
1:A:1966:A:N6	5:M:22:ILE:HD12	2.36	0.41
1:A:2113:G:H1	1:A:2204:A:N6	2.17	0.41
1:A:2150:G:N1	1:A:2151:G:N1	2.69	0.41
1:A:2210:C:O2'	1:A:2211:U:P	2.79	0.41
1:A:2222:C:H2'	1:A:2223:A:N9	2.35	0.41
1:A:2229:U:H5	19:E:64:ARG:NH1	2.16	0.41
1:A:2320:G:C3'	27:H:175:PHE:HA	2.51	0.41
1:A:2808:C:C3'	1:A:2808:C:C6	3.04	0.41
2:C:75:U:O4	2:C:76:G:C6	2.74	0.41
2:C:88:C:H6	2:C:88:C:OP2	2.03	0.41
3:B:7:G:O4'	3:B:8:G:OP1	2.38	0.41
3:B:13:C:H1'	3:B:111:G:N2	2.36	0.41
3:B:14:U:O2'	3:B:15:A:P	2.79	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:36:A:N6	3:B:45:G:N9	2.68	0.41
3:B:38:C:C5	3:B:39:C:N3	2.89	0.41
4:L:103:LYS:HD3	11:S:102:ILE:HD13	2.01	0.41
4:L:176:HIS:CD2	4:L:177:SER:O	2.73	0.41
6:N:154:LEU:HD23	6:N:154:LEU:HA	1.94	0.41
9:Q:49:ARG:O	9:Q:53:ARG:N	2.52	0.41
16:X:75:GLN:CD	16:X:76:ARG:N	2.73	0.41
16:X:133:LYS:CE	16:X:133:LYS:N	2.84	0.41
17:Y:107:ARG:HA	17:Y:117:VAL:O	2.20	0.41
18:Z:105:PHE:HE2	18:Z:109:ARG:HE	1.67	0.41
19:E:42:ARG:O	19:E:44:ILE:N	2.54	0.41
25:F:154:ARG:O	25:F:158:ASN:CG	2.58	0.41
26:G:177:GLU:HB3	26:G:197:TRP:CZ2	2.56	0.41
26:G:213:VAL:O	26:G:216:VAL:HG22	2.21	0.41
27:H:199:VAL:HG12	27:H:201:LYS:H	1.86	0.41
27:H:217:LYS:HE3	27:H:217:LYS:HB3	1.86	0.41
29:J:70:ARG:HA	29:J:70:ARG:HD3	1.69	0.41
1:A:118:U:C5	1:A:133:A:C2	3.09	0.41
1:A:130:U:H2'	1:A:131:C:OP1	2.21	0.41
1:A:151:G:C8	1:A:151:G:O5'	2.73	0.41
1:A:165:C:H6	1:A:165:C:H3'	1.86	0.41
1:A:290:A:C2	1:A:291:G:C6	3.09	0.41
1:A:293:G:C2	1:A:366:G:C2	3.09	0.41
1:A:355:A:C8	1:A:356:A:O4'	2.70	0.41
1:A:389:A:C6	1:A:410:G:C2	3.09	0.41
1:A:668:U:O5'	1:A:668:U:H6	2.04	0.41
1:A:828:C:O2'	1:A:850:G:OP1	2.35	0.41
1:A:1269:G:H8	11:S:3:ARG:HB3	1.84	0.41
1:A:1453:G:N2	1:A:1596:U:C2	2.89	0.41
1:A:1549:A:C6	1:A:1550:U:O2	2.74	0.41
1:A:1558:U:H2'	1:A:1559:A:C8	2.56	0.41
1:A:1603:A:OP1	19:E:25:ARG:NH2	2.52	0.41
1:A:1829:A:OP1	19:E:151:ALA:CA	2.59	0.41
1:A:1848:C:H5'	1:A:1849:A:OP1	2.21	0.41
1:A:2320:G:O2'	27:H:175:PHE:HB2	2.21	0.41
1:A:2363:A:OP2	1:A:2399:G:H5'	2.21	0.41
1:A:2433:C:H2'	1:A:2434:C:H6	1.85	0.41
3:B:35:A:N1	3:B:51:G:C5	2.89	0.41
3:B:88:G:C2	3:B:90:G:H5'	2.56	0.41
3:B:94:C:H2'	3:B:95:U:C6	2.56	0.41
4:L:136:ARG:HD3	4:L:209:PRO:CD	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:146:ILE:CD1	6:N:146:ILE:N	2.81	0.41
6:N:157:TYR:CD1	6:N:158:VAL:N	2.88	0.41
10:R:178:HIS:CD2	25:F:101:SER:HG	2.31	0.41
10:R:219:LEU:HD22	10:R:221:TYR:CE2	2.56	0.41
11:S:62:ILE:HD12	11:S:78:TYR:CZ	2.56	0.41
12:T:97:GLU:N	12:T:98:PRO:CD	2.81	0.41
12:T:123:ILE:HG23	12:T:224:ILE:HD12	2.02	0.41
15:W:136:LEU:O	15:W:144:ALA:HA	2.21	0.41
16:X:128:TYR:CD1	16:X:134:LYS:HD2	2.55	0.41
17:Y:82:SER:HA	17:Y:100:PHE:HA	2.02	0.41
17:Y:115:ARG:NH1	17:Y:145:LEU:HD21	2.36	0.41
18:Z:117:THR:O	18:Z:121:GLU:HG3	2.21	0.41
18:Z:118:VAL:HG11	18:Z:122:ARG:HH22	1.84	0.41
26:G:81:ARG:H	26:G:81:ARG:HD3	1.86	0.41
27:H:126:SER:OG	27:H:132:VAL:O	2.10	0.41
27:H:145:ARG:HG2	27:H:146:GLY:N	2.30	0.41
1:A:99:A:O5’	1:A:99:A:H8	2.04	0.40
1:A:150:U:C4	1:A:151:G:O6	2.74	0.40
1:A:274:G:H2’	1:A:275:U:OP2	2.22	0.40
1:A:288:C:N4	1:A:289:A:H62	2.19	0.40
1:A:291:G:C6	1:A:292:C:N4	2.89	0.40
1:A:600:A:H2’	1:A:601:U:C6	2.56	0.40
1:A:628:A:N7	1:A:629:C:C4	2.89	0.40
1:A:669:C:O5’	1:A:669:C:H6	2.04	0.40
1:A:715:G:H1’	1:A:738:A:H61	1.85	0.40
1:A:821:U:O2’	6:N:99:GLY:O	2.39	0.40
1:A:934:A:H1’	1:A:935:U:OP1	2.21	0.40
1:A:957:U:H2’	1:A:958:C:H5’	2.04	0.40
1:A:1270:C:N4	6:N:97:ARG:CD	2.84	0.40
1:A:1389:G:H2’	1:A:1390:G:H8	1.86	0.40
1:A:1497:A:N6	1:A:1547:C:C4	2.89	0.40
1:A:1646:A:H5’	1:A:1647:C:H5	1.86	0.40
1:A:1817:G:O2’	1:A:1819:A:N6	2.32	0.40
1:A:2128:A:OP2	1:A:2129:G:C6	2.73	0.40
1:A:2153:C:C2	1:A:2154:C:C5	3.08	0.40
1:A:2679:A:H3’	1:A:2680:G:O4’	2.22	0.40
1:A:2685:G:H1’	28:I:151:HIS:CE1	2.56	0.40
2:C:26:G:P	25:F:148:LYS:HD2	2.61	0.40
3:B:59:A:C6	3:B:60:A:C5	3.10	0.40
4:L:217:LEU:O	4:L:219:ASN:N	2.54	0.40
5:M:24:ILE:HG12	5:M:30:ARG:HG2	2.02	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:P:108:ILE:O	8:P:122:TYR:HB3	2.20	0.40
9:Q:57:HIS:O	9:Q:60:ILE:N	2.53	0.40
14:V:188:ALA:HB1	14:V:193:ILE:HB	2.02	0.40
17:Y:83:ASN:N	17:Y:99:GLN:O	2.25	0.40
18:Z:147:ARG:HG2	18:Z:148:PRO:O	2.21	0.40
19:E:138:HIS:ND1	19:E:139:ASN:N	2.68	0.40
25:F:127:LYS:O	25:F:135:ASN:HA	2.21	0.40
27:H:164:THR:HG22	27:H:165:ARG:N	2.36	0.40
1:A:51:A:H2'	1:A:52:A:H8	1.86	0.40
1:A:156:G:O5'	1:A:156:G:C8	2.71	0.40
1:A:169:C:C2	1:A:170:U:C5	3.09	0.40
1:A:294:U:P	1:A:295:C:OP2	2.79	0.40
1:A:410:G:H2'	1:A:411:U:C6	2.55	0.40
1:A:568:C:H2'	1:A:569:G:H8	1.86	0.40
1:A:665:U:O2'	1:A:666:U:O5'	2.30	0.40
1:A:909:A:H8	1:A:909:A:P	2.43	0.40
1:A:1085:A:N1	1:A:1109:U:C4	2.88	0.40
1:A:1238:G:H2'	1:A:1239:C:C6	2.57	0.40
1:A:1519:A:N1	1:A:1520:A:C6	2.89	0.40
1:A:1524:G:C2	1:A:1525:G:C4	3.09	0.40
1:A:1689:C:C5'	8:P:12:LYS:CE	2.86	0.40
1:A:1798:C:H2'	1:A:1799:A:O4'	2.21	0.40
1:A:2121:C:H6	1:A:2121:C:H5"	1.86	0.40
1:A:2192:U:O2'	1:A:2193:C:P	2.79	0.40
1:A:2408:G:H4'	1:A:2408:G:OP1	2.22	0.40
1:A:2567:G:C6	1:A:2576:C:H5	2.40	0.40
2:C:32:C:O2	2:C:33:A:H2'	2.20	0.40
2:C:104:A:H2	2:C:105:A:C5	2.25	0.40
3:B:17:G:N1	3:B:70:G:N3	2.69	0.40
7:O:15:GLY:O	7:O:16:ARG:HB3	2.21	0.40
10:R:198:LEU:HD23	10:R:198:LEU:HA	1.88	0.40
12:T:91:ASP:CG	13:U:142:PHE:CZ	2.94	0.40
12:T:140:ARG:HD3	12:T:141:TRP:H	1.85	0.40
13:U:41:MET:CE	13:U:75:PRO:HG2	2.52	0.40
15:W:78:ILE:HG12	15:W:135:MET:HG3	2.03	0.40
15:W:170:THR:HG22	15:W:171:PRO:CD	2.25	0.40
18:Z:100:PHE:CE2	18:Z:104:ASP:HB2	2.56	0.40
19:E:39:ARG:NH1	19:E:40:ASN:HD21	2.19	0.40
19:E:97:LYS:O	19:E:98:ARG:HD3	2.21	0.40
25:F:200:SER:HB2	25:F:291:ARG:HD3	2.02	0.40
26:G:81:ARG:HH21	26:G:81:ARG:H	1.68	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:I:108:PHE:HA	28:I:111:LEU:HD12	2.02	0.40
1:A:94:A:H2'	1:A:95:G:O4'	2.21	0.40
1:A:142:U:O2	1:A:153:G:O6	2.38	0.40
1:A:308:G:H5"	1:A:309:A:OP1	2.21	0.40
1:A:319:G:O2'	1:A:320:U:O5'	2.22	0.40
1:A:415:U:O2'	1:A:416:C:C4	2.70	0.40
1:A:570:C:H1'	11:S:52:ARG:NH1	2.35	0.40
1:A:624:A:H2'	1:A:625:C:O5'	2.21	0.40
1:A:624:A:O2'	1:A:625:C:OP1	2.39	0.40
1:A:714:U:H2'	1:A:715:G:O4'	2.22	0.40
1:A:793:A:H2	19:E:225:ASP:OD2	2.04	0.40
1:A:946:A:H61	1:A:950:A:H61	1.58	0.40
1:A:1408:A:H5'	1:A:1488:A:H1'	2.02	0.40
1:A:1556:A:H4'	1:A:1558:U:H1'	2.03	0.40
1:A:1625:A:H3'	1:A:1626:A:H8	1.86	0.40
1:A:1635:C:C4'	14:V:106:ARG:HH21	2.32	0.40
1:A:1649:G:C3'	1:A:1650:A:C5'	2.99	0.40
1:A:1651:C:O2'	1:A:1652:A:P	2.79	0.40
1:A:1700:A:C2	1:A:1701:A:C4	3.10	0.40
1:A:2058:C:O5'	1:A:2058:C:H6	2.04	0.40
1:A:2317:G:C6	1:A:2333:C:N3	2.87	0.40
1:A:2322:A:H5"	27:H:186:ARG:CG	2.51	0.40
2:C:14:G:H2'	2:C:15:C:C6	2.57	0.40
2:C:26:G:C2'	2:C:27:U:H5'	2.43	0.40
2:C:72:A:C2'	2:C:73:G:C5'	2.94	0.40
3:B:15:A:O2'	3:B:16:G:C8	2.70	0.40
5:M:69:LEU:HB3	5:M:77:ILE:O	2.22	0.40
6:N:114:MET:O	6:N:115:ARG:HB2	2.21	0.40
6:N:117:GLN:OE1	6:N:125:ILE:HG13	2.18	0.40
6:N:157:TYR:HD2	6:N:196:LEU:HD23	1.86	0.40
7:O:17:MET:HE1	7:O:96:VAL:HG13	2.02	0.40
10:R:116:ARG:NE	10:R:116:ARG:CA	2.73	0.40
15:W:65:HIS:O	15:W:66:LYS:CB	2.69	0.40
25:F:159:LYS:HD3	25:F:159:LYS:O	2.22	0.40
26:G:58:LEU:HD13	26:G:63:GLU:O	2.21	0.40
26:G:252:ILE:HD12	26:G:252:ILE:HA	1.98	0.40
27:H:148:LEU:HD12	27:H:148:LEU:H	1.87	0.40
1:A:101:A:O2'	1:A:102:U:H5'	2.22	0.40
1:A:153:G:H21	1:A:154:C:C1'	2.34	0.40
1:A:594:C:N4	1:A:595:G:C6	2.89	0.40
1:A:627:C:O2	26:G:232:ARG:NH1	2.49	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1064:A:N6	1:A:1147:U:H3	2.19	0.40
1:A:1240:G:H2'	1:A:1242:G:H8	1.86	0.40
1:A:1298:A:C2	1:A:1315:G:C2	3.10	0.40
1:A:1320:G:H4'	1:A:1321:A:H5"	2.03	0.40
1:A:1322:A:O2'	1:A:1323:A:H2'	2.21	0.40
1:A:1465:A:C6	1:A:1466:G:C5	3.10	0.40
1:A:1547:C:HO2'	1:A:1548:A:H5'	1.83	0.40
1:A:1746:C:H2'	1:A:1747:C:C6	2.57	0.40
1:A:1766:G:H4'	1:A:1768:G:H1'	2.04	0.40
1:A:1953:U:H3'	1:A:1954:U:H5"	2.03	0.40
1:A:2103:G:C4	1:A:2104:A:C8	3.10	0.40
1:A:2170:C:C4	1:A:2171:G:C6	3.10	0.40
1:A:2219:U:H1'	1:A:2229:U:O4	2.22	0.40
1:A:2393:A:N1	9:Q:141:PHE:CD2	2.90	0.40
1:A:2698:C:N3	1:A:2745:G:N2	2.69	0.40
2:C:12:C:H5"	8:P:109:ARG:CZ	2.52	0.40
3:B:5:C:H2'	3:B:6:U:H6	1.85	0.40
7:O:68:ILE:HG22	7:O:101:ARG:HH11	1.86	0.40
17:Y:106:LYS:HE3	17:Y:106:LYS:HB3	1.81	0.40
19:E:86:TYR:O	19:E:102:HIS:HD2	2.04	0.40
28:I:91:ARG:HA	28:I:109:ARG:NH2	2.19	0.40
28:I:149:PHE:CE1	28:I:192:ARG:HD3	2.57	0.40
1:A:97:A:C8	1:A:97:A:O5'	2.74	0.40
1:A:285:A:O2'	1:A:286:U:P	2.79	0.40
1:A:286:U:H3'	1:A:286:U:H6	1.86	0.40
1:A:288:C:C2'	1:A:289:A:C5'	2.97	0.40
1:A:294:U:C2'	1:A:295:C:C2	2.97	0.40
1:A:354:A:O2'	1:A:355:A:H5'	2.22	0.40
1:A:519:A:C8	13:U:109:ILE:HG13	2.57	0.40
1:A:661:G:H2'	1:A:662:C:H5'	2.03	0.40
1:A:670:A:C5'	26:G:151:LYS:HE3	2.52	0.40
1:A:749:G:C6	1:A:750:A:C2	3.09	0.40
1:A:854:A:H2	1:A:964:C:O2	2.04	0.40
1:A:1162:C:O2'	1:A:1163:G:P	2.79	0.40
1:A:1574:G:H2'	1:A:1575:C:C6	2.56	0.40
1:A:1624:C:H2'	1:A:1625:A:N7	2.36	0.40
1:A:1756:G:H8	1:A:1756:G:O5'	2.04	0.40
1:A:2207:A:C2'	1:A:2208:U:C1'	2.97	0.40
1:A:2211:U:O4	1:A:2241:G:C2	2.75	0.40
1:A:2211:U:C4	1:A:2241:G:C2	3.09	0.40
1:A:2637:U:C1'	25:F:250:MET:HB2	2.52	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:35:U:O2'	2:C:36:A:P	2.79	0.40
2:C:45:G:H2'	2:C:46:U:C6	2.56	0.40
2:C:55:A:C6	2:C:56:G:C6	3.10	0.40
3:B:36:A:N7	3:B:45:G:N7	2.69	0.40
6:N:109:SER:O	6:N:110:CYS:CB	2.70	0.40
6:N:165:ILE:HA	6:N:206:LEU:HD11	1.56	0.40
6:N:166:GLU:OE1	6:N:166:GLU:HA	2.22	0.40
6:N:202:GLY:CA	6:N:221:ALA:N	2.85	0.40
12:T:164:VAL:HG21	12:T:227:TYR:HB3	2.04	0.40
12:T:174:THR:HG22	12:T:175:PRO:CD	2.52	0.40
16:X:67:LYS:O	16:X:68:ASN:HB2	2.22	0.40
25:F:199:ILE:HG22	25:F:292:LEU:HD12	2.03	0.40
26:G:204:LYS:HZ1	26:G:241:ASN:CB	2.35	0.40
26:G:206:LEU:HD22	26:G:207:PHE:H	1.86	0.40
26:G:247:PHE:HB3	26:G:251:THR:OG1	2.21	0.40
27:H:66:VAL:HB	27:H:67:PRO:HD3	2.04	0.40
27:H:111:ALA:HB2	27:H:118:PRO:HD3	2.04	0.40
28:I:131:GLY:HA2	28:I:200:LYS:HD2	2.02	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
4	L	145/191 (76%)	120 (83%)	21 (14%)	4 (3%)	4 27
5	M	119/121 (98%)	97 (82%)	22 (18%)	0	100 100
6	N	175/192 (91%)	156 (89%)	6 (3%)	13 (7%)	1 9
7	O	132/135 (98%)	107 (81%)	23 (17%)	2 (2%)	8 39
8	P	114/116 (98%)	96 (84%)	18 (16%)	0	100 100
9	Q	118/123 (96%)	99 (84%)	19 (16%)	0	100 100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
10	R	116/156 (74%)	89 (77%)	26 (22%)	1 (1%)	14 49
11	S	113/127 (89%)	91 (80%)	22 (20%)	0	100 100
12	T	145/201 (72%)	108 (74%)	28 (19%)	9 (6%)	1 12
13	U	142/199 (71%)	117 (82%)	24 (17%)	1 (1%)	19 53
14	V	90/122 (74%)	79 (88%)	9 (10%)	2 (2%)	5 31
15	W	122/145 (84%)	95 (78%)	25 (20%)	2 (2%)	8 38
16	X	98/137 (72%)	87 (89%)	7 (7%)	4 (4%)	2 20
17	Y	72/77 (94%)	61 (85%)	11 (15%)	0	100 100
18	Z	88/109 (81%)	85 (97%)	3 (3%)	0	100 100
19	E	245/271 (90%)	187 (76%)	57 (23%)	1 (0%)	30 64
20	b	44/56 (79%)	35 (80%)	9 (20%)	0	100 100
21	c	49/65 (75%)	34 (69%)	15 (31%)	0	100 100
22	d	55/60 (92%)	47 (86%)	6 (11%)	2 (4%)	3 22
23	e	67/73 (92%)	50 (75%)	16 (24%)	1 (2%)	8 39
24	f	35/37 (95%)	30 (86%)	5 (14%)	0	100 100
25	F	210/221 (95%)	173 (82%)	37 (18%)	0	100 100
26	G	208/243 (86%)	166 (80%)	40 (19%)	2 (1%)	13 46
27	H	173/220 (79%)	145 (84%)	27 (16%)	1 (1%)	22 56
28	I	171/182 (94%)	142 (83%)	27 (16%)	2 (1%)	11 43
29	J	51/155 (33%)	41 (80%)	9 (18%)	1 (2%)	6 33
30	g	41/142 (29%)	36 (88%)	5 (12%)	0	100 100
31	a	36/94 (38%)	26 (72%)	9 (25%)	1 (3%)	4 27
32	h	44/116 (38%)	31 (70%)	12 (27%)	1 (2%)	5 31
All	All	3218/4086 (79%)	2630 (82%)	538 (17%)	50 (2%)	10 38

All (50) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	L	107	HIS
6	N	143	LEU
6	N	147	ALA
6	N	154	LEU
6	N	155	PRO
6	N	176	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	N	254	ASP
12	T	94	GLN
12	T	97	GLU
12	T	116	PRO
12	T	117	PRO
12	T	175	PRO
13	U	151	SER
15	W	66	LYS
15	W	170	THR
16	X	70	ARG
16	X	143	GLN
16	X	147	PRO
19	E	237	ILE
22	d	94	CYS
23	e	95	HIS
26	G	96	ARG
28	I	43	ILE
4	L	109	PRO
6	N	216	ALA
12	T	95	ALA
16	X	144	PRO
22	d	99	SER
31	a	49	ALA
6	N	159	PRO
6	N	177	SER
6	N	197	PRO
14	V	106	ARG
27	H	187	GLU
4	L	105	ALA
6	N	167	VAL
6	N	189	PRO
7	O	26	ARG
12	T	92	ASP
12	T	98	PRO
26	G	201	PRO
32	h	79	TYR
4	L	218	PHE
6	N	198	LEU
10	R	139	PRO
28	I	47	PRO
12	T	112	PRO
29	J	69	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	O	70	PRO
14	V	168	PRO

5.3.2 Protein sidechains (i)

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
4	L	125/165 (76%)	124 (99%)	1 (1%)	79 88
5	M	101/101 (100%)	101 (100%)	0	100 100
6	N	135/144 (94%)	126 (93%)	9 (7%)	13 40
7	O	107/108 (99%)	107 (100%)	0	100 100
8	P	96/96 (100%)	96 (100%)	0	100 100
9	Q	99/100 (99%)	99 (100%)	0	100 100
10	R	104/135 (77%)	101 (97%)	3 (3%)	37 64
11	S	102/114 (90%)	102 (100%)	0	100 100
12	T	129/174 (74%)	122 (95%)	7 (5%)	18 46
13	U	126/176 (72%)	125 (99%)	1 (1%)	79 88
14	V	81/103 (79%)	80 (99%)	1 (1%)	67 82
15	W	112/129 (87%)	109 (97%)	3 (3%)	40 65
16	X	85/111 (77%)	74 (87%)	11 (13%)	3 18
17	Y	64/67 (96%)	61 (95%)	3 (5%)	22 51
18	Z	83/97 (86%)	79 (95%)	4 (5%)	21 50
19	E	195/216 (90%)	189 (97%)	6 (3%)	35 63
20	b	39/49 (80%)	39 (100%)	0	100 100
21	c	48/59 (81%)	47 (98%)	1 (2%)	48 71
22	d	47/49 (96%)	45 (96%)	2 (4%)	25 54
23	e	59/62 (95%)	58 (98%)	1 (2%)	56 75
24	f	34/34 (100%)	34 (100%)	0	100 100
25	F	174/182 (96%)	170 (98%)	4 (2%)	45 69

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
26	G	176/205 (86%)	169 (96%)	7 (4%)	27 56
27	H	148/183 (81%)	146 (99%)	2 (1%)	62 79
28	I	147/154 (96%)	147 (100%)	0	100 100
29	J	47/134 (35%)	46 (98%)	1 (2%)	48 71
30	g	39/121 (32%)	39 (100%)	0	100 100
31	a	33/83 (40%)	32 (97%)	1 (3%)	36 63
32	h	40/96 (42%)	40 (100%)	0	100 100
All	All	2775/3447 (80%)	2707 (98%)	68 (2%)	43 67

All (68) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	L	107	HIS
6	N	84	ASN
6	N	120	ARG
6	N	143	LEU
6	N	157	TYR
6	N	163	ARG
6	N	165	ILE
6	N	196	LEU
6	N	217	PHE
6	N	224	LYS
10	R	116	ARG
10	R	127	ASN
10	R	226	LEU
12	T	93	PHE
12	T	94	GLN
12	T	103	TYR
12	T	113	LYS
12	T	147	LEU
12	T	175	PRO
12	T	176	ILE
13	U	67	LEU
14	V	111	VAL
15	W	104	LEU
15	W	170	THR
15	W	173	ARG
16	X	67	LYS
16	X	68	ASN
16	X	73	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	X	128	TYR
16	X	133	LYS
16	X	146	ASN
16	X	150	TYR
16	X	155	ARG
16	X	156	GLU
16	X	162	ARG
16	X	163	GLU
17	Y	103	LEU
17	Y	128	THR
17	Y	131	LYS
18	Z	114	ARG
18	Z	117	THR
18	Z	120	ARG
18	Z	152	LEU
19	E	61	ILE
19	E	232	GLU
19	E	237	ILE
19	E	258	ARG
19	E	259	ASN
19	E	264	ASN
21	c	13	LEU
22	d	112	ARG
22	d	123	LEU
23	e	153	LEU
25	F	117	PHE
25	F	119	GLU
25	F	121	ASN
25	F	143	ARG
26	G	71	ASN
26	G	79	LYS
26	G	81	ARG
26	G	223	ILE
26	G	230	THR
26	G	232	ARG
26	G	245	LEU
27	H	186	ARG
27	H	188	GLN
29	J	77	PHE
31	a	73	TRP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (63) such sidechains are listed below:

Mol	Chain	Res	Type
4	L	176	HIS
4	L	220	HIS
4	L	235	GLN
5	M	49	ASN
5	M	82	ASN
6	N	84	ASN
6	N	88	GLN
7	O	13	HIS
8	P	75	GLN
9	Q	102	GLN
10	R	127	ASN
10	R	174	ASN
10	R	202	ASN
11	S	28	HIS
11	S	38	GLN
11	S	77	ASN
11	S	83	HIS
11	S	99	GLN
12	T	94	GLN
12	T	109	GLN
12	T	145	GLN
12	T	205	ASN
12	T	212	HIS
12	T	214	GLN
13	U	52	GLN
13	U	90	ASN
13	U	106	ASN
14	V	163	ASN
15	W	68	HIS
15	W	121	GLN
15	W	130	HIS
15	W	133	ASN
15	W	149	HIS
16	X	102	HIS
16	X	146	ASN
18	Z	77	ASN
19	E	54	HIS
19	E	124	ASN
19	E	149	GLN
19	E	228	HIS
19	E	259	ASN
20	b	18	ASN
21	c	36	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	c	38	ASN
22	d	140	ASN
23	e	95	HIS
23	e	145	ASN
24	f	69	HIS
25	F	135	ASN
25	F	138	GLN
25	F	167	HIS
25	F	209	GLN
25	F	229	HIS
25	F	288	ASN
26	G	71	ASN
26	G	93	GLN
26	G	153	ASN
26	G	222	ASN
26	G	257	GLN
27	H	90	ASN
28	I	105	HIS
28	I	183	GLN
30	g	88	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A	2796/2810 (99%)	962 (34%)	106 (3%)
2	C	101/106 (95%)	45 (44%)	4 (3%)
3	B	116/121 (95%)	54 (46%)	5 (4%)
All	All	3013/3037 (99%)	1061 (35%)	115 (3%)

All (1061) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A	7	C
1	A	13	A
1	A	22	G
1	A	27	A
1	A	32	U
1	A	33	A
1	A	34	G
1	A	39	C
1	A	43	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	44	G
1	A	45	A
1	A	46	C
1	A	47	G
1	A	48	A
1	A	49	G
1	A	50	G
1	A	60	U
1	A	61	U
1	A	70	A
1	A	71	A
1	A	74	G
1	A	81	G
1	A	82	G
1	A	83	A
1	A	84	G
1	A	89	A
1	A	90	A
1	A	91	A
1	A	94	A
1	A	95	G
1	A	97	A
1	A	98	G
1	A	99	A
1	A	100	G
1	A	101	A
1	A	102	U
1	A	108	G
1	A	112	C
1	A	116	A
1	A	117	A
1	A	118	U
1	A	119	A
1	A	121	G
1	A	122	U
1	A	123	C
1	A	130	U
1	A	131	C
1	A	132	G
1	A	133	A
1	A	134	A
1	A	136	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	141	C
1	A	142	U
1	A	143	G
1	A	144	A
1	A	146	U
1	A	147	C
1	A	148	C
1	A	150	U
1	A	153	G
1	A	154	C
1	A	156	G
1	A	157	G
1	A	158	C
1	A	160	A
1	A	161	G
1	A	162	A
1	A	163	G
1	A	166	A
1	A	175	A
1	A	181	A
1	A	184	A
1	A	188	U
1	A	189	A
1	A	190	G
1	A	191	U
1	A	200	G
1	A	201	A
1	A	206	A
1	A	207	A
1	A	213	A
1	A	214	A
1	A	218	A
1	A	220	U
1	A	226	A
1	A	227	G
1	A	228	U
1	A	233	G
1	A	234	C
1	A	235	G
1	A	237	G
1	A	240	A
1	A	250	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	251	G
1	A	255	A
1	A	256	A
1	A	257	A
1	A	262	G
1	A	263	A
1	A	264	A
1	A	265	A
1	A	266	A
1	A	271	G
1	A	274	G
1	A	275	U
1	A	276	G
1	A	277	G
1	A	279	A
1	A	282	G
1	A	283	C
1	A	284	A
1	A	285	A
1	A	286	U
1	A	287	A
1	A	288	C
1	A	289	A
1	A	291	G
1	A	292	C
1	A	294	U
1	A	296	G
1	A	298	G
1	A	299	C
1	A	302	C
1	A	303	U
1	A	304	A
1	A	311	U
1	A	316	G
1	A	317	G
1	A	320	U
1	A	321	G
1	A	332	G
1	A	333	A
1	A	335	G
1	A	336	G
1	A	337	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	338	G
1	A	339	A
1	A	340	A
1	A	341	A
1	A	342	G
1	A	343	U
1	A	346	A
1	A	347	G
1	A	353	G
1	A	355	A
1	A	356	A
1	A	360	U
1	A	365	A
1	A	366	G
1	A	367	C
1	A	370	A
1	A	371	U
1	A	372	G
1	A	375	C
1	A	377	G
1	A	378	A
1	A	379	C
1	A	380	C
1	A	381	C
1	A	382	G
1	A	383	A
1	A	384	G
1	A	388	C
1	A	389	A
1	A	392	G
1	A	396	A
1	A	397	C
1	A	398	G
1	A	399	U
1	A	400	G
1	A	403	A
1	A	404	U
1	A	407	C
1	A	411	U
1	A	414	A
1	A	415	U
1	A	417	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	418	G
1	A	423	G
1	A	431	U
1	A	433	C
1	A	434	A
1	A	448	C
1	A	455	A
1	A	460	U
1	A	461	A
1	A	467	G
1	A	468	U
1	A	470	G
1	A	471	U
1	A	487	U
1	A	490	A
1	A	491	A
1	A	493	G
1	A	494	A
1	A	501	A
1	A	502	U
1	A	503	C
1	A	504	G
1	A	507	G
1	A	515	U
1	A	516	A
1	A	518	A
1	A	519	A
1	A	520	C
1	A	521	A
1	A	524	A
1	A	538	C
1	A	539	A
1	A	540	A
1	A	541	G
1	A	542	C
1	A	544	G
1	A	545	U
1	A	549	A
1	A	552	G
1	A	553	G
1	A	554	G
1	A	555	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	561	C
1	A	565	G
1	A	572	U
1	A	573	G
1	A	578	U
1	A	579	U
1	A	583	G
1	A	584	A
1	A	585	A
1	A	587	G
1	A	588	A
1	A	593	G
1	A	613	U
1	A	614	G
1	A	615	G
1	A	622	G
1	A	623	A
1	A	624	A
1	A	625	C
1	A	627	C
1	A	628	A
1	A	649	A
1	A	654	U
1	A	657	U
1	A	658	A
1	A	659	G
1	A	665	U
1	A	666	U
1	A	667	G
1	A	672	U
1	A	680	G
1	A	681	A
1	A	687	A
1	A	688	C
1	A	695	G
1	A	696	A
1	A	697	U
1	A	701	U
1	A	706	G
1	A	712	G
1	A	718	G
1	A	725	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	726	G
1	A	728	A
1	A	730	C
1	A	741	U
1	A	747	C
1	A	750	A
1	A	751	C
1	A	758	U
1	A	763	A
1	A	764	A
1	A	774	G
1	A	775	A
1	A	782	G
1	A	785	A
1	A	787	G
1	A	788	G
1	A	793	A
1	A	794	A
1	A	795	U
1	A	796	G
1	A	800	C
1	A	801	U
1	A	802	C
1	A	805	A
1	A	811	A
1	A	813	C
1	A	814	U
1	A	816	G
1	A	817	C
1	A	822	U
1	A	823	C
1	A	824	U
1	A	830	A
1	A	838	U
1	A	840	A
1	A	842	G
1	A	853	G
1	A	855	C
1	A	856	U
1	A	857	G
1	A	858	G
1	A	859	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	862	U
1	A	866	G
1	A	869	G
1	A	870	U
1	A	874	G
1	A	876	A
1	A	877	C
1	A	881	U
1	A	882	U
1	A	883	C
1	A	884	G
1	A	885	G
1	A	887	G
1	A	888	C
1	A	889	G
1	A	891	G
1	A	893	C
1	A	894	G
1	A	896	G
1	A	898	G
1	A	900	G
1	A	901	C
1	A	902	G
1	A	903	G
1	A	904	U
1	A	905	A
1	A	906	C
1	A	907	C
1	A	909	A
1	A	910	A
1	A	911	U
1	A	912	C
1	A	913	G
1	A	914	A
1	A	916	G
1	A	918	A
1	A	919	A
1	A	920	A
1	A	921	C
1	A	922	U
1	A	924	U
1	A	935	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	936	A
1	A	938	G
1	A	940	C
1	A	941	C
1	A	943	C
1	A	945	A
1	A	946	A
1	A	947	A
1	A	950	A
1	A	951	C
1	A	952	A
1	A	953	G
1	A	954	G
1	A	956	G
1	A	957	U
1	A	960	A
1	A	961	G
1	A	962	G
1	A	965	G
1	A	969	A
1	A	972	G
1	A	973	A
1	A	974	G
1	A	981	G
1	A	982	G
1	A	985	A
1	A	986	U
1	A	987	A
1	A	989	G
1	A	993	C
1	A	1001	A
1	A	1003	A
1	A	1011	A
1	A	1012	G
1	A	1013	C
1	A	1017	G
1	A	1018	A
1	A	1024	A
1	A	1033	C
1	A	1036	U
1	A	1037	A
1	A	1038	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1039	A
1	A	1040	U
1	A	1041	G
1	A	1043	C
1	A	1045	G
1	A	1046	C
1	A	1047	U
1	A	1050	G
1	A	1051	U
1	A	1052	G
1	A	1053	A
1	A	1055	A
1	A	1061	G
1	A	1064	A
1	A	1065	G
1	A	1066	G
1	A	1070	G
1	A	1073	G
1	A	1074	A
1	A	1075	G
1	A	1078	A
1	A	1079	G
1	A	1080	C
1	A	1081	C
1	A	1082	A
1	A	1085	A
1	A	1090	U
1	A	1097	A
1	A	1098	A
1	A	1099	G
1	A	1111	G
1	A	1116	A
1	A	1137	C
1	A	1139	A
1	A	1140	G
1	A	1154	A
1	A	1155	A
1	A	1158	U
1	A	1160	A
1	A	1161	A
1	A	1162	C
1	A	1163	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1165	G
1	A	1169	A
1	A	1173	G
1	A	1175	U
1	A	1177	U
1	A	1182	A
1	A	1184	G
1	A	1186	U
1	A	1194	G
1	A	1195	U
1	A	1196	A
1	A	1197	A
1	A	1198	A
1	A	1199	A
1	A	1203	C
1	A	1204	A
1	A	1207	G
1	A	1220	U
1	A	1225	G
1	A	1227	U
1	A	1231	G
1	A	1232	A
1	A	1233	G
1	A	1234	A
1	A	1235	A
1	A	1236	A
1	A	1237	C
1	A	1238	G
1	A	1239	C
1	A	1241	U
1	A	1242	G
1	A	1251	G
1	A	1254	U
1	A	1255	U
1	A	1256	G
1	A	1257	G
1	A	1259	C
1	A	1268	A
1	A	1271	G
1	A	1274	A
1	A	1276	U
1	A	1277	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1283	U
1	A	1286	A
1	A	1287	G
1	A	1288	U
1	A	1290	A
1	A	1293	C
1	A	1294	A
1	A	1295	A
1	A	1296	A
1	A	1297	C
1	A	1307	A
1	A	1314	U
1	A	1321	A
1	A	1322	A
1	A	1323	A
1	A	1333	U
1	A	1334	U
1	A	1335	C
1	A	1341	C
1	A	1342	A
1	A	1349	G
1	A	1351	C
1	A	1353	A
1	A	1361	U
1	A	1362	G
1	A	1366	C
1	A	1373	U
1	A	1379	C
1	A	1386	A
1	A	1389	G
1	A	1397	C
1	A	1399	A
1	A	1400	U
1	A	1406	A
1	A	1418	U
1	A	1430	C
1	A	1434	G
1	A	1436	U
1	A	1437	G
1	A	1438	G
1	A	1450	G
1	A	1451	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1452	A
1	A	1454	G
1	A	1458	C
1	A	1460	A
1	A	1463	U
1	A	1466	G
1	A	1472	A
1	A	1473	G
1	A	1474	A
1	A	1475	U
1	A	1476	G
1	A	1480	A
1	A	1481	U
1	A	1482	C
1	A	1486	U
1	A	1494	G
1	A	1495	C
1	A	1498	G
1	A	1501	G
1	A	1502	A
1	A	1503	C
1	A	1504	C
1	A	1506	U
1	A	1507	G
1	A	1516	G
1	A	1517	G
1	A	1518	U
1	A	1521	G
1	A	1522	A
1	A	1523	A
1	A	1527	G
1	A	1530	G
1	A	1531	A
1	A	1532	G
1	A	1533	A
1	A	1534	A
1	A	1535	A
1	A	1537	U
1	A	1541	U
1	A	1542	C
1	A	1543	G
1	A	1544	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1548	A
1	A	1551	G
1	A	1552	U
1	A	1556	A
1	A	1557	G
1	A	1559	A
1	A	1569	A
1	A	1570	C
1	A	1571	G
1	A	1572	G
1	A	1574	G
1	A	1583	A
1	A	1589	G
1	A	1592	A
1	A	1593	U
1	A	1594	A
1	A	1597	C
1	A	1598	C
1	A	1600	A
1	A	1602	G
1	A	1603	A
1	A	1604	A
1	A	1607	G
1	A	1613	A
1	A	1615	G
1	A	1616	A
1	A	1617	C
1	A	1618	C
1	A	1619	U
1	A	1624	C
1	A	1627	A
1	A	1628	A
1	A	1629	G
1	A	1634	C
1	A	1635	C
1	A	1643	G
1	A	1645	A
1	A	1646	A
1	A	1647	C
1	A	1649	G
1	A	1651	C
1	A	1652	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1653	C
1	A	1655	G
1	A	1663	G
1	A	1676	U
1	A	1684	C
1	A	1688	A
1	A	1689	C
1	A	1690	A
1	A	1701	A
1	A	1705	A
1	A	1709	G
1	A	1710	G
1	A	1712	A
1	A	1716	U
1	A	1730	C
1	A	1732	G
1	A	1734	A
1	A	1736	A
1	A	1737	A
1	A	1743	G
1	A	1746	C
1	A	1747	C
1	A	1752	C
1	A	1753	A
1	A	1754	A
1	A	1755	A
1	A	1768	G
1	A	1769	A
1	A	1774	G
1	A	1776	C
1	A	1783	A
1	A	1786	G
1	A	1794	A
1	A	1796	A
1	A	1797	A
1	A	1810	C
1	A	1811	A
1	A	1812	A
1	A	1813	A
1	A	1818	U
1	A	1819	A
1	A	1821	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1825	A
1	A	1826	U
1	A	1829	A
1	A	1830	U
1	A	1837	U
1	A	1839	A
1	A	1849	A
1	A	1858	A
1	A	1859	G
1	A	1876	A
1	A	1878	C
1	A	1880	G
1	A	1881	A
1	A	1882	U
1	A	1883	G
1	A	1884	A
1	A	1885	C
1	A	1887	G
1	A	1890	G
1	A	1895	G
1	A	1910	G
1	A	1915	A
1	A	1917	G
1	A	1920	G
1	A	1921	G
1	A	1925	U
1	A	1926	A
1	A	1927	A
1	A	1928	C
1	A	1931	U
1	A	1933	A
1	A	1937	U
1	A	1940	U
1	A	1941	A
1	A	1942	A
1	A	1943	G
1	A	1945	U
1	A	1951	A
1	A	1952	A
1	A	1953	U
1	A	1954	U
1	A	1955	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1958	U
1	A	1959	G
1	A	1970	U
1	A	1979	C
1	A	1980	A
1	A	1981	C
1	A	1982	G
1	A	1984	A
1	A	1985	A
1	A	1986	G
1	A	2004	C
1	A	2005	U
1	A	2006	G
1	A	2007	U
1	A	2011	G
1	A	2033	A
1	A	2034	C
1	A	2037	G
1	A	2040	U
1	A	2044	A
1	A	2045	A
1	A	2046	G
1	A	2047	A
1	A	2048	U
1	A	2049	G
1	A	2054	C
1	A	2057	C
1	A	2061	C
1	A	2065	U
1	A	2066	G
1	A	2069	C
1	A	2070	A
1	A	2073	A
1	A	2074	A
1	A	2075	G
1	A	2076	A
1	A	2083	G
1	A	2091	A
1	A	2094	G
1	A	2104	A
1	A	2107	G
1	A	2108	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2109	C
1	A	2114	G
1	A	2115	G
1	A	2117	U
1	A	2120	U
1	A	2122	C
1	A	2124	G
1	A	2125	C
1	A	2126	G
1	A	2127	C
1	A	2129	G
1	A	2130	C
1	A	2131	U
1	A	2132	U
1	A	2133	A
1	A	2137	G
1	A	2140	A
1	A	2141	G
1	A	2142	G
1	A	2145	A
1	A	2146	A
1	A	2147	G
1	A	2148	A
1	A	2150	G
1	A	2151	G
1	A	2159	C
1	A	2160	C
1	A	2161	G
1	A	2162	G
1	A	2163	G
1	A	2173	G
1	A	2174	C
1	A	2175	C
1	A	2176	A
1	A	2177	U
1	A	2178	C
1	A	2179	A
1	A	2181	U
1	A	2182	G
1	A	2183	A
1	A	2184	G
1	A	2185	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2186	U
1	A	2187	A
1	A	2191	C
1	A	2192	U
1	A	2193	C
1	A	2194	U
1	A	2195	G
1	A	2197	A
1	A	2198	A
1	A	2199	G
1	A	2201	G
1	A	2202	C
1	A	2204	A
1	A	2205	G
1	A	2206	A
1	A	2208	U
1	A	2209	U
1	A	2210	C
1	A	2211	U
1	A	2212	A
1	A	2213	A
1	A	2215	C
1	A	2219	U
1	A	2220	G
1	A	2221	U
1	A	2222	C
1	A	2223	A
1	A	2225	G
1	A	2226	A
1	A	2227	C
1	A	2229	U
1	A	2230	A
1	A	2231	C
1	A	2233	G
1	A	2236	C
1	A	2237	A
1	A	2238	A
1	A	2243	C
1	A	2254	A
1	A	2255	G
1	A	2256	A
1	A	2262	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2267	G
1	A	2268	G
1	A	2276	G
1	A	2283	A
1	A	2290	A
1	A	2296	G
1	A	2300	U
1	A	2303	A
1	A	2305	A
1	A	2314	C
1	A	2315	G
1	A	2320	G
1	A	2322	A
1	A	2324	G
1	A	2325	G
1	A	2329	U
1	A	2333	C
1	A	2334	C
1	A	2335	C
1	A	2336	U
1	A	2338	G
1	A	2339	A
1	A	2340	G
1	A	2342	G
1	A	2350	A
1	A	2351	G
1	A	2352	A
1	A	2362	G
1	A	2363	A
1	A	2364	C
1	A	2367	C
1	A	2372	C
1	A	2378	C
1	A	2394	A
1	A	2399	G
1	A	2400	G
1	A	2402	C
1	A	2406	G
1	A	2408	G
1	A	2418	U
1	A	2419	G
1	A	2420	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2423	A
1	A	2437	C
1	A	2439	C
1	A	2440	U
1	A	2441	C
1	A	2442	A
1	A	2443	A
1	A	2446	G
1	A	2447	A
1	A	2452	A
1	A	2458	U
1	A	2462	G
1	A	2465	A
1	A	2467	A
1	A	2476	A
1	A	2481	C
1	A	2485	A
1	A	2486	A
1	A	2493	A
1	A	2495	A
1	A	2498	G
1	A	2507	G
1	A	2508	U
1	A	2511	G
1	A	2512	G
1	A	2515	C
1	A	2519	G
1	A	2520	A
1	A	2522	G
1	A	2530	U
1	A	2535	C
1	A	2536	A
1	A	2537	C
1	A	2539	U
1	A	2540	G
1	A	2542	G
1	A	2546	G
1	A	2551	A
1	A	2552	U
1	A	2555	U
1	A	2560	G
1	A	2564	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2566	G
1	A	2571	U
1	A	2572	U
1	A	2573	C
1	A	2574	G
1	A	2576	C
1	A	2583	A
1	A	2584	G
1	A	2586	G
1	A	2589	A
1	A	2590	C
1	A	2602	U
1	A	2614	G
1	A	2619	A
1	A	2620	G
1	A	2625	G
1	A	2626	U
1	A	2630	U
1	A	2631	A
1	A	2632	U
1	A	2640	G
1	A	2645	U
1	A	2646	U
1	A	2647	A
1	A	2653	U
1	A	2661	A
1	A	2662	C
1	A	2663	C
1	A	2672	G
1	A	2673	U
1	A	2679	A
1	A	2680	G
1	A	2683	C
1	A	2684	C
1	A	2699	U
1	A	2702	G
1	A	2705	G
1	A	2706	U
1	A	2723	A
1	A	2724	C
1	A	2729	A
1	A	2730	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2731	C
1	A	2734	U
1	A	2744	A
1	A	2745	G
1	A	2750	G
1	A	2751	A
1	A	2753	C
1	A	2754	G
1	A	2757	U
1	A	2762	G
1	A	2766	A
1	A	2767	A
1	A	2768	A
1	A	2770	C
1	A	2775	A
1	A	2776	A
1	A	2782	A
1	A	2783	A
1	A	2784	G
1	A	2792	C
1	A	2796	A
1	A	2797	U
1	A	2798	G
1	A	2803	C
1	A	2804	U
1	A	2805	C
1	A	2808	C
1	A	2809	U
1	A	2810	A
2	C	16	G
2	C	17	A
2	C	22	A
2	C	23	G
2	C	26	G
2	C	27	U
2	C	28	U
2	C	29	U
2	C	30	A
2	C	31	U
2	C	32	C
2	C	33	A
2	C	34	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	C	35	U
2	C	36	A
2	C	37	C
2	C	38	G
2	C	39	A
2	C	47	C
2	C	54	A
2	C	55	A
2	C	65	U
2	C	71	C
2	C	73	G
2	C	74	C
2	C	75	U
2	C	76	G
2	C	77	A
2	C	78	G
2	C	80	C
2	C	83	C
2	C	84	C
2	C	85	U
2	C	86	A
2	C	87	A
2	C	88	C
2	C	90	G
2	C	95	A
2	C	96	C
2	C	97	A
2	C	99	A
2	C	100	C
2	C	102	U
2	C	103	G
2	C	104	A
3	B	4	U
3	B	7	G
3	B	8	G
3	B	9	U
3	B	10	G
3	B	12	C
3	B	14	U
3	B	15	A
3	B	16	G
3	B	17	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	B	18	C
3	B	21	A
3	B	22	G
3	B	25	G
3	B	26	A
3	B	32	A
3	B	37	U
3	B	39	C
3	B	41	U
3	B	42	C
3	B	43	C
3	B	46	A
3	B	47	A
3	B	53	U
3	B	54	G
3	B	55	G
3	B	56	U
3	B	58	A
3	B	64	U
3	B	66	C
3	B	67	U
3	B	68	G
3	B	70	G
3	B	73	G
3	B	74	A
3	B	75	C
3	B	83	U
3	B	84	A
3	B	87	G
3	B	89	A
3	B	90	G
3	B	91	G
3	B	92	U
3	B	101	A
3	B	102	A
3	B	109	U
3	B	110	C
3	B	111	G
3	B	112	A
3	B	114	G
3	B	116	C
3	B	117	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	B	118	G
3	B	119	G

All (115) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A	69	G
1	A	80	G
1	A	81	G
1	A	90	A
1	A	118	U
1	A	153	G
1	A	159	A
1	A	161	G
1	A	162	A
1	A	190	G
1	A	212	A
1	A	213	A
1	A	227	G
1	A	256	A
1	A	284	A
1	A	285	A
1	A	319	G
1	A	320	U
1	A	354	A
1	A	371	U
1	A	379	C
1	A	382	G
1	A	459	A
1	A	470	G
1	A	493	G
1	A	517	G
1	A	523	G
1	A	540	A
1	A	542	C
1	A	548	G
1	A	627	C
1	A	696	A
1	A	750	A
1	A	773	U
1	A	786	G
1	A	787	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	793	A
1	A	795	U
1	A	804	A
1	A	856	U
1	A	869	G
1	A	899	A
1	A	934	A
1	A	1002	G
1	A	1017	G
1	A	1036	U
1	A	1050	G
1	A	1161	A
1	A	1162	C
1	A	1194	G
1	A	1219	U
1	A	1236	A
1	A	1254	U
1	A	1256	G
1	A	1287	G
1	A	1332	G
1	A	1333	U
1	A	1334	U
1	A	1341	C
1	A	1471	A
1	A	1474	A
1	A	1479	U
1	A	1493	C
1	A	1501	G
1	A	1531	A
1	A	1592	A
1	A	1651	C
1	A	1662	A
1	A	1689	C
1	A	1810	C
1	A	1818	U
1	A	1828	U
1	A	1829	A
1	A	1848	C
1	A	1944	G
1	A	1951	A
1	A	1954	U
1	A	1980	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2003	A
1	A	2036	U
1	A	2047	A
1	A	2106	U
1	A	2123	U
1	A	2132	U
1	A	2141	G
1	A	2144	G
1	A	2172	A
1	A	2192	U
1	A	2210	C
1	A	2212	A
1	A	2224	G
1	A	2242	A
1	A	2261	U
1	A	2289	U
1	A	2338	G
1	A	2362	G
1	A	2442	A
1	A	2464	G
1	A	2507	G
1	A	2536	A
1	A	2646	U
1	A	2672	G
1	A	2683	C
1	A	2744	A
1	A	2774	U
1	A	2802	G
2	C	29	U
2	C	32	C
2	C	33	A
2	C	35	U
3	B	7	G
3	B	45	G
3	B	57	U
3	B	110	C
3	B	118	G

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

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

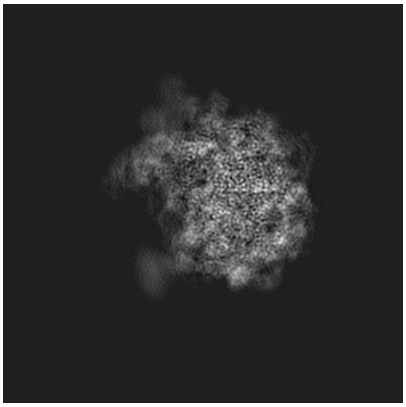
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-9572. These allow visual inspection of the internal detail of the map and identification of artifacts.

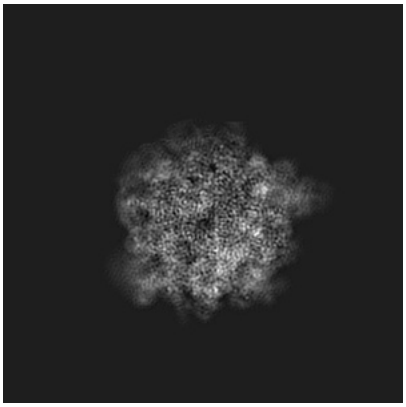
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

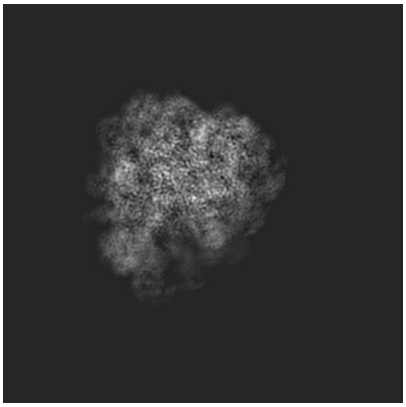
6.1.1 Primary map



X



Y

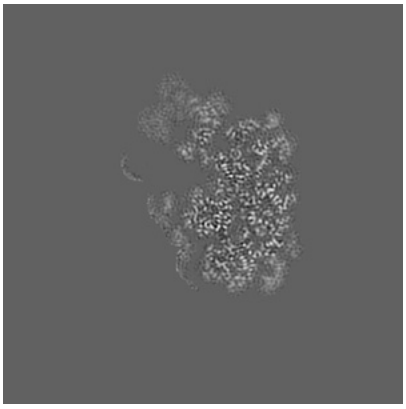


Z

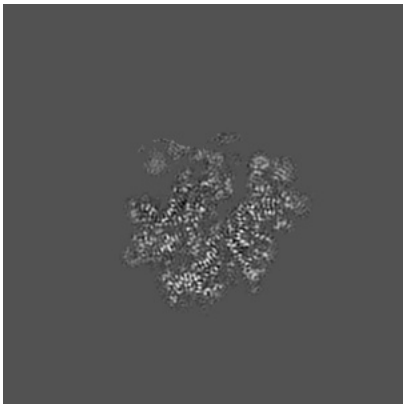
The images above show the map projected in three orthogonal directions.

6.2 Central slices

6.2.1 Primary map



X Index: 156



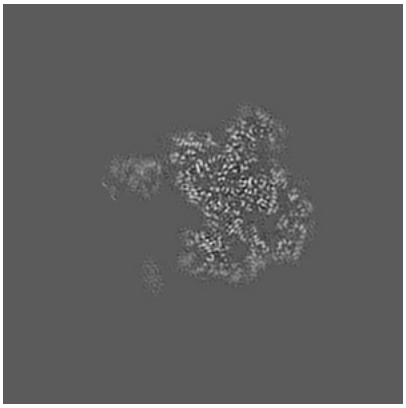
Y Index: 156

Z Index: 156

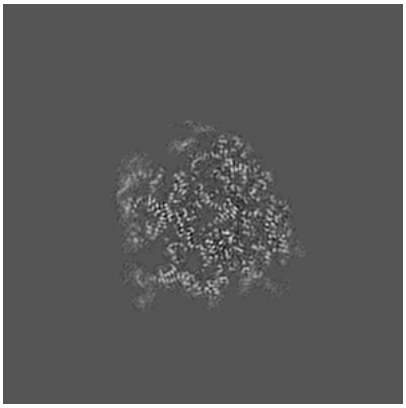
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

6.3.1 Primary map



X Index: 120



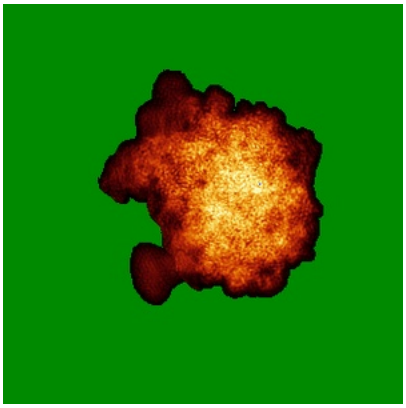
Y Index: 186

Z Index: 166

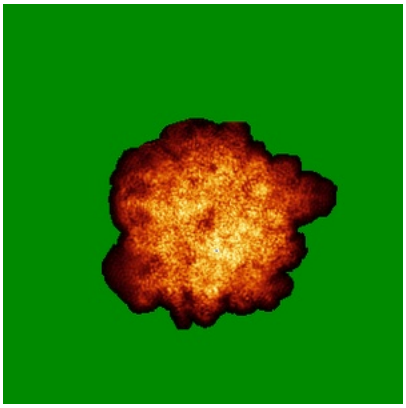
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

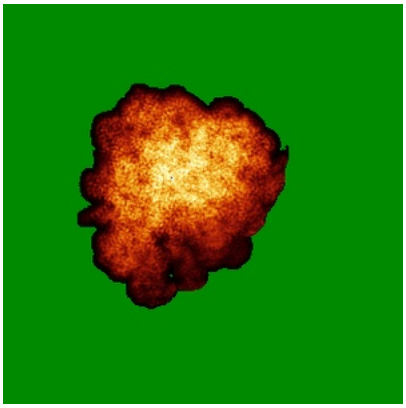
6.4.1 Primary map



X



Y

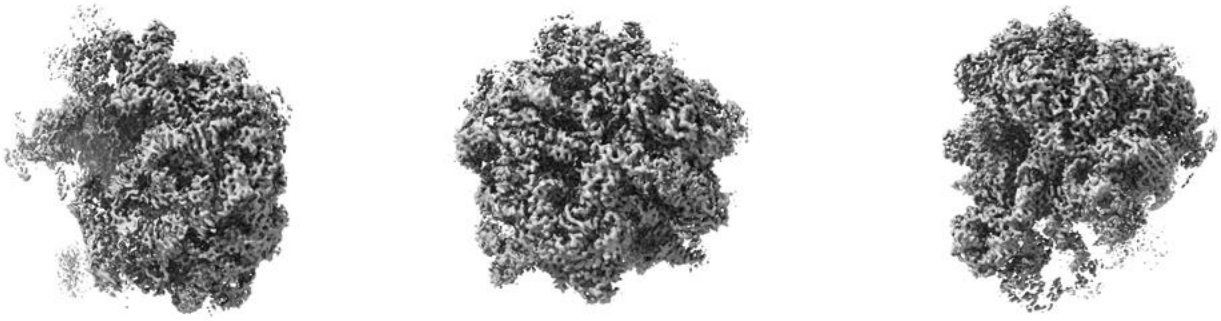


Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.132. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

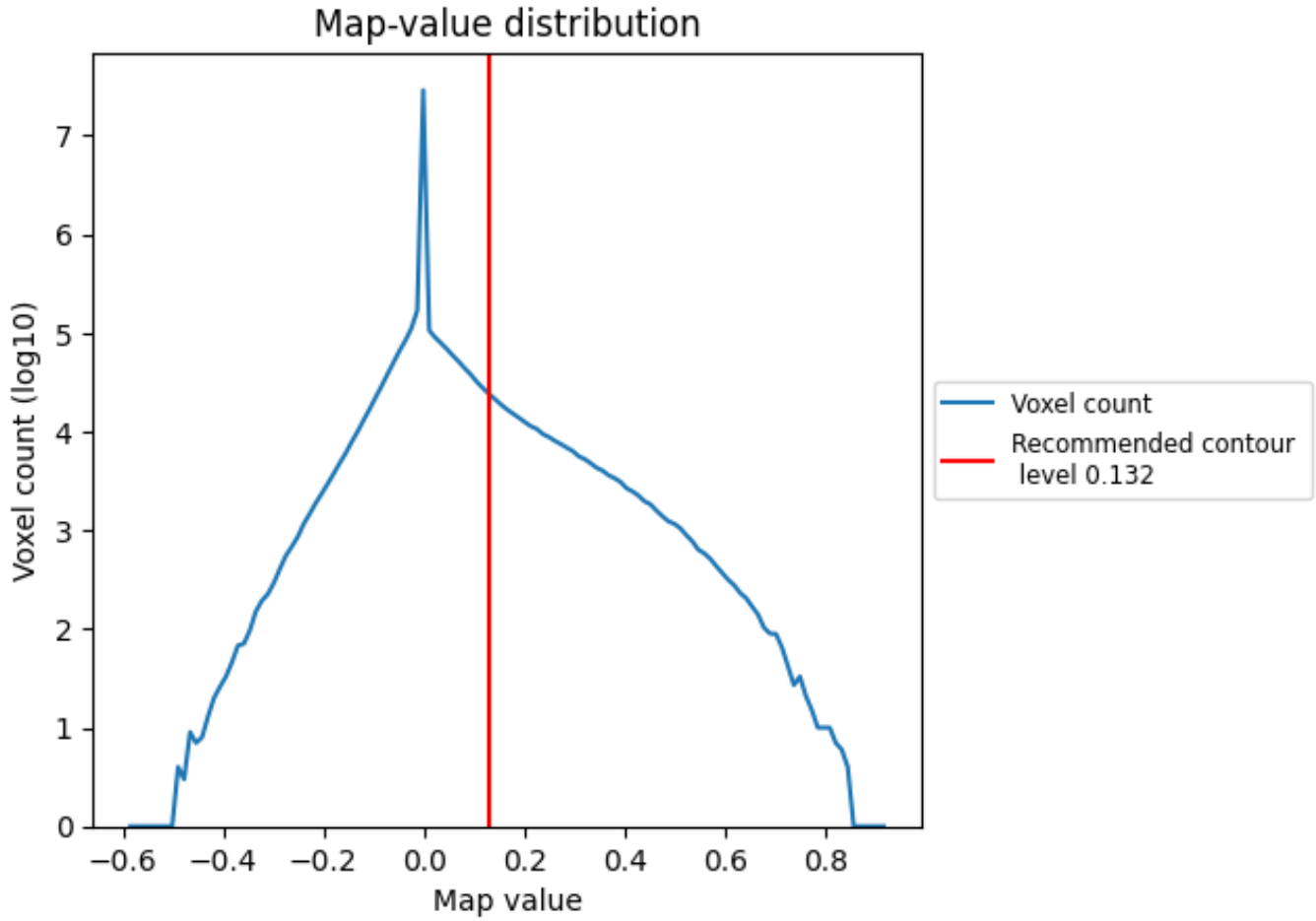
6.6 Mask visualisation (i)

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

7 Map analysis

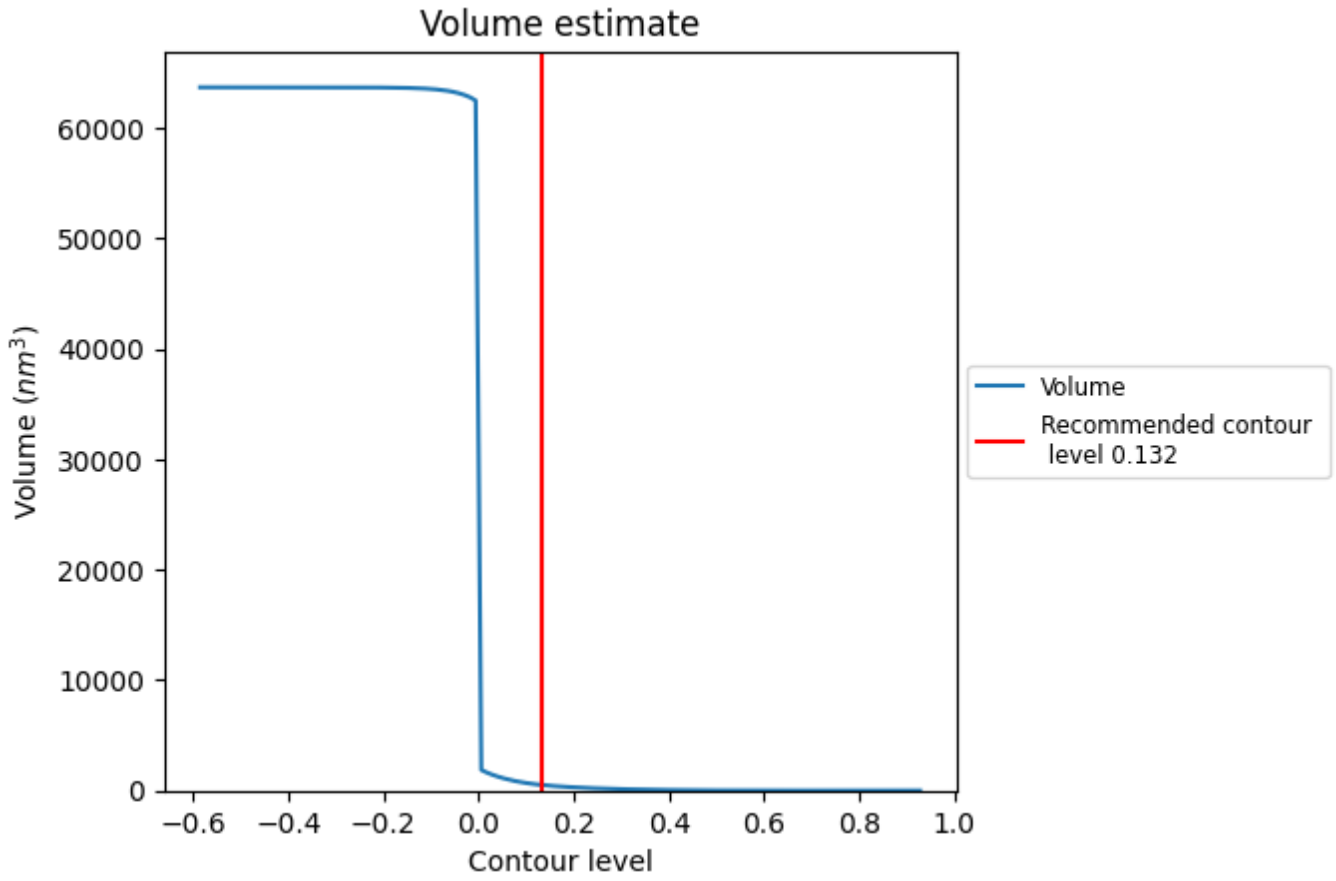
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

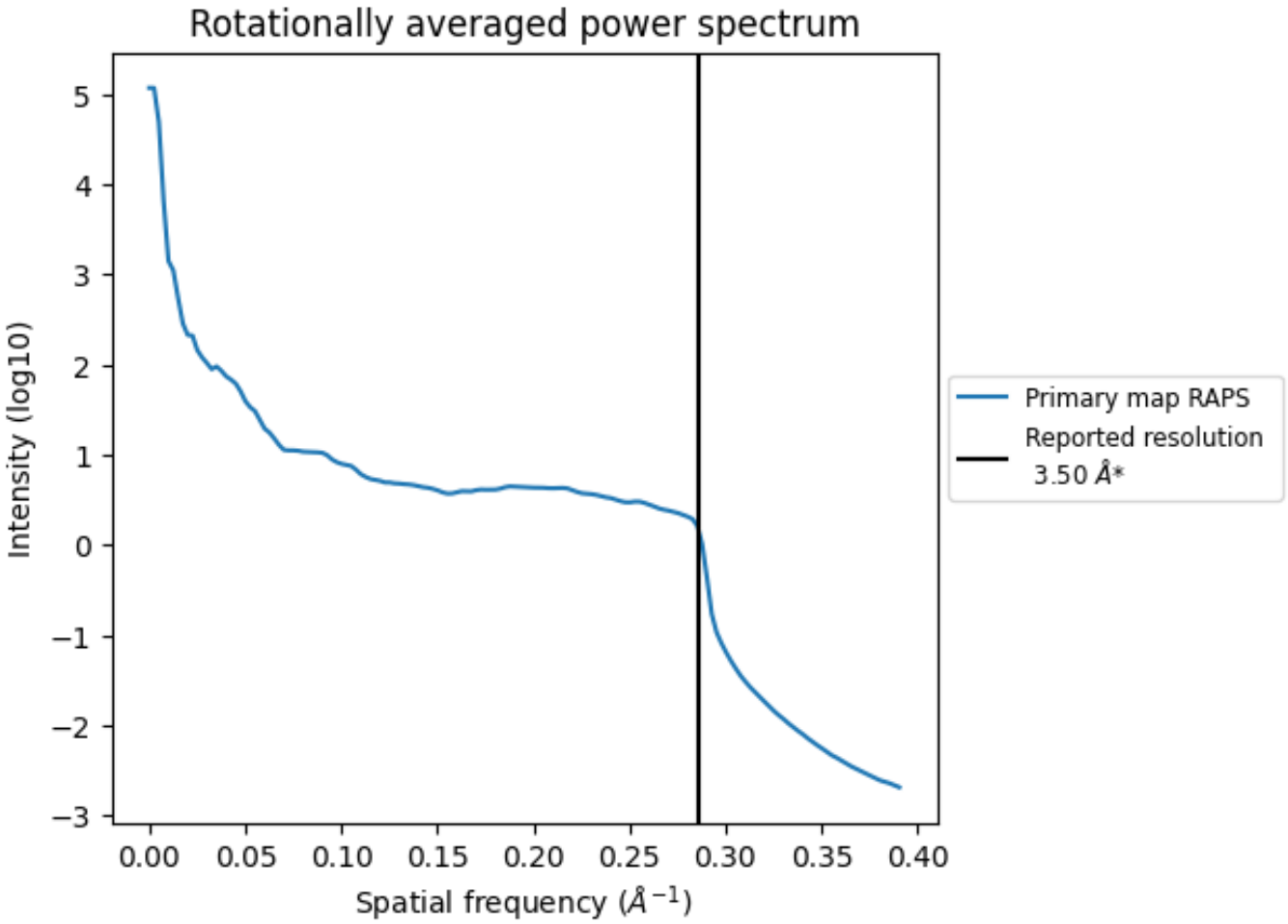
7.2 Volume estimate



The volume at the recommended contour level is 516 nm^3; this corresponds to an approximate mass of 466 kDa.

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

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.286 Å^{-1}

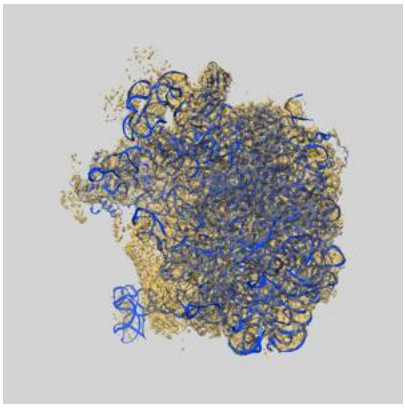
8 Fourier-Shell correlation (i)

This section was not generated. No FSC curve or half-maps provided.

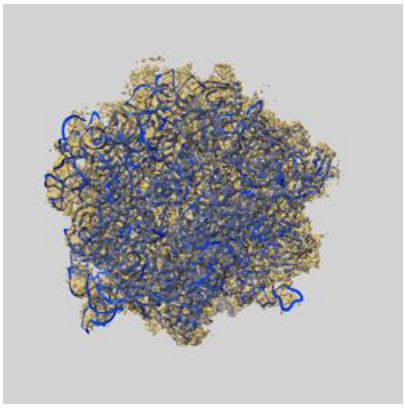
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-9572 and PDB model 5H1S. Per-residue inclusion information can be found in section 3 on page 9.

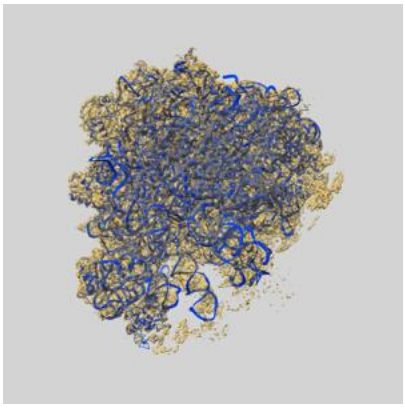
9.1 Map-model overlay



X



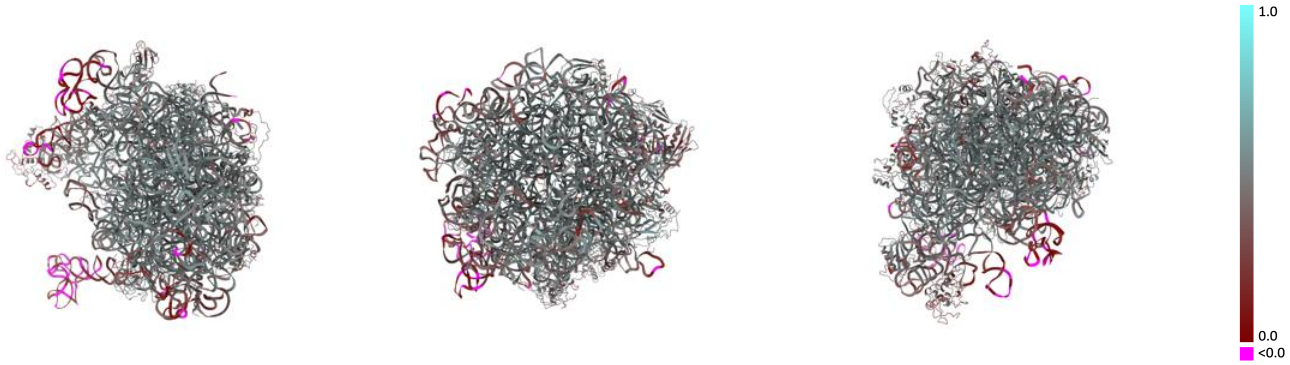
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.132 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

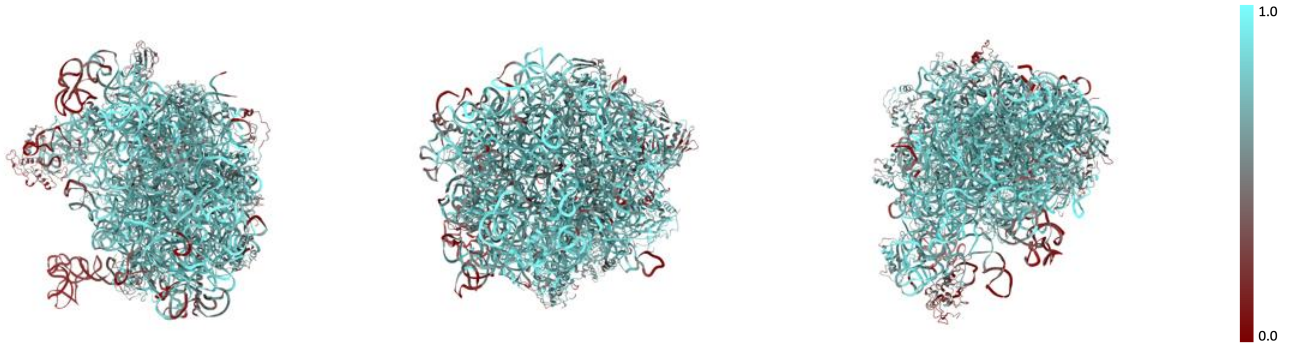
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

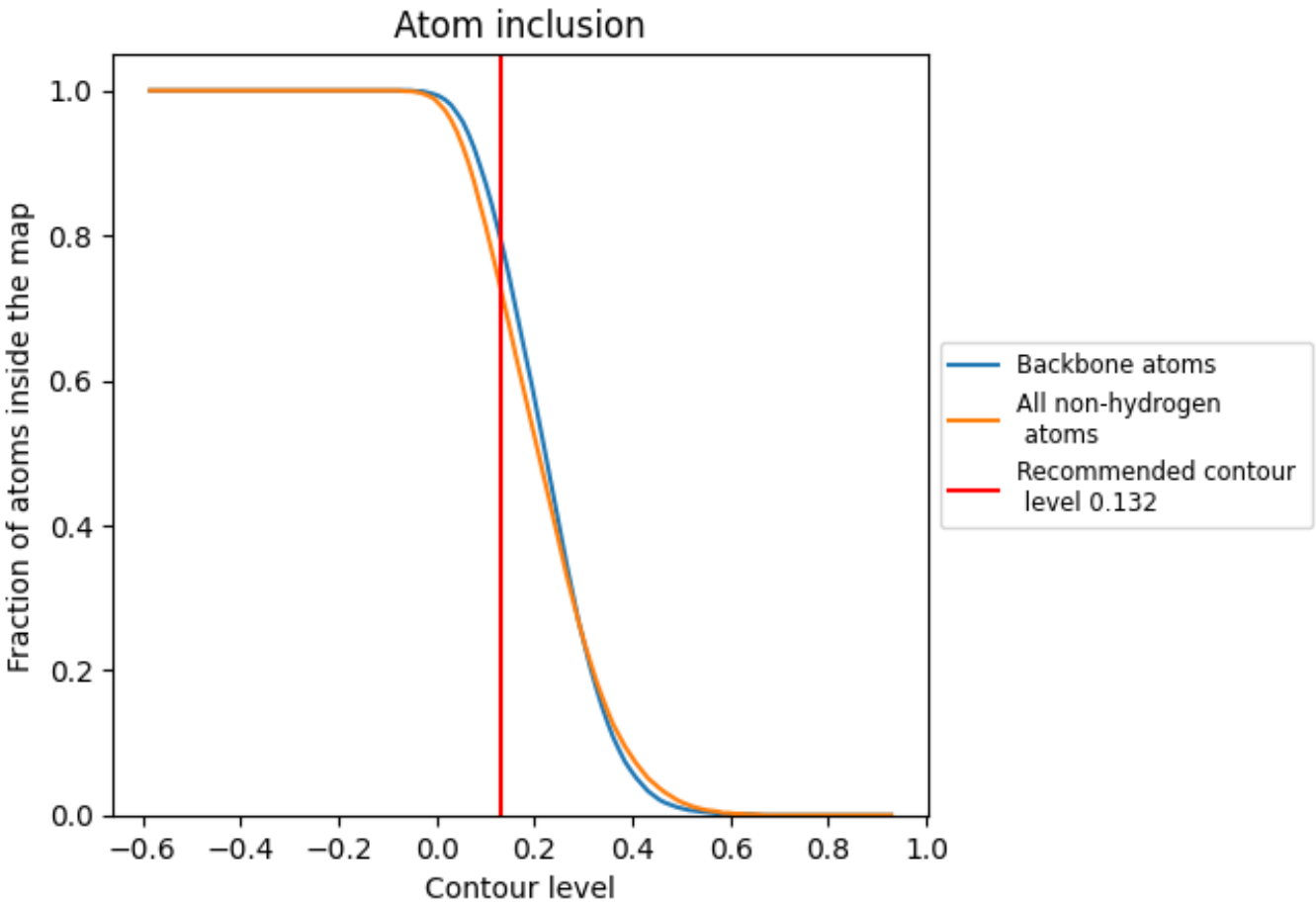
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.132).

9.4 Atom inclusion (i)



At the recommended contour level, 79% of all backbone atoms, 72% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.132) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7240	0.4530
A	0.7630	0.4510
B	0.8060	0.4300
C	0.8050	0.4520
E	0.6720	0.4930
F	0.6860	0.4970
G	0.6490	0.4640
H	0.2820	0.3440
I	0.5670	0.4240
J	0.2110	0.3920
L	0.7250	0.5060
M	0.5960	0.4760
N	0.6780	0.4590
O	0.6460	0.4630
P	0.7130	0.5020
Q	0.6240	0.4310
R	0.6100	0.4800
S	0.7360	0.4770
T	0.6270	0.4750
U	0.6060	0.4530
V	0.5720	0.4870
W	0.5730	0.4400
X	0.6440	0.4660
Y	0.6960	0.4980
Z	0.6040	0.4490
a	0.1020	0.2240
b	0.6790	0.4930
c	0.6150	0.4100
d	0.6820	0.5020
e	0.7360	0.5200
f	0.6840	0.4880
g	0.5570	0.4140
h	0.7260	0.4920